Navy_CLEAN_PFAS_FOIA_request_covers.indd

NAVFAC
Naval Facilities Engineering Command

Groundwater Sample Results, Level 2 Laboratory Report, Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, and the Sample Location Report, SDG 18-0569

Naval Air Station Point Mugu
Point Mugu, California

July 2019

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

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

SB, SS

Batch 18-0569

Package DP-18-0277

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

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

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

SB, SS

Batch 18-0569

Package DP-18-0277

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

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

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

Analyst Approval:		schumitzd@battelle.org 2018.10.03 14:39:38 -04'00'
QC Chemist Approval:		Digitally signed by devinec@battelle.org DN: cn=devinec@battelle.org Date: 2018.10.11 15:25:09 -04'00'
Project Manager Approval:		Digitally signed by Jonathan Thorn Date: 2018.10.15 11:24:51 -04'00'

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

SD

Batch 18-0569

Package DP-18-0277

1	***Miscellaneous Documentation*** Case Narrative, Laboratory Accreditations.	1
2	***Chain of Custody Records*** Sample Receipt Records	12
3	***Tables*** Analytical Data Tables, Qualifier Definitions.	31

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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
Candice Penn McCoy		CPM	4/4/2018
Rich Rostucci		RR	4/4/2018
Michael Mears			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		LMG	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: CH2M
SDG: 18-0569
Project/Site: Naval Base Ventura County
CTO: 4164

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Receipt Date
CR849PB-FS	180507-02: Ottawa Sand	SEDIMENT	9/26/2018	9/26/2018
CR850LCS-FS	180507-02: Ottawa Sand	SEDIMENT	9/26/2018	9/26/2018
J8201-FS	VC-PM3009-SS01-000H	SS	9/17/2018	9/21/2018
J8202-FS	VC-PM3009-SB01-0102	SB	9/17/2018	9/21/2018
J8203-FS	VC-PM3009-SB01-0506	SB	9/17/2018	9/21/2018
J8204-FS	VC-PM3009-SS02-000H	SS	9/17/2018	9/21/2018
J8205-FS	VC-PM3009-SB02-0102	SB	9/17/2018	9/21/2018
J8206-FS	VC-PM3009-SB02-0506	SB	9/17/2018	9/21/2018
J8207-FS	VC-PM3009-SS03-000H	SS	9/17/2018	9/21/2018
J8208-FS	VC-PM3009-SB03-0102	SB	9/17/2018	9/21/2018
J8209-FS	VC-PM3009-SB03-0506	SB	9/17/2018	9/21/2018
J8218-FS	VC-PM372-SS01-000H	SS	9/18/2018	9/21/2018
J8219-FS	VC-PM372-SB01-0102	SB	9/18/2018	9/21/2018
J8220-FS	VC-PM372-SB01-0506	SB	9/18/2018	9/21/2018
J8221-FS	VC-PM372-SS02-000H	SS	9/18/2018	9/21/2018
J8222-FS	VC-PM372-SB02-0102	SB	9/18/2018	9/21/2018
J8223-FS	VC-PM372-SB02-0506	SB	9/18/2018	9/21/2018
J8224-FS	VC-PM372-SS03-000H	SS	9/18/2018	9/21/2018
J8225-FS	VC-PM372-SB03-0102	SB	9/18/2018	9/21/2018
J8226-FS	VC-PM372-SB03-0506	SB	9/18/2018	9/21/2018
J8227MS-FS	VC-PM372-SS02-000H-MS	SS	9/18/2018	9/21/2018
J8228MSD-FS	VC-PM372-SS02-000H-SD	SS	9/18/2018	9/21/2018

Miscellaneous Documentation

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QA/QC Summary
Batch 18-0569

Project:	CTO-4164 Naval Base Ventura County, California
Parameters:	PFAS
Laboratory:	Battelle, Norwell, MA
Matrix:	SS, SB
Data Set:	DP-18-0277
Analytical SOP:	5-369
Method Reference:	PFAS to QSM 5.1 Table B-15

Sample Custody		
Collection Date	Receipt Date	Temp (°C)
9/17-18/2018	9/21/2018	0.1, 0.9, and 0.3
Corrective Actions	None, however, clarifications were provided via email by the client (included in the final custody records).	
Sample Storage	The samples were stored refrigerated until extraction.	
Related samples	NA	

	METHOD SUMMARIES
Sample Preparation	Solid samples were aliquoted into extraction tubes and spiked with surrogates prior to the addition of solvent. The sediment was serially extracted on the Geno/Grinder with 0.4% NH_3 in methanol. 1 mL of extract was refined using ENVI-carb SPE cartridges. Extracts were concentrated to dryness under nitrogen with a water bath set between 35 °C and 45 °C, reconstituted with 80:20 methanol/water (V/V) and fortified with internal standard. Extracts were transferred for LC-MS/MS analysis.
Prep comments	Samples VC-PM3009-SS01-000H (J8201-FS), VC-PM3009-SS02-000H (J8204-FS), VC-PM3009-SB02-0102 (J8205-FS), and VC-PM3009-SB02-0506 (J8206-FS) contained rocks that were not included in the sample for extraction.
Analysis	PFAS were measured by liquid chromatography tandem mass spectrometry (LC-MS/MS) in the multiple reaction monitoring (MRM). An initial calibration consisting of representative target analytes, labelled analogs, and internal standards was analyzed prior to analysis to demonstrate the linear range of analysis. Calibration verification was performed at the beginning and end of 10 injections and at the end of each sequence. Target PFAS were quantified using the isotope dilution method. Samples are reported in ng/g concentrations.
Analysis Comments	Samples analyzed on Sciex 5500 LC-MS/MS. Where detected in samples, PFOS is a mixture of linear and branched isomers

Holding Times	Extraction Date(s)	Analysis Date(s)
	9/26/2018	9/28, 29, and 10/2/2018

QA/QC Summary
Batch 18-0569

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	One exceedance noted.
	PFOS in the LCS sample is B qualified as the detected concentration is less than 10x the amount found in the blank (PB at 1.66 ng/g) and the LCS was spiked at the LOQ level (fortified at 2x LOQ). The PB passes criteria (< ½ LOQ).

Laboratory Control Spike (LCS)	A LCS was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
Laboratory derived control limits for recovery	No exceedances noted.
	No comments.

Matrix Spike and Matrix Spike Duplicate (MS/MSD)	A MS/MSD was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
Laboratory derived control limits for recovery and <30% RPD	No exceedances noted.
	No comments.

Extracted Internal Standard Analytes	Labelled analog compounds were added prior to extraction. The recoveries are calculated to measure extraction efficiency.
50-150% of true value	No exceedances noted.
	No comments.

Internal Standard Analytes	Labelled analog compounds were added prior to analysis.
+/- 50% of the area of the L5 calibration point.	No exceedances noted.
	The initial run of sample VC-PM372-SS01-000H (extract J8218-FS(3)) did not pass IS area criteria. A fresh aliquot was re-run with passing criteria, the second run is reported. The quant reports for the initial run can be found in the unused data section of the full data package.

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 18-0569

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: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project Number: 100110125-01
Preparation Batch: 18-0569
Data Set: DP-18-0277
Test Code: Master_369

QC Parameter:	Exceed:	Justification:
Procedural Blank	0	None
PB Measurement Quality Objective	1	PFOS is B qualified in the LCS because the response is <10x that of the PB. A fresh aliquot of the PB was run against a fresh calibration with the same results. The original run is being reported and the rerun raw data can be found in the unused data section of this data package. DMS 10/3/2018
Laboratory Control Sample	0	None
Matrix Spike / Matrix Spike Duplicate Recovery	0	None
Matrix Spike / Matrix Spike Duplicate Precision	0	None
Extracted Internal Standard Analytes (Surrogates)	0	None
Instrument Calibration	0	None
Instrument Blank	0	None
Independent Calibration Check	0	None
Continuing Calibration Verification	0	None

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MISCELLANEOUS DOCUMENTATION FORM

Project Title:	CTO-4164 Naval Base Ventura County,	**Data Set Number:**	DP-18-0277
Project Number:	100110125-01	**Prep Batch Number:**	18-0569
Entered By:	Denise Schumitz	**Entered On:**	10/03/2018
Test Code (Matrix Type):	Master_369(S)		

Samples that were manually integrated are noted on the quant reports with the comment (TRUE).
DMS 10/2/2018

The IS areas for sample J8218-FS(3) did not meet passing criteria when run on 9/28/2018. A fresh aliquot was taken of this sample and run against a new calibration on 10/2/2018 with passing results. It appears that the first run was a bad injection on the instrument and therefore the second run is being reported. The raw data from the original run can be found in the unused data section of this data package.
DMS 10/3/2018

Task Leader Approval:

SupervisorApproval:

PM Approval:

Digitally signed by Jonathan Thorn
Date: 2018.10.04 07:28:59 -04'00'

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Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batch: 18-0569
Data Set: DP-18-0277

		CR849PB-FS (180507-02: Ottawa Sand)	CR850LCS-FS (180507-02: Ottawa Sand)	J8227MS-FS (VC-PM372-SS02-000H-MS)	J8228MSD-FS (VC-PM372-SS02-000H-SD)	J8201-FS (VC-PM3009-SS01-000H)	J8202-FS (VC-PM3009-SB01-0102)	J8203-FS (VC-PM3009-SB01-0506)	J8204-FS (VC-PM3009-SS02-000H)
PFHxA	307-24-4	-	L	L	L	-	-	-	-
PFHpA	375-85-9	-	L	L	L	-	-	-	-
PFOA	335-67-1	-	L	L	L	-	-	-	-
PFNA	375-95-1	-	L	L	L	-	-	-	-
PFDA	335-76-2	-	L	L	L	-	-	-	-
PFUnA	2058-94-8	-	L	L	L	-	-	-	-
PFDoA	307-55-1	-	L	L	L	-	-	-	-
PFTrDA	72629-94-8	-	L	L	L	-	-	-	-
PFTeDA	376-06-7	-	L	L	L	-	-	-	-
NMeFOSAA	2355-31-9	-	L	L	L	-	-	-	-
NEtFOSAA	2991-50-6	-	L	L	L	-	-	-	-
PFBS	375-73-5	-	L	L	L	-	-	-	-
PFHxS	355-46-4	-	L/Br	L/Br	L/Br	-	-	-	-
PFOS	1763-23-1	-	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br

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

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batc
Data Set: DP-18-(

	J8205-FS (VC-PM3009-SB02-0102)	J8206-FS (VC-PM3009-SB02-0506)	J8207-FS (VC-PM3009-SS03-000H)	J8208-FS (VC-PM3009-SB03-0102)	J8209-FS (VC-PM3009-SB03-0506)	J8218-FS (VC-PM372-SS01-000H)	J8219-FS (VC-PM372-SB01-0102)	J8220-FS (VC-PM372-SB01-0506)
PFHxA	-	-	-	-	-	-	-	-
PFHpA	-	-	-	-	-	-	-	-
PFOA	-	-	-	-	-	-	-	-
PFNA	-	-	-	-	-	-	-	-
PFDA	-	-	-	-	-	-	-	-
PFUnA	-	-	-	-	-	-	-	-
PFDoA	-	-	-	-	-	-	-	-
PFTrDA	-	-	-	-	-	-	-	-
PFTeDA	-	-	-	-	-	-	-	-
NMeFOSAA	-	-	-	-	-	-	-	-
NEtFOSAA	-	-	-	-	-	-	-	-
PFBS	-	-	-	-	-	-	-	-
PFHxS	-	-	-	-	-	-	-	-
PFOS	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br

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

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batc
Data Set: DP-18-(

	J8221-FS (VC-PM372-SS02-000H)	J8222-FS (VC-PM372-SB02-0102)	J8223-FS (VC-PM372-SB02-0506)	J8224-FS (VC-PM372-SS03-000H)	J8225-FS (VC-PM372-SB03-0102)	J8226-FS (VC-PM372-SB03-0506)
PFHxA	-	-	-	-	-	-
PFHpA	-	-	-	-	-	-
PFOA	-	-	-	-	-	-
PFNA	-	-	-	-	-	-
PFDA	-	-	-	-	-	-
PFUnA	-	-	-	-	-	-
PFDoA	-	-	-	-	-	-
PFTrDA	-	-	-	-	-	-
PFTeDA	-	-	-	-	-	-
NMeFOSAA	-	-	-	-	-	-
NEtFOSAA	-	-	-	-	-	-
PFBS	-	-	-	-	-	-
PFHxS	-	-	-	-	-	-
PFOS	L/Br	L/Br	L/Br	-	-	-

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

ACCREDITATIONS

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

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

Custody Records

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ShpNo SHP-180921-01

Battelle Project No: 110125-01

Sample Receipt Form

Approved: ☐ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Friday, September 21, 2018 10:00 AM

No. of Shipping Containers: 3

SHIPMENT

Method of Delivery: Commercial Carrier **Tracking Number:** 7828 5914 8695 (Master)

COC Forms: ☑ **Shipped with samples** ☐ **No Forms**

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal	Container	Therm.	Temp C	Smps
1 of 3	Cooler	7828 5914 8695	Custody Seals	Intact	Intact	Therm_1	0.1	13
2 of 3	Cooler	7828 5914 8700	Custody Seals	Intact	Intact	Therm_1	0.9	27
3 of 3	Cooler	7828 5914 8710	Custody Seals	Intact	Intact	Therm_1	0.3	37

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): 0.9 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:** J8201 - J8277

Samples logged in by: Schumitz, Matt **Date/Time:** 09/21/2018 10:00 AM

Approved By: Fitch, Ellyn **Approved On:** 9/28/2018 10:18:00 AM

Authorized By: **Authorized On:**

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ShpNo SHP-180921-01

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☐ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Friday, September 21, 2018 10:00 AM

No. of Shipping Containers: 3

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8201	VC-PM3009-SS01-000H	09/17/18 14:15	09/20/18 15:38	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8202	VC-PM3009-SB01-0102	09/17/18 14:15	09/20/18 15:38	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8203	VC-PM3009-SB01-0506	09/17/18 14:15	09/20/18 15:39	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8204	VC-PM3009-SS02-000H	09/17/18 15:12	09/20/18 15:39	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8205	VC-PM3009-SB02-0102	09/17/18 15:13	09/20/18 15:39	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8206	VC-PM3009-SB02-0506	09/17/18 15:15	09/20/18 15:40	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8207	VC-PM3009-SS03-000H	09/17/18 16:16	09/20/18 15:40	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8208	VC-PM3009-SB03-0102	09/17/18 16:17	09/20/18 15:40	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8209	VC-PM3009-SB03-0506	09/17/18 16:18	09/20/18 15:41	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8210	VC-PM3009-DW01-0918	09/17/18 15:10	09/20/18 15:54	2	GW	0.3	NA	NA	NA	R0119 (NA)			
J8211	VC-PM3009-DW02-0918	09/17/18 16:23	09/20/18 15:54	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8212	VC-PM3009-DW02P-0918	09/17/18 16:27	09/20/18 15:55	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8213	VC-PM3009-DW03-0918	09/17/18 16:38	09/20/18 15:55	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8214	VC-PM372-DW01-0918	09/18/18 10:07	09/20/18 15:56	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8215	VC-PM372-DW02-0918	09/18/18 9:25	09/20/18 15:57	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8216	VC-PM372-DW02P-0918	09/18/18 9:27	09/20/18 15:57	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8217	VC-PM372-DW03-0918	09/18/18 11:49	09/20/18 15:57	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8218	VC-PM372-SS01-000H	09/18/18 9:36	09/20/18 15:58	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8219	VC-PM372-SB01-0102	09/18/18 9:37	09/20/18 16:00	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8220	VC-PM372-SB01-0506	09/18/18 9:43	09/20/18 16:00	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8221	VC-PM372-SS02-000H	09/18/18 8:57	09/20/18 16:00	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8222	VC-PM372-SB02-0102	09/18/18 9:03	09/20/18 16:01	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8223	VC-PM372-SB02-0506	09/18/18 9:06	09/20/18 16:01	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8224	VC-PM372-SS03-000H	09/18/18 10:46	09/20/18 16:01	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8225	VC-PM372-SB03-0102	09/18/18 10:47	09/20/18 16:02	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8226	VC-PM372-SB03-0506	09/18/18 10:49	09/20/18 16:02	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8227	VC-PM372-SS02-000H-MS	09/18/18 9:06	09/20/18 16:02	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8228	VC-PM372-SS02-000H-SD	09/18/18 9:06	09/20/18 16:03	1	SS	0.9	NA	NA	NA	R0119 (NA)			

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ShpNo SHP-180921-01

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☐ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Friday, September 21, 2018 10:00 AM

No. of Shipping Containers: 3

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8229	VC-PM649-SS01-000H	09/18/18 11:30	09/20/18 16:04	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8230	VC-PM649-SB01-0102	09/18/18 11:35	09/20/18 16:09	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8231	VC-PM649-SB01-0506	09/18/18 11:40	09/20/18 16:10	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8232	VC-PM649-SS02-000H	09/18/18 14:25	09/20/18 16:10	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8233	VC-PM649-SB02-0102	09/18/18 14:29	09/20/18 16:10	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8234	VC-PM649-SB02-0506	09/18/18 14:30	09/20/18 16:10	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8235	VC-PM649-SS03-000H	09/18/18 13:00	09/20/18 16:11	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8236	VC-PM649-SB03-0102	09/18/18 13:12	09/20/18 16:11	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8237	VC-PM649-SB03-0506	09/18/18 13:20	09/20/18 16:11	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8238	VC-PM649-SS04-000H	09/18/18 13:15	09/20/18 16:11	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8239	VC-PM649-SB04-0102	09/18/18 13:27	09/20/18 16:12	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8240	VC-PM649-SB04-0506	09/18/18 13:40	09/20/18 16:12	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8241	VC-PM649-DW01-0918	09/18/18 12:50	09/20/18 16:13	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8242	VC-PM649-DW01P-0918	09/18/18 12:55	09/20/18 16:14	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8243	VC-PM649-DW02-0918	09/18/18 15:35	09/20/18 16:14	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8244	VC-PM649-DW03-0918	09/18/18 14:02	09/20/18 16:14	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8245	VC-PM649-DW04-0918	09/18/18 14:02	09/20/18 16:14	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8246	VC-AQ-FB01-0918	09/18/18 13:30	09/20/18 16:15	2	AQ	0.1	NA	NA	NA	R0119 (NA)			
J8247	VC-AQ-EB01-0918	09/18/18 13:40	09/20/18 16:15	2	AQ	0.1	NA	NA	NA	R0119 (NA)			
J8248	VC-PM365-SS01-000H	09/19/18 10:28	09/20/18 16:16	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8249	VC-PM365-SB01-0102	09/19/18 10:30	09/20/18 16:16	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8250	VC-PM365-SB01-0506	09/19/18 10:37	09/20/18 16:17	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8251	VC-PM365-SS02-000H	09/19/18 11:30	09/20/18 16:17	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8252	VC-PM365-SB02-0102	09/19/18 11:32	09/20/18 16:17	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8253	VC-PM365-SB02-0506	09/19/18 11:40	09/20/18 16:18	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8254	VC-PM365-SS03-000H	09/19/18 10:26	09/20/18 16:18	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8255	VC-PM365-SB03-0102	09/19/18 10:27	09/20/18 16:18	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8256	VC-PM365-SB03-0506	09/19/18 10:32	09/20/18 16:19	1	SB	0.3	NA	NA	NA	R0119 (NA)			

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It can be done

ShpNo SHP-180921-01

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☐ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Friday, September 21, 2018 10:00 AM

No. of Shipping Containers: 3

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8257	VC-PM365-SB02-0102-MS	09/19/18 11:32	09/20/18 16:19	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8258	VC-PM365-SB02-0102-MSD	09/19/18 11:32	09/20/18 16:20	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8259	VC-PM365-DW01-0918	09/19/18 11:10	09/20/18 16:20	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8260	VC-PM365-DW02-0918	09/19/18 12:10	09/20/18 16:21	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8261	VC-PM365-DW02P-0918	09/19/18 12:18	09/20/18 16:21	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8262	VC-PM365-DW03-0918	09/19/18 11:10	09/20/18 16:22	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8263	VC-PM553-SS01-000H	09/19/18 13:50	09/20/18 16:22	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8264	VC-PM553-SB01-0102	09/19/18 13:53	09/20/18 16:23	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8265	VC-PM553-SB01-0506	09/19/18 13:59	09/20/18 16:23	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8266	VC-PM553-SS02-000H	09/19/18 14:40	09/20/18 16:23	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8267	VC-PM553-SB02-0102	09/19/18 14:42	09/20/18 16:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8268	VC-PM553-SB02-0506	09/19/18 14:50	09/20/18 16:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8269	VC-PM553-SS03-000H	09/19/18 11:30	09/20/18 16:24	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8270	VC-PM553-SB03-0102	09/19/18 11:34	09/20/18 16:24	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8271	VC-PM553-SB03-0506	09/19/18 11:42	09/20/18 16:25	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8272	VC-PM553-DW01-0918	09/19/18 14:30	09/20/18 16:26	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8273	VC-PM553-DW01P-0918	09/19/18 14:45	09/20/18 16:26	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8274	VC-PM553-DW02-0918	09/19/18 15:15	09/20/18 16:27	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8275	VC-PM553-DW03-0918	09/19/18 12:06	09/20/18 16:28	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8276	VC-SO-FB02-0918	09/19/18 14:35	09/20/18 16:29	2	AQ	0.9	NA	NA	NA	R0119 (NA)			
J8277	VC-SO-EB02-0918	09/19/18 14:30	09/20/18 16:30	2	AQ	0.9	NA	NA	NA	R0119 (NA)			

Total Samples: 77

MEMORANDUM CH2MHILL

Corrections to COCs

TO: Jonathan Thorn, Battelle

COPIES: File
Laboratory Package SDG: SHP 180921-01

FROM: Tiffany Hill
Project Chemist

DATE: September 24, 2018

This memo is to document corrections made to entries on the Chains of Custody (COC) and Logins for NB Ventura County, CTO-4164.

The corrections include changes to the sample IDs on the COC and Login:

Sample ID on Login	Correct Sample ID	Date Collected	Time Collected	SDG
FDT-AQ-FB01-0918	VC-AQ-FB01-0918	9/18/18	13:30	SHP-180921
FDT-AQ-EB01-0918	VC-AQ-EB01-0918	9/18/18	13:40	SHP-180921
FDT-SO-FB02-0918	VC-SO-FB02-0918	9/19/18	14:35	SHP-180921
FDT-SO-EB02-0918	VC-SO-EB02-0918	9/19/18	14:30	SHP-180921
VC-PM3009-SS02-OOOH	VC-PM3009-SS02-000H	9/17/18	15:12	SHP-180921
VC-PM3009-SB02-O102	VC-PM3009-SB02-0102	9/17/18	15:13	SHP-180921
VC-PM3009-SB02-O506	VC-PM3009-SB02-0506	9/17/18	15:15	SHP-180921
VC-PM3009-SS03-O00H	VC-PM3009-SS03-000H	9/17/18	16:16	SHP-180921
VC-PM3009-SB03-O102	VC-PM3009-SB03-0102	9/17/18	16:17	SHP-180921
VC-PM3009-SB03-O506	VC-PM3009-SB03-0506	9/17/18	16:18	SHP-180921
VC-PM3009-DW01-0919	VC-PM3009-DW01-0918	9/17/18	15:10	SHP-180921
VC-PM3009-DW02-0919	VC-PM3009-DW02-0918	9/17/18	16:23	SHP-180921
VC-PM3009-DW02P-0919	VC-PM3009-DW02P-0918	9/17/18	16:27	SHP-180921
VC-PM365-DW01-0919	VC-PM365-DW01-0918	9/19/18	11:10	SHP-180921
VC-PM365-DW02-0919	VC-PM365-DW02-0918	9/19/18	12:10	SHP-180921
VC-PM365-DW02P-0919	VC-PM365-DW02P-0918	9/19/18	12:18	SHP-180921

VC-PM365-DW03-0919	VC-PM365-DW03-0918	9/19/18	11:10	SHP-180921
VC-PM553-DW01-0919	VC-PM553-DW01-0918	9/19/18	14:30	SHP-180921
VC-PM553-DW01P-0919	VC-PM553-DW01P-0918	9/19/18	14:45	SHP-180921
VC-PM553-DW02-0919	VC-PM553-DW02-0918	9/19/18	15:15	SHP-180921
VC-PM553-DW03-0919	VC-PM553-DW03-0918	9/19/18	12:06	SHP-180921

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Chain-of-Custody

(4)

Client Contact Information	Project Manager: Eric Davis	Sampling Site: ~~Hangar~~ PM 3009	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: (724) 977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority RUSH Time Zone: ~~PST~~	Analysis: PFAS by Method 537 Mod	Page# 1 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM3009-SS01-000H J8201	09.17.18	14:15	Grab	SS	1	X
VC-PM3009-SB01-0102 02	09.17.18	14:15	Grab	SB	1	X
VC-PM3009-SB01-0506 03	09.17.18	14:15	Grab	SB	1	X
VC-PM3009-SS02-000H 04	09.17.18	15:12	Grab	SS	1	X
VC-PM3009-SB02-0102 05	09.17.18	15:13	Grab	SB	1	X
VC-PM3009-SB02-0506 06	09.17.18	15:15	Grab	SB	1	X
VC-PM3009-SS03-000H 07	09.17.18	16:16	Grab	SS	1	X
VC-PM3009-SB03-0102 08	09.17.18	16:17	Grab	SB	1	X
VC-PM3009-SB03-0506 J8209	09.17.18	16:18	Grab	SB	1	X
~~VC-PM3009-SD01-000H~~			~~Grab~~	~~SD~~		~~X~~
~~VC-PM3009-SD01-0102~~			~~Grab~~	~~SD~~		~~X~~
~~VC-PM3009-S~~ MS			~~Grab~~			~~X~~

Receipt Temperature:(°C)	*Samples Intact: Yes - No*	*Samples on Ice: Yes - No*	*Receipt Comments:*

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cuss Deandra	JACOBS	9/20/2018 07:30	NV	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

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Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: Mugu PM3009	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: (724)977-3628 Email: Victoria.Kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 2 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis
VC-PM3009-DW01-0918 J8210	9/17/18	15:10	Grab	GW	2	X
VC-PM3009-DW02-0918 J8211	9/17/18	16:23	Grab	GW	2	X
VC-PM3009-DW02P-0918 J8212	9/17/18	16:27	Grab	GW	2	X
VC-PM3009-DW03-0918 J8213	9/17/18	16:38	Grab	GW	2	X
EDT-AQ-FB			Grab	AQ		X
PDT-AQ-FB			Grab	AQ		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign)	Company	Date/Time	Received by (Print/Sign)	Company	Date/Time
Deandra Cass/Deandra	Jacobs	09/20/2018 0730	NV	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

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Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 372 Mugu	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: (724) 977-3628 Email: Victoria.Kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority RUSH Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 3 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
~~VC-PM3-GW21-~~			~~Grab~~	~~GW~~		X
VC-PM372-DW01-0918 J8214	9/18/18	10:07	Grab	GW	2	X
VC-PM372-DW02-0918 J8215	9/18/18	09:25	Grab	GW	2	X
VC-PM372-DW02P-0918 J8216	9/18/18	09:27	Grab	GW	2	X
VC-PM372-DW03-0918 J8217	9/18/18	11:49	Grab	GW	2	X
~~FDT-AQ-FB~~			~~Grab~~	~~AQ~~		X
~~FDT-AQ-EB~~			~~Grab~~	~~AQ~~		X

VOA

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cass	Jacobs	9/20/2018 07:30		Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

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Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: Mugu PM 372	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kibert Phone: (724) 977-3628 Email: Victoria.Kibert@jacobs.com	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Turnaround Time (TAT) Requested: Normal X Priority RUSH Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 4 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM372-SS01-000H J8218	9/18/18	09:36	Grab	SS	1	X
VC-PM372-SB01-0102 19	9/18/18	09:37	Grab	SB	1	X
VC-PM372-SB01-0506 20	9/18/18	09:43	Grab	SB	1	X
VC-PM372-SS02-000H 21	9/18/18	08:57	Grab	SS	1	X
VC-PM372-SB02-0102 22	9/18/18	09:03	Grab	SB	1	X
VC-PM372-SB02-0506 23	9/18/18	09:06	Grab	SB	1	X
VC-PM372-SS03-000H 24	9/18/18	10:46	Grab	SS	1	X
VC-PM372-SB03-0102 25	9/18/18	10:47	Grab	SB	1	X
VC-PM372-SB03-0506 J8224	9/18/18	10:49	Grab	SB	1	X
~~VC-PM372-SD01-000H~~			Grab	SD		X
~~VC-PM372-SB01-0102~~			Grab	SD		X
J8227 VC-PM372-SS02-000H-MS	9/18/18	09:06	Grab	SS	1	X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cass Deandra	Jacobs	9/20/2018 07:30	MB	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

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Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: MUGU PM 372	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: (724) 977-3628 Email: Victoria.Kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 5 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
J8228 VC-PM372-S-502-000H-SD	9/18/18	09:00	Grab	SS	1	X
~~FDT-SO-FB~~			Grab	AQ		X
~~FDT-SO-EB~~			Grab	AQ		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cross Deandra	Jacobs	9/20/2018 07:30	NS	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

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Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: Mugu PM 649	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: (724) 977-3628 Email: Victoria.Kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 6 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM649-SS01-000H J8229	9/18/18	11:30	Grab	SS	1	X
VC-PM649-SB01-0102 30	9/18/18	11:35	Grab	SB	1	X
VC-PM649-SB01-0506 31	9/18/18	11:40	Grab	SB	1	X
VC-PM649-SS02-000H 32	9/18/18	14:25	Grab	SS	1	X
VC-PM649-SB02-0102 33	9/18/18	14:29	Grab	SB	1	X
VC-PM649-SB02-0506 34	9/18/18	14:30	Grab	SB	1	X
VC-PM649-SS03-000H 35	9/18/18	13:00	Grab	SS	1	X
VC-PM649-SB03-0102 36	9/18/18	13:12	Grab	SB	1	X
VC-PM649-SB03-0506 37	9/18/18	13:20	Grab	SB	1	X
VC-PM649-SS04-000H 38	9/18/18	13:15	Grab	SS	1	X
VC-PM649-SB04-0102 39	9/18/18	13:27	Grab	SB	1	X
VC-PM649-SB04-0506 J8240	9/18/18	13:40	Grab	SB	1	X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cass	JACOBS	9/20/2018 07:30		Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: NM USN PM 649	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: (724) 977-3628 Email: Victoria.Kilbert@jacobs.com	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Turnaround Time (TAT) Requested: Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 7 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM649-DW01-0918 J8241	9/18/18	12:50	Grab	GW	2	X
VC-PM649-DW01P-0918 J8242	9/18/18	12:55	Grab	GW	2	X
VC-PM649-DW02-0918 J8243	9/18/18	15:35	Grab	GW	2	X
VC-PM649-DW03-0918 J8244	9/18/18	14:02	Grab	GW	2	X
VC-PM649-DW04-0918 J8245	9/18/18	14:02	Grab	GW	2	X
FDT-AQ-FB01-0918 J8246	9/18/18	13:30	Grab	AQ	2	X
FDT-AQ-EB01-0918 J8247	9/18/18	13:40	Grab	AQ	2	X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cossi/Deandra	Jacobs	9/20/2018 07:30		Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: Mugu PM365	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal ☒ Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 8 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM365-SS01-000H J8248	9/19/18	1028	Grab	SS	1	X
VC-PM365-SB01-0102 49	9/19/18	1030	Grab	SB	1	X
VC-PM365-SB01-0506 50	9/19/18	1037	Grab	SB	1	X
VC-PM365-SS02-000H 51	9/19/18	1130	Grab	SS	1	X
VC-PM365-SB02-0102 52	9/19/18	1132	Grab	SB	1	X
VC-PM365-SB02-0506 53	9/19/18	1140	Grab	SB	1	X
VC-PM365-SS03-000H 54	9/19/18	1026	Grab	SS	1	X
VC-PM365-SB03-0102 55	9/19/18	1027	Grab	SB	1	X
VC-PM365-SB03-0506 J8256	9/19/18	1032	Grab	SB	1	X
J8257 VC-PM365-SB02-0102-MS	9/19/18	1132	Grab	SB	1	X
J8258 VC-PM365-SB02-0102-MSD	9/19/18	1132	Grab	SB	1	X
~~FDT-SO-FB~~			Grab	AQ		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cross/Deandra	Jacobs	9/20/2018 0730	MS	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: MW-9M PM365	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal ☒ Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 9 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM365-DW01-0919 J8259	9/19/18	1110	Grab	GW	2	X
VC-PM365-DW02-0919 J8260	9/19/18	1210	Grab	GW	2	X
VC-PM365-DW02P-0919 J8261	9/19/18	1214	Grab	GW	2	X
VC-PM365-DW03-0919 J8262	9/19/18	1110	Grab	GW	2	X
~~FDT-AQ-FB~~			Grab	GW		X
~~FDT-AQ-EB~~			Grab	GW		X

VK

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cass/Deandra	Jacobs	9/20/2018 07:30	NVS	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: Munger PM553	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal ☑ Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 10 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM553-SS01-000H J8263	9/19/18	1350	Grab	SS	1	X
VC-PM553-SB01-0102 64	9/19/18	1353	Grab	SB	1	X
VC-PM553-SB01-0506 65	9/19/18	1359	Grab	SB	1	X
VC-PM553-SS02-000H 66	9/19/18	1440	Grab	SS	1	X
VC-PM553-SB02-0102 67	9/19/18	1442	Grab	SB	1	X
VC-PM553-SB02-0506 68	9/19/18	1450	Grab	SB	1	X
VC-PM553-SS03-000H 69	9/19/18	1130	Grab	SS	1	X
VC-PM553-SB03-0102 70	9/19/18	1134	Grab	SB	1	X
VC-PM553-SB03-0506 J8271	9/19/18	1142	Grab	SB	1	X
~~VC-PM553-SS04-000H~~			Grab	SS		X
~~VC-PM553-SB04-~~			Grab	SB		X
~~VC-PM553-SB04-~~			Grab	SB		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign)	Company	Date/Time	Received by (Print/Sign)	Company	Date/Time
Deandra Cross/Deandra	Jacobs	9/20/2018 07:30	NA	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: MW-4 SM 5753	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal ☒ Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 11 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
~~VC-PM553-GW0001A-~~			~~Grab~~	~~GW~~		X
VC-PM553-DW01-0919 J8272	9/19/18	1430	Grab	GW	2	X
VC-PM553-DW01P-0919 J8273	9/19/18	1445	Grab	GW	2	X
VC-PM553-DW02-0919 J8274	9/19/18	1515	Grab	GW	2	X
VC-PM553-DW03-0919 J8275	9/19/18	1206	Grab	GW	2	X
~~VC-PM553-DW04-~~			~~Grab~~	~~GW~~		X
~~FDT-AQ-FB-~~			Grab	AQ		X
~~FDT-AQ-EB-~~			~~Grab~~	~~AQ~~		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cross/Deandra	Jacobs	9/20/2018 07:30	[illegible]	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: Muzzy PM553	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 12 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
~~VC-PM553-SD01-000H~~			~~Grab~~	~~SD~~		X
~~VC-PM553-SD01-0102~~			~~Grab~~	~~SD~~		X
~~VC-PM553-S - -MS~~			~~Grab~~			X
~~VC-PM553-S - -SD~~			~~Grab~~			X
FDT-SO-FB 02-0919 J8276	9/19/18	1435	Grab	AQ	2	X
FDT-SO-EB 02-0919 J8277	9/19/18	1430	Grab	AQ	2	X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cass	Jacobs	9/20/2018 07:30		Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

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

SAN DIEGO, CA 92101
UNITED STATES US

SHIP DATE: 20SEP18
ACTWGT: 59.30 LB
CAD: 6997666/SSF01904
DIMS: 26x14x15 IN

BILL THIRD PARTY

TO JONATHAN THORN 0.1 9:45

141 LONGWATER DR. 9-21-18 MDS
STE 202
NORWELL MA 02061 Therm-1

(781) 681-5565
INV:
PO:
REF:
DEPT:

FedEx Express

1 of 3
TRK# 0201 7828 5914 8695
MASTER

FRI - 21 SEP 10:30A
PRIORITY OVERNIGHT
DSR
02061
MA-US BOS

XE XPUA

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

SAN DIEGO, CA 92101
UNITED STATES US

SHIP DATE: 20SEP18
ACTWGT: 62.50 LB
CAD: 6997666/SSF01904
DIMS: 26x14x14 IN

BILL THIRD PARTY

TO JONATHAN THORN 0.9 9:45

141 LONGWATER DR. 9-21-18 MDS
STE 202
NORWELL MA 02061 Therm-1

(781) 681-5565
INV:
PO:
REF:
DEPT:

FedEx Express

2 of 3
MPS# 0263 7828 5914 8700
Mstr# 7828 5914 8695

FRI - 21 SEP 10:30A
PRIORITY OVERNIGHT
0201
DSR
02061
MA-US BOS

XE XPUA

3 of 3
MPS# 0263 7828 5914 8710
Mstr# 7828 5914 8695

FRI - 21 SEP 10:30A
PRIORITY OVERNIGHT
0201
DSR
02061
MA-US BOS

XE XPUA

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

SAN DIEGO, CA 92101
UNITED STATES US

SHIP DATE: 20SEP18
ACTWGT: 69.70 LB
CAD: 6997666/SSF01904
DIMS: 26x14x14 IN

BILL THIRD PARTY

TO JONATHAN THORN 0.3 9:45

141 LONGWATER DR. 9-21-18 MDS
STE 202
NORWELL MA 02061 Therm-1

(781) 681-5565
INV:
PO:
REF:
DEPT:

FedEx Express

Data Tables

BATTELLE
It can be done

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

Client ID		VC-PM3009-SS01-000H			
Battelle ID		J8201-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		2.61			
Matrix		SS			
Sample Size		1.93			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.04 U	0.34	1.04	5.18
PFHpA	375-85-9	1.04 U	0.46	1.04	5.18
PFOA	335-67-1	1.04 U	0.52	1.04	5.18
PFNA	375-95-1	1.04 U	0.45	1.04	5.18
PFDA	335-76-2	1.04 U	0.28	1.04	5.18
PFUnA	2058-94-8	1.04 U	0.42	1.04	5.18
PFDoA	307-55-1	0.52 U	0.25	0.52	5.18
PFTrDA	72629-94-8	1.04 U	0.29	1.04	5.18
PFTeDA	376-06-7	2.07 U	0.65	2.07	5.18
NMeFOSAA	2355-31-9	2.59 U	1.16	2.59	5.18
NEtFOSAA	2991-50-6	2.07 U	0.59	2.07	5.18
PFBS	375-73-5	1.04 U	0.37	1.04	5.18
PFHxS	355-46-4	0.52 U	0.23	0.52	5.18
PFOS	1763-23-1	0.89 J	0.28	1.04	5.18

Surrogate Recoveries (%)

13C5-PFHxA	94
13C4-PFHpA	96
13C8-PFOA	100
13C9-PFNA	94
13C6-PFDA	98
13C7-PFUnA	105
13C2-PFDoA	96
13C2-PFTeDA	97
d3-MeFOSAA	97
d5-EtFOSAA	116
13C3-PFBS	103
13C3-PFHxS	105
13C8-PFOS	105

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

Client ID		VC-PM3009-SB01-0102			
Battelle ID		J8202-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		6.66			
Matrix		SB			
Sample Size		1.85			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.08 U	0.36	1.08	5.41
PFHpA	375-85-9	1.08 U	0.48	1.08	5.41
PFOA	335-67-1	1.08 U	0.54	1.08	5.41
PFNA	375-95-1	1.08 U	0.46	1.08	5.41
PFDA	335-76-2	1.08 U	0.29	1.08	5.41
PFUnA	2058-94-8	1.08 U	0.44	1.08	5.41
PFDoA	307-55-1	0.54 U	0.26	0.54	5.41
PFTrDA	72629-94-8	1.08 U	0.30	1.08	5.41
PFTeDA	376-06-7	2.16 U	0.68	2.16	5.41
NMeFOSAA	2355-31-9	2.70 U	1.21	2.70	5.41
NEtFOSAA	2991-50-6	2.16 U	0.62	2.16	5.41
PFBS	375-73-5	1.08 U	0.39	1.08	5.41
PFHxS	355-46-4	0.67 J	0.24	0.54	5.41
PFOS	1763-23-1	4.52 J	0.29	1.08	5.41

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	99
13C8-PFOA	112
13C9-PFNA	101
13C6-PFDA	104
13C7-PFUnA	105
13C2-PFDoA	95
13C2-PFTeDA	92
d3-MeFOSAA	87
d5-EtFOSAA	110
13C3-PFBS	107
13C3-PFHxS	108
13C8-PFOS	106

BATTELLE
It can be done

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

Client ID		VC-PM3009-SB01-0506			
Battelle ID		J8203-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		19.17			
Matrix		SB			
Sample Size		1.64			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	4.25 J	0.40	1.22	6.10
PFHpA	375-85-9	1.22 U	0.54	1.22	6.10
PFOA	335-67-1	1.69 J	0.61	1.22	6.10
PFNA	375-95-1	1.22 U	0.52	1.22	6.10
PFDA	335-76-2	1.22 U	0.33	1.22	6.10
PFUnA	2058-94-8	1.22 U	0.50	1.22	6.10
PFDoA	307-55-1	0.61 U	0.29	0.61	6.10
PFTrDA	72629-94-8	1.22 U	0.34	1.22	6.10
PFTeDA	376-06-7	2.44 U	0.77	2.44	6.10
NMeFOSAA	2355-31-9	3.05 U	1.37	3.05	6.10
NEtFOSAA	2991-50-6	2.44 U	0.70	2.44	6.10
PFBS	375-73-5	1.14 J	0.44	1.22	6.10
PFHxS	355-46-4	17.63	0.27	0.61	6.10
PFOS	1763-23-1	76.44	0.33	1.22	6.10

Surrogate Recoveries (%)

13C5-PFHxA	99
13C4-PFHpA	100
13C8-PFOA	105
13C9-PFNA	97
13C6-PFDA	104
13C7-PFUnA	123
13C2-PFDoA	101
13C2-PFTeDA	104
d3-MeFOSAA	95
d5-EtFOSAA	131
13C3-PFBS	106
13C3-PFHxS	116
13C8-PFOS	117

BATTELLE
It can be done

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

Client ID		VC-PM3009-SS02-000H			
Battelle ID		J8204-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		1.12			
Matrix		SS			
Sample Size		1.99			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.01 U	0.33	1.01	5.03
PFHpA	375-85-9	1.01 U	0.44	1.01	5.03
PFOA	335-67-1	1.01 U	0.50	1.01	5.03
PFNA	375-95-1	1.01 U	0.43	1.01	5.03
PFDA	335-76-2	1.01 U	0.27	1.01	5.03
PFUnA	2058-94-8	1.01 U	0.41	1.01	5.03
PFDoA	307-55-1	0.50 U	0.24	0.50	5.03
PFTrDA	72629-94-8	1.01 U	0.28	1.01	5.03
PFTeDA	376-06-7	2.01 U	0.63	2.01	5.03
NMeFOSAA	2355-31-9	2.51 U	1.13	2.51	5.03
NEtFOSAA	2991-50-6	2.01 U	0.57	2.01	5.03
PFBS	375-73-5	1.01 U	0.36	1.01	5.03
PFHxS	355-46-4	0.48 J	0.22	0.50	5.03
PFOS	1763-23-1	3.89 J	0.27	1.01	5.03

Surrogate Recoveries (%)

13C5-PFHxA	107
13C4-PFHpA	109
13C8-PFOA	110
13C9-PFNA	98
13C6-PFDA	110
13C7-PFUnA	132
13C2-PFDoA	119
13C2-PFTeDA	107
d3-MeFOSAA	83
d5-EtFOSAA	101
13C3-PFBS	102
13C3-PFHxS	104
13C8-PFOS	96

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

Client ID		VC-PM3009-SB02-0102			
Battelle ID		J8205-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		2.04			
Matrix		SB			
Sample Size		1.98			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.68 J	0.33	1.01	5.05
PFHpA	375-85-9	1.01 U	0.44	1.01	5.05
PFOA	335-67-1	1.01 U	0.51	1.01	5.05
PFNA	375-95-1	1.01 U	0.43	1.01	5.05
PFDA	335-76-2	1.01 U	0.27	1.01	5.05
PFUnA	2058-94-8	1.01 U	0.41	1.01	5.05
PFDoA	307-55-1	0.51 U	0.24	0.51	5.05
PFTrDA	72629-94-8	1.01 U	0.28	1.01	5.05
PFTeDA	376-06-7	2.02 U	0.64	2.02	5.05
NMeFOSAA	2355-31-9	2.53 U	1.13	2.53	5.05
NEtFOSAA	2991-50-6	2.02 U	0.58	2.02	5.05
PFBS	375-73-5	1.01 U	0.36	1.01	5.05
PFHxS	355-46-4	0.31 J	0.22	0.51	5.05
PFOS	1763-23-1	2.34 J	0.27	1.01	5.05

Surrogate Recoveries (%)

13C5-PFHxA	104
13C4-PFHpA	109
13C8-PFOA	114
13C9-PFNA	98
13C6-PFDA	111
13C7-PFUnA	124
13C2-PFDoA	110
13C2-PFTeDA	113
d3-MeFOSAA	92
d5-EtFOSAA	94
13C3-PFBS	105
13C3-PFHxS	109
13C8-PFOS	94

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

Client ID		VC-PM3009-SB02-0506			
Battelle ID		J8206-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		8.47			
Matrix		SB			
Sample Size		1.81			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.10 U	0.36	1.10	5.52
PFHpA	375-85-9	1.10 U	0.49	1.10	5.52
PFOA	335-67-1	1.10 U	0.55	1.10	5.52
PFNA	375-95-1	1.10 U	0.48	1.10	5.52
PFDA	335-76-2	1.10 U	0.30	1.10	5.52
PFUnA	2058-94-8	1.10 U	0.45	1.10	5.52
PFDoA	307-55-1	0.55 U	0.27	0.55	5.52
PFTrDA	72629-94-8	1.10 U	0.31	1.10	5.52
PFTeDA	376-06-7	2.21 U	0.70	2.21	5.52
NMeFOSAA	2355-31-9	2.76 U	1.24	2.76	5.52
NEtFOSAA	2991-50-6	2.21 U	0.63	2.21	5.52
PFBS	375-73-5	1.10 U	0.40	1.10	5.52
PFHxS	355-46-4	0.55 U	0.24	0.55	5.52
PFOS	1763-23-1	2.59 J	0.30	1.10	5.52

Surrogate Recoveries (%)

13C5-PFHxA	105
13C4-PFHpA	105
13C8-PFOA	104
13C9-PFNA	106
13C6-PFDA	109
13C7-PFUnA	113
13C2-PFDoA	105
13C2-PFTeDA	100
d3-MeFOSAA	90
d5-EtFOSAA	96
13C3-PFBS	108
13C3-PFHxS	115
13C8-PFOS	104

BATTELLE
It can be done

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

Client ID		VC-PM3009-SS03-000H			
Battelle ID		J8207-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		12.61			
Matrix		SS			
Sample Size		1.75			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.14 U	0.38	1.14	5.71
PFHpA	375-85-9	1.14 U	0.50	1.14	5.71
PFOA	335-67-1	1.14 U	0.57	1.14	5.71
PFNA	375-95-1	1.14 U	0.49	1.14	5.71
PFDA	335-76-2	1.14 U	0.31	1.14	5.71
PFUnA	2058-94-8	1.14 U	0.47	1.14	5.71
PFDoA	307-55-1	0.57 U	0.27	0.57	5.71
PFTrDA	72629-94-8	1.14 U	0.32	1.14	5.71
PFTeDA	376-06-7	2.29 U	0.72	2.29	5.71
NMeFOSAA	2355-31-9	2.86 U	1.28	2.86	5.71
NEtFOSAA	2991-50-6	2.29 U	0.65	2.29	5.71
PFBS	375-73-5	1.14 U	0.41	1.14	5.71
PFHxS	355-46-4	0.57 U	0.25	0.57	5.71
PFOS	1763-23-1	4.12 J	0.31	1.14	5.71

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	95
13C8-PFOA	98
13C9-PFNA	86
13C6-PFDA	98
13C7-PFUnA	108
13C2-PFDoA	102
13C2-PFTeDA	92
d3-MeFOSAA	80
d5-EtFOSAA	110
13C3-PFBS	119
13C3-PFHxS	126
13C8-PFOS	89

BATTELLE
It can be done

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

Client ID		VC-PM3009-SB03-0102			
Battelle ID		J8208-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		4.81			
Matrix		SB			
Sample Size		1.93			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.04 U	0.34	1.04	5.18
PFHpA	375-85-9	1.04 U	0.46	1.04	5.18
PFOA	335-67-1	1.04 U	0.52	1.04	5.18
PFNA	375-95-1	1.04 U	0.45	1.04	5.18
PFDA	335-76-2	1.04 U	0.28	1.04	5.18
PFUnA	2058-94-8	1.04 U	0.42	1.04	5.18
PFDoA	307-55-1	0.52 U	0.25	0.52	5.18
PFTrDA	72629-94-8	1.04 U	0.29	1.04	5.18
PFTeDA	376-06-7	2.07 U	0.65	2.07	5.18
NMeFOSAA	2355-31-9	2.59 U	1.16	2.59	5.18
NEtFOSAA	2991-50-6	2.07 U	0.59	2.07	5.18
PFBS	375-73-5	1.04 U	0.37	1.04	5.18
PFHxS	355-46-4	0.52 U	0.23	0.52	5.18
PFOS	1763-23-1	3.90 J	0.28	1.04	5.18

Surrogate Recoveries (%)

13C5-PFHxA	103
13C4-PFHpA	101
13C8-PFOA	103
13C9-PFNA	92
13C6-PFDA	106
13C7-PFUnA	127
13C2-PFDoA	107
13C2-PFTeDA	107
d3-MeFOSAA	89
d5-EtFOSAA	108
13C3-PFBS	113
13C3-PFHxS	119
13C8-PFOS	95

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

Client ID		VC-PM3009-SB03-0506				
Battelle ID		J8209-FS				
Sample Type		SA				
Collection Date		09/17/2018				
Extraction Date		09/26/2018				
Analysis Date		09/28/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		16.48				
Matrix		SB				
Sample Size		1.70				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.18	U	0.39	1.18	5.88
PFHpA	375-85-9	1.18	U	0.52	1.18	5.88
PFOA	335-67-1	1.18	U	0.59	1.18	5.88
PFNA	375-95-1	1.18	U	0.51	1.18	5.88
PFDA	335-76-2	1.18	U	0.32	1.18	5.88
PFUnA	2058-94-8	1.18	U	0.48	1.18	5.88
PFDoA	307-55-1	0.59	U	0.28	0.59	5.88
PFTrDA	72629-94-8	1.18	U	0.33	1.18	5.88
PFTeDA	376-06-7	2.35	U	0.74	2.35	5.88
NMeFOSAA	2355-31-9	2.94	U	1.32	2.94	5.88
NEtFOSAA	2991-50-6	2.35	U	0.67	2.35	5.88
PFBS	375-73-5	1.18	U	0.42	1.18	5.88
PFHxS	355-46-4	0.59	U	0.26	0.59	5.88
PFOS	1763-23-1	2.75	J	0.32	1.18	5.88

Surrogate Recoveries (%)

13C5-PFHxA	109
13C4-PFHpA	100
13C8-PFOA	111
13C9-PFNA	98
13C6-PFDA	113
13C7-PFUnA	120
13C2-PFDoA	103
13C2-PFTeDA	104
d3-MeFOSAA	99
d5-EtFOSAA	105
13C3-PFBS	95
13C3-PFHxS	105
13C8-PFOS	89

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

Client ID		VC-PM372-SS01-000H			
Battelle ID		J8218-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		10/02/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		14.79			
Matrix		SS			
Sample Size		1.74			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.15 U	0.38	1.15	5.75
PFHpA	375-85-9	1.15 U	0.51	1.15	5.75
PFOA	335-67-1	1.15 U	0.57	1.15	5.75
PFNA	375-95-1	1.15 U	0.49	1.15	5.75
PFDA	335-76-2	1.15 U	0.31	1.15	5.75
PFUnA	2058-94-8	1.15 U	0.47	1.15	5.75
PFDoA	307-55-1	0.57 U	0.28	0.57	5.75
PFTrDA	72629-94-8	1.15 U	0.32	1.15	5.75
PFTeDA	376-06-7	2.30 U	0.72	2.30	5.75
NMeFOSAA	2355-31-9	2.87 U	1.29	2.87	5.75
NEtFOSAA	2991-50-6	2.30 U	0.66	2.30	5.75
PFBS	375-73-5	1.15 U	0.41	1.15	5.75
PFHxS	355-46-4	0.57 U	0.25	0.57	5.75
PFOS	1763-23-1	0.51 J	0.31	1.15	5.75

Surrogate Recoveries (%)

13C5-PFHxA	108
13C4-PFHpA	100
13C8-PFOA	108
13C9-PFNA	120
13C6-PFDA	96
13C7-PFUnA	92
13C2-PFDoA	101
13C2-PFTeDA	93
d3-MeFOSAA	81
d5-EtFOSAA	80
13C3-PFBS	96
13C3-PFHxS	92
13C8-PFOS	111

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

Client ID		VC-PM372-SB01-0102			
Battelle ID		J8219-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		10.09			
Matrix		SB			
Sample Size		1.82			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.10 U	0.36	1.10	5.49
PFHpA	375-85-9	1.10 U	0.48	1.10	5.49
PFOA	335-67-1	1.10 U	0.55	1.10	5.49
PFNA	375-95-1	1.10 U	0.47	1.10	5.49
PFDA	335-76-2	1.10 U	0.30	1.10	5.49
PFUnA	2058-94-8	1.10 U	0.45	1.10	5.49
PFDoA	307-55-1	0.55 U	0.26	0.55	5.49
PFTrDA	72629-94-8	1.10 U	0.31	1.10	5.49
PFTeDA	376-06-7	2.20 U	0.69	2.20	5.49
NMeFOSAA	2355-31-9	2.75 U	1.23	2.75	5.49
NEtFOSAA	2991-50-6	2.20 U	0.63	2.20	5.49
PFBS	375-73-5	1.10 U	0.40	1.10	5.49
PFHxS	355-46-4	0.55 U	0.24	0.55	5.49
PFOS	1763-23-1	1.10 U	0.30	1.10	5.49

Surrogate Recoveries (%)

13C5-PFHxA	103
13C4-PFHpA	105
13C8-PFOA	113
13C9-PFNA	113
13C6-PFDA	114
13C7-PFUnA	124
13C2-PFDoA	112
13C2-PFTeDA	102
d3-MeFOSAA	96
d5-EtFOSAA	119
13C3-PFBS	116
13C3-PFHxS	120
13C8-PFOS	121

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

Client ID		VC-PM372-SB01-0506			
Battelle ID		J8220-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		21.32			
Matrix		SB			
Sample Size		1.61			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.24 U	0.41	1.24	6.21
PFHpA	375-85-9	1.24 U	0.55	1.24	6.21
PFOA	335-67-1	1.24 U	0.62	1.24	6.21
PFNA	375-95-1	1.24 U	0.53	1.24	6.21
PFDA	335-76-2	1.24 U	0.34	1.24	6.21
PFUnA	2058-94-8	1.24 U	0.51	1.24	6.21
PFDoA	307-55-1	0.62 U	0.30	0.62	6.21
PFTrDA	72629-94-8	1.24 U	0.35	1.24	6.21
PFTeDA	376-06-7	2.48 U	0.78	2.48	6.21
NMeFOSAA	2355-31-9	3.11 U	1.39	3.11	6.21
NEtFOSAA	2991-50-6	2.48 U	0.71	2.48	6.21
PFBS	375-73-5	1.24 U	0.45	1.24	6.21
PFHxS	355-46-4	0.62 U	0.27	0.62	6.21
PFOS	1763-23-1	1.24 U	0.34	1.24	6.21

Surrogate Recoveries (%)

13C5-PFHxA	104
13C4-PFHpA	99
13C8-PFOA	106
13C9-PFNA	96
13C6-PFDA	111
13C7-PFUnA	125
13C2-PFDoA	105
13C2-PFTeDA	102
d3-MeFOSAA	76
d5-EtFOSAA	98
13C3-PFBS	87
13C3-PFHxS	99
13C8-PFOS	89

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

Client ID		VC-PM372-SS02-000H			
Battelle ID		J8221-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		2.57			
Matrix		SS			
Sample Size		1.92			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.97 J	0.34	1.04	5.21
PFHpA	375-85-9	1.66 J	0.46	1.04	5.21
PFOA	335-67-1	1.04 U	0.52	1.04	5.21
PFNA	375-95-1	1.04 U	0.45	1.04	5.21
PFDA	335-76-2	1.04 U	0.28	1.04	5.21
PFUnA	2058-94-8	1.04 U	0.43	1.04	5.21
PFDoA	307-55-1	0.52 U	0.25	0.52	5.21
PFTrDA	72629-94-8	1.04 U	0.29	1.04	5.21
PFTeDA	376-06-7	2.08 U	0.66	2.08	5.21
NMeFOSAA	2355-31-9	2.60 U	1.17	2.60	5.21
NEtFOSAA	2991-50-6	2.08 U	0.59	2.08	5.21
PFBS	375-73-5	1.04 U	0.38	1.04	5.21
PFHxS	355-46-4	4.19 J	0.23	0.52	5.21
PFOS	1763-23-1	30.44	0.28	1.04	5.21

Surrogate Recoveries (%)

13C5-PFHxA	108
13C4-PFHpA	104
13C8-PFOA	111
13C9-PFNA	108
13C6-PFDA	106
13C7-PFUnA	113
13C2-PFDoA	114
13C2-PFTeDA	104
d3-MeFOSAA	96
d5-EtFOSAA	107
13C3-PFBS	116
13C3-PFHxS	127
13C8-PFOS	106

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

Client ID		VC-PM372-SB02-0102			
Battelle ID		J8222-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		6.04			
Matrix		SB			
Sample Size		1.93			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.04 U	0.34	1.04	5.18
PFHpA	375-85-9	1.04 U	0.46	1.04	5.18
PFOA	335-67-1	1.04 U	0.52	1.04	5.18
PFNA	375-95-1	1.04 U	0.45	1.04	5.18
PFDA	335-76-2	1.04 U	0.28	1.04	5.18
PFUnA	2058-94-8	1.04 U	0.42	1.04	5.18
PFDoA	307-55-1	0.52 U	0.25	0.52	5.18
PFTrDA	72629-94-8	1.04 U	0.29	1.04	5.18
PFTeDA	376-06-7	2.07 U	0.65	2.07	5.18
NMeFOSAA	2355-31-9	2.59 U	1.16	2.59	5.18
NEtFOSAA	2991-50-6	2.07 U	0.59	2.07	5.18
PFBS	375-73-5	1.04 U	0.37	1.04	5.18
PFHxS	355-46-4	0.94 J	0.23	0.52	5.18
PFOS	1763-23-1	16.89	0.28	1.04	5.18

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	90
13C8-PFOA	97
13C9-PFNA	99
13C6-PFDA	97
13C7-PFUnA	103
13C2-PFDoA	97
13C2-PFTeDA	95
d3-MeFOSAA	78
d5-EtFOSAA	106
13C3-PFBS	98
13C3-PFHxS	108
13C8-PFOS	97

BATTELLE
It can be done

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

Client ID		VC-PM372-SB02-0506			
Battelle ID		J8223-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		8.59			
Matrix		SB			
Sample Size		1.82			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.10 U	0.36	1.10	5.49
PFHpA	375-85-9	1.10 U	0.48	1.10	5.49
PFOA	335-67-1	1.10 U	0.55	1.10	5.49
PFNA	375-95-1	1.10 U	0.47	1.10	5.49
PFDA	335-76-2	1.10 U	0.30	1.10	5.49
PFUnA	2058-94-8	1.10 U	0.45	1.10	5.49
PFDoA	307-55-1	0.55 U	0.26	0.55	5.49
PFTrDA	72629-94-8	1.10 U	0.31	1.10	5.49
PFTeDA	376-06-7	2.20 U	0.69	2.20	5.49
NMeFOSAA	2355-31-9	2.75 U	1.23	2.75	5.49
NEtFOSAA	2991-50-6	2.20 U	0.63	2.20	5.49
PFBS	375-73-5	1.10 U	0.40	1.10	5.49
PFHxS	355-46-4	0.96 J	0.24	0.55	5.49
PFOS	1763-23-1	1.50 J	0.30	1.10	5.49

Surrogate Recoveries (%)

13C5-PFHxA	93
13C4-PFHpA	98
13C8-PFOA	105
13C9-PFNA	98
13C6-PFDA	107
13C7-PFUnA	114
13C2-PFDoA	106
13C2-PFTeDA	104
d3-MeFOSAA	80
d5-EtFOSAA	113
13C3-PFBS	100
13C3-PFHxS	101
13C8-PFOS	98

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

Client ID		VC-PM372-SS03-000H			
Battelle ID		J8224-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		17.71			
Matrix		SS			
Sample Size		1.60			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.25 U	0.41	1.25	6.25
PFHpA	375-85-9	1.25 U	0.55	1.25	6.25
PFOA	335-67-1	1.25 U	0.63	1.25	6.25
PFNA	375-95-1	1.25 U	0.54	1.25	6.25
PFDA	335-76-2	1.25 U	0.34	1.25	6.25
PFUnA	2058-94-8	1.25 U	0.51	1.25	6.25
PFDoA	307-55-1	0.63 U	0.30	0.63	6.25
PFTrDA	72629-94-8	1.25 U	0.35	1.25	6.25
PFTeDA	376-06-7	2.50 U	0.79	2.50	6.25
NMeFOSAA	2355-31-9	3.13 U	1.40	3.13	6.25
NEtFOSAA	2991-50-6	2.50 U	0.71	2.50	6.25
PFBS	375-73-5	1.25 U	0.45	1.25	6.25
PFHxS	355-46-4	0.63 U	0.28	0.63	6.25
PFOS	1763-23-1	1.25 U	0.34	1.25	6.25

Surrogate Recoveries (%)

13C5-PFHxA	101
13C4-PFHpA	98
13C8-PFOA	111
13C9-PFNA	102
13C6-PFDA	96
13C7-PFUnA	110
13C2-PFDoA	101
13C2-PFTeDA	99
d3-MeFOSAA	86
d5-EtFOSAA	94
13C3-PFBS	98
13C3-PFHxS	95
13C8-PFOS	93

BATTELLE
It can be done

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

Client ID		VC-PM372-SB03-0102			
Battelle ID		J8225-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		20.69			
Matrix		SB			
Sample Size		1.60			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.25 U	0.41	1.25	6.25
PFHpA	375-85-9	1.25 U	0.55	1.25	6.25
PFOA	335-67-1	1.25 U	0.63	1.25	6.25
PFNA	375-95-1	1.25 U	0.54	1.25	6.25
PFDA	335-76-2	1.25 U	0.34	1.25	6.25
PFUnA	2058-94-8	1.25 U	0.51	1.25	6.25
PFDoA	307-55-1	0.63 U	0.30	0.63	6.25
PFTrDA	72629-94-8	1.25 U	0.35	1.25	6.25
PFTeDA	376-06-7	2.50 U	0.79	2.50	6.25
NMeFOSAA	2355-31-9	3.13 U	1.40	3.13	6.25
NEtFOSAA	2991-50-6	2.50 U	0.71	2.50	6.25
PFBS	375-73-5	1.25 U	0.45	1.25	6.25
PFHxS	355-46-4	0.63 U	0.28	0.63	6.25
PFOS	1763-23-1	1.25 U	0.34	1.25	6.25

Surrogate Recoveries (%)

13C5-PFHxA	90
13C4-PFHpA	96
13C8-PFOA	100
13C9-PFNA	89
13C6-PFDA	105
13C7-PFUnA	110
13C2-PFDoA	105
13C2-PFTeDA	95
d3-MeFOSAA	73
d5-EtFOSAA	91
13C3-PFBS	105
13C3-PFHxS	106
13C8-PFOS	100

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

Client ID		VC-PM372-SB03-0506			
Battelle ID		J8226-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		26.82			
Matrix		SB			
Sample Size		1.46			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.37 U	0.45	1.37	6.85
PFHpA	375-85-9	1.37 U	0.60	1.37	6.85
PFOA	335-67-1	1.37 U	0.68	1.37	6.85
PFNA	375-95-1	1.37 U	0.59	1.37	6.85
PFDA	335-76-2	1.37 U	0.37	1.37	6.85
PFUnA	2058-94-8	1.37 U	0.56	1.37	6.85
PFDoA	307-55-1	0.68 U	0.33	0.68	6.85
PFTrDA	72629-94-8	1.37 U	0.38	1.37	6.85
PFTeDA	376-06-7	2.74 U	0.86	2.74	6.85
NMeFOSAA	2355-31-9	3.42 U	1.53	3.42	6.85
NEtFOSAA	2991-50-6	2.74 U	0.78	2.74	6.85
PFBS	375-73-5	1.37 U	0.49	1.37	6.85
PFHxS	355-46-4	0.68 U	0.30	0.68	6.85
PFOS	1763-23-1	1.37 U	0.37	1.37	6.85

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	101
13C8-PFOA	105
13C9-PFNA	94
13C6-PFDA	103
13C7-PFUnA	114
13C2-PFDoA	101
13C2-PFTeDA	97
d3-MeFOSAA	87
d5-EtFOSAA	109
13C3-PFBS	91
13C3-PFHxS	92
13C8-PFOS	88

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

Client ID		KB35 IB			
Battelle ID		KB35 IB_09/28/2018			
Sample Type		IB			
Collection Date		NA			
Extraction Date		NA			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		Solid			
Sample Size		2.00			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.00 U	0.33	1.00	5.00
PFHpA	375-85-9	1.00 U	0.44	1.00	5.00
PFOA	335-67-1	1.00 U	0.50	1.00	5.00
PFNA	375-95-1	1.00 U	0.43	1.00	5.00
PFDA	335-76-2	1.00 U	0.27	1.00	5.00
PFUnA	2058-94-8	1.00 U	0.41	1.00	5.00
PFDoA	307-55-1	0.50 U	0.24	0.50	5.00
PFTrDA	72629-94-8	1.00 U	0.28	1.00	5.00
PFTeDA	376-06-7	2.00 U	0.63	2.00	5.00
NMeFOSAA	2355-31-9	2.50 U	1.12	2.50	5.00
NEtFOSAA	2991-50-6	2.00 U	0.57	2.00	5.00
PFBS	375-73-5	1.00 U	0.36	1.00	5.00
PFHxS	355-46-4	0.50 U	0.22	0.50	5.00
PFOS	1763-23-1	1.00 U	0.27	1.00	5.00

Surrogate Recoveries (%)

13C5-PFHxA	99
13C4-PFHpA	97
13C8-PFOA	104
13C9-PFNA	101
13C6-PFDA	104
13C7-PFUnA	99
13C2-PFDoA	96
13C2-PFTeDA	97
d3-MeFOSAA	84
d5-EtFOSAA	96
13C3-PFBS	95
13C3-PFHxS	103
13C8-PFOS	102

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

Client ID		KB35 IB				
Battelle ID		KB35 IB_10/02/2018				
Sample Type		IB				
Collection Date		NA				
Extraction Date		NA				
Analysis Date		10/02/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		Solid				
Sample Size		2.00				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.00	U	0.33	1.00	5.00
PFHpA	375-85-9	1.00	U	0.44	1.00	5.00
PFOA	335-67-1	1.00	U	0.50	1.00	5.00
PFNA	375-95-1	1.00	U	0.43	1.00	5.00
PFDA	335-76-2	1.00	U	0.27	1.00	5.00
PFUnA	2058-94-8	1.00	U	0.41	1.00	5.00
PFDoA	307-55-1	0.50	U	0.24	0.50	5.00
PFTrDA	72629-94-8	1.00	U	0.28	1.00	5.00
PFTeDA	376-06-7	2.00	U	0.63	2.00	5.00
NMeFOSAA	2355-31-9	2.50	U	1.12	2.50	5.00
NEtFOSAA	2991-50-6	2.00	U	0.57	2.00	5.00
PFBS	375-73-5	0.83	J	0.36	1.00	5.00
PFHxS	355-46-4	0.50	U	0.22	0.50	5.00
PFOS	1763-23-1	1.00	U	0.27	1.00	5.00

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	94
13C8-PFOA	104
13C9-PFNA	93
13C6-PFDA	98
13C7-PFUnA	100
13C2-PFDoA	97
13C2-PFTeDA	96
d3-MeFOSAA	102
d5-EtFOSAA	104
13C3-PFBS	94
13C3-PFHxS	101
13C8-PFOS	93

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

Client ID		180507-02: Ottawa Sand				
Battelle ID		CR849PB-FS				
Sample Type		PB				
Collection Date		09/26/2018				
Extraction Date		09/26/2018				
Analysis Date		09/28/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		0.00				
Matrix		SEDIMENT				
Sample Size		1.97				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.02	U	0.34	1.02	5.08
PFHpA	375-85-9	1.02	U	0.45	1.02	5.08
PFOA	335-67-1	1.02	U	0.51	1.02	5.08
PFNA	375-95-1	1.02	U	0.44	1.02	5.08
PFDA	335-76-2	1.02	U	0.27	1.02	5.08
PFUnA	2058-94-8	1.02	U	0.42	1.02	5.08
PFDoA	307-55-1	0.51	U	0.24	0.51	5.08
PFTrDA	72629-94-8	1.02	U	0.28	1.02	5.08
PFTeDA	376-06-7	2.03	U	0.64	2.03	5.08
NMeFOSAA	2355-31-9	2.54	U	1.14	2.54	5.08
NEtFOSAA	2991-50-6	2.03	U	0.58	2.03	5.08
PFBS	375-73-5	1.02	U	0.37	1.02	5.08
PFHxS	355-46-4	0.51	U	0.22	0.51	5.08
PFOS	1763-23-1	1.66	J	0.27	1.02	5.08

Surrogate Recoveries (%)

13C5-PFHxA	101
13C4-PFHpA	101
13C8-PFOA	112
13C9-PFNA	105
13C6-PFDA	113
13C7-PFUnA	124
13C2-PFDoA	109
13C2-PFTeDA	110
d3-MeFOSAA	99
d5-EtFOSAA	115
13C3-PFBS	94
13C3-PFHxS	110
13C8-PFOS	107

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

Client ID		180507-02: Ottawa Sand					
Battelle ID		CR850LCS-FS					
Sample Type		LCS					
Collection Date		09/26/2018					
Extraction Date		09/26/2018					
Analysis Date		09/28/2018					
Analytical Instrument		Sciex 5500 LC/MS/MS					
% Moisture		0.00					
Matrix		SEDIMENT					
Sample Size		2.01					
Size Unit-Basis		g				Control Limits	
Units		ng/g_Dry	Target	Recovery	Qual	Lower	Upper
PFHxA	307-24-4	10.29	10.05	102		45	135
PFHpA	375-85-9	8.39	9.95	84		60	128
PFOA	335-67-1	9.66	9.95	97		56	136
PFNA	375-95-1	10.21	9.95	103		54	130
PFDA	335-76-2	9.45	9.95	95		55	141
PFUnA	2058-94-8	10.17	9.95	102		57	137
PFDoA	307-55-1	10.52	9.95	106		62	134
PFTrDA	72629-94-8	10.18	9.95	102		51	127
PFTeDA	376-06-7	9.85	9.95	99		34	162
NMeFOSAA	2355-31-9	10.76	9.95	108		52	146
NEtFOSAA	2991-50-6	8.84	9.95	89		54	124
PFBS	375-73-5	9.89	10.05	98		57	145
PFHxS	355-46-4	9.15	10.05	91		52	132
PFOS	1763-23-1	8.61 B	9.95	87		50	130
Surrogate Recoveries (%)							
13C5-PFHxA		108					
13C4-PFHpA		117					
13C8-PFOA		122					
13C9-PFNA		110					
13C6-PFDA		112					
13C7-PFUnA		120					
13C2-PFDoA		109					
13C2-PFTeDA		111					
d3-MeFOSAA		96					
d5-EtFOSAA		106					
13C3-PFBS		103					
13C3-PFHxS		109					
13C8-PFOS		114					

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

Client ID		VC-PM372-SS02-000H	VC-PM372-SS02-000H-MS					
Battelle ID		J8221-FS	J8227MS-FS					
Sample Type		SA	MS					
Collection Date		09/18/2018	09/18/2018					
Extraction Date		09/26/2018	09/26/2018					
Analysis Date		09/29/2018	09/29/2018					
Analytical Instrument		Sciex 5500 LC/MS/MS	Sciex 5500 LC/MS/MS					
% Moisture		2.57	2.72					
Matrix		SS	SS					
Sample Size		1.92	1.95					
Size Unit-Basis		g	g				Control Limits	
Units		ng/g_Dry	ng/g_Dry	Target	Recovery	Qual	Lower	Upper
PFHxA	307-24-4	1.97 J	25.63	25.90	91		45	135
PFHpA	375-85-9	1.66 J	24.26	25.64	88		60	128
PFOA	335-67-1	1.04 U	25.15	25.64	98		56	136
PFNA	375-95-1	1.04 U	21.90	25.64	85		54	130
PFDA	335-76-2	1.04 U	25.64	25.64	100		55	141
PFUnA	2058-94-8	1.04 U	22.32	25.64	87		57	137
PFDoA	307-55-1	0.52 U	26.59	25.64	104		62	134
PFTrDA	72629-94-8	1.04 U	26.71	25.64	104		51	127
PFTeDA	376-06-7	2.08 U	25.11	25.64	98		34	162
NMeFOSAA	2355-31-9	2.60 U	26.94	25.64	105		52	146
NEtFOSAA	2991-50-6	2.08 U	27.29	25.64	106		54	124
PFBS	375-73-5	1.04 U	24.34	25.90	94		57	145
PFHxS	355-46-4	4.19 J	25.44	25.90	82		52	132
PFOS	1763-23-1	30.44	51.60	25.64	83		50	130
Surrogate Recoveries (%)								
13C5-PFHxA		108	102					
13C4-PFHpA		104	100					
13C8-PFOA		111	101					
13C9-PFNA		108	105					
13C6-PFDA		106	95					
13C7-PFUnA		113	121					
13C2-PFDoA		114	106					
13C2-PFTeDA		104	107					
d3-MeFOSAA		96	95					
d5-EtFOSAA		107	103					
13C3-PFBS		116	111					
13C3-PFHxS		127	107					
13C8-PFOS		106	104					

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

Client ID		VC-PM372-SS02-000H-SD								
Battelle ID		J8228MSD-FS								
Sample Type		MSD								
Collection Date		09/18/2018								
Extraction Date		09/26/2018								
Analysis Date		09/29/2018								
Analytical Instrument		Sciex 5500 LC/MS/MS								
% Moisture		6.83								
Matrix		SS								
Sample Size		1.84								
Size Unit-Basis		g				Control Limits				RPD
Units		ng/g_Dry	Target	Recovery	Qual	Lower	Upper	RPD	Qual	Limit
PFHxA	307-24-4	25.87	27.45	87		45	135	4.5		≤ 30
PFHpA	375-85-9	25.91	27.17	89		60	128	1.1		≤ 30
PFOA	335-67-1	26.76	27.17	98		56	136	0.0		≤ 30
PFNA	375-95-1	25.27	27.17	93		54	130	9.0		≤ 30
PFDA	335-76-2	24.94	27.17	92		55	141	8.3		≤ 30
PFUnA	2058-94-8	25.45	27.17	94		57	137	7.7		≤ 30
PFDoA	307-55-1	26.51	27.17	98		62	134	5.9		≤ 30
PFTrDA	72629-94-8	27.97	27.17	103		51	127	1.0		≤ 30
PFTeDA	376-06-7	26.23	27.17	97		34	162	1.0		≤ 30
NMeFOSAA	2355-31-9	30.84	27.17	113		52	146	7.3		≤ 30
NEtFOSAA	2991-50-6	26.82	27.17	99		54	124	6.8		≤ 30
PFBS	375-73-5	26.65	27.45	97		57	145	3.1		≤ 30
PFHxS	355-46-4	25.04	27.45	76		52	132	7.6		≤ 30
PFOS	1763-23-1	55.88	27.17	94		50	130	12.4		≤ 30

Surrogate Recoveries (%)

13C5-PFHxA	108
13C4-PFHpA	108
13C8-PFOA	103
13C9-PFNA	105
13C6-PFDA	99
13C7-PFUnA	108
13C2-PFDoA	107
13C2-PFTeDA	103
d3-MeFOSAA	91
d5-EtFOSAA	101
13C3-PFBS	107
13C3-PFHxS	110
13C8-PFOS	99

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

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

SB, SS

Batch 18-0569

Package DP-18-0277

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

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

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

SB, SS

Batch 18-0569

Package DP-18-0277

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

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

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

Analyst Approval:		schumitzd@battelle.org 2018.10.03 14:39:38 -04'00'
QC Chemist Approval:		Digitally signed by devinec@battelle.org DN: cn=devinec@battelle.org Date: 2018.10.11 15:25:09 -04'00'
Project Manager Approval:		Digitally signed by Jonathan Thorn Date: 2018.10.15 11:24:51 -04'00'

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

SB, SS

Batch 18-0569

Package DP-18-0277

1	***Work Plan*** Laboratory Work Plan, Addendums To Work Plan, Memos From Project Manager, Special Instructions, Chain-of-Custody Reports.	1
2	***Tables*** Analytical Data Tables, Qualifier Definitions.	34
3	***Miscellaneous Documentation*** Case Narrative, Miscellaneous Documentation Form, Quality Control Summary, Example Calculations, Internal Standard Recovery Report, Retention Time Window Report.	60
4	***Sample Preparation Records*** Sample Preparation Records, Dilution Worksheets, Standard Preparation Records, Certificates Of Analysis, GPC Check Report.	211
5	***Analytical Calibrations*** Analytical Sequence, Analytical Method, Tune Report, Initial Calibration, Pesticide Degradation Report, RF Summary, Calibration Verifications, Independent Calibration Verification Check.	237
6	***Analytical Data*** Raw Data Quantification Reports.	444
7	***Chromatograms*** Sample And Standard Chromatograms.	565
8	***Unused Data***	791

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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
Candice Penn McCoy		CPM	4/4/2018
Rich Rostucci		RR	4/4/2018
Michael Mears			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		LMG	4.4.18

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Signature Page

Battelle 2018 (2 of 2)
Signature Page

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

Sample Summary

Client: CH2M
SDG: 18-0569
Project/Site: Naval Base Ventura County
CTO: 4164

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Receipt Date
CR849PB-FS	180507-02: Ottawa Sand	SEDIMENT	9/26/2018	9/26/2018
CR850LCS-FS	180507-02: Ottawa Sand	SEDIMENT	9/26/2018	9/26/2018
J8201-FS	VC-PM3009-SS01-000H	SS	9/17/2018	9/21/2018
J8202-FS	VC-PM3009-SB01-0102	SB	9/17/2018	9/21/2018
J8203-FS	VC-PM3009-SB01-0506	SB	9/17/2018	9/21/2018
J8204-FS	VC-PM3009-SS02-000H	SS	9/17/2018	9/21/2018
J8205-FS	VC-PM3009-SB02-0102	SB	9/17/2018	9/21/2018
J8206-FS	VC-PM3009-SB02-0506	SB	9/17/2018	9/21/2018
J8207-FS	VC-PM3009-SS03-000H	SS	9/17/2018	9/21/2018
J8208-FS	VC-PM3009-SB03-0102	SB	9/17/2018	9/21/2018
J8209-FS	VC-PM3009-SB03-0506	SB	9/17/2018	9/21/2018
J8218-FS	VC-PM372-SS01-000H	SS	9/18/2018	9/21/2018
J8219-FS	VC-PM372-SB01-0102	SB	9/18/2018	9/21/2018
J8220-FS	VC-PM372-SB01-0506	SB	9/18/2018	9/21/2018
J8221-FS	VC-PM372-SS02-000H	SS	9/18/2018	9/21/2018
J8222-FS	VC-PM372-SB02-0102	SB	9/18/2018	9/21/2018
J8223-FS	VC-PM372-SB02-0506	SB	9/18/2018	9/21/2018
J8224-FS	VC-PM372-SS03-000H	SS	9/18/2018	9/21/2018
J8225-FS	VC-PM372-SB03-0102	SB	9/18/2018	9/21/2018
J8226-FS	VC-PM372-SB03-0506	SB	9/18/2018	9/21/2018
J8227MS-FS	VC-PM372-SS02-000H-MS	SS	9/18/2018	9/21/2018
J8228MSD-FS	VC-PM372-SS02-000H-SD	SS	9/18/2018	9/21/2018

Work Plan

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WORK/QUALITY ASSURANCE PROJECT PLAN

1.0 GENERAL PROJECT INFORMATION

Project Title:	CTO-4164: Analysis of Solids
Project Number:	100110125-01
Client:	CH2M 1100 NE Circle Blvd Suite 300 Corvallis, OR 97330 USA
Client Contact Information:	Tiffany Hill Project Chemist (541) 768-3109(V) NA tiffany.hill@jacobs.com
Effective Date of QAPP:	9/17/2018
Version Number:	100110125-01(S)-01
Project Manager:	Thorn, Jonathan
Laboratory Task Manager:	Thorn, Jonathan
Deliverable Due Date:	10/19/2018

2.0 SCOPE OF WORK

Overview:	Analysis of solid samples for PFAS compounds.
Matrix:	Soil/Sediment

2.1 TECHNICAL APPROACH

2.1.1 Sample Receipt, Storage, and Handling

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

Storage Directions:	Store all samples frozen upon arrival.
Sub_Sampling:	None
Procedures:	NA
Contact:	NA
Comment:	None
Archiving:	Samples will be disposed of six months after submission of final data. Client will be informed prior to sample disposal.
Disposal:	Dispose of samples and extracts in the appropriate waste streams.

2.1.2 Sample Preparation

None

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

Batch quality control samples are defined in Table 1.

Target samples are presented in Attachment 1.

Table 1: Quality Control Samples

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

2.1.3 Extraction/Preparation

2.1.3.1 Extraction

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

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

Sample Size: 2 g

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

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

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

Table 2: SIS and LCS/MS Spiking Level

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

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

2.1.3.2 Cleanup

None.

RIS spiking levels are presented in Table 3.

Extract PIV (uL): 1000

Table 3: RIS Spiking Level

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

2.1.4 Instrumental Analysis

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

1) SOP_No-Rev: **5-369-06**

SOP_Title: *Analysis of Perfluoroalkyl Substances in Environmental Samples by Liquid Chromatography and Tandem Mass Spectrometry (LC-MS/MS)*

Deviations: None

Comments: None

2.2. DELIVERABLES

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

Chromatograms:	*No*
EDDs:	*Yes*
Comments:	• Individual data sets will be due 28 days after receipt of each sample set. • Full Level 4 data package (QSM 5.1 Table B-15 compliant) required. • SEDD file required. • weekly updates to client on status required.

3.0 QUALITY

The Method Quality Objectives are defined in Attachment 3.

4.0 ORGANIZATION AND COMMUNICATION

4.1 ORGANIZATION

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

Table 4: Project Team and Roles

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

4.2 COMMUNICATION

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

5.0 SCHEDULE

The project schedule is presented in Table 5.

Table 5. Schedule of Laboratory Activities

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

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

6.0 BUDGET

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

Table 6. Labor Budget (Laboratory Analytical Task)

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

7.0 STAFF DEVELOPMENT

None anticipated.

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WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 1: Target Samples

Shipment: **SHP-180921-01**

Status: Pending

Description: NBVC Basewide SI

Range: J8201-J8271

Comment: NA

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

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WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: **SHP-180921-01**

Status: Pending

Description: NBVC Basewide SI

Range: J8201-J8271

Comment: NA

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

Shipment: **SHP-180925-02**

Status: Pending

Description: NBVC Basewide SI

Range: J8291-J8334

Comment: NA

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

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WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: **SHP-180925-02**

Status: Pending

Description: NBVC Basewide SI

Range: J8291-J8334

Comment: NA

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

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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:	S - Solid Samples, like soil or sediment, 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/g	***Unit Conversion:***	(none)	***Sample:***	14	***DL_Flag:***	U
Weight Basis:	DRY	***Result Format:***	Fixed Digits	***Frozen:***	14	***RL_Flag:***	J
Standard Basis:	SIS	***# of Figures/Digits:***	2	***Extract:***	28	***PB_Flag:***	B
Oil Weight Basis:	No	***Oil Weight Source:***	Oil Weight			***DIL_Flag:***	D
U-Value 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		d3-MeFOSAA	No	No
11	N-ethylperfluoro-octanesulfonamidoacetic acid	NEtFOSAA	T		d5-EtFOSAA	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
4	13C9-PFNA	13C9-PFNA	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:
5	13C6-PFDA	13C6-PFDA	SIS	13C2-PFDA		No	No
6	13C7-PFUnA	13C7-PFUnA	SIS	13C2-PFDA		No	No
7	13C2-PFDoA	13C2-PFDoA	SIS	13C2-PFDA		No	No
8	13C2-PFTeDA	13C2-PFTeDA	SIS	13C2-PFDA		No	No
9	d3-MeFOSAA	d3-MeFOSAA	SIS	13C4-PFOS		No	No
10	d5-EtFOSAA	d5-EtFOSAA	SIS	13C4-PFOS		No	No
11	13C3-PFBS	13C3-PFBS	SIS	13C4-PFOS		No	No
12	13C3-PFHxS	13C3-PFHxS	SIS	13C4-PFOS		No	No
13	13C8-PFOS	13C8-PFOS	SIS	13C4-PFOS		No	No

Total Analytes: 27

Subtract Peaks:

None

Sum Peaks:

None

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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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WORK/QUALITY ASSURANCE PROJECT PLAN

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.	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	
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-180921-01

Battelle Project No: 0110125-01

Sample Receipt Form

Approved: ☐ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Friday, September 21, 2018 10:00 AM

No. of Shipping Containers: 3

SHIPMENT

Method of Delivery: Commercial Carrier **Tracking Number:** 7828 5914 8695 (Master)

COC Forms: ☑ **Shipped with samples** ☐ **No Forms**

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal	Container	Therm.	Temp C	Smps
1 of 3	Cooler	7828 5914 8695	Custody Seals	Intact	Intact	Therm_1	0.1	13
2 of 3	Cooler	7828 5914 8700	Custody Seals	Intact	Intact	Therm_1	0.9	27
3 of 3	Cooler	7828 5914 8710	Custody Seals	Intact	Intact	Therm_1	0.3	37

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): 0.9 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:** J8201 - J8277

Samples logged in by: Schumitz, Matt **Date/Time:** 09/21/2018 10:00 AM

Approved By: Fitch, Ellyn **Approved On:** 9/28/2018 10:18:00 AM

Authorized By: **Authorized On:**

BATTELLE
It can be done

ShpNo SHP-180921-01

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☐ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Friday, September 21, 2018 10:00 AM

No. of Shipping Containers: 3

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8201	VC-PM3009-SS01-000H	09/17/18 14:15	09/20/18 15:38	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8202	VC-PM3009-SB01-0102	09/17/18 14:15	09/20/18 15:38	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8203	VC-PM3009-SB01-0506	09/17/18 14:15	09/20/18 15:39	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8204	VC-PM3009-SS02-000H	09/17/18 15:12	09/20/18 15:39	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8205	VC-PM3009-SB02-0102	09/17/18 15:13	09/20/18 15:39	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8206	VC-PM3009-SB02-0506	09/17/18 15:15	09/20/18 15:40	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8207	VC-PM3009-SS03-000H	09/17/18 16:16	09/20/18 15:40	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8208	VC-PM3009-SB03-0102	09/17/18 16:17	09/20/18 15:40	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8209	VC-PM3009-SB03-0506	09/17/18 16:18	09/20/18 15:41	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8210	VC-PM3009-DW01-0918	09/17/18 15:10	09/20/18 15:54	2	GW	0.3	NA	NA	NA	R0119 (NA)			
J8211	VC-PM3009-DW02-0918	09/17/18 16:23	09/20/18 15:54	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8212	VC-PM3009-DW02P-0918	09/17/18 16:27	09/20/18 15:55	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8213	VC-PM3009-DW03-0918	09/17/18 16:38	09/20/18 15:55	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8214	VC-PM372-DW01-0918	09/18/18 10:07	09/20/18 15:56	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8215	VC-PM372-DW02-0918	09/18/18 9:25	09/20/18 15:57	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8216	VC-PM372-DW02P-0918	09/18/18 9:27	09/20/18 15:57	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8217	VC-PM372-DW03-0918	09/18/18 11:49	09/20/18 15:57	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8218	VC-PM372-SS01-000H	09/18/18 9:36	09/20/18 15:58	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8219	VC-PM372-SB01-0102	09/18/18 9:37	09/20/18 16:00	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8220	VC-PM372-SB01-0506	09/18/18 9:43	09/20/18 16:00	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8221	VC-PM372-SS02-000H	09/18/18 8:57	09/20/18 16:00	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8222	VC-PM372-SB02-0102	09/18/18 9:03	09/20/18 16:01	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8223	VC-PM372-SB02-0506	09/18/18 9:06	09/20/18 16:01	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8224	VC-PM372-SS03-000H	09/18/18 10:46	09/20/18 16:01	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8225	VC-PM372-SB03-0102	09/18/18 10:47	09/20/18 16:02	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8226	VC-PM372-SB03-0506	09/18/18 10:49	09/20/18 16:02	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8227	VC-PM372-SS02-000H-MS	09/18/18 9:06	09/20/18 16:02	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8228	VC-PM372-SS02-000H-SD	09/18/18 9:06	09/20/18 16:03	1	SS	0.9	NA	NA	NA	R0119 (NA)			

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It can be done

ShpNo SHP-180921-01

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☐ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Friday, September 21, 2018 10:00 AM

No. of Shipping Containers: 3

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8229	VC-PM649-SS01-000H	09/18/18 11:30	09/20/18 16:04	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8230	VC-PM649-SB01-0102	09/18/18 11:35	09/20/18 16:09	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8231	VC-PM649-SB01-0506	09/18/18 11:40	09/20/18 16:10	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8232	VC-PM649-SS02-000H	09/18/18 14:25	09/20/18 16:10	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8233	VC-PM649-SB02-0102	09/18/18 14:29	09/20/18 16:10	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8234	VC-PM649-SB02-0506	09/18/18 14:30	09/20/18 16:10	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8235	VC-PM649-SS03-000H	09/18/18 13:00	09/20/18 16:11	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8236	VC-PM649-SB03-0102	09/18/18 13:12	09/20/18 16:11	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8237	VC-PM649-SB03-0506	09/18/18 13:20	09/20/18 16:11	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8238	VC-PM649-SS04-000H	09/18/18 13:15	09/20/18 16:11	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8239	VC-PM649-SB04-0102	09/18/18 13:27	09/20/18 16:12	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8240	VC-PM649-SB04-0506	09/18/18 13:40	09/20/18 16:12	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8241	VC-PM649-DW01-0918	09/18/18 12:50	09/20/18 16:13	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8242	VC-PM649-DW01P-0918	09/18/18 12:55	09/20/18 16:14	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8243	VC-PM649-DW02-0918	09/18/18 15:35	09/20/18 16:14	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8244	VC-PM649-DW03-0918	09/18/18 14:02	09/20/18 16:14	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8245	VC-PM649-DW04-0918	09/18/18 14:02	09/20/18 16:14	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8246	VC-AQ-FB01-0918	09/18/18 13:30	09/20/18 16:15	2	AQ	0.1	NA	NA	NA	R0119 (NA)			
J8247	VC-AQ-EB01-0918	09/18/18 13:40	09/20/18 16:15	2	AQ	0.1	NA	NA	NA	R0119 (NA)			
J8248	VC-PM365-SS01-000H	09/19/18 10:28	09/20/18 16:16	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8249	VC-PM365-SB01-0102	09/19/18 10:30	09/20/18 16:16	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8250	VC-PM365-SB01-0506	09/19/18 10:37	09/20/18 16:17	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8251	VC-PM365-SS02-000H	09/19/18 11:30	09/20/18 16:17	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8252	VC-PM365-SB02-0102	09/19/18 11:32	09/20/18 16:17	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8253	VC-PM365-SB02-0506	09/19/18 11:40	09/20/18 16:18	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8254	VC-PM365-SS03-000H	09/19/18 10:26	09/20/18 16:18	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8255	VC-PM365-SB03-0102	09/19/18 10:27	09/20/18 16:18	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8256	VC-PM365-SB03-0506	09/19/18 10:32	09/20/18 16:19	1	SB	0.3	NA	NA	NA	R0119 (NA)			

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It can be done

ShpNo SHP-180921-01

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☐ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Friday, September 21, 2018 10:00 AM

No. of Shipping Containers: 3

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8257	VC-PM365-SB02-0102-MS	09/19/18 11:32	09/20/18 16:19	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8258	VC-PM365-SB02-0102-MSD	09/19/18 11:32	09/20/18 16:20	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8259	VC-PM365-DW01-0918	09/19/18 11:10	09/20/18 16:20	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8260	VC-PM365-DW02-0918	09/19/18 12:10	09/20/18 16:21	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8261	VC-PM365-DW02P-0918	09/19/18 12:18	09/20/18 16:21	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8262	VC-PM365-DW03-0918	09/19/18 11:10	09/20/18 16:22	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8263	VC-PM553-SS01-000H	09/19/18 13:50	09/20/18 16:22	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8264	VC-PM553-SB01-0102	09/19/18 13:53	09/20/18 16:23	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8265	VC-PM553-SB01-0506	09/19/18 13:59	09/20/18 16:23	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8266	VC-PM553-SS02-000H	09/19/18 14:40	09/20/18 16:23	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8267	VC-PM553-SB02-0102	09/19/18 14:42	09/20/18 16:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8268	VC-PM553-SB02-0506	09/19/18 14:50	09/20/18 16:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8269	VC-PM553-SS03-000H	09/19/18 11:30	09/20/18 16:24	1	SS	0.3	NA	NA	NA	R0119 (NA)			
J8270	VC-PM553-SB03-0102	09/19/18 11:34	09/20/18 16:24	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8271	VC-PM553-SB03-0506	09/19/18 11:42	09/20/18 16:25	1	SB	0.3	NA	NA	NA	R0119 (NA)			
J8272	VC-PM553-DW01-0918	09/19/18 14:30	09/20/18 16:26	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8273	VC-PM553-DW01P-0918	09/19/18 14:45	09/20/18 16:26	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8274	VC-PM553-DW02-0918	09/19/18 15:15	09/20/18 16:27	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8275	VC-PM553-DW03-0918	09/19/18 12:06	09/20/18 16:28	2	GW	0.1	NA	NA	NA	R0119 (NA)			
J8276	VC-SO-FB02-0918	09/19/18 14:35	09/20/18 16:29	2	AQ	0.9	NA	NA	NA	R0119 (NA)			
J8277	VC-SO-EB02-0918	09/19/18 14:30	09/20/18 16:30	2	AQ	0.9	NA	NA	NA	R0119 (NA)			

Total Samples: 77

MEMORANDUM CH2MHILL

Corrections to COCs

TO: Jonathan Thorn, Battelle

COPIES: File
Laboratory Package SDG: SHP 180921-01

FROM: Tiffany Hill
Project Chemist

DATE: September 24, 2018

This memo is to document corrections made to entries on the Chains of Custody (COC) and Logins for NB Ventura County, CTO-4164.

The corrections include changes to the sample IDs on the COC and Login:

Sample ID on Login	Correct Sample ID	Date Collected	Time Collected	SDG
FDT-AQ-FB01-0918	VC-AQ-FB01-0918	9/18/18	13:30	SHP-180921
FDT-AQ-EB01-0918	VC-AQ-EB01-0918	9/18/18	13:40	SHP-180921
FDT-SO-FB02-0918	VC-SO-FB02-0918	9/19/18	14:35	SHP-180921
FDT-SO-EB02-0918	VC-SO-EB02-0918	9/19/18	14:30	SHP-180921
VC-PM3009-SS02-OOOH	VC-PM3009-SS02-000H	9/17/18	15:12	SHP-180921
VC-PM3009-SB02-O102	VC-PM3009-SB02-0102	9/17/18	15:13	SHP-180921
VC-PM3009-SB02-O506	VC-PM3009-SB02-0506	9/17/18	15:15	SHP-180921
VC-PM3009-SS03-O00H	VC-PM3009-SS03-000H	9/17/18	16:16	SHP-180921
VC-PM3009-SB03-O102	VC-PM3009-SB03-0102	9/17/18	16:17	SHP-180921
VC-PM3009-SB03-O506	VC-PM3009-SB03-0506	9/17/18	16:18	SHP-180921
VC-PM3009-DW01-0919	VC-PM3009-DW01-0918	9/17/18	15:10	SHP-180921
VC-PM3009-DW02-0919	VC-PM3009-DW02-0918	9/17/18	16:23	SHP-180921
VC-PM3009-DW02P-0919	VC-PM3009-DW02P-0918	9/17/18	16:27	SHP-180921
VC-PM365-DW01-0919	VC-PM365-DW01-0918	9/19/18	11:10	SHP-180921
VC-PM365-DW02-0919	VC-PM365-DW02-0918	9/19/18	12:10	SHP-180921
VC-PM365-DW02P-0919	VC-PM365-DW02P-0918	9/19/18	12:18	SHP-180921

VC-PM365-DW03-0919	VC-PM365-DW03-0918	9/19/18	11:10	SHP-180921
VC-PM553-DW01-0919	VC-PM553-DW01-0918	9/19/18	14:30	SHP-180921
VC-PM553-DW01P-0919	VC-PM553-DW01P-0918	9/19/18	14:45	SHP-180921
VC-PM553-DW02-0919	VC-PM553-DW02-0918	9/19/18	15:15	SHP-180921
VC-PM553-DW03-0919	VC-PM553-DW03-0918	9/19/18	12:06	SHP-180921

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Chain-of-Custody

(04)

Client Contact Information	Project Manager: Eric Davis	Sampling Site: ~~Hangar~~ PM 3009	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: (724) 977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority RUSH Time Zone: ~~PST~~	Analysis: PFAS by Method 537 Mod	Page# 1 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM3009-SS01-000H J8201	09.17.18	14:15	Grab	SS	1	X
VC-PM3009-SB01-0102 02	09.17.18	14:15	Grab	SB	1	X
VC-PM3009-SB01-0506 03	09.17.18	14:15	Grab	SB	1	X
VC-PM3009-SS02-000H 04	09.17.18	15:12	Grab	SS	1	X
VC-PM3009-SB02-0102 05	09.17.18	15:13	Grab	SB	1	X
VC-PM3009-SB02-0506 06	09.17.18	15:15	Grab	SB	1	X
VC-PM3009-SS03-000H 07	09.17.18	16:16	Grab	SS	1	X
VC-PM3009-SB03-0102 08	09.17.18	16:17	Grab	SB	1	X
VC-PM3009-SB03-0506 J8209	09.17.18	16:18	Grab	SB	1	X
~~VC-PM3009-SD01-000H~~			~~Grab~~	~~SD~~		~~X~~
~~VC-PM3009-SD01-0102~~			~~Grab~~	~~SD~~		~~X~~
~~VC-PM3009-S~~ MS			~~Grab~~			~~X~~

Receipt Temperature:(°C)	*Samples Intact: Yes - No*	*Samples on Ice: Yes - No*	*Receipt Comments:*

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cuss Deandra Cuss	JACOBS	9/20/2018 07:30	NV	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

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Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: Mugu PM3009	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: (724)977-3628 Email: Victoria.Kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 2 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis
VC-PM3009-DW01-0918 J8210	9/17/18	15:10	Grab	GW	2	X
VC-PM3009-DW02-0918 J8211	9/17/18	16:23	Grab	GW	2	X
VC-PM3009-DW02P-0918 J8212	9/17/18	16:27	Grab	GW	2	X
VC-PM3009-DW03-0918 J8213	9/17/18	16:38	Grab	GW	2	X
EDT-AQ-FB			Grab	AQ		X
PDT-AQ-FB			Grab	AQ		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign)	Company	Date/Time	Received by (Print/Sign)	Company	Date/Time
Deandra Cass/Deandra	Jacobs	09/20/2018 0730	NV	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

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Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 372 Mugu	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: (724) 977-3628 Email: Victoria.Kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI	Normal X Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 3 of 12
Project No.: 695803	Time Zone: PST		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis
~~VC-PM13-GW21-~~			~~Grab~~	~~GW~~		X
VC-PM372-DW01-0918 J8214	9/18/18	10:07	Grab	GW	2	X
VC-PM372-DW02-0918 J8215	9/18/18	09:25	Grab	GW	2	X
VC-PM372-DW02P-0918 J8216	9/18/18	09:27	Grab	GW	2	X
VC-PM372-DW03-0918 J8217	9/18/18	11:49	Grab	GW	2	X
~~FDT-AQ-FB~~			~~Grab~~	~~AQ~~		X
~~FDT-AQ-EB~~			~~Grab~~	~~AQ~~		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign)	Company	Date/Time	Received by (Print/Sign)	Company	Date/Time
Deandra Cass	Jacobs	9/20/2018 07:30		Battelle	9-21-18 945

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: Mugu PM 372	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kibert Phone: (724) 977-3628 Email: Victoria.Kibert@jacobs.com	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Turnaround Time (TAT) Requested: Normal X Priority RUSH Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 4 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM372-SS01-000H J8218	9/18/18	09:36	Grab	SS	1	X
VC-PM372-SB01-0102 19	9/18/18	09:37	Grab	SB	1	X
VC-PM372-SB01-0506 20	9/18/18	09:43	Grab	SB	1	X
VC-PM372-SS02-000H 21	9/18/18	08:57	Grab	SS	1	X
VC-PM372-SB02-0102 22	9/18/18	09:03	Grab	SB	1	X
VC-PM372-SB02-0506 23	9/18/18	09:06	Grab	SB	1	X
VC-PM372-SS03-000H 24	9/18/18	10:46	Grab	SS	1	X
VC-PM372-SB03-0102 25	9/18/18	10:47	Grab	SB	1	X
VC-PM372-SB03-0506 J8224	9/18/18	10:49	Grab	SB	1	X
~~VC-PM372-SD01-000H~~			Grab	SD		X
~~VC-PM372-SB01-0102~~			Grab	SD		X
J8227 VC-PM372-SS02-000H-MS	9/18/18	09:06	Grab	SS	1	X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cass Deandra	Jacobs	9/20/2018 07:30	MS	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: MUGU PM 372	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: (724) 977-3628 Email: Victoria.Kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 5 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
18228 VC-PM372-S-502-000H-SD	9/18/18	09:00	Grab	SS	1	X
~~FDT-SO-FB~~			Grab	AQ		X
~~FDT-SO-EB~~			Grab	AQ		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign)	Company	Date/Time	Received by (Print/Sign)	Company	Date/Time
Deandra Cass Deandra	Jacobs	9/20/2018 07:30	NS	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: Mugu PM 649	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: (724) 977-3628 Email: Victoria.Kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority RUSH Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 6 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM649-SS01-000H J8229	9/18/18	11:30	Grab	SS	1	X
VC-PM649-SB01-0102 30	9/18/18	11:35	Grab	SB	1	X
VC-PM649-SB01-0506 31	9/18/18	11:40	Grab	SB	1	X
VC-PM649-SS02-000H 32	9/18/18	14:25	Grab	SS	1	X
VC-PM649-SB02-0102 33	9/18/18	14:29	Grab	SB	1	X
VC-PM649-SB02-0506 34	9/18/18	14:30	Grab	SB	1	X
VC-PM649-SS03-000H 35	9/18/18	13:00	Grab	SS	1	X
VC-PM649-SB03-0102 36	9/18/18	13:12	Grab	SB	1	X
VC-PM649-SB03-0506 37	9/18/18	13:20	Grab	SB	1	X
VC-PM649-SS04-000H 38	9/18/18	13:15	Grab	SS	1	X
VC-PM649-SB04-0102 39	9/18/18	13:27	Grab	SB	1	X
VC-PM649-SB04-0506 J8240	9/18/18	13:40	Grab	SB	1	X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cass	JACOBS	9/20/2018 07:30		Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: NBVC PM649	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: (724) 977-3628 Email: Victoria.Kilbert@jacobs.com	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Turnaround Time (TAT) Requested: Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 7 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM649-DW01-0918 J8241	9/18/18	12:50	Grab	GW	2	X
VC-PM649-DW01P-0918 J8242	9/18/18	12:55	Grab	GW	2	X
VC-PM649-DW02-0918 J8243	9/18/18	15:35	Grab	GW	2	X
VC-PM649-DW03-0918 J8244	9/18/18	14:02	Grab	GW	2	X
VC-PM649-DW04-0918 J8245	9/18/18	14:02	Grab	GW	2	X
FDT-AQ-FB01-0918 J8246	9/18/18	13:30	Grab	AQ	2	X
FDT-AQ-EB01-0918 J8247	9/18/18	13:40	Grab	AQ	2	X

Receipt Temperature:(°C) | *Samples Intact: Yes - No* | *Samples on Ice: Yes - No* | *Receipt Comments:*

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cossi/Deandra	Jacobs	9/20/2018 07:30		Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: Mugu PM365	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal ☒ Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 8 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM365-SS01-000H J8248	9/19/18	1028	Grab	SS	1	X
VC-PM365-SB01-0102 49	9/19/18	1030	Grab	SB	1	X
VC-PM365-SB01-0506 50	9/19/18	1037	Grab	SB	1	X
VC-PM365-SS02-000H 51	9/19/18	1130	Grab	SS	1	X
VC-PM365-SB02-0102 52	9/19/18	1132	Grab	SB	1	X
VC-PM365-SB02-0506 53	9/19/18	1140	Grab	SB	1	X
VC-PM365-SS03-000H 54	9/19/18	1026	Grab	SS	1	X
VC-PM365-SB03-0102 55	9/19/18	1027	Grab	SB	1	X
VC-PM365-SB03-0506 J8256	9/19/18	1032	Grab	SB	1	X
J8257 VC-PM365-SB02-0102-MS	9/19/18	1132	Grab	SB	1	X
J8258 VC-PM365-SB02-0102-MSD	9/19/18	1132	Grab	SB	1	X
~~FDT-SO-FB~~			~~Grab~~	~~AQ~~		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cross/Deandra	Jacobs	9/20/2018 0730	MS	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: MW-9A PM365	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC #: 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal ☒ Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page#: 9 of 12

Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM365-DW01-0919	J8259	9/19/18	1110	Grab	GW	2	X
VC-PM365-DW02-0919	J8260	9/19/18	1210	Grab	GW	2	X
VC-PM365-DW02P-0919	J8261	9/19/18	1214	Grab	GW	2	X
VC-PM365-DW03-0919	J8262	9/19/18	1110	Grab	GW	2	X
~~FDT-AQ-FB~~				Grab	GW		X
~~FDT-AQ-EB~~				Grab	GW		X

VK

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cass/Deandra	Jacobs	9/20/2018 07:30	NVS	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: Munger PM553	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal ☑ Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 10 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM553-SS01-000H J8263	9/19/18	1350	Grab	SS	1	X
VC-PM553-SB01-0102 64	9/19/18	1353	Grab	SB	1	X
VC-PM553-SB01-0506 65	9/19/18	1359	Grab	SB	1	X
VC-PM553-SS02-000H 66	9/19/18	1440	Grab	SS	1	X
VC-PM553-SB02-0102 67	9/19/18	1442	Grab	SB	1	X
VC-PM553-SB02-0506 68	9/19/18	1450	Grab	SB	1	X
VC-PM553-SS03-000H 69	9/19/18	1130	Grab	SS	1	X
VC-PM553-SB03-0102 70	9/19/18	1134	Grab	SB	1	X
VC-PM553-SB03-0506 J8271	9/19/18	1142	Grab	SB	1	X
~~VC-PM553-SS04-000H~~			Grab	SS		X
~~VC-PM553-SB04-~~			Grab	SB		X
~~VC-PM553-SB04-~~			Grab	SB		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign)	Company	Date/Time	Received by (Print/Sign)	Company	Date/Time
Deandra Cross/Deandra	Jacobs	9/20/2018 07:30	NV	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: MW-4 SM 5753	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal ☒ Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 11 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
~~VC-PM553-GW0001A-~~			~~Grab~~	~~GW~~		X
VC-PM553-DW01-0919 J8272	9/19/18	1430	Grab	GW	2	X
VC-PM553-DW01P-0919 J8273	9/19/18	1445	Grab	GW	2	X
VC-PM553-DW02-0919 J8274	9/19/18	1515	Grab	GW	2	X
VC-PM553-DW03-0919 J8275	9/19/18	1206	Grab	GW	2	X
~~VC-PM553-DW04-~~			~~Grab~~	~~GW~~		X
~~FDT-AQ-FB-~~			Grab	AQ		X
~~FDT-AQ-EB-~~			~~Grab~~	~~AQ~~		X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cross/Deandra	Jacobs	9/20/2018 07:30	[illegible]	Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: Mugu PM553	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 1
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 12 of 12

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
~~VC-PM553-SD01-000H~~			~~Grab~~	~~SD~~		X
~~VC-PM553-SD01-0102~~			~~Grab~~	~~SD~~		X
~~VC-PM553-S - -MS~~			~~Grab~~			X
~~VC-PM553-S - -SD~~			~~Grab~~			X
FDT-SO-FB 02-0919 J8276	9/19/18	1435	Grab	AQ	2	X
FDT-SO-EB 02-0919 J8277	9/19/18	1430	Grab	AQ	2	X

Receipt Temperature:(°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:

Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Deandra Cass	Jacobs	9/20/2018 07:30		Battelle	9-21-18 945
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

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

SAN DIEGO, CA 92101
UNITED STATES US

SHIP DATE: 20SEP18
ACTWGT: 59.30 LB
CAD: 6997666/SSF01904
DIMS: 26x14x15 IN

BILL THIRD PARTY

TO JONATHAN THORN 0.1 9:45

141 LONGWATER DR. 9-21-18 MDS
STE 202
NORWELL MA 02061 Therm-1
(781) 681-5565 REF:
INV:
PO: DEPT:

FedEx Express

1 of 3
TRK# 0201 7828 5914 8695
MASTER

FRI - 21 SEP 10:30A
PRIORITY OVERNIGHT
DSR
02061
MA-US BOS

XE XPUA

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

SAN DIEGO, CA 92101
UNITED STATES US

SHIP DATE: 20SEP18
ACTWGT: 62.50 LB
CAD: 6997666/SSF01904
DIMS: 26x14x14 IN

BILL THIRD PARTY

TO JONATHAN THORN 0.9 9:45

141 LONGWATER DR. 9-21-18 MDS
STE 202
NORWELL MA 02061 Therm-1
(781) 681-5565 REF:
INV:
PO: DEPT:

FedEx Express

2 of 3
MPS# 0263 7828 5914 8700
Mstr# 7828 5914 8695

FRI - 21 SEP 10:30A
PRIORITY OVERNIGHT
0201
DSR
02061
MA-US BOS

XE XPUA

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

SAN DIEGO, CA 92101
UNITED STATES US

SHIP DATE: 20SEP18
ACTWGT: 69.70 LB
CAD: 6997666/SSF01904
DIMS: 26x14x14 IN

BILL THIRD PARTY

TO JONATHAN THORN 0.3 9:45

141 LONGWATER DR. 9-21-18 MDS
STE 202
NORWELL MA 02061 Therm-1
(781) 681-5565 REF:
INV:
PO: DEPT:

FedEx Express

3 of 3
MPS# 0263 7828 5914 8710
Mstr# 7828 5914 8695

FRI - 21 SEP 10:30A
PRIORITY OVERNIGHT
0201
DSR
02061
MA-US BOS

XE XPUA

Data Tables

BATTELLE
It can be done

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

Client ID		VC-PM3009-SS01-000H			
Battelle ID		J8201-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		2.61			
Matrix		SS			
Sample Size		1.93			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.04 U	0.34	1.04	5.18
PFHpA	375-85-9	1.04 U	0.46	1.04	5.18
PFOA	335-67-1	1.04 U	0.52	1.04	5.18
PFNA	375-95-1	1.04 U	0.45	1.04	5.18
PFDA	335-76-2	1.04 U	0.28	1.04	5.18
PFUnA	2058-94-8	1.04 U	0.42	1.04	5.18
PFDoA	307-55-1	0.52 U	0.25	0.52	5.18
PFTrDA	72629-94-8	1.04 U	0.29	1.04	5.18
PFTeDA	376-06-7	2.07 U	0.65	2.07	5.18
NMeFOSAA	2355-31-9	2.59 U	1.16	2.59	5.18
NEtFOSAA	2991-50-6	2.07 U	0.59	2.07	5.18
PFBS	375-73-5	1.04 U	0.37	1.04	5.18
PFHxS	355-46-4	0.52 U	0.23	0.52	5.18
PFOS	1763-23-1	0.89 J	0.28	1.04	5.18

Surrogate Recoveries (%)

13C5-PFHxA	94
13C4-PFHpA	96
13C8-PFOA	100
13C9-PFNA	94
13C6-PFDA	98
13C7-PFUnA	105
13C2-PFDoA	96
13C2-PFTeDA	97
d3-MeFOSAA	97
d5-EtFOSAA	116
13C3-PFBS	103
13C3-PFHxS	105
13C8-PFOS	105

BATTELLE
It can be done

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

Client ID		VC-PM3009-SB01-0102			
Battelle ID		J8202-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		6.66			
Matrix		SB			
Sample Size		1.85			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.08 U	0.36	1.08	5.41
PFHpA	375-85-9	1.08 U	0.48	1.08	5.41
PFOA	335-67-1	1.08 U	0.54	1.08	5.41
PFNA	375-95-1	1.08 U	0.46	1.08	5.41
PFDA	335-76-2	1.08 U	0.29	1.08	5.41
PFUnA	2058-94-8	1.08 U	0.44	1.08	5.41
PFDoA	307-55-1	0.54 U	0.26	0.54	5.41
PFTrDA	72629-94-8	1.08 U	0.30	1.08	5.41
PFTeDA	376-06-7	2.16 U	0.68	2.16	5.41
NMeFOSAA	2355-31-9	2.70 U	1.21	2.70	5.41
NEtFOSAA	2991-50-6	2.16 U	0.62	2.16	5.41
PFBS	375-73-5	1.08 U	0.39	1.08	5.41
PFHxS	355-46-4	0.67 J	0.24	0.54	5.41
PFOS	1763-23-1	4.52 J	0.29	1.08	5.41

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	99
13C8-PFOA	112
13C9-PFNA	101
13C6-PFDA	104
13C7-PFUnA	105
13C2-PFDoA	95
13C2-PFTeDA	92
d3-MeFOSAA	87
d5-EtFOSAA	110
13C3-PFBS	107
13C3-PFHxS	108
13C8-PFOS	106

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

Client ID		VC-PM3009-SB01-0506			
Battelle ID		J8203-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		19.17			
Matrix		SB			
Sample Size		1.64			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	4.25 J	0.40	1.22	6.10
PFHpA	375-85-9	1.22 U	0.54	1.22	6.10
PFOA	335-67-1	1.69 J	0.61	1.22	6.10
PFNA	375-95-1	1.22 U	0.52	1.22	6.10
PFDA	335-76-2	1.22 U	0.33	1.22	6.10
PFUnA	2058-94-8	1.22 U	0.50	1.22	6.10
PFDoA	307-55-1	0.61 U	0.29	0.61	6.10
PFTrDA	72629-94-8	1.22 U	0.34	1.22	6.10
PFTeDA	376-06-7	2.44 U	0.77	2.44	6.10
NMeFOSAA	2355-31-9	3.05 U	1.37	3.05	6.10
NEtFOSAA	2991-50-6	2.44 U	0.70	2.44	6.10
PFBS	375-73-5	1.14 J	0.44	1.22	6.10
PFHxS	355-46-4	17.63	0.27	0.61	6.10
PFOS	1763-23-1	76.44	0.33	1.22	6.10

Surrogate Recoveries (%)

13C5-PFHxA	99
13C4-PFHpA	100
13C8-PFOA	105
13C9-PFNA	97
13C6-PFDA	104
13C7-PFUnA	123
13C2-PFDoA	101
13C2-PFTeDA	104
d3-MeFOSAA	95
d5-EtFOSAA	131
13C3-PFBS	106
13C3-PFHxS	116
13C8-PFOS	117

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

Client ID		VC-PM3009-SS02-000H			
Battelle ID		J8204-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		1.12			
Matrix		SS			
Sample Size		1.99			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.01 U	0.33	1.01	5.03
PFHpA	375-85-9	1.01 U	0.44	1.01	5.03
PFOA	335-67-1	1.01 U	0.50	1.01	5.03
PFNA	375-95-1	1.01 U	0.43	1.01	5.03
PFDA	335-76-2	1.01 U	0.27	1.01	5.03
PFUnA	2058-94-8	1.01 U	0.41	1.01	5.03
PFDoA	307-55-1	0.50 U	0.24	0.50	5.03
PFTrDA	72629-94-8	1.01 U	0.28	1.01	5.03
PFTeDA	376-06-7	2.01 U	0.63	2.01	5.03
NMeFOSAA	2355-31-9	2.51 U	1.13	2.51	5.03
NEtFOSAA	2991-50-6	2.01 U	0.57	2.01	5.03
PFBS	375-73-5	1.01 U	0.36	1.01	5.03
PFHxS	355-46-4	0.48 J	0.22	0.50	5.03
PFOS	1763-23-1	3.89 J	0.27	1.01	5.03

Surrogate Recoveries (%)

13C5-PFHxA	107
13C4-PFHpA	109
13C8-PFOA	110
13C9-PFNA	98
13C6-PFDA	110
13C7-PFUnA	132
13C2-PFDoA	119
13C2-PFTeDA	107
d3-MeFOSAA	83
d5-EtFOSAA	101
13C3-PFBS	102
13C3-PFHxS	104
13C8-PFOS	96

BATTELLE
It can be done

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

Client ID		VC-PM3009-SB02-0102			
Battelle ID		J8205-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		2.04			
Matrix		SB			
Sample Size		1.98			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.68 J	0.33	1.01	5.05
PFHpA	375-85-9	1.01 U	0.44	1.01	5.05
PFOA	335-67-1	1.01 U	0.51	1.01	5.05
PFNA	375-95-1	1.01 U	0.43	1.01	5.05
PFDA	335-76-2	1.01 U	0.27	1.01	5.05
PFUnA	2058-94-8	1.01 U	0.41	1.01	5.05
PFDoA	307-55-1	0.51 U	0.24	0.51	5.05
PFTrDA	72629-94-8	1.01 U	0.28	1.01	5.05
PFTeDA	376-06-7	2.02 U	0.64	2.02	5.05
NMeFOSAA	2355-31-9	2.53 U	1.13	2.53	5.05
NEtFOSAA	2991-50-6	2.02 U	0.58	2.02	5.05
PFBS	375-73-5	1.01 U	0.36	1.01	5.05
PFHxS	355-46-4	0.31 J	0.22	0.51	5.05
PFOS	1763-23-1	2.34 J	0.27	1.01	5.05

Surrogate Recoveries (%)

13C5-PFHxA	104
13C4-PFHpA	109
13C8-PFOA	114
13C9-PFNA	98
13C6-PFDA	111
13C7-PFUnA	124
13C2-PFDoA	110
13C2-PFTeDA	113
d3-MeFOSAA	92
d5-EtFOSAA	94
13C3-PFBS	105
13C3-PFHxS	109
13C8-PFOS	94

BATTELLE
It can be done

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

Client ID		VC-PM3009-SB02-0506			
Battelle ID		J8206-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		8.47			
Matrix		SB			
Sample Size		1.81			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.10 U	0.36	1.10	5.52
PFHpA	375-85-9	1.10 U	0.49	1.10	5.52
PFOA	335-67-1	1.10 U	0.55	1.10	5.52
PFNA	375-95-1	1.10 U	0.48	1.10	5.52
PFDA	335-76-2	1.10 U	0.30	1.10	5.52
PFUnA	2058-94-8	1.10 U	0.45	1.10	5.52
PFDoA	307-55-1	0.55 U	0.27	0.55	5.52
PFTrDA	72629-94-8	1.10 U	0.31	1.10	5.52
PFTeDA	376-06-7	2.21 U	0.70	2.21	5.52
NMeFOSAA	2355-31-9	2.76 U	1.24	2.76	5.52
NEtFOSAA	2991-50-6	2.21 U	0.63	2.21	5.52
PFBS	375-73-5	1.10 U	0.40	1.10	5.52
PFHxS	355-46-4	0.55 U	0.24	0.55	5.52
PFOS	1763-23-1	2.59 J	0.30	1.10	5.52

Surrogate Recoveries (%)

13C5-PFHxA	105
13C4-PFHpA	105
13C8-PFOA	104
13C9-PFNA	106
13C6-PFDA	109
13C7-PFUnA	113
13C2-PFDoA	105
13C2-PFTeDA	100
d3-MeFOSAA	90
d5-EtFOSAA	96
13C3-PFBS	108
13C3-PFHxS	115
13C8-PFOS	104

BATTELLE
It can be done

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

Client ID		VC-PM3009-SS03-000H			
Battelle ID		J8207-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		12.61			
Matrix		SS			
Sample Size		1.75			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.14 U	0.38	1.14	5.71
PFHpA	375-85-9	1.14 U	0.50	1.14	5.71
PFOA	335-67-1	1.14 U	0.57	1.14	5.71
PFNA	375-95-1	1.14 U	0.49	1.14	5.71
PFDA	335-76-2	1.14 U	0.31	1.14	5.71
PFUnA	2058-94-8	1.14 U	0.47	1.14	5.71
PFDoA	307-55-1	0.57 U	0.27	0.57	5.71
PFTrDA	72629-94-8	1.14 U	0.32	1.14	5.71
PFTeDA	376-06-7	2.29 U	0.72	2.29	5.71
NMeFOSAA	2355-31-9	2.86 U	1.28	2.86	5.71
NEtFOSAA	2991-50-6	2.29 U	0.65	2.29	5.71
PFBS	375-73-5	1.14 U	0.41	1.14	5.71
PFHxS	355-46-4	0.57 U	0.25	0.57	5.71
PFOS	1763-23-1	4.12 J	0.31	1.14	5.71

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	95
13C8-PFOA	98
13C9-PFNA	86
13C6-PFDA	98
13C7-PFUnA	108
13C2-PFDoA	102
13C2-PFTeDA	92
d3-MeFOSAA	80
d5-EtFOSAA	110
13C3-PFBS	119
13C3-PFHxS	126
13C8-PFOS	89

BATTELLE
It can be done

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

Client ID		VC-PM3009-SB03-0102			
Battelle ID		J8208-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		4.81			
Matrix		SB			
Sample Size		1.93			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.04 U	0.34	1.04	5.18
PFHpA	375-85-9	1.04 U	0.46	1.04	5.18
PFOA	335-67-1	1.04 U	0.52	1.04	5.18
PFNA	375-95-1	1.04 U	0.45	1.04	5.18
PFDA	335-76-2	1.04 U	0.28	1.04	5.18
PFUnA	2058-94-8	1.04 U	0.42	1.04	5.18
PFDoA	307-55-1	0.52 U	0.25	0.52	5.18
PFTrDA	72629-94-8	1.04 U	0.29	1.04	5.18
PFTeDA	376-06-7	2.07 U	0.65	2.07	5.18
NMeFOSAA	2355-31-9	2.59 U	1.16	2.59	5.18
NEtFOSAA	2991-50-6	2.07 U	0.59	2.07	5.18
PFBS	375-73-5	1.04 U	0.37	1.04	5.18
PFHxS	355-46-4	0.52 U	0.23	0.52	5.18
PFOS	1763-23-1	3.90 J	0.28	1.04	5.18

Surrogate Recoveries (%)

13C5-PFHxA	103
13C4-PFHpA	101
13C8-PFOA	103
13C9-PFNA	92
13C6-PFDA	106
13C7-PFUnA	127
13C2-PFDoA	107
13C2-PFTeDA	107
d3-MeFOSAA	89
d5-EtFOSAA	108
13C3-PFBS	113
13C3-PFHxS	119
13C8-PFOS	95

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

Client ID		VC-PM3009-SB03-0506				
Battelle ID		J8209-FS				
Sample Type		SA				
Collection Date		09/17/2018				
Extraction Date		09/26/2018				
Analysis Date		09/28/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		16.48				
Matrix		SB				
Sample Size		1.70				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.18	U	0.39	1.18	5.88
PFHpA	375-85-9	1.18	U	0.52	1.18	5.88
PFOA	335-67-1	1.18	U	0.59	1.18	5.88
PFNA	375-95-1	1.18	U	0.51	1.18	5.88
PFDA	335-76-2	1.18	U	0.32	1.18	5.88
PFUnA	2058-94-8	1.18	U	0.48	1.18	5.88
PFDoA	307-55-1	0.59	U	0.28	0.59	5.88
PFTrDA	72629-94-8	1.18	U	0.33	1.18	5.88
PFTeDA	376-06-7	2.35	U	0.74	2.35	5.88
NMeFOSAA	2355-31-9	2.94	U	1.32	2.94	5.88
NEtFOSAA	2991-50-6	2.35	U	0.67	2.35	5.88
PFBS	375-73-5	1.18	U	0.42	1.18	5.88
PFHxS	355-46-4	0.59	U	0.26	0.59	5.88
PFOS	1763-23-1	2.75	J	0.32	1.18	5.88

Surrogate Recoveries (%)

13C5-PFHxA	109
13C4-PFHpA	100
13C8-PFOA	111
13C9-PFNA	98
13C6-PFDA	113
13C7-PFUnA	120
13C2-PFDoA	103
13C2-PFTeDA	104
d3-MeFOSAA	99
d5-EtFOSAA	105
13C3-PFBS	95
13C3-PFHxS	105
13C8-PFOS	89

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

Client ID		VC-PM372-SS01-000H				
Battelle ID		J8218-FS				
Sample Type		SA				
Collection Date		09/18/2018				
Extraction Date		09/26/2018				
Analysis Date		10/02/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		14.79				
Matrix		SS				
Sample Size		1.74				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.15	U	0.38	1.15	5.75
PFHpA	375-85-9	1.15	U	0.51	1.15	5.75
PFOA	335-67-1	1.15	U	0.57	1.15	5.75
PFNA	375-95-1	1.15	U	0.49	1.15	5.75
PFDA	335-76-2	1.15	U	0.31	1.15	5.75
PFUnA	2058-94-8	1.15	U	0.47	1.15	5.75
PFDoA	307-55-1	0.57	U	0.28	0.57	5.75
PFTrDA	72629-94-8	1.15	U	0.32	1.15	5.75
PFTeDA	376-06-7	2.30	U	0.72	2.30	5.75
NMeFOSAA	2355-31-9	2.87	U	1.29	2.87	5.75
NEtFOSAA	2991-50-6	2.30	U	0.66	2.30	5.75
PFBS	375-73-5	1.15	U	0.41	1.15	5.75
PFHxS	355-46-4	0.57	U	0.25	0.57	5.75
PFOS	1763-23-1	0.51	J	0.31	1.15	5.75

Surrogate Recoveries (%)

13C5-PFHxA	108
13C4-PFHpA	100
13C8-PFOA	108
13C9-PFNA	120
13C6-PFDA	96
13C7-PFUnA	92
13C2-PFDoA	101
13C2-PFTeDA	93
d3-MeFOSAA	81
d5-EtFOSAA	80
13C3-PFBS	96
13C3-PFHxS	92
13C8-PFOS	111

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

Client ID		VC-PM372-SB01-0102			
Battelle ID		J8219-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		10.09			
Matrix		SB			
Sample Size		1.82			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.10 U	0.36	1.10	5.49
PFHpA	375-85-9	1.10 U	0.48	1.10	5.49
PFOA	335-67-1	1.10 U	0.55	1.10	5.49
PFNA	375-95-1	1.10 U	0.47	1.10	5.49
PFDA	335-76-2	1.10 U	0.30	1.10	5.49
PFUnA	2058-94-8	1.10 U	0.45	1.10	5.49
PFDoA	307-55-1	0.55 U	0.26	0.55	5.49
PFTrDA	72629-94-8	1.10 U	0.31	1.10	5.49
PFTeDA	376-06-7	2.20 U	0.69	2.20	5.49
NMeFOSAA	2355-31-9	2.75 U	1.23	2.75	5.49
NEtFOSAA	2991-50-6	2.20 U	0.63	2.20	5.49
PFBS	375-73-5	1.10 U	0.40	1.10	5.49
PFHxS	355-46-4	0.55 U	0.24	0.55	5.49
PFOS	1763-23-1	1.10 U	0.30	1.10	5.49

Surrogate Recoveries (%)

13C5-PFHxA	103
13C4-PFHpA	105
13C8-PFOA	113
13C9-PFNA	113
13C6-PFDA	114
13C7-PFUnA	124
13C2-PFDoA	112
13C2-PFTeDA	102
d3-MeFOSAA	96
d5-EtFOSAA	119
13C3-PFBS	116
13C3-PFHxS	120
13C8-PFOS	121

BATTELLE
It can be done

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

Client ID		VC-PM372-SB01-0506			
Battelle ID		J8220-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		21.32			
Matrix		SB			
Sample Size		1.61			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.24 U	0.41	1.24	6.21
PFHpA	375-85-9	1.24 U	0.55	1.24	6.21
PFOA	335-67-1	1.24 U	0.62	1.24	6.21
PFNA	375-95-1	1.24 U	0.53	1.24	6.21
PFDA	335-76-2	1.24 U	0.34	1.24	6.21
PFUnA	2058-94-8	1.24 U	0.51	1.24	6.21
PFDoA	307-55-1	0.62 U	0.30	0.62	6.21
PFTrDA	72629-94-8	1.24 U	0.35	1.24	6.21
PFTeDA	376-06-7	2.48 U	0.78	2.48	6.21
NMeFOSAA	2355-31-9	3.11 U	1.39	3.11	6.21
NEtFOSAA	2991-50-6	2.48 U	0.71	2.48	6.21
PFBS	375-73-5	1.24 U	0.45	1.24	6.21
PFHxS	355-46-4	0.62 U	0.27	0.62	6.21
PFOS	1763-23-1	1.24 U	0.34	1.24	6.21

Surrogate Recoveries (%)

13C5-PFHxA	104
13C4-PFHpA	99
13C8-PFOA	106
13C9-PFNA	96
13C6-PFDA	111
13C7-PFUnA	125
13C2-PFDoA	105
13C2-PFTeDA	102
d3-MeFOSAA	76
d5-EtFOSAA	98
13C3-PFBS	87
13C3-PFHxS	99
13C8-PFOS	89

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

Client ID		VC-PM372-SS02-000H				
Battelle ID		J8221-FS				
Sample Type		SA				
Collection Date		09/18/2018				
Extraction Date		09/26/2018				
Analysis Date		09/29/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		2.57				
Matrix		SS				
Sample Size		1.92				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.97	J	0.34	1.04	5.21
PFHpA	375-85-9	1.66	J	0.46	1.04	5.21
PFOA	335-67-1	1.04	U	0.52	1.04	5.21
PFNA	375-95-1	1.04	U	0.45	1.04	5.21
PFDA	335-76-2	1.04	U	0.28	1.04	5.21
PFUnA	2058-94-8	1.04	U	0.43	1.04	5.21
PFDoA	307-55-1	0.52	U	0.25	0.52	5.21
PFTrDA	72629-94-8	1.04	U	0.29	1.04	5.21
PFTeDA	376-06-7	2.08	U	0.66	2.08	5.21
NMeFOSAA	2355-31-9	2.60	U	1.17	2.60	5.21
NEtFOSAA	2991-50-6	2.08	U	0.59	2.08	5.21
PFBS	375-73-5	1.04	U	0.38	1.04	5.21
PFHxS	355-46-4	4.19	J	0.23	0.52	5.21
PFOS	1763-23-1	30.44		0.28	1.04	5.21

Surrogate Recoveries (%)

13C5-PFHxA	108
13C4-PFHpA	104
13C8-PFOA	111
13C9-PFNA	108
13C6-PFDA	106
13C7-PFUnA	113
13C2-PFDoA	114
13C2-PFTeDA	104
d3-MeFOSAA	96
d5-EtFOSAA	107
13C3-PFBS	116
13C3-PFHxS	127
13C8-PFOS	106

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

Client ID		VC-PM372-SB02-0102			
Battelle ID		J8222-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		6.04			
Matrix		SB			
Sample Size		1.93			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.04 U	0.34	1.04	5.18
PFHpA	375-85-9	1.04 U	0.46	1.04	5.18
PFOA	335-67-1	1.04 U	0.52	1.04	5.18
PFNA	375-95-1	1.04 U	0.45	1.04	5.18
PFDA	335-76-2	1.04 U	0.28	1.04	5.18
PFUnA	2058-94-8	1.04 U	0.42	1.04	5.18
PFDoA	307-55-1	0.52 U	0.25	0.52	5.18
PFTrDA	72629-94-8	1.04 U	0.29	1.04	5.18
PFTeDA	376-06-7	2.07 U	0.65	2.07	5.18
NMeFOSAA	2355-31-9	2.59 U	1.16	2.59	5.18
NEtFOSAA	2991-50-6	2.07 U	0.59	2.07	5.18
PFBS	375-73-5	1.04 U	0.37	1.04	5.18
PFHxS	355-46-4	0.94 J	0.23	0.52	5.18
PFOS	1763-23-1	16.89	0.28	1.04	5.18

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	90
13C8-PFOA	97
13C9-PFNA	99
13C6-PFDA	97
13C7-PFUnA	103
13C2-PFDoA	97
13C2-PFTeDA	95
d3-MeFOSAA	78
d5-EtFOSAA	106
13C3-PFBS	98
13C3-PFHxS	108
13C8-PFOS	97

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

Client ID		VC-PM372-SB02-0506			
Battelle ID		J8223-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		8.59			
Matrix		SB			
Sample Size		1.82			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.10 U	0.36	1.10	5.49
PFHpA	375-85-9	1.10 U	0.48	1.10	5.49
PFOA	335-67-1	1.10 U	0.55	1.10	5.49
PFNA	375-95-1	1.10 U	0.47	1.10	5.49
PFDA	335-76-2	1.10 U	0.30	1.10	5.49
PFUnA	2058-94-8	1.10 U	0.45	1.10	5.49
PFDoA	307-55-1	0.55 U	0.26	0.55	5.49
PFTrDA	72629-94-8	1.10 U	0.31	1.10	5.49
PFTeDA	376-06-7	2.20 U	0.69	2.20	5.49
NMeFOSAA	2355-31-9	2.75 U	1.23	2.75	5.49
NEtFOSAA	2991-50-6	2.20 U	0.63	2.20	5.49
PFBS	375-73-5	1.10 U	0.40	1.10	5.49
PFHxS	355-46-4	0.96 J	0.24	0.55	5.49
PFOS	1763-23-1	1.50 J	0.30	1.10	5.49

Surrogate Recoveries (%)

13C5-PFHxA	93
13C4-PFHpA	98
13C8-PFOA	105
13C9-PFNA	98
13C6-PFDA	107
13C7-PFUnA	114
13C2-PFDoA	106
13C2-PFTeDA	104
d3-MeFOSAA	80
d5-EtFOSAA	113
13C3-PFBS	100
13C3-PFHxS	101
13C8-PFOS	98

BATTELLE
It can be done

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

Client ID		VC-PM372-SS03-000H			
Battelle ID		J8224-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		17.71			
Matrix		SS			
Sample Size		1.60			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.25 U	0.41	1.25	6.25
PFHpA	375-85-9	1.25 U	0.55	1.25	6.25
PFOA	335-67-1	1.25 U	0.63	1.25	6.25
PFNA	375-95-1	1.25 U	0.54	1.25	6.25
PFDA	335-76-2	1.25 U	0.34	1.25	6.25
PFUnA	2058-94-8	1.25 U	0.51	1.25	6.25
PFDoA	307-55-1	0.63 U	0.30	0.63	6.25
PFTrDA	72629-94-8	1.25 U	0.35	1.25	6.25
PFTeDA	376-06-7	2.50 U	0.79	2.50	6.25
NMeFOSAA	2355-31-9	3.13 U	1.40	3.13	6.25
NEtFOSAA	2991-50-6	2.50 U	0.71	2.50	6.25
PFBS	375-73-5	1.25 U	0.45	1.25	6.25
PFHxS	355-46-4	0.63 U	0.28	0.63	6.25
PFOS	1763-23-1	1.25 U	0.34	1.25	6.25

Surrogate Recoveries (%)

13C5-PFHxA	101
13C4-PFHpA	98
13C8-PFOA	111
13C9-PFNA	102
13C6-PFDA	96
13C7-PFUnA	110
13C2-PFDoA	101
13C2-PFTeDA	99
d3-MeFOSAA	86
d5-EtFOSAA	94
13C3-PFBS	98
13C3-PFHxS	95
13C8-PFOS	93

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

Client ID		VC-PM372-SB03-0102			
Battelle ID		J8225-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		20.69			
Matrix		SB			
Sample Size		1.60			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.25 U	0.41	1.25	6.25
PFHpA	375-85-9	1.25 U	0.55	1.25	6.25
PFOA	335-67-1	1.25 U	0.63	1.25	6.25
PFNA	375-95-1	1.25 U	0.54	1.25	6.25
PFDA	335-76-2	1.25 U	0.34	1.25	6.25
PFUnA	2058-94-8	1.25 U	0.51	1.25	6.25
PFDoA	307-55-1	0.63 U	0.30	0.63	6.25
PFTrDA	72629-94-8	1.25 U	0.35	1.25	6.25
PFTeDA	376-06-7	2.50 U	0.79	2.50	6.25
NMeFOSAA	2355-31-9	3.13 U	1.40	3.13	6.25
NEtFOSAA	2991-50-6	2.50 U	0.71	2.50	6.25
PFBS	375-73-5	1.25 U	0.45	1.25	6.25
PFHxS	355-46-4	0.63 U	0.28	0.63	6.25
PFOS	1763-23-1	1.25 U	0.34	1.25	6.25

Surrogate Recoveries (%)

13C5-PFHxA	90
13C4-PFHpA	96
13C8-PFOA	100
13C9-PFNA	89
13C6-PFDA	105
13C7-PFUnA	110
13C2-PFDoA	105
13C2-PFTeDA	95
d3-MeFOSAA	73
d5-EtFOSAA	91
13C3-PFBS	105
13C3-PFHxS	106
13C8-PFOS	100

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

Client ID		VC-PM372-SB03-0506			
Battelle ID		J8226-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		26.82			
Matrix		SB			
Sample Size		1.46			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.37 U	0.45	1.37	6.85
PFHpA	375-85-9	1.37 U	0.60	1.37	6.85
PFOA	335-67-1	1.37 U	0.68	1.37	6.85
PFNA	375-95-1	1.37 U	0.59	1.37	6.85
PFDA	335-76-2	1.37 U	0.37	1.37	6.85
PFUnA	2058-94-8	1.37 U	0.56	1.37	6.85
PFDoA	307-55-1	0.68 U	0.33	0.68	6.85
PFTrDA	72629-94-8	1.37 U	0.38	1.37	6.85
PFTeDA	376-06-7	2.74 U	0.86	2.74	6.85
NMeFOSAA	2355-31-9	3.42 U	1.53	3.42	6.85
NEtFOSAA	2991-50-6	2.74 U	0.78	2.74	6.85
PFBS	375-73-5	1.37 U	0.49	1.37	6.85
PFHxS	355-46-4	0.68 U	0.30	0.68	6.85
PFOS	1763-23-1	1.37 U	0.37	1.37	6.85

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	101
13C8-PFOA	105
13C9-PFNA	94
13C6-PFDA	103
13C7-PFUnA	114
13C2-PFDoA	101
13C2-PFTeDA	97
d3-MeFOSAA	87
d5-EtFOSAA	109
13C3-PFBS	91
13C3-PFHxS	92
13C8-PFOS	88

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

Client ID		KB35 IB			
Battelle ID		KB35 IB_09/28/2018			
Sample Type		IB			
Collection Date		NA			
Extraction Date		NA			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		NA			
Matrix		Solid			
Sample Size		2.00			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.00 U	0.33	1.00	5.00
PFHpA	375-85-9	1.00 U	0.44	1.00	5.00
PFOA	335-67-1	1.00 U	0.50	1.00	5.00
PFNA	375-95-1	1.00 U	0.43	1.00	5.00
PFDA	335-76-2	1.00 U	0.27	1.00	5.00
PFUnA	2058-94-8	1.00 U	0.41	1.00	5.00
PFDoA	307-55-1	0.50 U	0.24	0.50	5.00
PFTrDA	72629-94-8	1.00 U	0.28	1.00	5.00
PFTeDA	376-06-7	2.00 U	0.63	2.00	5.00
NMeFOSAA	2355-31-9	2.50 U	1.12	2.50	5.00
NEtFOSAA	2991-50-6	2.00 U	0.57	2.00	5.00
PFBS	375-73-5	1.00 U	0.36	1.00	5.00
PFHxS	355-46-4	0.50 U	0.22	0.50	5.00
PFOS	1763-23-1	1.00 U	0.27	1.00	5.00

Surrogate Recoveries (%)

13C5-PFHxA	99
13C4-PFHpA	97
13C8-PFOA	104
13C9-PFNA	101
13C6-PFDA	104
13C7-PFUnA	99
13C2-PFDoA	96
13C2-PFTeDA	97
d3-MeFOSAA	84
d5-EtFOSAA	96
13C3-PFBS	95
13C3-PFHxS	103
13C8-PFOS	102

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

Client ID		KB35 IB				
Battelle ID		KB35 IB_10/02/2018				
Sample Type		IB				
Collection Date		NA				
Extraction Date		NA				
Analysis Date		10/02/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		NA				
Matrix		Solid				
Sample Size		2.00				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.00	U	0.33	1.00	5.00
PFHpA	375-85-9	1.00	U	0.44	1.00	5.00
PFOA	335-67-1	1.00	U	0.50	1.00	5.00
PFNA	375-95-1	1.00	U	0.43	1.00	5.00
PFDA	335-76-2	1.00	U	0.27	1.00	5.00
PFUnA	2058-94-8	1.00	U	0.41	1.00	5.00
PFDoA	307-55-1	0.50	U	0.24	0.50	5.00
PFTrDA	72629-94-8	1.00	U	0.28	1.00	5.00
PFTeDA	376-06-7	2.00	U	0.63	2.00	5.00
NMeFOSAA	2355-31-9	2.50	U	1.12	2.50	5.00
NEtFOSAA	2991-50-6	2.00	U	0.57	2.00	5.00
PFBS	375-73-5	0.83	J	0.36	1.00	5.00
PFHxS	355-46-4	0.50	U	0.22	0.50	5.00
PFOS	1763-23-1	1.00	U	0.27	1.00	5.00

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	94
13C8-PFOA	104
13C9-PFNA	93
13C6-PFDA	98
13C7-PFUnA	100
13C2-PFDoA	97
13C2-PFTeDA	96
d3-MeFOSAA	102
d5-EtFOSAA	104
13C3-PFBS	94
13C3-PFHxS	101
13C8-PFOS	93

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

Client ID		180507-02: Ottawa Sand			
Battelle ID		CR849PB-FS			
Sample Type		PB			
Collection Date		09/26/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		0.00			
Matrix		SEDIMENT			
Sample Size		1.97			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.02 U	0.34	1.02	5.08
PFHpA	375-85-9	1.02 U	0.45	1.02	5.08
PFOA	335-67-1	1.02 U	0.51	1.02	5.08
PFNA	375-95-1	1.02 U	0.44	1.02	5.08
PFDA	335-76-2	1.02 U	0.27	1.02	5.08
PFUnA	2058-94-8	1.02 U	0.42	1.02	5.08
PFDoA	307-55-1	0.51 U	0.24	0.51	5.08
PFTrDA	72629-94-8	1.02 U	0.28	1.02	5.08
PFTeDA	376-06-7	2.03 U	0.64	2.03	5.08
NMeFOSAA	2355-31-9	2.54 U	1.14	2.54	5.08
NEtFOSAA	2991-50-6	2.03 U	0.58	2.03	5.08
PFBS	375-73-5	1.02 U	0.37	1.02	5.08
PFHxS	355-46-4	0.51 U	0.22	0.51	5.08
PFOS	1763-23-1	1.66 J	0.27	1.02	5.08

Surrogate Recoveries (%)

13C5-PFHxA	101
13C4-PFHpA	101
13C8-PFOA	112
13C9-PFNA	105
13C6-PFDA	113
13C7-PFUnA	124
13C2-PFDoA	109
13C2-PFTeDA	110
d3-MeFOSAA	99
d5-EtFOSAA	115
13C3-PFBS	94
13C3-PFHxS	110
13C8-PFOS	107

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

Client ID		180507-02: Ottawa Sand					
Battelle ID		CR850LCS-FS					
Sample Type		LCS					
Collection Date		09/26/2018					
Extraction Date		09/26/2018					
Analysis Date		09/28/2018					
Analytical Instrument		Sciex 5500 LC/MS/MS					
% Moisture		0.00					
Matrix		SEDIMENT					
Sample Size		2.01					
Size Unit-Basis		g				Control Limits	
Units		ng/g_Dry	Target	Recovery	Qual	Lower	Upper
PFHxA	307-24-4	10.29	10.05	102		45	135
PFHpA	375-85-9	8.39	9.95	84		60	128
PFOA	335-67-1	9.66	9.95	97		56	136
PFNA	375-95-1	10.21	9.95	103		54	130
PFDA	335-76-2	9.45	9.95	95		55	141
PFUnA	2058-94-8	10.17	9.95	102		57	137
PFDoA	307-55-1	10.52	9.95	106		62	134
PFTrDA	72629-94-8	10.18	9.95	102		51	127
PFTeDA	376-06-7	9.85	9.95	99		34	162
NMeFOSAA	2355-31-9	10.76	9.95	108		52	146
NEtFOSAA	2991-50-6	8.84	9.95	89		54	124
PFBS	375-73-5	9.89	10.05	98		57	145
PFHxS	355-46-4	9.15	10.05	91		52	132
PFOS	1763-23-1	8.61 B	9.95	87		50	130
Surrogate Recoveries (%)							
13C5-PFHxA		108					
13C4-PFHpA		117					
13C8-PFOA		122					
13C9-PFNA		110					
13C6-PFDA		112					
13C7-PFUnA		120					
13C2-PFDoA		109					
13C2-PFTeDA		111					
d3-MeFOSAA		96					
d5-EtFOSAA		106					
13C3-PFBS		103					
13C3-PFHxS		109					
13C8-PFOS		114					

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

Client ID		VC-PM372-SS02-000H		VC-PM372-SS02-000H-MS				
Battelle ID		J8221-FS		J8227MS-FS				
Sample Type		SA		MS				
Collection Date		09/18/2018		09/18/2018				
Extraction Date		09/26/2018		09/26/2018				
Analysis Date		09/29/2018		09/29/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS		Sciex 5500 LC/MS/MS				
% Moisture		2.57		2.72				
Matrix		SS		SS				
Sample Size		1.92		1.95				
Size Unit-Basis		g		g			Control Limits	
Units		ng/g_Dry		ng/g_Dry	Target	Recovery	Qual	Lower	Upper
PFHxA	307-24-4	1.97	J	25.63	25.90	91		45	135
PFHpA	375-85-9	1.66	J	24.26	25.64	88		60	128
PFOA	335-67-1	1.04	U	25.15	25.64	98		56	136
PFNA	375-95-1	1.04	U	21.90	25.64	85		54	130
PFDA	335-76-2	1.04	U	25.64	25.64	100		55	141
PFUnA	2058-94-8	1.04	U	22.32	25.64	87		57	137
PFDoA	307-55-1	0.52	U	26.59	25.64	104		62	134
PFTrDA	72629-94-8	1.04	U	26.71	25.64	104		51	127
PFTeDA	376-06-7	2.08	U	25.11	25.64	98		34	162
NMeFOSAA	2355-31-9	2.60	U	26.94	25.64	105		52	146
NEtFOSAA	2991-50-6	2.08	U	27.29	25.64	106		54	124
PFBS	375-73-5	1.04	U	24.34	25.90	94		57	145
PFHxS	355-46-4	4.19	J	25.44	25.90	82		52	132
PFOS	1763-23-1	30.44		51.60	25.64	83		50	130
Surrogate Recoveries (%)									
13C5-PFHxA		108		102					
13C4-PFHpA		104		100					
13C8-PFOA		111		101					
13C9-PFNA		108		105					
13C6-PFDA		106		95					
13C7-PFUnA		113		121					
13C2-PFDoA		114		106					
13C2-PFTeDA		104		107					
d3-MeFOSAA		96		95					
d5-EtFOSAA		107		103					
13C3-PFBS		116		111					
13C3-PFHxS		127		107					
13C8-PFOS		106		104					

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

Client ID		VC-PM372-SS02-000H-SD								
Battelle ID		J8228MSD-FS								
Sample Type		MSD								
Collection Date		09/18/2018								
Extraction Date		09/26/2018								
Analysis Date		09/29/2018								
Analytical Instrument		Sciex 5500 LC/MS/MS								
% Moisture		6.83								
Matrix		SS								
Sample Size		1.84								
Size Unit-Basis		g				Control Limits				RPD
Units		ng/g_Dry	Target	Recovery	Qual	Lower	Upper	RPD	Qual	Limit
PFHxA	307-24-4	25.87	27.45	87		45	135	4.5		≤ 30
PFHpA	375-85-9	25.91	27.17	89		60	128	1.1		≤ 30
PFOA	335-67-1	26.76	27.17	98		56	136	0.0		≤ 30
PFNA	375-95-1	25.27	27.17	93		54	130	9.0		≤ 30
PFDA	335-76-2	24.94	27.17	92		55	141	8.3		≤ 30
PFUnA	2058-94-8	25.45	27.17	94		57	137	7.7		≤ 30
PFDoA	307-55-1	26.51	27.17	98		62	134	5.9		≤ 30
PFTrDA	72629-94-8	27.97	27.17	103		51	127	1.0		≤ 30
PFTeDA	376-06-7	26.23	27.17	97		34	162	1.0		≤ 30
NMeFOSAA	2355-31-9	30.84	27.17	113		52	146	7.3		≤ 30
NEtFOSAA	2991-50-6	26.82	27.17	99		54	124	6.8		≤ 30
PFBS	375-73-5	26.65	27.45	97		57	145	3.1		≤ 30
PFHxS	355-46-4	25.04	27.45	76		52	132	7.6		≤ 30
PFOS	1763-23-1	55.88	27.17	94		50	130	12.4		≤ 30

Surrogate Recoveries (%)

13C5-PFHxA	108
13C4-PFHpA	108
13C8-PFOA	103
13C9-PFNA	105
13C6-PFDA	99
13C7-PFUnA	108
13C2-PFDoA	107
13C2-PFTeDA	103
d3-MeFOSAA	91
d5-EtFOSAA	101
13C3-PFBS	107
13C3-PFHxS	110
13C8-PFOS	99

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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 18-0569

Project:	CTO-4164 Naval Base Ventura County, California
Parameters:	PFAS
Laboratory:	Battelle, Norwell, MA
Matrix:	SS, SB
Data Set:	DP-18-0277
Analytical SOP:	5-369
Method Reference:	PFAS to QSM 5.1 Table B-15

Sample Custody		
Collection Date	Receipt Date	Temp (°C)
9/17-18/2018	9/21/2018	0.1, 0.9, and 0.3
Corrective Actions	None, however, clarifications were provided via email by the client (included in the final custody records).	
Sample Storage	The samples were stored refrigerated until extraction.	
Related samples	NA	

	METHOD SUMMARIES
Sample Preparation	Solid samples were aliquoted into extraction tubes and spiked with surrogates prior to the addition of solvent. The sediment was serially extracted on the Geno/Grinder with 0.4% NH_3 in methanol. 1 mL of extract was refined using ENVI-carb SPE cartridges. Extracts were concentrated to dryness under nitrogen with a water bath set between 35 °C and 45 °C, reconstituted with 80:20 methanol/water (V/V) and fortified with internal standard. Extracts were transferred for LC-MS/MS analysis.
Prep comments	Samples VC-PM3009-SS01-000H (J8201-FS), VC-PM3009-SS02-000H (J8204-FS), VC-PM3009-SB02-0102 (J8205-FS), and VC-PM3009-SB02-0506 (J8206-FS) contained rocks that were not included in the sample for extraction.
Analysis	PFAS were measured by liquid chromatography tandem mass spectrometry (LC-MS/MS) in the multiple reaction monitoring (MRM). An initial calibration consisting of representative target analytes, labelled analogs, and internal standards was analyzed prior to analysis to demonstrate the linear range of analysis. Calibration verification was performed at the beginning and end of 10 injections and at the end of each sequence. Target PFAS were quantified using the isotope dilution method. Samples are reported in ng/g concentrations.
Analysis Comments	Samples analyzed on Sciex 5500 LC-MS/MS. Where detected in samples, PFOS is a mixture of linear and branched isomers

Holding Times	Extraction Date(s)	Analysis Date(s)
	9/26/2018	9/28, 29, and 10/2/2018

QA/QC Summary
Batch 18-0569

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	One exceedance noted.
	PFOS in the LCS sample is B qualified as the detected concentration is less than 10x the amount found in the blank (PB at 1.66 ng/g) and the LCS was spiked at the LOQ level (fortified at 2x LOQ). The PB passes criteria (< ½ LOQ).

Laboratory Control Spike (LCS)	A LCS was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
Laboratory derived control limits for recovery	No exceedances noted.
	No comments.

Matrix Spike and Matrix Spike Duplicate (MS/MSD)	A MS/MSD was prepared with this analytical batch. The percent recoveries of target analytes were calculated to measure accuracy.
Laboratory derived control limits for recovery and <30% RPD	No exceedances noted.
	No comments.

Extracted Internal Standard Analytes	Labelled analog compounds were added prior to extraction. The recoveries are calculated to measure extraction efficiency.
50-150% of true value	No exceedances noted.
	No comments.

Internal Standard Analytes	Labelled analog compounds were added prior to analysis.
+/- 50% of the area of the L5 calibration point.	No exceedances noted.
	The initial run of sample VC-PM372-SS01-000H (extract J8218-FS(3)) did not pass IS area criteria. A fresh aliquot was re-run with passing criteria, the second run is reported. The quant reports for the initial run can be found in the unused data section of the full data package.

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 18-0569

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: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project Number: 100110125-01
Preparation Batch: 18-0569
Data Set: DP-18-0277
Test Code: Master_369

QC Parameter:	Exceed:	Justification:
Procedural Blank	0	None
PB Measurement Quality Objective	1	PFOS is B qualified in the LCS because the response is <10x that of the PB. A fresh aliquot of the PB was run against a fresh calibration with the same results. The original run is being reported and the rerun raw data can be found in the unused data section of this data package. DMS 10/3/2018
Laboratory Control Sample	0	None
Matrix Spike / Matrix Spike Duplicate Recovery	0	None
Matrix Spike / Matrix Spike Duplicate Precision	0	None
Extracted Internal Standard Analytes (Surrogates)	0	None
Instrument Calibration	0	None
Instrument Blank	0	None
Independent Calibration Check	0	None
Continuing Calibration Verification	0	None

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It can be done

BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM

Project Title:	CTO-4164 Naval Base Ventura County,	**Data Set Number:**	DP-18-0277
Project Number:	100110125-01	**Prep Batch Number:**	18-0569
Entered By:	Denise Schumitz	**Entered On:**	10/03/2018
Test Code (Matrix Type):	Master_369(S)		

Samples that were manually integrated are noted on the quant reports with the comment (TRUE).
DMS 10/2/2018

The IS areas for sample J8218-FS(3) did not meet passing criteria when run on 9/28/2018. A fresh aliquot was taken of this sample and run against a new calibration on 10/2/2018 with passing results. It appears that the first run was a bad injection on the instrument and therefore the second run is being reported. The raw data from the original run can be found in the unused data section of this data package.
DMS 10/3/2018

Task Leader Approval:

SupervisorApproval:

PM Approval:

Digitally signed by Jonathan Thorn
Date: 2018.10.04 07:28:59 -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:	J8222-FS(3)
Client Sample ID:	VC-PM372-SB02-0102
Sample Size:	1.93
Units:	g
Dilution Factor:	10.000
PIV (L):	0.001
Target Analyte:	PFOS
MRM Transition:	499.0 / 80.0
Data file:	18-0571.wiff
Result table:	18-0569_18-0571_BASE
Area:	2,037,234.15
IS Name:	13C8-PFOS
IS Area:	33,930.99
IS Amount (ng/L):	239.25
y-intercept:	-0.14101
slope:	4.41773

$$\text{Concentration} = \frac{[(2037234.15/33930.99) - -0.14101]}{4.41773} * 239.25 * 0.001 * 10 / 1.93$$

ng/g = 16.89

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batch: 18-0569
Data Set: DP-18-0277

		CR849PB-FS (180507-02: Ottawa Sand)	CR850LCS-FS (180507-02: Ottawa Sand)	J8227MS-FS (VC-PM372-SS02-000H-MS)	J8228MSD-FS (VC-PM372-SS02-000H-SD)	J8201-FS (VC-PM3009-SS01-000H)	J8202-FS (VC-PM3009-SB01-0102)	J8203-FS (VC-PM3009-SB01-0506)	J8204-FS (VC-PM3009-SS02-000H)
PFHxA	307-24-4	-	L	L	L	-	-	-	-
PFHpA	375-85-9	-	L	L	L	-	-	-	-
PFOA	335-67-1	-	L	L	L	-	-	-	-
PFNA	375-95-1	-	L	L	L	-	-	-	-
PFDA	335-76-2	-	L	L	L	-	-	-	-
PFUnA	2058-94-8	-	L	L	L	-	-	-	-
PFDoA	307-55-1	-	L	L	L	-	-	-	-
PFTrDA	72629-94-8	-	L	L	L	-	-	-	-
PFTeDA	376-06-7	-	L	L	L	-	-	-	-
NMeFOSAA	2355-31-9	-	L	L	L	-	-	-	-
NEtFOSAA	2991-50-6	-	L	L	L	-	-	-	-
PFBS	375-73-5	-	L	L	L	-	-	-	-
PFHxS	355-46-4	-	L/Br	L/Br	L/Br	-	-	-	-
PFOS	1763-23-1	-	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br

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

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batc
Data Set: DP-18-(

	J8205-FS (VC-PM3009-SB02-0102)	J8206-FS (VC-PM3009-SB02-0506)	J8207-FS (VC-PM3009-SS03-000H)	J8208-FS (VC-PM3009-SB03-0102)	J8209-FS (VC-PM3009-SB03-0506)	J8218-FS (VC-PM372-SS01-000H)	J8219-FS (VC-PM372-SB01-0102)	J8220-FS (VC-PM372-SB01-0506)
PFHxA	-	-	-	-	-	-	-	-
PFHpA	-	-	-	-	-	-	-	-
PFOA	-	-	-	-	-	-	-	-
PFNA	-	-	-	-	-	-	-	-
PFDA	-	-	-	-	-	-	-	-
PFUnA	-	-	-	-	-	-	-	-
PFDoA	-	-	-	-	-	-	-	-
PFTrDA	-	-	-	-	-	-	-	-
PFTeDA	-	-	-	-	-	-	-	-
NMeFOSAA	-	-	-	-	-	-	-	-
NEtFOSAA	-	-	-	-	-	-	-	-
PFBS	-	-	-	-	-	-	-	-
PFHxS	-	-	-	-	-	-	-	-
PFOS	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br

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

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batc
Data Set: DP-18-(

	J8221-FS (VC-PM372-SS02-000H)	J8222-FS (VC-PM372-SB02-0102)	J8223-FS (VC-PM372-SB02-0506)	J8224-FS (VC-PM372-SS03-000H)	J8225-FS (VC-PM372-SB03-0102)	J8226-FS (VC-PM372-SB03-0506)
PFHxA	-	-	-	-	-	-
PFHpA	-	-	-	-	-	-
PFOA	-	-	-	-	-	-
PFNA	-	-	-	-	-	-
PFDA	-	-	-	-	-	-
PFUnA	-	-	-	-	-	-
PFDoA	-	-	-	-	-	-
PFTrDA	-	-	-	-	-	-
PFTeDA	-	-	-	-	-	-
NMeFOSAA	-	-	-	-	-	-
NEtFOSAA	-	-	-	-	-	-
PFBS	-	-	-	-	-	-
PFHxS	-	-	-	-	-	-
PFOS	L/Br	L/Br	L/Br	-	-	-

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

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

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Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KA90	L5	9/28/18 15:34	13C2-PFOA	103,610.26	51,805.13	155,415.39

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KA86	L1	9/28/18 14:50	13C2-PFOA	87,057.14	51,805.13	155,415.39	
KA87	L2	9/28/18 15:01	13C2-PFOA	98,243.77	51,805.13	155,415.39	
KA88	L3	9/28/18 15:12	13C2-PFOA	92,636.33	51,805.13	155,415.39	
KA89	L4	9/28/18 15:23	13C2-PFOA	100,679.55	51,805.13	155,415.39	
KA90	L5	9/28/18 15:34	13C2-PFOA	103,610.26	51,805.13	155,415.39	
KB64	L6	9/28/18 15:44	13C2-PFOA	89,161.30	51,805.13	155,415.39	
KB65	L7	9/28/18 15:55	13C2-PFOA	101,085.07	51,805.13	155,415.39	
KB35 IB	Instrument Blank	9/28/18 16:06	13C2-PFOA	102,021.41	51,805.13	155,415.39	
KB36 ICC	ICC	9/28/18 16:17	13C2-PFOA	92,787.77	51,805.13	155,415.39	
KA89 CCV	CCV	9/28/18 20:49	13C2-PFOA	91,839.20	51,805.13	155,415.39	
CR849PB-FS(3)	Procedural Blank	9/28/18 21:10	13C2-PFOA	88,354.01	51,805.13	155,415.39	
CR850LCS-FS(3)	Laboratory Control Sample	9/28/18 21:21	13C2-PFOA	82,809.81	51,805.13	155,415.39	
J8201-FS(3)	VC-PM3009-SS01-000H	9/28/18 21:32	13C2-PFOA	102,679.17	51,805.13	155,415.39	
J8202-FS(3)	VC-PM3009-SB01-0102	9/28/18 21:43	13C2-PFOA	98,571.47	51,805.13	155,415.39	
J8203-FS(3)	VC-PM3009-SB01-0506	9/28/18 21:54	13C2-PFOA	98,413.65	51,805.13	155,415.39	
J8204-FS(3)	VC-PM3009-SS02-000H	9/28/18 22:05	13C2-PFOA	87,169.27	51,805.13	155,415.39	
J8205-FS(3)	VC-PM3009-SB02-0102	9/28/18 22:16	13C2-PFOA	91,775.98	51,805.13	155,415.39	
J8206-FS(3)	VC-PM3009-SB02-0506	9/28/18 22:26	13C2-PFOA	86,604.63	51,805.13	155,415.39	
J8207-FS(3)	VC-PM3009-SS03-000H	9/28/18 22:37	13C2-PFOA	91,133.71	51,805.13	155,415.39	
J8208-FS(3)	VC-PM3009-SB03-0102	9/28/18 22:48	13C2-PFOA	88,367.77	51,805.13	155,415.39	
KA90 CCV	CCV	9/28/18 22:59	13C2-PFOA	98,296.65	51,805.13	155,415.39	
J8209-FS(3)	VC-PM3009-SB03-0506	9/28/18 23:21	13C2-PFOA	91,301.95	51,805.13	155,415.39	
~~J8218-FS(3)~~	~~VC-PM372-SS01-000H~~	~~9/28/18 23:32~~	~~13C2-PFOA~~	~~28,705.64~~	~~51,805.13~~	~~155,415.39~~	~~N~~
J8219-FS(3)	VC-PM372-SB01-0102	9/28/18 23:43	13C2-PFOA	79,805.19	51,805.13	155,415.39	
J8220-FS(3)	VC-PM372-SB01-0506	9/28/18 23:54	13C2-PFOA	99,389.19	51,805.13	155,415.39	
J8221-FS(3)	VC-PM372-SS02-000H	9/29/18 0:04	13C2-PFOA	89,356.56	51,805.13	155,415.39	

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

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Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KA90	L5	9/28/18 15:34	13C2-PFDA	104,139.21	52,069.61	156,208.82

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KA86	L1	9/28/18 14:50	13C2-PFDA	94,102.14	52,069.61	156,208.82	
KA87	L2	9/28/18 15:01	13C2-PFDA	92,955.61	52,069.61	156,208.82	
KA88	L3	9/28/18 15:12	13C2-PFDA	102,230.58	52,069.61	156,208.82	
KA89	L4	9/28/18 15:23	13C2-PFDA	108,147.37	52,069.61	156,208.82	
KA90	L5	9/28/18 15:34	13C2-PFDA	104,139.21	52,069.61	156,208.82	
KB64	L6	9/28/18 15:44	13C2-PFDA	100,143.92	52,069.61	156,208.82	
KB65	L7	9/28/18 15:55	13C2-PFDA	107,623.75	52,069.61	156,208.82	
KB35 IB	Instrument Blank	9/28/18 16:06	13C2-PFDA	104,440.37	52,069.61	156,208.82	
KB36 ICC	ICC	9/28/18 16:17	13C2-PFDA	106,570.43	52,069.61	156,208.82	
KA89 CCV	CCV	9/28/18 20:49	13C2-PFDA	92,919.94	52,069.61	156,208.82	
CR849PB-FS(3)	Procedural Blank	9/28/18 21:10	13C2-PFDA	88,947.17	52,069.61	156,208.82	
CR850LCS-FS(3)	Laboratory Control Sample	9/28/18 21:21	13C2-PFDA	93,666.08	52,069.61	156,208.82	
J8201-FS(3)	VC-PM3009-SS01-000H	9/28/18 21:32	13C2-PFDA	110,609.85	52,069.61	156,208.82	
J8202-FS(3)	VC-PM3009-SB01-0102	9/28/18 21:43	13C2-PFDA	112,027.22	52,069.61	156,208.82	
J8203-FS(3)	VC-PM3009-SB01-0506	9/28/18 21:54	13C2-PFDA	99,556.48	52,069.61	156,208.82	
J8204-FS(3)	VC-PM3009-SS02-000H	9/28/18 22:05	13C2-PFDA	88,687.25	52,069.61	156,208.82	
J8205-FS(3)	VC-PM3009-SB02-0102	9/28/18 22:16	13C2-PFDA	95,141.47	52,069.61	156,208.82	
J8206-FS(3)	VC-PM3009-SB02-0506	9/28/18 22:26	13C2-PFDA	94,267.84	52,069.61	156,208.82	
J8207-FS(3)	VC-PM3009-SS03-000H	9/28/18 22:37	13C2-PFDA	92,080.70	52,069.61	156,208.82	
J8208-FS(3)	VC-PM3009-SB03-0102	9/28/18 22:48	13C2-PFDA	89,785.23	52,069.61	156,208.82	
KA90 CCV	CCV	9/28/18 22:59	13C2-PFDA	99,115.04	52,069.61	156,208.82	
J8209-FS(3)	VC-PM3009-SB03-0506	9/28/18 23:21	13C2-PFDA	94,188.93	52,069.61	156,208.82	
~~J8218-FS(3)~~	~~VC-PM372-SS01-000H~~	~~9/28/18 23:32~~	~~13C2-PFDA~~	~~30,752.17~~	~~52,069.61~~	~~156,208.82~~	~~N~~
J8219-FS(3)	VC-PM372-SB01-0102	9/28/18 23:43	13C2-PFDA	82,944.84	52,069.61	156,208.82	
J8220-FS(3)	VC-PM372-SB01-0506	9/28/18 23:54	13C2-PFDA	98,880.59	52,069.61	156,208.82	
J8221-FS(3)	VC-PM372-SS02-000H	9/29/18 0:04	13C2-PFDA	97,438.85	52,069.61	156,208.82	

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

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Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KA90	L5	9/28/18 15:34	13C4-PFOS	32,854.70	16,427.35	49,282.05

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KA86	L1	9/28/18 14:50	13C4-PFOS	28,187.18	16,427.35	49,282.05	
KA87	L2	9/28/18 15:01	13C4-PFOS	27,512.23	16,427.35	49,282.05	
KA88	L3	9/28/18 15:12	13C4-PFOS	34,018.77	16,427.35	49,282.05	
KA89	L4	9/28/18 15:23	13C4-PFOS	31,168.47	16,427.35	49,282.05	
KA90	L5	9/28/18 15:34	13C4-PFOS	32,854.70	16,427.35	49,282.05	
KB64	L6	9/28/18 15:44	13C4-PFOS	27,538.74	16,427.35	49,282.05	
KB65	L7	9/28/18 15:55	13C4-PFOS	32,021.18	16,427.35	49,282.05	
KB35 IB	Instrument Blank	9/28/18 16:06	13C4-PFOS	33,646.69	16,427.35	49,282.05	
KB36 ICC	ICC	9/28/18 16:17	13C4-PFOS	33,772.50	16,427.35	49,282.05	
KA89 CCV	CCV	9/28/18 20:49	13C4-PFOS	28,822.45	16,427.35	49,282.05	
CR849PB-FS(3)	Procedural Blank	9/28/18 21:10	13C4-PFOS	28,919.58	16,427.35	49,282.05	
CR850LCS-FS(3)	Laboratory Control Sample	9/28/18 21:21	13C4-PFOS	29,894.10	16,427.35	49,282.05	
J8201-FS(3)	VC-PM3009-SS01-000H	9/28/18 21:32	13C4-PFOS	30,172.77	16,427.35	49,282.05	
J8202-FS(3)	VC-PM3009-SB01-0102	9/28/18 21:43	13C4-PFOS	31,559.58	16,427.35	49,282.05	
J8203-FS(3)	VC-PM3009-SB01-0506	9/28/18 21:54	13C4-PFOS	27,855.80	16,427.35	49,282.05	
J8204-FS(3)	VC-PM3009-SS02-000H	9/28/18 22:05	13C4-PFOS	29,388.81	16,427.35	49,282.05	
J8205-FS(3)	VC-PM3009-SB02-0102	9/28/18 22:16	13C4-PFOS	31,500.18	16,427.35	49,282.05	
J8206-FS(3)	VC-PM3009-SB02-0506	9/28/18 22:26	13C4-PFOS	28,372.11	16,427.35	49,282.05	
J8207-FS(3)	VC-PM3009-SS03-000H	9/28/18 22:37	13C4-PFOS	23,592.52	16,427.35	49,282.05	
J8208-FS(3)	VC-PM3009-SB03-0102	9/28/18 22:48	13C4-PFOS	26,429.76	16,427.35	49,282.05	
KA90 CCV	CCV	9/28/18 22:59	13C4-PFOS	29,341.14	16,427.35	49,282.05	
J8209-FS(3)	VC-PM3009-SB03-0506	9/28/18 23:21	13C4-PFOS	29,869.23	16,427.35	49,282.05	
~~J8218-FS(3)~~	~~VC-PM372-SS01-000H~~	~~9/28/18 23:32~~	~~13C4-PFOS~~	~~10,729.43~~	~~16,427.35~~	~~49,282.05~~	~~N~~
J8219-FS(3)	VC-PM372-SB01-0102	9/28/18 23:43	13C4-PFOS	22,899.41	16,427.35	49,282.05	
J8220-FS(3)	VC-PM372-SB01-0506	9/28/18 23:54	13C4-PFOS	34,902.39	16,427.35	49,282.05	
J8221-FS(3)	VC-PM372-SS02-000H	9/29/18 0:04	13C4-PFOS	29,298.82	16,427.35	49,282.05	

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

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Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB69	L5	10/2/18 21:12	13C2-PFOA	87,666.86	43,833.43	131,500.29

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KA86	L1	10/2/18 20:29	13C2-PFOA	86,508.05	43,833.43	131,500.29	
KA87	L2	10/2/18 20:40	13C2-PFOA	92,232.15	43,833.43	131,500.29	
KA88	L3	10/2/18 20:51	13C2-PFOA	92,713.17	43,833.43	131,500.29	
KB85	L4	10/2/18 21:02	13C2-PFOA	93,478.25	43,833.43	131,500.29	
KB69	L5	10/2/18 21:12	13C2-PFOA	87,666.86	43,833.43	131,500.29	
KB64	L6	10/2/18 21:23	13C2-PFOA	79,822.03	43,833.43	131,500.29	
KB65	L7	10/2/18 21:34	13C2-PFOA	85,385.75	43,833.43	131,500.29	
KB35 IB	Instrument Blank	10/2/18 21:45	13C2-PFOA	85,462.81	43,833.43	131,500.29	
KB36 ICC	ICC	10/2/18 21:56	13C2-PFOA	82,611.52	43,833.43	131,500.29	
J8218-FS(3)	VC-PM372-SS01-000H	10/2/18 22:39	13C2-PFOA	85,441.80	43,833.43	131,500.29	
KB85 CCV	CCV	10/2/18 22:50	13C2-PFOA	96,389.07	43,833.43	131,500.29	

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

BATTELLE
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Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB69	L5	10/2/18 21:12	13C2-PFDA	111,005.28	55,502.64	166,507.92

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KA86	L1	10/2/18 20:29	13C2-PFDA	97,981.25	55,502.64	166,507.92	
KA87	L2	10/2/18 20:40	13C2-PFDA	109,800.44	55,502.64	166,507.92	
KA88	L3	10/2/18 20:51	13C2-PFDA	108,731.85	55,502.64	166,507.92	
KB85	L4	10/2/18 21:02	13C2-PFDA	102,202.45	55,502.64	166,507.92	
KB69	L5	10/2/18 21:12	13C2-PFDA	111,005.28	55,502.64	166,507.92	
KB64	L6	10/2/18 21:23	13C2-PFDA	92,879.31	55,502.64	166,507.92	
KB65	L7	10/2/18 21:34	13C2-PFDA	101,908.02	55,502.64	166,507.92	
KB35 IB	Instrument Blank	10/2/18 21:45	13C2-PFDA	95,996.97	55,502.64	166,507.92	
KB36 ICC	ICC	10/2/18 21:56	13C2-PFDA	102,089.78	55,502.64	166,507.92	
J8218-FS(3)	VC-PM372-SS01-000H	10/2/18 22:39	13C2-PFDA	108,041.07	55,502.64	166,507.92	
KB85 CCV	CCV	10/2/18 22:50	13C2-PFDA	102,433.40	55,502.64	166,507.92	

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

BATTELLE
It can be done

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper
KB69	L5	10/2/18 21:12	13C4-PFOS	31,119.81	15,559.91	46,679.72

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KA86	L1	10/2/18 20:29	13C4-PFOS	28,375.99	15,559.91	46,679.72	
KA87	L2	10/2/18 20:40	13C4-PFOS	26,984.45	15,559.91	46,679.72	
KA88	L3	10/2/18 20:51	13C4-PFOS	32,849.86	15,559.91	46,679.72	
KB85	L4	10/2/18 21:02	13C4-PFOS	30,017.37	15,559.91	46,679.72	
KB69	L5	10/2/18 21:12	13C4-PFOS	31,119.81	15,559.91	46,679.72	
KB64	L6	10/2/18 21:23	13C4-PFOS	25,887.81	15,559.91	46,679.72	
KB65	L7	10/2/18 21:34	13C4-PFOS	28,245.72	15,559.91	46,679.72	
KB35 IB	Instrument Blank	10/2/18 21:45	13C4-PFOS	27,620.32	15,559.91	46,679.72	
KB36 ICC	ICC	10/2/18 21:56	13C4-PFOS	29,054.61	15,559.91	46,679.72	
J8218-FS(3)	VC-PM372-SS01-000H	10/2/18 22:39	13C4-PFOS	31,183.88	15,559.91	46,679.72	
KB85 CCV	CCV	10/2/18 22:50	13C4-PFOS	32,881.56	15,559.91	46,679.72	

BATTELLE

Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 03/10/2018 2:41:24 PM

Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 3:55:45 PM	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
PFBS_1	298.9 / 80.0	1.55	22	>10
PFBS_2	298.9 / 99.0	1.55	23	>10
PFHxA_1	313.0 / 269.0	1.87	24	>10
PFHxA_2	313.0 / 119.0	1.87	24	>10
PFHpA_1	363.0 / 319.0	2.28	31	>10
PFHpA_2	363.0 / 169.0	2.28	35	>10
PFHxS_1	399.0 / 80.0	2.30	38	>10
PFHxS_2	399.0 / 99.0	2.30	56	>10
PFOA_1	413.0 / 369.0	2.69	36	>10
PFOA_2	413.0 / 169.0	2.69	43	>10
PFNA_1	463.0 / 419.0	3.09	30	>10
PFNA_2	463.0 / 219.0	3.09	30	>10
PFOS_1	499.0 / 80.0	3.09	40	>10
PFOS_2	499.0 / 99.0	3.09	36	>10
PFDA_1	513.0 / 469.0	3.45	44	>10
PFDA_2	513.0 / 219.0	3.45	51	>10
PFUnA_1	563.0 / 519.0	3.77	57	>10
PFUnA_2	563.0 / 269.0	3.77	66	>10
PFDoA_1	613.0 / 569.0	4.05	71	>10
PFDoA_2	613.0 / 319.0	4.05	68	>10
PFTrDA_1	663.0 / 619.0	4.30	74	>10
PFTrDA_2	663.0 / 169.0	4.30	51	>10
PFTeDA_1	713.0 / 669.0	4.52	61	>10
PFTeDA_2	713.0 / 169.0	4.52	58	>10
NMeFOSAA_1	570.0 / 419.0	3.60	47	>10
NMeFOSAA_2	570.0 / 512.0	3.60	48	>10
NEtFOSAA_1	584.0 / 419.0	3.76	45	>10
NEtFOSAA_2	584.0 / 483.0	3.76	27	>10

BATTELLE

Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 03/10/2018 11:34:30 AM

Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 3:55:45 PM	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
13C2-PFDoA	615.0 / 570.0	4.04	46	>10
d3-MeFOSAA	573.0 / 419.0	3.59	23	>10
d5-EtFOSAA	589.0 / 419.0	3.76	33	>10
13C5-PFHxA	318.0 / 273.0	1.86	43	>10
13C4-PFHpA	367.0 / 322.0	2.27	29	>10
13C8-PFOA	421.0 / 376.0	2.68	30	>10
13C9-PFNA	472.0 / 427.0	3.08	38	>10
13C6-PFDA	519.0 / 474.0	3.43	48	>10
13C7-PFUnA	570.0 / 525.0	3.75	37	>10
13C2-PFTeDA	715.0 / 670.0	4.51	47	>10
13C3-PFBS	302.0 / 99.0	1.53	28	>10
13C3-PFHxS	402.0 / 99.0	2.29	23	>10
13C8-PFOS	507.0 / 99.0	3.07	26	>10

BATTELLE

Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 03/10/2018 11:36:10 AM

Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 9:34:34 PM	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
PFBS_1	298.9 / 80.0	1.53	24	>10
PFBS_2	298.9 / 99.0	1.53	24	>10
PFHxA_1	313.0 / 269.0	1.85	24	>10
PFHxA_2	313.0 / 119.0	1.85	23	>10
PFHpA_1	363.0 / 319.0	2.26	30	>10
PFHpA_2	363.0 / 169.0	2.26	35	>10
PFHxS_1	399.0 / 80.0	2.28	35	>10
PFHxS_2	399.0 / 99.0	2.28	45	>10
PFOA_1	413.0 / 369.0	2.67	36	>10
PFOA_2	413.0 / 169.0	2.66	41	>10
PFNA_1	463.0 / 419.0	3.06	30	>10
PFNA_2	463.0 / 219.0	3.06	42	>10
PFOS_1	499.0 / 80.0	3.06	40	>10
PFOS_2	499.0 / 99.0	3.06	38	>10
PFDA_1	513.0 / 469.0	3.42	52	>10
PFDA_2	513.0 / 219.0	3.42	47	>10
PFUnA_1	563.0 / 519.0	3.73	60	>10
PFUnA_2	563.0 / 269.0	3.73	51	>10
PFDoA_1	613.0 / 569.0	4.01	67	>10
PFDoA_2	613.0 / 319.0	4.01	71	>10
PFTrDA_1	663.0 / 619.0	4.26	94	>10
PFTrDA_2	663.0 / 169.0	4.26	43	>10
PFTeDA_1	713.0 / 669.0	4.47	109	>10
PFTeDA_2	713.0 / 169.0	4.47	62	>10
NMeFOSAA_1	570.0 / 419.0	3.57	44	>10
NMeFOSAA_2	570.0 / 512.0	3.57	38	>10
NEtFOSAA_1	584.0 / 419.0	3.73	48	>10
NEtFOSAA_2	584.0 / 483.0	3.73	24	>10

BATTELLE

Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 03/10/2018 11:35:45 AM

Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 9:34:34 PM	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
13C2-PFDoA	615.0 / 570.0	4.00	30	>10
d3-MeFOSAA	573.0 / 419.0	3.56	29	>10
d5-EtFOSAA	589.0 / 419.0	3.72	24	>10
13C5-PFHxA	318.0 / 273.0	1.84	34	>10
13C4-PFHpA	367.0 / 322.0	2.24	49	>10
13C8-PFOA	421.0 / 376.0	2.66	36	>10
13C9-PFNA	472.0 / 427.0	3.05	26	>10
13C6-PFDA	519.0 / 474.0	3.40	41	>10
13C7-PFUnA	570.0 / 525.0	3.72	35	>10
13C2-PFTeDA	715.0 / 670.0	4.47	48	>10
13C3-PFBS	302.0 / 99.0	1.52	21	>10
13C3-PFHxS	402.0 / 99.0	2.27	35	>10
13C8-PFOS	507.0 / 99.0	3.05	33	>10

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Precision and Bias at the LOQ for PFAS in Solids

Analyte	CAS No.	Average (ng/g)	ST DEV	2 Sigma	n
PFBA	375-22-4	11.08	1.57	3.14	20
PFPeA	2706-90-3	10.94	1.44	2.88	20
PFHxA	307-24-4	11.15	2.17	4.34	24
PFHpA	375-85-9	11.15	1.9	3.8	24
PFOA	335-67-1	11.27	1.9	3.8	24
PFNA	375-95-1	10.99	1.68	3.36	24
PFDA	335-76-2	11.72	2.13	4.26	24
PFUnA	2058-94-8	11.5	1.88	3.76	24
PFDoA	307-55-1	11.61	1.58	3.16	24
PFTrDA	72629-94-8	10.87	1.32	2.64	24
PFTeDA	376-06-7	11.92	2.25	4.5	24
NMeFOSAA	2355-31-9	11.65	1.6	3.2	24
NEtFOSAA	2991-50-6	10.73	1.5	3	24
PFOSA	754-91-6	10.75	1.63	3.26	4
PFBS	375-73-5	11.63	1.75	3.5	24
PFPeS	BDO-2114	11.67	1.22	2.44	4
PFHxS	355-46-4	11.24	1.78	3.56	24
PFHpS	375-99-6	11.05	1.68	3.36	20
PFOS	1763-23-1	10.99	1.61	3.22	24
PFNS	98789-57-2	10.67	1.01	2.02	4
PFDS	2806-15-7	11.84	2.23	4.46	20
4:2FTS	BDO-2205	12.03	1.86	3.72	20
6:2FTS	27619-97-2	12.48	1.33	2.66	12
8:2FTS	39108-34-4	12.08	2.01	4.02	20

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

Analytical SOP 5-369
Extraction SOP 5-370

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

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

Analytes on NELAP and ELAP QSM 5.1 Scope of accreditation

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ID 595 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

Solids Calibration to Sample Equivalents

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

[1] - base level dilution as part of the extraction procedure

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

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QTRAP 5500

LC/MS/MS Detector System

Appendix ZEFPM003-2L

QTRAP 5500
Preventive Maintenance Checklist

Preventive Maintenance Date:	12-June-2018

Request ID:	9749
Company Name:	Battelle Memorial Institute
Instrument ID:	X60666
Instrument Model:	QTRAP 5500
Instrument Serial Number:	AU23051004

☑ **PASS** ☐ **FAIL**

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

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

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

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

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

Approved By :_____ **Date:** _____

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QTRAP 5500

LC/MS/MS Detector System
Appendix ZEFPM003-2L

PRE PM PPG PERFORMANCE EVALUATION:

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

CAD Settings	Vacuum Reading (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.

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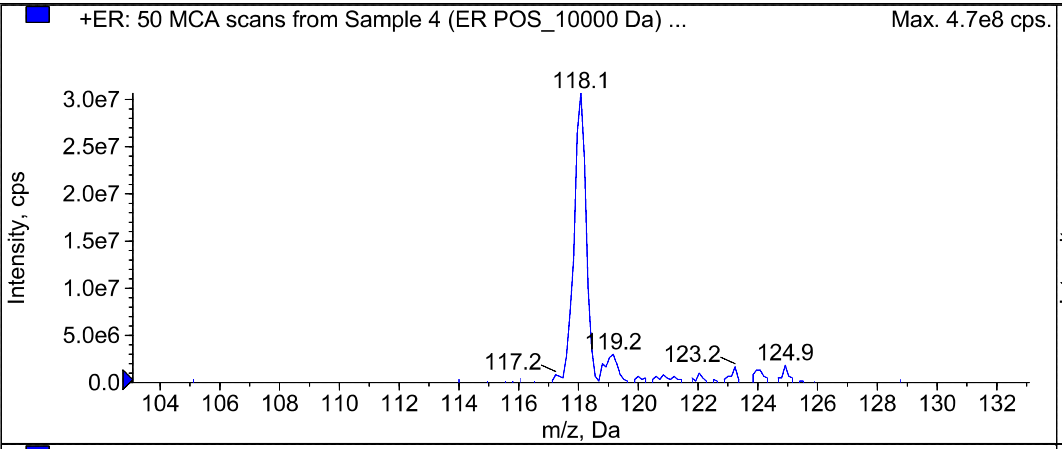

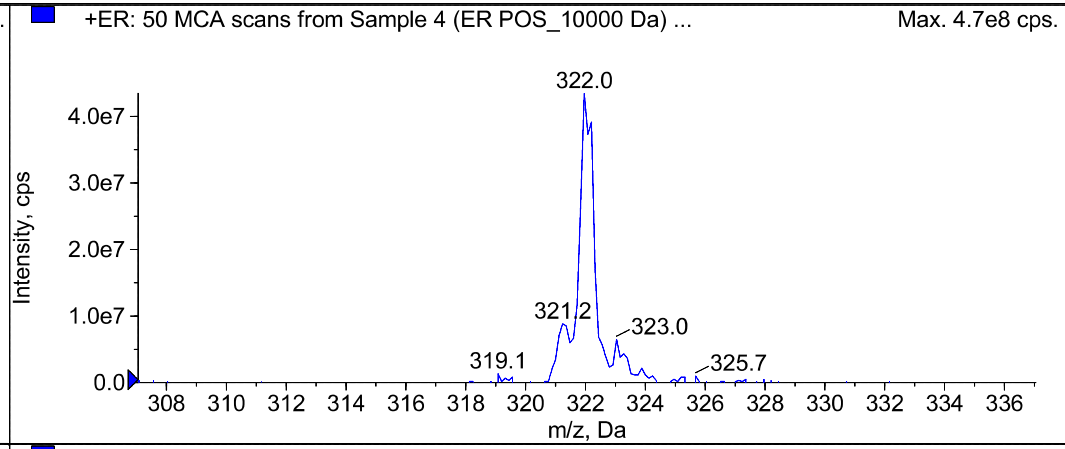

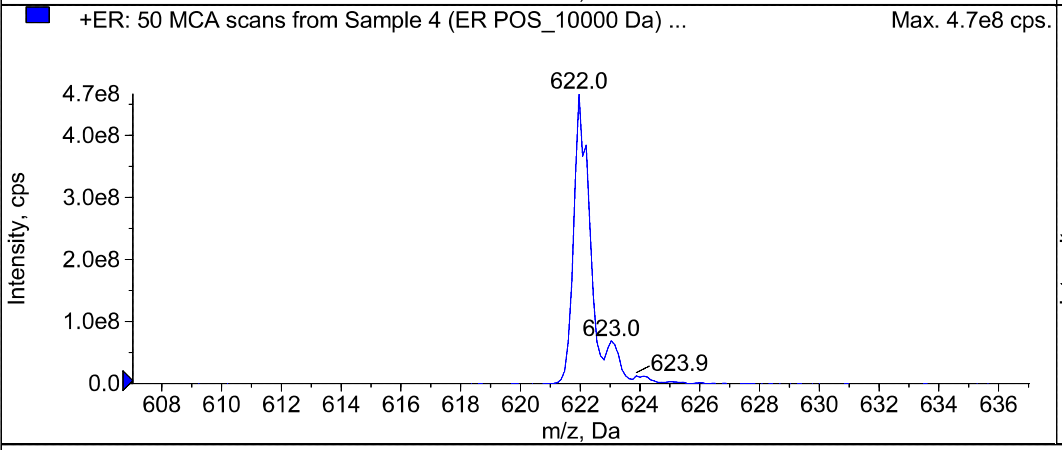

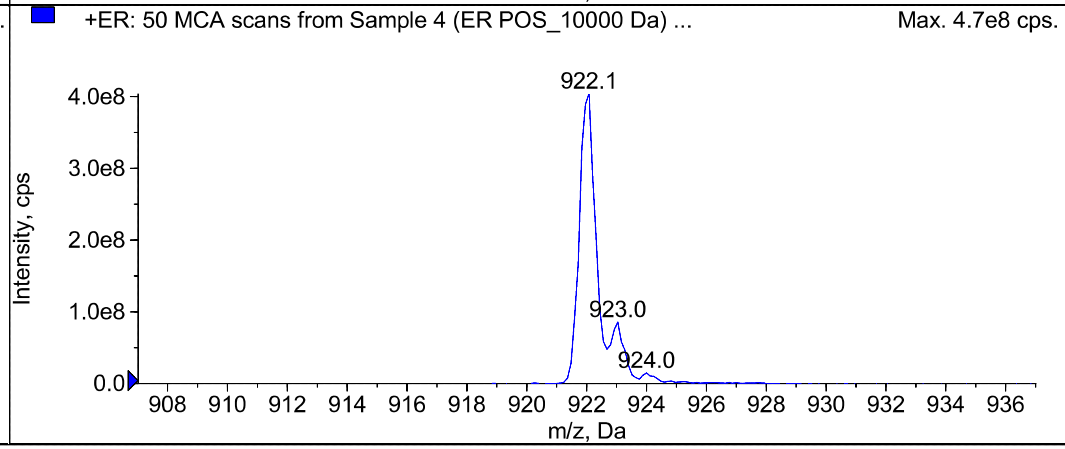

Peak List for " +ER: 50 MCA scans from Sample 4 (ER POS_10000 Da) of TRAP ER with NEW Pulse Manifold.wiff (Turbo Spray)"

	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)
JY27	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	-	180726-05
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
KA84	PFAS - DoD High Level Second Source LCS/MS Solution	-	170724-01
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	JY27	180726-05
KA87	PFAS - DoD Calibration L2	JY25	180726-04
KA87	PFAS - DoD Calibration L2	JY23	180705-02
KA88	PFAS - DoD Calibration L3	JY25	180726-04
KA88	PFAS - DoD Calibration L3	JY27	180726-05
KA88	PFAS - DoD Calibration L3	KA85	180705-02
KA89	PFAS - DoD Calibration L4	KA85	180705-02
KA89	PFAS - DoD Calibration L4	JY27	180726-05
KA89	PFAS - DoD Calibration L4	JY25	180726-04
KA90	PFAS - DoD Calibration L5	JY25	180726-04
KA90	PFAS - DoD Calibration L5	JY27	180726-05
KA90	PFAS - DoD Calibration L5	KA85	180705-02
KB34	PFAS - DoD Internal Standard Spiking Solution	JY25	180726-04
KB35	PFAS - DoD Instrument Blank	JY25	180726-04
KB35	PFAS - DoD Instrument Blank	JY27	180726-05
KB36	PFAS - DoD ICC	JY27	180726-05
KB36	PFAS - DoD ICC	JZ88	170724-01
KB36	PFAS - DoD ICC	JY25	180726-04
KB64	PFAS - DoD Calibration L6	JY25	180726-04
KB64	PFAS - DoD Calibration L6	KA85	180705-02
KB64	PFAS - DoD Calibration L6	JY27	180726-05
KB65	PFAS - DoD Calibration L7	JY27	180726-05
KB65	PFAS - DoD Calibration L7	KA85	180705-02
KB65	PFAS - DoD Calibration L7	JY25	180726-04
KB85	PFAS - DoD Calibration L4	JY27	180726-05
KB85	PFAS - DoD Calibration L4	JY25	180726-04
KB85	PFAS - DoD Calibration L4	KA85	180705-02

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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: 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: **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: **KA84**

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

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
170724-01	PFOA- 2nd Source	Neat	~1.000000	03/22/22	---	---	1000 uL	1	5	~0.2000

Solution Prepared By	Schultz, Stephanie	**Date Prepared:**	9/12/2018	**Expiration Date**	9/12/2019
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: KA84

Description: PFAS - DoD High Level 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	5	0.20200
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	1.00	1	100.000	1	5	0.20000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	1.00	1	100.000	1	5	0.20000
(Na) Perfluoro-1-decanesulfonate	1000	1.01	1	100.000	1	5	0.20200
(NA) Perfluoro-1-heptanesulfonate	1000	1.00	1	100.000	1	5	0.20000
(Na) Perfluoro-1-nonanesulfonate	1000	1.01	1	100.000	1	5	0.20200
N-ethylperfluoro-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	5	0.20000
N-methylperfluoro-1-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-1-butanesulfonate	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-1-hexanesulfonate	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-1-octanesulfonamide	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-1-octanesulfonate	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-butanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-decanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-dodecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-heptanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-hexanoic acid	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-n-octanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluorononanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-pentanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-tetradecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-tridecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-undecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Sodium perfluoro-1-pentanesulfonate	1000	1.00	1	100.000	1	5	0.20000

Final Concentrations:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/12/2018 **Expiration Date:** 9/12/2019

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: KA84

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

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

Syringes/Pipettes:

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/12/2018 **Expiration Date:** 9/12/2019

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: **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: **KB34**

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:**	9/24/2018	**Expiration Date**	7/16/2019
Solution Volume	40 **mL X** 1 **Vials**	**Refrigerator/Freezer No:**	LC Laboratory: Refrigerator - R0107		

Balance ID: _____

Comment: 96/4 Methanol/Milli-q water

Approved By: Thorn, Jonathan **Date:** 9/24/2018 3:46:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB34

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:** 9/24/2018 **Expiration Date:** 7/16/2019

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

Comment: 96/4 Methanol/Milli-q water

Approved By: Thorn, Jonathan **Date:** 9/24/2018 3:46:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☐

Standard Laboratory ID Number: **KB35**

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)
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:**	9/24/2018	**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: _____ **Date:** _____

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☐

Standard Laboratory ID Number: KB35

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:** 9/24/2018 **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: _____ **Date:** _____

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☐

Standard Laboratory ID Number: **KB35**

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	B814659662
JY27	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/24/2018 **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: _____ **Date:** _____

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB36**

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)
JZ88	PFAS - DoD Second Source LCS/MS Solution	Solution	~0	08/20/19	---	---	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:**	9/24/2018	**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:** 9/26/2018 10:24:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB36

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: JZ88

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:** 9/24/2018 **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:** 9/26/2018 10:24:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB36**

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:** 9/24/2018 **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:** 9/26/2018 10:24:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB36**

Description: PFAS - DoD ICC

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

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	B814659662
JY27	Pipette	B814659662
JZ88	Pipette	B814657482

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 9/24/2018 **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:** 9/26/2018 10:24:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB64**

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: Griffith, Lauren	**Date Prepared:**	9/28/2018	**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:** 9/28/2018 2:46:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB64

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: Griffith, Lauren **Date Prepared:** 9/28/2018 **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:** 9/28/2018 2:46:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB64**

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: Griffith, Lauren **Date Prepared:** 9/28/2018 **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:** 9/28/2018 2:46:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB64**

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	B814659662
KA85	Pipette	B820865811

Solution Prepared By: Griffith, Lauren **Date Prepared:** 9/28/2018 **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:** 9/28/2018 2:46:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB65**

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: Griffith, Lauren	**Date Prepared:**	9/28/2018	**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:** 9/28/2018 2:46:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB65

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: Griffith, Lauren **Date Prepared:** 9/28/2018 **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:** 9/28/2018 2:46:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB65**

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: Griffith, Lauren **Date Prepared:** 9/28/2018 **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:** 9/28/2018 2:46:00 PM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB65**

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	B814658143

Solution Prepared By: Griffith, Lauren **Date Prepared:** 9/28/2018 **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:** 9/28/2018 2:46:00 PM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB85**

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

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/3/2018 8:53:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB85

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:** 10/2/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/3/2018 8:53:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB85**

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:** 10/2/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/3/2018 8:53:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB85

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:** 10/2/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

Approved By: Schumitz, Denise **Date:** 10/3/2018 8:53:00 AM

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

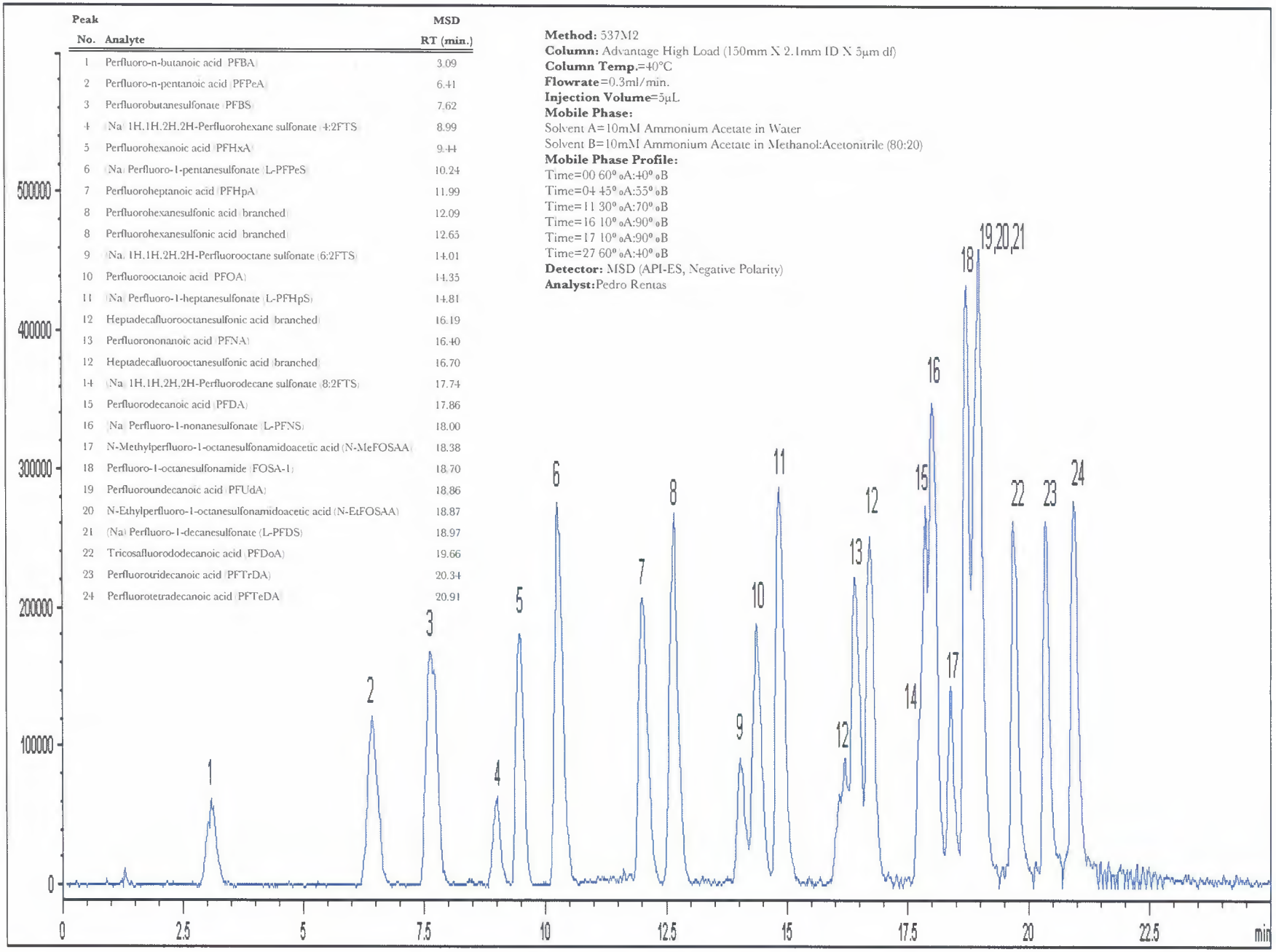
Note: All assigned values are anion concentrations.

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: 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,...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)***

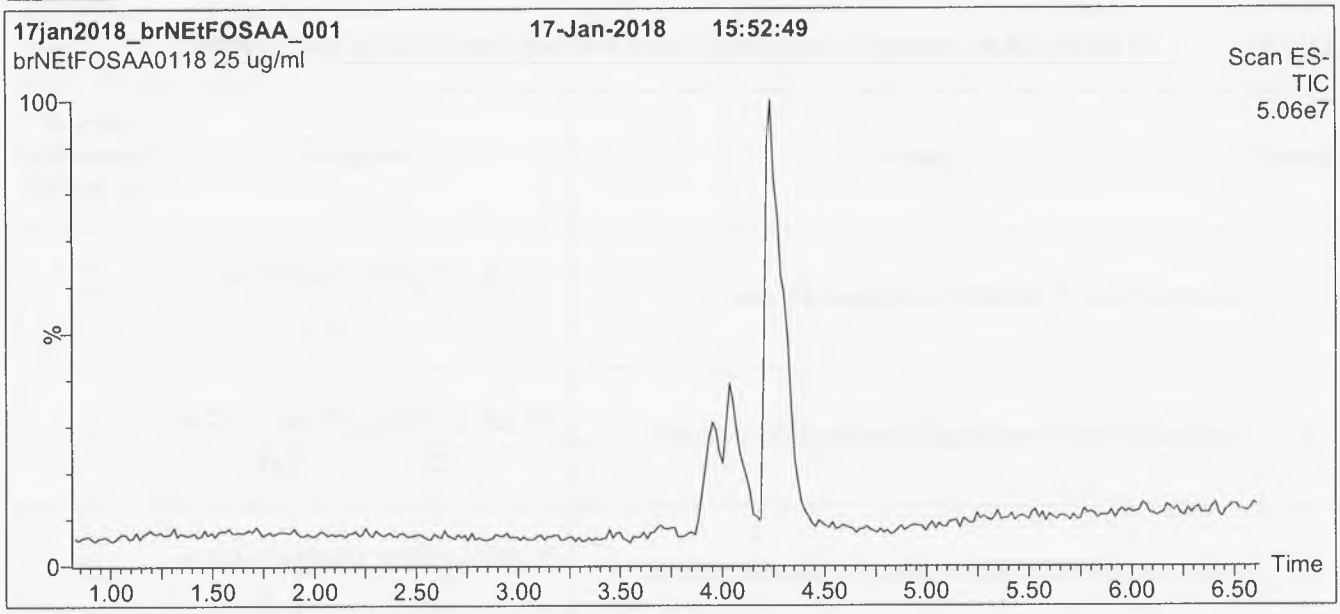
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	N-ethylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2N(C_2H_5)CH_2CO_2H$	77.5
2	N-ethylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3CF(CF_3)(CF_2)_2SO_2N(C_2H_5)CH_2CO_2H$	2.3
3	N-ethylperfluoro-4-methylheptanesulfonamidoacetic 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

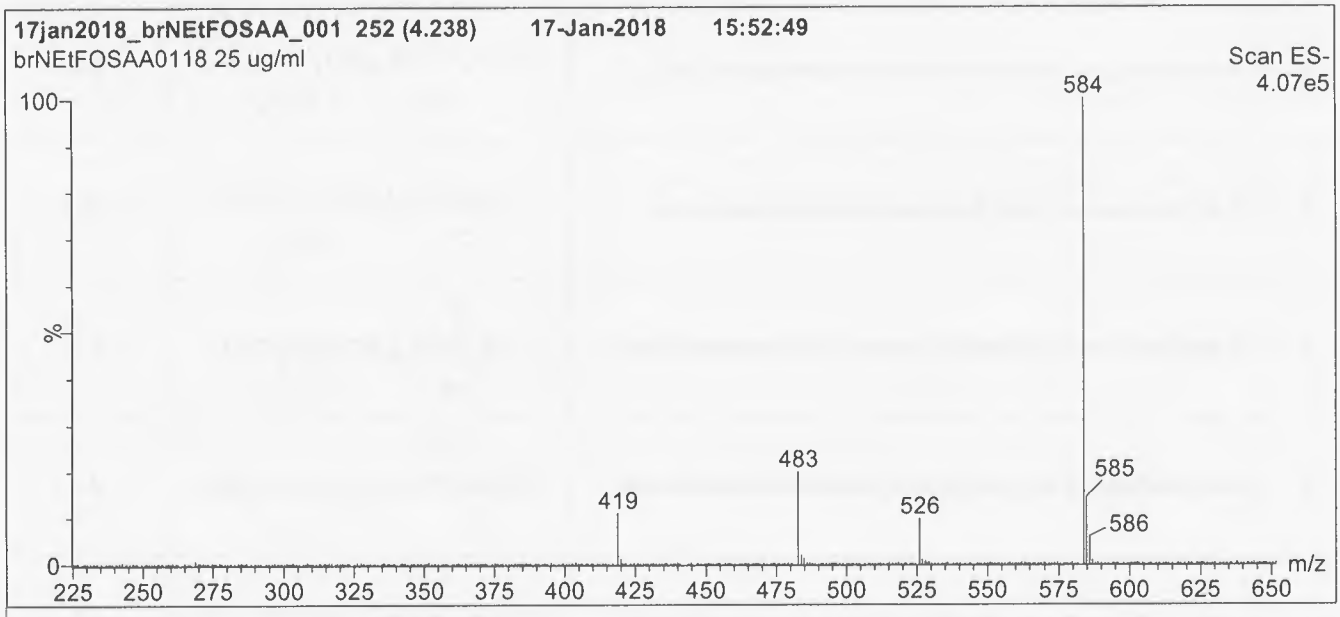
* Percent of total N-ethylperfluorooctanesulfonamidoacetic acid isomers only.

