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 18-0582

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 18-0582

Package DP-18-0287

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 18-0582

Package DP-18-0287

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 2018.10.19 14:05:37 -04'00'

QC Chemist Approval: Digitally signed by devinec@battelle.org DN: cn=devinec@battelle.org Date: 2018.10.23 10:59:27 -04'00'

Project Manager Approval: Digitally signed by Jonathan Thorn Date: 2018.10.23 11:27:23 -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 18-0582

Package DP-18-0287

1	***Miscellaneous Documentation*** Case Narrative, Laboratory Accreditations.	1
2	***Chain of Custody Records*** Sample Receipt Records	11
3	***Tables*** Analytical Data Tables, Qualifier Definitions.	27

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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: 18-0582
Project/Site: Naval Base Ventura County
CTO: 4164

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Receipt Date
CR888PB-FS	180507-02: Ottawa Sand	SEDIMENT	10/2/2018	10/2/2018
CR889LCS-FS	180507-02: Ottawa Sand	SEDIMENT	10/2/2018	10/2/2018
J8310-FS	VC-PM323-324-SS01-000H	SS	9/20/2018	9/25/2018
J8311-FS	VC-PM323-324-SB01-0102	SB	9/20/2018	9/25/2018
J8312-FS	VC-PM323-324-SB01-0506	SB	9/20/2018	9/25/2018
J8313-FS	VC-PM323-324-SS02-000H	SS	9/20/2018	9/25/2018
J8314-FS	VC-PM323-324-SB02-0102	SB	9/20/2018	9/25/2018
J8315-FS	VC-PM323-324-SB02-0506	SB	9/20/2018	9/25/2018
J8316-FS	VC-PM323-324-SS03-000H	SS	9/20/2018	9/25/2018
J8317-FS	VC-PM323-324-SB03-0102	SB	9/20/2018	9/25/2018
J8318-FS	VC-PM323-324-SB03-0506	SB	9/20/2018	9/25/2018
J8327-FS	VC-PM323-SS02-000H	SS	9/20/2018	9/25/2018
J8328-FS	VC-PM323-SB02-0102	SB	9/20/2018	9/25/2018
J8329-FS	VC-PM323-SB02-0506	SB	9/20/2018	9/25/2018
J8332-FS	VC-PM324-SS02-000H	SS	9/20/2018	9/25/2018
J8333-FS	VC-PM324-SB02-0102	SB	9/20/2018	9/25/2018
J8334-FS	VC-PM324-SB02-0506	SB	9/20/2018	9/25/2018
J8335MS-FS	VC-PM324-SB02-0506-MS	SB	9/20/2018	9/25/2018
J8336MSD-FS	VC-PM324-SB02-0506-MSD	SB	9/20/2018	9/25/2018

Miscellaneous Documentation

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QA/QC Summary
Batch 18-0582

Project:	CTO-4164 Naval Base Ventura County, California
Parameters:	PFAS
Laboratory:	Battelle, Norwell, MA
Matrix:	SS, SB
Data Set:	DP-18-0287
Analytical SOP:	5-369
Method Reference:	PFAS to QSM 5.1 Table B-15

Sample Custody		
Collection Date	Receipt Date	Temp (°C)
9/20-21/2018	9/25/2018	0.9 and 1.1
Corrective Actions	Equipment blank and field blank samples differed from COC to sample containers. Client provided updated client ID information via email that was included with the sample 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	All samples were pre-screened prior to full extraction and analysis. Both J8335MS-FS (VC-PM324-SB02-0506-MS) and J8336MSD-FS (VC-PM324-SB02-0506-MSD) did not appear to have the same consistency, with the MS sample appearing to have more water content than the MSD sample.
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 dry concentrations.
Analysis Comments	Samples analyzed on Sciex 5500 LC-MS/MS. In cases were native PFAS compounds were reported from dilutions (above calibration in non-diluted extracts), the extracted internal standard (surrogate) used to quantify the native compound was also reported from the dilution. There are several instances of extracted internal standards (surrogates) that would fail 50%-150% recovery criteria if reported from the non-diluted extract. This is due to the higher levels of native PFOA and PFOS found in the samples interfering with the 13C2-PFOA and 13C4-PFOS internal standards used to

QA/QC Summary
Batch 18-0582

	quantify the surrogates. In these cases, the surrogates are reported from dilutions, however, the native compounds are reported from the non-diluted extracts as the interferences are with the internal standards and not the surrogates used to quantify the native compounds. When detected, PFHxS and PFOS were a mixture of linear and branched isomers.

Holding Times	Extraction Date(s)	Analysis Date(s)
	10/2/2018	10/8-9, 14-15/2018

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

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

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

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

Internal Standard Analytes	Labelled analog compounds were added prior to analysis.
+/- 50% of the area of the L5 calibration point.	No exceedances noted.
	No comments.

Initial Calibration (ICAL)	The LC-MS/MS was calibrated with multi-level calibration curve for all compounds using linear or quadradic curve fitting.
+/- 30% of true value, $R^2 \geq 0.99$	No exceedances noted.
	No comments.

QA/QC Summary
Batch 18-0582

Independent Calibration Check (ICC)	The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL.
+/- 30% of true value	No exceedances noted.
	No comments.

Continuing Calibration Verification (CCV)	Continuing calibration standards were run at the beginning and end of 10 injections and at the end of the sequence to ensure that initial calibration is still valid.
+/- 30% of true value	No exceedances noted.
	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: 18-0582
Data Set: DP-18-0287
Test Code: Master_369

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

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MISCELLANEOUS DOCUMENTATION FORM

Project Title:	CTO-4164 Naval Base Ventura County,	**Data Set Number:**	DP-18-0287
Project Number:	100110125-01	**Prep Batch Number:**	18-0582
Entered By:	Denise Schumitz	**Entered On:**	10/19/2018
Test Code (Matrix Type):	Master_369(S)		

Samples that were manually integrated are noted on the quant reports with the comment (TRUE). DMS 10/19/2018

In cases were native PFAS compounds were reported from dilutions (above calibration in non-diluted extracts), the extracted internal standard (surrogate) used to quantify the native compound was also reported from the dilution.
DMS 10/19/2018

There are several instances of extracted internal standards (surrogates) that would fail 50%-150% recovery criteria if reported from the non-diluted extract. This is due to the higher levels of native PFOA and PFOS found in the samples interfering with the 13C2-PFOA and 13C4-PFOS internal standards used to quantify the surrogates. In these cases, the surrogates are reported from dilutions, however, the native compounds are reported from the non-diluted extracts as the interferences are with the internal standards and not the surrogates used to quantify the native compounds.
DMS 10/19/2018

Task Leader Approval:

SupervisorApproval:

PM Approval:



Digitally signed by Jonathan Thorn
Date: 2018.10.19 18:04:53 -04'00'

Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batch: 18-0582
Data Set: DP-18-0287

		CR888PB-FS (180507-02: Ottawa Sand)	CR889LCS-FS (180507-02: Ottawa Sand)	J8335MS-FS (VC-PM324-SB02-0506-MS)	J8336MSD-FS (VC-PM324-SB02-0506-MSD)	J8310-FS (VC-PM323-324-SS01-000H)	J8311-FS (VC-PM323-324-SB01-0102)	J8312-FS (VC-PM323-324-SB01-0506)	J8313-FS (VC-PM323-324-SS02-000H)
PFHxA	307-24-4	-	L	L	L	L	L	L	L
PFHpA	375-85-9	-	L	L	L	-	L	L	L
PFOA	335-67-1	-	L	L	L	L	L	L	L
PFNA	375-95-1	-	L	L	L	L	-	L	L
PFDA	335-76-2	-	L	L	L	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	-	-	L	L
PFHxS	355-46-4	-	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br
PFOS	1763-23-1	-	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br

"L" :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-

	J8314-FS (VC-PM323-324-SB02-0102)	J8315-FS (VC-PM323-324-SB02-0506)	J8316-FS (VC-PM323-324-SS03-000H)	J8317-FS (VC-PM323-324-SB03-0102)	J8318-FS (VC-PM323-324-SB03-0506)	J8327-FS (VC-PM323-SS02-000H)	J8328-FS (VC-PM323-SB02-0102)	J8329-FS (VC-PM323-SB02-0506)
PFHxA	L	L	L	L	L	L	-	-
PFHpA	L	L	L	L	L	-	-	-
PFOA	L	L	L	L	L	-	-	-
PFNA	L	L	L	L	L	-	-	-
PFDA	L	-	L	-	-	-	-	-
PFUnA	-	-	-	-	-	-	-	-
PFDoA	-	-	-	-	-	-	-	-
PFTrDA	-	-	L	-	-	-	-	-
PFTeDA	-	-	-	-	-	-	-	-
NMeFOSAA	-	-	-	-	-	-	-	-
NEtFOSAA	-	-	-	-	-	-	-	-
PFBS	L	L	L	L	L	-	-	-
PFHxS	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	-
PFOS	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br

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

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

	J8332-FS (VC-PM324-SS02-000H)	J8333-FS (VC-PM324-SB02-0102)	J8334-FS (VC-PM324-SB02-0506)
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/Br
"-": Not detected

ACCREDITATIONS

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

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

Custody Records

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ShpNo SHP-180925-02

Battelle Project No: 0110125-01

Sample Receipt Form

Approved: ☑ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Tuesday, September 25, 2018 1:00 PM

No. of Shipping Containers: 2

SHIPMENT

Method of Delivery: Commercial Carrier **Tracking Number:** Fed Ex

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

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal	Container	Therm.	Temp C	Smps
1 of 2	Cooler	7829 0673 4525	Custody Seals	Intact	Intact	Therm_1	0.9	25
2 of 2	Cooler	7829 0673 4536	Custody Seals	Intact	Intact	Therm_1	1.1	28

Samples

Sample Labels:
☑ Sample labels agree with COC forms
☐ Discrepancies (see Sample Custody Corrective Action Form)

Container Seals:
☐ Tape ☐ Custody Seals ☐ Other Seals (See sample Log)
☑ Seals intact for each shipping container
☐ Seals broken (See sample log for impacted samples)

Condition of Samples:
☑ Sample containers intact
☐ Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1.1 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:** J8285 - J8337

Samples logged in by: Schumitz, Matt **Date/Time:** 09/25/2018 1:00 PM

Approved By: Fitch, Ellyn **Approved On:** 10/1/2018 12:08:00 PM

Authorized By: **Authorized On:**

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ShpNo: SHP-180925-02

Battelle Project No: 0110125-01

Report Corrective Actions

Corrective Action No: 1 **of** 1

Authorized ☐ Approved: ☐

COC Client: CH2M
COC Project: NBVC Basewide SI
COC Date: 9/25/2018 2:11:0

	Description of Problem:	Explanation:
Client Id	Jars and C-O-C do not have matching Ids	It appears as though the blanks were mixed up when labeling them with the field ID. COC FDT-SO-FB04-092118 (J8308) FDT-SO-EB04-092118 (J8309) FDT-AQ-FB03-092018 (J8323) FDT-AQ-EB03-092018 (J8324) Labels FDT-AQ-FB04-092118 (J8308) FDT-SO-EB04-092118 (J8309) FDT-SO-FB03-092018 (J8323) FDT-SO-EB03-092018 (J8324)

Documentation of project manager notification

Sample Custodian Schumitz, Matt **Date:** 9/25/2018 4:21:00 PM

Laboratory Manager: Thorn, Jonathan **Date:** 10/1/2018 11:57:00 A

Project Manager: Thorn, Jonathan **Date:** 10/1/2018 11:57:00 A

Documentation of client notification (should be completed by project manager within 24 hrs):

On 25-Sep-18 **I contacted** Hill, Tiffany **at** CH2M

Results of communication with client (Describe any corrective action directed by the client):

Updated sample IDs sent from client, included with original custody records.

Date this form was received back to the custodian: _____

Reference Number: _____

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ShpNo SHP-180925-02

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☐ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Tuesday, September 25, 2018 1:00 PM

No. of Shipping Containers: 2

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8285	VC-CS94-DW01-0918	09/21/18 10:54	09/25/18 14:16	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8286	VC-CS94-DW01P-0918	09/21/18 10:58	09/25/18 14:16	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8287	VC-CS94-DW02-0918	09/21/18 11:50	09/25/18 14:17	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8288	VC-CS94-DW03-0918	09/21/18 11:08	09/25/18 14:17	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8289	VC-CS94-DW04-0918	09/21/18 12:14	09/25/18 14:17	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8290	VC-CS94-DW05-0918	09/21/18 12:23	09/25/18 14:18	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8291	VC-CS94-SS01-000H	09/21/18 10:30	09/25/18 14:18	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8292	VC-CS94-SB01-0102	09/21/18 10:33	09/25/18 14:19	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8293	VC-CS94-SB01-0506	09/21/18 10:37	09/25/18 14:20	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8294	VC-CS94-SS02-000H	09/21/18 11:24	09/25/18 14:20	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8295	VC-CS94-SB02-0102	09/21/18 11:25	09/25/18 14:20	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8296	VC-CS94-SB02-0506	09/21/18 11:33	09/25/18 14:21	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8297	VC-CS94-SS03-000H	09/21/18 10:37	09/25/18 14:21	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8298	VC-CS94-SB03-0102	09/21/18 10:38	09/25/18 14:21	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8299	VC-CS94-SB03-0506	09/21/18 10:41	09/25/18 14:22	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8300	VC-CS94-SS04-000H	09/21/18 11:57	09/25/18 14:22	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8301	VC-CS94-SB04-0102	09/21/18 11:58	09/25/18 14:22	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8302	VC-CS94-SB04-0506	09/21/18 12:04	09/25/18 14:23	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8303	VC-CS94-SS05-000H	09/21/18 12:04	09/25/18 14:24	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8304	VC-CS94-SB05-0102	09/21/18 12:05	09/25/18 14:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8305	VC-CS94-SB05-0506	09/21/18 12:10	09/25/18 14:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8306	VC-CS94-SS04-000H-MS	09/21/18 11:57	09/25/18 14:25	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8307	VC-CS94-SS04-000H-MSD	09/21/18 11:57	09/25/18 14:25	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8308	VC-SO-FB04-092118	09/21/18 14:20	09/25/18 14:25	2	AQ	0.9	NA	NA	NA	R0119 (NA)			
J8309	VC-SO-EB04-092118	09/21/18 14:20	09/25/18 14:26	2	AQ	0.9	NA	NA	NA	R0119 (NA)			
J8310	VC-PM323-324-SS01-000H	09/20/18 13:52	09/25/18 14:27	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8311	VC-PM323-324-SB01-0102	09/20/18 13:55	09/25/18 14:28	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8312	VC-PM323-324-SB01-0506	09/20/18 14:10	09/25/18 14:28	1	SB	1.1	NA	NA	NA	R0119 (NA)			

BATTELLE
It can be done

ShpNo SHP-180925-02

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☐ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Tuesday, September 25, 2018 1:00 PM

No. of Shipping Containers: 2

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8313	VC-PM323-324-SS02-000H	09/20/18 11:00	09/25/18 14:28	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8314	VC-PM323-324-SB02-0102	09/20/18 11:05	09/25/18 14:29	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8315	VC-PM323-324-SB02-0506	09/20/18 11:15	09/25/18 14:29	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8316	VC-PM323-324-SS03-000H	09/20/18 10:15	09/25/18 14:29	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8317	VC-PM323-324-SB03-0102	09/20/18 10:17	09/25/18 14:30	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8318	VC-PM323-324-SB03-0506	09/20/18 10:22	09/25/18 14:30	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8319	VC-PM323-324-DW01-0918	09/20/18 14:38	09/25/18 14:31	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8320	VC-PM323-324-DW01P-0918	09/20/18 14:45	09/25/18 14:32	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8321	VC-PM323-324-DW02-0918	09/20/18 11:41	09/25/18 14:32	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8322	VC-PM323-324-DW03-0918	09/20/18 10:35	09/25/18 14:32	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8323	VC-AQ-FB03-092018	09/20/18 8:00	09/25/18 14:33	2	AQ	1.1	NA	NA	NA	R0119 (NA)			
J8324	VC-AQ-EB03-092018	09/20/18 8:00	09/25/18 14:33	2	AQ	1.1	NA	NA	NA	R0119 (NA)			
J8325	VC-PM323-324-DW02-0918-MS	09/20/18 12:58	09/25/18 14:33	2	AQ	1.1	NA	NA	NA	R0119 (NA)			
J8326	VC-PM323-324-DW02-0918-MSD	09/20/18 13:30	09/25/18 14:34	2	AQ	1.1	NA	NA	NA	R0119 (NA)			
J8327	VC-PM323-SS02-000H	09/20/18 14:43	09/25/18 14:38	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8328	VC-PM323-SB02-0102	09/20/18 14:44	09/25/18 14:38	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8329	VC-PM323-SB02-0506	09/20/18 14:48	09/25/18 14:38	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8330	VC-PM323-DW02-0918	09/20/18 15:13	09/25/18 14:39	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8331	VC-PM323-DW02P-0918	09/20/18 16:02	09/25/18 14:39	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8332	VC-PM324-SS02-000H	09/20/18 13:40	09/25/18 14:40	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8333	VC-PM324-SB02-0102	09/20/18 13:45	09/25/18 14:40	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8334	VC-PM324-SB02-0506	09/20/18 13:51	09/25/18 14:41	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8335	VC-PM324-SB02-0506-MS	09/20/18 13:51	09/25/18 14:41	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8336	VC-PM324-SB02-0506-MSD	09/20/18 13:51	09/25/18 14:41	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8337	VC-PM324-DW02-0918	09/20/18 14:00	09/25/18 14:42	2	GW	1.1	NA	NA	NA	R0119 (NA)			

Total Samples: 53

MEMORANDUM CH2MHILL

Corrections to COCs

TO: Jonathan Thorn, Battelle

COPIES: File
Laboratory Package SDG: SHP 180925-02

FROM: Tiffany Hill
Project Chemist

DATE: September 25, 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-FB03-092018	VC-AQ-FB03-092018	9/20/18	8:00	SHP-180925-02
FDT-AQ-EB03-092018	VC-AQ-EB03-092018	9/20/18	8:00	SHP-180925-02
FDT-SO-FB04-092118	VC-SO-FB04-092118	9/21/18	14:20	SHP-180925-02
FDT-SO-EB04-092118	VC-SO-EB04-092118	9/21/18	14:20	SHP-180925-02

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM CS94	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 victoria.kilbert@jacobs.com Email: vlk5004@gmail.com	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested: Normal ☒ Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 1 of 9
Project No.: 695803	Time Zone: PST		

Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-CS94-DW01-0918	J8285	9/21/18	1054	AQ	GW	2	X
VC-CS94-DW01P-0918	J8286	9/21/18	1058	AQ	GW	2	X
VC-CS94-DW02-0918	J8287	9/21/18	1150	AQ	GW	2	X
VC-CS94-DW03-0918	J8288	9/21/18	1108	AQ	GW	2	X
VC-CS94-DW04-0918	J8289	9/21/18	1214	AQ	GW	2	X
VC-CS94-DW05-0918	J8290	9/21/18	1223	AQ	GW	2	X
~~FDT-AQ-FB~~				~~Grab~~	~~AQ~~		~~X~~
~~FDT-AQ-EB~~				~~Grab~~	~~AQ~~		~~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:
V. Kilbert	Jacobs	09/24/18 0730	[signature]	Battelle	9-25-18 1300

Comments:

Form NAL-056 | Rev1 | 1/23/2017 | Page 1 of 1

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM CS94	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V Kilbert Phone: 724-977-3628 Email:	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested: Normal X, Priority ☐, RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 2 of 9
Project No.: 69583	Time Zone: PST		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-CS94-SS01-000H J8291	9/21/18	1030	Grab	SS	1	X
VC-CS94-SB01-0102 92	9/21/18	1033	Grab	SB	1	X
VC-CS94-SB01-0506 93	9/21/18	1037	Grab	SB	1	X
VC-CS94-SS02-000H 94	9/21/18	1124	Grab	SS	1	X
VC-CS94-SB02-0102 95	9/21/18	1125	Grab	SB	1	X
VC-CS94-SB02-0506 96	9/21/18	1133	Grab	SB	1	X
VC-CS94-SS03-000H 97	9/21/18	1037	Grab	SS	1	X
VC-CS94-SB03-0102 98	9/21/18	1038	Grab	SB	1	X
VC-CS94-SB03-0506 99	9/21/18	1041	Grab	SB	1	X
VC-CS94-SS04-000H J8300	9/21/18	1157	Grab	SS	1	X
VC-CS94-SB04-0102 J8301	9/21/18	1158	Grab	SB	1	X
VC-CS94-SB04-0506 J8302	9/21/18	1204	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:
V. Kilbert	Jacobs	9/24/18 0730	NA	Battelle	9-25-18 1300
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM CS94	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI Project No.: 645803	Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 3 of 9

	Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
J8305	VC-CS94-SS05-000H	9/21/18	1204	Grab	SS	1	X
04	VC-CS94-SB05-0102	9/21/18	1205	Grab	SB	1	X
05	VC-CS94-SB05-0506	9/21/18	1210	Grab	SB	1	X
06	VC-CS94-SS04-000H-MS	9/21/18	1157	Grab	SS	1	X
07	VC-CS94-SS04-000H-MSD	9/21/18	1157	Grab	SS	1	X
08	FDT-SO-FB04-092118	9/21/18	1420	Grab	AQ	2	X
J8309	FDT-SO-EB04-092118	9/21/18	1420	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:
V. Kilbert	Jacobs	9/24/18 0730		Battelle	9-25-18 1300
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 323-324	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 4 of 9

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM323-324-SS01-000H J8310	9/20/18	1352	Grab	SS	1	X
VC-PM323-324-SB01-0102 11	9/20/18	1355	Grab	SB	1	X
VC-PM323-324-SB01-0506 12	9/20/18	1410	Grab	SB	1	X
VC-PM323-324-SS02-000H 13	9/20/18	1100	Grab	SS	1	X
VC-PM323-324-SB02-0102 14	9/20/18	1105	Grab	SB	1	X
VC-PM323-324-SB02-0506 15	9/20/18	1115	Grab	SB	1	X
VC-PM323-324-SS03-000H 16	9/20/18	1015	Grab	SS	1	X
VC-PM323-324-SB03-0102 17	9/20/18	1017	Grab	SB	1	X
VC-PM323-324-SB03-0506 J8318	9/20/18	1022	Grab	SB	1	X
~~VC-PM323-324-SD01-000H~~			~~Grab~~	~~SD~~		X
~~VC-PM323-324-SD01-0102~~			~~Grab~~	~~SD~~		X
~~VC-PM323-324-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:
V Kilbert	Jacobs	9/24/18 0733		Battelle	9-25-18 1300
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 323-324	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3625 Email:	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested: Normal X Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 5 of 9
Project No.: 695803	Time Zone: EST		

	Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod	
J8319	VC-PM323-324-DW01-0918	9/20/18	1438	Grab	GW	2	X	
20	VC-PM323-324-DW01P-0918	9/20/18	1445	Grab	GW	2	X	
21	VC-PM323-324-DW02-0918 (VD)	9/20/18	1141	Grab	GW	2	X	
22	VC-PM323-324-DW03-0918	9/20/18	1035	Grab	GW	2	X	
23	FDT-AQ-FB03-092018	9/21/18	0806	Grab	AQ	2	X	
24	FDT-AQ-EB03-092018	9/21/18	0800	Grab	AQ	2	X	
25	VC-PM323-324-DW02-0918-MS	9/20/18	1258	G-b	AQ	2	X	MS
J8326	VC-PM323-324-DW02-0918-MSD	9/20/18	1330	G-b	AQ	2	X	MSD

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:
V. Kilbert	Jacobs	9/24/18 0730		Battelle	9-25-18 1300
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 323	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email:	Preservative: NA	COC # 2
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# 6 of 7

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis: PFAS by Method 537 Mod
~~VC-PM323-SS01-000H~~			Grab	SS		X
~~VC-PM323-SB01-~~			Grab	SB		X
~~VC-PM323-SB01-~~			Grab	SB		X
VC-PM323-SS02-000H J8327	9/20/18	1443	Grab	SS	1	X
VC-PM323-SB02-0102 J8328	9/20/18	1444	Grab	SB	1	X
VC-PM323-SB02-0506 J8329	9/20/18	1445	Grab	SB	1	X
~~VC-PM323-SS03-000H~~			Grab	SS		X
~~VC-PM323-SB03-~~			Grab	SB		X
~~VC-PM323-SB03-~~			Grab	SB		X
~~VC-PM323-S- -MS~~			Grab			X
~~VC-PM323-S- -SD~~			Grab			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:
V. Kilbert	Tetra Tech	09/24/18 0730		Battelle	9-25-18 1300
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 323	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email:	Preservative: N/A	COC # 2
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 9

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis: PFAS by Method 537 Mod
~~VC-PM323-DW01-~~			~~Grab~~	~~GW~~		X
VC-PM323-DW02-0918 J8330	9/20/18	1513	Grab	GW	2	X
VC-PM323-DW02P-0918 J8331	9/20/18	1602	Grab	GW	2	X
~~VC-PM323-DW03-~~			~~Grab~~	~~GW~~		X
~~FDT-AQ-EB~~			~~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:
V. Kilbert	Jacobs	9/24/18 0730		Battelle	9-25-18 1700
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 324	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email:	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested: Normal ☒ Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 8 of 9
Project No.: 695803	Time Zone: PST		

	Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
	~~VC-PM324-SS01-000H~~			~~Grab~~	~~SS~~		X
	~~VC-PM324-SB01-~~			~~Grab~~	~~SB~~		X
	~~VC-PM324-SB01-~~			~~Grab~~	~~SB~~		X
J8332	VC-PM324-SS02-000H	9/20/18	1340	Grab	SS	1	X
J8333	VC-PM324-SB02-0102	9/20/18	1345	Grab	SB	1	X
J8334	VC-PM324-SB02-0506	9/20/18	1351	Grab	SB	1	X
	~~VC-PM324-SS03-000H~~			~~Grab~~	~~SS~~		X
	~~VC-PM324-SB03-~~			~~Grab~~	~~SB~~		X
	~~VC-PM324-SB03-~~			~~Grab~~	~~SB~~		X
J8335	VC-PM324-~~SB0506~~ SB02-0506-MS	9/20/18	1351	Grab	SB	1	X
J8336	VC-PM324-~~SB0506~~ SB02-0506-MSD	9/20/18	1351	Grab	SB	1	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:
V. Kilbert	Tetra Tech	9/24/18 730		Battelle	7-25-18 1700
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: PM324	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: Email: Turnaround Time (TAT) Requested:	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI Project No.: 695803	Normal ☒ Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 9 of 9

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
~~VC-PM324-DW01-~~			~~Grab~~	~~GW~~		X
~~VC-PM324-DW01P-~~			~~Grab~~	~~GW~~		X
J8337 VC-PM324-DW02-0918	9/20/18	1400	Grab	GW	8	X
~~VC-PM324-DW03-~~			~~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:
V. Kilbert	Jacobs	9/24/18 0730		Battelle	9-25-18 1300
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:



Do Not Lift Using This Tag

ORIGIN ID:OXRA (303) 929-1887
JACOBS ENGINEERING
PO# 695803
402 W BROADWAY STE 1450

SAN DIEGO, CA 92101
UNITED STATES US

SHIP DATE: 24SEP18
ACTWGT: 70.70 LB
CAD: 6997666/SSF01904
DIMS: 25x14x14 IN

BILL THIRD PARTY

TO BATTELLE LABS
C/O JONATHAN THORN
141 LONGWATER DR.
STE 202
NORWELL MA 02061
(781) 681-5565
INV:
PO:
REF:
DEPT:

0.9°
Therm 1

FedEx Express

REL# 378534

1 of 2

TRK# 0201 7829 0673 4525

MASTER

NB XPUA

TUE - 25 SEP 10:
PRIORITY OVERNI
02
MA-US

RT 246 2 B
ST 11.2 10:30 4525 09.25



Do Not Lift Using This Tag

ORIGIN ID:OXRA (303) 929-1887
JACOBS ENGINEERING
PO# 695803
402 W BROADWAY STE 1450

SAN DIEGO, CA 92101
UNITED STATES US

SHIP DATE: 24SEP18
ACTWGT: 66.70 LB
CAD: 6997666/SSF01904
DIMS: 23x16x15 IN

BILL THIRD PARTY

TO BATTELLE LABS
C/O JONATHAN THORN
141 LONGWATER DR.
STE 202
NORWELL MA 02061
(781) 681-5565
INV:
PO:
REF:
DEPT:

1.1°
Therm-1

FedEx Express

REL# 3785346

2 of 2

MPS# 0263 7829 0673 4536

Mstr# 7829 0673 4525 0201

NB XPUA

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02061
MA-US BOS

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ST 11.2 10:30 4536 09.25

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-PM323-324-SS01-000H				
Battelle ID		J8310-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		15.14				
Matrix		SS				
Sample Size		1.650				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.60	J	0.40	1.21	6.06
PFHpA	375-85-9	1.21	U	0.53	1.21	6.06
PFOA	335-67-1	4.51	J	0.61	1.21	6.06
PFNA	375-95-1	3.51	J	0.52	1.21	6.06
PFDA	335-76-2	4.57	J	0.33	1.21	6.06
PFUnA	2058-94-8	1.21	U	0.50	1.21	6.06
PFDoA	307-55-1	0.61	U	0.29	0.61	6.06
PFTrDA	72629-94-8	0.51	J	0.34	1.21	6.06
PFTeDA	376-06-7	2.42	U	0.76	2.42	6.06
NMeFOSAA	2355-31-9	3.03	U	1.36	3.03	6.06
NEtFOSAA	2991-50-6	2.42	U	0.69	2.42	6.06
PFBS	375-73-5	1.21	U	0.44	1.21	6.06
PFHxS	355-46-4	6.85		0.27	0.61	6.06
PFOS	1763-23-1	799.11	D	8.18	30.30	151.52

Surrogate Recoveries (%)

13C5-PFHxA	110	
13C4-PFHpA	105	
13C8-PFOA	115	
13C9-PFNA	86	
13C6-PFDA	123	
13C7-PFUnA	139	
13C2-PFDoA	124	
13C2-PFTeDA	112	
d3-MeFOSAA	138	D
d5-EtFOSAA	147	D
13C3-PFBS	112	D
13C3-PFHxS	123	D
13C8-PFOS	114	

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

Client ID		VC-PM323-324-SB01-0102				
Battelle ID		J8311-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		11.73				
Matrix		SB				
Sample Size		1.810				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	3.28	J	0.36	1.10	5.52
PFHpA	375-85-9	0.60	J	0.49	1.10	5.52
PFOA	335-67-1	6.14		0.55	1.10	5.52
PFNA	375-95-1	2.26	J	0.48	1.10	5.52
PFDA	335-76-2	0.45	J	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	0.61	J	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	11.52		0.24	0.55	5.52
PFOS	1763-23-1	1188.93	D	14.92	55.25	276.24

Surrogate Recoveries (%)

13C5-PFHxA	99	
13C4-PFHpA	103	
13C8-PFOA	107	
13C9-PFNA	75	
13C6-PFDA	118	
13C7-PFUnA	121	
13C2-PFDoA	119	
13C2-PFTeDA	100	
d3-MeFOSAA	99	D
d5-EtFOSAA	111	D
13C3-PFBS	85	D
13C3-PFHxS	78	D
13C8-PFOS	122	

BATTELLE
It can be done

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

Client ID		VC-PM323-324-SB01-0506				
Battelle ID		J8312-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		32.61				
Matrix		SB				
Sample Size		1.420				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	359.01	D	2.32	7.04	35.21
PFHpA	375-85-9	23.28		0.62	1.41	7.04
PFOA	335-67-1	58.58		0.70	1.41	7.04
PFNA	375-95-1	0.94	J	0.61	1.41	7.04
PFDA	335-76-2	1.41	U	0.38	1.41	7.04
PFUnA	2058-94-8	1.41	U	0.58	1.41	7.04
PFDoA	307-55-1	0.70	U	0.34	0.70	7.04
PFTrDA	72629-94-8	1.41	U	0.39	1.41	7.04
PFTeDA	376-06-7	2.82	U	0.89	2.82	7.04
NMeFOSAA	2355-31-9	3.52	U	1.58	3.52	7.04
NEtFOSAA	2991-50-6	2.82	U	0.80	2.82	7.04
PFBS	375-73-5	92.19		0.51	1.41	7.04
PFHxS	355-46-4	828.75	D	15.49	35.21	352.11
PFOS	1763-23-1	3759.66	D	19.01	70.42	352.11

Surrogate Recoveries (%)

13C5-PFHxA	117	
13C4-PFHpA	122	
13C8-PFOA	102	
13C9-PFNA	79	
13C6-PFDA	113	
13C7-PFUnA	123	
13C2-PFDoA	107	
13C2-PFTeDA	104	
d3-MeFOSAA	130	D
d5-EtFOSAA	123	D
13C3-PFBS	112	D
13C3-PFHxS	105	D
13C8-PFOS	108	

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

Client ID		VC-PM323-324-SS02-000H			
Battelle ID		J8313-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		4.24			
Matrix		SS			
Sample Size		1.900			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	16.47	0.35	1.05	5.26
PFHpA	375-85-9	2.56 J	0.46	1.05	5.26
PFOA	335-67-1	8.22	0.53	1.05	5.26
PFNA	375-95-1	3.94 J	0.45	1.05	5.26
PFDA	335-76-2	5.47	0.28	1.05	5.26
PFUnA	2058-94-8	1.05 U	0.43	1.05	5.26
PFDoA	307-55-1	0.80 J	0.25	0.53	5.26
PFTrDA	72629-94-8	2.10 J	0.29	1.05	5.26
PFTeDA	376-06-7	2.11 U	0.66	2.11	5.26
NMeFOSAA	2355-31-9	2.63 U	1.18	2.63	5.26
NEtFOSAA	2991-50-6	2.11 U	0.60	2.11	5.26
PFBS	375-73-5	5.06 J	0.38	1.05	5.26
PFHxS	355-46-4	27.30	0.23	0.53	5.26
PFOS	1763-23-1	2160.39 D	28.42	105.26	526.32

Surrogate Recoveries (%)

13C5-PFHxA	109	
13C4-PFHpA	108	
13C8-PFOA	110	
13C9-PFNA	63	
13C6-PFDA	114	
13C7-PFUnA	129	
13C2-PFDoA	110	
13C2-PFTeDA	111	
d3-MeFOSAA	85 D	
d5-EtFOSAA	110 D	
13C3-PFBS	87 D	
13C3-PFHxS	92 D	
13C8-PFOS	103	

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

Client ID		VC-PM323-324-SB02-0102				
Battelle ID		J8314-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		15.06				
Matrix		SB				
Sample Size		1.640				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	4.34	J	0.40	1.22	6.10
PFHpA	375-85-9	0.65	J	0.54	1.22	6.10
PFOA	335-67-1	3.32	J	0.61	1.22	6.10
PFNA	375-95-1	2.88	J	0.52	1.22	6.10
PFDA	335-76-2	1.66	J	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	1.62	J	0.44	1.22	6.10
PFHxS	355-46-4	16.36		0.27	0.61	6.10
PFOS	1763-23-1	114.91	D	1.65	6.10	30.49

Surrogate Recoveries (%)

13C5-PFHxA	107	
13C4-PFHpA	101	
13C8-PFOA	107	
13C9-PFNA	68	
13C6-PFDA	112	
13C7-PFUnA	126	
13C2-PFDoA	113	
13C2-PFTeDA	108	
d3-MeFOSAA	100	D
d5-EtFOSAA	110	D
13C3-PFBS	95	D
13C3-PFHxS	102	D
13C8-PFOS	125	

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

Client ID		VC-PM323-324-SB02-0506				
Battelle ID		J8315-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		16.18				
Matrix		SB				
Sample Size		1.630				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	120.36	D	2.02	6.13	30.67
PFHpA	375-85-9	13.79		0.54	1.23	6.13
PFOA	335-67-1	62.80		0.61	1.23	6.13
PFNA	375-95-1	2.28	J	0.53	1.23	6.13
PFDA	335-76-2	1.23	U	0.33	1.23	6.13
PFUnA	2058-94-8	1.23	U	0.50	1.23	6.13
PFDoA	307-55-1	0.61	U	0.29	0.61	6.13
PFTrDA	72629-94-8	1.23	U	0.34	1.23	6.13
PFTeDA	376-06-7	2.45	U	0.77	2.45	6.13
NMeFOSAA	2355-31-9	3.07	U	1.37	3.07	6.13
NEtFOSAA	2991-50-6	2.45	U	0.70	2.45	6.13
PFBS	375-73-5	38.92		0.44	1.23	6.13
PFHxS	355-46-4	667.89	D	13.50	30.67	306.75
PFOS	1763-23-1	11774.04	D	82.82	306.75	1533.74

Surrogate Recoveries (%)

13C5-PFHxA	130	
13C4-PFHpA	131	
13C8-PFOA	103	
13C9-PFNA	52	
13C6-PFDA	112	
13C7-PFUnA	121	
13C2-PFDoA	108	
13C2-PFTeDA	103	
d3-MeFOSAA	122	D
d5-EtFOSAA	130	D
13C3-PFBS	92	D
13C3-PFHxS	102	D
13C8-PFOS	105	

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

Client ID		VC-PM323-324-SS03-000H				
Battelle ID		J8316-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		6.65				
Matrix		SS				
Sample Size		1.830				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	4.41	J	0.36	1.09	5.46
PFHpA	375-85-9	1.01	J	0.48	1.09	5.46
PFOA	335-67-1	13.44		0.55	1.09	5.46
PFNA	375-95-1	3.74	J	0.47	1.09	5.46
PFDA	335-76-2	3.20	J	0.30	1.09	5.46
PFUnA	2058-94-8	1.09	U	0.45	1.09	5.46
PFDoA	307-55-1	0.55	U	0.26	0.55	5.46
PFTrDA	72629-94-8	0.48	J	0.31	1.09	5.46
PFTeDA	376-06-7	2.19	U	0.69	2.19	5.46
NMeFOSAA	2355-31-9	2.73	U	1.22	2.73	5.46
NEtFOSAA	2991-50-6	2.19	U	0.62	2.19	5.46
PFBS	375-73-5	0.50	J	0.39	1.09	5.46
PFHxS	355-46-4	39.68		0.24	0.55	5.46
PFOS	1763-23-1	2444.93	D	36.89	136.61	683.06

Surrogate Recoveries (%)

13C5-PFHxA	109	
13C4-PFHpA	107	
13C8-PFOA	107	
13C9-PFNA	70	
13C6-PFDA	119	
13C7-PFUnA	127	
13C2-PFDoA	111	
13C2-PFTeDA	106	
d3-MeFOSAA	92	D
d5-EtFOSAA	109	D
13C3-PFBS	87	D
13C3-PFHxS	92	D
13C8-PFOS	115	

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

Client ID		VC-PM323-324-SB03-0102			
Battelle ID		J8317-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		22.14			
Matrix		SB			
Sample Size		1.630			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	39.89	0.40	1.23	6.13
PFHpA	375-85-9	5.32 J	0.54	1.23	6.13
PFOA	335-67-1	14.90	0.61	1.23	6.13
PFNA	375-95-1	1.67 J	0.53	1.23	6.13
PFDA	335-76-2	1.23 U	0.33	1.23	6.13
PFUnA	2058-94-8	1.23 U	0.50	1.23	6.13
PFDoA	307-55-1	0.61 U	0.29	0.61	6.13
PFTrDA	72629-94-8	1.23 U	0.34	1.23	6.13
PFTeDA	376-06-7	2.45 U	0.77	2.45	6.13
NMeFOSAA	2355-31-9	3.07 U	1.37	3.07	6.13
NEtFOSAA	2991-50-6	2.45 U	0.70	2.45	6.13
PFBS	375-73-5	6.68	0.44	1.23	6.13
PFHxS	355-46-4	168.12 D	2.70	6.13	61.35
PFOS	1763-23-1	1808.15 D	16.56	61.35	306.75

Surrogate Recoveries (%)

13C5-PFHxA	107	
13C4-PFHpA	112	
13C8-PFOA	103	
13C9-PFNA	67	
13C6-PFDA	104	
13C7-PFUnA	107	
13C2-PFDoA	98	
13C2-PFTeDA	94	
d3-MeFOSAA	99 D	
d5-EtFOSAA	95 D	
13C3-PFBS	89 D	
13C3-PFHxS	103 D	
13C8-PFOS	105	

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

Client ID		VC-PM323-324-SB03-0506			
Battelle ID		J8318-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		10.52			
Matrix		SB			
Sample Size		1.730			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	61.43	0.38	1.16	5.78
PFHpA	375-85-9	6.00	0.51	1.16	5.78
PFOA	335-67-1	29.32	0.58	1.16	5.78
PFNA	375-95-1	1.98 J	0.50	1.16	5.78
PFDA	335-76-2	1.16 U	0.31	1.16	5.78
PFUnA	2058-94-8	1.16 U	0.47	1.16	5.78
PFDoA	307-55-1	0.58 U	0.28	0.58	5.78
PFTrDA	72629-94-8	1.16 U	0.32	1.16	5.78
PFTeDA	376-06-7	2.31 U	0.73	2.31	5.78
NMeFOSAA	2355-31-9	2.89 U	1.29	2.89	5.78
NEtFOSAA	2991-50-6	2.31 U	0.66	2.31	5.78
PFBS	375-73-5	13.72	0.42	1.16	5.78
PFHxS	355-46-4	125.17 D	1.27	2.89	28.90
PFOS	1763-23-1	10670.73 D	31.21	115.61	578.03

Surrogate Recoveries (%)

13C5-PFHxA	121
13C4-PFHpA	118
13C8-PFOA	97
13C9-PFNA	51
13C6-PFDA	107
13C7-PFUnA	109
13C2-PFDoA	107
13C2-PFTeDA	95
d3-MeFOSAA	105 D
d5-EtFOSAA	113 D
13C3-PFBS	83 D
13C3-PFHxS	113 D
13C8-PFOS	100

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

Client ID		VC-PM323-SS02-000H			
Battelle ID		J8327-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		4.85			
Matrix		SS			
Sample Size		1.900			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	0.40 J	0.35	1.05	5.26
PFHpA	375-85-9	1.05 U	0.46	1.05	5.26
PFOA	335-67-1	1.05 U	0.53	1.05	5.26
PFNA	375-95-1	1.05 U	0.45	1.05	5.26
PFDA	335-76-2	1.05 U	0.28	1.05	5.26
PFUnA	2058-94-8	1.05 U	0.43	1.05	5.26
PFDoA	307-55-1	0.53 U	0.25	0.53	5.26
PFTrDA	72629-94-8	1.05 U	0.29	1.05	5.26
PFTeDA	376-06-7	2.11 U	0.66	2.11	5.26
NMeFOSAA	2355-31-9	2.63 U	1.18	2.63	5.26
NEtFOSAA	2991-50-6	2.11 U	0.60	2.11	5.26
PFBS	375-73-5	1.05 U	0.38	1.05	5.26
PFHxS	355-46-4	0.35 J	0.23	0.53	5.26
PFOS	1763-23-1	6.49	0.28	1.05	5.26

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	96
13C8-PFOA	102
13C9-PFNA	95
13C6-PFDA	113
13C7-PFUnA	111
13C2-PFDoA	102
13C2-PFTeDA	97
d3-MeFOSAA	103
d5-EtFOSAA	108
13C3-PFBS	102
13C3-PFHxS	105
13C8-PFOS	103

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

Client ID		VC-PM323-SB02-0102			
Battelle ID		J8328-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		3.77			
Matrix		SB			
Sample Size		1.950			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.03 U	0.34	1.03	5.13
PFHpA	375-85-9	1.03 U	0.45	1.03	5.13
PFOA	335-67-1	1.03 U	0.51	1.03	5.13
PFNA	375-95-1	1.03 U	0.44	1.03	5.13
PFDA	335-76-2	1.03 U	0.28	1.03	5.13
PFUnA	2058-94-8	1.03 U	0.42	1.03	5.13
PFDoA	307-55-1	0.51 U	0.25	0.51	5.13
PFTrDA	72629-94-8	1.03 U	0.29	1.03	5.13
PFTeDA	376-06-7	2.05 U	0.65	2.05	5.13
NMeFOSAA	2355-31-9	2.56 U	1.15	2.56	5.13
NEtFOSAA	2991-50-6	2.05 U	0.58	2.05	5.13
PFBS	375-73-5	1.03 U	0.37	1.03	5.13
PFHxS	355-46-4	0.37 J	0.23	0.51	5.13
PFOS	1763-23-1	2.02 J	0.28	1.03	5.13

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	94
13C8-PFOA	108
13C9-PFNA	96
13C6-PFDA	110
13C7-PFUnA	119
13C2-PFDoA	102
13C2-PFTeDA	100
d3-MeFOSAA	117
d5-EtFOSAA	116
13C3-PFBS	112
13C3-PFHxS	113
13C8-PFOS	99

BATTELLE
It can be done

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

Client ID		VC-PM323-SB02-0506			
Battelle ID		J8329-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		14.32			
Matrix		SB			
Sample Size		1.720			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.16 U	0.38	1.16	5.81
PFHpA	375-85-9	1.16 U	0.51	1.16	5.81
PFOA	335-67-1	1.30 J	0.58	1.16	5.81
PFNA	375-95-1	1.16 U	0.50	1.16	5.81
PFDA	335-76-2	1.16 U	0.31	1.16	5.81
PFUnA	2058-94-8	1.16 U	0.48	1.16	5.81
PFDoA	307-55-1	0.58 U	0.28	0.58	5.81
PFTrDA	72629-94-8	1.16 U	0.33	1.16	5.81
PFTeDA	376-06-7	2.33 U	0.73	2.33	5.81
NMeFOSAA	2355-31-9	2.91 U	1.30	2.91	5.81
NEtFOSAA	2991-50-6	2.33 U	0.66	2.33	5.81
PFBS	375-73-5	1.16 U	0.42	1.16	5.81
PFHxS	355-46-4	0.58 U	0.26	0.58	5.81
PFOS	1763-23-1	0.53 J	0.31	1.16	5.81

Surrogate Recoveries (%)

13C5-PFHxA	101
13C4-PFHpA	90
13C8-PFOA	103
13C9-PFNA	93
13C6-PFDA	106
13C7-PFUnA	120
13C2-PFDoA	102
13C2-PFTeDA	95
d3-MeFOSAA	103
d5-EtFOSAA	107
13C3-PFBS	97
13C3-PFHxS	116
13C8-PFOS	103

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

Client ID		VC-PM324-SS02-000H				
Battelle ID		J8332-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		19.44				
Matrix		SS				
Sample Size		1.690				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.18	U	0.39	1.18	5.92
PFHpA	375-85-9	1.18	U	0.52	1.18	5.92
PFOA	335-67-1	1.18	U	0.59	1.18	5.92
PFNA	375-95-1	1.18	U	0.51	1.18	5.92
PFDA	335-76-2	1.18	U	0.32	1.18	5.92
PFUnA	2058-94-8	1.18	U	0.49	1.18	5.92
PFDoA	307-55-1	0.59	U	0.28	0.59	5.92
PFTrDA	72629-94-8	1.18	U	0.33	1.18	5.92
PFTeDA	376-06-7	2.37	U	0.75	2.37	5.92
NMeFOSAA	2355-31-9	2.96	U	1.33	2.96	5.92
NEtFOSAA	2991-50-6	2.37	U	0.67	2.37	5.92
PFBS	375-73-5	1.18	U	0.43	1.18	5.92
PFHxS	355-46-4	0.59	U	0.26	0.59	5.92
PFOS	1763-23-1	1.31	J	0.32	1.18	5.92

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	91
13C8-PFOA	101
13C9-PFNA	90
13C6-PFDA	105
13C7-PFUnA	110
13C2-PFDoA	103
13C2-PFTeDA	95
d3-MeFOSAA	110
d5-EtFOSAA	126
13C3-PFBS	96
13C3-PFHxS	113
13C8-PFOS	100

BATTELLE
It can be done

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

Client ID		VC-PM324-SB02-0102			
Battelle ID		J8333-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		17.39			
Matrix		SB			
Sample Size		1.680			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.19 U	0.39	1.19	5.95
PFHpA	375-85-9	1.19 U	0.52	1.19	5.95
PFOA	335-67-1	1.19 U	0.60	1.19	5.95
PFNA	375-95-1	1.19 U	0.51	1.19	5.95
PFDA	335-76-2	1.19 U	0.32	1.19	5.95
PFUnA	2058-94-8	1.19 U	0.49	1.19	5.95
PFDoA	307-55-1	0.60 U	0.29	0.60	5.95
PFTrDA	72629-94-8	1.19 U	0.33	1.19	5.95
PFTeDA	376-06-7	2.38 U	0.75	2.38	5.95
NMeFOSAA	2355-31-9	2.98 U	1.33	2.98	5.95
NEtFOSAA	2991-50-6	2.38 U	0.68	2.38	5.95
PFBS	375-73-5	1.19 U	0.43	1.19	5.95
PFHxS	355-46-4	0.60 U	0.26	0.60	5.95
PFOS	1763-23-1	0.73 J	0.32	1.19	5.95

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	88
13C8-PFOA	100
13C9-PFNA	92
13C6-PFDA	103
13C7-PFUnA	105
13C2-PFDoA	93
13C2-PFTeDA	88
d3-MeFOSAA	92
d5-EtFOSAA	115
13C3-PFBS	95
13C3-PFHxS	115
13C8-PFOS	91

BATTELLE
It can be done

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

Client ID		VC-PM324-SB02-0506			
Battelle ID		J8334-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		27.11			
Matrix		SB			
Sample Size		1.490			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.34 U	0.44	1.34	6.71
PFHpA	375-85-9	1.34 U	0.59	1.34	6.71
PFOA	335-67-1	1.34 U	0.67	1.34	6.71
PFNA	375-95-1	1.34 U	0.58	1.34	6.71
PFDA	335-76-2	1.34 U	0.36	1.34	6.71
PFUnA	2058-94-8	1.34 U	0.55	1.34	6.71
PFDoA	307-55-1	0.67 U	0.32	0.67	6.71
PFTrDA	72629-94-8	1.34 U	0.38	1.34	6.71
PFTeDA	376-06-7	2.68 U	0.85	2.68	6.71
NMeFOSAA	2355-31-9	3.36 U	1.50	3.36	6.71
NEtFOSAA	2991-50-6	2.68 U	0.77	2.68	6.71
PFBS	375-73-5	1.34 U	0.48	1.34	6.71
PFHxS	355-46-4	0.67 U	0.30	0.67	6.71
PFOS	1763-23-1	1.25 J	0.36	1.34	6.71

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	94
13C8-PFOA	101
13C9-PFNA	90
13C6-PFDA	99
13C7-PFUnA	109
13C2-PFDoA	102
13C2-PFTeDA	89
d3-MeFOSAA	106
d5-EtFOSAA	114
13C3-PFBS	92
13C3-PFHxS	111
13C8-PFOS	97

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

Client ID		KB80 IB				
Battelle ID		KB80 IB_10/08/2018				
Sample Type		IB				
Collection Date		NA				
Extraction Date		NA				
Analysis Date		10/08/2018				
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	92
13C4-PFHpA	93
13C8-PFOA	92
13C9-PFNA	93
13C6-PFDA	107
13C7-PFUnA	100
13C2-PFDoA	98
13C2-PFTeDA	96
d3-MeFOSAA	80
d5-EtFOSAA	86
13C3-PFBS	90
13C3-PFHxS	93
13C8-PFOS	98

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

Client ID		KB80 IB			
Battelle ID		KB80 IB_10/14/2018			
Sample Type		IB			
Collection Date		NA			
Extraction Date		NA			
Analysis Date		10/14/2018			
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	- -	-	-	-
PFOA	335-67-1	1.00 U	0.50	1.00	5.00
PFNA	375-95-1	- -	-	-	-
PFDA	335-76-2	- -	-	-	-
PFUnA	2058-94-8	- -	-	-	-
PFDoA	307-55-1	- -	-	-	-
PFTrDA	72629-94-8	- -	-	-	-
PFTeDA	376-06-7	- -	-	-	-
NMeFOSAA	2355-31-9	- -	-	-	-
NEtFOSAA	2991-50-6	- -	-	-	-
PFBS	375-73-5	- -	-	-	-
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		- -			
13C4-PFHpA		- -			
13C8-PFOA		- -			
13C9-PFNA		- -			
13C6-PFDA		- -			
13C7-PFUnA		- -			
13C2-PFDoA		- -			
13C2-PFTeDA		- -			
d3-MeFOSAA		- -			
d5-EtFOSAA		- -			
13C3-PFBS		- -			
13C3-PFHxS		- -			
13C8-PFOS		- -			

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

Client ID		KB80 IB			
Battelle ID		KB80 IB_10/15/2018			
Sample Type		IB			
Collection Date		NA			
Extraction Date		NA			
Analysis Date		10/15/2018			
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	- -	-	-	-
PFOA	335-67-1	1.00 U	0.50	1.00	5.00
PFNA	375-95-1	- -	-	-	-
PFDA	335-76-2	- -	-	-	-
PFUnA	2058-94-8	- -	-	-	-
PFDoA	307-55-1	- -	-	-	-
PFTrDA	72629-94-8	- -	-	-	-
PFTeDA	376-06-7	- -	-	-	-
NMeFOSAA	2355-31-9	- -	-	-	-
NEtFOSAA	2991-50-6	- -	-	-	-
PFBS	375-73-5	- -	-	-	-
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	- -
13C4-PFHpA	- -
13C8-PFOA	- -
13C9-PFNA	- -
13C6-PFDA	- -
13C7-PFUnA	- -
13C2-PFDoA	- -
13C2-PFTeDA	- -
d3-MeFOSAA	- -
d5-EtFOSAA	- -
13C3-PFBS	- -
13C3-PFHxS	- -
13C8-PFOS	- -

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

Client ID		180507-02: Ottawa Sand				
Battelle ID		CR888PB-FS				
Sample Type		PB				
Collection Date		10/02/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		0.00				
Matrix		SEDIMENT				
Sample Size		1.920				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.04	U	0.34	1.04	5.21
PFHpA	375-85-9	1.04	U	0.46	1.04	5.21
PFOA	335-67-1	1.04	U	0.52	1.04	5.21
PFNA	375-95-1	1.04	U	0.45	1.04	5.21
PFDA	335-76-2	1.04	U	0.28	1.04	5.21
PFUnA	2058-94-8	1.04	U	0.43	1.04	5.21
PFDoA	307-55-1	0.52	U	0.25	0.52	5.21
PFTrDA	72629-94-8	1.04	U	0.29	1.04	5.21
PFTeDA	376-06-7	2.08	U	0.66	2.08	5.21
NMeFOSAA	2355-31-9	2.60	U	1.17	2.60	5.21
NEtFOSAA	2991-50-6	2.08	U	0.59	2.08	5.21
PFBS	375-73-5	1.04	U	0.38	1.04	5.21
PFHxS	355-46-4	0.52	U	0.23	0.52	5.21
PFOS	1763-23-1	1.04	U	0.28	1.04	5.21

Surrogate Recoveries (%)

13C5-PFHxA	99
13C4-PFHpA	92
13C8-PFOA	104
13C9-PFNA	96
13C6-PFDA	102
13C7-PFUnA	108
13C2-PFDoA	100
13C2-PFTeDA	91
d3-MeFOSAA	100
d5-EtFOSAA	107
13C3-PFBS	90
13C3-PFHxS	99
13C8-PFOS	104

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

Client ID		180507-02: Ottawa Sand					
Battelle ID		CR889LCS-FS					
Sample Type		LCS					
Collection Date		10/02/2018					
Extraction Date		10/02/2018					
Analysis Date		10/09/2018					
Analytical Instrument		Sciex 5500 LC/MS/MS					
% Moisture		0.00					
Matrix		SEDIMENT					
Sample Size		2.020					
Size Unit-Basis		g				Control Limits	
Units		ng/g_Dry	Target	Recovery	Qual	Lower	Upper
PFHxA	307-24-4	23.27	25.00	93		45	135
PFHpA	375-85-9	20.86	24.75	84		60	128
PFOA	335-67-1	25.83	24.75	104		56	136
PFNA	375-95-1	26.06	24.75	105		54	130
PFDA	335-76-2	24.49	24.75	99		55	141
PFUnA	2058-94-8	23.36	24.75	94		57	137
PFDoA	307-55-1	22.16	24.75	90		62	134
PFTrDA	72629-94-8	24.67	24.75	100		51	127
PFTeDA	376-06-7	23.76	24.75	96		34	162
NMeFOSAA	2355-31-9	22.53	24.75	91		52	146
NEtFOSAA	2991-50-6	21.74	24.75	88		54	124
PFBS	375-73-5	22.42	25.00	90		57	145
PFHxS	355-46-4	20.45	25.00	82		52	132
PFOS	1763-23-1	20.93	24.75	85		50	130
Surrogate Recoveries (%)							
13C5-PFHxA		111					
13C4-PFHpA		117					
13C8-PFOA		110					
13C9-PFNA		107					
13C6-PFDA		112					
13C7-PFUnA		120					
13C2-PFDoA		121					
13C2-PFTeDA		110					
d3-MeFOSAA		119					
d5-EtFOSAA		119					
13C3-PFBS		113					
13C3-PFHxS		118					
13C8-PFOS		113					

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

Client ID		VC-PM324-SB02-0506	VC-PM324-SB02-0506-MS					
Battelle ID		J8334-FS	J8335MS-FS					
Sample Type		SA	MS					
Collection Date		09/20/2018	09/20/2018					
Extraction Date		10/02/2018	10/02/2018					
Analysis Date		10/09/2018	10/09/2018					
Analytical Instrument		Sciex 5500 LC/MS/MS	Sciex 5500 LC/MS/MS					
% Moisture		27.11	22.77					
Matrix		SB	SB					
Sample Size		1.490	1.610					
Size Unit-Basis		g	g				Control Limits	
Units		ng/g_Dry	ng/g_Dry	Target	Recovery	Qual	Lower	Upper
PFHxA	307-24-4	1.34 U	45.10	50.19	90		45	135
PFHpA	375-85-9	1.34 U	43.26	49.69	87		60	128
PFOA	335-67-1	1.34 U	49.45	49.69	100		56	136
PFNA	375-95-1	1.34 U	48.22	49.69	97		54	130
PFDA	335-76-2	1.34 U	49.12	49.69	99		55	141
PFUnA	2058-94-8	1.34 U	45.01	49.69	91		57	137
PFDoA	307-55-1	0.67 U	48.95	49.69	99		62	134
PFTrDA	72629-94-8	1.34 U	49.91	49.69	100		51	127
PFTeDA	376-06-7	2.68 U	46.37	49.69	93		34	162
NMeFOSAA	2355-31-9	3.36 U	45.94	49.69	92		52	146
NEtFOSAA	2991-50-6	2.68 U	45.97	49.69	93		54	124
PFBS	375-73-5	1.34 U	44.50	50.19	89		57	145
PFHxS	355-46-4	0.67 U	45.92	50.19	91		52	132
PFOS	1763-23-1	1.25 J	49.23	49.69	97		50	130
Surrogate Recoveries (%)								
13C5-PFHxA		95	107					
13C4-PFHpA		94	99					
13C8-PFOA		101	107					
13C9-PFNA		90	105					
13C6-PFDA		99	103					
13C7-PFUnA		109	115					
13C2-PFDoA		102	107					
13C2-PFTeDA		89	102					
d3-MeFOSAA		106	106					
d5-EtFOSAA		114	107					
13C3-PFBS		92	111					
13C3-PFHxS		111	104					
13C8-PFOS		97	99					

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

Client ID		VC-PM324-SB02-0506-MSD								
Battelle ID		J8336MSD-FS								
Sample Type		MSD								
Collection Date		09/20/2018								
Extraction Date		10/02/2018								
Analysis Date		10/09/2018								
Analytical Instrument		Sciex 5500 LC/MS/MS								
% Moisture		17.20								
Matrix		SB								
Sample Size		1.600								
Size Unit-Basis		g				Control Limits				RPD
Units		ng/g_Dry	Target	Recovery	Qual	Lower	Upper	RPD	Qual	Limit
PFHxA	307-24-4	43.19	50.50	86		45	135	4.5		≤ 30
PFHpA	375-85-9	39.00	50.00	78		60	128	10.9		≤ 30
PFOA	335-67-1	46.12	50.00	92		56	136	8.3		≤ 30
PFNA	375-95-1	47.09	50.00	94		54	130	3.1		≤ 30
PFDA	335-76-2	49.37	50.00	99		55	141	0.0		≤ 30
PFUnA	2058-94-8	44.06	50.00	88		57	137	3.4		≤ 30
PFDoA	307-55-1	43.81	50.00	88		62	134	11.8		≤ 30
PFTrDA	72629-94-8	45.76	50.00	92		51	127	8.3		≤ 30
PFTeDA	376-06-7	42.47	50.00	85		34	162	9.0		≤ 30
NMeFOSAA	2355-31-9	41.20	50.00	82		52	146	11.5		≤ 30
NEtFOSAA	2991-50-6	46.23	50.00	92		54	124	1.1		≤ 30
PFBS	375-73-5	42.72	50.50	85		57	145	4.6		≤ 30
PFHxS	355-46-4	40.03	50.50	79		52	132	14.1		≤ 30
PFOS	1763-23-1	44.07	50.00	86		50	130	12.0		≤ 30
Surrogate Recoveries (%)										
13C5-PFHxA		105								
13C4-PFHpA		109								
13C8-PFOA		104								
13C9-PFNA		103								
13C6-PFDA		100								
13C7-PFUnA		113								
13C2-PFDoA		114								
13C2-PFTeDA		108								
d3-MeFOSAA		119								
d5-EtFOSAA		107								
13C3-PFBS		112								
13C3-PFHxS		117								
13C8-PFOS		113								

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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

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

SB, SS

Batch 18-0582

Package DP-18-0287

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 18-0582

Package DP-18-0287

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 2018.10.19 14:05:37 -04'00'

QC Chemist Approval: Digitally signed by devinec@battelle.org DN: cn=devinec@battelle.org Date: 2018.10.23 10:59:27 -04'00'

Project Manager Approval: Digitally signed by Jonathan Thorn Date: 2018.10.23 11:27:23 -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 18-0582

Package DP-18-0287

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.	32
3	***Miscellaneous Documentation*** Case Narrative, Miscellaneous Documentation Form, Quality Control Summary, Example Calculations, Internal Standard Recovery Report, Retention Time Window Report.	56
4	***Sample Preparation Records*** Sample Preparation Records, Dilution Worksheets, Standard Preparation Records, Certificates Of Analysis, GPC Check Report.	207
5	***Analytical Calibrations*** Analytical Sequence, Analytical Method, Tune Report, Initial Calibration, Pesticide Degradation Report, RF Summary, Calibration Verifications, Independent Calibration Verification Check.	241
6	***Analytical Data*** Raw Data Quantification Reports.	417
7	***Chromatograms*** Sample And Standard Chromatograms.	609
8	***Unused Data***	NA

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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: 18-0582
Project/Site: Naval Base Ventura County
CTO: 4164

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Receipt Date
CR888PB-FS	180507-02: Ottawa Sand	SEDIMENT	10/2/2018	10/2/2018
CR889LCS-FS	180507-02: Ottawa Sand	SEDIMENT	10/2/2018	10/2/2018
J8310-FS	VC-PM323-324-SS01-000H	SS	9/20/2018	9/25/2018
J8311-FS	VC-PM323-324-SB01-0102	SB	9/20/2018	9/25/2018
J8312-FS	VC-PM323-324-SB01-0506	SB	9/20/2018	9/25/2018
J8313-FS	VC-PM323-324-SS02-000H	SS	9/20/2018	9/25/2018
J8314-FS	VC-PM323-324-SB02-0102	SB	9/20/2018	9/25/2018
J8315-FS	VC-PM323-324-SB02-0506	SB	9/20/2018	9/25/2018
J8316-FS	VC-PM323-324-SS03-000H	SS	9/20/2018	9/25/2018
J8317-FS	VC-PM323-324-SB03-0102	SB	9/20/2018	9/25/2018
J8318-FS	VC-PM323-324-SB03-0506	SB	9/20/2018	9/25/2018
J8327-FS	VC-PM323-SS02-000H	SS	9/20/2018	9/25/2018
J8328-FS	VC-PM323-SB02-0102	SB	9/20/2018	9/25/2018
J8329-FS	VC-PM323-SB02-0506	SB	9/20/2018	9/25/2018
J8332-FS	VC-PM324-SS02-000H	SS	9/20/2018	9/25/2018
J8333-FS	VC-PM324-SB02-0102	SB	9/20/2018	9/25/2018
J8334-FS	VC-PM324-SB02-0506	SB	9/20/2018	9/25/2018
J8335MS-FS	VC-PM324-SB02-0506-MS	SB	9/20/2018	9/25/2018
J8336MSD-FS	VC-PM324-SB02-0506-MSD	SB	9/20/2018	9/25/2018

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	SB	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: Approved

Description: NBVC Basewide SI

Range: J8291-J8334

Comment: NA

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

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WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: **SHP-180925-02**

Status: Approved

Description: NBVC Basewide SI

Range: J8291-J8334

Comment: NA

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

Shipment: **SHP-180927-02**

Status: Pending

Description: NBVC Basewide SI

Range: J8352-J8411

Comment: NA

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

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It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: **SHP-180927-02**

Status: Pending

Description: NBVC Basewide SI

Range: J8352-J8411

Comment: NA

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

Shipment: **SHP-180928-03**

Status: Pending

Description: NBVC Basewide SI

Range: J8438-J8476

Comment: NA

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

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WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: **SHP-180928-03**

Status: Pending

Description: NBVC Basewide SI

Range: J8438-J8476

Comment: NA

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

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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

Result Units:	ng/g	***Unit Conversion:***	(none)		
Weight Basis:	DRY	***Result Format:***	Fixed Digits		
Standard Basis:	SIS	***# of Figures/Digits:***	2		
Oil Weight Basis:	No	***Oil Weight Source:***	Oil Weight		
U-Value Substition:	U-Flag=MD	***Histograms:***	No		
ECD_Reporting:	No				

Holding Times (days)

Sample:	14
Frozen:	14
Extract:	28

Data Flags

DL_Flag:	U
RL_Flag:	J
PB_Flag:	B
DIL_Flag:	D
HT_Flag:	T

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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WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

Project Test Code Name: Master_369

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

Total Analytes: 27

Subtract Peaks:

None

Sum Peaks:

None

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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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WORK/QUALITY ASSURANCE PROJECT PLAN

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-180925-02

Battelle Project No: 0110125-01

Sample Receipt Form

Approved: ☑ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Tuesday, September 25, 2018 1:00 PM

No. of Shipping Containers: 2

SHIPMENT

Method of Delivery: Commercial Carrier **Tracking Number:** Fed Ex

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

Cooler(s)/Box(es)

Cntr	Type	Tracking No.	Seal	Seal	Container	Therm.	Temp C	Smps
1 of 2	Cooler	7829 0673 4525	Custody Seals	Intact	Intact	Therm_1	0.9	25
2 of 2	Cooler	7829 0673 4536	Custody Seals	Intact	Intact	Therm_1	1.1	28

Samples

Sample Labels:
☑ Sample labels agree with COC forms
☐ Discrepancies (see Sample Custody Corrective Action Form)

Container Seals:
☐ Tape ☐ Custody Seals ☐ Other Seals (See sample Log)
☑ Seals intact for each shipping container
☐ Seals broken (See sample log for impacted samples)

Condition of Samples:
☑ Sample containers intact
☐ Sample containers broken/leaking (See Custody Corrective Action Form)

Temperature upon receipt (°C): 1.1 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:** J8285 - J8337

Samples logged in by: Schumitz, Matt **Date/Time:** 09/25/2018 1:00 PM

Approved By: Fitch, Ellyn **Approved On:** 10/1/2018 12:08:00 PM

Authorized By: **Authorized On:**

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ShpNo: SHP-180925-02

Battelle Project No: 0110125-01

Report Corrective Actions

Corrective Action No: 1 **of** 1

Authorized ☐ Approved: ☐

COC Client: CH2M
COC Project: NBVC Basewide SI
COC Date: 9/25/2018 2:11:0

	Description of Problem:	Explanation:
Client Id	Jars and C-O-C do not have matching Ids	It appears as though the blanks were mixed up when labeling them with the field ID. COC FDT-SO-FB04-092118 (J8308) FDT-SO-EB04-092118 (J8309) FDT-AQ-FB03-092018 (J8323) FDT-AQ-EB03-092018 (J8324) Labels FDT-AQ-FB04-092118 (J8308) FDT-SO-EB04-092118 (J8309) FDT-SO-FB03-092018 (J8323) FDT-SO-EB03-092018 (J8324)

Documentation of project manager notification

Sample Custodian Schumitz, Matt **Date:** 9/25/2018 4:21:00 PM

Laboratory Manager: Thorn, Jonathan **Date:** 10/1/2018 11:57:00 A

Project Manager: Thorn, Jonathan **Date:** 10/1/2018 11:57:00 A

Documentation of client notification (should be completed by project manager within 24 hrs):

On 25-Sep-18 **I contacted** Hill, Tiffany **at** CH2M

Results of communication with client (Describe any corrective action directed by the client):

Updated sample IDs sent from client, included with original custody records.

Date this form was received back to the custodian: _____

Reference Number: _____

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It can be done

ShpNo SHP-180925-02

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☐ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Tuesday, September 25, 2018 1:00 PM

No. of Shipping Containers: 2

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8285	VC-CS94-DW01-0918	09/21/18 10:54	09/25/18 14:16	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8286	VC-CS94-DW01P-0918	09/21/18 10:58	09/25/18 14:16	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8287	VC-CS94-DW02-0918	09/21/18 11:50	09/25/18 14:17	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8288	VC-CS94-DW03-0918	09/21/18 11:08	09/25/18 14:17	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8289	VC-CS94-DW04-0918	09/21/18 12:14	09/25/18 14:17	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8290	VC-CS94-DW05-0918	09/21/18 12:23	09/25/18 14:18	2	GW	0.9	NA	NA	NA	R0119 (NA)			
J8291	VC-CS94-SS01-000H	09/21/18 10:30	09/25/18 14:18	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8292	VC-CS94-SB01-0102	09/21/18 10:33	09/25/18 14:19	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8293	VC-CS94-SB01-0506	09/21/18 10:37	09/25/18 14:20	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8294	VC-CS94-SS02-000H	09/21/18 11:24	09/25/18 14:20	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8295	VC-CS94-SB02-0102	09/21/18 11:25	09/25/18 14:20	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8296	VC-CS94-SB02-0506	09/21/18 11:33	09/25/18 14:21	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8297	VC-CS94-SS03-000H	09/21/18 10:37	09/25/18 14:21	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8298	VC-CS94-SB03-0102	09/21/18 10:38	09/25/18 14:21	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8299	VC-CS94-SB03-0506	09/21/18 10:41	09/25/18 14:22	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8300	VC-CS94-SS04-000H	09/21/18 11:57	09/25/18 14:22	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8301	VC-CS94-SB04-0102	09/21/18 11:58	09/25/18 14:22	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8302	VC-CS94-SB04-0506	09/21/18 12:04	09/25/18 14:23	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8303	VC-CS94-SS05-000H	09/21/18 12:04	09/25/18 14:24	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8304	VC-CS94-SB05-0102	09/21/18 12:05	09/25/18 14:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8305	VC-CS94-SB05-0506	09/21/18 12:10	09/25/18 14:24	1	SB	0.9	NA	NA	NA	R0119 (NA)			
J8306	VC-CS94-SS04-000H-MS	09/21/18 11:57	09/25/18 14:25	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8307	VC-CS94-SS04-000H-MSD	09/21/18 11:57	09/25/18 14:25	1	SS	0.9	NA	NA	NA	R0119 (NA)			
J8308	VC-SO-FB04-092118	09/21/18 14:20	09/25/18 14:25	2	AQ	0.9	NA	NA	NA	R0119 (NA)			
J8309	VC-SO-EB04-092118	09/21/18 14:20	09/25/18 14:26	2	AQ	0.9	NA	NA	NA	R0119 (NA)			
J8310	VC-PM323-324-SS01-000H	09/20/18 13:52	09/25/18 14:27	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8311	VC-PM323-324-SB01-0102	09/20/18 13:55	09/25/18 14:28	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8312	VC-PM323-324-SB01-0506	09/20/18 14:10	09/25/18 14:28	1	SB	1.1	NA	NA	NA	R0119 (NA)			

BATTELLE
It can be done

ShpNo SHP-180925-02

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: ☐ **Authorized** ☐

Project Number: 695803 **Client:** CH2M

Received by: Schumitz, Matt **Date/Time Received:** Tuesday, September 25, 2018 1:00 PM

No. of Shipping Containers: 2

BDO Id:	Client Sample ID:	Collection Date:	Login Date:	Ctrs:	Matrix:	Temp:	pH:	TRC:	VOC:	Stored In:	Loc:	No:	Comments:
J8313	VC-PM323-324-SS02-000H	09/20/18 11:00	09/25/18 14:28	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8314	VC-PM323-324-SB02-0102	09/20/18 11:05	09/25/18 14:29	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8315	VC-PM323-324-SB02-0506	09/20/18 11:15	09/25/18 14:29	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8316	VC-PM323-324-SS03-000H	09/20/18 10:15	09/25/18 14:29	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8317	VC-PM323-324-SB03-0102	09/20/18 10:17	09/25/18 14:30	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8318	VC-PM323-324-SB03-0506	09/20/18 10:22	09/25/18 14:30	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8319	VC-PM323-324-DW01-0918	09/20/18 14:38	09/25/18 14:31	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8320	VC-PM323-324-DW01P-0918	09/20/18 14:45	09/25/18 14:32	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8321	VC-PM323-324-DW02-0918	09/20/18 11:41	09/25/18 14:32	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8322	VC-PM323-324-DW03-0918	09/20/18 10:35	09/25/18 14:32	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8323	VC-AQ-FB03-092018	09/20/18 8:00	09/25/18 14:33	2	AQ	1.1	NA	NA	NA	R0119 (NA)			
J8324	VC-AQ-EB03-092018	09/20/18 8:00	09/25/18 14:33	2	AQ	1.1	NA	NA	NA	R0119 (NA)			
J8325	VC-PM323-324-DW02-0918-MS	09/20/18 12:58	09/25/18 14:33	2	AQ	1.1	NA	NA	NA	R0119 (NA)			
J8326	VC-PM323-324-DW02-0918-MSD	09/20/18 13:30	09/25/18 14:34	2	AQ	1.1	NA	NA	NA	R0119 (NA)			
J8327	VC-PM323-SS02-000H	09/20/18 14:43	09/25/18 14:38	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8328	VC-PM323-SB02-0102	09/20/18 14:44	09/25/18 14:38	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8329	VC-PM323-SB02-0506	09/20/18 14:48	09/25/18 14:38	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8330	VC-PM323-DW02-0918	09/20/18 15:13	09/25/18 14:39	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8331	VC-PM323-DW02P-0918	09/20/18 16:02	09/25/18 14:39	2	GW	1.1	NA	NA	NA	R0119 (NA)			
J8332	VC-PM324-SS02-000H	09/20/18 13:40	09/25/18 14:40	1	SS	1.1	NA	NA	NA	R0119 (NA)			
J8333	VC-PM324-SB02-0102	09/20/18 13:45	09/25/18 14:40	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8334	VC-PM324-SB02-0506	09/20/18 13:51	09/25/18 14:41	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8335	VC-PM324-SB02-0506-MS	09/20/18 13:51	09/25/18 14:41	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8336	VC-PM324-SB02-0506-MSD	09/20/18 13:51	09/25/18 14:41	1	SB	1.1	NA	NA	NA	R0119 (NA)			
J8337	VC-PM324-DW02-0918	09/20/18 14:00	09/25/18 14:42	2	GW	1.1	NA	NA	NA	R0119 (NA)			

Total Samples: 53

MEMORANDUM CH2MHILL

Corrections to COCs

TO: Jonathan Thorn, Battelle

COPIES: File
Laboratory Package SDG: SHP 180925-02

FROM: Tiffany Hill
Project Chemist

DATE: September 25, 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-FB03-092018	VC-AQ-FB03-092018	9/20/18	8:00	SHP-180925-02
FDT-AQ-EB03-092018	VC-AQ-EB03-092018	9/20/18	8:00	SHP-180925-02
FDT-SO-FB04-092118	VC-SO-FB04-092118	9/21/18	14:20	SHP-180925-02
FDT-SO-EB04-092118	VC-SO-EB04-092118	9/21/18	14:20	SHP-180925-02

BATTELLE
It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM CS94	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 victoria.kilbert@jacobs.com Email: vlk5004@gmail.com	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested: Normal ☒ Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 1 of 9
Project No.: 695803	Time Zone: PST		

Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod	
VC-CS94-DW01-0918	J8285	9/21/18	1054	AQ	GW	2	X	
VC-CS94-DW01P-0918	J8286	9/21/18	1058	AQ	GW	2	X	
VC-CS94-DW02-0918	J8287	9/21/18	1150	AQ	GW	2	X	
VC-CS94-DW03-0918	J8288	9/21/18	1108	AQ	GW	2	X	
VC-CS94-DW04-0918	J8289	9/21/18	1214	AQ	GW	2	X	
VC-CS94-DW05-0918	J8290	9/21/18	1223	AQ	GW	2	X	
~~FDT-AQ-FB~~				~~Grab~~	~~AQ~~		~~X~~	
~~FDT-AQ-EB~~				~~Grab~~	~~AQ~~		~~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:
V. Kilbert	Jacobs	09/24/18 0730	[signature]	Battelle	9-25-18 1300

Comments:

Form NAL-056 | Rev1 | 1/23/2017 | Page 1 of 1

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM CS94	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V Kilbert Phone: 724-977-3628 Email:	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested: Normal X, Priority ☐, RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 2 of 9
Project No.: 69583	Time Zone: PST		

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-CS94-SS01-000H J8291	9/21/18	1030	Grab	SS	1	X
VC-CS94-SB01-0102 92	9/21/18	1033	Grab	SB	1	X
VC-CS94-SB01-0506 93	9/21/18	1037	Grab	SB	1	X
VC-CS94-SS02-000H 94	9/21/18	1124	Grab	SS	1	X
VC-CS94-SB02-0102 95	9/21/18	1125	Grab	SB	1	X
VC-CS94-SB02-0506 96	9/21/18	1133	Grab	SB	1	X
VC-CS94-SS03-000H 97	9/21/18	1037	Grab	SS	1	X
VC-CS94-SB03-0102 98	9/21/18	1038	Grab	SB	1	X
VC-CS94-SB03-0506 99	9/21/18	1041	Grab	SB	1	X
VC-CS94-SS04-000H J8300	9/21/18	1157	Grab	SS	1	X
VC-CS94-SB04-0102 J8301	9/21/18	1158	Grab	SB	1	X
VC-CS94-SB04-0506 J8302	9/21/18	1204	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:
V. Kilbert	Jacobs	9/24/18 0730	NA	Battelle	9-25-18 1300
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM CS94	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI Project No.: 645803	Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 3 of 9

	Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
J8303	VC-CS94-SS05-000H	9/21/18	1204	Grab	SS	1	X
04	VC-CS94-SB05-0102	9/21/18	1205	Grab	SB	1	X
05	VC-CS94-SB05-0506	9/21/18	1210	Grab	SB	1	X
06	VC-CS94-SS04-000H-MS	9/21/18	1157	Grab	SS	1	X
07	VC-CS94-SS04-000H-MSD	9/21/18	1157	Grab	SS	1	X
08	FDT-SO-FB04-092118	9/21/18	1420	Grab	AQ	2	X
J8309	FDT-SO-EB04-092118	9/21/18	1420	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:
V. Kilbert	Jacobs	9/24/18 0730		Battelle	9-25-18 1300
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 323-324	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 4 of 9

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
VC-PM323-324-SS01-000H J8310	9/20/18	1352	Grab	SS	1	X
VC-PM323-324-SB01-0102 11	9/20/18	1355	Grab	SB	1	X
VC-PM323-324-SB01-0506 12	9/20/18	1410	Grab	SB	1	X
VC-PM323-324-SS02-000H 13	9/20/18	1100	Grab	SS	1	X
VC-PM323-324-SB02-0102 14	9/20/18	1105	Grab	SB	1	X
VC-PM323-324-SB02-0506 15	9/20/18	1115	Grab	SB	1	X
VC-PM323-324-SS03-000H 16	9/20/18	1015	Grab	SS	1	X
VC-PM323-324-SB03-0102 17	9/20/18	1017	Grab	SB	1	X
VC-PM323-324-SB03-0506 J8318	9/20/18	1022	Grab	SB	1	X
~~VC-PM323-324-SD01-000H~~			~~Grab~~	~~SD~~		X
~~VC-PM323-324-SD01-0102~~			~~Grab~~	~~SD~~		X
~~VC-PM323-324-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:
V. Kilbert	Jacobs	9/24/18 0733		Battelle	9-25-18 1300
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 323-324	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3625 Email: Turnaround Time (TAT) Requested:	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI Project No.: 695803	Normal X Priority ☐ RUSH ☐ Time Zone: EST	Analysis: PFAS by Method 537 Mod	Page# 5 of 9

	Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod	
J8319	VC-PM323-324-DW01-0918	9/20/18	1438	Grab	GW	2	X	
20	VC-PM323-324-DW01P-0918	9/20/18	1445	Grab	GW	2	X	
21	VC-PM323-324-DW02-0918 (VD)	9/20/18	1141	Grab	GW	2	X	
22	VC-PM323-324-DW03-0918	9/20/18	1035	Grab	GW	2	X	
23	FDT-AQ-FB03-092018	9/21/18	0806	Grab	AQ	2	X	
24	FDT-AQ-EB03-092018	9/21/18	0800	Grab	AQ	2	X	
25	VC-PM323-324-DW02-0918-MS	9/20/18	1258	G-b	AQ	2	X	MS
J8326	VC-PM323-324-DW02-0918-MSD	9/20/18	1330	G-b	AQ	2	X	MSD

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:
V. Kilbert	Jacobs	9/24/18 0730		Battelle	9-25-18 1300
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 323	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email:	Preservative: NA	COC # 2
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# 6 of 7

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis: PFAS by Method 537 Mod
~~VC-PM323-SS01-000H~~			Grab	SS		X
~~VC-PM323-SB01-~~			Grab	SB		X
~~VC-PM323-SB01-~~			Grab	SB		X
VC-PM323-SS02-000H J8327	9/20/18	1443	Grab	SS	1	X
VC-PM323-SB02-0102 J8328	9/20/18	1444	Grab	SB	1	X
VC-PM323-SB02-0506 J8329	9/20/18	1448	Grab	SB	1	X
~~VC-PM323-SS03-000H~~			Grab	SS		X
~~VC-PM323-SB03-~~			Grab	SB		X
~~VC-PM323-SB03-~~			Grab	SB		X
~~VC-PM323-S- -MS~~			Grab			X
~~VC-PM323-S- -SD~~			Grab			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:
V. Kilbert	Tetra Tech	09/24/18 0730		Battelle	9-25-18 1300
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 323	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email:	Preservative: N/A	COC # 2
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 9

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis: PFAS by Method 537 Mod
~~VC-PM323-DW01-~~			~~Grab~~	~~GW~~		X
VC-PM323-DW02-0918 J8330	9/20/18	1513	Grab	GW	2	X
VC-PM323-DW02P-0918 J8331	9/20/18	1602	Grab	GW	2	X
~~VC-PM323-DW03-~~			~~Grab~~	~~GW~~		X
~~FDT-AQ-EB~~			~~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:
V. Kilbert	Jacobs	9/24/18 0730		Battelle	9-25-18 1700
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:
Relinquished by (Print/Sign):	Company:	Date/Time:	Received by (Print/Sign):	Company:	Date/Time:

Comments:

BATTELLE It can be done

Chain-of-Custody

Client Contact Information	Project Manager: Eric Davis	Sampling Site: PM 324	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: 724-977-3628 Email:	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI	Turnaround Time (TAT) Requested: Normal ☒ Priority ☐ RUSH ☐	Analysis: PFAS by Method 537 Mod	Page# 8 of 9
Project No.: 695803	Time Zone: PST		

	Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
	~~VC-PM324-SS01-000H~~			~~Grab~~	~~SS~~		X
	~~VC-PM324-SB01-~~			~~Grab~~	~~SB~~		X
	~~VC-PM324-SB01-~~			~~Grab~~	~~SB~~		X
J8332	VC-PM324-SS02-000H	9/20/18	1340	Grab	SS	1	X
J8333	VC-PM324-SB02-0102	9/20/18	1345	Grab	SB	1	X
J8334	VC-PM324-SB02-0506	9/20/18	1351	Grab	SB	1	X
	~~VC-PM324-SS03-000H~~			~~Grab~~	~~SS~~		X
	~~VC-PM324-SB03-~~			~~Grab~~	~~SB~~		X
	~~VC-PM324-SB03-~~			~~Grab~~	~~SB~~		X
J8335	VC-PM324-~~SB0506~~ SB02-0506-MS	9/20/18	1351	Grab	SB	1	X
J8336	VC-PM324-~~SB0506~~ SB02-0506-MSD	9/20/18	1351	Grab	SB	1	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:
V. Kilbert	Tetra Tech	9/24/18 730		Battelle	7-25-18 1700
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: PM324	Site Information:
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330	Sampler Information (print name): V. Kilbert Phone: Email: Turnaround Time (TAT) Requested:	Preservative: NA	COC # 2
Project Name: NBVC Basewide SI Project No.: 695803	Normal ☒ Priority ☐ RUSH ☐ Time Zone: PST	Analysis: PFAS by Method 537 Mod	Page# 9 of 9

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 537 Mod
~~VC-PM324-DW01-~~			~~Grab~~	~~GW~~		X
~~VC-PM324-DW01P-~~			~~Grab~~	~~GW~~		X
J8337 VC-PM324-DW02-0918	9/20/18	1400	Grab	GW	8	X
~~VC-PM324-DW03-~~			~~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:
V. Kilbert	Jacobs	9/24/18 0730		Battelle	9-25-18 1300
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:



Do Not Lift Using This Tag

ORIGIN ID:OXRA (303) 929-1887
JACOBS ENGINEERING
PO# 695803
402 W BROADWAY STE 1450

SAN DIEGO, CA 92101
UNITED STATES US

SHIP DATE: 24SEP18
ACTWGT: 70.70 LB
CAD: 6997666/SSF01904
DIMS: 25x14x14 IN

BILL THIRD PARTY

TO BATTELLE LABS
C/O JONATHAN THORN
141 LONGWATER DR.
STE 202
NORWELL MA 02061
(781) 681-5565

REF:
INV:
PO:
DEPT:

0.9°
Therm 1

FedEx Express

REL# 378534

1 of 2

TRK# 0201 7829 0673 4525

MASTER

NB XPUA

TUE - 25 SEP 10:
PRIORITY OVERNI
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MA-US

RT 246 2 B
ST 11.2 10:30 4525 09.25



Do Not Lift Using This Tag

ORIGIN ID:OXRA (303) 929-1887
JACOBS ENGINEERING
PO# 695803
402 W BROADWAY STE 1450

SAN DIEGO, CA 92101
UNITED STATES US

SHIP DATE: 24SEP18
ACTWGT: 66.70 LB
CAD: 6997666/SSF01904
DIMS: 23x16x15 IN

BILL THIRD PARTY

TO BATTELLE LABS
C/O JONATHAN THORN
141 LONGWATER DR.
STE 202
NORWELL MA 02061
(781) 681-5565

REF:
INV:
PO:
DEPT:

1.1°
Therm-1

FedEx Express

REL# 3785346

2 of 2

MPS# 0263 7829 0673 4536

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0201

NB XPUA

TUE - 25 SEP 10:30
PRIORITY OVERNIGH
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02061
MA-US BOS

RT 246 2 B
ST 11.2 10:30 4536 09.25

Data Tables

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

Client ID		VC-PM323-324-SS01-000H				
Battelle ID		J8310-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		15.14				
Matrix		SS				
Sample Size		1.650				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.60	J	0.40	1.21	6.06
PFHpA	375-85-9	1.21	U	0.53	1.21	6.06
PFOA	335-67-1	4.51	J	0.61	1.21	6.06
PFNA	375-95-1	3.51	J	0.52	1.21	6.06
PFDA	335-76-2	4.57	J	0.33	1.21	6.06
PFUnA	2058-94-8	1.21	U	0.50	1.21	6.06
PFDoA	307-55-1	0.61	U	0.29	0.61	6.06
PFTrDA	72629-94-8	0.51	J	0.34	1.21	6.06
PFTeDA	376-06-7	2.42	U	0.76	2.42	6.06
NMeFOSAA	2355-31-9	3.03	U	1.36	3.03	6.06
NEtFOSAA	2991-50-6	2.42	U	0.69	2.42	6.06
PFBS	375-73-5	1.21	U	0.44	1.21	6.06
PFHxS	355-46-4	6.85		0.27	0.61	6.06
PFOS	1763-23-1	799.11	D	8.18	30.30	151.52

Surrogate Recoveries (%)

13C5-PFHxA	110	
13C4-PFHpA	105	
13C8-PFOA	115	
13C9-PFNA	86	
13C6-PFDA	123	
13C7-PFUnA	139	
13C2-PFDoA	124	
13C2-PFTeDA	112	
d3-MeFOSAA	138	D
d5-EtFOSAA	147	D
13C3-PFBS	112	D
13C3-PFHxS	123	D
13C8-PFOS	114	

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

Client ID		VC-PM323-324-SB01-0102				
Battelle ID		J8311-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		11.73				
Matrix		SB				
Sample Size		1.810				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	3.28	J	0.36	1.10	5.52
PFHpA	375-85-9	0.60	J	0.49	1.10	5.52
PFOA	335-67-1	6.14		0.55	1.10	5.52
PFNA	375-95-1	2.26	J	0.48	1.10	5.52
PFDA	335-76-2	0.45	J	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	0.61	J	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	11.52		0.24	0.55	5.52
PFOS	1763-23-1	1188.93	D	14.92	55.25	276.24

Surrogate Recoveries (%)

13C5-PFHxA	99	
13C4-PFHpA	103	
13C8-PFOA	107	
13C9-PFNA	75	
13C6-PFDA	118	
13C7-PFUnA	121	
13C2-PFDoA	119	
13C2-PFTeDA	100	
d3-MeFOSAA	99	D
d5-EtFOSAA	111	D
13C3-PFBS	85	D
13C3-PFHxS	78	D
13C8-PFOS	122	

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

Client ID		VC-PM323-324-SB01-0506				
Battelle ID		J8312-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		32.61				
Matrix		SB				
Sample Size		1.420				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	359.01	D	2.32	7.04	35.21
PFHpA	375-85-9	23.28		0.62	1.41	7.04
PFOA	335-67-1	58.58		0.70	1.41	7.04
PFNA	375-95-1	0.94	J	0.61	1.41	7.04
PFDA	335-76-2	1.41	U	0.38	1.41	7.04
PFUnA	2058-94-8	1.41	U	0.58	1.41	7.04
PFDoA	307-55-1	0.70	U	0.34	0.70	7.04
PFTrDA	72629-94-8	1.41	U	0.39	1.41	7.04
PFTeDA	376-06-7	2.82	U	0.89	2.82	7.04
NMeFOSAA	2355-31-9	3.52	U	1.58	3.52	7.04
NEtFOSAA	2991-50-6	2.82	U	0.80	2.82	7.04
PFBS	375-73-5	92.19		0.51	1.41	7.04
PFHxS	355-46-4	828.75	D	15.49	35.21	352.11
PFOS	1763-23-1	3759.66	D	19.01	70.42	352.11

Surrogate Recoveries (%)

13C5-PFHxA	117	
13C4-PFHpA	122	
13C8-PFOA	102	
13C9-PFNA	79	
13C6-PFDA	113	
13C7-PFUnA	123	
13C2-PFDoA	107	
13C2-PFTeDA	104	
d3-MeFOSAA	130	D
d5-EtFOSAA	123	D
13C3-PFBS	112	D
13C3-PFHxS	105	D
13C8-PFOS	108	

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

Client ID		VC-PM323-324-SS02-000H			
Battelle ID		J8313-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		4.24			
Matrix		SS			
Sample Size		1.900			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	16.47	0.35	1.05	5.26
PFHpA	375-85-9	2.56 J	0.46	1.05	5.26
PFOA	335-67-1	8.22	0.53	1.05	5.26
PFNA	375-95-1	3.94 J	0.45	1.05	5.26
PFDA	335-76-2	5.47	0.28	1.05	5.26
PFUnA	2058-94-8	1.05 U	0.43	1.05	5.26
PFDoA	307-55-1	0.80 J	0.25	0.53	5.26
PFTrDA	72629-94-8	2.10 J	0.29	1.05	5.26
PFTeDA	376-06-7	2.11 U	0.66	2.11	5.26
NMeFOSAA	2355-31-9	2.63 U	1.18	2.63	5.26
NEtFOSAA	2991-50-6	2.11 U	0.60	2.11	5.26
PFBS	375-73-5	5.06 J	0.38	1.05	5.26
PFHxS	355-46-4	27.30	0.23	0.53	5.26
PFOS	1763-23-1	2160.39 D	28.42	105.26	526.32

Surrogate Recoveries (%)

13C5-PFHxA	109	
13C4-PFHpA	108	
13C8-PFOA	110	
13C9-PFNA	63	
13C6-PFDA	114	
13C7-PFUnA	129	
13C2-PFDoA	110	
13C2-PFTeDA	111	
d3-MeFOSAA	85 D	
d5-EtFOSAA	110 D	
13C3-PFBS	87 D	
13C3-PFHxS	92 D	
13C8-PFOS	103	

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

Client ID		VC-PM323-324-SB02-0102			
Battelle ID		J8314-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		15.06			
Matrix		SB			
Sample Size		1.640			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	4.34 J	0.40	1.22	6.10
PFHpA	375-85-9	0.65 J	0.54	1.22	6.10
PFOA	335-67-1	3.32 J	0.61	1.22	6.10
PFNA	375-95-1	2.88 J	0.52	1.22	6.10
PFDA	335-76-2	1.66 J	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	1.62 J	0.44	1.22	6.10
PFHxS	355-46-4	16.36	0.27	0.61	6.10
PFOS	1763-23-1	114.91 D	1.65	6.10	30.49

Surrogate Recoveries (%)

13C5-PFHxA	107	
13C4-PFHpA	101	
13C8-PFOA	107	
13C9-PFNA	68	
13C6-PFDA	112	
13C7-PFUnA	126	
13C2-PFDoA	113	
13C2-PFTeDA	108	
d3-MeFOSAA	100 D	
d5-EtFOSAA	110 D	
13C3-PFBS	95 D	
13C3-PFHxS	102 D	
13C8-PFOS	125	

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

Client ID		VC-PM323-324-SB02-0506				
Battelle ID		J8315-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		16.18				
Matrix		SB				
Sample Size		1.630				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	120.36	D	2.02	6.13	30.67
PFHpA	375-85-9	13.79		0.54	1.23	6.13
PFOA	335-67-1	62.80		0.61	1.23	6.13
PFNA	375-95-1	2.28	J	0.53	1.23	6.13
PFDA	335-76-2	1.23	U	0.33	1.23	6.13
PFUnA	2058-94-8	1.23	U	0.50	1.23	6.13
PFDoA	307-55-1	0.61	U	0.29	0.61	6.13
PFTrDA	72629-94-8	1.23	U	0.34	1.23	6.13
PFTeDA	376-06-7	2.45	U	0.77	2.45	6.13
NMeFOSAA	2355-31-9	3.07	U	1.37	3.07	6.13
NEtFOSAA	2991-50-6	2.45	U	0.70	2.45	6.13
PFBS	375-73-5	38.92		0.44	1.23	6.13
PFHxS	355-46-4	667.89	D	13.50	30.67	306.75
PFOS	1763-23-1	11774.04	D	82.82	306.75	1533.74

Surrogate Recoveries (%)

13C5-PFHxA	130	
13C4-PFHpA	131	
13C8-PFOA	103	
13C9-PFNA	52	
13C6-PFDA	112	
13C7-PFUnA	121	
13C2-PFDoA	108	
13C2-PFTeDA	103	
d3-MeFOSAA	122	D
d5-EtFOSAA	130	D
13C3-PFBS	92	D
13C3-PFHxS	102	D
13C8-PFOS	105	

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

Client ID		VC-PM323-324-SS03-000H				
Battelle ID		J8316-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		6.65				
Matrix		SS				
Sample Size		1.830				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	4.41	J	0.36	1.09	5.46
PFHpA	375-85-9	1.01	J	0.48	1.09	5.46
PFOA	335-67-1	13.44		0.55	1.09	5.46
PFNA	375-95-1	3.74	J	0.47	1.09	5.46
PFDA	335-76-2	3.20	J	0.30	1.09	5.46
PFUnA	2058-94-8	1.09	U	0.45	1.09	5.46
PFDoA	307-55-1	0.55	U	0.26	0.55	5.46
PFTrDA	72629-94-8	0.48	J	0.31	1.09	5.46
PFTeDA	376-06-7	2.19	U	0.69	2.19	5.46
NMeFOSAA	2355-31-9	2.73	U	1.22	2.73	5.46
NEtFOSAA	2991-50-6	2.19	U	0.62	2.19	5.46
PFBS	375-73-5	0.50	J	0.39	1.09	5.46
PFHxS	355-46-4	39.68		0.24	0.55	5.46
PFOS	1763-23-1	2444.93	D	36.89	136.61	683.06

Surrogate Recoveries (%)

13C5-PFHxA	109	
13C4-PFHpA	107	
13C8-PFOA	107	
13C9-PFNA	70	
13C6-PFDA	119	
13C7-PFUnA	127	
13C2-PFDoA	111	
13C2-PFTeDA	106	
d3-MeFOSAA	92	D
d5-EtFOSAA	109	D
13C3-PFBS	87	D
13C3-PFHxS	92	D
13C8-PFOS	115	

BATTELLE
It can be done

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

Client ID		VC-PM323-324-SB03-0102			
Battelle ID		J8317-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		22.14			
Matrix		SB			
Sample Size		1.630			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	39.89	0.40	1.23	6.13
PFHpA	375-85-9	5.32 J	0.54	1.23	6.13
PFOA	335-67-1	14.90	0.61	1.23	6.13
PFNA	375-95-1	1.67 J	0.53	1.23	6.13
PFDA	335-76-2	1.23 U	0.33	1.23	6.13
PFUnA	2058-94-8	1.23 U	0.50	1.23	6.13
PFDoA	307-55-1	0.61 U	0.29	0.61	6.13
PFTrDA	72629-94-8	1.23 U	0.34	1.23	6.13
PFTeDA	376-06-7	2.45 U	0.77	2.45	6.13
NMeFOSAA	2355-31-9	3.07 U	1.37	3.07	6.13
NEtFOSAA	2991-50-6	2.45 U	0.70	2.45	6.13
PFBS	375-73-5	6.68	0.44	1.23	6.13
PFHxS	355-46-4	168.12 D	2.70	6.13	61.35
PFOS	1763-23-1	1808.15 D	16.56	61.35	306.75

Surrogate Recoveries (%)

13C5-PFHxA	107
13C4-PFHpA	112
13C8-PFOA	103
13C9-PFNA	67
13C6-PFDA	104
13C7-PFUnA	107
13C2-PFDoA	98
13C2-PFTeDA	94
d3-MeFOSAA	99 D
d5-EtFOSAA	95 D
13C3-PFBS	89 D
13C3-PFHxS	103 D
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-PM323-324-SB03-0506			
Battelle ID		J8318-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		10.52			
Matrix		SB			
Sample Size		1.730			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	61.43	0.38	1.16	5.78
PFHpA	375-85-9	6.00	0.51	1.16	5.78
PFOA	335-67-1	29.32	0.58	1.16	5.78
PFNA	375-95-1	1.98 J	0.50	1.16	5.78
PFDA	335-76-2	1.16 U	0.31	1.16	5.78
PFUnA	2058-94-8	1.16 U	0.47	1.16	5.78
PFDoA	307-55-1	0.58 U	0.28	0.58	5.78
PFTrDA	72629-94-8	1.16 U	0.32	1.16	5.78
PFTeDA	376-06-7	2.31 U	0.73	2.31	5.78
NMeFOSAA	2355-31-9	2.89 U	1.29	2.89	5.78
NEtFOSAA	2991-50-6	2.31 U	0.66	2.31	5.78
PFBS	375-73-5	13.72	0.42	1.16	5.78
PFHxS	355-46-4	125.17 D	1.27	2.89	28.90
PFOS	1763-23-1	10670.73 D	31.21	115.61	578.03

Surrogate Recoveries (%)

13C5-PFHxA	121	
13C4-PFHpA	118	
13C8-PFOA	97	
13C9-PFNA	51	
13C6-PFDA	107	
13C7-PFUnA	109	
13C2-PFDoA	107	
13C2-PFTeDA	95	
d3-MeFOSAA	105 D	
d5-EtFOSAA	113 D	
13C3-PFBS	83 D	
13C3-PFHxS	113 D	
13C8-PFOS	100	

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

Client ID		VC-PM323-SS02-000H			
Battelle ID		J8327-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		4.85			
Matrix		SS			
Sample Size		1.900			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	0.40 J	0.35	1.05	5.26
PFHpA	375-85-9	1.05 U	0.46	1.05	5.26
PFOA	335-67-1	1.05 U	0.53	1.05	5.26
PFNA	375-95-1	1.05 U	0.45	1.05	5.26
PFDA	335-76-2	1.05 U	0.28	1.05	5.26
PFUnA	2058-94-8	1.05 U	0.43	1.05	5.26
PFDoA	307-55-1	0.53 U	0.25	0.53	5.26
PFTrDA	72629-94-8	1.05 U	0.29	1.05	5.26
PFTeDA	376-06-7	2.11 U	0.66	2.11	5.26
NMeFOSAA	2355-31-9	2.63 U	1.18	2.63	5.26
NEtFOSAA	2991-50-6	2.11 U	0.60	2.11	5.26
PFBS	375-73-5	1.05 U	0.38	1.05	5.26
PFHxS	355-46-4	0.35 J	0.23	0.53	5.26
PFOS	1763-23-1	6.49	0.28	1.05	5.26

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	96
13C8-PFOA	102
13C9-PFNA	95
13C6-PFDA	113
13C7-PFUnA	111
13C2-PFDoA	102
13C2-PFTeDA	97
d3-MeFOSAA	103
d5-EtFOSAA	108
13C3-PFBS	102
13C3-PFHxS	105
13C8-PFOS	103

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

Client ID		VC-PM323-SB02-0102			
Battelle ID		J8328-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		3.77			
Matrix		SB			
Sample Size		1.950			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.03 U	0.34	1.03	5.13
PFHpA	375-85-9	1.03 U	0.45	1.03	5.13
PFOA	335-67-1	1.03 U	0.51	1.03	5.13
PFNA	375-95-1	1.03 U	0.44	1.03	5.13
PFDA	335-76-2	1.03 U	0.28	1.03	5.13
PFUnA	2058-94-8	1.03 U	0.42	1.03	5.13
PFDoA	307-55-1	0.51 U	0.25	0.51	5.13
PFTrDA	72629-94-8	1.03 U	0.29	1.03	5.13
PFTeDA	376-06-7	2.05 U	0.65	2.05	5.13
NMeFOSAA	2355-31-9	2.56 U	1.15	2.56	5.13
NEtFOSAA	2991-50-6	2.05 U	0.58	2.05	5.13
PFBS	375-73-5	1.03 U	0.37	1.03	5.13
PFHxS	355-46-4	0.37 J	0.23	0.51	5.13
PFOS	1763-23-1	2.02 J	0.28	1.03	5.13

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	94
13C8-PFOA	108
13C9-PFNA	96
13C6-PFDA	110
13C7-PFUnA	119
13C2-PFDoA	102
13C2-PFTeDA	100
d3-MeFOSAA	117
d5-EtFOSAA	116
13C3-PFBS	112
13C3-PFHxS	113
13C8-PFOS	99

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

Client ID		VC-PM323-SB02-0506			
Battelle ID		J8329-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		14.32			
Matrix		SB			
Sample Size		1.720			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.16 U	0.38	1.16	5.81
PFHpA	375-85-9	1.16 U	0.51	1.16	5.81
PFOA	335-67-1	1.30 J	0.58	1.16	5.81
PFNA	375-95-1	1.16 U	0.50	1.16	5.81
PFDA	335-76-2	1.16 U	0.31	1.16	5.81
PFUnA	2058-94-8	1.16 U	0.48	1.16	5.81
PFDoA	307-55-1	0.58 U	0.28	0.58	5.81
PFTrDA	72629-94-8	1.16 U	0.33	1.16	5.81
PFTeDA	376-06-7	2.33 U	0.73	2.33	5.81
NMeFOSAA	2355-31-9	2.91 U	1.30	2.91	5.81
NEtFOSAA	2991-50-6	2.33 U	0.66	2.33	5.81
PFBS	375-73-5	1.16 U	0.42	1.16	5.81
PFHxS	355-46-4	0.58 U	0.26	0.58	5.81
PFOS	1763-23-1	0.53 J	0.31	1.16	5.81

Surrogate Recoveries (%)

13C5-PFHxA	101
13C4-PFHpA	90
13C8-PFOA	103
13C9-PFNA	93
13C6-PFDA	106
13C7-PFUnA	120
13C2-PFDoA	102
13C2-PFTeDA	95
d3-MeFOSAA	103
d5-EtFOSAA	107
13C3-PFBS	97
13C3-PFHxS	116
13C8-PFOS	103

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

Client ID		VC-PM324-SS02-000H			
Battelle ID		J8332-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		19.44			
Matrix		SS			
Sample Size		1.690			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.18 U	0.39	1.18	5.92
PFHpA	375-85-9	1.18 U	0.52	1.18	5.92
PFOA	335-67-1	1.18 U	0.59	1.18	5.92
PFNA	375-95-1	1.18 U	0.51	1.18	5.92
PFDA	335-76-2	1.18 U	0.32	1.18	5.92
PFUnA	2058-94-8	1.18 U	0.49	1.18	5.92
PFDoA	307-55-1	0.59 U	0.28	0.59	5.92
PFTrDA	72629-94-8	1.18 U	0.33	1.18	5.92
PFTeDA	376-06-7	2.37 U	0.75	2.37	5.92
NMeFOSAA	2355-31-9	2.96 U	1.33	2.96	5.92
NEtFOSAA	2991-50-6	2.37 U	0.67	2.37	5.92
PFBS	375-73-5	1.18 U	0.43	1.18	5.92
PFHxS	355-46-4	0.59 U	0.26	0.59	5.92
PFOS	1763-23-1	1.31 J	0.32	1.18	5.92

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	91
13C8-PFOA	101
13C9-PFNA	90
13C6-PFDA	105
13C7-PFUnA	110
13C2-PFDoA	103
13C2-PFTeDA	95
d3-MeFOSAA	110
d5-EtFOSAA	126
13C3-PFBS	96
13C3-PFHxS	113
13C8-PFOS	100

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

Client ID		VC-PM324-SB02-0102			
Battelle ID		J8333-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		17.39			
Matrix		SB			
Sample Size		1.680			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.19 U	0.39	1.19	5.95
PFHpA	375-85-9	1.19 U	0.52	1.19	5.95
PFOA	335-67-1	1.19 U	0.60	1.19	5.95
PFNA	375-95-1	1.19 U	0.51	1.19	5.95
PFDA	335-76-2	1.19 U	0.32	1.19	5.95
PFUnA	2058-94-8	1.19 U	0.49	1.19	5.95
PFDoA	307-55-1	0.60 U	0.29	0.60	5.95
PFTrDA	72629-94-8	1.19 U	0.33	1.19	5.95
PFTeDA	376-06-7	2.38 U	0.75	2.38	5.95
NMeFOSAA	2355-31-9	2.98 U	1.33	2.98	5.95
NEtFOSAA	2991-50-6	2.38 U	0.68	2.38	5.95
PFBS	375-73-5	1.19 U	0.43	1.19	5.95
PFHxS	355-46-4	0.60 U	0.26	0.60	5.95
PFOS	1763-23-1	0.73 J	0.32	1.19	5.95

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	88
13C8-PFOA	100
13C9-PFNA	92
13C6-PFDA	103
13C7-PFUnA	105
13C2-PFDoA	93
13C2-PFTeDA	88
d3-MeFOSAA	92
d5-EtFOSAA	115
13C3-PFBS	95
13C3-PFHxS	115
13C8-PFOS	91

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

Client ID		VC-PM324-SB02-0506			
Battelle ID		J8334-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		27.11			
Matrix		SB			
Sample Size		1.490			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.34 U	0.44	1.34	6.71
PFHpA	375-85-9	1.34 U	0.59	1.34	6.71
PFOA	335-67-1	1.34 U	0.67	1.34	6.71
PFNA	375-95-1	1.34 U	0.58	1.34	6.71
PFDA	335-76-2	1.34 U	0.36	1.34	6.71
PFUnA	2058-94-8	1.34 U	0.55	1.34	6.71
PFDoA	307-55-1	0.67 U	0.32	0.67	6.71
PFTrDA	72629-94-8	1.34 U	0.38	1.34	6.71
PFTeDA	376-06-7	2.68 U	0.85	2.68	6.71
NMeFOSAA	2355-31-9	3.36 U	1.50	3.36	6.71
NEtFOSAA	2991-50-6	2.68 U	0.77	2.68	6.71
PFBS	375-73-5	1.34 U	0.48	1.34	6.71
PFHxS	355-46-4	0.67 U	0.30	0.67	6.71
PFOS	1763-23-1	1.25 J	0.36	1.34	6.71

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	94
13C8-PFOA	101
13C9-PFNA	90
13C6-PFDA	99
13C7-PFUnA	109
13C2-PFDoA	102
13C2-PFTeDA	89
d3-MeFOSAA	106
d5-EtFOSAA	114
13C3-PFBS	92
13C3-PFHxS	111
13C8-PFOS	97

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

Client ID		KB80 IB			
Battelle ID		KB80 IB_10/08/2018			
Sample Type		IB			
Collection Date		NA			
Extraction Date		NA			
Analysis Date		10/08/2018			
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	92
13C4-PFHpA	93
13C8-PFOA	92
13C9-PFNA	93
13C6-PFDA	107
13C7-PFUnA	100
13C2-PFDoA	98
13C2-PFTeDA	96
d3-MeFOSAA	80
d5-EtFOSAA	86
13C3-PFBS	90
13C3-PFHxS	93
13C8-PFOS	98

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

Client ID		KB80 IB			
Battelle ID		KB80 IB_10/14/2018			
Sample Type		IB			
Collection Date		NA			
Extraction Date		NA			
Analysis Date		10/14/2018			
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	- -	-	-	-
PFOA	335-67-1	1.00 U	0.50	1.00	5.00
PFNA	375-95-1	- -	-	-	-
PFDA	335-76-2	- -	-	-	-
PFUnA	2058-94-8	- -	-	-	-
PFDoA	307-55-1	- -	-	-	-
PFTrDA	72629-94-8	- -	-	-	-
PFTeDA	376-06-7	- -	-	-	-
NMeFOSAA	2355-31-9	- -	-	-	-
NEtFOSAA	2991-50-6	- -	-	-	-
PFBS	375-73-5	- -	-	-	-
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		- -			
13C4-PFHpA		- -			
13C8-PFOA		- -			
13C9-PFNA		- -			
13C6-PFDA		- -			
13C7-PFUnA		- -			
13C2-PFDoA		- -			
13C2-PFTeDA		- -			
d3-MeFOSAA		- -			
d5-EtFOSAA		- -			
13C3-PFBS		- -			
13C3-PFHxS		- -			
13C8-PFOS		- -			

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

Client ID		KB80 IB			
Battelle ID		KB80 IB_10/15/2018			
Sample Type		IB			
Collection Date		NA			
Extraction Date		NA			
Analysis Date		10/15/2018			
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	- -	-	-	-
PFOA	335-67-1	1.00 U	0.50	1.00	5.00
PFNA	375-95-1	- -	-	-	-
PFDA	335-76-2	- -	-	-	-
PFUnA	2058-94-8	- -	-	-	-
PFDoA	307-55-1	- -	-	-	-
PFTrDA	72629-94-8	- -	-	-	-
PFTeDA	376-06-7	- -	-	-	-
NMeFOSAA	2355-31-9	- -	-	-	-
NEtFOSAA	2991-50-6	- -	-	-	-
PFBS	375-73-5	- -	-	-	-
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	- -
13C4-PFHpA	- -
13C8-PFOA	- -
13C9-PFNA	- -
13C6-PFDA	- -
13C7-PFUnA	- -
13C2-PFDoA	- -
13C2-PFTeDA	- -
d3-MeFOSAA	- -
d5-EtFOSAA	- -
13C3-PFBS	- -
13C3-PFHxS	- -
13C8-PFOS	- -

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

Client ID		180507-02: Ottawa Sand			
Battelle ID		CR888PB-FS			
Sample Type		PB			
Collection Date		10/02/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		0.00			
Matrix		SEDIMENT			
Sample Size		1.920			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.04 U	0.34	1.04	5.21
PFHpA	375-85-9	1.04 U	0.46	1.04	5.21
PFOA	335-67-1	1.04 U	0.52	1.04	5.21
PFNA	375-95-1	1.04 U	0.45	1.04	5.21
PFDA	335-76-2	1.04 U	0.28	1.04	5.21
PFUnA	2058-94-8	1.04 U	0.43	1.04	5.21
PFDoA	307-55-1	0.52 U	0.25	0.52	5.21
PFTrDA	72629-94-8	1.04 U	0.29	1.04	5.21
PFTeDA	376-06-7	2.08 U	0.66	2.08	5.21
NMeFOSAA	2355-31-9	2.60 U	1.17	2.60	5.21
NEtFOSAA	2991-50-6	2.08 U	0.59	2.08	5.21
PFBS	375-73-5	1.04 U	0.38	1.04	5.21
PFHxS	355-46-4	0.52 U	0.23	0.52	5.21
PFOS	1763-23-1	1.04 U	0.28	1.04	5.21

Surrogate Recoveries (%)

13C5-PFHxA	99
13C4-PFHpA	92
13C8-PFOA	104
13C9-PFNA	96
13C6-PFDA	102
13C7-PFUnA	108
13C2-PFDoA	100
13C2-PFTeDA	91
d3-MeFOSAA	100
d5-EtFOSAA	107
13C3-PFBS	90
13C3-PFHxS	99
13C8-PFOS	104

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

Client ID		180507-02: Ottawa Sand					
Battelle ID		CR889LCS-FS					
Sample Type		LCS					
Collection Date		10/02/2018					
Extraction Date		10/02/2018					
Analysis Date		10/09/2018					
Analytical Instrument		Sciex 5500 LC/MS/MS					
% Moisture		0.00					
Matrix		SEDIMENT					
Sample Size		2.020					
Size Unit-Basis		g				Control Limits	
Units		ng/g_Dry	Target	Recovery	Qual	Lower	Upper
PFHxA	307-24-4	23.27	25.00	93		45	135
PFHpA	375-85-9	20.86	24.75	84		60	128
PFOA	335-67-1	25.83	24.75	104		56	136
PFNA	375-95-1	26.06	24.75	105		54	130
PFDA	335-76-2	24.49	24.75	99		55	141
PFUnA	2058-94-8	23.36	24.75	94		57	137
PFDoA	307-55-1	22.16	24.75	90		62	134
PFTrDA	72629-94-8	24.67	24.75	100		51	127
PFTeDA	376-06-7	23.76	24.75	96		34	162
NMeFOSAA	2355-31-9	22.53	24.75	91		52	146
NEtFOSAA	2991-50-6	21.74	24.75	88		54	124
PFBS	375-73-5	22.42	25.00	90		57	145
PFHxS	355-46-4	20.45	25.00	82		52	132
PFOS	1763-23-1	20.93	24.75	85		50	130
Surrogate Recoveries (%)							
13C5-PFHxA		111					
13C4-PFHpA		117					
13C8-PFOA		110					
13C9-PFNA		107					
13C6-PFDA		112					
13C7-PFUnA		120					
13C2-PFDoA		121					
13C2-PFTeDA		110					
d3-MeFOSAA		119					
d5-EtFOSAA		119					
13C3-PFBS		113					
13C3-PFHxS		118					
13C8-PFOS		113					

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

Client ID		VC-PM324-SB02-0506	VC-PM324-SB02-0506-MS					
Battelle ID		J8334-FS	J8335MS-FS					
Sample Type		SA	MS					
Collection Date		09/20/2018	09/20/2018					
Extraction Date		10/02/2018	10/02/2018					
Analysis Date		10/09/2018	10/09/2018					
Analytical Instrument		Sciex 5500 LC/MS/MS	Sciex 5500 LC/MS/MS					
% Moisture		27.11	22.77					
Matrix		SB	SB					
Sample Size		1.490	1.610					
Size Unit-Basis		g	g				Control Limits	
Units		ng/g_Dry	ng/g_Dry	Target	Recovery	Qual	Lower	Upper
PFHxA	307-24-4	1.34 U	45.10	50.19	90		45	135
PFHpA	375-85-9	1.34 U	43.26	49.69	87		60	128
PFOA	335-67-1	1.34 U	49.45	49.69	100		56	136
PFNA	375-95-1	1.34 U	48.22	49.69	97		54	130
PFDA	335-76-2	1.34 U	49.12	49.69	99		55	141
PFUnA	2058-94-8	1.34 U	45.01	49.69	91		57	137
PFDoA	307-55-1	0.67 U	48.95	49.69	99		62	134
PFTrDA	72629-94-8	1.34 U	49.91	49.69	100		51	127
PFTeDA	376-06-7	2.68 U	46.37	49.69	93		34	162
NMeFOSAA	2355-31-9	3.36 U	45.94	49.69	92		52	146
NEtFOSAA	2991-50-6	2.68 U	45.97	49.69	93		54	124
PFBS	375-73-5	1.34 U	44.50	50.19	89		57	145
PFHxS	355-46-4	0.67 U	45.92	50.19	91		52	132
PFOS	1763-23-1	1.25 J	49.23	49.69	97		50	130
Surrogate Recoveries (%)								
13C5-PFHxA		95	107					
13C4-PFHpA		94	99					
13C8-PFOA		101	107					
13C9-PFNA		90	105					
13C6-PFDA		99	103					
13C7-PFUnA		109	115					
13C2-PFDoA		102	107					
13C2-PFTeDA		89	102					
d3-MeFOSAA		106	106					
d5-EtFOSAA		114	107					
13C3-PFBS		92	111					
13C3-PFHxS		111	104					
13C8-PFOS		97	99					

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

Client ID		VC-PM324-SB02-0506-MSD								
Battelle ID		J8336MSD-FS								
Sample Type		MSD								
Collection Date		09/20/2018								
Extraction Date		10/02/2018								
Analysis Date		10/09/2018								
Analytical Instrument		Sciex 5500 LC/MS/MS								
% Moisture		17.20								
Matrix		SB								
Sample Size		1.600								
Size Unit-Basis		g				Control Limits				RPD
Units		ng/g_Dry	Target	Recovery	Qual	Lower	Upper	RPD	Qual	Limit
PFHxA	307-24-4	43.19	50.50	86		45	135	4.5		≤ 30
PFHpA	375-85-9	39.00	50.00	78		60	128	10.9		≤ 30
PFOA	335-67-1	46.12	50.00	92		56	136	8.3		≤ 30
PFNA	375-95-1	47.09	50.00	94		54	130	3.1		≤ 30
PFDA	335-76-2	49.37	50.00	99		55	141	0.0		≤ 30
PFUnA	2058-94-8	44.06	50.00	88		57	137	3.4		≤ 30
PFDoA	307-55-1	43.81	50.00	88		62	134	11.8		≤ 30
PFTrDA	72629-94-8	45.76	50.00	92		51	127	8.3		≤ 30
PFTeDA	376-06-7	42.47	50.00	85		34	162	9.0		≤ 30
NMeFOSAA	2355-31-9	41.20	50.00	82		52	146	11.5		≤ 30
NEtFOSAA	2991-50-6	46.23	50.00	92		54	124	1.1		≤ 30
PFBS	375-73-5	42.72	50.50	85		57	145	4.6		≤ 30
PFHxS	355-46-4	40.03	50.50	79		52	132	14.1		≤ 30
PFOS	1763-23-1	44.07	50.00	86		50	130	12.0		≤ 30
Surrogate Recoveries (%)										
13C5-PFHxA		105								
13C4-PFHpA		109								
13C8-PFOA		104								
13C9-PFNA		103								
13C6-PFDA		100								
13C7-PFUnA		113								
13C2-PFDoA		114								
13C2-PFTeDA		108								
d3-MeFOSAA		119								
d5-EtFOSAA		107								
13C3-PFBS		112								
13C3-PFHxS		117								
13C8-PFOS		113								

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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 18-0582

Project:	CTO-4164 Naval Base Ventura County, California
Parameters:	PFAS
Laboratory:	Battelle, Norwell, MA
Matrix:	SS, SB
Data Set:	DP-18-0287
Analytical SOP:	5-369
Method Reference:	PFAS to QSM 5.1 Table B-15

Sample Custody		
Collection Date	Receipt Date	Temp (°C)
9/20-21/2018	9/25/2018	0.9 and 1.1
Corrective Actions	Equipment blank and field blank samples differed from COC to sample containers. Client provided updated client ID information via email that was included with the sample 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	All samples were pre-screened prior to full extraction and analysis. Both J8335MS-FS (VC-PM324-SB02-0506-MS) and J8336MSD-FS (VC-PM324-SB02-0506-MSD) did not appear to have the same consistency, with the MS sample appearing to have more water content than the MSD sample.
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 dry concentrations.
Analysis Comments	Samples analyzed on Sciex 5500 LC-MS/MS. In cases were native PFAS compounds were reported from dilutions (above calibration in non-diluted extracts), the extracted internal standard (surrogate) used to quantify the native compound was also reported from the dilution. There are several instances of extracted internal standards (surrogates) that would fail 50%-150% recovery criteria if reported from the non-diluted extract. This is due to the higher levels of native PFOA and PFOS found in the samples interfering with the 13C2-PFOA and 13C4-PFOS internal standards used to

QA/QC Summary
Batch 18-0582

	quantify the surrogates. In these cases, the surrogates are reported from dilutions, however, the native compounds are reported from the non-diluted extracts as the interferences are with the internal standards and not the surrogates used to quantify the native compounds. When detected, PFHxS and PFOS were a mixture of linear and branched isomers.

Holding Times	Extraction Date(s)	Analysis Date(s)
	10/2/2018	10/8-9, 14-15/2018

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

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

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

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

Internal Standard Analytes	Labelled analog compounds were added prior to analysis.
+/- 50% of the area of the L5 calibration point.	No exceedances noted.
	No comments.

Initial Calibration (ICAL)	The LC-MS/MS was calibrated with multi-level calibration curve for all compounds using linear or quadradic curve fitting.
+/- 30% of true value, $R^2 \geq 0.99$	No exceedances noted.
	No comments.

QA/QC Summary
Batch 18-0582

Independent Calibration Check (ICC)	The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL.
+/- 30% of true value	No exceedances noted.
	No comments.

Continuing Calibration Verification (CCV)	Continuing calibration standards were run at the beginning and end of 10 injections and at the end of the sequence to ensure that initial calibration is still valid.
+/- 30% of true value	No exceedances noted.
	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.

* The Result Table (Quant Method) 18-0615-0616_BASE uses the same initial calibration as Result Table (Quant Method) 18-0582_18-0583_D_BASE.

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Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project Number: 100110125-01
Preparation Batch: 18-0582
Data Set: DP-18-0287
Test Code: Master_369

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

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BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM

Project Title:	CTO-4164 Naval Base Ventura County,	**Data Set Number:**	DP-18-0287
Project Number:	100110125-01	**Prep Batch Number:**	18-0582
Entered By:	Denise Schumitz	**Entered On:**	10/19/2018
Test Code (Matrix Type):	Master_369(S)		

Samples that were manually integrated are noted on the quant reports with the comment (TRUE). DMS 10/19/2018

In cases were native PFAS compounds were reported from dilutions (above calibration in non-diluted extracts), the extracted internal standard (surrogate) used to quantify the native compound was also reported from the dilution.
DMS 10/19/2018

There are several instances of extracted internal standards (surrogates) that would fail 50%-150% recovery criteria if reported from the non-diluted extract. This is due to the higher levels of native PFOA and PFOS found in the samples interfering with the 13C2-PFOA and 13C4-PFOS internal standards used to quantify the surrogates. In these cases, the surrogates are reported from dilutions, however, the native compounds are reported from the non-diluted extracts as the interferences are with the internal standards and not the surrogates used to quantify the native compounds.
DMS 10/19/2018

Task Leader Approval:

SupervisorApproval:

PM Approval:



Digitally signed by Jonathan Thorn
Date: 2018.10.19 18:04:53 -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:	J8311-FS-D(7)
Client Sample ID:	VC-PM323-324-SB01-0102
Sample Size:	1.81
Units:	g
Dilution Factor:	500.000
PIV (L):	0.001
Target Analyte:	PFOS
MRM Transition:	499.0 / 80.0
Data file:	10152018.wiff
Result table:	18-0582_18-0583_D_Base
Area:	2,311,176.67
IS Name:	13C8-PFOS
IS Area:	27,411.94
IS Amount (ng/L):	239.25
y-intercept:	0.2193
slope:	4.67467

$$\text{Concentration} = \frac{[(2311176.67/27411.94) - 0.2193]}{4.67467} * 239.25 * 0.001 * 500 / 1.81$$

ng/g = 1,188.93

*Final concentration may vary based on rounding.

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Project Client: CH2M
Project Name: CTO-4164 Naval Base Ventura County, California
Project No.: 100110125-01
Preparation Batch: 18-0582
Data Set: DP-18-0287

		CR888PB-FS (180507-02: Ottawa Sand)	CR889LCS-FS (180507-02: Ottawa Sand)	J8335MS-FS (VC-PM324-SB02-0506-MS)	J8336MSD-FS (VC-PM324-SB02-0506-MSD)	J8310-FS (VC-PM323-324-SS01-000H)	J8311-FS (VC-PM323-324-SB01-0102)	J8312-FS (VC-PM323-324-SB01-0506)	J8313-FS (VC-PM323-324-SS02-000H)
PFHxA	307-24-4	-	L	L	L	L	L	L	L
PFHpA	375-85-9	-	L	L	L	-	L	L	L
PFOA	335-67-1	-	L	L	L	L	L	L	L
PFNA	375-95-1	-	L	L	L	L	-	L	L
PFDA	335-76-2	-	L	L	L	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	-	-	L	L
PFHxS	355-46-4	-	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br
PFOS	1763-23-1	-	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br

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

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It can

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

	J8314-FS (VC-PM323-324-SB02-0102)	J8315-FS (VC-PM323-324-SB02-0506)	J8316-FS (VC-PM323-324-SS03-000H)	J8317-FS (VC-PM323-324-SB03-0102)	J8318-FS (VC-PM323-324-SB03-0506)	J8327-FS (VC-PM323-SS02-000H)	J8328-FS (VC-PM323-SB02-0102)	J8329-FS (VC-PM323-SB02-0506)
PFHxA	L	L	L	L	L	L	-	-
PFHpA	L	L	L	L	L	-	-	-
PFOA	L	L	L	L	L	-	-	-
PFNA	L	L	L	L	L	-	-	-
PFDA	L	-	L	-	-	-	-	-
PFUnA	-	-	-	-	-	-	-	-
PFDoA	-	-	-	-	-	-	-	-
PFTrDA	-	-	L	-	-	-	-	-
PFTeDA	-	-	-	-	-	-	-	-
NMeFOSAA	-	-	-	-	-	-	-	-
NEtFOSAA	-	-	-	-	-	-	-	-
PFBS	L	L	L	L	L	-	-	-
PFHxS	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	-
PFOS	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br	L/Br

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

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

	J8332-FS (VC-PM324-SS02-000H)	J8333-FS (VC-PM324-SB02-0102)	J8334-FS (VC-PM324-SB02-0506)
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/Br
"-": 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
KB77	L5	10/8/18 16:23	13C2-PFOA	74,719.21	37,359.61	112,078.82

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/8/18 15:40	13C2-PFOA	86,591.46	37,359.61	112,078.82	
KB74	L2	10/8/18 15:51	13C2-PFOA	87,760.75	37,359.61	112,078.82	
KB75	L3	10/8/18 16:01	13C2-PFOA	81,109.93	37,359.61	112,078.82	
KB76	L4	10/8/18 16:12	13C2-PFOA	89,899.45	37,359.61	112,078.82	
KB77	L5	10/8/18 16:23	13C2-PFOA	74,719.21	37,359.61	112,078.82	
KB78	L6	10/8/18 16:34	13C2-PFOA	71,860.81	37,359.61	112,078.82	
KB79	L7	10/8/18 16:45	13C2-PFOA	75,346.19	37,359.61	112,078.82	
KB80 IB	Instrument Blank	10/8/18 16:56	13C2-PFOA	80,851.75	37,359.61	112,078.82	
KB81 ICC	ICC	10/8/18 17:07	13C2-PFOA	95,393.87	37,359.61	112,078.82	
KB76 CCV	CCV	10/9/18 3:58	13C2-PFOA	90,750.56	37,359.61	112,078.82	
CR888PB-FS(3)	Procedural Blank	10/9/18 4:20	13C2-PFOA	98,847.52	37,359.61	112,078.82	
CR889LCS-FS(3)	Laboratory Control Sample	10/9/18 4:31	13C2-PFOA	100,990.04	37,359.61	112,078.82	
J8310-FS(3)	VC-PM323-324-SS01-000H	10/9/18 4:42	13C2-PFOA	94,591.38	37,359.61	112,078.82	
J8310-FS-D(5)	VC-PM323-324-SS01-000H	10/9/18 4:53	13C2-PFOA	94,382.65	37,359.61	112,078.82	
J8311-FS(3)	VC-PM323-324-SB01-0102	10/9/18 5:04	13C2-PFOA	100,304.03	37,359.61	112,078.82	
J8311-FS-D(5)	VC-PM323-324-SB01-0102	10/9/18 5:14	13C2-PFOA	111,903.31	37,359.61	112,078.82	
J8312-FS(3)	VC-PM323-324-SB01-0506	10/9/18 5:25	13C2-PFOA	78,768.50	37,359.61	112,078.82	
J8312-FS-D(5)	VC-PM323-324-SB01-0506	10/9/18 5:36	13C2-PFOA	99,633.86	37,359.61	112,078.82	
J8312-FS-D(7)	VC-PM323-324-SB01-0506	10/9/18 5:47	13C2-PFOA	102,079.49	37,359.61	112,078.82	
J8333-FS(3)	VC-PM324-SB02-0102	10/9/18 5:58	13C2-PFOA	108,999.59	37,359.61	112,078.82	
KB77 CCV	CCV	10/9/18 6:09	13C2-PFOA	91,381.43	37,359.61	112,078.82	
J8313-FS(3)	VC-PM323-324-SS02-000H	10/9/18 6:31	13C2-PFOA	103,839.29	37,359.61	112,078.82	
J8313-FS-D(5)	VC-PM323-324-SS02-000H	10/9/18 6:41	13C2-PFOA	111,149.94	37,359.61	112,078.82	
J8314-FS(3)	VC-PM323-324-SB02-0102	10/9/18 6:52	13C2-PFOA	110,989.50	37,359.61	112,078.82	
J8314-FS-D(5)	VC-PM323-324-SB02-0102	10/9/18 7:03	13C2-PFOA	109,954.64	37,359.61	112,078.82	
J8315-FS(3)	VC-PM323-324-SB02-0506	10/9/18 7:14	13C2-PFOA	81,889.97	37,359.61	112,078.82	
J8315-FS-D(5)	VC-PM323-324-SB02-0506	10/9/18 7:25	13C2-PFOA	94,001.13	37,359.61	112,078.82	
J8316-FS(3)	VC-PM323-324-SS03-000H	10/9/18 7:36	13C2-PFOA	97,973.93	37,359.61	112,078.82	
J8316-FS-D(5)	VC-PM323-324-SS03-000H	10/9/18 7:47	13C2-PFOA	109,322.89	37,359.61	112,078.82	
J8317-FS(3)	VC-PM323-324-SB03-0102	10/9/18 7:58	13C2-PFOA	97,690.23	37,359.61	112,078.82	
J8317-FS-D(5)	VC-PM323-324-SB03-0102	10/9/18 8:08	13C2-PFOA	111,454.98	37,359.61	112,078.82	
KB76 CCV	CCV	10/9/18 8:19	13C2-PFOA	80,778.58	37,359.61	112,078.82	
J8318-FS(3)	VC-PM323-324-SB03-0506	10/9/18 8:41	13C2-PFOA	76,245.71	37,359.61	112,078.82	
J8318-FS-D(5)	VC-PM323-324-SB03-0506	10/9/18 8:52	13C2-PFOA	85,767.76	37,359.61	112,078.82	
J8318-FS-D(7)	VC-PM323-324-SB03-0506	10/9/18 9:03	13C2-PFOA	86,263.39	37,359.61	112,078.82	
J8327-FS(3)	VC-PM323-SS02-000H	10/9/18 9:14	13C2-PFOA	109,467.37	37,359.61	112,078.82	
J8328-FS(3)	VC-PM323-SB02-0102	10/9/18 9:25	13C2-PFOA	100,180.68	37,359.61	112,078.82	
J8329-FS(3)	VC-PM323-SB02-0506	10/9/18 9:35	13C2-PFOA	104,062.76	37,359.61	112,078.82	
J8332-FS(3)	VC-PM324-SS02-000H	10/9/18 9:46	13C2-PFOA	111,937.96	37,359.61	112,078.82	
J8334-FS(3)	VC-PM324-SB02-0506	10/9/18 9:57	13C2-PFOA	103,175.17	37,359.61	112,078.82	
J8335MS-FS(3)	VC-PM324-SB02-0506-MS	10/9/18 10:08	13C2-PFOA	87,191.00	37,359.61	112,078.82	
J8336MSD-FS(3)	VC-PM324-SB02-0506-MSD	10/9/18 10:19	13C2-PFOA	98,818.35	37,359.61	112,078.82	
KB77 CCV	CCV	10/9/18 10:30	13C2-PFOA	94,528.26	37,359.61	112,078.82	

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
KB77	L5	10/8/18 16:23	13C2-PFDA	86,580.45	43,290.23	129,870.68

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/8/18 15:40	13C2-PFDA	101,004.57	43,290.23	129,870.68	
KB74	L2	10/8/18 15:51	13C2-PFDA	106,217.49	43,290.23	129,870.68	
KB75	L3	10/8/18 16:01	13C2-PFDA	100,766.55	43,290.23	129,870.68	
KB76	L4	10/8/18 16:12	13C2-PFDA	113,933.91	43,290.23	129,870.68	
KB77	L5	10/8/18 16:23	13C2-PFDA	86,580.45	43,290.23	129,870.68	
KB78	L6	10/8/18 16:34	13C2-PFDA	82,606.87	43,290.23	129,870.68	
KB79	L7	10/8/18 16:45	13C2-PFDA	92,416.04	43,290.23	129,870.68	
KB80 IB	Instrument Blank	10/8/18 16:56	13C2-PFDA	85,865.67	43,290.23	129,870.68	
KB81 ICC	ICC	10/8/18 17:07	13C2-PFDA	95,331.22	43,290.23	129,870.68	
KB76 CCV	CCV	10/9/18 3:58	13C2-PFDA	104,741.82	43,290.23	129,870.68	
CR888PB-FS(3)	Procedural Blank	10/9/18 4:20	13C2-PFDA	119,718.69	43,290.23	129,870.68	
CR889LCS-FS(3)	Laboratory Control Sample	10/9/18 4:31	13C2-PFDA	121,181.67	43,290.23	129,870.68	
J8310-FS(3)	VC-PM323-324-SS01-000H	10/9/18 4:42	13C2-PFDA	99,797.23	43,290.23	129,870.68	
J8310-FS-D(5)	VC-PM323-324-SS01-000H	10/9/18 4:53	13C2-PFDA	105,836.24	43,290.23	129,870.68	
J8311-FS(3)	VC-PM323-324-SB01-0102	10/9/18 5:04	13C2-PFDA	108,610.19	43,290.23	129,870.68	
J8311-FS-D(5)	VC-PM323-324-SB01-0102	10/9/18 5:14	13C2-PFDA	124,067.38	43,290.23	129,870.68	
J8312-FS(3)	VC-PM323-324-SB01-0506	10/9/18 5:25	13C2-PFDA	102,596.48	43,290.23	129,870.68	
J8312-FS-D(5)	VC-PM323-324-SB01-0506	10/9/18 5:36	13C2-PFDA	129,531.18	43,290.23	129,870.68	
J8312-FS-D(7)	VC-PM323-324-SB01-0506	10/9/18 5:47	13C2-PFDA	118,094.00	43,290.23	129,870.68	
J8333-FS(3)	VC-PM324-SB02-0102	10/9/18 5:58	13C2-PFDA	127,279.90	43,290.23	129,870.68	
KB77 CCV	CCV	10/9/18 6:09	13C2-PFDA	110,224.25	43,290.23	129,870.68	
J8313-FS(3)	VC-PM323-324-SS02-000H	10/9/18 6:31	13C2-PFDA	118,180.95	43,290.23	129,870.68	
J8313-FS-D(5)	VC-PM323-324-SS02-000H	10/9/18 6:41	13C2-PFDA	128,455.70	43,290.23	129,870.68	
J8314-FS(3)	VC-PM323-324-SB02-0102	10/9/18 6:52	13C2-PFDA	125,158.30	43,290.23	129,870.68	
J8314-FS-D(5)	VC-PM323-324-SB02-0102	10/9/18 7:03	13C2-PFDA	126,696.44	43,290.23	129,870.68	
J8315-FS(3)	VC-PM323-324-SB02-0506	10/9/18 7:14	13C2-PFDA	119,118.07	43,290.23	129,870.68	
J8315-FS-D(5)	VC-PM323-324-SB02-0506	10/9/18 7:25	13C2-PFDA	116,072.54	43,290.23	129,870.68	
J8316-FS(3)	VC-PM323-324-SS03-000H	10/9/18 7:36	13C2-PFDA	116,306.17	43,290.23	129,870.68	
J8316-FS-D(5)	VC-PM323-324-SS03-000H	10/9/18 7:47	13C2-PFDA	126,879.80	43,290.23	129,870.68	
J8317-FS(3)	VC-PM323-324-SB03-0102	10/9/18 7:58	13C2-PFDA	125,065.26	43,290.23	129,870.68	
J8317-FS-D(5)	VC-PM323-324-SB03-0102	10/9/18 8:08	13C2-PFDA	125,188.18	43,290.23	129,870.68	
KB76 CCV	CCV	10/9/18 8:19	13C2-PFDA	95,691.73	43,290.23	129,870.68	
J8318-FS(3)	VC-PM323-324-SB03-0506	10/9/18 8:41	13C2-PFDA	109,249.22	43,290.23	129,870.68	
J8318-FS-D(5)	VC-PM323-324-SB03-0506	10/9/18 8:52	13C2-PFDA	97,603.76	43,290.23	129,870.68	
J8318-FS-D(7)	VC-PM323-324-SB03-0506	10/9/18 9:03	13C2-PFDA	117,800.84	43,290.23	129,870.68	
J8327-FS(3)	VC-PM323-SS02-000H	10/9/18 9:14	13C2-PFDA	128,251.62	43,290.23	129,870.68	
J8328-FS(3)	VC-PM323-SB02-0102	10/9/18 9:25	13C2-PFDA	111,854.51	43,290.23	129,870.68	
J8329-FS(3)	VC-PM323-SB02-0506	10/9/18 9:35	13C2-PFDA	115,149.13	43,290.23	129,870.68	
J8332-FS(3)	VC-PM324-SS02-000H	10/9/18 9:46	13C2-PFDA	128,329.63	43,290.23	129,870.68	
J8334-FS(3)	VC-PM324-SB02-0506	10/9/18 9:57	13C2-PFDA	119,248.85	43,290.23	129,870.68	
J8335MS-FS(3)	VC-PM324-SB02-0506-MS	10/9/18 10:08	13C2-PFDA	105,620.79	43,290.23	129,870.68	
J8336MSD-FS(3)	VC-PM324-SB02-0506-MSD	10/9/18 10:19	13C2-PFDA	117,431.79	43,290.23	129,870.68	
KB77 CCV	CCV	10/9/18 10:30	13C2-PFDA	101,047.64	43,290.23	129,870.68	

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
KB77	L5	10/8/18 16:23	13C4-PFOS	25,614.67	12,807.34	38,422.01

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/8/18 15:40	13C4-PFOS	30,187.37	12,807.34	38,422.01	
KB74	L2	10/8/18 15:51	13C4-PFOS	30,121.59	12,807.34	38,422.01	
KB75	L3	10/8/18 16:01	13C4-PFOS	27,324.91	12,807.34	38,422.01	
KB76	L4	10/8/18 16:12	13C4-PFOS	32,065.20	12,807.34	38,422.01	
KB77	L5	10/8/18 16:23	13C4-PFOS	25,614.67	12,807.34	38,422.01	
KB78	L6	10/8/18 16:34	13C4-PFOS	27,558.53	12,807.34	38,422.01	
KB79	L7	10/8/18 16:45	13C4-PFOS	26,374.66	12,807.34	38,422.01	
KB80 IB	Instrument Blank	10/8/18 16:56	13C4-PFOS	28,550.52	12,807.34	38,422.01	
KB81 ICC	ICC	10/8/18 17:07	13C4-PFOS	30,554.31	12,807.34	38,422.01	
KB76 CCV	CCV	10/9/18 3:58	13C4-PFOS	29,067.50	12,807.34	38,422.01	
CR888PB-FS(3)	Procedural Blank	10/9/18 4:20	13C4-PFOS	33,999.49	12,807.34	38,422.01	
CR889LCS-FS(3)	Laboratory Control Sample	10/9/18 4:31	13C4-PFOS	37,127.83	12,807.34	38,422.01	
J8310-FS(3)	VC-PM323-324-SS01-000H	10/9/18 4:42	13C4-PFOS	23,763.49	12,807.34	38,422.01	
J8310-FS-D(5)	VC-PM323-324-SS01-000H	10/9/18 4:53	13C4-PFOS	25,241.15	12,807.34	38,422.01	
J8311-FS(3)	VC-PM323-324-SB01-0102	10/9/18 5:04	13C4-PFOS	22,823.21	12,807.34	38,422.01	
J8311-FS-D(5)	VC-PM323-324-SB01-0102	10/9/18 5:14	13C4-PFOS	34,877.34	12,807.34	38,422.01	
J8312-FS(3)	VC-PM323-324-SB01-0506	10/9/18 5:25	13C4-PFOS	19,343.95	12,807.34	38,422.01	
J8312-FS-D(5)	VC-PM323-324-SB01-0506	10/9/18 5:36	13C4-PFOS	26,831.50	12,807.34	38,422.01	
J8312-FS-D(7)	VC-PM323-324-SB01-0506	10/9/18 5:47	13C4-PFOS	30,671.13	12,807.34	38,422.01	
J8333-FS(3)	VC-PM324-SB02-0102	10/9/18 5:58	13C4-PFOS	33,954.46	12,807.34	38,422.01	
KB77 CCV	CCV	10/9/18 6:09	13C4-PFOS	31,259.66	12,807.34	38,422.01	
J8313-FS(3)	VC-PM323-324-SS02-000H	10/9/18 6:31	13C4-PFOS	20,547.10	12,807.34	38,422.01	
J8313-FS-D(5)	VC-PM323-324-SS02-000H	10/9/18 6:41	13C4-PFOS	34,994.75	12,807.34	38,422.01	
J8314-FS(3)	VC-PM323-324-SB02-0102	10/9/18 6:52	13C4-PFOS	21,579.89	12,807.34	38,422.01	
J8314-FS-D(5)	VC-PM323-324-SB02-0102	10/9/18 7:03	13C4-PFOS	32,823.18	12,807.34	38,422.01	
J8315-FS(3)	VC-PM323-324-SB02-0506	10/9/18 7:14	13C4-PFOS	13,360.66	12,807.34	38,422.01	
J8315-FS-D(5)	VC-PM323-324-SB02-0506	10/9/18 7:25	13C4-PFOS	26,472.02	12,807.34	38,422.01	
J8316-FS(3)	VC-PM323-324-SS03-000H	10/9/18 7:36	13C4-PFOS	20,285.34	12,807.34	38,422.01	
J8316-FS-D(5)	VC-PM323-324-SS03-000H	10/9/18 7:47	13C4-PFOS	34,435.50	12,807.34	38,422.01	
J8317-FS(3)	VC-PM323-324-SB03-0102	10/9/18 7:58	13C4-PFOS	22,006.82	12,807.34	38,422.01	
J8317-FS-D(5)	VC-PM323-324-SB03-0102	10/9/18 8:08	13C4-PFOS	33,708.26	12,807.34	38,422.01	
KB76 CCV	CCV	10/9/18 8:19	13C4-PFOS	29,847.92	12,807.34	38,422.01	
J8318-FS(3)	VC-PM323-324-SB03-0506	10/9/18 8:41	13C4-PFOS	13,206.72	12,807.34	38,422.01	
J8318-FS-D(5)	VC-PM323-324-SB03-0506	10/9/18 8:52	13C4-PFOS	26,847.28	12,807.34	38,422.01	
J8318-FS-D(7)	VC-PM323-324-SB03-0506	10/9/18 9:03	13C4-PFOS	16,881.79	12,807.34	38,422.01	
J8327-FS(3)	VC-PM323-SS02-000H	10/9/18 9:14	13C4-PFOS	37,659.73	12,807.34	38,422.01	
J8328-FS(3)	VC-PM323-SB02-0102	10/9/18 9:25	13C4-PFOS	30,377.89	12,807.34	38,422.01	
J8329-FS(3)	VC-PM323-SB02-0506	10/9/18 9:35	13C4-PFOS	33,672.68	12,807.34	38,422.01	
J8332-FS(3)	VC-PM324-SS02-000H	10/9/18 9:46	13C4-PFOS	34,599.17	12,807.34	38,422.01	
J8334-FS(3)	VC-PM324-SB02-0506	10/9/18 9:57	13C4-PFOS	33,183.56	12,807.34	38,422.01	
J8335MS-FS(3)	VC-PM324-SB02-0506-MS	10/9/18 10:08	13C4-PFOS	30,846.11	12,807.34	38,422.01	
J8336MSD-FS(3)	VC-PM324-SB02-0506-MSD	10/9/18 10:19	13C4-PFOS	33,585.27	12,807.34	38,422.01	
KB77 CCV	CCV	10/9/18 10:30	13C4-PFOS	34,888.65	12,807.34	38,422.01	

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Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 19/10/2018 4:05:24 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 4:45:19 PM	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
PFBS_1	298.9 / 80.0	1.56	51	>10
PFBS_2	298.9 / 99.0	1.55	50	>10
PFHxA_1	313.0 / 269.0	1.88	25	>10
PFHxA_2	313.0 / 119.0	1.88	24	>10
PFHpA_1	363.0 / 319.0	2.29	33	>10
PFHpA_2	363.0 / 169.0	2.29	33	>10
PFHxS_1	399.0 / 80.0	2.32	54	>10
PFHxS_2	399.0 / 99.0	2.32	54	>10
PFOA_1	413.0 / 369.0	2.71	35	>10
PFOA_2	413.0 / 169.0	2.71	36	>10
PFNA_1	463.0 / 419.0	3.11	47	>10
PFNA_2	463.0 / 219.0	3.11	47	>10
PFOS_1	499.0 / 80.0	3.11	46	>10
PFOS_2	499.0 / 99.0	3.11	45	>10
PFDA_1	513.0 / 469.0	3.47	46	>10
PFDA_2	513.0 / 219.0	3.47	37	>10
PFUnA_1	563.0 / 519.0	3.79	61	>10
PFUnA_2	563.0 / 269.0	3.79	57	>10
PFDoA_1	613.0 / 569.0	4.08	65	>10
PFDoA_2	613.0 / 319.0	4.08	71	>10
PFTrDA_1	663.0 / 619.0	4.33	82	>10
PFTrDA_2	663.0 / 169.0	4.33	75	>10
PFTeDA_1	713.0 / 669.0	4.55	97	>10
PFTeDA_2	713.0 / 169.0	4.55	65	>10
NMeFOSAA_1	570.0 / 419.0	3.62	36	>10
NMeFOSAA_2	570.0 / 512.0	3.62	35	>10
NEtFOSAA_1	584.0 / 419.0	3.79	39	>10
NEtFOSAA_2	584.0 / 483.0	3.79	25	>10

BATTELLE

Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 19/10/2018 3:32:51 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 4:45:19 PM	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
13C2-PFDoA	615.0 / 570.0	4.07	37	>10
d3-MeFOSAA	573.0 / 419.0	3.61	41	>10
d5-EtFOSAA	589.0 / 419.0	3.78	33	>10
13C5-PFHxA	318.0 / 273.0	1.87	38	>10
13C4-PFHpA	367.0 / 322.0	2.28	37	>10
13C8-PFOA	421.0 / 376.0	2.70	33	>10
13C9-PFNA	472.0 / 427.0	3.10	34	>10
13C6-PFDA	519.0 / 474.0	3.45	44	>10
13C7-PFUnA	570.0 / 525.0	3.78	40	>10
13C2-PFTeDA	715.0 / 670.0	4.54	47	>10
13C3-PFBS	302.0 / 99.0	1.54	28	>10
13C3-PFHxS	402.0 / 99.0	2.30	36	>10
13C8-PFOS	507.0 / 99.0	3.09	23	>10

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Mass Spectral Acquisition Rate Report

Created with Analyst Reporter
Printed: 23/10/2018 2:29:06 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:30:11	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
PFHxA_1	313.0 / 269.0	1.87	23	>10
PFHxA_2	313.0 / 119.0	1.86	23	>10
PFHxS_1	399.0 / 80.0	2.30	55	>10
PFHxS_2	399.0 / 99.0	2.30	44	>10
PFOS_1	499.0 / 80.0	3.08	51	>10
PFOS_2	499.0 / 99.0	3.08	48	>10
PFOA_1	413.0 / 369.0	2.68	38	>10
PFOA_2	413.0 / 369.0	2.68	38	>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

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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

Zef Scientific Inc.

12707 High Bluff Dr.
Suite 200
San Diego, CA
USA 92130

1975 Hymus Blvd.
Suite 230
Dorval, QC
Canada H9P 1J8

Phone: 1.866.854.7988

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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Suite 200
San Diego, CA
USA 92130

1975 Hymus Blvd.
Suite 230
Dorval, QC
Canada H9P 1J8

Phone: 1.866.854.7988

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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Suite 200
San Diego, CA
USA 92130

1975 Hymus Blvd.
Suite 230
Dorval, QC
Canada H9P 1J8

Phone: 1.866.854.7988

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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Suite 200
San Diego, CA
USA 92130

1975 Hymus Blvd.
Suite 230
Dorval, QC
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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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Suite 200
San Diego, CA
USA 92130

1975 Hymus Blvd.
Suite 230
Dorval, QC
Canada H9P 1J8

Phone: 1.866.854.7988

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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Suite 200
San Diego, CA
USA 92130

1975 Hymus Blvd.
Suite 230
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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^e7	0.7486	0.6 to 0.8
Q1 933.636	1000	50	7.52 e7	≥4.0^e7	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^e6	0.7492	0.6 to 0.8
Q3 933.636	1000	50	8.33 e7	≥4.0^e7	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 ^e6	0.1473	<0.35
ER 922.010	0.05	4.96 e7	≥2.8 ^e6	0.2434	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 118.087	0.05		≥2.4 ^e7		<0.65
ER 922.010	0.05		≥6.8 ^e7		<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 ^e7	0.1862	<0.35
ER 601.978	0.05	1.70 e8	≥5.6 ^e7	0.1809	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 431.982	0.05	5.72 e8	≥1.2 ^e8	0.5102	<0.65
ER 601.978	0.05	4.52 e8	≥1.6 ^e8	0.6187	<0.65

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Suite 200
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USA 92130

1975 Hymus Blvd.
Suite 230
Dorval, QC
Canada H9P 1J8

Phone: 1.866.854.7988

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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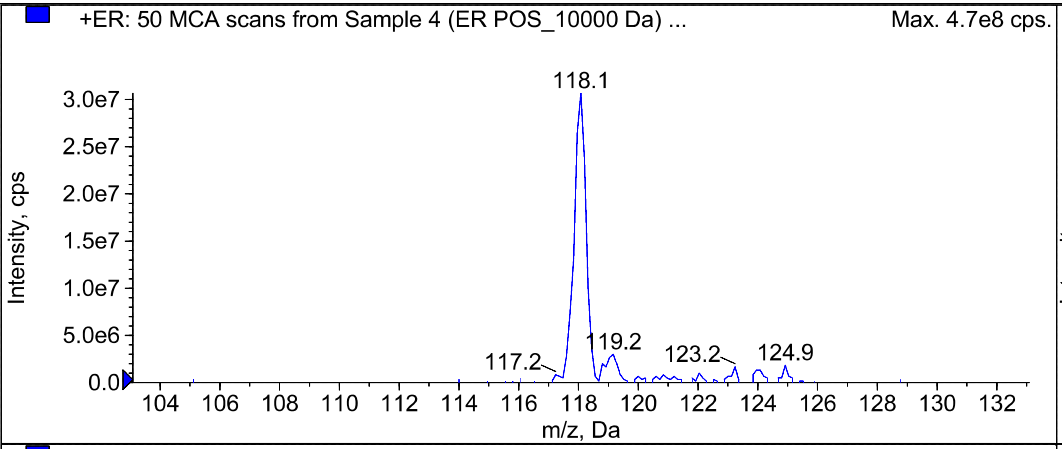

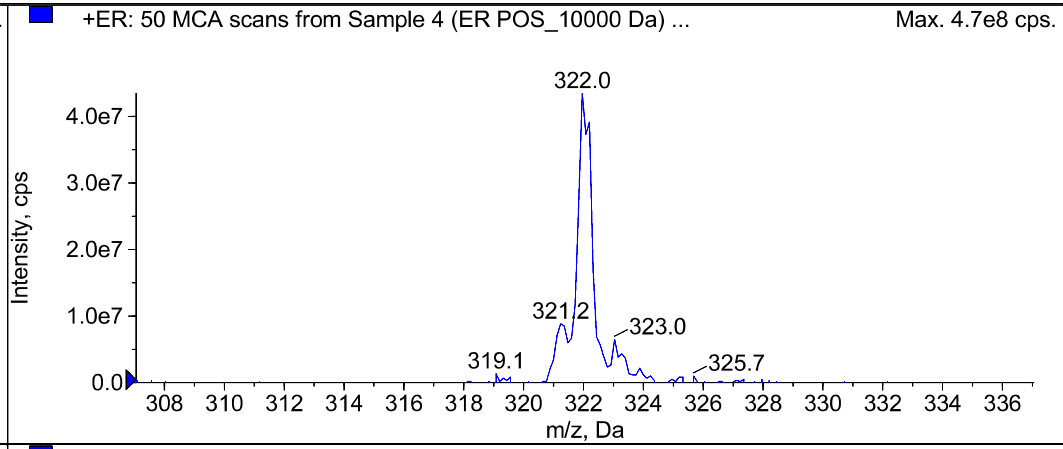

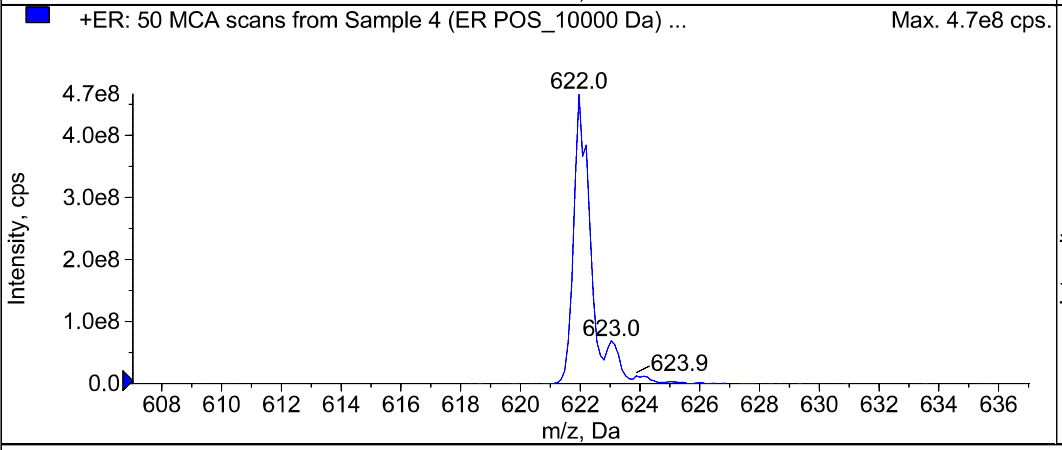

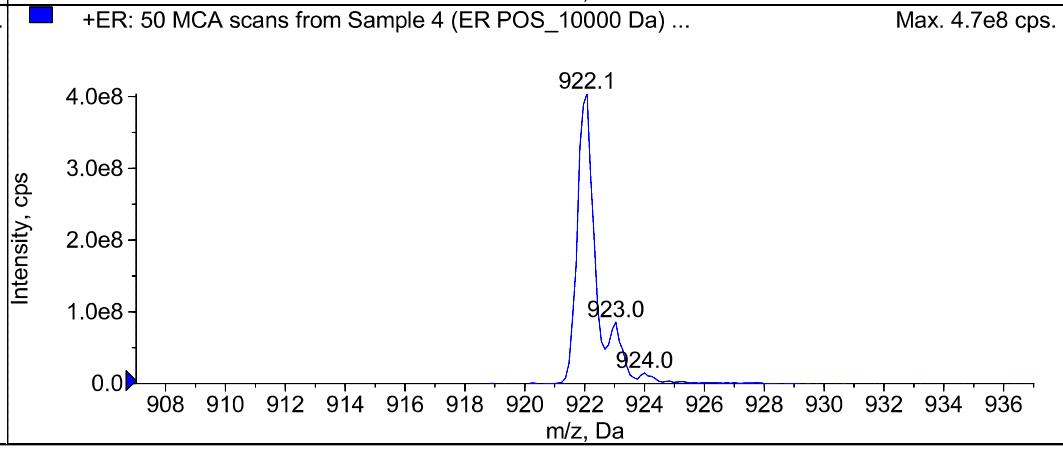

Peak List for " +ER: 50 MCA scans from Sample 4 (ER POS_10000 Da) of TRAP ER with NEW Pulse Manifold.wiff (Turbo Spray)"

	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
KA84	PFAS - DoD High Level Second Source LCS/MS Solution	-	170724-01
KB72	PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)	KB71	180726-05
KB34	PFAS - DoD Internal Standard Spiking Solution	JY25	180726-04
KC03	PFAS - DoD Internal Standard Spiking Solution	JY25	180726-04
KB73	PFAS - DoD Calibration L1	KB71	180726-05
KB73	PFAS - DoD Calibration L1	JY23	180705-02
KB73	PFAS - DoD Calibration L1	JY25	180726-04
KB74	PFAS - DoD Calibration L2	JY25	180726-04
KB74	PFAS - DoD Calibration L2	KB71	180726-05
KB74	PFAS - DoD Calibration L2	JY23	180705-02
KB75	PFAS - DoD Calibration L3	KB70	180705-02
KB75	PFAS - DoD Calibration L3	KB71	180726-05
KB75	PFAS - DoD Calibration L3	JY25	180726-04
KB76	PFAS - DoD Calibration L4	JY25	180726-04
KB76	PFAS - DoD Calibration L4	KB71	180726-05
KB76	PFAS - DoD Calibration L4	KB70	180705-02
KB77	PFAS - DoD Calibration L5	KB70	180705-02
KB77	PFAS - DoD Calibration L5	KB71	180726-05
KB77	PFAS - DoD Calibration L5	JY25	180726-04
KB78	PFAS - DoD Calibraiton L6	JY25	180726-04
KB78	PFAS - DoD Calibraiton L6	KB70	180705-02
KB78	PFAS - DoD Calibraiton L6	KB71	180726-05
KB79	PFAS - DoD Calibration L7	KB71	180726-05
KB79	PFAS - DoD Calibration L7	KB70	180705-02
KB79	PFAS - DoD Calibration L7	JY25	180726-04
KB80	PFAS - DoD Instrument Blank	JY25	180726-04
KB80	PFAS - DoD Instrument Blank	KB71	180726-05
KB81	PFAS - DoD ICC	KB82	170724-01
KB81	PFAS - DoD ICC	KB71	180726-05
KB81	PFAS - DoD ICC	JY25	180726-04
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-02
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-03
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-04
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-06
KB89	PFAS Branched Solution (~5,000 ng/L)	JX28	180618-07

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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

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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: **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: **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: **KB70**

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 - ICAL Mix	Neat	~1.000000	06/19/23	---	---	1000 uL	1	20	~0.0500

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

Balance ID:

Comment: 96/4 Methanol/milli-q water

Approved By: Thorn, Jonathan **Date:** 10/12/2018 8:03:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB70

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	1000	1.01	1	100.000	1	20	0.05050
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	1.01	1	100.000	1	20	0.05050
(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	1.01	1	100.000	1	20	0.05050
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	.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:** 10/1/2018 **Expiration Date:** 10/1/2019

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

Comment: 96/4 Methanol/milli-q water

Approved By: Thorn, Jonathan **Date:** 10/12/2018 8:03:00 AM

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB70**

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:** 10/1/2018 **Expiration Date:** 10/1/2019

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

Comment: 96/4 Methanol/milli-q water

Approved By: Thorn, Jonathan **Date:** 10/12/2018 8:03:00 AM

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB71**

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

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

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

Balance ID: _____

Comment: 96/4 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB71

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

Stock Id: 180726-05

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

Final Concentrations:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 10/1/2019

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

Comment: 96/4 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB71

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

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

Syringes/Pipettes:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 10/1/2019

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

Comment: 96/4 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB72**

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

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

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

Balance ID:

Comment: 96/4 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB72

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

Stock Id: KB71

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

Final Concentrations:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 10/1/2019

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

Comment: 96/4 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB72

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

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

Syringes/Pipettes:

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

Comment: 96/4 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB73**

Description: PFAS - DoD Calibration L1

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

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

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB73

Description: PFAS - DoD Calibration L1

Stock Id: JY23

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	200	0.01	---	---	1	10	0.00010
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	200	0.01	---	---	1	10	0.00010
(Na) 1H,1H,2H,2H-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: KB71

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB73**

Description: PFAS - DoD Calibration L1

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-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:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB73**

Description: PFAS - DoD Calibration L1

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

Syringes/Pipettes:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB74**

Description: PFAS - DoD Calibration L2

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

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

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB74

Description: PFAS - DoD Calibration L2

Stock Id: JY23

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	500	0.01	---	---	1	10	0.00025
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	500	0.01	---	---	1	10	0.00025
(Na) 1H,1H,2H,2H-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: KB71

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB74**

Description: PFAS - DoD Calibration L2

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-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:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB74**

Description: PFAS - DoD Calibration L2

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

Syringes/Pipettes:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB75**

Description: PFAS - DoD Calibration L3

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

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

Balance ID:

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB75

Description: PFAS - DoD Calibration L3

Stock Id: JY25

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

Stock Id: KB70

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

Stock Id: KB71

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB75**

Description: PFAS - DoD Calibration L3

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-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	.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:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB75**

Description: PFAS - DoD Calibration L3

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

Syringes/Pipettes:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB76**

Description: PFAS - DoD Calibration L4

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

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

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB76

Description: PFAS - DoD Calibration L4

Stock Id: JY25

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

Stock Id: KB70

Chemical Name	Stock Amount 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	50	0.00101
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	0.05	---	---	1	50	0.00101
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	0.05	---	---	1	50	0.00100
(Na) Perfluoro-1-decanesulfonate	1000	0.05	---	---	1	50	0.00101
(NA) Perfluoro-1-heptanesulfonate	1000	0.05	---	---	1	50	0.00100
(Na) Perfluoro-1-nonanesulfonate	1000	0.05	---	---	1	50	0.00101
N-ethylperfluoro-octanesulfonamidoacetic acid	1000	0.05	---	---	1	50	0.00100
N-methylperfluoro-1-octanesulfonamidoacetic acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-1-butanesulfonate	1000	0.05	---	---	1	50	0.00101
Perfluoro-1-hexanesulfonate	1000	0.05	---	---	1	50	0.00101
Perfluoro-1-octanesulfonamide	1000	0.05	---	---	1	50	0.00100
Perfluoro-1-octanesulfonate	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-butanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-decanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-dodecanoic acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-heptanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-hexanoic acid	1000	0.05	---	---	1	50	0.00101
Perfluoro-n-octanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluorononanoic Acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-pentanoic acid	1000	0.05	---	---	1	50	0.00101
Perfluoro-n-tetradecanoic acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-tridecanoic acid	1000	0.05	---	---	1	50	0.00100
Perfluoro-n-undecanoic acid	1000	0.05	---	---	1	50	0.00100
Sodium perfluoro-1-pentanesulfonate	1000	0.05	---	---	1	50	0.00100

Stock Id: KB71

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB76**

Description: PFAS - DoD Calibration L4

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

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00101
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00101
(Na) 1H,1H,2H,2H-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:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB76

Description: PFAS - DoD Calibration L4

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

Syringes/Pipettes:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB77**

Description: PFAS - DoD Calibration L5

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

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

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB77

Description: PFAS - DoD Calibration L5

Stock Id: JY25

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

Stock Id: KB70

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

Stock Id: KB71

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB77

Description: PFAS - DoD Calibration L5

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

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00253
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00253
(Na) 1H,1H,2H,2H-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:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB77**

Description: PFAS - DoD Calibration L5

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

Syringes/Pipettes:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB78**

Description: PFAS - DoD Calibraiton L6

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

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

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB78

Description: PFAS - DoD Calibraiton L6

Stock Id: JY25

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

Stock Id: KB70

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

Stock Id: KB71

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB78**

Description: PFAS - DoD Calibraiton L6

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-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	.01010
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.01010
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	.01000
(Na) Perfluoro-1-decanesulfonate	.01010
(NA) Perfluoro-1-heptanesulfonate	.01000
(Na) Perfluoro-1-nonanesulfonate	.01010
13C2-4:2FTS	.00023
13C2-6:2FTS	.00024
13C2-8:2FTS	.00024
13C2-PFDA	.00025
13C2-PFDoA	.00025
13C2-PFOA	.00025
13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-PFHpA	.00025

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB78**

Description: PFAS - DoD Calibraiton L6

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

Syringes/Pipettes:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB79**

Description: PFAS - DoD Calibration L7

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

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

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB79

Description: PFAS - DoD Calibration L7

Stock Id: JY25

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

Stock Id: KB70

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

Stock Id: KB71

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB79**

Description: PFAS - DoD Calibration L7

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

Final Concentrations:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB79**

Description: PFAS - DoD Calibration L7

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

Syringes/Pipettes:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB80**

Description: PFAS - DoD Instrument Blank

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

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

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB80

Description: PFAS - DoD Instrument Blank

Stock Id: JY25

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

Stock Id: KB71

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

Final Concentrations:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB80**

Description: PFAS - DoD Instrument Blank

13C2-PFTeDA	.00025
13C3-PFBA	.00025
13C3-PFBS	.00023
13C3-PFHxS	.00024
13C4-PFBA	.00025
13C4-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
KB71	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB81**

Description: PFAS - DoD ICC

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

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

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB81

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: KB71

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

Stock Id: KB82

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

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB81**

Description: PFAS - DoD ICC

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

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.00101
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.00100
(Na) 1H,1H,2H,2H-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:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB81**

Description: PFAS - DoD ICC

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

Syringes/Pipettes:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 7/16/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB82**

Description: PFAS - DoD Second Source LCS/MS Solution

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
170724-01	PFOA - 2nd Source	Neat	~1.000000	03/22/22	---	---	1000 uL	1	20	~0.0500

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

Balance ID:

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB82

Description: PFAS - DoD Second Source LCS/MS Solution

Stock Id: 170724-01

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	1000	1.01	1	100.000	1	20	0.05050
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-decanesulfonate	1000	1.01	1	100.000	1	20	0.05050
(NA) Perfluoro-1-heptanesulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-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:** 10/1/2018 **Expiration Date:** 10/1/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KB82

Description: PFAS - DoD Second Source LCS/MS Solution

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

Syringes/Pipettes:

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

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/1/2018 **Expiration Date:** 10/1/2019

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

Comment: 80/20 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: **KB89**

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

Stock Id: **JX28**

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

Final Concentrations:

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

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JX28	Pipette	B814659662

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/3/2018 **Expiration Date:** 6/18/2019

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

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KB89**

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

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

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

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

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

BATTELLE
It can be done

Standard Solution Prep Form II

Approved: ☑

Standard Laboratory ID Number: **KC03**

Description: PFAS - DoD Internal Standard Spiking Solution

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

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

Balance ID: _____

Comment: 96/4 Methanol/Milli-q water

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

BATTELLE
It can be done

Standard Solution Concentrations

Approved: ☑

Standard Laboratory ID Number: KC03

Description: PFAS - DoD Internal Standard Spiking Solution

Stock Id: JY25

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

Final Concentrations:

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

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	OU16914

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/9/2018 **Expiration Date:** 7/16/2019

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

Comment: 96/4 Methanol/Milli-q water

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

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

170204-01

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

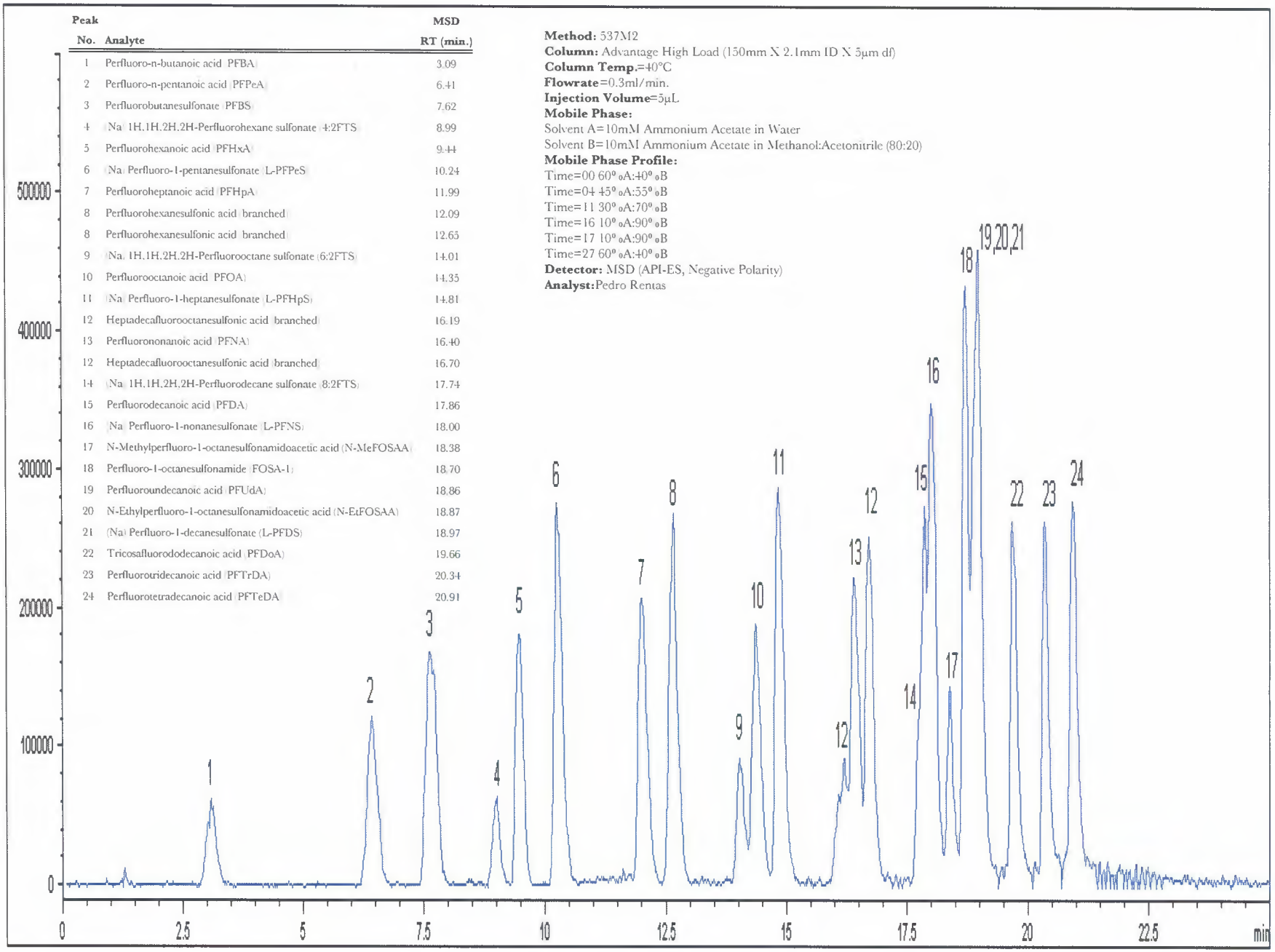
Note: All assigned values are anion concentrations.

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)	12.65
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

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HANDLING:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

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

CALA Testing Accreditation No. A1226

ANAB ACCREDITED 17034 REFERENCE MATERIAL PRODUCER

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

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

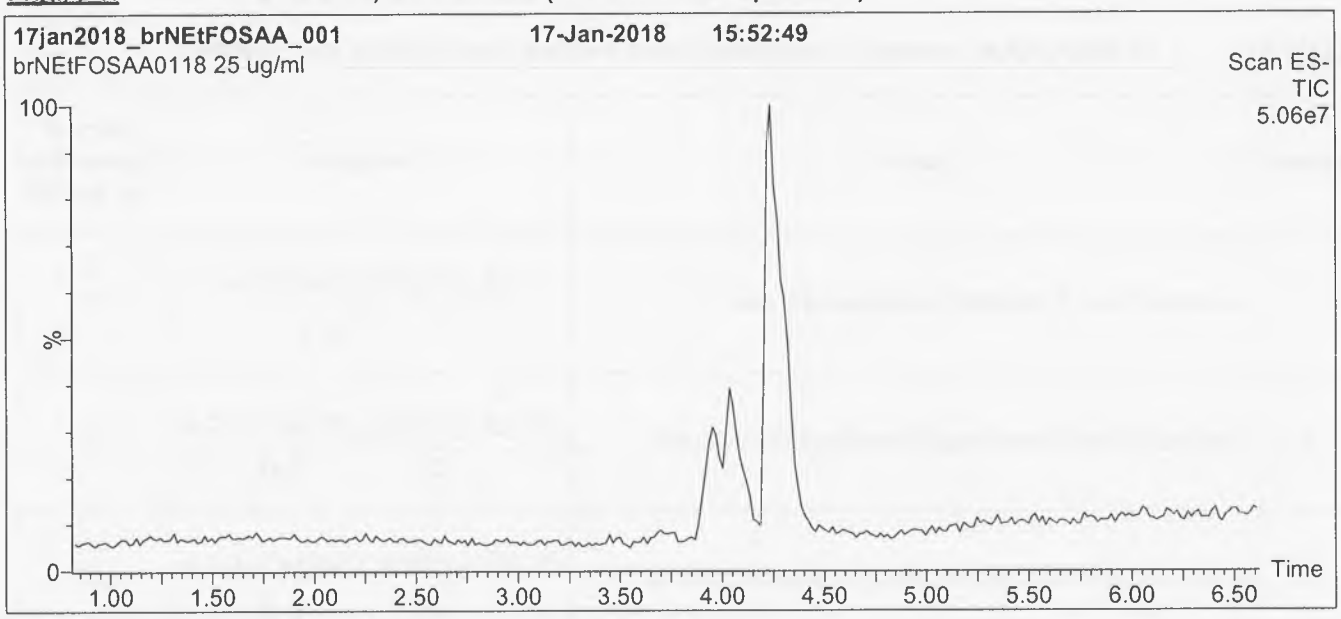
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	N-ethylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2N(C_2H_5)CH_2CO_2H$	77.5
2	N-ethylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3CF(CF_3)(CF_2)_2SO_2N(C_2H_5)CH_2CO_2H$	2.3
3	N-ethylperfluoro-4-methylheptanesulfonamidoacetic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

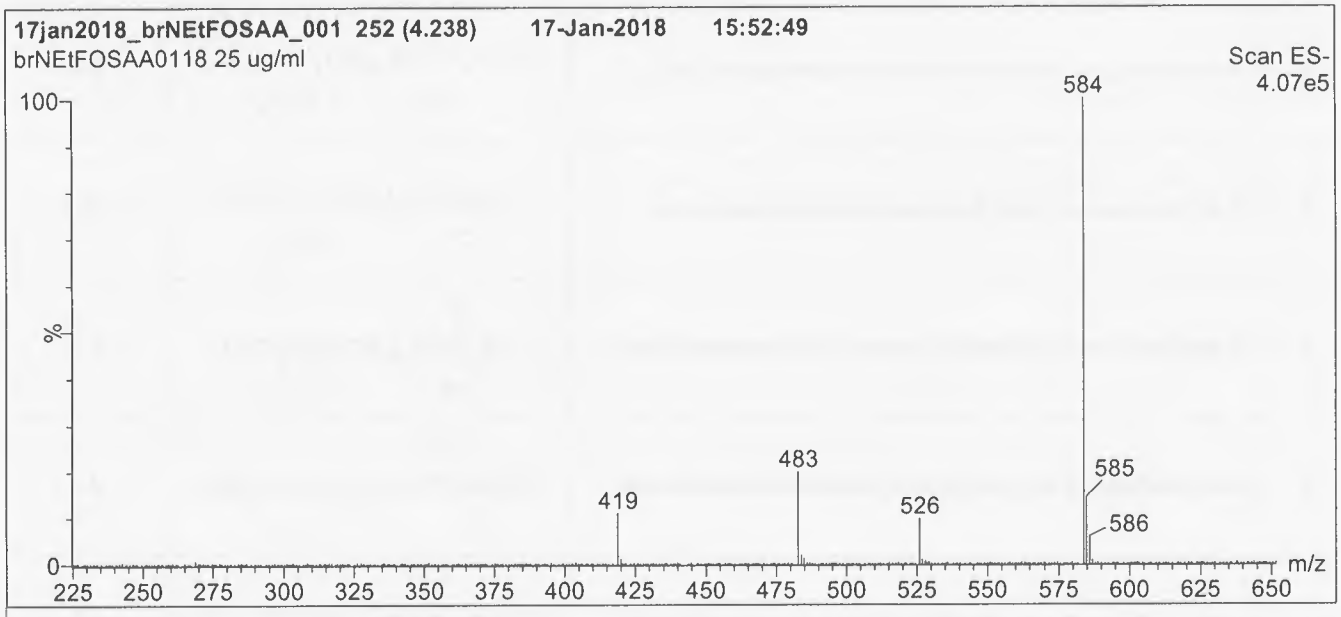
* Percent of total N-ethylperfluorooctanesulfonamidoacetic acid isomers only.