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

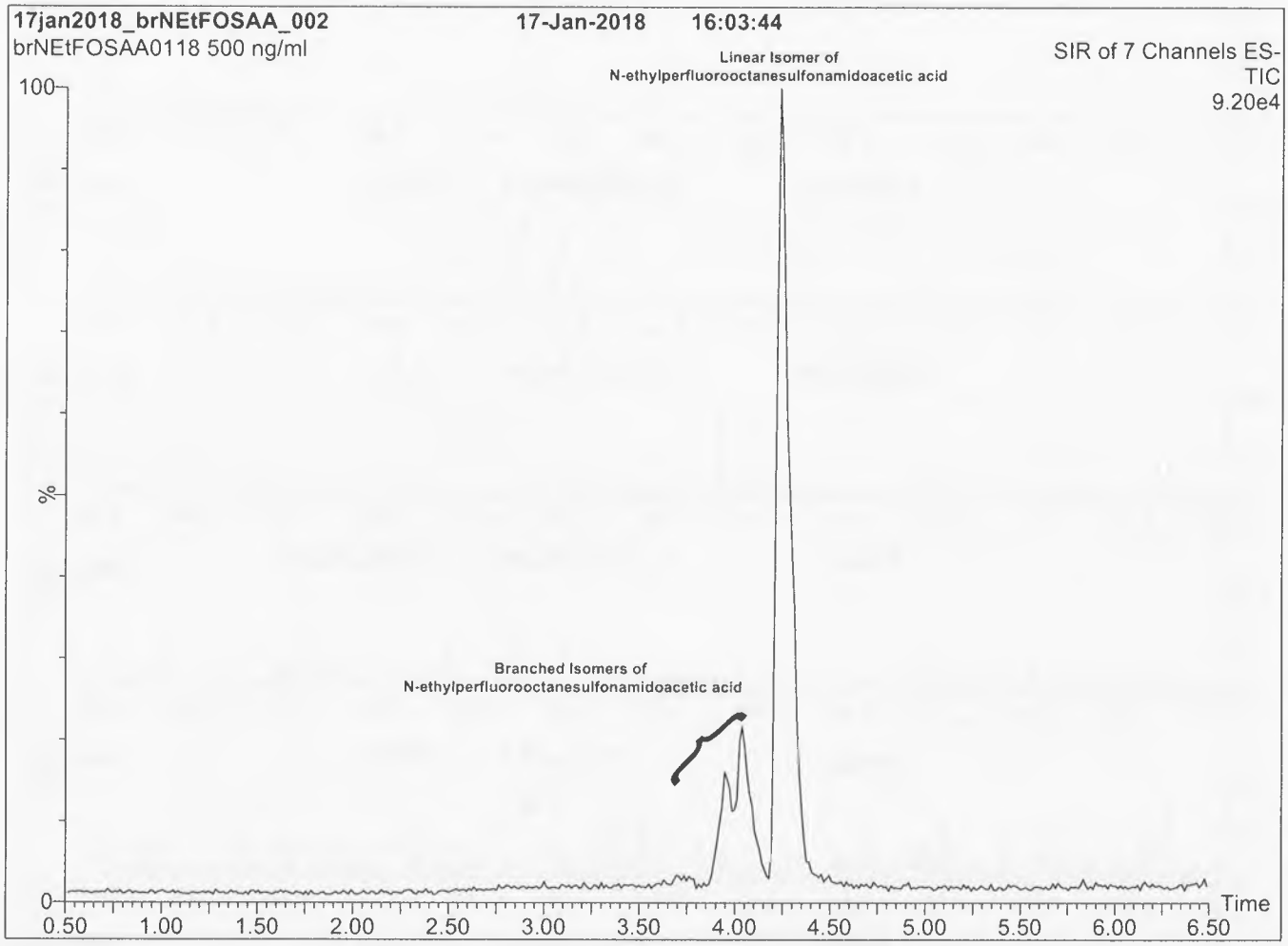
Flow: 300 µl/min

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

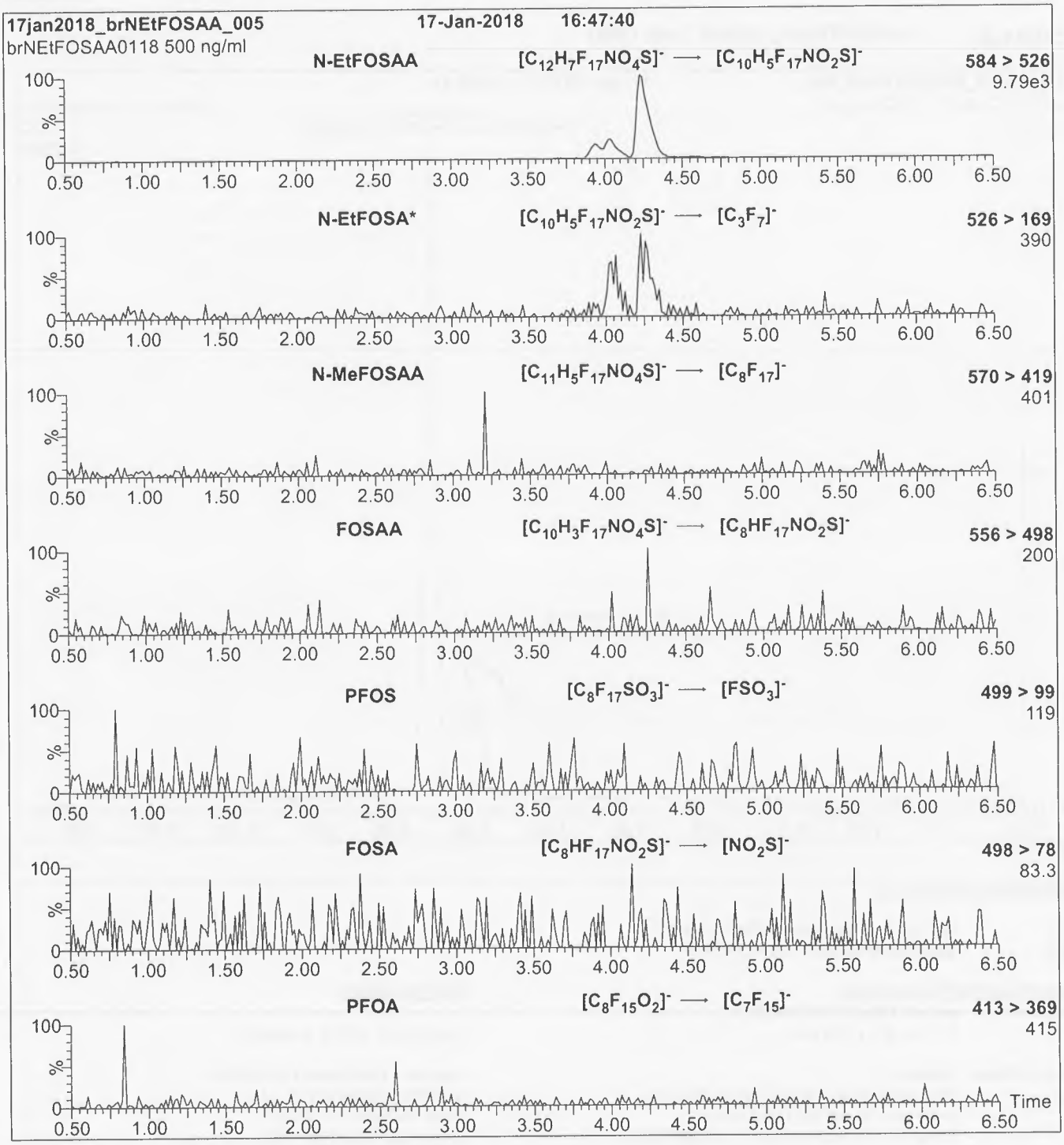
Flow: 300 µl/min

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)***

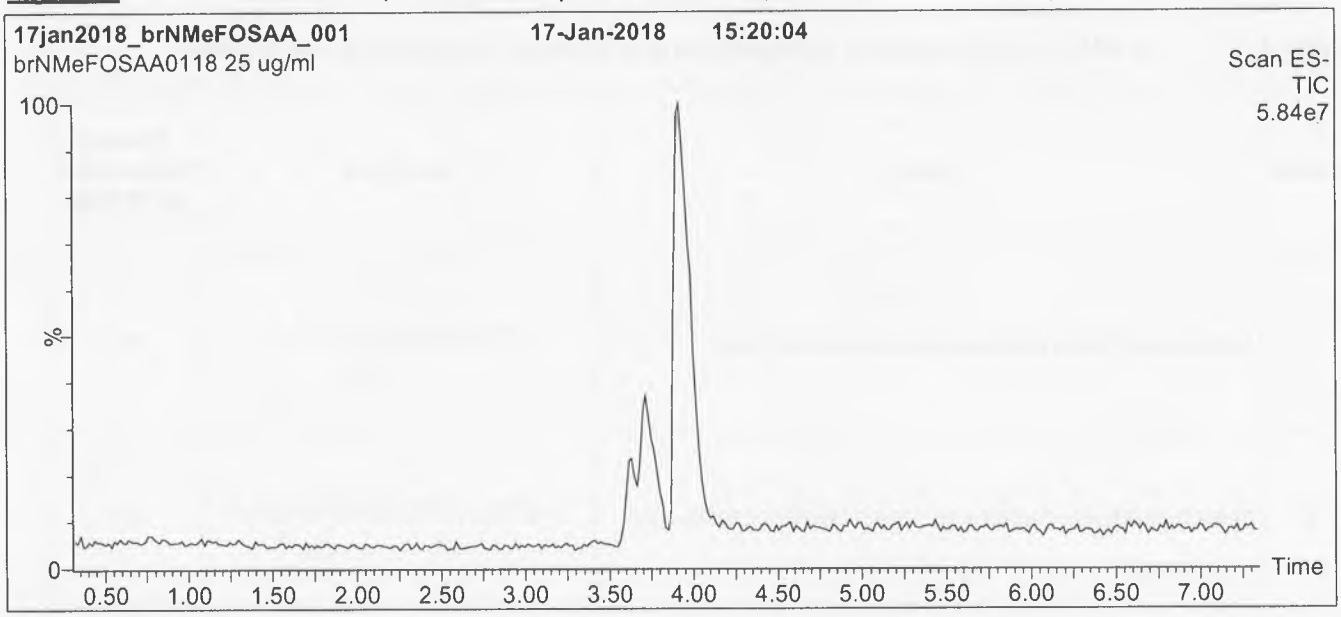
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	N-methylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2N(CH_3)CH_2CO_2H$	76.0
2	N-methylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3CF(CF_3)(CF_2)_2SO_2N(CH_3)CH_2CO_2H$	0.7
3	N-methylperfluoro-4-methylheptanesulfonamidoacetic 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

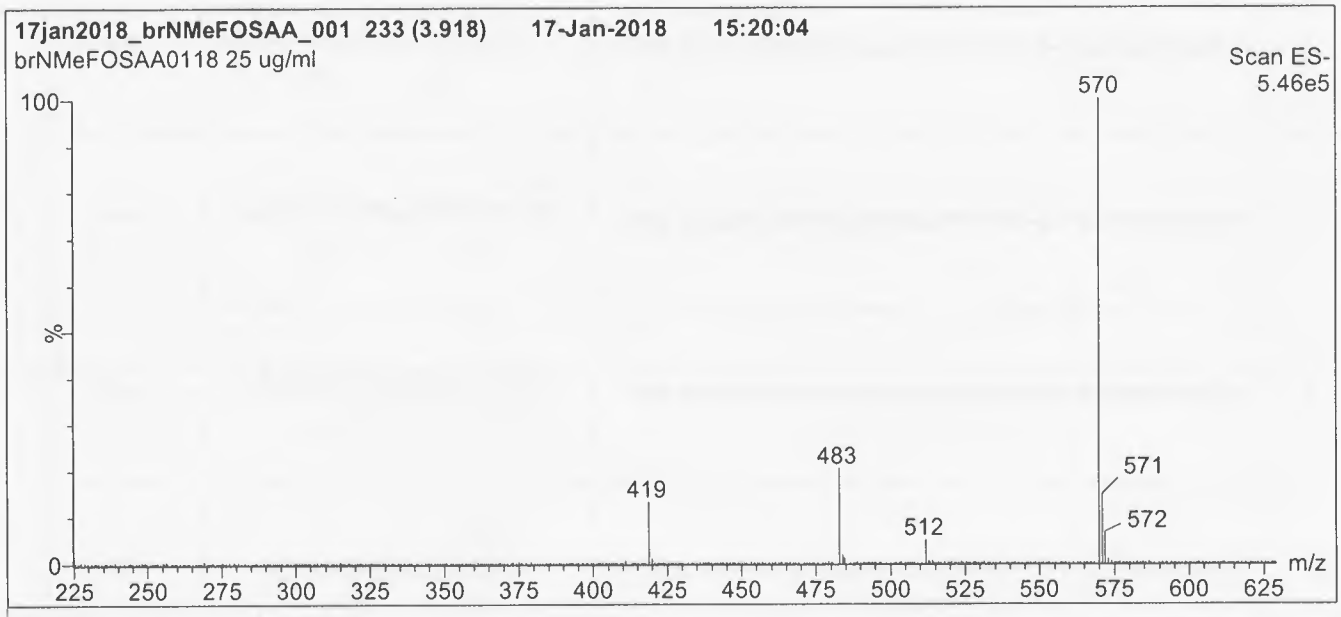
* Percent of total N-methylperfluorooctanesulfonamidoacetic acid isomers only.

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

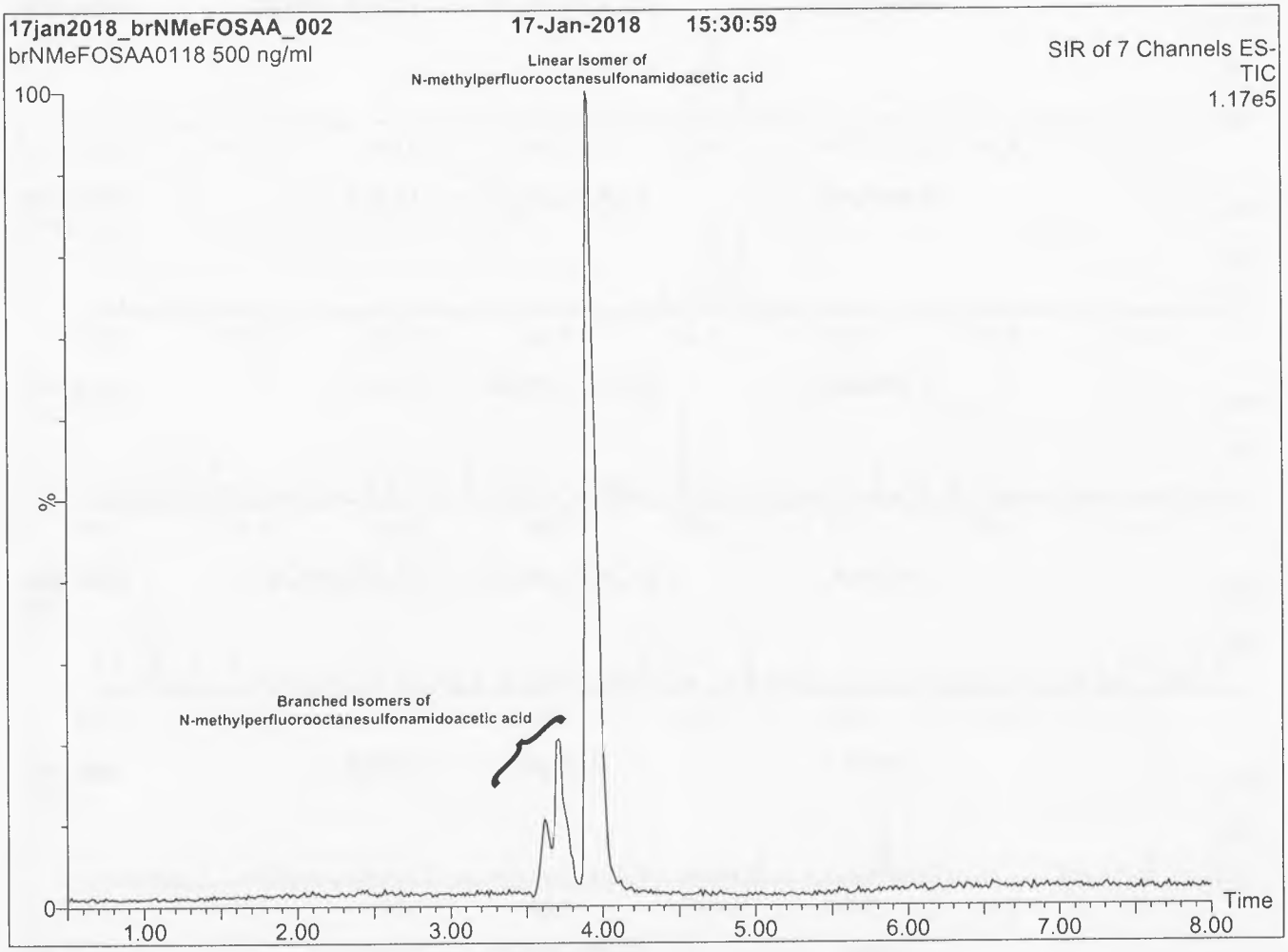
Flow: 300 µl/min

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

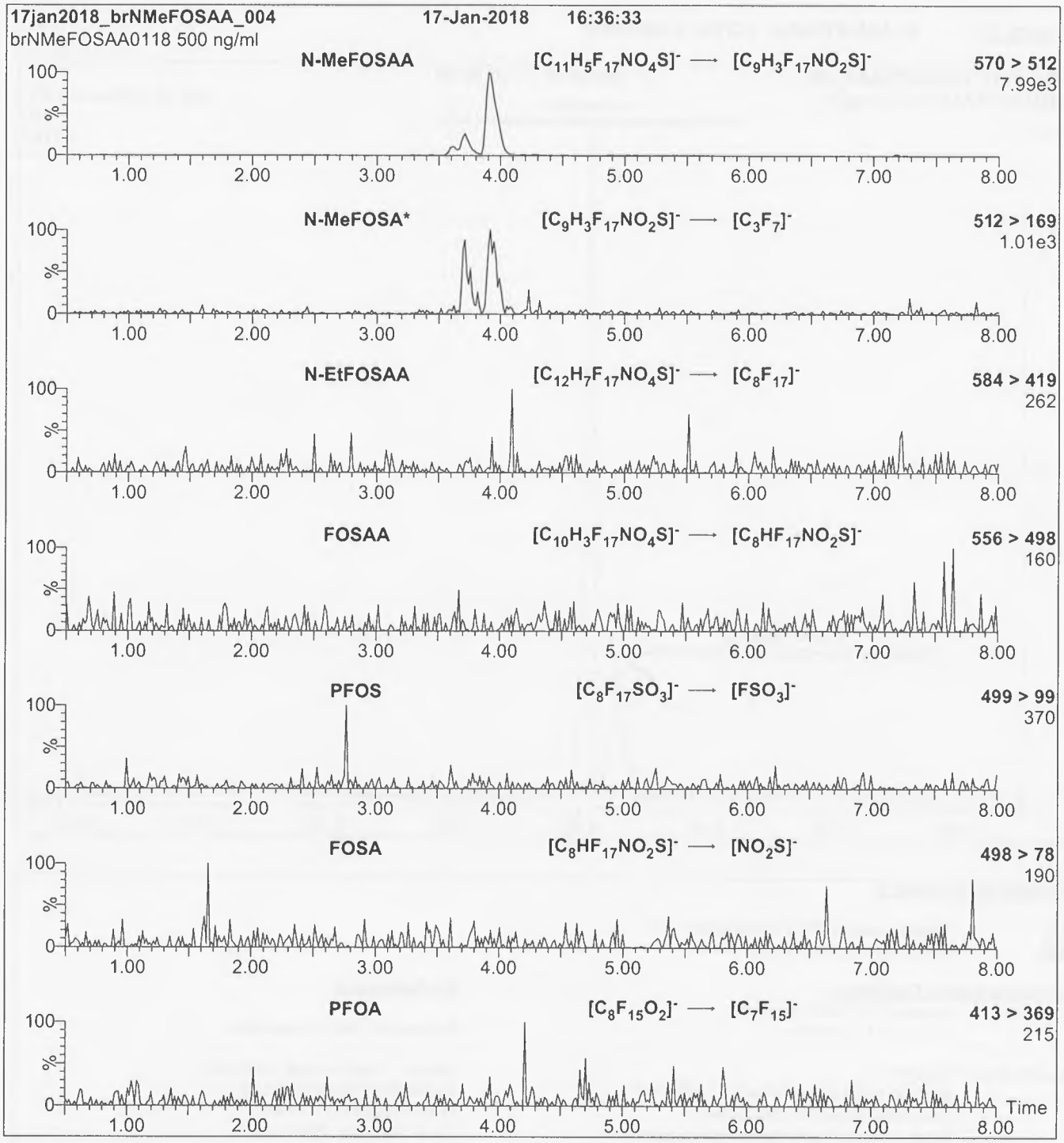
Flow: 300 µl/min

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:

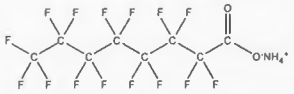
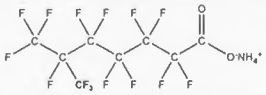
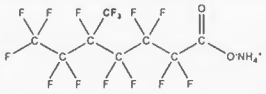
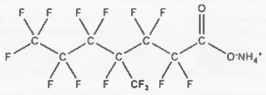
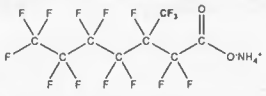
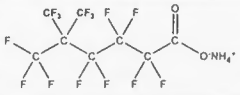
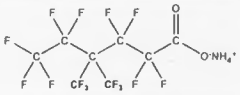
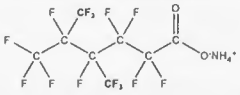
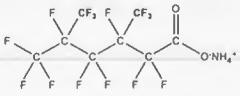
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

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

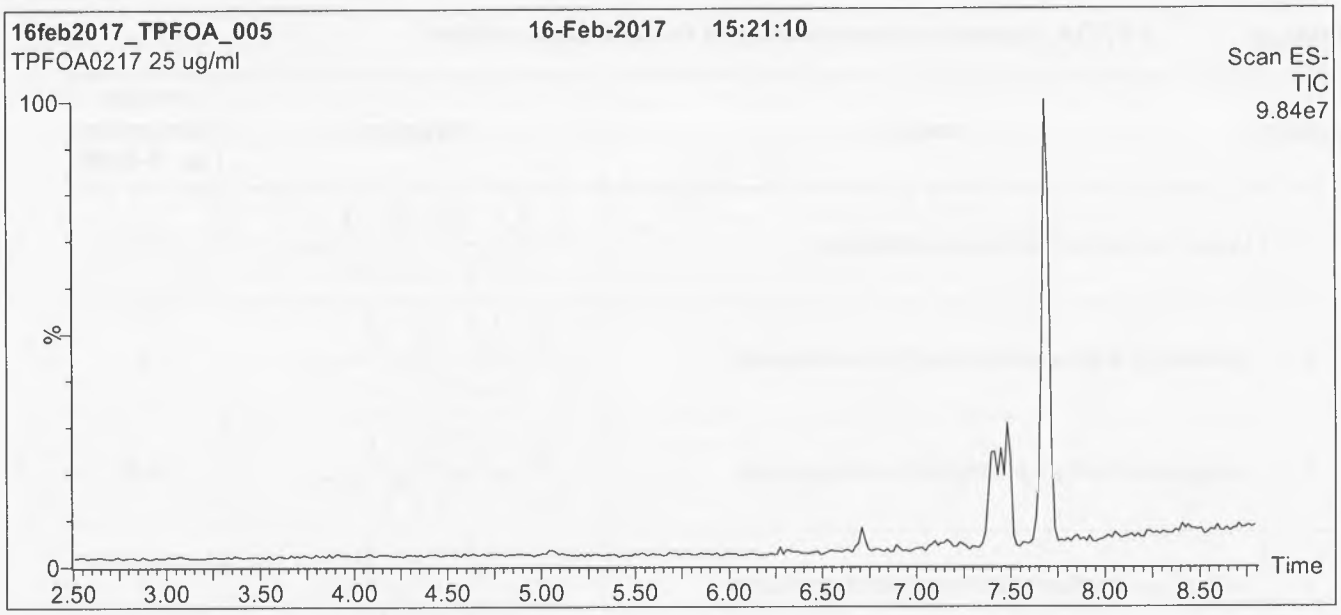
Table A: **T-PFOA; Isomeric Components and Percent Composition***

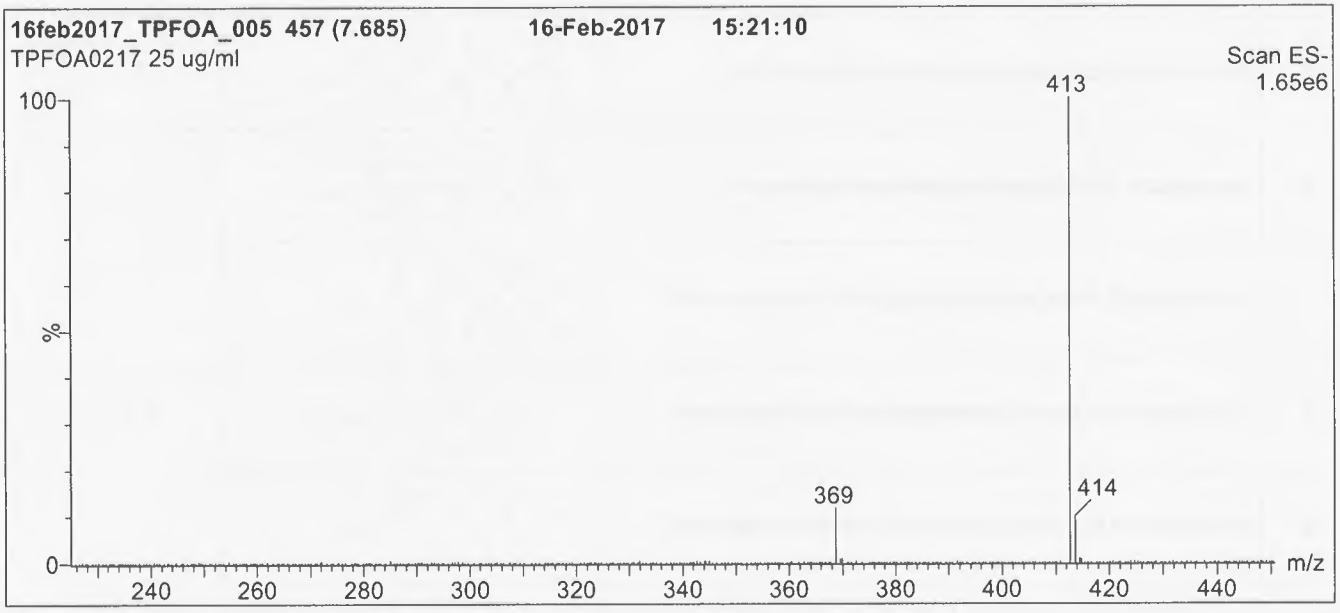
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Linear ammonium perfluoro-n-octanoate		79
2	Ammonium 6-trifluoromethylperfluoroheptanoate		9
3	Ammonium 5-trifluoromethylperfluoroheptanoate		4.5
4	Ammonium 4-trifluoromethylperfluoroheptanoate		4
5	Ammonium 3-trifluoromethylperfluoroheptanoate		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

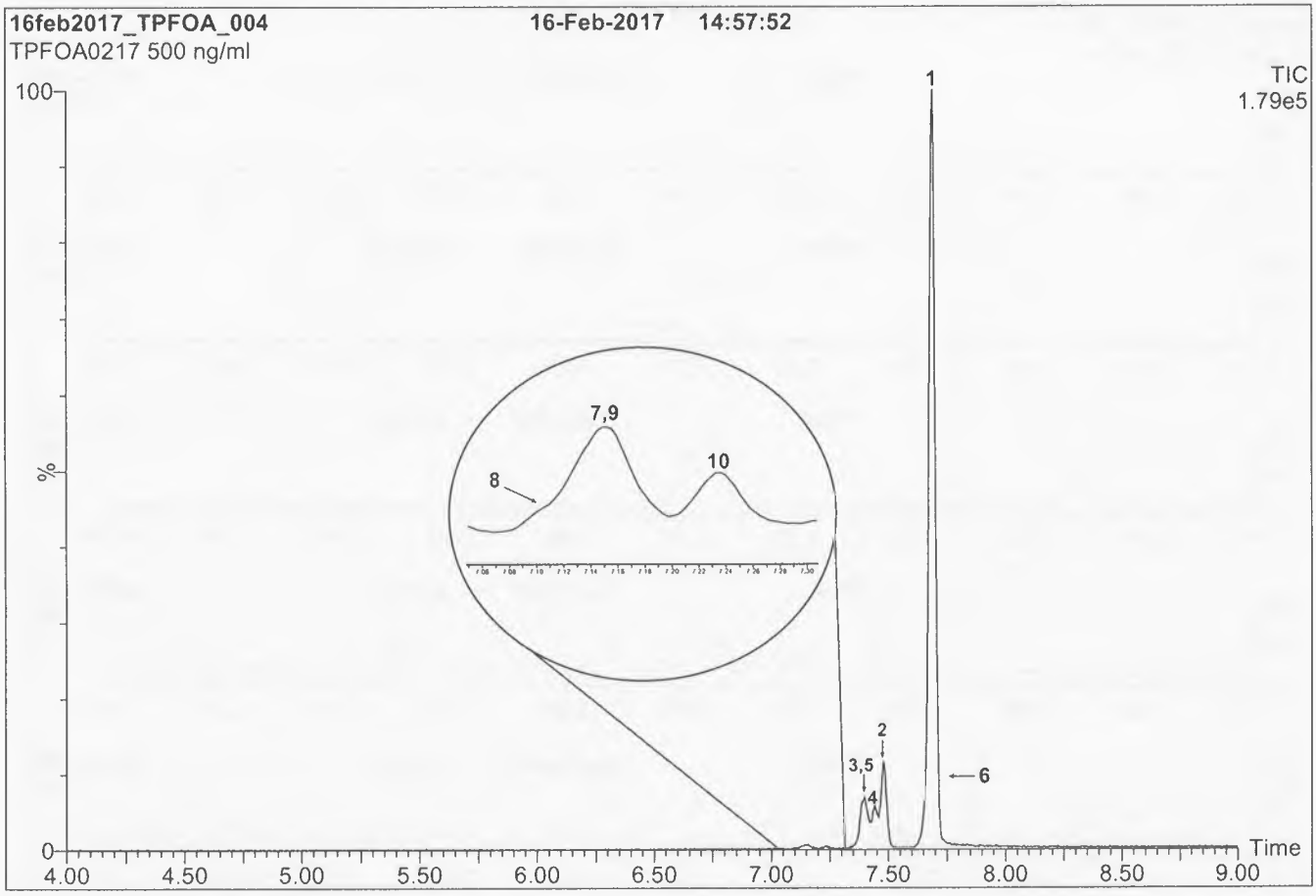
Flow: 1.0 ml/min

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

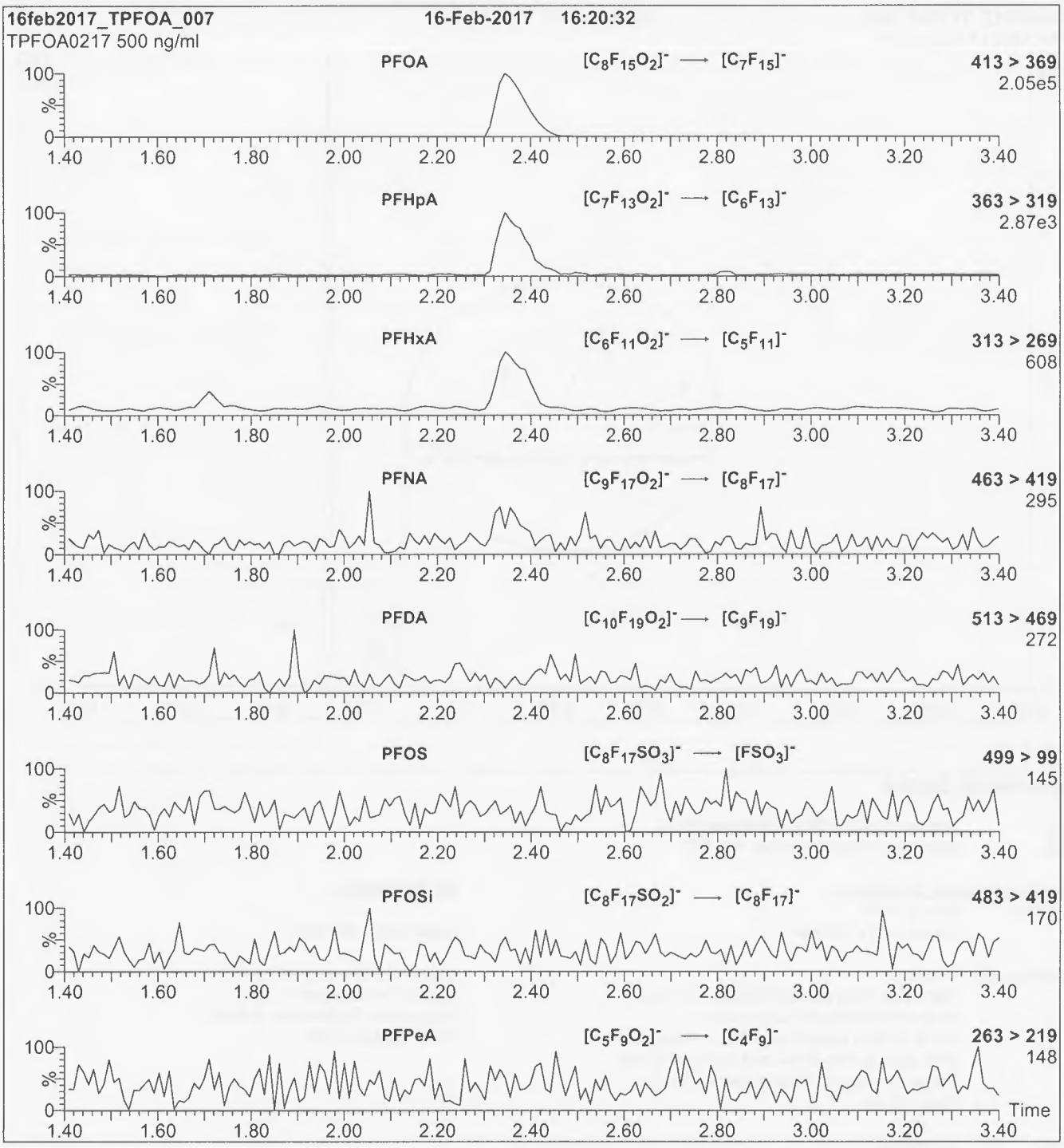
Flow: 1.0 ml/min

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)**



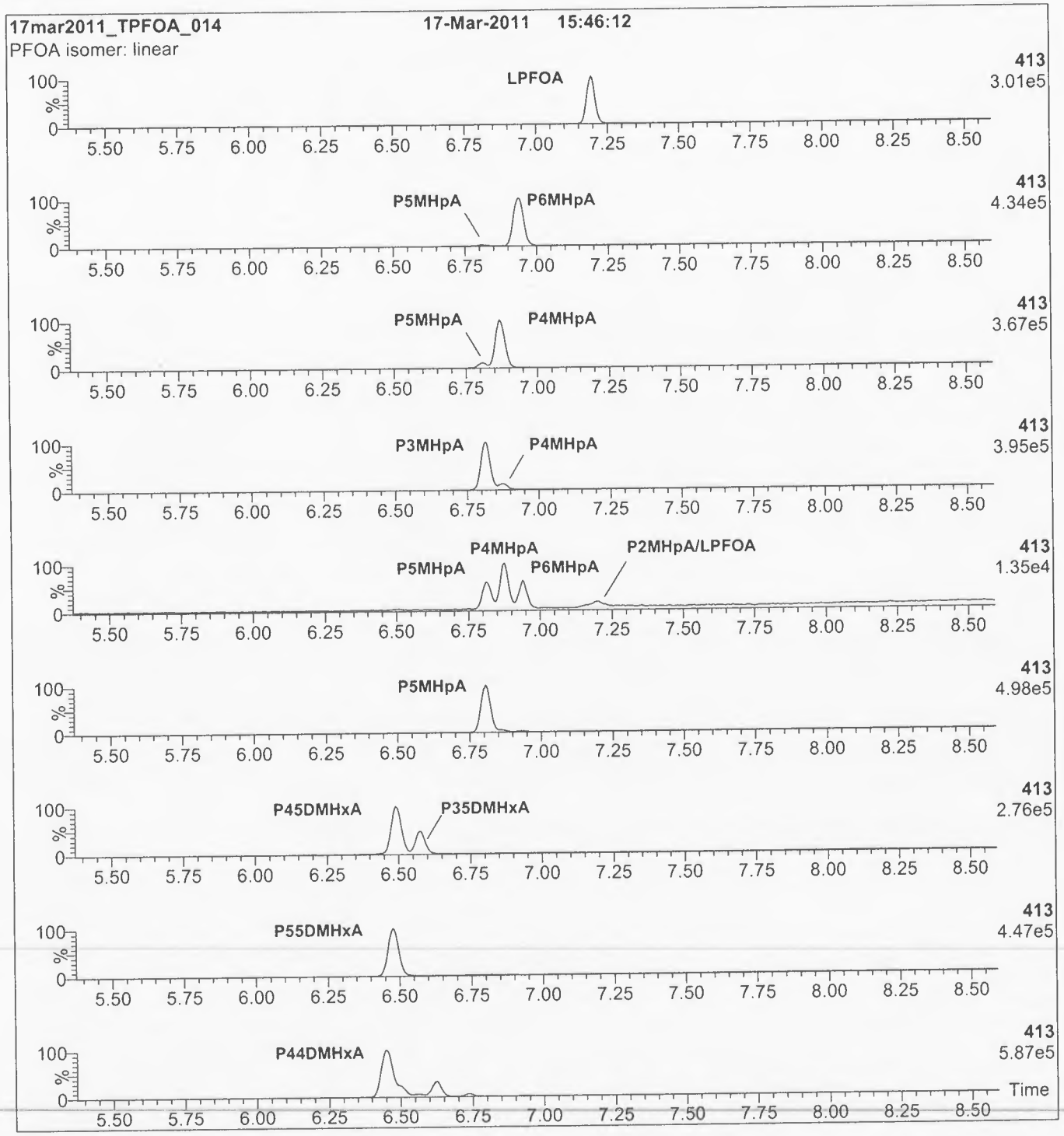
Conditions for Figure 3:

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

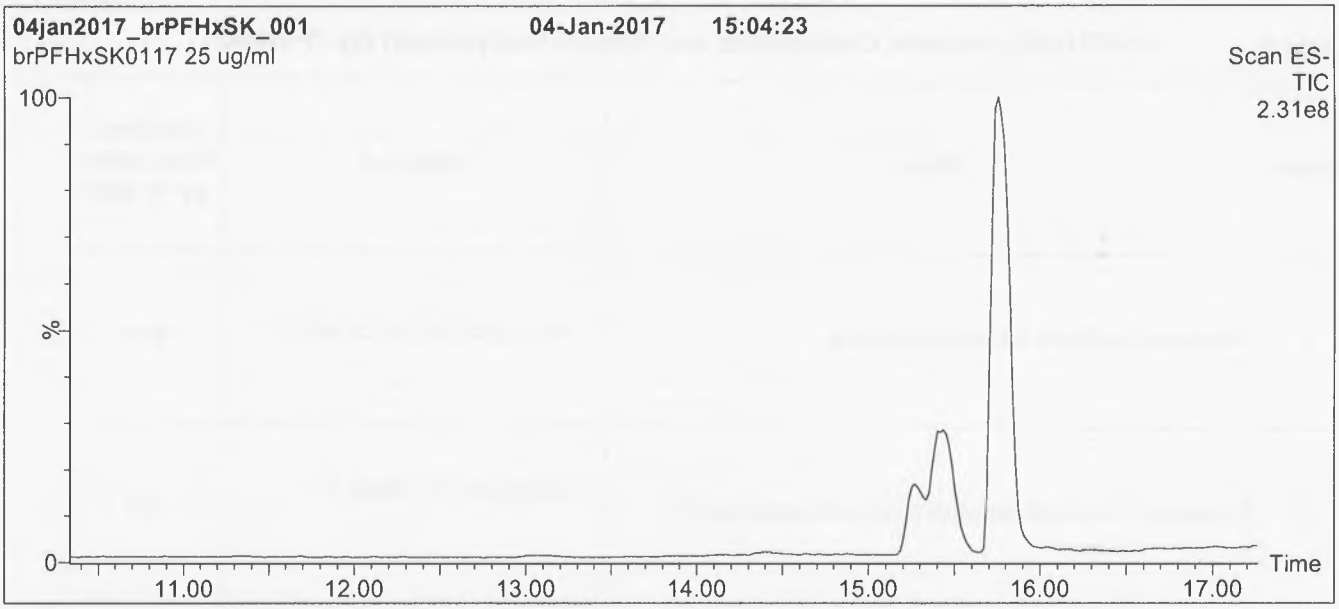
Table A: **br-PFHxSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

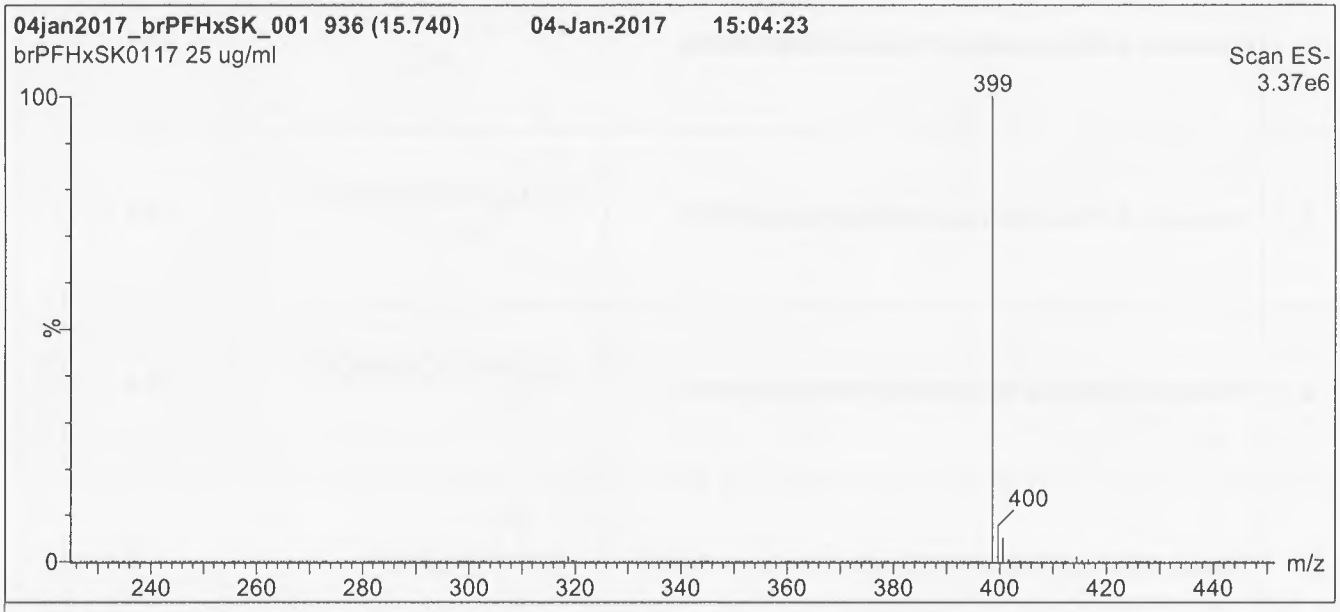
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	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

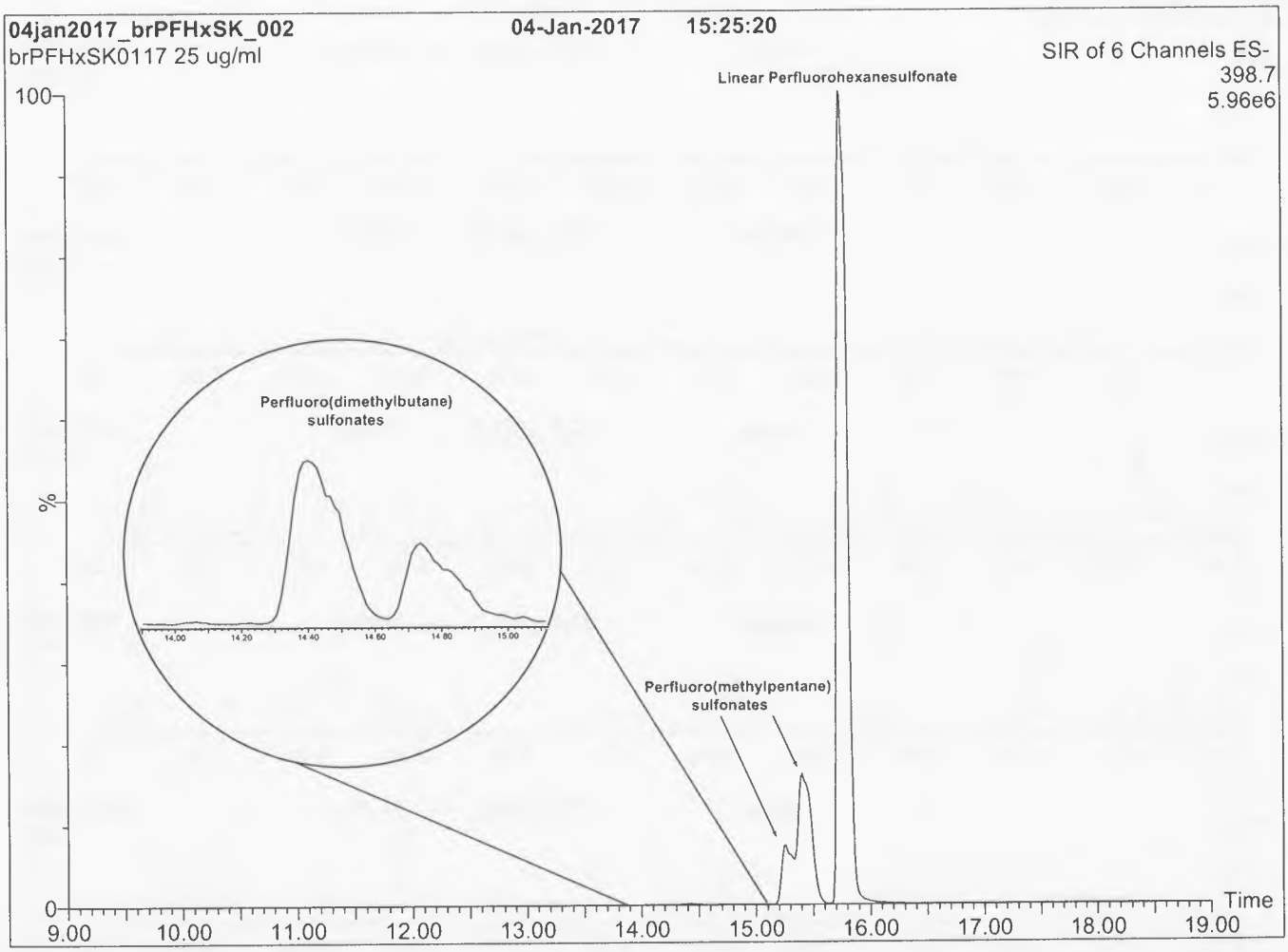
Flow: 300 µl/min

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

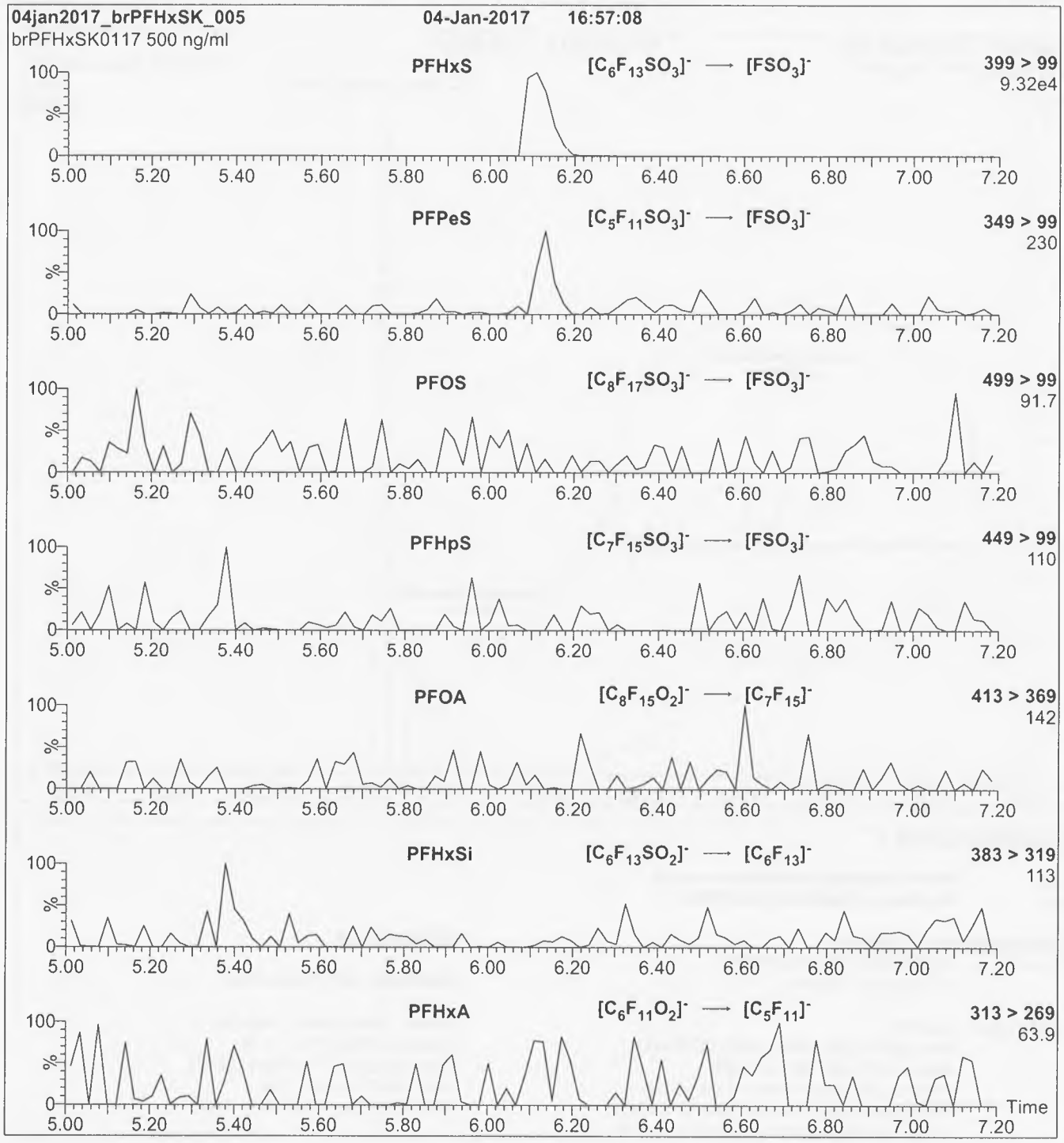
Flow: 300 µl/min

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

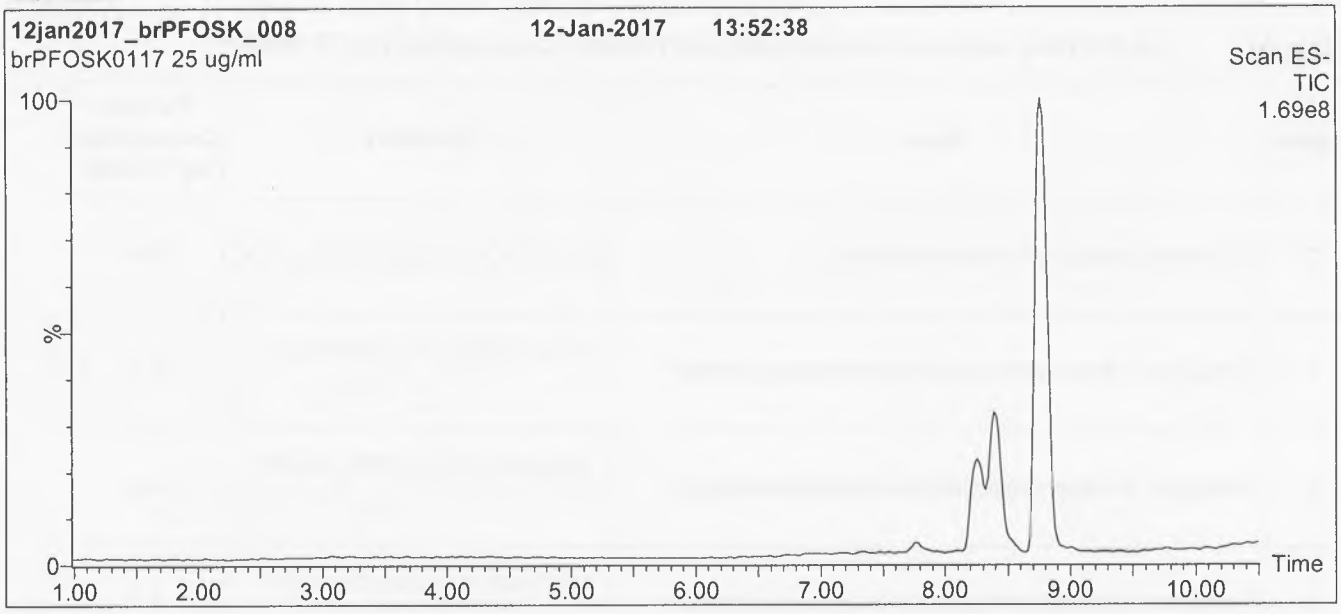
Table A: **br-PFOSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

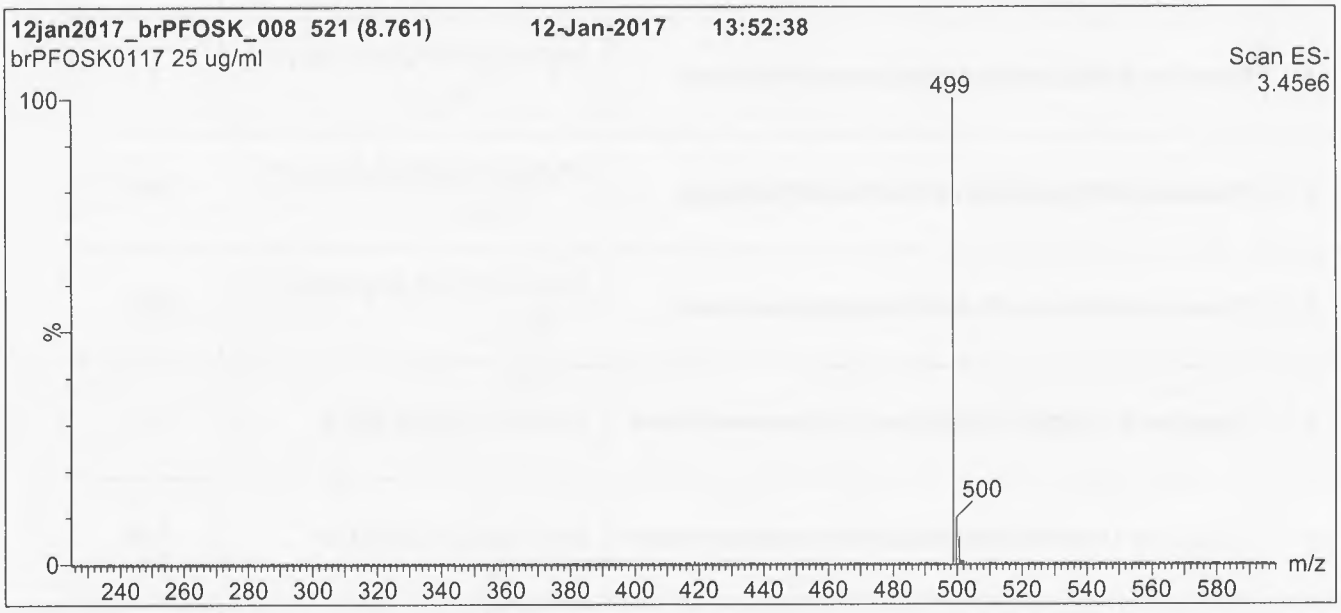
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-octanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$CF_3CF_2CF_2CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	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: _____ **Date:** 01/20/2017
B.G. Chittim (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

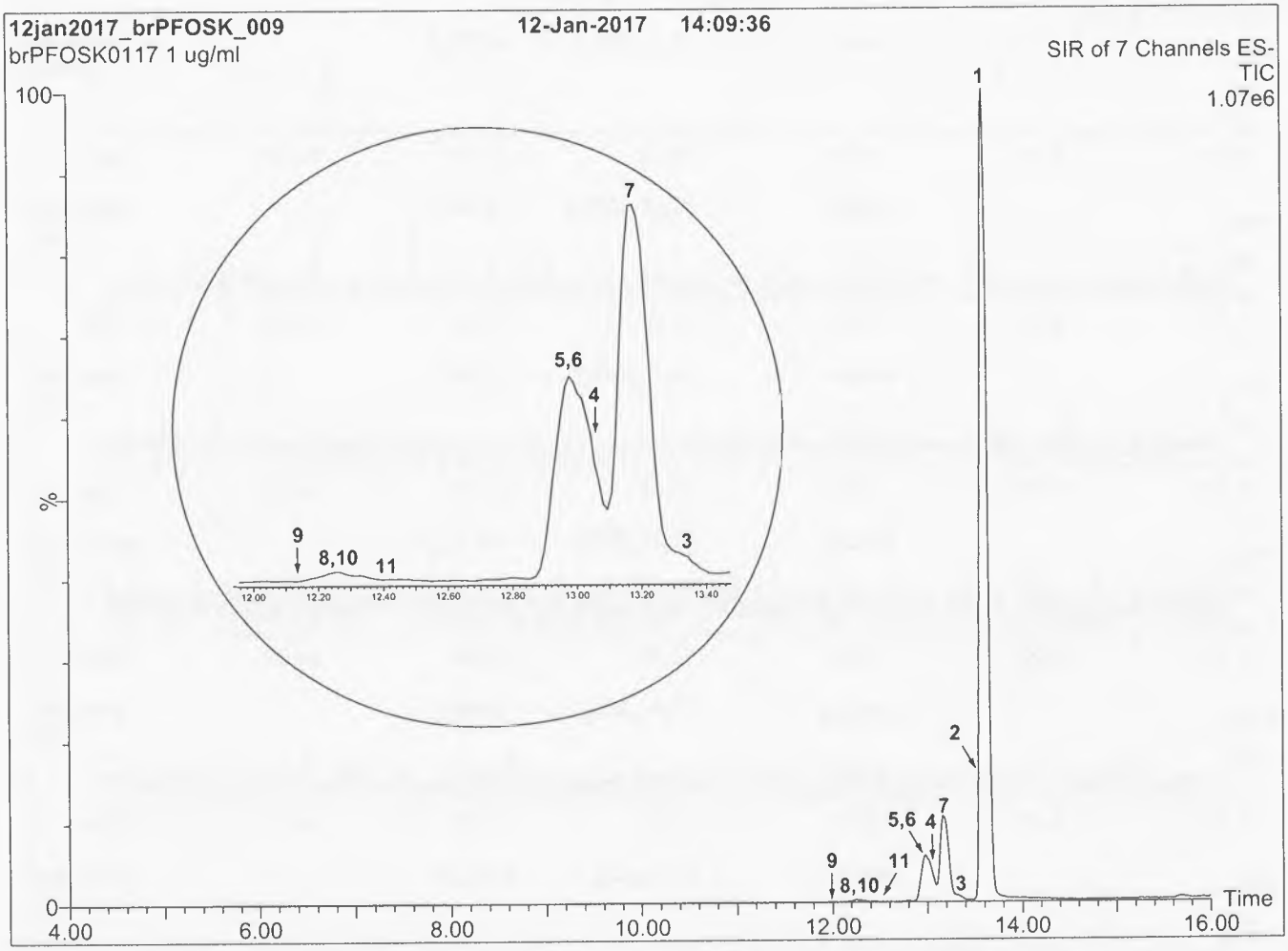
Flow: 300 µl/min

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**

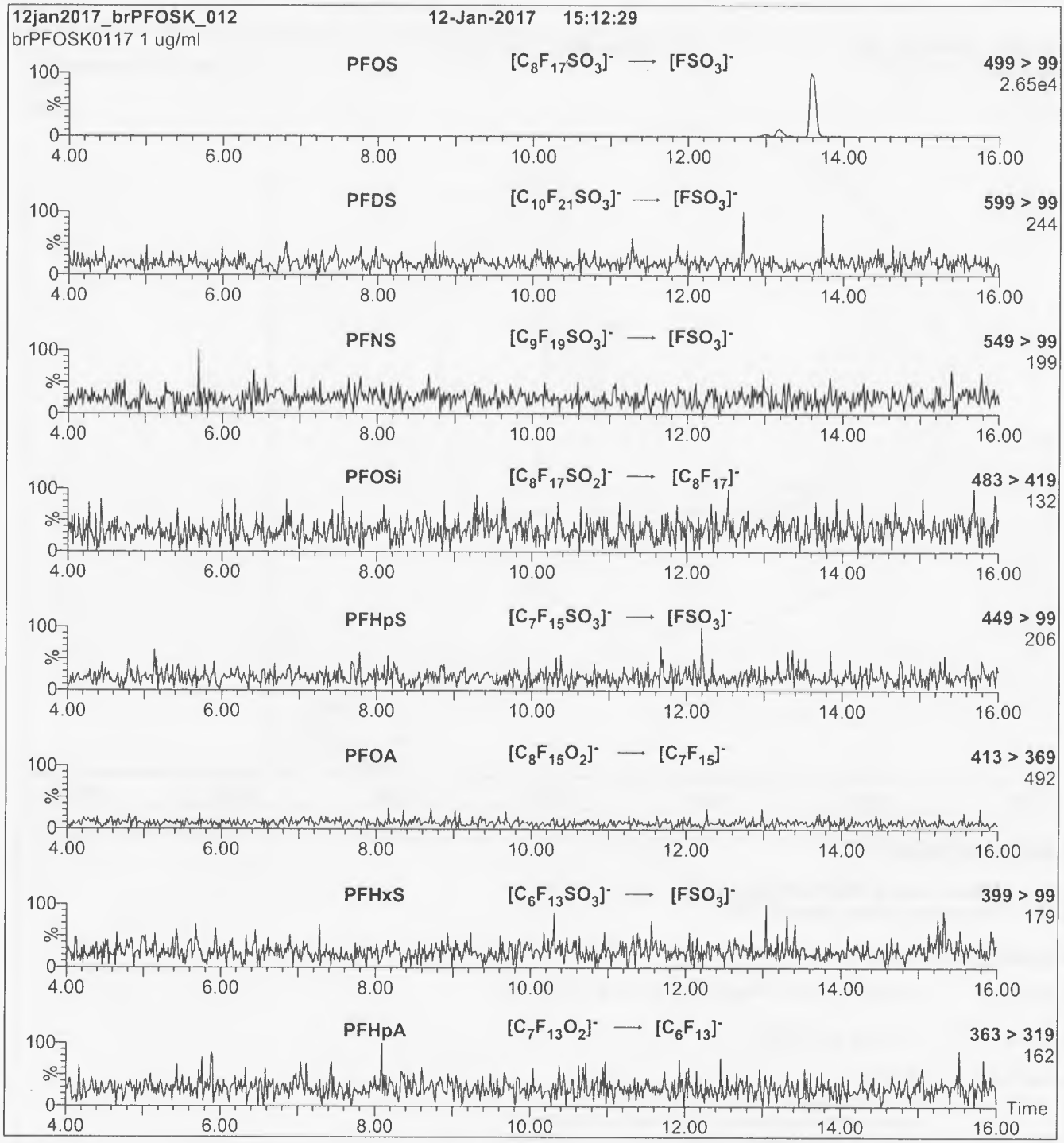
Chromatographic Conditions:

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
Volume(s) shown below were combined and diluted to (mL): 50.0 0.007 Flask Uncertainty

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

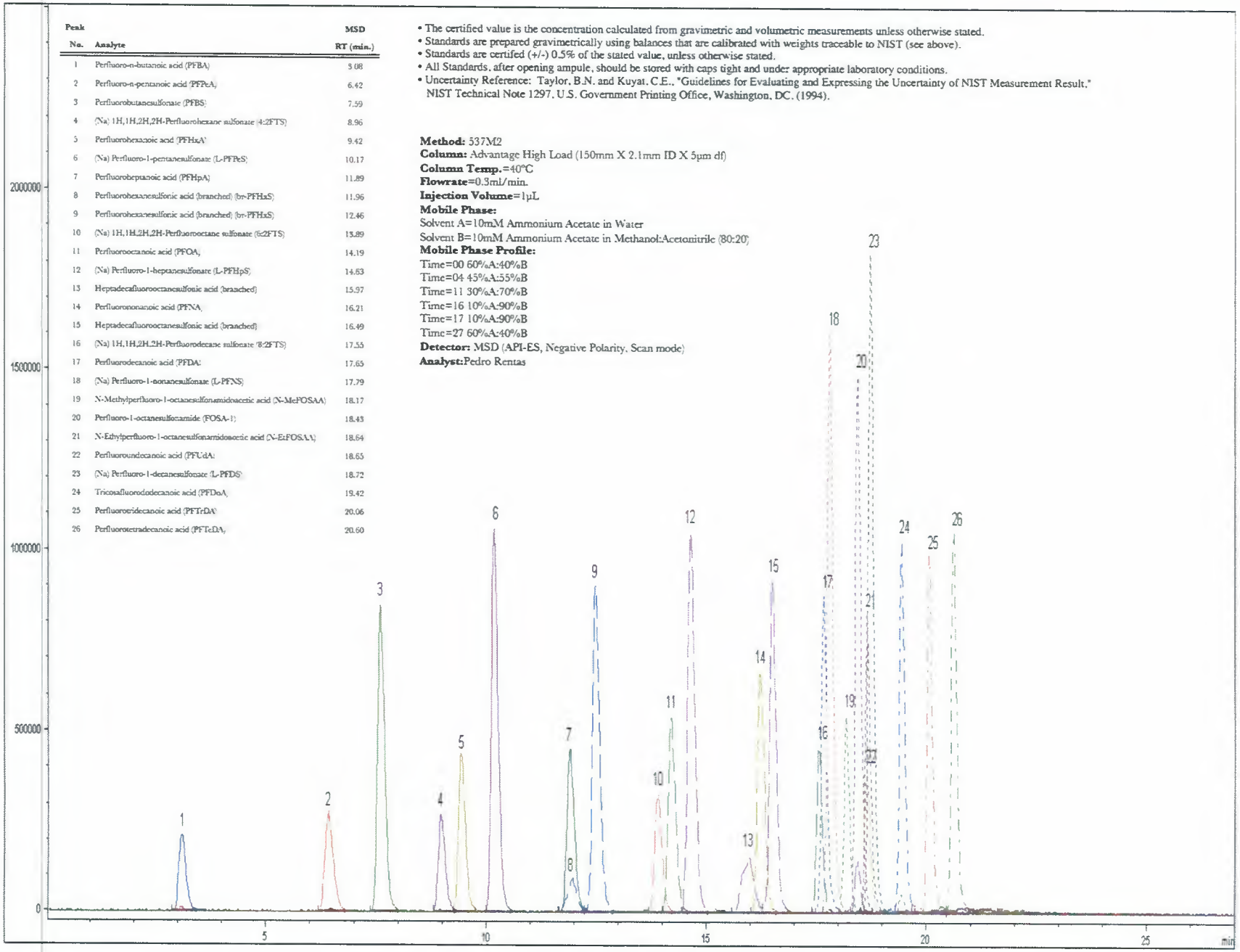
Note: All assigned values are anion concentrations.

	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 (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

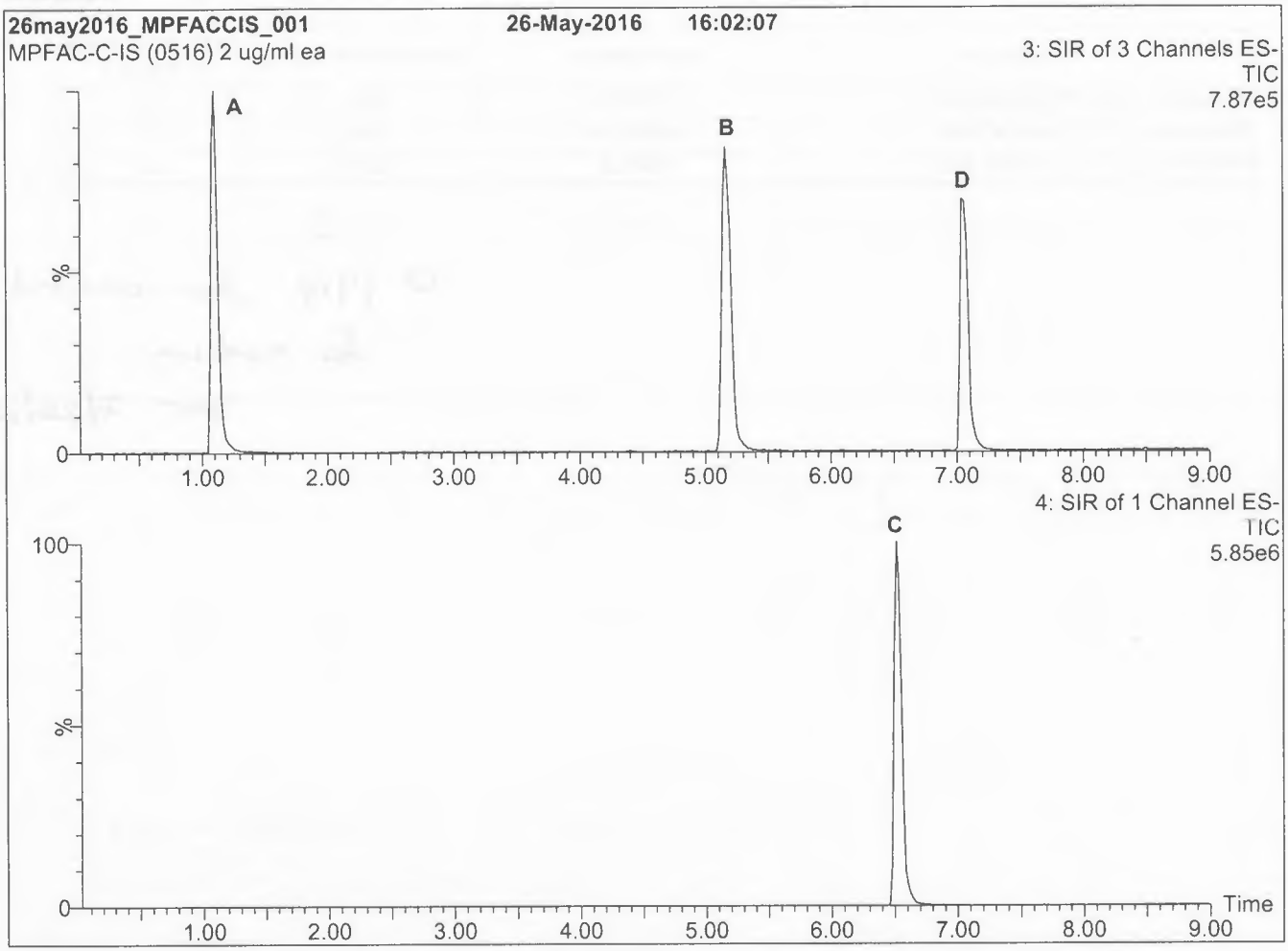
Table A: **MPFAC-C-IS; Components and Concentrations (ng/ml; ± 5% in Methanol / Water (<1%))**

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
JMT 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

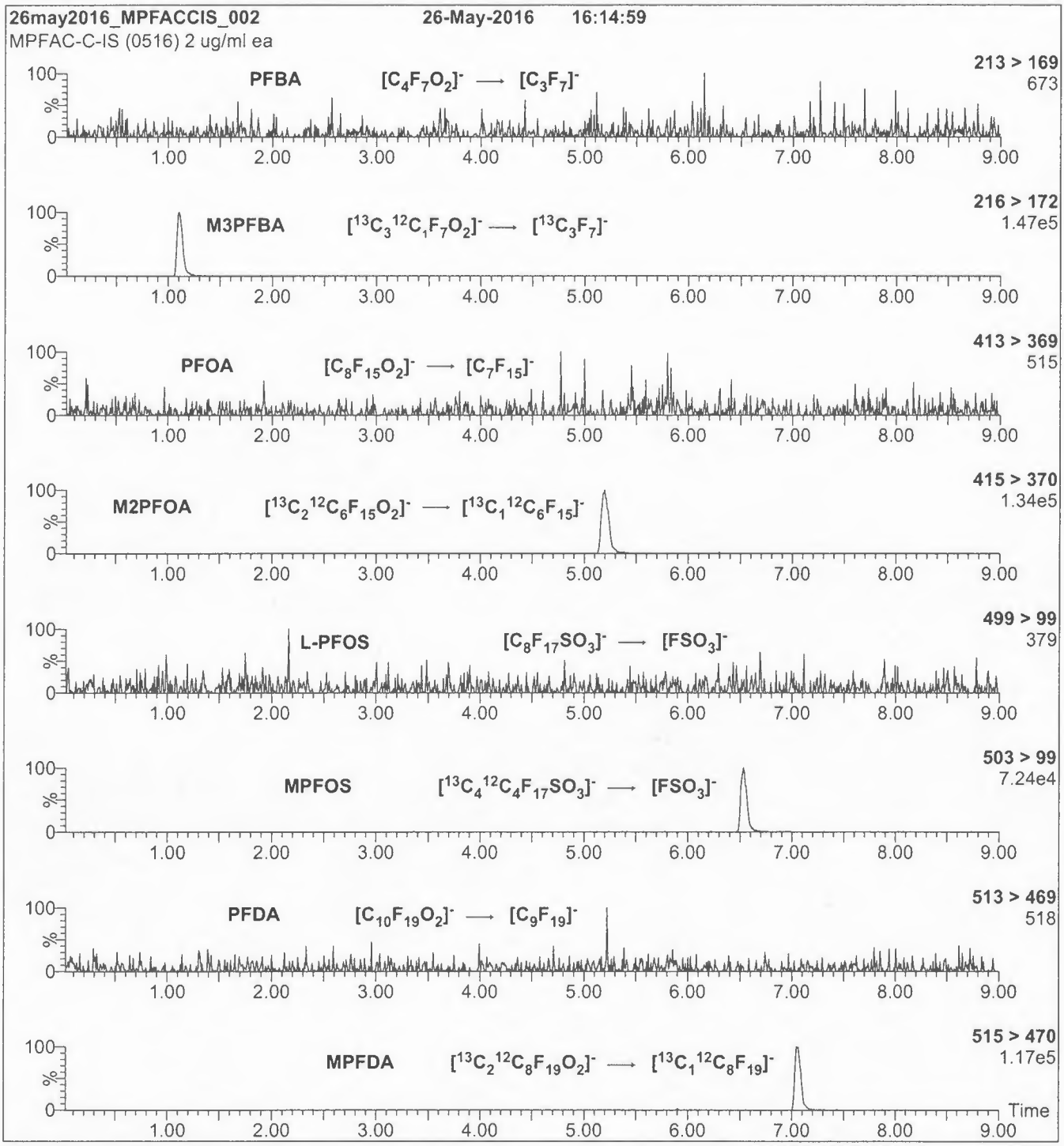
Flow: 300 µl/min

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%))**

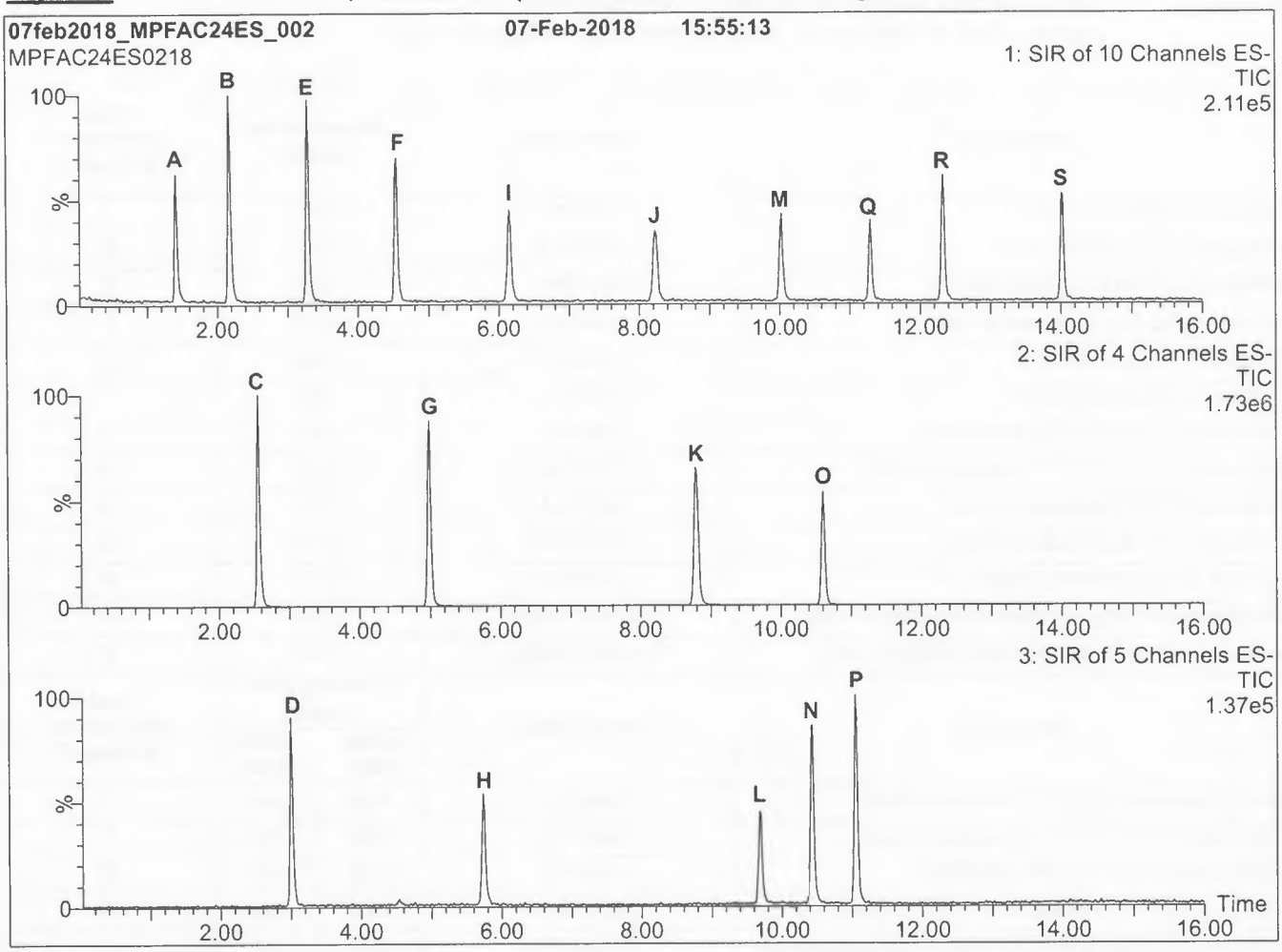
Compound	Abbreviation	Concentration (ng/ml)	Peak Assignment in Figure 1
Perfluoro-n-[$^{13}C_4$]butanoic acid	MPFBA	1000	A
Perfluoro-n-[$^{13}C_5$]pentanoic acid	M5PFPeA	1000	B
Perfluoro-n-[1,2,3,4,6-$^{13}C_5$]hexanoic acid	M5PFHxA	1000	E
Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid	M4PFHpA	1000	F
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)**

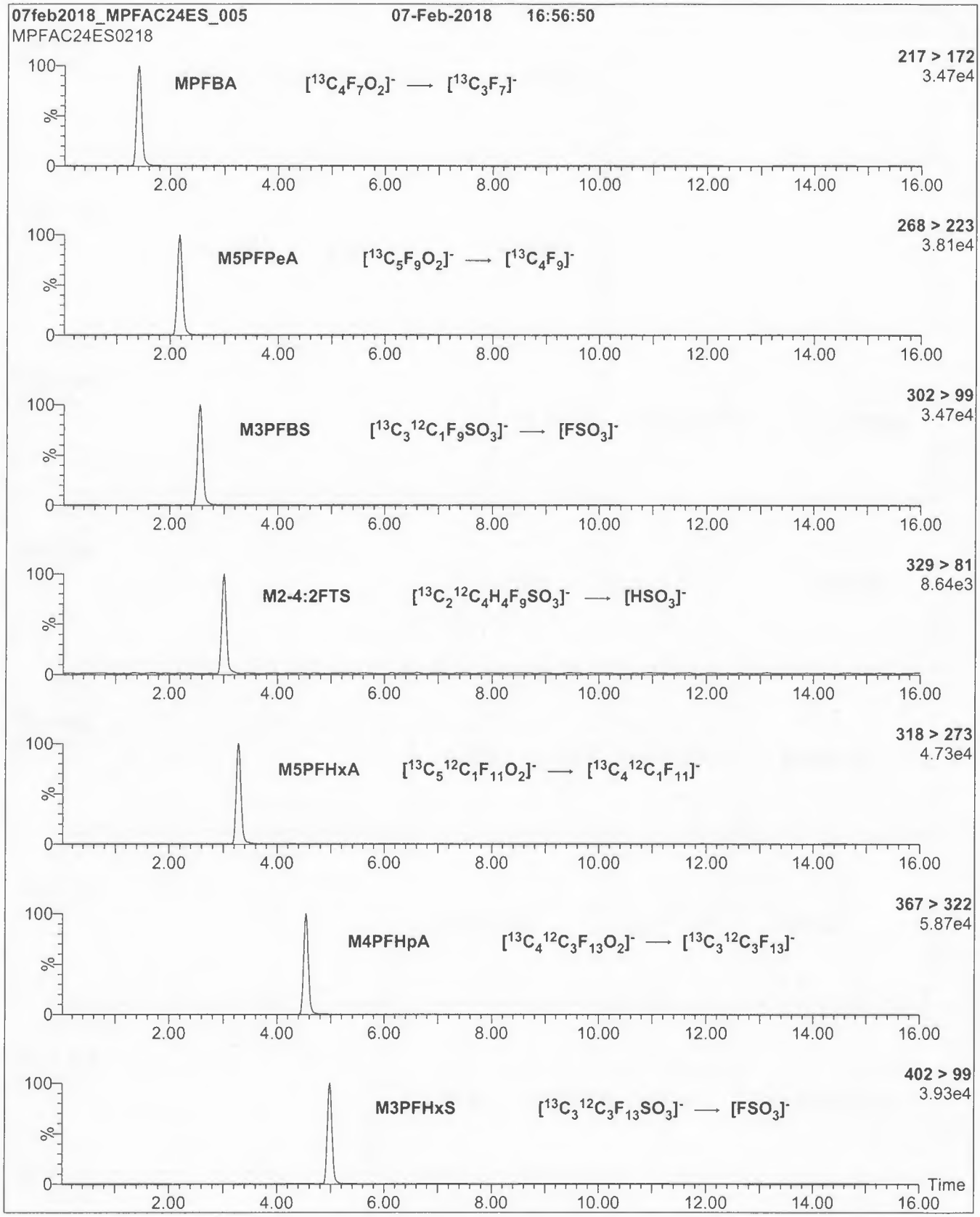


Figure 2: **MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)**

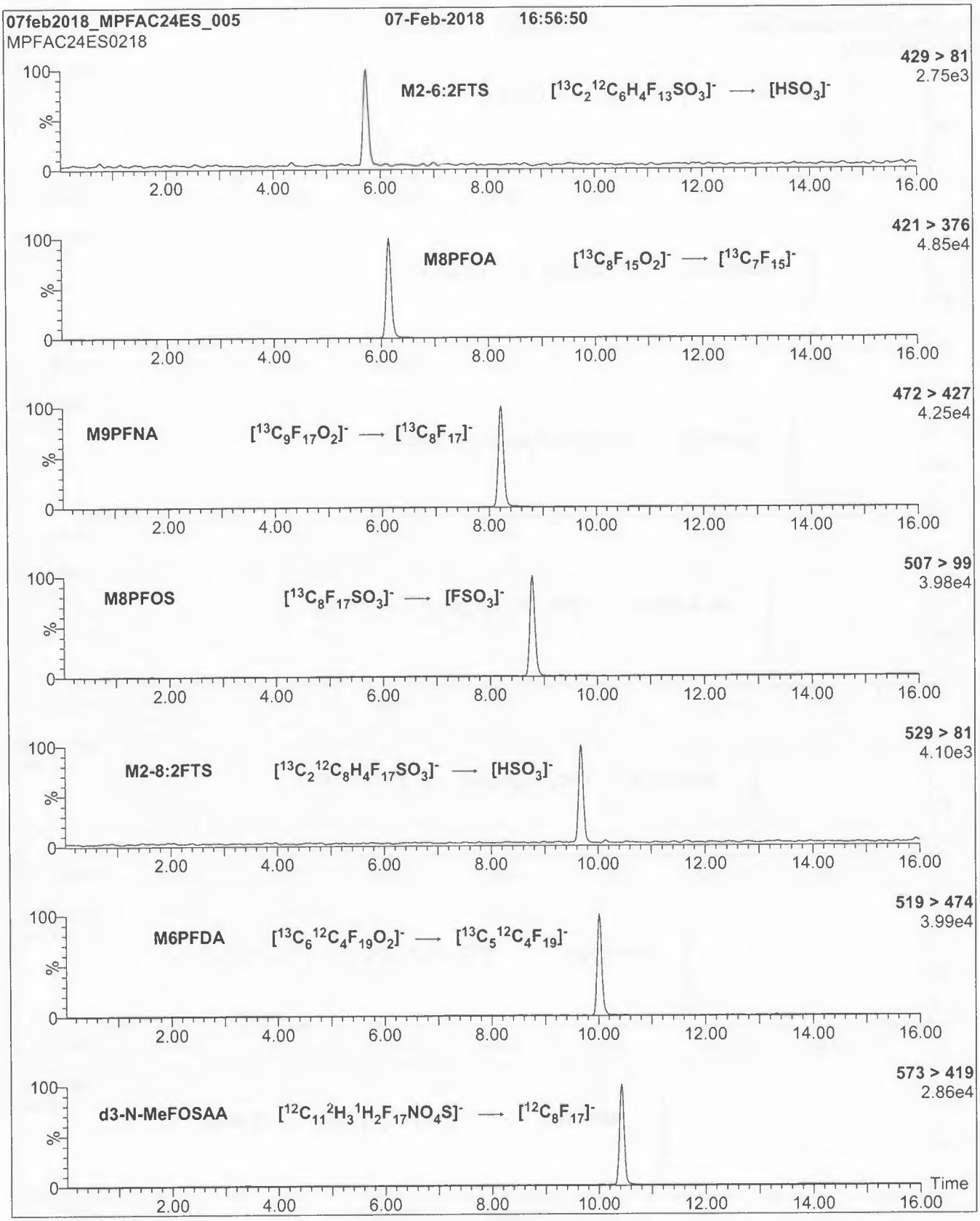
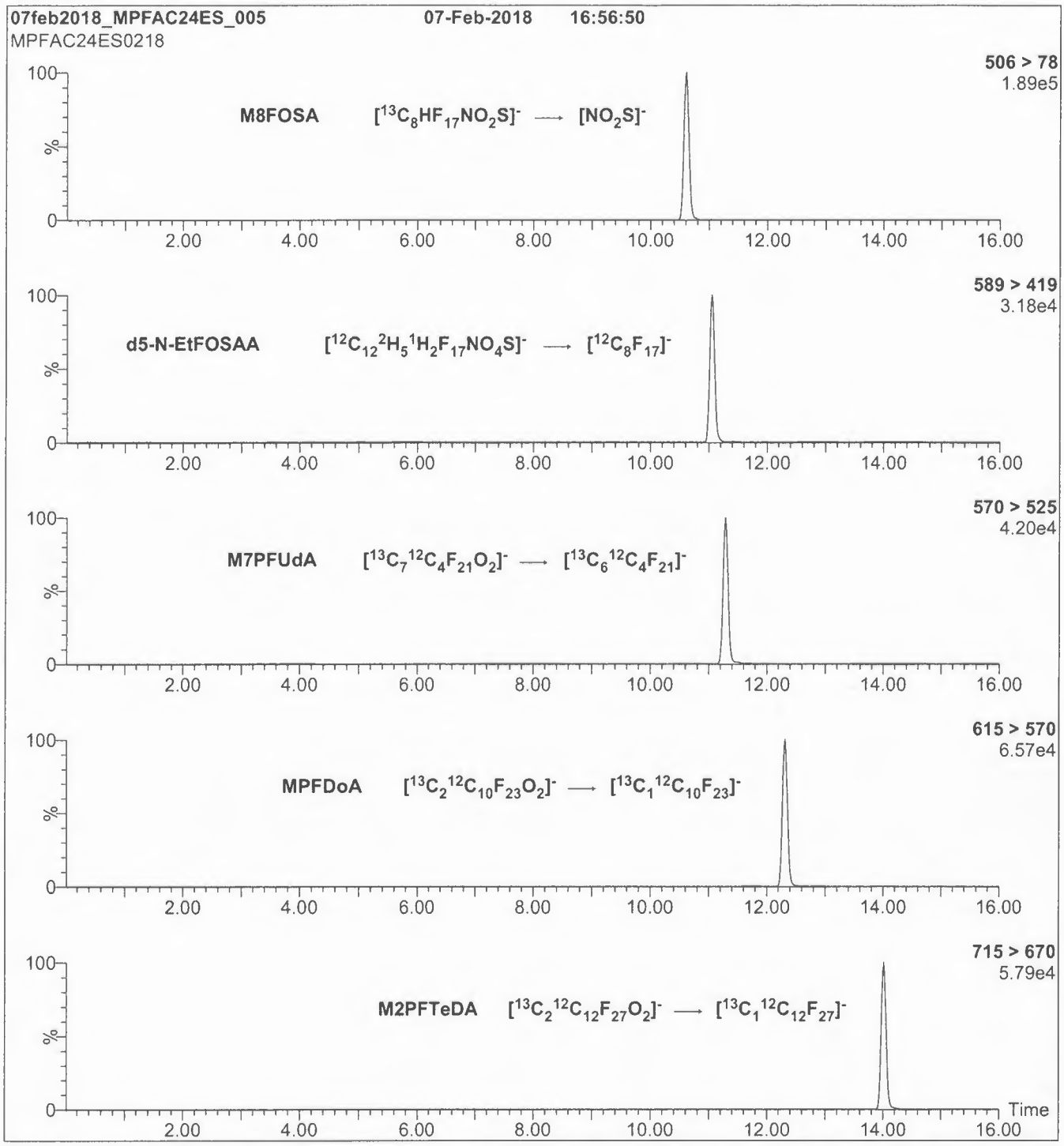


Figure 2: **MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)**



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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BATTELLE - NORWELL OPERATIONS
SAMPLE PREPARATION RECORDS

Project Title(s)	Project No.(s)
CTO-4164 Naval Base Ventura County, California	100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

SOP Numbers (see workplan for modifications)

ExtractionSOP No. 5-370

This Batch Contains The Following Samples:			
CR849PB-FS	J8205-FS	J8219-FS	J8225-FS
CR850LCS-FS	J8206-FS	J8220-FS	J8226-FS
J8201-FS	J8207-FS	J8221-FS	J8227MS-FS
J8202-FS	J8208-FS	J8222-FS	J8228MSD-FS
J8203-FS	J8209-FS	J8223-FS	
J8204-FS	J8218-FS	J8224-FS	

Laboratory Preparation Records
COMPLETE AND VALIDATED

Prep Task Leader: Stephanie Schultz

Approved By:	Date	Initials
Denise Schumitz	10/02/2018	DMS

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SAMPLE IDENTIFICATION PAGE

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Sample ID	Description
CR849PB-FS	Procedural Blank - Ottawa Sand (180507-02)
CR850LCS-FS	Laboratory Control Sample - Ottawa Sand (180507-02)
J8201-FS	VC-PM3009-SS01-000H
J8202-FS	VC-PM3009-SB01-0102
J8203-FS	VC-PM3009-SB01-0506
J8204-FS	VC-PM3009-SS02-000H
J8205-FS	VC-PM3009-SB02-0102
J8206-FS	VC-PM3009-SB02-0506
J8207-FS	VC-PM3009-SS03-000H
J8208-FS	VC-PM3009-SB03-0102
J8209-FS	VC-PM3009-SB03-0506
J8218-FS	VC-PM372-SS01-000H
J8219-FS	VC-PM372-SB01-0102
J8220-FS	VC-PM372-SB01-0506
J8221-FS	VC-PM372-SS02-000H
J8222-FS	VC-PM372-SB02-0102
J8223-FS	VC-PM372-SB02-0506
J8224-FS	VC-PM372-SS03-000H
J8225-FS	VC-PM372-SB03-0102
J8226-FS	VC-PM372-SB03-0506
J8227MS-FS	Matrix Spike of VC-PM372-SS02-000H-MS

Samples Assigned By: Jonathan Thorn Date : September 21, 2018

Comments:

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SAMPLE IDENTIFICATION PAGE

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Sample ID	Description
J8228MSD-FS	Matrix Spike Duplicate of VC-PM372-SS02-000H-SD

Samples Assigned By: Jonathan Thorn Date : September 21, 2018

Comments:

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BATTELLE - NORWELL OPERATIONS
SAMPLE CUSTODY LOG

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Requested On/By:	09/25/2018 SAS	**Purpose:**	Sample Preparation
Relinquished On/By:	09/25/2018 MDS	**Last Activity:**	Return

Accepted On/By:	09/25/2018 SAS	**Returned On/To:**	09/25/2018 MDS
Stored In Facility:	Sample Preparation	**Returned To Facility:**	Custody: NA
Stored Until	09/25/2018		
Stored Comment:	NA	**Returned Comment:**	NA

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	J8201	1	--	Intact	NA
2	J8202	1	--	Intact	NA
3	J8203	1	--	Intact	NA
4	J8204	1	--	Intact	NA
5	J8205	1	--	Intact	NA
6	J8206	1	--	Intact	NA
7	J8207	1	--	Intact	NA
8	J8208	1	--	Intact	NA
9	J8209	1	--	Intact	NA
10	J8218	1	--	Intact	NA
11	J8219	1	--	Intact	NA
12	J8220	1	--	Intact	NA
13	J8221	1	--	Intact	NA
14	J8222	1	--	Intact	NA
15	J8223	1	--	Intact	NA
16	J8224	1	--	Intact	NA
17	J8225	1	--	Intact	NA
18	J8226	1	--	Intact	NA

Total Samples 18 * "C" = Consumed Container

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BATTELLE - NORWELL OPERATIONS
ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)
CR849PB-FS	NA	--	NA	NA	NA	1.97	100.00	0.00	1.97
CR850LCS-FS	NA	--	NA	NA	NA	2.01	100.00	0.00	2.01
J8201-FS	1	--	1.07	6.43	6.29	1.98	97.39	2.61	1.93
J8202-FS	1	--	1.04	7.20	6.79	1.98	93.34	6.66	1.85
J8203-FS	1	--	1.06	7.06	5.91	2.03	80.83	19.17	1.64
J8204-FS	1	--	1.06	6.42	6.36	2.01	98.88	1.12	1.99
J8205-FS	1	--	1.04	6.92	6.80	2.02	97.96	2.04	1.98
J8206-FS	1	--	1.05	7.90	7.32	1.98	91.53	8.47	1.81
J8207-FS	1	--	1.06	7.01	6.26	2.00	87.39	12.61	1.75
J8208-FS	1	--	1.11	5.89	5.66	2.03	95.19	4.81	1.93
J8209-FS	1	--	1.12	8.28	7.10	2.03	83.52	16.48	1.70
J8218-FS	1	--	1.06	8.77	7.63	2.04	85.21	14.79	1.74
J8219-FS	1	--	1.07	8.11	7.40	2.02	89.91	10.09	1.82
J8220-FS	1	--	1.10	7.90	6.45	2.05	78.68	21.32	1.61
J8221-FS	1	--	1.06	6.11	5.98	1.97	97.43	2.57	1.92
J8222-FS	1	--	1.08	6.21	5.90	2.05	93.96	6.04	1.93
J8223-FS	1	--	1.12	6.71	6.23	1.99	91.41	8.59	1.82
J8224-FS	1	--	1.05	10.31	8.67	1.94	82.29	17.71	1.60
J8225-FS	1	--	1.07	13.30	10.77	2.02	79.31	20.69	1.60
J8226-FS	1	--	1.04	9.28	7.07	1.99	73.18	26.82	1.46
J8227MS-FS	1	--	1.10	6.25	6.11	2.00	97.28	2.72	1.95
J8228MSD-FS	1	--	1.13	6.11	5.77	1.98	93.17	6.83	1.84

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100
Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]
* "C" = Sample Container Is Consumed

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BATTELLE - NORWELL OPERATIONS
ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)

Task: Wet Weight

BNO-ID:	Date/Initials:	Battelle-ID:
CR849PB-FS	09/26/2018 SAS	BAL-015
CR850LCS-FS	09/26/2018 SAS	BAL-015
J8201-FS	09/25/2018 SAS	BAL-015
J8202-FS	09/25/2018 SAS	BAL-015
J8203-FS	09/25/2018 SAS	BAL-015
J8204-FS	09/25/2018 SAS	BAL-015
J8205-FS	09/25/2018 SAS	BAL-015
J8206-FS	09/25/2018 SAS	BAL-015
J8207-FS	09/25/2018 SAS	BAL-015
J8208-FS	09/25/2018 SAS	BAL-015
J8209-FS	09/25/2018 SAS	BAL-015
J8218-FS	09/25/2018 SAS	BAL-015
J8219-FS	09/25/2018 SAS	BAL-015
J8220-FS	09/25/2018 SAS	BAL-015
J8221-FS	09/25/2018 SAS	BAL-015
J8222-FS	09/25/2018 SAS	BAL-015
J8223-FS	09/25/2018 SAS	BAL-015
J8224-FS	09/25/2018 SAS	BAL-015
J8225-FS	09/25/2018 SAS	BAL-015
J8226-FS	09/25/2018 SAS	BAL-015
J8227MS-FS	09/25/2018 SAS	BAL-015
J8228MSD-FS	09/25/2018 SAS	BAL-015

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100
Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]
* "C" = Sample Container Is Consumed

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)

Task: Tare Weight

BNO-ID:	Date/Initials:	Battelle-ID:
CR849PB-FS	--	--
CR850LCS-FS	--	--
J8201-FS	09/25/2018 SAS	BAL-015
J8202-FS	09/25/2018 SAS	BAL-015
J8203-FS	09/25/2018 SAS	BAL-015
J8204-FS	09/25/2018 SAS	BAL-015
J8205-FS	09/25/2018 SAS	BAL-015
J8206-FS	09/25/2018 SAS	BAL-015
J8207-FS	09/25/2018 SAS	BAL-015
J8208-FS	09/25/2018 SAS	BAL-015
J8209-FS	09/25/2018 SAS	BAL-015
J8218-FS	09/25/2018 SAS	BAL-015
J8219-FS	09/25/2018 SAS	BAL-015
J8220-FS	09/25/2018 SAS	BAL-015
J8221-FS	09/25/2018 SAS	BAL-015
J8222-FS	09/25/2018 SAS	BAL-015
J8223-FS	09/25/2018 SAS	BAL-015
J8224-FS	09/25/2018 SAS	BAL-015
J8225-FS	09/25/2018 SAS	BAL-015
J8226-FS	09/25/2018 SAS	BAL-015
J8227MS-FS	09/25/2018 SAS	BAL-015
J8228MSD-FS	09/25/2018 SAS	BAL-015

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100
Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]
* "C" = Sample Container Is Consumed

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)

Task: Aliquot Wet Weight

BNO-ID:	Date/Initials:	Battelle-ID:
CR849PB-FS	--	--
CR850LCS-FS	--	--
J8201-FS	09/25/2018 SAS	BAL-015
J8202-FS	09/25/2018 SAS	BAL-015
J8203-FS	09/25/2018 SAS	BAL-015
J8204-FS	09/25/2018 SAS	BAL-015
J8205-FS	09/25/2018 SAS	BAL-015
J8206-FS	09/25/2018 SAS	BAL-015
J8207-FS	09/25/2018 SAS	BAL-015
J8208-FS	09/25/2018 SAS	BAL-015
J8209-FS	09/25/2018 SAS	BAL-015
J8218-FS	09/25/2018 SAS	BAL-015
J8219-FS	09/25/2018 SAS	BAL-015
J8220-FS	09/25/2018 SAS	BAL-015
J8221-FS	09/25/2018 SAS	BAL-015
J8222-FS	09/25/2018 SAS	BAL-015
J8223-FS	09/25/2018 SAS	BAL-015
J8224-FS	09/25/2018 SAS	BAL-015
J8225-FS	09/25/2018 SAS	BAL-015
J8226-FS	09/25/2018 SAS	BAL-015
J8227MS-FS	09/25/2018 SAS	BAL-015
J8228MSD-FS	09/25/2018 SAS	BAL-015

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100
Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]
* "C" = Sample Container Is Consumed

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Ctrs.	*	Tare Wt. (g)	Aliquot Wt. (g)	Dry Wt. (g)	Sample Wet Wt. (g)	% Dry Wt.	% Moisture	Sample Dry Wt. (g)

Task: Aliquot Dry Weight

BNO-ID:	Date/Initials:	Battelle-ID:
CR849PB-FS	--	--
CR850LCS-FS	--	--
J8201-FS	09/26/2018 SAS	BAL-015
J8202-FS	09/26/2018 SAS	BAL-015
J8203-FS	09/26/2018 SAS	BAL-015
J8204-FS	09/26/2018 SAS	BAL-015
J8205-FS	09/26/2018 SAS	BAL-015
J8206-FS	09/26/2018 SAS	BAL-015
J8207-FS	09/26/2018 SAS	BAL-015
J8208-FS	09/26/2018 SAS	BAL-015
J8209-FS	09/26/2018 SAS	BAL-015
J8218-FS	09/26/2018 SAS	BAL-015
J8219-FS	09/26/2018 SAS	BAL-015
J8220-FS	09/26/2018 SAS	BAL-015
J8221-FS	09/26/2018 SAS	BAL-015
J8222-FS	09/26/2018 SAS	BAL-015
J8223-FS	09/26/2018 SAS	BAL-015
J8224-FS	09/26/2018 SAS	BAL-015
J8225-FS	09/26/2018 SAS	BAL-015
J8226-FS	09/26/2018 SAS	BAL-015
J8227MS-FS	09/26/2018 SAS	BAL-015
J8228MSD-FS	09/26/2018 SAS	BAL-015

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100
Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]
* "C" = Sample Container Is Consumed

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
SURROGATE SPIKE FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment
CR849PB-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
CR850LCS-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
CR850LCS-FS	KA84	LCS/MS	1	100	09/26/18 SAS	LMG	NA
J8201-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8202-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8203-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8204-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8205-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8206-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8207-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8208-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8209-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8218-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8219-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8220-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8221-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8222-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8223-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8224-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8225-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8226-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8227MS-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8227MS-FS	KA84	LCS/MS	1	250	09/26/18 SAS	LMG	NA
J8228MSD-FS	JY27	SIS	1	50	09/26/18 SAS	LMG	NA
J8228MSD-FS	KA84	LCS/MS	1	250	09/26/18 SAS	LMG	NA

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
SURROGATE SPIKE FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Sample ID	Standard ID	Type	Vial No.	Vol Added (uL)	Date Spiked/ Spiked By	Witn'd By	Comment

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
JY27	Pipette	B814659662
KA84	Pipette	B814657482
KA84	Pipette	B814659662

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BATTELLE - NORWELL OPERATIONS
SAMPLE EXTRACTION FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Sample ID	1st Extraction	2nd Extraction	3rd Extraction	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comment
CR849PB-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
CR850LCS-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8201-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8202-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8203-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8204-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8205-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8206-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8207-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8208-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8209-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8218-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8219-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8220-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8221-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8222-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8223-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8224-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8225-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8226-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8227MS-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA
J8228MSD-FS	09/26/18 SAS	09/26/18 SAS	NA	NA	NA	NA	NA	NA

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BATTELLE - NORWELL OPERATIONS
SAMPLE EXTRACTION FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Sample ID	1st Extraction	2nd Extraction	3rd Extraction	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comment

Solvents/Reagent Preparations:

Name	ID	Expires	Lot No	Procedure	Comments
0.4% NH3 in Methanol	RP-180926-1	09/26/18	SHBJ0412	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	
0.4% NH3 in Methanol	RP-180926-1	09/26/18	182674	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	

Solvents/Reagents:

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BATTELLE - NORWELL OPERATIONS
COLUMN FRACTIONATION FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Extract Id	Date	Init.	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comments
CR849PB-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
CR850LCS-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8201-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8202-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8203-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8204-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8205-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8206-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8207-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8208-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8209-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8218-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8219-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8220-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8221-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8222-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8223-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8224-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8225-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8226-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA

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It can be done

BATTELLE - NORWELL OPERATIONS
COLUMN FRACTIONATION FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Extract Id	Date	Init.	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comments
J8227MS-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA
J8228MSD-FS(3)	09/27/18	SAS	NA	NA	NA	NA	NA

Column Diameter: 13 mm **Procedure Comment:**

Elution Volume: 10 mL

Solvents

Reagents

Reagent Prep	Weight g	Name	Expires	Lot No	Procedure
RP-180927-1	Not Measured	0.4% NH3 in Methanol	09/27/18	SHBJ0412	Per 100 mL, 3.5 mL am brought to 100 mL with
RP-180927-1	Not Measured	0.4% NH3 in Methanol	09/27/18	182674	Per 100 mL, 3.5 mL am brought to 100 mL with
RP-180927-7	0.50	ENVI-CARB SPE	09/27/18	9334301	Rinse SPE cartridge wi

Fractions

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BATTELLE - NORWELL OPERATIONS
INTERNAL STANDARD SPIKING FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
CR849PB-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
CR850LCS-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8201-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8202-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8203-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8204-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8205-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8206-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8207-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8208-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8209-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8218-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8219-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8220-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8221-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8222-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8223-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8224-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8225-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT

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

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

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It can be done

BATTELLE - NORWELL OPERATIONS
INTERNAL STANDARD SPIKING FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

(N/A Fraction)

Extract Id	Extr. Vol. (uL)	Added (uL)	Std. Id	Accm. (uL)	Vial No.	Pre Inj. Vol. (uL)^	Final Dilution *	Date Spiked/ Spiked By	Witn'd By
J8226-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8227MS-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT
J8228MSD-FS(3)	950	50	KB34	50	1	1000	10.000	09/28/18 SAS	JRT

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
KB34	Pipette	B814659662

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

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

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It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
CR849PB-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
CR849PB-FS	2	--	9/27/2018 10:53:00 AM	CR849PB-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
CR849PB-FS	3	--	9/27/2018 10:53:00 AM	CR849PB-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
CR850LCS-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
CR850LCS-FS	2	--	9/27/2018 10:53:00 AM	CR850LCS-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
CR850LCS-FS	3	--	9/27/2018 10:53:00 AM	CR850LCS-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8201-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8201-FS	2	--	9/27/2018 10:53:00 AM	J8201-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8201-FS	3	--	9/27/2018 10:53:00 AM	J8201-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8202-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8202-FS	2	--	9/27/2018 10:53:00 AM	J8202-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8202-FS	3	--	9/27/2018 10:53:00 AM	J8202-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8203-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8203-FS	2	--	9/27/2018 10:53:00 AM	J8203-FS	0	10000	9000	1.111	1.111	09/27/18 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

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8203-FS	3	--	9/27/2018 10:53:00 AM	J8203-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8204-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8204-FS	2	--	9/27/2018 10:53:00 AM	J8204-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8204-FS	3	--	9/27/2018 10:53:00 AM	J8204-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8205-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8205-FS	2	--	9/27/2018 10:53:00 AM	J8205-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8205-FS	3	--	9/27/2018 10:53:00 AM	J8205-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8206-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8206-FS	2	--	9/27/2018 10:53:00 AM	J8206-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8206-FS	3	--	9/27/2018 10:53:00 AM	J8206-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8207-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8207-FS	2	--	9/27/2018 10:53:00 AM	J8207-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8207-FS	3	--	9/27/2018 10:53:00 AM	J8207-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8208-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 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

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8208-FS	2	--	9/27/2018 10:53:00 AM	J8208-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8208-FS	3	--	9/27/2018 10:53:00 AM	J8208-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8209-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8209-FS	2	--	9/27/2018 10:53:00 AM	J8209-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8209-FS	3	--	9/27/2018 10:53:00 AM	J8209-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8218-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8218-FS	2	--	9/27/2018 10:53:00 AM	J8218-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8218-FS	3	--	9/27/2018 10:53:00 AM	J8218-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8219-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8219-FS	2	--	9/27/2018 10:53:00 AM	J8219-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8219-FS	3	--	9/27/2018 10:53:00 AM	J8219-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8220-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8220-FS	2	--	9/27/2018 10:53:00 AM	J8220-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8220-FS	3	--	9/27/2018 10:53:00 AM	J8220-FS	0	10000	1000	10.000	10.000	09/27/18 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

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8221-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8221-FS	2	--	9/27/2018 10:53:00 AM	J8221-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8221-FS	3	--	9/27/2018 10:53:00 AM	J8221-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8222-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8222-FS	2	--	9/27/2018 10:53:00 AM	J8222-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8222-FS	3	--	9/27/2018 10:53:00 AM	J8222-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8223-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8223-FS	2	--	9/27/2018 10:53:00 AM	J8223-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8223-FS	3	--	9/27/2018 10:53:00 AM	J8223-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8224-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8224-FS	2	--	9/27/2018 10:53:00 AM	J8224-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8224-FS	3	--	9/27/2018 10:53:00 AM	J8224-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8225-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8225-FS	2	--	9/27/2018 10:53:00 AM	J8225-FS	0	10000	9000	1.111	1.111	09/27/18 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

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Extract		*	Extract Date	Source		Initial Extract Vol (uL)	Extract Split	Extract Split	Total Dilution	Date/Initials
Name	#			Name	#					
J8225-FS	3	--	9/27/2018 10:53:00 AM	J8225-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8226-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8226-FS	2	--	9/27/2018 10:53:00 AM	J8226-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8226-FS	3	--	9/27/2018 10:53:00 AM	J8226-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8227MS-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8227MS-FS	2	--	9/27/2018 10:53:00 AM	J8227MS-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8227MS-FS	3	--	9/27/2018 10:53:00 AM	J8227MS-FS	0	10000	1000	10.000	10.000	09/27/18 SAS
J8228MSD-FS	0	C	9/26/2018 11:24:00 AM	NA		NA	NA	1.000	1.000	09/26/18 SAS
J8228MSD-FS	2	--	9/27/2018 10:53:00 AM	J8228MSD-FS	0	10000	9000	1.111	1.111	09/27/18 SAS
J8228MSD-FS	3	--	9/27/2018 10:53:00 AM	J8228MSD-FS	0	10000	1000	10.000	10.000	09/27/18 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

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Sep 28 2018 4:52PM SAS	**Received On/By:**	Sep 28 2018 5:23PM 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	CR849PB-FS(3)	1000	10	Intact	NA
2	CR850LCS-FS(3)	1000	10	Intact	NA
3	J8201-FS(3)	1000	10	Intact	NA
4	J8202-FS(3)	1000	10	Intact	NA
5	J8203-FS(3)	1000	10	Intact	NA
6	J8204-FS(3)	1000	10	Intact	NA
7	J8205-FS(3)	1000	10	Intact	NA
8	J8206-FS(3)	1000	10	Intact	NA
9	J8207-FS(3)	1000	10	Intact	NA
10	J8208-FS(3)	1000	10	Intact	NA
11	J8209-FS(3)	1000	10	Intact	NA
12	J8218-FS(3)	1000	10	Intact	NA
13	J8219-FS(3)	1000	10	Intact	NA
14	J8220-FS(3)	1000	10	Intact	NA
15	J8221-FS(3)	1000	10	Intact	NA
16	J8222-FS(3)	1000	10	Intact	NA
17	J8223-FS(3)	1000	10	Intact	NA
18	J8224-FS(3)	1000	10	Intact	NA
19	J8225-FS(3)	1000	10	Intact	NA
20	J8226-FS(3)	1000	10	Intact	NA
21	J8227MS-FS(3)	1000	10	Intact	NA
22	J8228MSD-FS(3)	1000	10	Intact	NA

Total Extracts: 22

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
SAMPLE SPECIFIC COMMENTS

Project Title(s)
CTO-4164 Naval Base Ventura County, California

Project No.(s)
100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Comment:	Date/Initials:
CR849PB-FS	NA	NA
CR850LCS-FS	NA	NA
J8201-FS	Sample contained rocks.	09/25/18 SAS
J8202-FS	NA	NA
J8203-FS	NA	NA
J8204-FS	Sample contained rocks.	09/25/18 SAS
J8205-FS	Sample contained rocks.	09/25/18 SAS
J8206-FS	Sample contained rocks.	09/25/18 SAS
J8207-FS	NA	NA
J8208-FS	NA	NA
J8209-FS	NA	NA
J8218-FS	NA	NA
J8219-FS	NA	NA
J8220-FS	NA	NA
J8221-FS	NA	NA
J8222-FS	NA	NA
J8223-FS	NA	NA
J8224-FS	NA	NA
J8225-FS	NA	NA
J8226-FS	NA	NA
J8227MS-FS	NA	NA
J8228MSD-FS	NA	NA

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM

Project Title(s)	**Project No.(s)**
CTO-4164 Naval Base Ventura County, California	100110125-01

18-0569

CTO-4164: Analysis of Solids

SB, SS

Entered By:	**On:**

Task Leader Approval:	**On:**
SupervisorApproval:	**On:**
PM Approval:	**On:**

Analytical Calibrations

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 03/10/2018 2:30:52 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File	
1	MeOH		9/28/2018 2:39:40 PM	5-0369.dam	18-0571.wiff	
2	KA86	L1	9/28/2018 2:50:32 PM	5-0369.dam	18-0571.wiff	
3	KA87	L2	9/28/2018 3:01:25 PM	5-0369.dam	18-0571.wiff	
4	KA88	L3	9/28/2018 3:12:17 PM	5-0369.dam	18-0571.wiff	
5	KA89	L4	9/28/2018 3:23:09 PM	5-0369.dam	18-0571.wiff	
6	KA90	L5	9/28/2018 3:34:02 PM	5-0369.dam	18-0571.wiff	
7	KB64	L6	9/28/2018 3:44:53 PM	5-0369.dam	18-0571.wiff	
8	KB65	L7	9/28/2018 3:55:45 PM	5-0369.dam	18-0571.wiff	
9	KB35 IB	Instrument Blank	9/28/2018 4:06:37 PM	5-0369.dam	18-0571.wiff	
10	KB36 ICC	ICC	9/28/2018 4:17:28 PM	5-0369.dam	18-0571.wiff	
11	KA29 Branch	Branch Standard	9/28/2018 4:28:21 PM	5-0369.dam	18-0571.wiff	
1	MeOH		9/28/2018 4:39:13 PM	5-0369.dam	18-0571.wiff	
~~16~~	~~KA89 CCV~~	~~CCV~~	~~9/28/2018 5:33:32 PM~~	~~5-0369.dam~~	~~18-0571.wiff~~	1.
17	MeOH		9/28/2018 5:44:23 PM	5-0369.dam	18-0571.wiff	
~~18~~	~~CR853PB-FS(3)~~	~~Procedural Blank~~	~~9/28/2018 5:55:16 PM~~	~~5-0369.dam~~	~~18-0571.wiff~~	1.
~~19~~	~~CR854LCS-FS(3)~~	~~Laboratory Control Sample~~	~~9/28/2018 6:06:07 PM~~	~~5-0369.dam~~	~~18-0571.wiff~~	
~~20~~	~~J8254-FS(3)~~	~~VC-PM365-SS03-000H~~	~~9/28/2018 6:17:00 PM~~	~~5-0369.dam~~	~~18-0571.wiff~~	
~~21~~	~~J8255-FS(3)~~	~~VC-PM365-SB03-0102~~	~~9/28/2018 6:27:52 PM~~	~~5-0369.dam~~	~~18-0571.wiff~~	
~~22~~	~~J8256-FS(3)~~	~~VC-PM365-SB03-0506~~	~~9/28/2018 6:38:44 PM~~	~~5-0369.dam~~	~~18-0571.wiff~~	
~~23~~	~~J8263-FS(3)~~	~~VC-PM553-SS01-000H~~	~~9/28/2018 6:49:36 PM~~	~~5-0369.dam~~	~~18-0571.wiff~~	
~~24~~	~~J8264-FS(3)~~	~~VC-PM553-SB01-0102~~	~~9/28/2018 7:00:30 PM~~	~~5-0369.dam~~	~~18-0571.wiff~~	
~~25~~	~~J8265-FS(3)~~	~~VC-PM553-SB01-0506~~	~~9/28/2018 7:11:22 PM~~	~~5-0369.dam~~	~~18-0571.wiff~~	
~~26~~	~~KA90 CCV~~	~~CCV~~	~~9/28/2018 7:22:14 PM~~	~~5-0369.dam~~	~~18-0571.wiff~~	
~~27~~	~~MeOH~~		~~9/28/2018 7:33:05 PM~~	~~5-0369.dam~~	~~18-0571.wiff~~	
~~28~~	~~J8266-FS(3)~~	~~VC-PM553-SS02-000H~~	~~9/28/2018 7:43:57 PM~~	~~5-0369.dam~~	~~18-0571.wiff~~	
~~29~~	~~J8267-FS(3)~~	~~VC-PM553-SB02-0102~~	~~9/28/2018 7:54:50 PM~~	~~5-0369.dam~~	~~18-0571.wiff~~	
~~30~~	~~J8268-FS(3)~~	~~VC-PM553-SB02-~~	~~9/28/2018 8:05:42~~	~~5-0369.dam~~	~~18-0571.wiff~~	

1 Samples from another batch not reported with this one. DMS 10/3/2018

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 03/10/2018 2:30:52 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
		0506	PM		
31	J8269-FS(3)	VC-PM553-SS03-000H	9/28/2018 8:16:34 PM	5-0369.dam	18-0571.wiff
32	J8270-FS(3)	VC-PM553-SB03-0102	9/28/2018 8:27:24 PM	5-0369.dam	18-0571.wiff
33	J8271-FS(3)	VC-PM553-SB03-0506	9/28/2018 8:38:16 PM	5-0369.dam	18-0571.wiff
34	KA89 CCV	CCV	9/28/2018 8:49:08 PM	5-0369.dam	18-0571.wiff
1	MeOH		9/28/2018 8:59:59 PM	5-0369.dam	18-0571.wiff
2	CR849PB-FS(3)	Procedural Blank	9/28/2018 9:10:51 PM	5-0369.dam	18-0571.wiff
3	CR850LCS-FS(3)	Laboratory Control Sample	9/28/2018 9:21:43 PM	5-0369.dam	18-0571.wiff
4	J8201-FS(3)	VC-PM3009-SS01-000H	9/28/2018 9:32:35 PM	5-0369.dam	18-0571.wiff
5	J8202-FS(3)	VC-PM3009-SB01-0102	9/28/2018 9:43:30 PM	5-0369.dam	18-0571.wiff
6	J8203-FS(3)	VC-PM3009-SB01-0506	9/28/2018 9:54:23 PM	5-0369.dam	18-0571.wiff
7	J8204-FS(3)	VC-PM3009-SS02-000H	9/28/2018 10:05:15 PM	5-0369.dam	18-0571.wiff
8	J8205-FS(3)	VC-PM3009-SB02-0102	9/28/2018 10:16:07 PM	5-0369.dam	18-0571.wiff
9	J8206-FS(3)	VC-PM3009-SB02-0506	9/28/2018 10:26:59 PM	5-0369.dam	18-0571.wiff
10	J8207-FS(3)	VC-PM3009-SS03-000H	9/28/2018 10:37:51 PM	5-0369.dam	18-0571.wiff
11	J8208-FS(3)	VC-PM3009-SB03-0102	9/28/2018 10:48:45 PM	5-0369.dam	18-0571.wiff
12	KA90 CCV	CCV	9/28/2018 10:59:39 PM	5-0369.dam	18-0571.wiff
13	MeOH		9/28/2018 11:10:32 PM	5-0369.dam	18-0571.wiff
14	J8209-FS(3)	VC-PM3009-SB03-0506	9/28/2018 11:21:26 PM	5-0369.dam	18-0571.wiff
15	J8218-FS(3)	VC-PM372-SS01-000H	9/28/2018 11:32:19 PM	5-0369.dam	18-0571.wiff
16	J8219-FS(3)	VC-PM372-SB01-0102	9/28/2018 11:43:11 PM	5-0369.dam	18-0571.wiff
17	J8220-FS(3)	VC-PM372-SB01-0506	9/28/2018 11:54:03 PM	5-0369.dam	18-0571.wiff
18	J8221-FS(3)	VC-PM372-SS02-000H	9/29/2018 12:04:57 AM	5-0369.dam	18-0571.wiff
19	J8222-FS(3)	VC-PM372-SB02-0102	9/29/2018 12:15:49 AM	5-0369.dam	18-0571.wiff
20	J8223-FS(3)	VC-PM372-SB02-0506	9/29/2018 12:26:42 AM	5-0369.dam	18-0571.wiff
21	J8224-FS(3)	VC-PM372-SS03-000H	9/29/2018 12:37:36 AM	5-0369.dam	18-0571.wiff
22	J8225-FS(3)	VC-PM372-SB03-0102	9/29/2018 12:48:29 AM	5-0369.dam	18-0571.wiff

1

2

1 Samples from another batch not reported with this one. DMS 10/3/2018

2 Sample rerun for bad injection on the instrument. DMS 10/3/2018

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 03/10/2018 2:30:52 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
23	J8226-FS(3)	VC-PM372-SB03-0506	9/29/2018 12:59:21 AM	5-0369.dam	18-0571.wiff
24	KA89 CCV	CCV	9/29/2018 1:10:15 AM	5-0369.dam	18-0571.wiff
25	MeOH		9/29/2018 1:21:07 AM	5-0369.dam	18-0571.wiff
26	J8227MS-FS(3)	VC-PM372-SS02-000H-MS	9/29/2018 1:32:00 AM	5-0369.dam	18-0571.wiff
27	J8228MSD-FS(3)	VC-PM372-SS02-000H-SD	9/29/2018 1:42:52 AM	5-0369.dam	18-0571.wiff
28	MeOH		9/29/2018 1:53:44 AM	5-0369.dam	18-0571.wiff
29	KA90 CCV	CCV	9/29/2018 2:04:37 AM	5-0369.dam	18-0571.wiff

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 03/10/2018 11:42:27 AM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
1	MeOH		10/2/2018 8:18:32 PM	5-0369.dam	18-0567.wiff
2	KA86	L1	10/2/2018 8:29:24 PM	5-0369.dam	18-0567.wiff
3	KA87	L2	10/2/2018 8:40:16 PM	5-0369.dam	18-0567.wiff
4	KA88	L3	10/2/2018 8:51:08 PM	5-0369.dam	18-0567.wiff
5	KB85	L4	10/2/2018 9:02:00 PM	5-0369.dam	18-0567.wiff
6	KB69	L5	10/2/2018 9:12:52 PM	5-0369.dam	18-0567.wiff
7	KB64	L6	10/2/2018 9:23:43 PM	5-0369.dam	18-0567.wiff
8	KB65	L7	10/2/2018 9:34:34 PM	5-0369.dam	18-0567.wiff
9	KB35 IB	Instrument Blank	10/2/2018 9:45:25 PM	5-0369.dam	18-0567.wiff
10	KB36 ICC	ICC	10/2/2018 9:56:17 PM	5-0369.dam	18-0567.wiff
11	KA29 Branch	Branch Standard	10/2/2018 10:07:10 PM	5-0369.dam	18-0567.wiff
12	MeOH		10/2/2018 10:18:02 PM	5-0369.dam	18-0567.wiff
13	~~CR849PB-FS(3)~~ (1)	~~Procedural Blank~~	~~10/2/2018 10:28:52 PM~~	~~5-0369.dam~~	~~18-0567.wiff~~
14	J8218-FS(3)	VC-PM372-SS01-000H	10/2/2018 10:39:44 PM	5-0369.dam	18-0567.wiff
5	KB85 CCV	CCV	10/2/2018 10:50:36 PM	5-0369.dam	18-0567.wiff

(1) Confirmation only. Original analysis was reported. Please see MQO Report for details. LMG 10/3/18

BATTELLE

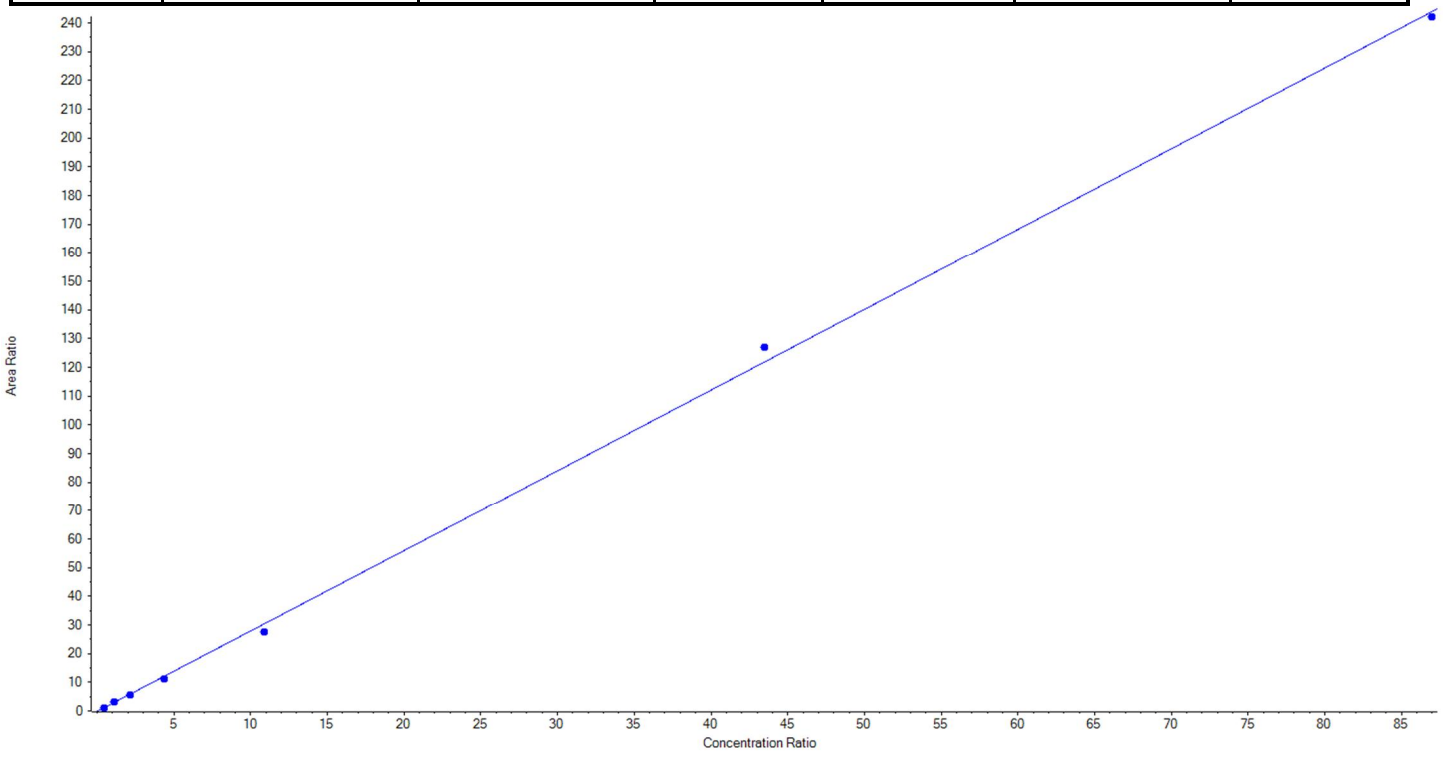
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFBS_1	**Data File**	18-0571.wiff
MRM Transition	298.9 / 80.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 2.80608 x + -0.16980 (r = 0.99928) (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	111.126549	110.0
3	KA87	L2	True	252.50	271.244650	107.4
4	KA88	L3	True	505.00	471.739279	93.4
5	KA89	L4	True	1010.00	951.523668	94.2
6	KA90	L5	True	2525.00	2308.355918	91.4
7	KB64	L6	True	10100.00	10528.716461	104.2
8	KB65	L7	True	20200.00	20050.793476	99.3



BATTELLE

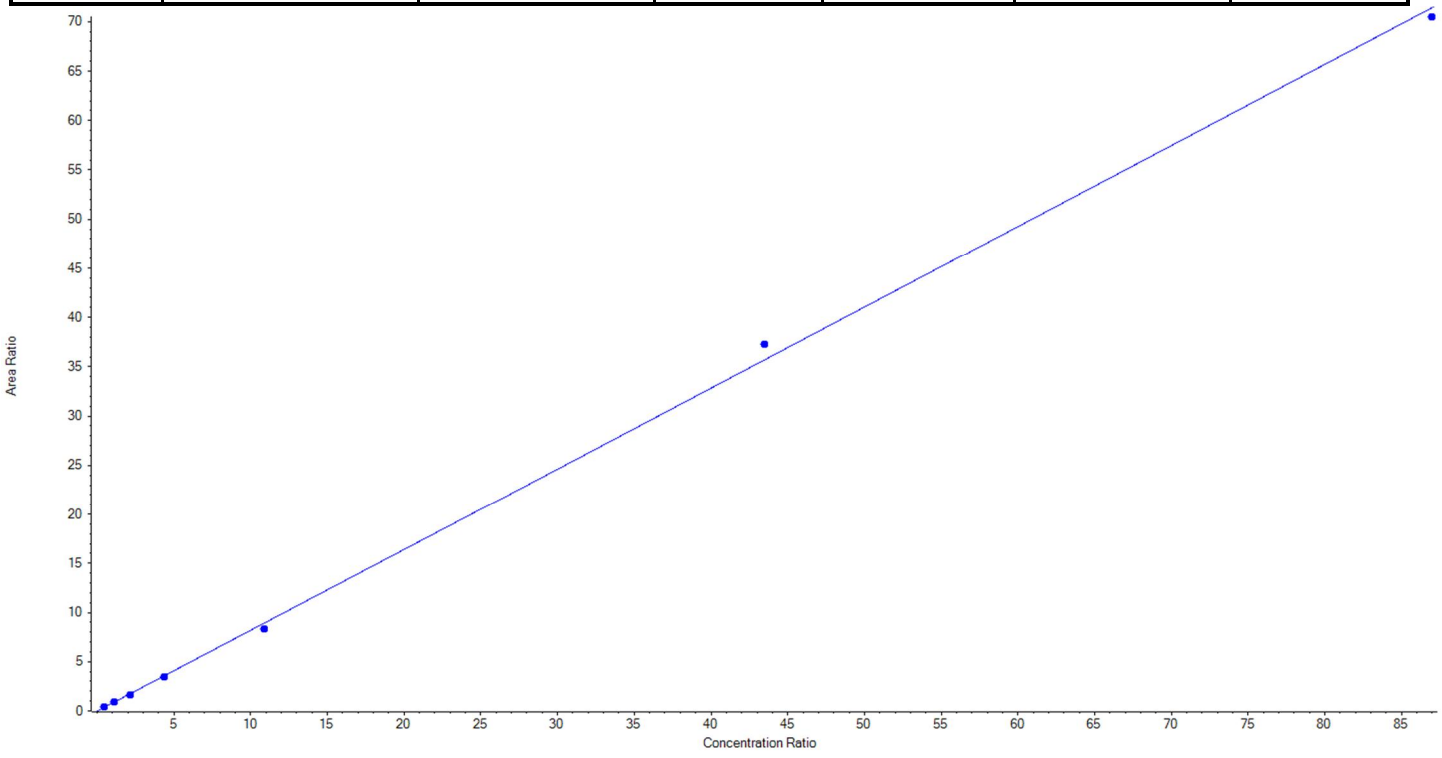
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFBS_2	**Data File**	18-0571.wiff
MRM Transition	298.9 / 99.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.82121 x + -0.02040 (r = 0.99942) (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	107.644305	106.6
3	KA87	L2	True	252.50	265.804635	105.3
4	KA88	L3	True	505.00	478.997677	94.9
5	KA89	L4	True	1010.00	969.790196	96.0
6	KA90	L5	True	2525.00	2374.618112	94.0
7	KB64	L6	True	10100.00	10557.467223	104.5
8	KB65	L7	True	20200.00	19939.177852	98.7



BATTELLE

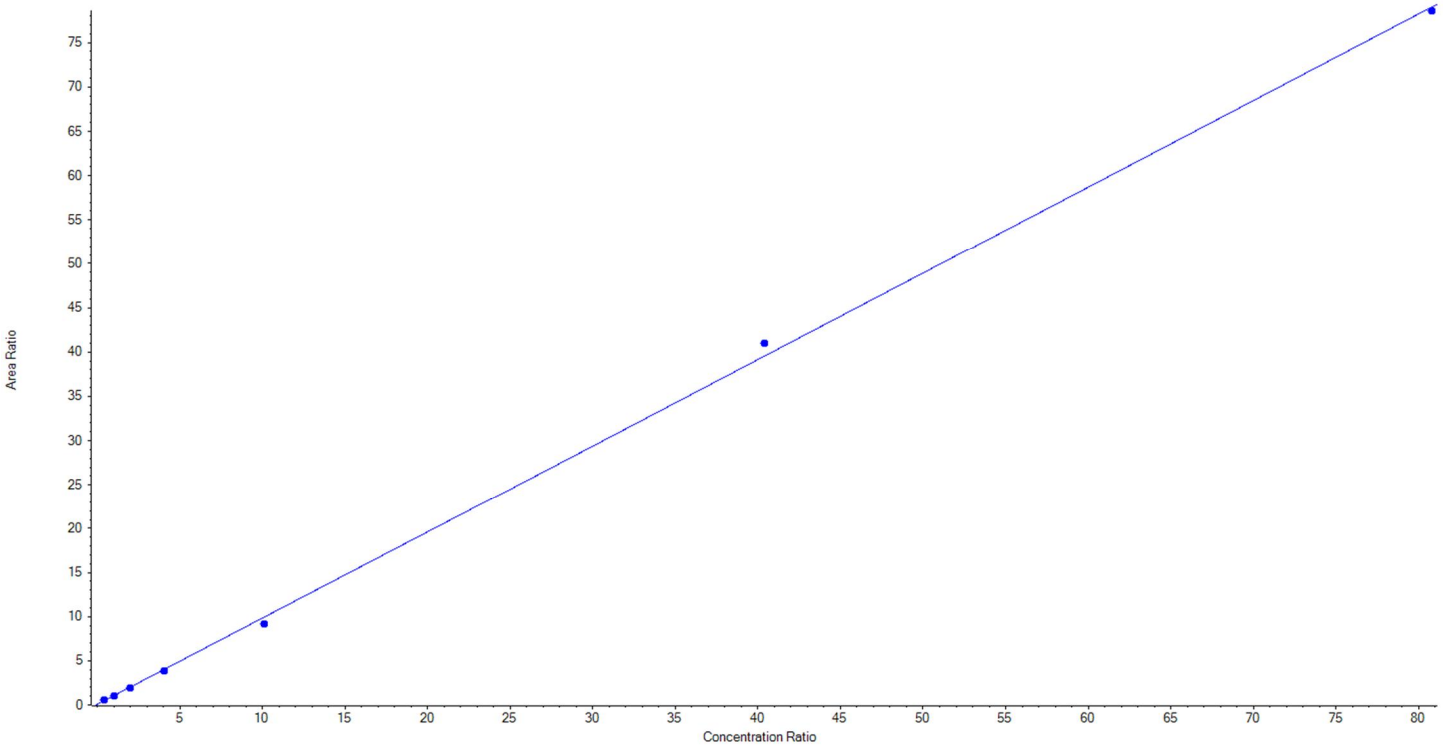
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFHxA_1	**Data File**	18-0571.wiff
MRM Transition	313.0 / 269.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.97722 x + 0.06071 (r = 0.99941) (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	117.603693	116.4
3	KA87	L2	True	252.50	251.345688	99.5
4	KA88	L3	True	505.00	469.220108	92.9
5	KA89	L4	True	1010.00	968.366728	95.9
6	KA90	L5	True	2525.00	2324.705931	92.1
7	KB64	L6	True	10100.00	10475.562168	103.7
8	KB65	L7	True	20200.00	20086.695684	99.4



BATTELLE

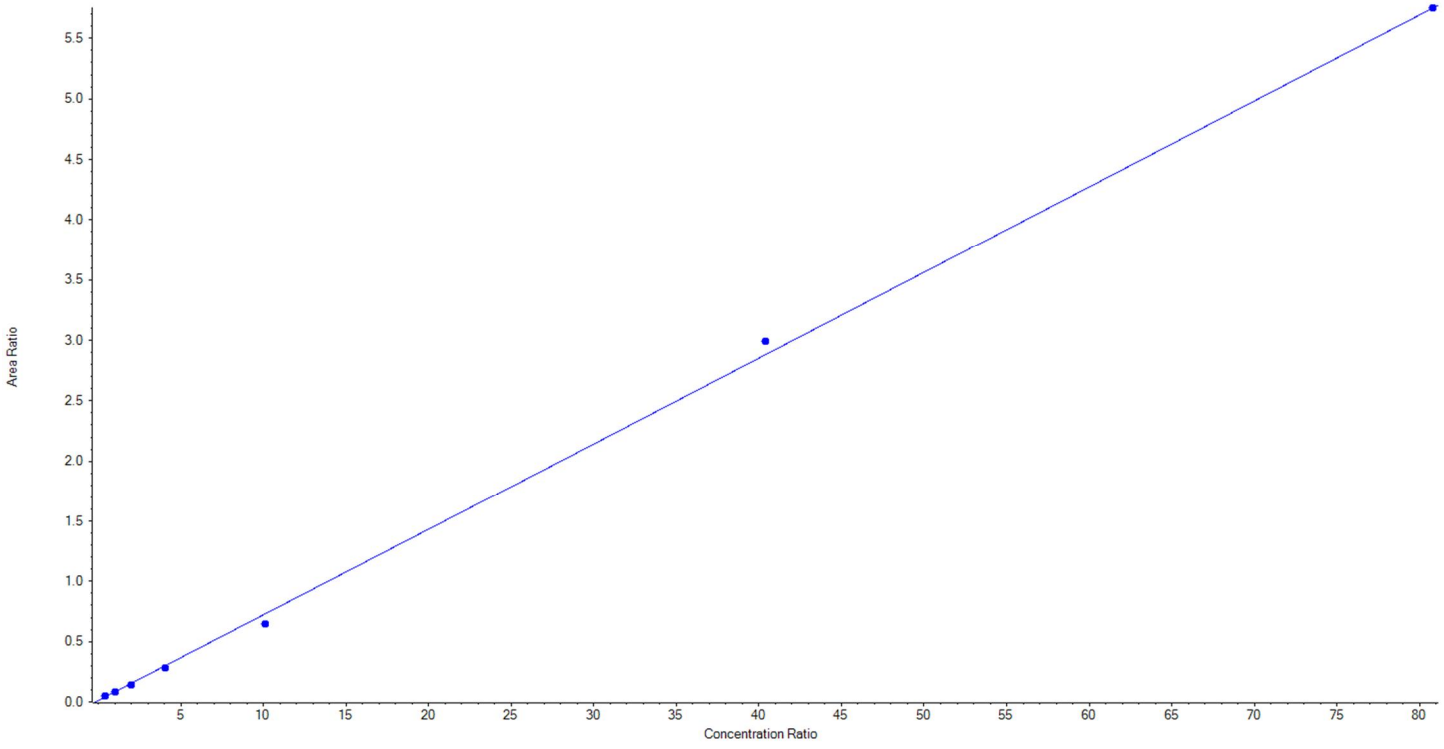
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFHxA_2	**Data File**	18-0571.wiff
MRM Transition	313.0 / 119.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.07102 x + 0.01170 (r = 0.99897) (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	131.015829	129.7
3	KA87	L2	True	252.50	237.464036	94.1
4	KA88	L3	True	505.00	459.123362	90.9
5	KA89	L4	True	1010.00	936.657126	92.7
6	KA90	L5	True	2525.00	2241.184637	88.8
7	KB64	L6	True	10100.00	10484.102235	103.8
8	KB65	L7	True	20200.00	20203.952775	100.0



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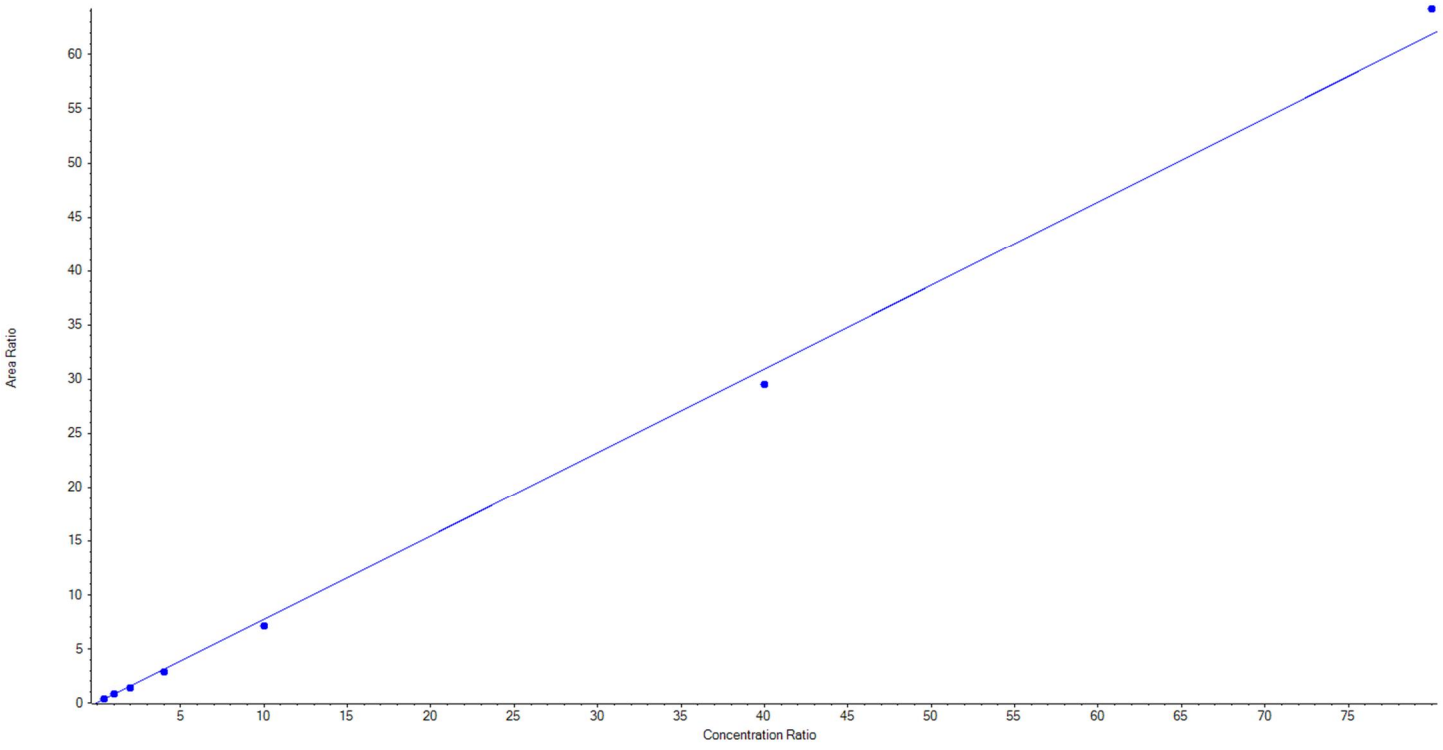
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFHpA_1	**Data File**	18-0571.wiff
MRM Transition	363.0 / 319.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.77311 x + 0.00943 (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	123.022671	123.0
3	KA87	L2	True	250.00	254.107233	101.6
4	KA88	L3	True	500.00	458.906747	91.8
5	KA89	L4	True	1000.00	926.409703	92.6
6	KA90	L5	True	2500.00	2294.295443	91.8
7	KB64	L6	True	10000.00	9534.801462	95.4
8	KB65	L7	True	20000.00	20758.456741	103.8



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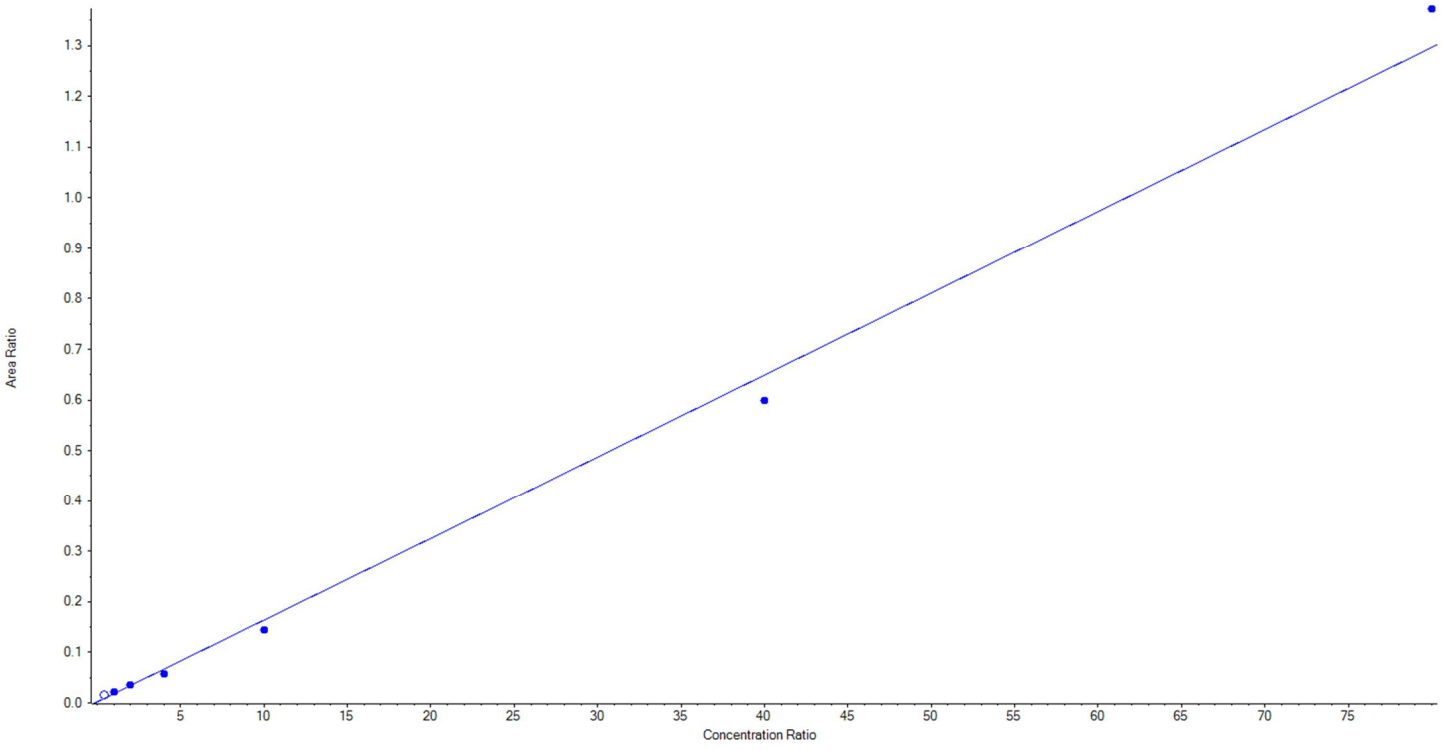
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFHpA_2	**Data File**	18-0571.wiff
MRM Transition	363.0 / 169.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.01618 x + 0.00203 (r = 0.99644) (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	213.652921	213.7
3	KA87	L2	True	250.00	317.650858	127.1
4	KA88	L3	True	500.00	513.220163	102.6
5	KA89	L4	True	1000.00	846.256560	84.6
6	KA90	L5	True	2500.00	2192.970548	87.7
7	KB64	L6	True	10000.00	9210.327366	92.1
8	KB65	L7	True	20000.00	21169.574505	105.9



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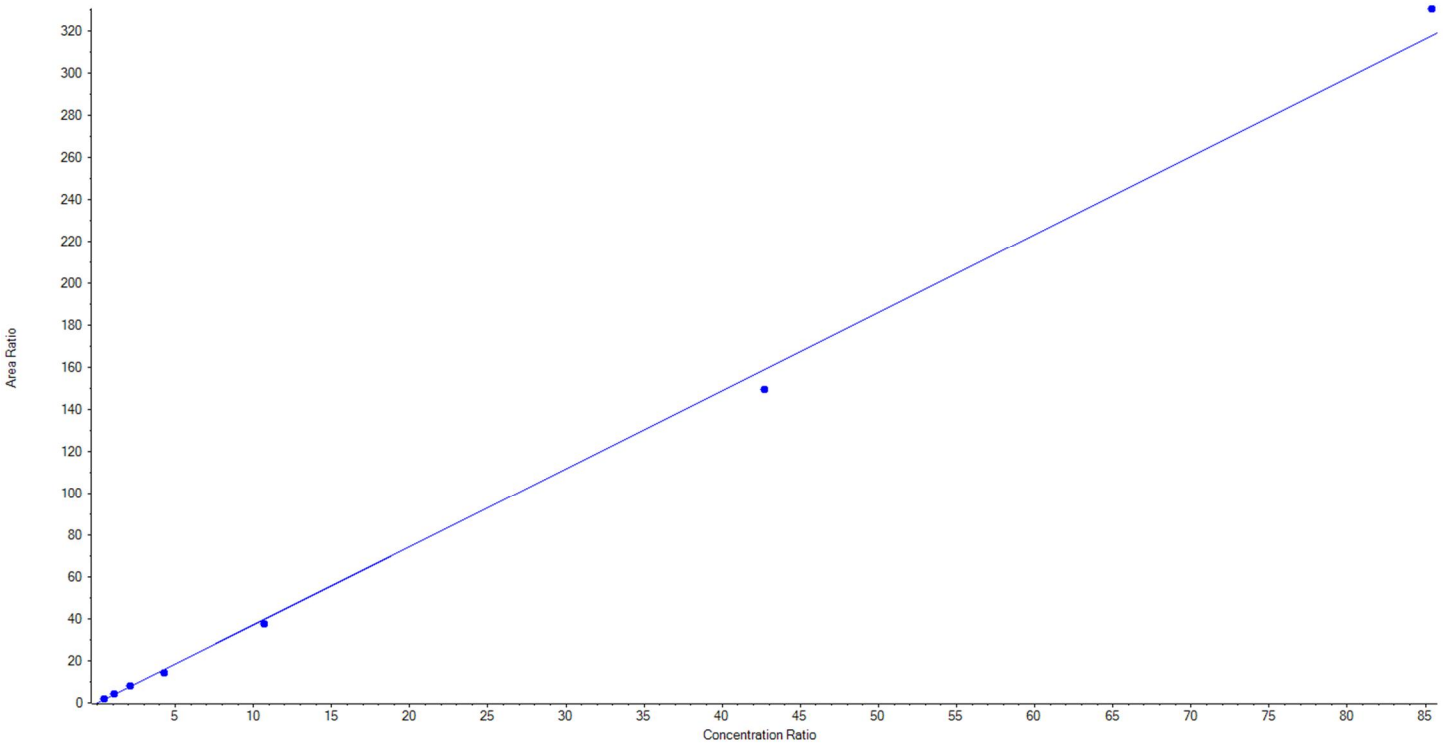
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFHxS_1	**Data File**	18-0571.wiff
MRM Transition	399.0 / 80.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 3.72156 x + -0.02196 (r = 0.99867) (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	113.607101	112.5
3	KA87	L2	True	252.50	259.546378	102.8
4	KA88	L3	True	505.00	507.831007	100.6
5	KA89	L4	True	1010.00	923.301756	91.4
6	KA90	L5	True	2525.00	2393.530209	94.8
7	KB64	L6	True	10100.00	9491.668992	94.0
8	KB65	L7	True	20200.00	21004.014558	104.0



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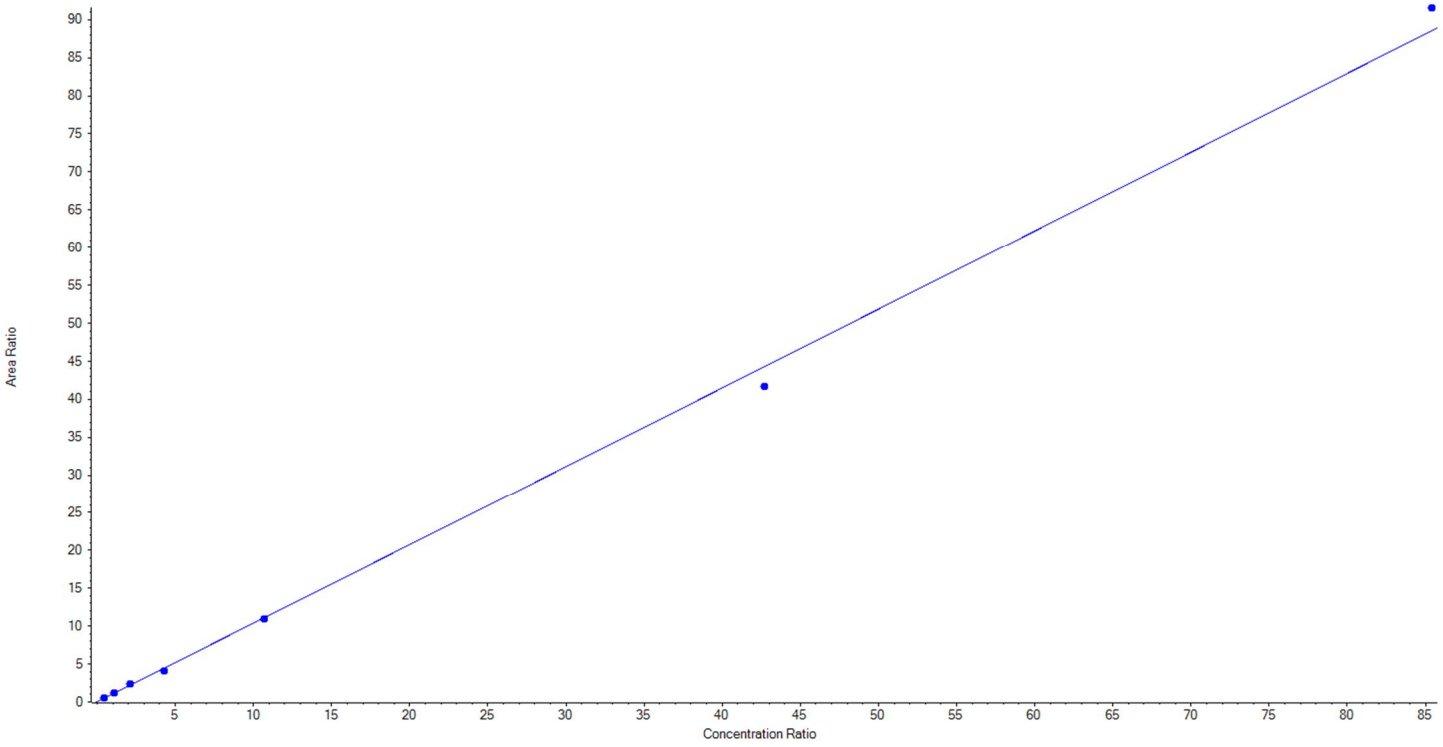
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFHxS_2	**Data File**	18-0571.wiff
MRM Transition	399.0 / 99.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.03654 x + 0.01933 (r = 0.99892) (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	103.176220	102.2
3	KA87	L2	True	252.50	270.862965	107.3
4	KA88	L3	True	505.00	525.023020	104.0
5	KA89	L4	True	1010.00	916.878220	90.8
6	KA90	L5	True	2525.00	2481.088704	98.3
7	KB64	L6	True	10100.00	9512.053167	94.2
8	KB65	L7	True	20200.00	20884.417704	103.4



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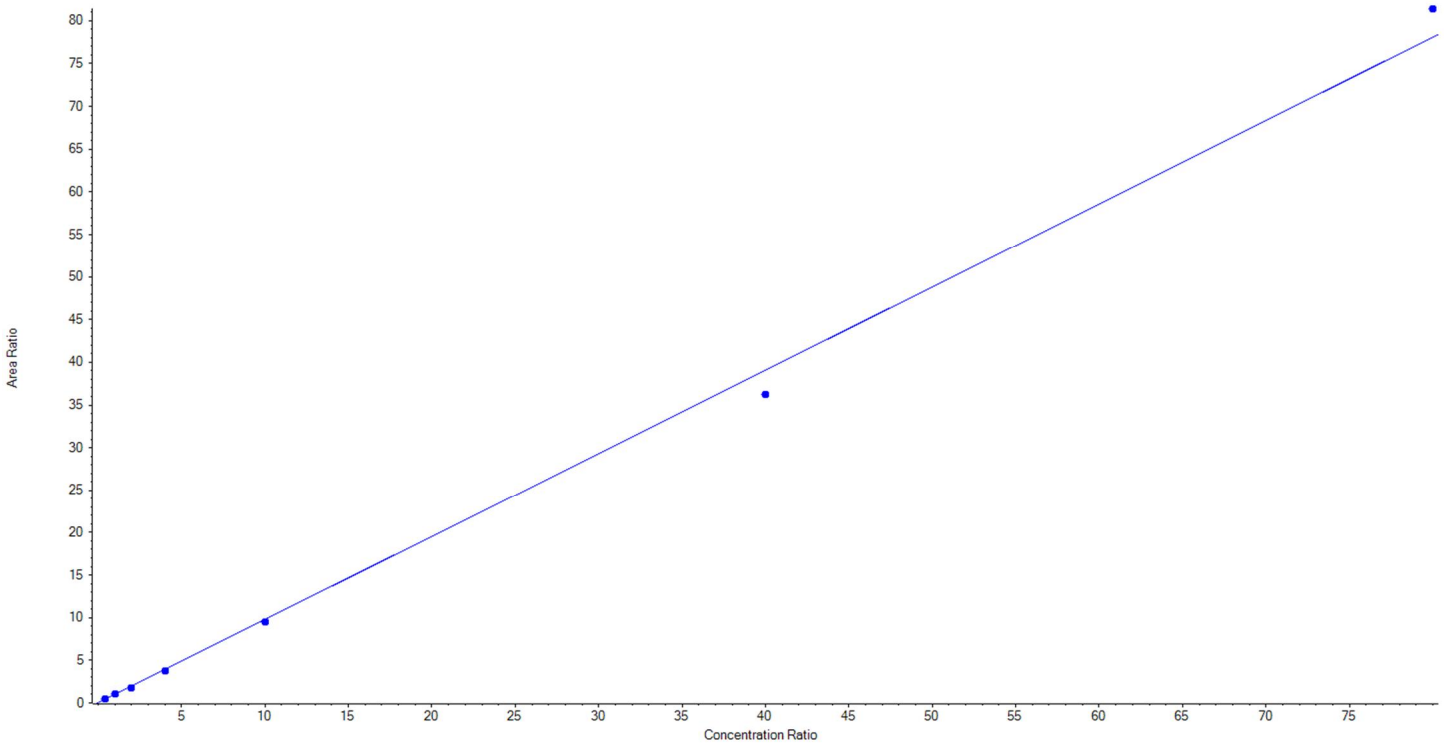
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFOA_1	**Data File**	18-0571.wiff
MRM Transition	413.0 / 369.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.97567 x + 0.03459 (r = 0.99845) (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	111.874648	111.9
3	KA87	L2	True	250.00	268.631396	107.5
4	KA88	L3	True	500.00	451.934346	90.4
5	KA89	L4	True	1000.00	959.434348	95.9
6	KA90	L5	True	2500.00	2432.500528	97.3
7	KB64	L6	True	10000.00	9282.868926	92.8
8	KB65	L7	True	20000.00	20842.755808	104.2



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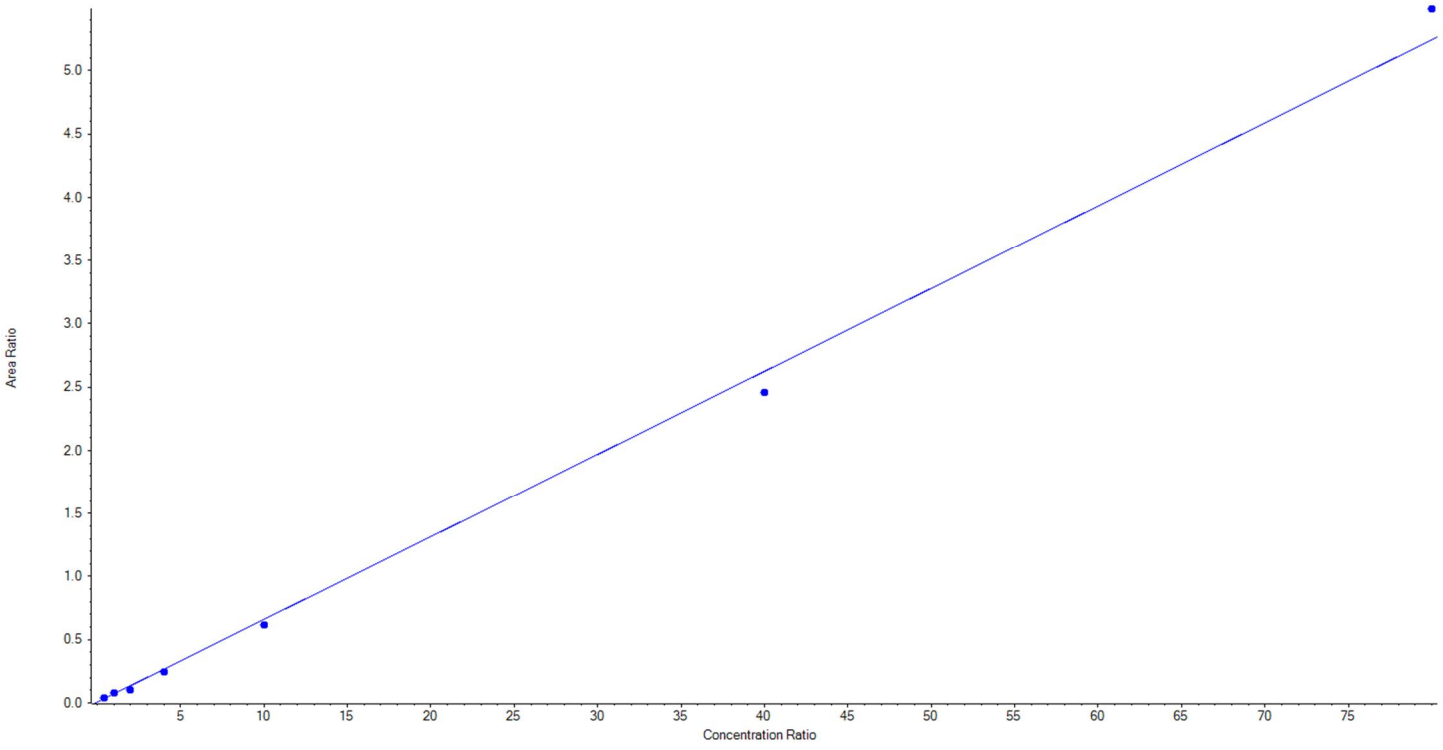
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFOA_2	**Data File**	18-0571.wiff
MRM Transition	413.0 / 169.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06548 x + 0.00522 (r = 0.99775) (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	124.278075	124.3
3	KA87	L2	True	250.00	293.428807	117.4
4	KA88	L3	True	500.00	379.451627	75.9
5	KA89	L4	True	1000.00	900.967211	90.1
6	KA90	L5	True	2500.00	2348.789728	94.0
7	KB64	L6	True	10000.00	9379.268669	93.8
8	KB65	L7	True	20000.00	20923.815882	104.6



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Calibration Summary Report

Created with Analyst Reporter
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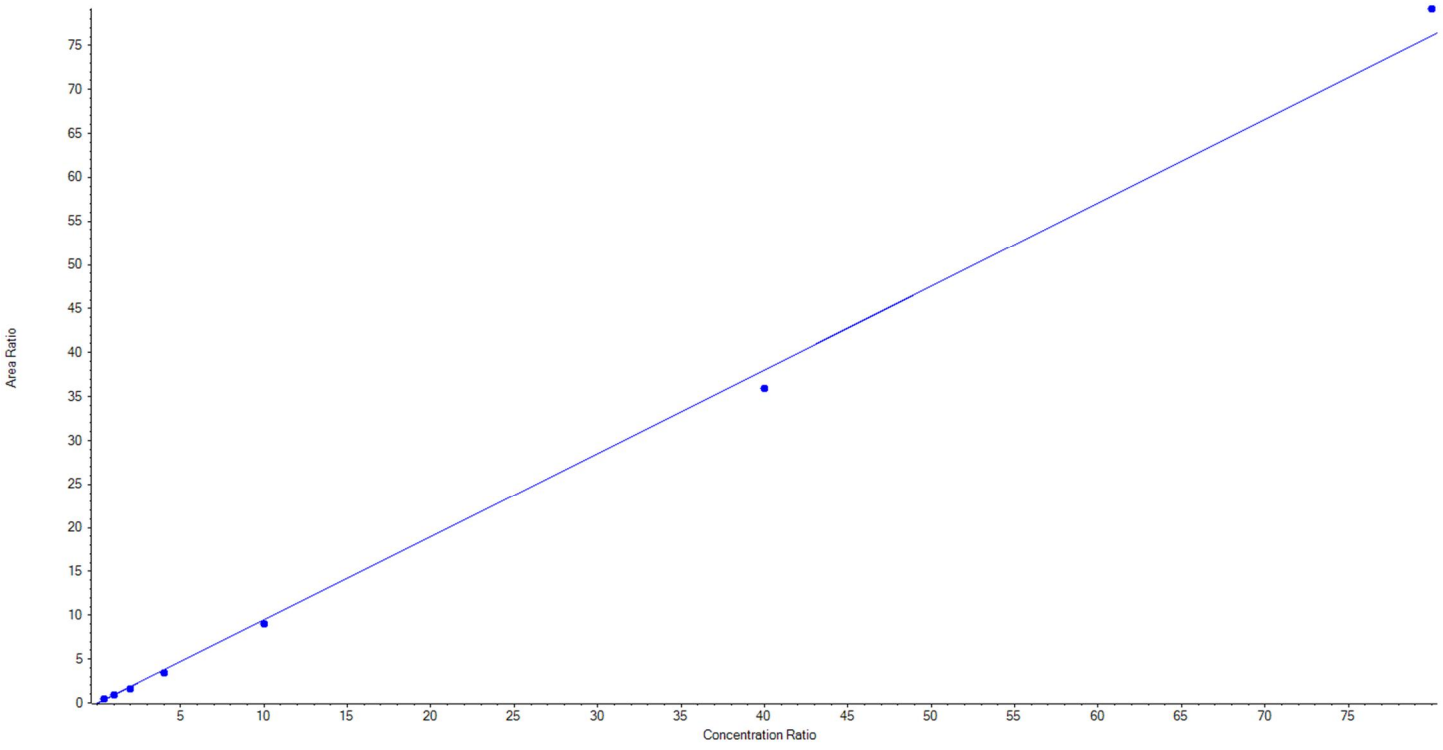
Analyte Name	PFNA_1	**Data File**	18-0571.wiff
MRM Transition	463.0 / 419.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.95203 x + -0.05340 (r = 0.99855) (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	128.694613	128.7
3	KA87	L2	True	250.00	247.461832	99.0
4	KA88	L3	True	500.00	434.733542	87.0
5	KA89	L4	True	1000.00	916.592054	91.7
6	KA90	L5	True	2500.00	2382.423409	95.3
7	KB64	L6	True	10000.00	9443.466309	94.4
8	KB65	L7	True	20000.00	20796.628242	104.0



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Calibration Summary Report

Created with Analyst Reporter
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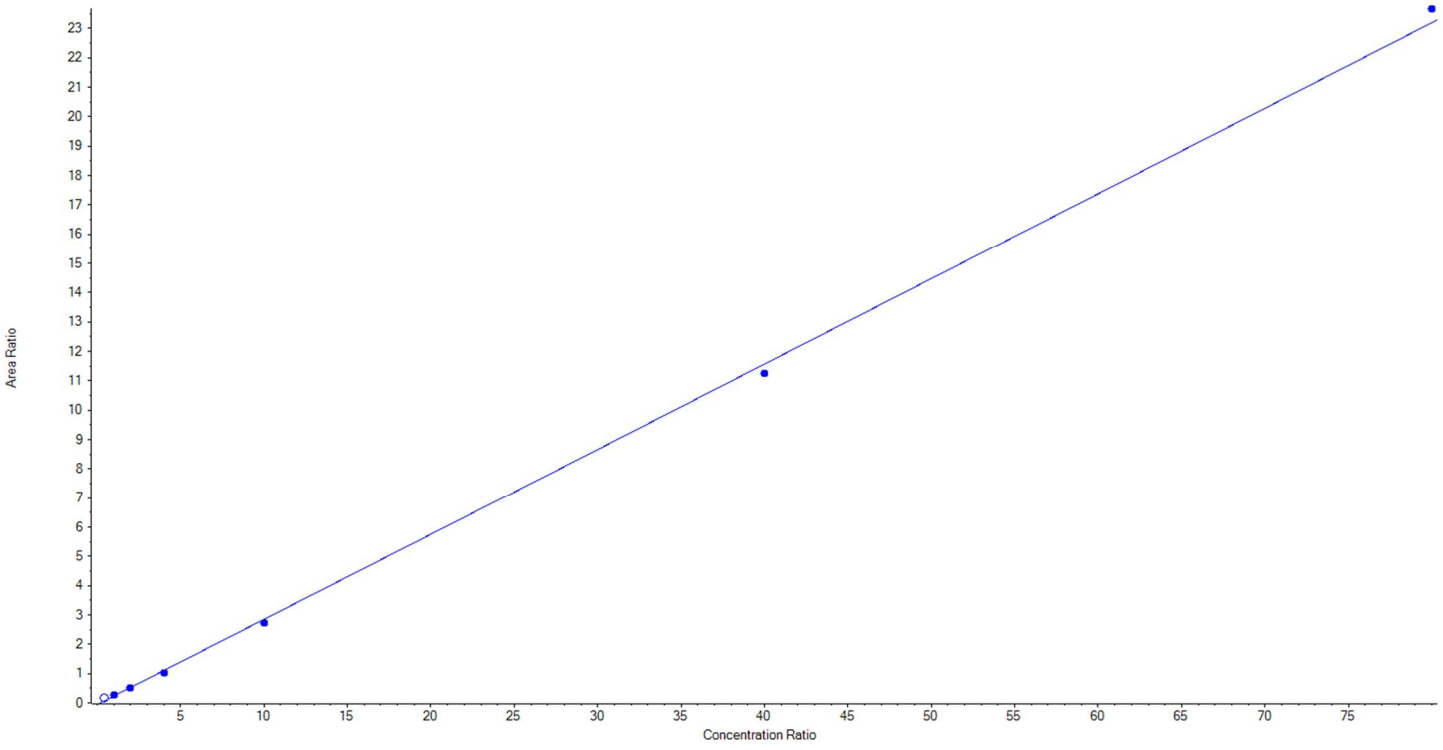
Analyte Name	PFNA_2	**Data File**	18-0571.wiff
MRM Transition	463.0 / 219.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.29059 x + -0.05706 (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	False	100.00	192.812655	192.8
3	KA87	L2	True	250.00	278.384087	111.4
4	KA88	L3	True	500.00	498.878543	99.8
5	KA89	L4	True	1000.00	935.062838	93.5
6	KA90	L5	True	2500.00	2399.973473	96.0
7	KB64	L6	True	10000.00	9735.385728	97.4
8	KB65	L7	True	20000.00	20402.315331	102.0



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Calibration Summary Report

Created with Analyst Reporter
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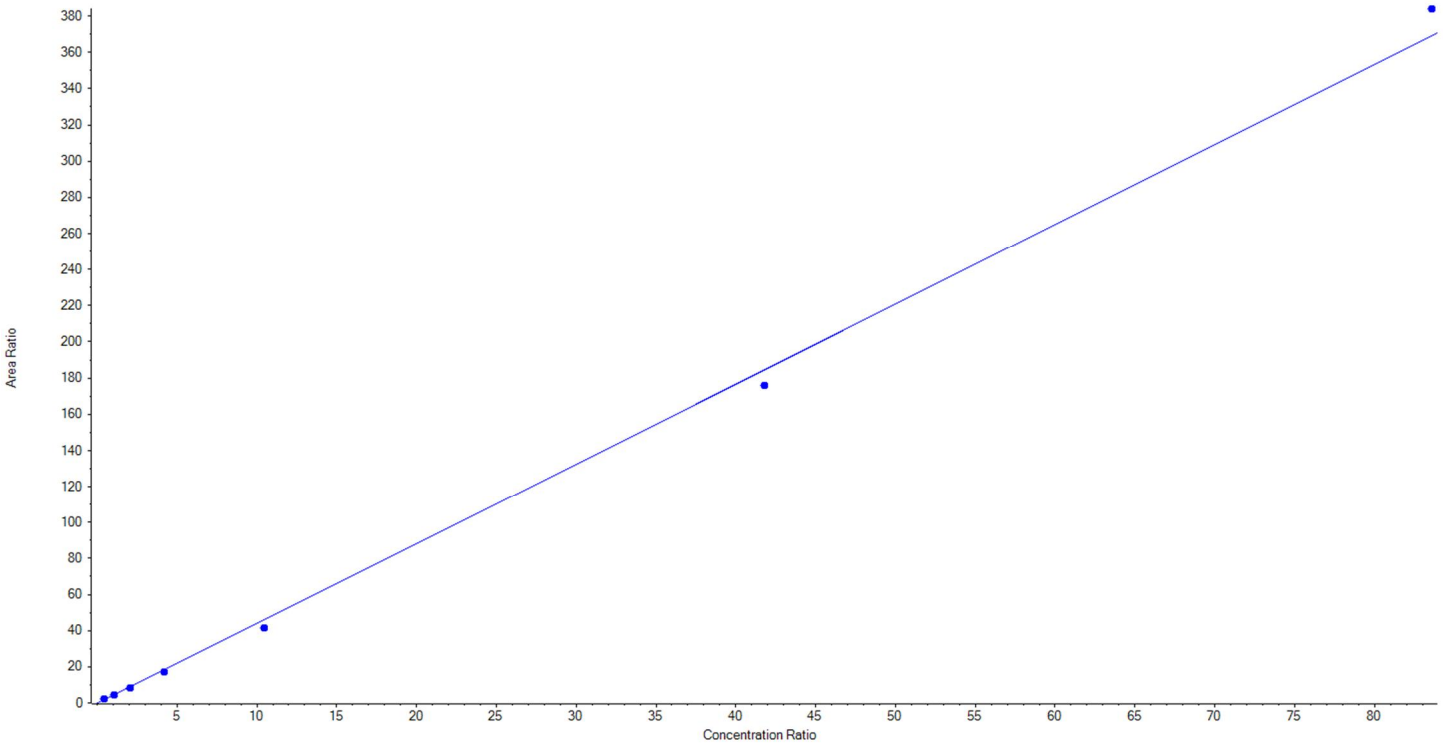
Analyte Name	PFOS_1	**Data File**	18-0571.wiff
MRM Transition	499.0 / 80.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 4.41773 x + -0.14101 (r = 0.99855) (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	118.819032	118.8
3	KA87	L2	True	250.00	261.149790	104.5
4	KA88	L3	True	500.00	471.153177	94.2
5	KA89	L4	True	1000.00	936.746040	93.7
6	KA90	L5	True	2500.00	2239.754676	89.6
7	KB64	L6	True	10000.00	9522.747770	95.2
8	KB65	L7	True	20000.00	20799.629515	104.0



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Calibration Summary Report

Created with Analyst Reporter
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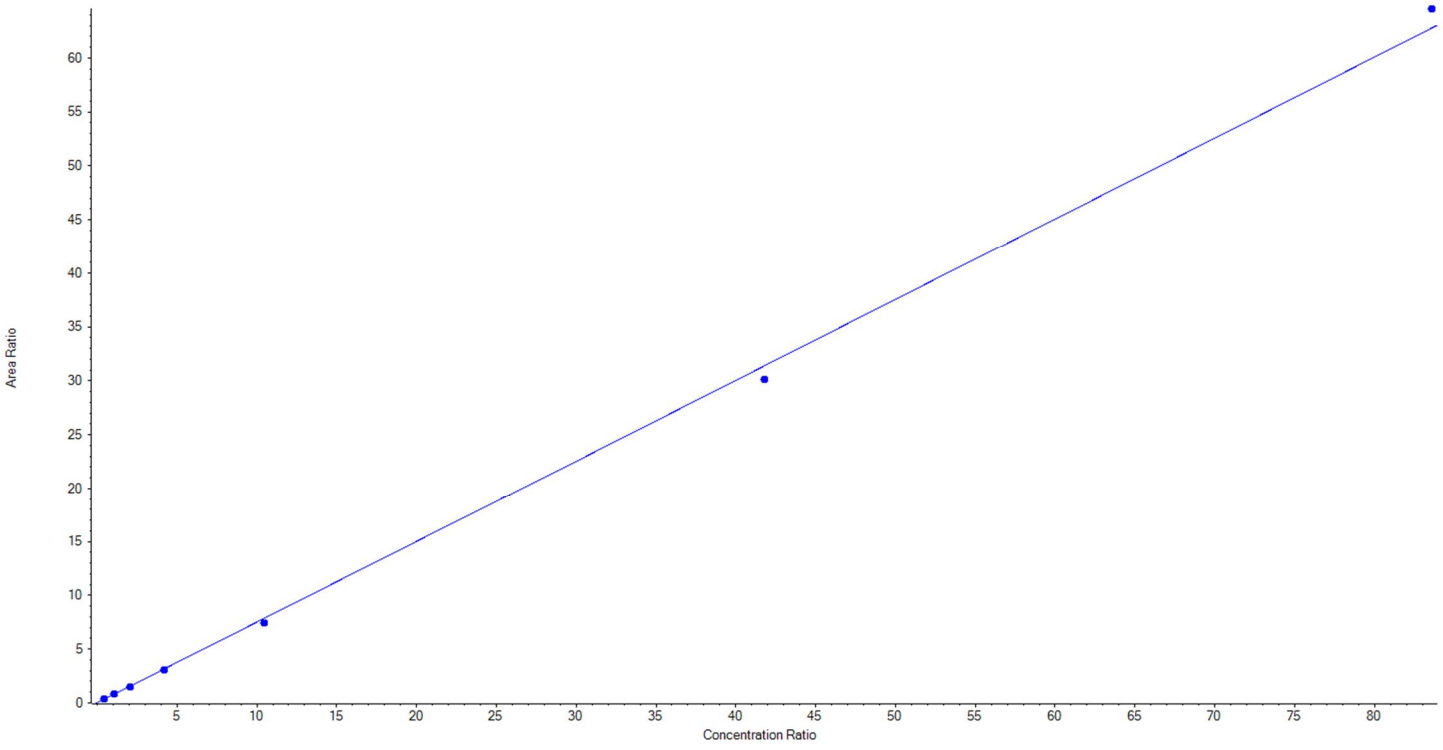
Analyte Name	PFOS_2	**Data File**	18-0571.wiff
MRM Transition	499.0 / 99.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.75093 x + 0.01056 (r = 0.99930) (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	108.555572	108.6
3	KA87	L2	True	250.00	267.614185	107.1
4	KA88	L3	True	500.00	466.128535	93.2
5	KA89	L4	True	1000.00	979.486993	98.0
6	KA90	L5	True	2500.00	2358.521181	94.3
7	KB64	L6	True	10000.00	9607.006573	96.1
8	KB65	L7	True	20000.00	20562.686961	102.8



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Calibration Summary Report

Created with Analyst Reporter
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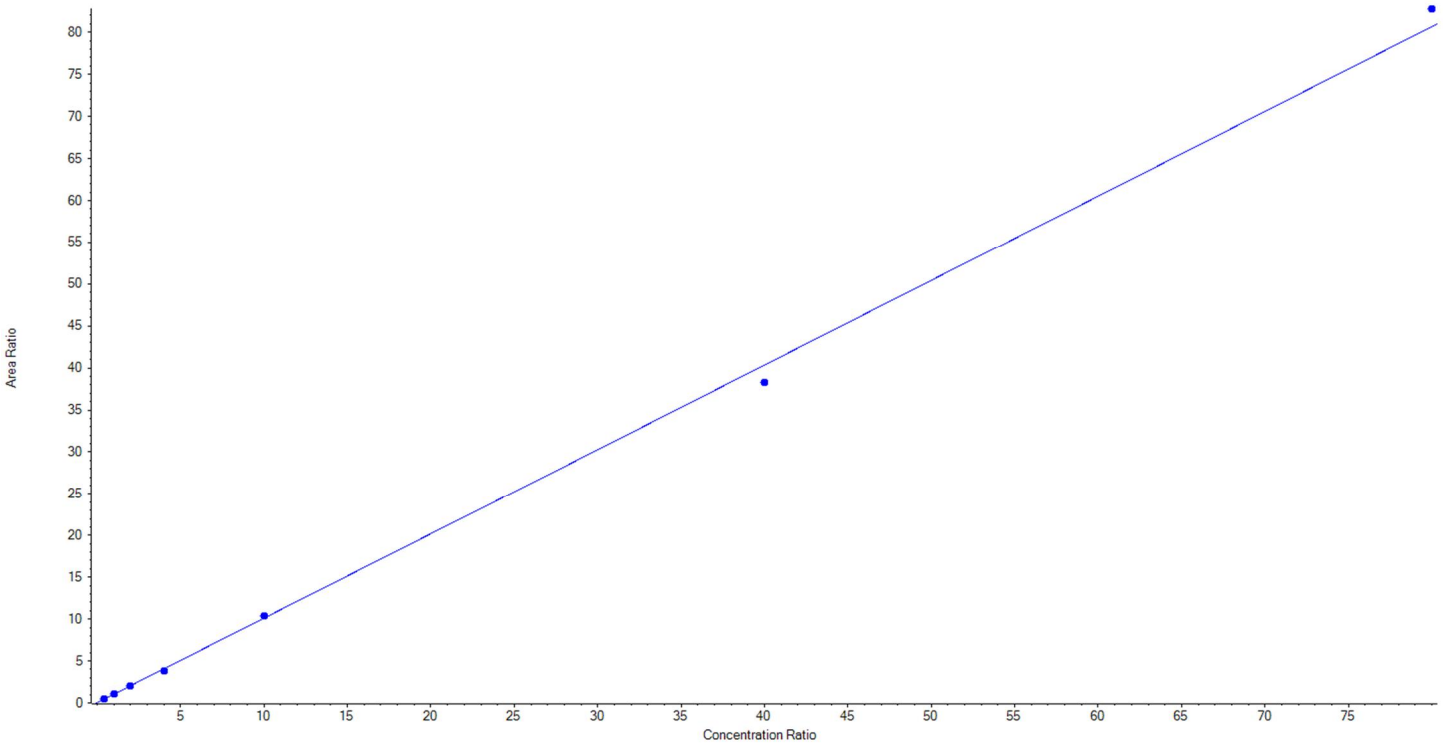
Analyte Name	PFDA_1	**Data File**	18-0571.wiff
MRM Transition	513.0 / 469.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.00798 x + 0.03488 (r = 0.99927) (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	107.877157	107.9
3	KA87	L2	True	250.00	257.135950	102.9
4	KA88	L3	True	500.00	481.482317	96.3
5	KA89	L4	True	1000.00	932.305645	93.2
6	KA90	L5	True	2500.00	2554.527388	102.2
7	KB64	L6	True	10000.00	9495.396391	95.0
8	KB65	L7	True	20000.00	20521.275152	102.6



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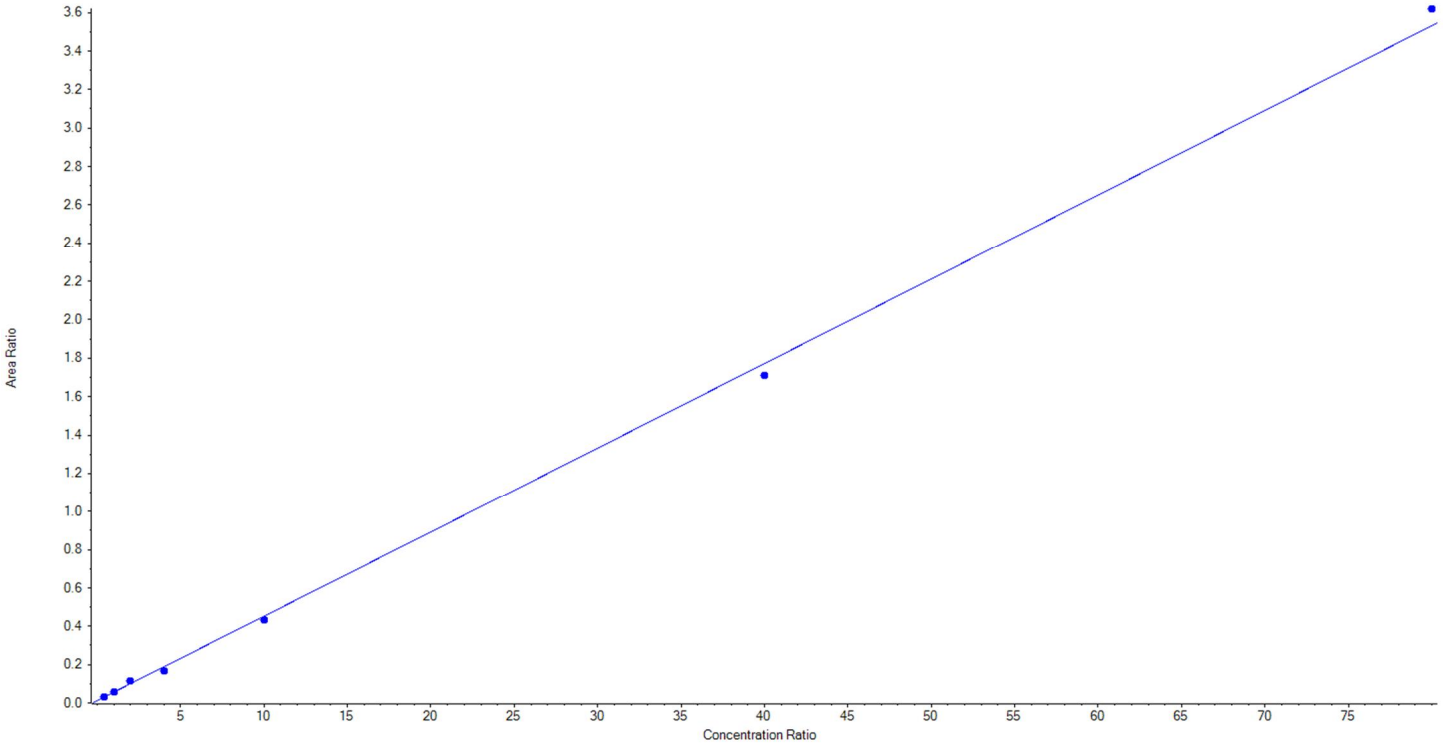
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFDA_2	**Data File**	18-0571.wiff
MRM Transition	513.0 / 219.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.04399 x + 0.01247 (r = 0.99906) (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	97.188675	97.2
3	KA87	L2	True	250.00	257.260344	102.9
4	KA88	L3	True	500.00	586.550584	117.3
5	KA89	L4	True	1000.00	878.902539	87.9
6	KA90	L5	True	2500.00	2396.071384	95.8
7	KB64	L6	True	10000.00	9638.765823	96.4
8	KB65	L7	True	20000.00	20495.260650	102.5



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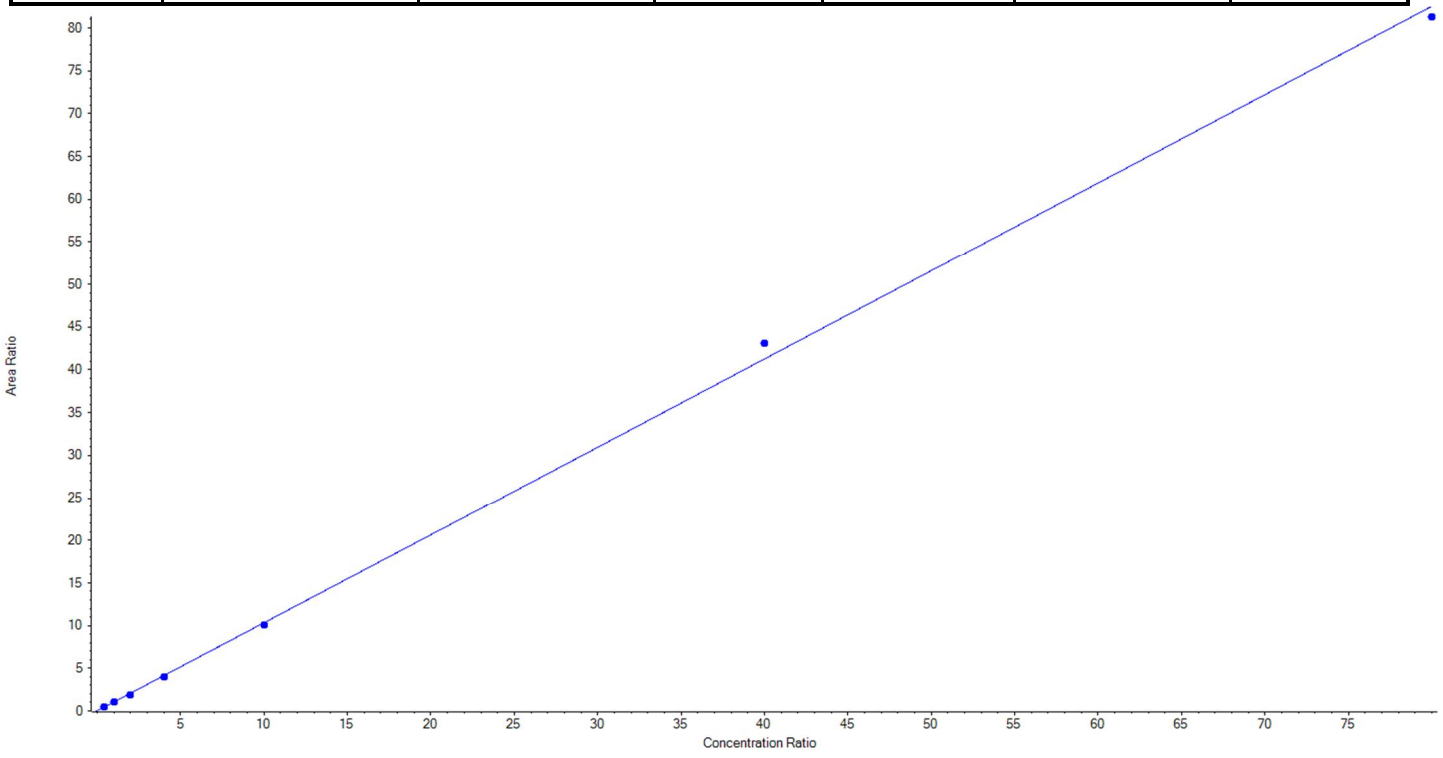
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFUnA_1	**Data File**	18-0571.wiff
MRM Transition	563.0 / 519.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.03138 x + 0.01469 (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	114.953003	115.0
3	KA87	L2	True	250.00	253.005592	101.2
4	KA88	L3	True	500.00	436.588763	87.3
5	KA89	L4	True	1000.00	961.956893	96.2
6	KA90	L5	True	2500.00	2432.986188	97.3
7	KB64	L6	True	10000.00	10451.864579	104.5
8	KB65	L7	True	20000.00	19698.644982	98.5



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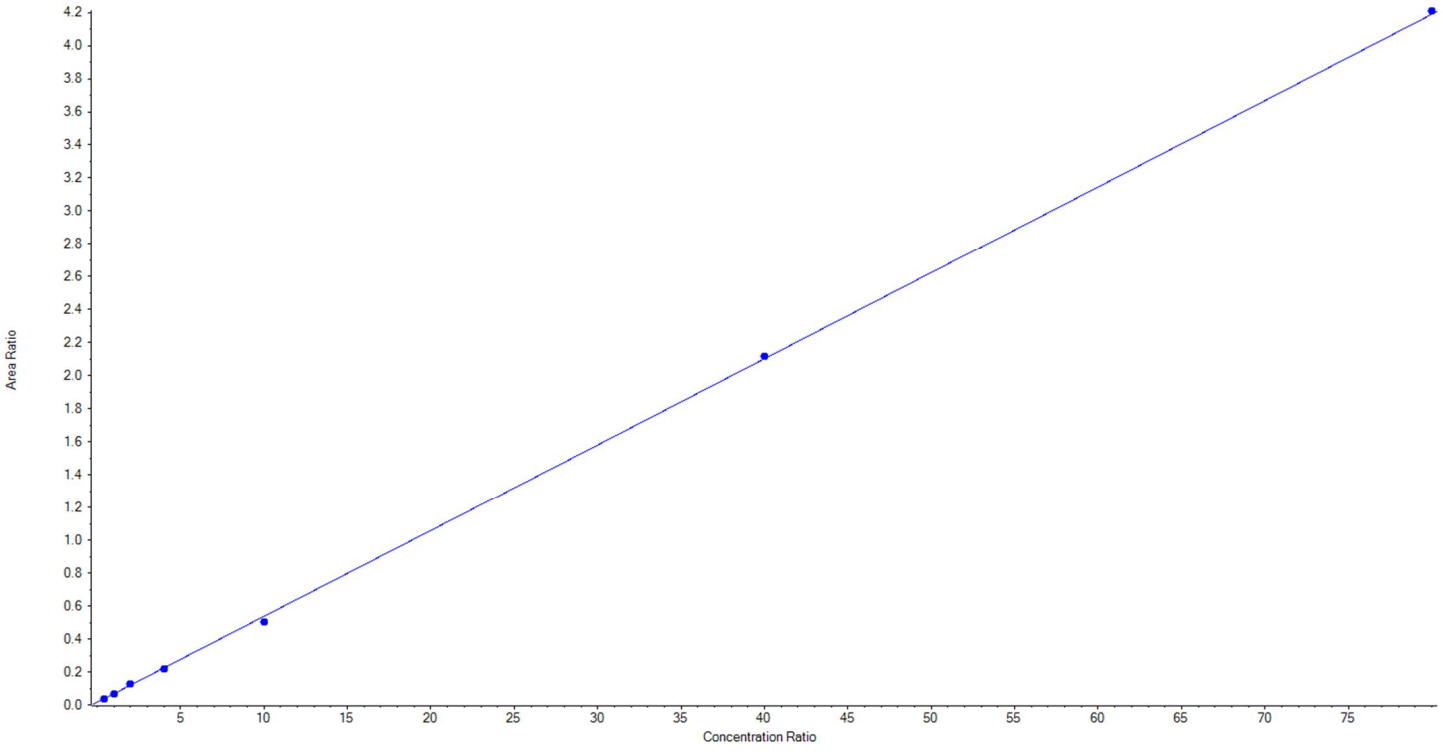
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFUnA_2	**Data File**	18-0571.wiff
MRM Transition	563.0 / 269.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05217 x + 0.01578 (r = 0.99978) (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	99.946908	100.0
3	KA87	L2	True	250.00	256.295450	102.5
4	KA88	L3	True	500.00	525.145269	105.0
5	KA89	L4	True	1000.00	981.112848	98.1
6	KA90	L5	True	2500.00	2333.630240	93.4
7	KB64	L6	True	10000.00	10056.003393	100.6
8	KB65	L7	True	20000.00	20097.865891	100.5



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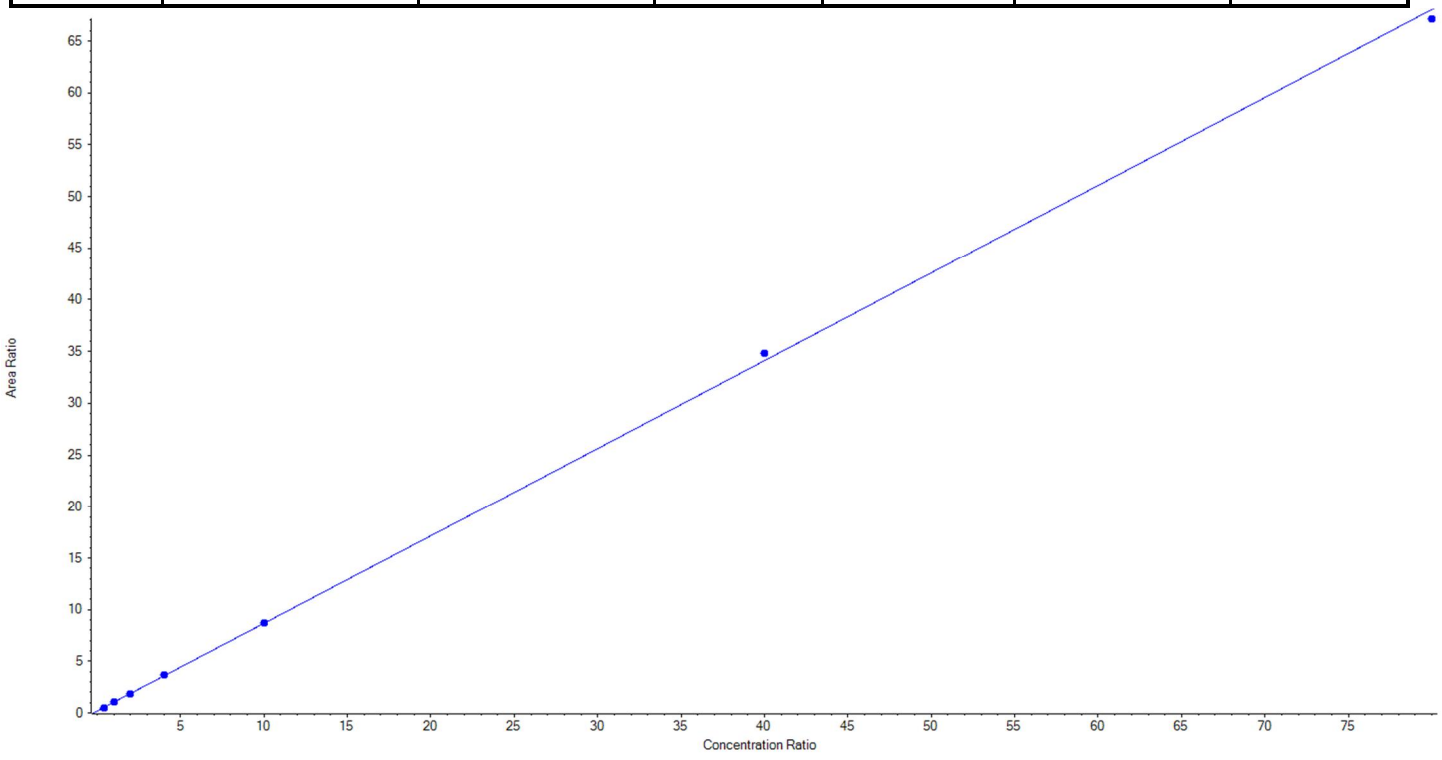
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFDoA_1	**Data File**	18-0571.wiff
MRM Transition	613.0 / 569.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.84808 x + 0.18798 (r = 0.99981) (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	92.175205	92.2
3	KA87	L2	True	250.00	263.851630	105.5
4	KA88	L3	True	500.00	483.735294	96.8
5	KA89	L4	True	1000.00	1037.376917	103.7
6	KA90	L5	True	2500.00	2524.270442	101.0
7	KB64	L6	True	10000.00	10217.124570	102.2
8	KB65	L7	True	20000.00	19731.465943	98.7



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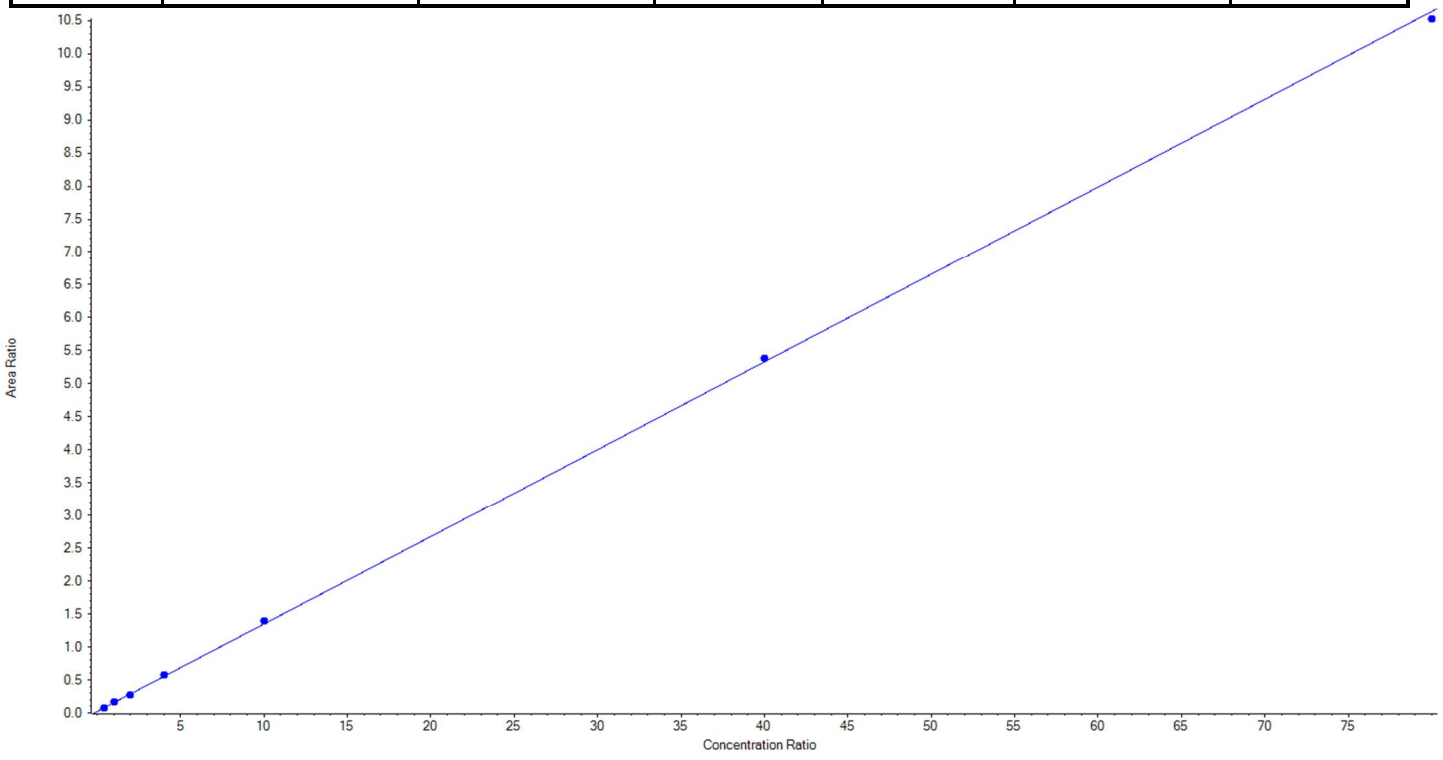
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFDoA_2	**Data File**	18-0571.wiff
MRM Transition	613.0 / 319.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.13271 x + 0.02249 (r = 0.99981) (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	89.793101	89.8
3	KA87	L2	True	250.00	268.003425	107.2
4	KA88	L3	True	500.00	476.827216	95.4
5	KA89	L4	True	1000.00	1037.943848	103.8
6	KA90	L5	True	2500.00	2600.085694	104.0
7	KB64	L6	True	10000.00	10091.107958	100.9
8	KB65	L7	True	20000.00	19786.238759	98.9



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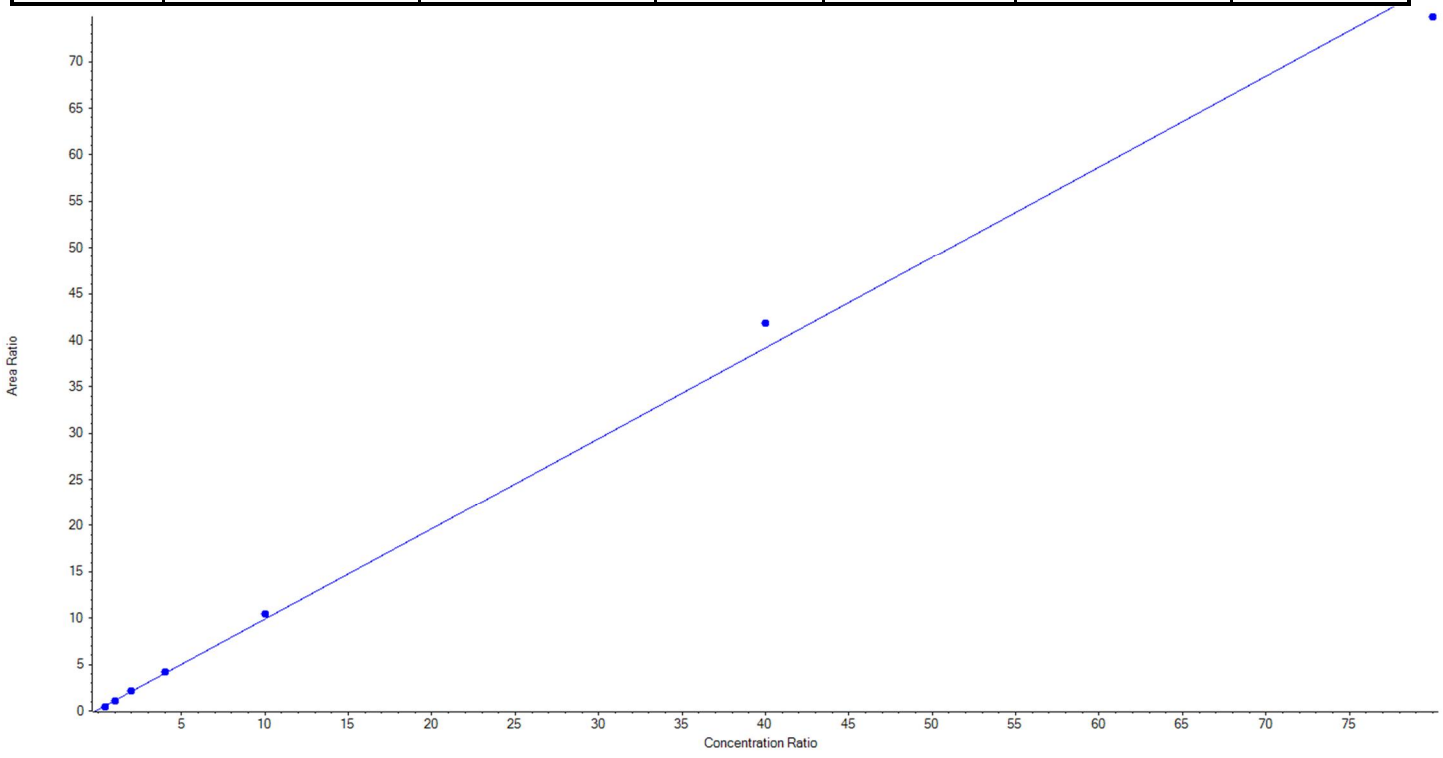
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFTrDA_1	**Data File**	18-0571.wiff
MRM Transition	663.0 / 619.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.97573 x + 0.14874 (r = 0.99846) (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	84.438059	84.4
3	KA87	L2	True	250.00	251.005204	100.4
4	KA88	L3	True	500.00	516.635132	103.3
5	KA89	L4	True	1000.00	1031.899970	103.2
6	KA90	L5	True	2500.00	2654.818489	106.2
7	KB64	L6	True	10000.00	10678.816138	106.8
8	KB65	L7	True	20000.00	19132.387008	95.7



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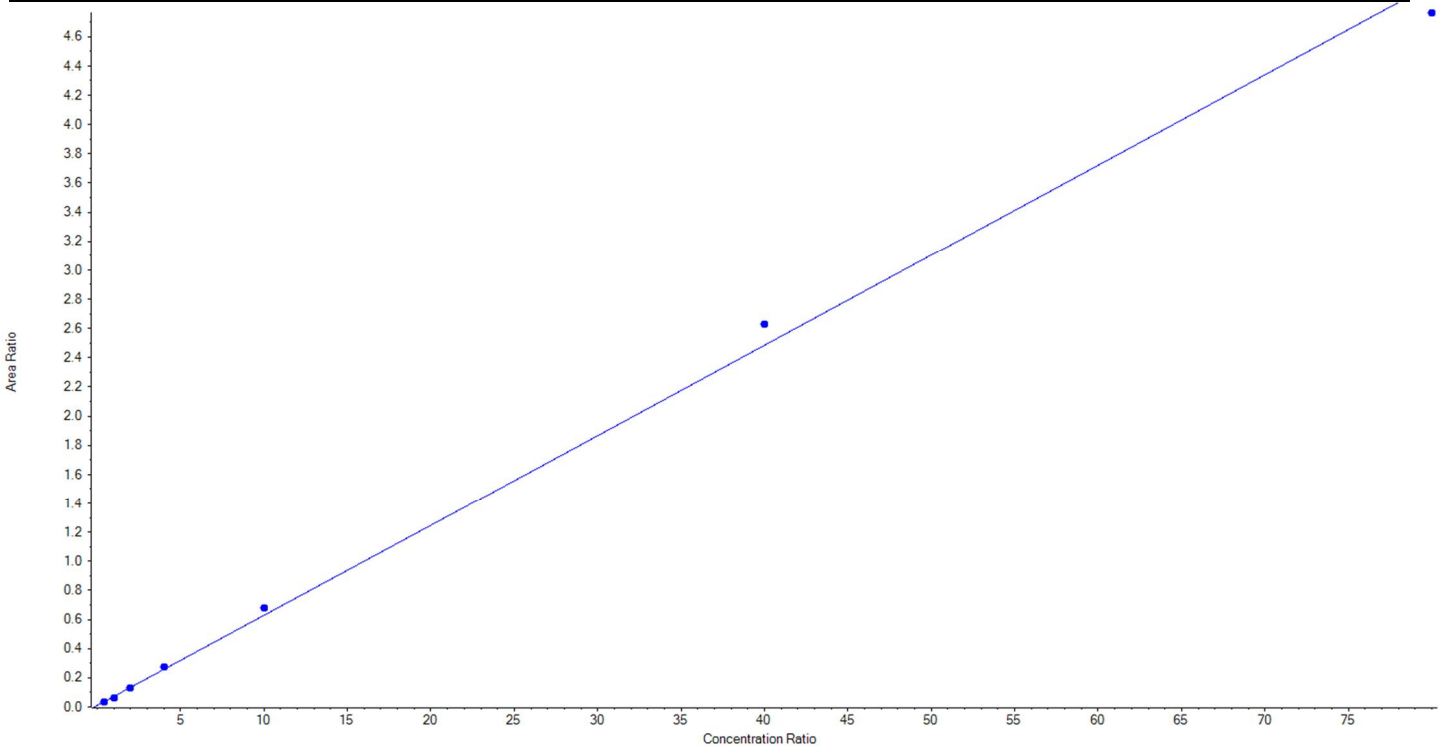
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFTrDA_2	**Data File**	18-0571.wiff
MRM Transition	663.0 / 169.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06185 x + 0.01045 (r = 0.99861) (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	98.798939	98.8
3	KA87	L2	True	250.00	220.868646	88.4
4	KA88	L3	True	500.00	485.166807	97.0
5	KA89	L4	True	1000.00	1059.197365	105.9
6	KA90	L5	True	2500.00	2703.074268	108.1
7	KB64	L6	True	10000.00	10572.612820	105.7
8	KB65	L7	True	20000.00	19210.281156	96.1



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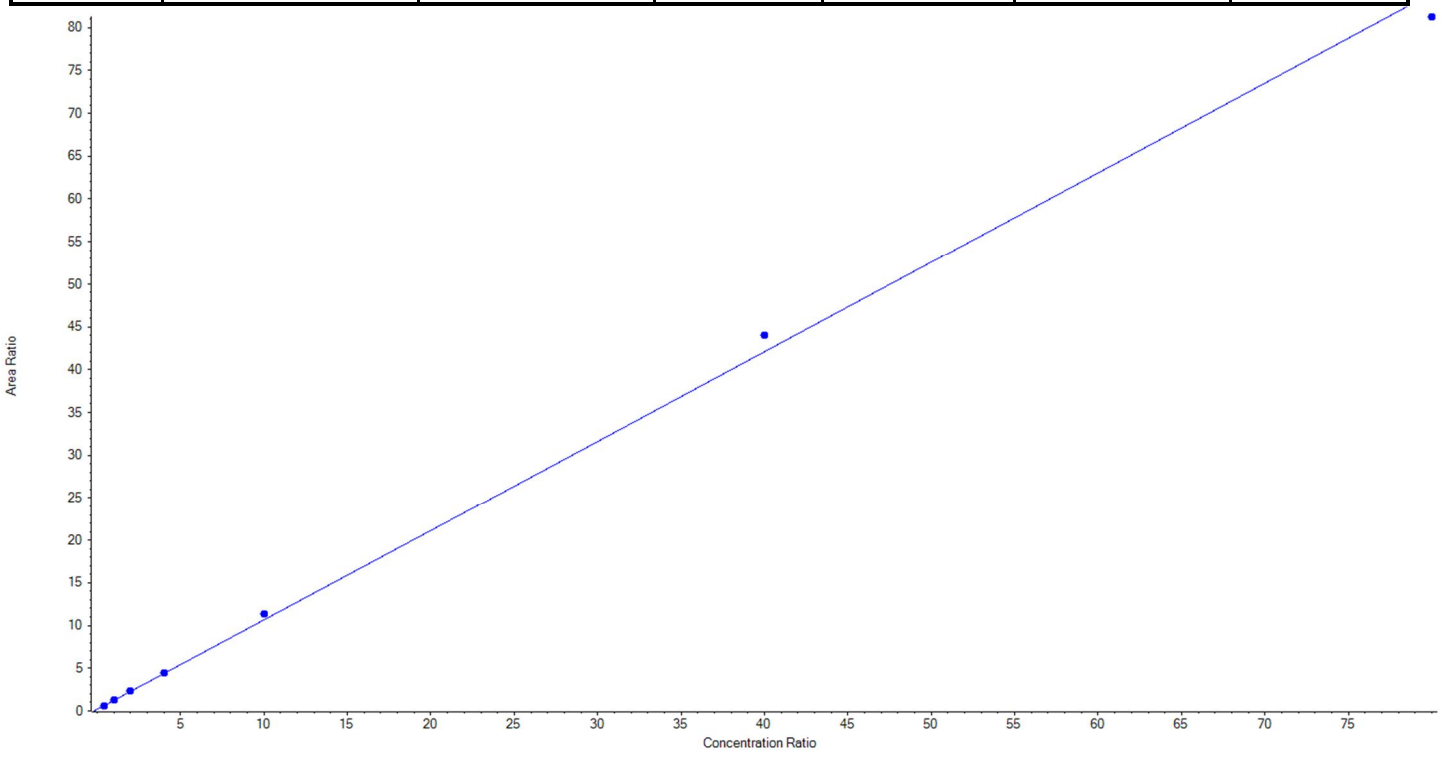
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFTeDA_1	**Data File**	18-0571.wiff
MRM Transition	713.0 / 669.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.04773 x + 0.18421 (r = 0.99907) (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	82.151491	82.2
3	KA87	L2	True	250.00	260.908020	104.4
4	KA88	L3	True	500.00	522.634470	104.5
5	KA89	L4	True	1000.00	1012.005880	101.2
6	KA90	L5	True	2500.00	2658.231481	106.3
7	KB64	L6	True	10000.00	10471.643313	104.7
8	KB65	L7	True	20000.00	19342.425345	96.7



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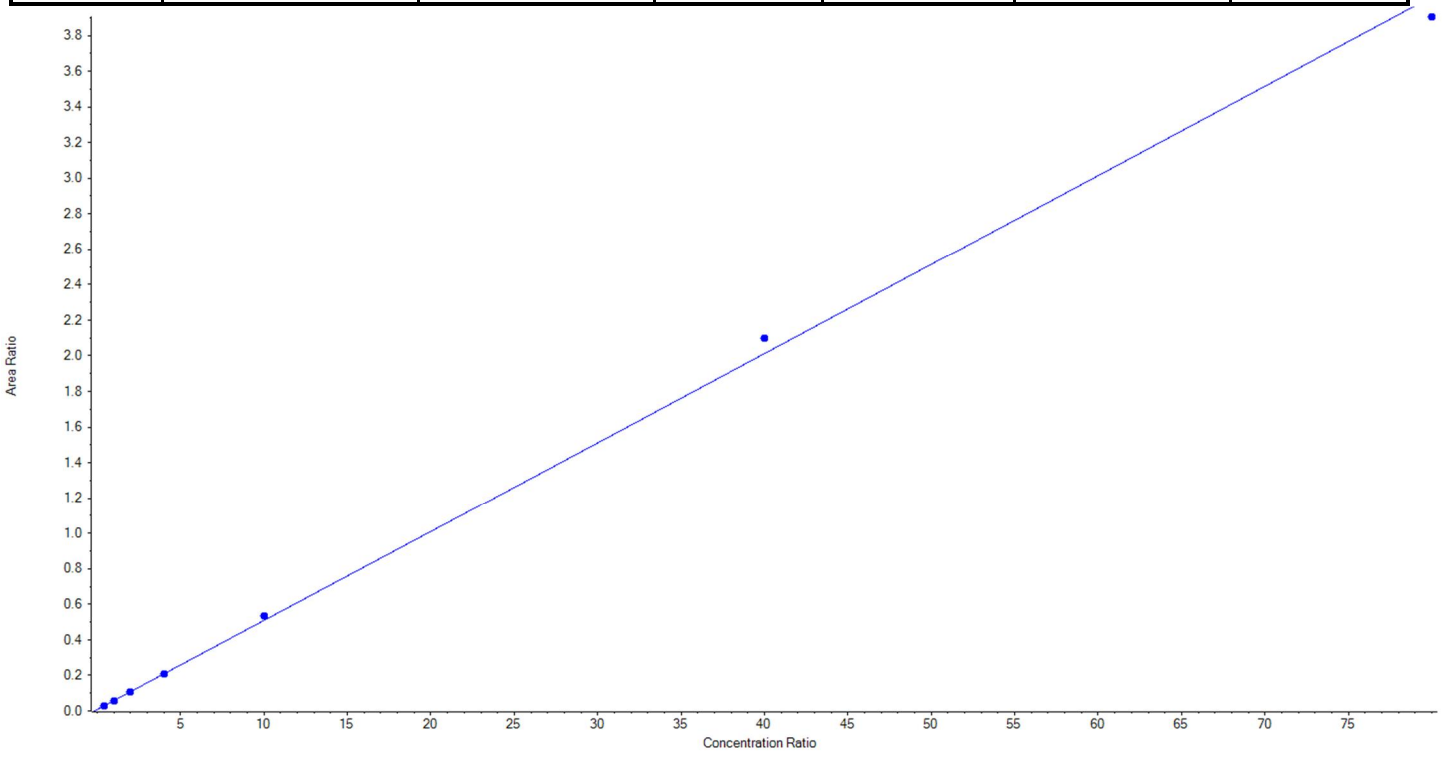
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	PFTeDA_2	**Data File**	18-0571.wiff
MRM Transition	713.0 / 169.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05011 x + 0.00818 (r = 0.99932) (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	98.232315	98.2
3	KA87	L2	True	250.00	234.812992	93.9
4	KA88	L3	True	500.00	502.416750	100.5
5	KA89	L4	True	1000.00	1004.916379	100.5
6	KA90	L5	True	2500.00	2632.177806	105.3
7	KB64	L6	True	10000.00	10438.633784	104.4
8	KB65	L7	True	20000.00	19438.809973	97.2



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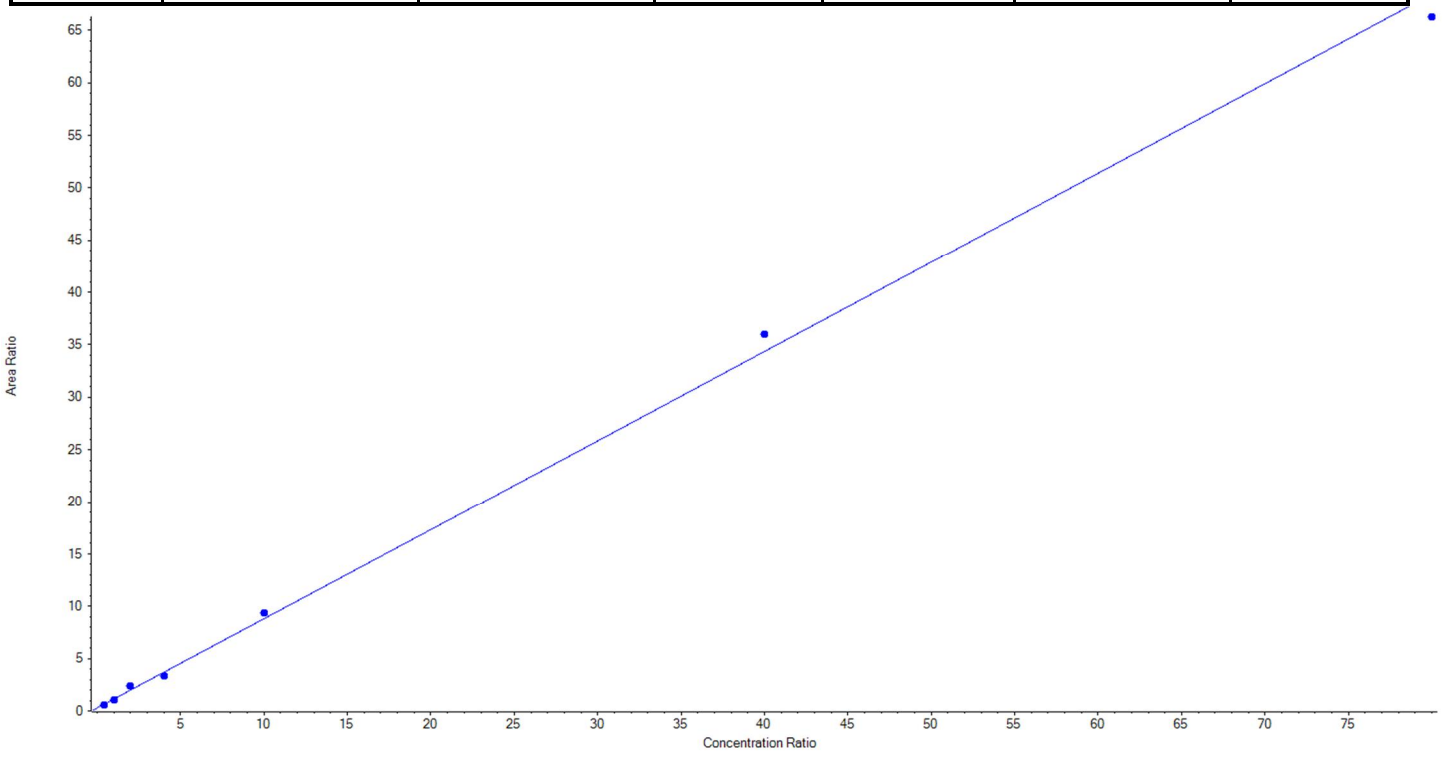
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:19:57 PM

Analyte Name	NMeFOSAA_1	**Data File**	18-0571.wiff
MRM Transition	570.0 / 419.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.85175 x + 0.28921 (r = 0.99848) (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	83.313611	83.3
3	KA87	L2	True	250.00	236.419837	94.6
4	KA88	L3	True	500.00	619.385646	123.9
5	KA89	L4	True	1000.00	899.674847	90.0
6	KA90	L5	True	2500.00	2666.190505	106.7
7	KB64	L6	True	10000.00	10480.228425	104.8
8	KB65	L7	True	20000.00	19364.787130	96.8



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Calibration Summary Report

Created with Analyst Reporter
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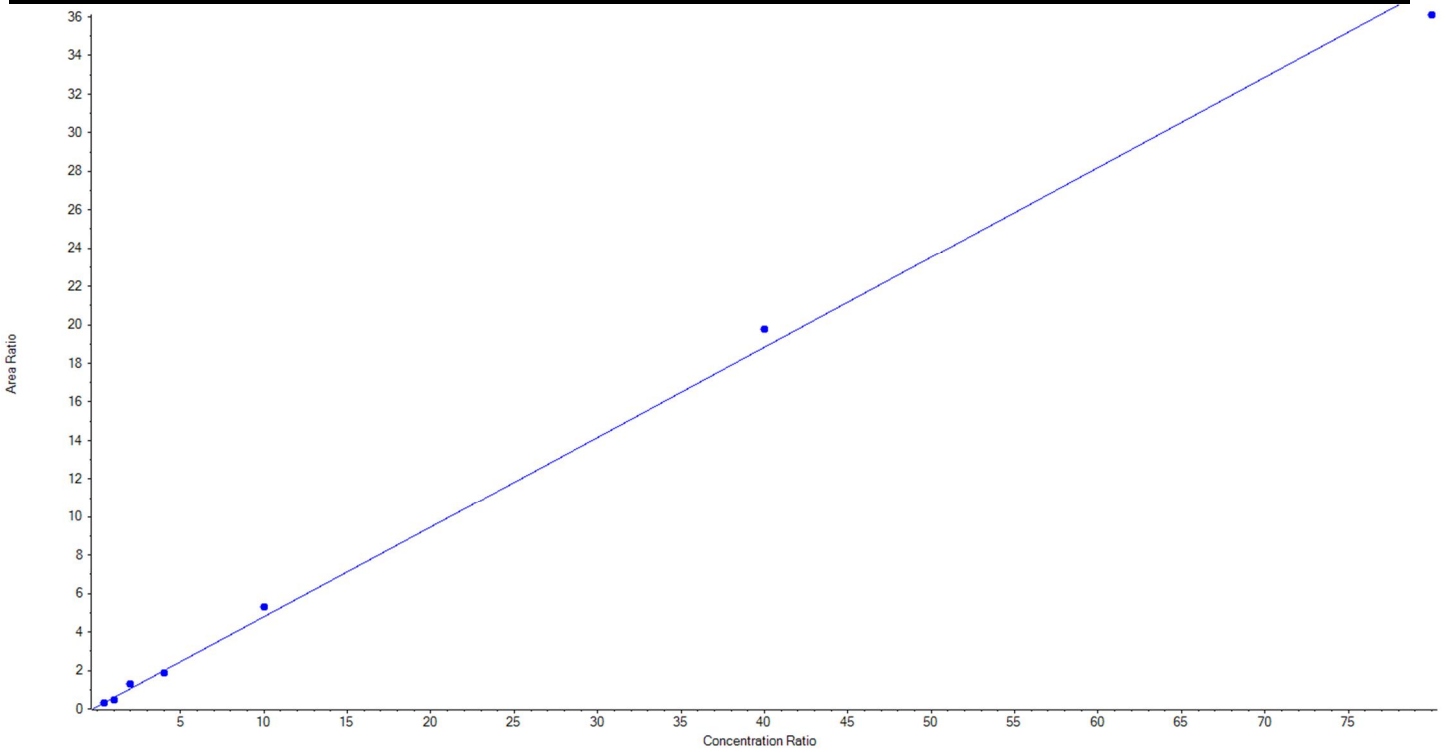
Analyte Name	NMeFOSAA_2	**Data File**	18-0571.wiff
MRM Transition	570.0 / 512.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.46798 x + 0.11766 (r = 0.99778) (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	95.186590	95.2
3	KA87	L2	True	250.00	187.605156	75.0
4	KA88	L3	True	500.00	624.403761	124.9
5	KA89	L4	True	1000.00	923.924236	92.4
6	KA90	L5	True	2500.00	2781.250111	111.3
7	KB64	L6	True	10000.00	10512.003326	105.1
8	KB65	L7	True	20000.00	19225.626820	96.1



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Calibration Summary Report

Created with Analyst Reporter
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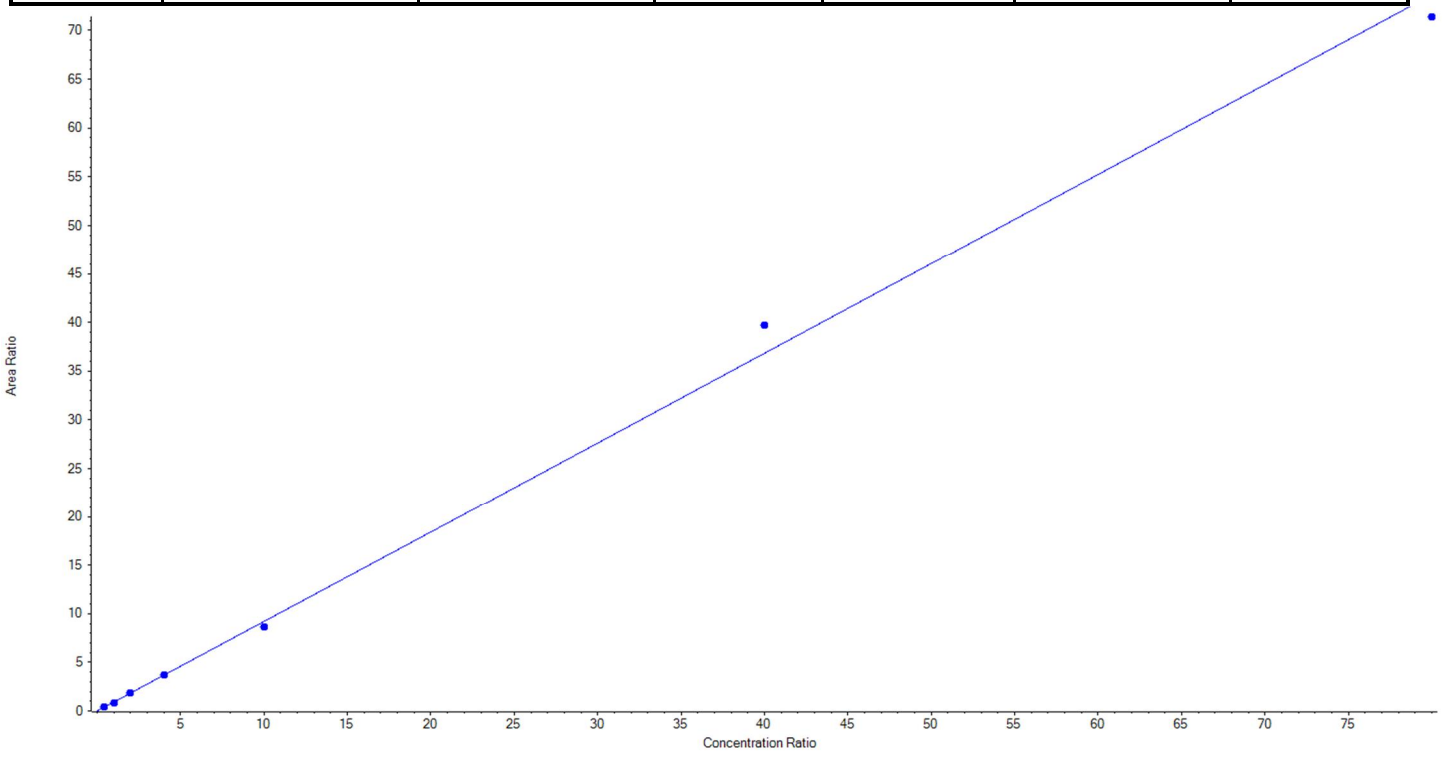
Analyte Name	NEtFOSAA_1	**Data File**	18-0571.wiff
MRM Transition	584.0 / 419.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.92073 x + -0.00231 (r = 0.99853) (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	107.940488	107.9
3	KA87	L2	True	250.00	235.388542	94.2
4	KA88	L3	True	500.00	492.114001	98.4
5	KA89	L4	True	1000.00	1013.579533	101.4
6	KA90	L5	True	2500.00	2334.437364	93.4
7	KB64	L6	True	10000.00	10782.629385	107.8
8	KB65	L7	True	20000.00	19383.910686	96.9



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Calibration Summary Report

Created with Analyst Reporter
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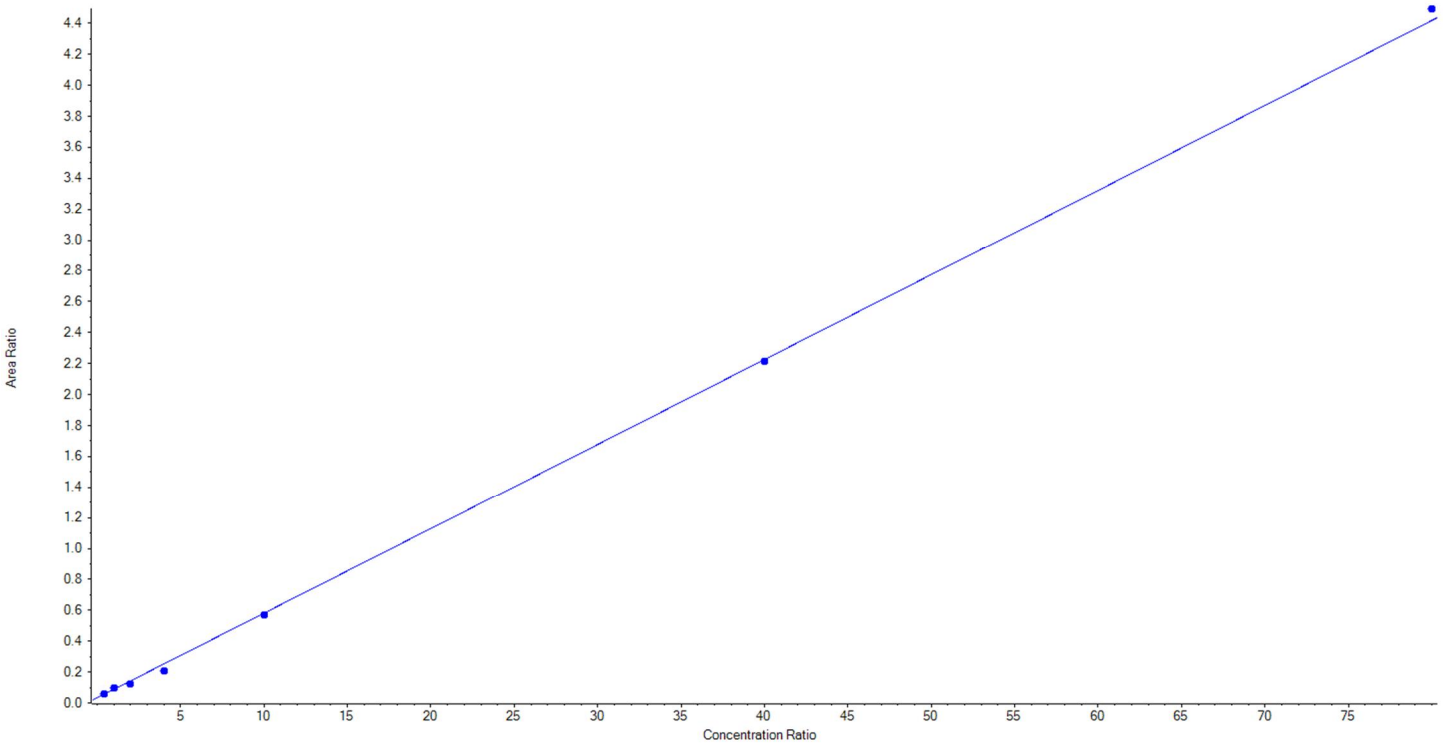
Analyte Name	NEtFOSAA_2	**Data File**	18-0571.wiff
MRM Transition	584.0 / 483.0	**Result Table**	18-0569_18-0571_BASE
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05481 x + 0.03308 (r = 0.99878) (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	122.274980	122.3
3	KA87	L2	True	250.00	292.468235	117.0
4	KA88	L3	True	500.00	409.365692	81.9
5	KA89	L4	True	1000.00	796.384257	79.6
6	KA90	L5	True	2500.00	2454.182068	98.2
7	KB64	L6	True	10000.00	9936.451129	99.4
8	KB65	L7	True	20000.00	20338.873639	101.7



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Calibration Summary Report

Created with Analyst Reporter
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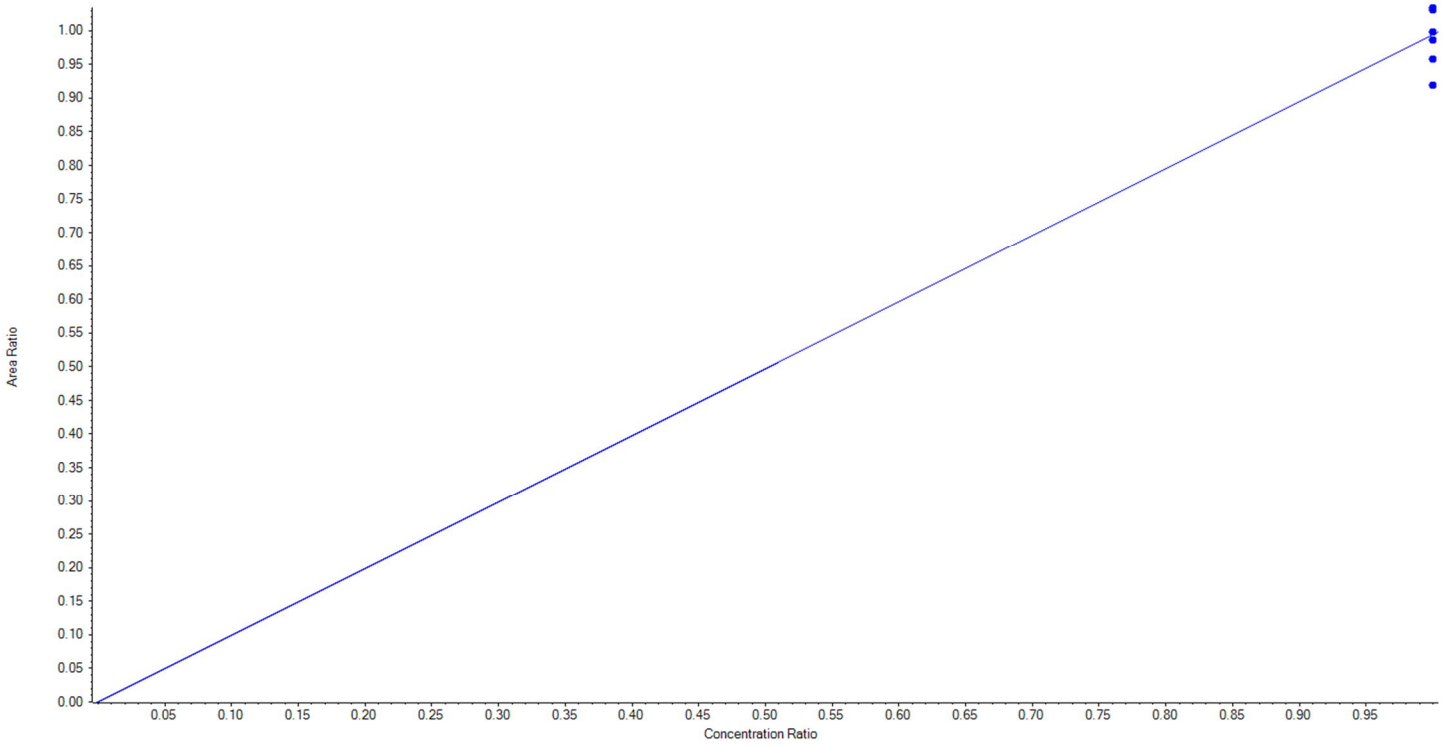
Analyte Name	13C2-PFDoA	**Data File**	18-0571.wiff
MRM Transition	615.0 / 570.0	**Result Table**	18-0569_18-0571_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.99383 x (std. dev. = 0.04343) (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	231.231548	92.5
3	KA87	L2	True	250.00	251.262698	100.5
4	KA88	L3	True	250.00	248.009798	99.2
5	KA89	L4	True	250.00	240.833877	96.3
6	KA90	L5	True	250.00	259.290688	103.7
7	KB64	L6	True	250.00	260.073655	104.0
8	KB65	L7	True	250.00	259.297737	103.7



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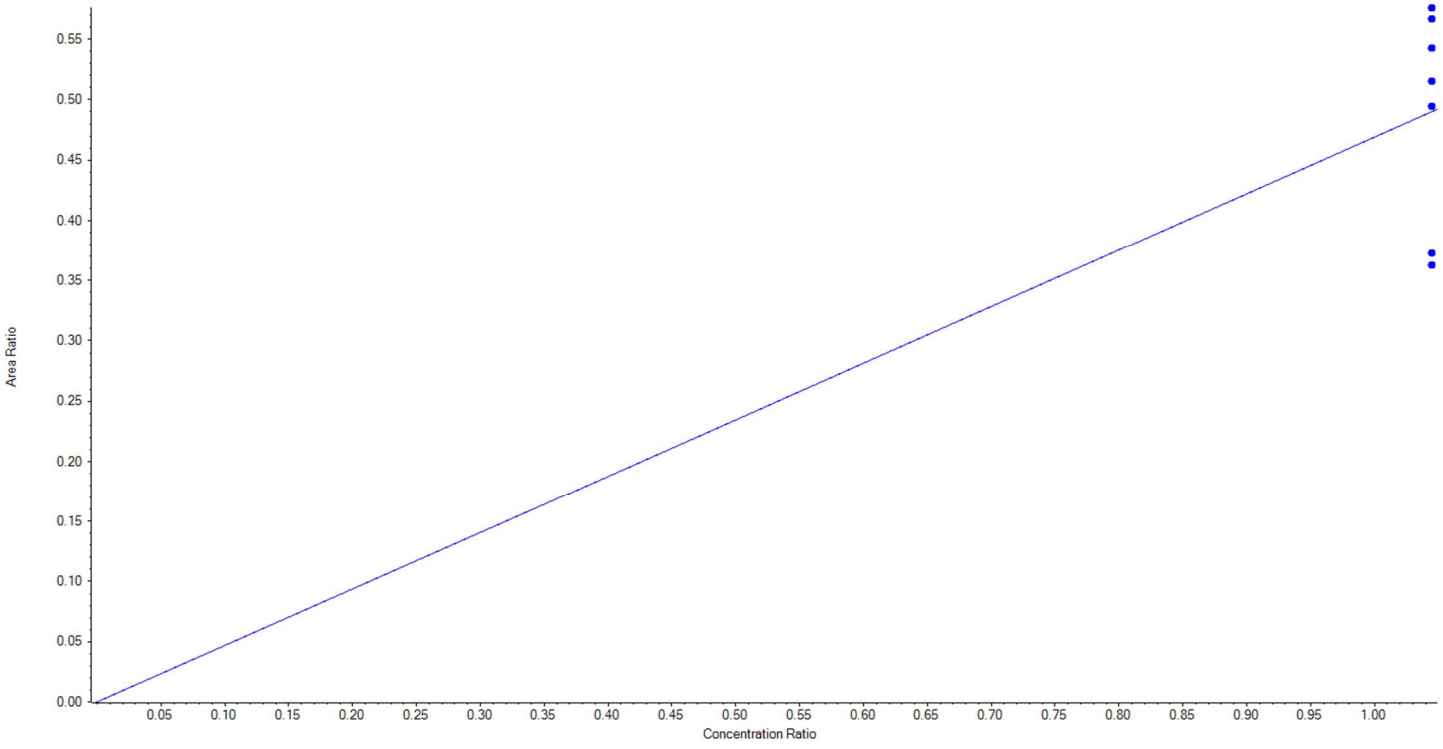
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:09:59 PM

Analyte Name	d3-MeFOSAA	**Data File**	18-0571.wiff
MRM Transition	573.0 / 419.0	**Result Table**	18-0569_18-0571_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.46906 x (std. dev. = 0.08444) (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	190.008710	76.0
3	KA87	L2	True	250.00	262.875354	105.2
4	KA88	L3	True	250.00	185.056021	74.0
5	KA89	L4	True	250.00	289.266289	115.7
6	KA90	L5	True	250.00	252.421395	101.0
7	KB64	L6	True	250.00	293.738761	117.5
8	KB65	L7	True	250.00	276.633470	110.7



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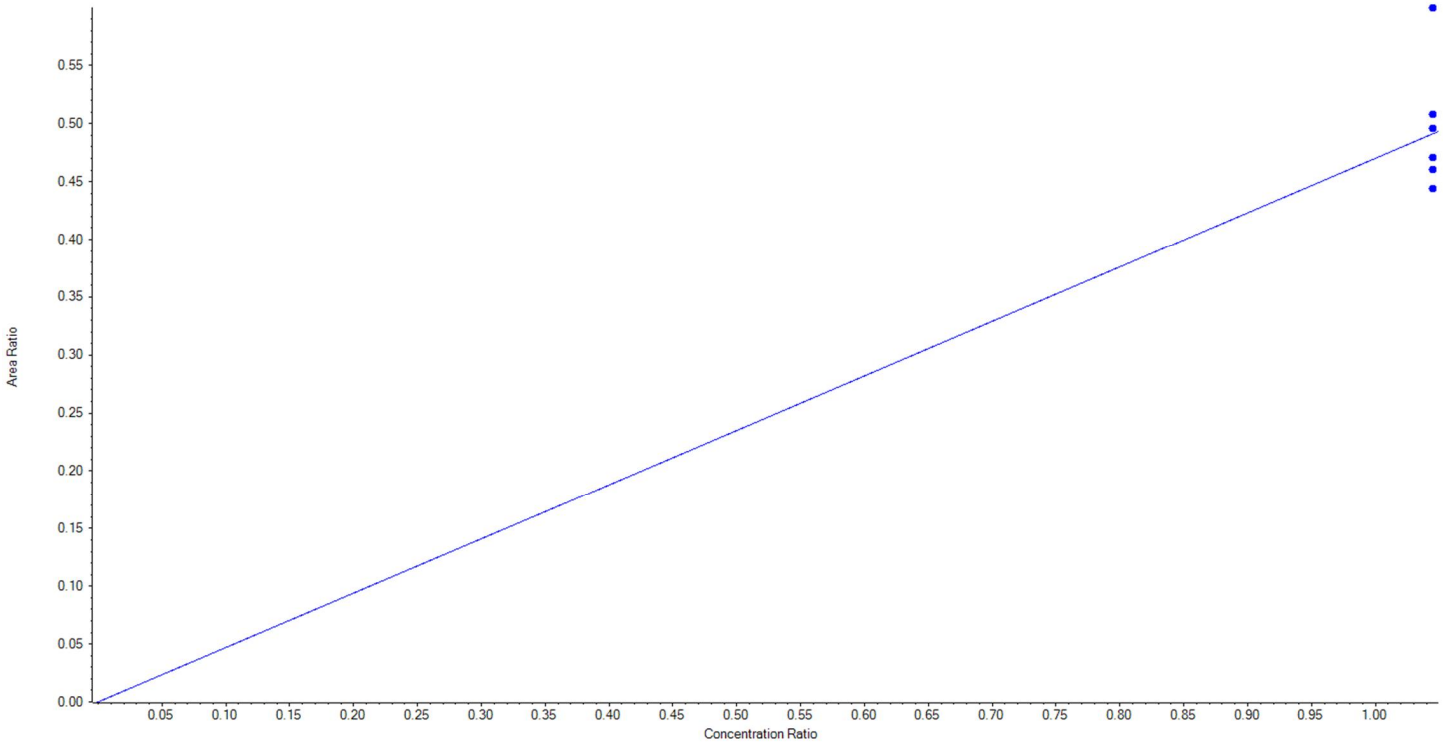
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:09:59 PM

Analyte Name	d5-EtFOSAA	**Data File**	18-0571.wiff
MRM Transition	589.0 / 419.0	**Result Table**	18-0569_18-0571_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.47012 x (std. dev. = 0.05029) (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	258.321777	103.3
3	KA87	L2	True	250.00	305.117100	122.1
4	KA88	L3	True	250.00	226.003728	90.4
5	KA89	L4	True	250.00	252.358625	100.9
6	KA90	L5	True	250.00	234.302989	93.7
7	KB64	L6	True	250.00	239.740720	95.9
8	KB65	L7	True	250.00	234.155060	93.7



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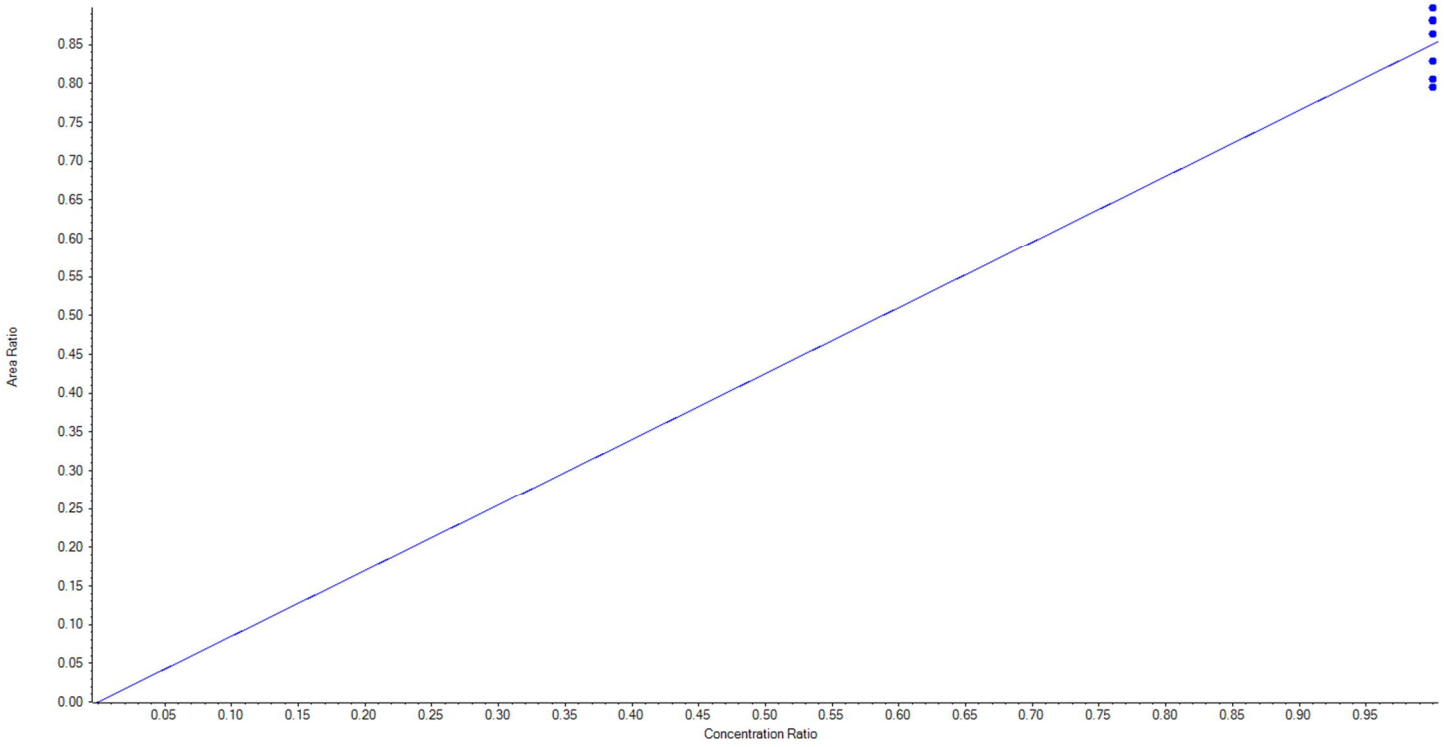
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:09:59 PM

Analyte Name	13C5-PFHxA	**Data File**	18-0571.wiff
MRM Transition	318.0 / 273.0	**Result Table**	18-0569_18-0571_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.85038 x (std. dev. = 0.04038) (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	236.705958	94.7
3	KA87	L2	True	250.00	233.852802	93.5
4	KA88	L3	True	250.00	259.202824	103.7
5	KA89	L4	True	250.00	243.728236	97.5
6	KA90	L5	True	250.00	258.922154	103.6
7	KB64	L6	True	250.00	263.772745	105.5
8	KB65	L7	True	250.00	253.815281	101.5



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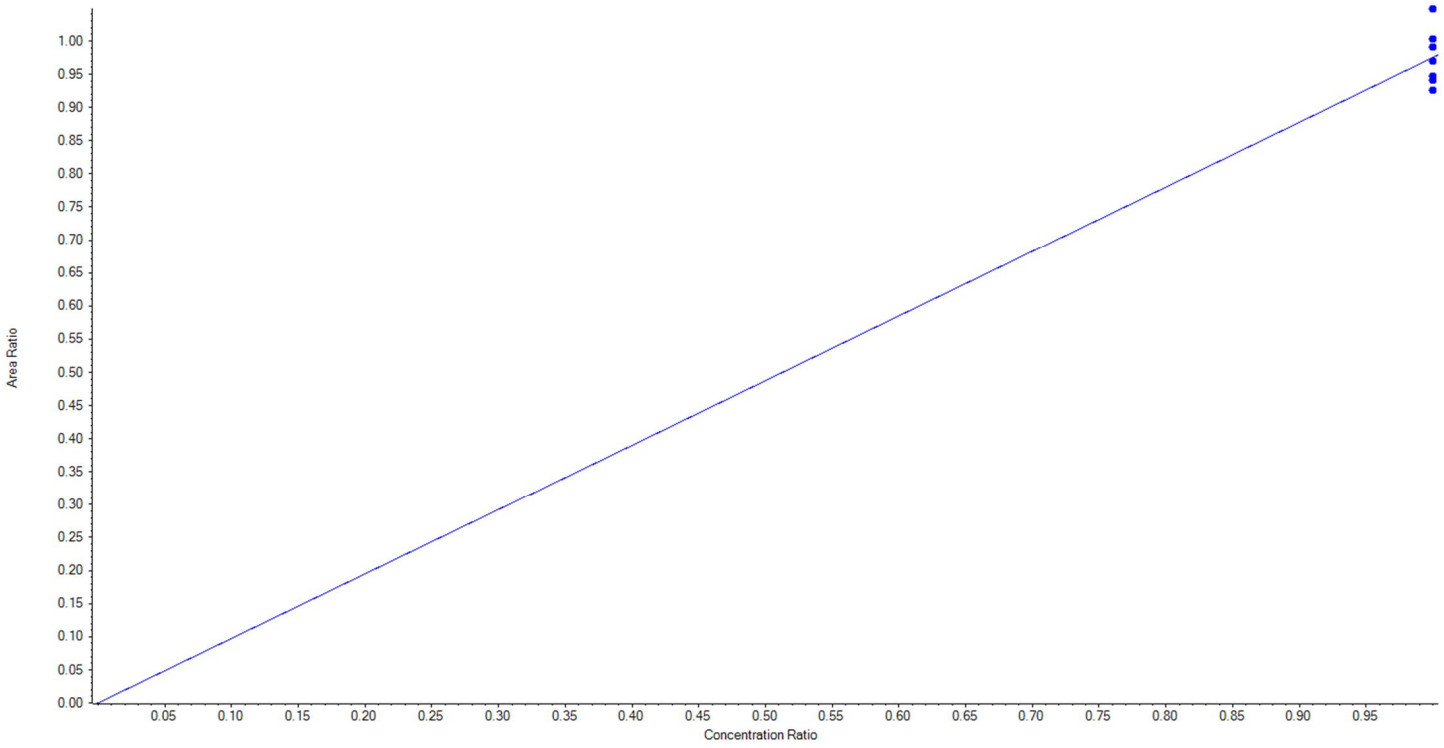
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:09:59 PM

Analyte Name	13C4-PFHpA	**Data File**	18-0571.wiff
MRM Transition	367.0 / 322.0	**Result Table**	18-0569_18-0571_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.97509 x (std. dev. = 0.04235) (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	237.519890	95.0
3	KA87	L2	True	250.00	241.225629	96.5
4	KA88	L3	True	250.00	268.743342	107.5
5	KA89	L4	True	250.00	248.734045	99.5
6	KA90	L5	True	250.00	253.860313	101.5
7	KB64	L6	True	250.00	257.268528	102.9
8	KB65	L7	True	250.00	242.648253	97.1



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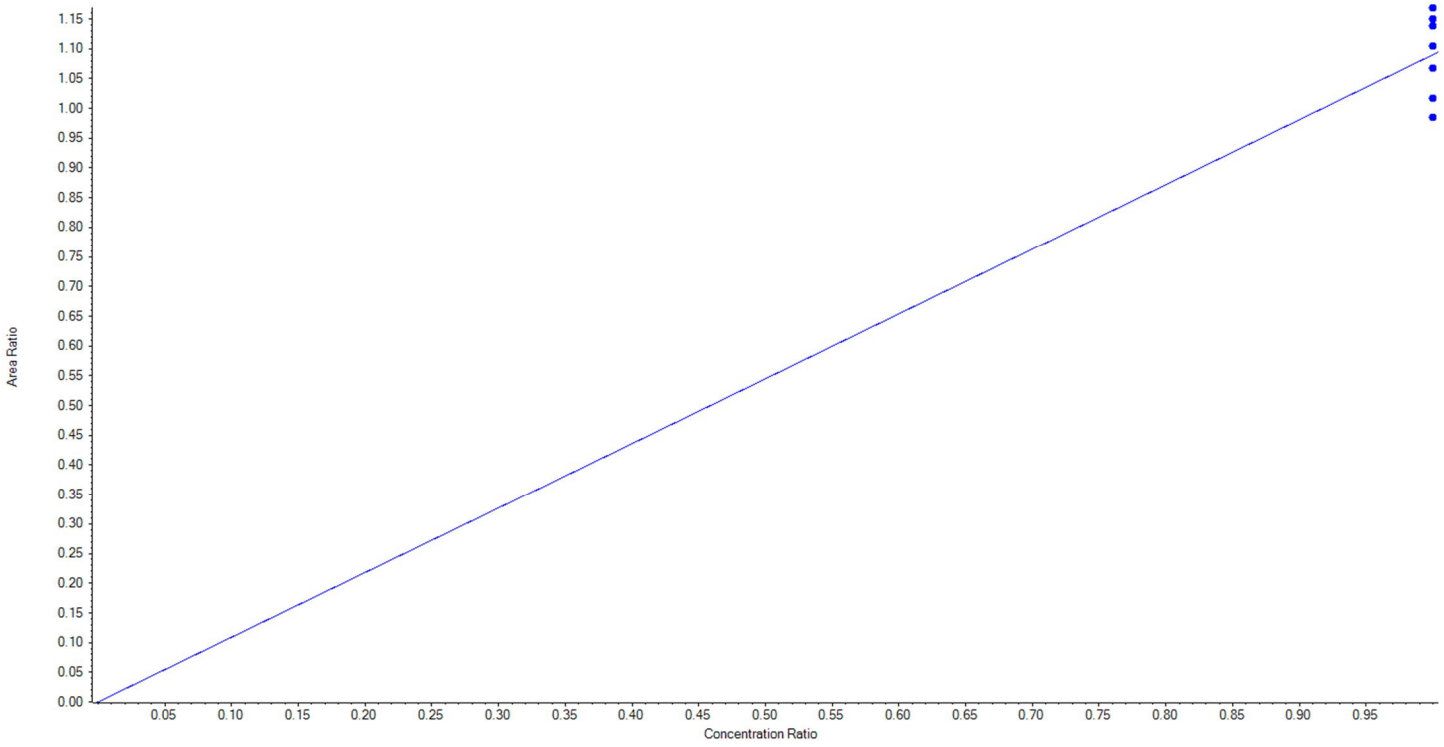
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:09:59 PM

Analyte Name	13C8-PFOA	**Data File**	18-0571.wiff
MRM Transition	421.0 / 376.0	**Result Table**	18-0569_18-0571_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.08999 x (std. dev. = 0.06977) (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	244.713478	97.9
3	KA87	L2	True	250.00	233.330587	93.3
4	KA88	L3	True	250.00	263.724320	105.5
5	KA89	L4	True	250.00	261.031534	104.4
6	KA90	L5	True	250.00	253.368266	101.4
7	KB64	L6	True	250.00	268.012275	107.2
8	KB65	L7	True	250.00	225.819541	90.3



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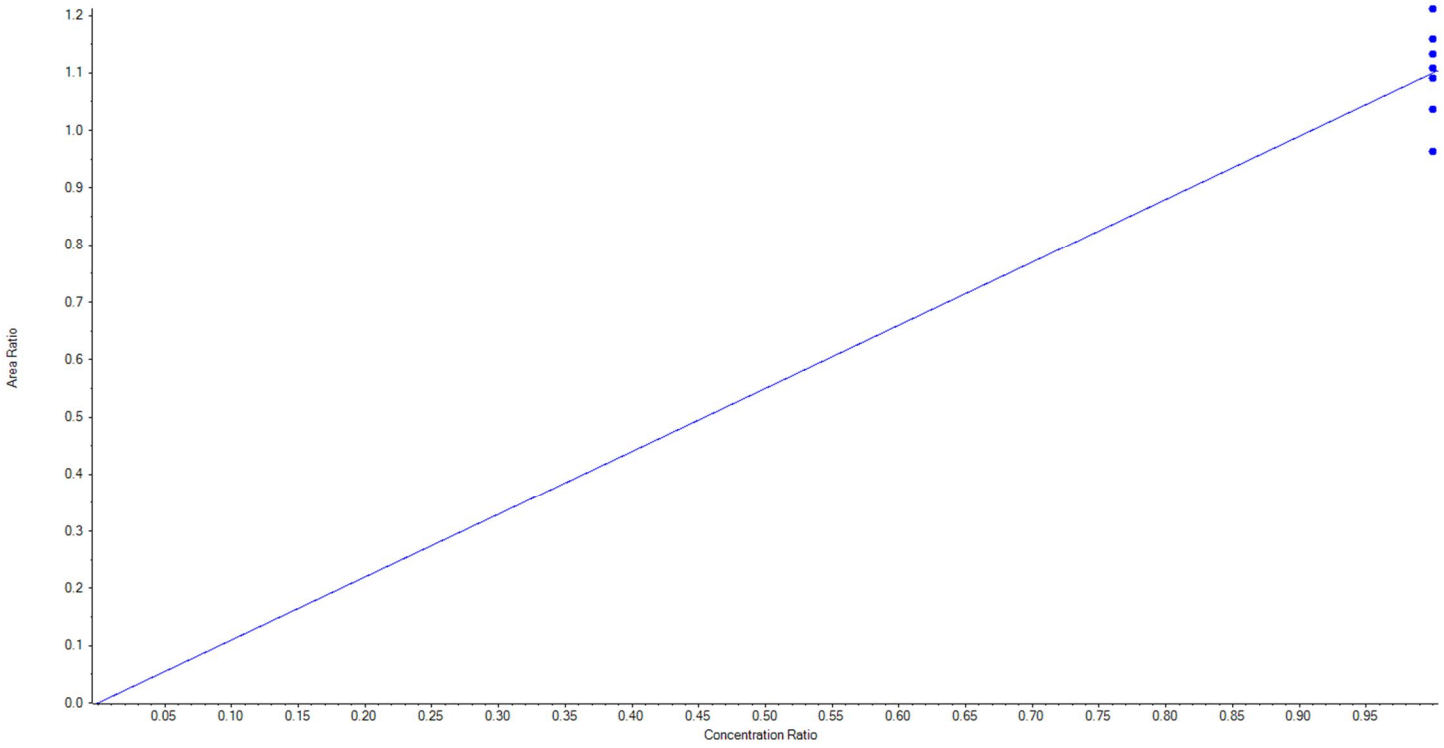
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:09:59 PM

Analyte Name	13C9-PFNA	**Data File**	18-0571.wiff
MRM Transition	472.0 / 427.0	**Result Table**	18-0569_18-0571_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.10004 x (std. dev. = 0.08160) (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	235.585238	94.2
3	KA87	L2	True	250.00	247.745564	99.1
4	KA88	L3	True	250.00	275.312140	110.1
5	KA89	L4	True	250.00	263.333189	105.3
6	KA90	L5	True	250.00	251.854080	100.7
7	KB64	L6	True	250.00	257.381383	103.0
8	KB65	L7	True	250.00	218.788406	87.5



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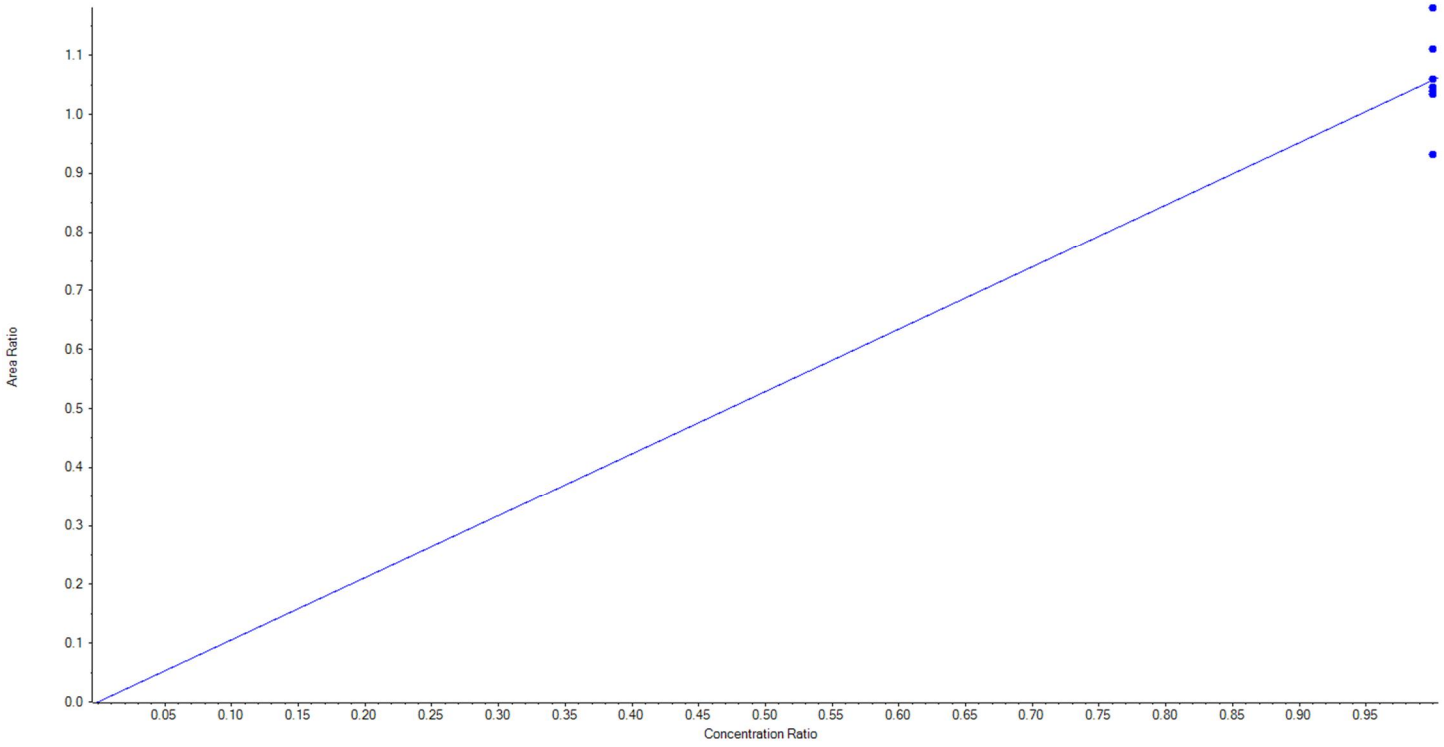
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:09:59 PM

Analyte Name	13C6-PFDA	**Data File**	18-0571.wiff
MRM Transition	519.0 / 474.0	**Result Table**	18-0569_18-0571_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.05763 x (std. dev. = 0.07586) (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	247.203912	98.9
3	KA87	L2	True	250.00	278.956327	111.6
4	KA88	L3	True	250.00	244.348945	97.7
5	KA89	L4	True	250.00	262.664721	105.1
6	KA90	L5	True	250.00	250.602872	100.2
7	KB64	L6	True	250.00	245.761775	98.3
8	KB65	L7	True	250.00	220.461448	88.2



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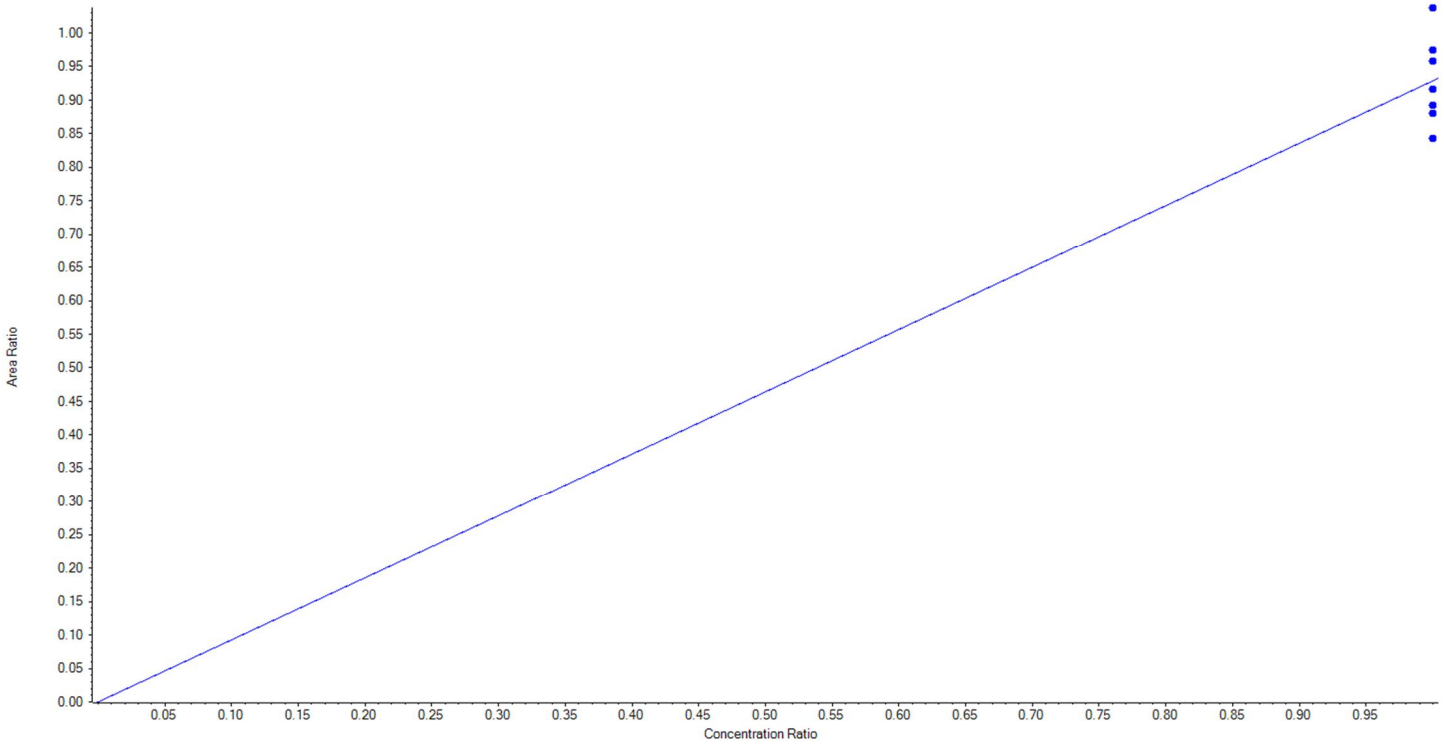
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:09:59 PM

Analyte Name	13C7-PFUnA	**Data File**	18-0571.wiff
MRM Transition	570.0 / 525.0	**Result Table**	18-0569_18-0571_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.92870 x (std. dev. = 0.06567) (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	240.101921	96.0
3	KA87	L2	True	250.00	279.247168	111.7
4	KA88	L3	True	250.00	262.253080	104.9
5	KA89	L4	True	250.00	257.927383	103.2
6	KA90	L5	True	250.00	246.511053	98.6
7	KB64	L6	True	250.00	227.114419	90.9
8	KB65	L7	True	250.00	236.844977	94.7



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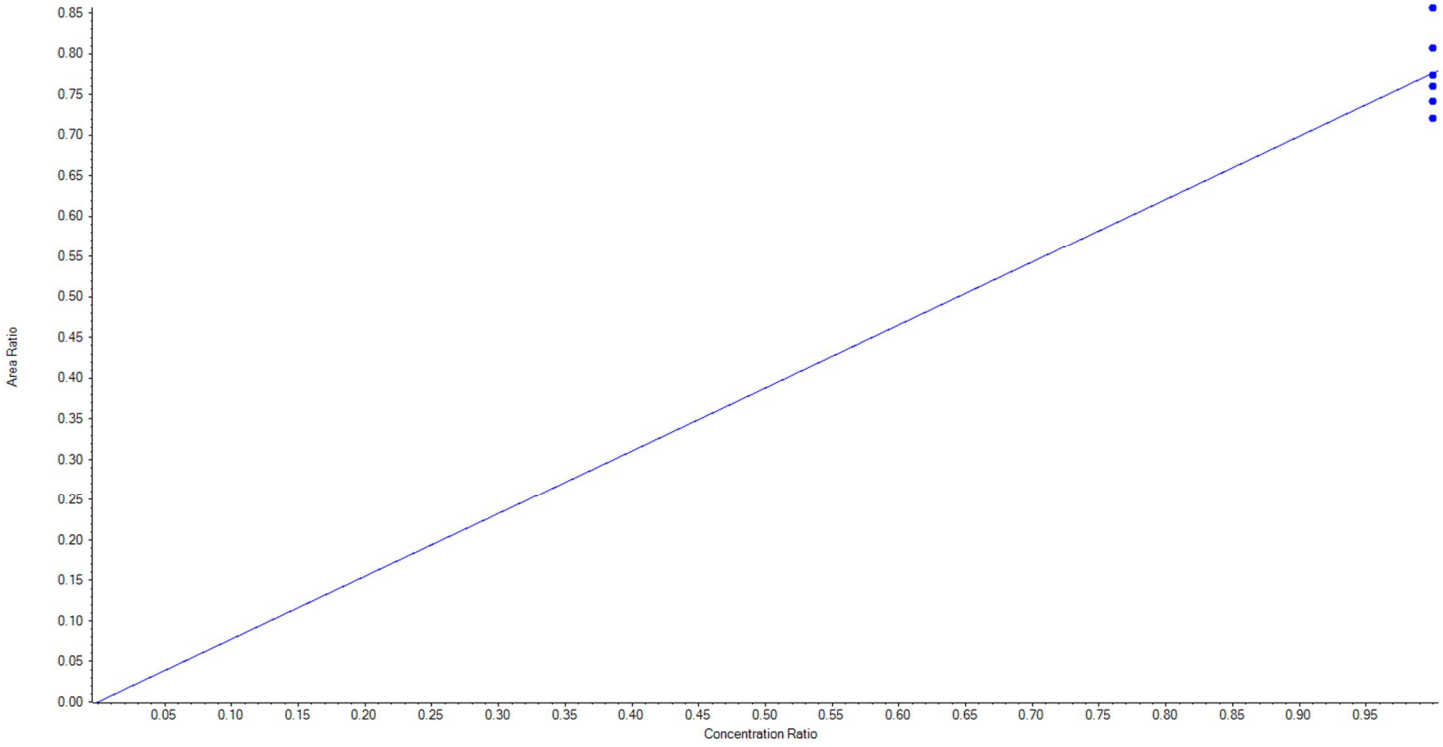
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:09:59 PM

Analyte Name	13C2-PFTeDA	**Data File**	18-0571.wiff
MRM Transition	715.0 / 670.0	**Result Table**	18-0569_18-0571_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.77628 x (std. dev. = 0.04448) (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	238.821130	95.5
3	KA87	L2	True	250.00	259.718730	103.9
4	KA88	L3	True	250.00	232.122059	92.9
5	KA89	L4	True	250.00	244.987329	98.0
6	KA90	L5	True	250.00	249.187384	99.7
7	KB64	L6	True	250.00	249.355041	99.7
8	KB65	L7	True	250.00	275.808327	110.3



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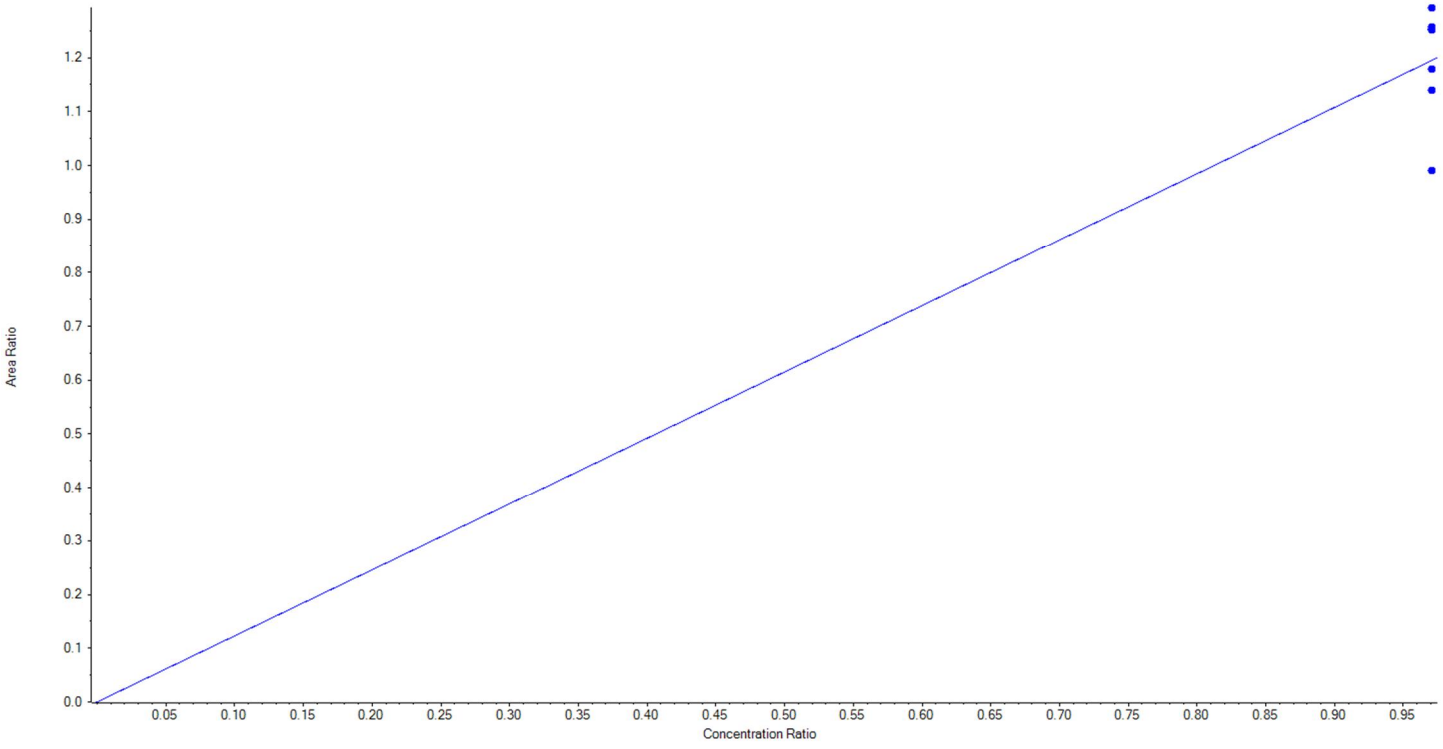
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:09:59 PM

Analyte Name	13C3-PFBS	**Data File**	18-0571.wiff
MRM Transition	302.0 / 99.0	**Result Table**	18-0569_18-0571_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.23072 x (std. dev. = 0.10719) (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	221.442140	95.4
3	KA87	L2	True	232.25	243.303180	104.8
4	KA88	L3	True	232.25	192.585979	82.9
5	KA89	L4	True	232.25	243.432374	104.8
6	KA90	L5	True	232.25	229.288654	98.7
7	KB64	L6	True	232.25	251.200795	108.2
8	KB65	L7	True	232.25	244.496878	105.3



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Calibration Summary Report

Created with Analyst Reporter
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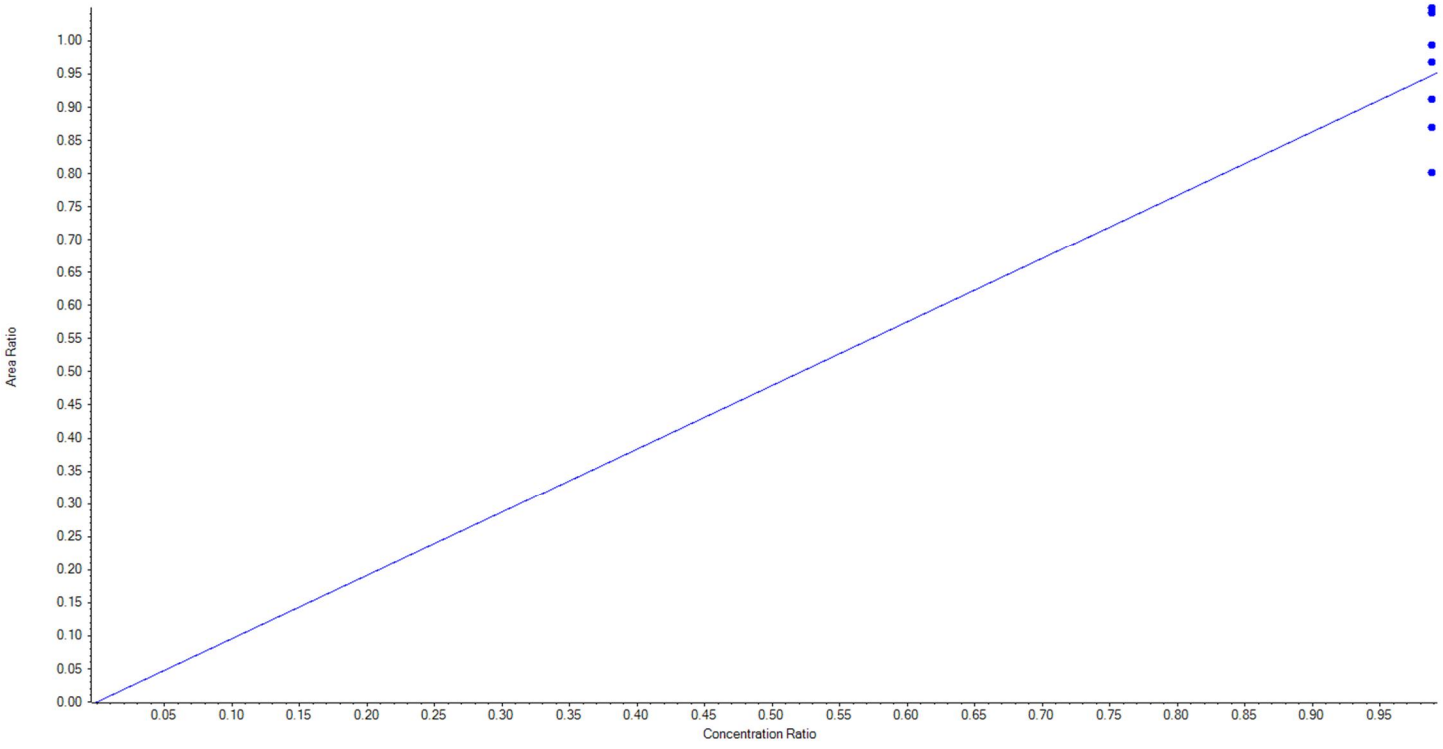
Analyte Name	13C3-PFHxS	**Data File**	18-0571.wiff
MRM Transition	402.0 / 99.0	**Result Table**	18-0569_18-0571_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.95880 x (std. dev. = 0.09298) (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	241.400564	102.1
3	KA87	L2	True	236.50	248.098418	104.9
4	KA88	L3	True	236.50	199.985038	84.6
5	KA89	L4	True	236.50	259.920256	109.9
6	KA90	L5	True	236.50	227.369285	96.1
7	KB64	L6	True	236.50	261.897987	110.7
8	KB65	L7	True	236.50	216.828452	91.7



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Calibration Summary Report

Created with Analyst Reporter
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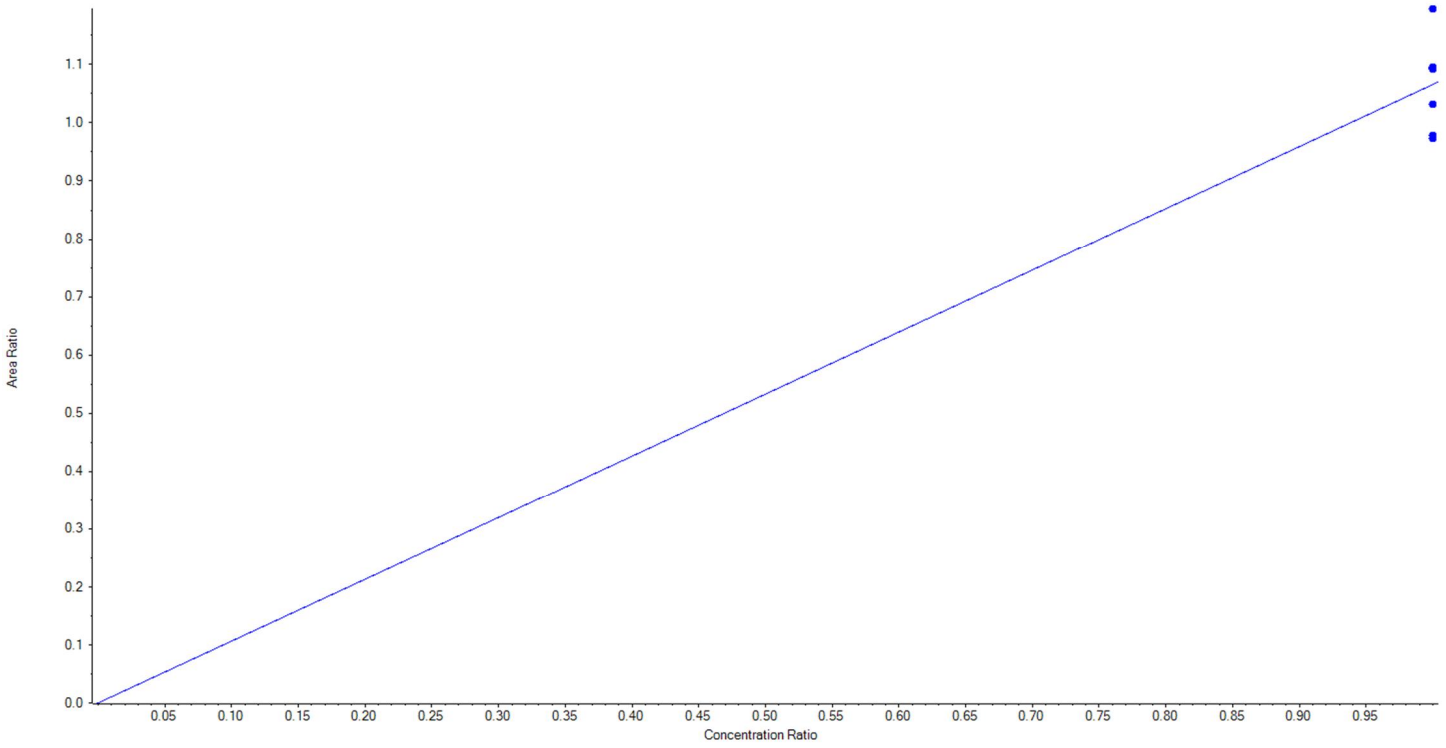
Analyte Name	13C8-PFOS	**Data File**	18-0571.wiff
MRM Transition	507.0 / 99.0	**Result Table**	18-0569_18-0571_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	9/28/2018 2:39:40 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.06566 x (std. dev. = 0.07808) (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	231.741312	96.9
3	KA87	L2	True	239.25	245.889017	102.8
4	KA88	L3	True	239.25	219.618527	91.8
5	KA89	L4	True	239.25	245.251971	102.5
6	KA90	L5	True	239.25	245.492206	102.6
7	KB64	L6	True	239.25	268.364524	112.2
8	KB65	L7	True	239.25	218.392444	91.3



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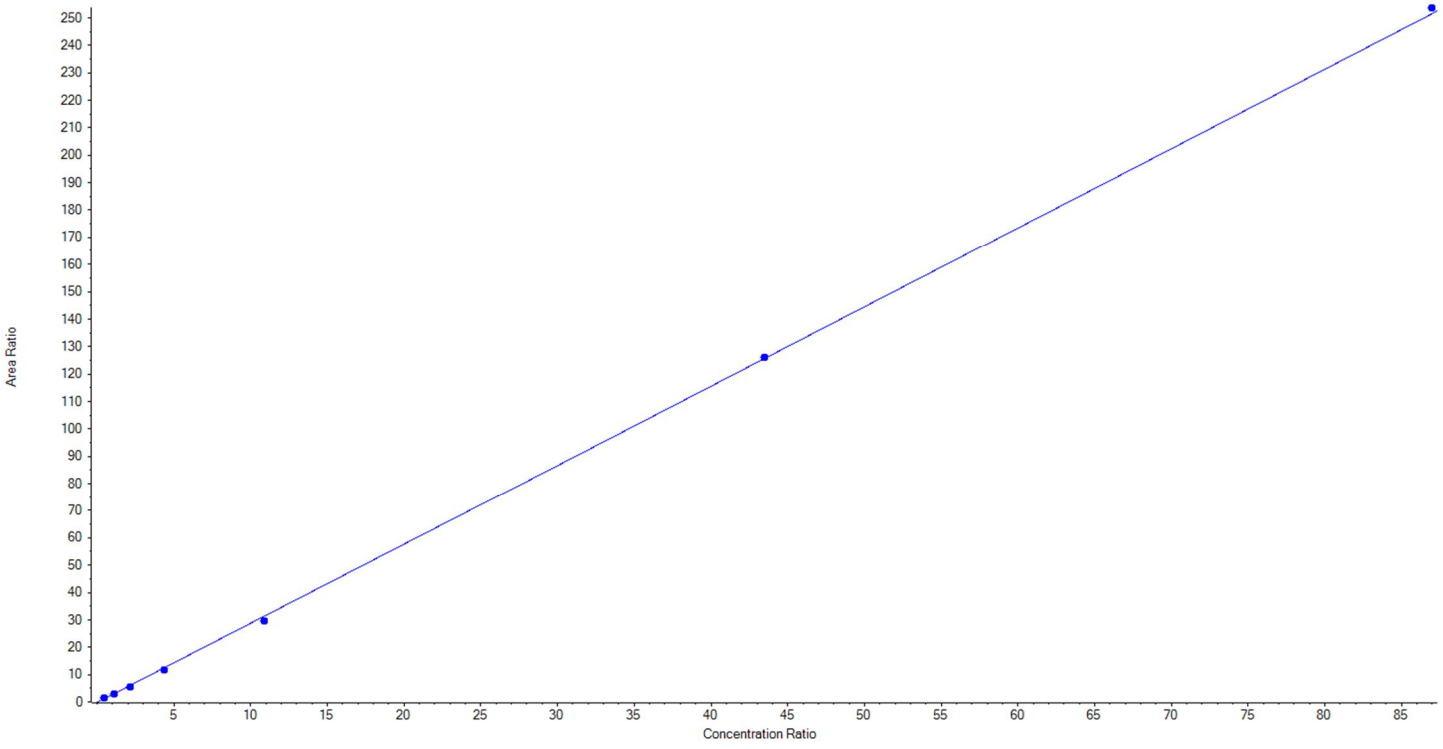
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFBS_1	**Data File**	18-0567.wiff
MRM Transition	298.9 / 80.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 2.89292 x + -0.16084 (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	True	101.00	118.242850	117.1
3	KA87	L2	True	252.50	252.515531	100.0
4	KA88	L3	True	505.00	463.842650	91.9
5	KB85	L4	True	1010.00	962.352090	95.3
6	KB69	L5	True	2525.00	2388.436582	94.6
7	KB64	L6	True	10100.00	10133.836648	100.3
8	KB65	L7	True	20200.00	20374.273647	100.9



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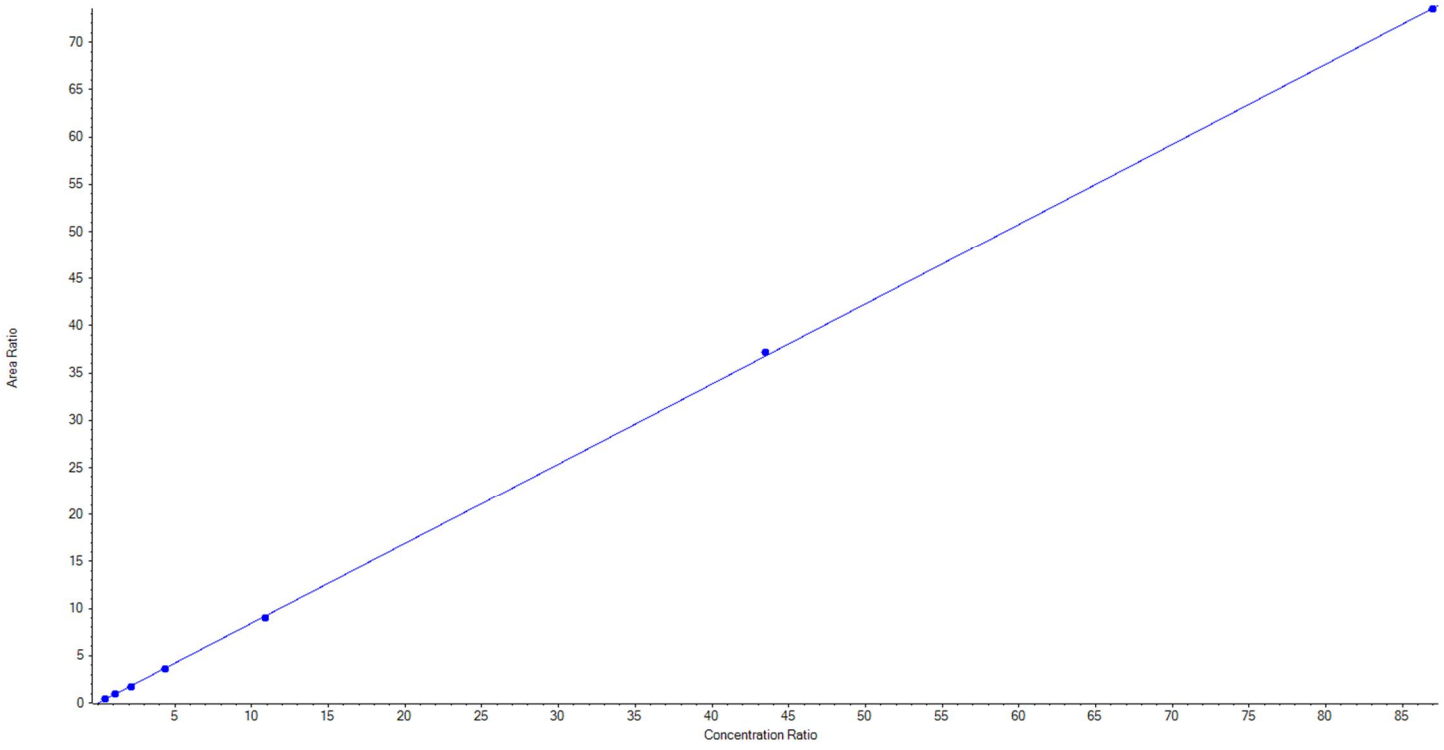
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFBS_2	**Data File**	18-0567.wiff
MRM Transition	298.9 / 99.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.84609 x + -0.01132 (r = 0.99988) (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	109.711649	108.6
3	KA87	L2	True	252.50	261.244646	103.5
4	KA88	L3	True	505.00	462.321983	91.6
5	KB85	L4	True	1010.00	979.007676	96.9
6	KB69	L5	True	2525.00	2484.112211	98.4
7	KB64	L6	True	10100.00	10215.066293	101.1
8	KB65	L7	True	20200.00	20182.035543	99.9



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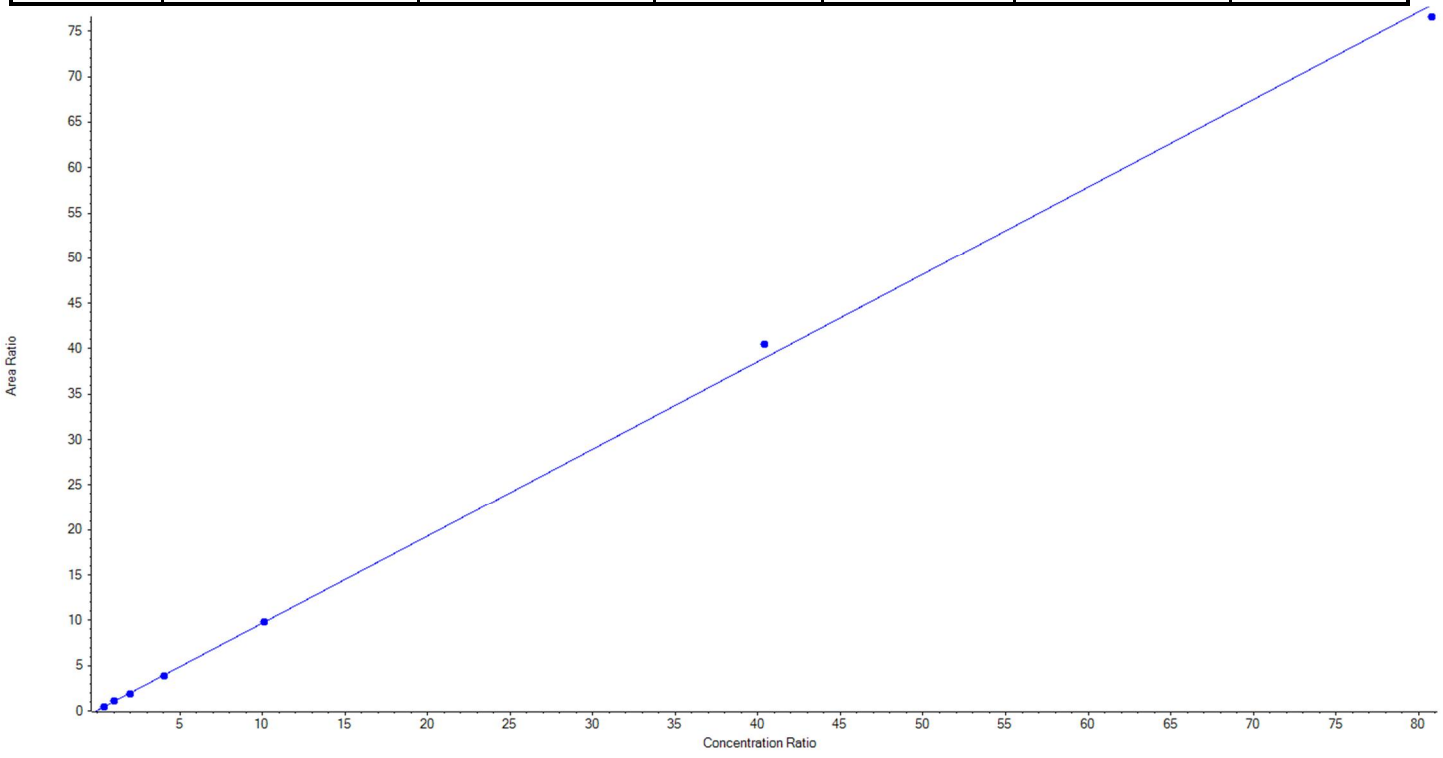
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFHxA_1	**Data File**	18-0567.wiff
MRM Transition	313.0 / 269.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.96350 x + 0.04994 (r = 0.99960) (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	103.436543	102.4
3	KA87	L2	True	252.50	265.363796	105.1
4	KA88	L3	True	505.00	473.609923	93.8
5	KB85	L4	True	1010.00	974.984492	96.5
6	KB69	L5	True	2525.00	2523.702577	100.0
7	KB64	L6	True	10100.00	10497.477669	103.9
8	KB65	L7	True	20200.00	19854.924999	98.3



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Calibration Summary Report

Created with Analyst Reporter
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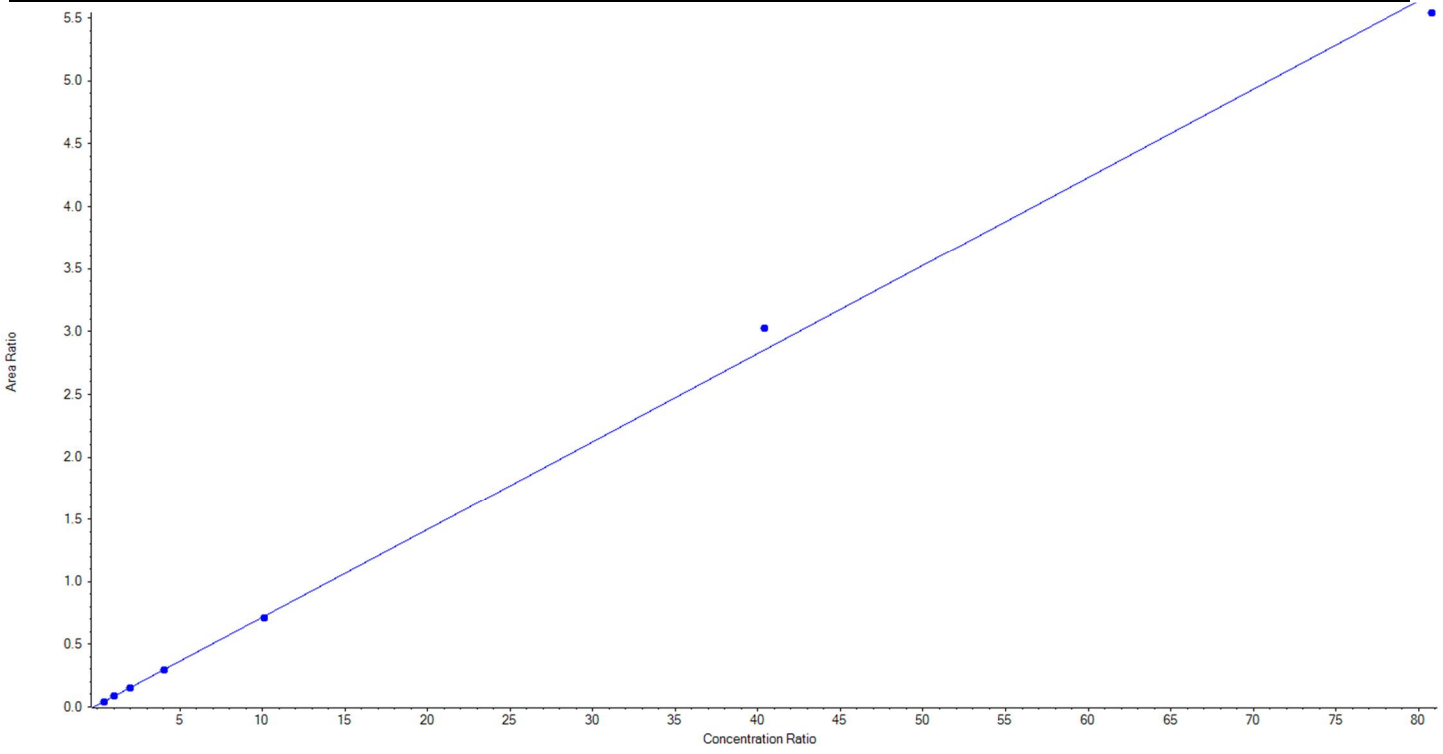
Analyte Name	PFHxA_2	**Data File**	18-0567.wiff
MRM Transition	313.0 / 119.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.07031 x + 0.01307 (r = 0.99911) (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	94.090202	93.2
3	KA87	L2	True	252.50	278.935665	110.5
4	KA88	L3	True	505.00	490.077726	97.1
5	KB85	L4	True	1010.00	991.873026	98.2
6	KB69	L5	True	2525.00	2468.194621	97.8
7	KB64	L6	True	10100.00	10710.651070	106.1
8	KB65	L7	True	20200.00	19659.677689	97.3



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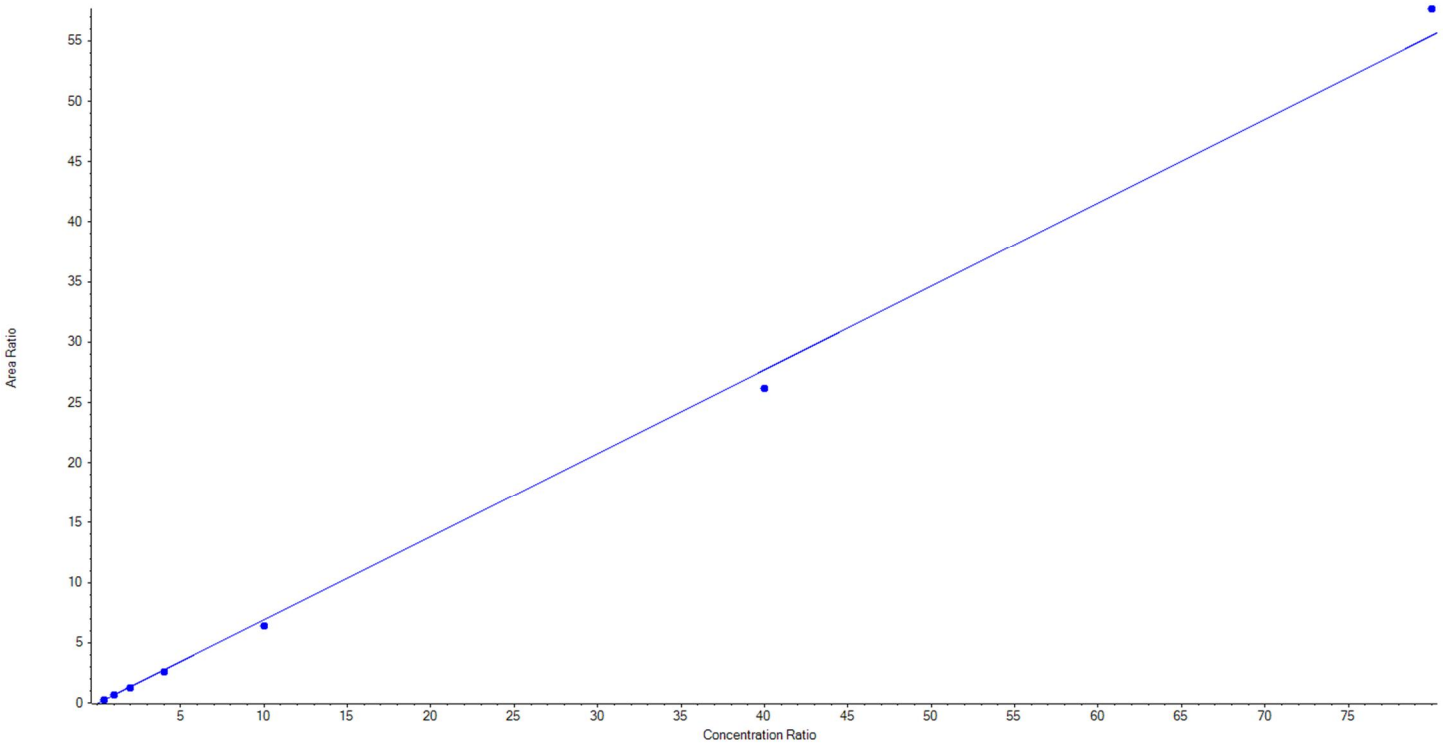
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFHpA_1	**Data File**	18-0567.wiff
MRM Transition	363.0 / 319.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.69364 x + -0.04287 (r = 0.99866) (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	116.550658	116.6
3	KA87	L2	True	250.00	264.992622	106.0
4	KA88	L3	True	500.00	457.660339	91.5
5	KB85	L4	True	1000.00	947.922258	94.8
6	KB69	L5	True	2500.00	2315.429020	92.6
7	KB64	L6	True	10000.00	9454.722712	94.6
8	KB65	L7	True	20000.00	20792.722391	104.0



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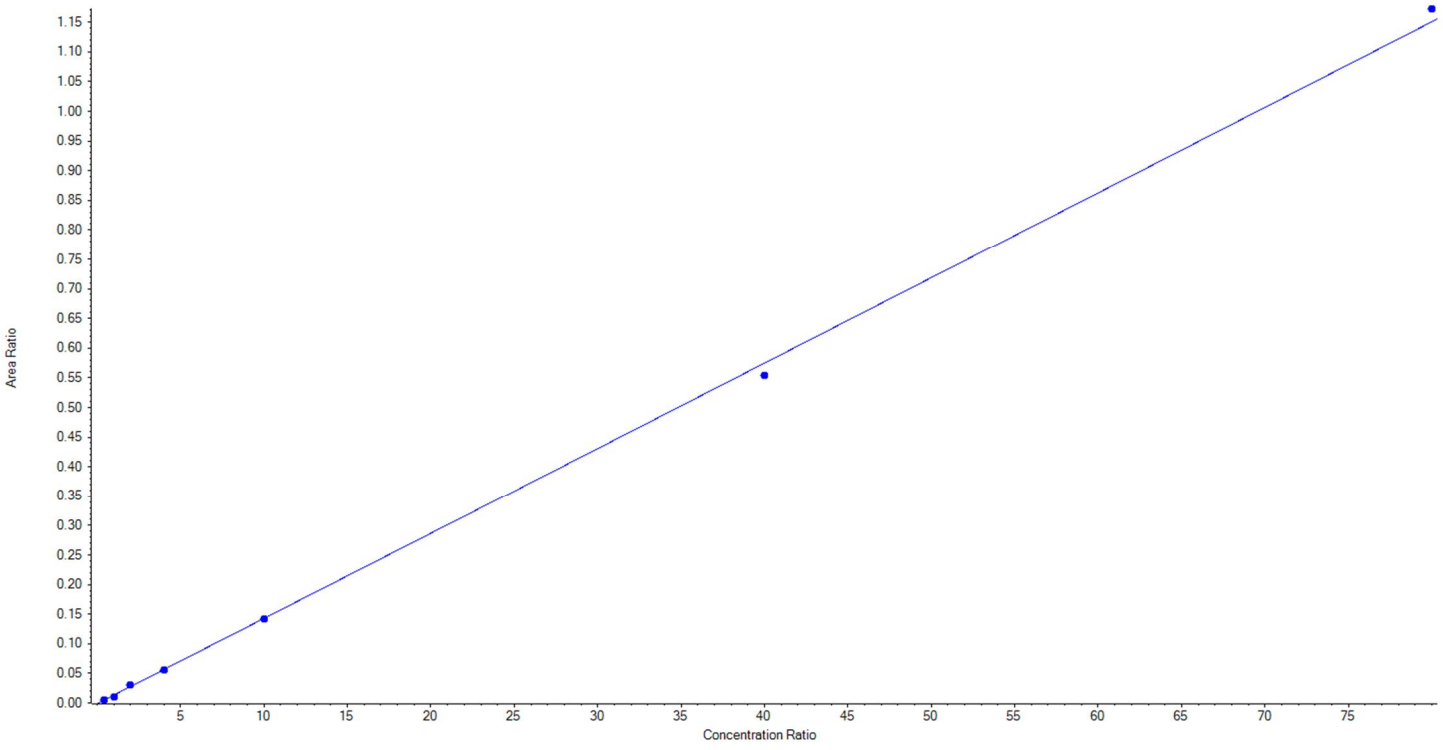
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFHpA_2	**Data File**	18-0567.wiff
MRM Transition	363.0 / 169.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.01439 x + -0.00117 (r = 0.99947) (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	110.511022	110.5
3	KA87	L2	True	250.00	208.829740	83.5
4	KA88	L3	True	500.00	552.319485	110.5
5	KB85	L4	True	1000.00	981.772676	98.2
6	KB69	L5	True	2500.00	2474.455042	99.0
7	KB64	L6	True	10000.00	9645.431110	96.5
8	KB65	L7	True	20000.00	20376.680925	101.9



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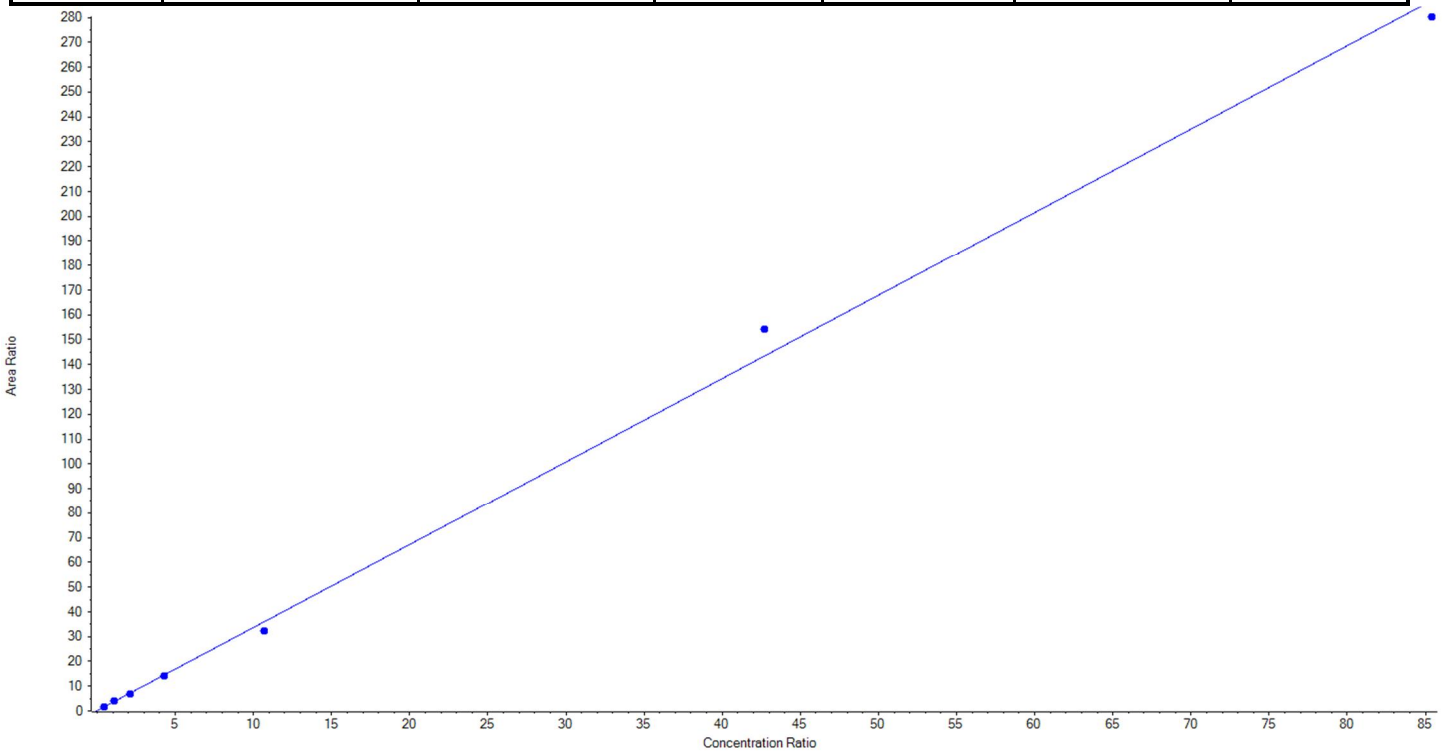
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFHxS_1	**Data File**	18-0567.wiff
MRM Transition	399.0 / 80.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 3.35643 x + 0.10921 (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	True	101.00	108.237125	107.2
3	KA87	L2	True	252.50	272.323086	107.9
4	KA88	L3	True	505.00	471.051343	93.3
5	KB85	L4	True	1010.00	977.033184	96.7
6	KB69	L5	True	2525.00	2265.053300	89.7
7	KB64	L6	True	10100.00	10863.782462	107.6
8	KB65	L7	True	20200.00	19736.019502	97.7



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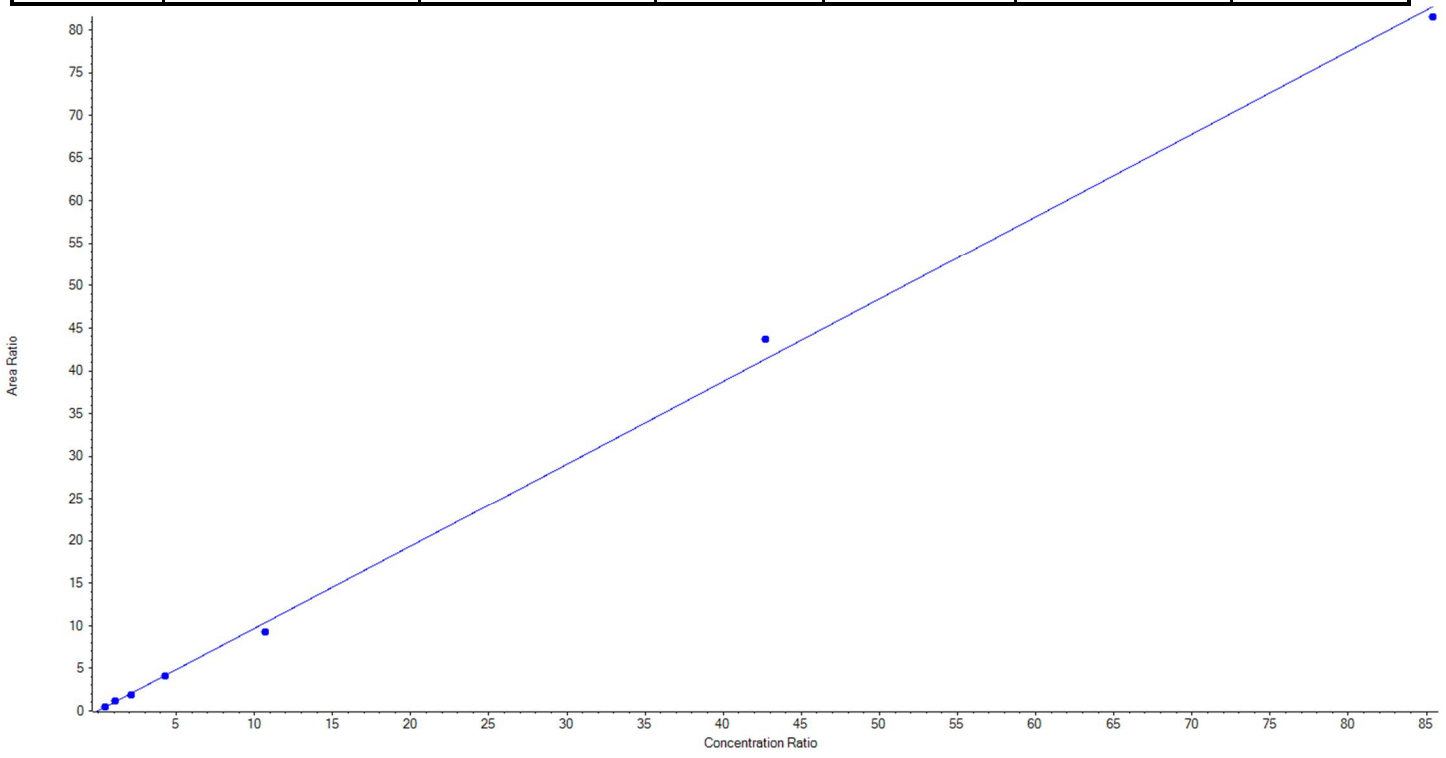
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFHxS_2	**Data File**	18-0567.wiff
MRM Transition	399.0 / 99.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.96845 x + 0.01259 (r = 0.99877) (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	104.699018	103.7
3	KA87	L2	True	252.50	294.347378	116.6
4	KA88	L3	True	505.00	441.703024	87.5
5	KB85	L4	True	1010.00	989.614030	98.0
6	KB69	L5	True	2525.00	2272.262593	90.0
7	KB64	L6	True	10100.00	10683.029937	105.8
8	KB65	L7	True	20200.00	19907.844020	98.6



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Calibration Summary Report

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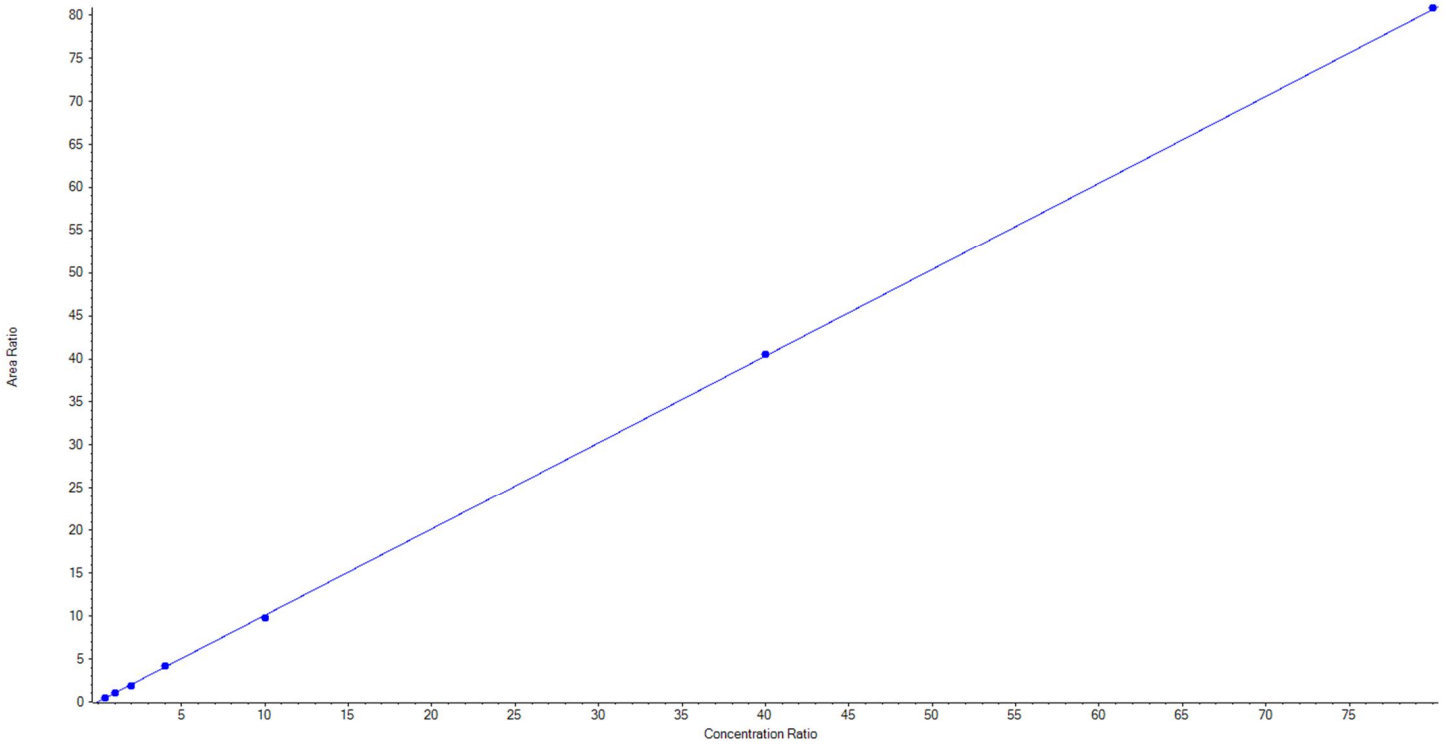
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFOA_1	**Data File**	18-0567.wiff
MRM Transition	413.0 / 369.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.00778 x + 0.01994 (r = 0.99988) (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	103.059565	103.1
3	KA87	L2	True	250.00	259.712734	103.9
4	KA88	L3	True	500.00	464.403086	92.9
5	KB85	L4	True	1000.00	1032.344173	103.2
6	KB69	L5	True	2500.00	2408.845401	96.4
7	KB64	L6	True	10000.00	10035.663035	100.4
8	KB65	L7	True	20000.00	20045.972006	100.2



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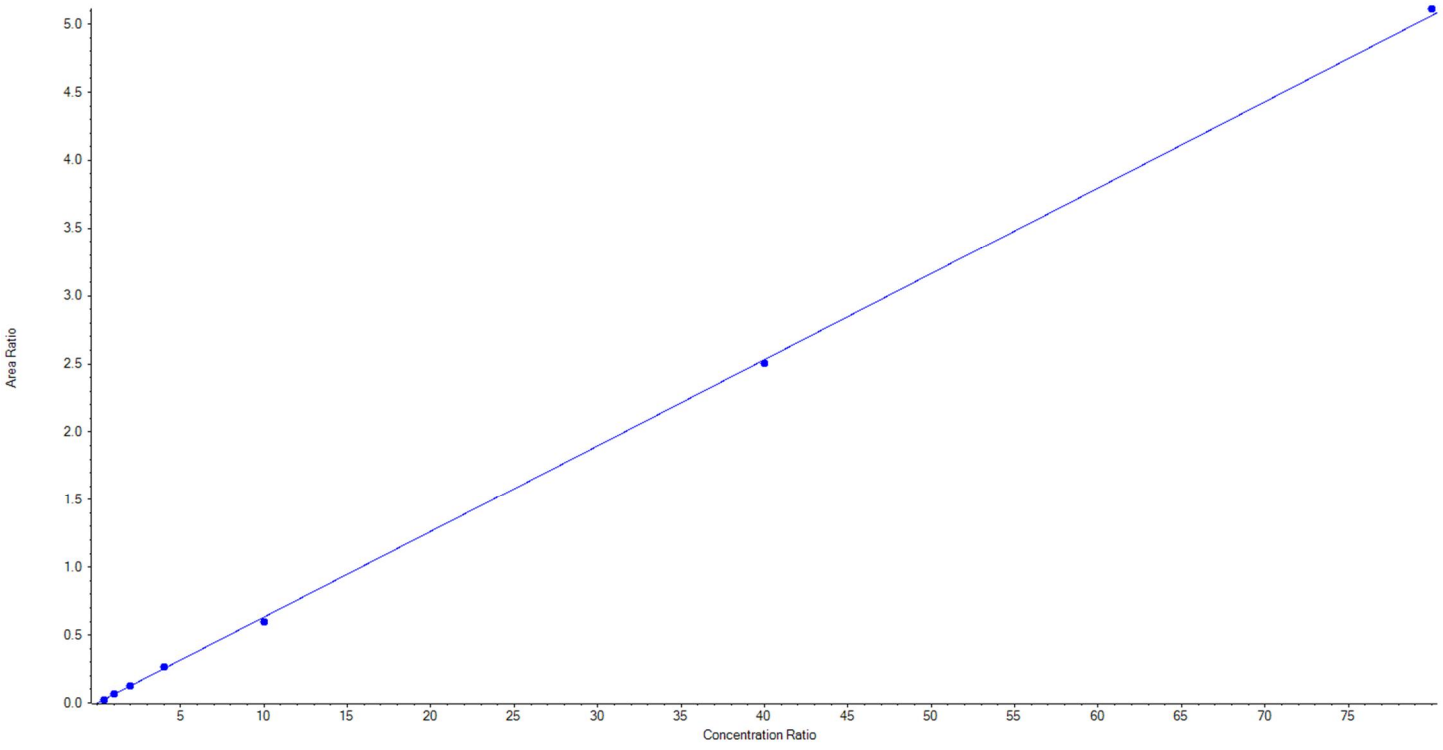
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFOA_2	**Data File**	18-0567.wiff
MRM Transition	413.0 / 169.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06330 x + -9.26640e-4 (r = 0.99978) (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	97.339733	97.3
3	KA87	L2	True	250.00	263.764801	105.5
4	KA88	L3	True	500.00	490.273598	98.1
5	KB85	L4	True	1000.00	1047.963770	104.8
6	KB69	L5	True	2500.00	2358.191004	94.3
7	KB64	L6	True	10000.00	9902.654900	99.0
8	KB65	L7	True	20000.00	20189.812195	101.0



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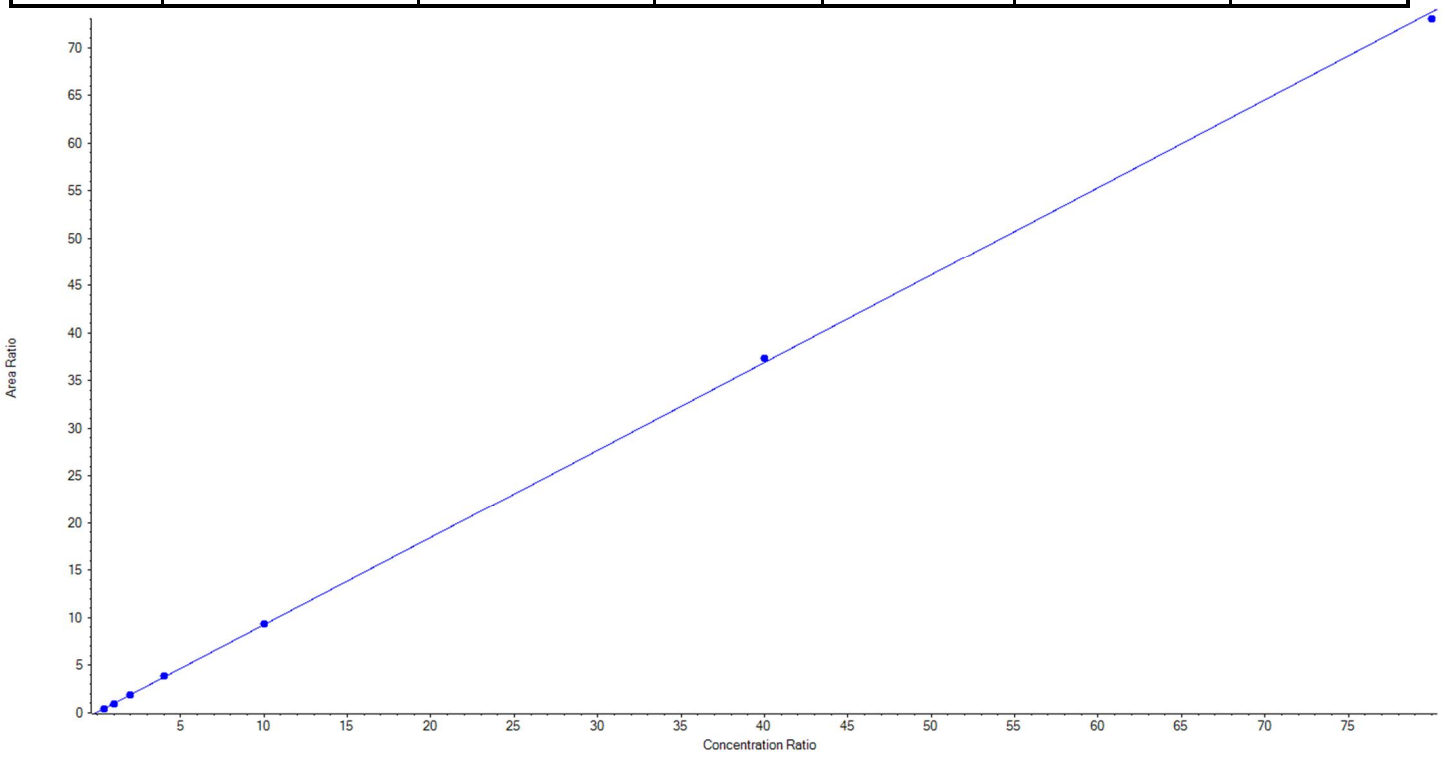
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFNA_1	**Data File**	18-0567.wiff
MRM Transition	463.0 / 419.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.92124 x + 0.07140 (r = 0.99989) (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	96.157405	96.2
3	KA87	L2	True	250.00	249.031439	99.6
4	KA88	L3	True	500.00	488.087483	97.6
5	KB85	L4	True	1000.00	1048.447832	104.8
6	KB69	L5	True	2500.00	2536.519181	101.5
7	KB64	L6	True	10000.00	10129.637799	101.3
8	KB65	L7	True	20000.00	19802.118861	99.0



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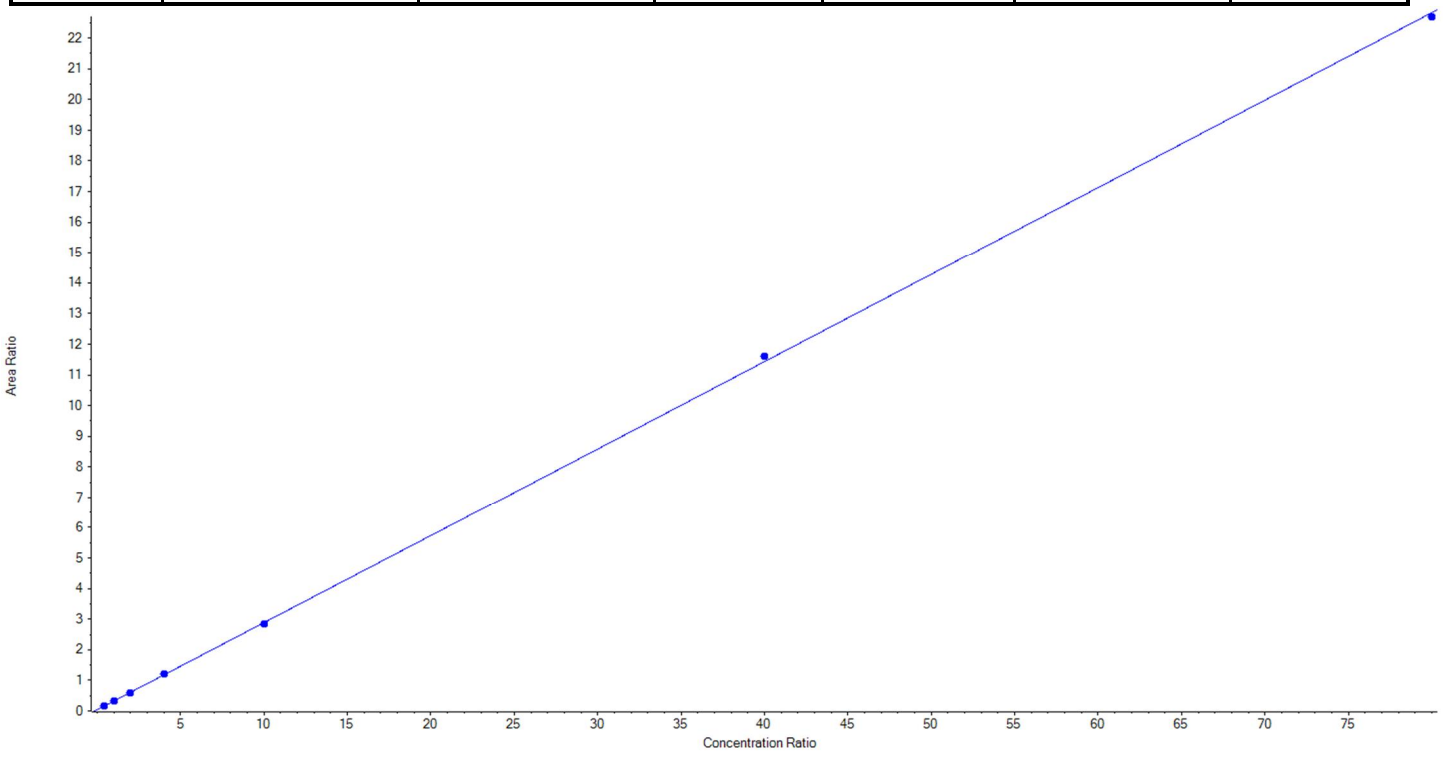
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFNA_2	**Data File**	18-0567.wiff
MRM Transition	463.0 / 219.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.28489 x + 0.03888 (r = 0.99989) (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	102.468768	102.5
3	KA87	L2	True	250.00	252.395569	101.0
4	KA88	L3	True	500.00	468.306817	93.7
5	KB85	L4	True	1000.00	1035.566728	103.6
6	KB69	L5	True	2500.00	2461.192991	98.5
7	KB64	L6	True	10000.00	10151.380563	101.5
8	KB65	L7	True	20000.00	19878.688563	99.4



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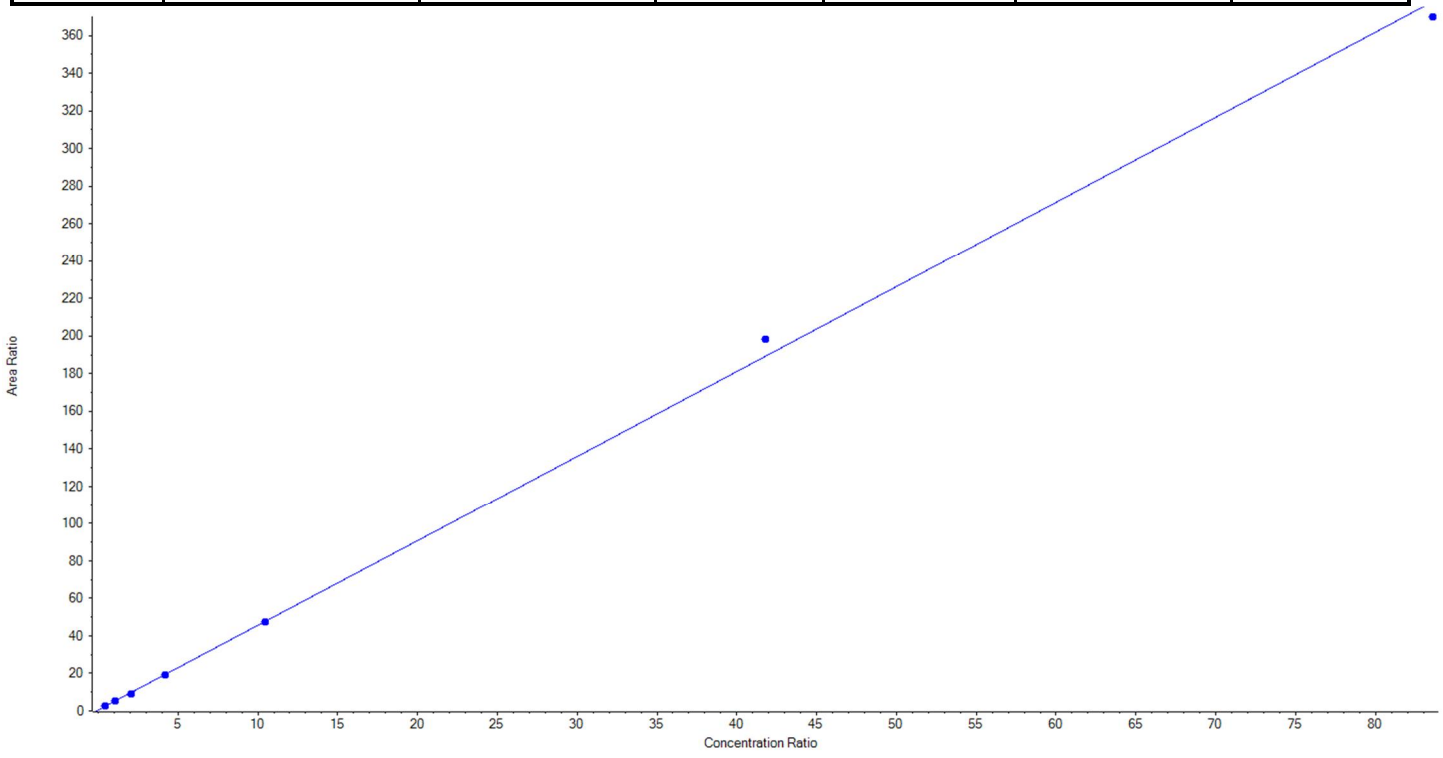
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFOS_1	**Data File**	18-0567.wiff
MRM Transition	499.0 / 80.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 4.51667 x + 0.47263 (r = 0.99942) (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	103.769423	103.8
3	KA87	L2	True	250.00	257.277249	102.9
4	KA88	L3	True	500.00	459.528466	91.9
5	KB85	L4	True	1000.00	997.260536	99.7
6	KB69	L5	True	2500.00	2474.021804	99.0
7	KB64	L6	True	10000.00	10487.269169	104.9
8	KB65	L7	True	20000.00	19570.873353	97.9



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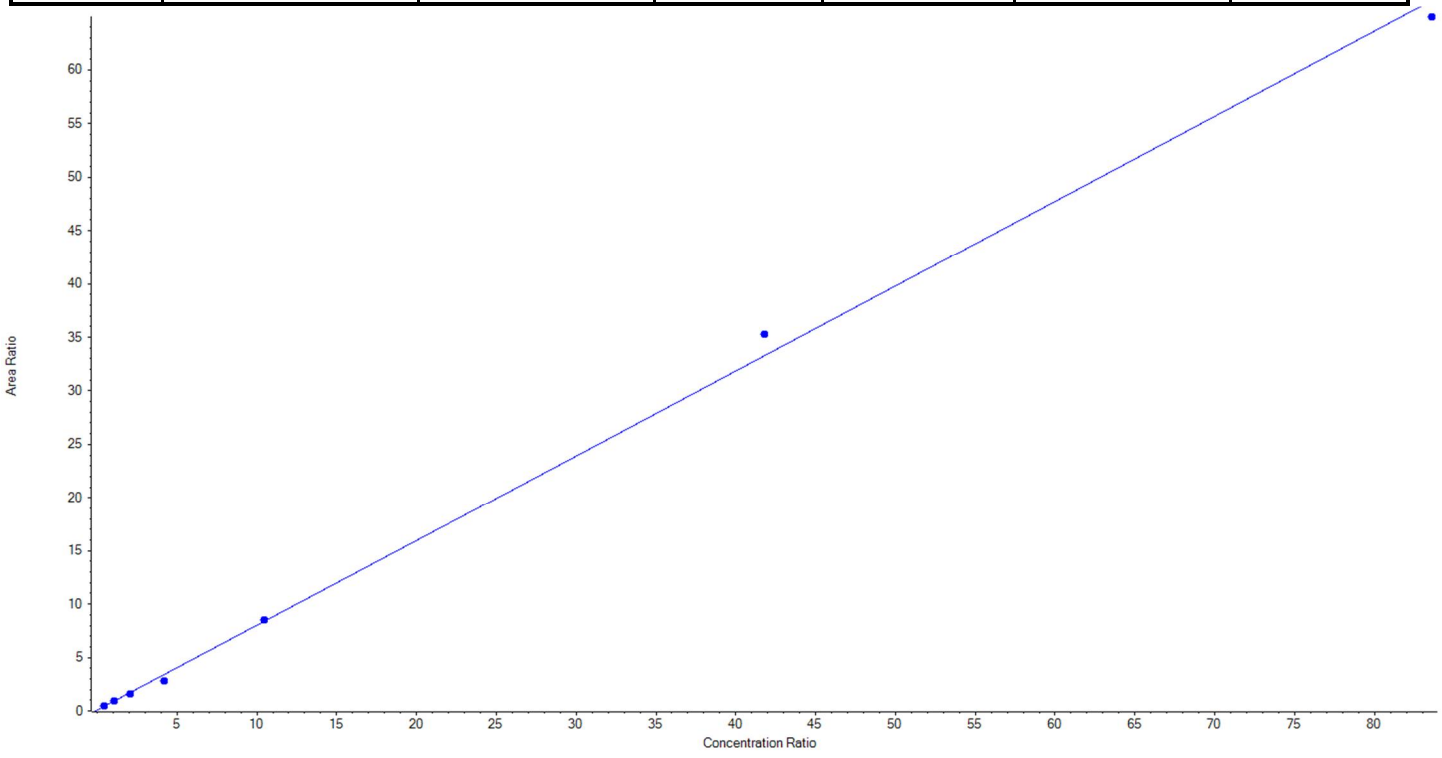
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFOS_2	**Data File**	18-0567.wiff
MRM Transition	499.0 / 99.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.79442 x + 0.07329 (r = 0.99861) (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	116.579914	116.6
3	KA87	L2	True	250.00	259.917357	104.0
4	KA88	L3	True	500.00	459.286260	91.9
5	KB85	L4	True	1000.00	820.322992	82.0
6	KB69	L5	True	2500.00	2543.792355	101.8
7	KB64	L6	True	10000.00	10612.278502	106.1
8	KB65	L7	True	20000.00	19537.822619	97.7



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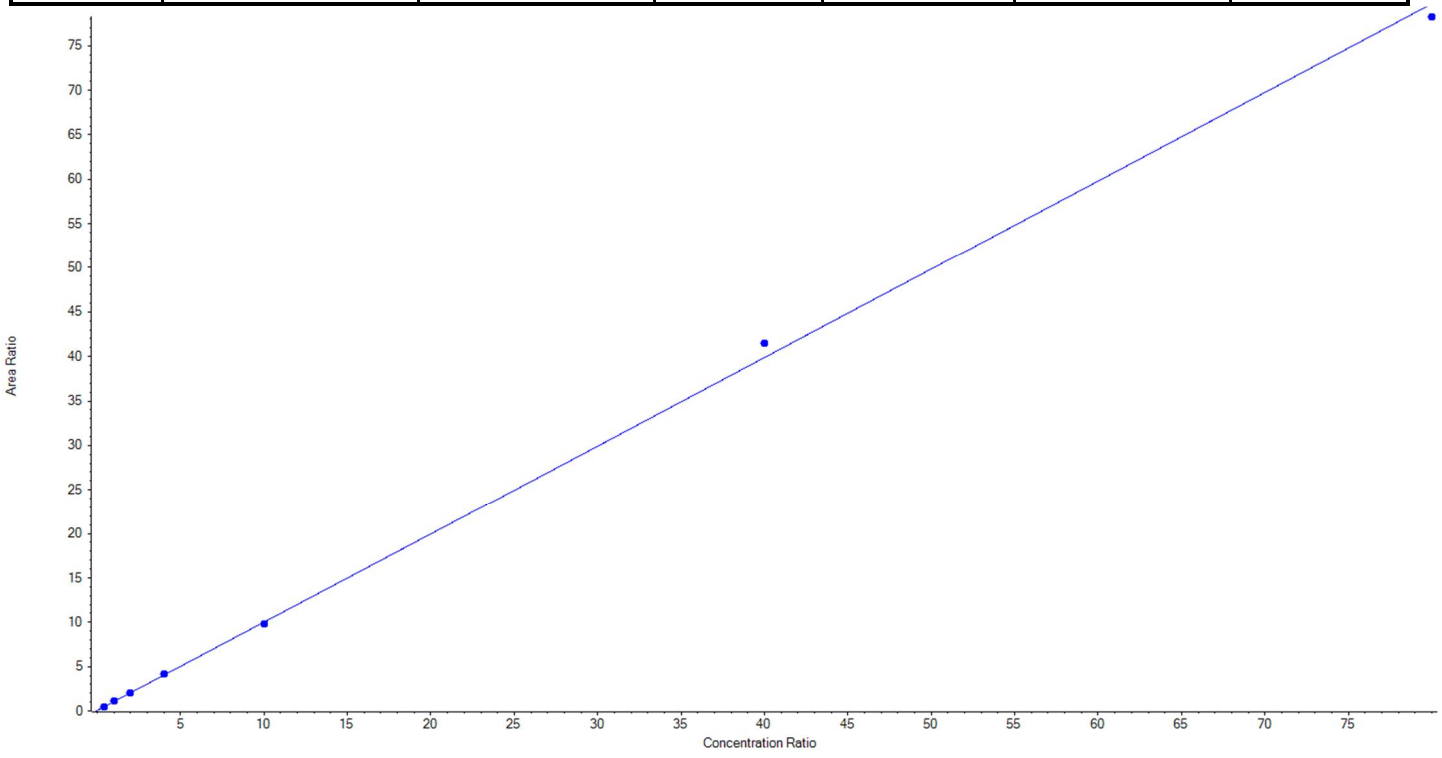
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFDA_1	**Data File**	18-0567.wiff
MRM Transition	513.0 / 469.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.99570 x + 0.05245 (r = 0.99960) (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	93.212142	93.2
3	KA87	L2	True	250.00	264.139879	105.7
4	KA88	L3	True	500.00	494.075704	98.8
5	KB85	L4	True	1000.00	1020.809243	102.1
6	KB69	L5	True	2500.00	2453.490287	98.1
7	KB64	L6	True	10000.00	10394.973207	104.0
8	KB65	L7	True	20000.00	19629.299538	98.2



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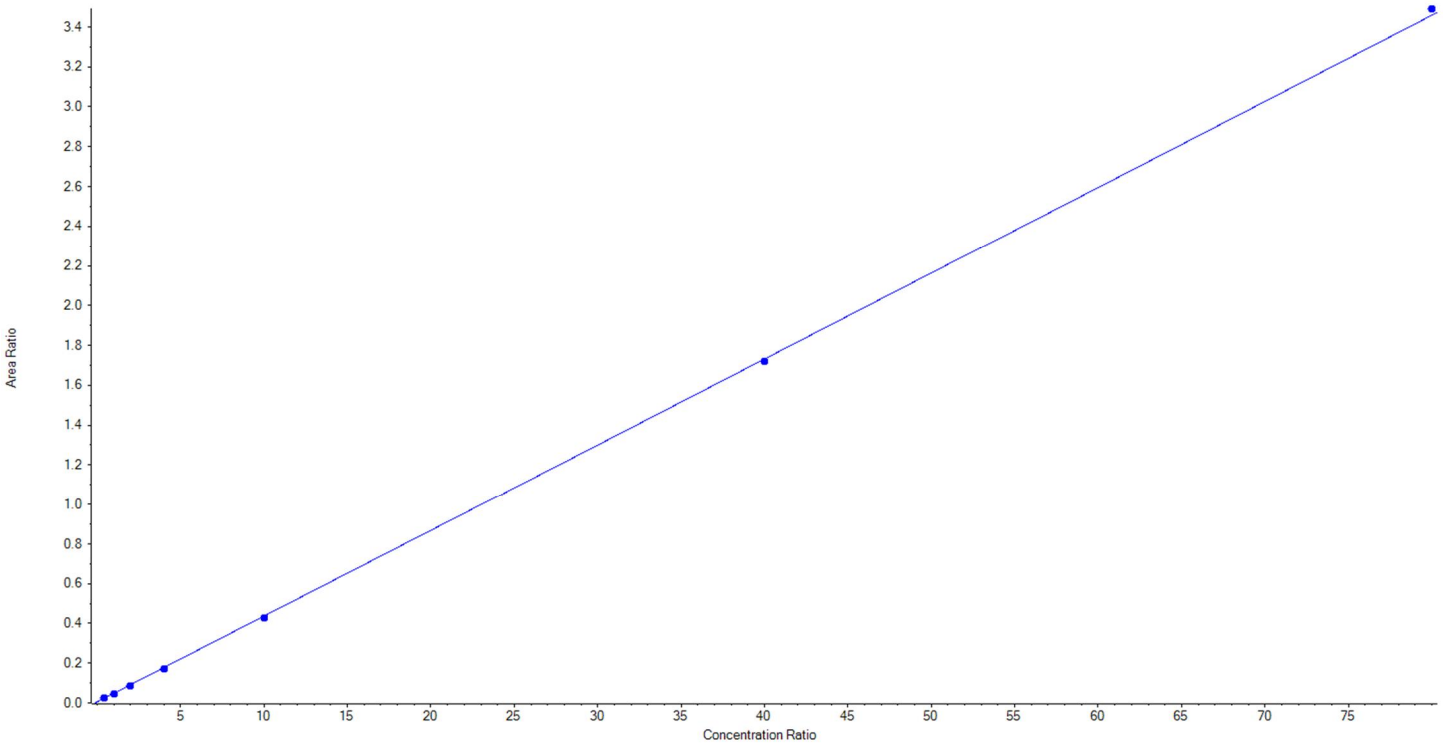
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFDA_2	**Data File**	18-0567.wiff
MRM Transition	513.0 / 219.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.04316 x + 0.00522 (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	122.652124	122.7
3	KA87	L2	True	250.00	224.730435	89.9
4	KA88	L3	True	500.00	461.068337	92.2
5	KB85	L4	True	1000.00	970.576516	97.1
6	KB69	L5	True	2500.00	2446.638326	97.9
7	KB64	L6	True	10000.00	9939.435869	99.4
8	KB65	L7	True	20000.00	20184.898394	100.9



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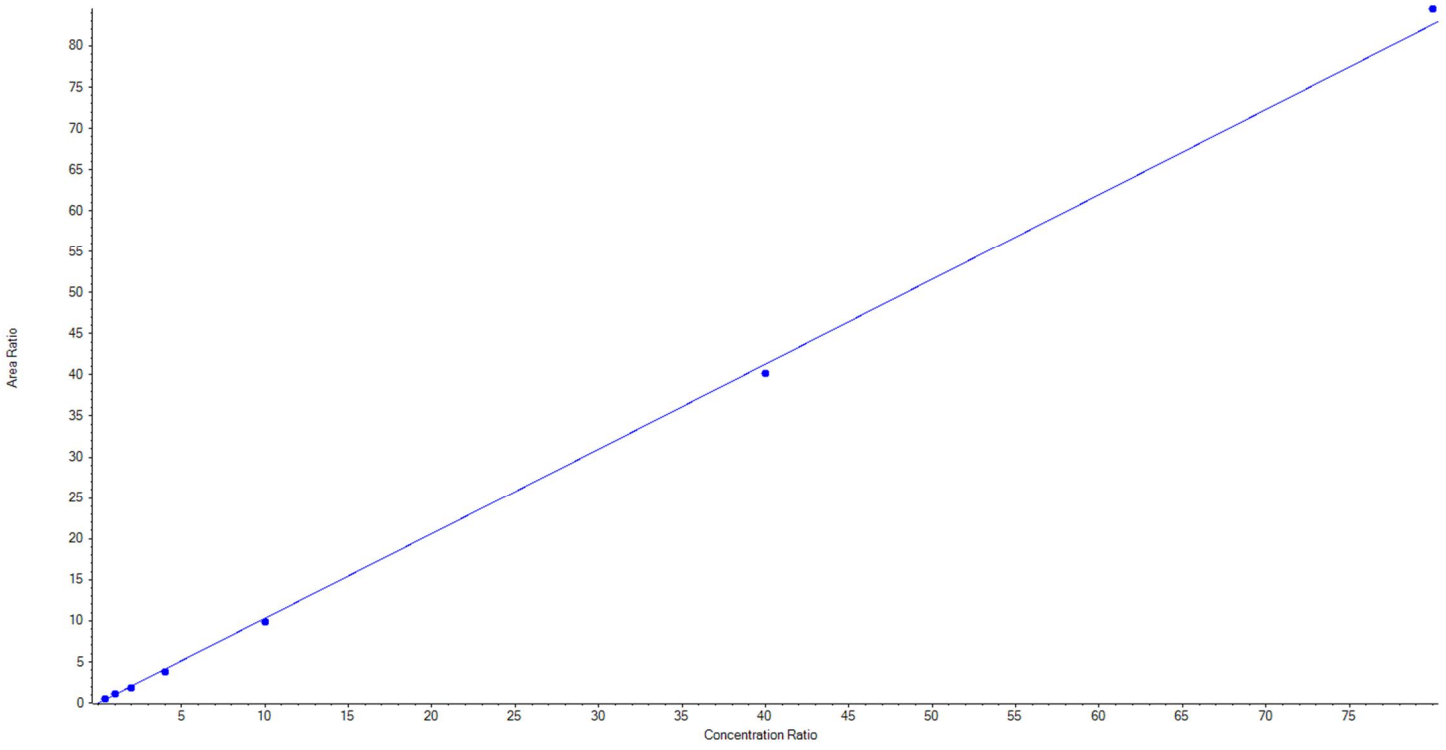
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFUnA_1	**Data File**	18-0567.wiff
MRM Transition	563.0 / 519.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.03304 x + -0.02786 (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	115.774594	115.8
3	KA87	L2	True	250.00	263.442924	105.4
4	KA88	L3	True	500.00	454.446863	90.9
5	KB85	L4	True	1000.00	921.368543	92.1
6	KB69	L5	True	2500.00	2404.546580	96.2
7	KB64	L6	True	10000.00	9737.608647	97.4
8	KB65	L7	True	20000.00	20452.811849	102.3



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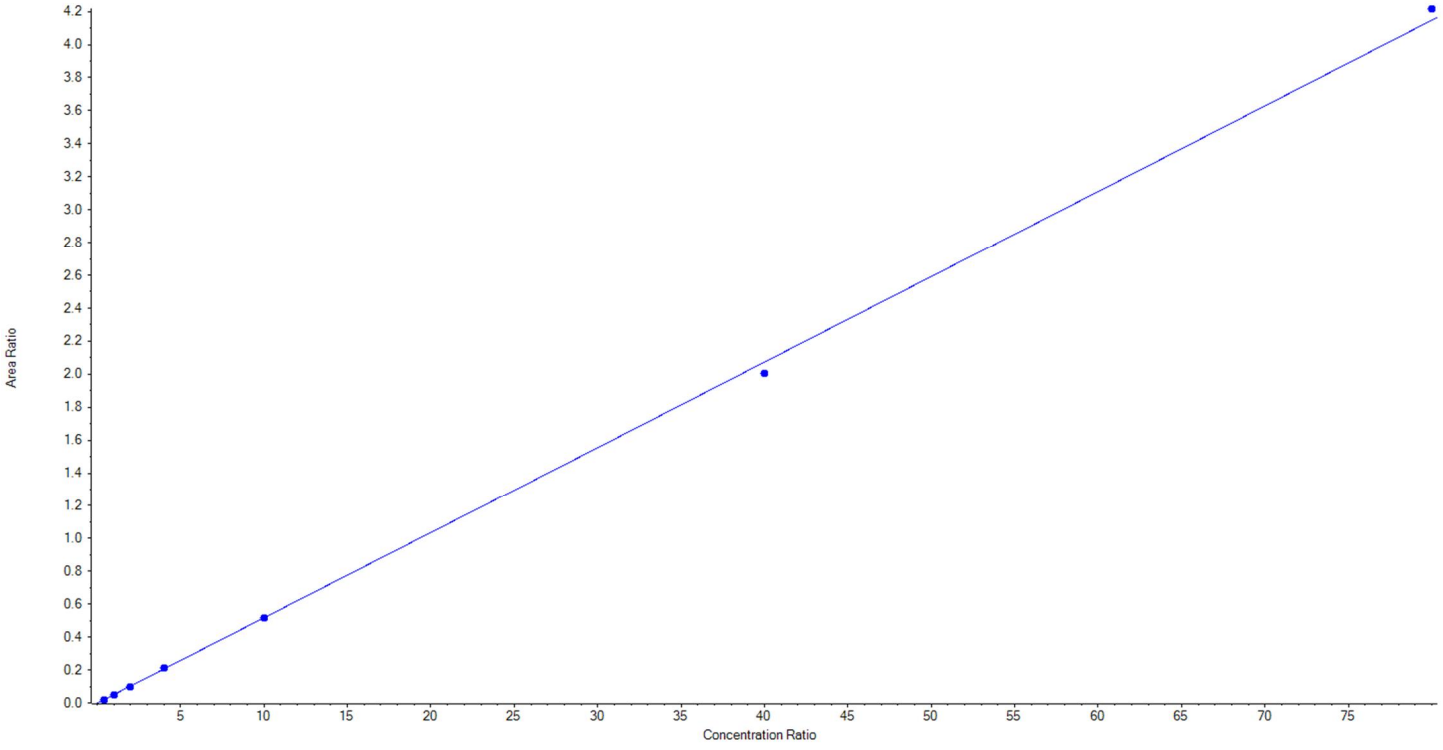
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFUnA_2	**Data File**	18-0567.wiff
MRM Transition	563.0 / 269.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05187 x + -0.00139 (r = 0.99973) (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	102.737163	102.7
3	KA87	L2	True	250.00	253.560608	101.4
4	KA88	L3	True	500.00	479.177876	95.8
5	KB85	L4	True	1000.00	1020.878941	102.1
6	KB69	L5	True	2500.00	2487.420630	99.5
7	KB64	L6	True	10000.00	9677.435016	96.8
8	KB65	L7	True	20000.00	20328.789765	101.6



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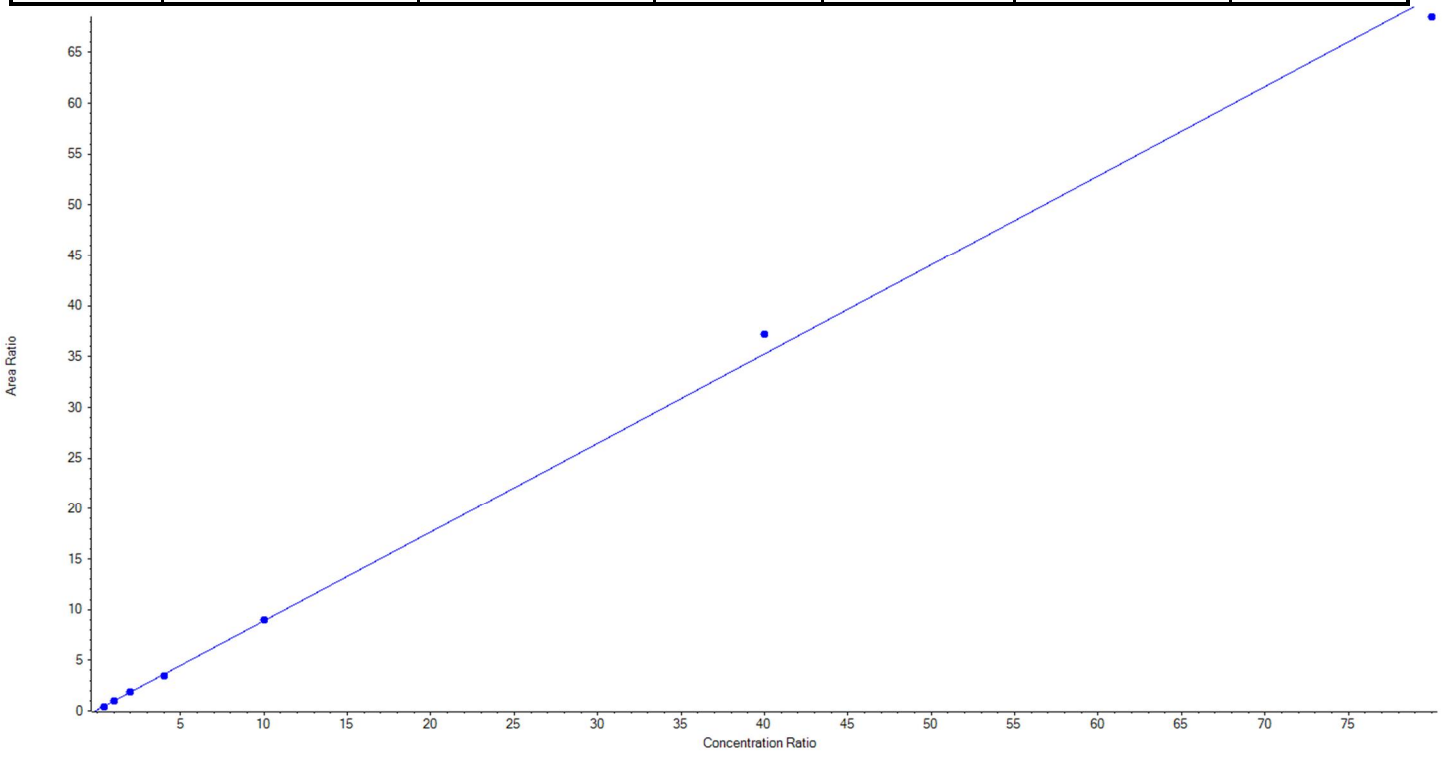
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFDoA_1	**Data File**	18-0567.wiff
MRM Transition	613.0 / 569.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.87923 x + 0.10009 (r = 0.99922) (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	95.403570	95.4
3	KA87	L2	True	250.00	261.500465	104.6
4	KA88	L3	True	500.00	500.253433	100.1
5	KB85	L4	True	1000.00	963.898635	96.4
6	KB69	L5	True	2500.00	2516.797284	100.7
7	KB64	L6	True	10000.00	10564.613909	105.7
8	KB65	L7	True	20000.00	19447.532704	97.2



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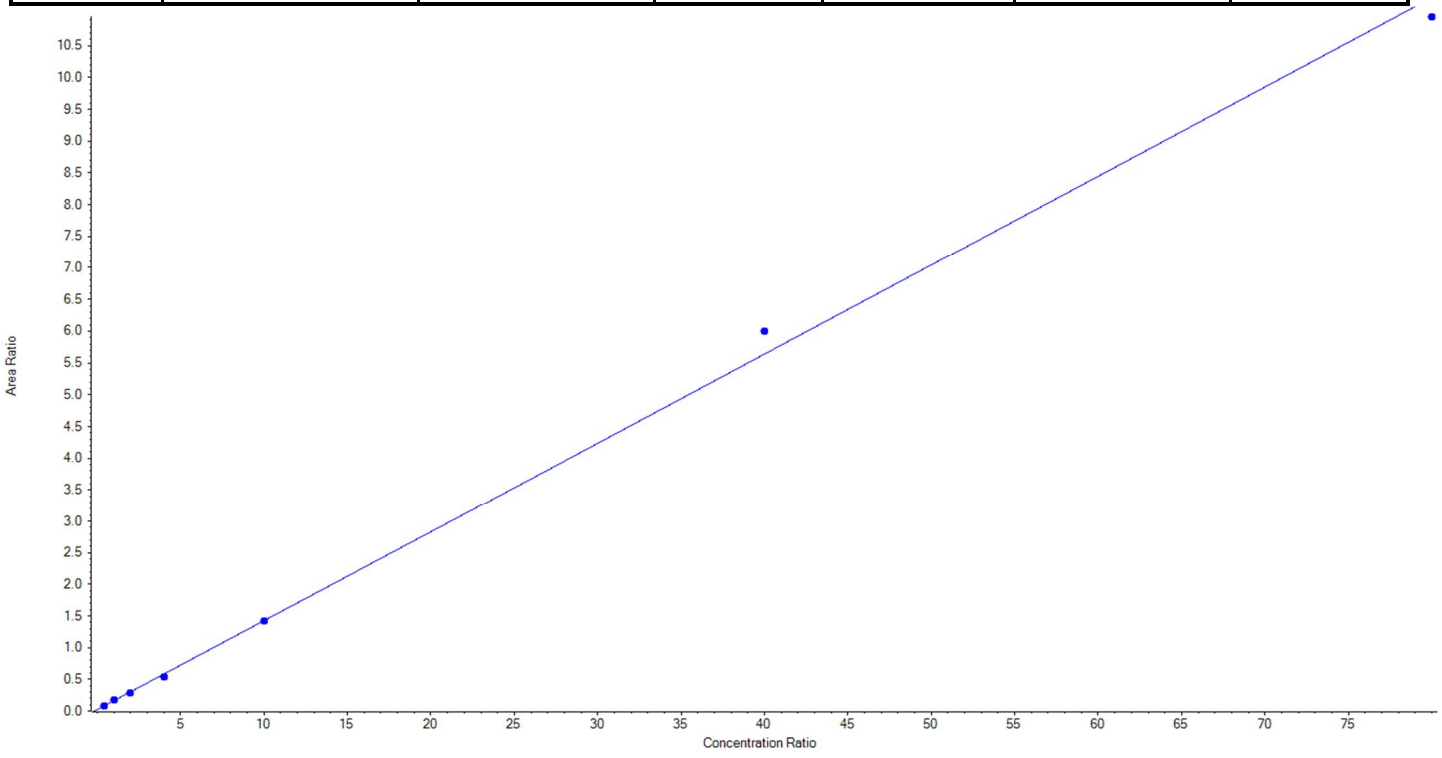
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFDoA_2	**Data File**	18-0567.wiff
MRM Transition	613.0 / 319.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.14045 x + 0.02017 (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	100.00	104.404315	104.4
3	KA87	L2	True	250.00	259.108140	103.6
4	KA88	L3	True	500.00	483.151548	96.6
5	KB85	L4	True	1000.00	920.650141	92.1
6	KB69	L5	True	2500.00	2491.211226	99.7
7	KB64	L6	True	10000.00	10630.256598	106.3
8	KB65	L7	True	20000.00	19461.218032	97.3



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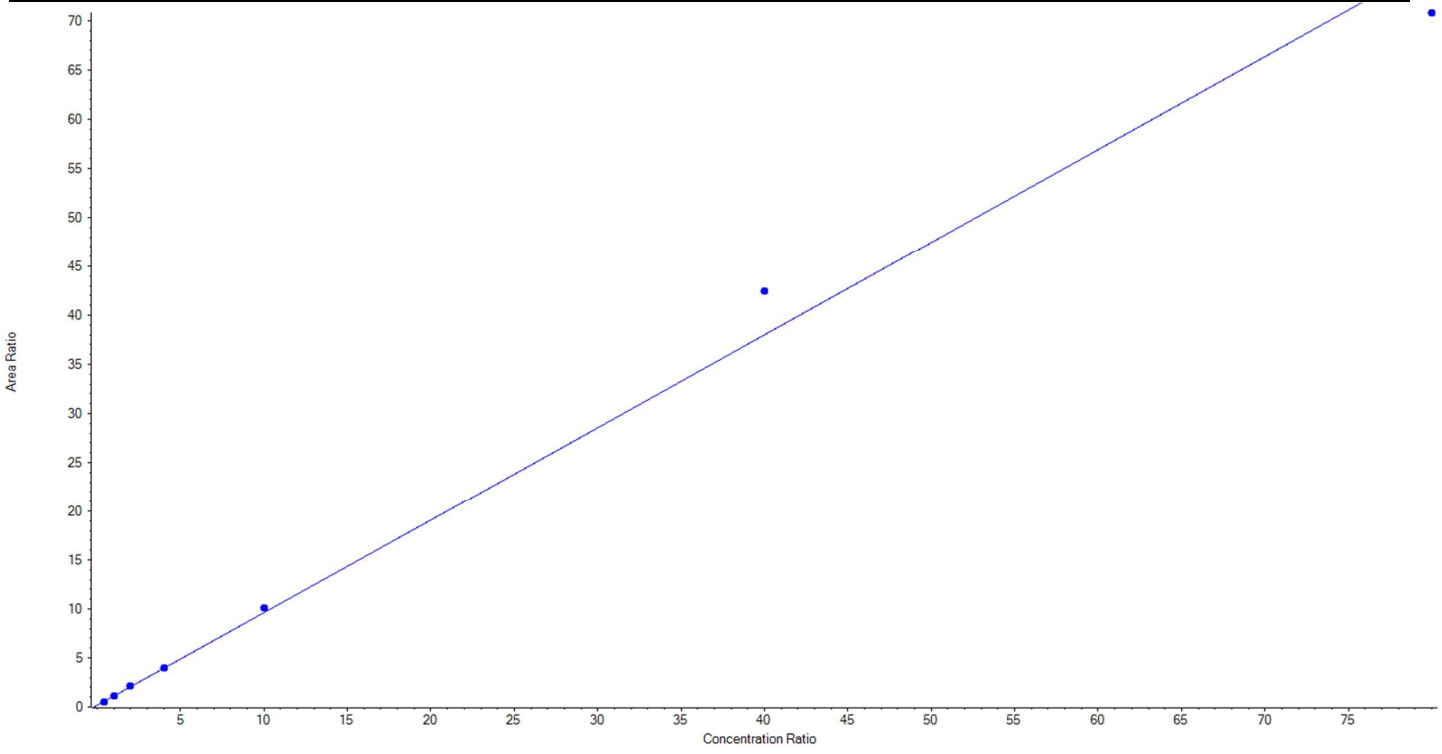
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFTrDA_1	**Data File**	18-0567.wiff
MRM Transition	663.0 / 619.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.94582 x + 0.16567 (r = 0.99628) (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	81.240003	81.2
3	KA87	L2	True	250.00	255.639239	102.3
4	KA88	L3	True	500.00	522.325434	104.5
5	KB85	L4	True	1000.00	1015.089313	101.5
6	KB69	L5	True	2500.00	2638.115881	105.5
7	KB64	L6	True	10000.00	11163.539565	111.6
8	KB65	L7	True	20000.00	18674.050566	93.4



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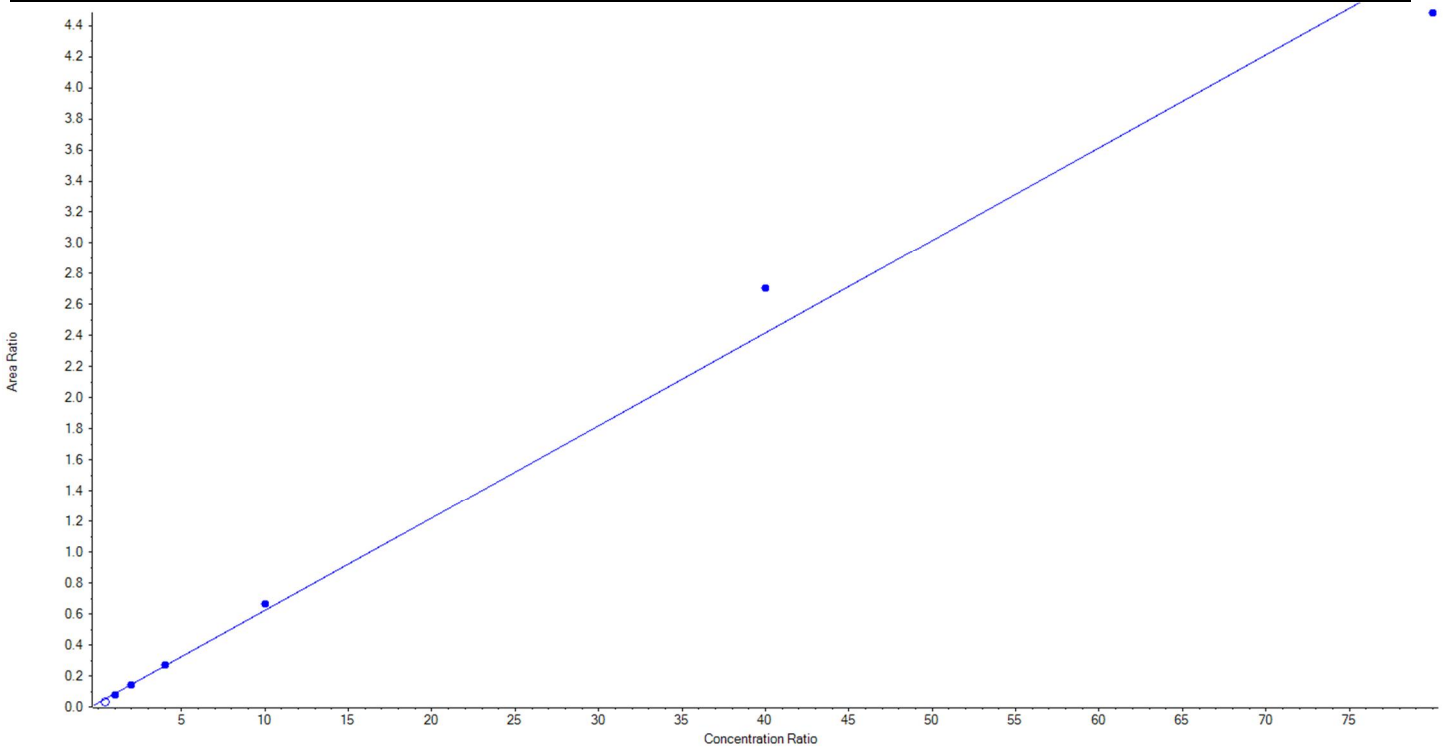
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFTrDA_2	**Data File**	18-0567.wiff
MRM Transition	663.0 / 169.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05980 x + 0.02590 (r = 0.99564) (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	19.841497	19.8
3	KA87	L2	True	250.00	216.816652	86.7
4	KA88	L3	True	500.00	496.493990	99.3
5	KB85	L4	True	1000.00	1015.576847	101.6
6	KB69	L5	True	2500.00	2678.206863	107.1
7	KB64	L6	True	10000.00	11214.810790	112.2
8	KB65	L7	True	20000.00	18628.094859	93.1



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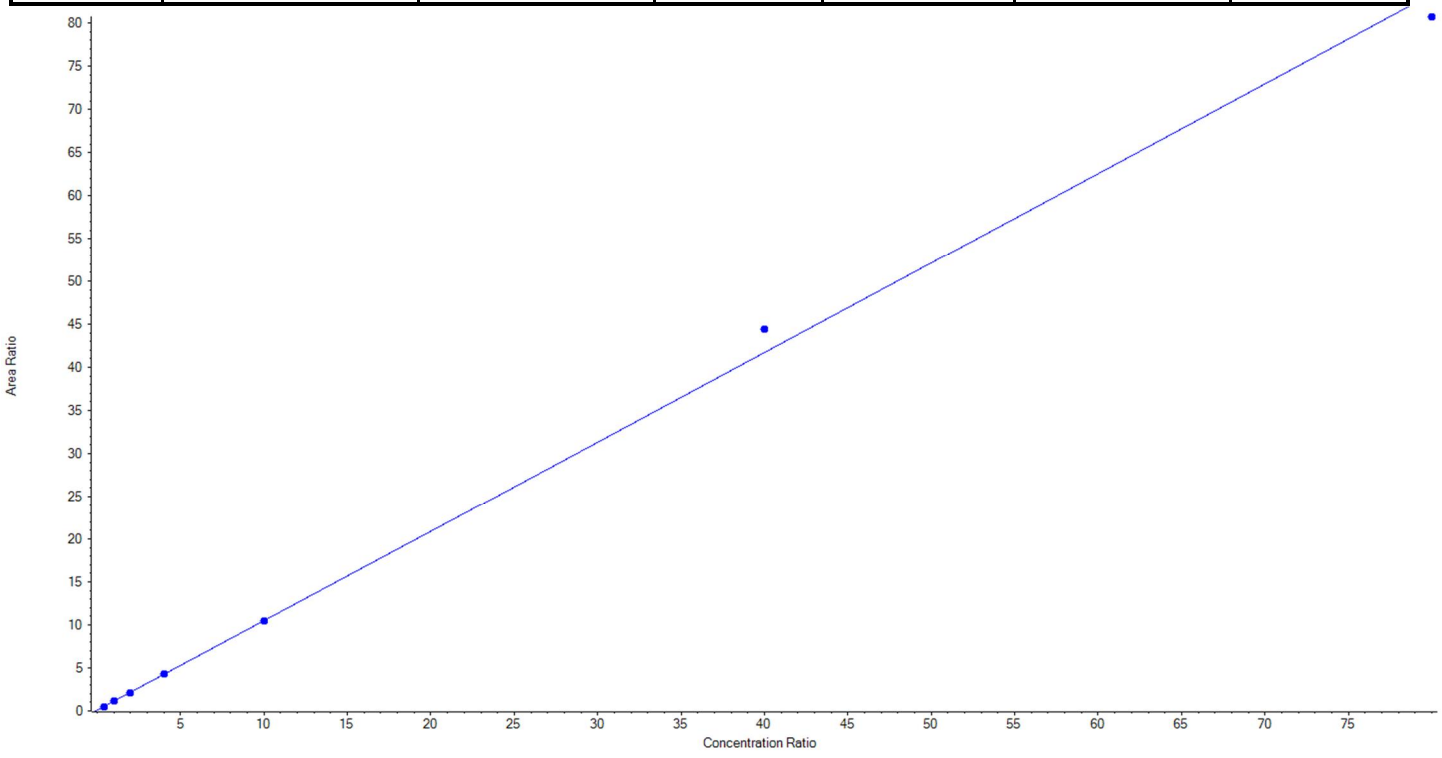
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	PFTeDA_1	**Data File**	18-0567.wiff
MRM Transition	713.0 / 669.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.04083 x + 0.09468 (r = 0.99899) (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	92.980422	93.0
3	KA87	L2	True	250.00	263.837058	105.5
4	KA88	L3	True	500.00	488.990341	97.8
5	KB85	L4	True	1000.00	1010.740241	101.1
6	KB69	L5	True	2500.00	2483.370637	99.3
7	KB64	L6	True	10000.00	10645.486031	106.5
8	KB65	L7	True	20000.00	19364.595269	96.8



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Calibration Summary Report

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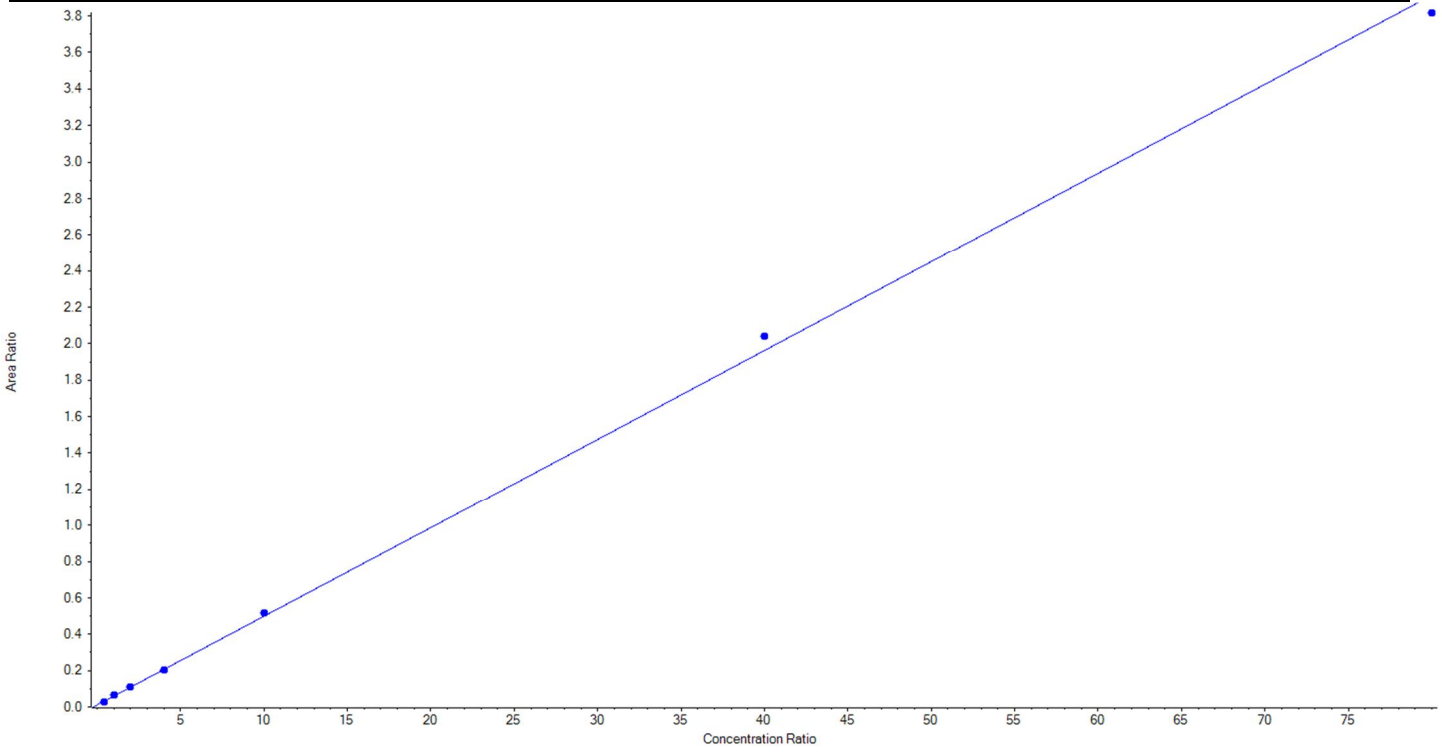
Analyte Name	PFTeDA_2	**Data File**	18-0567.wiff
MRM Transition	713.0 / 169.0	**Result Table**	18-0569_BASE_A
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.04878 x + 0.01115 (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	83.119412	83.1
3	KA87	L2	True	250.00	281.830474	112.7
4	KA88	L3	True	500.00	500.749052	100.2
5	KB85	L4	True	1000.00	991.919167	99.2
6	KB69	L5	True	2500.00	2580.229288	103.2
7	KB64	L6	True	10000.00	10407.347295	104.1
8	KB65	L7	True	20000.00	19504.805312	97.5



BATTELLE

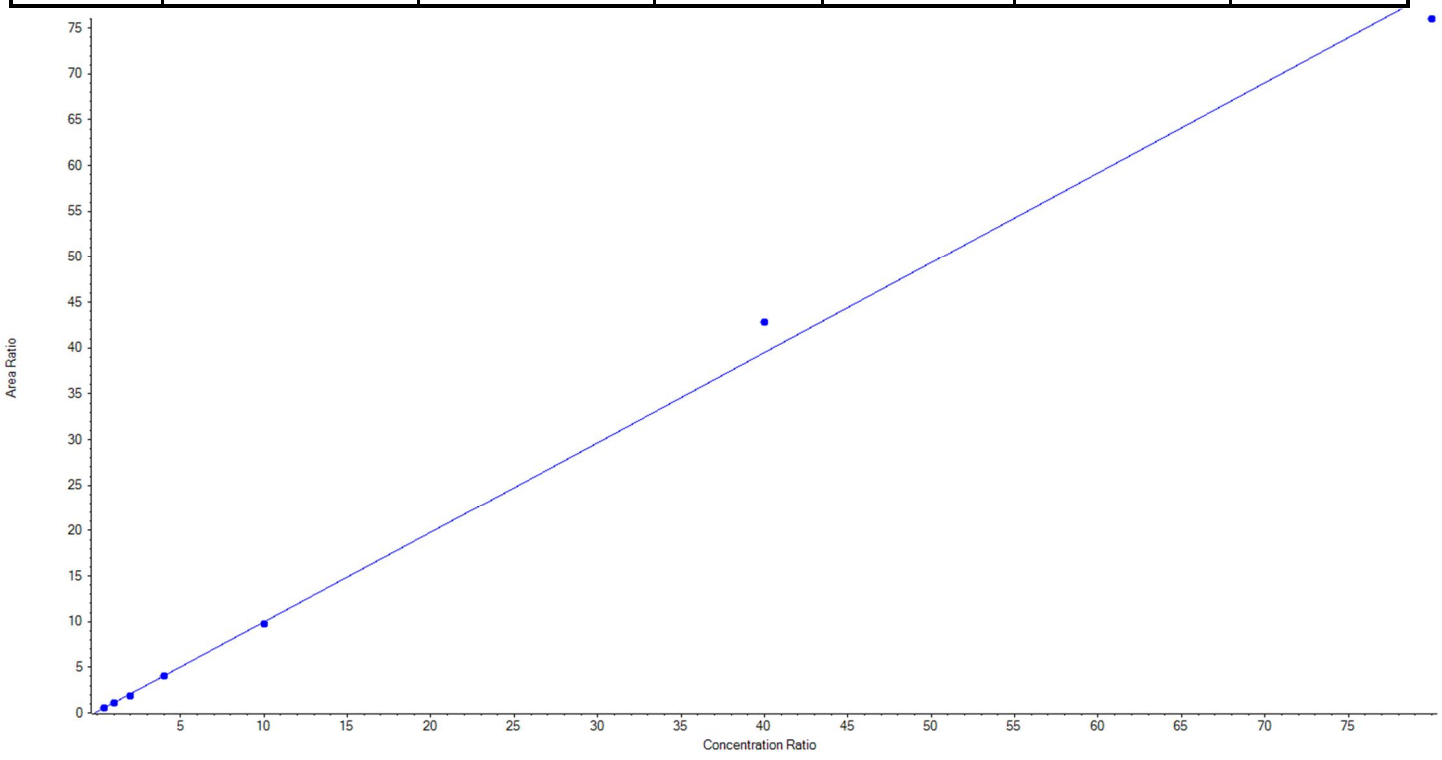
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	NMeFOSAA_1	**Data File**	18-0567.wiff
MRM Transition	570.0 / 419.0	**Result Table**	18-0569_BASE_A
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.98458 x + 0.12138 (r = 0.99836) (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	112.720731	112.7
3	KA87	L2	True	250.00	236.848965	94.7
4	KA88	L3	True	500.00	449.839076	90.0
5	KB85	L4	True	1000.00	996.970463	99.7
6	KB69	L5	True	2500.00	2455.872434	98.2
7	KB64	L6	True	10000.00	10830.236610	108.3
8	KB65	L7	True	20000.00	19267.511721	96.3



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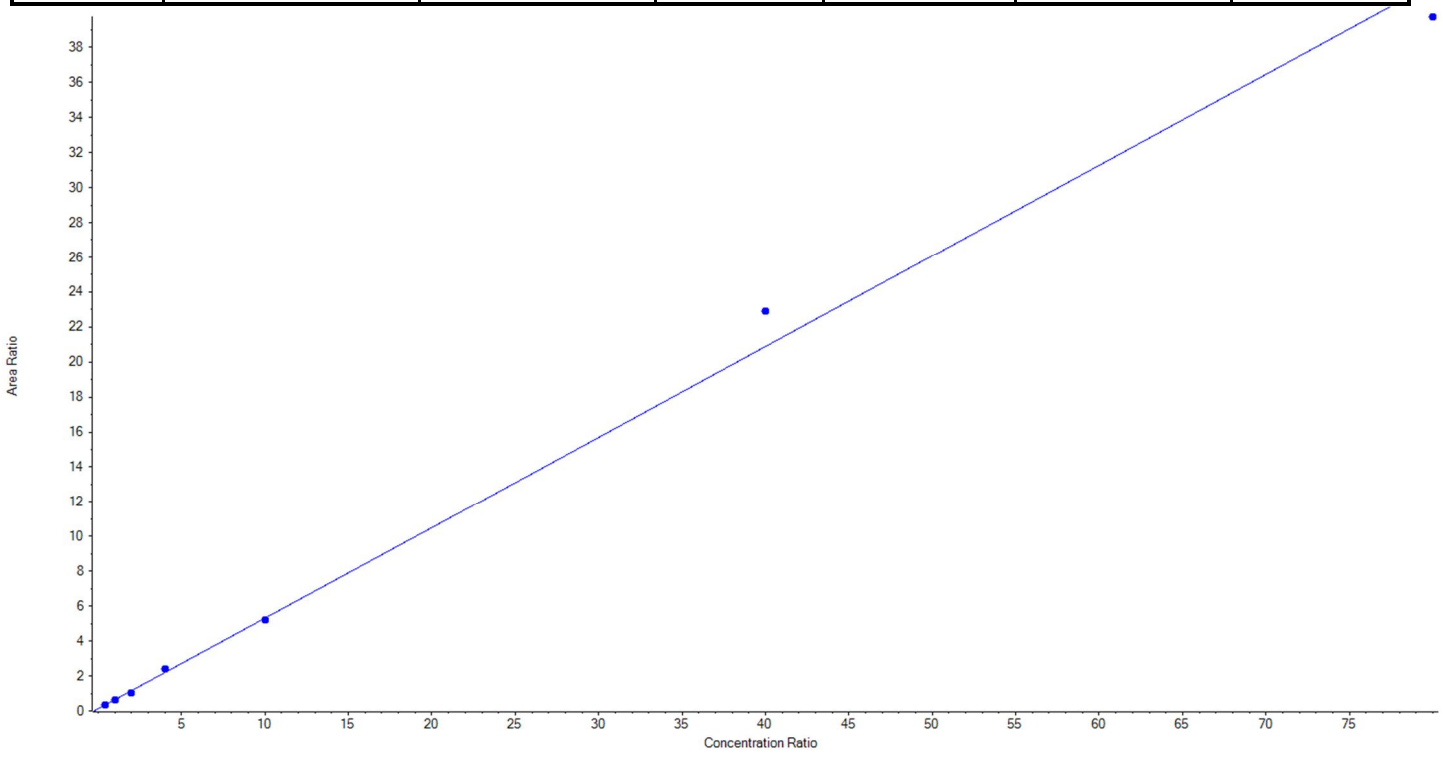
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	NMeFOSAA_2	**Data File**	18-0567.wiff
MRM Transition	570.0 / 512.0	**Result Table**	18-0569_BASE_A
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.51909 x + 0.12229 (r = 0.99753) (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	109.027906	109.0
3	KA87	L2	True	250.00	231.562191	92.6
4	KA88	L3	True	500.00	431.662499	86.3
5	KB85	L4	True	1000.00	1092.591022	109.3
6	KB69	L5	True	2500.00	2443.220526	97.7
7	KB64	L6	True	10000.00	10963.422980	109.6
8	KB65	L7	True	20000.00	19078.512876	95.4



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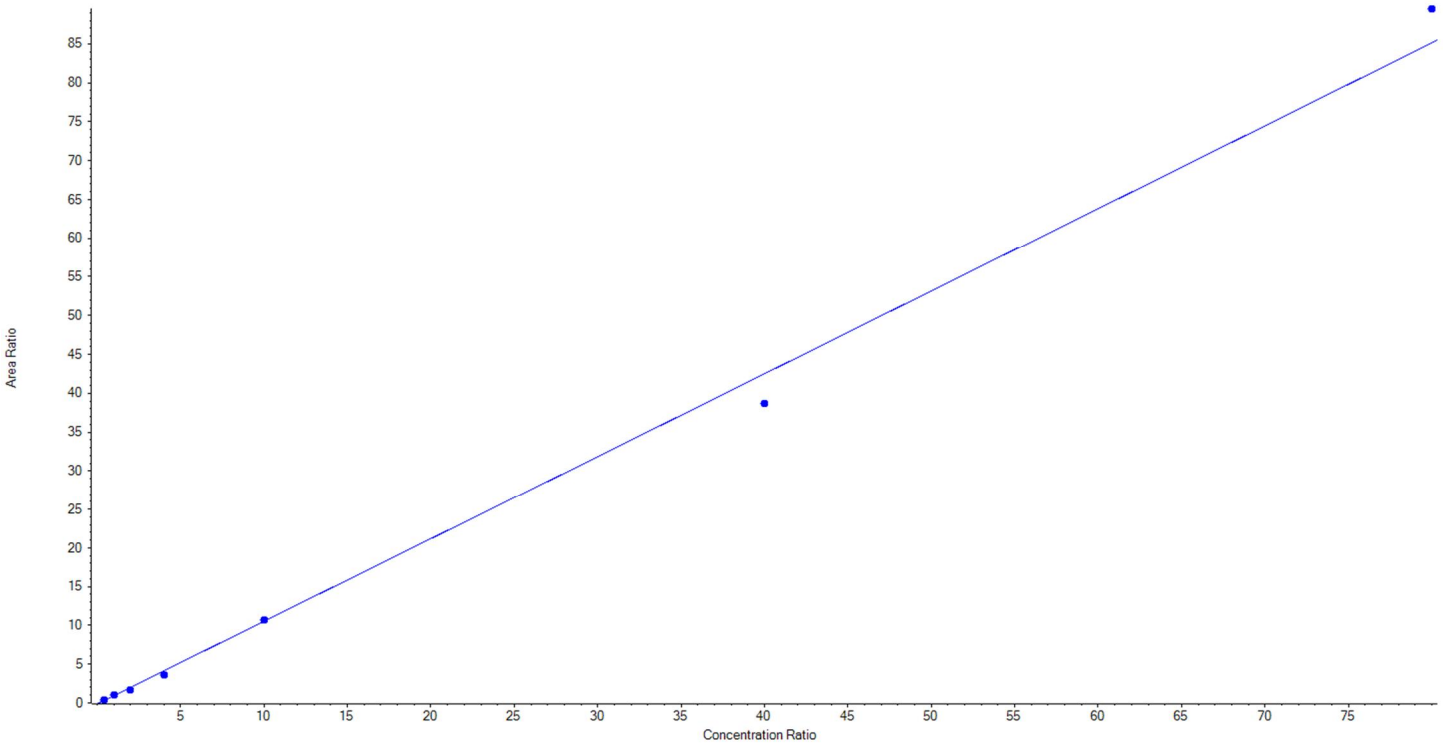
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	NEtFOSAA_1	**Data File**	18-0567.wiff
MRM Transition	584.0 / 419.0	**Result Table**	18-0569_BASE_A
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.06571 x + -0.12485 (r = 0.99730) (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	116.464062	116.5
3	KA87	L2	True	250.00	283.951479	113.6
4	KA88	L3	True	500.00	427.149860	85.4
5	KB85	L4	True	1000.00	868.892933	86.9
6	KB69	L5	True	2500.00	2540.503274	101.6
7	KB64	L6	True	10000.00	9090.151574	90.9
8	KB65	L7	True	20000.00	21022.886817	105.1



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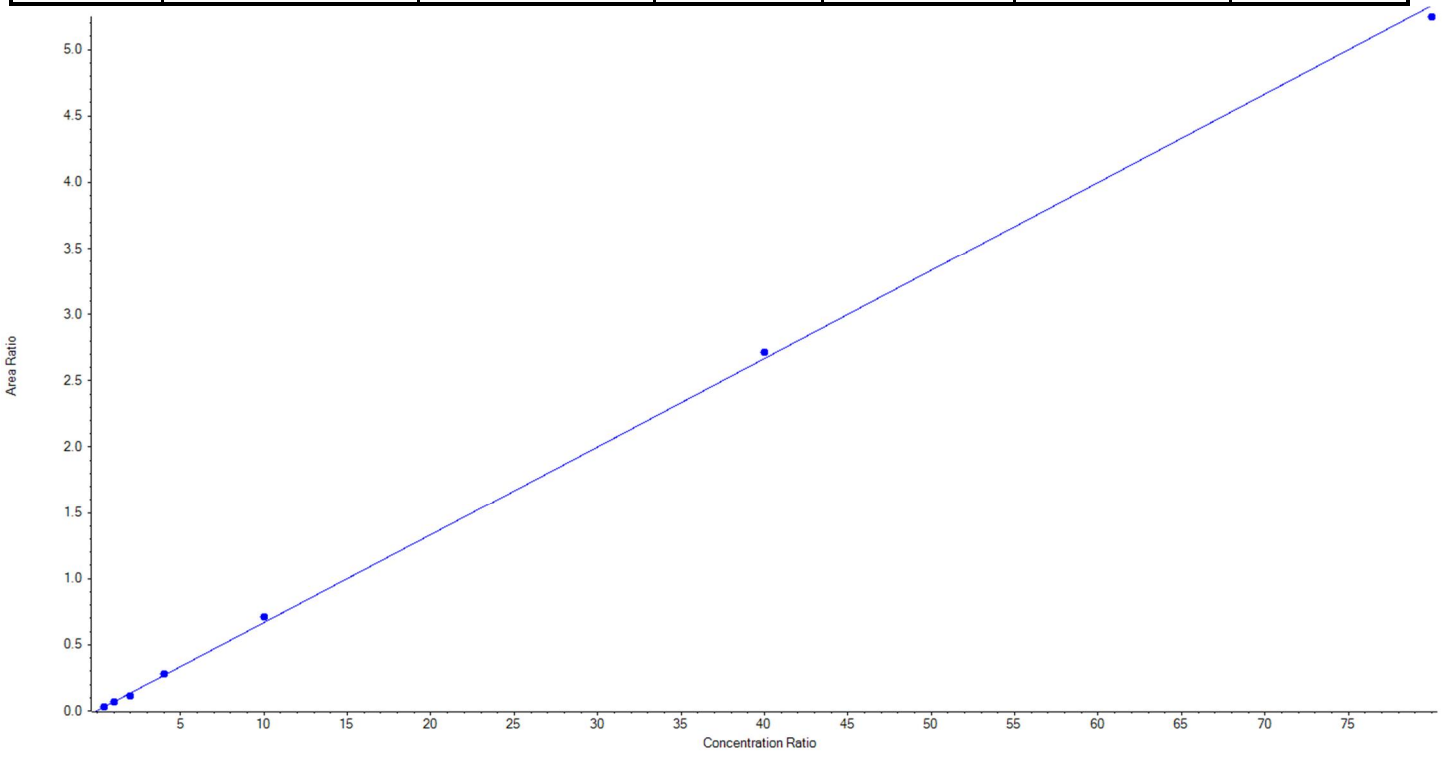
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 1:04:51 PM

Analyte Name	NEtFOSAA_2	**Data File**	18-0567.wiff
MRM Transition	584.0 / 483.0	**Result Table**	18-0569_BASE_A
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:18:32 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06662 x + 0.00191 (r = 0.99947) (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	104.838624	104.8
3	KA87	L2	True	250.00	248.003138	99.2
4	KA88	L3	True	500.00	422.136515	84.4
5	KB85	L4	True	1000.00	1048.924795	104.9
6	KB69	L5	True	2500.00	2659.178334	106.4
7	KB64	L6	True	10000.00	10187.722278	101.9
8	KB65	L7	True	20000.00	19679.196315	98.4



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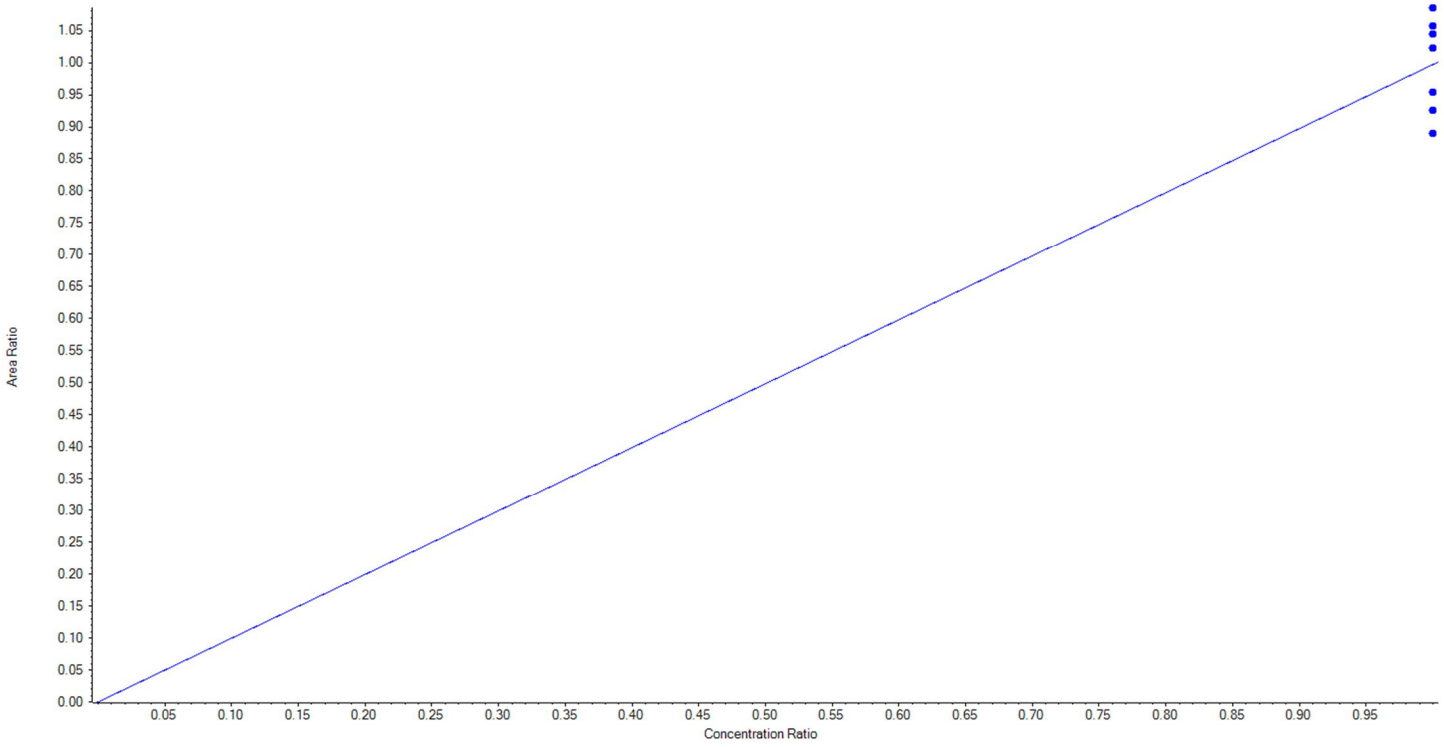
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:47 PM

Analyte Name	13C2-PFDoA	**Data File**	18-0567.wiff
MRM Transition	615.0 / 570.0	**Result Table**	18-0569_SIS_A
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:29:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.99701 x (std. dev. = 0.07394) (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	222.993102	89.2
3	KA87	L2	True	250.00	232.144197	92.9
4	KA88	L3	True	250.00	239.352683	95.7
5	KB85	L4	True	250.00	272.146343	108.9
6	KB69	L5	True	250.00	256.275982	102.5
7	KB64	L6	True	250.00	262.051782	104.8
8	KB65	L7	True	250.00	265.035911	106.0



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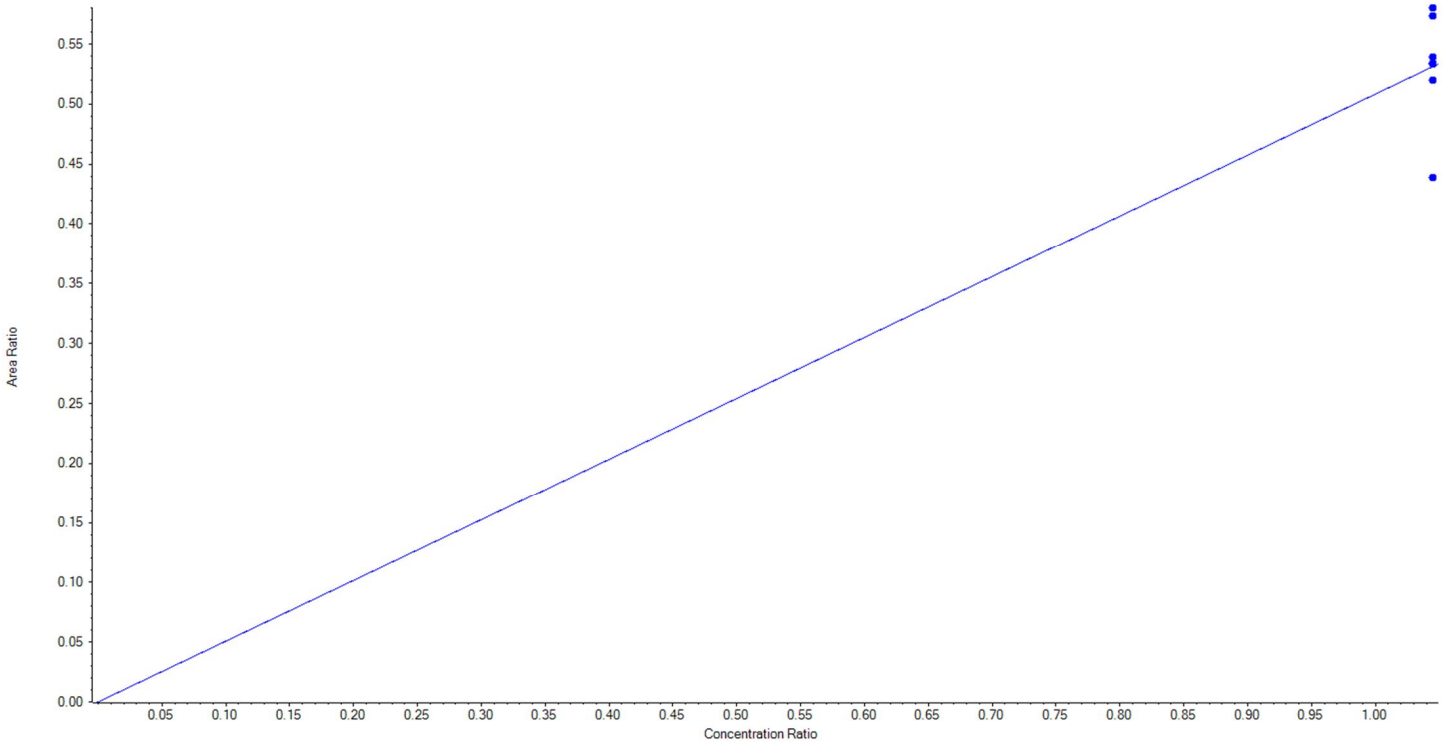
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:47 PM

Analyte Name	d3-MeFOSAA	**Data File**	18-0567.wiff
MRM Transition	573.0 / 419.0	**Result Table**	18-0569_SIS_A
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:29:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.50836 x (std. dev. = 0.04441) (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	206.505940	82.6
3	KA87	L2	True	250.00	273.020949	109.2
4	KA88	L3	True	250.00	251.259049	100.5
5	KB85	L4	True	250.00	244.678915	97.9
6	KB69	L5	True	250.00	253.635275	101.5
7	KB64	L6	True	250.00	251.003804	100.4
8	KB65	L7	True	250.00	269.896069	108.0



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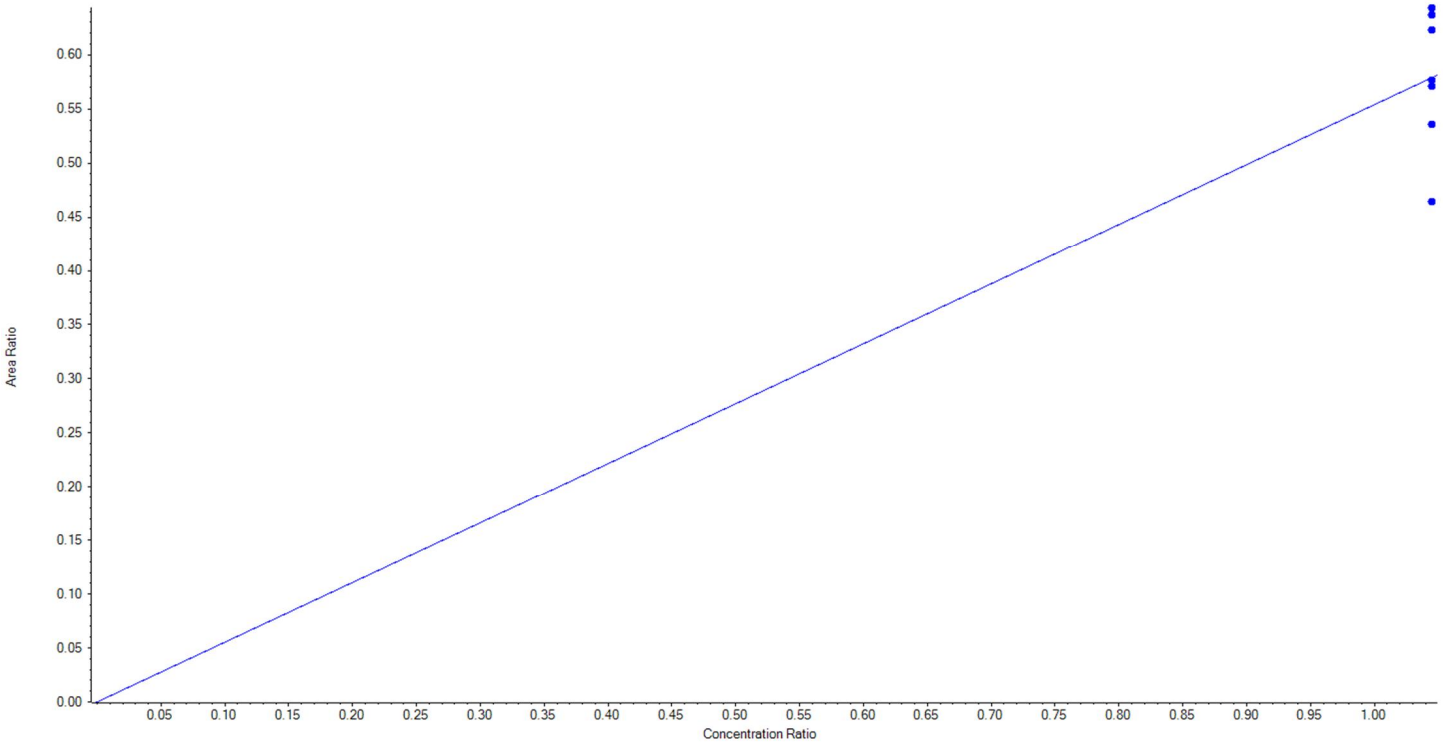
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:47 PM

Analyte Name	d5-EtFOSAA	**Data File**	18-0567.wiff
MRM Transition	589.0 / 419.0	**Result Table**	18-0569_SIS_A
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:29:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.55406 x (std. dev. = 0.06122) (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	269.203065	107.7
3	KA87	L2	True	250.00	277.823722	111.1
4	KA88	L3	True	250.00	246.790864	98.7
5	KB85	L4	True	250.00	275.109507	110.0
6	KB69	L5	True	250.00	231.394913	92.6
7	KB64	L6	True	250.00	249.145681	99.7
8	KB65	L7	True	250.00	200.532248	80.2



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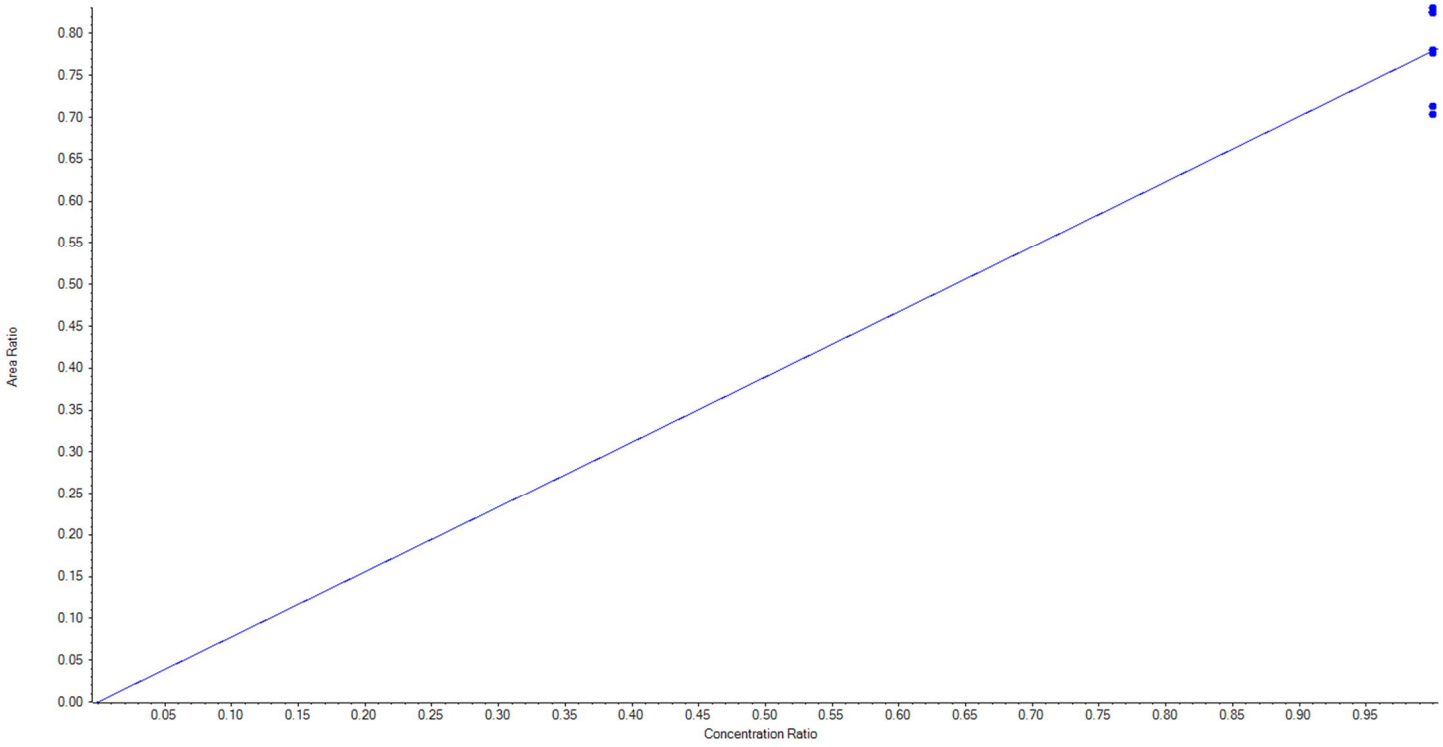
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:47 PM