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

B.G. Chittim, General Manager

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





Conditions for Figure 1:

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

Chromatographic Conditions

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

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

Time: 10 min

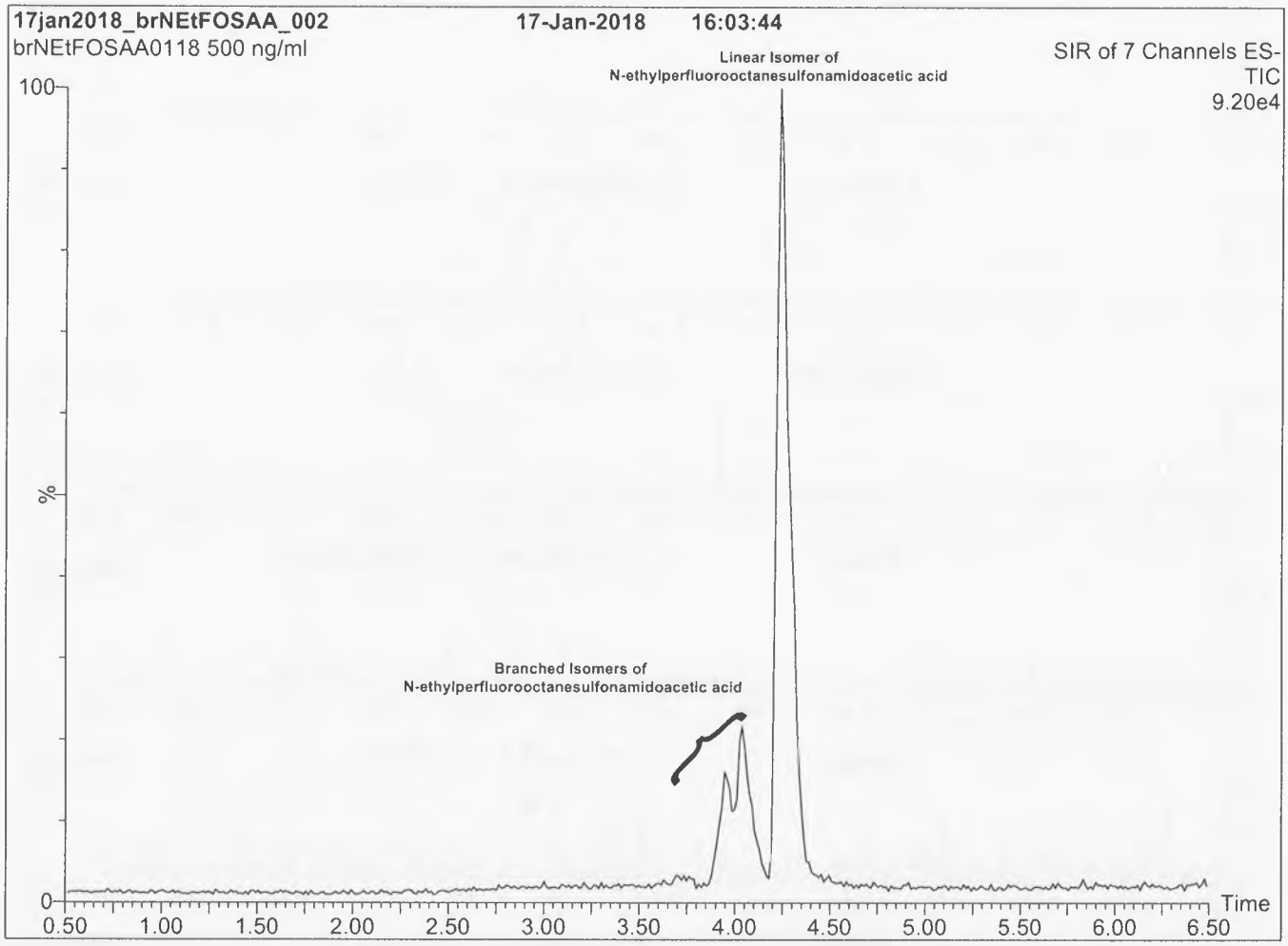
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

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

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



Conditions for Figure 2:

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

Chromatographic Conditions

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

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

Time: 10 min

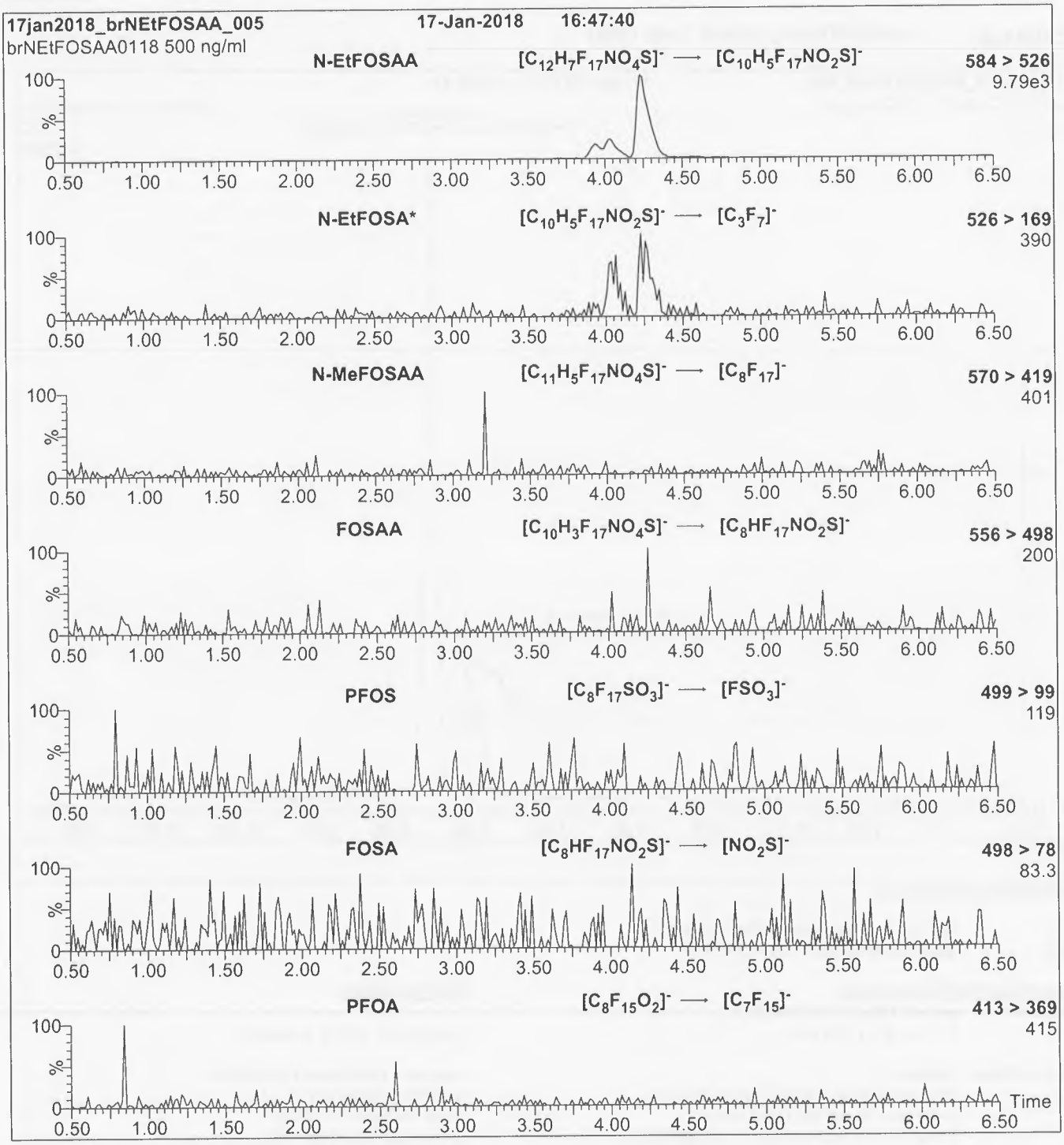
Flow: 300 µl/min

MS Parameters

Experiment: SIR (7 channels)

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

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



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

Conditions for Figure 3:

Injection: On-column

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

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

BATTELLE

It can be done

BDO Id: 180618-03

Reagent Receipt Report

Approved: ☐ Authorized ☐

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

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

Notes:

Approved by: _____ Approved on: _____

Authorized by: _____ Authorized on: _____

180618-03

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-NMeFOSAA

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

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

DESCRIPTION:

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

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

INTENDED USE:

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

HANDLING:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

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

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO17034 REFERENCE MATERIAL PRODUCER

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

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

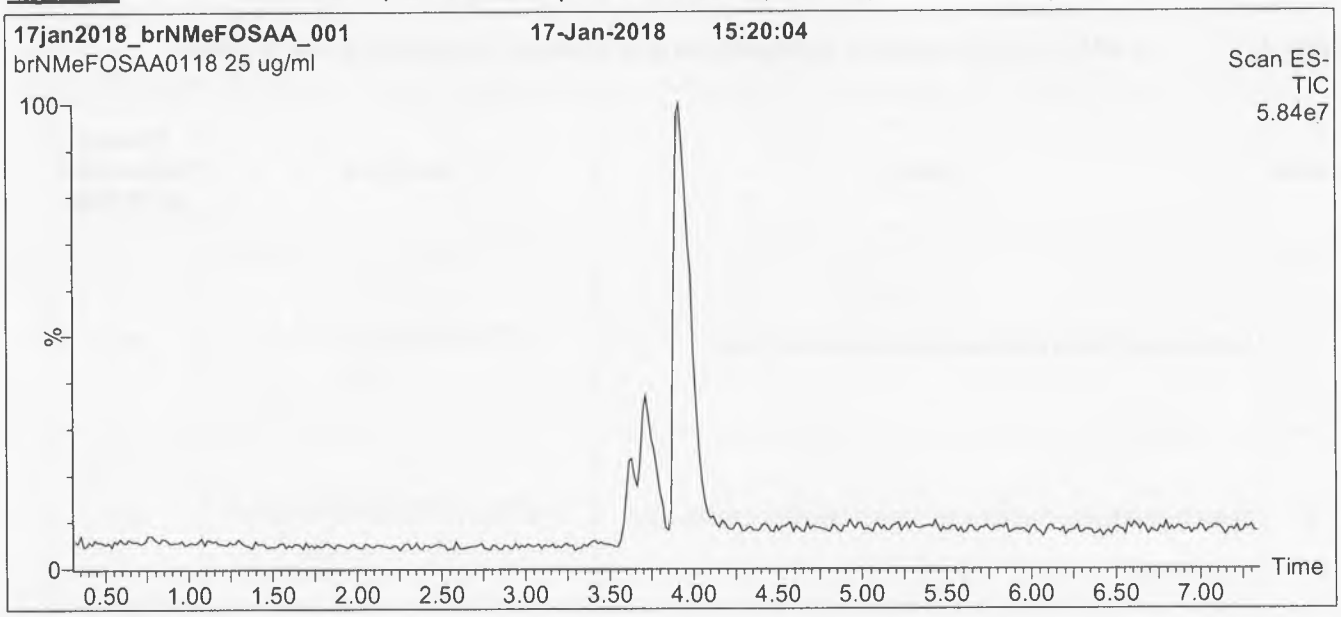
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	N-methylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2N(CH_3)CH_2CO_2H$	76.0
2	N-methylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3CF(CF_3)(CF_2)_2SO_2N(CH_3)CH_2CO_2H$	0.7
3	N-methylperfluoro-4-methylheptanesulfonamidoacetic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

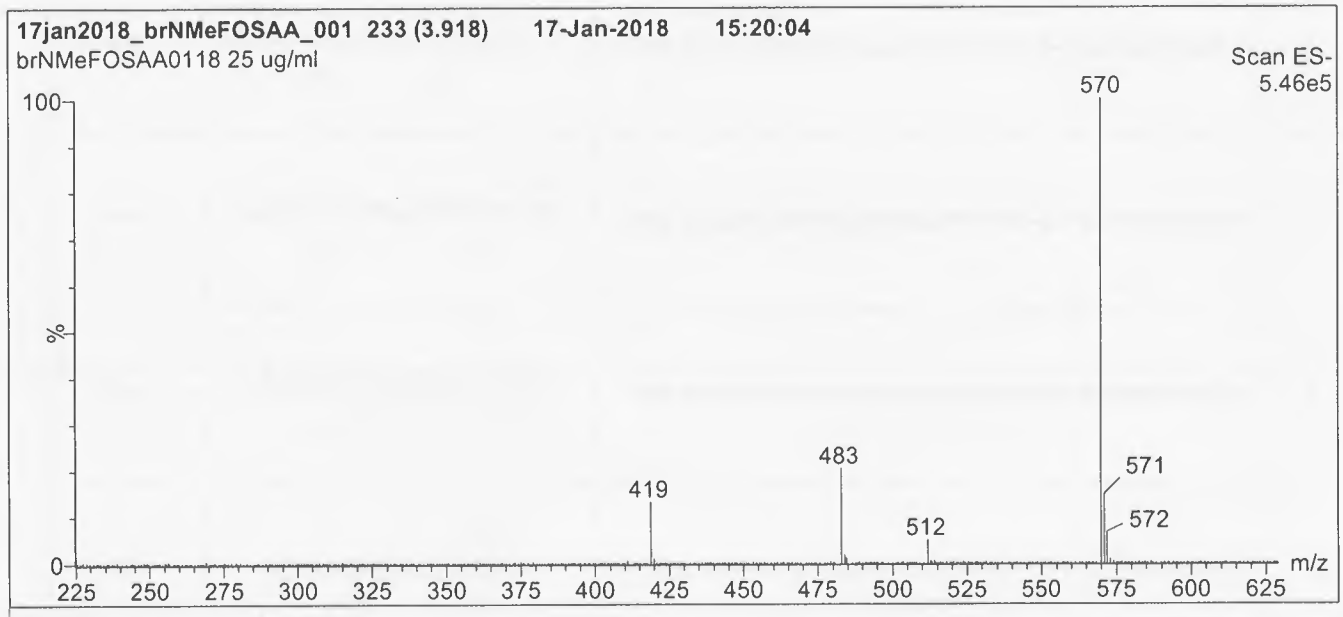
* Percent of total N-methylperfluorooctanesulfonamidoacetic acid isomers only.

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

B.G. Chittim, General Manager

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





Conditions for Figure 1:

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

Chromatographic Conditions

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

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

Time: 10 min

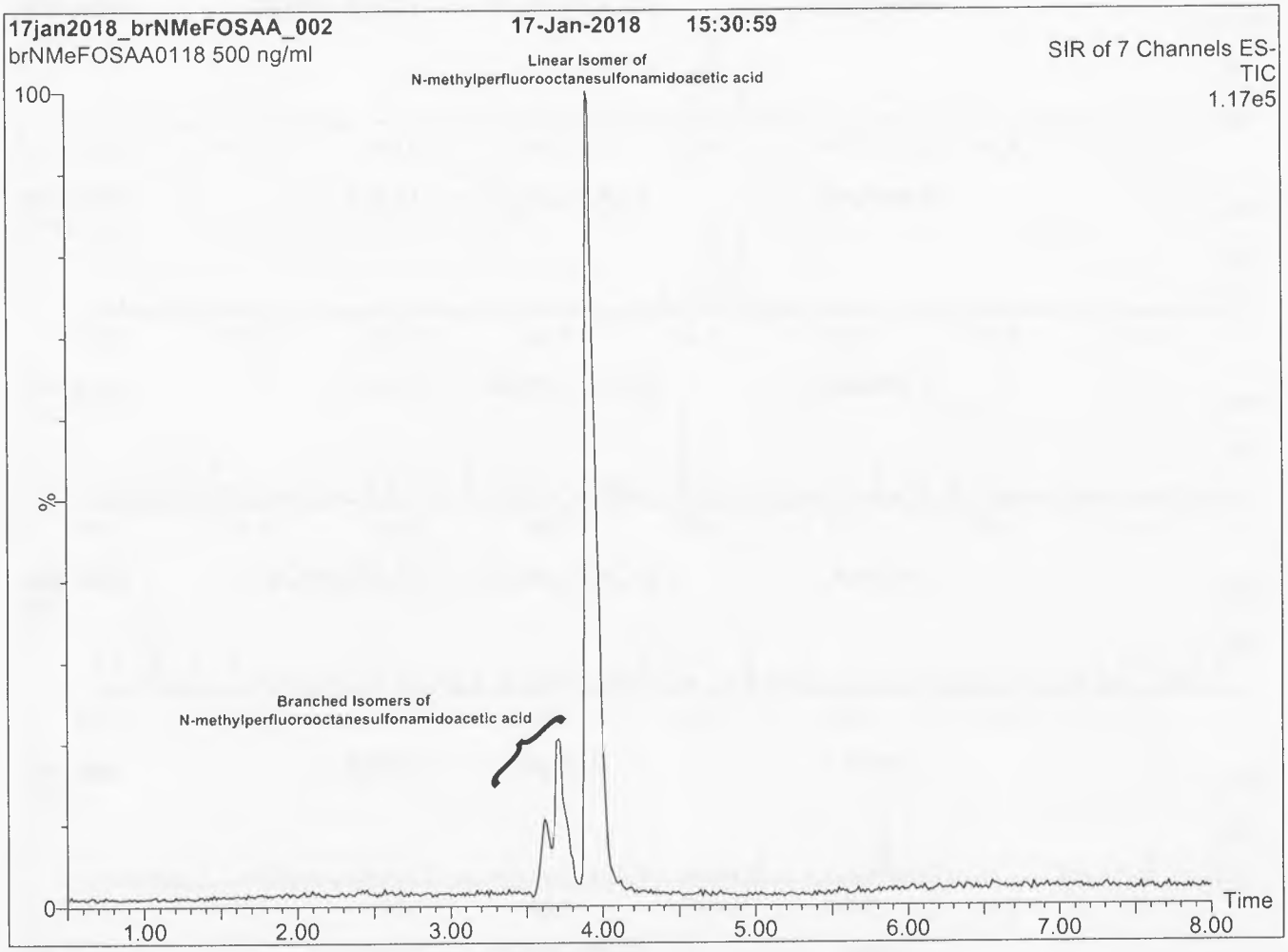
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

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

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



Conditions for Figure 2:

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

Chromatographic Conditions

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

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

Time: 10 min

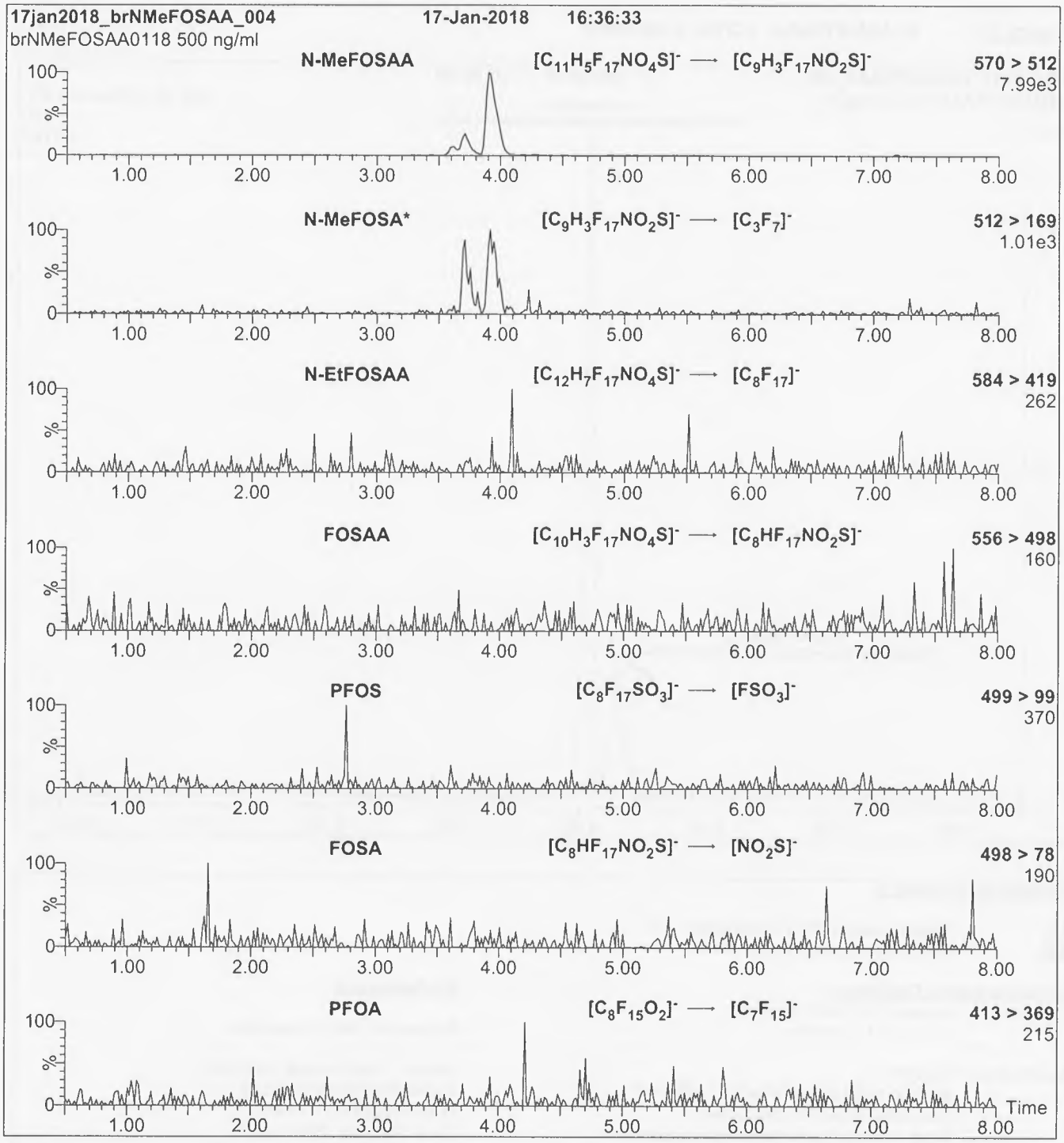
Flow: 300 µl/min

MS Parameters

Experiment: SIR (7 channels)

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

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



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

Conditions for Figure 3:

Injection: On-column

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

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

BATTELLE

It can be done

BDO Id: 180618-04

Reagent Receipt Report

Approved: ☐ Authorized ☐

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

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

Notes:

Approved by: _____ Approved on: _____

Authorized by: _____ Authorized on: _____

180618-04

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	T-PFOA	**LOT NUMBER:**	TPFOA0217
COMPOUND:	Technical Ammonium Perfluorooctanoate		
STRUCTURE:	(see Table A)	**CAS #:**	95328-99-7 (for linear ammonium perfluorooctanoate)

MOLECULAR FORMULA:	$C_8F_{15}O_2NH_4$
CONCENTRATION:	50 ± 2.5 µg/ml (gravimetric)
CHEMICAL PURITY:	Technical material
SOLVENT(S):	Methanol/Water (<1%)
LAST TESTED: (mm/dd/yyyy)	02/16/2017
EXPIRY DATE: (mm/dd/yyyy)	02/16/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 02/22/2017 (mm/dd/yyyy)

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

INTENDED USE:

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

HAZARDS:

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

CHARACTERIZATION / HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

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

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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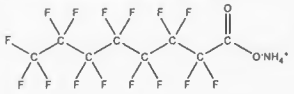
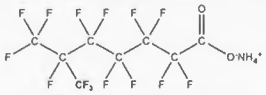
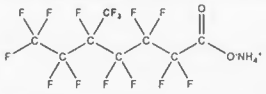
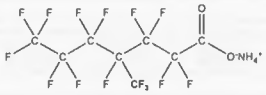
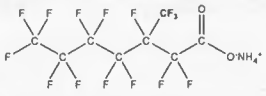
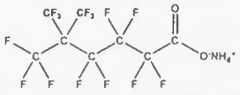
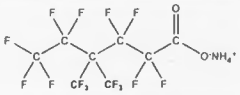
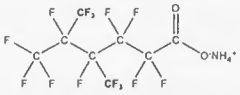
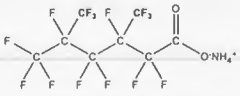
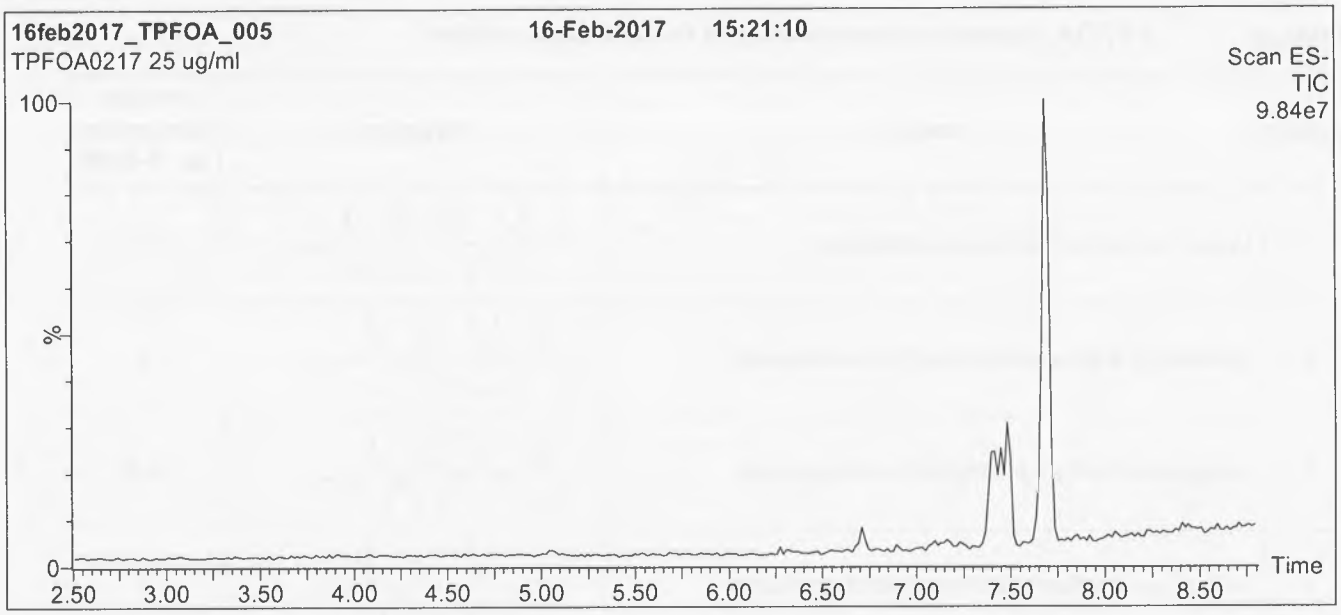
Table A: **T-PFOA; Isomeric Components and Percent Composition***

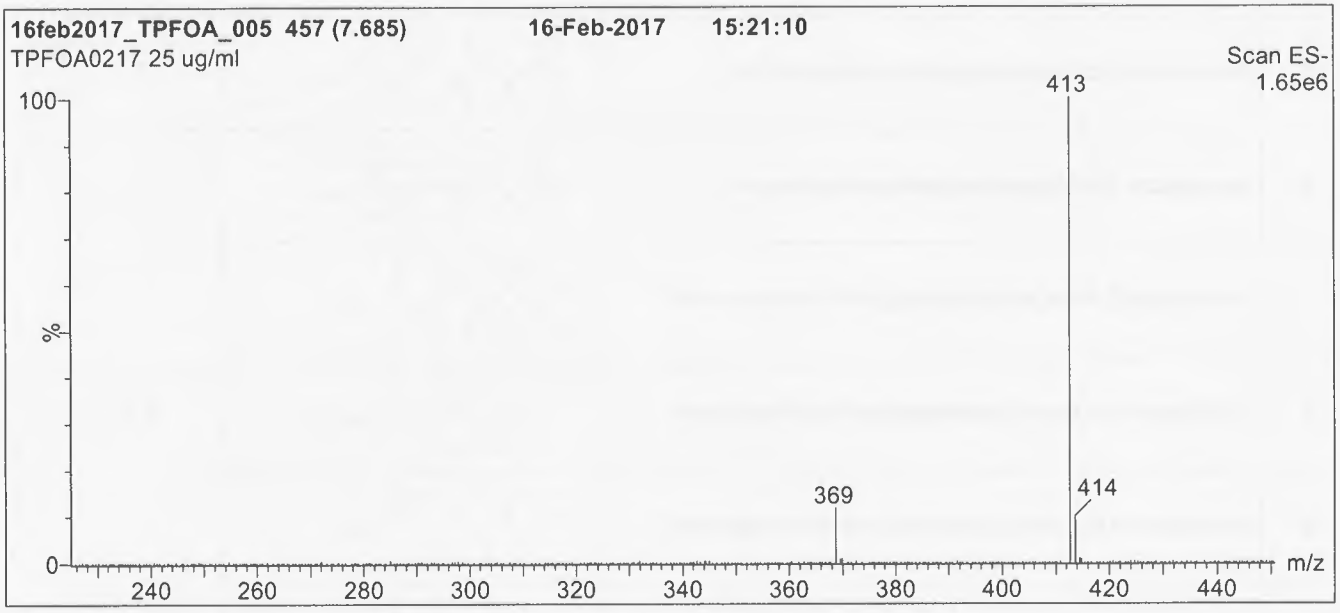
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Linear ammonium perfluoro-n-octanoate		79
2	Ammonium 6-trifluoromethylperfluoroheptanoate		9
3	Ammonium 5-trifluoromethylperfluoroheptanoate		4.5
4	Ammonium 4-trifluoromethylperfluoroheptanoate		4
5	Ammonium 3-trifluoromethylperfluoroheptanoate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

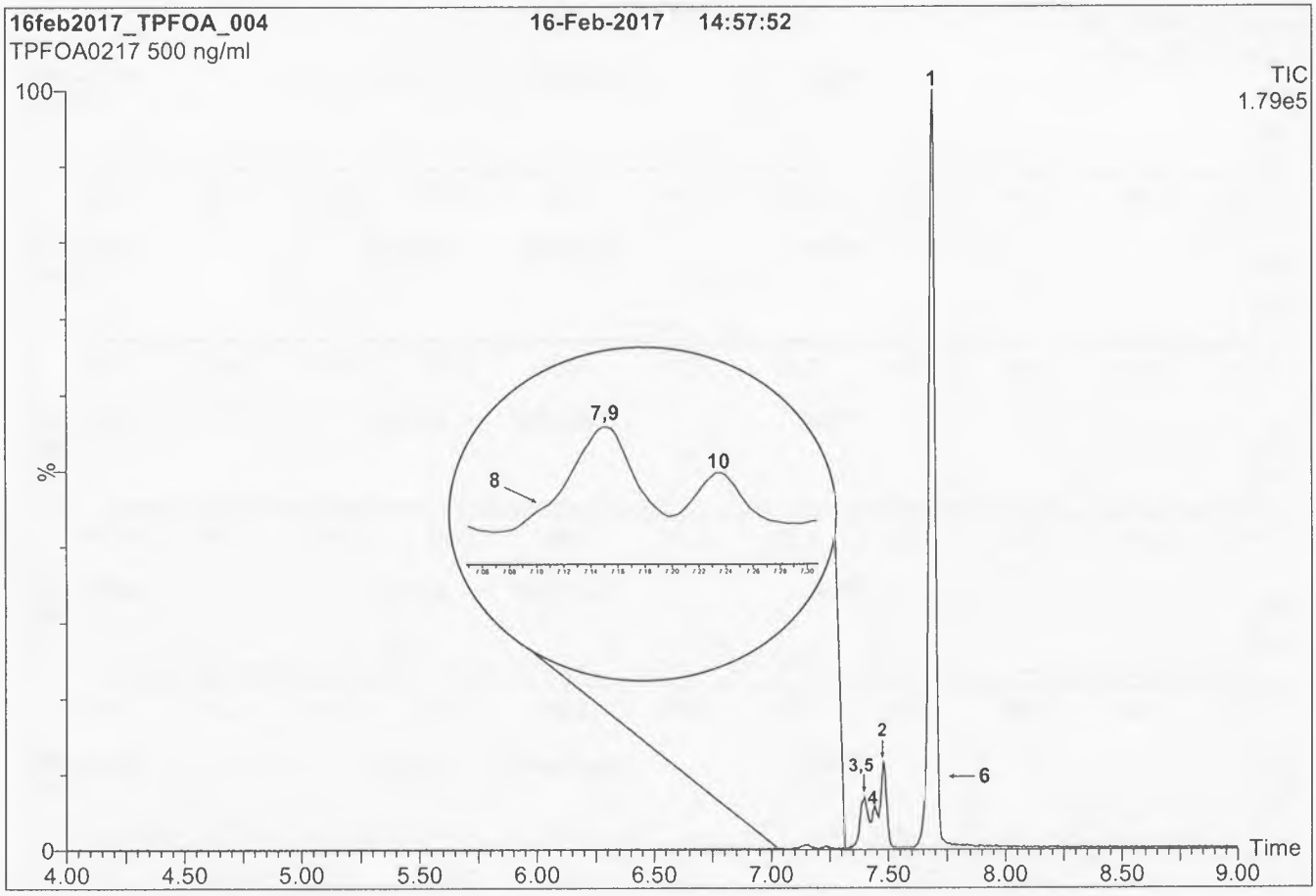
Flow: 1.0 ml/min

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

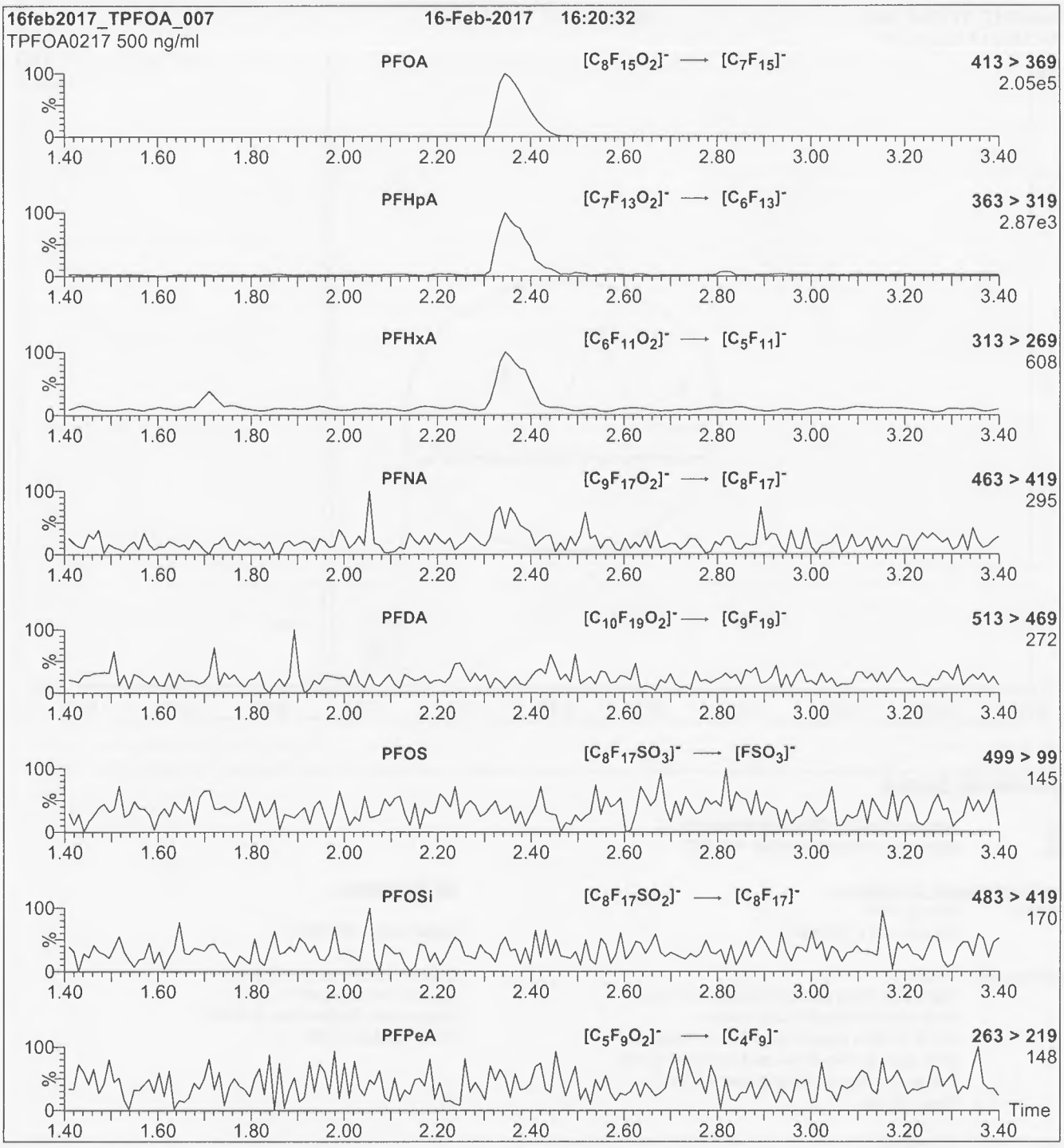
Flow: 1.0 ml/min

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)

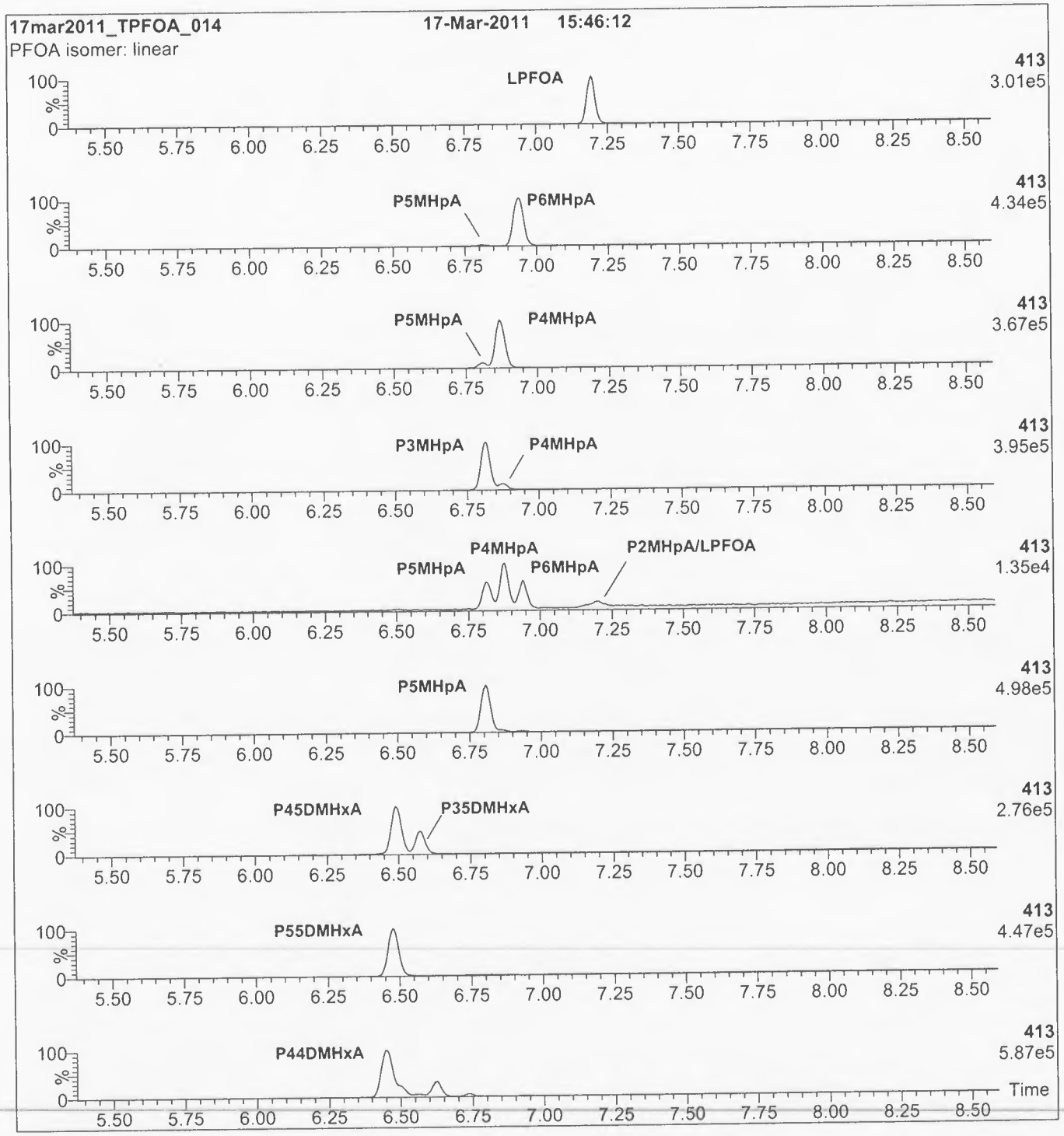
Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

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 ISO 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

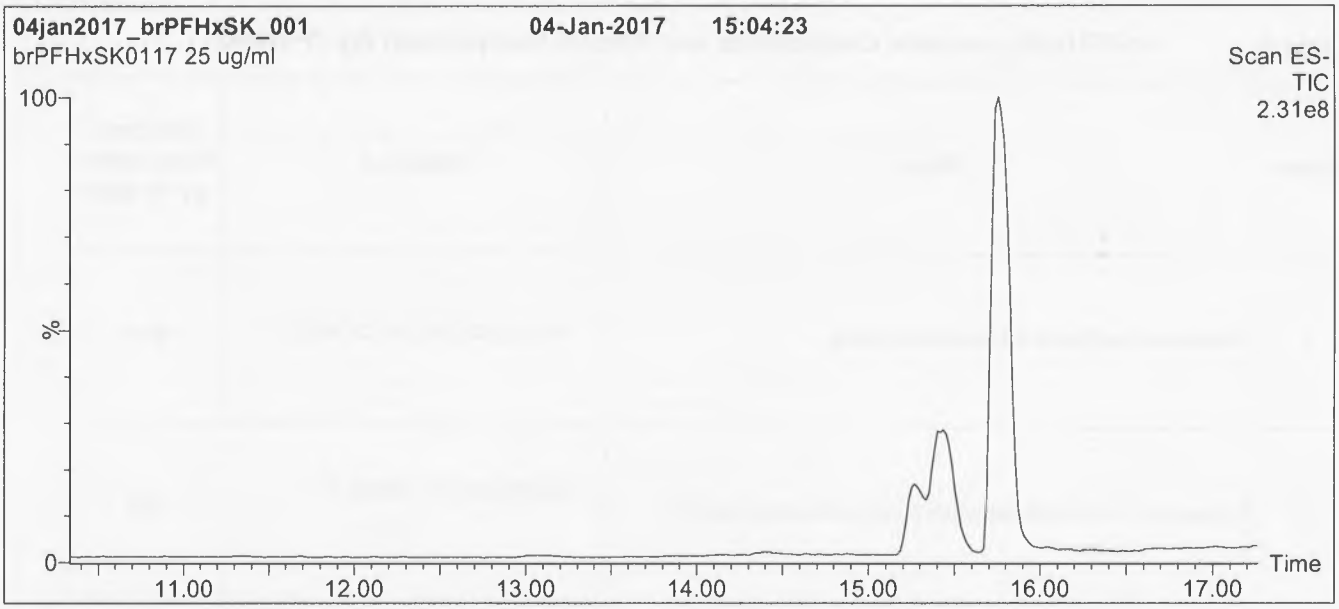
Table A: **br-PFHxSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

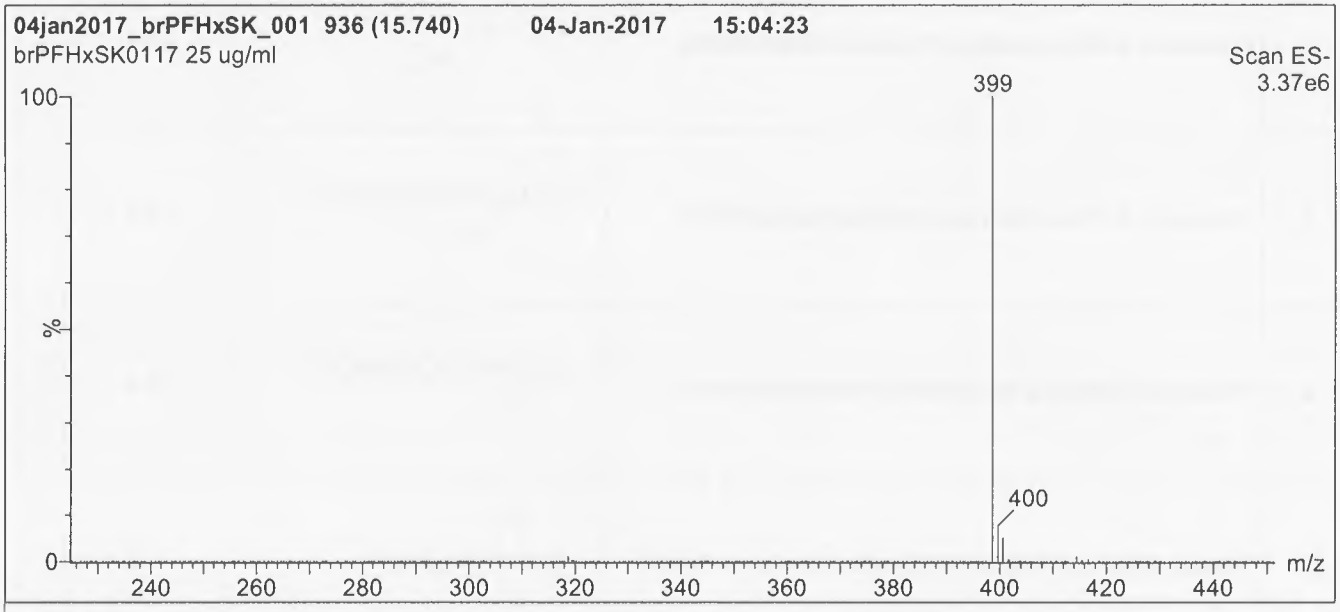
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	1.4
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	5.0
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	8.9
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$CF_3C(CF_3)_2CF_2CF_2SO_3^-K^+$	0.2
7	Other Unidentified Isomers		0.5

* Percent of total perfluorohexanesulfonate isomers only.
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

Certified By: B.G. Chittim **Date:** 01/20/2017 (mm/dd/yyyy)

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





Conditions for Figure 1:

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

Chromatographic Conditions

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

Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to 90% organic over 3 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 20 min

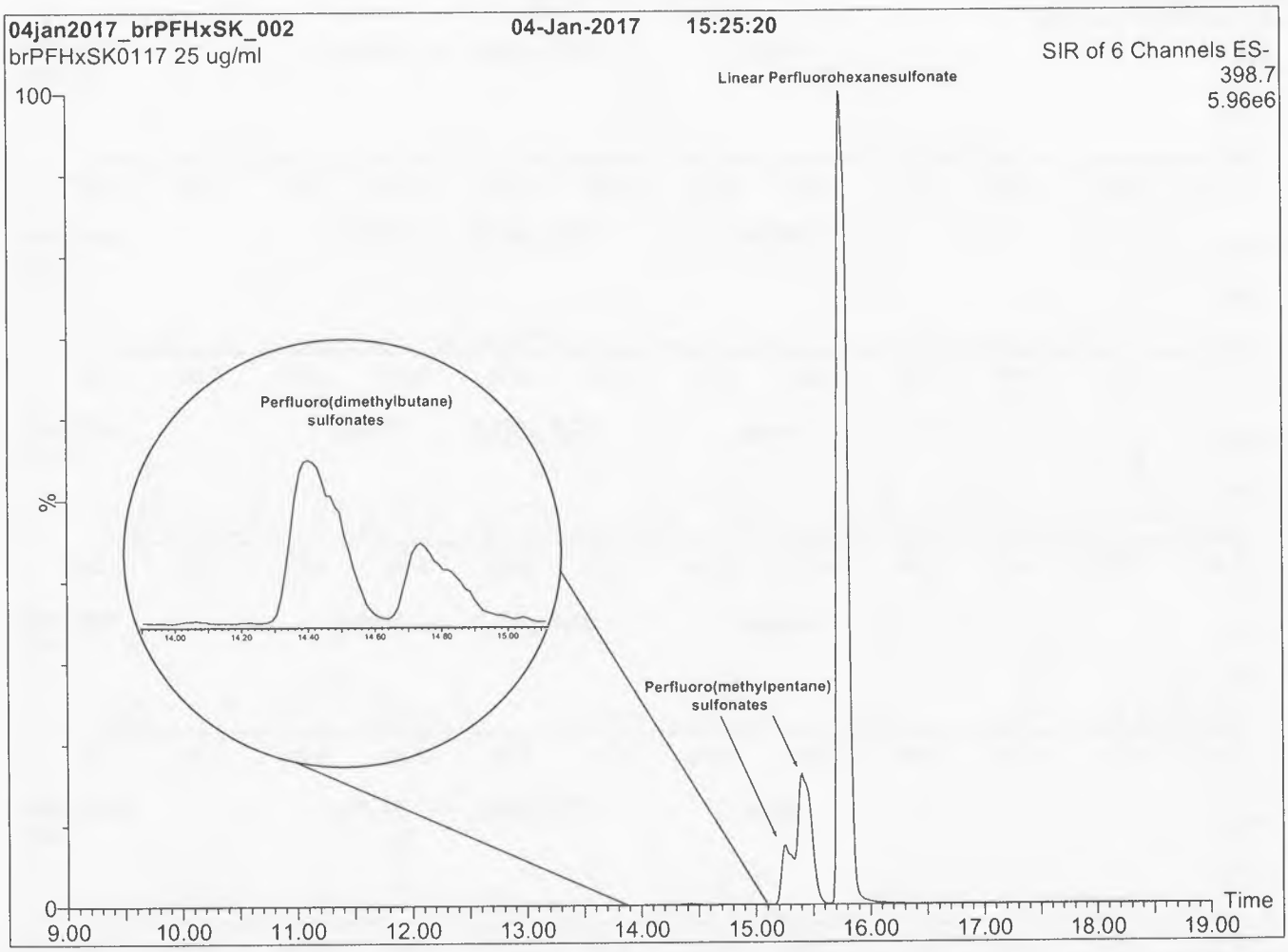
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **br-PFHxSK; LC/MS Data (SIR)**



Conditions for Figure 2:

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

Chromatographic Conditions

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

Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to 90% organic over 3 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 20 min

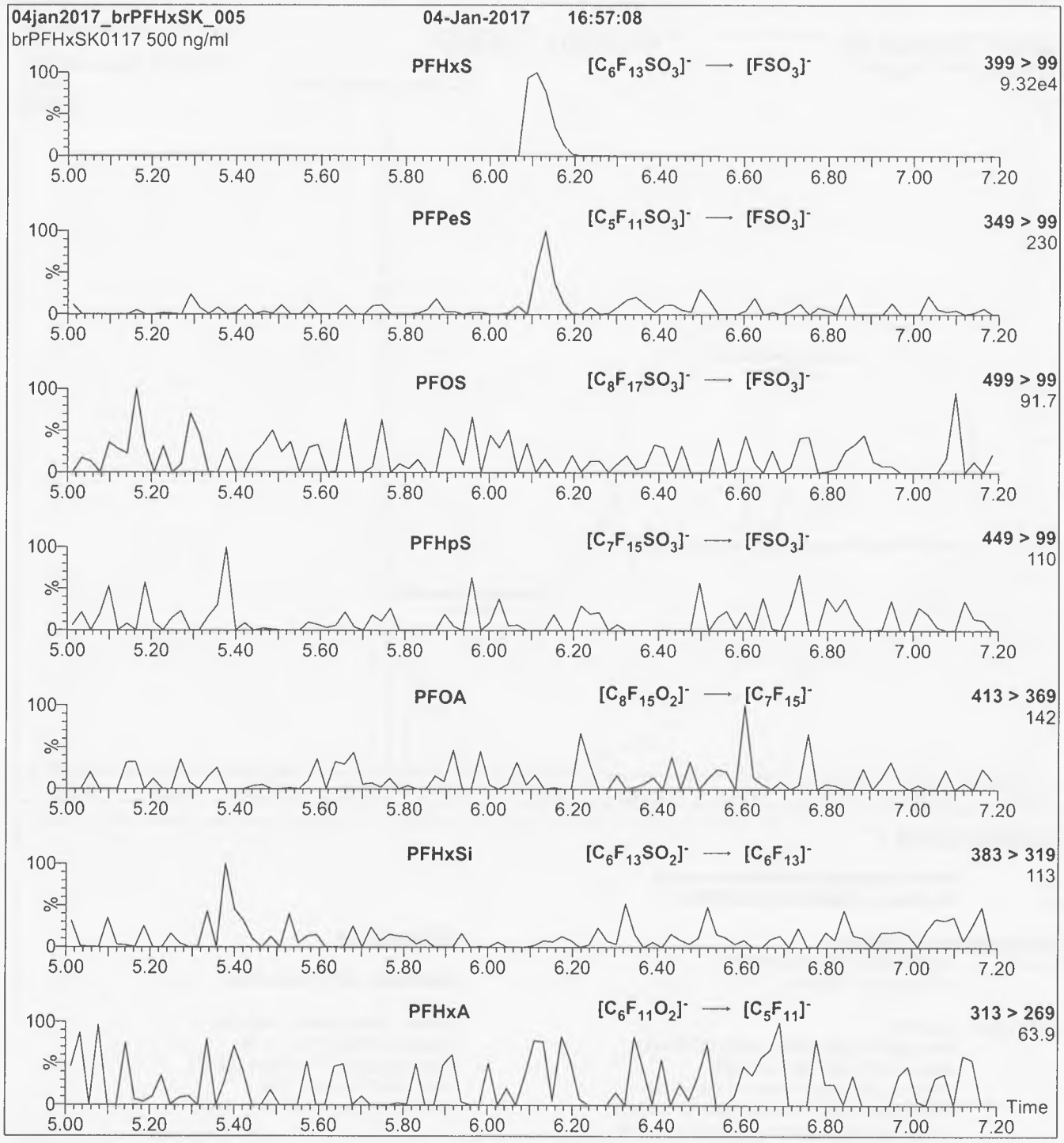
Flow: 300 µl/min

MS Parameters

Experiment: SIR (6 channels)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = variable (15-62)
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 3:

Injection: Direct loop injection
10 µl (500 ng/ml br-PFHxSK)

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

Flow: 300 µl/min

MS Parameters

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

BATTELLE

It can be done

BDO Id: 180618-07

Reagent Receipt Report

Approved: ☐ Authorized ☐

Name:	Branched PFOS Standard (50 µg/mL	**Received:**	6/18/2018
Vendor:	Wellington Laboratories	**Custodian:**	Thorn, Jonathan
Catalogue No:	br-PFOSK	**Expires:**	1/12/2022
Type:	Solution	**Consumed:**	
Lot No:	brPFOSK0117	**Stored In:**	Sample Preparation - C0103
Quantity:	1 ea mL **% Moisture:** 0		
Description:	Branched PFOS Standard (50 µg/mL)		

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

Notes:

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

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

180618-07

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK0117
CONCENTRATION:	50 ± 2.5 µg/ml (total potassium salt)
	46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	01/09/2017
LAST TESTED: (mm/dd/yyyy)	01/12/2017
EXPIRY DATE: (mm/dd/yyyy)	01/12/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

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

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer; potassium salt).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

INTENDED USE:

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

HAZARDS:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

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

CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

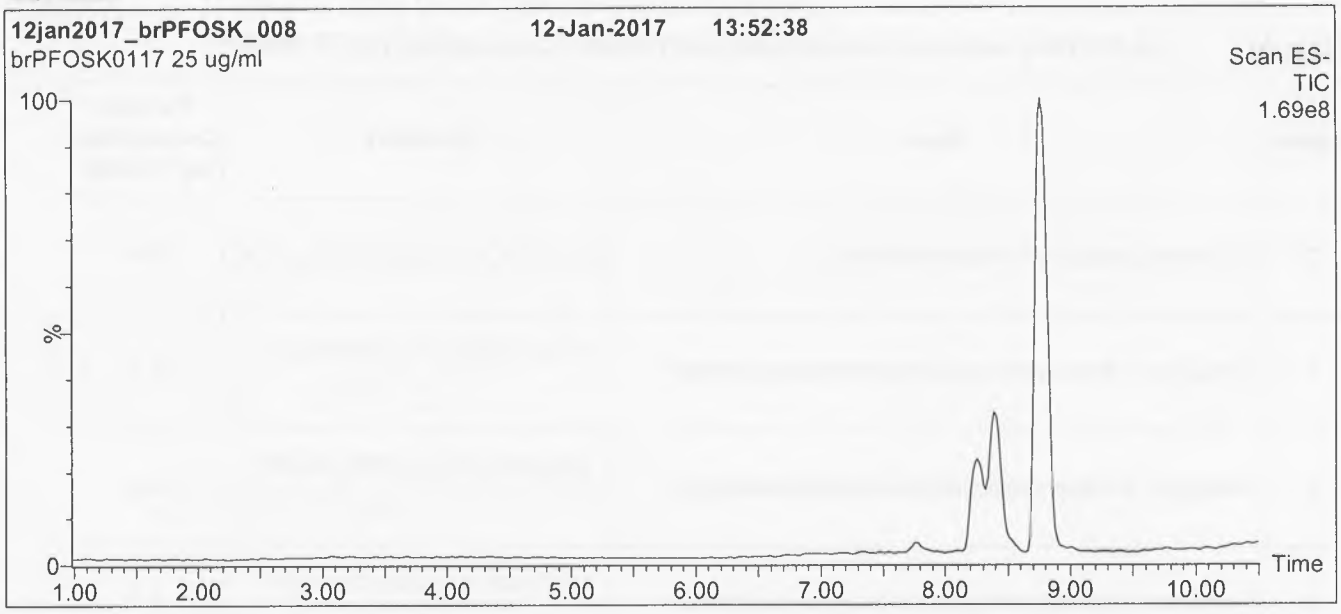
Table A: **br-PFOSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

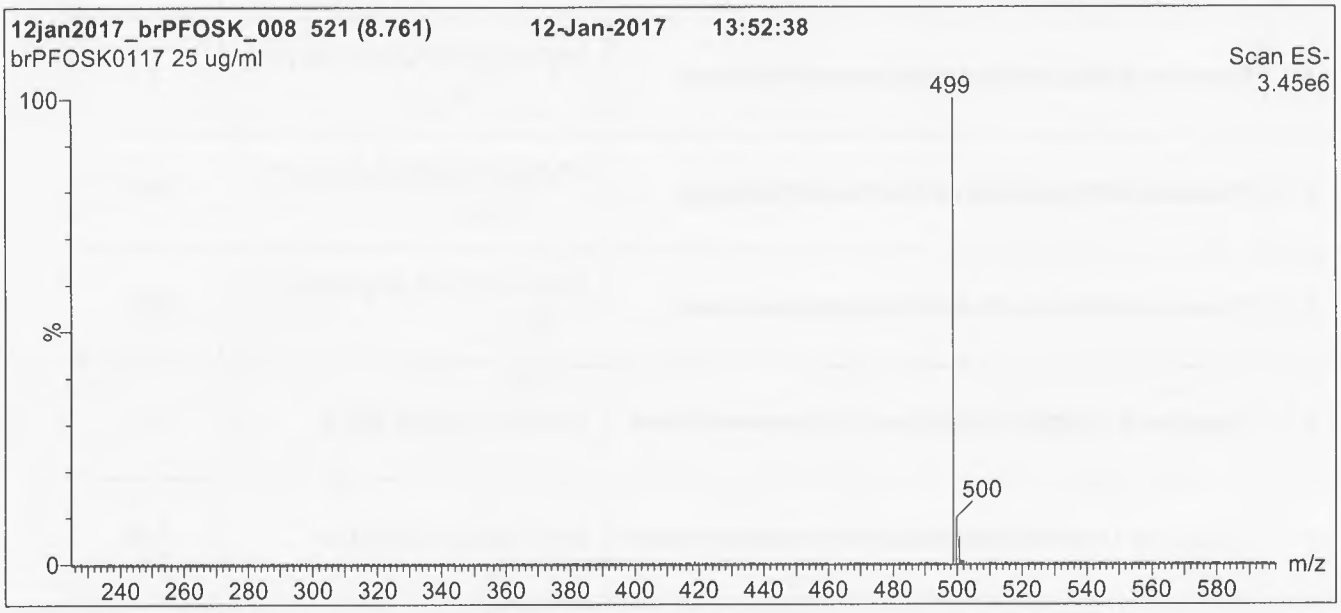
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-octanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$CF_3CF_2CF_2CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	0.6
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	1.9
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	2.2
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	4.5
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	10.0
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3C(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF_2C(CF_3)CF_2CF_2CF_2SO_3^-K^+$	0.03
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF(CF_3)CF_2CF(CF_3)CF_2SO_3^-K^+$	0.07

* Percent of total perfluorooctanesulfonate isomers only. Isomers are labelled in Figure 2.
** Systematic Name: Potassium perfluorooctane-2-sulfonate.

Certified By: B.G. Chittim **Date:** 01/20/2017 (mm/dd/yyyy)

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





Conditions for Figure 1:

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

Chromatographic Conditions

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

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

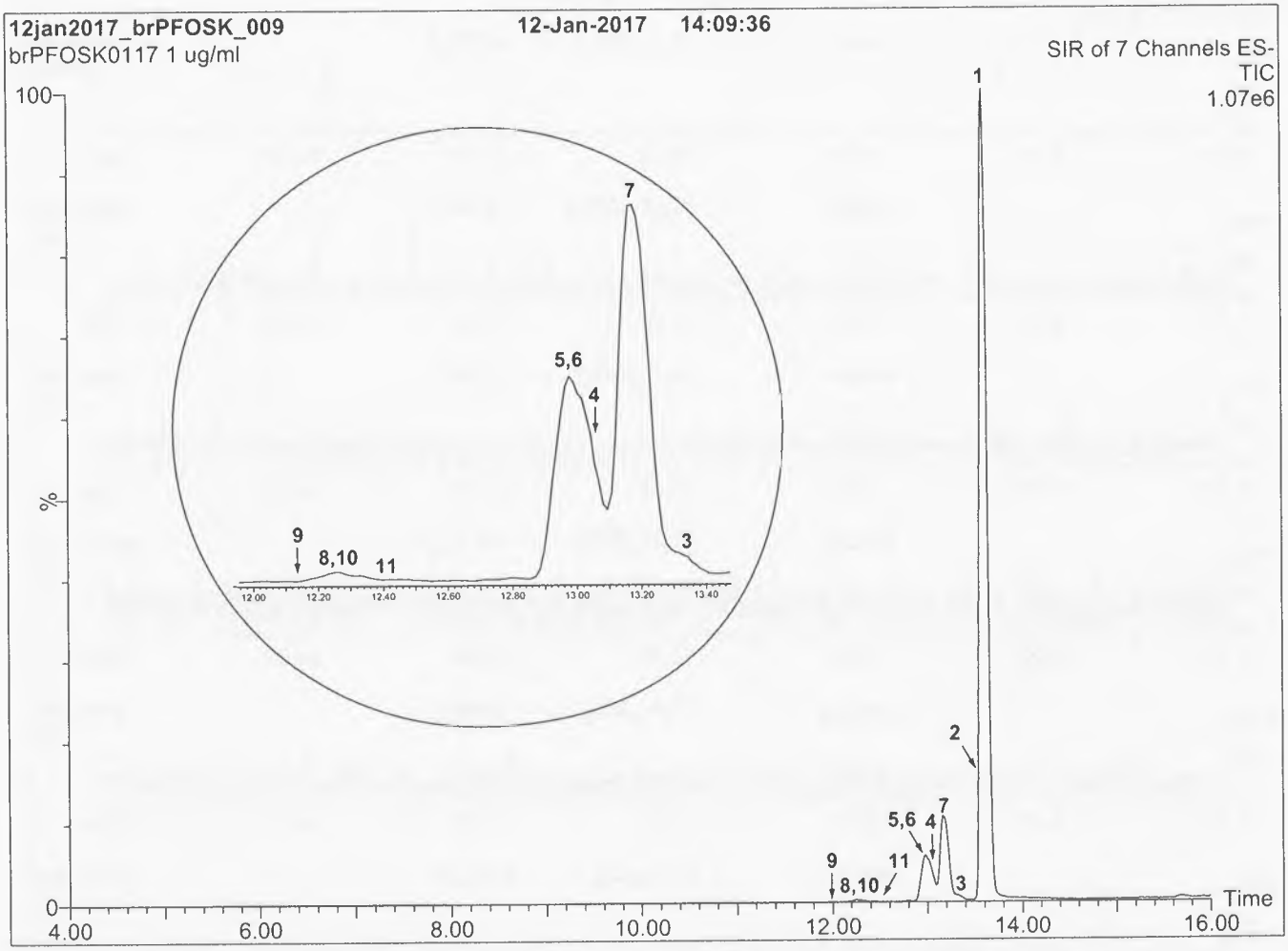
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **br-PFOSK; LC/MS Data (SIR)**



Conditions for Figure 2:

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

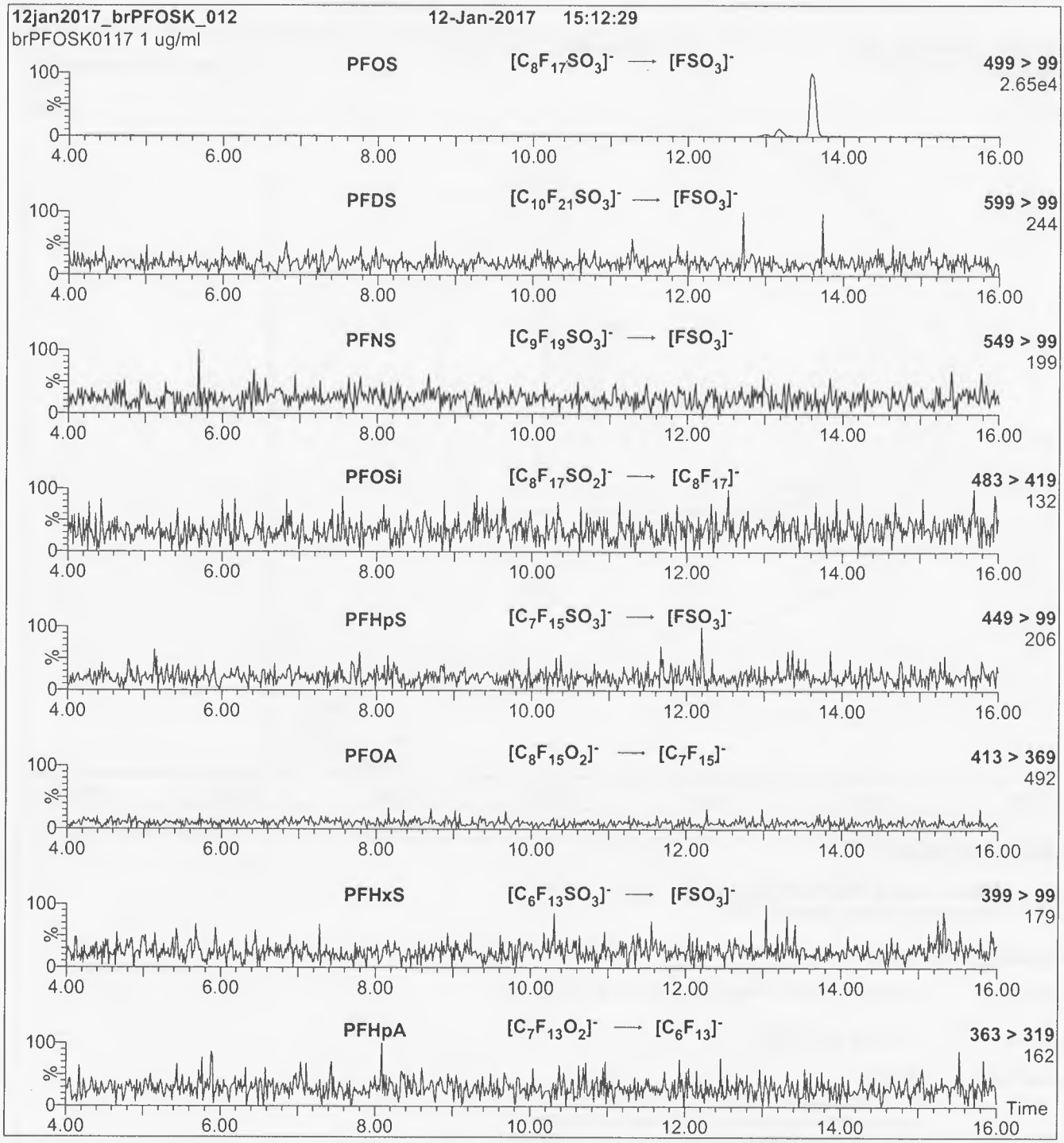
Chromatographic Conditions:

Column:	Acquity UPLC BEH Shield RP_{18} (1.7 µm, 2.1 x 100 mm)
Injection:	1.0 µg/ml of br-PFOSK
Mobile Phase:	Gradient 45% (80:20 MeOH:ACN) / 55% H_2O (both with 10 mM NH_4OAc buffer) Ramp to 90% organic over 15 min and hold for 3 min. Return to initial conditions over 1 min. Time: 20 min
Flow:	300 µl/min

MS Conditions:

SIR (ES^-)
Source = 110 °C
Desolvation = 325 °C
Cone Voltage = 60V

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



Conditions for Figure 3:

Injection: On-column

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

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

CERTIFIED WEIGHT REPORT

180705-02

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

Solvent(s):	Lot#	
Methanol (1 mM KOH)	061918	(98%)
2-Propanol	23214	(2%)

5E-05 Balance Uncertainty
0.007 Flask Uncertainty

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

Note: All assigned values are anion concentrations.

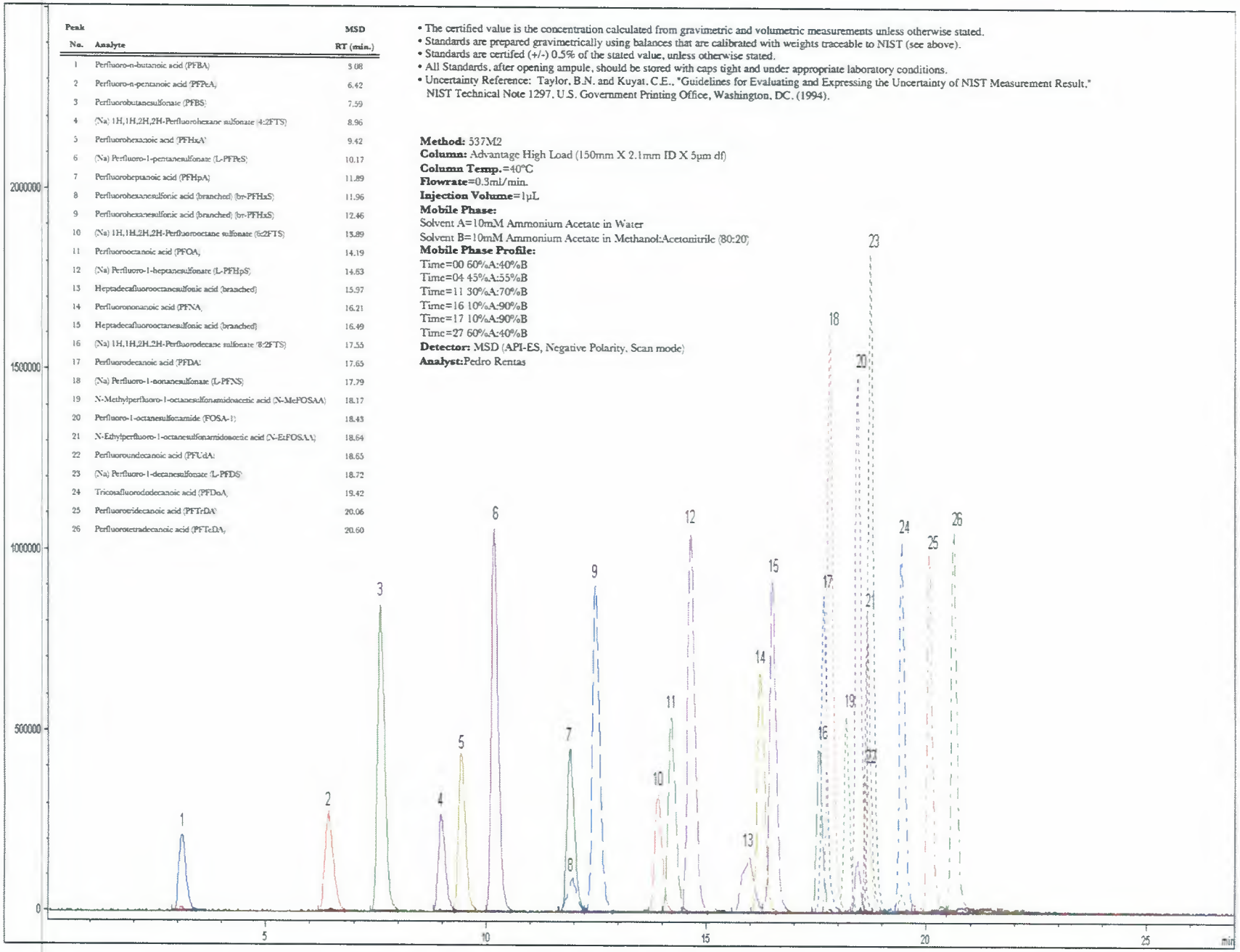
Formulated By:	Mario Luis	061918 DATE
Reviewed By:	Pedro L. Rentas	061918 DATE

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc.(µg/mL)	Final Conc.(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Perfluoro-n-butanoic acid (linear)	99542	110317	0.02	1.00	0.004	50.2	1.00	0.01	375-22-4	N/A	N/A
2.	Perfluoro-n-pentanoic acid	99543	110317	0.02	1.00	0.004	50.7	1.01	0.01	2706-90-3	N/A	N/A
3.	Perfluorohexanoic acid	99199	030617	0.02	1.00	0.004	50.3	1.01	0.01	307-24-4	N/A	N/A
4.	Perfluoroheptanoic acid	99197	030517	0.02	1.00	0.004	50.1	1.00	0.01	375-85-9	N/A	N/A
5.	Perfluorooctanoic acid	99202	030617	0.02	1.00	0.004	50.2	1.00	0.01	335-67-1	N/A	ipr-rat 189mg/kg
6.	Perfluorononanoic acid	99200	030617	0.02	1.00	0.004	50.1	1.00	0.01	375-95-1	N/A	N/A
7.	Perfluorodecanoic acid	99195	030617	0.02	1.00	0.004	50.1	1.00	0.01	335-76-2	N/A	orl-rat 57mg/kg
8.	Perfluoroundecanoic acid	99205	030617	0.02	1.00	0.004	50.1	1.00	0.01	2058-94-8	N/A	N/A
9.	Tricosafluorododecanoic acid	99196	030617	0.02	1.00	0.004	50.1	1.00	0.01	307-55-1	N/A	N/A
10.	Perfluorotridecanoic acid	99204	030617	0.02	1.00	0.004	50.1	1.00	0.01	72629-94-8	N/A	N/A
11.	Perfluorotetradecanoic acid	99203	030617	0.02	1.00	0.004	50.1	1.00	0.01	376-06-7	N/A	N/A
12.	Perfluoro-1-octanesulfonamide	3677	FOSA0817I	0.02	1.00	0.004	50.0	1.00	0.01	754-91-6	N/A	N/A
13.	N-Methylperfluoro-1-octanesulfonamidoacetic acid	3667	NMeFOSAA0118	0.02	1.00	0.004	50.0	1.00	0.01	2355-31-9	N/A	N/A
14.	N-Ethylperfluoro-1-octanesulfonamidoacetic acid	3664	NEtFOSAA0118	0.02	1.00	0.004	50.0	1.00	0.01	2991-50-6	N/A	N/A
15.	Perfluorobutanesulfonic acid	99194	031017	0.02	1.00	0.004	50.7	1.01	0.01	375-73-5	N/A	N/A
16.	Perfluoro-1-pentanesulfonate	99544	111017	0.02	0.98	0.004	51.3	1.00	0.01	630402-22-1	N/A	N/A
17.	Perfluorohexanesulfonic acid (branched)	99198	030617	0.02	1.00	0.004	50.6	1.01	0.01	3871-99-6	N/A	N/A
18.	Perfluoro-1-heptanesulfonic acid	3672	LPFHpS0817	0.021	1.05	0.004	47.6	1.00	0.01	375-92-8	N/A	N/A
19.	Heptadecafluorooctanesulfonic acid (branched)	99201	030617	0.02	1.00	0.004	50.2	1.00	0.01	1763-23-1	N/A	N/A
20.	Perfluoro-1-nonanesulfonic acid	3957	LPFNS0917	0.021	1.05	0.004	48.0	1.01	0.01	98789-57-2	N/A	N/A
21.	Perfluoro-1-decanesulfonic acid	3671	LPFDS0217	0.021	1.05	0.004	48.2	1.01	0.01	2806-15-7	N/A	N/A
22.	1H,1H,2H,2H-Perfluorohexane sulfonic acid	3955	42FTS1216	0.0214	1.07	0.004	46.7	1.00	0.01	00-00-0	N/A	N/A
23.	1H,1H,2H,2H-Perfluorooctane sulfonic acid	3661	62FTS0616	0.021	1.05	0.004	47.4	1.00	0.01	27619-97-2	N/A	N/A
24.	1H,1H,2H,2H-Perfluorodecane sulfonic acid	3662	82FTS1216	0.021	1.05	0.004	47.9	1.01	0.01	39108-34-4	N/A	N/A

Peak No.	Analyte	MSD RT (min.)
1	Perfluoro-n-butanoic acid (PFBA)	5.08
2	Perfluoro-n-pentanoic acid (PFPeA)	6.42
3	Perfluorobutanesulfonate (PFBS)	7.59
4	(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate (4:2FTS)	8.96
5	Perfluorohexanoic acid (PFHxA)	9.42
6	(Na) Perfluoro-1-pentanesulfonate (L-PFPeS)	10.17
7	Perfluoroheptanoic acid (PFHpA)	11.89
8	Perfluorohexanesulfonic acid (branched) (br-PFHxS)	11.96
9	Perfluorohexanesulfonic acid (branched) (br-PFHxS)	12.46
10	(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate (6:2FTS)	13.89
11	Perfluorooctanoic acid (PFOA)	14.19
12	(Na) Perfluoro-1-heptanesulfonate (L-PFHpS)	14.63
13	Heptadecafluorooctanesulfonic acid (branched)	15.97
14	Perfluorononanoic acid (PFNA)	16.21
15	Heptadecafluorooctanesulfonic acid (branched)	16.49
16	(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate (8:2FTS)	17.55
17	Perfluorodecanoic acid (PFDA)	17.65
18	(Na) Perfluoro-1-nonanesulfonate (L-PFNS)	17.79
19	N-Methylperfluoro-1-octanesulfonamidoacetic acid (N-MeFOSAA)	18.17
20	Perfluoro-1-octanesulfonamide (FOSA-1)	18.43
21	N-Ethylperfluoro-1-octanesulfonamidoacetic acid (N-EtFOSAA)	18.64
22	Perfluoroundecanoic acid (PFUdA)	18.65
23	(Na) Perfluoro-1-decanesulfonate (L-PFDS)	18.72
24	Tricosafluorododecanoic acid (PFDoA)	19.42
25	Perfluorotridecanoic acid (PFTrDA)	20.06
26	Perfluorotetradecanoic acid (PFTeDA)	20.60

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

Method: 537M2
Column: Advantage High Load (150mm X 2.1mm ID X 5µm df)
Column Temp.=40°C
Flowrate=0.3mL/min.
Injection Volume=1µL
Mobile Phase:
Solvent A=10mM Ammonium Acetate in Water
Solvent B=10mM Ammonium Acetate in Methanol:Acetonitrile (80:20)
Mobile Phase Profile:
Time=00 60%A:40%B
Time=04 45%A:55%B
Time=11 30%A:70%B
Time=16 10%A:90%B
Time=17 10%A:90%B
Time=27 60%A:40%B
Detector: MSD (API-ES, Negative Polarity, Scan mode)
Analyst: Pedro Rentas



BATTELLE

It can be done

BDO Id: 180726-04

Reagent Receipt Report

Approved: ☑ Authorized ☐

Name:	Mass-labelled PFAS injection standar	**Received:**	7/26/2018
Vendor:	Wellington Laboratories	**Custodian:**	Thorn, Jonathan
Catalogue No:	MPFAC-C-IS	**Expires:**	5/2/2022
Type:	Solution	**Consumed:**	
Lot No:	MPFACCIS0516	**Stored In:**	LC Laboratory - R0107
Quantity:	2 ea 1.2 mL **% Moisture:** 0		
Description:	Mass-labelled PFAS injection standards		

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:
13C2-PFDA	BDO-2110	2.0000	100.00	--	--	☐			
13C2-PFOA	BDO-2107	2.0000	100.00	--	--	☐			
13C3-PFBA	BDO-2231	2.0000	100.00	--	--	☐			
13C4-PFOS	BDO-2121	1.9140	100.00	--	--	☐			

Total Analytes: 4

Notes:

Approved by:	Lizotte Jr, Robert	**Approved on:**	7/27/2018 11:10:00 AM
Authorized by:		**Authorized on:**	

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

MPFAC-C-IS

Mass-Labelled Perfluorinated Compound Injection Standards Solution

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

DESCRIPTION:

MPFAC-C-IS is a solution/mixture of mass-labelled (^{13}C) perfluoroalkylcarboxylic acids and a mass-labelled (^{13}C) perfluoroalkylsulfonate. The components and their concentrations are given in Table A.

MPFAC-C-IS was designed for, and prepared to be used with, PFC-CVS-C.

The individual mass-labelled perfluoroalkylcarboxylic acids and mass-labelled perfluoroalkylsulfonate all have chemical purities of >98% and isotopic purities of ≥99%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: LC/MS Data (SIR)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The mass-labelled perfluoroalkylsulfonate compound concentration is reported as the salt.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

INTENDED USE:

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

HAZARDS:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

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

CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO GUIDE 34 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

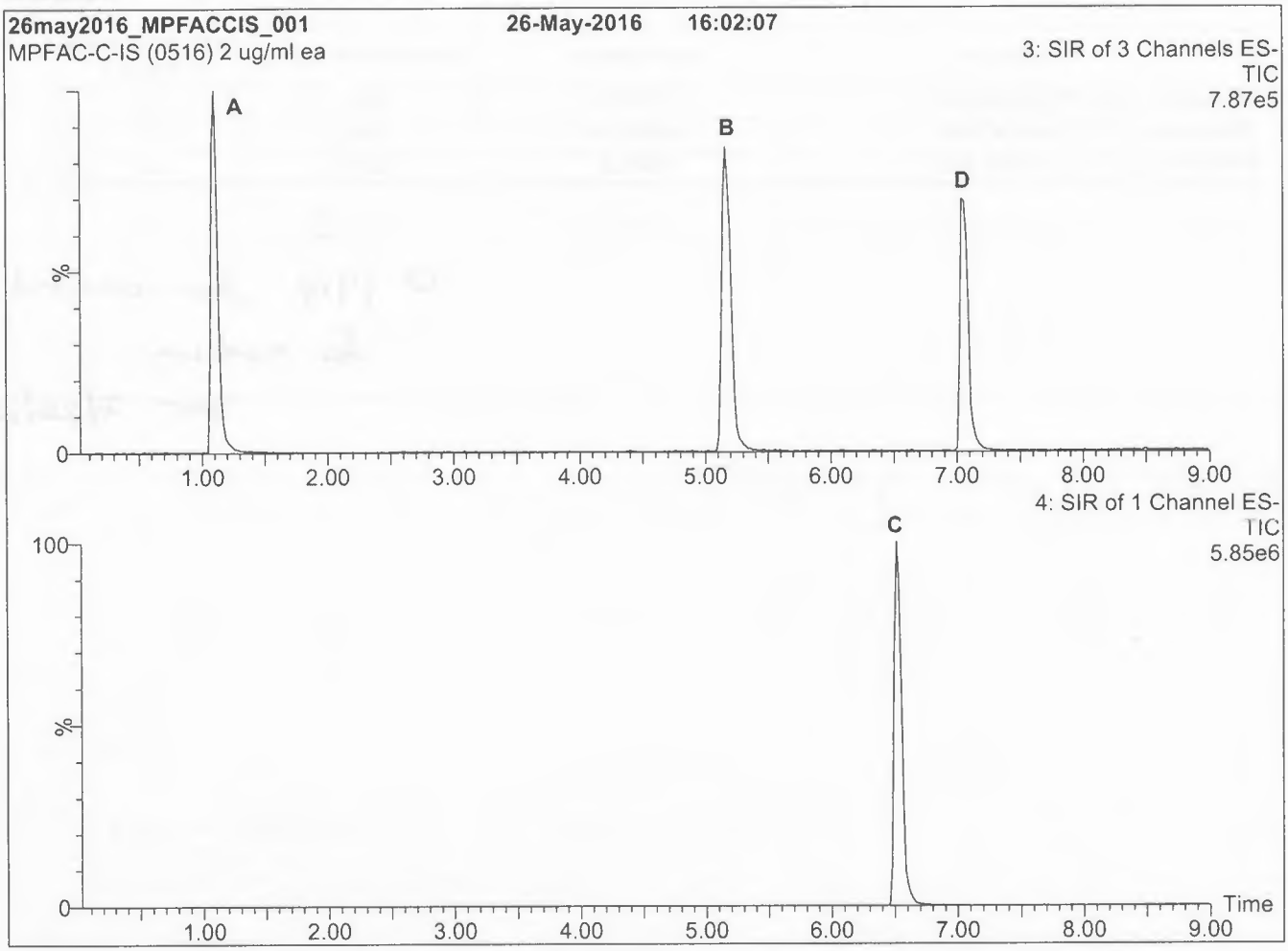
Table A: **MPFAC-C-IS; Components and Concentrations (ng/ml; ± 5% in Methanol / Water (<1%))**

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
JMS 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

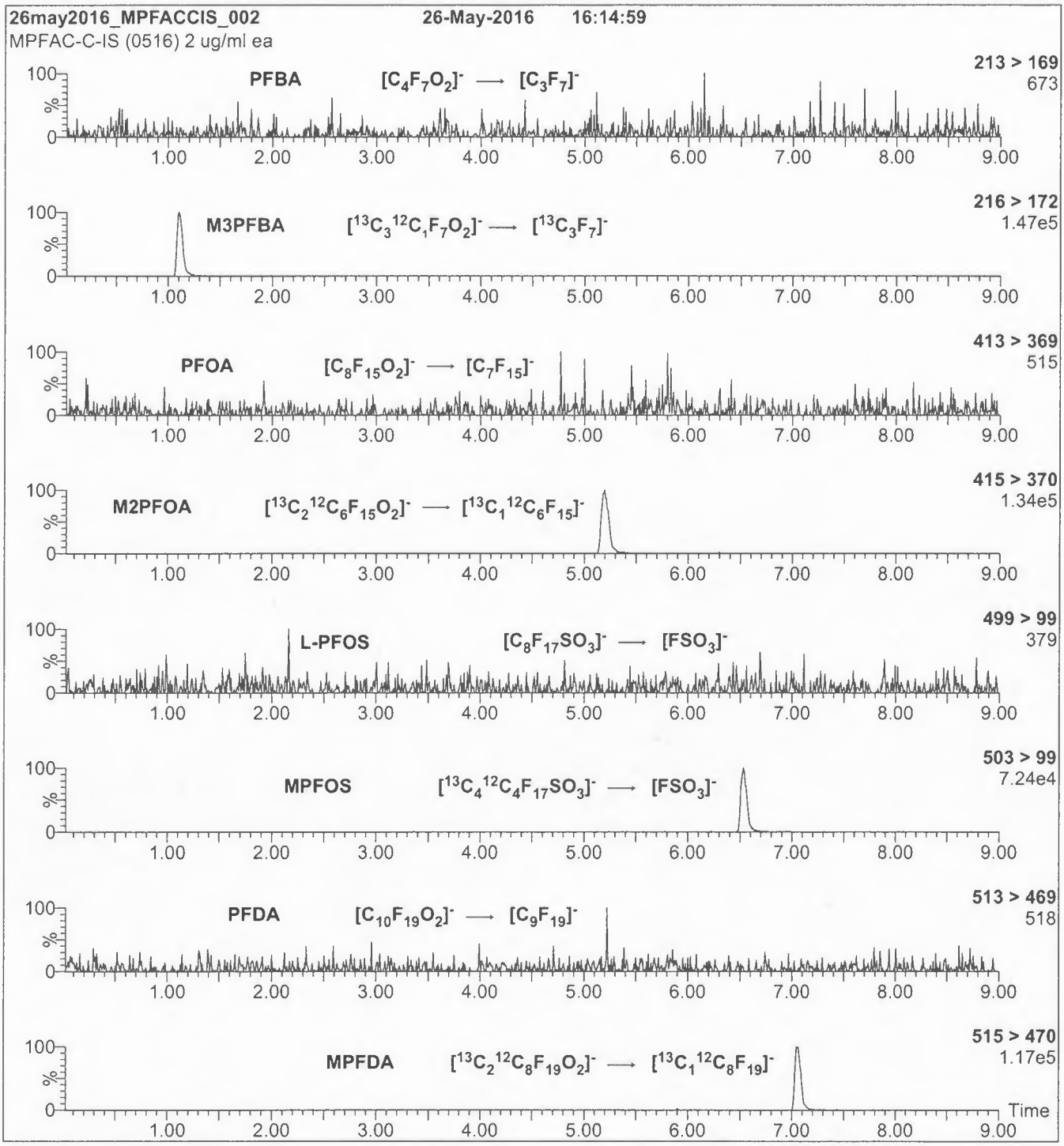
Flow: 300 µl/min

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%))**

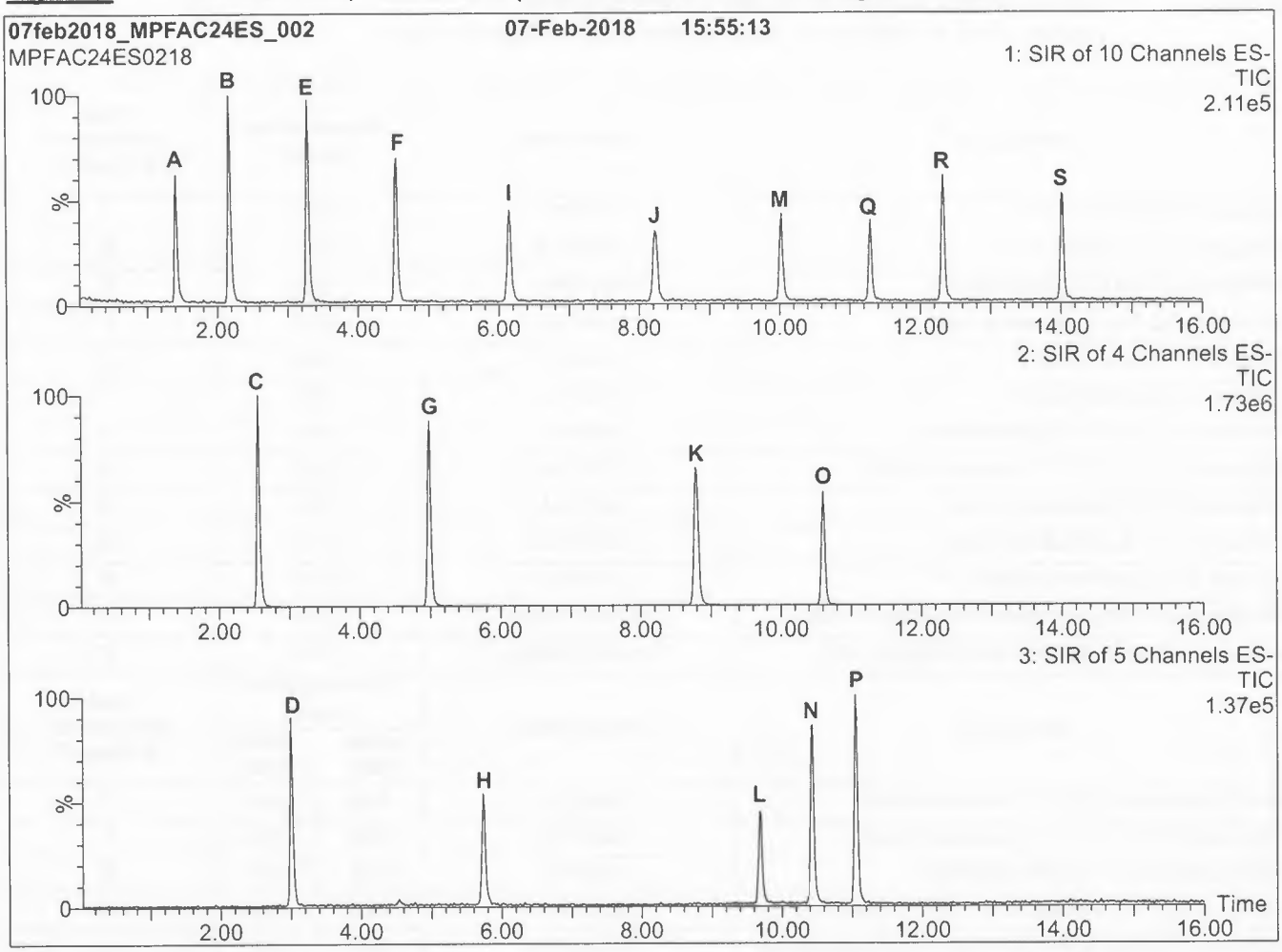
Compound	Abbreviation	Concentration (ng/ml)	Peak Assignment in Figure 1
Perfluoro-n-[$^{13}C_4$]butanoic acid	MPFBA	1000	A
Perfluoro-n-[$^{13}C_5$]pentanoic acid	M5PFPeA	1000	B
Perfluoro-n-[1,2,3,4,6-$^{13}C_5$]hexanoic acid	M5PFHxA	1000	E
Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid	M4PFHpA	1000	F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

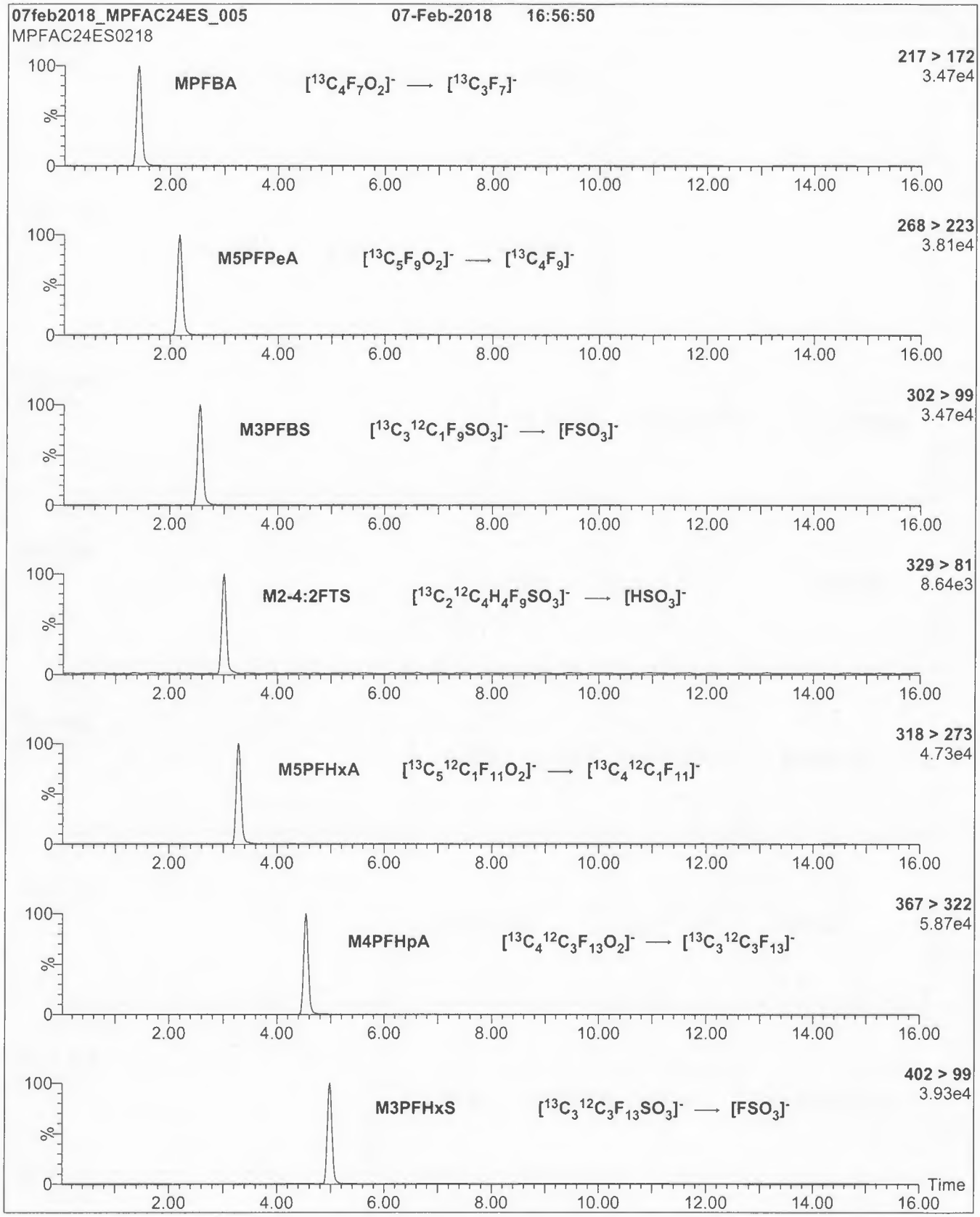


Figure 2: **MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)**

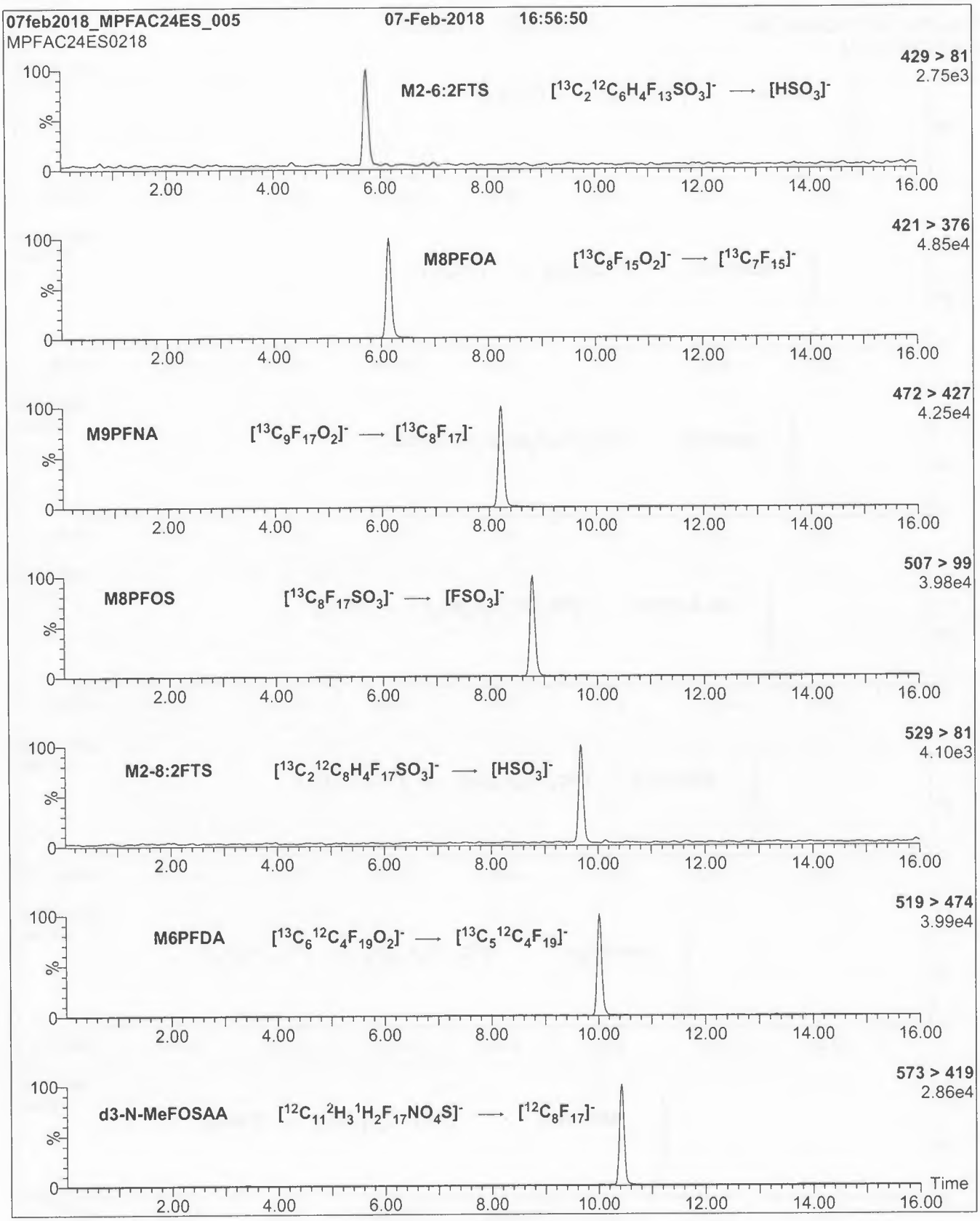
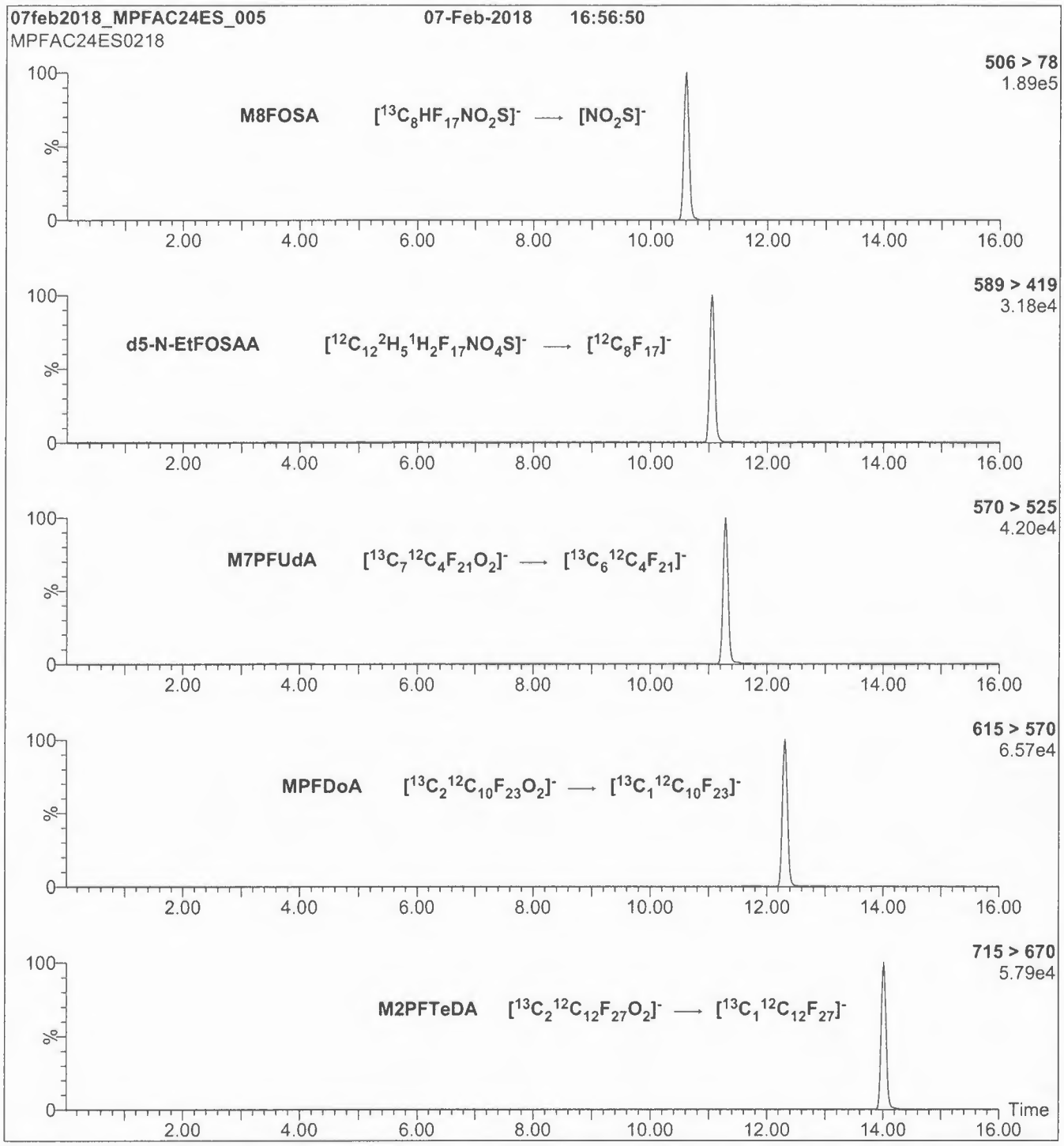


Figure 2: **MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)**



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

18-0582

CTO-4164: Analysis of Solids

SB, SS

SOP Numbers (see workplan for modifications)

ExtractionSOP No. 5-370

This Batch Contains The Following Samples:			
CR888PB-FS	J8314-FS	J8328-FS	J8336MSD-FS
CR889LCS-FS	J8315-FS	J8329-FS	
J8310-FS	J8316-FS	J8332-FS	
J8311-FS	J8317-FS	J8333-FS	
J8312-FS	J8318-FS	J8334-FS	
J8313-FS	J8327-FS	J8335MS-FS	

Laboratory Preparation Records

COMPLETE AND VALIDATED

Prep Task Leader: Stephanie Schultz

Approved By:	Date	Initials
Denise Schumitz	10/22/2018	DMS

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BATTELLE - NORWELL OPERATIONS
SAMPLE IDENTIFICATION PAGE

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

Project No.(s)
100110125-01

18-0582

CTO-4164: Analysis of Solids

SB, SS

Sample ID	Description
CR888PB-FS	Procedural Blank - Ottawa Sand (180507-02)
CR889LCS-FS	Laboratory Control Sample - Ottawa Sand (180507-02)
J8310-FS	VC-PM323-324-SS01-000H
J8311-FS	VC-PM323-324-SB01-0102
J8312-FS	VC-PM323-324-SB01-0506
J8313-FS	VC-PM323-324-SS02-000H
J8314-FS	VC-PM323-324-SB02-0102
J8315-FS	VC-PM323-324-SB02-0506
J8316-FS	VC-PM323-324-SS03-000H
J8317-FS	VC-PM323-324-SB03-0102
J8318-FS	VC-PM323-324-SB03-0506
J8327-FS	VC-PM323-SS02-000H
J8328-FS	VC-PM323-SB02-0102
J8329-FS	VC-PM323-SB02-0506
J8332-FS	VC-PM324-SS02-000H
J8333-FS	VC-PM324-SB02-0102
J8334-FS	VC-PM324-SB02-0506
J8335MS-FS	Matrix Spike of VC-PM324-SB02-0506-MS
J8336MSD-FS	Matrix Spike Duplicate of VC-PM324-SB02-0506-MSD

Samples Assigned By: Jonathan Thorn Date : September 25, 2018

Comments:

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
SAMPLE CUSTODY LOG

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

Project No.(s)
100110125-01

18-0582

CTO-4164: Analysis of Solids

SB, SS

Requested On/By:	09/28/2018 KB	**Purpose:**	Sample Preparation
Relinquished On/By:	09/28/2018 MDS	**Last Activity:**	Return

Accepted On/By:	09/28/2018 KB	**Returned On/To:**	09/28/2018 MDS
Stored In Facility:	Sample Preparation	**Returned To Facility:**	Custody: NA
Stored Until	09/28/2018		
Stored Comment:	NA	**Returned Comment:**	NA

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	J8310	1	--	Intact	NA
2	J8311	1	--	Intact	NA
3	J8312	1	--	Intact	NA
4	J8313	1	--	Intact	NA
5	J8314	1	--	Intact	NA
6	J8315	1	--	Intact	NA
7	J8316	1	--	Intact	NA
8	J8317	1	--	Intact	NA
9	J8318	1	--	Intact	NA
10	J8327	1	--	Intact	NA
11	J8328	1	--	Intact	NA
12	J8329	1	--	Intact	NA
13	J8332	1	--	Intact	NA
14	J8333	1	--	Intact	NA
15	J8334	1	--	Intact	NA

Total Samples 15 * "C" = Consumed Container

BATTELLE
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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

18-0582

CTO-4164: Analysis of Solids

SB, SS

Requested On/By:	09/28/2018 KB	**Purpose:**	Sample Preparation
Relinquished On/By:	09/28/2018 MDS	**Last Activity:**	Return

Accepted On/By:	09/28/2018 KB	**Returned On/To:**	09/28/2018 MDS
Stored In Facility:	Sample Preparation	**Returned To Facility:**	Custody: NA
Stored Until	09/28/2018		
Stored Comment:	NA	**Returned Comment:**	NA

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	J8310	1	--	Intact	NA
2	J8311	1	--	Intact	NA
3	J8312	1	--	Intact	NA
4	J8313	1	--	Intact	NA
5	J8314	1	--	Intact	NA
6	J8315	1	--	Intact	NA
7	J8316	1	--	Intact	NA
8	J8317	1	--	Intact	NA
9	J8318	1	--	Intact	NA
10	J8327	1	--	Intact	NA
11	J8328	1	--	Intact	NA
12	J8329	1	--	Intact	NA
13	J8332	1	--	Intact	NA
14	J8333	1	--	Intact	NA
15	J8334	1	--	Intact	NA

Total Samples 15 * "C" = Consumed Container

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

18-0582

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)
CR888PB-FS	NA	--	NA	NA	NA	1.92	100.00	0.00	1.92
CR889LCS-FS	NA	--	NA	NA	NA	2.02	100.00	0.00	2.02
J8310-FS	1	--	1.02	5.38	4.72	1.95	84.86	15.14	1.65
J8311-FS	1	--	1.05	6.76	6.09	2.05	88.27	11.73	1.81
J8312-FS	1	--	1.08	5.71	4.20	2.10	67.39	32.61	1.42
J8313-FS	1	--	1.02	5.27	5.09	1.98	95.76	4.24	1.90
J8314-FS	1	--	1.02	6.73	5.87	1.93	84.94	15.06	1.64
J8315-FS	1	--	1.07	5.83	5.06	1.94	83.82	16.18	1.63
J8316-FS	1	--	1.04	5.55	5.25	1.96	93.35	6.65	1.83
J8317-FS	1	--	1.04	5.24	4.31	2.09	77.86	22.14	1.63
J8318-FS	1	--	1.06	5.72	5.23	1.93	89.48	10.52	1.73
J8327-FS	1	--	1.04	6.19	5.94	2.00	95.15	4.85	1.90
J8328-FS	1	--	1.10	6.94	6.72	2.03	96.23	3.77	1.95
J8329-FS	1	--	1.11	5.16	4.58	2.01	85.68	14.32	1.72
J8332-FS	1	--	1.04	5.67	4.77	2.10	80.56	19.44	1.69
J8333-FS	1	--	1.08	9.36	7.92	2.03	82.61	17.39	1.68
J8334-FS	1	--	1.05	5.44	4.25	2.04	72.89	27.11	1.49
J8335MS-FS	1	--	1.05	6.76	5.46	2.08	77.23	22.77	1.61
J8336MSD-FS	1	--	1.10	9.53	8.08	1.93	82.80	17.20	1.60

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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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

18-0582

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:
CR888PB-FS	10/02/2018 KB	BAL-015
CR889LCS-FS	10/02/2018 KB	BAL-015
J8310-FS	09/28/2018 KB	BAL-015
J8311-FS	09/28/2018 KB	BAL-015
J8312-FS	10/02/2018 KB	BAL-015
J8313-FS	09/28/2018 KB	BAL-015
J8314-FS	09/28/2018 KB	BAL-015
J8315-FS	09/28/2018 KB	BAL-015
J8316-FS	09/28/2018 KB	BAL-015
J8317-FS	09/28/2018 KB	BAL-015
J8318-FS	09/28/2018 KB	BAL-015
J8327-FS	09/28/2018 KB	BAL-015
J8328-FS	09/28/2018 KB	BAL-015
J8329-FS	09/28/2018 KB	BAL-015
J8332-FS	09/28/2018 KB	BAL-015
J8333-FS	09/28/2018 KB	BAL-015
J8334-FS	09/28/2018 KB	BAL-015
J8335MS-FS	10/02/2018 KB	BAL-015
J8336MSD-FS	09/28/2018 KB	BAL-015

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

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

18-0582

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:
CR888PB-FS	--	--
CR889LCS-FS	--	--
J8310-FS	09/28/2018 KB	BAL-015
J8311-FS	09/28/2018 KB	BAL-015
J8312-FS	09/28/2018 KB	BAL-015
J8313-FS	09/28/2018 KB	BAL-015
J8314-FS	09/28/2018 KB	BAL-015
J8315-FS	09/28/2018 KB	BAL-015
J8316-FS	09/28/2018 KB	BAL-015
J8317-FS	09/28/2018 KB	BAL-015
J8318-FS	09/28/2018 KB	BAL-015
J8327-FS	09/28/2018 KB	BAL-015
J8328-FS	09/28/2018 KB	BAL-015
J8329-FS	09/28/2018 KB	BAL-015
J8332-FS	09/28/2018 KB	BAL-015
J8333-FS	09/28/2018 KB	BAL-015
J8334-FS	09/28/2018 KB	BAL-015
J8335MS-FS	09/28/2018 KB	BAL-015
J8336MSD-FS	09/28/2018 KB	BAL-015

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

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

18-0582

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:
CR888PB-FS	--	--
CR889LCS-FS	--	--
J8310-FS	09/28/2018 KB	BAL-015
J8311-FS	09/28/2018 KB	BAL-015
J8312-FS	09/28/2018 KB	BAL-015
J8313-FS	09/28/2018 KB	BAL-015
J8314-FS	09/28/2018 KB	BAL-015
J8315-FS	09/28/2018 KB	BAL-015
J8316-FS	09/28/2018 KB	BAL-015
J8317-FS	09/28/2018 KB	BAL-015
J8318-FS	09/28/2018 KB	BAL-015
J8327-FS	09/28/2018 KB	BAL-015
J8328-FS	09/28/2018 KB	BAL-015
J8329-FS	09/28/2018 KB	BAL-015
J8332-FS	09/28/2018 KB	BAL-015
J8333-FS	09/28/2018 KB	BAL-015
J8334-FS	09/28/2018 KB	BAL-015
J8335MS-FS	09/28/2018 KB	BAL-015
J8336MSD-FS	09/28/2018 KB	BAL-015

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

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

18-0582

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:
CR888PB-FS	--	--
CR889LCS-FS	--	--
J8310-FS	10/01/2018 KB	BAL-015
J8311-FS	10/01/2018 KB	BAL-015
J8312-FS	10/01/2018 KB	BAL-015
J8313-FS	10/01/2018 KB	BAL-015
J8314-FS	10/01/2018 KB	BAL-015
J8315-FS	10/01/2018 KB	BAL-015
J8316-FS	10/01/2018 KB	BAL-015
J8317-FS	10/01/2018 KB	BAL-015
J8318-FS	10/01/2018 KB	BAL-015
J8327-FS	10/01/2018 KB	BAL-015
J8328-FS	10/01/2018 KB	BAL-015
J8329-FS	10/01/2018 KB	BAL-015
J8332-FS	10/01/2018 KB	BAL-015
J8333-FS	10/01/2018 KB	BAL-015
J8334-FS	10/01/2018 KB	BAL-015
J8335MS-FS	10/01/2018 KB	BAL-015
J8336MSD-FS	10/01/2018 KB	BAL-015

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

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

18-0582

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
CR888PB-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
CR889LCS-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
CR889LCS-FS	KA84	LCS/MS	1	250	10/02/18 SAS	SG	NA
J8310-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8311-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8312-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8313-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8314-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8315-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8316-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8317-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8318-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8327-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8328-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8329-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8332-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8333-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8334-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8335MS-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8335MS-FS	KA84	LCS/MS	1	400	10/02/18 SAS	SG	NA
J8336MSD-FS	JY27	SIS	1	50	10/02/18 SAS	SG	NA
J8336MSD-FS	KA84	LCS/MS	1	400	10/02/18 SAS	SG	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

18-0582

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	B820865811

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
SAMPLE EXTRACTION FORM

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

Project No.(s)
100110125-01

18-0582

CTO-4164: Analysis of Solids

SB, SS

Sample ID	1st Extraction	2nd Extraction	3rd Extraction	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comment
CR888PB-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
CR889LCS-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8310-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8311-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8312-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8313-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8314-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8315-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8316-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8317-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8318-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8327-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8328-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8329-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8332-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8333-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8334-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8335MS-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA
J8336MSD-FS	10/02/18 SAS	10/02/18 KB	NA	NA	NA	NA	NA	NA

Solvents/Reagent Preparations:

Name	ID	Expires	Lot No	Procedure	Comments
0.4% NH3 in Methanol	RP-181002-1	10/02/18	SHBJ0412	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	
0.4% NH3 in Methanol	RP-181002-1	10/02/18	182674	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	

Solvents/Reagents:

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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

18-0582

CTO-4164: Analysis of Solids

SB, SS

Extract Id	Date	Init.	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comments
CR888PB-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
CR889LCS-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8310-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8311-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8312-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8313-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8314-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8315-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8316-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8317-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8318-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8327-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8328-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8329-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8332-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8333-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8334-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8335MS-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA
J8336MSD-FS(3)	10/04/18	SAS	NA	NA	NA	NA	NA

BATTELLE
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

18-0582

CTO-4164: Analysis of Solids

SB, SS

Extract Id	Date	Init.	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comments

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

Elution Volume: 10 mL

Solvents

Reagents

Reagent Prep	Weight g	Name	Expires	Lot No	Procedure
RP-181004-1	Not Measured	0.4% NH3 in Methanol	10/04/18	SHBJ0412	Per 100 mL, 3.5 mL am brought to 100 mL with
RP-181004-1	Not Measured	0.4% NH3 in Methanol	10/04/18	183857	Per 100 mL, 3.5 mL am brought to 100 mL with
RP-181004-3	0.50	ENVI-CARB SPE	10/04/18	10215411	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

18-0582

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
CR888PB-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
CR889LCS-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8310-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8310-FS-D(5)	960	40	KB34	50	1	1000	50.000	10/08/18 DMS	SG
J8310-FS-D(7)	960	40	KC03	40	1	1000	250.000	10/15/18 DMS	SAS
J8311-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8311-FS-D(5)	955	45	KB34	50	1	1000	100.000	10/08/18 DMS	SG
J8311-FS-D(7)	960	40	KC03	40	1	1000	500.000	10/10/18 DMS	SAS
J8312-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8312-FS-D(5)	960	40	KB34	50	1	1000	50.000	10/08/18 DMS	SG
J8312-FS-D(7)	952	48	KB34	50	1	1000	250.000	10/08/18 DMS	SG
J8312-FS-D(9)	955	45	KC03	45	1	1000	500.000	10/10/18 DMS	SAS
J8313-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8313-FS-D(5)	952	48	KB34	50	1	1000	250.000	10/08/18 DMS	SG
J8313-FS-D(7)	960	40	KC03	40	1	1000	1000.000	10/10/18 DMS	SAS
J8314-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8314-FS-D(5)	953	47	KB34	50	1	1000	166.667	10/08/18 DMS	SG
J8314-FS-D(7)	960	40	KC03	40	1	1000	50.000	10/10/18 DMS	SAS
J8315-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG

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

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

BATTELLE
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

18-0582

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
J8315-FS-D(5)	951	49	KB34	50	1	1000	500.000	10/08/18 DMS	SG
J8315-FS-D(7)	960	40	KC03	40	1	1000	2500.000	10/10/18 DMS	SAS
J8315-FS-D(9)	960	40	KC03	40	1	1000	50.000	10/16/18 SAS	DMS
J8316-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8316-FS-D(5)	952	48	KB34	50	1	1000	250.000	10/08/18 DMS	SG
J8316-FS-D(7)	960	40	KC03	40	1	1000	1250.000	10/10/18 DMS	SAS
J8317-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8317-FS-D(5)	955	45	KB34	50	1	1000	100.000	10/08/18 DMS	SG
J8317-FS-D(7)	960	40	KC03	40	1	1000	500.000	10/10/18 DMS	SAS
J8318-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8318-FS-D(5)	950	50	KB34	50.5	1	1000	1000.000	10/08/18 DMS	SG
J8318-FS-D(7)	975	25	KB34	50.25	1	1000	2000.000	10/08/18 DMS	SG
J8318-FS-D(9)	960	40	KC03	40	1	1000	50.000	10/15/18 DMS	SAS
J8327-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8328-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8329-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8332-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8333-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8334-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG

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

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

BATTELLE
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

18-0582

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
J8335MS-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG
J8336MSD-FS(3)	950	50	KB34	50	1	1000	10.000	10/08/18 DMS	SG

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
KB34	Pipette	B814659662
KB72	Pipette	B814659662
KC03	Pipette	B814659662

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

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

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
EXTRACT SPIKE FORM

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

Project No.(s)
100110125-01

18-0582

CTO-4164: Analysis of Solids

SB, SS

Extract Id	DF	Std. ID	Type	Vial No.	Vol. Added (uL)	Conc (ug/mL)	Added (ng)	Date Spiked/ Spiked By	Witn'd By
J8310-FS-D(5)	50	KB72	SIS	1	40	0	0	10/08/18 DMS	SG
J8310-FS-D(7)	250	KB72	SIS	1	40	0	0	10/10/18 DMS	SAS
J8311-FS-D(5)	100	KB72	SIS	1	45	0	0	10/08/18 DMS	SG
J8311-FS-D(7)	500	KB72	SIS	1	40	0	0	10/10/18 DMS	SAS
J8312-FS-D(5)	50	KB72	SIS	1	40	0	0	10/08/18 DMS	SG
J8312-FS-D(7)	22.222	KB72	SIS	1	40	0	0	10/10/18 DMS	SAS
J8312-FS-D(9)	500	KB72	SIS	1	45	0	0	10/10/18 DMS	SAS
J8313-FS-D(5)	250	KB72	SIS	1	48	0	0	10/08/18 DMS	SG
J8313-FS-D(7)	1250	KB72	SIS	1	40	0	0	10/10/18 DMS	SAS
J8314-FS-D(5)	166.667	KB72	SIS	1	47	0	0	10/08/18 DMS	SG
J8314-FS-D(7)	833.333	KB72	SIS	1	40	0	0	10/10/18 DMS	SAS
J8315-FS-D(5)	500	KB72	SIS	1	49	0	0	10/08/18 DMS	SG
J8315-FS-D(7)	2500	KB72	SIS	1	40	0	0	10/10/18 DMS	SAS
J8315-FS-D(9)	51.02	KB72	SIS	1	40	0	0	10/16/18 SAS	DMS
J8316-FS-D(5)	250	KB72	SIS	1	48	0	0	10/08/18 DMS	SG
J8316-FS-D(7)	1250	KB72	SIS	1	40	0	0	10/10/18 DMS	SAS
J8317-FS-D(5)	100	KB72	SIS	1	45	0	0	10/08/18 DMS	SG
J8317-FS-D(7)	500	KB72	SIS	1	40	0	0	10/10/18 DMS	SAS
J8318-FS-D(5)	1000	KB72	SIS	1	50	0	0	10/08/18 DMS	SG
J8318-FS-D(7)	2.2	KB72	SIS	1	25	0	0	10/08/18 DMS	SAS
J8318-FS-D(9)	50	KB72	SIS	1	40	0	0	10/15/18 DMS	SAS

BATTELLE
It can be done

BATTELLE - NORWELL OPERATIONS
EXTRACT SPIKE FORM

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

Project No.(s)
100110125-01

18-0582

CTO-4164: Analysis of Solids

SB, SS

Extract Id	DF	Std. ID	Type	Vial No.	Vol. Added (uL)	Conc (ug/mL)	Added (ng)	Date Spiked/ Spiked By	Witn'd By

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
KB34	Pipette	B814659662
KB72	Pipette	B814659662
KC03	Pipette	B814659662

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

18-0582

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	#					
CR888PB-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
CR888PB-FS	2	--	10/4/2018 11:01:00 AM	CR888PB-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
CR888PB-FS	3	--	10/4/2018 11:01:00 AM	CR888PB-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
CR889LCS-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
CR889LCS-FS	2	--	10/4/2018 11:01:00 AM	CR889LCS-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
CR889LCS-FS	3	--	10/4/2018 11:01:00 AM	CR889LCS-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8310-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8310-FS	2	--	10/4/2018 11:01:00 AM	J8310-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8310-FS	3	C	10/4/2018 11:01:00 AM	J8310-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8310-FS	4	--	10/8/2018 1:54:00 PM	J8310-FS	3	1000	800	1.250	12.500	10/08/18 DMS
J8310-FS-D	5	C	10/8/2018 1:54:00 PM	J8310-FS	3	1000	200	5.000	50.000	10/08/18 DMS
J8310-FS-D	6	--	10/10/2018 4:49:00 PM	J8310-FS-D	5	1000	800	1.250	62.500	10/10/18 DMS
J8310-FS-D	7	--	10/10/2018 4:49:00 PM	J8310-FS-D	5	1000	200	5.000	250.000	10/10/18 DMS
J8311-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 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

18-0582

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	#					
J8311-FS	2	--	10/4/2018 11:01:00 AM	J8311-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8311-FS	3	C	10/4/2018 11:01:00 AM	J8311-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8311-FS	4	--	10/8/2018 1:54:00 PM	J8311-FS	3	1000	900	1.111	11.111	10/08/18 DMS
J8311-FS-D	5	C	10/8/2018 1:54:00 PM	J8311-FS	3	1000	100	10.000	100.000	10/08/18 DMS
J8311-FS-D	6	--	10/10/2018 4:49:00 PM	J8311-FS-D	5	1000	800	1.250	125.000	10/10/18 DMS
J8311-FS-D	7	--	10/10/2018 4:49:00 PM	J8311-FS-D	5	1000	200	5.000	500.000	10/10/18 DMS
J8312-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8312-FS	2	--	10/4/2018 11:01:00 AM	J8312-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8312-FS	3	C	10/4/2018 11:01:00 AM	J8312-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8312-FS	4	C	10/8/2018 1:54:00 PM	J8312-FS	3	1000	800	1.250	12.500	10/08/18 DMS
J8312-FS-D	5	C	10/8/2018 1:54:00 PM	J8312-FS	3	1000	200	5.000	50.000	10/08/18 DMS
J8312-FS	6	--	10/8/2018 1:57:00 PM	J8312-FS	4	800	760	1.053	13.158	10/08/18 DMS
J8312-FS-D	7	--	10/8/2018 1:57:00 PM	J8312-FS	4	800	40	20.000	250.000	10/08/18 DMS
J8312-FS-D	8	--	10/10/2018 4:49:00 PM	J8312-FS-D	5	1000	900	1.111	55.556	10/10/18 DMS

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

18-0582

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	#					
J8312-FS-D	9	--	10/10/2018 4:49:00 PM	J8312-FS-D	5	1000	100	10.000	500.000	10/10/18 DMS
J8313-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8313-FS	2	--	10/4/2018 11:01:00 AM	J8313-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8313-FS	3	C	10/4/2018 11:01:00 AM	J8313-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8313-FS	4	--	10/8/2018 1:54:00 PM	J8313-FS	3	1000	960	1.042	10.417	10/08/18 DMS
J8313-FS-D	5	C	10/8/2018 1:54:00 PM	J8313-FS	3	1000	40	25.000	250.000	10/08/18 DMS
J8313-FS-D	6	--	10/10/2018 4:49:00 PM	J8313-FS-D	5	800	600	1.333	333.333	10/10/18 DMS
J8313-FS-D	7	--	10/10/2018 4:49:00 PM	J8313-FS-D	5	800	200	4.000	1000.000	10/10/18 DMS
J8314-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8314-FS	2	--	10/4/2018 11:01:00 AM	J8314-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8314-FS	3	C	10/4/2018 11:01:00 AM	J8314-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8314-FS	4	C	10/8/2018 1:54:00 PM	J8314-FS	3	1000	940	1.064	10.638	10/08/18 DMS
J8314-FS-D	5	--	10/8/2018 1:54:00 PM	J8314-FS	3	1000	60	16.667	166.667	10/08/18 DMS
J8314-FS-D	6	--	10/10/2018 4:49:00 PM	J8314-FS	4	940	740	1.270	13.514	10/10/18 DMS

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

18-0582

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	#					
J8314-FS-D	7	--	10/10/2018 4:49:00 PM	J8314-FS	4	940	200	4.700	50.000	10/10/18 DMS
J8315-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8315-FS	2	--	10/4/2018 11:01:00 AM	J8315-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8315-FS	3	C	10/4/2018 11:01:00 AM	J8315-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8315-FS	4	C	10/8/2018 1:54:00 PM	J8315-FS	3	1000	980	1.020	10.204	10/08/18 DMS
J8315-FS-D	5	C	10/8/2018 1:54:00 PM	J8315-FS	3	1000	20	50.000	500.000	10/08/18 DMS
J8315-FS-D	6	--	10/10/2018 4:49:00 PM	J8315-FS-D	5	1000	800	1.250	625.000	10/10/18 DMS
J8315-FS-D	7	--	10/10/2018 4:49:00 PM	J8315-FS-D	5	1000	200	5.000	2500.000	10/10/18 DMS
J8315-FS	8	--	10/16/2018 11:30:00 AM	J8315-FS	4	980	780	1.256	12.821	10/16/18 SAS
J8315-FS-D	9	--	10/16/2018 11:30:00 AM	J8315-FS	4	980	200	4.900	50.000	10/16/18 SAS
J8316-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8316-FS	2	--	10/4/2018 11:01:00 AM	J8316-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8316-FS	3	C	10/4/2018 11:01:00 AM	J8316-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8316-FS	4	--	10/8/2018 1:54:00 PM	J8316-FS	3	1000	960	1.042	10.417	10/08/18 DMS

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

18-0582

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	#					
J8316-FS-D	5	C	10/8/2018 1:54:00 PM	J8316-FS	3	1000	40	25.000	250.000	10/08/18 DMS
J8316-FS-D	6	--	10/10/2018 4:49:00 PM	J8316-FS-D	5	1000	800	1.250	312.500	10/10/18 DMS
J8316-FS-D	7	--	10/10/2018 4:49:00 PM	J8316-FS-D	5	1000	200	5.000	1250.000	10/10/18 DMS
J8317-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8317-FS	2	--	10/4/2018 11:01:00 AM	J8317-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8317-FS	3	C	10/4/2018 11:01:00 AM	J8317-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8317-FS	4	--	10/8/2018 1:54:00 PM	J8317-FS	3	1000	900	1.111	11.111	10/08/18 DMS
J8317-FS-D	5	C	10/8/2018 1:54:00 PM	J8317-FS	3	1000	100	10.000	100.000	10/08/18 DMS
J8317-FS-D	6	--	10/10/2018 4:49:00 PM	J8317-FS-D	5	1000	800	1.250	125.000	10/10/18 DMS
J8317-FS-D	7	--	10/10/2018 4:49:00 PM	J8317-FS-D	5	1000	200	5.000	500.000	10/10/18 DMS
J8318-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8318-FS	2	--	10/4/2018 11:01:00 AM	J8318-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8318-FS	3	C	10/4/2018 11:01:00 AM	J8318-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8318-FS	4	C	10/8/2018 1:54:00 PM	J8318-FS	3	1000	990	1.010	10.101	10/08/18 DMS

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

18-0582

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	#					
J8318-FS-D	5	C	10/8/2018 1:54:00 PM	J8318-FS	3	1000	10	100.000	1000.000	10/08/18 DMS
J8318-FS	6	--	10/8/2018 1:58:00 PM	J8318-FS-D	5	1000	500	2.000	2000.000	10/08/18 DMS
J8318-FS-D	7	--	10/8/2018 1:58:00 PM	J8318-FS-D	5	1000	500	2.000	2000.000	10/08/18 DMS
J8318-FS	8	--	10/10/2018 4:49:00 PM	J8318-FS	4	990	790	1.253	12.658	10/10/18 DMS
J8318-FS-D	9	--	10/10/2018 4:49:00 PM	J8318-FS	4	990	200	4.950	50.000	10/10/18 DMS
J8327-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8327-FS	2	--	10/4/2018 11:01:00 AM	J8327-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8327-FS	3	--	10/4/2018 11:01:00 AM	J8327-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8328-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8328-FS	2	--	10/4/2018 11:01:00 AM	J8328-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8328-FS	3	--	10/4/2018 11:01:00 AM	J8328-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8329-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8329-FS	2	--	10/4/2018 11:01:00 AM	J8329-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8329-FS	3	--	10/4/2018 11:01:00 AM	J8329-FS	0	10000	1000	10.000	10.000	10/04/18 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

18-0582

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	#					
J8332-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8332-FS	2	--	10/4/2018 11:01:00 AM	J8332-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8332-FS	3	--	10/4/2018 11:01:00 AM	J8332-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8333-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8333-FS	2	--	10/4/2018 11:01:00 AM	J8333-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8333-FS	3	--	10/4/2018 11:01:00 AM	J8333-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8334-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8334-FS	2	--	10/4/2018 11:01:00 AM	J8334-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8334-FS	3	--	10/4/2018 11:01:00 AM	J8334-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8335MS-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8335MS-FS	2	--	10/4/2018 11:01:00 AM	J8335MS-FS	0	10000	9000	1.111	1.111	10/04/18 SAS
J8335MS-FS	3	--	10/4/2018 11:01:00 AM	J8335MS-FS	0	10000	1000	10.000	10.000	10/04/18 SAS
J8336MSD-FS	0	C	10/2/2018 3:28:00 PM	NA		NA	NA	1.000	1.000	10/02/18 SAS
J8336MSD-FS	2	--	10/4/2018 11:01:00 AM	J8336MSD-FS	0	10000	9000	1.111	1.111	10/04/18 SAS

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

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It can be done

BATTELLE - NORWELL OPERATIONS
PREPARATION EXTRACT SPLIT FORM

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

Project No.(s)
100110125-01

18-0582

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	#					
J8336MSD-FS	3	--	10/4/2018 11:01:00 AM	J8336MSD-FS	0	10000	1000	10.000	10.000	10/04/18 SAS

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

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It can be done

BATTELLE - NORWELL OPERATIONS
EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

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

Project No.(s)
100110125-01

18-0582

CTO-4164: Analysis of Solids

SB, SS

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Oct 8 2018 2:01PM DMS	**Received On/By:**	Oct 8 2018 2:30PM 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	CR888PB-FS(3)	1000	10	Intact	NA
2	CR889LCS-FS(3)	1000	10	Intact	NA
3	J8310-FS(3)	1000	10	Intact	NA
4	J8311-FS(3)	1000	10	Intact	NA
5	J8312-FS(3)	1000	10	Intact	NA
6	J8313-FS(3)	1000	10	Intact	NA
7	J8314-FS(3)	1000	10	Intact	NA
8	J8315-FS(3)	1000	10	Intact	NA
9	J8316-FS(3)	1000	10	Intact	NA
10	J8317-FS(3)	1000	10	Intact	NA
11	J8318-FS(3)	1000	10	Intact	NA
12	J8327-FS(3)	1000	10	Intact	NA
13	J8328-FS(3)	1000	10	Intact	NA
14	J8329-FS(3)	1000	10	Intact	NA
15	J8332-FS(3)	1000	10	Intact	NA
16	J8333-FS(3)	1000	10	Intact	NA
17	J8334-FS(3)	1000	10	Intact	NA
18	J8335MS-FS(3)	1000	10	Intact	NA
19	J8336MSD-FS(3)	1000	10	Intact	NA

Total Extracts: 19

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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

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CTO-4164: Analysis of Solids

SB, SS

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Oct 8 2018 2:01PM DMS	**Received On/By:**	Oct 8 2018 2:30PM 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	J8310-FS-D(5)	1000	50	Intact	NA
2	J8311-FS-D(5)	1000	100	Intact	NA
3	J8312-FS-D(5)	1000	50	Intact	NA
4	J8312-FS-D(7)	1000	250	Intact	NA
5	J8313-FS-D(5)	1000	250	Intact	NA
6	J8314-FS-D(5)	1000	166.667	Intact	NA
7	J8315-FS-D(5)	1000	500	Intact	NA
8	J8316-FS-D(5)	1000	250	Intact	NA
9	J8317-FS-D(5)	1000	100	Intact	NA
10	J8318-FS-D(5)	1000	1000	Intact	NA
11	J8318-FS-D(7)	1000	2000	Intact	NA

Total Extracts: 11

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It can be done

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EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

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

Project No.(s)
100110125-01

18-0582

CTO-4164: Analysis of Solids

SB, SS

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Oct 10 2018 4:58PM DMS	**Received On/By:**	Oct 10 2018 4:58PM 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	J8310-FS-D(7)	1000	250	Intact	NA
2	J8311-FS-D(7)	1000	500	Intact	NA
3	J8312-FS-D(9)	1000	500	Intact	NA
4	J8313-FS-D(7)	1000	1000	Intact	NA
5	J8314-FS-D(7)	1000	50	Intact	NA
6	J8315-FS-D(7)	1000	2500	Intact	NA
7	J8316-FS-D(7)	1000	1250	Intact	NA
8	J8317-FS-D(7)	1000	500	Intact	NA

Total Extracts: 8

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Oct 10 2018 4:59PM DMS	**Received On/By:**	Oct 10 2018 5:00PM 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	J8318-FS-D(9)	1000	50	Intact	NA

Total Extracts: 1

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

18-0582

CTO-4164: Analysis of Solids

SB, SS

Purpose:	LC-MS/MS TRANSFER	**Last Activity:**	Prep->Inst
Relinquished On/By:	Oct 16 2018 11:43AM SAS	**Received On/By:**	Oct 16 2018 11:44AM 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	J8315-FS-D(9)	1000	50	Intact	NA

Total Extracts: 1

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

18-0582

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Comment:	Date/Initials:
CR888PB-FS	NA	NA
CR889LCS-FS	NA	NA
J8310-FS	Samples inadvertently requested twice for weighing out	10/22/18 SAS
J8311-FS	NA	NA
J8312-FS	NA	NA
J8313-FS	NA	NA
J8314-FS	NA	NA
J8315-FS	NA	NA
J8316-FS	NA	NA
J8317-FS	NA	NA
J8318-FS	NA	NA
J8327-FS	NA	NA
J8328-FS	NA	NA
J8329-FS	NA	NA
J8332-FS	NA	NA
J8333-FS	NA	NA
J8334-FS	NA	NA
J8335MS-FS	Sample appeared more wet and had a different consistency than the sample for the MSD	10/02/18 SAS
J8336MSD-FS	Sample appeared more dry and had a different consistency than the sample for the MS.	10/02/18 SAS

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It can be done

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MISCELLANEOUS DOCUMENTATION FORM

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

Project No.(s)
100110125-01

18-0582

CTO-4164: Analysis of Solids

SB, SS

Entered By:	Lauren Griffith	**On:**	09/26/2018

For pre-screening by direct inject, an extract was prepared as follows:
After mixing the sample thoroughly, samples (BAL015) (target 1g) were weighed into a 50 mL polypropylene centrifuge tube.
10 mL of methanol (180724-02) was then added to the tube (pipette B641148506), and the sample was shaken on the geno grinder at 1200 rpm for 5 minutes. The extract was then centrifuged at 3000 rpm for 5 minutes.

650 uL of methanol (180913-07) and 200uL MilliQ water were then pipetted (B820865811) into an eppendorf tube, followed by 50 uL of KB33 (pipette B814659662). A 100 uL aliquot (pipette I0793912B) of extract was then added to the eppendorf tube containing spiked methanol. The tube was then capped and vortexed to mix. An aliquot was then transferred to an autosampler vial and submitted for analysis.

Task Leader Approval:	Lauren Griffith	**On:**	09/28/2018
SupervisorApproval:	Denise Schumitz	**On:**	10/22/2018
PM Approval:	Jonathan Thorn	**On:**	10/18/2018

Analytical Calibrations

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Sequence Report

Created with Analyst Reporter
Printed: 19/10/2018 3:24:50 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
1	MeOH		10/8/2018 3:29:19 PM	5-0369.dam	18-0601.wiff
2	KB73	L1	10/8/2018 3:40:10 PM	5-0369.dam	18-0601.wiff
3	KB74	L2	10/8/2018 3:51:02 PM	5-0369.dam	18-0601.wiff
4	KB75	L3	10/8/2018 4:01:53 PM	5-0369.dam	18-0601.wiff
5	KB76	L4	10/8/2018 4:12:44 PM	5-0369.dam	18-0601.wiff
6	KB77	L5	10/8/2018 4:23:36 PM	5-0369.dam	18-0601.wiff
7	KB78	L6	10/8/2018 4:34:28 PM	5-0369.dam	18-0601.wiff
8	KB79	L7	10/8/2018 4:45:19 PM	5-0369.dam	18-0601.wiff
9	KB80 IB	Instrument Blank	10/8/2018 4:56:10 PM	5-0369.dam	18-0601.wiff
10	KB81 ICC	ICC	10/8/2018 5:07:01 PM	5-0369.dam	18-0601.wiff
11	KB89 Branch	Branch Standard	10/8/2018 5:17:54 PM	5-0369.dam	18-0601.wiff

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Sequence Report

Created with Analyst Reporter
Printed: 11/10/2018 11:05:09 AM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
3	MeOH		10/8/2018 5:28:47 PM	5-0369.dam	18-0581_18-0584A.wiff
4	CR886PB-FS(3)	Procedural Blank	10/8/2018 5:39:40 PM	5-0369.dam	18-0581_18-0584A.wiff
5	CR887LCS-FS(3)	Laboratory Control Sample	10/8/2018 5:50:31 PM	5-0369.dam	18-0581_18-0584A.wiff
6	J8291-FS(3)	VC-CS94-SS01-000H	10/8/2018 6:01:23 PM	5-0369.dam	18-0581_18-0584A.wiff
7	J8292-FS(3)	VC-CS94-SB01-0102	10/8/2018 6:12:14 PM	5-0369.dam	18-0581_18-0584A.wiff
8	J8293-FS(3)	VC-CS94-SB01-0506	10/8/2018 6:23:08 PM	5-0369.dam	18-0581_18-0584A.wiff
9	J8294-FS(3)	VC-CS94-SS02-000H	10/8/2018 6:33:58 PM	5-0369.dam	18-0581_18-0584A.wiff
10	J8295-FS(3)	VC-CS94-SB02-0102	10/8/2018 6:44:49 PM	5-0369.dam	18-0581_18-0584A.wiff
11	J8296-FS(3)	VC-CS94-SB02-0506	10/8/2018 6:55:42 PM	5-0369.dam	18-0581_18-0584A.wiff
12	J8297-FS(3)	VC-CS94-SS03-000H	10/8/2018 7:06:32 PM	5-0369.dam	18-0581_18-0584A.wiff
13	J8298-FS(3)	VC-CS94-SB03-0102	10/8/2018 7:17:24 PM	5-0369.dam	18-0581_18-0584A.wiff
14	KB76 CCV	CCV	10/8/2018 7:28:16 PM	5-0369.dam	18-0581_18-0584A.wiff
15	MeOH		10/8/2018 7:39:06 PM	5-0369.dam	18-0581_18-0584A.wiff
16	J8299-FS(3)	VC-CS94-SB03-0506	10/8/2018 7:49:59 PM	5-0369.dam	18-0581_18-0584A.wiff
17	J8300-FS(3)	VC-CS94-SS04-000H	10/8/2018 8:00:50 PM	5-0369.dam	18-0581_18-0584A.wiff
18	J8301-FS(3)	VC-CS94-SB04-0102	10/8/2018 8:11:41 PM	5-0369.dam	18-0581_18-0584A.wiff
19	J8302-FS(3)	VC-CS94-SB04-0506	10/8/2018 8:22:32 PM	5-0369.dam	18-0581_18-0584A.wiff
20	J8303-FS(3)	VC-CS94-SS05-000H	10/8/2018 8:33:25 PM	5-0369.dam	18-0581_18-0584A.wiff
21	J8304-FS(3)	VC-CS94-SB05-0102	10/8/2018 8:44:18 PM	5-0369.dam	18-0581_18-0584A.wiff
22	J8305-FS(3)	VC-CS94-SB05-0506	10/8/2018 8:55:09 PM	5-0369.dam	18-0581_18-0584A.wiff
23	J8306MS-FS(3)	VC-CS94-SS04-000H-MS	10/8/2018 9:06:01 PM	5-0369.dam	18-0581_18-0584A.wiff
24	J8307MSD-FS(3)	VC-CS94-SS04-000H-MSD	10/8/2018 9:16:54 PM	5-0369.dam	18-0581_18-0584A.wiff
25	KB77 CCV	CCV	10/8/2018 9:27:45 PM	5-0369.dam	18-0581_18-0584A.wiff
26	MeOH		10/8/2018 9:38:36 PM	5-0369.dam	18-0581_18-0584A.wiff
27	CR892PB-FS(3)	Procedural Blank	10/8/2018 9:49:26 PM	5-0369.dam	18-0581_18-0584A.wiff
28	CR893LCS-FS(3)	Laboratory Control Sample	10/8/2018 10:00:19 PM	5-0369.dam	18-0581_18-0584A.wiff
29	J8352-FS(3)	VC-PM323-SS01-	10/8/2018 10:11:10	5-0369.dam	18-0581_18-0584A.wiff

Injection started immediately after last sequence. DMS 10/22/2018

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Sequence Report

Created with Analyst Reporter
Printed: 11/10/2018 11:05:09 AM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
		000H	PM		
30	J8352-FS-D(5)	VC-PM323-SS01-000H	10/8/2018 10:22:03 PM	5-0369.dam	18-0581_18-0584A.wiff
31	J8353-FS(3)	VC-PM323-SB01-0102	10/8/2018 10:32:55 PM	5-0369.dam	18-0581_18-0584A.wiff
32	J8353-FS-D(5)	VC-PM323-SB01-0102	10/8/2018 10:43:46 PM	5-0369.dam	18-0581_18-0584A.wiff
33	J8354-FS(3)	VC-PM323-SB01-0506	10/8/2018 10:54:37 PM	5-0369.dam	18-0581_18-0584A.wiff
34	J8354-FS-D(5)	VC-PM323-SB01-0506	10/8/2018 11:05:28 PM	5-0369.dam	18-0581_18-0584A.wiff
35	J8355-FS(3)	VC-PM323-SS03-000H	10/8/2018 11:16:20 PM	5-0369.dam	18-0581_18-0584A.wiff
36	J8356-FS(3)	VC-PM323-SB03-0102	10/8/2018 11:27:10 PM	5-0369.dam	18-0581_18-0584A.wiff
37	KB76 CCV	CCV	10/8/2018 11:38:01 PM	5-0369.dam	18-0581_18-0584A.wiff
38	MeOH		10/8/2018 11:48:53 PM	5-0369.dam	18-0581_18-0584A.wiff
39	J8357-FS(3)	VC-PM323-SB03-0506	10/8/2018 11:59:44 PM	5-0369.dam	18-0581_18-0584A.wiff
40	J8360-FS(3)	VC-PM324-SS01-000H	10/9/2018 12:10:35 AM	5-0369.dam	18-0581_18-0584A.wiff
41	J8361-FS(3)	VC-PM324-SB01-0102	10/9/2018 12:21:28 AM	5-0369.dam	18-0581_18-0584A.wiff
42	J8362-FS(3)	VC-PM324-SB01-0506	10/9/2018 12:32:20 AM	5-0369.dam	18-0581_18-0584A.wiff
43	J8363-FS(3)	VC-PM324-SS03-000H	10/9/2018 12:43:11 AM	5-0369.dam	18-0581_18-0584A.wiff
44	J8364-FS(3)	VC-PM324-SB03-0102	10/9/2018 12:54:04 AM	5-0369.dam	18-0581_18-0584A.wiff
45	J8364-FS-D(5)	VC-PM324-SB03-0102	10/9/2018 1:04:56 AM	5-0369.dam	18-0581_18-0584A.wiff
46	J8365-FS(3)	VC-PM324-SB03-0506	10/9/2018 1:15:48 AM	5-0369.dam	18-0581_18-0584A.wiff
47	J8366MS-FS(3)	VC-PM324-SB03-0102-MS	10/9/2018 1:26:41 AM	5-0369.dam	18-0581_18-0584A.wiff
48	J8366MS-FS-D(5)	VC-PM324-SB03-0102-MS	10/9/2018 1:37:33 AM	5-0369.dam	18-0581_18-0584A.wiff
49	KB77 CCV	CCV	10/9/2018 1:48:24 AM	5-0369.dam	18-0581_18-0584A.wiff
50	MeOH		10/9/2018 1:59:16 AM	5-0369.dam	18-0581_18-0584A.wiff
51	J8367MSD-FS(3)	VC-PM324-SB03-0102-MSD	10/9/2018 2:10:07 AM	5-0369.dam	18-0581_18-0584A.wiff
52	J8367MSD-FS-D(5)	VC-PM324-SB03-0102-MSD	10/9/2018 2:20:59 AM	5-0369.dam	18-0581_18-0584A.wiff
53	J8373-FS(3)	VC-PM64B-SS01-000H	10/9/2018 2:31:50 AM	5-0369.dam	18-0581_18-0584A.wiff
54	J8374-FS(3)	VC-PM64B-SB01-0102	10/9/2018 2:42:42 AM	5-0369.dam	18-0581_18-0584A.wiff
1	J8375-FS(3)	VC-PM64B-SB01-0506	10/9/2018 2:53:33 AM	5-0369.dam	18-0581_18-0584A.wiff

Injection started immediately after last sequence. DMS 10/22/2018

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Sequence Report

Created with Analyst Reporter
Printed: 11/10/2018 11:05:09 AM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
2	J8376-FS(3)	VC-PM64B-SS02-000H	10/9/2018 3:04:26 AM	5-0369.dam	18-0581_18-0584A.wiff
3	J8377-FS(3)	VC-PM64B-SB02-0102	10/9/2018 3:15:19 AM	5-0369.dam	18-0581_18-0584A.wiff
4	J8378-FS(3)	VC-PM64B-SB02-0506	10/9/2018 3:26:11 AM	5-0369.dam	18-0581_18-0584A.wiff
5	J8379-FS(3)	VC-PM64B-SS03-000H	10/9/2018 3:37:04 AM	5-0369.dam	18-0581_18-0584A.wiff
6	J8380-FS(3)	VC-PM64B-SB03-0102	10/9/2018 3:47:58 AM	5-0369.dam	18-0581_18-0584A.wiff
7	KB76 CCV	CCV	10/9/2018 3:58:51 AM	5-0369.dam	18-0581_18-0584A.wiff

Injection started immediately after last sequence. DMS 10/22/2018

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Sequence Report

Created with Analyst Reporter
Printed: 19/10/2018 3:30:43 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
8	MeOH		10/9/2018 4:09:44 AM	5-0369.dam	Data18-0582.wiff
9	CR888PB-FS(3)	Procedural Blank	10/9/2018 4:20:36 AM	5-0369.dam	Data18-0582.wiff
10	CR889LCS-FS(3)	Laboratory Control Sample	10/9/2018 4:31:27 AM	5-0369.dam	Data18-0582.wiff
11	J8310-FS(3)	VC-PM323-324-SS01-000H	10/9/2018 4:42:20 AM	5-0369.dam	Data18-0582.wiff
12	J8310-FS-D(5)	VC-PM323-324-SS01-000H	10/9/2018 4:53:13 AM	5-0369.dam	Data18-0582.wiff
13	J8311-FS(3)	VC-PM323-324-SB01-0102	10/9/2018 5:04:06 AM	5-0369.dam	Data18-0582.wiff
14	J8311-FS-D(5)	VC-PM323-324-SB01-0102	10/9/2018 5:14:58 AM	5-0369.dam	Data18-0582.wiff
15	J8312-FS(3)	VC-PM323-324-SB01-0506	10/9/2018 5:25:51 AM	5-0369.dam	Data18-0582.wiff
16	J8312-FS-D(5)	VC-PM323-324-SB01-0506	10/9/2018 5:36:43 AM	5-0369.dam	Data18-0582.wiff
17	J8312-FS-D(7)	VC-PM323-324-SB01-0506	10/9/2018 5:47:35 AM	5-0369.dam	Data18-0582.wiff
18	J8333-FS(3)	VC-PM324-SB02-0102	10/9/2018 5:58:27 AM	5-0369.dam	Data18-0582.wiff
19	KB77 CCV	CCV	10/9/2018 6:09:20 AM	5-0369.dam	Data18-0582.wiff
20	MeOH		10/9/2018 6:20:14 AM	5-0369.dam	Data18-0582.wiff
21	J8313-FS(3)	VC-PM323-324-SS02-000H	10/9/2018 6:31:06 AM	5-0369.dam	Data18-0582.wiff
22	J8313-FS-D(5)	VC-PM323-324-SS02-000H	10/9/2018 6:41:58 AM	5-0369.dam	Data18-0582.wiff
23	J8314-FS(3)	VC-PM323-324-SB02-0102	10/9/2018 6:52:50 AM	5-0369.dam	Data18-0582.wiff
24	J8314-FS-D(5)	VC-PM323-324-SB02-0102	10/9/2018 7:03:43 AM	5-0369.dam	Data18-0582.wiff
25	J8315-FS(3)	VC-PM323-324-SB02-0506	10/9/2018 7:14:35 AM	5-0369.dam	Data18-0582.wiff
26	J8315-FS-D(5)	VC-PM323-324-SB02-0506	10/9/2018 7:25:27 AM	5-0369.dam	Data18-0582.wiff
27	J8316-FS(3)	VC-PM323-324-SS03-000H	10/9/2018 7:36:19 AM	5-0369.dam	Data18-0582.wiff
28	J8316-FS-D(5)	VC-PM323-324-SS03-000H	10/9/2018 7:47:10 AM	5-0369.dam	Data18-0582.wiff
29	J8317-FS(3)	VC-PM323-324-SB03-0102	10/9/2018 7:58:03 AM	5-0369.dam	Data18-0582.wiff
30	J8317-FS-D(5)	VC-PM323-324-SB03-0102	10/9/2018 8:08:54 AM	5-0369.dam	Data18-0582.wiff
31	KB76 CCV	CCV	10/9/2018 8:19:46 AM	5-0369.dam	Data18-0582.wiff
32	MeOH		10/9/2018 8:30:39 AM	5-0369.dam	Data18-0582.wiff
33	J8318-FS(3)	VC-PM323-324-SB03-0506	10/9/2018 8:41:33 AM	5-0369.dam	Data18-0582.wiff
34	J8318-FS-D(5)	VC-PM323-324-SB03-	10/9/2018 8:52:24	5-0369.dam	Data18-0582.wiff

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Sequence Report

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Printed: 19/10/2018 3:30:43 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
		0506	AM		
35	J8318-FS-D(7)	VC-PM323-324-SB03-0506	10/9/2018 9:03:17 AM	5-0369.dam	Data18-0582.wiff
36	J8327-FS(3)	VC-PM323-SS02-000H	10/9/2018 9:14:10 AM	5-0369.dam	Data18-0582.wiff
37	J8328-FS(3)	VC-PM323-SB02-0102	10/9/2018 9:25:02 AM	5-0369.dam	Data18-0582.wiff
38	J8329-FS(3)	VC-PM323-SB02-0506	10/9/2018 9:35:55 AM	5-0369.dam	Data18-0582.wiff
39	J8332-FS(3)	VC-PM324-SS02-000H	10/9/2018 9:46:46 AM	5-0369.dam	Data18-0582.wiff
40	J8334-FS(3)	VC-PM324-SB02-0506	10/9/2018 9:57:38 AM	5-0369.dam	Data18-0582.wiff
41	J8335MS-FS(3)	VC-PM324-SB02-0506-MS	10/9/2018 10:08:31 AM	5-0369.dam	Data18-0582.wiff
42	J8336MSD-FS(3)	VC-PM324-SB02-0506-MSD	10/9/2018 10:19:23 AM	5-0369.dam	Data18-0582.wiff
43	KB77 CCV	CCV	10/9/2018 10:30:17 AM	5-0369.dam	Data18-0582.wiff

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Sequence Report

Created with Analyst Reporter
Printed: 25/10/2018 4:04:45 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
1	MeOH		10/14/2018 12:14:09 PM	5-0369.dam	18-0585_18-0583.wiff
2	KB73	L1	10/14/2018 12:25:01 PM	5-0369.dam	18-0585_18-0583.wiff
3	KB74	L2	10/14/2018 12:35:53 PM	5-0369.dam	18-0585_18-0583.wiff
4	KB75	L3	10/14/2018 12:46:44 PM	5-0369.dam	18-0585_18-0583.wiff
5	KB76	L4	10/14/2018 12:57:36 PM	5-0369.dam	18-0585_18-0583.wiff
6	KB77	L5	10/14/2018 1:08:28 PM	5-0369.dam	18-0585_18-0583.wiff
7	KB78	L6	10/14/2018 1:19:19 PM	5-0369.dam	18-0585_18-0583.wiff
8	KB79	L7	10/14/2018 1:30:11 PM	5-0369.dam	18-0585_18-0583.wiff
9	KB80 IB	Instrument Blank	10/14/2018 1:41:02 PM	5-0369.dam	18-0585_18-0583.wiff
10	KB81 ICC	ICC	10/14/2018 1:51:53 PM	5-0369.dam	18-0585_18-0583.wiff
11	KB89 Branch	Branch Standard	10/14/2018 2:02:45 PM	5-0369.dam	18-0585_18-0583.wiff
12	MeOH		10/14/2018 2:13:37 PM	5-0369.dam	18-0585_18-0583.wiff

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Sequence Report

Created with Analyst Reporter
Printed: 25/10/2018 4:03:25 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File	
1	KB75 ISC	Instrument Sensitivity Check	10/15/2018 5:53:40 PM	5-0369.dam	10152018.wiff	
2	KB80 IB	Instrument Blank	10/15/2018 6:04:33 PM	5-0369.dam	10152018.wiff	
3	MeOH		10/15/2018 6:15:26 PM	5-0369.dam	10152018.wiff	
~~4~~	~~J8337-FS-D(11)~~		~~10/15/2018 6:26:19 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	1
~~5~~	~~J8369-FS-D(3)~~		~~10/15/2018 6:37:10 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	
~~6~~	~~J8395-FS-D(5)~~		~~10/15/2018 6:48:02 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	
~~7~~	~~J8400-FS-D(7)~~		~~10/15/2018 6:58:54 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	
8	J8310-FS-D(7)	VC-PM323-324-SS01-000H	10/15/2018 7:09:47 PM	5-0369.dam	10152018.wiff	
9	J8311-FS-D(7)	VC-PM323-324-SB01-0102	10/15/2018 7:20:39 PM	5-0369.dam	10152018.wiff	
10	J8312-FS-D(9)	VC-PM323-324-SB01-0506	10/15/2018 7:31:30 PM	5-0369.dam	10152018.wiff	
11	J8313-FS-D(7)	VC-PM323-324-SS02-000H	10/15/2018 7:42:21 PM	5-0369.dam	10152018.wiff	
12	J8314-FS-D(7)	VC-PM323-324-SB02-0102	10/15/2018 7:53:13 PM	5-0369.dam	10152018.wiff	
13	KB77 CCV	CCV	10/15/2018 8:04:05 PM	5-0369.dam	10152018.wiff	
14	MeOH		10/15/2018 8:14:57 PM	5-0369.dam	10152018.wiff	
15	J8315-FS-D(7)	VC-PM323-324-SB02-0506	10/15/2018 8:25:51 PM	5-0369.dam	10152018.wiff	
16	J8316-FS-D(7)	VC-PM323-324-SS03-000H	10/15/2018 8:36:42 PM	5-0369.dam	10152018.wiff	
17	J8317-FS-D(7)	VC-PM323-324-SB03-0102	10/15/2018 8:47:33 PM	5-0369.dam	10152018.wiff	
18	J8318-FS-D(9)	VC-PM323-324-SB03-0506	10/15/2018 8:58:24 PM	5-0369.dam	10152018.wiff	
19	KB76 CCV	CCV	10/15/2018 9:09:15 PM	5-0369.dam	10152018.wiff	
20	MeOH		10/15/2018 9:20:07 PM	5-0369.dam	10152018.wiff	
~~21~~	~~CR998PB-FS(0)~~		~~10/15/2018 9:30:59 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	1
~~22~~	~~CR999LCS-FS(0)~~		~~10/15/2018 9:41:51 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	
~~23~~	~~J8743-FS(0)~~		~~10/15/2018 9:52:43 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	
~~24~~	~~J8743-FS-D(3)~~		~~10/15/2018 10:03:35 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	
~~25~~	~~J8744-FS(0)~~		~~10/15/2018 10:14:26 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	
~~26~~	~~J8745-FS(0)~~		~~10/15/2018 10:25:17 PM~~	~~5-0369.dam~~	~~10152018.wiff~~	
~~27~~	~~J8746-FS(0)~~		~~10/15/2018 10:36:08~~	~~5-0369.dam~~	~~10152018.wiff~~	

1 Samples from another batch not reported with this one. DMS 10/25/2018

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 25/10/2018 4:03:25 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
			PM		
28	J8747-FS(0)		10/15/2018 10:47:01 PM	5-0369.dam	10152018.wiff
29	J8748-FS(0)		10/15/2018 10:57:53 PM	5-0369.dam	10152018.wiff
54	J8753-FS(0)		10/15/2018 11:08:45 PM	5-0369.dam	10152018.wiff
30	KB77-CCV	CCV	10/15/2018 11:19:36 PM	5-0369.dam	10152018.wiff
31	MeOH		10/15/2018 11:30:28 PM	5-0369.dam	10152018.wiff
32	J8749-FS(0)		10/15/2018 11:41:21 PM	5-0369.dam	10152018.wiff
33	J8750-FS(0)		10/15/2018 11:52:13 PM	5-0369.dam	10152018.wiff
34	J8751-FS(0)		10/16/2018 12:03:05 AM	5-0369.dam	10152018.wiff
35	J8751-FS-D(3)		10/16/2018 12:13:56 AM	5-0369.dam	10152018.wiff
36	J8752-FS(0)		10/16/2018 12:24:47 AM	5-0369.dam	10152018.wiff
37	J8754-FS(0)		10/16/2018 12:35:38 AM	5-0369.dam	10152018.wiff
38	J8759-FS(0)		10/16/2018 12:46:29 AM	5-0369.dam	10152018.wiff
39	J8760-FS(0)		10/16/2018 12:57:20 AM	5-0369.dam	10152018.wiff
40	J8761-FS(0)		10/16/2018 1:08:13 AM	5-0369.dam	10152018.wiff
41	KB76-CCV	CCV	10/16/2018 1:19:04 AM	5-0369.dam	10152018.wiff
42	MeOH		10/16/2018 1:29:56 AM	5-0369.dam	10152018.wiff
43	K8762-FS(0)		10/16/2018 1:40:47 AM	5-0369.dam	10152018.wiff
44	K8763-FS(0)		10/16/2018 1:51:38 AM	5-0369.dam	10152018.wiff
45	K8764-FS(0)		10/16/2018 2:02:30 AM	5-0369.dam	10152018.wiff
46	K8764-FS-D(3)		10/16/2018 2:13:21 AM	5-0369.dam	10152018.wiff
47	k8764-FS-D(5)		10/16/2018 2:24:13 AM	5-0369.dam	10152018.wiff
48	J8765-FS(0)		10/16/2018 2:35:04 AM	5-0369.dam	10152018.wiff
49	J8765-FS-D(3)		10/16/2018 2:45:56 AM	5-0369.dam	10152018.wiff
50	J8765-FS-D(5)		10/16/2018 2:56:48 AM	5-0369.dam	10152018.wiff
51	J8765-FS-D(7)		10/16/2018 3:07:41 AM	5-0369.dam	10152018.wiff
52	KB77-CCV	CCV	10/16/2018 3:18:32 AM	5-0369.dam	10152018.wiff

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1 Samples from another batch not reported with this one. DMS 10/25/2018

BATTELLE

Sequence Report

Created with Analyst Reporter
Printed: 25/10/2018 4:03:25 PM

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
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~~1~~	~~KB76 CCV~~	~~CCV~~	~~10/16/2018 8:06:17 AM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~2~~	~~MeOH~~		~~10/16/2018 8:17:11 AM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~3~~	~~J8760-FS(0)~~		~~10/16/2018 8:28:03 AM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~52~~	~~KB77 CCV~~	~~CCV~~	~~10/16/2018 8:44:02 AM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~2~~	~~MeOH~~		~~10/16/2018 8:54:55 AM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~3~~	~~J8760-FS(0)~~		~~10/16/2018 9:12:59 AM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~4~~	~~CS001PB-FS(0)~~		~~10/16/2018 9:28:37 AM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~5~~	~~CS002LCS-FS(0)~~		~~10/16/2018 9:39:30 AM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~6~~	~~J8758-FS(0)~~		~~10/16/2018 9:50:22 AM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~7~~	~~J8755-FS(0)~~		~~10/16/2018 10:01:14 AM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~8~~	~~J8756-FS(0)~~		~~10/16/2018 10:12:06 AM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~1~~	~~MeOH~~		~~10/16/2018 11:44:50 AM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~2~~	~~J8757-FS(0)~~		~~10/16/2018 11:55:43 AM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~3~~	~~J8757-FS-D(3)~~		~~10/16/2018 12:06:36 PM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~4~~	~~J8755-FS(0)~~		~~10/16/2018 12:17:28 PM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~5~~	~~KB76 CCV~~	~~CCV~~	~~10/16/2018 12:28:20 PM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~6~~	~~MeOH~~		~~10/16/2018 12:39:12 PM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~11~~	~~J8751-FS-D(5)~~		~~10/16/2018 12:50:04 PM~~	~~5-0369.dam~~	~~10152018.wiff~~
10	KB77 CCV	CCV	10/16/2018 1:00:57 PM	5-0369.dam	10152018.wiff
9	J8315-FS-D(9)	VC-PM323-324-SB02-0506	10/16/2018 1:11:49 PM	5-0369.dam	10152018.wiff
~~6~~	~~MeOH~~		~~10/16/2018 1:22:41 PM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~7~~	~~KC19 CHECK 1~~		~~10/16/2018 1:33:34 PM~~	~~5-0369.dam~~	~~10152018.wiff~~
~~8~~	~~KC 19 CHECK 2~~		~~10/16/2018 1:44:25 PM~~	~~5-0369.dam~~	~~10152018.wiff~~
5	KB76 CCV	CCV	10/16/2018 1:55:18 PM	5-0369.dam	10152018.wiff

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1 Samples from another batch not reported with this one. DMS 10/25/2018

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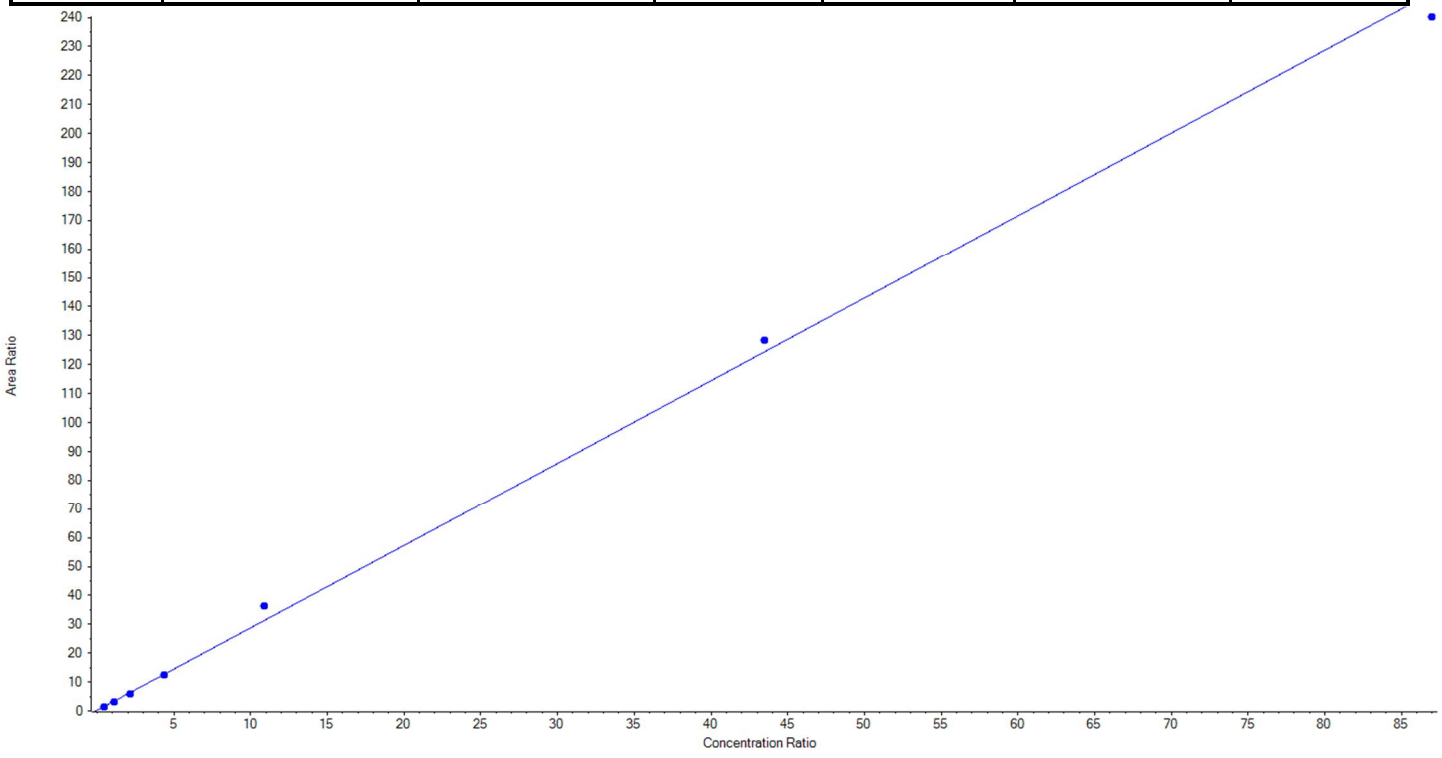
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFBS_1	**Data File**	18-0601.wiff
MRM Transition	298.9 / 80.0	**Result Table**	18-0582_BASE
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 2.85612 x + 0.20125 (r = 0.99829) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	99.953426	99.0
3	KB74	L2	True	252.50	235.867817	93.4
4	KB75	L3	True	505.00	467.701721	92.6
5	KB76	L4	True	1010.00	993.462503	98.4
6	KB77	L5	True	2525.00	2947.537177	116.7
7	KB78	L6	True	10100.00	10433.295836	103.3
8	KB79	L7	True	20200.00	19515.681521	96.6



BATTELLE

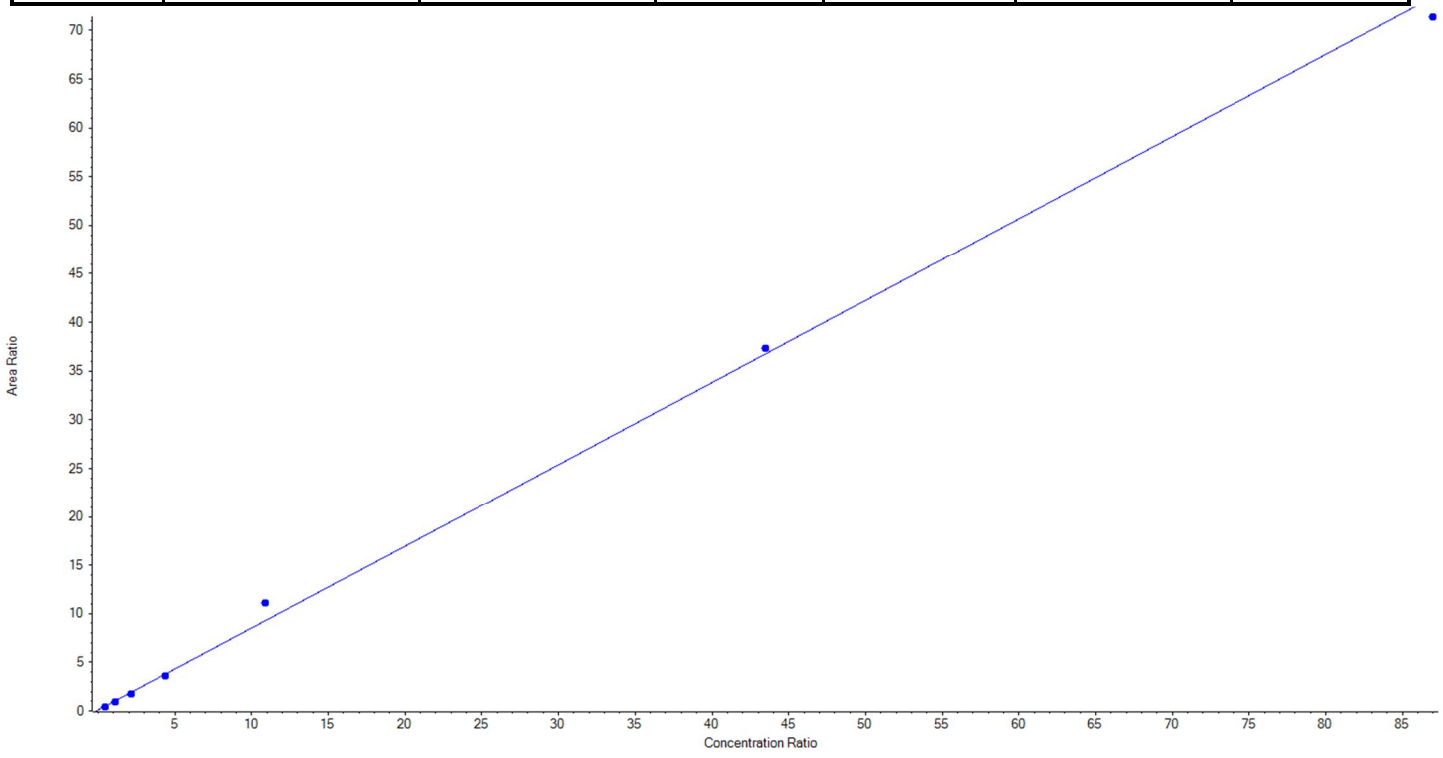
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFBS_2	**Data File**	18-0601.wiff
MRM Transition	298.9 / 99.0	**Result Table**	18-0582_BASE
Internal Standard	13C3-PFBS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.84300 x + 0.09895 (r = 0.99812) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	99.537833	98.6
3	KB74	L2	True	252.50	237.336670	94.0
4	KB75	L3	True	505.00	467.679320	92.6
5	KB76	L4	True	1010.00	974.004845	96.4
6	KB77	L5	True	2525.00	3021.038298	119.7
7	KB78	L6	True	10100.00	10256.020604	101.5
8	KB79	L7	True	20200.00	19637.882430	97.2



BATTELLE

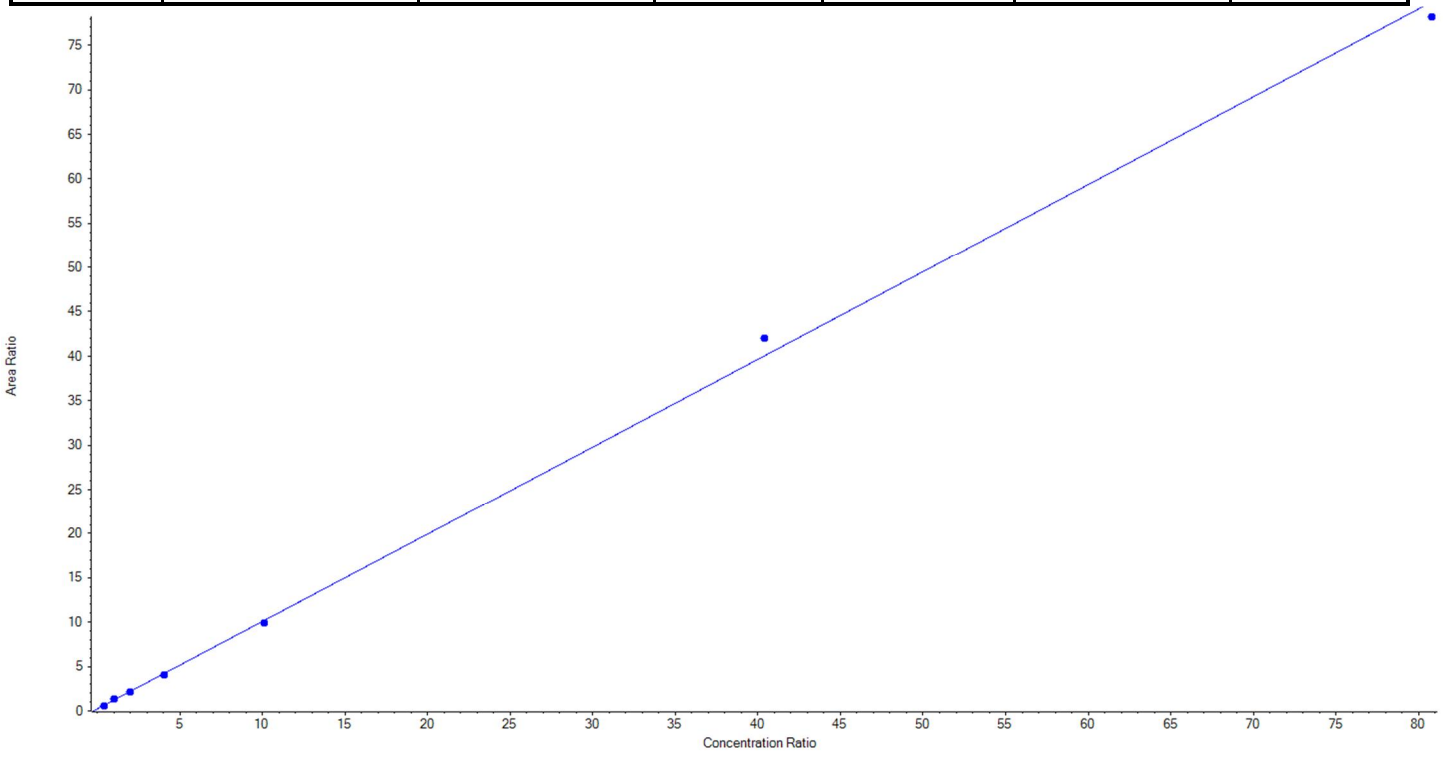
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFHxA_1	**Data File**	18-0601.wiff
MRM Transition	313.0 / 269.0	**Result Table**	18-0582_BASE
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.98554 x + 0.22259 (r = 0.99933) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	92.447260	91.5
3	KB74	L2	True	252.50	287.493278	113.9
4	KB75	L3	True	505.00	488.979798	96.8
5	KB76	L4	True	1010.00	983.021914	97.3
6	KB77	L5	True	2525.00	2463.536173	97.6
7	KB78	L6	True	10100.00	10605.144570	105.0
8	KB79	L7	True	20200.00	19772.877006	97.9



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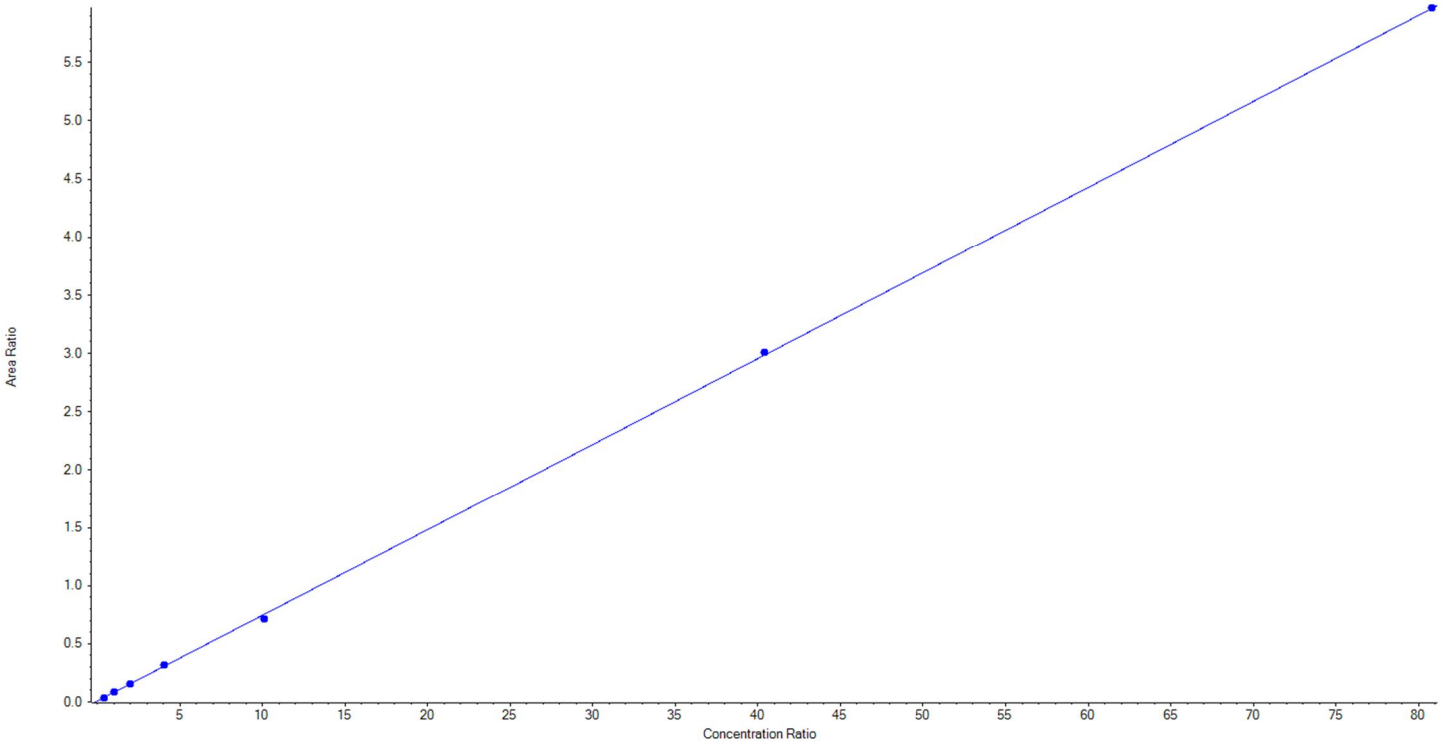
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFHxA_2	**Data File**	18-0601.wiff
MRM Transition	313.0 / 119.0	**Result Table**	18-0582_BASE
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.07369 x + 0.00793 (r = 0.99983) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	99.213282	98.2
3	KB74	L2	True	252.50	256.972963	101.8
4	KB75	L3	True	505.00	506.830897	100.4
5	KB76	L4	True	1010.00	1054.871534	104.4
6	KB77	L5	True	2525.00	2382.338955	94.4
7	KB78	L6	True	10100.00	10176.855980	100.8
8	KB79	L7	True	20200.00	20216.416389	100.1



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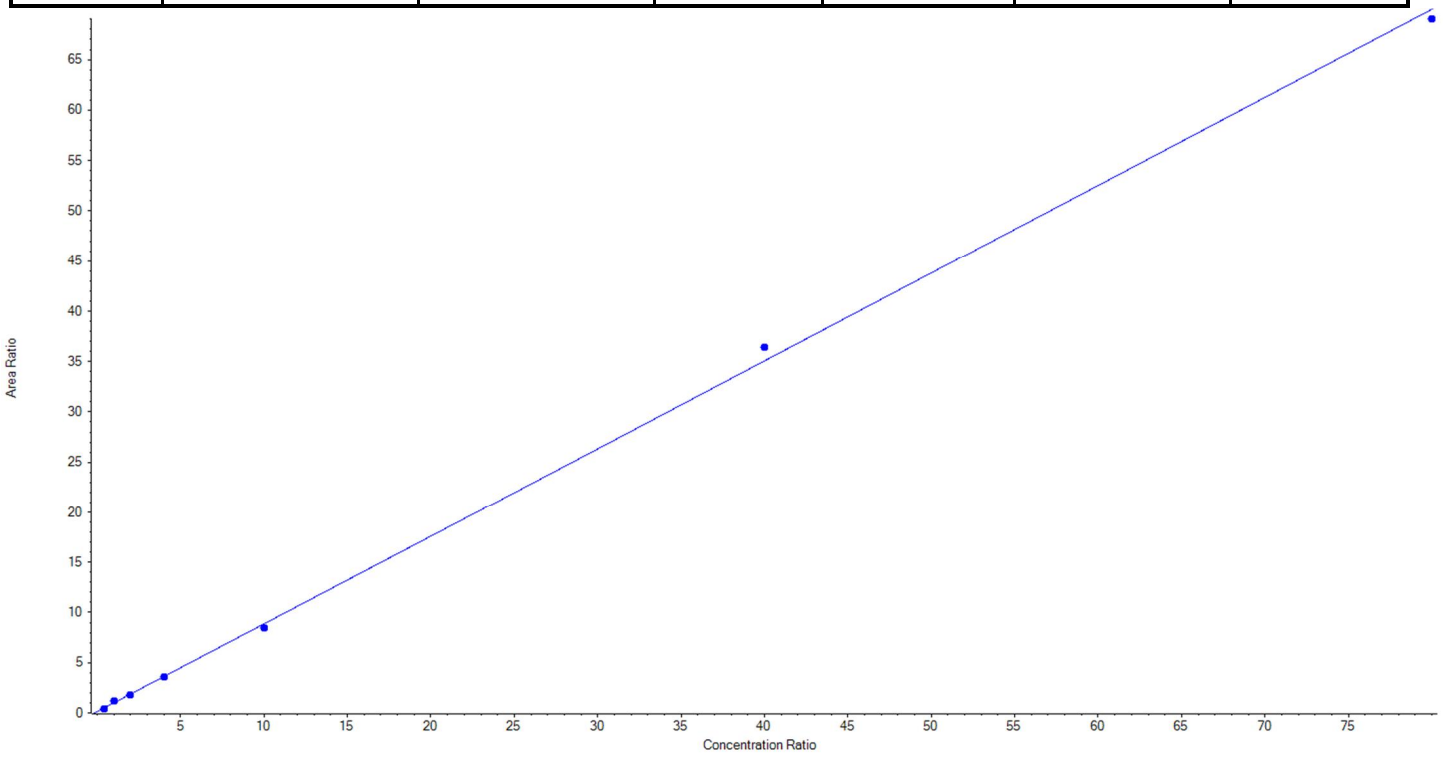
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFHpA_1	**Data File**	18-0601.wiff
MRM Transition	363.0 / 319.0	**Result Table**	18-0582_BASE
Internal Standard	13C4-PFHpA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.87325 x + 0.13017 (r = 0.99942) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	89.873661	89.9
3	KB74	L2	True	250.00	297.117006	118.9
4	KB75	L3	True	500.00	476.968535	95.4
5	KB76	L4	True	1000.00	980.539024	98.1
6	KB77	L5	True	2500.00	2380.403957	95.2
7	KB78	L6	True	10000.00	10398.055976	104.0
8	KB79	L7	True	20000.00	19727.041841	98.6



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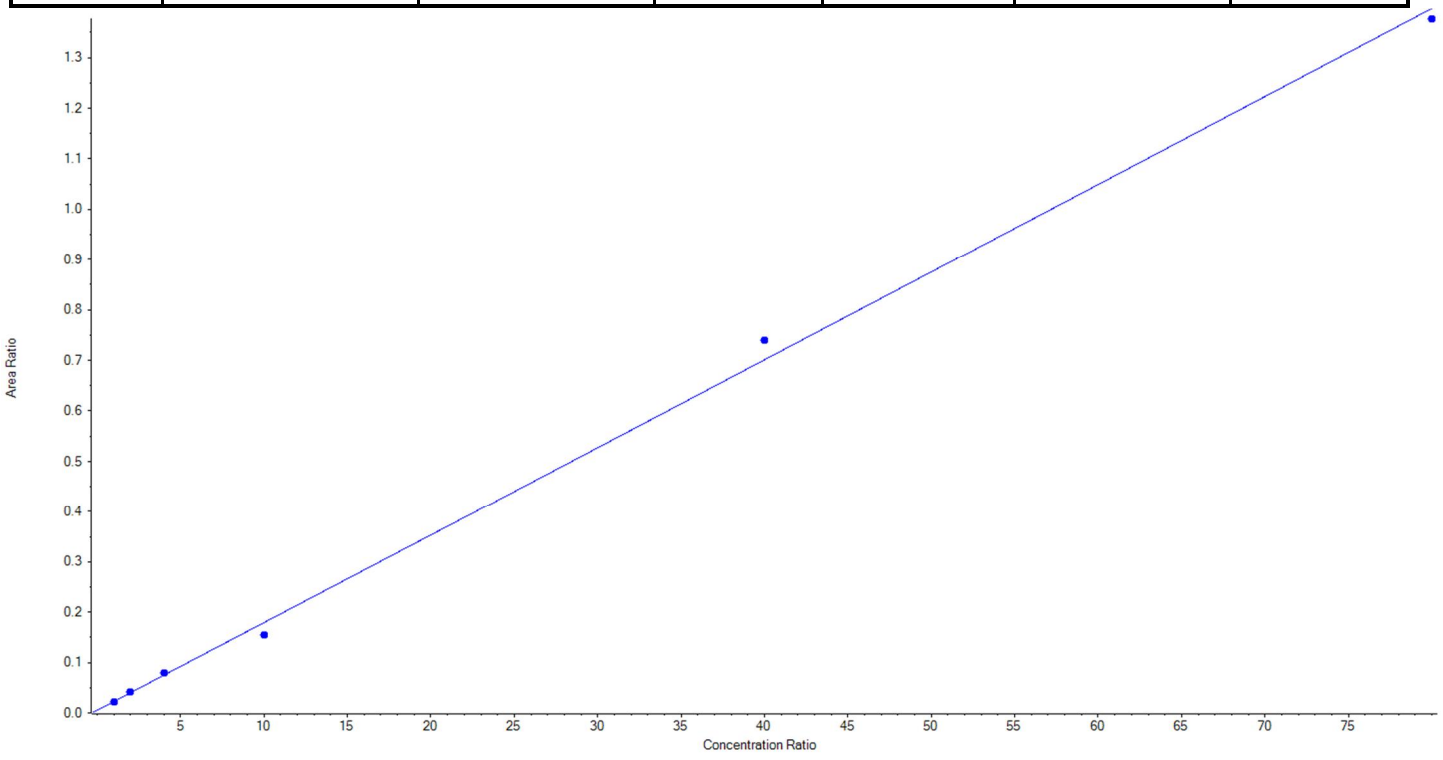
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFHpA_2	**Data File**	18-0601.wiff
MRM Transition	363.0 / 169.0	**Result Table**	18-0582_BASE
Internal Standard	13C4-PFHpA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.01740 x + 0.00524 (r = 0.99849) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	N/A	N/A
3	KB74	L2	True	250.00	239.925260	96.0
4	KB75	L3	True	500.00	532.066103	106.4
5	KB76	L4	True	1000.00	1074.132757	107.4
6	KB77	L5	True	2500.00	2156.057878	86.2
7	KB78	L6	True	10000.00	10544.398899	105.4
8	KB79	L7	True	20000.00	19703.419103	98.5