Analyte Name	13C5-PFHxA	**Data File**	18-0567.wiff
MRM Transition	318.0 / 273.0	**Result Table**	18-0569_SIS_A
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:29:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.77905 x (std. dev. = 0.05296) (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	225.684604	90.3
3	KA87	L2	True	250.00	229.042579	91.6
4	KA88	L3	True	250.00	249.114229	99.7
5	KB85	L4	True	250.00	250.358652	100.1
6	KB69	L5	True	250.00	264.770246	105.9
7	KB64	L6	True	250.00	264.535782	105.8
8	KB65	L7	True	250.00	266.493908	106.6



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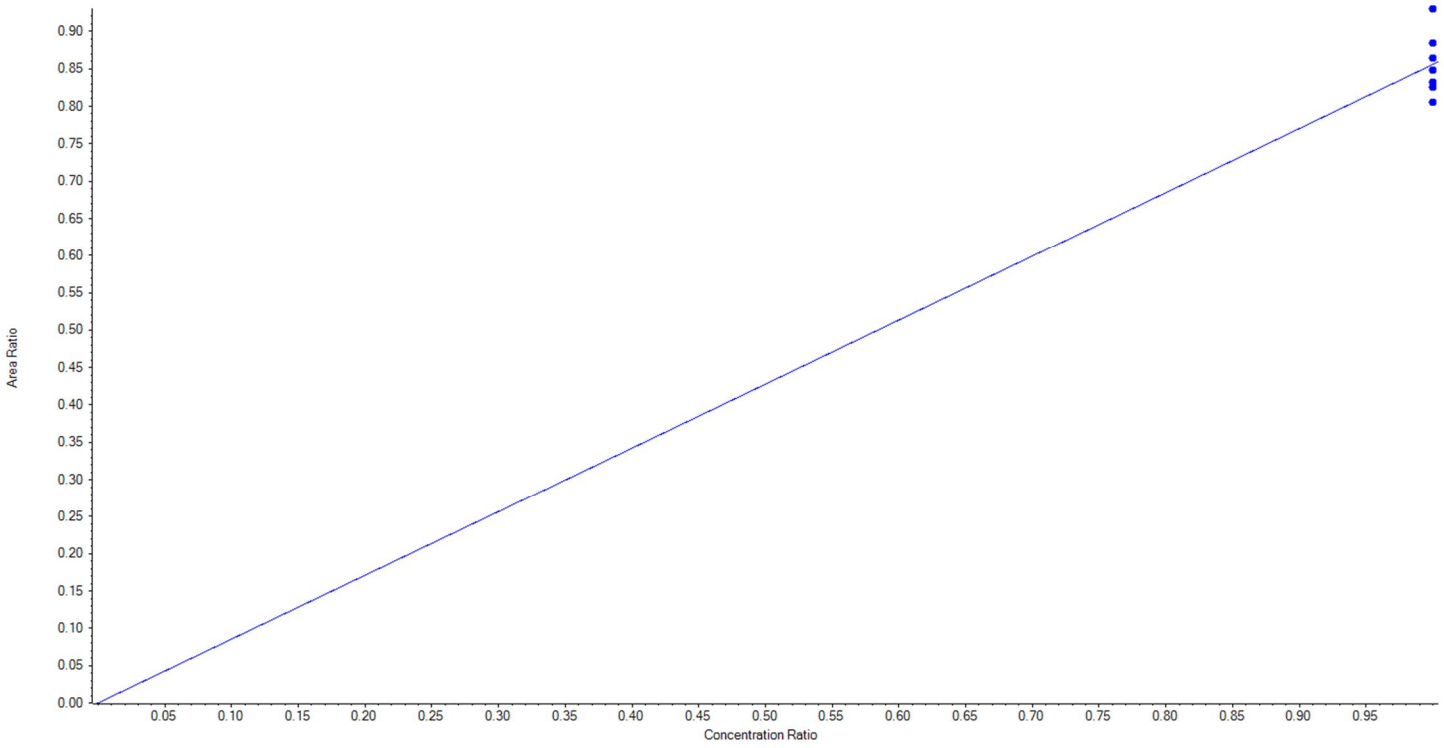
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:47 PM

Analyte Name	13C4-PFHpA	**Data File**	18-0567.wiff
MRM Transition	367.0 / 322.0	**Result Table**	18-0569_SIS_A
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:29:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.85580 x (std. dev. = 0.04165) (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	235.383017	94.2
3	KA87	L2	True	250.00	241.146230	96.5
4	KA88	L3	True	250.00	252.368870	101.0
5	KB85	L4	True	250.00	247.755009	99.1
6	KB69	L5	True	250.00	271.648557	108.7
7	KB64	L6	True	250.00	258.439710	103.4
8	KB65	L7	True	250.00	243.258608	97.3



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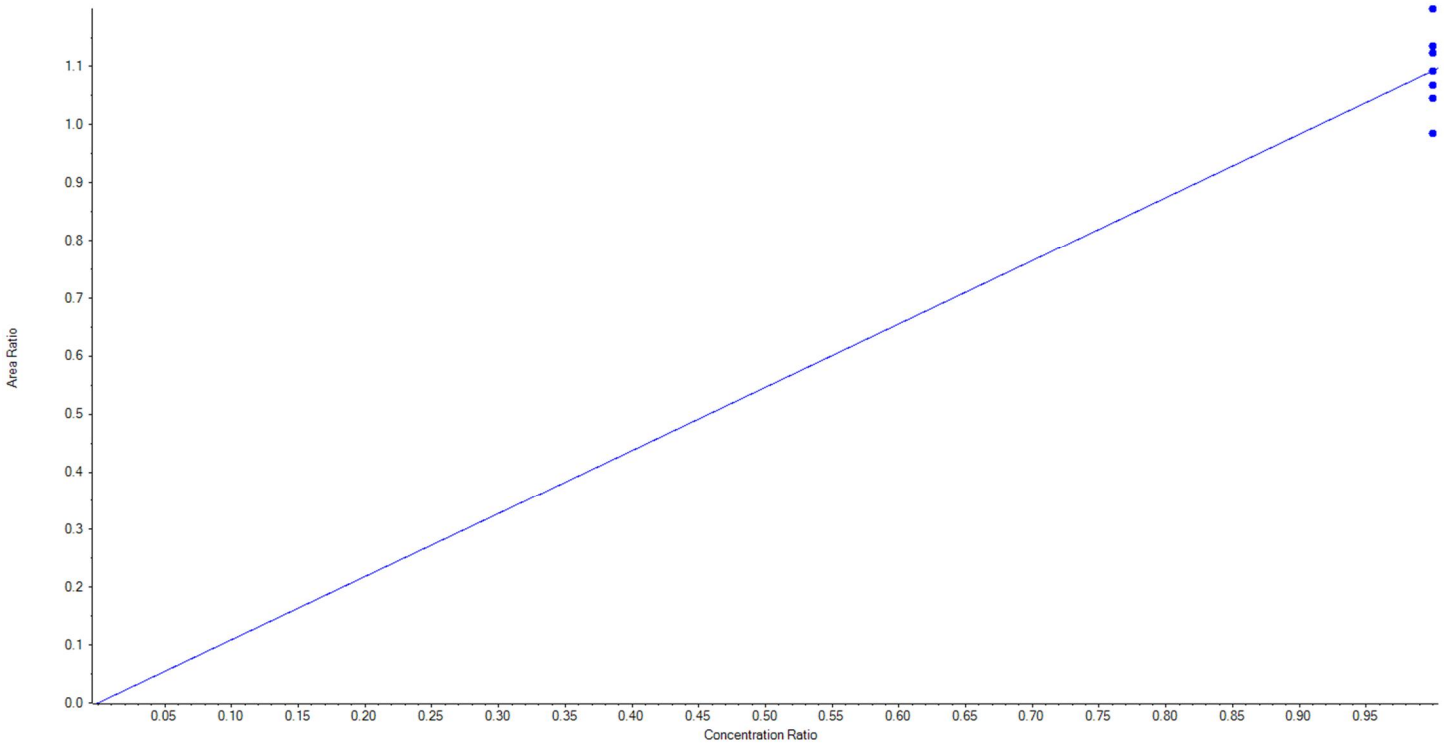
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:47 PM

Analyte Name	13C8-PFOA	**Data File**	18-0567.wiff
MRM Transition	421.0 / 376.0	**Result Table**	18-0569_SIS_A
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:29:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.09271 x (std. dev. = 0.06894) (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	239.295265	95.7
3	KA87	L2	True	250.00	249.883229	100.0
4	KA88	L3	True	250.00	256.822183	102.7
5	KB85	L4	True	250.00	244.473023	97.8
6	KB69	L5	True	250.00	274.376736	109.8
7	KB64	L6	True	250.00	259.841156	103.9
8	KB65	L7	True	250.00	225.308408	90.1



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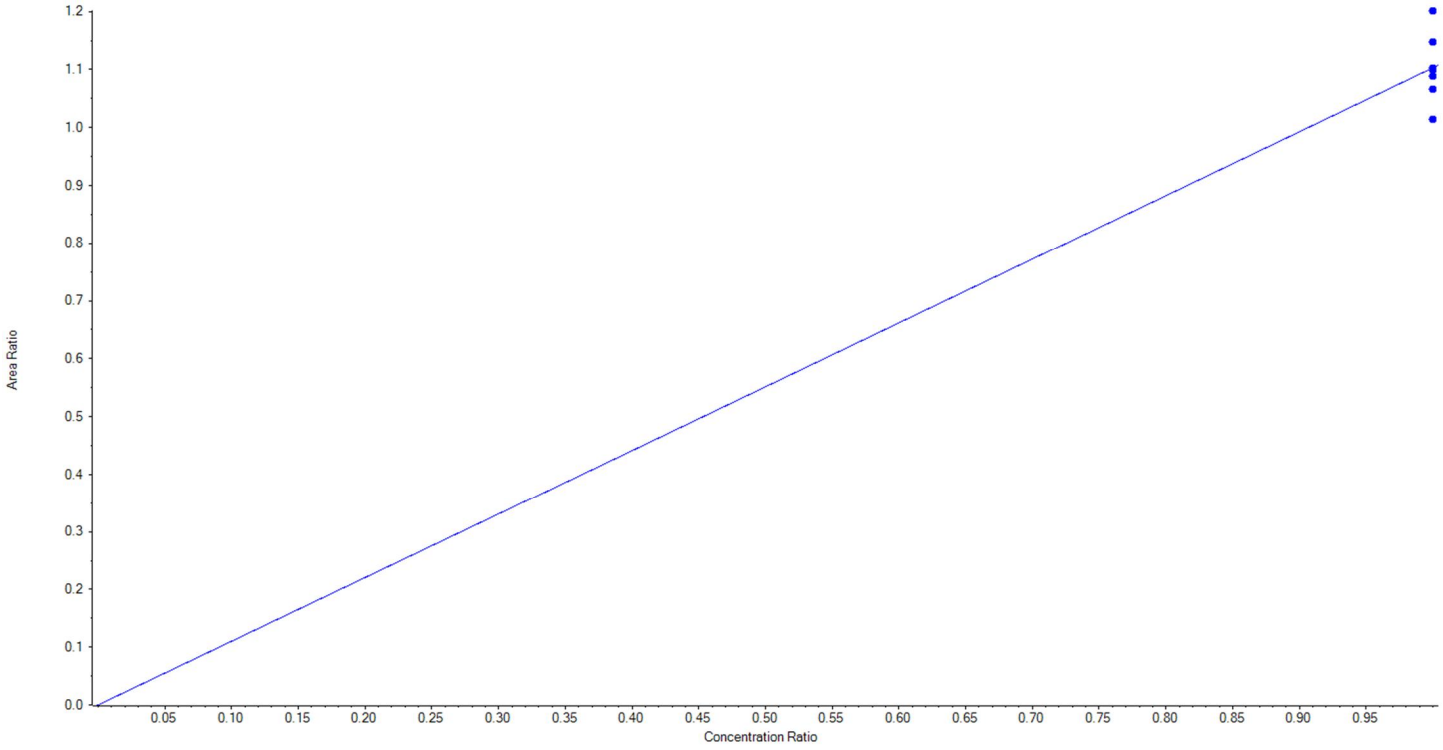
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:47 PM

Analyte Name	13C9-PFNA	**Data File**	18-0567.wiff
MRM Transition	472.0 / 427.0	**Result Table**	18-0569_SIS_A
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:29:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.10306 x (std. dev. = 0.05923) (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	229.879110	92.0
3	KA87	L2	True	250.00	241.726052	96.7
4	KA88	L3	True	250.00	250.059960	100.0
5	KB85	L4	True	250.00	246.769249	98.7
6	KB69	L5	True	250.00	272.237952	108.9
7	KB64	L6	True	250.00	260.116514	104.1
8	KB65	L7	True	250.00	249.211163	99.7



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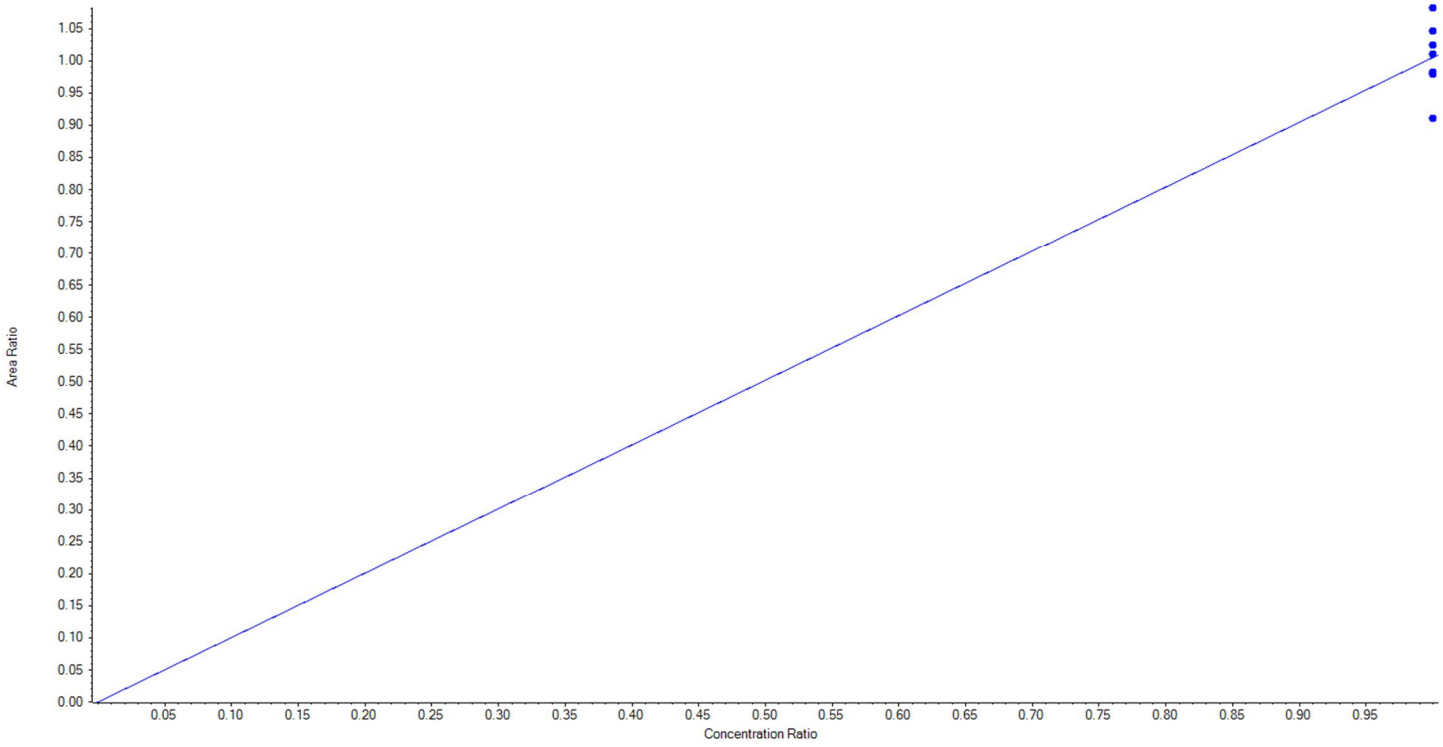
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:47 PM

Analyte Name	13C6-PFDA	**Data File**	18-0567.wiff
MRM Transition	519.0 / 474.0	**Result Table**	18-0569_SIS_A
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:29:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.00495 x (std. dev. = 0.05511) (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	243.534625	97.4
3	KA87	L2	True	250.00	244.338776	97.7
4	KA88	L3	True	250.00	251.494903	100.6
5	KB85	L4	True	250.00	269.197256	107.7
6	KB69	L5	True	250.00	260.292954	104.1
7	KB64	L6	True	250.00	254.704342	101.9
8	KB65	L7	True	250.00	226.437143	90.6



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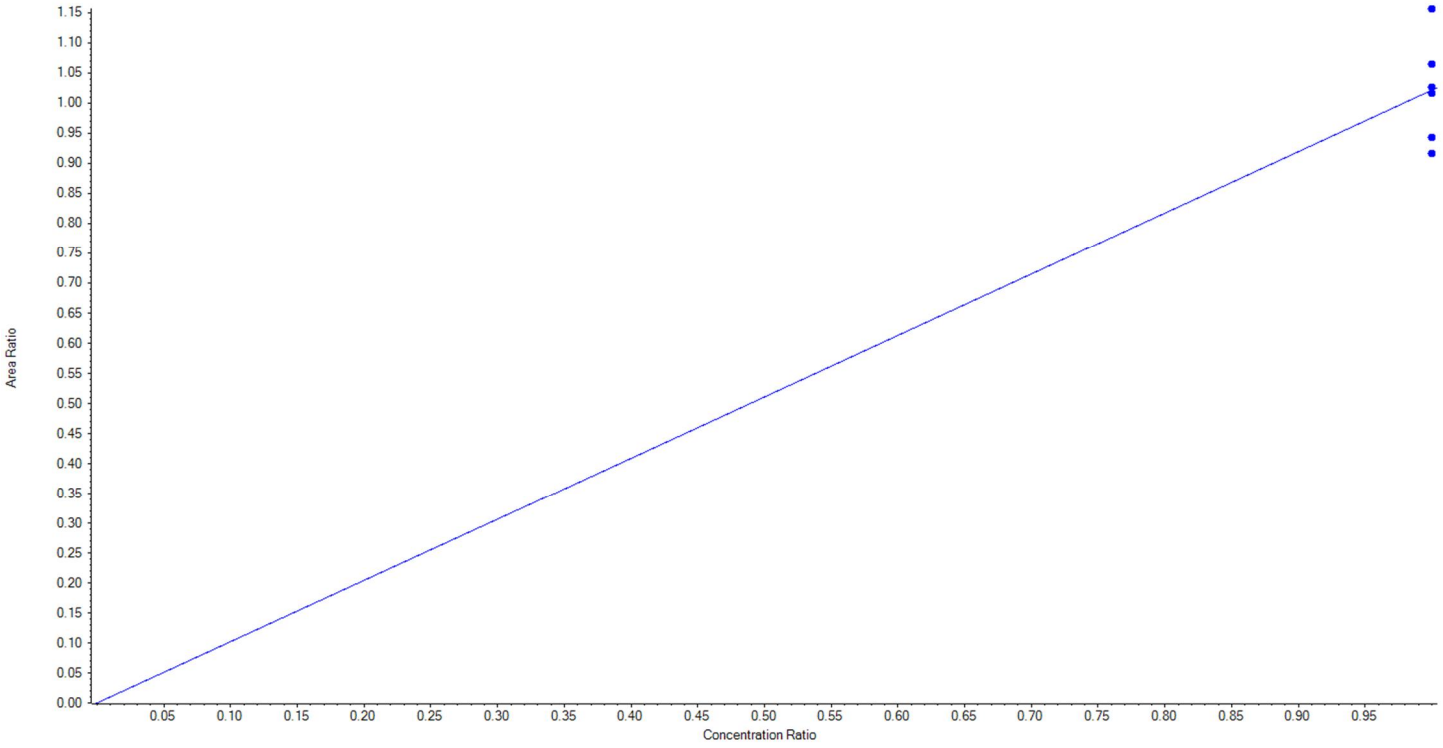
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:47 PM

Analyte Name	13C7-PFUnA	**Data File**	18-0567.wiff
MRM Transition	570.0 / 525.0	**Result Table**	18-0569_SIS_A
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:29:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.02152 x (std. dev. = 0.07915) (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	230.679287	92.3
3	KA87	L2	True	250.00	248.941819	99.6
4	KA88	L3	True	250.00	260.658926	104.3
5	KB85	L4	True	250.00	282.991780	113.2
6	KB69	L5	True	250.00	251.334443	100.5
7	KB64	L6	True	250.00	251.307802	100.5
8	KB65	L7	True	250.00	224.085944	89.6



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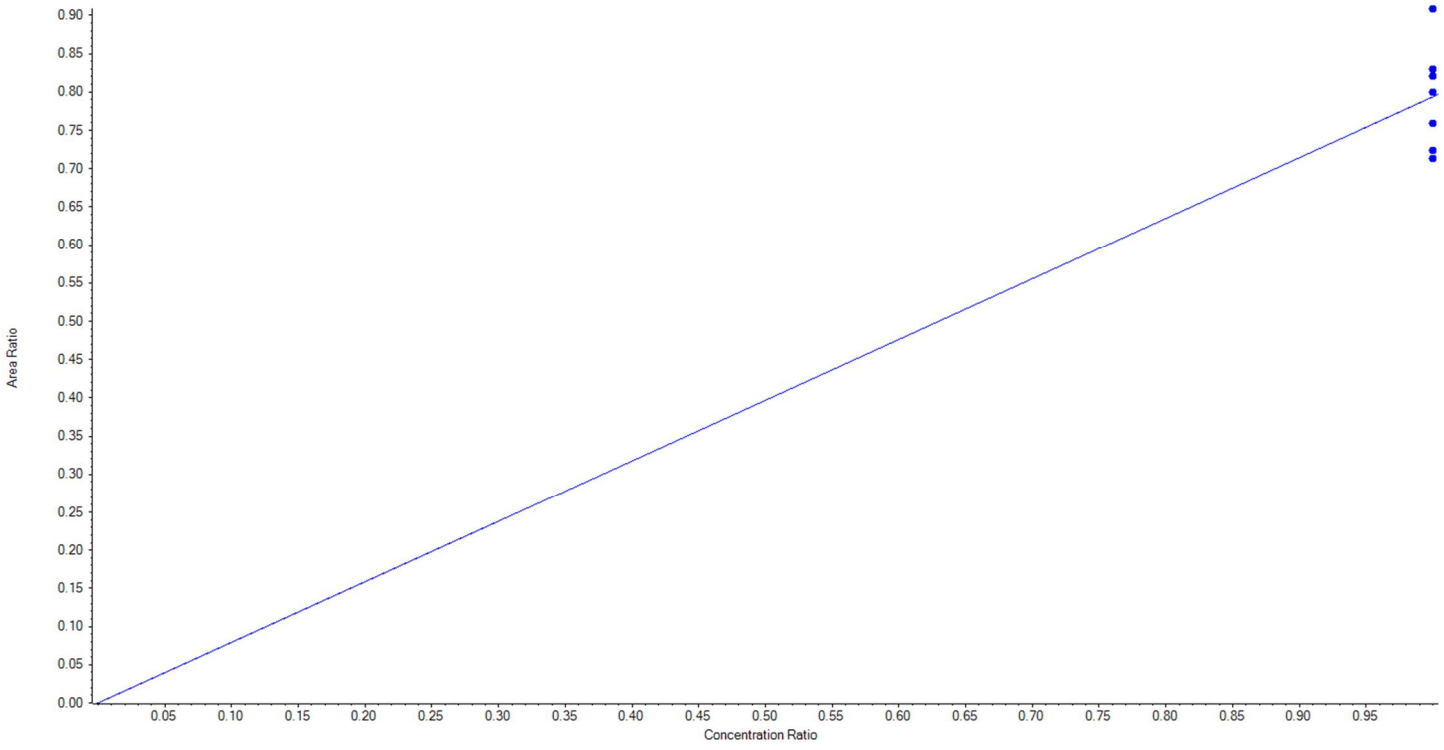
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:47 PM

Analyte Name	13C2-PFTeDA	**Data File**	18-0567.wiff
MRM Transition	715.0 / 670.0	**Result Table**	18-0569_SIS_A
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:29:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.79366 x (std. dev. = 0.06788) (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	228.114321	91.3
3	KA87	L2	True	250.00	224.809448	89.9
4	KA88	L3	True	250.00	239.182575	95.7
5	KB85	L4	True	250.00	258.607584	103.4
6	KB69	L5	True	250.00	251.717559	100.7
7	KB64	L6	True	250.00	261.459132	104.6
8	KB65	L7	True	250.00	286.109380	114.4



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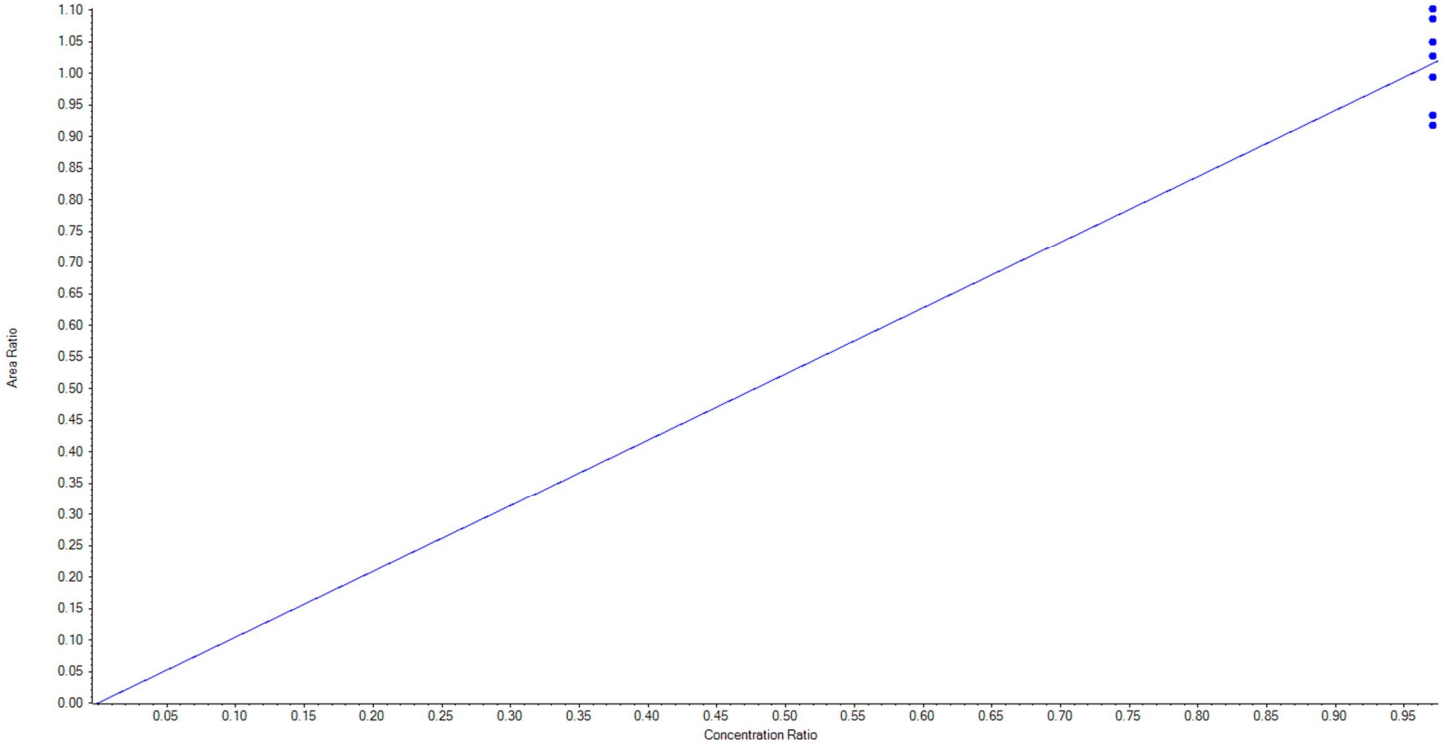
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:47 PM

Analyte Name	13C3-PFBS	**Data File**	18-0567.wiff
MRM Transition	302.0 / 99.0	**Result Table**	18-0569_SIS_A
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:29:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.04611 x (std. dev. = 0.07363) (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	209.719451	90.3
3	KA87	L2	True	232.25	240.134607	103.4
4	KA88	L3	True	232.25	213.353326	91.9
5	KB85	L4	True	232.25	234.811625	101.1
6	KB69	L5	True	232.25	227.459766	97.9
7	KB64	L6	True	232.25	251.998876	108.5
8	KB65	L7	True	232.25	248.272350	106.9



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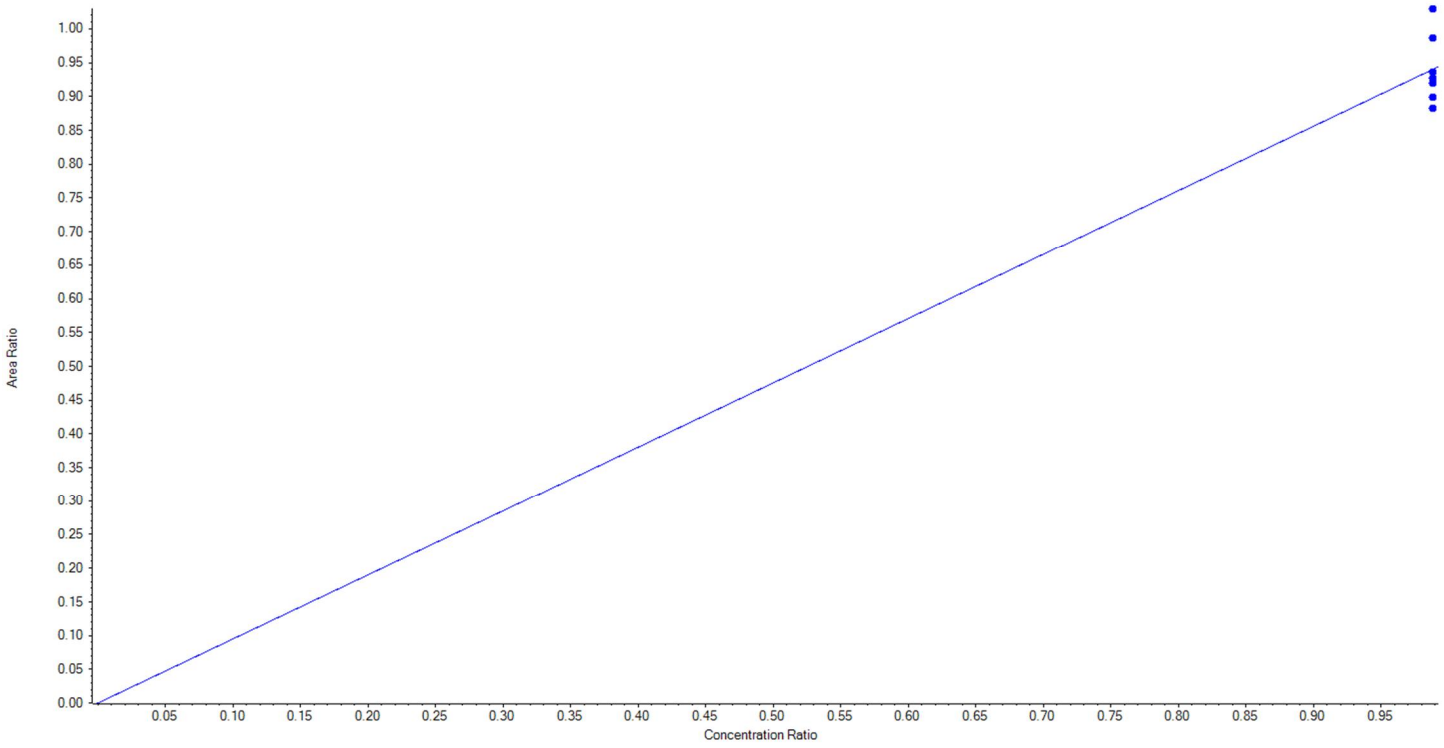
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:47 PM

Analyte Name	13C3-PFHxS	**Data File**	18-0567.wiff
MRM Transition	402.0 / 99.0	**Result Table**	18-0569_SIS_A
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:29:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.95105 x (std. dev. = 0.05160) (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	231.209691	97.8
3	KA87	L2	True	236.50	248.055330	104.9
4	KA88	L3	True	236.50	222.207278	94.0
5	KB85	L4	True	236.50	233.267050	98.6
6	KB69	L5	True	236.50	258.978090	109.5
7	KB64	L6	True	236.50	235.550467	99.6
8	KB65	L7	True	236.50	226.232094	95.7



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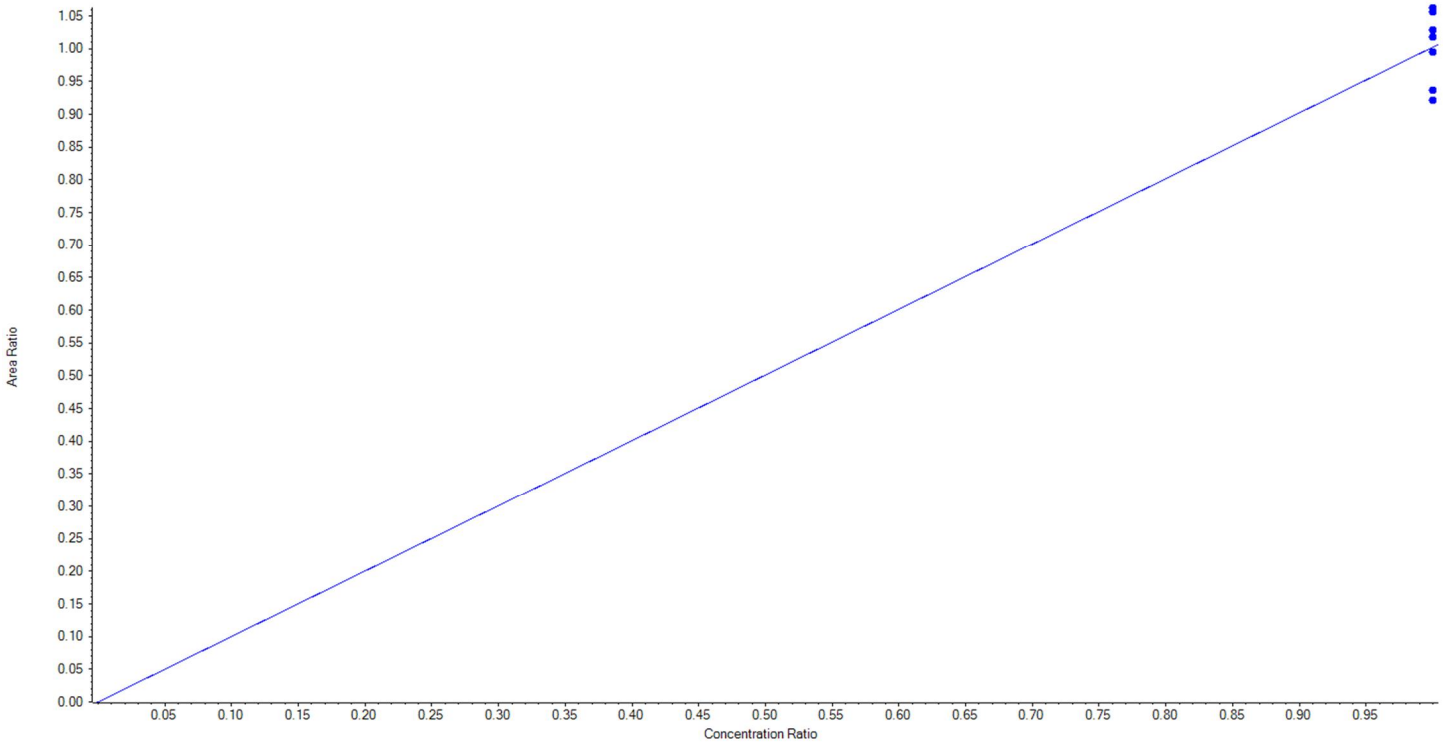
Calibration Summary Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:47 PM

Analyte Name	13C8-PFOS	**Data File**	18-0567.wiff
MRM Transition	507.0 / 99.0	**Result Table**	18-0569_SIS_A
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/2/2018 8:29:24 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.00258 x (std. dev. = 0.05542) (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	219.859192	91.9
3	KA87	L2	True	239.25	252.163967	105.4
4	KA88	L3	True	239.25	223.489878	93.4
5	KB85	L4	True	239.25	237.394498	99.2
6	KB69	L5	True	239.25	245.381403	102.6
7	KB64	L6	True	239.25	253.522421	106.0
8	KB65	L7	True	239.25	242.938641	101.5



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	Isotope Dilution Calibration Curve Concentrations (ng/L)						
	KA86	KA87	KA88	KA89	KA90/KB69	KB64	KB65
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	2018-09-28T14:50:32	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	37658.28	111.126549	51.1	false
PFBS_2	298.9 / 99.0	1.56	11566.10	107.644305	45.5	true
PFHxA_1	313.0 / 269.0	1.90	36478.09	117.603693	7.1	false
PFHxA_2	313.0 / 119.0	1.90	3429.02	131.015829	7.4	true
PFHpA_1	363.0 / 319.0	2.31	36212.89	123.022671	29.2	false
PFHpA_2	363.0 / 169.0	2.31	1472.95	213.652921	26.2	false
PFHxS_1	399.0 / 80.0	2.33	48270.45	113.607101	66.8	false
PFHxS_2	399.0 / 99.0	2.32	12890.33	103.176220	78.8	false
PFOA_1	413.0 / 369.0	2.72	43767.40	111.874648	65.1	true
PFOA_2	413.0 / 169.0	2.72	3508.39	124.278075	52.1	false
PFNA_1	463.0 / 419.0	3.13	39408.19	128.694613	63.2	true
PFNA_2	463.0 / 219.0	3.12	15076.14	192.812655	60.1	false
PFOS_1	499.0 / 80.0	3.12	58810.66	118.819032	44.0	true
PFOS_2	499.0 / 99.0	3.12	10062.94	108.555572	79.1	false
PFDA_1	513.0 / 469.0	3.48	46236.90	107.877157	117.6	true
PFDA_2	513.0 / 219.0	3.48	2909.98	97.188675	52.9	false
PFUnA_1	563.0 / 519.0	3.82	41036.80	114.953003	108.2	true
PFUnA_2	563.0 / 269.0	3.81	3075.34	99.946908	46.4	false
PFDoA_1	613.0 / 569.0	4.10	43307.93	92.175205	162.5	true
PFDoA_2	613.0 / 319.0	4.09	6068.28	89.793101	101.4	false
PFTrDA_1	663.0 / 619.0	4.35	33376.73	84.438059	243.9	true
PFTrDA_2	663.0 / 169.0	4.35	2434.85	98.798939	71.2	false
PFTeDA_1	713.0 / 669.0	4.57	36880.42	82.151491	465.1	false
PFTeDA_2	713.0 / 169.0	4.57	1944.98	98.232315	192.1	false
NMeFOSAA_1	570.0 / 419.0	3.64	6206.43	83.313611	135.8	true
NMeFOSAA_2	570.0 / 512.0	3.64	3204.08	95.186590	84.3	false
NEtFOSAA_1	584.0 / 419.0	3.81	5865.23	107.940488	127.7	true
NEtFOSAA_2	584.0 / 483.0	3.82	888.72	122.274980	28.4	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	2018-09-28T15:01:25	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	106998.92	271.244650	88.3	false
PFBS_2	298.9 / 99.0	1.56	31659.97	265.804635	90.0	true
PFHxA_1	313.0 / 269.0	1.89	81523.97	251.345688	16.5	false
PFHxA_2	313.0 / 119.0	1.89	6186.33	237.464036	13.8	false
PFHpA_1	363.0 / 319.0	2.30	79480.20	254.107233	51.6	false
PFHpA_2	363.0 / 169.0	2.30	2257.76	317.650858	39.8	false
PFHxS_1	399.0 / 80.0	2.32	113350.14	259.546378	119.7	false
PFHxS_2	399.0 / 99.0	2.32	33664.75	270.862965	210.8	false
PFOA_1	413.0 / 369.0	2.72	108237.58	268.631396	144.3	true
PFOA_2	413.0 / 169.0	2.72	8202.79	293.428807	127.1	false
PFNA_1	463.0 / 419.0	3.12	95205.33	247.461832	140.4	true
PFNA_2	463.0 / 219.0	3.11	28543.88	278.384087	93.4	false
PFOS_1	499.0 / 80.0	3.11	142619.45	261.149790	59.2	true
PFOS_2	499.0 / 99.0	3.11	25912.60	267.614185	117.5	false
PFDA_1	513.0 / 469.0	3.47	117557.21	257.135950	173.0	true
PFDA_2	513.0 / 219.0	3.47	6333.46	257.260344	84.5	false
PFUnA_1	563.0 / 519.0	3.80	102064.37	253.005592	163.2	true
PFUnA_2	563.0 / 269.0	3.81	6679.24	256.295450	101.0	false
PFDoA_1	613.0 / 569.0	4.09	100559.78	263.851630	216.2	true
PFDoA_2	613.0 / 319.0	4.09	15297.49	268.003425	177.9	false
PFTrDA_1	663.0 / 619.0	4.34	84589.15	251.005204	334.5	true
PFTrDA_2	663.0 / 169.0	4.34	4879.64	220.868646	144.9	false
PFTeDA_1	713.0 / 669.0	4.56	95778.75	260.908020	731.2	false
PFTeDA_2	713.0 / 169.0	4.56	4141.46	234.812992	234.2	false
NMeFOSAA_1	570.0 / 419.0	3.63	15903.23	236.419837	228.2	true
NMeFOSAA_2	570.0 / 512.0	3.63	6811.15	187.605156	114.6	false
NEtFOSAA_1	584.0 / 419.0	3.80	14119.93	235.388542	229.3	true
NEtFOSAA_2	584.0 / 483.0	3.80	1587.42	292.468235	44.1	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	2018-09-28T15:12:17	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	186363.29	471.739279	166.1	false
PFBS_2	298.9 / 99.0	1.56	56392.04	478.997677	172.1	false
PFHxA_1	313.0 / 269.0	1.88	154762.94	469.220108	21.9	false
PFHxA_2	313.0 / 119.0	1.88	11608.93	459.123362	21.8	false
PFHpA_1	363.0 / 319.0	2.29	152166.09	458.906747	68.7	false
PFHpA_2	363.0 / 169.0	2.29	3754.73	513.220163	82.2	false
PFHxS_1	399.0 / 80.0	2.32	216837.24	507.831007	156.7	false
PFHxS_2	399.0 / 99.0	2.32	63137.00	525.023020	260.9	false
PFOA_1	413.0 / 369.0	2.71	191553.08	451.934346	215.0	true
PFOA_2	413.0 / 169.0	2.70	11141.93	379.451627	115.2	false
PFNA_1	463.0 / 419.0	3.11	179790.63	434.733542	189.2	true
PFNA_2	463.0 / 219.0	3.11	58670.78	498.878543	184.8	false
PFOS_1	499.0 / 80.0	3.10	289358.16	471.153177	100.6	true
PFOS_2	499.0 / 99.0	3.10	49819.28	466.128535	246.7	false
PFDA_1	513.0 / 469.0	3.46	208838.06	481.482317	249.7	true
PFDA_2	513.0 / 219.0	3.46	12224.24	586.550584	170.1	false
PFUnA_1	563.0 / 519.0	3.79	180847.27	436.588763	194.5	true
PFUnA_2	563.0 / 269.0	3.79	12486.25	525.145269	112.0	false
PFDoA_1	613.0 / 569.0	4.08	184343.61	483.735294	278.3	true
PFDoA_2	613.0 / 319.0	4.08	27779.29	476.827216	230.0	false
PFTrDA_1	663.0 / 619.0	4.33	159534.85	516.635132	371.0	false
PFTrDA_2	663.0 / 169.0	4.33	9614.47	485.166807	227.5	false
PFTeDA_1	713.0 / 669.0	4.55	174964.96	522.634470	654.5	false
PFTeDA_2	713.0 / 169.0	4.55	8022.65	502.416750	383.2	false
NMeFOSAA_1	570.0 / 419.0	3.62	28119.83	619.385646	259.4	true
NMeFOSAA_2	570.0 / 512.0	3.62	15076.71	624.403761	188.9	false
NEtFOSAA_1	584.0 / 419.0	3.79	28725.79	492.114001	382.1	true
NEtFOSAA_2	584.0 / 483.0	3.79	1949.32	409.365692	58.9	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	2018-09-28T15:23:09	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	442080.06	951.523668	320.4	false
PFBS_2	298.9 / 99.0	1.55	133040.39	969.790196	288.2	false
PFHxA_1	313.0 / 269.0	1.88	321014.10	968.366728	34.7	false
PFHxA_2	313.0 / 119.0	1.88	23187.43	936.657126	36.4	false
PFHpA_1	363.0 / 319.0	2.29	329344.79	926.409703	107.9	false
PFHpA_2	363.0 / 169.0	2.29	6509.38	846.256560	66.8	false
PFHxS_1	399.0 / 80.0	2.31	462182.95	923.301756	164.3	false
PFHxS_2	399.0 / 99.0	2.31	128642.90	916.878220	254.4	false
PFOA_1	413.0 / 369.0	2.70	433003.07	959.434348	318.4	true
PFOA_2	413.0 / 169.0	2.70	27636.40	900.967211	209.1	false
PFNA_1	463.0 / 419.0	3.10	400962.73	916.592054	342.6	true
PFNA_2	463.0 / 219.0	3.10	120135.89	935.062838	279.3	false
PFOS_1	499.0 / 80.0	3.10	592948.78	936.746040	164.4	true
PFOS_2	499.0 / 99.0	3.10	106619.39	979.486993	336.5	false
PFDA_1	513.0 / 469.0	3.46	455923.10	932.305645	358.7	true
PFDA_2	513.0 / 219.0	3.46	20082.88	878.902539	151.1	false
PFUnA_1	563.0 / 519.0	3.78	412747.12	961.956893	262.5	true
PFUnA_2	563.0 / 269.0	3.78	22850.67	981.112848	192.7	false
PFDoA_1	613.0 / 569.0	4.07	383831.48	1037.376917	416.1	true
PFDoA_2	613.0 / 319.0	4.07	59378.34	1037.943848	321.2	false
PFTrDA_1	663.0 / 619.0	4.32	343567.57	1031.899970	508.9	false
PFTrDA_2	663.0 / 169.0	4.32	22418.47	1059.197365	391.7	false
PFTeDA_1	713.0 / 669.0	4.54	364076.48	1012.005880	1193.2	false
PFTeDA_2	713.0 / 169.0	4.54	17242.79	1004.916379	526.2	false
NMeFOSAA_1	570.0 / 419.0	3.61	58576.72	899.674847	360.0	true
NMeFOSAA_2	570.0 / 512.0	3.61	32256.42	923.924236	401.8	false
NEtFOSAA_1	584.0 / 419.0	3.78	59036.24	1013.579533	404.4	true
NEtFOSAA_2	584.0 / 483.0	3.78	3286.65	796.384257	105.4	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	2018-09-28T15:34:02	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	1074188.08	2308.355918	491.1	false
PFBS_2	298.9 / 99.0	1.55	324578.93	2374.618112	559.7	false
PFHxA_1	313.0 / 269.0	1.88	834754.55	2324.705931	60.2	false
PFHxA_2	313.0 / 119.0	1.88	59169.31	2241.184637	61.1	false
PFHpA_1	363.0 / 319.0	2.28	813144.63	2294.295443	181.2	false
PFHpA_2	363.0 / 169.0	2.28	16480.48	2192.970548	125.4	false
PFHxS_1	399.0 / 80.0	2.31	1125157.16	2393.530209	220.0	false
PFHxS_2	399.0 / 99.0	2.31	325614.85	2481.088704	412.5	false
PFOA_1	413.0 / 369.0	2.70	1090524.88	2432.500528	434.1	true
PFOA_2	413.0 / 169.0	2.70	71007.21	2348.789728	317.2	false
PFNA_1	463.0 / 419.0	3.10	1035579.43	2382.423409	511.2	true
PFNA_2	463.0 / 219.0	3.10	313752.73	2399.973473	470.9	false
PFOS_1	499.0 / 80.0	3.10	1468644.23	2239.754676	214.2	true
PFOS_2	499.0 / 99.0	3.10	264153.50	2358.521181	628.8	false
PFDA_1	513.0 / 469.0	3.45	1140994.50	2554.527388	642.3	true
PFDA_2	513.0 / 219.0	3.45	47923.63	2396.071384	300.6	false
PFUnA_1	563.0 / 519.0	3.78	958596.77	2432.986188	389.7	true
PFUnA_2	563.0 / 269.0	3.78	47945.64	2333.630240	267.8	false
PFDoA_1	613.0 / 569.0	4.07	939373.09	2524.270442	630.2	true
PFDoA_2	613.0 / 319.0	4.07	150576.25	2600.085694	436.7	false
PFTrDA_1	663.0 / 619.0	4.32	846895.63	2654.818489	748.2	false
PFTrDA_2	663.0 / 169.0	4.31	54729.47	2703.074268	446.0	false
PFTeDA_1	713.0 / 669.0	4.53	912516.62	2658.231481	1111.3	false
PFTeDA_2	713.0 / 169.0	4.53	43167.90	2632.177806	744.0	false
NMeFOSAA_1	570.0 / 419.0	3.61	149335.14	2666.190505	638.3	true
NMeFOSAA_2	570.0 / 512.0	3.61	84823.96	2781.250111	593.3	false
NEtFOSAA_1	584.0 / 419.0	3.78	135494.43	2334.437364	517.6	true
NEtFOSAA_2	584.0 / 483.0	3.78	9003.95	2454.182068	203.9	false

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Summary Quant Report

Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:44:53	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	4520746.04	10528.716461	1168.7	false
PFBS_2	298.9 / 99.0	1.55	1327670.45	10557.467223	1631.5	false
PFHxA_1	313.0 / 269.0	1.87	3280605.78	10475.562168	126.7	false
PFHxA_2	313.0 / 119.0	1.87	239210.35	10484.102235	118.5	false
PFHpA_1	363.0 / 319.0	2.28	3073041.63	9534.801462	331.6	false
PFHpA_2	363.0 / 169.0	2.28	62331.19	9210.327366	230.6	false
PFHxS_1	399.0 / 80.0	2.30	4255783.55	9491.668992	436.8	false
PFHxS_2	399.0 / 99.0	2.30	1188610.22	9512.053167	964.9	false
PFOA_1	413.0 / 369.0	2.70	3778122.17	9282.868926	935.8	true
PFOA_2	413.0 / 169.0	2.70	256480.67	9379.268669	641.9	false
PFNA_1	463.0 / 419.0	3.10	3625902.02	9443.466309	925.0	true
PFNA_2	463.0 / 219.0	3.10	1136882.36	9735.385728	764.0	false
PFOS_1	499.0 / 80.0	3.09	5879681.70	9522.747770	461.5	true
PFOS_2	499.0 / 99.0	3.09	1009434.62	9607.006573	1067.7	false
PFDA_1	513.0 / 469.0	3.45	3989807.66	9495.396391	899.0	true
PFDA_2	513.0 / 219.0	3.45	177882.53	9638.765823	422.5	false
PFUnA_1	563.0 / 519.0	3.78	3644362.25	10451.864579	582.4	true
PFUnA_2	563.0 / 269.0	3.78	178633.38	10056.003393	475.9	false
PFDoA_1	613.0 / 569.0	4.06	3608022.57	10217.124570	830.7	true
PFDoA_2	613.0 / 319.0	4.06	556965.84	10091.107958	604.4	false
PFTrDA_1	663.0 / 619.0	4.31	3243229.68	10678.816138	972.0	false
PFTrDA_2	663.0 / 169.0	4.31	203632.32	10572.612820	803.6	false
PFTeDA_1	713.0 / 669.0	4.53	3417132.56	10471.643313	2227.0	false
PFTeDA_2	713.0 / 169.0	4.53	162855.18	10438.633784	1392.4	false
NMeFOSAA_1	570.0 / 419.0	3.61	565892.80	10480.228425	1175.7	true
NMeFOSAA_2	570.0 / 512.0	3.61	311206.01	10512.003326	1209.3	false
NEtFOSAA_1	584.0 / 419.0	3.77	528551.44	10782.629385	767.1	true
NEtFOSAA_2	584.0 / 483.0	3.77	29439.21	9936.451129	313.5	false

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Summary Quant Report

Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:55:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	9749612.75	20050.793476	1780.2	false
PFBS_2	298.9 / 99.0	1.55	2838540.12	19939.177852	2148.3	false
PFHxA_1	313.0 / 269.0	1.87	6857659.73	20086.695684	211.3	false
PFHxA_2	313.0 / 119.0	1.87	501955.67	20203.952775	197.0	false
PFHpA_1	363.0 / 319.0	2.28	6389902.93	20758.456741	532.7	false
PFHpA_2	363.0 / 169.0	2.28	136592.85	21169.574505	434.0	false
PFHxS_1	399.0 / 80.0	2.30	9023143.12	21004.014558	870.9	false
PFHxS_2	399.0 / 99.0	2.30	2499548.34	20884.417704	1350.3	false
PFOA_1	413.0 / 369.0	2.69	8099096.51	20842.755808	1683.0	true
PFOA_2	413.0 / 169.0	2.69	545928.08	20923.815882	1233.4	false
PFNA_1	463.0 / 419.0	3.09	7701720.97	20796.628242	1683.0	true
PFNA_2	463.0 / 219.0	3.09	2302230.35	20402.315331	1052.2	false
PFOS_1	499.0 / 80.0	3.09	12248881.66	20799.629515	566.5	true
PFOS_2	499.0 / 99.0	3.09	2059440.90	20562.686961	1430.8	false
PFDA_1	513.0 / 469.0	3.45	8308690.97	20521.275152	1196.1	true
PFDA_2	513.0 / 219.0	3.45	363232.70	20495.260650	562.2	false
PFUnA_1	563.0 / 519.0	3.77	7696578.16	19698.644982	766.6	true
PFUnA_2	563.0 / 269.0	3.77	398627.42	20097.865891	471.5	false
PFDoA_1	613.0 / 569.0	4.05	7446543.03	19731.465943	793.2	true
PFDoA_2	613.0 / 319.0	4.05	1167746.11	19786.238759	747.0	false
PFTrDA_1	663.0 / 619.0	4.30	6896259.31	19132.387008	1287.4	false
PFTrDA_2	663.0 / 169.0	4.30	439029.06	19210.281156	977.0	false
PFTeDA_1	713.0 / 669.0	4.52	7488542.62	19342.425345	2413.6	false
PFTeDA_2	713.0 / 169.0	4.52	359845.52	19438.809973	1510.4	false
NMeFOSAA_1	570.0 / 419.0	3.60	1159896.80	19364.787130	1846.7	true
NMeFOSAA_2	570.0 / 512.0	3.60	632002.12	19225.626820	1160.0	false
NEtFOSAA_1	584.0 / 419.0	3.76	1045497.38	19383.910686	1036.3	true
NEtFOSAA_2	584.0 / 483.0	3.76	65795.30	20338.873639	858.4	false

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Summary Quant 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	2018-09-28T14:50:32	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.09	86500.80	231.231548	1241.1	true
d3-MeFOSAA	573.0 / 419.0	3.63	10500.26	190.008710	121.1	false
d5-EtFOSAA	589.0 / 419.0	3.80	14307.72	258.321777	141.8	false
13C5-PFHxA	318.0 / 273.0	1.88	70095.33	236.705958	478.3	false
13C4-PFHpA	367.0 / 322.0	2.29	80650.59	237.519890	778.6	false
13C8-PFOA	421.0 / 376.0	2.71	92885.03	244.713478	1108.6	false
13C9-PFNA	472.0 / 427.0	3.11	90244.34	235.585238	1651.1	false
13C6-PFDA	519.0 / 474.0	3.47	98411.86	247.203912	915.9	false
13C7-PFUnA	570.0 / 525.0	3.80	83932.29	240.101921	911.8	false
13C2-PFTeDA	715.0 / 670.0	4.57	69782.98	238.821130	1663.9	false
13C3-PFBS	302.0 / 99.0	1.55	32108.32	221.442140	461.5	false
13C3-PFHxS	402.0 / 99.0	2.32	27268.83	241.400564	299.1	false
13C8-PFOS	507.0 / 99.0	3.11	29095.31	231.741312	232.1	false

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Summary Quant 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	2018-09-28T15:01:25	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	92848.98	251.262698	1136.2	false
d3-MeFOSAA	573.0 / 419.0	3.62	14179.16	262.875354	128.1	false
d5-EtFOSAA	589.0 / 419.0	3.79	16494.92	305.117100	206.2	false
13C5-PFHxA	318.0 / 273.0	1.87	78148.94	233.852802	643.2	false
13C4-PFHpA	367.0 / 322.0	2.29	92433.98	241.225629	579.4	false
13C8-PFOA	421.0 / 376.0	2.70	99944.79	233.330587	1064.0	false
13C9-PFNA	472.0 / 427.0	3.10	107097.27	247.745564	1082.1	false
13C6-PFDA	519.0 / 474.0	3.46	109699.44	278.956327	846.4	false
13C7-PFUnA	570.0 / 525.0	3.79	96426.92	279.247168	1202.3	false
13C2-PFTeDA	715.0 / 670.0	4.56	74964.58	259.718730	1942.0	false
13C3-PFBS	302.0 / 99.0	1.55	34433.35	243.303180	458.1	false
13C3-PFHxS	402.0 / 99.0	2.31	27354.35	248.098418	292.1	false
13C8-PFOS	507.0 / 99.0	3.10	30132.34	245.889017	246.4	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	2018-09-28T15:12:17	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	100791.33	248.009798	743.7	false
d3-MeFOSAA	573.0 / 419.0	3.61	12342.32	185.056021	147.3	false
d5-EtFOSAA	589.0 / 419.0	3.78	15107.48	226.003728	168.6	false
13C5-PFHxA	318.0 / 273.0	1.87	81676.40	259.202824	602.4	false
13C4-PFHpA	367.0 / 322.0	2.28	97100.68	268.743342	632.6	false
13C8-PFOA	421.0 / 376.0	2.70	106516.04	263.724320	1365.1	false
13C9-PFNA	472.0 / 427.0	3.09	112221.03	275.312140	1046.1	false
13C6-PFDA	519.0 / 474.0	3.45	105677.83	244.348945	720.5	false
13C7-PFUnA	570.0 / 525.0	3.78	99594.50	262.253080	915.2	false
13C2-PFTeDA	715.0 / 670.0	4.54	73684.22	232.122059	1613.2	false
13C3-PFBS	302.0 / 99.0	1.54	33701.48	192.585979	397.7	false
13C3-PFHxS	402.0 / 99.0	2.31	27264.19	199.985038	281.4	false
13C8-PFOS	507.0 / 99.0	3.09	33277.87	219.618527	259.5	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	2018-09-28T15:23:09	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.06	103539.73	240.833877	731.2	false
d3-MeFOSAA	573.0 / 419.0	3.61	17676.17	289.266289	186.2	false
d5-EtFOSAA	589.0 / 419.0	3.77	15455.80	252.358625	152.4	false
13C5-PFHxA	318.0 / 273.0	1.87	83468.51	243.728236	600.3	false
13C4-PFHpA	367.0 / 322.0	2.28	97674.16	248.734045	613.8	false
13C8-PFOA	421.0 / 376.0	2.69	114582.35	261.031534	1413.4	false
13C9-PFNA	472.0 / 427.0	3.09	116657.97	263.333189	844.8	false
13C6-PFDA	519.0 / 474.0	3.45	120173.94	262.664721	1102.0	false
13C7-PFUnA	570.0 / 525.0	3.77	103620.89	257.927383	733.0	false
13C2-PFTeDA	715.0 / 670.0	4.53	82269.11	244.987329	1587.3	false
13C3-PFBS	302.0 / 99.0	1.54	39030.08	243.432374	496.2	false
13C3-PFHxS	402.0 / 99.0	2.30	32466.25	259.920256	257.7	false
13C8-PFOS	507.0 / 99.0	3.09	34048.34	245.251971	267.6	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	2018-09-28T15:34:02	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.06	107343.24	259.290688	767.3	false
d3-MeFOSAA	573.0 / 419.0	3.60	16259.17	252.421395	111.3	false
d5-EtFOSAA	589.0 / 419.0	3.76	15126.32	234.302989	163.6	false
13C5-PFHxA	318.0 / 273.0	1.86	91253.07	258.922154	469.3	false
13C4-PFHpA	367.0 / 322.0	2.27	102588.99	253.860313	543.2	false
13C8-PFOA	421.0 / 376.0	2.69	114455.97	253.368266	1129.0	false
13C9-PFNA	472.0 / 427.0	3.08	114820.46	251.854080	688.2	false
13C6-PFDA	519.0 / 474.0	3.44	110406.06	250.602872	656.3	false
13C7-PFUnA	570.0 / 525.0	3.76	95364.03	246.511053	655.7	false
13C2-PFTeDA	715.0 / 670.0	4.53	80578.20	249.187384	1990.2	false
13C3-PFBS	302.0 / 99.0	1.54	38751.25	229.288654	690.0	false
13C3-PFHxS	402.0 / 99.0	2.30	29936.83	227.369285	233.3	false
13C8-PFOS	507.0 / 99.0	3.08	35925.52	245.492206	218.6	false

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Summary Quant Report

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Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:44:53	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	103536.73	260.073655	662.4	false
d3-MeFOSAA	573.0 / 419.0	3.60	15859.16	293.738761	98.1	false
d5-EtFOSAA	589.0 / 419.0	3.76	12973.10	239.740720	123.3	false
13C5-PFHxA	318.0 / 273.0	1.86	79998.50	263.772745	414.0	false
13C4-PFHpA	367.0 / 322.0	2.27	89467.69	257.268528	707.5	false
13C8-PFOA	421.0 / 376.0	2.69	104187.25	268.012275	1347.2	false
13C9-PFNA	472.0 / 427.0	3.08	100976.67	257.381383	977.6	false
13C6-PFDA	519.0 / 474.0	3.44	104119.37	245.761775	498.2	false
13C7-PFUnA	570.0 / 525.0	3.76	84489.59	227.114419	792.3	false
13C2-PFTeDA	715.0 / 670.0	4.52	77538.96	249.355041	2726.2	false
13C3-PFBS	302.0 / 99.0	1.53	35585.31	251.200795	541.4	false
13C3-PFHxS	402.0 / 99.0	2.29	28903.66	261.897987	370.4	false
13C8-PFOS	507.0 / 99.0	3.08	32918.28	268.364524	229.7	false

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Summary Quant Report

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Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:55:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	110938.00	259.297737	732.7	false
d3-MeFOSAA	573.0 / 419.0	3.59	17366.68	276.633470	87.4	false
d5-EtFOSAA	589.0 / 419.0	3.76	14733.26	234.155060	117.1	false
13C5-PFHxA	318.0 / 273.0	1.86	87273.08	253.815281	656.1	false
13C4-PFHpA	367.0 / 322.0	2.27	95668.15	242.648253	636.1	false
13C8-PFOA	421.0 / 376.0	2.68	99524.96	225.819541	207.3	false
13C9-PFNA	472.0 / 427.0	3.08	97314.79	218.788406	1008.7	false
13C6-PFDA	519.0 / 474.0	3.43	100376.80	220.461448	1210.1	false
13C7-PFUnA	570.0 / 525.0	3.75	94690.46	236.844977	535.9	false
13C2-PFTeDA	715.0 / 670.0	4.51	92170.66	275.808327	1767.8	false
13C3-PFBS	302.0 / 99.0	1.53	40273.22	244.496878	665.4	false
13C3-PFHxS	402.0 / 99.0	2.29	27824.68	216.828452	281.1	false
13C8-PFOS	507.0 / 99.0	3.07	31148.91	218.392444	285.3	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	2018-10-02T20:29:24	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.54	34138.78	118.242850	78.9	true
PFBS_2	298.9 / 99.0	1.53	10105.39	109.711649	61.8	true
PFHxA_1	313.0 / 269.0	1.85	27291.71	103.436543	7.5	false
PFHxA_2	313.0 / 119.0	1.85	2405.00	94.090202	5.9	false
PFHpA_1	363.0 / 319.0	2.26	25380.62	116.550658	24.2	false
PFHpA_2	363.0 / 169.0	2.25	470.03	110.511022	14.9	false
PFHxS_1	399.0 / 80.0	2.28	42621.73	108.237125	79.3	false
PFHxS_2	399.0 / 99.0	2.28	11432.38	104.699018	76.3	false
PFOA_1	413.0 / 369.0	2.67	39394.19	103.059565	63.9	false
PFOA_2	413.0 / 169.0	2.67	2146.19	97.339733	48.1	false
PFNA_1	463.0 / 419.0	3.06	37355.99	96.157405	81.9	false
PFNA_2	463.0 / 219.0	3.06	13657.34	102.468768	142.8	false
PFOS_1	499.0 / 80.0	3.06	64583.06	103.769423	70.2	false
PFOS_2	499.0 / 99.0	3.07	12227.79	116.579914	103.3	false
PFDA_1	513.0 / 469.0	3.41	40640.63	93.212142	128.4	false
PFDA_2	513.0 / 219.0	3.42	2532.25	122.652124	63.8	true
PFUnA_1	563.0 / 519.0	3.74	41609.93	115.774594	112.7	false
PFUnA_2	563.0 / 269.0	3.74	1840.45	102.737163	45.1	false
PFDoA_1	613.0 / 569.0	4.02	37957.30	95.403570	150.8	false
PFDoA_2	613.0 / 319.0	4.02	6868.66	104.404315	118.2	false
PFTrDA_1	663.0 / 619.0	4.27	33563.78	81.240003	256.8	false
PFTrDA_2	663.0 / 169.0	4.27	2174.31	19.841497	99.4	false
PFTeDA_1	713.0 / 669.0	4.48	34185.97	92.980422	416.4	false
PFTeDA_2	713.0 / 169.0	4.48	1942.05	83.119412	147.1	false
NMeFOSAA_1	570.0 / 419.0	3.57	7093.35	112.720731	130.4	false
NMeFOSAA_2	570.0 / 512.0	3.58	4375.07	109.027906	115.3	false
NEtFOSAA_1	584.0 / 419.0	3.73	6664.21	116.464062	130.6	false
NEtFOSAA_2	584.0 / 483.0	3.79	535.23	104.838624	29.0	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	2018-10-02T20:40:16	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	84560.15	252.515531	150.9	false
PFBS_2	298.9 / 99.0	1.53	26644.45	261.244646	122.1	false
PFHxA_1	313.0 / 269.0	1.85	70613.07	265.363796	18.0	false
PFHxA_2	313.0 / 119.0	1.85	6024.39	278.935665	12.6	false
PFHpA_1	363.0 / 319.0	2.26	69746.80	264.992622	55.2	false
PFHpA_2	363.0 / 169.0	2.26	1093.58	208.829740	29.4	false
PFHxS_1	399.0 / 80.0	2.28	102954.90	272.323086	138.8	false
PFHxS_2	399.0 / 99.0	2.28	31552.43	294.347378	194.5	false
PFOA_1	413.0 / 369.0	2.67	107472.81	259.712734	127.2	false
PFOA_2	413.0 / 169.0	2.67	6634.37	263.764801	93.9	false
PFNA_1	463.0 / 419.0	3.06	97295.99	249.031439	142.5	false
PFNA_2	463.0 / 219.0	3.06	32118.11	252.395569	172.2	false
PFOS_1	499.0 / 80.0	3.06	156565.44	257.277249	122.1	false
PFOS_2	499.0 / 99.0	3.06	27506.35	259.917357	230.2	false
PFDA_1	513.0 / 469.0	3.42	119110.85	264.139879	247.9	false
PFDA_2	513.0 / 219.0	3.42	4747.70	224.730435	95.4	false
PFUnA_1	563.0 / 519.0	3.74	118472.48	263.442924	167.5	false
PFUnA_2	563.0 / 269.0	3.74	5720.51	253.560608	76.4	false
PFDoA_1	613.0 / 569.0	4.02	103661.78	261.500465	224.3	false
PFDoA_2	613.0 / 319.0	4.02	16847.96	259.108140	196.1	false
PFTrDA_1	663.0 / 619.0	4.26	88771.86	255.639239	387.1	false
PFTrDA_2	663.0 / 169.0	4.26	6093.62	216.816652	180.7	false
PFTeDA_1	713.0 / 669.0	4.48	93497.24	263.837058	589.0	false
PFTeDA_2	713.0 / 169.0	4.48	5183.06	281.830474	329.9	false
NMeFOSAA_1	570.0 / 419.0	3.57	16629.54	236.848965	189.6	false
NMeFOSAA_2	570.0 / 512.0	3.57	9513.98	231.562191	181.4	false
NEtFOSAA_1	584.0 / 419.0	3.73	18764.54	283.951479	317.0	false
NEtFOSAA_2	584.0 / 483.0	3.73	1175.36	248.003138	41.6	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	2018-10-02T20:51:08	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	172126.38	463.842650	272.2	false
PFBS_2	298.9 / 99.0	1.53	51266.78	462.321983	174.3	false
PFHxA_1	313.0 / 269.0	1.85	134965.47	473.609923	28.2	false
PFHxA_2	313.0 / 119.0	1.84	10860.16	490.077726	19.9	false
PFHpA_1	363.0 / 319.0	2.26	127692.01	457.660339	72.3	false
PFHpA_2	363.0 / 169.0	2.26	3188.19	552.319485	59.0	false
PFHxS_1	399.0 / 80.0	2.28	194888.51	471.051343	203.4	false
PFHxS_2	399.0 / 99.0	2.28	52242.38	441.703024	238.2	false
PFOA_1	413.0 / 369.0	2.66	196907.45	464.403086	187.3	false
PFOA_2	413.0 / 169.0	2.67	12823.00	490.273598	166.6	false
PFNA_1	463.0 / 419.0	3.06	191286.46	488.087483	243.0	false
PFNA_2	463.0 / 219.0	3.06	58567.23	468.306817	213.4	false
PFOS_1	499.0 / 80.0	3.06	287652.69	459.528466	148.7	false
PFOS_2	499.0 / 99.0	3.06	50259.74	459.286260	277.2	false
PFDA_1	513.0 / 469.0	3.41	222072.24	494.075704	324.3	false
PFDA_2	513.0 / 219.0	3.41	9324.40	461.068337	183.1	false
PFUnA_1	563.0 / 519.0	3.74	214244.17	454.446863	207.2	false
PFUnA_2	563.0 / 269.0	3.73	11352.09	479.177876	169.4	false
PFDoA_1	613.0 / 569.0	4.02	192989.46	500.253433	274.5	false
PFDoA_2	613.0 / 319.0	4.02	30265.73	483.151548	231.7	false
PFTrDA_1	663.0 / 619.0	4.26	176829.31	522.325434	416.4	false
PFTrDA_2	663.0 / 169.0	4.26	11943.61	496.493990	247.2	false
PFTeDA_1	713.0 / 669.0	4.48	175899.71	488.990341	770.6	false
PFTeDA_2	713.0 / 169.0	4.48	8987.37	500.749052	403.2	false
NMeFOSAA_1	570.0 / 419.0	3.57	33689.20	449.839076	370.8	false
NMeFOSAA_2	570.0 / 512.0	3.57	18127.64	431.662499	249.8	false
NEtFOSAA_1	584.0 / 419.0	3.73	32694.89	427.149860	359.1	false
NEtFOSAA_2	584.0 / 483.0	3.73	2205.42	422.136515	139.7	false

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Summary Quant Report

Sample Name	KB85	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:02:00	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	364472.65	962.352090	414.7	false
PFBS_2	298.9 / 99.0	1.53	109568.30	979.007676	397.9	false
PFHxA_1	313.0 / 269.0	1.85	277679.62	974.984492	40.1	false
PFHxA_2	313.0 / 119.0	1.84	21296.13	991.873026	30.2	false
PFHpA_1	363.0 / 319.0	2.25	258427.56	947.922258	101.5	false
PFHpA_2	363.0 / 169.0	2.26	5529.91	981.772676	74.9	false
PFHxS_1	399.0 / 80.0	2.28	386078.56	977.033184	198.2	false
PFHxS_2	399.0 / 99.0	2.28	112298.01	989.614030	299.7	false
PFOA_1	413.0 / 369.0	2.66	417670.18	1032.344173	299.0	false
PFOA_2	413.0 / 169.0	2.66	26411.90	1047.963770	249.6	false
PFNA_1	463.0 / 419.0	3.06	400492.72	1048.447832	330.5	false
PFNA_2	463.0 / 219.0	3.06	124066.55	1035.566728	360.0	false
PFOS_1	499.0 / 80.0	3.06	591632.53	997.260536	188.5	false
PFOS_2	499.0 / 99.0	3.06	85748.28	820.322992	494.1	false
PFDA_1	513.0 / 469.0	3.41	455442.89	1020.809243	458.8	false
PFDA_2	513.0 / 219.0	3.42	19109.90	970.576516	235.2	false
PFUnA_1	563.0 / 519.0	3.74	446649.17	921.368543	287.0	false
PFUnA_2	563.0 / 269.0	3.74	24865.98	1020.878941	216.0	false
PFDoA_1	613.0 / 569.0	4.02	387124.56	963.898635	387.8	false
PFDoA_2	613.0 / 319.0	4.02	59609.23	920.650141	361.8	false
PFTrDA_1	663.0 / 619.0	4.26	336133.81	1015.089313	546.8	false
PFTrDA_2	663.0 / 169.0	4.26	22556.73	1015.576847	323.3	false
PFTeDA_1	713.0 / 669.0	4.48	361028.65	1010.740241	881.1	false
PFTeDA_2	713.0 / 169.0	4.47	17174.95	991.919167	640.3	false
NMeFOSAA_1	570.0 / 419.0	3.57	61930.63	996.970463	597.1	false
NMeFOSAA_2	570.0 / 512.0	3.57	36581.14	1092.591022	413.3	false
NEtFOSAA_1	584.0 / 419.0	3.73	66734.21	868.892933	465.2	false
NEtFOSAA_2	584.0 / 483.0	3.73	5247.62	1048.924795	196.5	false

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Summary Quant Report

Sample Name	KB69	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:12:52	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	915811.86	2388.436582	718.8	false
PFBS_2	298.9 / 99.0	1.53	279741.02	2484.112211	589.1	false
PFHxA_1	313.0 / 269.0	1.85	707141.13	2523.702577	67.8	false
PFHxA_2	313.0 / 119.0	1.85	51152.96	2468.194621	58.4	false
PFHpA_1	363.0 / 319.0	2.26	670916.18	2315.429020	163.6	false
PFHpA_2	363.0 / 169.0	2.26	14856.71	2474.455042	163.1	false
PFHxS_1	399.0 / 80.0	2.28	1020506.95	2265.053300	433.5	false
PFHxS_2	399.0 / 99.0	2.28	294788.33	2272.262593	574.9	false
PFOA_1	413.0 / 369.0	2.66	1022995.94	2408.845401	477.3	false
PFOA_2	413.0 / 169.0	2.66	62678.48	2358.191004	324.5	false
PFNA_1	463.0 / 419.0	3.06	991791.35	2536.519181	565.7	false
PFNA_2	463.0 / 219.0	3.06	299437.20	2461.192991	546.7	false
PFOS_1	499.0 / 80.0	3.06	1544192.47	2474.021804	351.8	false
PFOS_2	499.0 / 99.0	3.06	278864.36	2543.792355	679.9	false
PFDA_1	513.0 / 469.0	3.41	1141052.73	2453.490287	666.0	false
PFDA_2	513.0 / 219.0	3.41	49668.14	2446.638326	329.4	false
PFUnA_1	563.0 / 519.0	3.74	1129527.81	2404.546580	412.0	false
PFUnA_2	563.0 / 269.0	3.74	58671.16	2487.420630	377.4	false
PFDoA_1	613.0 / 569.0	4.01	1015550.65	2516.797284	576.4	false
PFDoA_2	613.0 / 319.0	4.01	161070.23	2491.211226	419.5	false
PFTrDA_1	663.0 / 619.0	4.26	900044.60	2638.115881	829.0	false
PFTrDA_2	663.0 / 169.0	4.26	59126.37	2678.206863	526.3	false
PFTeDA_1	713.0 / 669.0	4.47	925537.29	2483.370637	1672.5	false
PFTeDA_2	713.0 / 169.0	4.47	45647.54	2580.229288	988.7	false
NMeFOSAA_1	570.0 / 419.0	3.57	170104.48	2455.872434	787.6	false
NMeFOSAA_2	570.0 / 512.0	3.57	90239.90	2443.220526	483.3	false
NEtFOSAA_1	584.0 / 419.0	3.73	175581.20	2540.503274	713.5	false
NEtFOSAA_2	584.0 / 483.0	3.73	11654.69	2659.178334	588.2	false

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Summary Quant Report

Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:23:43	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.54	3595997.48	10133.836648	1674.6	false
PFBS_2	298.9 / 99.0	1.54	1061182.09	10215.066293	1478.2	false
PFHxA_1	313.0 / 269.0	1.85	2665428.43	10497.477669	127.0	false
PFHxA_2	313.0 / 119.0	1.85	199062.27	10710.651070	109.4	false
PFHpA_1	363.0 / 319.0	2.26	2374275.26	9454.722712	350.2	false
PFHpA_2	363.0 / 169.0	2.26	50242.88	9645.431110	289.3	false
PFHxS_1	399.0 / 80.0	2.28	3687517.19	10863.782462	865.5	false
PFHxS_2	399.0 / 99.0	2.28	1045839.20	10683.029937	1167.4	false
PFOA_1	413.0 / 369.0	2.67	3669290.41	10035.663035	993.9	false
PFOA_2	413.0 / 169.0	2.67	227223.41	9902.654900	675.6	false
PFNA_1	463.0 / 419.0	3.06	3426159.61	10129.637799	937.6	false
PFNA_2	463.0 / 219.0	3.06	1063334.16	10151.380563	962.3	false
PFOS_1	499.0 / 80.0	3.06	5505778.74	10487.269169	463.4	false
PFOS_2	499.0 / 99.0	3.06	979638.45	10612.278502	867.7	false
PFDA_1	513.0 / 469.0	3.42	3942021.70	10394.973207	1035.9	false
PFDA_2	513.0 / 219.0	3.42	163682.02	9939.435869	822.4	false
PFUnA_1	563.0 / 519.0	3.74	3834987.35	9737.608647	744.5	false
PFUnA_2	563.0 / 269.0	3.74	191352.10	9677.435016	558.1	false
PFDoA_1	613.0 / 569.0	4.02	3616150.66	10564.613909	807.6	false
PFDoA_2	613.0 / 319.0	4.02	581637.28	10630.256598	596.8	false
PFTrDA_1	663.0 / 619.0	4.26	3268800.34	11163.539565	1186.1	false
PFTrDA_2	663.0 / 169.0	4.26	208812.82	11214.810790	816.4	false
PFTeDA_1	713.0 / 669.0	4.48	3424138.62	10645.486031	1835.2	false
PFTeDA_2	713.0 / 169.0	4.47	157408.52	10407.347295	1386.4	false
NMeFOSAA_1	570.0 / 419.0	3.57	601833.32	10830.236610	967.2	false
NMeFOSAA_2	570.0 / 512.0	3.57	322013.89	10963.422980	1030.0	false
NEtFOSAA_1	584.0 / 419.0	3.73	580697.83	9090.151574	1018.3	false
NEtFOSAA_2	584.0 / 483.0	3.73	40846.50	10187.722278	671.2	false

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Summary Quant Report

Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:34:34	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	7776661.58	20374.273647	2802.3	false
PFBS_2	298.9 / 99.0	1.53	2254063.36	20182.035543	2213.2	false
PFHxA_1	313.0 / 269.0	1.85	5429544.24	19854.924999	217.9	false
PFHxA_2	313.0 / 119.0	1.85	392970.60	19659.677689	160.7	false
PFHpA_1	363.0 / 319.0	2.26	4847448.10	20792.722391	453.7	false
PFHpA_2	363.0 / 169.0	2.26	98559.91	20376.680925	375.1	false
PFHxS_1	399.0 / 80.0	2.28	7103339.83	19736.019502	805.6	false
PFHxS_2	399.0 / 99.0	2.28	2066926.60	19907.844020	1424.1	false
PFOA_1	413.0 / 369.0	2.67	6796547.31	20045.972006	1027.9	false
PFOA_2	413.0 / 169.0	2.66	429781.36	20189.812195	868.0	false
PFNA_1	463.0 / 419.0	3.06	6857760.52	19802.118861	1399.3	false
PFNA_2	463.0 / 219.0	3.06	2130502.77	19878.688563	1231.5	false
PFOS_1	499.0 / 80.0	3.06	10618243.71	19570.873353	567.8	false
PFOS_2	499.0 / 99.0	3.06	1864179.88	19537.822619	911.0	false
PFDA_1	513.0 / 469.0	3.42	7256756.54	19629.299538	1036.3	false
PFDA_2	513.0 / 219.0	3.42	323740.44	20184.898394	561.8	false
PFUnA_1	563.0 / 519.0	3.73	7883521.82	20452.811849	792.7	false
PFUnA_2	563.0 / 269.0	3.73	393404.85	20328.789765	628.5	false
PFDoA_1	613.0 / 569.0	4.01	7377871.95	19447.532704	882.5	false
PFDoA_2	613.0 / 319.0	4.01	1179835.66	19461.218032	726.6	false
PFTrDA_1	663.0 / 619.0	4.26	6554803.40	18674.050566	1118.5	false
PFTrDA_2	663.0 / 169.0	4.26	414854.39	18628.094859	959.2	false
PFTeDA_1	713.0 / 669.0	4.47	7471277.79	19364.595269	1952.4	false
PFTeDA_2	713.0 / 169.0	4.47	353296.79	19504.805312	1614.5	false
NMeFOSAA_1	570.0 / 419.0	3.57	1224746.58	19267.511721	1879.1	false
NMeFOSAA_2	570.0 / 512.0	3.57	640334.78	19078.512876	997.9	false
NEtFOSAA_1	584.0 / 419.0	3.73	1166481.40	21022.886817	1216.6	false
NEtFOSAA_2	584.0 / 483.0	3.73	68383.04	19679.196315	928.3	false

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Summary Quant Report

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Printed: 03/10/2018 5:18:57 PM

Sample Name	KA86	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T20:29:24	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	87134.88	222.993102	807.4	false
d3-MeFOSAA	573.0 / 419.0	3.56	12450.90	206.505940	161.6	false
d5-EtFOSAA	589.0 / 419.0	3.72	17690.30	269.203065	186.0	false
13C5-PFHxA	318.0 / 273.0	1.84	60839.35	225.684604	546.2	false
13C4-PFHpA	367.0 / 322.0	2.25	69704.66	235.383017	578.3	false
13C8-PFOA	421.0 / 376.0	2.66	90480.96	239.295265	129525.4	false
13C9-PFNA	472.0 / 427.0	3.05	87743.93	229.879110	881.8	false
13C6-PFDA	519.0 / 474.0	3.40	95919.39	243.534625	886.1	false
13C7-PFUnA	570.0 / 525.0	3.72	92354.90	230.679287	926.7	false
13C2-PFTeDA	715.0 / 670.0	4.48	70956.42	228.114321	1652.1	false
13C3-PFBS	302.0 / 99.0	1.52	26020.43	209.719451	390.7	false
13C3-PFHxS	402.0 / 99.0	2.27	26080.02	231.209691	305.6	false
13C8-PFOS	507.0 / 99.0	3.05	26143.42	219.859192	220.2	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:01 PM

Sample Name	KA87	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T20:40:16	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	101652.85	232.144197	1312.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	15654.06	273.020949	180.7	false
d5-EtFOSAA	589.0 / 419.0	3.72	17361.49	277.823722	196.6	false
13C5-PFHxA	318.0 / 273.0	1.84	65830.12	229.042579	744.8	false
13C4-PFHpA	367.0 / 322.0	2.25	76136.52	241.146230	550.9	false
13C8-PFOA	421.0 / 376.0	2.66	100736.31	249.883229	1109.6	false
13C9-PFNA	472.0 / 427.0	3.05	98370.95	241.726052	1066.6	false
13C6-PFDA	519.0 / 474.0	3.40	107844.80	244.338776	736.0	false
13C7-PFUnA	570.0 / 525.0	3.72	111688.97	248.941819	566.4	false
13C2-PFTeDA	715.0 / 670.0	4.47	78363.68	224.809448	1367.2	false
13C3-PFBS	302.0 / 99.0	1.52	28333.04	240.134607	454.3	false
13C3-PFHxS	402.0 / 99.0	2.27	26608.05	248.055330	301.3	false
13C8-PFOS	507.0 / 99.0	3.05	28514.34	252.163967	219.1	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	2018-10-02T20:51:08	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	103789.33	239.352683	569.8	false
d3-MeFOSAA	573.0 / 419.0	3.56	17537.70	251.259049	215.6	false
d5-EtFOSAA	589.0 / 419.0	3.72	18774.43	246.790864	185.2	false
13C5-PFHxA	318.0 / 273.0	1.84	71972.42	249.114229	561.7	false
13C4-PFHpA	367.0 / 322.0	2.25	80095.37	252.368870	1060.5	false
13C8-PFOA	421.0 / 376.0	2.65	104073.60	256.822183	1720.7	false
13C9-PFNA	472.0 / 427.0	3.04	102293.18	250.059960	991.7	false
13C6-PFDA	519.0 / 474.0	3.40	109923.03	251.494903	999.0	false
13C7-PFUnA	570.0 / 525.0	3.72	115807.78	260.658926	1086.9	false
13C2-PFTeDA	715.0 / 670.0	4.47	82562.43	239.182575	1683.4	false
13C3-PFBS	302.0 / 99.0	1.51	30644.87	213.353326	455.5	false
13C3-PFHxS	402.0 / 99.0	2.27	29016.34	222.207278	367.0	false
13C8-PFOS	507.0 / 99.0	3.04	30765.09	223.489878	235.0	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:19:08 PM

Sample Name	KB85	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:02:00	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	110922.95	272.146343	1122.7	false
d3-MeFOSAA	573.0 / 419.0	3.56	15605.82	244.678915	158.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	19124.16	275.109507	156.3	false
13C5-PFHxA	318.0 / 273.0	1.83	72928.84	250.358652	585.7	false
13C4-PFHpA	367.0 / 322.0	2.24	79279.92	247.755009	566.5	false
13C8-PFOA	421.0 / 376.0	2.65	99886.80	244.473023	1061.9	false
13C9-PFNA	472.0 / 427.0	3.04	101780.06	246.769249	2533.0	false
13C6-PFDA	519.0 / 474.0	3.40	110594.78	269.197256	997.1	false
13C7-PFUnA	570.0 / 525.0	3.72	118179.86	282.991780	649.1	false
13C2-PFTeDA	715.0 / 670.0	4.47	83907.10	258.607584	1939.8	false
13C3-PFBS	302.0 / 99.0	1.51	30818.90	234.811625	514.9	false
13C3-PFHxS	402.0 / 99.0	2.27	27834.09	233.267050	394.3	false
13C8-PFOS	507.0 / 99.0	3.04	29861.40	237.394498	231.4	false

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Summary Quant Report

Sample Name	KB69	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:12:52	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	113451.22	256.275982	1078.1	false
d3-MeFOSAA	573.0 / 419.0	3.56	16771.19	253.635275	143.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	16676.11	231.394913	178.6	false
13C5-PFHxA	318.0 / 273.0	1.84	72332.04	264.770246	750.7	false
13C4-PFHpA	367.0 / 322.0	2.24	81521.67	271.648557	991.2	false
13C8-PFOA	421.0 / 376.0	2.65	105135.49	274.376736	213.7	false
13C9-PFNA	472.0 / 427.0	3.05	105304.08	272.237952	972.3	false
13C6-PFDA	519.0 / 474.0	3.40	116147.20	260.292954	886.1	false
13C7-PFUnA	570.0 / 525.0	3.72	113999.77	251.334443	588.2	false
13C2-PFTeDA	715.0 / 670.0	4.47	88706.06	251.717559	1521.4	false
13C3-PFBS	302.0 / 99.0	1.51	30950.40	227.459766	532.0	false
13C3-PFHxS	402.0 / 99.0	2.27	32036.92	258.978090	494.0	false
13C8-PFOS	507.0 / 99.0	3.04	31999.66	245.381403	200.3	false

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Summary Quant Report

Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:23:43	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	97065.24	262.051782	1304.8	false
d3-MeFOSAA	573.0 / 419.0	3.56	13806.79	251.003804	97.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	14936.63	249.145681	171.5	false
13C5-PFHxA	318.0 / 273.0	1.84	65801.13	264.535782	571.0	false
13C4-PFHpA	367.0 / 322.0	2.25	70617.48	258.439710	652.0	false
13C8-PFOA	421.0 / 376.0	2.66	90656.16	259.841156	1113.0	false
13C9-PFNA	472.0 / 427.0	3.05	91611.88	260.116514	934.1	false
13C6-PFDA	519.0 / 474.0	3.40	95095.08	254.704342	668.8	false
13C7-PFUnA	570.0 / 525.0	3.72	95374.73	251.307802	609.5	false
13C2-PFTeDA	715.0 / 670.0	4.47	77093.72	261.459132	1668.1	false
13C3-PFBS	302.0 / 99.0	1.52	28524.54	251.998876	563.6	false
13C3-PFHxS	402.0 / 99.0	2.27	24239.86	235.550467	278.0	false
13C8-PFOS	507.0 / 99.0	3.04	27502.89	253.522421	233.1	false

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Summary Quant Report

Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:34:34	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	107713.65	265.035911	935.7	false
d3-MeFOSAA	573.0 / 419.0	3.56	16198.19	269.896069	101.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	13117.20	200.532248	160.9	false
13C5-PFHxA	318.0 / 273.0	1.84	70908.58	266.493908	518.8	false
13C4-PFHpA	367.0 / 322.0	2.24	71102.33	243.258608	891.4	false
13C8-PFOA	421.0 / 376.0	2.66	84087.10	225.308408	1829.7	false
13C9-PFNA	472.0 / 427.0	3.05	93888.84	249.211163	952.7	false
13C6-PFDA	519.0 / 474.0	3.40	92759.58	226.437143	783.8	false
13C7-PFUnA	570.0 / 525.0	3.72	93310.68	224.085944	790.5	false
13C2-PFTeDA	715.0 / 670.0	4.47	92562.83	286.109380	1936.3	false
13C3-PFBS	302.0 / 99.0	1.52	30662.38	248.272350	459.6	false
13C3-PFHxS	402.0 / 99.0	2.27	25401.41	226.232094	375.8	false
13C8-PFOS	507.0 / 99.0	3.05	28755.18	242.938641	214.9	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	2018-09-28T14:50:32	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.310	0.299	ü
PFHxA_1	313.0 / 269.0	1.90	PFHxA			
PFHxA_2	313.0 / 119.0	1.90	PFHxA	0.090	0.076	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.040	0.023	
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.270	0.283	ü
PFOA_1	413.0 / 369.0	2.72	PFOA			
PFOA_2	413.0 / 169.0	2.72	PFOA	0.080	0.068	ü
PFNA_1	463.0 / 419.0	3.13	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.380	0.307	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.170	0.175	ü
PFDA_1	513.0 / 469.0	3.48	PFDA			
PFDA_2	513.0 / 219.0	3.48	PFDA	0.060	0.050	ü
PFUnA_1	563.0 / 519.0	3.82	PFUnA			
PFUnA_2	563.0 / 269.0	3.81	PFUnA	0.070	0.059	ü
PFDoA_1	613.0 / 569.0	4.10	PFDoA			
PFDoA_2	613.0 / 319.0	4.09	PFDoA	0.140	0.153	ü
PFTrDA_1	663.0 / 619.0	4.35	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.35	PFTrDA	0.070	0.064	ü
PFTeDA_1	713.0 / 669.0	4.57	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.57	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.64	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.64	NMeFOSAA	0.520	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.81	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.82	NEtFOSAA	0.150	0.082	

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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	2018-09-28T15:01:25	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.300	0.299	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.080	0.076	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.030	0.023	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.300	0.283	ü
PFOA_1	413.0 / 369.0	2.72	PFOA			
PFOA_2	413.0 / 169.0	2.72	PFOA	0.080	0.068	ü
PFNA_1	463.0 / 419.0	3.12	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.300	0.307	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.180	0.175	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.050	0.050	ü
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.81	PFUnA	0.070	0.059	ü
PFDoA_1	613.0 / 569.0	4.09	PFDoA			
PFDoA_2	613.0 / 319.0	4.09	PFDoA	0.150	0.153	ü
PFTrDA_1	663.0 / 619.0	4.34	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.34	PFTrDA	0.060	0.064	ü
PFTeDA_1	713.0 / 669.0	4.56	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.56	PFTeDA	0.040	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.430	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.80	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.110	0.082	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	2018-09-28T15:12:17	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.300	0.299	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.080	0.076	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.290	0.283	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.060	0.068	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.330	0.307	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.170	0.175	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.060	0.050	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.070	0.059	ü
PFDoA_1	613.0 / 569.0	4.08	PFDoA			
PFDoA_2	613.0 / 319.0	4.08	PFDoA	0.150	0.153	ü
PFTrDA_1	663.0 / 619.0	4.33	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.33	PFTrDA	0.060	0.064	ü
PFTeDA_1	713.0 / 669.0	4.55	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.55	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.540	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.070	0.082	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	2018-09-28T15:23:09	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.300	0.299	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.070	0.076	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.280	0.283	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.060	0.068	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.300	0.307	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.180	0.175	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.040	0.050	ü
PFUnA_1	563.0 / 519.0	3.78	PFUnA			
PFUnA_2	563.0 / 269.0	3.78	PFUnA	0.060	0.059	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.150	0.153	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.32	PFTrDA	0.070	0.064	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.550	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.060	0.082	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	2018-09-28T15:34:02	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.300	0.299	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.070	0.076	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.290	0.283	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.070	0.068	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.300	0.307	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.180	0.175	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.040	0.050	ü
PFUnA_1	563.0 / 519.0	3.78	PFUnA			
PFUnA_2	563.0 / 269.0	3.78	PFUnA	0.050	0.059	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.160	0.153	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.31	PFTrDA	0.060	0.064	ü
PFTeDA_1	713.0 / 669.0	4.53	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.53	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.570	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.070	0.082	ü

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Summary Ion Ratio Report

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Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:44:53	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.290	0.299	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.070	0.076	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.283	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.070	0.068	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.310	0.307	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.170	0.175	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.040	0.050	ü
PFUnA_1	563.0 / 519.0	3.78	PFUnA			
PFUnA_2	563.0 / 269.0	3.78	PFUnA	0.050	0.059	ü
PFDoA_1	613.0 / 569.0	4.06	PFDoA			
PFDoA_2	613.0 / 319.0	4.06	PFDoA	0.150	0.153	ü
PFTrDA_1	663.0 / 619.0	4.31	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.31	PFTrDA	0.060	0.064	ü
PFTeDA_1	713.0 / 669.0	4.53	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.53	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.550	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.77	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.77	NEtFOSAA	0.060	0.082	ü

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Summary Ion Ratio Report

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Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:55:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.290	0.299	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.070	0.076	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.283	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.070	0.068	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.300	0.307	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.170	0.175	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.040	0.050	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.050	0.059	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.160	0.153	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.30	PFTrDA	0.060	0.064	ü
PFTeDA_1	713.0 / 669.0	4.52	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.52	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.540	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.060	0.082	ü

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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	2018-10-02T20:29:24	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	0.300	0.300	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.090	0.079	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.270	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.050	0.062	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.370	0.319	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.190	0.174	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.060	0.045	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.040	0.050	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.180	0.162	ü
PFTrDA_1	663.0 / 619.0	4.27	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.27	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.060	0.051	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.58	NMeFOSAA	0.620	0.558	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.080	0.069	ü

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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	2018-10-02T20:40:16	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	0.320	0.300	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.090	0.079	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.310	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.062	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.330	0.319	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.045	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.050	0.050	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.162	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.060	0.051	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.570	0.558	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	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	2018-10-02T20:51:08	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	0.300	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.080	0.079	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.270	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.070	0.062	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.310	0.319	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.045	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.050	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.162	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.050	0.051	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.540	0.558	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.070	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KB85	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:02:00	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	0.300	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.080	0.079	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.062	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.310	0.319	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.140	0.174	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.045	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.060	0.050	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.150	0.162	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.051	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.590	0.558	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.080	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KB69	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:12:52	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	0.310	0.300	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.079	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.062	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.300	0.319	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.045	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.050	0.050	ü
PFDoA_1	613.0 / 569.0	4.01	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.160	0.162	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.051	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.530	0.558	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.070	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:23:43	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	0.300	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.079	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.062	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.310	0.319	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.045	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.050	0.050	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.162	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.051	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.540	0.558	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.070	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:34:34	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	0.300	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.079	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.062	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.310	0.319	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.045	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.050	ü
PFDoA_1	613.0 / 569.0	4.01	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.160	0.162	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.051	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.520	0.558	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	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	2018-09-28T14:50:32	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	32108.32	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	32108.32	232.25
PFHxA_1	313.0 / 269.0	1.90	13C5-PFHxA	318.0 / 273.0	70095.33	250.00
PFHxA_2	313.0 / 119.0	1.90	13C5-PFHxA	318.0 / 273.0	70095.33	250.00
PFHpA_1	363.0 / 319.0	2.31	13C8-PFOA	421.0 / 376.0	92885.03	250.00
PFHpA_2	363.0 / 169.0	2.31	13C8-PFOA	421.0 / 376.0	92885.03	250.00
PFHxS_1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	27337.00	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	27337.00	236.50
PFOA_1	413.0 / 369.0	2.72	13C8-PFOA	421.0 / 376.0	92885.03	250.00
PFOA_2	413.0 / 169.0	2.72	13C8-PFOA	421.0 / 376.0	92885.03	250.00
PFNA_1	463.0 / 419.0	3.13	13C9-PFNA	472.0 / 427.0	90244.34	250.00
PFNA_2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	90244.34	250.00
PFOS_1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	28646.63	239.25
PFOS_2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	28646.63	239.25
PFDA_1	513.0 / 469.0	3.48	13C6-PFDA	519.0 / 474.0	98411.86	250.00
PFDA_2	513.0 / 219.0	3.48	13C6-PFDA	519.0 / 474.0	98411.86	250.00
PFUnA_1	563.0 / 519.0	3.82	13C7-PFUnA	570.0 / 525.0	83932.29	250.00
PFUnA_2	563.0 / 269.0	3.81	13C7-PFUnA	570.0 / 525.0	83932.29	250.00
PFDoA_1	613.0 / 569.0	4.10	13C2-PFDoA	615.0 / 570.0	86500.80	250.00
PFDoA_2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	86500.80	250.00
PFTrDA_1	663.0 / 619.0	4.35	13C2-PFTeDA	715.0 / 670.0	69782.98	250.00
PFTrDA_2	663.0 / 169.0	4.35	13C2-PFTeDA	715.0 / 670.0	69782.98	250.00
PFTeDA_1	713.0 / 669.0	4.57	13C2-PFTeDA	715.0 / 670.0	69782.98	250.00
PFTeDA_2	713.0 / 169.0	4.57	13C2-PFTeDA	715.0 / 670.0	69782.98	250.00
NMeFOSAA_1	570.0 / 419.0	3.64	d3-MeFOSAA	573.0 / 419.0	10830.39	250.00
NMeFOSAA_2	570.0 / 512.0	3.64	d3-MeFOSAA	573.0 / 419.0	10830.39	250.00
NEtFOSAA_1	584.0 / 419.0	3.81	d5-EtFOSAA	589.0 / 419.0	14840.10	250.00
NEtFOSAA_2	584.0 / 483.0	3.82	d5-EtFOSAA	589.0 / 419.0	14840.10	250.00

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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	2018-09-28T15:01:25	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	34433.35	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	34433.35	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	78148.94	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	78148.94	250.00
PFHpA_1	363.0 / 319.0	2.30	13C8-PFOA	421.0 / 376.0	99944.79	250.00
PFHpA_2	363.0 / 169.0	2.30	13C8-PFOA	421.0 / 376.0	99944.79	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	27903.29	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	27903.29	236.50
PFOA_1	413.0 / 369.0	2.72	13C8-PFOA	421.0 / 376.0	99944.79	250.00
PFOA_2	413.0 / 169.0	2.72	13C8-PFOA	421.0 / 376.0	99944.79	250.00
PFNA_1	463.0 / 419.0	3.12	13C9-PFNA	472.0 / 427.0	107097.27	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	107097.27	250.00
PFOS_1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	30467.12	239.25
PFOS_2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	30467.12	239.25
PFDA_1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	109699.44	250.00
PFDA_2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	109699.44	250.00
PFUnA_1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	96426.92	250.00
PFUnA_2	563.0 / 269.0	3.81	13C7-PFUnA	570.0 / 525.0	96426.92	250.00
PFDoA_1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	92848.98	250.00
PFDoA_2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	92848.98	250.00
PFTrDA_1	663.0 / 619.0	4.34	13C2-PFTeDA	715.0 / 670.0	74964.58	250.00
PFTrDA_2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	74964.58	250.00
PFTeDA_1	713.0 / 669.0	4.56	13C2-PFTeDA	715.0 / 670.0	74964.58	250.00
PFTeDA_2	713.0 / 169.0	4.56	13C2-PFTeDA	715.0 / 670.0	74964.58	250.00
NMeFOSAA_1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	14527.65	250.00
NMeFOSAA_2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	14527.65	250.00
NEtFOSAA_1	584.0 / 419.0	3.80	d5-EtFOSAA	589.0 / 419.0	16331.01	250.00
NEtFOSAA_2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	16331.01	250.00

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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	2018-09-28T15:12:17	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	33701.48	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	33701.48	232.25
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	81676.40	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	81676.40	250.00
PFHpA_1	363.0 / 319.0	2.29	13C8-PFOA	421.0 / 376.0	106516.04	250.00
PFHpA_2	363.0 / 169.0	2.29	13C8-PFOA	421.0 / 376.0	106516.04	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	27209.25	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	27209.25	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	106516.04	250.00
PFOA_2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	106516.04	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	112221.03	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	112221.03	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	33808.32	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	33808.32	239.25
PFDA_1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	105677.83	250.00
PFDA_2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	105677.83	250.00
PFUnA_1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	99594.50	250.00
PFUnA_2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	99594.50	250.00
PFDoA_1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	100791.33	250.00
PFDoA_2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	100791.33	250.00
PFTrDA_1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	73684.22	250.00
PFTrDA_2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	73684.22	250.00
PFTeDA_1	713.0 / 669.0	4.55	13C2-PFTeDA	715.0 / 670.0	73684.22	250.00
PFTeDA_2	713.0 / 169.0	4.55	13C2-PFTeDA	715.0 / 670.0	73684.22	250.00
NMeFOSAA_1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	11719.30	250.00
NMeFOSAA_2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	11719.30	250.00
NEtFOSAA_1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	15869.68	250.00
NEtFOSAA_2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	15869.68	250.00

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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	2018-09-28T15:23:09	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	39030.08	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	39030.08	232.25
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	83468.51	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	83468.51	250.00
PFHpA_1	363.0 / 319.0	2.29	13C8-PFOA	421.0 / 376.0	114582.35	250.00
PFHpA_2	363.0 / 169.0	2.29	13C8-PFOA	421.0 / 376.0	114582.35	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	31859.13	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	31859.13	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	114582.35	250.00
PFOA_2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	114582.35	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	116657.97	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	116657.97	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	34562.36	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	34562.36	239.25
PFDA_1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	120173.94	250.00
PFDA_2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	120173.94	250.00
PFUnA_1	563.0 / 519.0	3.78	13C7-PFUnA	570.0 / 525.0	103620.89	250.00
PFUnA_2	563.0 / 269.0	3.78	13C7-PFUnA	570.0 / 525.0	103620.89	250.00
PFDoA_1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	103539.73	250.00
PFDoA_2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	103539.73	250.00
PFTrDA_1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	82269.11	250.00
PFTrDA_2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	82269.11	250.00
PFTeDA_1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	82269.11	250.00
PFTeDA_2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	82269.11	250.00
NMeFOSAA_1	570.0 / 419.0	3.61	d3-MeFOSAA	573.0 / 419.0	17462.71	250.00
NMeFOSAA_2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	17462.71	250.00
NEtFOSAA_1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	15824.80	250.00
NEtFOSAA_2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	15824.80	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	2018-09-28T15:34:02	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	38751.25	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	38751.25	232.25
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	91253.07	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	91253.07	250.00
PFHpA_1	363.0 / 319.0	2.28	13C8-PFOA	421.0 / 376.0	114455.97	250.00
PFHpA_2	363.0 / 169.0	2.28	13C8-PFOA	421.0 / 376.0	114455.97	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	29890.57	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	29890.57	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	114455.97	250.00
PFOA_2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	114455.97	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	114820.46	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	114820.46	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	35633.00	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	35633.00	239.25
PFDA_1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	110406.06	250.00
PFDA_2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	110406.06	250.00
PFUnA_1	563.0 / 519.0	3.78	13C7-PFUnA	570.0 / 525.0	95364.03	250.00
PFUnA_2	563.0 / 269.0	3.78	13C7-PFUnA	570.0 / 525.0	95364.03	250.00
PFDoA_1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	107343.24	250.00
PFDoA_2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	107343.24	250.00
PFTrDA_1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	80578.20	250.00
PFTrDA_2	663.0 / 169.0	4.31	13C2-PFTeDA	715.0 / 670.0	80578.20	250.00
PFTeDA_1	713.0 / 669.0	4.53	13C2-PFTeDA	715.0 / 670.0	80578.20	250.00
PFTeDA_2	713.0 / 169.0	4.53	13C2-PFTeDA	715.0 / 670.0	80578.20	250.00
NMeFOSAA_1	570.0 / 419.0	3.61	d3-MeFOSAA	573.0 / 419.0	15932.68	250.00
NMeFOSAA_2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	15932.68	250.00
NEtFOSAA_1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	15763.93	250.00
NEtFOSAA_2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	15763.93	250.00

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Summary Internal Standard Report

Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:44:53	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	35585.31	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	35585.31	232.25
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	79998.50	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	79998.50	250.00
PFHpA_1	363.0 / 319.0	2.28	13C8-PFOA	421.0 / 376.0	104187.25	250.00
PFHpA_2	363.0 / 169.0	2.28	13C8-PFOA	421.0 / 376.0	104187.25	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	28497.55	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	28497.55	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	104187.25	250.00
PFOA_2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	104187.25	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	100976.67	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	100976.67	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	33465.16	239.25
PFOS_2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	33465.16	239.25
PFDA_1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	104119.37	250.00
PFDA_2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	104119.37	250.00
PFUnA_1	563.0 / 519.0	3.78	13C7-PFUnA	570.0 / 525.0	84489.59	250.00
PFUnA_2	563.0 / 269.0	3.78	13C7-PFUnA	570.0 / 525.0	84489.59	250.00
PFDoA_1	613.0 / 569.0	4.06	13C2-PFDoA	615.0 / 570.0	103536.73	250.00
PFDoA_2	613.0 / 319.0	4.06	13C2-PFDoA	615.0 / 570.0	103536.73	250.00
PFTrDA_1	663.0 / 619.0	4.31	13C2-PFTeDA	715.0 / 670.0	77538.96	250.00
PFTrDA_2	663.0 / 169.0	4.31	13C2-PFTeDA	715.0 / 670.0	77538.96	250.00
PFTeDA_1	713.0 / 669.0	4.53	13C2-PFTeDA	715.0 / 670.0	77538.96	250.00
PFTeDA_2	713.0 / 169.0	4.53	13C2-PFTeDA	715.0 / 670.0	77538.96	250.00
NMeFOSAA_1	570.0 / 419.0	3.61	d3-MeFOSAA	573.0 / 419.0	15721.34	250.00
NMeFOSAA_2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	15721.34	250.00
NEtFOSAA_1	584.0 / 419.0	3.77	d5-EtFOSAA	589.0 / 419.0	13310.57	250.00
NEtFOSAA_2	584.0 / 483.0	3.77	d5-EtFOSAA	589.0 / 419.0	13310.57	250.00

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Summary Internal Standard Report

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Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:55:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	40273.22	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	40273.22	232.25
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	87273.08	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	87273.08	250.00
PFHpA_1	363.0 / 319.0	2.28	13C8-PFOA	421.0 / 376.0	99524.96	250.00
PFHpA_2	363.0 / 169.0	2.28	13C8-PFOA	421.0 / 376.0	99524.96	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	27301.78	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	27301.78	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	99524.96	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	99524.96	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	97314.79	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	97314.79	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	31904.60	239.25
PFOS_2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	31904.60	239.25
PFDA_1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	100376.80	250.00
PFDA_2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	100376.80	250.00
PFUnA_1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	94690.46	250.00
PFUnA_2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	94690.46	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	110938.00	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	110938.00	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	92170.66	250.00
PFTrDA_2	663.0 / 169.0	4.30	13C2-PFTeDA	715.0 / 670.0	92170.66	250.00
PFTeDA_1	713.0 / 669.0	4.52	13C2-PFTeDA	715.0 / 670.0	92170.66	250.00
PFTeDA_2	713.0 / 169.0	4.52	13C2-PFTeDA	715.0 / 670.0	92170.66	250.00
NMeFOSAA_1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	17503.97	250.00
NMeFOSAA_2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	17503.97	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	14645.51	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	14645.51	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	2018-09-28T14:50:32	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.09	13C2-PFDA	515.0 / 470.0	94102.14	250.00
d3-MeFOSAA	573.0 / 419.0	3.63	13C4-PFOS	503.0 / 99.0	28187.18	239.25
d5-EtFOSAA	589.0 / 419.0	3.80	13C4-PFOS	503.0 / 99.0	28187.18	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	87057.14	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	87057.14	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	87057.14	250.00
13C9-PFNA	472.0 / 427.0	3.11	13C2-PFOA	415.0 / 370.0	87057.14	250.00
13C6-PFDA	519.0 / 474.0	3.47	13C2-PFDA	515.0 / 470.0	94102.14	250.00
13C7-PFUnA	570.0 / 525.0	3.80	13C2-PFDA	515.0 / 470.0	94102.14	250.00
13C2-PFTeDA	715.0 / 670.0	4.57	13C2-PFDA	515.0 / 470.0	94102.14	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	28187.18	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	28187.18	239.25
13C8-PFOS	507.0 / 99.0	3.11	13C4-PFOS	503.0 / 99.0	28187.18	239.25

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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	2018-09-28T15:01:25	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.08	13C2-PFDA	515.0 / 470.0	92955.61	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	27512.23	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	27512.23	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	98243.77	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	98243.77	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	98243.77	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	98243.77	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	92955.61	250.00
13C7-PFUnA	570.0 / 525.0	3.79	13C2-PFDA	515.0 / 470.0	92955.61	250.00
13C2-PFTeDA	715.0 / 670.0	4.56	13C2-PFDA	515.0 / 470.0	92955.61	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	27512.23	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	27512.23	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	27512.23	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	2018-09-28T15:12:17	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	102230.58	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	34018.77	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	34018.77	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	92636.33	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	92636.33	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	92636.33	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	92636.33	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	102230.58	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	102230.58	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	102230.58	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	34018.77	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	34018.77	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	34018.77	239.25

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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	2018-09-28T15:23:09	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.06	13C2-PFDA	515.0 / 470.0	108147.37	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	31168.47	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	31168.47	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	100679.55	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	100679.55	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	100679.55	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	100679.55	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	108147.37	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	108147.37	250.00
13C2-PFTeDA	715.0 / 670.0	4.53	13C2-PFDA	515.0 / 470.0	108147.37	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	31168.47	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	31168.47	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	31168.47	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	2018-09-28T15:34:02	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.06	13C2-PFDA	515.0 / 470.0	104139.21	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	32854.70	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	32854.70	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	103610.26	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	103610.26	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	103610.26	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	103610.26	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	104139.21	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	104139.21	250.00
13C2-PFTeDA	715.0 / 670.0	4.53	13C2-PFDA	515.0 / 470.0	104139.21	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	32854.70	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	32854.70	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	32854.70	239.25

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Summary Internal Standard Report

Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:44:53	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.05	13C2-PFDA	515.0 / 470.0	100143.92	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	27538.74	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	27538.74	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	89161.30	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	89161.30	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	89161.30	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	89161.30	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	100143.92	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	100143.92	250.00
13C2-PFTeDA	715.0 / 670.0	4.52	13C2-PFDA	515.0 / 470.0	100143.92	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	27538.74	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	27538.74	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	27538.74	239.25

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Summary Internal Standard Report

Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:55:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	107623.75	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	32021.18	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	32021.18	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	101085.07	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	101085.07	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	101085.07	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	101085.07	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	107623.75	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	107623.75	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	107623.75	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	32021.18	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	32021.18	239.25
13C8-PFOS	507.0 / 99.0	3.07	13C4-PFOS	503.0 / 99.0	32021.18	239.25

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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	2018-10-02T20:29:24	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	26020.43	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	26020.43	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	60839.35	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	60839.35	250.00
PFHpA_1	363.0 / 319.0	2.26	13C8-PFOA	421.0 / 376.0	90480.96	250.00
PFHpA_2	363.0 / 169.0	2.25	13C8-PFOA	421.0 / 376.0	90480.96	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	25904.86	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	25904.86	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	90480.96	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	90480.96	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	87743.93	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	87743.93	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	26559.53	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	26559.53	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	95919.39	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	95919.39	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	92354.90	250.00
PFUnA_2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	92354.90	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	87134.88	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	87134.88	250.00
PFTrDA_1	663.0 / 619.0	4.27	13C2-PFTeDA	715.0 / 670.0	70956.42	250.00
PFTrDA_2	663.0 / 169.0	4.27	13C2-PFTeDA	715.0 / 670.0	70956.42	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	70956.42	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	70956.42	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	12547.82	250.00
NMeFOSAA_2	570.0 / 512.0	3.58	d3-MeFOSAA	573.0 / 419.0	12547.82	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	17932.99	250.00
NEtFOSAA_2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	17932.99	250.00

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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	2018-10-02T20:40:16	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	28333.04	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	28333.04	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	65830.12	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	65830.12	250.00
PFHpA_1	363.0 / 319.0	2.26	13C8-PFOA	421.0 / 376.0	100736.31	250.00
PFHpA_2	363.0 / 169.0	2.26	13C8-PFOA	421.0 / 376.0	100736.31	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	25906.84	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	25906.84	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	100736.31	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	100736.31	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	98370.95	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	98370.95	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	29376.46	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	29376.46	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	107844.80	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	107844.80	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	111688.97	250.00
PFUnA_2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	111688.97	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	101652.85	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	101652.85	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	78363.68	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	78363.68	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	78363.68	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	78363.68	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	15775.16	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	15775.16	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	17285.08	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	17285.08	250.00

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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	2018-10-02T20:51:08	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	30644.87	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	30644.87	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	71972.42	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	71972.42	250.00
PFHpA_1	363.0 / 319.0	2.26	13C8-PFOA	421.0 / 376.0	104073.60	250.00
PFHpA_2	363.0 / 169.0	2.26	13C8-PFOA	421.0 / 376.0	104073.60	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	28683.64	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	28683.64	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	104073.60	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	104073.60	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	102293.18	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	102293.18	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	31444.97	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	31444.97	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	109923.03	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	109923.03	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	115807.78	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	115807.78	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	103789.33	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	103789.33	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	82562.43	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	82562.43	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	82562.43	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	82562.43	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	17796.92	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	17796.92	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	19277.36	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	19277.36	250.00

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Summary Internal Standard Report

Sample Name	KB85	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:02:00	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	30818.90	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	30818.90	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	72928.84	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	72928.84	250.00
PFHpA_1	363.0 / 319.0	2.25	13C8-PFOA	421.0 / 376.0	99886.80	250.00
PFHpA_2	363.0 / 169.0	2.26	13C8-PFOA	421.0 / 376.0	99886.80	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	27625.66	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	27625.66	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	99886.80	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	99886.80	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	101780.06	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	101780.06	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	30655.55	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	30655.55	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	110594.78	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	110594.78	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	118179.86	250.00
PFUnA_2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	118179.86	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	110922.95	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	110922.95	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	83907.10	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	83907.10	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	83907.10	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	83907.10	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	15300.02	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	15300.02	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	18645.47	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	18645.47	250.00

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Summary Internal Standard Report

Sample Name	KB69	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:12:52	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	30950.40	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	30950.40	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	72332.04	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	72332.04	250.00
PFHpA_1	363.0 / 319.0	2.26	13C8-PFOA	421.0 / 376.0	105135.49	250.00
PFHpA_2	363.0 / 169.0	2.26	13C8-PFOA	421.0 / 376.0	105135.49	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	31638.65	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	31638.65	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	105135.49	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	105135.49	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	105304.08	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	105304.08	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	32730.98	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	32730.98	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	116147.20	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	116147.20	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	113999.77	250.00
PFUnA_2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	113999.77	250.00
PFDoA_1	613.0 / 569.0	4.01	13C2-PFDoA	615.0 / 570.0	113451.22	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	113451.22	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	88706.06	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	88706.06	250.00
PFTeDA_1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	88706.06	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	88706.06	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	17369.40	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	17369.40	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	16401.88	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	16401.88	250.00

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Summary Internal Standard Report

Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:23:43	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	28524.54	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	28524.54	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	65801.13	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	65801.13	250.00
PFHpA_1	363.0 / 319.0	2.26	13C8-PFOA	421.0 / 376.0	90656.16	250.00
PFHpA_2	363.0 / 169.0	2.26	13C8-PFOA	421.0 / 376.0	90656.16	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	23900.05	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	23900.05	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	90656.16	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	90656.16	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	91611.88	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	91611.88	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	27743.07	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	27743.07	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	95095.08	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	95095.08	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	95374.73	250.00
PFUnA_2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	95374.73	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	97065.24	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	97065.24	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	77093.72	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	77093.72	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	77093.72	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	77093.72	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	14070.03	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	14070.03	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	15034.20	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	15034.20	250.00

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Summary Internal Standard Report

Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:34:34	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	30662.38	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	30662.38	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	70908.58	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	70908.58	250.00
PFHpA_1	363.0 / 319.0	2.26	13C8-PFOA	421.0 / 376.0	84087.10	250.00
PFHpA_2	363.0 / 169.0	2.26	13C8-PFOA	421.0 / 376.0	84087.10	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	25350.53	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	25350.53	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	84087.10	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	84087.10	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	93888.84	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	93888.84	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	28702.58	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	28702.58	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	92759.58	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	92759.58	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	93310.68	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	93310.68	250.00
PFDoA_1	613.0 / 569.0	4.01	13C2-PFDoA	615.0 / 570.0	107713.65	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	107713.65	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	92562.83	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	92562.83	250.00
PFTeDA_1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	92562.83	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	92562.83	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	16114.52	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	16114.52	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	13034.38	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	13034.38	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	2018-10-02T20:29:24	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	97981.25	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	28375.99	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	28375.99	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	86508.05	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	86508.05	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	86508.05	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	86508.05	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	97981.25	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	97981.25	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	97981.25	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	28375.99	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	28375.99	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	28375.99	239.25

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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	2018-10-02T20:40:16	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	109800.44	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	26984.45	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26984.45	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	92232.15	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	92232.15	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	92232.15	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	92232.15	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	109800.44	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	109800.44	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	109800.44	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	26984.45	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	26984.45	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	26984.45	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	2018-10-02T20:51:08	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	108731.85	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	32849.86	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	32849.86	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	92713.17	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	92713.17	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	92713.17	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	92713.17	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	108731.85	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	108731.85	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	108731.85	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	32849.86	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	32849.86	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	32849.86	239.25

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Summary Internal Standard Report

Sample Name	KB85	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:02:00	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	102202.45	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	30017.37	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	30017.37	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	93478.25	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	93478.25	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	93478.25	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	93478.25	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	102202.45	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	102202.45	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	102202.45	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	30017.37	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	30017.37	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	30017.37	239.25

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Summary Internal Standard Report

Sample Name	KB69	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:12:52	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	111005.28	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	31119.81	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	31119.81	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	87666.86	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	87666.86	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	87666.86	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	87666.86	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	111005.28	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	111005.28	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	111005.28	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	31119.81	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	31119.81	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	31119.81	239.25

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Summary Internal Standard Report

Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:23:43	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	92879.31	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	25887.81	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	25887.81	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	79822.03	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	79822.03	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	79822.03	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	79822.03	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	92879.31	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	92879.31	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	92879.31	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	25887.81	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	25887.81	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	25887.81	239.25

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Summary Internal Standard Report

Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:34:34	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	101908.02	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	28245.72	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	28245.72	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	85385.75	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	85385.75	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	85385.75	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	85385.75	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	101908.02	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	101908.02	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	101908.02	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	28245.72	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	28245.72	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	28245.72	239.25

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QC Summary Report

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Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:17:28	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.55	1040.754930	1010.00	103.05
PFBS_2	298.9 / 99.0	1.55	1024.762839	1010.00	101.46
PFHxA_1	313.0 / 269.0	1.87	1008.639264	1010.00	99.87
PFHxA_2	313.0 / 119.0	1.87	1107.779726	1010.00	109.68
PFHpA_1	363.0 / 319.0	2.28	963.105576	1000.00	96.31
PFHpA_2	363.0 / 169.0	2.28	998.493192	1000.00	99.85
PFHxS_1	399.0 / 80.0	2.30	1031.095491	1010.00	102.09
PFHxS_2	399.0 / 99.0	2.30	1020.815140	1010.00	101.07
PFOA_1	413.0 / 369.0	2.69	1023.702709	1000.00	102.37
PFOA_2	413.0 / 169.0	2.69	1019.837190	1000.00	101.98
PFNA_1	463.0 / 419.0	3.09	1058.273543	1000.00	105.83
PFNA_2	463.0 / 219.0	3.09	1019.245660	1000.00	101.92
PFOS_1	499.0 / 80.0	3.09	1144.894229	1000.00	114.49
PFOS_2	499.0 / 99.0	3.09	1187.792610	1000.00	118.78
PFDA_1	513.0 / 469.0	3.44	950.673829	1000.00	95.07
PFDA_2	513.0 / 219.0	3.44	1044.557425	1000.00	104.46
PFUnA_1	563.0 / 519.0	3.77	1092.971607	1000.00	109.30
PFUnA_2	563.0 / 269.0	3.77	1110.585774	1000.00	111.06
PFDoA_1	613.0 / 569.0	4.05	1081.606135	1000.00	108.16
PFDoA_2	613.0 / 319.0	4.05	1111.886742	1000.00	111.19
PFTrDA_1	663.0 / 619.0	4.30	1096.729926	1000.00	109.67
PFTrDA_2	663.0 / 169.0	4.29	1050.277344	1000.00	105.03
PFTeDA_1	713.0 / 669.0	4.51	1084.577465	1000.00	108.46
PFTeDA_2	713.0 / 169.0	4.51	1051.005537	1000.00	105.10
NMeFOSAA_1	570.0 / 419.0	3.60	1274.709656	1000.00	127.47
NMeFOSAA_2	570.0 / 512.0	3.60	1279.155192	1000.00	127.92
NEtFOSAA_1	584.0 / 419.0	3.76	939.853398	1000.00	93.99
NEtFOSAA_2	584.0 / 483.0	3.76	1095.304572	1000.00	109.53

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QC Summary Report

Sample Name	KA89 CCV	**Injection Vial**	34
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T20:49:08	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	1039.246796	1010.00	102.90
PFBS_2	298.9 / 99.0	1.54	1044.196993	1010.00	103.39
PFHxA_1	313.0 / 269.0	1.86	968.337993	1010.00	95.88
PFHxA_2	313.0 / 119.0	1.86	902.827185	1010.00	89.39
PFHpA_1	363.0 / 319.0	2.26	842.015433	1000.00	84.20
PFHpA_2	363.0 / 169.0	2.26	773.585907	1000.00	77.36
PFHxS_1	399.0 / 80.0	2.28	969.000794	1010.00	95.94
PFHxS_2	399.0 / 99.0	2.28	997.248708	1010.00	98.74
PFOA_1	413.0 / 369.0	2.67	994.817942	1000.00	99.48
PFOA_2	413.0 / 169.0	2.67	897.676623	1000.00	89.77
PFNA_1	463.0 / 419.0	3.06	1021.881846	1000.00	102.19
PFNA_2	463.0 / 219.0	3.06	995.331470	1000.00	99.53
PFOS_1	499.0 / 80.0	3.06	990.610631	1000.00	99.06
PFOS_2	499.0 / 99.0	3.06	1010.935326	1000.00	101.09
PFDA_1	513.0 / 469.0	3.42	1025.668236	1000.00	102.57
PFDA_2	513.0 / 219.0	3.42	1101.504368	1000.00	110.15
PFUnA_1	563.0 / 519.0	3.74	936.647308	1000.00	93.66
PFUnA_2	563.0 / 269.0	3.74	939.247478	1000.00	93.92
PFDoA_1	613.0 / 569.0	4.02	1090.389463	1000.00	109.04
PFDoA_2	613.0 / 319.0	4.02	1099.420288	1000.00	109.94
PFTrDA_1	663.0 / 619.0	4.26	1035.643832	1000.00	103.56
PFTrDA_2	663.0 / 169.0	4.26	975.632696	1000.00	97.56
PFTeDA_1	713.0 / 669.0	4.48	966.003135	1000.00	96.60
PFTeDA_2	713.0 / 169.0	4.48	943.101435	1000.00	94.31
NMeFOSAA_1	570.0 / 419.0	3.57	1029.456842	1000.00	102.95
NMeFOSAA_2	570.0 / 512.0	3.57	997.208182	1000.00	99.72
NEtFOSAA_1	584.0 / 419.0	3.73	859.576231	1000.00	85.96
NEtFOSAA_2	584.0 / 483.0	3.73	855.916972	1000.00	85.59

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QC Summary Report

Sample Name	KA90 CCV	**Injection Vial**	12
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:59:39	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2495.662831	2525.00	98.84
PFBS_2	298.9 / 99.0	1.54	2460.478402	2525.00	97.44
PFHxA_1	313.0 / 269.0	1.85	2509.773351	2525.00	99.40
PFHxA_2	313.0 / 119.0	1.85	2470.944145	2525.00	97.86
PFHpA_1	363.0 / 319.0	2.26	2209.438467	2500.00	88.38
PFHpA_2	363.0 / 169.0	2.26	2246.885308	2500.00	89.88
PFHxS_1	399.0 / 80.0	2.28	2141.806452	2525.00	84.82
PFHxS_2	399.0 / 99.0	2.28	2331.014528	2525.00	92.32
PFOA_1	413.0 / 369.0	2.67	2348.323019	2500.00	93.93
PFOA_2	413.0 / 169.0	2.67	2341.166143	2500.00	93.65
PFNA_1	463.0 / 419.0	3.06	2300.094095	2500.00	92.00
PFNA_2	463.0 / 219.0	3.06	2406.773784	2500.00	96.27
PFOS_1	499.0 / 80.0	3.06	2469.152980	2500.00	98.77
PFOS_2	499.0 / 99.0	3.06	2573.005575	2500.00	102.92
PFDA_1	513.0 / 469.0	3.42	2596.141108	2500.00	103.85
PFDA_2	513.0 / 219.0	3.41	2554.739389	2500.00	102.19
PFUnA_1	563.0 / 519.0	3.74	2502.268636	2500.00	100.09
PFUnA_2	563.0 / 269.0	3.73	2393.632167	2500.00	95.75
PFDoA_1	613.0 / 569.0	4.02	2605.357289	2500.00	104.21
PFDoA_2	613.0 / 319.0	4.02	2602.176244	2500.00	104.09
PFTrDA_1	663.0 / 619.0	4.26	2756.075928	2500.00	110.24
PFTrDA_2	663.0 / 169.0	4.26	2713.140081	2500.00	108.53
PFTeDA_1	713.0 / 669.0	4.48	2576.481825	2500.00	103.06
PFTeDA_2	713.0 / 169.0	4.47	2571.162196	2500.00	102.85
NMeFOSAA_1	570.0 / 419.0	3.57	3155.997358	2500.00	126.24
NMeFOSAA_2	570.0 / 512.0	3.57	3044.563888	2500.00	121.78
NEtFOSAA_1	584.0 / 419.0	3.73	2571.004970	2500.00	102.84
NEtFOSAA_2	584.0 / 483.0	3.73	2416.681542	2500.00	96.67

Sample Name	KA89 CCV	**Injection Vial**	24
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:10:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	907.220285	1010.00	89.82
PFBS_2	298.9 / 99.0	1.54	901.826203	1010.00	89.29
PFHxA_1	313.0 / 269.0	1.85	914.285305	1010.00	90.52
PFHxA_2	313.0 / 119.0	1.85	939.186518	1010.00	92.99
PFHpA_1	363.0 / 319.0	2.26	828.056397	1000.00	82.81
PFHpA_2	363.0 / 169.0	2.26	924.076345	1000.00	92.41
PFHxS_1	399.0 / 80.0	2.28	879.285051	1010.00	87.06
PFHxS_2	399.0 / 99.0	2.28	903.488129	1010.00	89.45
PFOA_1	413.0 / 369.0	2.67	868.164409	1000.00	86.82
PFOA_2	413.0 / 169.0	2.67	907.570642	1000.00	90.76
PFNA_1	463.0 / 419.0	3.06	1027.092064	1000.00	102.71
PFNA_2	463.0 / 219.0	3.06	1096.857152	1000.00	109.69
PFOS_1	499.0 / 80.0	3.06	984.439813	1000.00	98.44
PFOS_2	499.0 / 99.0	3.06	1038.567082	1000.00	103.86
PFDA_1	513.0 / 469.0	3.41	947.289164	1000.00	94.73
PFDA_2	513.0 / 219.0	3.41	894.223638	1000.00	89.42
PFUnA_1	563.0 / 519.0	3.73	913.678219	1000.00	91.37
PFUnA_2	563.0 / 269.0	3.73	977.227754	1000.00	97.72
PFDoA_1	613.0 / 569.0	4.01	1085.435352	1000.00	108.54
PFDoA_2	613.0 / 319.0	4.01	973.819076	1000.00	97.38
PFTrDA_1	663.0 / 619.0	4.25	1085.346108	1000.00	108.53
PFTrDA_2	663.0 / 169.0	4.25	1096.411135	1000.00	109.64
PFTeDA_1	713.0 / 669.0	4.47	988.433868	1000.00	98.84
PFTeDA_2	713.0 / 169.0	4.47	1037.047094	1000.00	103.70
NMeFOSAA_1	570.0 / 419.0	3.57	1201.951001	1000.00	120.20
NMeFOSAA_2	570.0 / 512.0	3.57	1220.615427	1000.00	122.06
NEtFOSAA_1	584.0 / 419.0	3.73	992.937429	1000.00	99.29
NEtFOSAA_2	584.0 / 483.0	3.73	944.604080	1000.00	94.46

Sample Name	KA90 CCV	**Injection Vial**	29
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T02:04:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2413.650956	2525.00	95.59
PFBS_2	298.9 / 99.0	1.53	2435.027966	2525.00	96.44
PFHxA_1	313.0 / 269.0	1.85	2385.490039	2525.00	94.47
PFHxA_2	313.0 / 119.0	1.85	2391.184158	2525.00	94.70
PFHpA_1	363.0 / 319.0	2.25	2125.028618	2500.00	85.00
PFHpA_2	363.0 / 169.0	2.25	2098.546347	2500.00	83.94
PFHxS_1	399.0 / 80.0	2.28	2289.614132	2525.00	90.68
PFHxS_2	399.0 / 99.0	2.28	2354.242660	2525.00	93.24
PFOA_1	413.0 / 369.0	2.66	2418.561596	2500.00	96.74
PFOA_2	413.0 / 169.0	2.66	2299.849510	2500.00	91.99
PFNA_1	463.0 / 419.0	3.06	2345.165748	2500.00	93.81
PFNA_2	463.0 / 219.0	3.06	2344.890845	2500.00	93.80
PFOS_1	499.0 / 80.0	3.06	2246.049883	2500.00	89.84
PFOS_2	499.0 / 99.0	3.06	2391.869583	2500.00	95.67
PFDA_1	513.0 / 469.0	3.41	2468.341626	2500.00	98.73
PFDA_2	513.0 / 219.0	3.41	2599.821839	2500.00	103.99
PFUnA_1	563.0 / 519.0	3.73	2414.894242	2500.00	96.60
PFUnA_2	563.0 / 269.0	3.73	2382.484416	2500.00	95.30
PFDoA_1	613.0 / 569.0	4.01	2599.283206	2500.00	103.97
PFDoA_2	613.0 / 319.0	4.01	2575.234316	2500.00	103.01
PFTrDA_1	663.0 / 619.0	4.25	2681.627822	2500.00	107.27
PFTrDA_2	663.0 / 169.0	4.25	2601.799646	2500.00	104.07
PFTeDA_1	713.0 / 669.0	4.47	2552.369417	2500.00	102.09
PFTeDA_2	713.0 / 169.0	4.47	2526.113535	2500.00	101.04
NMeFOSAA_1	570.0 / 419.0	3.56	2810.904434	2500.00	112.44
NMeFOSAA_2	570.0 / 512.0	3.56	2657.295409	2500.00	106.29
NEtFOSAA_1	584.0 / 419.0	3.72	2379.182402	2500.00	95.17
NEtFOSAA_2	584.0 / 483.0	3.72	1844.129973	2500.00	73.77

QC Summary Report

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Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:17:28	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.04	229.789216	250.00	91.92
d3-MeFOSAA	573.0 / 419.0	3.59	201.427243	250.00	80.57
d5-EtFOSAA	589.0 / 419.0	3.75	237.885802	250.00	95.15
13C5-PFHxA	318.0 / 273.0	1.86	249.631959	250.00	99.85
13C4-PFHpA	367.0 / 322.0	2.27	255.113816	250.00	102.05
13C8-PFOA	421.0 / 376.0	2.68	262.574404	250.00	105.03
13C9-PFNA	472.0 / 427.0	3.08	260.551141	250.00	104.22
13C6-PFDA	519.0 / 474.0	3.43	253.483622	250.00	101.39
13C7-PFUnA	570.0 / 525.0	3.75	224.426508	250.00	89.77
13C2-PFTeDA	715.0 / 670.0	4.51	228.880383	250.00	91.55
13C3-PFBS	302.0 / 99.0	1.53	198.675373	232.25	85.54
13C3-PFHxS	402.0 / 99.0	2.29	212.842878	236.50	90.00
13C8-PFOS	507.0 / 99.0	3.08	188.688608	239.25	78.87

Sample Name	KA89 CCV	**Injection Vial**	34
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T20:49:08	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.01	242.421604	250.00	96.97
d3-MeFOSAA	573.0 / 419.0	3.57	233.208151	250.00	93.28
d5-EtFOSAA	589.0 / 419.0	3.73	283.686155	250.00	113.47
13C5-PFHxA	318.0 / 273.0	1.84	230.908308	250.00	92.36
13C4-PFHpA	367.0 / 322.0	2.25	236.779806	250.00	94.71
13C8-PFOA	421.0 / 376.0	2.66	244.903235	250.00	97.96
13C9-PFNA	472.0 / 427.0	3.05	230.110469	250.00	92.04
13C6-PFDA	519.0 / 474.0	3.40	244.637758	250.00	97.86
13C7-PFUnA	570.0 / 525.0	3.72	282.487925	250.00	113.00
13C2-PFTeDA	715.0 / 670.0	4.47	250.348620	250.00	100.14
13C3-PFBS	302.0 / 99.0	1.52	213.468069	232.25	91.91
13C3-PFHxS	402.0 / 99.0	2.27	231.006291	236.50	97.68
13C8-PFOS	507.0 / 99.0	3.05	228.434771	239.25	95.48

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QC Summary Report

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Sample Name	KA90 CCV	**Injection Vial**	12
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:59:39	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.01	254.445512	250.00	101.78
d3-MeFOSAA	573.0 / 419.0	3.56	213.953772	250.00	85.58
d5-EtFOSAA	589.0 / 419.0	3.72	255.783857	250.00	102.31
13C5-PFHxA	318.0 / 273.0	1.84	238.408202	250.00	95.36
13C4-PFHpA	367.0 / 322.0	2.25	251.572049	250.00	100.63
13C8-PFOA	421.0 / 376.0	2.66	255.066728	250.00	102.03
13C9-PFNA	472.0 / 427.0	3.05	240.855819	250.00	96.34
13C6-PFDA	519.0 / 474.0	3.40	247.603168	250.00	99.04
13C7-PFUnA	570.0 / 525.0	3.72	270.311315	250.00	108.12
13C2-PFTeDA	715.0 / 670.0	4.47	240.453182	250.00	96.18
13C3-PFBS	302.0 / 99.0	1.52	232.647021	232.25	100.17
13C3-PFHxS	402.0 / 99.0	2.27	268.592561	236.50	113.57
13C8-PFOS	507.0 / 99.0	3.05	244.964734	239.25	102.39

QC Summary Report

Sample Name	KA89 CCV	**Injection Vial**	24
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:10:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.00	239.526622	250.00	95.81
d3-MeFOSAA	573.0 / 419.0	3.56	211.875500	250.00	84.75
d5-EtFOSAA	589.0 / 419.0	3.72	257.457034	250.00	102.98
13C5-PFHxA	318.0 / 273.0	1.84	248.446872	250.00	99.38
13C4-PFHpA	367.0 / 322.0	2.25	232.973034	250.00	93.19
13C8-PFOA	421.0 / 376.0	2.66	268.232367	250.00	107.29
13C9-PFNA	472.0 / 427.0	3.04	226.556797	250.00	90.62
13C6-PFDA	519.0 / 474.0	3.40	258.648990	250.00	103.46
13C7-PFUnA	570.0 / 525.0	3.72	284.455780	250.00	113.78
13C2-PFTeDA	715.0 / 670.0	4.46	235.337199	250.00	94.13
13C3-PFBS	302.0 / 99.0	1.52	237.310134	232.25	102.18
13C3-PFHxS	402.0 / 99.0	2.27	259.407898	236.50	109.69
13C8-PFOS	507.0 / 99.0	3.04	251.759585	239.25	105.23

Sample Name	KA90 CCV	**Injection Vial**	29
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T02:04:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.00	261.045728	250.00	104.42
d3-MeFOSAA	573.0 / 419.0	3.55	230.797203	250.00	92.32
d5-EtFOSAA	589.0 / 419.0	3.71	272.679078	250.00	109.07
13C5-PFHxA	318.0 / 273.0	1.83	248.760498	250.00	99.50
13C4-PFHpA	367.0 / 322.0	2.24	224.643207	250.00	89.86
13C8-PFOA	421.0 / 376.0	2.65	262.633601	250.00	105.05
13C9-PFNA	472.0 / 427.0	3.04	244.082524	250.00	97.63
13C6-PFDA	519.0 / 474.0	3.39	249.437492	250.00	99.77
13C7-PFUnA	570.0 / 525.0	3.71	280.436308	250.00	112.17
13C2-PFTeDA	715.0 / 670.0	4.46	243.385586	250.00	97.35
13C3-PFBS	302.0 / 99.0	1.51	216.129615	232.25	93.06
13C3-PFHxS	402.0 / 99.0	2.27	237.955670	236.50	100.62
13C8-PFOS	507.0 / 99.0	3.04	246.470012	239.25	103.02

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QC Summary Report

Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:56:17	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	943.217052	1010.00	93.39
PFBS_2	298.9 / 99.0	1.53	964.239014	1010.00	95.47
PFHxA_1	313.0 / 269.0	1.85	981.190263	1010.00	97.15
PFHxA_2	313.0 / 119.0	1.84	898.721556	1010.00	88.98
PFHpA_1	363.0 / 319.0	2.25	924.875295	1000.00	92.49
PFHpA_2	363.0 / 169.0	2.25	858.098408	1000.00	85.81
PFHxS_1	399.0 / 80.0	2.28	1078.568246	1010.00	106.79
PFHxS_2	399.0 / 99.0	2.28	1107.980285	1010.00	109.70
PFOA_1	413.0 / 369.0	2.66	960.425221	1000.00	96.04
PFOA_2	413.0 / 169.0	2.66	952.137082	1000.00	95.21
PFNA_1	463.0 / 419.0	3.06	945.313778	1000.00	94.53
PFNA_2	463.0 / 219.0	3.06	1010.303434	1000.00	101.03
PFOS_1	499.0 / 80.0	3.06	976.719387	1000.00	97.67
PFOS_2	499.0 / 99.0	3.06	947.874070	1000.00	94.79
PFDA_1	513.0 / 469.0	3.41	1005.163803	1000.00	100.52
PFDA_2	513.0 / 219.0	3.42	906.794324	1000.00	90.68
PFUnA_1	563.0 / 519.0	3.74	1082.119027	1000.00	108.21
PFUnA_2	563.0 / 269.0	3.74	1096.476169	1000.00	109.65
PFDoA_1	613.0 / 569.0	4.02	1070.389815	1000.00	107.04
PFDoA_2	613.0 / 319.0	4.02	1064.577516	1000.00	106.46
PFTrDA_1	663.0 / 619.0	4.26	1171.293378	1000.00	117.13
PFTrDA_2	663.0 / 169.0	4.26	1104.608191	1000.00	110.46
PFTeDA_1	713.0 / 669.0	4.48	1084.306311	1000.00	108.43
PFTeDA_2	713.0 / 169.0	4.47	1027.637802	1000.00	102.76
NMeFOSAA_1	570.0 / 419.0	3.57	1028.552195	1000.00	102.86
NMeFOSAA_2	570.0 / 512.0	3.57	996.595754	1000.00	99.66
NEtFOSAA_1	584.0 / 419.0	3.73	929.602169	1000.00	92.96
NEtFOSAA_2	584.0 / 483.0	3.73	907.711593	1000.00	90.77

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QC Summary Report

Sample Name	KB85 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:50:36	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	959.859531	1010.00	95.04
PFBS_2	298.9 / 99.0	1.53	941.549708	1010.00	93.22
PFHxA_1	313.0 / 269.0	1.85	974.655422	1010.00	96.50
PFHxA_2	313.0 / 119.0	1.85	958.992926	1010.00	94.95
PFHpA_1	363.0 / 319.0	2.25	879.249506	1000.00	87.92
PFHpA_2	363.0 / 169.0	2.25	798.001195	1000.00	79.80
PFHxS_1	399.0 / 80.0	2.28	1057.846530	1010.00	104.74
PFHxS_2	399.0 / 99.0	2.28	1085.409036	1010.00	107.47
PFOA_1	413.0 / 369.0	2.66	935.528742	1000.00	93.55
PFOA_2	413.0 / 169.0	2.66	909.263218	1000.00	90.93
PFNA_1	463.0 / 419.0	3.06	947.993787	1000.00	94.80
PFNA_2	463.0 / 219.0	3.06	965.382963	1000.00	96.54
PFOS_1	499.0 / 80.0	3.06	889.813620	1000.00	88.98
PFOS_2	499.0 / 99.0	3.06	948.345055	1000.00	94.83
PFDA_1	513.0 / 469.0	3.41	970.543840	1000.00	97.05
PFDA_2	513.0 / 219.0	3.41	882.357043	1000.00	88.24
PFUnA_1	563.0 / 519.0	3.74	927.792608	1000.00	92.78
PFUnA_2	563.0 / 269.0	3.74	1061.254446	1000.00	106.13
PFDoA_1	613.0 / 569.0	4.02	1010.192381	1000.00	101.02
PFDoA_2	613.0 / 319.0	4.02	941.591230	1000.00	94.16
PFTrDA_1	663.0 / 619.0	4.26	1055.747612	1000.00	105.57
PFTrDA_2	663.0 / 169.0	4.26	1039.905316	1000.00	103.99
PFTeDA_1	713.0 / 669.0	4.48	1036.901882	1000.00	103.69
PFTeDA_2	713.0 / 169.0	4.48	1027.933210	1000.00	102.79
NMeFOSAA_1	570.0 / 419.0	3.57	898.143634	1000.00	89.81
NMeFOSAA_2	570.0 / 512.0	3.57	987.234588	1000.00	98.72
NEtFOSAA_1	584.0 / 419.0	3.73	873.710066	1000.00	87.37
NEtFOSAA_2	584.0 / 483.0	3.73	812.685201	1000.00	81.27

Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:56:17	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.01	238.289349	250.00	95.32
d3-MeFOSAA	573.0 / 419.0	3.56	248.160940	250.00	99.26
d5-EtFOSAA	589.0 / 419.0	3.72	262.442849	250.00	104.98
13C5-PFHxA	318.0 / 273.0	1.83	261.385543	250.00	104.55
13C4-PFHpA	367.0 / 322.0	2.24	259.284727	250.00	103.71
13C8-PFOA	421.0 / 376.0	2.65	264.560193	250.00	105.82
13C9-PFNA	472.0 / 427.0	3.04	278.983309	250.00	111.59
13C6-PFDA	519.0 / 474.0	3.40	260.220892	250.00	104.09
13C7-PFUnA	570.0 / 525.0	3.72	237.393054	250.00	94.96
13C2-PFTeDA	715.0 / 670.0	4.47	228.395541	250.00	91.36
13C3-PFBS	302.0 / 99.0	1.51	230.753066	232.25	99.36
13C3-PFHxS	402.0 / 99.0	2.27	230.155771	236.50	97.32
13C8-PFOS	507.0 / 99.0	3.04	241.253639	239.25	100.84

Sample Name	KB85 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:50:36	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.01	275.625337	250.00	110.25
d3-MeFOSAA	573.0 / 419.0	3.56	252.045424	250.00	100.82
d5-EtFOSAA	589.0 / 419.0	3.72	268.790132	250.00	107.52
13C5-PFHxA	318.0 / 273.0	1.83	252.501904	250.00	101.00
13C4-PFHpA	367.0 / 322.0	2.24	252.217119	250.00	100.89
13C8-PFOA	421.0 / 376.0	2.65	264.875950	250.00	105.95
13C9-PFNA	472.0 / 427.0	3.04	258.386541	250.00	103.35
13C6-PFDA	519.0 / 474.0	3.40	293.308424	250.00	117.32
13C7-PFUnA	570.0 / 525.0	3.72	290.708723	250.00	116.28
13C2-PFTeDA	715.0 / 670.0	4.47	267.984899	250.00	107.19
13C3-PFBS	302.0 / 99.0	1.51	218.978528	232.25	94.29
13C3-PFHxS	402.0 / 99.0	2.27	213.577548	236.50	90.31
13C8-PFOS	507.0 / 99.0	3.04	246.118545	239.25	102.87

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Summary Quant Report

Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:17:28	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	428155.01	1040.754930	316.9	false
PFBS_2	298.9 / 99.0	1.55	124360.33	1024.762839	299.8	false
PFHxA_1	313.0 / 269.0	1.87	315420.65	1008.639264	34.7	false
PFHxA_2	313.0 / 119.0	1.87	25717.86	1107.779726	38.1	false
PFHpA_1	363.0 / 319.0	2.28	317377.55	963.105576	103.5	false
PFHpA_2	363.0 / 169.0	2.28	7081.46	998.493192	87.2	false
PFHxS_1	399.0 / 80.0	2.30	463018.72	1031.095491	264.0	false
PFHxS_2	399.0 / 99.0	2.30	128401.54	1020.815140	463.1	false
PFOA_1	413.0 / 369.0	2.69	428064.12	1023.702709	395.5	true
PFOA_2	413.0 / 169.0	2.69	28927.76	1019.837190	315.2	false
PFNA_1	463.0 / 419.0	3.09	423024.08	1058.273543	339.4	true
PFNA_2	463.0 / 219.0	3.09	119958.36	1019.245660	271.9	false
PFOS_1	499.0 / 80.0	3.09	602149.63	1144.894229	148.3	true
PFOS_2	499.0 / 99.0	3.09	107204.40	1187.792610	424.1	false
PFDA_1	513.0 / 469.0	3.44	442034.93	950.673829	330.7	true
PFDA_2	513.0 / 219.0	3.44	22429.37	1044.557425	211.2	false
PFUnA_1	563.0 / 519.0	3.77	401922.92	1092.971607	254.9	true
PFUnA_2	563.0 / 269.0	3.77	21993.31	1110.585774	190.3	false
PFDoA_1	613.0 / 569.0	4.05	375495.32	1081.606135	349.9	false
PFDoA_2	613.0 / 319.0	4.05	59650.45	1111.886742	329.5	false
PFTrDA_1	663.0 / 619.0	4.30	335463.03	1096.729926	478.0	false
PFTrDA_2	663.0 / 169.0	4.29	20471.99	1050.277344	310.6	false
PFTeDA_1	713.0 / 669.0	4.51	358215.65	1084.577465	1156.6	false
PFTeDA_2	713.0 / 169.0	4.51	16573.87	1051.005537	493.2	false
NMeFOSAA_1	570.0 / 419.0	3.60	62564.35	1274.709656	466.0	true
NMeFOSAA_2	570.0 / 512.0	3.60	33930.22	1279.155192	386.9	true
NEtFOSAA_1	584.0 / 419.0	3.76	57151.18	939.853398	577.8	true
NEtFOSAA_2	584.0 / 483.0	3.76	4514.32	1095.304572	209.2	false

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Summary Quant Report

Sample Name	KA89 CCV	**Injection Vial**	34
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T20:49:08	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	392029.87	1039.246796	320.9	false
PFBS_2	298.9 / 99.0	1.54	116209.92	1044.196993	269.7	false
PFHxA_1	313.0 / 269.0	1.86	277416.29	968.337993	34.4	false
PFHxA_2	313.0 / 119.0	1.86	19345.58	902.827185	28.8	false
PFHpA_1	363.0 / 319.0	2.26	256270.63	842.015433	99.7	false
PFHpA_2	363.0 / 169.0	2.26	5109.61	773.585907	89.4	false
PFHxS_1	399.0 / 80.0	2.28	404815.67	969.000794	203.4	false
PFHxS_2	399.0 / 99.0	2.28	116719.12	997.248708	453.9	false
PFOA_1	413.0 / 369.0	2.67	384119.43	994.817942	286.1	false
PFOA_2	413.0 / 169.0	2.67	23567.59	897.676623	232.6	false
PFNA_1	463.0 / 419.0	3.06	356895.32	1021.881846	292.3	true
PFNA_2	463.0 / 219.0	3.06	102275.56	995.331470	271.2	false
PFOS_1	499.0 / 80.0	3.06	549939.71	990.610631	154.3	true
PFOS_2	499.0 / 99.0	3.06	96457.81	1010.935326	270.7	false
PFDA_1	513.0 / 469.0	3.42	401043.33	1025.668236	443.4	true
PFDA_2	513.0 / 219.0	3.42	19837.55	1101.504368	202.3	false
PFUnA_1	563.0 / 519.0	3.74	378218.87	936.647308	294.0	false
PFUnA_2	563.0 / 269.0	3.74	20650.89	939.247478	167.2	false
PFDoA_1	613.0 / 569.0	4.02	348065.02	1090.389463	325.8	false
PFDoA_2	613.0 / 319.0	4.02	54276.45	1099.420288	296.3	false
PFTrDA_1	663.0 / 619.0	4.26	302707.80	1035.643832	495.7	false
PFTrDA_2	663.0 / 169.0	4.26	18190.05	975.632696	313.3	false
PFTeDA_1	713.0 / 669.0	4.48	305733.27	966.003135	859.9	false
PFTeDA_2	713.0 / 169.0	4.48	14244.28	943.101435	486.9	false
NMeFOSAA_1	570.0 / 419.0	3.57	51541.86	1029.456842	423.9	true
NMeFOSAA_2	570.0 / 512.0	3.57	26939.33	997.208182	270.9	false
NEtFOSAA_1	584.0 / 419.0	3.73	51522.39	859.576231	498.3	false
NEtFOSAA_2	584.0 / 483.0	3.73	3595.20	855.916972	117.0	false

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Summary Quant Report

Sample Name	KA90 CCV	**Injection Vial**	12
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:59:39	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	1052828.31	2495.662831	613.3	false
PFBS_2	298.9 / 99.0	1.54	304773.70	2460.478402	474.9	false
PFHxA_1	313.0 / 269.0	1.85	786865.73	2509.773351	64.0	false
PFHxA_2	313.0 / 119.0	1.85	56890.61	2470.944145	53.9	false
PFHpA_1	363.0 / 319.0	2.26	747928.44	2209.438467	183.2	false
PFHpA_2	363.0 / 169.0	2.26	16121.62	2246.885308	242.6	false
PFHxS_1	399.0 / 80.0	2.28	1042320.68	2141.806452	416.6	false
PFHxS_2	399.0 / 99.0	2.28	316762.04	2331.014528	756.4	false
PFOA_1	413.0 / 369.0	2.67	1005621.45	2348.323019	493.2	false
PFOA_2	413.0 / 169.0	2.67	67598.96	2341.166143	382.5	false
PFNA_1	463.0 / 419.0	3.06	906905.71	2300.094095	482.5	true
PFNA_2	463.0 / 219.0	3.06	285486.82	2406.773784	462.4	false
PFOS_1	499.0 / 80.0	3.06	1510923.70	2469.152980	242.8	true
PFOS_2	499.0 / 99.0	3.06	268810.43	2573.005575	511.9	false
PFDA_1	513.0 / 469.0	3.42	1090368.33	2596.141108	687.1	true
PFDA_2	513.0 / 219.0	3.41	47964.12	2554.739389	319.6	false
PFUnA_1	563.0 / 519.0	3.74	1028882.54	2502.268636	428.0	false
PFUnA_2	563.0 / 269.0	3.73	51284.45	2393.632167	251.2	false
PFDoA_1	613.0 / 569.0	4.02	904924.29	2605.357289	476.7	false
PFDoA_2	613.0 / 319.0	4.02	140745.04	2602.176244	455.2	false
PFTrDA_1	663.0 / 619.0	4.26	807030.85	2756.075928	714.7	false
PFTrDA_2	663.0 / 169.0	4.26	50447.59	2713.140081	432.8	false
PFTeDA_1	713.0 / 669.0	4.48	812697.51	2576.481825	1249.1	false
PFTeDA_2	713.0 / 169.0	4.47	38740.24	2571.162196	875.2	false
NMeFOSAA_1	570.0 / 419.0	3.57	137349.61	3155.997358	582.0	false
NMeFOSAA_2	570.0 / 512.0	3.57	72356.47	3044.563888	611.0	false
NEtFOSAA_1	584.0 / 419.0	3.73	141707.29	2571.004970	752.1	false
NEtFOSAA_2	584.0 / 483.0	3.73	8427.04	2416.681542	312.3	false

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Summary Quant Report

Sample Name	KA89 CCV	**Injection Vial**	24
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:10:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	272138.73	907.220285	245.1	false
PFBS_2	298.9 / 99.0	1.54	79900.04	901.826203	239.4	false
PFHxA_1	313.0 / 269.0	1.85	207631.33	914.285305	32.9	false
PFHxA_2	313.0 / 119.0	1.85	15910.95	939.186518	28.7	false
PFHpA_1	363.0 / 319.0	2.26	203183.68	828.056397	93.9	false
PFHpA_2	363.0 / 169.0	2.26	4889.34	924.076345	68.9	false
PFHxS_1	399.0 / 80.0	2.28	291970.69	879.285051	188.6	false
PFHxS_2	399.0 / 99.0	2.28	84100.71	903.488129	329.3	false
PFOA_1	413.0 / 369.0	2.67	270587.33	868.164409	242.6	false
PFOA_2	413.0 / 169.0	2.67	19204.21	907.570642	188.3	false
PFNA_1	463.0 / 419.0	3.06	259972.84	1027.092064	255.1	true
PFNA_2	463.0 / 219.0	3.06	82069.60	1096.857152	214.8	false
PFOS_1	499.0 / 80.0	3.06	425041.76	984.439813	123.1	true
PFOS_2	499.0 / 99.0	3.06	77065.81	1038.567082	440.8	false
PFDA_1	513.0 / 469.0	3.41	300927.45	947.289164	310.9	true
PFDA_2	513.0 / 219.0	3.41	13258.21	894.223638	131.6	false
PFUnA_1	563.0 / 519.0	3.73	285314.41	913.678219	244.9	false
PFUnA_2	563.0 / 269.0	3.73	16565.97	977.227754	180.1	false
PFDoA_1	613.0 / 569.0	4.01	262946.94	1085.435352	305.7	false
PFDoA_2	613.0 / 319.0	4.01	36651.24	973.819076	229.4	false
PFTrDA_1	663.0 / 619.0	4.25	228626.98	1085.346108	513.1	false
PFTrDA_2	663.0 / 169.0	4.25	14688.72	1096.411135	288.6	false
PFTeDA_1	713.0 / 669.0	4.47	225597.95	988.433868	767.0	false
PFTeDA_2	713.0 / 169.0	4.47	11264.12	1037.047094	484.5	false
NMeFOSAA_1	570.0 / 419.0	3.57	38515.39	1201.951001	330.1	false
NMeFOSAA_2	570.0 / 512.0	3.57	21106.21	1220.615427	304.3	false
NEtFOSAA_1	584.0 / 419.0	3.73	39513.98	992.937429	372.6	false
NEtFOSAA_2	584.0 / 483.0	3.73	2596.95	944.604080	82.7	false

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Summary Quant Report

Sample Name	KA90 CCV	**Injection Vial**	29
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T02:04:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	977664.04	2413.650956	653.2	false
PFBS_2	298.9 / 99.0	1.53	289653.20	2435.027966	522.5	false
PFHxA_1	313.0 / 269.0	1.85	737615.90	2385.490039	67.0	false
PFHxA_2	313.0 / 119.0	1.85	54309.46	2391.184158	57.7	false
PFHpA_1	363.0 / 319.0	2.25	699923.11	2125.028618	177.4	false
PFHpA_2	363.0 / 169.0	2.25	14663.98	2098.546347	143.5	false
PFHxS_1	399.0 / 80.0	2.28	1019331.30	2289.614132	242.0	false
PFHxS_2	399.0 / 99.0	2.28	292647.58	2354.242660	485.2	false
PFOA_1	413.0 / 369.0	2.66	1007558.05	2418.561596	600.6	false
PFOA_2	413.0 / 169.0	2.66	64618.47	2299.849510	366.8	false
PFNA_1	463.0 / 419.0	3.06	885539.60	2345.165748	511.2	true
PFNA_2	463.0 / 219.0	3.06	266195.96	2344.890845	499.8	false
PFOS_1	499.0 / 80.0	3.06	1396186.85	2246.049883	262.7	true
PFOS_2	499.0 / 99.0	3.06	253950.63	2391.869583	583.1	false
PFDA_1	513.0 / 469.0	3.41	996883.94	2468.341626	561.1	false
PFDA_2	513.0 / 219.0	3.41	46906.16	2599.821839	253.8	false
PFUnA_1	563.0 / 519.0	3.73	983187.88	2414.894242	418.9	false
PFUnA_2	563.0 / 269.0	3.73	50548.10	2382.484416	262.1	false
PFDoA_1	613.0 / 569.0	4.01	884006.95	2599.283206	470.4	false
PFDoA_2	613.0 / 319.0	4.01	136402.36	2575.234316	479.8	false
PFTrDA_1	663.0 / 619.0	4.25	758822.85	2681.627822	678.1	false
PFTrDA_2	663.0 / 169.0	4.25	46763.32	2601.799646	432.1	false
PFTeDA_1	713.0 / 669.0	4.47	777844.37	2552.369417	1282.4	false
PFTeDA_2	713.0 / 169.0	4.47	36777.76	2526.113535	697.0	false
NMeFOSAA_1	570.0 / 419.0	3.56	132961.36	2810.904434	694.2	false
NMeFOSAA_2	570.0 / 512.0	3.56	68622.22	2657.295409	732.5	false
NEtFOSAA_1	584.0 / 419.0	3.72	138162.60	2379.182402	605.5	false
NEtFOSAA_2	584.0 / 483.0	3.72	6898.91	1844.129973	244.6	false

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Summary Quant Report

Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:17:28	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	97350.88	229.789216	964.8	false
d3-MeFOSAA	573.0 / 419.0	3.59	13336.94	201.427243	151.5	false
d5-EtFOSAA	589.0 / 419.0	3.75	15786.64	237.885802	166.8	false
13C5-PFHxA	318.0 / 273.0	1.86	78789.16	249.631959	648.2	false
13C4-PFHpA	367.0 / 322.0	2.27	92326.83	255.113816	539.8	false
13C8-PFOA	421.0 / 376.0	2.68	106224.97	262.574404	191.6	false
13C9-PFNA	472.0 / 427.0	3.08	106377.86	260.551141	1104.4	false
13C6-PFDA	519.0 / 474.0	3.43	114282.36	253.483622	870.9	false
13C7-PFUnA	570.0 / 525.0	3.75	88847.42	224.426508	652.0	false
13C2-PFTeDA	715.0 / 670.0	4.51	75739.51	228.880383	2098.0	false
13C3-PFBS	302.0 / 99.0	1.53	34515.40	198.675373	598.9	false
13C3-PFHxS	402.0 / 99.0	2.29	28807.05	212.842878	276.7	false
13C8-PFOS	507.0 / 99.0	3.08	28384.21	188.688608	196.8	false

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Summary Quant Report

Sample Name	KA89 CCV	**Injection Vial**	34
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T20:49:08	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	89547.56	242.421604	673.0	false
d3-MeFOSAA	573.0 / 419.0	3.57	13178.00	233.208151	148.0	false
d5-EtFOSAA	589.0 / 419.0	3.73	16066.71	283.686155	190.9	false
13C5-PFHxA	318.0 / 273.0	1.84	72134.52	230.908308	467.9	false
13C4-PFHpA	367.0 / 322.0	2.25	84815.64	236.779806	620.3	false
13C8-PFOA	421.0 / 376.0	2.66	98063.21	244.903235	1325.3	false
13C9-PFNA	472.0 / 427.0	3.05	92989.09	230.110469	960.1	false
13C6-PFDA	519.0 / 474.0	3.40	96166.76	244.637758	922.9	false
13C7-PFUnA	570.0 / 525.0	3.72	97508.56	282.487925	789.3	false
13C2-PFTeDA	715.0 / 670.0	4.47	72232.28	250.348620	1738.4	false
13C3-PFBS	302.0 / 99.0	1.52	31649.69	213.468069	427.7	false
13C3-PFHxS	402.0 / 99.0	2.27	26682.79	231.006291	235.4	false
13C8-PFOS	507.0 / 99.0	3.05	29326.55	228.434771	223.6	false

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Summary Quant Report

Sample Name	KA90 CCV	**Injection Vial**	12
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:59:39	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	100255.42	254.445512	1004.6	false
d3-MeFOSAA	573.0 / 419.0	3.56	12307.55	213.953772	132.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	14747.15	255.783857	144.4	false
13C5-PFHxA	318.0 / 273.0	1.84	79714.15	238.408202	480.7	false
13C4-PFHpA	367.0 / 322.0	2.25	96450.46	251.572049	606.2	false
13C8-PFOA	421.0 / 376.0	2.66	109314.05	255.066728	1427.7	false
13C9-PFNA	472.0 / 427.0	3.05	104174.97	240.855819	947.1	false
13C6-PFDA	519.0 / 474.0	3.40	103821.75	247.603168	673.7	false
13C7-PFUnA	570.0 / 525.0	3.72	99526.27	270.311315	624.4	false
13C2-PFTeDA	715.0 / 670.0	4.47	74002.66	240.453182	1504.0	false
13C3-PFBS	302.0 / 99.0	1.52	35113.99	232.647021	535.1	false
13C3-PFHxS	402.0 / 99.0	2.27	31582.57	268.592561	286.7	false
13C8-PFOS	507.0 / 99.0	3.05	32014.63	244.964734	209.9	false

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Summary Quant Report

Sample Name	KA89 CCV	**Injection Vial**	24
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:10:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	67942.78	239.526622	710.1	false
d3-MeFOSAA	573.0 / 419.0	3.56	8581.19	211.875500	105.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	10450.92	257.457034	132.9	false
13C5-PFHxA	318.0 / 273.0	1.84	57127.37	248.446872	529.8	false
13C4-PFHpA	367.0 / 322.0	2.25	61424.84	232.973034	690.2	false
13C8-PFOA	421.0 / 376.0	2.66	79055.09	268.232367	1216.1	false
13C9-PFNA	472.0 / 427.0	3.04	67387.57	226.556797	5986.0	false
13C6-PFDA	519.0 / 474.0	3.40	78076.33	258.648990	718.4	false
13C7-PFUnA	570.0 / 525.0	3.72	75398.85	284.455780	557.6	false
13C2-PFTeDA	715.0 / 670.0	4.46	52141.54	235.337199	1262.1	false
13C3-PFBS	302.0 / 99.0	1.52	25218.18	237.310134	432.5	false
13C3-PFHxS	402.0 / 99.0	2.27	21475.91	259.407898	207.9	false
13C8-PFOS	507.0 / 99.0	3.04	23165.72	251.759585	206.9	false

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Summary Quant Report

Sample Name	KA90 CCV	**Injection Vial**	29
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T02:04:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	98162.10	261.045728	828.3	false
d3-MeFOSAA	573.0 / 419.0	3.55	13724.38	230.797203	142.5	false
d5-EtFOSAA	589.0 / 419.0	3.71	16251.63	272.679078	190.3	false
13C5-PFHxA	318.0 / 273.0	1.83	78592.81	248.760498	726.2	false
13C4-PFHpA	367.0 / 322.0	2.24	81380.88	224.643207	692.5	false
13C8-PFOA	421.0 / 376.0	2.65	106355.43	262.633601	1146.6	false
13C9-PFNA	472.0 / 427.0	3.04	99753.95	244.082524	991.2	false
13C6-PFDA	519.0 / 474.0	3.39	99817.82	249.437492	970.4	false
13C7-PFUnA	570.0 / 525.0	3.71	98542.13	280.436308	538.7	false
13C2-PFTeDA	715.0 / 670.0	4.46	71486.80	243.385586	1797.6	false
13C3-PFBS	302.0 / 99.0	1.51	33721.53	216.129615	422.2	false
13C3-PFHxS	402.0 / 99.0	2.27	28924.10	237.955670	316.4	false
13C8-PFOS	507.0 / 99.0	3.04	33298.09	246.470012	231.2	false

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Summary Quant Report

Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:56:17	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	339698.04	943.217052	443.2	false
PFBS_2	298.9 / 99.0	1.53	102643.78	964.239014	309.2	false
PFHxA_1	313.0 / 269.0	1.85	257817.55	981.190263	37.7	false
PFHxA_2	313.0 / 119.0	1.84	17886.64	898.721556	27.9	false
PFHpA_1	363.0 / 319.0	2.25	241042.43	924.875295	97.1	false
PFHpA_2	363.0 / 169.0	2.25	4608.35	858.098408	86.8	false
PFHxS_1	399.0 / 80.0	2.28	391842.57	1078.568246	215.6	false
PFHxS_2	399.0 / 99.0	2.28	115640.98	1107.980285	301.3	false
PFOA_1	413.0 / 369.0	2.66	371750.16	960.425221	298.6	false
PFOA_2	413.0 / 169.0	2.66	22941.58	952.137082	200.0	false
PFNA_1	463.0 / 419.0	3.06	361493.04	945.313778	295.5	false
PFNA_2	463.0 / 219.0	3.06	121029.69	1010.303434	279.4	false
PFOS_1	499.0 / 80.0	3.06	581992.66	976.719387	228.9	false
PFOS_2	499.0 / 99.0	3.06	99114.66	947.874070	344.3	false
PFDA_1	513.0 / 469.0	3.41	433116.52	1005.163803	440.1	false
PFDA_2	513.0 / 219.0	3.42	17276.37	906.794324	228.2	false
PFUnA_1	563.0 / 519.0	3.74	440046.53	1082.119027	282.8	false
PFUnA_2	563.0 / 269.0	3.74	22389.42	1096.476169	222.6	false
PFDoA_1	613.0 / 569.0	4.02	374924.23	1070.389815	383.4	false
PFDoA_2	613.0 / 319.0	4.02	59980.42	1064.577516	304.7	false
PFTrDA_1	663.0 / 619.0	4.26	340282.15	1171.293378	544.7	false
PFTrDA_2	663.0 / 169.0	4.26	21476.02	1104.608191	317.8	false
PFTeDA_1	713.0 / 669.0	4.48	341171.35	1084.306311	1013.9	false
PFTeDA_2	713.0 / 169.0	4.47	15667.64	1027.637802	674.0	false
NMeFOSAA_1	570.0 / 419.0	3.57	64269.39	1028.552195	1140.8	false
NMeFOSAA_2	570.0 / 512.0	3.57	33760.41	996.595754	470.7	false
NEtFOSAA_1	584.0 / 419.0	3.73	67951.53	929.602169	450.0	false
NEtFOSAA_2	584.0 / 483.0	3.73	4316.73	907.711593	225.8	false

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Summary Quant Report

Sample Name	KB85 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:50:36	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	371351.33	959.859531	425.1	false
PFBS_2	298.9 / 99.0	1.53	107633.82	941.549708	348.7	false
PFHxA_1	313.0 / 269.0	1.85	288681.26	974.655422	39.8	false
PFHxA_2	313.0 / 119.0	1.85	21445.95	958.992926	29.6	false
PFHpA_1	363.0 / 319.0	2.25	267451.24	879.249506	95.4	false
PFHpA_2	363.0 / 169.0	2.25	4997.17	798.001195	89.0	false
PFHxS_1	399.0 / 80.0	2.28	415833.61	1057.846530	208.0	false
PFHxS_2	399.0 / 99.0	2.28	122566.23	1085.409036	332.3	false
PFOA_1	413.0 / 369.0	2.66	423067.03	935.528742	307.2	false
PFOA_2	413.0 / 169.0	2.66	25588.19	909.263218	230.0	false
PFNA_1	463.0 / 419.0	3.06	391727.11	947.993787	362.1	false
PFNA_2	463.0 / 219.0	3.06	125163.66	965.382963	338.2	false
PFOS_1	499.0 / 80.0	3.06	597262.30	889.813620	201.1	false
PFOS_2	499.0 / 99.0	3.06	111431.59	948.345055	452.7	false
PFDA_1	513.0 / 469.0	3.41	473178.55	970.543840	424.9	false
PFDA_2	513.0 / 219.0	3.41	19029.09	882.357043	181.0	false
PFUnA_1	563.0 / 519.0	3.74	463095.69	927.792608	314.2	false
PFUnA_2	563.0 / 269.0	3.74	26620.99	1061.254446	272.1	false
PFDoA_1	613.0 / 569.0	4.02	411291.00	1010.192381	382.4	false
PFDoA_2	613.0 / 319.0	4.02	61832.31	941.591230	349.3	false
PFTrDA_1	663.0 / 619.0	4.26	362514.32	1055.747612	550.1	false
PFTrDA_2	663.0 / 169.0	4.26	23934.62	1039.905316	346.9	false
PFTeDA_1	713.0 / 669.0	4.48	384457.13	1036.901882	1035.0	false
PFTeDA_2	713.0 / 169.0	4.48	18450.31	1027.933210	630.4	false
NMeFOSAA_1	570.0 / 419.0	3.57	66380.07	898.143634	489.0	false
NMeFOSAA_2	570.0 / 512.0	3.57	39411.42	987.234588	469.4	false
NEtFOSAA_1	584.0 / 419.0	3.73	72068.18	873.710066	609.7	false
NEtFOSAA_2	584.0 / 483.0	3.73	4374.27	812.685201	145.2	false

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Summary Quant Report

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Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:56:17	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	97016.25	238.289349	1190.2	false
d3-MeFOSAA	573.0 / 419.0	3.56	15320.25	248.160940	142.5	false
d5-EtFOSAA	589.0 / 419.0	3.72	17658.51	262.442849	194.8	false
13C5-PFHxA	318.0 / 273.0	1.83	67289.65	261.385543	668.0	false
13C4-PFHpA	367.0 / 322.0	2.24	73324.27	259.284727	636.6	false
13C8-PFOA	421.0 / 376.0	2.65	95528.22	264.560193	892.5	false
13C9-PFNA	472.0 / 427.0	3.04	101690.39	278.983309	985.1	false
13C6-PFDA	519.0 / 474.0	3.40	106789.15	260.220892	1822.8	false
13C7-PFUnA	570.0 / 525.0	3.72	99028.13	237.393054	826.5	false
13C2-PFTeDA	715.0 / 670.0	4.47	74022.89	228.395541	1912.9	false
13C3-PFBS	302.0 / 99.0	1.51	29314.83	230.753066	393.6	false
13C3-PFHxS	402.0 / 99.0	2.27	26582.01	230.155771	312.1	false
13C8-PFOS	507.0 / 99.0	3.04	29373.50	241.253639	216.9	false

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Summary Quant Report

Sample Name	KB85 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:50:36	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	112594.80	275.625337	941.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	17609.56	252.045424	177.2	false
d5-EtFOSAA	589.0 / 419.0	3.72	20467.74	268.790132	203.6	false
13C5-PFHxA	318.0 / 273.0	1.83	75843.53	252.501904	641.9	false
13C4-PFHpA	367.0 / 322.0	2.24	83220.93	252.217119	674.6	false
13C8-PFOA	421.0 / 376.0	2.65	111592.99	264.875950	3030.2	false
13C9-PFNA	472.0 / 427.0	3.04	109890.15	258.386541	1017.7	false
13C6-PFDA	519.0 / 474.0	3.40	120772.71	293.308424	729.1	false
13C7-PFUnA	570.0 / 525.0	3.72	121676.85	290.708723	538.2	false
13C2-PFTeDA	715.0 / 670.0	4.47	87146.12	267.984899	1519.9	false
13C3-PFBS	302.0 / 99.0	1.51	31483.20	218.978528	526.4	false
13C3-PFHxS	402.0 / 99.0	2.27	27916.37	213.577548	239.4	false
13C8-PFOS	507.0 / 99.0	3.04	33912.79	246.118545	266.2	false

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Summary Ion Ratio Report

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Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:17:28	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.290	0.299	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.080	0.076	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.283	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.070	0.068	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.280	0.307	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.180	0.175	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.050	0.050	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.050	0.059	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.05	PFDoA	0.160	0.153	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.29	PFTrDA	0.060	0.064	ü
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.51	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.540	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.080	0.082	ü

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Summary Ion Ratio Report

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Sample Name	KA89 CCV	**Injection Vial**	34
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T20:49:08	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.070	0.076	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.283	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.068	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.290	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.175	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.050	0.050	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.050	0.059	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.153	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.060	0.064	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.520	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.070	0.082	ü

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Summary Ion Ratio Report

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Sample Name	KA90 CCV	**Injection Vial**	12
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:59:39	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.076	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.300	0.283	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.070	0.068	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.310	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.175	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.050	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.059	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.153	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.060	0.064	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.530	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.082	ü

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Summary Ion Ratio Report

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Sample Name	KA89 CCV	**Injection Vial**	24
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:10:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.076	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.283	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.070	0.068	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.175	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.050	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.060	0.059	ü
PFDoA_1	613.0 / 569.0	4.01	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.140	0.153	ü
PFTrDA_1	663.0 / 619.0	4.25	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.25	PFTrDA	0.060	0.064	ü
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.550	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.070	0.082	ü

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Summary Ion Ratio Report

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Sample Name	KA90 CCV	**Injection Vial**	29
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T02:04:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.076	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.283	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.068	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.300	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.175	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.050	0.050	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.059	ü
PFDoA_1	613.0 / 569.0	4.01	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.150	0.153	ü
PFTrDA_1	663.0 / 619.0	4.25	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.25	PFTrDA	0.060	0.064	ü
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.56	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.56	NMeFOSAA	0.520	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.72	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.72	NEtFOSAA	0.050	0.082	ü

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Summary Ion Ratio Report

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Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:56:17	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	0.300	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.079	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.300	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.062	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.330	0.319	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.045	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.050	0.050	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.162	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.051	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.530	0.558	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.069	ü

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Summary Ion Ratio Report

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Sample Name	KB85 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:50:36	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	0.300	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.079	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.062	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.319	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.190	0.174	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.045	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.060	0.050	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.150	0.162	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.050	0.051	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.590	0.558	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.069	ü

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Summary Internal Standard Report

Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:17:28	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	34515.40	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	34515.40	232.25
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	78789.16	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	78789.16	250.00
PFHpA_1	363.0 / 319.0	2.28	13C8-PFOA	421.0 / 376.0	106224.97	250.00
PFHpA_2	363.0 / 169.0	2.28	13C8-PFOA	421.0 / 376.0	106224.97	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	28575.55	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	28575.55	236.50
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	106224.97	250.00
PFOA_2	413.0 / 169.0	2.69	13C8-PFOA	421.0 / 376.0	106224.97	250.00
PFNA_1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	106377.86	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	106377.86	250.00
PFOS_1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	28674.68	239.25
PFOS_2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	28674.68	239.25
PFDA_1	513.0 / 469.0	3.44	13C6-PFDA	519.0 / 474.0	114282.36	250.00
PFDA_2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	114282.36	250.00
PFUnA_1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	88847.42	250.00
PFUnA_2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	88847.42	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	97350.88	250.00
PFDoA_2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	97350.88	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	75739.51	250.00
PFTrDA_2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	75739.51	250.00
PFTeDA_1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	75739.51	250.00
PFTeDA_2	713.0 / 169.0	4.51	13C2-PFTeDA	715.0 / 670.0	75739.51	250.00
NMeFOSAA_1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	13506.61	250.00
NMeFOSAA_2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	13506.61	250.00
NEtFOSAA_1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	16522.03	250.00
NEtFOSAA_2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	16522.03	250.00

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Summary Internal Standard Report

Sample Name	KA89 CCV	**Injection Vial**	34
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T20:49:08	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	31649.69	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	31649.69	232.25
PFHxA_1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	72134.52	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	72134.52	250.00
PFHpA_1	363.0 / 319.0	2.26	13C8-PFOA	421.0 / 376.0	98063.21	250.00
PFHpA_2	363.0 / 169.0	2.26	13C8-PFOA	421.0 / 376.0	98063.21	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	26586.78	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	26586.78	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	98063.21	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	98063.21	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	92989.09	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	92989.09	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	30298.84	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	30298.84	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	96166.76	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	96166.76	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	97508.56	250.00
PFUnA_2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	97508.56	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	89547.56	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	89547.56	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	72232.28	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	72232.28	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	72232.28	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	72232.28	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	13575.96	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	13575.96	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	16286.85	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	16286.85	250.00

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Summary Internal Standard Report

Sample Name	KA90 CCV	**Injection Vial**	12
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:59:39	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	35113.99	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	35113.99	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	79714.15	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	79714.15	250.00
PFHpA_1	363.0 / 319.0	2.26	13C8-PFOA	421.0 / 376.0	109314.05	250.00
PFHpA_2	363.0 / 169.0	2.26	13C8-PFOA	421.0 / 376.0	109314.05	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	30946.45	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	30946.45	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	109314.05	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	109314.05	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	104174.97	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	104174.97	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	33242.43	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	33242.43	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	103821.75	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	103821.75	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	99526.27	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	99526.27	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	100255.42	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	100255.42	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	74002.66	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	74002.66	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	74002.66	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	74002.66	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	12439.23	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	12439.23	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	14969.38	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	14969.38	250.00

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Summary Internal Standard Report

Sample Name	KA89 CCV	**Injection Vial**	24
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:10:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	25218.18	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	25218.18	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	57127.37	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	57127.37	250.00
PFHpA_1	363.0 / 319.0	2.26	13C8-PFOA	421.0 / 376.0	79055.09	250.00
PFHpA_2	363.0 / 169.0	2.26	13C8-PFOA	421.0 / 376.0	79055.09	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	21135.19	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	21135.19	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	79055.09	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	79055.09	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	67387.57	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	67387.57	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	23565.55	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	23565.55	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	78076.33	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	78076.33	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	75398.85	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	75398.85	250.00
PFDoA_1	613.0 / 569.0	4.01	13C2-PFDoA	615.0 / 570.0	67942.78	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	67942.78	250.00
PFTrDA_1	663.0 / 619.0	4.25	13C2-PFTeDA	715.0 / 670.0	52141.54	250.00
PFTrDA_2	663.0 / 169.0	4.25	13C2-PFTeDA	715.0 / 670.0	52141.54	250.00
PFTeDA_1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	52141.54	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	52141.54	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	8784.97	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	8784.97	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	10812.14	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	10812.14	250.00

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Summary Internal Standard Report

Sample Name	KA90 CCV	**Injection Vial**	29
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T02:04:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	33721.53	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	33721.53	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	78592.81	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	78592.81	250.00
PFHpA_1	363.0 / 319.0	2.25	13C8-PFOA	421.0 / 376.0	106355.43	250.00
PFHpA_2	363.0 / 169.0	2.25	13C8-PFOA	421.0 / 376.0	106355.43	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	28309.00	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	28309.00	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	106355.43	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	106355.43	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	99753.95	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	99753.95	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	33779.74	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	33779.74	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	99817.82	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	99817.82	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	98542.13	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	98542.13	250.00
PFDoA_1	613.0 / 569.0	4.01	13C2-PFDoA	615.0 / 570.0	98162.10	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	98162.10	250.00
PFTrDA_1	663.0 / 619.0	4.25	13C2-PFTeDA	715.0 / 670.0	71486.80	250.00
PFTrDA_2	663.0 / 169.0	4.25	13C2-PFTeDA	715.0 / 670.0	71486.80	250.00
PFTeDA_1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	71486.80	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	71486.80	250.00
NMeFOSAA_1	570.0 / 419.0	3.56	d3-MeFOSAA	573.0 / 419.0	13476.83	250.00
NMeFOSAA_2	570.0 / 512.0	3.56	d3-MeFOSAA	573.0 / 419.0	13476.83	250.00
NEtFOSAA_1	584.0 / 419.0	3.72	d5-EtFOSAA	589.0 / 419.0	15771.97	250.00
NEtFOSAA_2	584.0 / 483.0	3.72	d5-EtFOSAA	589.0 / 419.0	15771.97	250.00

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Summary Internal Standard Report

Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:17:28	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	106570.43	250.00
d3-MeFOSAA	573.0 / 419.0	3.59	13C4-PFOS	503.0 / 99.0	33772.50	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	33772.50	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	92787.77	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	92787.77	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	92787.77	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	92787.77	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	106570.43	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	106570.43	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	106570.43	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	33772.50	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	33772.50	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	33772.50	239.25

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Summary Internal Standard Report

Sample Name	KA89 CCV	**Injection Vial**	34
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T20:49:08	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	92919.94	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	28822.45	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	28822.45	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	91839.20	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	91839.20	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	91839.20	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	91839.20	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	92919.94	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	92919.94	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	92919.94	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	28822.45	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	28822.45	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	28822.45	239.25

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Summary Internal Standard Report

Sample Name	KA90 CCV	**Injection Vial**	12
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:59:39	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	99115.04	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	29341.14	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	29341.14	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	98296.65	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	98296.65	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	98296.65	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	98296.65	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	99115.04	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	99115.04	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	99115.04	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	29341.14	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29341.14	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	29341.14	239.25

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Summary Internal Standard Report

Sample Name	KA89 CCV	**Injection Vial**	24
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:10:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	71353.62	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	20658.17	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	20658.17	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	67598.21	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	67598.21	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	67598.21	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	67598.21	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	71353.62	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	71353.62	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	71353.62	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	20658.17	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	20658.17	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	20658.17	239.25

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Summary Internal Standard Report

Sample Name	KA90 CCV	**Injection Vial**	29
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T02:04:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	94591.86	250.00
d3-MeFOSAA	573.0 / 419.0	3.55	13C4-PFOS	503.0 / 99.0	30331.04	239.25
d5-EtFOSAA	589.0 / 419.0	3.71	13C4-PFOS	503.0 / 99.0	30331.04	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	92880.79	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	92880.79	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	92880.79	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	92880.79	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	94591.86	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	94591.86	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	94591.86	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	30331.04	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	30331.04	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	30331.04	239.25

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Summary Internal Standard Report

Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:56:17	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	29314.83	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	29314.83	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	67289.65	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	67289.65	250.00
PFHpA_1	363.0 / 319.0	2.25	13C8-PFOA	421.0 / 376.0	95528.22	250.00
PFHpA_2	363.0 / 169.0	2.25	13C8-PFOA	421.0 / 376.0	95528.22	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	25417.33	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	25417.33	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	95528.22	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	95528.22	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	101690.39	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	101690.39	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	30774.42	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	30774.42	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	106789.15	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	106789.15	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	99028.13	250.00
PFUnA_2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	99028.13	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	97016.25	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	97016.25	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	74022.89	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	74022.89	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	74022.89	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	74022.89	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	15404.47	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	15404.47	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	17705.36	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	17705.36	250.00

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Summary Internal Standard Report

Sample Name	KB85 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:50:36	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	31483.20	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	31483.20	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	75843.53	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	75843.53	250.00
PFHpA_1	363.0 / 319.0	2.25	13C8-PFOA	421.0 / 376.0	111592.99	250.00
PFHpA_2	363.0 / 169.0	2.25	13C8-PFOA	421.0 / 376.0	111592.99	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	27498.10	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	27498.10	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	111592.99	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	111592.99	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	109890.15	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	109890.15	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	34581.95	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	34581.95	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	120772.71	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	120772.71	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	121676.85	250.00
PFUnA_2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	121676.85	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	112594.80	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	112594.80	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	87146.12	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	87146.12	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	87146.12	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	87146.12	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	18143.88	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	18143.88	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	20020.90	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	20020.90	250.00

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Summary Internal Standard Report

Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:56:17	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	102089.78	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	29054.61	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	29054.61	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	82611.52	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	82611.52	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	82611.52	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	82611.52	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	102089.78	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	102089.78	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	102089.78	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	29054.61	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29054.61	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	29054.61	239.25

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Summary Internal Standard Report

Sample Name	KB85 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:50:36	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	102433.40	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	32881.56	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	32881.56	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	96389.07	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	96389.07	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	96389.07	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	96389.07	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	102433.40	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	102433.40	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	102433.40	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	32881.56	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	32881.56	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	32881.56	239.25

Raw Analytical Data

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Summary Quant Report

Sample Name	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:06:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	6053.19	27.217862	14.7	false
PFBS_2	298.9 / 99.0	1.54	3429.15	31.251355	14.5	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	2.70	6602.22	5.787841	19.0	true
PFOA_2	413.0 / 169.0	2.70	558.87	< 0	16.5	false
PFNA_1	463.0 / 419.0	3.10	10322.98	37.827322	25.2	true
PFNA_2	463.0 / 219.0	3.09	2551.24	68.361783	16.7	false
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	N/A	N/A	N/A	N/A	true
PFDA_1	513.0 / 469.0	3.45	6275.25	4.861538	29.1	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.05	5225.11	< 0	43.6	false
PFDoA_2	613.0 / 319.0	4.06	522.71	< 0	21.8	false
PFTrDA_1	663.0 / 619.0	4.30	5677.56	< 0	101.9	false
PFTrDA_2	663.0 / 169.0	4.31	256.25	< 0	15.0	false
PFTeDA_1	713.0 / 669.0	4.52	5624.72	< 0	133.7	false
PFTeDA_2	713.0 / 169.0	4.52	301.85	< 0	22.9	false
NMeFOSAA_1	570.0 / 419.0	3.60	1756.59	< 0	49.6	true
NMeFOSAA_2	570.0 / 512.0	3.61	365.45	< 0	16.0	true
NEtFOSAA_1	584.0 / 419.0	3.77	1585.90	27.350176	50.0	true
NEtFOSAA_2	584.0 / 483.0	3.74	167.93	< 0	6.2	true

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Summary Quant Report

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Sample Name	CR849PB-FS(3)	**Injection Vial**	2
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:10:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2.28	14911.03	33.604786	28.8	false
PFHxS_2	399.0 / 99.0	2.28	6033.18	42.380155	51.5	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	3.06	194736.16	327.395849	85.6	true
PFOS_2	499.0 / 99.0	3.06	37225.32	356.233345	186.6	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	CR850LCS-FS(3)	**Injection Vial**	3
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:21:43	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	874107.98	1987.088021	457.4	false
PFBS_2	298.9 / 99.0	1.54	252600.93	1954.048479	403.4	false
PFHxA_1	313.0 / 269.0	1.85	620294.90	2067.471373	58.4	false
PFHxA_2	313.0 / 119.0	1.85	46766.22	2119.604034	55.3	false
PFHpA_1	363.0 / 319.0	2.26	573602.20	1686.134347	155.7	false
PFHpA_2	363.0 / 169.0	2.26	13503.67	1868.364949	145.3	false
PFHxS_1	399.0 / 80.0	2.28	885600.87	1839.042572	386.9	false
PFHxS_2	399.0 / 99.0	2.28	261322.46	1942.463299	623.8	false
PFOA_1	413.0 / 369.0	2.67	835875.45	1941.637528	479.7	false
PFOA_2	413.0 / 169.0	2.67	51874.96	1783.819355	335.5	false
PFNA_1	463.0 / 419.0	3.06	779715.50	2052.471847	468.8	true
PFNA_2	463.0 / 219.0	3.06	238336.94	2090.483960	361.2	false
PFOS_1	499.0 / 80.0	3.06	1186776.03	1731.088791	199.2	true
PFOS_2	499.0 / 99.0	3.06	213110.37	1817.329682	455.7	false
PFDA_1	513.0 / 469.0	3.42	854039.47	1898.763046	552.1	true
PFDA_2	513.0 / 219.0	3.42	36633.64	1803.957379	266.9	false
PFUnA_1	563.0 / 519.0	3.74	881628.72	2044.448693	367.4	false
PFUnA_2	563.0 / 269.0	3.74	40573.26	1787.664461	235.6	false
PFDoA_1	613.0 / 569.0	4.02	746635.54	2115.061230	566.6	false
PFDoA_2	613.0 / 319.0	4.02	118015.36	2149.969654	407.8	false
PFTrDA_1	663.0 / 619.0	4.27	654298.32	2045.465986	767.2	false
PFTrDA_2	663.0 / 169.0	4.27	43803.88	2158.265312	403.6	false
PFTeDA_1	713.0 / 669.0	4.48	682630.88	1980.457759	990.4	false
PFTeDA_2	713.0 / 169.0	4.48	34265.74	2084.066788	819.4	false
NMeFOSAA_1	570.0 / 419.0	3.57	111044.32	2161.994112	567.4	true
NMeFOSAA_2	570.0 / 512.0	3.57	59899.22	2143.072091	416.7	false
NEtFOSAA_1	584.0 / 419.0	3.73	103943.40	1777.503712	870.2	false
NEtFOSAA_2	584.0 / 483.0	3.73	7054.30	1874.730918	215.3	false

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Summary Quant Report

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Sample Name	J8201-FS(3)	**Injection Vial**	4
Sample ID	VC-PM3009-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:32:35	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2.28	19066.47	42.472042	36.2	false
PFHxS_2	399.0 / 99.0	2.28	3662.59	23.920026	26.6	false
PFOA_1	413.0 / 369.0	2.67	7135.29	7.454715	21.4	true
PFOA_2	413.0 / 169.0	2.67	660.59	2.572560	16.9	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	3.06	104918.27	172.551458	92.6	true
PFOS_2	499.0 / 99.0	3.06	20616.45	187.280333	120.6	false
PFDA_1	513.0 / 469.0	3.41	6157.95	4.624097	29.1	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.03	3297.91	< 0	41.2	false
PFDoA_2	613.0 / 319.0	4.01	283.88	< 0	7.5	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	J8202-FS(3)	**Injection Vial**	5
Sample ID	VC-PM3009-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:43:30	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2.28	61129.99	123.476861	130.1	false
PFHxS_2	399.0 / 99.0	2.28	17142.61	118.505972	118.1	false
PFOA_1	413.0 / 369.0	2.67	15854.64	24.846116	35.6	false
PFOA_2	413.0 / 169.0	2.67	1140.34	16.189381	27.3	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	3.06	538890.29	836.550543	120.5	true
PFOS_2	499.0 / 99.0	3.06	87994.15	792.913862	222.8	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	J8203-FS(3)	**Injection Vial**	6
Sample ID	VC-PM3009-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:54:23	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	74106.75	187.381586	77.6	false
PFBS_2	298.9 / 99.0	1.53	22344.08	184.343313	84.1	true
PFHxA_1	313.0 / 269.0	1.85	231715.90	696.854218	30.6	false
PFHxA_2	313.0 / 119.0	1.85	16968.04	676.580159	27.1	false
PFHpA_1	363.0 / 319.0	2.25	25250.35	69.268168	25.8	true
PFHpA_2	363.0 / 169.0	2.23	1063.02	114.126555	16.9	false
PFHxS_1	399.0 / 80.0	2.28	1384627.20	2891.108374	461.6	false
PFHxS_2	399.0 / 99.0	2.28	383844.21	2871.754494	836.0	false
PFOA_1	413.0 / 369.0	2.67	126215.22	277.567547	156.2	false
PFOA_2	413.0 / 169.0	2.66	6870.34	212.390008	95.6	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	3.03	8134964.60	12536.737413	368.3	false
PFOS_2	499.0 / 99.0	3.06	1248430.87	11308.407557	942.5	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	J8204-FS(3)	**Injection Vial**	7
Sample ID	VC-PM3009-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:05:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	12105.93	42.065552	20.5	false
PFBS_2	298.9 / 99.0	1.53	4853.81	44.145829	20.8	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	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	2.28	41925.39	95.401635	86.5	false
PFHxS_2	399.0 / 99.0	2.28	12755.91	98.279668	100.5	false
PFOA_1	413.0 / 369.0	2.67	19130.85	37.898892	45.6	false
PFOA_2	413.0 / 169.0	2.67	958.42	14.970226	21.5	false
PFNA_1	463.0 / 419.0	3.06	6013.42	30.804615	28.0	true
PFNA_2	463.0 / 219.0	3.06	2134.76	68.605660	19.6	false
PFOS_1	499.0 / 80.0	3.06	428953.54	774.412648	188.7	true
PFOS_2	499.0 / 99.0	3.06	85334.72	894.035458	366.5	false
PFDA_1	513.0 / 469.0	3.42	14259.70	25.512268	57.1	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.02	7063.82	< 0	50.0	false
PFDoA_2	613.0 / 319.0	4.02	615.79	< 0	20.1	false
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	J8205-FS(3)	**Injection Vial**	8
Sample ID	VC-PM3009-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:16:07	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	1.85	109736.59	331.898942	18.4	false
PFHxA_2	313.0 / 119.0	1.85	6742.20	252.522992	15.6	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	2.28	30213.27	60.964625	53.9	false
PFHxS_2	399.0 / 99.0	2.28	9289.02	61.345032	80.6	false
PFOA_1	413.0 / 369.0	2.66	12981.83	20.405974	33.6	false
PFOA_2	413.0 / 169.0	2.60	1015.99	14.194604	15.9	true
PFNA_1	463.0 / 419.0	3.06	3737.03	23.939658	17.3	true
PFNA_2	463.0 / 219.0	3.06	1178.92	59.337050	18.2	false
PFOS_1	499.0 / 80.0	3.06	266856.51	463.522363	168.1	true
PFOS_2	499.0 / 99.0	3.06	56078.21	560.239948	277.1	false
PFDA_1	513.0 / 469.0	3.41	3756.41	< 0	24.0	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.02	2876.56	< 0	29.8	false
PFDoA_2	613.0 / 319.0	4.00	290.97	< 0	9.9	false
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	J8206-FS(3)	**Injection Vial**	9
Sample ID	VC-PM3009-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:26:59	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2.28	19267.33	41.290371	36.4	false
PFHxS_2	399.0 / 99.0	2.28	5752.86	38.357566	38.0	false
PFOA_1	413.0 / 369.0	2.67	9910.70	17.100976	25.8	false
PFOA_2	413.0 / 169.0	2.66	1502.81	38.726918	33.4	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	3.06	268674.99	469.304655	130.9	true
PFOS_2	499.0 / 99.0	3.06	53236.45	534.798354	222.5	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	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	J8207-FS(3)	**Injection Vial**	10
Sample ID	VC-PM3009-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:37:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2.28	11110.81	27.593927	24.1	false
PFHxS_2	399.0 / 99.0	2.28	4133.18	30.580357	38.0	false
PFOA_1	413.0 / 369.0	2.66	15819.30	32.619802	35.8	false
PFOA_2	413.0 / 169.0	2.65	1581.23	41.847676	26.1	false
PFNA_1	463.0 / 419.0	3.06	6028.47	32.435843	28.6	true
PFNA_2	463.0 / 219.0	3.06	1901.12	68.111509	22.1	false
PFOS_1	499.0 / 80.0	3.06	306355.06	721.012375	169.4	true
PFOS_2	499.0 / 99.0	3.06	60830.91	829.970494	303.1	false
PFDA_1	513.0 / 469.0	3.41	15550.46	31.870846	56.4	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	3.74	7427.81	15.990062	39.0	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.02	11885.06	< 0	99.1	false
PFDoA_2	613.0 / 319.0	4.02	2310.46	4.490658	63.1	false
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	J8208-FS(3)	**Injection Vial**	11
Sample ID	VC-PM3009-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:48:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2.28	14895.65	33.308410	33.4	false
PFHxS_2	399.0 / 99.0	2.28	4831.37	32.753138	39.0	false
PFOA_1	413.0 / 369.0	2.66	16112.12	32.798064	42.0	false
PFOA_2	413.0 / 169.0	2.66	786.80	10.376867	17.2	false
PFNA_1	463.0 / 419.0	3.06	5783.16	31.057421	23.1	true
PFNA_2	463.0 / 219.0	3.05	2111.38	69.462950	18.9	false
PFOS_1	499.0 / 80.0	3.06	350472.70	752.580934	190.3	true
PFOS_2	499.0 / 99.0	3.06	70229.01	874.824917	295.8	false
PFDA_1	513.0 / 469.0	3.41	17953.30	35.628450	59.0	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	3.74	7057.05	12.626243	34.5	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.02	11257.47	< 0	79.8	false
PFDoA_2	613.0 / 319.0	4.01	1621.82	< 0	43.5	false
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	J8209-FS(3)	**Injection Vial**	14
Sample ID	VC-PM3009-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:21:26	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2.28	17894.83	40.578672	48.5	true
PFHxS_2	399.0 / 99.0	2.27	5552.54	39.241519	39.7	false
PFOA_1	413.0 / 369.0	2.66	17475.67	31.496395	44.3	false
PFOA_2	413.0 / 169.0	2.66	1364.70	27.025426	23.3	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	3.06	247003.84	468.291382	97.4	true
PFOS_2	499.0 / 99.0	3.06	42485.17	462.770117	223.8	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	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	J8219-FS(3)	**Injection Vial**	16
Sample ID	VC-PM372-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:43:11	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2.28	12578.80	32.851656	28.7	false
PFHxS_2	399.0 / 99.0	2.28	3684.85	28.674257	25.2	false
PFOA_1	413.0 / 369.0	2.66	19330.79	41.544806	41.3	false
PFOA_2	413.0 / 169.0	2.65	1704.78	46.303361	33.3	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	3.01	26643.67	54.554964	24.3	false
PFOS_2	499.0 / 99.0	3.06	6408.47	63.025986	34.4	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	J8220-FS(3)	**Injection Vial**	17
Sample ID	VC-PM372-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:54:03	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2.66	12565.40	19.257586	30.6	false
PFOA_2	413.0 / 169.0	2.65	697.71	3.328572	16.1	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

Sample Name	J8221-FS(3)	**Injection Vial**	18
Sample ID	VC-PM372-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:04:57	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	25960.15	67.058646	31.8	false
PFBS_2	298.9 / 99.0	1.53	11381.92	85.178032	30.3	true
PFHxA_1	313.0 / 269.0	1.85	126250.24	378.058127	21.3	false
PFHxA_2	313.0 / 119.0	1.85	10395.03	404.708384	16.8	false
PFHpA_1	363.0 / 319.0	2.25	107804.31	318.077821	59.0	false
PFHpA_2	363.0 / 169.0	2.25	2400.04	310.213301	55.5	false
PFHxS_1	399.0 / 80.0	2.28	437450.77	803.538457	170.7	false
PFHxS_2	399.0 / 99.0	2.28	128452.43	841.261645	279.4	false
PFOA_1	413.0 / 369.0	2.66	43258.01	93.242047	70.8	false
PFOA_2	413.0 / 169.0	2.65	4072.49	123.298881	62.0	false
PFNA_1	463.0 / 419.0	3.06	28041.50	83.578537	61.3	true
PFNA_2	463.0 / 219.0	3.06	8650.12	119.382801	53.6	false
PFOS_1	499.0 / 80.0	3.06	3647866.11	5843.588814	308.3	true
PFOS_2	499.0 / 99.0	3.06	630966.90	5935.197987	763.3	false
PFDA_1	513.0 / 469.0	3.41	20402.75	37.770656	63.6	true
PFDA_2	513.0 / 219.0	3.42	1650.79	15.202890	28.8	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	4.02	5252.79	< 0	46.8	false
PFDoA_2	613.0 / 319.0	4.03	991.82	< 0	21.2	false
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	J8222-FS(3)	**Injection Vial**	19
Sample ID	VC-PM372-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:15:49	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2.28	93343.17	182.062239	87.8	false
PFHxS_2	399.0 / 99.0	2.28	26357.29	178.750970	138.3	false
PFOA_1	413.0 / 369.0	2.66	43044.30	93.091861	72.7	false
PFOA_2	413.0 / 169.0	2.67	2399.19	64.740301	43.3	false
PFNA_1	463.0 / 419.0	3.06	15700.16	50.908037	46.6	true
PFNA_2	463.0 / 219.0	3.06	5559.61	91.879774	45.2	false
PFOS_1	499.0 / 80.0	3.06	2037234.15	3259.238324	251.1	true
PFOS_2	499.0 / 99.0	3.06	350056.02	3283.606545	460.1	false
PFDA_1	513.0 / 469.0	3.41	8120.64	9.154856	38.5	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	J8223-FS(3)	**Injection Vial**	20
Sample ID	VC-PM372-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:26:42	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2.28	80691.68	175.032160	110.6	false
PFHxS_2	399.0 / 99.0	2.28	22779.94	171.585557	163.4	false
PFOA_1	413.0 / 369.0	2.66	27439.02	52.965975	50.1	false
PFOA_2	413.0 / 169.0	2.67	1768.41	39.439304	33.4	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	3.06	168985.85	273.415665	75.3	true
PFOS_2	499.0 / 99.0	3.06	29390.09	268.575887	122.9	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	J8224-FS(3)	**Injection Vial**	21
Sample ID	VC-PM372-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:37:36	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	J8225-FS(3)	**Injection Vial**	22
Sample ID	VC-PM372-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:48:29	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	J8226-FS(3)	**Injection Vial**	23
Sample ID	VC-PM372-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:59:21	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	9279.16	36.527722	18.5	false
PFBS_2	298.9 / 99.0	1.53	4263.16	41.050495	22.3	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	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	J8227MS-FS(3)	**Injection Vial**	26
Sample ID	VC-PM372-SS02-000H-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:32:00	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2446821.02	4745.750492	601.2	false
PFBS_2	298.9 / 99.0	1.53	721675.86	4774.509600	657.9	false
PFHxA_1	313.0 / 269.0	1.85	1634644.06	4996.973791	90.3	false
PFHxA_2	313.0 / 119.0	1.85	124308.49	5203.506996	89.2	false
PFHpA_1	363.0 / 319.0	2.25	1546758.50	4731.263598	233.2	false
PFHpA_2	363.0 / 169.0	2.25	30817.29	4474.680364	225.0	false
PFHxS_1	399.0 / 80.0	2.28	2498521.76	4961.754149	347.3	false
PFHxS_2	399.0 / 99.0	2.28	730371.59	5201.668626	565.8	false
PFOA_1	413.0 / 369.0	2.66	2025767.25	4904.315655	673.4	false
PFOA_2	413.0 / 169.0	2.66	138212.43	4975.067729	630.2	false
PFNA_1	463.0 / 419.0	3.06	1801217.61	4269.839695	614.1	true
PFNA_2	463.0 / 219.0	3.06	571201.84	4470.679389	578.2	false
PFOS_1	499.0 / 80.0	3.06	6785995.03	10061.672871	369.5	true
PFOS_2	499.0 / 99.0	3.06	1183335.97	10310.867249	932.1	false
PFDA_1	513.0 / 469.0	3.41	2173892.00	4999.989163	739.5	false
PFDA_2	513.0 / 219.0	3.41	94461.58	4916.256097	363.4	false
PFUnA_1	563.0 / 519.0	3.73	2154383.94	4351.749576	568.8	false
PFUnA_2	563.0 / 269.0	3.73	114284.45	4491.879685	336.8	false
PFDoA_1	613.0 / 569.0	4.01	1998992.19	5185.413353	616.0	false
PFDoA_2	613.0 / 319.0	4.01	322289.05	5357.162381	482.1	false
PFTrDA_1	663.0 / 619.0	4.26	1819131.31	5207.666815	942.0	false
PFTrDA_2	663.0 / 169.0	4.26	118797.40	5361.915299	674.4	false
PFTeDA_1	713.0 / 669.0	4.47	1839880.66	4897.047062	1901.3	false
PFTeDA_2	713.0 / 169.0	4.47	88601.61	4934.616721	1456.5	false
NMeFOSAA_1	570.0 / 419.0	3.56	271532.17	5252.758879	1025.8	false
NMeFOSAA_2	570.0 / 512.0	3.56	155629.16	5505.230363	793.8	false
NEtFOSAA_1	584.0 / 419.0	3.73	296120.77	5320.602436	843.5	false
NEtFOSAA_2	584.0 / 483.0	3.73	17711.49	5193.958699	375.1	false

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Summary Quant Report

Sample Name	J8228MSD-FS(3)	**Injection Vial**	27
Sample ID	VC-PM372-SS02-000H-SD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:42:52	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2300043.34	4902.988826	548.3	false
PFBS_2	298.9 / 99.0	1.53	661304.81	4808.925607	762.1	false
PFHxA_1	313.0 / 269.0	1.85	1523874.42	4759.315966	82.5	false
PFHxA_2	313.0 / 119.0	1.85	113459.54	4850.279923	81.6	false
PFHpA_1	363.0 / 319.0	2.26	1472039.31	4767.168360	251.8	false
PFHpA_2	363.0 / 169.0	2.26	32034.28	4927.701176	218.4	false
PFHxS_1	399.0 / 80.0	2.28	2306563.91	4607.308553	504.2	false
PFHxS_2	399.0 / 99.0	2.28	650576.93	4659.882873	964.6	false
PFOA_1	413.0 / 369.0	2.67	1921004.35	4923.848350	631.6	false
PFOA_2	413.0 / 169.0	2.67	130327.19	4966.704871	450.8	false
PFNA_1	463.0 / 419.0	3.06	1823776.61	4650.502325	619.0	true
PFNA_2	463.0 / 219.0	3.06	562577.89	4734.757212	515.7	false
PFOS_1	499.0 / 80.0	3.06	6169024.57	10282.430158	393.4	true
PFOS_2	499.0 / 99.0	3.06	1110109.04	10874.011843	798.6	false
PFDA_1	513.0 / 469.0	3.42	2015058.58	4589.036862	698.2	true
PFDA_2	513.0 / 219.0	3.41	87720.54	4515.471868	364.1	false
PFUnA_1	563.0 / 519.0	3.73	2006461.31	4682.783053	576.6	false
PFUnA_2	563.0 / 269.0	3.73	101466.03	4609.486172	351.7	false
PFDoA_1	613.0 / 569.0	4.01	1840136.48	4877.858191	617.1	false
PFDoA_2	613.0 / 319.0	4.01	289238.32	4912.848289	474.7	false
PFTrDA_1	663.0 / 619.0	4.26	1673512.07	5146.602675	990.3	false
PFTrDA_2	663.0 / 169.0	4.26	106109.24	5143.660795	711.1	false
PFTeDA_1	713.0 / 669.0	4.48	1687745.08	4825.521939	1526.2	false
PFTeDA_2	713.0 / 169.0	4.47	80929.54	4841.730516	1073.7	false
NMeFOSAA_1	570.0 / 419.0	3.57	275346.40	5674.605150	943.6	false
NMeFOSAA_2	570.0 / 512.0	3.57	147382.17	5548.091951	604.1	false
NEtFOSAA_1	584.0 / 419.0	3.73	272693.46	4935.213956	786.9	false
NEtFOSAA_2	584.0 / 483.0	3.73	16427.73	4842.476138	507.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:05:31 PM

Sample Name	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:06:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	99683.83	240.094819	1004.1	false
d3-MeFOSAA	573.0 / 419.0	3.60	13931.35	211.191254	150.6	false
d5-EtFOSAA	589.0 / 419.0	3.76	15941.90	241.123750	194.4	false
13C5-PFHxA	318.0 / 273.0	1.86	85981.33	247.763491	595.7	false
13C4-PFHpA	367.0 / 322.0	2.27	96927.87	243.587032	590.2	false
13C8-PFOA	421.0 / 376.0	2.68	115473.71	259.602187	888.2	false
13C9-PFNA	472.0 / 427.0	3.08	113876.03	253.672542	738.0	false
13C6-PFDA	519.0 / 474.0	3.43	115184.71	260.695675	1251.4	false
13C7-PFUnA	570.0 / 525.0	3.76	95980.99	247.390429	542.3	false
13C2-PFTeDA	715.0 / 670.0	4.51	78615.04	242.415286	1458.9	false
13C3-PFBS	302.0 / 99.0	1.53	38057.27	219.881953	563.5	false
13C3-PFHxS	402.0 / 99.0	2.29	32815.99	243.369791	328.7	false
13C8-PFOS	507.0 / 99.0	3.08	36393.28	242.834808	231.8	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:05:40 PM

Sample Name	CR849PB-FS(3)	**Injection Vial**	2
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:10:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	96760.71	273.648694	1131.8	false
d3-MeFOSAA	573.0 / 419.0	3.57	14058.47	247.954075	131.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	16296.48	286.776782	155.7	false
13C5-PFHxA	318.0 / 273.0	1.84	75843.82	252.358781	513.9	false
13C4-PFHpA	367.0 / 322.0	2.25	87006.88	252.478330	621.5	false
13C8-PFOA	421.0 / 376.0	2.66	107637.28	279.417096	1406.4	false
13C9-PFNA	472.0 / 427.0	3.05	102370.21	263.317524	1048.0	false
13C6-PFDA	519.0 / 474.0	3.40	105898.15	281.425622	5534.1	false
13C7-PFUnA	570.0 / 525.0	3.72	102032.06	308.795241	814.9	false
13C2-PFTeDA	715.0 / 670.0	4.47	75924.20	274.897524	1924.7	false
13C3-PFBS	302.0 / 99.0	1.52	32429.10	217.990351	361.8	false
13C3-PFHxS	402.0 / 99.0	2.27	30093.70	259.661240	288.7	false
13C8-PFOS	507.0 / 99.0	3.04	32875.01	255.214850	214.3	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:05:44 PM

Sample Name	CR850LCS-FS(3)	**Injection Vial**	3
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:21:43	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	101404.46	272.333587	597.3	false
d3-MeFOSAA	573.0 / 419.0	3.57	14031.20	239.405691	138.9	false
d5-EtFOSAA	589.0 / 419.0	3.73	15565.47	264.983486	170.7	false
13C5-PFHxA	318.0 / 273.0	1.84	76182.80	270.457889	535.3	false
13C4-PFHpA	367.0 / 322.0	2.25	94180.77	291.593119	546.1	false
13C8-PFOA	421.0 / 376.0	2.66	109807.21	304.134429	1329.4	false
13C9-PFNA	472.0 / 427.0	3.05	100444.77	275.662698	1044.0	false
13C6-PFDA	519.0 / 474.0	3.40	111050.67	280.250409	630.5	false
13C7-PFUnA	570.0 / 525.0	3.72	104346.34	299.889278	690.8	false
13C2-PFTeDA	715.0 / 670.0	4.48	80459.80	276.642800	1499.8	false
13C3-PFBS	302.0 / 99.0	1.52	36667.93	238.448893	389.6	false
13C3-PFHxS	402.0 / 99.0	2.27	30857.73	257.573942	243.0	false
13C8-PFOS	507.0 / 99.0	3.05	36466.38	273.866720	252.0	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:05:48 PM

Sample Name	J8201-FS(3)	**Injection Vial**	4
Sample ID	VC-PM3009-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:32:35	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	105863.75	240.757583	751.6	false
d3-MeFOSAA	573.0 / 419.0	3.56	14340.11	242.416717	183.0	false
d5-EtFOSAA	589.0 / 419.0	3.72	17236.46	290.720075	191.1	false
13C5-PFHxA	318.0 / 273.0	1.84	82011.59	234.810414	487.8	false
13C4-PFHpA	367.0 / 322.0	2.25	95860.05	239.360280	778.4	false
13C8-PFOA	421.0 / 376.0	2.66	112048.45	250.287994	927.5	false
13C9-PFNA	472.0 / 427.0	3.05	106051.30	234.728647	875.3	false
13C6-PFDA	519.0 / 474.0	3.40	115053.36	245.874176	910.3	false
13C7-PFUnA	570.0 / 525.0	3.72	107945.76	262.710763	654.0	false
13C2-PFTeDA	715.0 / 670.0	4.47	83282.90	242.484962	1434.1	false
13C3-PFBS	302.0 / 99.0	1.51	37053.37	238.729926	390.6	false
13C3-PFHxS	402.0 / 99.0	2.27	29948.53	247.675915	268.6	false
13C8-PFOS	507.0 / 99.0	3.04	33705.57	250.794795	196.1	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:05:52 PM

Sample Name	J8202-FS(3)	**Injection Vial**	5
Sample ID	VC-PM3009-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:43:30	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	105982.66	237.978521	945.2	false
d3-MeFOSAA	573.0 / 419.0	3.56	13380.91	216.261764	154.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	17038.28	274.749388	182.3	false
13C5-PFHxA	318.0 / 273.0	1.84	82334.69	245.559161	492.1	false
13C4-PFHpA	367.0 / 322.0	2.25	95238.45	247.718210	396.6	false
13C8-PFOA	421.0 / 376.0	2.66	120518.33	280.426080	282.1	false
13C9-PFNA	472.0 / 427.0	3.05	109048.12	251.419771	1018.0	false
13C6-PFDA	519.0 / 474.0	3.40	122841.04	259.195424	1091.1	false
13C7-PFUnA	570.0 / 525.0	3.72	109259.45	262.543660	510.7	false
13C2-PFTeDA	715.0 / 670.0	4.47	80276.71	230.775005	1944.9	false
13C3-PFBS	302.0 / 99.0	1.52	40495.02	249.439179	433.3	false
13C3-PFHxS	402.0 / 99.0	2.27	32440.65	256.496694	241.5	false
13C8-PFOS	507.0 / 99.0	3.05	35524.02	252.710314	253.3	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:05:57 PM

Sample Name	J8203-FS(3)	**Injection Vial**	6
Sample ID	VC-PM3009-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:54:23	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	99509.79	251.433280	635.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	12925.04	236.669072	174.7	false
d5-EtFOSAA	589.0 / 419.0	3.72	17980.36	328.492062	229.9	false
13C5-PFHxA	318.0 / 273.0	1.84	83212.66	248.575642	638.5	false
13C4-PFHpA	367.0 / 322.0	2.25	95491.35	248.774304	559.0	false
13C8-PFOA	421.0 / 376.0	2.66	112909.02	263.141787	3203.9	false
13C9-PFNA	472.0 / 427.0	3.05	105355.57	243.295813	944.3	false
13C6-PFDA	519.0 / 474.0	3.40	109219.62	259.321502	672.1	false
13C7-PFUnA	570.0 / 525.0	3.72	114160.02	308.681467	807.8	false
13C2-PFTeDA	715.0 / 670.0	4.47	80418.64	260.141676	1412.1	false
13C3-PFBS	302.0 / 99.0	1.52	35387.08	246.958124	314.9	false
13C3-PFHxS	402.0 / 99.0	2.27	30536.91	273.547574	292.7	false
13C8-PFOS	507.0 / 99.0	3.04	34767.69	280.215546	210.6	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:06:01 PM

Sample Name	J8204-FS(3)	**Injection Vial**	7
Sample ID	VC-PM3009-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:05:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	105147.52	298.238934	724.2	false
d3-MeFOSAA	573.0 / 419.0	3.57	11885.47	206.281205	144.4	false
d5-EtFOSAA	589.0 / 419.0	3.73	14536.03	251.713165	154.0	false
13C5-PFHxA	318.0 / 273.0	1.84	79429.55	267.881783	607.0	false
13C4-PFHpA	367.0 / 322.0	2.25	92697.83	272.648428	556.0	false
13C8-PFOA	421.0 / 376.0	2.66	104829.58	275.827130	1475.3	false
13C9-PFNA	472.0 / 427.0	3.05	94095.25	245.322140	762.9	false
13C6-PFDA	519.0 / 474.0	3.40	103524.75	275.924602	759.0	false
13C7-PFUnA	570.0 / 525.0	3.72	108871.71	330.460805	1456.5	false
13C2-PFTeDA	715.0 / 670.0	4.48	73743.86	267.785754	1335.3	false
13C3-PFBS	302.0 / 99.0	1.52	35769.10	236.603036	404.3	false
13C3-PFHxS	402.0 / 99.0	2.27	28890.74	245.301488	262.3	false
13C8-PFOS	507.0 / 99.0	3.05	29957.12	228.849590	208.5	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:06:05 PM

Sample Name	J8205-FS(3)	**Injection Vial**	8
Sample ID	VC-PM3009-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:16:07	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	103787.77	274.411793	598.7	false
d3-MeFOSAA	573.0 / 419.0	3.56	14137.67	228.923248	149.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	14546.95	235.017907	172.8	false
13C5-PFHxA	318.0 / 273.0	1.84	80803.96	258.838049	595.4	false
13C4-PFHpA	367.0 / 322.0	2.25	97208.08	271.562742	590.6	false
13C8-PFOA	421.0 / 376.0	2.66	113651.13	284.028077	1614.9	false
13C9-PFNA	472.0 / 427.0	3.05	98953.79	245.039380	918.8	false
13C6-PFDA	519.0 / 474.0	3.40	111917.19	278.057322	682.5	false
13C7-PFUnA	570.0 / 525.0	3.72	109929.65	311.036258	992.6	false
13C2-PFTeDA	715.0 / 670.0	4.48	83226.18	281.716868	1364.6	false
13C3-PFBS	302.0 / 99.0	1.52	39669.74	244.816486	472.8	false
13C3-PFHxS	402.0 / 99.0	2.27	32637.99	258.543575	254.9	false
13C8-PFOS	507.0 / 99.0	3.04	31488.37	224.423898	224.7	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:06:08 PM

Sample Name	J8206-FS(3)	**Injection Vial**	9
Sample ID	VC-PM3009-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:26:59	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	97950.79	261.379108	875.5	false
d3-MeFOSAA	573.0 / 419.0	3.56	12556.20	225.731372	170.3	false
d5-EtFOSAA	589.0 / 419.0	3.72	13412.49	240.580286	128.3	false
13C5-PFHxA	318.0 / 273.0	1.84	77265.66	262.282839	562.4	false
13C4-PFHpA	367.0 / 322.0	2.25	88680.42	262.532706	444.6	false
13C8-PFOA	421.0 / 376.0	2.65	97809.27	259.033182	1582.1	false
13C9-PFNA	472.0 / 427.0	3.05	101205.94	265.581214	847.4	false
13C6-PFDA	519.0 / 474.0	3.40	108300.34	271.564933	855.1	false
13C7-PFUnA	570.0 / 525.0	3.72	98872.56	282.343821	870.1	false
13C2-PFTeDA	715.0 / 670.0	4.47	73092.69	249.708402	1240.7	false
13C3-PFBS	302.0 / 99.0	1.52	36464.28	249.844817	419.7	false
13C3-PFHxS	402.0 / 99.0	2.27	31019.08	272.810339	218.5	false
13C8-PFOS	507.0 / 99.0	3.05	31345.79	248.038808	197.6	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:06:12 PM

Sample Name	J8207-FS(3)	**Injection Vial**	10
Sample ID	VC-PM3009-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:37:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	92902.89	253.797366	762.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	9304.28	201.156217	141.5	false
d5-EtFOSAA	589.0 / 419.0	3.72	12784.78	275.779009	132.1	false
13C5-PFHxA	318.0 / 273.0	1.84	73680.02	237.681389	484.8	false
13C4-PFHpA	367.0 / 322.0	2.25	84666.80	238.194033	787.7	false
13C8-PFOA	421.0 / 376.0	2.65	97715.08	245.922956	1410.3	false
13C9-PFNA	472.0 / 427.0	3.05	85973.93	214.397730	871.2	false
13C6-PFDA	519.0 / 474.0	3.40	95180.14	244.334683	765.0	false
13C7-PFUnA	570.0 / 525.0	3.72	92092.67	269.229426	599.3	false
13C2-PFTeDA	715.0 / 670.0	4.47	65683.73	229.726966	1290.9	false
13C3-PFBS	302.0 / 99.0	1.52	33503.41	276.063496	380.3	false
13C3-PFHxS	402.0 / 99.0	2.27	28270.31	299.005911	235.5	false
13C8-PFOS	507.0 / 99.0	3.04	22441.25	213.552599	186.5	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:06:16 PM

Sample Name	J8208-FS(3)	**Injection Vial**	11
Sample ID	VC-PM3009-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:48:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	95521.76	267.623292	703.8	false
d3-MeFOSAA	573.0 / 419.0	3.56	11478.42	221.520604	160.7	false
d5-EtFOSAA	589.0 / 419.0	3.72	14035.54	270.257599	154.1	false
13C5-PFHxA	318.0 / 273.0	1.84	77025.72	256.251461	564.8	false
13C4-PFHpA	367.0 / 322.0	2.25	86630.63	251.347392	808.6	false
13C8-PFOA	421.0 / 376.0	2.65	99097.97	257.209717	1302.0	false
13C9-PFNA	472.0 / 427.0	3.04	89149.19	229.274620	903.9	false
13C6-PFDA	519.0 / 474.0	3.40	100562.02	264.750325	1019.4	false
13C7-PFUnA	570.0 / 525.0	3.72	105678.74	316.846419	1080.5	false
13C2-PFTeDA	715.0 / 670.0	4.47	74861.58	268.520135	1514.0	false
13C3-PFBS	302.0 / 99.0	1.52	35565.66	261.596453	367.8	false
13C3-PFHxS	402.0 / 99.0	2.27	29797.92	281.330051	285.7	false
13C8-PFOS	507.0 / 99.0	3.04	26729.95	227.058085	194.6	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:06:19 PM

Sample Name	J8209-FS(3)	**Injection Vial**	14
Sample ID	VC-PM3009-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:21:26	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	96280.21	257.136444	643.7	false
d3-MeFOSAA	573.0 / 419.0	3.56	14522.61	247.996654	213.3	false
d5-EtFOSAA	589.0 / 419.0	3.72	15462.11	263.443126	163.0	false
13C5-PFHxA	318.0 / 273.0	1.84	84305.31	271.455941	539.3	false
13C4-PFHpA	367.0 / 322.0	2.24	89225.76	250.557271	1041.3	false
13C8-PFOA	421.0 / 376.0	2.65	110951.13	278.720046	1160.0	false
13C9-PFNA	472.0 / 427.0	3.04	98784.17	245.889379	598.3	false
13C6-PFDA	519.0 / 474.0	3.40	112203.32	281.587404	1048.3	false
13C7-PFUnA	570.0 / 525.0	3.72	105279.35	300.891114	559.7	false
13C2-PFTeDA	715.0 / 670.0	4.47	76130.78	260.305391	1626.8	false
13C3-PFBS	302.0 / 99.0	1.52	34010.07	221.349138	330.3	false
13C3-PFHxS	402.0 / 99.0	2.27	29710.70	248.206012	248.2	false
13C8-PFOS	507.0 / 99.0	3.04	28230.89	212.193747	174.9	false

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Summary Quant Report

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Printed: 03/10/2018 5:06:26 PM

Sample Name	J8219-FS(3)	**Injection Vial**	16
Sample ID	VC-PM372-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:43:11	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	91967.58	278.915004	1021.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	10746.71	239.373571	133.0	false
d5-EtFOSAA	589.0 / 419.0	3.72	13411.75	298.059694	169.9	false
13C5-PFHxA	318.0 / 273.0	1.84	69880.25	257.423257	509.7	false
13C4-PFHpA	367.0 / 322.0	2.25	81804.14	262.809442	621.9	false
13C8-PFOA	421.0 / 376.0	2.65	98263.64	282.408807	2804.8	false
13C9-PFNA	472.0 / 427.0	3.04	98840.07	281.471472	956.6	false
13C6-PFDA	519.0 / 474.0	3.40	99773.62	284.337240	1018.4	false
13C7-PFUnA	570.0 / 525.0	3.72	95159.02	308.835087	756.7	false
13C2-PFTeDA	715.0 / 670.0	4.46	65690.02	255.054382	1337.6	false
13C3-PFBS	302.0 / 99.0	1.52	31726.95	269.338454	346.0	false
13C3-PFHxS	402.0 / 99.0	2.27	26101.87	284.426954	273.1	false
13C8-PFOS	507.0 / 99.0	3.04	29493.70	289.159185	203.2	false

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Summary Quant Report

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Printed: 03/10/2018 5:06:30 PM

Sample Name	J8220-FS(3)	**Injection Vial**	17
Sample ID	VC-PM372-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:54:03	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	103172.98	262.471043	863.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	13032.69	190.460203	191.7	false
d5-EtFOSAA	589.0 / 419.0	3.72	16793.35	244.863684	192.9	false
13C5-PFHxA	318.0 / 273.0	1.84	87949.05	260.145625	553.7	false
13C4-PFHpA	367.0 / 322.0	2.25	95703.81	246.880573	737.5	false
13C8-PFOA	421.0 / 376.0	2.65	114497.95	264.225723	1404.1	false
13C9-PFNA	472.0 / 427.0	3.04	104522.60	239.003112	775.9	false
13C6-PFDA	519.0 / 474.0	3.40	115764.95	276.740955	1145.2	false
13C7-PFUnA	570.0 / 525.0	3.72	114735.07	312.356969	1051.4	false
13C2-PFTeDA	715.0 / 670.0	4.46	78081.48	254.307827	1256.5	false
13C3-PFBS	302.0 / 99.0	1.52	36309.21	202.234853	347.6	false
13C3-PFHxS	402.0 / 99.0	2.27	32616.44	233.187328	258.0	false
13C8-PFOS	507.0 / 99.0	3.04	33195.52	213.528742	199.9	false

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Summary Quant Report

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Printed: 03/10/2018 5:06:34 PM

Sample Name	J8221-FS(3)	**Injection Vial**	18
Sample ID	VC-PM372-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:04:57	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	110187.27	284.462979	768.5	false
d3-MeFOSAA	573.0 / 419.0	3.56	13758.02	239.514079	142.6	false
d5-EtFOSAA	589.0 / 419.0	3.72	15411.52	267.693336	153.4	false
13C5-PFHxA	318.0 / 273.0	1.84	82061.14	269.982486	533.1	false
13C4-PFHpA	367.0 / 322.0	2.25	90846.31	260.661956	642.8	false
13C8-PFOA	421.0 / 376.0	2.65	108556.91	278.642622	1025.0	false
13C9-PFNA	472.0 / 427.0	3.04	105866.33	269.255045	1174.7	false
13C6-PFDA	519.0 / 474.0	3.40	109008.38	264.444868	953.7	false
13C7-PFUnA	570.0 / 525.0	3.72	102004.22	281.807191	876.6	false
13C2-PFTeDA	715.0 / 670.0	4.47	78983.27	261.051206	1656.9	false
13C3-PFBS	302.0 / 99.0	1.52	40536.34	268.960614	366.7	false
13C3-PFHxS	402.0 / 99.0	2.27	35143.94	299.311709	302.2	false
13C8-PFOS	507.0 / 99.0	3.04	33182.64	254.268687	183.6	false

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Summary Quant Report

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Printed: 03/10/2018 5:06:37 PM

Sample Name	J8222-FS(3)	**Injection Vial**	19
Sample ID	VC-PM372-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:15:49	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	106566.94	243.202970	998.7	false
d3-MeFOSAA	573.0 / 419.0	3.56	12270.71	194.219828	149.3	false
d5-EtFOSAA	589.0 / 419.0	3.72	16777.92	264.959199	158.3	false
13C5-PFHxA	318.0 / 273.0	1.84	82856.91	238.258523	536.9	false
13C4-PFHpA	367.0 / 322.0	2.24	89779.46	225.148473	610.0	false
13C8-PFOA	421.0 / 376.0	2.65	108179.71	242.693168	211.3	false
13C9-PFNA	472.0 / 427.0	3.04	111773.72	248.466239	1247.7	false
13C6-PFDA	519.0 / 474.0	3.40	113116.35	242.578693	1055.7	false
13C7-PFUnA	570.0 / 525.0	3.72	105227.70	256.989893	750.9	false
13C2-PFTeDA	715.0 / 670.0	4.47	81429.00	237.914959	2401.2	false
13C3-PFBS	302.0 / 99.0	1.52	37919.61	228.747774	483.1	false
13C3-PFHxS	402.0 / 99.0	2.27	32847.13	254.342883	367.5	false
13C8-PFOS	507.0 / 99.0	3.04	33154.90	230.982187	209.0	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:06:41 PM

Sample Name	J8223-FS(3)	**Injection Vial**	20
Sample ID	VC-PM372-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:26:42	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	106690.04	264.162794	697.9	false
d3-MeFOSAA	573.0 / 419.0	3.56	12566.09	200.181198	149.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	17700.81	281.341105	168.9	false
13C5-PFHxA	318.0 / 273.0	1.84	78903.32	232.407505	546.5	false
13C4-PFHpA	367.0 / 322.0	2.25	95298.63	244.801382	435.4	false
13C8-PFOA	421.0 / 376.0	2.65	113714.68	261.314476	1356.1	false
13C9-PFNA	472.0 / 427.0	3.04	107447.59	244.658069	1207.2	false
13C6-PFDA	519.0 / 474.0	3.40	114631.34	266.705567	1245.9	false
13C7-PFUnA	570.0 / 525.0	3.72	107415.63	284.613071	734.3	false
13C2-PFTeDA	715.0 / 670.0	4.47	81766.83	259.191781	1637.8	false
13C3-PFBS	302.0 / 99.0	1.52	38214.37	232.016485	483.2	false
13C3-PFHxS	402.0 / 99.0	2.27	30694.05	239.207919	288.6	false
13C8-PFOS	507.0 / 99.0	3.04	33323.98	233.661261	187.1	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:06:45 PM

Sample Name	J8224-FS(3)	**Injection Vial**	21
Sample ID	VC-PM372-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:37:36	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	99446.15	252.594776	730.2	false
d3-MeFOSAA	573.0 / 419.0	3.56	12963.58	214.876364	166.6	false
d5-EtFOSAA	589.0 / 419.0	3.72	14135.37	233.769443	175.3	false
13C5-PFHxA	318.0 / 273.0	1.84	75379.08	252.834111	545.7	false
13C4-PFHpA	367.0 / 322.0	2.24	83488.86	244.222530	549.1	false
13C8-PFOA	421.0 / 376.0	2.65	106151.11	277.780299	1141.2	false
13C9-PFNA	472.0 / 427.0	3.04	98237.79	254.724902	679.2	false
13C6-PFDA	519.0 / 474.0	3.40	100545.59	239.982926	991.0	false
13C7-PFUnA	570.0 / 525.0	3.71	101167.53	274.990138	755.8	false
13C2-PFTeDA	715.0 / 670.0	4.47	75924.17	246.895263	1793.8	false
13C3-PFBS	302.0 / 99.0	1.52	35976.26	227.273499	447.7	false
13C3-PFHxS	402.0 / 99.0	2.27	27767.10	225.160644	250.5	false
13C8-PFOS	507.0 / 99.0	3.04	30506.71	222.569655	202.5	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:06:49 PM

Sample Name	J8225-FS(3)	**Injection Vial**	22
Sample ID	VC-PM372-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:48:29	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	100243.90	261.561389	1397.8	false
d3-MeFOSAA	573.0 / 419.0	3.56	10095.24	181.615981	137.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	12715.29	228.234183	156.3	false
13C5-PFHxA	318.0 / 273.0	1.84	72373.11	226.075847	423.4	false
13C4-PFHpA	367.0 / 322.0	2.25	88196.97	240.271870	546.4	false
13C8-PFOA	421.0 / 376.0	2.66	102210.32	249.094271	1438.8	false
13C9-PFNA	472.0 / 427.0	3.04	91894.92	221.909762	1057.4	false
13C6-PFDA	519.0 / 474.0	3.40	107519.69	263.623794	893.6	false
13C7-PFUnA	570.0 / 525.0	3.72	98631.71	275.405010	669.0	false
13C2-PFTeDA	715.0 / 670.0	4.47	70757.33	236.365123	1683.2	false
13C3-PFBS	302.0 / 99.0	1.52	35523.66	243.570258	417.3	false
13C3-PFHxS	402.0 / 99.0	2.27	28550.07	251.271308	309.2	false
13C8-PFOS	507.0 / 99.0	3.05	30203.12	239.164194	222.8	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:06:53 PM

Sample Name	J8226-FS(3)	**Injection Vial**	23
Sample ID	VC-PM372-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:59:21	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	97375.91	251.870647	714.6	false
d3-MeFOSAA	573.0 / 419.0	3.56	13399.12	217.224439	204.0	false
d5-EtFOSAA	589.0 / 419.0	3.72	16822.52	272.107439	177.7	false
13C5-PFHxA	318.0 / 273.0	1.84	76106.58	245.460341	522.1	false
13C4-PFHpA	367.0 / 322.0	2.25	89986.75	253.110445	577.7	false
13C8-PFOA	421.0 / 376.0	2.66	104452.62	262.827339	3970.2	false
13C9-PFNA	472.0 / 427.0	3.05	94121.83	234.669967	1442.8	false
13C6-PFDA	519.0 / 474.0	3.40	106263.18	258.279402	911.6	false
13C7-PFUnA	570.0 / 525.0	3.72	103338.28	286.040048	941.5	false
13C2-PFTeDA	715.0 / 670.0	4.47	73219.77	242.465921	1272.8	false
13C3-PFBS	302.0 / 99.0	1.52	34172.65	211.144715	455.7	false
13C3-PFHxS	402.0 / 99.0	2.27	27352.30	216.932509	263.9	false
13C8-PFOS	507.0 / 99.0	3.04	29483.88	210.389469	190.1	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:06:56 PM

Sample Name	J8227MS-FS(3)	**Injection Vial**	26
Sample ID	VC-PM372-SS02-000H-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:32:00	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	112438.31	265.041252	827.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	15008.11	237.425299	124.0	false
d5-EtFOSAA	589.0 / 419.0	3.72	16335.88	257.846006	192.2	false
13C5-PFHxA	318.0 / 273.0	1.84	83428.98	255.214766	457.4	false
13C4-PFHpA	367.0 / 322.0	2.24	93524.04	249.507998	662.7	false
13C8-PFOA	421.0 / 376.0	2.65	105648.24	252.140821	1193.0	false
13C9-PFNA	472.0 / 427.0	3.04	111141.00	262.827709	707.9	false
13C6-PFDA	519.0 / 474.0	3.39	107648.08	238.443996	698.9	false
13C7-PFUnA	570.0 / 525.0	3.72	119902.27	302.458756	498.5	false
13C2-PFTeDA	715.0 / 670.0	4.47	88851.90	268.140362	2163.3	false
13C3-PFBS	302.0 / 99.0	1.52	42799.76	258.054449	530.7	false
13C3-PFHxS	402.0 / 99.0	2.27	32605.51	252.342331	234.6	false
13C8-PFOS	507.0 / 99.0	3.04	35656.20	248.280631	193.2	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 5:07:00 PM

Sample Name	J8228MSD-FS(3)	**Injection Vial**	27
Sample ID	VC-PM372-SS02-000H-SD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:42:52	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	109955.77	267.216960	1445.9	false
d3-MeFOSAA	573.0 / 419.0	3.56	13590.06	227.327119	108.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	15131.30	252.535803	158.2	false
13C5-PFHxA	318.0 / 273.0	1.84	81646.63	268.835040	519.2	false
13C4-PFHpA	367.0 / 322.0	2.25	93866.69	269.545116	479.5	false
13C8-PFOA	421.0 / 376.0	2.66	99787.90	256.340705	1117.1	false
13C9-PFNA	472.0 / 427.0	3.05	103293.82	262.923832	859.2	false
13C6-PFDA	519.0 / 474.0	3.40	108701.71	248.235150	1165.3	false
13C7-PFUnA	570.0 / 525.0	3.72	103781.52	269.901705	658.2	false
13C2-PFTeDA	715.0 / 670.0	4.47	82702.12	257.311345	1601.9	false
13C3-PFBS	302.0 / 99.0	1.52	38938.37	248.242848	404.5	false
13C3-PFHxS	402.0 / 99.0	2.27	31824.82	260.431818	245.6	false
13C8-PFOS	507.0 / 99.0	3.04	32024.28	235.784920	205.8	false

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Summary Quant Report

Sample Name	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:45:25	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.84	50288.62	166.414128	202.2	false
PFBS_2	298.9 / 99.0	1.83	15890.39	168.949460	119.6	false
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	2.29	4746.48	5.211195	26.4	false
PFHxS_2	399.0 / 99.0	2.29	1813.37	14.015005	20.7	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	3.07	6010.69	< 0	24.3	true
PFNA_2	463.0 / 219.0	3.07	1591.05	< 0	19.6	true
PFOS_1	499.0 / 80.0	N/A	N/A	N/A	N/A	true
PFOS_2	499.0 / 99.0	3.06	2683.51	8.458556	35.6	false
PFDA_1	513.0 / 469.0	3.42	6116.37	2.994221	31.0	false
PFDA_2	513.0 / 219.0	3.44	825.30	20.054366	37.0	true
PFUnA_1	563.0 / 519.0	3.73	6158.55	21.869540	29.1	false
PFUnA_2	563.0 / 269.0	3.68	887.37	50.096914	25.0	true
PFDoA_1	613.0 / 569.0	4.02	6483.71	< 0	57.9	false
PFDoA_2	613.0 / 319.0	4.01	757.73	< 0	24.8	false
PFTrDA_1	663.0 / 619.0	4.26	5399.72	< 0	105.2	false
PFTrDA_2	663.0 / 169.0	4.25	622.19	< 0	35.0	true
PFTeDA_1	713.0 / 669.0	4.47	6122.44	< 0	163.4	false
PFTeDA_2	713.0 / 169.0	4.47	271.93	< 0	32.4	false
NMeFOSAA_1	570.0 / 419.0	3.57	1366.80	< 0	71.5	false
NMeFOSAA_2	570.0 / 512.0	3.57	845.17	< 0	30.5	false
NEtFOSAA_1	584.0 / 419.0	3.72	1417.09	48.997095	58.7	false
NEtFOSAA_2	584.0 / 483.0	3.72	82.57	11.213863	52.8	false

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Summary Quant Report

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Sample Name	J8218-FS(3)	**Injection Vial**	14
Sample ID	VC-PM372-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:39:44	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.53	2910.79	20.587551	15.9	true
PFBS_2	298.9 / 99.0	1.48	2533.79	25.949875	17.7	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	2.28	12398.20	25.107355	34.5	false
PFHxS_2	399.0 / 99.0	2.28	3463.43	28.684185	27.6	false
PFOA_1	413.0 / 369.0	2.66	24674.63	55.673007	48.1	false
PFOA_2	413.0 / 169.0	2.65	1773.32	73.020472	36.3	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	3.06	76843.07	89.130618	61.5	true
PFOS_2	499.0 / 99.0	3.06	15035.02	104.927102	95.3	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	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	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:45:25	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	92546.73	241.738558	1050.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	14938.65	254.545450	154.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	16702.68	261.127831	168.5	false
13C5-PFHxA	318.0 / 273.0	1.84	63762.03	239.419150	685.4	false
13C4-PFHpA	367.0 / 322.0	2.25	68855.85	235.360448	1030.9	false
13C8-PFOA	421.0 / 376.0	2.66	97193.51	260.191762	7067.3	false
13C9-PFNA	472.0 / 427.0	3.05	87468.15	231.959255	863.7	false
13C6-PFDA	519.0 / 474.0	3.40	95009.51	246.210668	928.9	false
13C7-PFUnA	570.0 / 525.0	3.72	98518.94	251.161978	620.2	false
13C2-PFTeDA	715.0 / 670.0	4.47	73048.82	239.695300	1866.6	false
13C3-PFBS	302.0 / 99.0	1.52	26301.26	217.782527	454.5	false
13C3-PFHxS	402.0 / 99.0	2.27	26329.82	239.810525	297.1	false
13C8-PFOS	507.0 / 99.0	3.04	25646.15	221.578017	206.0	false

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Summary Quant Report

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Sample Name	J8218-FS(3)	**Injection Vial**	14
Sample ID	VC-PM372-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:39:44	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	108623.87	252.103452	647.9	false
d3-MeFOSAA	573.0 / 419.0	3.56	13387.06	202.040227	186.3	false
d5-EtFOSAA	589.0 / 419.0	3.72	14479.49	200.502153	179.9	false
13C5-PFHxA	318.0 / 273.0	1.84	72116.81	270.856972	785.0	false
13C4-PFHpA	367.0 / 322.0	2.24	72777.36	248.825979	568.8	false
13C8-PFOA	421.0 / 376.0	2.65	100974.05	270.378907	1505.7	false
13C9-PFNA	472.0 / 427.0	3.04	112835.10	299.304167	982.3	false
13C6-PFDA	519.0 / 474.0	3.40	104717.04	241.115874	1115.4	false
13C7-PFUnA	570.0 / 525.0	3.72	101762.03	230.509359	684.2	false
13C2-PFTeDA	715.0 / 670.0	4.47	79875.49	232.878037	1704.4	false
13C3-PFBS	302.0 / 99.0	1.52	30447.87	223.306805	389.6	false
13C3-PFHxS	402.0 / 99.0	2.27	26919.46	217.162748	257.7	false
13C8-PFOS	507.0 / 99.0	3.04	34806.58	266.357161	233.1	false

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Summary Ion Ratio Report

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Sample Name	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:06:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.570	0.299	
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.283	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.080	0.068	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.250	0.307	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.175	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.06	PFDoA	0.100	0.153	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.31	PFTrDA	0.050	0.064	ü
PFTeDA_1	713.0 / 669.0	4.52	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.52	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.210	0.528	
NEtFOSAA_1	584.0 / 419.0	3.77	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.74	NEtFOSAA	0.110	0.082	ü

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Summary Ion Ratio Report

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Sample Name	CR849PB-FS(3)	**Injection Vial**	2
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:10:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.400	0.283	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.068	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.190	0.175	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	CR850LCS-FS(3)	**Injection Vial**	3
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:21:43	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.076	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.300	0.283	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.068	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.310	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.175	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.050	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.050	0.059	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.153	ü
PFTrDA_1	663.0 / 619.0	4.27	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.27	PFTrDA	0.070	0.064	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.540	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.070	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8201-FS(3)	**Injection Vial**	4
Sample ID	VC-PM3009-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:32:35	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.190	0.283	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.090	0.068	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.175	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	4.03	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.090	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8202-FS(3)	**Injection Vial**	5
Sample ID	VC-PM3009-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:43:30	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.283	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.070	0.068	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.160	0.175	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8203-FS(3)	**Injection Vial**	6
Sample ID	VC-PM3009-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:54:23	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.300	0.299	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.076	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.23	PFHpA	0.040	0.023	
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.283	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.050	0.068	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.307	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.150	0.175	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8204-FS(3)	**Injection Vial**	7
Sample ID	VC-PM3009-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:05:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.400	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.300	0.283	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.050	0.068	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.350	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.175	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.090	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8205-FS(3)	**Injection Vial**	8
Sample ID	VC-PM3009-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:16:07	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.060	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.310	0.283	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.60	PFOA	0.080	0.068	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.210	0.175	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.00	PFDoA	0.100	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8206-FS(3)	**Injection Vial**	9
Sample ID	VC-PM3009-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:26:59	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.300	0.283	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.150	0.068	
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.175	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8207-FS(3)	**Injection Vial**	10
Sample ID	VC-PM3009-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:37:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.370	0.283	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.100	0.068	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.175	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.190	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8208-FS(3)	**Injection Vial**	11
Sample ID	VC-PM3009-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:48:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.320	0.283	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.050	0.068	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.05	PFNA	0.370	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.175	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.140	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8209-FS(3)	**Injection Vial**	14
Sample ID	VC-PM3009-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:21:26	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.310	0.283	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.080	0.068	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.175	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8219-FS(3)	**Injection Vial**	16
Sample ID	VC-PM372-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:43:11	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.283	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.090	0.068	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.307	ü
PFOS_1	499.0 / 80.0	3.01	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.240	0.175	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8220-FS(3)	**Injection Vial**	17
Sample ID	VC-PM372-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:54:03	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.283	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.060	0.068	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.307	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.175	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8221-FS(3)	**Injection Vial**	18
Sample ID	VC-PM372-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:04:57	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.440	0.299	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.076	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.283	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.090	0.068	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.310	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.175	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.080	0.050	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.03	PFDoA	0.190	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8222-FS(3)	**Injection Vial**	19
Sample ID	VC-PM372-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:15:49	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.283	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.068	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.350	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.175	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8223-FS(3)	**Injection Vial**	20
Sample ID	VC-PM372-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:26:42	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.283	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.068	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.175	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8224-FS(3)	**Injection Vial**	21
Sample ID	VC-PM372-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:37:36	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.283	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.068	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.307	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.175	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8225-FS(3)	**Injection Vial**	22
Sample ID	VC-PM372-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:48:29	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.283	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.068	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.307	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.175	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8226-FS(3)	**Injection Vial**	23
Sample ID	VC-PM372-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:59:21	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.460	0.299	
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.076	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.023	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.283	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.068	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.307	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.175	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.050	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.059	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.153	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.064	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.528	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8227MS-FS(3)	**Injection Vial**	26
Sample ID	VC-PM372-SS02-000H-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:32:00	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.076	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.283	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.070	0.068	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.175	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.050	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.059	ü
PFDoA_1	613.0 / 569.0	4.01	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.160	0.153	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.070	0.064	ü
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.56	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.56	NMeFOSAA	0.570	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.082	ü

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Summary Ion Ratio Report

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Sample Name	J8228MSD-FS(3)	**Injection Vial**	27
Sample ID	VC-PM372-SS02-000H-SD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:42:52	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	0.299	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.076	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.023	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.283	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.070	0.068	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.310	0.307	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.175	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.050	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.059	ü
PFDoA_1	613.0 / 569.0	4.01	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.160	0.153	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.060	0.064	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.540	0.528	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.082	ü

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Summary Ion Ratio Report

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Sample Name	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:45:25	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.84	PFBS			
PFBS_2	298.9 / 99.0	1.83	PFBS	0.320	0.300	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.079	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.021	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.380	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.062	ü
PFNA_1	463.0 / 419.0	3.07	PFNA			
PFNA_2	463.0 / 219.0	3.07	PFNA	0.260	0.319	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	N/A	0.174	
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.130	0.045	
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.68	PFUnA	0.140	0.050	
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.120	0.162	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.25	PFTrDA	0.120	0.066	
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.040	0.051	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.620	0.558	ü
NEtFOSAA_1	584.0 / 419.0	3.72	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.72	NEtFOSAA	0.060	0.069	ü

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Summary Ion Ratio Report

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Printed: 03/10/2018 1:57:26 PM

Sample Name	J8218-FS(3)	**Injection Vial**	14
Sample ID	VC-PM372-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:39:44	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	1.48	PFBS	0.870	0.300	
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.079	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.021	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.070	0.062	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.319	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.045	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.050	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.162	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.051	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.558	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	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:06:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	38057.27	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	38057.27	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	85981.33	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	85981.33	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	115473.71	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	115473.71	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	32056.28	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	32056.28	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	115473.71	250.00
PFOA_2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	115473.71	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	113876.03	250.00
PFNA_2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	113876.03	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	36619.19	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	36619.19	239.25
PFDA_1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	115184.71	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	115184.71	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	95980.99	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	95980.99	250.00
PFDoA_1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	99683.83	250.00
PFDoA_2	613.0 / 319.0	4.06	13C2-PFDoA	615.0 / 570.0	99683.83	250.00
PFTrDA_1	663.0 / 619.0	4.30	13C2-PFTeDA	715.0 / 670.0	78615.04	250.00
PFTrDA_2	663.0 / 169.0	4.31	13C2-PFTeDA	715.0 / 670.0	78615.04	250.00
PFTeDA_1	713.0 / 669.0	4.52	13C2-PFTeDA	715.0 / 670.0	78615.04	250.00
PFTeDA_2	713.0 / 169.0	4.52	13C2-PFTeDA	715.0 / 670.0	78615.04	250.00
NMeFOSAA_1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	14300.71	250.00
NMeFOSAA_2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	14300.71	250.00
NEtFOSAA_1	584.0 / 419.0	3.77	d5-EtFOSAA	589.0 / 419.0	16113.28	250.00
NEtFOSAA_2	584.0 / 483.0	3.74	d5-EtFOSAA	589.0 / 419.0	16113.28	250.00

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Summary Internal Standard Report

Sample Name	CR849PB-FS(3)	**Injection Vial**	2
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:10:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	32429.10	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	32429.10	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	75843.82	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	75843.82	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	107637.28	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	107637.28	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	29419.51	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	29419.51	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	107637.28	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	107637.28	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	102370.21	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	102370.21	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	32981.97	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	32981.97	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	105898.15	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	105898.15	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	102032.06	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	102032.06	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	96760.71	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	96760.71	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	75924.20	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75924.20	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	75924.20	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75924.20	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14162.52	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14162.52	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16163.67	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16163.67	250.00

Sample Name	CR850LCS-FS(3)	**Injection Vial**	3
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:21:43	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	36667.93	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	36667.93	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	76182.80	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	76182.80	250.00
PFHpA_1	363.0 / 319.0	2.26	13C8-PFOA	421.0 / 376.0	109807.21	250.00
PFHpA_2	363.0 / 169.0	2.26	13C8-PFOA	421.0 / 376.0	109807.21	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	30625.46	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	30625.46	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	109807.21	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	109807.21	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	100444.77	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	100444.77	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	37292.59	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	37292.59	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	111050.67	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	111050.67	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	104346.34	250.00
PFUnA_2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	104346.34	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	101404.46	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	101404.46	250.00
PFTrDA_1	663.0 / 619.0	4.27	13C2-PFTeDA	715.0 / 670.0	80459.80	250.00
PFTrDA_2	663.0 / 169.0	4.27	13C2-PFTeDA	715.0 / 670.0	80459.80	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	80459.80	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	80459.80	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	14505.94	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	14505.94	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	15883.58	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	15883.58	250.00

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Summary Internal Standard Report

Sample Name	J8201-FS(3)	**Injection Vial**	4
Sample ID	VC-PM3009-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:32:35	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	37053.37	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	37053.37	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	82011.59	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	82011.59	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	112048.45	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	112048.45	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	29497.47	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	29497.47	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	112048.45	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	112048.45	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	106051.30	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	106051.30	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	34454.40	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	34454.40	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	115053.36	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	115053.36	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	107945.76	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	107945.76	250.00
PFDoA_1	613.0 / 569.0	4.03	13C2-PFDoA	615.0 / 570.0	105863.75	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	105863.75	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	83282.90	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	83282.90	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	83282.90	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	83282.90	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14568.11	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14568.11	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	17210.26	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	17210.26	250.00

Sample Name	J8202-FS(3)	**Injection Vial**	5
Sample ID	VC-PM3009-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:43:30	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	40495.02	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	40495.02	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	82334.69	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	82334.69	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	120518.33	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	120518.33	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	31820.88	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	31820.88	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	120518.33	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	120518.33	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	109048.12	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	109048.12	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	35208.21	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	35208.21	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	122841.04	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	122841.04	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	109259.45	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	109259.45	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	105982.66	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	105982.66	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	80276.71	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	80276.71	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	80276.71	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	80276.71	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13371.40	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13371.40	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16654.02	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16654.02	250.00

Sample Name	J8203-FS(3)	**Injection Vial**	6
Sample ID	VC-PM3009-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:54:23	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	35387.08	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	35387.08	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	83212.66	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	83212.66	250.00
PFHpA_1	363.0 / 319.0	2.25	13C8-PFOA	421.0 / 376.0	112909.02	250.00
PFHpA_2	363.0 / 169.0	2.23	13C8-PFOA	421.0 / 376.0	112909.02	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	30449.83	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	30449.83	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	112909.02	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	112909.02	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	105355.57	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	105355.57	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	35163.23	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	35163.23	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	109219.62	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	109219.62	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	114160.02	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	114160.02	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	99509.79	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	99509.79	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	80418.64	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	80418.64	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	80418.64	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	80418.64	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13452.88	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13452.88	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	18016.27	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	18016.27	250.00

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Summary Internal Standard Report

Sample Name	J8204-FS(3)	**Injection Vial**	7
Sample ID	VC-PM3009-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:05:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	35769.10	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	35769.10	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	79429.55	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	79429.55	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	104829.58	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	104829.58	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	28341.86	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	28341.86	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	104829.58	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	104829.58	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	94095.25	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	94095.25	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	30296.66	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	30296.66	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	103524.75	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	103524.75	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	108871.71	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	108871.71	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	105147.52	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	105147.52	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	73743.86	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73743.86	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	73743.86	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73743.86	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12199.93	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12199.93	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14696.25	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14696.25	250.00

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Summary Internal Standard Report

Sample Name	J8205-FS(3)	**Injection Vial**	8
Sample ID	VC-PM3009-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:16:07	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	39669.74	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	39669.74	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	80803.96	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	80803.96	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	113651.13	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	113651.13	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	32231.79	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	32231.79	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	113651.13	250.00
PFOA_2	413.0 / 169.0	2.60	13C8-PFOA	421.0 / 376.0	113651.13	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	98953.79	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	98953.79	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	31701.14	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	31701.14	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	111917.19	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	111917.19	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	109929.65	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	109929.65	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	103787.77	250.00
PFDoA_2	613.0 / 319.0	4.00	13C2-PFDoA	615.0 / 570.0	103787.77	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	83226.18	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	83226.18	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	83226.18	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	83226.18	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14435.30	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14435.30	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13840.73	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13840.73	250.00

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Summary Internal Standard Report

Sample Name	J8206-FS(3)	**Injection Vial**	9
Sample ID	VC-PM3009-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:26:59	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	36464.28	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	36464.28	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	77265.66	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	77265.66	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	97809.27	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	97809.27	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	30691.14	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	30691.14	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	97809.27	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	97809.27	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	101205.94	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	101205.94	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	31517.41	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	31517.41	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	108300.34	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	108300.34	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	98872.56	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	98872.56	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	97950.79	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	97950.79	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	73092.69	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73092.69	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	73092.69	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73092.69	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12827.73	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12827.73	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13809.07	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13809.07	250.00

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Summary Internal Standard Report

Sample Name	J8207-FS(3)	**Injection Vial**	10
Sample ID	VC-PM3009-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:37:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	33503.41	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	33503.41	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	73680.02	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	73680.02	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	97715.08	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	97715.08	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	26951.31	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	26951.31	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	97715.08	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	97715.08	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	85973.93	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	85973.93	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	23257.32	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	23257.32	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	95180.14	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	95180.14	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	92092.67	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	92092.67	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	92902.89	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	92902.89	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	65683.73	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65683.73	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	65683.73	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65683.73	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	8991.42	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	8991.42	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13137.85	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13137.85	250.00

Sample Name	J8208-FS(3)	**Injection Vial**	11
Sample ID	VC-PM3009-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:48:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	35565.66	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	35565.66	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	77025.72	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	77025.72	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	99097.97	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	99097.97	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	29662.11	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	29662.11	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	99097.97	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	99097.97	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	89149.19	250.00
PFNA_2	463.0 / 219.0	3.05	13C9-PFNA	472.0 / 427.0	89149.19	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	25479.06	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	25479.06	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	100562.02	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	100562.02	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	105678.74	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	105678.74	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	95521.76	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	95521.76	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	74861.58	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	74861.58	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	74861.58	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	74861.58	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	11680.72	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	11680.72	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14053.91	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14053.91	250.00

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Summary Internal Standard Report

Sample Name	J8209-FS(3)	**Injection Vial**	14
Sample ID	VC-PM3009-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:21:26	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	34010.07	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	34010.07	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	84305.31	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	84305.31	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	110951.13	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	110951.13	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	29022.61	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	29022.61	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	110951.13	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	110951.13	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	98784.17	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	98784.17	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	29038.97	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	29038.97	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	112203.32	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	112203.32	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	105279.35	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	105279.35	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	96280.21	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	96280.21	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	76130.78	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	76130.78	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	76130.78	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	76130.78	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14638.12	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14638.12	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14589.32	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14589.32	250.00

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Summary Internal Standard Report

Sample Name	J8219-FS(3)	**Injection Vial**	16
Sample ID	VC-PM372-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:43:11	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	31726.95	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	31726.95	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	69880.25	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	69880.25	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	98263.64	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	98263.64	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	25412.22	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	25412.22	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	98263.64	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	98263.64	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	98840.07	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	98840.07	250.00
PFOS_1	499.0 / 80.0	3.01	13C8-PFOS	507.0 / 99.0	30754.29	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	30754.29	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	99773.62	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	99773.62	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	95159.02	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	95159.02	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	91967.58	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	91967.58	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	65690.02	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65690.02	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	65690.02	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	65690.02	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	11180.28	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	11180.28	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13940.07	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13940.07	250.00

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Summary Internal Standard Report

Sample Name	J8220-FS(3)	**Injection Vial**	17
Sample ID	VC-PM372-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:54:03	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	36309.21	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	36309.21	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	87949.05	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	87949.05	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	114497.95	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	114497.95	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	32507.63	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	32507.63	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	114497.95	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	114497.95	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	104522.60	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	104522.60	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	34076.41	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	34076.41	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	115764.95	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	115764.95	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	114735.07	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	114735.07	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	103172.98	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	103172.98	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	78081.48	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	78081.48	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	78081.48	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	78081.48	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13224.06	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13224.06	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16628.49	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16628.49	250.00

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Summary Internal Standard Report

Sample Name	J8221-FS(3)	**Injection Vial**	18
Sample ID	VC-PM372-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:04:57	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	40536.34	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	40536.34	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	82061.14	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	82061.14	250.00
PFHpA_1	363.0 / 319.0	2.25	13C8-PFOA	421.0 / 376.0	108556.91	250.00
PFHpA_2	363.0 / 169.0	2.25	13C8-PFOA	421.0 / 376.0	108556.91	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	34656.46	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	34656.46	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	108556.91	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	108556.91	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	105866.33	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	105866.33	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	33851.67	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	33851.67	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	109008.38	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	109008.38	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	102004.22	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	102004.22	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	110187.27	250.00
PFDoA_2	613.0 / 319.0	4.03	13C2-PFDoA	615.0 / 570.0	110187.27	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	78983.27	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	78983.27	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	78983.27	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	78983.27	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14237.45	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14237.45	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14355.91	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14355.91	250.00

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Summary Internal Standard Report

Sample Name	J8222-FS(3)	**Injection Vial**	19
Sample ID	VC-PM372-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:15:49	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	37919.61	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	37919.61	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	82856.91	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	82856.91	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	108179.71	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	108179.71	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	32833.06	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	32833.06	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	108179.71	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	108179.71	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	111773.72	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	111773.72	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	33930.99	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	33930.99	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	113116.35	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	113116.35	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	105227.70	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	105227.70	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	106566.94	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	106566.94	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	81429.00	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	81429.00	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	81429.00	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	81429.00	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	11686.59	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	11686.59	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	17684.87	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	17684.87	250.00

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Summary Internal Standard Report

Sample Name	J8223-FS(3)	**Injection Vial**	20
Sample ID	VC-PM372-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:26:42	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	38214.37	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	38214.37	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	78903.32	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	78903.32	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	113714.68	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	113714.68	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	29532.10	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	29532.10	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	113714.68	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	113714.68	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	107447.59	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	107447.59	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	34433.63	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	34433.63	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	114631.34	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	114631.34	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	107415.63	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	107415.63	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	106690.04	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	106690.04	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	81766.83	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	81766.83	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	81766.83	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	81766.83	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12555.92	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12555.92	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	17576.15	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	17576.15	250.00

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Summary Internal Standard Report

Sample Name	J8224-FS(3)	**Injection Vial**	21
Sample ID	VC-PM372-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:37:36	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	35976.26	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	35976.26	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	75379.08	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	75379.08	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	106151.11	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	106151.11	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	26838.97	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	26838.97	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	106151.11	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	106151.11	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	98237.79	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	98237.79	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	31823.35	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	31823.35	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	100545.59	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	100545.59	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	101167.53	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	101167.53	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	99446.15	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	99446.15	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	75924.17	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75924.17	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	75924.17	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	75924.17	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13113.70	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13113.70	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14227.30	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14227.30	250.00

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Summary Internal Standard Report

Sample Name	J8225-FS(3)	**Injection Vial**	22
Sample ID	VC-PM372-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:48:29	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	35523.66	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	35523.66	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	72373.11	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	72373.11	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	102210.32	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	102210.32	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	28389.42	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	28389.42	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	102210.32	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	102210.32	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	91894.92	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	91894.92	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	30786.68	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	30786.68	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	107519.69	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	107519.69	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	98631.71	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	98631.71	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	100243.90	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	100243.90	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	70757.33	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70757.33	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	70757.33	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	70757.33	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	10488.74	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	10488.74	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	12806.03	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	12806.03	250.00

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Summary Internal Standard Report

Sample Name	J8226-FS(3)	**Injection Vial**	23
Sample ID	VC-PM372-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:59:21	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	34172.65	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	34172.65	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	76106.58	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	76106.58	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	104452.62	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	104452.62	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	26491.12	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	26491.12	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	104452.62	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	104452.62	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	94121.83	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	94121.83	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	30074.58	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	30074.58	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	106263.18	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	106263.18	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	103338.28	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	103338.28	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	97375.91	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	97375.91	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	73219.77	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73219.77	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	73219.77	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73219.77	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12934.53	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12934.53	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16620.31	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16620.31	250.00

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Summary Internal Standard Report

Sample Name	J8227MS-FS(3)	**Injection Vial**	26
Sample ID	VC-PM372-SS02-000H-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:32:00	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	42799.76	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	42799.76	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	83428.98	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	83428.98	250.00
PFHpA_1	363.0 / 319.0	2.25	13C8-PFOA	421.0 / 376.0	105648.24	250.00
PFHpA_2	363.0 / 169.0	2.25	13C8-PFOA	421.0 / 376.0	105648.24	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	32009.34	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	32009.34	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	105648.24	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	105648.24	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	111141.00	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	111141.00	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	36553.25	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	36553.25	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	107648.08	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	107648.08	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	119902.27	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	119902.27	250.00
PFDoA_1	613.0 / 569.0	4.01	13C2-PFDoA	615.0 / 570.0	112438.31	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	112438.31	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	88851.90	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	88851.90	250.00
PFTeDA_1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	88851.90	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	88851.90	250.00
NMeFOSAA_1	570.0 / 419.0	3.56	d3-MeFOSAA	573.0 / 419.0	14931.42	250.00
NMeFOSAA_2	570.0 / 512.0	3.56	d3-MeFOSAA	573.0 / 419.0	14931.42	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	15113.60	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	15113.60	250.00

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Summary Internal Standard Report

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Sample Name	J8228MSD-FS(3)	**Injection Vial**	27
Sample ID	VC-PM372-SS02-000H-SD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:42:52	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	38938.37	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	38938.37	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	81646.63	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	81646.63	250.00
PFHpA_1	363.0 / 319.0	2.26	13C8-PFOA	421.0 / 376.0	99787.90	250.00
PFHpA_2	363.0 / 169.0	2.26	13C8-PFOA	421.0 / 376.0	99787.90	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	31824.12	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	31824.12	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	99787.90	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	99787.90	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	103293.82	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	103293.82	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	32515.94	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	32515.94	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	108701.71	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	108701.71	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	103781.52	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	103781.52	250.00
PFDoA_1	613.0 / 569.0	4.01	13C2-PFDoA	615.0 / 570.0	109955.77	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	109955.77	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	82702.12	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	82702.12	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	82702.12	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	82702.12	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	14032.17	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	14032.17	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	15004.89	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	15004.89	250.00

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Summary Internal Standard Report

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Sample Name	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:06:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.05	13C2-PFDA	515.0 / 470.0	104440.37	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	33646.69	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	33646.69	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	102021.41	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	102021.41	250.00
13C8-PFOA	421.0 / 376.0	2.68	13C2-PFOA	415.0 / 370.0	102021.41	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	102021.41	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	104440.37	250.00
13C7-PFUnA	570.0 / 525.0	3.76	13C2-PFDA	515.0 / 470.0	104440.37	250.00
13C2-PFTeDA	715.0 / 670.0	4.51	13C2-PFDA	515.0 / 470.0	104440.37	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	33646.69	239.25
13C3-PFHxS	402.0 / 99.0	2.29	13C4-PFOS	503.0 / 99.0	33646.69	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	33646.69	239.25

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Summary Internal Standard Report

Sample Name	CR849PB-FS(3)	**Injection Vial**	2
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:10:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	88947.17	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	28919.58	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	28919.58	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	88354.01	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	88354.01	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	88354.01	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	88354.01	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	88947.17	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	88947.17	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	88947.17	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	28919.58	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	28919.58	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	28919.58	239.25

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Summary Internal Standard Report

Sample Name	CR850LCS-FS(3)	**Injection Vial**	3
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:21:43	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	93666.08	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	29894.10	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	29894.10	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	82809.81	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	82809.81	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	82809.81	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	82809.81	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	93666.08	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	93666.08	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	93666.08	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	29894.10	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29894.10	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	29894.10	239.25

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Summary Internal Standard Report

Sample Name	J8201-FS(3)	**Injection Vial**	4
Sample ID	VC-PM3009-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:32:35	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	110609.85	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	30172.77	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	30172.77	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	102679.17	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	102679.17	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	102679.17	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	102679.17	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	110609.85	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	110609.85	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	110609.85	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	30172.77	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	30172.77	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	30172.77	239.25

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Summary Internal Standard Report

Sample Name	J8202-FS(3)	**Injection Vial**	5
Sample ID	VC-PM3009-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:43:30	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	112027.22	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	31559.58	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	31559.58	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	98571.47	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	98571.47	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	98571.47	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	98571.47	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	112027.22	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	112027.22	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	112027.22	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	31559.58	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	31559.58	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	31559.58	239.25

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Summary Internal Standard Report

Sample Name	J8203-FS(3)	**Injection Vial**	6
Sample ID	VC-PM3009-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:54:23	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	99556.48	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	27855.80	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	27855.80	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	98413.65	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	98413.65	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	98413.65	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	98413.65	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	99556.48	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	99556.48	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	99556.48	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	27855.80	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	27855.80	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	27855.80	239.25

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Summary Internal Standard Report

Sample Name	J8204-FS(3)	**Injection Vial**	7
Sample ID	VC-PM3009-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:05:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	88687.25	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	29388.81	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	29388.81	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	87169.27	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	87169.27	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	87169.27	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	87169.27	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	88687.25	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	88687.25	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	88687.25	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	29388.81	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29388.81	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	29388.81	239.25

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Summary Internal Standard Report

Sample Name	J8205-FS(3)	**Injection Vial**	8
Sample ID	VC-PM3009-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:16:07	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	95141.47	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	31500.18	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	31500.18	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	91775.98	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	91775.98	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	91775.98	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	91775.98	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	95141.47	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	95141.47	250.00
13C2-PFTeDA	715.0 / 670.0	4.48	13C2-PFDA	515.0 / 470.0	95141.47	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	31500.18	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	31500.18	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	31500.18	239.25

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Summary Internal Standard Report

Sample Name	J8206-FS(3)	**Injection Vial**	9
Sample ID	VC-PM3009-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:26:59	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	94267.84	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	28372.11	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	28372.11	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	86604.63	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	86604.63	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	86604.63	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	86604.63	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	94267.84	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	94267.84	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	94267.84	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	28372.11	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	28372.11	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	28372.11	239.25

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Summary Internal Standard Report

Sample Name	J8207-FS(3)	**Injection Vial**	10
Sample ID	VC-PM3009-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:37:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	92080.70	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	23592.52	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	23592.52	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	91133.71	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	91133.71	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	91133.71	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	91133.71	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	92080.70	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	92080.70	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	92080.70	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	23592.52	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	23592.52	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	23592.52	239.25

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Summary Internal Standard Report

Sample Name	J8208-FS(3)	**Injection Vial**	11
Sample ID	VC-PM3009-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:48:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	89785.23	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	26429.76	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26429.76	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	88367.77	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	88367.77	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	88367.77	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	88367.77	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	89785.23	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	89785.23	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	89785.23	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	26429.76	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	26429.76	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	26429.76	239.25

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Sample Name	J8209-FS(3)	**Injection Vial**	14
Sample ID	VC-PM3009-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:21:26	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	94188.93	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	29869.23	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	29869.23	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	91301.95	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	91301.95	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	91301.95	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	91301.95	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	94188.93	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	94188.93	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	94188.93	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	29869.23	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29869.23	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	29869.23	239.25

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Summary Internal Standard Report

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Sample Name	J8219-FS(3)	**Injection Vial**	16
Sample ID	VC-PM372-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:43:11	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	82944.84	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	22899.41	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	22899.41	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	79805.19	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	79805.19	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	79805.19	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	79805.19	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	82944.84	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	82944.84	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	82944.84	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	22899.41	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	22899.41	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	22899.41	239.25

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Sample Name	J8220-FS(3)	**Injection Vial**	17
Sample ID	VC-PM372-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:54:03	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	98880.59	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	34902.39	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	34902.39	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	99389.19	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	99389.19	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	99389.19	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	99389.19	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	98880.59	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	98880.59	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	98880.59	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	34902.39	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	34902.39	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	34902.39	239.25

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Summary Internal Standard Report

Sample Name	J8221-FS(3)	**Injection Vial**	18
Sample ID	VC-PM372-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:04:57	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	97438.85	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	29298.82	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	29298.82	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	89356.56	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	89356.56	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	89356.56	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	89356.56	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	97438.85	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	97438.85	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	97438.85	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	29298.82	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29298.82	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	29298.82	239.25

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Summary Internal Standard Report

Sample Name	J8222-FS(3)	**Injection Vial**	19
Sample ID	VC-PM372-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:15:49	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	110225.00	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	32225.62	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	32225.62	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	102236.22	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	102236.22	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	102236.22	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	102236.22	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	110225.00	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	110225.00	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	110225.00	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	32225.62	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	32225.62	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	32225.62	239.25

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Summary Internal Standard Report

Sample Name	J8223-FS(3)	**Injection Vial**	20
Sample ID	VC-PM372-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:26:42	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	101596.49	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	32018.59	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	32018.59	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	99808.98	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	99808.98	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	99808.98	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	99808.98	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	101596.49	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	101596.49	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	101596.49	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	32018.59	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	32018.59	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	32018.59	239.25

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Summary Internal Standard Report

Sample Name	J8224-FS(3)	**Injection Vial**	21
Sample ID	VC-PM372-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:37:36	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	99035.31	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	30772.41	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	30772.41	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	87647.52	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	87647.52	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	87647.52	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	87647.52	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	99035.31	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	99035.31	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	99035.31	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	30772.41	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	30772.41	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	30772.41	239.25

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Sample Name	J8225-FS(3)	**Injection Vial**	22
Sample ID	VC-PM372-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:48:29	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	96407.50	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	28352.26	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	28352.26	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	94112.55	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	94112.55	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	94112.55	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	94112.55	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	96407.50	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	96407.50	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	96407.50	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	28352.26	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	28352.26	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	28352.26	239.25

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Summary Internal Standard Report

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Sample Name	J8226-FS(3)	**Injection Vial**	23
Sample ID	VC-PM372-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:59:21	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	97252.42	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	31462.47	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	31462.47	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	91151.82	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	91151.82	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	91151.82	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	91151.82	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	97252.42	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	97252.42	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	97252.42	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	31462.47	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	31462.47	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	31462.47	239.25

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Summary Internal Standard Report

Sample Name	J8227MS-FS(3)	**Injection Vial**	26
Sample ID	VC-PM372-SS02-000H-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:32:00	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	106715.45	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	32242.17	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	32242.17	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	96102.70	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	96102.70	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	96102.70	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	96102.70	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	106715.45	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	106715.45	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	106715.45	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	32242.17	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	32242.17	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	32242.17	239.25

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Summary Internal Standard Report

Sample Name	J8228MSD-FS(3)	**Injection Vial**	27
Sample ID	VC-PM372-SS02-000H-SD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:42:52	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	103509.56	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	30492.66	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	30492.66	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	89284.66	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	89284.66	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	89284.66	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	89284.66	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	103509.56	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	103509.56	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	103509.56	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	30492.66	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	30492.66	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	30492.66	239.25

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Summary Internal Standard Report

Sample Name	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:45:25	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.84	13C3-PFBS	302.0 / 99.0	26301.26	232.25
PFBS_2	298.9 / 99.0	1.83	13C3-PFBS	302.0 / 99.0	26301.26	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	63762.03	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	63762.03	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	97193.51	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	97193.51	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	25913.83	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	25913.83	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	97193.51	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	97193.51	250.00
PFNA_1	463.0 / 419.0	3.07	13C9-PFNA	472.0 / 427.0	87468.15	250.00
PFNA_2	463.0 / 219.0	3.07	13C9-PFNA	472.0 / 427.0	87468.15	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	26470.49	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	26470.49	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	95009.51	250.00
PFDA_2	513.0 / 219.0	3.44	13C6-PFDA	519.0 / 474.0	95009.51	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	98518.94	250.00
PFUnA_2	563.0 / 269.0	3.68	13C7-PFUnA	570.0 / 525.0	98518.94	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	92546.73	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	92546.73	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	73048.82	250.00
PFTrDA_2	663.0 / 169.0	4.25	13C2-PFTeDA	715.0 / 670.0	73048.82	250.00
PFTeDA_1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	73048.82	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	73048.82	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	15260.48	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	15260.48	250.00
NEtFOSAA_1	584.0 / 419.0	3.72	d5-EtFOSAA	589.0 / 419.0	16867.00	250.00
NEtFOSAA_2	584.0 / 483.0	3.72	d5-EtFOSAA	589.0 / 419.0	16867.00	250.00

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Summary Internal Standard Report

Sample Name	J8218-FS(3)	**Injection Vial**	14
Sample ID	VC-PM372-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:39:44	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
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	30447.87	232.25
PFBS_2	298.9 / 99.0	1.48	13C3-PFBS	302.0 / 99.0	30447.87	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	72116.81	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	72116.81	250.00
PFHpA_1	363.0 / 319.0	N/A	13C8-PFOA	421.0 / 376.0	100974.05	250.00
PFHpA_2	363.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	100974.05	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	26632.30	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	26632.30	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	100974.05	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	100974.05	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	112835.10	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	112835.10	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	35653.48	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	35653.48	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	104717.04	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	104717.04	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	101762.03	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	101762.03	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	108623.87	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	108623.87	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	79875.49	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	79875.49	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	79875.49	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	79875.49	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13195.26	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13195.26	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14596.07	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14596.07	250.00

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Summary Internal Standard Report

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Sample Name	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:45:25	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.00	13C2-PFDA	515.0 / 470.0	95996.97	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	27620.32	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	27620.32	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	85462.81	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	85462.81	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	85462.81	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	85462.81	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	95996.97	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	95996.97	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	95996.97	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	27620.32	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	27620.32	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	27620.32	239.25

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Summary Internal Standard Report

Sample Name	J8218-FS(3)	**Injection Vial**	14
Sample ID	VC-PM372-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:39:44	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.01	13C2-PFDA	515.0 / 470.0	108041.07	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	31183.88	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	31183.88	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	85441.80	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	85441.80	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	85441.80	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	85441.80	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	108041.07	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	108041.07	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	108041.07	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	31183.88	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	31183.88	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	31183.88	239.25

Chromatograms

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Chromatogram Report

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Printed: 03/10/2018 2:10:00 PM

Sample Name	KA86	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T14:50:32	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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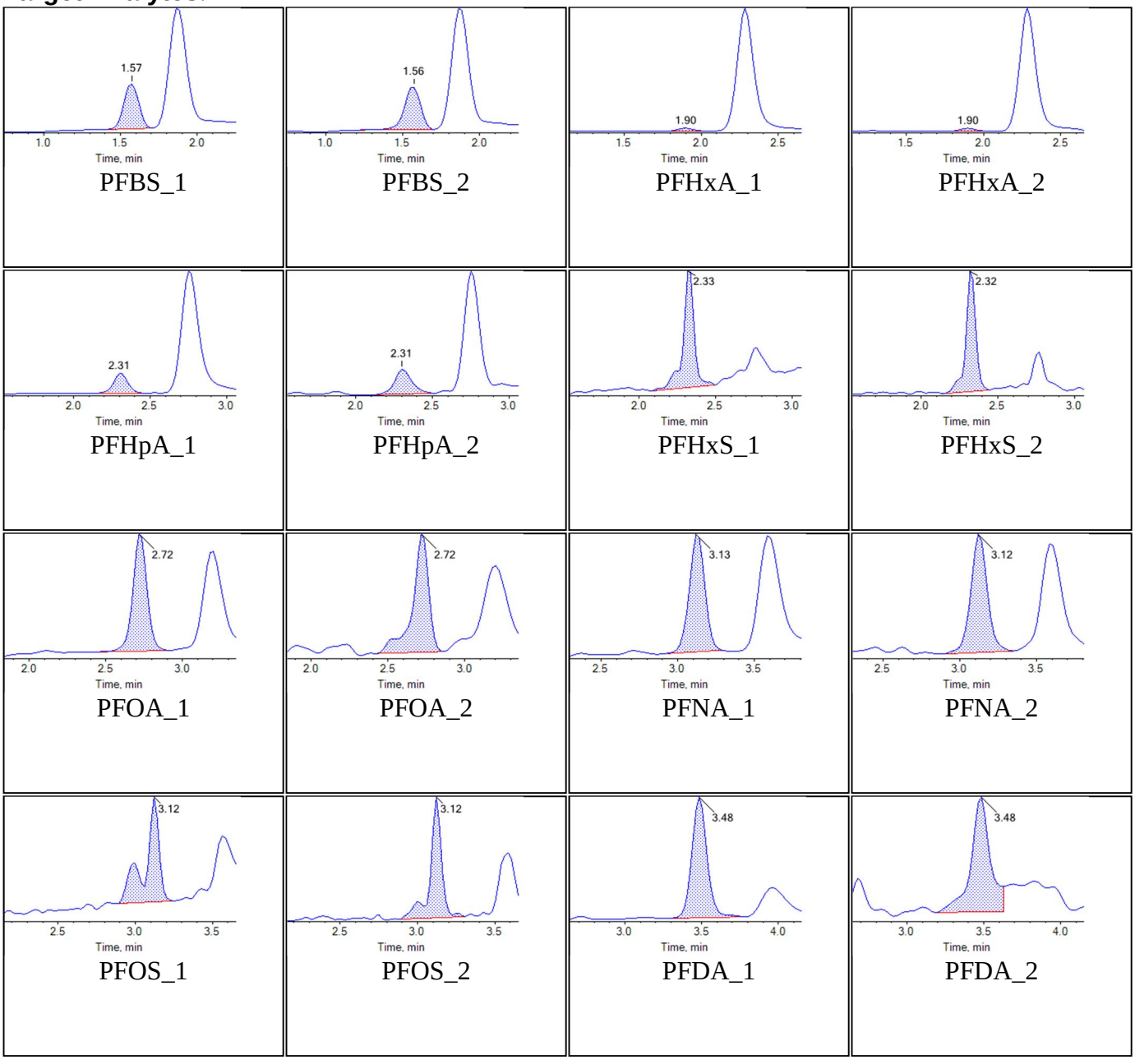

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Chromatogram Report

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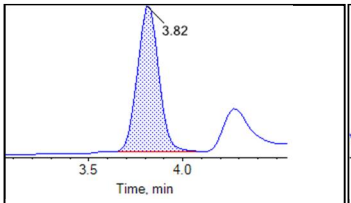
Printed: 03/10/2018 2:10:00 PM



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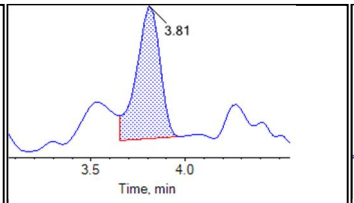

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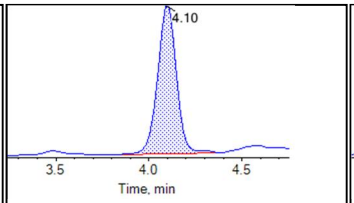

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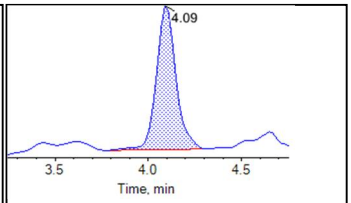

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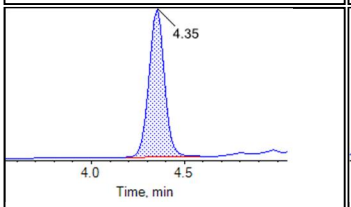

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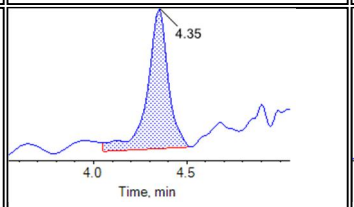
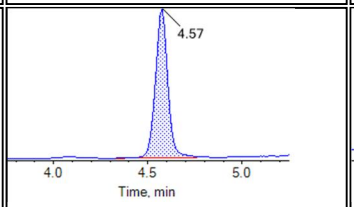


PFTrDA_2



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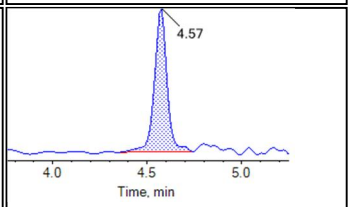

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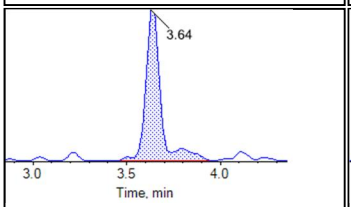

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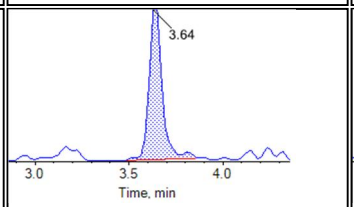

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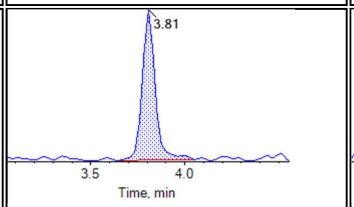

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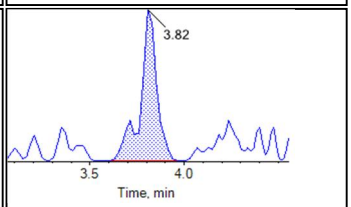

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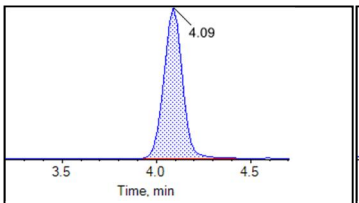
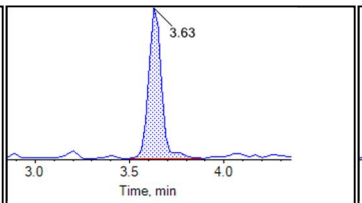
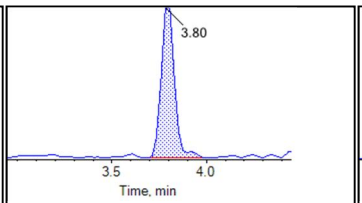


13C2-PFDoA



d3-MeFOSAA



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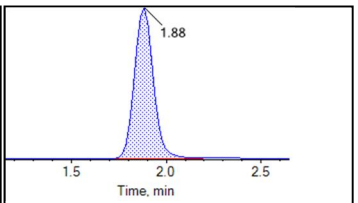
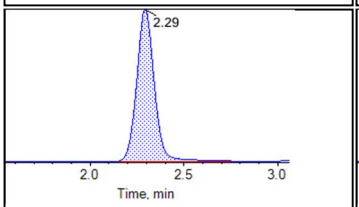
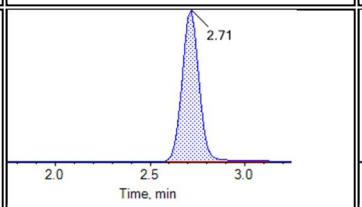


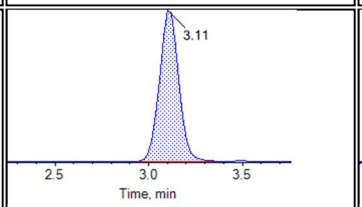
13C5-PFHxA



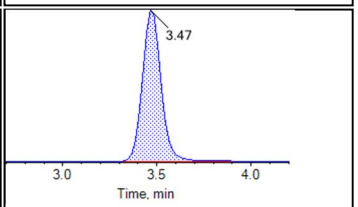
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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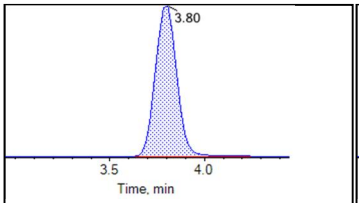
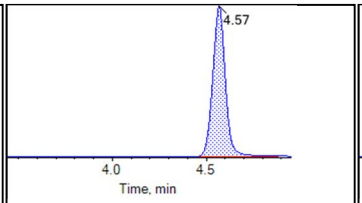


13C7-PFUnA



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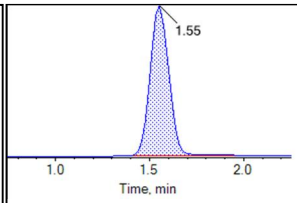

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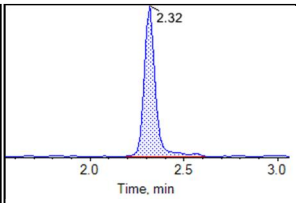

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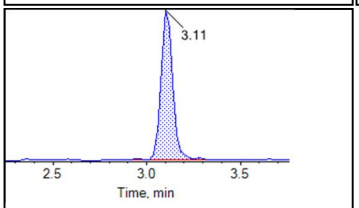

13C8-PFOS

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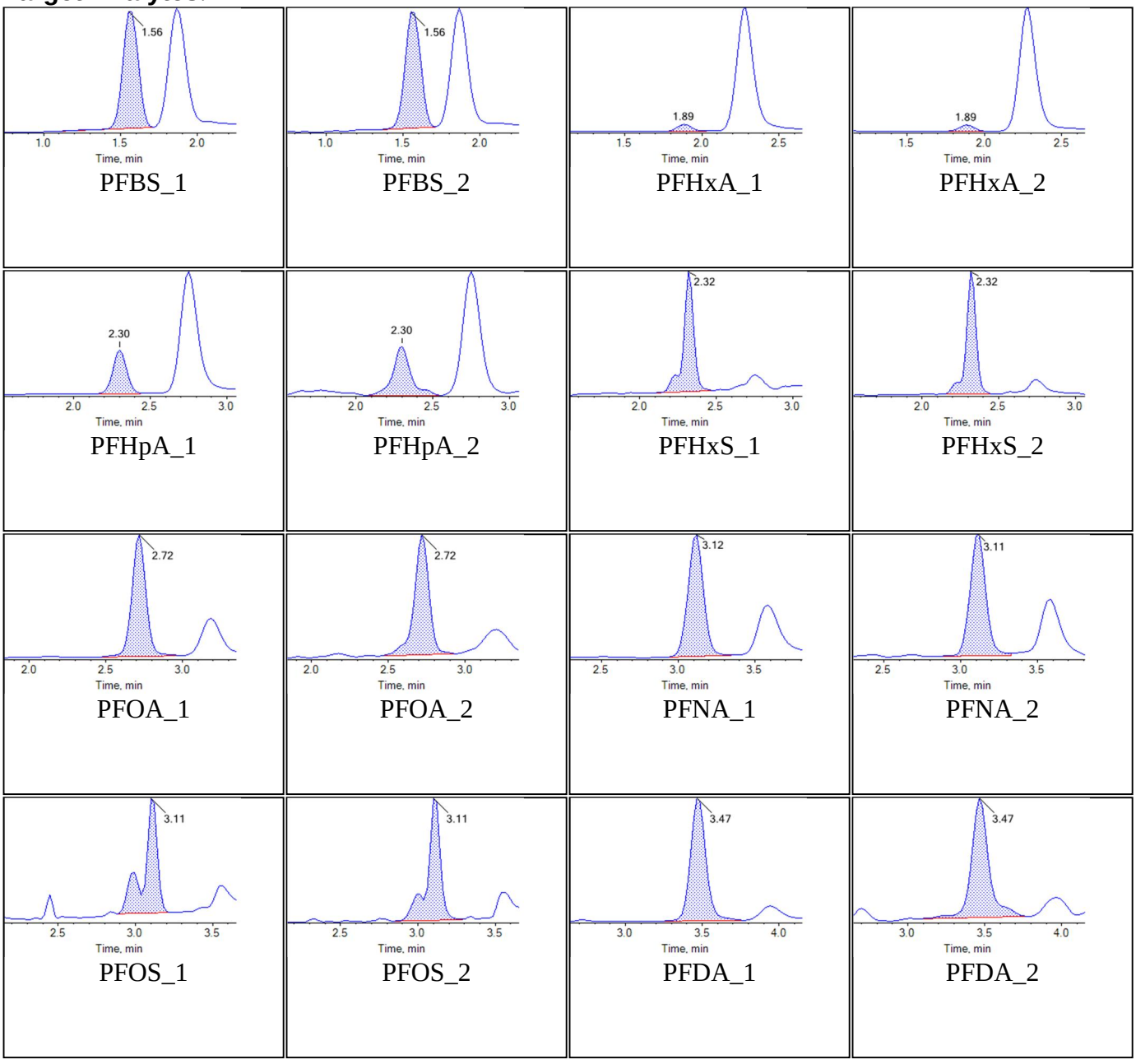
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:10:05 PM

Sample Name	KA87	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:01:25	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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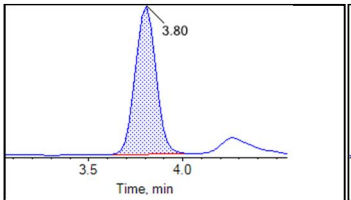

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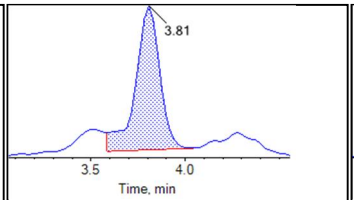

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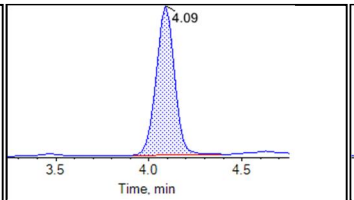

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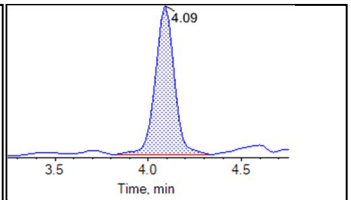

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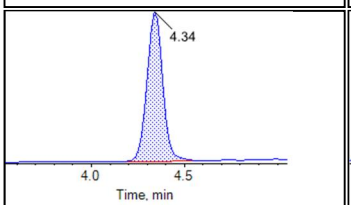

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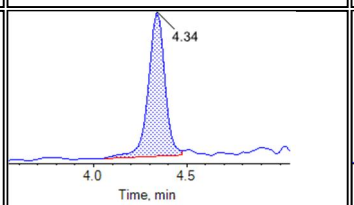

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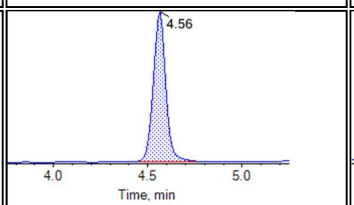

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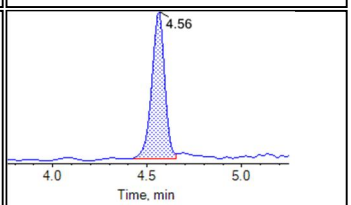

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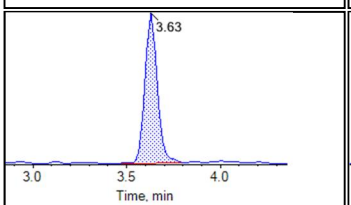

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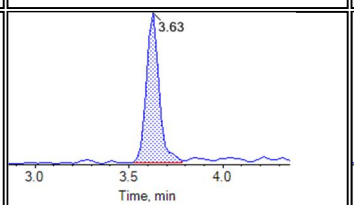

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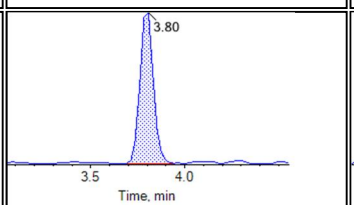

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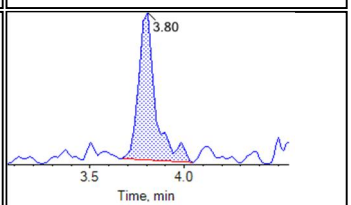

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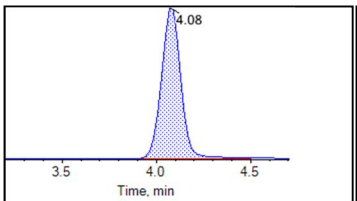

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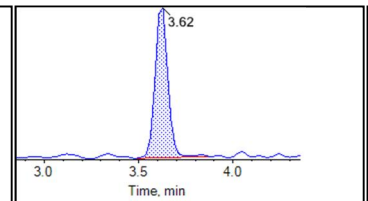
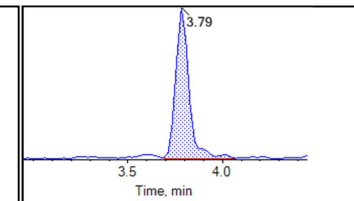
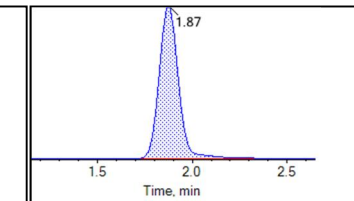


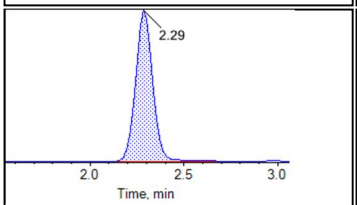
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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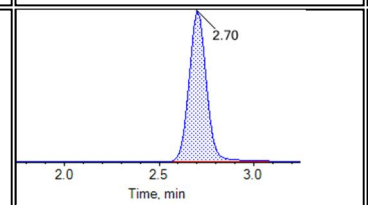

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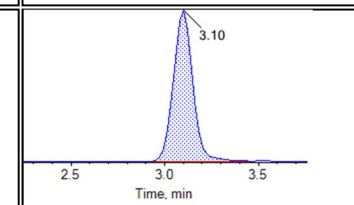
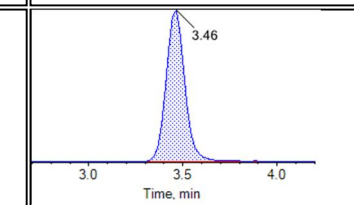


13C9-PFNA



13C6-PFDA

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Chromatogram Report

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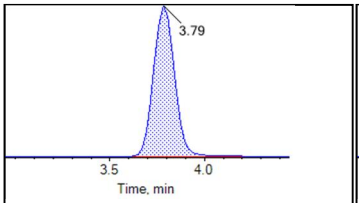
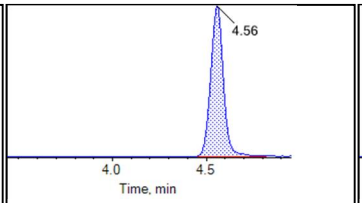
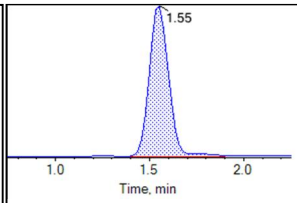


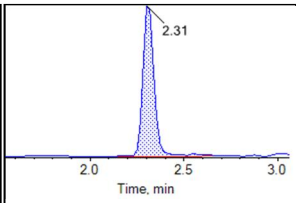
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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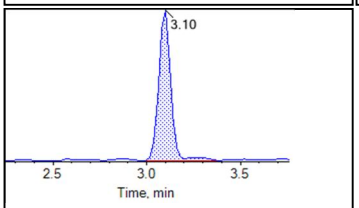

13C8-PFOS

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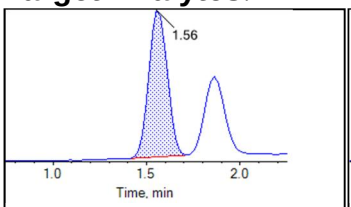
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:10:10 PM

Sample Name	KA88	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:12:17	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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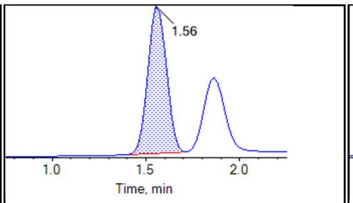
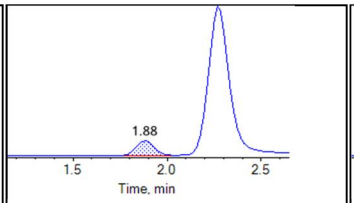
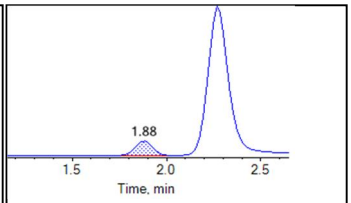


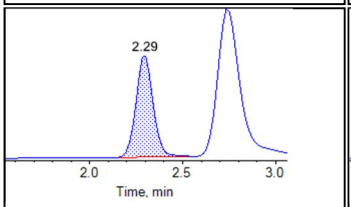
PFBS_2



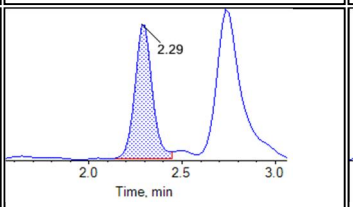
PFHxA_1



PFHxA_2



PFHpA_1



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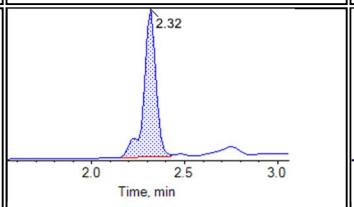

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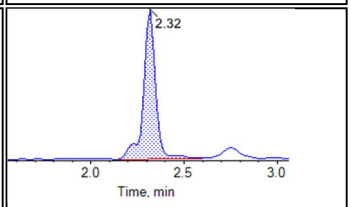

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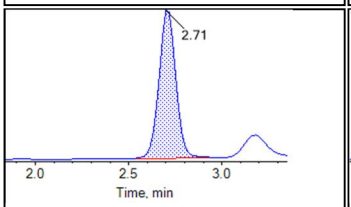

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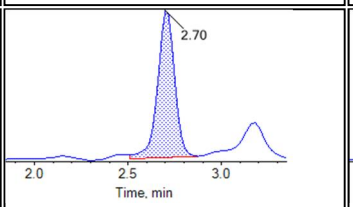

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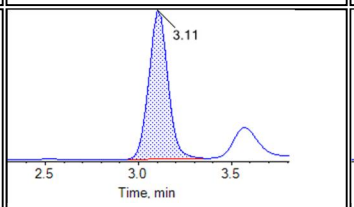

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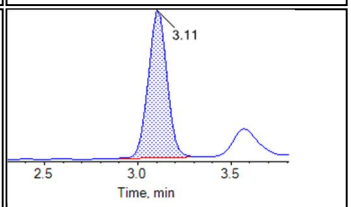

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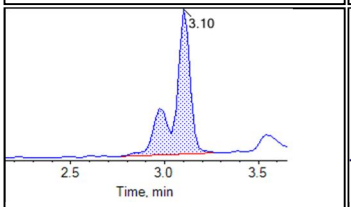

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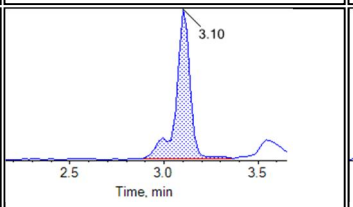

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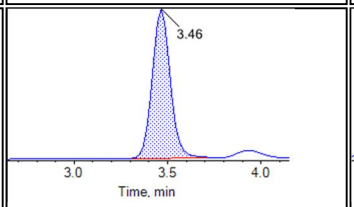

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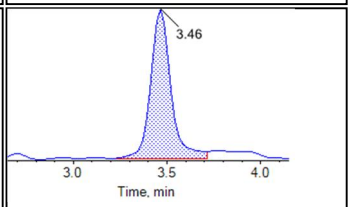

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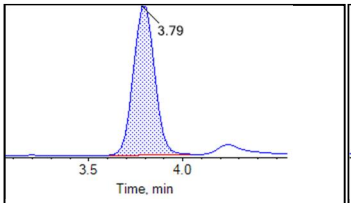

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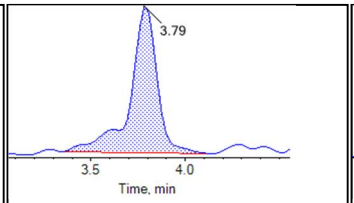

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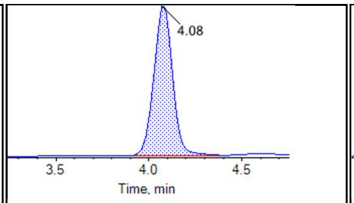

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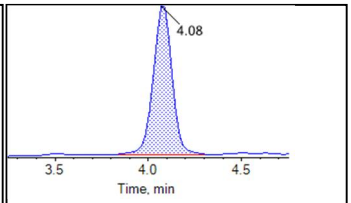

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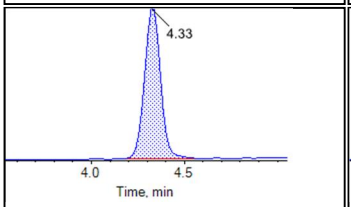

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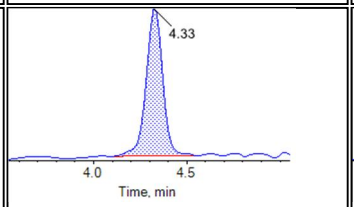

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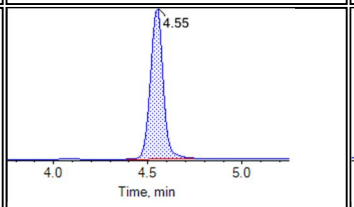

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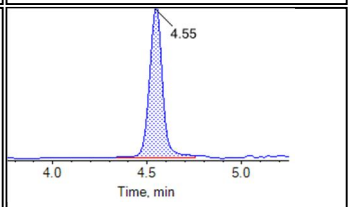

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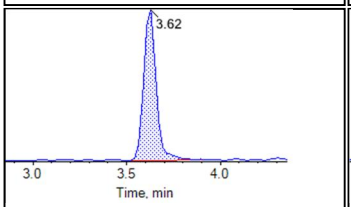

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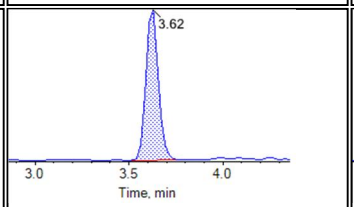

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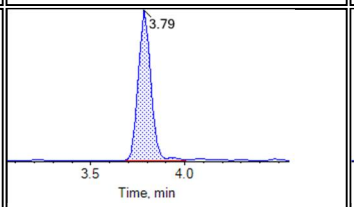

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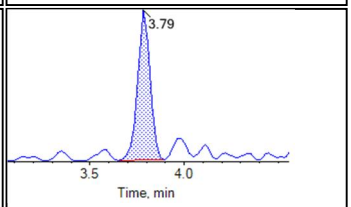

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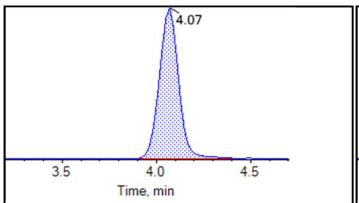

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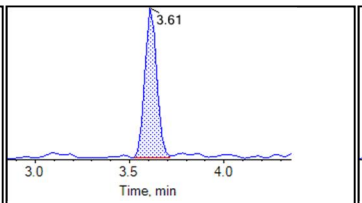

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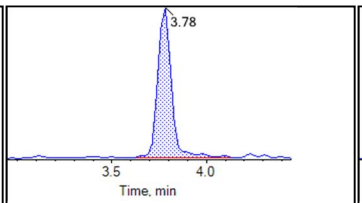

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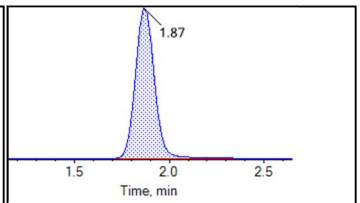

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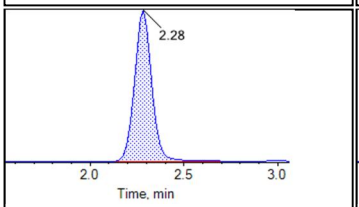

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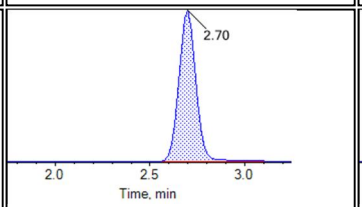

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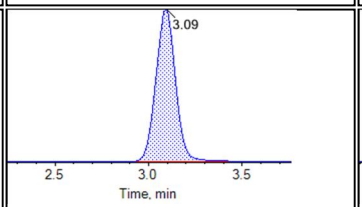

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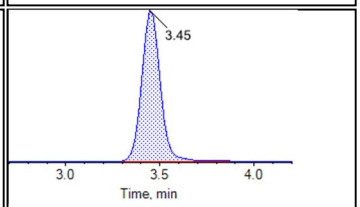

13C6-PFDA

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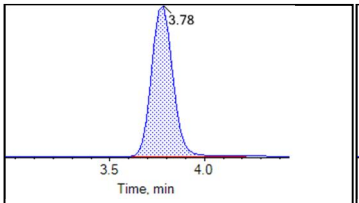

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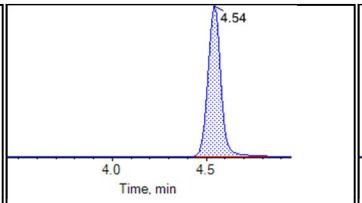

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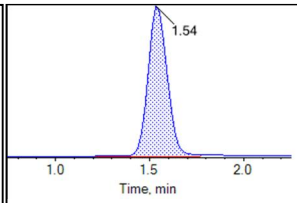

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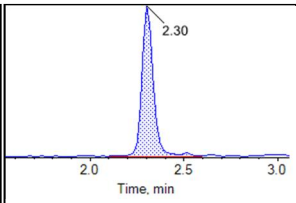

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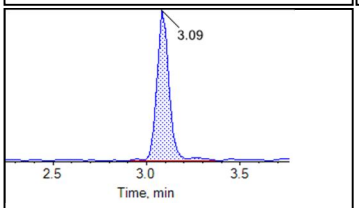

13C8-PFOS

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Chromatogram Report

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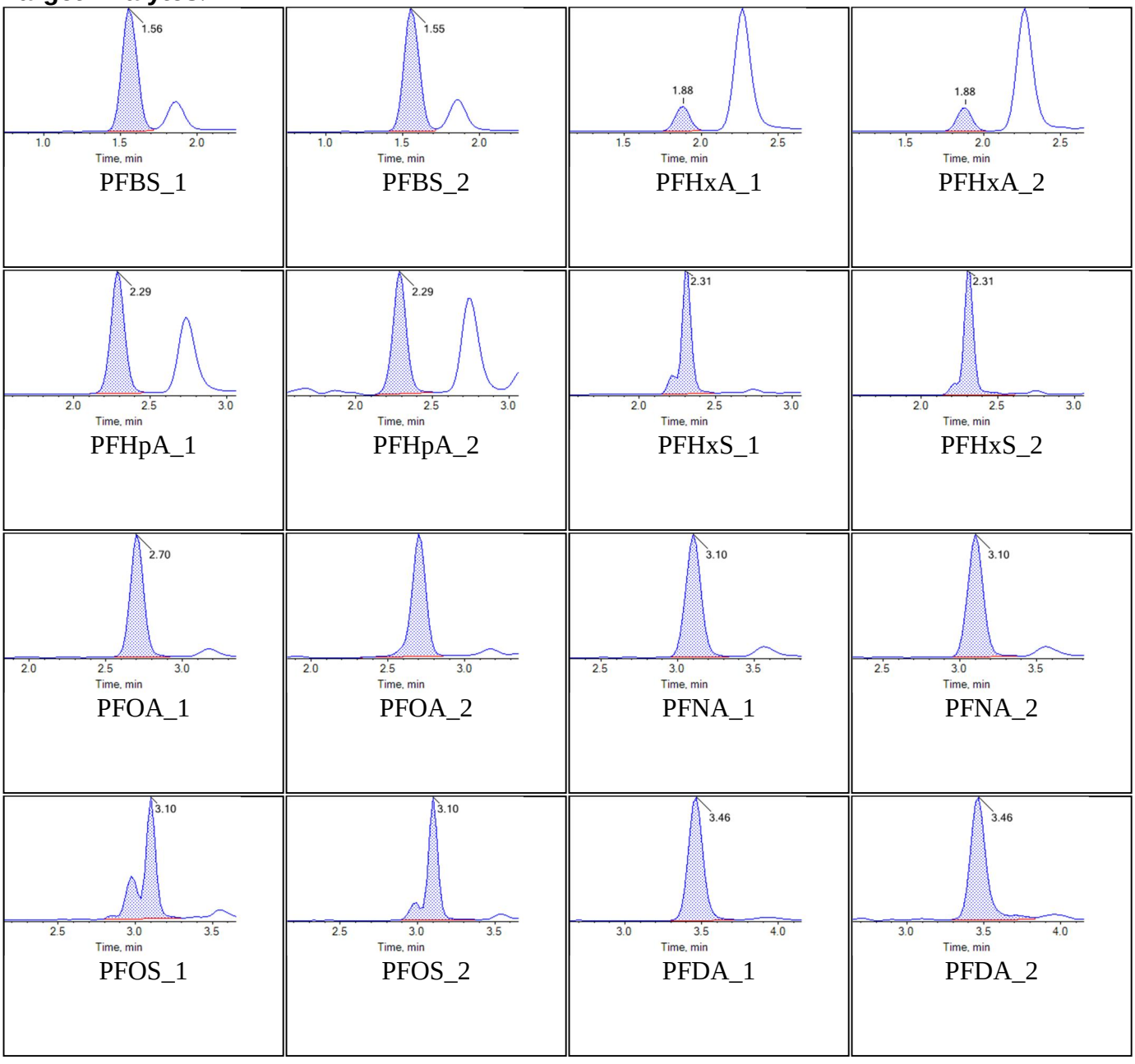
Sample Name	KA89	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:23:09	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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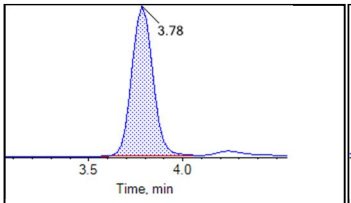

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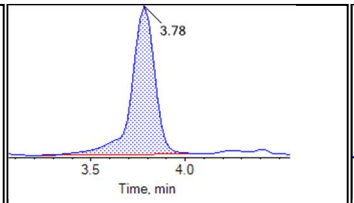

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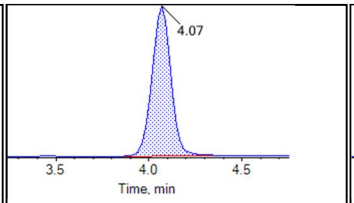

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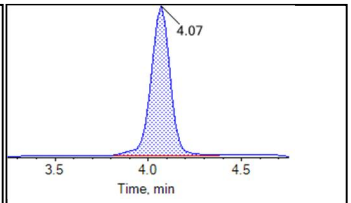

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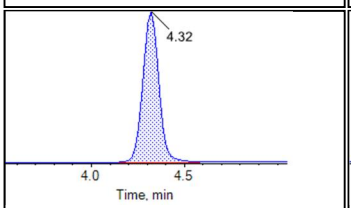

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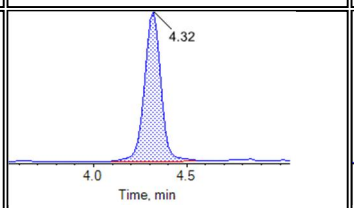

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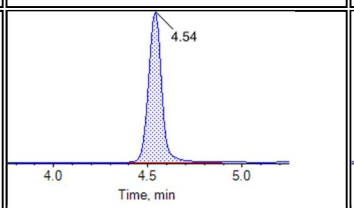

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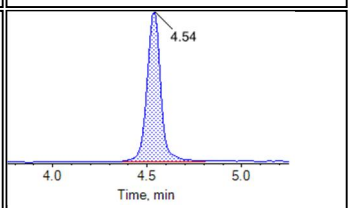

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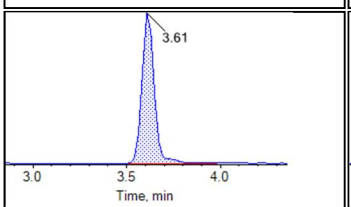

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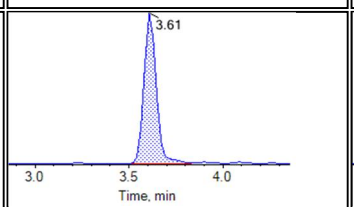

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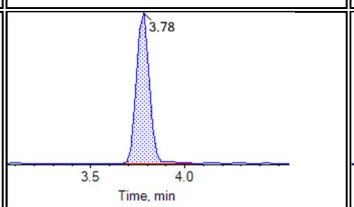

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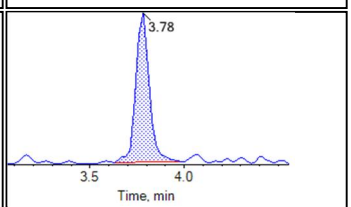

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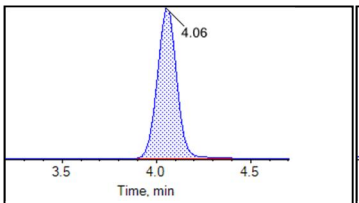

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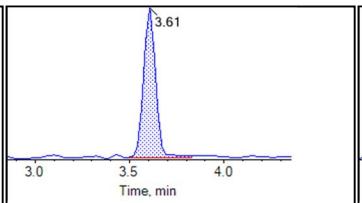

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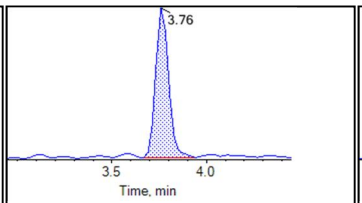

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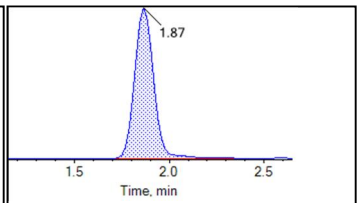

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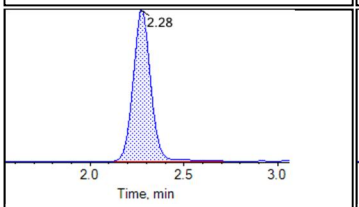
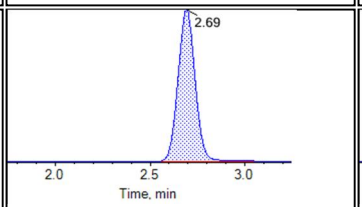
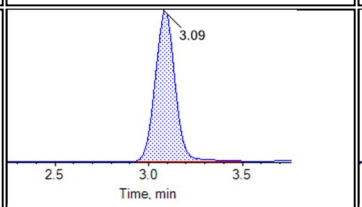


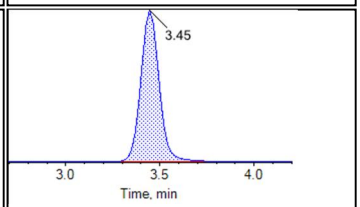
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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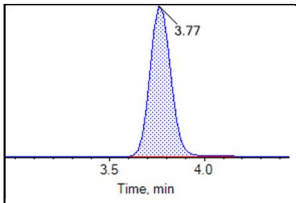
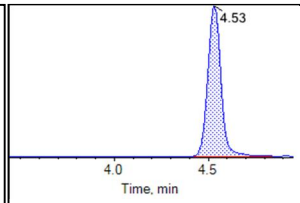


13C7-PFUnA



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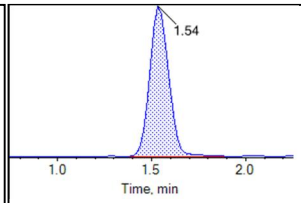
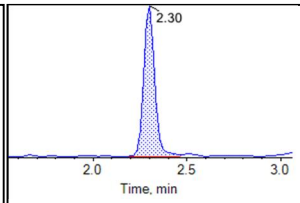
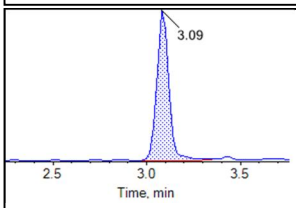


13C3-PFBS



13C3-PFHxS



13C8-PFOS

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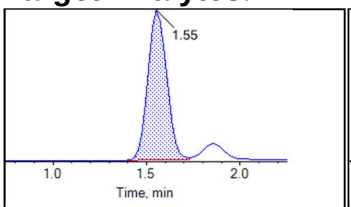
Sample Name	KA90	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:34:02	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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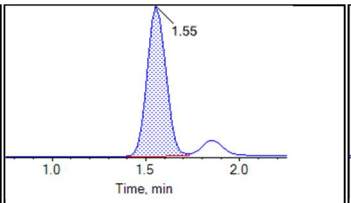

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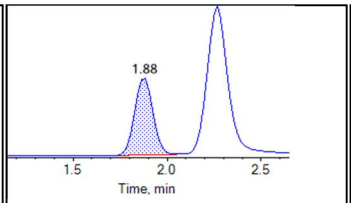

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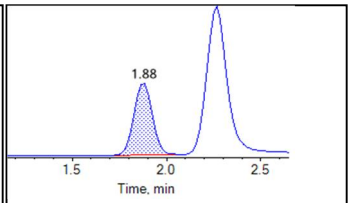

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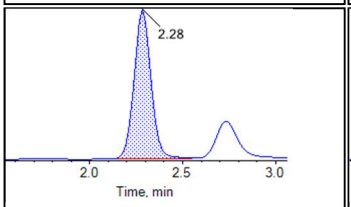

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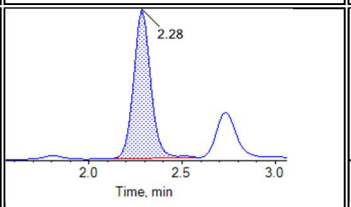

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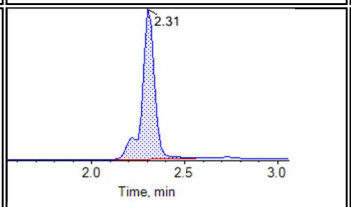

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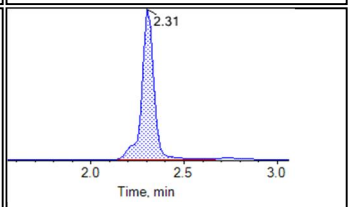

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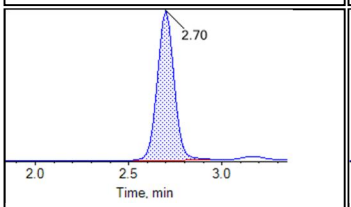

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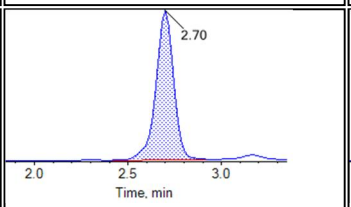

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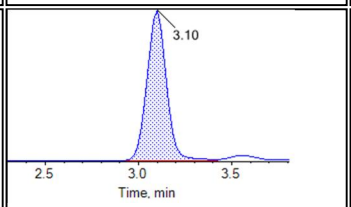

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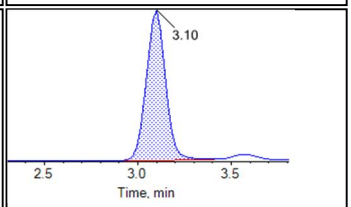

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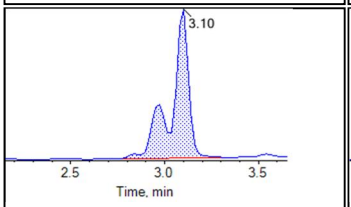
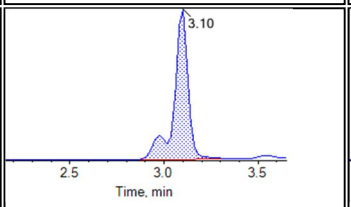


PFOS_1



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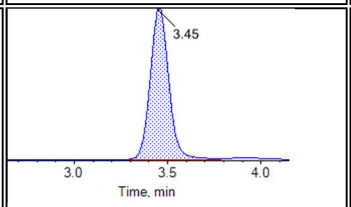

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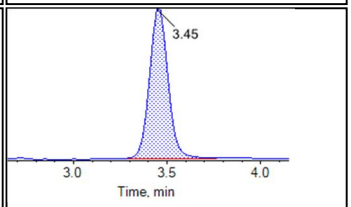

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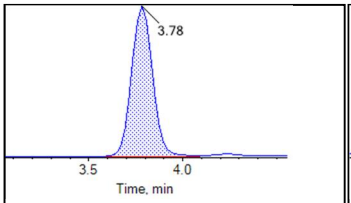

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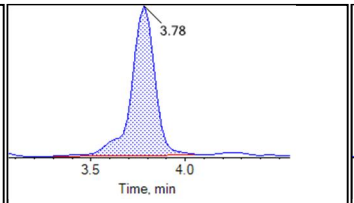

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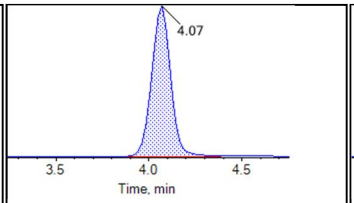

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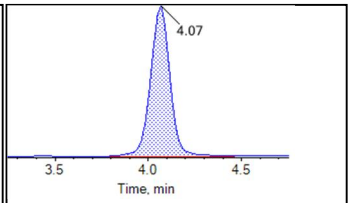

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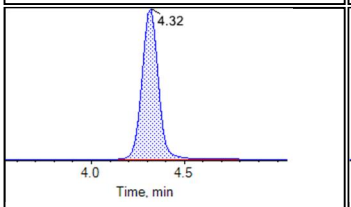

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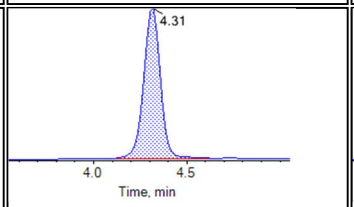

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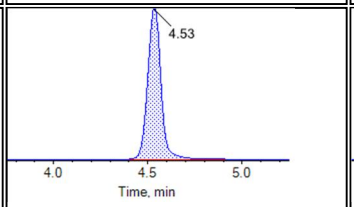

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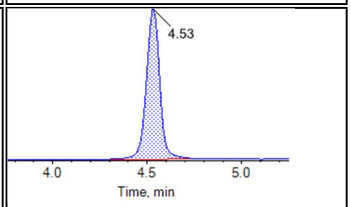

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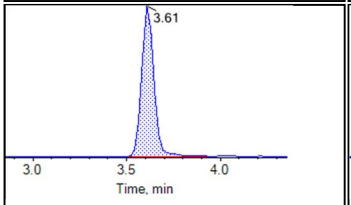

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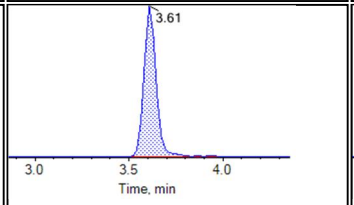

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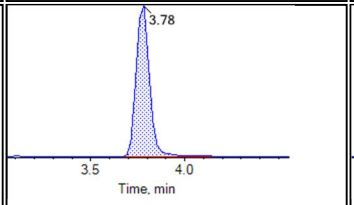

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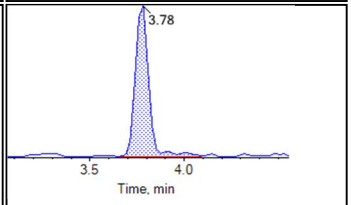

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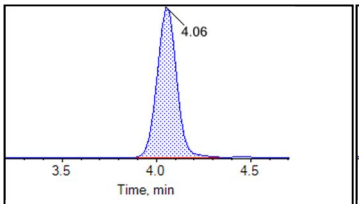
Internal Standards:



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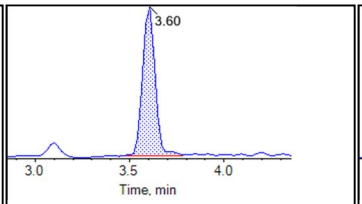

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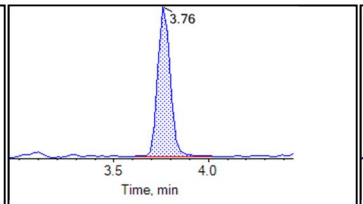

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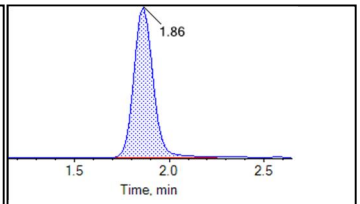
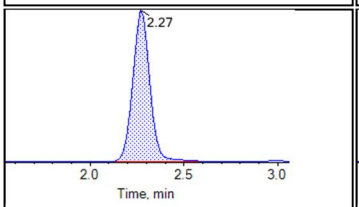
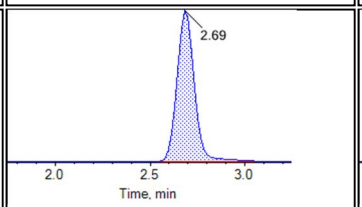


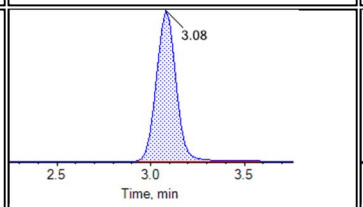
13C5-PFHxA



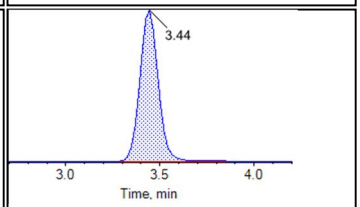
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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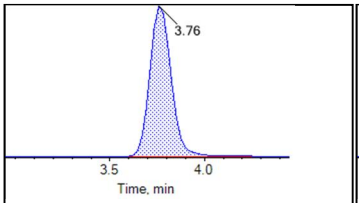
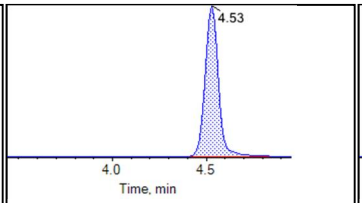
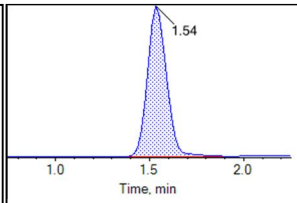


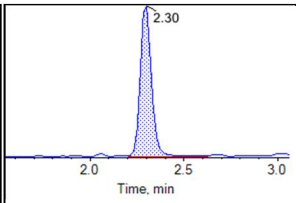
13C7-PFUnA



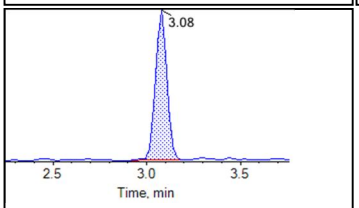
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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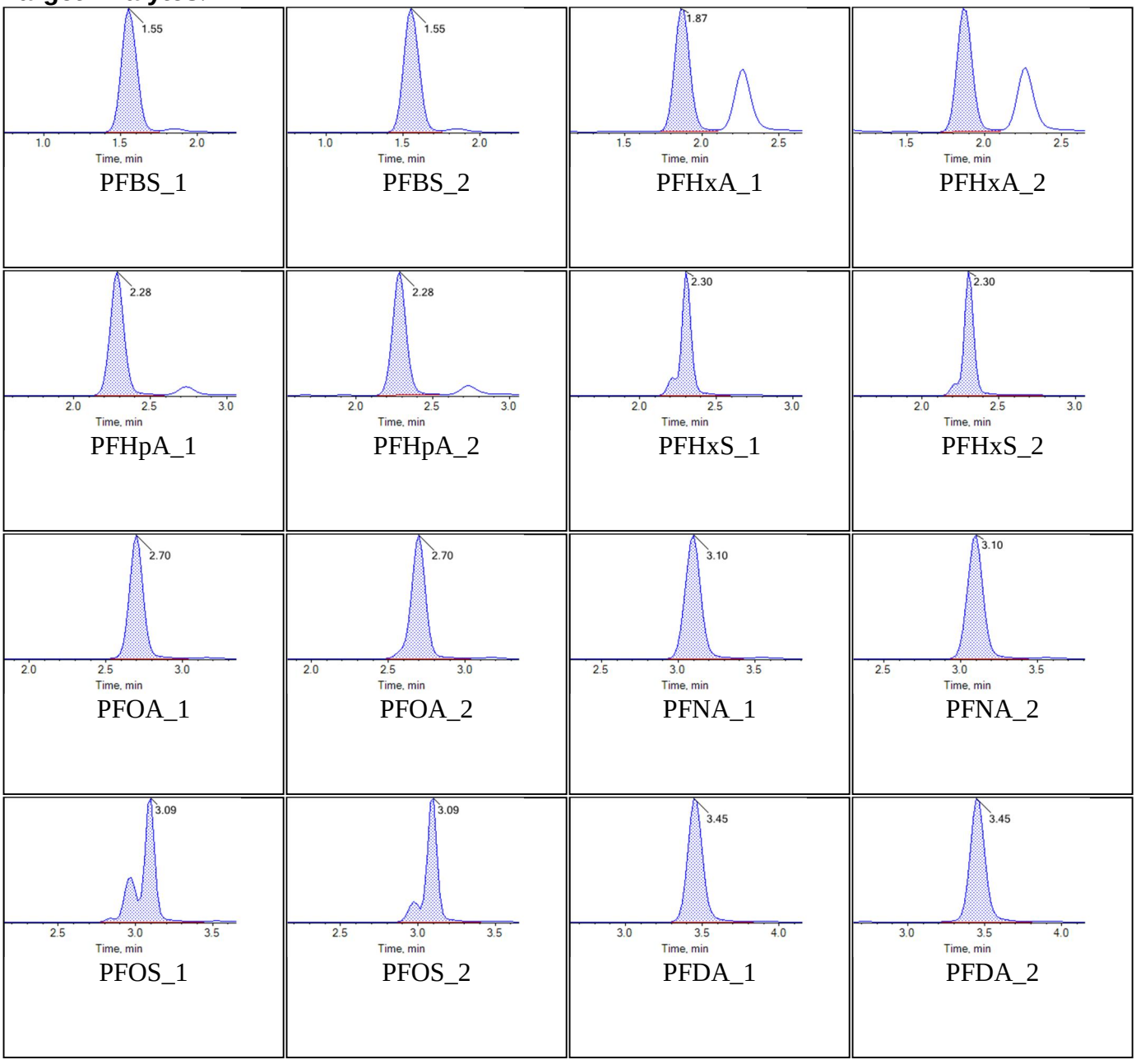
Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:44:53	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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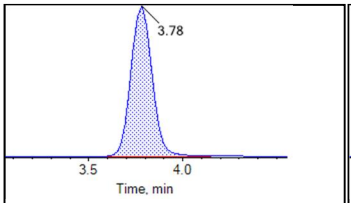
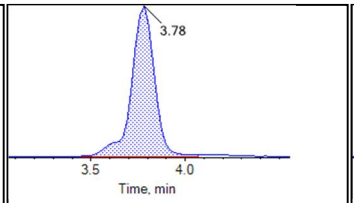
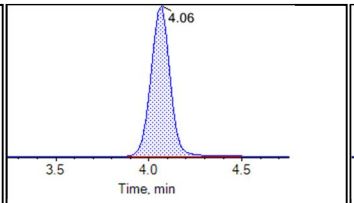


PFUnA_1



PFUnA_2



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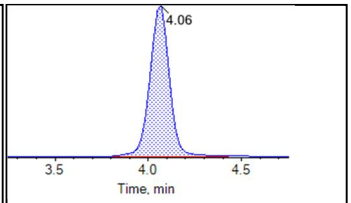

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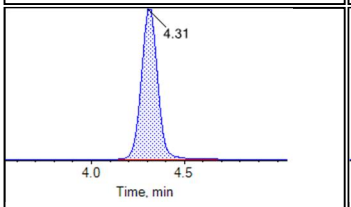

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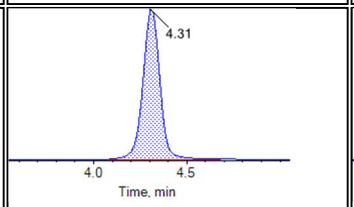

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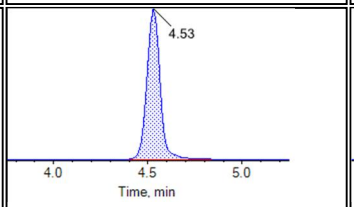

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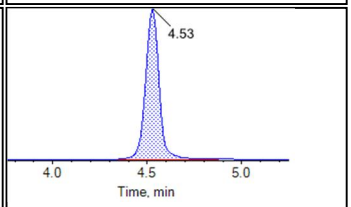

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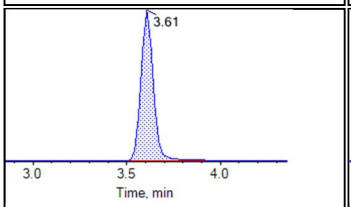

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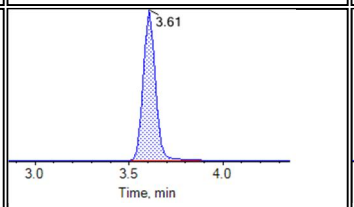

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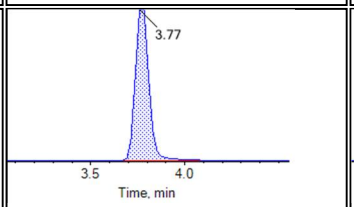

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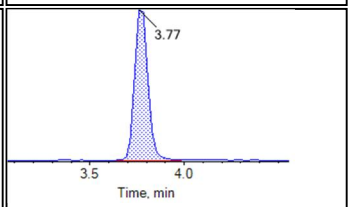

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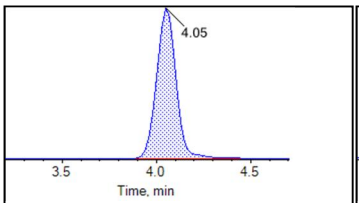
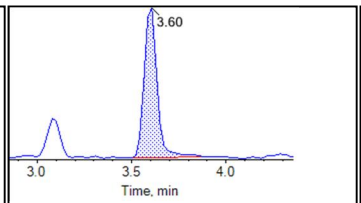


13C2-PFDoA



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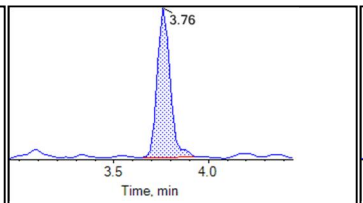

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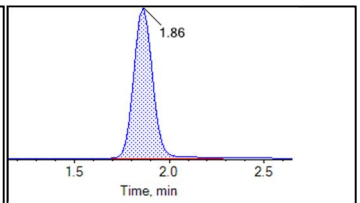
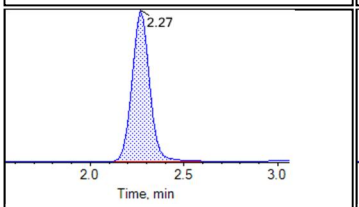
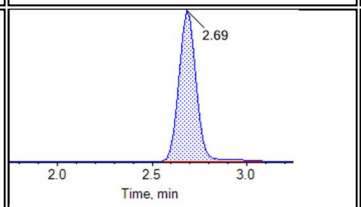


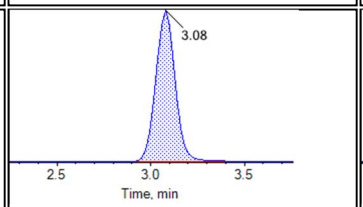
13C5-PFHxA



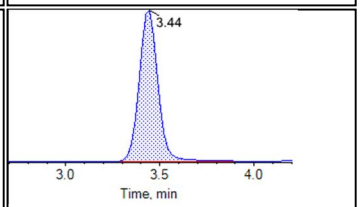
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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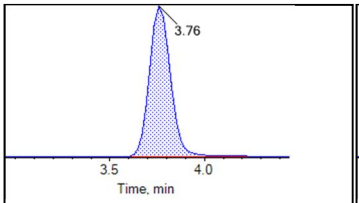
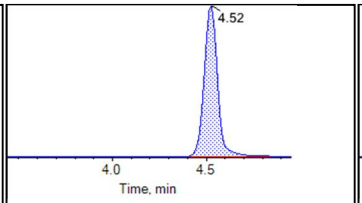


13C7-PFUnA



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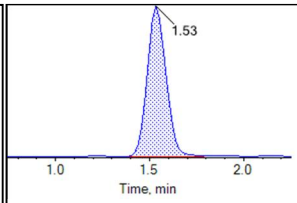
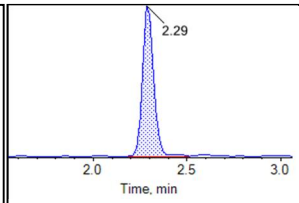


13C3-PFBS



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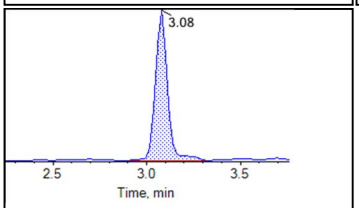

13C8-PFOS

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Chromatogram Report

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Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:55:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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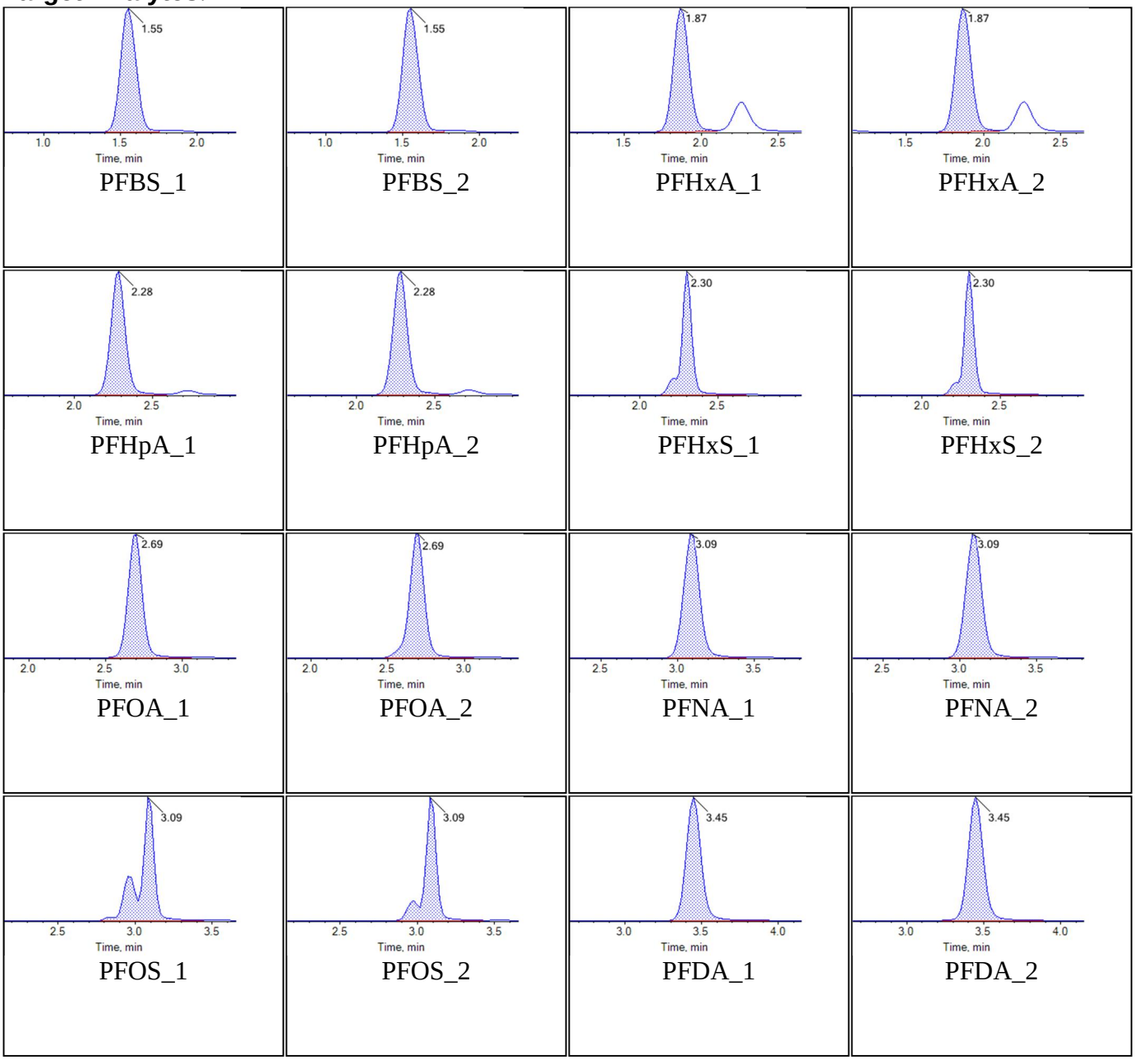

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Chromatogram Report

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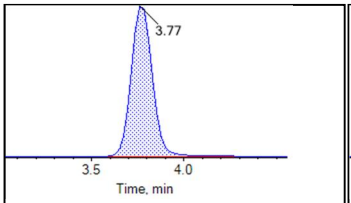

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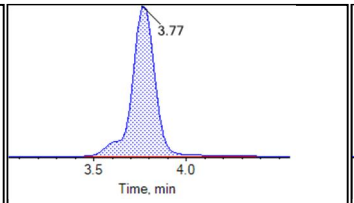
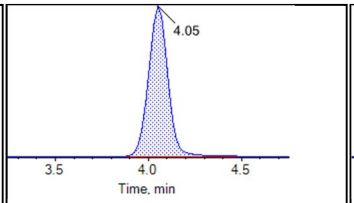


PFUnA_2



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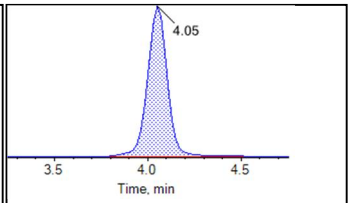

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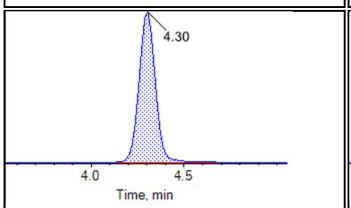

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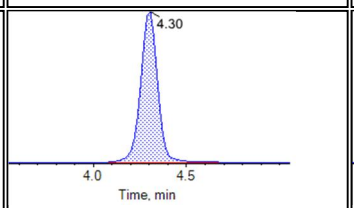

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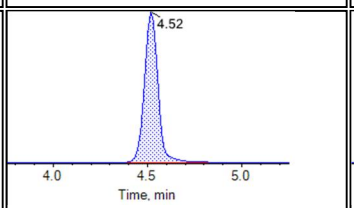

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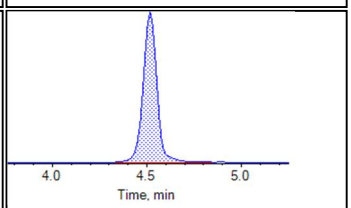

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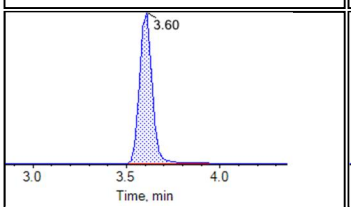

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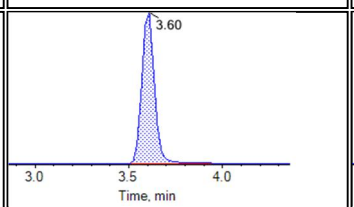

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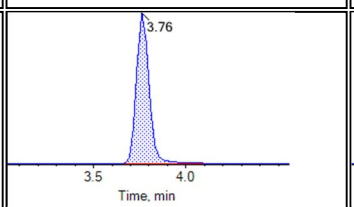
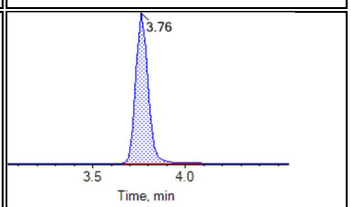


NEtFOSAA_1



NEtFOSAA_2

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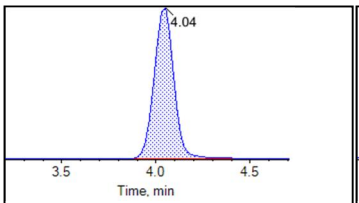

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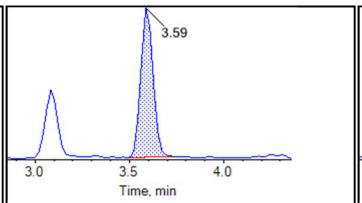
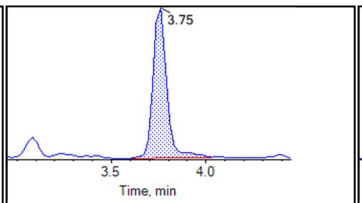
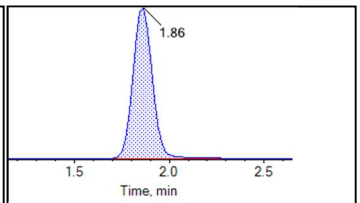


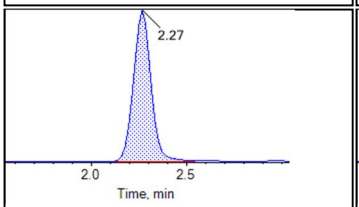
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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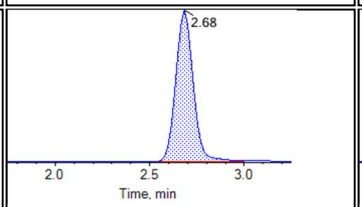

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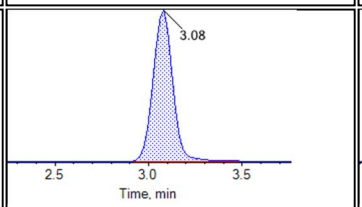
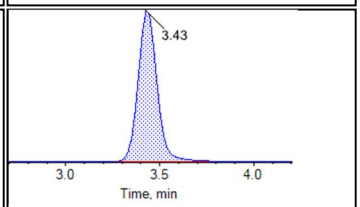


13C9-PFNA



13C6-PFDA

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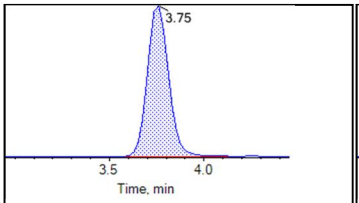
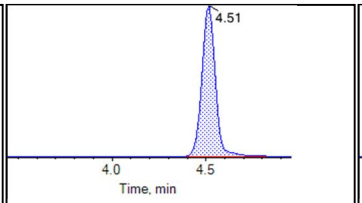
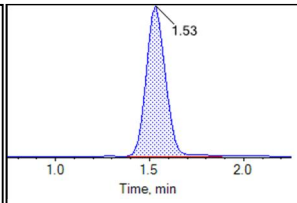


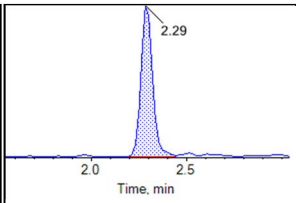
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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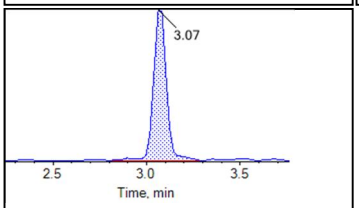

13C8-PFOS

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Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:10:36 PM

Sample Name	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:06:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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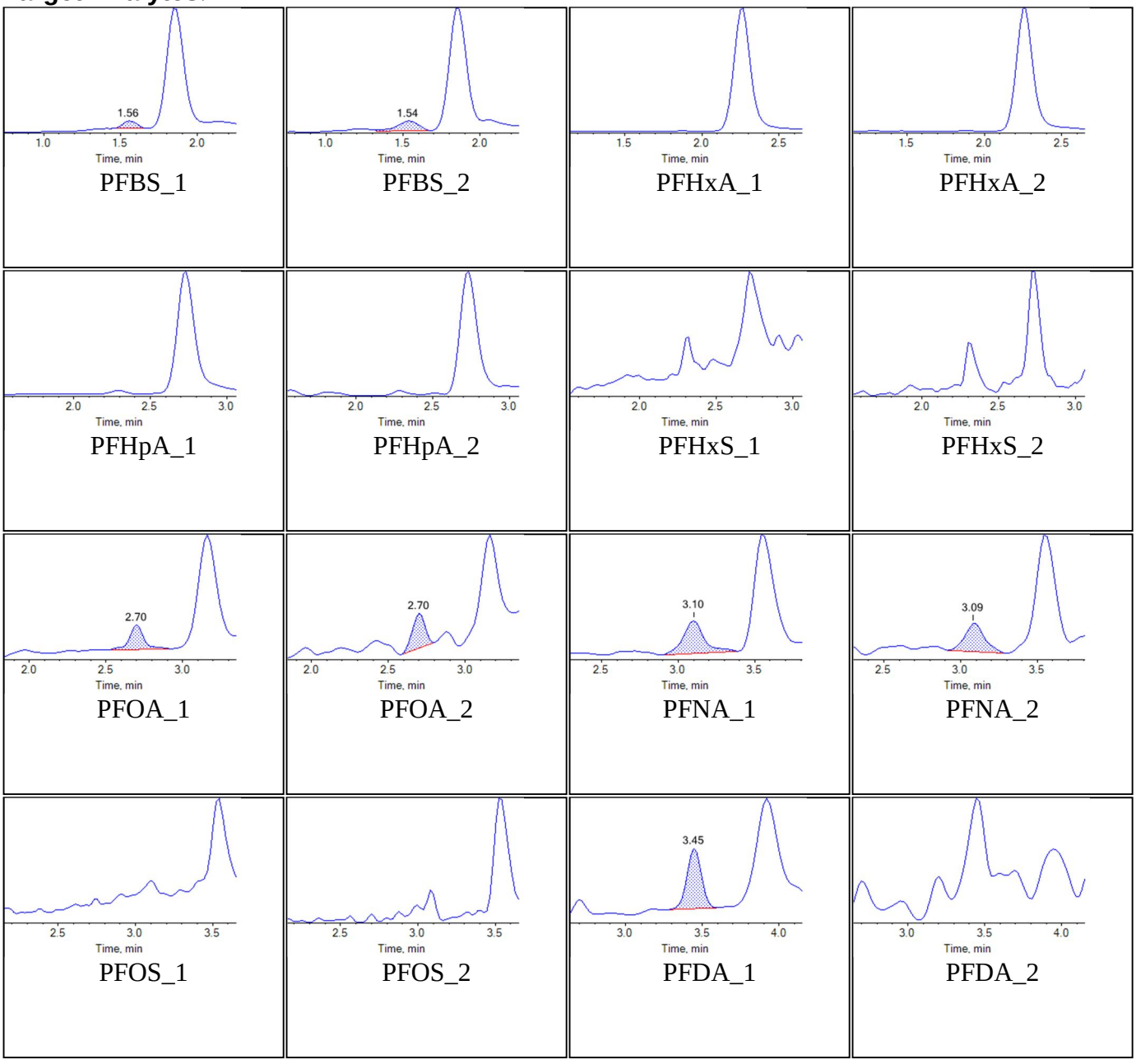

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Chromatogram Report

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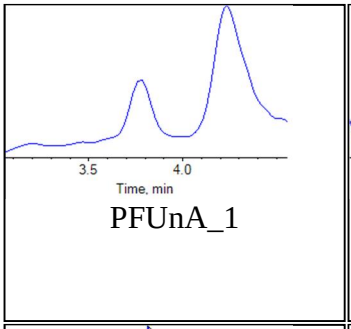

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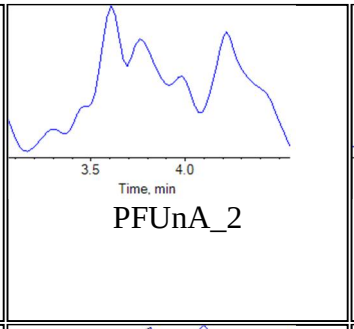

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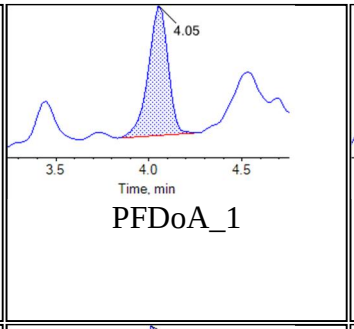

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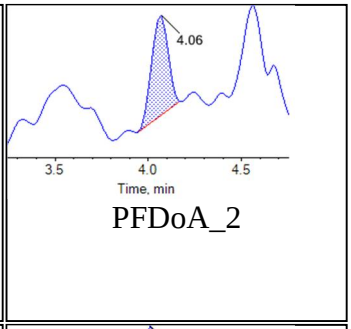

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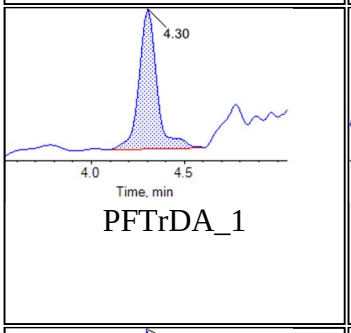

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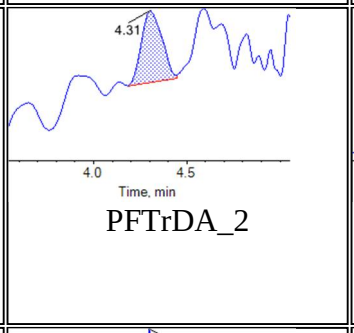

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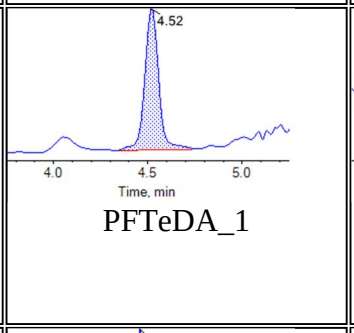

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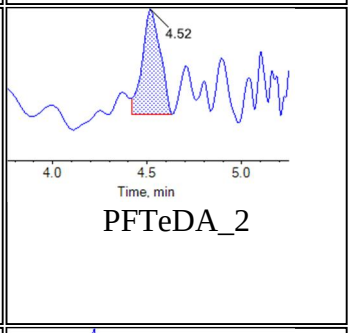

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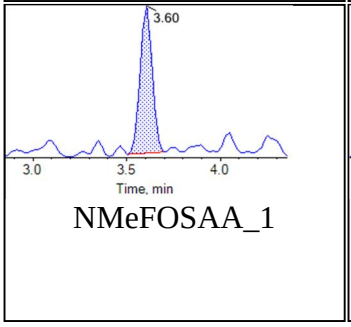

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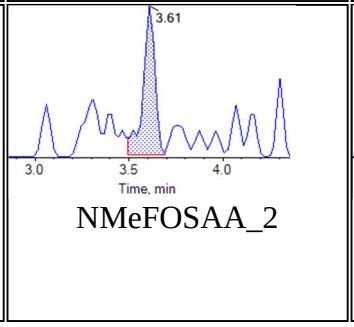

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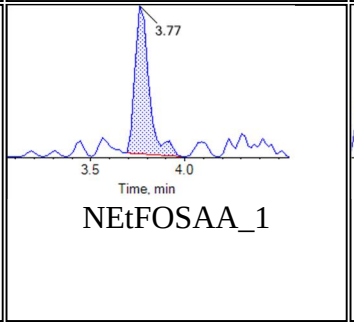

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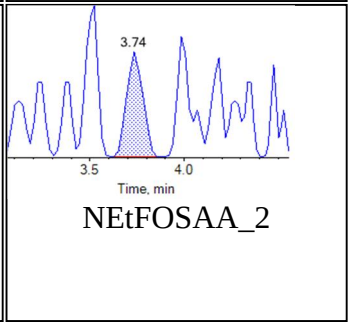

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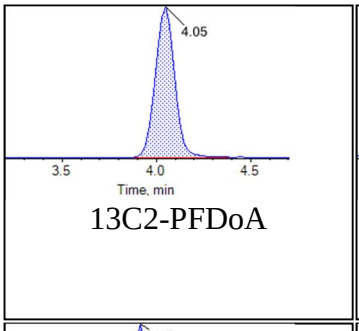

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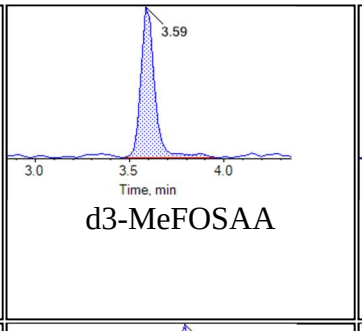

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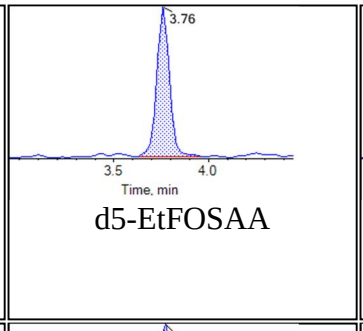

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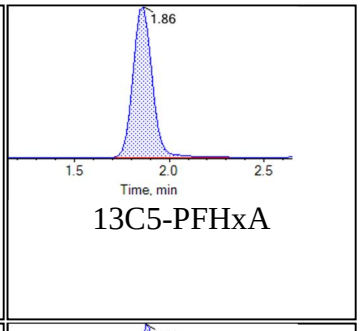

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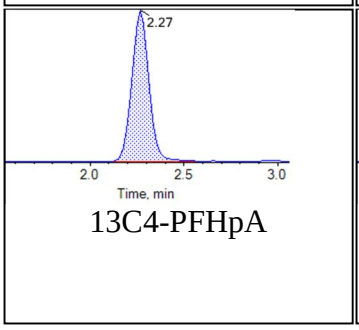

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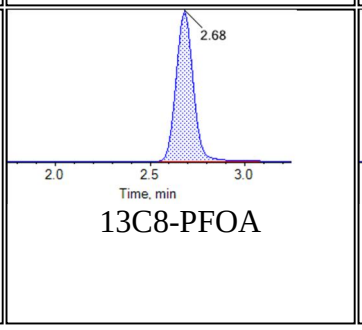

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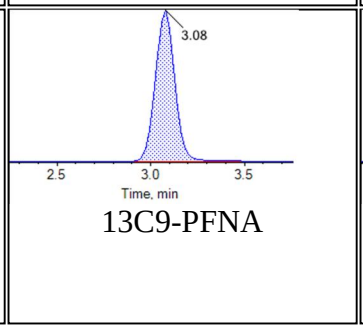

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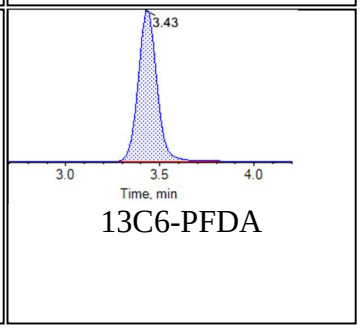

13C6-PFDA

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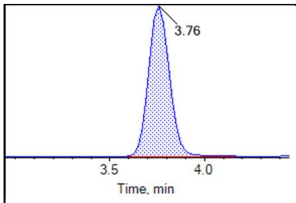
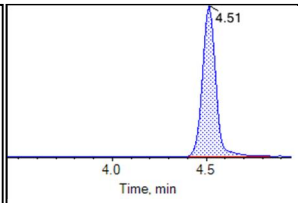


13C7-PFUnA



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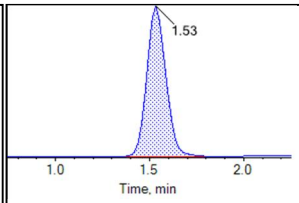

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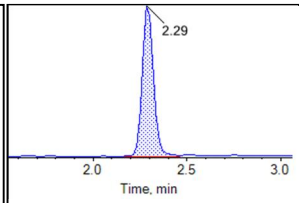

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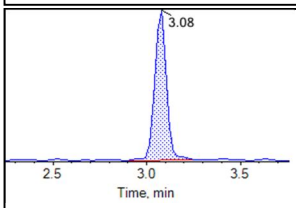

13C8-PFOS

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Chromatogram Report

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Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:17:28	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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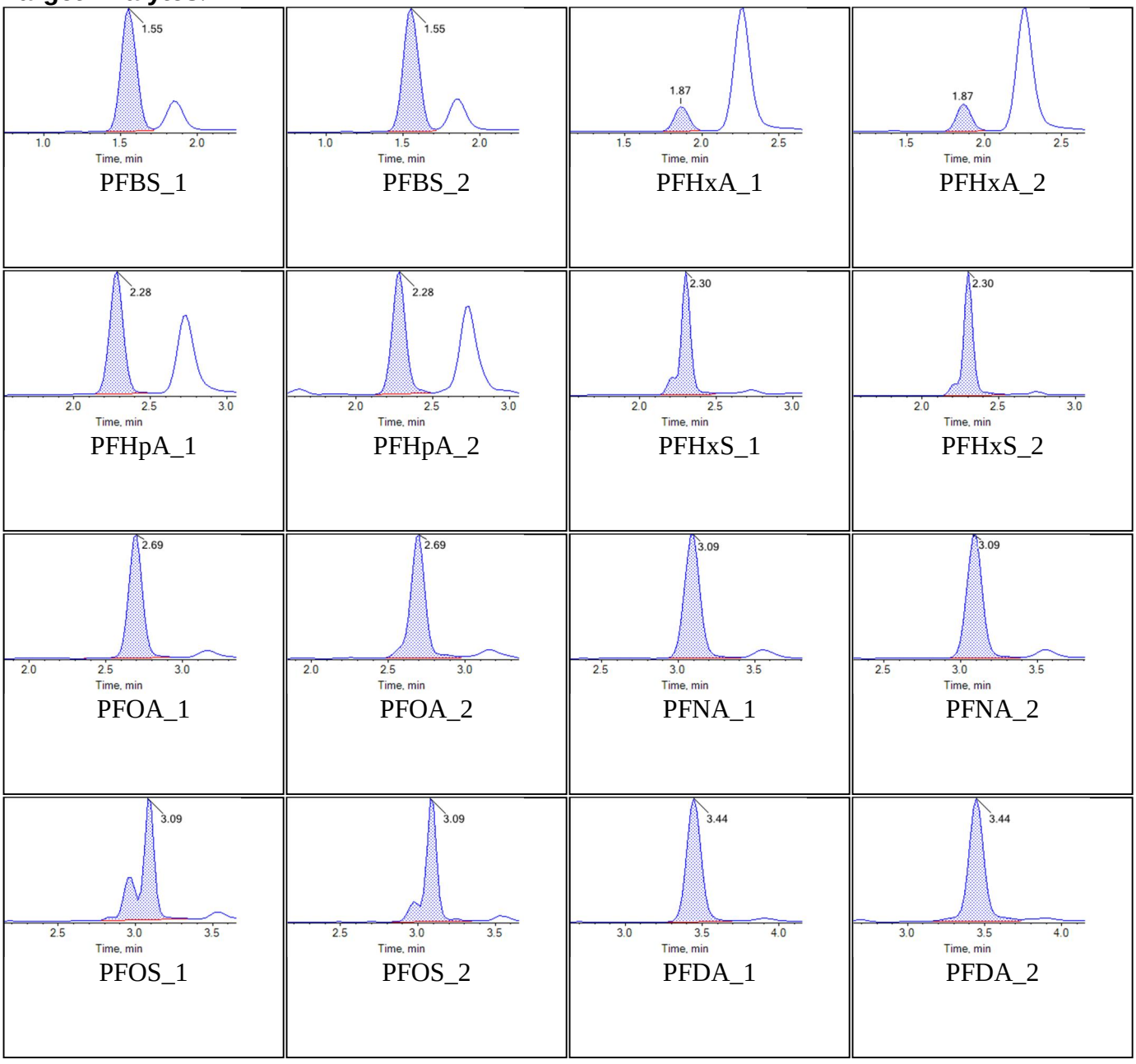

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Chromatogram Report

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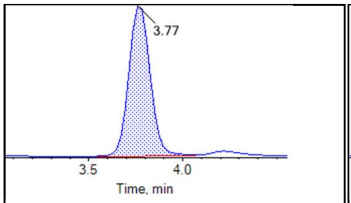

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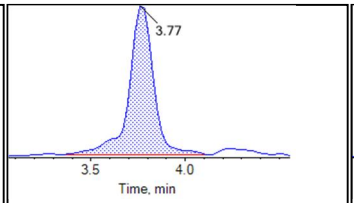

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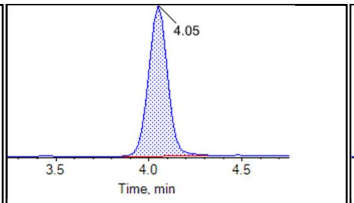

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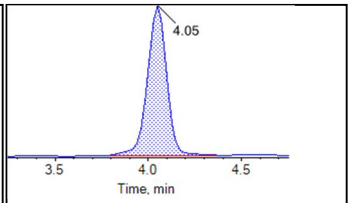

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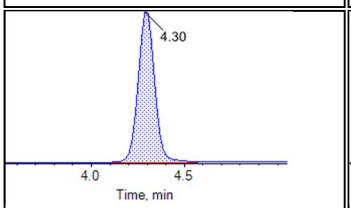

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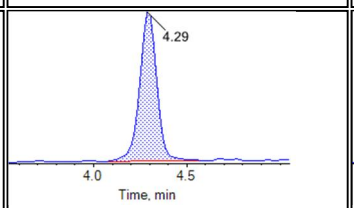

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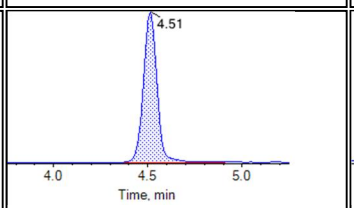

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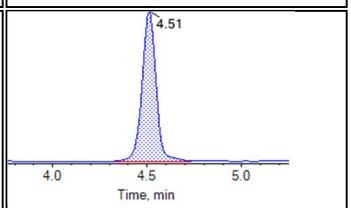

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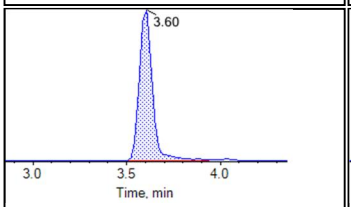

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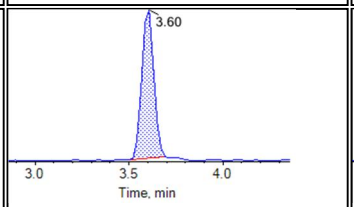

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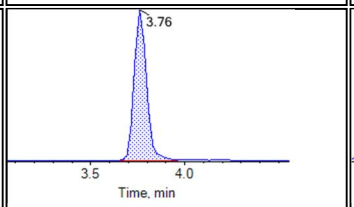

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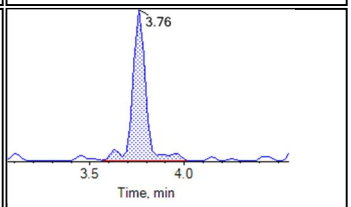

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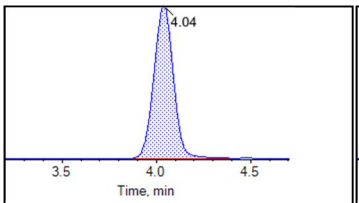

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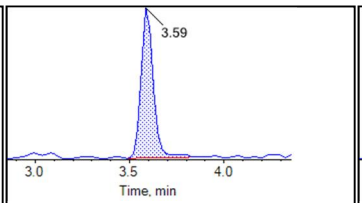
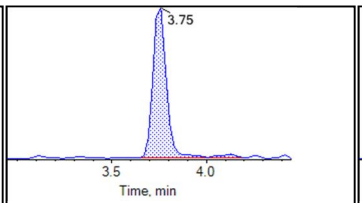


d3-MeFOSAA



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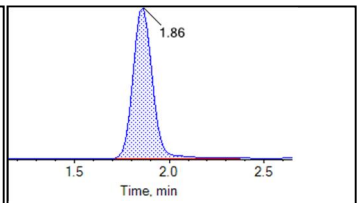
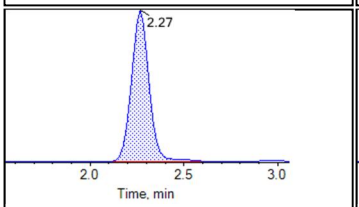


13C5-PFHxA



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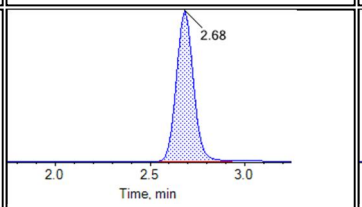

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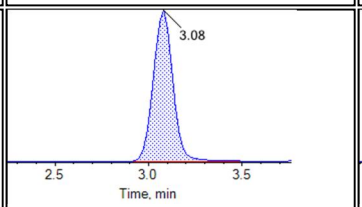

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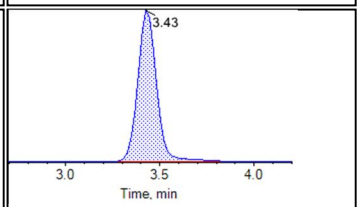

13C6-PFDA

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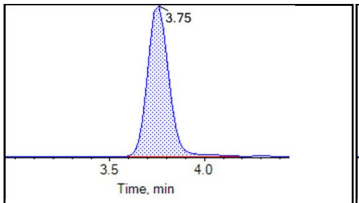

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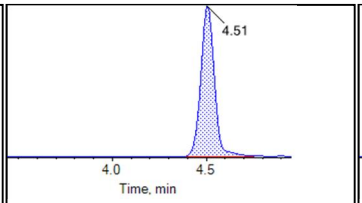
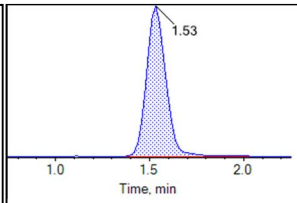


13C2-PFTeDA



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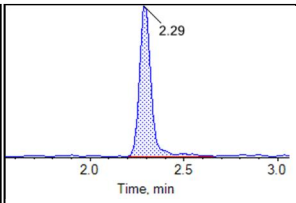

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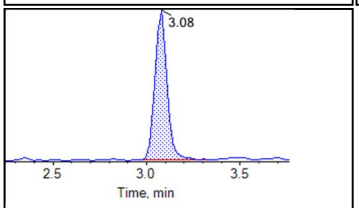

13C8-PFOS

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Chromatogram Report

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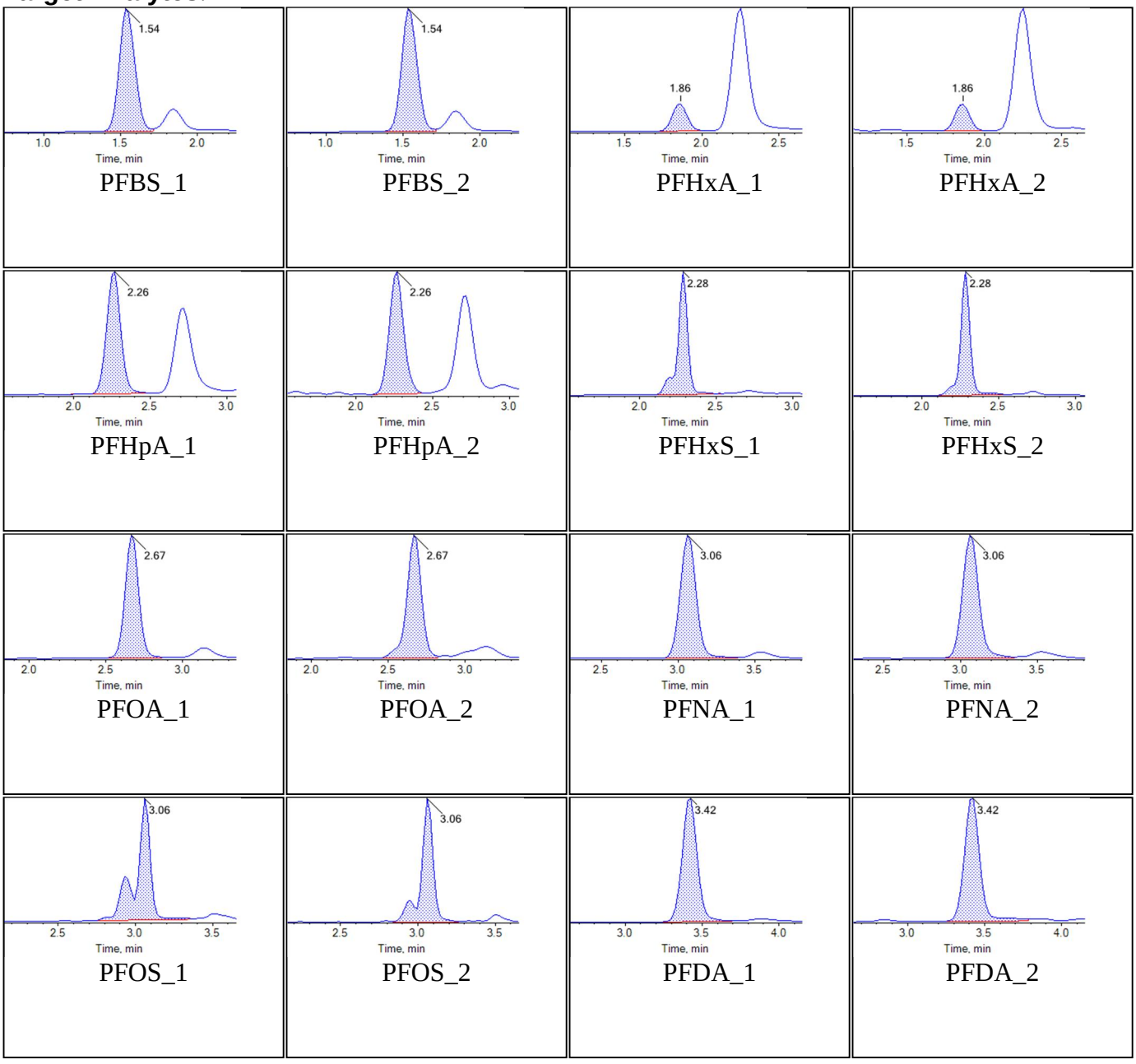
Sample Name	KA89 CCV	**Injection Vial**	34
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T20:49:08	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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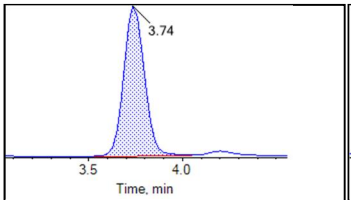

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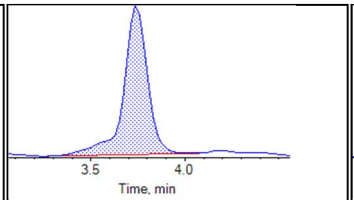

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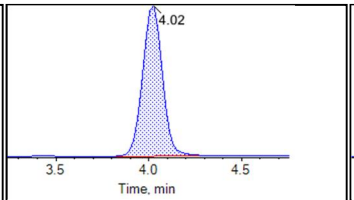

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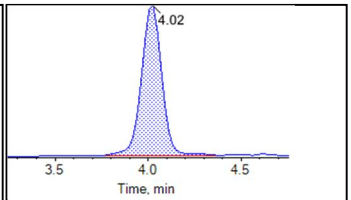

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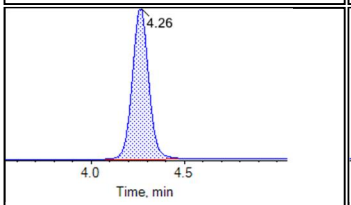

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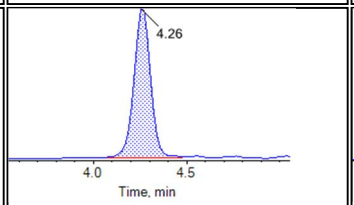

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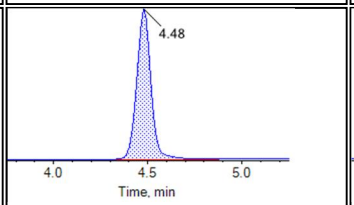

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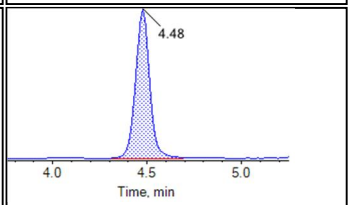

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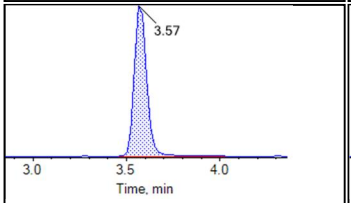

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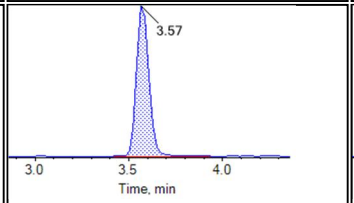

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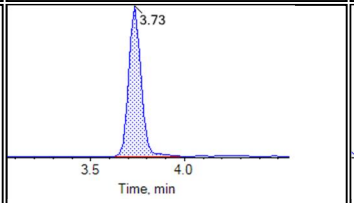

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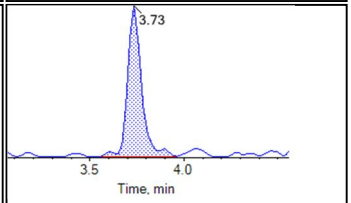

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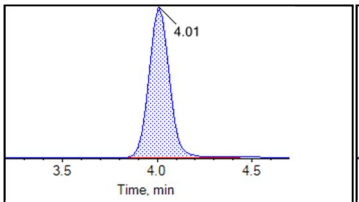

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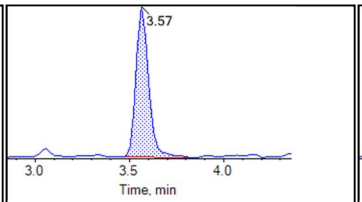

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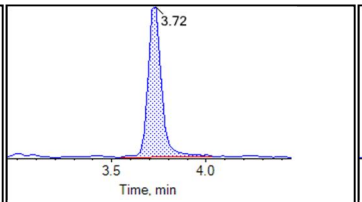

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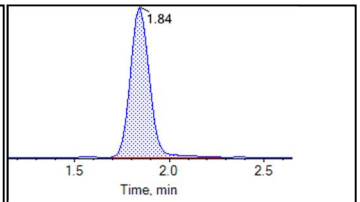

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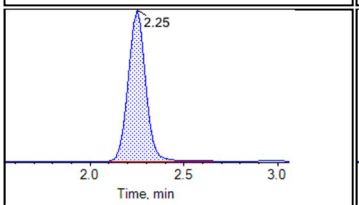

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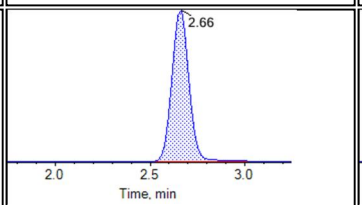

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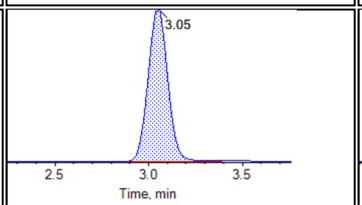

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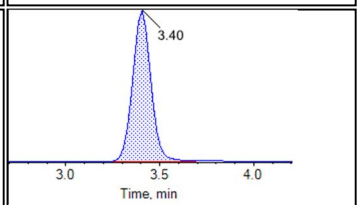

13C6-PFDA

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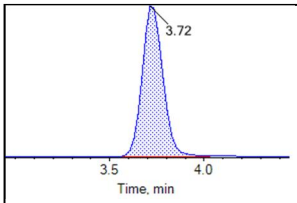

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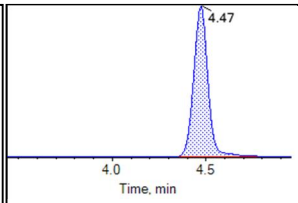

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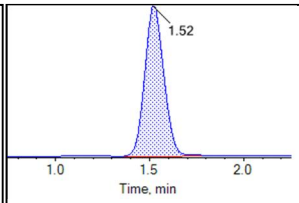

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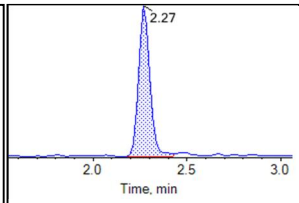

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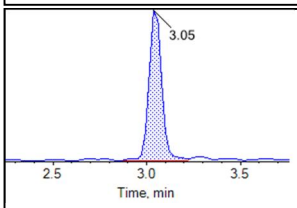

13C8-PFOS

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Chromatogram Report

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Sample Name	CR849PB-FS(3)	**Injection Vial**	2
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:10:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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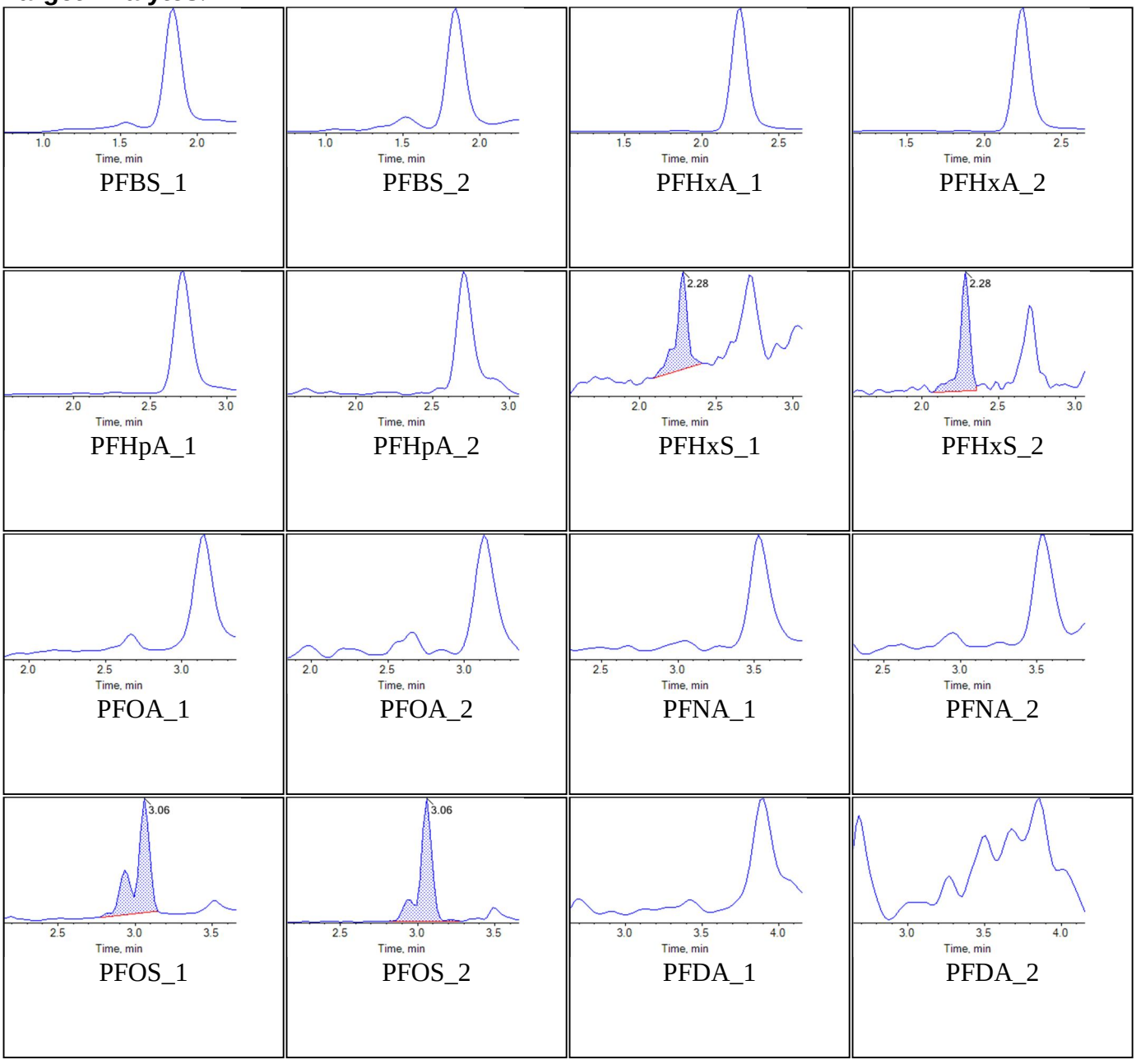

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Chromatogram Report

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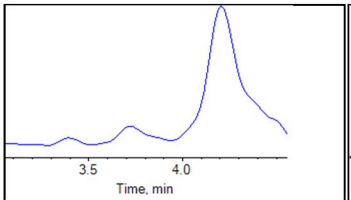

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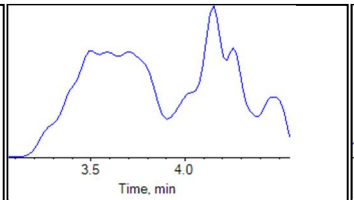

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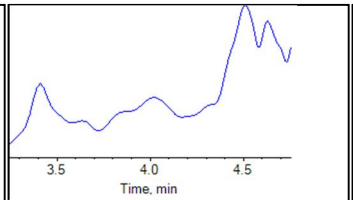

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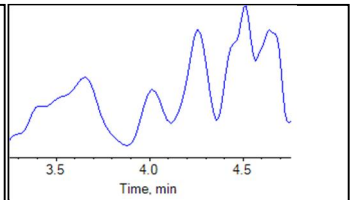

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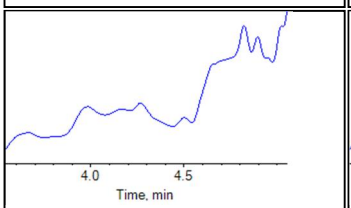

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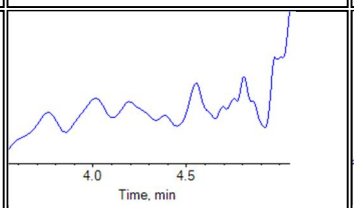

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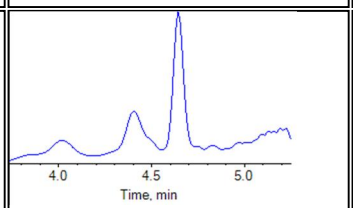

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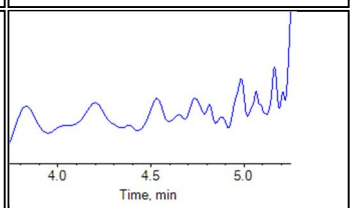

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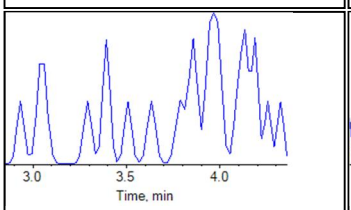

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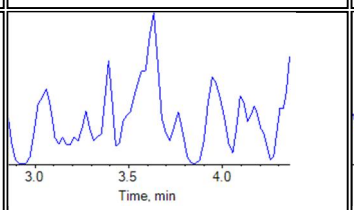

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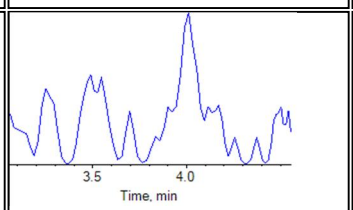

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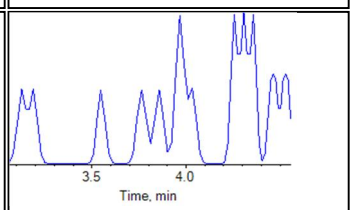

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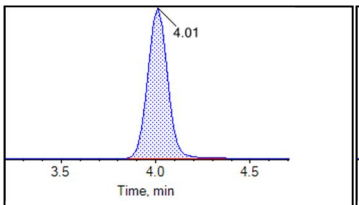

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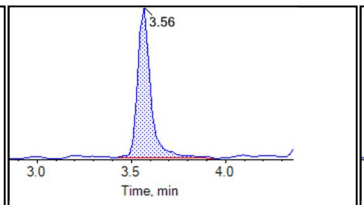

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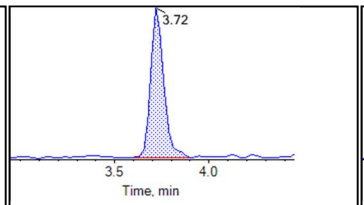

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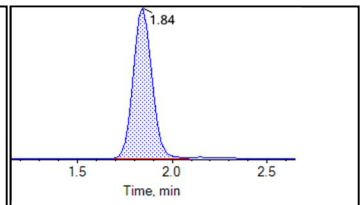

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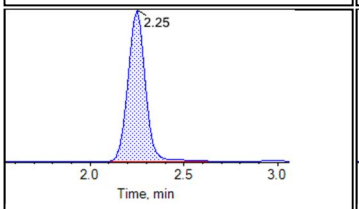

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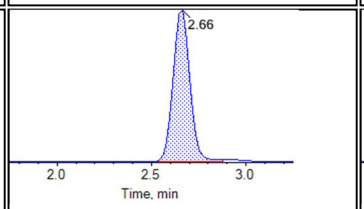

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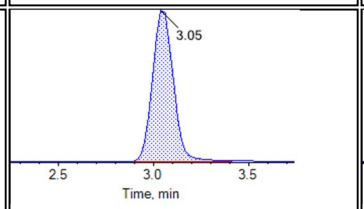

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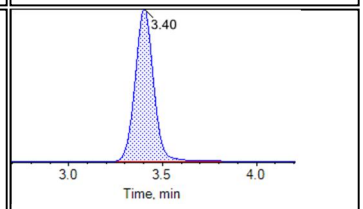

13C6-PFDA

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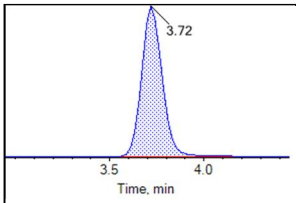

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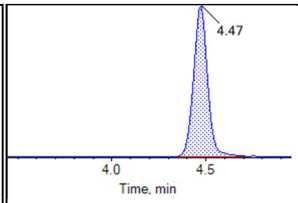

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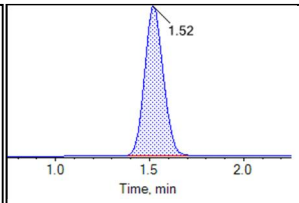

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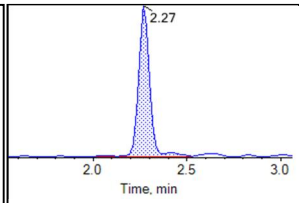

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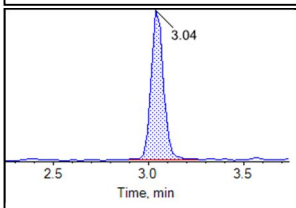

13C8-PFOS

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Chromatogram Report

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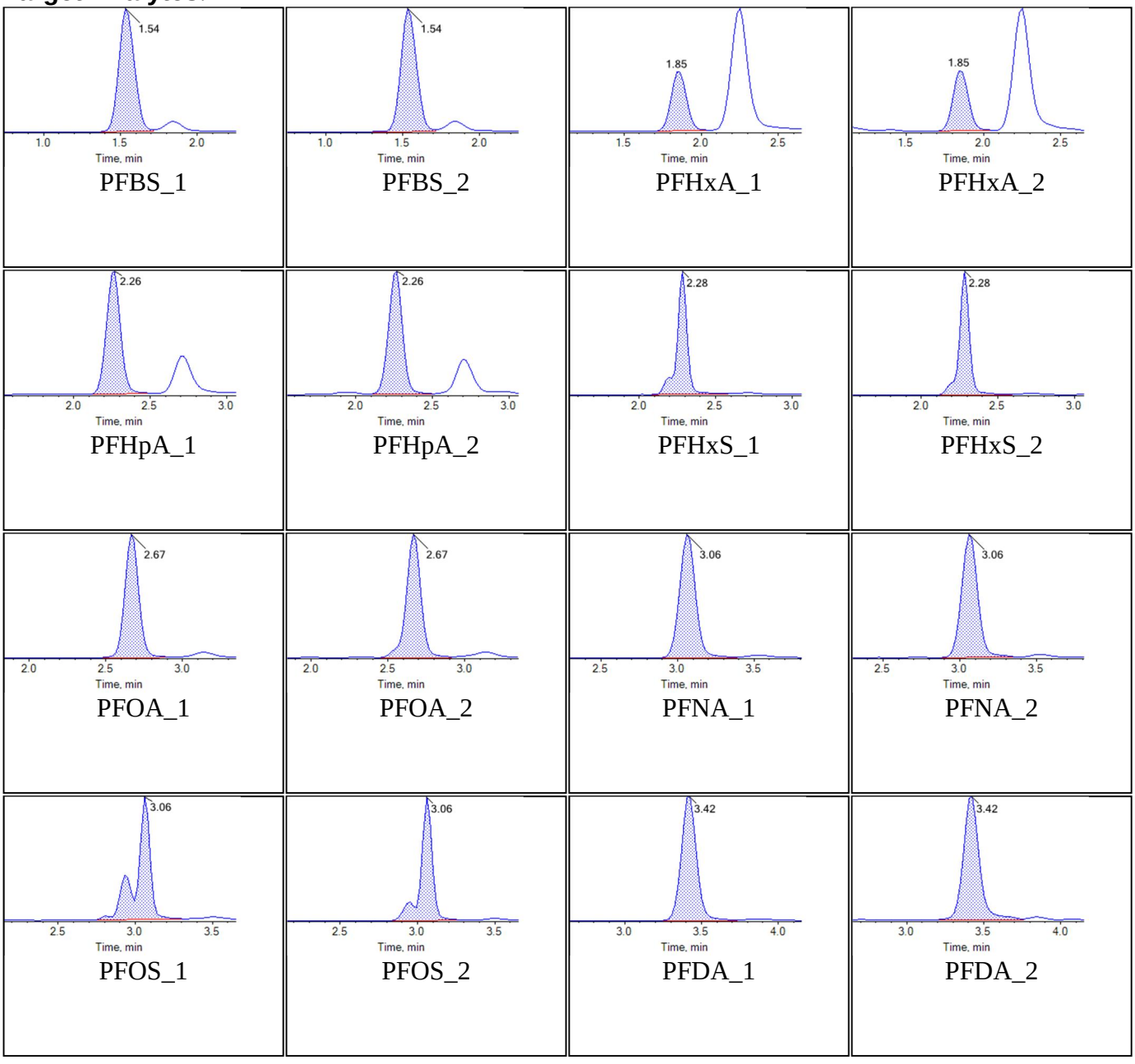
Sample Name	CR850LCS-FS(3)	**Injection Vial**	3
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:21:43	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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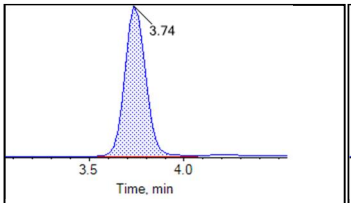

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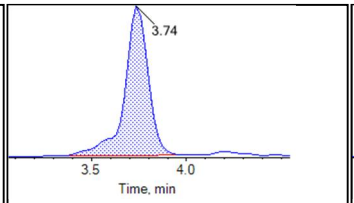

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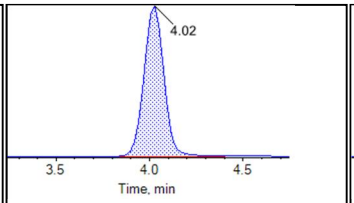

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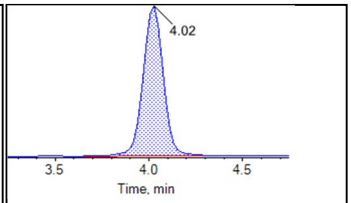

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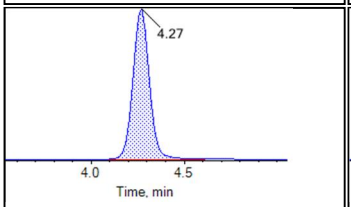

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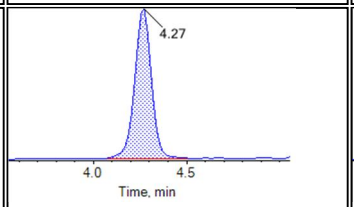

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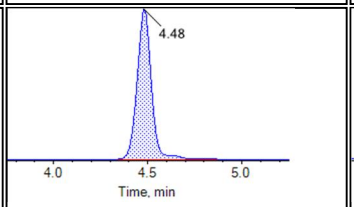

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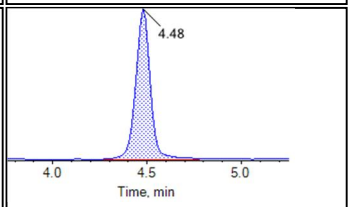

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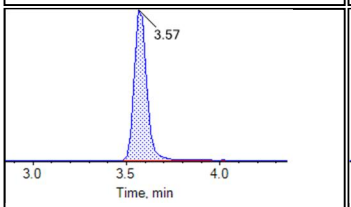

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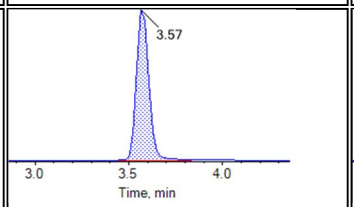

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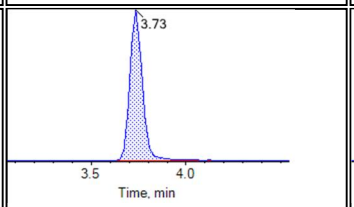

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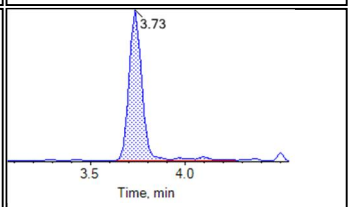

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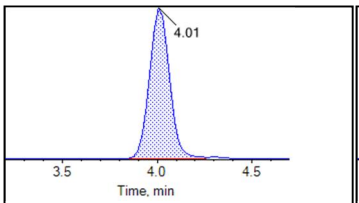

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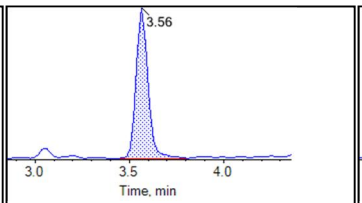

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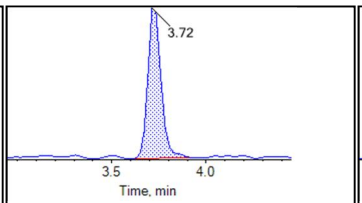

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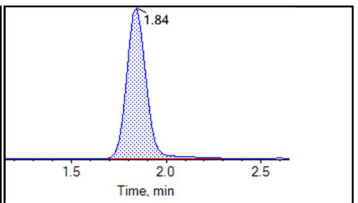

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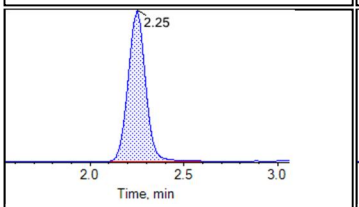

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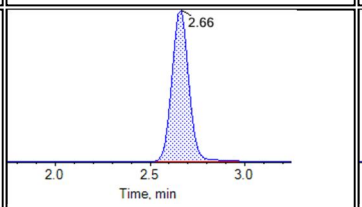

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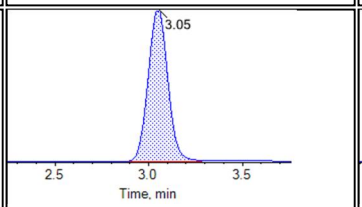

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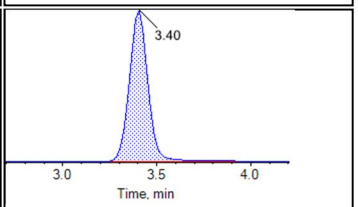

13C6-PFDA

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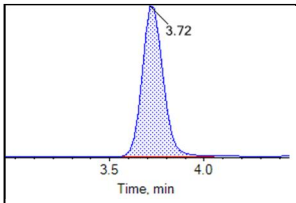
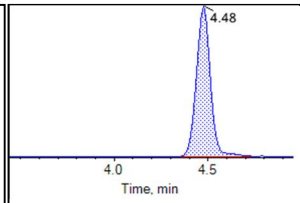


13C7-PFUnA



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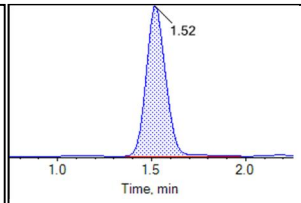

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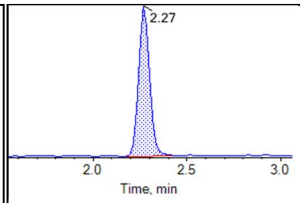

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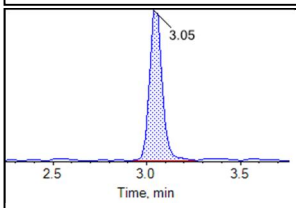

13C8-PFOS

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Sample Name	J8201-FS(3)	**Injection Vial**	4
Sample ID	VC-PM3009-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:32:35	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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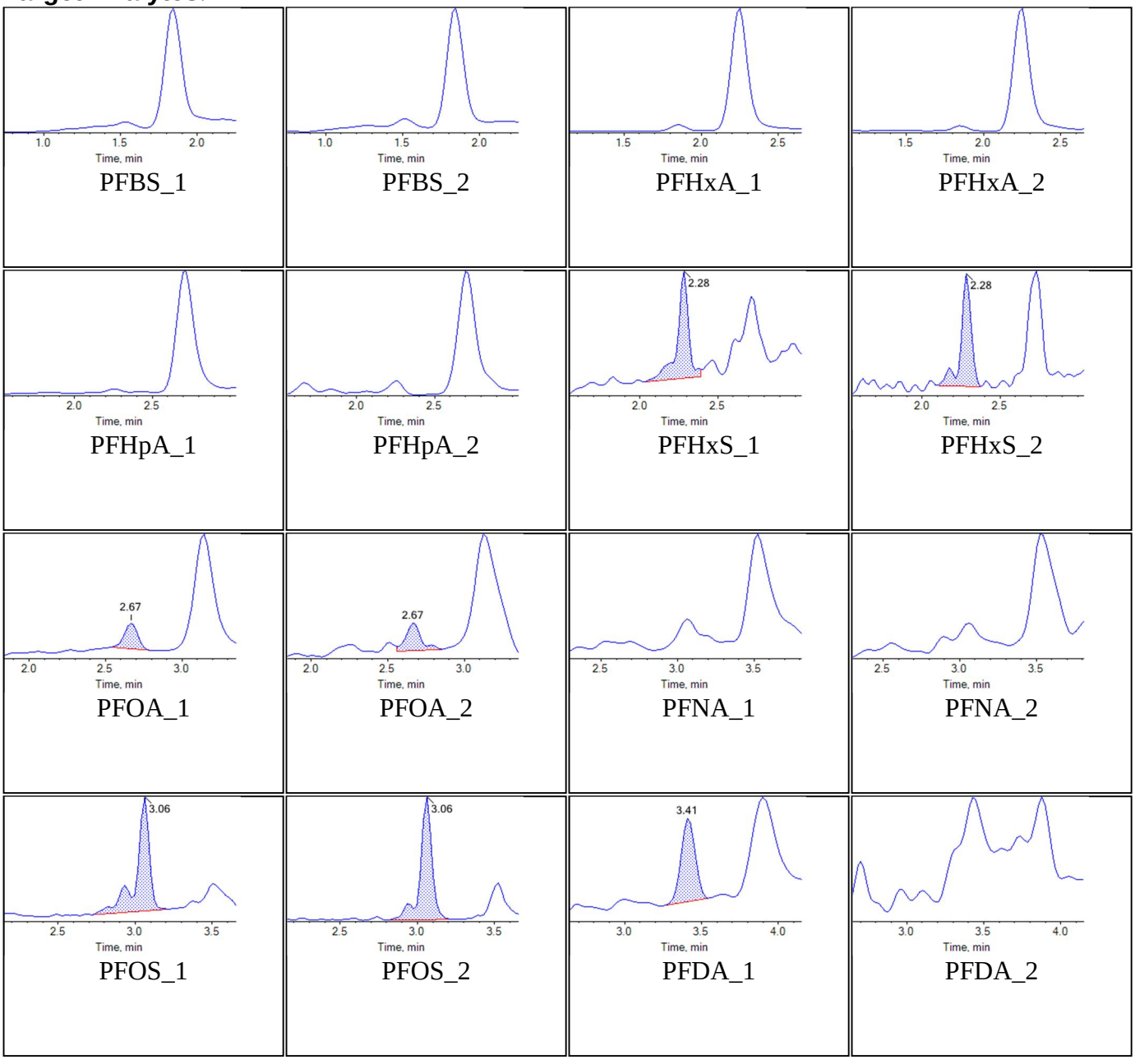

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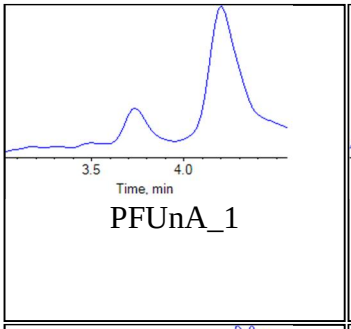

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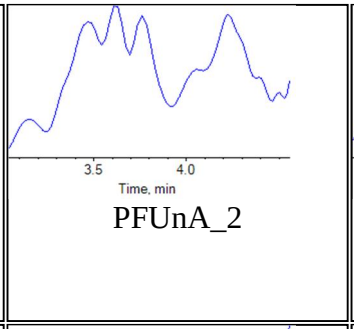

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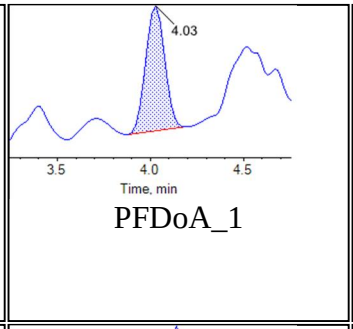

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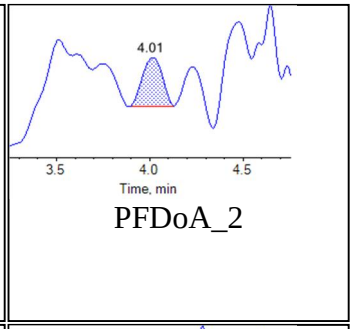

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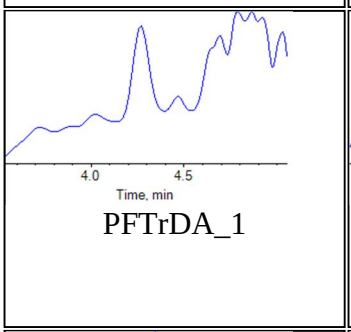

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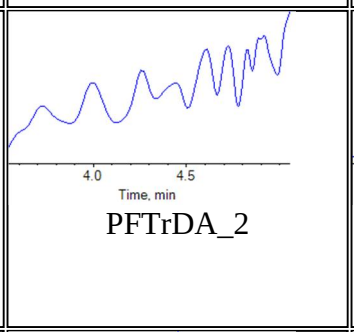

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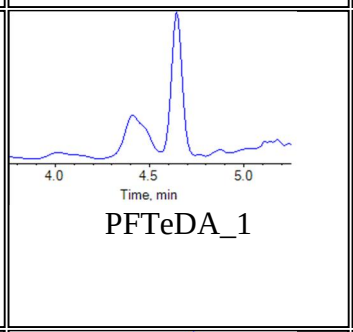

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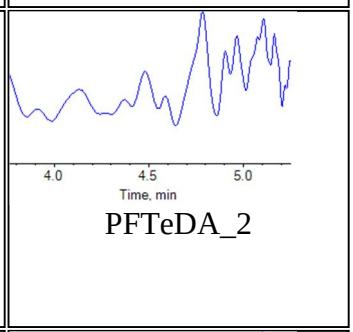

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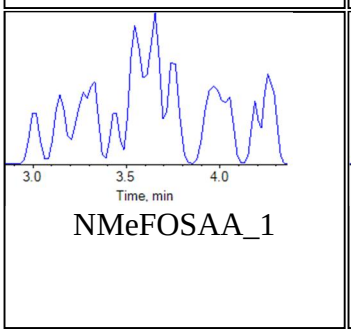

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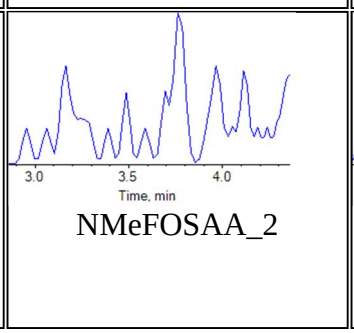

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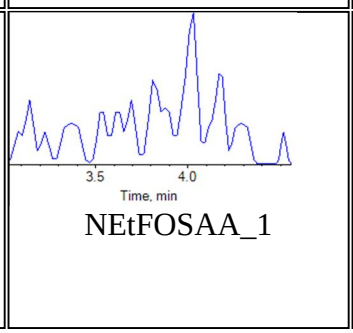

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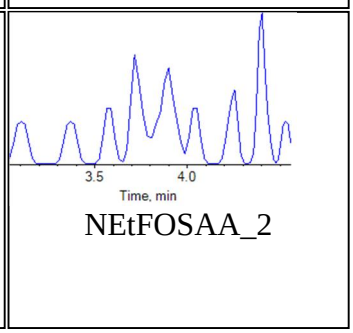

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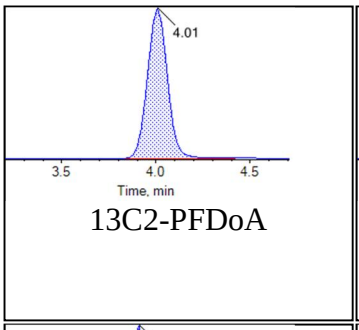

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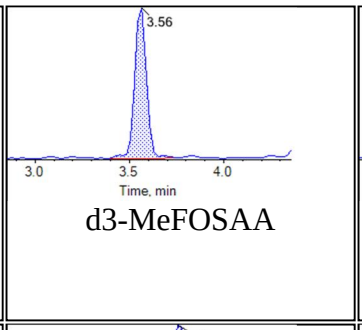

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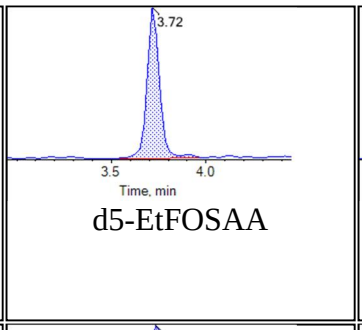
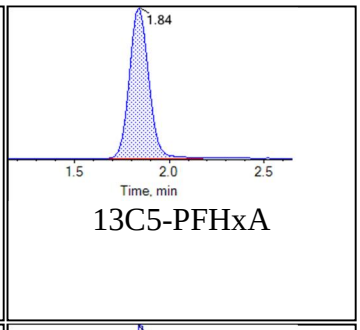


d5-EtFOSAA



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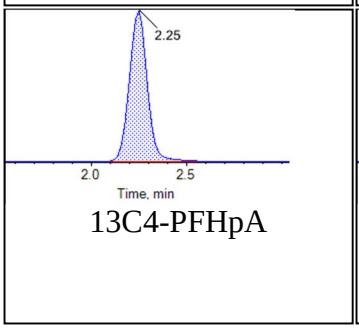

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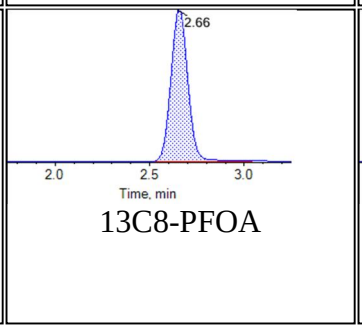

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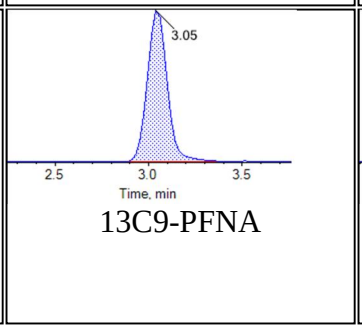