BATTELLE

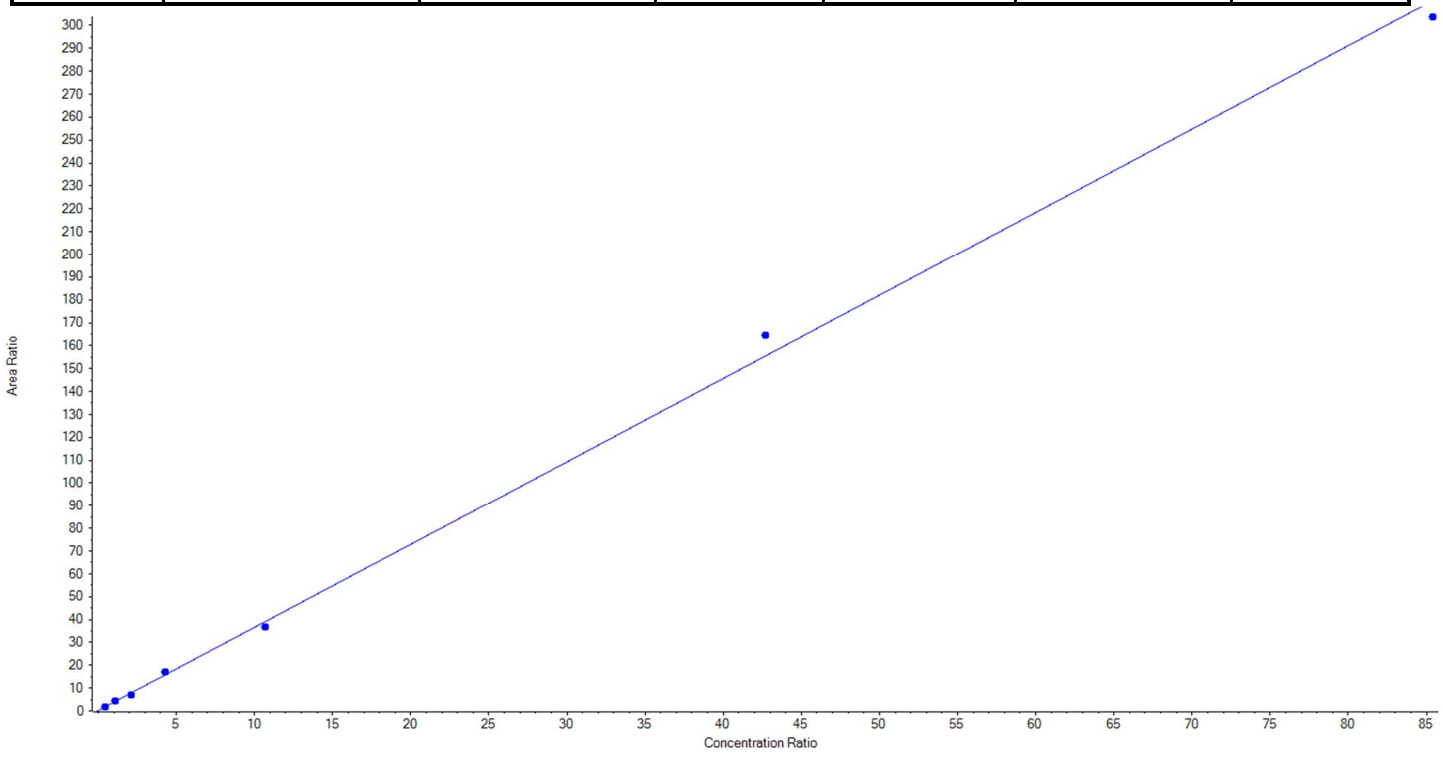
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFHxS_1	**Data File**	18-0601.wiff
MRM Transition	399.0 / 80.0	**Result Table**	18-0582_BASE
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 3.63703 x + 0.18629 (r = 0.99899) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	100.517086	99.5
3	KB74	L2	True	252.50	266.028024	105.4
4	KB75	L3	True	505.00	454.394152	90.0
5	KB76	L4	True	1010.00	1088.436384	107.8
6	KB77	L5	True	2525.00	2372.812761	94.0
7	KB78	L6	True	10100.00	10676.033528	105.7
8	KB79	L7	True	20200.00	19735.278066	97.7



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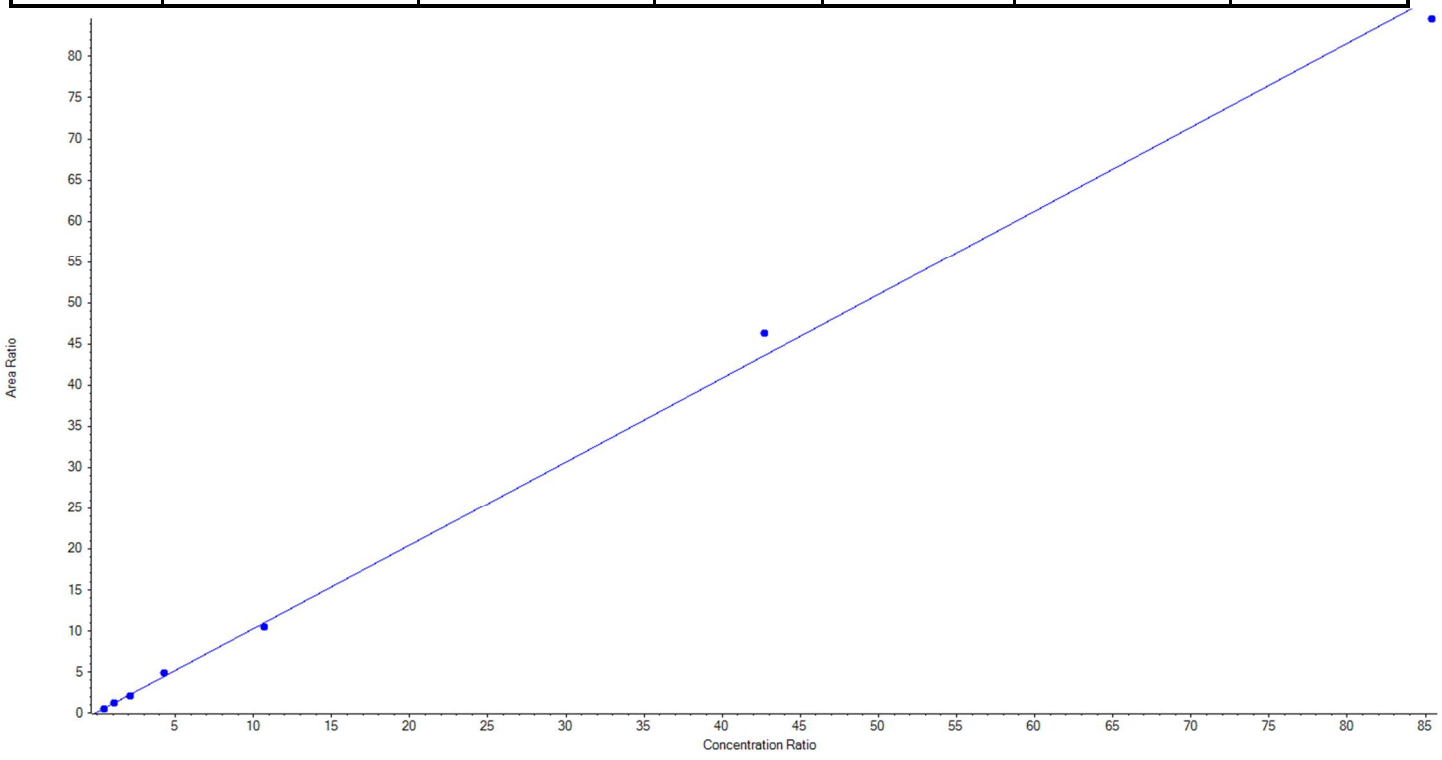
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFHxS_2	**Data File**	18-0601.wiff
MRM Transition	399.0 / 99.0	**Result Table**	18-0582_BASE
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.01889 x + 0.08300 (r = 0.99880) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	95.954083	95.0
3	KB74	L2	True	252.50	267.441050	105.9
4	KB75	L3	True	505.00	453.657269	89.8
5	KB76	L4	True	1010.00	1109.381232	109.8
6	KB77	L5	True	2525.00	2425.801995	96.1
7	KB78	L6	True	10100.00	10732.303596	106.3
8	KB79	L7	True	20200.00	19608.960774	97.1



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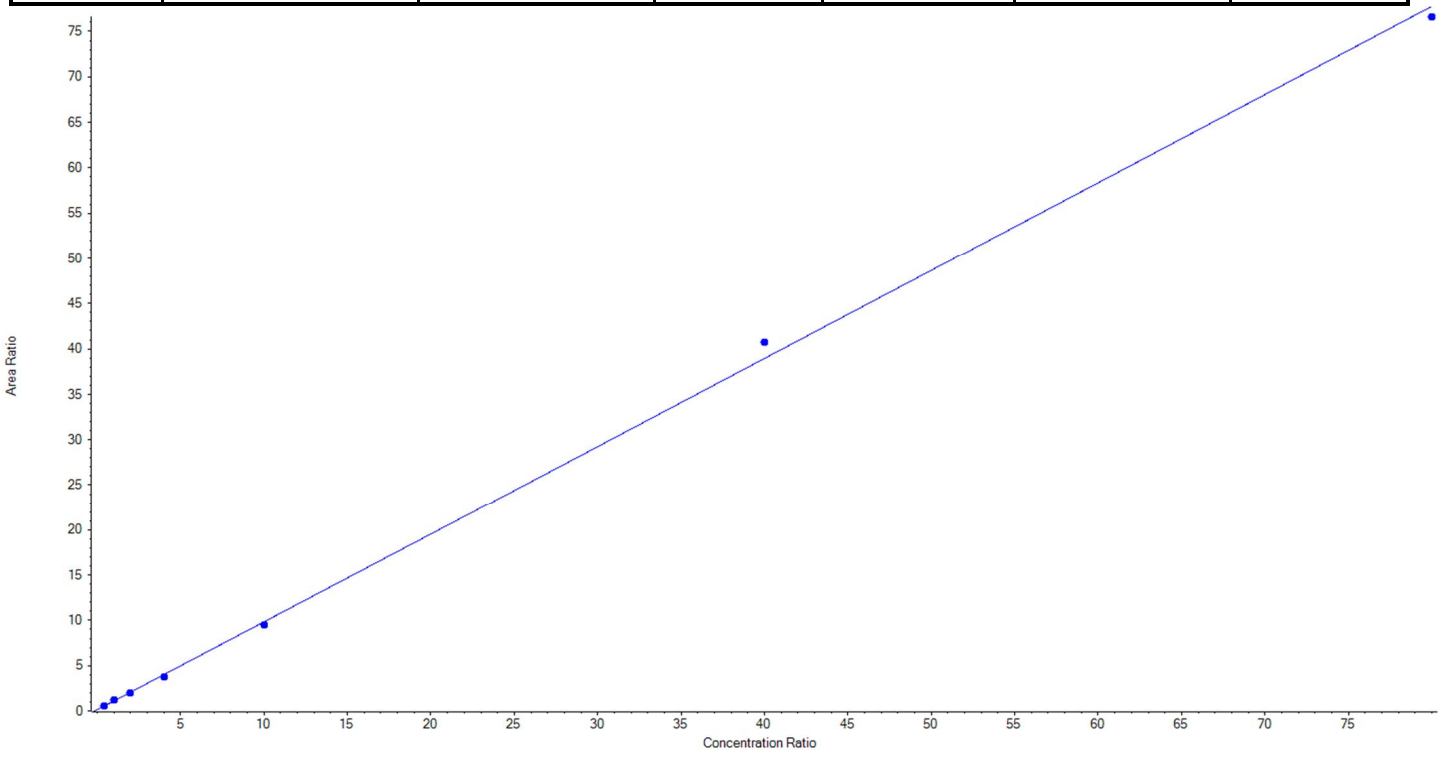
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFOA_1	**Data File**	18-0601.wiff
MRM Transition	413.0 / 369.0	**Result Table**	18-0582_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.97044 x + 0.12959 (r = 0.99946) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	101.180654	101.2
3	KB74	L2	True	250.00	271.138088	108.5
4	KB75	L3	True	500.00	487.237867	97.5
5	KB76	L4	True	1000.00	935.786687	93.6
6	KB77	L5	True	2500.00	2409.578897	96.4
7	KB78	L6	True	10000.00	10445.864678	104.5
8	KB79	L7	True	20000.00	19699.213129	98.5



BATTELLE

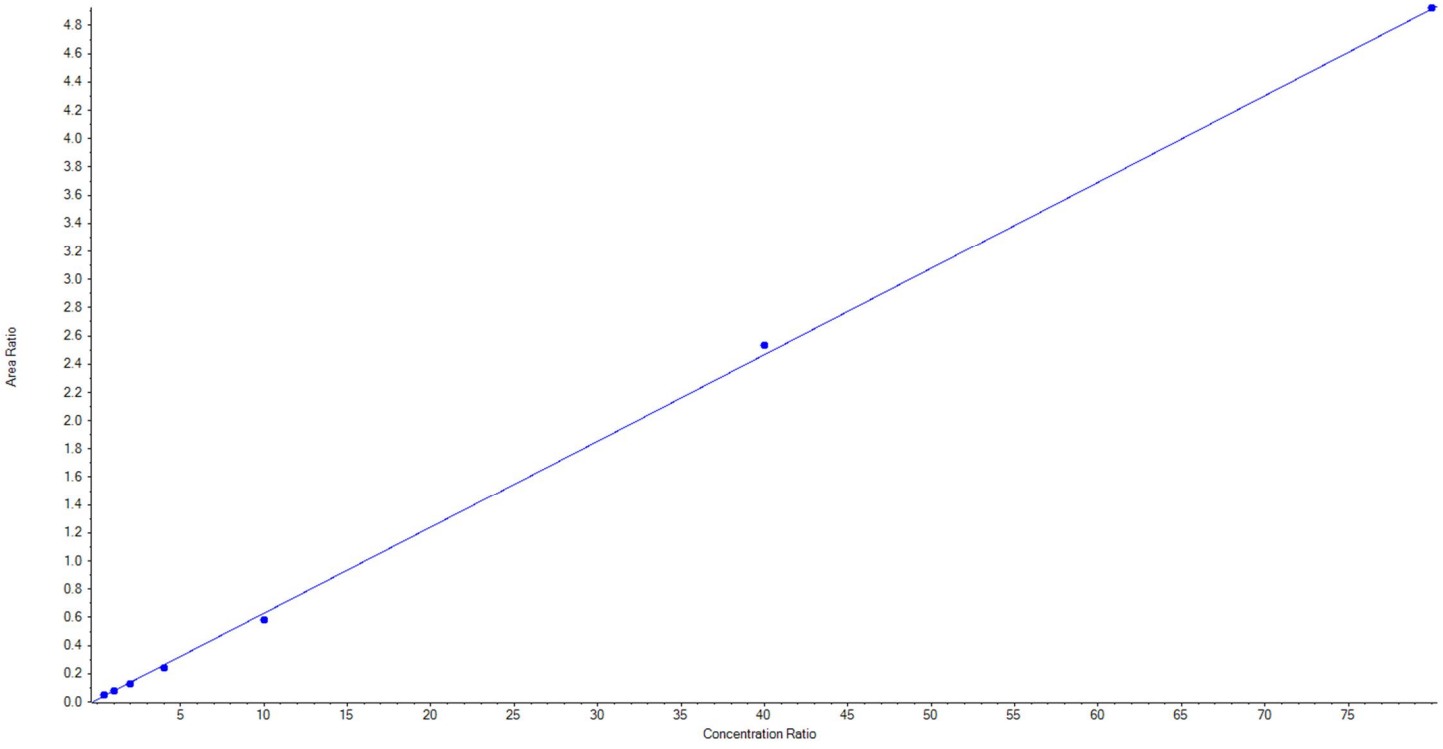
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFOA_2	**Data File**	18-0601.wiff
MRM Transition	413.0 / 169.0	**Result Table**	18-0582_BASE
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06125 x + 0.01676 (r = 0.99942) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	123.895310	123.9
3	KB74	L2	True	250.00	243.598034	97.4
4	KB75	L3	True	500.00	454.441982	90.9
5	KB76	L4	True	1000.00	926.390958	92.6
6	KB77	L5	True	2500.00	2309.165462	92.4
7	KB78	L6	True	10000.00	10261.764977	102.6
8	KB79	L7	True	20000.00	20030.743277	100.2



BATTELLE

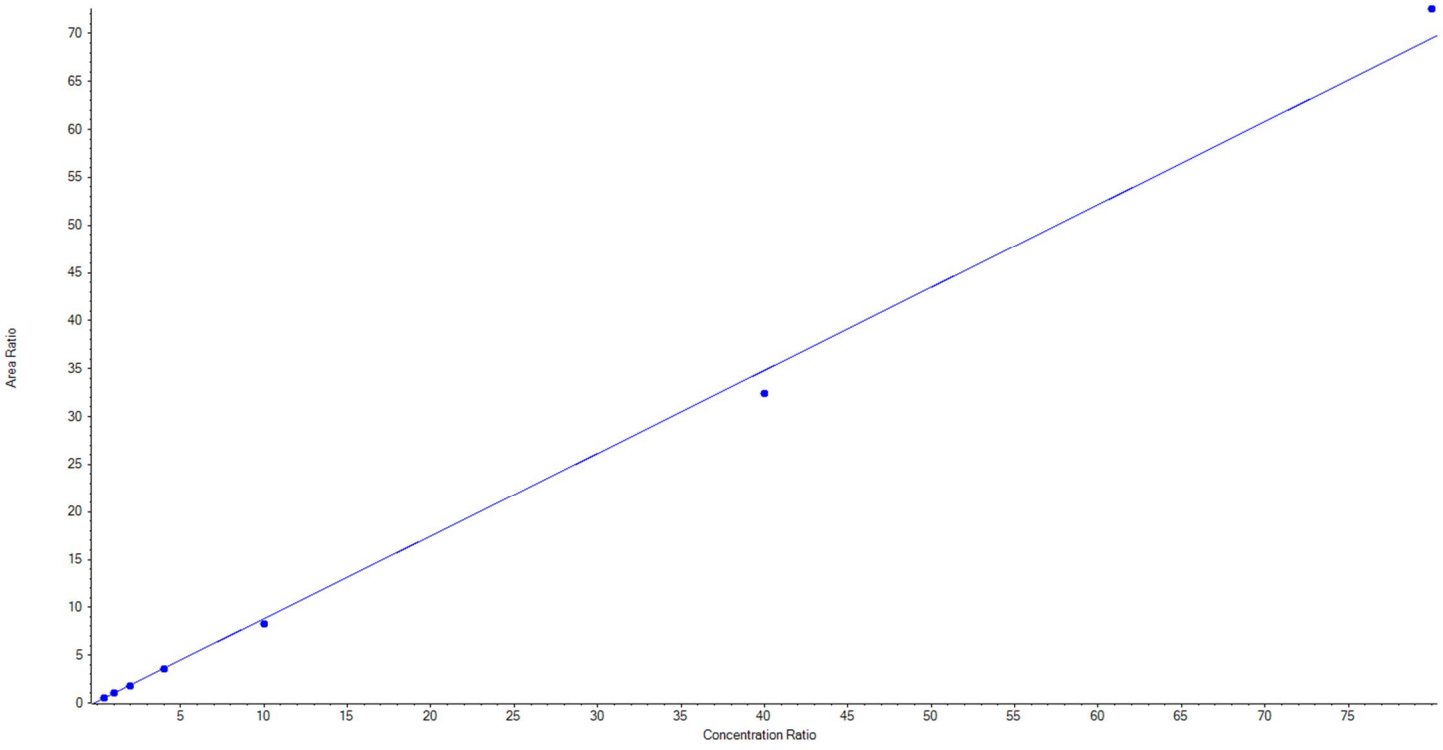
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFNA_1	**Data File**	18-0601.wiff
MRM Transition	463.0 / 419.0	**Result Table**	18-0582_BASE
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.86669 x + 0.14610 (r = 0.99837) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	111.732664	111.7
3	KB74	L2	True	250.00	265.554817	106.2
4	KB75	L3	True	500.00	464.587264	92.9
5	KB76	L4	True	1000.00	981.108634	98.1
6	KB77	L5	True	2500.00	2339.025833	93.6
7	KB78	L6	True	10000.00	9303.221102	93.0
8	KB79	L7	True	20000.00	20884.769686	104.4



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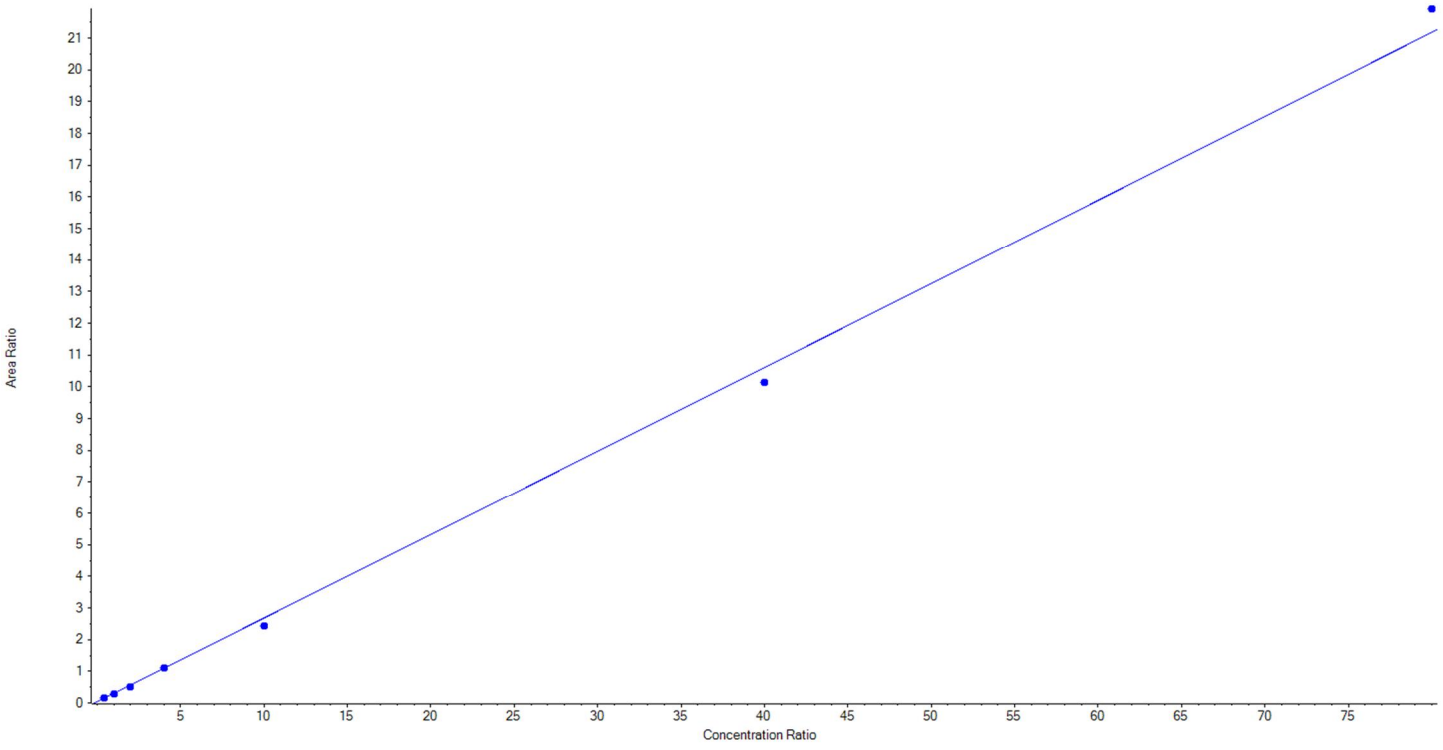
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFNA_2	**Data File**	18-0601.wiff
MRM Transition	463.0 / 219.0	**Result Table**	18-0582_BASE
Internal Standard	13C9-PFNA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.26428 x + 0.03914 (r = 0.99877) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	124.667356	124.7
3	KB74	L2	True	250.00	238.006617	95.2
4	KB75	L3	True	500.00	445.274904	89.1
5	KB76	L4	True	1000.00	1012.445509	101.2
6	KB77	L5	True	2500.00	2267.641827	90.7
7	KB78	L6	True	10000.00	9562.994751	95.6
8	KB79	L7	True	20000.00	20698.969036	103.5



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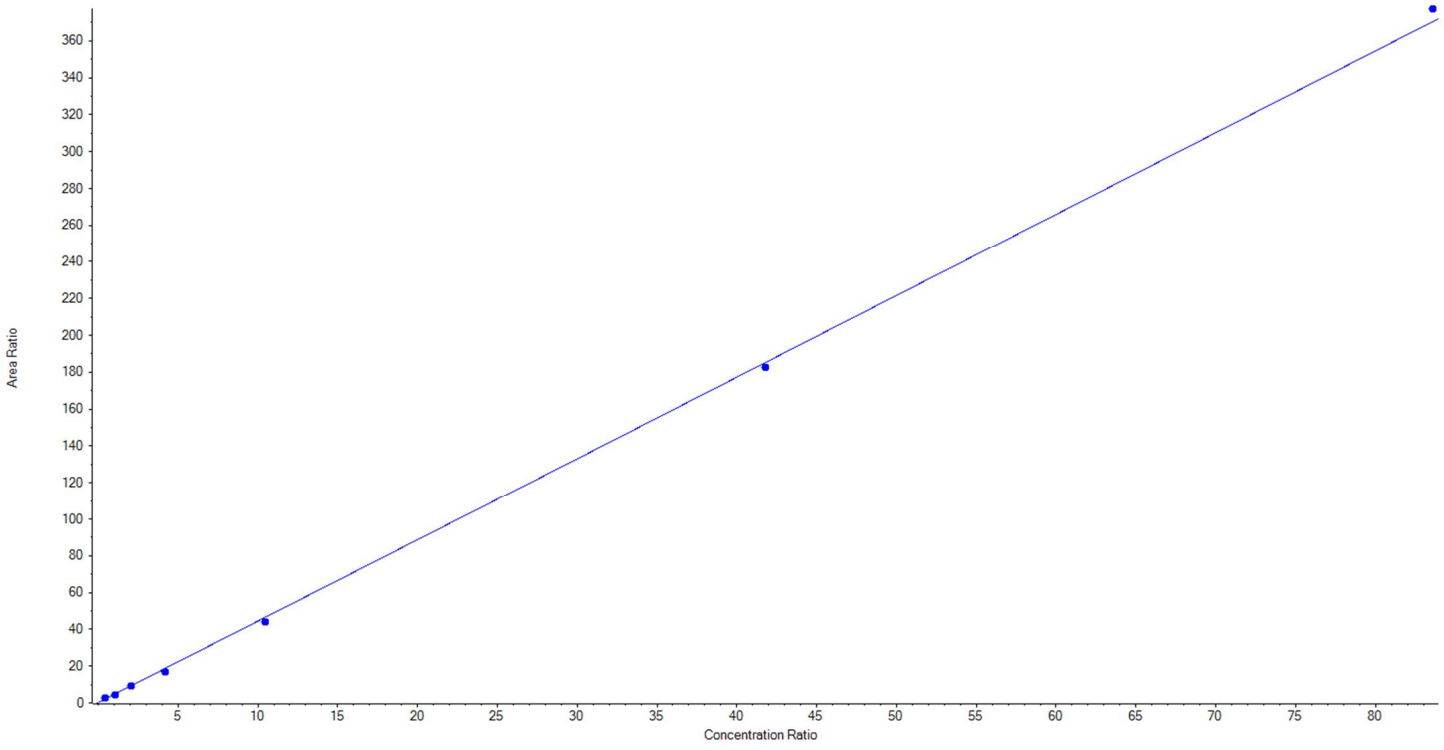
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFOS_1	**Data File**	18-0601.wiff
MRM Transition	499.0 / 80.0	**Result Table**	18-0582_BASE
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 4.42892 x + 0.18428 (r = 0.99950) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	123.573097	123.6
3	KB74	L2	True	250.00	231.385263	92.6
4	KB75	L3	True	500.00	490.927213	98.2
5	KB76	L4	True	1000.00	904.657366	90.5
6	KB77	L5	True	2500.00	2369.050851	94.8
7	KB78	L6	True	10000.00	9861.510766	98.6
8	KB79	L7	True	20000.00	20368.895445	101.8



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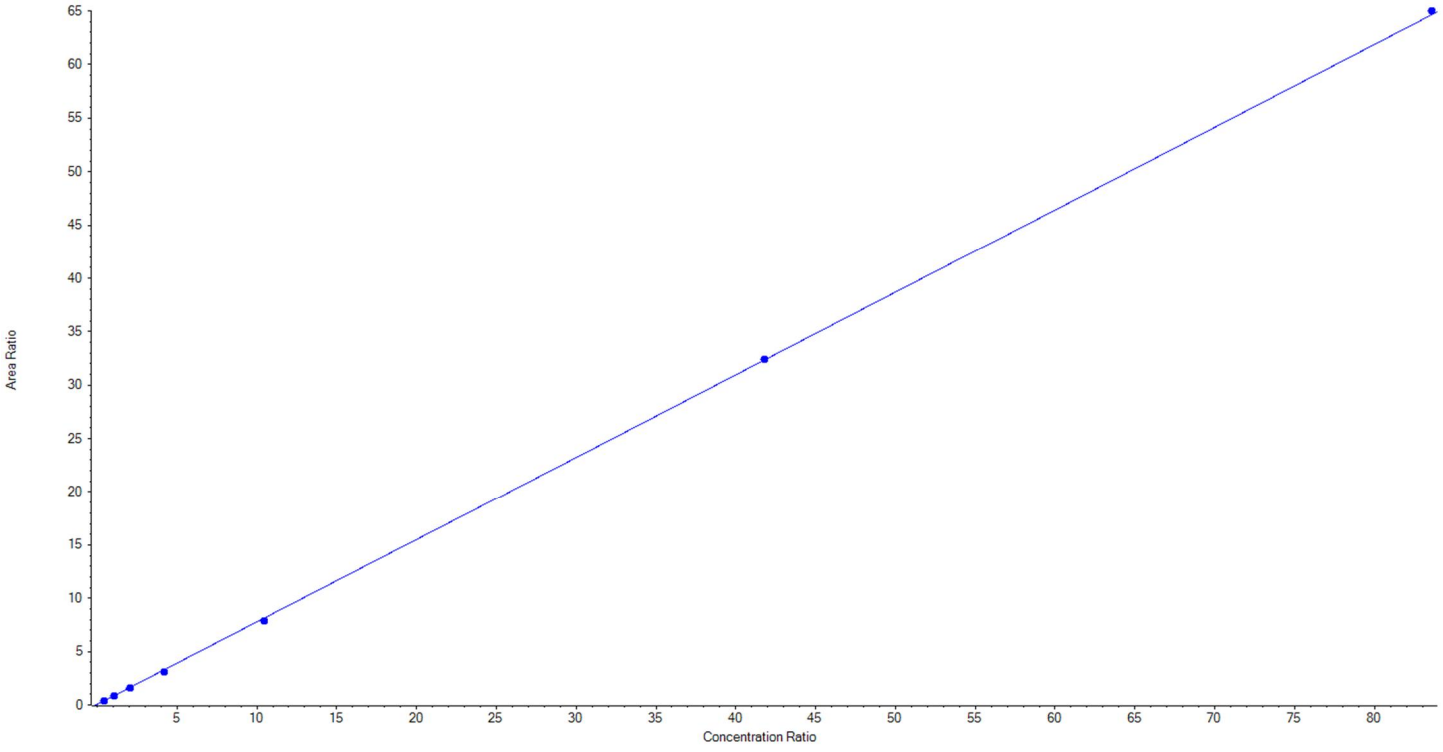
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFOS_2	**Data File**	18-0601.wiff
MRM Transition	499.0 / 99.0	**Result Table**	18-0582_BASE
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.77282 x + 0.04987 (r = 0.99985) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	112.812823	112.8
3	KB74	L2	True	250.00	244.587648	97.8
4	KB75	L3	True	500.00	490.350152	98.1
5	KB76	L4	True	1000.00	931.886008	93.2
6	KB77	L5	True	2500.00	2431.270309	97.3
7	KB78	L6	True	10000.00	10029.441866	100.3
8	KB79	L7	True	20000.00	20109.651195	100.6



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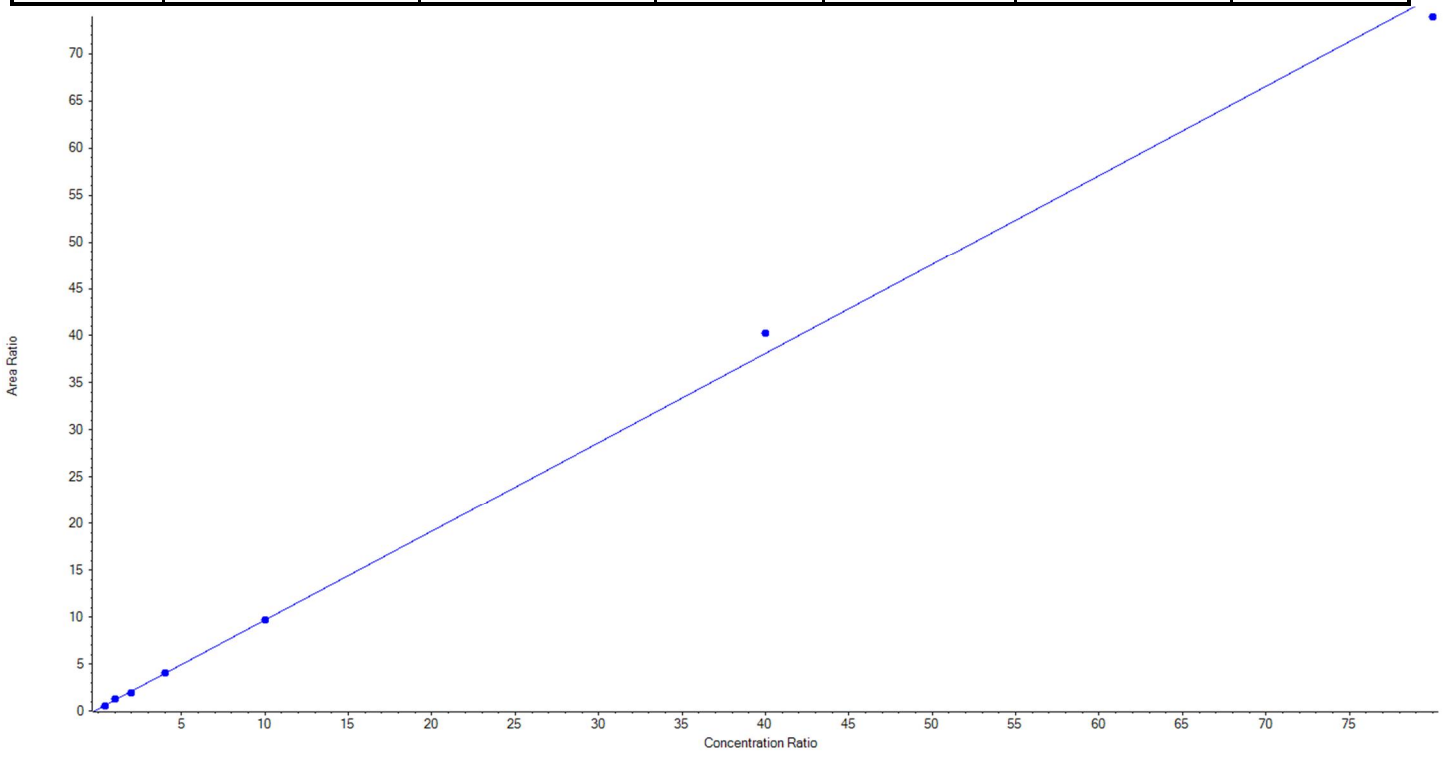
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFDA_1	**Data File**	18-0601.wiff
MRM Transition	513.0 / 469.0	**Result Table**	18-0582_BASE
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.94798 x + 0.20381 (r = 0.99909) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	91.723499	91.7
3	KB74	L2	True	250.00	283.577861	113.4
4	KB75	L3	True	500.00	458.611120	91.7
5	KB76	L4	True	1000.00	1003.320169	100.3
6	KB77	L5	True	2500.00	2495.696626	99.8
7	KB78	L6	True	10000.00	10575.579483	105.8
8	KB79	L7	True	20000.00	19441.491242	97.2



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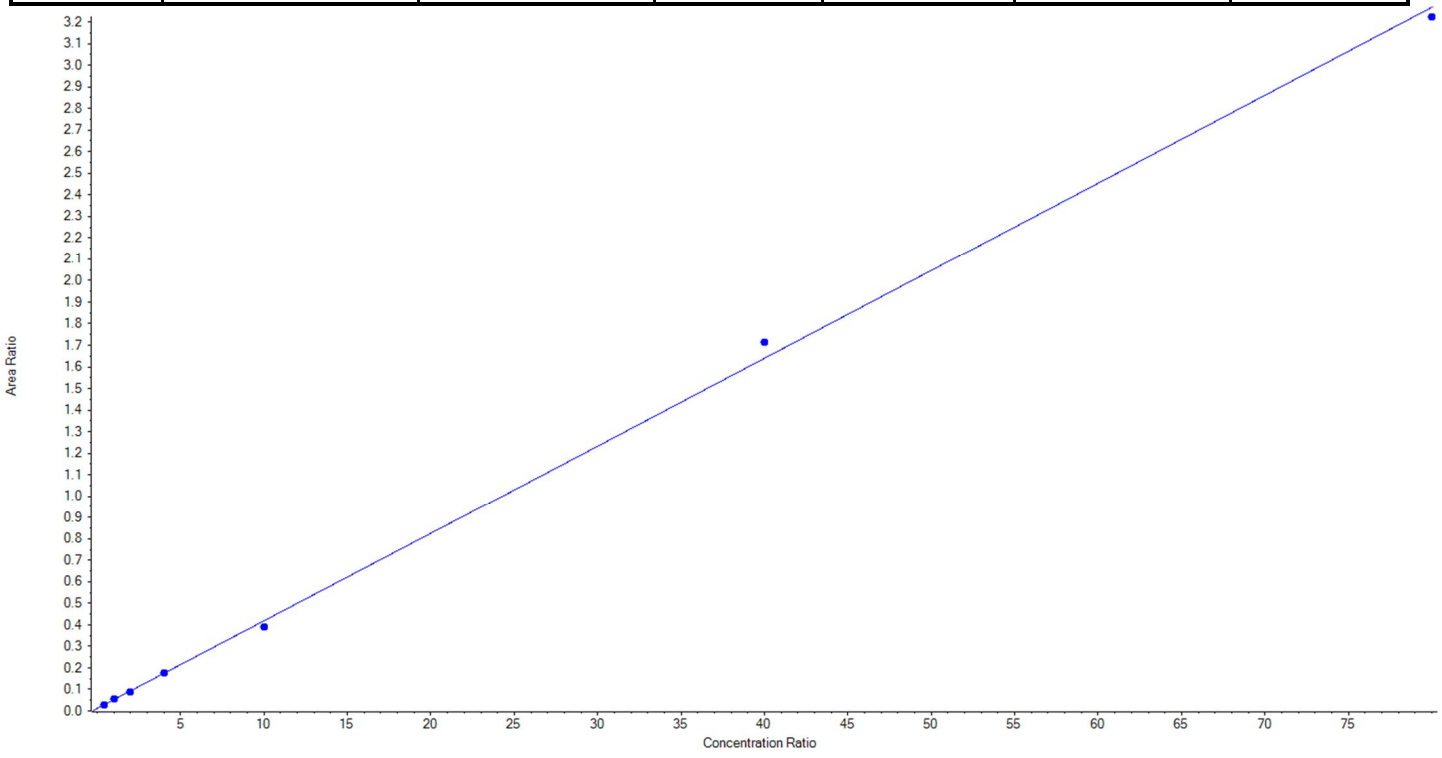
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFDA_2	**Data File**	18-0601.wiff
MRM Transition	513.0 / 219.0	**Result Table**	18-0582_BASE
Internal Standard	13C6-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.04070 x + 0.01166 (r = 0.99932) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	99.266945	99.3
3	KB74	L2	True	250.00	274.959074	110.0
4	KB75	L3	True	500.00	475.811514	95.2
5	KB76	L4	True	1000.00	998.656796	99.9
6	KB77	L5	True	2500.00	2311.427685	92.5
7	KB78	L6	True	10000.00	10462.989195	104.6
8	KB79	L7	True	20000.00	19726.888792	98.6



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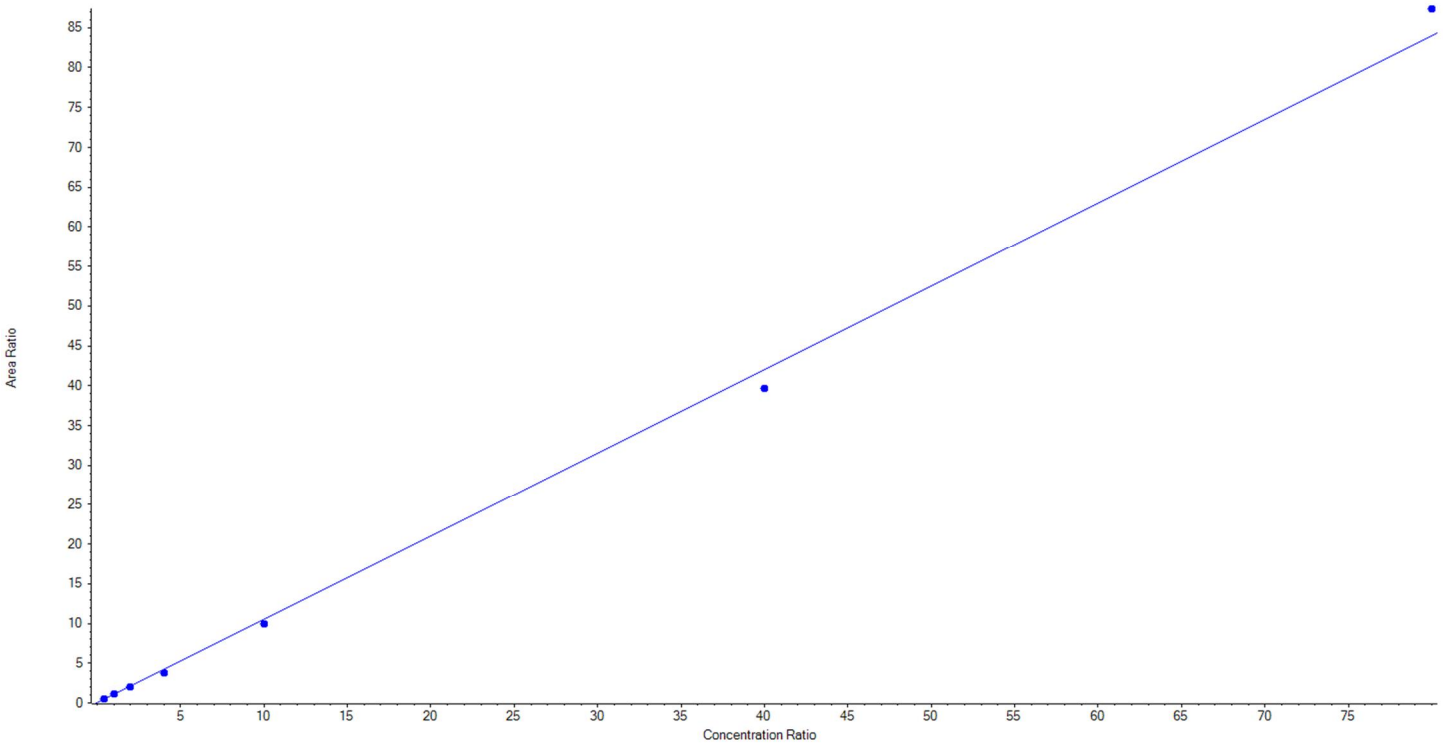
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFUnA_1	**Data File**	18-0601.wiff
MRM Transition	563.0 / 519.0	**Result Table**	18-0582_BASE
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.04950 x + 0.02785 (r = 0.99864) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	116.714826	116.7
3	KB74	L2	True	250.00	257.976381	103.2
4	KB75	L3	True	500.00	486.390999	97.3
5	KB76	L4	True	1000.00	903.715490	90.4
6	KB77	L5	True	2500.00	2353.654032	94.2
7	KB78	L6	True	10000.00	9428.194009	94.3
8	KB79	L7	True	20000.00	20803.354263	104.0



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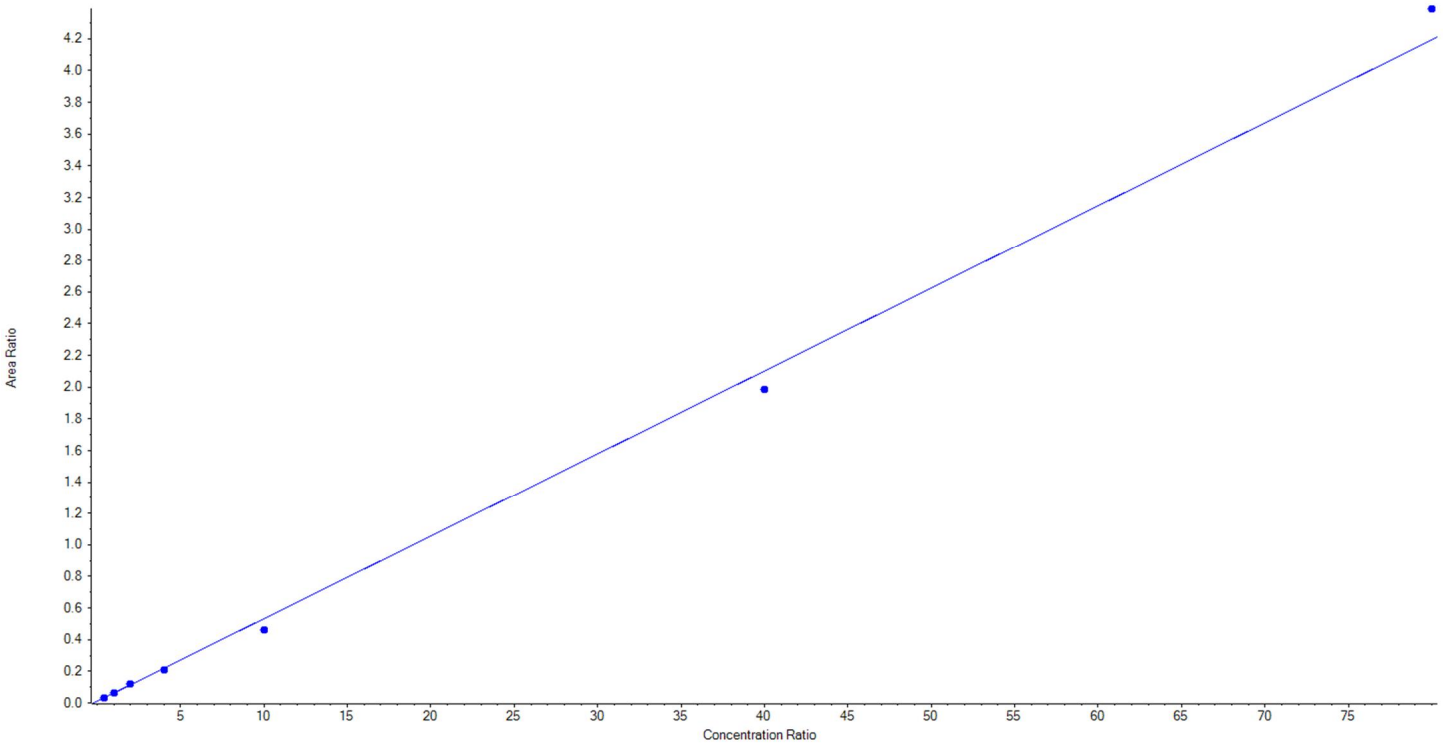
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFUnA_2	**Data File**	18-0601.wiff
MRM Transition	563.0 / 269.0	**Result Table**	18-0582_BASE
Internal Standard	13C7-PFUnA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05229 x + 0.01034 (r = 0.99795) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	112.803868	112.8
3	KB74	L2	True	250.00	261.313717	104.5
4	KB75	L3	True	500.00	510.984846	102.2
5	KB76	L4	True	1000.00	956.967861	95.7
6	KB77	L5	True	2500.00	2144.779953	85.8
7	KB78	L6	True	10000.00	9433.988662	94.3
8	KB79	L7	True	20000.00	20929.161092	104.7



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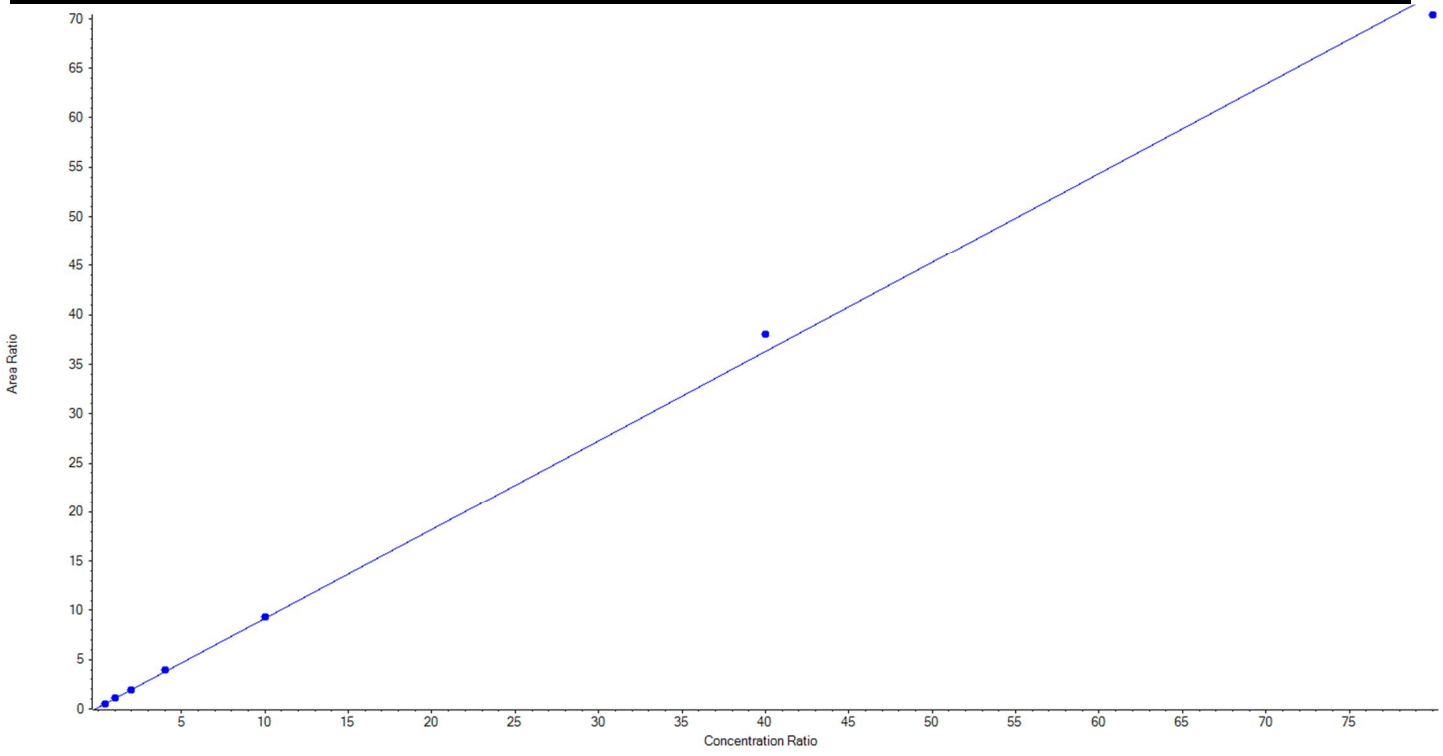
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFDoA_1	**Data File**	18-0601.wiff
MRM Transition	613.0 / 569.0	**Result Table**	18-0582_BASE
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.90363 x + 0.14776 (r = 0.99929) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	87.034754	87.0
3	KB74	L2	True	250.00	263.602074	105.4
4	KB75	L3	True	500.00	494.809950	99.0
5	KB76	L4	True	1000.00	1051.603118	105.2
6	KB77	L5	True	2500.00	2534.867851	101.4
7	KB78	L6	True	10000.00	10483.397789	104.8
8	KB79	L7	True	20000.00	19434.684463	97.2



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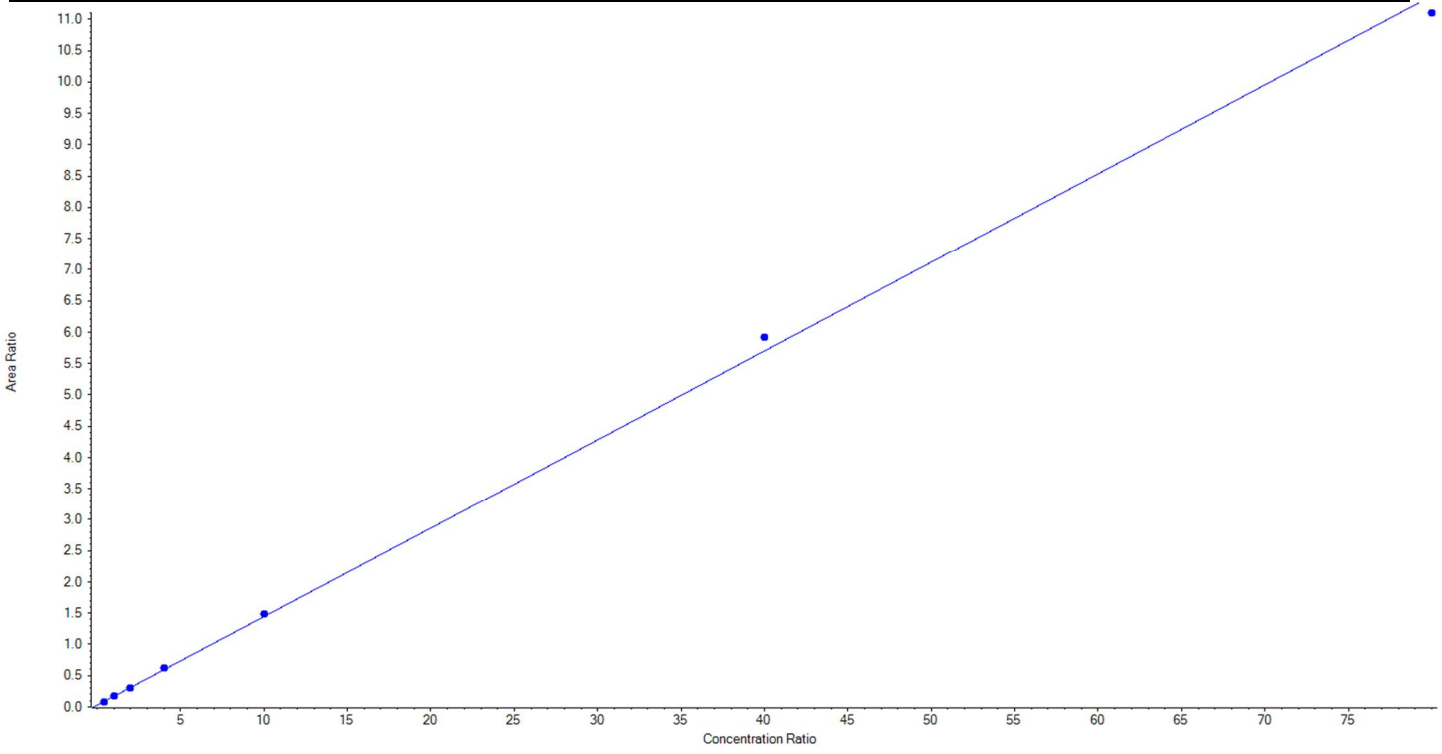
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFDoA_2	**Data File**	18-0601.wiff
MRM Transition	613.0 / 319.0	**Result Table**	18-0582_BASE
Internal Standard	13C2-PFDoA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.14181 x + 0.02745 (r = 0.99951) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	89.771190	89.8
3	KB74	L2	True	250.00	258.318969	103.3
4	KB75	L3	True	500.00	490.819808	98.2
5	KB76	L4	True	1000.00	1045.219534	104.5
6	KB77	L5	True	2500.00	2572.032131	102.9
7	KB78	L6	True	10000.00	10372.966024	103.7
8	KB79	L7	True	20000.00	19520.872343	97.6



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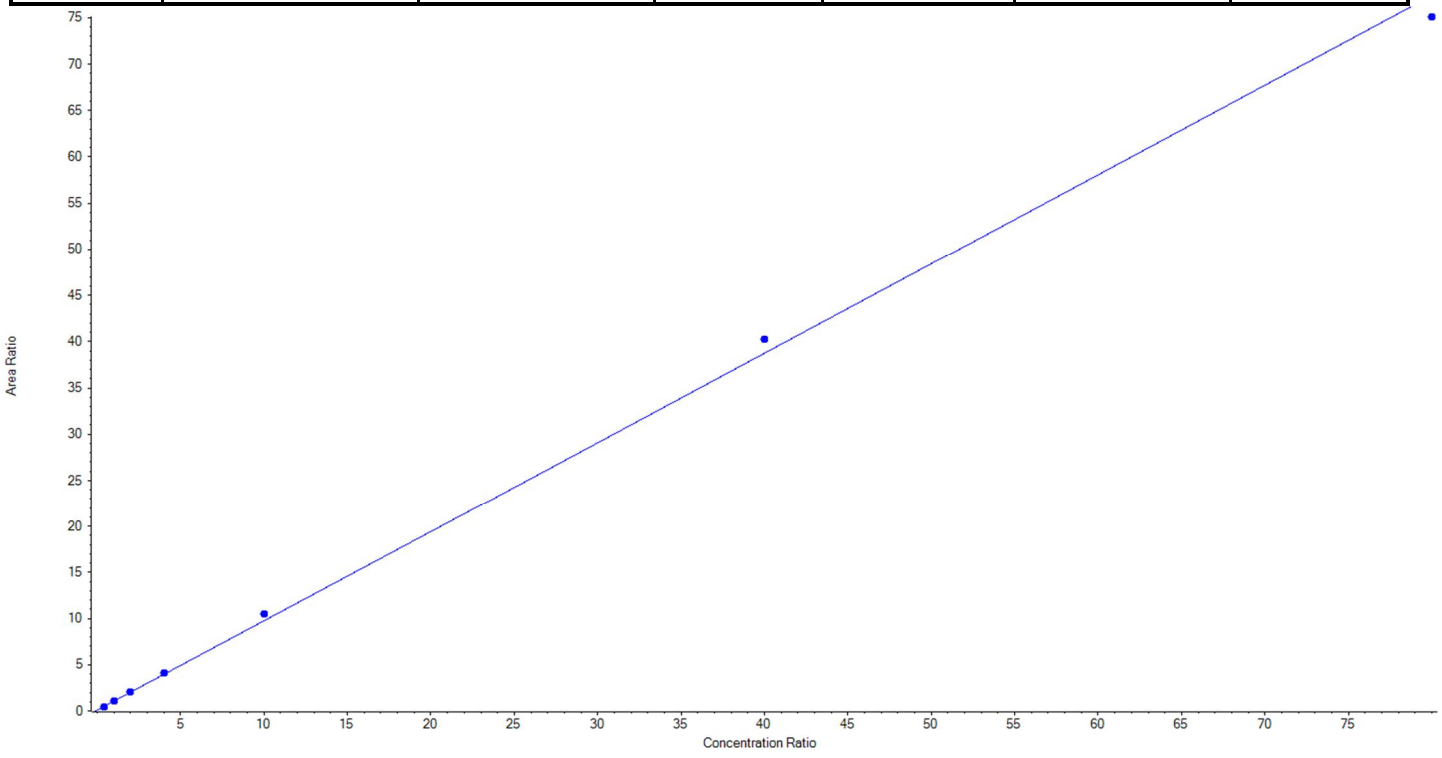
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFTrDA_1	**Data File**	18-0601.wiff
MRM Transition	663.0 / 619.0	**Result Table**	18-0582_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.96621 x + 0.09367 (r = 0.99921) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	89.252137	89.3
3	KB74	L2	True	250.00	249.241065	99.7
4	KB75	L3	True	500.00	498.194197	99.6
5	KB76	L4	True	1000.00	1027.562136	102.8
6	KB77	L5	True	2500.00	2693.991009	107.8
7	KB78	L6	True	10000.00	10387.589354	103.9
8	KB79	L7	True	20000.00	19404.170102	97.0



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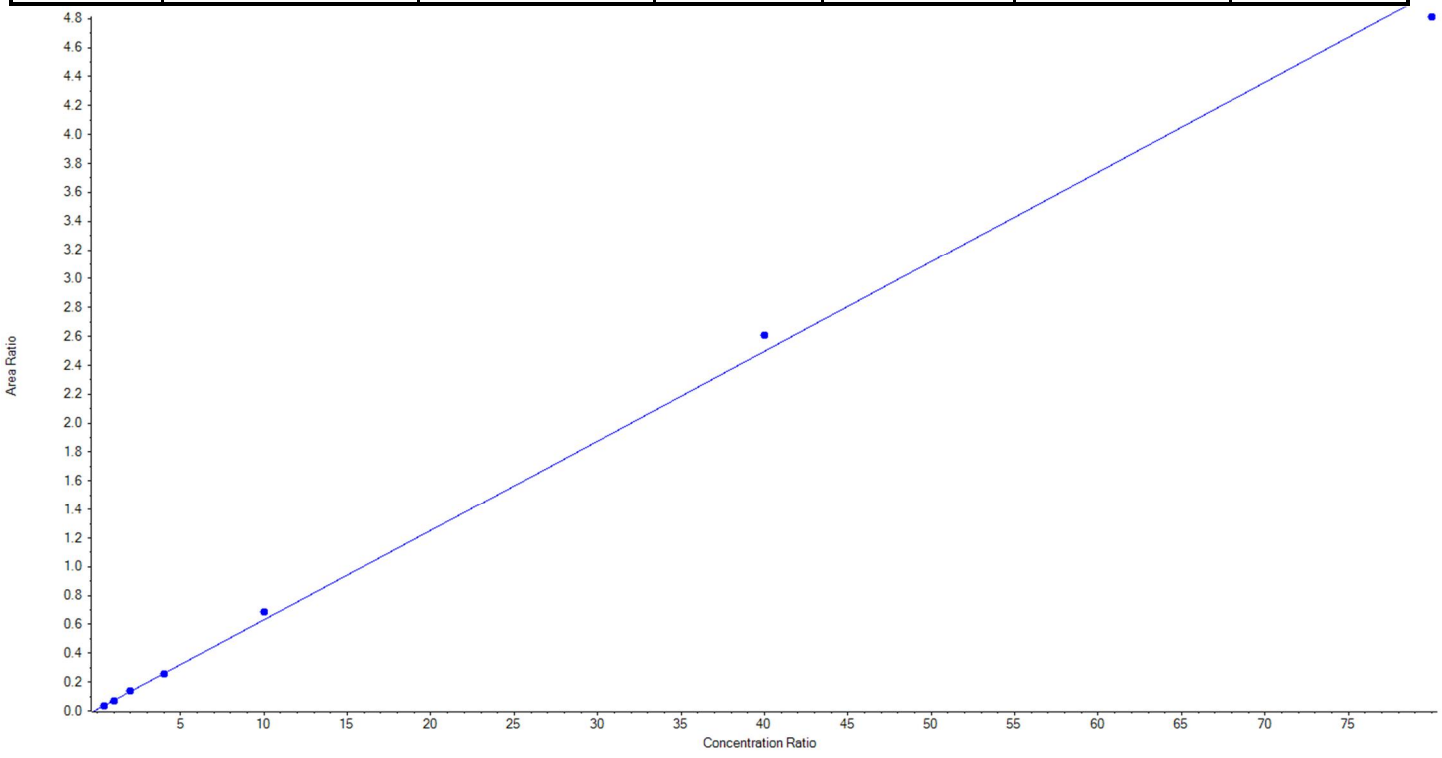
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFTrDA_2	**Data File**	18-0601.wiff
MRM Transition	663.0 / 169.0	**Result Table**	18-0582_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06215 x + 0.01048 (r = 0.99891) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	91.358244	91.4
3	KB74	L2	True	250.00	234.431195	93.8
4	KB75	L3	True	500.00	526.023755	105.2
5	KB76	L4	True	1000.00	992.847328	99.3
6	KB77	L5	True	2500.00	2730.161506	109.2
7	KB78	L6	True	10000.00	10459.488900	104.6
8	KB79	L7	True	20000.00	19315.689073	96.6



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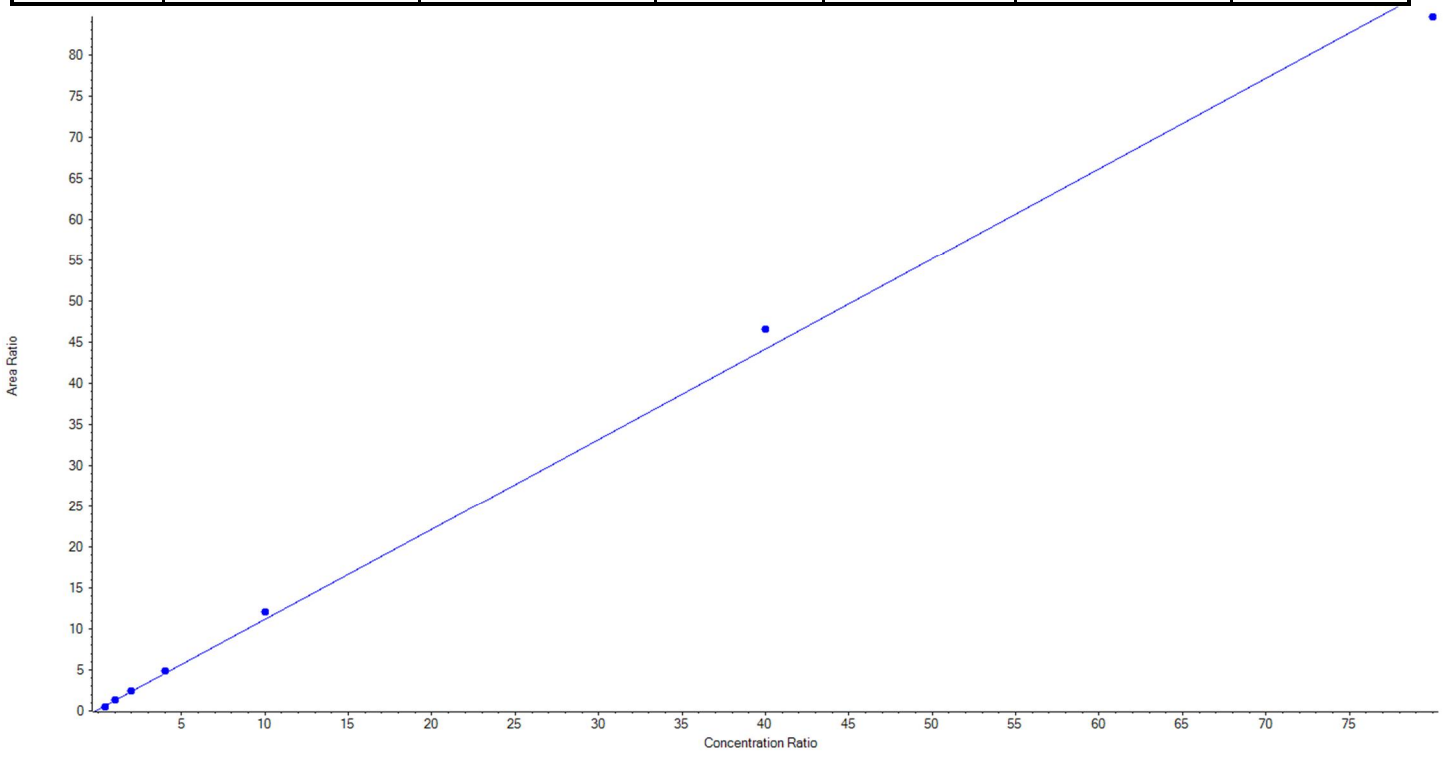
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFTeDA_1	**Data File**	18-0601.wiff
MRM Transition	713.0 / 669.0	**Result Table**	18-0582_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.10003 x + 0.17150 (r = 0.99862) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	81.664418	81.7
3	KB74	L2	True	250.00	253.892322	101.6
4	KB75	L3	True	500.00	504.637939	100.9
5	KB76	L4	True	1000.00	1058.184635	105.8
6	KB77	L5	True	2500.00	2716.333041	108.7
7	KB78	L6	True	10000.00	10540.568356	105.4
8	KB79	L7	True	20000.00	19194.719288	96.0



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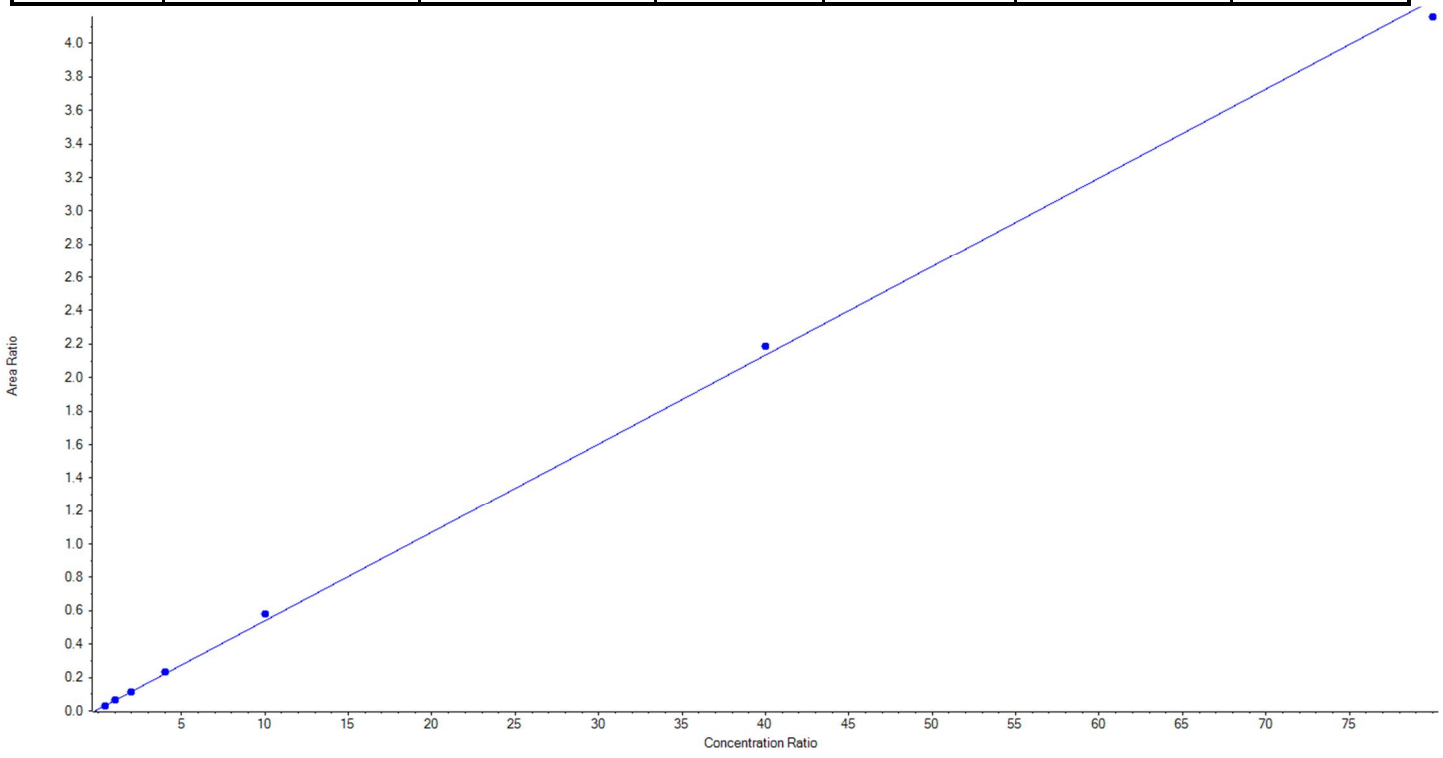
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	PFTeDA_2	**Data File**	18-0601.wiff
MRM Transition	713.0 / 169.0	**Result Table**	18-0582_BASE
Internal Standard	13C2-PFTeDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.05312 x + 0.00951 (r = 0.99940) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	85.351718	85.4
3	KB74	L2	True	250.00	256.536093	102.6
4	KB75	L3	True	500.00	494.590376	98.9
5	KB76	L4	True	1000.00	1051.091061	105.1
6	KB77	L5	True	2500.00	2700.584305	108.0
7	KB78	L6	True	10000.00	10234.811734	102.4
8	KB79	L7	True	20000.00	19527.034713	97.6



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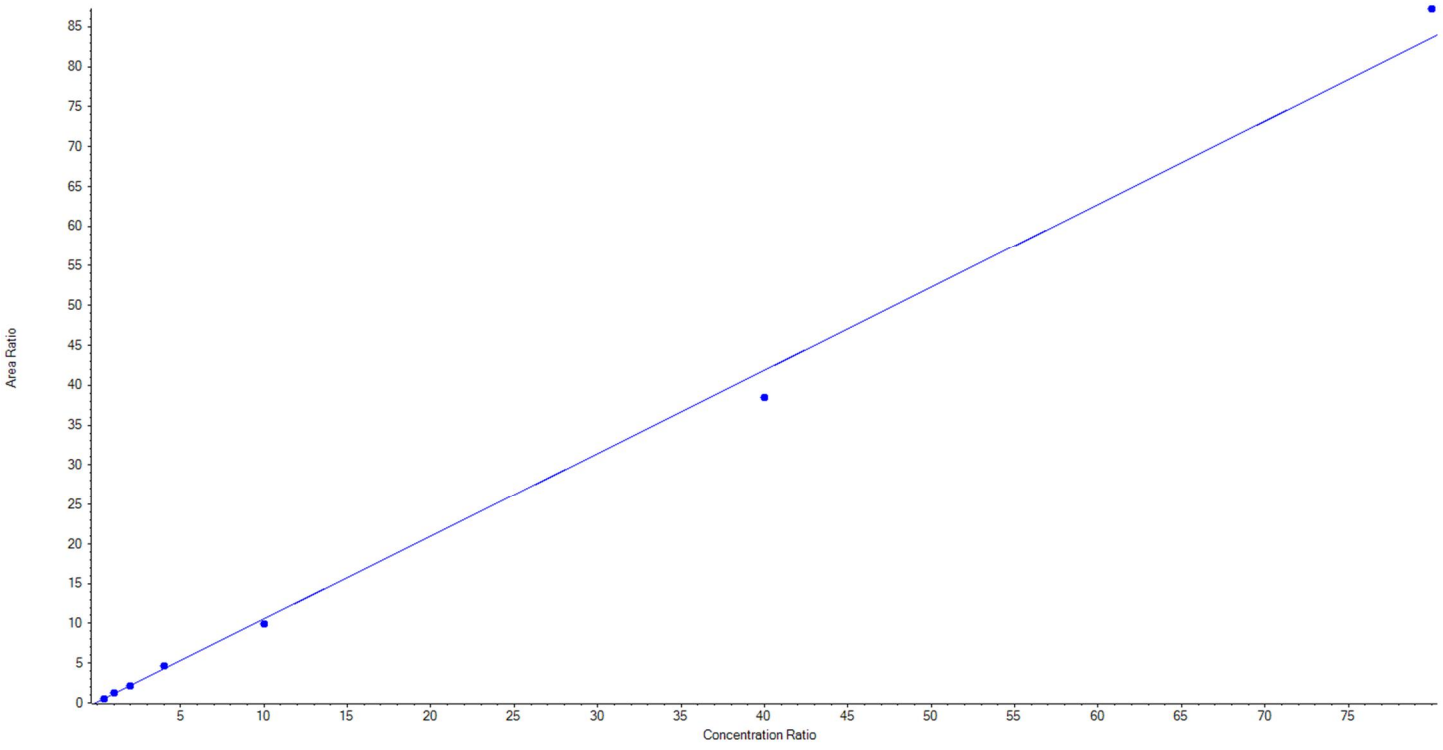
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	NMeFOSAA_1	**Data File**	18-0601.wiff
MRM Transition	570.0 / 419.0	**Result Table**	18-0582_BASE
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.04377 x + 0.12168 (r = 0.99810) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	97.702606	97.7
3	KB74	L2	True	250.00	270.300837	108.1
4	KB75	L3	True	500.00	474.866395	95.0
5	KB76	L4	True	1000.00	1084.703812	108.5
6	KB77	L5	True	2500.00	2361.513725	94.5
7	KB78	L6	True	10000.00	9193.657335	91.9
8	KB79	L7	True	20000.00	20867.255290	104.3



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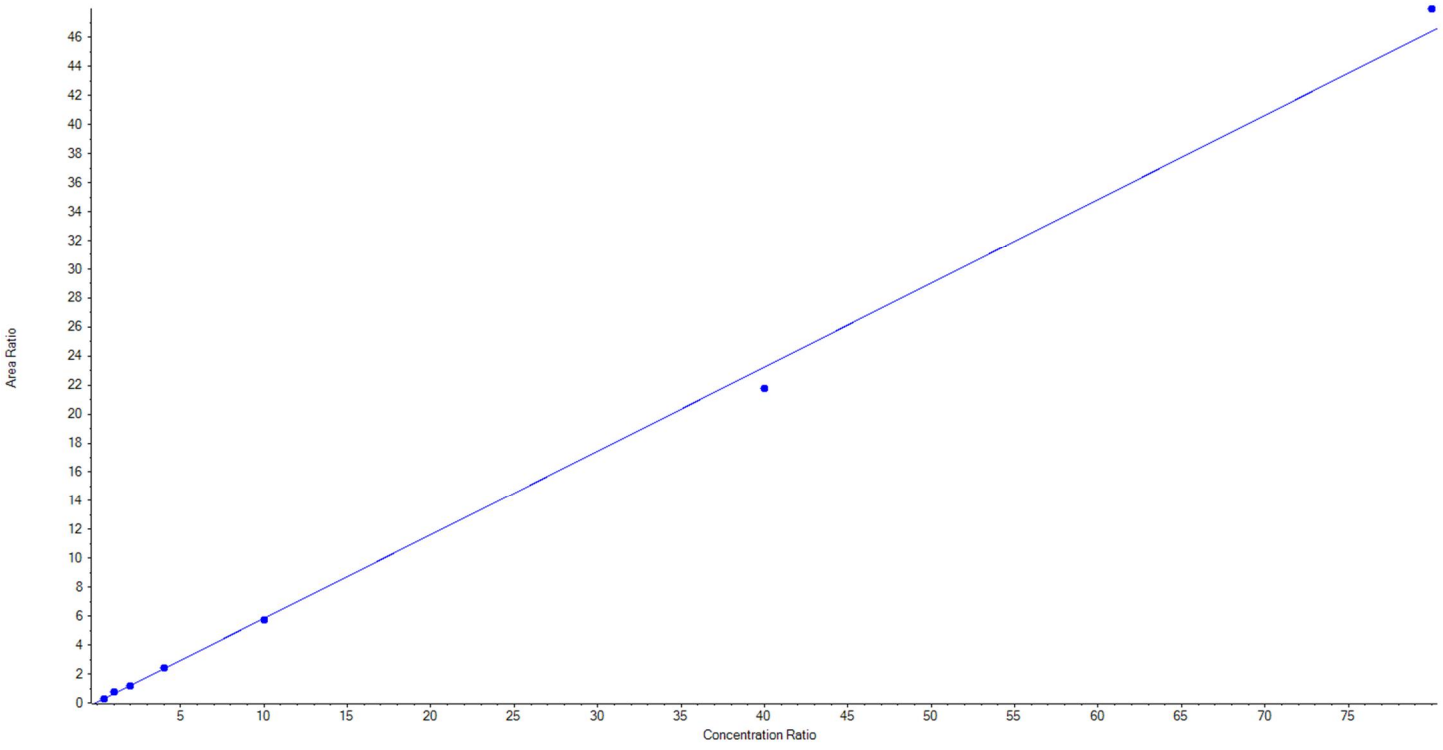
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	NMeFOSAA_2	**Data File**	18-0601.wiff
MRM Transition	570.0 / 512.0	**Result Table**	18-0582_BASE
Internal Standard	d3-MeFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.57999 x + 0.04045 (r = 0.99882) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	88.881031	88.9
3	KB74	L2	True	250.00	298.534462	119.4
4	KB75	L3	True	500.00	476.944765	95.4
5	KB76	L4	True	1000.00	1013.211747	101.3
6	KB77	L5	True	2500.00	2451.833697	98.1
7	KB78	L6	True	10000.00	9363.747452	93.6
8	KB79	L7	True	20000.00	20656.846846	103.3



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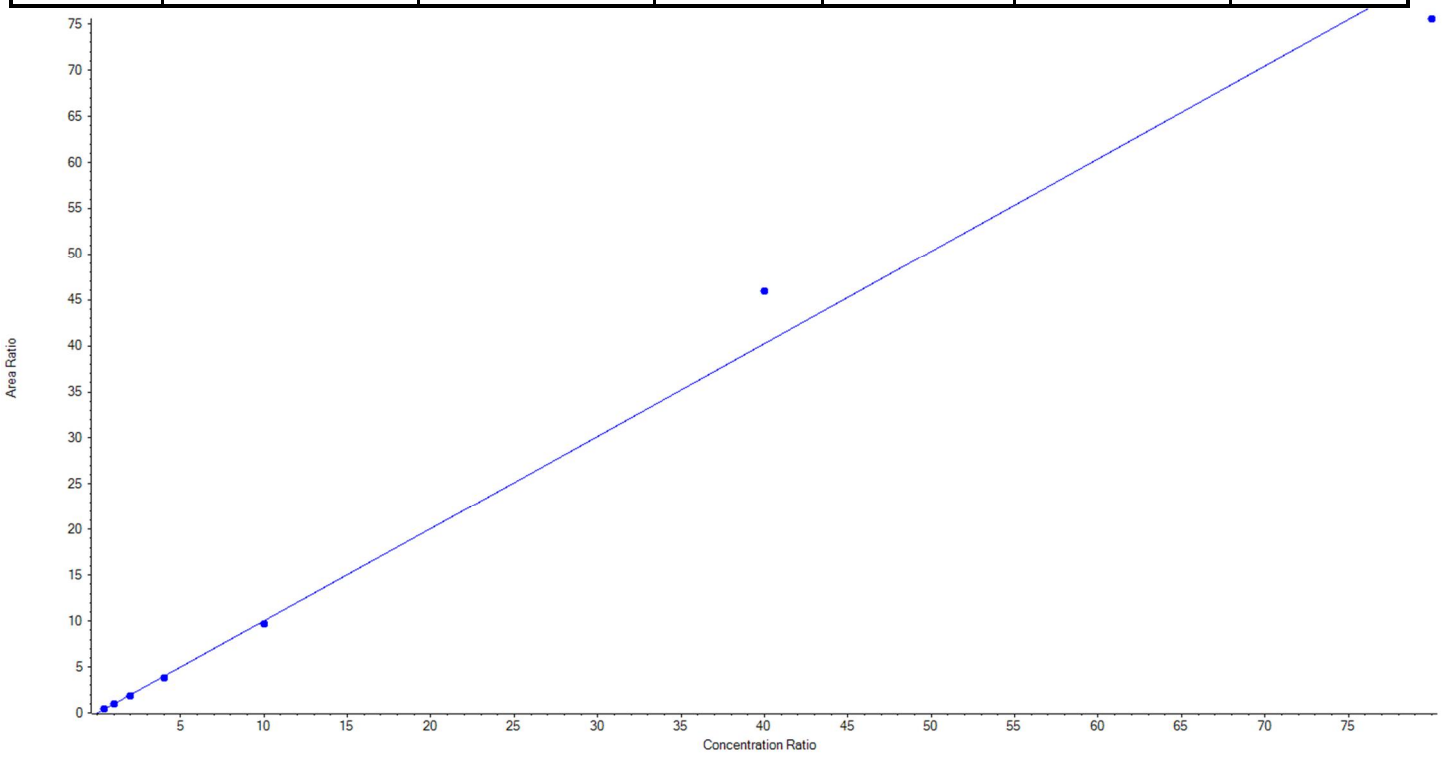
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	NEtFOSAA_1	**Data File**	18-0601.wiff
MRM Transition	584.0 / 419.0	**Result Table**	18-0582_BASE
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.00705 x + -0.04135 (r = 0.99555) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	111.213907	111.2
3	KB74	L2	True	250.00	243.571968	97.4
4	KB75	L3	True	500.00	459.435665	91.9
5	KB76	L4	True	1000.00	949.960545	95.0
6	KB77	L5	True	2500.00	2415.081451	96.6
7	KB78	L6	True	10000.00	11403.435561	114.0
8	KB79	L7	True	20000.00	18767.300903	93.8



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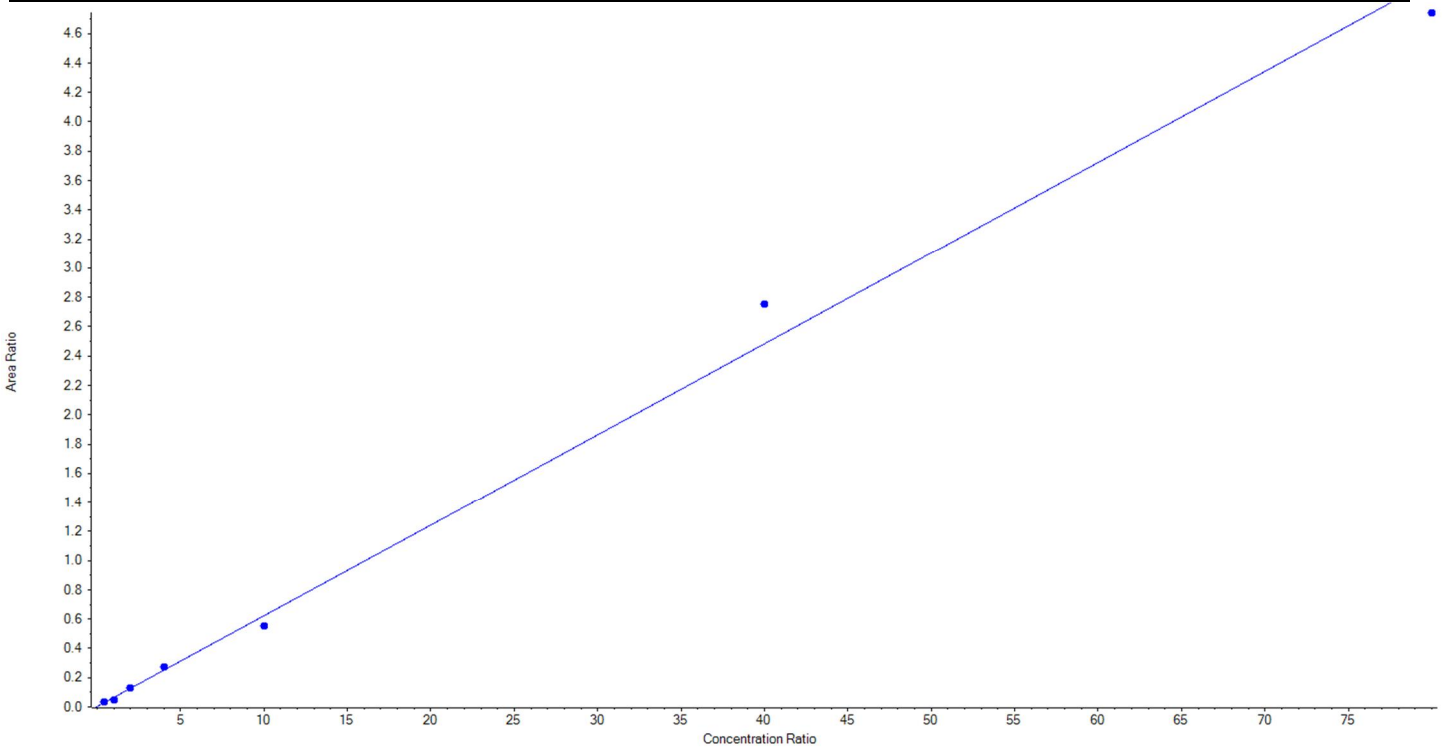
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:06:53 PM

Analyte Name	NEtFOSAA_2	**Data File**	18-0601.wiff
MRM Transition	584.0 / 483.0	**Result Table**	18-0582_BASE
Internal Standard	d5-EtFOSAA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.06200 x + 0.00309 (r = 0.99661) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	113.055246	113.1
3	KB74	L2	True	250.00	192.274109	76.9
4	KB75	L3	True	500.00	523.159531	104.6
5	KB76	L4	True	1000.00	1098.825316	109.9
6	KB77	L5	True	2500.00	2227.146413	89.1
7	KB78	L6	True	10000.00	11091.423822	110.9
8	KB79	L7	True	20000.00	19104.115563	95.5



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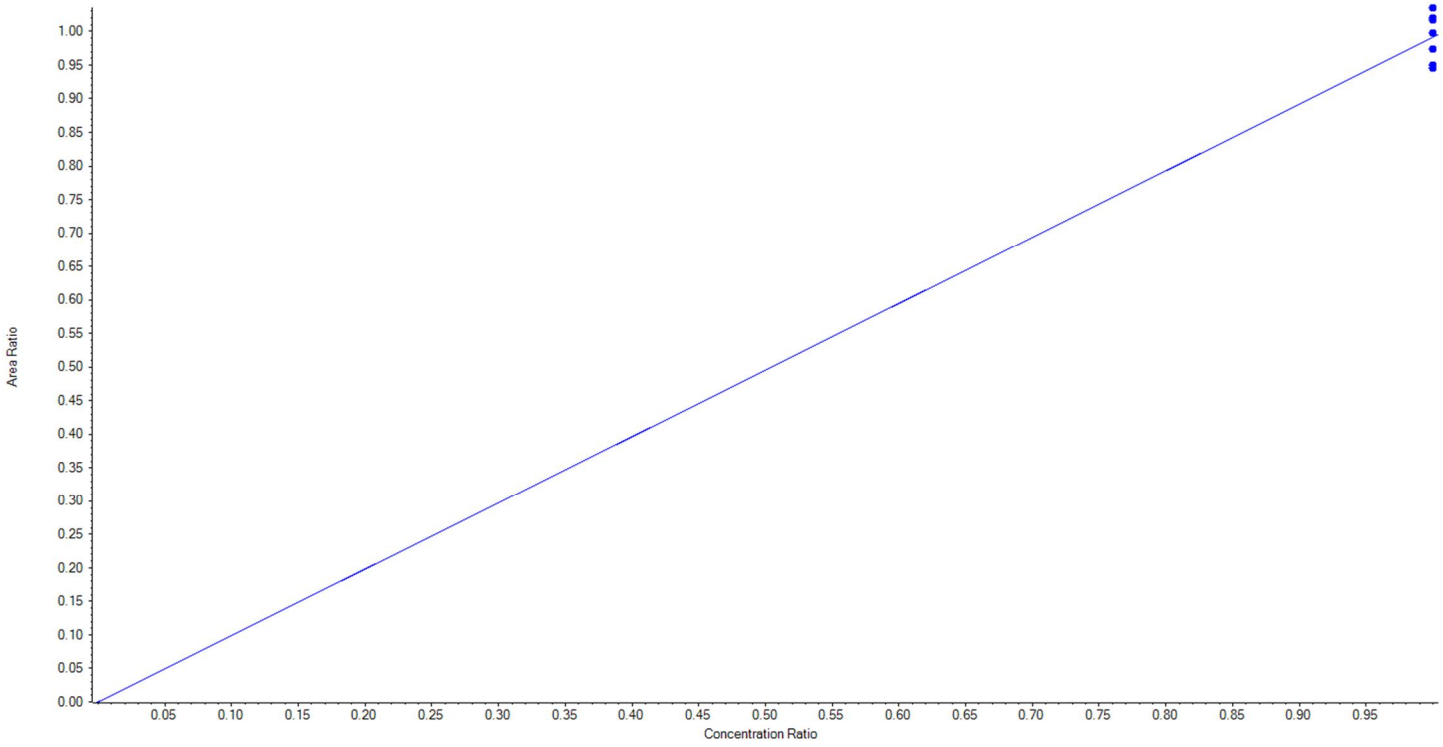
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:33:56 PM

Analyte Name	13C2-PFDoA	**Data File**	18-0601.wiff
MRM Transition	615.0 / 570.0	**Result Table**	18-0582_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.99109 x (std. dev. = 0.03544) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	261.067103	104.4
3	KB74	L2	True	250.00	251.483375	100.6
4	KB75	L3	True	250.00	239.647507	95.9
5	KB76	L4	True	250.00	238.494454	95.4
6	KB77	L5	True	250.00	245.526180	98.2
7	KB78	L6	True	250.00	257.211777	102.9
8	KB79	L7	True	250.00	256.569603	102.6



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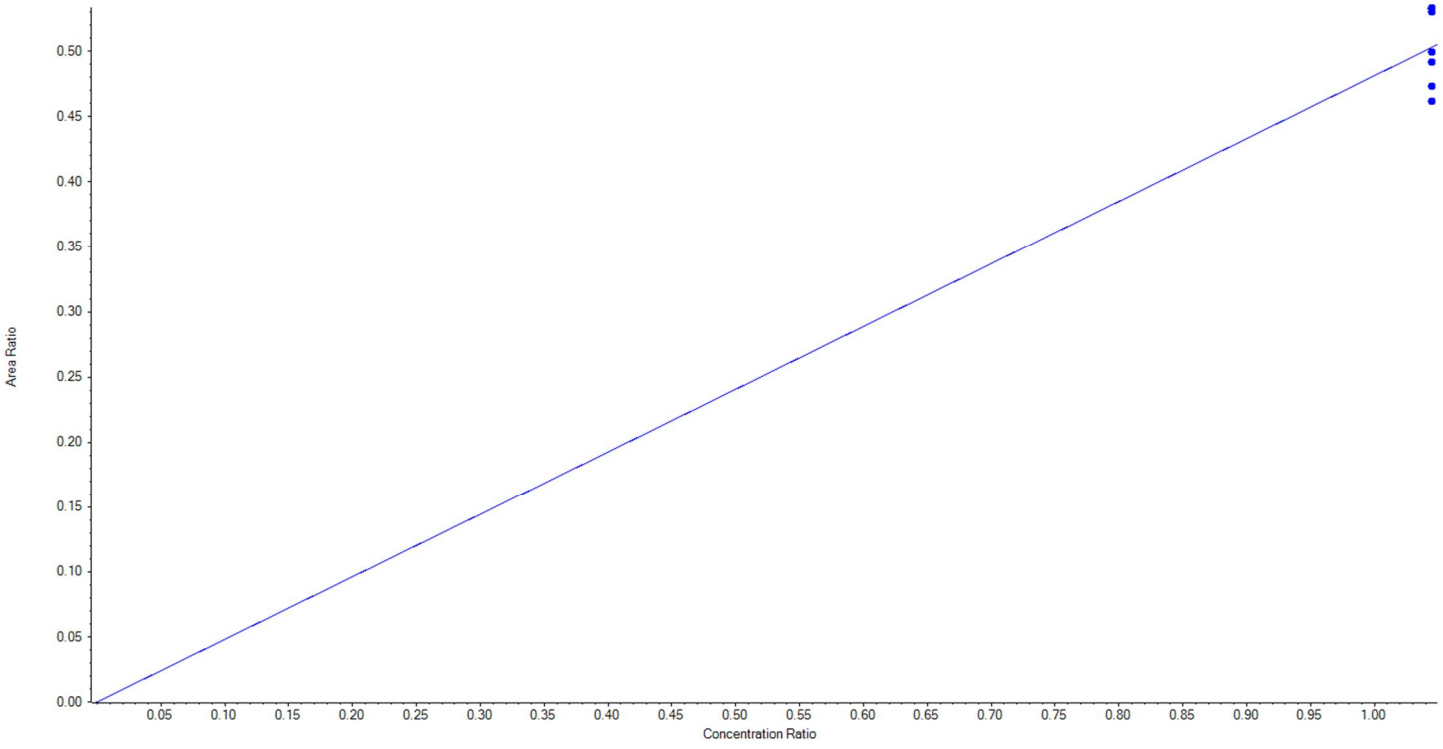
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:33:56 PM

Analyte Name	d3-MeFOSAA	**Data File**	18-0601.wiff
MRM Transition	573.0 / 419.0	**Result Table**	18-0582_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.48131 x (std. dev. = 0.02834) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	265.038957	106.0
3	KB74	L2	True	250.00	229.387671	91.8
4	KB75	L3	True	250.00	264.549518	105.8
5	KB76	L4	True	250.00	244.355224	97.7
6	KB77	L5	True	250.00	248.061714	99.2
7	KB78	L6	True	250.00	235.150088	94.1
8	KB79	L7	True	250.00	263.456828	105.4



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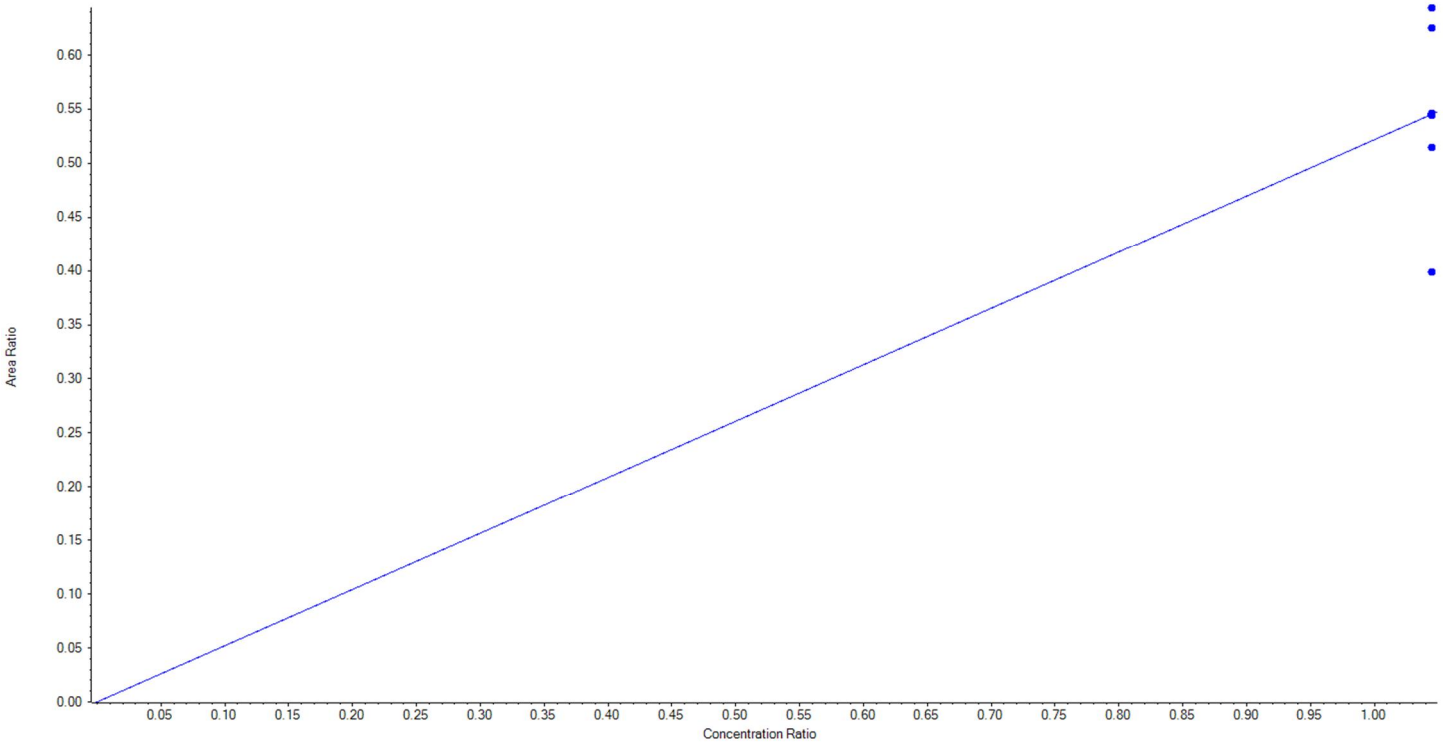
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:33:56 PM

Analyte Name	d5-EtFOSAA	**Data File**	18-0601.wiff
MRM Transition	589.0 / 419.0	**Result Table**	18-0582_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.52182 x (std. dev. = 0.07654) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	250.047206	100.0
3	KB74	L2	True	250.00	286.441908	114.6
4	KB75	L3	True	250.00	295.041431	118.0
5	KB76	L4	True	250.00	250.345681	100.1
6	KB77	L5	True	250.00	235.944297	94.4
7	KB78	L6	True	250.00	182.824015	73.1
8	KB79	L7	True	250.00	249.355462	99.7



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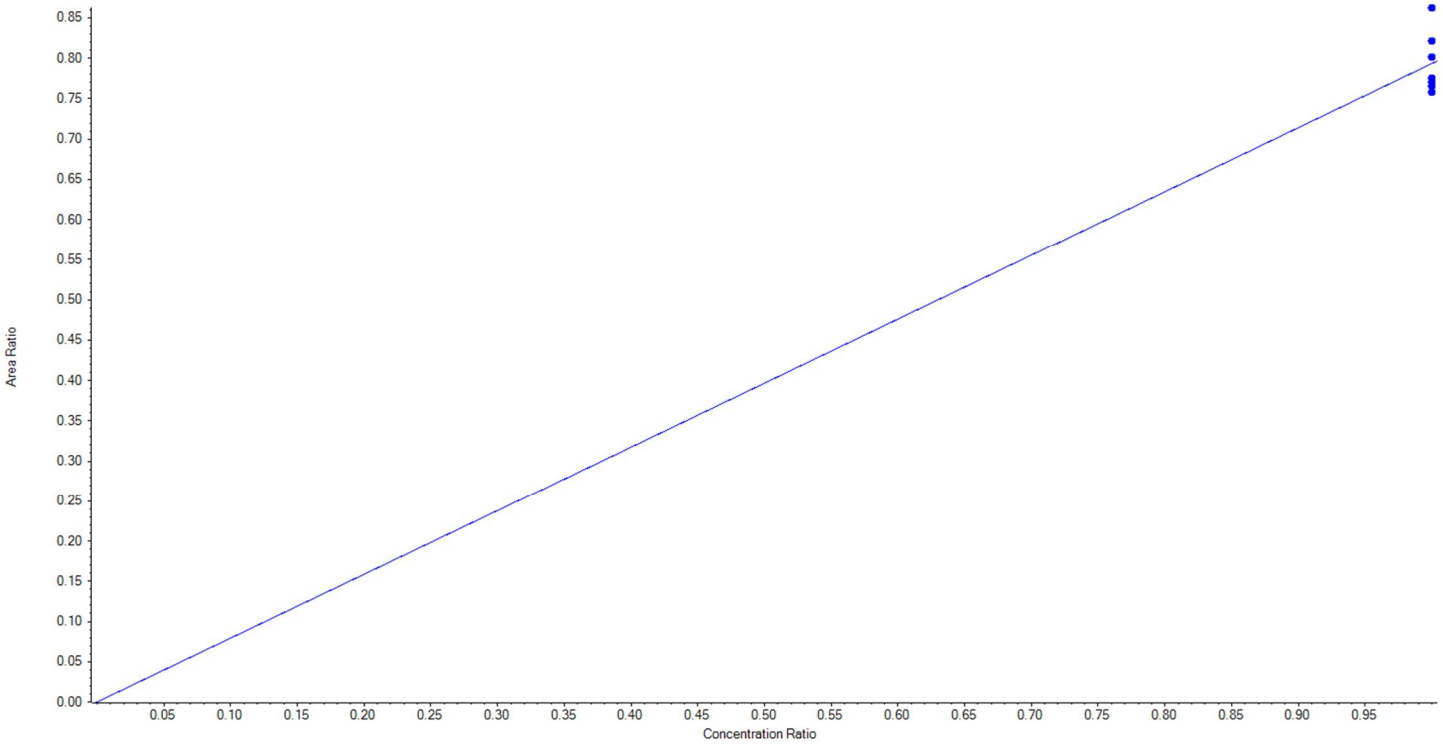
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:33:56 PM

Analyte Name	13C5-PFHxA	**Data File**	18-0601.wiff
MRM Transition	318.0 / 273.0	**Result Table**	18-0582_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.79340 x (std. dev. = 0.03745) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	252.344194	100.9
3	KB74	L2	True	250.00	244.342821	97.7
4	KB75	L3	True	250.00	258.675787	103.5
5	KB76	L4	True	250.00	241.044127	96.4
6	KB77	L5	True	250.00	242.891692	97.2
7	KB78	L6	True	250.00	239.001083	95.6
8	KB79	L7	True	250.00	271.700296	108.7



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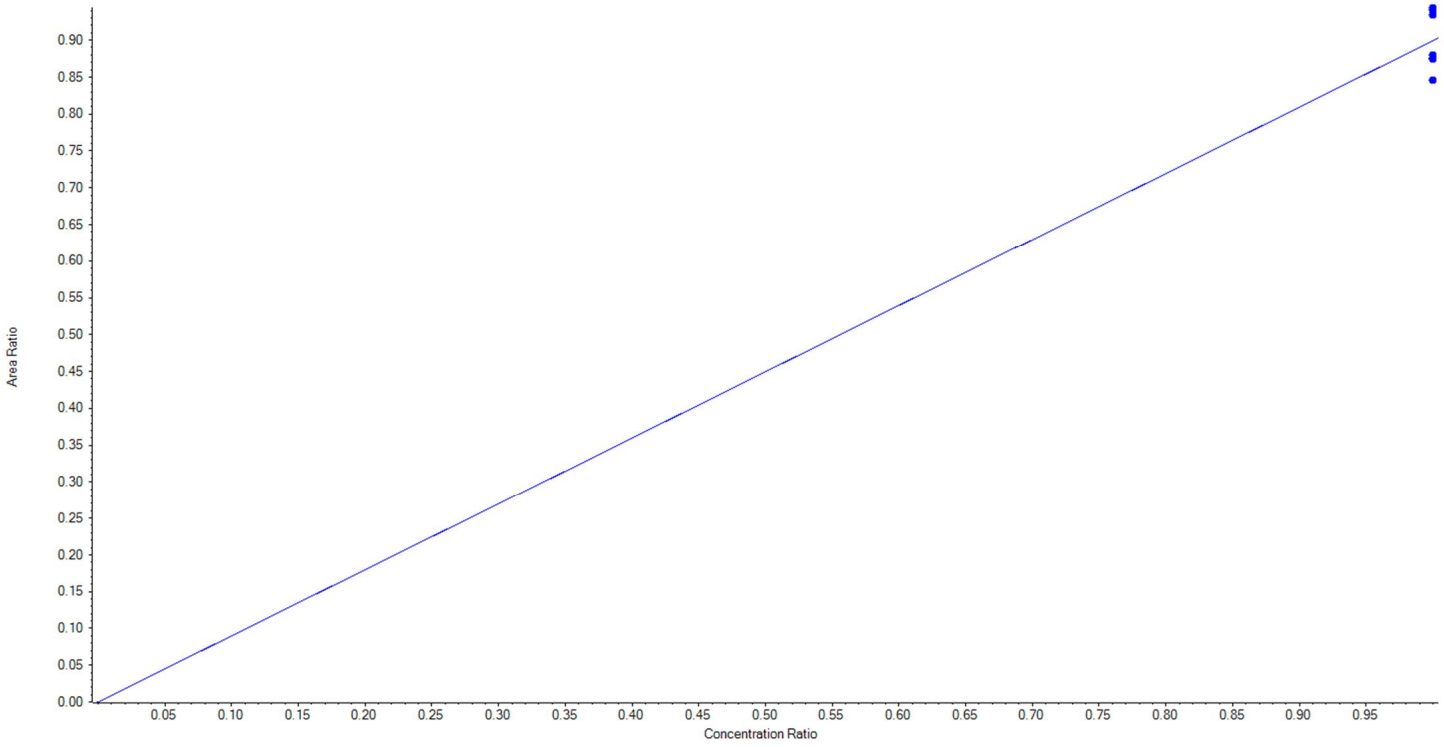
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:33:56 PM

Analyte Name	13C4-PFHpA	**Data File**	18-0601.wiff
MRM Transition	367.0 / 322.0	**Result Table**	18-0582_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.89917 x (std. dev. = 0.03960) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	261.654960	104.7
3	KB74	L2	True	250.00	244.514684	97.8
4	KB75	L3	True	250.00	259.855420	103.9
5	KB76	L4	True	250.00	243.044007	97.2
6	KB77	L5	True	250.00	235.223263	94.1
7	KB78	L6	True	250.00	243.333341	97.3
8	KB79	L7	True	250.00	262.374325	105.0



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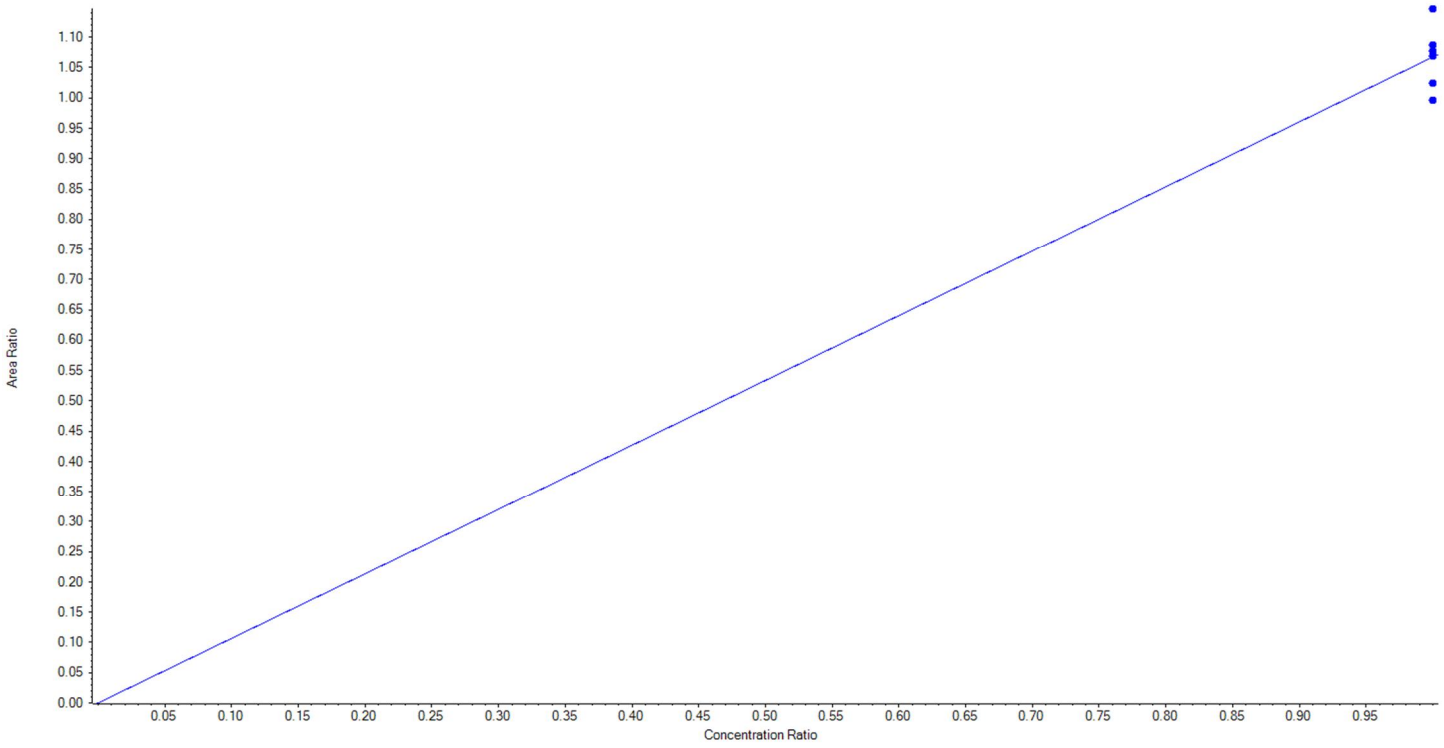
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:33:56 PM

Analyte Name	13C8-PFOA	**Data File**	18-0601.wiff
MRM Transition	421.0 / 376.0	**Result Table**	18-0582_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.06735 x (std. dev. = 0.04777) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	239.840388	95.9
3	KB74	L2	True	250.00	252.420669	101.0
4	KB75	L3	True	250.00	254.787601	101.9
5	KB76	L4	True	250.00	268.555463	107.4
6	KB77	L5	True	250.00	250.486670	100.2
7	KB78	L6	True	250.00	233.431611	93.4
8	KB79	L7	True	250.00	250.477598	100.2



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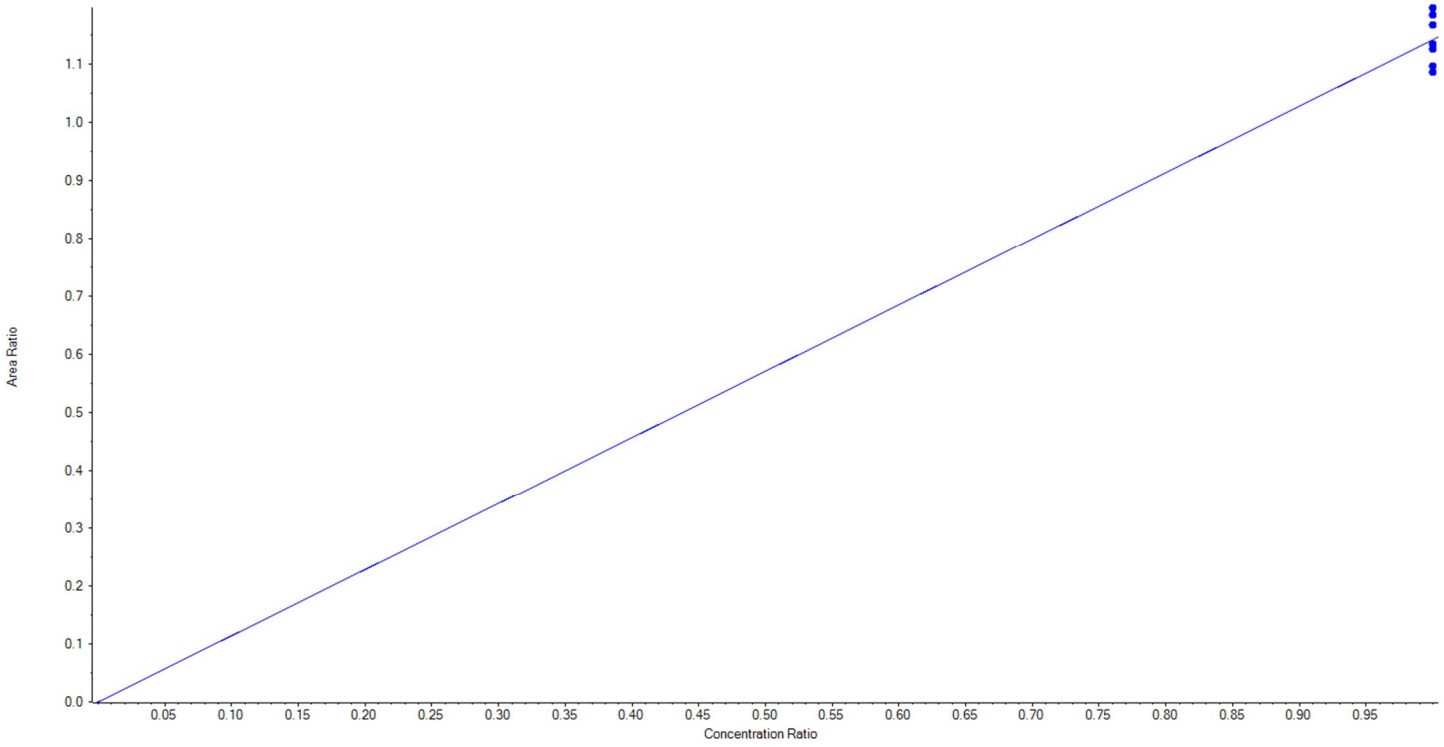
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:33:56 PM

Analyte Name	13C9-PFNA	**Data File**	18-0601.wiff
MRM Transition	472.0 / 427.0	**Result Table**	18-0582_SIS
Internal Standard	13C2-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.14250 x (std. dev. = 0.04286) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	240.220252	96.1
3	KB74	L2	True	250.00	261.995376	104.8
4	KB75	L3	True	250.00	259.505207	103.8
5	KB76	L4	True	250.00	248.487072	99.4
6	KB77	L5	True	250.00	246.350816	98.5
7	KB78	L6	True	250.00	255.682528	102.3
8	KB79	L7	True	250.00	237.758750	95.1



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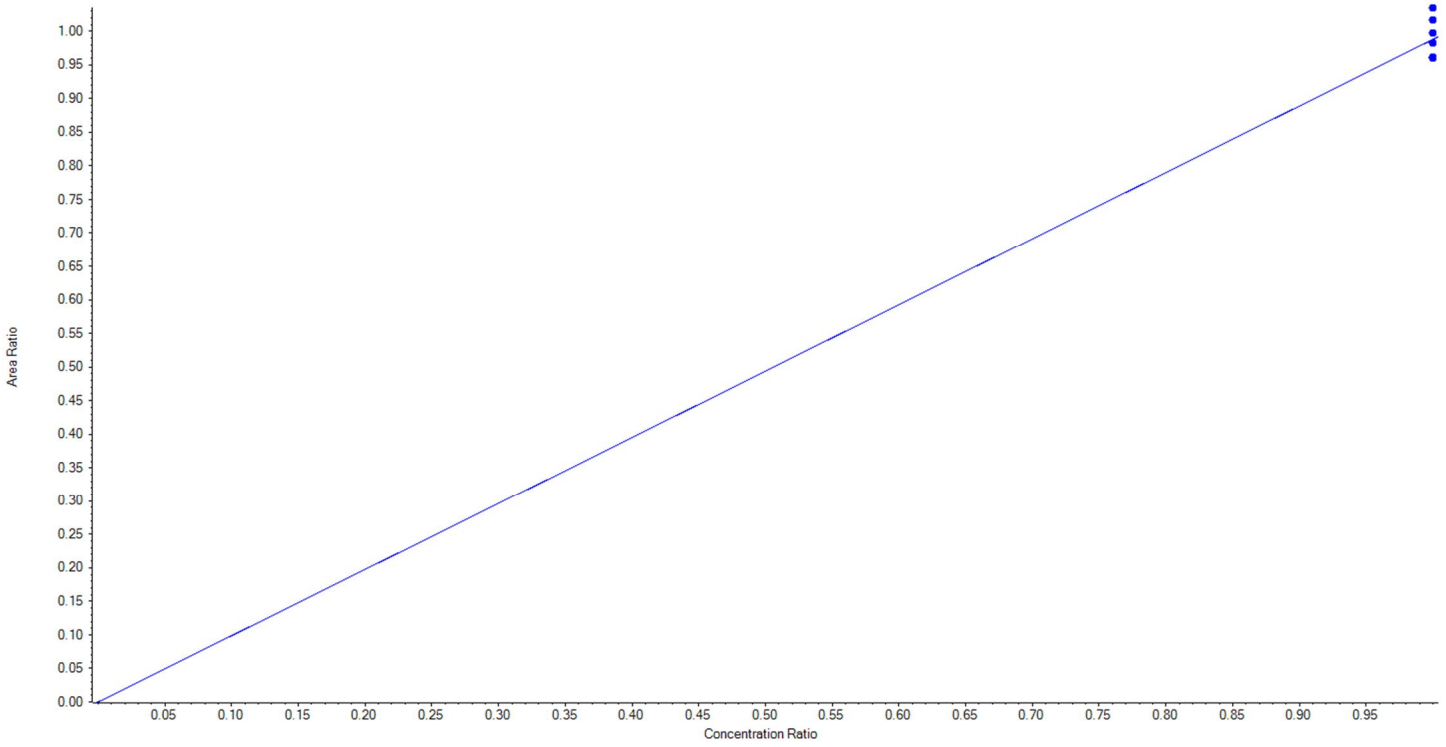
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:33:56 PM

Analyte Name	13C6-PFDA	**Data File**	18-0601.wiff
MRM Transition	519.0 / 474.0	**Result Table**	18-0582_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.98773 x (std. dev. = 0.02988) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	257.474350	103.0
3	KB74	L2	True	250.00	248.504308	99.4
4	KB75	L3	True	250.00	261.874670	104.8
5	KB76	L4	True	250.00	243.364521	97.4
6	KB77	L5	True	250.00	252.483885	101.0
7	KB78	L6	True	250.00	243.176304	97.3
8	KB79	L7	True	250.00	243.121962	97.3



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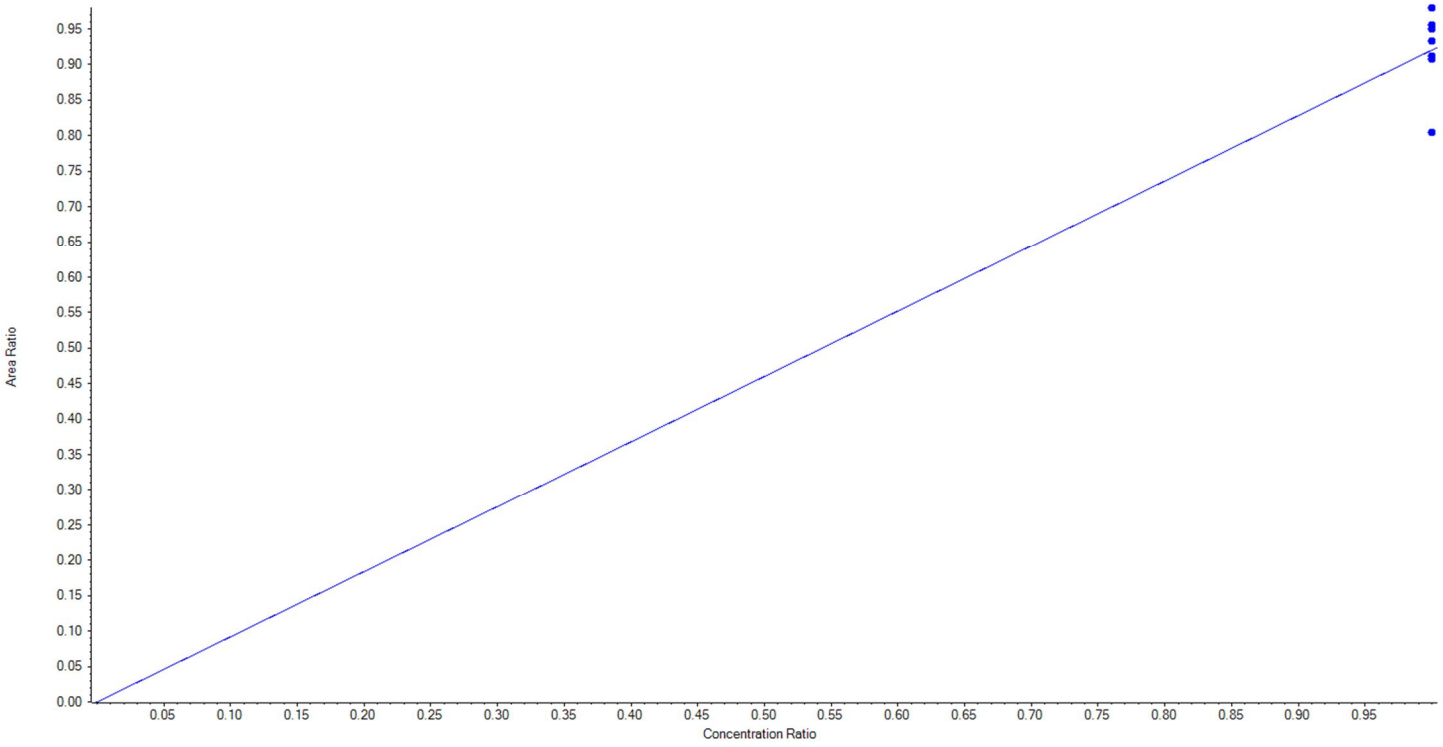
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:33:56 PM

Analyte Name	13C7-PFUnA	**Data File**	18-0601.wiff
MRM Transition	570.0 / 525.0	**Result Table**	18-0582_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.92035 x (std. dev. = 0.05701) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	259.403586	103.8
3	KB74	L2	True	250.00	266.113351	106.5
4	KB75	L3	True	250.00	253.532677	101.4
5	KB76	L4	True	250.00	247.793995	99.1
6	KB77	L5	True	250.00	246.488011	98.6
7	KB78	L6	True	250.00	258.198717	103.3
8	KB79	L7	True	250.00	218.469663	87.4



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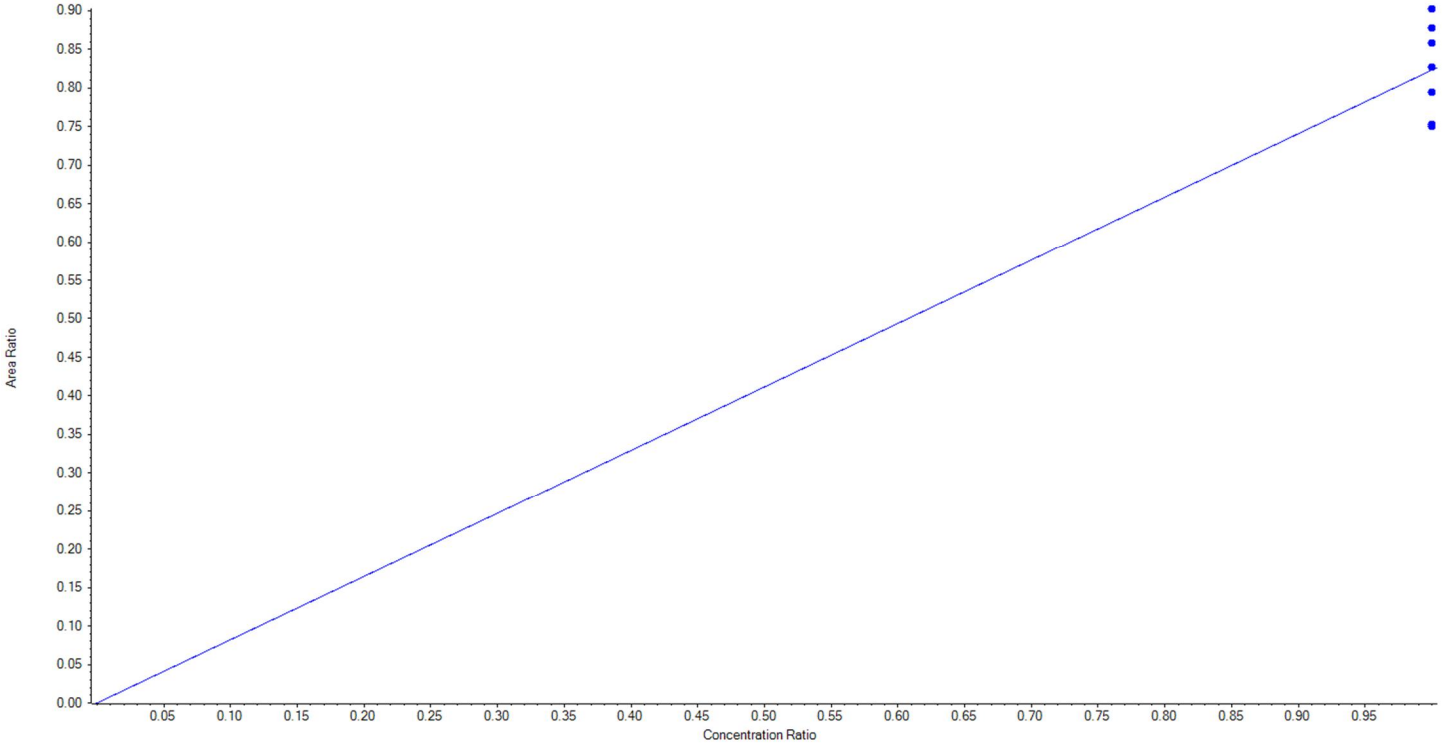
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:33:56 PM

Analyte Name	13C2-PFTeDA	**Data File**	18-0601.wiff
MRM Transition	715.0 / 670.0	**Result Table**	18-0582_SIS
Internal Standard	13C2-PFDA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.82314 x (std. dev. = 0.06022) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	274.071997	109.6
3	KB74	L2	True	250.00	260.776024	104.3
4	KB75	L3	True	250.00	241.309248	96.5
5	KB76	L4	True	250.00	227.675736	91.1
6	KB77	L5	True	250.00	228.552747	91.4
7	KB78	L6	True	250.00	250.988736	100.4
8	KB79	L7	True	250.00	266.625511	106.7



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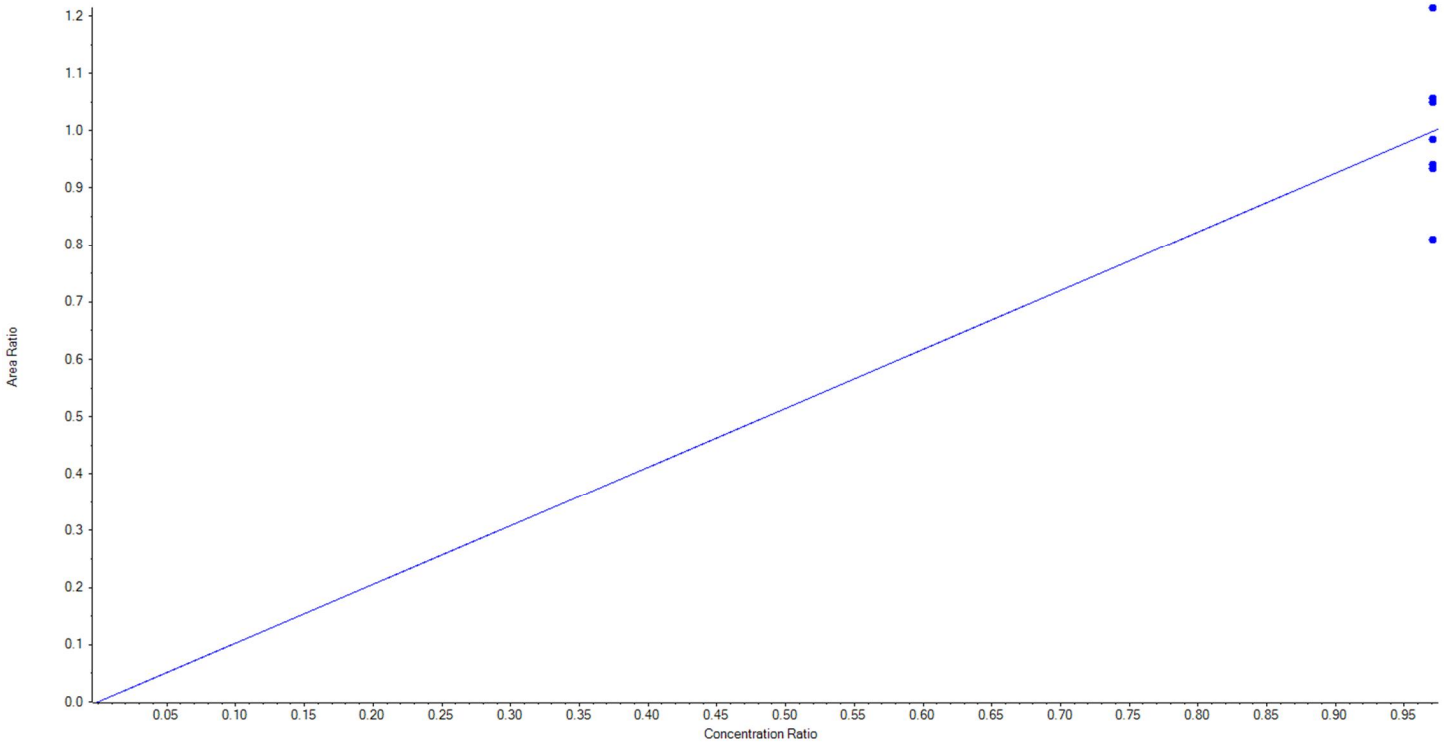
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:33:56 PM

Analyte Name	13C3-PFBS	**Data File**	18-0601.wiff
MRM Transition	302.0 / 99.0	**Result Table**	18-0582_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.02890 x (std. dev. = 0.12985) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	232.25	218.998363	94.3
3	KB74	L2	True	232.25	243.887307	105.0
4	KB75	L3	True	232.25	245.747673	105.8
5	KB76	L4	True	232.25	229.153269	98.7
6	KB77	L5	True	232.25	188.375930	81.1
7	KB78	L6	True	232.25	217.304120	93.6
8	KB79	L7	True	232.25	282.283339	121.5



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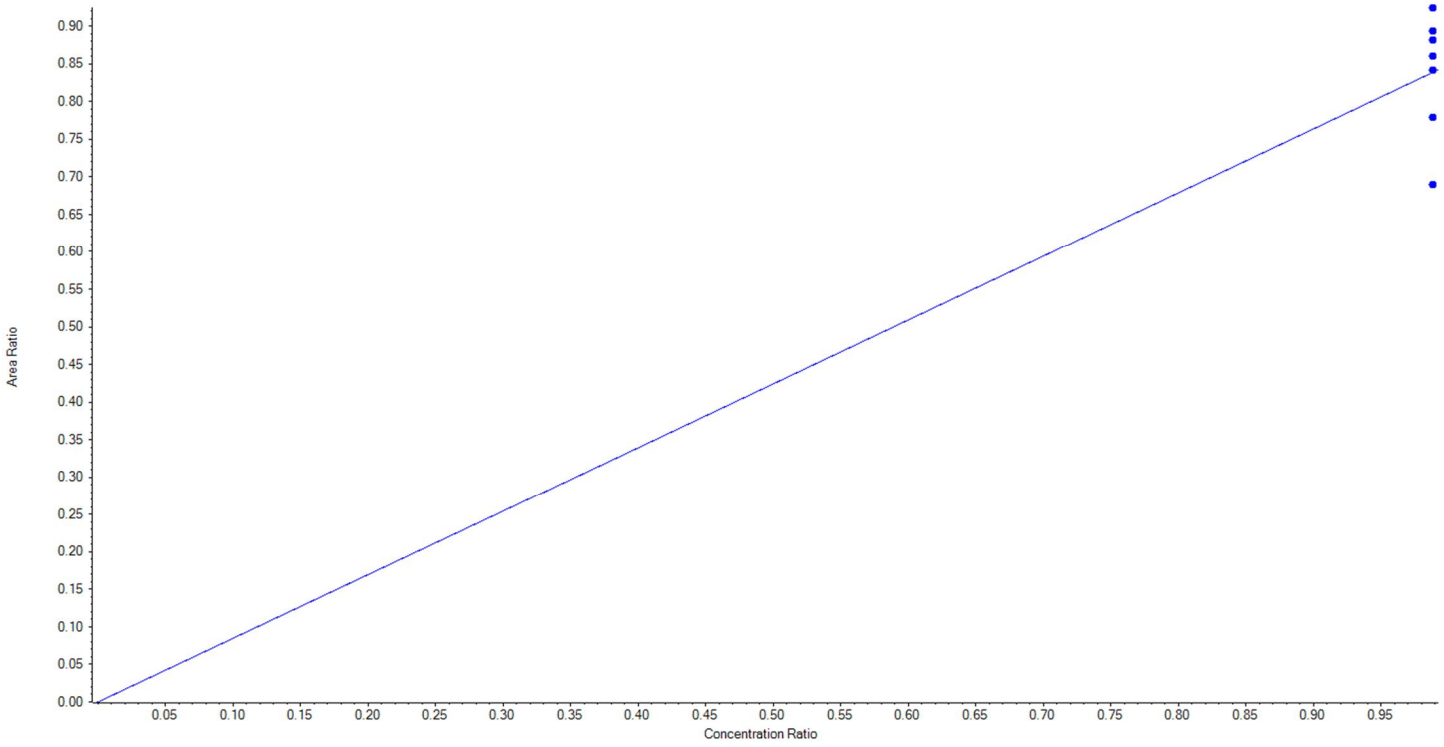
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:33:56 PM

Analyte Name	13C3-PFHxS	**Data File**	18-0601.wiff
MRM Transition	402.0 / 99.0	**Result Table**	18-0582_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.84854 x (std. dev. = 0.08081) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	236.50	242.607727	102.6
3	KB74	L2	True	236.50	237.440480	100.4
4	KB75	L3	True	236.50	260.613088	110.2
5	KB76	L4	True	236.50	219.602003	92.9
6	KB77	L5	True	236.50	248.421540	105.0
7	KB78	L6	True	236.50	194.653402	82.3
8	KB79	L7	True	236.50	252.161761	106.6



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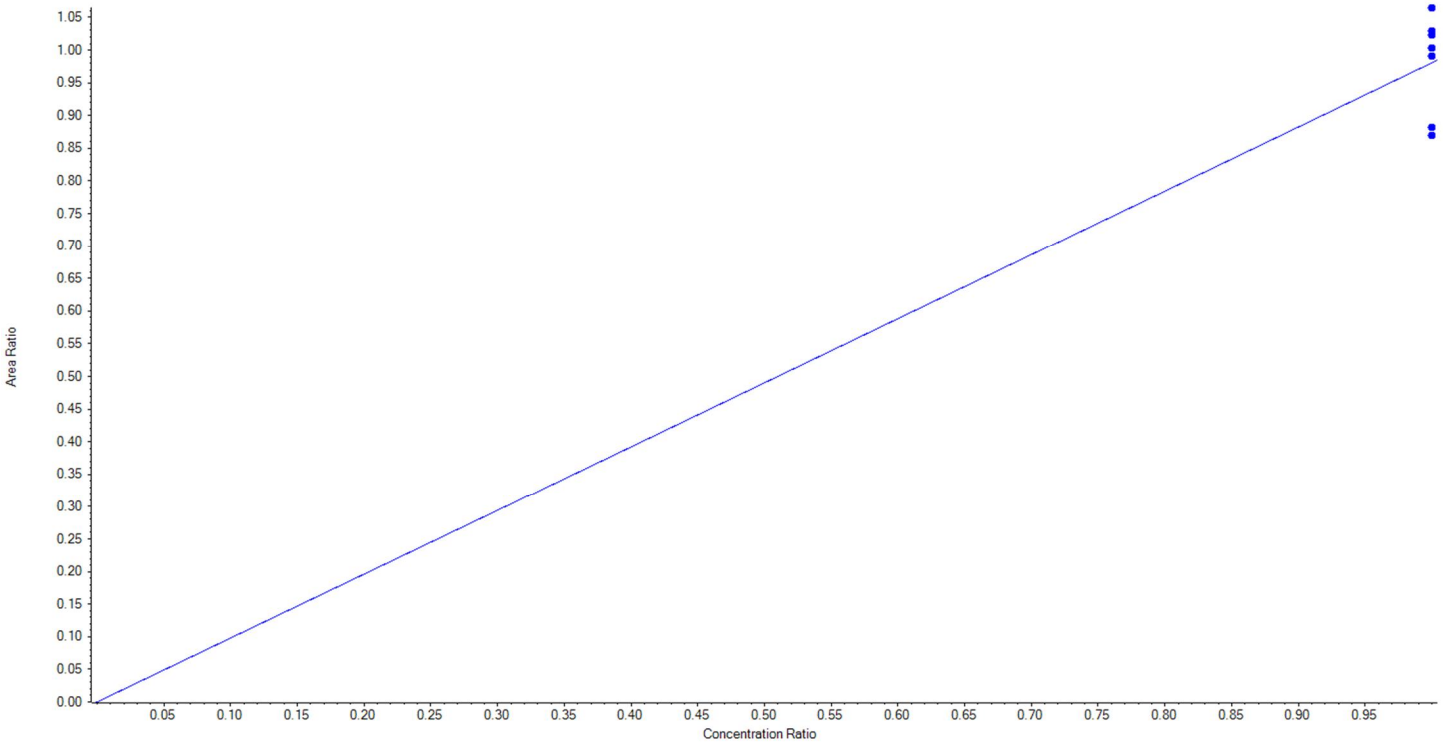
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:33:56 PM

Analyte Name	13C8-PFOS	**Data File**	18-0601.wiff
MRM Transition	507.0 / 99.0	**Result Table**	18-0582_SIS
Internal Standard	13C4-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/8/2018 3:29:19 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.98055 x (std. dev. = 0.07487) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	239.25	215.345517	90.0
3	KB74	L2	True	239.25	249.684087	104.4
4	KB75	L3	True	239.25	251.144046	105.0
5	KB76	L4	True	239.25	259.730476	108.6
6	KB77	L5	True	239.25	241.812244	101.1
7	KB78	L6	True	239.25	212.331758	88.8
8	KB79	L7	True	239.25	244.701872	102.3



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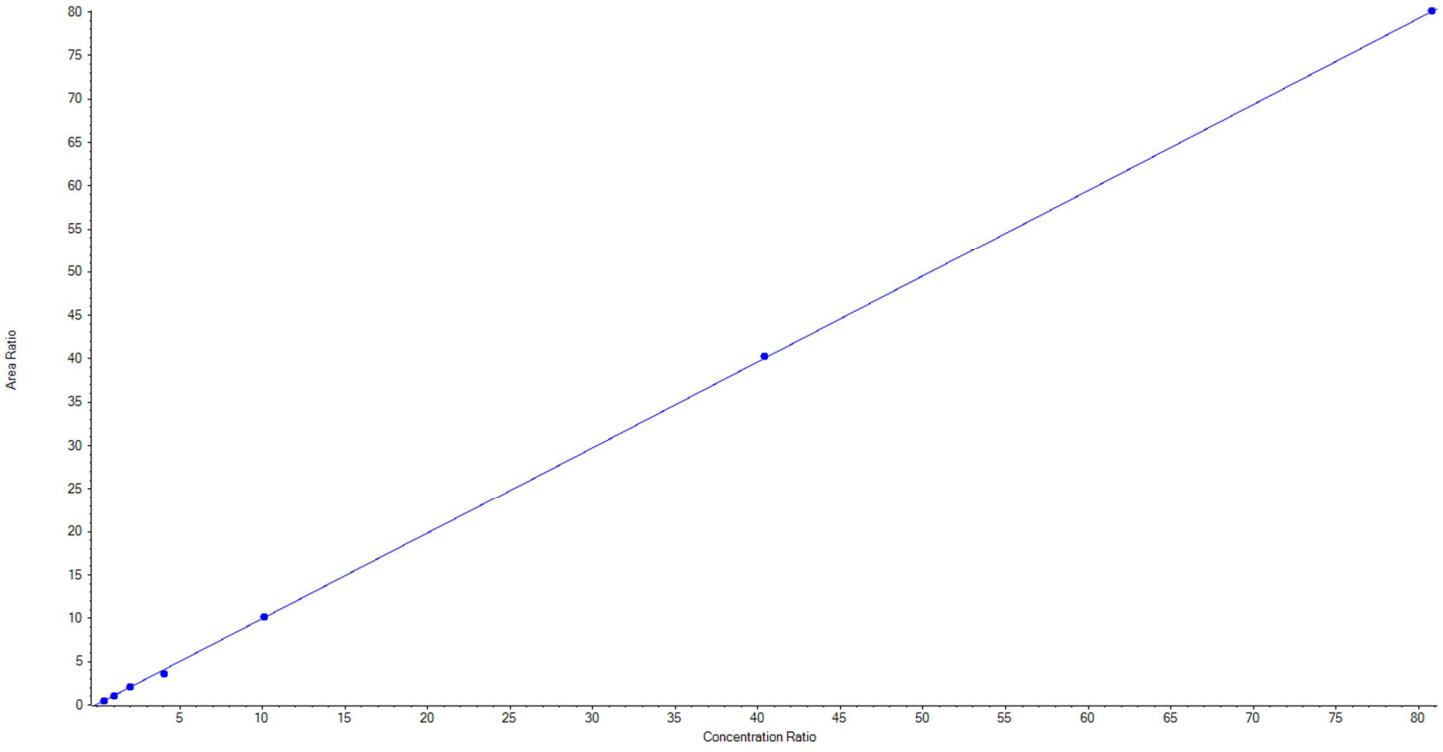
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:37:33 PM

Analyte Name	PFHxA_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	313.0 / 269.0	**Result Table**	18-0582_18-0583_D_Base
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.98971 x + 0.07031 (r = 0.99978) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73		True	101.00	108.810616	107.7
3	KB74		True	252.50	255.441826	101.2
4	KB75		True	505.00	507.490422	100.5
5	KB76		True	1010.00	897.348485	88.9
6	KB77		True	2525.00	2554.105922	101.2
7	KB78		True	10100.00	10152.794039	100.5
8	KB79		True	20200.00	20217.508690	100.1



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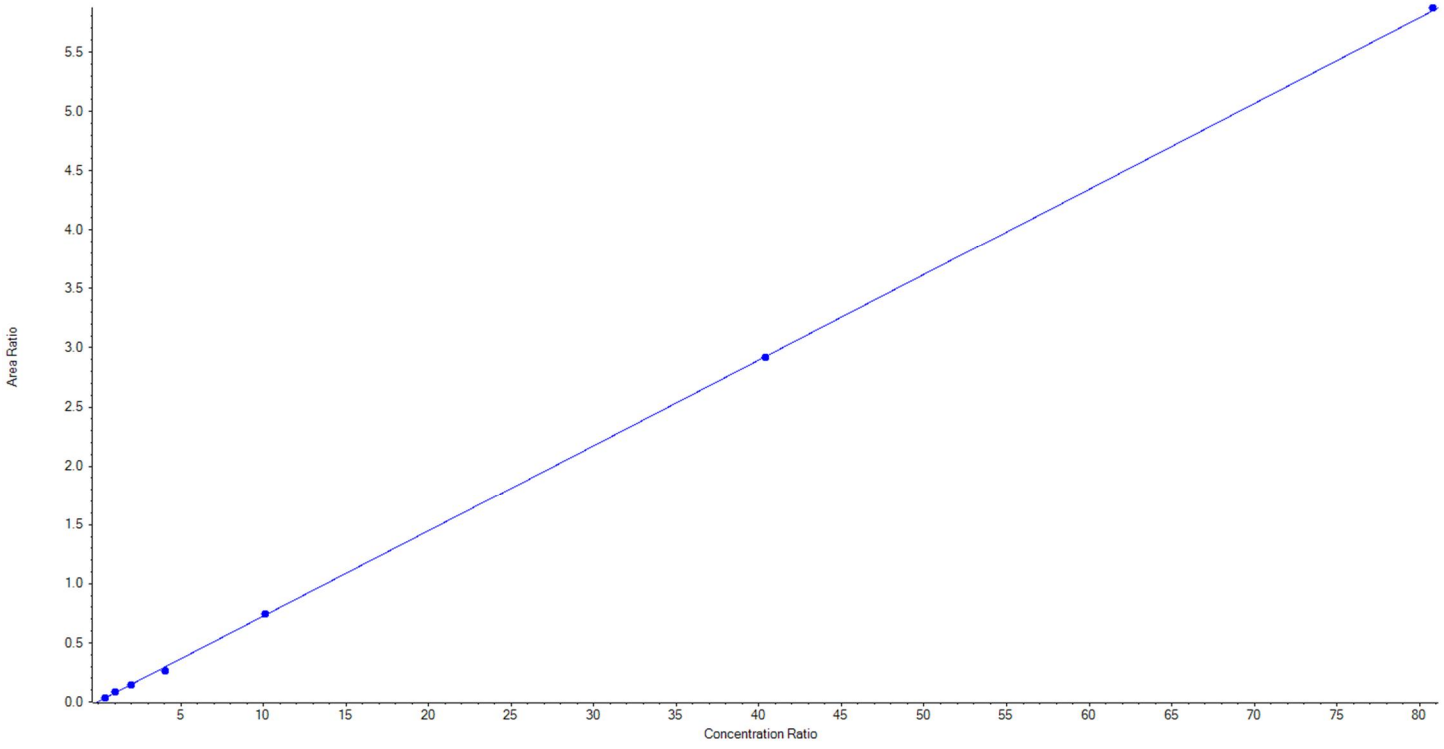
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:37:33 PM

Analyte Name	PFHxA_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	313.0 / 119.0	**Result Table**	18-0582_18-0583_D_Base
Internal Standard	13C5-PFHxA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.07233 x + 0.00290 (r = 0.99972) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73		True	101.00	96.626394	95.7
3	KB74		True	252.50	291.668576	115.5
4	KB75		True	505.00	493.442238	97.7
5	KB76		True	1010.00	907.899027	89.9
6	KB77		True	2525.00	2553.633299	101.1
7	KB78		True	10100.00	10066.268167	99.7
8	KB79		True	20200.00	20283.962299	100.4



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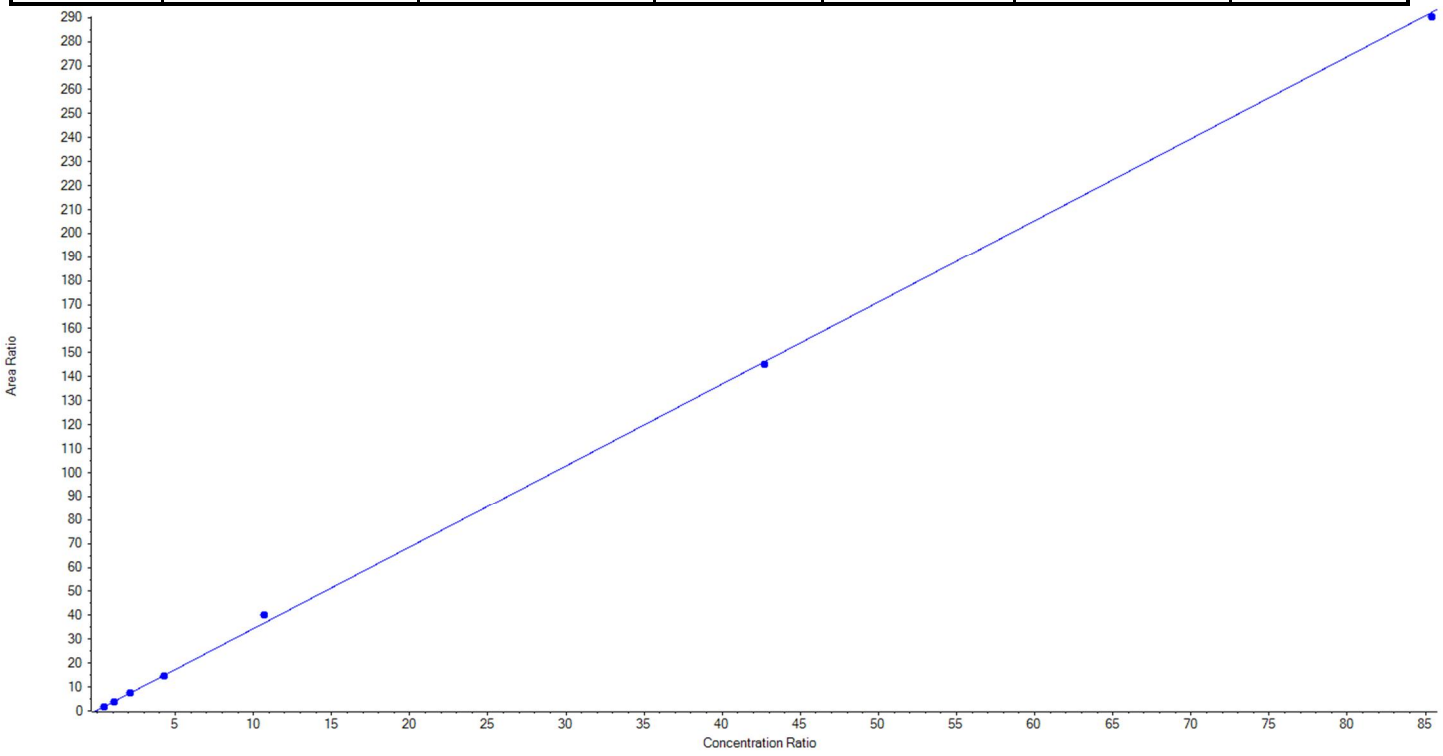
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:37:33 PM

Analyte Name	PFHxS_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	399.0 / 80.0	**Result Table**	18-0582_18-0583_D_Base
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 3.41837 x + 0.22767 (r = 0.99962) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73		True	101.00	98.667560	97.7
3	KB74		True	252.50	237.672593	94.1
4	KB75		True	505.00	517.374784	102.5
5	KB76		True	1010.00	989.008162	97.9
6	KB77		True	2525.00	2757.432516	109.2
7	KB78		True	10100.00	10024.721431	99.3
8	KB79		True	20200.00	20068.622953	99.4



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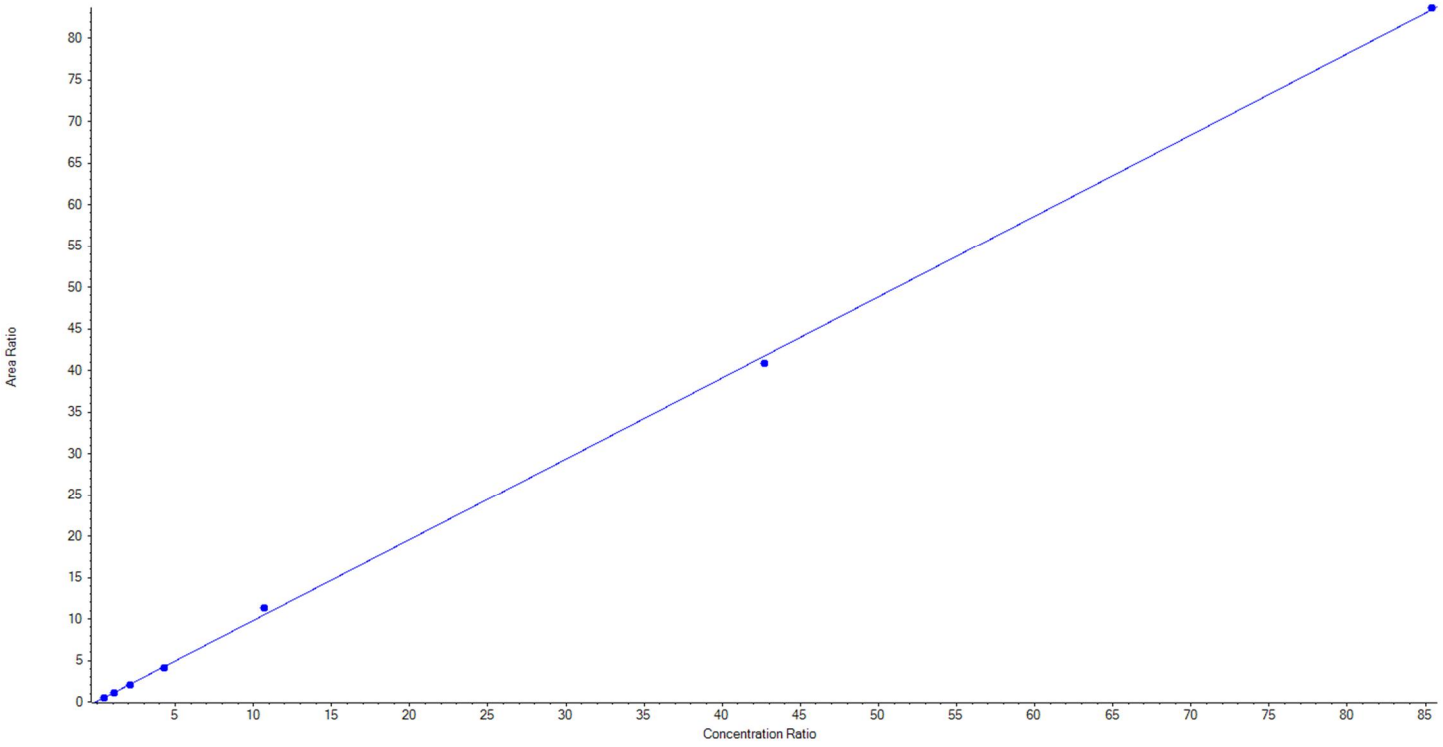
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:37:33 PM

Analyte Name	PFHxS_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	399.0 / 99.0	**Result Table**	18-0582_18-0583_D_Base
Internal Standard	13C3-PFHxS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.97595 x + 0.06484 (r = 0.99965) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73		True	101.00	103.341956	102.3
3	KB74		True	252.50	247.818105	98.2
4	KB75		True	505.00	486.568925	96.4
5	KB76		True	1010.00	978.578682	96.9
6	KB77		True	2525.00	2728.607961	108.1
7	KB78		True	10100.00	9894.381625	98.0
8	KB79		True	20200.00	20254.202745	100.3



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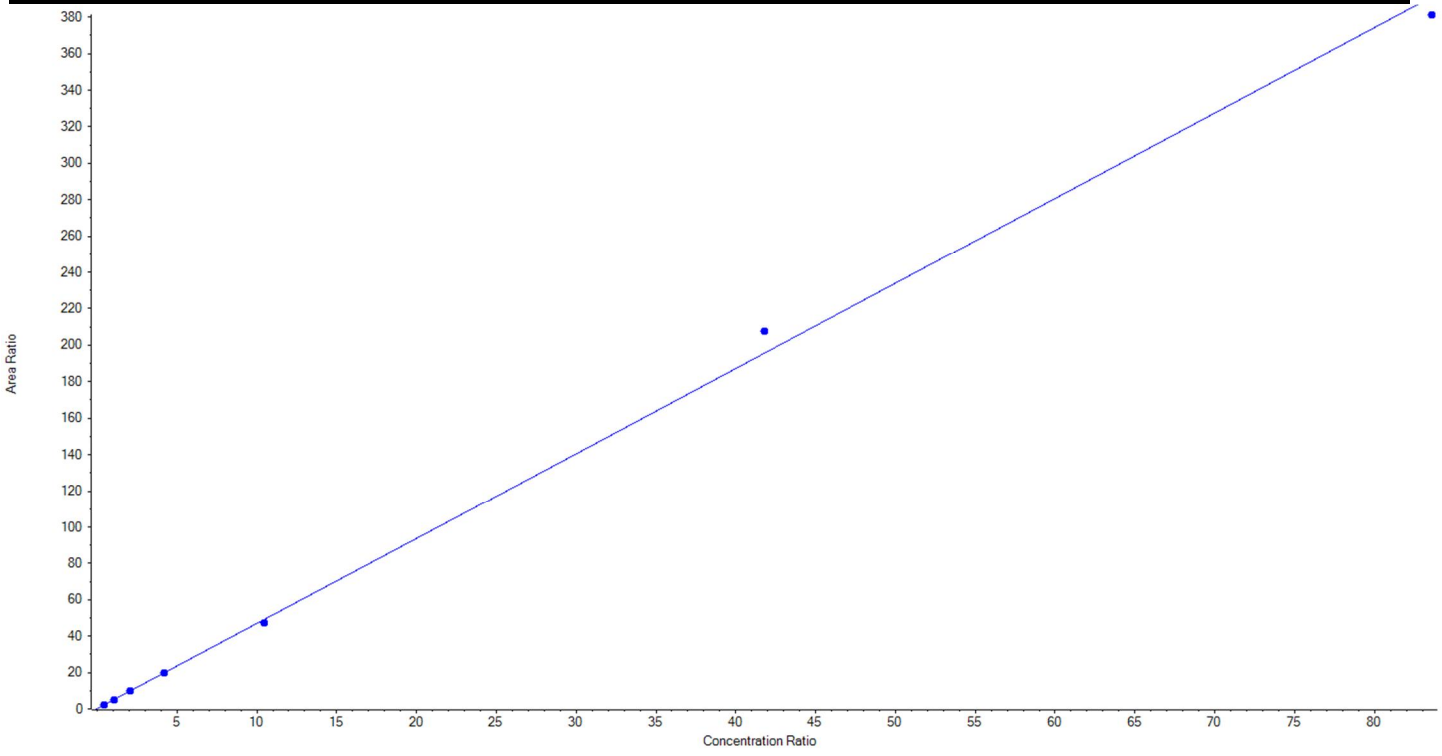
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:37:33 PM

Analyte Name	PFOS_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	499.0 / 80.0	**Result Table**	18-0582_18-0583_D_Base
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 4.67467 x + 0.21930 (r = 0.99915) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73		True	100.00	107.416508	107.4
3	KB74		True	250.00	238.845452	95.5
4	KB75		True	500.00	486.328897	97.3
5	KB76		True	1000.00	994.580618	99.5
6	KB77		True	2500.00	2419.142735	96.8
7	KB78		True	10000.00	10607.466324	106.1
8	KB79		True	20000.00	19496.219465	97.5



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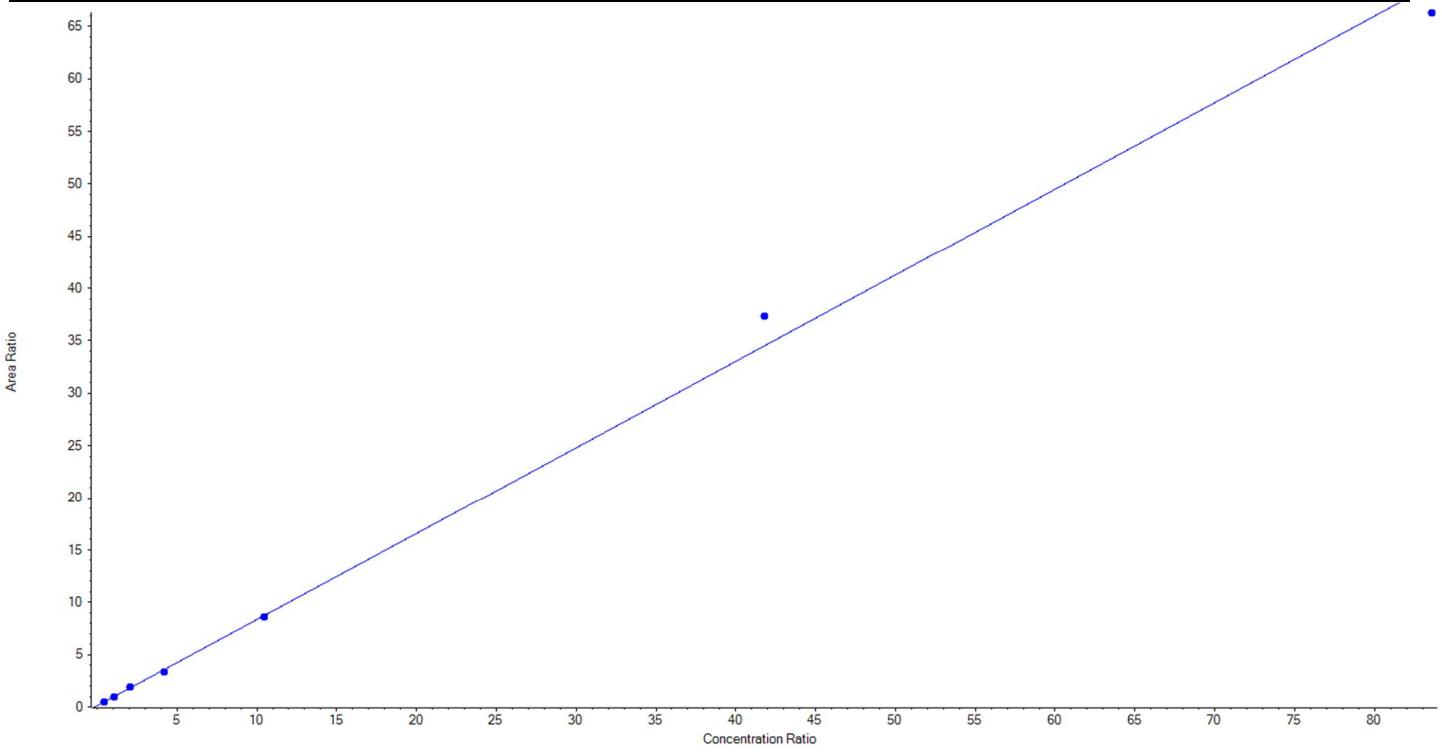
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:37:33 PM

Analyte Name	PFOS_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	499.0 / 99.0	**Result Table**	18-0582_18-0583_D_Base
Internal Standard	13C8-PFOS	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 0.82311 x + 0.11123 (r = 0.99837) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73		True	100.00	99.944163	99.9
3	KB74		True	250.00	239.211228	95.7
4	KB75		True	500.00	530.318821	106.1
5	KB76		True	1000.00	947.792019	94.8
6	KB77		True	2500.00	2478.331212	99.1
7	KB78		True	10000.00	10824.623723	108.3
8	KB79		True	20000.00	19229.778835	96.2



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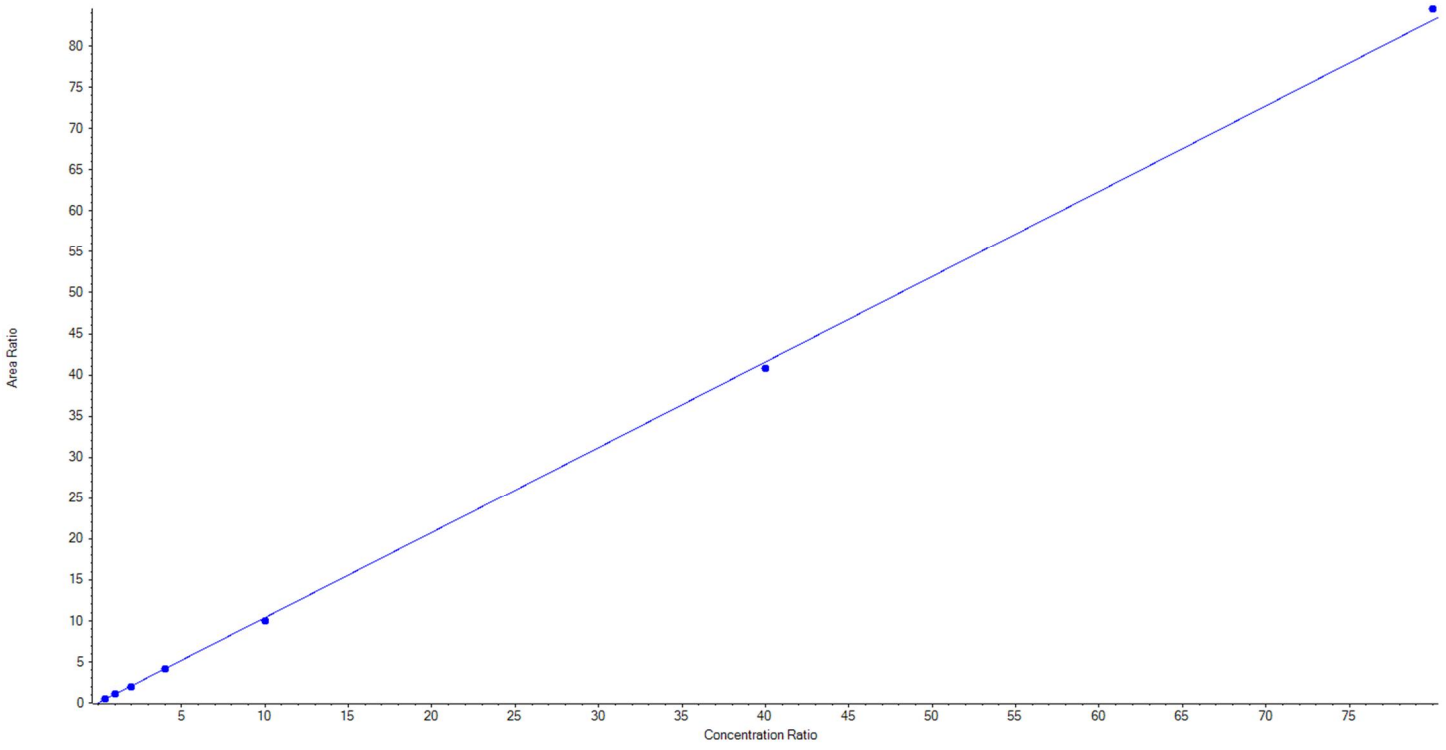
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:37:33 PM

Analyte Name	PFOA_1	**Data File**	18-0585_18-0583.wiff
MRM Transition	413.0 / 369.0	**Result Table**	18-0582_18-0583_D_Base
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.03971 x + -0.00348 (r = 0.99971) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73		True	100.00	108.562585	108.6
3	KB74		True	250.00	261.629716	104.7
4	KB75		True	500.00	458.025313	91.6
5	KB76		True	1000.00	995.677222	99.6
6	KB77		True	2500.00	2399.417317	96.0
7	KB78		True	10000.00	9800.522459	98.0
8	KB79		True	20000.00	20326.165390	101.6



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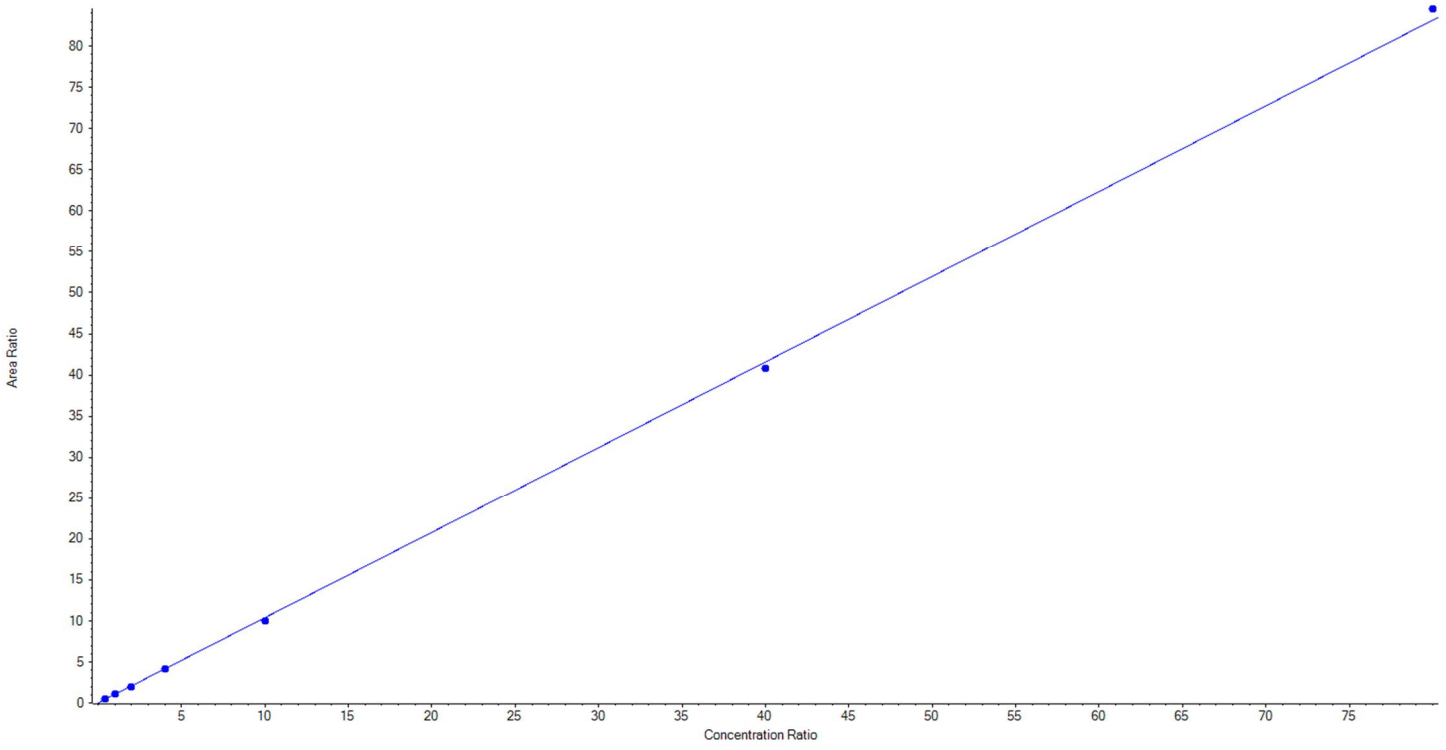
Calibration Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:37:33 PM

Analyte Name	PFOA_2	**Data File**	18-0585_18-0583.wiff
MRM Transition	413.0 / 369.0	**Result Table**	18-0582_18-0583_D_Base
Internal Standard	13C8-PFOA	**Instrument Name**	QTRAP 5500
Acquisition Date	10/14/2018 12:14:09 PM	**Acquisition Method**	5-0369.dam

Regression Equation: y = 1.03971 x + -0.00348 (r = 0.99971) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73		True	100.00	108.562585	108.6
3	KB74		True	250.00	261.629716	104.7
4	KB75		True	500.00	458.025313	91.6
5	KB76		True	1000.00	995.677222	99.6
6	KB77		True	2500.00	2399.417317	96.0
7	KB78		True	10000.00	9800.522459	98.0
8	KB79		True	20000.00	20326.165390	101.6



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	Isotope Dilution Calibration Curve Concentrations (ng/L)						
	KB73	KB74	KB75	KB76	KB77	KB78	KB79
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

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Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:40:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	40668.17	99.953426	147.8	false
PFBS_2	298.9 / 99.0	1.57	13084.98	99.537833	143.5	false
PFHxA_1	313.0 / 269.0	1.90	40708.11	92.447260	20.9	false
PFHxA_2	313.0 / 119.0	1.90	2578.15	99.213282	14.9	false
PFHpA_1	363.0 / 319.0	2.32	36189.71	89.873661	56.8	false
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.34	44435.47	100.517086	150.2	false
PFHxS_2	399.0 / 99.0	2.34	12734.39	95.954083	127.3	false
PFOA_1	413.0 / 369.0	2.73	46314.88	101.180654	75.1	false
PFOA_2	413.0 / 169.0	2.73	4177.08	123.895310	83.4	true
PFNA_1	463.0 / 419.0	3.14	50710.36	111.732664	115.9	false
PFNA_2	463.0 / 219.0	3.13	16248.01	124.667356	138.2	false
PFOS_1	499.0 / 80.0	3.14	65961.98	123.573097	71.4	false
PFOS_2	499.0 / 99.0	3.13	11055.20	112.812823	149.8	true
PFDA_1	513.0 / 469.0	3.50	56677.45	91.723499	128.0	false
PFDA_2	513.0 / 219.0	3.50	2858.19	99.266945	53.8	false
PFUnA_1	563.0 / 519.0	3.83	49946.70	116.714826	129.6	false
PFUnA_2	563.0 / 269.0	3.83	3273.00	112.803868	53.8	true
PFDoA_1	613.0 / 569.0	4.12	48332.16	87.034754	207.5	false
PFDoA_2	613.0 / 319.0	4.12	8192.67	89.771190	136.4	false
PFTrDA_1	663.0 / 619.0	4.37	39977.81	89.252137	267.4	false
PFTrDA_2	663.0 / 169.0	4.37	3025.44	91.358244	134.0	false
PFTeDA_1	713.0 / 669.0	4.59	48383.63	81.664418	542.3	false
PFTeDA_2	713.0 / 169.0	4.59	2519.85	85.351718	234.0	false
NMeFOSAA_1	570.0 / 419.0	3.66	8441.75	97.702606	292.9	false
NMeFOSAA_2	570.0 / 512.0	3.65	3931.68	88.881031	112.5	false
NEtFOSAA_1	584.0 / 419.0	3.82	6727.50	111.213907	204.9	false
NEtFOSAA_2	584.0 / 483.0	3.82	515.03	113.055246	37.2	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:08:08 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:51:02	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	97996.21	235.867817	288.2	false
PFBS_2	298.9 / 99.0	1.56	30342.08	237.336670	285.2	false
PFHxA_1	313.0 / 269.0	1.89	92276.60	287.493278	36.0	false
PFHxA_2	313.0 / 119.0	1.89	5694.80	256.972963	30.8	false
PFHpA_1	363.0 / 319.0	2.31	90146.68	297.117006	116.2	false
PFHpA_2	363.0 / 169.0	2.29	1692.78	239.925260	51.9	false
PFHxS_1	399.0 / 80.0	2.33	108182.30	266.028024	169.8	false
PFHxS_2	399.0 / 99.0	2.33	31239.67	267.441050	214.4	false
PFOA_1	413.0 / 369.0	2.73	111798.84	271.138088	144.4	false
PFOA_2	413.0 / 169.0	2.72	7229.09	243.598034	92.7	false
PFNA_1	463.0 / 419.0	3.13	112088.23	265.554817	182.8	false
PFNA_2	463.0 / 219.0	3.13	30549.71	238.006617	190.8	false
PFOS_1	499.0 / 80.0	3.12	137244.09	231.385263	102.7	false
PFOS_2	499.0 / 99.0	3.12	25802.49	244.587648	281.2	false
PFDA_1	513.0 / 469.0	3.49	133394.41	283.577861	235.3	false
PFDA_2	513.0 / 219.0	3.49	5884.08	274.959074	89.4	false
PFUnA_1	563.0 / 519.0	3.82	115591.07	257.976381	169.9	false
PFUnA_2	563.0 / 269.0	3.82	6763.47	261.313717	102.8	false
PFDoA_1	613.0 / 569.0	4.11	116544.25	263.602074	253.9	false
PFDoA_2	613.0 / 319.0	4.10	18423.85	258.318969	187.8	false
PFTrDA_1	663.0 / 619.0	4.36	96393.82	249.241065	391.9	false
PFTrDA_2	663.0 / 169.0	4.36	6271.21	234.431195	186.7	false
PFTeDA_1	713.0 / 669.0	4.58	117526.52	253.892322	745.6	false
PFTeDA_2	713.0 / 169.0	4.58	5838.46	256.536093	412.9	false
NMeFOSAA_1	570.0 / 419.0	3.65	17494.23	270.300837	399.5	false
NMeFOSAA_2	570.0 / 512.0	3.65	10257.55	298.534462	179.0	false
NEtFOSAA_1	584.0 / 419.0	3.81	18232.38	243.571968	926.7	false
NEtFOSAA_2	584.0 / 483.0	3.80	985.11	192.274109	81.6	false

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Summary Quant Report

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Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:01:53	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	171907.26	467.701721	301.1	false
PFBS_2	298.9 / 99.0	1.56	51879.22	467.679320	332.5	false
PFHxA_1	313.0 / 269.0	1.89	143175.15	488.979798	50.7	false
PFHxA_2	313.0 / 119.0	1.89	10476.06	506.830897	42.8	false
PFHpA_1	363.0 / 319.0	2.30	136165.60	476.968535	137.7	false
PFHpA_2	363.0 / 169.0	2.30	3203.78	532.066103	116.1	false
PFHxS_1	399.0 / 80.0	2.33	182161.08	454.394152	182.7	false
PFHxS_2	399.0 / 99.0	2.33	51732.75	453.657269	286.9	false
PFOA_1	413.0 / 369.0	2.72	178307.00	487.237867	191.6	false
PFOA_2	413.0 / 169.0	2.72	11301.33	454.441982	138.8	false
PFNA_1	463.0 / 419.0	3.12	168981.24	464.587264	221.6	false
PFNA_2	463.0 / 219.0	3.12	49042.28	445.274904	292.9	false
PFOS_1	499.0 / 80.0	3.12	263724.73	490.927213	152.4	false
PFOS_2	499.0 / 99.0	3.12	46469.02	490.350152	389.4	false
PFDA_1	513.0 / 469.0	3.48	202554.80	458.611120	261.3	false
PFDA_2	513.0 / 219.0	3.48	9291.81	475.811514	206.2	false
PFUnA_1	563.0 / 519.0	3.81	194658.75	486.390999	202.1	false
PFUnA_2	563.0 / 269.0	3.81	11024.85	510.984846	135.6	false
PFDoA_1	613.0 / 569.0	4.10	185364.70	494.809950	304.3	false
PFDoA_2	613.0 / 319.0	4.10	29281.72	490.819808	248.1	false
PFTrDA_1	663.0 / 619.0	4.35	161653.00	498.194197	489.0	false
PFTrDA_2	663.0 / 169.0	4.35	11309.19	526.023755	288.0	false
PFTeDA_1	713.0 / 669.0	4.57	191505.25	504.637939	928.4	false
PFTeDA_2	713.0 / 169.0	4.57	9174.84	494.590376	439.8	false
NMeFOSAA_1	570.0 / 419.0	3.64	30888.76	474.866395	350.3	false
NMeFOSAA_2	570.0 / 512.0	3.64	16836.11	476.944765	344.8	false
NEtFOSAA_1	584.0 / 419.0	3.81	32032.95	459.435665	453.1	false
NEtFOSAA_2	584.0 / 483.0	3.81	2351.88	523.159531	104.3	false

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Summary Quant Report

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Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:12:44	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	392417.32	993.462503	465.8	false
PFBS_2	298.9 / 99.0	1.56	114842.33	974.004845	429.3	false
PFHxA_1	313.0 / 269.0	1.88	281812.65	983.021914	74.2	false
PFHxA_2	313.0 / 119.0	1.88	21929.54	1054.871534	64.1	false
PFHpA_1	363.0 / 319.0	2.30	279387.48	980.539024	187.5	false
PFHpA_2	363.0 / 169.0	2.30	6285.62	1074.132757	167.0	false
PFHxS_1	399.0 / 80.0	2.32	415537.83	1088.436384	274.9	false
PFHxS_2	399.0 / 99.0	2.32	119381.60	1109.381232	500.8	false
PFOA_1	413.0 / 369.0	2.72	387779.81	935.786687	266.2	false
PFOA_2	413.0 / 169.0	2.71	25120.59	926.390958	236.2	false
PFNA_1	463.0 / 419.0	3.12	362146.83	981.108634	347.5	false
PFNA_2	463.0 / 219.0	3.12	113257.38	1012.445509	383.5	false
PFOS_1	499.0 / 80.0	3.12	577124.73	904.657366	225.1	false
PFOS_2	499.0 / 99.0	3.12	104306.14	931.886008	535.1	false
PFDA_1	513.0 / 469.0	3.48	439108.27	1003.320169	444.3	false
PFDA_2	513.0 / 219.0	3.48	19088.80	998.656796	233.0	false
PFUnA_1	563.0 / 519.0	3.81	397197.56	903.715490	282.0	false
PFUnA_2	563.0 / 269.0	3.81	21879.16	956.967861	207.3	false
PFDoA_1	613.0 / 569.0	4.09	425373.61	1051.603118	366.5	false
PFDoA_2	613.0 / 319.0	4.09	66825.71	1045.219534	379.7	false
PFTrDA_1	663.0 / 619.0	4.35	347190.32	1027.562136	544.6	false
PFTrDA_2	663.0 / 169.0	4.34	21976.91	992.847328	342.4	false
PFTeDA_1	713.0 / 669.0	4.57	412325.02	1058.184635	1187.6	false
PFTeDA_2	713.0 / 169.0	4.57	19886.40	1051.091061	629.0	false
NMeFOSAA_1	570.0 / 419.0	3.63	69641.09	1084.703812	668.8	false
NMeFOSAA_2	570.0 / 512.0	3.63	35807.08	1013.211747	532.9	false
NEtFOSAA_1	584.0 / 419.0	3.80	68087.88	949.960545	438.5	false
NEtFOSAA_2	584.0 / 483.0	3.80	4957.69	1098.825316	311.4	false

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Summary Quant Report

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Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:23:36	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	756343.61	2947.537177	722.3	false
PFBS_2	298.9 / 99.0	1.56	229596.11	3021.038298	484.8	false
PFHxA_1	313.0 / 269.0	1.89	572181.89	2463.536173	131.9	false
PFHxA_2	313.0 / 119.0	1.88	40903.69	2382.338955	107.0	false
PFHpA_1	363.0 / 319.0	2.30	533838.60	2380.403957	257.5	false
PFHpA_2	363.0 / 169.0	2.30	9815.51	2156.057878	259.7	false
PFHxS_1	399.0 / 80.0	2.32	788727.82	2372.812761	437.1	false
PFHxS_2	399.0 / 99.0	2.32	226527.85	2425.801995	875.6	false
PFOA_1	413.0 / 369.0	2.71	757753.26	2409.578897	384.6	false
PFOA_2	413.0 / 169.0	2.71	46543.22	2309.165462	385.4	false
PFNA_1	463.0 / 419.0	3.12	694412.93	2339.025833	473.2	false
PFNA_2	463.0 / 219.0	3.12	204941.92	2267.641827	579.2	false
PFOS_1	499.0 / 80.0	3.11	1089935.72	2369.050851	313.3	false
PFOS_2	499.0 / 99.0	3.11	195598.56	2431.270309	610.4	false
PFDA_1	513.0 / 469.0	3.47	834944.35	2495.696626	635.8	false
PFDA_2	513.0 / 219.0	3.47	33509.30	2311.427685	379.1	false
PFUnA_1	563.0 / 519.0	3.80	778458.14	2353.654032	384.6	false
PFUnA_2	563.0 / 269.0	3.80	36059.02	2144.779953	259.2	false
PFDoA_1	613.0 / 569.0	4.09	784595.24	2534.867851	580.7	false
PFDoA_2	613.0 / 319.0	4.09	125267.75	2572.032131	438.1	false
PFTrDA_1	663.0 / 619.0	4.34	684475.10	2693.991009	702.5	false
PFTrDA_2	663.0 / 169.0	4.34	44906.01	2730.161506	447.7	false
PFTeDA_1	713.0 / 669.0	4.56	789907.61	2716.333041	1269.0	false
PFTeDA_2	713.0 / 169.0	4.56	38004.64	2700.584305	780.9	false
NMeFOSAA_1	570.0 / 419.0	3.63	128326.96	2361.513725	950.3	false
NMeFOSAA_2	570.0 / 512.0	3.63	73652.55	2451.833697	536.3	false
NEtFOSAA_1	584.0 / 419.0	3.79	133266.13	2415.081451	712.6	false
NEtFOSAA_2	584.0 / 483.0	3.79	7641.53	2227.146413	205.4	false