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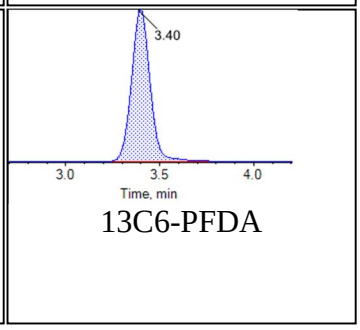

13C6-PFDA

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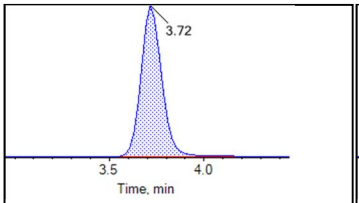

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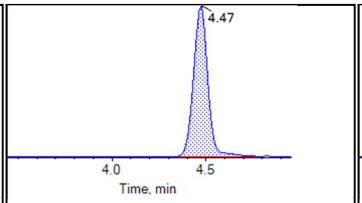

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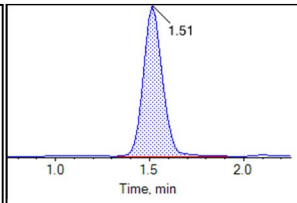

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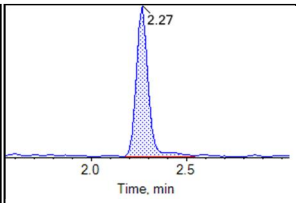

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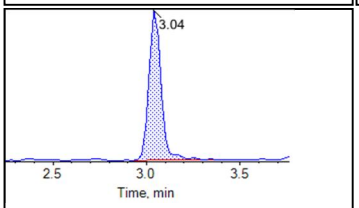

13C8-PFOS

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Chromatogram Report

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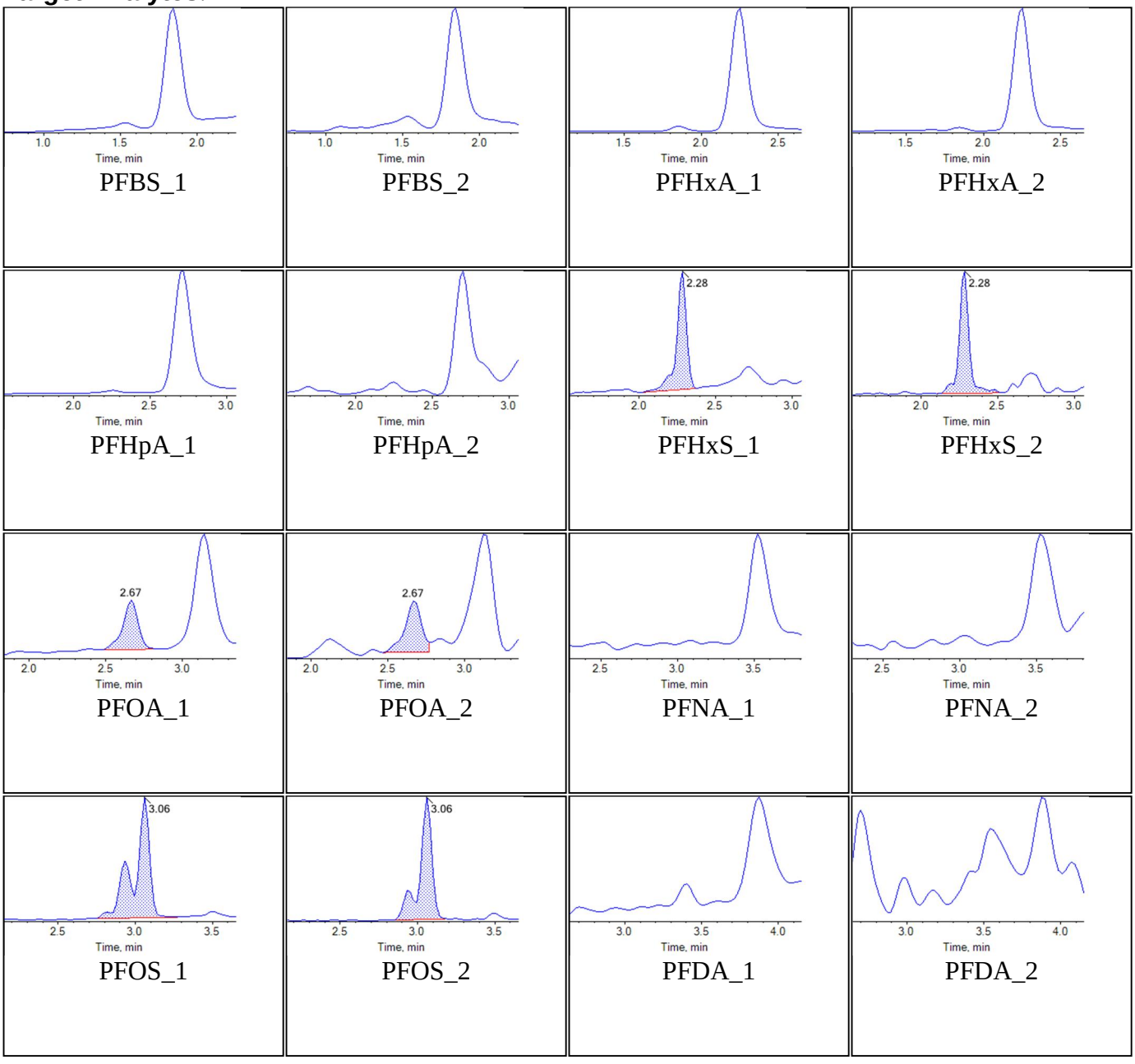
Sample Name	J8202-FS(3)	**Injection Vial**	5
Sample ID	VC-PM3009-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:43:30	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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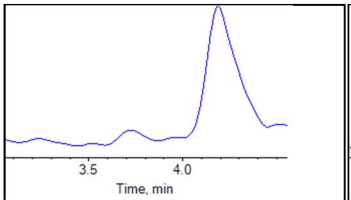

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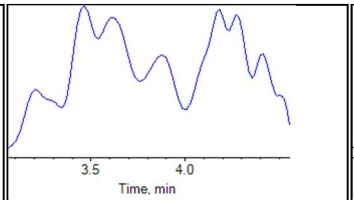

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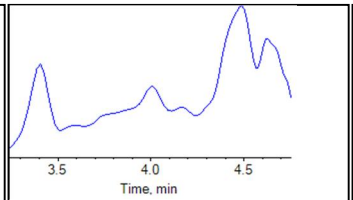

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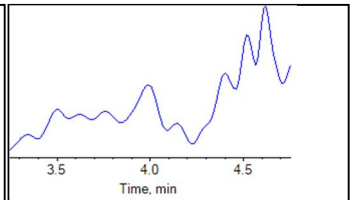

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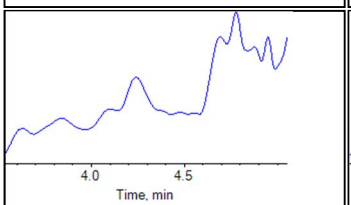

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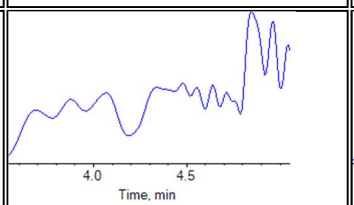

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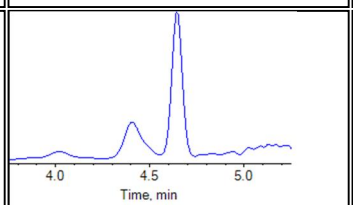

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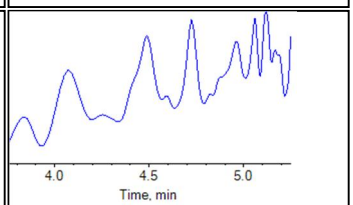

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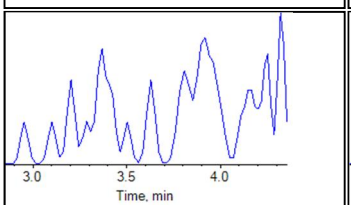

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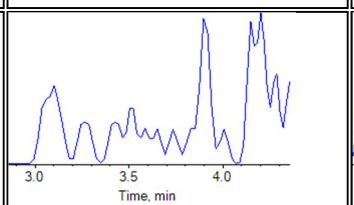

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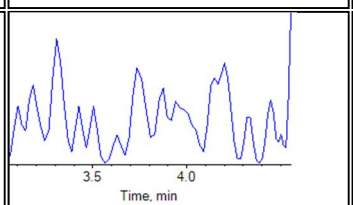

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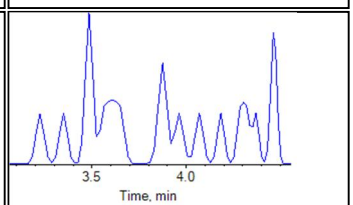

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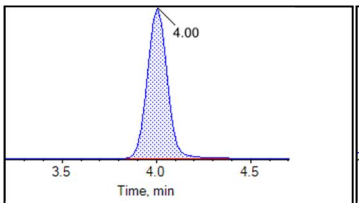

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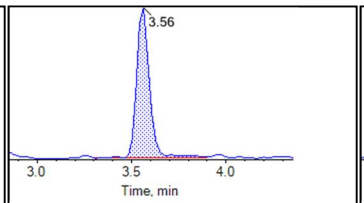

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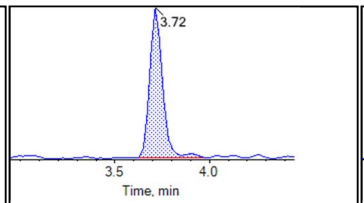

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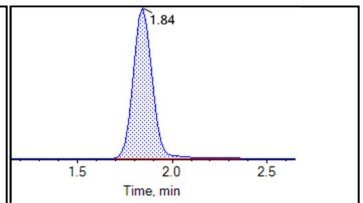

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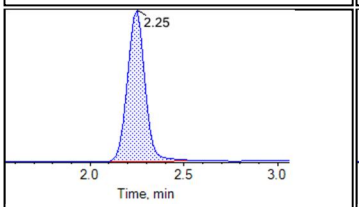

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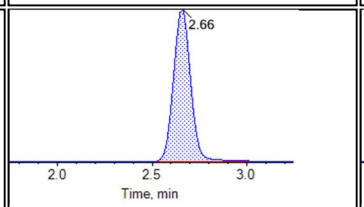

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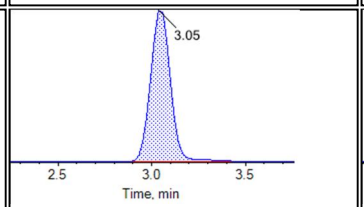

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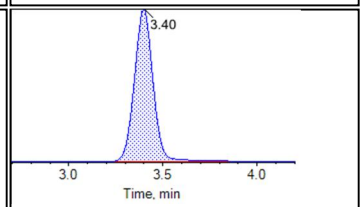

13C6-PFDA

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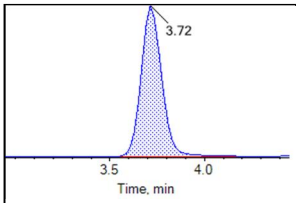

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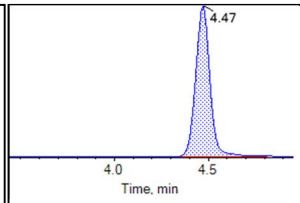

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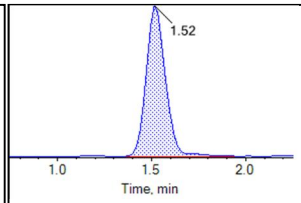

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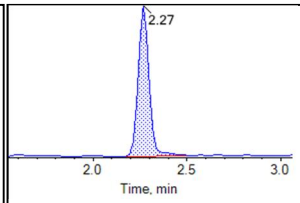

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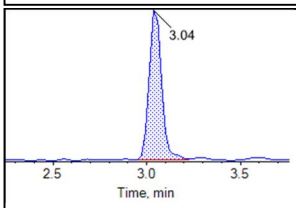

13C8-PFOS

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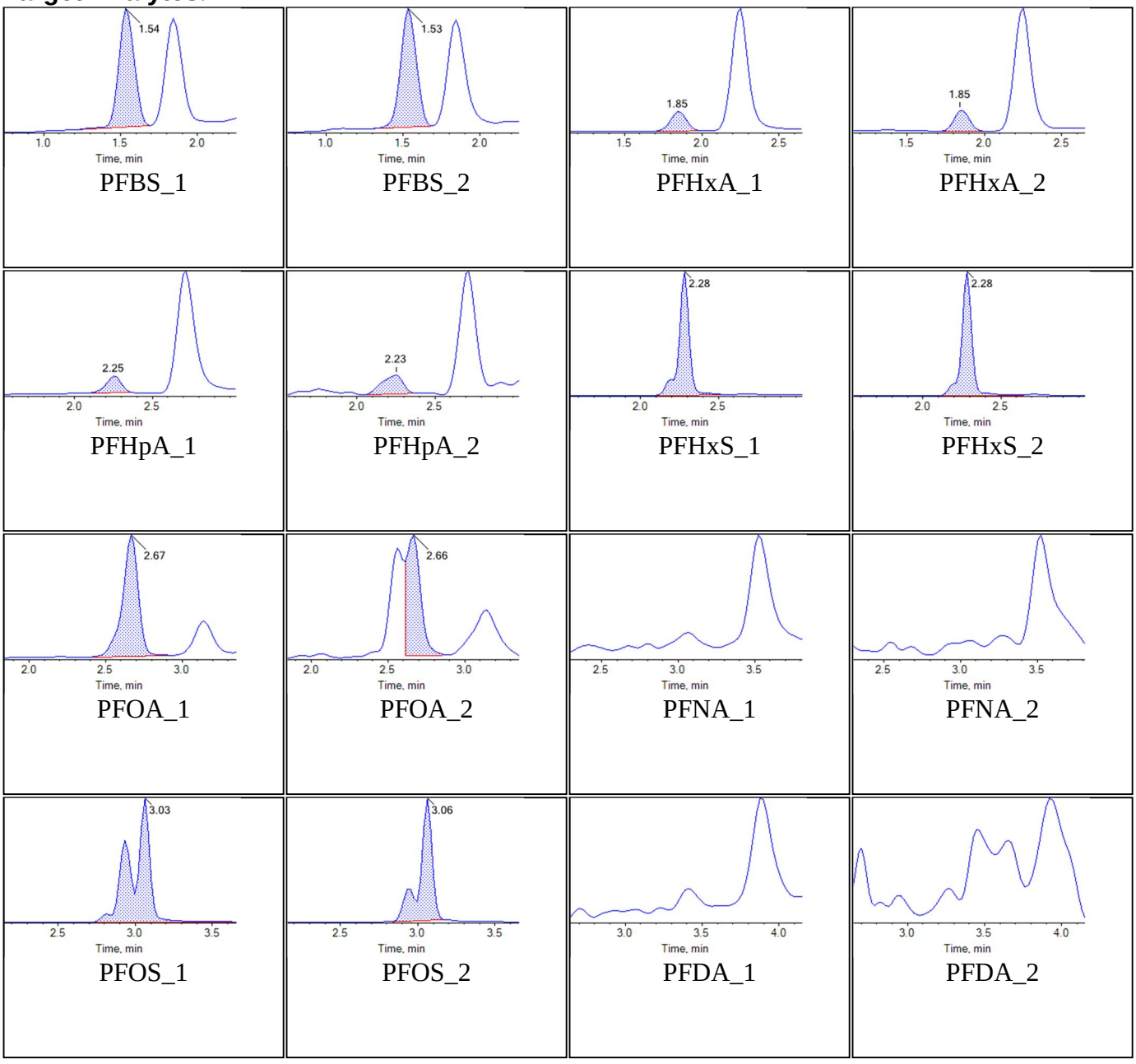
Sample Name	J8203-FS(3)	**Injection Vial**	6
Sample ID	VC-PM3009-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:54:23	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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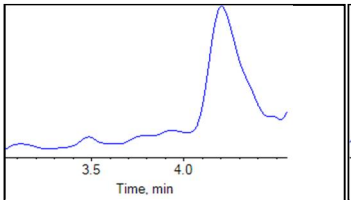

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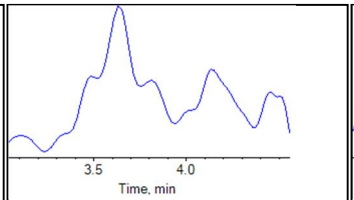

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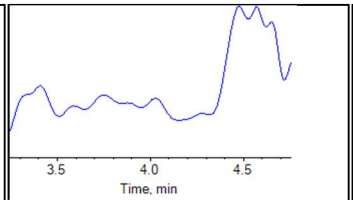

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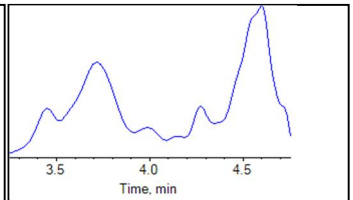

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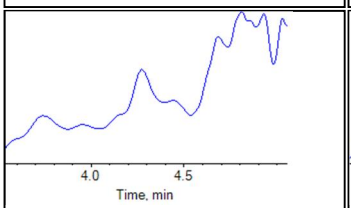

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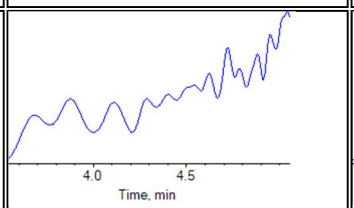

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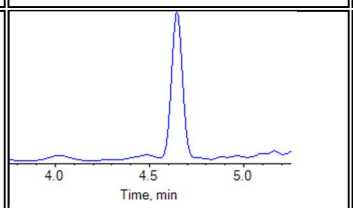

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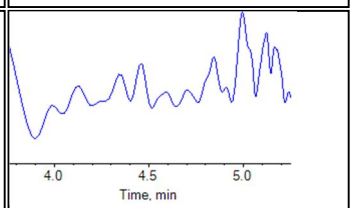

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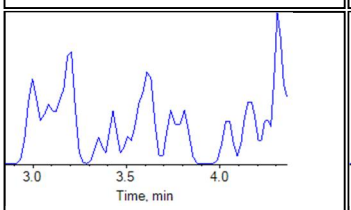

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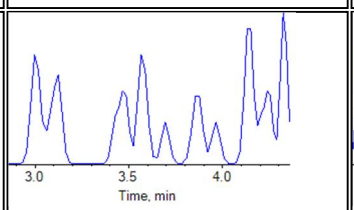

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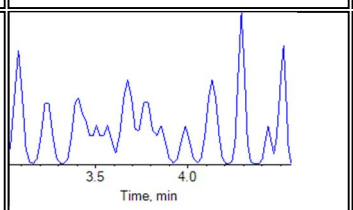

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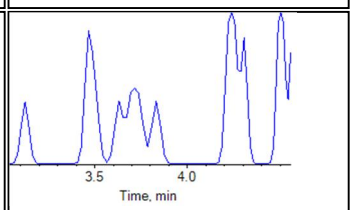

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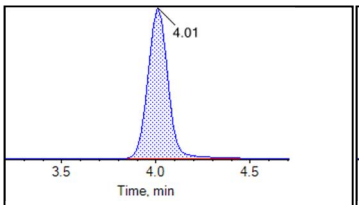

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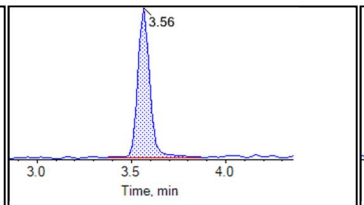

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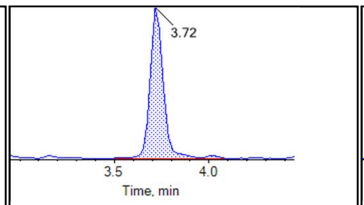
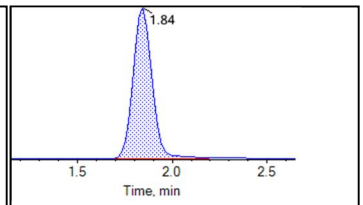


d5-EtFOSAA



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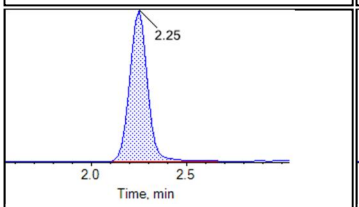

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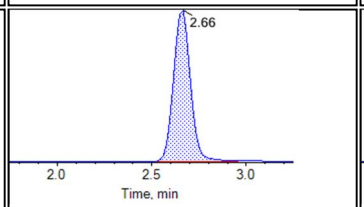

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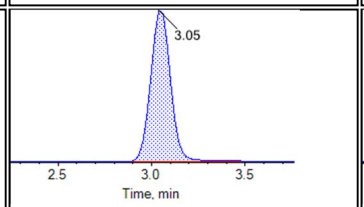

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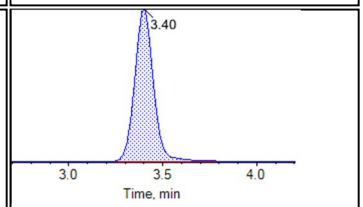

13C6-PFDA

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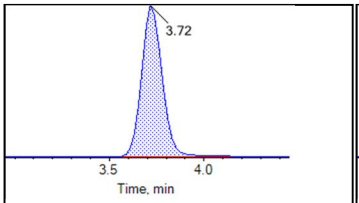
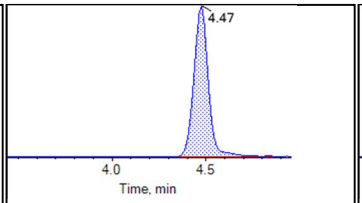


13C7-PFUnA



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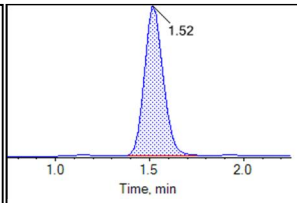

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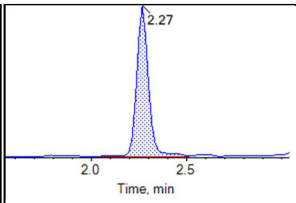

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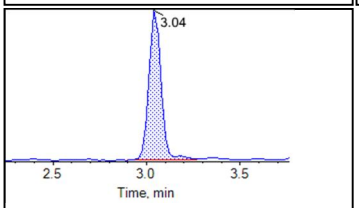

13C8-PFOS

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Chromatogram Report

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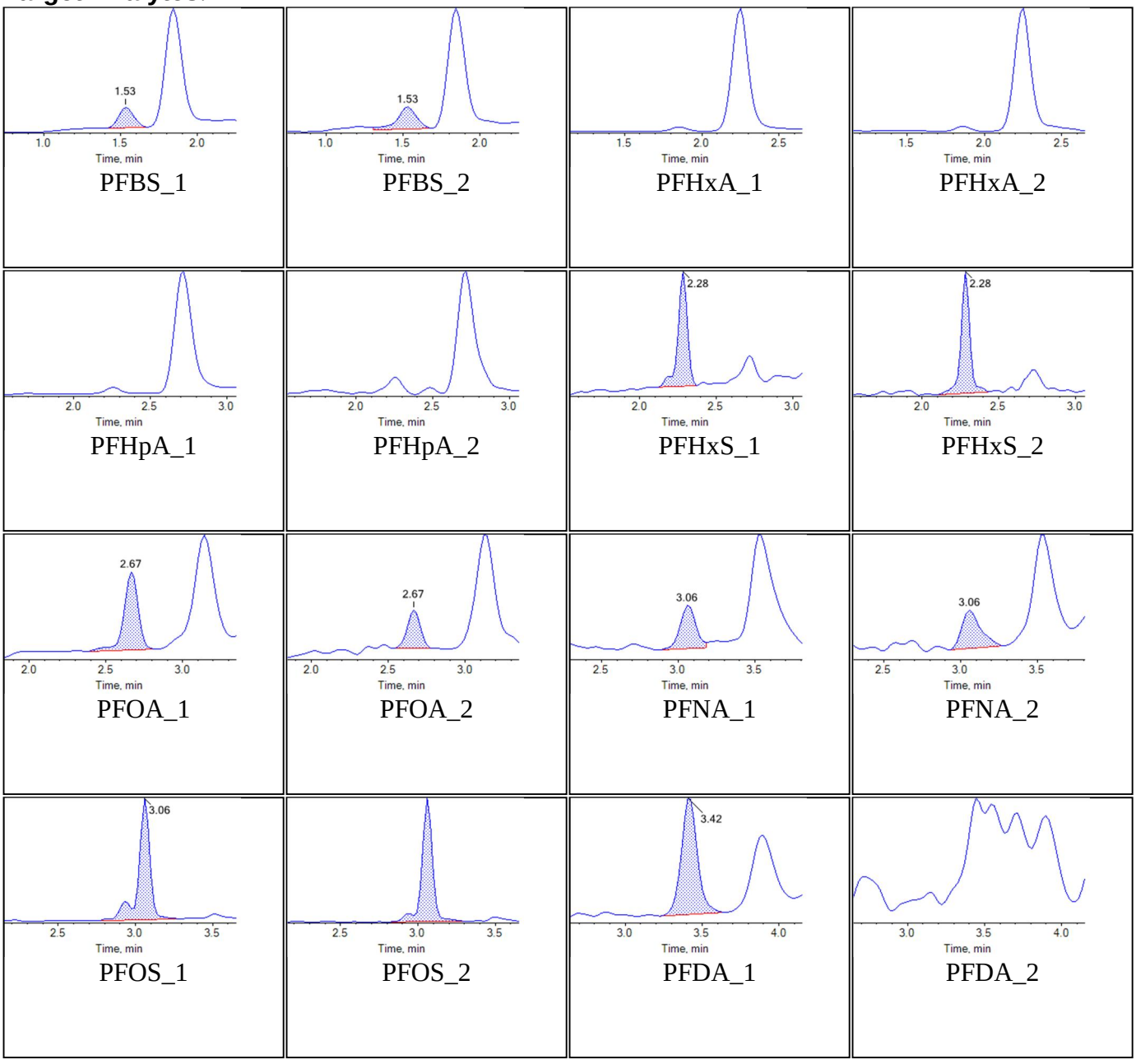
Sample Name	J8204-FS(3)	**Injection Vial**	7
Sample ID	VC-PM3009-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:05:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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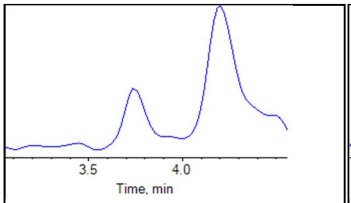

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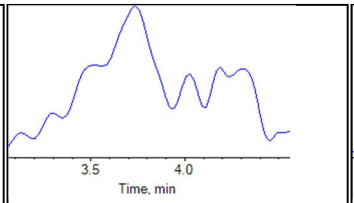

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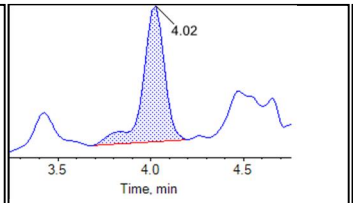

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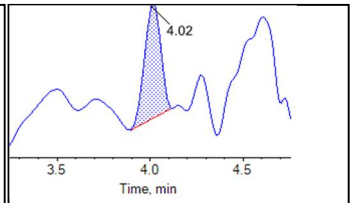

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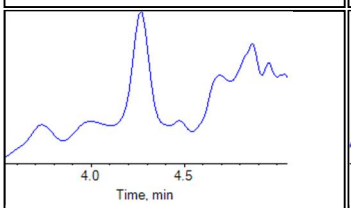

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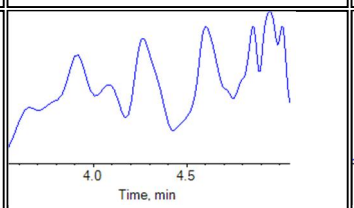

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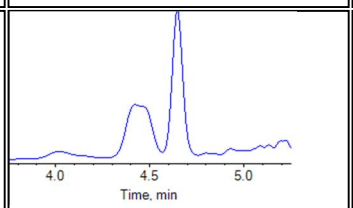

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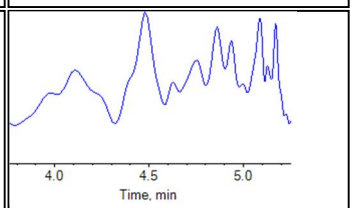

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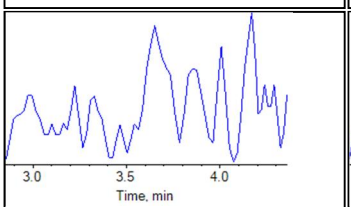

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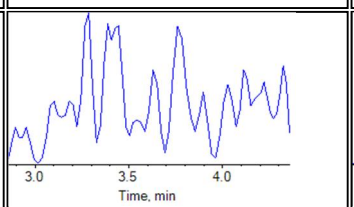

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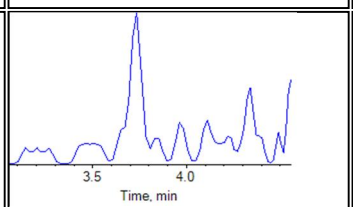

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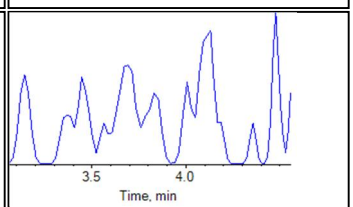

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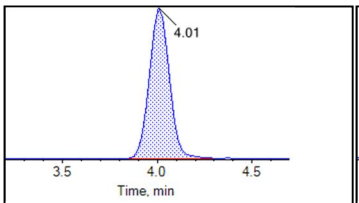

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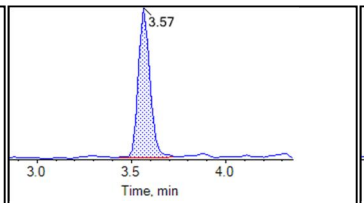

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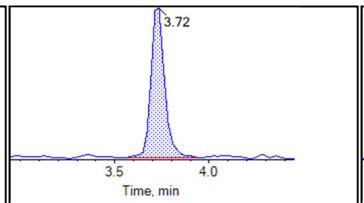

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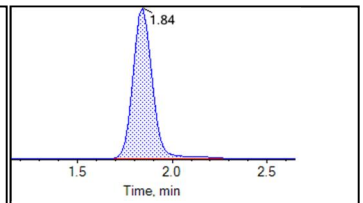

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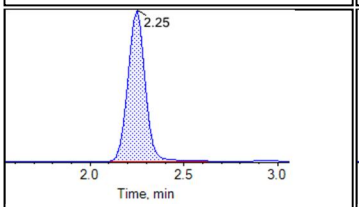

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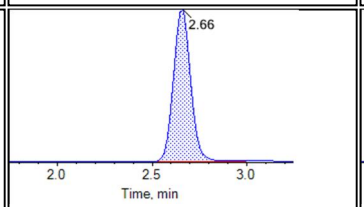

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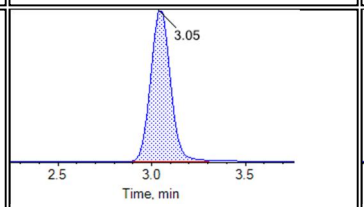

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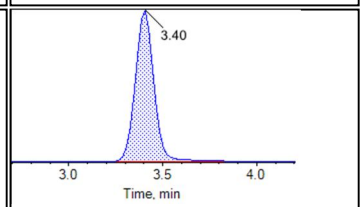

13C6-PFDA

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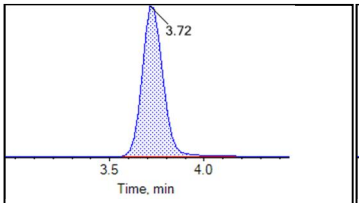
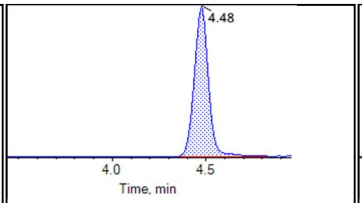


13C7-PFUnA



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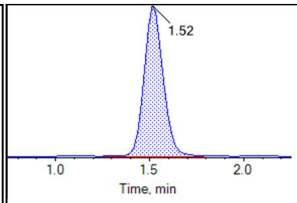

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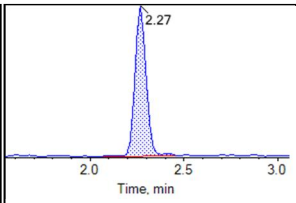

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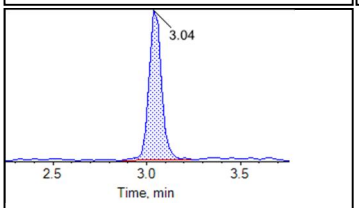

13C8-PFOS

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Sample Name	J8205-FS(3)	**Injection Vial**	8
Sample ID	VC-PM3009-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:16:07	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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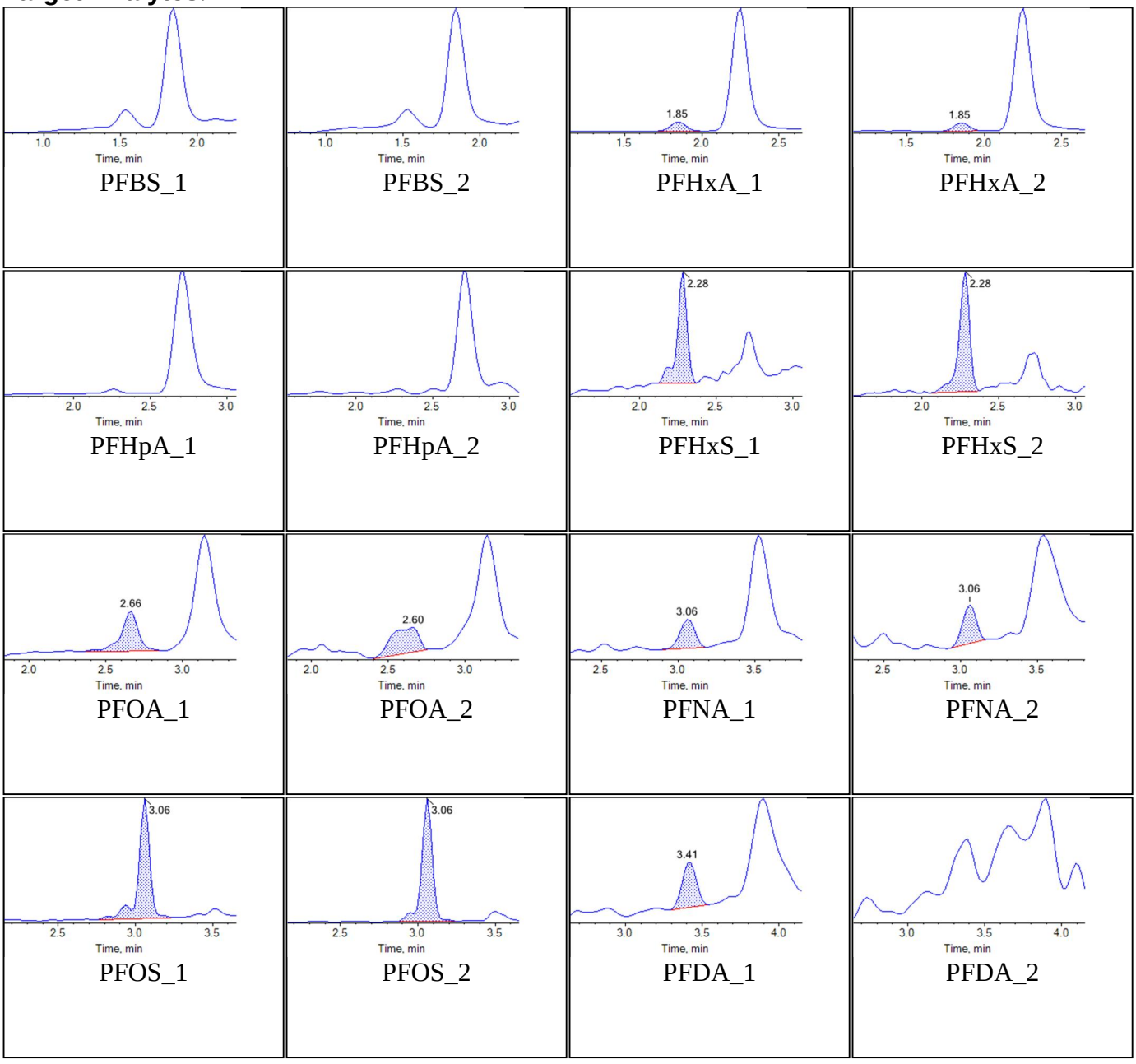

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Chromatogram Report

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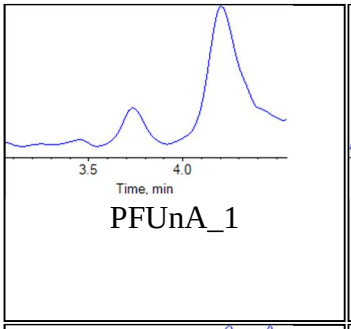

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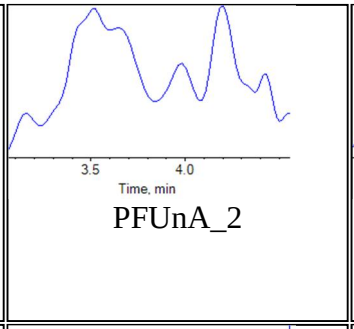

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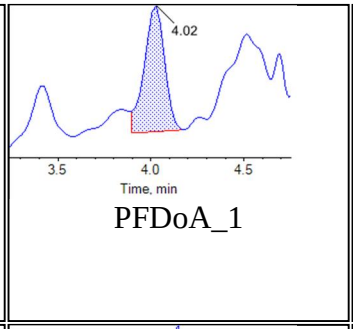

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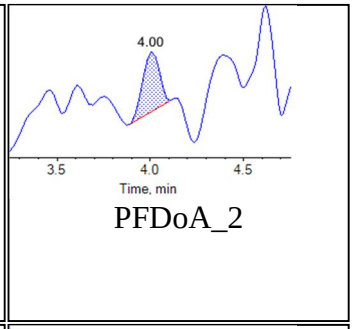

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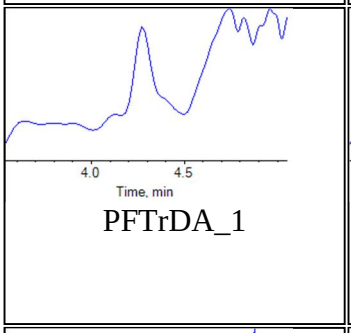

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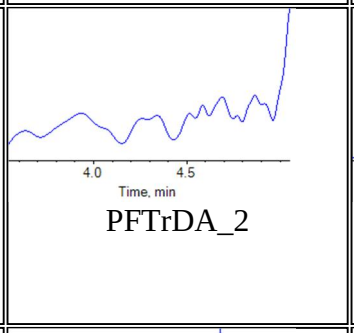

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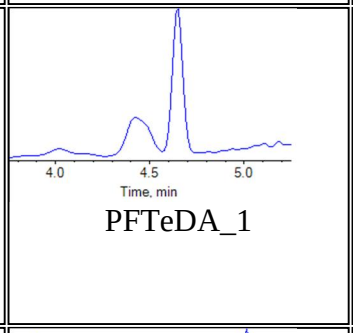

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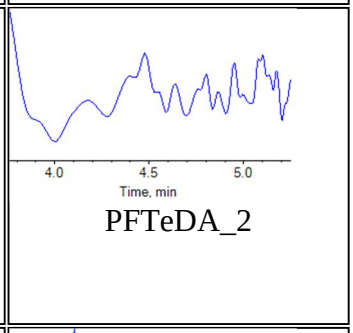

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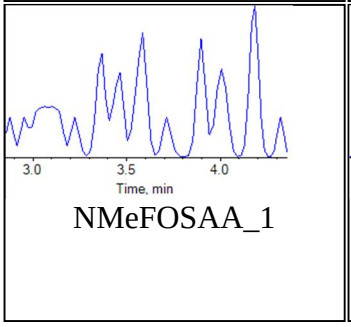

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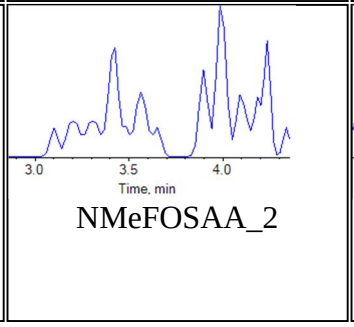

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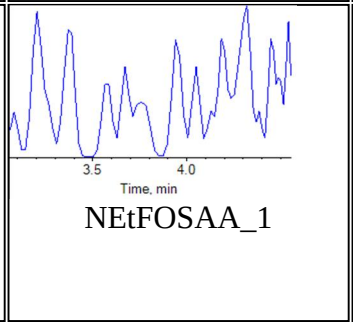

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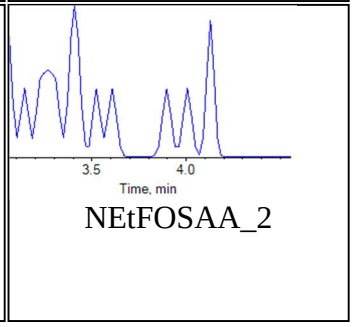

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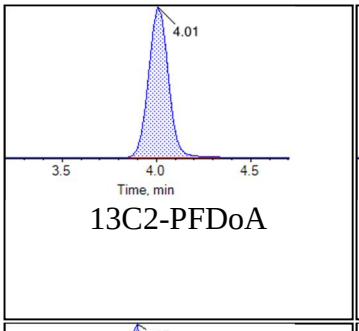

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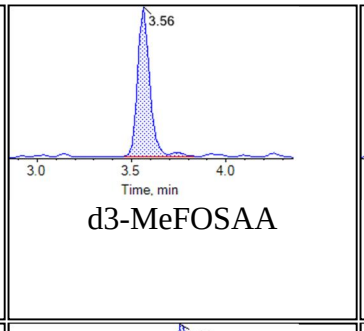

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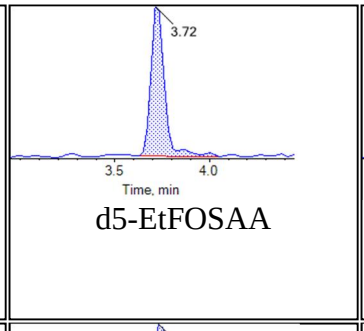
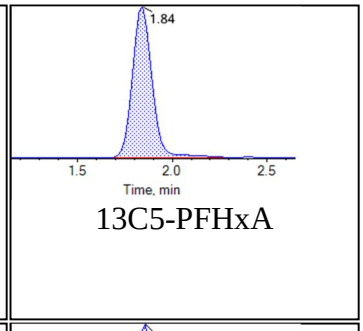


d5-EtFOSAA



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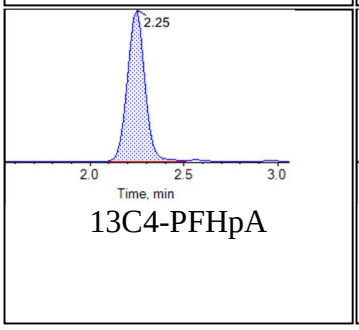

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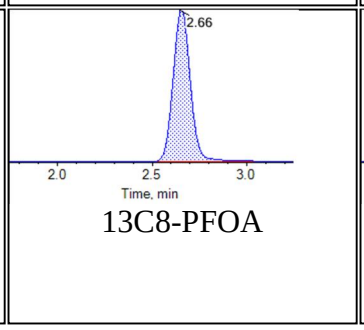

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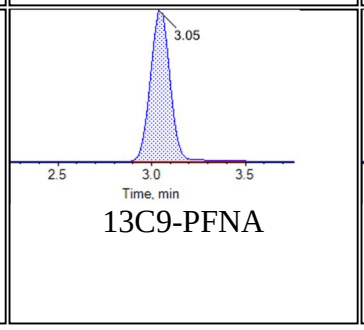
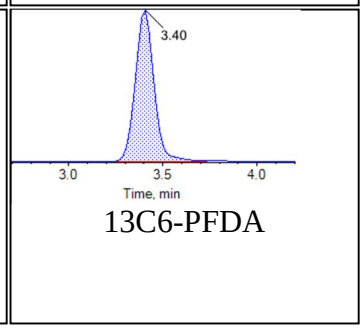


13C9-PFNA



13C6-PFDA

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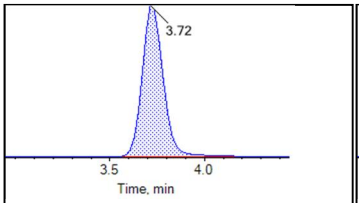

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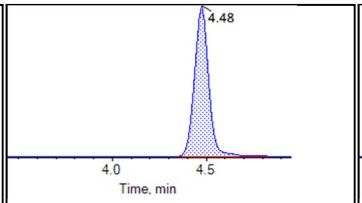

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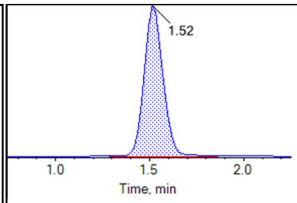

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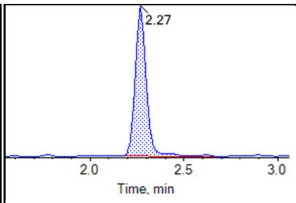

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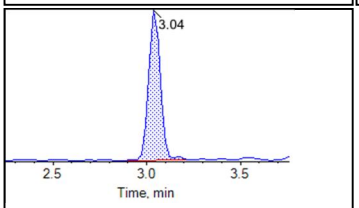

13C8-PFOS

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Chromatogram Report

Created with Analyst Reporter
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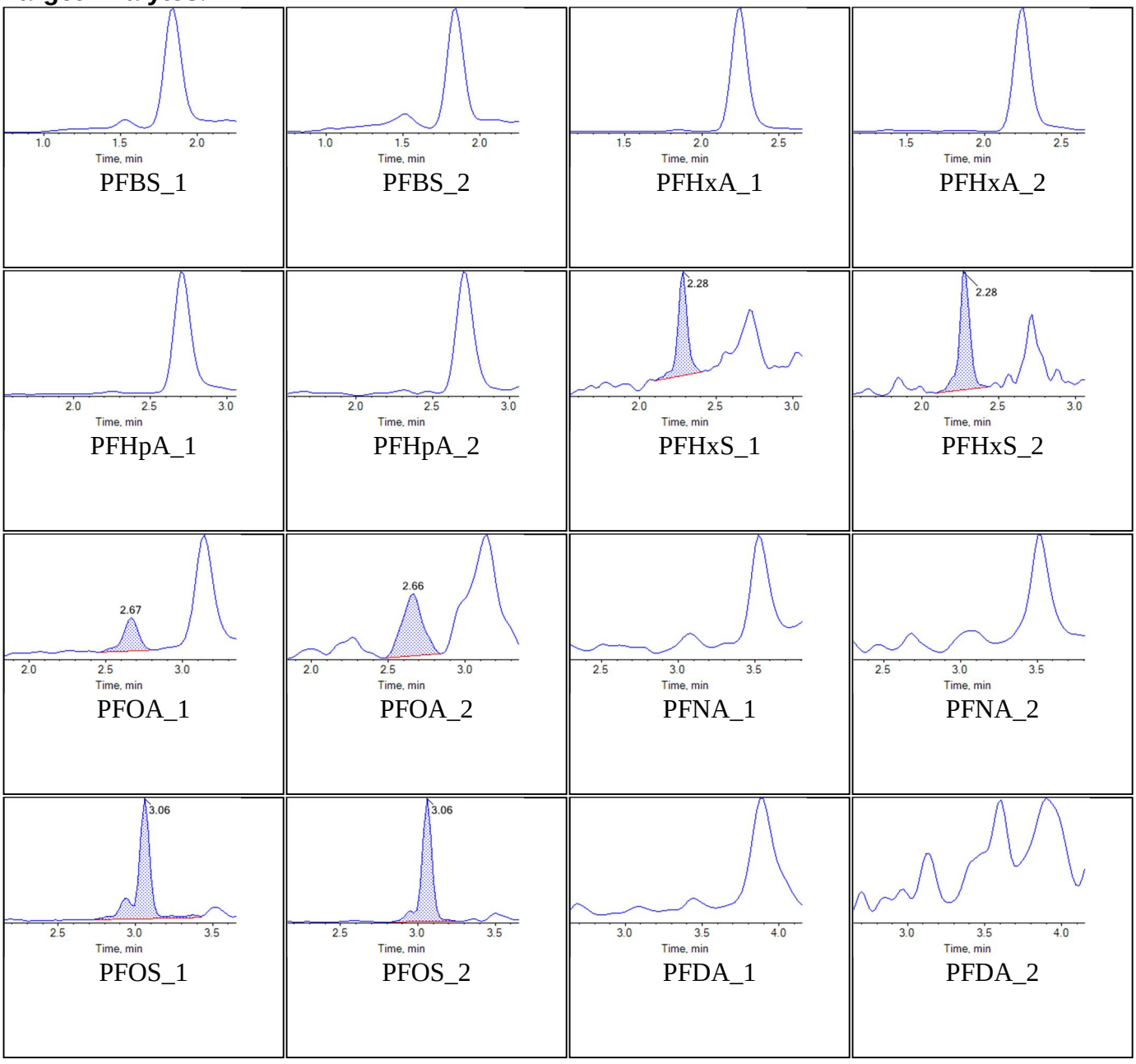
Sample Name	J8206-FS(3)	**Injection Vial**	9
Sample ID	VC-PM3009-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:26:59	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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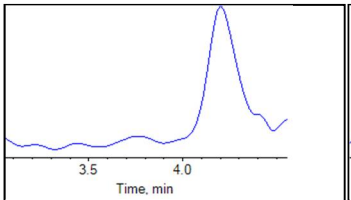

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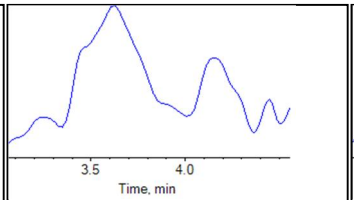

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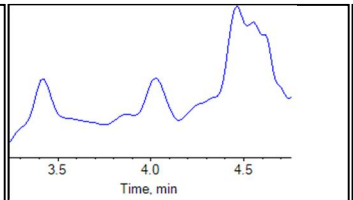

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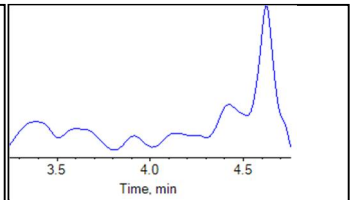

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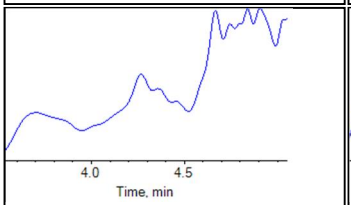

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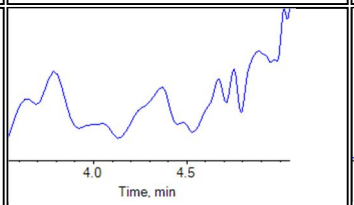

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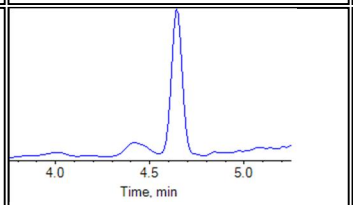

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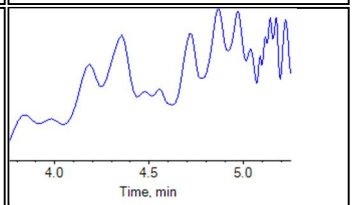

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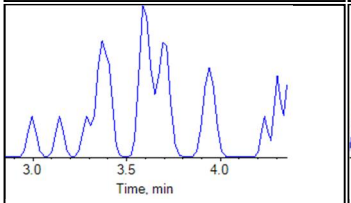
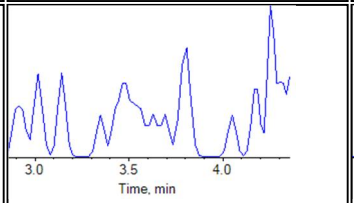


NMeFOSAA_1



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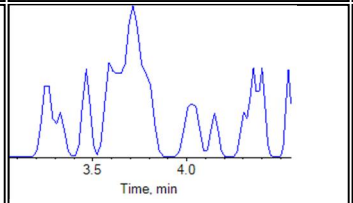

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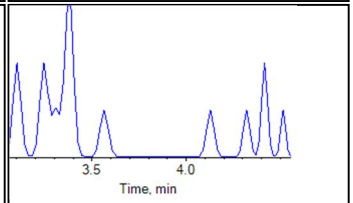

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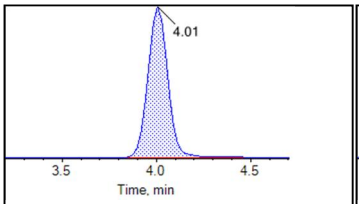
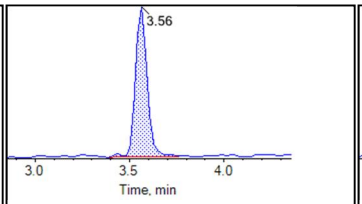
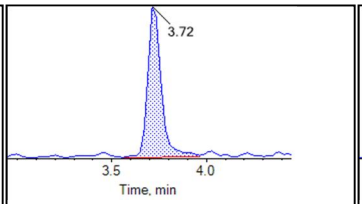


13C2-PFDoA



d3-MeFOSAA



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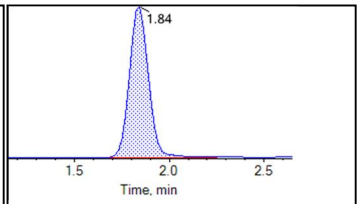
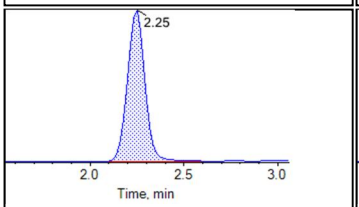
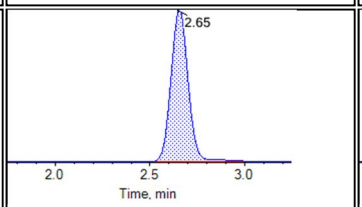


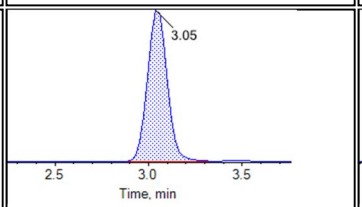
13C5-PFHxA



13C4-PFHpA



13C8-PFOA



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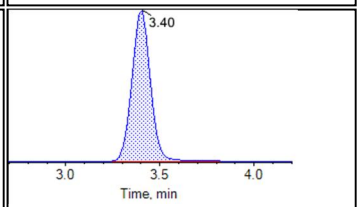

13C6-PFDA

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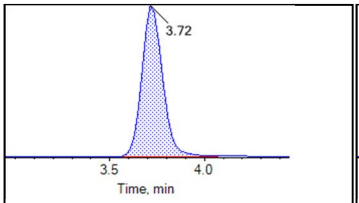
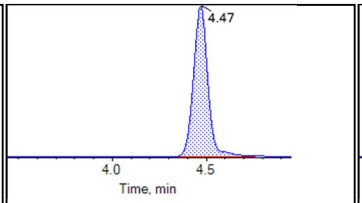
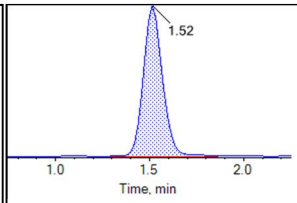


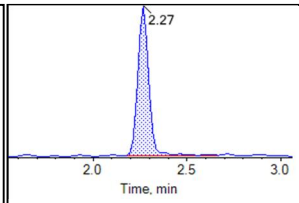
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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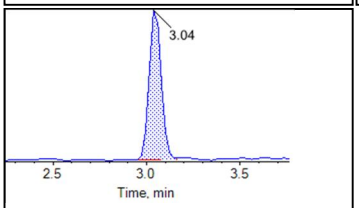

13C8-PFOS

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Chromatogram Report

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Sample Name	J8207-FS(3)	**Injection Vial**	10
Sample ID	VC-PM3009-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:37:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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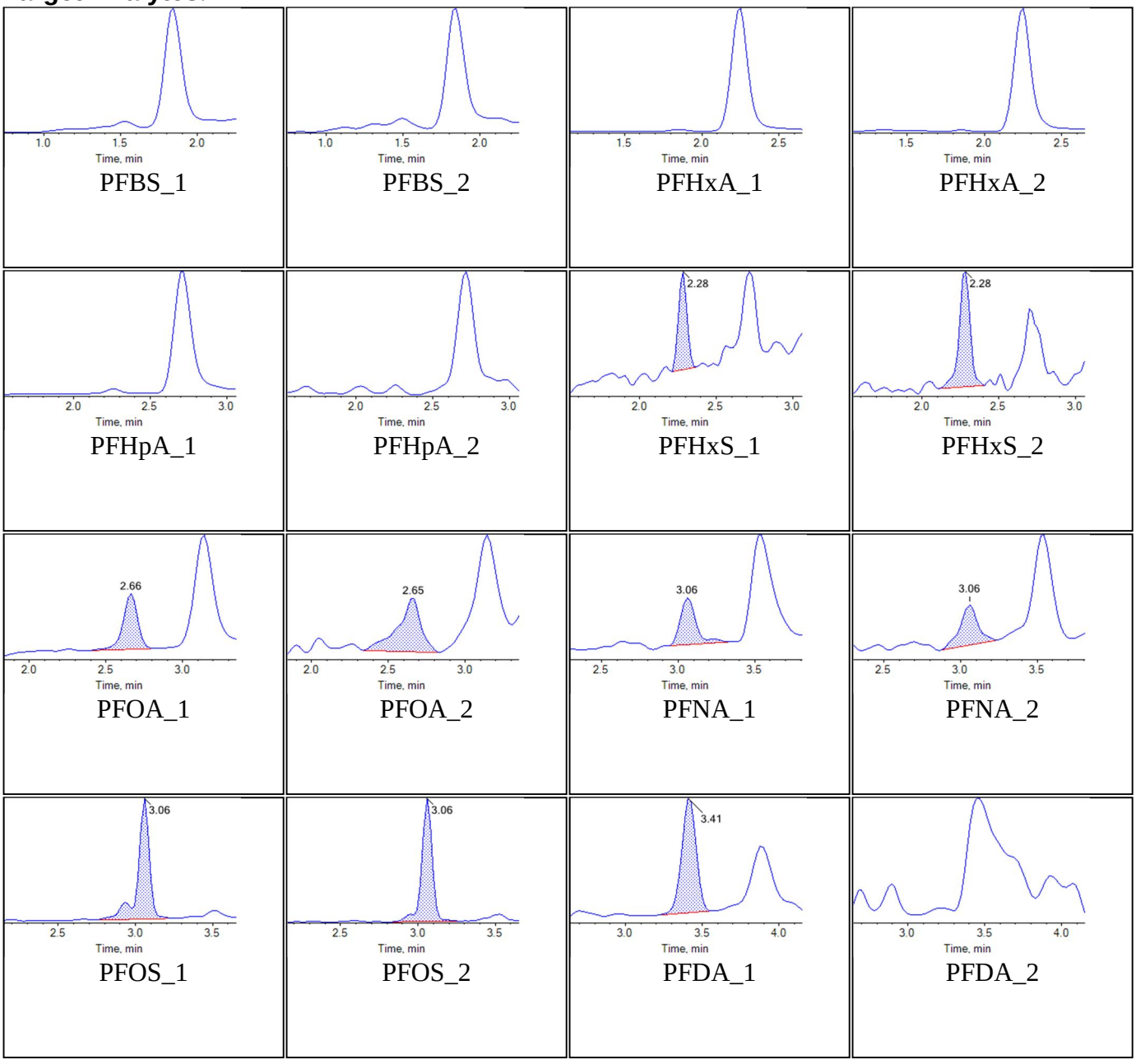

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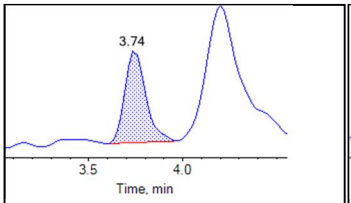
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:11:49 PM



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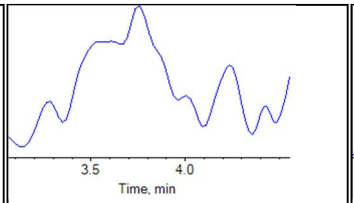

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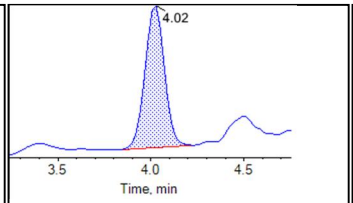
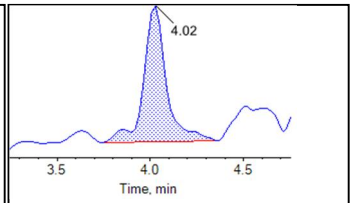


PFDoA_1



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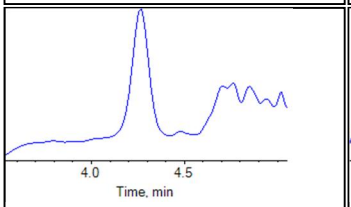

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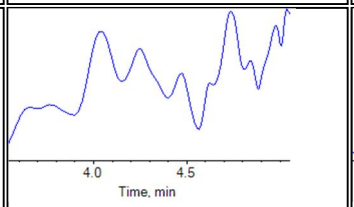

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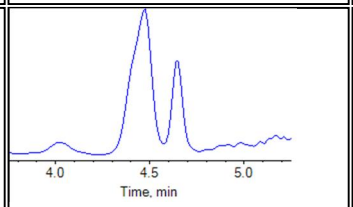

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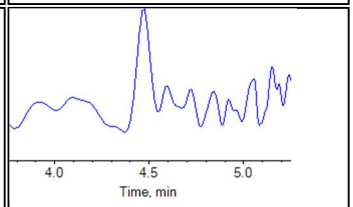

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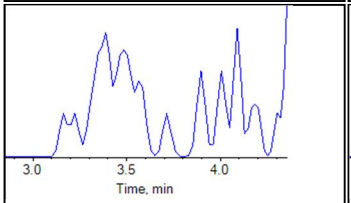

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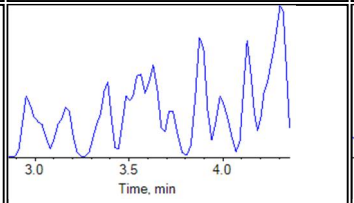

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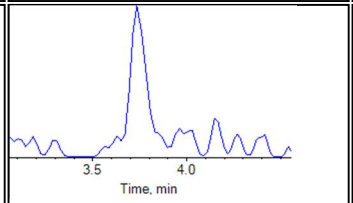
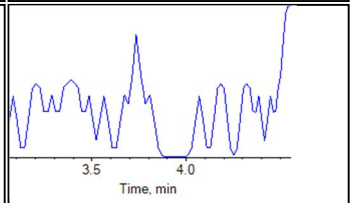


NEtFOSAA_1



NEtFOSAA_2

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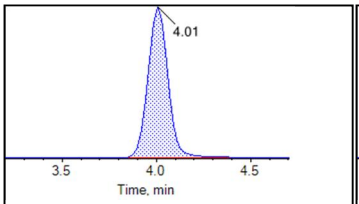

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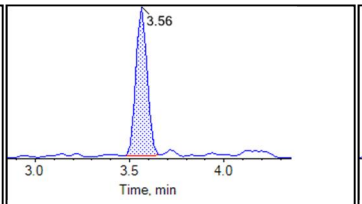
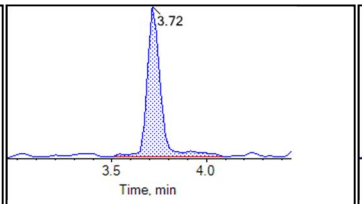
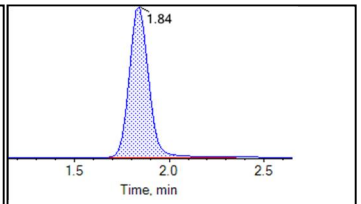


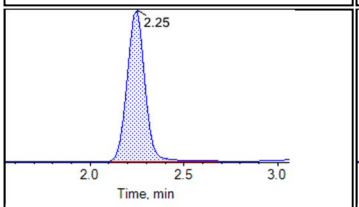
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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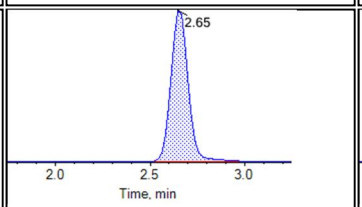

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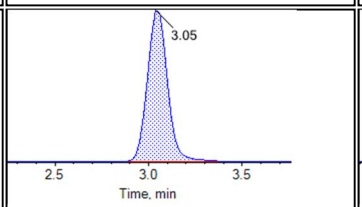
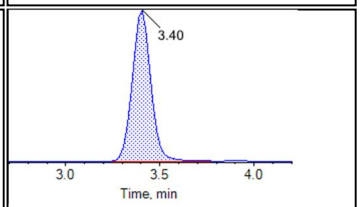


13C9-PFNA



13C6-PFDA

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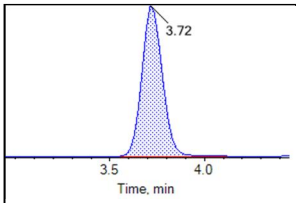
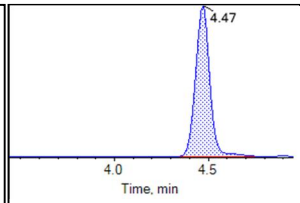
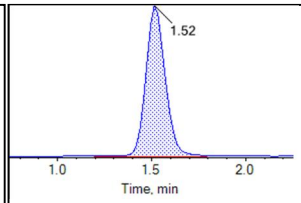


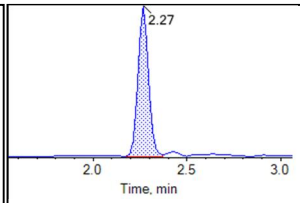
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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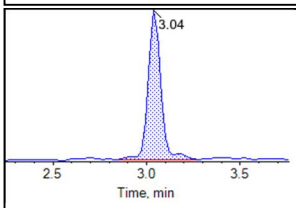

13C8-PFOS

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Chromatogram Report

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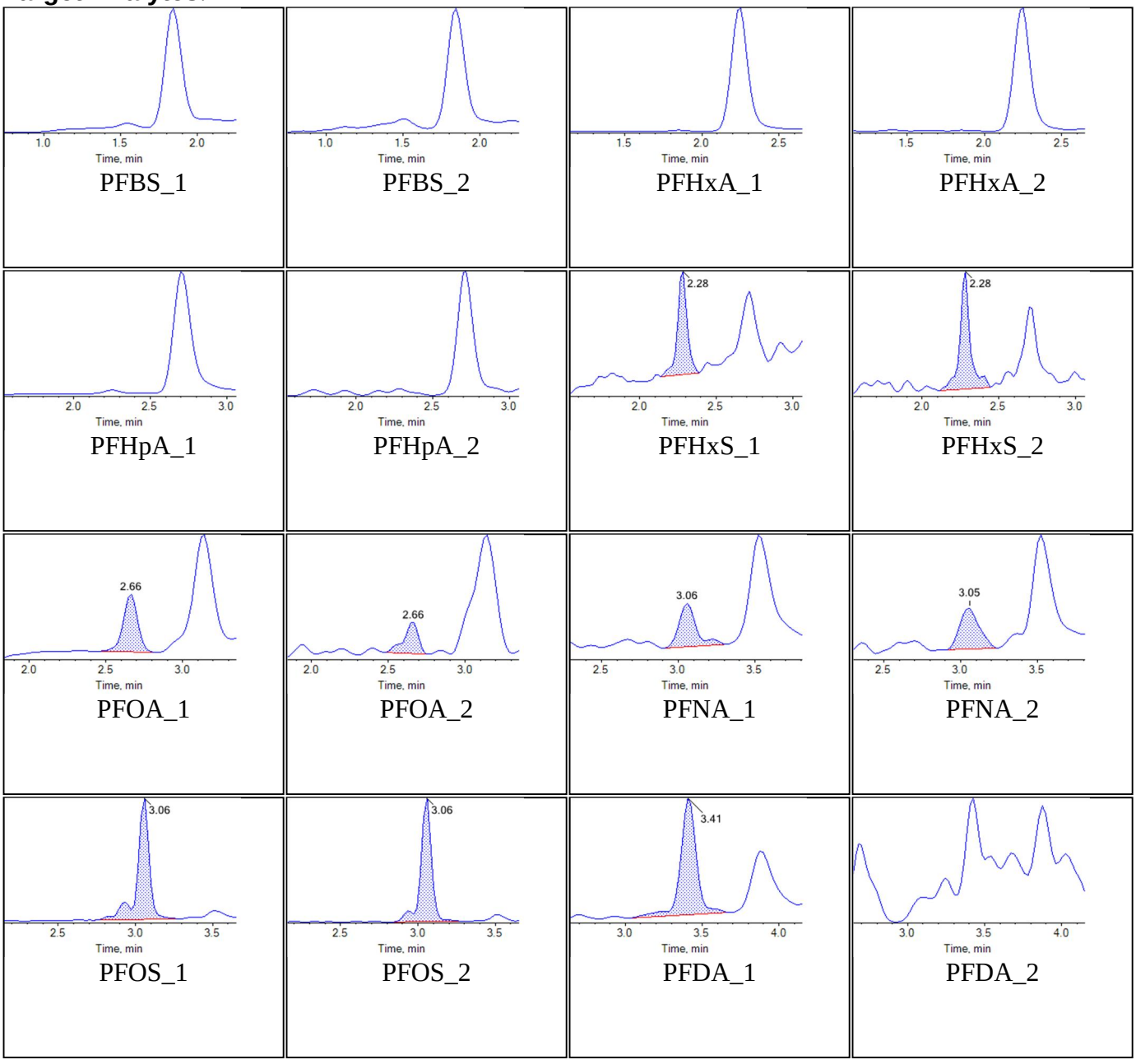
Sample Name	J8208-FS(3)	**Injection Vial**	11
Sample ID	VC-PM3009-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:48:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



BATTELLE

Chromatogram Report

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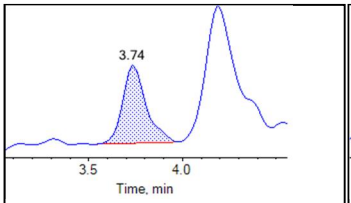
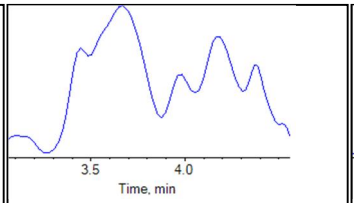


PFUnA_1



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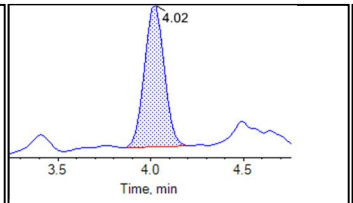
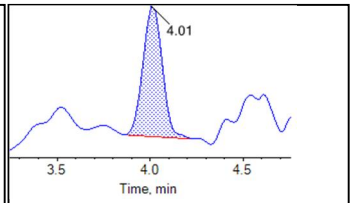


PFDoA_1



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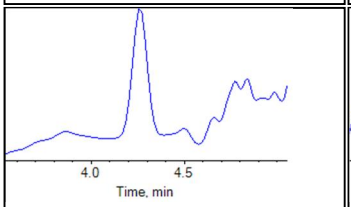
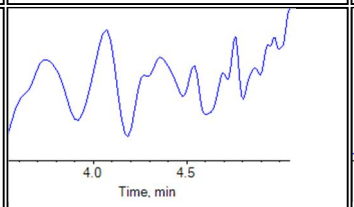


PFTrDA_1



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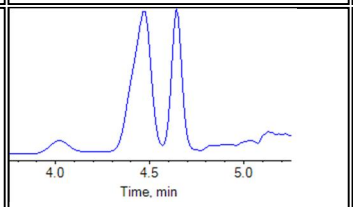

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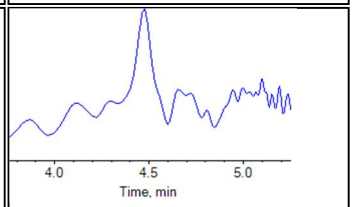

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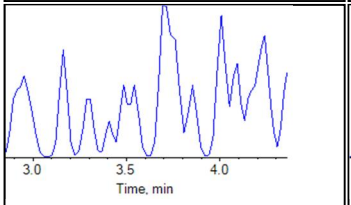

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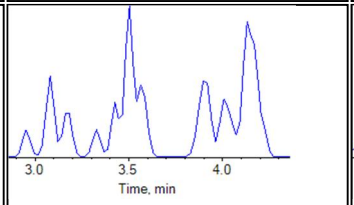

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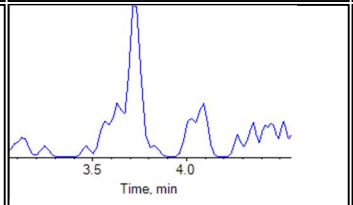

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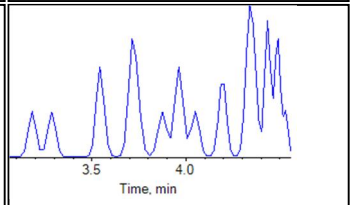

NEtFOSAA_2

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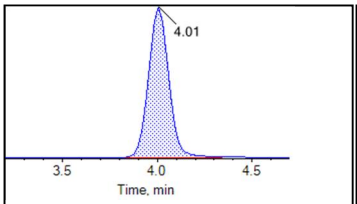
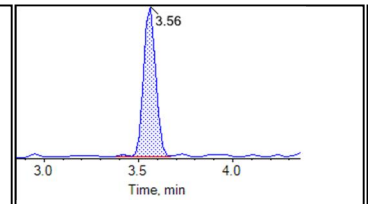
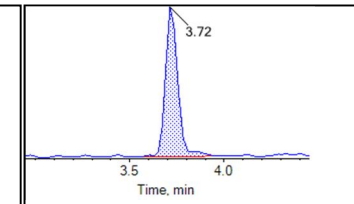


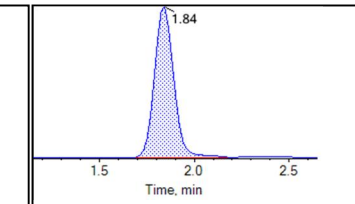
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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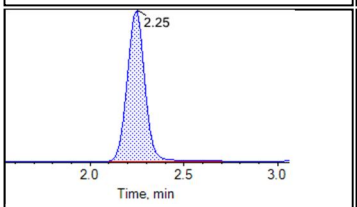
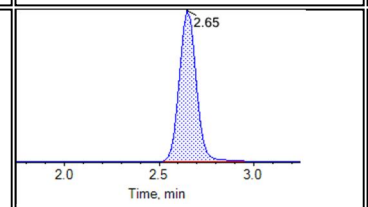
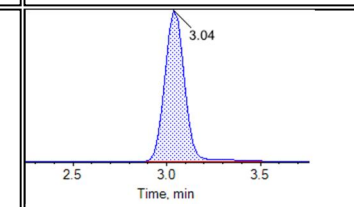


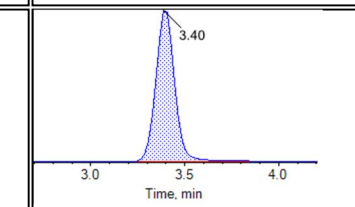
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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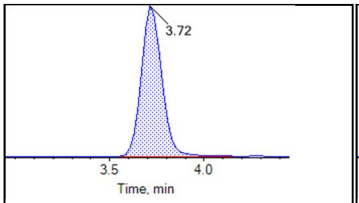
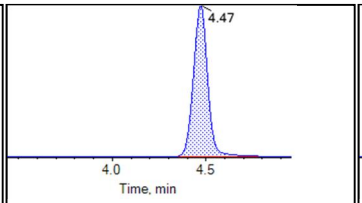
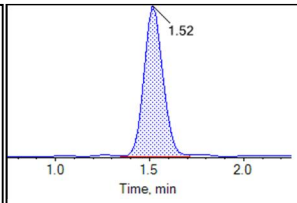


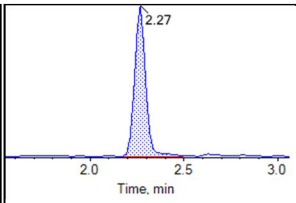
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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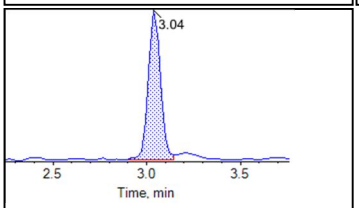

13C8-PFOS

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Chromatogram Report

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Sample Name	KA90 CCV	**Injection Vial**	12
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:59:39	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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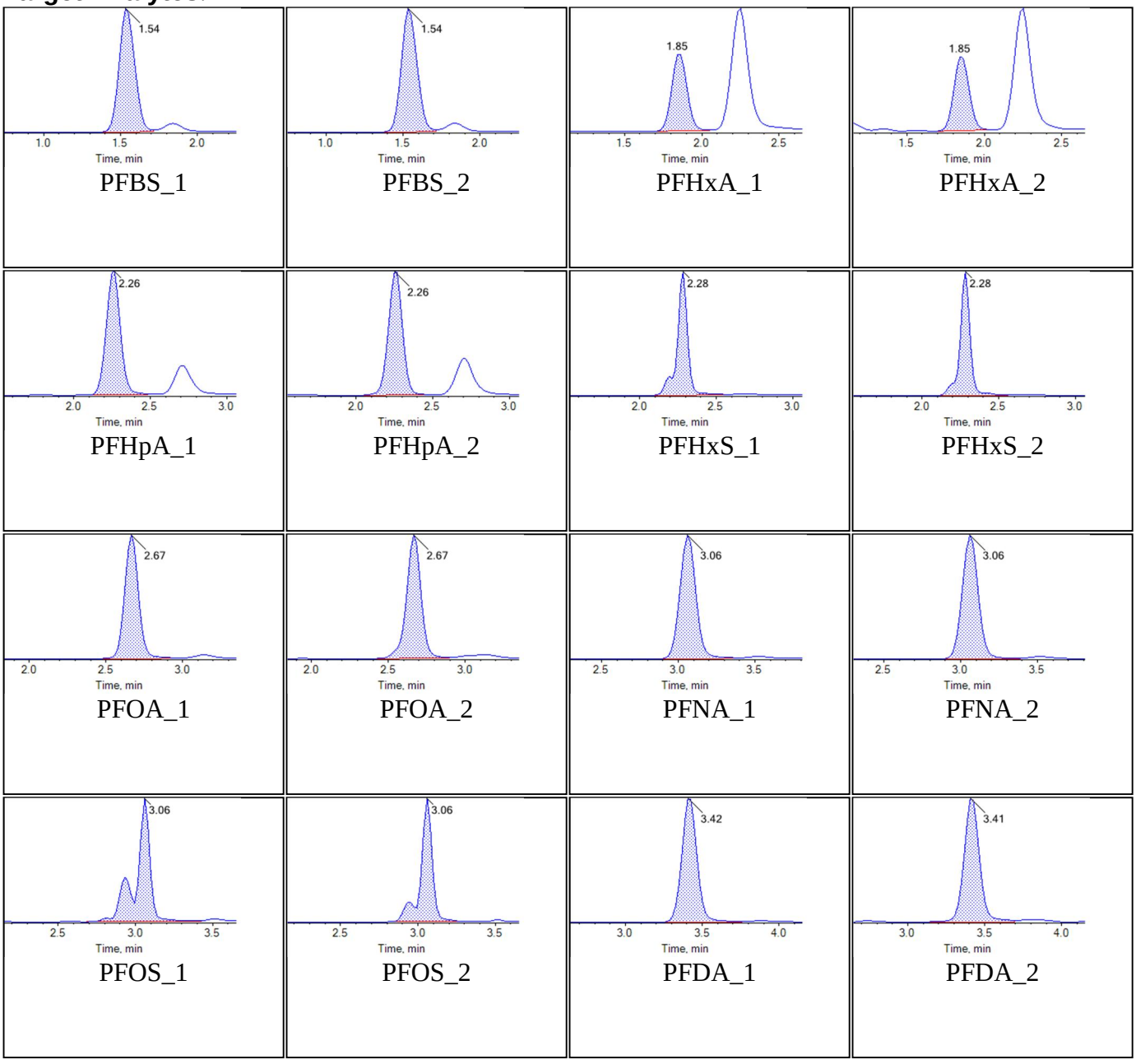

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Chromatogram Report

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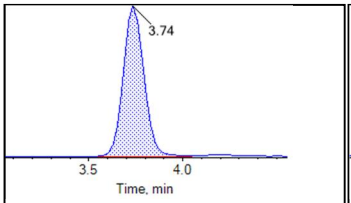

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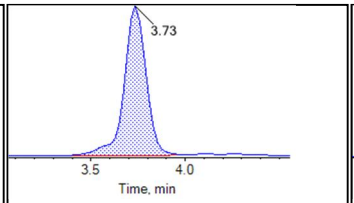
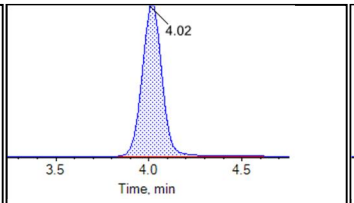
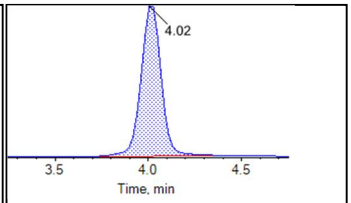


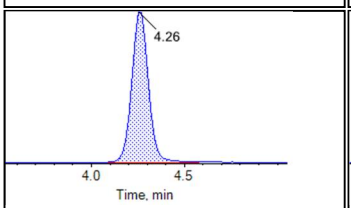
PFUnA_2



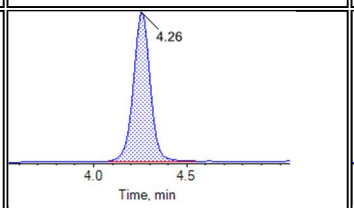
PFDoA_1



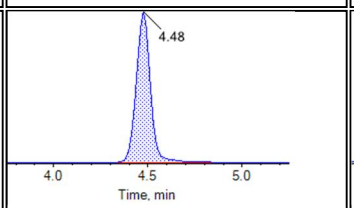
PFDoA_2



PFTrDA_1



PFTrDA_2



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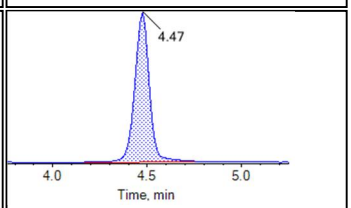

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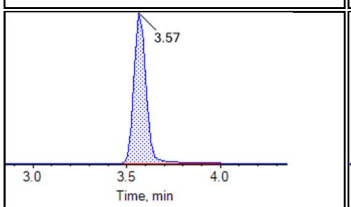

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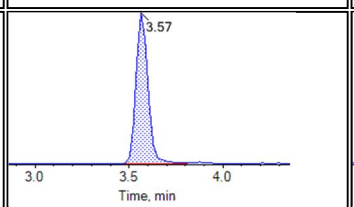

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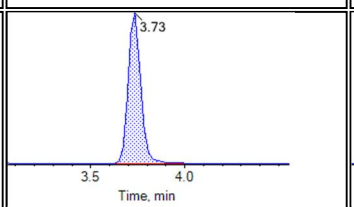
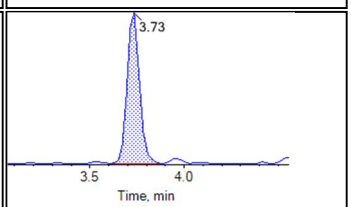
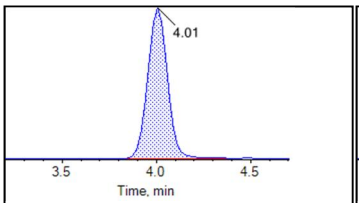


NEtFOSAA_1

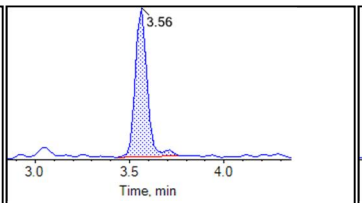


NEtFOSAA_2

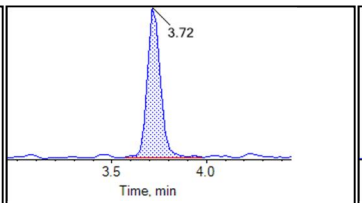
Internal Standards:



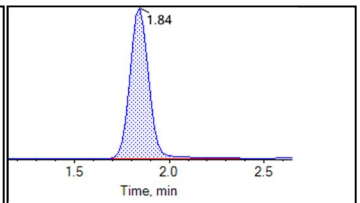
13C2-PFDoA



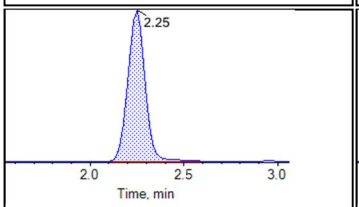
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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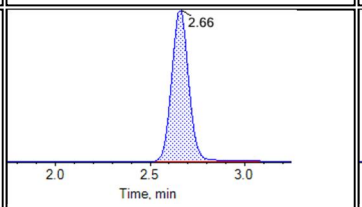
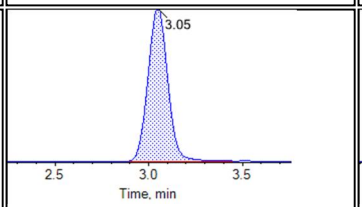
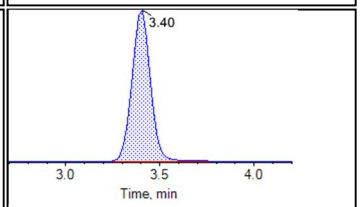


13C8-PFOA



13C9-PFNA



13C6-PFDA

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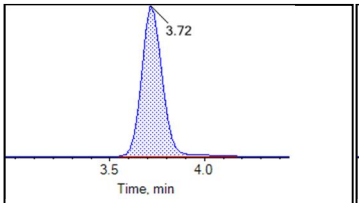
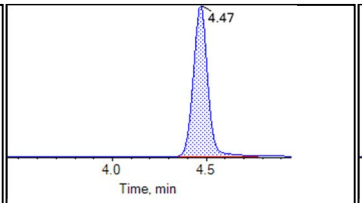
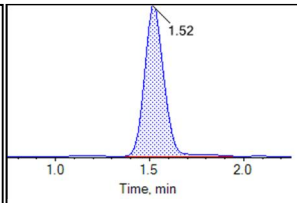


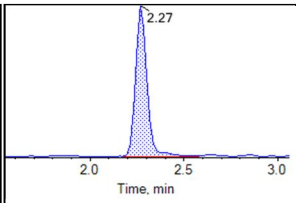
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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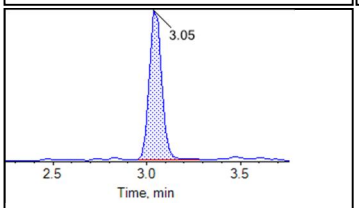

13C8-PFOS

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Chromatogram Report

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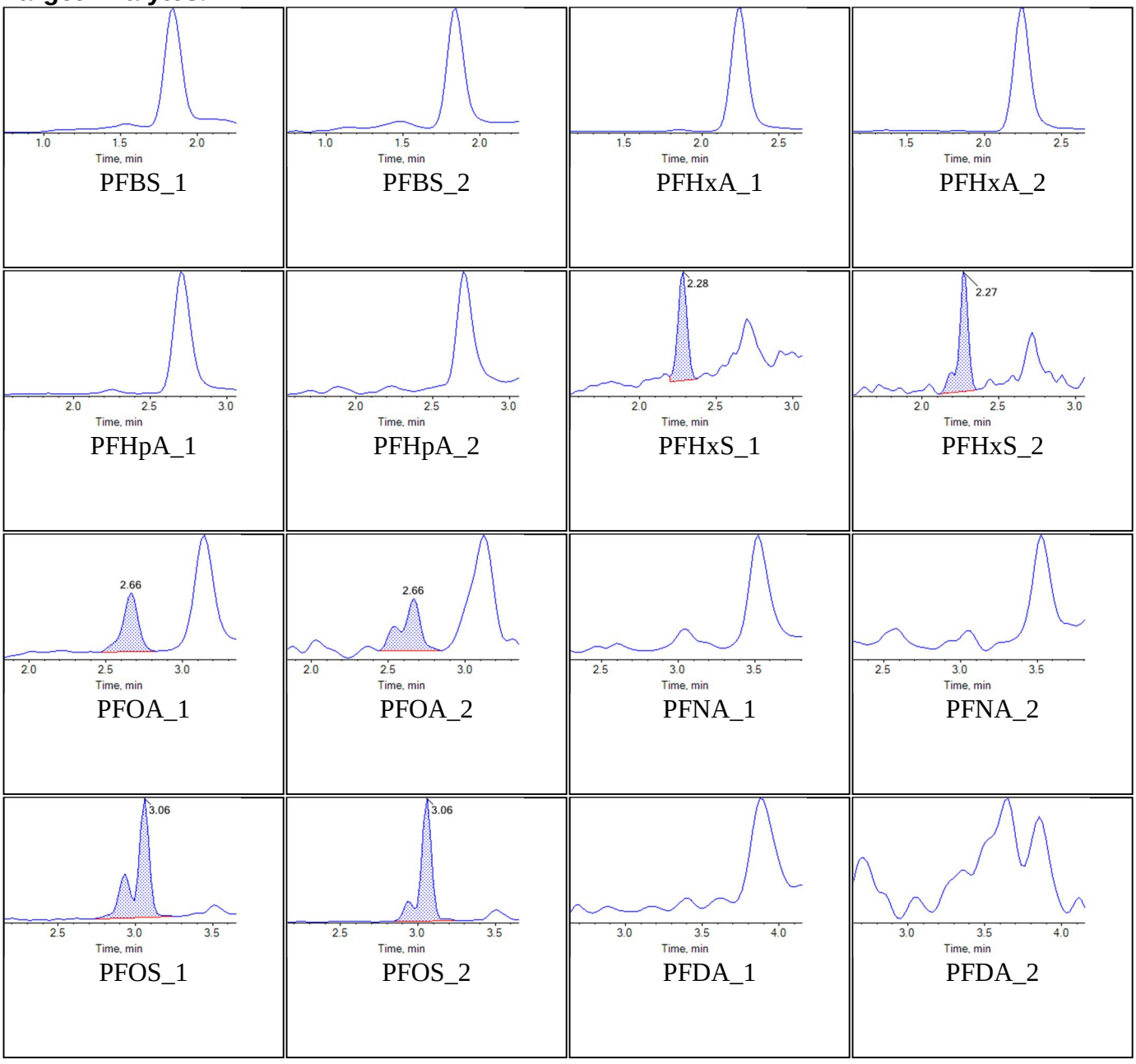
Sample Name	J8209-FS(3)	**Injection Vial**	14
Sample ID	VC-PM3009-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:21:26	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



BATTELLE

Chromatogram Report

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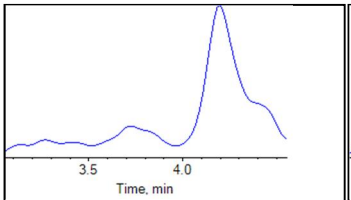

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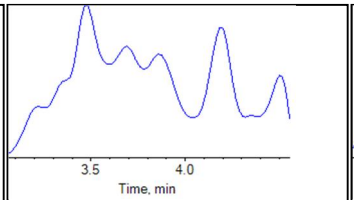

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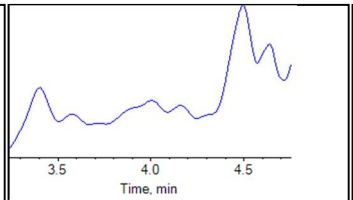

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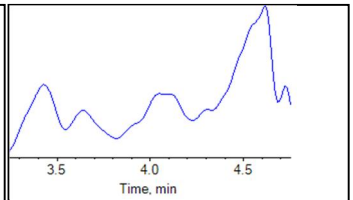

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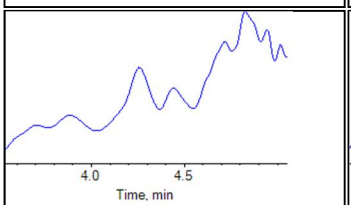
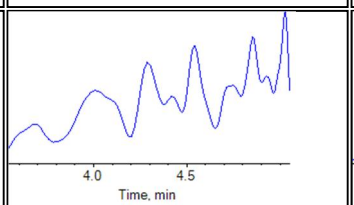


PFTrDA_1



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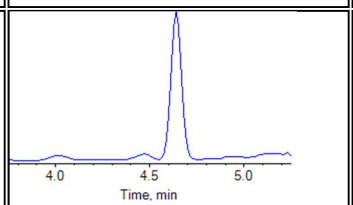

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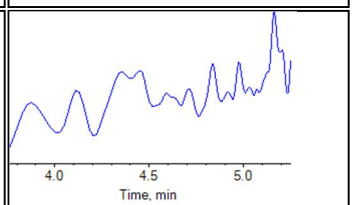

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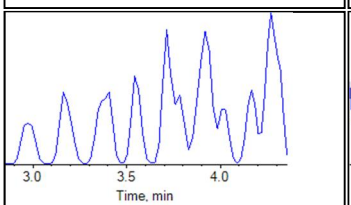
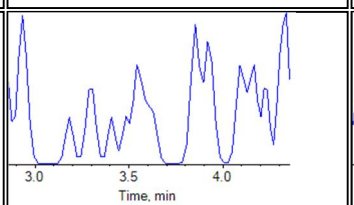


NMeFOSAA_1



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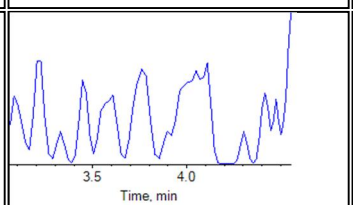

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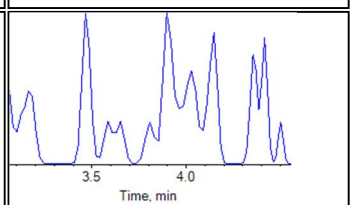

NEtFOSAA_2

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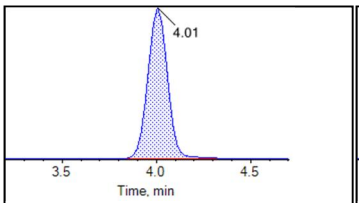
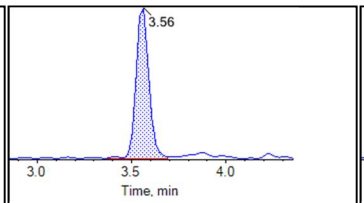
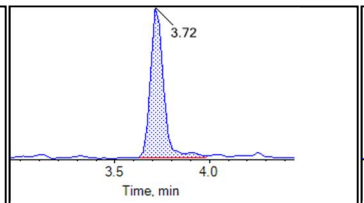


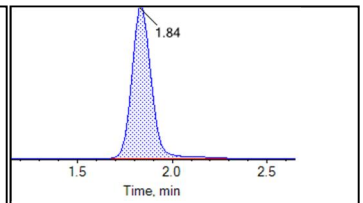
13C2-PFDoA



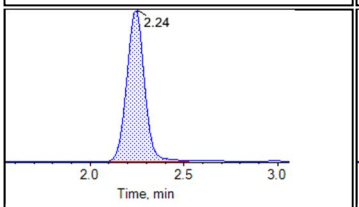
d3-MeFOSAA



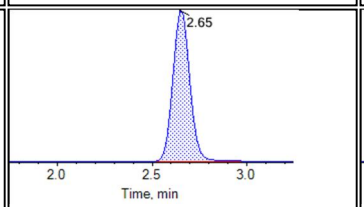
d5-EtFOSAA



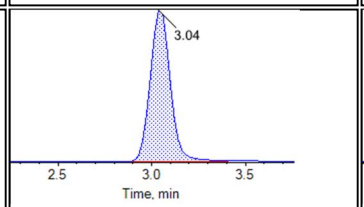
13C5-PFHxA



13C4-PFHpA



13C8-PFOA



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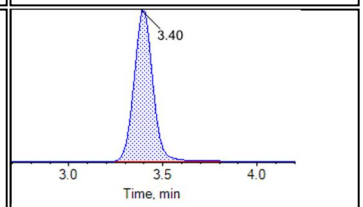

13C6-PFDA

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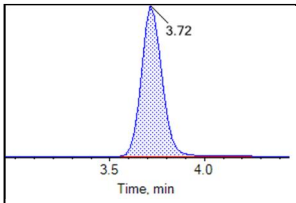
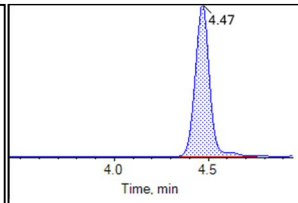
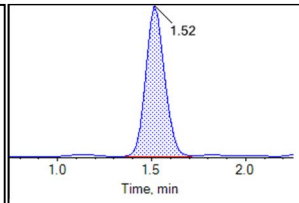


13C7-PFUnA



13C2-PFTeDA



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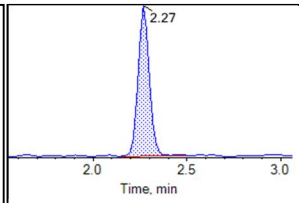

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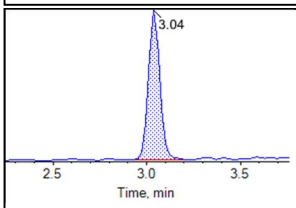

13C8-PFOS

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Chromatogram Report

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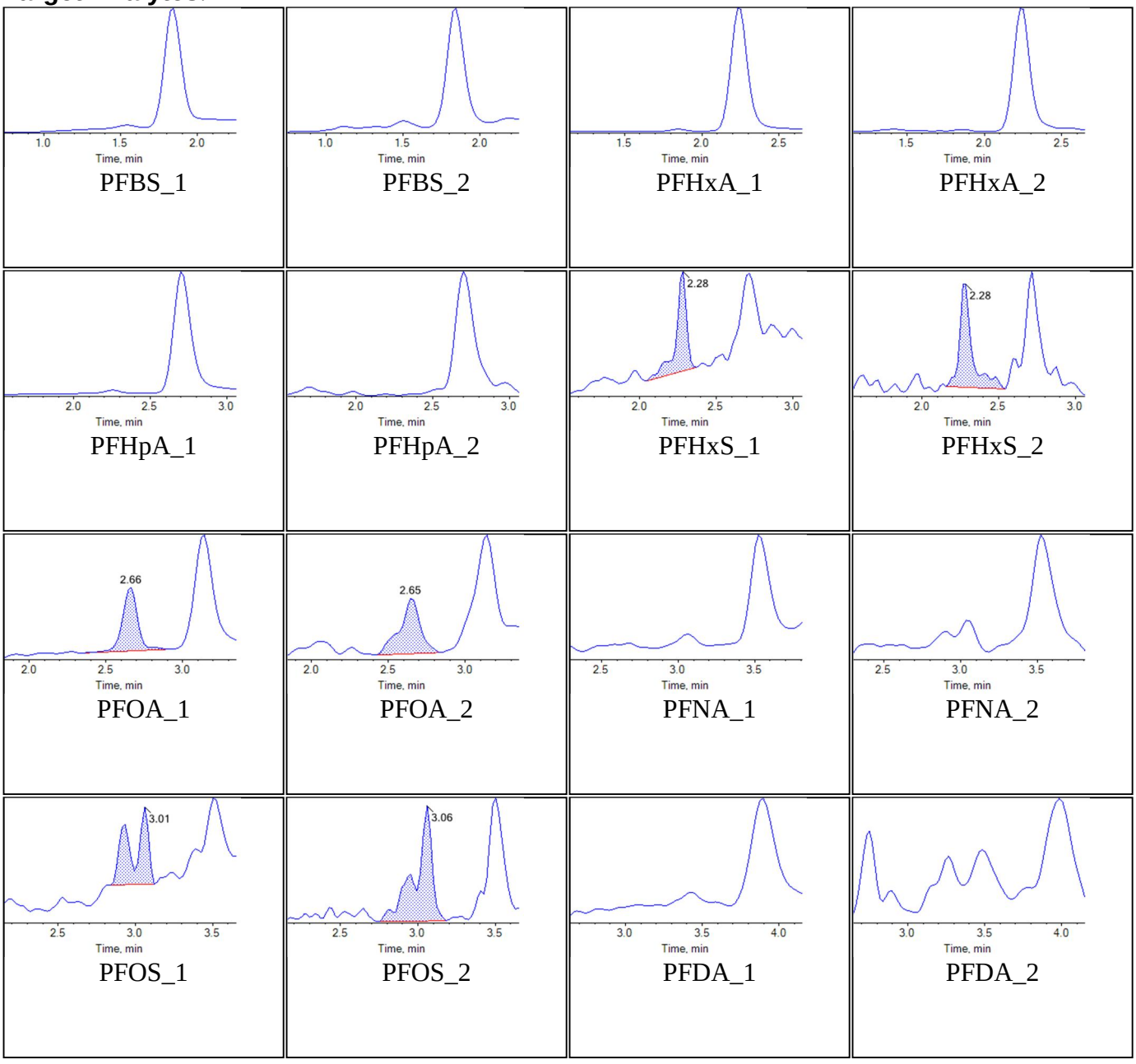
Sample Name	J8219-FS(3)	**Injection Vial**	16
Sample ID	VC-PM372-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:43:11	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

Created with Analyst Reporter
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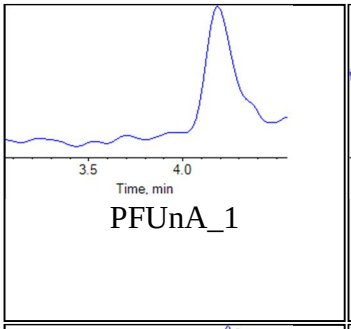
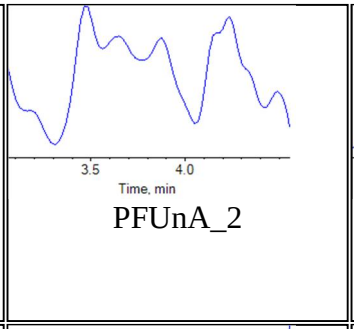
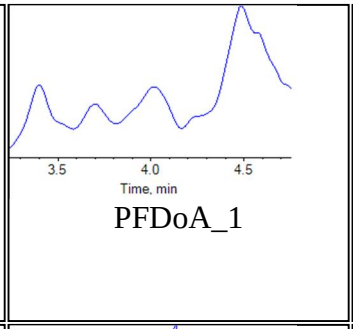


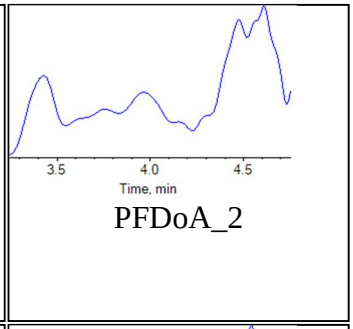
PFUnA_1



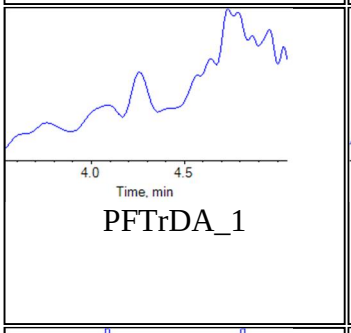
PFUnA_2



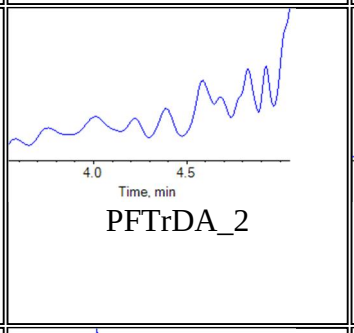
PFDoA_1



PFDoA_2



PFTrDA_1



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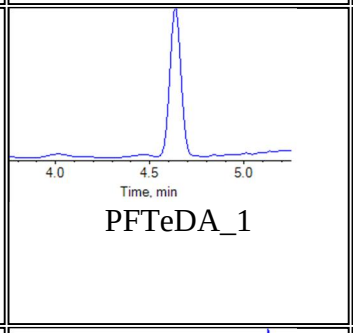

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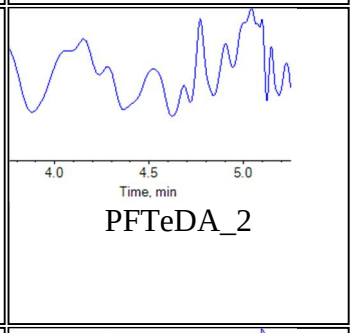

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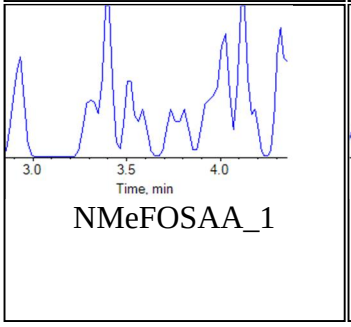

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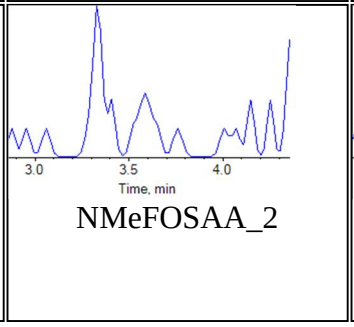

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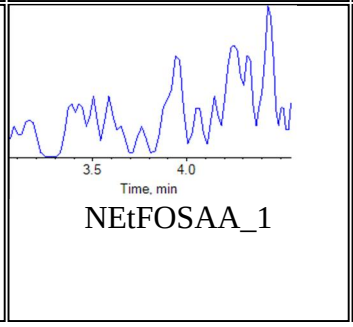
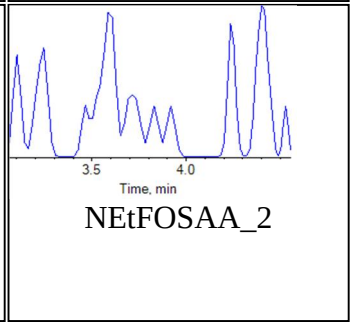


NEtFOSAA_1



NEtFOSAA_2

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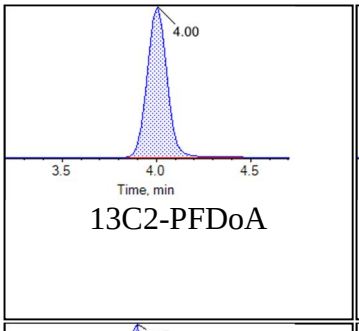
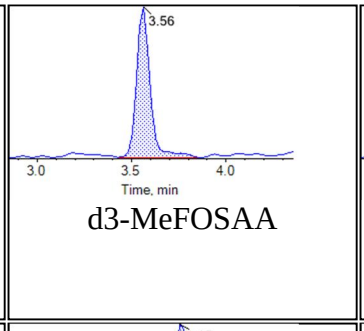
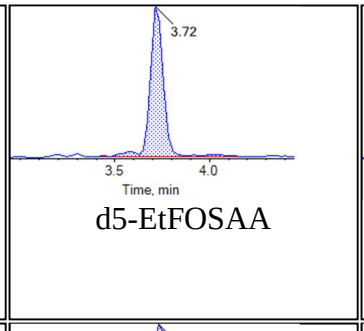


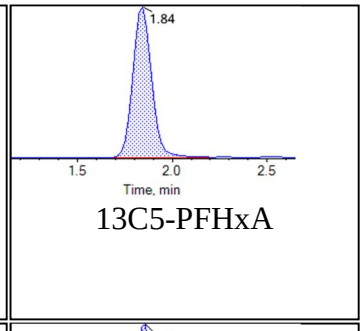
13C2-PFDoA



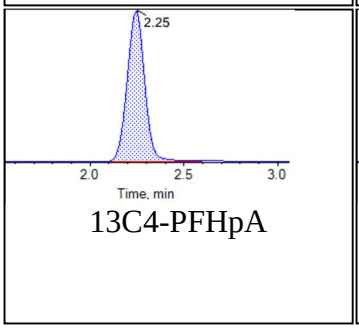
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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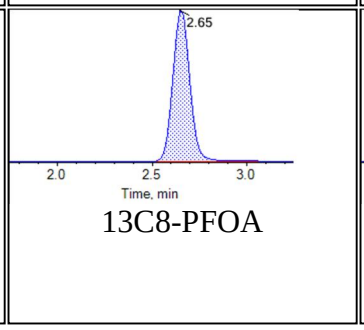
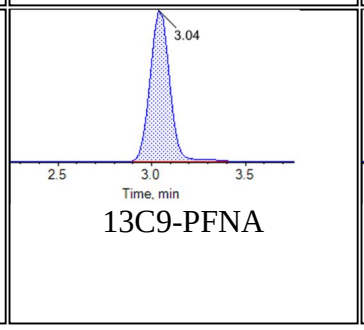
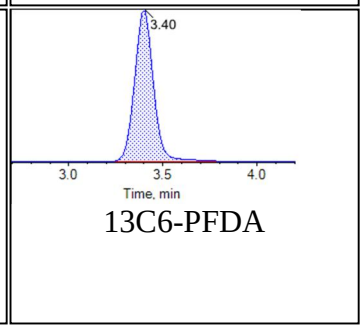


13C8-PFOA



13C9-PFNA



13C6-PFDA

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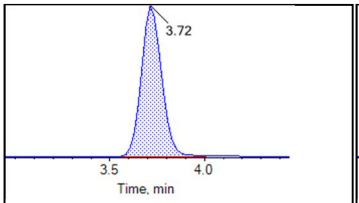
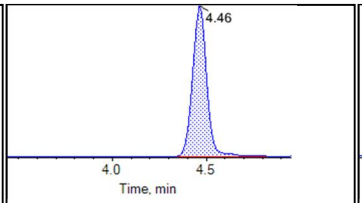
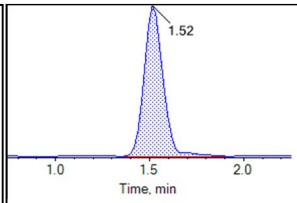


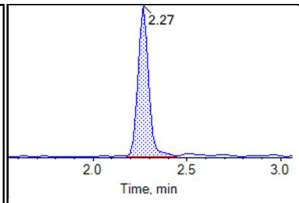
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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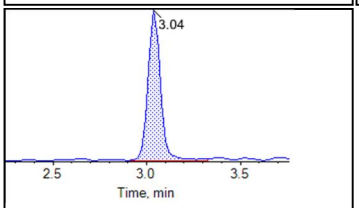

13C8-PFOS

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Chromatogram Report

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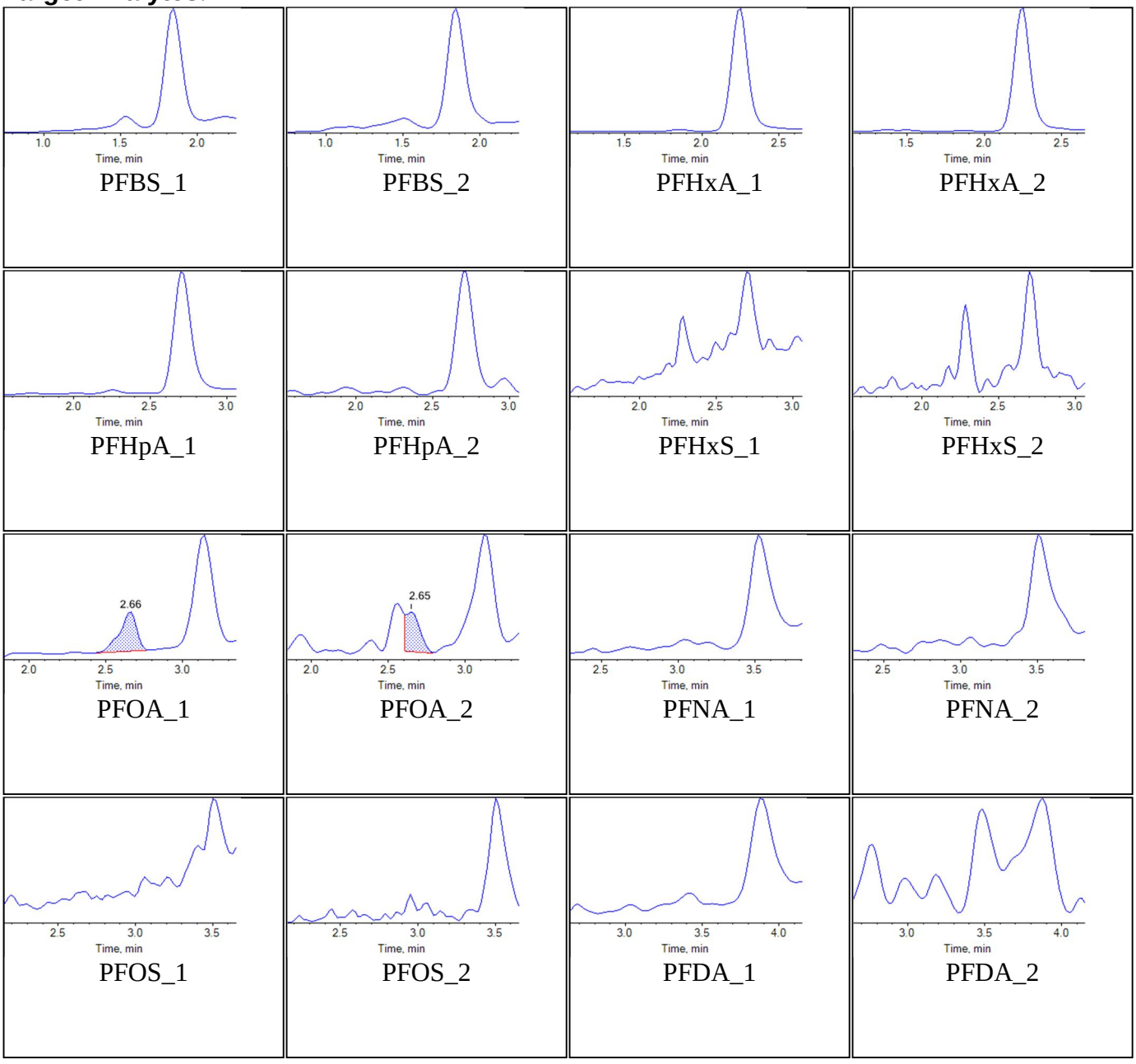
Sample Name	J8220-FS(3)	**Injection Vial**	17
Sample ID	VC-PM372-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:54:03	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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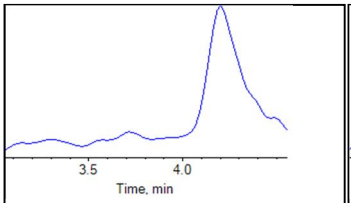

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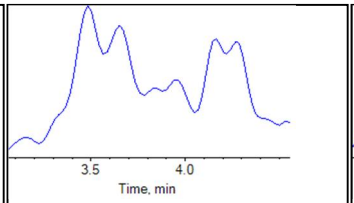

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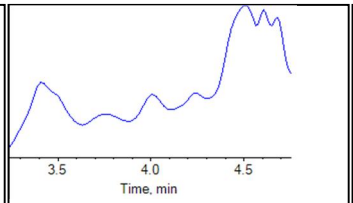

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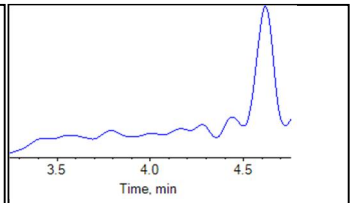

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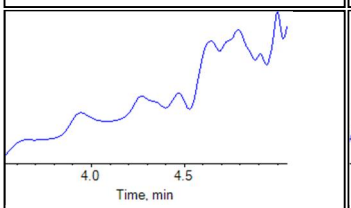

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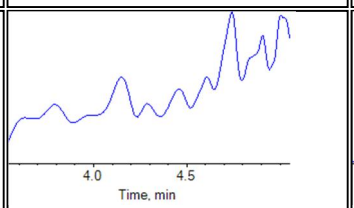

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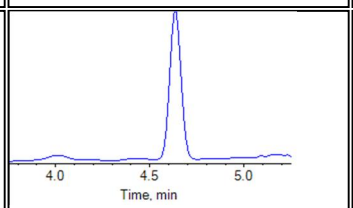

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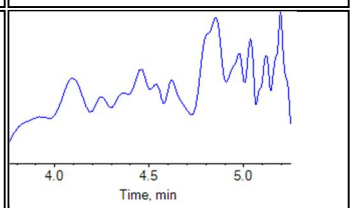

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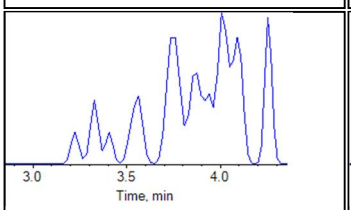

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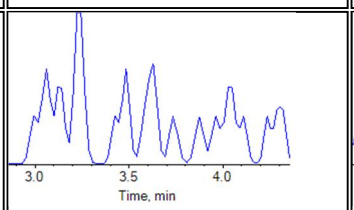

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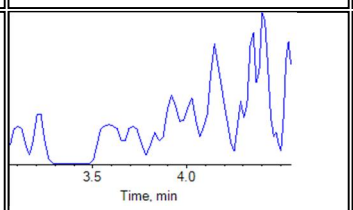

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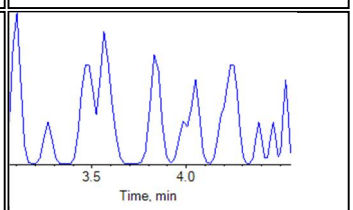

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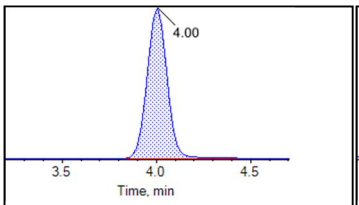

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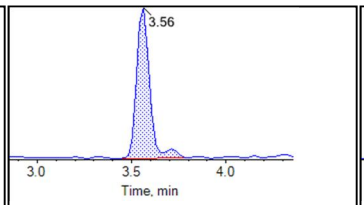

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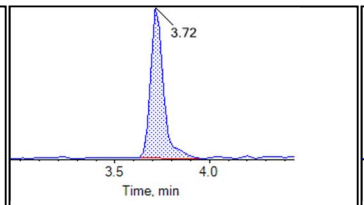

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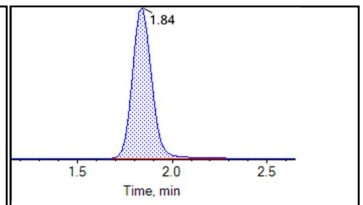

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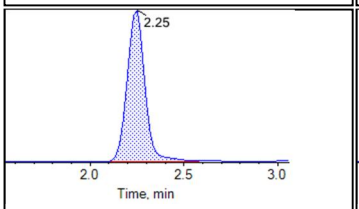

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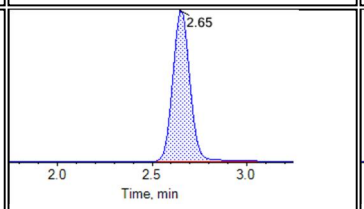

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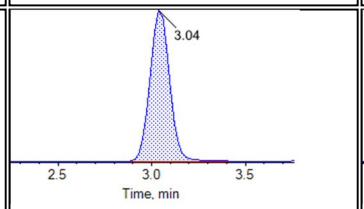

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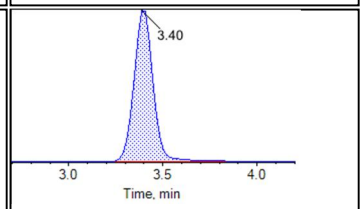

13C6-PFDA

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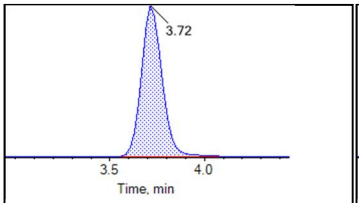
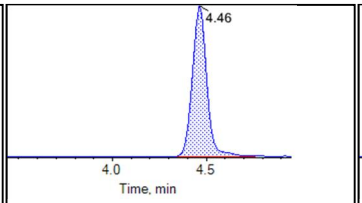


13C7-PFUnA



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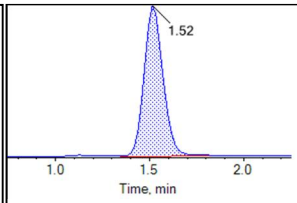
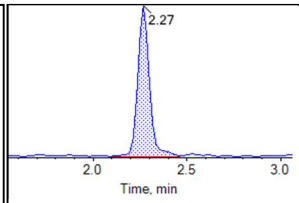


13C3-PFBS



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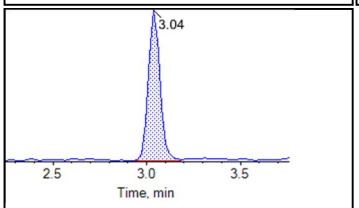

13C8-PFOS

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Chromatogram Report

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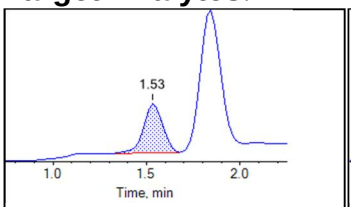
Sample Name	J8221-FS(3)	**Injection Vial**	18
Sample ID	VC-PM372-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:04:57	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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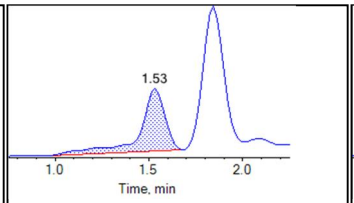

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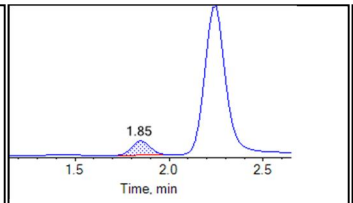

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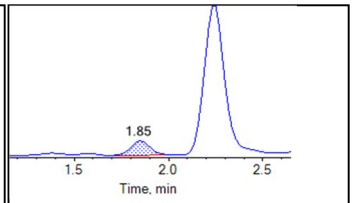

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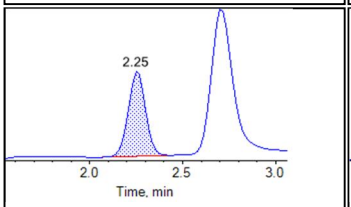

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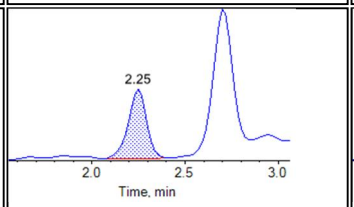

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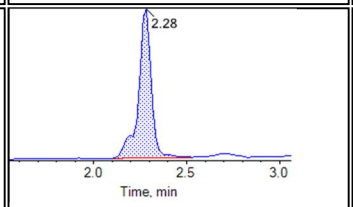

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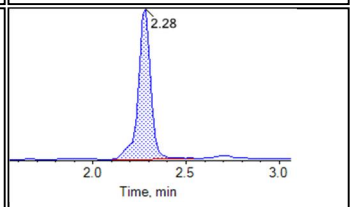

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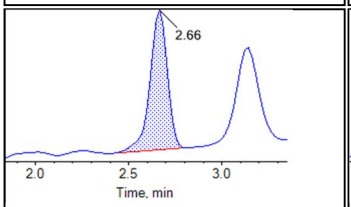

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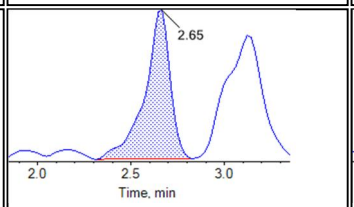

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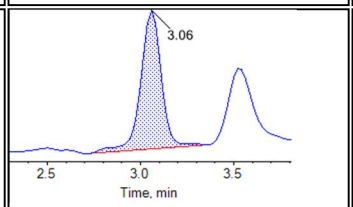

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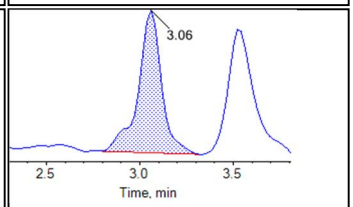

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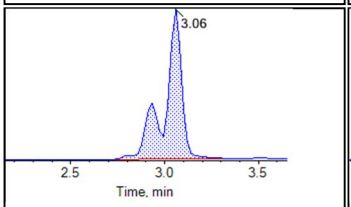

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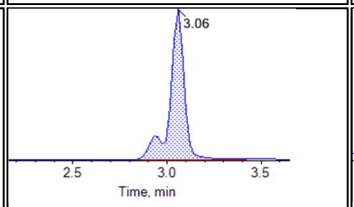

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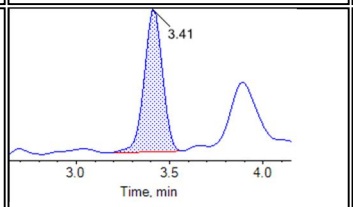

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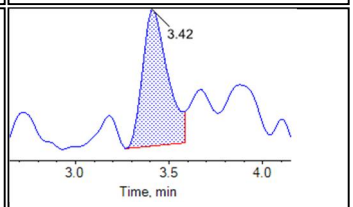

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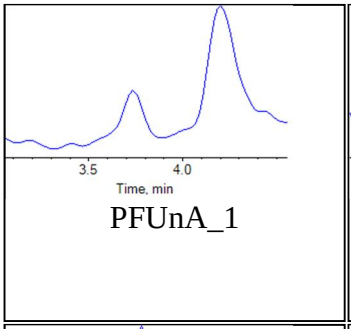

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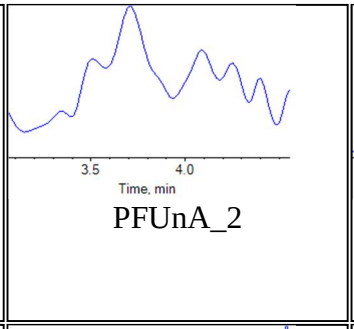

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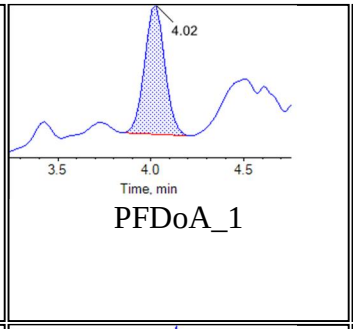

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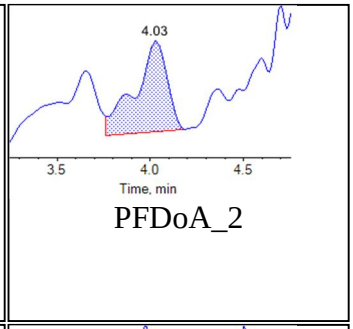

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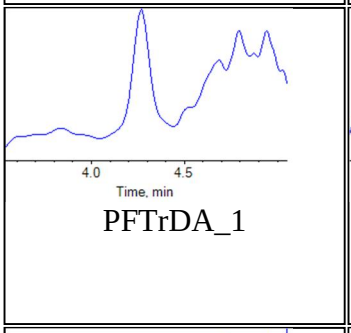

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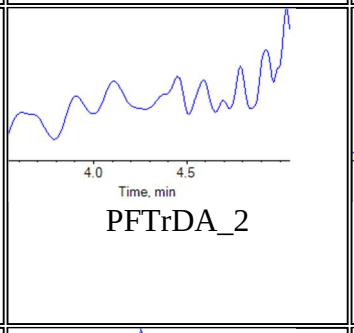

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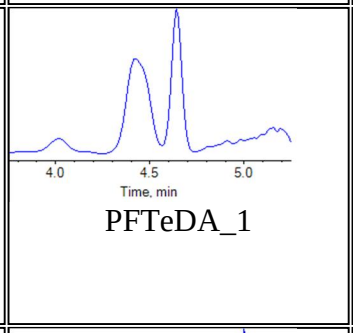

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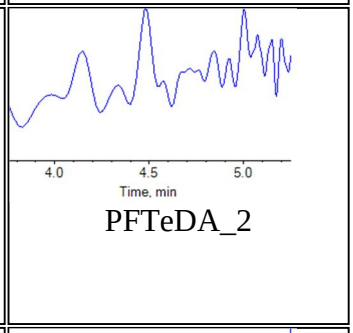

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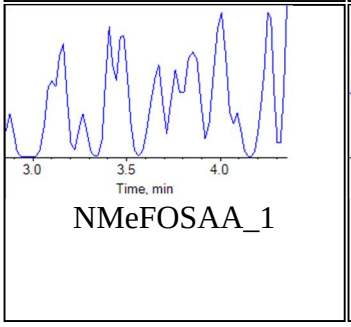

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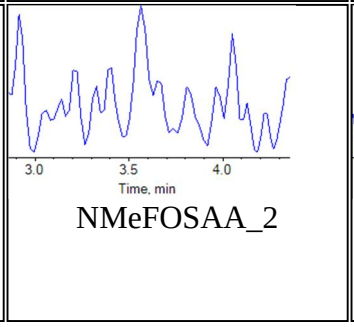

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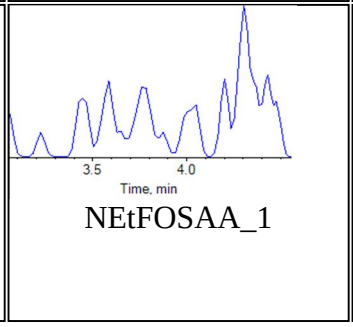

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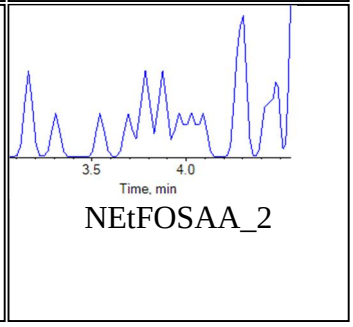

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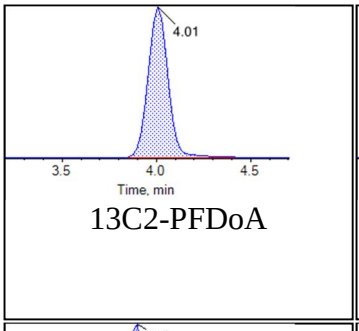
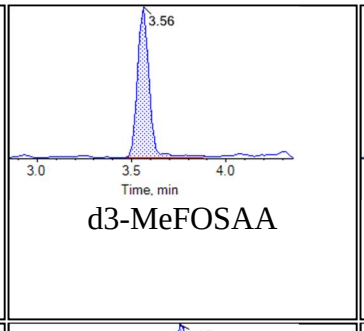
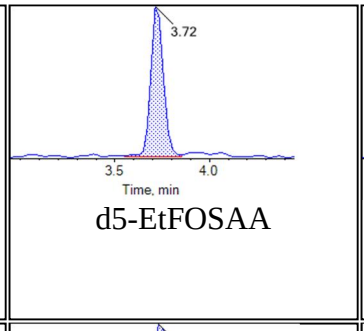


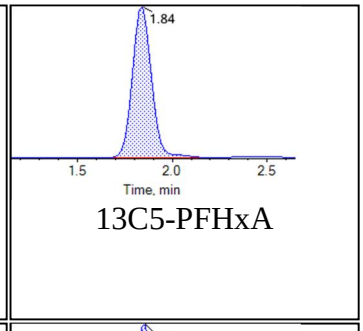
13C2-PFDoA



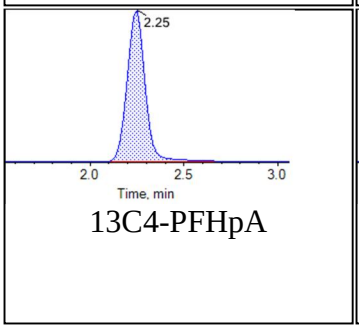
d3-MeFOSAA



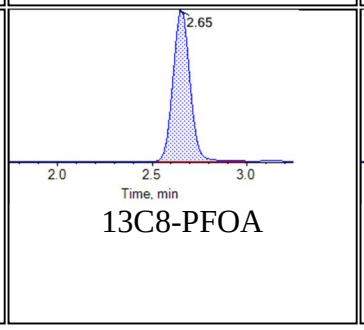
d5-EtFOSAA



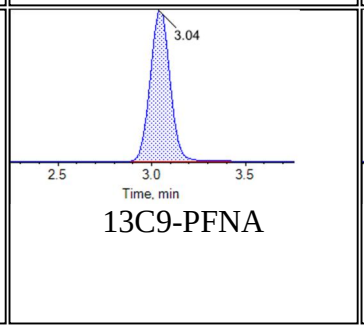
13C5-PFHxA



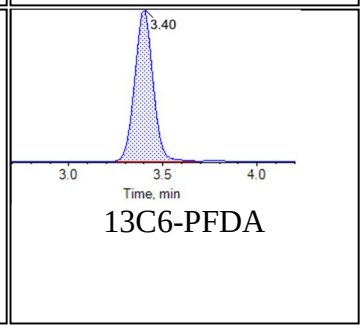
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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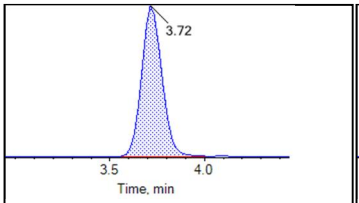
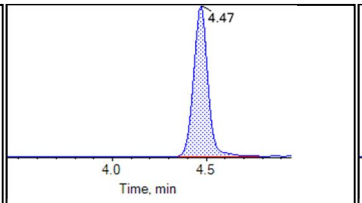
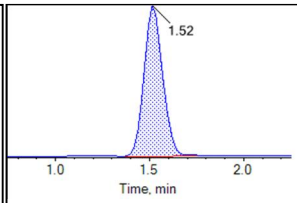


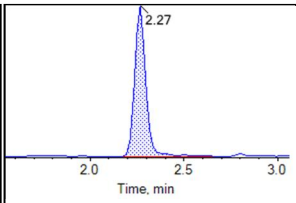
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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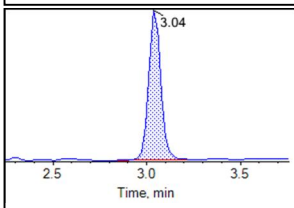

13C8-PFOS

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Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:12:38 PM

Sample Name	J8222-FS(3)	**Injection Vial**	19
Sample ID	VC-PM372-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:15:49	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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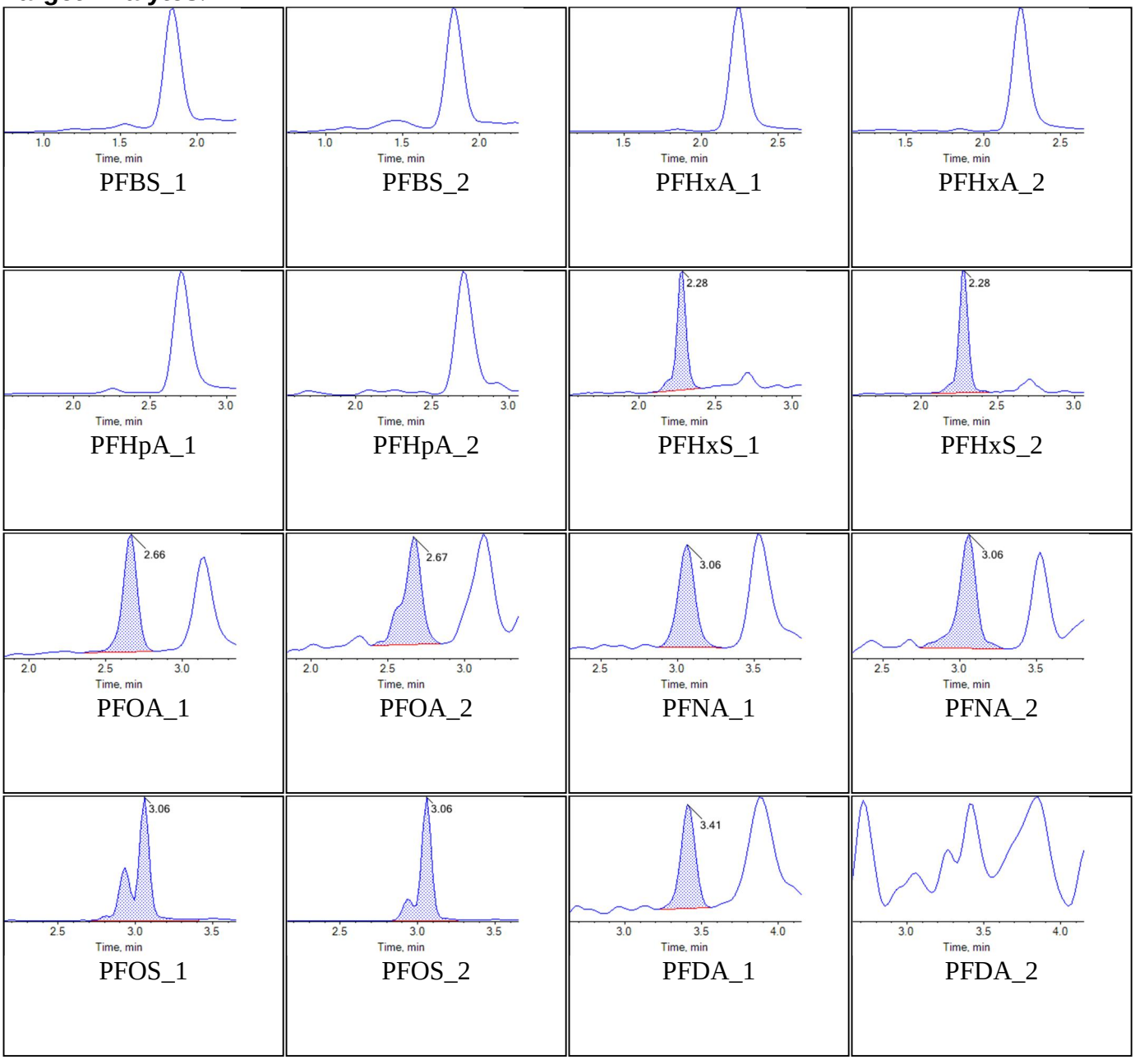

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Chromatogram Report

Created with Analyst Reporter
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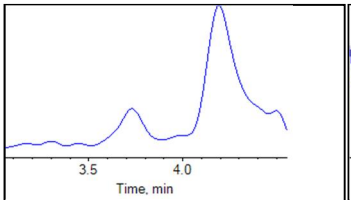

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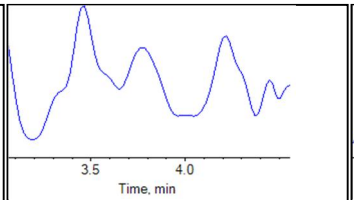
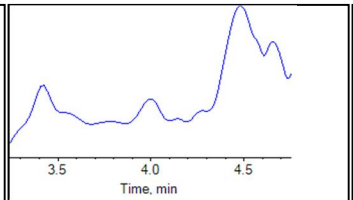
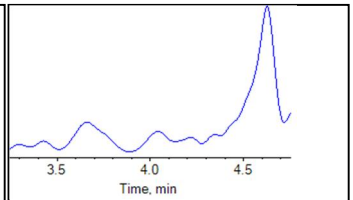


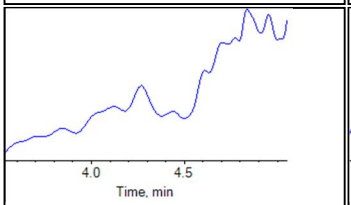
PFUnA_2



PFDoA_1



PFDoA_2



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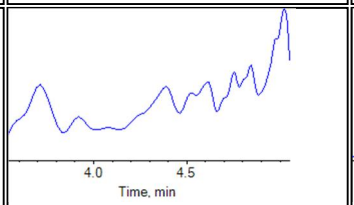

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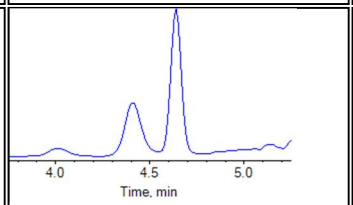

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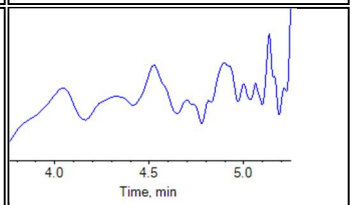

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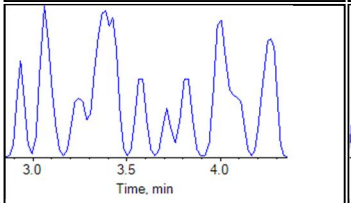

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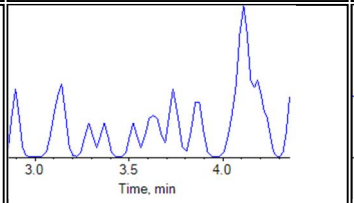

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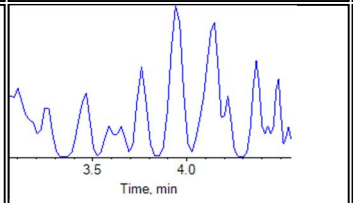

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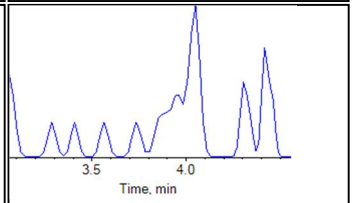

NEtFOSAA_2

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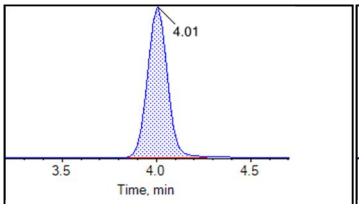

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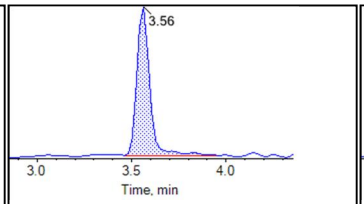
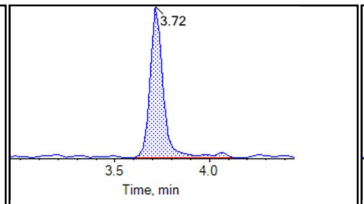
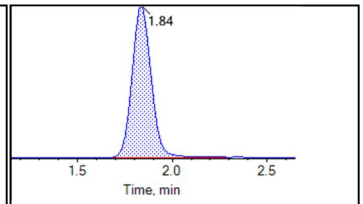


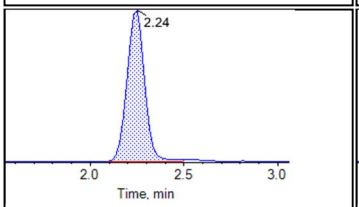
d3-MeFOSAA



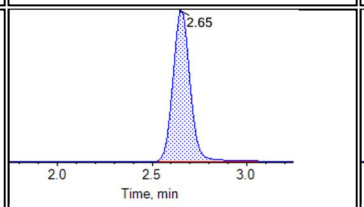
d5-EtFOSAA



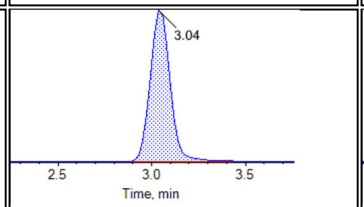
13C5-PFHxA



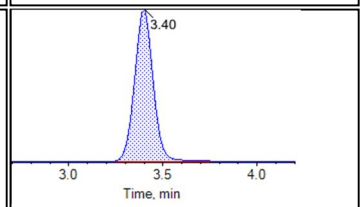
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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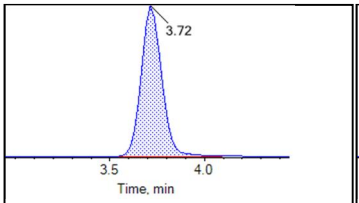
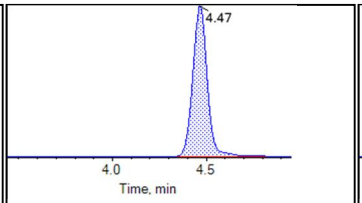
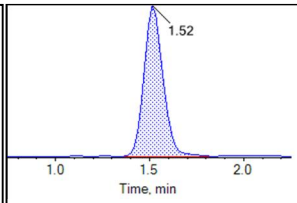


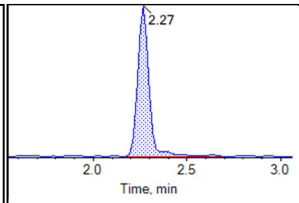
13C7-PFUnA



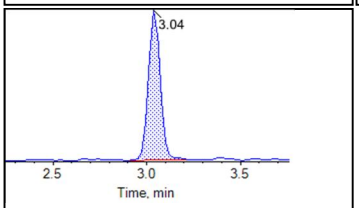
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:12:43 PM

Sample Name	J8223-FS(3)	**Injection Vial**	20
Sample ID	VC-PM372-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:26:42	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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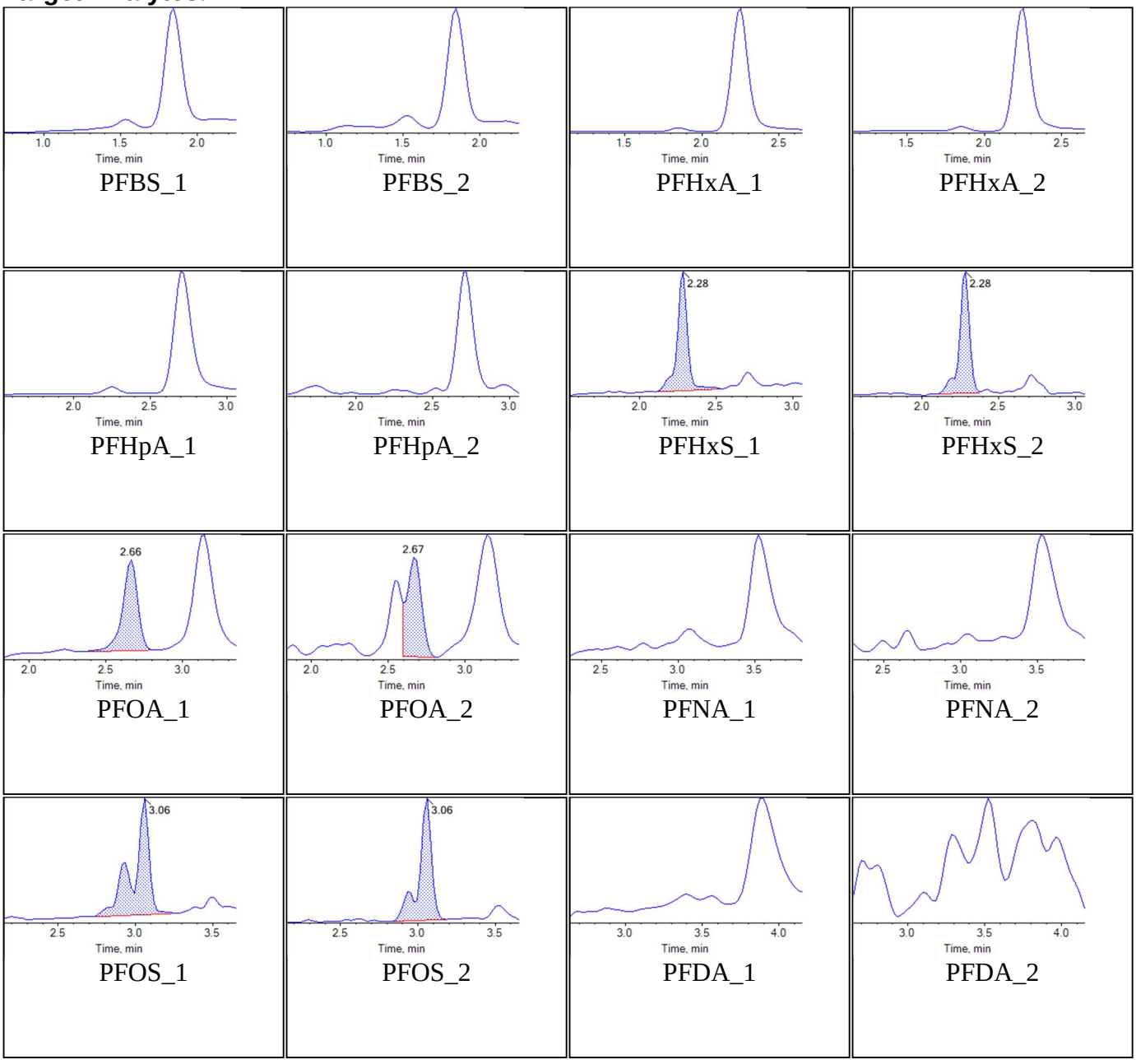

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Chromatogram Report

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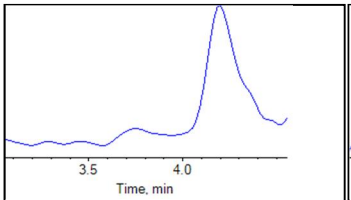
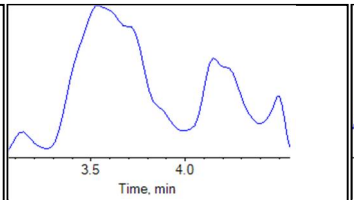
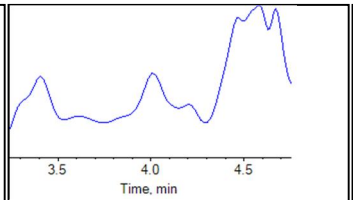


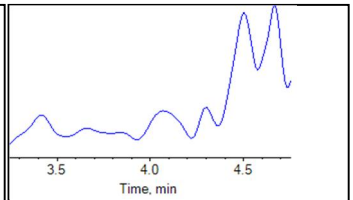
PFUnA_1



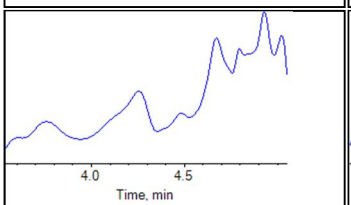
PFUnA_2



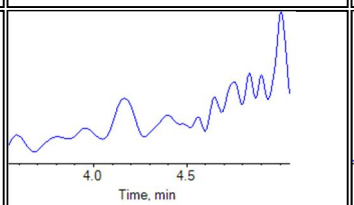
PFDoA_1



PFDoA_2



PFTrDA_1



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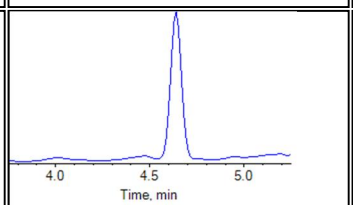

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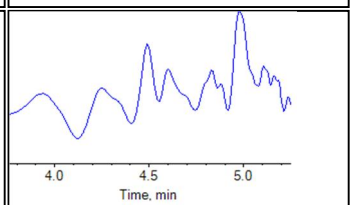

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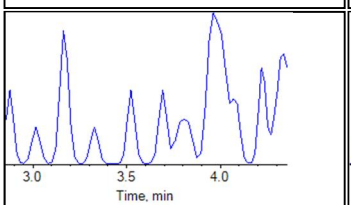

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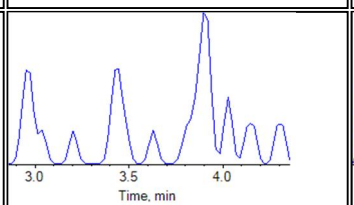
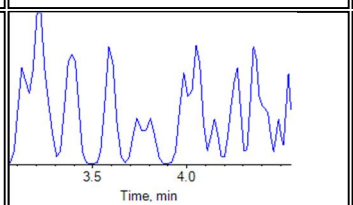


NMeFOSAA_2



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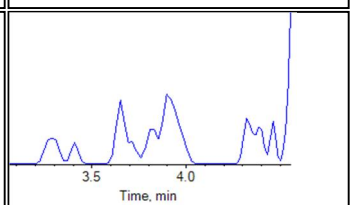

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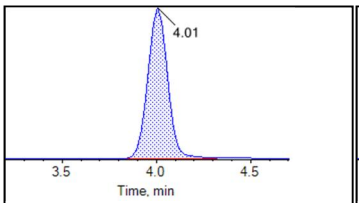
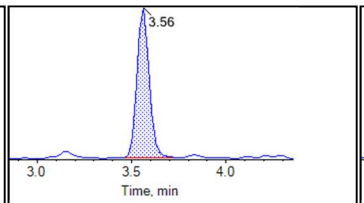
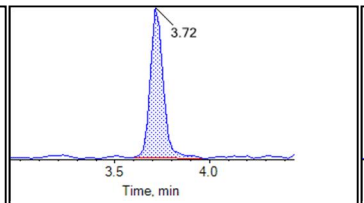


13C2-PFDoA



d3-MeFOSAA



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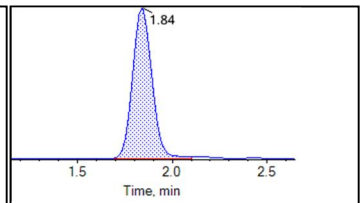

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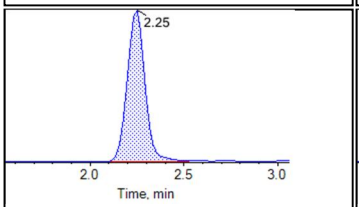
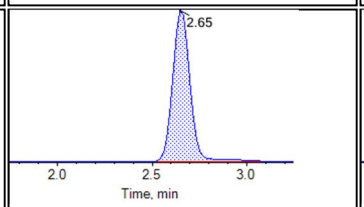
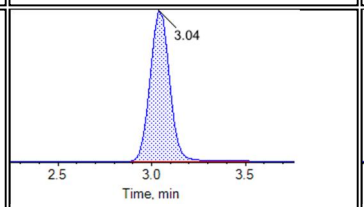


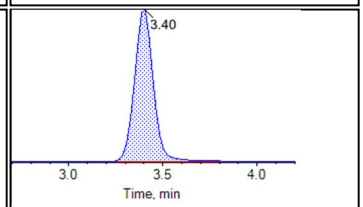
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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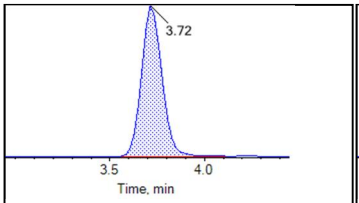
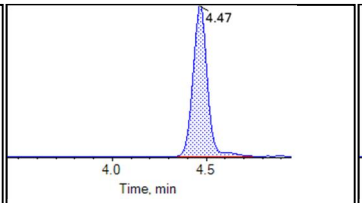
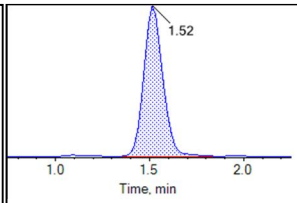


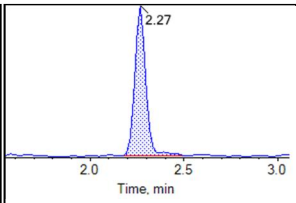
13C7-PFUnA



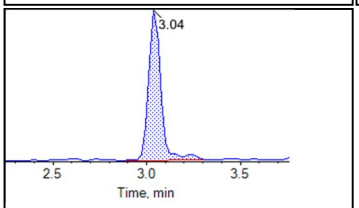
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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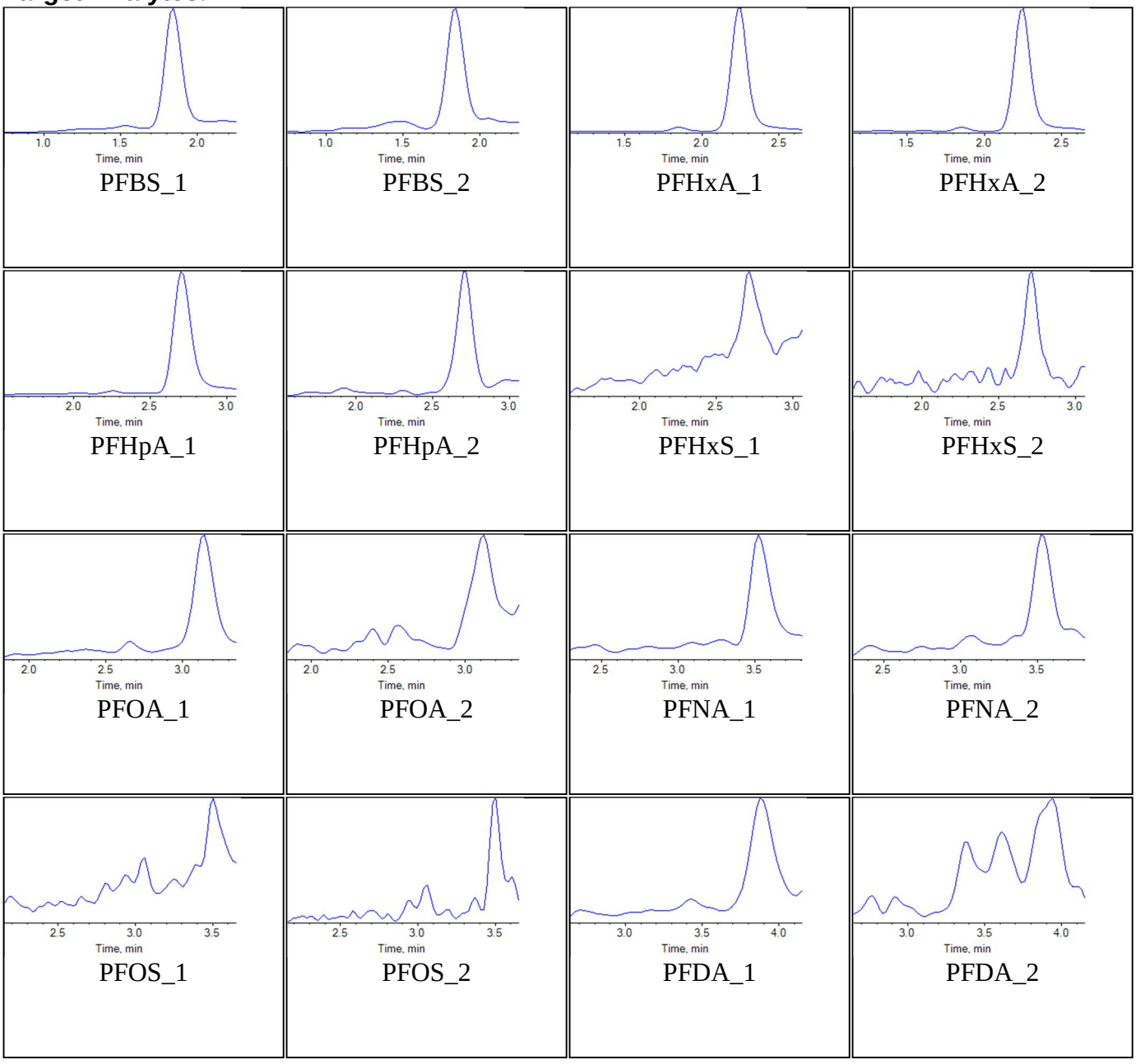
Printed: 03/10/2018 2:12:47 PM

Sample Name	J8224-FS(3)	**Injection Vial**	21
Sample ID	VC-PM372-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:37:36	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



BATTELLE

Chromatogram Report

Created with Analyst Reporter
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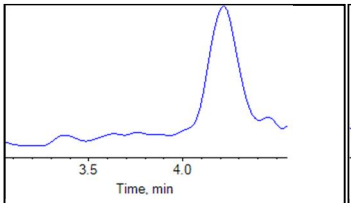

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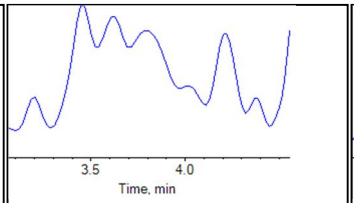
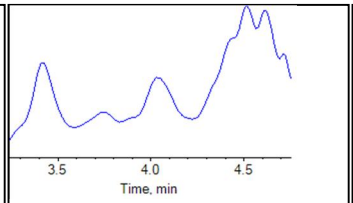
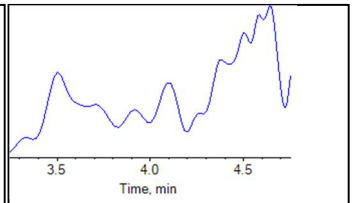


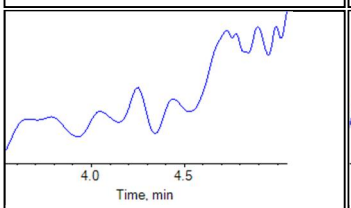
PFUnA_2



PFDoA_1



PFDoA_2



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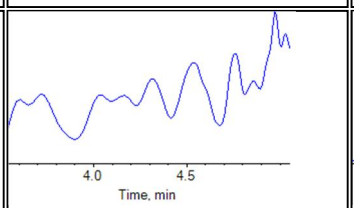

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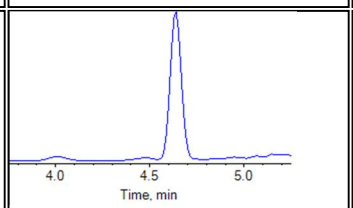

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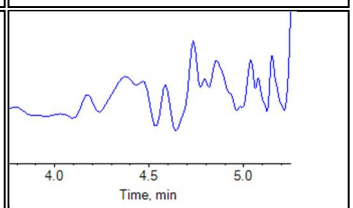

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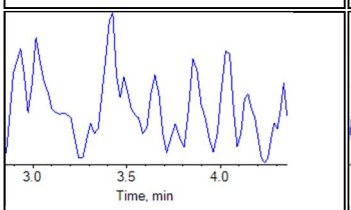

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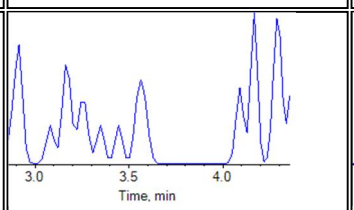

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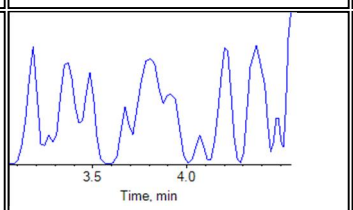

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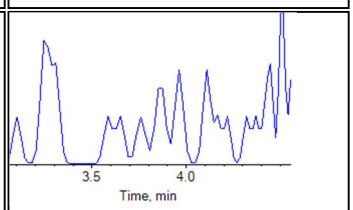

NEtFOSAA_2

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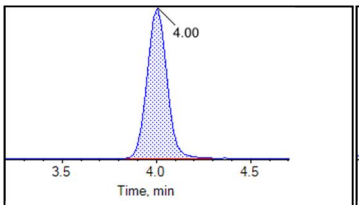
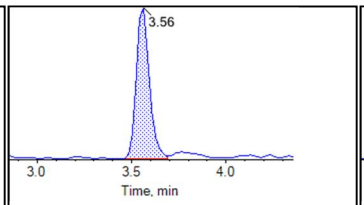
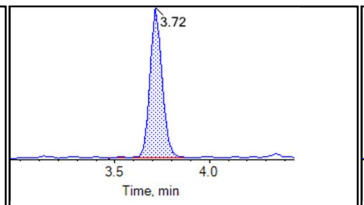


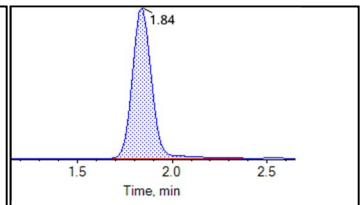
13C2-PFDoA



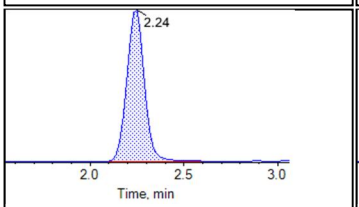
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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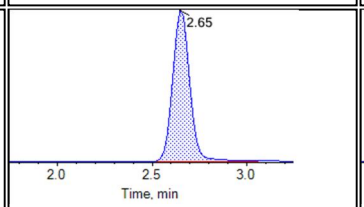
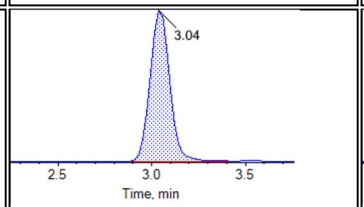
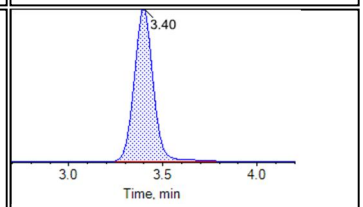


13C8-PFOA



13C9-PFNA



13C6-PFDA

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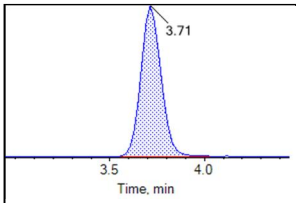
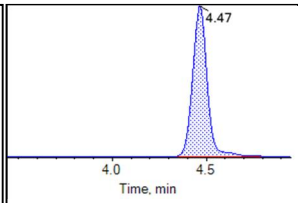
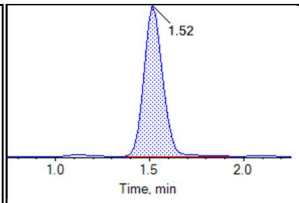


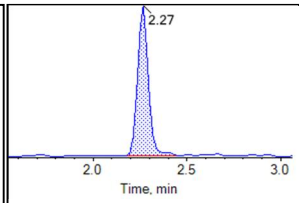
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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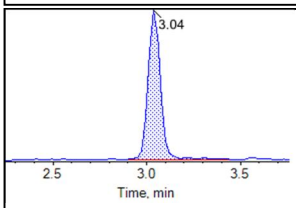

13C8-PFOS

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Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:12:52 PM

Sample Name	J8225-FS(3)	**Injection Vial**	22
Sample ID	VC-PM372-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:48:29	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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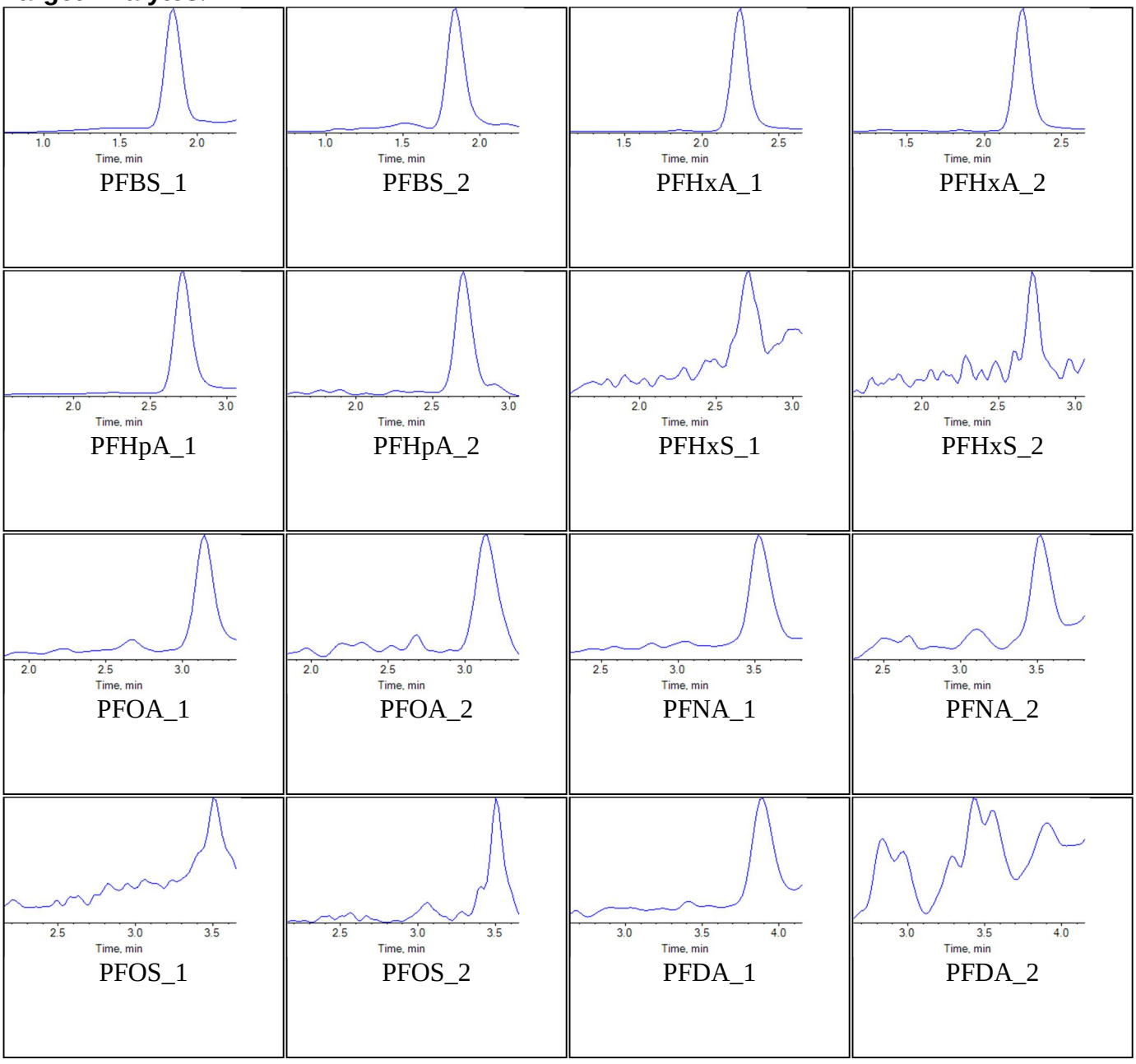

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Chromatogram Report

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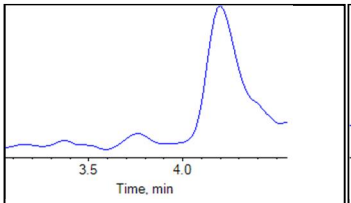

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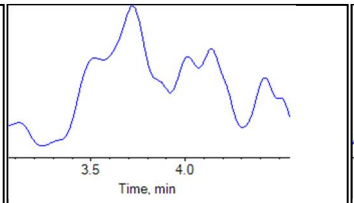
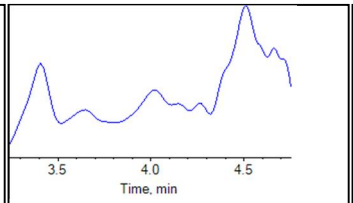
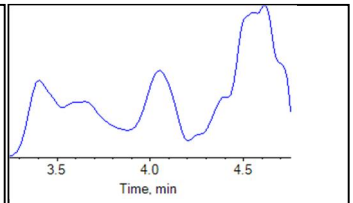


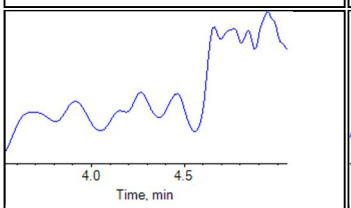
PFUnA_2



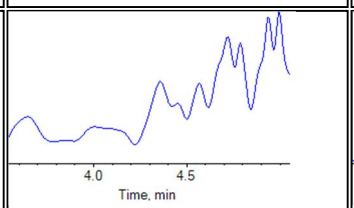
PFDoA_1



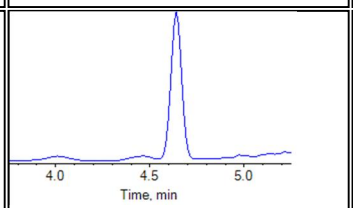
PFDoA_2



PFTrDA_1



PFTrDA_2



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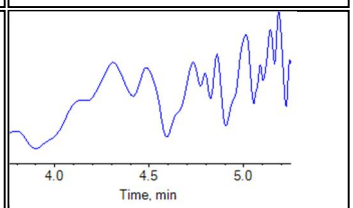

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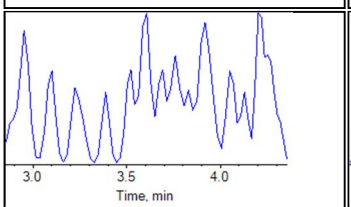
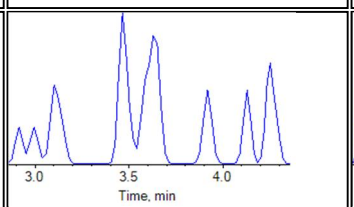


NMeFOSAA_1



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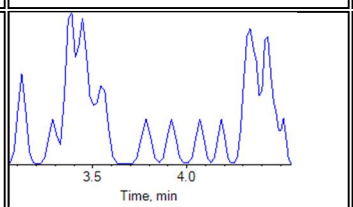

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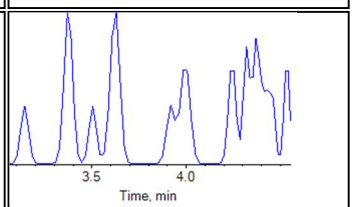

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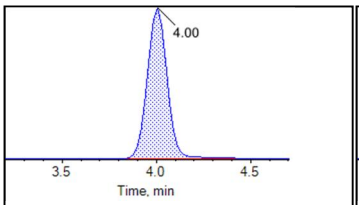
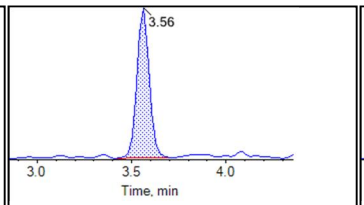


13C2-PFDoA



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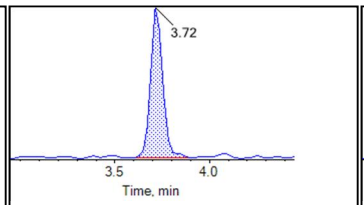
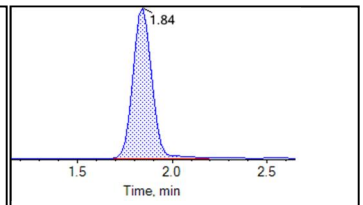
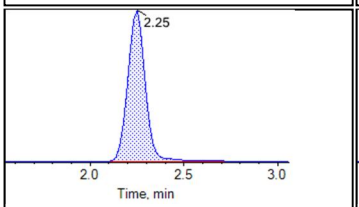


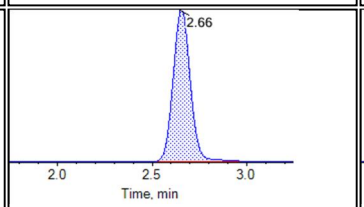
d5-EtFOSAA



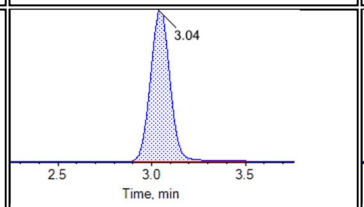
13C5-PFHxA



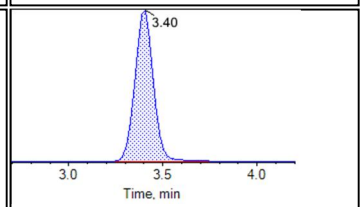
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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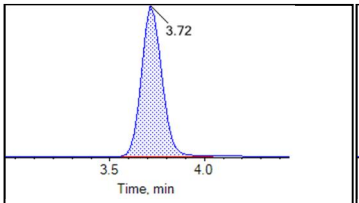
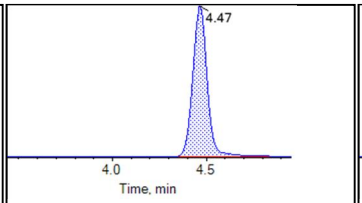
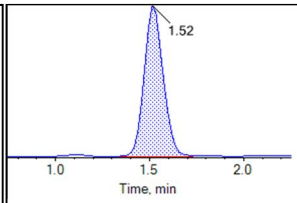


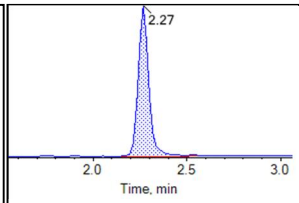
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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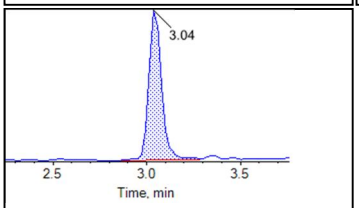

13C8-PFOS

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Chromatogram Report

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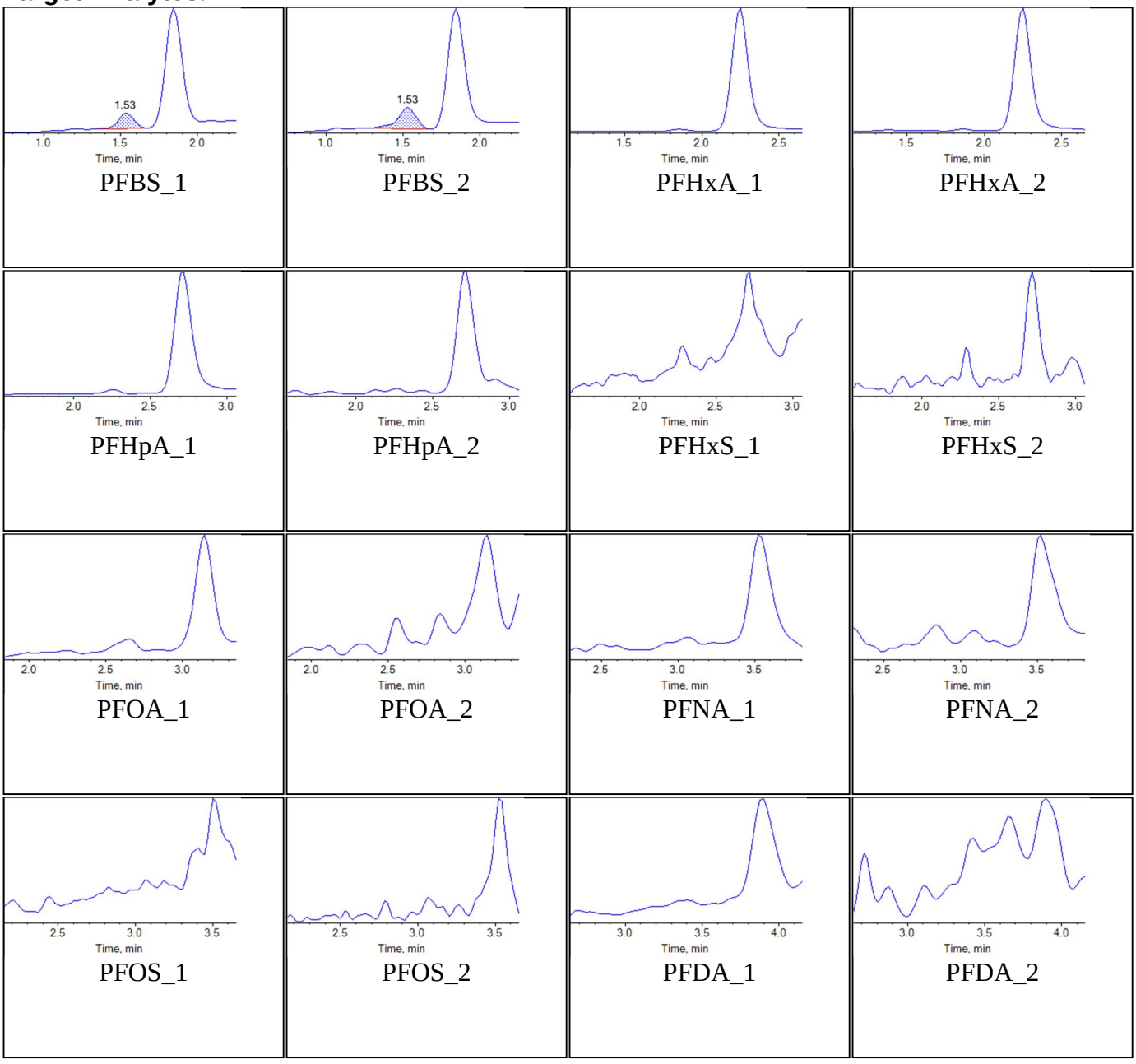
Sample Name	J8226-FS(3)	**Injection Vial**	23
Sample ID	VC-PM372-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:59:21	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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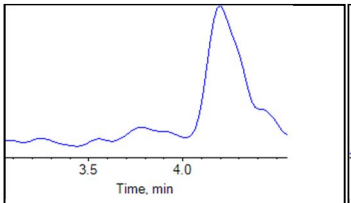
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:12:56 PM



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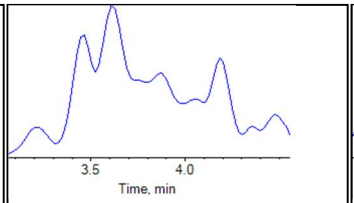
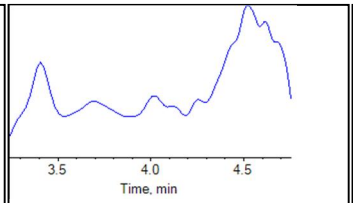


PFUnA_2



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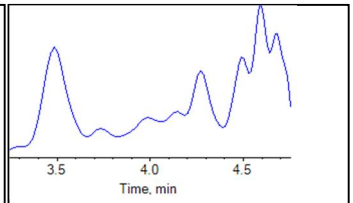

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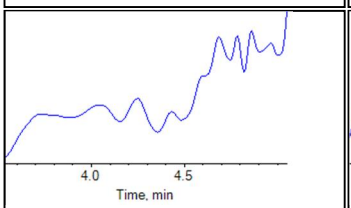

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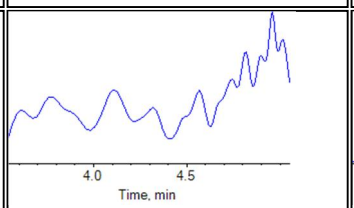

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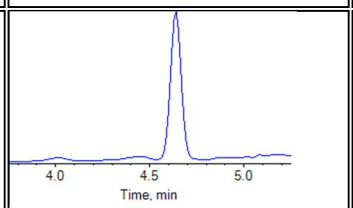

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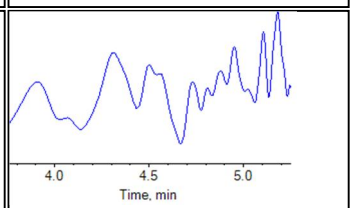

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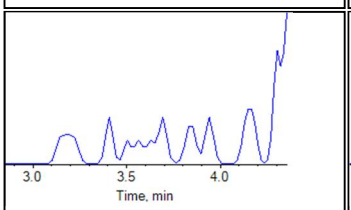

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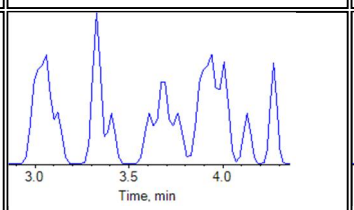

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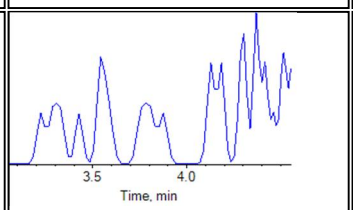

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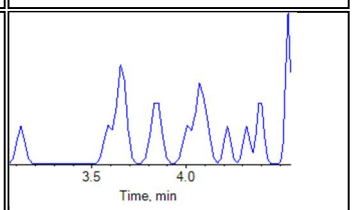

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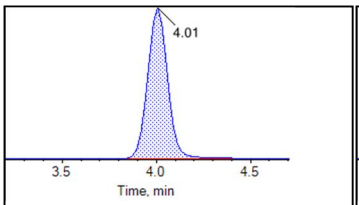

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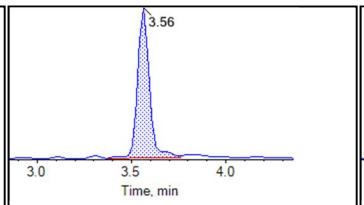
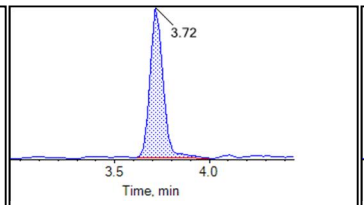
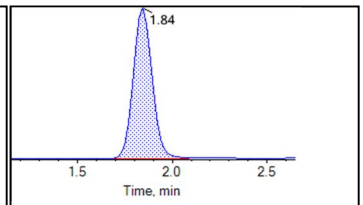


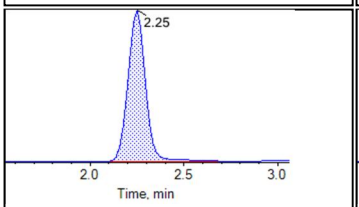
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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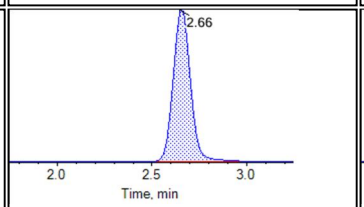

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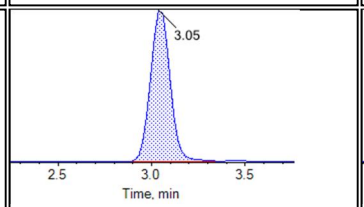
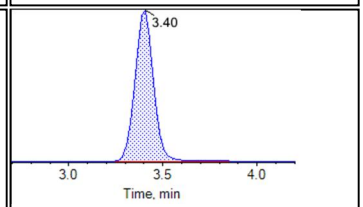


13C9-PFNA



13C6-PFDA

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Chromatogram Report

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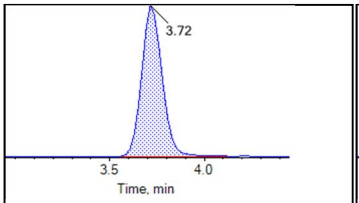
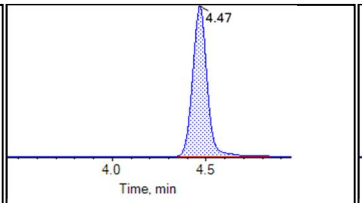
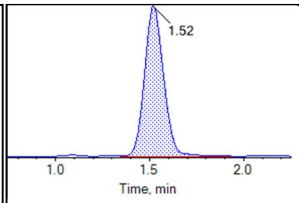


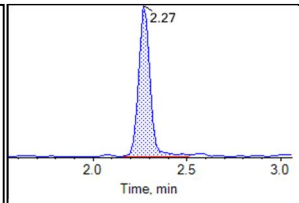
13C7-PFUnA



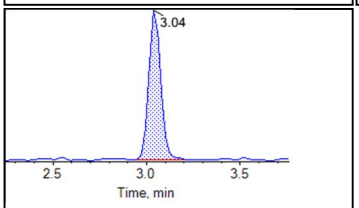
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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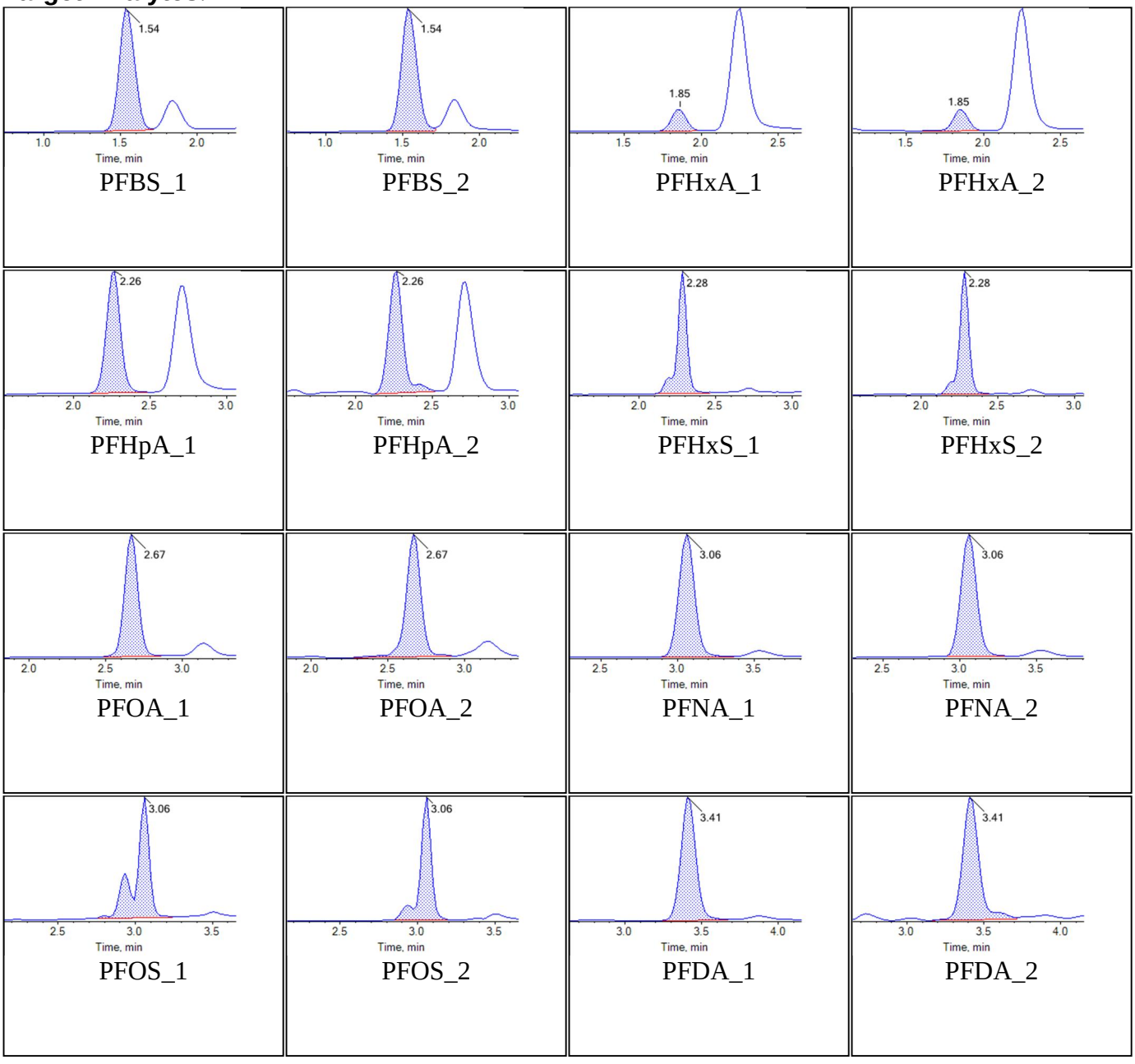
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:13:01 PM

Sample Name	KA89 CCV	**Injection Vial**	24
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:10:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

Created with Analyst Reporter
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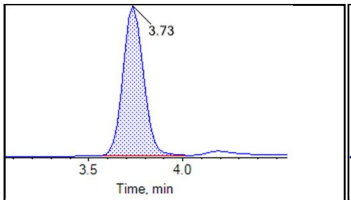
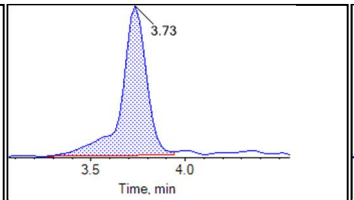
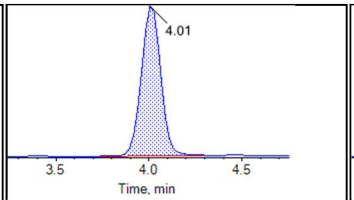


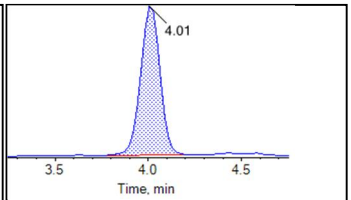
PFUnA_1



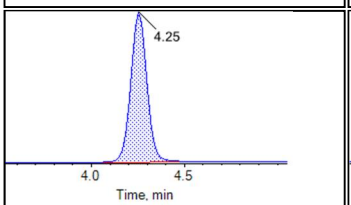
PFUnA_2



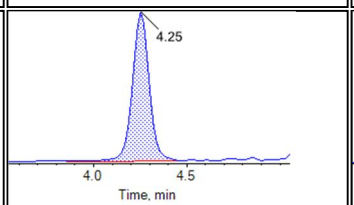
PFDoA_1



PFDoA_2



PFTrDA_1



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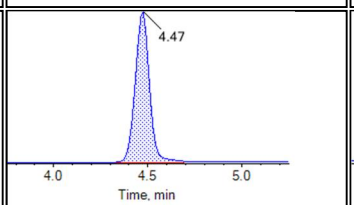
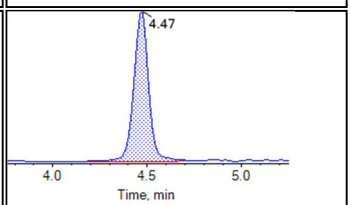
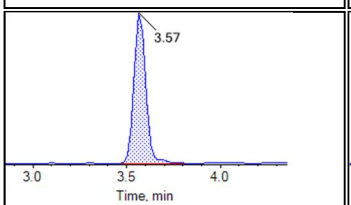


PFTeDA_1



PFTeDA_2



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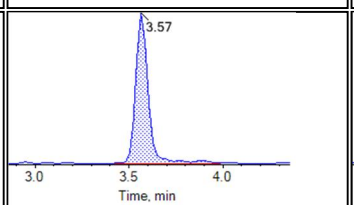

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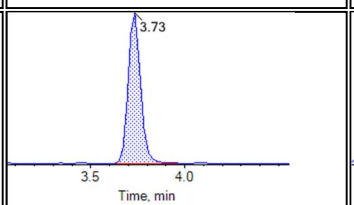

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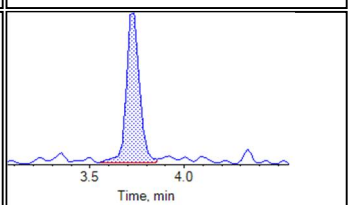

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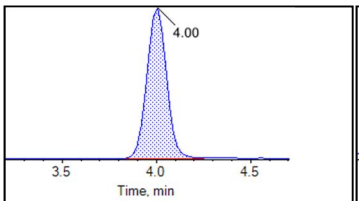
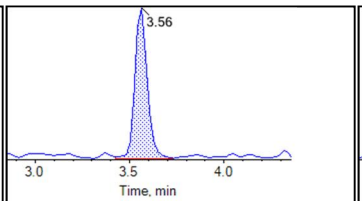
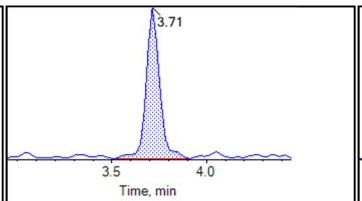


13C2-PFDoA



d3-MeFOSAA



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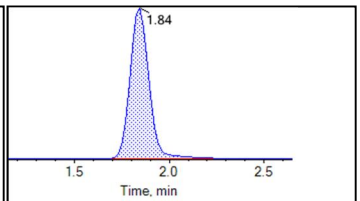
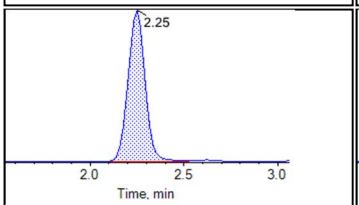
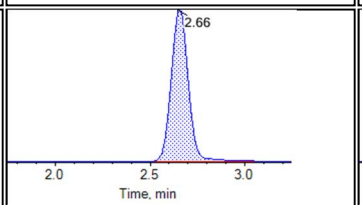


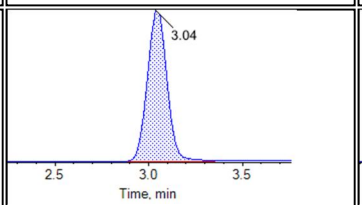
13C5-PFHxA



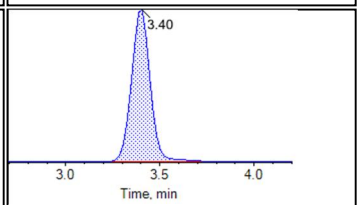
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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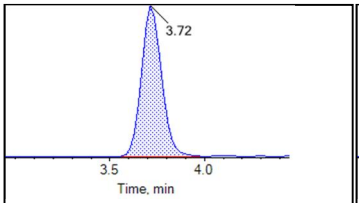
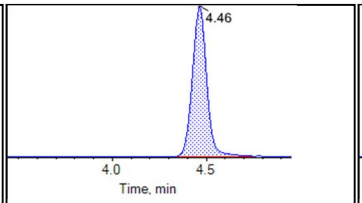
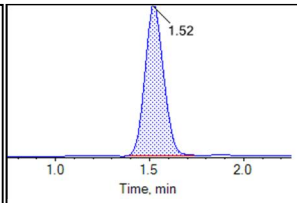


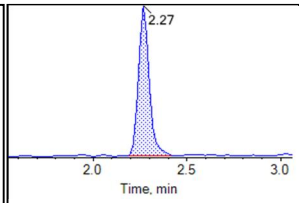
13C7-PFUnA



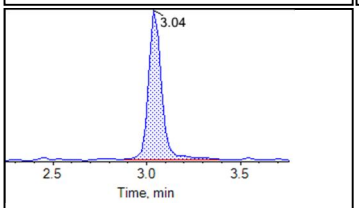
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

Created with Analyst Reporter
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Sample Name	J8227MS-FS(3)	**Injection Vial**	26
Sample ID	VC-PM372-SS02-000H-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:32:00	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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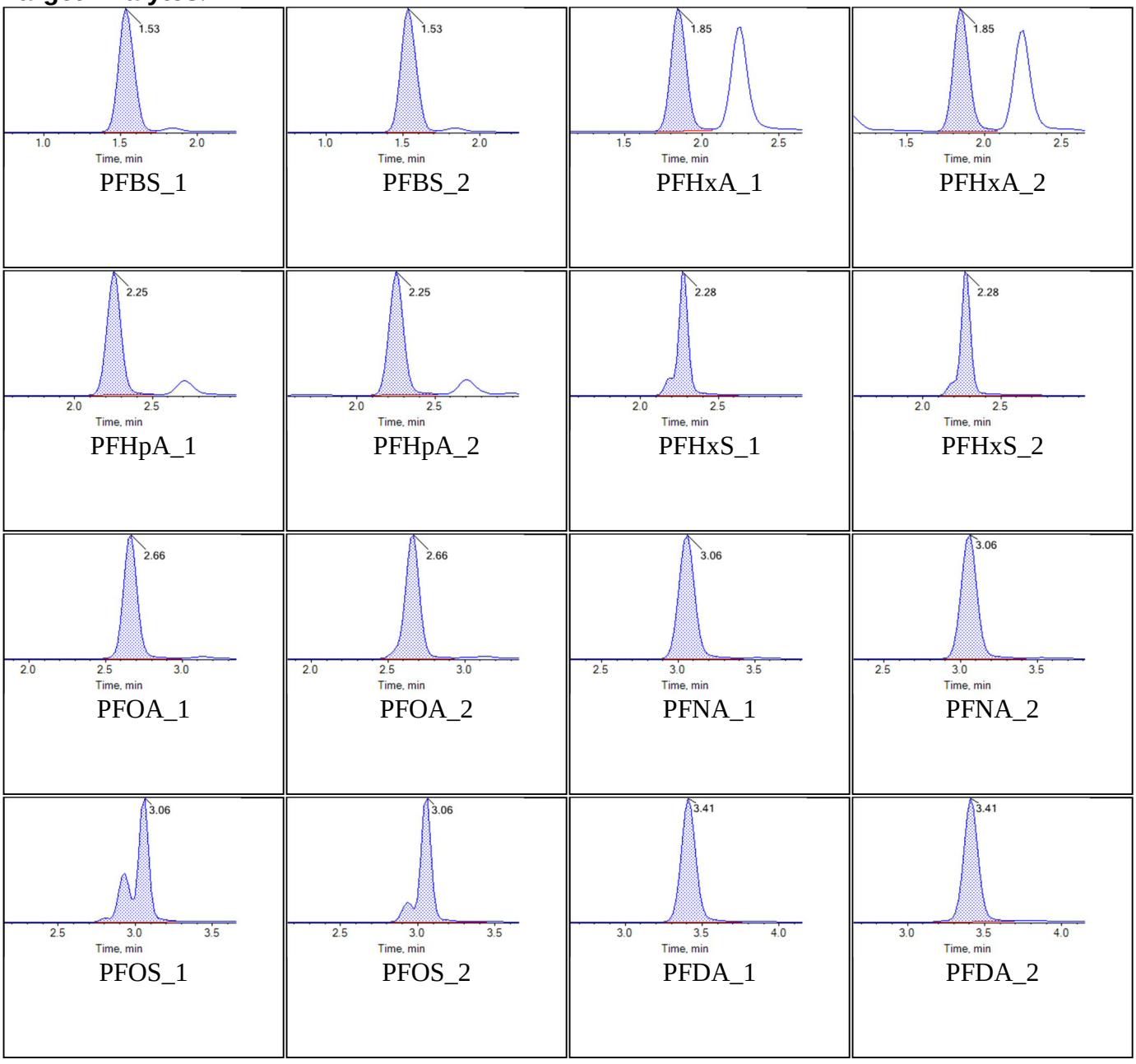

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Chromatogram Report

Created with Analyst Reporter
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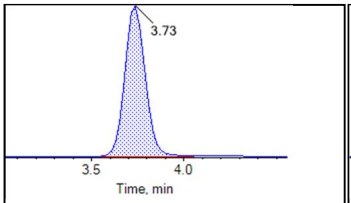

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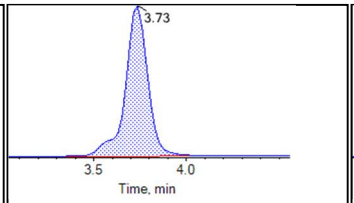
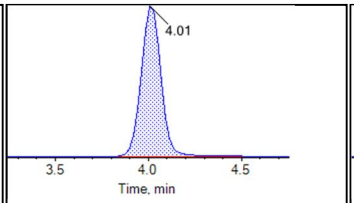
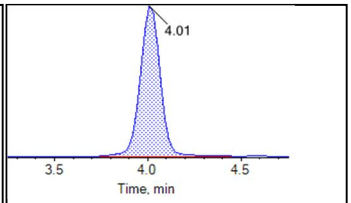


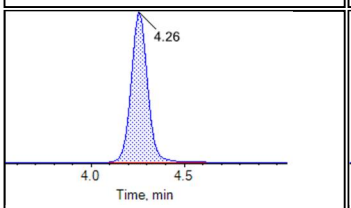
PFUnA_2



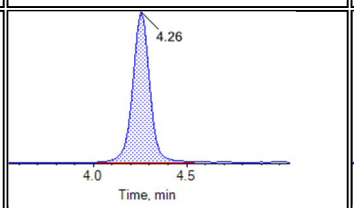
PFDoA_1



PFDoA_2



PFTrDA_1



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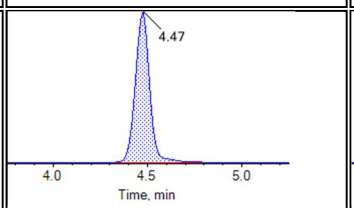

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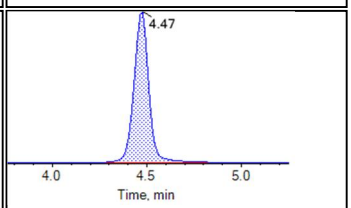

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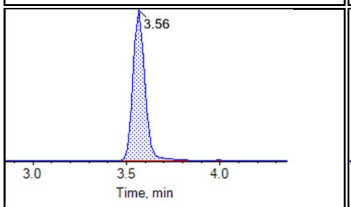

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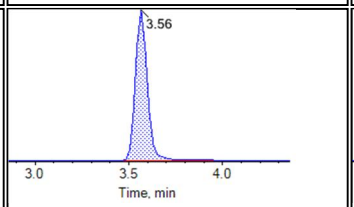

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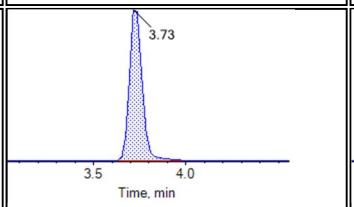

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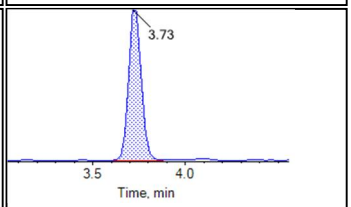

NEtFOSAA_2

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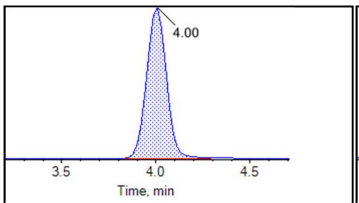

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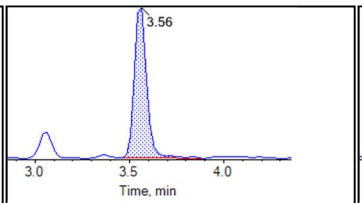
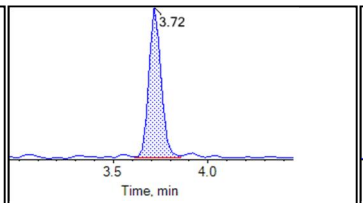
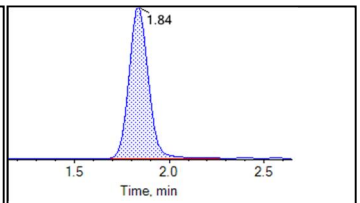


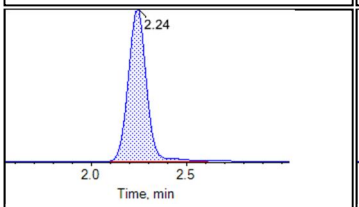
d3-MeFOSAA



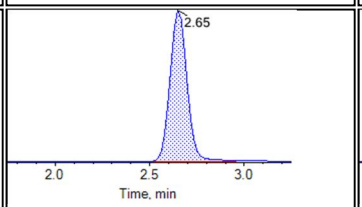
d5-EtFOSAA



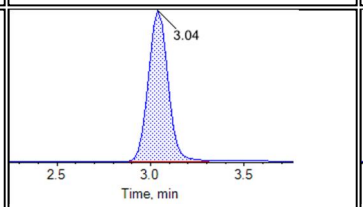
13C5-PFHxA



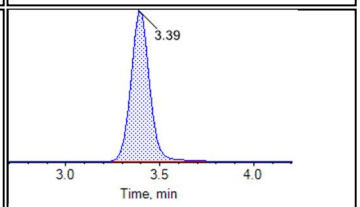
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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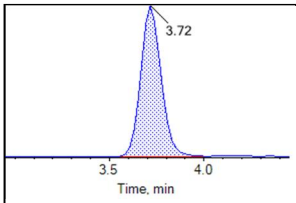
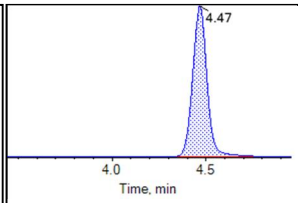
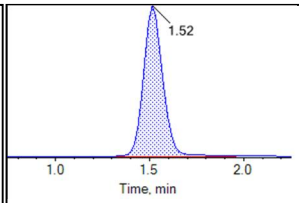


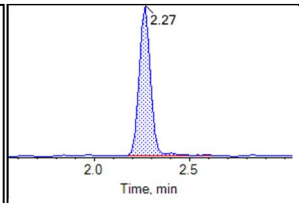
13C7-PFUnA



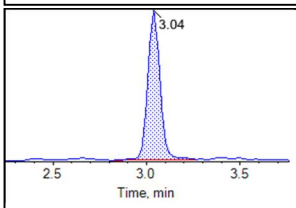
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:13:20 PM

Sample Name	J8228MSD-FS(3)	**Injection Vial**	27
Sample ID	VC-PM372-SS02-000H-SD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:42:52	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

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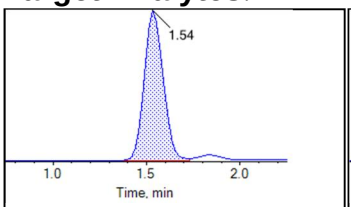

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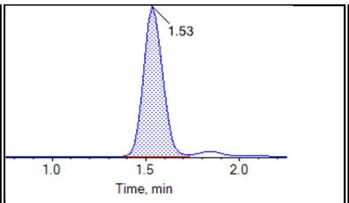
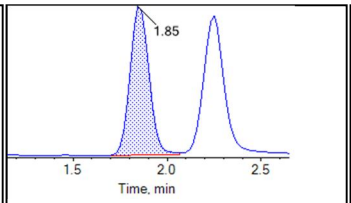
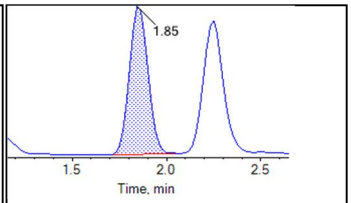


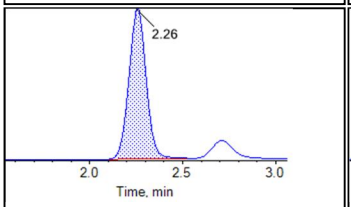
PFBS_2



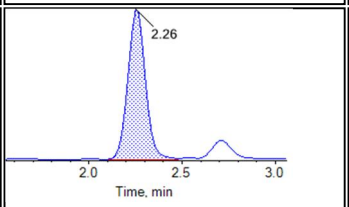
PFHxA_1



PFHxA_2



PFHpA_1



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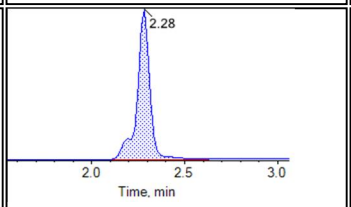

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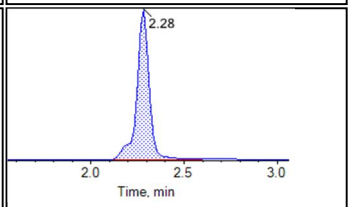

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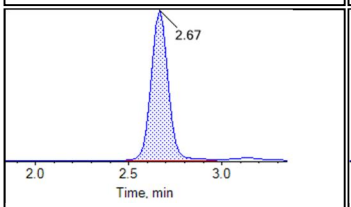

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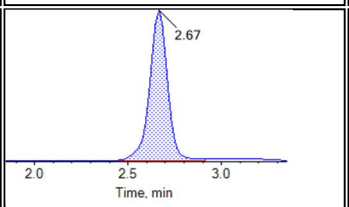

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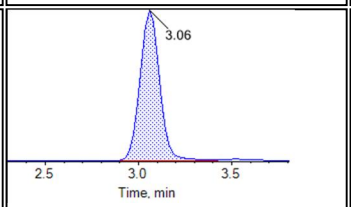

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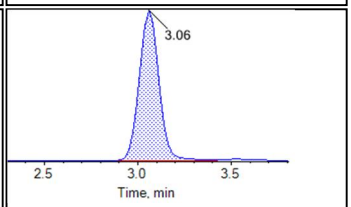

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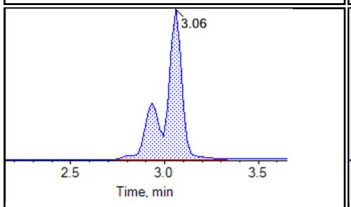

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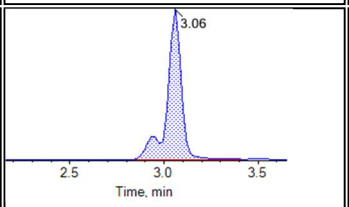

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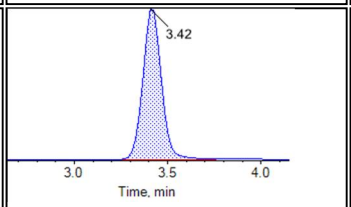

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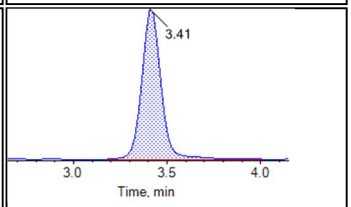

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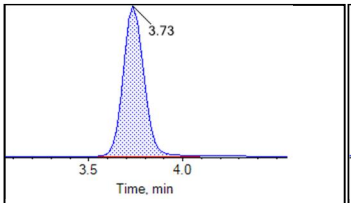

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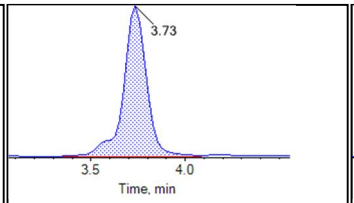

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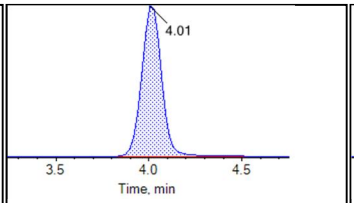

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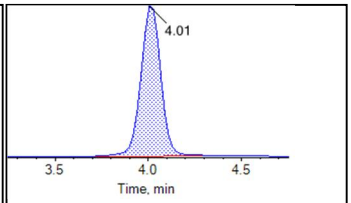

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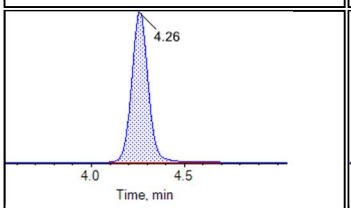

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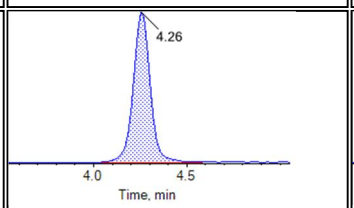

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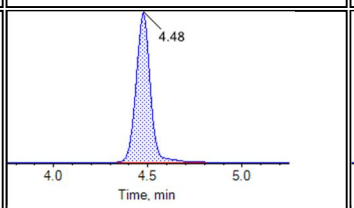

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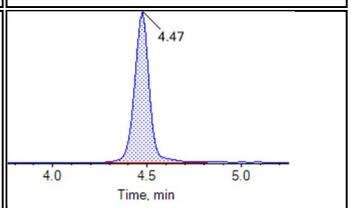

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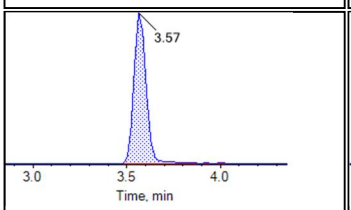

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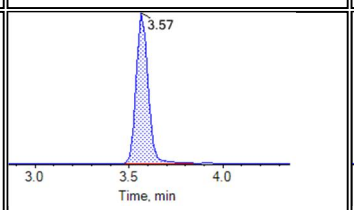

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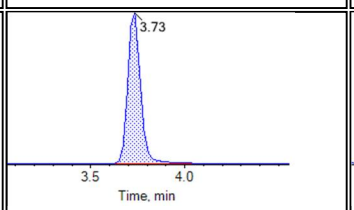

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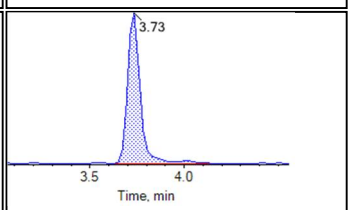

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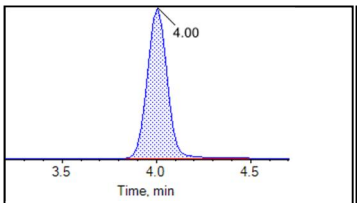

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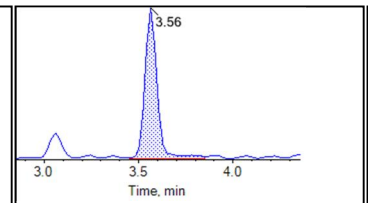

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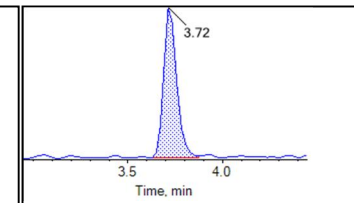

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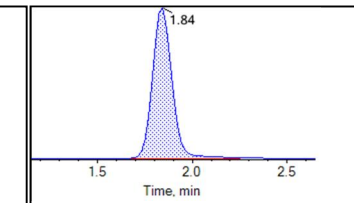

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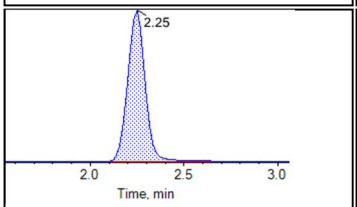

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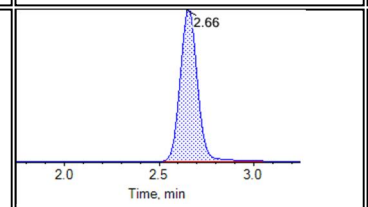

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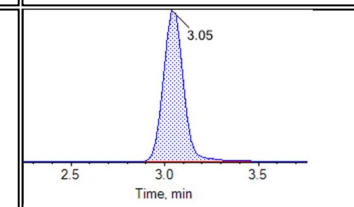

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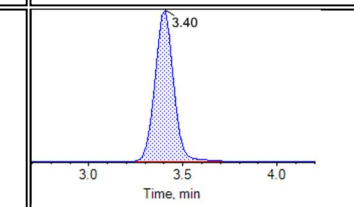

13C6-PFDA

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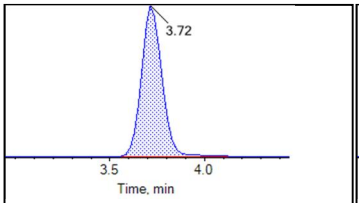
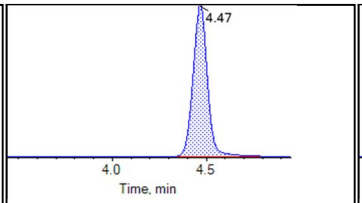


13C7-PFUnA



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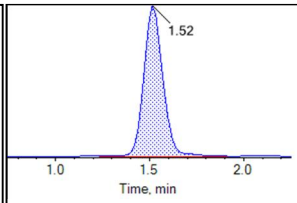

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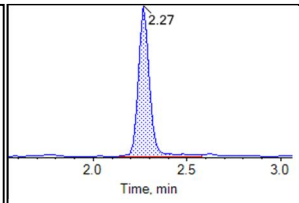

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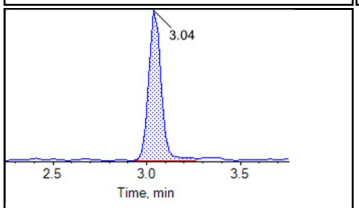

13C8-PFOS

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Chromatogram Report

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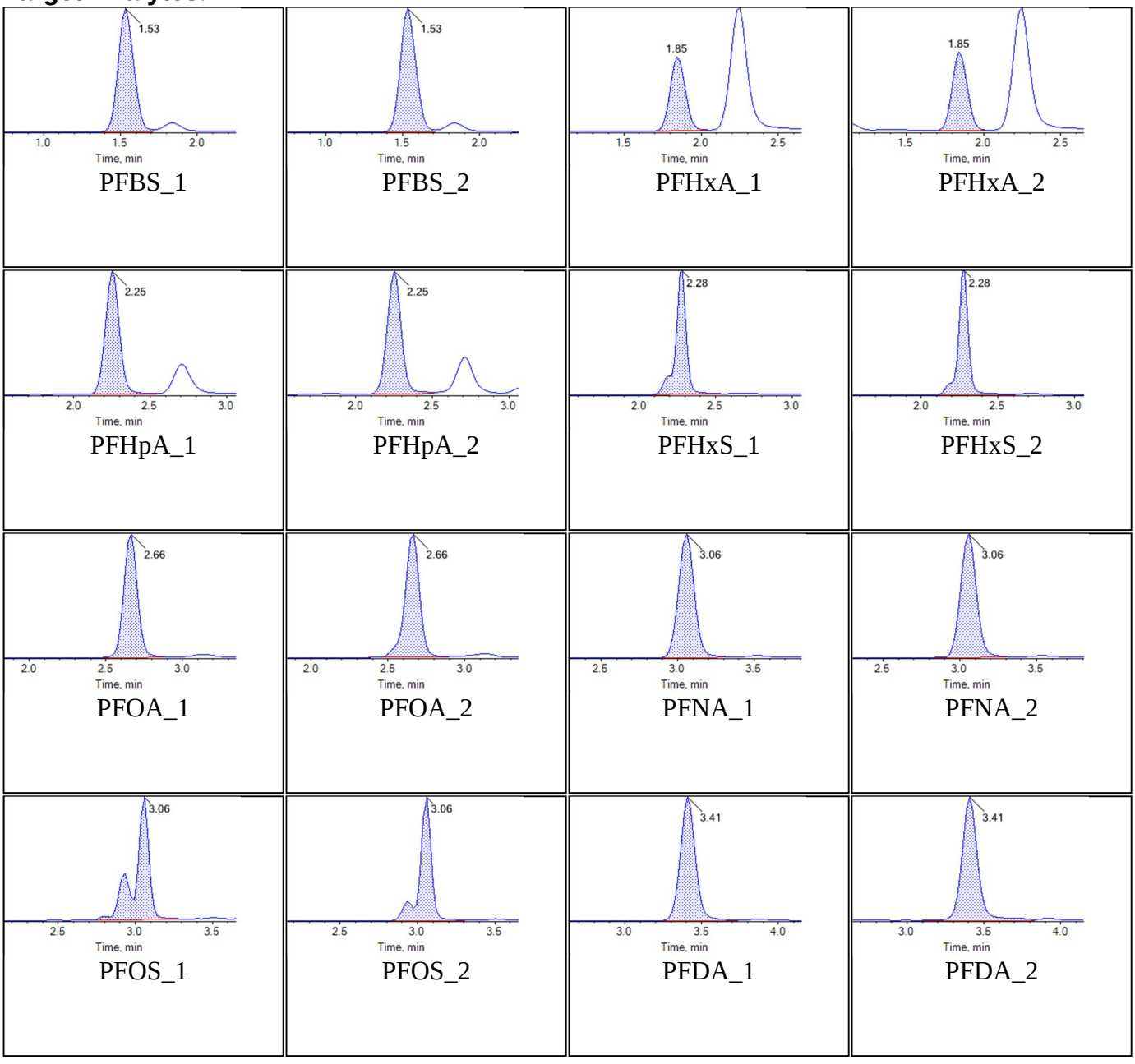
Sample Name	KA90 CCV	**Injection Vial**	29
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T02:04:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_BASE
Sample Comment			

Chromatograms

Target Analytes:



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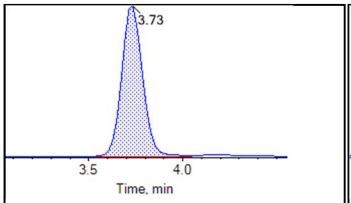

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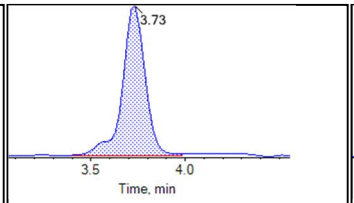

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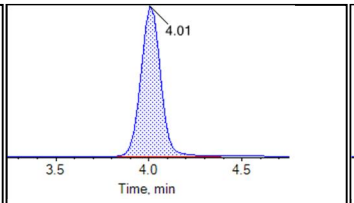

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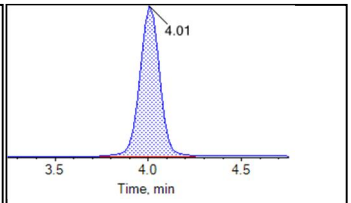

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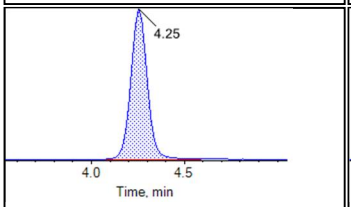

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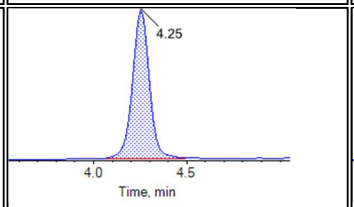

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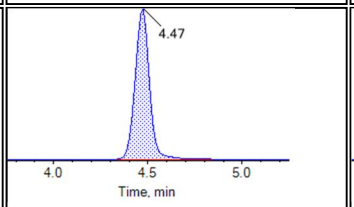

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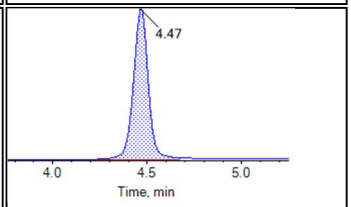

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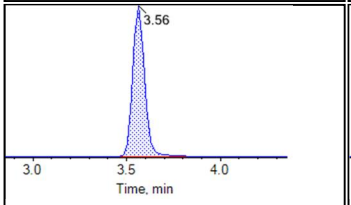

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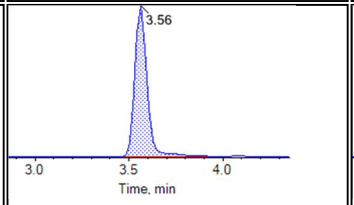

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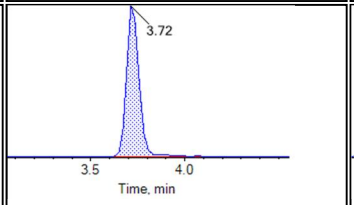

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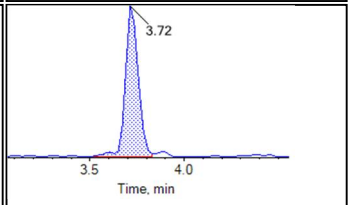

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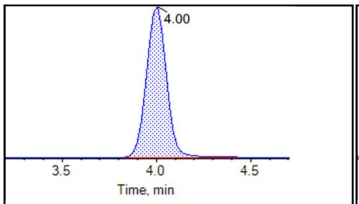

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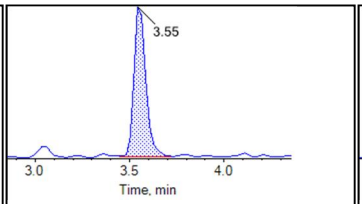
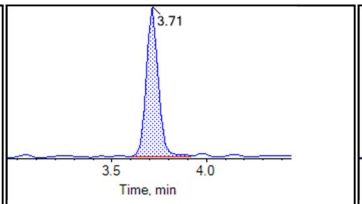
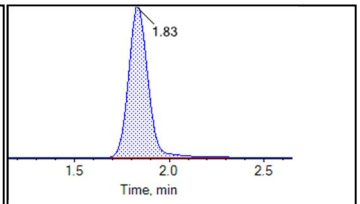


d3-MeFOSAA



d5-EtFOSAA



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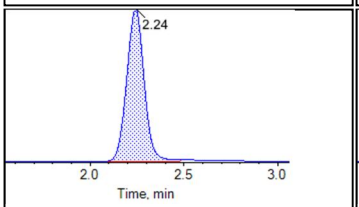

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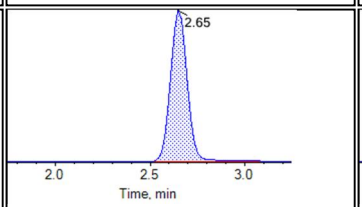
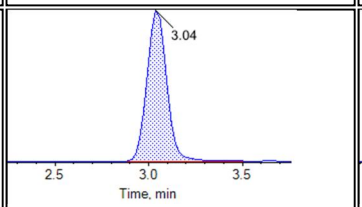
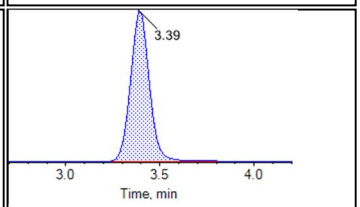


13C8-PFOA



13C9-PFNA



13C6-PFDA

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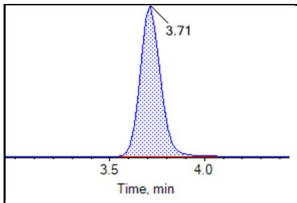
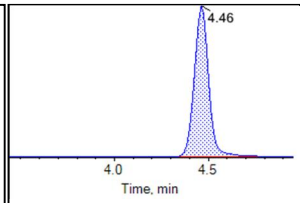
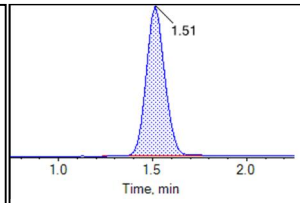


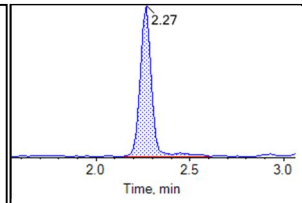
13C7-PFUnA



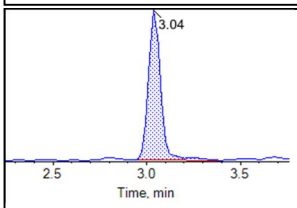
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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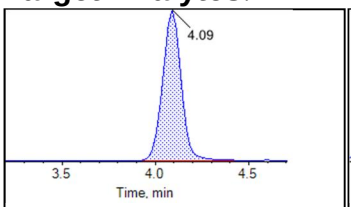
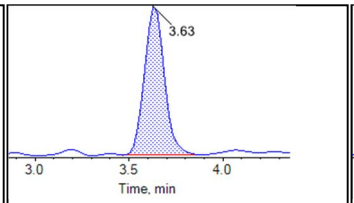
Sample Name	KA86	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T14:50:32	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

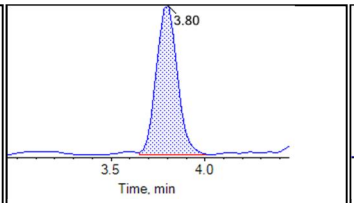
Target Analytes:



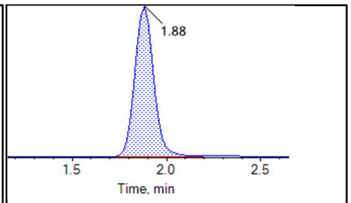
13C2-PFDoA



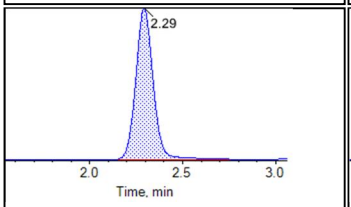
d3-MeFOSAA



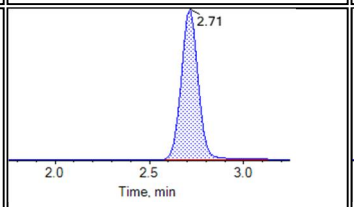
d5-EtFOSAA



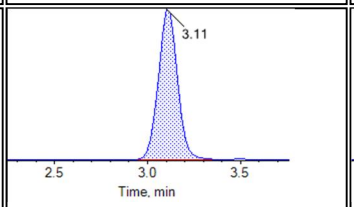
13C5-PFHxA



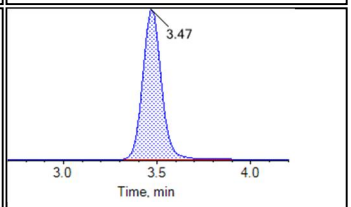
13C4-PFHpA



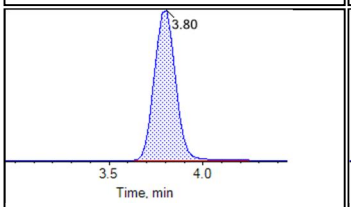
13C8-PFOA



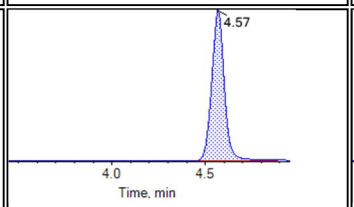
13C9-PFNA



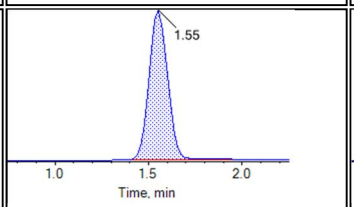
13C6-PFDA



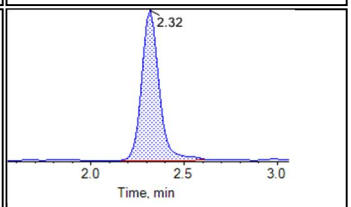
13C7-PFUnA



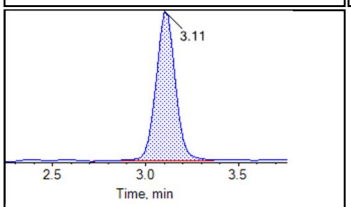
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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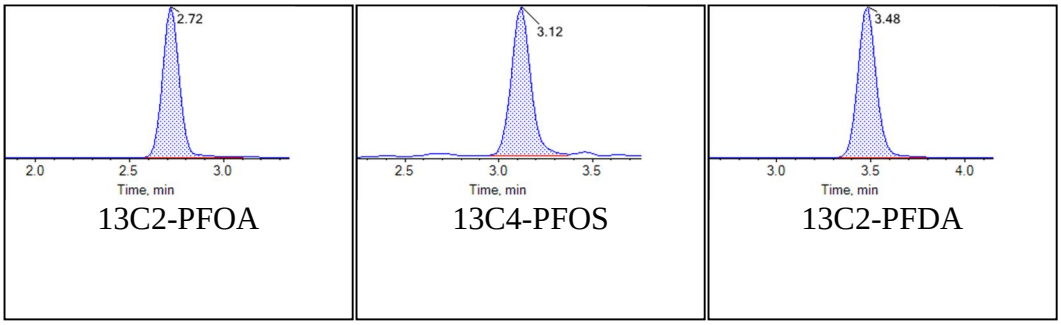
Internal Standards:



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Chromatogram Report

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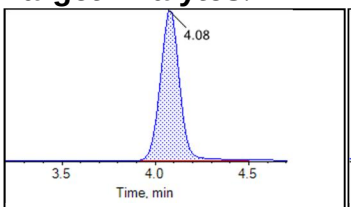
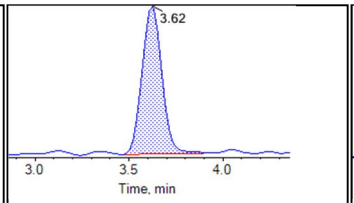
Sample Name	KA87	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:01:25	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

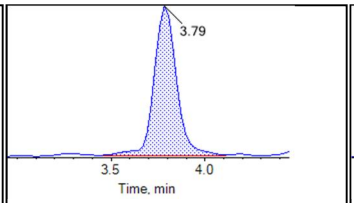
Target Analytes:



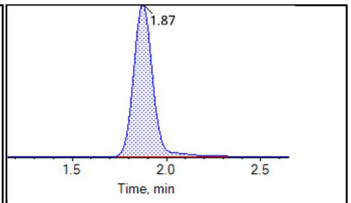
13C2-PFDoA



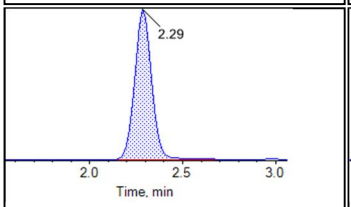
d3-MeFOSAA



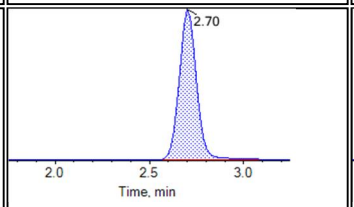
d5-EtFOSAA



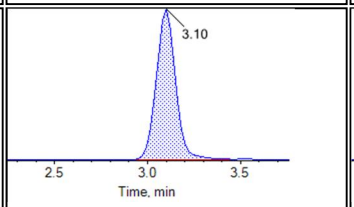
13C5-PFHxA



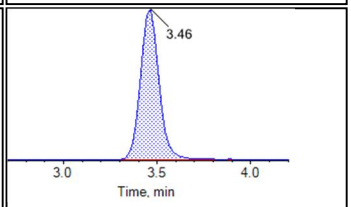
13C4-PFHpA



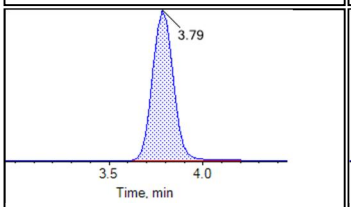
13C8-PFOA



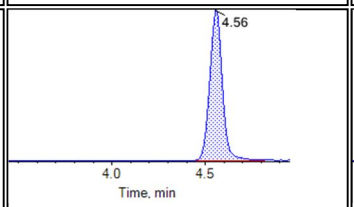
13C9-PFNA



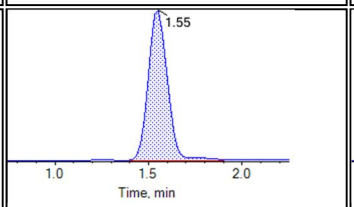
13C6-PFDA



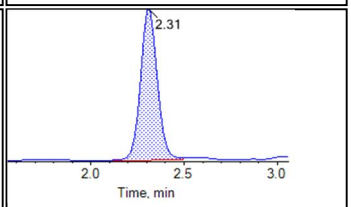
13C7-PFUnA



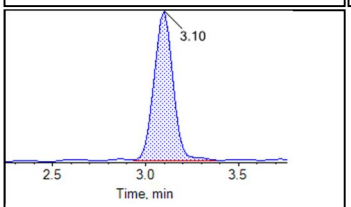
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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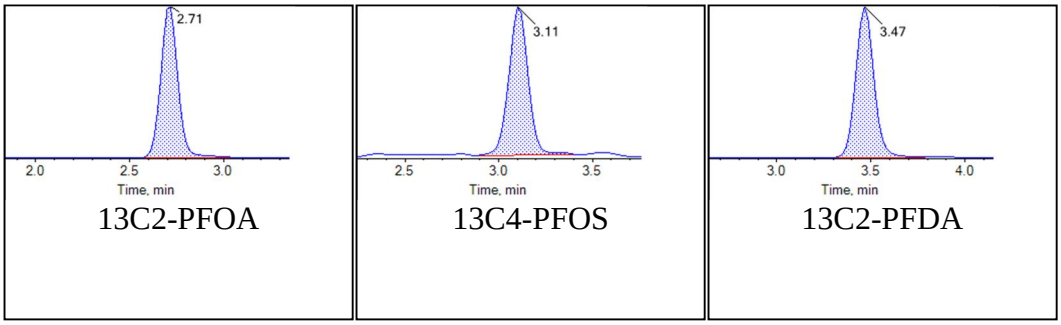
Internal Standards:



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Chromatogram Report

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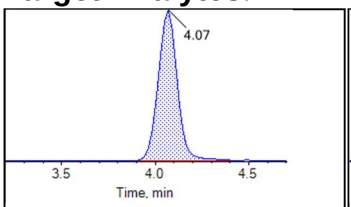
Printed: 03/10/2018 5:00:03 PM

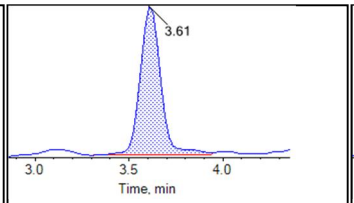
Sample Name	KA88	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:12:17	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

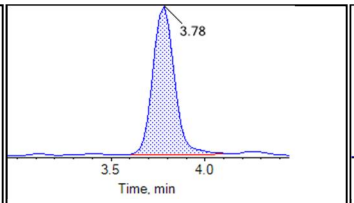
Target Analytes:



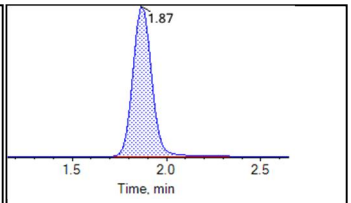
13C2-PFDoA



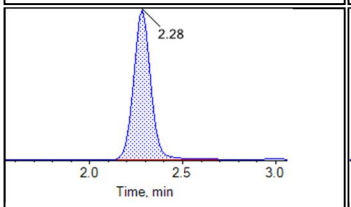
d3-MeFOSAA



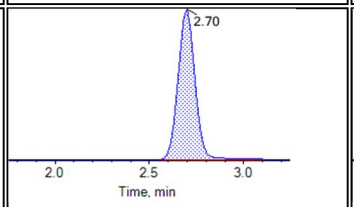
d5-EtFOSAA



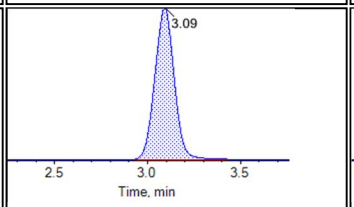
13C5-PFHxA



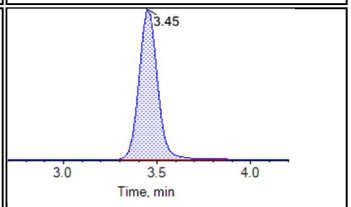
13C4-PFHpA



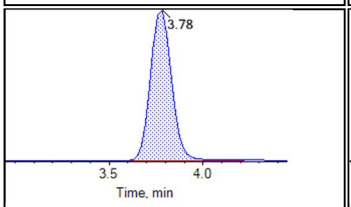
13C8-PFOA



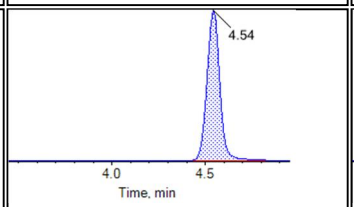
13C9-PFNA



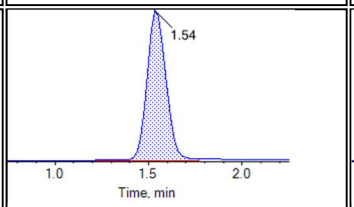
13C6-PFDA



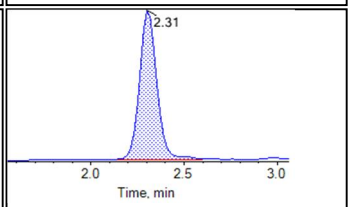
13C7-PFUnA



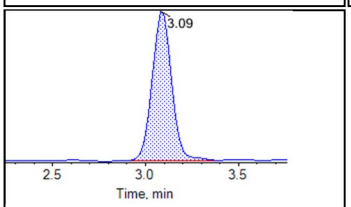
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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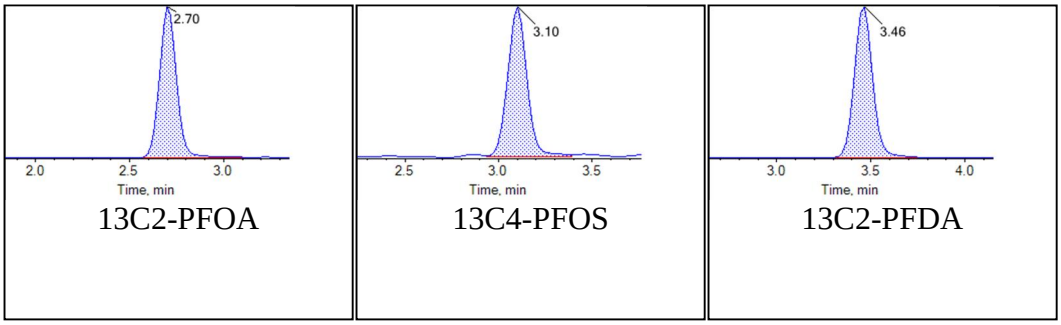
Internal Standards:



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Chromatogram Report

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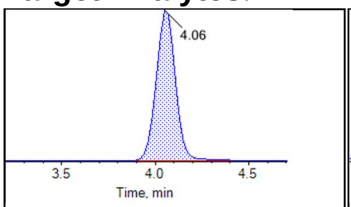
Printed: 03/10/2018 5:00:08 PM

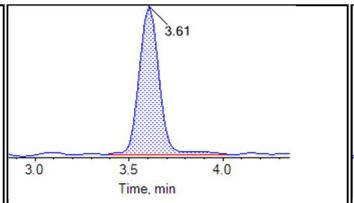
Sample Name	KA89	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:23:09	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

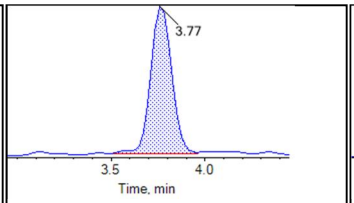
Target Analytes:



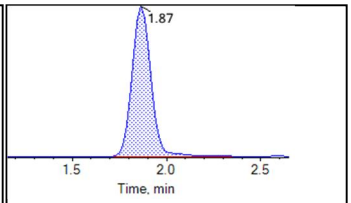
13C2-PFDoA



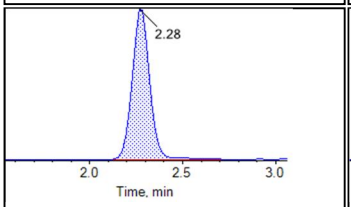
d3-MeFOSAA



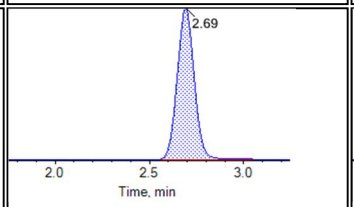
d5-EtFOSAA



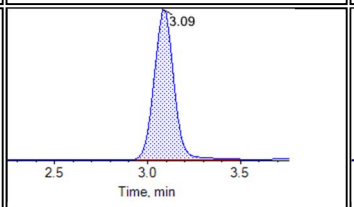
13C5-PFHxA



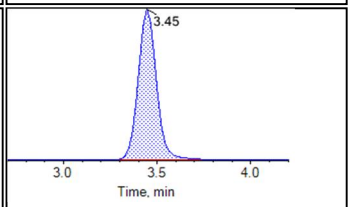
13C4-PFHpA



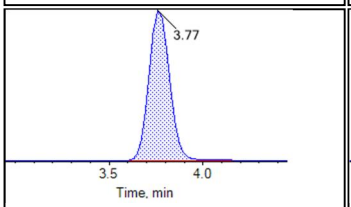
13C8-PFOA



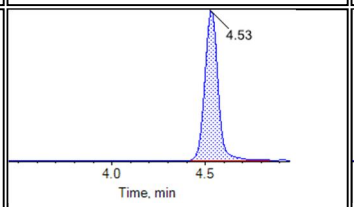
13C9-PFNA



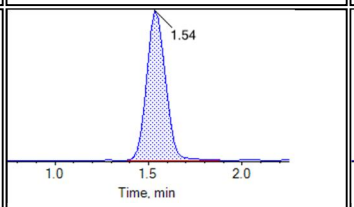
13C6-PFDA



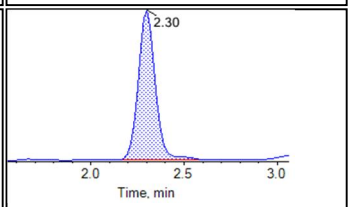
13C7-PFUnA



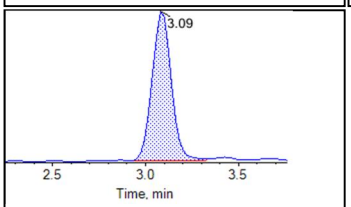
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



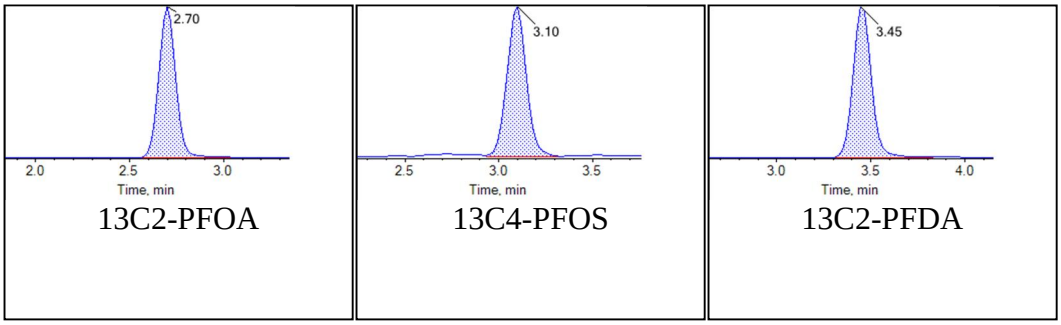
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:00:08 PM

Internal Standards:



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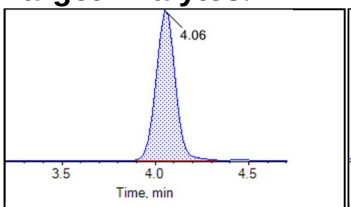
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:00:13 PM

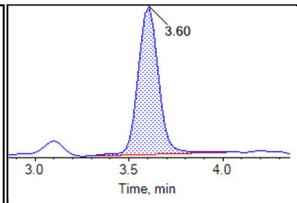
Sample Name	KA90	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:34:02	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

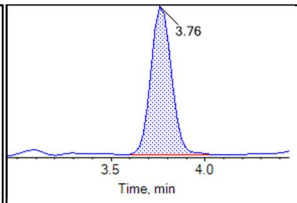
Target Analytes:



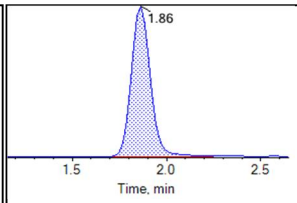
13C2-PFDoA



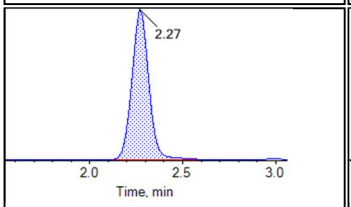
d3-MeFOSAA



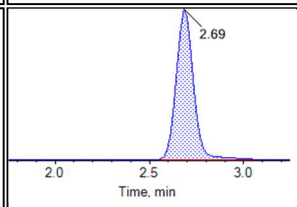
d5-EtFOSAA



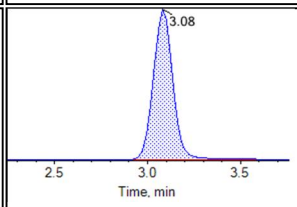
13C5-PFHxA



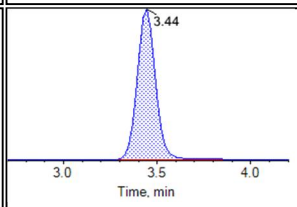
13C4-PFHpA



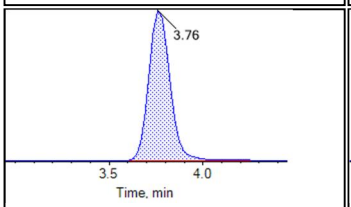
13C8-PFOA



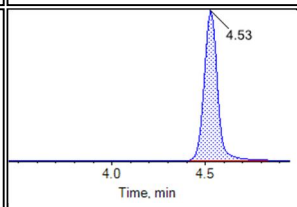
13C9-PFNA



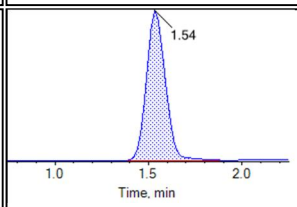
13C6-PFDA



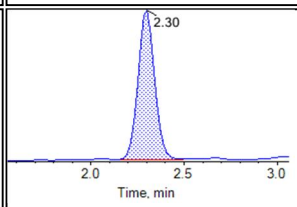
13C7-PFUnA



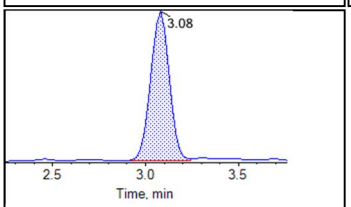
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS

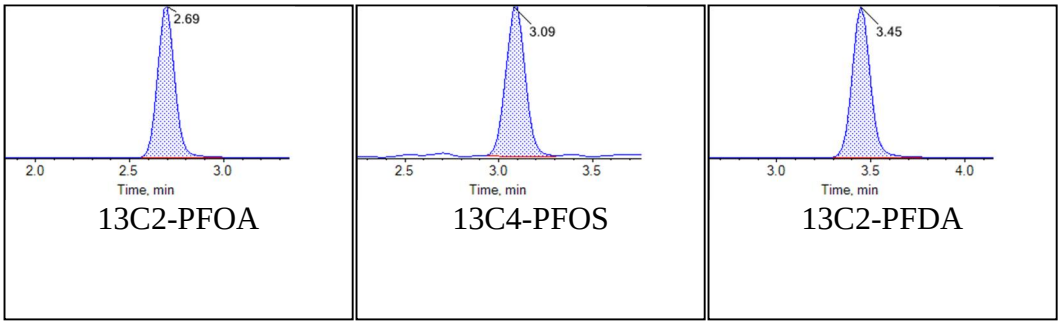


13C8-PFOS

Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:00:13 PM

Internal Standards:



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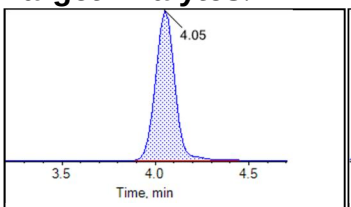
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:00:18 PM

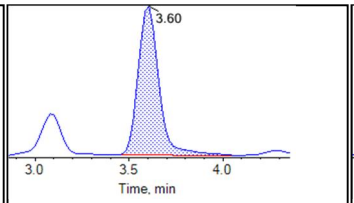
Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:44:53	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

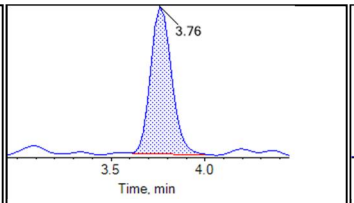
Target Analytes:



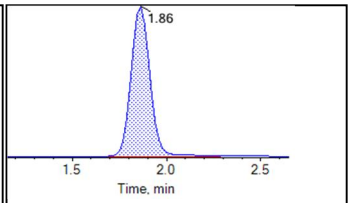
13C2-PFDoA



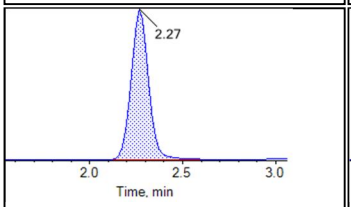
d3-MeFOSAA



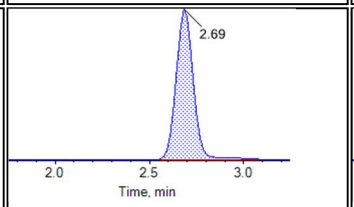
d5-EtFOSAA



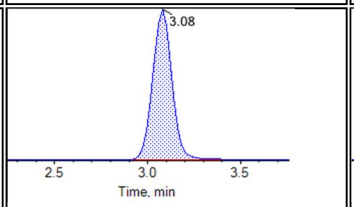
13C5-PFHxA



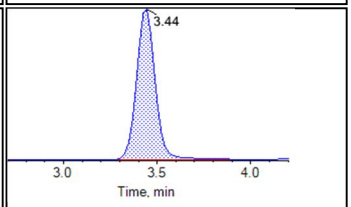
13C4-PFHpA



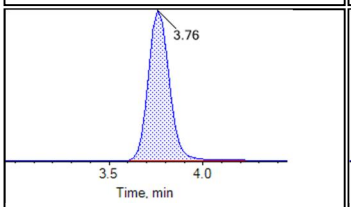
13C8-PFOA



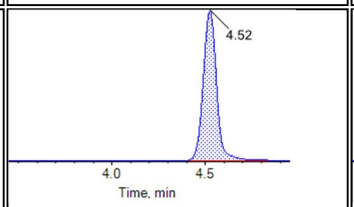
13C9-PFNA



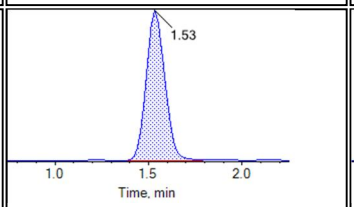
13C6-PFDA



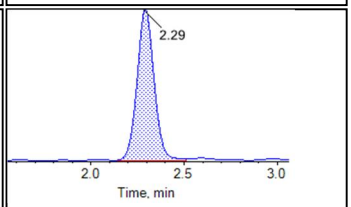
13C7-PFUnA



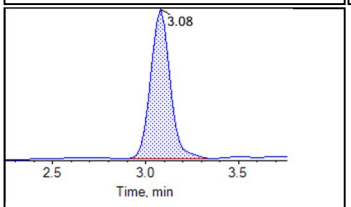
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



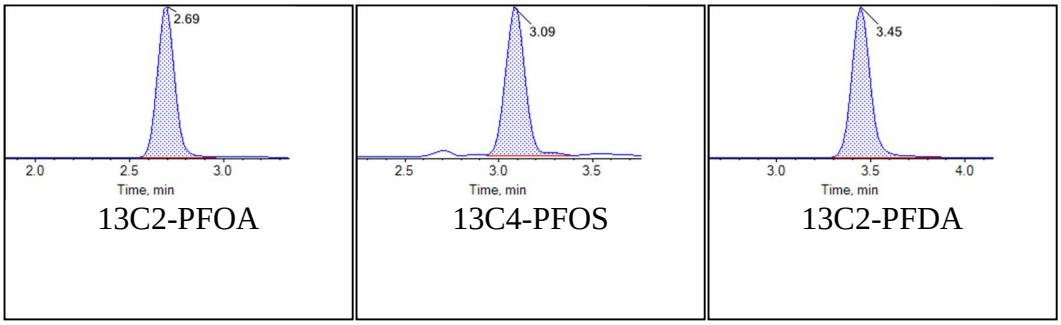
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:00:18 PM

Internal Standards:



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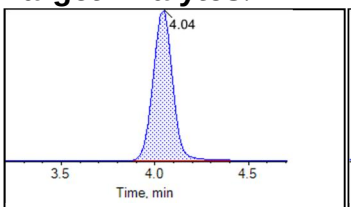
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:00:23 PM

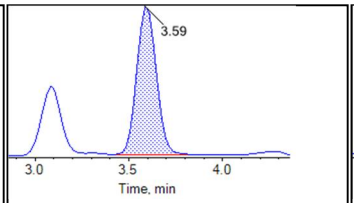
Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T15:55:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

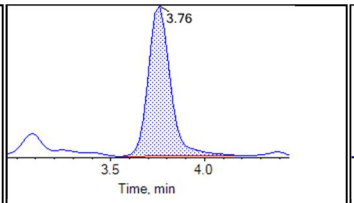
Target Analytes:



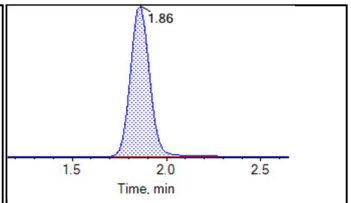
13C2-PFDoA



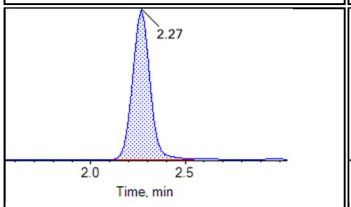
d3-MeFOSAA



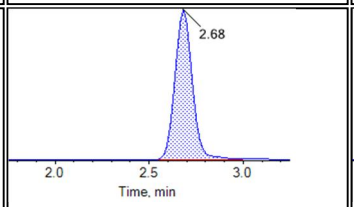
d5-EtFOSAA



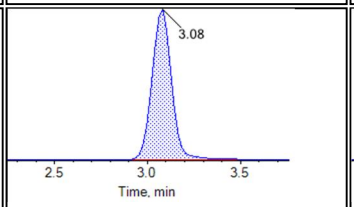
13C5-PFHxA



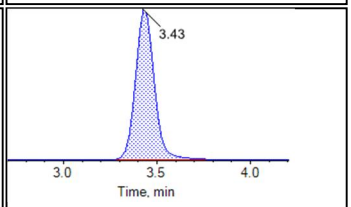
13C4-PFHpA



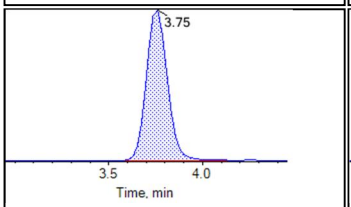
13C8-PFOA



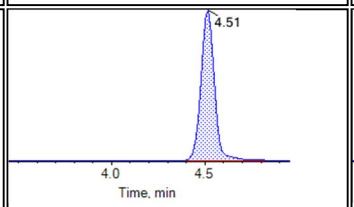
13C9-PFNA



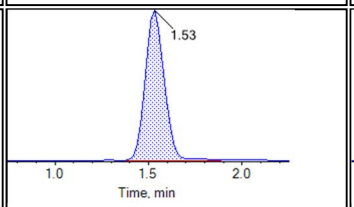
13C6-PFDA



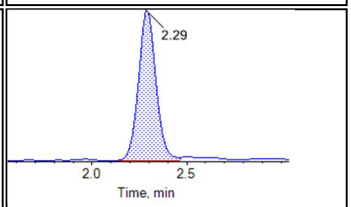
13C7-PFUnA



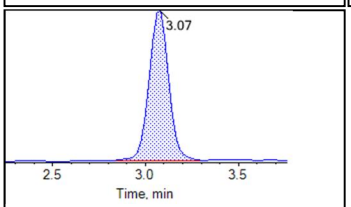
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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Printed: 03/10/2018 5:00:23 PM

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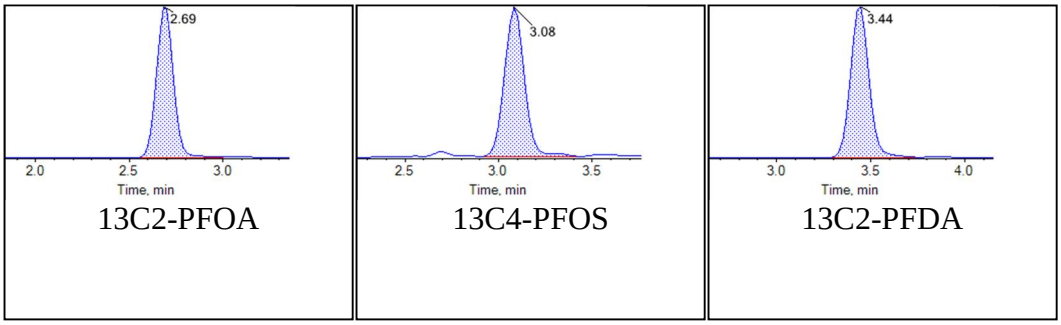

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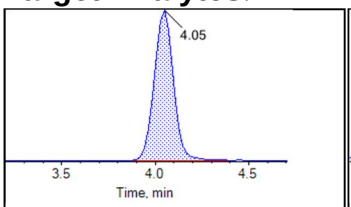
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:00:29 PM

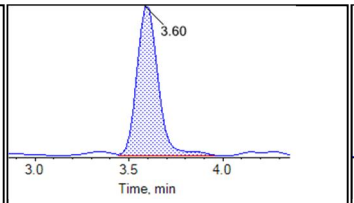
Sample Name	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:06:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

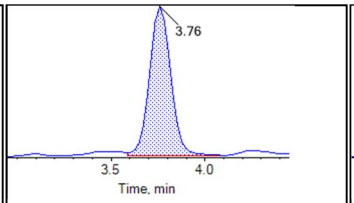
Target Analytes:



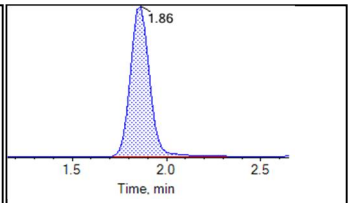
13C2-PFDoA



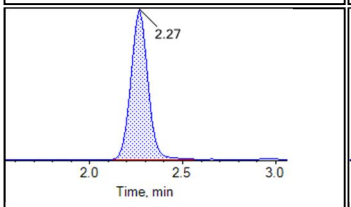
d3-MeFOSAA



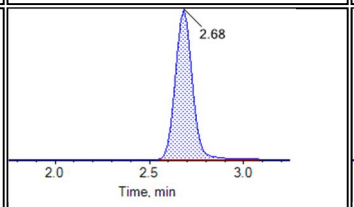
d5-EtFOSAA



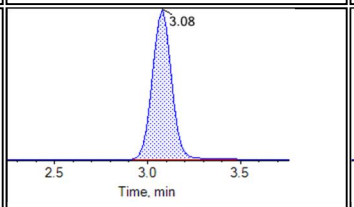
13C5-PFHxA



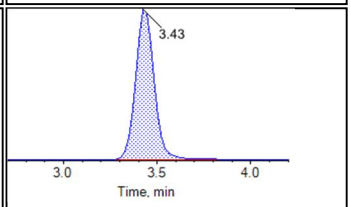
13C4-PFHpA



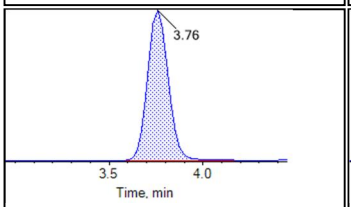
13C8-PFOA



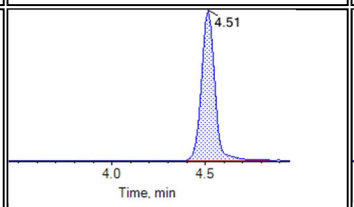
13C9-PFNA



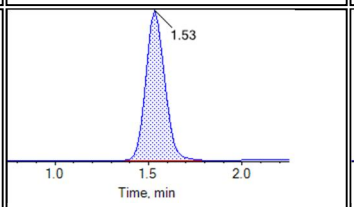
13C6-PFDA



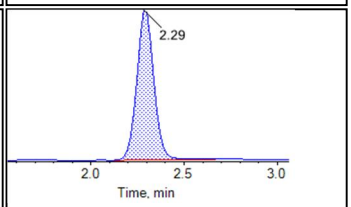
13C7-PFUnA



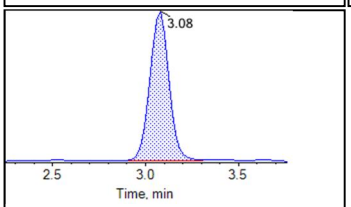
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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Printed: 03/10/2018 5:00:29 PM

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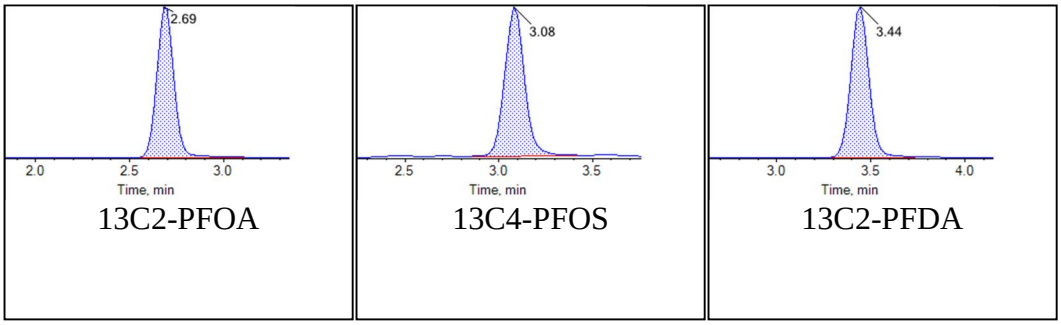

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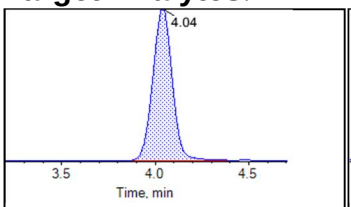
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:00:34 PM

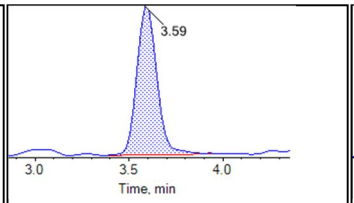
Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T16:17:28	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

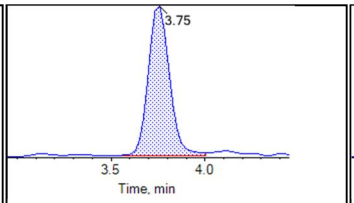
Target Analytes:



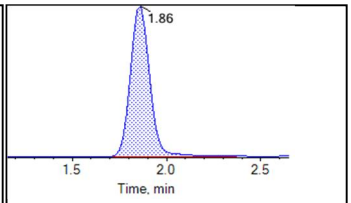
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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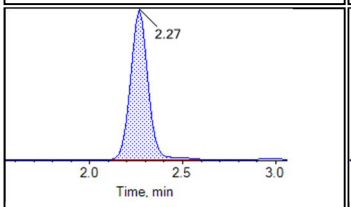

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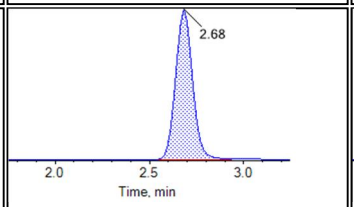
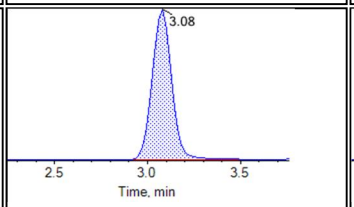
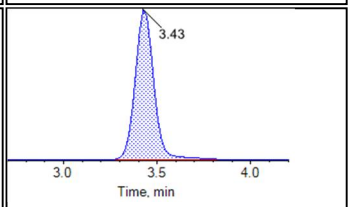


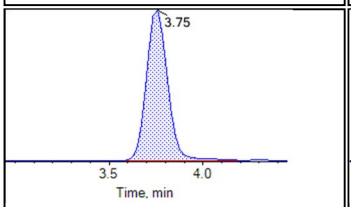
13C8-PFOA



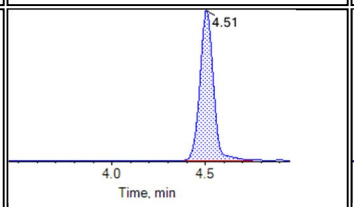
13C9-PFNA



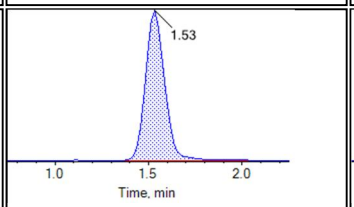
13C6-PFDA



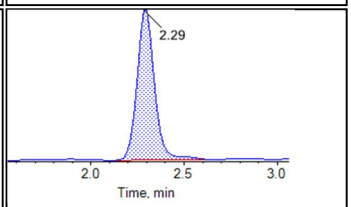
13C7-PFUnA



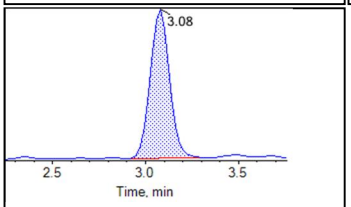
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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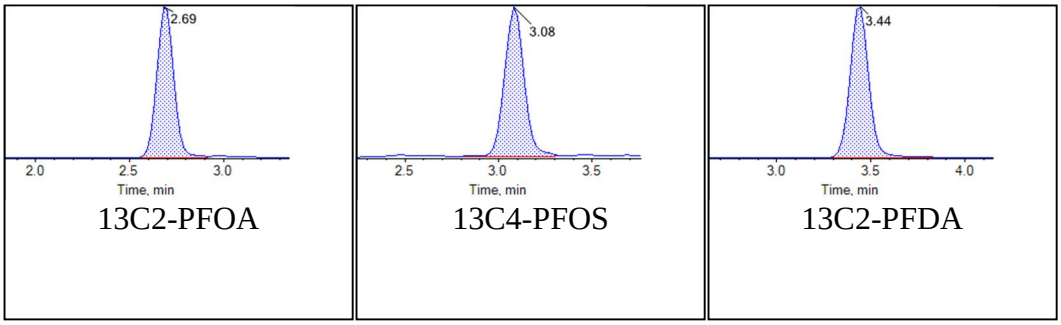
Internal Standards:



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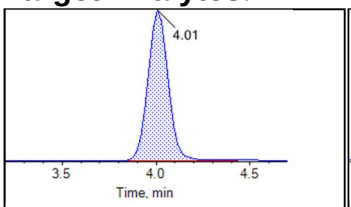
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:00:44 PM

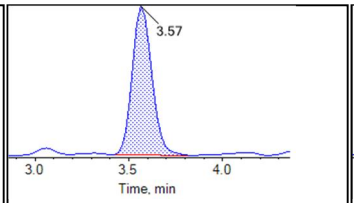
Sample Name	KA89 CCV	**Injection Vial**	34
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T20:49:08	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

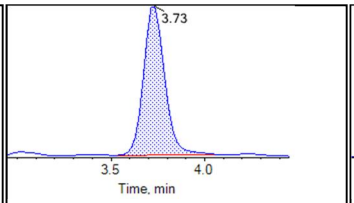
Target Analytes:



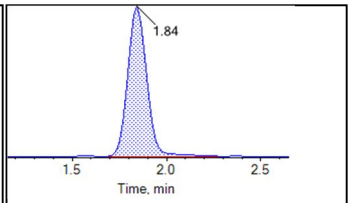
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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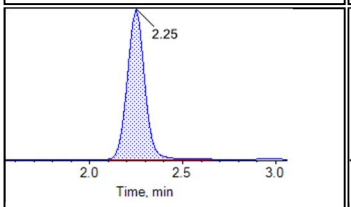
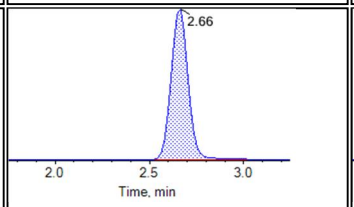
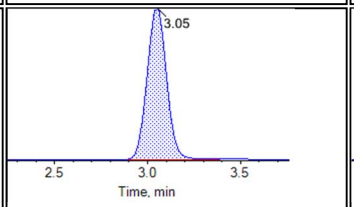


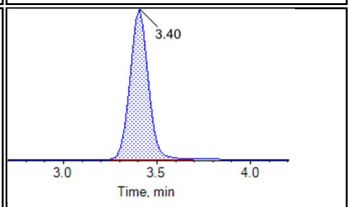
13C4-PFHpA



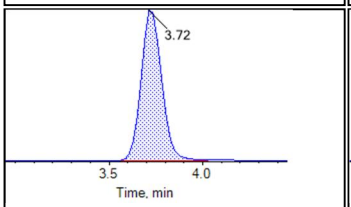
13C8-PFOA



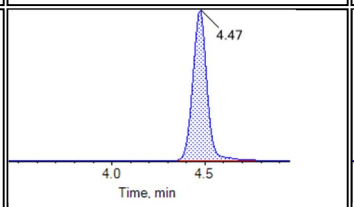
13C9-PFNA



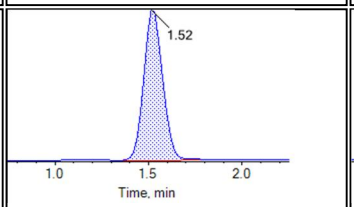
13C6-PFDA



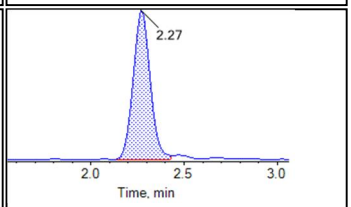
13C7-PFUnA



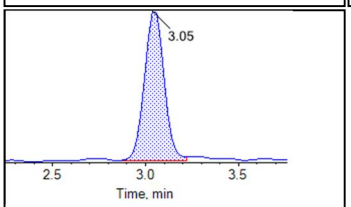
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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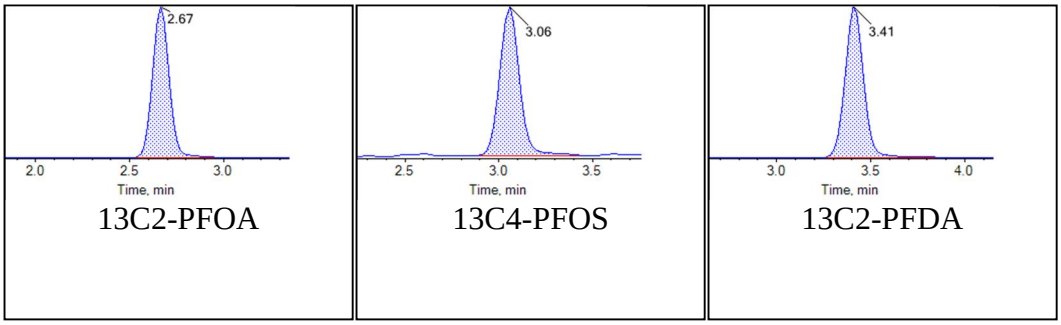
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:00:44 PM

Internal Standards:



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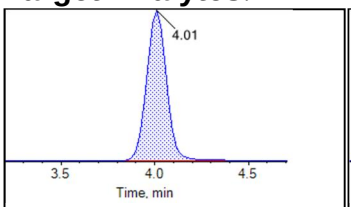
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:00:57 PM

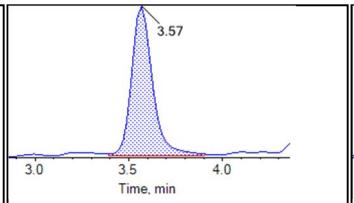
Sample Name	CR849PB-FS(3)	**Injection Vial**	2
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:10:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

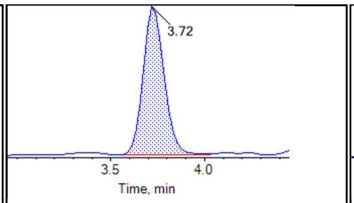
Target Analytes:



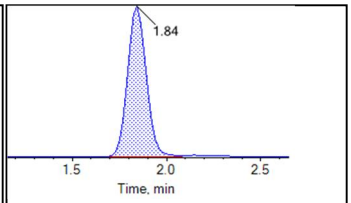
13C2-PFDoA



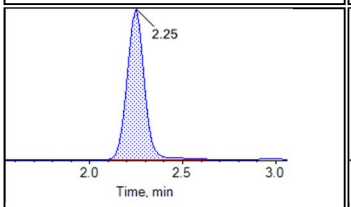
d3-MeFOSAA



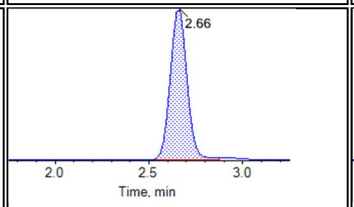
d5-EtFOSAA



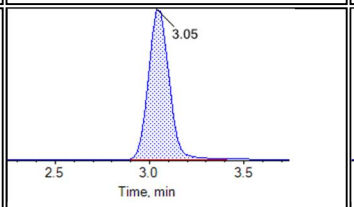
13C5-PFHxA



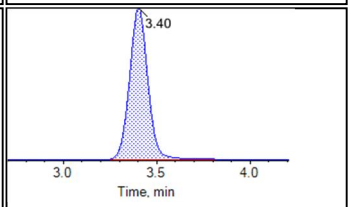
13C4-PFHpA



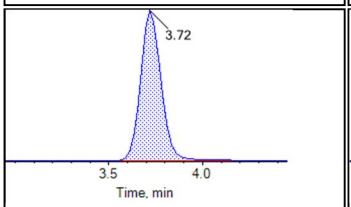
13C8-PFOA



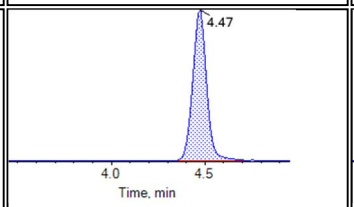
13C9-PFNA



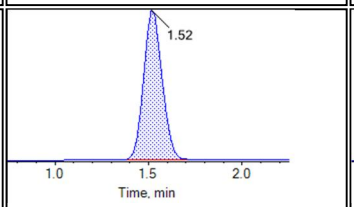
13C6-PFDA



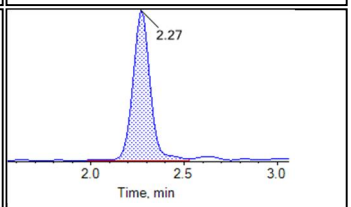
13C7-PFUnA



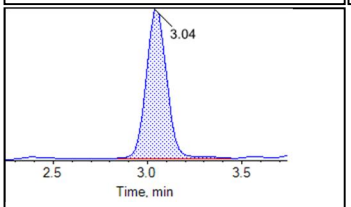
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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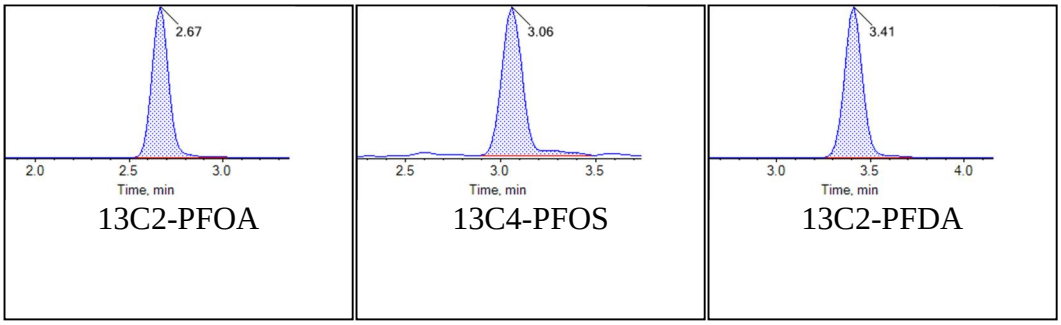
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:00:57 PM

Internal Standards:



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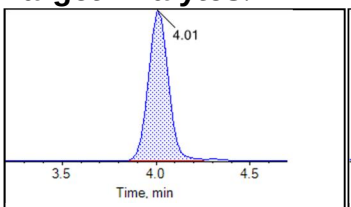
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:02 PM

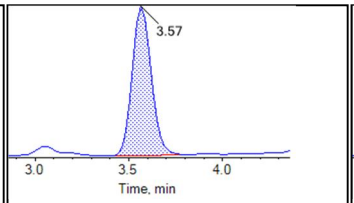
Sample Name	CR850LCS-FS(3)	**Injection Vial**	3
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:21:43	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

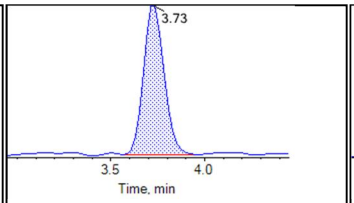
Target Analytes:



13C2-PFDoA



d3-MeFOSAA



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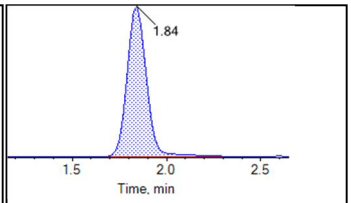

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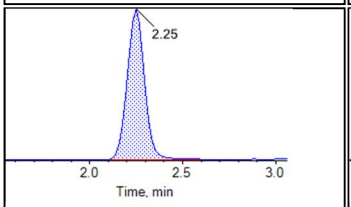
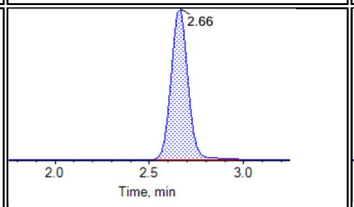
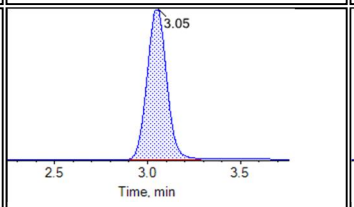


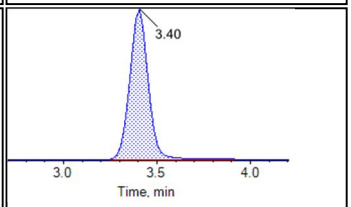
13C4-PFHpA



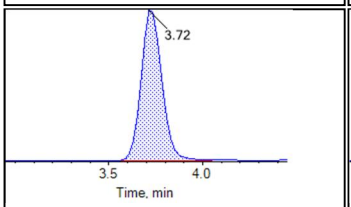
13C8-PFOA



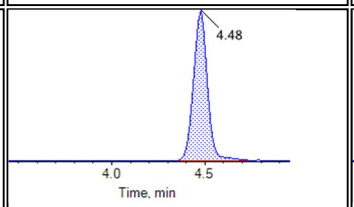
13C9-PFNA



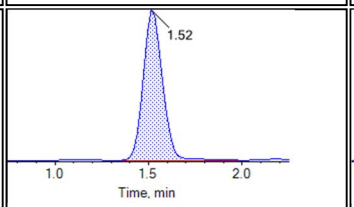
13C6-PFDA



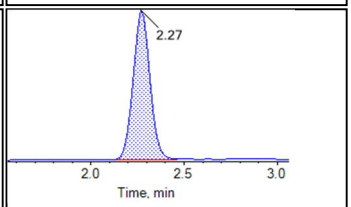
13C7-PFUnA



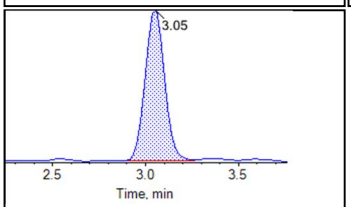
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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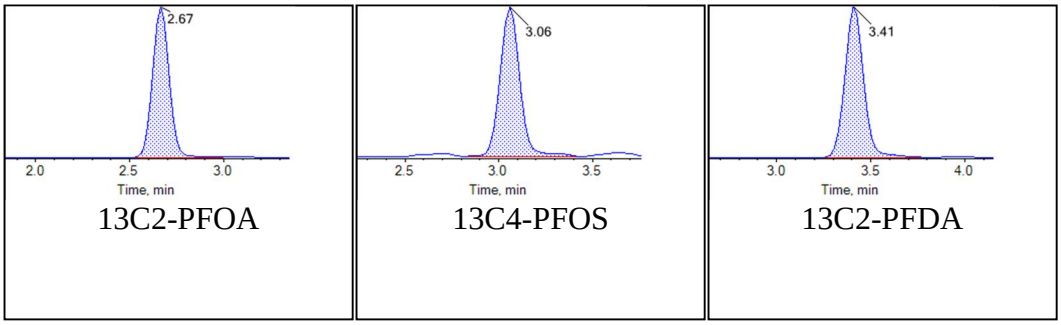
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:02 PM

Internal Standards:



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Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:07 PM

Sample Name	J8201-FS(3)	**Injection Vial**	4
Sample ID	VC-PM3009-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:32:35	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

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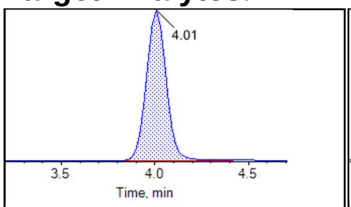
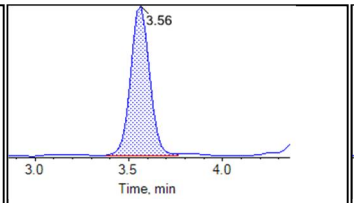
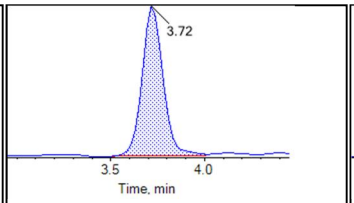


13C2-PFDoA



d3-MeFOSAA



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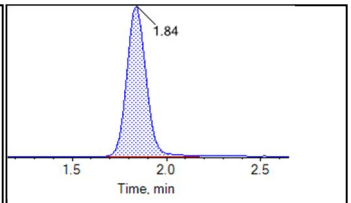
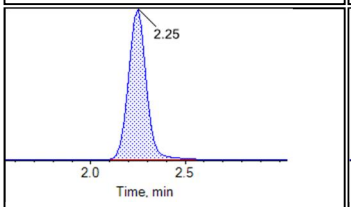
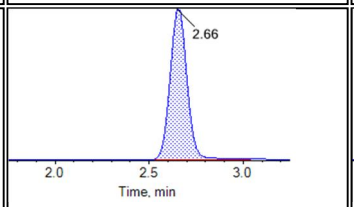


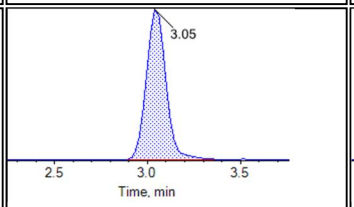
13C5-PFHxA



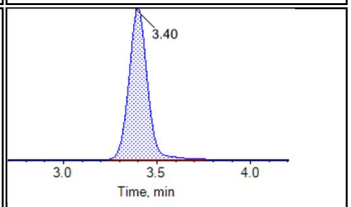
13C4-PFHpA



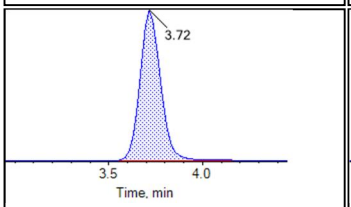
13C8-PFOA



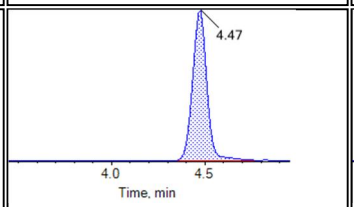
13C9-PFNA



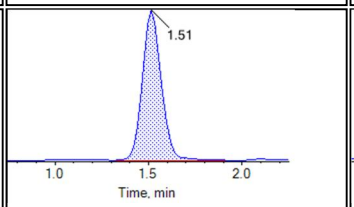
13C6-PFDA



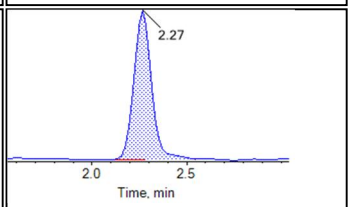
13C7-PFUnA



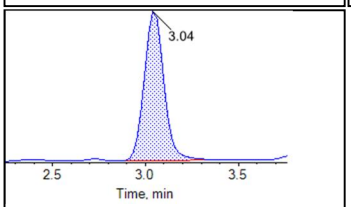
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:07 PM

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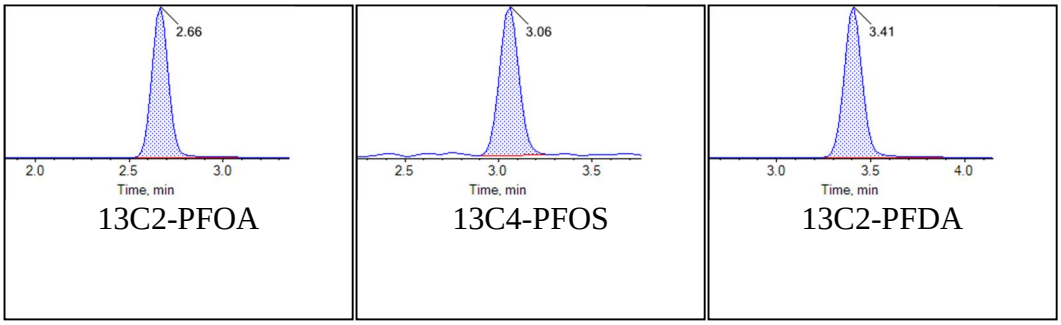

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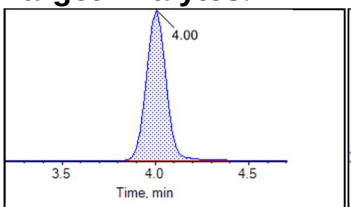
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:13 PM

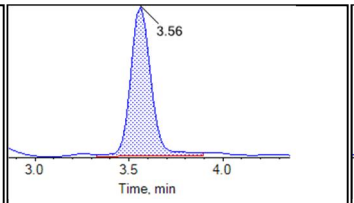
Sample Name	J8202-FS(3)	**Injection Vial**	5
Sample ID	VC-PM3009-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:43:30	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

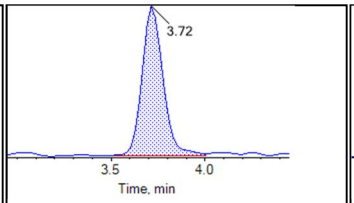
Target Analytes:



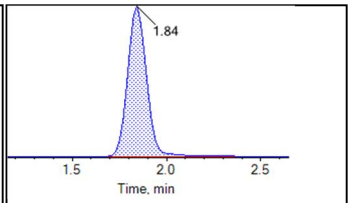
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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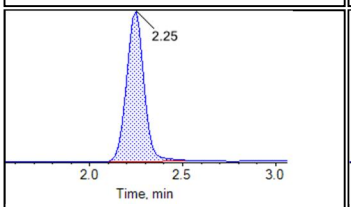
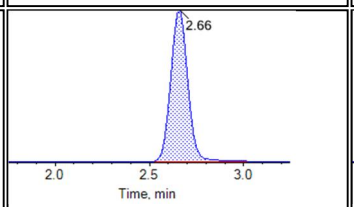


13C4-PFHpA



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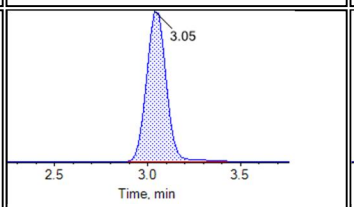

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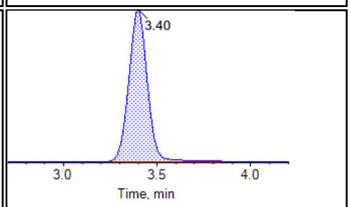

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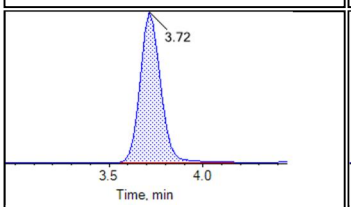
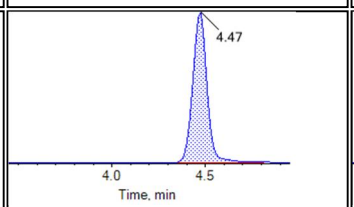
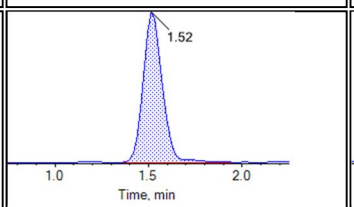


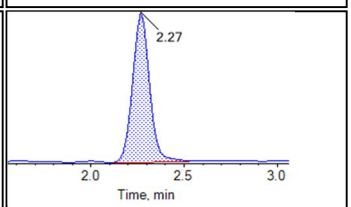
13C7-PFUnA



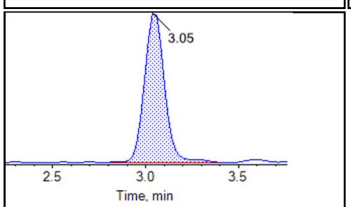
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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Printed: 03/10/2018 5:01:13 PM

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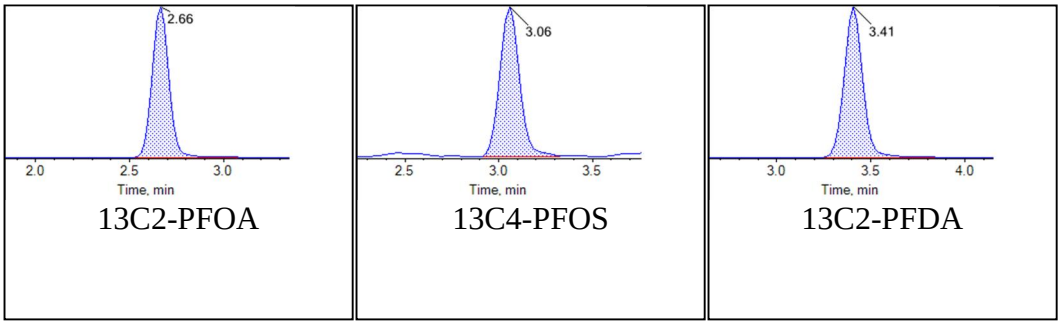

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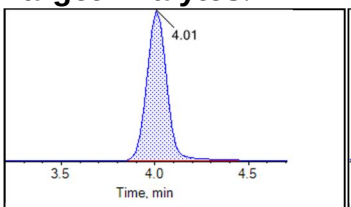
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:18 PM

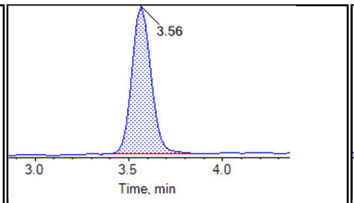
Sample Name	J8203-FS(3)	**Injection Vial**	6
Sample ID	VC-PM3009-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T21:54:23	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

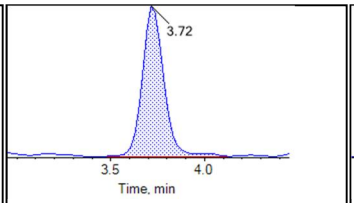
Target Analytes:



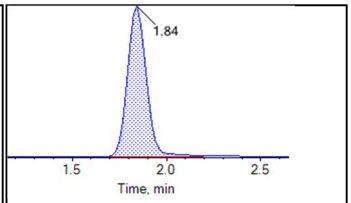
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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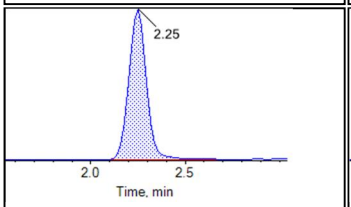
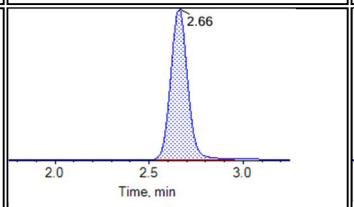
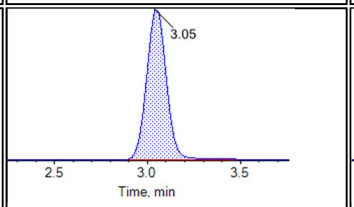


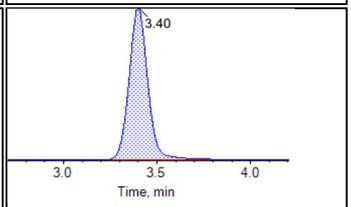
13C4-PFHpA



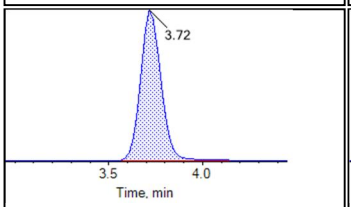
13C8-PFOA



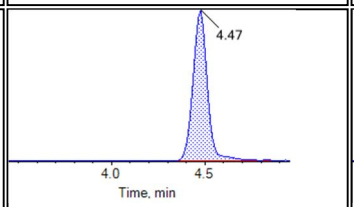
13C9-PFNA



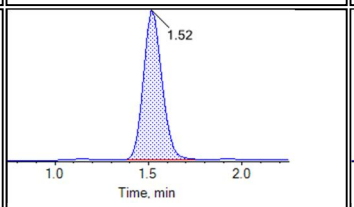
13C6-PFDA



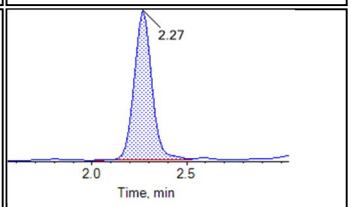
13C7-PFUnA



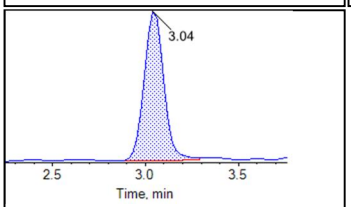
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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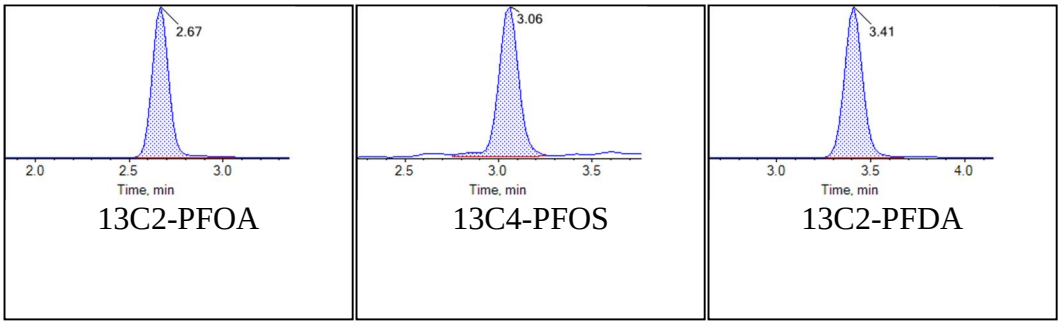

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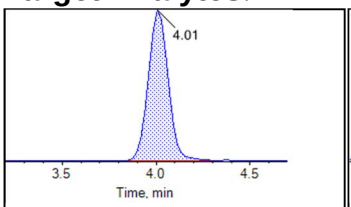
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:23 PM

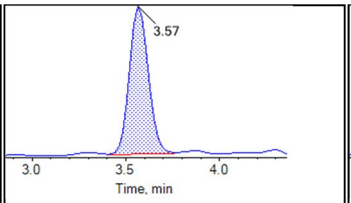
Sample Name	J8204-FS(3)	**Injection Vial**	7
Sample ID	VC-PM3009-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:05:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

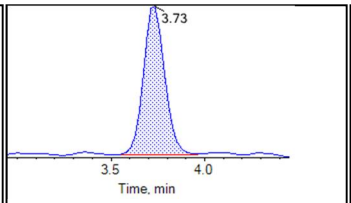
Target Analytes:



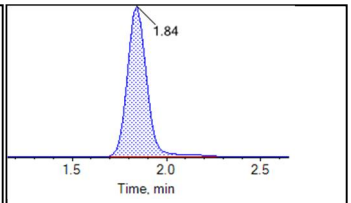
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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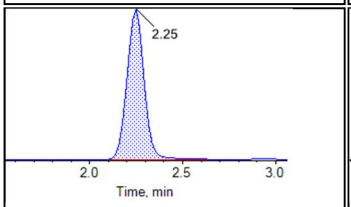
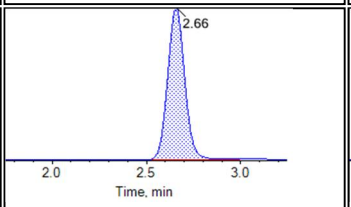
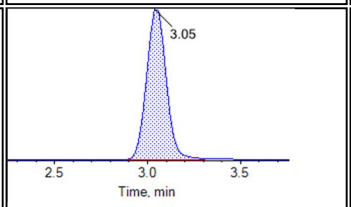


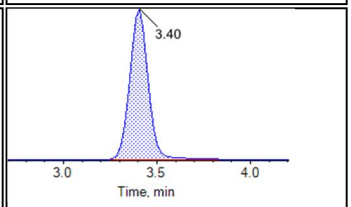
13C4-PFHpA



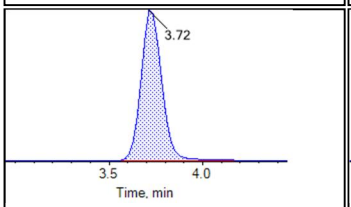
13C8-PFOA



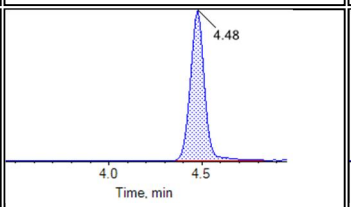
13C9-PFNA



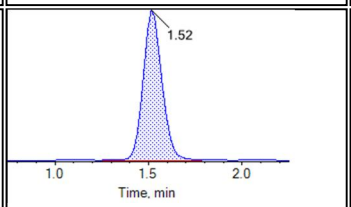
13C6-PFDA



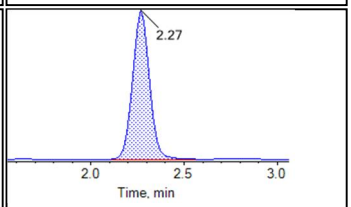
13C7-PFUnA



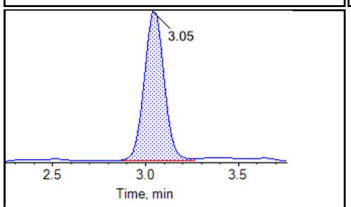
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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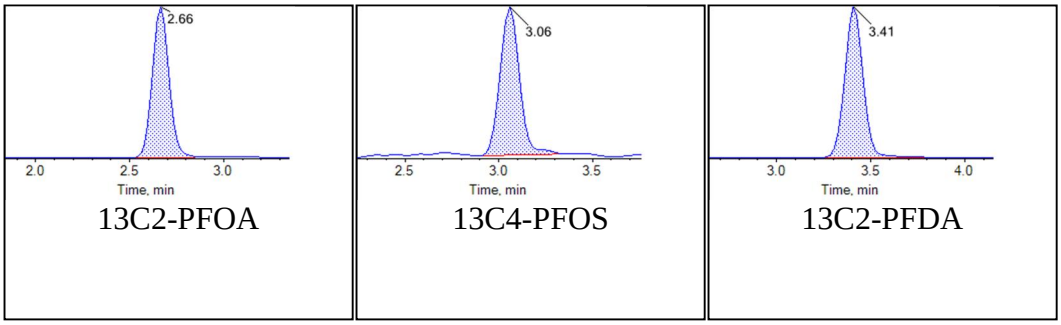
Printed: 03/10/2018 5:01:23 PM

Internal Standards:



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Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:28 PM

Sample Name	J8205-FS(3)	**Injection Vial**	8
Sample ID	VC-PM3009-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:16:07	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

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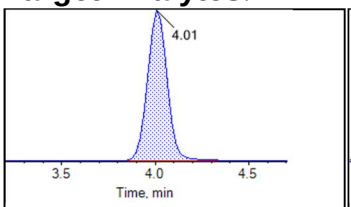
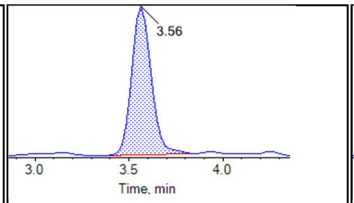
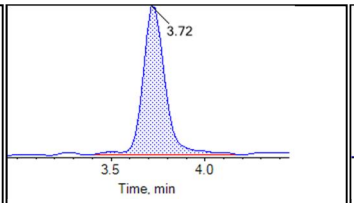


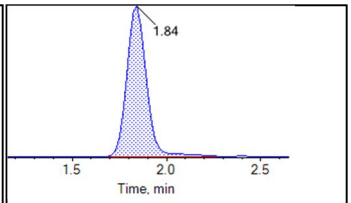
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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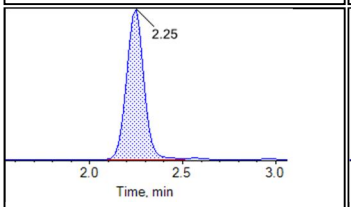
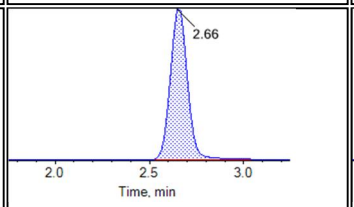
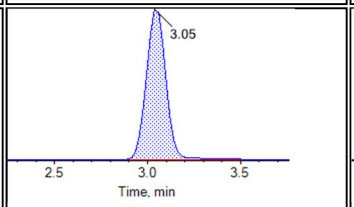


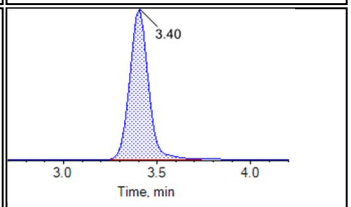
13C4-PFHpA



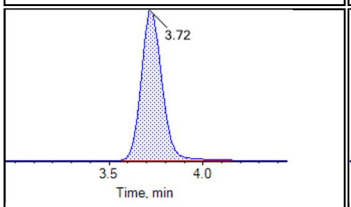
13C8-PFOA



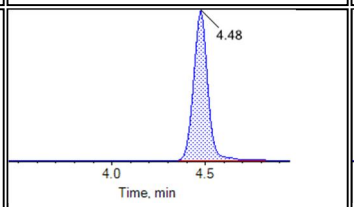
13C9-PFNA



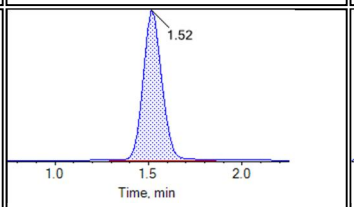
13C6-PFDA



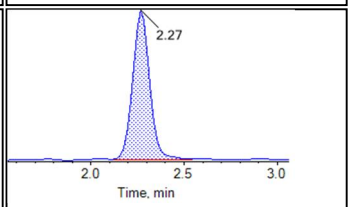
13C7-PFUnA



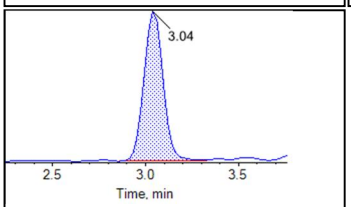
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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Printed: 03/10/2018 5:01:28 PM

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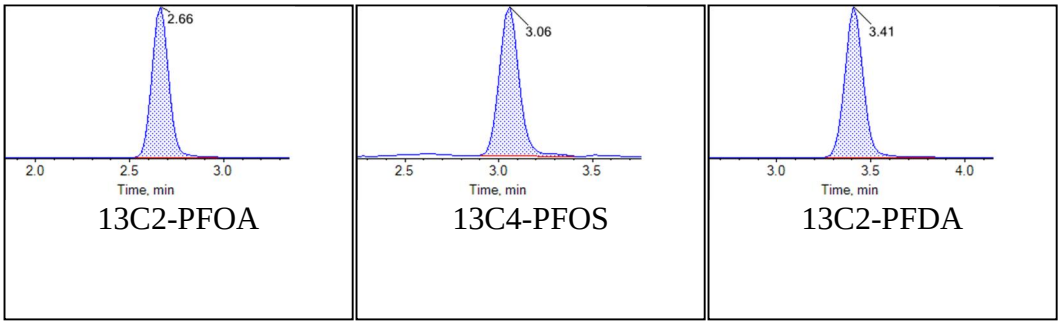

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Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:34 PM

Sample Name	J8206-FS(3)	**Injection Vial**	9
Sample ID	VC-PM3009-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:26:59	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

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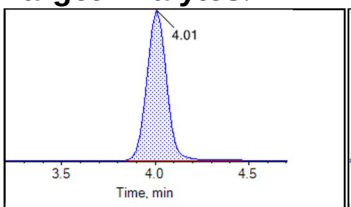
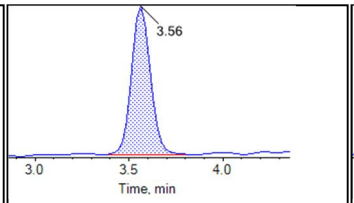
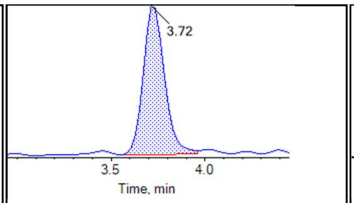


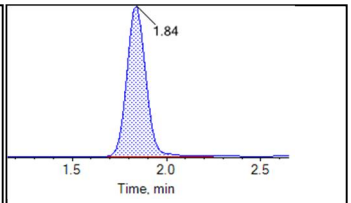
13C2-PFDoA



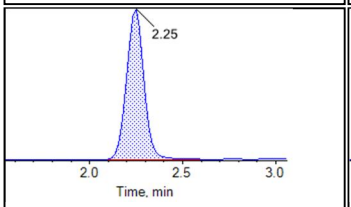
d3-MeFOSAA



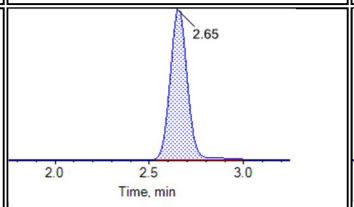
d5-EtFOSAA



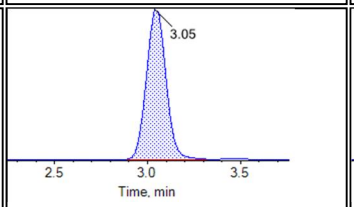
13C5-PFHxA



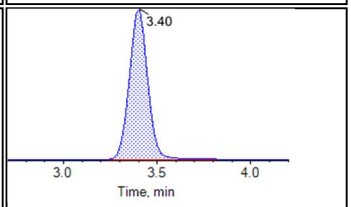
13C4-PFHpA



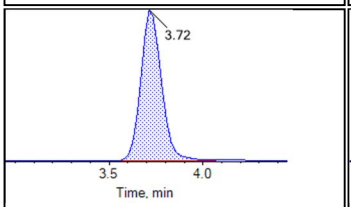
13C8-PFOA



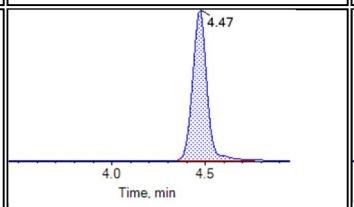
13C9-PFNA



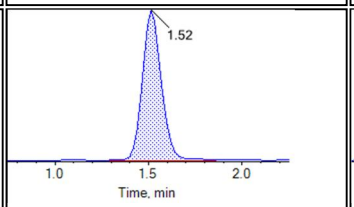
13C6-PFDA



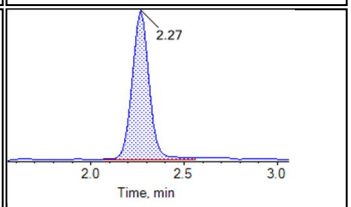
13C7-PFUnA



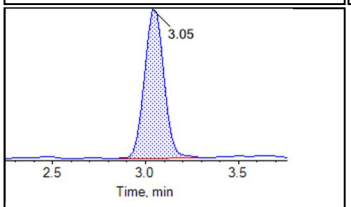
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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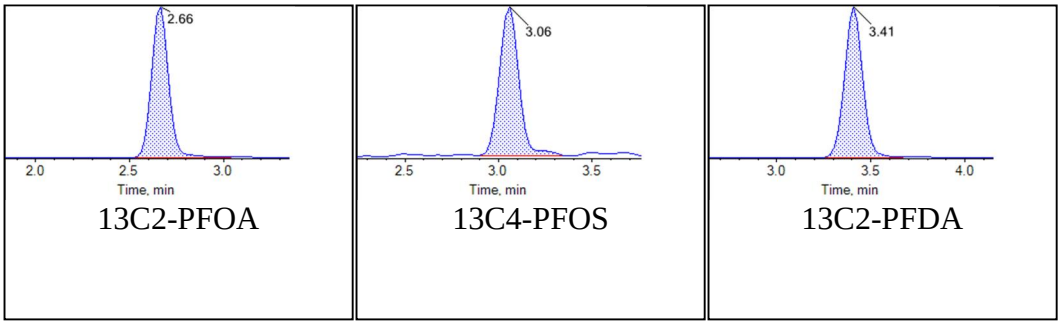
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:34 PM

Internal Standards:



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Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:39 PM

Sample Name	J8207-FS(3)	**Injection Vial**	10
Sample ID	VC-PM3009-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:37:51	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

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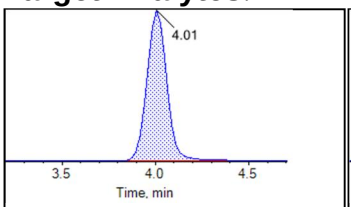
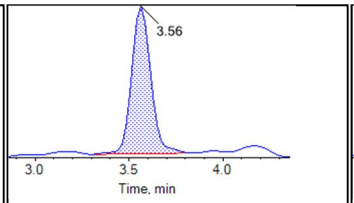
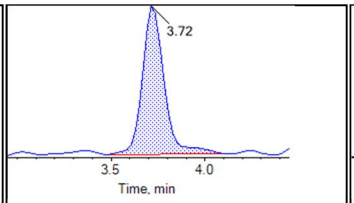


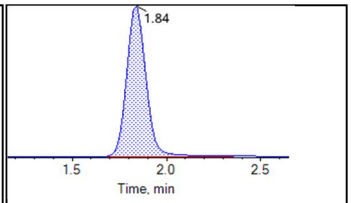
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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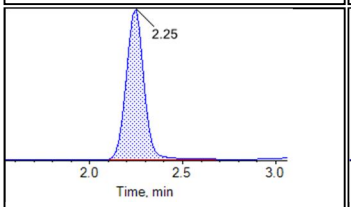
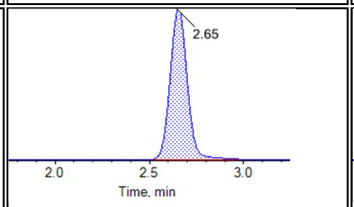
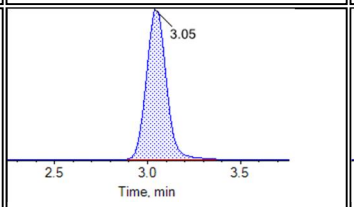


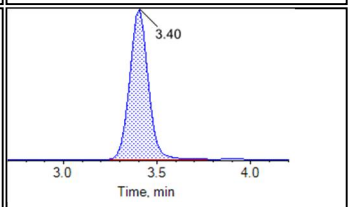
13C4-PFHpA



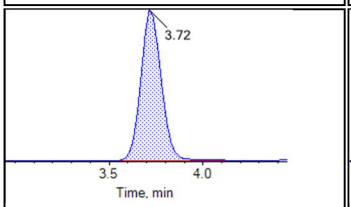
13C8-PFOA



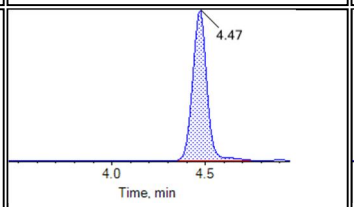
13C9-PFNA



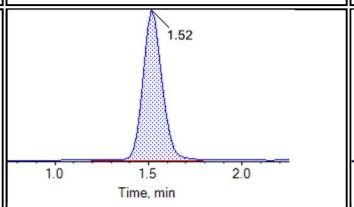
13C6-PFDA



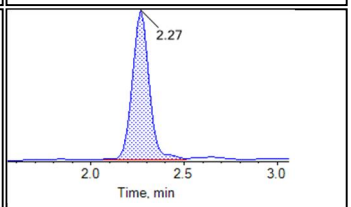
13C7-PFUnA



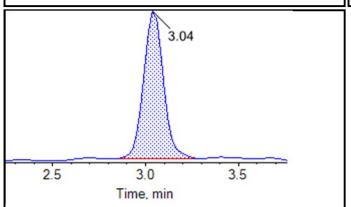
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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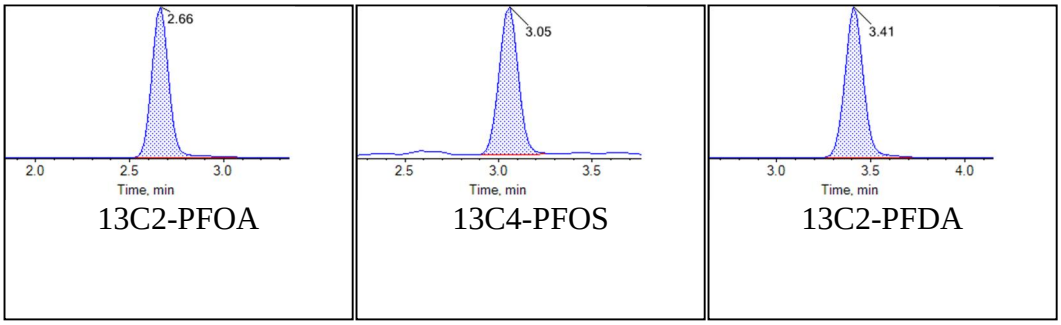
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:39 PM

Internal Standards:



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Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:44 PM

Sample Name	J8208-FS(3)	**Injection Vial**	11
Sample ID	VC-PM3009-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:48:45	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

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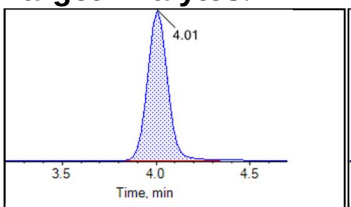
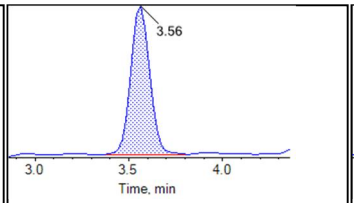
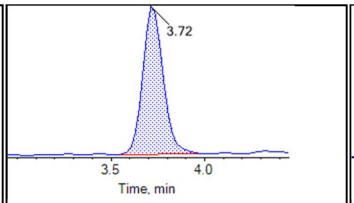


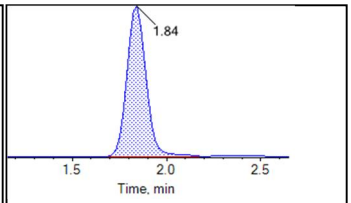
13C2-PFDoA



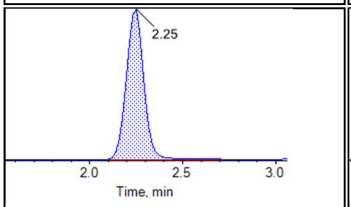
d3-MeFOSAA



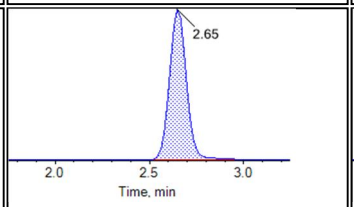
d5-EtFOSAA



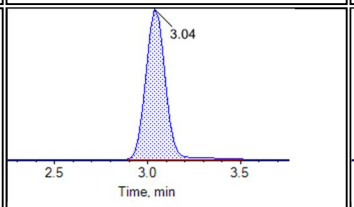
13C5-PFHxA



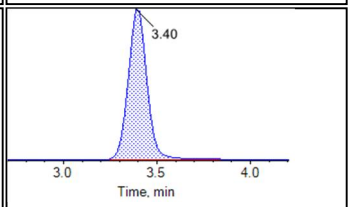
13C4-PFHpA



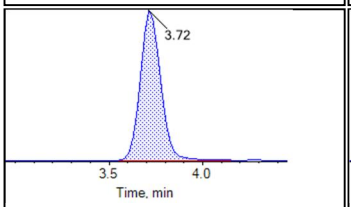
13C8-PFOA



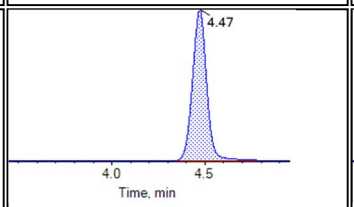
13C9-PFNA



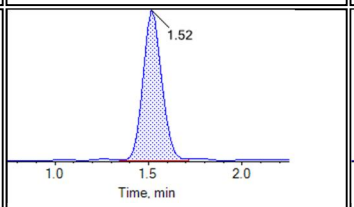
13C6-PFDA



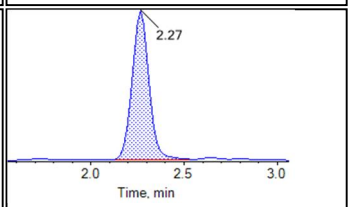
13C7-PFUnA



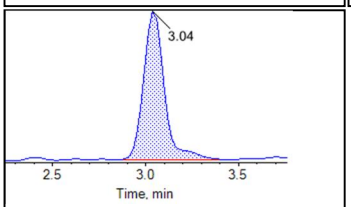
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:44 PM

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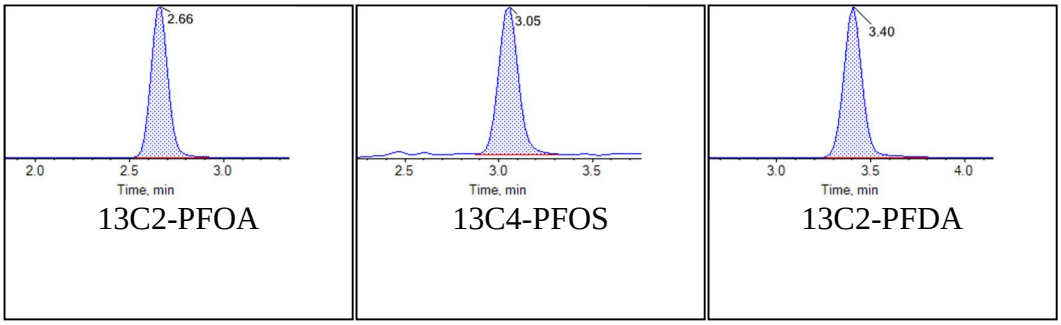

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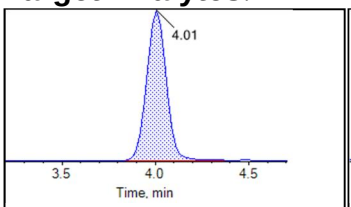
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:51 PM

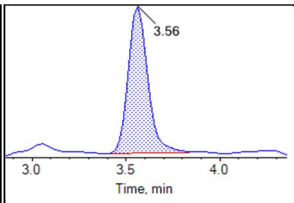
Sample Name	KA90 CCV	**Injection Vial**	12
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T22:59:39	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

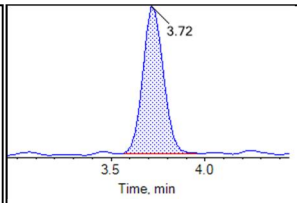
Target Analytes:



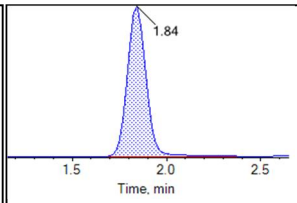
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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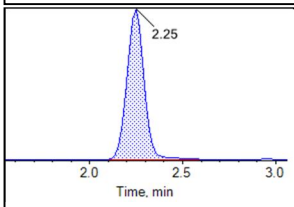

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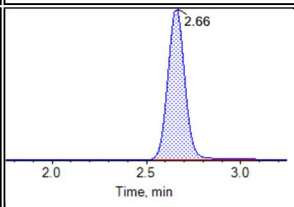
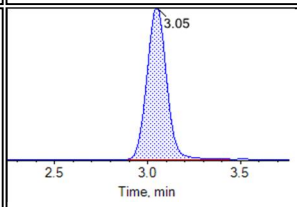
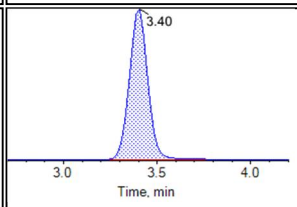


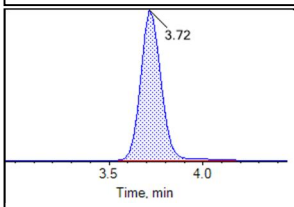
13C8-PFOA



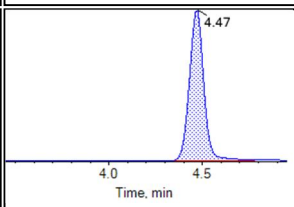
13C9-PFNA



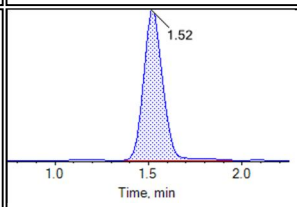
13C6-PFDA



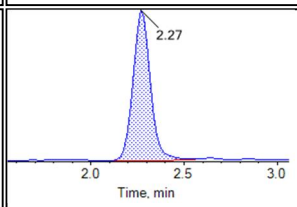
13C7-PFUnA



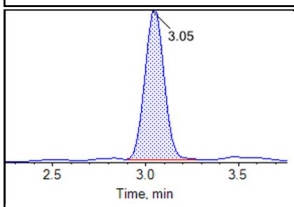
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



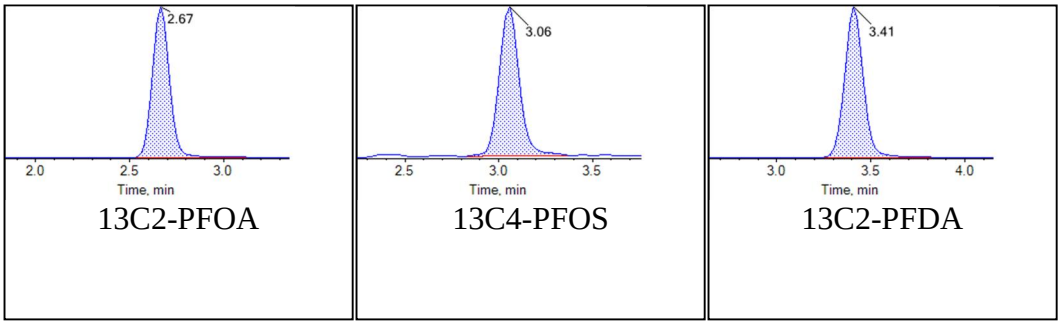
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:01:51 PM

Internal Standards:



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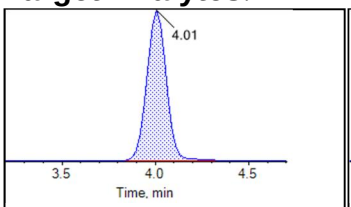
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:02 PM

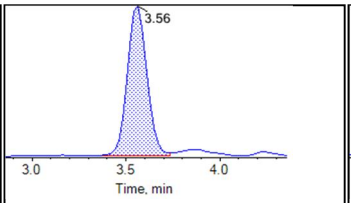
Sample Name	J8209-FS(3)	**Injection Vial**	14
Sample ID	VC-PM3009-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:21:26	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

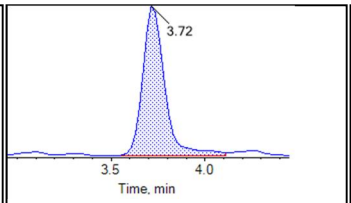
Target Analytes:



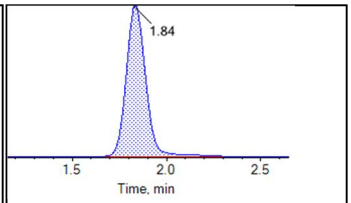
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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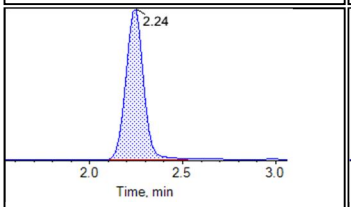
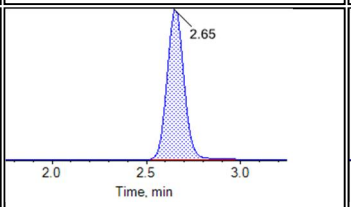
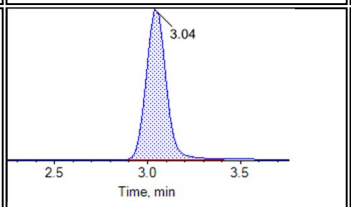


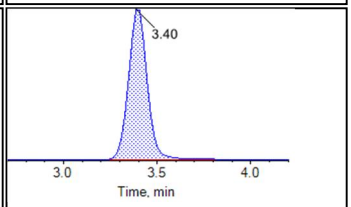
13C4-PFHpA



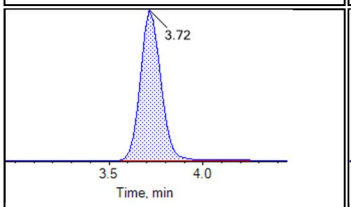
13C8-PFOA



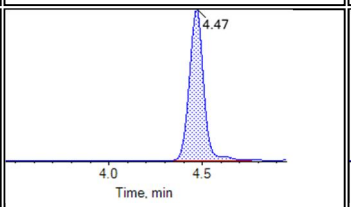
13C9-PFNA



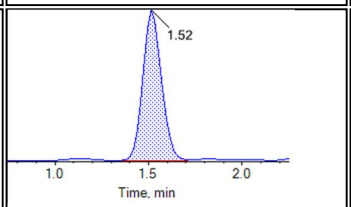
13C6-PFDA



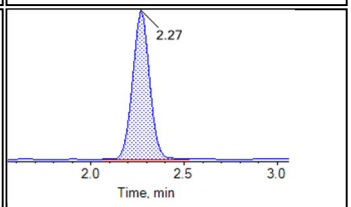
13C7-PFUnA



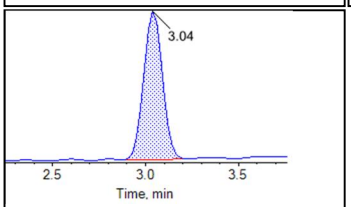
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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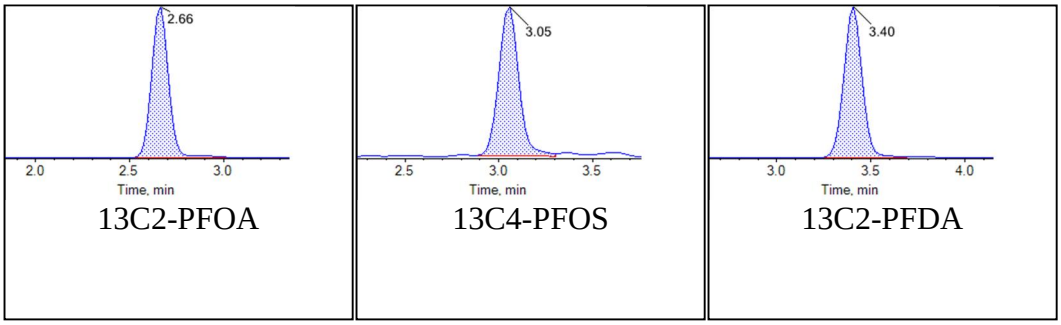
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:02 PM

Internal Standards:



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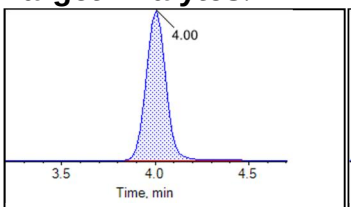
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:13 PM

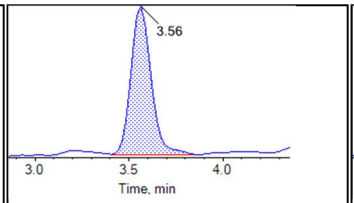
Sample Name	J8219-FS(3)	**Injection Vial**	16
Sample ID	VC-PM372-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:43:11	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

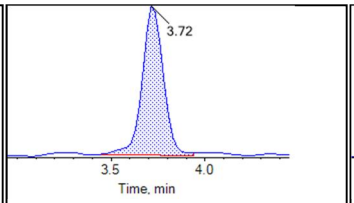
Target Analytes:



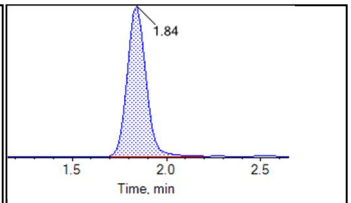
13C2-PFDoA



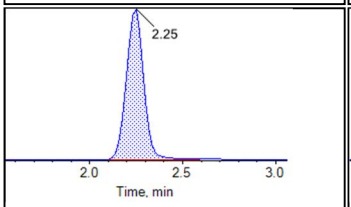
d3-MeFOSAA



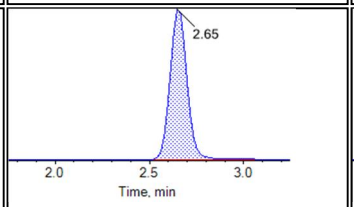
d5-EtFOSAA



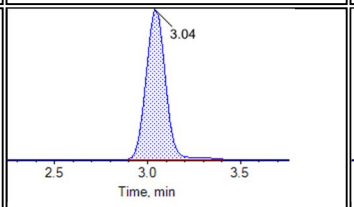
13C5-PFHxA



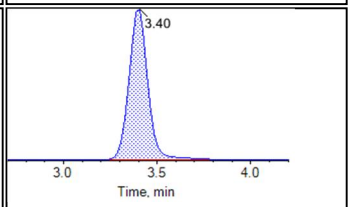
13C4-PFHpA



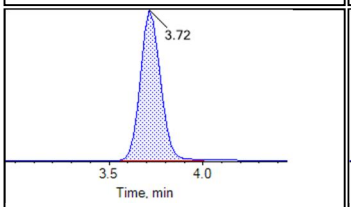
13C8-PFOA



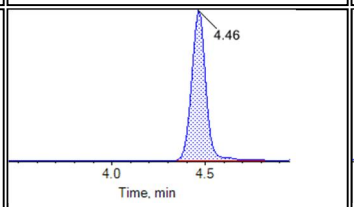
13C9-PFNA



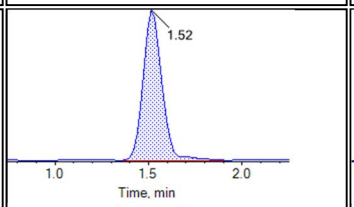
13C6-PFDA



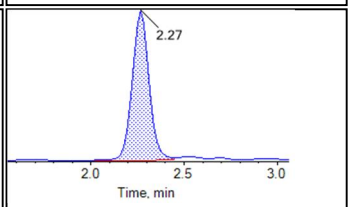
13C7-PFUnA



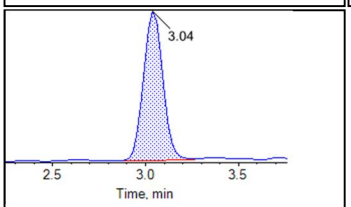
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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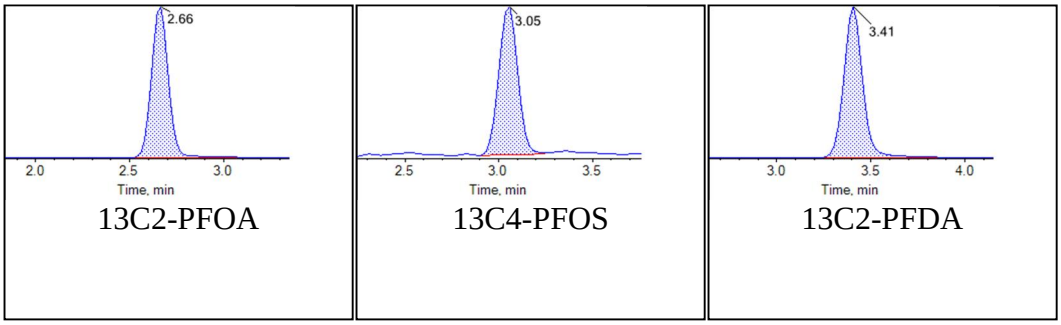
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:13 PM

Internal Standards:



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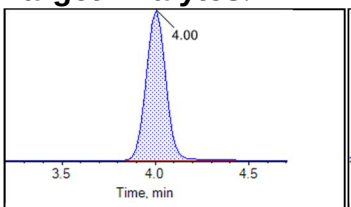
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:18 PM

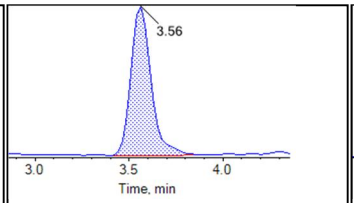
Sample Name	J8220-FS(3)	**Injection Vial**	17
Sample ID	VC-PM372-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:54:03	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

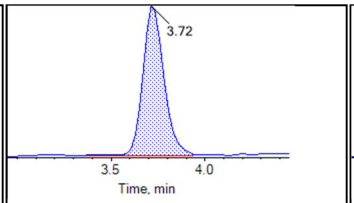
Target Analytes:



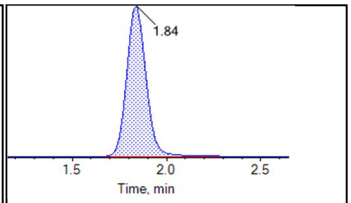
13C2-PFDoA



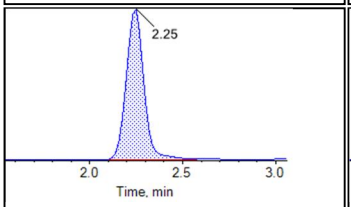
d3-MeFOSAA



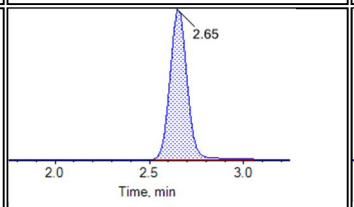
d5-EtFOSAA



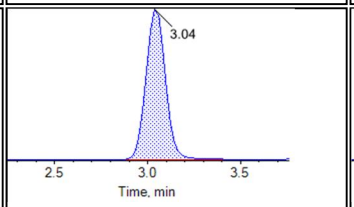
13C5-PFHxA



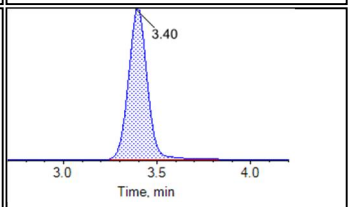
13C4-PFHpA



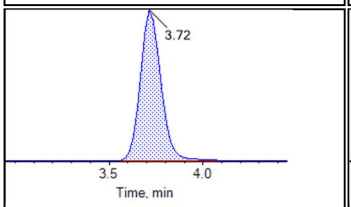
13C8-PFOA



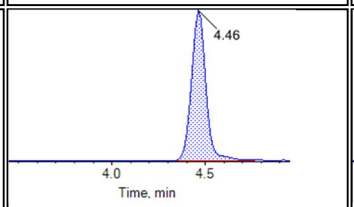
13C9-PFNA



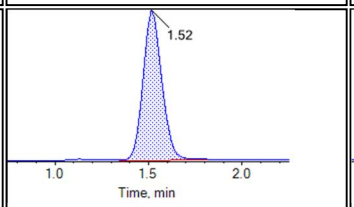
13C6-PFDA



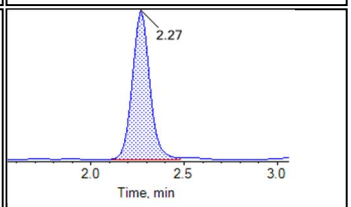
13C7-PFUnA



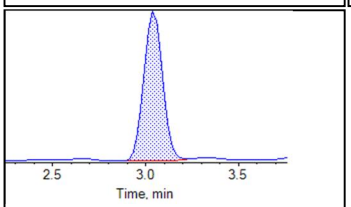
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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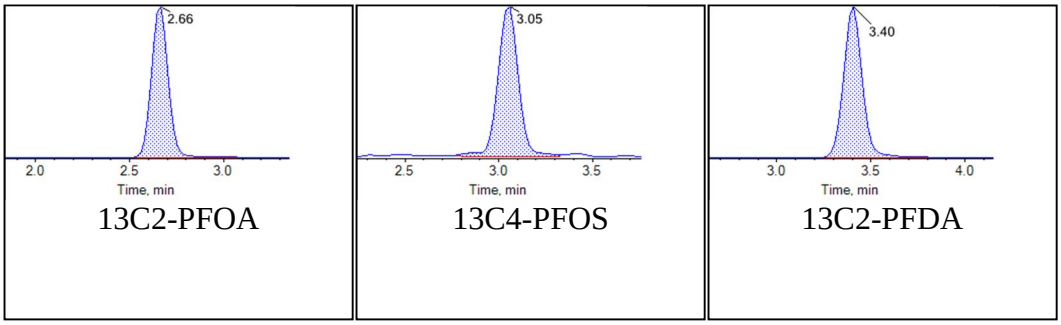
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:18 PM

Internal Standards:



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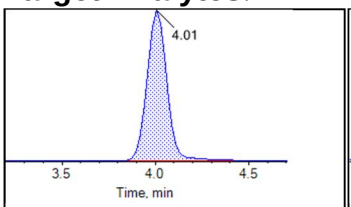
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:22 PM

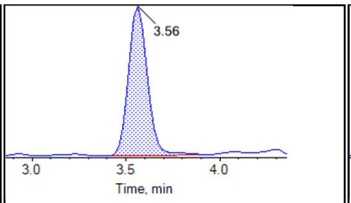
Sample Name	J8221-FS(3)	**Injection Vial**	18
Sample ID	VC-PM372-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:04:57	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

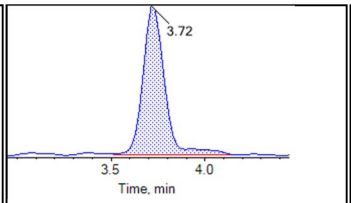
Target Analytes:



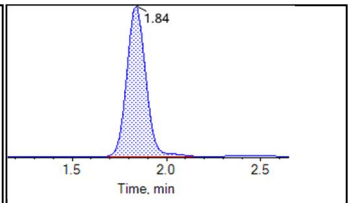
13C2-PFDoA



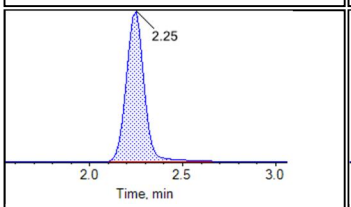
d3-MeFOSAA



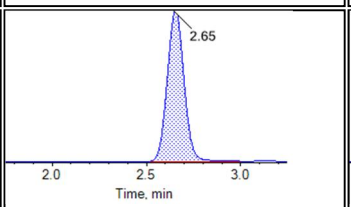
d5-EtFOSAA



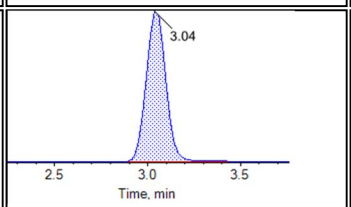
13C5-PFHxA



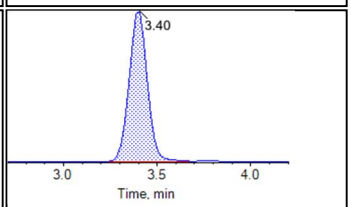
13C4-PFHpA



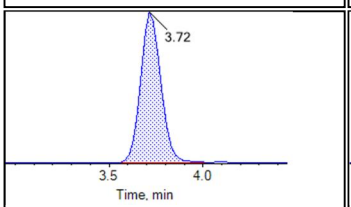
13C8-PFOA



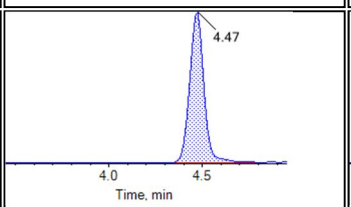
13C9-PFNA



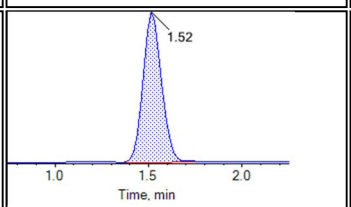
13C6-PFDA



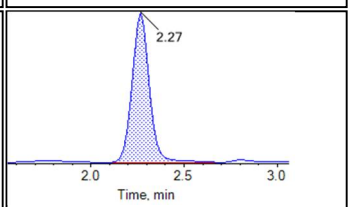
13C7-PFUnA



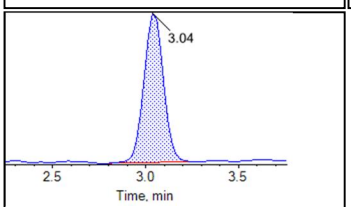
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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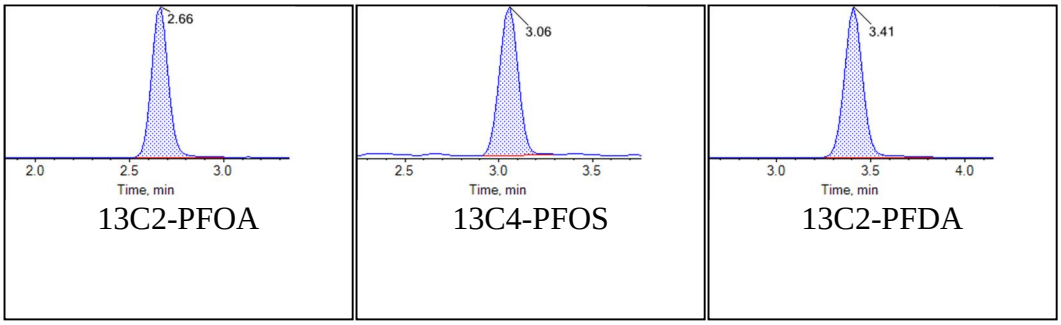
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:22 PM

Internal Standards:



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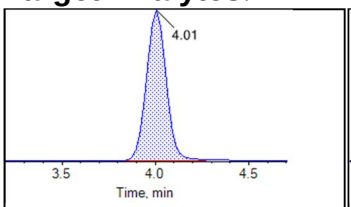
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:27 PM

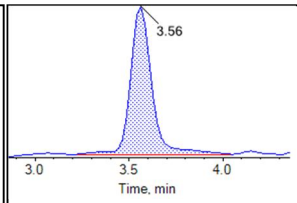
Sample Name	J8222-FS(3)	**Injection Vial**	19
Sample ID	VC-PM372-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:15:49	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

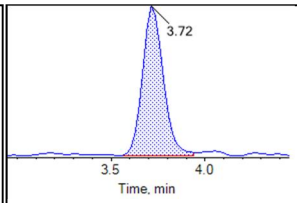
Target Analytes:



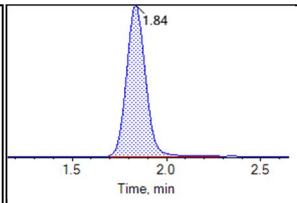
13C2-PFDoA



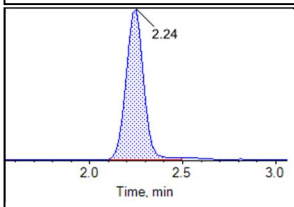
d3-MeFOSAA



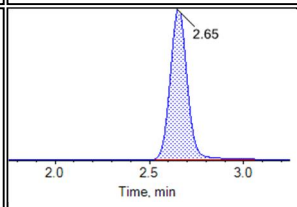
d5-EtFOSAA



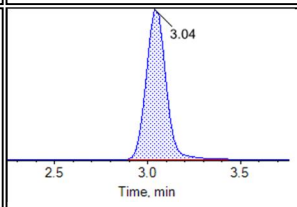
13C5-PFHxA



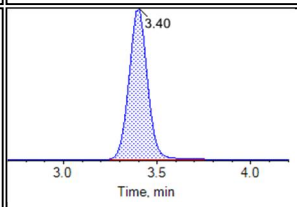
13C4-PFHpA



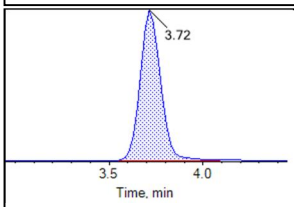
13C8-PFOA



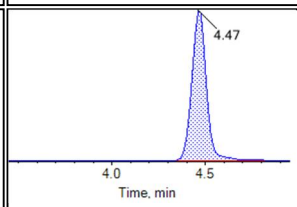
13C9-PFNA



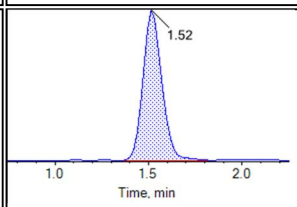
13C6-PFDA



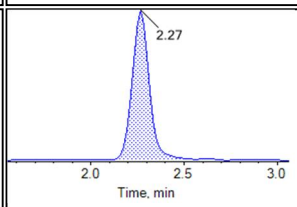
13C7-PFUnA



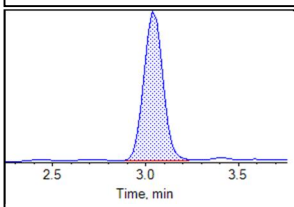
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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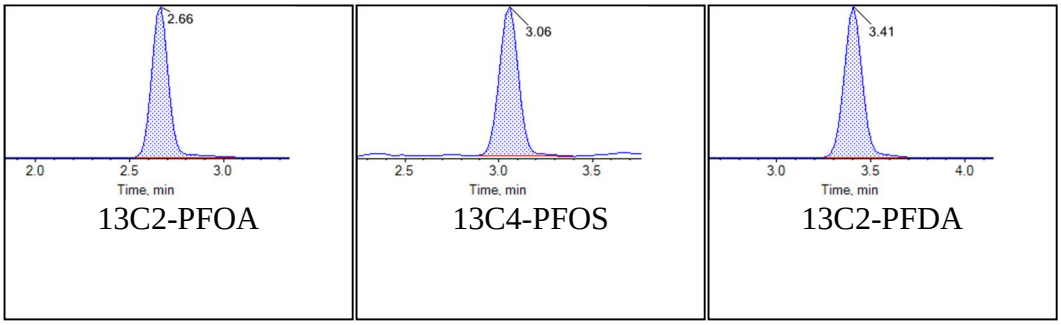
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:27 PM

Internal Standards:



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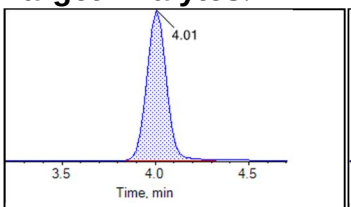
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:31 PM

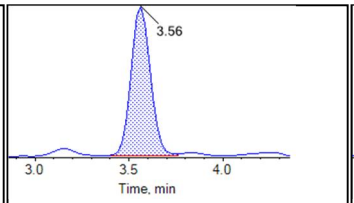
Sample Name	J8223-FS(3)	**Injection Vial**	20
Sample ID	VC-PM372-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:26:42	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

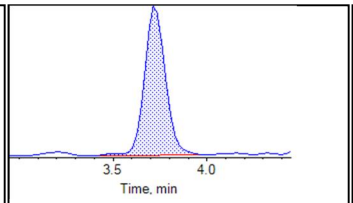
Target Analytes:



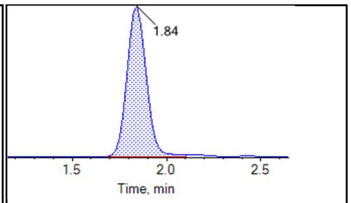
13C2-PFDoA



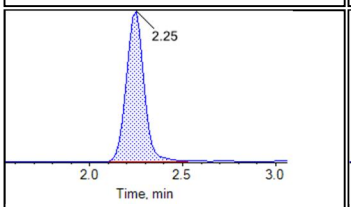
d3-MeFOSAA



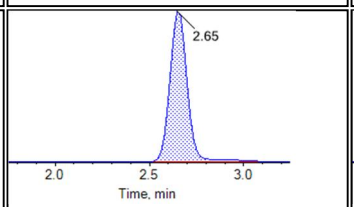
d5-EtFOSAA



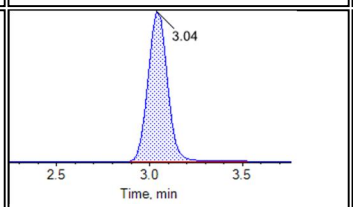
13C5-PFHxA



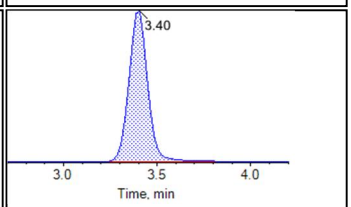
13C4-PFHpA



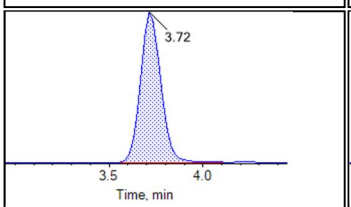
13C8-PFOA



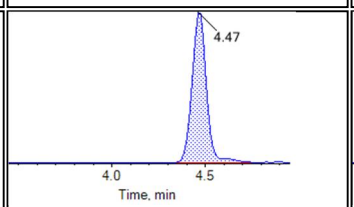
13C9-PFNA



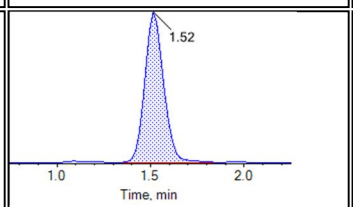
13C6-PFDA



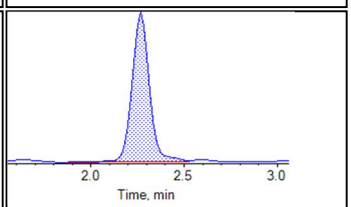
13C7-PFUnA



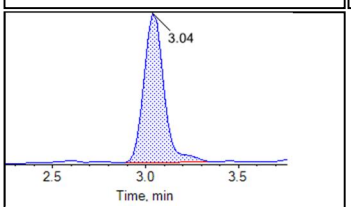
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:31 PM

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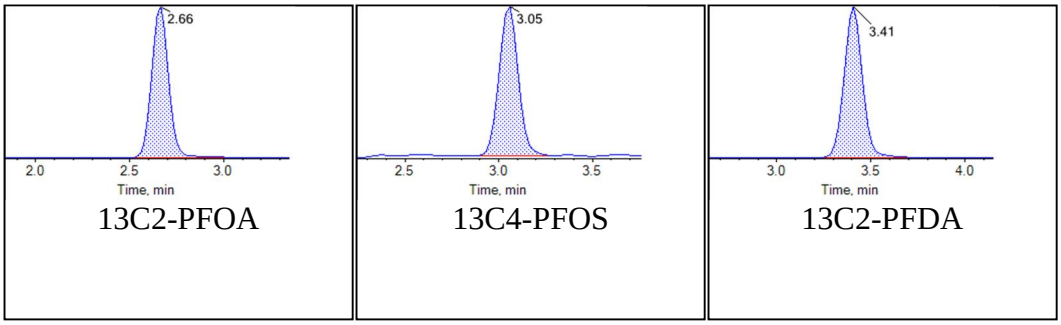

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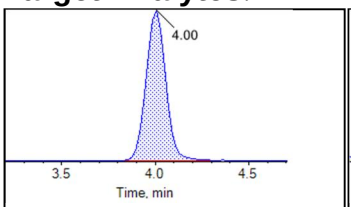
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:35 PM

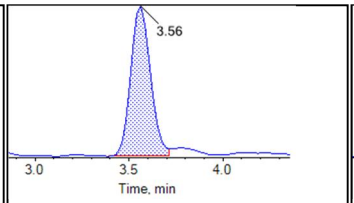
Sample Name	J8224-FS(3)	**Injection Vial**	21
Sample ID	VC-PM372-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:37:36	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

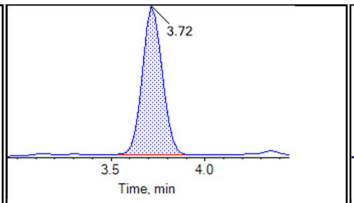
Target Analytes:



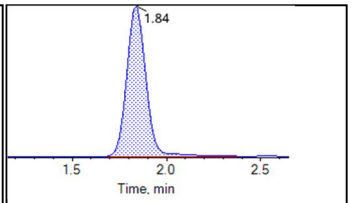
13C2-PFDoA



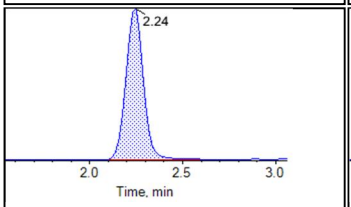
d3-MeFOSAA



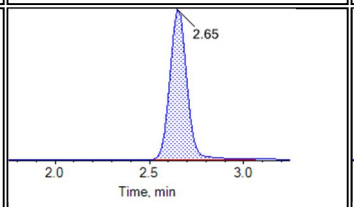
d5-EtFOSAA



13C5-PFHxA



13C4-PFHpA



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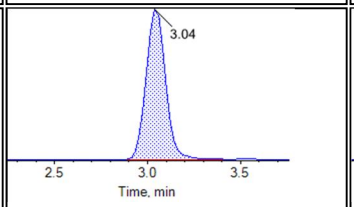
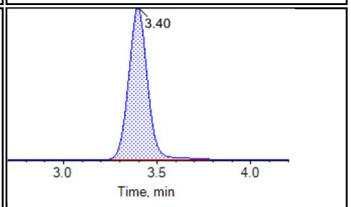
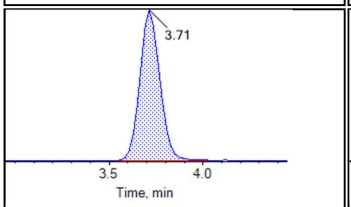


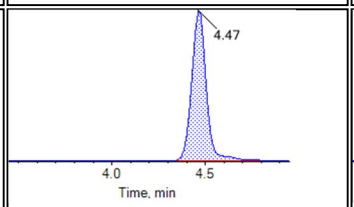
13C9-PFNA



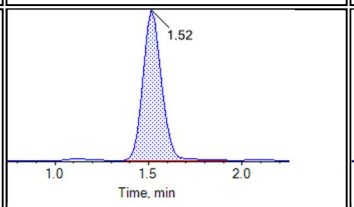
13C6-PFDA



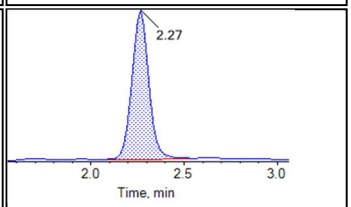
13C7-PFUnA



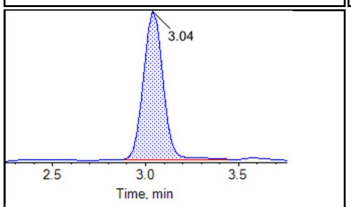
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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Printed: 03/10/2018 5:02:35 PM

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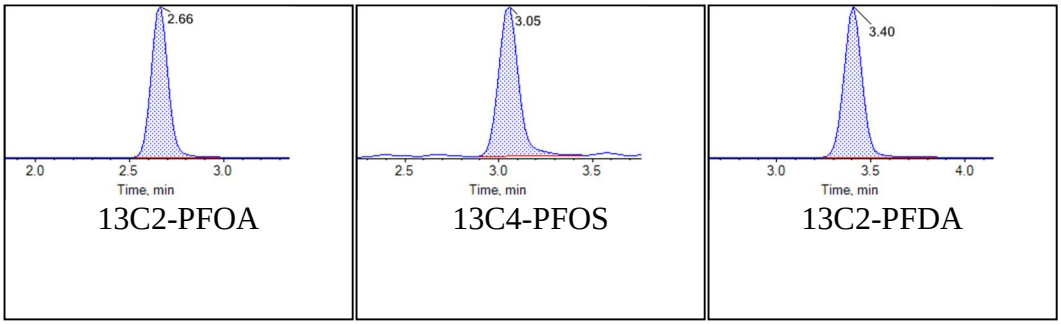

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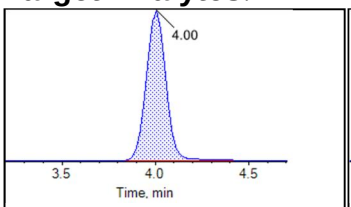
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:41 PM

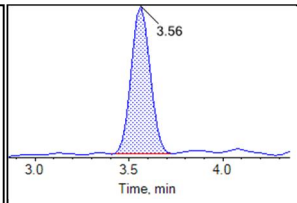
Sample Name	J8225-FS(3)	**Injection Vial**	22
Sample ID	VC-PM372-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:48:29	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

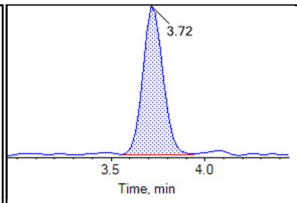
Target Analytes:



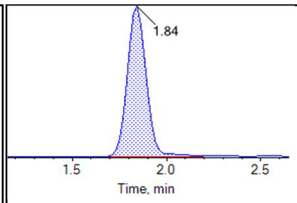
13C2-PFDoA



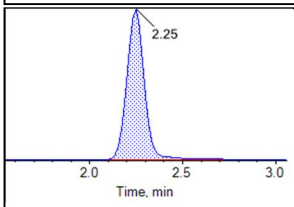
d3-MeFOSAA



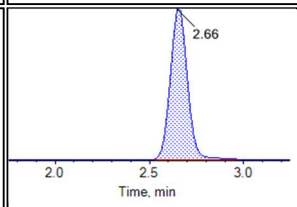
d5-EtFOSAA



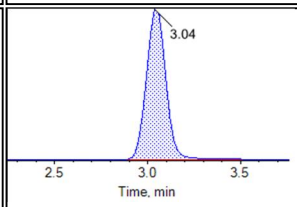
13C5-PFHxA



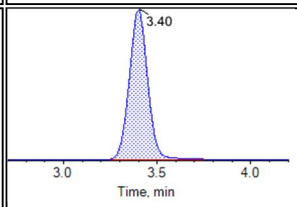
13C4-PFHpA



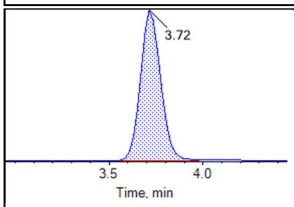
13C8-PFOA



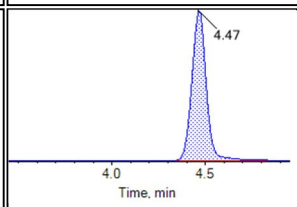
13C9-PFNA



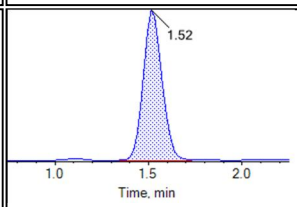
13C6-PFDA



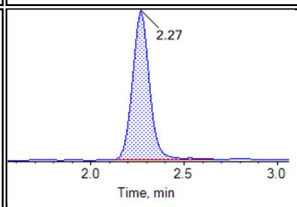
13C7-PFUnA



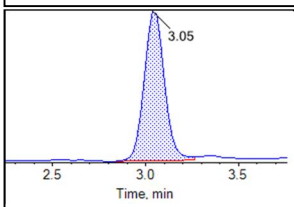
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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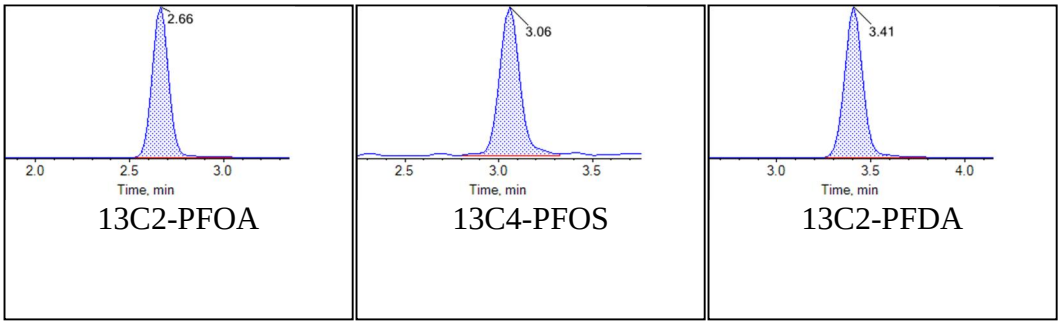
Printed: 03/10/2018 5:02:41 PM

Internal Standards:



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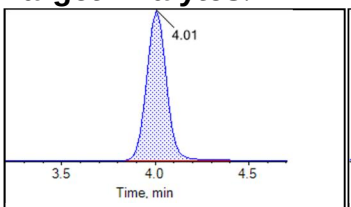
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:45 PM

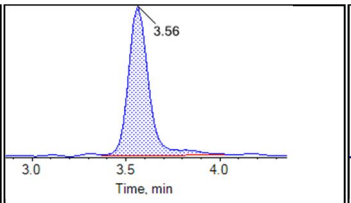
Sample Name	J8226-FS(3)	**Injection Vial**	23
Sample ID	VC-PM372-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T00:59:21	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

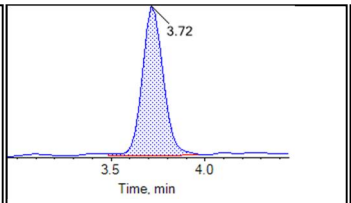
Target Analytes:



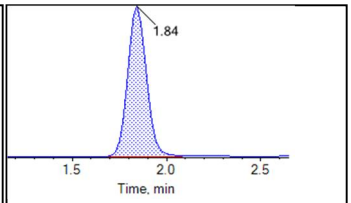
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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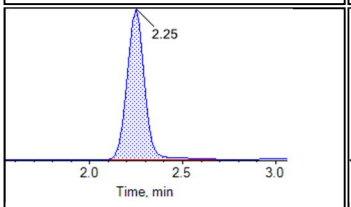
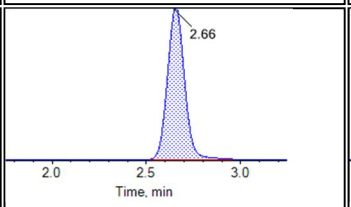
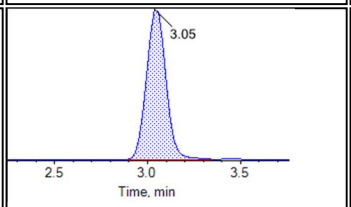


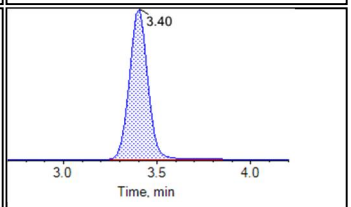
13C4-PFHpA



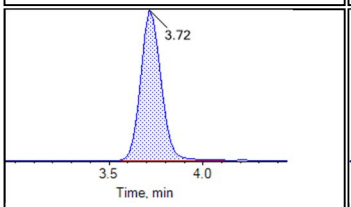
13C8-PFOA



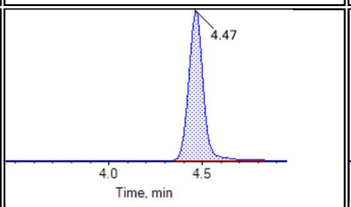
13C9-PFNA



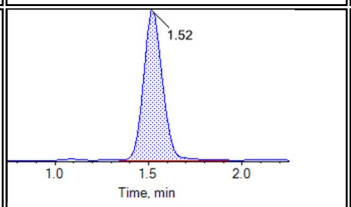
13C6-PFDA



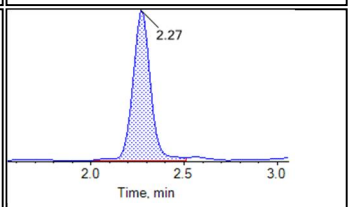
13C7-PFUnA



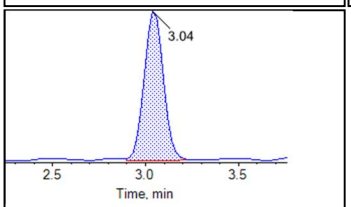
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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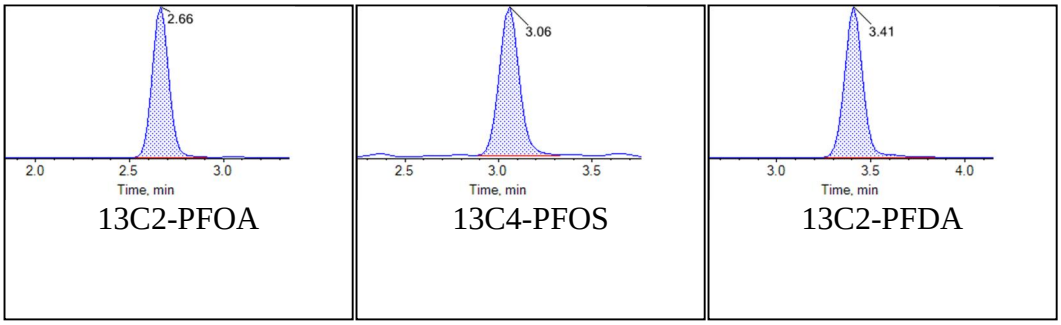
Printed: 03/10/2018 5:02:45 PM

Internal Standards:



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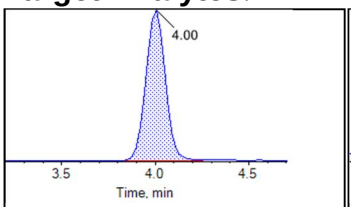
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:02:50 PM

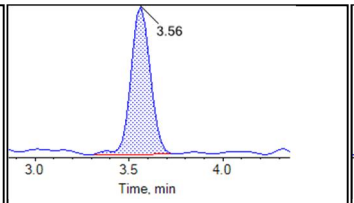
Sample Name	KA89 CCV	**Injection Vial**	24
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:10:15	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

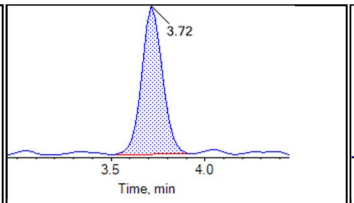
Target Analytes:



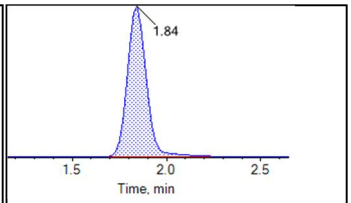
13C2-PFDoA



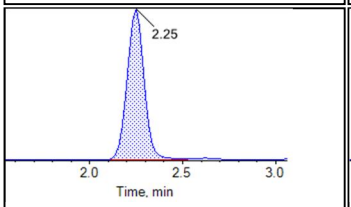
d3-MeFOSAA



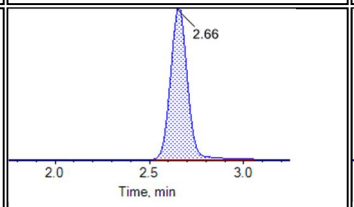
d5-EtFOSAA



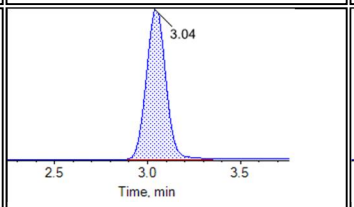
13C5-PFHxA



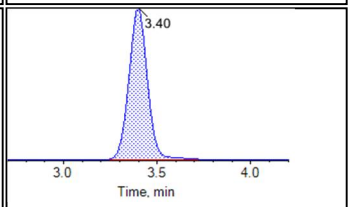
13C4-PFHpA



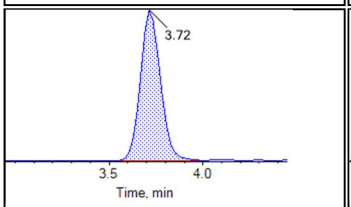
13C8-PFOA



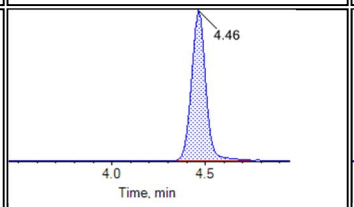
13C9-PFNA



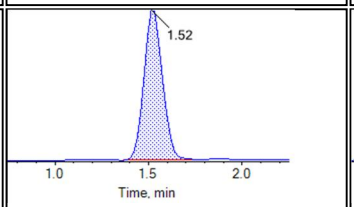
13C6-PFDA



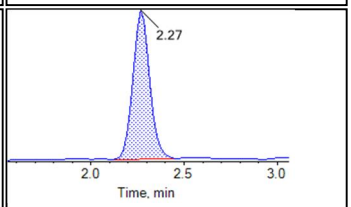
13C7-PFUnA



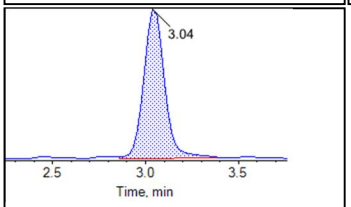
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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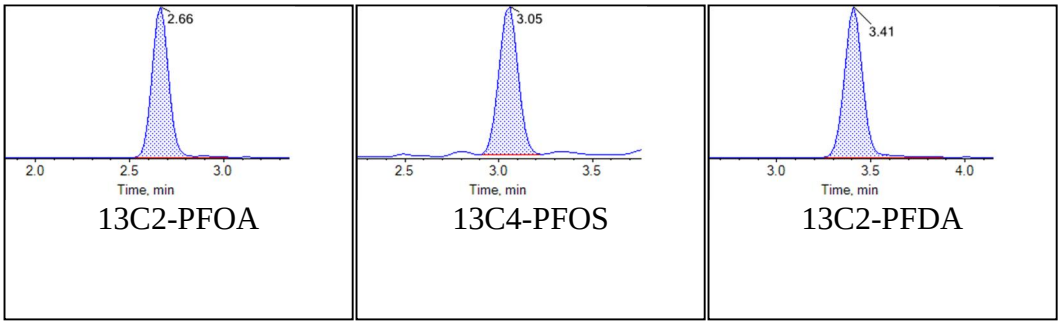
Printed: 03/10/2018 5:02:50 PM

Internal Standards:



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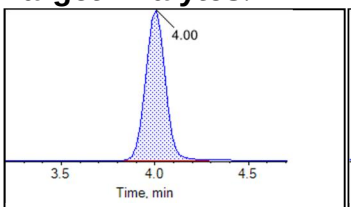
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:03:00 PM

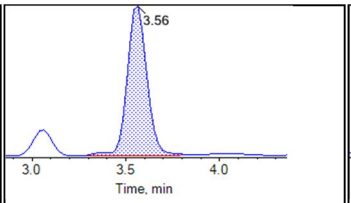
Sample Name	J8227MS-FS(3)	**Injection Vial**	26
Sample ID	VC-PM372-SS02-000H-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:32:00	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

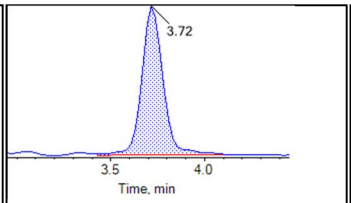
Target Analytes:



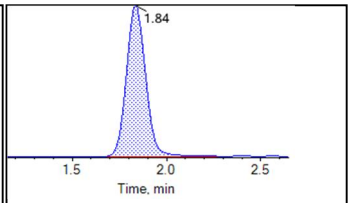
13C2-PFDoA



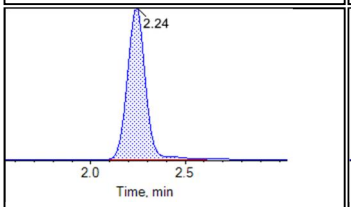
d3-MeFOSAA



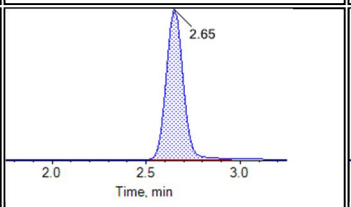
d5-EtFOSAA



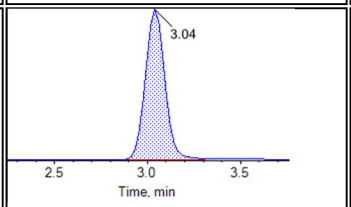
13C5-PFHxA



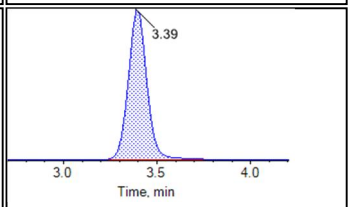
13C4-PFHpA



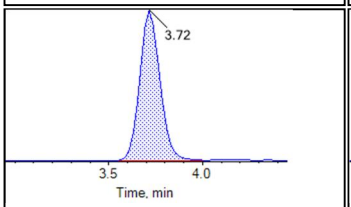
13C8-PFOA



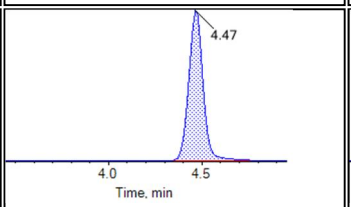
13C9-PFNA



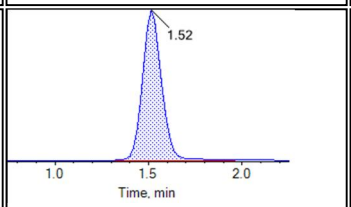
13C6-PFDA



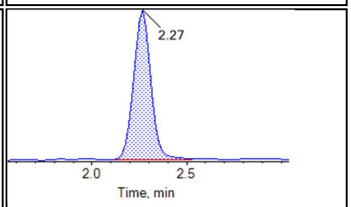
13C7-PFUnA



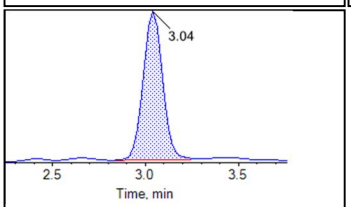
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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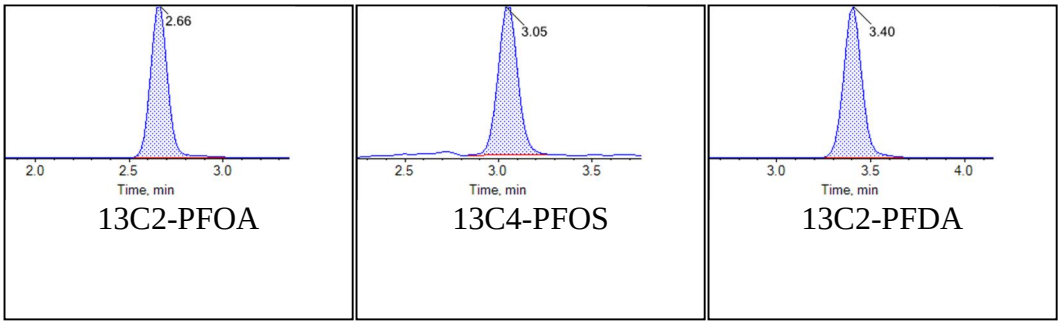
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:03:00 PM

Internal Standards:



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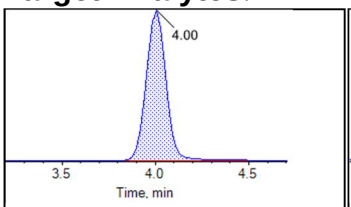
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:03:05 PM

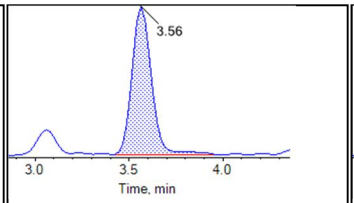
Sample Name	J8228MSD-FS(3)	**Injection Vial**	27
Sample ID	VC-PM372-SS02-000H-SD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T01:42:52	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

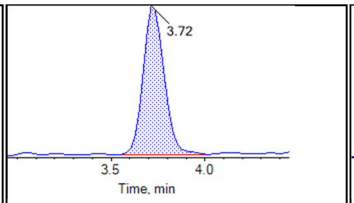
Target Analytes:



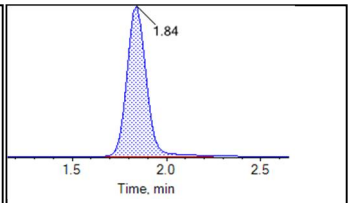
13C2-PFDoA



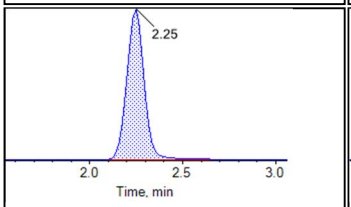
d3-MeFOSAA



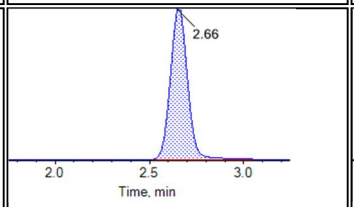
d5-EtFOSAA



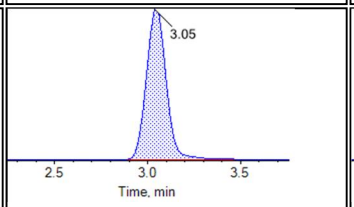
13C5-PFHxA



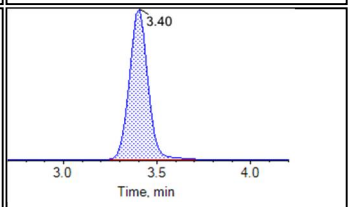
13C4-PFHpA



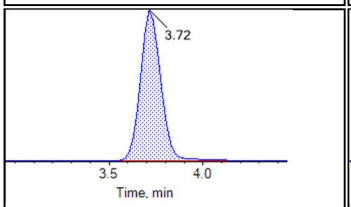
13C8-PFOA



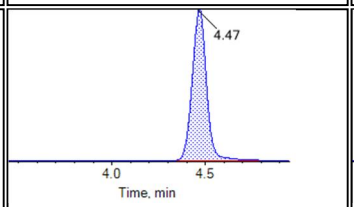
13C9-PFNA



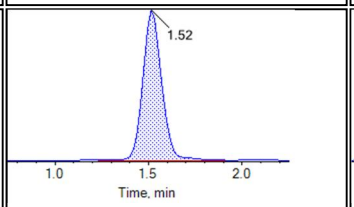
13C6-PFDA



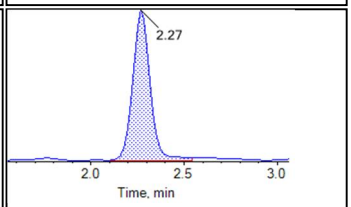
13C7-PFUnA



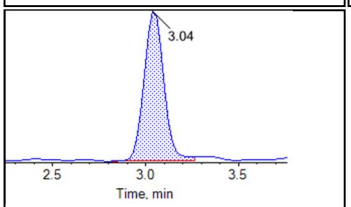
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS

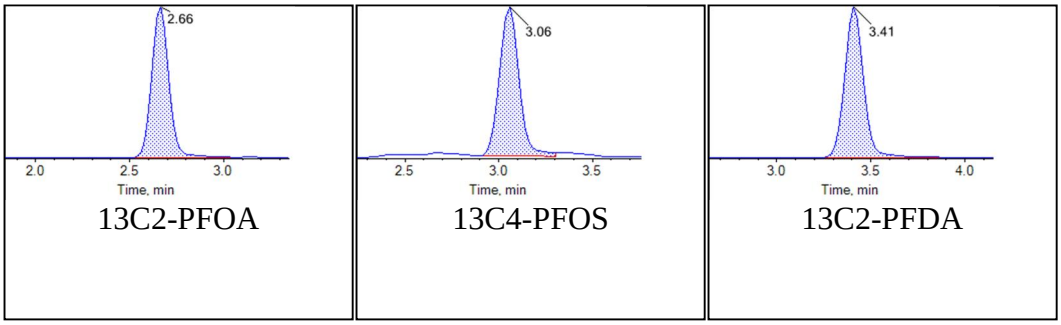


13C8-PFOS

Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:03:05 PM

Internal Standards:



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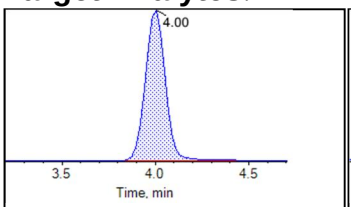
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:03:15 PM

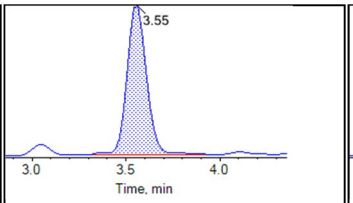
Sample Name	KA90 CCV	**Injection Vial**	29
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-29T02:04:37	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Chromatograms

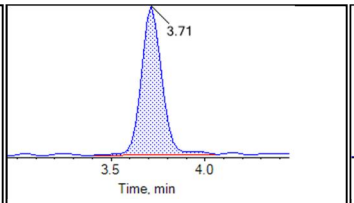
Target Analytes:



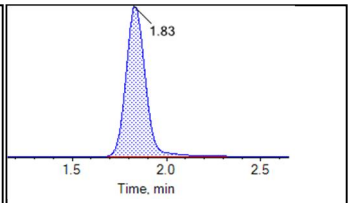
13C2-PFDoA



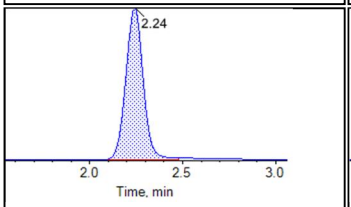
d3-MeFOSAA



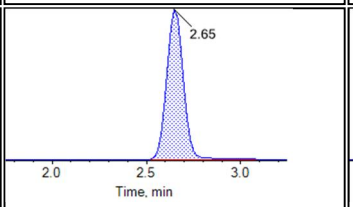
d5-EtFOSAA



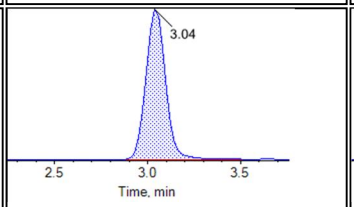
13C5-PFHxA



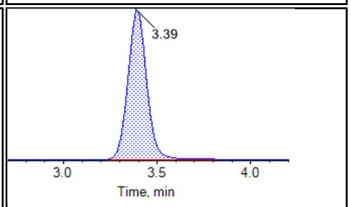
13C4-PFHpA



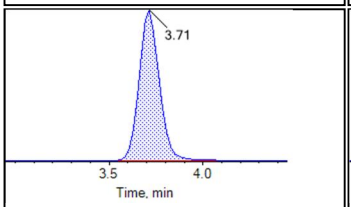
13C8-PFOA



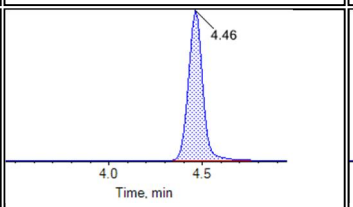
13C9-PFNA



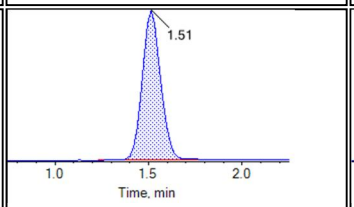
13C6-PFDA



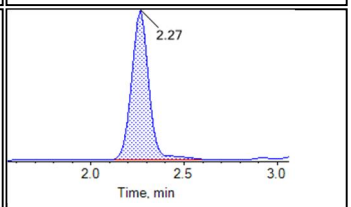
13C7-PFUnA



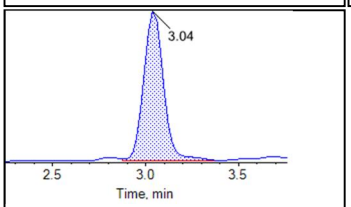
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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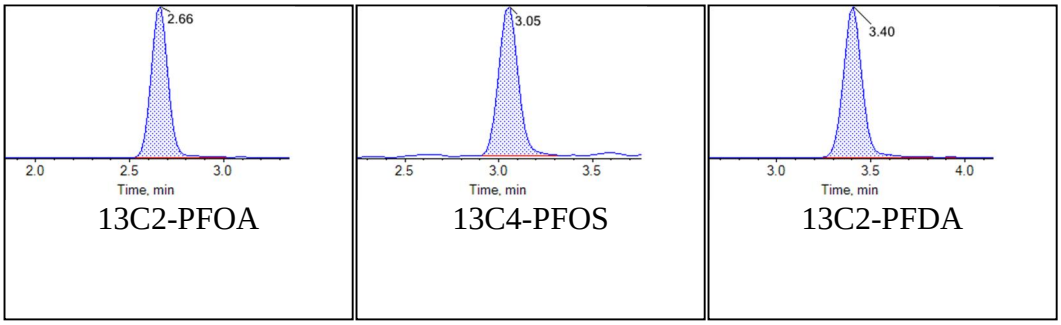
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 5:03:15 PM

Internal Standards:



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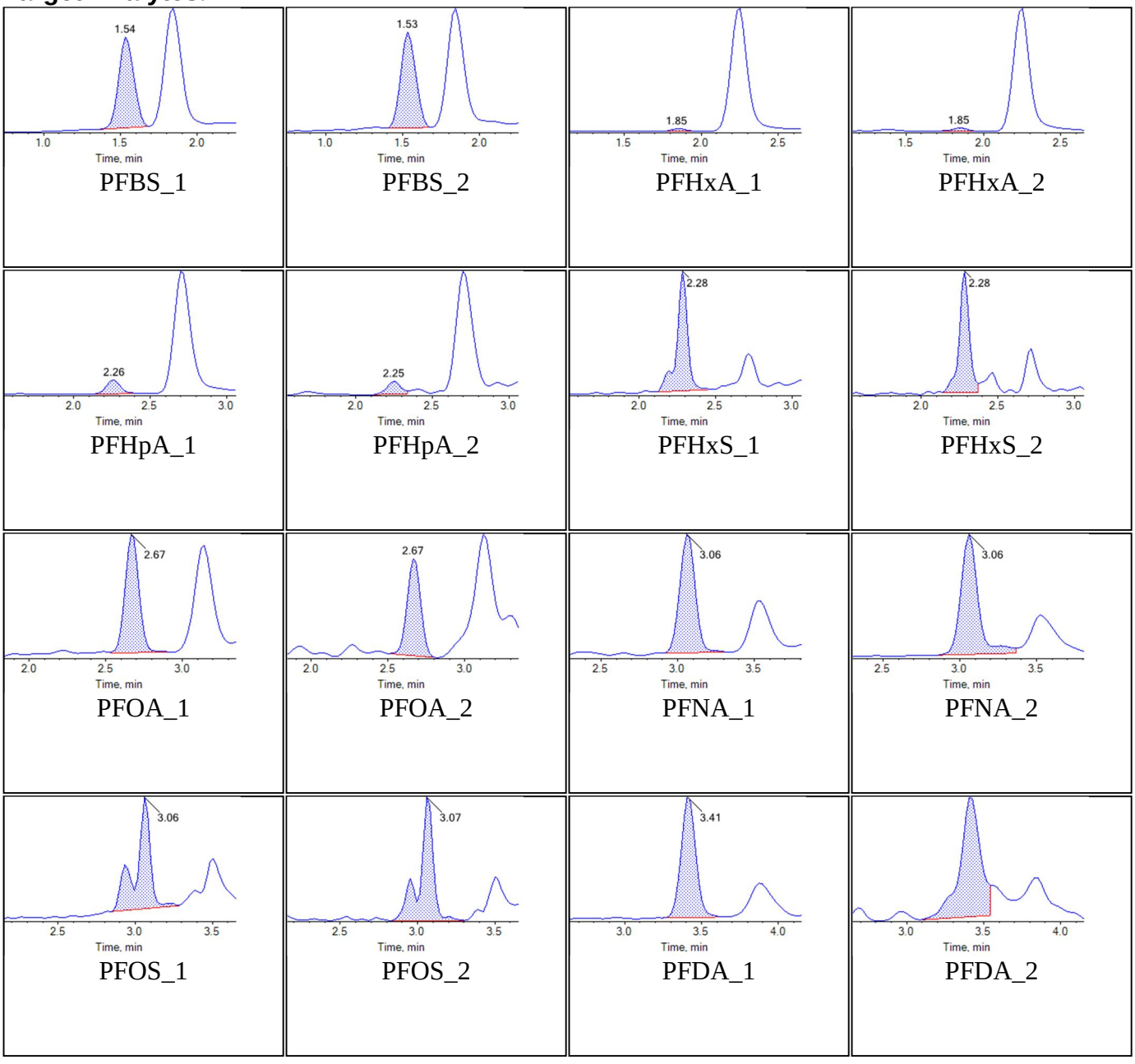
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:16:21 PM

Sample Name	KA86	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T20:29:24	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Chromatograms

Target Analytes:



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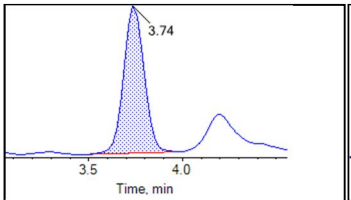
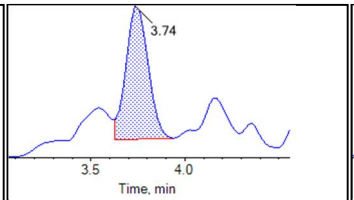
Chromatogram Report

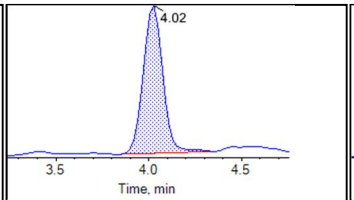
Created with Analyst Reporter
Printed: 03/10/2018 2:16:21 PM



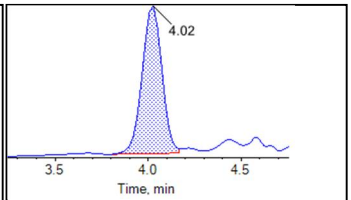
PFUnA_1



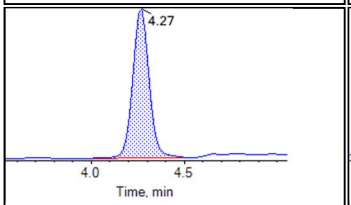
PFUnA_2



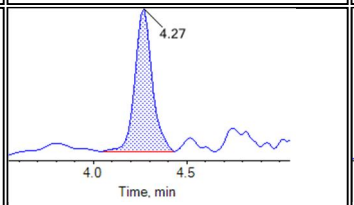
PFDoA_1



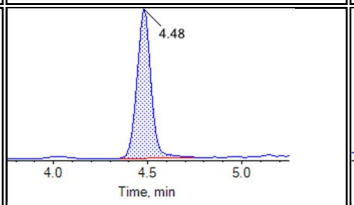
PFDoA_2



PFTrDA_1



PFTrDA_2



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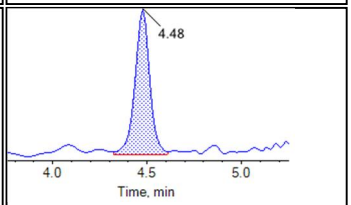
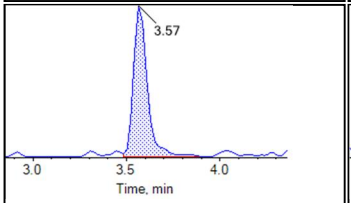
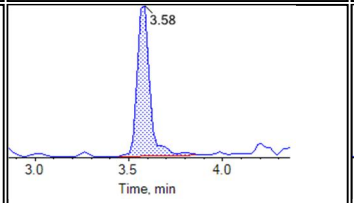


PFTeDA_2



NMeFOSAA_1



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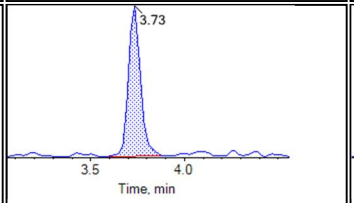

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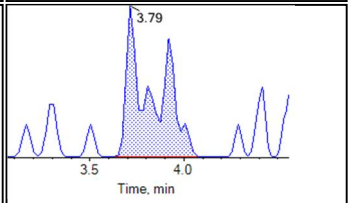

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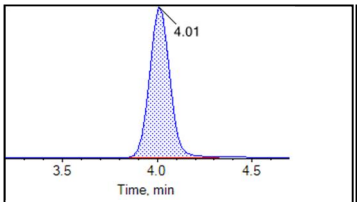
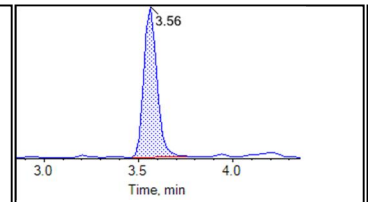


13C2-PFDoA



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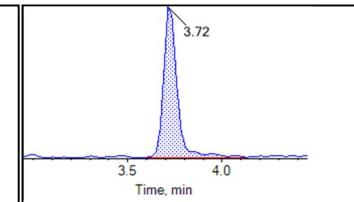

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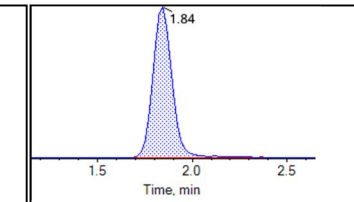
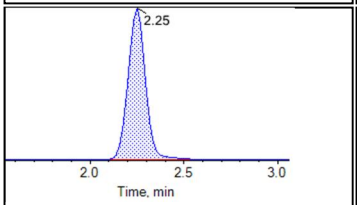
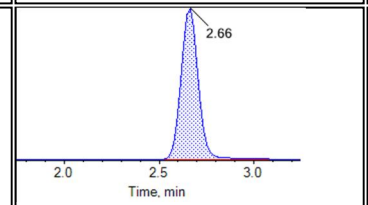


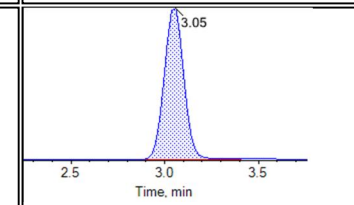
13C5-PFHxA



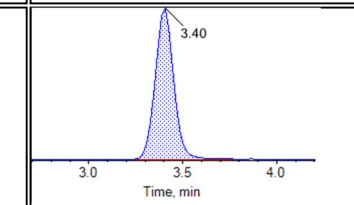
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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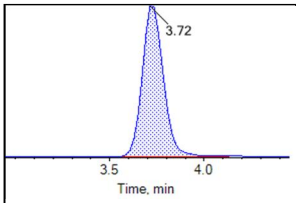
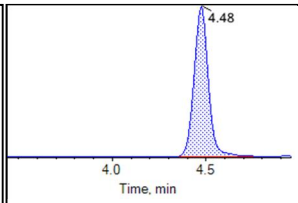
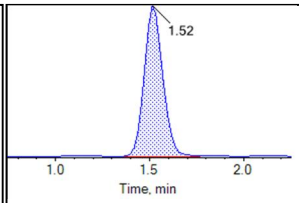


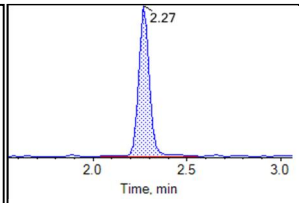
13C7-PFUnA



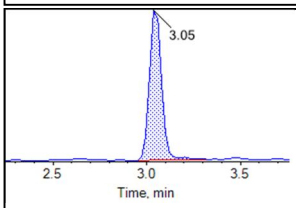
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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Sample Name	KA87	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T20:40:16	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Chromatograms

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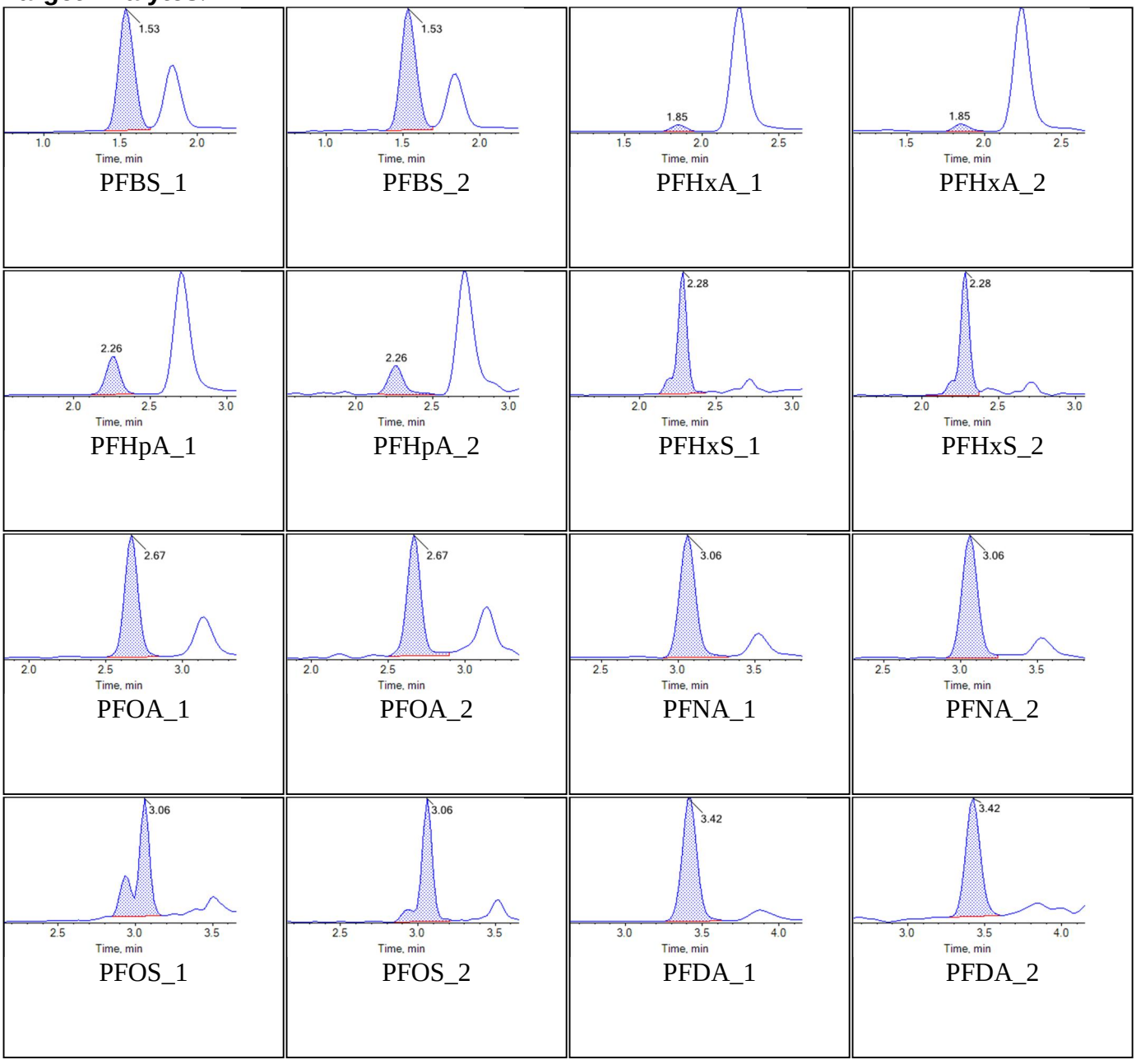

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Chromatogram Report

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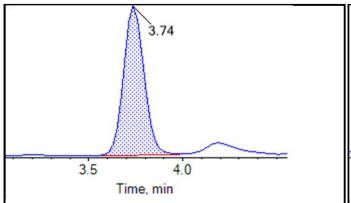

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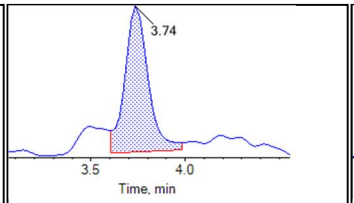
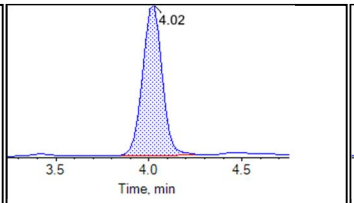
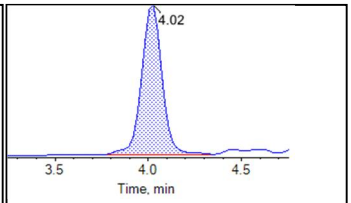


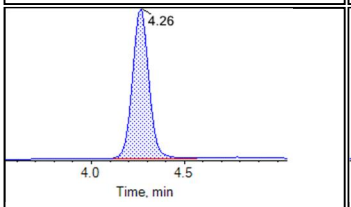
PFUnA_2



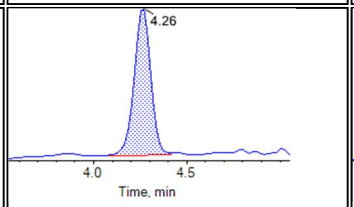
PFDoA_1



PFDoA_2



PFTrDA_1



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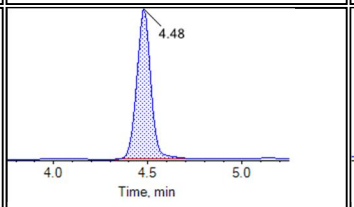

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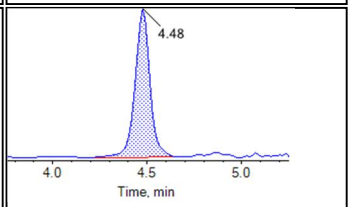

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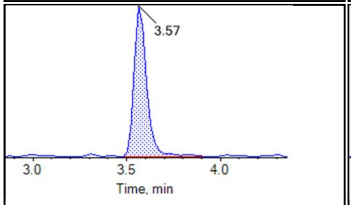

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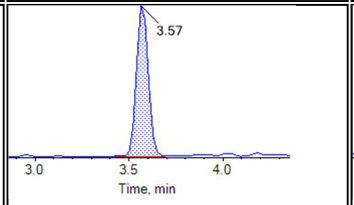

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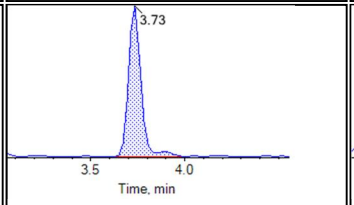

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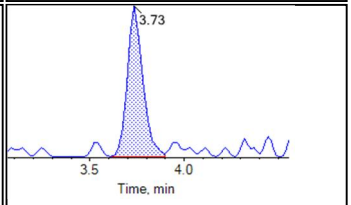

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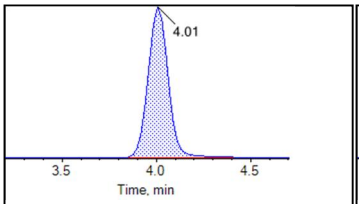
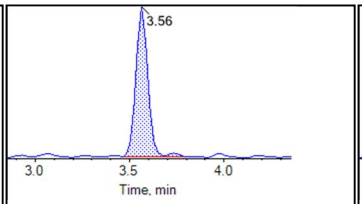
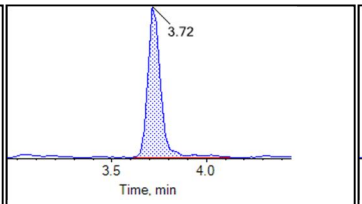


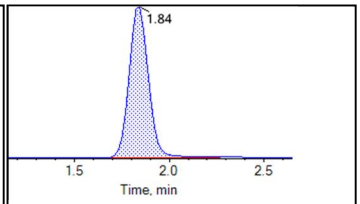
13C2-PFDoA



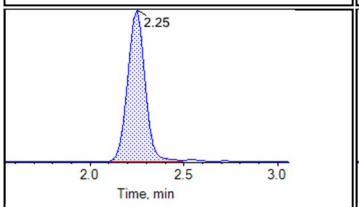
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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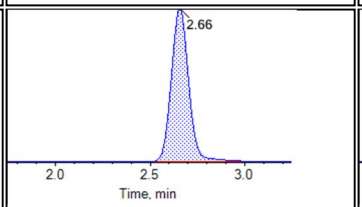
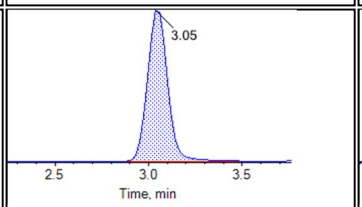
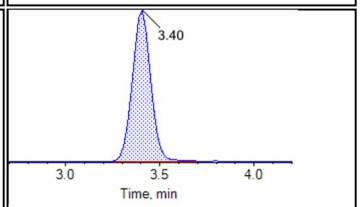


13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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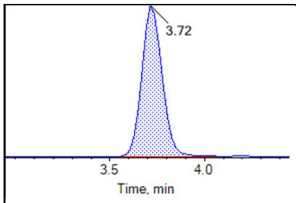
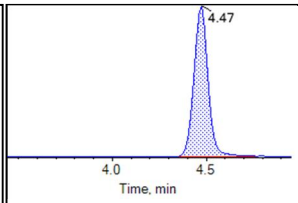
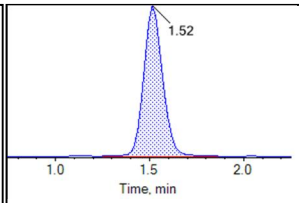


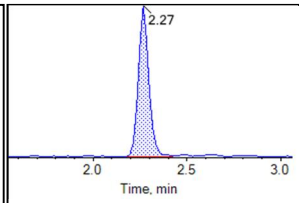
13C7-PFUnA



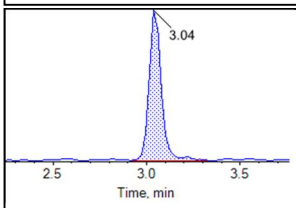
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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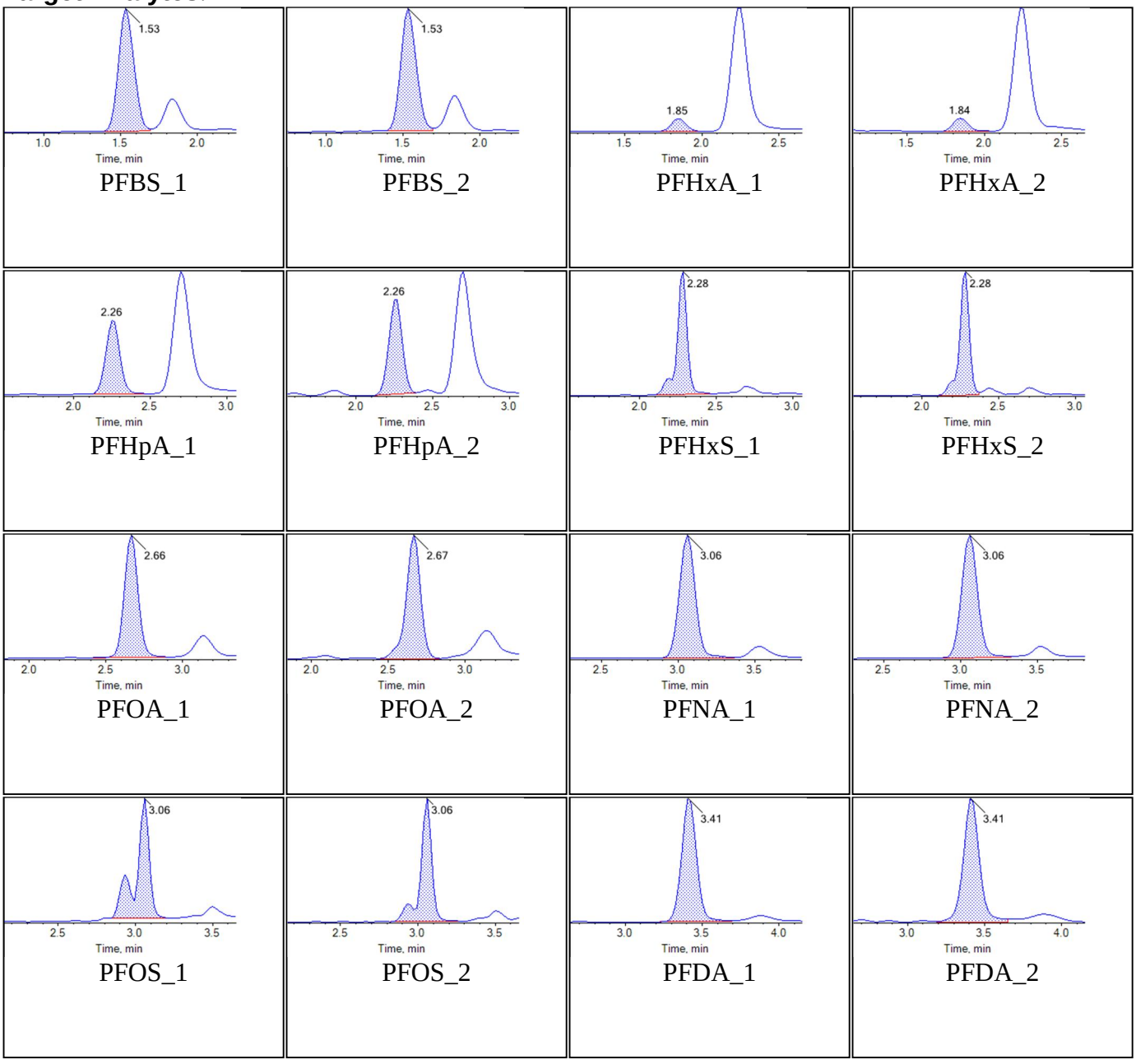
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:16:33 PM