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Summary Quant Report

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Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:34:28	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	3309537.55	10433.295836	1365.3	false
PFBS_2	298.9 / 99.0	1.56	961276.85	10256.020604	971.4	false
PFHxA_1	313.0 / 269.0	1.88	2290886.18	10605.144570	280.9	false
PFHxA_2	313.0 / 119.0	1.88	163941.16	10176.855980	204.5	false
PFHpA_1	363.0 / 319.0	2.29	2292450.94	10398.055976	612.0	false
PFHpA_2	363.0 / 169.0	2.30	46477.71	10544.398899	508.1	false
PFHxS_1	399.0 / 80.0	2.32	3129906.71	10676.033528	930.1	false
PFHxS_2	399.0 / 99.0	2.32	882021.93	10732.303596	1438.9	false
PFOA_1	413.0 / 369.0	2.71	2913238.82	10445.864678	1096.9	false
PFOA_2	413.0 / 169.0	2.71	181245.05	10261.764977	647.3	false
PFNA_1	463.0 / 419.0	3.11	2720387.13	9303.221102	966.4	false
PFNA_2	463.0 / 219.0	3.11	852122.98	9562.994751	1180.8	false
PFOS_1	499.0 / 80.0	3.11	4455199.63	9861.510766	665.9	false
PFOS_2	499.0 / 99.0	3.11	791057.49	10029.441866	1044.1	false
PFDA_1	513.0 / 469.0	3.47	3198907.75	10575.579483	975.2	false
PFDA_2	513.0 / 219.0	3.47	136125.45	10462.989195	788.2	false
PFUnA_1	563.0 / 519.0	3.80	3109989.08	9428.194009	562.4	false
PFUnA_2	563.0 / 269.0	3.80	155760.48	9433.988662	492.3	false
PFDoA_1	613.0 / 569.0	4.08	3204233.06	10483.397789	786.3	false
PFDoA_2	613.0 / 319.0	4.08	497945.51	10372.966024	650.8	false
PFTrDA_1	663.0 / 619.0	4.33	2747027.59	10387.589354	1150.5	false
PFTrDA_2	663.0 / 169.0	4.33	178230.86	10459.488900	774.7	false
PFTeDA_1	713.0 / 669.0	4.55	3177876.84	10540.568356	1582.6	false
PFTeDA_2	713.0 / 169.0	4.55	149100.21	10234.811734	1651.1	false
NMeFOSAA_1	570.0 / 419.0	3.63	513232.73	9193.657335	1376.7	false
NMeFOSAA_2	570.0 / 512.0	3.63	290086.69	9363.747452	1330.8	false
NEtFOSAA_1	584.0 / 419.0	3.79	517713.39	11403.435561	895.5	false
NEtFOSAA_2	584.0 / 483.0	3.79	31066.33	11091.423822	930.3	false

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Summary Quant Report

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Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:45:19	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	7690612.17	19515.681521	2487.0	false
PFBS_2	298.9 / 99.0	1.55	2285398.39	19637.882430	2030.9	false
PFHxA_1	313.0 / 269.0	1.88	5078652.41	19772.877006	407.0	false
PFHxA_2	313.0 / 119.0	1.88	387675.85	20216.416389	295.4	false
PFHpA_1	363.0 / 319.0	2.29	4908679.61	19727.041841	663.8	false
PFHpA_2	363.0 / 169.0	2.29	97863.45	19703.419103	503.1	false
PFHxS_1	399.0 / 80.0	2.32	6831890.68	19735.278066	908.8	false
PFHxS_2	399.0 / 99.0	2.32	1902351.60	19608.960774	1148.6	false
PFOA_1	413.0 / 369.0	2.71	6171753.73	19699.213129	1411.7	false
PFOA_2	413.0 / 169.0	2.71	396748.07	20030.743277	954.8	false
PFNA_1	463.0 / 419.0	3.11	5939423.06	20884.769686	1255.6	false
PFNA_2	463.0 / 219.0	3.11	1794567.23	20698.969036	1791.3	false
PFOS_1	499.0 / 80.0	3.11	9852630.87	20368.895445	742.6	false
PFOS_2	499.0 / 99.0	3.11	1697806.01	20109.651195	1044.1	false
PFDA_1	513.0 / 469.0	3.47	6562338.44	19441.491242	995.5	false
PFDA_2	513.0 / 219.0	3.47	286146.26	19726.888792	653.9	false
PFUnA_1	563.0 / 519.0	3.79	6493292.23	20803.354263	810.7	false
PFUnA_2	563.0 / 269.0	3.79	326164.90	20929.161092	742.7	false
PFDoA_1	613.0 / 569.0	4.08	6617095.38	19434.684463	842.5	false
PFDoA_2	613.0 / 319.0	4.08	1043464.33	19520.872343	761.9	false
PFTrDA_1	663.0 / 619.0	4.33	6091889.04	19404.170102	1200.2	false
PFTrDA_2	663.0 / 169.0	4.33	390446.23	19315.689073	925.3	false
PFTeDA_1	713.0 / 669.0	4.55	6866121.41	19194.719288	1825.6	false
PFTeDA_2	713.0 / 169.0	4.55	337374.63	19527.034713	1538.9	false
NMeFOSAA_1	570.0 / 419.0	3.62	1170736.88	20867.255290	1682.0	false
NMeFOSAA_2	570.0 / 512.0	3.62	643631.01	20656.846846	1056.0	false
NEtFOSAA_1	584.0 / 419.0	3.79	1066986.38	18767.300903	958.7	false
NEtFOSAA_2	584.0 / 483.0	3.79	66953.76	19104.115563	704.8	false

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Summary Quant Report

Created with Analyst Reporter
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Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:40:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.11	104536.27	261.067103	1717.3	false
d3-MeFOSAA	573.0 / 419.0	3.65	16095.60	265.038957	211.7	false
d5-EtFOSAA	589.0 / 419.0	3.81	16463.25	250.047206	179.8	false
13C5-PFHxA	318.0 / 273.0	1.89	69346.03	252.344194	714.9	false
13C4-PFHpA	367.0 / 322.0	2.30	81490.43	261.654960	1166.6	false
13C8-PFOA	421.0 / 376.0	2.72	88667.45	239.840388	1034.7	false
13C9-PFNA	472.0 / 427.0	3.12	95060.67	240.220252	1731.7	false
13C6-PFDA	519.0 / 474.0	3.49	102747.84	257.474350	929.1	false
13C7-PFUnA	570.0 / 525.0	3.81	96456.00	259.403586	1628.4	false
13C2-PFTeDA	715.0 / 670.0	4.59	91146.52	274.071997	2801.4	false
13C3-PFBS	302.0 / 99.0	1.55	28430.62	218.998363	480.7	false
13C3-PFHxS	402.0 / 99.0	2.33	25974.65	242.607727	332.9	false
13C8-PFOS	507.0 / 99.0	3.12	26642.75	215.345517	284.9	false

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Summary Quant Report

Created with Analyst Reporter
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Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:51:02	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	105895.90	251.483375	816.1	true
d3-MeFOSAA	573.0 / 419.0	3.64	13900.17	229.387671	167.0	false
d5-EtFOSAA	589.0 / 419.0	3.80	18818.40	286.441908	190.4	false
13C5-PFHxA	318.0 / 273.0	1.88	68053.92	244.342821	612.1	false
13C4-PFHpA	367.0 / 322.0	2.30	77180.54	244.514684	488.6	false
13C8-PFOA	421.0 / 376.0	2.71	94578.42	252.420669	8620.6	false
13C9-PFNA	472.0 / 427.0	3.11	105077.59	261.995376	1974.0	false
13C6-PFDA	519.0 / 474.0	3.48	104286.39	248.504308	1081.5	false
13C7-PFUnA	570.0 / 525.0	3.80	104057.87	266.113351	871.6	false
13C2-PFTeDA	715.0 / 670.0	4.57	91200.68	260.776024	2411.4	false
13C3-PFBS	302.0 / 99.0	1.55	31592.73	243.887307	654.2	false
13C3-PFHxS	402.0 / 99.0	2.32	25366.03	237.440480	295.5	false
13C8-PFOS	507.0 / 99.0	3.11	30823.83	249.684087	228.9	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:34:47 PM

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:01:53	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	95733.32	239.647507	911.6	false
d3-MeFOSAA	573.0 / 419.0	3.63	14542.46	264.549518	206.2	false
d5-EtFOSAA	589.0 / 419.0	3.80	17583.69	295.041431	194.2	false
13C5-PFHxA	318.0 / 273.0	1.88	66586.02	258.675787	678.7	false
13C4-PFHpA	367.0 / 322.0	2.29	75806.83	259.855420	1105.2	false
13C8-PFOA	421.0 / 376.0	2.71	88230.59	254.787601	137658.2	false
13C9-PFNA	472.0 / 427.0	3.11	96191.41	259.505207	7958.5	false
13C6-PFDA	519.0 / 474.0	3.47	104257.56	261.874670	954.5	false
13C7-PFUnA	570.0 / 525.0	3.80	94050.81	253.532677	6774.4	false
13C2-PFTeDA	715.0 / 670.0	4.57	80061.69	241.309248	2029.3	false
13C3-PFBS	302.0 / 99.0	1.54	28878.08	245.747673	519.6	false
13C3-PFHxS	402.0 / 99.0	2.32	25256.59	260.613088	337.1	false
13C8-PFOS	507.0 / 99.0	3.10	28125.45	251.144046	212.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:34:51 PM

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:12:44	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	107722.17	238.494454	714.2	false
d3-MeFOSAA	573.0 / 419.0	3.63	15762.60	244.355224	192.0	false
d5-EtFOSAA	589.0 / 419.0	3.79	17508.23	250.345681	188.5	false
13C5-PFHxA	318.0 / 273.0	1.87	68771.23	241.044127	615.5	false
13C4-PFHpA	367.0 / 322.0	2.29	78585.87	243.044007	629.1	false
13C8-PFOA	421.0 / 376.0	2.71	103076.07	268.555463	1327.1	false
13C9-PFNA	472.0 / 427.0	3.10	102088.54	248.487072	928.8	false
13C6-PFDA	519.0 / 474.0	3.46	109548.88	243.364521	1129.8	false
13C7-PFUnA	570.0 / 525.0	3.79	103933.61	247.793995	1019.7	false
13C2-PFTeDA	715.0 / 670.0	4.56	85409.10	227.675736	2061.4	false
13C3-PFBS	302.0 / 99.0	1.54	31599.49	229.153269	493.4	false
13C3-PFHxS	402.0 / 99.0	2.31	24974.11	219.602003	483.9	false
13C8-PFOS	507.0 / 99.0	3.10	34133.02	259.730476	262.4	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:34:55 PM

Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:23:36	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	84273.58	245.526180	596.9	false
d3-MeFOSAA	573.0 / 419.0	3.62	12782.65	248.061714	146.3	false
d5-EtFOSAA	589.0 / 419.0	3.79	13181.55	235.944297	180.8	false
13C5-PFHxA	318.0 / 273.0	1.87	57596.77	242.891692	672.3	false
13C4-PFHpA	367.0 / 322.0	2.29	63214.26	235.223263	705.9	false
13C8-PFOA	421.0 / 376.0	2.70	79906.80	250.486670	1202.4	false
13C9-PFNA	472.0 / 427.0	3.10	84120.62	246.350816	963.3	false
13C6-PFDA	519.0 / 474.0	3.46	86367.67	252.483885	979.7	false
13C7-PFUnA	570.0 / 525.0	3.78	78564.77	246.488011	537.6	false
13C2-PFTeDA	715.0 / 670.0	4.55	65153.94	228.552747	1724.7	false
13C3-PFBS	302.0 / 99.0	1.54	20750.77	188.375930	462.7	false
13C3-PFHxS	402.0 / 99.0	2.31	22568.25	248.421540	385.9	false
13C8-PFOS	507.0 / 99.0	3.10	25385.45	241.812244	254.0	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:34:59 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:34:28	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	84232.72	257.211777	760.4	false
d3-MeFOSAA	573.0 / 419.0	3.62	13036.87	235.150088	129.5	false
d5-EtFOSAA	589.0 / 419.0	3.78	10988.98	182.824015	138.8	false
13C5-PFHxA	318.0 / 273.0	1.87	54506.11	239.001083	525.2	false
13C4-PFHpA	367.0 / 322.0	2.28	62892.13	243.333341	492.6	false
13C8-PFOA	421.0 / 376.0	2.70	71617.41	233.431611	1556.9	false
13C9-PFNA	472.0 / 427.0	3.10	83967.14	255.682528	943.2	false
13C6-PFDA	519.0 / 474.0	3.46	79366.11	243.176304	603.3	false
13C7-PFUnA	570.0 / 525.0	3.78	78520.40	258.198717	558.1	false
13C2-PFTeDA	715.0 / 670.0	4.55	68266.05	250.988736	1954.8	false
13C3-PFBS	302.0 / 99.0	1.54	25753.96	217.304120	502.5	false
13C3-PFHxS	402.0 / 99.0	2.31	19025.58	194.653402	276.3	false
13C8-PFOS	507.0 / 99.0	3.09	23982.19	212.331758	223.4	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:35:03 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:45:19	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	93999.68	256.569603	795.3	false
d3-MeFOSAA	573.0 / 419.0	3.61	13978.75	263.456828	108.9	false
d5-EtFOSAA	589.0 / 419.0	3.78	14344.12	249.355462	160.6	false
13C5-PFHxA	318.0 / 273.0	1.87	64968.77	271.700296	803.4	false
13C4-PFHpA	367.0 / 322.0	2.28	71102.55	262.374325	493.2	false
13C8-PFOA	421.0 / 376.0	2.70	80574.39	250.477598	629.3	false
13C9-PFNA	472.0 / 427.0	3.10	81867.96	237.758750	846.7	false
13C6-PFDA	519.0 / 474.0	3.45	88770.62	243.121962	978.4	false
13C7-PFUnA	570.0 / 525.0	3.78	74327.70	218.469663	820.0	false
13C2-PFTeDA	715.0 / 670.0	4.54	81130.37	266.625511	1811.9	false
13C3-PFBS	302.0 / 99.0	1.54	32017.85	282.283339	501.8	false
13C3-PFHxS	402.0 / 99.0	2.30	23587.71	252.161761	291.7	false
13C8-PFOS	507.0 / 99.0	3.09	26450.99	244.701872	193.6	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:38:56 PM

Sample Name	KB73	**Injection Vial**	2
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:25:01	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	1.86	29559.44	108.810616	8.6	false
PFHxA_2	313.0 / 119.0	1.86	1820.55	96.626394	5.0	true
PFHxS_1	399.0 / 80.0	2.30	41548.97	98.667560	105.3	false
PFHxS_2	399.0 / 99.0	2.30	12342.77	103.341956	121.9	false
PFOS_1	499.0 / 80.0	3.08	58322.66	107.416508	88.8	false
PFOS_2	499.0 / 99.0	3.08	11449.55	99.944163	130.2	false
PFOA_1	413.0 / 369.0	2.68	37502.72	108.562585	80.7	false
PFOA_2	413.0 / 369.0	2.68	37502.72	108.562585	80.7	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:39:01 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:35:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	1.86	69428.44	255.441826	18.7	false
PFHxA_2	313.0 / 119.0	1.86	5603.61	291.668576	12.0	false
PFHxS_1	399.0 / 80.0	2.29	105000.38	237.672593	152.4	false
PFHxS_2	399.0 / 99.0	2.29	31173.21	247.818105	181.9	false
PFOS_1	499.0 / 80.0	3.08	145680.43	238.845452	127.7	false
PFOS_2	499.0 / 99.0	3.08	27853.85	239.211228	218.6	false
PFOA_1	413.0 / 369.0	2.68	94146.10	261.629716	138.0	false
PFOA_2	413.0 / 369.0	2.68	94146.10	261.629716	138.0	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:39:06 PM

Sample Name	KB75	**Injection Vial**	4
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:46:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	1.87	113510.85	507.490422	24.1	false
PFHxA_2	313.0 / 119.0	1.87	7952.17	493.442238	14.8	false
PFHxS_1	399.0 / 80.0	2.30	173873.25	517.374784	277.8	false
PFHxS_2	399.0 / 99.0	2.30	46769.02	486.568925	261.7	false
PFOS_1	499.0 / 80.0	3.08	243614.10	486.328897	174.6	false
PFOS_2	499.0 / 99.0	3.08	48507.55	530.318821	246.8	false
PFOA_1	413.0 / 369.0	2.69	161721.14	458.025313	204.2	false
PFOA_2	413.0 / 369.0	2.69	161721.14	458.025313	204.2	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:39:11 PM

Sample Name	KB76	**Injection Vial**	5
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:57:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	1.87	234193.92	897.348485	39.2	false
PFHxA_2	313.0 / 119.0	1.87	17169.19	907.899027	24.8	false
PFHxS_1	399.0 / 80.0	2.30	365087.93	989.008162	380.4	false
PFHxS_2	399.0 / 99.0	2.30	103147.31	978.578682	556.6	false
PFOS_1	499.0 / 80.0	3.08	544732.00	994.580618	231.1	false
PFOS_2	499.0 / 99.0	3.08	93466.96	947.792019	347.8	false
PFOA_1	413.0 / 369.0	2.69	353405.29	995.677222	292.6	false
PFOA_2	413.0 / 369.0	2.69	353405.29	995.677222	292.6	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:39:16 PM

Sample Name	KB77	**Injection Vial**	6
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:08:28	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	1.86	569994.39	2554.105922	69.2	false
PFHxA_2	313.0 / 119.0	1.86	41525.96	2553.633299	48.5	false
PFHxS_1	399.0 / 80.0	2.30	899529.77	2757.432516	466.0	false
PFHxS_2	399.0 / 99.0	2.29	254144.71	2728.607961	520.7	false
PFOS_1	499.0 / 80.0	3.08	1291659.30	2419.142735	347.0	false
PFOS_2	499.0 / 99.0	3.08	234948.66	2478.331212	808.9	false
PFOA_1	413.0 / 369.0	2.68	822738.44	2399.417317	443.1	false
PFOA_2	413.0 / 369.0	2.68	822738.44	2399.417317	443.1	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:39:21 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:19:19	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	1.87	2537107.36	10152.794039	116.5	false
PFHxA_2	313.0 / 119.0	1.87	183709.31	10066.268167	98.7	false
PFHxS_1	399.0 / 80.0	2.30	3672070.68	10024.721431	1012.6	false
PFHxS_2	399.0 / 99.0	2.30	1034770.81	9894.381625	950.2	false
PFOS_1	499.0 / 80.0	3.08	5410648.83	10607.466324	526.1	false
PFOS_2	499.0 / 99.0	3.08	974080.99	10824.623723	863.5	false
PFOA_1	413.0 / 369.0	2.69	3339565.37	9800.522459	821.5	false
PFOA_2	413.0 / 369.0	2.69	3339565.37	9800.522459	821.5	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:39:25 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:30:11	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	1.87	4396686.08	20217.508690	170.7	false
PFHxA_2	313.0 / 119.0	1.86	322269.94	20283.962299	131.1	false
PFHxS_1	399.0 / 80.0	2.30	6165219.94	20068.622953	955.1	false
PFHxS_2	399.0 / 99.0	2.30	1776444.95	20254.202745	1044.5	false
PFOS_1	499.0 / 80.0	3.08	9211348.93	19496.219465	546.9	false
PFOS_2	499.0 / 99.0	3.08	1601531.17	19229.778835	724.2	false
PFOA_1	413.0 / 369.0	2.68	5551271.60	20326.165390	1008.7	false
PFOA_2	413.0 / 369.0	2.68	5551271.60	20326.165390	1008.7	false

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:54:58 PM

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:40:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.320	0.302	ü
PFHxA_1	313.0 / 269.0	1.90	PFHxA			
PFHxA_2	313.0 / 119.0	1.90	PFHxA	0.060	0.071	ü
PFHpA_1	363.0 / 319.0	2.32	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.021	
PFHxS_1	399.0 / 80.0	2.34	PFHxS			
PFHxS_2	399.0 / 99.0	2.34	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.73	PFOA			
PFOA_2	413.0 / 169.0	2.73	PFOA	0.090	0.067	ü
PFNA_1	463.0 / 419.0	3.14	PFNA			
PFNA_2	463.0 / 219.0	3.13	PFNA	0.320	0.301	ü
PFOS_1	499.0 / 80.0	3.14	PFOS			
PFOS_2	499.0 / 99.0	3.13	PFOS	0.170	0.177	ü
PFDA_1	513.0 / 469.0	3.50	PFDA			
PFDA_2	513.0 / 219.0	3.50	PFDA	0.050	0.044	ü
PFUnA_1	563.0 / 519.0	3.83	PFUnA			
PFUnA_2	563.0 / 269.0	3.83	PFUnA	0.070	0.055	ü
PFDoA_1	613.0 / 569.0	4.12	PFDoA			
PFDoA_2	613.0 / 319.0	4.12	PFDoA	0.170	0.159	ü
PFTrDA_1	663.0 / 619.0	4.37	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.37	PFTrDA	0.080	0.067	ü
PFTeDA_1	713.0 / 669.0	4.59	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.59	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.66	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.65	NMeFOSAA	0.470	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.82	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.82	NEtFOSAA	0.080	0.065	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:55:03 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:51:02	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.310	0.302	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.060	0.071	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.73	PFOA			
PFOA_2	413.0 / 169.0	2.72	PFOA	0.060	0.067	ü
PFNA_1	463.0 / 419.0	3.13	PFNA			
PFNA_2	463.0 / 219.0	3.13	PFNA	0.270	0.301	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.190	0.177	ü
PFDA_1	513.0 / 469.0	3.49	PFDA			
PFDA_2	513.0 / 219.0	3.49	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	3.82	PFUnA			
PFUnA_2	563.0 / 269.0	3.82	PFUnA	0.060	0.055	ü
PFDoA_1	613.0 / 569.0	4.11	PFDoA			
PFDoA_2	613.0 / 319.0	4.10	PFDoA	0.160	0.159	ü
PFTrDA_1	663.0 / 619.0	4.36	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.36	PFTrDA	0.070	0.067	ü
PFTeDA_1	713.0 / 669.0	4.58	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.58	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.65	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.65	NMeFOSAA	0.590	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.81	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.050	0.065	ü

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Summary Ion Ratio Report

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Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:01:53	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.070	0.071	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.72	PFOA			
PFOA_2	413.0 / 169.0	2.72	PFOA	0.060	0.067	ü
PFNA_1	463.0 / 419.0	3.12	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.290	0.301	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.180	0.177	ü
PFDA_1	513.0 / 469.0	3.48	PFDA			
PFDA_2	513.0 / 219.0	3.48	PFDA	0.050	0.044	ü
PFUnA_1	563.0 / 519.0	3.81	PFUnA			
PFUnA_2	563.0 / 269.0	3.81	PFUnA	0.060	0.055	ü
PFDoA_1	613.0 / 569.0	4.10	PFDoA			
PFDoA_2	613.0 / 319.0	4.10	PFDoA	0.160	0.159	ü
PFTrDA_1	663.0 / 619.0	4.35	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.35	PFTrDA	0.070	0.067	ü
PFTeDA_1	713.0 / 669.0	4.57	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.57	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.64	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.64	NMeFOSAA	0.550	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.81	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.81	NEtFOSAA	0.070	0.065	ü

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Summary Ion Ratio Report

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Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:12:44	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.080	0.071	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.72	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.067	ü
PFNA_1	463.0 / 419.0	3.12	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.310	0.301	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.180	0.177	ü
PFDA_1	513.0 / 469.0	3.48	PFDA			
PFDA_2	513.0 / 219.0	3.48	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	3.81	PFUnA			
PFUnA_2	563.0 / 269.0	3.81	PFUnA	0.060	0.055	ü
PFDoA_1	613.0 / 569.0	4.09	PFDoA			
PFDoA_2	613.0 / 319.0	4.09	PFDoA	0.160	0.159	ü
PFTrDA_1	663.0 / 619.0	4.35	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.34	PFTrDA	0.060	0.067	ü
PFTeDA_1	713.0 / 669.0	4.57	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.57	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.510	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.80	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.070	0.065	ü

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Summary Ion Ratio Report

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Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:23:36	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.070	0.071	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.067	ü
PFNA_1	463.0 / 419.0	3.12	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.300	0.301	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.180	0.177	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.80	PFUnA	0.050	0.055	ü
PFDoA_1	613.0 / 569.0	4.09	PFDoA			
PFDoA_2	613.0 / 319.0	4.09	PFDoA	0.160	0.159	ü
PFTrDA_1	663.0 / 619.0	4.34	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.34	PFTrDA	0.070	0.067	ü
PFTeDA_1	713.0 / 669.0	4.56	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.56	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.570	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.060	0.065	ü

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Summary Ion Ratio Report

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Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:34:28	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.290	0.302	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.070	0.071	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.067	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.310	0.301	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.180	0.177	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.80	PFUnA	0.050	0.055	ü
PFDoA_1	613.0 / 569.0	4.08	PFDoA			
PFDoA_2	613.0 / 319.0	4.08	PFDoA	0.160	0.159	ü
PFTrDA_1	663.0 / 619.0	4.33	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.33	PFTrDA	0.060	0.067	ü
PFTeDA_1	713.0 / 669.0	4.55	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.55	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.570	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.060	0.065	ü

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Summary Ion Ratio Report

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Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:45:19	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.080	0.071	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.067	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.300	0.301	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.170	0.177	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.050	0.055	ü
PFDoA_1	613.0 / 569.0	4.08	PFDoA			
PFDoA_2	613.0 / 319.0	4.08	PFDoA	0.160	0.159	ü
PFTrDA_1	663.0 / 619.0	4.33	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.33	PFTrDA	0.060	0.067	ü
PFTeDA_1	713.0 / 669.0	4.55	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.55	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.550	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.060	0.065	ü

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Summary Ion Ratio Report

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Sample Name	KB73	**Injection Vial**	2
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:25:01	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.060	0.072	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.300	0.285	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.200	0.185	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 369.0	2.68	PFOA	1.000	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:56:44 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:35:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.080	0.072	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.300	0.285	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.190	0.185	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 369.0	2.68	PFOA	1.000	1.000	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:56:48 PM

Sample Name	KB75	**Injection Vial**	4
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:46:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.070	0.072	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.270	0.285	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.200	0.185	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 369.0	2.69	PFOA	1.000	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:56:51 PM

Sample Name	KB76	**Injection Vial**	5
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:57:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.070	0.072	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.285	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.170	0.185	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 369.0	2.69	PFOA	1.000	1.000	ü

BATTELLE

Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:56:56 PM

Sample Name	KB77	**Injection Vial**	6
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:08:28	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.070	0.072	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.280	0.285	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.180	0.185	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 369.0	2.68	PFOA	1.000	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:57:00 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:19:19	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.070	0.072	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.285	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.180	0.185	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 369.0	2.69	PFOA	1.000	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:57:05 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:30:11	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.070	0.072	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.290	0.285	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.170	0.185	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 369.0	2.68	PFOA	1.000	1.000	ü

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Summary Internal Standard Report

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Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:40:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	28430.62	232.25
PFBS_2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	28430.62	232.25
PFHxA_1	313.0 / 269.0	1.90	13C5-PFHxA	318.0 / 273.0	69346.03	250.00
PFHxA_2	313.0 / 119.0	1.90	13C5-PFHxA	318.0 / 273.0	69346.03	250.00
PFHpA_1	363.0 / 319.0	2.32	13C4-PFHpA	367.0 / 322.0	81490.43	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	81490.43	250.00
PFHxS_1	399.0 / 80.0	2.34	13C3-PFHxS	402.0 / 99.0	25654.13	236.50
PFHxS_2	399.0 / 99.0	2.34	13C3-PFHxS	402.0 / 99.0	25654.13	236.50
PFOA_1	413.0 / 369.0	2.73	13C8-PFOA	421.0 / 376.0	88667.45	250.00
PFOA_2	413.0 / 169.0	2.73	13C8-PFOA	421.0 / 376.0	88667.45	250.00
PFNA_1	463.0 / 419.0	3.14	13C9-PFNA	472.0 / 427.0	95060.67	250.00
PFNA_2	463.0 / 219.0	3.13	13C9-PFNA	472.0 / 427.0	95060.67	250.00
PFOS_1	499.0 / 80.0	3.14	13C8-PFOS	507.0 / 99.0	26685.55	239.25
PFOS_2	499.0 / 99.0	3.13	13C8-PFOS	507.0 / 99.0	26685.55	239.25
PFDA_1	513.0 / 469.0	3.50	13C6-PFDA	519.0 / 474.0	102747.84	250.00
PFDA_2	513.0 / 219.0	3.50	13C6-PFDA	519.0 / 474.0	102747.84	250.00
PFUnA_1	563.0 / 519.0	3.83	13C7-PFUnA	570.0 / 525.0	96456.00	250.00
PFUnA_2	563.0 / 269.0	3.83	13C7-PFUnA	570.0 / 525.0	96456.00	250.00
PFDoA_1	613.0 / 569.0	4.12	13C2-PFDoA	615.0 / 570.0	104536.27	250.00
PFDoA_2	613.0 / 319.0	4.12	13C2-PFDoA	615.0 / 570.0	104536.27	250.00
PFTrDA_1	663.0 / 619.0	4.37	13C2-PFTeDA	715.0 / 670.0	91146.52	250.00
PFTrDA_2	663.0 / 169.0	4.37	13C2-PFTeDA	715.0 / 670.0	91146.52	250.00
PFTeDA_1	713.0 / 669.0	4.59	13C2-PFTeDA	715.0 / 670.0	91146.52	250.00
PFTeDA_2	713.0 / 169.0	4.59	13C2-PFTeDA	715.0 / 670.0	91146.52	250.00
NMeFOSAA_1	570.0 / 419.0	3.66	d3-MeFOSAA	573.0 / 419.0	15939.93	250.00
NMeFOSAA_2	570.0 / 512.0	3.65	d3-MeFOSAA	573.0 / 419.0	15939.93	250.00
NEtFOSAA_1	584.0 / 419.0	3.82	d5-EtFOSAA	589.0 / 419.0	16543.90	250.00
NEtFOSAA_2	584.0 / 483.0	3.82	d5-EtFOSAA	589.0 / 419.0	16543.90	250.00

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Summary Internal Standard Report

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Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:51:02	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	31592.73	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	31592.73	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	68053.92	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	68053.92	250.00
PFHpA_1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	77180.54	250.00
PFHpA_2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	77180.54	250.00
PFHxS_1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	25291.49	236.50
PFHxS_2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	25291.49	236.50
PFOA_1	413.0 / 369.0	2.73	13C8-PFOA	421.0 / 376.0	94578.42	250.00
PFOA_2	413.0 / 169.0	2.72	13C8-PFOA	421.0 / 376.0	94578.42	250.00
PFNA_1	463.0 / 419.0	3.13	13C9-PFNA	472.0 / 427.0	105077.59	250.00
PFNA_2	463.0 / 219.0	3.13	13C9-PFNA	472.0 / 427.0	105077.59	250.00
PFOS_1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	30719.80	239.25
PFOS_2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	30719.80	239.25
PFDA_1	513.0 / 469.0	3.49	13C6-PFDA	519.0 / 474.0	104286.39	250.00
PFDA_2	513.0 / 219.0	3.49	13C6-PFDA	519.0 / 474.0	104286.39	250.00
PFUnA_1	563.0 / 519.0	3.82	13C7-PFUnA	570.0 / 525.0	104057.87	250.00
PFUnA_2	563.0 / 269.0	3.82	13C7-PFUnA	570.0 / 525.0	104057.87	250.00
PFDoA_1	613.0 / 569.0	4.11	13C2-PFDoA	615.0 / 570.0	105895.90	250.00
PFDoA_2	613.0 / 319.0	4.10	13C2-PFDoA	615.0 / 570.0	105895.90	250.00
PFTrDA_1	663.0 / 619.0	4.36	13C2-PFTeDA	715.0 / 670.0	91200.68	250.00
PFTrDA_2	663.0 / 169.0	4.36	13C2-PFTeDA	715.0 / 670.0	91200.68	250.00
PFTeDA_1	713.0 / 669.0	4.58	13C2-PFTeDA	715.0 / 670.0	91200.68	250.00
PFTeDA_2	713.0 / 169.0	4.58	13C2-PFTeDA	715.0 / 670.0	91200.68	250.00
NMeFOSAA_1	570.0 / 419.0	3.65	d3-MeFOSAA	573.0 / 419.0	13993.03	250.00
NMeFOSAA_2	570.0 / 512.0	3.65	d3-MeFOSAA	573.0 / 419.0	13993.03	250.00
NEtFOSAA_1	584.0 / 419.0	3.81	d5-EtFOSAA	589.0 / 419.0	19400.08	250.00
NEtFOSAA_2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	19400.08	250.00

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Summary Internal Standard Report

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Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:01:53	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	28878.08	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	28878.08	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	66586.02	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	66586.02	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	75806.83	250.00
PFHpA_2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	75806.83	250.00
PFHxS_1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	25391.07	236.50
PFHxS_2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	25391.07	236.50
PFOA_1	413.0 / 369.0	2.72	13C8-PFOA	421.0 / 376.0	88230.59	250.00
PFOA_2	413.0 / 169.0	2.72	13C8-PFOA	421.0 / 376.0	88230.59	250.00
PFNA_1	463.0 / 419.0	3.12	13C9-PFNA	472.0 / 427.0	96191.41	250.00
PFNA_2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	96191.41	250.00
PFOS_1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	28442.60	239.25
PFOS_2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	28442.60	239.25
PFDA_1	513.0 / 469.0	3.48	13C6-PFDA	519.0 / 474.0	104257.56	250.00
PFDA_2	513.0 / 219.0	3.48	13C6-PFDA	519.0 / 474.0	104257.56	250.00
PFUnA_1	563.0 / 519.0	3.81	13C7-PFUnA	570.0 / 525.0	94050.81	250.00
PFUnA_2	563.0 / 269.0	3.81	13C7-PFUnA	570.0 / 525.0	94050.81	250.00
PFDoA_1	613.0 / 569.0	4.10	13C2-PFDoA	615.0 / 570.0	95733.32	250.00
PFDoA_2	613.0 / 319.0	4.10	13C2-PFDoA	615.0 / 570.0	95733.32	250.00
PFTrDA_1	663.0 / 619.0	4.35	13C2-PFTeDA	715.0 / 670.0	80061.69	250.00
PFTrDA_2	663.0 / 169.0	4.35	13C2-PFTeDA	715.0 / 670.0	80061.69	250.00
PFTeDA_1	713.0 / 669.0	4.57	13C2-PFTeDA	715.0 / 670.0	80061.69	250.00
PFTeDA_2	713.0 / 169.0	4.57	13C2-PFTeDA	715.0 / 670.0	80061.69	250.00
NMeFOSAA_1	570.0 / 419.0	3.64	d3-MeFOSAA	573.0 / 419.0	14678.96	250.00
NMeFOSAA_2	570.0 / 512.0	3.64	d3-MeFOSAA	573.0 / 419.0	14678.96	250.00
NEtFOSAA_1	584.0 / 419.0	3.81	d5-EtFOSAA	589.0 / 419.0	17704.11	250.00
NEtFOSAA_2	584.0 / 483.0	3.81	d5-EtFOSAA	589.0 / 419.0	17704.11	250.00

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Summary Internal Standard Report

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Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:12:44	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	31599.49	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	31599.49	232.25
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	68771.23	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	68771.23	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	78585.87	250.00
PFHpA_2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	78585.87	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	24551.90	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	24551.90	236.50
PFOA_1	413.0 / 369.0	2.72	13C8-PFOA	421.0 / 376.0	103076.07	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	103076.07	250.00
PFNA_1	463.0 / 419.0	3.12	13C9-PFNA	472.0 / 427.0	102088.54	250.00
PFNA_2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	102088.54	250.00
PFOS_1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	34086.83	239.25
PFOS_2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	34086.83	239.25
PFDA_1	513.0 / 469.0	3.48	13C6-PFDA	519.0 / 474.0	109548.88	250.00
PFDA_2	513.0 / 219.0	3.48	13C6-PFDA	519.0 / 474.0	109548.88	250.00
PFUnA_1	563.0 / 519.0	3.81	13C7-PFUnA	570.0 / 525.0	103933.61	250.00
PFUnA_2	563.0 / 269.0	3.81	13C7-PFUnA	570.0 / 525.0	103933.61	250.00
PFDoA_1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	107722.17	250.00
PFDoA_2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	107722.17	250.00
PFTrDA_1	663.0 / 619.0	4.35	13C2-PFTeDA	715.0 / 670.0	85409.10	250.00
PFTrDA_2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	85409.10	250.00
PFTeDA_1	713.0 / 669.0	4.57	13C2-PFTeDA	715.0 / 670.0	85409.10	250.00
PFTeDA_2	713.0 / 169.0	4.57	13C2-PFTeDA	715.0 / 670.0	85409.10	250.00
NMeFOSAA_1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	14975.26	250.00
NMeFOSAA_2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	14975.26	250.00
NEtFOSAA_1	584.0 / 419.0	3.80	d5-EtFOSAA	589.0 / 419.0	17987.54	250.00
NEtFOSAA_2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	17987.54	250.00

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Summary Internal Standard Report

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Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:23:36	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	20750.77	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	20750.77	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	57596.77	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	57596.77	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	63214.26	250.00
PFHpA_2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	63214.26	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	21504.85	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	21504.85	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	79906.80	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	79906.80	250.00
PFNA_1	463.0 / 419.0	3.12	13C9-PFNA	472.0 / 427.0	84120.62	250.00
PFNA_2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	84120.62	250.00
PFOS_1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	24749.09	239.25
PFOS_2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	24749.09	239.25
PFDA_1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	86367.67	250.00
PFDA_2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	86367.67	250.00
PFUnA_1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	78564.77	250.00
PFUnA_2	563.0 / 269.0	3.80	13C7-PFUnA	570.0 / 525.0	78564.77	250.00
PFDoA_1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	84273.58	250.00
PFDoA_2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	84273.58	250.00
PFTrDA_1	663.0 / 619.0	4.34	13C2-PFTeDA	715.0 / 670.0	65153.94	250.00
PFTrDA_2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	65153.94	250.00
PFTeDA_1	713.0 / 669.0	4.56	13C2-PFTeDA	715.0 / 670.0	65153.94	250.00
PFTeDA_2	713.0 / 169.0	4.56	13C2-PFTeDA	715.0 / 670.0	65153.94	250.00
NMeFOSAA_1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	12856.87	250.00
NMeFOSAA_2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	12856.87	250.00
NEtFOSAA_1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	13757.11	250.00
NEtFOSAA_2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	13757.11	250.00

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Summary Internal Standard Report

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Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:34:28	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	25753.96	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	25753.96	232.25
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	54506.11	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	54506.11	250.00
PFHpA_1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	62892.13	250.00
PFHpA_2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	62892.13	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	19042.03	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	19042.03	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	71617.41	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	71617.41	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	83967.14	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	83967.14	250.00
PFOS_1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	24380.31	239.25
PFOS_2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	24380.31	239.25
PFDA_1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	79366.11	250.00
PFDA_2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	79366.11	250.00
PFUnA_1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	78520.40	250.00
PFUnA_2	563.0 / 269.0	3.80	13C7-PFUnA	570.0 / 525.0	78520.40	250.00
PFDoA_1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	84232.72	250.00
PFDoA_2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	84232.72	250.00
PFTrDA_1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	68266.05	250.00
PFTrDA_2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	68266.05	250.00
PFTeDA_1	713.0 / 669.0	4.55	13C2-PFTeDA	715.0 / 670.0	68266.05	250.00
PFTeDA_2	713.0 / 169.0	4.55	13C2-PFTeDA	715.0 / 670.0	68266.05	250.00
NMeFOSAA_1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	13328.65	250.00
NMeFOSAA_2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	13328.65	250.00
NEtFOSAA_1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	11280.66	250.00
NEtFOSAA_2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	11280.66	250.00

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Summary Internal Standard Report

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Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:45:19	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	32017.85	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	32017.85	232.25
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	64968.77	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	64968.77	250.00
PFHpA_1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	71102.55	250.00
PFHpA_2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	71102.55	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	22496.52	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	22496.52	236.50
PFOA_1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	80574.39	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	80574.39	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	81867.96	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	81867.96	250.00
PFOS_1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	26117.18	239.25
PFOS_2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	26117.18	239.25
PFDA_1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	88770.62	250.00
PFDA_2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	88770.62	250.00
PFUnA_1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	74327.70	250.00
PFUnA_2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	74327.70	250.00
PFDoA_1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	93999.68	250.00
PFDoA_2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	93999.68	250.00
PFTrDA_1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	81130.37	250.00
PFTrDA_2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	81130.37	250.00
PFTeDA_1	713.0 / 669.0	4.55	13C2-PFTeDA	715.0 / 670.0	81130.37	250.00
PFTeDA_2	713.0 / 169.0	4.55	13C2-PFTeDA	715.0 / 670.0	81130.37	250.00
NMeFOSAA_1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	13419.07	250.00
NMeFOSAA_2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	13419.07	250.00
NEtFOSAA_1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	14121.61	250.00
NEtFOSAA_2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	14121.61	250.00

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Summary Internal Standard Report

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Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:40:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	4.11	13C2-PFDA	515.0 / 470.0	101004.57	250.00
d3-MeFOSAA	573.0 / 419.0	3.65	13C4-PFOS	503.0 / 99.0	30187.37	239.25
d5-EtFOSAA	589.0 / 419.0	3.81	13C4-PFOS	503.0 / 99.0	30187.37	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	86591.46	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	86591.46	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	86591.46	250.00
13C9-PFNA	472.0 / 427.0	3.12	13C2-PFOA	415.0 / 370.0	86591.46	250.00
13C6-PFDA	519.0 / 474.0	3.49	13C2-PFDA	515.0 / 470.0	101004.57	250.00
13C7-PFUnA	570.0 / 525.0	3.81	13C2-PFDA	515.0 / 470.0	101004.57	250.00
13C2-PFTeDA	715.0 / 670.0	4.59	13C2-PFDA	515.0 / 470.0	101004.57	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	30187.37	239.25
13C3-PFHxS	402.0 / 99.0	2.33	13C4-PFOS	503.0 / 99.0	30187.37	239.25
13C8-PFOS	507.0 / 99.0	3.12	13C4-PFOS	503.0 / 99.0	30187.37	239.25

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Summary Internal Standard Report

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Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:51:02	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	106217.49	250.00
d3-MeFOSAA	573.0 / 419.0	3.64	13C4-PFOS	503.0 / 99.0	30121.59	239.25
d5-EtFOSAA	589.0 / 419.0	3.80	13C4-PFOS	503.0 / 99.0	30121.59	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	87760.75	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	87760.75	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	87760.75	250.00
13C9-PFNA	472.0 / 427.0	3.11	13C2-PFOA	415.0 / 370.0	87760.75	250.00
13C6-PFDA	519.0 / 474.0	3.48	13C2-PFDA	515.0 / 470.0	106217.49	250.00
13C7-PFUnA	570.0 / 525.0	3.80	13C2-PFDA	515.0 / 470.0	106217.49	250.00
13C2-PFTeDA	715.0 / 670.0	4.57	13C2-PFDA	515.0 / 470.0	106217.49	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	30121.59	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	30121.59	239.25
13C8-PFOS	507.0 / 99.0	3.11	13C4-PFOS	503.0 / 99.0	30121.59	239.25

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Summary Internal Standard Report

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Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:01:53	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	100766.55	250.00
d3-MeFOSAA	573.0 / 419.0	3.63	13C4-PFOS	503.0 / 99.0	27324.91	239.25
d5-EtFOSAA	589.0 / 419.0	3.80	13C4-PFOS	503.0 / 99.0	27324.91	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	81109.93	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	81109.93	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	81109.93	250.00
13C9-PFNA	472.0 / 427.0	3.11	13C2-PFOA	415.0 / 370.0	81109.93	250.00
13C6-PFDA	519.0 / 474.0	3.47	13C2-PFDA	515.0 / 470.0	100766.55	250.00
13C7-PFUnA	570.0 / 525.0	3.80	13C2-PFDA	515.0 / 470.0	100766.55	250.00
13C2-PFTeDA	715.0 / 670.0	4.57	13C2-PFDA	515.0 / 470.0	100766.55	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	27324.91	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	27324.91	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	27324.91	239.25

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Summary Internal Standard Report

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Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:12:44	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	113933.91	250.00
d3-MeFOSAA	573.0 / 419.0	3.63	13C4-PFOS	503.0 / 99.0	32065.20	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	32065.20	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	89899.45	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	89899.45	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	89899.45	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	89899.45	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	113933.91	250.00
13C7-PFUnA	570.0 / 525.0	3.79	13C2-PFDA	515.0 / 470.0	113933.91	250.00
13C2-PFTeDA	715.0 / 670.0	4.56	13C2-PFDA	515.0 / 470.0	113933.91	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	32065.20	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	32065.20	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	32065.20	239.25

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Summary Internal Standard Report

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Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:23:36	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	86580.45	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	25614.67	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	25614.67	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	74719.21	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	74719.21	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	74719.21	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	74719.21	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	86580.45	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	86580.45	250.00
13C2-PFTeDA	715.0 / 670.0	4.55	13C2-PFDA	515.0 / 470.0	86580.45	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	25614.67	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	25614.67	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	25614.67	239.25

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Summary Internal Standard Report

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Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:34:28	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	82606.87	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	27558.53	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	27558.53	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	71860.81	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	71860.81	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	71860.81	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	71860.81	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	82606.87	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	82606.87	250.00
13C2-PFTeDA	715.0 / 670.0	4.55	13C2-PFDA	515.0 / 470.0	82606.87	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	27558.53	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	27558.53	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	27558.53	239.25

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Summary Internal Standard Report

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Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:45:19	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	92416.04	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	26374.66	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	26374.66	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	75346.19	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	75346.19	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	75346.19	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	75346.19	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	92416.04	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	92416.04	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	92416.04	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	26374.66	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	26374.66	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	26374.66	239.25

BATTELLE

Summary Internal Standard Report

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Sample Name	KB73	**Injection Vial**	2
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:25:01	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	58992.05	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	58992.05	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	25123.12	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	25123.12	236.50
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	25159.77	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	25159.77	239.25
PFOA_1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	83707.61	250.00
PFOA_2	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	83707.61	250.00

BATTELLE

Summary Internal Standard Report

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Sample Name	KB74	**Injection Vial**	3
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:35:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	64192.67	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	64192.67	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	28665.19	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	28665.19	236.50
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	29815.50	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	29815.50	239.25
PFOA_1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	86802.22	250.00
PFOA_2	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	86802.22	250.00

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Summary Internal Standard Report

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Sample Name	KB75	**Injection Vial**	4
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:46:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	54588.76	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	54588.76	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	22563.92	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	22563.92	236.50
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	25059.03	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	25059.03	239.25
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	85054.35	250.00
PFOA_2	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	85054.35	250.00

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Summary Internal Standard Report

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Sample Name	KB76	**Injection Vial**	5
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:57:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	64645.10	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	64645.10	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	25138.95	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	25138.95	236.50
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	27718.53	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	27718.53	239.25
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	85417.17	250.00
PFOA_2	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	85417.17	250.00

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Summary Internal Standard Report

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Sample Name	KB77	**Injection Vial**	6
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:08:28	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	55982.86	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	55982.86	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	22441.34	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	22441.34	236.50
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	27200.51	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	27200.51	239.25
PFOA_1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	82477.09	250.00
PFOA_2	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	82477.09	250.00

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Summary Internal Standard Report

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Sample Name	KB78	**Injection Vial**	7
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:19:19	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	63012.56	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	63012.56	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	25302.81	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	25302.81	236.50
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	26078.29	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	26078.29	239.25
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	81941.47	250.00
PFOA_2	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	81941.47	250.00

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Summary Internal Standard Report

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Sample Name	KB79	**Injection Vial**	8
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:30:11	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	54884.46	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	54884.46	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	21237.44	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	21237.44	236.50
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	24167.05	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	24167.05	239.25
PFOA_1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	65672.10	250.00
PFOA_2	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	65672.10	250.00

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QC Summary Report

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Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T17:07:01	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	903.938722	1010.00	89.50
PFBS_2	298.9 / 99.0	1.55	861.720770	1010.00	85.32
PFHxA_1	313.0 / 269.0	1.88	965.638096	1010.00	95.61
PFHxA_2	313.0 / 119.0	1.88	1020.663415	1010.00	101.06
PFHpA_1	363.0 / 319.0	2.29	870.096664	1000.00	87.01
PFHpA_2	363.0 / 169.0	2.29	703.985432	1000.00	70.40
PFHxS_1	399.0 / 80.0	2.31	995.286766	1010.00	98.54
PFHxS_2	399.0 / 99.0	2.31	987.096947	1010.00	97.73
PFOA_1	413.0 / 369.0	2.70	944.679231	1000.00	94.47
PFOA_2	413.0 / 169.0	2.70	928.404131	1000.00	92.84
PFNA_1	463.0 / 419.0	3.10	925.668029	1000.00	92.57
PFNA_2	463.0 / 219.0	3.10	916.150436	1000.00	91.62
PFOS_1	499.0 / 80.0	3.10	915.152388	1000.00	91.52
PFOS_2	499.0 / 99.0	3.10	966.240192	1000.00	96.62
PFDA_1	513.0 / 469.0	3.46	1033.203821	1000.00	103.32
PFDA_2	513.0 / 219.0	3.46	988.892650	1000.00	98.89
PFUnA_1	563.0 / 519.0	3.79	898.971998	1000.00	89.90
PFUnA_2	563.0 / 269.0	3.79	864.469912	1000.00	86.45
PFDoA_1	613.0 / 569.0	4.07	1043.739460	1000.00	104.37
PFDoA_2	613.0 / 319.0	4.07	997.820905	1000.00	99.78
PFTrDA_1	663.0 / 619.0	4.32	1091.077999	1000.00	109.11
PFTrDA_2	663.0 / 169.0	4.32	1012.095559	1000.00	101.21
PFTeDA_1	713.0 / 669.0	4.54	1017.844307	1000.00	101.78
PFTeDA_2	713.0 / 169.0	4.54	992.038822	1000.00	99.20
NMeFOSAA_1	570.0 / 419.0	3.61	851.653312	1000.00	85.17
NMeFOSAA_2	570.0 / 512.0	3.61	875.594076	1000.00	87.56
NEtFOSAA_1	584.0 / 419.0	3.78	910.854268	1000.00	91.09
NEtFOSAA_2	584.0 / 483.0	3.78	955.175298	1000.00	95.52

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QC Summary Report

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Sample Name	KB76 CCV	**Injection Vial**	7
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T03:58:51	**Data File**	18-0581_18-0584A.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	976.896718	1010.00	96.72
PFBS_2	298.9 / 99.0	1.53	1012.934501	1010.00	100.29
PFHxA_1	313.0 / 269.0	1.85	979.182745	1010.00	96.95
PFHxA_2	313.0 / 119.0	1.85	1052.594958	1010.00	104.22
PFHpA_1	363.0 / 319.0	2.26	968.377821	1000.00	96.84
PFHpA_2	363.0 / 169.0	2.26	918.924842	1000.00	91.89
PFHxS_1	399.0 / 80.0	2.28	974.418362	1010.00	96.48
PFHxS_2	399.0 / 99.0	2.28	966.740914	1010.00	95.72
PFOA_1	413.0 / 369.0	2.67	1026.134046	1000.00	102.61
PFOA_2	413.0 / 169.0	2.67	792.605073	1000.00	79.26
PFNA_1	463.0 / 419.0	3.06	1044.932545	1000.00	104.49
PFNA_2	463.0 / 219.0	3.06	1038.078450	1000.00	103.81
PFOS_1	499.0 / 80.0	3.06	1055.593815	1000.00	105.56
PFOS_2	499.0 / 99.0	3.06	1102.874073	1000.00	110.29
PFDA_1	513.0 / 469.0	3.41	1043.459871	1000.00	104.35
PFDA_2	513.0 / 219.0	3.41	833.392732	1000.00	83.34
PFUnA_1	563.0 / 519.0	3.73	976.280294	1000.00	97.63
PFUnA_2	563.0 / 269.0	3.73	995.785269	1000.00	99.58
PFDoA_1	613.0 / 569.0	4.02	973.987000	1000.00	97.40
PFDoA_2	613.0 / 319.0	4.02	1023.324804	1000.00	102.33
PFTrDA_1	663.0 / 619.0	4.26	1131.686399	1000.00	113.17
PFTrDA_2	663.0 / 169.0	4.26	1109.323366	1000.00	110.93
PFTeDA_1	713.0 / 669.0	4.48	1028.392316	1000.00	102.84
PFTeDA_2	713.0 / 169.0	4.48	997.386962	1000.00	99.74
NMeFOSAA_1	570.0 / 419.0	3.57	1049.070472	1000.00	104.91
NMeFOSAA_2	570.0 / 512.0	3.57	998.283502	1000.00	99.83
NEtFOSAA_1	584.0 / 419.0	3.73	922.040734	1000.00	92.20
NEtFOSAA_2	584.0 / 483.0	3.73	890.344792	1000.00	89.03

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QC Summary Report

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Sample Name	KB77 CCV	**Injection Vial**	19
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:09:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	2595.085819	2525.00	102.78
PFBS_2	298.9 / 99.0	1.53	2696.659379	2525.00	106.80
PFHxA_1	313.0 / 269.0	1.84	2400.032695	2525.00	95.05
PFHxA_2	313.0 / 119.0	1.84	2341.840341	2525.00	92.75
PFHpA_1	363.0 / 319.0	2.25	2249.939970	2500.00	90.00
PFHpA_2	363.0 / 169.0	2.24	2168.250839	2500.00	86.73
PFHxS_1	399.0 / 80.0	2.27	2397.899615	2525.00	94.97
PFHxS_2	399.0 / 99.0	2.27	2397.701458	2525.00	94.96
PFOA_1	413.0 / 369.0	2.65	2532.277996	2500.00	101.29
PFOA_2	413.0 / 169.0	2.66	2339.234454	2500.00	93.57
PFNA_1	463.0 / 419.0	3.05	2418.319833	2500.00	96.73
PFNA_2	463.0 / 219.0	3.05	2450.556964	2500.00	98.02
PFOS_1	499.0 / 80.0	3.05	2789.481952	2500.00	111.58
PFOS_2	499.0 / 99.0	3.05	2725.815577	2500.00	109.03
PFDA_1	513.0 / 469.0	3.40	2856.237335	2500.00	114.25
PFDA_2	513.0 / 219.0	3.40	2736.752804	2500.00	109.47
PFUnA_1	563.0 / 519.0	3.72	2395.667208	2500.00	95.83
PFUnA_2	563.0 / 269.0	3.72	2115.600756	2500.00	84.62
PFDoA_1	613.0 / 569.0	4.00	2580.448228	2500.00	103.22
PFDoA_2	613.0 / 319.0	4.00	2504.106255	2500.00	100.16
PFTrDA_1	663.0 / 619.0	4.25	2828.342857	2500.00	113.13
PFTrDA_2	663.0 / 169.0	4.25	2769.120795	2500.00	110.76
PFTeDA_1	713.0 / 669.0	4.46	2552.987159	2500.00	102.12
PFTeDA_2	713.0 / 169.0	4.46	2521.840751	2500.00	100.87
NMeFOSAA_1	570.0 / 419.0	3.56	2497.186240	2500.00	99.89
NMeFOSAA_2	570.0 / 512.0	3.56	2540.552826	2500.00	101.62
NEtFOSAA_1	584.0 / 419.0	3.72	2600.214226	2500.00	104.01
NEtFOSAA_2	584.0 / 483.0	3.72	2534.000236	2500.00	101.36

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QC Summary Report

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Sample Name	KB76 CCV	**Injection Vial**	31
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:19:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.53	970.300219	1010.00	96.07
PFBS_2	298.9 / 99.0	1.53	923.471825	1010.00	91.43
PFHxA_1	313.0 / 269.0	1.85	1018.133593	1010.00	100.81
PFHxA_2	313.0 / 119.0	1.85	1053.310435	1010.00	104.29
PFHpA_1	363.0 / 319.0	2.25	1016.183991	1000.00	101.62
PFHpA_2	363.0 / 169.0	2.26	898.009445	1000.00	89.80
PFHxS_1	399.0 / 80.0	2.28	928.543799	1010.00	91.94
PFHxS_2	399.0 / 99.0	2.28	924.746456	1010.00	91.56
PFOA_1	413.0 / 369.0	2.66	978.258417	1000.00	97.83
PFOA_2	413.0 / 169.0	2.66	851.412321	1000.00	85.14
PFNA_1	463.0 / 419.0	3.06	1029.331314	1000.00	102.93
PFNA_2	463.0 / 219.0	3.06	1022.583687	1000.00	102.26
PFOS_1	499.0 / 80.0	3.06	1109.200398	1000.00	110.92
PFOS_2	499.0 / 99.0	3.06	1127.683133	1000.00	112.77
PFDA_1	513.0 / 469.0	3.41	1008.667952	1000.00	100.87
PFDA_2	513.0 / 219.0	3.41	971.862433	1000.00	97.19
PFUnA_1	563.0 / 519.0	3.73	1054.863703	1000.00	105.49
PFUnA_2	563.0 / 269.0	3.73	1103.392438	1000.00	110.34
PFDoA_1	613.0 / 569.0	4.01	1009.210668	1000.00	100.92
PFDoA_2	613.0 / 319.0	4.01	1029.921704	1000.00	102.99
PFTrDA_1	663.0 / 619.0	4.26	1153.624006	1000.00	115.36
PFTrDA_2	663.0 / 169.0	4.25	1180.272473	1000.00	118.03
PFTeDA_1	713.0 / 669.0	4.47	1036.914474	1000.00	103.69
PFTeDA_2	713.0 / 169.0	4.47	1035.931796	1000.00	103.59
NMeFOSAA_1	570.0 / 419.0	3.56	921.516638	1000.00	92.15
NMeFOSAA_2	570.0 / 512.0	3.56	915.254340	1000.00	91.53
NEtFOSAA_1	584.0 / 419.0	3.72	1010.211599	1000.00	101.02
NEtFOSAA_2	584.0 / 483.0	3.73	1233.763209	1000.00	123.38

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QC Summary Report

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Sample Name	KB77 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:30:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	2373.085271	2525.00	93.98
PFBS_2	298.9 / 99.0	1.53	2424.805069	2525.00	96.03
PFHxA_1	313.0 / 269.0	1.84	2495.274157	2525.00	98.82
PFHxA_2	313.0 / 119.0	1.84	2501.516412	2525.00	99.07
PFHpA_1	363.0 / 319.0	2.25	2560.378639	2500.00	102.42
PFHpA_2	363.0 / 169.0	2.25	2643.514087	2500.00	105.74
PFHxS_1	399.0 / 80.0	2.27	2417.444776	2525.00	95.74
PFHxS_2	399.0 / 99.0	2.27	2541.027812	2525.00	100.63
PFOA_1	413.0 / 369.0	2.66	2735.185203	2500.00	109.41
PFOA_2	413.0 / 169.0	2.66	2496.522063	2500.00	99.86
PFNA_1	463.0 / 419.0	3.06	2457.223142	2500.00	98.29
PFNA_2	463.0 / 219.0	3.06	2581.350230	2500.00	103.25
PFOS_1	499.0 / 80.0	3.06	2661.003977	2500.00	106.44
PFOS_2	499.0 / 99.0	3.06	2771.804629	2500.00	110.87
PFDA_1	513.0 / 469.0	3.41	2637.869911	2500.00	105.51
PFDA_2	513.0 / 219.0	3.41	2402.893101	2500.00	96.12
PFUnA_1	563.0 / 519.0	3.73	2621.894918	2500.00	104.88
PFUnA_2	563.0 / 269.0	3.73	2574.189778	2500.00	102.97
PFDoA_1	613.0 / 569.0	4.01	2504.175637	2500.00	100.17
PFDoA_2	613.0 / 319.0	4.01	2552.267838	2500.00	102.09
PFTrDA_1	663.0 / 619.0	4.26	2792.905958	2500.00	111.72
PFTrDA_2	663.0 / 169.0	4.25	2699.854783	2500.00	107.99
PFTeDA_1	713.0 / 669.0	4.47	2551.335869	2500.00	102.05
PFTeDA_2	713.0 / 169.0	4.47	2473.570909	2500.00	98.94
NMeFOSAA_1	570.0 / 419.0	3.56	2350.650683	2500.00	94.03
NMeFOSAA_2	570.0 / 512.0	3.56	2338.803041	2500.00	93.55
NEtFOSAA_1	584.0 / 419.0	3.72	2428.781930	2500.00	97.15
NEtFOSAA_2	584.0 / 483.0	3.72	2299.276359	2500.00	91.97

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QC Summary Report

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Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T17:07:01	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.06	250.781173	250.00	100.31
d3-MeFOSAA	573.0 / 419.0	3.61	257.448822	250.00	102.98
d5-EtFOSAA	589.0 / 419.0	3.77	250.471875	250.00	100.19
13C5-PFHxA	318.0 / 273.0	1.86	213.460285	250.00	85.38
13C4-PFHpA	367.0 / 322.0	2.28	228.890405	250.00	91.56
13C8-PFOA	421.0 / 376.0	2.69	219.363629	250.00	87.75
13C9-PFNA	472.0 / 427.0	3.09	233.795566	250.00	93.52
13C6-PFDA	519.0 / 474.0	3.45	253.001410	250.00	101.20
13C7-PFUnA	570.0 / 525.0	3.77	263.752738	250.00	105.50
13C2-PFTeDA	715.0 / 670.0	4.54	239.957460	250.00	95.98
13C3-PFBS	302.0 / 99.0	1.54	227.789521	232.25	98.08
13C3-PFHxS	402.0 / 99.0	2.30	227.865205	236.50	96.35
13C8-PFOS	507.0 / 99.0	3.08	239.793976	239.25	100.23

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QC Summary Report

Created with Analyst Reporter
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Sample Name	KB76 CCV	**Injection Vial**	7
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T03:58:51	**Data File**	18-0581_18-0584A.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	233.363251	250.00	93.35
d3-MeFOSAA	573.0 / 419.0	3.56	251.527098	250.00	100.61
d5-EtFOSAA	589.0 / 419.0	3.72	298.371067	250.00	119.35
13C5-PFHxA	318.0 / 273.0	1.84	221.282154	250.00	88.51
13C4-PFHpA	367.0 / 322.0	2.25	212.528307	250.00	85.01
13C8-PFOA	421.0 / 376.0	2.65	245.644522	250.00	98.26
13C9-PFNA	472.0 / 427.0	3.05	231.840497	250.00	92.74
13C6-PFDA	519.0 / 474.0	3.40	249.301679	250.00	99.72
13C7-PFUnA	570.0 / 525.0	3.72	259.237261	250.00	103.69
13C2-PFTeDA	715.0 / 670.0	4.47	219.933663	250.00	87.97
13C3-PFBS	302.0 / 99.0	1.52	222.839303	232.25	95.95
13C3-PFHxS	402.0 / 99.0	2.27	237.576121	236.50	100.46
13C8-PFOS	507.0 / 99.0	3.05	233.556997	239.25	97.62

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QC Summary Report

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Sample Name	KB77 CCV	**Injection Vial**	19
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:09:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	3.99	244.024244	250.00	97.61
d3-MeFOSAA	573.0 / 419.0	3.55	238.346262	250.00	95.34
d5-EtFOSAA	589.0 / 419.0	3.71	254.913354	250.00	101.97
13C5-PFHxA	318.0 / 273.0	1.83	240.845349	250.00	96.34
13C4-PFHpA	367.0 / 322.0	2.23	236.458392	250.00	94.58
13C8-PFOA	421.0 / 376.0	2.64	246.037200	250.00	98.41
13C9-PFNA	472.0 / 427.0	3.04	250.546292	250.00	100.22
13C6-PFDA	519.0 / 474.0	3.39	220.120166	250.00	88.05
13C7-PFUnA	570.0 / 525.0	3.71	261.068925	250.00	104.43
13C2-PFTeDA	715.0 / 670.0	4.46	211.903138	250.00	84.76
13C3-PFBS	302.0 / 99.0	1.51	204.948084	232.25	88.24
13C3-PFHxS	402.0 / 99.0	2.26	229.446092	236.50	97.02
13C8-PFOS	507.0 / 99.0	3.03	222.973203	239.25	93.20

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QC Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:37:45 PM

Sample Name	KB76 CCV	**Injection Vial**	31
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:19:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	247.616433	250.00	99.05
d3-MeFOSAA	573.0 / 419.0	3.56	264.743736	250.00	105.90
d5-EtFOSAA	589.0 / 419.0	3.72	255.383100	250.00	102.15
13C5-PFHxA	318.0 / 273.0	1.83	233.641792	250.00	93.46
13C4-PFHpA	367.0 / 322.0	2.24	229.241049	250.00	91.70
13C8-PFOA	421.0 / 376.0	2.65	270.347536	250.00	108.14
13C9-PFNA	472.0 / 427.0	3.04	250.354215	250.00	100.14
13C6-PFDA	519.0 / 474.0	3.40	274.235290	250.00	109.69
13C7-PFUnA	570.0 / 525.0	3.71	254.307016	250.00	101.72
13C2-PFTeDA	715.0 / 670.0	4.46	217.913229	250.00	87.17
13C3-PFBS	302.0 / 99.0	1.51	214.822865	232.25	92.50
13C3-PFHxS	402.0 / 99.0	2.27	233.271700	236.50	98.63
13C8-PFOS	507.0 / 99.0	3.04	232.437839	239.25	97.15

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QC Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 3:37:49 PM

Sample Name	KB77 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:30:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	252.861493	250.00	101.14
d3-MeFOSAA	573.0 / 419.0	3.55	236.551530	250.00	94.62
d5-EtFOSAA	589.0 / 419.0	3.72	234.510094	250.00	93.80
13C5-PFHxA	318.0 / 273.0	1.83	218.431032	250.00	87.37
13C4-PFHpA	367.0 / 322.0	2.24	202.707330	250.00	81.08
13C8-PFOA	421.0 / 376.0	2.65	227.646933	250.00	91.06
13C9-PFNA	472.0 / 427.0	3.04	232.037016	250.00	92.81
13C6-PFDA	519.0 / 474.0	3.39	261.357157	250.00	104.54
13C7-PFUnA	570.0 / 525.0	3.71	256.294901	250.00	102.52
13C2-PFTeDA	715.0 / 670.0	4.47	231.473391	250.00	92.59
13C3-PFBS	302.0 / 99.0	1.51	192.415809	232.25	82.85
13C3-PFHxS	402.0 / 99.0	2.26	201.835765	236.50	85.34
13C8-PFOS	507.0 / 99.0	3.04	194.718139	239.25	81.39

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QC Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:41:03 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFHxA_1	313.0 / 269.0	1.86	879.267704	1010.00	87.06
PFHxA_2	313.0 / 119.0	1.86	949.504440	1010.00	94.01
PFHxS_1	399.0 / 80.0	2.30	889.617656	1010.00	88.08
PFHxS_2	399.0 / 99.0	2.29	858.021180	1010.00	84.95
PFOS_1	499.0 / 80.0	3.08	1025.902305	1000.00	102.59
PFOS_2	499.0 / 99.0	3.08	1013.860679	1000.00	101.39
PFOA_1	413.0 / 369.0	2.68	865.140938	1000.00	86.51
PFOA_2	413.0 / 369.0	2.68	865.140938	1000.00	86.51

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QC Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:41:07 PM

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T17:53:40	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFHxA_1	313.0 / 269.0	1.88	462.536206	505.00	91.59
PFHxA_2	313.0 / 119.0	1.88	426.082853	505.00	84.37
PFHxS_1	399.0 / 80.0	2.31	554.491852	505.00	109.80
PFHxS_2	399.0 / 99.0	2.31	583.696961	505.00	115.58
PFOS_1	499.0 / 80.0	3.10	523.903404	500.00	104.78
PFOS_2	499.0 / 99.0	3.10	473.131452	500.00	94.63
PFOA_1	413.0 / 369.0	2.70	473.437432	500.00	94.69
PFOA_2	413.0 / 369.0	2.70	473.437432	500.00	94.69

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QC Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:41:12 PM

Sample Name	KB77 CCV	**Injection Vial**	13
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:04:05	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFHxA_1	313.0 / 269.0	1.85	2481.381808	2525.00	98.27
PFHxA_2	313.0 / 119.0	1.85	2555.100258	2525.00	101.19
PFHxS_1	399.0 / 80.0	2.29	2610.058343	2525.00	103.37
PFHxS_2	399.0 / 99.0	2.28	2651.183730	2525.00	105.00
PFOS_1	499.0 / 80.0	3.07	2655.453547	2500.00	106.22
PFOS_2	499.0 / 99.0	3.07	2638.171601	2500.00	105.53
PFOA_1	413.0 / 369.0	2.67	2629.464130	2500.00	105.18
PFOA_2	413.0 / 369.0	2.67	2629.464130	2500.00	105.18

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QC Summary Report

Created with Analyst Reporter
Printed: 19/10/2018 4:41:16 PM

Sample Name	KB76 CCV	**Injection Vial**	19
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T21:09:15	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFHxA_1	313.0 / 269.0	1.85	960.284513	1010.00	95.08
PFHxA_2	313.0 / 119.0	1.85	1027.723102	1010.00	101.75
PFHxS_1	399.0 / 80.0	2.28	964.108612	1010.00	95.46
PFHxS_2	399.0 / 99.0	2.28	1023.241963	1010.00	101.31
PFOS_1	499.0 / 80.0	3.06	1150.937916	1000.00	115.09
PFOS_2	499.0 / 99.0	3.06	1198.591588	1000.00	119.86
PFOA_1	413.0 / 369.0	2.67	1024.233594	1000.00	102.42
PFOA_2	413.0 / 369.0	2.67	1024.233594	1000.00	102.42

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QC Summary Report

Created with Analyst Reporter
Printed: 25/10/2018 2:52:18 PM

Sample Name	KB77 CCV	**Injection Vial**	10
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:00:57	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_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	2562.998949	2525.00	101.50
PFBS_2	298.9 / 99.0	1.53	2587.999921	2525.00	102.50
PFHxA_1	313.0 / 269.0	1.85	2323.122167	2525.00	92.00
PFHxA_2	313.0 / 119.0	1.85	2428.857506	2525.00	96.19
PFHpA_1	363.0 / 319.0	2.26	2378.122793	2500.00	95.12
PFHpA_2	363.0 / 169.0	2.26	2513.281219	2500.00	100.53
PFHxS_1	399.0 / 80.0	2.28	2619.185089	2525.00	103.73
PFHxS_2	399.0 / 99.0	2.28	2604.577433	2525.00	103.15
PFOA_1	413.0 / 369.0	2.67	2376.087991	2500.00	95.04
PFOA_2	413.0 / 169.0	2.67	2307.288920	2500.00	92.29
PFNA_1	463.0 / 419.0	3.06	2584.893479	2500.00	103.40
PFNA_2	463.0 / 219.0	3.06	2599.474783	2500.00	103.98
PFOS_1	499.0 / 80.0	3.06	2592.281562	2500.00	103.69
PFOS_2	499.0 / 99.0	3.06	2613.198284	2500.00	104.53
PFDA_1	513.0 / 469.0	3.42	2512.700967	2500.00	100.51
PFDA_2	513.0 / 219.0	3.42	2615.208399	2500.00	104.61
PFUnA_1	563.0 / 519.0	3.75	2297.514800	2500.00	91.90
PFUnA_2	563.0 / 269.0	3.75	2384.952859	2500.00	95.40
PFDoA_1	613.0 / 569.0	4.03	2616.068012	2500.00	104.64
PFDoA_2	613.0 / 319.0	4.03	2562.841631	2500.00	102.51
PFTrDA_1	663.0 / 619.0	4.27	2560.180287	2500.00	102.41
PFTrDA_2	663.0 / 169.0	4.27	2556.996959	2500.00	102.28
PFTeDA_1	713.0 / 669.0	4.49	2463.432720	2500.00	98.54
PFTeDA_2	713.0 / 169.0	4.49	2551.584634	2500.00	102.06
NMeFOSAA_1	570.0 / 419.0	3.58	2951.358183	2500.00	118.05
NMeFOSAA_2	570.0 / 512.0	3.58	2703.239203	2500.00	108.13
NEtFOSAA_1	584.0 / 419.0	3.74	2624.629650	2500.00	104.99
NEtFOSAA_2	584.0 / 483.0	3.74	2801.394064	2500.00	112.06

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QC Summary Report

Created with Analyst Reporter
Printed: 25/10/2018 2:52:20 PM

Sample Name	KB76 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:55:18	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_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	1026.780497	1010.00	101.66
PFBS_2	298.9 / 99.0	1.54	1017.651677	1010.00	100.76
PFHxA_1	313.0 / 269.0	1.86	941.060884	1010.00	93.17
PFHxA_2	313.0 / 119.0	1.86	971.327677	1010.00	96.17
PFHpA_1	363.0 / 319.0	2.27	926.002417	1000.00	92.60
PFHpA_2	363.0 / 169.0	2.27	905.181070	1000.00	90.52
PFHxS_1	399.0 / 80.0	2.29	1019.594120	1010.00	100.95
PFHxS_2	399.0 / 99.0	2.29	1051.965054	1010.00	104.15
PFOA_1	413.0 / 369.0	2.67	1012.967537	1000.00	101.30
PFOA_2	413.0 / 169.0	2.67	987.217356	1000.00	98.72
PFNA_1	463.0 / 419.0	3.07	1016.520398	1000.00	101.65
PFNA_2	463.0 / 219.0	3.07	1066.565145	1000.00	106.66
PFOS_1	499.0 / 80.0	3.07	1107.566749	1000.00	110.76
PFOS_2	499.0 / 99.0	3.07	1104.261103	1000.00	110.43
PFDA_1	513.0 / 469.0	3.42	953.728410	1000.00	95.37
PFDA_2	513.0 / 219.0	3.42	878.787273	1000.00	87.88
PFUnA_1	563.0 / 519.0	3.75	928.143634	1000.00	92.81
PFUnA_2	563.0 / 269.0	3.75	1016.099273	1000.00	101.61
PFDoA_1	613.0 / 569.0	4.03	1005.226567	1000.00	100.52
PFDoA_2	613.0 / 319.0	4.03	946.057374	1000.00	94.61
PFTrDA_1	663.0 / 619.0	4.28	1031.924583	1000.00	103.19
PFTrDA_2	663.0 / 169.0	4.27	1101.472362	1000.00	110.15
PFTeDA_1	713.0 / 669.0	4.49	1018.000305	1000.00	101.80
PFTeDA_2	713.0 / 169.0	4.49	1016.316736	1000.00	101.63
NMeFOSAA_1	570.0 / 419.0	3.58	1244.287040	1000.00	124.43
NMeFOSAA_2	570.0 / 512.0	3.58	1105.681002	1000.00	110.57
NEtFOSAA_1	584.0 / 419.0	3.74	1007.838275	1000.00	100.78
NEtFOSAA_2	584.0 / 483.0	3.74	937.756710	1000.00	93.78

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:14:04 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T17:07:01	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	338749.26	903.938722	495.6	false
PFBS_2	298.9 / 99.0	1.55	96580.99	861.720770	412.4	false
PFHxA_1	313.0 / 269.0	1.88	260387.48	965.638096	70.1	false
PFHxA_2	313.0 / 119.0	1.88	19955.31	1020.663415	50.8	false
PFHpA_1	363.0 / 319.0	2.29	248902.55	870.096664	173.3	false
PFHpA_2	363.0 / 169.0	2.29	4258.51	703.985432	99.5	true
PFHxS_1	399.0 / 80.0	2.31	380451.85	995.286766	290.1	false
PFHxS_2	399.0 / 99.0	2.31	106470.82	987.096947	448.9	false
PFOA_1	413.0 / 369.0	2.70	339192.24	944.679231	280.7	false
PFOA_2	413.0 / 169.0	2.70	21817.35	928.404131	204.1	false
PFNA_1	463.0 / 419.0	3.10	341970.55	925.668029	308.7	false
PFNA_2	463.0 / 219.0	3.10	102698.67	916.150436	351.7	false
PFOS_1	499.0 / 80.0	3.10	512238.44	915.152388	200.5	false
PFOS_2	499.0 / 99.0	3.10	94847.93	966.240192	521.8	false
PFDA_1	513.0 / 469.0	3.46	392759.56	1033.203821	418.0	false
PFDA_2	513.0 / 219.0	3.46	16453.04	988.892650	206.8	false
PFUnA_1	563.0 / 519.0	3.79	351905.51	898.971998	279.3	false
PFUnA_2	563.0 / 269.0	3.79	17694.87	864.469912	197.7	false
PFDoA_1	613.0 / 569.0	4.07	371562.61	1043.739460	378.5	false
PFDoA_2	613.0 / 319.0	4.07	56247.00	997.820905	384.1	false
PFTrDA_1	663.0 / 619.0	4.32	324662.44	1091.077999	567.9	false
PFTrDA_2	663.0 / 169.0	4.32	19740.99	1012.095559	304.4	false
PFTeDA_1	713.0 / 669.0	4.54	350243.66	1017.844307	1136.5	false
PFTeDA_2	713.0 / 169.0	4.54	16592.01	992.038822	632.9	false
NMeFOSAA_1	570.0 / 419.0	3.61	60400.71	851.653312	647.9	false
NMeFOSAA_2	570.0 / 512.0	3.61	34029.15	875.594076	337.4	false
NEtFOSAA_1	584.0 / 419.0	3.78	61089.68	910.854268	498.5	false
NEtFOSAA_2	584.0 / 483.0	3.78	4041.33	955.175298	139.9	false

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Summary Quant Report

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Sample Name	KB76 CCV	**Injection Vial**	7
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T03:58:51	**Data File**	18-0581_18-0584A.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	340254.72	976.896718	521.7	false
PFBS_2	298.9 / 99.0	1.53	105173.68	1012.934501	393.5	false
PFHxA_1	313.0 / 269.0	1.85	260193.01	979.182745	85.3	false
PFHxA_2	313.0 / 119.0	1.85	20279.48	1052.594958	69.0	false
PFHpA_1	363.0 / 319.0	2.26	243674.83	968.377821	194.8	false
PFHpA_2	363.0 / 169.0	2.26	4799.21	918.924842	175.1	false
PFHxS_1	399.0 / 80.0	2.28	375045.84	974.418362	346.5	false
PFHxS_2	399.0 / 99.0	2.28	105010.21	966.740914	609.6	false
PFOA_1	413.0 / 369.0	2.67	391434.11	1026.134046	317.2	false
PFOA_2	413.0 / 169.0	2.67	20075.63	792.605073	278.5	false
PFNA_1	463.0 / 419.0	3.06	362359.57	1044.932545	313.7	false
PFNA_2	463.0 / 219.0	3.06	109275.88	1038.078450	380.0	false
PFOS_1	499.0 / 80.0	3.06	565372.97	1055.593815	219.0	false
PFOS_2	499.0 / 99.0	3.06	103538.84	1102.874073	413.6	false
PFDA_1	513.0 / 469.0	3.41	429232.49	1043.459871	372.3	false
PFDA_2	513.0 / 219.0	3.41	15200.93	833.392732	236.1	false
PFUnA_1	563.0 / 519.0	3.73	412465.69	976.280294	279.8	false
PFUnA_2	563.0 / 269.0	3.73	21854.48	995.785269	244.8	false
PFDoA_1	613.0 / 569.0	4.02	355456.29	973.987000	362.1	false
PFDoA_2	613.0 / 319.0	4.02	58909.02	1023.324804	354.4	false
PFTrDA_1	663.0 / 619.0	4.26	338848.82	1131.686399	693.7	false
PFTrDA_2	663.0 / 169.0	4.26	21713.17	1109.323366	390.2	false
PFTeDA_1	713.0 / 669.0	4.48	356226.18	1028.392316	1121.0	false
PFTeDA_2	713.0 / 169.0	4.48	16794.84	997.386962	607.4	false
NMeFOSAA_1	570.0 / 419.0	3.57	68453.32	1049.070472	662.2	false
NMeFOSAA_2	570.0 / 512.0	3.57	35832.91	998.283502	540.3	false
NEtFOSAA_1	584.0 / 419.0	3.73	68042.07	922.040734	477.4	false
NEtFOSAA_2	584.0 / 483.0	3.73	4148.16	890.344792	4450.9	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:14:14 PM

Sample Name	KB77 CCV	**Injection Vial**	19
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:09:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	884811.92	2595.085819	1207.0	false
PFBS_2	298.9 / 99.0	1.53	272405.05	2696.659379	671.0	false
PFHxA_1	313.0 / 269.0	1.84	676395.98	2400.032695	157.1	false
PFHxA_2	313.0 / 119.0	1.84	48769.85	2341.840341	116.8	false
PFHpA_1	363.0 / 319.0	2.25	620895.34	2249.939970	291.2	false
PFHpA_2	363.0 / 169.0	2.24	12133.33	2168.250839	288.0	false
PFHxS_1	399.0 / 80.0	2.27	940497.72	2397.899615	514.5	false
PFHxS_2	399.0 / 99.0	2.27	264233.33	2397.701458	897.1	false
PFOA_1	413.0 / 369.0	2.65	955987.58	2532.277996	607.5	false
PFOA_2	413.0 / 169.0	2.66	56618.24	2339.234454	433.5	false
PFNA_1	463.0 / 419.0	3.05	892491.51	2418.319833	582.8	false
PFNA_2	463.0 / 219.0	3.05	275143.83	2450.556964	615.9	false
PFOS_1	499.0 / 80.0	3.05	1457789.06	2789.481952	283.9	false
PFOS_2	499.0 / 99.0	3.05	249087.10	2725.815577	667.2	false
PFDA_1	513.0 / 469.0	3.40	1057757.82	2856.237335	609.1	false
PFDA_2	513.0 / 219.0	3.40	43830.03	2736.752804	382.5	false
PFUnA_1	563.0 / 519.0	3.72	1068352.13	2395.667208	454.8	false
PFUnA_2	563.0 / 269.0	3.72	47975.17	2115.600756	275.8	false
PFDoA_1	613.0 / 569.0	4.00	1010313.64	2580.448228	745.3	false
PFDoA_2	613.0 / 319.0	4.00	154392.29	2504.106255	516.7	false
PFTrDA_1	663.0 / 619.0	4.25	847847.72	2828.342857	831.4	false
PFTrDA_2	663.0 / 169.0	4.25	53749.36	2769.120795	528.0	false
PFTeDA_1	713.0 / 669.0	4.46	877087.79	2552.987159	1286.2	false
PFTeDA_2	713.0 / 169.0	4.46	41937.88	2521.840751	908.9	false
NMeFOSAA_1	570.0 / 419.0	3.56	159186.71	2497.186240	708.7	false
NMeFOSAA_2	570.0 / 512.0	3.56	89564.13	2540.552826	820.6	false
NEtFOSAA_1	584.0 / 419.0	3.72	173948.34	2600.214226	767.4	false
NEtFOSAA_2	584.0 / 483.0	3.72	10530.20	2534.000236	2387.4	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:14:19 PM

Sample Name	KB76 CCV	**Injection Vial**	31
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:19:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	334584.15	970.300219	502.2	false
PFBS_2	298.9 / 99.0	1.53	95158.08	923.471825	444.1	false
PFHxA_1	313.0 / 269.0	1.85	253735.32	1018.133593	87.8	false
PFHxA_2	313.0 / 119.0	1.85	19071.97	1053.310435	80.3	false
PFHpA_1	363.0 / 319.0	2.25	245077.22	1016.183991	191.2	false
PFHpA_2	363.0 / 169.0	2.26	4510.85	898.009445	142.6	false
PFHxS_1	399.0 / 80.0	2.28	355124.16	928.543799	279.1	false
PFHxS_2	399.0 / 99.0	2.28	99840.06	924.746456	353.4	false
PFOA_1	413.0 / 369.0	2.66	366133.60	978.258417	316.2	false
PFOA_2	413.0 / 169.0	2.66	21009.94	851.412321	233.3	false
PFNA_1	463.0 / 419.0	3.06	343300.40	1029.331314	348.1	false
PFNA_2	463.0 / 219.0	3.06	103521.87	1022.583687	460.8	false
PFOS_1	499.0 / 80.0	3.06	604839.81	1109.200398	237.8	false
PFOS_2	499.0 / 99.0	3.06	107800.50	1127.683133	528.0	false
PFDA_1	513.0 / 469.0	3.41	417686.75	1008.667952	459.1	false
PFDA_2	513.0 / 219.0	3.41	17613.87	971.862433	247.6	false
PFUnA_1	563.0 / 519.0	3.73	399214.64	1054.863703	294.8	false
PFUnA_2	563.0 / 269.0	3.73	21602.95	1103.392438	242.6	false
PFDoA_1	613.0 / 569.0	4.01	356537.48	1009.210668	404.7	false
PFDoA_2	613.0 / 319.0	4.01	57457.70	1029.921704	312.8	false
PFTrDA_1	663.0 / 619.0	4.26	312548.33	1153.624006	713.7	false
PFTrDA_2	663.0 / 169.0	4.25	20865.88	1180.272473	324.8	false
PFTeDA_1	713.0 / 669.0	4.47	325031.75	1036.914474	1099.3	false
PFTeDA_2	713.0 / 169.0	4.47	15765.03	1035.931796	557.2	false
NMeFOSAA_1	570.0 / 419.0	3.56	61634.32	921.516638	568.5	false
NMeFOSAA_2	570.0 / 512.0	3.56	33601.10	915.254340	540.4	false
NEtFOSAA_1	584.0 / 419.0	3.72	66340.66	1010.211599	655.3	false
NEtFOSAA_2	584.0 / 483.0	3.73	5090.61	1233.763209	666.1	false

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Summary Quant Report

Created with Analyst Reporter
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Sample Name	KB77 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:30:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	848328.29	2373.085271	887.6	false
PFBS_2	298.9 / 99.0	1.53	256950.67	2424.805069	678.0	false
PFHxA_1	313.0 / 269.0	1.84	659174.98	2495.274157	148.9	false
PFHxA_2	313.0 / 119.0	1.84	48838.48	2501.516412	122.8	false
PFHpA_1	363.0 / 319.0	2.25	625332.90	2560.378639	313.7	false
PFHpA_2	363.0 / 169.0	2.25	13038.98	2643.514087	279.9	false
PFHxS_1	399.0 / 80.0	2.27	923231.27	2417.444776	393.1	false
PFHxS_2	399.0 / 99.0	2.27	272553.31	2541.027812	574.6	false
PFOA_1	413.0 / 369.0	2.66	987354.06	2735.185203	559.9	false
PFOA_2	413.0 / 169.0	2.66	57730.42	2496.522063	387.1	false
PFNA_1	463.0 / 419.0	3.06	868540.65	2457.223142	536.9	false
PFNA_2	463.0 / 219.0	3.06	277451.63	2581.350230	673.6	false
PFOS_1	499.0 / 80.0	3.06	1397721.96	2661.003977	400.0	false
PFOS_2	499.0 / 99.0	3.06	254510.90	2771.804629	652.5	false
PFDA_1	513.0 / 469.0	3.41	1064957.90	2637.869911	663.1	false
PFDA_2	513.0 / 219.0	3.41	42036.80	2402.893101	432.4	false
PFUnA_1	563.0 / 519.0	3.73	1052043.10	2621.894918	423.0	false
PFUnA_2	563.0 / 269.0	3.73	52322.39	2574.189778	392.1	false
PFDoA_1	613.0 / 569.0	4.01	931817.45	2504.175637	548.3	false
PFDoA_2	613.0 / 319.0	4.01	149431.61	2552.267838	510.4	false
PFTrDA_1	663.0 / 619.0	4.26	838497.25	2792.905958	830.1	false
PFTrDA_2	663.0 / 169.0	4.25	52499.07	2699.854783	540.7	false
PFTeDA_1	713.0 / 669.0	4.47	877766.52	2551.335869	1528.3	false
PFTeDA_2	713.0 / 169.0	4.47	41207.25	2473.570909	925.6	false
NMeFOSAA_1	570.0 / 419.0	3.56	163504.07	2350.650683	912.5	false
NMeFOSAA_2	570.0 / 512.0	3.56	89955.39	2338.803041	664.7	false
NEtFOSAA_1	584.0 / 419.0	3.72	170782.90	2428.781930	664.8	false
NEtFOSAA_2	584.0 / 483.0	3.72	10050.89	2299.276359	568.9	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:39:06 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T17:07:01	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	94777.21	250.781173	667.4	false
d3-MeFOSAA	573.0 / 419.0	3.61	15824.70	257.448822	174.9	false
d5-EtFOSAA	589.0 / 419.0	3.77	16691.67	250.471875	268.5	false
13C5-PFHxA	318.0 / 273.0	1.86	64623.54	213.460285	551.2	false
13C4-PFHpA	367.0 / 322.0	2.28	78532.71	228.890405	926.1	false
13C8-PFOA	421.0 / 376.0	2.69	89341.23	219.363629	25485.2	false
13C9-PFNA	472.0 / 427.0	3.09	101923.17	233.795566	1607.1	false
13C6-PFDA	519.0 / 474.0	3.45	95291.86	253.001410	1540.0	false
13C7-PFUnA	570.0 / 525.0	3.77	92564.48	263.752738	891.9	false
13C2-PFTeDA	715.0 / 670.0	4.54	75318.87	239.957460	1630.0	false
13C3-PFBS	302.0 / 99.0	1.54	29931.35	227.789521	501.9	false
13C3-PFHxS	402.0 / 99.0	2.30	24692.80	227.865205	378.1	false
13C8-PFOS	507.0 / 99.0	3.08	30028.15	239.793976	246.4	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:39:11 PM

Sample Name	KB76 CCV	**Injection Vial**	7
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T03:58:51	**Data File**	18-0581_18-0584A.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	96900.58	233.363251	933.4	false
d3-MeFOSAA	573.0 / 419.0	3.56	14708.37	251.527098	197.5	false
d5-EtFOSAA	589.0 / 419.0	3.72	18916.15	298.371067	222.1	false
13C5-PFHxA	318.0 / 273.0	1.84	63730.73	221.282154	654.8	false
13C4-PFHpA	367.0 / 322.0	2.25	69369.51	212.528307	956.7	false
13C8-PFOA	421.0 / 376.0	2.65	95175.08	245.644522	1800.9	false
13C9-PFNA	472.0 / 427.0	3.05	96151.22	231.840497	1173.9	false
13C6-PFDA	519.0 / 474.0	3.40	103167.52	249.301679	1114.1	false
13C7-PFUnA	570.0 / 525.0	3.72	99960.81	259.237261	715.1	false
13C2-PFTeDA	715.0 / 670.0	4.47	75848.36	219.933663	1360.2	false
13C3-PFBS	302.0 / 99.0	1.52	27856.05	222.839303	511.7	false
13C3-PFHxS	402.0 / 99.0	2.27	24492.34	237.576121	423.4	false
13C8-PFOS	507.0 / 99.0	3.05	27823.93	233.556997	219.6	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:39:17 PM

Sample Name	KB77 CCV	**Injection Vial**	19
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:09:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.99	106631.11	244.024244	896.2	false
d3-MeFOSAA	573.0 / 419.0	3.55	14988.73	238.346262	186.7	false
d5-EtFOSAA	589.0 / 419.0	3.71	17379.81	254.913354	182.7	false
13C5-PFHxA	318.0 / 273.0	1.83	69847.27	240.845349	749.8	false
13C4-PFHpA	367.0 / 322.0	2.23	77716.86	236.458392	605.3	false
13C8-PFOA	421.0 / 376.0	2.64	95989.91	246.037200	1266.1	false
13C9-PFNA	472.0 / 427.0	3.04	104631.42	250.546292	1088.9	false
13C6-PFDA	519.0 / 474.0	3.39	95859.39	220.120166	827.1	false
13C7-PFUnA	570.0 / 525.0	3.71	105936.24	261.068925	769.7	false
13C2-PFTeDA	715.0 / 670.0	4.46	76904.00	211.903138	1641.5	false
13C3-PFBS	302.0 / 99.0	1.51	27551.68	204.948084	532.1	false
13C3-PFHxS	402.0 / 99.0	2.26	25438.10	229.446092	346.6	false
13C8-PFOS	507.0 / 99.0	3.03	28566.35	222.973203	225.4	false

BATTELLE

Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:39:22 PM

Sample Name	KB76 CCV	**Injection Vial**	31
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:19:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	93935.05	247.616433	588.6	false
d3-MeFOSAA	573.0 / 419.0	3.56	15896.88	264.743736	204.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	16625.49	255.383100	219.4	false
13C5-PFHxA	318.0 / 273.0	1.83	59896.30	233.641792	519.9	false
13C4-PFHpA	367.0 / 322.0	2.24	66602.60	229.241049	617.8	false
13C8-PFOA	421.0 / 376.0	2.65	93236.40	270.347536	1756.9	false
13C9-PFNA	472.0 / 427.0	3.04	92420.29	250.354215	1080.8	false
13C6-PFDA	519.0 / 474.0	3.40	103680.11	274.235290	2023.4	false
13C7-PFUnA	570.0 / 525.0	3.71	89587.00	254.307016	762.1	false
13C2-PFTeDA	715.0 / 670.0	4.46	68658.20	217.913229	1544.5	false
13C3-PFBS	302.0 / 99.0	1.51	27574.94	214.822865	425.9	false
13C3-PFHxS	402.0 / 99.0	2.27	24694.25	233.271700	370.6	false
13C8-PFOS	507.0 / 99.0	3.04	28434.05	232.437839	226.5	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:39:27 PM

Sample Name	KB77 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:30:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	101293.76	252.861493	907.0	false
d3-MeFOSAA	573.0 / 419.0	3.55	16602.83	236.551530	196.6	false
d5-EtFOSAA	589.0 / 419.0	3.72	17844.89	234.510094	202.7	false
13C5-PFHxA	318.0 / 273.0	1.83	65528.35	218.431032	814.7	false
13C4-PFHpA	367.0 / 322.0	2.24	68918.16	202.707330	711.5	false
13C8-PFOA	421.0 / 376.0	2.65	91873.51	227.646933	1446.3	false
13C9-PFNA	472.0 / 427.0	3.04	100238.62	232.037016	1208.7	false
13C6-PFDA	519.0 / 474.0	3.39	104341.79	261.357157	978.1	false
13C7-PFUnA	570.0 / 525.0	3.71	95340.71	256.294901	697.0	false
13C2-PFTeDA	715.0 / 670.0	4.47	77012.58	231.473391	1278.5	false
13C3-PFBS	302.0 / 99.0	1.51	28869.88	192.415809	486.9	false
13C3-PFHxS	402.0 / 99.0	2.26	24974.80	201.835765	339.7	false
13C8-PFOS	507.0 / 99.0	3.04	27842.51	194.718139	199.9	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:41:42 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	1.86	217093.67	879.267704	36.6	false
PFHxA_2	313.0 / 119.0	1.86	16972.25	949.504440	22.6	false
PFHxS_1	399.0 / 80.0	2.30	359478.13	889.617656	351.4	false
PFHxS_2	399.0 / 99.0	2.29	99045.52	858.021180	363.7	false
PFOS_1	499.0 / 80.0	3.08	503138.84	1025.902305	227.7	false
PFOS_2	499.0 / 99.0	3.08	89366.71	1013.860679	403.9	false
PFOA_1	413.0 / 369.0	2.68	315096.35	865.140938	275.6	false
PFOA_2	413.0 / 369.0	2.68	315096.35	865.140938	275.6	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:41:46 PM

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T17:53:40	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	1.88	128539.87	462.536206	28.1	false
PFHxA_2	313.0 / 119.0	1.88	8530.36	426.082853	19.6	false
PFHxS_1	399.0 / 80.0	2.31	201935.55	554.491852	245.6	false
PFHxS_2	399.0 / 99.0	2.31	60601.70	583.696961	303.3	false
PFOS_1	499.0 / 80.0	3.10	276075.96	523.903404	174.9	false
PFOS_2	499.0 / 99.0	3.10	45916.44	473.131452	254.9	false
PFOA_1	413.0 / 369.0	2.70	166140.26	473.437432	215.8	false
PFOA_2	413.0 / 369.0	2.70	166140.26	473.437432	215.8	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:41:51 PM

Sample Name	KB77 CCV	**Injection Vial**	13
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:04:05	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	1.85	522909.91	2481.381808	60.5	false
PFHxA_2	313.0 / 119.0	1.85	39226.70	2555.100258	49.9	false
PFHxS_1	399.0 / 80.0	2.29	777342.28	2610.058343	503.7	false
PFHxS_2	399.0 / 99.0	2.28	225405.51	2651.183730	812.1	false
PFOS_1	499.0 / 80.0	3.07	1213506.01	2655.453547	321.9	false
PFOS_2	499.0 / 99.0	3.07	213979.89	2638.171601	443.2	false
PFOA_1	413.0 / 369.0	2.67	775348.48	2629.464130	531.1	false
PFOA_2	413.0 / 369.0	2.67	775348.48	2629.464130	531.1	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:41:56 PM

Sample Name	KB76 CCV	**Injection Vial**	19
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T21:09:15	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFHxA_1	313.0 / 269.0	1.85	205055.27	960.284513	35.1	false
PFHxA_2	313.0 / 119.0	1.85	15901.70	1027.723102	22.1	false
PFHxS_1	399.0 / 80.0	2.28	321497.52	964.108612	447.1	false
PFHxS_2	399.0 / 99.0	2.28	97323.82	1023.241963	618.7	false
PFOS_1	499.0 / 80.0	3.06	531456.49	1150.937916	256.5	false
PFOS_2	499.0 / 99.0	3.06	99115.18	1198.591588	353.0	false
PFOA_1	413.0 / 369.0	2.67	306888.95	1024.233594	265.2	false
PFOA_2	413.0 / 369.0	2.67	306888.95	1024.233594	265.2	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 25/10/2018 2:52:53 PM

Sample Name	KB77 CCV	**Injection Vial**	10
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:00:57	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_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	718186.47	2562.998949	847.1	false
PFBS_2	298.9 / 99.0	1.53	214908.34	2587.999921	608.1	false
PFHxA_1	313.0 / 269.0	1.85	526043.90	2323.122167	32.0	false
PFHxA_2	313.0 / 119.0	1.85	40056.28	2428.857506	28.5	false
PFHpA_1	363.0 / 319.0	2.26	508254.37	2378.122793	179.1	false
PFHpA_2	363.0 / 169.0	2.26	10597.25	2513.281219	191.1	false
PFHxS_1	399.0 / 80.0	2.28	770889.85	2619.185089	495.5	false
PFHxS_2	399.0 / 99.0	2.28	218867.30	2604.577433	565.3	false
PFOA_1	413.0 / 369.0	2.67	787209.51	2376.087991	377.0	false
PFOA_2	413.0 / 169.0	2.67	45016.60	2307.288920	391.6	false
PFNA_1	463.0 / 419.0	3.06	699321.28	2584.893479	614.1	false
PFNA_2	463.0 / 219.0	3.06	215195.72	2599.474783	587.7	false
PFOS_1	499.0 / 80.0	3.06	1155965.05	2592.281562	400.0	false
PFOS_2	499.0 / 99.0	3.06	206827.03	2613.198284	514.4	false
PFDA_1	513.0 / 469.0	3.42	861288.15	2512.700967	614.7	false
PFDA_2	513.0 / 219.0	3.42	35769.86	2615.208399	399.9	false
PFUnA_1	563.0 / 519.0	3.75	814796.89	2297.514800	459.1	false
PFUnA_2	563.0 / 269.0	3.75	41142.90	2384.952859	320.3	false
PFDoA_1	613.0 / 569.0	4.03	695411.71	2616.068012	552.6	false
PFDoA_2	613.0 / 319.0	4.03	105776.85	2562.841631	429.8	false
PFTrDA_1	663.0 / 619.0	4.27	626640.87	2560.180287	914.5	false
PFTrDA_2	663.0 / 169.0	4.27	39893.29	2556.996959	565.5	false
PFTeDA_1	713.0 / 669.0	4.49	675228.13	2463.432720	1386.2	false
PFTeDA_2	713.0 / 169.0	4.49	32454.61	2551.584634	873.3	false
NMeFOSAA_1	570.0 / 419.0	3.58	125741.34	2951.358183	740.7	false
NMeFOSAA_2	570.0 / 512.0	3.58	64210.06	2703.239203	765.9	false
NEtFOSAA_1	584.0 / 419.0	3.74	118745.48	2624.629650	931.6	false
NEtFOSAA_2	584.0 / 483.0	3.74	7418.27	2801.394064	195.9	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 25/10/2018 2:52:56 PM

Sample Name	KB76 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:55:18	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_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	343695.18	1026.780497	438.0	false
PFBS_2	298.9 / 99.0	1.54	101565.99	1017.651677	409.0	false
PFHxA_1	313.0 / 269.0	1.86	253201.19	941.060884	19.2	false
PFHxA_2	313.0 / 119.0	1.86	18940.57	971.327677	18.3	false
PFHpA_1	363.0 / 319.0	2.27	240113.27	926.002417	133.0	false
PFHpA_2	363.0 / 169.0	2.27	4641.90	905.181070	102.8	false
PFHxS_1	399.0 / 80.0	2.29	378961.06	1019.594120	259.9	false
PFHxS_2	399.0 / 99.0	2.29	111572.82	1051.965054	353.2	false
PFOA_1	413.0 / 369.0	2.67	378387.07	1012.967537	288.9	false
PFOA_2	413.0 / 169.0	2.67	21345.26	987.217356	248.1	false
PFNA_1	463.0 / 419.0	3.07	335990.52	1016.520398	425.7	false
PFNA_2	463.0 / 219.0	3.07	107586.22	1066.565145	464.5	false
PFOS_1	499.0 / 80.0	3.07	566745.14	1107.566749	240.8	false
PFOS_2	499.0 / 99.0	3.07	101379.91	1104.261103	509.1	false
PFDA_1	513.0 / 469.0	3.42	401837.03	953.728410	385.6	false
PFDA_2	513.0 / 219.0	3.42	14893.84	878.787273	183.2	false
PFUnA_1	563.0 / 519.0	3.75	373703.12	928.143634	375.5	false
PFUnA_2	563.0 / 269.0	3.75	21054.91	1016.099273	253.8	false
PFDoA_1	613.0 / 569.0	4.03	332778.56	1005.226567	407.6	false
PFDoA_2	613.0 / 319.0	4.03	48952.70	946.057374	364.8	false
PFTrDA_1	663.0 / 619.0	4.28	287004.79	1031.924583	722.9	false
PFTrDA_2	663.0 / 169.0	4.27	19640.58	1101.472362	417.4	false
PFTeDA_1	713.0 / 669.0	4.49	317131.71	1018.000305	1092.1	false
PFTeDA_2	713.0 / 169.0	4.49	14878.85	1016.316736	596.8	false
NMeFOSAA_1	570.0 / 419.0	3.58	64923.82	1244.287040	684.4	false
NMeFOSAA_2	570.0 / 512.0	3.58	33823.89	1105.681002	445.6	false
NEtFOSAA_1	584.0 / 419.0	3.74	59420.84	1007.838275	522.9	false
NEtFOSAA_2	584.0 / 483.0	3.74	3437.35	937.756710	200.4	false

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:54:11 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T17:07:01	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.080	0.071	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.060	0.067	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.300	0.301	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.190	0.177	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.050	0.055	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.150	0.159	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.32	PFTrDA	0.060	0.067	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.560	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.070	0.065	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:54:16 PM

Sample Name	KB76 CCV	**Injection Vial**	7
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T03:58:51	**Data File**	18-0581_18-0584A.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.310	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.071	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	0.050	0.067	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.300	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.177	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.055	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.170	0.159	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.060	0.067	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.520	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.065	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:54:20 PM

Sample Name	KB77 CCV	**Injection Vial**	19
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:09:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.310	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.071	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.65	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.067	ü
PFNA_1	463.0 / 419.0	3.05	PFNA			
PFNA_2	463.0 / 219.0	3.05	PFNA	0.310	0.301	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.170	0.177	ü
PFDA_1	513.0 / 469.0	3.40	PFDA			
PFDA_2	513.0 / 219.0	3.40	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	3.72	PFUnA			
PFUnA_2	563.0 / 269.0	3.72	PFUnA	0.040	0.055	ü
PFDoA_1	613.0 / 569.0	4.00	PFDoA			
PFDoA_2	613.0 / 319.0	4.00	PFDoA	0.150	0.159	ü
PFTrDA_1	663.0 / 619.0	4.25	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.25	PFTrDA	0.060	0.067	ü
PFTeDA_1	713.0 / 669.0	4.46	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.46	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.56	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.56	NMeFOSAA	0.560	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.72	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.72	NEtFOSAA	0.060	0.065	ü

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Summary Ion Ratio Report

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Printed: 19/10/2018 4:54:25 PM

Sample Name	KB76 CCV	**Injection Vial**	31
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:19:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.280	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.071	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	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.067	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.300	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.177	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.055	ü
PFDoA_1	613.0 / 569.0	4.01	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.160	0.159	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.25	PFTrDA	0.070	0.067	ü
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.56	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.56	NMeFOSAA	0.550	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.72	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.080	0.065	ü

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Summary Ion Ratio Report

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Sample Name	KB77 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:30:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.071	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	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	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	0.067	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.177	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.055	ü
PFDoA_1	613.0 / 569.0	4.01	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.160	0.159	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.25	PFTrDA	0.060	0.067	ü
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.56	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.56	NMeFOSAA	0.550	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.72	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.72	NEtFOSAA	0.060	0.065	ü

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Summary Ion Ratio Report

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Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.080	0.072	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.280	0.285	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.180	0.185	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 369.0	2.68	PFOA	1.000	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:57:43 PM

Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T17:53:40	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.070	0.072	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.300	0.285	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.170	0.185	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 369.0	2.70	PFOA	1.000	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:57:48 PM

Sample Name	KB77 CCV	**Injection Vial**	13
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:04:05	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.072	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.285	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.180	0.185	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 369.0	2.67	PFOA	1.000	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:57:52 PM

Sample Name	KB76 CCV	**Injection Vial**	19
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T21:09:15	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.072	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.300	0.285	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.190	0.185	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 369.0	2.67	PFOA	1.000	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 25/10/2018 3:12:00 PM

Sample Name	KB77 CCV	**Injection Vial**	10
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:00:57	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.072	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.020	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	0.058	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.75	PFUnA			
PFUnA_2	563.0 / 269.0	3.75	PFUnA	0.050	0.054	ü
PFDoA_1	613.0 / 569.0	4.03	PFDoA			
PFDoA_2	613.0 / 319.0	4.03	PFDoA	0.150	0.158	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	4.49	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.49	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.58	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.58	NMeFOSAA	0.510	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.74	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.74	NEtFOSAA	0.060	0.074	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 25/10/2018 3:12:04 PM

Sample Name	KB76 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:55:18	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.070	0.072	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.020	0.020	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.058	ü
PFNA_1	463.0 / 419.0	3.07	PFNA			
PFNA_2	463.0 / 219.0	3.07	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.180	0.185	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.75	PFUnA			
PFUnA_2	563.0 / 269.0	3.75	PFUnA	0.060	0.054	ü
PFDoA_1	613.0 / 569.0	4.03	PFDoA			
PFDoA_2	613.0 / 319.0	4.03	PFDoA	0.150	0.158	ü
PFTrDA_1	663.0 / 619.0	4.28	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.27	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.49	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.49	PFTeDA	0.050	0.048	ü
NMeFOSAA_1	570.0 / 419.0	3.58	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.58	NMeFOSAA	0.520	0.575	ü
NEtFOSAA_1	584.0 / 419.0	3.74	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.74	NEtFOSAA	0.060	0.074	ü

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Summary Internal Standard Report

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Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T17:07:01	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	29931.35	232.25
PFBS_2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	29931.35	232.25
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	64623.54	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	64623.54	250.00
PFHpA_1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	78532.71	250.00
PFHpA_2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	78532.71	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	24557.37	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	24557.37	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	89341.23	250.00
PFOA_2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	89341.23	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	101923.17	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	101923.17	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	29911.21	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	29911.21	239.25
PFDA_1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	95291.86	250.00
PFDA_2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	95291.86	250.00
PFUnA_1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	92564.48	250.00
PFUnA_2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	92564.48	250.00
PFDoA_1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	94777.21	250.00
PFDoA_2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	94777.21	250.00
PFTrDA_1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	75318.87	250.00
PFTrDA_2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	75318.87	250.00
PFTeDA_1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	75318.87	250.00
PFTeDA_2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	75318.87	250.00
NMeFOSAA_1	570.0 / 419.0	3.61	d3-MeFOSAA	573.0 / 419.0	16424.82	250.00
NMeFOSAA_2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	16424.82	250.00
NEtFOSAA_1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	16839.54	250.00
NEtFOSAA_2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	16839.54	250.00

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Summary Internal Standard Report

Created with Analyst Reporter
Printed: 19/10/2018 4:15:25 PM

Sample Name	KB76 CCV	**Injection Vial**	7
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T03:58:51	**Data File**	18-0581_18-0584A.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	27856.05	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	27856.05	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	63730.73	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	63730.73	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	69369.51	250.00
PFHpA_2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	69369.51	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	24720.51	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	24720.51	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	95175.08	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	95175.08	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	96151.22	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	96151.22	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	28662.60	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	28662.60	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	103167.52	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	103167.52	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	99960.81	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	99960.81	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	96900.58	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	96900.58	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	75848.36	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	75848.36	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	75848.36	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	75848.36	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	15206.31	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	15206.31	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	18525.87	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	18525.87	250.00

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Summary Internal Standard Report

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Sample Name	KB77 CCV	**Injection Vial**	19
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:09:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	27551.68	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	27551.68	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	69847.27	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	69847.27	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	77716.86	250.00
PFHpA_2	363.0 / 169.0	2.24	13C4-PFHpA	367.0 / 322.0	77716.86	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	25375.96	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	25375.96	236.50
PFOA_1	413.0 / 369.0	2.65	13C8-PFOA	421.0 / 376.0	95989.91	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	95989.91	250.00
PFNA_1	463.0 / 419.0	3.05	13C9-PFNA	472.0 / 427.0	104631.42	250.00
PFNA_2	463.0 / 219.0	3.05	13C9-PFNA	472.0 / 427.0	104631.42	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	28130.52	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	28130.52	239.25
PFDA_1	513.0 / 469.0	3.40	13C6-PFDA	519.0 / 474.0	95859.39	250.00
PFDA_2	513.0 / 219.0	3.40	13C6-PFDA	519.0 / 474.0	95859.39	250.00
PFUnA_1	563.0 / 519.0	3.72	13C7-PFUnA	570.0 / 525.0	105936.24	250.00
PFUnA_2	563.0 / 269.0	3.72	13C7-PFUnA	570.0 / 525.0	105936.24	250.00
PFDoA_1	613.0 / 569.0	4.00	13C2-PFDoA	615.0 / 570.0	106631.11	250.00
PFDoA_2	613.0 / 319.0	4.00	13C2-PFDoA	615.0 / 570.0	106631.11	250.00
PFTrDA_1	663.0 / 619.0	4.25	13C2-PFTeDA	715.0 / 670.0	76904.00	250.00
PFTrDA_2	663.0 / 169.0	4.25	13C2-PFTeDA	715.0 / 670.0	76904.00	250.00
PFTeDA_1	713.0 / 669.0	4.46	13C2-PFTeDA	715.0 / 670.0	76904.00	250.00
PFTeDA_2	713.0 / 169.0	4.46	13C2-PFTeDA	715.0 / 670.0	76904.00	250.00
NMeFOSAA_1	570.0 / 419.0	3.56	d3-MeFOSAA	573.0 / 419.0	15092.16	250.00
NMeFOSAA_2	570.0 / 512.0	3.56	d3-MeFOSAA	573.0 / 419.0	15092.16	250.00
NEtFOSAA_1	584.0 / 419.0	3.72	d5-EtFOSAA	589.0 / 419.0	16673.18	250.00
NEtFOSAA_2	584.0 / 483.0	3.72	d5-EtFOSAA	589.0 / 419.0	16673.18	250.00

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Summary Internal Standard Report

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Sample Name	KB76 CCV	**Injection Vial**	31
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:19:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	27574.94	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	27574.94	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	59896.30	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	59896.30	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	66602.60	250.00
PFHpA_2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	66602.60	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	24548.95	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	24548.95	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	93236.40	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	93236.40	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	92420.29	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	92420.29	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	29194.69	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	29194.69	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	103680.11	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	103680.11	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	89587.00	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	89587.00	250.00
PFDoA_1	613.0 / 569.0	4.01	13C2-PFDoA	615.0 / 570.0	93935.05	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	93935.05	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	68658.20	250.00
PFTrDA_2	663.0 / 169.0	4.25	13C2-PFTeDA	715.0 / 670.0	68658.20	250.00
PFTeDA_1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	68658.20	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	68658.20	250.00
NMeFOSAA_1	570.0 / 419.0	3.56	d3-MeFOSAA	573.0 / 419.0	15528.58	250.00
NMeFOSAA_2	570.0 / 512.0	3.56	d3-MeFOSAA	573.0 / 419.0	15528.58	250.00
NEtFOSAA_1	584.0 / 419.0	3.72	d5-EtFOSAA	589.0 / 419.0	16469.95	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	16469.95	250.00

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Summary Internal Standard Report

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Sample Name	KB77 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:30:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	28869.88	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	28869.88	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	65528.35	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	65528.35	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	68918.16	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	68918.16	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	24709.70	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	24709.70	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	91873.51	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	91873.51	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	100238.62	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	100238.62	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	28268.80	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	28268.80	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	104341.79	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	104341.79	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	95340.71	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	95340.71	250.00
PFDoA_1	613.0 / 569.0	4.01	13C2-PFDoA	615.0 / 570.0	101293.76	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	101293.76	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	77012.58	250.00
PFTrDA_2	663.0 / 169.0	4.25	13C2-PFTeDA	715.0 / 670.0	77012.58	250.00
PFTeDA_1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	77012.58	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	77012.58	250.00
NMeFOSAA_1	570.0 / 419.0	3.56	d3-MeFOSAA	573.0 / 419.0	16455.98	250.00
NMeFOSAA_2	570.0 / 512.0	3.56	d3-MeFOSAA	573.0 / 419.0	16455.98	250.00
NEtFOSAA_1	584.0 / 419.0	3.72	d5-EtFOSAA	589.0 / 419.0	17530.11	250.00
NEtFOSAA_2	584.0 / 483.0	3.72	d5-EtFOSAA	589.0 / 419.0	17530.11	250.00

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Summary Internal Standard Report

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Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T17:07:01	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	95331.22	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	30554.31	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	30554.31	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	95393.87	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	95393.87	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	95393.87	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	95393.87	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	95331.22	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	95331.22	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	95331.22	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	30554.31	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	30554.31	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	30554.31	239.25

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Summary Internal Standard Report

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Sample Name	KB76 CCV	**Injection Vial**	7
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T03:58:51	**Data File**	18-0581_18-0584A.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	104741.82	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	29067.50	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	29067.50	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	90750.56	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	90750.56	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	90750.56	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	90750.56	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	104741.82	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	104741.82	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	104741.82	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	29067.50	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29067.50	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	29067.50	239.25

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Summary Internal Standard Report

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Sample Name	KB77 CCV	**Injection Vial**	19
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:09:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	3.99	13C2-PFDA	515.0 / 470.0	110224.25	250.00
d3-MeFOSAA	573.0 / 419.0	3.55	13C4-PFOS	503.0 / 99.0	31259.66	239.25
d5-EtFOSAA	589.0 / 419.0	3.71	13C4-PFOS	503.0 / 99.0	31259.66	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	91381.43	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	91381.43	250.00
13C8-PFOA	421.0 / 376.0	2.64	13C2-PFOA	415.0 / 370.0	91381.43	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	91381.43	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	110224.25	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	110224.25	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	110224.25	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	31259.66	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	31259.66	239.25
13C8-PFOS	507.0 / 99.0	3.03	13C4-PFOS	503.0 / 99.0	31259.66	239.25

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Summary Internal Standard Report

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Sample Name	KB76 CCV	**Injection Vial**	31
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:19:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	95691.73	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	29847.92	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	29847.92	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	80778.58	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	80778.58	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	80778.58	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	80778.58	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	95691.73	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	95691.73	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	95691.73	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	29847.92	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29847.92	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	29847.92	239.25

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Summary Internal Standard Report

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Sample Name	KB77 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:30:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	101047.64	250.00
d3-MeFOSAA	573.0 / 419.0	3.55	13C4-PFOS	503.0 / 99.0	34888.65	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	34888.65	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	94528.26	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	94528.26	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	94528.26	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	94528.26	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	101047.64	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	101047.64	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	101047.64	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	34888.65	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	34888.65	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	34888.65	239.25

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Summary Internal Standard Report

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Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	61132.74	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	61132.74	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	27470.00	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	27470.00	236.50
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	24828.88	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	24828.88	239.25
PFOA_1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	87660.16	250.00
PFOA_2	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	87660.16	250.00

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Summary Internal Standard Report

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Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T17:53:40	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	67602.21	250.00
PFHxA_2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	67602.21	250.00
PFHxS_1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	24499.91	236.50
PFHxS_2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	24499.91	236.50
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	26404.17	239.25
PFOS_2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	26404.17	239.25
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	84528.98	250.00
PFOA_2	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	84528.98	250.00

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Summary Internal Standard Report

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Sample Name	KB77 CCV	**Injection Vial**	13
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:04:05	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	52852.90	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	52852.90	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	20481.46	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	20481.46	236.50
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	23290.15	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	23290.15	239.25
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	70924.09	250.00
PFOA_2	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	70924.09	250.00

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Summary Internal Standard Report

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Sample Name	KB76 CCV	**Injection Vial**	19
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T21:09:15	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	52959.63	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	52959.63	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	22699.98	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	22699.98	236.50
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	23404.64	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	23404.64	239.25
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	72104.57	250.00
PFOA_2	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	72104.57	250.00

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Summary Internal Standard Report

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Sample Name	KB77 CCV	**Injection Vial**	10
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:00:57	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_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	23645.32	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	23645.32	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	56764.29	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	56764.29	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	61406.00	250.00
PFHpA_2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	61406.00	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	20241.10	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	20241.10	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	79690.51	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	79690.51	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	76374.99	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	76374.99	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	22724.12	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	22724.12	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	82603.27	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	82603.27	250.00
PFUnA_1	563.0 / 519.0	3.75	13C7-PFUnA	570.0 / 525.0	82647.91	250.00
PFUnA_2	563.0 / 269.0	3.75	13C7-PFUnA	570.0 / 525.0	82647.91	250.00
PFDoA_1	613.0 / 569.0	4.03	13C2-PFDoA	615.0 / 570.0	74607.32	250.00
PFDoA_2	613.0 / 319.0	4.03	13C2-PFDoA	615.0 / 570.0	74607.32	250.00
PFTrDA_1	663.0 / 619.0	4.27	13C2-PFTeDA	715.0 / 670.0	60236.79	250.00
PFTrDA_2	663.0 / 169.0	4.27	13C2-PFTeDA	715.0 / 670.0	60236.79	250.00
PFTeDA_1	713.0 / 669.0	4.49	13C2-PFTeDA	715.0 / 670.0	60236.79	250.00
PFTeDA_2	713.0 / 169.0	4.49	13C2-PFTeDA	715.0 / 670.0	60236.79	250.00
NMeFOSAA_1	570.0 / 419.0	3.58	d3-MeFOSAA	573.0 / 419.0	11366.52	250.00
NMeFOSAA_2	570.0 / 512.0	3.58	d3-MeFOSAA	573.0 / 419.0	11366.52	250.00
NEtFOSAA_1	584.0 / 419.0	3.74	d5-EtFOSAA	589.0 / 419.0	11262.87	250.00
NEtFOSAA_2	584.0 / 483.0	3.74	d5-EtFOSAA	589.0 / 419.0	11262.87	250.00

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Summary Internal Standard Report

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Sample Name	KB76 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:55:18	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_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	28034.95	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	28034.95	232.25
PFHxA_1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	66705.38	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	66705.38	250.00
PFHpA_1	363.0 / 319.0	2.27	13C4-PFHpA	367.0 / 322.0	74246.27	250.00
PFHpA_2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	74246.27	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	25323.35	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	25323.35	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	89892.87	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	89892.87	250.00
PFNA_1	463.0 / 419.0	3.07	13C9-PFNA	472.0 / 427.0	90755.31	250.00
PFNA_2	463.0 / 219.0	3.07	13C9-PFNA	472.0 / 427.0	90755.31	250.00
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	25926.26	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	25926.26	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	100845.53	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	100845.53	250.00
PFUnA_1	563.0 / 519.0	3.75	13C7-PFUnA	570.0 / 525.0	93858.30	250.00
PFUnA_2	563.0 / 269.0	3.75	13C7-PFUnA	570.0 / 525.0	93858.30	250.00
PFDoA_1	613.0 / 569.0	4.03	13C2-PFDoA	615.0 / 570.0	91349.64	250.00
PFDoA_2	613.0 / 319.0	4.03	13C2-PFDoA	615.0 / 570.0	91349.64	250.00
PFTrDA_1	663.0 / 619.0	4.28	13C2-PFTeDA	715.0 / 670.0	67140.53	250.00
PFTrDA_2	663.0 / 169.0	4.27	13C2-PFTeDA	715.0 / 670.0	67140.53	250.00
PFTeDA_1	713.0 / 669.0	4.49	13C2-PFTeDA	715.0 / 670.0	67140.53	250.00
PFTeDA_2	713.0 / 169.0	4.49	13C2-PFTeDA	715.0 / 670.0	67140.53	250.00
NMeFOSAA_1	570.0 / 419.0	3.58	d3-MeFOSAA	573.0 / 419.0	13353.17	250.00
NMeFOSAA_2	570.0 / 512.0	3.58	d3-MeFOSAA	573.0 / 419.0	13353.17	250.00
NEtFOSAA_1	584.0 / 419.0	3.74	d5-EtFOSAA	589.0 / 419.0	14961.90	250.00
NEtFOSAA_2	584.0 / 483.0	3.74	d5-EtFOSAA	589.0 / 419.0	14961.90	250.00

Raw Analytical Data

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Summary Quant Report

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Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:56:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	4650.27	< 0	35.7	true
PFBS_2	298.9 / 99.0	1.54	1543.16	< 0	27.0	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	2.32	6241.38	6.137052	20.8	false
PFHxS_2	399.0 / 99.0	2.32	1296.56	< 0	20.2	false
PFOA_1	413.0 / 369.0	2.70	7733.59	< 0	20.4	false
PFOA_2	413.0 / 169.0	2.70	663.55	< 0	19.9	false
PFNA_1	463.0 / 419.0	3.10	6565.33	< 0	34.0	false
PFNA_2	463.0 / 219.0	3.10	2301.01	< 0	34.7	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	3.46	5592.88	< 0	35.0	false
PFDA_2	513.0 / 219.0	3.48	592.26	< 0	17.9	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	4.08	5036.33	< 0	63.5	false
PFDoA_2	613.0 / 319.0	4.07	951.74	< 0	26.1	false
PFTrDA_1	663.0 / 619.0	4.32	4811.21	< 0	133.6	true
PFTrDA_2	663.0 / 169.0	4.33	466.34	< 0	22.0	false
PFTeDA_1	713.0 / 669.0	4.55	5592.95	< 0	180.0	false
PFTeDA_2	713.0 / 169.0	4.55	379.25	< 0	37.4	false
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	CR888PB-FS(3)	**Injection Vial**	9
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:20:36	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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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Printed: 19/10/2018 4:32:37 PM

Sample Name	CR889LCS-FS(3)	**Injection Vial**	10
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:31:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	2347182.53	4529.366001	1420.1	false
PFBS_2	298.9 / 99.0	1.53	700463.58	4568.852989	785.4	false
PFHxA_1	313.0 / 269.0	1.85	1670569.95	4700.699363	279.2	false
PFHxA_2	313.0 / 119.0	1.85	123658.42	4682.431050	205.3	false
PFHpA_1	363.0 / 319.0	2.25	1572157.10	4214.032758	477.6	false
PFHpA_2	363.0 / 169.0	2.25	31496.66	4199.884053	365.7	false
PFHxS_1	399.0 / 80.0	2.28	2352634.84	4131.890130	568.3	false
PFHxS_2	399.0 / 99.0	2.28	653706.64	4091.000672	817.7	false
PFOA_1	413.0 / 369.0	2.66	2415969.91	5218.388638	798.9	false
PFOA_2	413.0 / 169.0	2.66	144162.10	4896.980582	566.5	false
PFNA_1	463.0 / 419.0	3.06	2261822.43	5264.173424	885.7	false
PFNA_2	463.0 / 219.0	3.06	648742.98	4954.253797	939.9	false
PFOS_1	499.0 / 80.0	3.06	3281947.80	4273.739394	398.4	false
PFOS_2	499.0 / 99.0	3.06	585661.00	4365.380009	861.3	false
PFDA_1	513.0 / 469.0	3.42	2537877.31	4947.520408	1025.0	false
PFDA_2	513.0 / 219.0	3.42	105434.72	4767.536864	521.8	false
PFUnA_1	563.0 / 519.0	3.74	2647466.26	4718.137739	673.6	false
PFUnA_2	563.0 / 269.0	3.74	123712.39	4381.519690	601.4	false
PFDoA_1	613.0 / 569.0	4.02	2377094.81	4477.169700	694.3	false
PFDoA_2	613.0 / 319.0	4.02	380544.80	4560.374654	633.6	false
PFTrDA_1	663.0 / 619.0	4.27	2118018.39	4982.590346	1228.9	false
PFTrDA_2	663.0 / 169.0	4.26	137725.49	5019.092536	791.5	false
PFTeDA_1	713.0 / 669.0	4.48	2329858.08	4798.605319	1564.1	false
PFTeDA_2	713.0 / 169.0	4.48	110385.30	4701.774347	1314.6	false
NMeFOSAA_1	570.0 / 419.0	3.57	436878.53	4550.471261	909.3	false
NMeFOSAA_2	570.0 / 512.0	3.57	229875.72	4319.097197	770.1	false
NEtFOSAA_1	584.0 / 419.0	3.73	425551.27	4390.502873	955.0	false
NEtFOSAA_2	584.0 / 483.0	3.73	27485.82	4582.523814	2079.8	false

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Summary Quant Report

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Printed: 23/10/2018 10:58:23 AM

Sample Name	J8310-FS(3)	**Injection Vial**	11
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:42:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	19062.65	29.616702	108.8	false
PFBS_2	298.9 / 99.0	1.53	6154.28	23.034254	78.3	false
PFHxA_1	313.0 / 269.0	1.85	104551.39	264.211316	46.6	false
PFHxA_2	313.0 / 119.0	1.85	7865.69	295.731965	33.9	false
PFHpA_1	363.0 / 319.0	2.26	25836.04	45.533691	43.1	false
PFHpA_2	363.0 / 169.0	2.25	606.81	22.363344	37.6	true
PFHxS_1	399.0 / 80.0	2.28	503788.06	1129.946573	387.6	false
PFHxS_2	399.0 / 99.0	2.28	153398.04	1222.050505	601.3	false
PFOA_1	413.0 / 369.0	2.66	350639.17	744.970888	295.1	false
PFOA_2	413.0 / 169.0	2.66	20152.31	640.408528	209.3	false
PFNA_1	463.0 / 419.0	3.06	200731.35	578.712127	273.8	false
PFNA_2	463.0 / 219.0	3.06	65367.71	626.023677	336.3	false
PFOS_1	499.0 / 80.0	3.06	55733073.89	110368.673901	2126.3	false
PFOS_2	499.0 / 99.0	3.06	11564693.39	131243.365102	4427.3	false
PFDA_1	513.0 / 469.0	3.42	371489.03	754.862706	307.4	false
PFDA_2	513.0 / 219.0	3.42	16997.78	790.117133	175.8	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	34439.58	36.927360	137.1	false
PFDoA_2	613.0 / 319.0	4.02	5310.49	28.059734	86.7	true
PFTrDA_1	663.0 / 619.0	4.20	38412.01	84.133792	249.7	false
PFTrDA_2	663.0 / 169.0	4.19	11876.21	478.710851	212.3	false
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	3.73	7491.31	96.325785	128.5	false
NEtFOSAA_2	584.0 / 483.0	3.74	380.54	58.538821	10168.5	false

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Summary Quant Report

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Sample Name	J8310-FS-D(5)	**Injection Vial**	12
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:53:13	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.06	13908445.79	25425.635653	1600.4	false
PFOS_2	499.0 / 99.0	3.06	2769981.68	29015.589840	2115.5	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	J8311-FS(3)	**Injection Vial**	13
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:04:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	30786.14	57.679750	123.9	false
PFBS_2	298.9 / 99.0	1.53	10622.27	59.296440	129.9	false
PFHxA_1	313.0 / 269.0	1.84	201533.12	593.233448	67.8	false
PFHxA_2	313.0 / 119.0	1.84	13726.36	564.884293	58.4	false
PFHpA_1	363.0 / 319.0	2.25	47446.35	109.235696	70.4	false
PFHpA_2	363.0 / 169.0	2.25	967.88	74.758849	68.0	false
PFHxS_1	399.0 / 80.0	2.28	940227.56	2084.436231	369.2	false
PFHxS_2	399.0 / 99.0	2.27	268617.18	2118.831619	544.2	false
PFOA_1	413.0 / 369.0	2.66	508259.51	1112.015361	355.2	false
PFOA_2	413.0 / 169.0	2.66	31285.98	1048.741331	299.1	false
PFNA_1	463.0 / 419.0	3.06	134962.80	408.187176	191.7	false
PFNA_2	463.0 / 219.0	3.06	42052.68	423.145720	193.6	false
PFOS_1	499.0 / 80.0	3.06	72147624.62	143543.685733	2871.3	false
PFOS_2	499.0 / 99.0	3.06	16946346.24	193221.688370	4962.7	false
PFDA_1	513.0 / 469.0	3.41	65502.33	82.248728	130.2	false
PFDA_2	513.0 / 219.0	3.41	2961.45	71.612485	81.5	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	4.00	9217.84	< 0	73.4	false
PFDoA_2	613.0 / 319.0	4.01	1075.16	< 0	28.1	true
PFTrDA_1	663.0 / 619.0	4.19	46944.43	110.997890	274.8	false
PFTrDA_2	663.0 / 169.0	4.19	15438.36	649.214495	301.7	false
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	J8311-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:14:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.05	12536991.26	21823.971614	1424.8	false
PFOS_2	499.0 / 99.0	3.05	2542645.01	25361.927783	2015.3	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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Printed: 23/10/2018 10:58:34 AM

Sample Name	J8312-FS(3)	**Injection Vial**	15
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:25:51	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	5648811.79	13090.492805	2244.6	false
PFBS_2	298.9 / 99.0	1.53	1741307.12	13661.533981	1400.7	false
PFHxA_1	313.0 / 269.0	1.84	13729329.75	47424.741979	583.2	false
PFHxA_2	313.0 / 119.0	1.85	876465.42	40510.927253	461.2	false
PFHpA_1	363.0 / 319.0	2.25	1009974.08	3305.735165	293.9	false
PFHpA_2	363.0 / 169.0	2.22	28459.52	4653.141315	257.6	false
PFHxS_1	399.0 / 80.0	2.28	37090072.17	89554.391078	1006.3	false
PFHxS_2	399.0 / 99.0	2.28	12117465.27	104433.794961	1201.5	false
PFOA_1	413.0 / 369.0	2.66	2768291.56	8318.344351	630.1	false
PFOA_2	413.0 / 169.0	2.62	268051.65	12745.167446	384.2	false
PFNA_1	463.0 / 419.0	3.01	43279.32	133.624094	82.9	false
PFNA_2	463.0 / 219.0	3.05	6886.12	54.693353	61.8	true
PFOS_1	499.0 / 80.0	2.99	157013895.52	406844.828613	470.3	false
PFOS_2	499.0 / 99.0	3.06	32654785.41	484905.008319	1294.6	true
PFDA_1	513.0 / 469.0	3.41	22227.37	< 0	82.6	false
PFDA_2	513.0 / 219.0	3.25	1826.19	25.989059	63.0	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	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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Printed: 19/10/2018 4:33:01 PM

Sample Name	J8312-FS-D(5)	**Injection Vial**	16
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:36:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	1.84	3003498.81	10195.965114	325.0	false
PFHxA_2	313.0 / 119.0	1.84	187954.37	8553.439283	225.2	false
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.27	8825478.20	24368.439690	785.6	false
PFHxS_2	399.0 / 99.0	2.27	2513528.50	24766.969467	999.6	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	3.04	56761812.83	125014.108273	674.0	false
PFOS_2	499.0 / 99.0	3.06	9479769.50	119646.889963	1485.3	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	J8312-FS-D(7)	**Injection Vial**	17
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:47:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.27	1649471.18	4434.570248	551.8	false
PFHxS_2	399.0 / 99.0	2.27	483135.08	4629.969800	774.4	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	3.05	12815266.81	22781.026118	591.3	false
PFOS_2	499.0 / 99.0	3.05	2153830.49	21936.313123	1033.9	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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Printed: 23/10/2018 10:58:41 AM

Sample Name	J8333-FS(3)	**Injection Vial**	18
Sample ID	VC-PM324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:58:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	1509.63	< 0	18.3	true
PFBS_2	298.9 / 99.0	1.50	1626.77	< 0	23.7	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	2.25	7470.38	< 0	20.8	false
PFHpA_2	363.0 / 169.0	2.21	416.05	< 0	17.1	false
PFHxS_1	399.0 / 80.0	2.27	10978.76	9.891979	45.1	false
PFHxS_2	399.0 / 99.0	2.27	2043.92	< 0	23.6	false
PFOA_1	413.0 / 369.0	2.66	13296.22	< 0	37.7	false
PFOA_2	413.0 / 169.0	2.65	978.80	< 0	29.2	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	3.05	75409.99	119.707166	88.1	false
PFOS_2	499.0 / 99.0	3.05	12085.30	103.646727	95.5	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	J8313-FS(3)	**Injection Vial**	21
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:31:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	471089.98	961.853770	586.3	false
PFBS_2	298.9 / 99.0	1.53	143652.12	983.369756	407.6	false
PFHxA_1	313.0 / 269.0	1.84	1131845.18	3129.698669	203.6	false
PFHxA_2	313.0 / 119.0	1.84	72121.09	2688.253927	160.9	false
PFHpA_1	363.0 / 319.0	2.25	183937.07	486.967562	147.0	false
PFHpA_2	363.0 / 169.0	2.25	4090.43	509.921447	120.2	false
PFHxS_1	399.0 / 80.0	2.27	2527436.67	5186.227165	585.7	false
PFHxS_2	399.0 / 99.0	2.27	731752.43	5353.155892	882.8	false
PFOA_1	413.0 / 369.0	2.66	757826.23	1561.383223	457.1	false
PFOA_2	413.0 / 169.0	2.66	57799.65	1858.857701	317.5	false
PFNA_1	463.0 / 419.0	3.06	204649.35	749.328419	210.3	false
PFNA_2	463.0 / 219.0	3.06	61528.72	743.360794	294.7	false
PFOS_1	499.0 / 80.0	3.06	116641903.58	301838.704715	1681.3	false
PFOS_2	499.0 / 99.0	3.06	34535293.55	512161.629251	4965.7	false
PFDA_1	513.0 / 469.0	3.41	553222.82	1038.436063	359.5	false
PFDA_2	513.0 / 219.0	3.41	24500.38	1054.939275	285.3	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	4.01	89721.49	151.721840	215.4	false
PFDoA_2	613.0 / 319.0	4.01	10843.96	99.939958	139.1	false
PFTrDA_1	663.0 / 619.0	4.19	177189.43	399.271513	393.7	false
PFTrDA_2	663.0 / 169.0	4.19	61379.59	2238.486003	579.3	false
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	3.73	4980.66	70.357051	289.8	false
NEtFOSAA_2	584.0 / 483.0	3.71	164.87	19.843565	60.0	false

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Summary Quant Report

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Sample Name	J8313-FS-D(5)	**Injection Vial**	22
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:41:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.05	12736438.70	21602.914358	1300.8	false
PFOS_2	499.0 / 99.0	3.05	2292296.30	22276.994158	1568.3	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	J8314-FS(3)	**Injection Vial**	23
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:52:50	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	126821.03	265.191035	291.3	false
PFBS_2	298.9 / 99.0	1.53	40210.48	275.194319	283.3	false
PFHxA_1	313.0 / 269.0	1.84	286285.92	712.010036	80.9	false
PFHxA_2	313.0 / 119.0	1.85	18961.59	653.788763	64.5	false
PFHpA_1	363.0 / 319.0	2.25	51016.91	107.349244	74.3	false
PFHpA_2	363.0 / 169.0	2.24	1513.63	140.115123	75.4	false
PFHxS_1	399.0 / 80.0	2.27	1411757.44	2683.517933	460.9	false
PFHxS_2	399.0 / 99.0	2.27	396758.03	2684.989245	586.5	false
PFOA_1	413.0 / 369.0	2.66	284339.95	543.938167	231.9	false
PFOA_2	413.0 / 169.0	2.66	22549.13	657.032107	191.0	false
PFNA_1	463.0 / 419.0	3.06	153401.27	472.377184	224.7	false
PFNA_2	463.0 / 219.0	3.06	47918.27	490.062068	243.3	false
PFOS_1	499.0 / 80.0	3.06	95628863.60	187126.267706	1841.7	false
PFOS_2	499.0 / 99.0	3.06	25058652.06	281012.108990	6190.5	false
PFDA_1	513.0 / 469.0	3.41	170876.48	272.298108	231.1	false
PFDA_2	513.0 / 219.0	3.41	7975.27	282.828089	164.1	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	4.00	8227.17	< 0	66.1	false
PFDoA_2	613.0 / 319.0	4.01	838.62	< 0	28.4	false
PFTrDA_1	663.0 / 619.0	4.19	23317.97	30.077124	180.2	false
PFTrDA_2	663.0 / 169.0	4.19	8031.10	248.643485	226.3	false
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	J8314-FS-D(5)	**Injection Vial**	24
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:03:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.05	11519686.05	20150.726055	1329.7	false
PFOS_2	499.0 / 99.0	3.05	2135604.66	21403.981409	1484.2	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	J8315-FS(3)	**Injection Vial**	25
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:14:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	3051397.07	6343.933189	1449.5	false
PFBS_2	298.9 / 99.0	1.53	951408.45	6691.576177	1099.2	false
PFHxA_1	313.0 / 269.0	1.84	6102967.40	18328.530069	401.6	true
PFHxA_2	313.0 / 119.0	1.84	376715.50	15150.205813	370.7	true
PFHpA_1	363.0 / 319.0	2.25	768865.87	2247.545281	279.1	false
PFHpA_2	363.0 / 169.0	2.23	20113.89	2924.984566	227.5	false
PFHxS_1	399.0 / 80.0	2.27	38959997.89	81977.916727	1070.2	false
PFHxS_2	399.0 / 99.0	2.27	12406711.17	93181.661466	1173.0	false
PFOA_1	413.0 / 369.0	2.66	3573359.11	10236.862251	661.1	false
PFOA_2	413.0 / 169.0	2.63	314033.27	14232.616342	330.3	false
PFNA_1	463.0 / 419.0	3.03	70135.25	371.408690	139.8	false
PFNA_2	463.0 / 219.0	3.00	27226.68	489.472095	106.9	false
PFOS_1	499.0 / 80.0	2.96	212156509.72	799784.788069	538.6	false
PFOS_2	499.0 / 99.0	3.05	77709182.13	1678853.704576	2075.3	false
PFDA_1	513.0 / 469.0	3.41	46656.87	39.663507	142.0	false
PFDA_2	513.0 / 219.0	3.40	2132.20	27.833100	52.2	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	4.19	5341.63	< 0	100.1	false
PFTrDA_2	663.0 / 169.0	4.19	2219.59	46.414184	85.8	false
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	J8315-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:25:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	1.84	116152.89	423.208620	49.5	true
PFHxA_2	313.0 / 119.0	1.84	6715.59	343.982620	33.4	false
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.27	760070.49	2177.326338	374.7	false
PFHxS_2	399.0 / 99.0	2.27	221078.80	2253.987126	648.5	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	19309052.64	39820.196455	574.6	false
PFOS_2	499.0 / 99.0	3.05	3596933.05	42505.775312	1057.4	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	J8316-FS(3)	**Injection Vial**	27
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:36:19	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	49350.96	91.328223	170.8	false
PFBS_2	298.9 / 99.0	1.53	18150.50	106.931923	149.8	false
PFHxA_1	313.0 / 269.0	1.84	287635.28	807.748547	80.1	false
PFHxA_2	313.0 / 119.0	1.84	18536.90	717.936444	69.3	false
PFHpA_1	363.0 / 319.0	2.25	72970.13	185.003438	83.8	false
PFHpA_2	363.0 / 169.0	2.23	1461.23	148.164088	49.5	false
PFHxS_1	399.0 / 80.0	2.28	3398330.06	7261.422402	630.0	false
PFHxS_2	399.0 / 99.0	2.27	961114.66	7323.787677	894.4	false
PFOA_1	413.0 / 369.0	2.66	1081279.56	2460.026195	441.0	false
PFOA_2	413.0 / 169.0	2.65	86504.35	3092.281059	250.3	false
PFNA_1	463.0 / 419.0	3.06	196862.30	684.093116	233.8	false
PFNA_2	463.0 / 219.0	3.06	64029.02	737.612975	340.4	false
PFOS_1	499.0 / 80.0	3.05	118628232.04	293880.295413	815.0	false
PFOS_2	499.0 / 99.0	3.06	32798167.56	465644.659805	5267.6	false
PFDA_1	513.0 / 469.0	3.41	330206.70	585.084674	253.5	false
PFDA_2	513.0 / 219.0	3.41	17195.26	703.199777	208.7	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	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	4.19	44130.74	88.721104	273.9	false
PFTrDA_2	663.0 / 169.0	4.19	14039.08	516.466673	270.7	false
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	3.73	7338.41	82.198731	160.5	false
NEtFOSAA_2	584.0 / 483.0	3.73	431.14	56.177288	22.6	true

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Summary Quant Report

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Sample Name	J8316-FS-D(5)	**Injection Vial**	28
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:47:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.05	10934606.06	18687.785701	987.1	false
PFOS_2	499.0 / 99.0	3.05	2011366.36	19695.144013	1540.3	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	J8317-FS(3)	**Injection Vial**	29
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:58:03	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	479982.19	1088.957717	700.5	false
PFBS_2	298.9 / 99.0	1.53	143560.18	1092.812047	490.8	false
PFHxA_1	313.0 / 269.0	1.84	2139938.68	6501.366907	259.7	false
PFHxA_2	313.0 / 119.0	1.84	140171.08	5717.831031	222.4	false
PFHpA_1	363.0 / 319.0	2.25	311560.67	867.479057	186.7	false
PFHpA_2	363.0 / 169.0	2.24	7323.57	992.244330	158.4	false
PFHxS_1	399.0 / 80.0	2.27	11033657.25	23289.013664	735.7	false
PFHxS_2	399.0 / 99.0	2.27	3268508.27	24620.040371	1061.8	false
PFOA_1	413.0 / 369.0	2.66	1031238.40	2428.358742	466.0	false
PFOA_2	413.0 / 169.0	2.61	99164.99	3682.443333	324.4	true
PFNA_1	463.0 / 419.0	3.06	81940.45	271.633665	167.2	false
PFNA_2	463.0 / 219.0	3.06	27941.70	313.876195	218.7	false
PFOS_1	499.0 / 80.0	3.06	90395387.26	205656.291770	1528.4	false
PFOS_2	499.0 / 99.0	3.06	23890502.36	311489.085568	3089.2	false
PFDA_1	513.0 / 469.0	3.38	16773.75	< 0	61.2	false
PFDA_2	513.0 / 219.0	3.42	439.34	< 0	18.1	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	J8317-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:08:54	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.27	1223689.98	2740.275941	523.7	false
PFHxS_2	399.0 / 99.0	2.27	345921.71	2758.130148	594.6	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	17712724.41	28500.668362	1910.0	false
PFOS_2	499.0 / 99.0	3.06	3340299.93	30797.215878	2264.0	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

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Summary Quant Report

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Sample Name	J8318-FS(3)	**Injection Vial**	33
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:41:33	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	933398.93	2374.402265	882.7	false
PFBS_2	298.9 / 99.0	1.53	297942.46	2558.276035	676.6	false
PFHxA_1	313.0 / 269.0	1.84	3094221.38	10627.574413	317.8	false
PFHxA_2	313.0 / 119.0	1.84	199063.09	9165.471606	252.1	false
PFHpA_1	363.0 / 319.0	2.25	304218.20	1037.659374	171.8	false
PFHpA_2	363.0 / 169.0	2.24	7982.97	1340.598906	150.3	false
PFHxS_1	399.0 / 80.0	2.27	13662992.68	34836.257342	931.4	false
PFHxS_2	399.0 / 99.0	2.27	4059497.10	36940.594542	1072.9	false
PFOA_1	413.0 / 369.0	2.66	1570389.84	5072.236750	532.1	false
PFOA_2	413.0 / 169.0	2.64	132010.85	6732.051435	477.3	false
PFNA_1	463.0 / 419.0	3.00	59142.61	342.098732	91.9	false
PFNA_2	463.0 / 219.0	2.98	20136.84	392.021256	77.6	false
PFOS_1	499.0 / 80.0	2.97	215146391.96	947913.508459	477.3	false
PFOS_2	499.0 / 99.0	3.05	77216034.74	1949690.108668	3100.6	false
PFDA_1	513.0 / 469.0	3.36	34811.97	26.048161	77.2	false
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	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	J8318-FS-D(5)	**Injection Vial**	34
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:52:24	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.27	137039.61	343.897855	154.3	true
PFHxS_2	399.0 / 99.0	2.28	37841.48	331.653853	239.4	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	8861974.06	18673.653215	641.6	false
PFOS_2	499.0 / 99.0	3.06	1530778.62	18480.013516	1217.6	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	J8318-FS-D(7)	**Injection Vial**	35
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:03:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.27	7738417.49	18995.154504	1042.3	false
PFHxS_2	399.0 / 99.0	2.27	2216119.84	19411.156098	1113.1	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	2.97	191238789.51	707386.467185	594.6	false
PFOS_2	499.0 / 99.0	3.05	53628675.64	1136842.687864	3632.7	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

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Sample Name	J8327-FS(3)	**Injection Vial**	36
Sample ID	VC-PM323-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:14:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	43218.96	75.585860	25.6	false
PFHxA_2	313.0 / 119.0	1.84	3240.47	105.497192	24.1	false
PFHpA_1	363.0 / 319.0	2.25	15452.46	9.339980	35.9	false
PFHpA_2	363.0 / 169.0	2.28	351.33	< 0	17.6	false
PFHxS_1	399.0 / 80.0	2.28	39012.57	65.887210	100.3	false
PFHxS_2	399.0 / 99.0	2.28	11057.85	59.654385	144.1	false
PFOA_1	413.0 / 369.0	2.66	33499.01	39.373598	66.6	false
PFOA_2	413.0 / 169.0	2.66	3128.56	39.265057	65.8	false
PFNA_1	463.0 / 419.0	3.06	5219.10	< 0	25.5	false
PFNA_2	463.0 / 219.0	3.06	1024.24	< 0	18.8	false
PFOS_1	499.0 / 80.0	3.06	923479.50	1244.627730	252.3	false
PFOS_2	499.0 / 99.0	3.06	173495.17	1335.330814	459.7	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

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Sample Name	J8328-FS(3)	**Injection Vial**	37
Sample ID	VC-PM323-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:25:02	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	36694.33	63.376412	26.9	false
PFHxA_2	313.0 / 119.0	1.85	1575.47	41.899100	15.1	true
PFHpA_1	363.0 / 319.0	2.25	11632.56	2.144615	30.9	false
PFHpA_2	363.0 / 169.0	2.26	779.74	57.349746	35.6	false
PFHxS_1	399.0 / 80.0	2.28	36995.71	71.353470	90.6	false
PFHxS_2	399.0 / 99.0	2.28	11222.17	71.112315	125.2	false
PFOA_1	413.0 / 369.0	2.66	45536.78	68.451774	85.1	false
PFOA_2	413.0 / 169.0	2.65	3933.21	70.970384	55.4	true
PFNA_1	463.0 / 419.0	N/A	N/A	N/A	N/A	true
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.03	228284.79	395.333461	126.7	false
PFOS_2	499.0 / 99.0	3.06	36163.98	352.507261	163.8	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	J8329-FS(3)	**Injection Vial**	38
Sample ID	VC-PM323-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:35:55	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	1.84	18865.23	1.004233	16.2	false
PFHxA_2	313.0 / 119.0	1.84	1201.79	22.046846	10.1	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.27	27453.92	41.950745	82.5	false
PFHxS_2	399.0 / 99.0	2.27	7659.17	34.575026	96.2	false
PFOA_1	413.0 / 369.0	2.66	114288.91	223.454709	154.8	false
PFOA_2	413.0 / 169.0	2.58	11778.90	351.018222	147.4	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	62852.55	88.225878	88.2	false
PFOS_2	499.0 / 99.0	3.06	13809.50	108.184044	162.3	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	J8332-FS(3)	**Injection Vial**	39
Sample ID	VC-PM324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:46:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	7742.12	4.252582	43.5	false
PFHxS_2	399.0 / 99.0	2.28	2492.43	< 0	31.6	false
PFOA_1	413.0 / 369.0	2.66	7972.21	< 0	24.4	false
PFOA_2	413.0 / 169.0	2.65	673.59	< 0	27.2	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	143860.76	221.225997	193.9	false
PFOS_2	499.0 / 99.0	3.06	27814.92	240.718885	209.7	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

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Sample Name	J8334-FS(3)	**Injection Vial**	40
Sample ID	VC-PM324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:57:38	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	7765.02	4.566140	41.2	false
PFHxS_2	399.0 / 99.0	2.27	2764.80	1.934294	43.6	false
PFOA_1	413.0 / 369.0	2.66	7358.40	< 0	30.0	false
PFOA_2	413.0 / 169.0	2.62	403.87	< 0	15.6	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	113314.15	184.149599	115.3	false
PFOS_2	499.0 / 99.0	3.06	22615.26	206.571255	163.5	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	J8335MS-FS(3)	**Injection Vial**	41
Sample ID	VC-PM324-SB02-0506-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:08:31	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	3026373.22	7163.930190	1392.4	false
PFBS_2	298.9 / 99.0	1.53	920720.55	7373.834573	1032.6	false
PFHxA_1	313.0 / 269.0	1.84	2137595.85	7261.252420	287.3	false
PFHxA_2	313.0 / 119.0	1.84	164799.37	7518.080822	216.1	false
PFHpA_1	363.0 / 319.0	2.25	1897270.80	6964.217277	479.4	false
PFHpA_2	363.0 / 169.0	2.25	35353.62	6473.436234	452.9	false
PFHxS_1	399.0 / 80.0	2.27	3011026.72	7392.549552	571.1	false
PFHxS_2	399.0 / 99.0	2.27	863820.95	7563.643923	819.4	false
PFOA_1	413.0 / 369.0	2.66	3081921.97	7961.008421	1208.1	false
PFOA_2	413.0 / 169.0	2.66	180748.83	7360.531621	833.2	false
PFNA_1	463.0 / 419.0	3.05	2820013.96	7763.034230	959.8	false
PFNA_2	463.0 / 219.0	3.05	896540.41	8100.751357	1147.0	false
PFOS_1	499.0 / 80.0	3.05	4601528.80	8016.098372	501.1	false
PFOS_2	499.0 / 99.0	3.05	791749.79	7898.817294	586.7	false
PFDA_1	513.0 / 469.0	3.41	3244089.81	7907.610680	885.7	false
PFDA_2	513.0 / 219.0	3.41	130952.96	7413.265730	564.6	false
PFUnA_1	563.0 / 519.0	3.73	3399680.73	7246.984298	632.0	false
PFUnA_2	563.0 / 269.0	3.73	171032.22	7274.213704	533.7	false
PFDoA_1	613.0 / 569.0	4.01	3202737.71	7881.314691	731.8	false
PFDoA_2	613.0 / 319.0	4.01	496605.44	7778.871076	712.1	false
PFTrDA_1	663.0 / 619.0	4.25	2759835.25	8034.914811	1171.7	false
PFTrDA_2	663.0 / 169.0	4.25	177285.38	8005.874429	724.6	false
PFTeDA_1	713.0 / 669.0	4.47	2925730.22	7465.259258	1782.9	false
PFTeDA_2	713.0 / 169.0	4.47	140062.89	7395.053091	1197.1	false
NMeFOSAA_1	570.0 / 419.0	3.56	517020.79	7396.847721	1529.4	false
NMeFOSAA_2	570.0 / 512.0	3.56	281029.66	7246.632297	1188.5	false
NEtFOSAA_1	584.0 / 419.0	3.72	528437.05	7401.138843	859.5	false
NEtFOSAA_2	584.0 / 483.0	3.72	34718.41	7874.180576	473.4	false

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Summary Quant Report

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Printed: 19/10/2018 4:34:41 PM

Sample Name	J8336MSD-FS(3)	**Injection Vial**	42
Sample ID	VC-PM324-SB02-0506-MSD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:19:23	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	3171038.01	6834.703235	1818.2	false
PFBS_2	298.9 / 99.0	1.53	969812.37	7071.669540	1068.1	false
PFHxA_1	313.0 / 269.0	1.85	2260871.90	6910.975652	327.7	false
PFHxA_2	313.0 / 119.0	1.85	171302.83	7033.257252	217.9	false
PFHpA_1	363.0 / 319.0	2.25	2132146.36	6240.153882	528.2	false
PFHpA_2	363.0 / 169.0	2.25	42780.98	6247.041144	471.9	false
PFHxS_1	399.0 / 80.0	2.27	3219602.34	6404.771485	592.2	false
PFHxS_2	399.0 / 99.0	2.27	909518.02	6451.486708	828.4	false
PFOA_1	413.0 / 369.0	2.66	3147344.87	7378.609096	1135.5	false
PFOA_2	413.0 / 169.0	2.66	184616.67	6820.480134	823.3	false
PFNA_1	463.0 / 419.0	3.05	3059480.57	7534.322767	831.1	false
PFNA_2	463.0 / 219.0	3.05	948767.44	7668.160911	953.4	false
PFOS_1	499.0 / 80.0	3.05	4847491.40	7131.053998	562.3	false
PFOS_2	499.0 / 99.0	3.05	864425.88	7282.370855	751.4	false
PFDA_1	513.0 / 469.0	3.41	3513126.93	7899.240570	905.8	false
PFDA_2	513.0 / 219.0	3.41	135670.97	7081.558885	518.5	false
PFUnA_1	563.0 / 519.0	3.73	3627898.10	7049.809319	788.0	false
PFUnA_2	563.0 / 269.0	3.73	163636.63	6338.264527	473.1	false
PFDoA_1	613.0 / 569.0	4.02	3381576.78	7010.165415	747.1	false
PFDoA_2	613.0 / 319.0	4.02	527828.21	6964.565315	706.8	false
PFTrDA_1	663.0 / 619.0	4.26	2971007.99	7321.821410	1315.2	false
PFTrDA_2	663.0 / 169.0	4.26	187214.99	7154.018322	752.7	false
PFTeDA_1	713.0 / 669.0	4.47	3146827.70	6795.252515	2056.2	false
PFTeDA_2	713.0 / 169.0	4.47	150078.61	6705.213517	1248.0	false
NMeFOSAA_1	570.0 / 419.0	3.57	551635.97	6591.211242	1521.4	false
NMeFOSAA_2	570.0 / 512.0	3.56	308013.87	6634.993655	1057.0	false
NEtFOSAA_1	584.0 / 419.0	3.73	575015.93	7397.318624	1147.8	false
NEtFOSAA_2	584.0 / 483.0	3.73	37252.29	7760.277808	504.7	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:41:03 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:56:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	83079.49	244.062183	872.8	false
d3-MeFOSAA	573.0 / 419.0	3.61	11529.03	200.727365	199.5	false
d5-EtFOSAA	589.0 / 419.0	3.77	13317.62	213.867257	165.8	false
13C5-PFHxA	318.0 / 273.0	1.86	59314.56	231.163190	562.4	false
13C4-PFHpA	367.0 / 322.0	2.27	67798.15	233.144880	500.9	false
13C8-PFOA	421.0 / 376.0	2.69	79306.14	229.747357	1614.2	false
13C9-PFNA	472.0 / 427.0	3.09	85625.55	231.738269	7545.8	false
13C6-PFDA	519.0 / 474.0	3.45	90551.24	266.917566	857.8	false
13C7-PFUnA	570.0 / 525.0	3.77	79330.22	250.961396	627.3	false
13C2-PFTeDA	715.0 / 670.0	4.54	67708.22	239.490036	1647.5	false
13C3-PFBS	302.0 / 99.0	1.54	25685.07	209.192727	431.4	false
13C3-PFHxS	402.0 / 99.0	2.30	22191.74	219.158063	311.5	false
13C8-PFOS	507.0 / 99.0	3.08	27485.78	234.896323	217.0	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:41:08 PM

Sample Name	CR888PB-FS(3)	**Injection Vial**	9
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:20:36	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	118207.83	249.063720	963.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	17045.52	249.210080	195.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	19777.30	266.701971	233.8	false
13C5-PFHxA	318.0 / 273.0	1.83	77679.96	247.622415	667.9	false
13C4-PFHpA	367.0 / 322.0	2.24	81570.86	229.438732	728.4	false
13C8-PFOA	421.0 / 376.0	2.65	109771.23	260.109306	1380.0	false
13C9-PFNA	472.0 / 427.0	3.04	108042.07	239.172333	1014.6	false
13C6-PFDA	519.0 / 474.0	3.40	120919.67	255.645005	1011.1	false
13C7-PFUnA	570.0 / 525.0	3.72	118649.77	269.210948	574.0	false
13C2-PFTeDA	715.0 / 670.0	4.47	89319.38	226.594500	1495.6	false
13C3-PFBS	302.0 / 99.0	1.51	30626.30	209.460448	369.6	false
13C3-PFHxS	402.0 / 99.0	2.27	28367.64	235.250716	389.4	false
13C8-PFOS	507.0 / 99.0	3.04	34579.11	248.155309	277.7	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:41:12 PM

Sample Name	CR889LCS-FS(3)	**Injection Vial**	10
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:31:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	145560.85	302.993872	809.5	false
d3-MeFOSAA	573.0 / 419.0	3.57	22294.43	298.486390	192.1	false
d5-EtFOSAA	589.0 / 419.0	3.73	24030.70	296.755344	345.8	false
13C5-PFHxA	318.0 / 273.0	1.83	89080.19	277.938894	780.0	false
13C4-PFHpA	367.0 / 322.0	2.24	105870.85	291.470976	745.9	false
13C8-PFOA	421.0 / 376.0	2.65	118510.91	274.860875	1394.1	false
13C9-PFNA	472.0 / 427.0	3.05	122953.31	266.406911	1274.4	false
13C6-PFDA	519.0 / 474.0	3.40	133822.66	279.508522	1263.7	false
13C7-PFUnA	570.0 / 525.0	3.72	133477.23	299.197567	845.6	false
13C2-PFTeDA	715.0 / 670.0	4.47	109455.07	274.324484	1698.1	false
13C3-PFBS	302.0 / 99.0	1.51	41987.70	262.967742	517.7	false
13C3-PFHxS	402.0 / 99.0	2.27	36802.33	279.483381	351.1	false
13C8-PFOS	507.0 / 99.0	3.04	41150.53	270.431939	266.1	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:41:17 PM

Sample Name	J8310-FS(3)	**Injection Vial**	11
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:42:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	122458.83	309.526478	756.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	17592.22	367.991974	210.9	false
d5-EtFOSAA	589.0 / 419.0	3.73	21000.30	405.179084	271.7	true
13C5-PFHxA	318.0 / 273.0	1.84	82704.75	275.502565	808.9	false
13C4-PFHpA	367.0 / 322.0	2.24	89330.55	262.570476	793.3	false
13C8-PFOA	421.0 / 376.0	2.65	116052.84	287.367323	1426.3	false
13C9-PFNA	472.0 / 427.0	3.05	93260.90	215.740603	52489.3	false
13C6-PFDA	519.0 / 474.0	3.40	121156.27	307.276751	630.1	false
13C7-PFUnA	570.0 / 525.0	3.72	127397.29	346.760383	649.9	false
13C2-PFTeDA	715.0 / 670.0	4.47	91712.91	279.111417	1802.1	false
13C3-PFBS	302.0 / 99.0	1.51	33711.67	329.875440	531.7	false
13C3-PFHxS	402.0 / 99.0	2.27	28472.18	337.824170	358.5	false
13C8-PFOS	507.0 / 99.0	3.04	26643.18	273.563391	212.2	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:41:22 PM

Sample Name	J8310-FS-D(5)	**Injection Vial**	12
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:53:13	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	102998.54	245.483812	1028.7	false
d3-MeFOSAA	573.0 / 419.0	3.56	17479.51	344.229524	241.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	20184.29	366.636892	220.3	false
13C5-PFHxA	318.0 / 273.0	1.84	66518.97	222.075223	678.1	false
13C4-PFHpA	367.0 / 322.0	2.24	75264.72	221.715864	650.7	false
13C8-PFOA	421.0 / 376.0	2.65	98711.32	244.967217	1273.7	false
13C9-PFNA	472.0 / 427.0	3.05	97300.50	225.583199	730.4	false
13C6-PFDA	519.0 / 474.0	3.40	106811.60	255.438487	850.0	false
13C7-PFUnA	570.0 / 525.0	3.72	103032.48	264.440222	931.4	false
13C2-PFTeDA	715.0 / 670.0	4.47	83004.26	238.194410	2073.2	false
13C3-PFBS	302.0 / 99.0	1.51	28267.80	260.413162	398.3	false
13C3-PFHxS	402.0 / 99.0	2.27	26096.82	291.513556	410.0	false
13C8-PFOS	507.0 / 99.0	3.05	29254.74	282.793470	285.0	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:41:27 PM

Sample Name	J8311-FS(3)	**Injection Vial**	13
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:04:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	127972.62	297.216341	949.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	16850.08	366.988980	277.9	true
d5-EtFOSAA	589.0 / 419.0	3.72	23535.45	472.800180	264.8	false
13C5-PFHxA	318.0 / 273.0	1.83	78686.56	247.188891	566.5	false
13C4-PFHpA	367.0 / 322.0	2.24	92717.71	257.005124	959.3	false
13C8-PFOA	421.0 / 376.0	2.65	114314.54	266.941612	1584.7	false
13C9-PFNA	472.0 / 427.0	3.04	86448.54	188.591934	921.3	false
13C6-PFDA	519.0 / 474.0	3.40	127018.99	296.005938	859.0	false
13C7-PFUnA	570.0 / 525.0	3.72	121249.77	303.248139	924.3	false
13C2-PFTeDA	715.0 / 670.0	4.47	89819.28	251.168183	1341.8	false
13C3-PFBS	302.0 / 99.0	1.51	33809.74	344.464964	481.0	false
13C3-PFHxS	402.0 / 99.0	2.27	28255.50	349.065147	322.4	true
13C8-PFOS	507.0 / 99.0	3.04	27241.10	291.225910	222.5	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:41:31 PM

Sample Name	J8311-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:14:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	113540.49	230.844400	1192.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	17451.89	248.729337	208.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	21163.19	278.208003	274.9	false
13C5-PFHxA	318.0 / 273.0	1.82	69282.51	195.086616	684.7	false
13C4-PFHpA	367.0 / 322.0	2.23	78889.31	196.007504	726.9	false
13C8-PFOA	421.0 / 376.0	2.65	104680.52	219.106929	2948.2	false
13C9-PFNA	472.0 / 427.0	3.04	102938.12	201.287654	892.3	false
13C6-PFDA	519.0 / 474.0	3.39	107289.41	218.877727	1951.2	false
13C7-PFUnA	570.0 / 525.0	3.72	110861.55	242.723120	603.4	false
13C2-PFTeDA	715.0 / 670.0	4.47	86488.11	211.721237	1672.4	false
13C3-PFBS	302.0 / 99.0	1.51	29534.81	196.911352	464.5	false
13C3-PFHxS	402.0 / 99.0	2.26	22712.31	183.610805	379.5	false
13C8-PFOS	507.0 / 99.0	3.04	30781.20	215.339824	208.1	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:41:36 PM

Sample Name	J8312-FS(3)	**Injection Vial**	15
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:25:51	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	108954.61	267.879419	795.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	17182.74	441.545225	198.2	false
d5-EtFOSAA	589.0 / 419.0	3.72	20357.41	482.513020	290.2	true
13C5-PFHxA	318.0 / 273.0	1.84	73348.63	293.417628	720.8	false
13C4-PFHpA	367.0 / 322.0	2.24	86491.97	305.295702	748.7	false
13C8-PFOA	421.0 / 376.0	2.66	85390.23	253.915235	1093.5	false
13C9-PFNA	472.0 / 427.0	3.05	71025.95	197.309643	888.1	false
13C6-PFDA	519.0 / 474.0	3.40	114949.02	283.579695	1115.7	false
13C7-PFUnA	570.0 / 525.0	3.72	115790.43	306.568843	732.1	false
13C2-PFTeDA	715.0 / 670.0	4.47	88198.01	261.091047	1858.7	false
13C3-PFBS	302.0 / 99.0	1.52	35045.92	421.281372	460.4	false
13C3-PFHxS	402.0 / 99.0	2.27	26437.23	385.346065	395.3	true
13C8-PFOS	507.0 / 99.0	3.04	20424.63	257.626944	189.3	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:41:40 PM

Sample Name	J8312-FS-D(5)	**Injection Vial**	16
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:36:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	98267.57	191.364821	872.1	false
d3-MeFOSAA	573.0 / 419.0	3.56	17544.73	325.034583	238.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	17953.08	306.779100	220.6	false
13C5-PFHxA	318.0 / 273.0	1.83	74313.06	235.020072	794.7	false
13C4-PFHpA	367.0 / 322.0	2.24	79536.74	221.951610	831.9	false
13C8-PFOA	421.0 / 376.0	2.65	90662.10	213.133638	1409.2	false
13C9-PFNA	472.0 / 427.0	3.04	90201.39	198.102566	1532.6	false
13C6-PFDA	519.0 / 474.0	3.40	106813.05	208.714344	882.3	false
13C7-PFUnA	570.0 / 525.0	3.72	110217.10	231.133259	933.4	false
13C2-PFTeDA	715.0 / 670.0	4.47	81260.65	190.533598	2277.4	false
13C3-PFBS	302.0 / 99.0	1.51	30046.76	260.395054	583.3	false
13C3-PFHxS	402.0 / 99.0	2.26	23711.68	249.171130	320.1	false
13C8-PFOS	507.0 / 99.0	3.04	24616.80	223.856037	218.0	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:41:45 PM

Sample Name	J8312-FS-D(7)	**Injection Vial**	17
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:47:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	112959.16	241.279171	1019.4	false
d3-MeFOSAA	573.0 / 419.0	3.56	16716.99	270.929368	265.2	false
d5-EtFOSAA	589.0 / 419.0	3.72	19228.23	287.435962	278.5	false
13C5-PFHxA	318.0 / 273.0	1.83	69427.28	214.308037	642.5	false
13C4-PFHpA	367.0 / 322.0	2.23	76572.99	208.561704	607.6	false
13C8-PFOA	421.0 / 376.0	2.65	104210.45	239.114520	1078.6	false
13C9-PFNA	472.0 / 427.0	3.04	92591.09	198.478987	1141.6	false
13C6-PFDA	519.0 / 474.0	3.39	116054.34	248.734406	1014.7	false
13C7-PFUnA	570.0 / 525.0	3.72	108386.99	249.308504	693.8	false
13C2-PFTeDA	715.0 / 670.0	4.47	83817.08	215.561050	1204.3	false
13C3-PFBS	302.0 / 99.0	1.51	27526.87	208.692523	420.5	false
13C3-PFHxS	402.0 / 99.0	2.26	24457.71	224.836158	320.7	false
13C8-PFOS	507.0 / 99.0	3.04	29177.91	232.116755	219.0	false

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Summary Quant Report

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Printed: 19/10/2018 3:41:49 PM

Sample Name	J8333-FS(3)	**Injection Vial**	18
Sample ID	VC-PM324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:58:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	3.99	117755.73	233.371830	861.3	false
d3-MeFOSAA	573.0 / 419.0	3.55	15626.15	228.761533	303.2	false
d5-EtFOSAA	589.0 / 419.0	3.71	21316.74	287.843050	196.5	false
13C5-PFHxA	318.0 / 273.0	1.83	82801.39	239.364396	747.4	false
13C4-PFHpA	367.0 / 322.0	2.23	86686.09	221.116936	561.1	false
13C8-PFOA	421.0 / 376.0	2.65	116284.01	249.878167	1212.6	false
13C9-PFNA	472.0 / 427.0	3.04	114789.21	230.441146	889.1	false
13C6-PFDA	519.0 / 474.0	3.39	129362.53	257.247405	846.9	false
13C7-PFUnA	570.0 / 525.0	3.71	123298.85	263.140077	771.5	false
13C2-PFTeDA	715.0 / 670.0	4.46	92208.03	220.026268	1422.7	false
13C3-PFBS	302.0 / 99.0	1.51	32324.75	221.369736	470.4	false
13C3-PFHxS	402.0 / 99.0	2.26	32664.96	271.247349	401.5	false
13C8-PFOS	507.0 / 99.0	3.04	30397.05	218.432234	243.3	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:41:54 PM

Sample Name	J8313-FS(3)	**Injection Vial**	21
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:31:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	128880.33	275.084013	1052.5	false
d3-MeFOSAA	573.0 / 419.0	3.56	21393.99	517.569844	240.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	20756.22	463.158131	224.0	false
13C5-PFHxA	318.0 / 273.0	1.83	90112.21	273.444195	829.9	false
13C4-PFHpA	367.0 / 322.0	2.24	100449.24	268.956715	904.5	false
13C8-PFOA	421.0 / 376.0	2.65	122417.97	276.131921	3438.5	false
13C9-PFNA	472.0 / 427.0	3.04	74584.72	157.170844	856.3	false
13C6-PFDA	519.0 / 474.0	3.40	133580.66	286.087188	865.4	false
13C7-PFUnA	570.0 / 525.0	3.72	139887.28	321.527793	679.5	false
13C2-PFTeDA	715.0 / 670.0	4.47	108254.53	278.204547	1645.4	false
13C3-PFBS	302.0 / 99.0	1.51	39160.39	443.176055	440.8	false
13C3-PFHxS	402.0 / 99.0	2.26	33707.01	462.540558	378.6	false
13C8-PFOS	507.0 / 99.0	3.04	20692.77	245.725504	167.3	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:41:58 PM

Sample Name	J8313-FS-D(5)	**Injection Vial**	22
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:41:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	111856.60	219.651624	807.5	false
d3-MeFOSAA	573.0 / 419.0	3.56	14990.04	212.925543	218.3	false
d5-EtFOSAA	589.0 / 419.0	3.72	20944.43	274.408401	261.4	false
13C5-PFHxA	318.0 / 273.0	1.83	68295.98	193.612164	513.5	false
13C4-PFHpA	367.0 / 322.0	2.24	86059.09	215.270721	860.9	false
13C8-PFOA	421.0 / 376.0	2.65	105650.87	222.636821	2952.6	false
13C9-PFNA	472.0 / 427.0	3.04	104185.90	205.108445	6118.7	false
13C6-PFDA	519.0 / 474.0	3.39	114408.55	225.427757	1108.1	false
13C7-PFUnA	570.0 / 525.0	3.72	115186.55	243.576924	682.9	false
13C2-PFTeDA	715.0 / 670.0	4.47	87976.64	208.007790	1978.2	false
13C3-PFBS	302.0 / 99.0	1.50	30493.90	202.623593	718.2	false
13C3-PFHxS	402.0 / 99.0	2.26	27126.68	218.561580	299.5	false
13C8-PFOS	507.0 / 99.0	3.04	30841.06	215.034685	230.5	false

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Summary Quant Report

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Printed: 19/10/2018 3:42:02 PM

Sample Name	J8314-FS(3)	**Injection Vial**	23
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:52:50	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	139673.19	281.500765	845.5	false
d3-MeFOSAA	573.0 / 419.0	3.55	19251.22	443.442091	237.0	false
d5-EtFOSAA	589.0 / 419.0	3.72	25143.76	534.210834	244.7	false
13C5-PFHxA	318.0 / 273.0	1.83	94500.90	268.287719	661.8	false
13C4-PFHpA	367.0 / 322.0	2.24	100995.63	252.998609	893.4	false
13C8-PFOA	421.0 / 376.0	2.65	126879.89	267.758978	1185.6	false
13C9-PFNA	472.0 / 427.0	3.04	86000.54	169.552082	794.3	false
13C6-PFDA	519.0 / 474.0	3.40	138211.11	279.502438	988.2	false
13C7-PFUnA	570.0 / 525.0	3.71	145457.18	315.691784	635.6	false
13C2-PFTeDA	715.0 / 670.0	4.47	111086.37	269.566989	2305.8	false
13C3-PFBS	302.0 / 99.0	1.51	36627.38	394.672250	436.3	false
13C3-PFHxS	402.0 / 99.0	2.26	34551.76	451.441160	307.2	false
13C8-PFOS	507.0 / 99.0	3.04	26459.51	299.167753	202.3	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:42:07 PM

Sample Name	J8314-FS-D(5)	**Injection Vial**	24
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:03:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	111856.56	222.701554	940.8	false
d3-MeFOSAA	573.0 / 419.0	3.56	16459.57	249.267547	290.7	false
d5-EtFOSAA	589.0 / 419.0	3.72	19683.23	274.945993	266.3	false
13C5-PFHxA	318.0 / 273.0	1.83	73940.09	211.891321	708.1	false
13C4-PFHpA	367.0 / 322.0	2.23	82038.12	207.443379	612.4	false
13C8-PFOA	421.0 / 376.0	2.65	103791.24	221.095698	1062.3	false
13C9-PFNA	472.0 / 427.0	3.04	102574.38	204.131082	12326.0	false
13C6-PFDA	519.0 / 474.0	3.39	120207.97	240.143691	833.3	false
13C7-PFUnA	570.0 / 525.0	3.72	113348.65	243.018721	1099.7	false
13C2-PFTeDA	715.0 / 670.0	4.46	89719.59	215.074272	1714.1	false
13C3-PFBS	302.0 / 99.0	1.50	31261.01	221.463552	680.0	false
13C3-PFHxS	402.0 / 99.0	2.26	28020.64	240.700806	404.0	false
13C8-PFOS	507.0 / 99.0	3.04	30271.98	225.030983	233.4	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:42:12 PM

Sample Name	J8315-FS(3)	**Injection Vial**	25
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:14:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	127878.75	270.798921	924.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	18620.91	692.788705	251.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	22324.29	766.093212	233.2	false
13C5-PFHxA	318.0 / 273.0	1.83	84205.79	324.009721	744.7	false
13C4-PFHpA	367.0 / 322.0	2.24	96339.05	327.091387	802.2	false
13C8-PFOA	421.0 / 376.0	2.65	89633.12	256.372212	1046.8	false
13C9-PFNA	472.0 / 427.0	3.04	48919.40	130.717652	787.5	false
13C6-PFDA	519.0 / 474.0	3.40	131721.36	279.885800	719.2	false
13C7-PFUnA	570.0 / 525.0	3.72	132373.61	301.864155	743.0	false
13C2-PFTeDA	715.0 / 670.0	4.46	100800.78	257.011081	2319.2	false
13C3-PFBS	302.0 / 99.0	1.51	39012.18	678.972694	497.2	false
13C3-PFHxS	402.0 / 99.0	2.26	31256.35	659.615221	349.8	false
13C8-PFOS	507.0 / 99.0	3.04	13789.56	251.828448	141.9	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:42:16 PM

Sample Name	J8315-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:25:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	95766.53	208.118396	1134.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	16264.35	305.405904	231.3	false
d5-EtFOSAA	589.0 / 419.0	3.72	18829.71	326.128140	205.6	false
13C5-PFHxA	318.0 / 273.0	1.83	61425.77	205.903792	637.1	false
13C4-PFHpA	367.0 / 322.0	2.24	72635.51	214.839124	722.9	false
13C8-PFOA	421.0 / 376.0	2.65	84463.00	210.458560	1939.0	false
13C9-PFNA	472.0 / 427.0	3.04	80529.53	187.458838	1073.3	false
13C6-PFDA	519.0 / 474.0	3.40	103317.08	225.291572	2861.4	false
13C7-PFUnA	570.0 / 525.0	3.72	99413.83	232.651090	854.3	false
13C2-PFTeDA	715.0 / 670.0	4.47	74916.26	196.025329	1568.8	false
13C3-PFBS	302.0 / 99.0	1.51	24412.75	214.441786	401.7	false
13C3-PFHxS	402.0 / 99.0	2.26	22695.43	241.730538	346.9	false
13C8-PFOS	507.0 / 99.0	3.04	25724.82	237.108602	222.8	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:42:20 PM

Sample Name	J8316-FS(3)	**Injection Vial**	27
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:36:19	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	127771.88	277.114161	1073.5	false
d3-MeFOSAA	573.0 / 419.0	3.56	18986.36	465.250732	156.4	false
d5-EtFOSAA	589.0 / 419.0	3.72	25444.33	575.096124	312.4	false
13C5-PFHxA	318.0 / 273.0	1.83	84428.02	271.533151	588.4	false
13C4-PFHpA	367.0 / 322.0	2.24	93986.98	266.719409	880.0	false
13C8-PFOA	421.0 / 376.0	2.65	111716.43	267.078952	3313.4	false
13C9-PFNA	472.0 / 427.0	3.04	78191.48	174.635572	609.6	false
13C6-PFDA	519.0 / 474.0	3.40	136313.29	296.645496	1512.0	false
13C7-PFUnA	570.0 / 525.0	3.72	135953.12	317.522292	605.5	false
13C2-PFTeDA	715.0 / 670.0	4.47	101087.90	263.974530	1749.1	false
13C3-PFBS	302.0 / 99.0	1.51	37263.83	427.154555	443.3	false
13C3-PFHxS	402.0 / 99.0	2.26	30779.49	427.818110	408.9	false
13C8-PFOS	507.0 / 99.0	3.04	22795.18	274.184361	195.5	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:42:24 PM

Sample Name	J8316-FS-D(5)	**Injection Vial**	28
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:47:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	102745.94	204.267079	1150.4	false
d3-MeFOSAA	573.0 / 419.0	3.56	15937.57	230.061225	177.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	20467.60	272.516116	261.1	false
13C5-PFHxA	318.0 / 273.0	1.83	69582.25	200.555308	721.0	false
13C4-PFHpA	367.0 / 322.0	2.24	73308.09	186.439640	969.9	false
13C8-PFOA	421.0 / 376.0	2.65	101262.01	216.954456	1861.4	false
13C9-PFNA	472.0 / 427.0	3.04	97756.42	195.667181	2472.0	false
13C6-PFDA	519.0 / 474.0	3.40	111077.11	221.581947	1243.5	false
13C7-PFUnA	570.0 / 525.0	3.72	106430.69	227.856878	988.7	false
13C2-PFTeDA	715.0 / 670.0	4.47	84128.76	201.380590	1670.9	false
13C3-PFBS	302.0 / 99.0	1.50	29967.25	202.358046	539.8	false
13C3-PFHxS	402.0 / 99.0	2.26	26705.32	218.661135	515.1	false
13C8-PFOS	507.0 / 99.0	3.04	30603.98	216.847105	272.0	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:42:28 PM

Sample Name	J8317-FS(3)	**Injection Vial**	29
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:58:03	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	121152.33	244.355022	1379.1	false
d3-MeFOSAA	573.0 / 419.0	3.56	19462.96	439.621943	243.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	22910.85	477.326586	244.4	false
13C5-PFHxA	318.0 / 273.0	1.83	82776.22	266.993824	723.4	false
13C4-PFHpA	367.0 / 322.0	2.24	98586.75	280.585271	842.6	false
13C8-PFOA	421.0 / 376.0	2.65	107916.83	258.744542	1764.5	false
13C9-PFNA	472.0 / 427.0	3.04	75327.27	168.727113	718.0	false
13C6-PFDA	519.0 / 474.0	3.40	127937.73	258.919197	1382.9	false
13C7-PFUnA	570.0 / 525.0	3.72	123397.67	268.014336	937.3	false
13C2-PFTeDA	715.0 / 670.0	4.47	96312.03	233.888806	1297.7	false
13C3-PFBS	302.0 / 99.0	1.51	35311.41	373.110676	479.4	false
13C3-PFHxS	402.0 / 99.0	2.27	31145.18	399.037492	360.7	false
13C8-PFOS	507.0 / 99.0	3.04	22705.93	251.746863	160.6	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:42:33 PM

Sample Name	J8317-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:08:54	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	110950.07	223.558134	847.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	16784.80	247.518464	196.4	false
d5-EtFOSAA	589.0 / 419.0	3.72	17517.10	238.263535	323.8	false
13C5-PFHxA	318.0 / 273.0	1.83	73151.76	206.810259	834.1	false
13C4-PFHpA	367.0 / 322.0	2.24	80116.43	199.857087	831.8	false
13C8-PFOA	421.0 / 376.0	2.65	102935.05	216.320153	3280.6	false
13C9-PFNA	472.0 / 427.0	3.04	96207.54	188.883252	52596.2	false
13C6-PFDA	519.0 / 474.0	3.40	112590.22	227.635341	1102.0	false
13C7-PFUnA	570.0 / 525.0	3.72	114609.82	248.683114	779.6	false
13C2-PFTeDA	715.0 / 670.0	4.47	88895.75	215.666799	1381.0	false
13C3-PFBS	302.0 / 99.0	1.51	30012.28	207.034373	519.4	false
13C3-PFHxS	402.0 / 99.0	2.26	29248.93	244.654806	421.0	false
13C8-PFOS	507.0 / 99.0	3.04	32939.47	238.430814	286.2	false

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 3:42:37 PM

Sample Name	J8318-FS(3)	**Injection Vial**	33
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:41:33	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	115396.99	266.441787	897.7	false
d3-MeFOSAA	573.0 / 419.0	3.56	16937.48	637.502236	222.8	false
d5-EtFOSAA	589.0 / 419.0	3.72	19608.61	680.743522	250.6	false
13C5-PFHxA	318.0 / 273.0	1.83	73464.98	303.606989	652.6	false
13C4-PFHpA	367.0 / 322.0	2.24	81023.13	295.454822	900.0	false
13C8-PFOA	421.0 / 376.0	2.65	79237.66	243.416161	648.2	false
13C9-PFNA	472.0 / 427.0	3.04	44433.28	127.519563	676.9	true
13C6-PFDA	519.0 / 474.0	3.40	115050.34	266.545813	788.0	false
13C7-PFUnA	570.0 / 525.0	3.72	109972.00	273.433392	1011.5	false
13C2-PFTeDA	715.0 / 670.0	4.47	85836.52	238.626880	2022.4	false
13C3-PFBS	302.0 / 99.0	1.51	31747.46	558.977043	383.0	false
13C3-PFHxS	402.0 / 99.0	2.26	26107.82	557.385705	322.4	false
13C8-PFOS	507.0 / 99.0	3.04	12930.04	238.884049	163.9	false

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Summary Quant Report

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Sample Name	J8318-FS-D(5)	**Injection Vial**	34
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:52:24	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	87362.77	225.780309	981.9	false
d3-MeFOSAA	573.0 / 419.0	3.56	14192.40	262.774602	257.6	false
d5-EtFOSAA	589.0 / 419.0	3.72	16522.81	282.172822	252.5	false
13C5-PFHxA	318.0 / 273.0	1.83	57152.38	209.969896	816.9	false
13C4-PFHpA	367.0 / 322.0	2.24	66034.53	214.064401	664.7	false
13C8-PFOA	421.0 / 376.0	2.65	86131.92	235.219434	1806.5	false
13C9-PFNA	472.0 / 427.0	3.04	88497.44	225.782596	1461.7	false
13C6-PFDA	519.0 / 474.0	3.40	91171.79	236.426568	1254.5	false
13C7-PFUnA	570.0 / 525.0	3.72	90848.44	252.835897	902.2	false
13C2-PFTeDA	715.0 / 670.0	4.47	66669.16	207.455065	1324.3	false
13C3-PFBS	302.0 / 99.0	1.51	22207.00	192.339974	504.9	false
13C3-PFHxS	402.0 / 99.0	2.26	25511.35	267.925080	411.9	false
13C8-PFOS	507.0 / 99.0	3.04	25101.76	228.131870	228.6	false

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Summary Quant Report

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Sample Name	J8318-FS-D(7)	**Injection Vial**	35
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:03:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	118330.60	253.381500	1456.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	16498.98	485.809973	216.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	19163.29	520.455043	191.0	false
13C5-PFHxA	318.0 / 273.0	1.83	79561.01	290.616660	671.5	false
13C4-PFHpA	367.0 / 322.0	2.24	88966.16	286.744951	770.3	false
13C8-PFOA	421.0 / 376.0	2.65	90589.59	245.971569	1033.1	false
13C9-PFNA	472.0 / 427.0	3.04	57478.63	145.802064	639.3	false
13C6-PFDA	519.0 / 474.0	3.40	118756.66	255.159613	970.6	false
13C7-PFUnA	570.0 / 525.0	3.72	119470.57	275.486518	890.8	false
13C2-PFTeDA	715.0 / 670.0	4.47	91564.00	236.070659	1623.7	false
13C3-PFBS	302.0 / 99.0	1.51	32460.51	447.112426	504.2	false
13C3-PFHxS	402.0 / 99.0	2.26	26694.09	445.837635	406.8	false
13C8-PFOS	507.0 / 99.0	3.04	15357.96	221.971392	243.6	false

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Summary Quant Report

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Sample Name	J8327-FS(3)	**Injection Vial**	36
Sample ID	VC-PM323-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:14:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	129083.72	253.883708	799.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	19598.34	258.684216	217.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	22147.99	269.642863	212.7	false
13C5-PFHxA	318.0 / 273.0	1.83	83024.25	238.983027	542.9	false
13C4-PFHpA	367.0 / 322.0	2.24	94920.33	241.086000	1143.0	false
13C8-PFOA	421.0 / 376.0	2.65	118612.35	253.792253	1155.5	false
13C9-PFNA	472.0 / 427.0	3.04	118674.50	237.222863	1179.8	false
13C6-PFDA	519.0 / 474.0	3.40	142527.09	281.278725	1273.6	false
13C7-PFUnA	570.0 / 525.0	3.72	131240.36	277.966425	917.0	false
13C2-PFTeDA	715.0 / 670.0	4.47	102486.45	242.699677	1777.1	false
13C3-PFBS	302.0 / 99.0	1.51	38506.69	237.760027	528.0	false
13C3-PFHxS	402.0 / 99.0	2.27	33302.42	249.332463	358.3	false
13C8-PFOS	507.0 / 99.0	3.04	38036.63	246.437617	217.6	false

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Summary Quant Report

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Sample Name	J8328-FS(3)	**Injection Vial**	37
Sample ID	VC-PM323-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:25:02	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	113312.60	255.535299	938.1	false
d3-MeFOSAA	573.0 / 419.0	3.56	17849.73	292.080012	308.2	false
d5-EtFOSAA	589.0 / 419.0	3.72	19189.72	289.629507	223.2	false
13C5-PFHxA	318.0 / 273.0	1.83	77672.05	244.302295	706.8	false
13C4-PFHpA	367.0 / 322.0	2.24	84501.76	234.519649	949.0	false
13C8-PFOA	421.0 / 376.0	2.65	115195.96	269.331061	1962.4	false
13C9-PFNA	472.0 / 427.0	3.04	110078.99	240.438645	4329.7	false
13C6-PFDA	519.0 / 474.0	3.40	121339.79	274.569338	915.5	false
13C7-PFUnA	570.0 / 525.0	3.72	122882.47	298.417449	756.7	false
13C2-PFTeDA	715.0 / 670.0	4.47	91681.43	248.939308	2085.4	false
13C3-PFBS	302.0 / 99.0	1.51	34111.68	261.111120	418.2	false
13C3-PFHxS	402.0 / 99.0	2.27	28749.26	266.838892	359.8	false
13C8-PFOS	507.0 / 99.0	3.04	29516.07	237.073524	225.8	false

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Summary Quant Report

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Sample Name	J8329-FS(3)	**Injection Vial**	38
Sample ID	VC-PM323-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:35:55	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	116964.29	256.223425	929.5	false
d3-MeFOSAA	573.0 / 419.0	3.56	17425.04	257.231263	309.0	false
d5-EtFOSAA	589.0 / 419.0	3.71	19692.43	268.134936	222.8	false
13C5-PFHxA	318.0 / 273.0	1.83	83273.80	252.150474	808.0	false
13C4-PFHpA	367.0 / 322.0	2.24	84576.02	225.969264	626.1	false
13C8-PFOA	421.0 / 376.0	2.65	114635.02	258.021034	1526.1	false
13C9-PFNA	472.0 / 427.0	3.04	110370.42	232.081845	1039.0	false
13C6-PFDA	519.0 / 474.0	3.39	120438.63	264.732635	785.6	false
13C7-PFUnA	570.0 / 525.0	3.71	127554.99	300.901668	718.8	false
13C2-PFTeDA	715.0 / 670.0	4.47	90315.06	238.212820	1453.5	false
13C3-PFBS	302.0 / 99.0	1.51	32523.91	224.597541	473.0	false
13C3-PFHxS	402.0 / 99.0	2.26	32730.83	274.068714	427.6	false
13C8-PFOS	507.0 / 99.0	3.04	33978.91	246.214664	272.8	false

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Summary Quant Report

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Sample Name	J8332-FS(3)	**Injection Vial**	39
Sample ID	VC-PM324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:46:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	130822.19	257.146537	743.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	19114.76	274.619251	207.6	false
d5-EtFOSAA	589.0 / 419.0	3.72	23824.05	315.705102	245.6	false
13C5-PFHxA	318.0 / 273.0	1.83	84507.90	237.884811	523.8	false
13C4-PFHpA	367.0 / 322.0	2.24	91243.17	226.631580	739.5	false
13C8-PFOA	421.0 / 376.0	2.65	121131.26	253.461495	1213.0	false
13C9-PFNA	472.0 / 427.0	3.04	115291.43	225.373824	998.0	false
13C6-PFDA	519.0 / 474.0	3.40	132885.37	262.091261	909.8	false
13C7-PFUnA	570.0 / 525.0	3.72	130160.53	275.511763	778.4	false
13C2-PFTeDA	715.0 / 670.0	4.47	100028.71	236.735480	1527.9	false
13C3-PFBS	302.0 / 99.0	1.51	33243.36	223.418495	429.4	false
13C3-PFHxS	402.0 / 99.0	2.26	32768.50	267.036737	378.9	false
13C8-PFOS	507.0 / 99.0	3.04	33790.18	238.290598	275.0	false

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Summary Quant Report

Created with Analyst Reporter
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Sample Name	J8334-FS(3)	**Injection Vial**	40
Sample ID	VC-PM324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:57:38	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	119964.02	253.759907	672.4	false
d3-MeFOSAA	573.0 / 419.0	3.56	17633.14	264.140150	248.3	false
d5-EtFOSAA	589.0 / 419.0	3.71	20616.91	284.860514	229.5	false
13C5-PFHxA	318.0 / 273.0	1.83	77366.94	236.280039	835.5	false
13C4-PFHpA	367.0 / 322.0	2.24	87493.15	235.774225	767.6	false
13C8-PFOA	421.0 / 376.0	2.65	111304.35	252.679564	1582.4	false
13C9-PFNA	472.0 / 427.0	3.04	106082.68	224.984770	1225.1	false
13C6-PFDA	519.0 / 474.0	3.40	116389.69	247.037353	802.4	false
13C7-PFUnA	570.0 / 525.0	3.71	119949.50	273.232277	544.7	false
13C2-PFTeDA	715.0 / 670.0	4.47	87020.66	221.632678	1652.0	false
13C3-PFBS	302.0 / 99.0	1.51	30615.18	214.532808	350.3	false
13C3-PFHxS	402.0 / 99.0	2.26	30830.23	261.959419	587.1	false
13C8-PFOS	507.0 / 99.0	3.04	31670.44	232.869860	193.7	false

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Summary Quant Report

Created with Analyst Reporter
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Sample Name	J8335MS-FS(3)	**Injection Vial**	41
Sample ID	VC-PM324-SB02-0506-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:08:31	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	111847.15	267.117113	692.3	false
d3-MeFOSAA	573.0 / 419.0	3.56	16405.44	264.371896	155.5	false
d5-EtFOSAA	589.0 / 419.0	3.71	18043.33	268.193375	214.3	false
13C5-PFHxA	318.0 / 273.0	1.83	74099.37	267.787058	608.2	false
13C4-PFHpA	367.0 / 322.0	2.24	77578.50	247.381454	567.4	false
13C8-PFOA	421.0 / 376.0	2.65	99313.64	266.790498	953.4	false
13C9-PFNA	472.0 / 427.0	3.04	104218.15	261.550467	987.9	false
13C6-PFDA	519.0 / 474.0	3.39	107459.51	257.512191	1665.6	false
13C7-PFUnA	570.0 / 525.0	3.71	111645.45	287.130565	504.9	false
13C2-PFTeDA	715.0 / 670.0	4.46	88605.88	254.787874	1347.5	false
13C3-PFBS	302.0 / 99.0	1.51	34273.56	258.367973	456.0	false
13C3-PFHxS	402.0 / 99.0	2.26	26806.51	245.030447	318.9	false
13C8-PFOS	507.0 / 99.0	3.04	29977.24	237.122808	237.9	false

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Summary Quant Report

Created with Analyst Reporter
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Sample Name	J8336MSD-FS(3)	**Injection Vial**	42
Sample ID	VC-PM324-SB02-0506-MSD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:19:23	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	132682.85	285.006859	728.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	20067.21	297.006489	137.2	false
d5-EtFOSAA	589.0 / 419.0	3.72	19532.43	266.648471	222.3	false
13C5-PFHxA	318.0 / 273.0	1.83	82312.77	262.468010	881.8	false
13C4-PFHpA	367.0 / 322.0	2.24	97238.43	273.588464	990.3	false
13C8-PFOA	421.0 / 376.0	2.65	109391.11	259.285114	2388.0	false
13C9-PFNA	472.0 / 427.0	3.04	116481.22	257.930154	1076.2	false
13C6-PFDA	519.0 / 474.0	3.40	116493.76	251.084160	770.7	false
13C7-PFUnA	570.0 / 525.0	3.72	122469.18	283.288489	810.3	false
13C2-PFTeDA	715.0 / 670.0	4.47	104644.92	270.643812	1407.4	false
13C3-PFBS	302.0 / 99.0	1.52	37637.62	260.587278	409.6	false
13C3-PFHxS	402.0 / 99.0	2.26	33002.50	277.062777	317.9	false
13C8-PFOS	507.0 / 99.0	3.04	37300.36	270.985641	263.3	false

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Summary Quant Report

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Sample Name	KB80 IB	**Injection Vial**	9
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:41:02	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
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
PFHxS_1	399.0 / 80.0	2.30	5352.10	0.327008	29.4	false
PFHxS_2	399.0 / 99.0	2.30	1556.21	0.663660	23.1	false
PFOS_1	499.0 / 80.0	3.08	11070.40	10.902350	20.2	false
PFOS_2	499.0 / 99.0	3.09	2595.91	< 0	29.4	false
PFOA_1	413.0 / 369.0	2.69	7801.49	22.788502	28.8	true
PFOA_2	413.0 / 369.0	2.69	7801.49	22.788502	28.8	true

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:45:47 PM

Sample Name	KB80 IB	**Injection Vial**	2
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:04:33	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
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
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
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
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 369.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

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Sample Name	J8310-FS-D(7)	**Injection Vial**	8
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:09:47	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
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
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
PFOS_1	499.0 / 80.0	3.08	2700059.78	5274.131701	903.8	false
PFOS_2	499.0 / 99.0	3.08	533239.61	5895.756781	1100.2	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 369.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

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Printed: 19/10/2018 4:46:15 PM

Sample Name	J8311-FS-D(7)	**Injection Vial**	9
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:20:39	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
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
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
PFOS_1	499.0 / 80.0	3.07	2311176.67	4303.909345	796.0	false
PFOS_2	499.0 / 99.0	3.07	449005.51	4728.734369	850.3	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 369.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

Created with Analyst Reporter
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Sample Name	J8312-FS-D(9)	**Injection Vial**	10
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:31:30	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
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
PFHxS_1	399.0 / 80.0	2.28	856437.26	2353.650098	642.4	false
PFHxS_2	399.0 / 99.0	2.28	234514.11	2256.781493	663.2	false
PFOS_1	499.0 / 80.0	3.07	6108491.54	10677.424683	604.2	false
PFOS_2	499.0 / 99.0	3.07	1004888.67	9953.820071	1142.5	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 369.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

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Sample Name	J8313-FS-D(7)	**Injection Vial**	11
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:42:21	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
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
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
PFOS_1	499.0 / 80.0	3.07	2221482.83	4104.743439	633.2	false
PFOS_2	499.0 / 99.0	3.07	437513.94	4571.424594	936.0	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 369.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

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Sample Name	J8314-FS-D(7)	**Injection Vial**	12
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:53:13	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
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
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
PFOS_1	499.0 / 80.0	3.07	1877287.45	3768.948305	628.6	false
PFOS_2	499.0 / 99.0	3.07	365804.28	4150.988276	834.2	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 369.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:46:33 PM

Sample Name	J8315-FS-D(7)	**Injection Vial**	15
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:25:51	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
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
PFHxS_1	399.0 / 80.0	2.28	148651.90	379.211687	278.8	false
PFHxS_2	399.0 / 99.0	2.28	44805.37	401.260526	394.5	false
PFOS_1	499.0 / 80.0	3.07	3857515.77	7676.674464	1046.7	false
PFOS_2	499.0 / 99.0	3.07	709398.28	7997.038154	1183.8	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 369.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:46:38 PM

Sample Name	J8316-FS-D(7)	**Injection Vial**	16
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:36:42	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
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
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
PFOS_1	499.0 / 80.0	3.07	1692656.16	3579.381215	606.3	false
PFOS_2	499.0 / 99.0	3.06	333178.25	3981.572844	545.9	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 369.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

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Sample Name	J8317-FS-D(7)	**Injection Vial**	17
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:47:33	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
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
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
PFOS_1	499.0 / 80.0	3.06	2806562.85	5894.569551	820.7	false
PFOS_2	499.0 / 99.0	3.06	569869.64	6778.033838	747.4	false
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 369.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

Created with Analyst Reporter
Printed: 19/10/2018 4:46:46 PM

Sample Name	J8318-FS-D(9)	**Injection Vial**	18
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:58:24	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
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
PFHxS_1	399.0 / 80.0	2.28	1456366.36	4330.788723	824.0	false
PFHxS_2	399.0 / 99.0	2.28	414049.28	4312.570358	983.9	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
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 369.0	N/A	N/A	N/A	N/A	true

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Summary Quant Report

Created with Analyst Reporter
Printed: 25/10/2018 2:54:32 PM

Sample Name	J8315-FS-D(9)	**Injection Vial**	9
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:11:49	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_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	932883.56	3923.730970	40.0	true
PFHxA_2	313.0 / 119.0	1.85	56406.65	3250.792118	32.1	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~~	~~5950575.03~~	~~18642.804380~~	~~1083.1~~	~~true~~
~~PFHxS_2~~	~~399.0 / 99.0~~	~~2.28~~	~~1728891.97~~	~~18972.207623~~	~~1257.6~~	~~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 Ion Ratio Report

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Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:56:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.330	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	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	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.210	0.285	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.090	0.067	ü
PFNA_1	463.0 / 419.0	3.10	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.350	0.301	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.177	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.48	PFDA	0.110	0.044	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	4.08	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.190	0.159	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.33	PFTrDA	0.100	0.067	ü
PFTeDA_1	713.0 / 669.0	4.55	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.55	PFTeDA	0.070	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	CR888PB-FS(3)	**Injection Vial**	9
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:20:36	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	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	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Printed: 19/10/2018 4:51:33 PM

Sample Name	CR889LCS-FS(3)	**Injection Vial**	10
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:31:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.071	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	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.067	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.290	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.177	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.050	0.055	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.159	ü
PFTrDA_1	663.0 / 619.0	4.27	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.070	0.067	ü
PFTeDA_1	713.0 / 669.0	4.48	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.48	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.530	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.065	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:51:36 PM

Sample Name	J8310-FS(3)	**Injection Vial**	11
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:42:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.320	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.071	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	0.300	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.067	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.330	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.210	0.177	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.050	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	3.82	PFDoA	0.180	0.159	ü
PFTrDA_1	663.0 / 619.0	4.20	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.19	PFTrDA	0.310	0.067	
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.74	NEtFOSAA	0.050	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8310-FS-D(5)	**Injection Vial**	12
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:53:13	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	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	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8311-FS(3)	**Injection Vial**	13
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:04:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.350	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.071	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	2.27	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	0.067	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.310	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.230	0.177	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.050	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	4.00	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.120	0.159	ü
PFTrDA_1	663.0 / 619.0	4.19	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.19	PFTrDA	0.330	0.067	
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8311-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:14:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	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	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.200	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8312-FS(3)	**Injection Vial**	15
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:25:51	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.310	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.060	0.071	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.22	PFHpA	0.030	0.021	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.330	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.62	PFOA	0.100	0.067	ü
PFNA_1	463.0 / 419.0	3.01	PFNA			
PFNA_2	463.0 / 219.0	2.94	PFNA	0.180	0.301	ü
PFOS_1	499.0 / 80.0	2.99	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.210	0.177	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.25	PFDA	0.080	0.044	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8312-FS-D(5)	**Injection Vial**	16
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:36:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.060	0.071	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	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.04	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8312-FS-D(7)	**Injection Vial**	17
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:47:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	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	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.170	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8333-FS(3)	**Injection Vial**	18
Sample ID	VC-PM324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:58:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	1.83	PFBS			
PFBS_2	298.9 / 99.0	1.84	PFBS	0.440	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.21	PFHpA	0.060	0.021	
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.190	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.070	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.160	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8313-FS(3)	**Injection Vial**	21
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:31:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.060	0.071	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	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.080	0.067	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.300	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.300	0.177	
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	4.01	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.120	0.159	ü
PFTrDA_1	663.0 / 619.0	4.19	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.19	PFTrDA	0.350	0.067	
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.71	NEtFOSAA	0.030	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8313-FS-D(5)	**Injection Vial**	22
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:41:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	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	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.180	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8314-FS(3)	**Injection Vial**	23
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:52:50	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.320	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.071	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.030	0.021	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.080	0.067	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.310	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.260	0.177	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.050	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	4.00	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.100	0.159	ü
PFTrDA_1	663.0 / 619.0	4.19	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.19	PFTrDA	0.340	0.067	
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8314-FS-D(5)	**Injection Vial**	24
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:03:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	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	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.190	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8315-FS(3)	**Injection Vial**	25
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:14:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.310	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.060	0.071	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.23	PFHpA	0.030	0.021	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.320	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.090	0.067	ü
PFNA_1	463.0 / 419.0	3.03	PFNA			
PFNA_2	463.0 / 219.0	3.00	PFNA	0.390	0.301	ü
PFOS_1	499.0 / 80.0	2.96	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.370	0.177	
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.40	PFDA	0.050	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	4.19	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.19	PFTrDA	0.420	0.067	
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8315-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:25:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.060	0.071	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	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.190	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8316-FS(3)	**Injection Vial**	27
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:36:19	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.370	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.060	0.071	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.23	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.080	0.067	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.330	0.301	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.280	0.177	
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.050	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	4.19	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8316-FS-D(5)	**Injection Vial**	28
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:47:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	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	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.180	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8317-FS(3)	**Injection Vial**	29
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:58:03	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.071	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.020	0.021	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.300	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.61	PFOA	0.100	0.067	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.340	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.260	0.177	ü
PFDA_1	513.0 / 469.0	3.38	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.030	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8317-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:08:54	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	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	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.190	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8318-FS(3)	**Injection Vial**	33
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:41:33	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.320	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.060	0.071	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.24	PFHpA	0.030	0.021	ü
PFHxS_1	399.0 / 80.0	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.300	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.64	PFOA	0.080	0.067	ü
PFNA_1	463.0 / 419.0	3.00	PFNA			
PFNA_2	463.0 / 219.0	2.98	PFNA	0.340	0.301	ü
PFOS_1	499.0 / 80.0	2.97	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.360	0.177	
PFDA_1	513.0 / 469.0	3.36	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8318-FS-D(5)	**Injection Vial**	34
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:52:24	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	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	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8318-FS-D(7)	**Injection Vial**	35
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:03:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	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	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	2.97	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.280	0.177	
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8327-FS(3)	**Injection Vial**	36
Sample ID	VC-PM323-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:14:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.070	0.071	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	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	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.090	0.067	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.200	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.190	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8328-FS(3)	**Injection Vial**	37
Sample ID	VC-PM323-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:25:02	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.38	PFHxA	0.060	0.071	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.070	0.021	
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	2.65	PFOA	0.090	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.03	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.160	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8329-FS(3)	**Injection Vial**	38
Sample ID	VC-PM323-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:35:55	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.37	PFHxA	0.060	0.071	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	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.58	PFOA	0.100	0.067	
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.220	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8332-FS(3)	**Injection Vial**	39
Sample ID	VC-PM324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:46:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	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	0.320	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.080	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.190	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8334-FS(3)	**Injection Vial**	40
Sample ID	VC-PM324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:57:38	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.071	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	2.27	PFHxS	0.360	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.62	PFOA	0.050	0.067	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.301	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.177	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.044	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.055	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.159	ü
PFTrDA_1	663.0 / 619.0	N/A	PFTrDA			
PFTrDA_2	663.0 / 169.0	N/A	PFTrDA	N/A	0.067	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.543	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8335MS-FS(3)	**Injection Vial**	41
Sample ID	VC-PM324-SB02-0506-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:08:31	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.84	PFHxA			
PFHxA_2	313.0 / 119.0	1.84	PFHxA	0.080	0.071	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	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	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	0.067	ü
PFNA_1	463.0 / 419.0	3.05	PFNA			
PFNA_2	463.0 / 219.0	3.05	PFNA	0.320	0.301	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.170	0.177	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.055	ü
PFDoA_1	613.0 / 569.0	4.01	PFDoA			
PFDoA_2	613.0 / 319.0	4.01	PFDoA	0.160	0.159	ü
PFTrDA_1	663.0 / 619.0	4.25	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.25	PFTrDA	0.060	0.067	ü
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.56	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.56	NMeFOSAA	0.540	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.72	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.72	NEtFOSAA	0.070	0.065	ü

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Summary Ion Ratio Report

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Sample Name	J8336MSD-FS(3)	**Injection Vial**	42
Sample ID	VC-PM324-SB02-0506-MSD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:19:23	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	0.310	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.071	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	2.27	PFHxS			
PFHxS_2	399.0 / 99.0	2.27	PFHxS	0.280	0.285	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.067	ü
PFNA_1	463.0 / 419.0	3.05	PFNA			
PFNA_2	463.0 / 219.0	3.05	PFNA	0.310	0.301	ü
PFOS_1	499.0 / 80.0	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.05	PFOS	0.180	0.177	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.044	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.055	ü
PFDoA_1	613.0 / 569.0	4.02	PFDoA			
PFDoA_2	613.0 / 319.0	4.02	PFDoA	0.160	0.159	ü
PFTrDA_1	663.0 / 619.0	4.26	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.26	PFTrDA	0.060	0.067	ü
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.56	NMeFOSAA	0.560	0.543	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.065	ü

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Summary Ion Ratio Report

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Sample Name	KB80 IB	**Injection Vial**	9
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:41:02	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.290	0.285	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.230	0.185	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 369.0	2.69	PFOA	1.000	1.000	ü

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Summary Ion Ratio Report

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Sample Name	KB80 IB	**Injection Vial**	2
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:04:33	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.185	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 369.0	N/A	PFOA	N/A	1.000	ü

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Summary Ion Ratio Report

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Sample Name	J8310-FS-D(7)	**Injection Vial**	8
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:09:47	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.200	0.185	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 369.0	N/A	PFOA	N/A	1.000	ü

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Summary Ion Ratio Report

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Sample Name	J8311-FS-D(7)	**Injection Vial**	9
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:20:39	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.190	0.185	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 369.0	N/A	PFOA	N/A	1.000	ü

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Summary Ion Ratio Report

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Sample Name	J8312-FS-D(9)	**Injection Vial**	10
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:31:30	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.270	0.285	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.160	0.185	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 369.0	N/A	PFOA	N/A	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:58:54 PM

Sample Name	J8313-FS-D(7)	**Injection Vial**	11
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:42:21	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.200	0.185	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 369.0	N/A	PFOA	N/A	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
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Sample Name	J8314-FS-D(7)	**Injection Vial**	12
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:53:13	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.190	0.185	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 369.0	N/A	PFOA	N/A	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:59:01 PM

Sample Name	J8315-FS-D(7)	**Injection Vial**	15
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:25:51	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.300	0.285	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.180	0.185	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 369.0	N/A	PFOA	N/A	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:59:05 PM

Sample Name	J8316-FS-D(7)	**Injection Vial**	16
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:36:42	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.185	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 369.0	N/A	PFOA	N/A	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:59:09 PM

Sample Name	J8317-FS-D(7)	**Injection Vial**	17
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:47:33	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.285	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.185	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 369.0	N/A	PFOA	N/A	1.000	ü

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Summary Ion Ratio Report

Created with Analyst Reporter
Printed: 19/10/2018 4:59:12 PM

Sample Name	J8318-FS-D(9)	**Injection Vial**	18
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:58:24	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.072	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.285	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.185	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 369.0	N/A	PFOA	N/A	1.000	ü

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Summary Ion Ratio Report

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Sample Name	J8315-FS-D(9)	**Injection Vial**	9
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:11:49	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_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	0.302	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.060	0.072	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.020	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.290	0.285	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.058	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.185	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.054	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.158	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	0.048	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.575	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.074	ü

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Summary Internal Standard Report

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Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:56:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	25685.07	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	25685.07	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	59314.56	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	59314.56	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	67798.15	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	67798.15	250.00
PFHxS_1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	22237.52	236.50
PFHxS_2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	22237.52	236.50
PFOA_1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	79306.14	250.00
PFOA_2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	79306.14	250.00
PFNA_1	463.0 / 419.0	3.10	13C9-PFNA	472.0 / 427.0	85625.55	250.00
PFNA_2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	85625.55	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	27988.76	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	27988.76	239.25
PFDA_1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	90551.24	250.00
PFDA_2	513.0 / 219.0	3.48	13C6-PFDA	519.0 / 474.0	90551.24	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	79330.22	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	79330.22	250.00
PFDoA_1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	83079.49	250.00
PFDoA_2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	83079.49	250.00
PFTrDA_1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	67708.22	250.00
PFTrDA_2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	67708.22	250.00
PFTeDA_1	713.0 / 669.0	4.55	13C2-PFTeDA	715.0 / 670.0	67708.22	250.00
PFTeDA_2	713.0 / 169.0	4.55	13C2-PFTeDA	715.0 / 670.0	67708.22	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12168.37	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12168.37	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13720.39	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13720.39	250.00

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Summary Internal Standard Report

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Sample Name	CR888PB-FS(3)	**Injection Vial**	9
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:20:36	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	30626.30	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	30626.30	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	77679.96	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	77679.96	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	81570.86	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	81570.86	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	27962.10	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	27962.10	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	109771.23	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	109771.23	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	108042.07	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	108042.07	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	35100.16	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	35100.16	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	120919.67	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	120919.67	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	118649.77	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	118649.77	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	118207.83	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	118207.83	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	89319.38	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	89319.38	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	89319.38	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	89319.38	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	17150.81	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	17150.81	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	19713.39	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	19713.39	250.00

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Summary Internal Standard Report

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Sample Name	CR889LCS-FS(3)	**Injection Vial**	10
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:31:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	41987.70	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	41987.70	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	89080.19	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	89080.19	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	105870.85	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	105870.85	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	36916.34	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	36916.34	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	118510.91	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	118510.91	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	122953.31	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	122953.31	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	41387.29	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	41387.29	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	133822.66	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	133822.66	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	133477.23	250.00
PFUnA_2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	133477.23	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	145560.85	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	145560.85	250.00
PFTrDA_1	663.0 / 619.0	4.27	13C2-PFTeDA	715.0 / 670.0	109455.07	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	109455.07	250.00
PFTeDA_1	713.0 / 669.0	4.48	13C2-PFTeDA	715.0 / 670.0	109455.07	250.00
PFTeDA_2	713.0 / 169.0	4.48	13C2-PFTeDA	715.0 / 670.0	109455.07	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	22848.96	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	22848.96	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	24118.13	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	24118.13	250.00

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Summary Internal Standard Report

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Sample Name	J8310-FS(3)	**Injection Vial**	11
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:42:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	33711.67	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	33711.67	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	82704.75	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	82704.75	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	89330.55	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	89330.55	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	28684.23	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	28684.23	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	116052.84	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	116052.84	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	93260.90	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	93260.90	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	27276.07	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	27276.07	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	121156.27	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	121156.27	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	127397.29	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	127397.29	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	122458.83	250.00
PFDoA_2	613.0 / 319.0	3.82	13C2-PFDoA	615.0 / 570.0	122458.83	250.00
PFTrDA_1	663.0 / 619.0	4.20	13C2-PFTeDA	715.0 / 670.0	91712.91	250.00
PFTrDA_2	663.0 / 169.0	4.19	13C2-PFTeDA	715.0 / 670.0	91712.91	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	91712.91	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	91712.91	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	18085.62	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	18085.62	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	21609.14	250.00
NEtFOSAA_2	584.0 / 483.0	3.74	d5-EtFOSAA	589.0 / 419.0	21609.14	250.00

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Summary Internal Standard Report

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Sample Name	J8310-FS-D(5)	**Injection Vial**	12
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:53:13	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	28267.80	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	28267.80	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	66518.97	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	66518.97	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	75264.72	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	75264.72	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	25692.08	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	25692.08	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	98711.32	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	98711.32	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	97300.50	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	97300.50	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	29538.64	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	29538.64	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	106811.60	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	106811.60	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	103032.48	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	103032.48	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	102998.54	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	102998.54	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	83004.26	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	83004.26	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	83004.26	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	83004.26	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	17915.65	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	17915.65	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	19490.78	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	19490.78	250.00

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Summary Internal Standard Report

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Sample Name	J8311-FS(3)	**Injection Vial**	13
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:04:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	33809.74	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	33809.74	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	78686.56	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	78686.56	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	92717.71	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	92717.71	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	29161.65	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	29161.65	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	114314.54	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	114314.54	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	86448.54	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	86448.54	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	27149.48	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	27149.48	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	127018.99	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	127018.99	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	121249.77	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	121249.77	250.00
PFDoA_1	613.0 / 569.0	4.00	13C2-PFDoA	615.0 / 570.0	127972.62	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	127972.62	250.00
PFTrDA_1	663.0 / 619.0	4.19	13C2-PFTeDA	715.0 / 670.0	89819.28	250.00
PFTrDA_2	663.0 / 169.0	4.19	13C2-PFTeDA	715.0 / 670.0	89819.28	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	89819.28	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	89819.28	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	17947.30	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	17947.30	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	23318.72	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	23318.72	250.00

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Sample Name	J8311-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:14:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	29534.81	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	29534.81	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	69282.51	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	69282.51	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	78889.31	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	78889.31	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	22525.98	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	22525.98	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	104680.52	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	104680.52	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	102938.12	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	102938.12	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	31018.10	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	31018.10	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	107289.41	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	107289.41	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	110861.55	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	110861.55	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	113540.49	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	113540.49	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	86488.11	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	86488.11	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	86488.11	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	86488.11	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	17789.32	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	17789.32	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	20632.15	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	20632.15	250.00

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Sample Name	J8312-FS(3)	**Injection Vial**	15
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:25:51	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	35045.92	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	35045.92	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	73348.63	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	73348.63	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	86491.97	250.00
PFHpA_2	363.0 / 169.0	2.22	13C4-PFHpA	367.0 / 322.0	86491.97	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	26927.52	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	26927.52	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	85390.23	250.00
PFOA_2	413.0 / 169.0	2.62	13C8-PFOA	421.0 / 376.0	85390.23	250.00
PFNA_1	463.0 / 419.0	3.01	13C9-PFNA	472.0 / 427.0	71025.95	250.00
PFNA_2	463.0 / 219.0	2.94	13C9-PFNA	472.0 / 427.0	71025.95	250.00
PFOS_1	499.0 / 80.0	2.99	13C8-PFOS	507.0 / 99.0	20847.42	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	20847.42	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	114949.02	250.00
PFDA_2	513.0 / 219.0	3.25	13C6-PFDA	519.0 / 474.0	114949.02	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	115790.43	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	115790.43	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	108954.61	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	108954.61	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	88198.01	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	88198.01	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	88198.01	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	88198.01	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	17440.54	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	17440.54	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	21434.64	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	21434.64	250.00

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Sample Name	J8312-FS-D(5)	**Injection Vial**	16
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:36:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	30046.76	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	30046.76	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	74313.06	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	74313.06	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	79536.74	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	79536.74	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	23538.51	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	23538.51	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	90662.10	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	90662.10	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	90201.39	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	90201.39	250.00
PFOS_1	499.0 / 80.0	3.04	13C8-PFOS	507.0 / 99.0	24525.42	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	24525.42	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	106813.05	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	106813.05	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	110217.10	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	110217.10	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	98267.57	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	98267.57	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	81260.65	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	81260.65	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	81260.65	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	81260.65	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	17747.22	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	17747.22	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	17801.76	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	17801.76	250.00

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Summary Internal Standard Report

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Sample Name	J8312-FS-D(7)	**Injection Vial**	17
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:47:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	27526.87	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	27526.87	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	69427.28	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	69427.28	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	76572.99	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	76572.99	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	24120.86	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	24120.86	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	104210.45	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	104210.45	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	92591.09	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	92591.09	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	30375.15	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	30375.15	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	116054.34	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	116054.34	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	108386.99	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	108386.99	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	112959.16	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	112959.16	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	83817.08	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	83817.08	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	83817.08	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	83817.08	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	16960.22	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	16960.22	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	19352.90	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	19352.90	250.00

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Summary Internal Standard Report

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Sample Name	J8333-FS(3)	**Injection Vial**	18
Sample ID	VC-PM324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:58:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	1.83	13C3-PFBS	302.0 / 99.0	32324.75	232.25
PFBS_2	298.9 / 99.0	1.84	13C3-PFBS	302.0 / 99.0	32324.75	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	82801.39	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	82801.39	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	86686.09	250.00
PFHpA_2	363.0 / 169.0	2.21	13C4-PFHpA	367.0 / 322.0	86686.09	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	32441.78	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	32441.78	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	116284.01	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	116284.01	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	114789.21	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	114789.21	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	31417.44	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	31417.44	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	129362.53	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	129362.53	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	123298.85	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	123298.85	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	117755.73	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	117755.73	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	92208.03	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	92208.03	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	92208.03	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	92208.03	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	15716.83	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	15716.83	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	21249.49	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	21249.49	250.00

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Summary Internal Standard Report

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Sample Name	J8313-FS(3)	**Injection Vial**	21
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:31:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	39160.39	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	39160.39	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	90112.21	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	90112.21	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	100449.24	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	100449.24	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	31615.48	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	31615.48	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	122417.97	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	122417.97	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	74584.72	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	74584.72	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	20874.64	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	20874.64	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	133580.66	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	133580.66	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	139887.28	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	139887.28	250.00
PFDoA_1	613.0 / 569.0	4.01	13C2-PFDoA	615.0 / 570.0	128880.33	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	128880.33	250.00
PFTrDA_1	663.0 / 619.0	4.19	13C2-PFTeDA	715.0 / 670.0	108254.53	250.00
PFTrDA_2	663.0 / 169.0	4.19	13C2-PFTeDA	715.0 / 670.0	108254.53	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	108254.53	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	108254.53	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	21657.95	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	21657.95	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	20575.62	250.00
NEtFOSAA_2	584.0 / 483.0	3.71	d5-EtFOSAA	589.0 / 419.0	20575.62	250.00

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Summary Internal Standard Report

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Sample Name	J8313-FS-D(5)	**Injection Vial**	22
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:41:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	30493.90	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	30493.90	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	68295.98	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	68295.98	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	86059.09	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	86059.09	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	27051.67	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	27051.67	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	105650.87	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	105650.87	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	104185.90	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	104185.90	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	31833.86	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	31833.86	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	114408.55	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	114408.55	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	115186.55	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	115186.55	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	111856.60	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	111856.60	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	87976.64	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	87976.64	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	87976.64	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	87976.64	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	15350.50	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	15350.50	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	20964.70	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	20964.70	250.00

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Summary Internal Standard Report

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Sample Name	J8314-FS(3)	**Injection Vial**	23
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:52:50	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	36627.38	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	36627.38	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	94500.90	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	94500.90	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	100995.63	250.00
PFHpA_2	363.0 / 169.0	2.24	13C4-PFHpA	367.0 / 322.0	100995.63	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	34055.23	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	34055.23	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	126879.89	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	126879.89	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	86000.54	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	86000.54	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	27604.82	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	27604.82	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	138211.11	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	138211.11	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	145457.18	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	145457.18	250.00
PFDoA_1	613.0 / 569.0	4.00	13C2-PFDoA	615.0 / 570.0	139673.19	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	139673.19	250.00
PFTrDA_1	663.0 / 619.0	4.19	13C2-PFTeDA	715.0 / 670.0	111086.37	250.00
PFTrDA_2	663.0 / 169.0	4.19	13C2-PFTeDA	715.0 / 670.0	111086.37	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	111086.37	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	111086.37	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	19269.84	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	19269.84	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	25740.01	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	25740.01	250.00

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Summary Internal Standard Report

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Sample Name	J8314-FS-D(5)	**Injection Vial**	24
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:03:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	31261.01	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	31261.01	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	73940.09	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	73940.09	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	82038.12	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	82038.12	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	27938.70	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	27938.70	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	103791.24	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	103791.24	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	102574.38	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	102574.38	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	30866.63	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	30866.63	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	120207.97	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	120207.97	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	113348.65	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	113348.65	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	111856.56	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	111856.56	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	89719.59	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	89719.59	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	89719.59	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	89719.59	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	16099.50	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	16099.50	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	19208.88	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	19208.88	250.00

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Summary Internal Standard Report

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Sample Name	J8315-FS(3)	**Injection Vial**	25
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:14:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	39012.18	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	39012.18	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	84205.79	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	84205.79	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	96339.05	250.00
PFHpA_2	363.0 / 169.0	2.23	13C4-PFHpA	367.0 / 322.0	96339.05	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	30898.84	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	30898.84	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	89633.12	250.00
PFOA_2	413.0 / 169.0	2.63	13C8-PFOA	421.0 / 376.0	89633.12	250.00
PFNA_1	463.0 / 419.0	3.03	13C9-PFNA	472.0 / 427.0	48919.40	250.00
PFNA_2	463.0 / 219.0	3.00	13C9-PFNA	472.0 / 427.0	48919.40	250.00
PFOS_1	499.0 / 80.0	2.96	13C8-PFOS	507.0 / 99.0	14329.52	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	14329.52	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	131721.36	250.00
PFDA_2	513.0 / 219.0	3.40	13C6-PFDA	519.0 / 474.0	131721.36	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	132373.61	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	132373.61	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	127878.75	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	127878.75	250.00
PFTrDA_1	663.0 / 619.0	4.19	13C2-PFTeDA	715.0 / 670.0	100800.78	250.00
PFTrDA_2	663.0 / 169.0	4.19	13C2-PFTeDA	715.0 / 670.0	100800.78	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	100800.78	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	100800.78	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	18547.63	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	18547.63	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	22431.18	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	22431.18	250.00

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Summary Internal Standard Report

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Sample Name	J8315-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:25:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	24412.75	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	24412.75	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	61425.77	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	61425.77	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	72635.51	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	72635.51	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	22573.82	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	22573.82	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	84463.00	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	84463.00	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	80529.53	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	80529.53	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	26188.03	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	26188.03	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	103317.08	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	103317.08	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	99413.83	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	99413.83	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	95766.53	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	95766.53	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	74916.26	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	74916.26	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	74916.26	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	74916.26	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	16430.64	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	16430.64	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	18804.39	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	18804.39	250.00

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Summary Internal Standard Report

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Sample Name	J8316-FS(3)	**Injection Vial**	27
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:36:19	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	37263.83	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	37263.83	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	84428.02	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	84428.02	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	93986.98	250.00
PFHpA_2	363.0 / 169.0	2.23	13C4-PFHpA	367.0 / 322.0	93986.98	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	30381.15	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	30381.15	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	111716.43	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	111716.43	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	78191.48	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	78191.48	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	21805.03	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	21805.03	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	136313.29	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	136313.29	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	135953.12	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	135953.12	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	127771.88	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	127771.88	250.00
PFTrDA_1	663.0 / 619.0	4.19	13C2-PFTeDA	715.0 / 670.0	101087.90	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	101087.90	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	101087.90	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	101087.90	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	19323.92	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	19323.92	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	25325.25	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	25325.25	250.00

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Sample Name	J8316-FS-D(5)	**Injection Vial**	28
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:47:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	29967.25	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	29967.25	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	69582.25	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	69582.25	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	73308.09	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	73308.09	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	25402.37	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	25402.37	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	101262.01	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	101262.01	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	97756.42	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	97756.42	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	31591.32	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	31591.32	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	111077.11	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	111077.11	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	106430.69	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	106430.69	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	102745.94	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	102745.94	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	84128.76	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	84128.76	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	84128.76	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	84128.76	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	16111.40	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	16111.40	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	19525.91	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	19525.91	250.00

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Summary Internal Standard Report

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Sample Name	J8317-FS(3)	**Injection Vial**	29
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:58:03	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	35311.41	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	35311.41	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	82776.22	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	82776.22	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	98586.75	250.00
PFHpA_2	363.0 / 169.0	2.24	13C4-PFHpA	367.0 / 322.0	98586.75	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	30791.21	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	30791.21	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	107916.83	250.00
PFOA_2	413.0 / 169.0	2.61	13C8-PFOA	421.0 / 376.0	107916.83	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	75327.27	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	75327.27	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	23743.08	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	23743.08	239.25
PFDA_1	513.0 / 469.0	3.38	13C6-PFDA	519.0 / 474.0	127937.73	250.00
PFDA_2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	127937.73	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	123397.67	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	123397.67	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	121152.33	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	121152.33	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	96312.03	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	96312.03	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	96312.03	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	96312.03	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	19927.39	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	19927.39	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	22845.63	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	22845.63	250.00

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Summary Internal Standard Report

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Sample Name	J8317-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:08:54	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	30012.28	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	30012.28	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	73151.76	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	73151.76	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	80116.43	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	80116.43	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	28909.84	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	28909.84	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	102935.05	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	102935.05	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	96207.54	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	96207.54	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	33560.81	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	33560.81	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	112590.22	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	112590.22	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	114609.82	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	114609.82	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	110950.07	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	110950.07	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	88895.75	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	88895.75	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	88895.75	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	88895.75	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	16759.81	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	16759.81	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16980.50	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16980.50	250.00

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Summary Internal Standard Report

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Sample Name	J8318-FS(3)	**Injection Vial**	33
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:41:33	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.53	13C3-PFBS	302.0 / 99.0	31747.46	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	31747.46	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	73464.98	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	73464.98	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	81023.13	250.00
PFHpA_2	363.0 / 169.0	2.24	13C4-PFHpA	367.0 / 322.0	81023.13	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	25494.56	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	25494.56	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	79237.66	250.00
PFOA_2	413.0 / 169.0	2.64	13C8-PFOA	421.0 / 376.0	79237.66	250.00
PFNA_1	463.0 / 419.0	3.00	13C9-PFNA	472.0 / 427.0	44398.73	250.00
PFNA_2	463.0 / 219.0	2.98	13C9-PFNA	472.0 / 427.0	44398.73	250.00
PFOS_1	499.0 / 80.0	2.97	13C8-PFOS	507.0 / 99.0	12260.68	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	12260.68	239.25
PFDA_1	513.0 / 469.0	3.36	13C6-PFDA	519.0 / 474.0	115050.34	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	115050.34	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	109972.00	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	109972.00	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	115396.99	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	115396.99	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	85836.52	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	85836.52	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	85836.52	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	85836.52	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	17271.00	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	17271.00	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	19279.35	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	19279.35	250.00

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Summary Internal Standard Report

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Sample Name	J8318-FS-D(5)	**Injection Vial**	34
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:52:24	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	22207.00	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	22207.00	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	57152.38	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	57152.38	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	66034.53	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	66034.53	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	25030.32	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	25030.32	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	86131.92	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	86131.92	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	88497.44	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	88497.44	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	25622.62	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	25622.62	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	91171.79	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	91171.79	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	90848.44	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	90848.44	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	87362.77	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	87362.77	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	66669.16	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66669.16	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	66669.16	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66669.16	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14400.18	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14400.18	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16363.88	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16363.88	250.00

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Sample Name	J8318-FS-D(7)	**Injection Vial**	35
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:03:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	32460.51	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	32460.51	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	79561.01	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	79561.01	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	88966.16	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	88966.16	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	26473.82	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	26473.82	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	90589.59	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	90589.59	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	57478.63	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	57478.63	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	14603.83	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	14603.83	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	118756.66	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	118756.66	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	119470.57	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	119470.57	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	118330.60	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	118330.60	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	91564.00	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	91564.00	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	91564.00	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	91564.00	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	16549.63	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	16549.63	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	19061.41	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	19061.41	250.00

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Summary Internal Standard Report

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Sample Name	J8327-FS(3)	**Injection Vial**	36
Sample ID	VC-PM323-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:14:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	38506.69	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	38506.69	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	83024.25	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	83024.25	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	94920.33	250.00
PFHpA_2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	94920.33	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	32522.93	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	32522.93	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	118612.35	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	118612.35	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	118674.50	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	118674.50	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	39763.25	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	39763.25	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	142527.09	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	142527.09	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	131240.36	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	131240.36	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	129083.72	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	129083.72	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	102486.45	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	102486.45	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	102486.45	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	102486.45	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	20170.84	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	20170.84	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	22183.46	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	22183.46	250.00

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Summary Internal Standard Report

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Sample Name	J8328-FS(3)	**Injection Vial**	37
Sample ID	VC-PM323-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:25:02	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	34111.68	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	34111.68	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	77672.05	250.00
PFHxA_2	313.0 / 119.0	1.38	13C5-PFHxA	318.0 / 273.0	77672.05	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	84501.76	250.00
PFHpA_2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	84501.76	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	28821.76	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	28821.76	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	115195.96	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	115195.96	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	110078.99	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	110078.99	250.00
PFOS_1	499.0 / 80.0	3.03	13C8-PFOS	507.0 / 99.0	30427.55	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	30427.55	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	121339.79	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	121339.79	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	122882.47	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	122882.47	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	113312.60	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	113312.60	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	91681.43	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	91681.43	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	91681.43	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	91681.43	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	17999.78	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	17999.78	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	19162.81	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	19162.81	250.00

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Summary Internal Standard Report

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Sample Name	J8329-FS(3)	**Injection Vial**	38
Sample ID	VC-PM323-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:35:55	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	32523.91	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	32523.91	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	83273.80	250.00
PFHxA_2	313.0 / 119.0	1.37	13C5-PFHxA	318.0 / 273.0	83273.80	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	84576.02	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	84576.02	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	33020.05	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	33020.05	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	114635.02	250.00
PFOA_2	413.0 / 169.0	2.58	13C8-PFOA	421.0 / 376.0	114635.02	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	110370.42	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	110370.42	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	34582.12	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	34582.12	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	120438.63	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	120438.63	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	127554.99	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	127554.99	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	116964.29	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	116964.29	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	90315.06	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	90315.06	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	90315.06	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	90315.06	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	17456.90	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	17456.90	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	19284.10	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	19284.10	250.00

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Summary Internal Standard Report

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Sample Name	J8332-FS(3)	**Injection Vial**	39
Sample ID	VC-PM324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:46:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	33243.36	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	33243.36	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	84507.90	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	84507.90	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	91243.17	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	91243.17	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	30760.75	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	30760.75	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	121131.26	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	121131.26	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	115291.43	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	115291.43	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	33615.90	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	33615.90	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	132885.37	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	132885.37	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	130160.53	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	130160.53	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	130822.19	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	130822.19	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	100028.71	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	100028.71	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	100028.71	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	100028.71	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	18904.38	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	18904.38	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	24161.06	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	24161.06	250.00

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Summary Internal Standard Report

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Sample Name	J8334-FS(3)	**Injection Vial**	40
Sample ID	VC-PM324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:57:38	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	30615.18	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	30615.18	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	77366.94	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	77366.94	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	87493.15	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	87493.15	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	30271.74	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	30271.74	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	111304.35	250.00
PFOA_2	413.0 / 169.0	2.62	13C8-PFOA	421.0 / 376.0	111304.35	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	106082.68	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	106082.68	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	31535.74	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	31535.74	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	116389.69	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	116389.69	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	119949.50	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	119949.50	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	119964.02	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	119964.02	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	87020.66	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	87020.66	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	87020.66	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	87020.66	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	17600.26	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	17600.26	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	20463.04	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	20463.04	250.00

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Sample Name	J8335MS-FS(3)	**Injection Vial**	41
Sample ID	VC-PM324-SB02-0506-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:08:31	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	34273.56	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	34273.56	232.25
PFHxA_1	313.0 / 269.0	1.84	13C5-PFHxA	318.0 / 273.0	74099.37	250.00
PFHxA_2	313.0 / 119.0	1.84	13C5-PFHxA	318.0 / 273.0	74099.37	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	77578.50	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	77578.50	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	26441.95	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	26441.95	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	99313.64	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	99313.64	250.00
PFNA_1	463.0 / 419.0	3.05	13C9-PFNA	472.0 / 427.0	104218.15	250.00
PFNA_2	463.0 / 219.0	3.05	13C9-PFNA	472.0 / 427.0	104218.15	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	30970.90	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	30970.90	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	107459.51	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	107459.51	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	111645.45	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	111645.45	250.00
PFDoA_1	613.0 / 569.0	4.01	13C2-PFDoA	615.0 / 570.0	111847.15	250.00
PFDoA_2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	111847.15	250.00
PFTrDA_1	663.0 / 619.0	4.25	13C2-PFTeDA	715.0 / 670.0	88605.88	250.00
PFTrDA_2	663.0 / 169.0	4.25	13C2-PFTeDA	715.0 / 670.0	88605.88	250.00
PFTeDA_1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	88605.88	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	88605.88	250.00
NMeFOSAA_1	570.0 / 419.0	3.56	d3-MeFOSAA	573.0 / 419.0	16675.86	250.00
NMeFOSAA_2	570.0 / 512.0	3.56	d3-MeFOSAA	573.0 / 419.0	16675.86	250.00
NEtFOSAA_1	584.0 / 419.0	3.72	d5-EtFOSAA	589.0 / 419.0	17749.54	250.00
NEtFOSAA_2	584.0 / 483.0	3.72	d5-EtFOSAA	589.0 / 419.0	17749.54	250.00

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Summary Internal Standard Report

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Sample Name	J8336MSD-FS(3)	**Injection Vial**	42
Sample ID	VC-PM324-SB02-0506-MSD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:19:23	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	37637.62	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	37637.62	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	82312.77	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	82312.77	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	97238.43	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	97238.43	250.00
PFHxS_1	399.0 / 80.0	2.27	13C3-PFHxS	402.0 / 99.0	32625.88	236.50
PFHxS_2	399.0 / 99.0	2.27	13C3-PFHxS	402.0 / 99.0	32625.88	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	109391.11	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	109391.11	250.00
PFNA_1	463.0 / 419.0	3.05	13C9-PFNA	472.0 / 427.0	116481.22	250.00
PFNA_2	463.0 / 219.0	3.05	13C9-PFNA	472.0 / 427.0	116481.22	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	36670.03	239.25
PFOS_2	499.0 / 99.0	3.05	13C8-PFOS	507.0 / 99.0	36670.03	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	116493.76	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	116493.76	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	122469.18	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	122469.18	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	132682.85	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	132682.85	250.00
PFTrDA_1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	104644.92	250.00
PFTrDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	104644.92	250.00
PFTeDA_1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	104644.92	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	104644.92	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	19957.49	250.00
NMeFOSAA_2	570.0 / 512.0	3.56	d3-MeFOSAA	573.0 / 419.0	19957.49	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	19324.05	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	19324.05	250.00

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Summary Internal Standard Report

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Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:56:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	85865.67	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	28550.52	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	28550.52	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	80851.75	250.00
13C4-PFHpA	367.0 / 322.0	2.27	13C2-PFOA	415.0 / 370.0	80851.75	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	80851.75	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	80851.75	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	85865.67	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	85865.67	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	85865.67	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	28550.52	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	28550.52	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	28550.52	239.25

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Summary Internal Standard Report

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Sample Name	CR888PB-FS(3)	**Injection Vial**	9
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:20:36	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	119718.69	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	33999.49	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	33999.49	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	98847.52	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	98847.52	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	98847.52	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	98847.52	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	119718.69	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	119718.69	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	119718.69	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	33999.49	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	33999.49	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	33999.49	239.25

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Summary Internal Standard Report

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Sample Name	CR889LCS-FS(3)	**Injection Vial**	10
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:31:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	121181.67	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	37127.83	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	37127.83	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	100990.04	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	100990.04	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	100990.04	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	100990.04	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	121181.67	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	121181.67	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	121181.67	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	37127.83	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	37127.83	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	37127.83	239.25

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Summary Internal Standard Report

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Sample Name	J8310-FS(3)	**Injection Vial**	11
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:42:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	99797.23	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	23763.49	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	23763.49	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	94591.38	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	94591.38	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	94591.38	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	94591.38	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	99797.23	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	99797.23	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	99797.23	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	23763.49	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	23763.49	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	23763.49	239.25

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Summary Internal Standard Report

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Sample Name	J8310-FS-D(5)	**Injection Vial**	12
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:53:13	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	105836.24	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	25241.15	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	25241.15	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	94382.65	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	94382.65	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	94382.65	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	94382.65	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	105836.24	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	105836.24	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	105836.24	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	25241.15	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	25241.15	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	25241.15	239.25

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Summary Internal Standard Report

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Sample Name	J8311-FS(3)	**Injection Vial**	13
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:04:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	108610.19	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	22823.21	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	22823.21	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	100304.03	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	100304.03	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	100304.03	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	100304.03	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	108610.19	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	108610.19	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	108610.19	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	22823.21	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	22823.21	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	22823.21	239.25

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Summary Internal Standard Report

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Sample Name	J8311-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:14:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	124067.38	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	34877.34	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	34877.34	239.25
13C5-PFHxA	318.0 / 273.0	1.82	13C2-PFOA	415.0 / 370.0	111903.31	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	111903.31	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	111903.31	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	111903.31	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	124067.38	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	124067.38	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	124067.38	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	34877.34	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	34877.34	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	34877.34	239.25

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Summary Internal Standard Report

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Sample Name	J8312-FS(3)	**Injection Vial**	15
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:25:51	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	102596.48	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	19343.95	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	19343.95	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	78768.50	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	78768.50	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	78768.50	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	78768.50	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	102596.48	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	102596.48	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	102596.48	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	19343.95	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	19343.95	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	19343.95	239.25

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Summary Internal Standard Report

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Sample Name	J8312-FS-D(5)	**Injection Vial**	16
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:36:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	129531.18	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	26831.50	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26831.50	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	99633.86	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	99633.86	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	99633.86	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	99633.86	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	129531.18	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	129531.18	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	129531.18	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26831.50	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	26831.50	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	26831.50	239.25

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Summary Internal Standard Report

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Sample Name	J8312-FS-D(7)	**Injection Vial**	17
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:47:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	118094.00	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	30671.13	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	30671.13	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	102079.49	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	102079.49	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	102079.49	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	102079.49	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	118094.00	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	118094.00	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	118094.00	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	30671.13	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	30671.13	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	30671.13	239.25

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Summary Internal Standard Report

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Sample Name	J8333-FS(3)	**Injection Vial**	18
Sample ID	VC-PM324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:58:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	3.99	13C2-PFDA	515.0 / 470.0	127279.90	250.00
d3-MeFOSAA	573.0 / 419.0	3.55	13C4-PFOS	503.0 / 99.0	33954.46	239.25
d5-EtFOSAA	589.0 / 419.0	3.71	13C4-PFOS	503.0 / 99.0	33954.46	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	108999.59	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	108999.59	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	108999.59	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	108999.59	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	127279.90	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	127279.90	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	127279.90	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	33954.46	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	33954.46	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	33954.46	239.25

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Summary Internal Standard Report

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Sample Name	J8313-FS(3)	**Injection Vial**	21
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:31:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	118180.95	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	20547.10	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	20547.10	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	103839.29	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	103839.29	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	103839.29	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	103839.29	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	118180.95	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	118180.95	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	118180.95	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	20547.10	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	20547.10	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	20547.10	239.25

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Summary Internal Standard Report

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Sample Name	J8313-FS-D(5)	**Injection Vial**	22
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:41:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	128455.70	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	34994.75	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	34994.75	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	111149.94	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	111149.94	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	111149.94	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	111149.94	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	128455.70	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	128455.70	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	128455.70	250.00
13C3-PFBS	302.0 / 99.0	1.50	13C4-PFOS	503.0 / 99.0	34994.75	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	34994.75	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	34994.75	239.25

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Summary Internal Standard Report

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Sample Name	J8314-FS(3)	**Injection Vial**	23
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:52:50	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	125158.30	250.00
d3-MeFOSAA	573.0 / 419.0	3.55	13C4-PFOS	503.0 / 99.0	21579.89	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	21579.89	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	110989.50	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	110989.50	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	110989.50	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	110989.50	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	125158.30	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	125158.30	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	125158.30	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	21579.89	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	21579.89	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	21579.89	239.25

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Sample Name	J8314-FS-D(5)	**Injection Vial**	24
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:03:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	126696.44	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	32823.18	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	32823.18	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	109954.64	250.00
13C4-PFHpA	367.0 / 322.0	2.23	13C2-PFOA	415.0 / 370.0	109954.64	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	109954.64	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	109954.64	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	126696.44	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	126696.44	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	126696.44	250.00
13C3-PFBS	302.0 / 99.0	1.50	13C4-PFOS	503.0 / 99.0	32823.18	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	32823.18	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	32823.18	239.25

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Summary Internal Standard Report

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Sample Name	J8315-FS(3)	**Injection Vial**	25
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:14:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	119118.07	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	13360.66	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	13360.66	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	81889.97	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	81889.97	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	81889.97	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	81889.97	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	119118.07	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	119118.07	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	119118.07	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	13360.66	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	13360.66	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	13360.66	239.25

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Sample Name	J8315-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:25:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	116072.54	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	26472.02	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26472.02	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	94001.13	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	94001.13	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	94001.13	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	94001.13	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	116072.54	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	116072.54	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	116072.54	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26472.02	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	26472.02	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	26472.02	239.25

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Summary Internal Standard Report

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Sample Name	J8316-FS(3)	**Injection Vial**	27
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:36:19	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	116306.17	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	20285.34	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	20285.34	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	97973.93	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	97973.93	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	97973.93	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	97973.93	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	116306.17	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	116306.17	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	116306.17	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	20285.34	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	20285.34	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	20285.34	239.25

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Summary Internal Standard Report

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Sample Name	J8316-FS-D(5)	**Injection Vial**	28
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:47:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	126879.80	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	34435.50	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	34435.50	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	109322.89	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	109322.89	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	109322.89	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	109322.89	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	126879.80	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	126879.80	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	126879.80	250.00
13C3-PFBS	302.0 / 99.0	1.50	13C4-PFOS	503.0 / 99.0	34435.50	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	34435.50	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	34435.50	239.25

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Sample Name	J8317-FS(3)	**Injection Vial**	29
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:58:03	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	125065.26	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	22006.82	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	22006.82	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	97690.23	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	97690.23	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	97690.23	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	97690.23	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	125065.26	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	125065.26	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	125065.26	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	22006.82	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	22006.82	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	22006.82	239.25

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Summary Internal Standard Report

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Sample Name	J8317-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:08:54	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	125188.18	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	33708.26	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	33708.26	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	111454.98	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	111454.98	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	111454.98	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	111454.98	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	125188.18	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	125188.18	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	125188.18	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	33708.26	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	33708.26	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	33708.26	239.25

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Summary Internal Standard Report

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Sample Name	J8318-FS(3)	**Injection Vial**	33
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:41:33	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	109249.22	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	13206.72	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	13206.72	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	76245.71	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	76245.71	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	76245.71	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	76245.71	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	109249.22	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	109249.22	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	109249.22	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	13206.72	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	13206.72	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	13206.72	239.25

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Summary Internal Standard Report

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Sample Name	J8318-FS-D(5)	**Injection Vial**	34
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:52:24	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	97603.76	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	26847.28	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26847.28	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	85767.76	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	85767.76	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	85767.76	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	85767.76	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	97603.76	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	97603.76	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	97603.76	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26847.28	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	26847.28	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	26847.28	239.25

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Sample Name	J8318-FS-D(7)	**Injection Vial**	35
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:03:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	117800.84	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	16881.79	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	16881.79	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	86263.39	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	86263.39	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	86263.39	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	86263.39	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	117800.84	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	117800.84	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	117800.84	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	16881.79	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	16881.79	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	16881.79	239.25

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Summary Internal Standard Report

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Sample Name	J8327-FS(3)	**Injection Vial**	36
Sample ID	VC-PM323-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:14:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	128251.62	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	37659.73	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	37659.73	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	109467.37	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	109467.37	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	109467.37	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	109467.37	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	128251.62	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	128251.62	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	128251.62	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	37659.73	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	37659.73	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	37659.73	239.25

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Summary Internal Standard Report

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Sample Name	J8328-FS(3)	**Injection Vial**	37
Sample ID	VC-PM323-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:25:02	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	111854.51	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	30377.89	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	30377.89	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	100180.68	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	100180.68	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	100180.68	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	100180.68	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	111854.51	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	111854.51	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	111854.51	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	30377.89	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	30377.89	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	30377.89	239.25

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Summary Internal Standard Report

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Sample Name	J8329-FS(3)	**Injection Vial**	38
Sample ID	VC-PM323-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:35:55	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	115149.13	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	33672.68	239.25
d5-EtFOSAA	589.0 / 419.0	3.71	13C4-PFOS	503.0 / 99.0	33672.68	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	104062.76	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	104062.76	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	104062.76	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	104062.76	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	115149.13	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	115149.13	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	115149.13	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	33672.68	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	33672.68	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	33672.68	239.25

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Summary Internal Standard Report

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Sample Name	J8332-FS(3)	**Injection Vial**	39
Sample ID	VC-PM324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:46:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	128329.63	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	34599.17	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	34599.17	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	111937.96	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	111937.96	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	111937.96	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	111937.96	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	128329.63	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	128329.63	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	128329.63	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	34599.17	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	34599.17	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	34599.17	239.25

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Summary Internal Standard Report

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Sample Name	J8334-FS(3)	**Injection Vial**	40
Sample ID	VC-PM324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:57:38	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	119248.85	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	33183.56	239.25
d5-EtFOSAA	589.0 / 419.0	3.71	13C4-PFOS	503.0 / 99.0	33183.56	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	103175.17	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	103175.17	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	103175.17	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	103175.17	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	119248.85	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	119248.85	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	119248.85	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	33183.56	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	33183.56	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	33183.56	239.25

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Summary Internal Standard Report

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Sample Name	J8335MS-FS(3)	**Injection Vial**	41
Sample ID	VC-PM324-SB02-0506-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:08:31	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	105620.79	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	30846.11	239.25
d5-EtFOSAA	589.0 / 419.0	3.71	13C4-PFOS	503.0 / 99.0	30846.11	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	87191.00	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	87191.00	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	87191.00	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	87191.00	250.00
13C6-PFDA	519.0 / 474.0	3.39	13C2-PFDA	515.0 / 470.0	105620.79	250.00
13C7-PFUnA	570.0 / 525.0	3.71	13C2-PFDA	515.0 / 470.0	105620.79	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	105620.79	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	30846.11	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	30846.11	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	30846.11	239.25

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Summary Internal Standard Report

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Sample Name	J8336MSD-FS(3)	**Injection Vial**	42
Sample ID	VC-PM324-SB02-0506-MSD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:19:23	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_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	117431.79	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	33585.27	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	33585.27	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	98818.35	250.00
13C4-PFHpA	367.0 / 322.0	2.24	13C2-PFOA	415.0 / 370.0	98818.35	250.00
13C8-PFOA	421.0 / 376.0	2.65	13C2-PFOA	415.0 / 370.0	98818.35	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	98818.35	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	117431.79	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	117431.79	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	117431.79	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	33585.27	239.25
13C3-PFHxS	402.0 / 99.0	2.26	13C4-PFOS	503.0 / 99.0	33585.27	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	33585.27	239.25

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Summary Internal Standard Report

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Sample Name	KB80 IB	**Injection Vial**	9
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:41:02	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	54750.90	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	54750.90	250.00
PFHxS_1	399.0 / 80.0	2.30	13C3-PFHxS	402.0 / 99.0	23029.74	236.50
PFHxS_2	399.0 / 99.0	2.30	13C3-PFHxS	402.0 / 99.0	23029.74	236.50
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	25607.23	239.25
PFOS_2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	25607.23	239.25
PFOA_1	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	85450.51	250.00
PFOA_2	413.0 / 369.0	2.69	13C8-PFOA	421.0 / 376.0	85450.51	250.00

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Summary Internal Standard Report

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Sample Name	KB80 IB	**Injection Vial**	2
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:04:33	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	58188.68	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	58188.68	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	22837.25	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	22837.25	236.50
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	26640.32	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	26640.32	239.25
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	76454.81	250.00
PFOA_2	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	76454.81	250.00

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Summary Internal Standard Report

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Sample Name	J8310-FS-D(7)	**Injection Vial**	8
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:09:47	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	60835.28	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	60835.28	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	24228.06	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	24228.06	236.50
PFOS_1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	26145.68	239.25
PFOS_2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	26145.68	239.25
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	79313.95	250.00
PFOA_2	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	79313.95	250.00

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Summary Internal Standard Report

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Sample Name	J8311-FS-D(7)	**Injection Vial**	9
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:20:39	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	62308.65	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	62308.65	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	24469.59	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	24469.59	236.50
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	27411.94	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	27411.94	239.25
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	86972.89	250.00
PFOA_2	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	86972.89	250.00

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Summary Internal Standard Report

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Sample Name	J8312-FS-D(9)	**Injection Vial**	10
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:31:30	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	64162.43	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	64162.43	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	25007.41	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	25007.41	236.50
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	29249.06	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	29249.06	239.25
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	90799.77	250.00
PFOA_2	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	90799.77	250.00

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Summary Internal Standard Report

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Sample Name	J8313-FS-D(7)	**Injection Vial**	11
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:42:21	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	55769.12	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	55769.12	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	22852.64	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	22852.64	236.50
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	27623.06	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	27623.06	239.25
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	77582.31	250.00
PFOA_2	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	77582.31	250.00

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Summary Internal Standard Report

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Printed: 19/10/2018 4:48:10 PM

Sample Name	J8314-FS-D(7)	**Injection Vial**	12
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:53:13	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	58389.06	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	58389.06	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	23080.45	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	23080.45	236.50
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	25416.75	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	25416.75	239.25
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	77836.30	250.00
PFOA_2	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	77836.30	250.00

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Summary Internal Standard Report

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Sample Name	J8315-FS-D(7)	**Injection Vial**	15
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:25:51	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	60979.63	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	60979.63	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	26039.09	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	26039.09	236.50
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	25680.35	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	25680.35	239.25
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	84282.03	250.00
PFOA_2	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	84282.03	250.00

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Summary Internal Standard Report

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Sample Name	J8316-FS-D(7)	**Injection Vial**	16
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:36:42	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	55487.00	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	55487.00	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	20657.28	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	20657.28	236.50
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	24126.92	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	24126.92	239.25
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	72391.67	250.00
PFOA_2	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	72391.67	250.00

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Summary Internal Standard Report

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Sample Name	J8317-FS-D(7)	**Injection Vial**	17
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:47:33	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	55886.51	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	55886.51	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	22429.46	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	22429.46	236.50
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	24321.89	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	24321.89	239.25
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	75921.50	250.00
PFOA_2	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	75921.50	250.00

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Summary Internal Standard Report

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Printed: 19/10/2018 4:48:27 PM

Sample Name	J8318-FS-D(9)	**Injection Vial**	18
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:58:24	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	64030.67	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	64030.67	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	23181.36	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	23181.36	236.50
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	19364.69	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	19364.69	239.25
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	83101.12	250.00
PFOA_2	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	83101.12	250.00

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Summary Internal Standard Report

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Printed: 25/10/2018 2:55:11 PM

Sample Name	J8315-FS-D(9)	**Injection Vial**	9
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:11:49	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_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	26184.41	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	26184.41	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	59786.04	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	59786.04	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	60391.22	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	60391.22	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	22064.44	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	22064.44	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	73688.88	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	73688.88	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	60478.95	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	60478.95	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	17016.47	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	17016.47	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	90245.43	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	90245.43	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	84272.75	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	84272.75	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	83907.72	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	83907.72	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	62912.20	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	62912.20	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	62912.20	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	62912.20	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	11251.24	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	11251.24	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15760.51	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15760.51	250.00

Chromatograms

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Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:26:15 PM

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:40:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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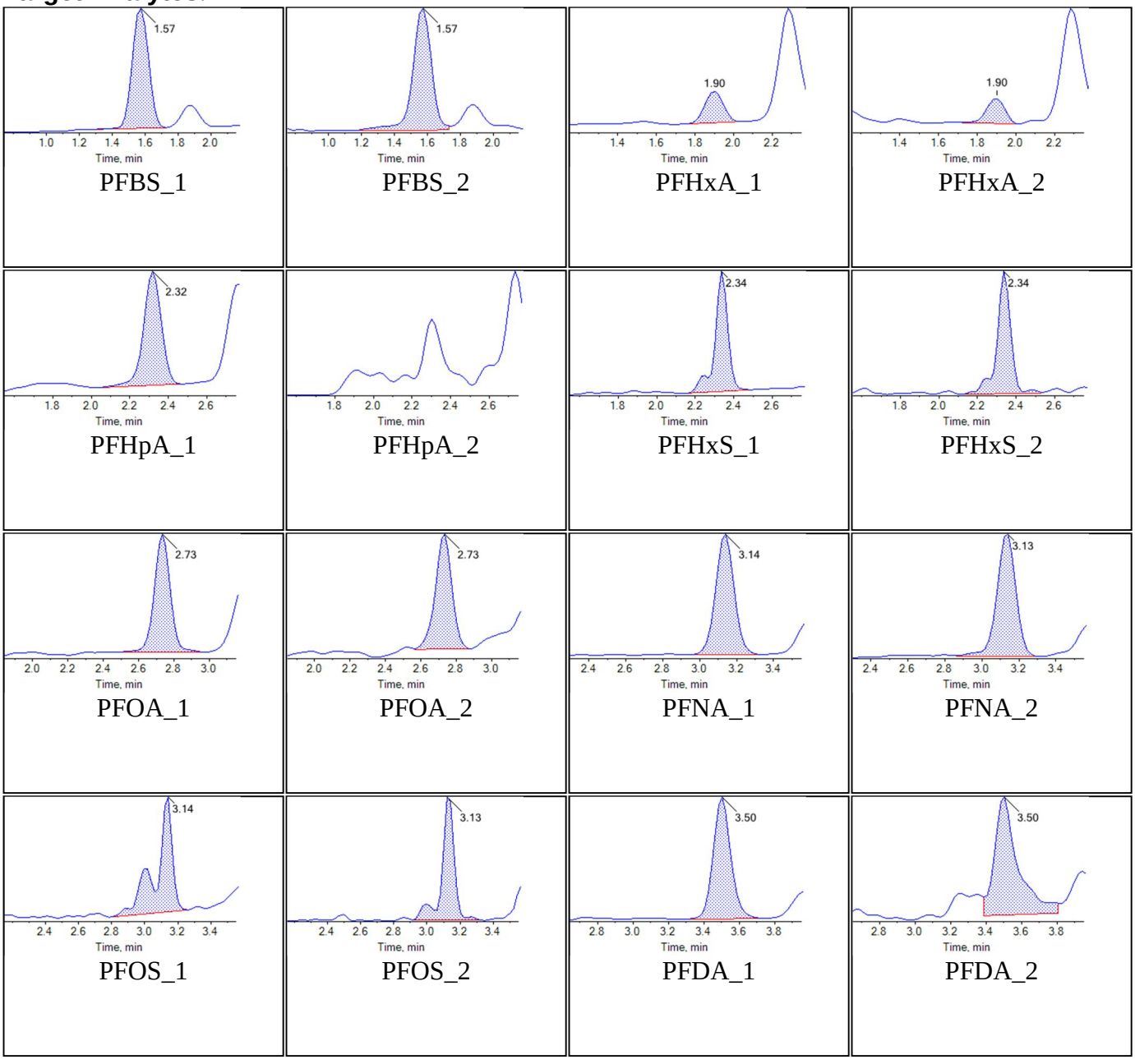

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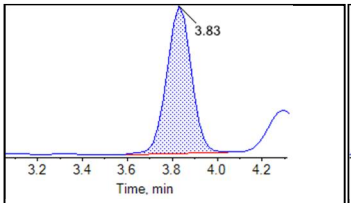
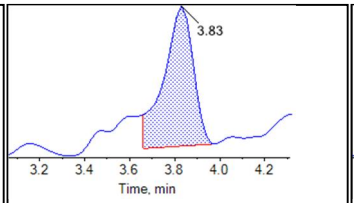
Chromatogram Report

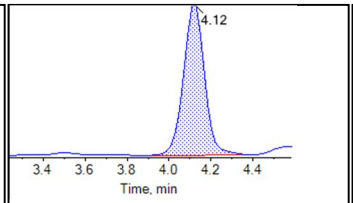
Created with Analyst Reporter
Printed: 19/10/2018 4:26:15 PM



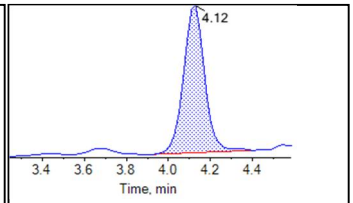
PFUnA_1



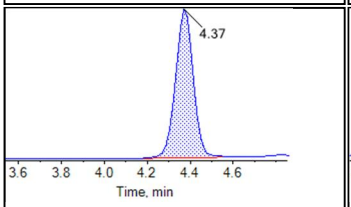
PFUnA_2



PFDoA_1



PFDoA_2



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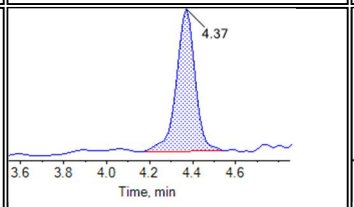

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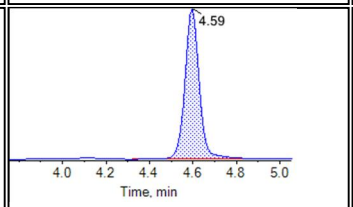
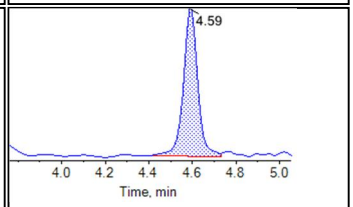


PFTeDA_1



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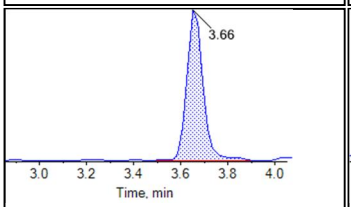

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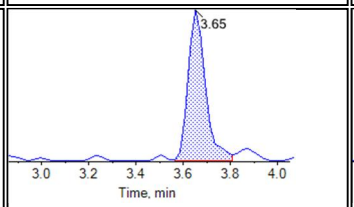

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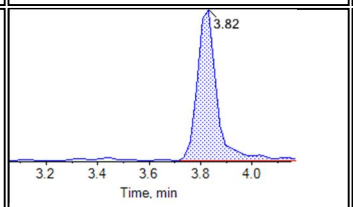

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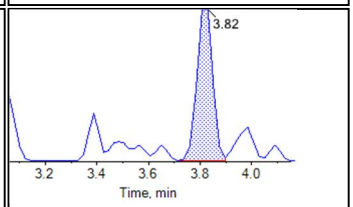
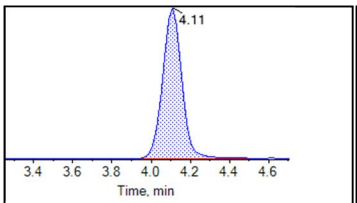
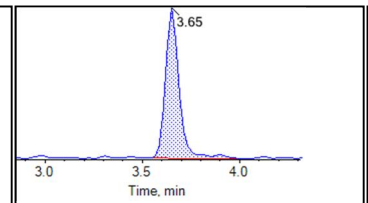


NEtFOSAA_2

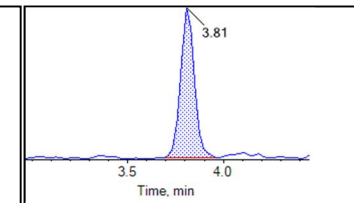
Internal Standards:



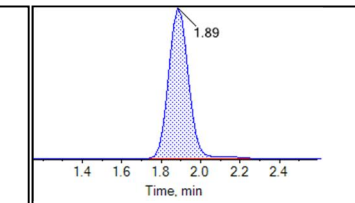
13C2-PFDoA



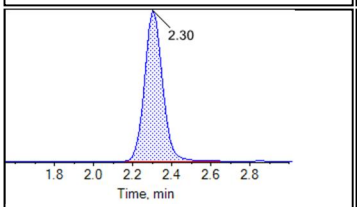
d3-MeFOSAA



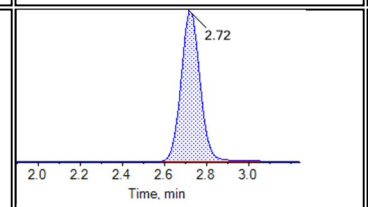
d5-EtFOSAA



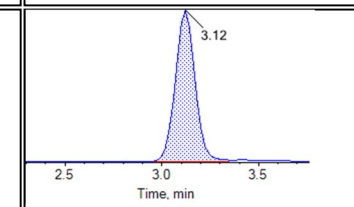
13C5-PFHxA



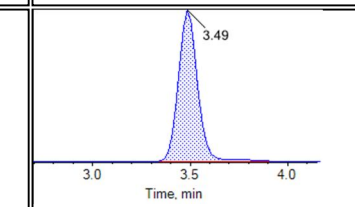
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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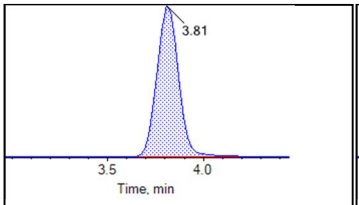
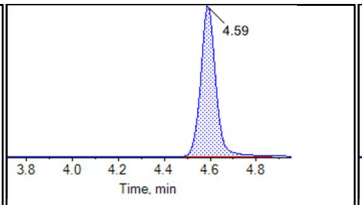
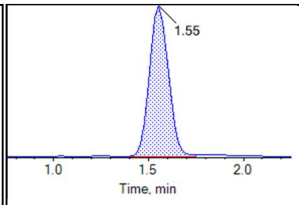


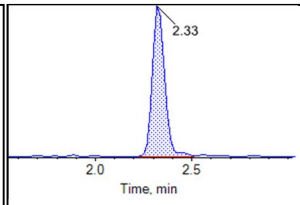
13C7-PFUnA



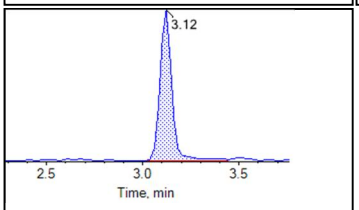
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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Printed: 19/10/2018 4:26:20 PM

Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:51:02	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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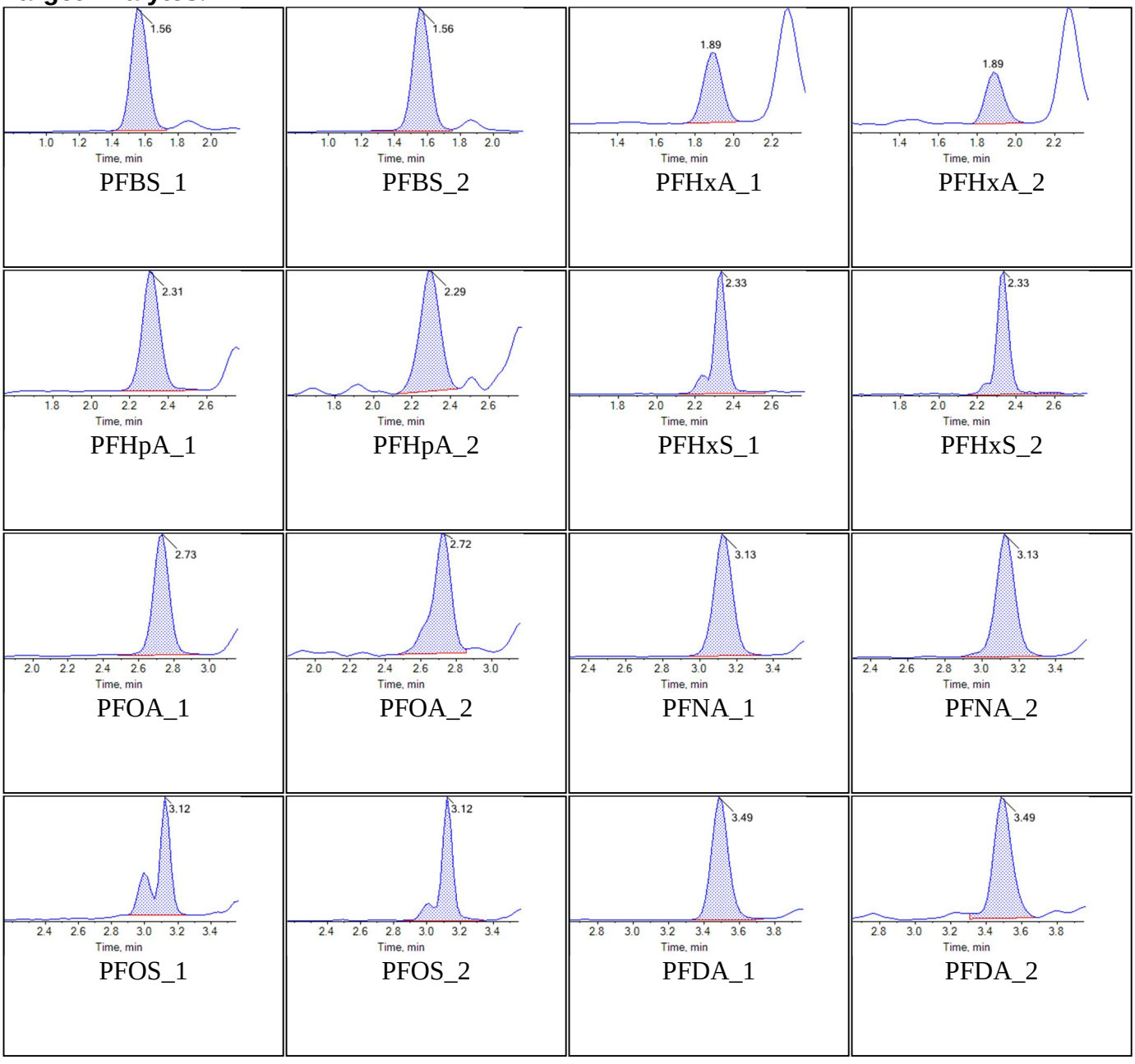

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Chromatogram Report

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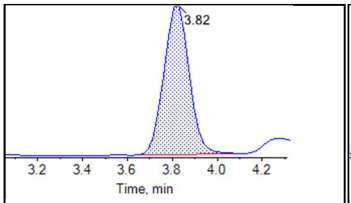

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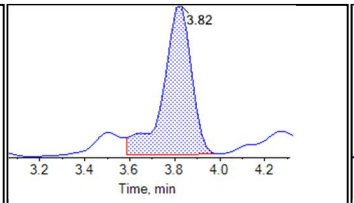

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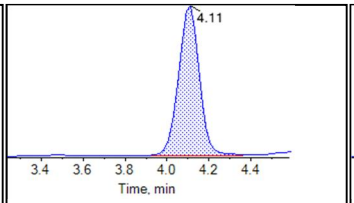

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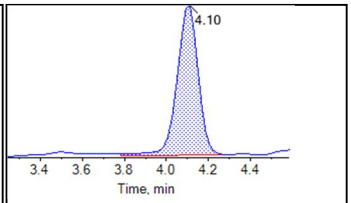
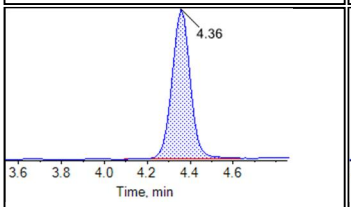
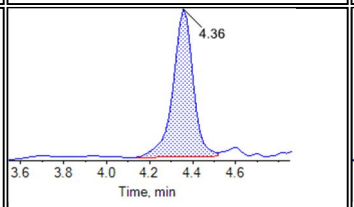


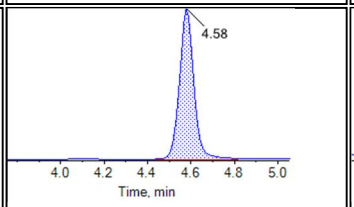
PFDoA_2



PFTrDA_1



PFTrDA_2



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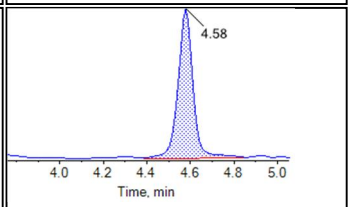
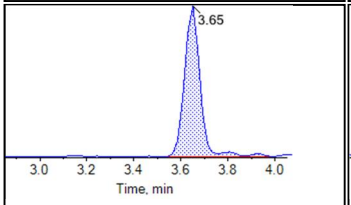
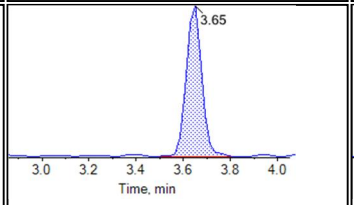


PFTeDA_2



NMeFOSAA_1



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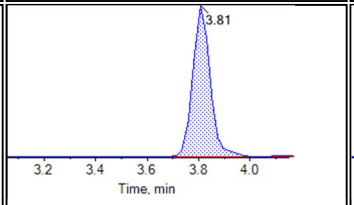
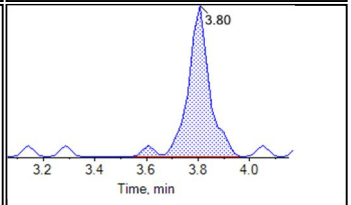
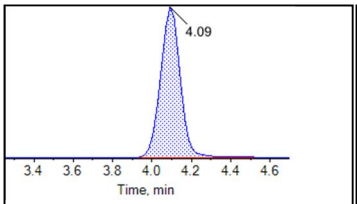


NEtFOSAA_1

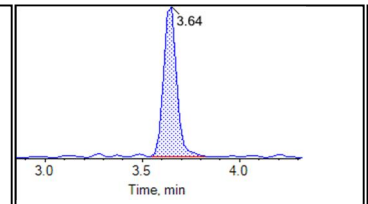


NEtFOSAA_2

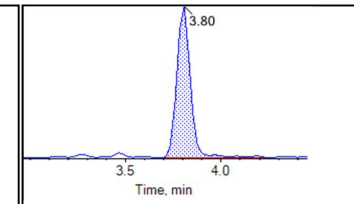
Internal Standards:



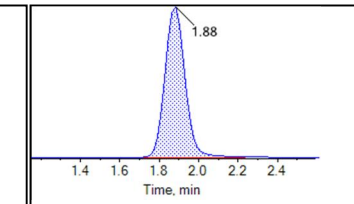
13C2-PFDoA



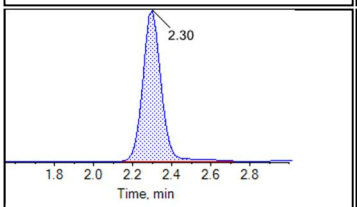
d3-MeFOSAA



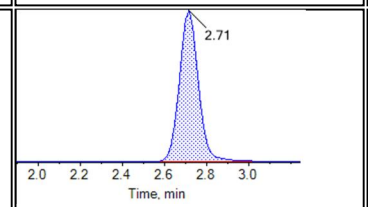
d5-EtFOSAA



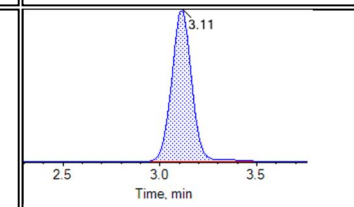
13C5-PFHxA



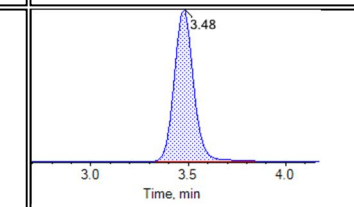
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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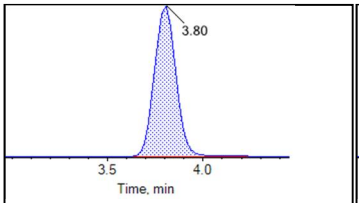
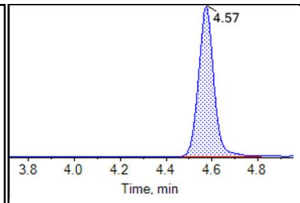
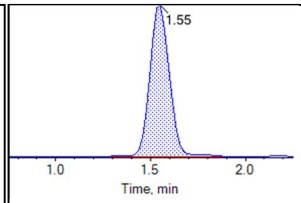


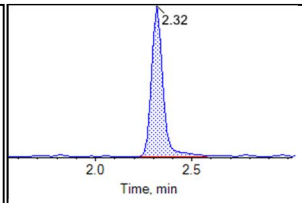
13C7-PFUnA



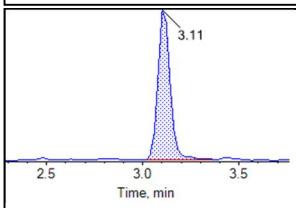
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:26:26 PM

Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:01:53	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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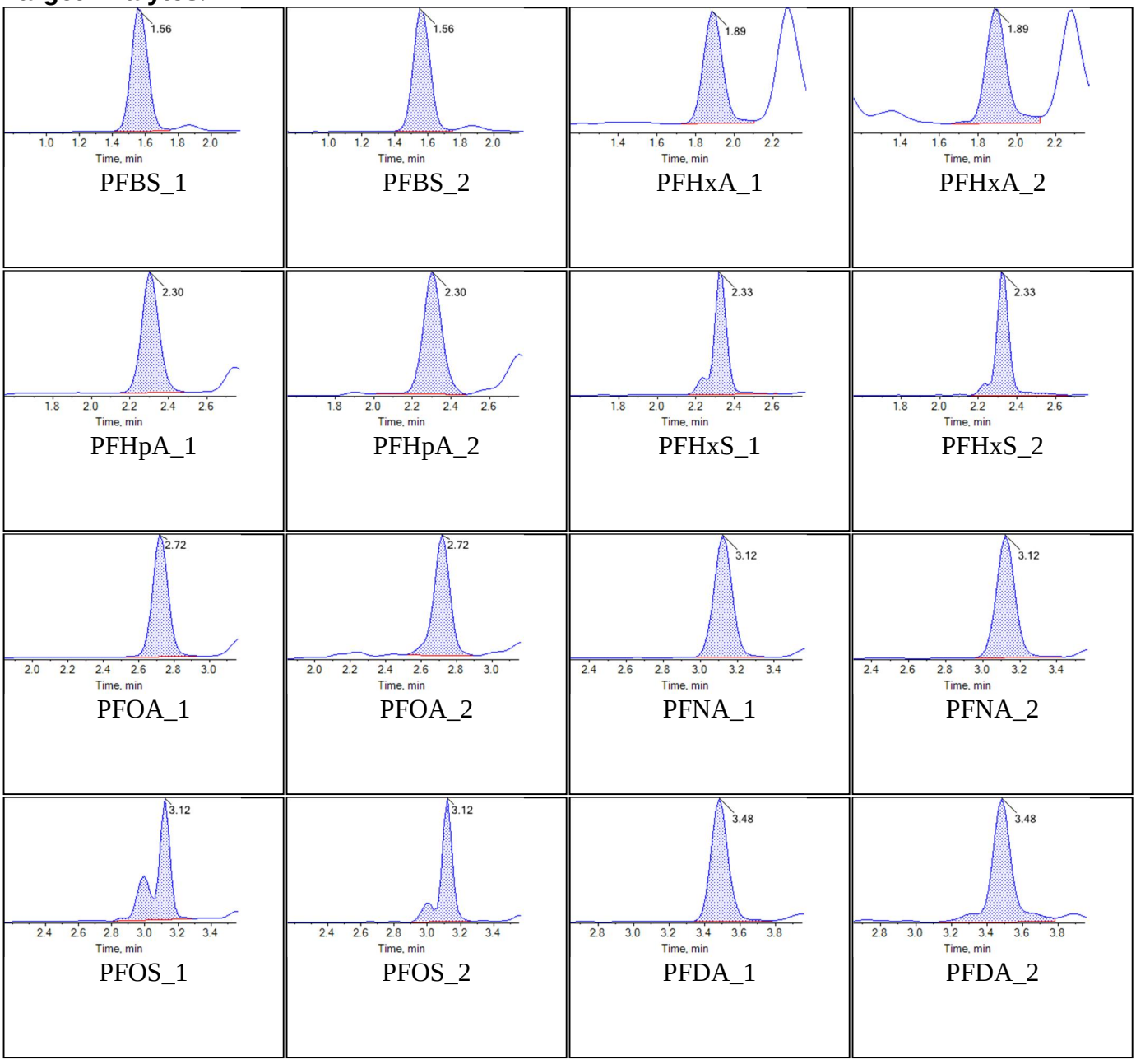

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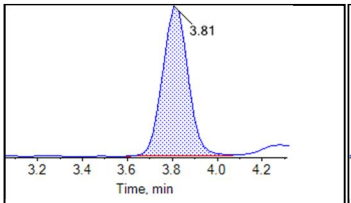
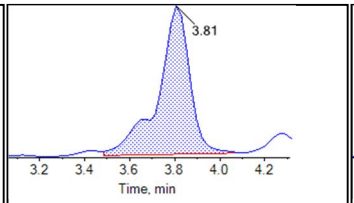
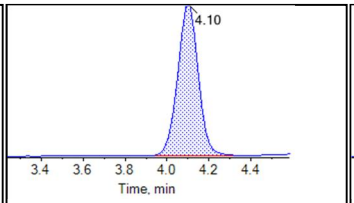


PFUnA_1



PFUnA_2



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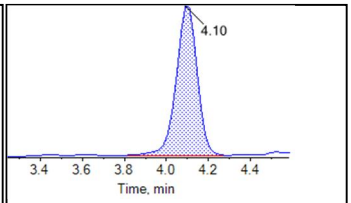
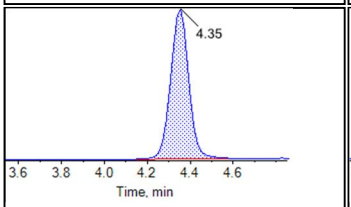
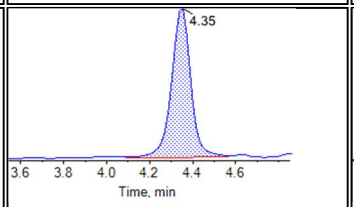


PFDoA_2



PFTrDA_1



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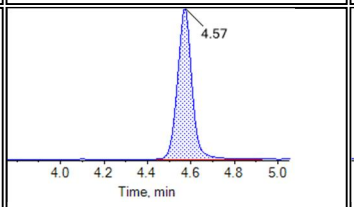
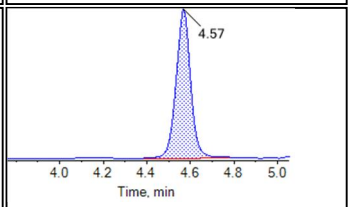
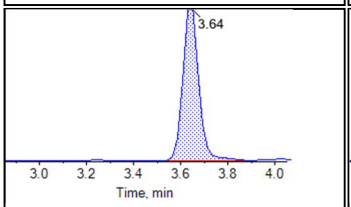


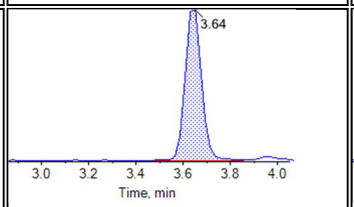
PFTeDA_1



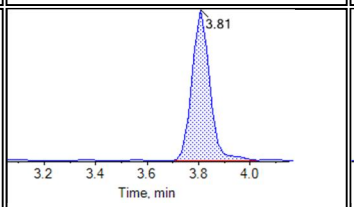
PFTeDA_2



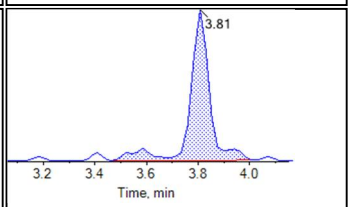
NMeFOSAA_1



NMeFOSAA_2

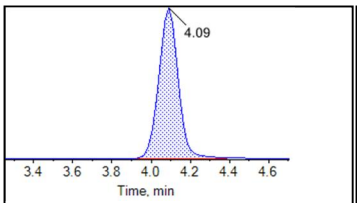


NEtFOSAA_1

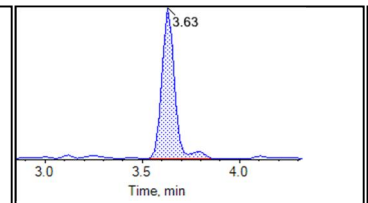


NEtFOSAA_2

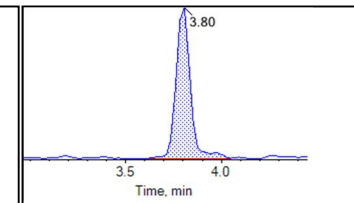
Internal Standards:



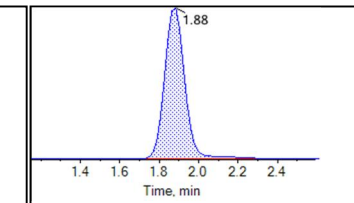
13C2-PFDoA



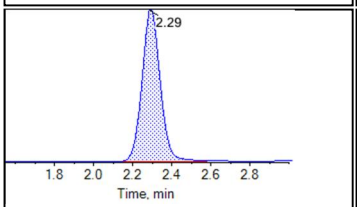
d3-MeFOSAA



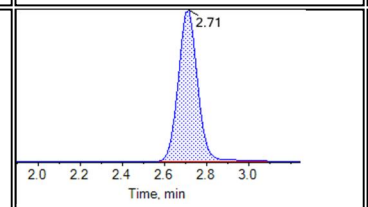
d5-EtFOSAA



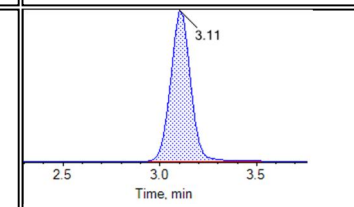
13C5-PFHxA



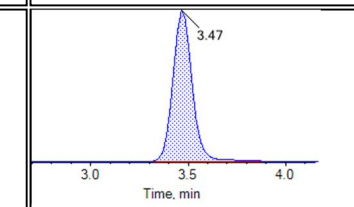
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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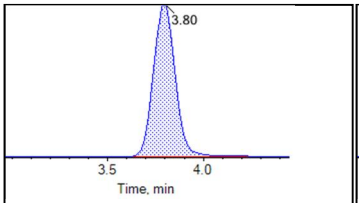
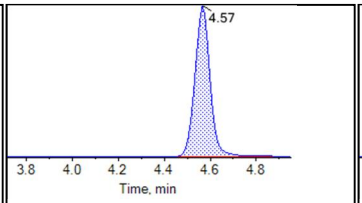
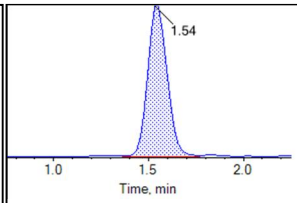


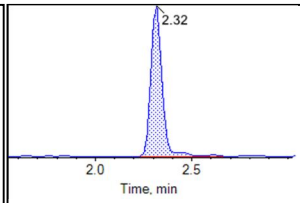
13C7-PFUnA



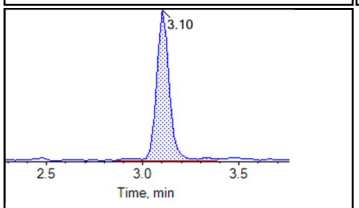
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:26:32 PM

Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:12:44	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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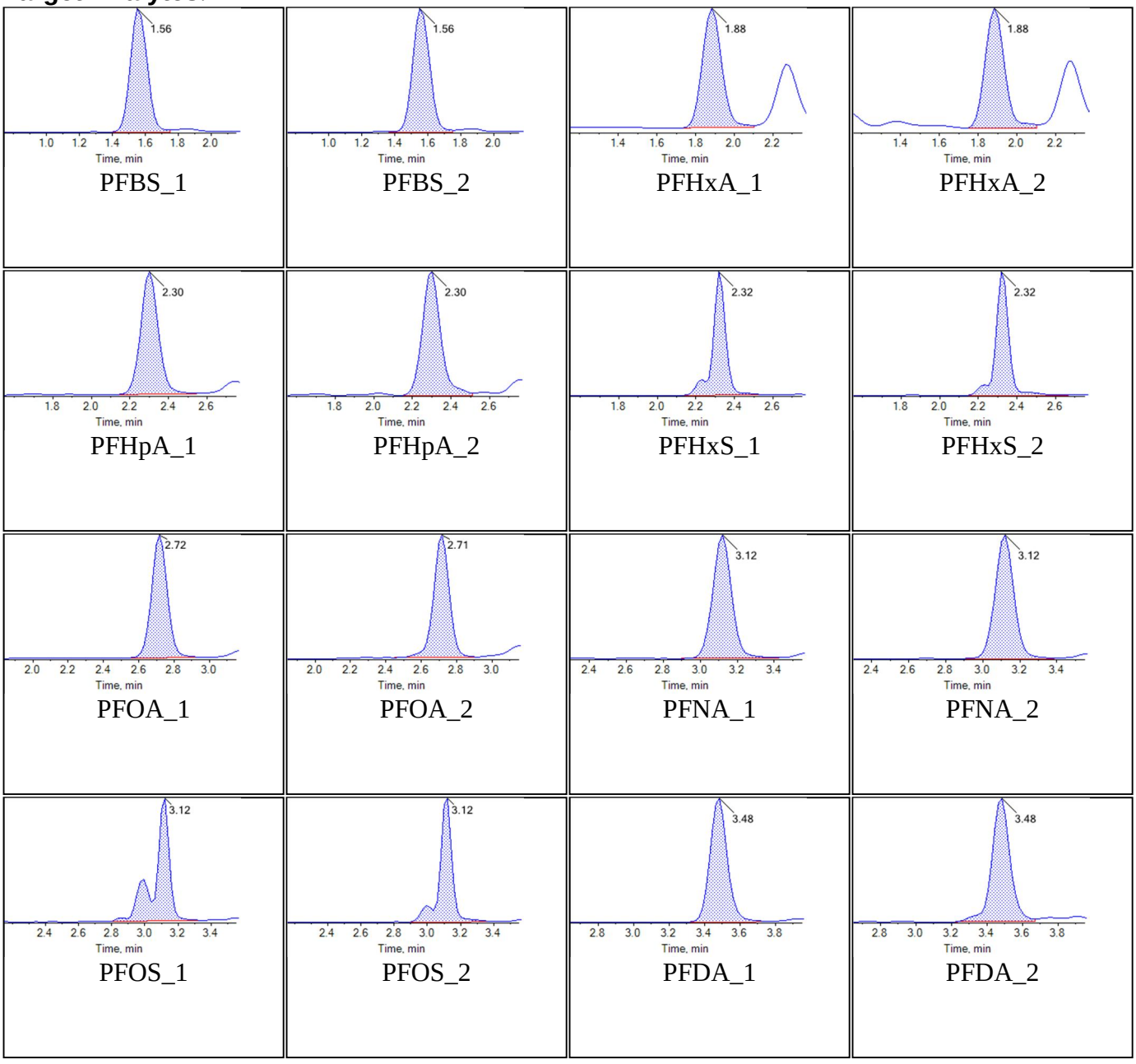

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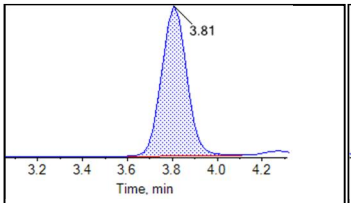

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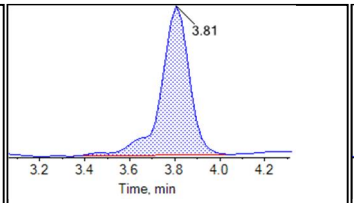
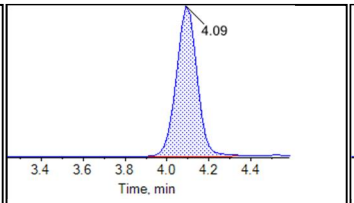


PFUnA_2



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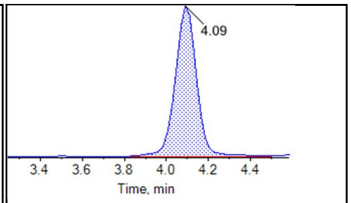
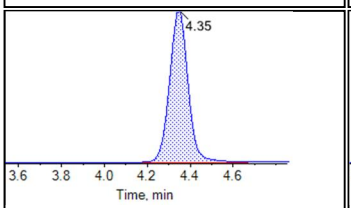
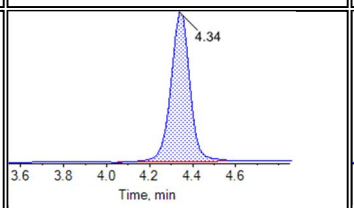


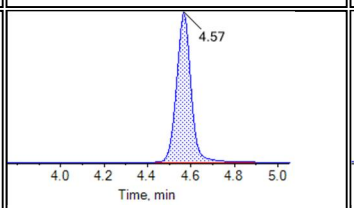
PFDoA_2



PFTrDA_1



PFTrDA_2



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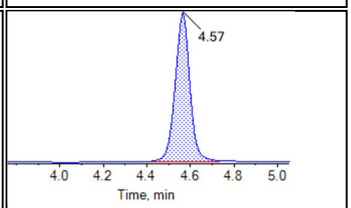

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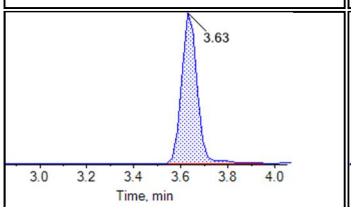
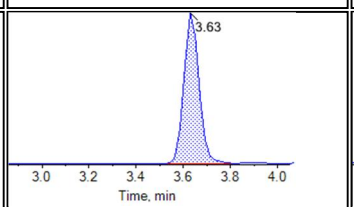


NMeFOSAA_1



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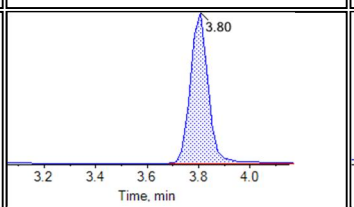

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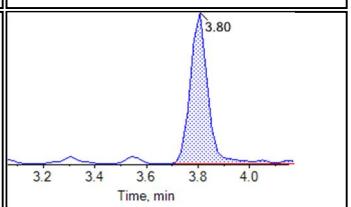
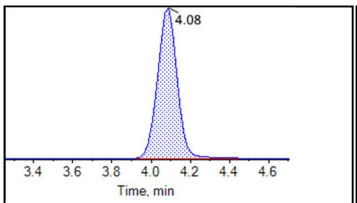
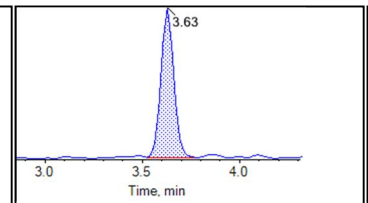


NEtFOSAA_2

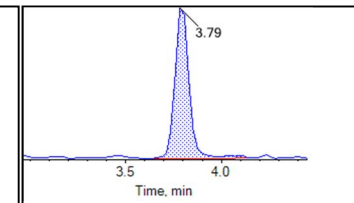
Internal Standards:



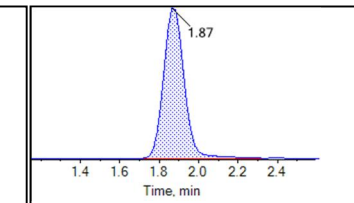
13C2-PFDoA



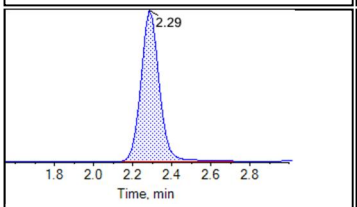
d3-MeFOSAA



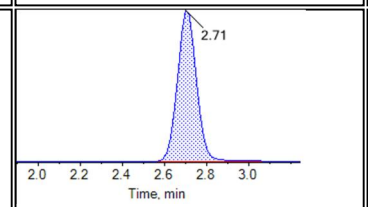
d5-EtFOSAA



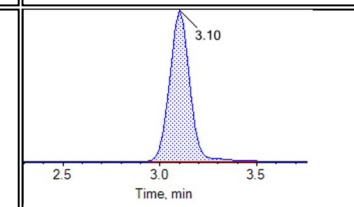
13C5-PFHxA



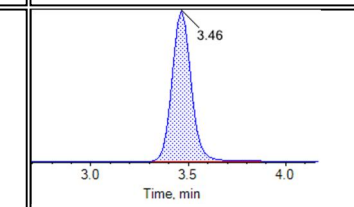
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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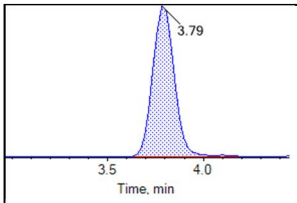
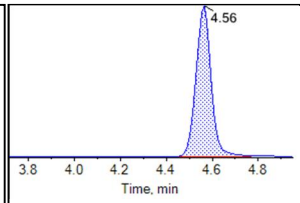
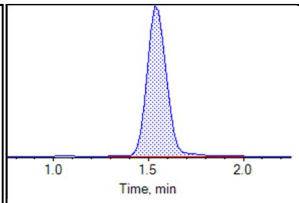


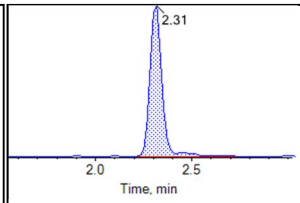
13C7-PFUnA



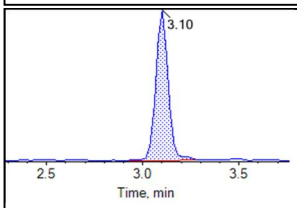
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:26:37 PM

Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:23:36	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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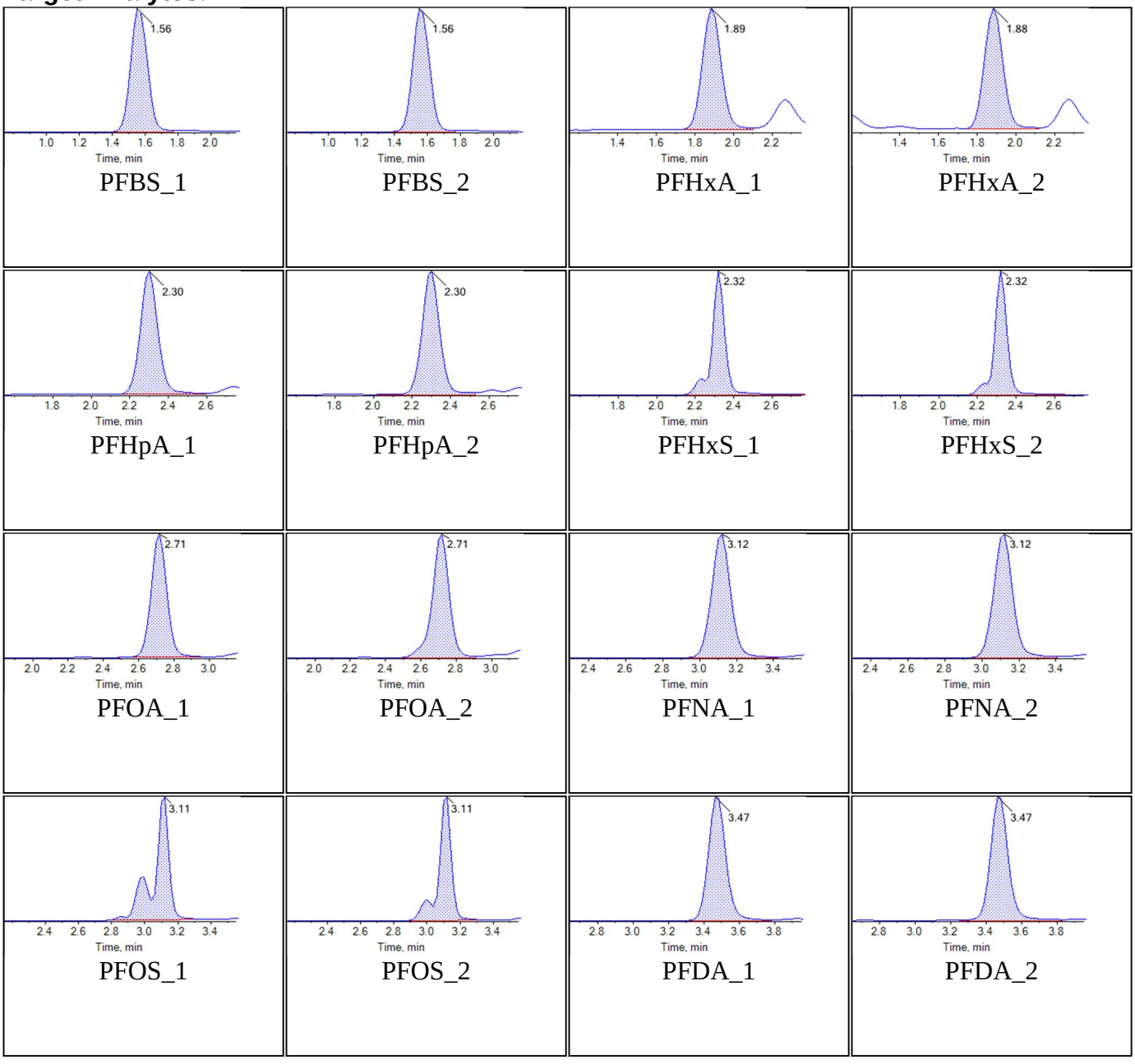

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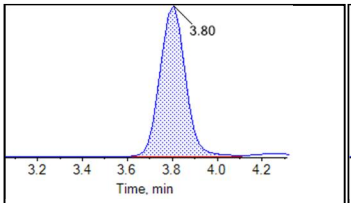

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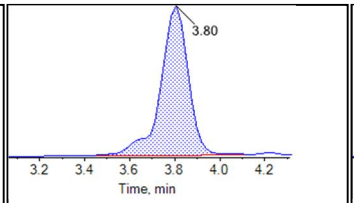
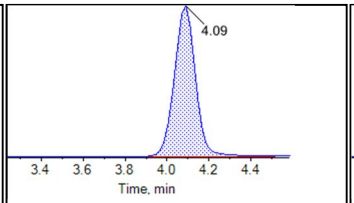


PFUnA_2



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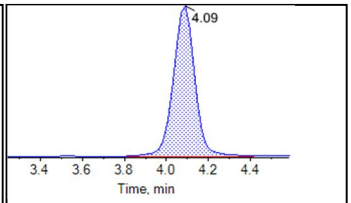
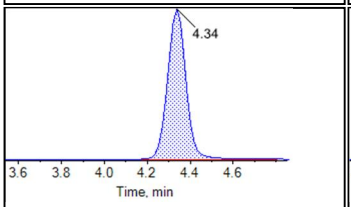
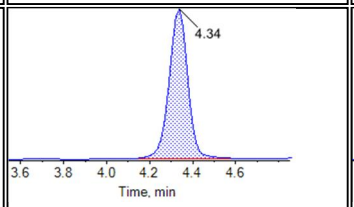


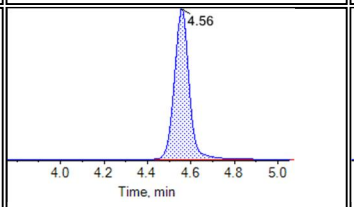
PFDoA_2



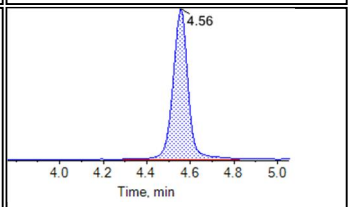
PFTrDA_1



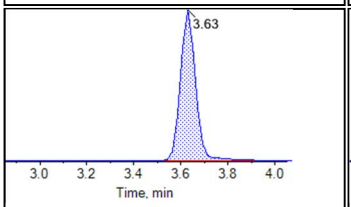
PFTrDA_2



PFTeDA_1



PFTeDA_2



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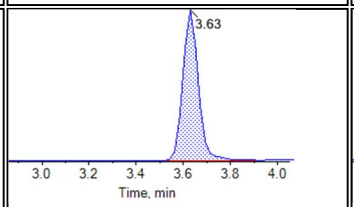
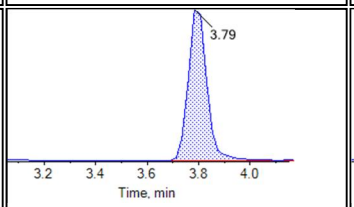
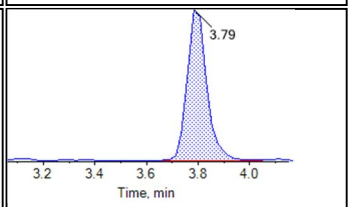


NMeFOSAA_2

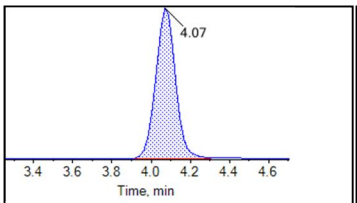


NEtFOSAA_1

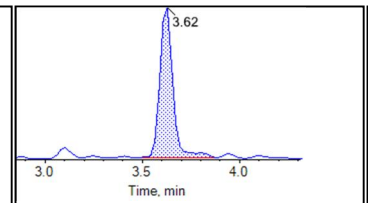


NEtFOSAA_2

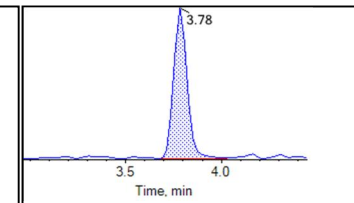
Internal Standards:



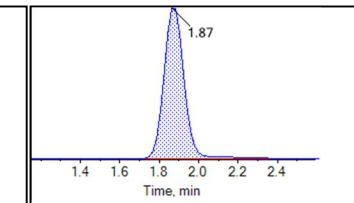
13C2-PFDoA



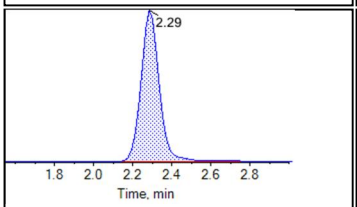
d3-MeFOSAA



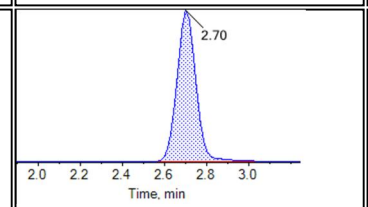
d5-EtFOSAA



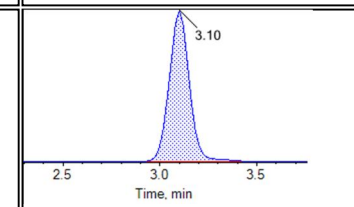
13C5-PFHxA



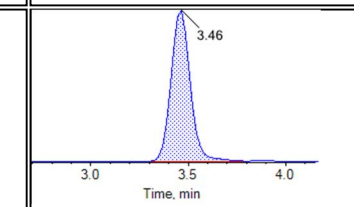
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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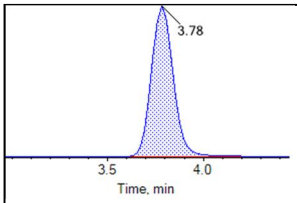
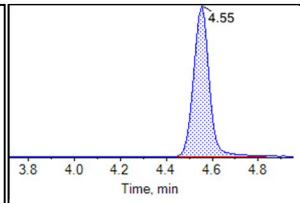
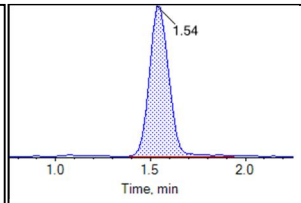


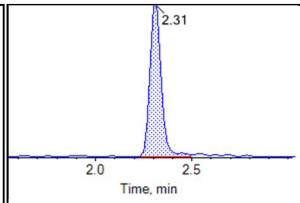
13C7-PFUnA



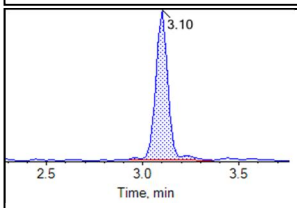
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:26:43 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:34:28	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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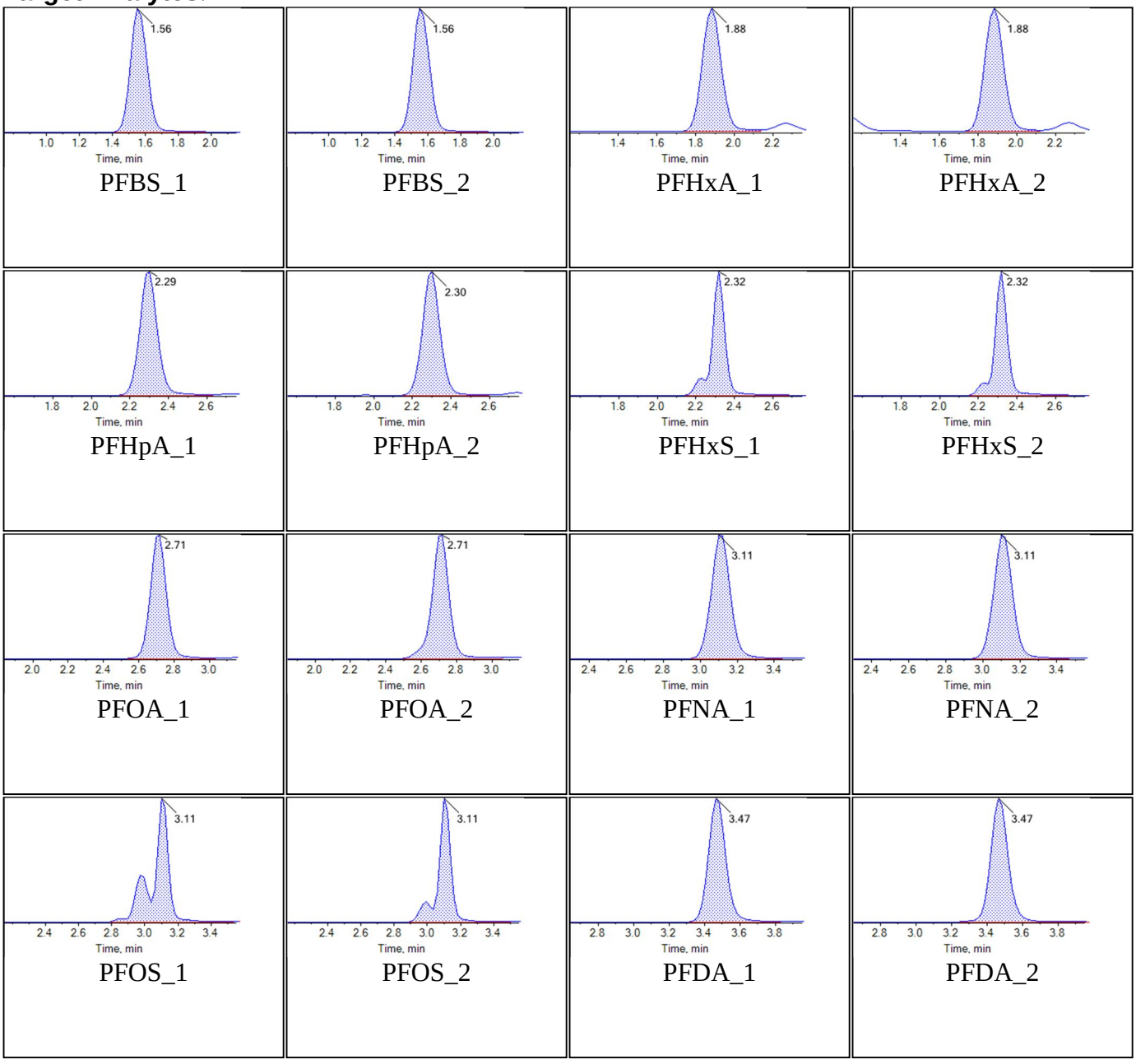

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Chromatogram Report

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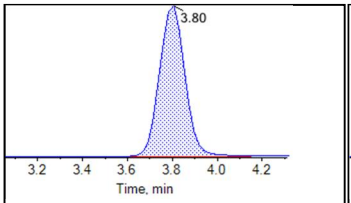

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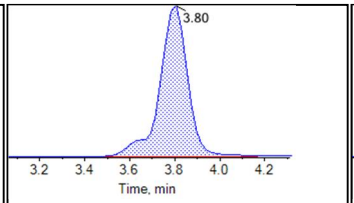

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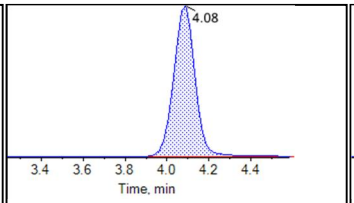

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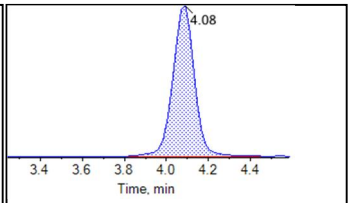
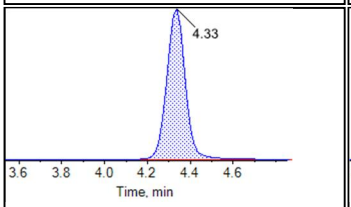
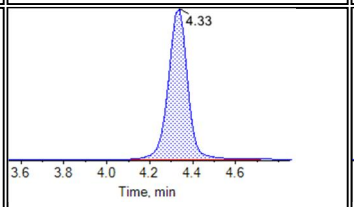


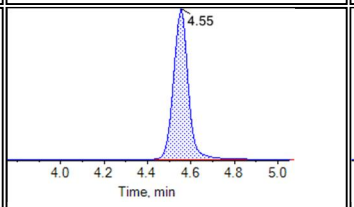
PFDoA_2



PFTrDA_1



PFTrDA_2



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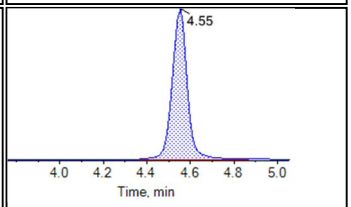

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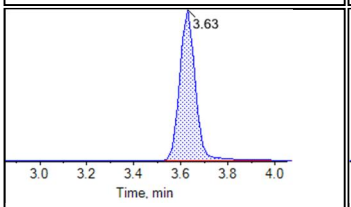
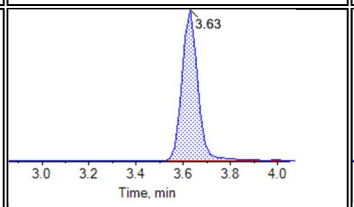
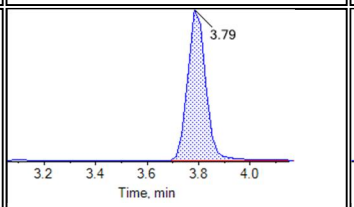


NMeFOSAA_1



NMeFOSAA_2



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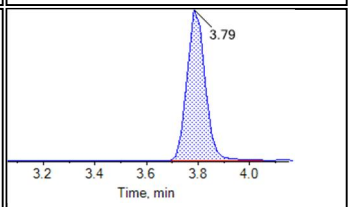

NEtFOSAA_2

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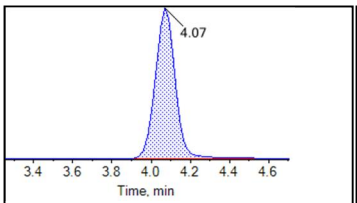
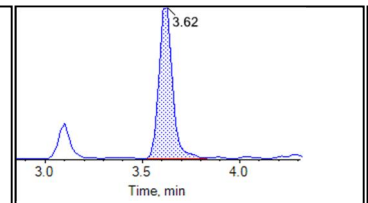
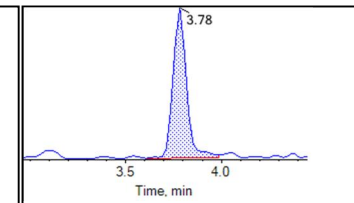


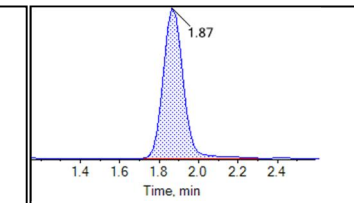
13C2-PFDoA



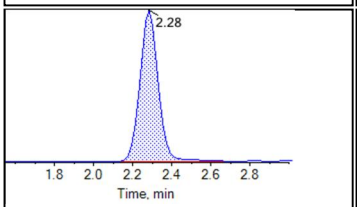
d3-MeFOSAA



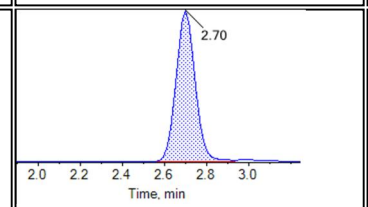
d5-EtFOSAA



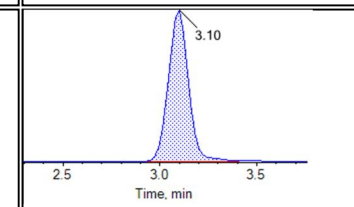
13C5-PFHxA



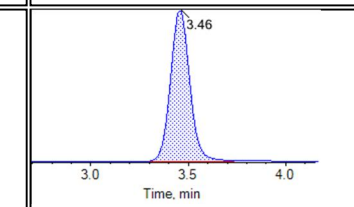
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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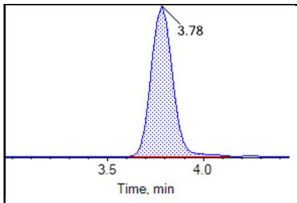
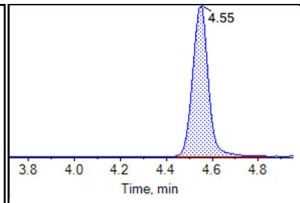
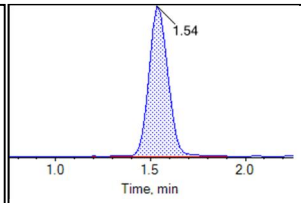


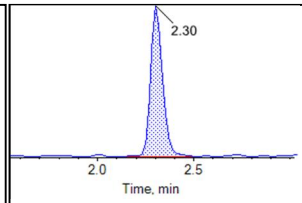
13C7-PFUnA



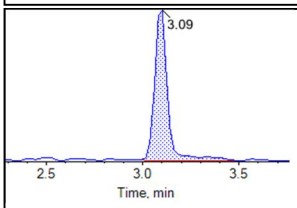
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:26:49 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:45:19	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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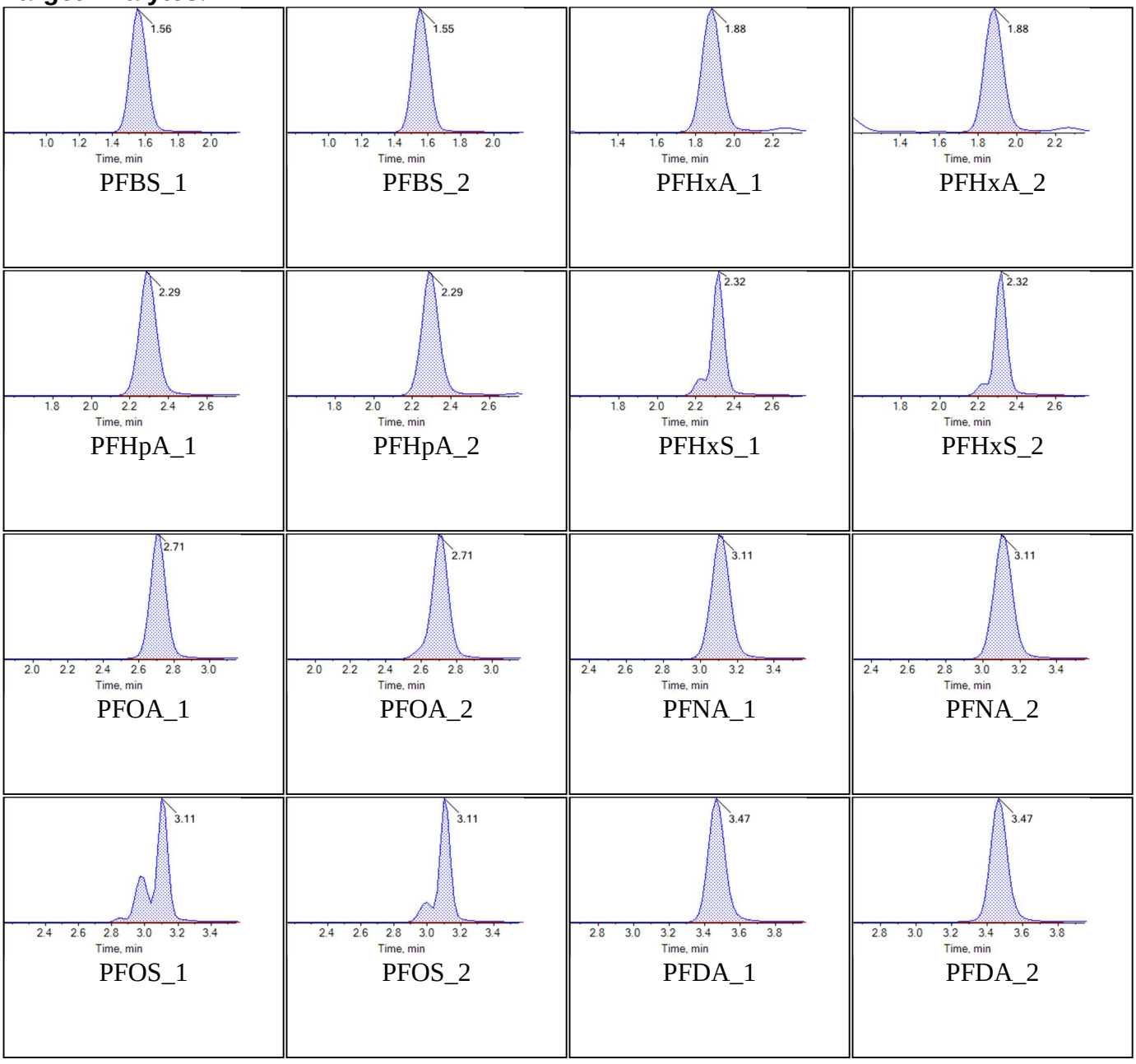

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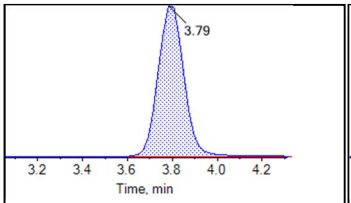

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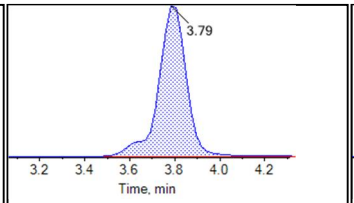
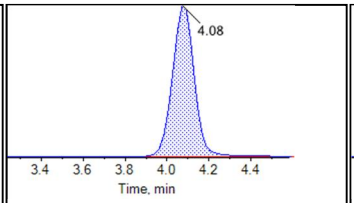


PFUnA_2



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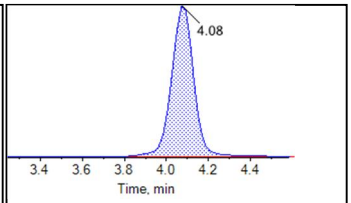
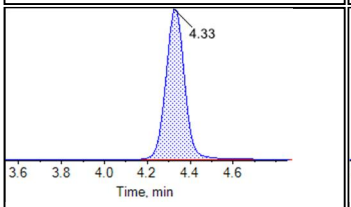


PFDoA_2



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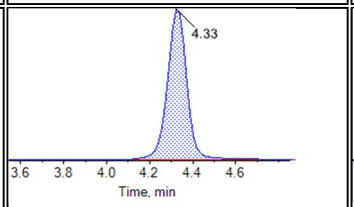
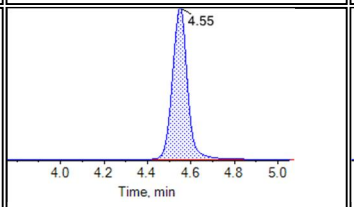
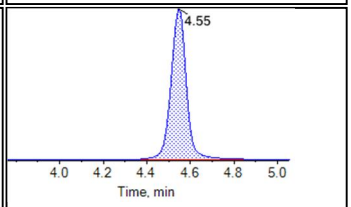


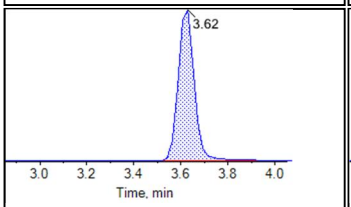
PFTrDA_2



PFTeDA_1



PFTeDA_2



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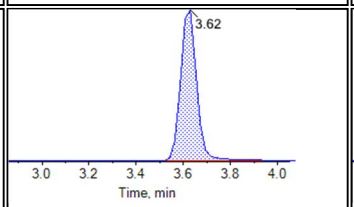

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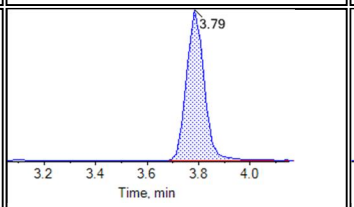

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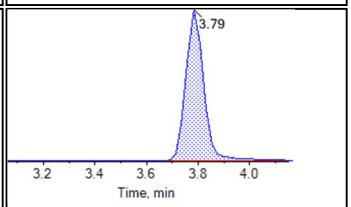
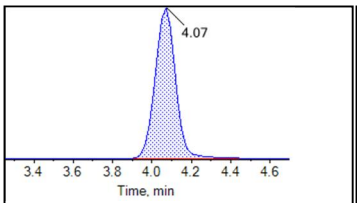
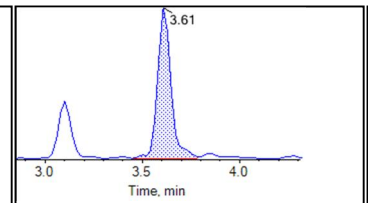


NEtFOSAA_2

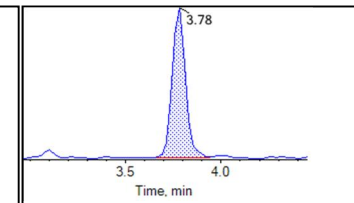
Internal Standards:



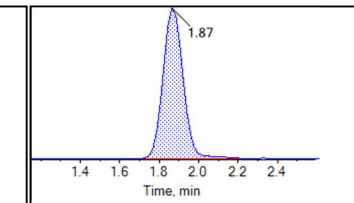
13C2-PFDoA



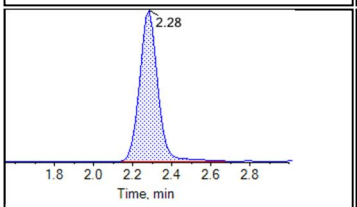
d3-MeFOSAA



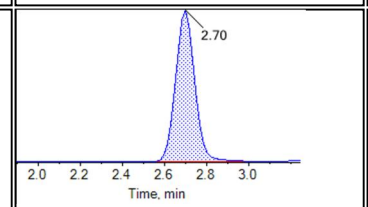
d5-EtFOSAA



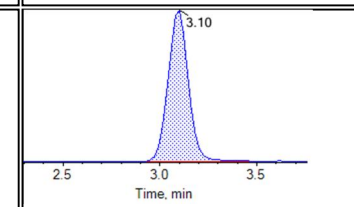
13C5-PFHxA



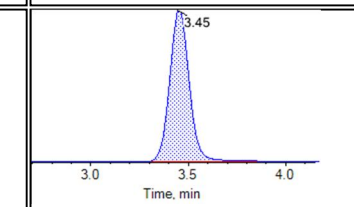
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

BATTELLE

Chromatogram Report

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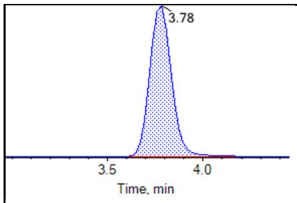
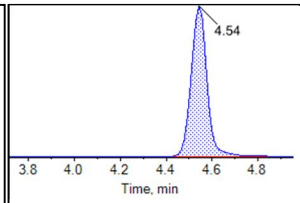
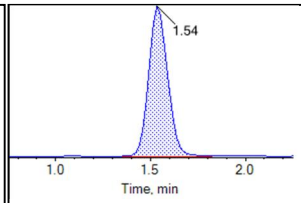


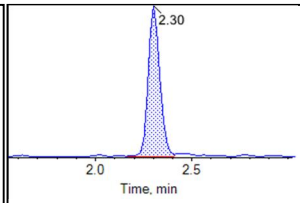
13C7-PFUnA



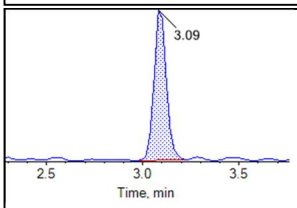
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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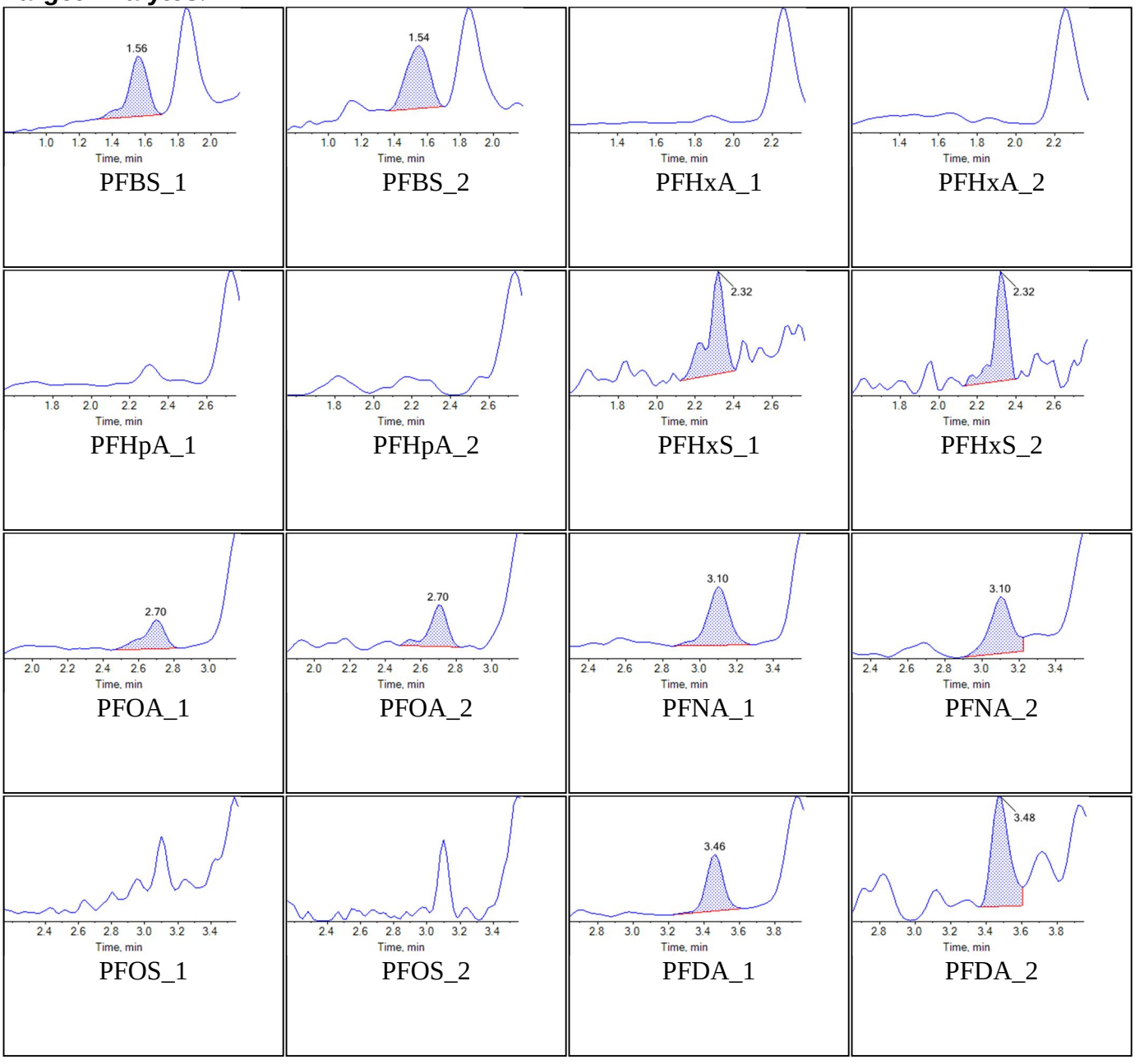
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:26:55 PM

Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:56:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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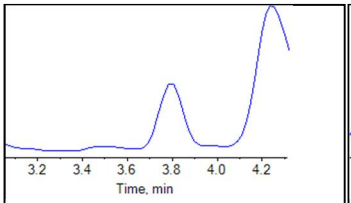
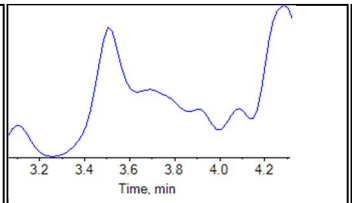
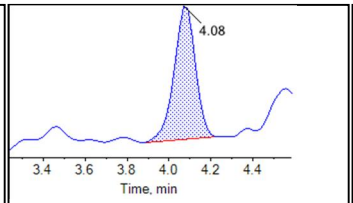


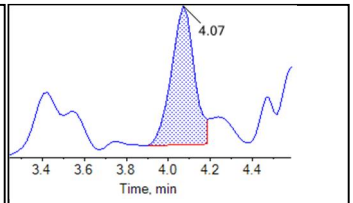
PFUnA_1



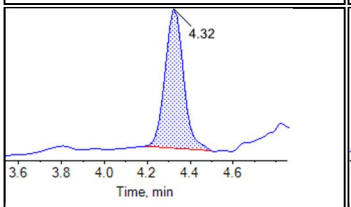
PFUnA_2



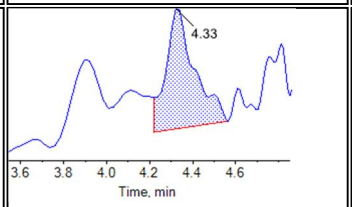
PFDoA_1



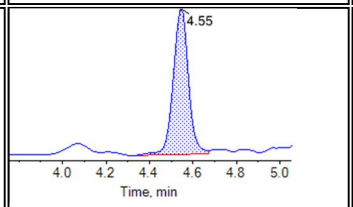
PFDoA_2



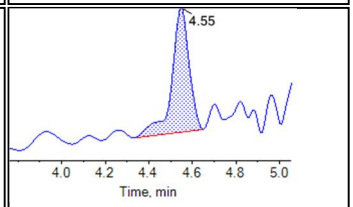
PFTrDA_1



PFTrDA_2



PFTeDA_1



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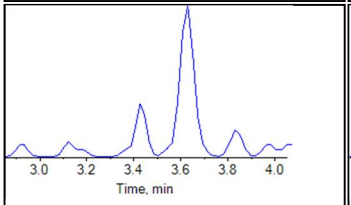
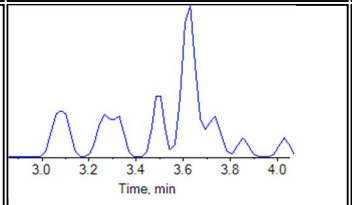
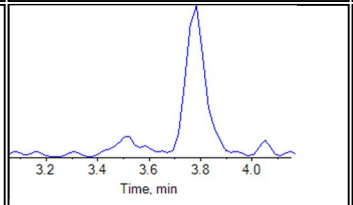


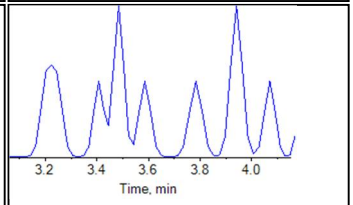
NMeFOSAA_1



NMeFOSAA_2

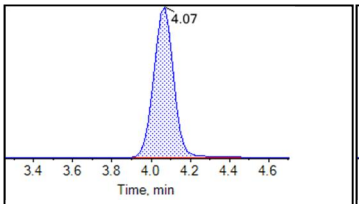


NEtFOSAA_1

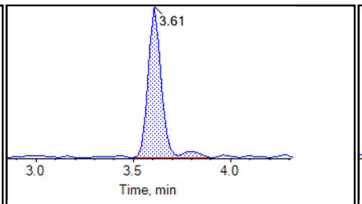


NEtFOSAA_2

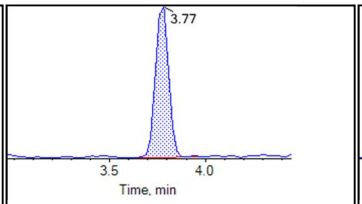
Internal Standards:



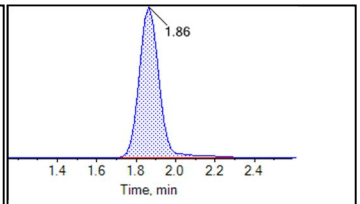
13C2-PFDoA



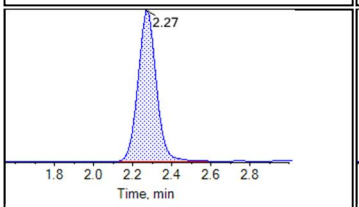
d3-MeFOSAA



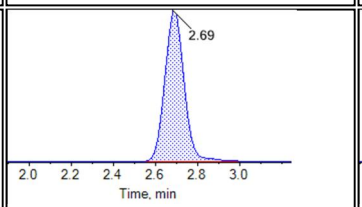
d5-EtFOSAA



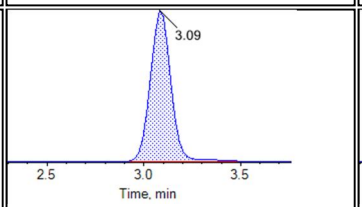
13C5-PFHxA



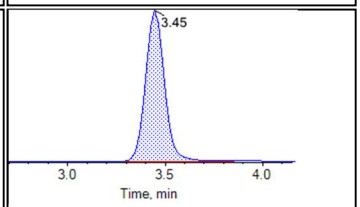
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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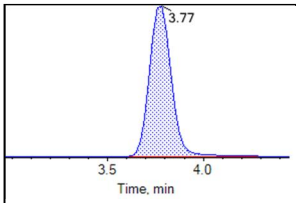
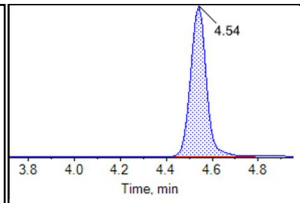
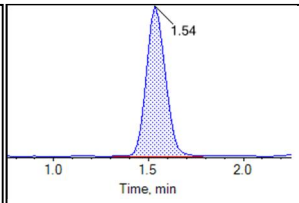


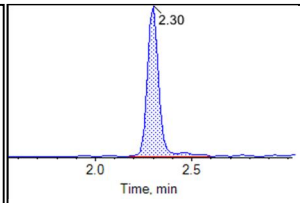
13C7-PFUnA



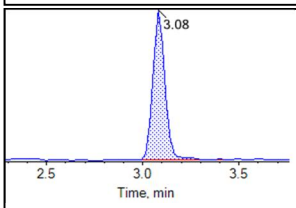
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:27:00 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T17:07:01	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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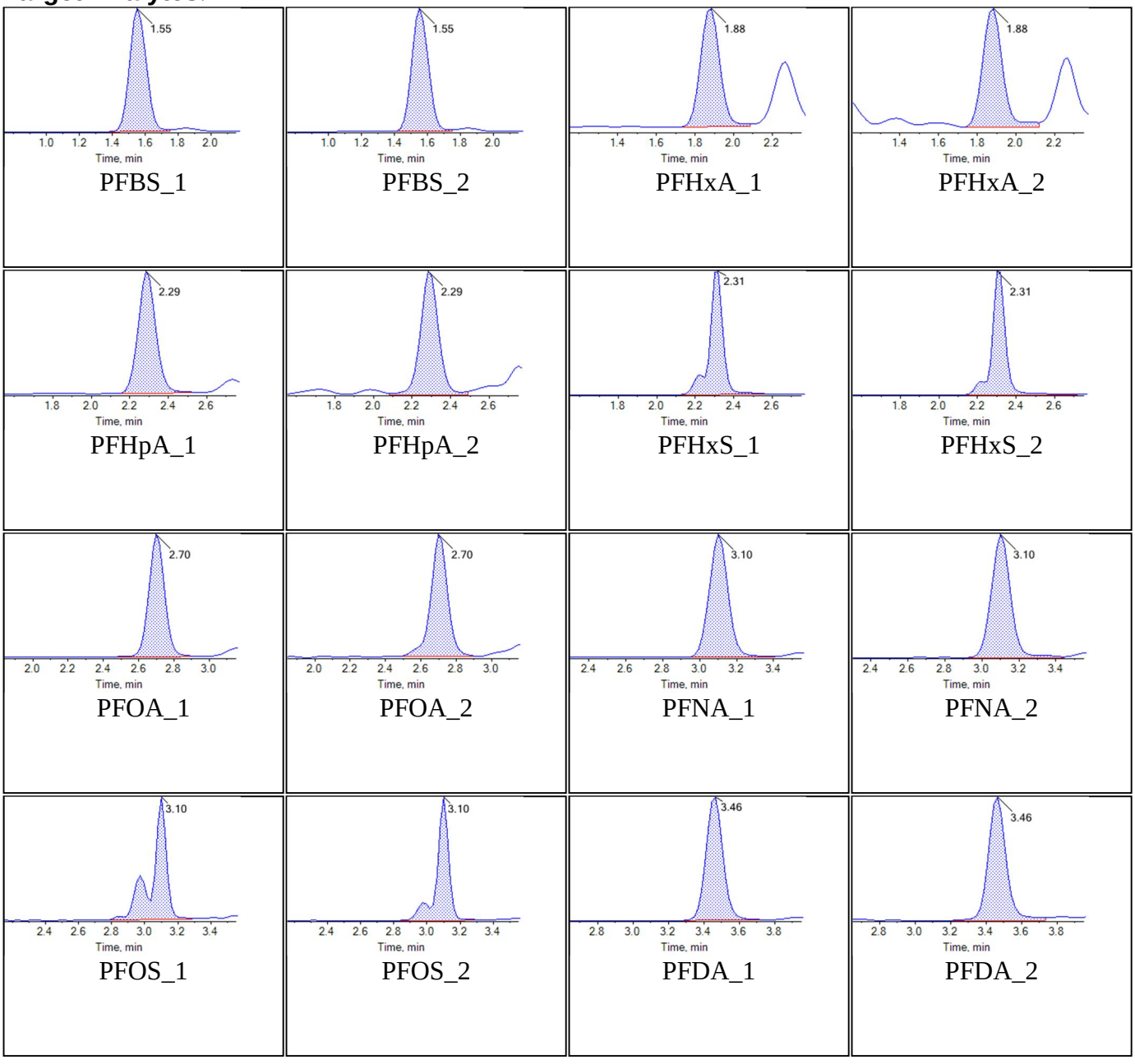

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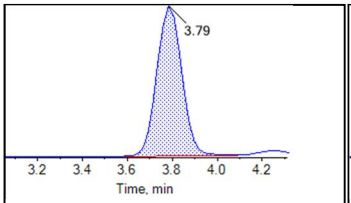
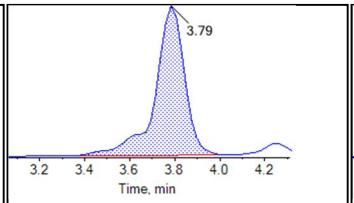
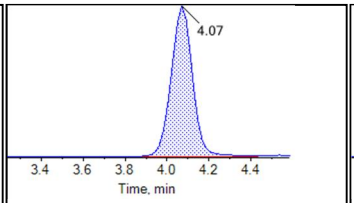


PFUnA_1



PFUnA_2



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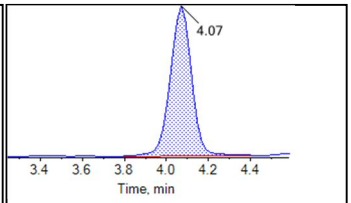
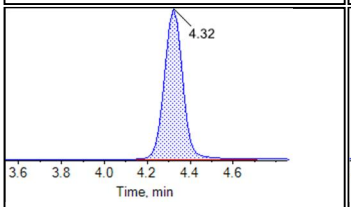
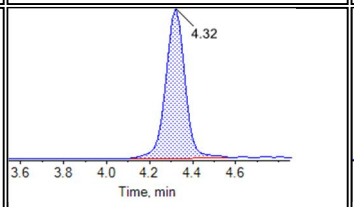


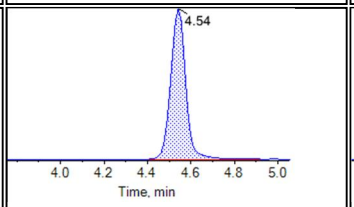
PFDoA_2



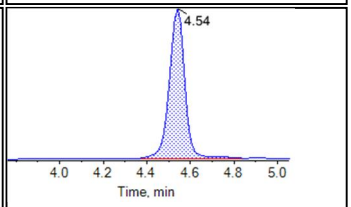
PFTrDA_1



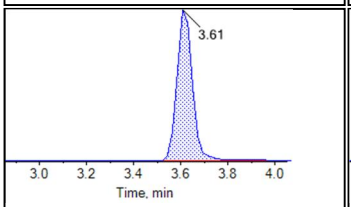
PFTrDA_2



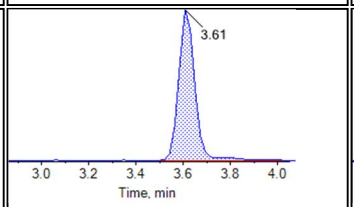
PFTeDA_1



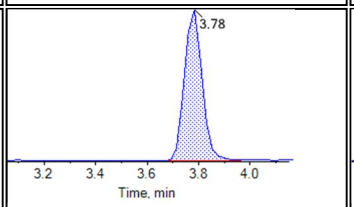
PFTeDA_2



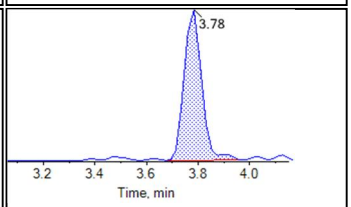
NMeFOSAA_1



NMeFOSAA_2

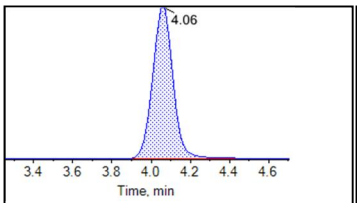


NEtFOSAA_1

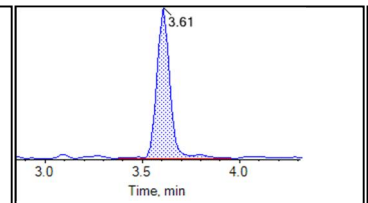


NEtFOSAA_2

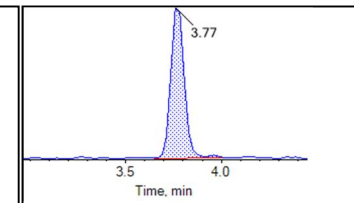
Internal Standards:



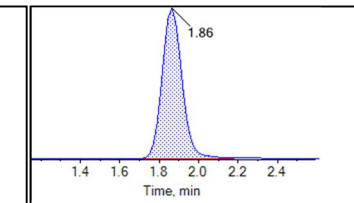
13C2-PFDoA



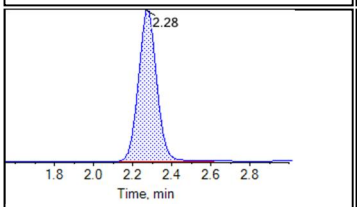
d3-MeFOSAA



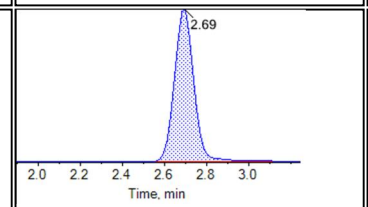
d5-EtFOSAA



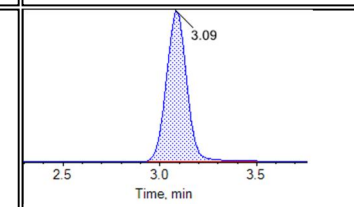
13C5-PFHxA



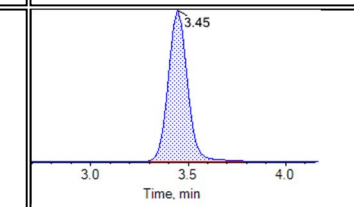
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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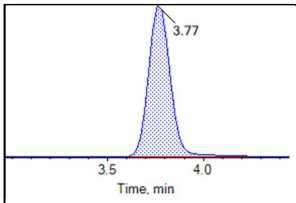
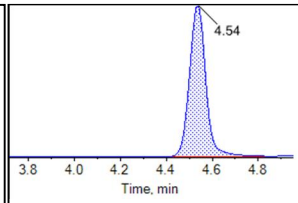
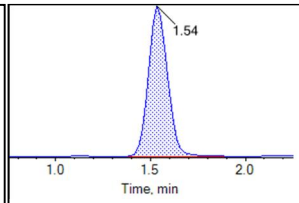


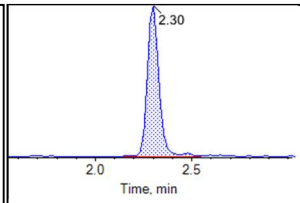
13C7-PFUnA



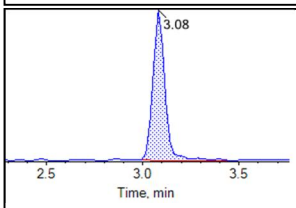
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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Printed: 19/10/2018 4:27:18 PM

Sample Name	KB76 CCV	**Injection Vial**	7
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T03:58:51	**Data File**	18-0581_18-0584A.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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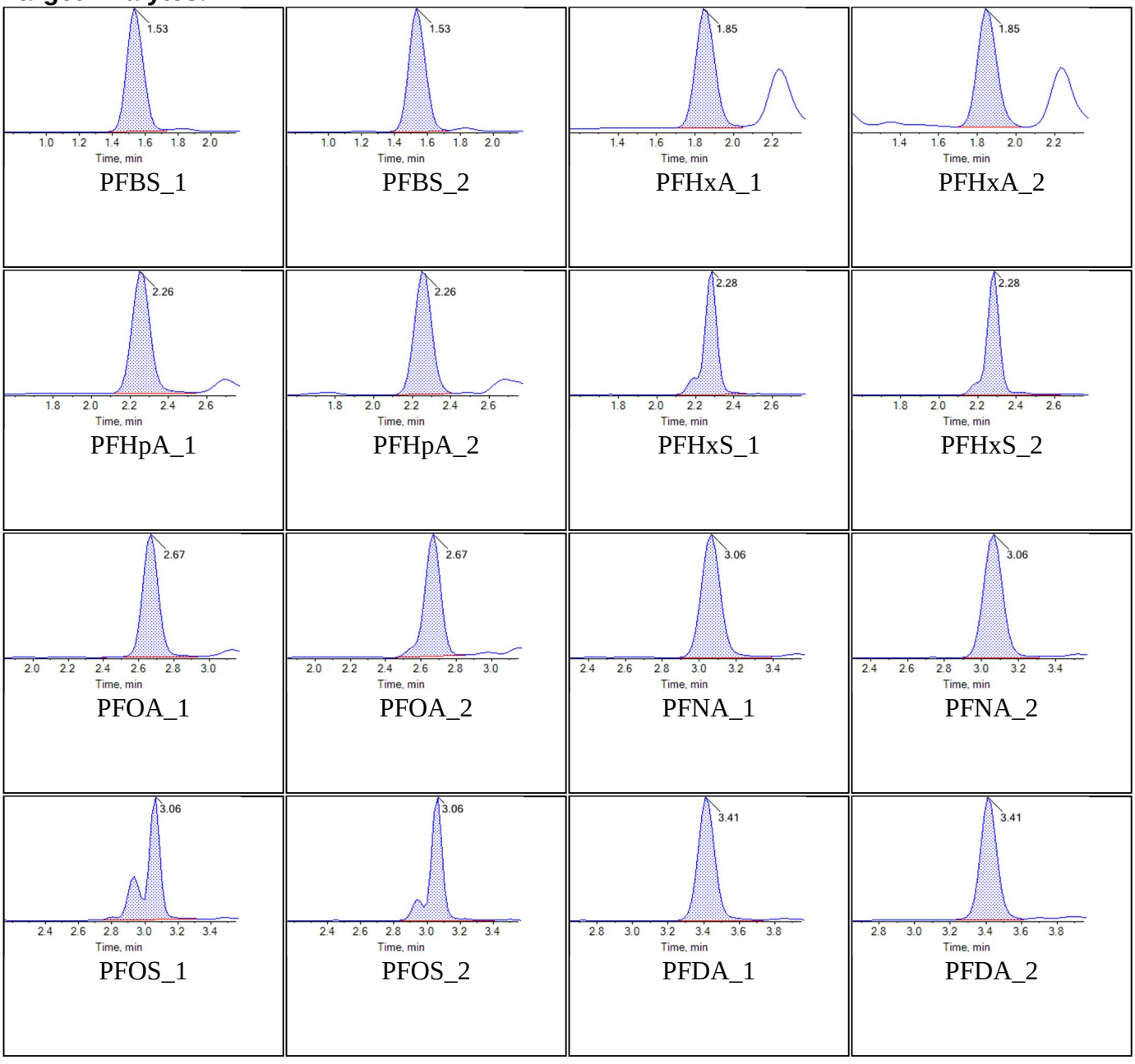

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Chromatogram Report

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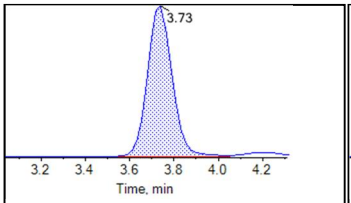

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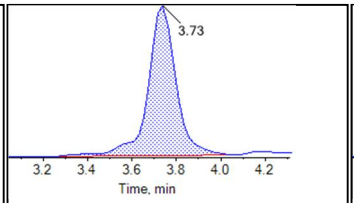
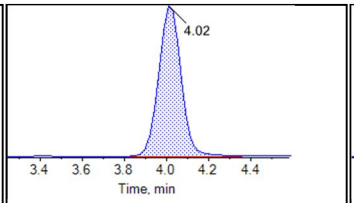


PFUnA_2



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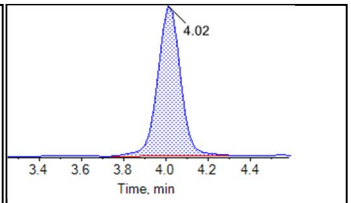
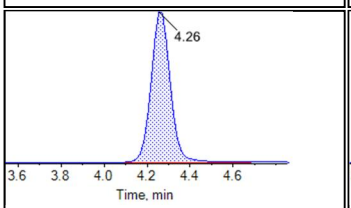
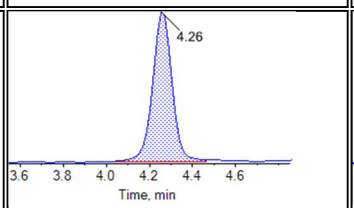


PFDoA_2



PFTrDA_1



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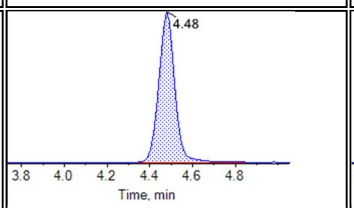

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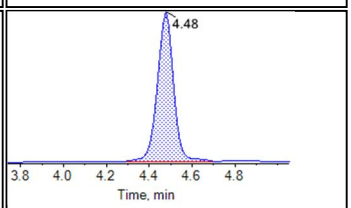
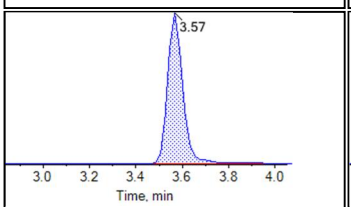


PFTeDA_2



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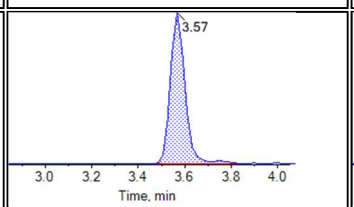

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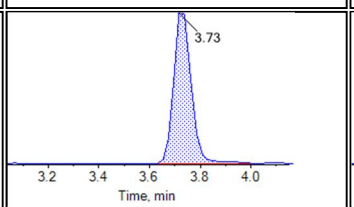
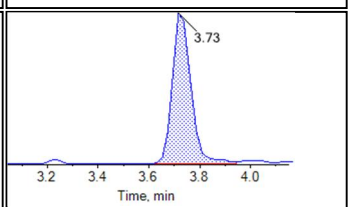
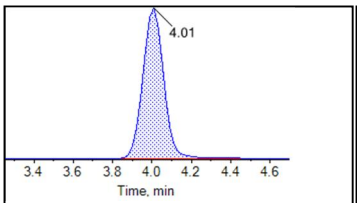


NEtFOSAA_1

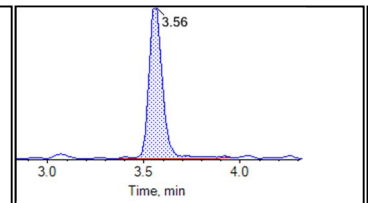


NEtFOSAA_2

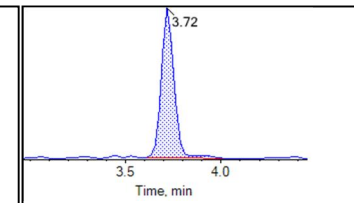
Internal Standards:



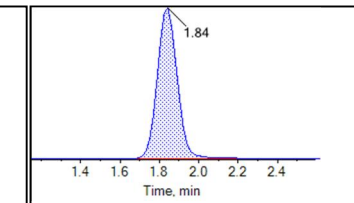
13C2-PFDoA



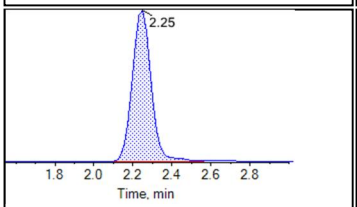
d3-MeFOSAA



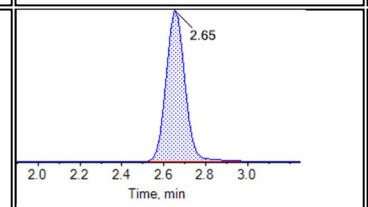
d5-EtFOSAA



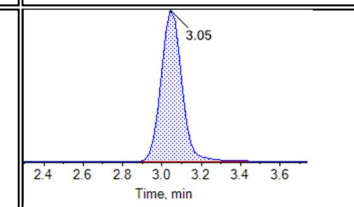
13C5-PFHxA



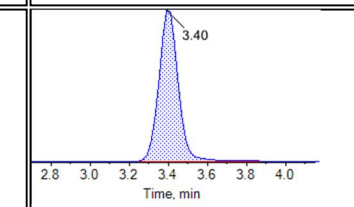
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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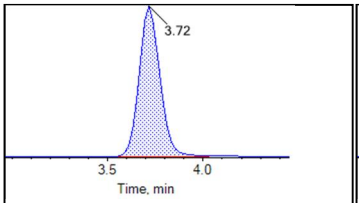
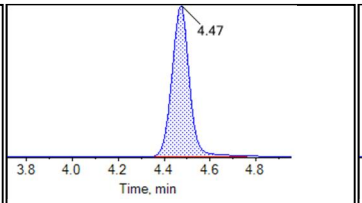
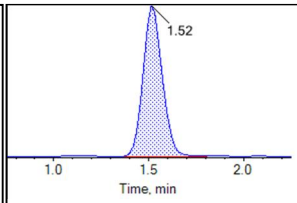


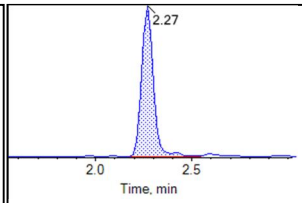
13C7-PFUnA



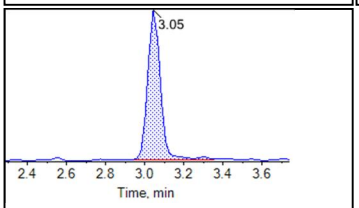
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:27:29 PM

Sample Name	CR888PB-FS(3)	**Injection Vial**	9
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:20:36	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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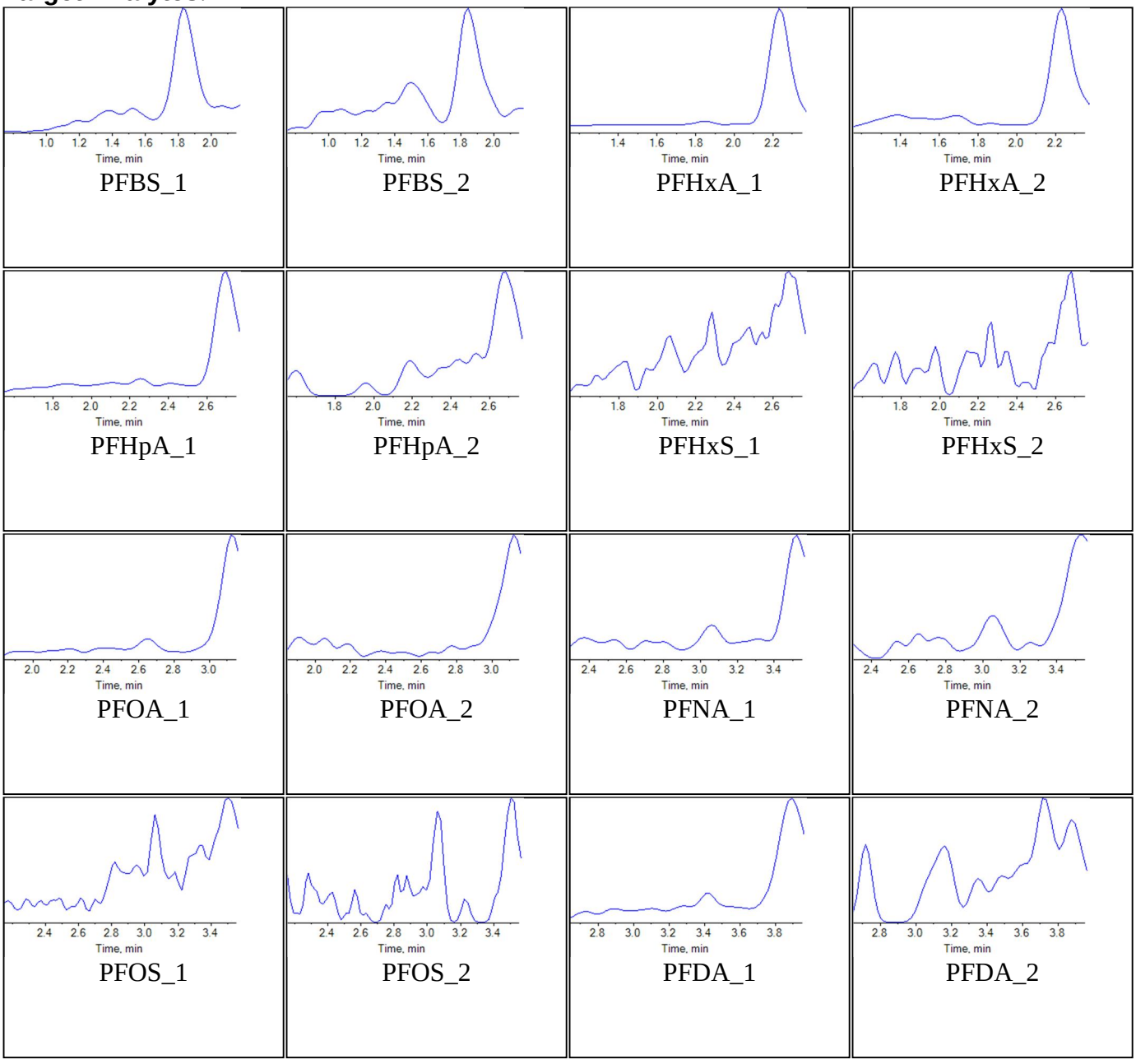

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Chromatogram Report

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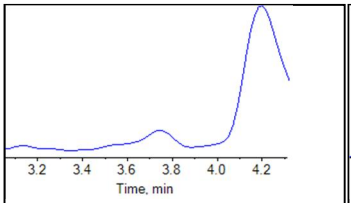
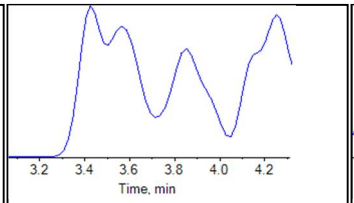
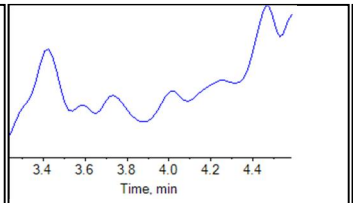


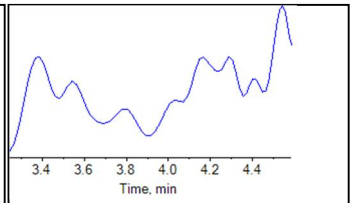
PFUnA_1



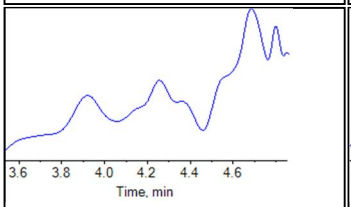
PFUnA_2



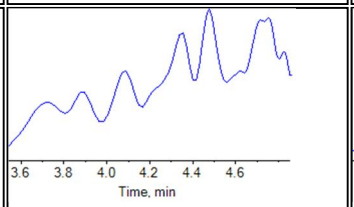
PFDoA_1



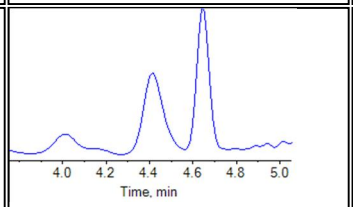
PFDoA_2



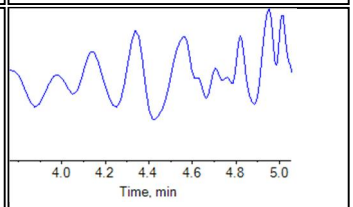
PFTrDA_1



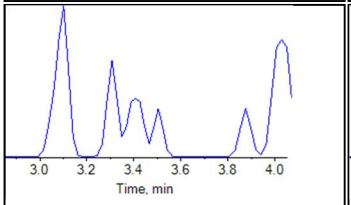
PFTrDA_2



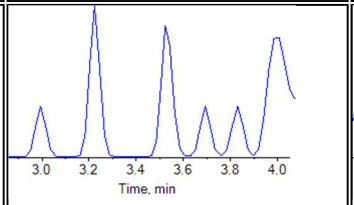
PFTeDA_1



PFTeDA_2



NMeFOSAA_1



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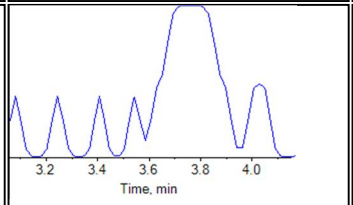
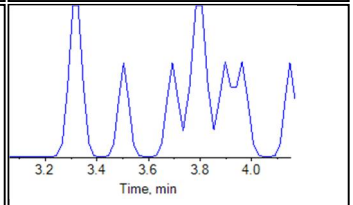
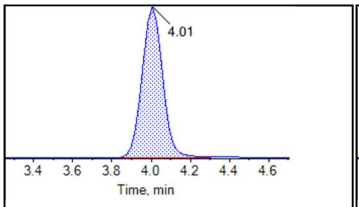


NEtFOSAA_1

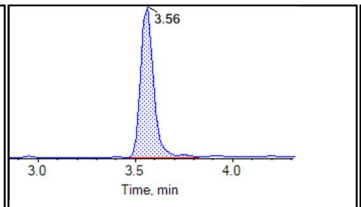


NEtFOSAA_2

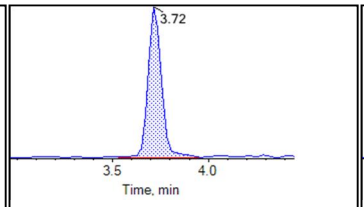
Internal Standards:



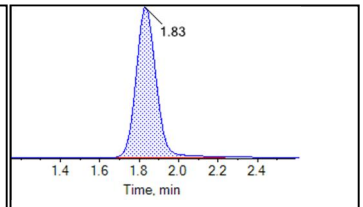
13C2-PFDoA



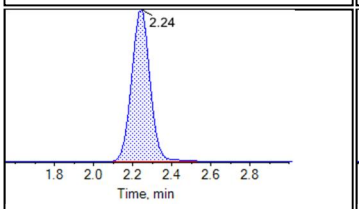
d3-MeFOSAA



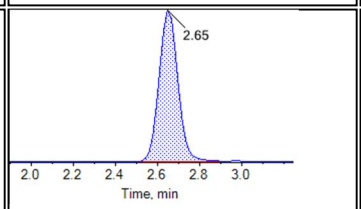
d5-EtFOSAA



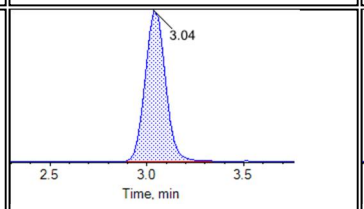
13C5-PFHxA



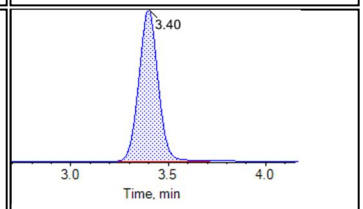
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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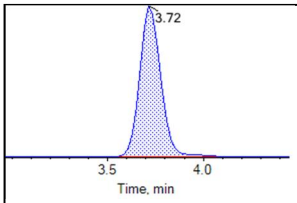
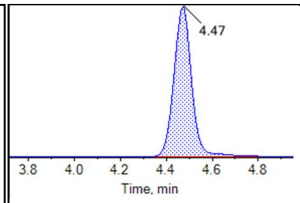
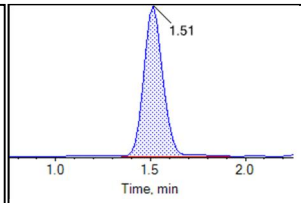


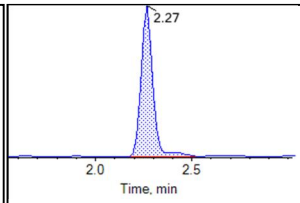
13C7-PFUnA



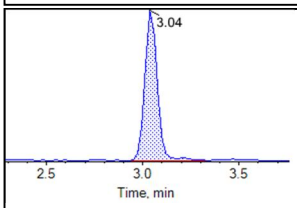
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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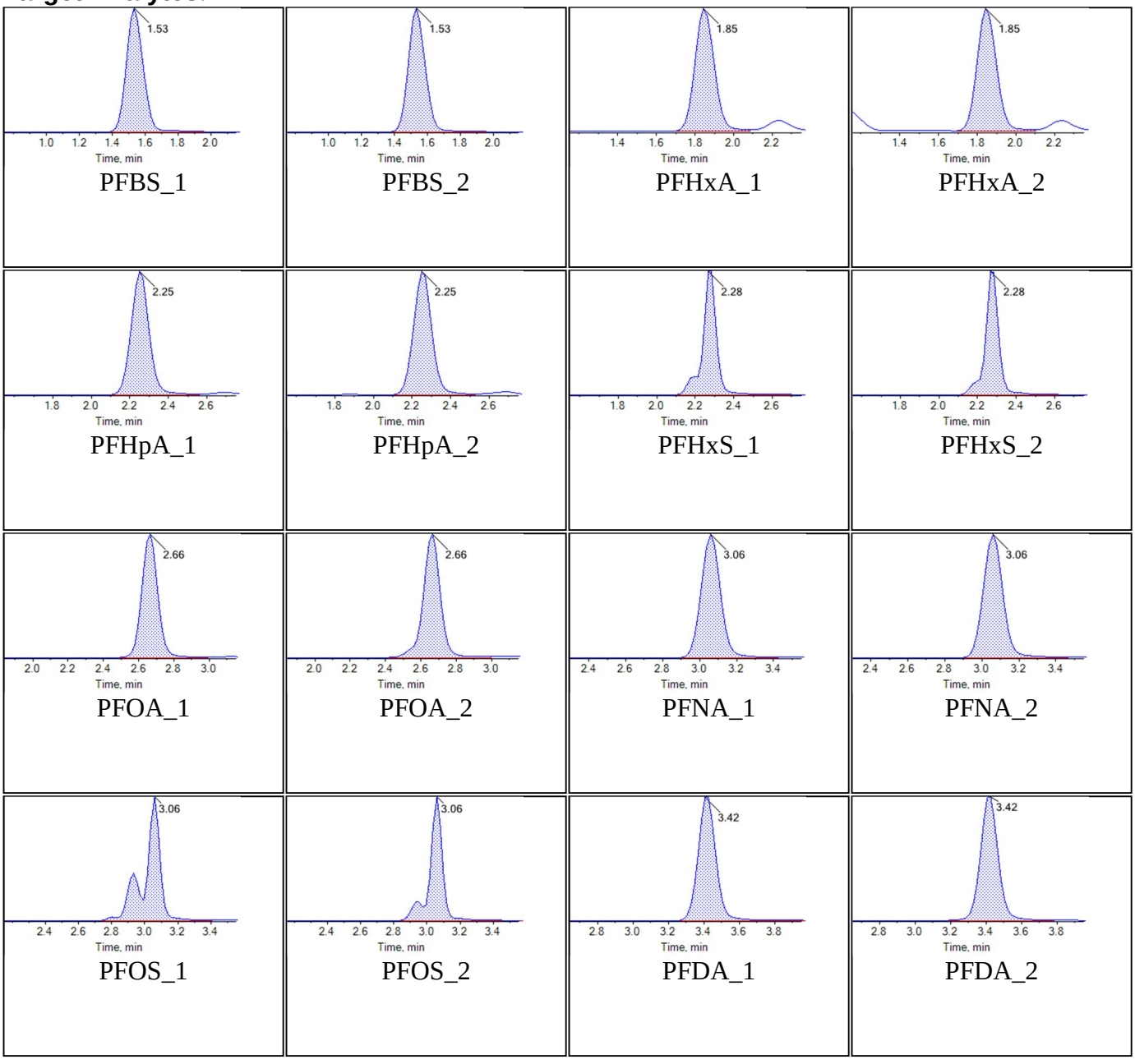
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:27:35 PM