Sample Name	KA88	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T20:51:08	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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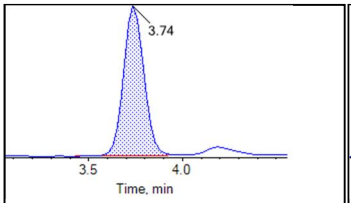
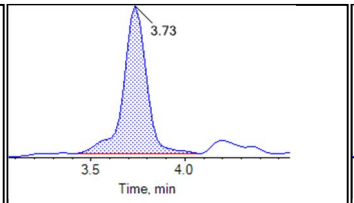
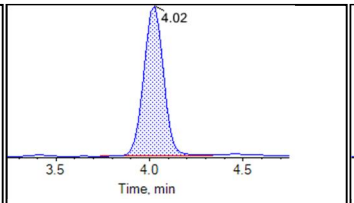


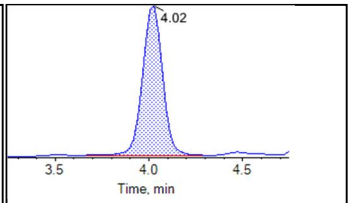
PFUnA_1



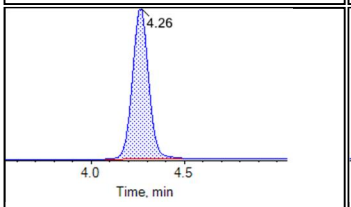
PFUnA_2



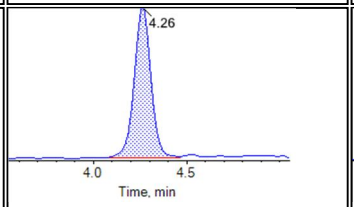
PFDoA_1



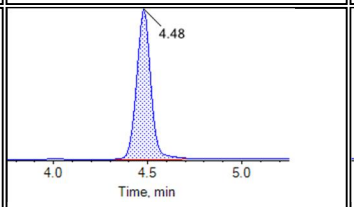
PFDoA_2



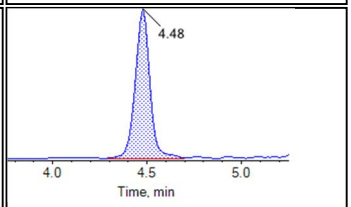
PFTrDA_1



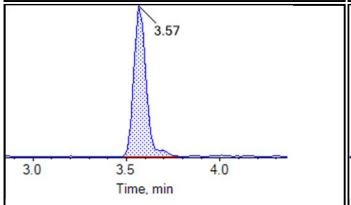
PFTrDA_2



PFTeDA_1



PFTeDA_2



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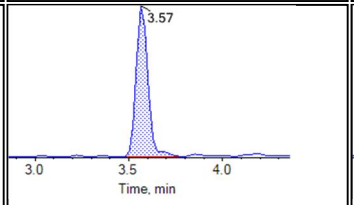

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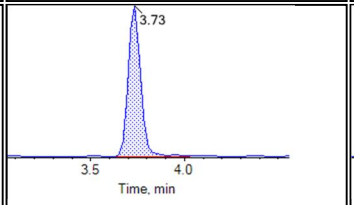

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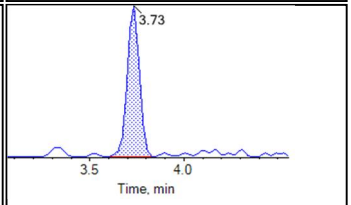

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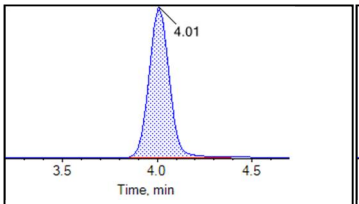
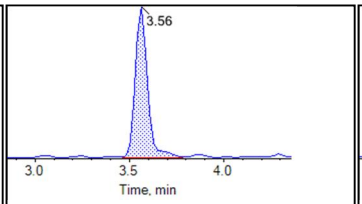
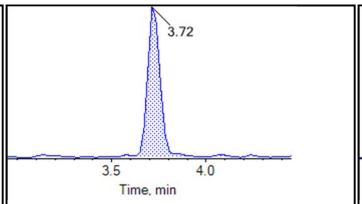


13C2-PFDoA



d3-MeFOSAA



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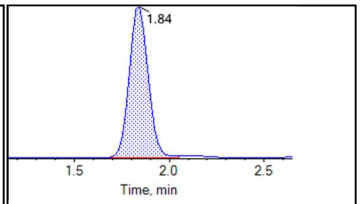
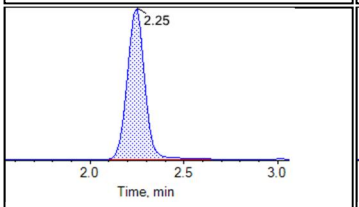
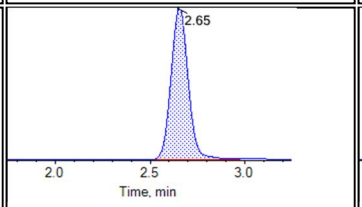


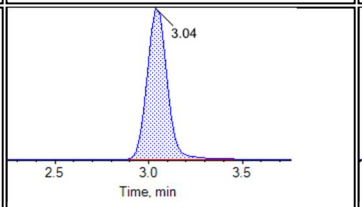
13C5-PFHxA



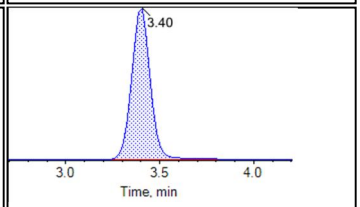
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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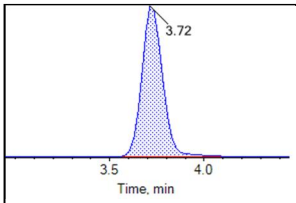
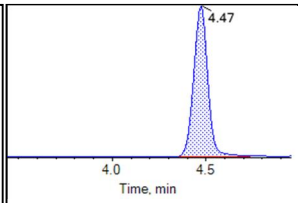


13C7-PFUnA



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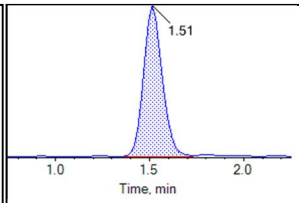
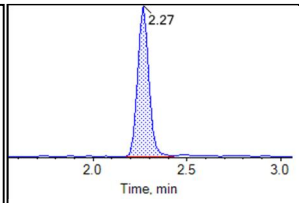
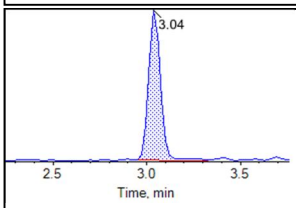


13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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Sample Name	KB85	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:02:00	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Chromatograms

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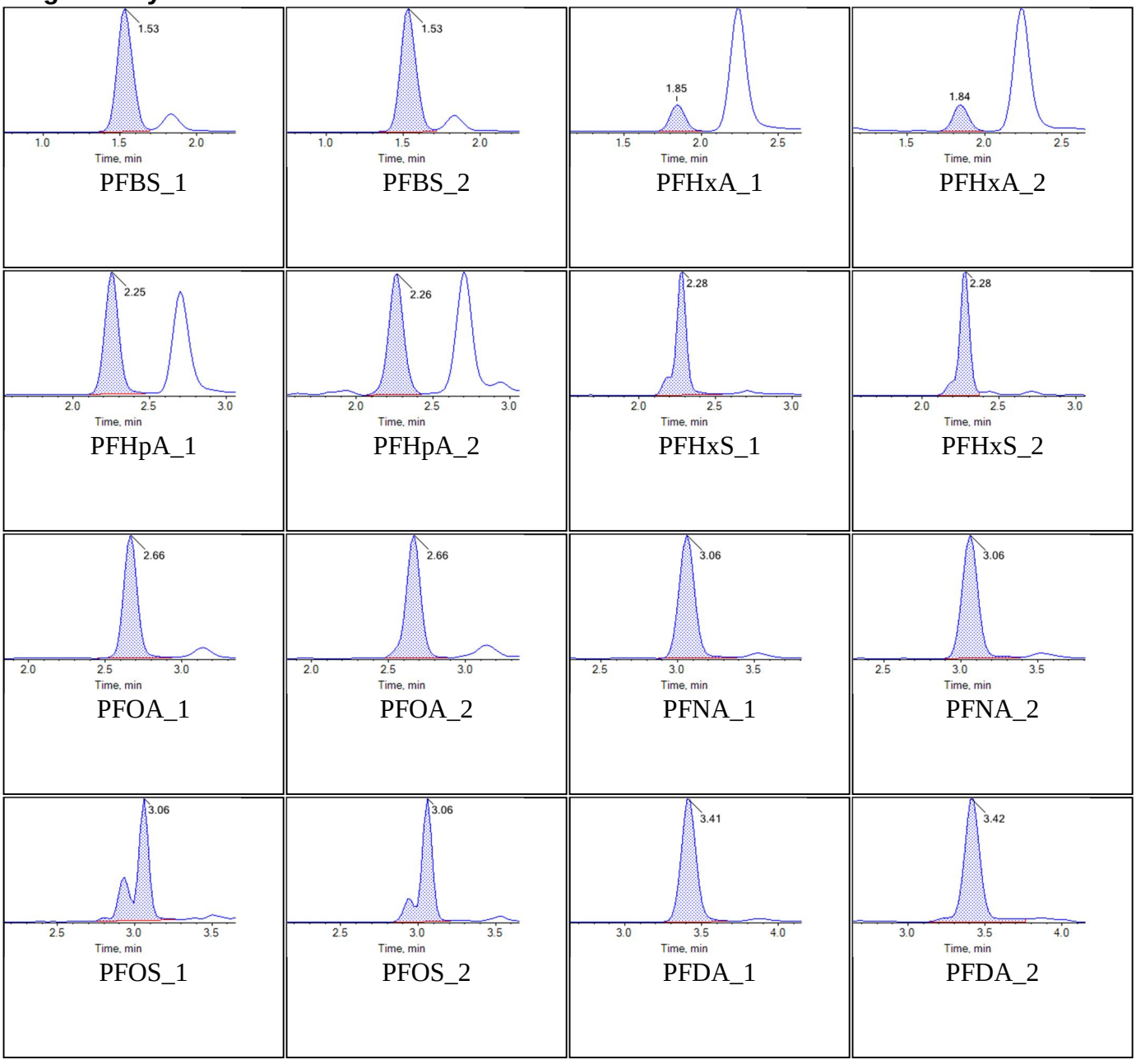

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Chromatogram Report

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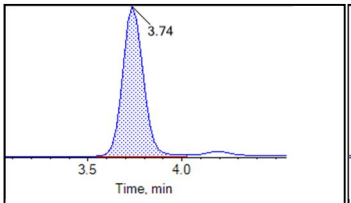

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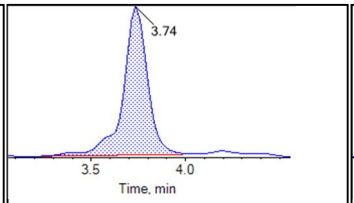

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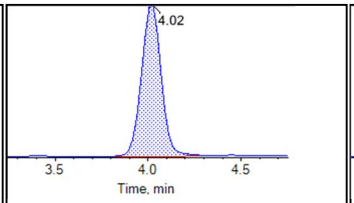
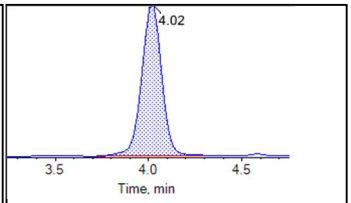


PFDoA_1



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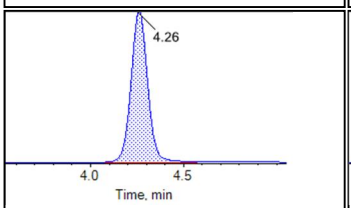

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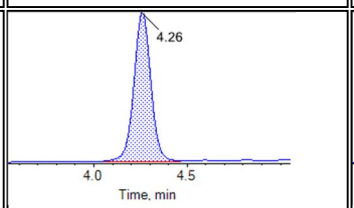

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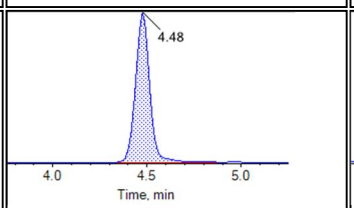

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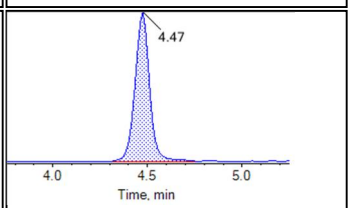

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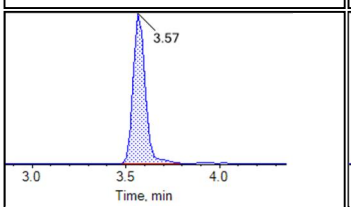

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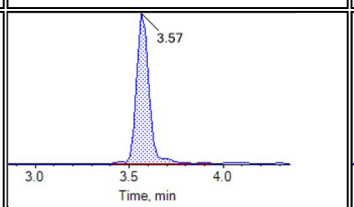

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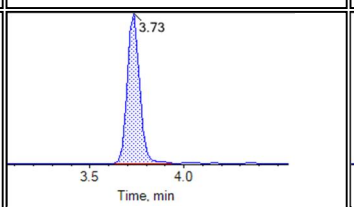

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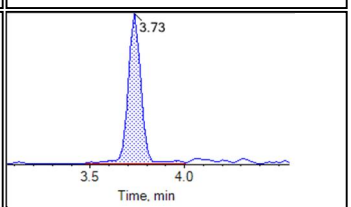

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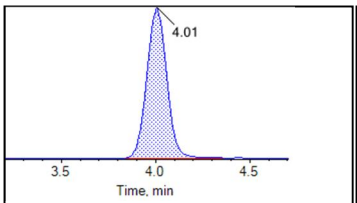

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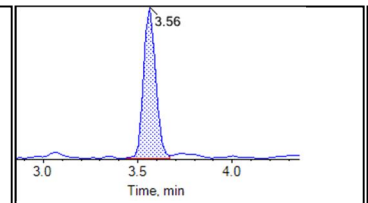
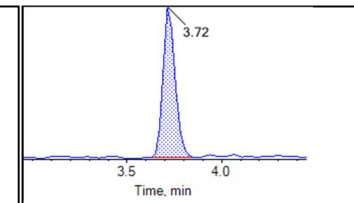
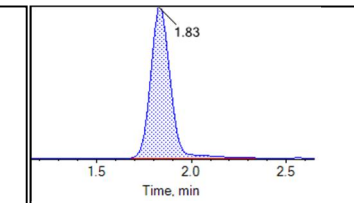


d3-MeFOSAA



d5-EtFOSAA



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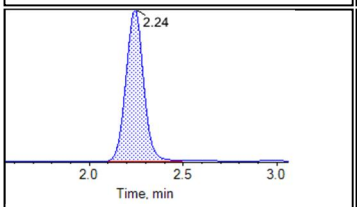

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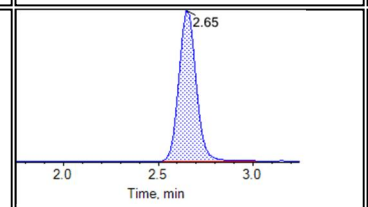

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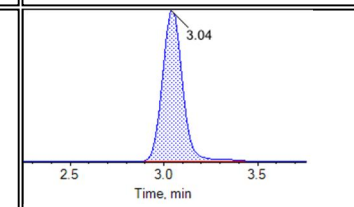
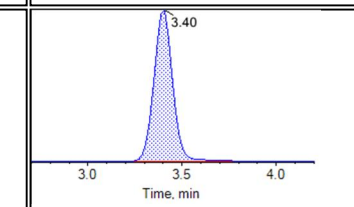


13C9-PFNA



13C6-PFDA

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Chromatogram Report

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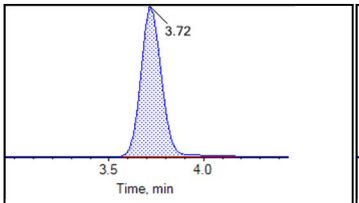
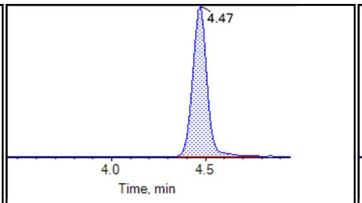
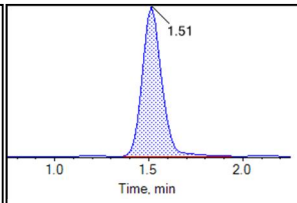


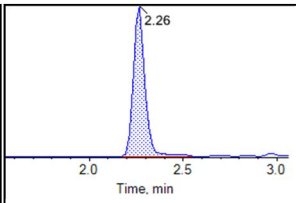
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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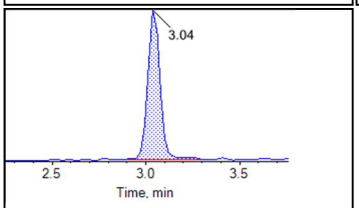

13C8-PFOS

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Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:16:44 PM

Sample Name	KB69	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:12:52	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Chromatograms

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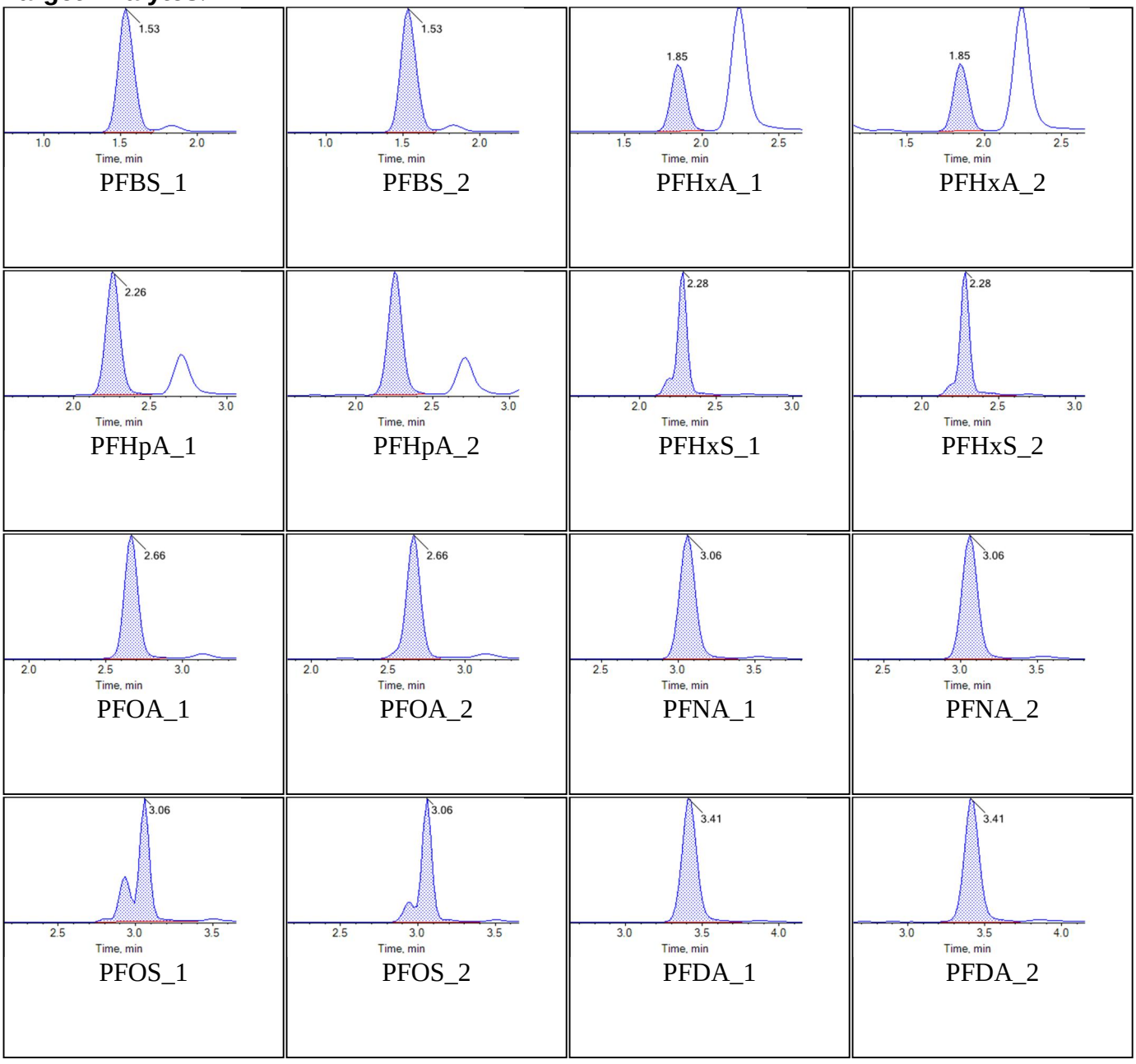

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Chromatogram Report

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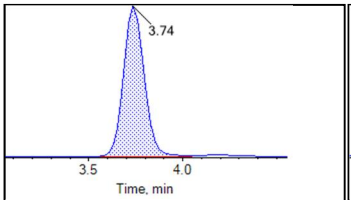
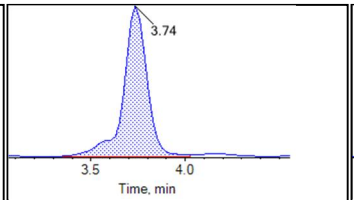
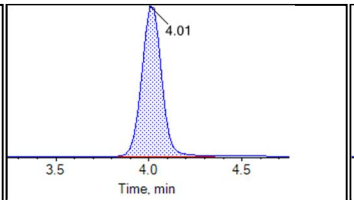


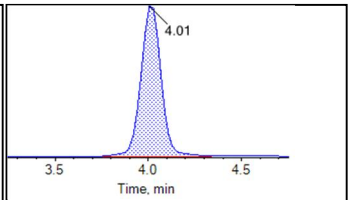
PFUnA_1



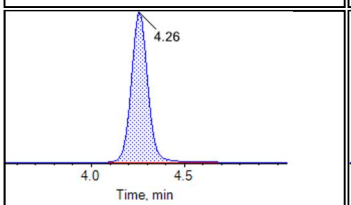
PFUnA_2



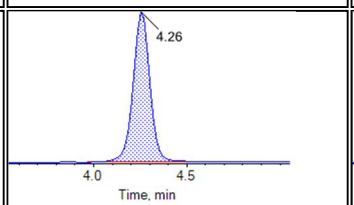
PFDoA_1



PFDoA_2



PFTrDA_1



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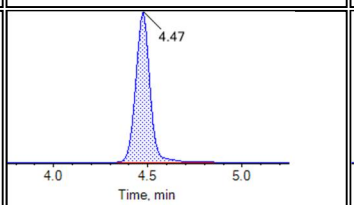
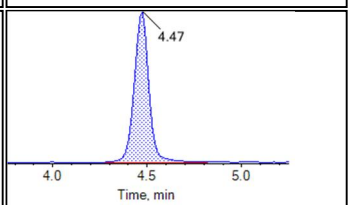


PFTeDA_1



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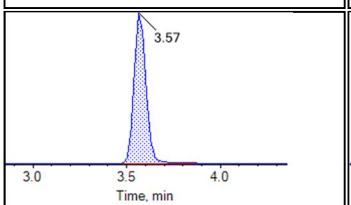

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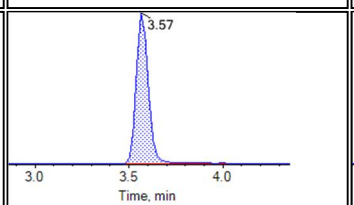

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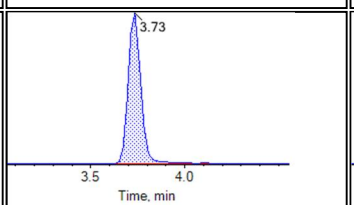

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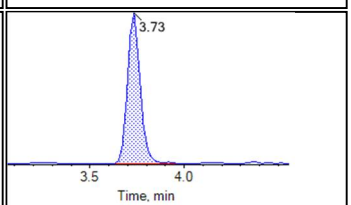

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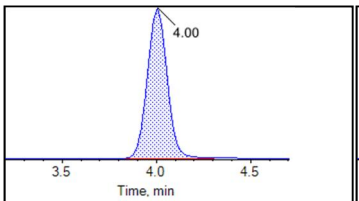
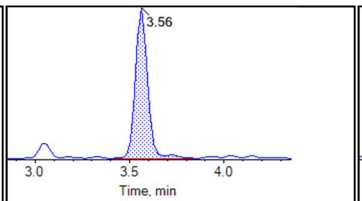
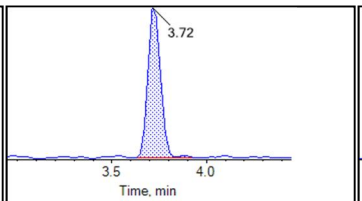


13C2-PFDoA



d3-MeFOSAA



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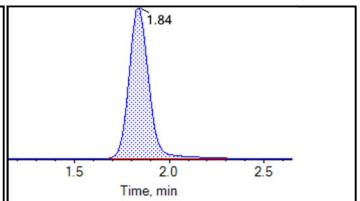
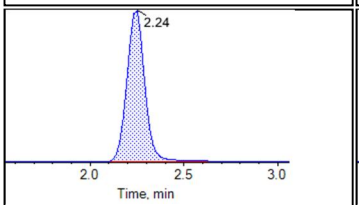
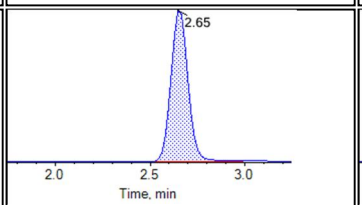


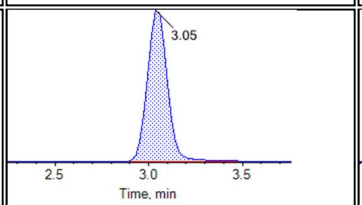
13C5-PFHxA



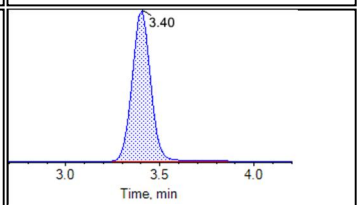
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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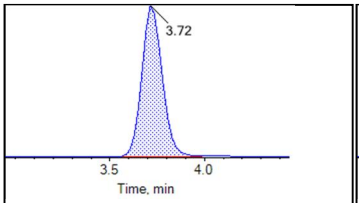
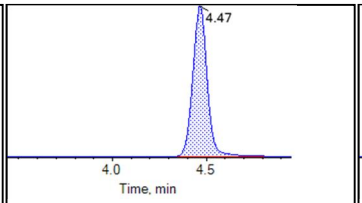
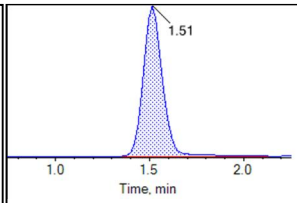


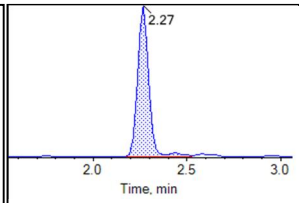
13C7-PFUnA



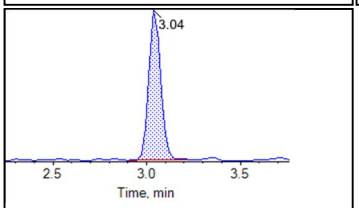
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:23:43	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Chromatograms

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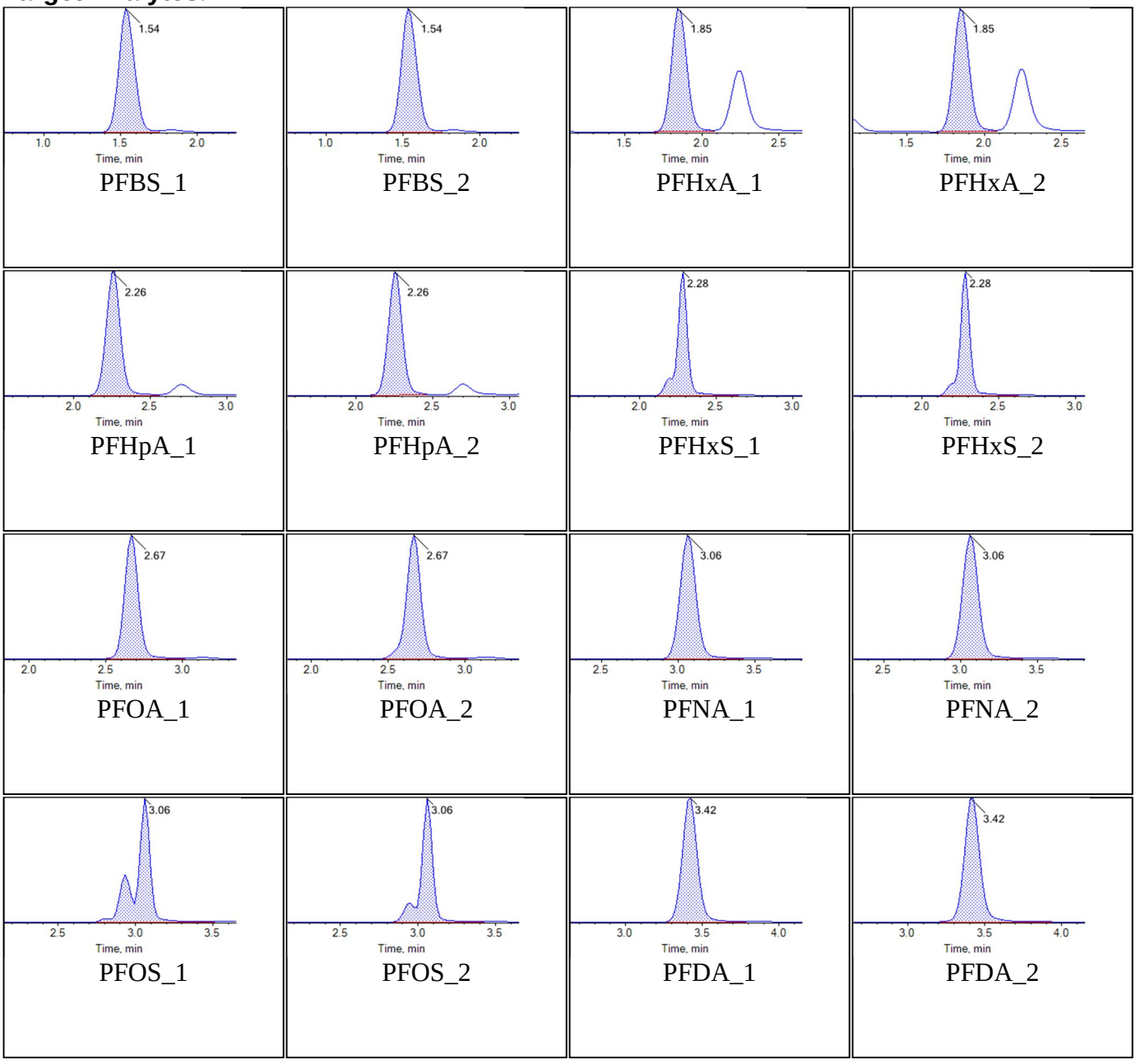

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Chromatogram Report

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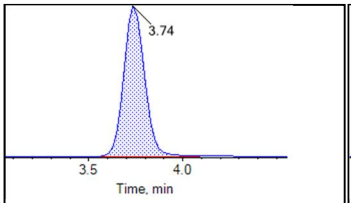

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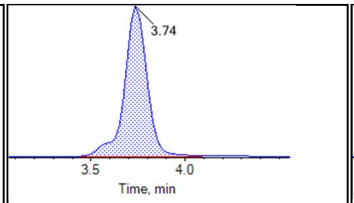

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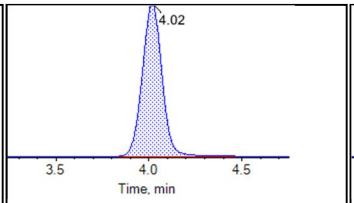

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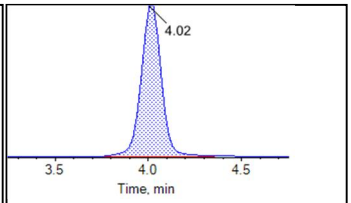

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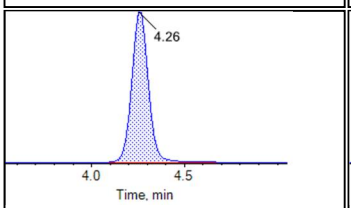

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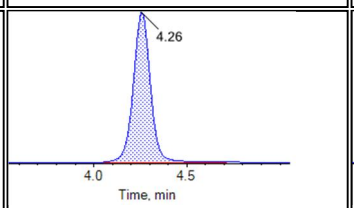

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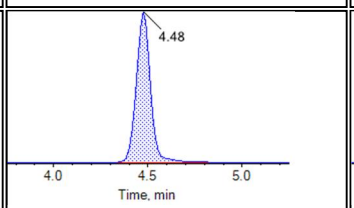

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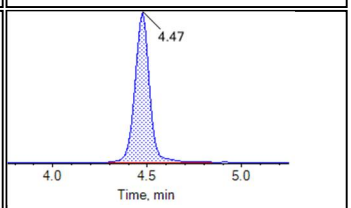

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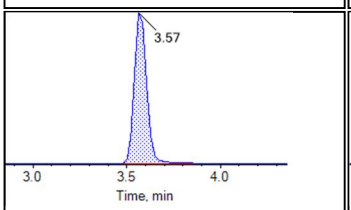

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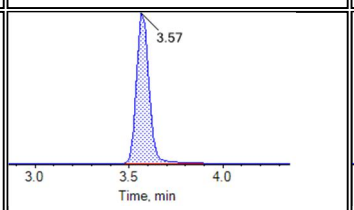

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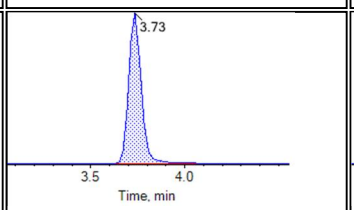

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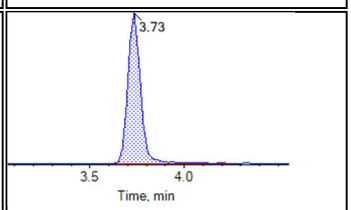

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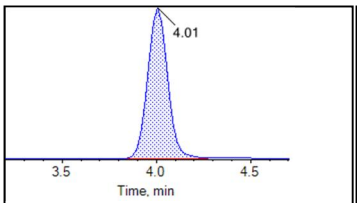

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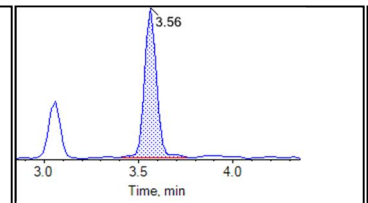
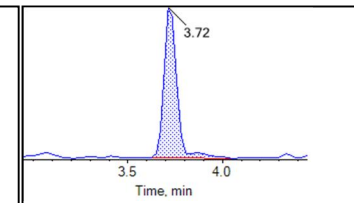
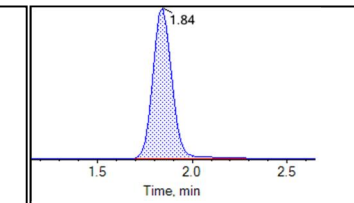


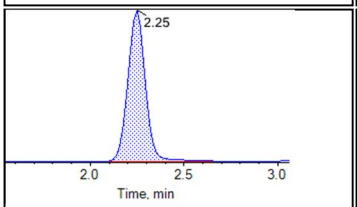
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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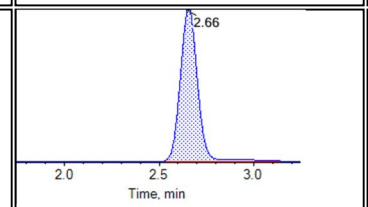

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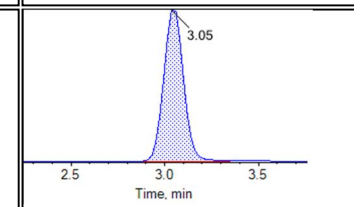
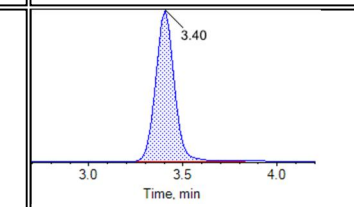


13C9-PFNA



13C6-PFDA

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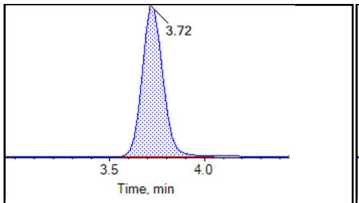
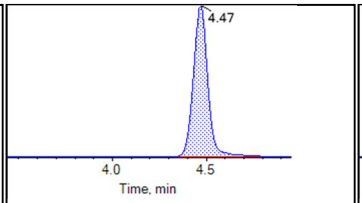
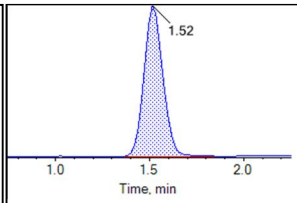


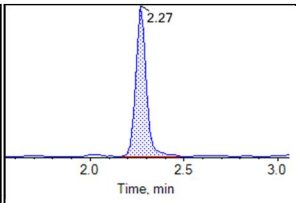
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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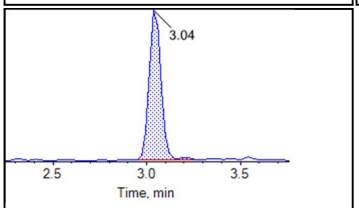

13C8-PFOS

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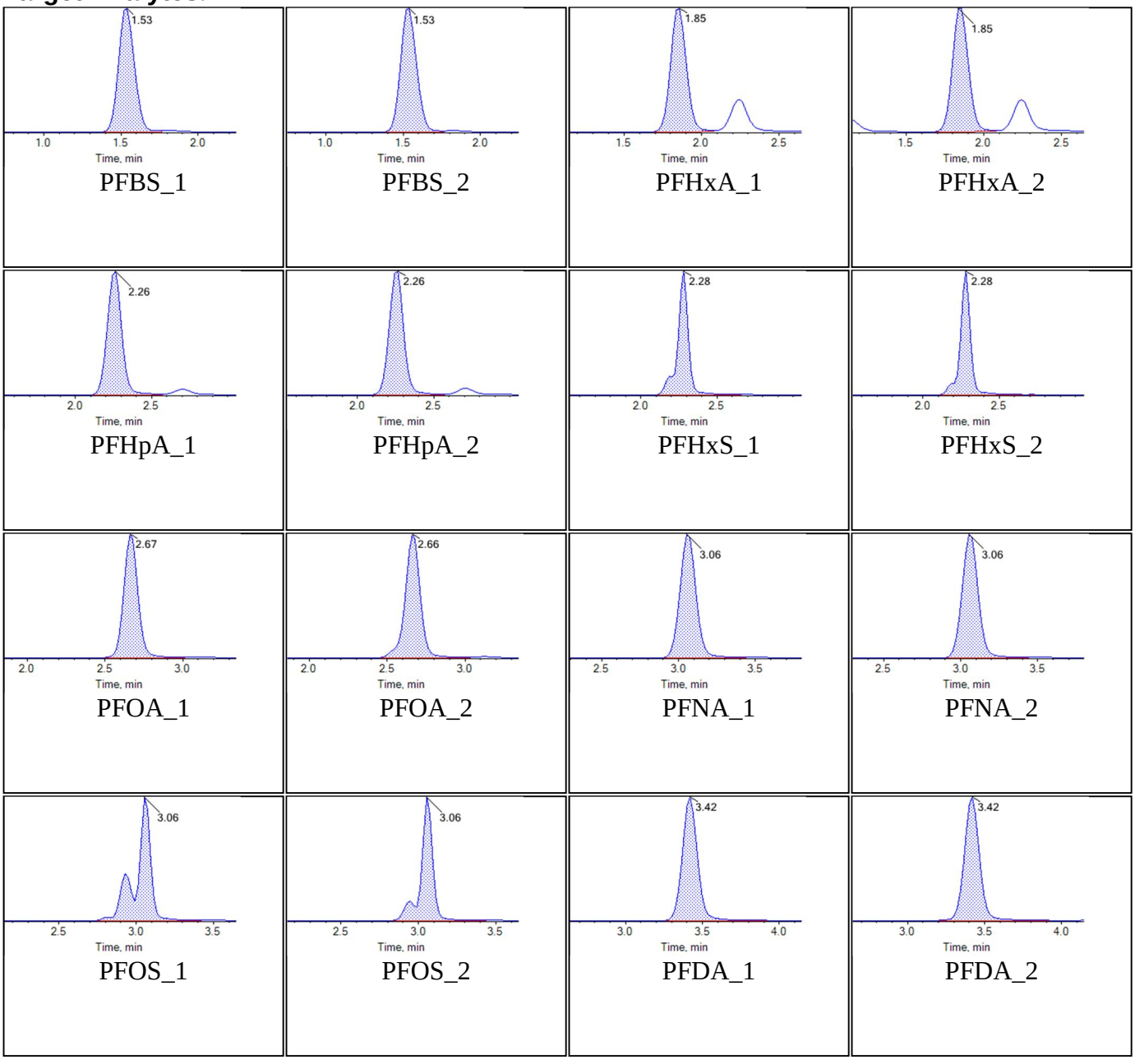
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:16:55 PM

Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:34:34	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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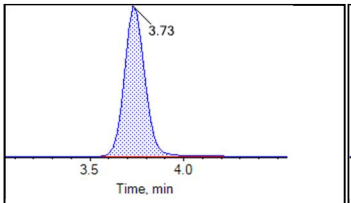
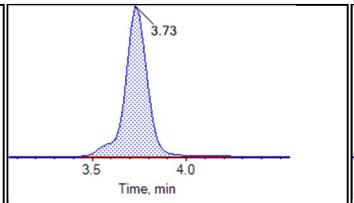
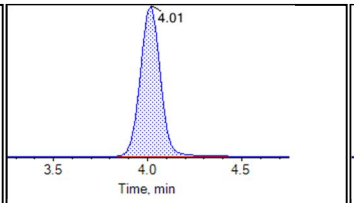


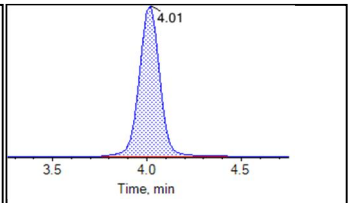
PFUnA_1



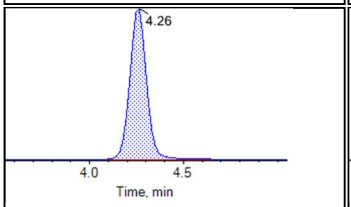
PFUnA_2



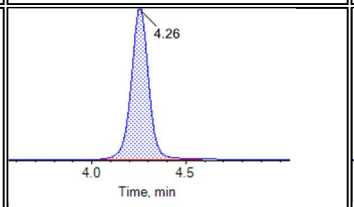
PFDoA_1



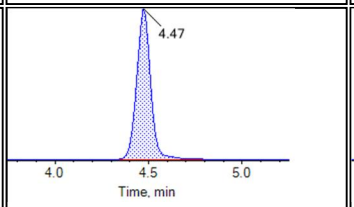
PFDoA_2



PFTrDA_1



PFTrDA_2



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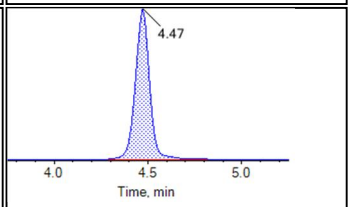

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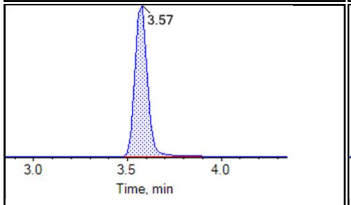

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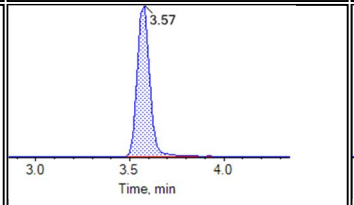

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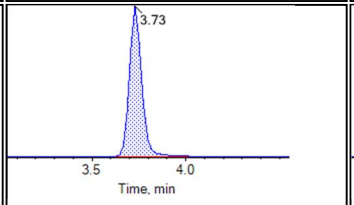

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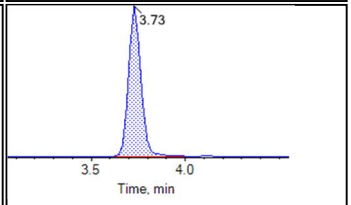

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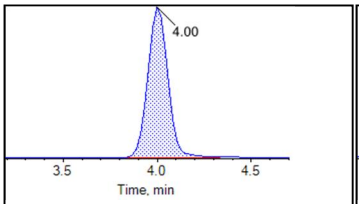
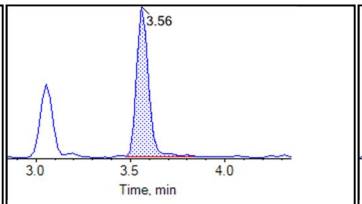


13C2-PFDoA



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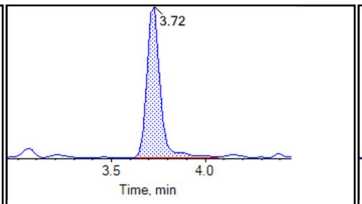

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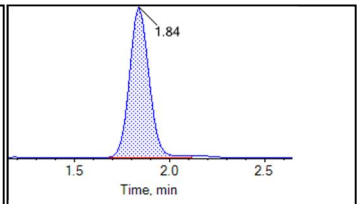
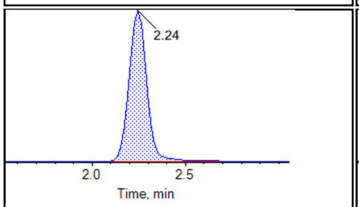
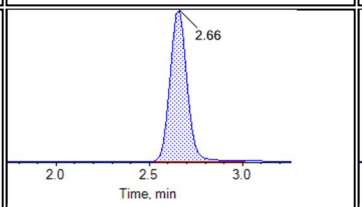


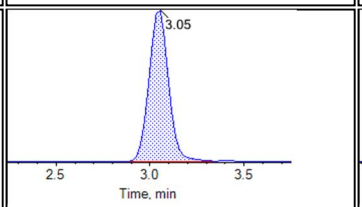
13C5-PFHxA



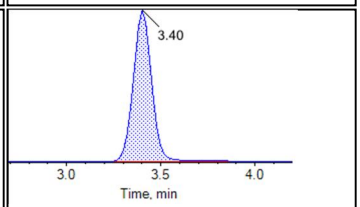
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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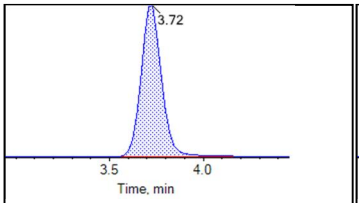
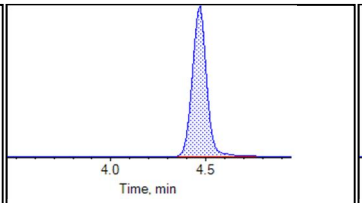
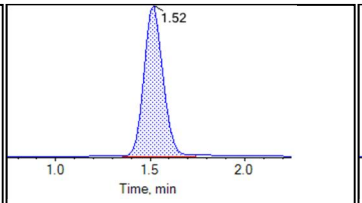


13C7-PFUnA



13C2-PFTeDA



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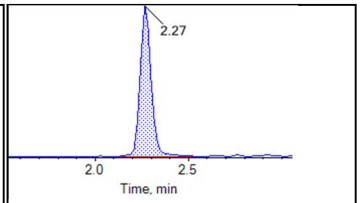

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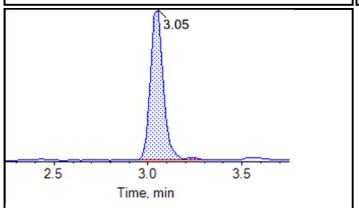

13C8-PFOS

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Chromatogram Report

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Sample Name	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:45:25	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Chromatograms

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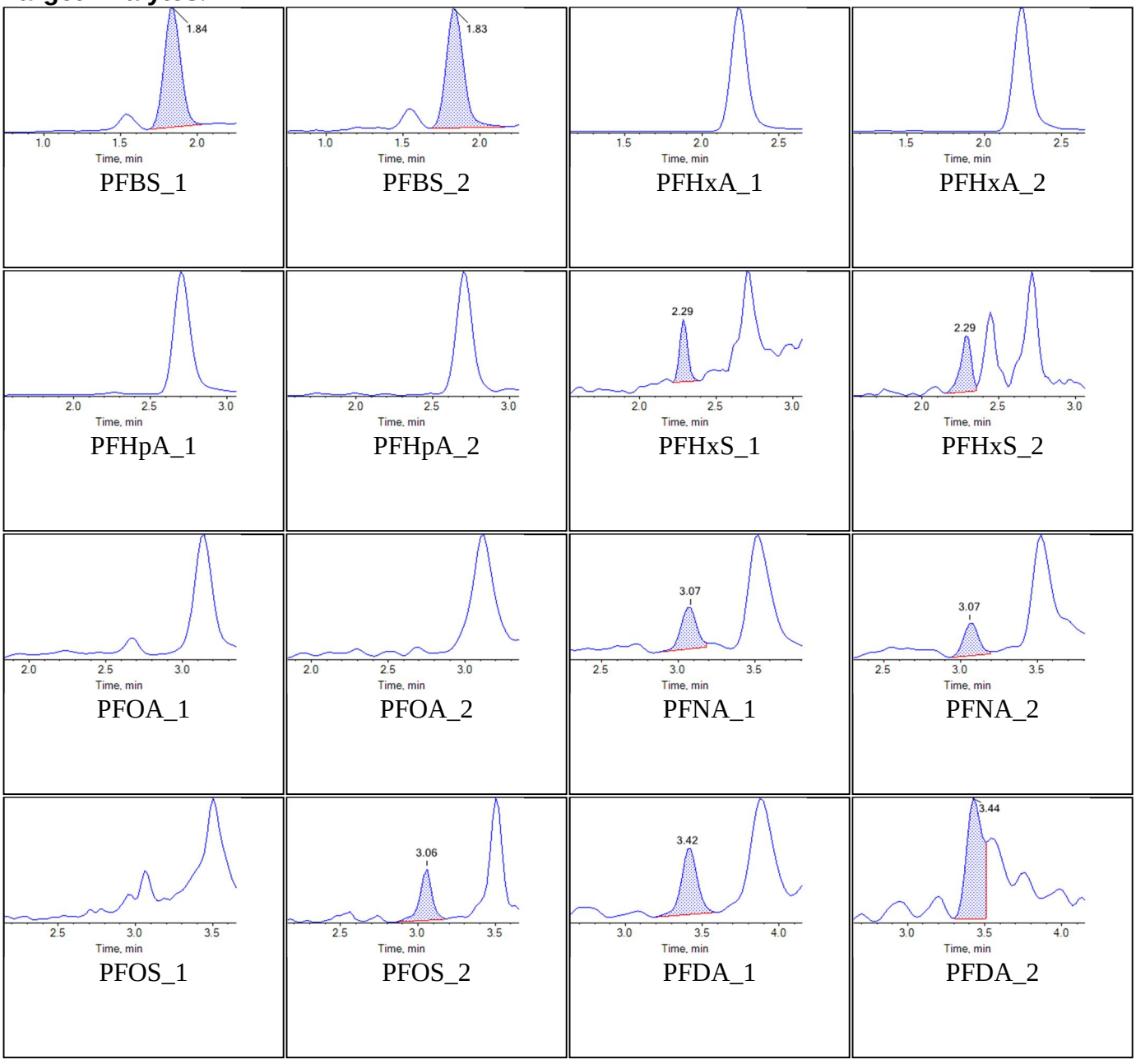

BATTELLE

Chromatogram Report

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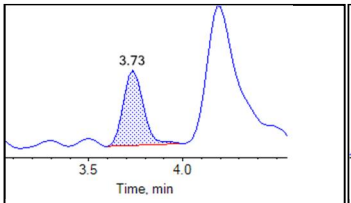

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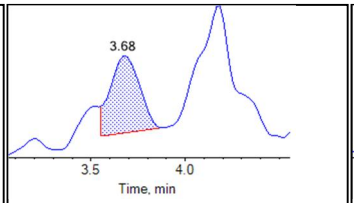

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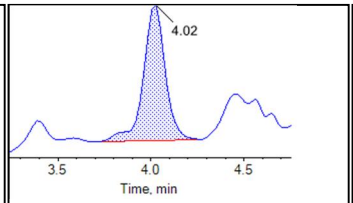

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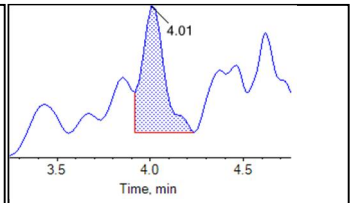

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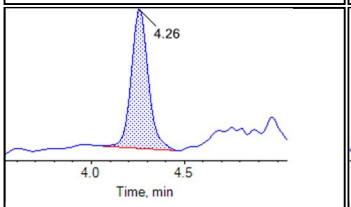

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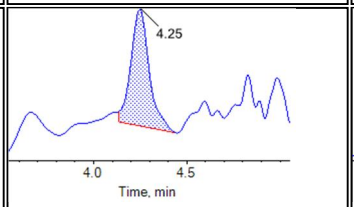

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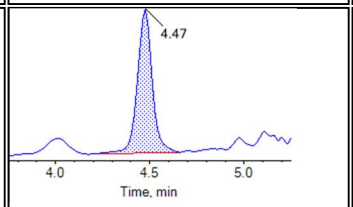

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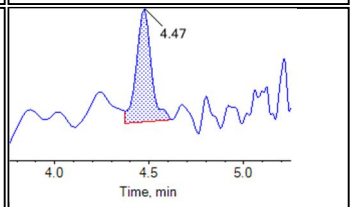

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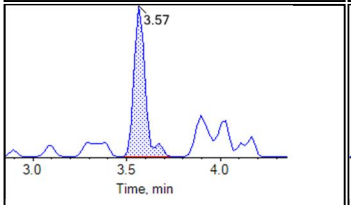

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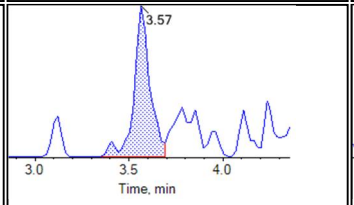

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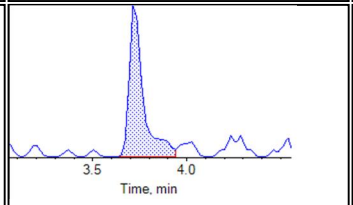

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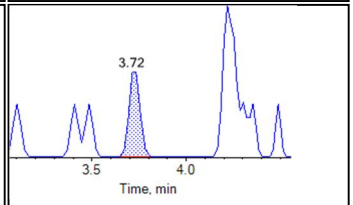

NEtFOSAA_2

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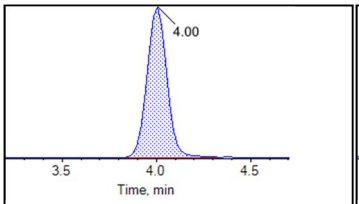

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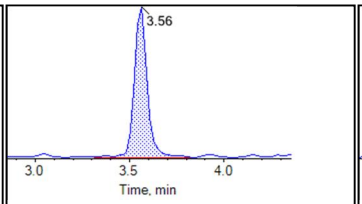
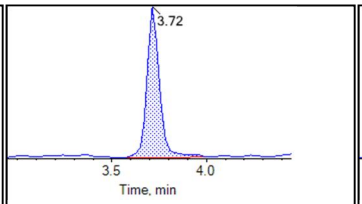
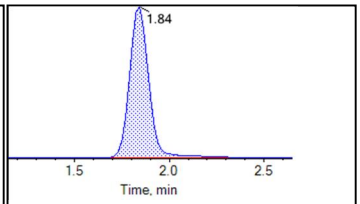


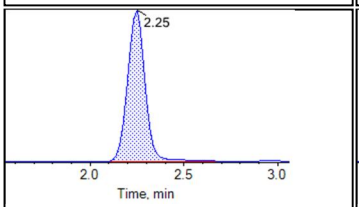
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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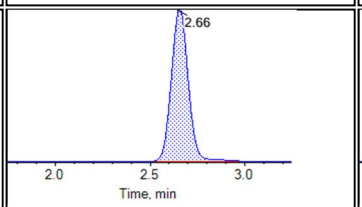

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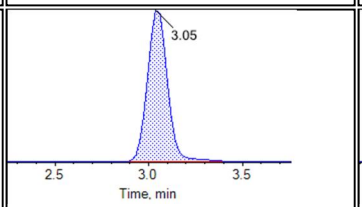
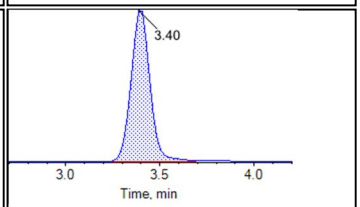


13C9-PFNA



13C6-PFDA

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Chromatogram Report

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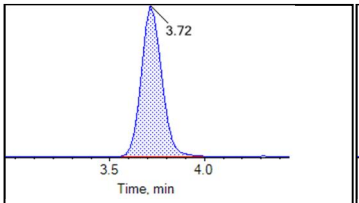
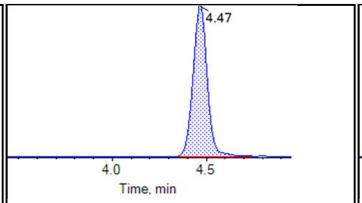
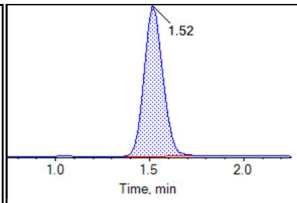


13C7-PFUnA



13C2-PFTeDA



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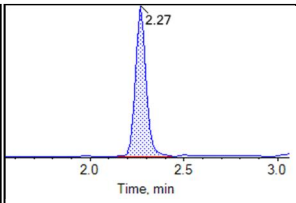

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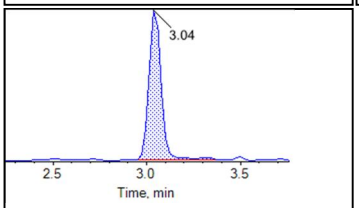

13C8-PFOS

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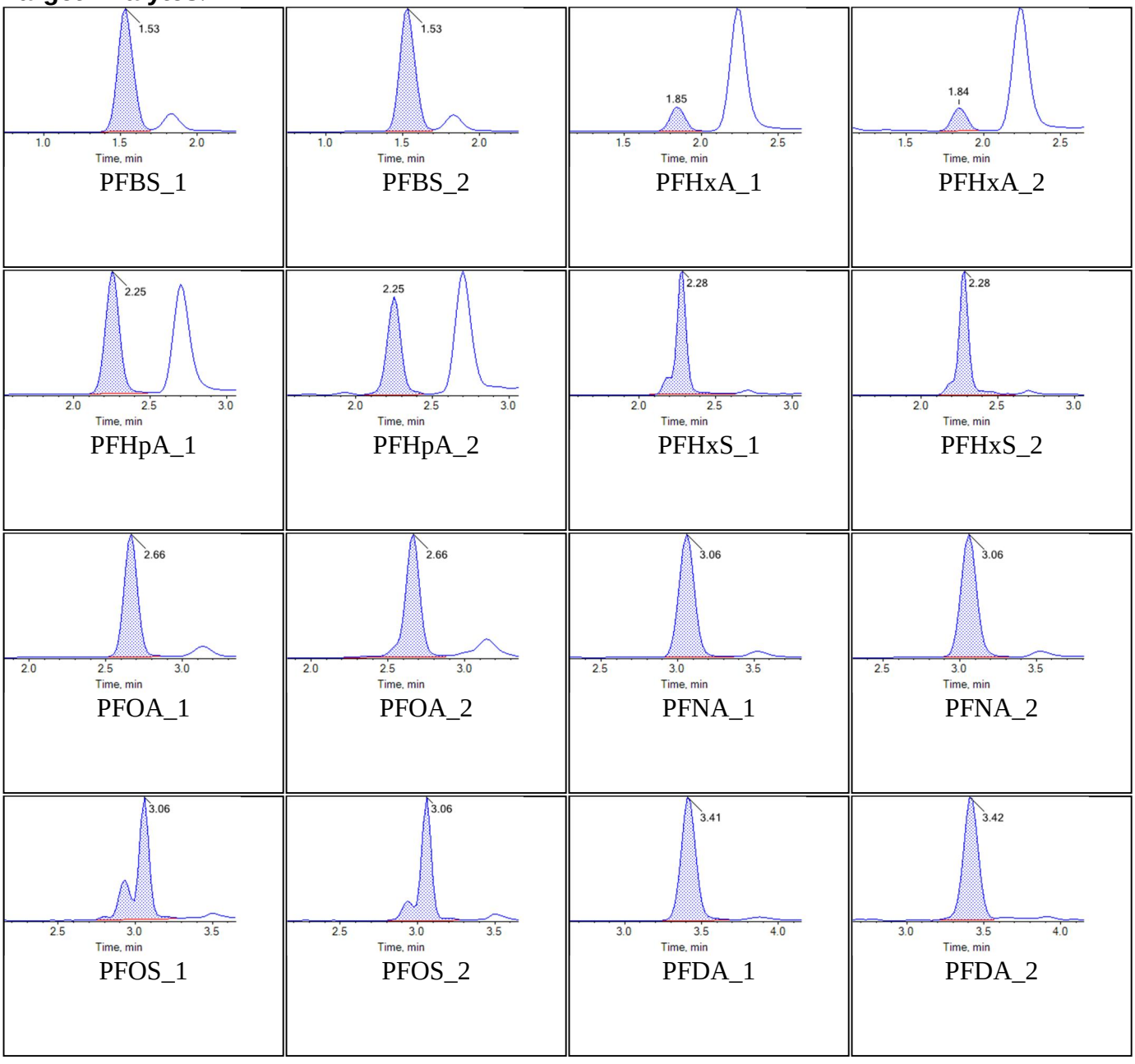
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:17:05 PM

Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:56:17	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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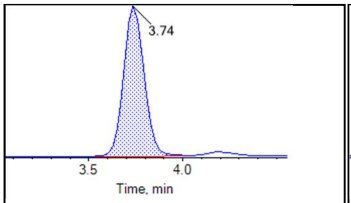
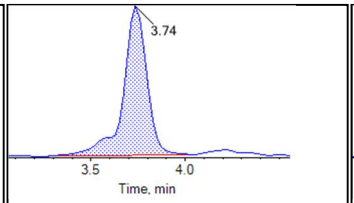
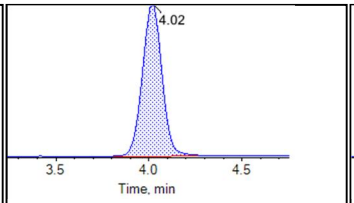


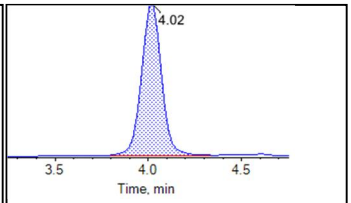
PFUnA_1



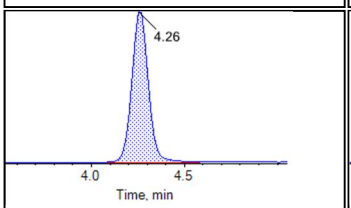
PFUnA_2



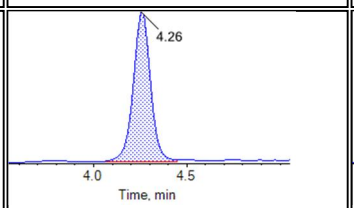
PFDoA_1



PFDoA_2



PFTrDA_1



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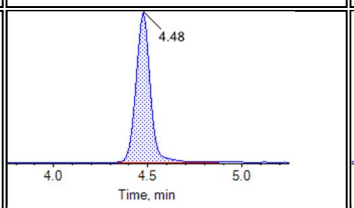

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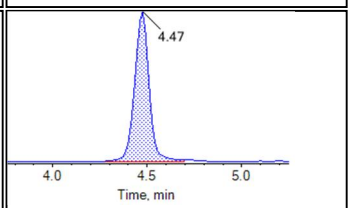

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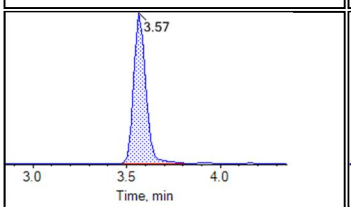

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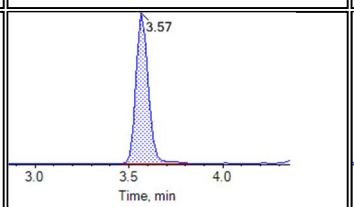

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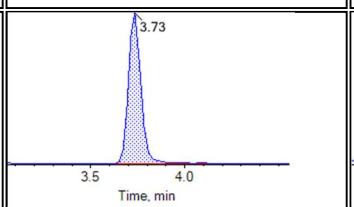

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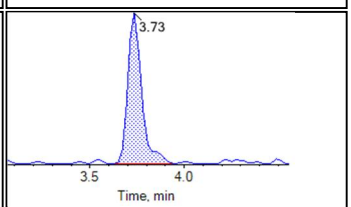

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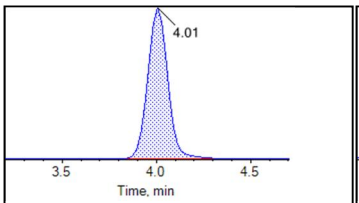
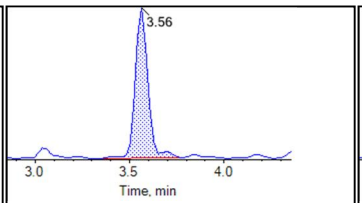
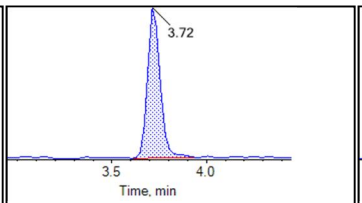


13C2-PFDoA



d3-MeFOSAA



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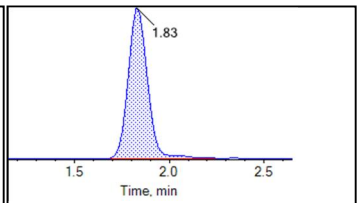

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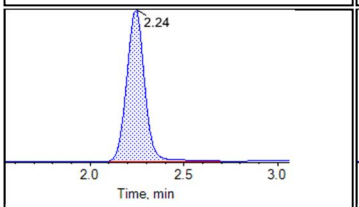

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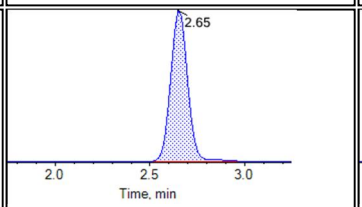
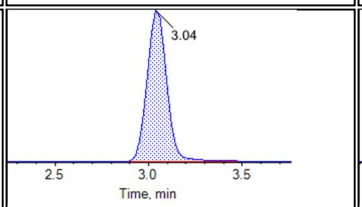


13C8-PFOA



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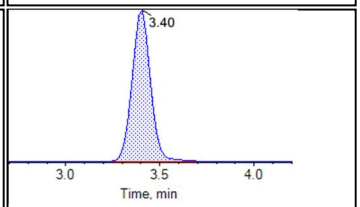

13C6-PFDA

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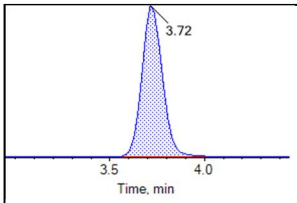
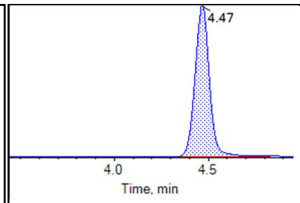


13C7-PFUnA



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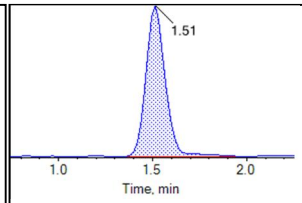

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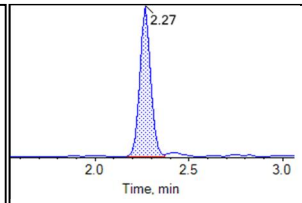

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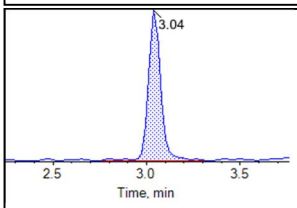

13C8-PFOS

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Chromatogram Report

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Sample Name	J8218-FS(3)	**Injection Vial**	14
Sample ID	VC-PM372-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:39:44	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Chromatograms

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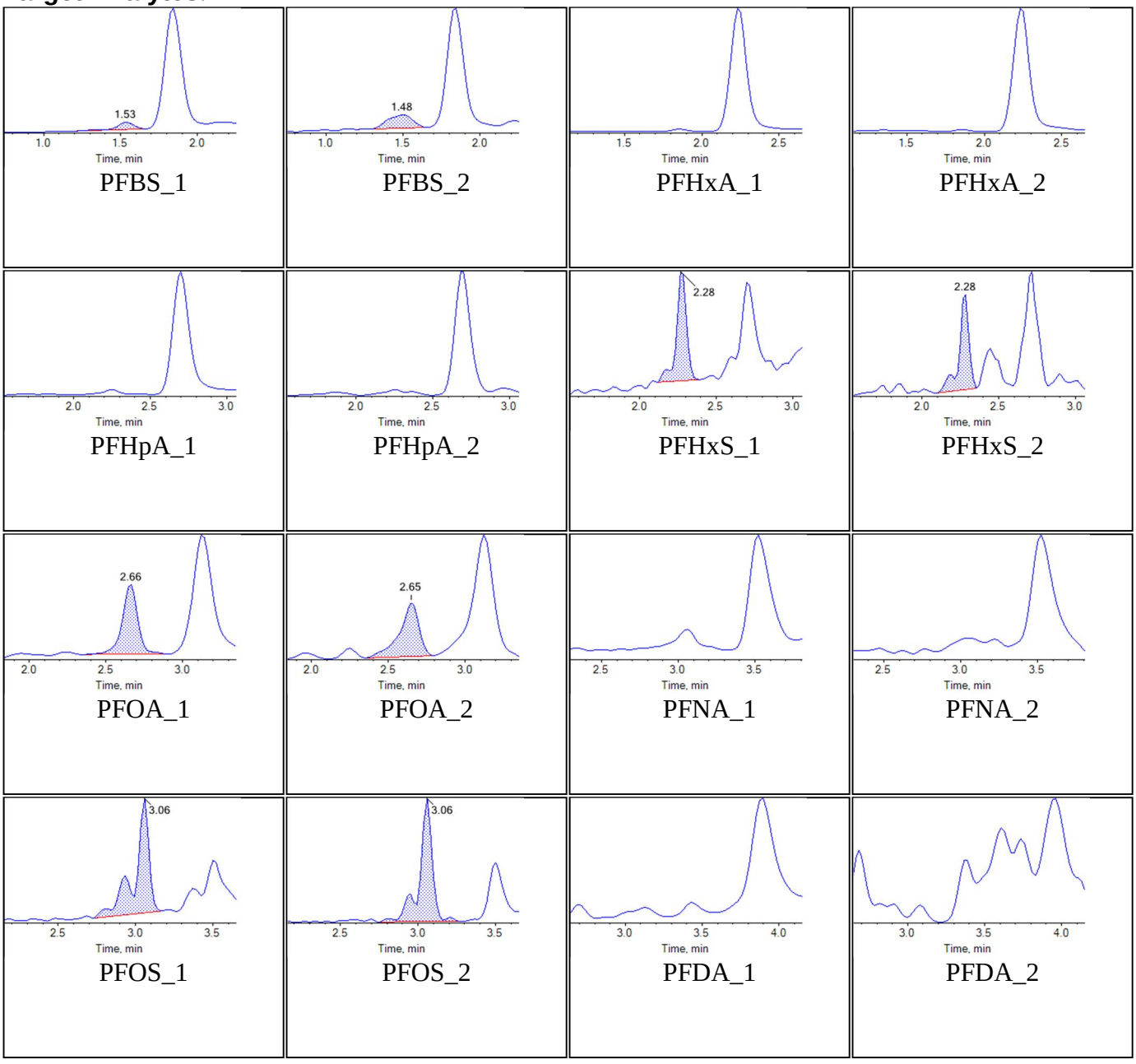

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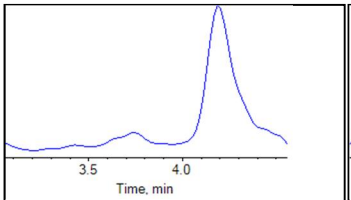

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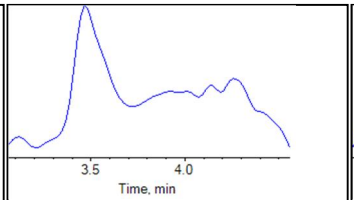

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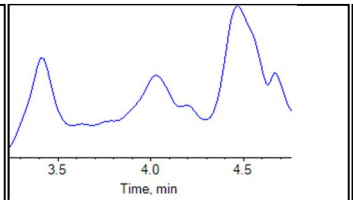

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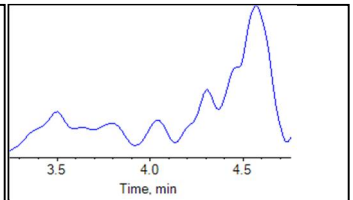

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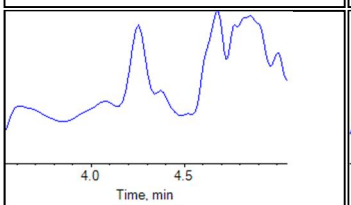

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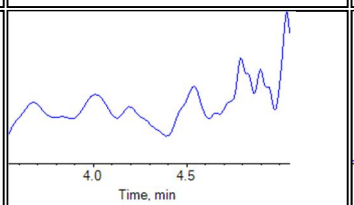

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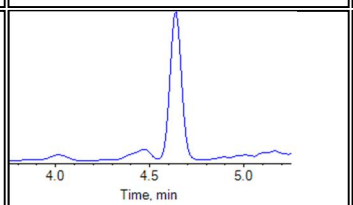

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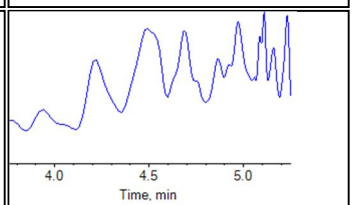

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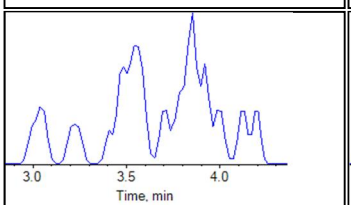

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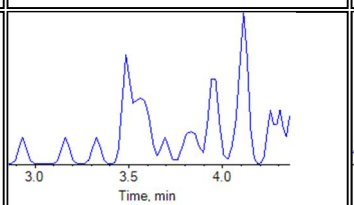

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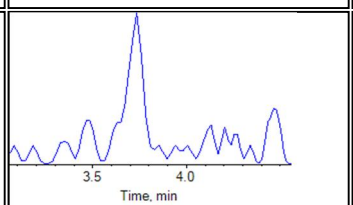

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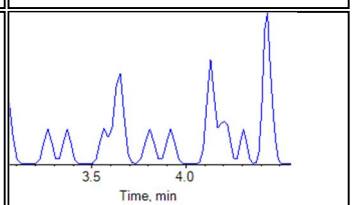

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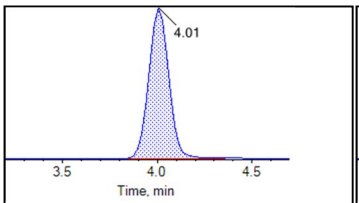

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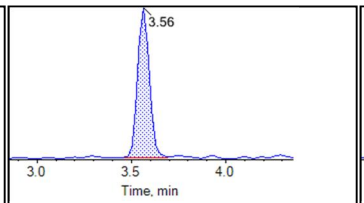
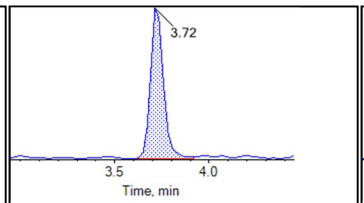
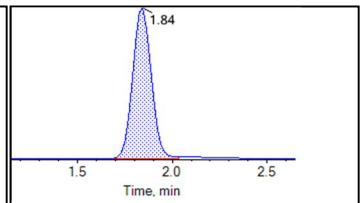


d3-MeFOSAA



d5-EtFOSAA



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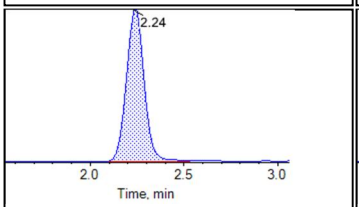

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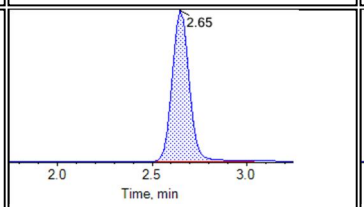

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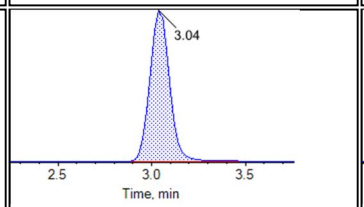
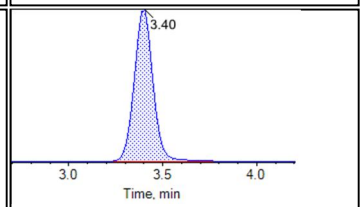


13C9-PFNA



13C6-PFDA

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Chromatogram Report

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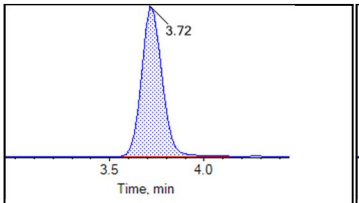
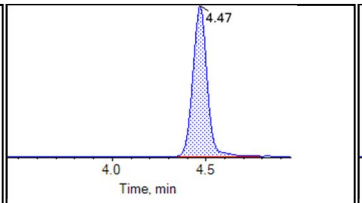
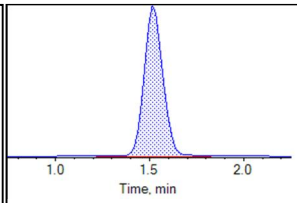


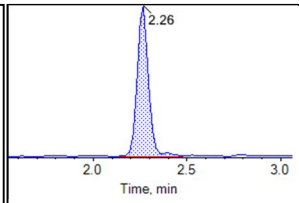
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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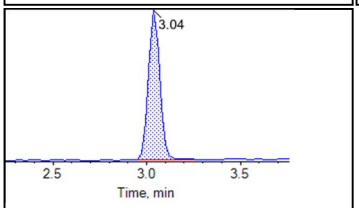

13C8-PFOS

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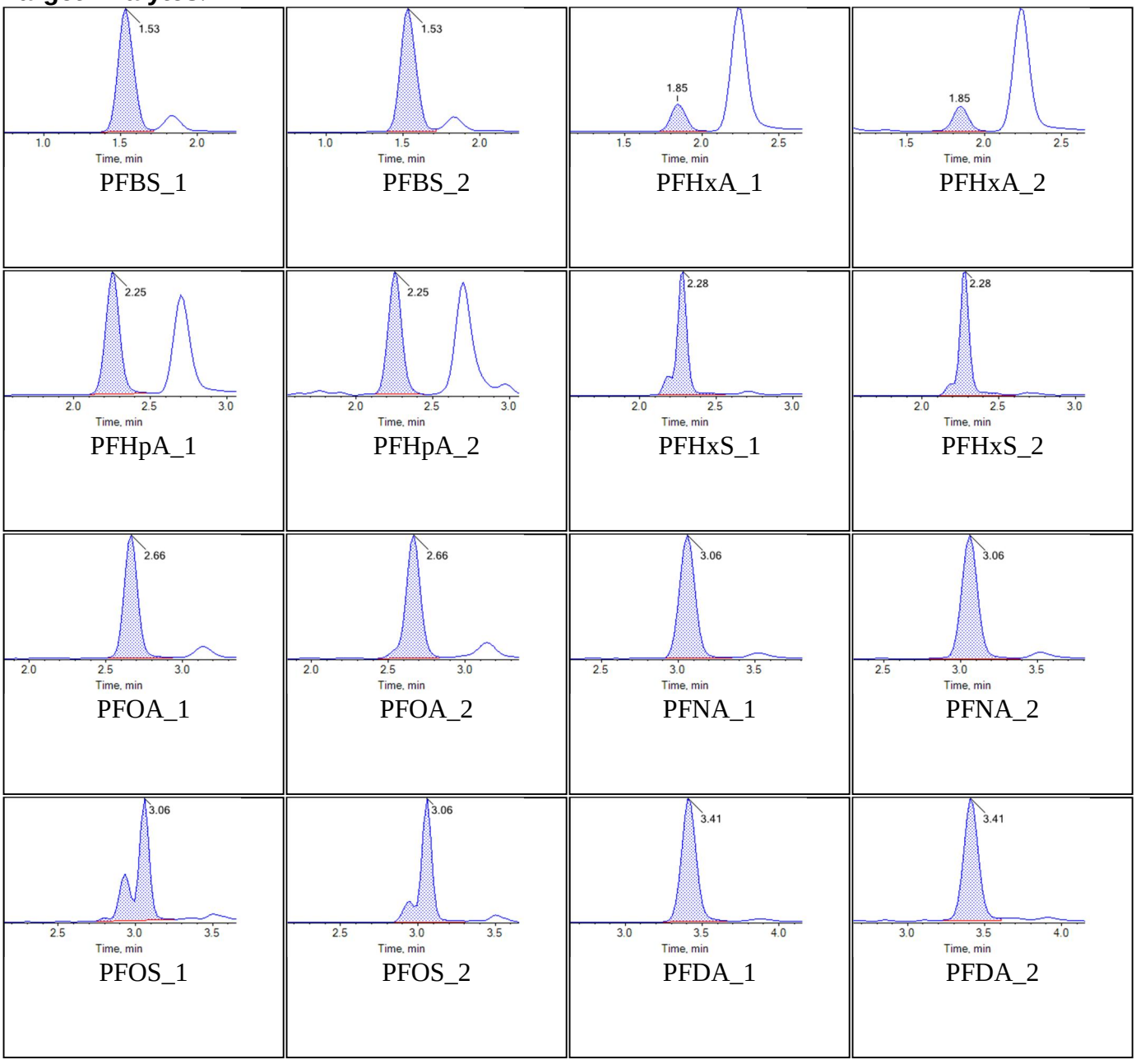
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:17:29 PM

Sample Name	KB85 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:50:36	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Chromatograms

Target Analytes:



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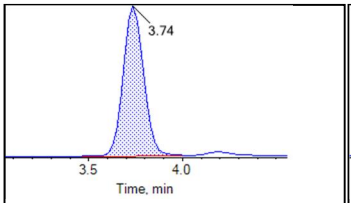
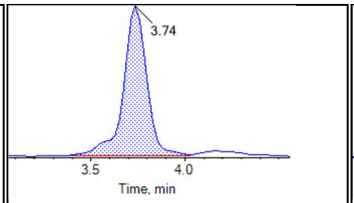
Chromatogram Report

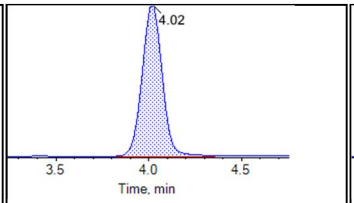
Created with Analyst Reporter
Printed: 03/10/2018 2:17:29 PM



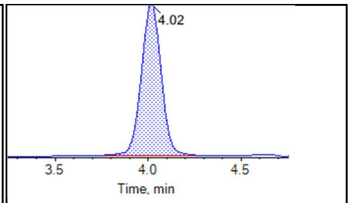
PFUnA_1



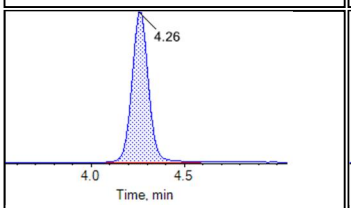
PFUnA_2



PFDoA_1



PFDoA_2



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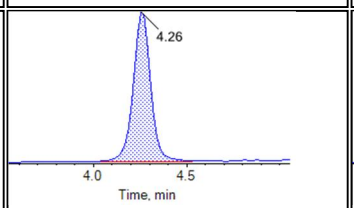

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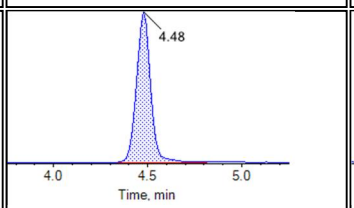

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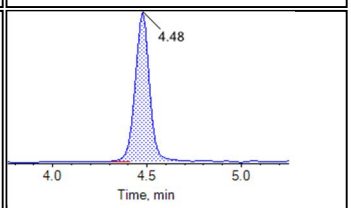

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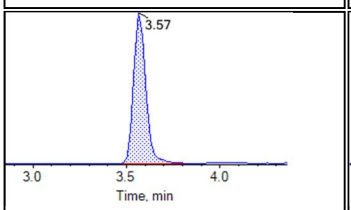

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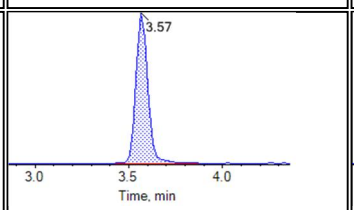

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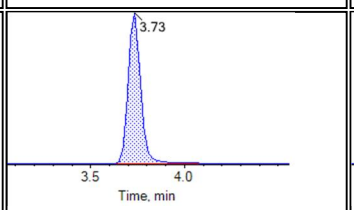

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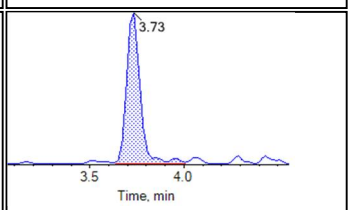

NEtFOSAA_2

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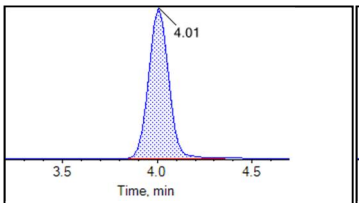
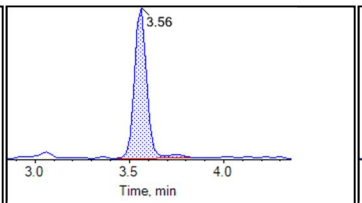
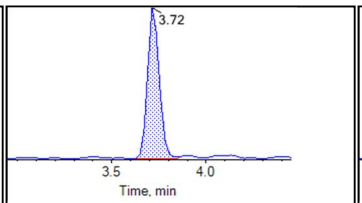


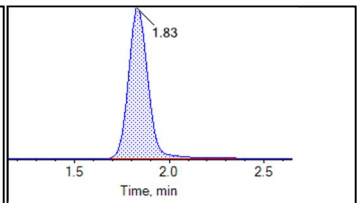
13C2-PFDoA



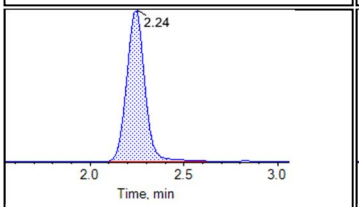
d3-MeFOSAA



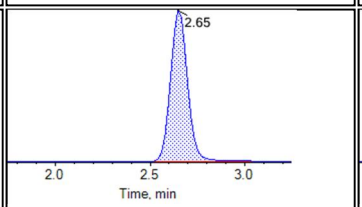
d5-EtFOSAA



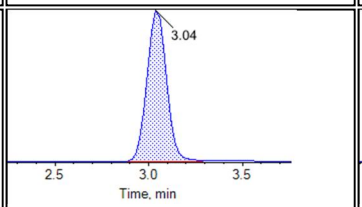
13C5-PFHxA



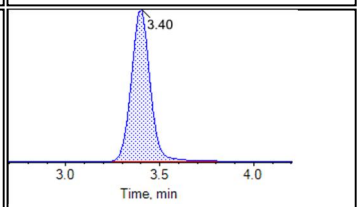
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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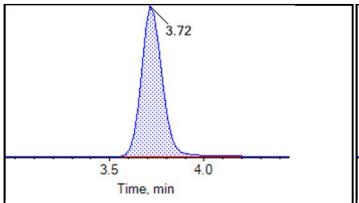
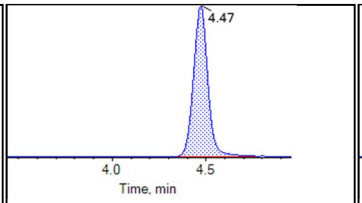
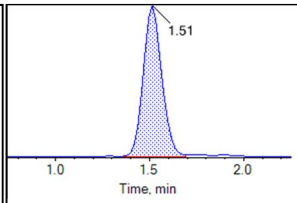


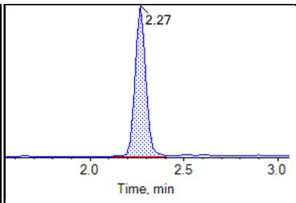
13C7-PFUnA



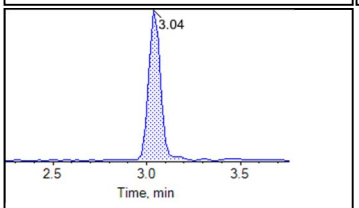
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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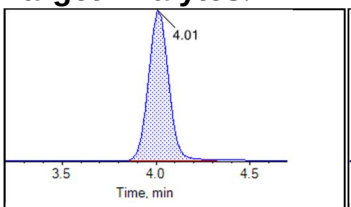
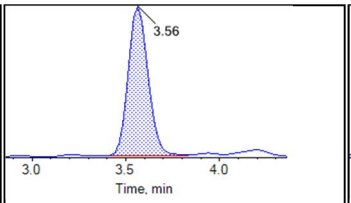
Sample Name	KA86	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T20:29:24	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Chromatograms

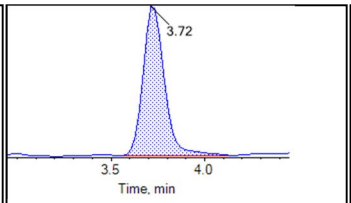
Target Analytes:



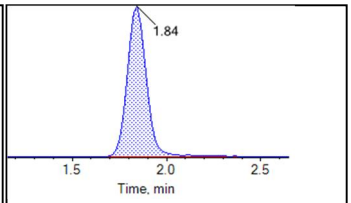
13C2-PFDoA



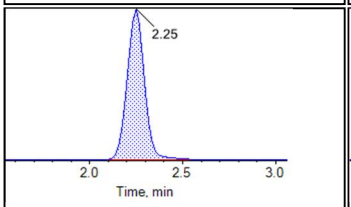
d3-MeFOSAA



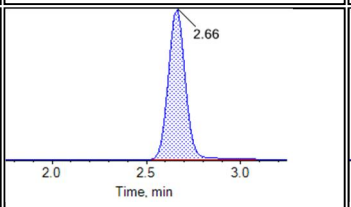
d5-EtFOSAA



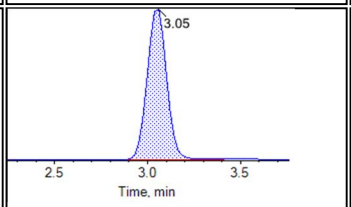
13C5-PFHxA



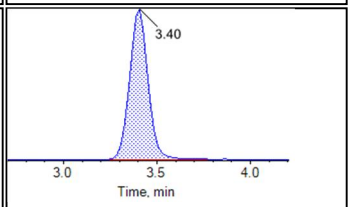
13C4-PFHpA



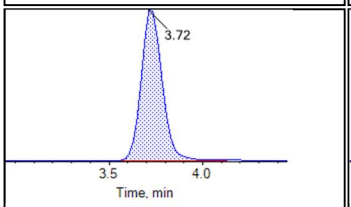
13C8-PFOA



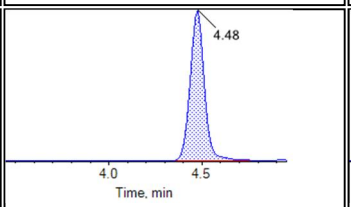
13C9-PFNA



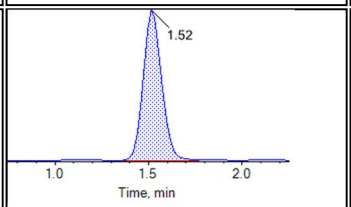
13C6-PFDA



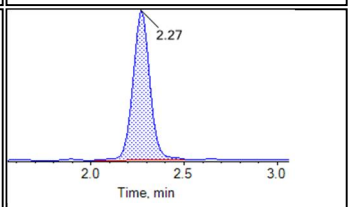
13C7-PFUnA



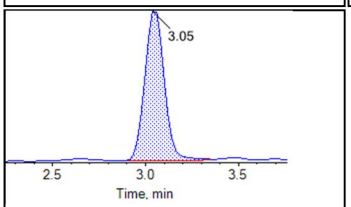
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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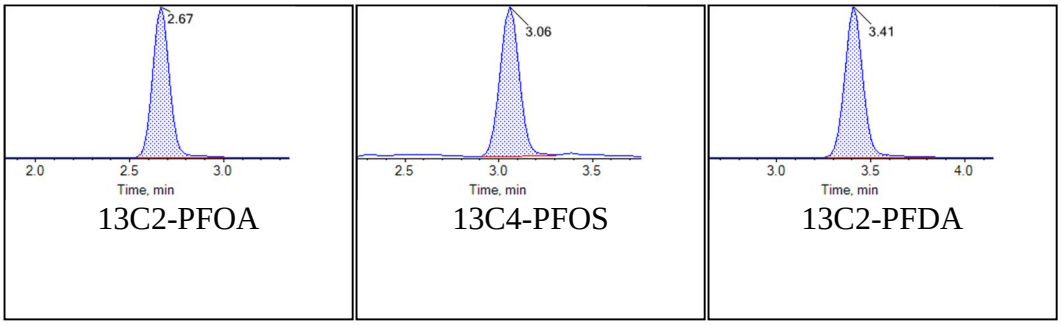
Internal Standards:



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Chromatogram Report

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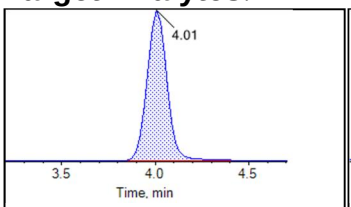
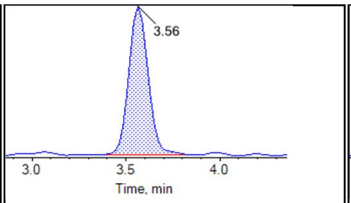
Sample Name	KA87	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T20:40:16	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Chromatograms

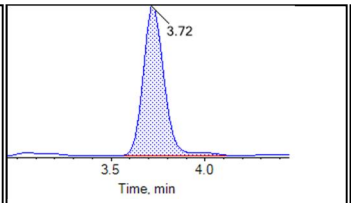
Target Analytes:



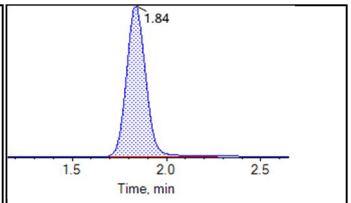
13C2-PFDoA



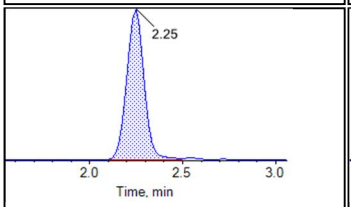
d3-MeFOSAA



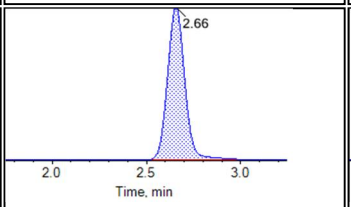
d5-EtFOSAA



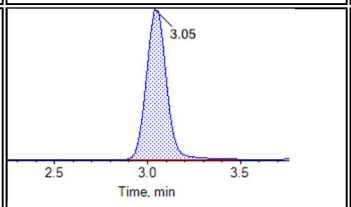
13C5-PFHxA



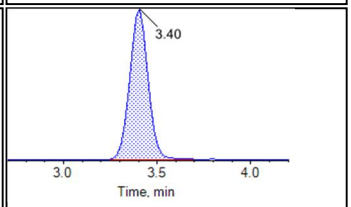
13C4-PFHpA



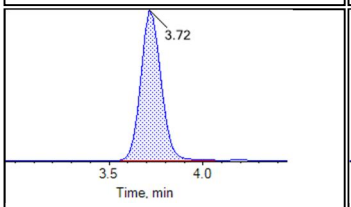
13C8-PFOA



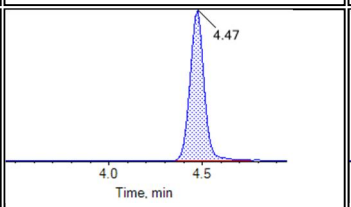
13C9-PFNA



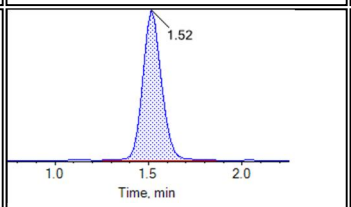
13C6-PFDA



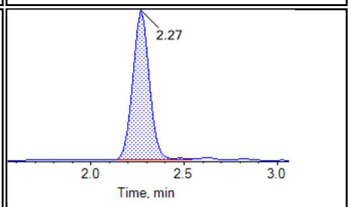
13C7-PFUnA



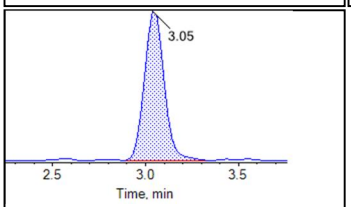
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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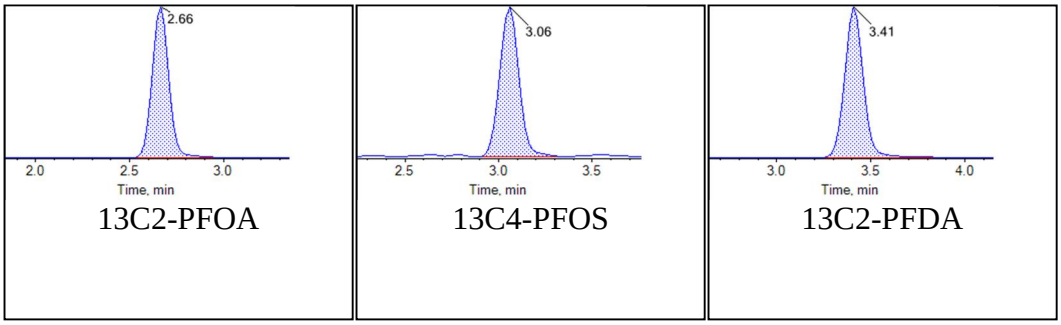
Internal Standards:



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Chromatogram Report

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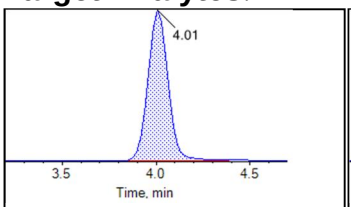
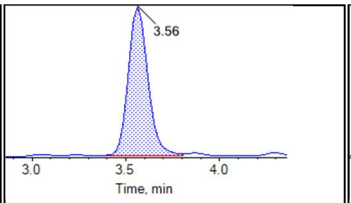
Sample Name	KA88	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T20:51:08	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Chromatograms

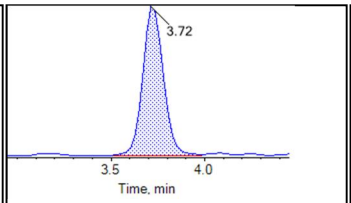
Target Analytes:



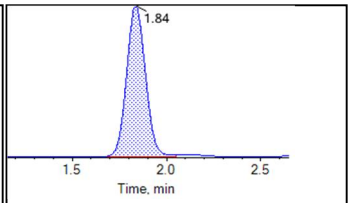
13C2-PFDoA



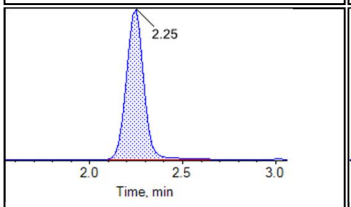
d3-MeFOSAA



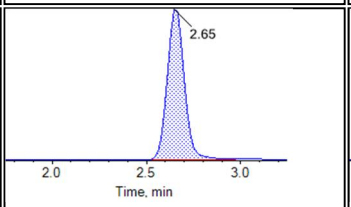
d5-EtFOSAA



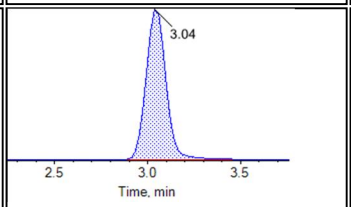
13C5-PFHxA



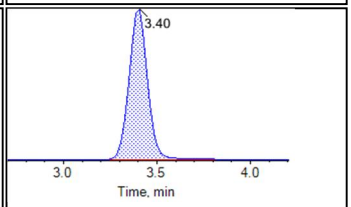
13C4-PFHpA



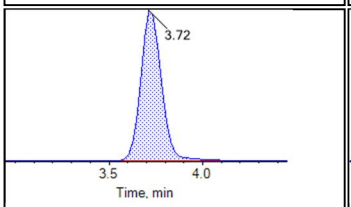
13C8-PFOA



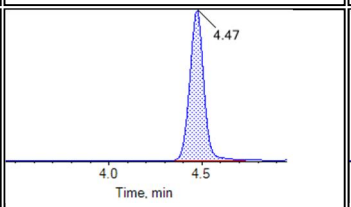
13C9-PFNA



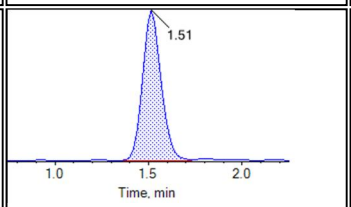
13C6-PFDA



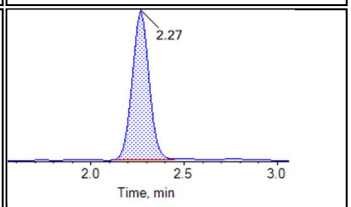
13C7-PFUnA



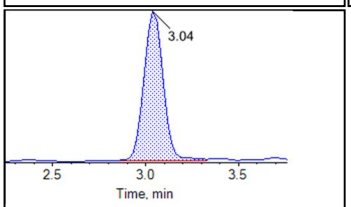
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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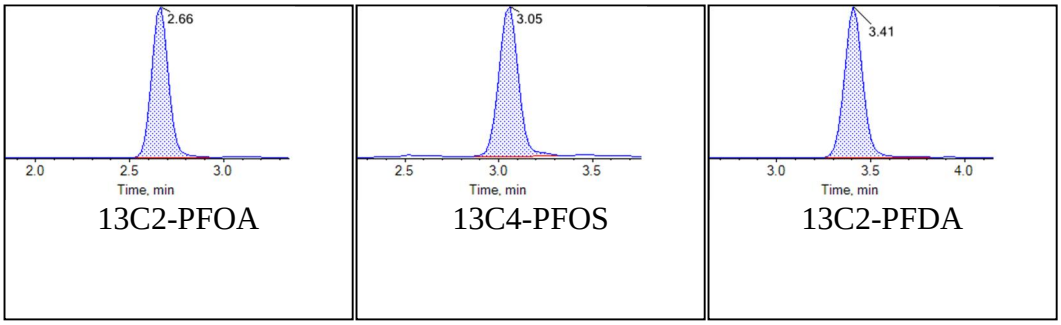
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:14:41 PM

Internal Standards:



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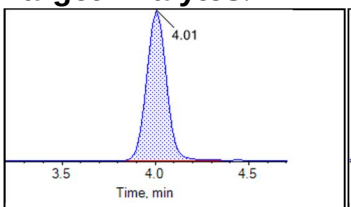
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:14:46 PM

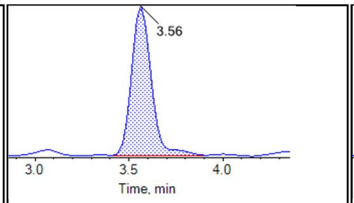
Sample Name	KB85	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:02:00	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Chromatograms

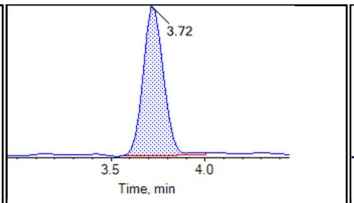
Target Analytes:



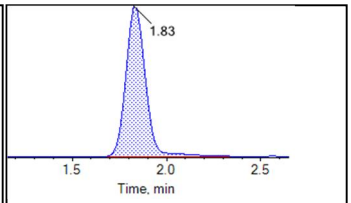
13C2-PFDoA



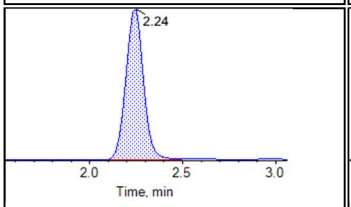
d3-MeFOSAA



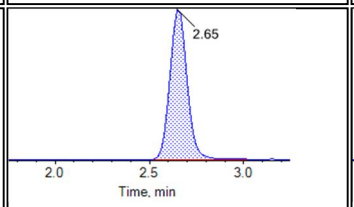
d5-EtFOSAA



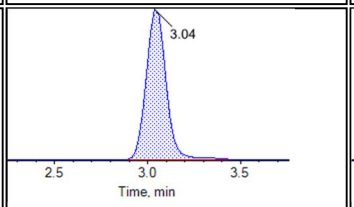
13C5-PFHxA



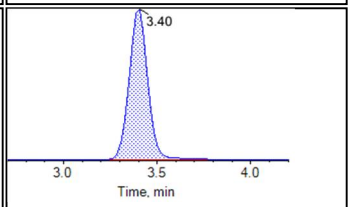
13C4-PFHpA



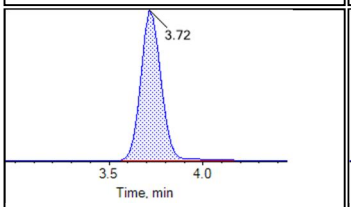
13C8-PFOA



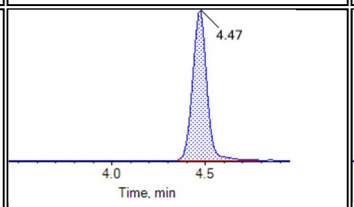
13C9-PFNA



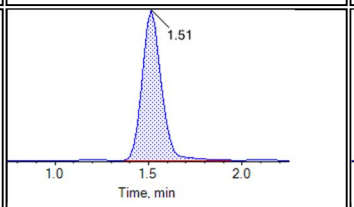
13C6-PFDA



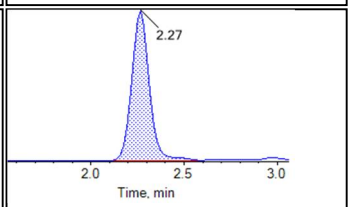
13C7-PFUnA



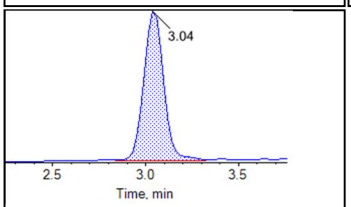
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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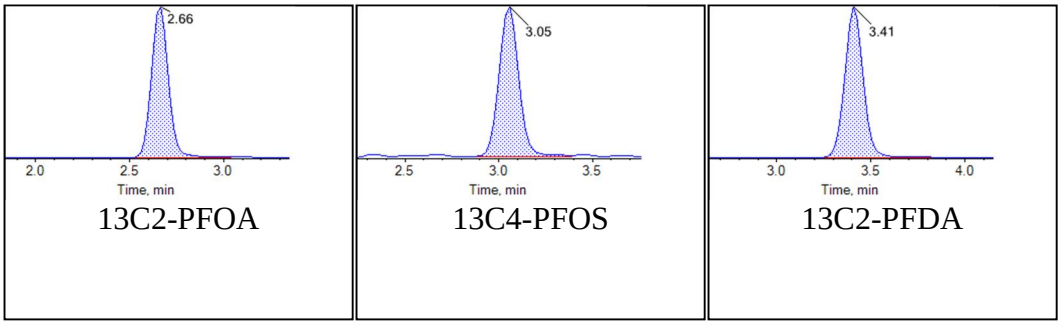
Printed: 03/10/2018 2:14:46 PM

Internal Standards:



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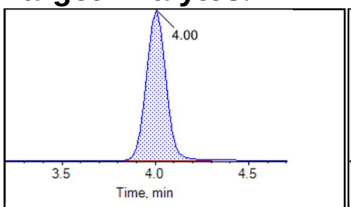
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:14:52 PM

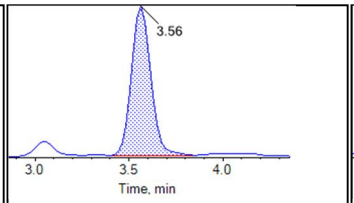
Sample Name	KB69	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:12:52	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Chromatograms

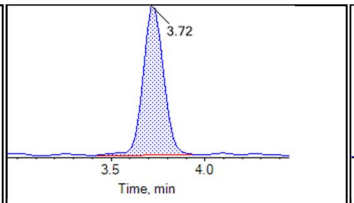
Target Analytes:



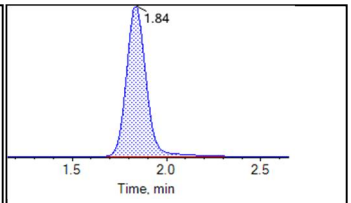
13C2-PFDoA



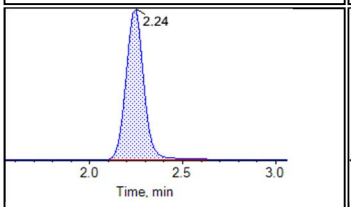
d3-MeFOSAA



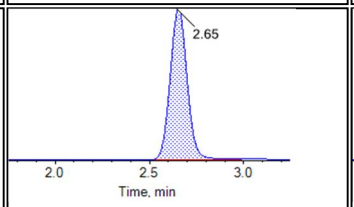
d5-EtFOSAA



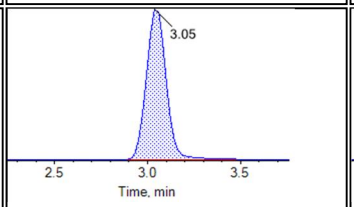
13C5-PFHxA



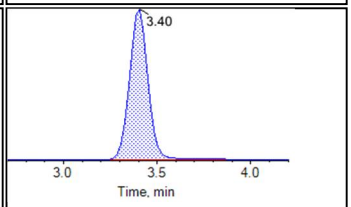
13C4-PFHpA



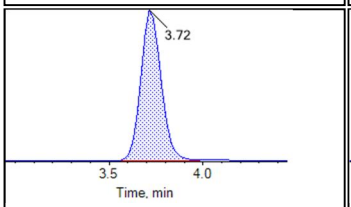
13C8-PFOA



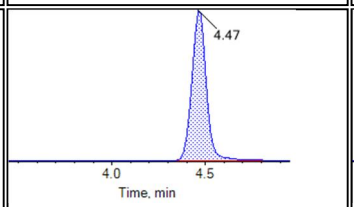
13C9-PFNA



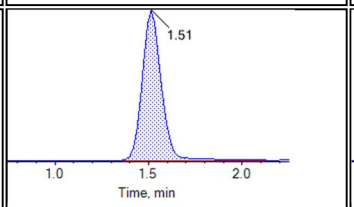
13C6-PFDA



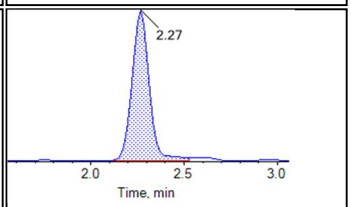
13C7-PFUnA



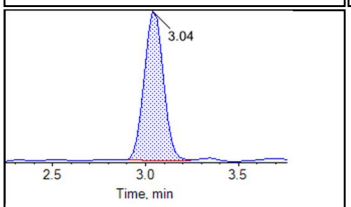
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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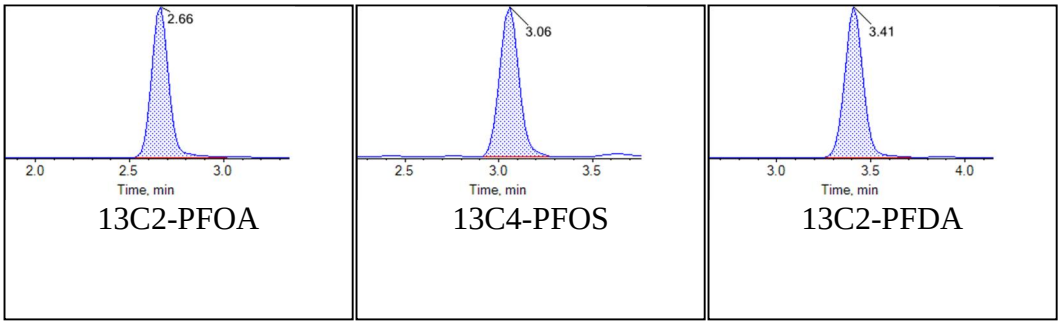
Internal Standards:



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Chromatogram Report

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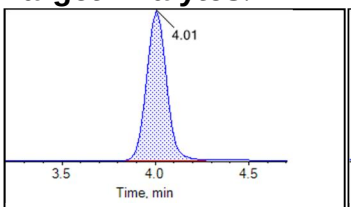
Printed: 03/10/2018 2:14:57 PM

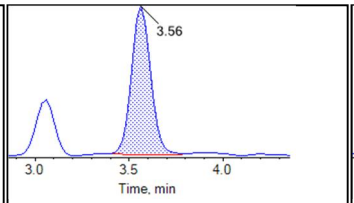
Sample Name	KB64	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:23:43	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Chromatograms

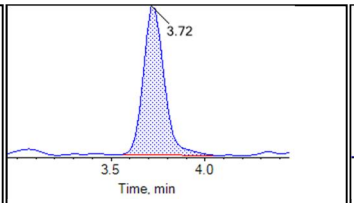
Target Analytes:



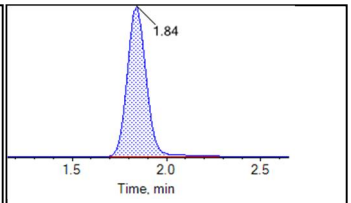
13C2-PFDoA



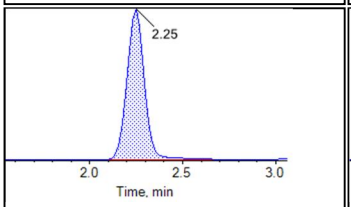
d3-MeFOSAA



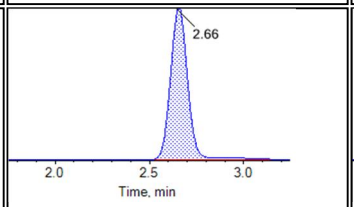
d5-EtFOSAA



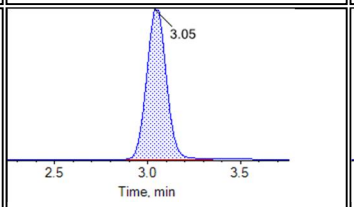
13C5-PFHxA



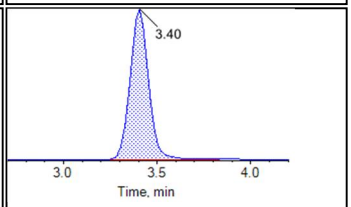
13C4-PFHpA



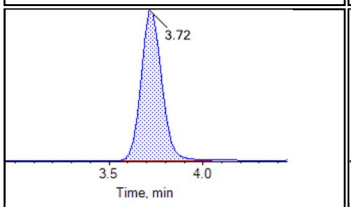
13C8-PFOA



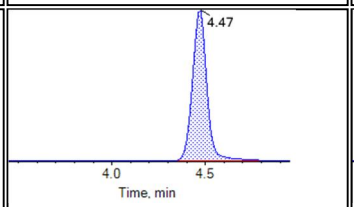
13C9-PFNA



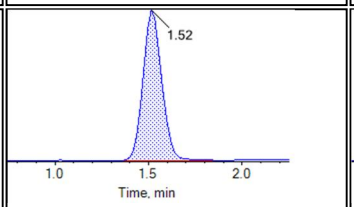
13C6-PFDA



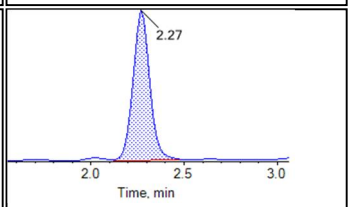
13C7-PFUnA



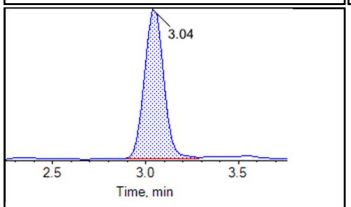
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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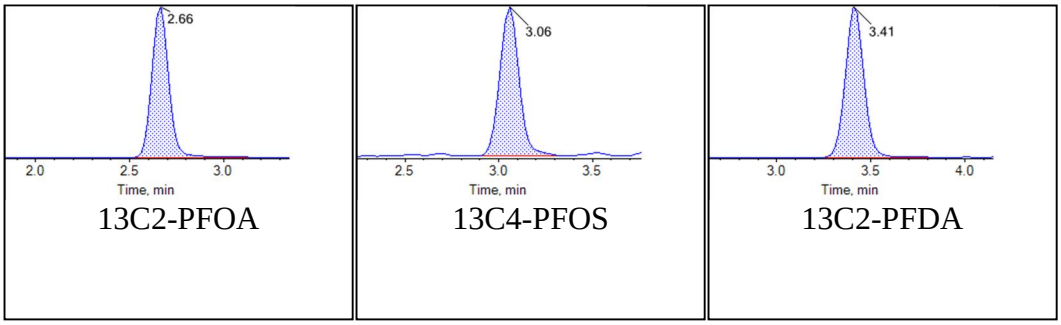
Internal Standards:



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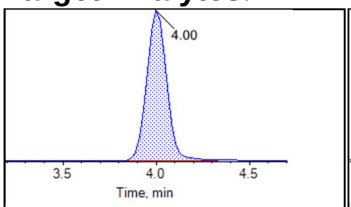
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:15:03 PM

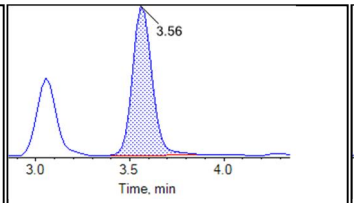
Sample Name	KB65	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:34:34	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Chromatograms

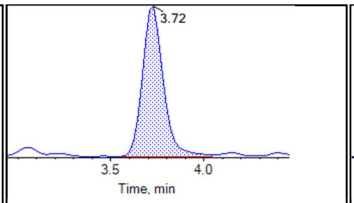
Target Analytes:



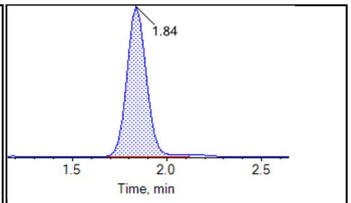
13C2-PFDoA



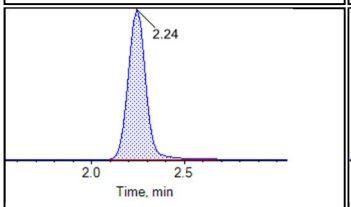
d3-MeFOSAA



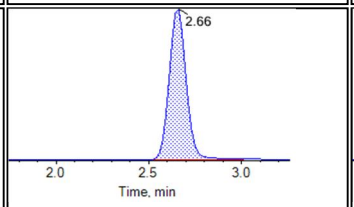
d5-EtFOSAA



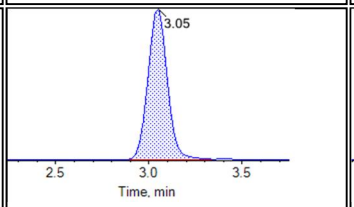
13C5-PFHxA



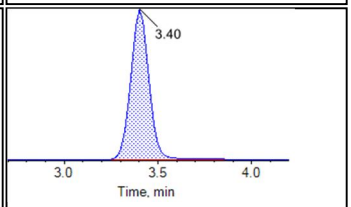
13C4-PFHpA



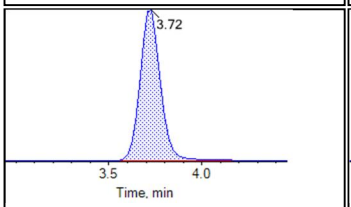
13C8-PFOA



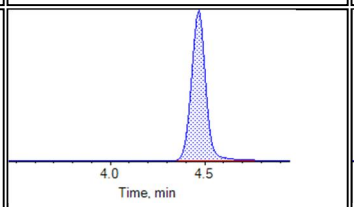
13C9-PFNA



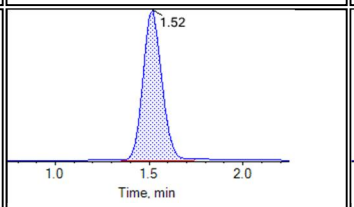
13C6-PFDA



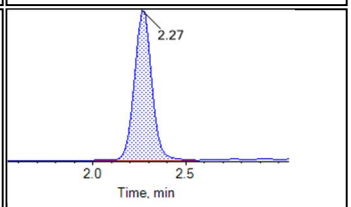
13C7-PFUnA



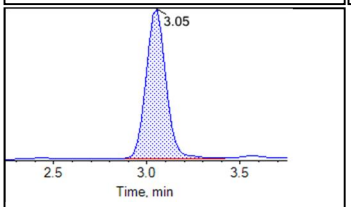
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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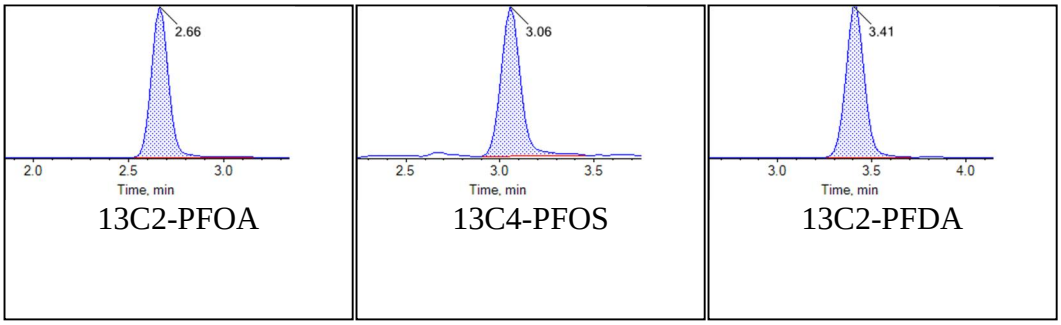
Printed: 03/10/2018 2:15:03 PM

Internal Standards:



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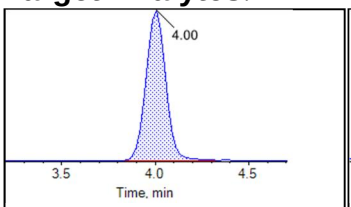
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:15:08 PM

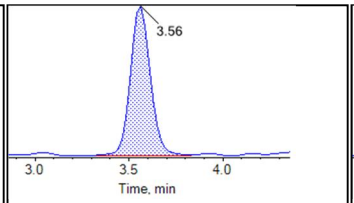
Sample Name	KB35 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:45:25	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Chromatograms

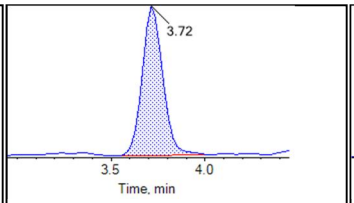
Target Analytes:



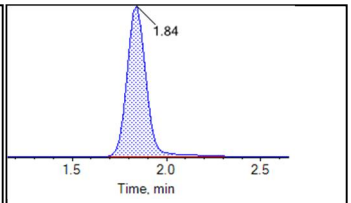
13C2-PFDoA



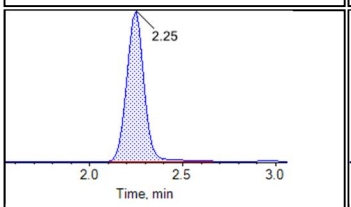
d3-MeFOSAA



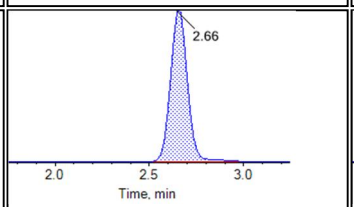
d5-EtFOSAA



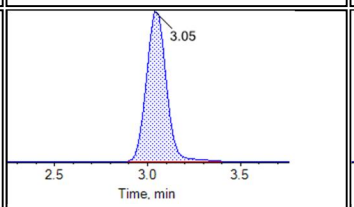
13C5-PFHxA



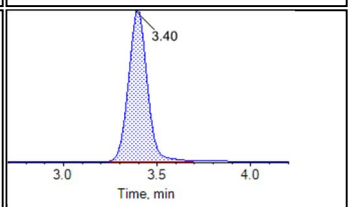
13C4-PFHpA



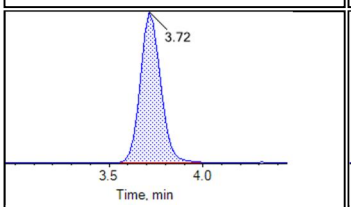
13C8-PFOA



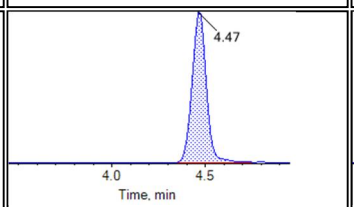
13C9-PFNA



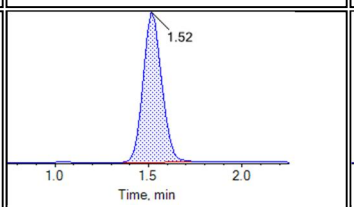
13C6-PFDA



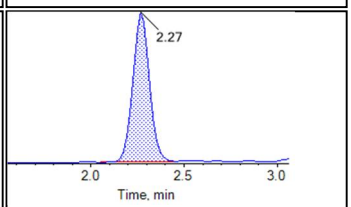
13C7-PFUnA



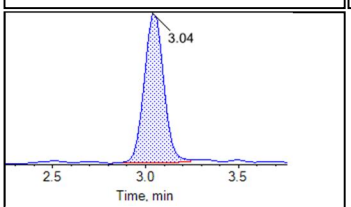
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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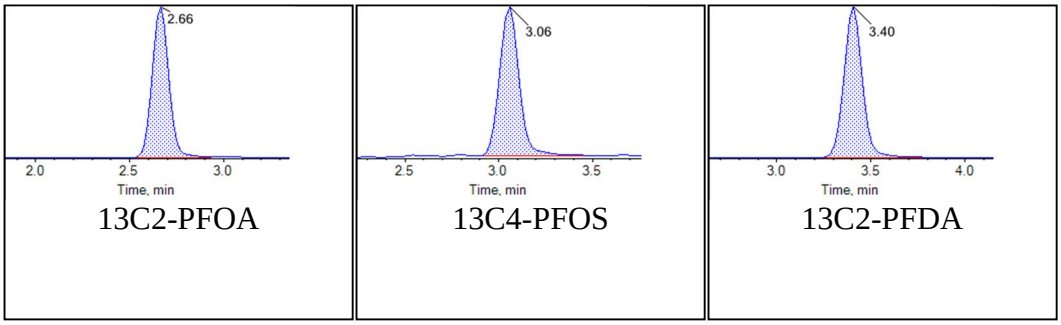
Printed: 03/10/2018 2:15:08 PM

Internal Standards:



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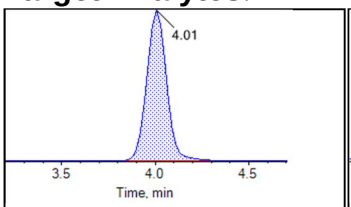
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:15:13 PM

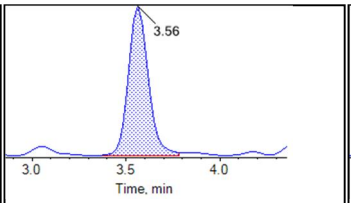
Sample Name	KB36 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T21:56:17	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Chromatograms

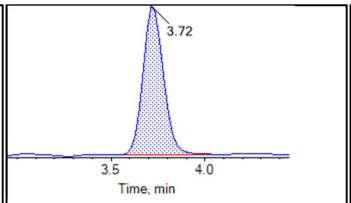
Target Analytes:



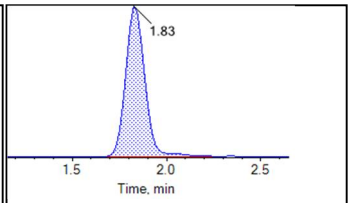
13C2-PFDoA



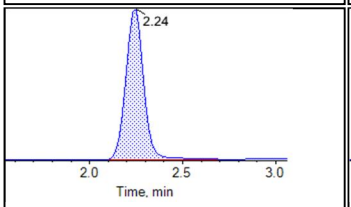
d3-MeFOSAA



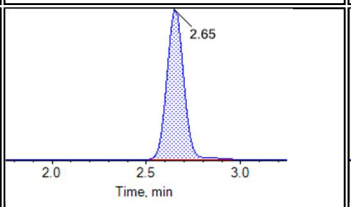
d5-EtFOSAA



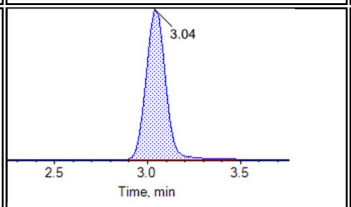
13C5-PFHxA



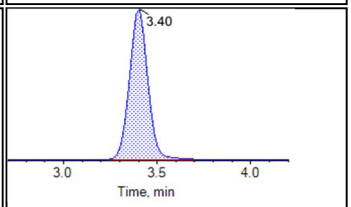
13C4-PFHpA



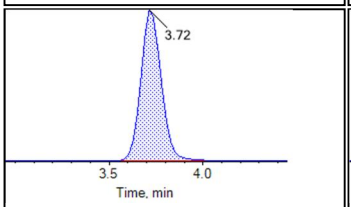
13C8-PFOA



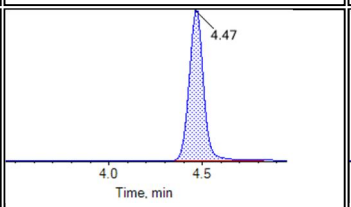
13C9-PFNA



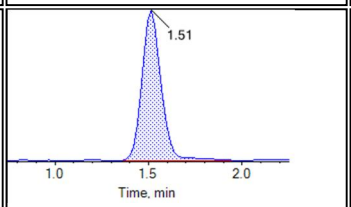
13C6-PFDA



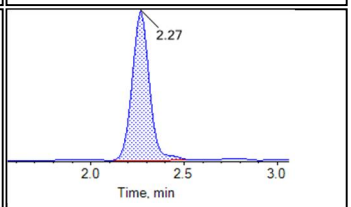
13C7-PFUnA



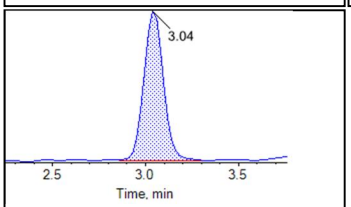
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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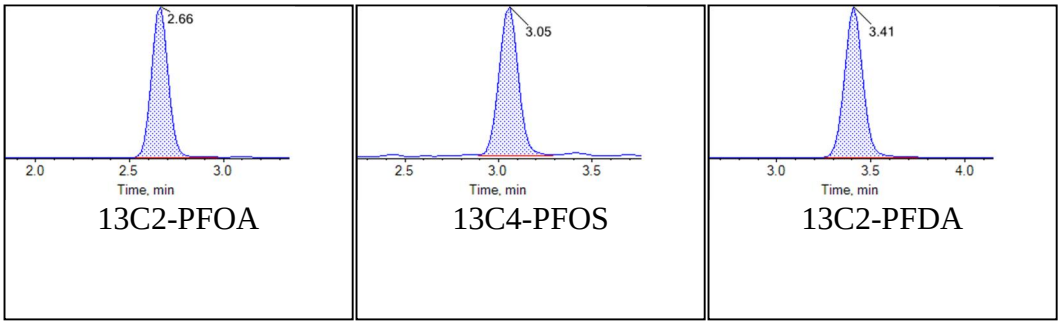
Printed: 03/10/2018 2:15:13 PM

Internal Standards:



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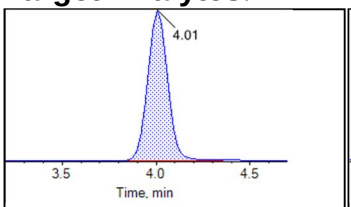
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:15:34 PM

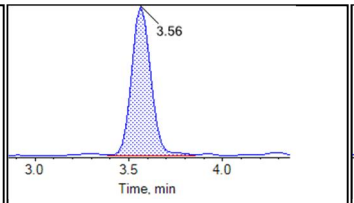
Sample Name	J8218-FS(3)	**Injection Vial**	14
Sample ID	VC-PM372-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:39:44	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Chromatograms

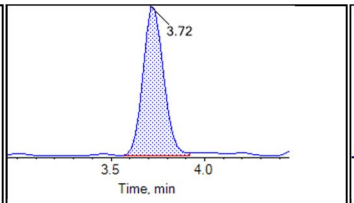
Target Analytes:



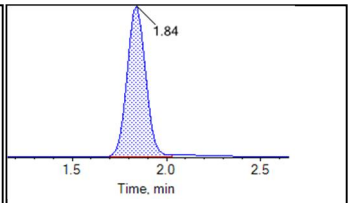
13C2-PFDoA



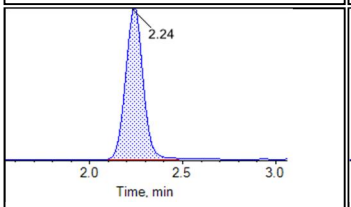
d3-MeFOSAA



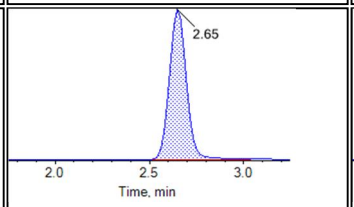
d5-EtFOSAA



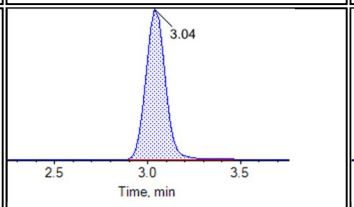
13C5-PFHxA



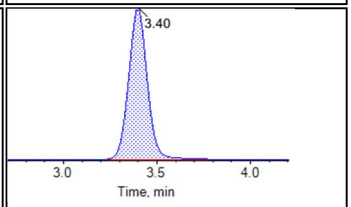
13C4-PFHpA



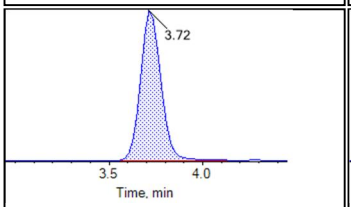
13C8-PFOA



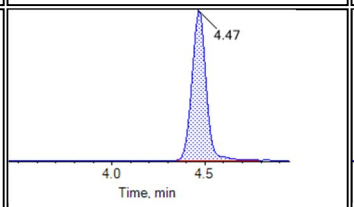
13C9-PFNA



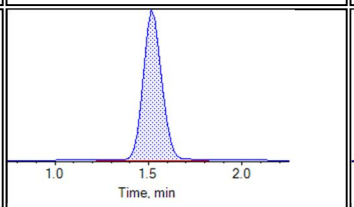
13C6-PFDA



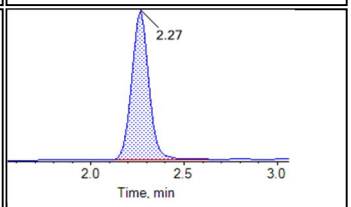
13C7-PFUnA



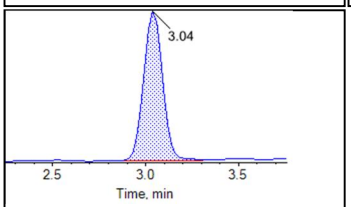
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS

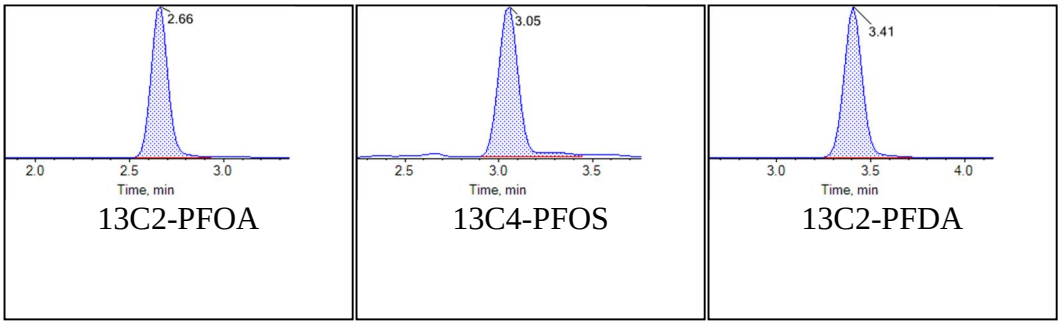


13C8-PFOS

Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:15:34 PM

Internal Standards:



BATTELLE

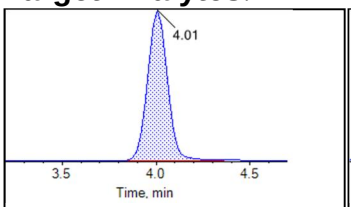
Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:15:40 PM

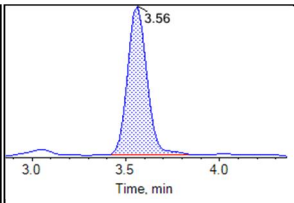
Sample Name	KB85 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:50:36	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Chromatograms

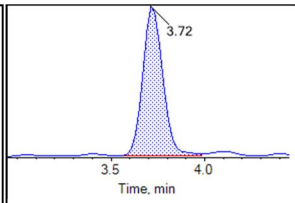
Target Analytes:



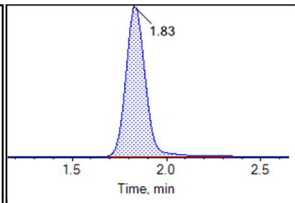
13C2-PFDoA



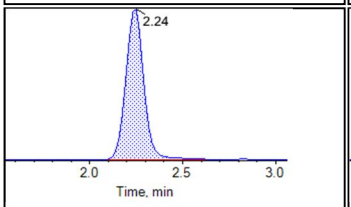
d3-MeFOSAA



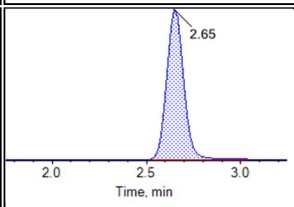
d5-EtFOSAA



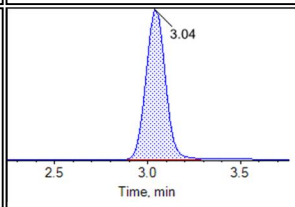
13C5-PFHxA



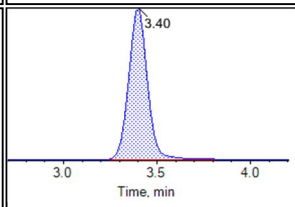
13C4-PFHpA



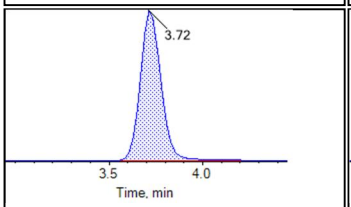
13C8-PFOA



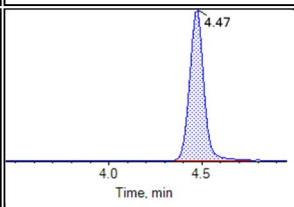
13C9-PFNA



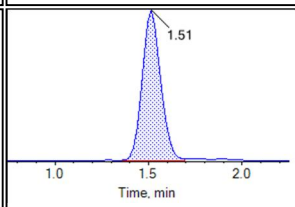
13C6-PFDA



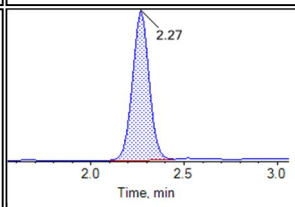
13C7-PFUnA



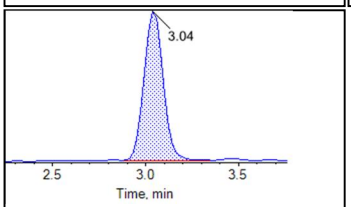
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS

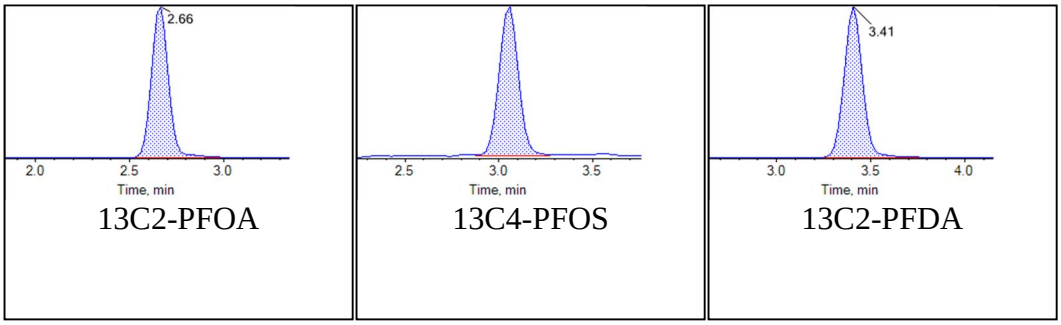


13C8-PFOS

Chromatogram Report

Created with Analyst Reporter
Printed: 03/10/2018 2:15:40 PM

Internal Standards:



Unused Data

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 1:38:08 PM

Sample Name	J8218-FS(3)	**Injection Vial**	15
Sample ID	VC-PM372-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:32:19	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_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	2.66	7004.25	50.109745	18.4	true
PFOA_2	413.0 / 169.0	2.66	621.47	58.030627	29.1	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	3.06	30598.90	144.516774	20.8	true
PFOS_2	499.0 / 99.0	3.06	5949.88	153.218705	38.0	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 Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 1:36:16 PM

Sample Name	J8218-FS(3)	**Injection Vial**	15
Sample ID	VC-PM372-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-09-28T23:32:19	**Data File**	18-0571.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_18-0571_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	31220.80	252.228622	493.5	false
d3-MeFOSAA	573.0 / 419.0	3.56	2943.86	139.947665	70.0	false
d5-EtFOSAA	589.0 / 419.0	3.72	3886.55	184.344216	76.8	false
13C5-PFHxA	318.0 / 273.0	1.84	23126.28	236.844298	343.0	false
13C4-PFHpA	367.0 / 322.0	2.25	25924.60	231.548326	280.2	false
13C8-PFOA	421.0 / 376.0	2.65	30433.42	243.164394	717.1	false
13C9-PFNA	472.0 / 427.0	3.04	30490.58	241.396494	819.5	false
13C6-PFDA	519.0 / 474.0	3.40	34415.31	264.535046	635.6	false
13C7-PFUnA	570.0 / 525.0	3.71	33454.42	292.848989	413.5	false
13C2-PFTeDA	715.0 / 670.0	4.47	21411.48	224.229929	1240.8	false
13C3-PFBS	302.0 / 99.0	1.52	10368.58	187.861297	250.3	false
13C3-PFHxS	402.0 / 99.0	2.27	10726.42	249.460587	153.8	false
13C8-PFOS	507.0 / 99.0	3.04	12303.26	257.439871	119.1	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 1:40:09 PM

Sample Name	CR849PB-FS(3)	**Injection Vial**	13
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:28:52	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_BASE_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.54	5251.53	23.154557	18.0	true
PFBS_2	298.9 / 99.0	1.53	1729.60	14.640417	17.0	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	2.28	21675.87	34.499081	51.4	true
PFHxS_2	399.0 / 99.0	2.28	6120.48	38.217700	43.9	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	3.06	257636.38	305.726245	139.0	true
PFOS_2	499.0 / 99.0	3.06	50790.60	348.657109	254.0	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	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 Quant Report

Created with Analyst Reporter
Printed: 03/10/2018 1:39:07 PM

Sample Name	CR849PB-FS(3)	**Injection Vial**	13
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-02T22:28:52	**Data File**	18-0567.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0569_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.01	136586.35	282.168061	622.8	false
d3-MeFOSAA	573.0 / 419.0	3.56	20343.02	274.280700	197.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	24650.85	304.947377	286.1	false
13C5-PFHxA	318.0 / 273.0	1.84	90914.29	264.182426	680.7	false
13C4-PFHpA	367.0 / 322.0	2.25	100805.48	266.656271	586.0	false
13C8-PFOA	421.0 / 376.0	2.65	136018.05	281.791457	2120.3	false
13C9-PFNA	472.0 / 427.0	3.04	132835.56	272.615883	1283.8	false
13C6-PFDA	519.0 / 474.0	3.40	137144.15	281.081813	709.1	false
13C7-PFUnA	570.0 / 525.0	3.72	141901.89	286.113276	682.5	false
13C2-PFTeDA	715.0 / 670.0	4.47	109114.05	283.167041	2110.7	false
13C3-PFBS	302.0 / 99.0	1.52	41164.65	269.709833	507.7	false
13C3-PFHxS	402.0 / 99.0	2.27	36565.96	263.525864	323.3	false
13C8-PFOS	507.0 / 99.0	3.04	41066.50	280.748900	286.9	false

EDD

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CHOM_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Name	Leachate_Method	SAMPLE_BASIS	Extraction_Method	Result_Type	Lab_QC_type	SAMPLE_MEDIUM	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	PERCENT_MOISTURE	PERCENT_LIPID	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	GC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QSM_Version	DL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		Perfluorohexanoic Acid (PFHxA)	307-24-4	0	0	1.02 NG_L	U				TRG																			
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		Perfluoroheptanoic acid (PFHpA)	375-85-9		0	1.02 NG_L	U				TRG							0.45	0.45	5.1	7.0	1.02	5.08	18-0569	DP-18-0277							
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		Perfluorooctanoic acid (PFOA)	335-67-1		0	1.02 NG_L	U				TRG							0.51	0.51	5.1	7.0	1.02	5.08	18-0569	DP-18-0277							
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		Perfluorononanoic acid (PFNA)	375-95-1		0	1.02 NG_L	U				TRG							0.44	0.44	5.1	7.0	1.02	5.08	18-0569	DP-18-0277							
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		Perfluorooctanesulfonic Acid (PFOA)	335-76-2		0	1.02 NG_L	U				TRG							0.42	0.42	5.1	7.0	1.02	5.08	18-0569	DP-18-0277							
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		Perfluorododecanoic Acid (PFDoA)	307-55-1		0	0.51 NG_L	U				TRG							0.24	0.24	5.1	7.0	0.51	5.08	18-0569	DP-18-0277							
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		0	1.02 NG_L	U				TRG							0.28	0.28	5.1	7.0	1.02	5.08	18-0569	DP-18-0277							
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		0	2.03 NG_L	U				TRG							0.64	0.64	5.1	7.0	2.03	5.08	18-0569	DP-18-0277							
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA	2355-31-9		0	2.54 NG_L	U				TRG							1.14	1.14	5.1	7.0	2.54	5.08	18-0569	DP-18-0277							
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		0	2.03 NG_L	U				TRG							0.58	0.58	5.1	7.0	2.03	5.08	18-0569	DP-18-0277							
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		Perfluorobutanesulfonic Acid (PFBS)	375-73-5		0	1.02 NG_L	U				TRG							0.37	0.37	5.1	7.0	1.02	5.08	18-0569	DP-18-0277							
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		Perfluorohexanesulfonic Acid (PFHxS)	355-46-4		0	0.51 NG_L	I				TRG							0.22	0.22	5.1	7.0	0.51	5.08	18-0569	DP-18-0277							
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0	1.66 NG_L	I				TRG							0.27	0.27	5.1	7.0	1.02	5.08	18-0569	DP-18-0277							
N6247016029000	4164		POINT_MUGU_N CR849P9-FS		NONS	SVOA		ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	BLK	SO	4	20180926 11:24	20180926			20180926	11:24:00	20180928	21:10:51	CR849P9-FS	10 1		0		13C5-PFHxA																		

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Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CHOM_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Name	Leachate_Method	SAMPLE_BASIS	Extraction_Method	Result_Type	Lab_QC_type	SAMPLE_MEDIUM	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	PERCENT_MOISTURE	PERCENT_LIPID	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	GC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QSM_Version	DL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0102		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:13	20180921			20180926	11:24:00	20180928	22:16:07	i8205-F5	10 1		2.04		45-8YPOSAA	BDO-1839			94 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0102		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:13	20180921			20180926	11:24:00	20180928	22:16:07	i8205-F5	10 1		2.04		13C3-PFBS	BDO-2226			105 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0102		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:13	20180921			20180926	11:24:00	20180928	22:16:07	i8205-F5	10 1		2.04		13C3-PFHxS	BDO-2227			109 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0102		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:13	20180921			20180926	11:24:00	20180928	22:16:07	i8205-F5	10 1		2.04		13C8-PFOS	BDO-2228			94 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		Perfluorohexanoic Acid (PFHxA)	307-24-4			1.1 NG_L	U		TNG			20171116		0.36	0.36	5.1	70	7.1	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		Perfluoroheptanoic acid (PFHpA)	375-85-9			1.1 NG_L	U		TNG			20171116		0.49	0.49	5.1	70	7.1	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		Perfluorooctanoic acid (PFOA)	335-67-1			1.1 NG_L	U		TNG			20171116		0.55	0.55	5.1	70	7.1	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		Perfluorononanoic acid (PFNA)	375-95-1			1.1 NG_L	U		TNG			20171116		0.48	0.48	5.1	70	7.1	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		Perfluorodecanoic Acid (PFDA)	335-76-2			1.1 NG_L	U		TNG			20171116		0.3	0.3	5.1	70	7.1	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		Perfluoroundecanoic Acid (PFUnA)	2058-94-8			1.1 NG_L	U		TNG			20171116		0.45	0.45	5.1	70	7.1	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		Perfluorododecanoic Acid (PFDoA)	307-55-1			0.55 NG_L	U		TNG			20171116		0.27	0.27	5.1	70	7.1	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		Perfluorotridecanoic Acid (PFTrDA)	72629-94-8			1.1 NG_L	U		TNG			20171116		0.31	0.31	5.1	70	7.1	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		Perfluorotetradecanoic Acid (PFTeDA)	376-06-7			2.21 NG_L	U		TNG			20171116		0.7	0.7	5.1	70	7.1	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA	2355-31-9			2.76 NG_L	U		TNG			20171116		1.24	1.24	5.1	70	7.2	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6			2.21 NG_L	U		TNG			20171116		0.63	0.63	5.1	70	7.2	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		Perfluorobutanesulfonic acid (PFBS)	375-73-5			1.1 NG_L	U		TNG			20171116		0.4	0.4	5.1	70	7.1	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		Perfluorohexanesulfonic acid (PFHxS)	355-46-4			0.55 NG_L	U		TNG			20171116		0.24	0.24	5.1	70	0.55	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		Perfluorooctanesulfonic acid (PFOS)	1763-23-1	J		2.59 NG_L	J		TNG			20171116		0.3	0.3	5.1	70	7.1	5.52	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		13C5-PFHxA	BDO-2217			105 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		13C4-PFHpA	BDO-2218			105 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		13C8-PFOA	BDO-2219			104 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		13C9-PFNA	BDO-2221			106 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		13C6-PFDA	BDO-2222			109 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		13C7-PFUnA	BDO-2223			113 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		13C2-PFDoA	BDO-2112			105 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		13C2-PFTeDA	BDO-2224			100 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		d3-NaFOSAA	BDO-1838			90 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		d5-8YPOSAA	BDO-1839			96 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		13C3-PFBS	BDO-2226			108 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		13C3-PFHxS	BDO-2227			115 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB62-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180917 15:15	20180921			20180926	11:24:00	20180928	22:26:59	i8206-F5	10 1		8.47		13C8-PFOS	BDO-2228			104 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		Perfluorohexanoic Acid (PFHxA)	307-24-4			1.14 NG_L	U		TNG			20171116		0.38	0.38	5.1	70	7.1	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		Perfluoroheptanoic acid (PFHpA)	375-85-9			1.14 NG_L	U		TNG			20171116		0.5	0.5	5.1	70	7.1	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		Perfluorooctanoic acid (PFOA)	335-67-1			1.14 NG_L	U		TNG			20171116		0.57	0.57	5.1	70	7.1	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		Perfluorononanoic acid (PFNA)	375-95-1			1.14 NG_L	U		TNG			20171116		0.49	0.49	5.1	70	7.1	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		Perfluorodecanoic Acid (PFDA)	335-76-2			1.14 NG_L	U		TNG			20171116		0.31	0.31	5.1	70	7.1	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		Perfluoroundecanoic Acid (PFUnA)	2058-94-8			1.14 NG_L	U		TNG			20171116		0.47	0.47	5.1	70	7.1	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		Perfluorododecanoic Acid (PFDoA)	307-55-1			0.57 NG_L	U		TNG			20171116		0.27	0.27	5.1	70	0.57	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		Perfluorotridecanoic Acid (PFTrDA)	72629-94-8			1.14 NG_L	U		TNG			20171116		0.32	0.32	5.1	70	7.1	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		Perfluorotetradecanoic Acid (PFTeDA)	376-06-7			2.29 NG_L	U		TNG			20171116		0.72	0.72	5.1	70	7.2	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		N-Methyl Perfluorooctanesulfonamidoacetic Acid (MeFOSAA	2355-31-9			2.86 NG_L	U		TNG			20171116		1.28	1.28	5.1	70	2.86	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6			2.29 NG_L	U		TNG			20171116		0.65	0.65	5.1	70	2.29	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		Perfluorobutanesulfonic acid (PFBS)	375-73-5			1.14 NG_L	U		TNG			20171116		0.41	0.41	5.1	70	7.1	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		Perfluorohexanesulfonic acid (PFHxS)	355-46-4			0.57 NG_L	U		TNG			20171116		0.25	0.25	5.1	70	0.57	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		Perfluorooctanesulfonic acid (PFOS)	1763-23-1			4.42 NG_L	J		TNG			20171116		0.31	0.31	5.1	70	7.1	5.71	18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		13C5-PFHxA	BDO-2217			95 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		13C4-PFHpA	BDO-2218			95 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		13C8-PFOA	BDO-2219			98 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		13C9-PFNA	BDO-2221			86 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		13C6-PFDA	BDO-2222			98 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		13C7-PFUnA	BDO-2223			108 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		13C2-PFDoA	BDO-2112			102 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		13C2-PFTeDA	BDO-2224			92 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		d3-NaFOSAA	BDO-1838			80 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37:51	i8207-F5	10 1		12.61		d5-8YPOSAA	BDO-1839			110 PCT_REC		SURR	SLSP		150	50 20171116						18-0569	DP-18-0277		
N6247016029000	4164		POINT_MUGU_NVC-PM3009-SB63-0506		NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180917 16:16	20180921			20180926	11:24:00	20180928	22:37

EDD

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CHOM_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Name	Leachate_Method	SAMPLE_BASIS	Extraction_Method	Result_Type	Lab_QC_Type	SAMPLE_MEDIUM	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	PERCENT_MOISTURE	PERCENT_LIPID	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	GC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QSM_Version	DL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB03-0506	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:43	20180921			20180926	11:24:00	20180928	23:54:03	J8220-F5	10 1	21.32			13C2-PFOA	8DO-2221		125 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB03-0506	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:43	20180921			20180926	11:24:00	20180928	23:54:03	J8220-F5	10 1	21.32			13C2-PFDoA	8DO-2112		105 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB03-0506	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:43	20180921			20180926	11:24:00	20180928	23:54:03	J8220-F5	10 1	21.32			13C2-PFTeDA	8DO-2224		102 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB03-0506	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:43	20180921			20180926	11:24:00	20180928	23:54:03	J8220-F5	10 1	21.32			d3-NaFOSAA	8DO-1838		76 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB03-0506	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:43	20180921			20180926	11:24:00	20180928	23:54:03	J8220-F5	10 1	21.32			d5-EtFOSAA	8DO-1839		98 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB03-0506	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:43	20180921			20180926	11:24:00	20180928	23:54:03	J8220-F5	10 1	21.32			13C3-PFBS	8DO-2226		87 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB03-0506	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:43	20180921			20180926	11:24:00	20180928	23:54:03	J8220-F5	10 1	21.32			13C3-PFHxS	8DO-2227		99 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB03-0506	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:43	20180921			20180926	11:24:00	20180928	23:54:03	J8220-F5	10 1	21.32			13C8-PFOS	8DO-2228		89 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluorohexanoic Acid (PFHxA)	307-24-4		3.97 NG_L	J		TRG					20171116		0.34	0.34	5.1	70	1.04	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluoroheptanoic acid (PFHpA)	375-85-9		1.66 NG_L	J		TRG					20171116		0.46	0.46	5.1	70	1.04	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluorooctanoic acid (PFOA)	335-67-1		1.04 NG_L	U		TRG					20171116		0.52	0.52	5.1	70	1.04	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluorononanoic acid (PFNA)	375-95-1		1.04 NG_L	U		TRG					20171116		0.45	0.45	5.1	70	1.04	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluorodecanoic Acid (PFDA)	335-76-2		1.04 NG_L	U		TRG					20171116		0.28	0.28	5.1	70	1.04	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		1.04 NG_L	U		TRG					20171116		0.43	0.43	5.1	70	1.04	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluorododecanoic Acid (PFDoA)	307-55-1		0.52 NG_L	U		TRG					20171116		0.25	0.25	5.1	70	1.04	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		1.04 NG_L	U		TRG					20171116		0.29	0.29	5.1	70	1.04	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		2.08 NG_L	U		TRG					20171116		0.66	0.66	5.1	70	2.08	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA	2355-31-9		2.6 NG_L	U		TRG					20171116		1.17	1.17	5.1	70	2.6	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		2.08 NG_L	U		TRG					20171116		0.59	0.59	5.1	70	2.08	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluorooctanesulfonic acid (PFBS)	375-73-5		1.04 NG_L	U		TRG					20171116		0.38	0.38	5.1	70	1.04	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluorohexanesulfonic Acid (PFHxS)	355-46-4		4.19 NG_L	J		TRG					20171116		0.23	0.23	5.1	70	0.52	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS02-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluorooctane Sulfonate (PFOS)	1763-23-1		30.44 NG_L			TRG					20171116		0.28	0.28	5.1	70	1.04	5.21	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			13C5-PFHxA	8DO-2217		108 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			13C4-PFHpA	8DO-2218		104 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			13C8-PFOA	8DO-2219		111 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			13C9-PFNA	8DO-2221		108 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			13C6-PFDA	8DO-2222		106 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			13C7-PFUnA	8DO-2223		113 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			13C2-PFDoA	8DO-2112		114 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			13C2-PFTeDA	8DO-2224		104 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			d3-NaFOSAA	8DO-1838		73 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			d5-EtFOSAA	8DO-1839		91 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			13C3-PFBS	8DO-2226		105 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			13C3-PFHxS	8DO-2227		107 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			13C8-PFOS	8DO-2228		106 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluorooctanesulfonamide (FOSA)	754-91-6		116 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		127 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SS03-000H	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SS	4	20180918 08:57	20180921			20180926	11:24:00	20180929	00:04:57	J8221-F5	10 1	2.57			13C8-PFOS	8DO-2228		106 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			Perfluorohexanoic Acid (PFHxA)	307-24-4		3.04 NG_L	U		TRG					20171116		0.34	0.34	5.1	70	1.04	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			Perfluoroheptanoic acid (PFHpA)	375-85-9		3.04 NG_L	U		TRG					20171116		0.46	0.46	5.1	70	1.04	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			Perfluorooctanoic acid (PFOA)	335-67-1		3.04 NG_L	U		TRG					20171116		0.52	0.52	5.1	70	1.04	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			Perfluorononanoic acid (PFNA)	375-95-1		3.04 NG_L	U		TRG					20171116		0.45	0.45	5.1	70	1.04	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			Perfluorodecanoic Acid (PFDA)	335-76-2		3.04 NG_L	U		TRG					20171116		0.28	0.28	5.1	70	1.04	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			Perfluoroundecanoic Acid (PFUnA)	2058-94-8		3.04 NG_L	U		TRG					20171116		0.42	0.42	5.1	70	1.04	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			Perfluorododecanoic Acid (PFDoA)	307-55-1		0.52 NG_L	U		TRG					20171116		0.25	0.25	5.1	70	0.52	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		3.04 NG_L	U		TRG					20171116		0.29	0.29	5.1	70	1.04	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			Perfluorotetradecanoic Acid (PFTeDA)	376-06-7		2.07 NG_L	U		TRG					20171116		0.65	0.65	5.1	70	2.07	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA	2355-31-9		2.59 NG_L	U		TRG					20171116		1.16	1.16	5.1	70	2.59	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6		2.07 NG_L	U		TRG					20171116		0.59	0.59	5.1	70	2.07	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			Perfluorooctanesulfonic acid (PFBS)	375-73-5		0.94 NG_L	J		TRG					20171116		0.37	0.37	5.1	70	0.52	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			Perfluorohexanesulfonic Acid (PFHxS)	355-46-4		16.89 NG_L	J		TRG					20171116		0.23	0.23	5.1	70	0.52	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			Perfluorooctane Sulfonate (PFOS)	1763-23-1		16.89 NG_L	J		TRG					20171116		0.28	0.28	5.1	70	1.04	5.18	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			13C5-PFHxA	8DO-2217		95 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			13C4-PFHpA	8DO-2218		90 PCT_REC		SUMR			SLSP		150	50 20171116				5.1		18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM372-SB02-0102	NONS	SVOA	537_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	REG	SB	4	20180918 09:03	20180921			20180926	11:24:00	20180929	00:15:49	J8222-F5	10 1	6.04			13C8-PFOA	8DO-2219		97 PCT_REC		SUMR			SLSP		150	50 20171116	

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CHEM_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Name	Leachate_Method	SAMPLE_BASIS	Extraction_Method	Result_Type	Lab_QC_type	SAMPLE_MEDIUM	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	PERCENT_MOISTURE	PERCENT_LIPID	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	GC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QDM_Version	DL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-MS		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MS	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:32:00	J8227MS-FS	10 1		2.72		13C4-PFHpA	BDO-2218			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-MS		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MS	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:32:00	J8227MS-FS	10 1		2.72		13C8-PFOA	BDO-2219			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-MS		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MS	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:32:00	J8227MS-FS	10 1		2.72		13C9-PFNA	BDO-2221			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-MS		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MS	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:32:00	J8227MS-FS	10 1		2.72		13C6-PFDA	BDO-2222			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-MS		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MS	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:32:00	J8227MS-FS	10 1		2.72		13C7-PFUnA	BDO-2223			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-MS		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MS	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:32:00	J8227MS-FS	10 1		2.72		13C2-PFDoA	BDO-2112			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-MS		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MS	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:32:00	J8227MS-FS	10 1		2.72		13C2-PFTeDA	BDO-2224			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-MS		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MS	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:32:00	J8227MS-FS	10 1		2.72		d3-NMFOSAA	BDO-1838			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-MS		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MS	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:32:00	J8227MS-FS	10 1		2.72		d5-EtFOSAA	BDO-1839			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-MS		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MS	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:32:00	J8227MS-FS	10 1		2.72		13C3-PFBS	BDO-2226			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-MS		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MS	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:32:00	J8227MS-FS	10 1		2.72		13C3-PFHxS	BDO-2227			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-MS		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MS	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:32:00	J8227MS-FS	10 1		2.72		13C8-PFOS	BDO-2228			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		Perfluorohexanoic Acid (PFHxA)	307-24-4			TRG		LSA		135	45	20171116		0.36	0.36	5.1	1.09	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		Perfluoroheptanoic acid (PFHpA)	375-85-9			TRG		LSA		138	60	20171116		0.48	0.48	5.1	1.09	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		Perfluorooctanoic acid (PFOA)	335-67-1			TRG		LSA		136	56	20171116		0.54	0.54	5.1	1.09	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		Perfluorononanoic acid (PFNA)	375-95-1			TRG		LSA		130	54	20171116		0.47	0.47	5.1	1.09	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		Perfluorodecanoic Acid (PFDA)	335-76-2			TRG		LSA		141	55	20171116		0.29	0.29	5.1	1.09	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		Perfluoroundecanoic Acid (PFUnA)	2058-94-8			TRG		LSA		137	57	20171116		0.45	0.45	5.1	1.09	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		Perfluorododecanoic Acid (PFDoA)	307-55-1			TRG		LSA		134	62	20171116		0.26	0.26	5.1	0.54	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		Perfluorotridecanoic Acid (PFTrDA)	72629-94-8			TRG		LSA		303	PCT_REC			0.3	0.3	5.1	1.09	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		Perfluorotetradecanoic Acid (PFTeDA)	376-06-7			TRG		LSA		162	34	20171116		0.68	0.68	5.1	2.17	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA	2355-31-9			TRG		LSA		146	52	20171116		1.22	1.22	5.1	2.72	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		N-Ethyl Perfluorooctanesulfonamidoacetic Acid (EtFOSAA)	2991-50-6			TRG		LSA		124	54	20171116		0.62	0.62	5.1	2.17	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		Perfluorobutanesulfonic acid (PFBS)	375-73-5			TRG		LSA		145	57	20171116		0.39	0.39	5.1	1.09	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		Perfluorohexanesulfonic acid (PFHxS)	355-46-4			TRG		LSA		132	52	20171116		0.24	0.24	5.1	0.54	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		Perfluorooctane Sulfonate (PFOS)	1763-23-1			TRG		LSA		130	50	20171116		0.29	0.29	5.1	1.09	5.43	18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		13C5-PFHxA	BDO-2217			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		13C4-PFHpA	BDO-2218			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		13C8-PFOA	BDO-2219			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		13C9-PFNA	BDO-2221			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		13C6-PFDA	BDO-2222			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		13C7-PFUnA	BDO-2223			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		13C2-PFDoA	BDO-2112			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		13C2-PFTeDA	BDO-2224			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		d3-NMFOSAA	BDO-1838			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		d5-EtFOSAA	BDO-1839			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		13C3-PFBS	BDO-2226			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		13C3-PFHxS	BDO-2227			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		
N6247016G9000	4164		POINT_MUGU_NVC-PM172-SSO2-030H-SD		NONS	SVOA	SVOA_MOD	ORG	BMSL_NOR	BATTELLE, NORWELL, MA	NULL	DRY	METHOD	000	MSD	SS	4	20180926 11:24	20180926			20180926	11:24:00	20180929	01:42:52	J8228MSD-FS	10 1		6.83		13C8-PFOS	BDO-2228			SUBR		SLSP		150	50	20171116				5.1			18-0569	DP-18-0277		

ENVIRONMENTAL
Data Services, Inc.

DATA VALIDATION SUMMARY REPORT
NAVAL BASE VENTURA COUNTY, CALIFORNIA

Client: CH2M HILL, Inc., Corvallis, Oregon
SDG: 18-0569
Laboratory: Battelle Norwell Operations, Norwell, Massachusetts
Site: Naval Base Ventura County, CTO-4164, California
Date: January 11, 2019

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VC-PM3009-SS01-000H	J8201-FS	Soil
2	VC-PM3009-SB01-0102	J8202-FS	Soil
3	VC-PM3009-SB01-0506	J8203-FS	Soil
4	VC-PM3009-SS02-000H	J8204-FS	Soil
5	VC-PM3009-SB02-0102	J8205-FS	Soil
6	VC-PM3009-SB02-0506	J8206-FS	Soil
7	VC-PM3009-SS03-000H	J8207-FS	Soil
8	VC-PM3009-SB03-0102	J8208-FS	Soil
9	VC-PM3009-SB03-0506	J8209-FS	Soil
10	VP-PM372-SS01-000H	J8218-FS	Soil
11	VP-PM372-SB01-0102	J8219-FS	Soil
12	VP-PM372-SB01-0506	J8220-FS	Soil
13	VP-PM372-SS02-000H	J8221-FS	Soil
13MS	VP-PM372-SS02-000HMS	J8227-FSMS	Soil
13MSD	VP-PM372-SS02-000HMSD	J8228-FSMSD	Soil
14	VP-PM372-SB02-0102	J8222-FS	Soil
15	VP-PM372-SB02-0506	J8223-FS	Soil
16	VP-PM372-SS03-000H	J8224-FS	Soil
17	VP-PM372-SB03-0102	J8225-FS	Soil
18	VP-PM372-SB03-0506	J8226-FS	Soil

A full data validation was performed on the analytical data for eighteen soil samples collected on September 17-18, 2018 by CH2M HILL at the Naval Base Ventura County site in California. The samples were analyzed under the Battelle SOP Method for "Analysis of Perfluoroalkyl Substances in Environmental Samples by Liquid Chromatography and Tandem Mass Spectrometry (LC-MS/MS)".

Specific method references are as follows:

Analysis	*Method References*
PFCs	SOP 5-369

The data have been validated according to the protocols and quality control (QC) requirements of the analytical method, the DoD Quality Systems Manual for Environmental Laboratories, Version 5.1, February 2018, the Final Sampling and Analysis Plan Basewide Preliminary Assessments/Site

Inspections of Per- and Polyfluoroalkyl Substances, August 2018, and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA "Contract Laboratories Program National Functional Guidelines for Organic Superfund Methods Data Review," January 2017;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

Organics

- Date Completeness, Case Narrative & Custody Documentation
- Holding times
- Liquid Chromatography/Mass Spectrometry (LC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

Data Usability Assessment

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedances of QC criteria.

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.

Holding Times

- All samples were extracted within 28 days for soil samples and analyzed within 30 days.

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent recovery (%R) criteria were met.

Method Blank

- The method blanks exhibited the following contamination.

Blank ID	Compound	Conc. ng/g	Qualifier	Affected Samples
PB CR849PB-FS	PFOS	1.66	U	1-2, 4-10, 15
KB35 IB	PFBS	0.83	U	3

Field QC Blank

- Field QC samples are summarized below.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
VC-AQ-EB01-0918	PFDoA	0.19	None	All Associated ND
	PFTrDA	0.31	None	
	PFTeDA	0.38	None	
	PFHxS	0.11	U	2,4,5,14,15
	PFOS	8.59	U	3,13-14
VC-AQ-FB01-0918	PFDoA	0.23	None	All Associated ND
	PFTrDA	0.44	None	
	PFTeDA	0.53	None	

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples exhibited acceptable percent recoveries (%R) and RPD values.

Laboratory Control Samples

- The LCS samples exhibited acceptable percent recoveries (%R).

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- Several samples were analyzed at various dilutions due to high concentrations of target compounds. The reporting limits were adjusted accordingly. No action was required.

Field Duplicate Sample Precision

- Field duplicate samples were not collected.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 1/11/19

Nancy Weaver
Senior Chemist

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limits is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

BATTELLE
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1

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

Client ID		VC-PM3009-SS01-000H			
Battelle ID		J8201-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		2.61			
Matrix		SS			
Sample Size		1.93			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.04 U	0.34	1.04	5.18
PFHpA	375-85-9	1.04 U	0.46	1.04	5.18
PFOA	335-67-1	1.04 U	0.52	1.04	5.18
PFNA	375-95-1	1.04 U	0.45	1.04	5.18
PFDA	335-76-2	1.04 U	0.28	1.04	5.18
PFUnA	2058-94-8	1.04 U	0.42	1.04	5.18
PFDoA	307-55-1	0.52 U	0.25	0.52	5.18
PFTrDA	72629-94-8	1.04 U	0.29	1.04	5.18
PFTeDA	376-06-7	2.07 U	0.65	2.07	5.18
NMeFOSAA	2355-31-9	2.59 U	1.16	2.59	5.18
NEtFOSAA	2991-50-6	2.07 U	0.59	2.07	5.18
PFBS	375-73-5	1.04 U	0.37	1.04	5.18
PFHxS	355-46-4	0.52 U	0.23	0.52	5.18
PFOS	1763-23-1	1.04 ~~0.89~~ U	0.28	1.04	5.18

MBL

Surrogate Recoveries (%)

13C5-PFHxA	94
13C4-PFHpA	96
13C8-PFOA	100
13C9-PFNA	94
13C6-PFDA	98
13C7-PFUnA	105
13C2-PFDoA	96
13C2-PFTeDA	97
d3-MeFOSAA	97
d5-EtFOSAA	116
13C3-PFBS	103
13C3-PFHxS	105
13C8-PFOS	105

MW 12/12/18

Analyzed by: Schumitz, Denise
Printed: 10/13/2018

BATTELLE
It can be done

2

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

Client ID		VC-PM3009-SB01-0102			
Battelle ID		J8202-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		6.66			
Matrix		SB			
Sample Size		1.85			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.08 U	0.36	1.08	5.41
PFHpA	375-85-9	1.08 U	0.48	1.08	5.41
PFOA	335-67-1	1.08 U	0.54	1.08	5.41
PFNA	375-95-1	1.08 U	0.46	1.08	5.41
PFDA	335-76-2	1.08 U	0.29	1.08	5.41
PFUnA	2058-94-8	1.08 U	0.44	1.08	5.41
PFDoA	307-55-1	0.54 U	0.26	0.54	5.41
PFTrDA	72629-94-8	1.08 U	0.30	1.08	5.41
PFTeDA	376-06-7	2.16 U	0.68	2.16	5.41
NMeFOSAA	2355-31-9	2.70 U	1.21	2.70	5.41
NEtFOSAA	2991-50-6	2.16 U	0.62	2.16	5.41
PFBS	375-73-5	1.08 U	0.39	1.08	5.41
PFHxS	355-46-4	0.67 J U	0.24	0.54	5.41
PFOS	1763-23-1	4.52 J U	0.29	1.08	5.41

EBL
MBL

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	99
13C8-PFOA	112
13C9-PFNA	101
13C6-PFDA	104
13C7-PFUnA	105
13C2-PFDoA	95
13C2-PFTeDA	92
d3-MeFOSAA	87
d5-EtFOSAA	110
13C3-PFBS	107
13C3-PFHxS	108
13C8-PFOS	106

mw 12/12/18

Analyzed by: Schumitz, Denise
Printed: 10/13/2018

BATTELLE
It can be done

3

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

Client ID		VC-PM3009-SB01-0506				
Battelle ID		J8203-FS				
Sample Type		SA				
Collection Date		09/17/2018				
Extraction Date		09/26/2018				
Analysis Date		09/28/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		19.17				
Matrix		SB				
Sample Size		1.64				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	4.25	J	0.40	1.22	6.10
PFHpA	375-85-9	1.22	U	0.54	1.22	6.10
PFOA	335-67-1	1.69	J	0.61	1.22	6.10
PFNA	375-95-1	1.22	U	0.52	1.22	6.10
PFDA	335-76-2	1.22	U	0.33	1.22	6.10
PFUnA	2058-94-8	1.22	U	0.50	1.22	6.10
PFDoA	307-55-1	0.61	U	0.29	0.61	6.10
PFTrDA	72629-94-8	1.22	U	0.34	1.22	6.10
PFTeDA	376-06-7	2.44	U	0.77	2.44	6.10
NMeFOSAA	2355-31-9	3.05	U	1.37	3.05	6.10
NEtFOSAA	2991-50-6	2.44	U	0.70	2.44	6.10
PFBS	375-73-5	1.22 ~~1.14~~	U	0.44	1.22	6.10 MB L
PFHxS	355-46-4	17.63		0.27	0.61	6.10
PFOS	1763-23-1	76.44	U	0.33	1.22	6.10 EBL

Surrogate Recoveries (%)

13C5-PFHxA	99
13C4-PFHpA	100
13C8-PFOA	105
13C9-PFNA	97
13C6-PFDA	104
13C7-PFUnA	123
13C2-PFDoA	101
13C2-PFTeDA	104
d3-MeFOSAA	95
d5-EtFOSAA	131
13C3-PFBS	106
13C3-PFHxS	116
13C8-PFOS	117

MW 12/12/18

BATTELLE
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4

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

Client ID		VC-PM3009-SS02-000H			
Battelle ID		J8204-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		1.12			
Matrix		SS			
Sample Size		1.99			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.01 U	0.33	1.01	5.03
PFHpA	375-85-9	1.01 U	0.44	1.01	5.03
PFOA	335-67-1	1.01 U	0.50	1.01	5.03
PFNA	375-95-1	1.01 U	0.43	1.01	5.03
PFDA	335-76-2	1.01 U	0.27	1.01	5.03
PFUnA	2058-94-8	1.01 U	0.41	1.01	5.03
PFDoA	307-55-1	0.50 U	0.24	0.50	5.03
PFTrDA	72629-94-8	1.01 U	0.28	1.01	5.03
PFTeDA	376-06-7	2.01 U	0.63	2.01	5.03
NMeFOSAA	2355-31-9	2.51 U	1.13	2.51	5.03
NEtFOSAA	2991-50-6	2.01 U	0.57	2.01	5.03
PFBS	375-73-5	1.01 U	0.36	1.01	5.03
PFHxS	355-46-4	0.50 ~~0.48~~ U	0.22	0.50	5.03
PFOS	1763-23-1	3.89 U	0.27	1.01	5.03

EBL
MBL

Surrogate Recoveries (%)

13C5-PFHxA	107
13C4-PFHpA	109
13C8-PFOA	110
13C9-PFNA	98
13C6-PFDA	110
13C7-PFUnA	132
13C2-PFDoA	119
13C2-PFTeDA	107
d3-MeFOSAA	83
d5-EtFOSAA	101
13C3-PFBS	102
13C3-PFHxS	104
13C8-PFOS	96

MW 12.21.18
Analyzed by: Schumitz, Denise
Printed: 10/13/2018

BATTELLE
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5

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

Client ID		VC-PM3009-SB02-0102			
Battelle ID		J8205-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		2.04			
Matrix		SB			
Sample Size		1.98			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.68 J	0.33	1.01	5.05
PFHpA	375-85-9	1.01 U	0.44	1.01	5.05
PFOA	335-67-1	1.01 U	0.51	1.01	5.05
PFNA	375-95-1	1.01 U	0.43	1.01	5.05
PFDA	335-76-2	1.01 U	0.27	1.01	5.05
PFUnA	2058-94-8	1.01 U	0.41	1.01	5.05
PFDoA	307-55-1	0.51 U	0.24	0.51	5.05
PFTrDA	72629-94-8	1.01 U	0.28	1.01	5.05
PFTeDA	376-06-7	2.02 U	0.64	2.02	5.05
NMeFOSAA	2355-31-9	2.53 U	1.13	2.53	5.05
NEtFOSAA	2991-50-6	2.02 U	0.58	2.02	5.05
PFBS	375-73-5	1.01 U	0.36	1.01	5.05
PFHxS	355-46-4	0.51 ~~0.31 J~~ U	0.22	0.51	5.05
PFOS	1763-23-1	2.34 ✗U	0.27	1.01	5.05

EBL
MBL

Surrogate Recoveries (%)

13C5-PFHxA	104
13C4-PFHpA	109
13C8-PFOA	114
13C9-PFNA	98
13C6-PFDA	111
13C7-PFUnA	124
13C2-PFDoA	110
13C2-PFTeDA	113
d3-MeFOSAA	92
d5-EtFOSAA	94
13C3-PFBS	105
13C3-PFHxS	109
13C8-PFOS	94

MW 12/12/18

BATTELLE
It can be done

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

Client ID		VC-PM3009-SB02-0506			
Battelle ID		J8206-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		8.47			
Matrix		SB			
Sample Size		1.81			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.10 U	0.36	1.10	5.52
PFHpA	375-85-9	1.10 U	0.49	1.10	5.52
PFOA	335-67-1	1.10 U	0.55	1.10	5.52
PFNA	375-95-1	1.10 U	0.48	1.10	5.52
PFDA	335-76-2	1.10 U	0.30	1.10	5.52
PFUnA	2058-94-8	1.10 U	0.45	1.10	5.52
PFDoA	307-55-1	0.55 U	0.27	0.55	5.52
PFTrDA	72629-94-8	1.10 U	0.31	1.10	5.52
PFTeDA	376-06-7	2.21 U	0.70	2.21	5.52
NMeFOSAA	2355-31-9	2.76 U	1.24	2.76	5.52
NEtFOSAA	2991-50-6	2.21 U	0.63	2.21	5.52
PFBS	375-73-5	1.10 U	0.40	1.10	5.52
PFHxS	355-46-4	0.55 U	0.24	0.55	5.52
PFOS	1763-23-1	2.59 J U	0.30	1.10	5.52

MBL

Surrogate Recoveries (%)

13C5-PFHxA	105
13C4-PFHpA	105
13C8-PFOA	104
13C9-PFNA	106
13C6-PFDA	109
13C7-PFUnA	113
13C2-PFDoA	105
13C2-PFTeDA	100
d3-MeFOSAA	90
d5-EtFOSAA	96
13C3-PFBS	108
13C3-PFHxS	115
13C8-PFOS	104

NW 12/12/18
Analyzed by: Schumitz, Denise
Printed: 10/13/2018

BATTELLE
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7

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

Client ID		VC-PM3009-SS03-000H				
Battelle ID		J8207-FS				
Sample Type		SA				
Collection Date		09/17/2018				
Extraction Date		09/26/2018				
Analysis Date		09/28/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		12.61				
Matrix		SS				
Sample Size		1.75				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ	
PFHxA	307-24-4	1.14	U	0.38	1.14	5.71	
PFHpA	375-85-9	1.14	U	0.50	1.14	5.71	
PFOA	335-67-1	1.14	U	0.57	1.14	5.71	
PFNA	375-95-1	1.14	U	0.49	1.14	5.71	
PFDA	335-76-2	1.14	U	0.31	1.14	5.71	
PFUnA	2058-94-8	1.14	U	0.47	1.14	5.71	
PFDoA	307-55-1	0.57	U	0.27	0.57	5.71	
PFTrDA	72629-94-8	1.14	U	0.32	1.14	5.71	
PFTeDA	376-06-7	2.29	U	0.72	2.29	5.71	
NMeFOSAA	2355-31-9	2.86	U	1.28	2.86	5.71	
NEtFOSAA	2991-50-6	2.29	U	0.65	2.29	5.71	
PFBS	375-73-5	1.14	U	0.41	1.14	5.71	
PFHxS	355-46-4	0.57	U	0.25	0.57	5.71	
PFOS	1763-23-1	4.12	J U	0.31	1.14	5.71	MBL
Surrogate Recoveries (%)							
13C5-PFHxA		95					
13C4-PFHpA		95					
13C8-PFOA		98					
13C9-PFNA		86					
13C6-PFDA		98					
13C7-PFUnA		108					
13C2-PFDoA		102					
13C2-PFTeDA		92					
d3-MeFOSAA		80					
d5-EtFOSAA		110					
13C3-PFBS		119					
13C3-PFHxS		126					
13C8-PFOS		89					

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

Client ID		VC-PM3009-SB03-0102				
Battelle ID		J8208-FS				
Sample Type		SA				
Collection Date		09/17/2018				
Extraction Date		09/26/2018				
Analysis Date		09/28/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		4.81				
Matrix		SB				
Sample Size		1.93				
Size Unit-Basis		g				
Units		ng/g_Dry	MDL	LOD	LOQ	
PFHxA	307-24-4	1.04 U	0.34	1.04	5.18	
PFHpA	375-85-9	1.04 U	0.46	1.04	5.18	
PFOA	335-67-1	1.04 U	0.52	1.04	5.18	
PFNA	375-95-1	1.04 U	0.45	1.04	5.18	
PFDA	335-76-2	1.04 U	0.28	1.04	5.18	
PFUnA	2058-94-8	1.04 U	0.42	1.04	5.18	
PFDoA	307-55-1	0.52 U	0.25	0.52	5.18	
PFTrDA	72629-94-8	1.04 U	0.29	1.04	5.18	
PFTeDA	376-06-7	2.07 U	0.65	2.07	5.18	
NMeFOSAA	2355-31-9	2.59 U	1.16	2.59	5.18	
NEtFOSAA	2991-50-6	2.07 U	0.59	2.07	5.18	
PFBS	375-73-5	1.04 U	0.37	1.04	5.18	
PFHxS	355-46-4	0.52 U	0.23	0.52	5.18	
PFOS	1763-23-1	3.90 J U	0.28	1.04	5.18	MBL
Surrogate Recoveries (%)						
13C5-PFHxA		103				
13C4-PFHpA		101				
13C8-PFOA		103				
13C9-PFNA		92				
13C6-PFDA		106				
13C7-PFUnA		127				
13C2-PFDoA		107				
13C2-PFTeDA		107				
d3-MeFOSAA		89				
d5-EtFOSAA		108				
13C3-PFBS		113				
13C3-PFHxS		119				
13C8-PFOS		95				

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

Client ID		VC-PM3009-SB03-0506			
Battelle ID		J8209-FS			
Sample Type		SA			
Collection Date		09/17/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		16.48			
Matrix		SB			
Sample Size		1.70			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.18 U	0.39	1.18	5.88
PFHpA	375-85-9	1.18 U	0.52	1.18	5.88
PFOA	335-67-1	1.18 U	0.59	1.18	5.88
PFNA	375-95-1	1.18 U	0.51	1.18	5.88
PFDA	335-76-2	1.18 U	0.32	1.18	5.88
PFUnA	2058-94-8	1.18 U	0.48	1.18	5.88
PFDoA	307-55-1	0.59 U	0.28	0.59	5.88
PFTrDA	72629-94-8	1.18 U	0.33	1.18	5.88
PFTeDA	376-06-7	2.35 U	0.74	2.35	5.88
NMeFOSAA	2355-31-9	2.94 U	1.32	2.94	5.88
NEtFOSAA	2991-50-6	2.35 U	0.67	2.35	5.88
PFBS	375-73-5	1.18 U	0.42	1.18	5.88
PFHxS	355-46-4	0.59 U	0.26	0.59	5.88
PFOS	1763-23-1	2.75 U	0.32	1.18	5.88

MBL

Surrogate Recoveries (%)

13C5-PFHxA	109
13C4-PFHpA	100
13C8-PFOA	111
13C9-PFNA	98
13C6-PFDA	113
13C7-PFUnA	120
13C2-PFDoA	103
13C2-PFTeDA	104
d3-MeFOSAA	99
d5-EtFOSAA	105
13C3-PFBS	95
13C3-PFHxS	105
13C8-PFOS	89

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

Client ID		VC-PM372-SS01-000H			
Battelle ID		J8218-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		10/02/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		14.79			
Matrix		SS			
Sample Size		1.74			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.15 U	0.38	1.15	5.75
PFHpA	375-85-9	1.15 U	0.51	1.15	5.75
PFOA	335-67-1	1.15 U	0.57	1.15	5.75
PFNA	375-95-1	1.15 U	0.49	1.15	5.75
PFDA	335-76-2	1.15 U	0.31	1.15	5.75
PFUnA	2058-94-8	1.15 U	0.47	1.15	5.75
PFDoA	307-55-1	0.57 U	0.28	0.57	5.75
PFTrDA	72629-94-8	1.15 U	0.32	1.15	5.75
PFTeDA	376-06-7	2.30 U	0.72	2.30	5.75
NMeFOSAA	2355-31-9	2.87 U	1.29	2.87	5.75
NEtFOSAA	2991-50-6	2.30 U	0.66	2.30	5.75
PFBS	375-73-5	1.15 U	0.41	1.15	5.75
PFHxS	355-46-4	0.57 U	0.25	0.57	5.75
PFOS	1763-23-1	1.15 ~~0.51~~ U	0.31	1.15	5.75

MBL

Surrogate Recoveries (%)

13C5-PFHxA	108
13C4-PFHpA	100
13C8-PFOA	108
13C9-PFNA	120
13C6-PFDA	96
13C7-PFUnA	92
13C2-PFDoA	101
13C2-PFTeDA	93
d3-MeFOSAA	81
d5-EtFOSAA	80
13C3-PFBS	96
13C3-PFHxS	92
13C8-PFOS	111

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

Client ID		VC-PM372-SB01-0102			
Battelle ID		J8219-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		10.09			
Matrix		SB			
Sample Size		1.82			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.10 U	0.36	1.10	5.49
PFHpA	375-85-9	1.10 U	0.48	1.10	5.49
PFOA	335-67-1	1.10 U	0.55	1.10	5.49
PFNA	375-95-1	1.10 U	0.47	1.10	5.49
PFDA	335-76-2	1.10 U	0.30	1.10	5.49
PFUnA	2058-94-8	1.10 U	0.45	1.10	5.49
PFDoA	307-55-1	0.55 U	0.26	0.55	5.49
PFTrDA	72629-94-8	1.10 U	0.31	1.10	5.49
PFTeDA	376-06-7	2.20 U	0.69	2.20	5.49
NMeFOSAA	2355-31-9	2.75 U	1.23	2.75	5.49
NEtFOSAA	2991-50-6	2.20 U	0.63	2.20	5.49
PFBS	375-73-5	1.10 U	0.40	1.10	5.49
PFHxS	355-46-4	0.55 U	0.24	0.55	5.49
PFOS	1763-23-1	1.10 U	0.30	1.10	5.49
Surrogate Recoveries (%)					
13C5-PFHxA		103			
13C4-PFHpA		105			
13C8-PFOA		113			
13C9-PFNA		113			
13C6-PFDA		114			
13C7-PFUnA		124			
13C2-PFDoA		112			
13C2-PFTeDA		102			
d3-MeFOSAA		96			
d5-EtFOSAA		119			
13C3-PFBS		116			
13C3-PFHxS		120			
13C8-PFOS		121			

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

Client ID		VC-PM372-SB01-0506			
Battelle ID		J8220-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/28/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		21.32			
Matrix		SB			
Sample Size		1.61			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.24 U	0.41	1.24	6.21
PFHpA	375-85-9	1.24 U	0.55	1.24	6.21
PFOA	335-67-1	1.24 U	0.62	1.24	6.21
PFNA	375-95-1	1.24 U	0.53	1.24	6.21
PFDA	335-76-2	1.24 U	0.34	1.24	6.21
PFUnA	2058-94-8	1.24 U	0.51	1.24	6.21
PFDoA	307-55-1	0.62 U	0.30	0.62	6.21
PFTrDA	72629-94-8	1.24 U	0.35	1.24	6.21
PFTeDA	376-06-7	2.48 U	0.78	2.48	6.21
NMeFOSAA	2355-31-9	3.11 U	1.39	3.11	6.21
NEtFOSAA	2991-50-6	2.48 U	0.71	2.48	6.21
PFBS	375-73-5	1.24 U	0.45	1.24	6.21
PFHxS	355-46-4	0.62 U	0.27	0.62	6.21
PFOS	1763-23-1	1.24 U	0.34	1.24	6.21

Surrogate Recoveries (%)

13C5-PFHxA	104
13C4-PFHpA	99
13C8-PFOA	106
13C9-PFNA	96
13C6-PFDA	111
13C7-PFUnA	125
13C2-PFDoA	105
13C2-PFTeDA	102
d3-MeFOSAA	76
d5-EtFOSAA	98
13C3-PFBS	87
13C3-PFHxS	99
13C8-PFOS	89

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

Client ID		VC-PM372-SS02-000H				
Battelle ID		J8221-FS				
Sample Type		SA				
Collection Date		09/18/2018				
Extraction Date		09/26/2018				
Analysis Date		09/29/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		2.57				
Matrix		SS				
Sample Size		1.92				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.97	J	0.34	1.04	5.21
PFHpA	**375-85-9**	**1.66**	**J**	**0.46**	**1.04**	**5.21**
PFOA	335-67-1	1.04	U	0.52	1.04	5.21
PFNA	**375-95-1**	**1.04**	**U**	**0.45**	**1.04**	**5.21**
PFDA	335-76-2	1.04	U	0.28	1.04	5.21
PFUnA	**2058-94-8**	**1.04**	**U**	**0.43**	**1.04**	**5.21**
PFDoA	307-55-1	0.52	U	0.25	0.52	5.21
PFTrDA	**72629-94-8**	**1.04**	**U**	**0.29**	**1.04**	**5.21**
PFTeDA	376-06-7	2.08	U	0.66	2.08	5.21
NMeFOSAA	**2355-31-9**	**2.60**	**U**	**1.17**	**2.60**	**5.21**
NEtFOSAA	2991-50-6	2.08	U	0.59	2.08	5.21
PFBS	**375-73-5**	**1.04**	**U**	**0.38**	**1.04**	**5.21**
PFHxS	355-46-4	4.19	J	0.23	0.52	5.21
PFOS	**1763-23-1**	**30.44**	U	**0.28**	**1.04**	**5.21**

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Surrogate Recoveries (%)

13C5-PFHxA	108
13C4-PFHpA	**104**
13C8-PFOA	111
13C9-PFNA	**108**
13C6-PFDA	106
13C7-PFUnA	**113**
13C2-PFDoA	114
13C2-PFTeDA	**104**
d3-MeFOSAA	96
d5-EtFOSAA	**107**
13C3-PFBS	116
13C3-PFHxS	**127**
13C8-PFOS	106

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

Client ID		VC-PM372-SB02-0102				
Battelle ID		J8222-FS				
Sample Type		SA				
Collection Date		09/18/2018				
Extraction Date		09/26/2018				
Analysis Date		09/29/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		6.04				
Matrix		SB				
Sample Size		1.93				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.04	U	0.34	1.04	5.18
PFHpA	375-85-9	1.04	U	0.46	1.04	5.18
PFOA	335-67-1	1.04	U	0.52	1.04	5.18
PFNA	375-95-1	1.04	U	0.45	1.04	5.18
PFDA	335-76-2	1.04	U	0.28	1.04	5.18
PFUnA	2058-94-8	1.04	U	0.42	1.04	5.18
PFDoA	307-55-1	0.52	U	0.25	0.52	5.18
PFTrDA	72629-94-8	1.04	U	0.29	1.04	5.18
PFTeDA	376-06-7	2.07	U	0.65	2.07	5.18
NMeFOSAA	2355-31-9	2.59	U	1.16	2.59	5.18
NEtFOSAA	2991-50-6	2.07	U	0.59	2.07	5.18
PFBS	375-73-5	1.04	U	0.37	1.04	5.18
PFHxS	355-46-4	0.94	U	0.23	0.52	5.18
PFOS	1763-23-1	16.89	U	0.28	1.04	5.18

EBL
EBL

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	90
13C8-PFOA	97
13C9-PFNA	99
13C6-PFDA	97
13C7-PFUnA	103
13C2-PFDoA	97
13C2-PFTeDA	95
d3-MeFOSAA	78
d5-EtFOSAA	106
13C3-PFBS	98
13C3-PFHxS	108
13C8-PFOS	97

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

Client ID		VC-PM372-SB02-0506			
Battelle ID		J8223-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		8.59			
Matrix		SB			
Sample Size		1.82			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.10 U	0.36	1.10	5.49
PFHpA	**375-85-9**	**1.10 U**	**0.48**	**1.10**	**5.49**
PFOA	335-67-1	1.10 U	0.55	1.10	5.49
PFNA	**375-95-1**	**1.10 U**	**0.47**	**1.10**	**5.49**
PFDA	335-76-2	1.10 U	0.30	1.10	5.49
PFUnA	**2058-94-8**	**1.10 U**	**0.45**	**1.10**	**5.49**
PFDoA	307-55-1	0.55 U	0.26	0.55	5.49
PFTrDA	**72629-94-8**	**1.10 U**	**0.31**	**1.10**	**5.49**
PFTeDA	376-06-7	2.20 U	0.69	2.20	5.49
NMeFOSAA	**2355-31-9**	**2.75 U**	**1.23**	**2.75**	**5.49**
NEtFOSAA	2991-50-6	2.20 U	0.63	2.20	5.49
PFBS	**375-73-5**	**1.10 U**	**0.40**	**1.10**	**5.49**
PFHxS	355-46-4	0.96 J U	0.24	0.55	5.49
PFOS	**1763-23-1**	**1.50 J U**	**0.30**	**1.10**	**5.49**

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Surrogate Recoveries (%)

13C5-PFHxA	93
13C4-PFHpA	**98**
13C8-PFOA	105
13C9-PFNA	**98**
13C6-PFDA	107
13C7-PFUnA	**114**
13C2-PFDoA	106
13C2-PFTeDA	**104**
d3-MeFOSAA	80
d5-EtFOSAA	**113**
13C3-PFBS	100
13C3-PFHxS	**101**
13C8-PFOS	98

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

Client ID		VC-PM372-SS03-000H			
Battelle ID		J8224-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		17.71			
Matrix		SS			
Sample Size		1.60			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.25 U	0.41	1.25	6.25
PFHpA	375-85-9	1.25 U	0.55	1.25	6.25
PFOA	335-67-1	1.25 U	0.63	1.25	6.25
PFNA	375-95-1	1.25 U	0.54	1.25	6.25
PFDA	335-76-2	1.25 U	0.34	1.25	6.25
PFUnA	2058-94-8	1.25 U	0.51	1.25	6.25
PFDoA	307-55-1	0.63 U	0.30	0.63	6.25
PFTrDA	72629-94-8	1.25 U	0.35	1.25	6.25
PFTeDA	376-06-7	2.50 U	0.79	2.50	6.25
NMeFOSAA	2355-31-9	3.13 U	1.40	3.13	6.25
NEtFOSAA	2991-50-6	2.50 U	0.71	2.50	6.25
PFBS	375-73-5	1.25 U	0.45	1.25	6.25
PFHxS	355-46-4	0.63 U	0.28	0.63	6.25
PFOS	1763-23-1	1.25 U	0.34	1.25	6.25
Surrogate Recoveries (%)					
13C5-PFHxA		101			
13C4-PFHpA		98			
13C8-PFOA		111			
13C9-PFNA		102			
13C6-PFDA		96			
13C7-PFUnA		110			
13C2-PFDoA		101			
13C2-PFTeDA		99			
d3-MeFOSAA		86			
d5-EtFOSAA		94			
13C3-PFBS		98			
13C3-PFHxS		95			
13C8-PFOS		93			

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

Client ID		VC-PM372-SB03-0102			
Battelle ID		J8225-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		20.69			
Matrix		SB			
Sample Size		1.60			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.25 U	0.41	1.25	6.25
PFHpA	375-85-9	1.25 U	0.55	1.25	6.25
PFOA	335-67-1	1.25 U	0.63	1.25	6.25
PFNA	375-95-1	1.25 U	0.54	1.25	6.25
PFDA	335-76-2	1.25 U	0.34	1.25	6.25
PFUnA	2058-94-8	1.25 U	0.51	1.25	6.25
PFDoA	307-55-1	0.63 U	0.30	0.63	6.25
PFTrDA	72629-94-8	1.25 U	0.35	1.25	6.25
PFTeDA	376-06-7	2.50 U	0.79	2.50	6.25
NMeFOSAA	2355-31-9	3.13 U	1.40	3.13	6.25
NEtFOSAA	2991-50-6	2.50 U	0.71	2.50	6.25
PFBS	375-73-5	1.25 U	0.45	1.25	6.25
PFHxS	355-46-4	0.63 U	0.28	0.63	6.25
PFOS	1763-23-1	1.25 U	0.34	1.25	6.25
Surrogate Recoveries (%)					
13C5-PFHxA		90			
13C4-PFHpA		96			
13C8-PFOA		100			
13C9-PFNA		89			
13C6-PFDA		105			
13C7-PFUnA		110			
13C2-PFDoA		105			
13C2-PFTeDA		95			
d3-MeFOSAA		73			
d5-EtFOSAA		91			
13C3-PFBS		105			
13C3-PFHxS		106			
13C8-PFOS		100			

NV 12.2.18

BATTELLE
It can be done

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

Client ID		VC-PM372-SB03-0506			
Battelle ID		J8226-FS			
Sample Type		SA			
Collection Date		09/18/2018			
Extraction Date		09/26/2018			
Analysis Date		09/29/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		26.82			
Matrix		SB			
Sample Size		1.46			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.37 U	0.45	1.37	6.85
PFHpA	375-85-9	1.37 U	0.60	1.37	6.85
PFOA	335-67-1	1.37 U	0.68	1.37	6.85
PFNA	375-95-1	1.37 U	0.59	1.37	6.85
PFDA	335-76-2	1.37 U	0.37	1.37	6.85
PFUnA	2058-94-8	1.37 U	0.56	1.37	6.85
PFDoA	307-55-1	0.68 U	0.33	0.68	6.85
PFTrDA	72629-94-8	1.37 U	0.38	1.37	6.85
PFTeDA	376-06-7	2.74 U	0.86	2.74	6.85
NMeFOSAA	2355-31-9	3.42 U	1.53	3.42	6.85
NEtFOSAA	2991-50-6	2.74 U	0.78	2.74	6.85
PFBS	375-73-5	1.37 U	0.49	1.37	6.85
PFHxS	355-46-4	0.68 U	0.30	0.68	6.85
PFOS	1763-23-1	1.37 U	0.37	1.37	6.85

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	101
13C8-PFOA	105
13C9-PFNA	94
13C6-PFDA	103
13C7-PFUnA	114
13C2-PFDoA	101
13C2-PFTeDA	97
d3-MeFOSAA	87
d5-EtFOSAA	109
13C3-PFBS	91
13C3-PFHxS	92
13C8-PFOS	88

NW 12.2.18

LOCATION_NAME	SITE_NAME	INSTALLATION_ID	LOCATION_TYPE	LOCATION_TYPE_DESC	SDG	COORD_X	COORD_Y	ANALYTICAL_METHOD_GRP_DESC	SAMPLE_NAME	SAMPLE_MATRIX	SAMPLE_MATRIX_DESC	COLLECT_DATE
VC-PM3009-SO01	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6224266.4	1866342.4	Perfluoroalkyl Compounds	VC-PM3009-SB01-0102	SBS	Sub-surface soil (> 6)	17-Sep-18
VC-PM3009-SO01	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6224266.4	1866342.4	Perfluoroalkyl Compounds	VC-PM3009-SB01-0506	SBS	Sub-surface soil (> 6)	17-Sep-18
VC-PM3009-SO01	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6224266.4	1866342.4	Perfluoroalkyl Compounds	VC-PM3009-SS01-000H	SU	Surface soil (less than 6 inches)	17-Sep-18
VC-PM3009-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6224309.6	1866185.2	Perfluoroalkyl Compounds	VC-PM3009-SB02-0102	SBS	Sub-surface soil (> 6)	17-Sep-18
VC-PM3009-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6224309.6	1866185.2	Perfluoroalkyl Compounds	VC-PM3009-SB02-0506	SBS	Sub-surface soil (> 6)	17-Sep-18
VC-PM3009-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6224309.6	1866185.2	Perfluoroalkyl Compounds	VC-PM3009-SS02-000H	SU	Surface soil (less than 6 inches)	17-Sep-18
VC-PM3009-SO03	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6224440.6	1866238.4	Perfluoroalkyl Compounds	VC-PM3009-SB03-0102	SBS	Sub-surface soil (> 6)	17-Sep-18
VC-PM3009-SO03	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6224440.6	1866238.4	Perfluoroalkyl Compounds	VC-PM3009-SB03-0506	SBS	Sub-surface soil (> 6)	17-Sep-18
VC-PM3009-SO03	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6224440.6	1866238.4	Perfluoroalkyl Compounds	VC-PM3009-SS03-000H	SU	Surface soil (less than 6 inches)	17-Sep-18
VC-PM372-SO01	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6226421.8	1865710.8	Perfluoroalkyl Compounds	VC-PM372-SB01-0102	SBS	Sub-surface soil (> 6)	18-Sep-18
VC-PM372-SO01	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6226421.8	1865710.8	Perfluoroalkyl Compounds	VC-PM372-SB01-0506	SBS	Sub-surface soil (> 6)	18-Sep-18
VC-PM372-SO01	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6226421.8	1865710.8	Perfluoroalkyl Compounds	VC-PM372-SS01-000H	SU	Surface soil (less than 6 inches)	18-Sep-18
VC-PM372-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6226563.8	1865619.2	Perfluoroalkyl Compounds	VC-PM372-SB02-0102	SBS	Sub-surface soil (> 6)	18-Sep-18
VC-PM372-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6226563.8	1865619.2	Perfluoroalkyl Compounds	VC-PM372-SB02-0506	SBS	Sub-surface soil (> 6)	18-Sep-18
VC-PM372-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6226563.8	1865619.2	Perfluoroalkyl Compounds	VC-PM372-SS02-000H	SU	Surface soil (less than 6 inches)	18-Sep-18
VC-PM372-SO03	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6226767	1865616.2	Perfluoroalkyl Compounds	VC-PM372-SB03-0102	SBS	Sub-surface soil (> 6)	18-Sep-18
VC-PM372-SO03	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6226767	1865616.2	Perfluoroalkyl Compounds	VC-PM372-SB03-0506	SBS	Sub-surface soil (> 6)	18-Sep-18
VC-PM372-SO03	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0569	6226767	1865616.2	Perfluoroalkyl Compounds	VC-PM372-SS03-000H	SU	Surface soil (less than 6 inches)	18-Sep-18