Sample Name	CR889LCS-FS(3)	**Injection Vial**	10
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:31:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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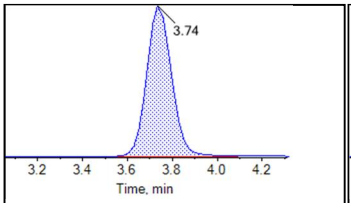

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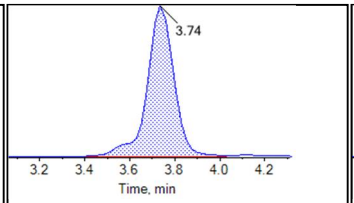
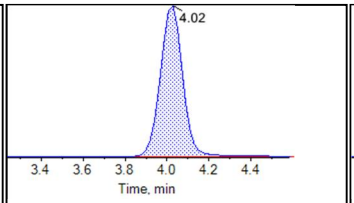


PFUnA_2



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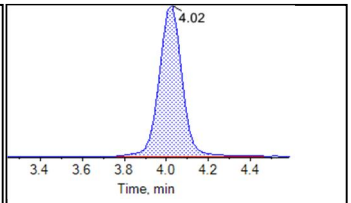
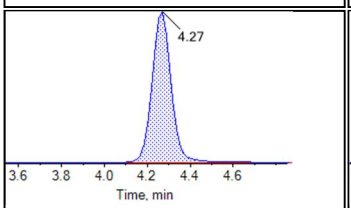


PFDoA_2



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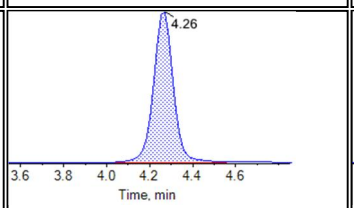

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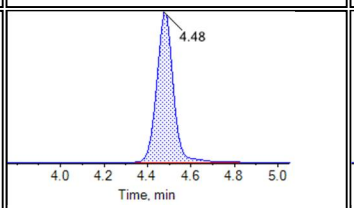

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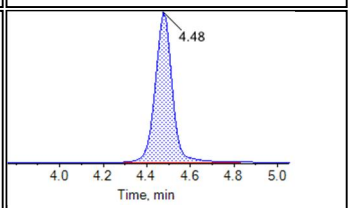

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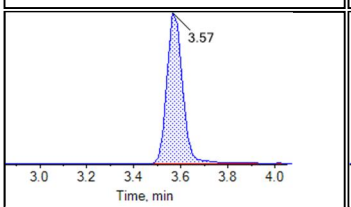
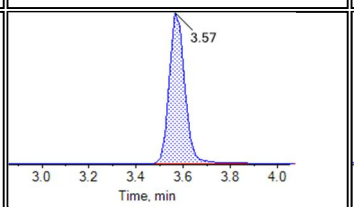


NMeFOSAA_1



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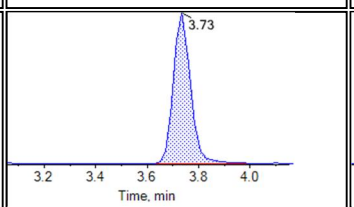

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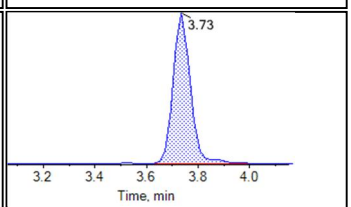

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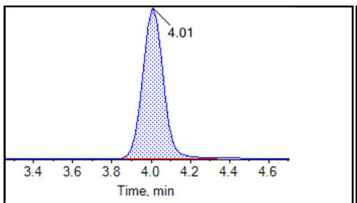
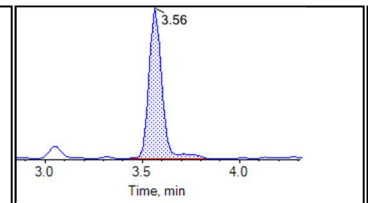
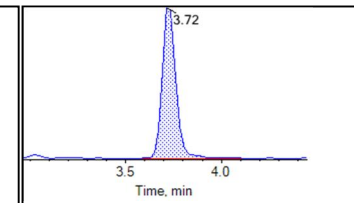
Internal Standards:



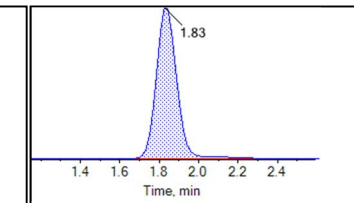
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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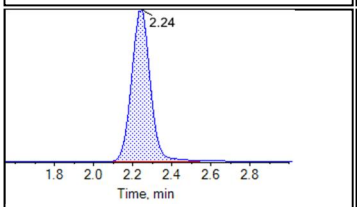

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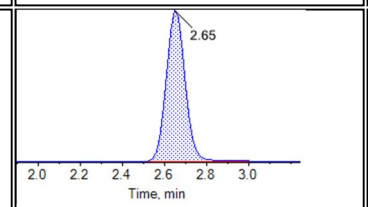

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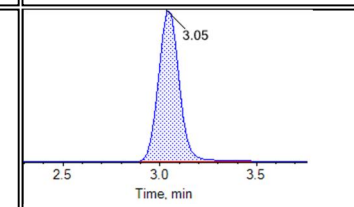
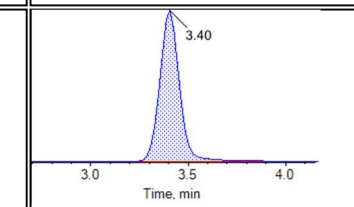


13C9-PFNA



13C6-PFDA

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Chromatogram Report

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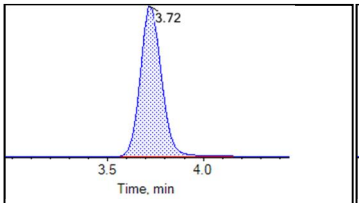

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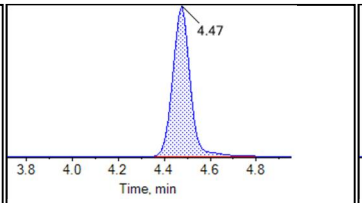
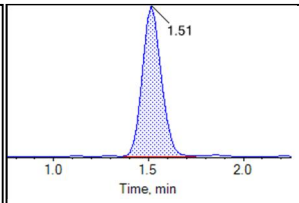
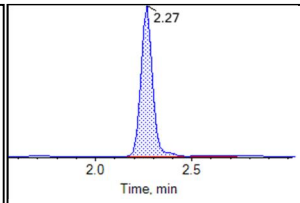


13C2-PFTeDA



13C3-PFBS



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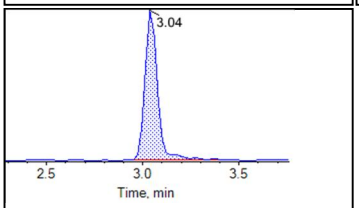


13C8-PFOS

BATTELLE

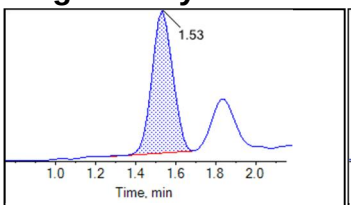
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 11:14:02 AM

Sample Name	J8310-FS(3)	**Injection Vial**	11
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:42:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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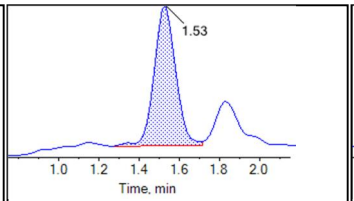
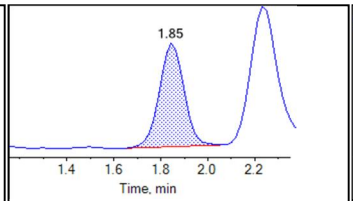
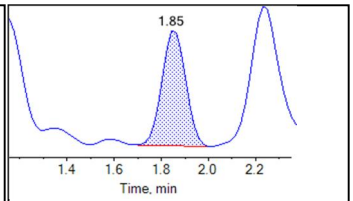


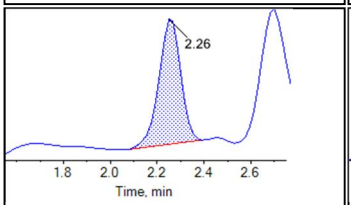
PFBS_2



PFHxA_1



PFHxA_2



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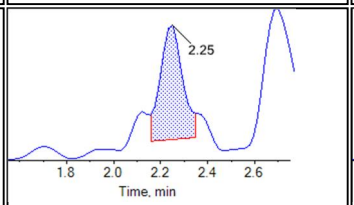
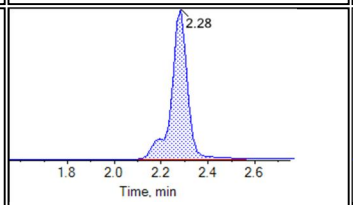
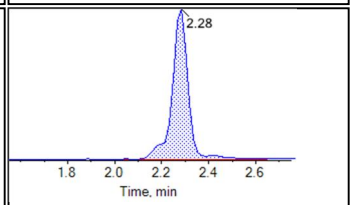


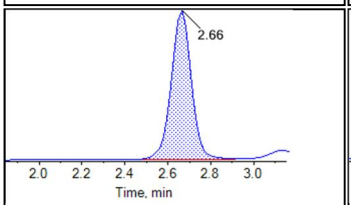
PFHpA_2



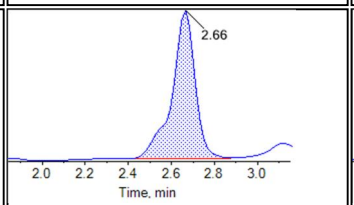
PFHxS_1



PFHxS_2



PFOA_1



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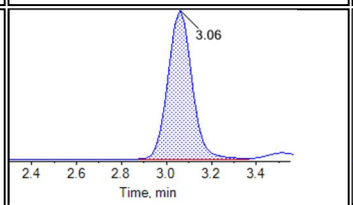
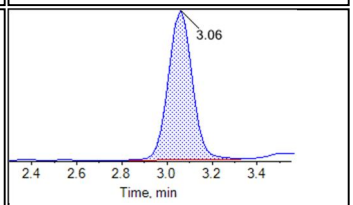
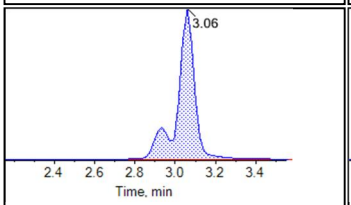


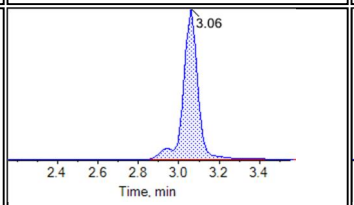
PFNA_1



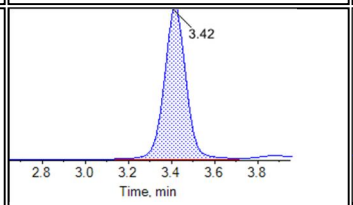
PFNA_2



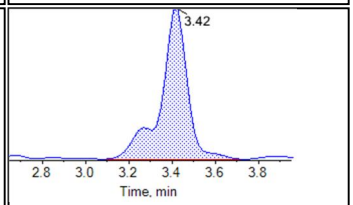
PFOS_1



PFOS_2



PFDA_1



PFDA_2

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Chromatogram Report

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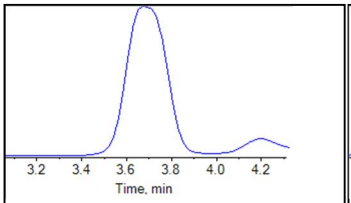

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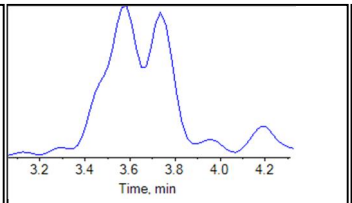

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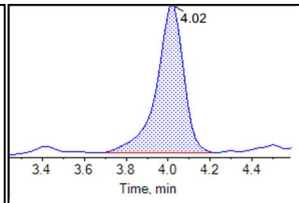

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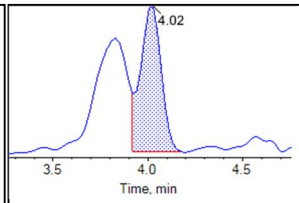

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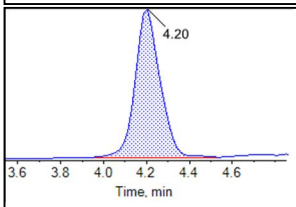

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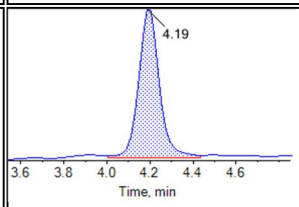

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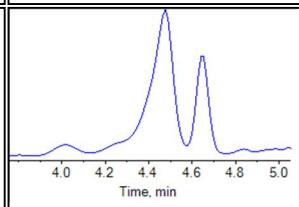

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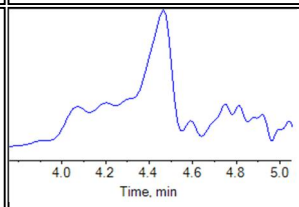

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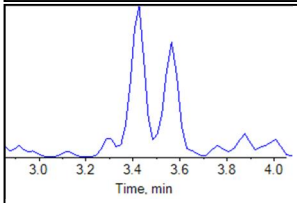
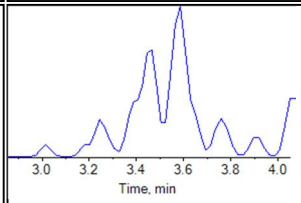


NMeFOSAA_1



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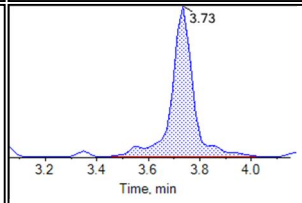

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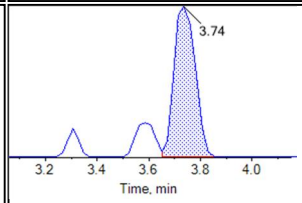

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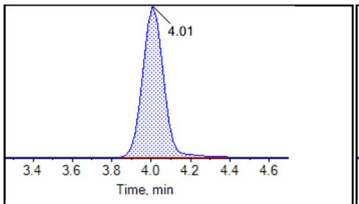
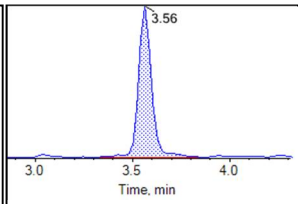
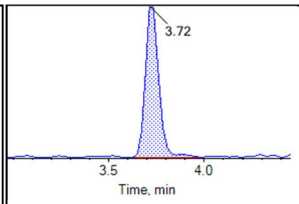


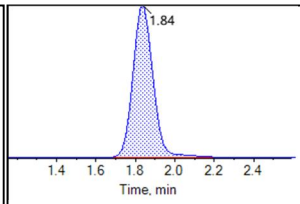
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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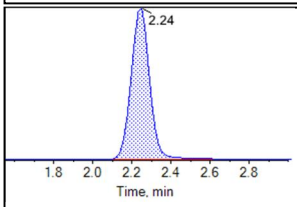

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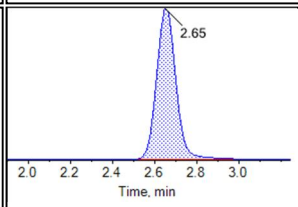
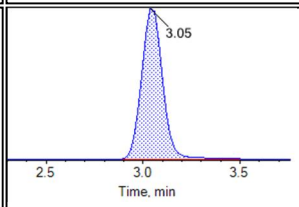
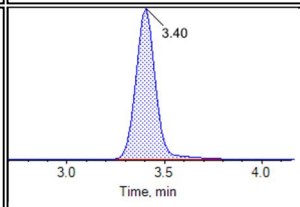


13C8-PFOA



13C9-PFNA



13C6-PFDA

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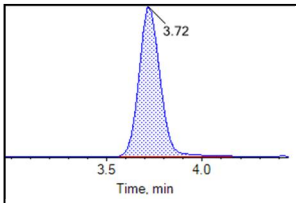
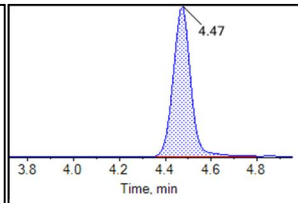
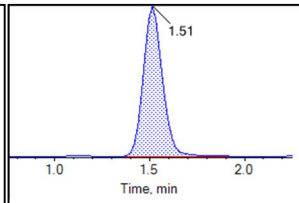


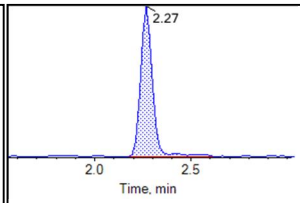
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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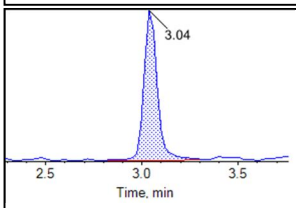

13C8-PFOS

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Chromatogram Report

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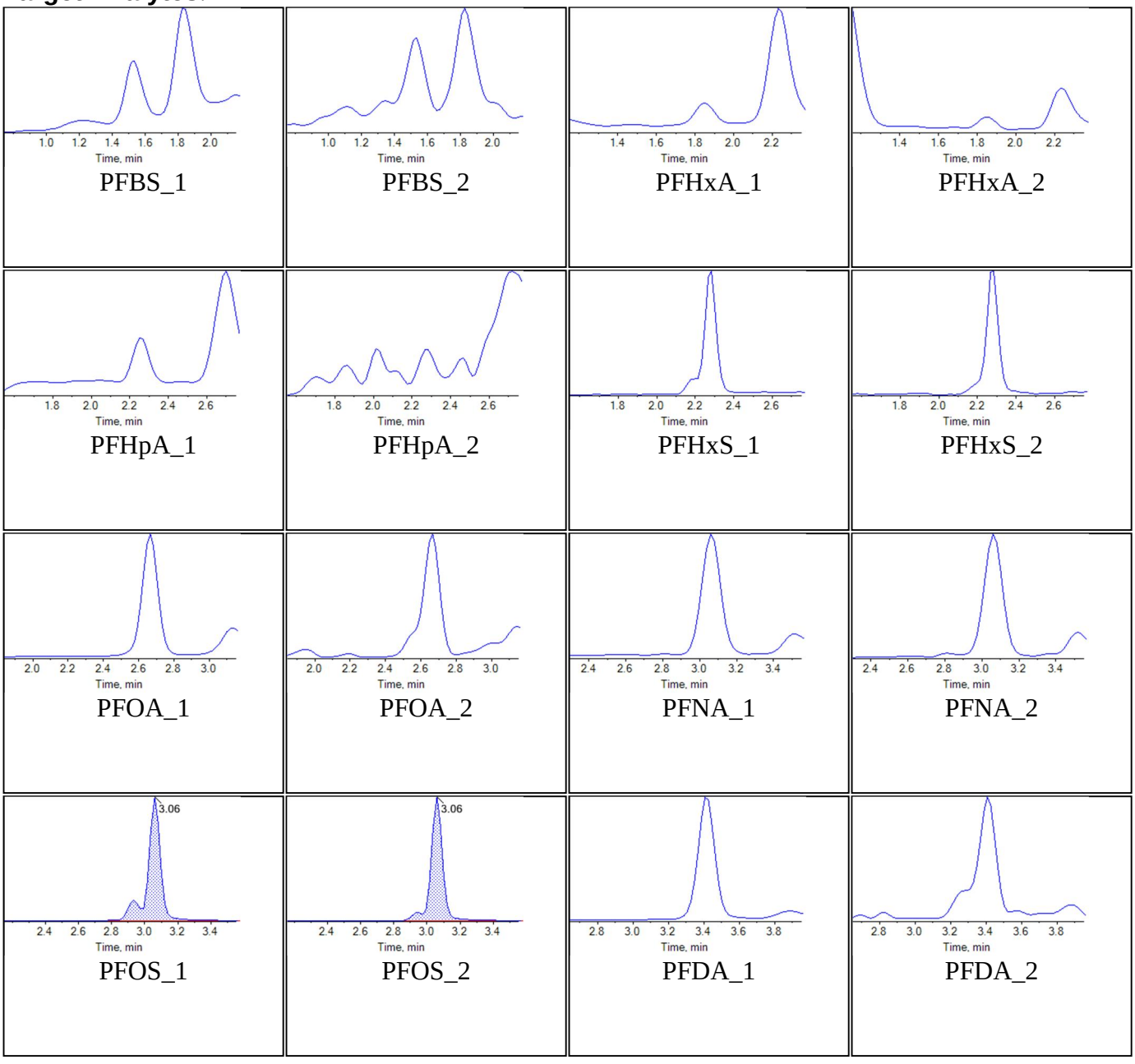
Sample Name	J8310-FS-D(5)	**Injection Vial**	12
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:53:13	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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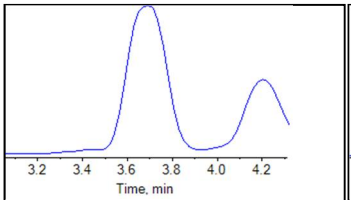

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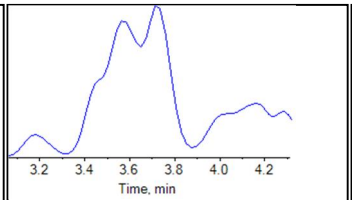

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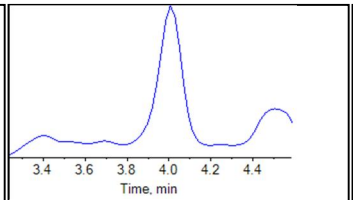

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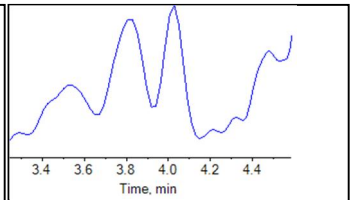
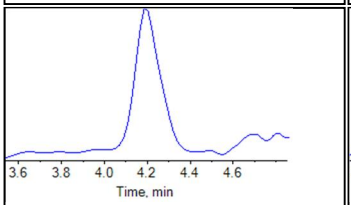
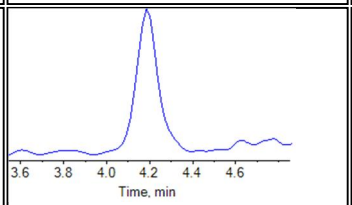


PFDoA_2



PFTrDA_1



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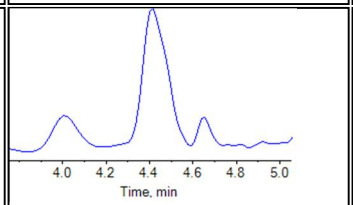

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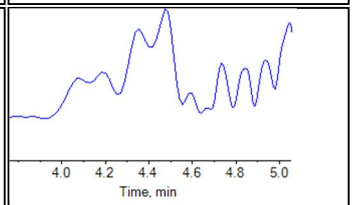

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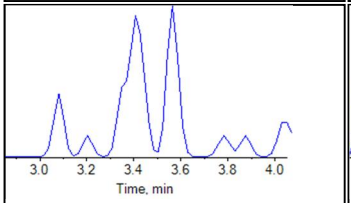

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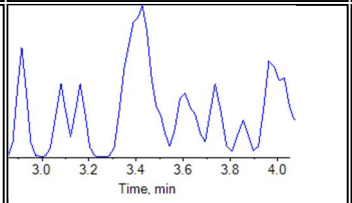

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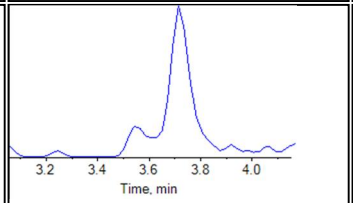

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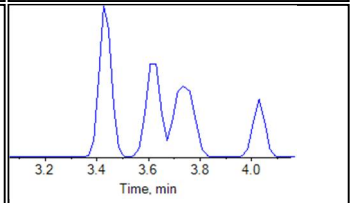

NEtFOSAA_2

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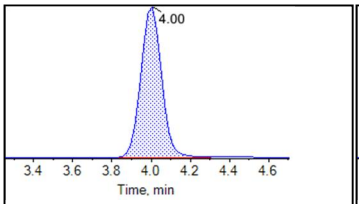

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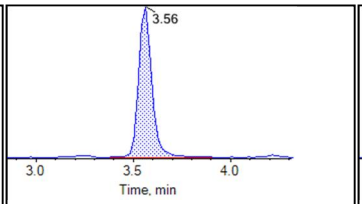
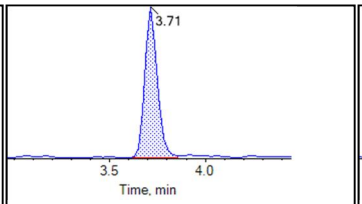
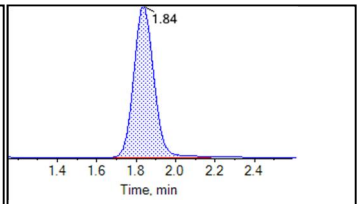


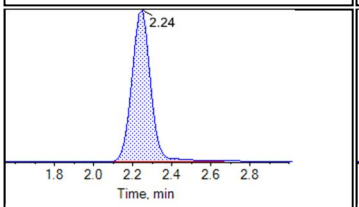
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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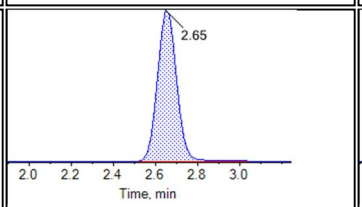

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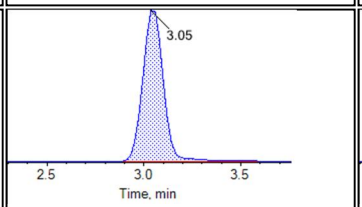
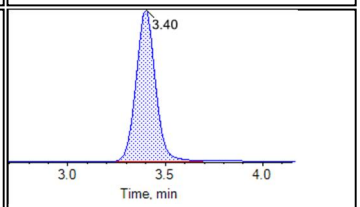


13C9-PFNA



13C6-PFDA

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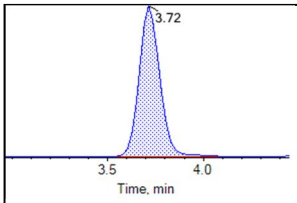
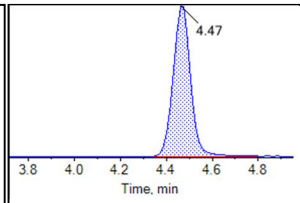
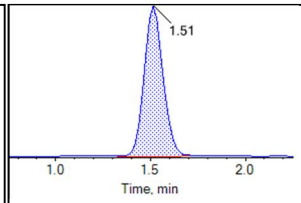


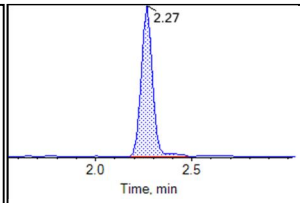
13C7-PFUnA



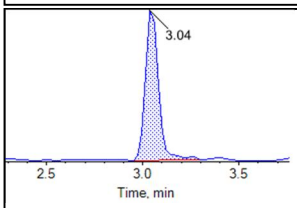
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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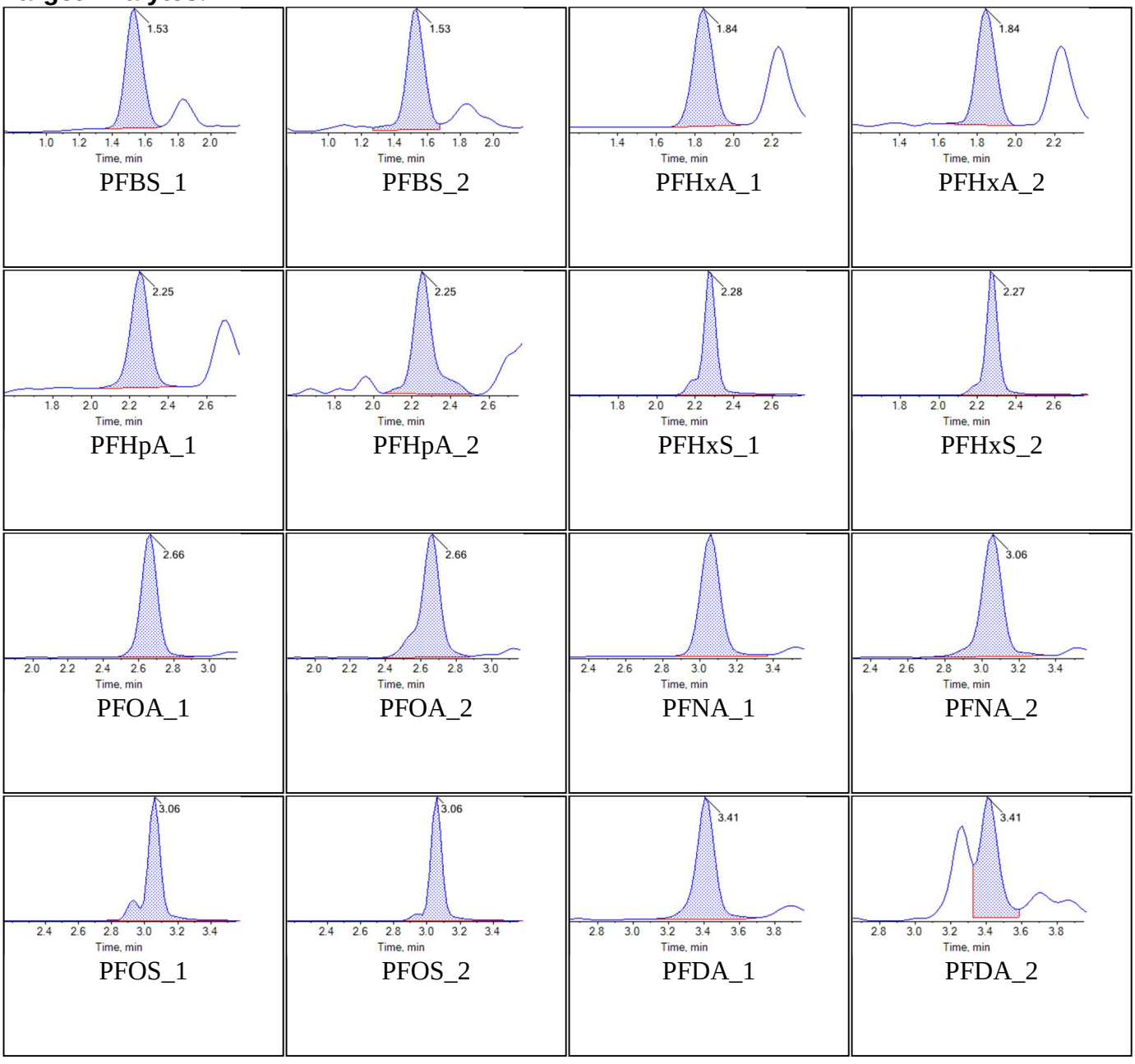
Printed: 19/10/2018 4:27:53 PM

Sample Name	J8311-FS(3)	**Injection Vial**	13
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:04:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



BATTELLE

Chromatogram Report

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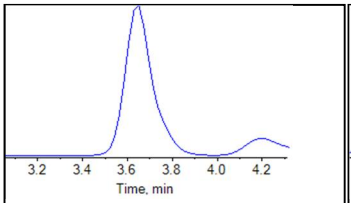

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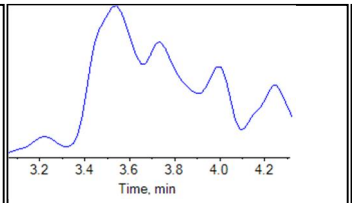

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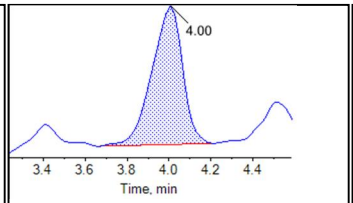

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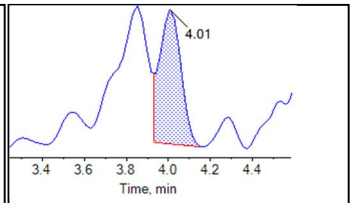

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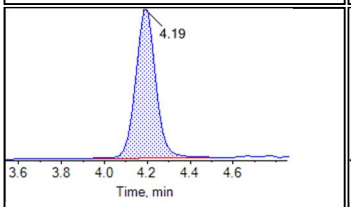

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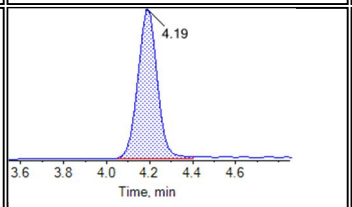

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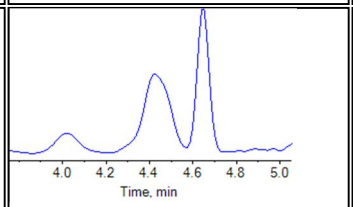

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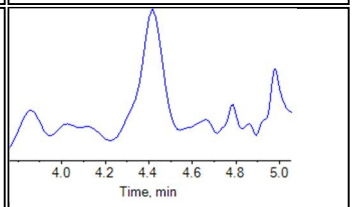

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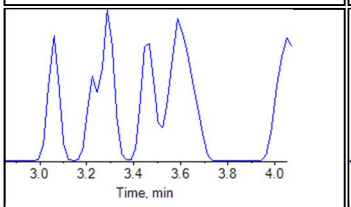

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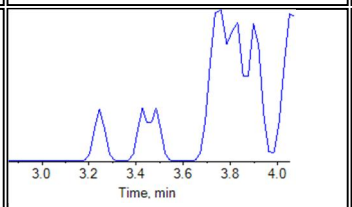

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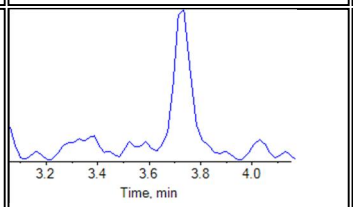

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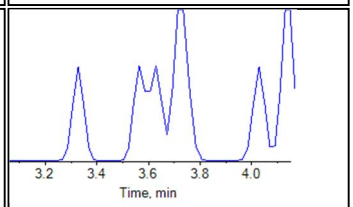

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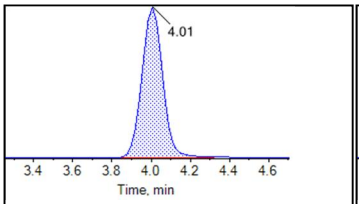
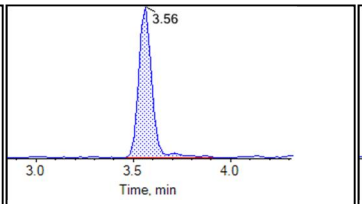
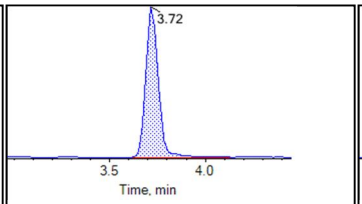


13C2-PFDoA



d3-MeFOSAA



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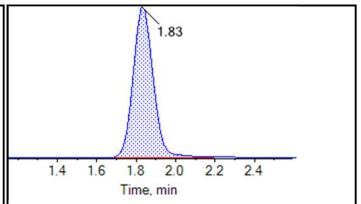

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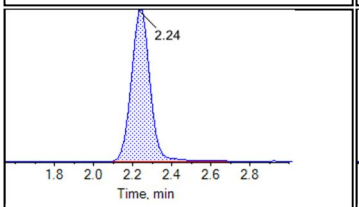

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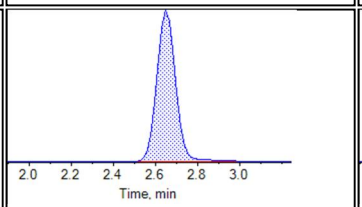
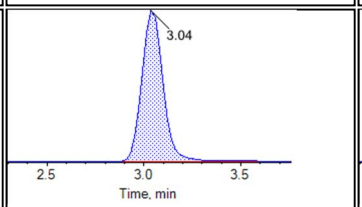


13C8-PFOA



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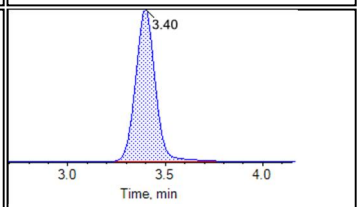

13C6-PFDA

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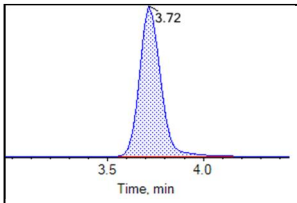
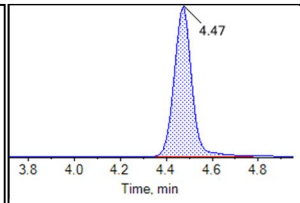
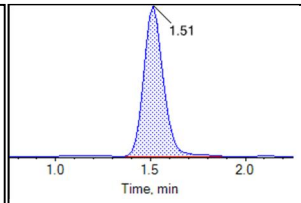


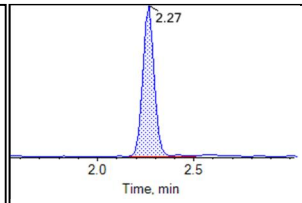
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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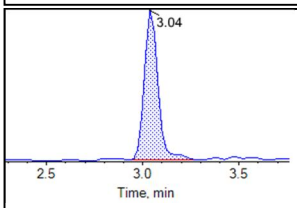

13C8-PFOS

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Chromatogram Report

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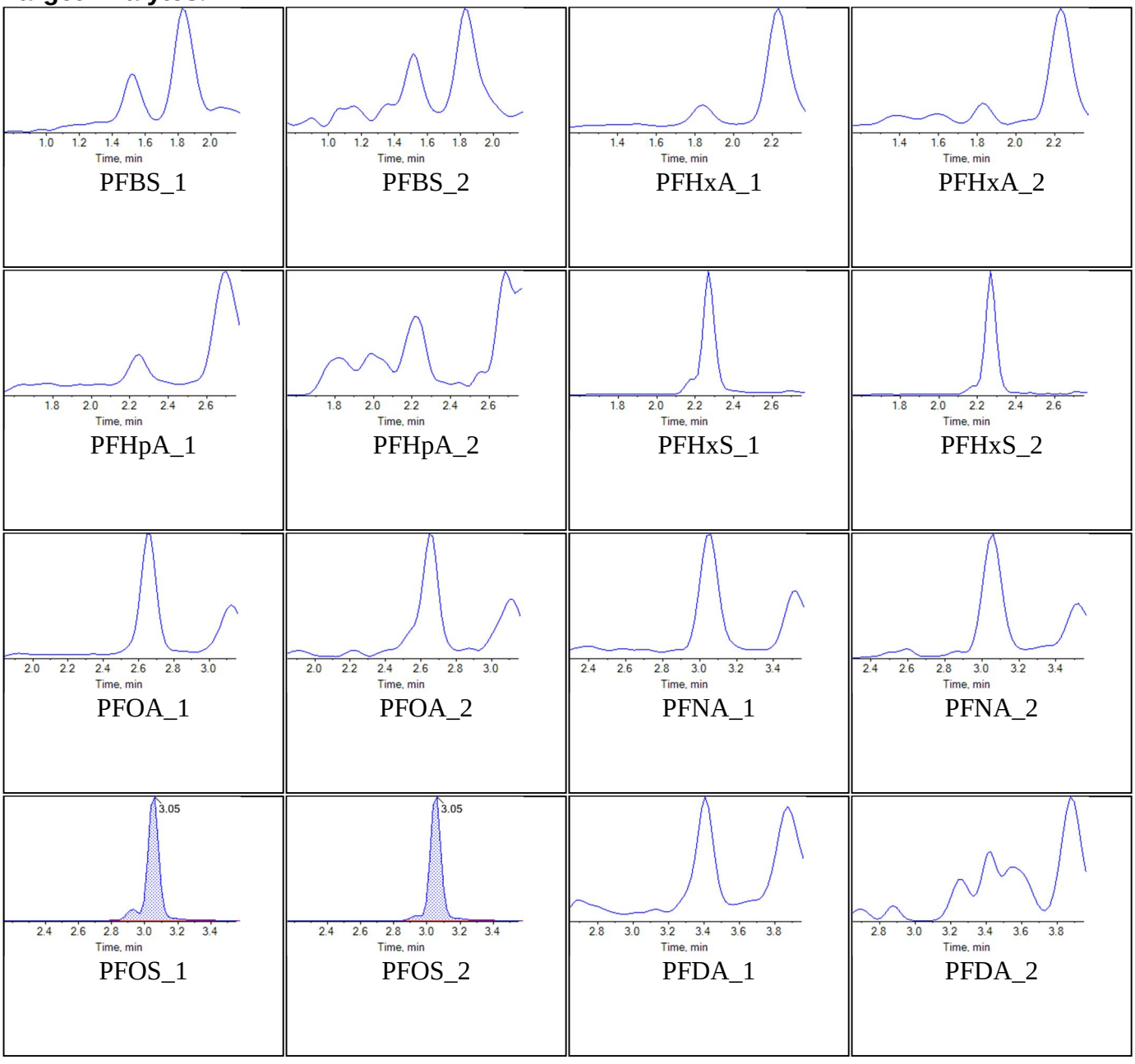
Sample Name	J8311-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:14:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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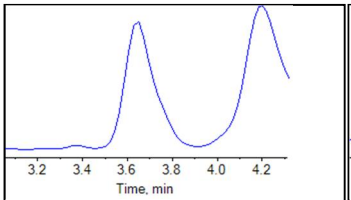

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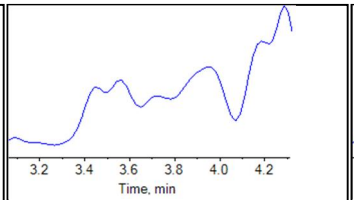
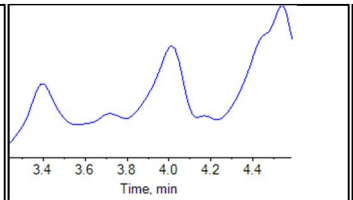


PFUnA_2



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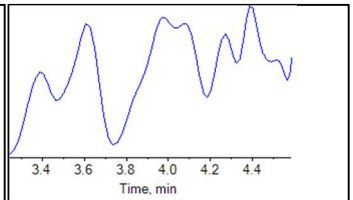

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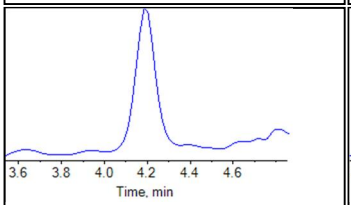

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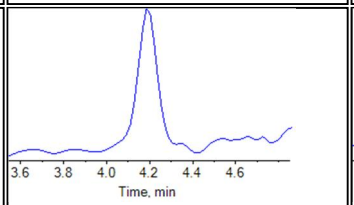

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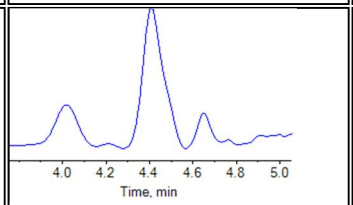

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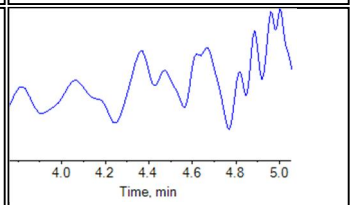

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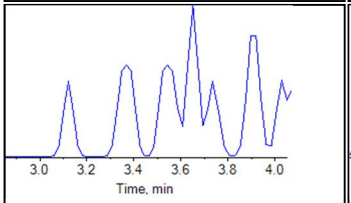

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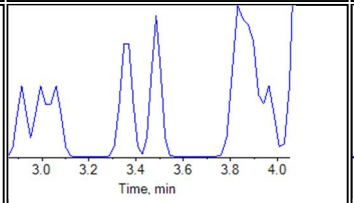

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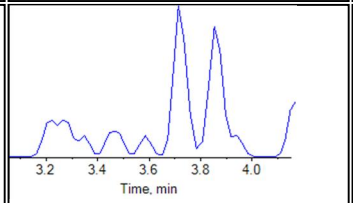

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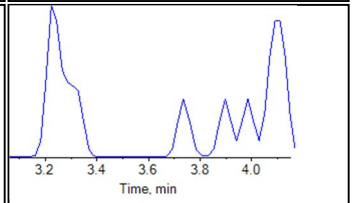

NEtFOSAA_2

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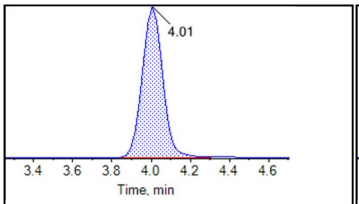

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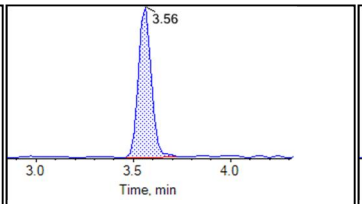
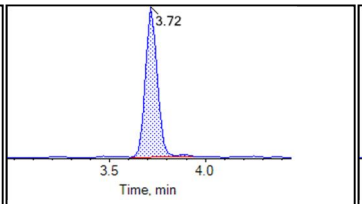
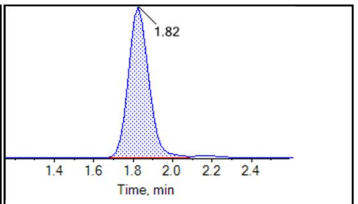


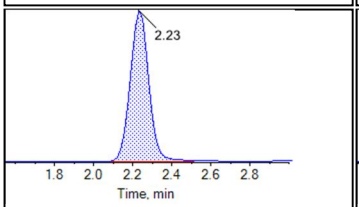
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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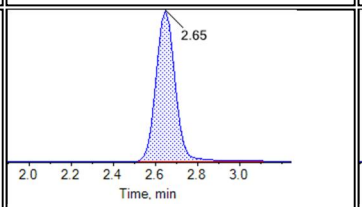
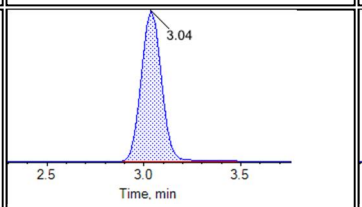
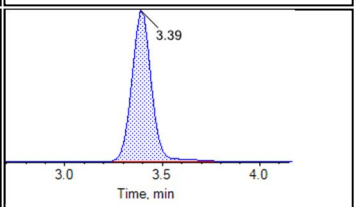


13C8-PFOA



13C9-PFNA



13C6-PFDA

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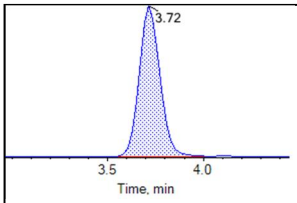
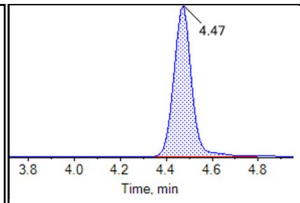


13C7-PFUnA



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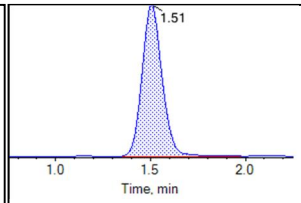
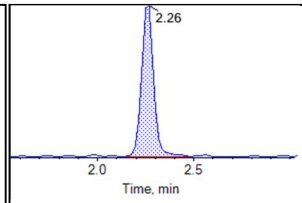
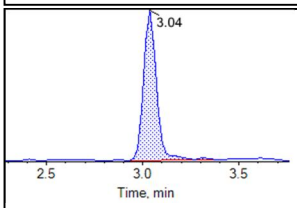


13C3-PFBS



13C3-PFHxS



13C8-PFOS

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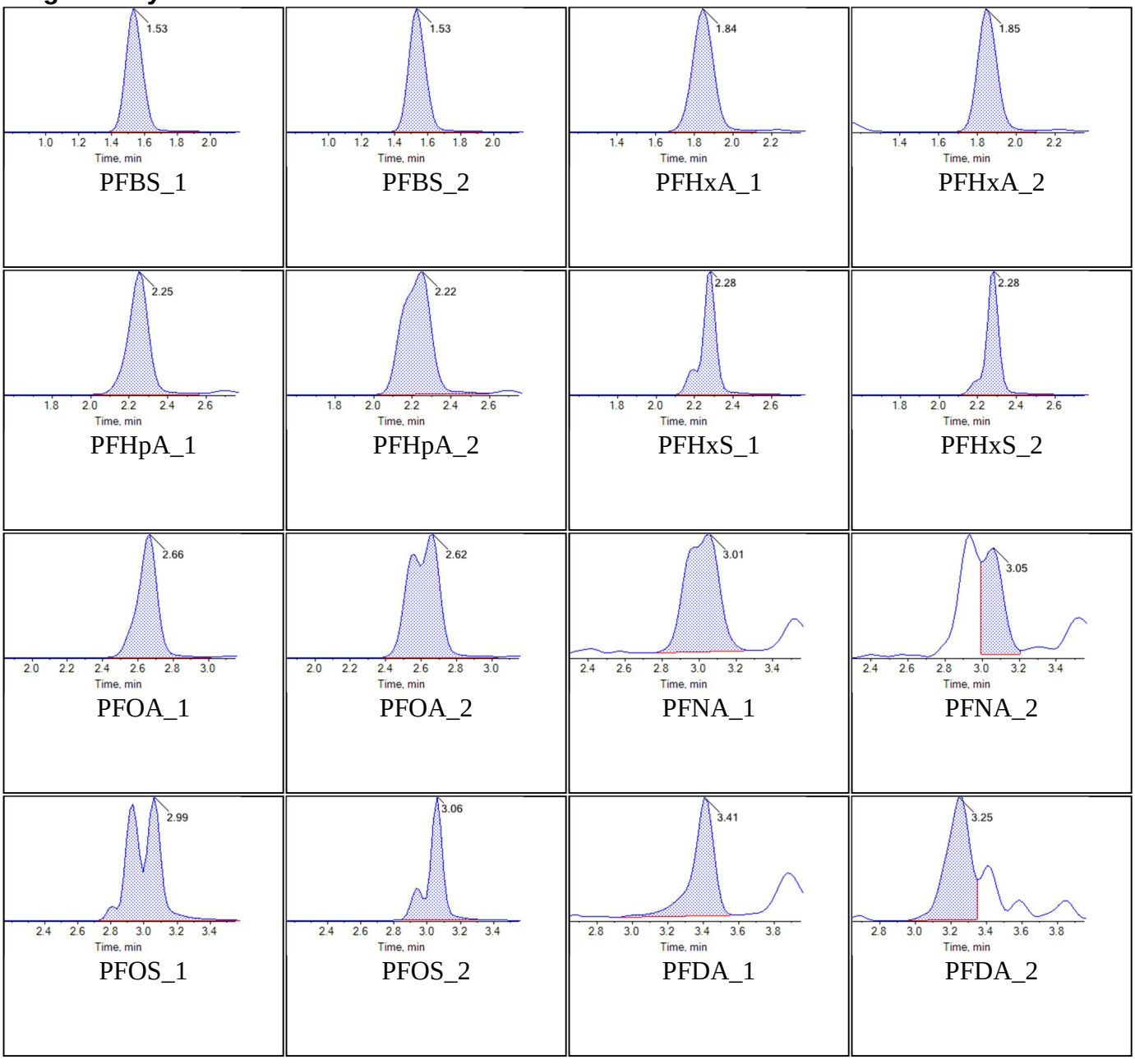
Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 11:14:16 AM

Sample Name	J8312-FS(3)	**Injection Vial**	15
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:25:51	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



BATTELLE

Chromatogram Report

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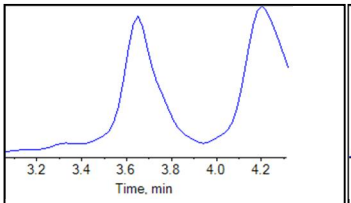
Printed: 23/10/2018 11:14:16 AM



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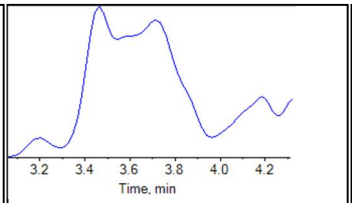

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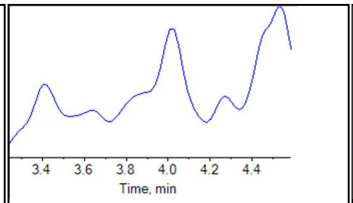

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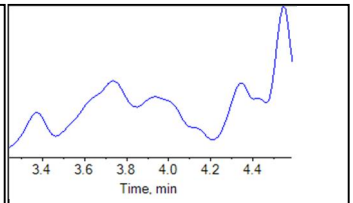

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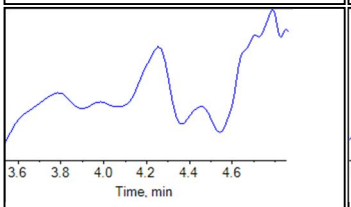

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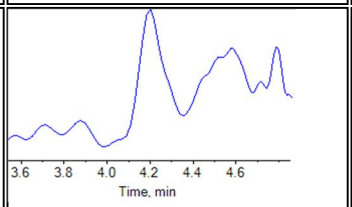

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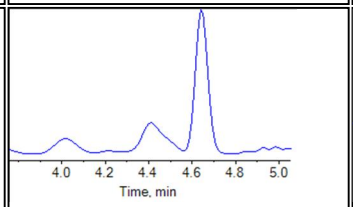

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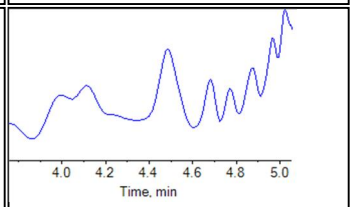

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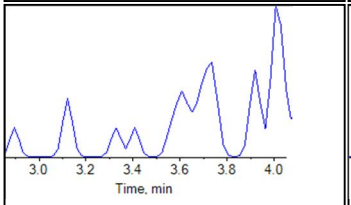
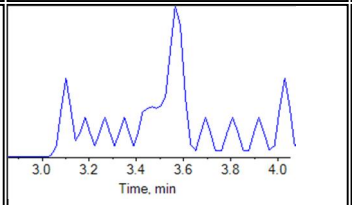


NMeFOSAA_1



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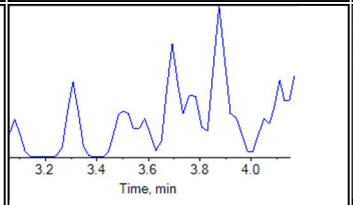

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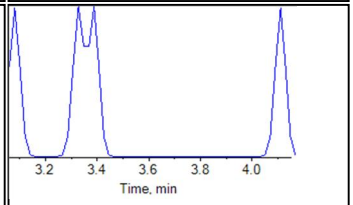

NEtFOSAA_2

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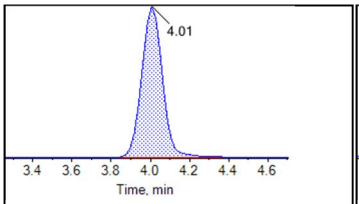
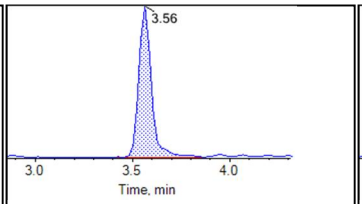
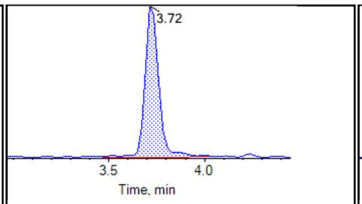


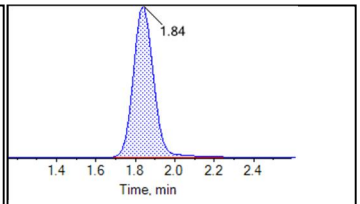
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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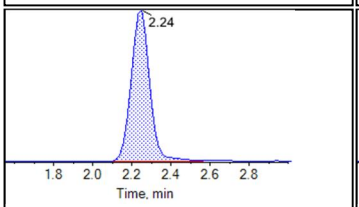
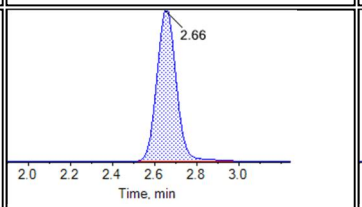
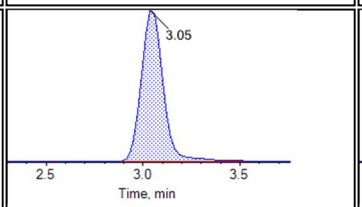


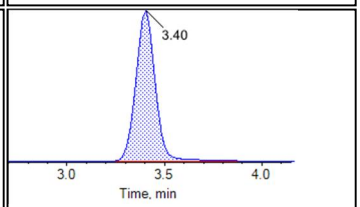
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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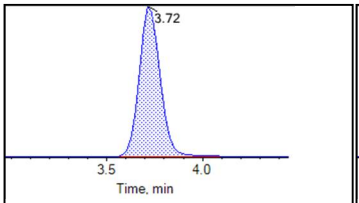
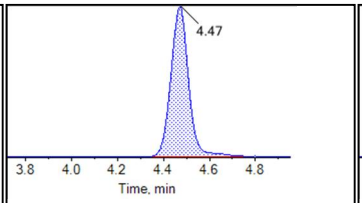
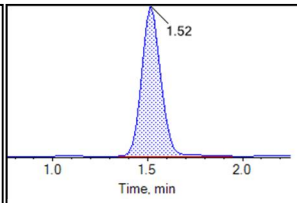


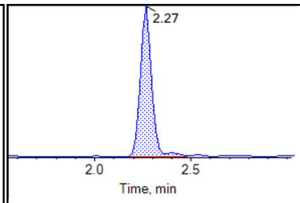
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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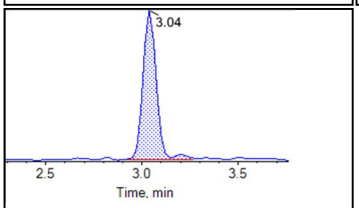

13C8-PFOS

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Chromatogram Report

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Sample Name	J8312-FS-D(5)	**Injection Vial**	16
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:36:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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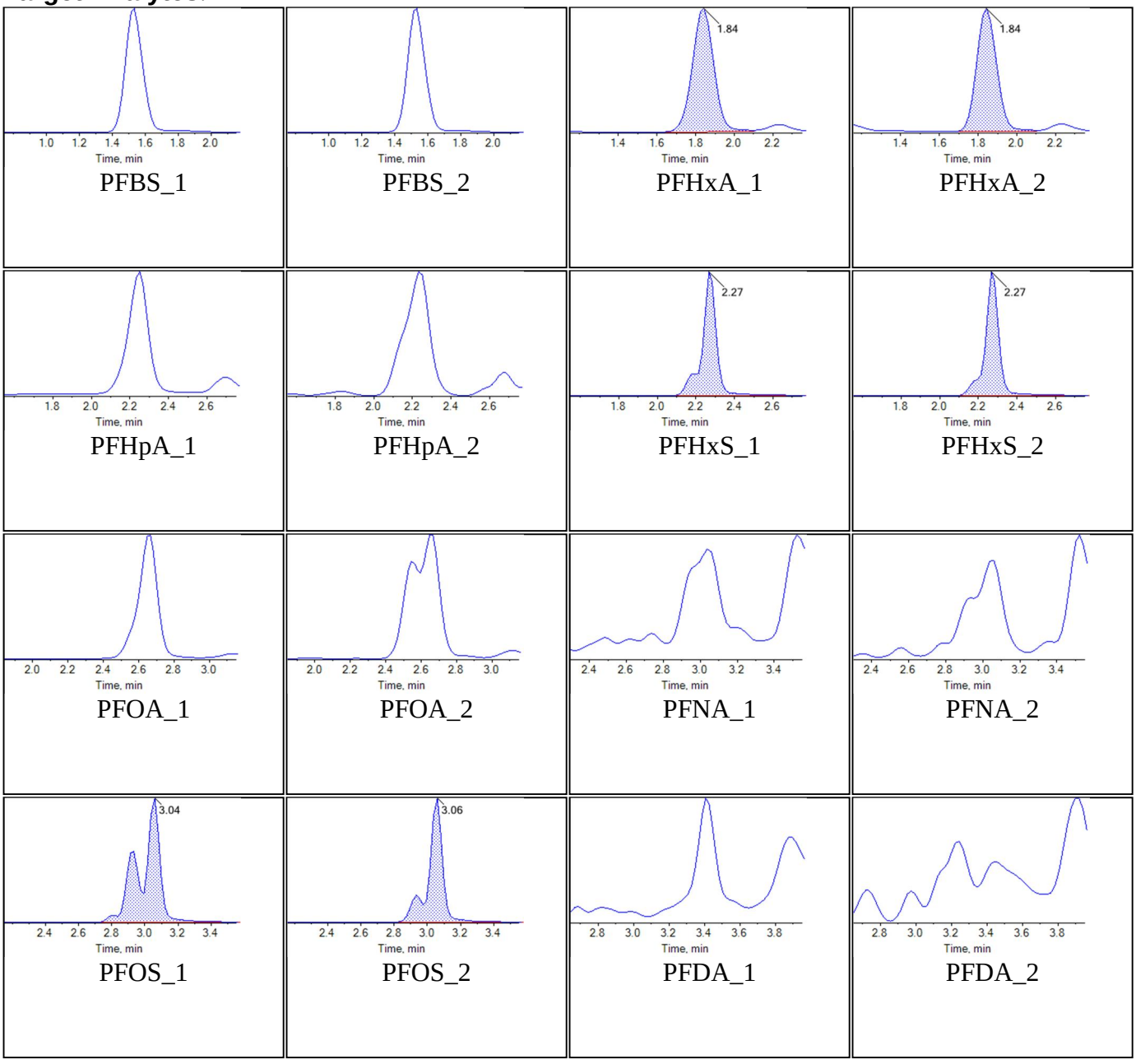

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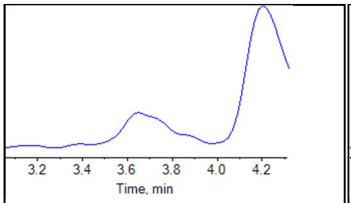

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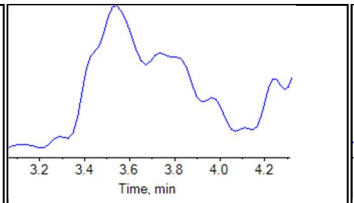
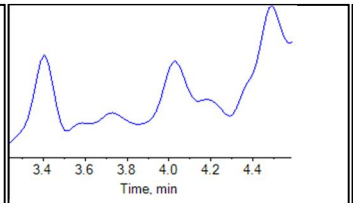


PFUnA_2



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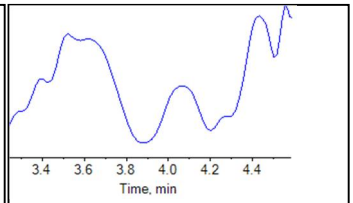
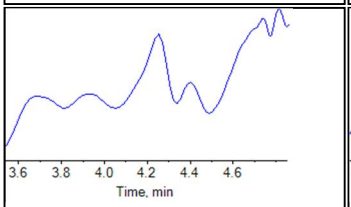


PFDoA_2



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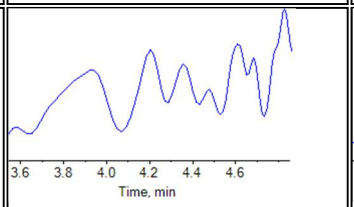

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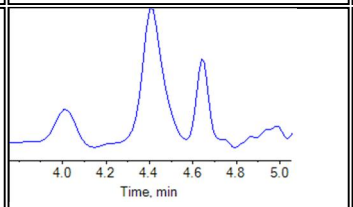

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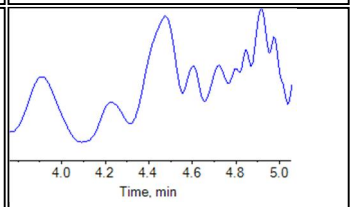

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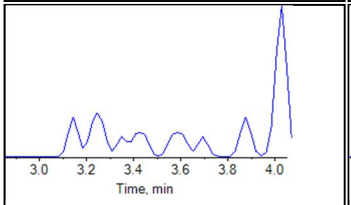

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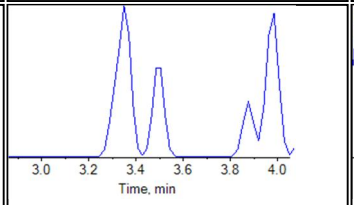

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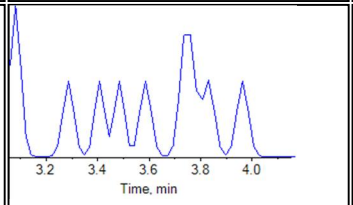

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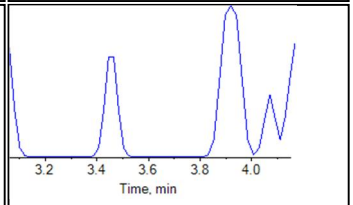

NEtFOSAA_2

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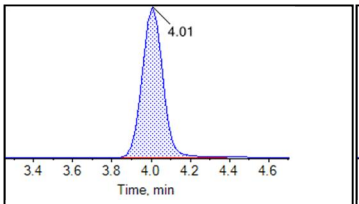
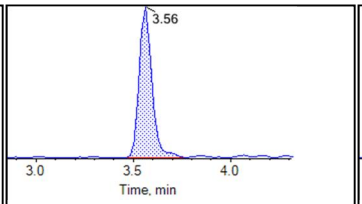
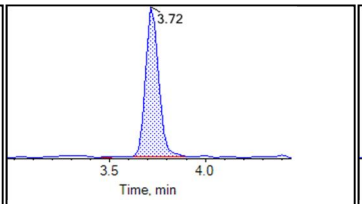


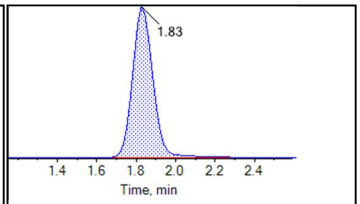
13C2-PFDoA



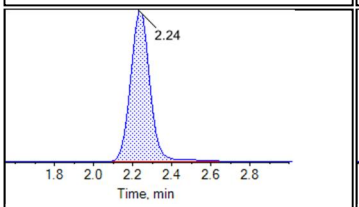
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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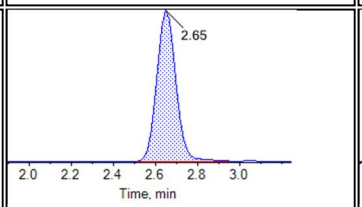
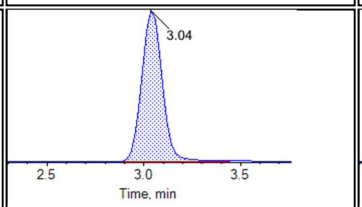
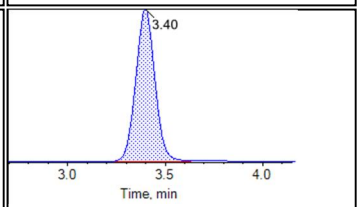


13C8-PFOA



13C9-PFNA



13C6-PFDA

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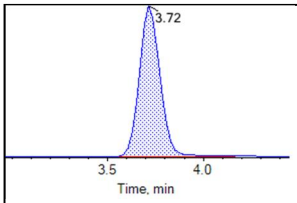
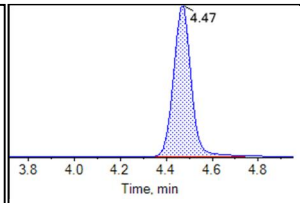
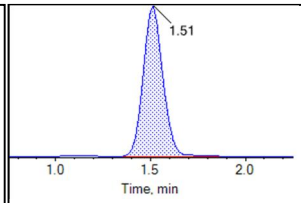


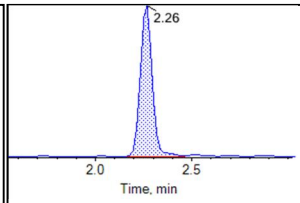
13C7-PFUnA



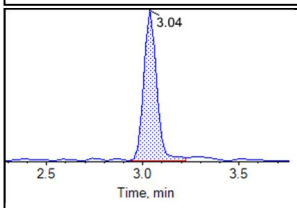
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
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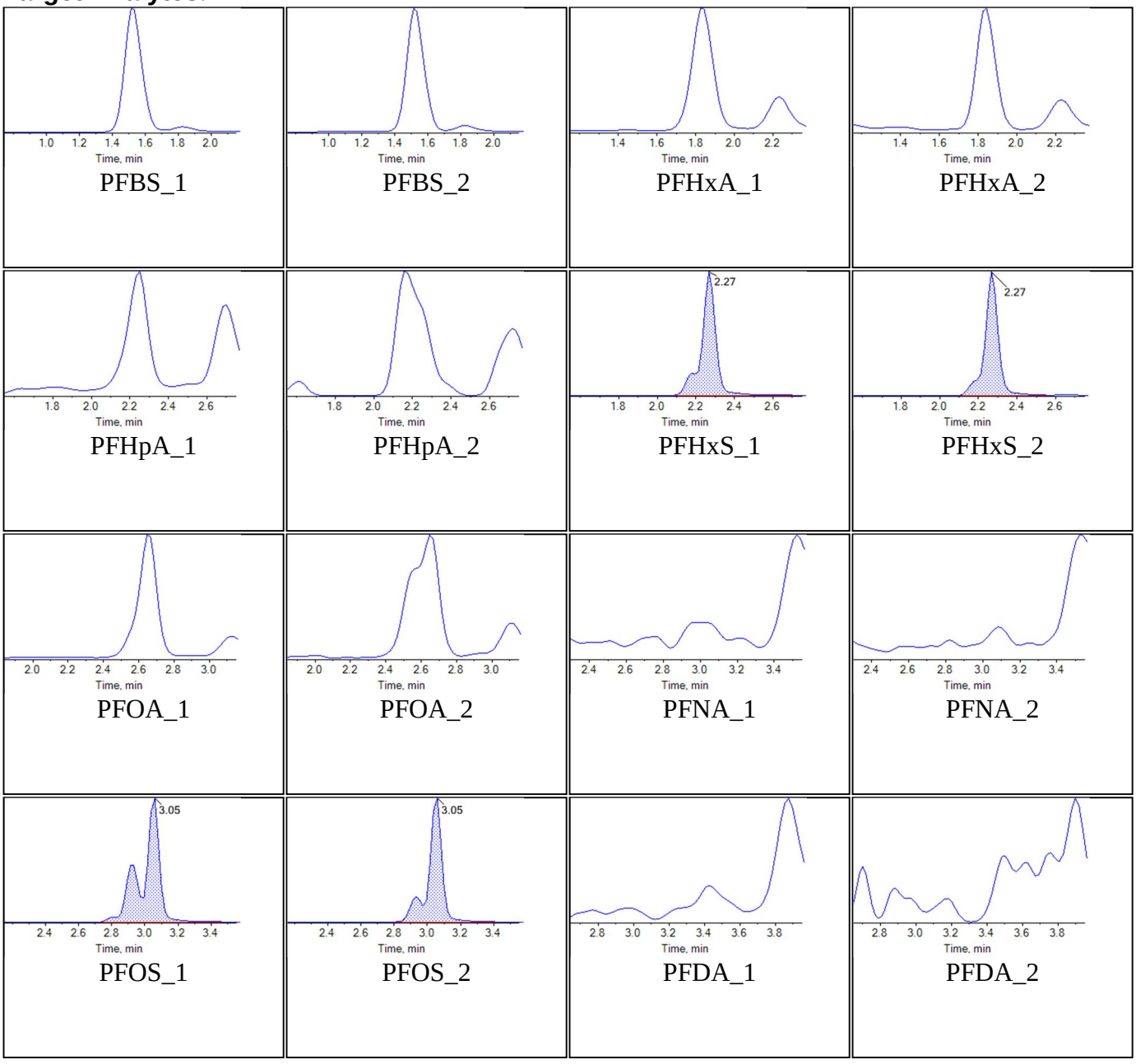
Sample Name	J8312-FS-D(7)	**Injection Vial**	17
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:47:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



BATTELLE

Chromatogram Report

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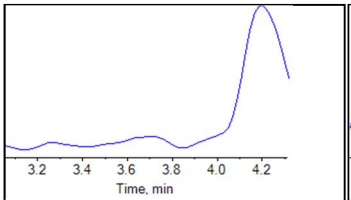

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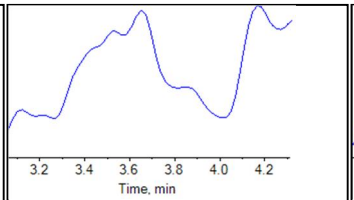

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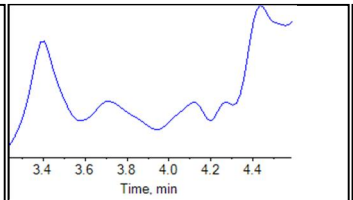

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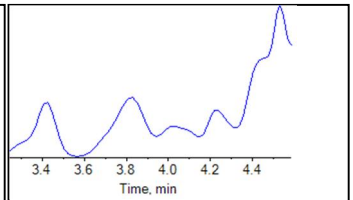

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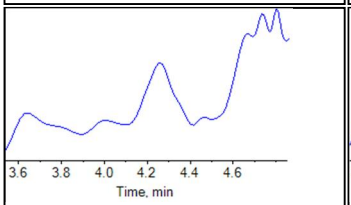

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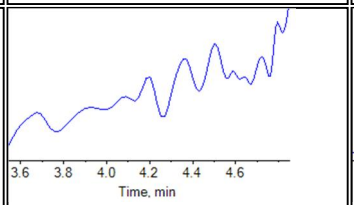

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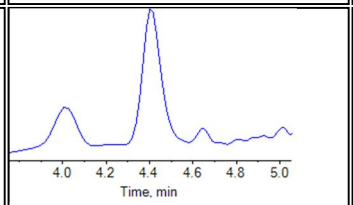

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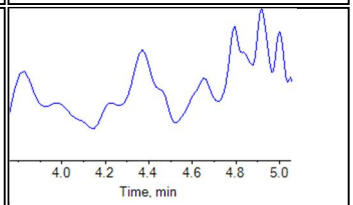

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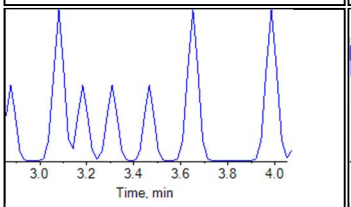

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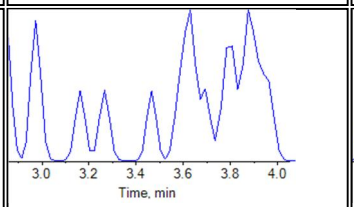

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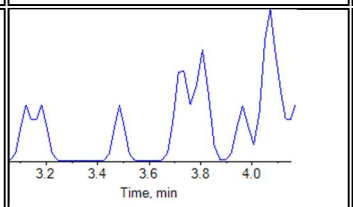

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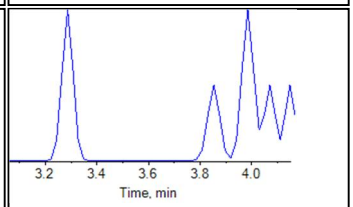

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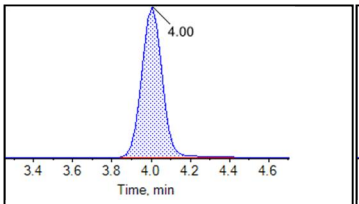
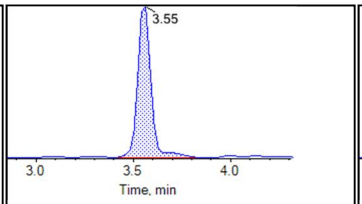
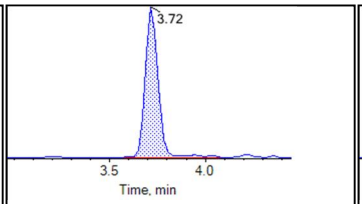


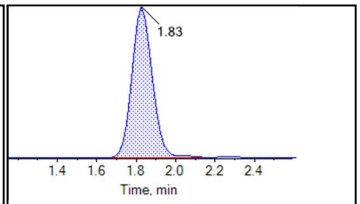
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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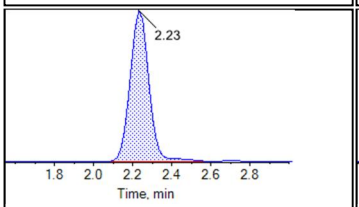

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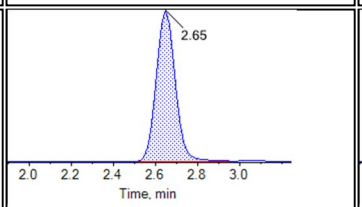
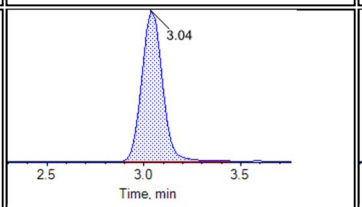
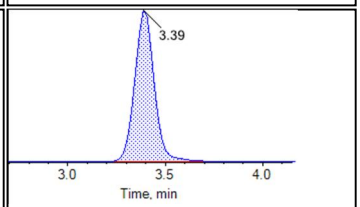


13C8-PFOA



13C9-PFNA



13C6-PFDA

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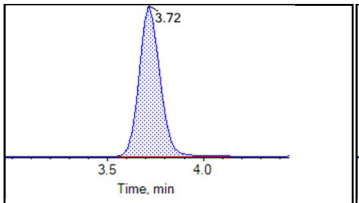
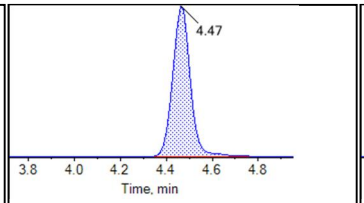
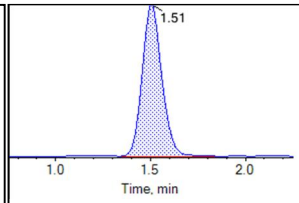


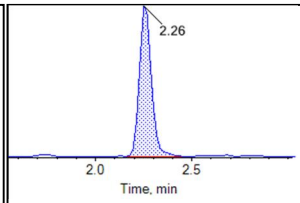
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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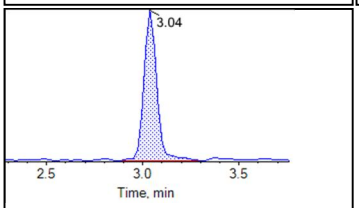

13C8-PFOS

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Chromatogram Report

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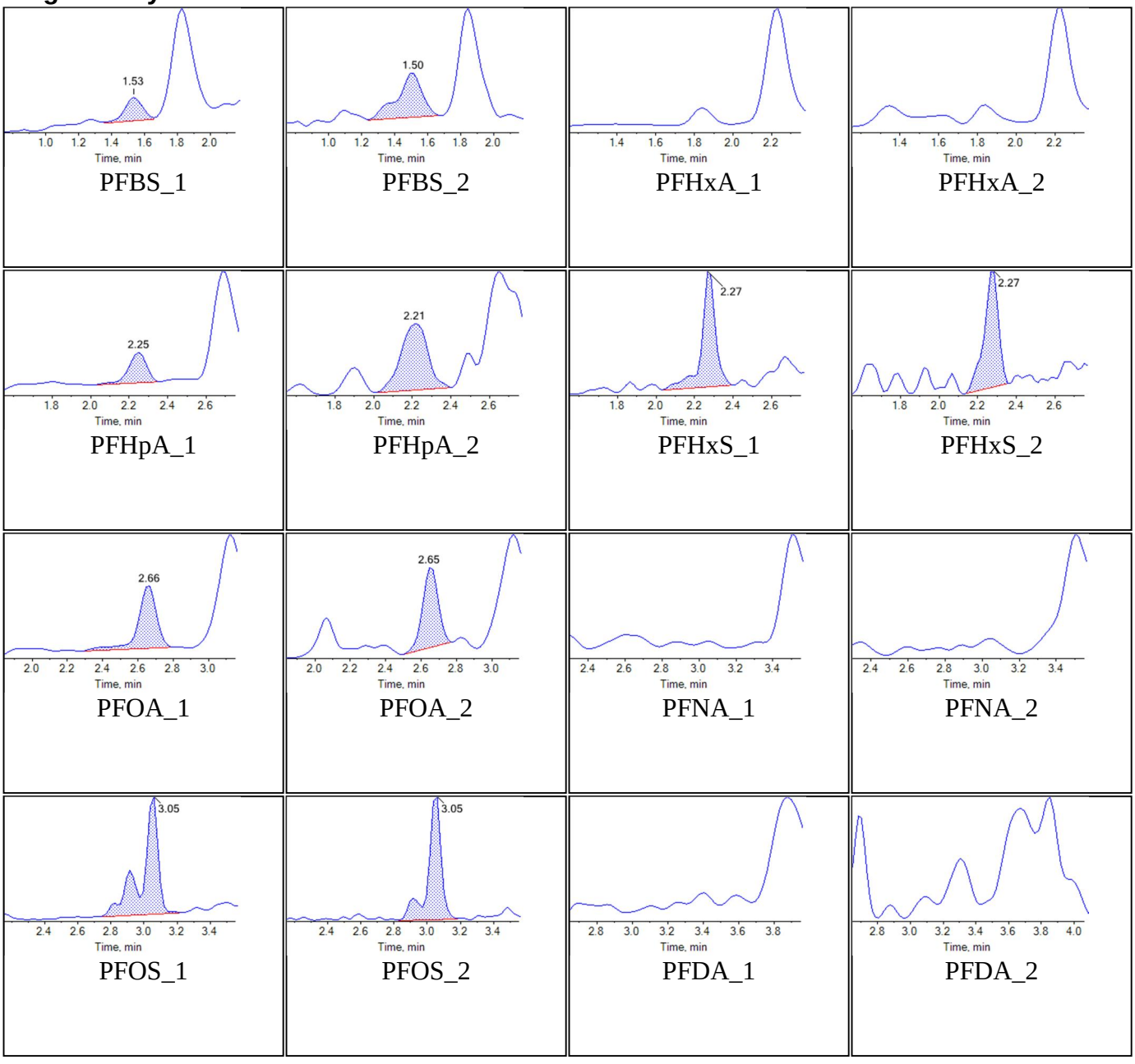
Sample Name	J8333-FS(3)	**Injection Vial**	18
Sample ID	VC-PM324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:58:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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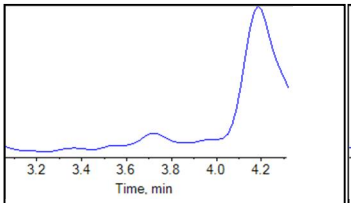

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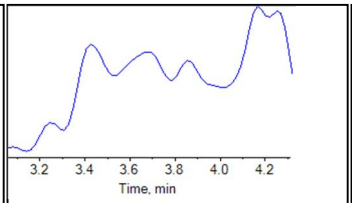

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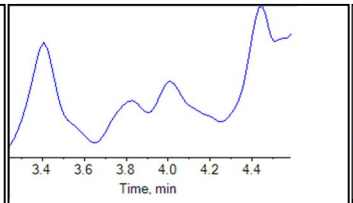

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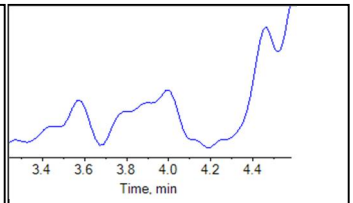

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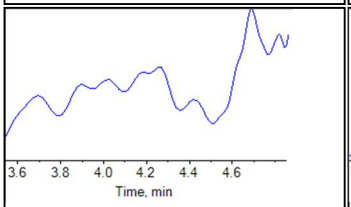

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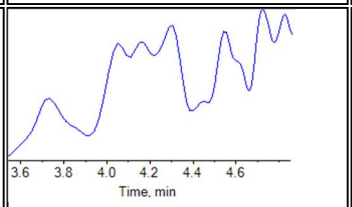

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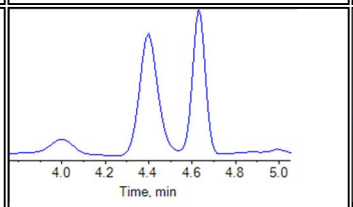

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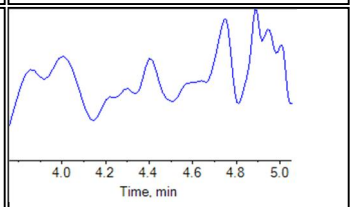

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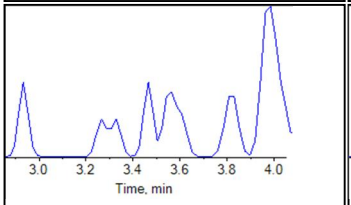

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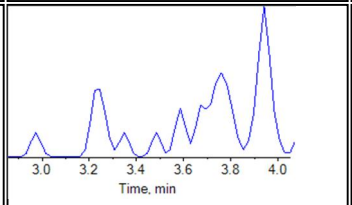

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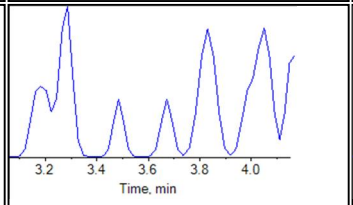

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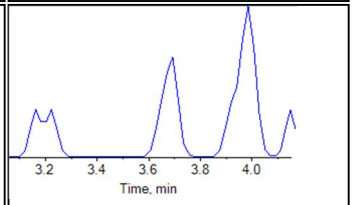

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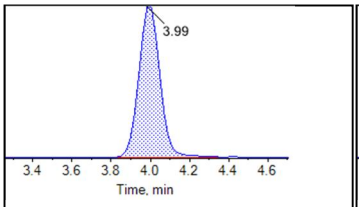

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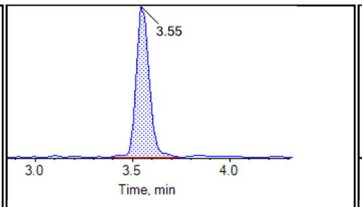
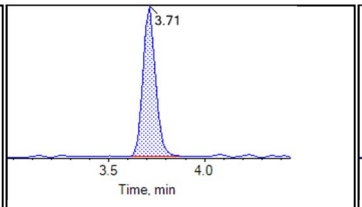
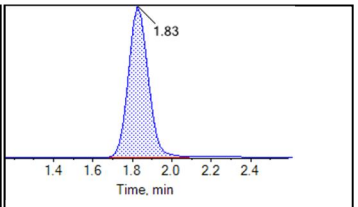


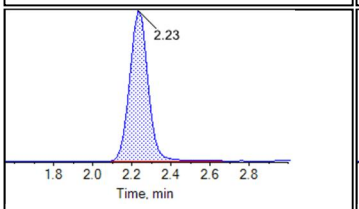
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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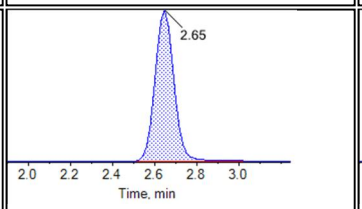
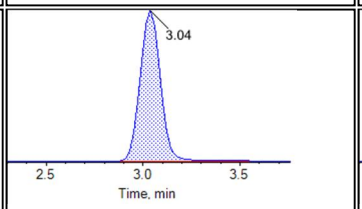
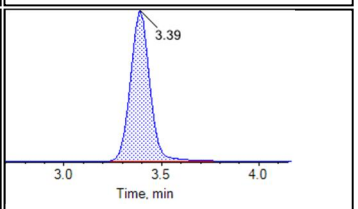


13C8-PFOA



13C9-PFNA



13C6-PFDA

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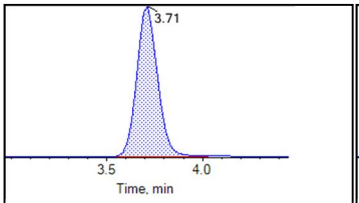
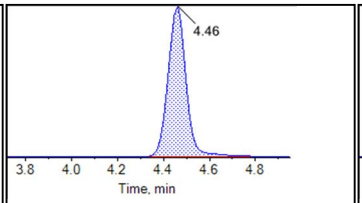


13C7-PFUnA



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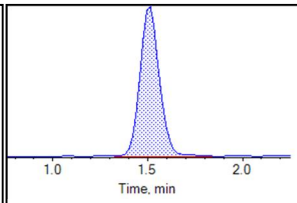
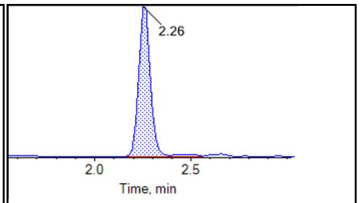


13C3-PFBS



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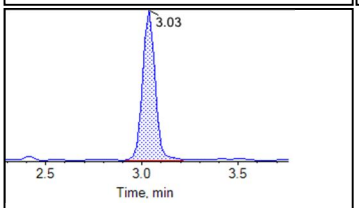

13C8-PFOS

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Chromatogram Report

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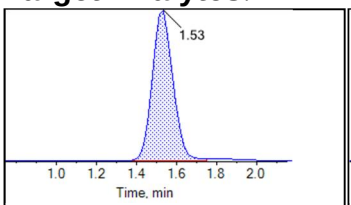
Sample Name	KB77 CCV	**Injection Vial**	19
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:09:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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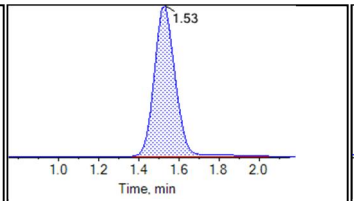

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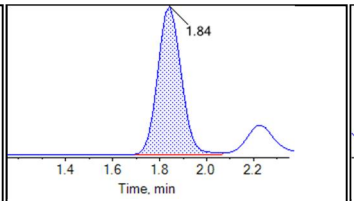

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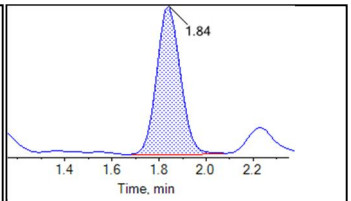

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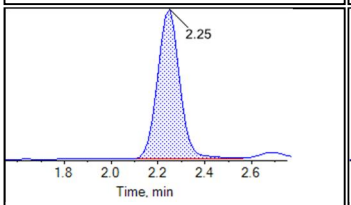

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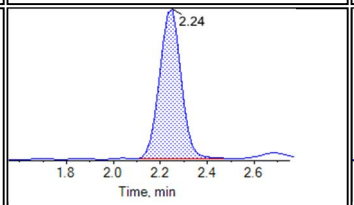

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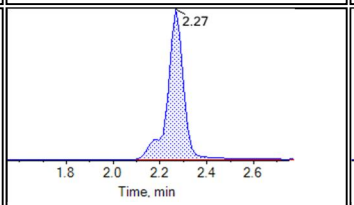

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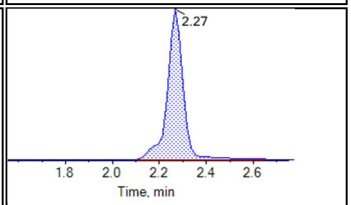

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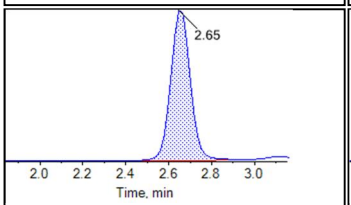

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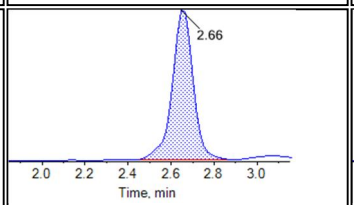

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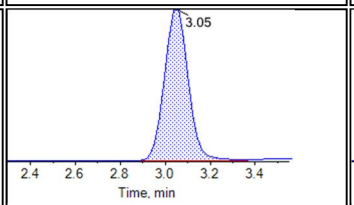

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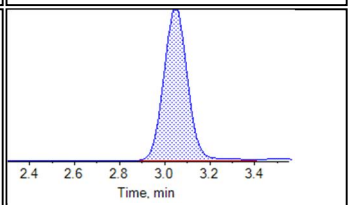

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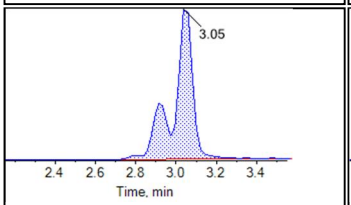

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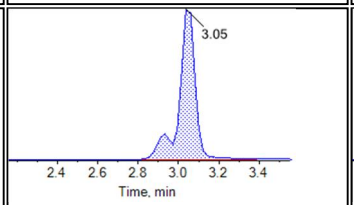

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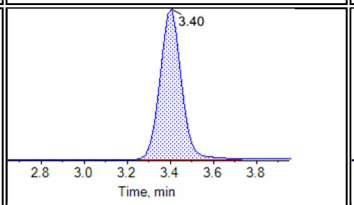

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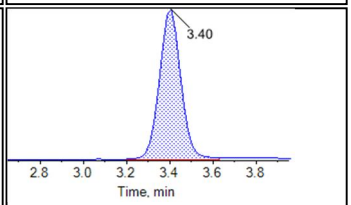

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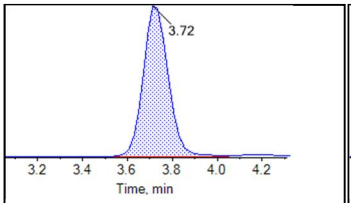

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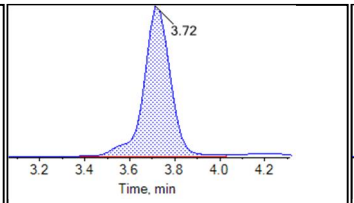

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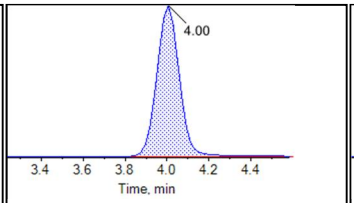

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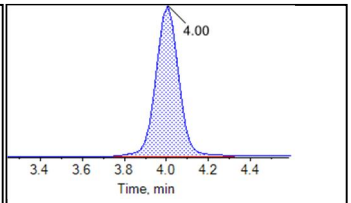

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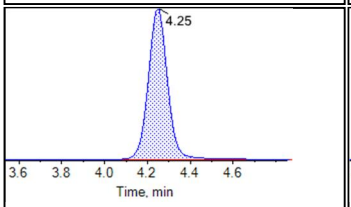

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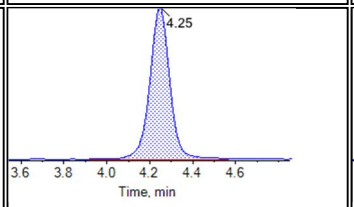

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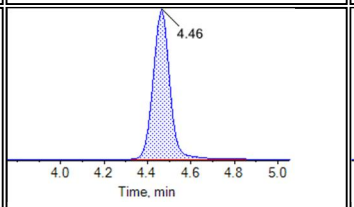

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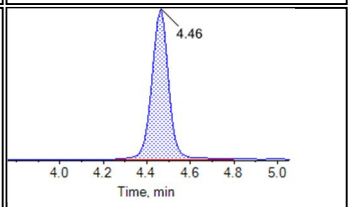

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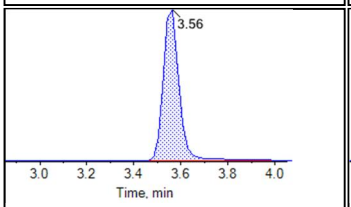

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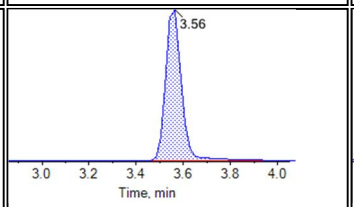

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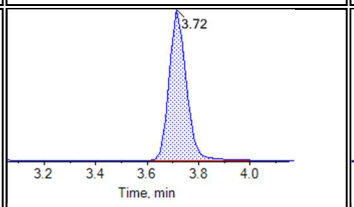

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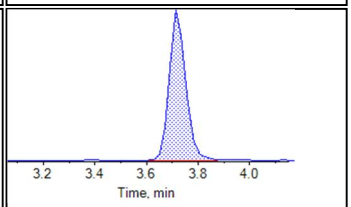

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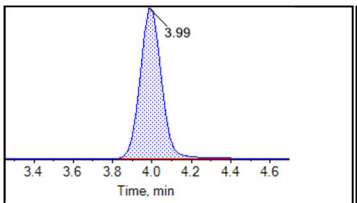

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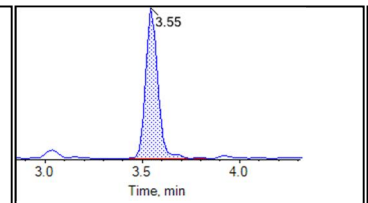

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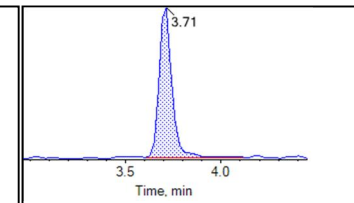

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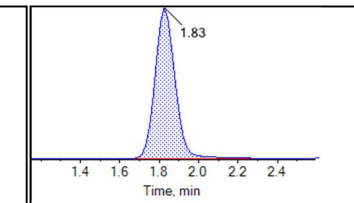

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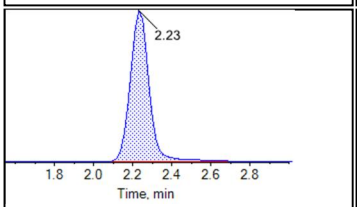

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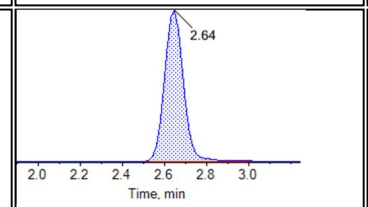
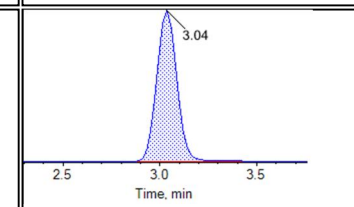


13C8-PFOA



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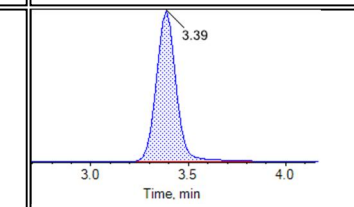

13C6-PFDA

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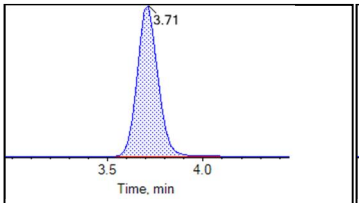

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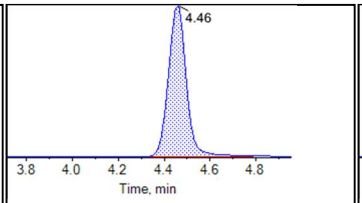

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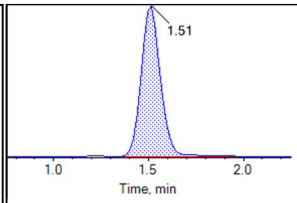

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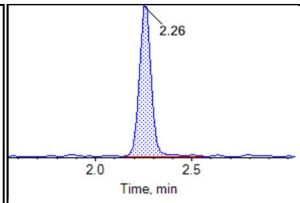

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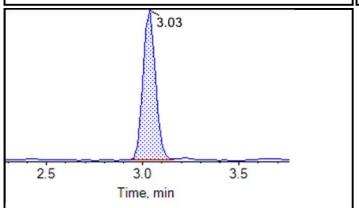

13C8-PFOS

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Chromatogram Report

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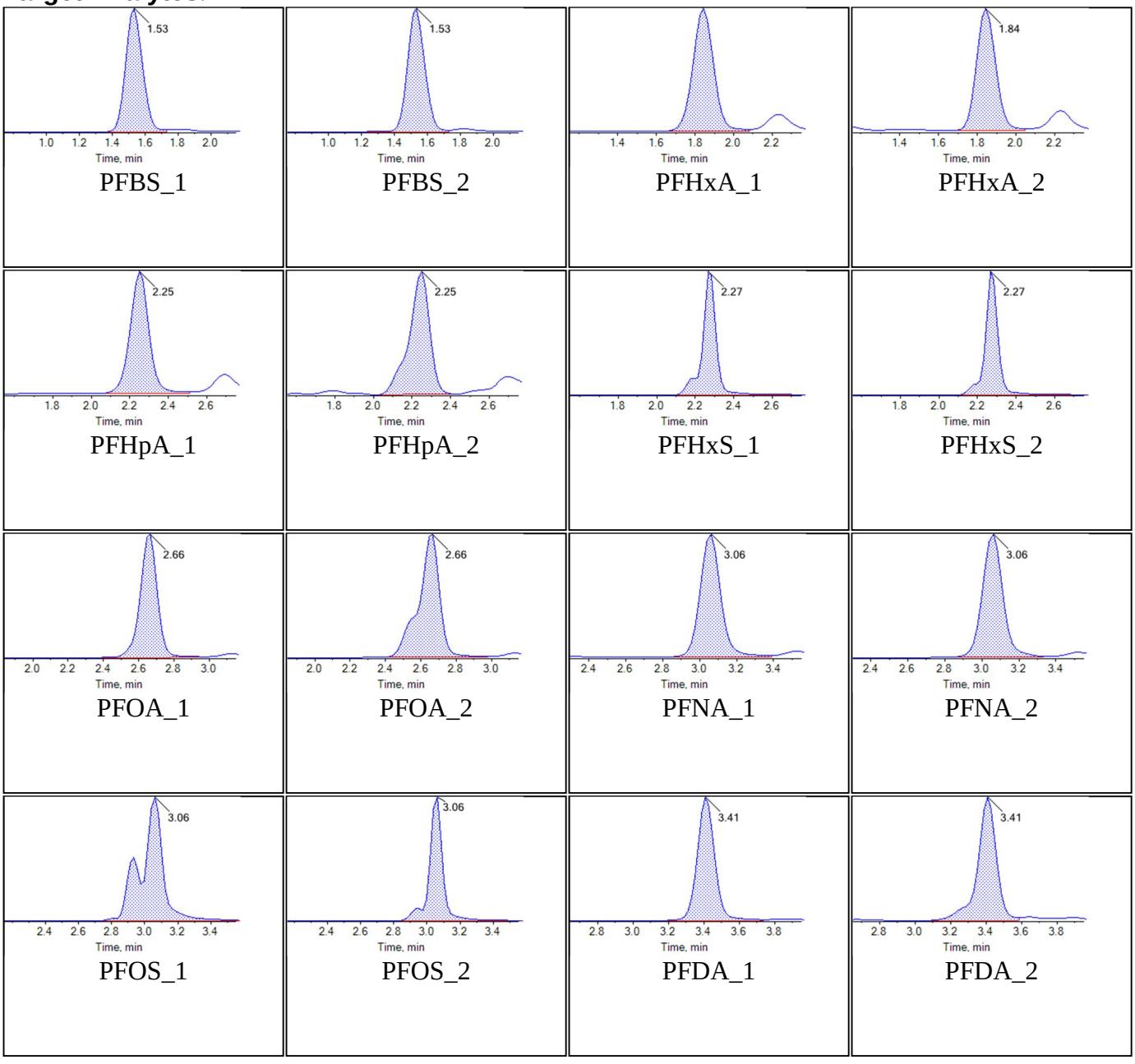
Sample Name	J8313-FS(3)	**Injection Vial**	21
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:31:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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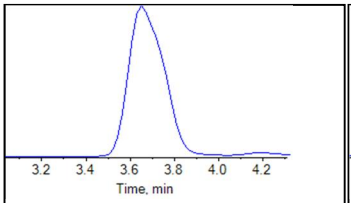

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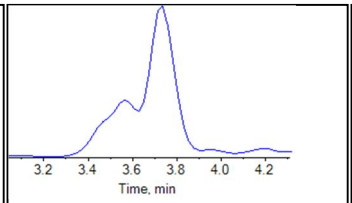

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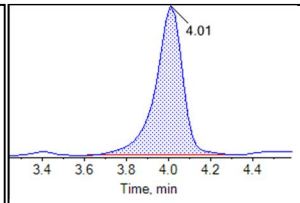

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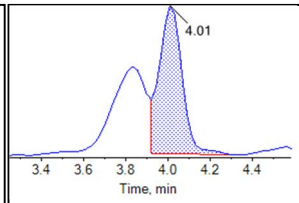

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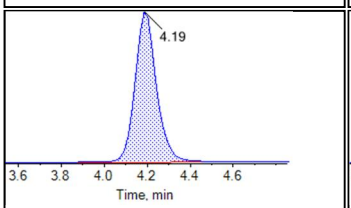

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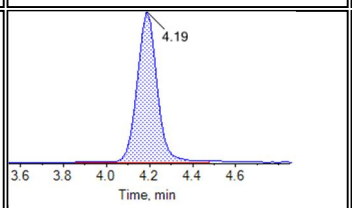

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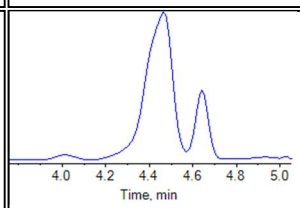

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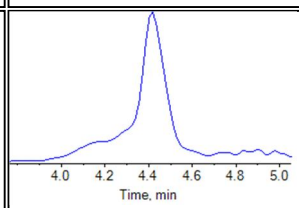

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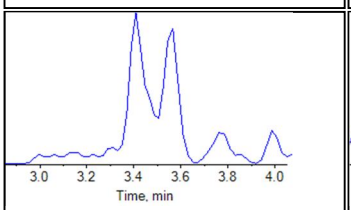

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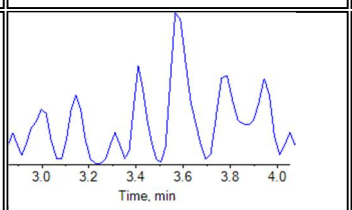

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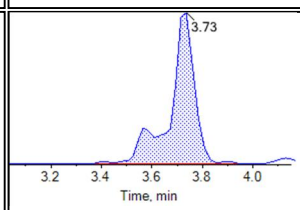

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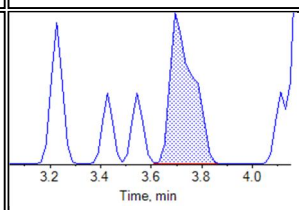
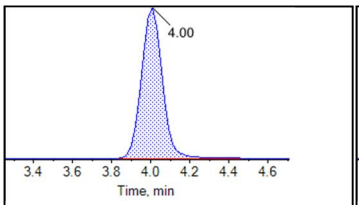
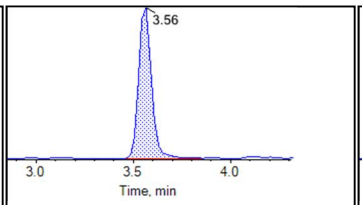


NEtFOSAA_2

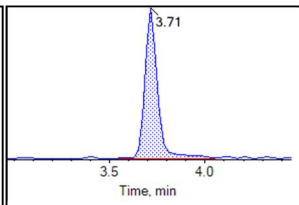
Internal Standards:



13C2-PFDoA



d3-MeFOSAA



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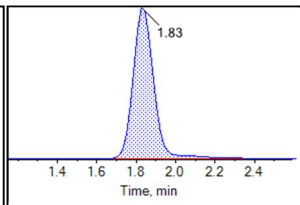
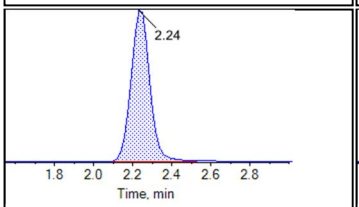


13C5-PFHxA



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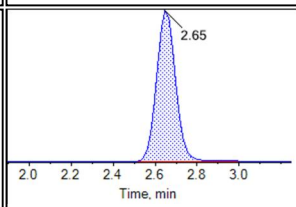
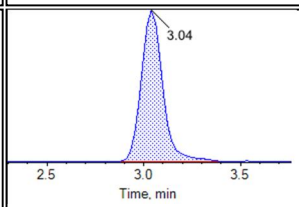
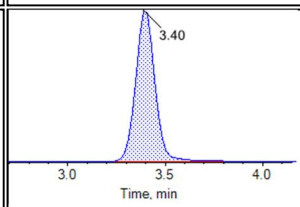


13C8-PFOA



13C9-PFNA



13C6-PFDA

BATTELLE

Chromatogram Report

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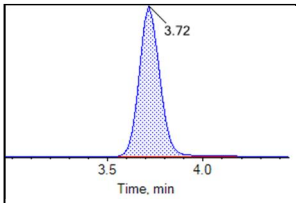
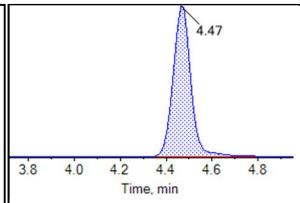
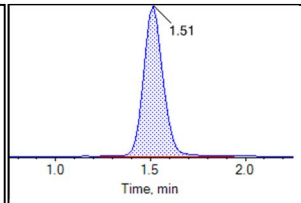


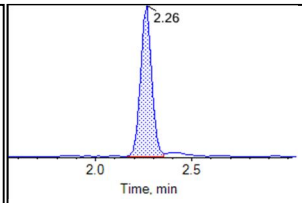
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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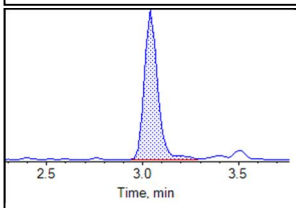

13C8-PFOS

BATTELLE

Chromatogram Report

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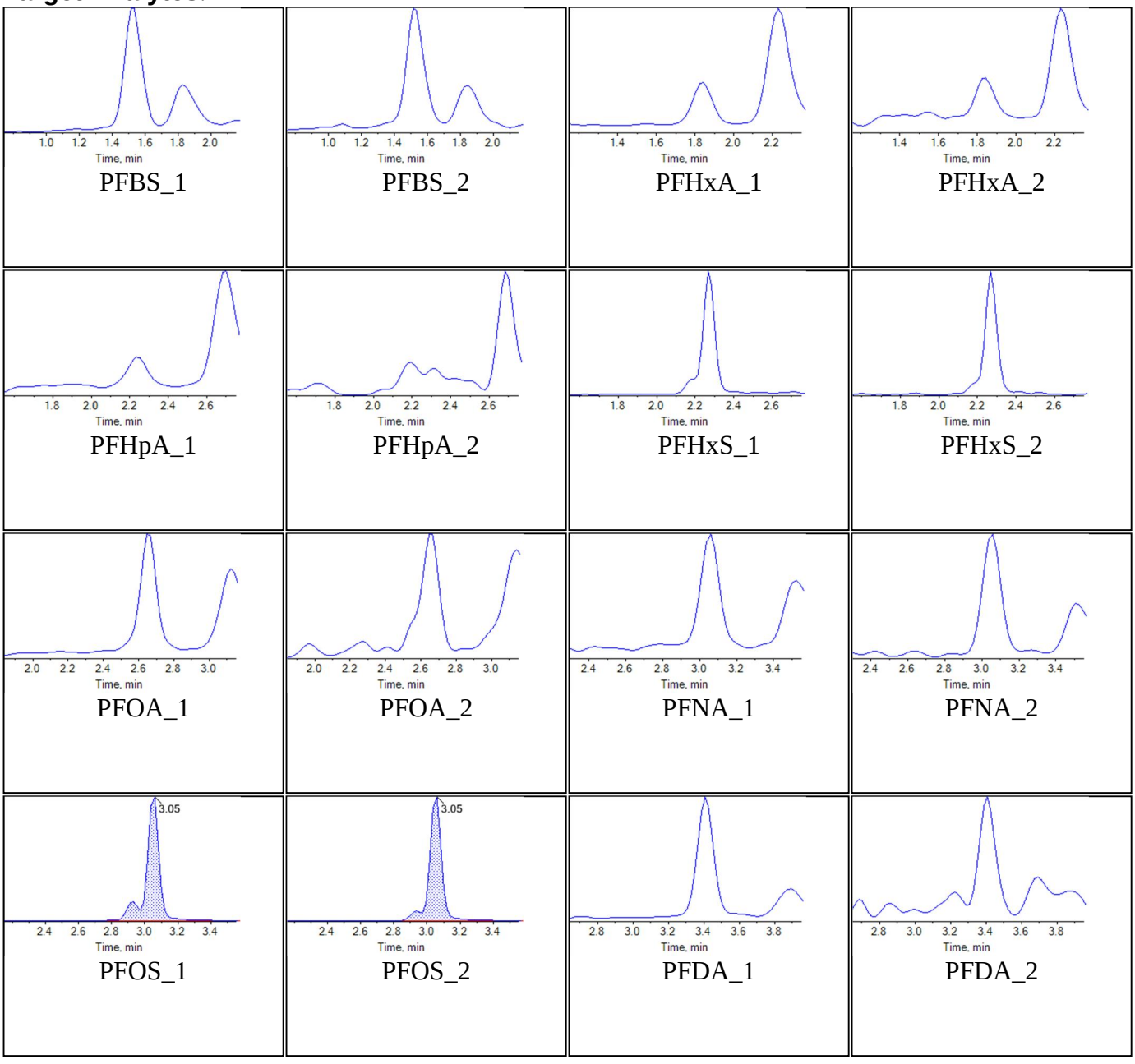
Sample Name	J8313-FS-D(5)	**Injection Vial**	22
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:41:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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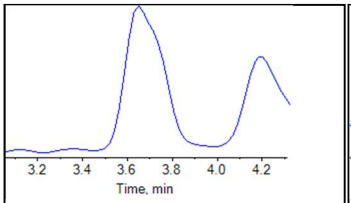
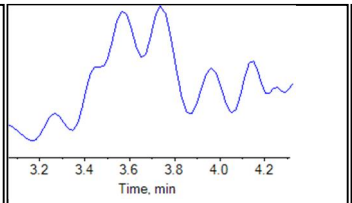
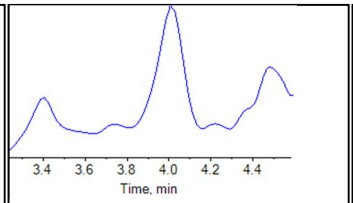


PFUnA_1



PFUnA_2



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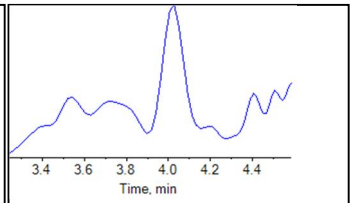
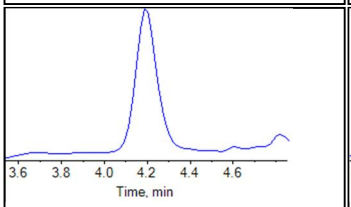


PFDoA_2



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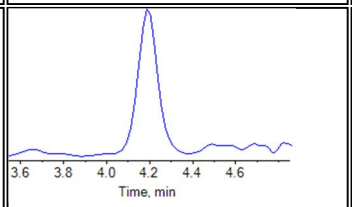
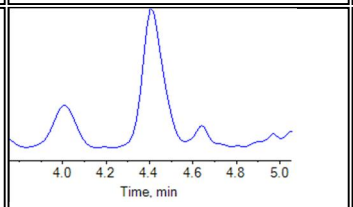


PFTrDA_2



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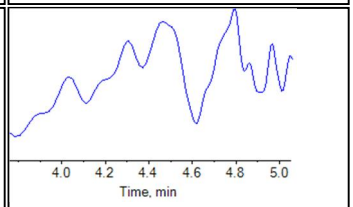

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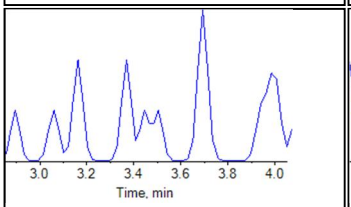

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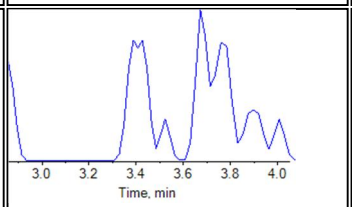

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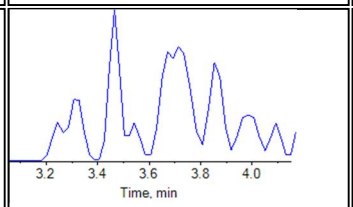

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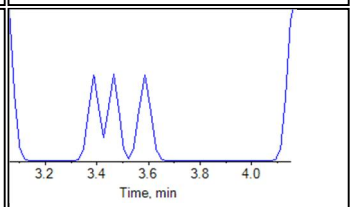

NEtFOSAA_2

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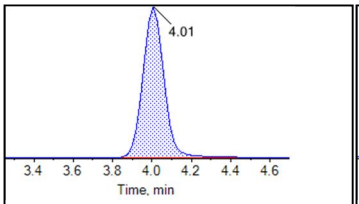

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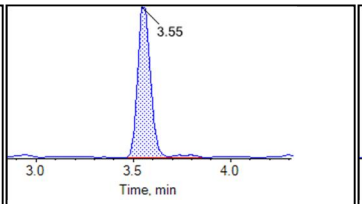
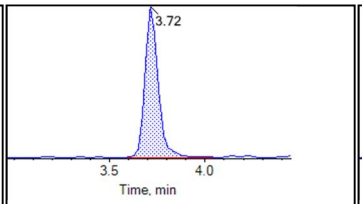
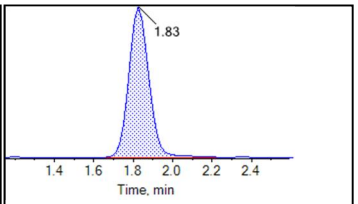


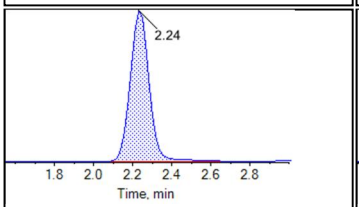
d3-MeFOSAA



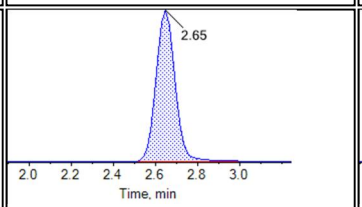
d5-EtFOSAA



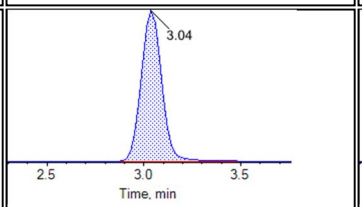
13C5-PFHxA



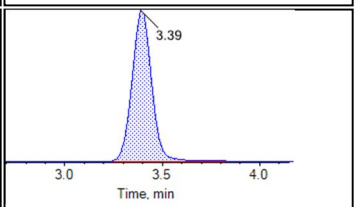
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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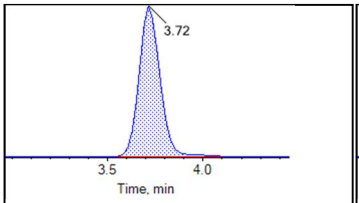
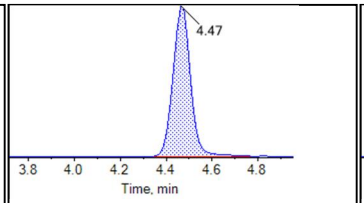
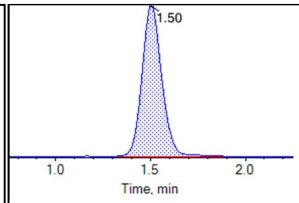


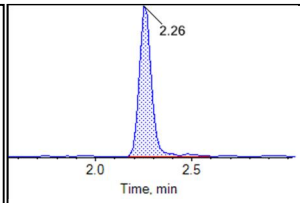
13C7-PFUnA



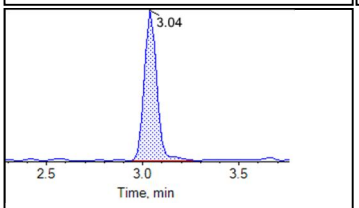
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:28:48 PM

Sample Name	J8314-FS(3)	**Injection Vial**	23
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:52:50	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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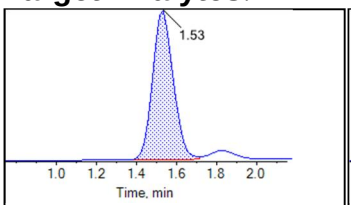

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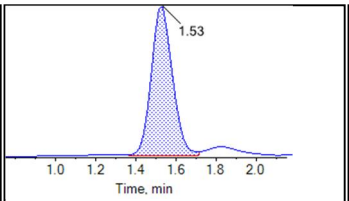
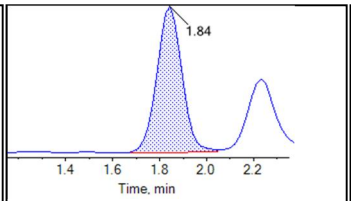
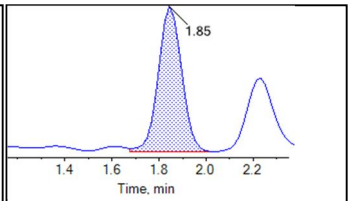


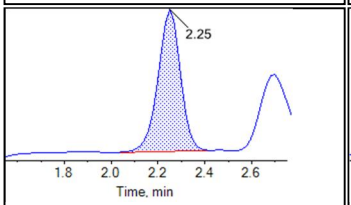
PFBS_2



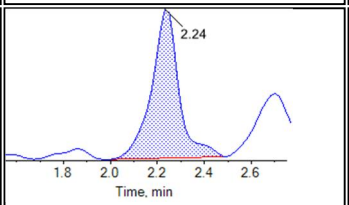
PFHxA_1



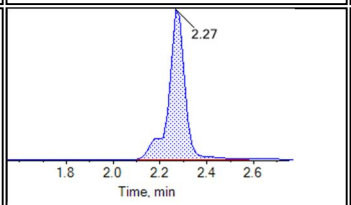
PFHxA_2



PFHpA_1



PFHpA_2



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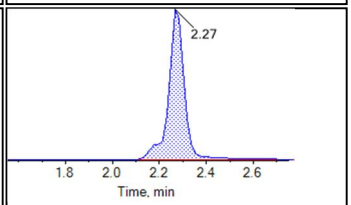
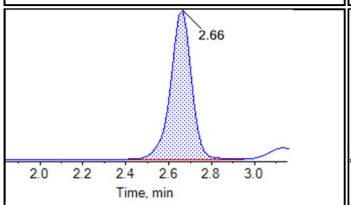
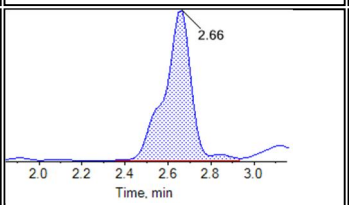


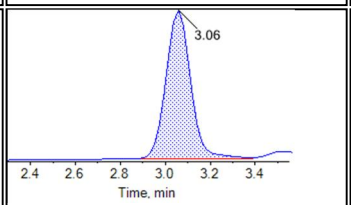
PFHxS_2



PFOA_1



PFOA_2



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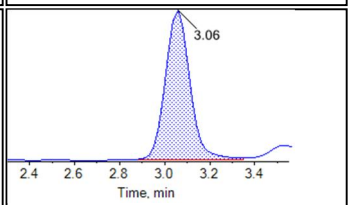
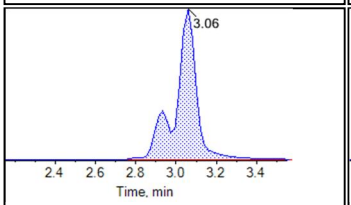
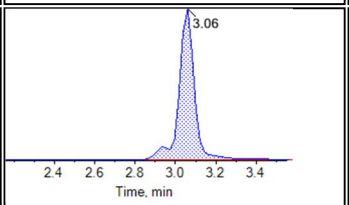


PFNA_2



PFOS_1



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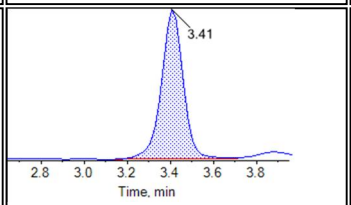

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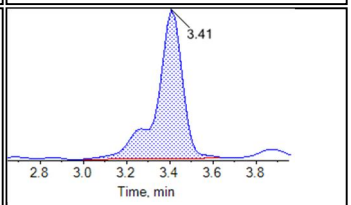

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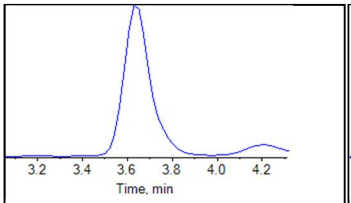

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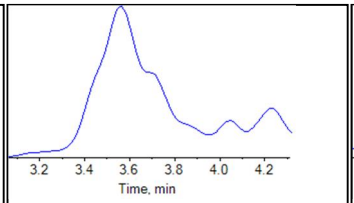

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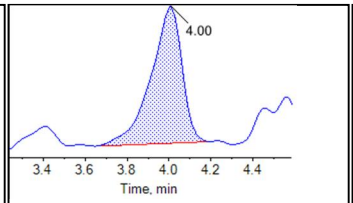

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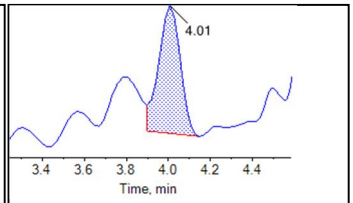

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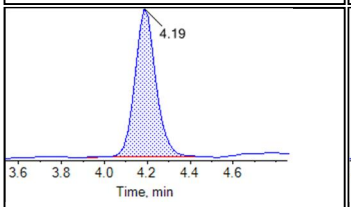

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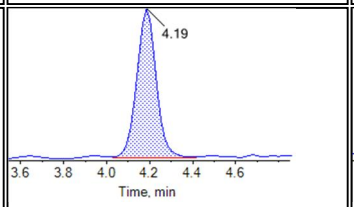

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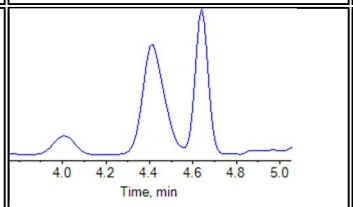

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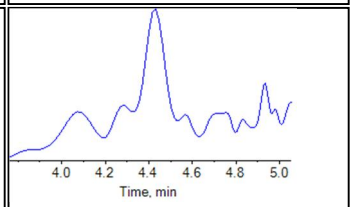

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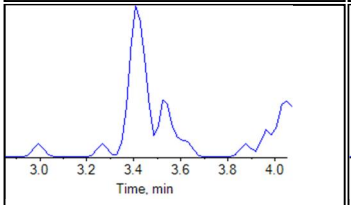

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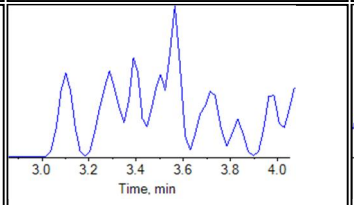

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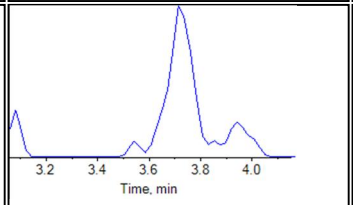

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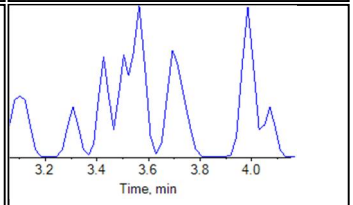

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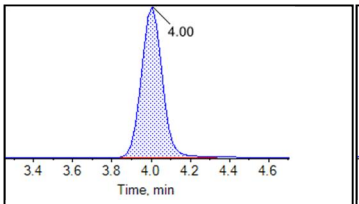

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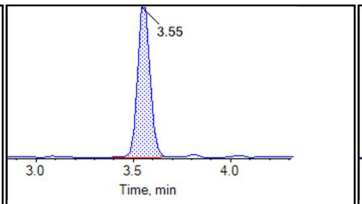

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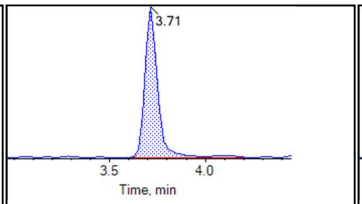

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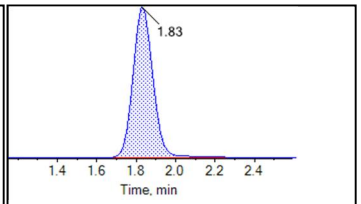

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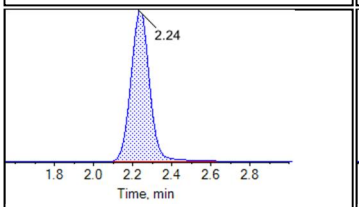

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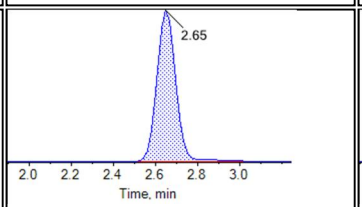

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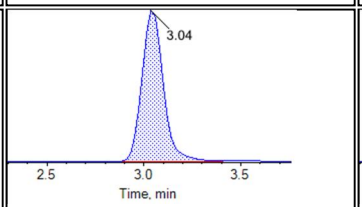

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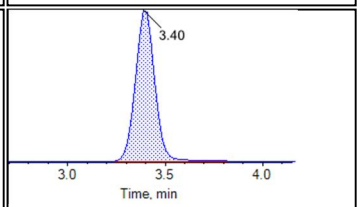

13C6-PFDA

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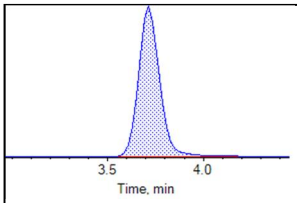

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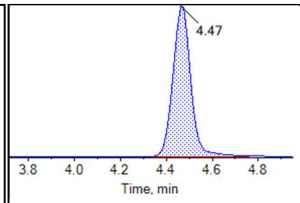

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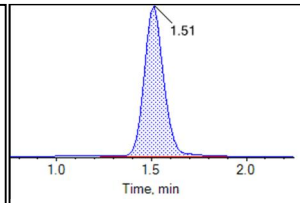

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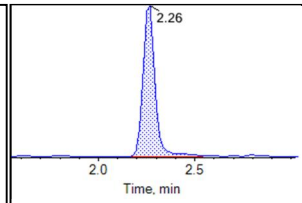

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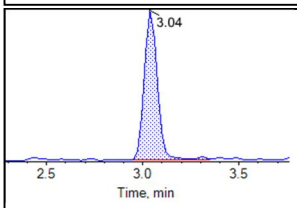

13C8-PFOS

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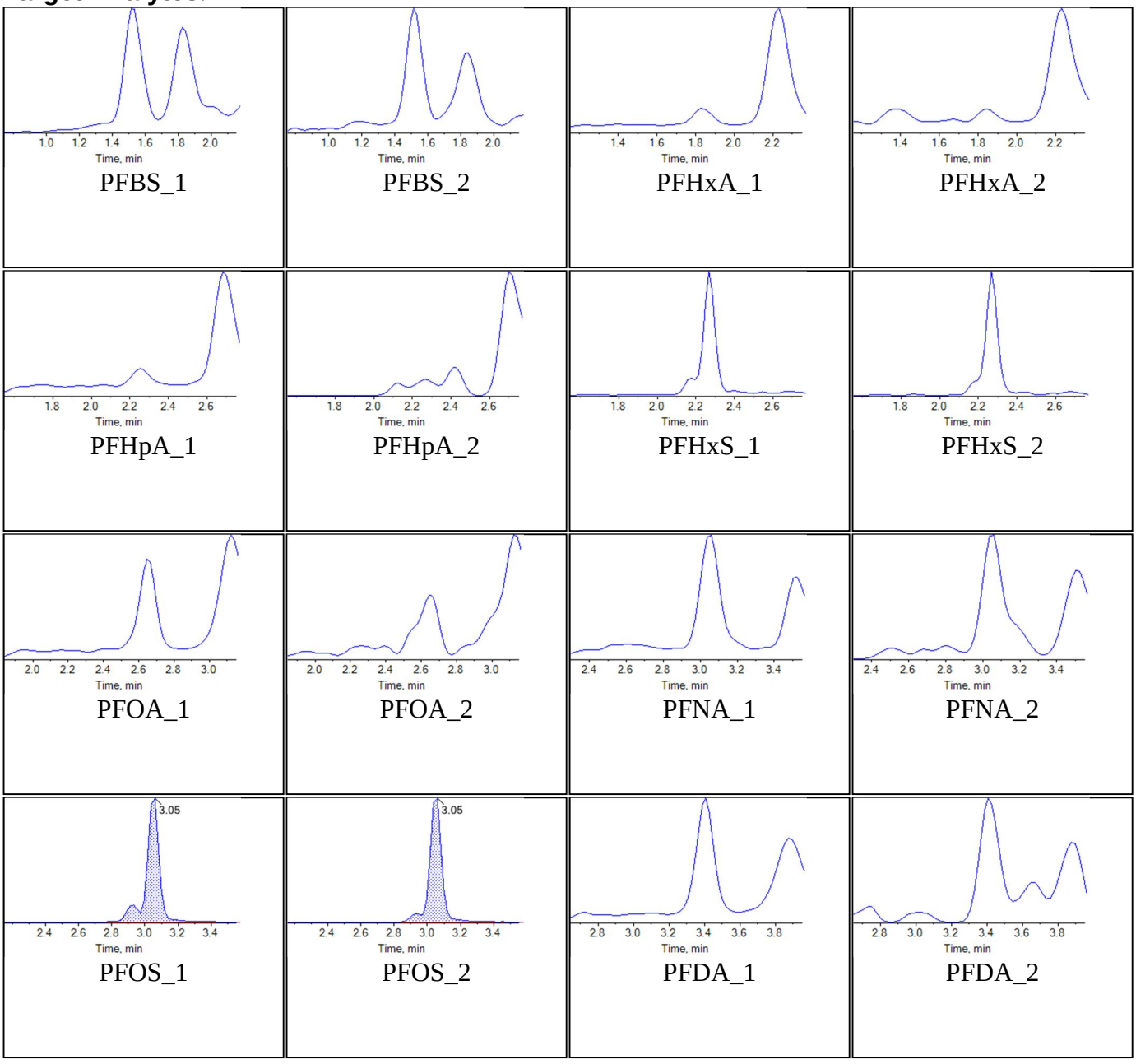
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:03:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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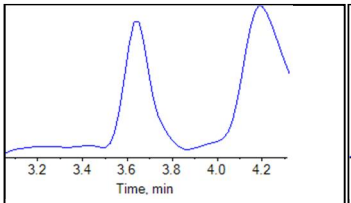

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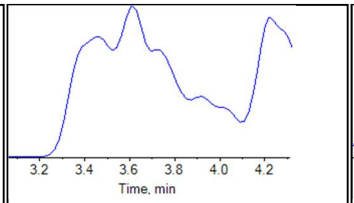

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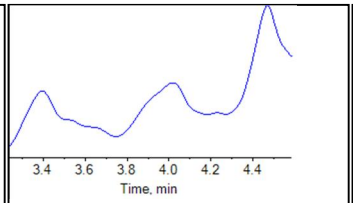

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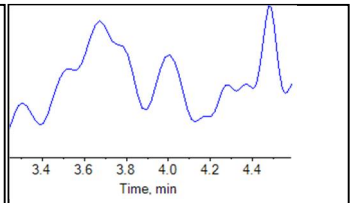

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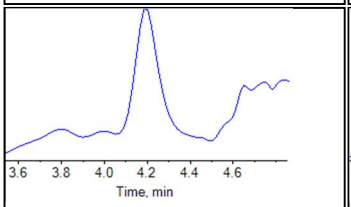

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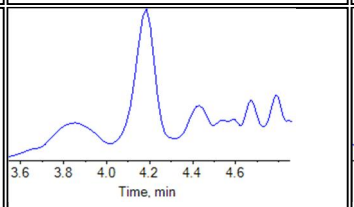

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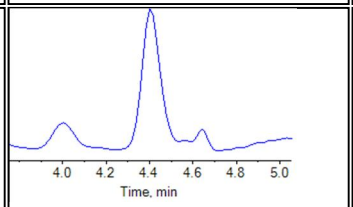

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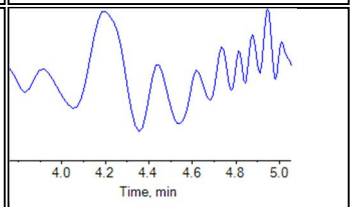

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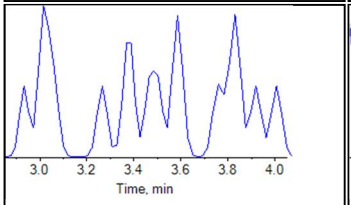

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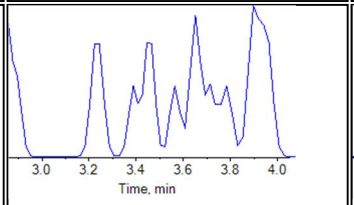

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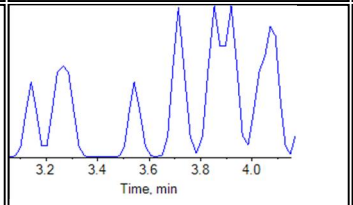

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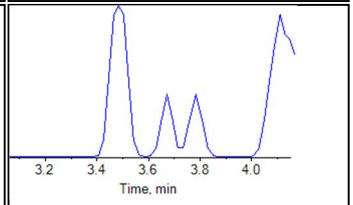

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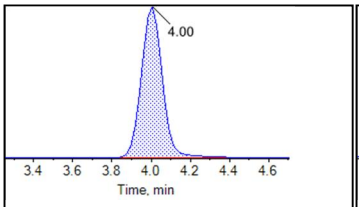

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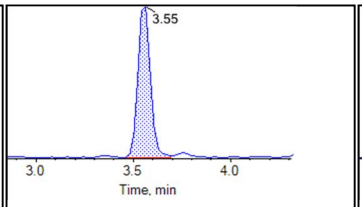

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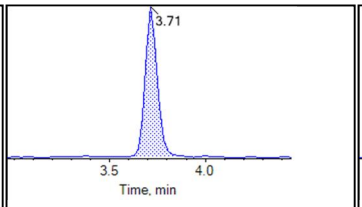

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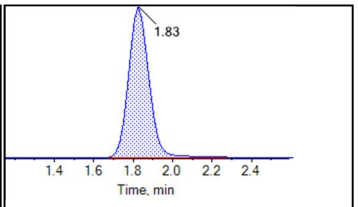

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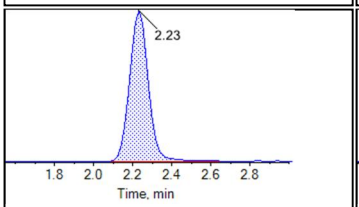

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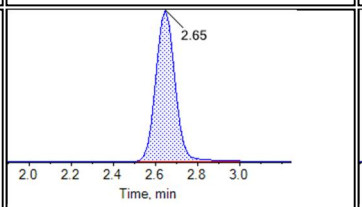

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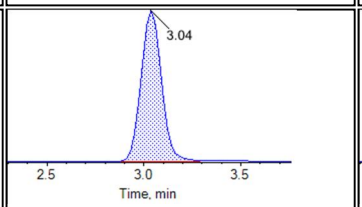

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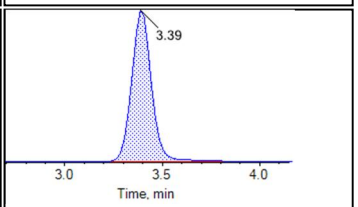

13C6-PFDA

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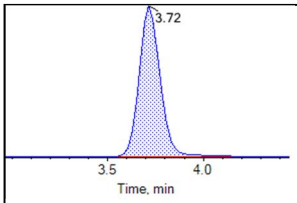

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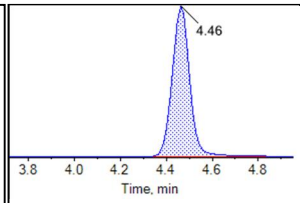

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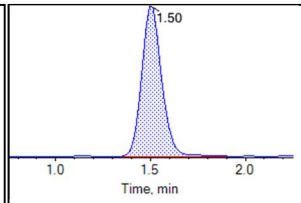

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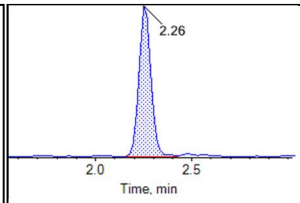
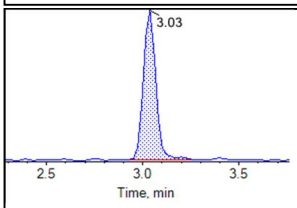


13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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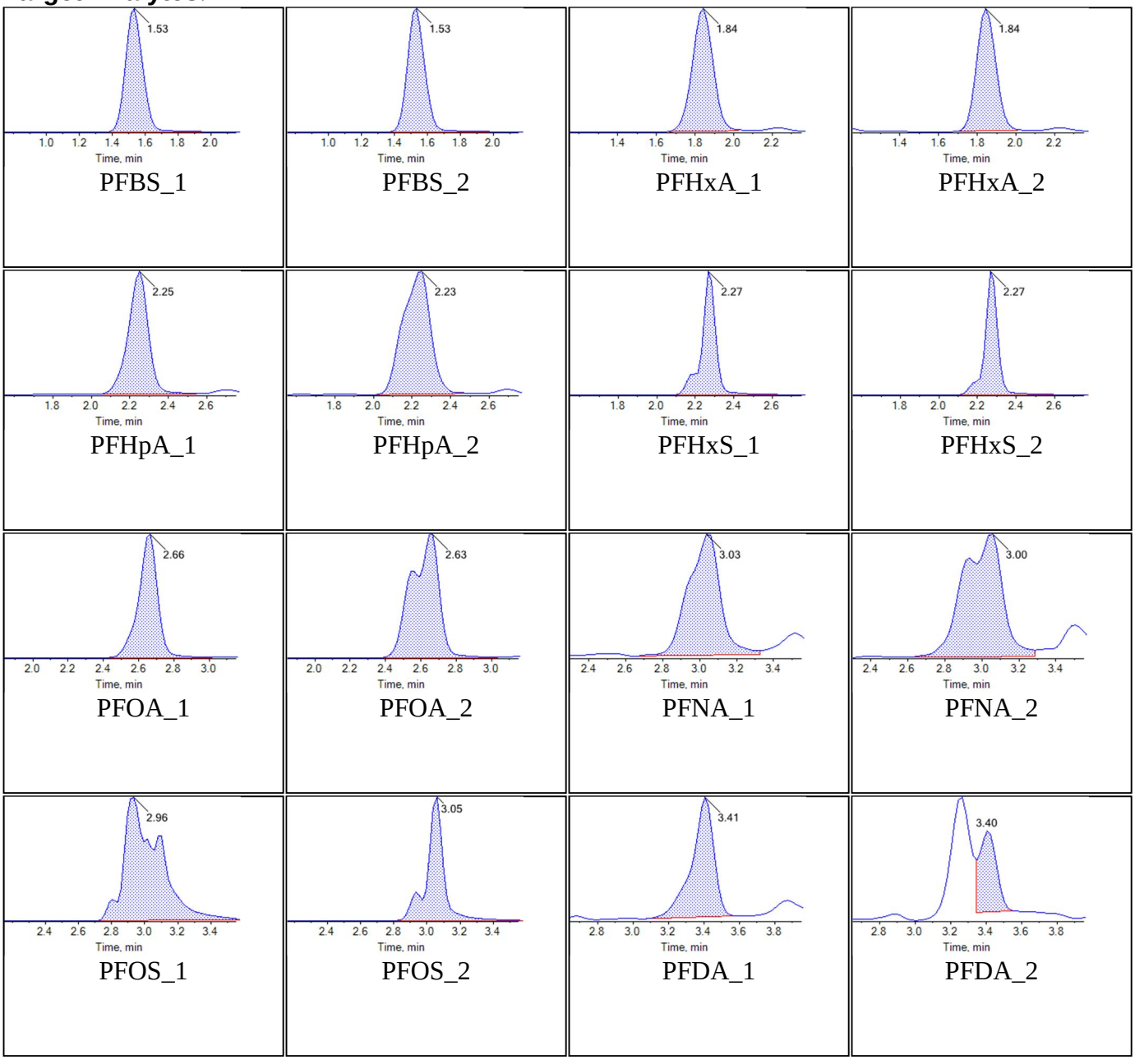
Sample Name	J8315-FS(3)	**Injection Vial**	25
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:14:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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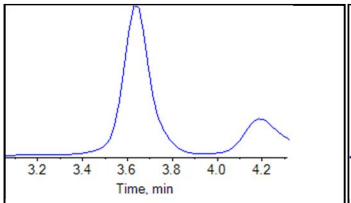
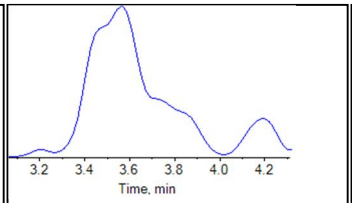


PFUnA_1



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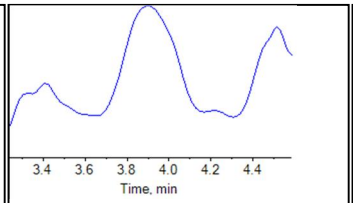

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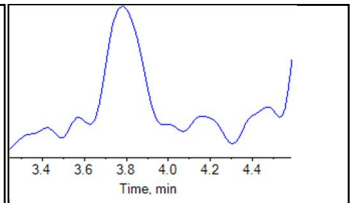
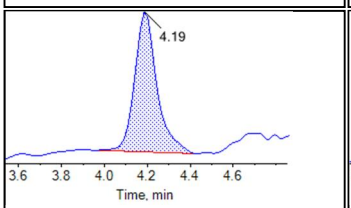
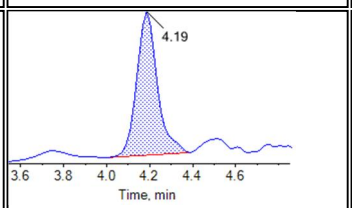


PFDoA_2



PFTrDA_1



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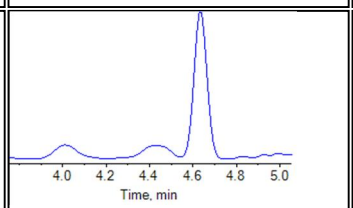

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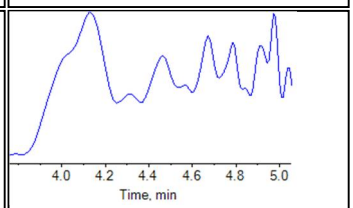

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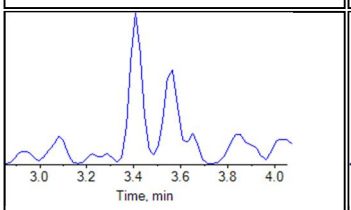
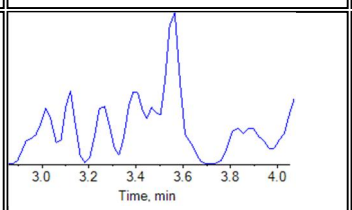
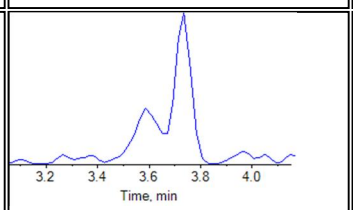


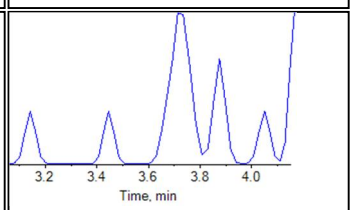
NMeFOSAA_1



NMeFOSAA_2

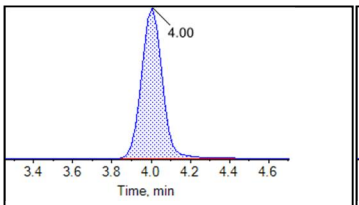


NEtFOSAA_1

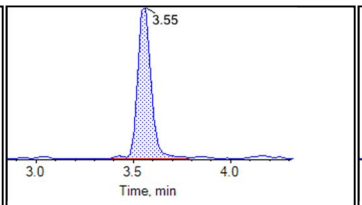


NEtFOSAA_2

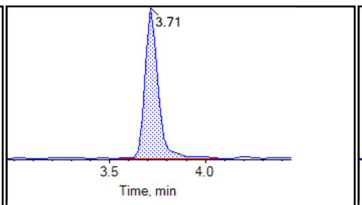
Internal Standards:



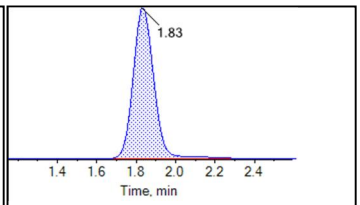
13C2-PFDoA



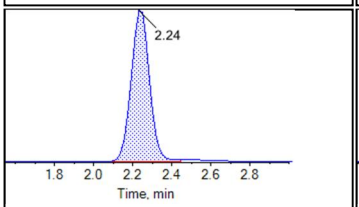
d3-MeFOSAA



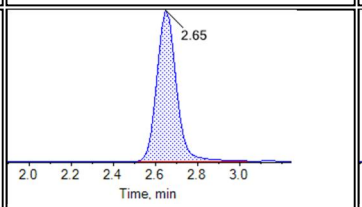
d5-EtFOSAA



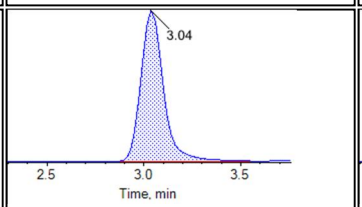
13C5-PFHxA



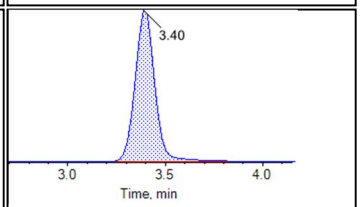
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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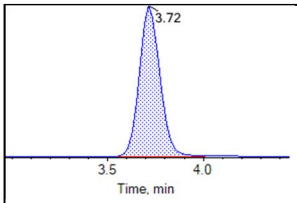
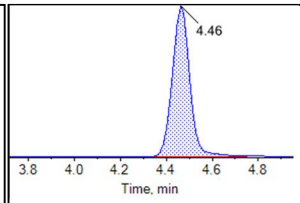
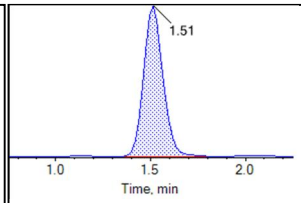


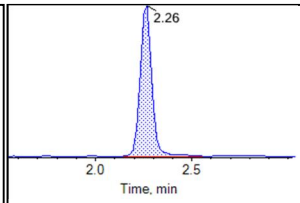
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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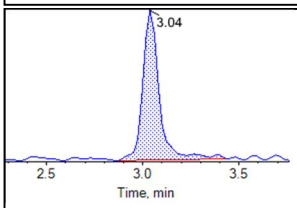

13C8-PFOS

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Chromatogram Report

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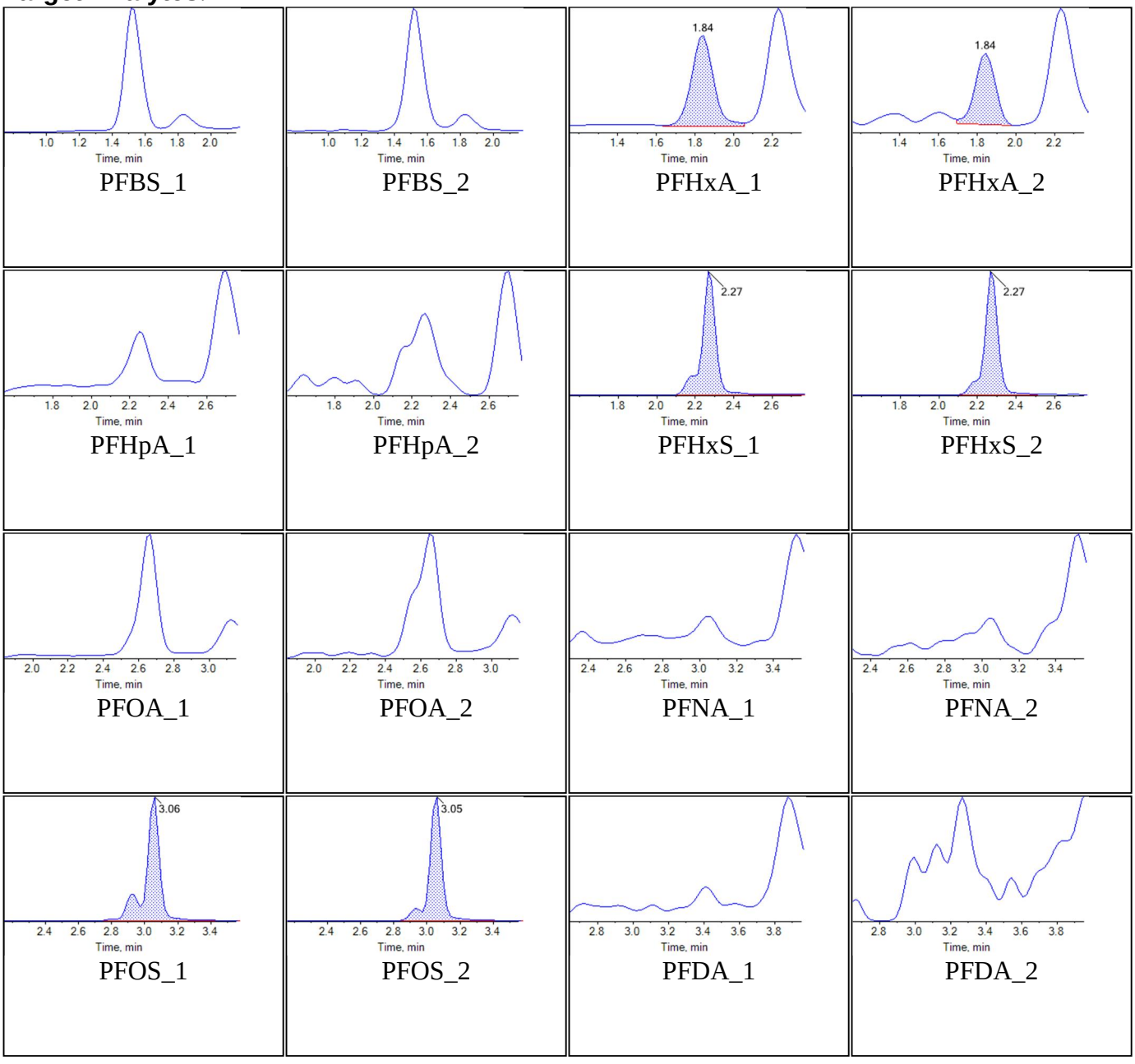
Printed: 19/10/2018 4:29:06 PM

Sample Name	J8315-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:25:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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Chromatogram Report

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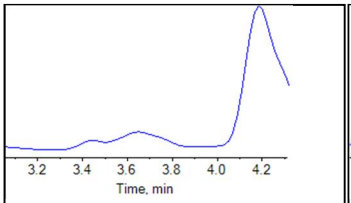

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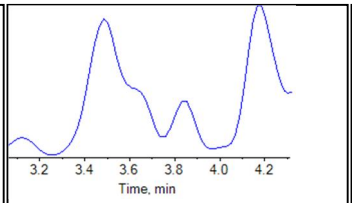
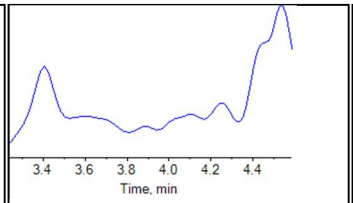
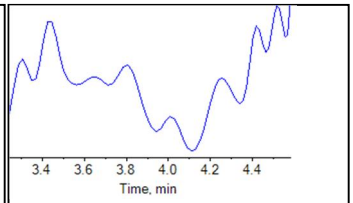


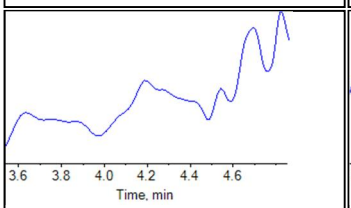
PFUnA_2



PFDoA_1



PFDoA_2



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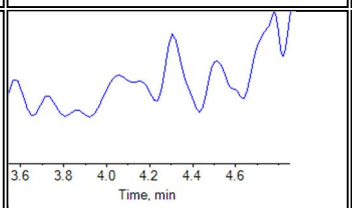

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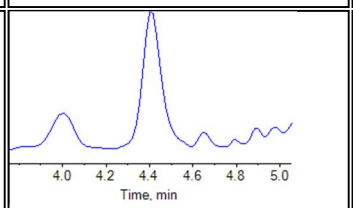

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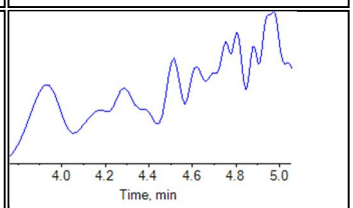

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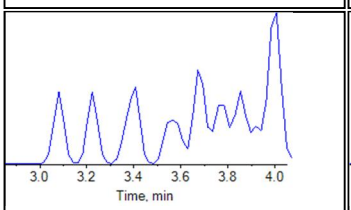

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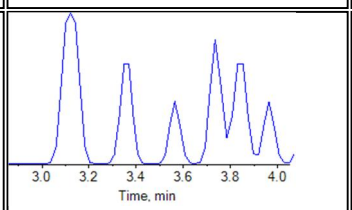

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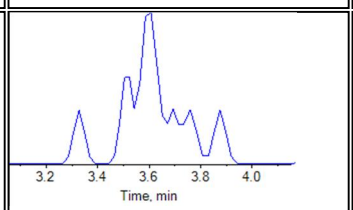

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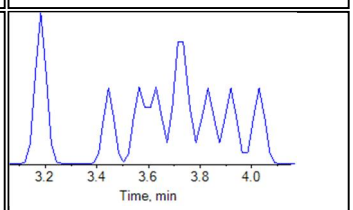
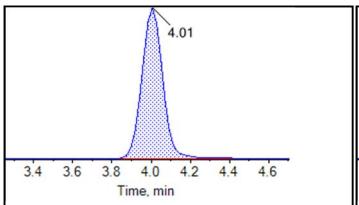


NEtFOSAA_2

Internal Standards:



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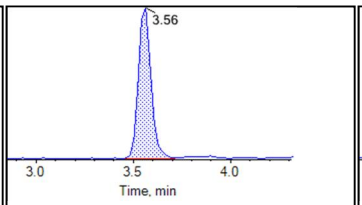
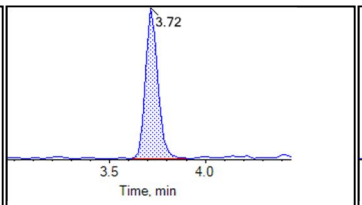
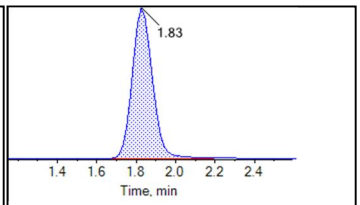


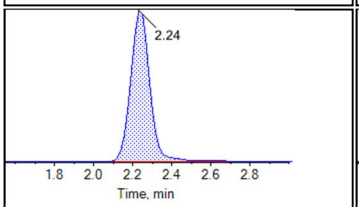
d3-MeFOSAA



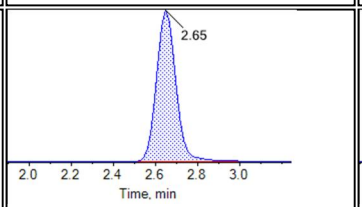
d5-EtFOSAA



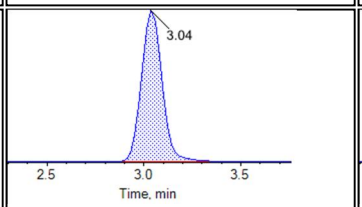
13C5-PFHxA



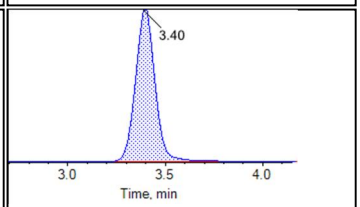
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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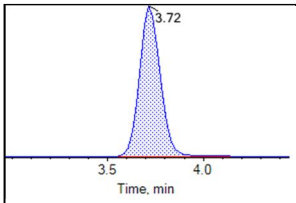
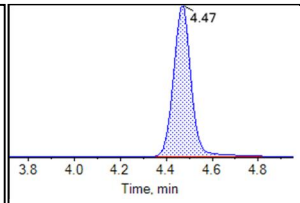
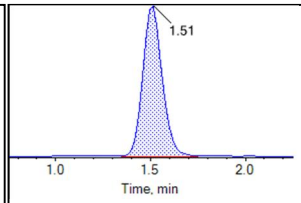


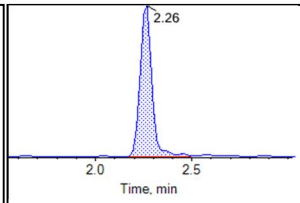
13C7-PFUnA



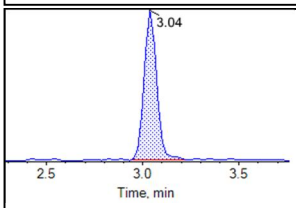
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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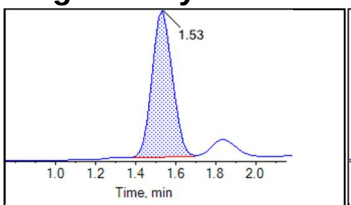
Sample Name	J8316-FS(3)	**Injection Vial**	27
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:36:19	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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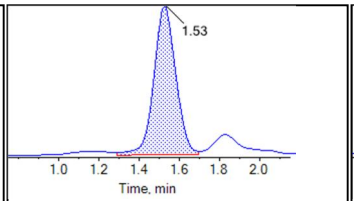

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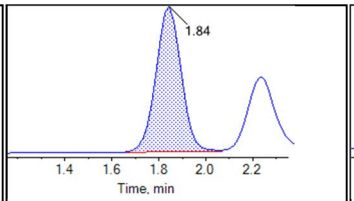

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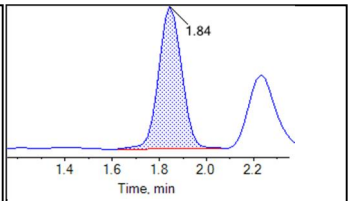

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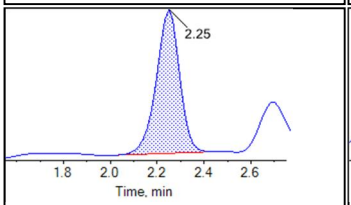

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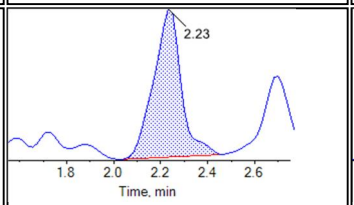

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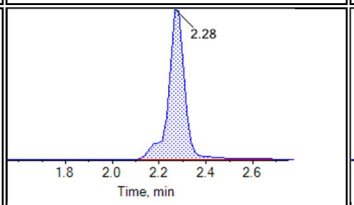

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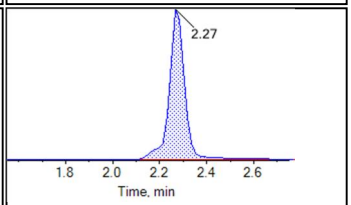

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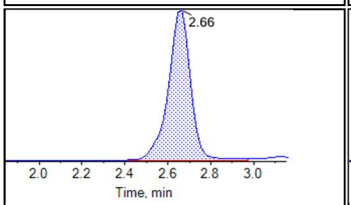

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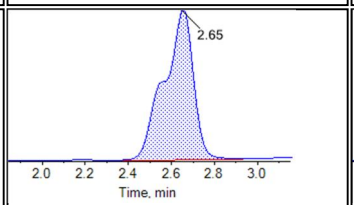

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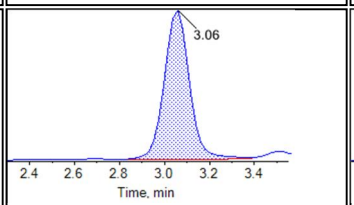

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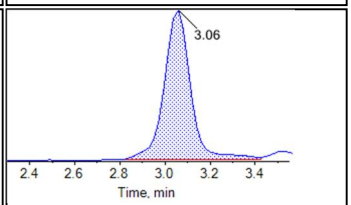

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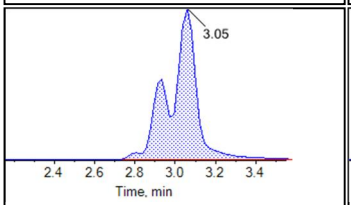

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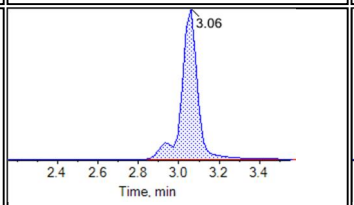

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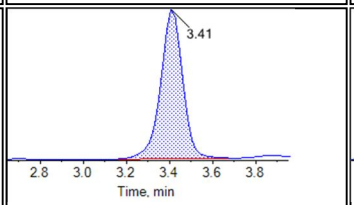

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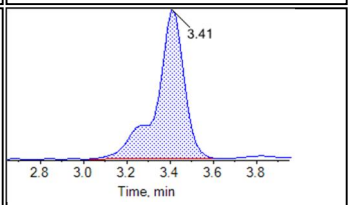

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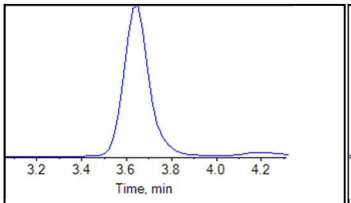

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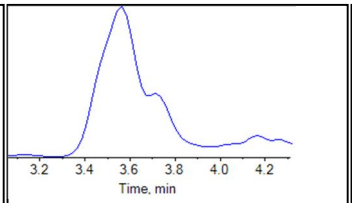

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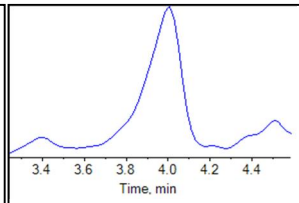

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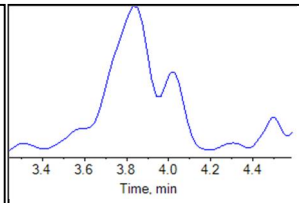

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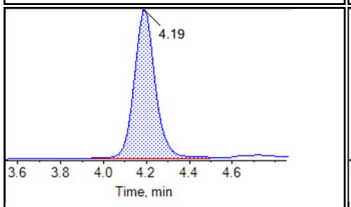

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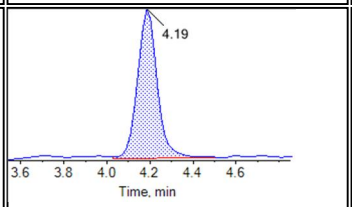

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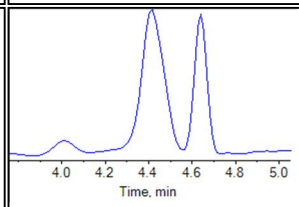

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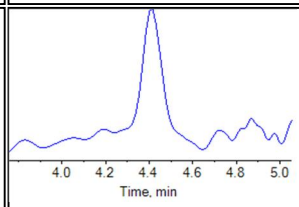

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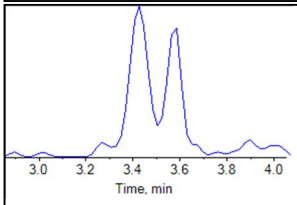

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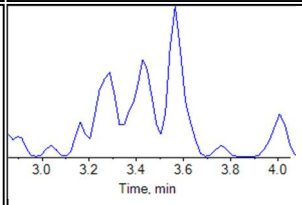

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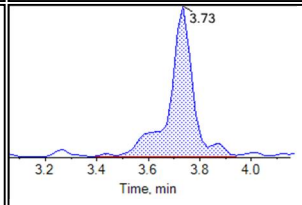

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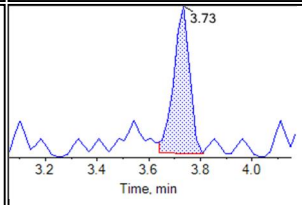

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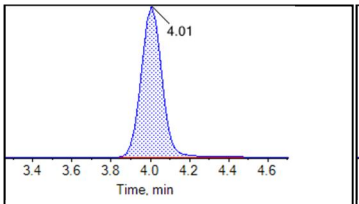

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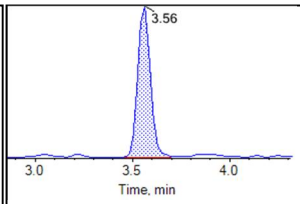
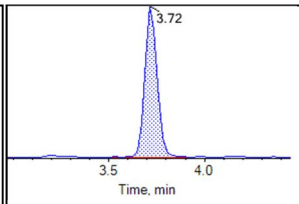
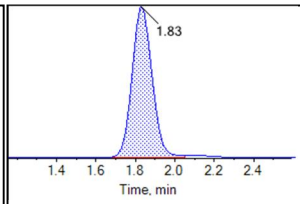


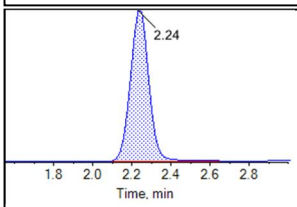
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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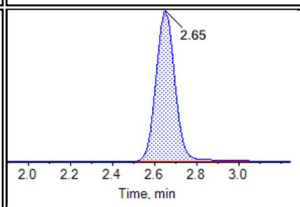
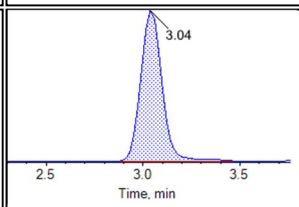
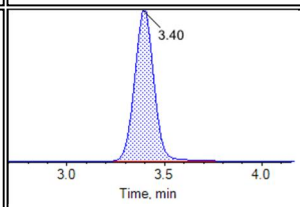


13C8-PFOA



13C9-PFNA



13C6-PFDA

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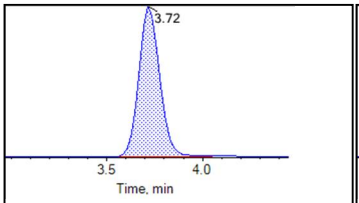
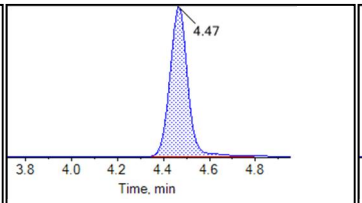
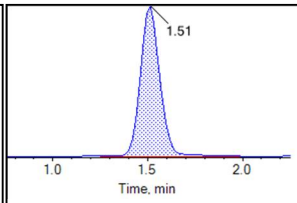


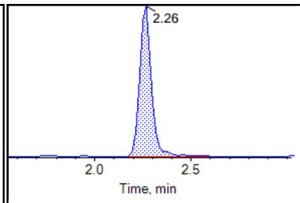
13C7-PFUnA



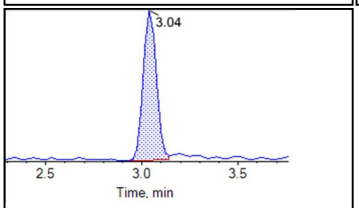
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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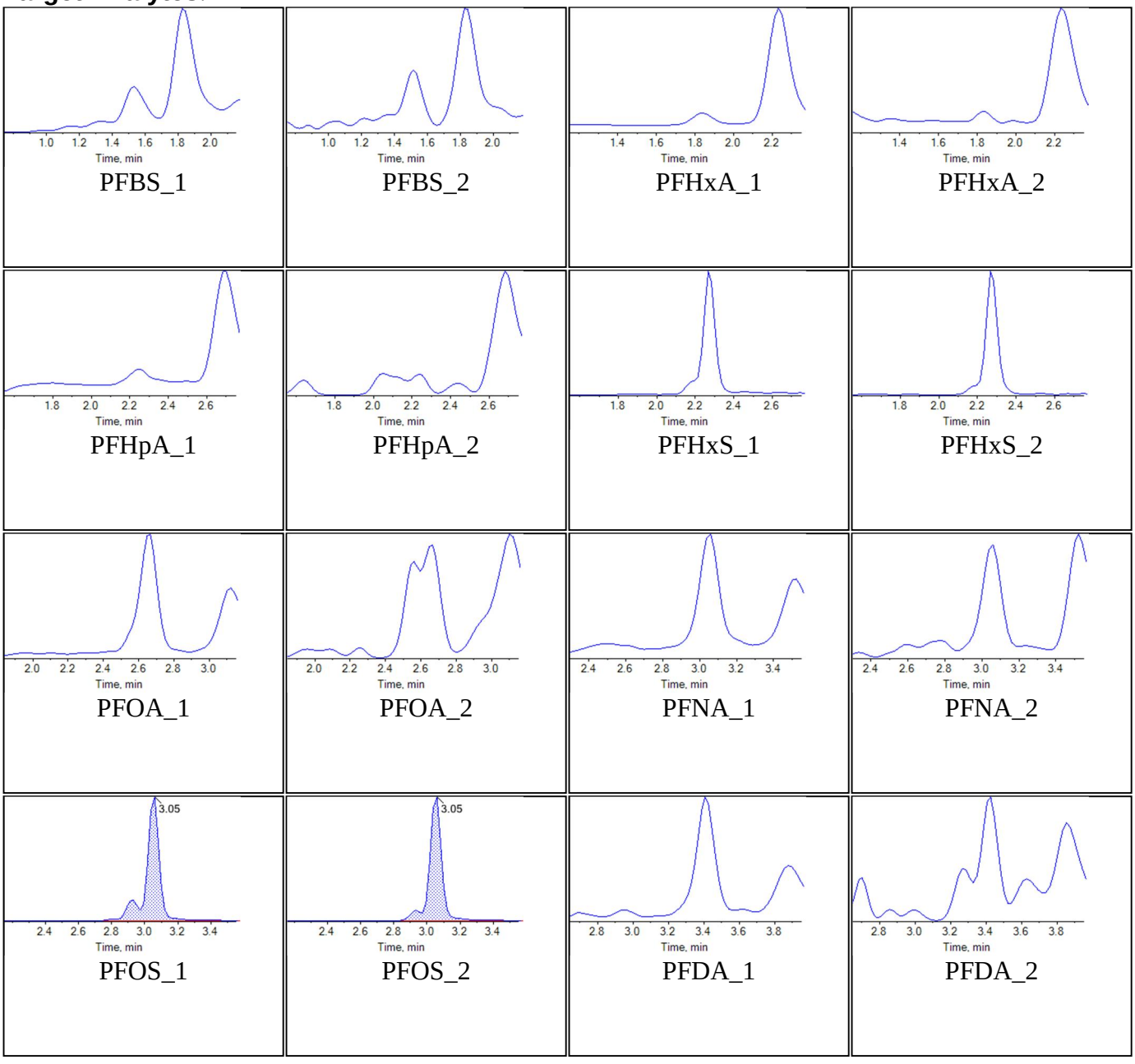
Printed: 19/10/2018 4:29:18 PM

Sample Name	J8316-FS-D(5)	**Injection Vial**	28
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:47:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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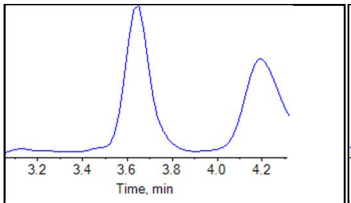

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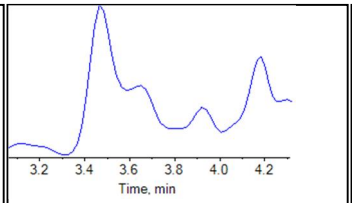

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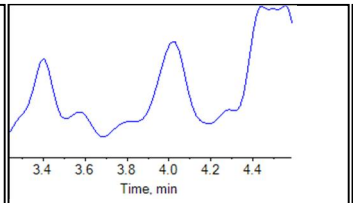

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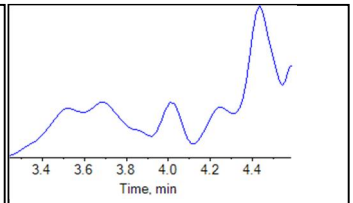

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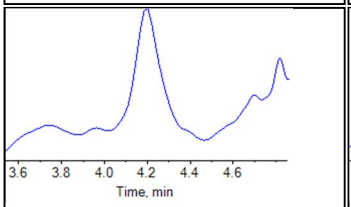

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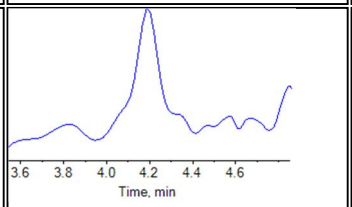

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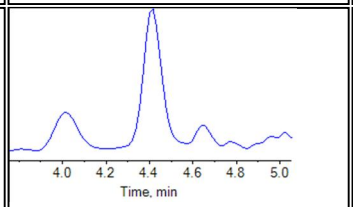

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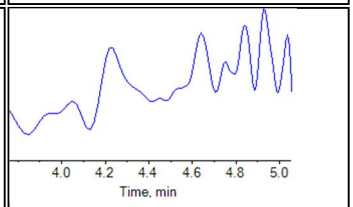

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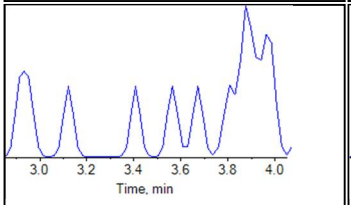

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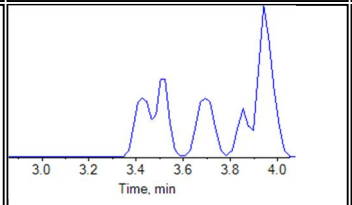

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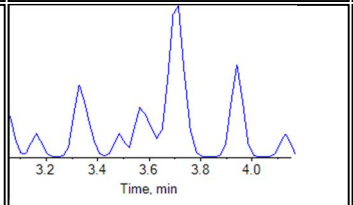

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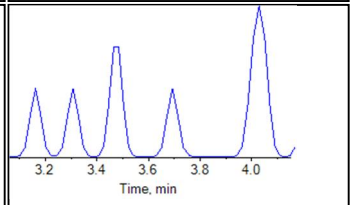

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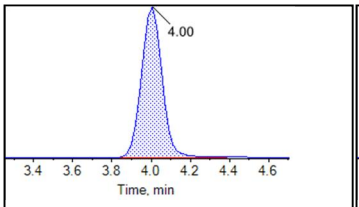
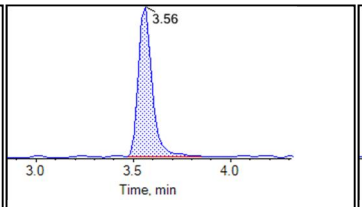


13C2-PFDoA



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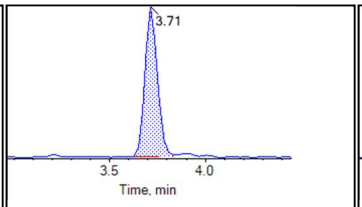

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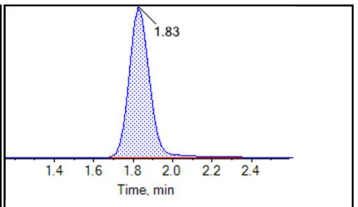

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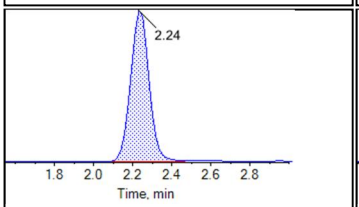

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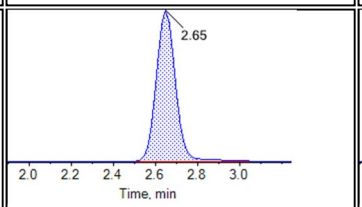
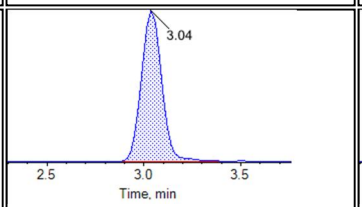
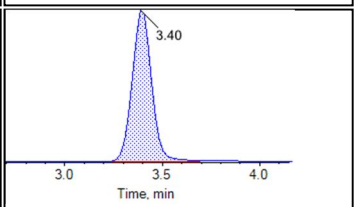


13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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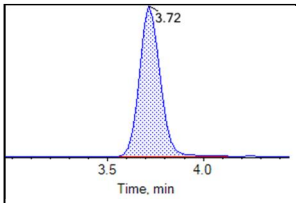
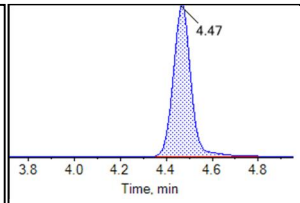
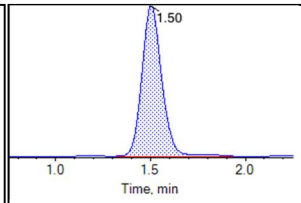


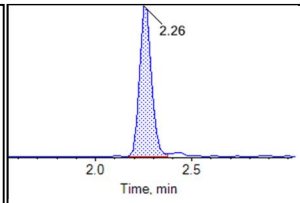
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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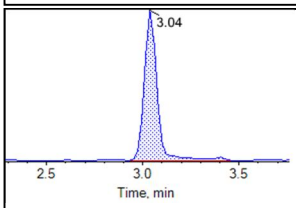

13C8-PFOS

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Chromatogram Report

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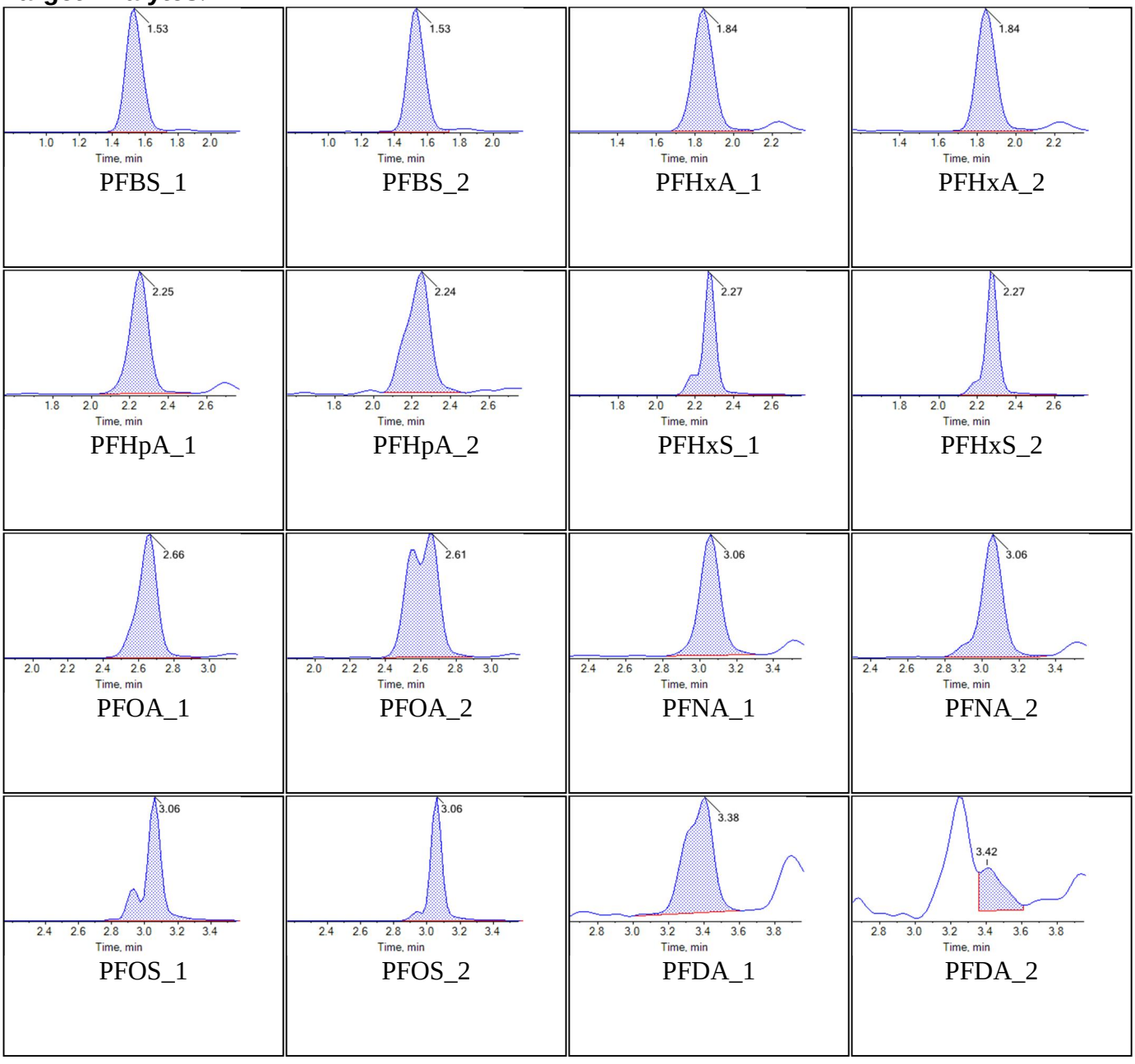
Sample Name	J8317-FS(3)	**Injection Vial**	29
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:58:03	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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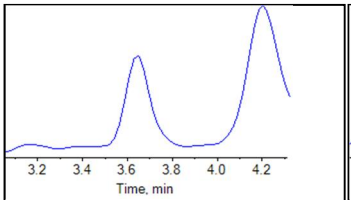

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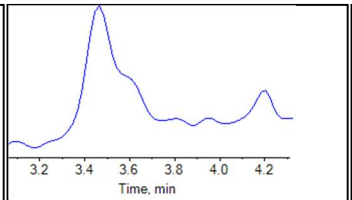

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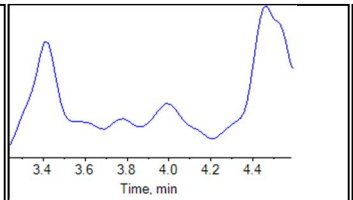

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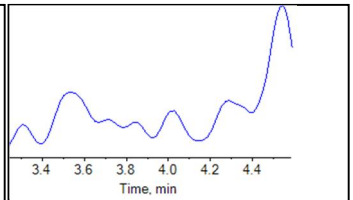

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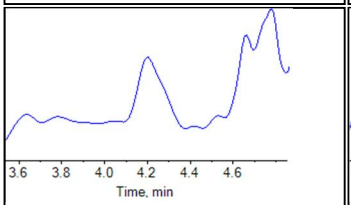

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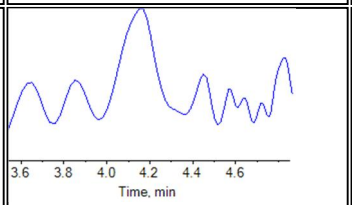

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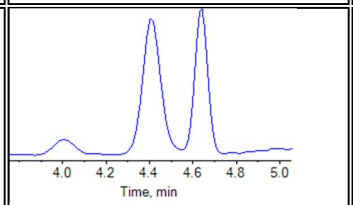

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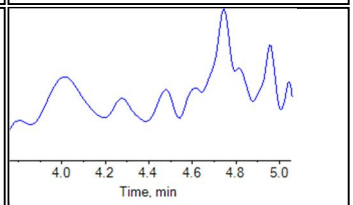

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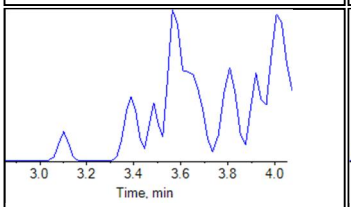

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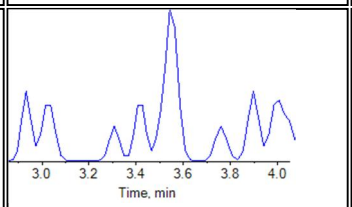

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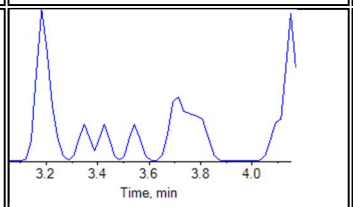

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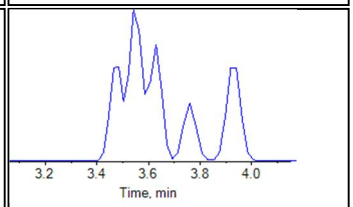

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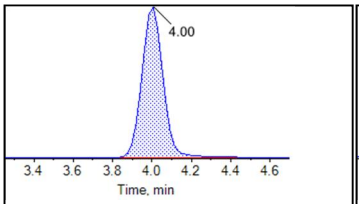

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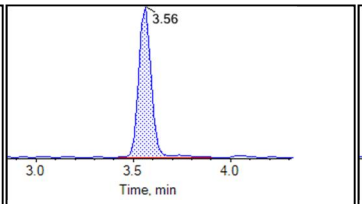
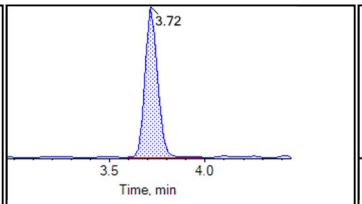
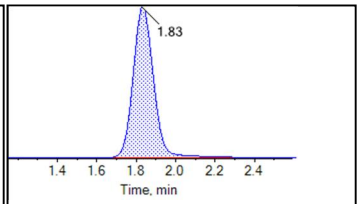


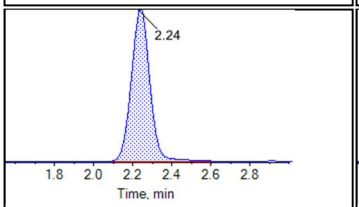
d3-MeFOSAA



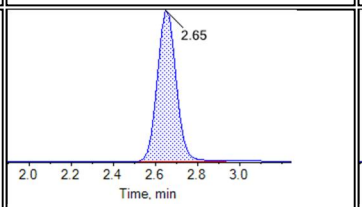
d5-EtFOSAA



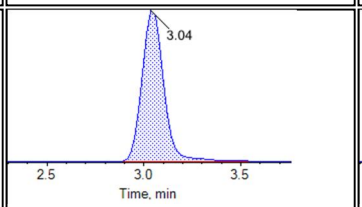
13C5-PFHxA



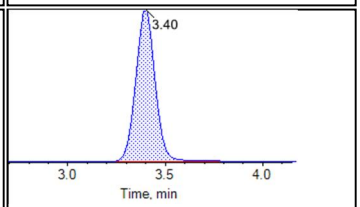
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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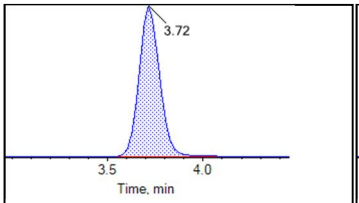
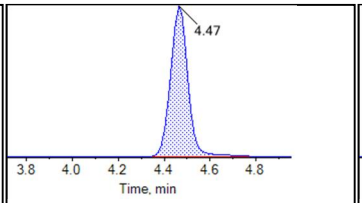
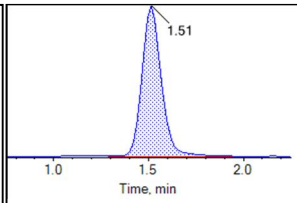


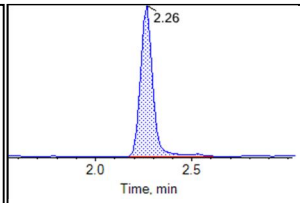
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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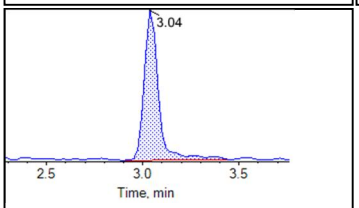

13C8-PFOS

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Chromatogram Report

Created with Analyst Reporter
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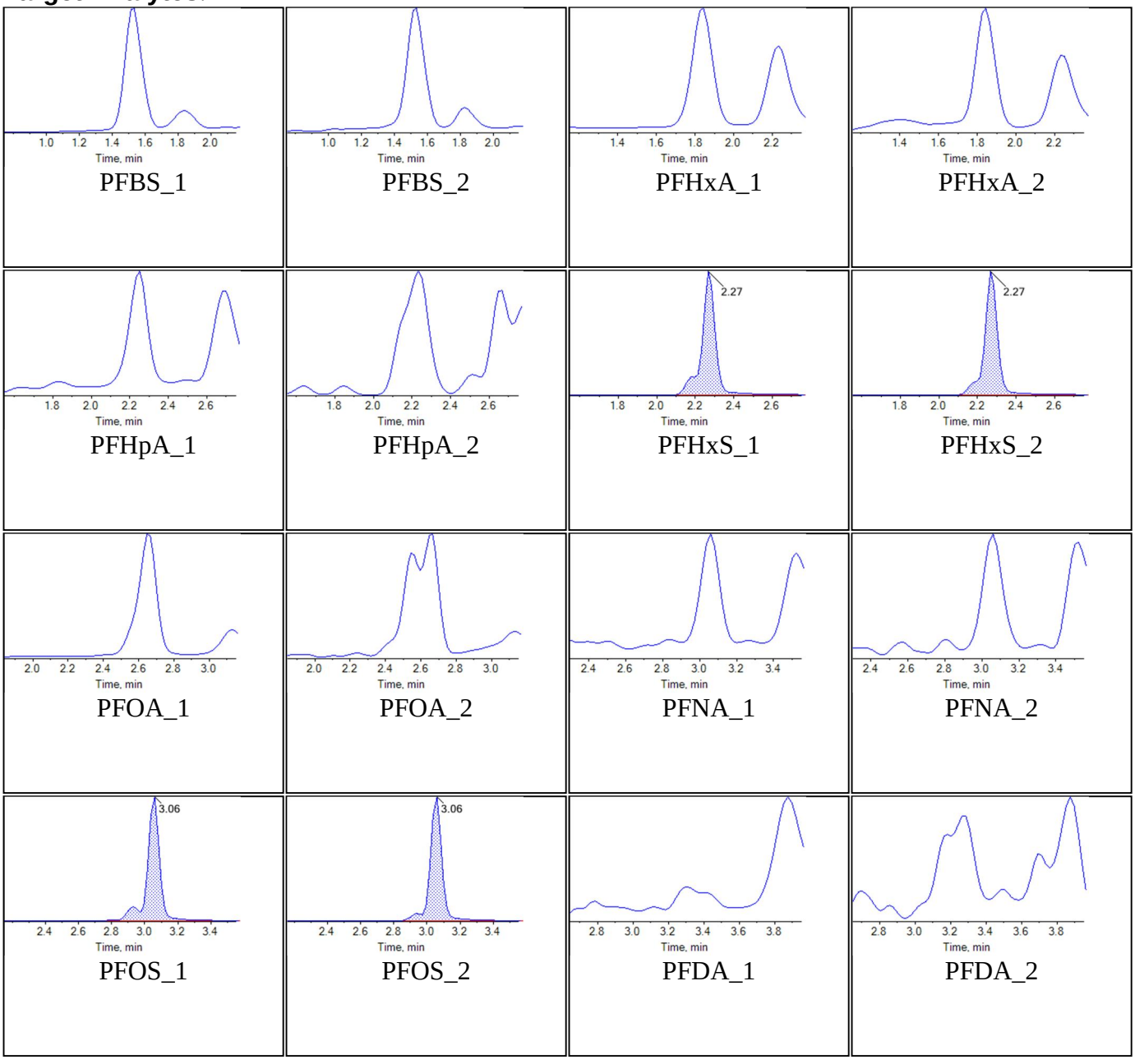
Sample Name	J8317-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:08:54	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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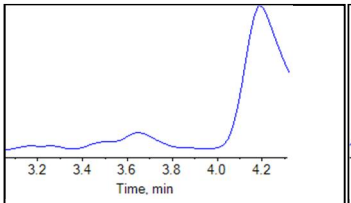

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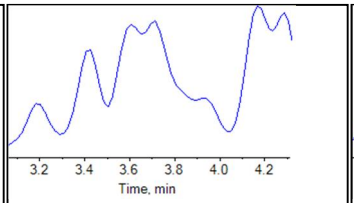

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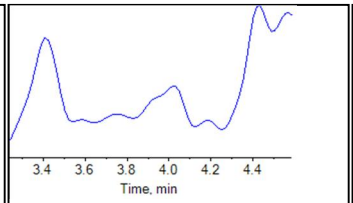

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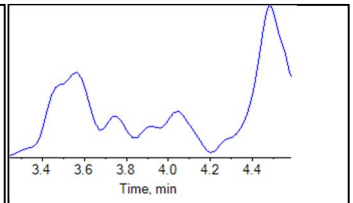
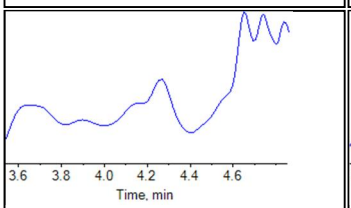


PFDoA_2



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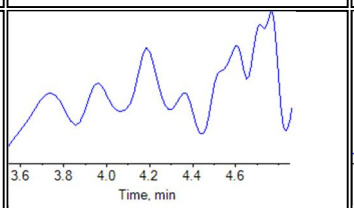
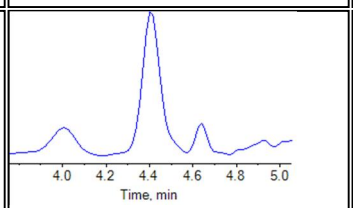


PFTrDA_2



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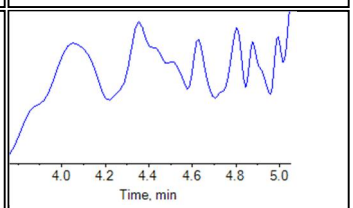

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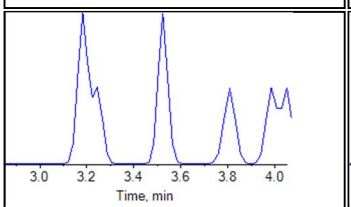

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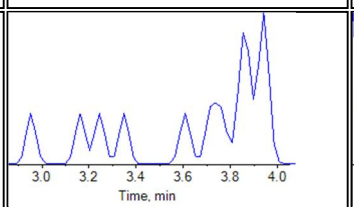

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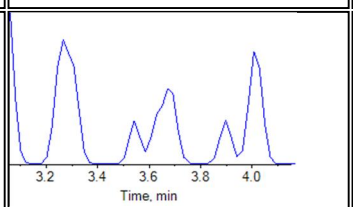

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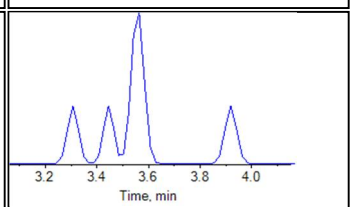

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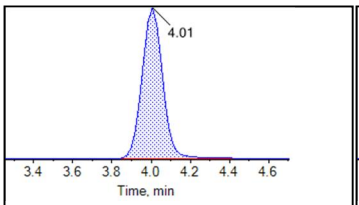

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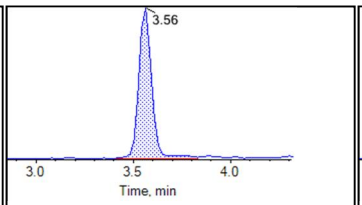

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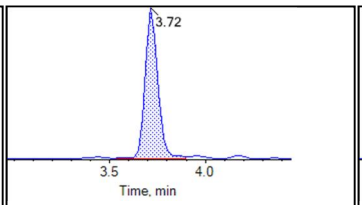

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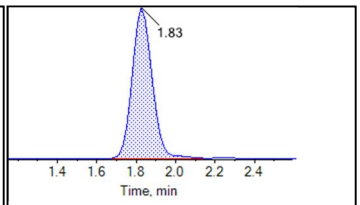

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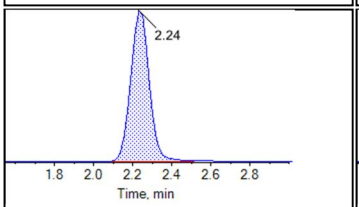

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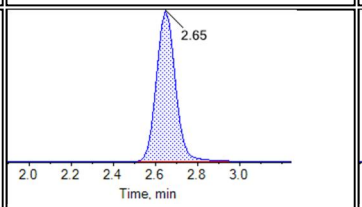

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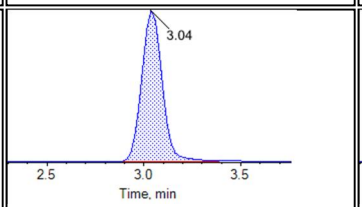

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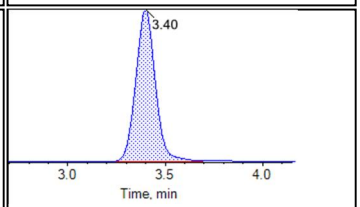

13C6-PFDA

BATTELLE

Chromatogram Report

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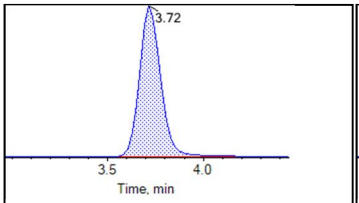

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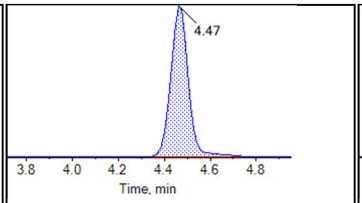
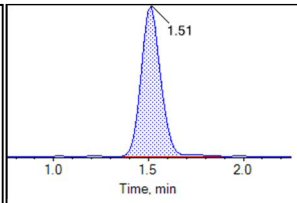


13C2-PFTeDA



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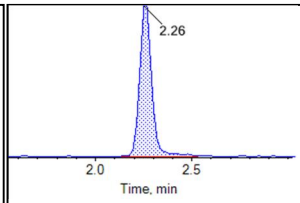

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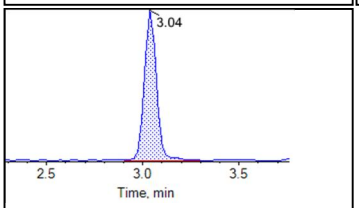

13C8-PFOS

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Chromatogram Report

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Printed: 19/10/2018 4:29:35 PM

Sample Name	KB76 CCV	**Injection Vial**	31
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:19:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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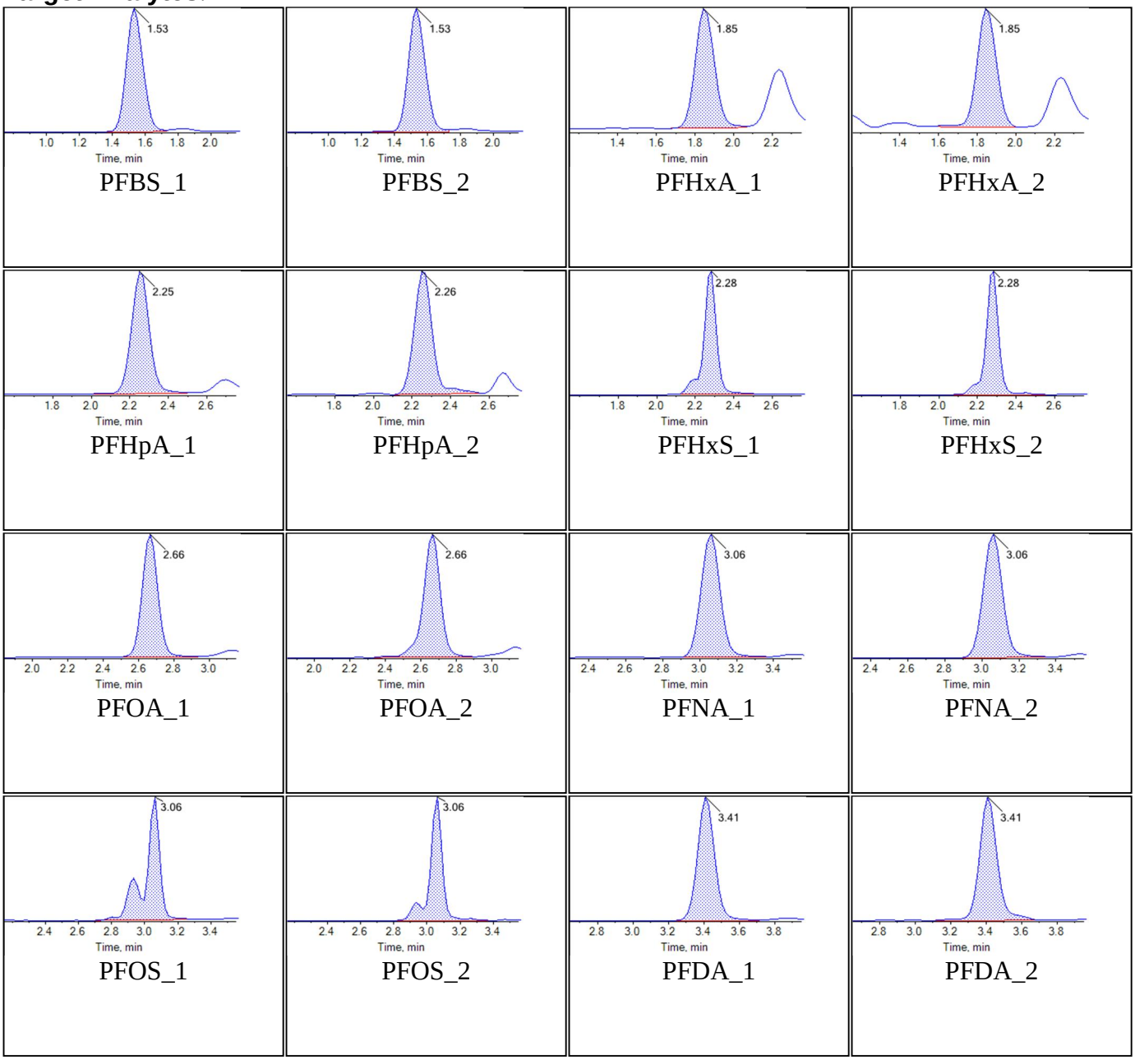

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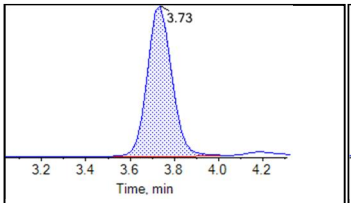

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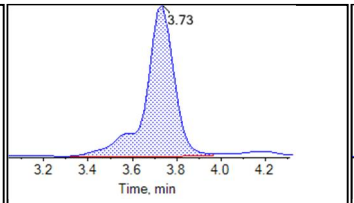

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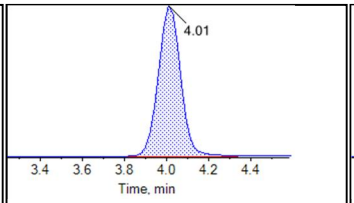

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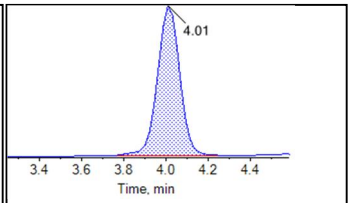

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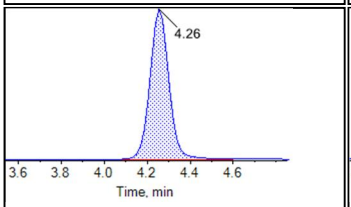

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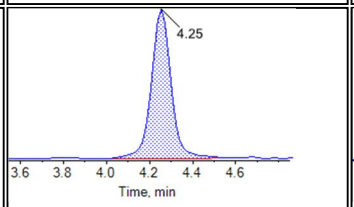

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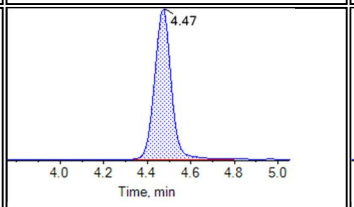

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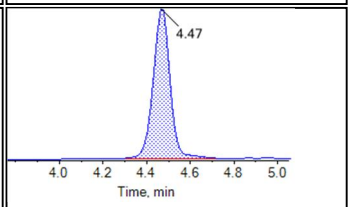

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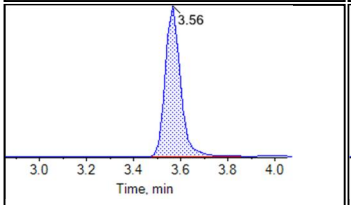

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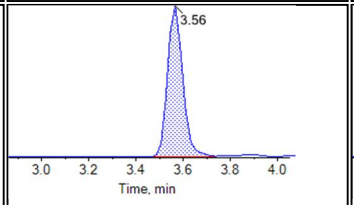

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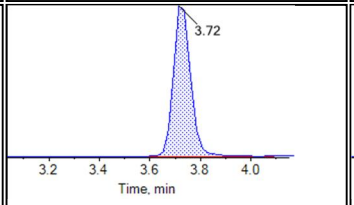

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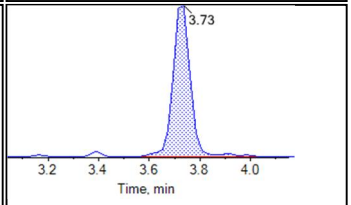

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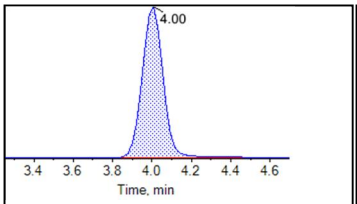

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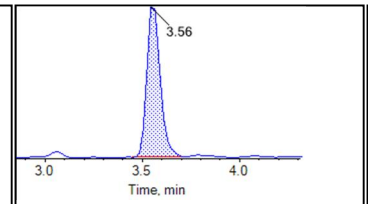

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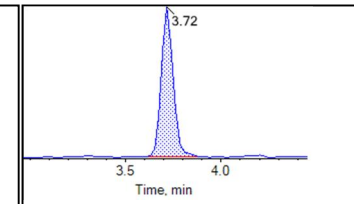

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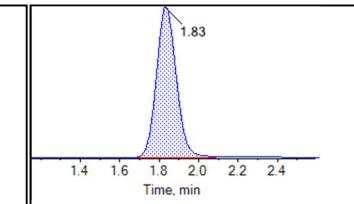

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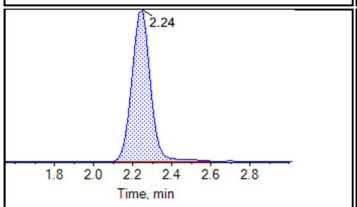

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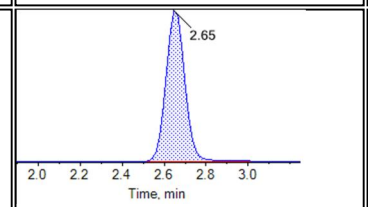

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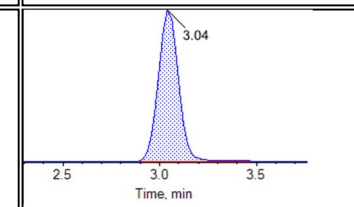
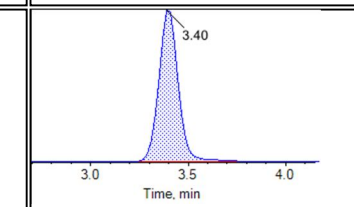


13C9-PFNA



13C6-PFDA

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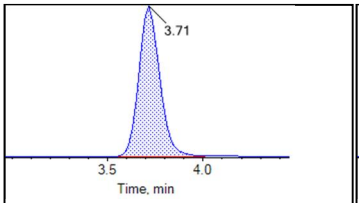
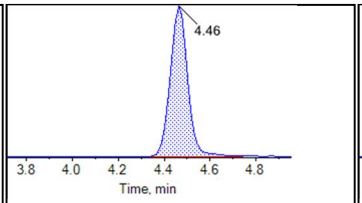


13C7-PFUnA



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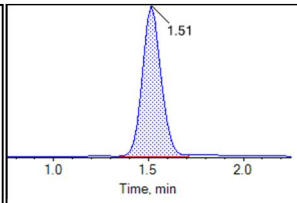
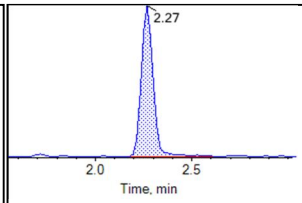
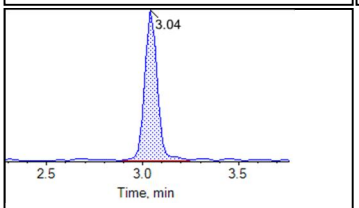


13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:29:49 PM

Sample Name	J8318-FS(3)	**Injection Vial**	33
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:41:33	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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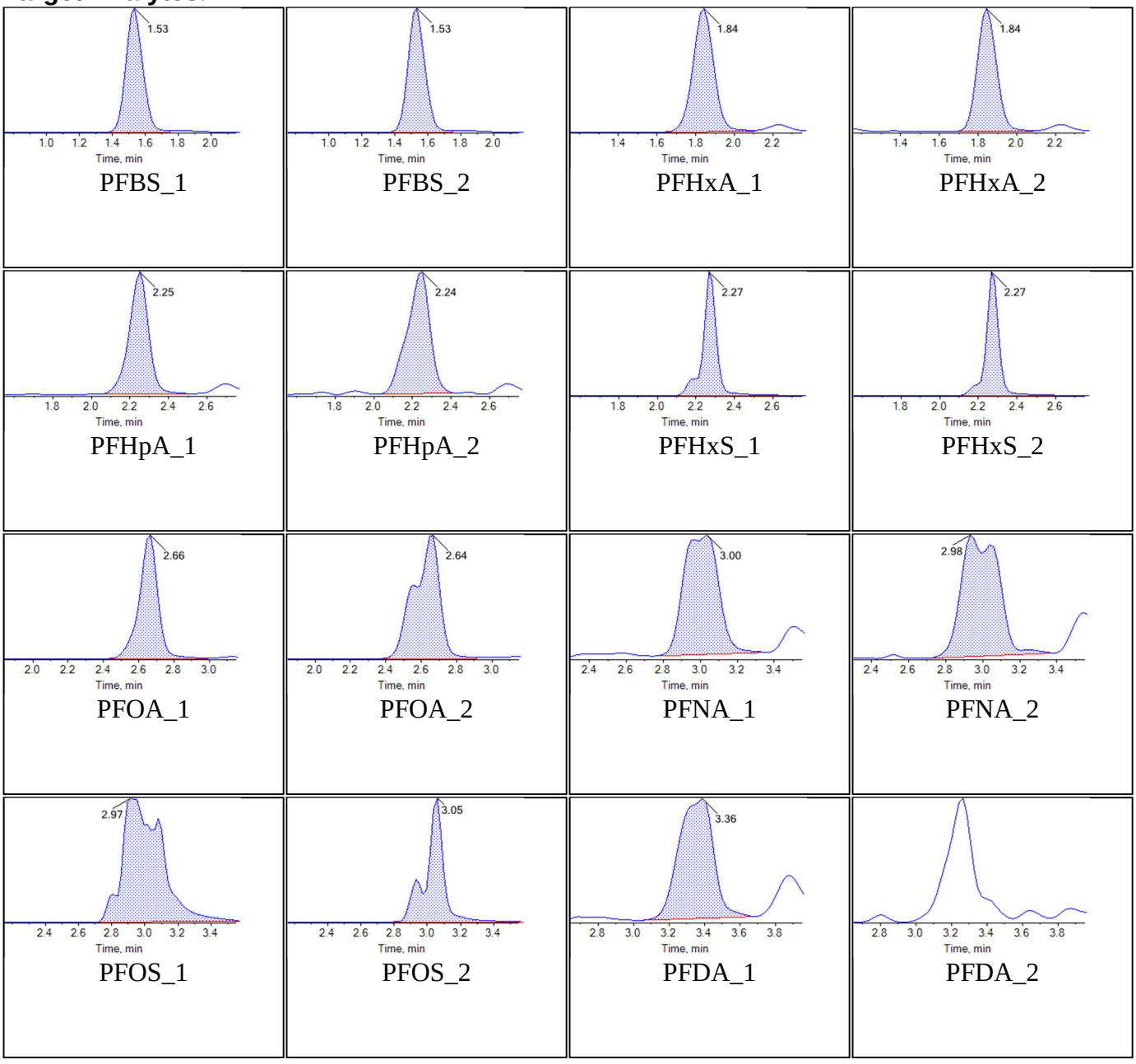

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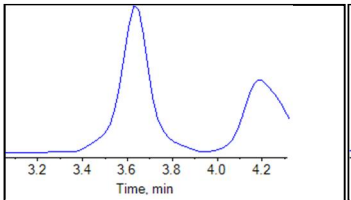

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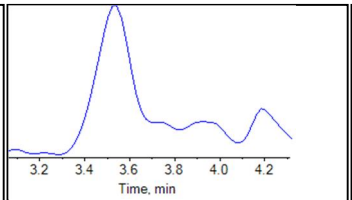
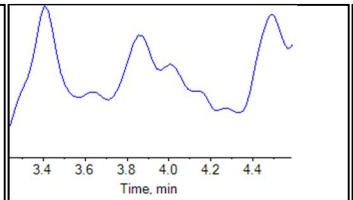


PFUnA_2



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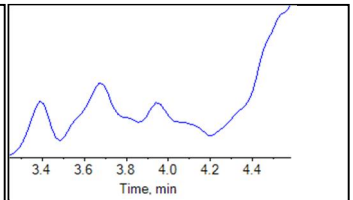
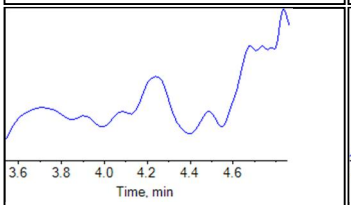
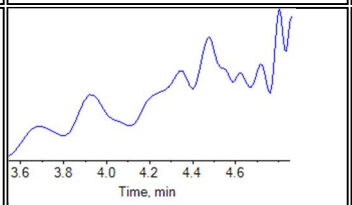


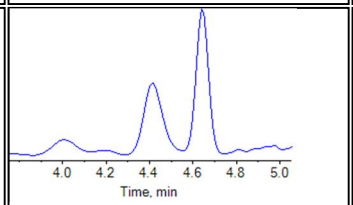
PFDoA_2



PFTrDA_1



PFTrDA_2



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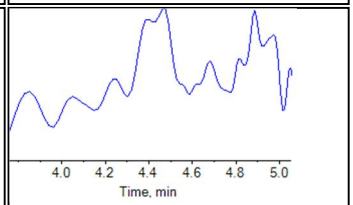

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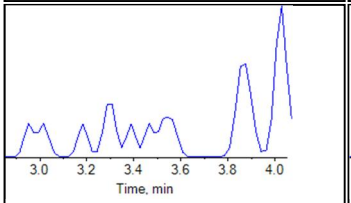

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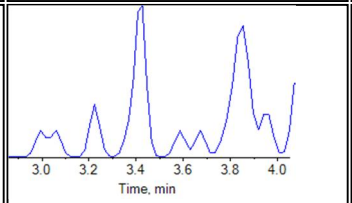

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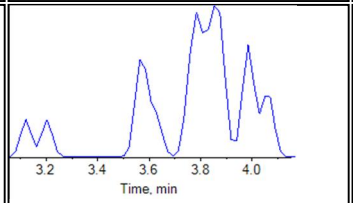

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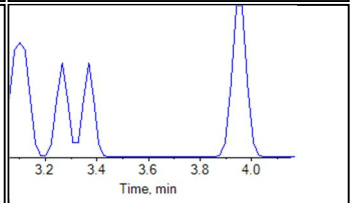

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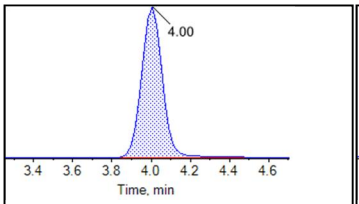
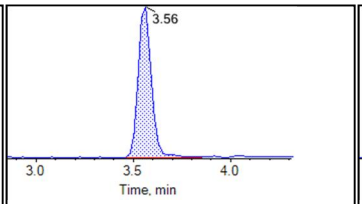


13C2-PFDoA



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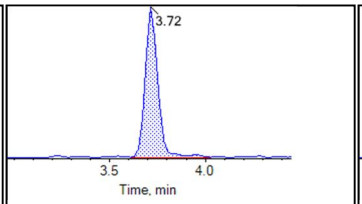

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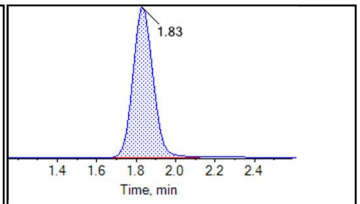

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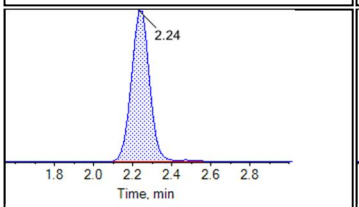

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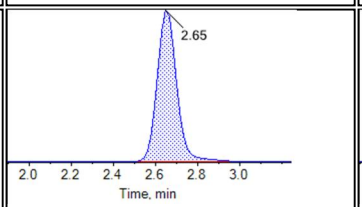

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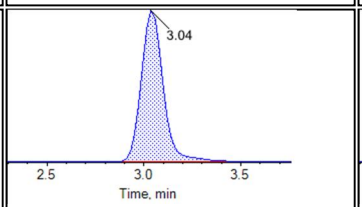

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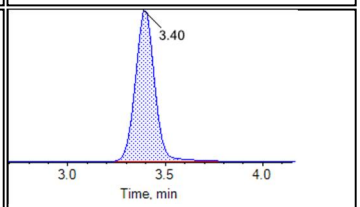

13C6-PFDA

BATTELLE

Chromatogram Report

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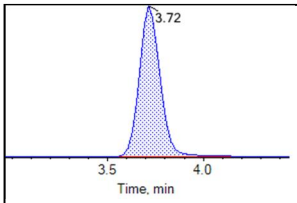
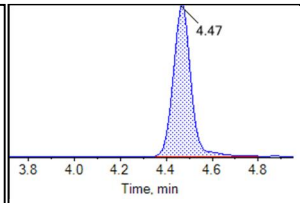


13C7-PFUnA



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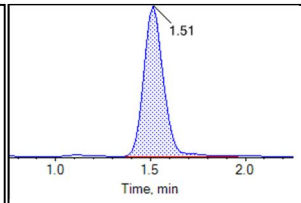

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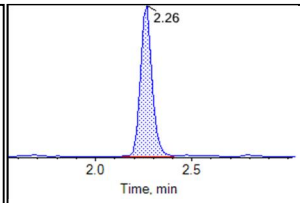

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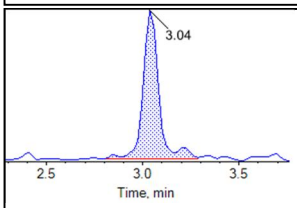

13C8-PFOS

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Chromatogram Report

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Sample Name	J8318-FS-D(5)	**Injection Vial**	34
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:52:24	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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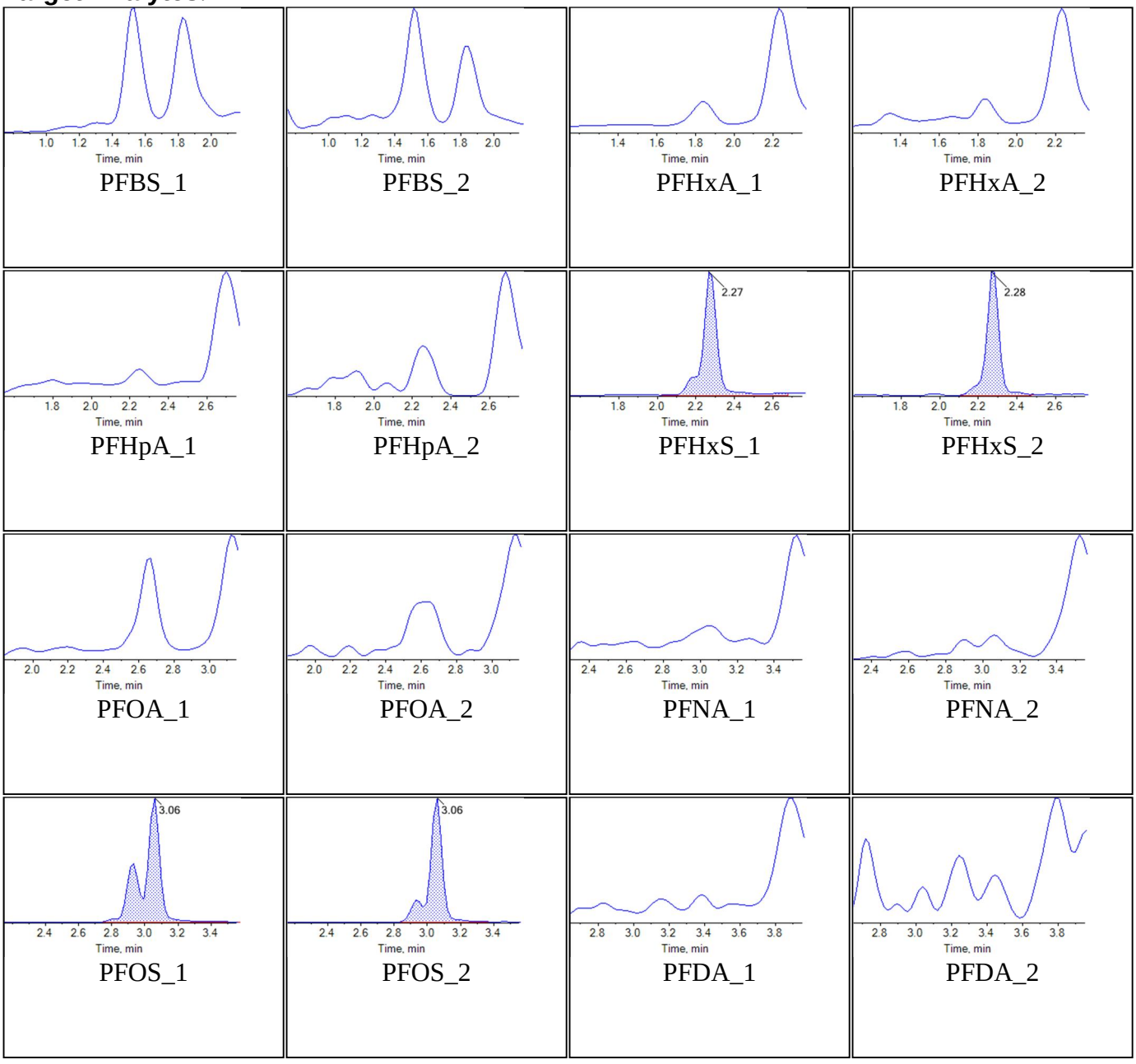

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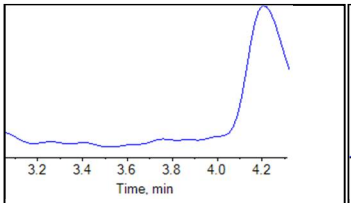

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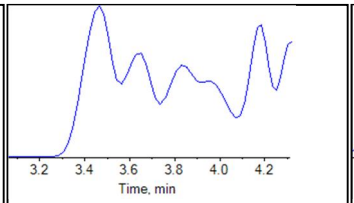

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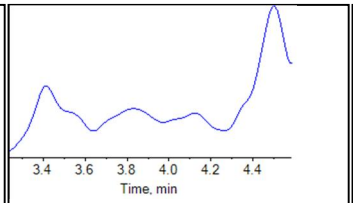

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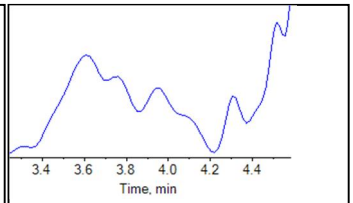

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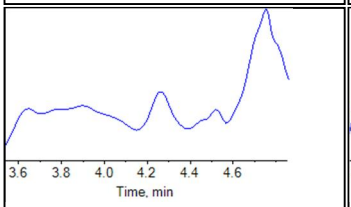

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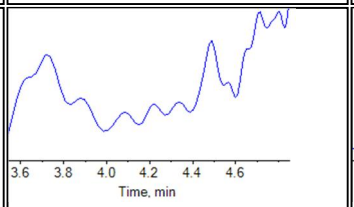

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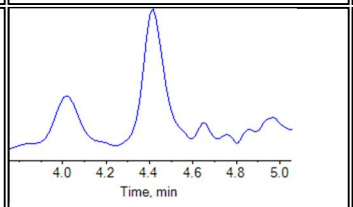

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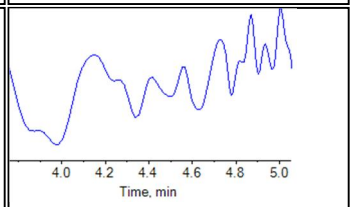

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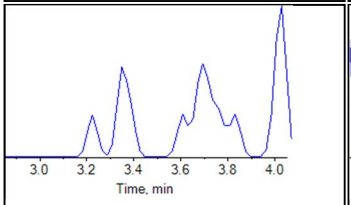

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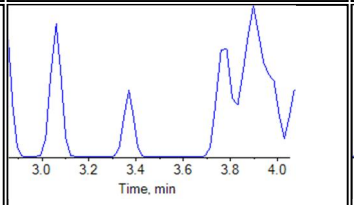

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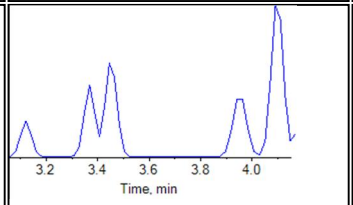

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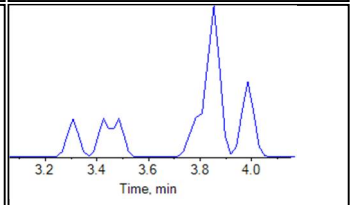

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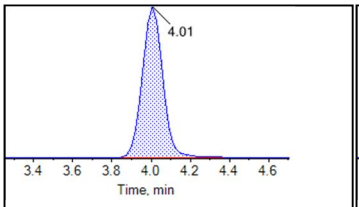

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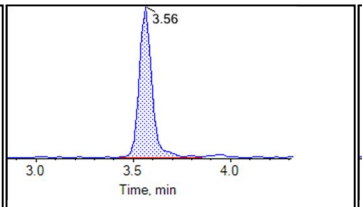
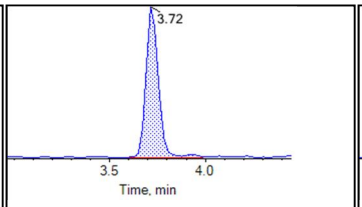
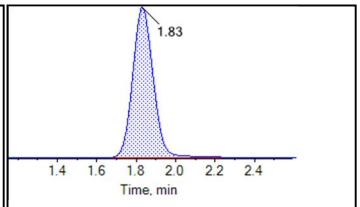


d3-MeFOSAA



d5-EtFOSAA



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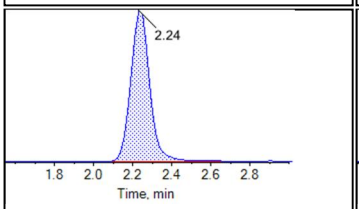

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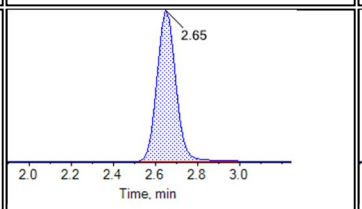
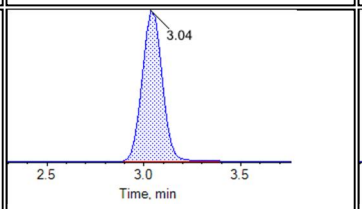
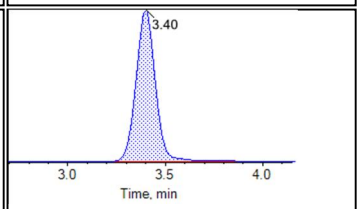


13C8-PFOA



13C9-PFNA



13C6-PFDA

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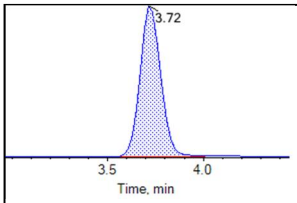

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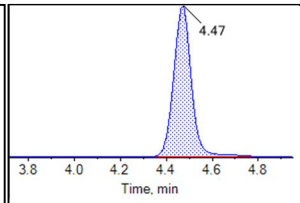

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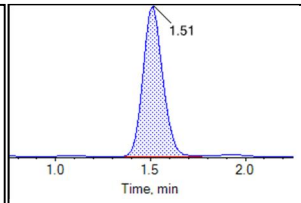

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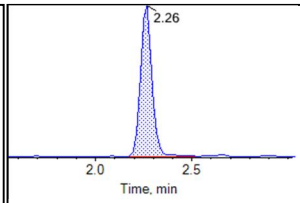

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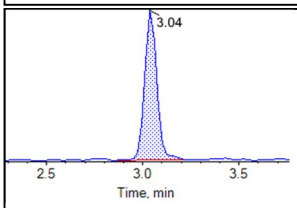

13C8-PFOS

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Chromatogram Report

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Sample Name	J8318-FS-D(7)	**Injection Vial**	35
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:03:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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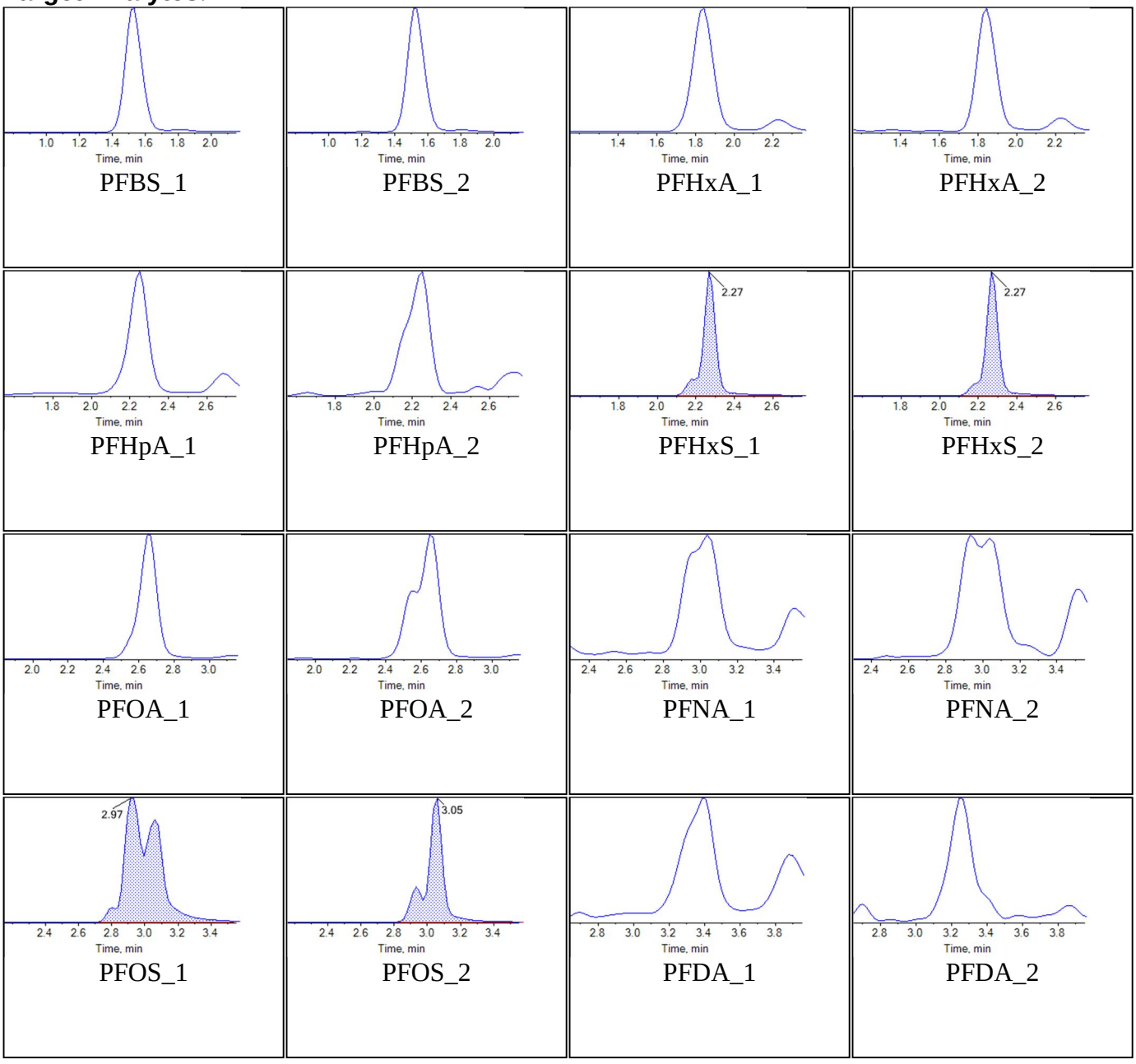

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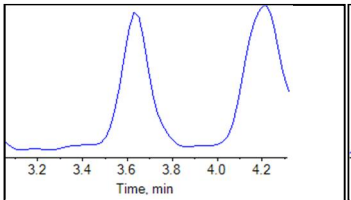

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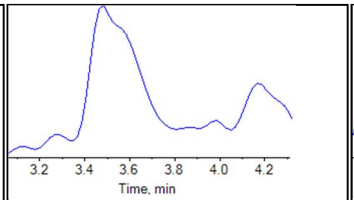
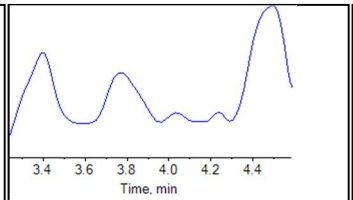


PFUnA_2



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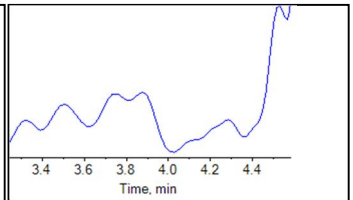
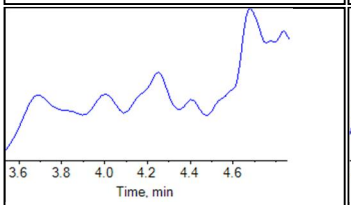
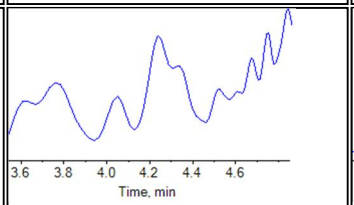


PFDoA_2



PFTrDA_1



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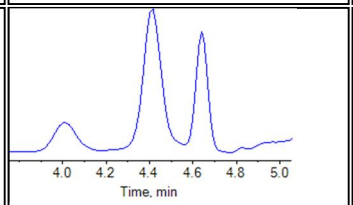

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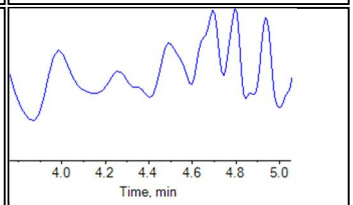

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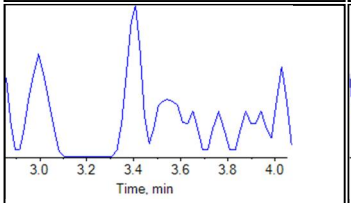

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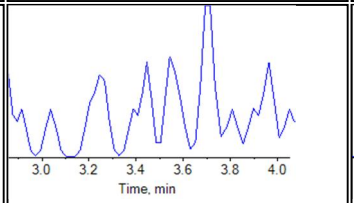

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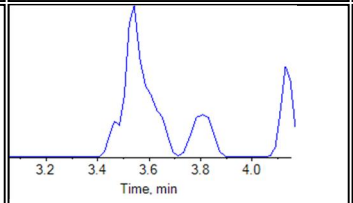

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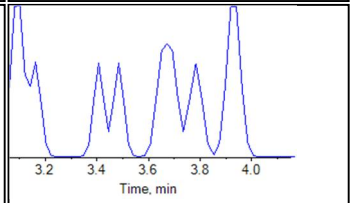

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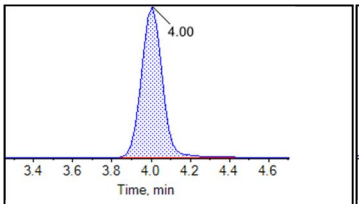
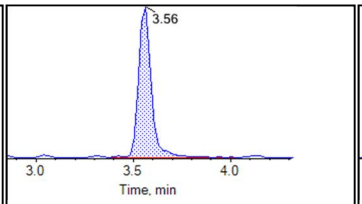


13C2-PFDoA



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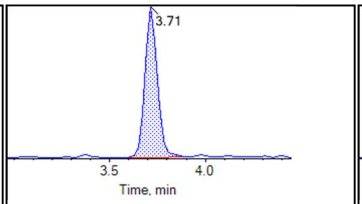

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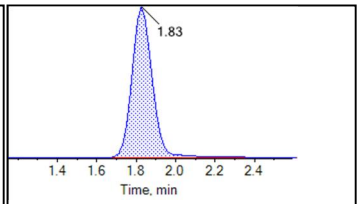

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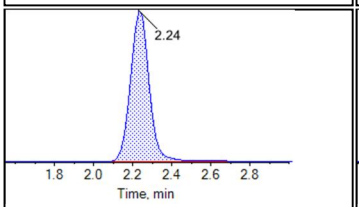

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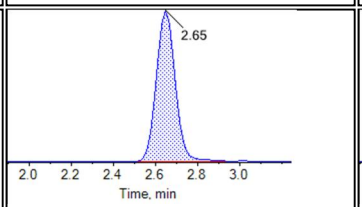

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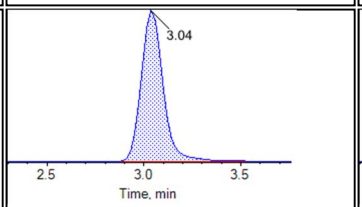
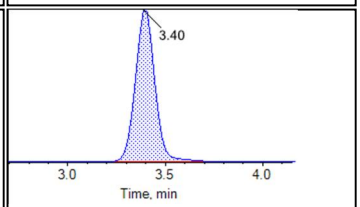


13C9-PFNA



13C6-PFDA

BATTELLE

Chromatogram Report

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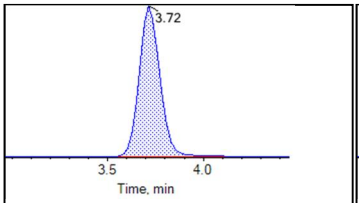
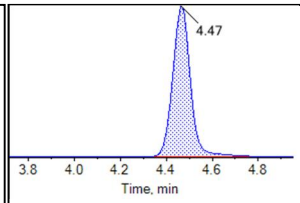


13C7-PFUnA



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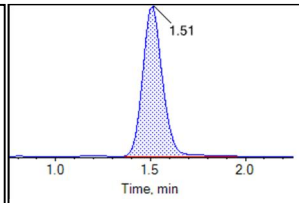
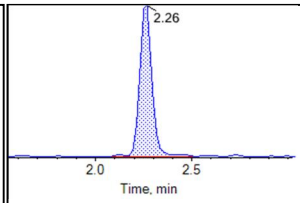
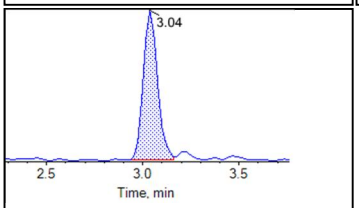


13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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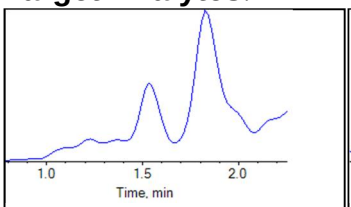
Sample ID	VC-PM323-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:14:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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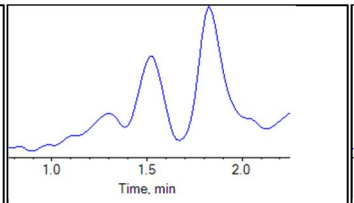

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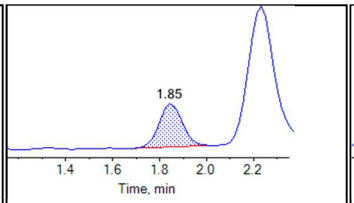

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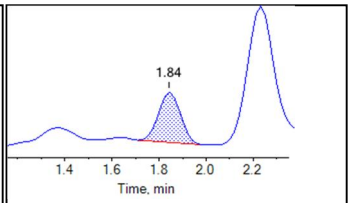

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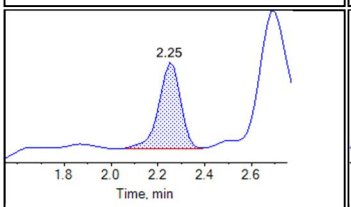

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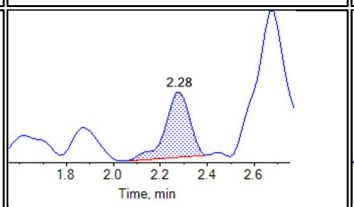

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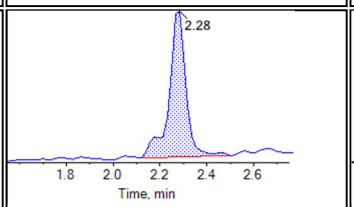

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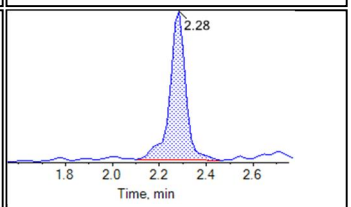

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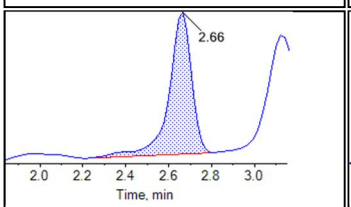

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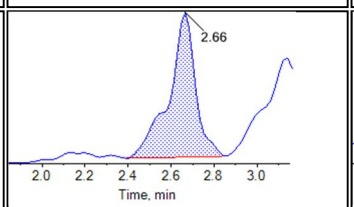

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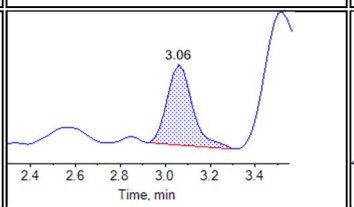

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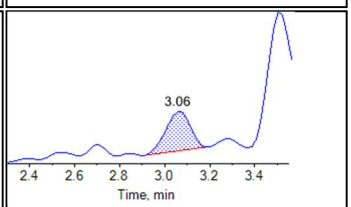

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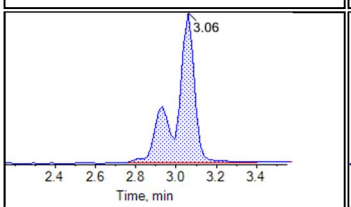

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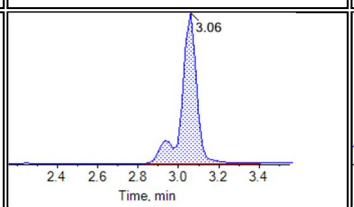

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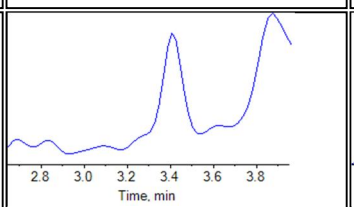

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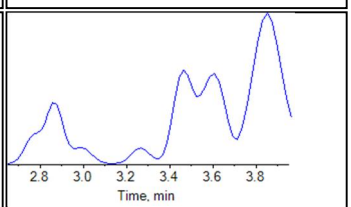

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Chromatogram Report

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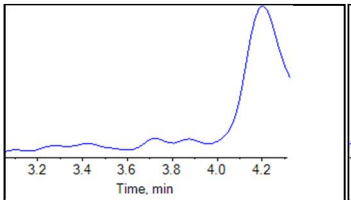

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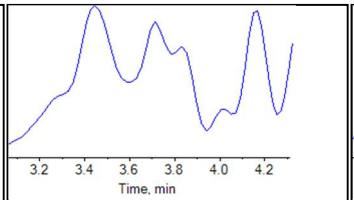

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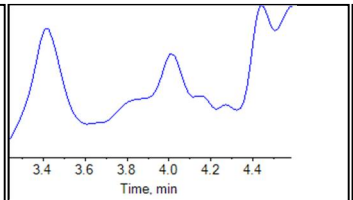

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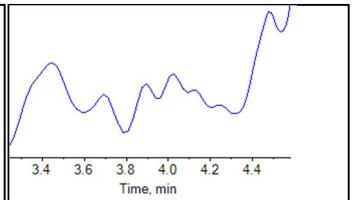

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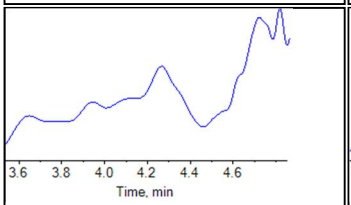

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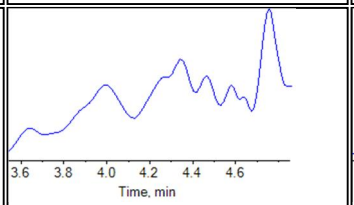

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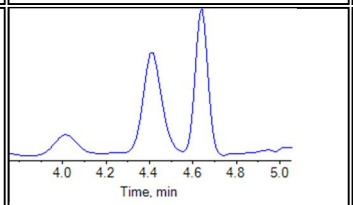

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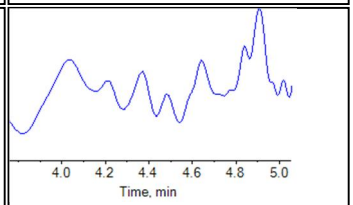

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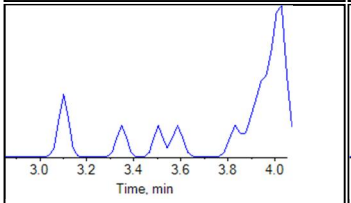

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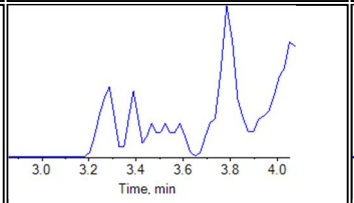

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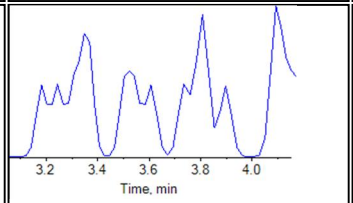

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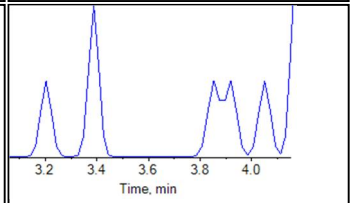

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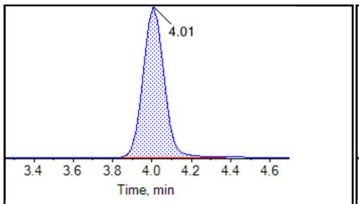

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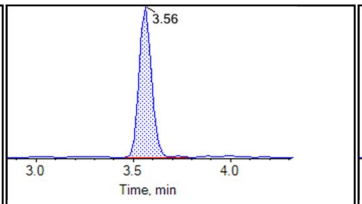

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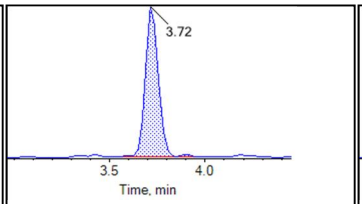
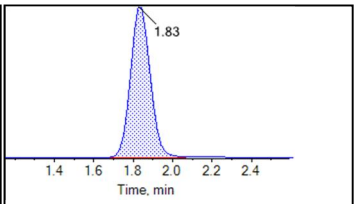


d5-EtFOSAA



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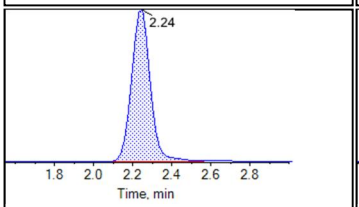
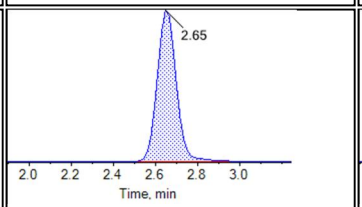
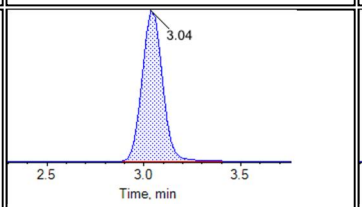


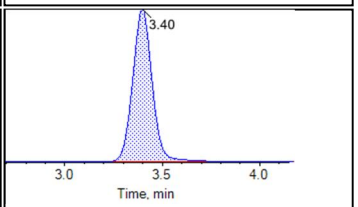
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

BATTELLE

Chromatogram Report

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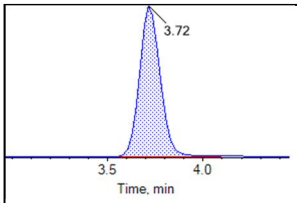
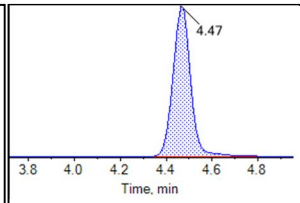
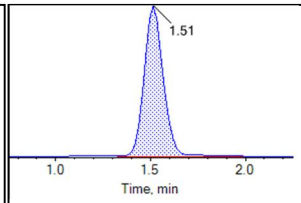


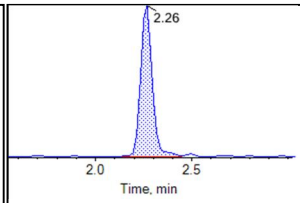
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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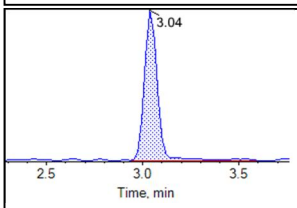

13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
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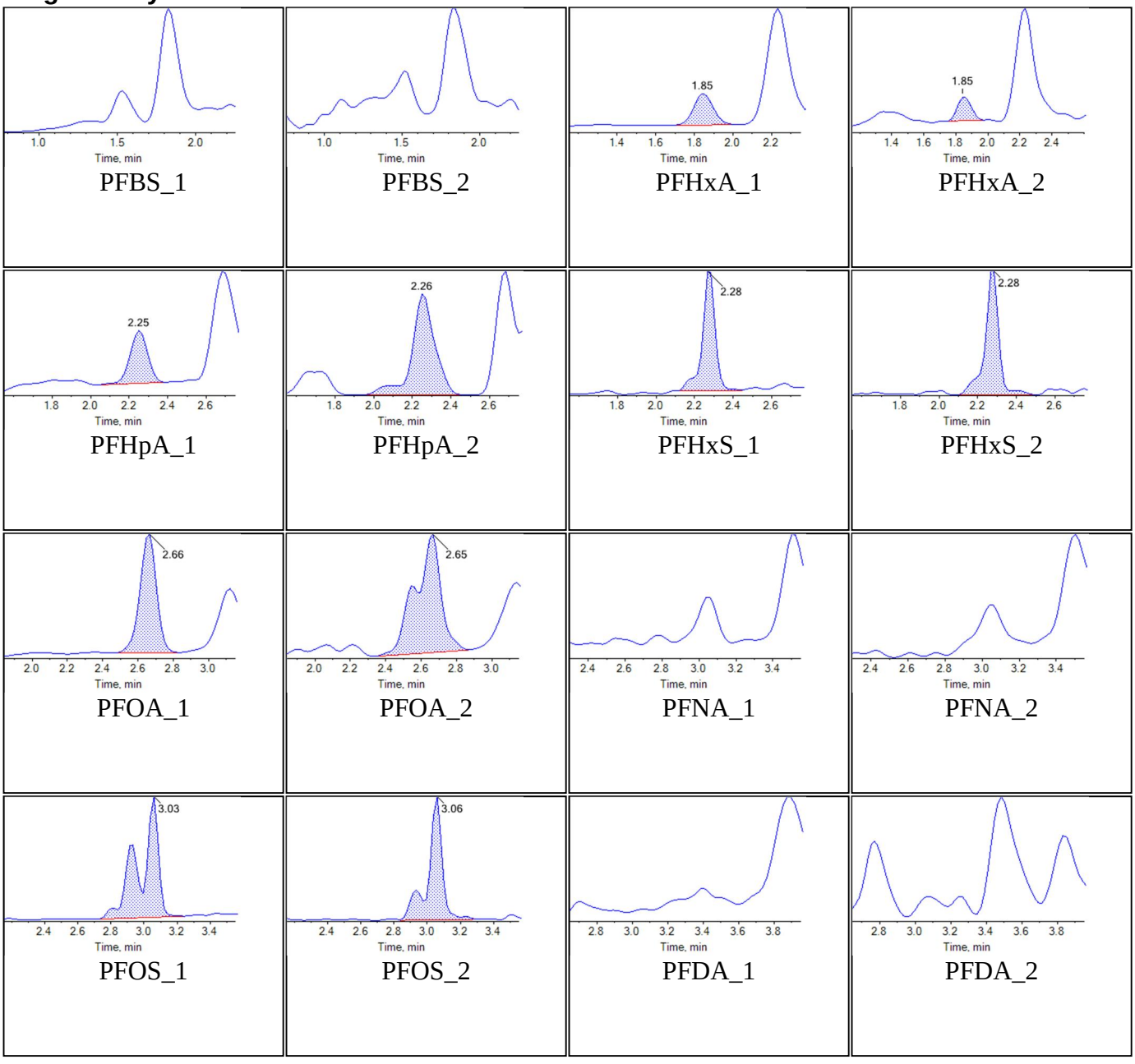
Sample Name	J8328-FS(3)	**Injection Vial**	37
Sample ID	VC-PM323-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:25:02	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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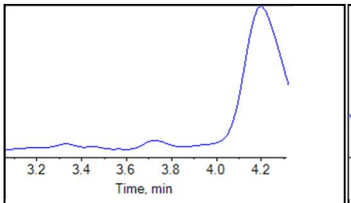

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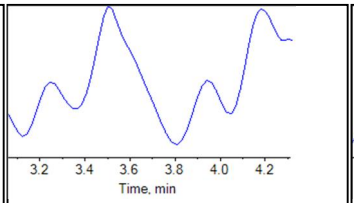
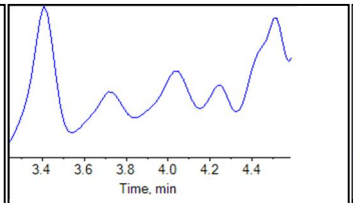


PFUnA_2



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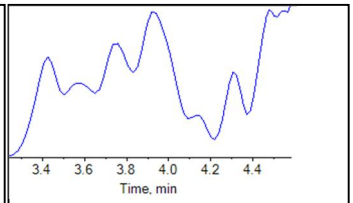
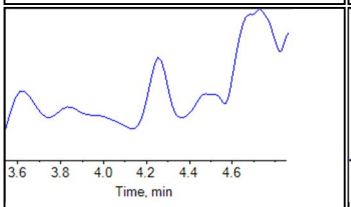


PFDoA_2



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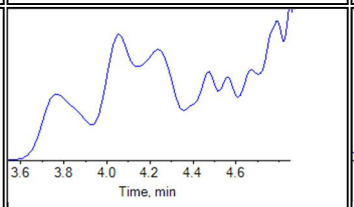

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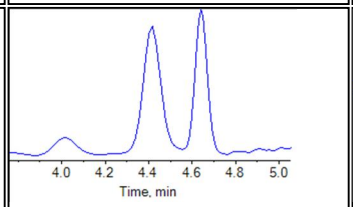

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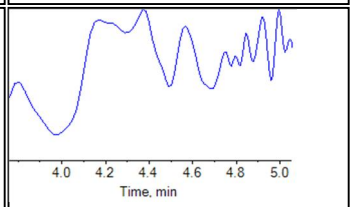

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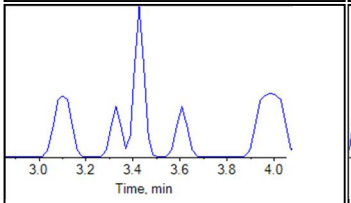

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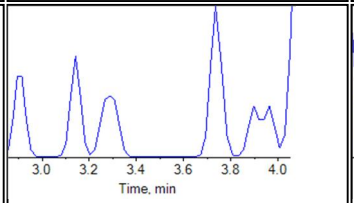

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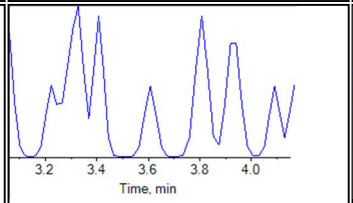

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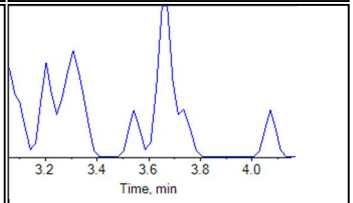

NEtFOSAA_2

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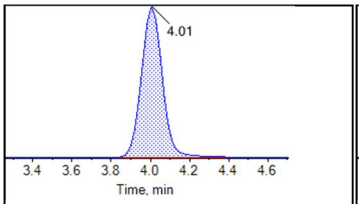
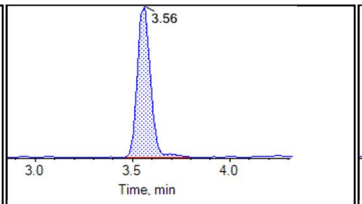


13C2-PFDoA



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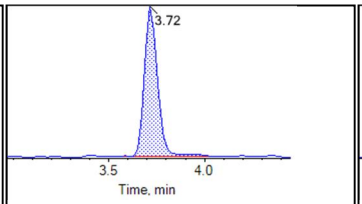

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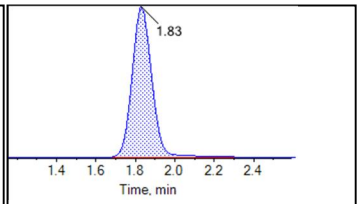
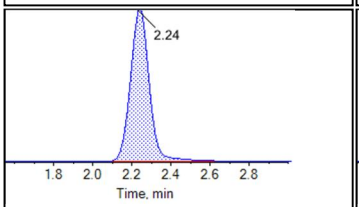


13C5-PFHxA



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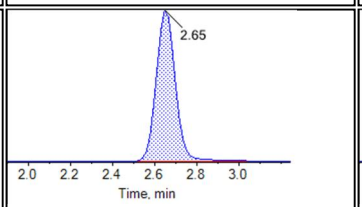
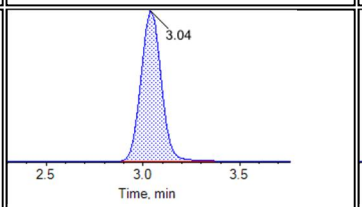
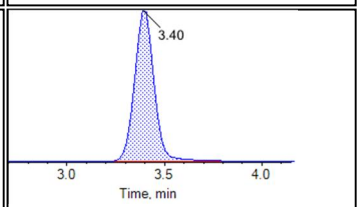


13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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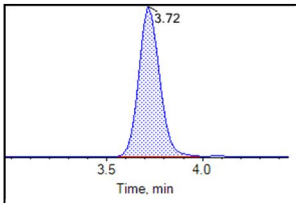
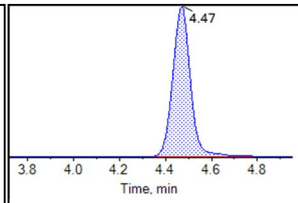


13C7-PFUnA



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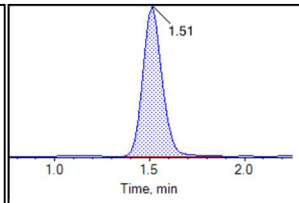
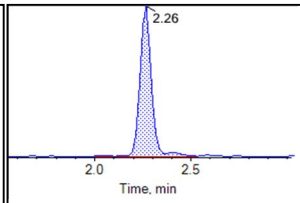
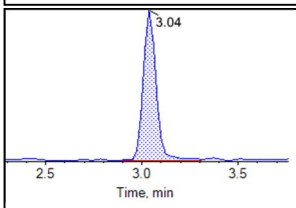


13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 23/10/2018 11:15:41 AM

Sample Name	J8329-FS(3)	**Injection Vial**	38
Sample ID	VC-PM323-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:35:55	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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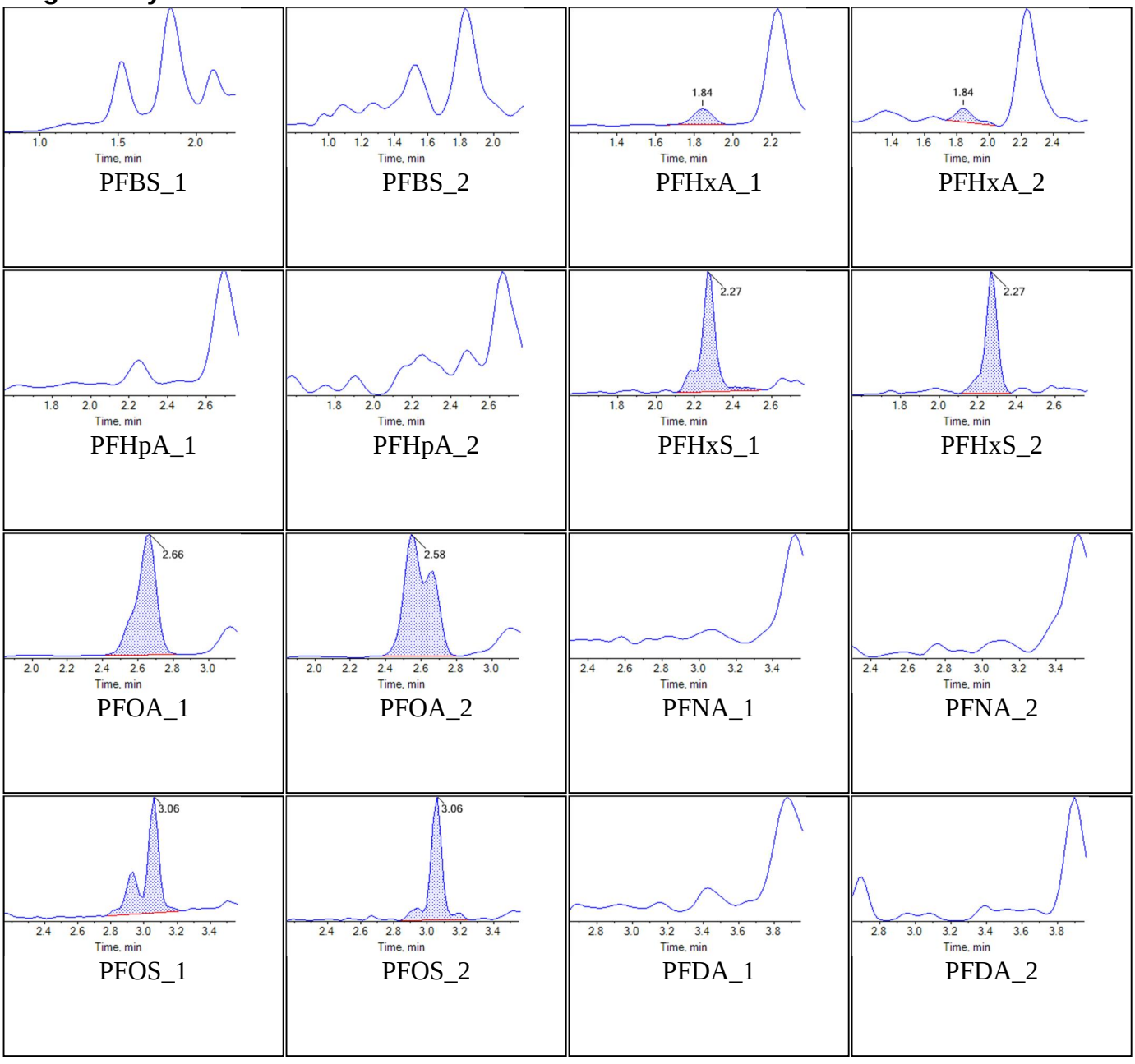

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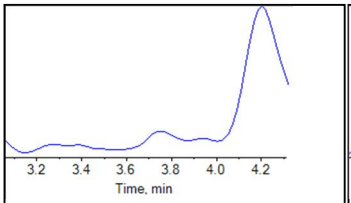

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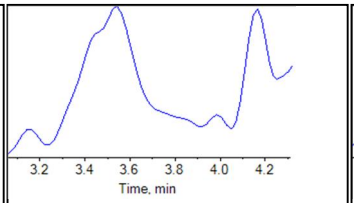
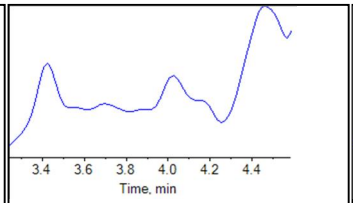


PFUnA_2



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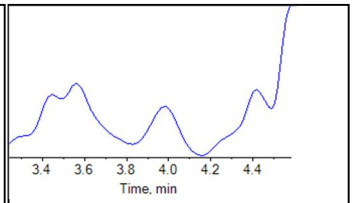
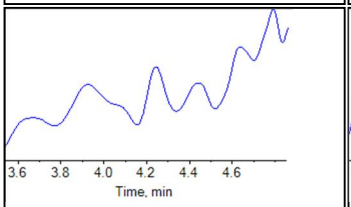


PFDoA_2



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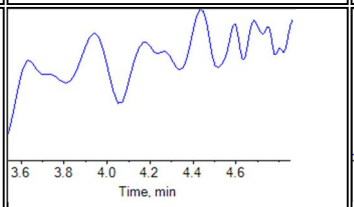

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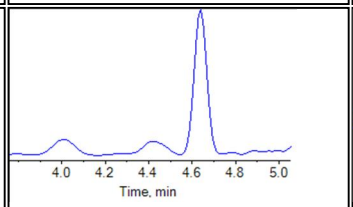
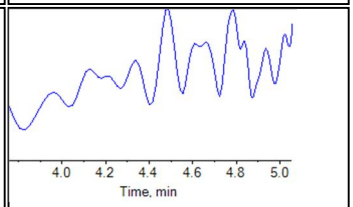


PFTeDA_1



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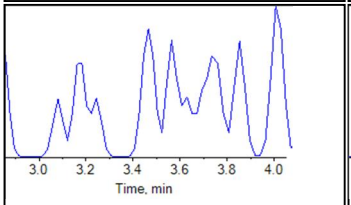

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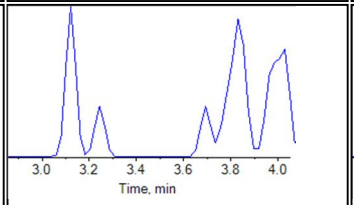

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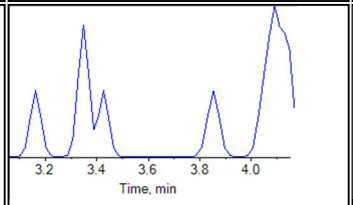

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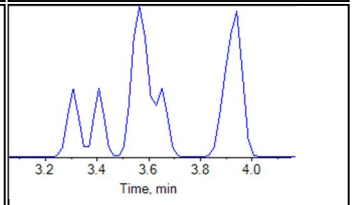
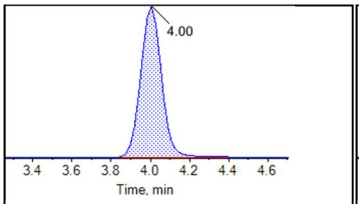
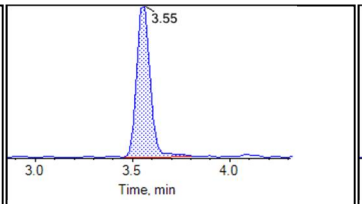


NEtFOSAA_2

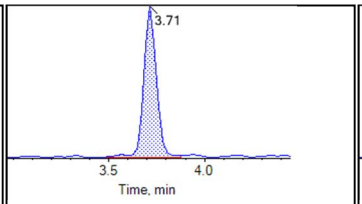
Internal Standards:



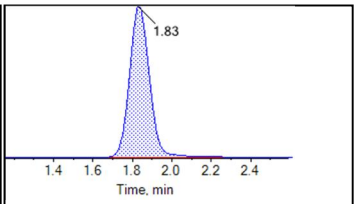
13C2-PFDoA



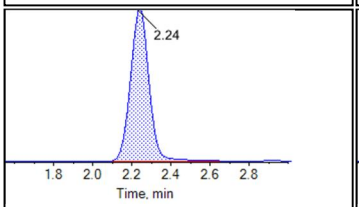
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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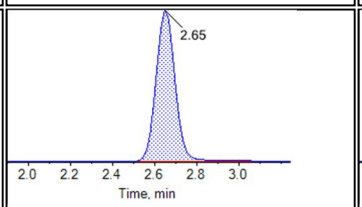
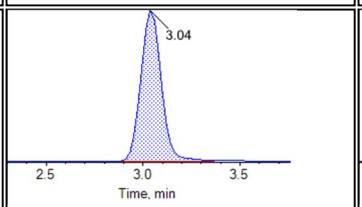
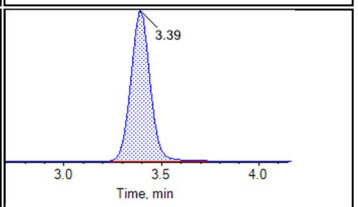


13C8-PFOA



13C9-PFNA



13C6-PFDA

BATTELLE

Chromatogram Report

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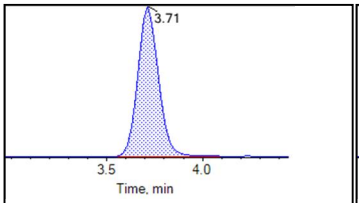
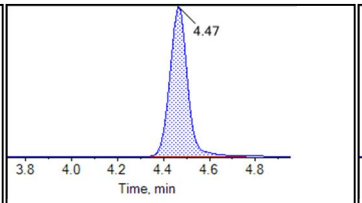
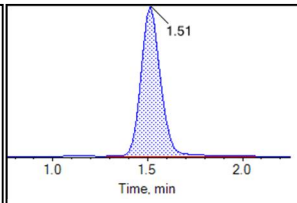


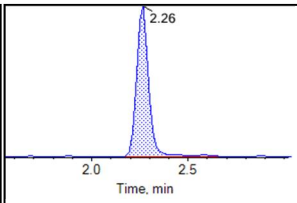
13C7-PFUnA



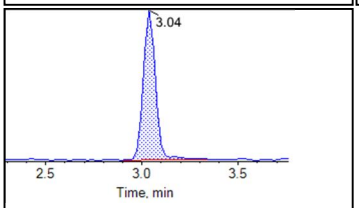
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
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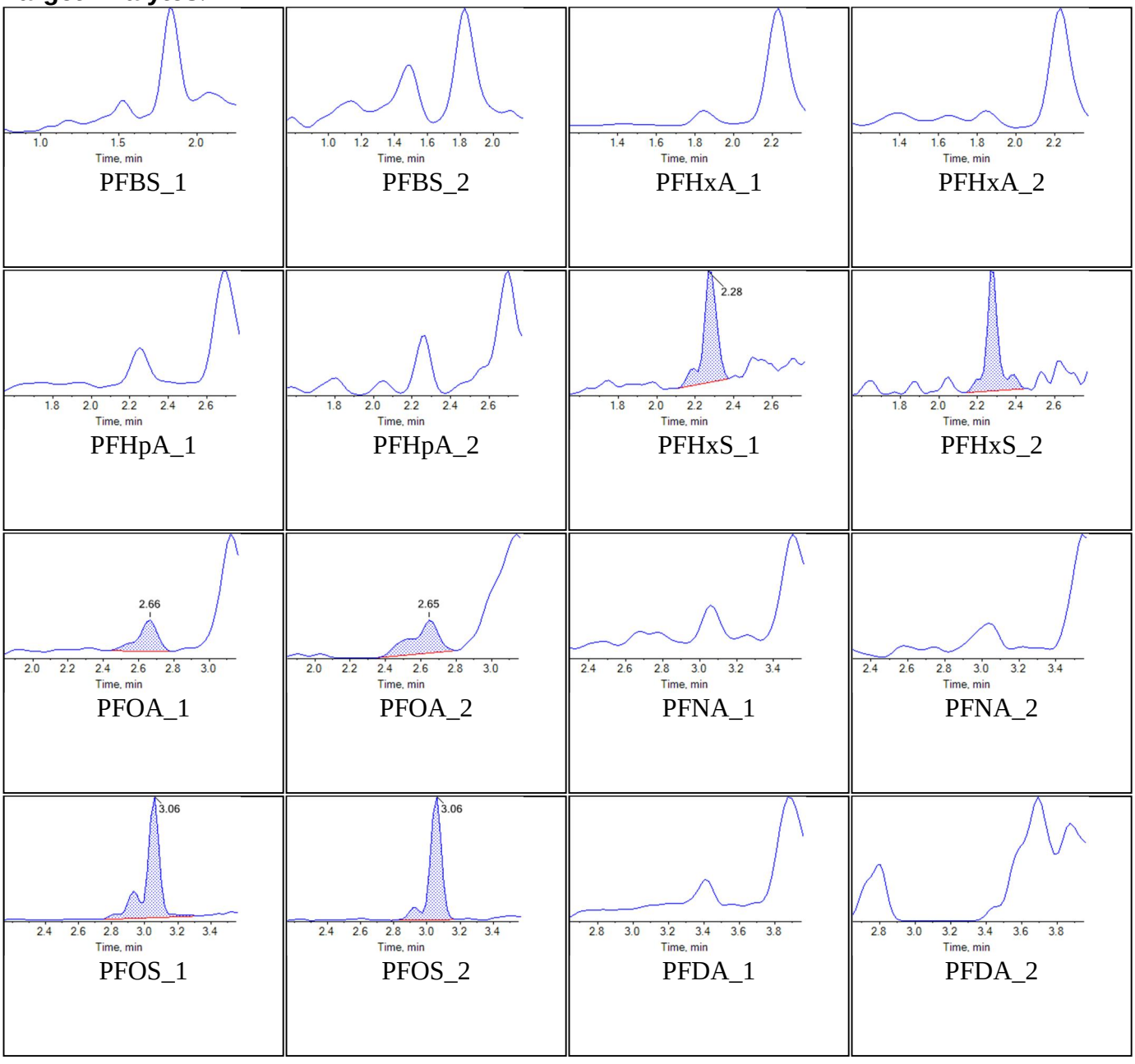
Sample Name	J8332-FS(3)	**Injection Vial**	39
Sample ID	VC-PM324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:46:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

Target Analytes:



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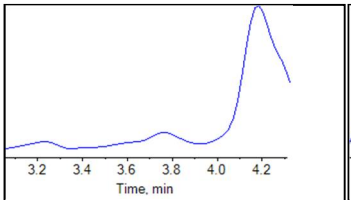

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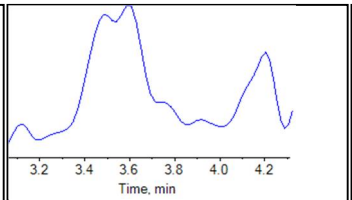
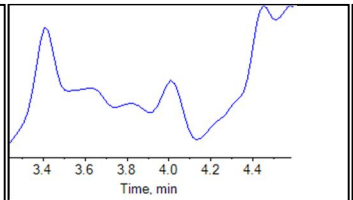


PFUnA_2



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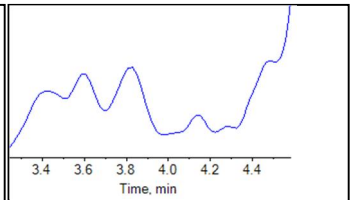
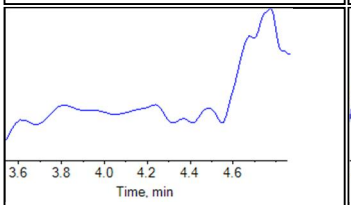


PFDoA_2



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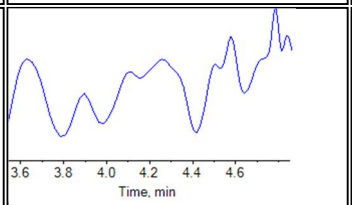

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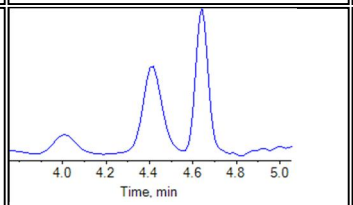

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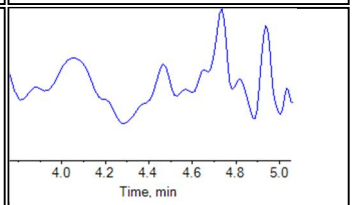

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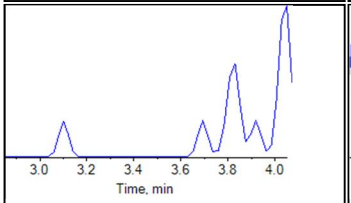

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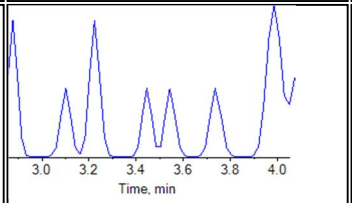

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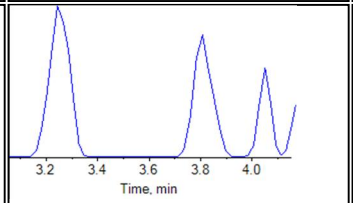

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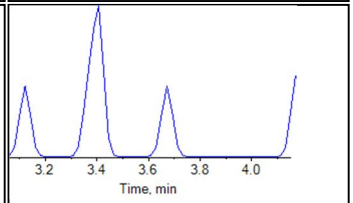
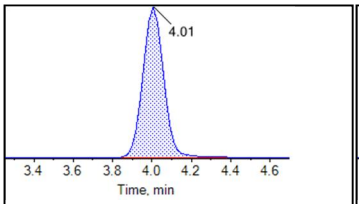
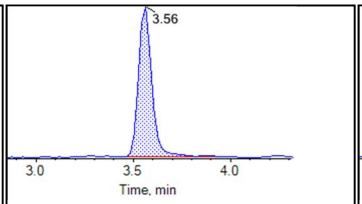


NEtFOSAA_2

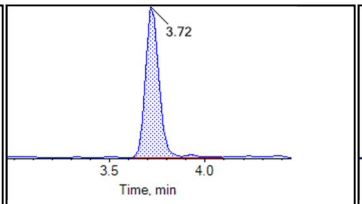
Internal Standards:



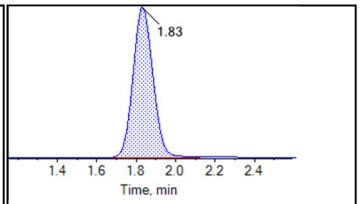
13C2-PFDoA



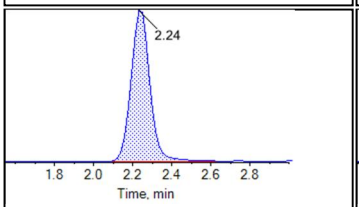
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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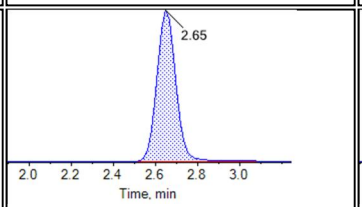
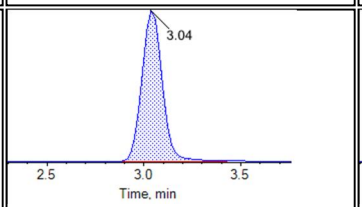
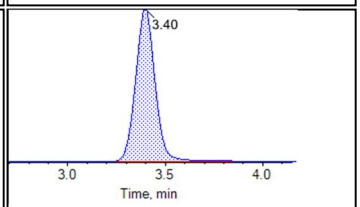


13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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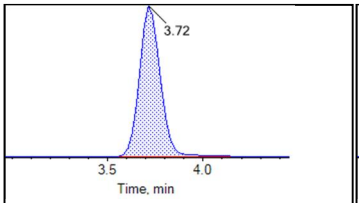
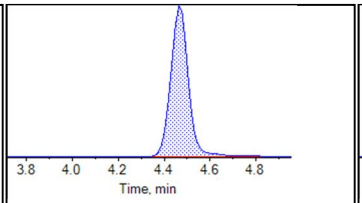
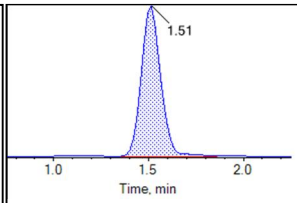


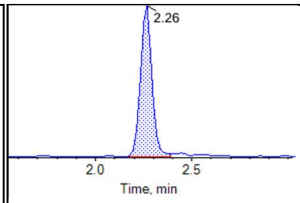
13C7-PFUnA



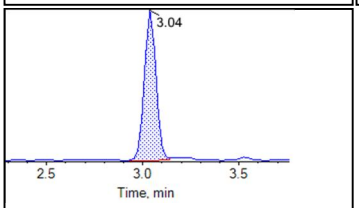
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:30:36 PM

Sample Name	J8334-FS(3)	**Injection Vial**	40
Sample ID	VC-PM324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:57:38	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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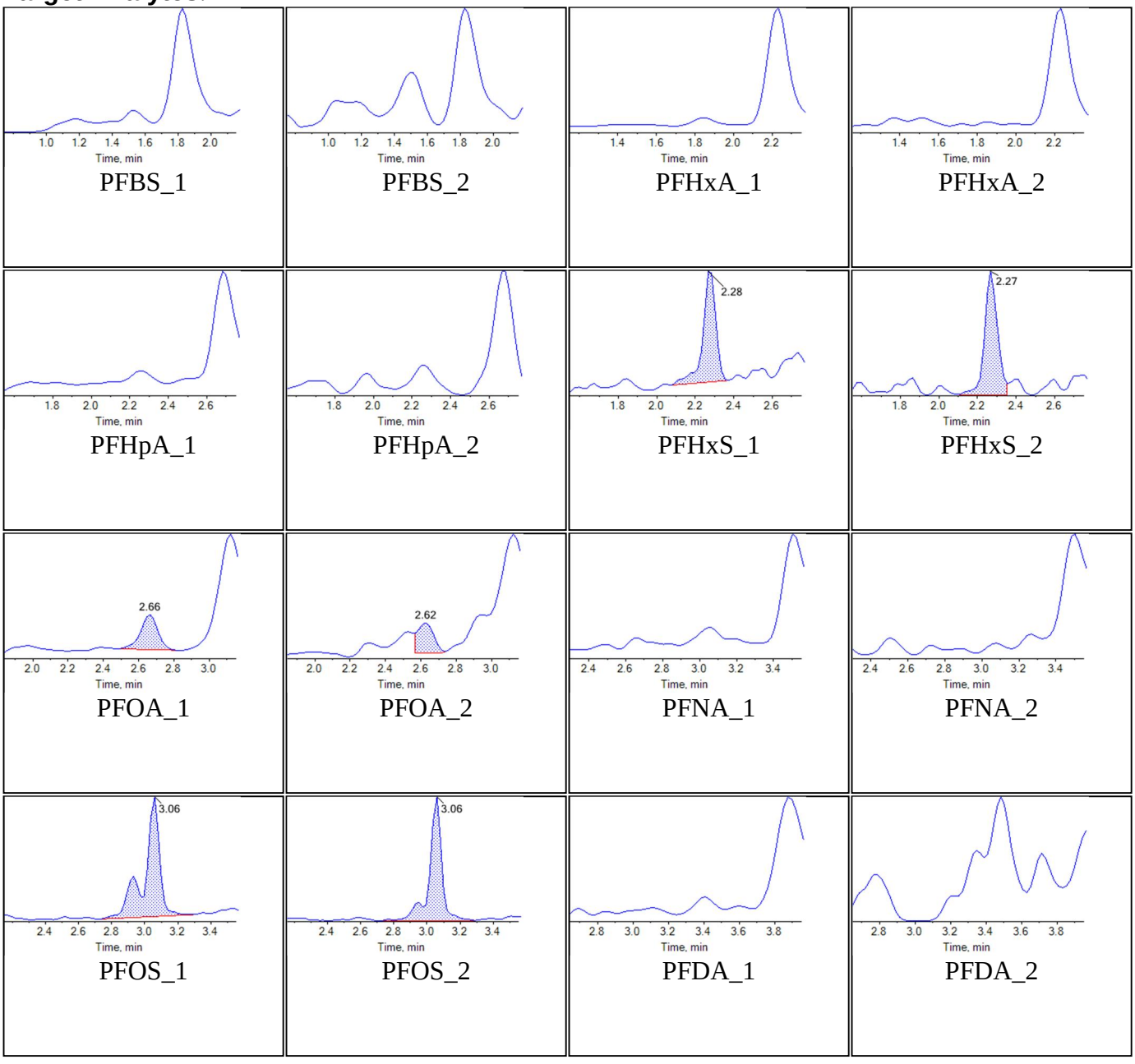

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Chromatogram Report

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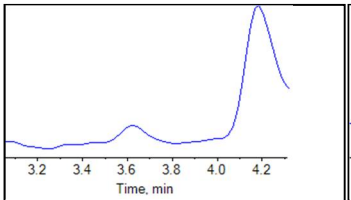

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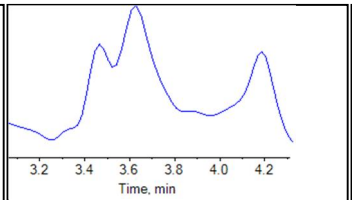
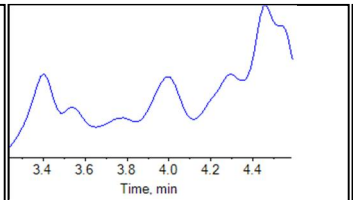


PFUnA_2



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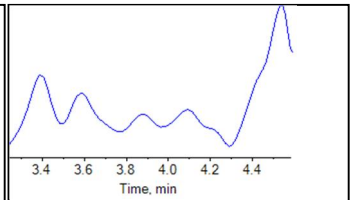
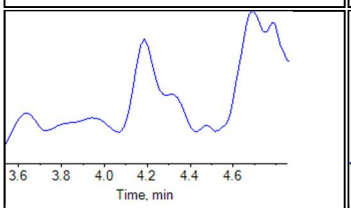
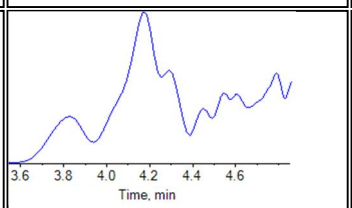


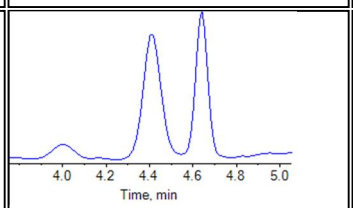
PFDoA_2



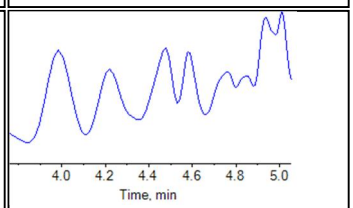
PFTrDA_1



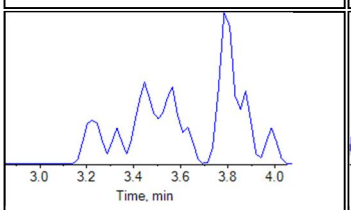
PFTrDA_2



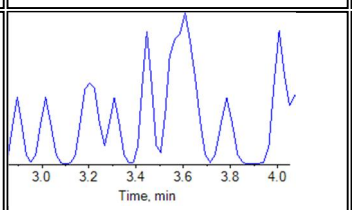
PFTeDA_1



PFTeDA_2



NMeFOSAA_1



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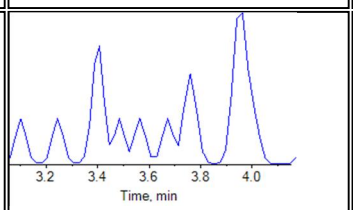

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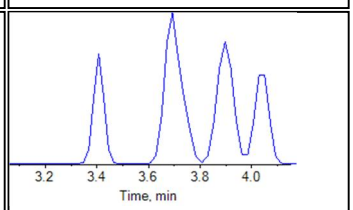
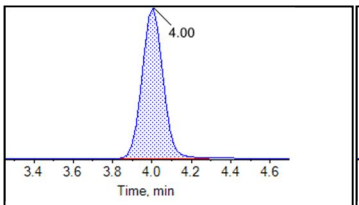
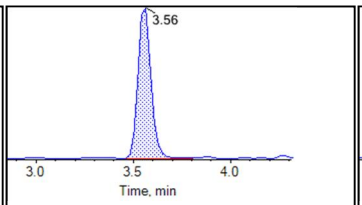


NEtFOSAA_2

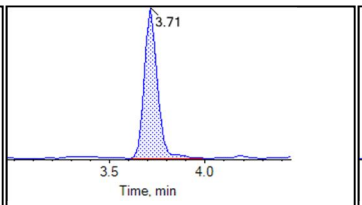
Internal Standards:



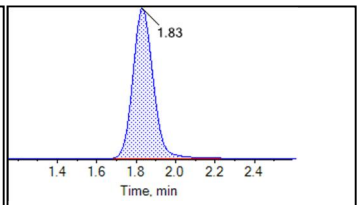
13C2-PFDoA



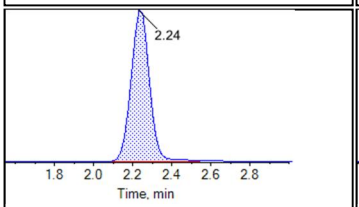
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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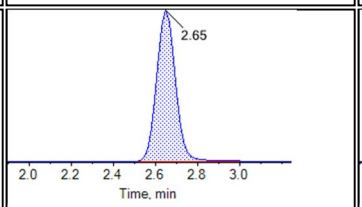
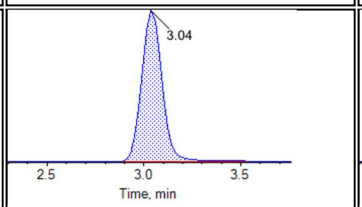
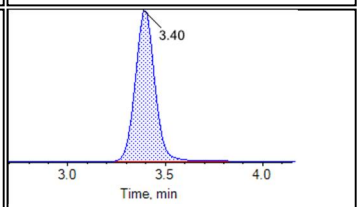


13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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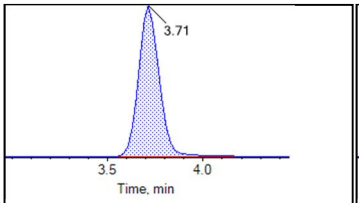
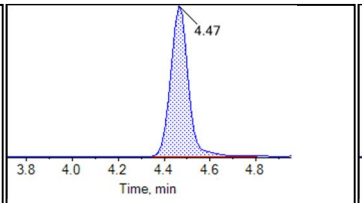
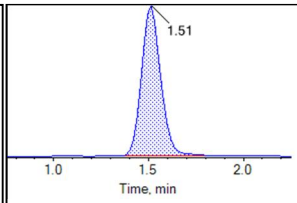


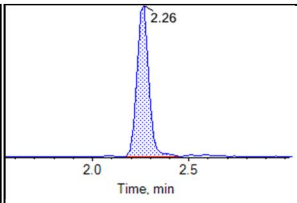
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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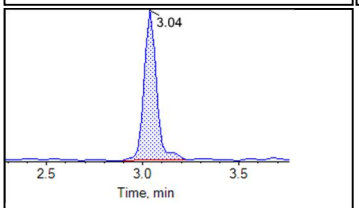

13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:30:41 PM

Sample Name	J8335MS-FS(3)	**Injection Vial**	41
Sample ID	VC-PM324-SB02-0506-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:08:31	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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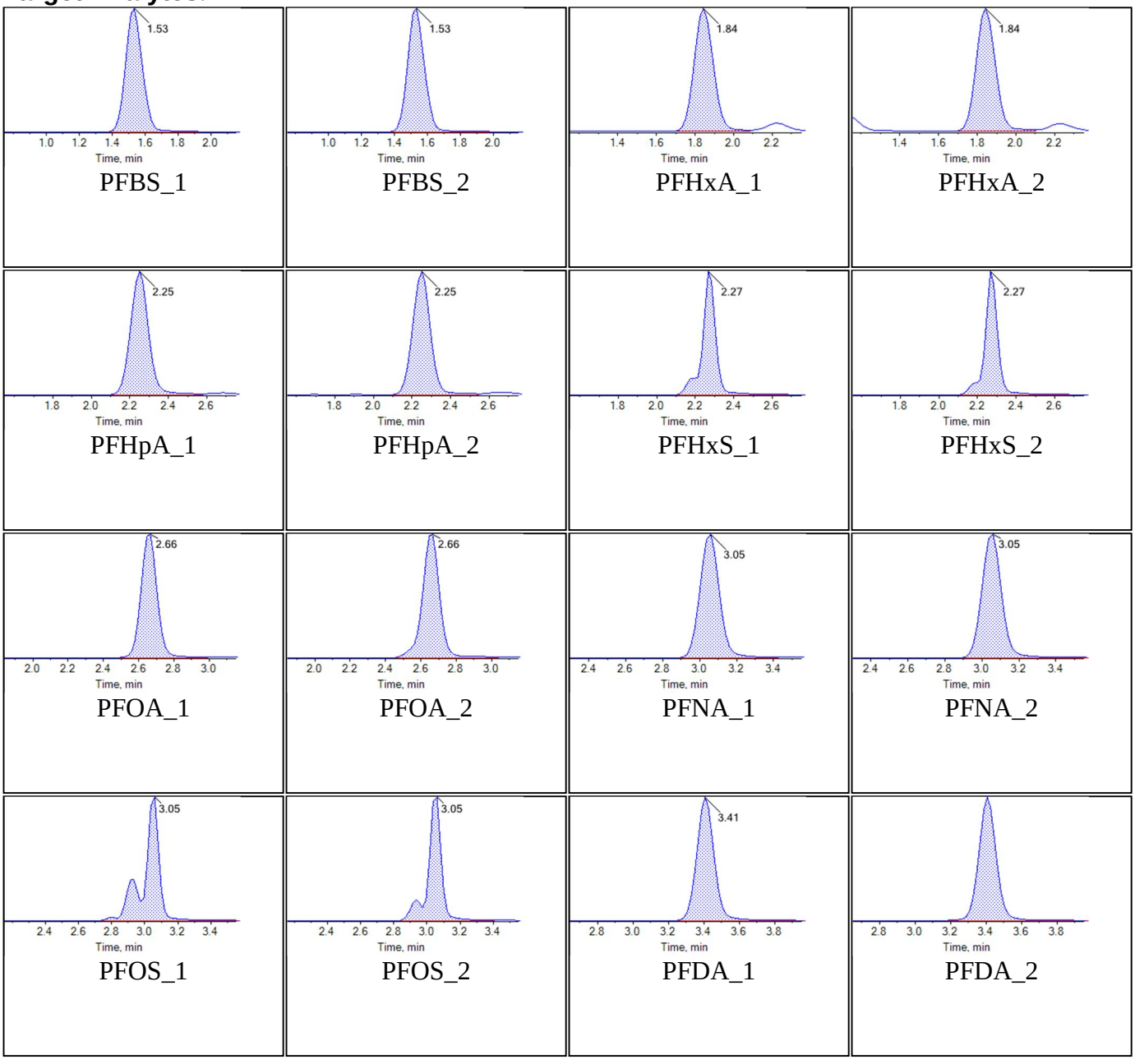

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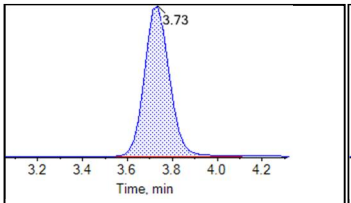

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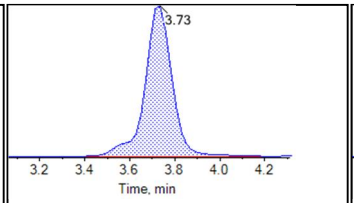
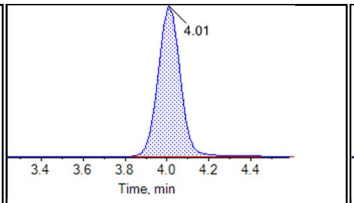


PFUnA_2



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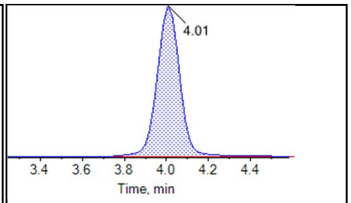
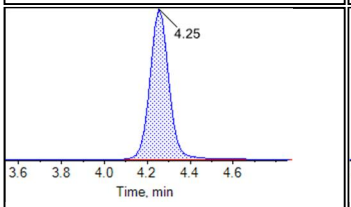


PFDoA_2



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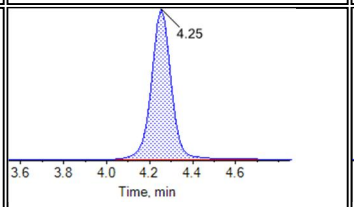
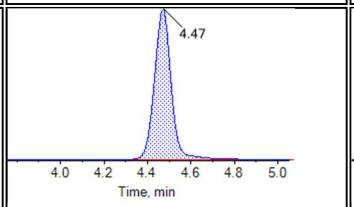


PFTrDA_2



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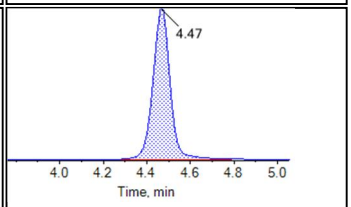
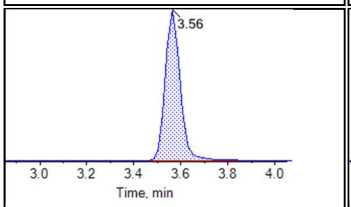
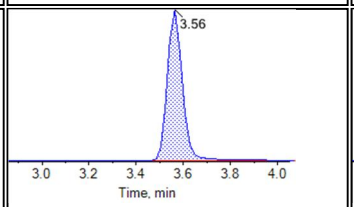


PFTeDA_2



NMeFOSAA_1



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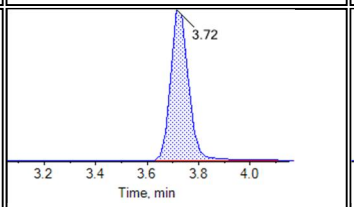
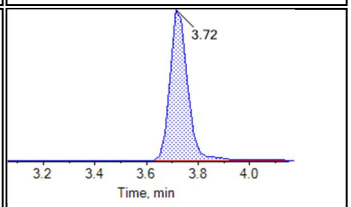
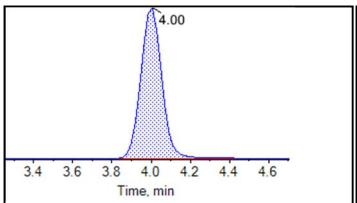


NEtFOSAA_1

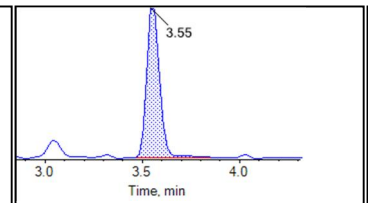


NEtFOSAA_2

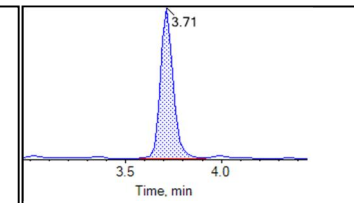
Internal Standards:



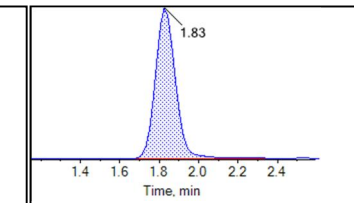
13C2-PFDoA



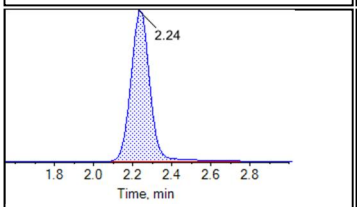
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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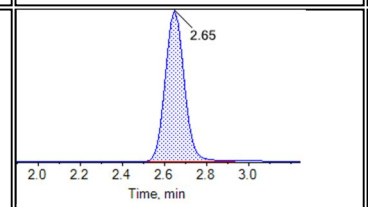
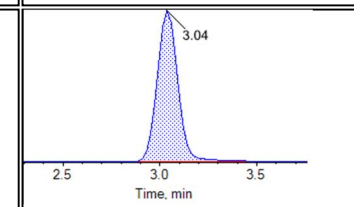
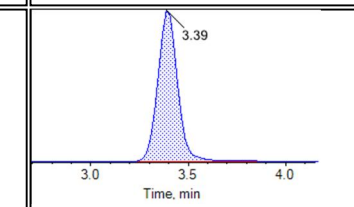


13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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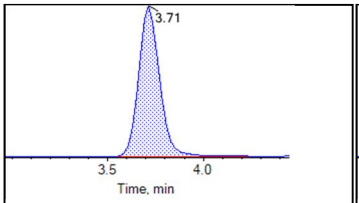
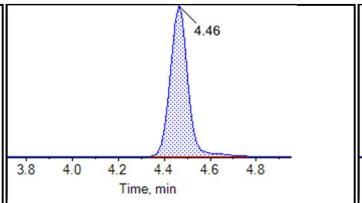
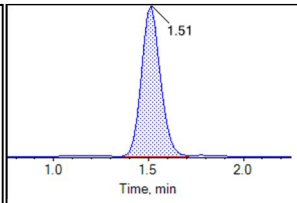


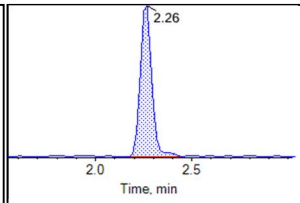
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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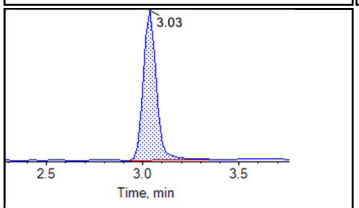

13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:30:49 PM

Sample Name	J8336MSD-FS(3)	**Injection Vial**	42
Sample ID	VC-PM324-SB02-0506-MSD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:19:23	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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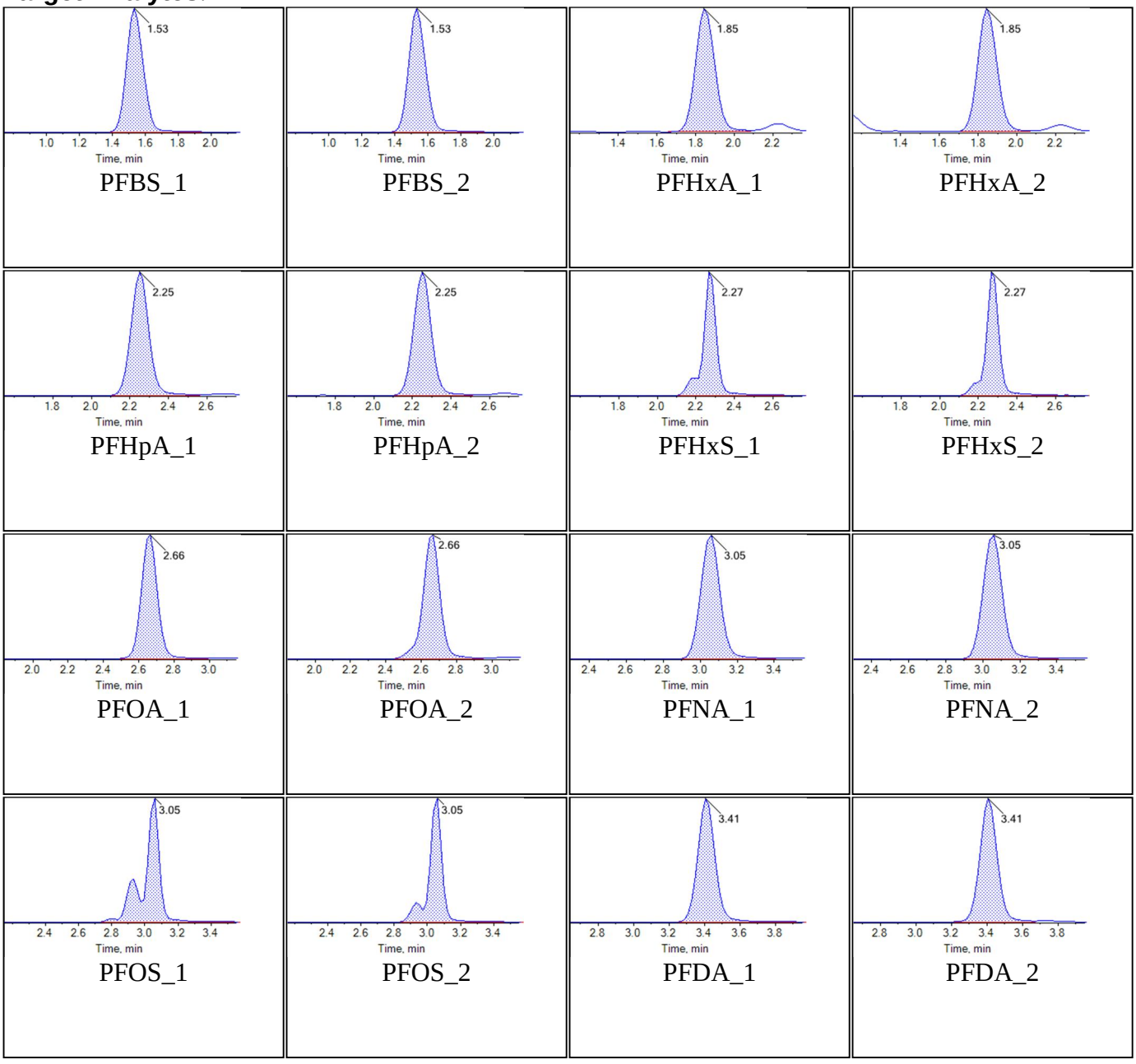

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Chromatogram Report

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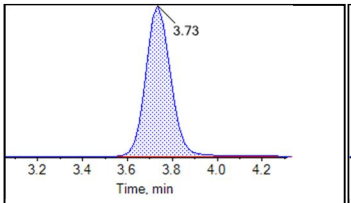

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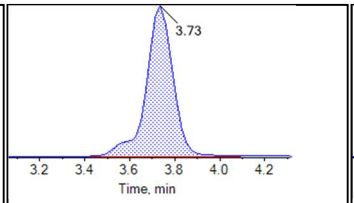
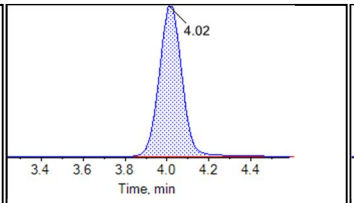


PFUnA_2



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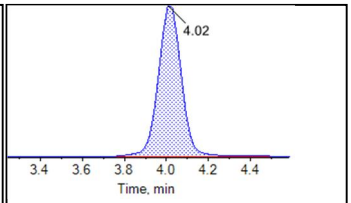
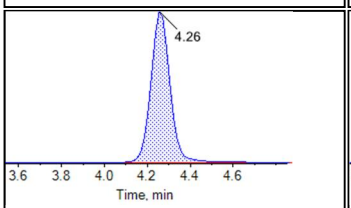
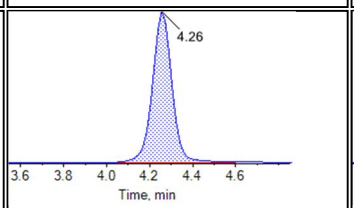


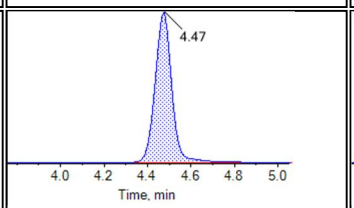
PFDoA_2



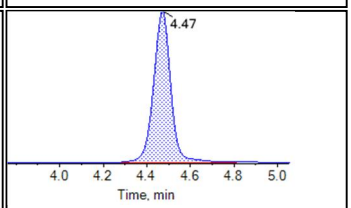
PFTrDA_1



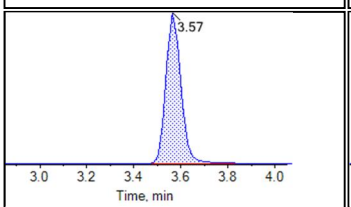
PFTrDA_2



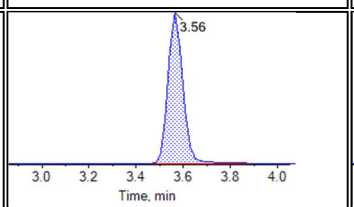
PFTeDA_1



PFTeDA_2



NMeFOSAA_1



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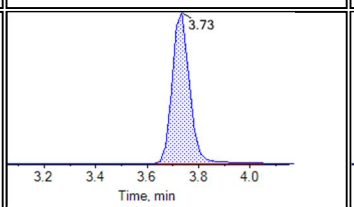
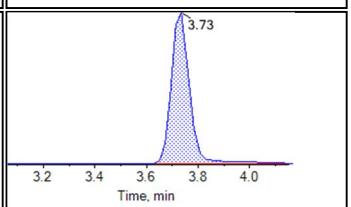
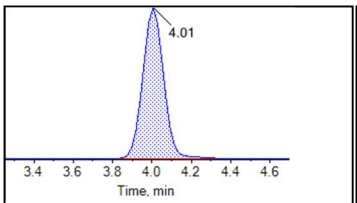


NEtFOSAA_1

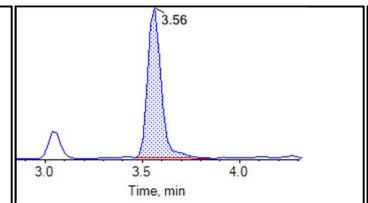


NEtFOSAA_2

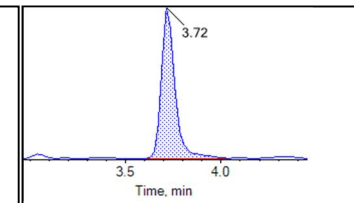
Internal Standards:



13C2-PFDoA



d3-MeFOSAA



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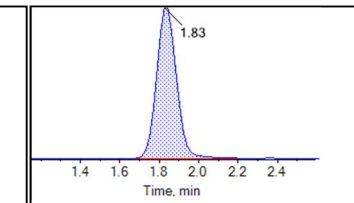
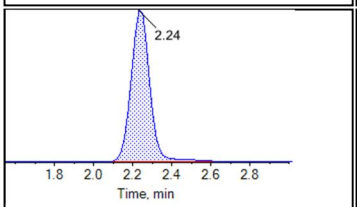
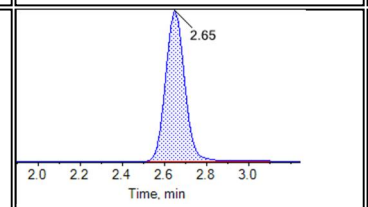


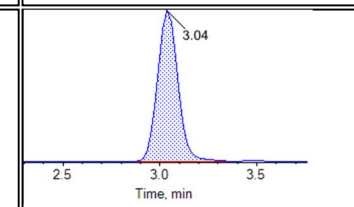
13C5-PFHxA



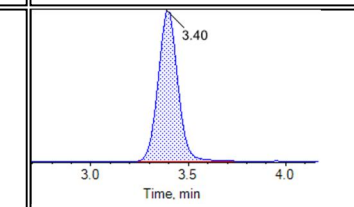
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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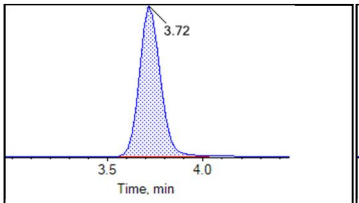
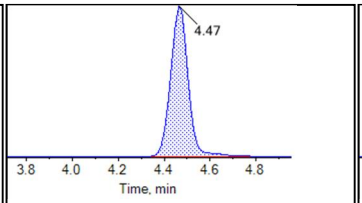
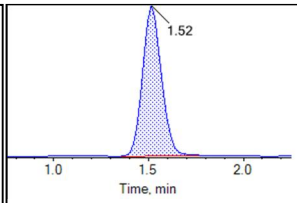


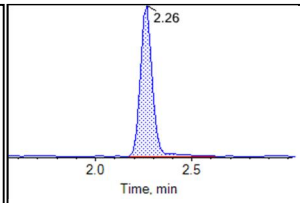
13C7-PFUnA



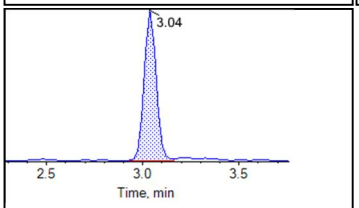
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Sample Name	KB77 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:30:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_BASE
Sample Comment			

Chromatograms

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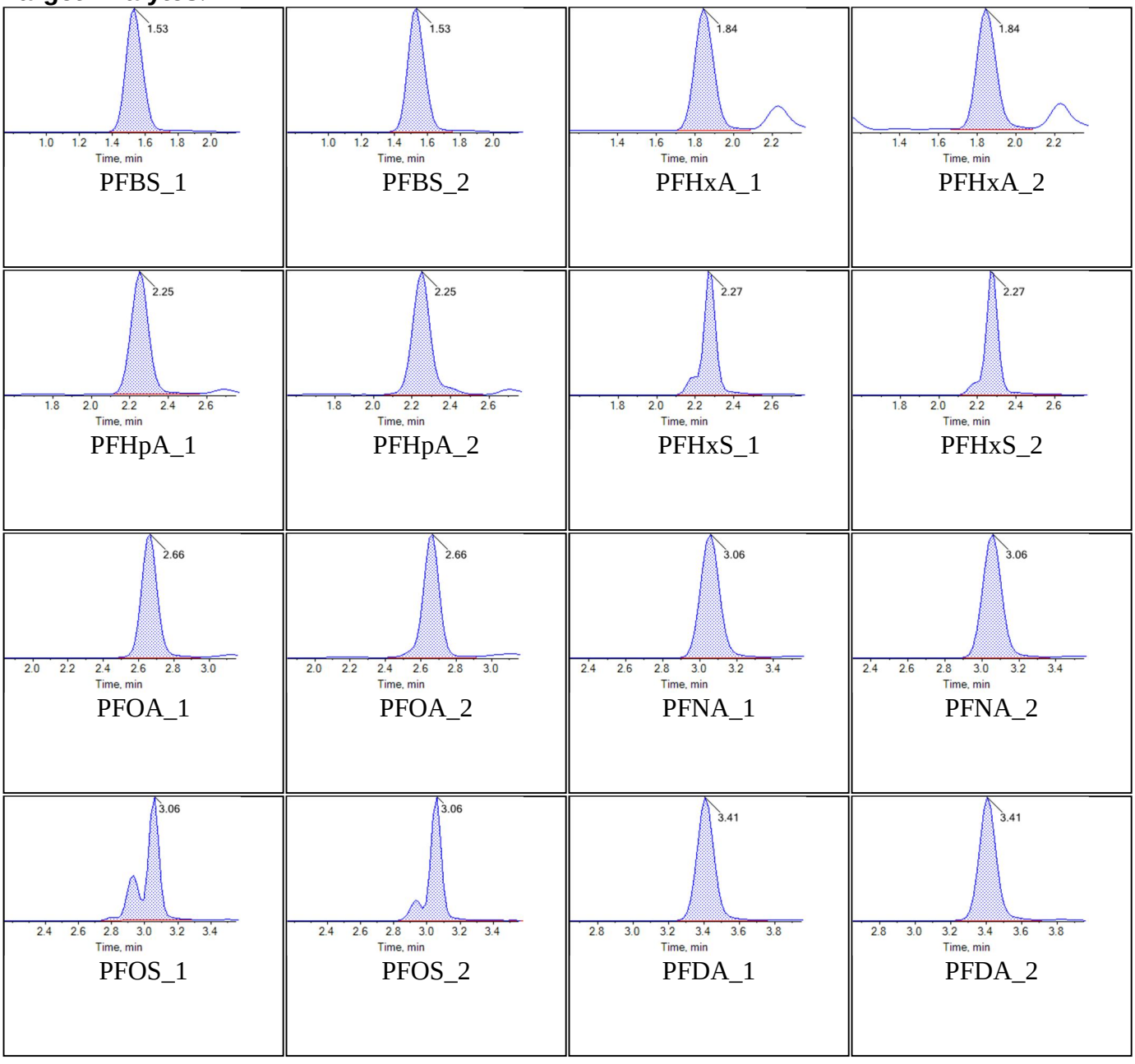

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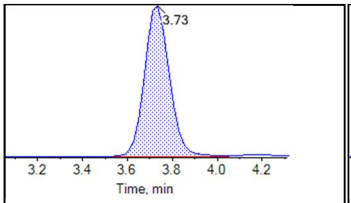

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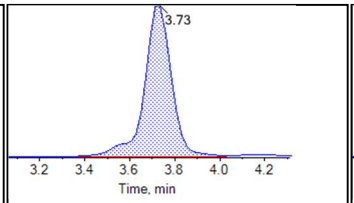

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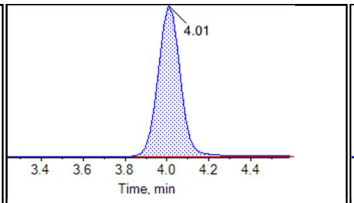

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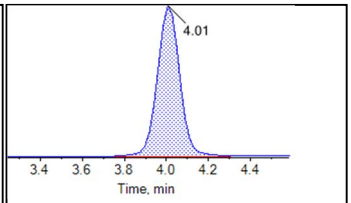

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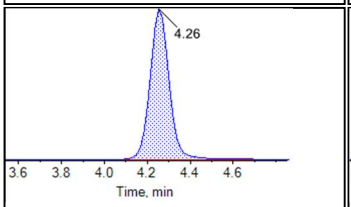

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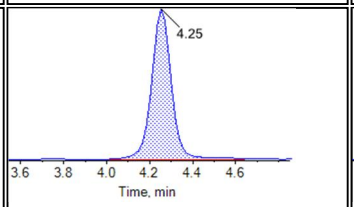

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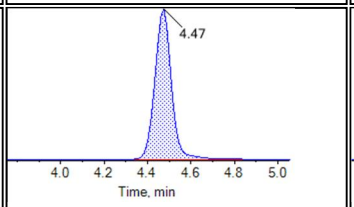

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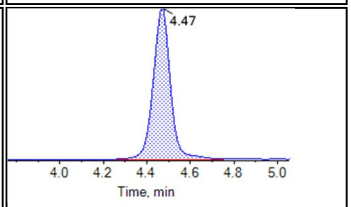

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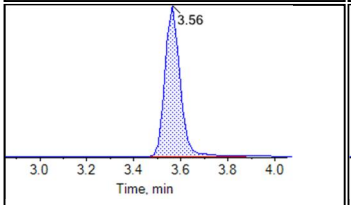

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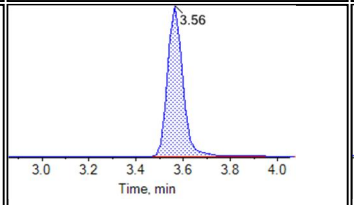

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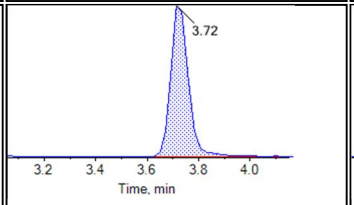

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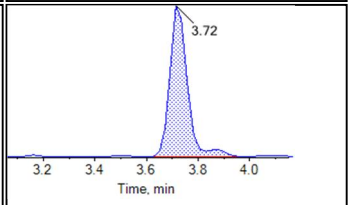

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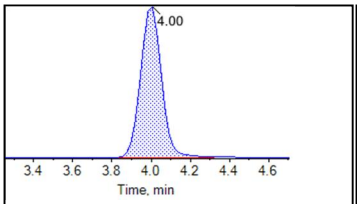
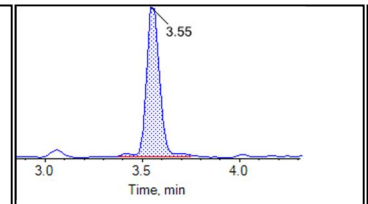
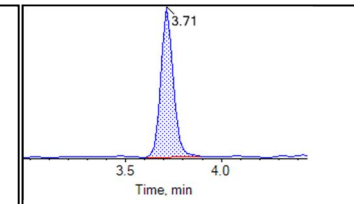


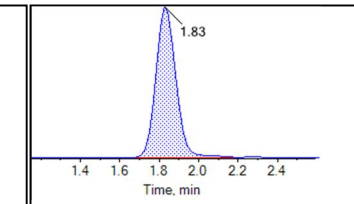
13C2-PFDoA



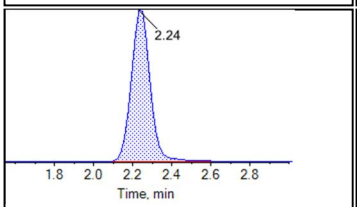
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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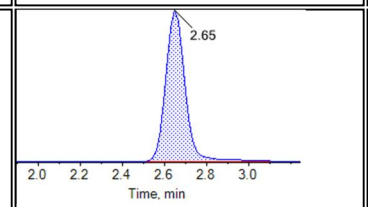
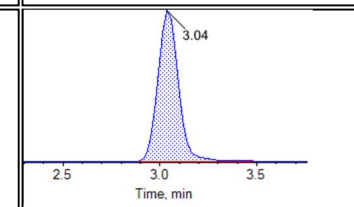
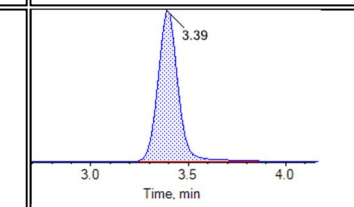


13C8-PFOA



13C9-PFNA



13C6-PFDA

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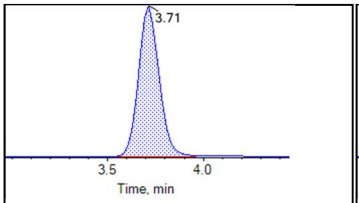
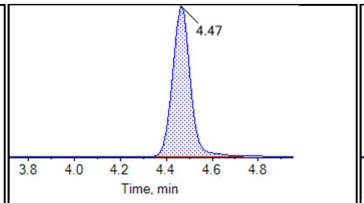
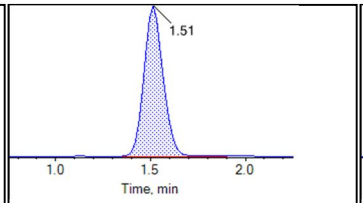


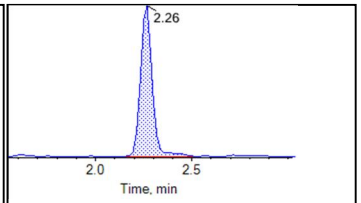
13C7-PFUnA



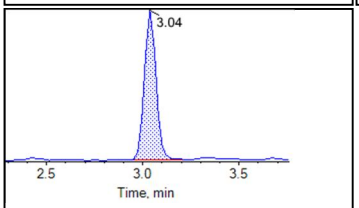
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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Printed: 19/10/2018 4:00:29 PM

Sample Name	KB73	**Injection Vial**	2
Sample ID	L1	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:40:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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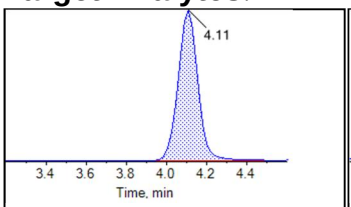
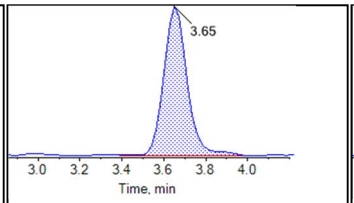
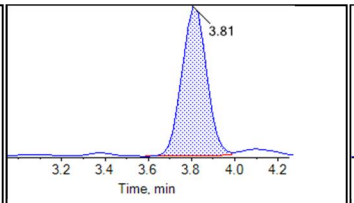


13C2-PFDoA



d3-MeFOSAA



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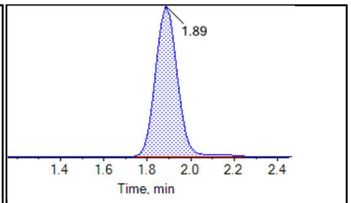
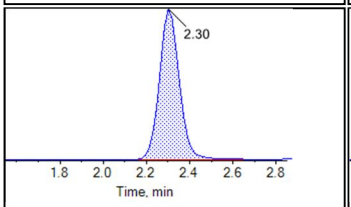
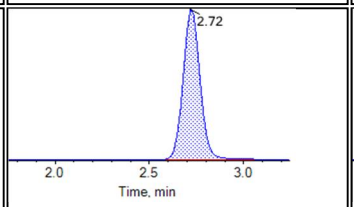


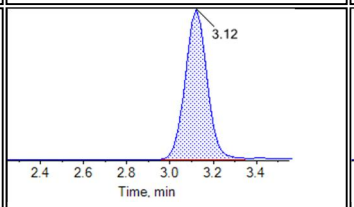
13C5-PFHxA



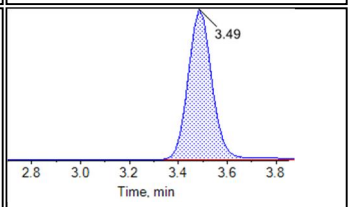
13C4-PFHpA



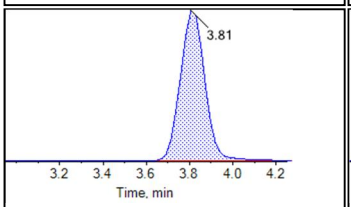
13C8-PFOA



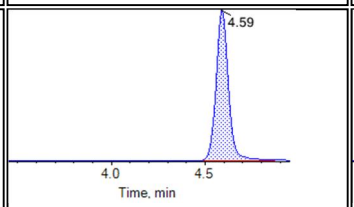
13C9-PFNA



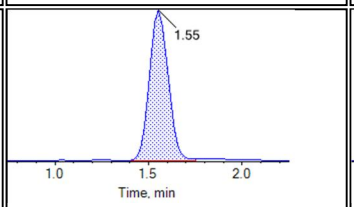
13C6-PFDA



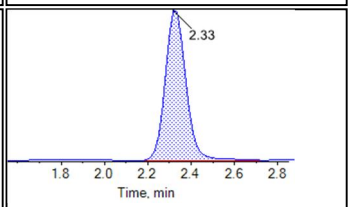
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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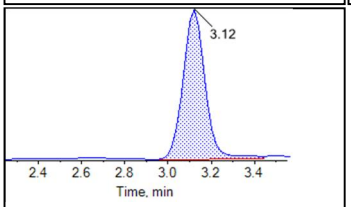

13C8-PFOS

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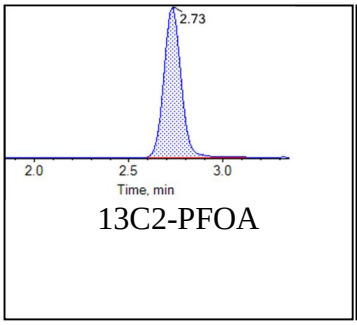
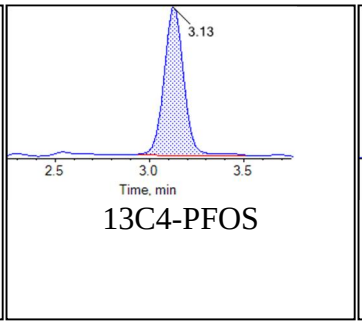
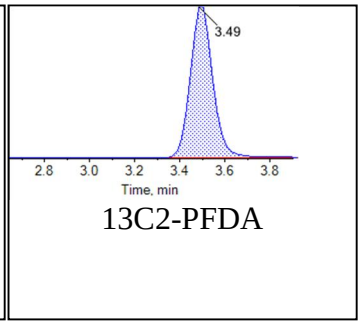
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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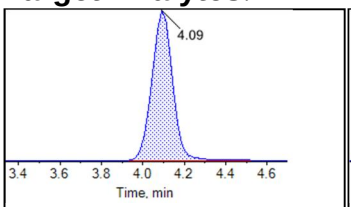
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:00:33 PM

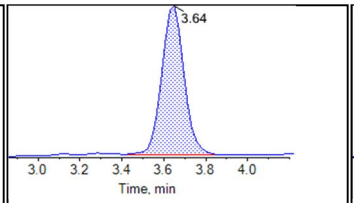
Sample Name	KB74	**Injection Vial**	3
Sample ID	L2	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T15:51:02	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

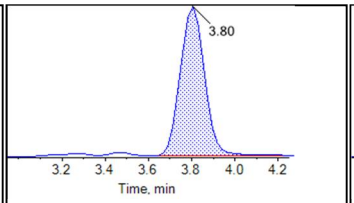
Target Analytes:



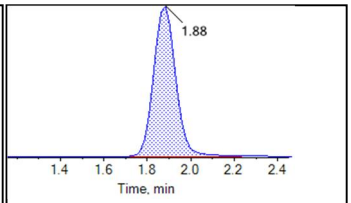
13C2-PFDoA



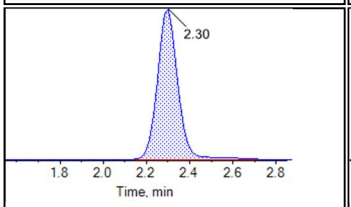
d3-MeFOSAA



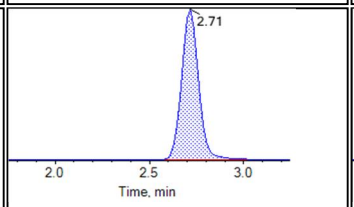
d5-EtFOSAA



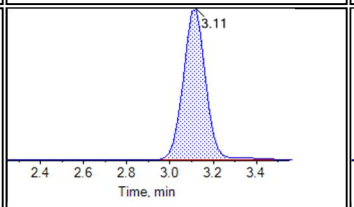
13C5-PFHxA



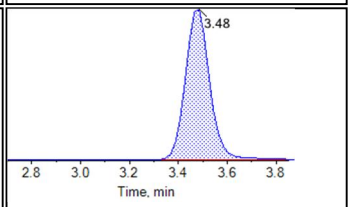
13C4-PFHpA



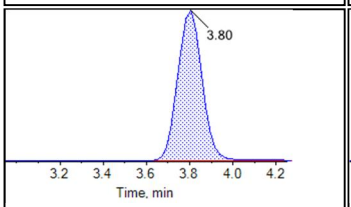
13C8-PFOA



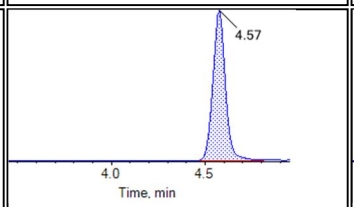
13C9-PFNA



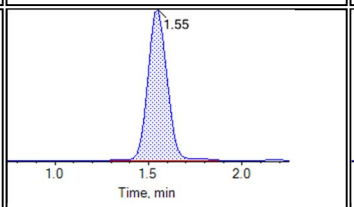
13C6-PFDA



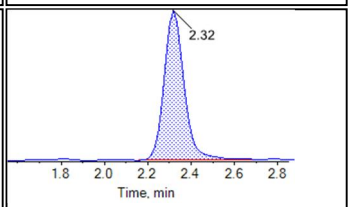
13C7-PFUnA



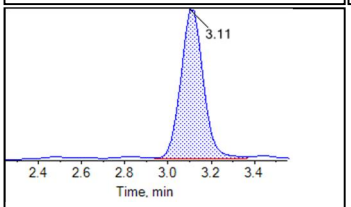
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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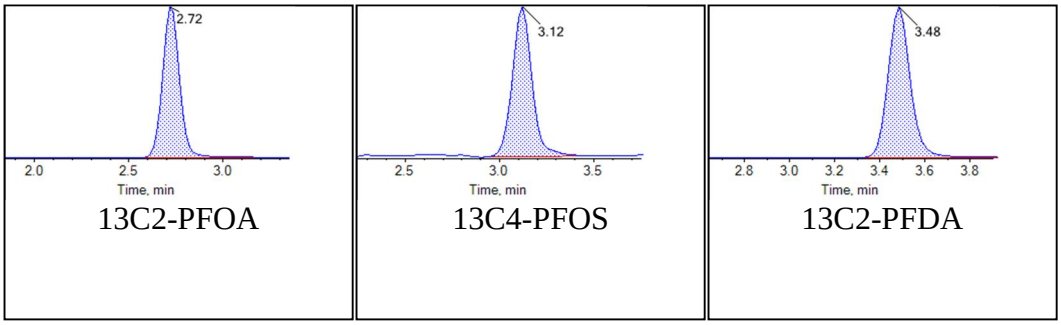
Printed: 19/10/2018 4:00:33 PM

Internal Standards:



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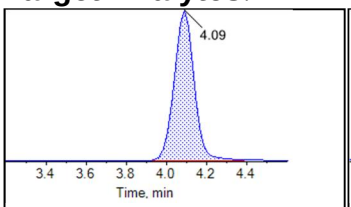
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:00:38 PM

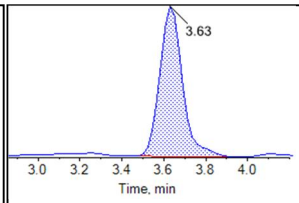
Sample Name	KB75	**Injection Vial**	4
Sample ID	L3	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:01:53	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

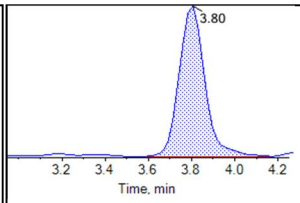
Target Analytes:



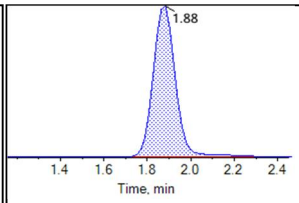
13C2-PFDoA



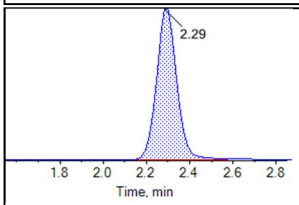
d3-MeFOSAA



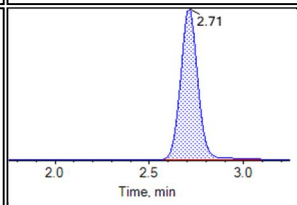
d5-EtFOSAA



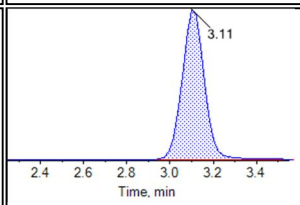
13C5-PFHxA



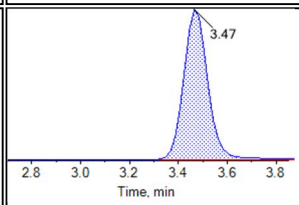
13C4-PFHpA



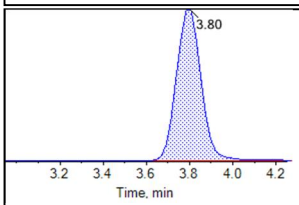
13C8-PFOA



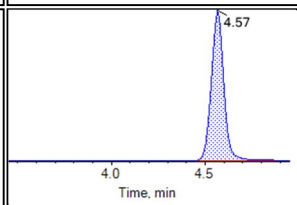
13C9-PFNA



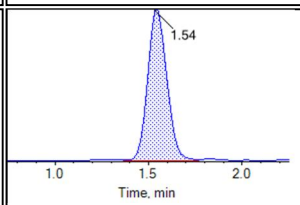
13C6-PFDA



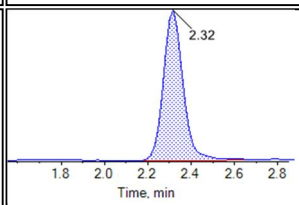
13C7-PFUnA



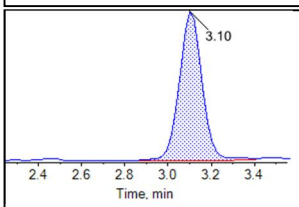
13C2-PFTeDA



13C3-PFBS

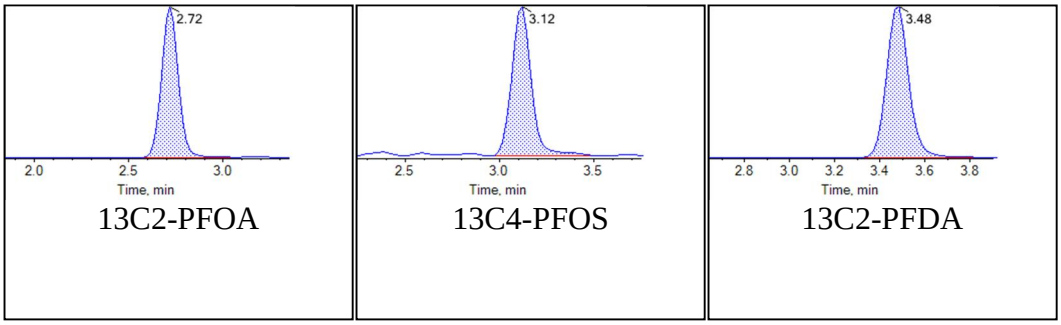


13C3-PFHxS



13C8-PFOS

Internal Standards:



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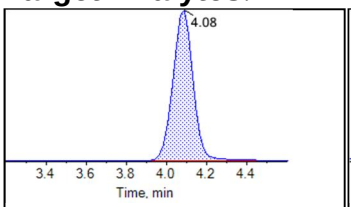
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:00:42 PM

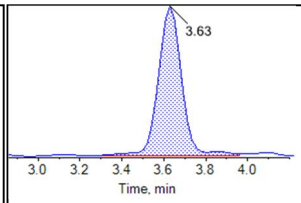
Sample Name	KB76	**Injection Vial**	5
Sample ID	L4	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:12:44	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

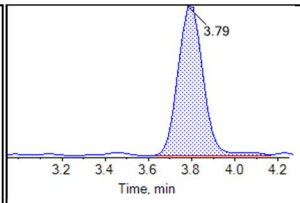
Target Analytes:



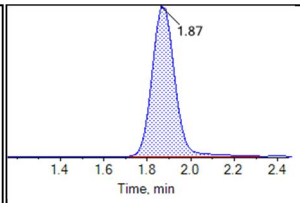
13C2-PFDoA



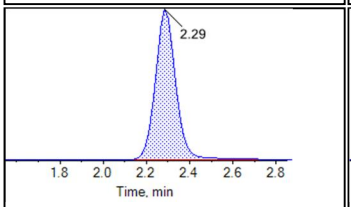
d3-MeFOSAA



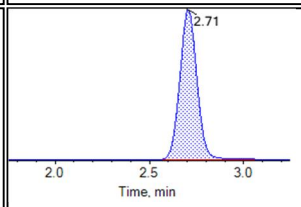
d5-EtFOSAA



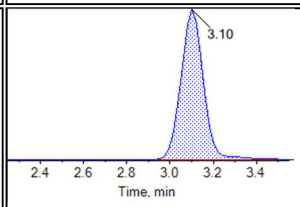
13C5-PFHxA



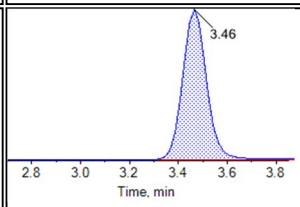
13C4-PFHpA



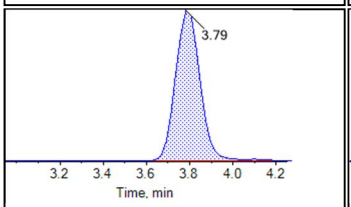
13C8-PFOA



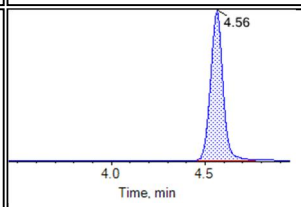
13C9-PFNA



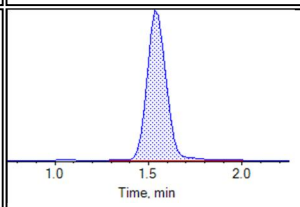
13C6-PFDA



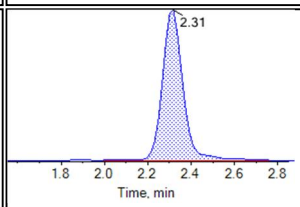
13C7-PFUnA



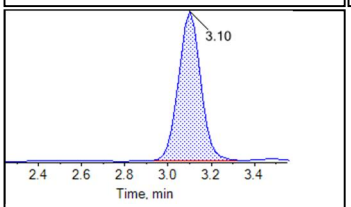
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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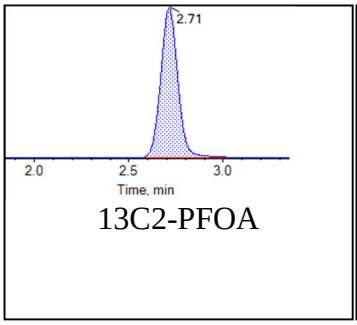
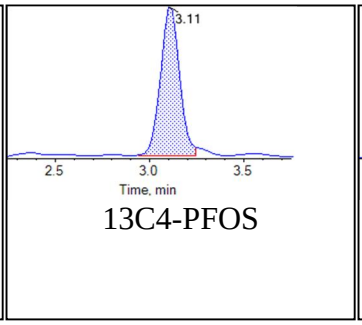
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:00:42 PM

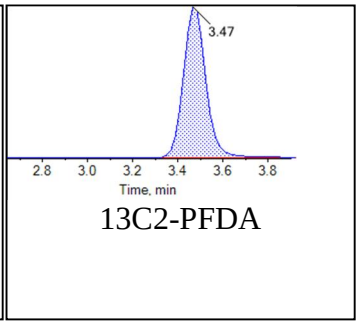
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

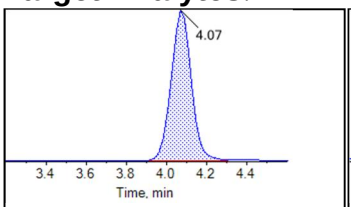
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:00:47 PM

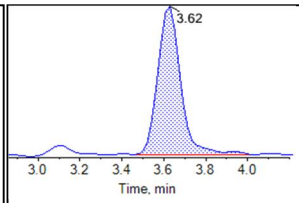
Sample Name	KB77	**Injection Vial**	6
Sample ID	L5	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:23:36	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

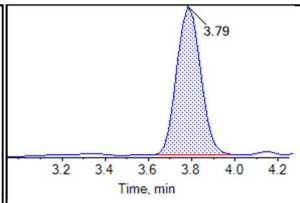
Target Analytes:



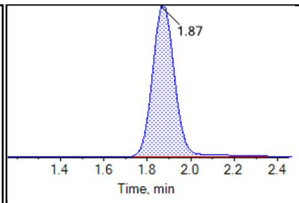
13C2-PFDoA



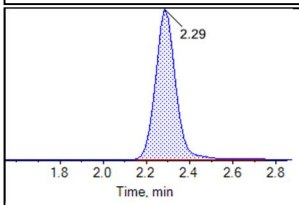
d3-MeFOSAA



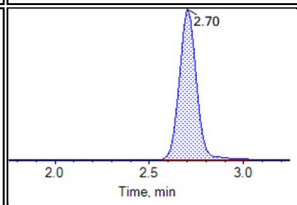
d5-EtFOSAA



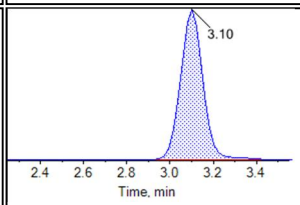
13C5-PFHxA



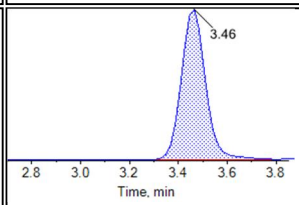
13C4-PFHpA



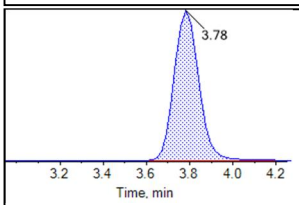
13C8-PFOA



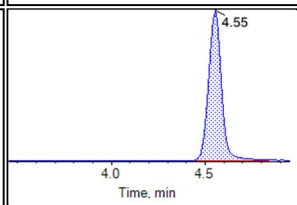
13C9-PFNA



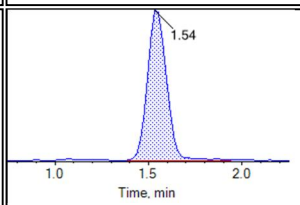
13C6-PFDA



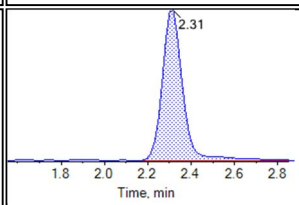
13C7-PFUnA



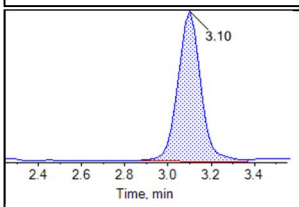
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
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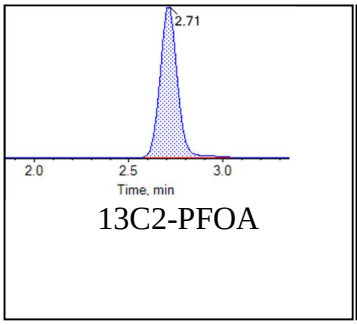
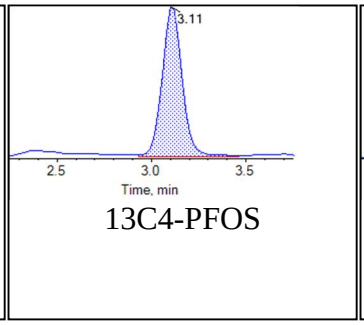
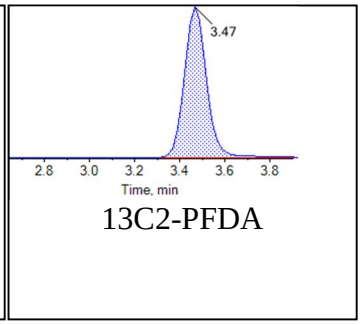
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:00:52 PM

Sample Name	KB78	**Injection Vial**	7
Sample ID	L6	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:34:28	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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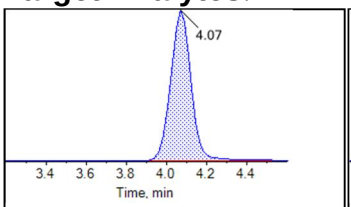
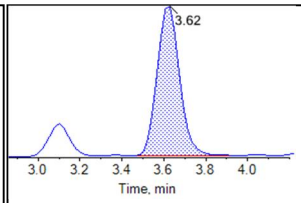
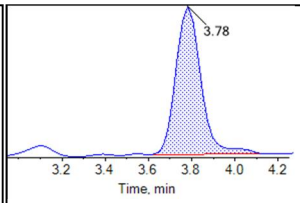


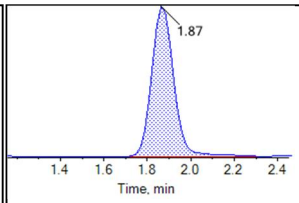
13C2-PFDoA



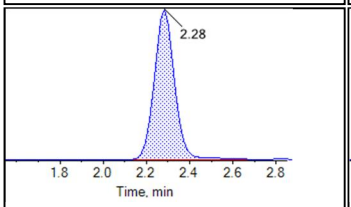
d3-MeFOSAA



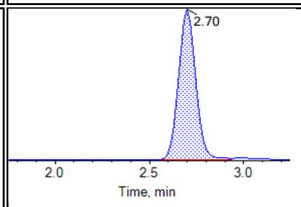
d5-EtFOSAA



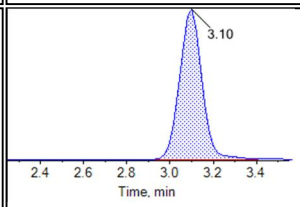
13C5-PFHxA



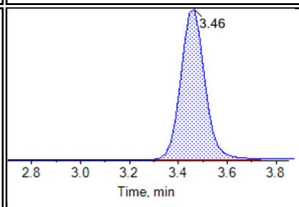
13C4-PFHpA



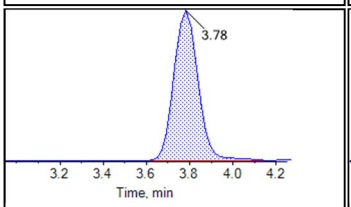
13C8-PFOA



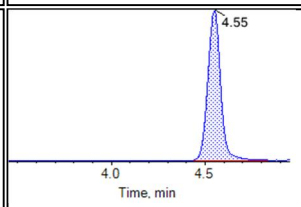
13C9-PFNA



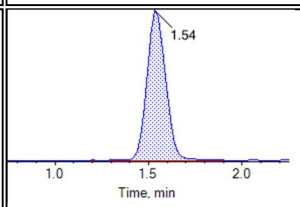
13C6-PFDA



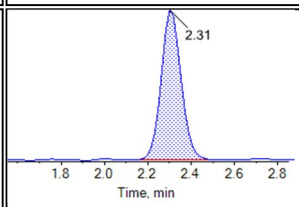
13C7-PFUnA



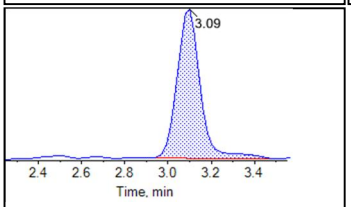
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS

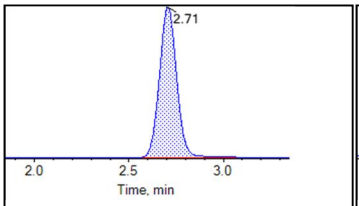


13C8-PFOS

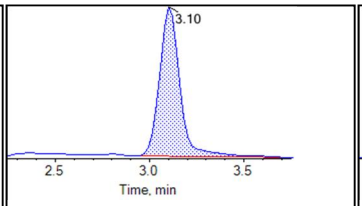
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:00:52 PM

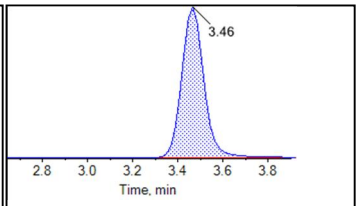
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:00:56 PM

Sample Name	KB79	**Injection Vial**	8
Sample ID	L7	**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:45:19	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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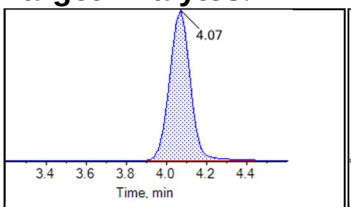
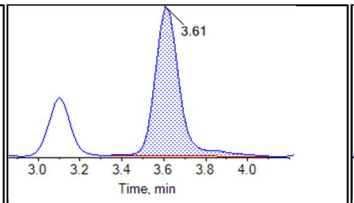
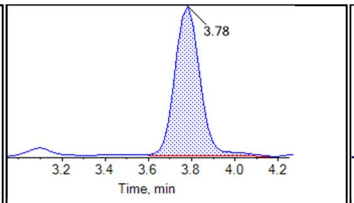


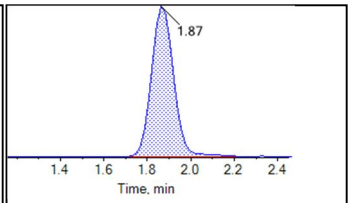
13C2-PFDoA



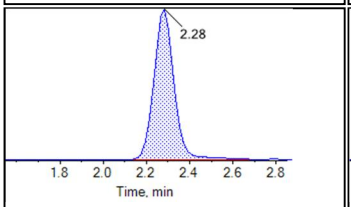
d3-MeFOSAA



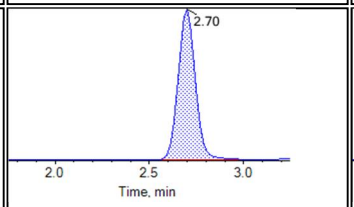
d5-EtFOSAA



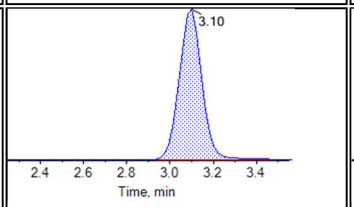
13C5-PFHxA



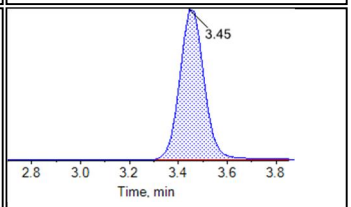
13C4-PFHpA



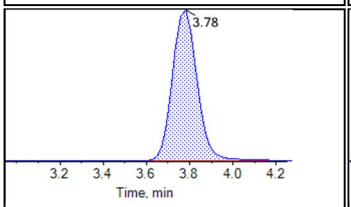
13C8-PFOA



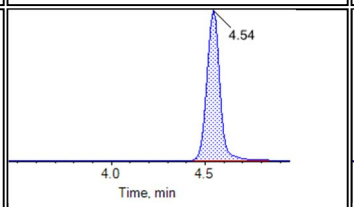
13C9-PFNA



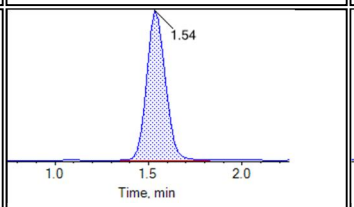
13C6-PFDA



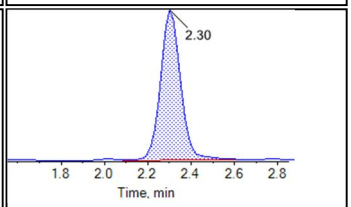
13C7-PFUnA



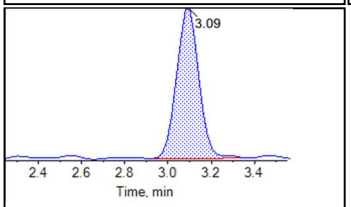
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
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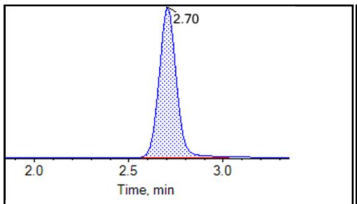
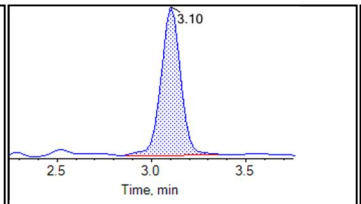
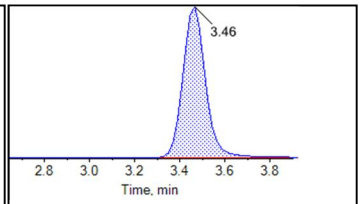


13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

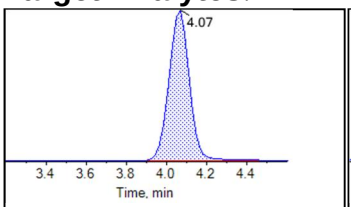
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:01:00 PM

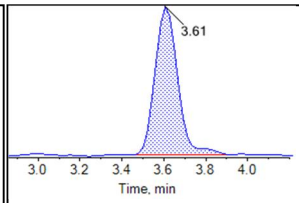
Sample Name	KB80 IB	**Injection Vial**	9
Sample ID	Instrument Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T16:56:10	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

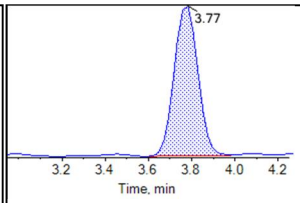
Target Analytes:



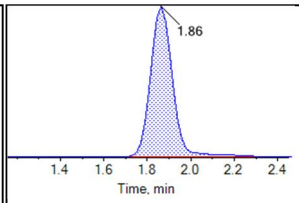
13C2-PFDoA



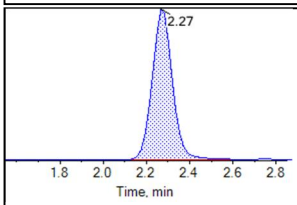
d3-MeFOSAA



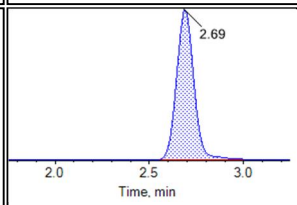
d5-EtFOSAA



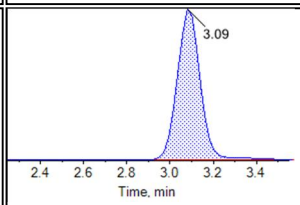
13C5-PFHxA



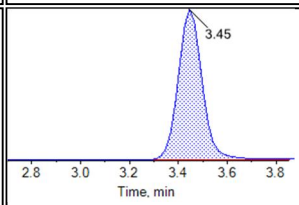
13C4-PFHpA



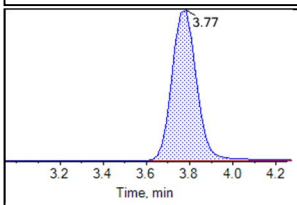
13C8-PFOA



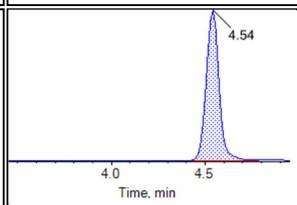
13C9-PFNA



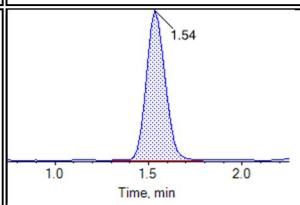
13C6-PFDA



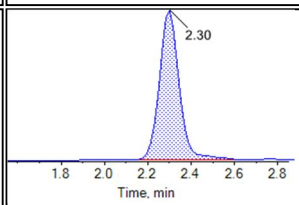
13C7-PFUnA



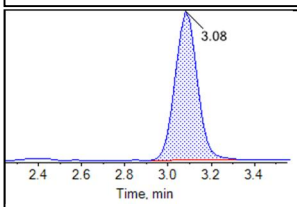
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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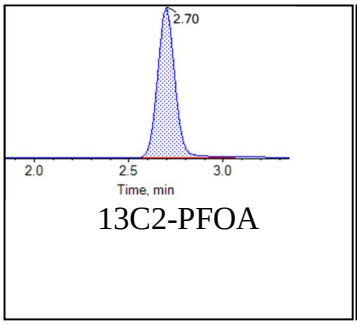
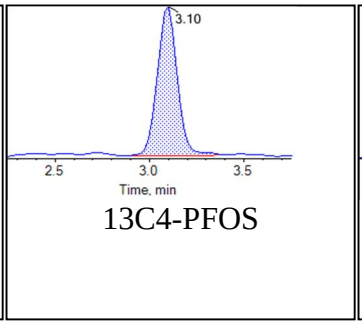
Printed: 19/10/2018 4:01:00 PM

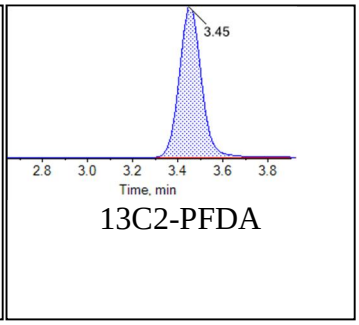
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:01:08 PM

Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID	ICC	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-08T17:07:01	**Data File**	18-0601.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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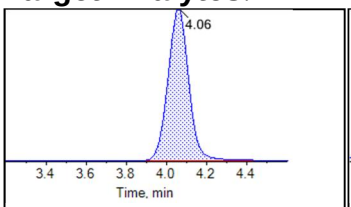
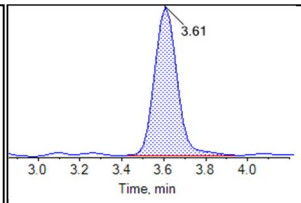
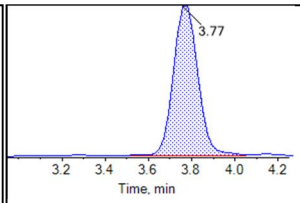


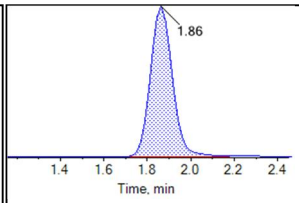
13C2-PFDoA



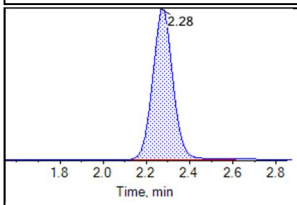
d3-MeFOSAA



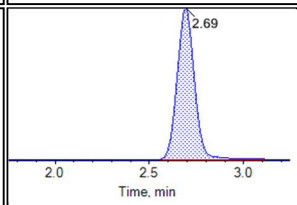
d5-EtFOSAA



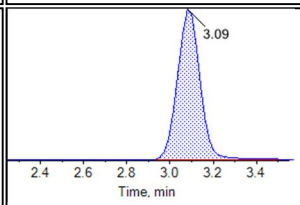
13C5-PFHxA



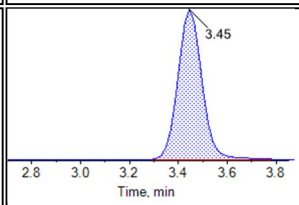
13C4-PFHpA



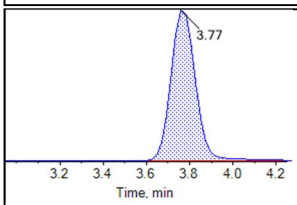
13C8-PFOA



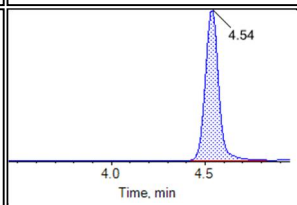
13C9-PFNA



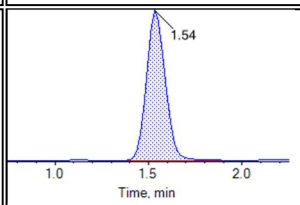
13C6-PFDA



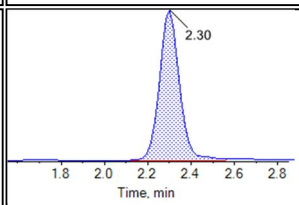
13C7-PFUnA



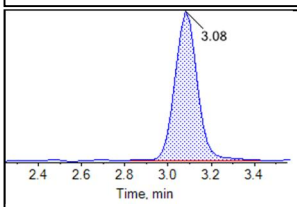
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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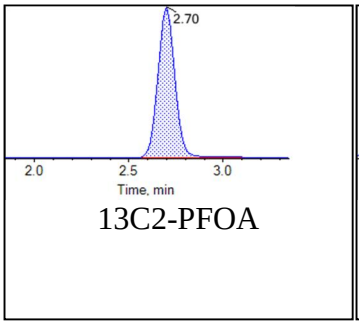

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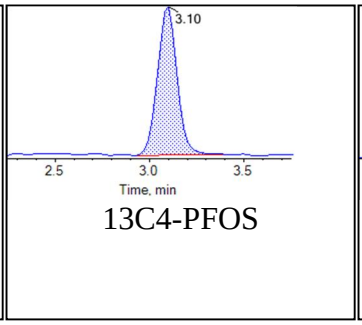
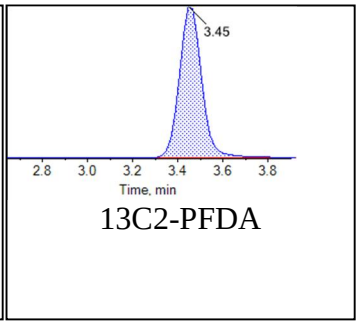


13C4-PFOS



13C2-PFDA

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Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:01:13 PM

Sample Name	KB76 CCV	**Injection Vial**	7
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T03:58:51	**Data File**	18-0581_18-0584A.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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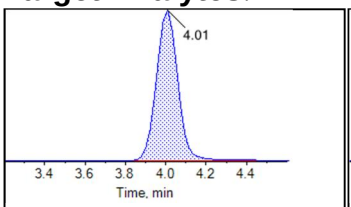
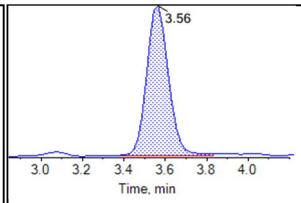
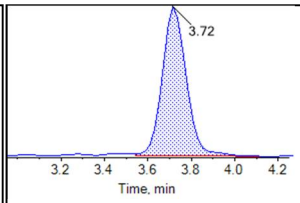


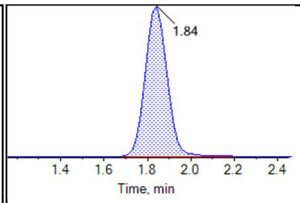
13C2-PFDoA



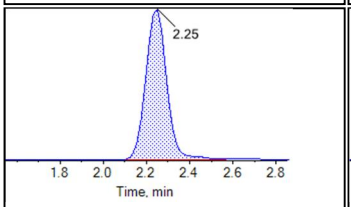
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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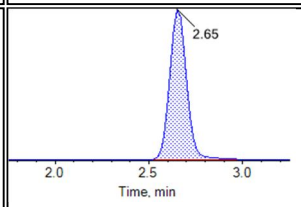
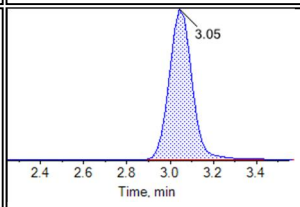
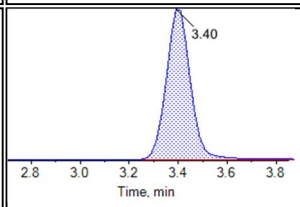


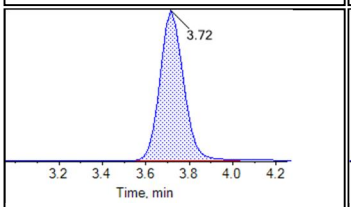
13C8-PFOA



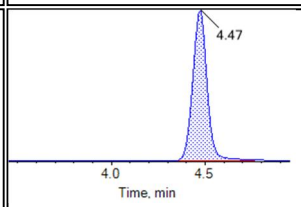
13C9-PFNA



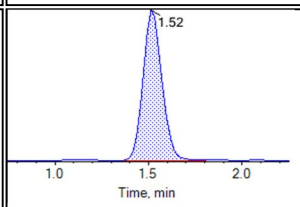
13C6-PFDA



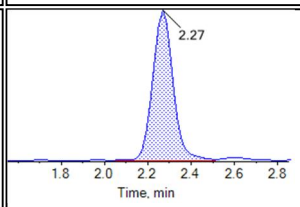
13C7-PFUnA



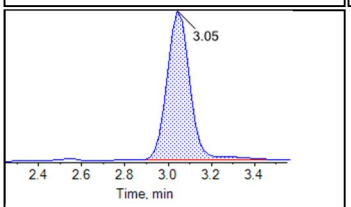
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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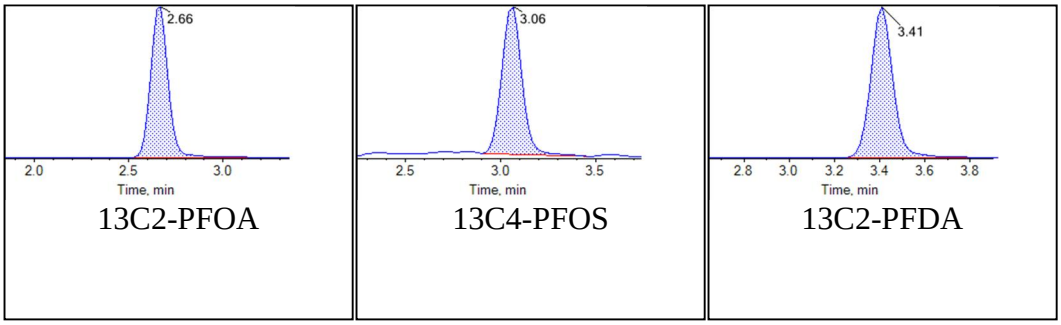

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Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:01:18 PM

Sample Name	CR888PB-FS(3)	**Injection Vial**	9
Sample ID	Procedural Blank	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:20:36	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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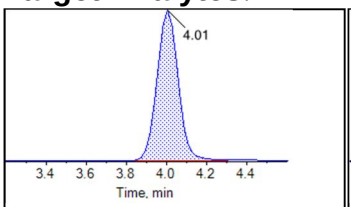
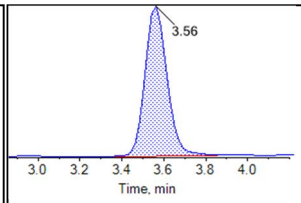
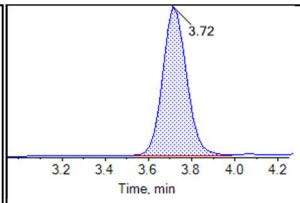


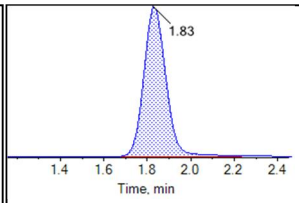
13C2-PFDoA



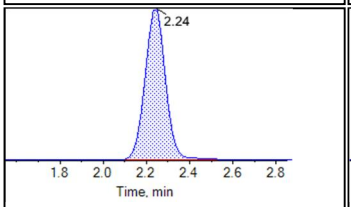
d3-MeFOSAA



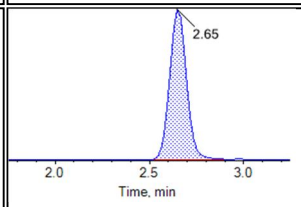
d5-EtFOSAA



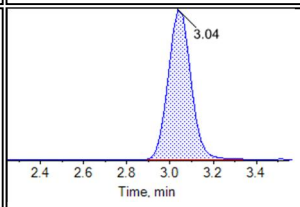
13C5-PFHxA



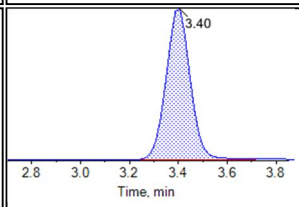
13C4-PFHpA



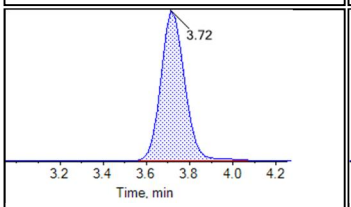
13C8-PFOA



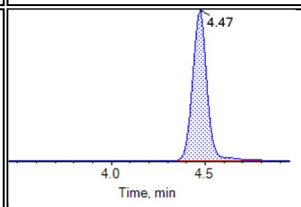
13C9-PFNA



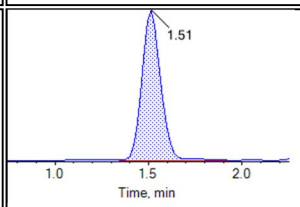
13C6-PFDA



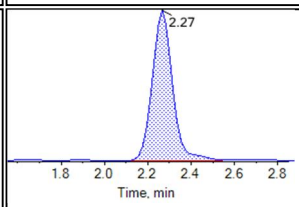
13C7-PFUnA



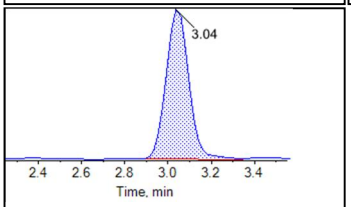
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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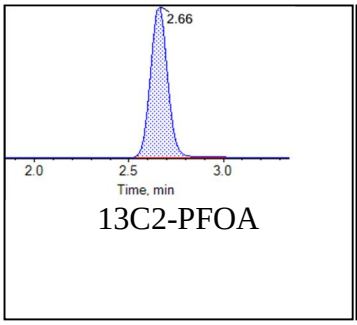
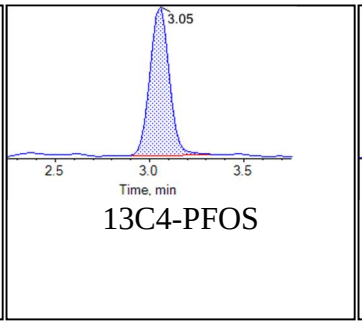
Printed: 19/10/2018 4:01:18 PM

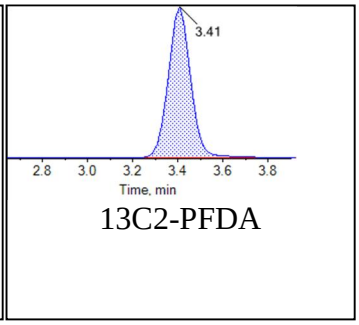
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

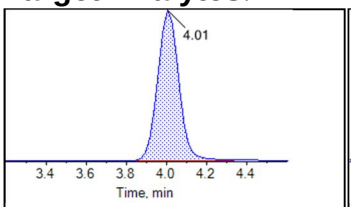
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:01:23 PM

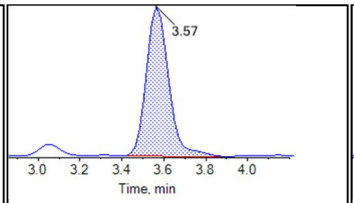
Sample Name	CR889LCS-FS(3)	**Injection Vial**	10
Sample ID	Laboratory Control Sample	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:31:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

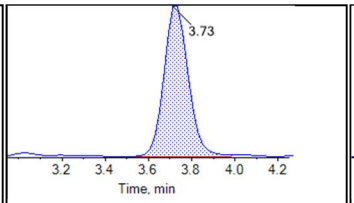
Target Analytes:



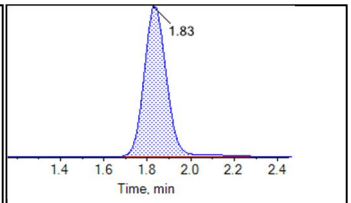
13C2-PFDoA



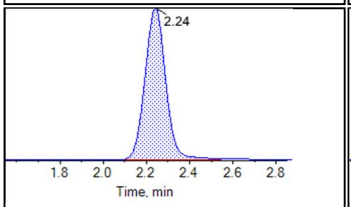
d3-MeFOSAA



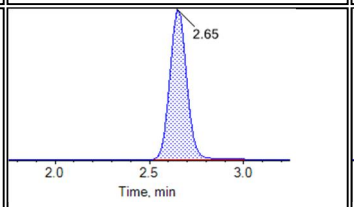
d5-EtFOSAA



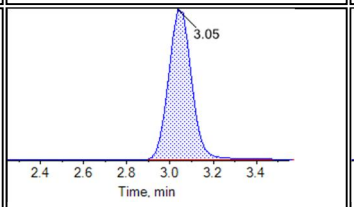
13C5-PFHxA



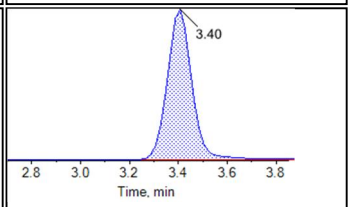
13C4-PFHpA



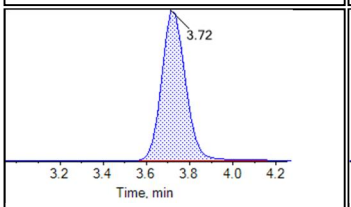
13C8-PFOA



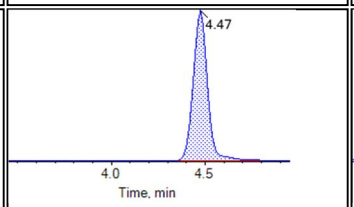
13C9-PFNA



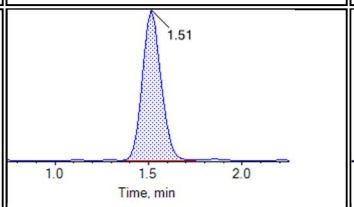
13C6-PFDA



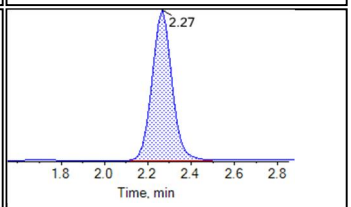
13C7-PFUnA



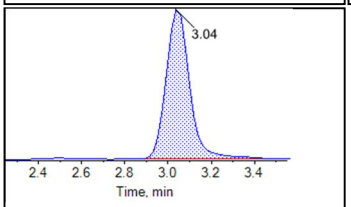
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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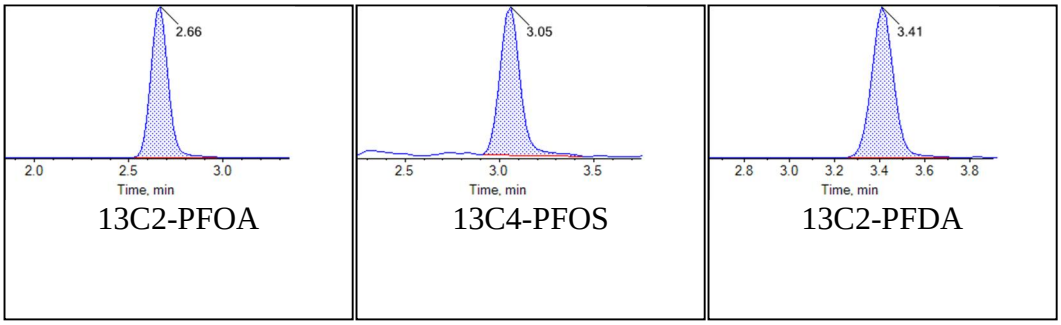
Printed: 19/10/2018 4:01:23 PM

Internal Standards:



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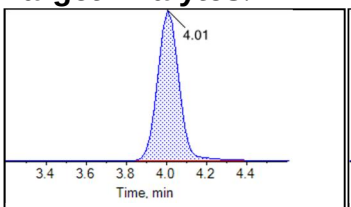
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:01:28 PM

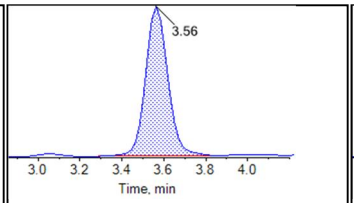
Sample Name	J8310-FS(3)	**Injection Vial**	11
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:42:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

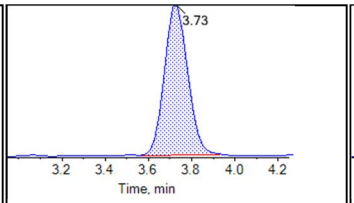
Target Analytes:



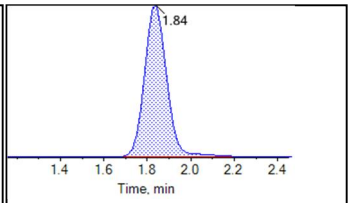
13C2-PFDoA



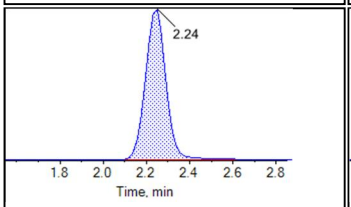
d3-MeFOSAA



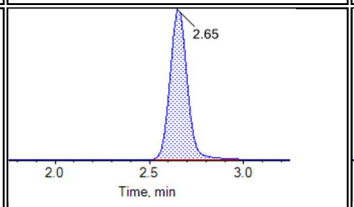
d5-EtFOSAA



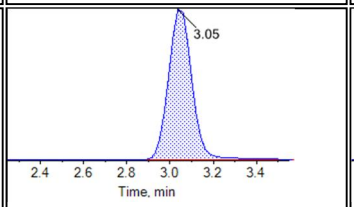
13C5-PFHxA



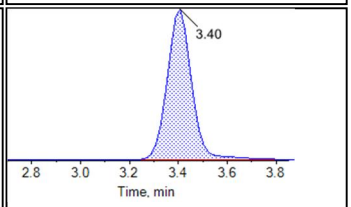
13C4-PFHpA



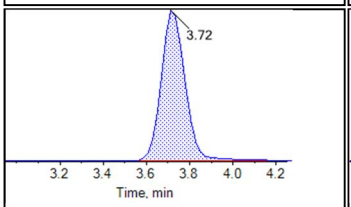
13C8-PFOA



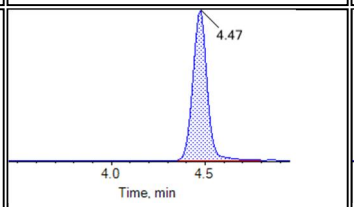
13C9-PFNA



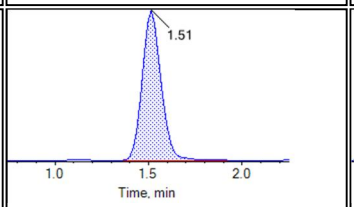
13C6-PFDA



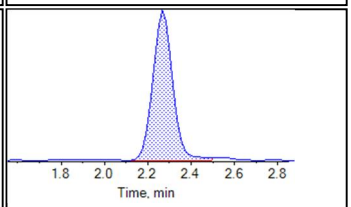
13C7-PFUnA



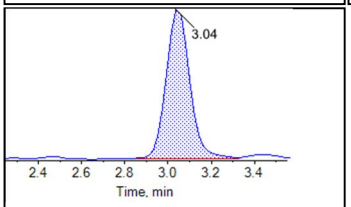
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS

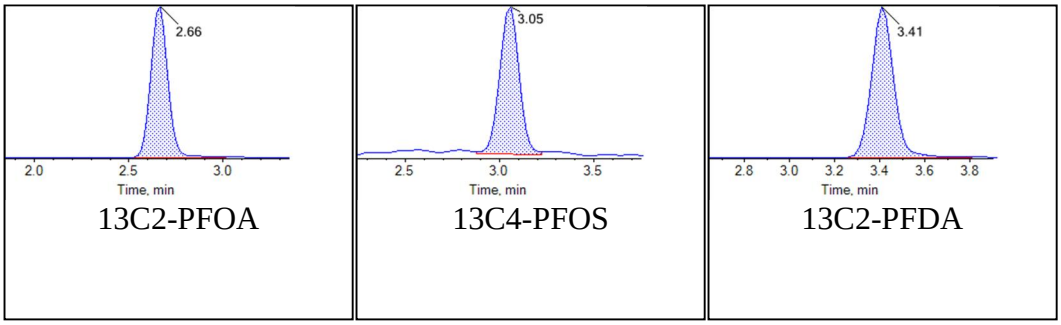


13C8-PFOS

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:01:28 PM

Internal Standards:



BATTELLE

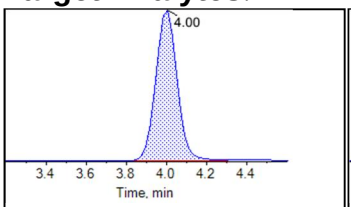
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:01:33 PM

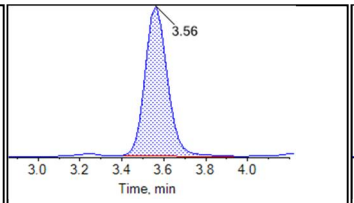
Sample Name	J8310-FS-D(5)	**Injection Vial**	12
Sample ID	VC-PM323-324-SS01-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T04:53:13	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

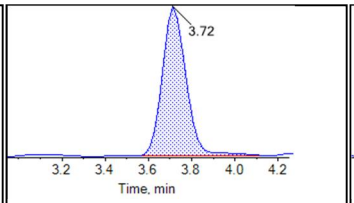
Target Analytes:



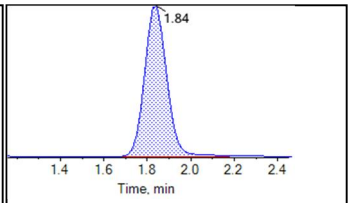
13C2-PFDoA



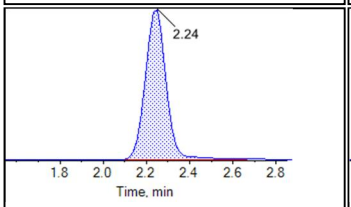
d3-MeFOSAA



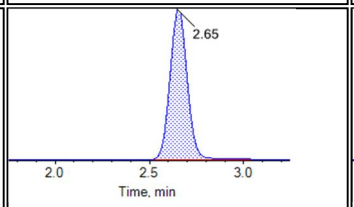
d5-EtFOSAA



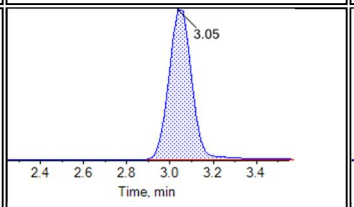
13C5-PFHxA



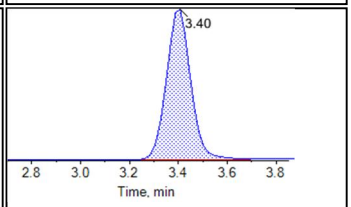
13C4-PFHpA



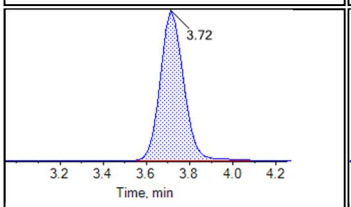
13C8-PFOA



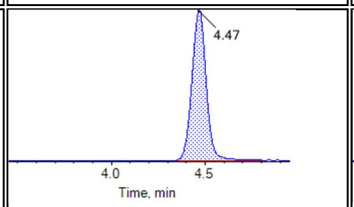
13C9-PFNA



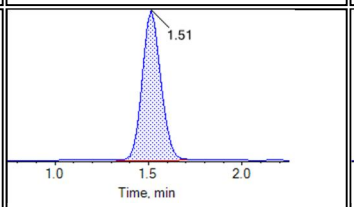
13C6-PFDA



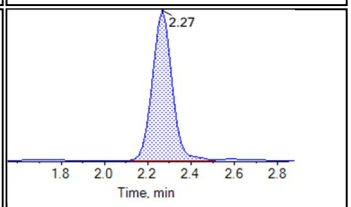
13C7-PFUnA



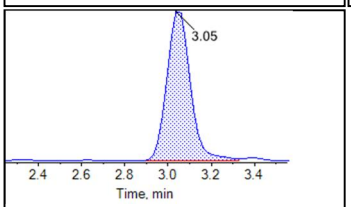
13C2-PFTeDA



13C3-PFBS

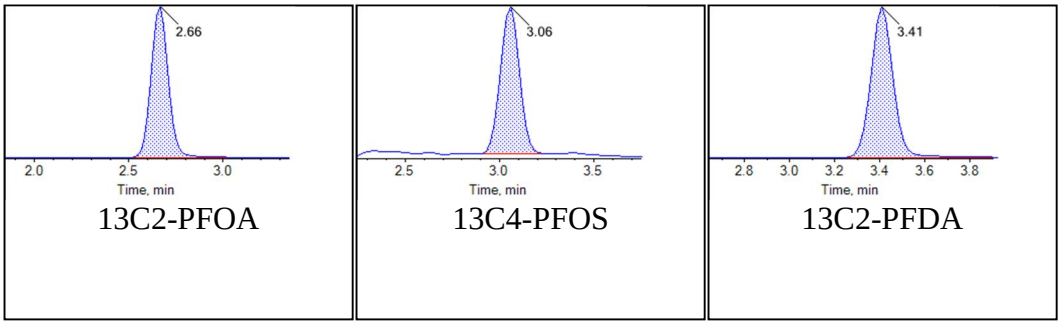


13C3-PFHxS



13C8-PFOS

Internal Standards:



BATTELLE

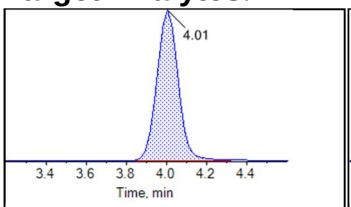
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:01:38 PM

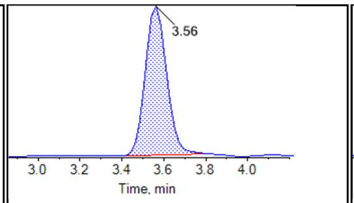
Sample Name	J8311-FS(3)	**Injection Vial**	13
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:04:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

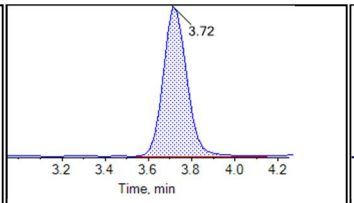
Target Analytes:



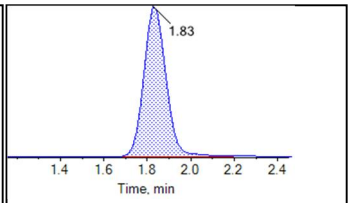
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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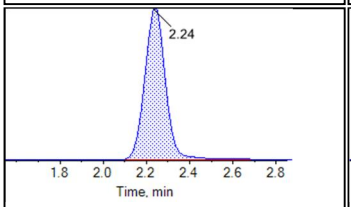
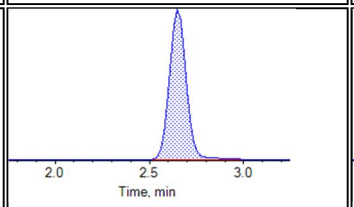
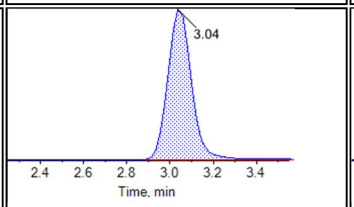


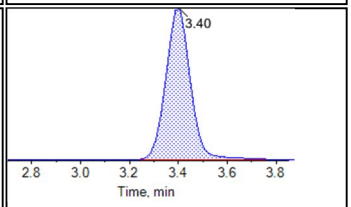
13C4-PFHpA



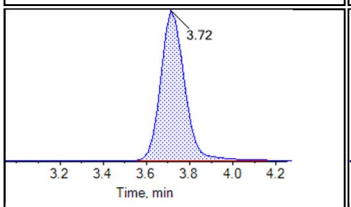
13C8-PFOA



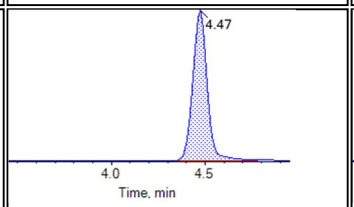
13C9-PFNA



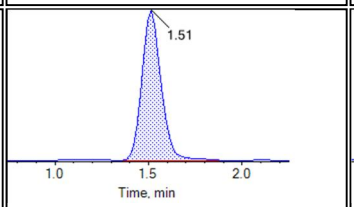
13C6-PFDA



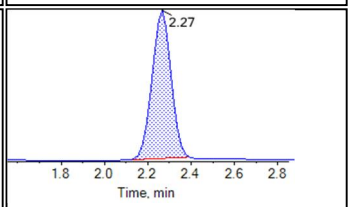
13C7-PFUnA



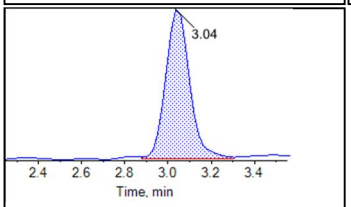
13C2-PFTeDA



13C3-PFBS

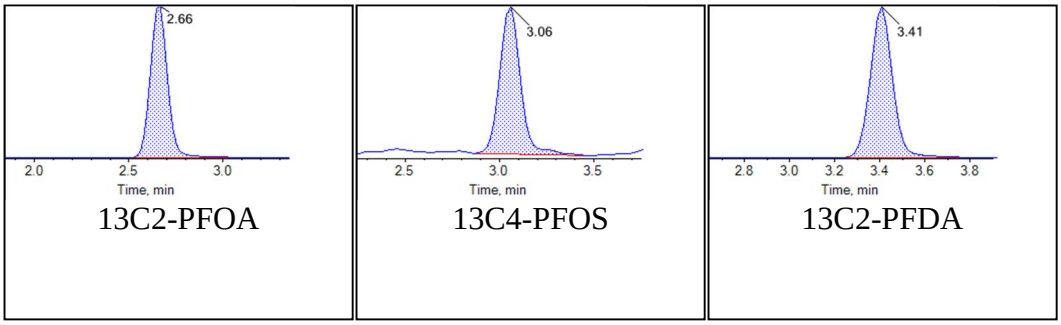


13C3-PFHxS



13C8-PFOS

Internal Standards:



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Chromatogram Report

Created with Analyst Reporter
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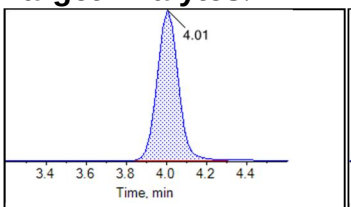
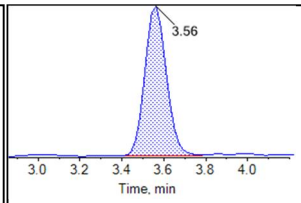
Sample Name	J8311-FS-D(5)	**Injection Vial**	14
Sample ID	VC-PM323-324-SB01-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:14:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

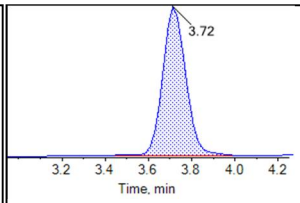
Target Analytes:



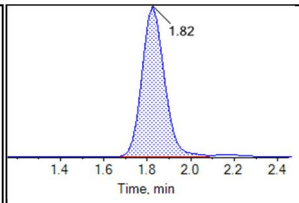
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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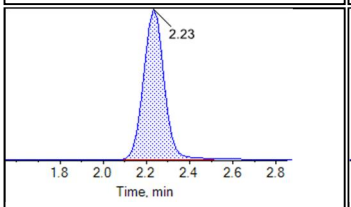

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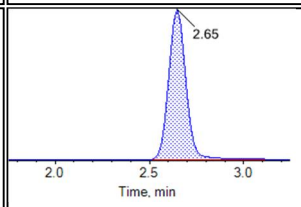
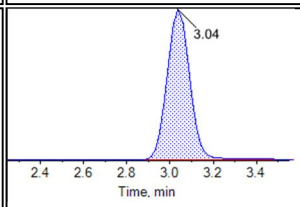
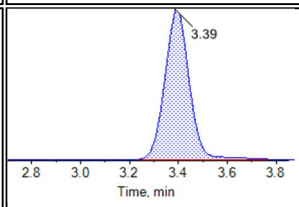


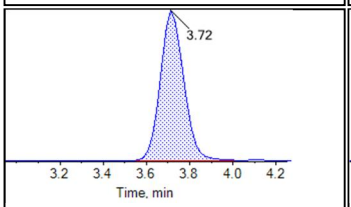
13C8-PFOA



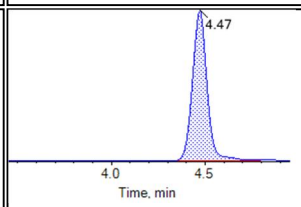
13C9-PFNA



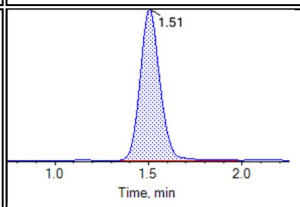
13C6-PFDA



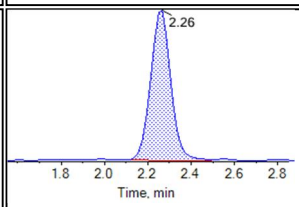
13C7-PFUnA



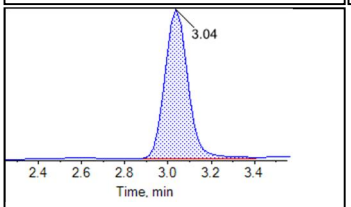
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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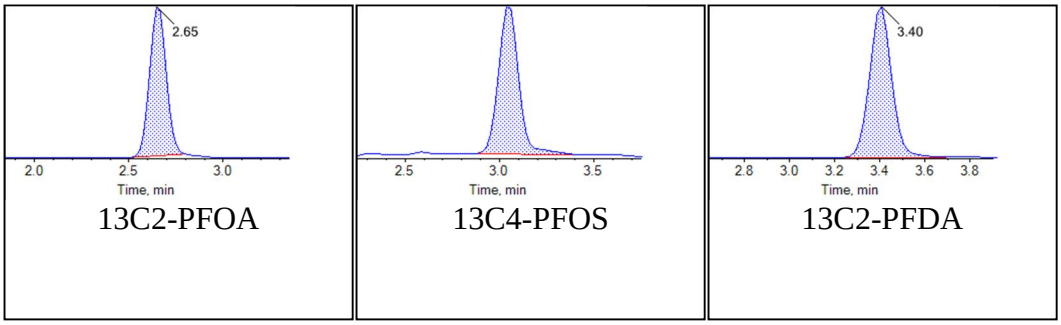
Printed: 19/10/2018 4:01:43 PM

Internal Standards:



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Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:01:47 PM

Sample Name	J8312-FS(3)	**Injection Vial**	15
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:25:51	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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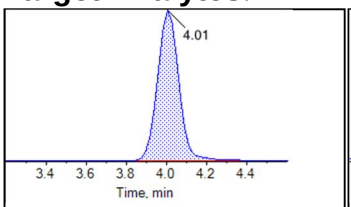
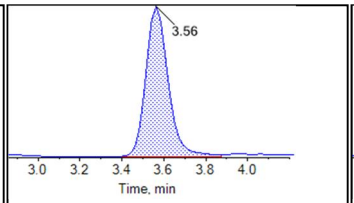
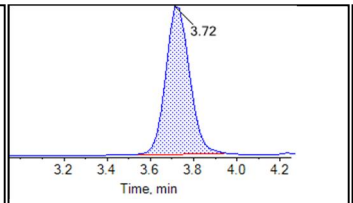


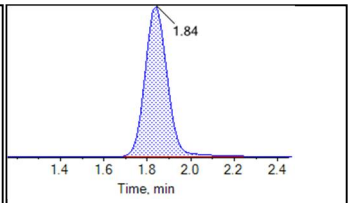
13C2-PFDoA



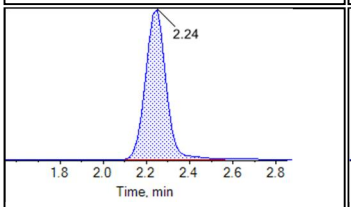
d3-MeFOSAA



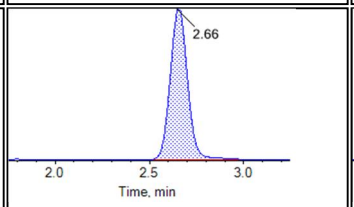
d5-EtFOSAA



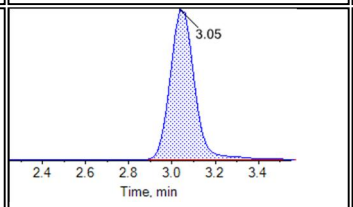
13C5-PFHxA



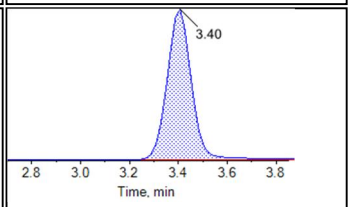
13C4-PFHpA



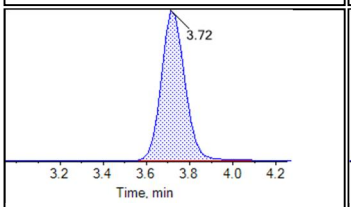
13C8-PFOA



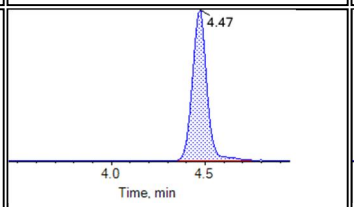
13C9-PFNA



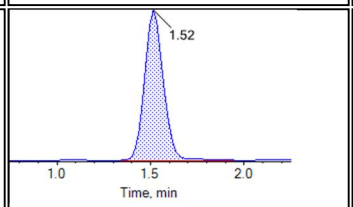
13C6-PFDA



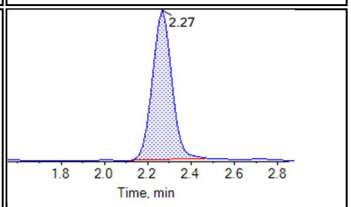
13C7-PFUnA



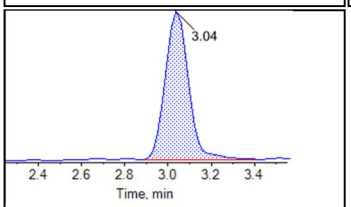
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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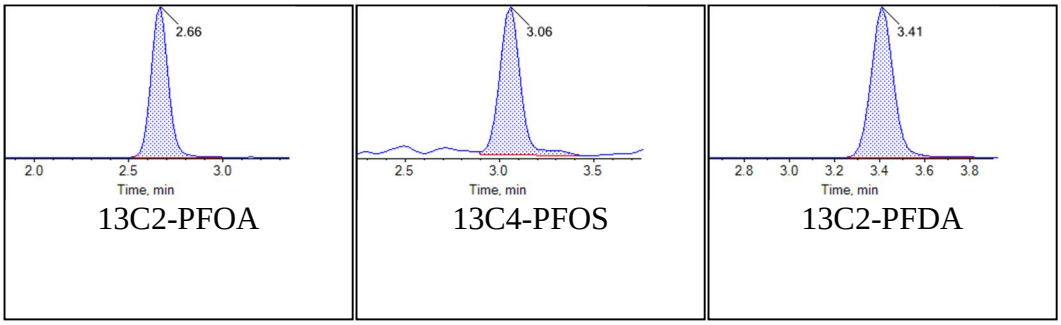
Internal Standards:



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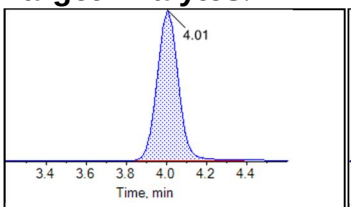
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:01:51 PM

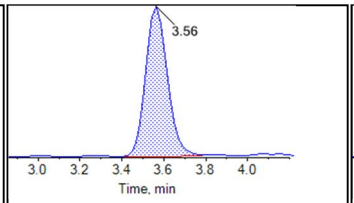
Sample Name	J8312-FS-D(5)	**Injection Vial**	16
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:36:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

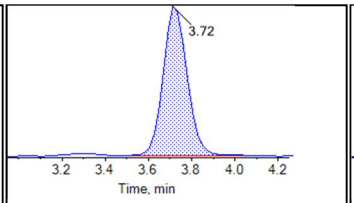
Target Analytes:



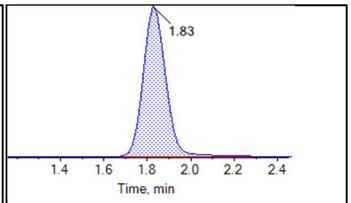
13C2-PFDoA



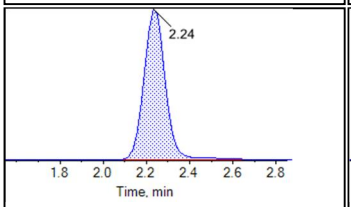
d3-MeFOSAA



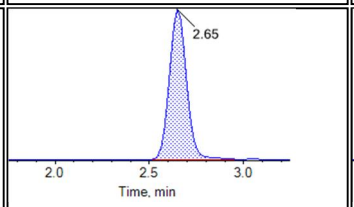
d5-EtFOSAA



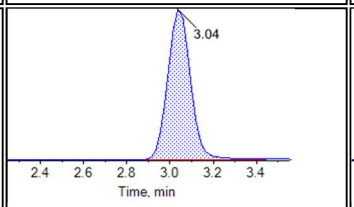
13C5-PFHxA



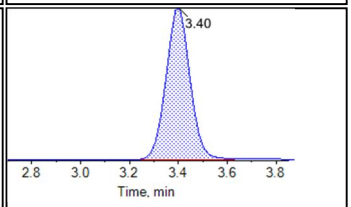
13C4-PFHpA



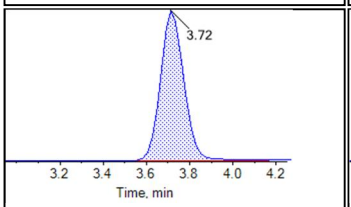
13C8-PFOA



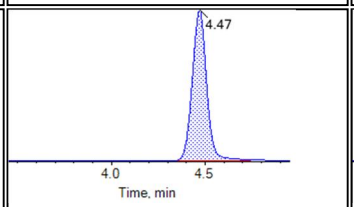
13C9-PFNA



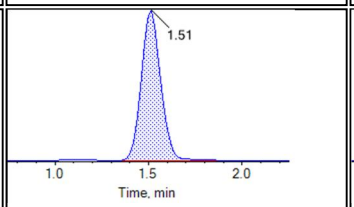
13C6-PFDA



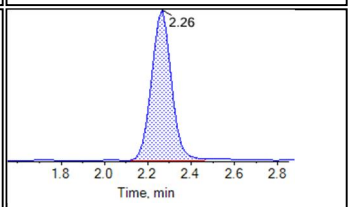
13C7-PFUnA



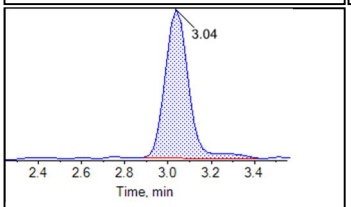
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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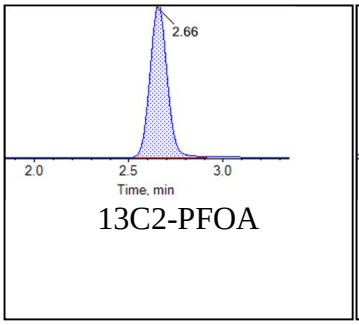

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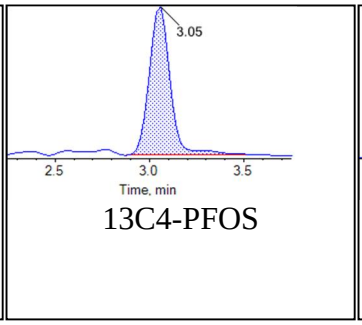
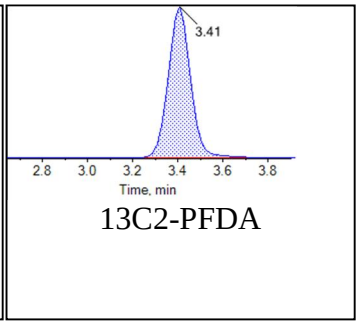


13C4-PFOS



13C2-PFDA

BATTELLE

Chromatogram Report

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Sample Name	J8312-FS-D(7)	**Injection Vial**	17
Sample ID	VC-PM323-324-SB01-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:47:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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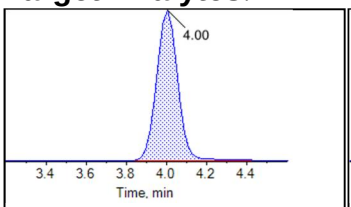
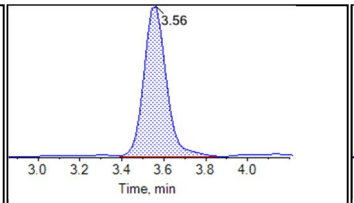
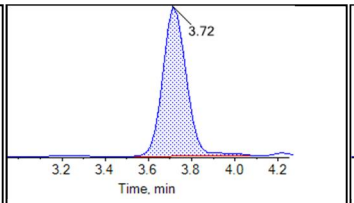


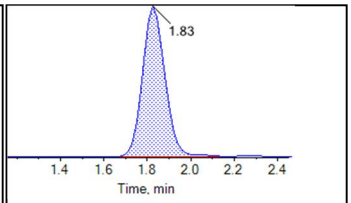
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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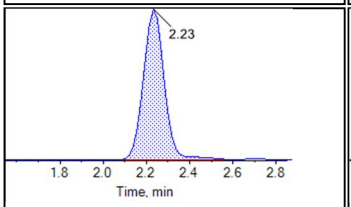
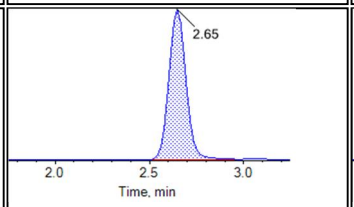
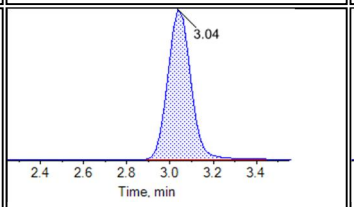


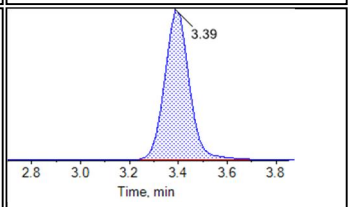
13C4-PFHpA



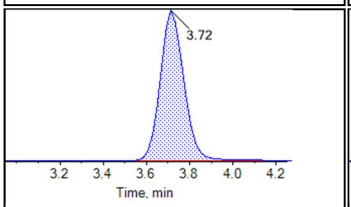
13C8-PFOA



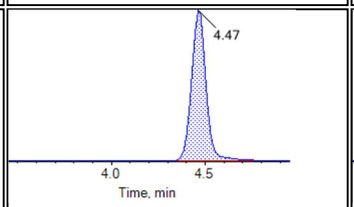
13C9-PFNA



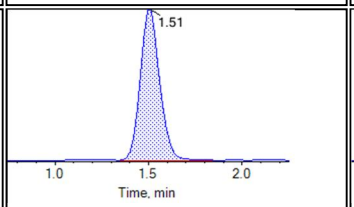
13C6-PFDA



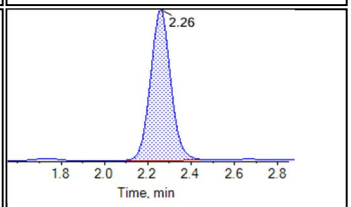
13C7-PFUnA



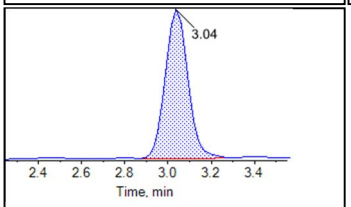
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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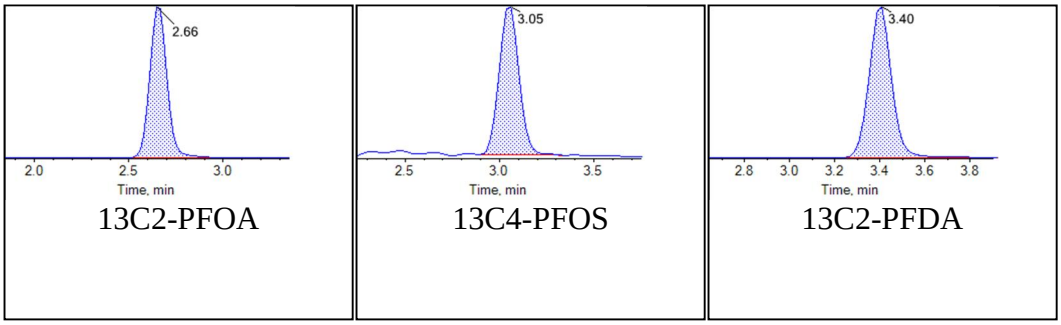

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Chromatogram Report

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Sample Name	J8333-FS(3)	**Injection Vial**	18
Sample ID	VC-PM324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T05:58:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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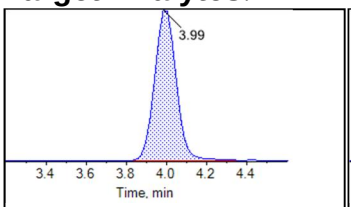
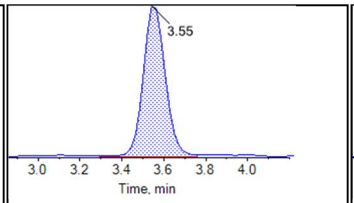
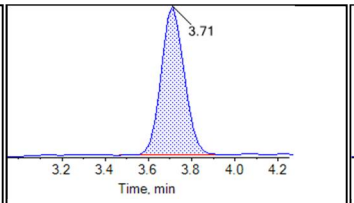


13C2-PFDoA



d3-MeFOSAA



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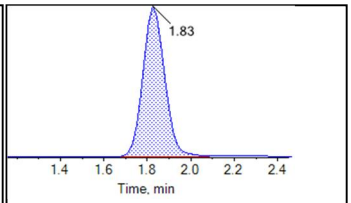

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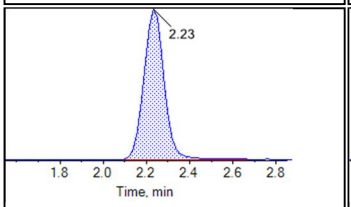

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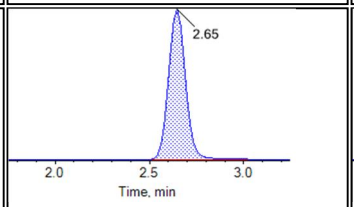
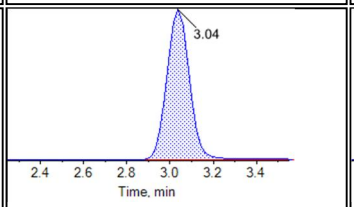


13C8-PFOA



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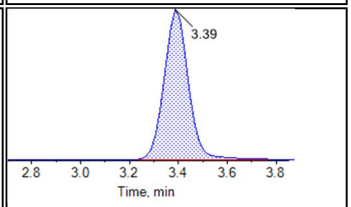
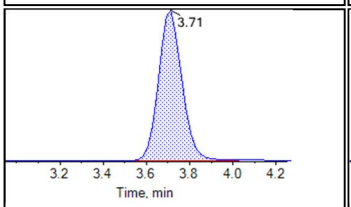
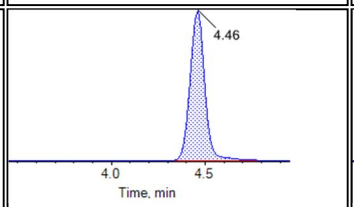


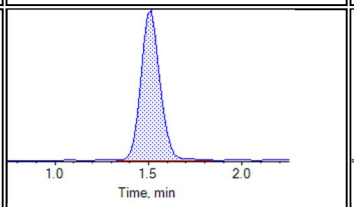
13C6-PFDA



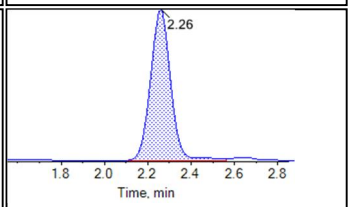
13C7-PFUnA



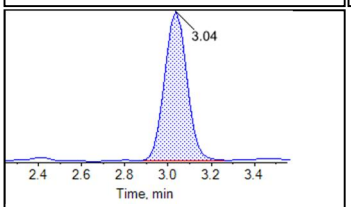
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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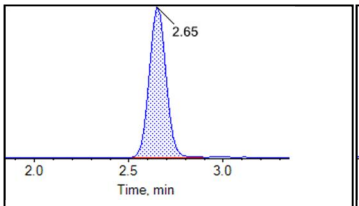
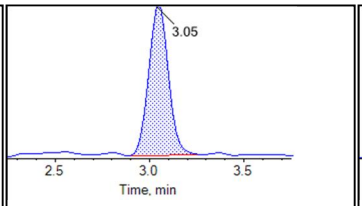
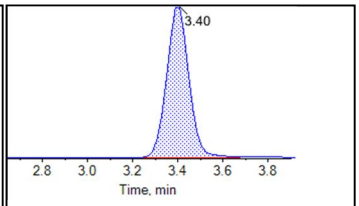


13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:02:05 PM

Sample Name	KB77 CCV	**Injection Vial**	19
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:09:20	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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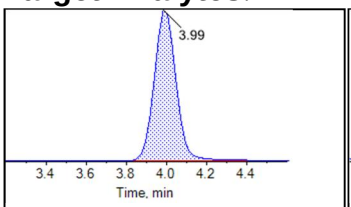
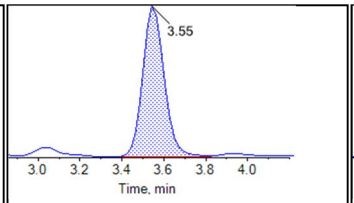
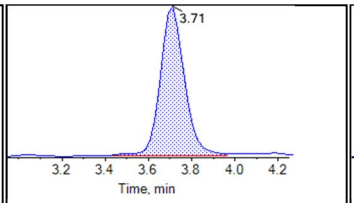


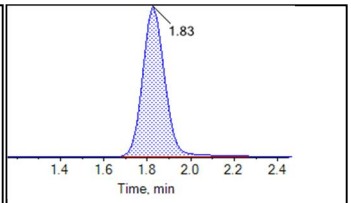
13C2-PFDoA



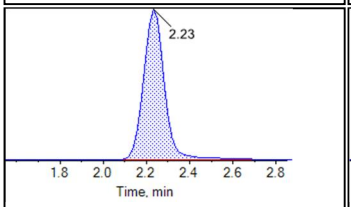
d3-MeFOSAA



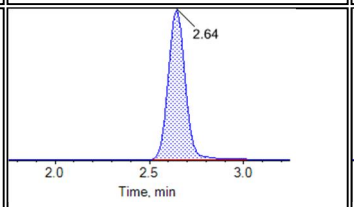
d5-EtFOSAA



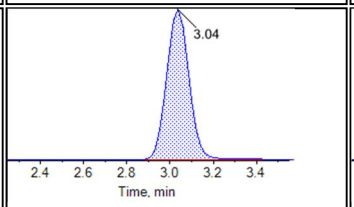
13C5-PFHxA



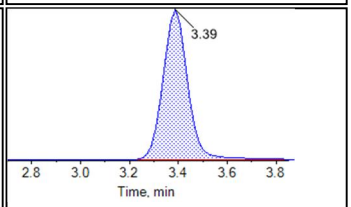
13C4-PFHpA



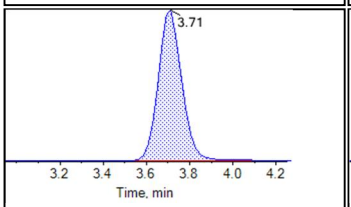
13C8-PFOA



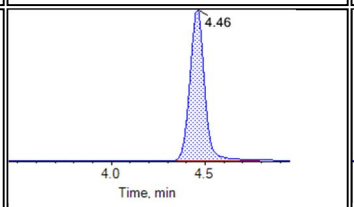
13C9-PFNA



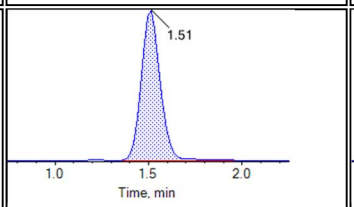
13C6-PFDA



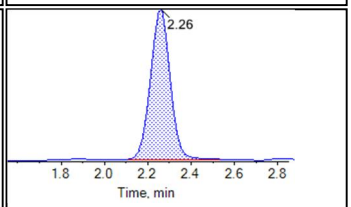
13C7-PFUnA



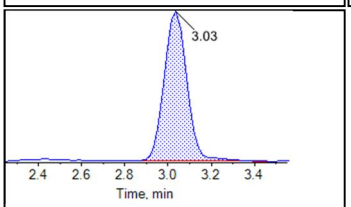
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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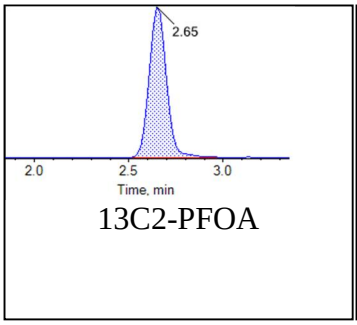
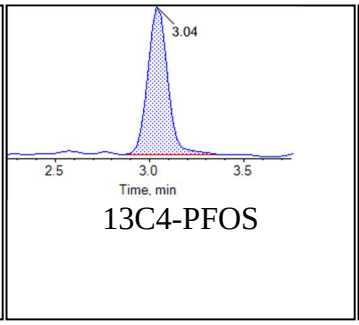
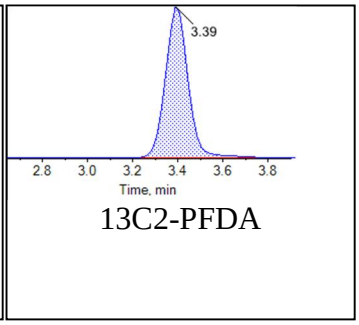
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

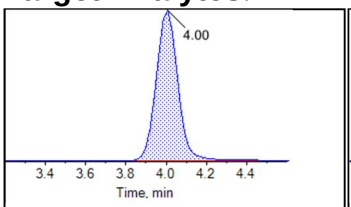
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:02:09 PM

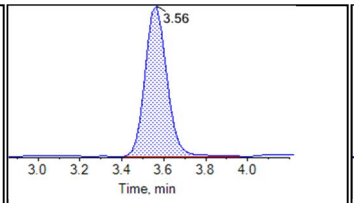
Sample Name	J8313-FS(3)	**Injection Vial**	21
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:31:06	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

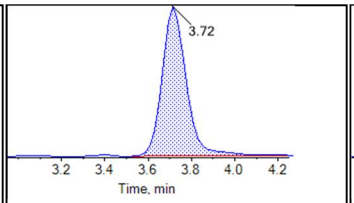
Target Analytes:



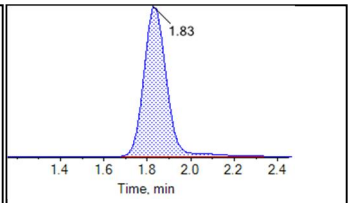
13C2-PFDoA



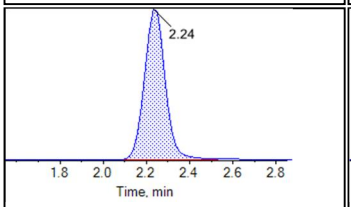
d3-MeFOSAA



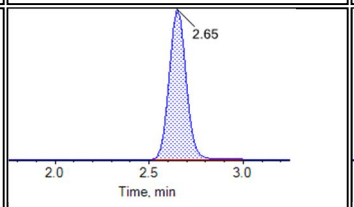
d5-EtFOSAA



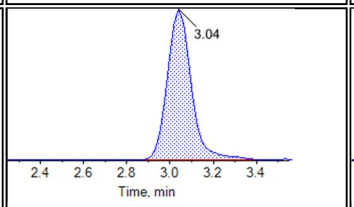
13C5-PFHxA



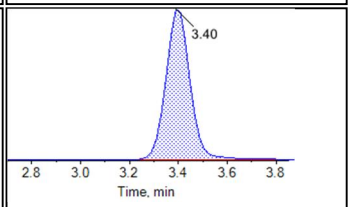
13C4-PFHpA



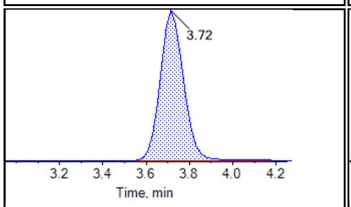
13C8-PFOA



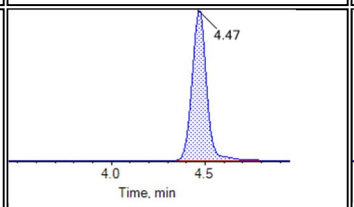
13C9-PFNA



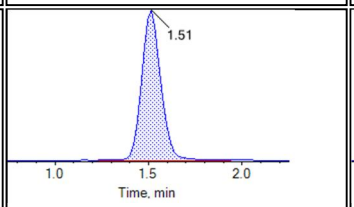
13C6-PFDA



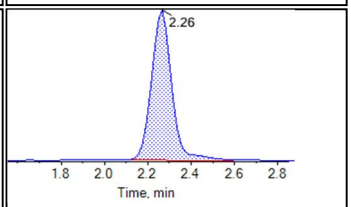
13C7-PFUnA



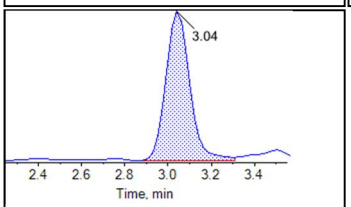
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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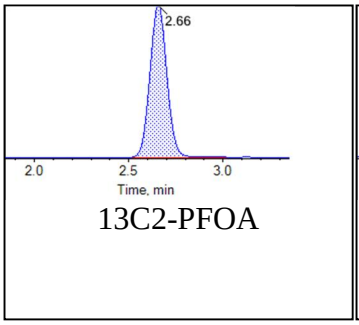
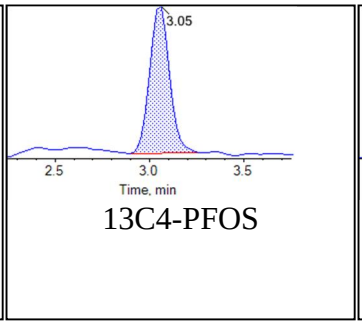
Printed: 19/10/2018 4:02:09 PM

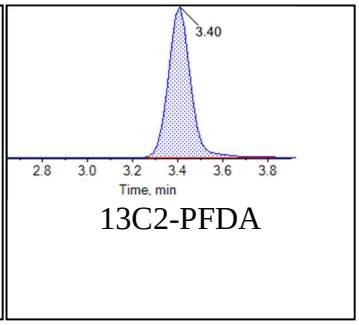
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:02:14 PM

Sample Name	J8313-FS-D(5)	**Injection Vial**	22
Sample ID	VC-PM323-324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:41:58	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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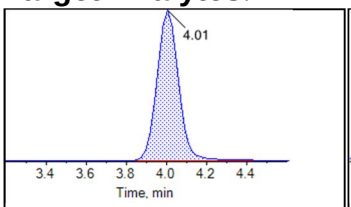
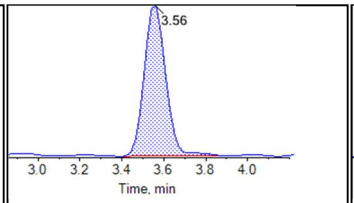
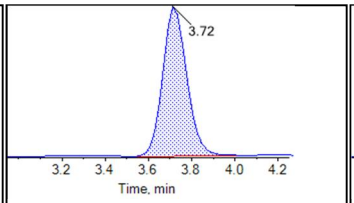


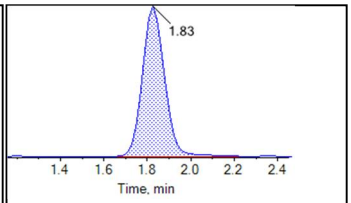
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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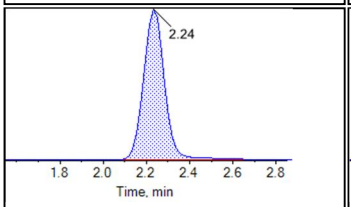

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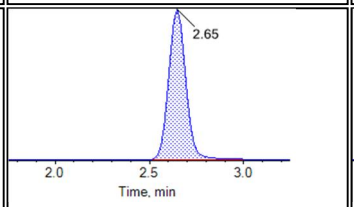
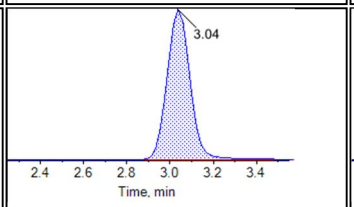
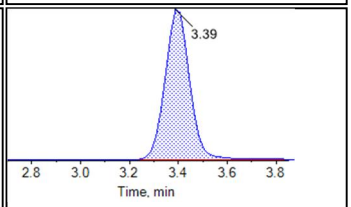


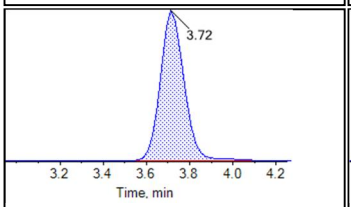
13C8-PFOA



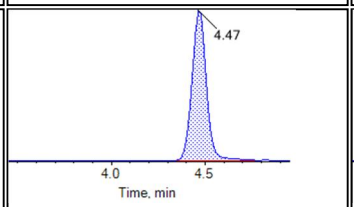
13C9-PFNA



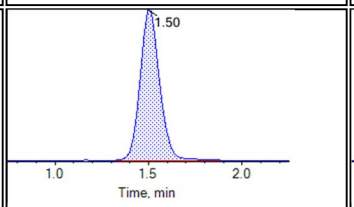
13C6-PFDA



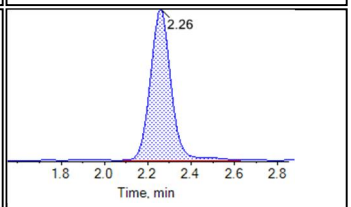
13C7-PFUnA



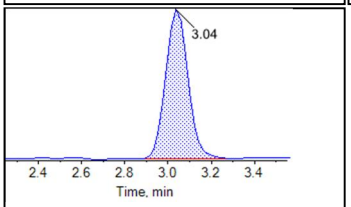
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



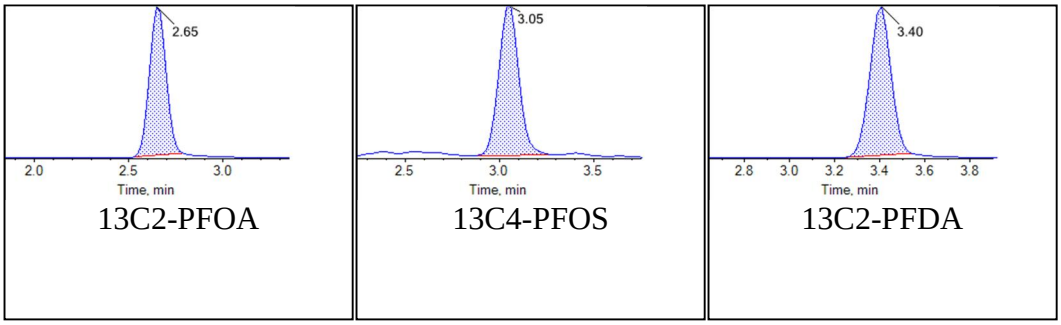
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:02:14 PM

Internal Standards:



BATTELLE

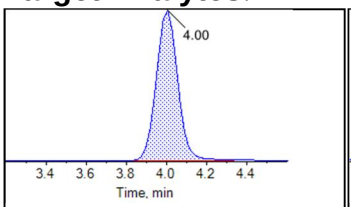
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:02:19 PM

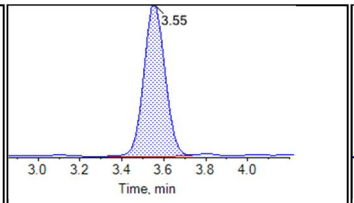
Sample Name	J8314-FS(3)	**Injection Vial**	23
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T06:52:50	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

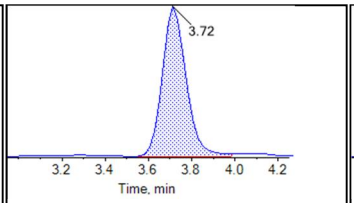
Target Analytes:



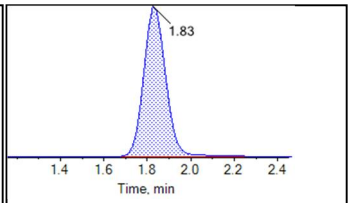
13C2-PFDoA



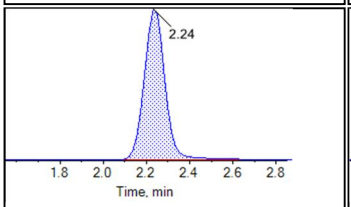
d3-MeFOSAA



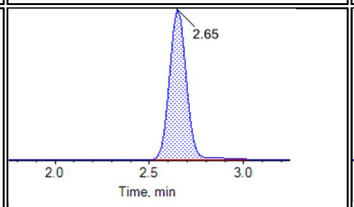
d5-EtFOSAA



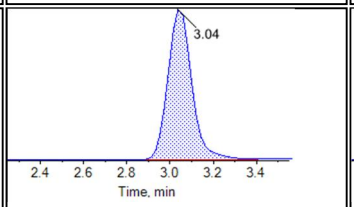
13C5-PFHxA



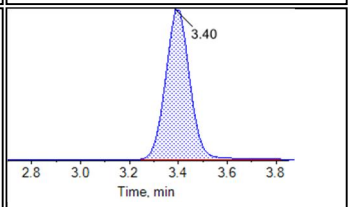
13C4-PFHpA



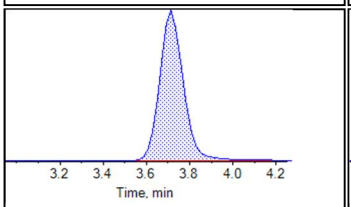
13C8-PFOA



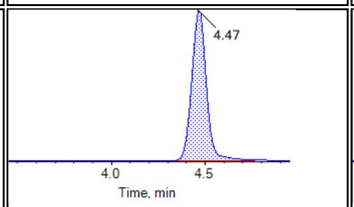
13C9-PFNA



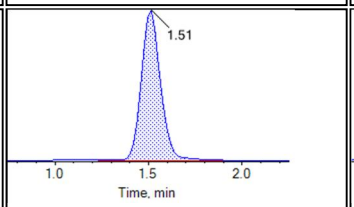
13C6-PFDA



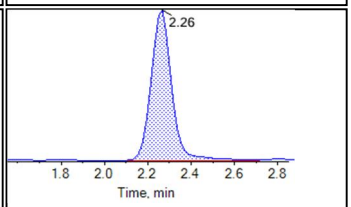
13C7-PFUnA



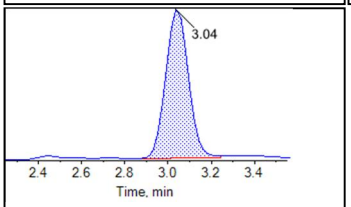
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



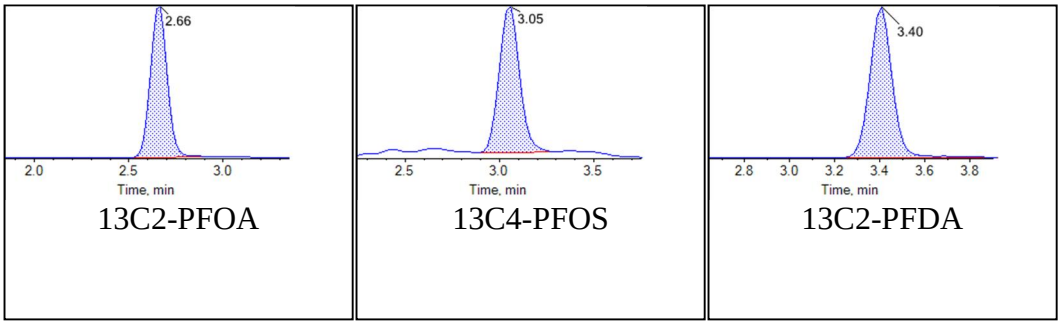
13C8-PFOS

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:02:19 PM

Internal Standards:



BATTELLE

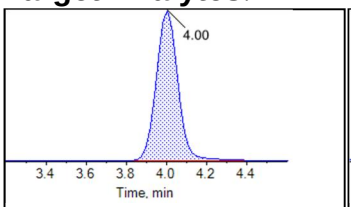
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:02:24 PM

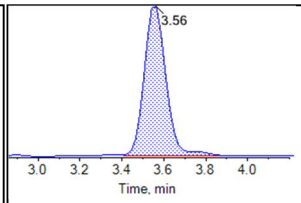
Sample Name	J8314-FS-D(5)	**Injection Vial**	24
Sample ID	VC-PM323-324-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:03:43	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

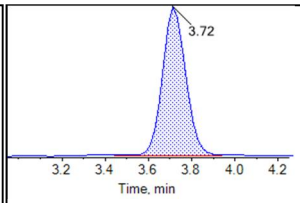
Target Analytes:



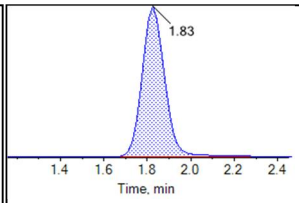
13C2-PFDoA



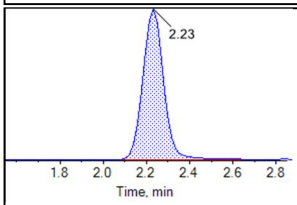
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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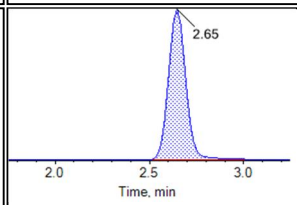
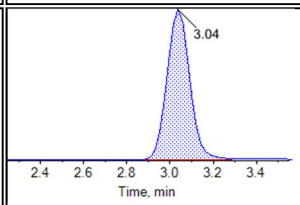
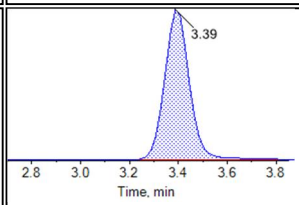


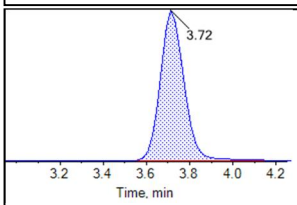
13C8-PFOA



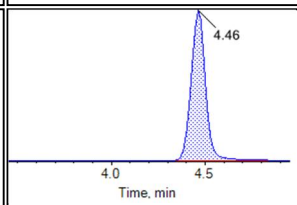
13C9-PFNA



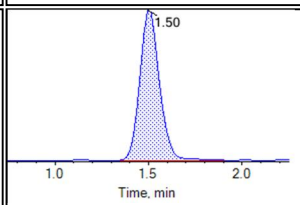
13C6-PFDA



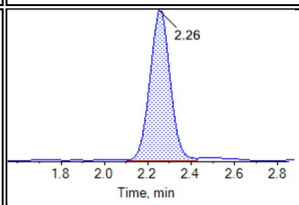
13C7-PFUnA



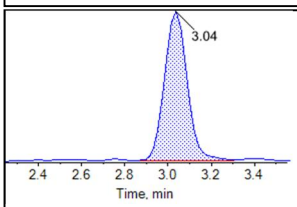
13C2-PFTeDA



13C3-PFBS

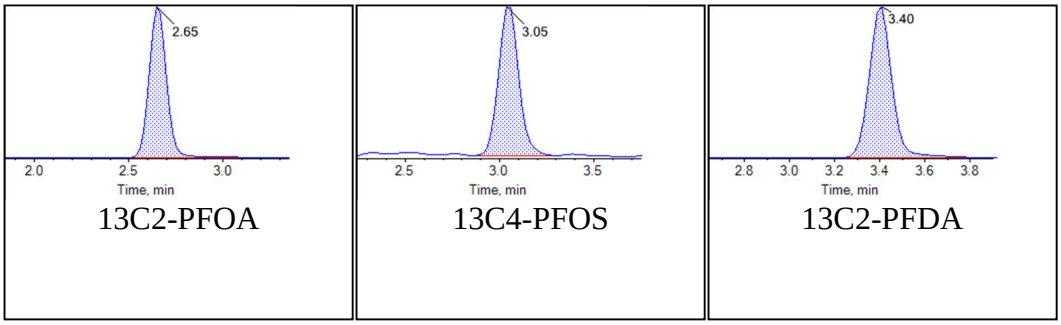


13C3-PFHxS



13C8-PFOS

Internal Standards:



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Chromatogram Report

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Printed: 19/10/2018 4:02:29 PM

Sample Name	J8315-FS(3)	**Injection Vial**	25
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:14:35	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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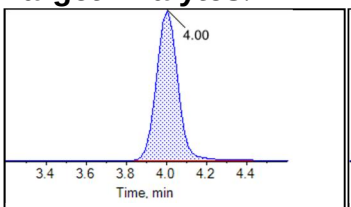
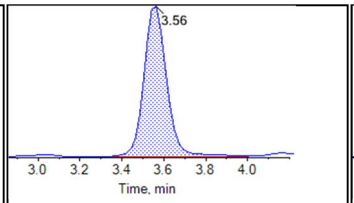
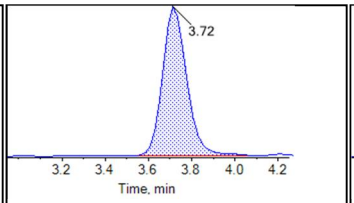


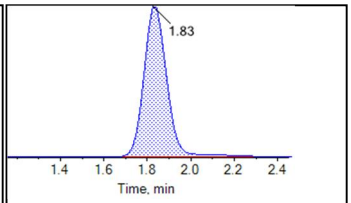
13C2-PFDoA



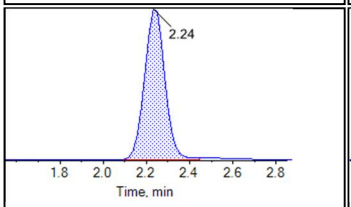
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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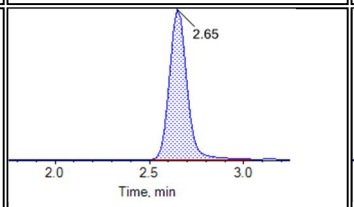
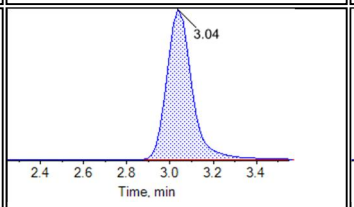
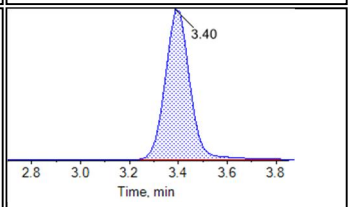


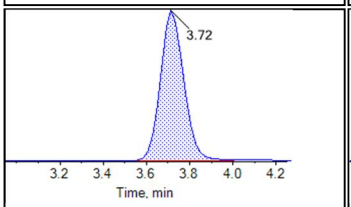
13C8-PFOA



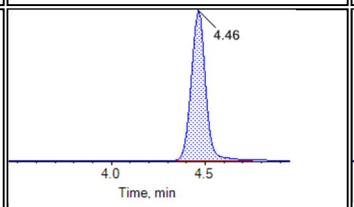
13C9-PFNA



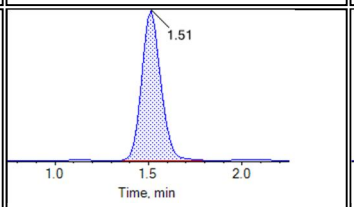
13C6-PFDA



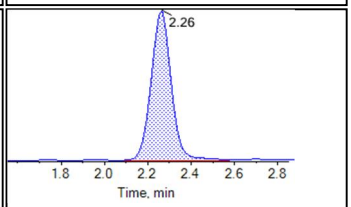
13C7-PFUnA



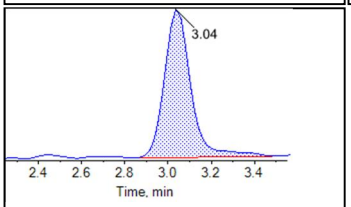
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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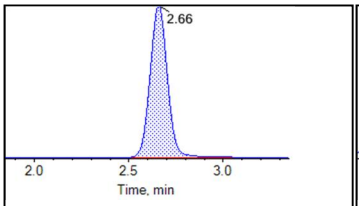
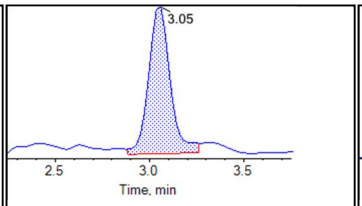
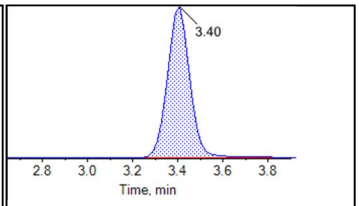
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

Created with Analyst Reporter
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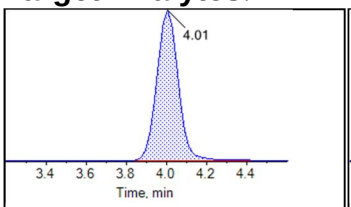
Sample Name	J8315-FS-D(5)	**Injection Vial**	26
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:25:27	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

Target Analytes:



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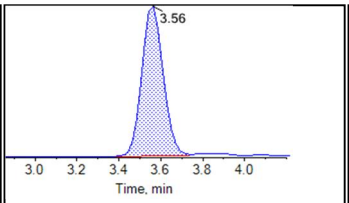
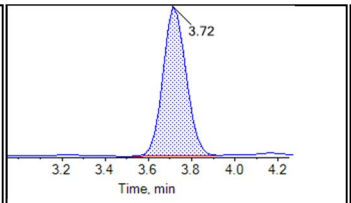
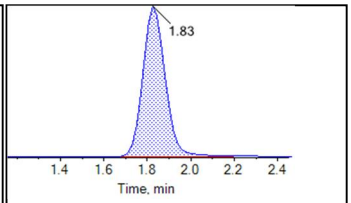


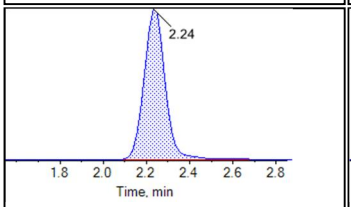
d3-MeFOSAA



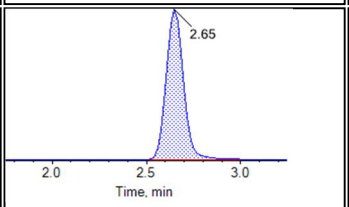
d5-EtFOSAA



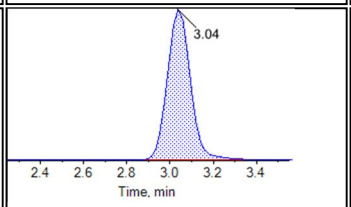
13C5-PFHxA



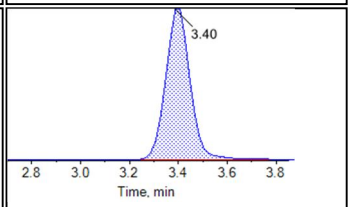
13C4-PFHpA



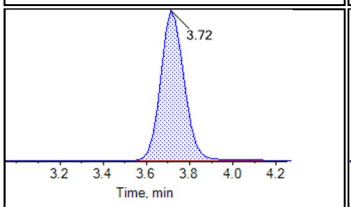
13C8-PFOA



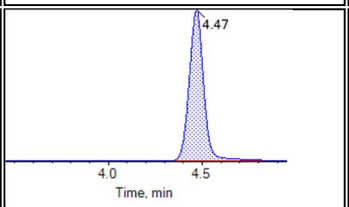
13C9-PFNA



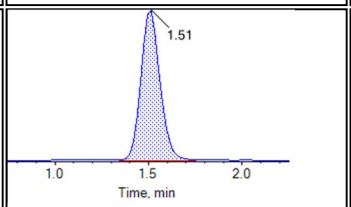
13C6-PFDA



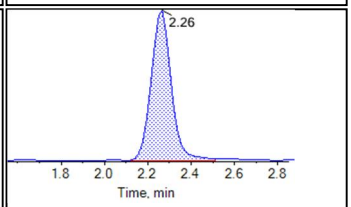
13C7-PFUnA



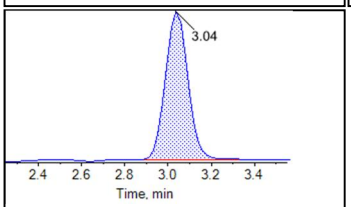
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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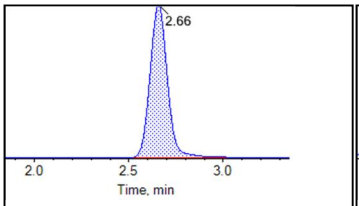
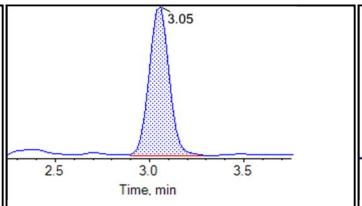
Printed: 19/10/2018 4:02:34 PM

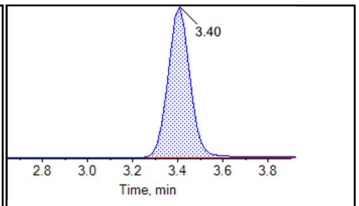
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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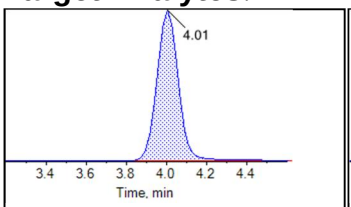
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:02:39 PM

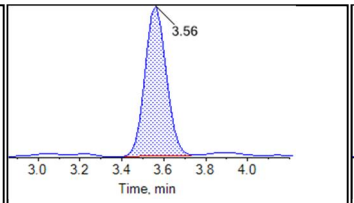
Sample Name	J8316-FS(3)	**Injection Vial**	27
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:36:19	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

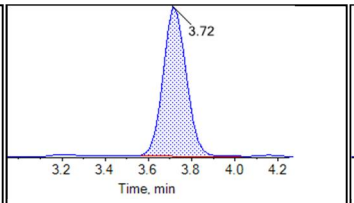
Target Analytes:



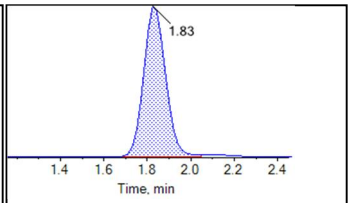
13C2-PFDoA



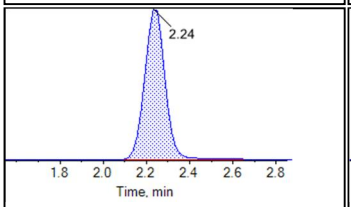
d3-MeFOSAA



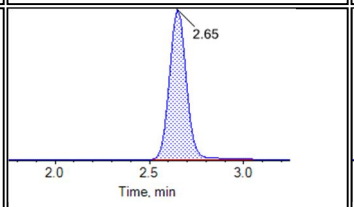
d5-EtFOSAA



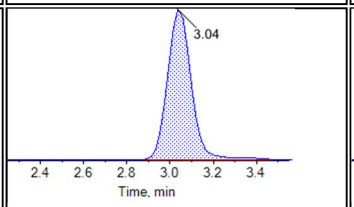
13C5-PFHxA



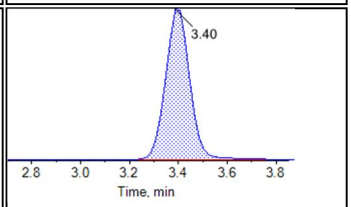
13C4-PFHpA



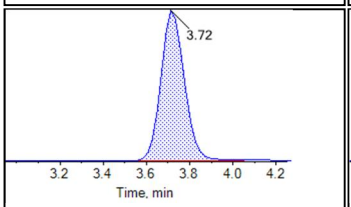
13C8-PFOA



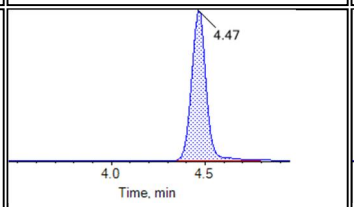
13C9-PFNA



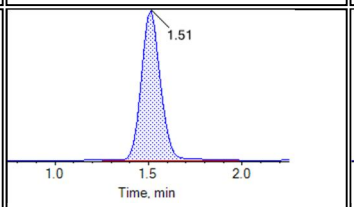
13C6-PFDA



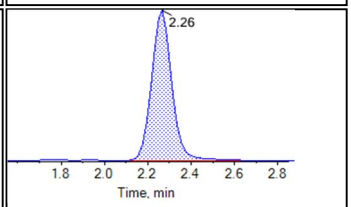
13C7-PFUnA



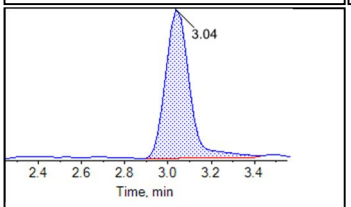
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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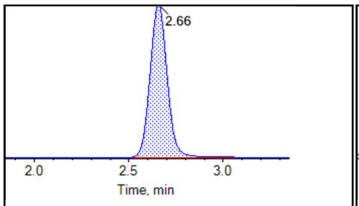
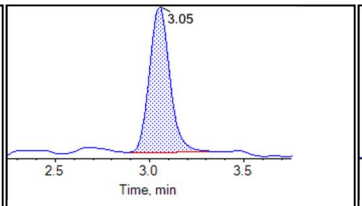
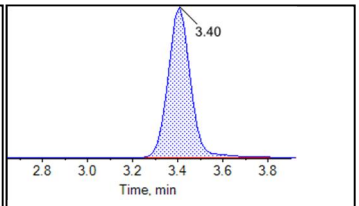
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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Chromatogram Report

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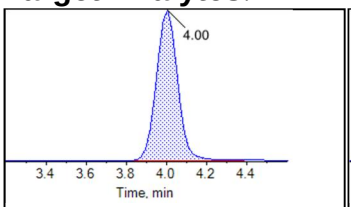
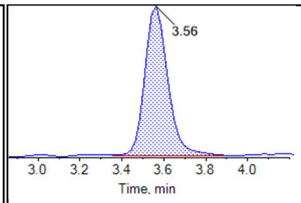
Sample Name	J8316-FS-D(5)	**Injection Vial**	28
Sample ID	VC-PM323-324-SS03-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:47:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

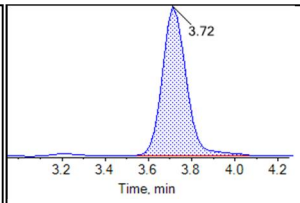
Target Analytes:



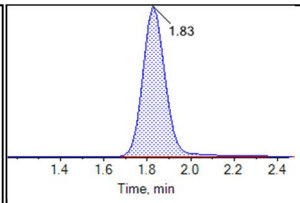
13C2-PFDoA



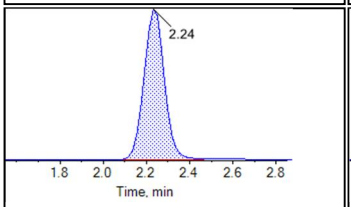
d3-MeFOSAA



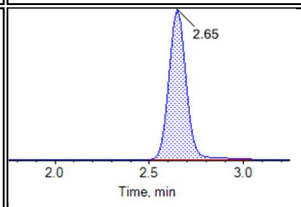
d5-EtFOSAA



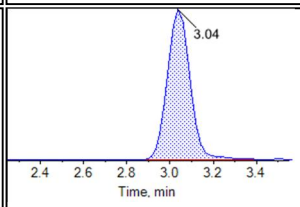
13C5-PFHxA



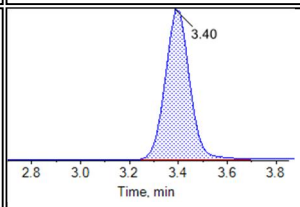
13C4-PFHpA



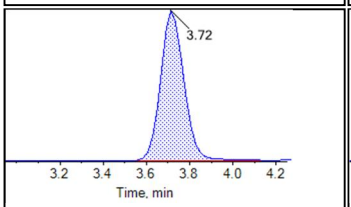
13C8-PFOA



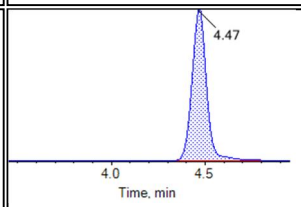
13C9-PFNA



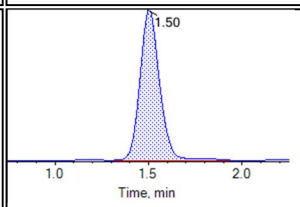
13C6-PFDA



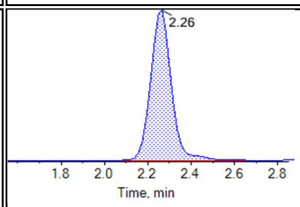
13C7-PFUnA



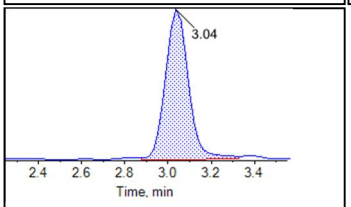
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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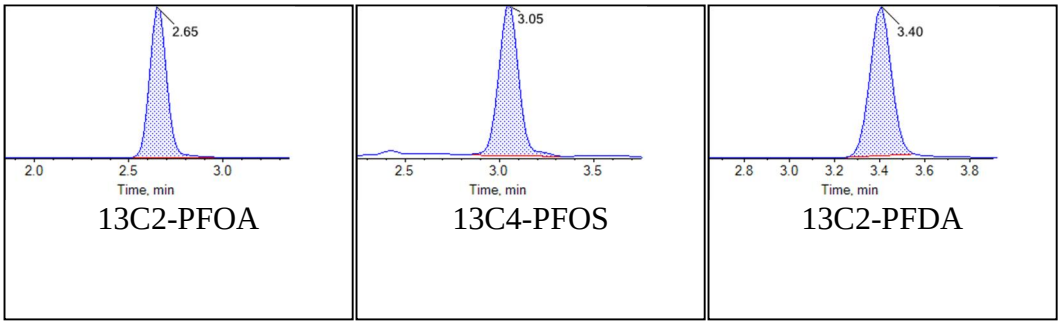
Internal Standards:



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Chromatogram Report

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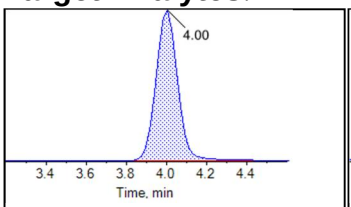
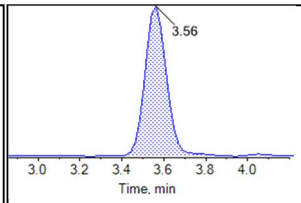
Sample Name	J8317-FS(3)	**Injection Vial**	29
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T07:58:03	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

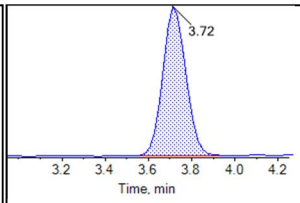
Target Analytes:



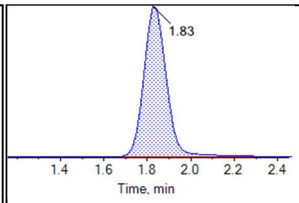
13C2-PFDoA



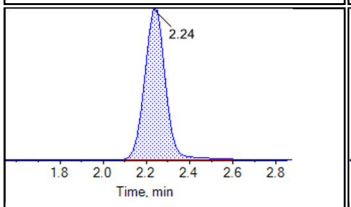
d3-MeFOSAA



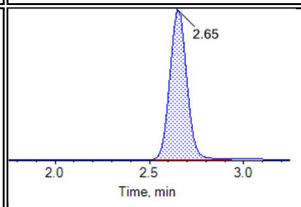
d5-EtFOSAA



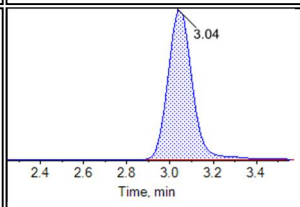
13C5-PFHxA



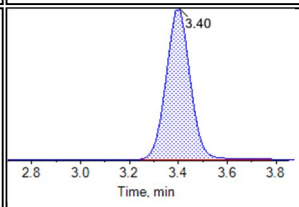
13C4-PFHpA



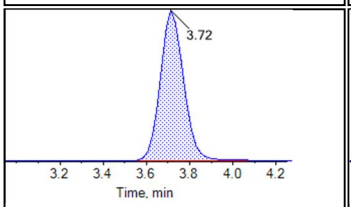
13C8-PFOA



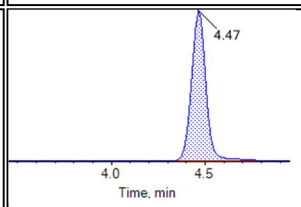
13C9-PFNA



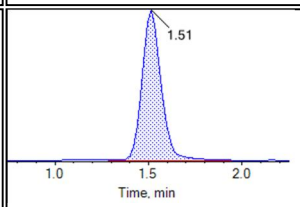
13C6-PFDA



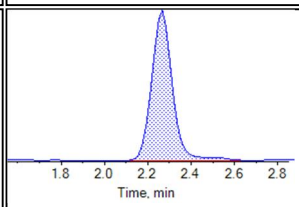
13C7-PFUnA



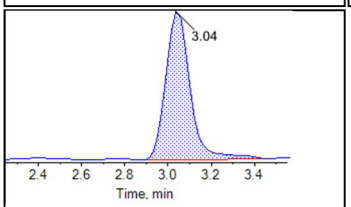
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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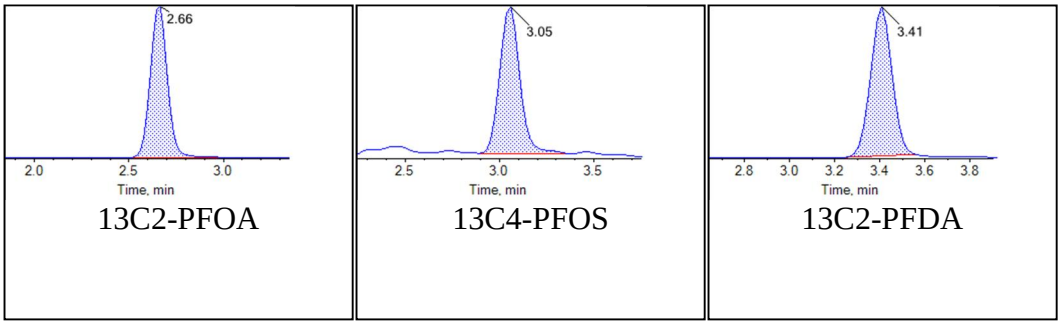

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Chromatogram Report

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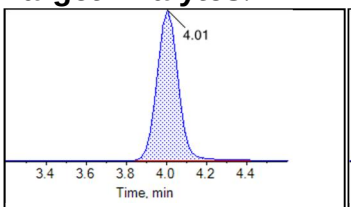
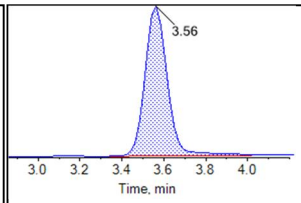
Sample Name	J8317-FS-D(5)	**Injection Vial**	30
Sample ID	VC-PM323-324-SB03-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:08:54	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

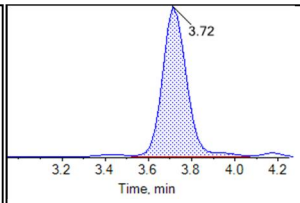
Target Analytes:



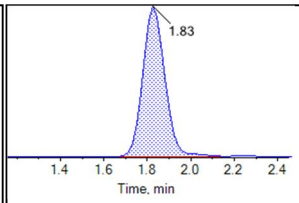
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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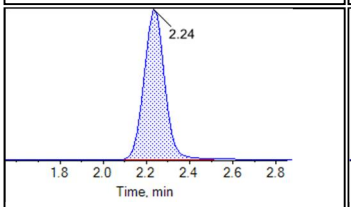
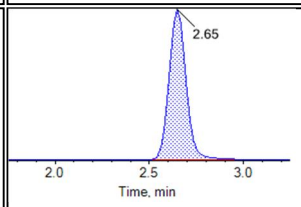
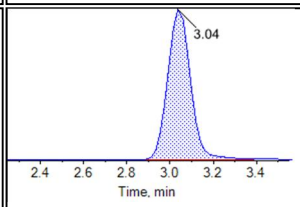


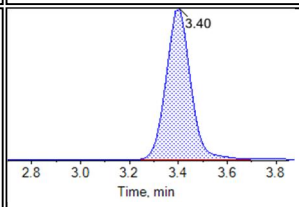
13C4-PFHpA



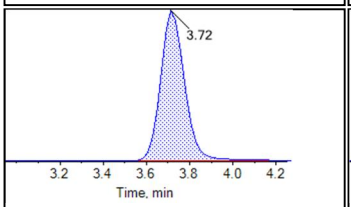
13C8-PFOA



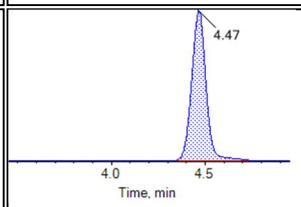
13C9-PFNA



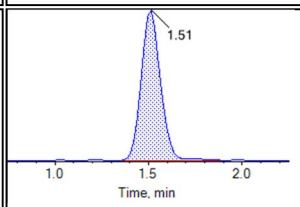
13C6-PFDA



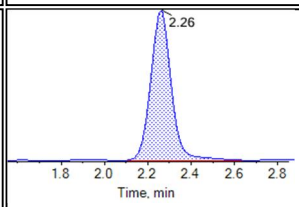
13C7-PFUnA



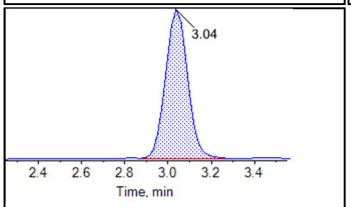
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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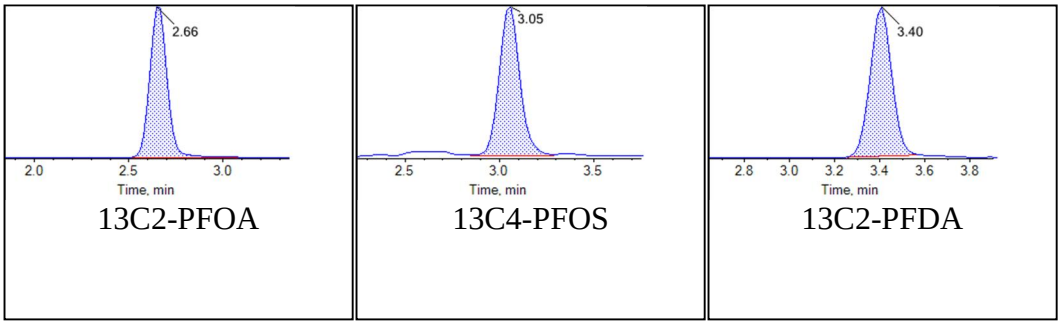
Printed: 19/10/2018 4:02:53 PM

Internal Standards:



BATTELLE

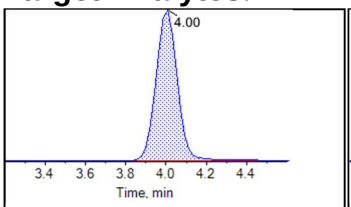
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:02:58 PM

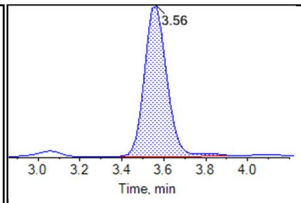
Sample Name	KB76 CCV	**Injection Vial**	31
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:19:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

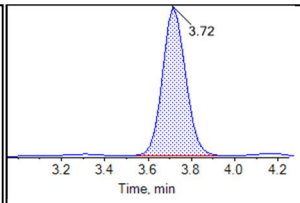
Target Analytes:



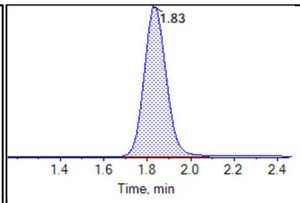
13C2-PFDoA



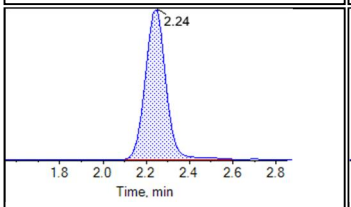
d3-MeFOSAA



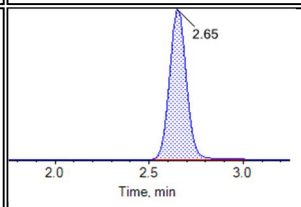
d5-EtFOSAA



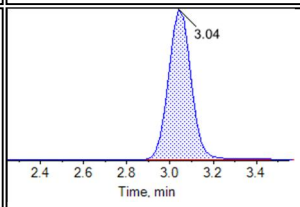
13C5-PFHxA



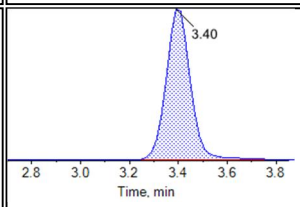
13C4-PFHpA



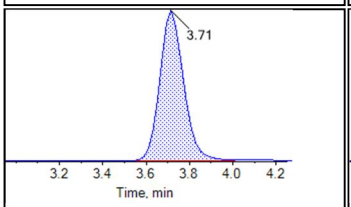
13C8-PFOA



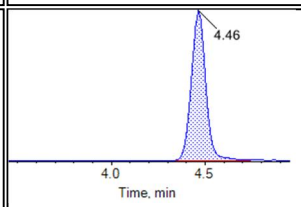
13C9-PFNA



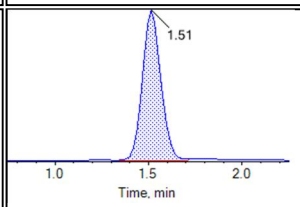
13C6-PFDA



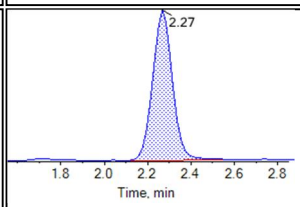
13C7-PFUnA



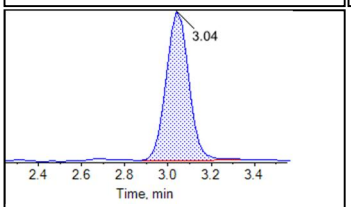
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS

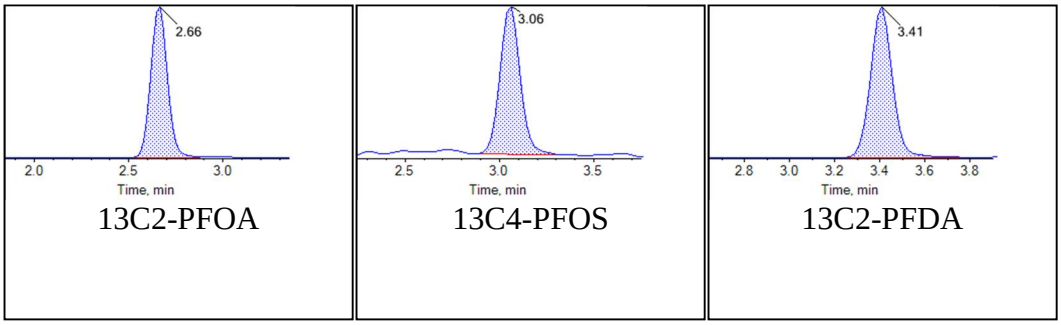


13C8-PFOS

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:02:58 PM

Internal Standards:



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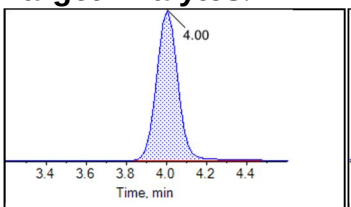
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:02 PM

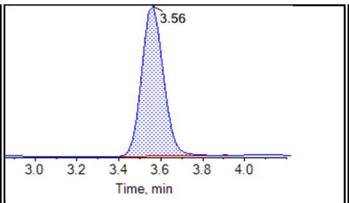
Sample Name	J8318-FS(3)	**Injection Vial**	33
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:41:33	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

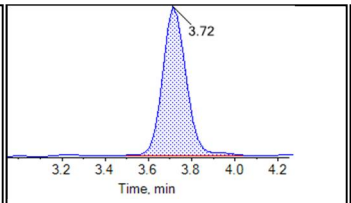
Target Analytes:



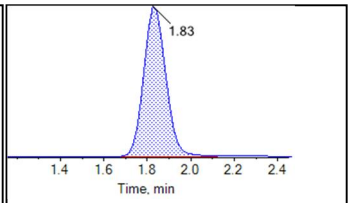
13C2-PFDoA



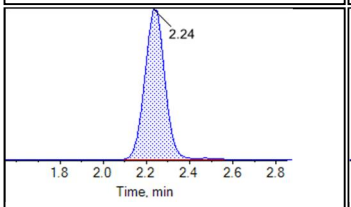
d3-MeFOSAA



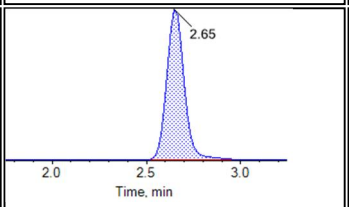
d5-EtFOSAA



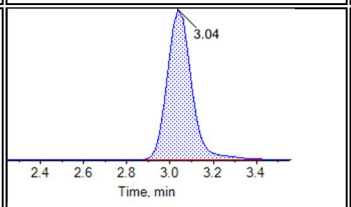
13C5-PFHxA



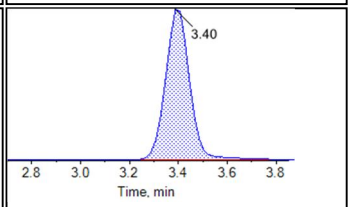
13C4-PFHpA



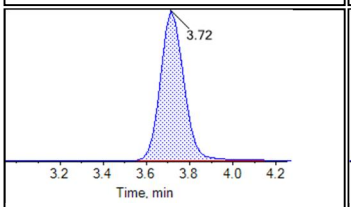
13C8-PFOA



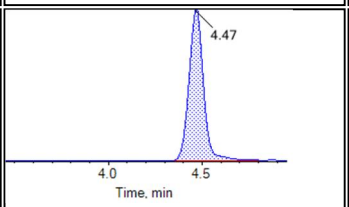
13C9-PFNA



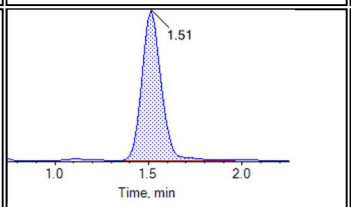
13C6-PFDA



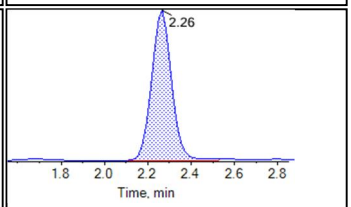
13C7-PFUnA



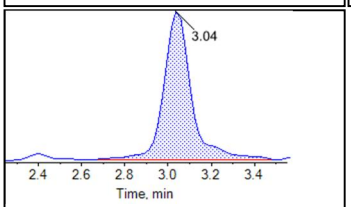
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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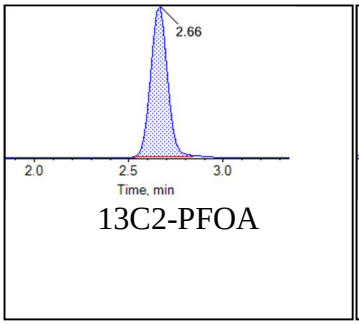
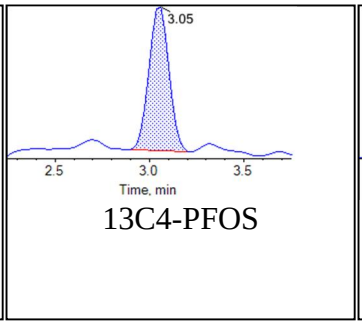
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:02 PM

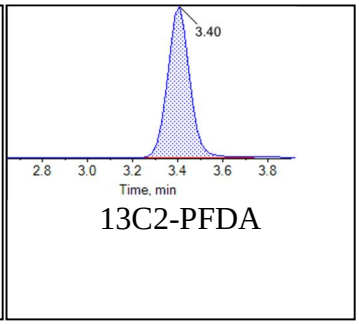
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

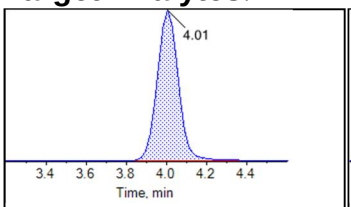
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:06 PM

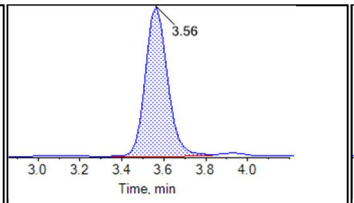
Sample Name	J8318-FS-D(5)	**Injection Vial**	34
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T08:52:24	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

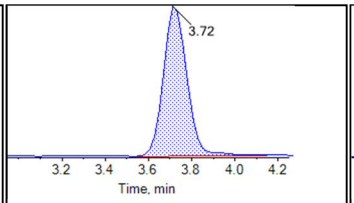
Target Analytes:



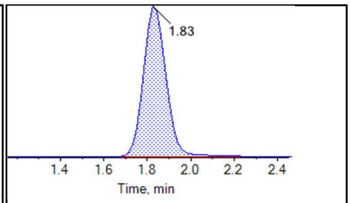
13C2-PFDoA



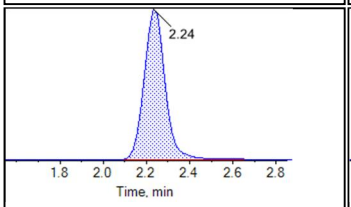
d3-MeFOSAA



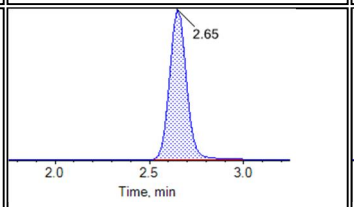
d5-EtFOSAA



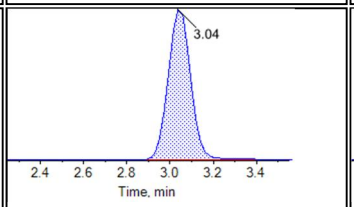
13C5-PFHxA



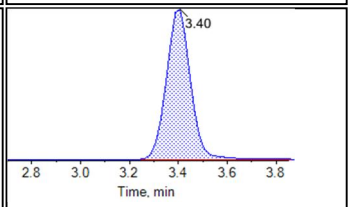
13C4-PFHpA



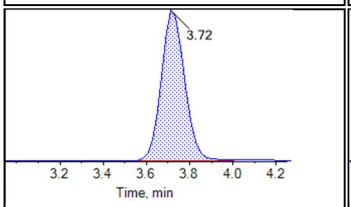
13C8-PFOA



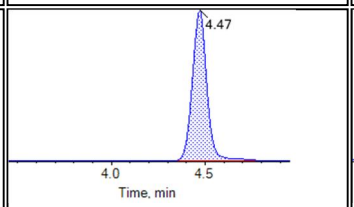
13C9-PFNA



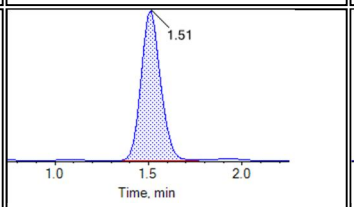
13C6-PFDA



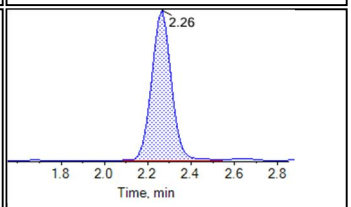
13C7-PFUnA



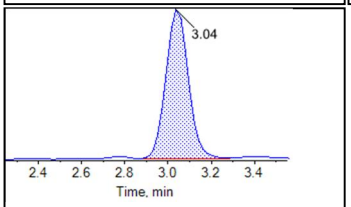
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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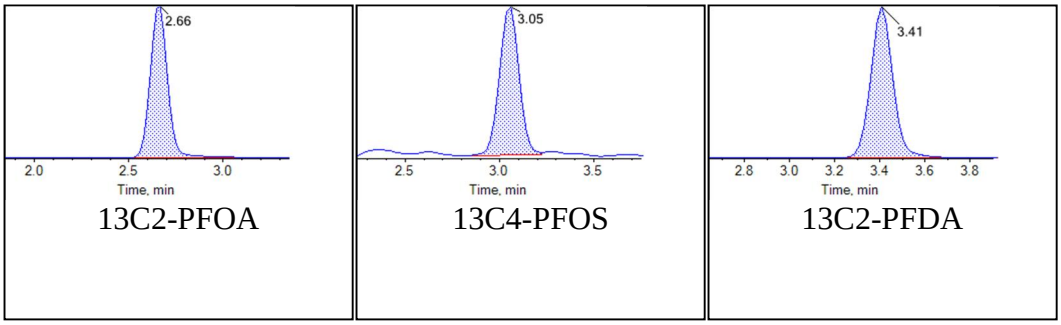
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:06 PM

Internal Standards:



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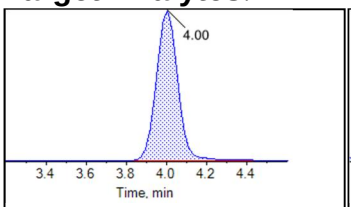
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:11 PM

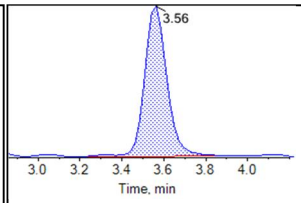
Sample Name	J8318-FS-D(7)	**Injection Vial**	35
Sample ID	VC-PM323-324-SB03-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:03:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

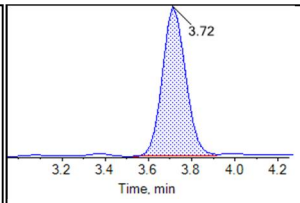
Target Analytes:



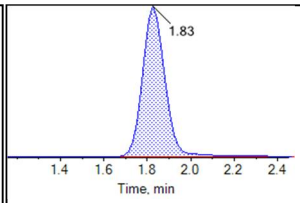
13C2-PFDoA



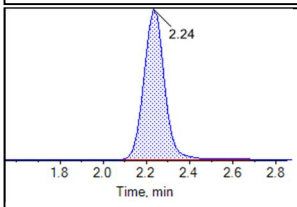
d3-MeFOSAA



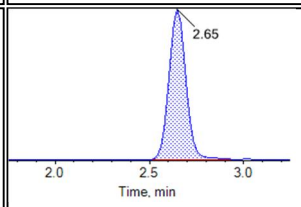
d5-EtFOSAA



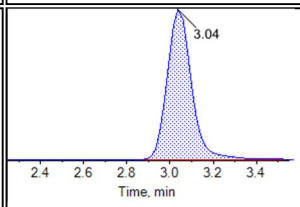
13C5-PFHxA



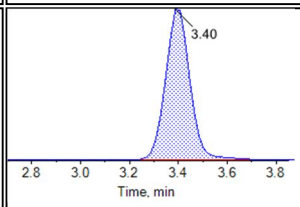
13C4-PFHpA



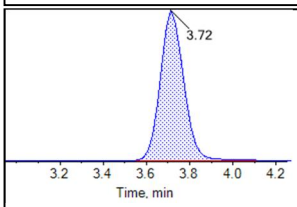
13C8-PFOA



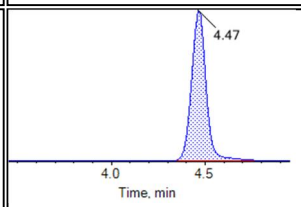
13C9-PFNA



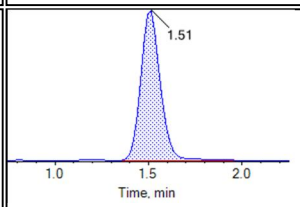
13C6-PFDA



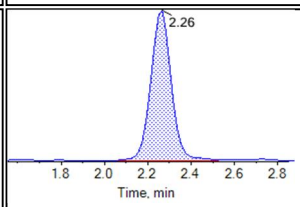
13C7-PFUnA



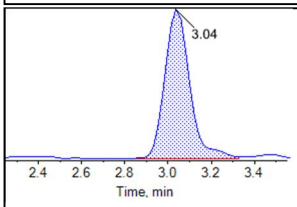
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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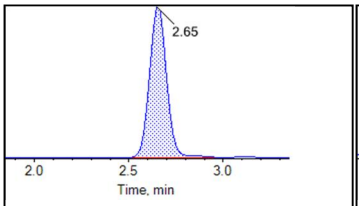

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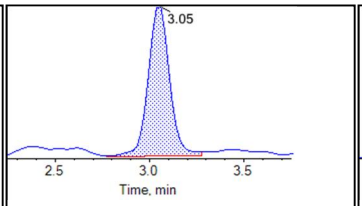
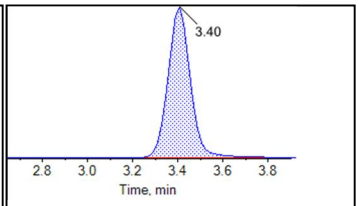


13C4-PFOS



13C2-PFDA

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Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:15 PM

Sample Name	J8327-FS(3)	**Injection Vial**	36
Sample ID	VC-PM323-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:14:10	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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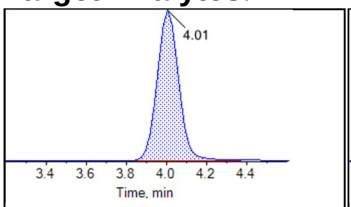
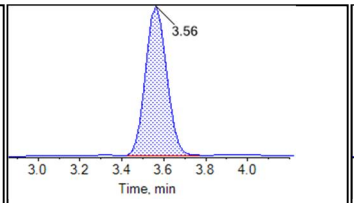
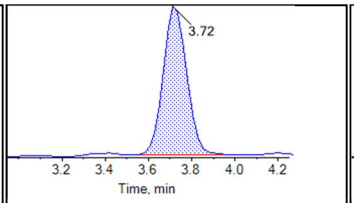


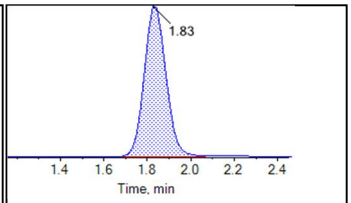
13C2-PFDoA



d3-MeFOSAA



d5-EtFOSAA



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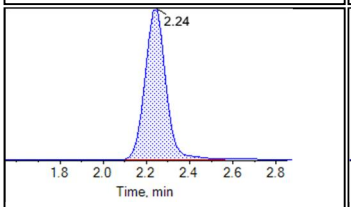

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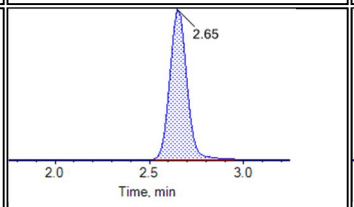
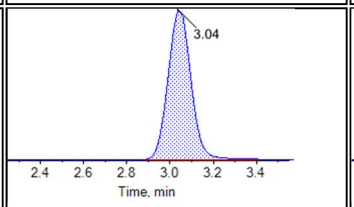
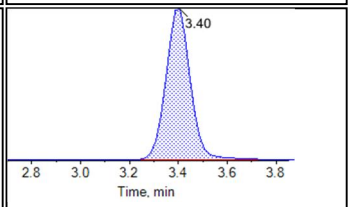


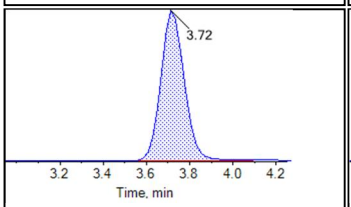
13C8-PFOA



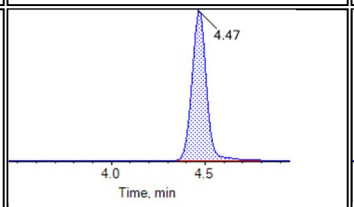
13C9-PFNA



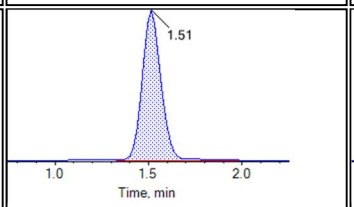
13C6-PFDA



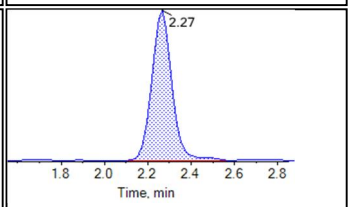
13C7-PFUnA



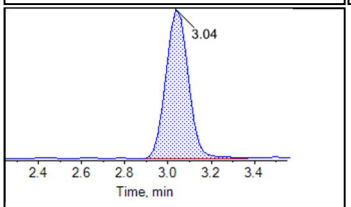
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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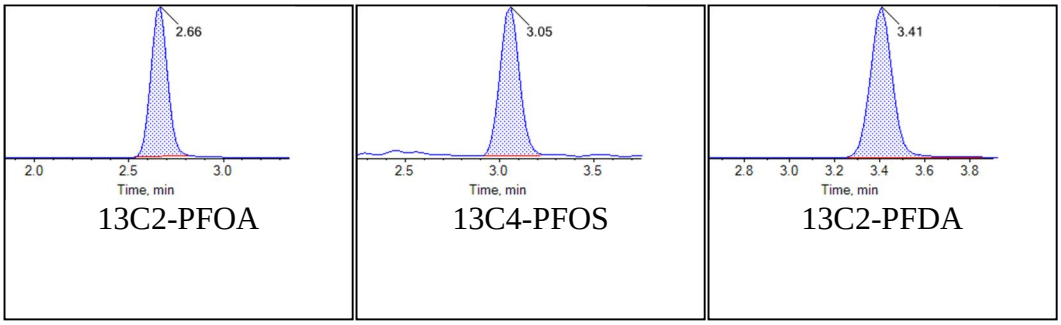

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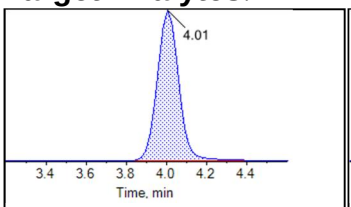
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:20 PM

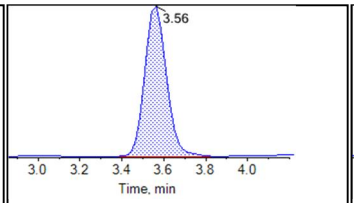
Sample Name	J8328-FS(3)	**Injection Vial**	37
Sample ID	VC-PM323-SB02-0102	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:25:02	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

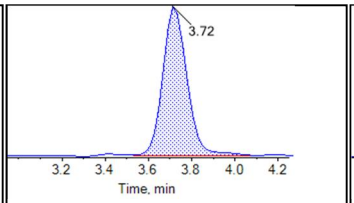
Target Analytes:



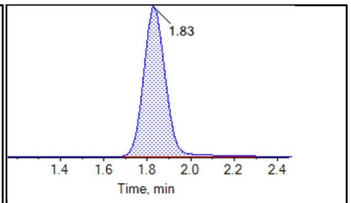
13C2-PFDoA



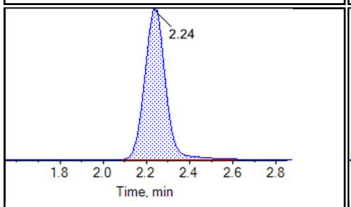
d3-MeFOSAA



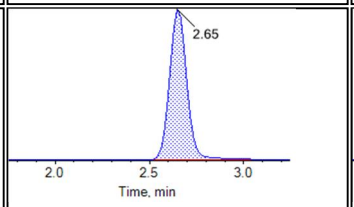
d5-EtFOSAA



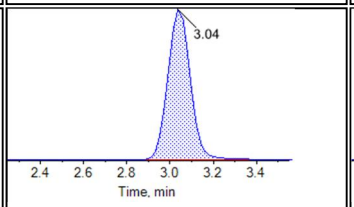
13C5-PFHxA



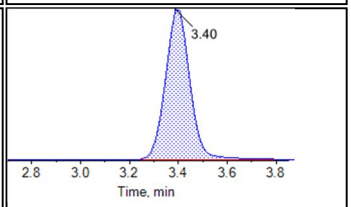
13C4-PFHpA



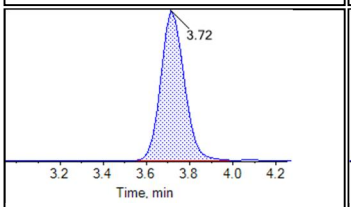
13C8-PFOA



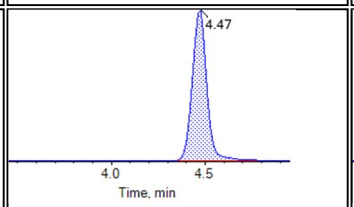
13C9-PFNA



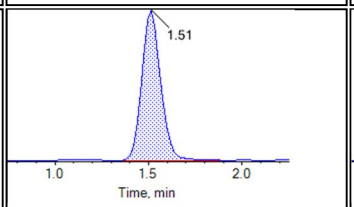
13C6-PFDA



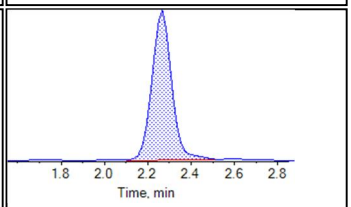
13C7-PFUnA



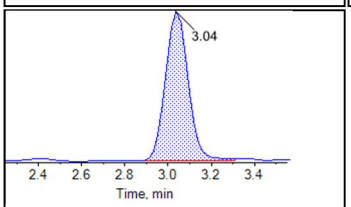
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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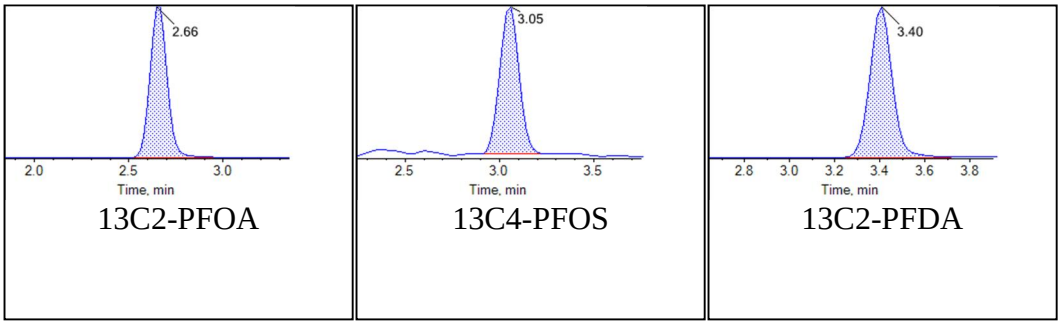

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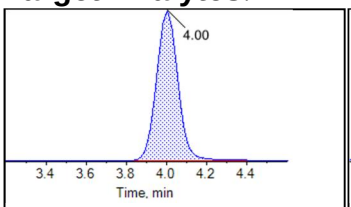
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:25 PM

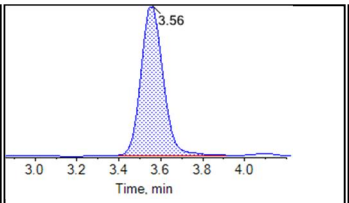
Sample Name	J8329-FS(3)	**Injection Vial**	38
Sample ID	VC-PM323-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:35:55	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

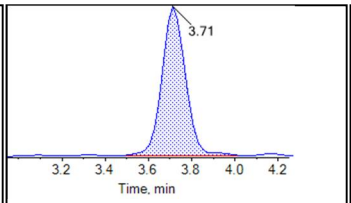
Target Analytes:



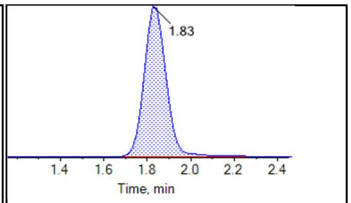
13C2-PFDoA



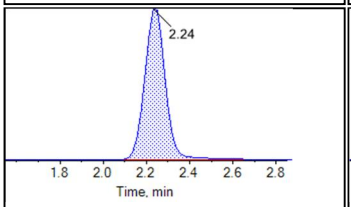
d3-MeFOSAA



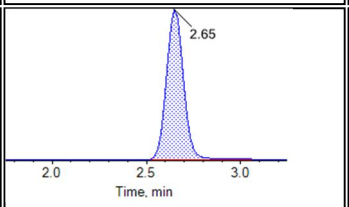
d5-EtFOSAA



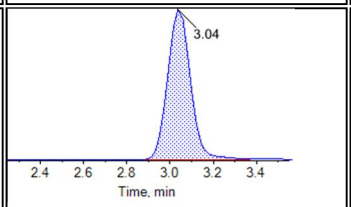
13C5-PFHxA



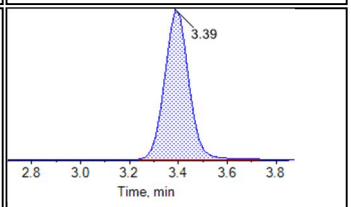
13C4-PFHpA



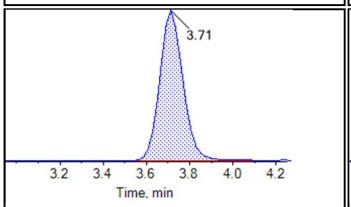
13C8-PFOA



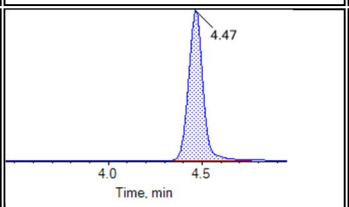
13C9-PFNA



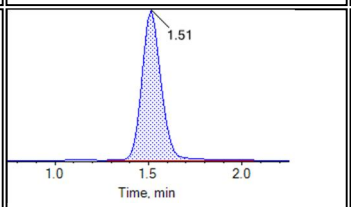
13C6-PFDA



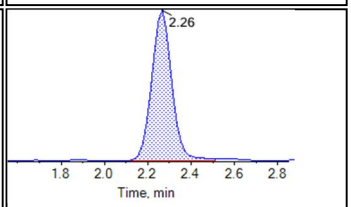
13C7-PFUnA



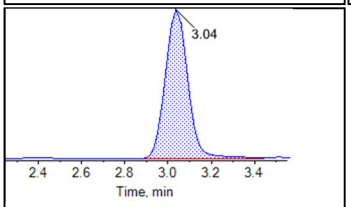
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

Chromatogram Report

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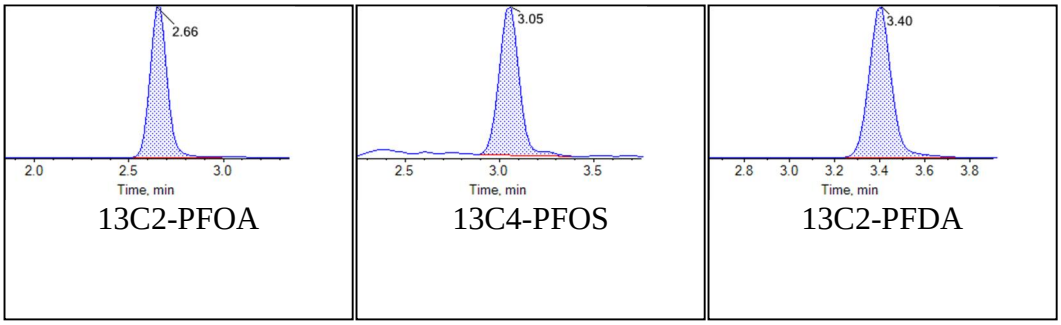
Printed: 19/10/2018 4:03:25 PM

Internal Standards:



BATTELLE

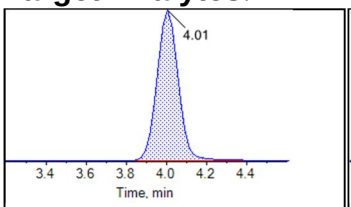
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:29 PM

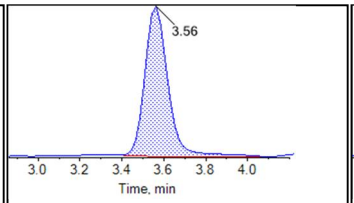
Sample Name	J8332-FS(3)	**Injection Vial**	39
Sample ID	VC-PM324-SS02-000H	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:46:46	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

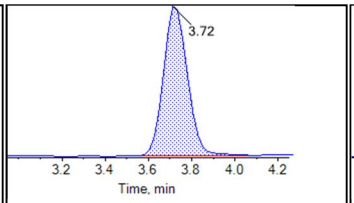
Target Analytes:



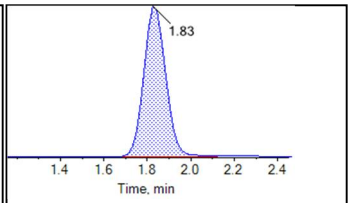
13C2-PFDoA



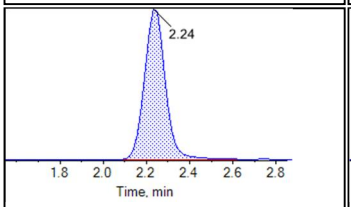
d3-MeFOSAA



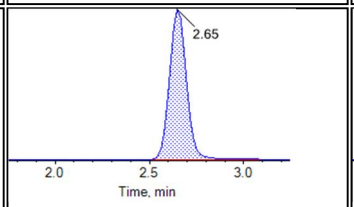
d5-EtFOSAA



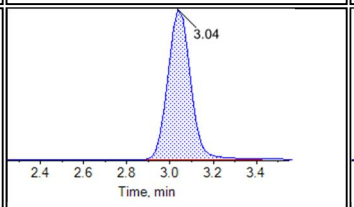
13C5-PFHxA



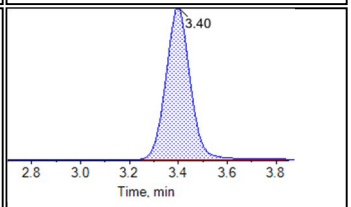
13C4-PFHpA



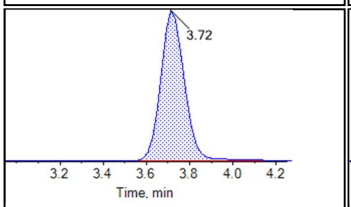
13C8-PFOA



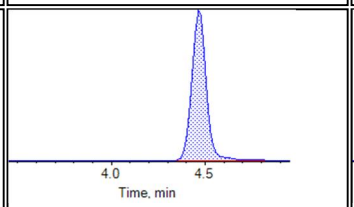
13C9-PFNA



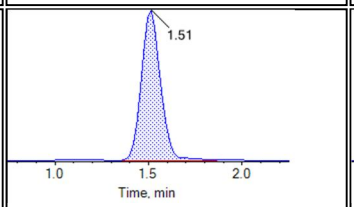
13C6-PFDA



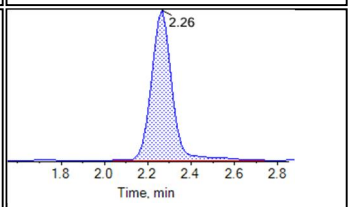
13C7-PFUnA



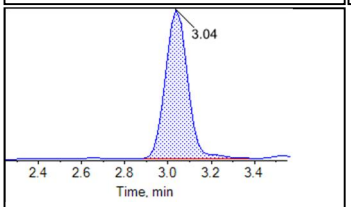
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

Chromatogram Report

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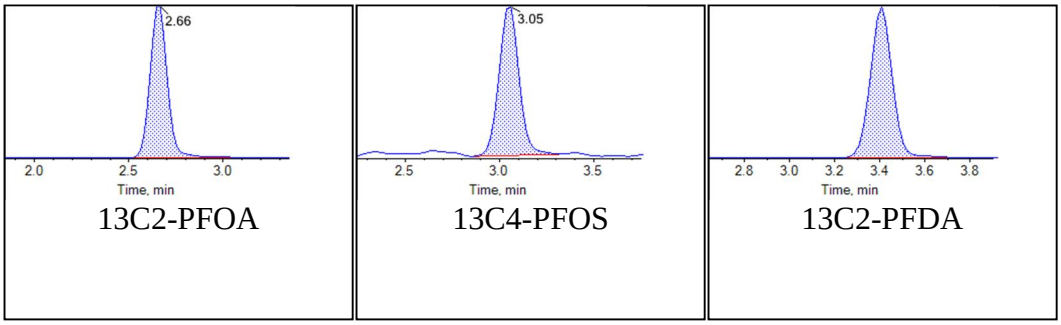
Printed: 19/10/2018 4:03:29 PM

Internal Standards:



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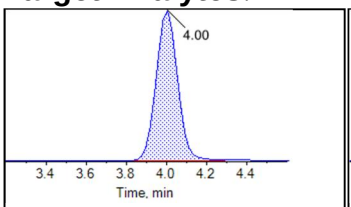
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:34 PM

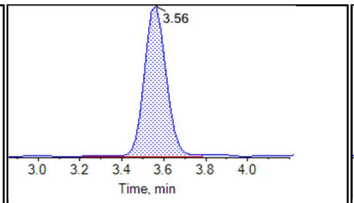
Sample Name	J8334-FS(3)	**Injection Vial**	40
Sample ID	VC-PM324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T09:57:38	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

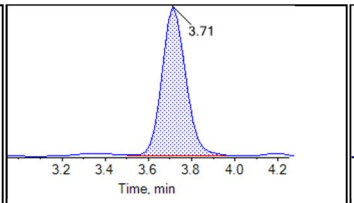
Target Analytes:



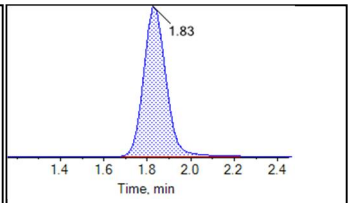
13C2-PFDoA



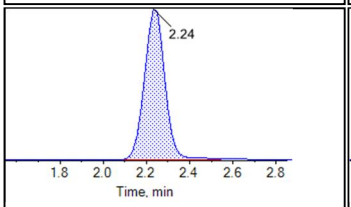
d3-MeFOSAA



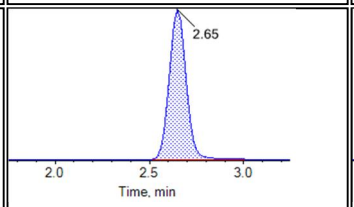
d5-EtFOSAA



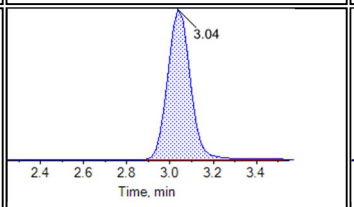
13C5-PFHxA



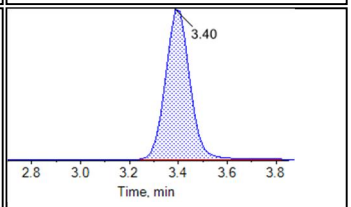
13C4-PFHpA



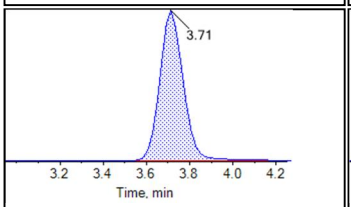
13C8-PFOA



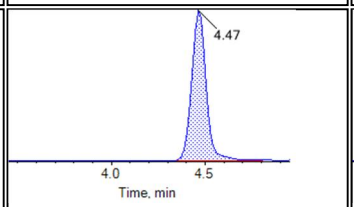
13C9-PFNA



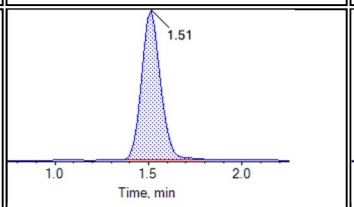
13C6-PFDA



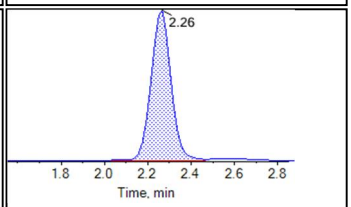
13C7-PFUnA



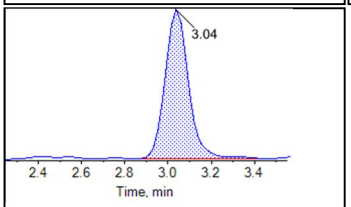
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

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Chromatogram Report

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Printed: 19/10/2018 4:03:34 PM

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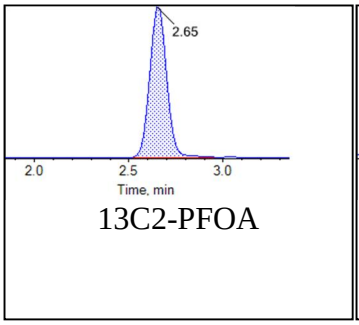
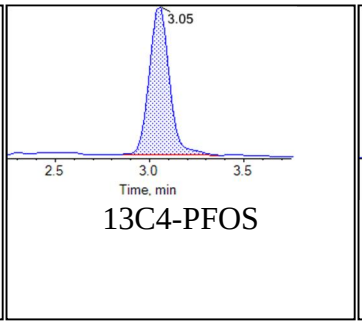
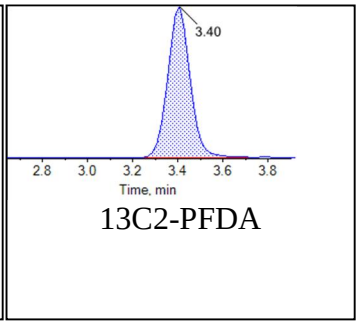


13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:39 PM

Sample Name	J8335MS-FS(3)	**Injection Vial**	41
Sample ID	VC-PM324-SB02-0506-MS	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:08:31	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

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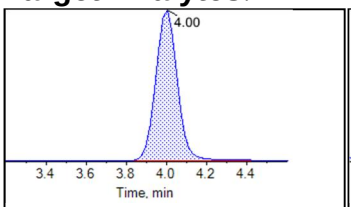
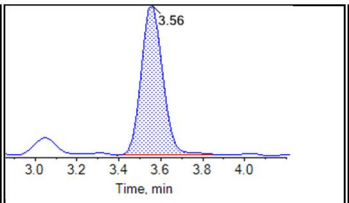
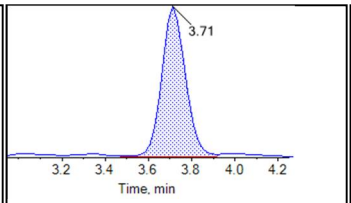


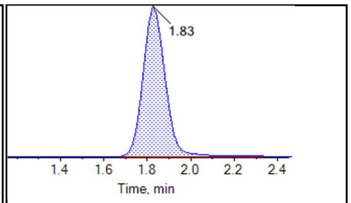
13C2-PFDoA



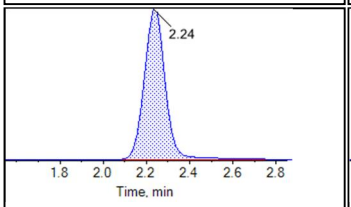
d3-MeFOSAA



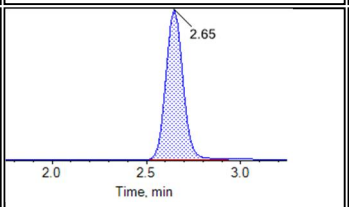
d5-EtFOSAA



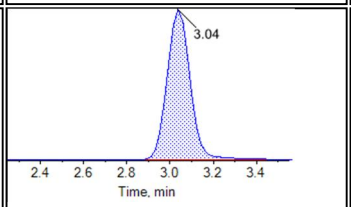
13C5-PFHxA



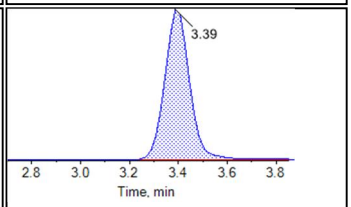
13C4-PFHpA



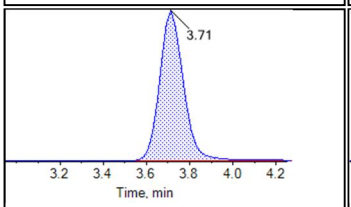
13C8-PFOA



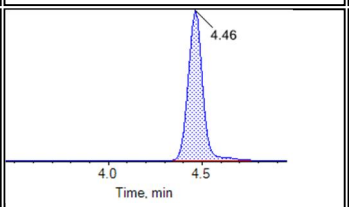
13C9-PFNA



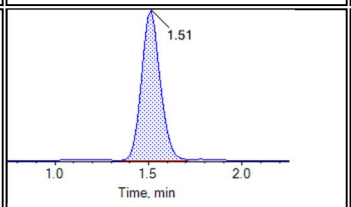
13C6-PFDA



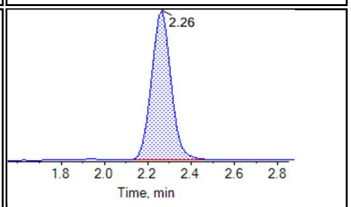
13C7-PFUnA



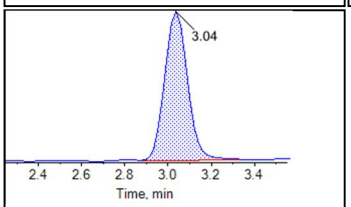
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



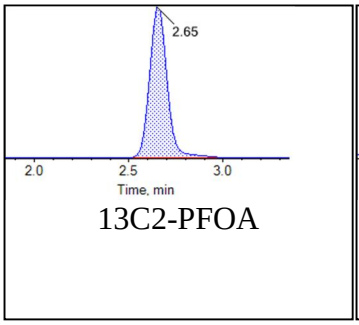
13C8-PFOS

BATTELLE

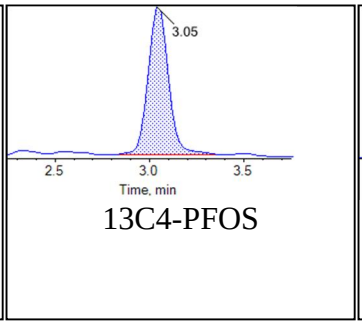
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:39 PM

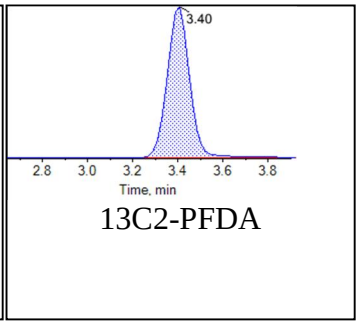
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

BATTELLE

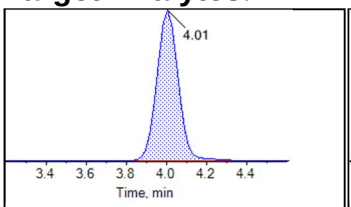
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:44 PM

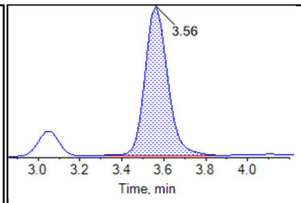
Sample Name	J8336MSD-FS(3)	**Injection Vial**	42
Sample ID	VC-PM324-SB02-0506-MSD	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:19:23	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

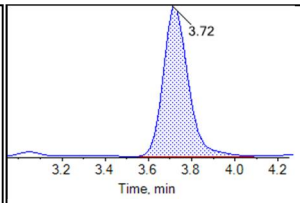
Target Analytes:



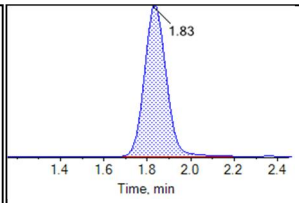
13C2-PFDoA



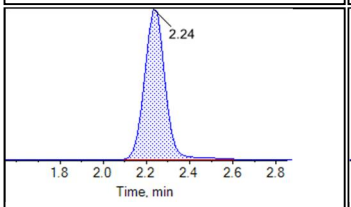
d3-MeFOSAA



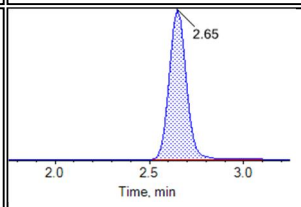
d5-EtFOSAA



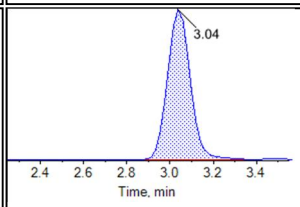
13C5-PFHxA



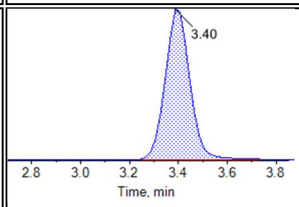
13C4-PFHpA



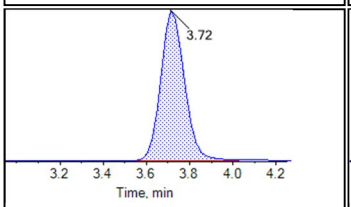
13C8-PFOA



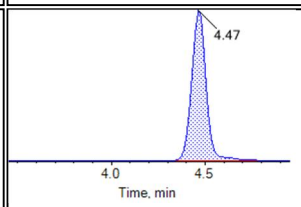
13C9-PFNA



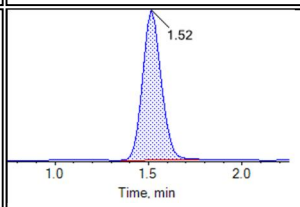
13C6-PFDA



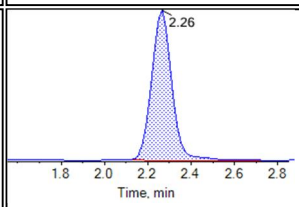
13C7-PFUnA



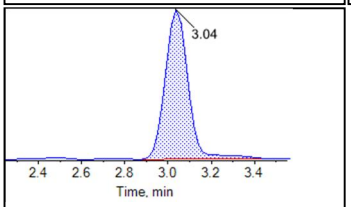
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS

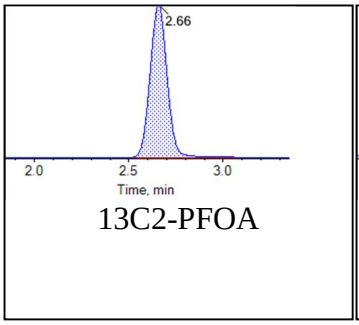


13C8-PFOS

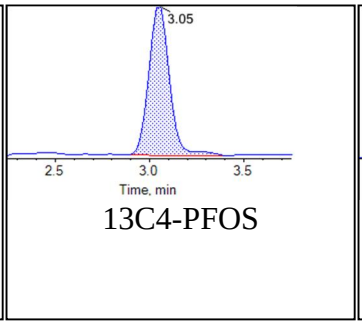
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:44 PM

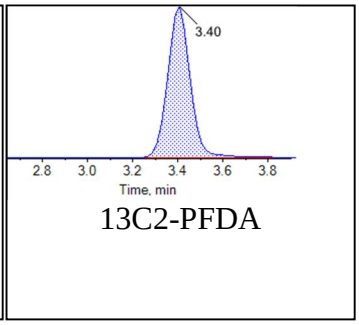
Internal Standards:



13C2-PFOA



13C4-PFOS



13C2-PFDA

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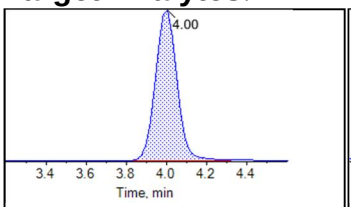
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:03:49 PM

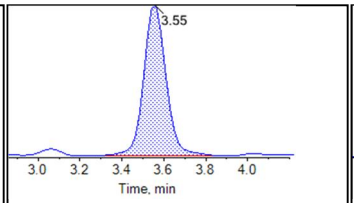
Sample Name	KB77 CCV	**Injection Vial**	43
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-09T10:30:17	**Data File**	Data18-0582.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_SIS
Sample Comment			

Chromatograms

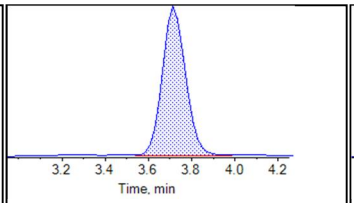
Target Analytes:



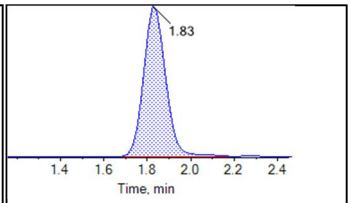
13C2-PFDoA



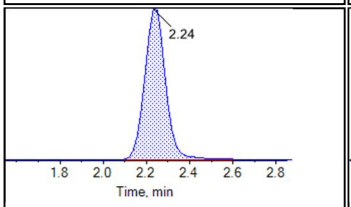
d3-MeFOSAA



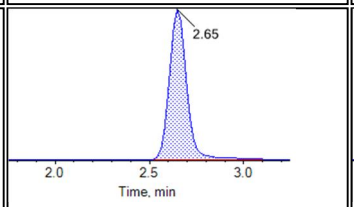
d5-EtFOSAA



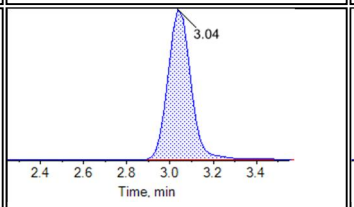
13C5-PFHxA



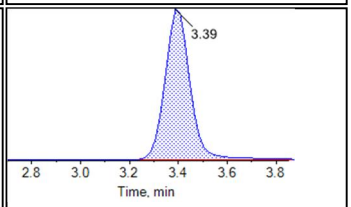
13C4-PFHpA



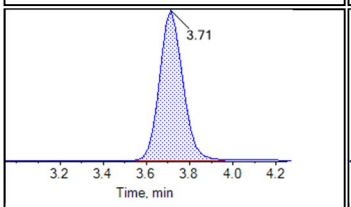
13C8-PFOA



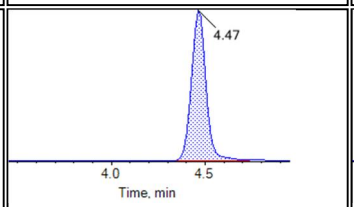
13C9-PFNA



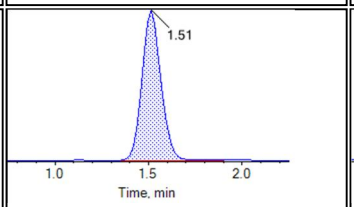
13C6-PFDA



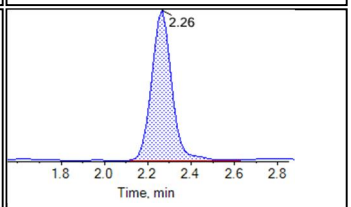
13C7-PFUnA



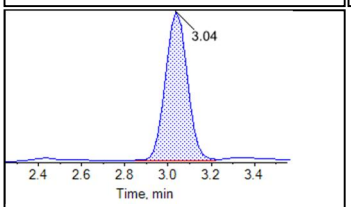
13C2-PFTeDA



13C3-PFBS

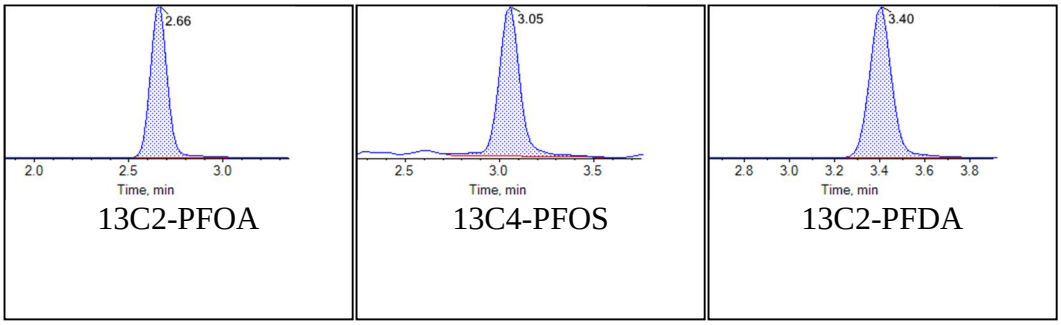


13C3-PFHxS



13C8-PFOS

Internal Standards:



BATTELLE

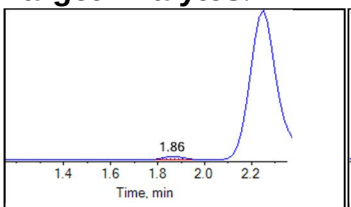
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:49:30 PM

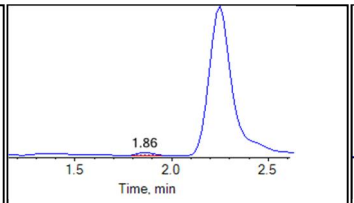
Sample Name	KB73	**Injection Vial**	2
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:25:01	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

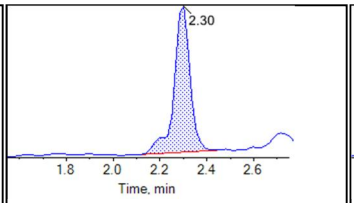
Target Analytes:



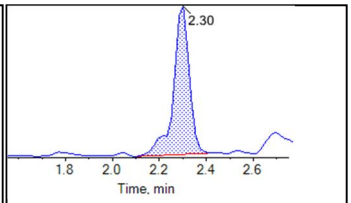
PFHxA_1



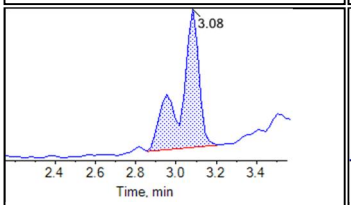
PFHxA_2



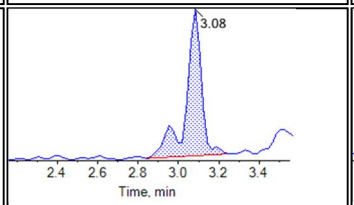
PFHxS_1



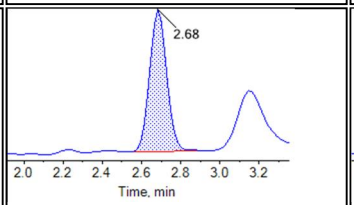
PFHxS_2



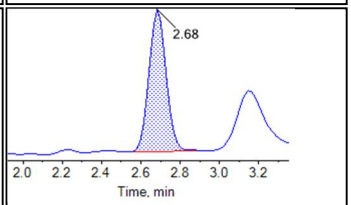
PFOS_1



PFOS_2

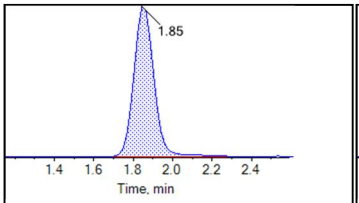


PFOA_1

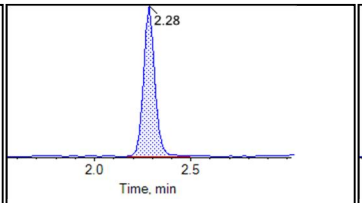


PFOA_2

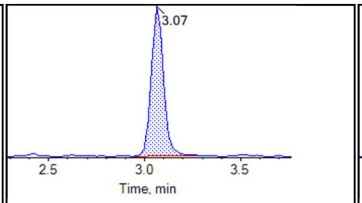
Internal Standards:



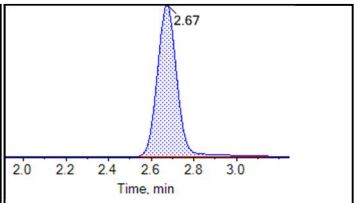
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

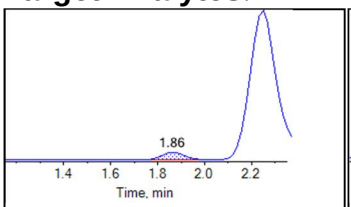
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:49:35 PM

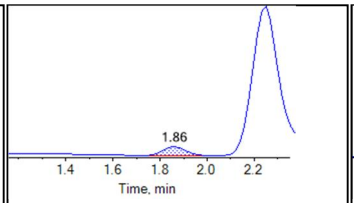
Sample Name	KB74	**Injection Vial**	3
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:35:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

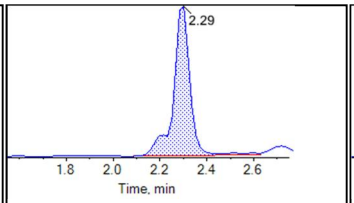
Target Analytes:



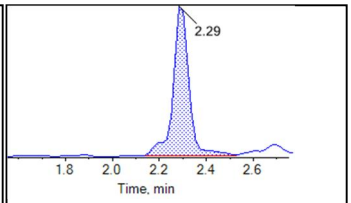
PFHxA_1



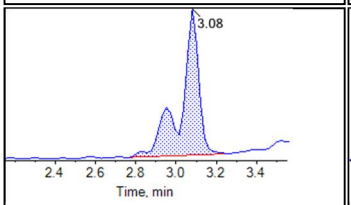
PFHxA_2



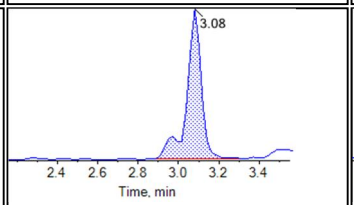
PFHxS_1



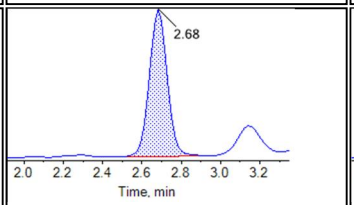
PFHxS_2



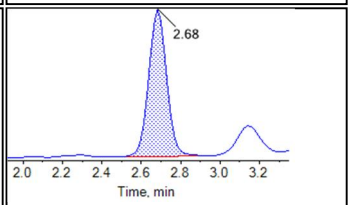
PFOS_1



PFOS_2

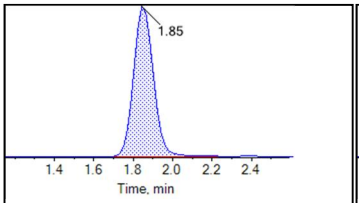


PFOA_1

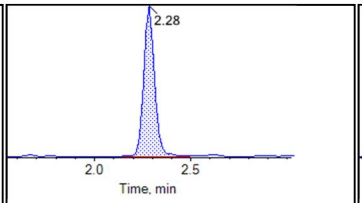


PFOA_2

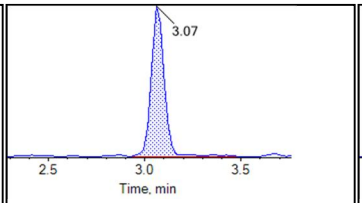
Internal Standards:



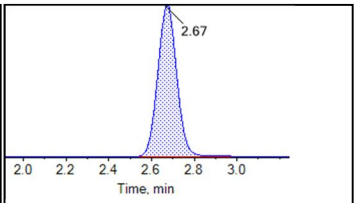
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

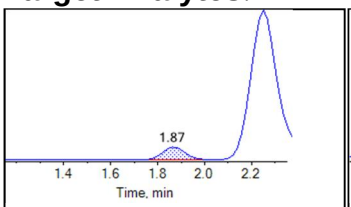
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:49:40 PM

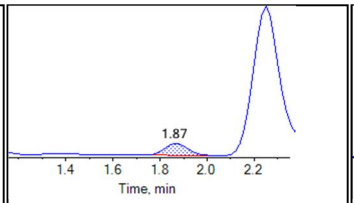
Sample Name	KB75	**Injection Vial**	4
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:46:44	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

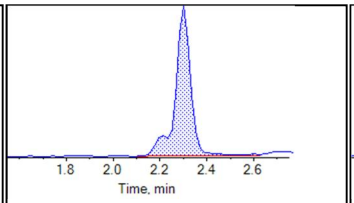
Target Analytes:



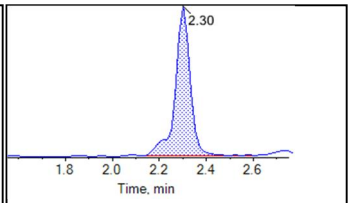
PFHxA_1



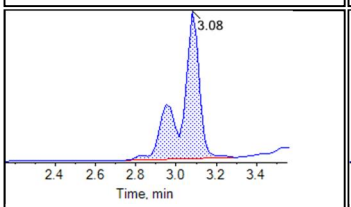
PFHxA_2



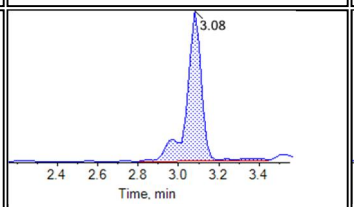
PFHxS_1



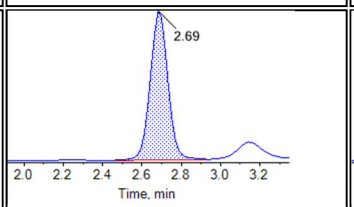
PFHxS_2



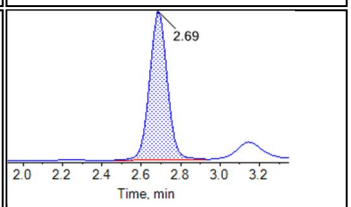
PFOS_1



PFOS_2

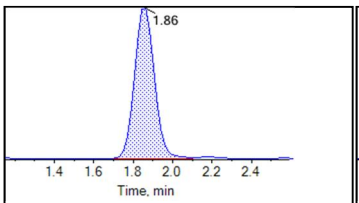


PFOA_1

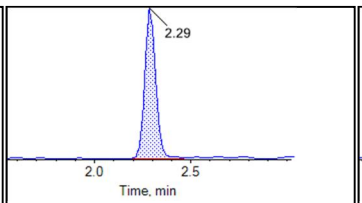


PFOA_2

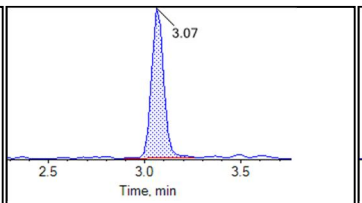
Internal Standards:



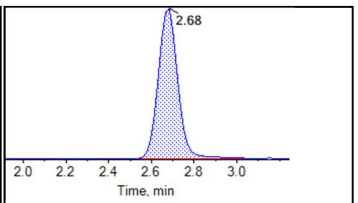
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

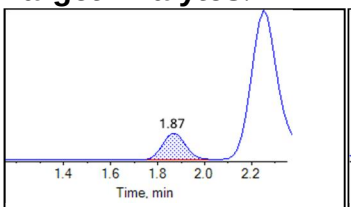
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:49:47 PM

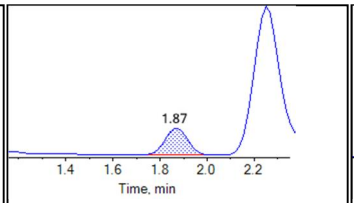
Sample Name	KB76	**Injection Vial**	5
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T12:57:36	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

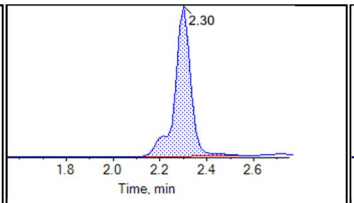
Target Analytes:



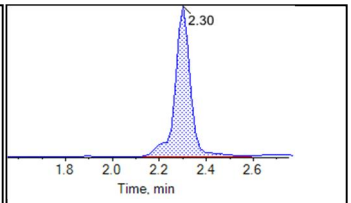
PFHxA_1



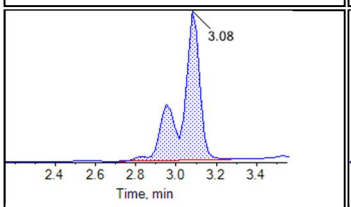
PFHxA_2



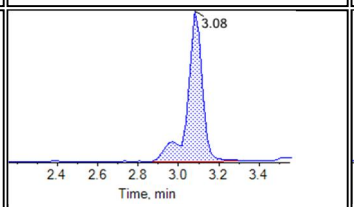
PFHxS_1



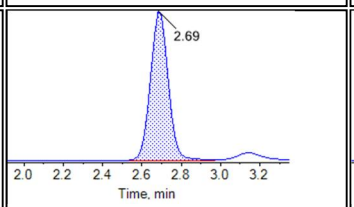
PFHxS_2



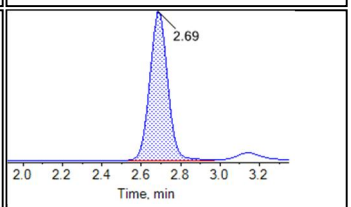
PFOS_1



PFOS_2

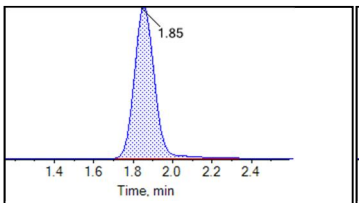


PFOA_1

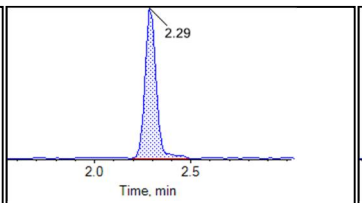


PFOA_2

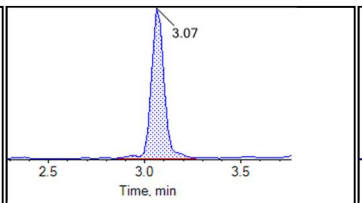
Internal Standards:



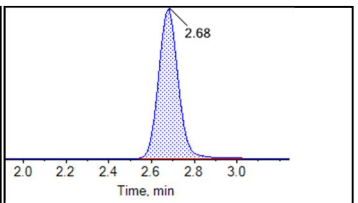
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

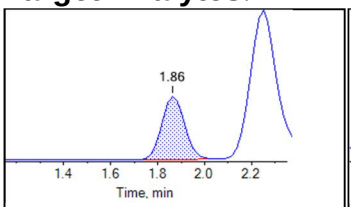
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:49:52 PM

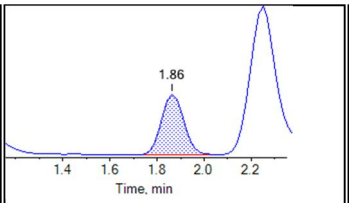
Sample Name	KB77	**Injection Vial**	6
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:08:28	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

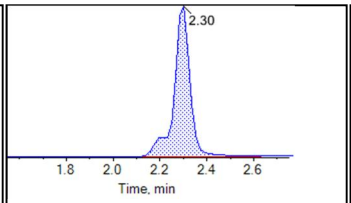
Target Analytes:



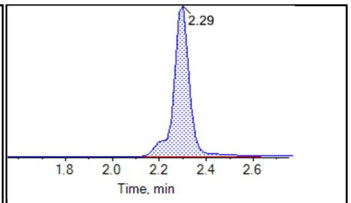
PFHxA_1



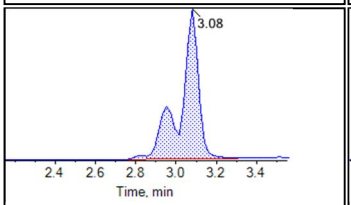
PFHxA_2



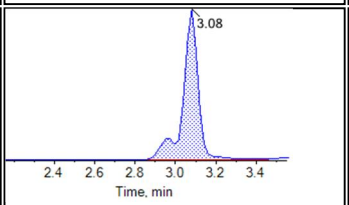
PFHxS_1



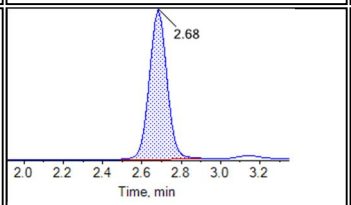
PFHxS_2



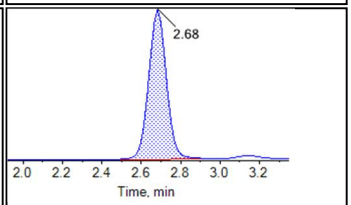
PFOS_1



PFOS_2

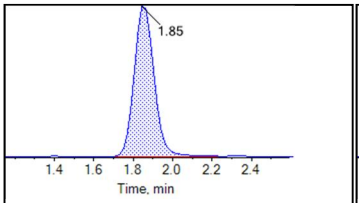


PFOA_1

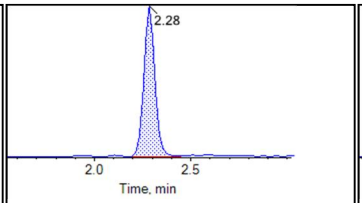


PFOA_2

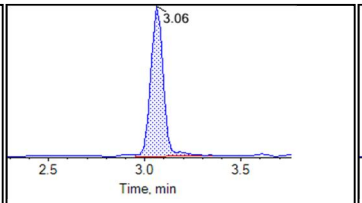
Internal Standards:



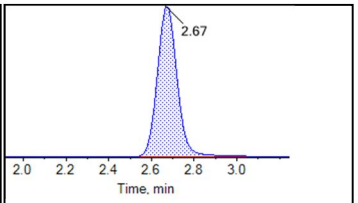
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

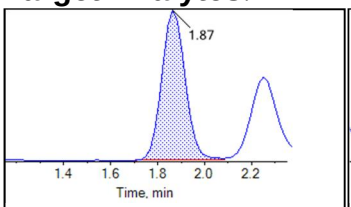
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:49:57 PM

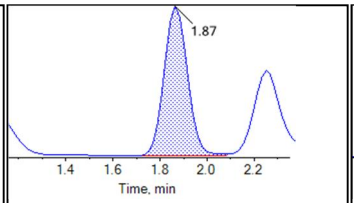
Sample Name	KB78	**Injection Vial**	7
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:19:19	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

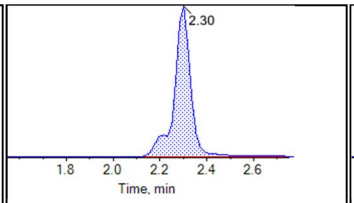
Target Analytes:



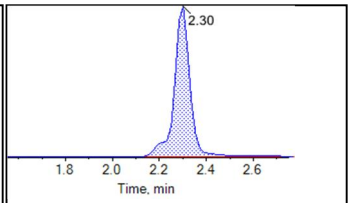
PFHxA_1



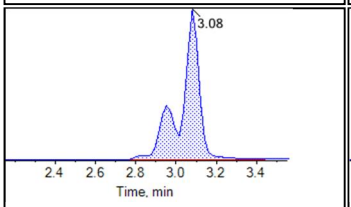
PFHxA_2



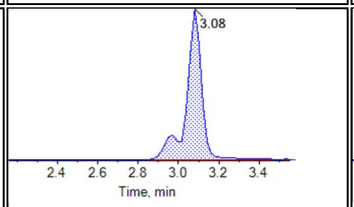
PFHxS_1



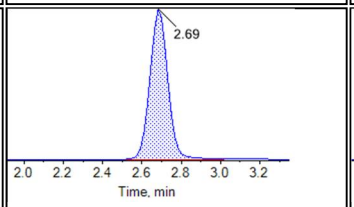
PFHxS_2



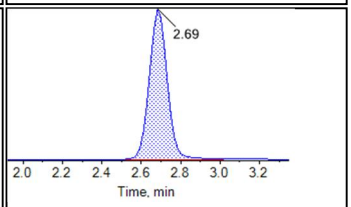
PFOS_1



PFOS_2

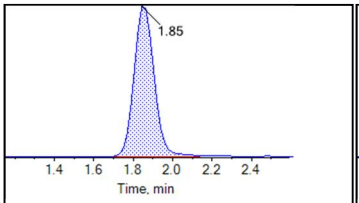


PFOA_1

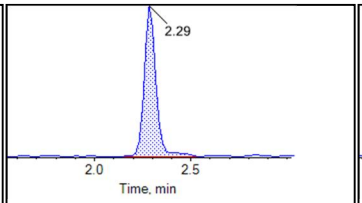


PFOA_2

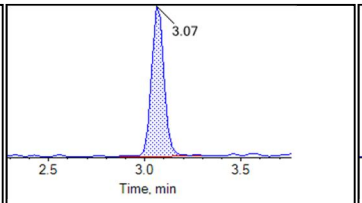
Internal Standards:



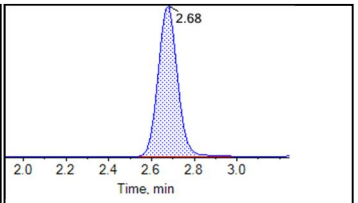
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

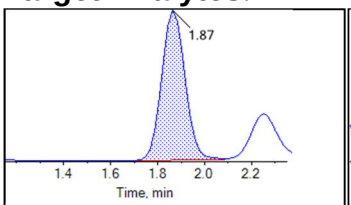
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:50:02 PM

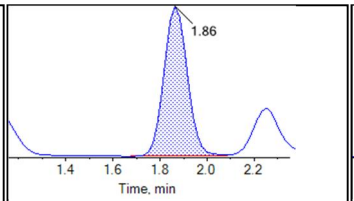
Sample Name	KB79	**Injection Vial**	8
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:30:11	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

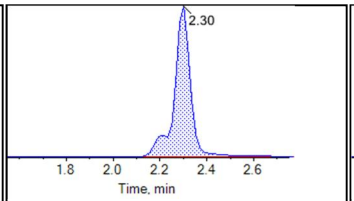
Target Analytes:



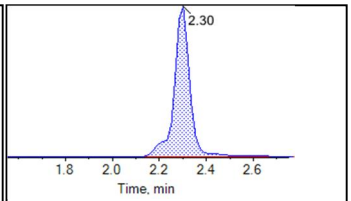
PFHxA_1



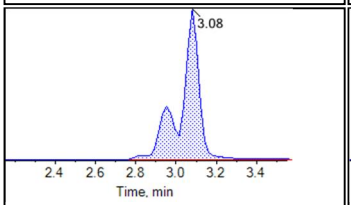
PFHxA_2



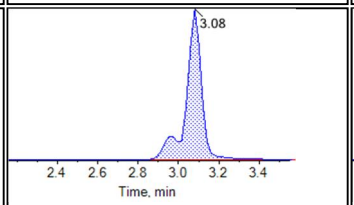
PFHxS_1



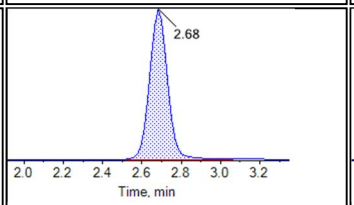
PFHxS_2



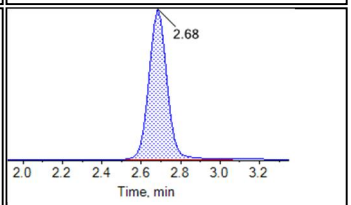
PFOS_1



PFOS_2

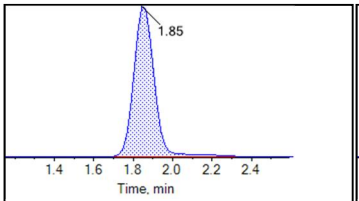


PFOA_1

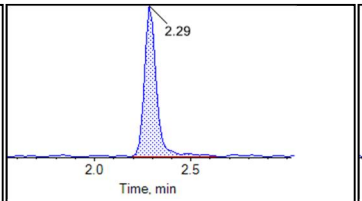


PFOA_2

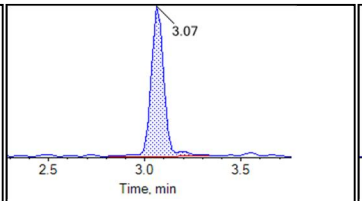
Internal Standards:



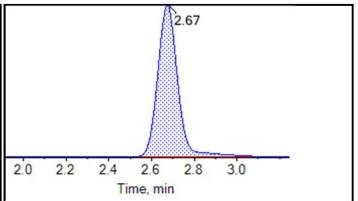
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

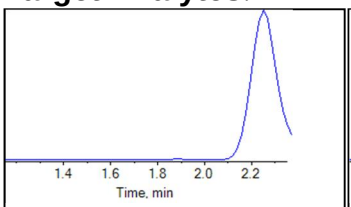
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:50:06 PM

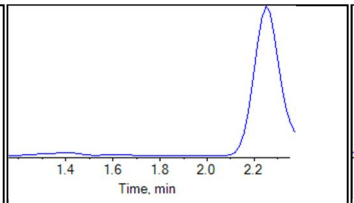
Sample Name	KB80 IB	**Injection Vial**	9
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:41:02	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

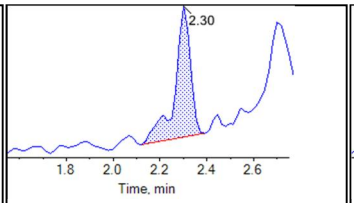
Target Analytes:



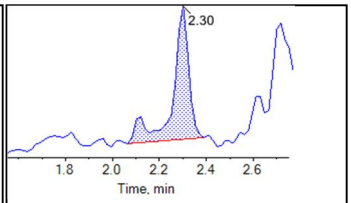
PFHxA_1



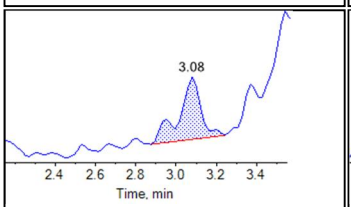
PFHxA_2



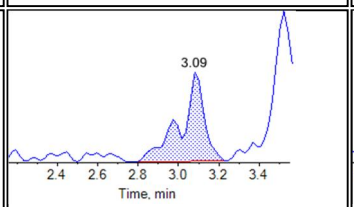
PFHxS_1



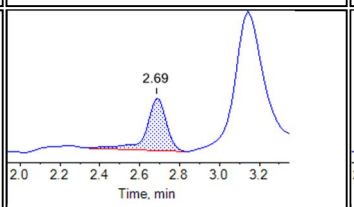
PFHxS_2



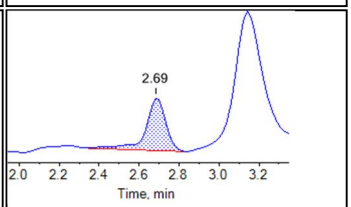
PFOS_1



PFOS_2

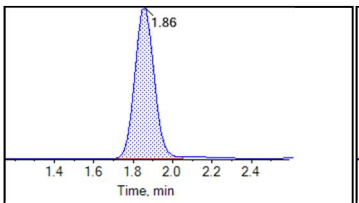


PFOA_1

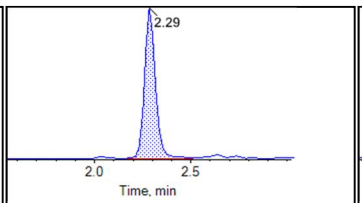


PFOA_2

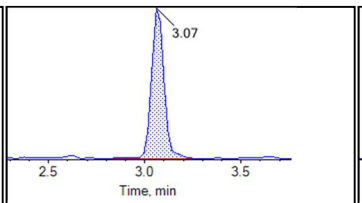
Internal Standards:



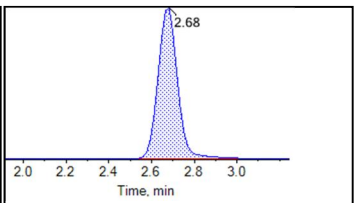
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

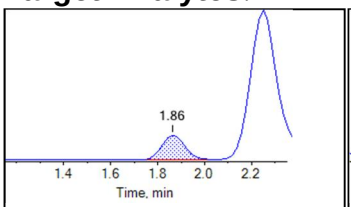
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:50:11 PM

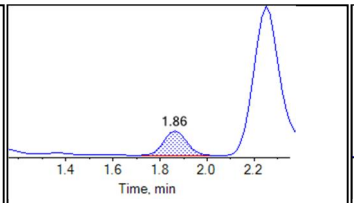
Sample Name	KB81 ICC	**Injection Vial**	10
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-14T13:51:53	**Data File**	18-0585_18-0583.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

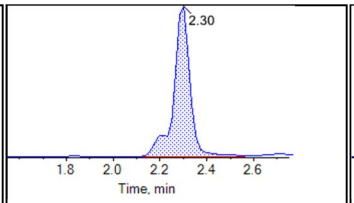
Target Analytes:



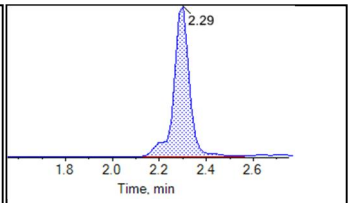
PFHxA_1



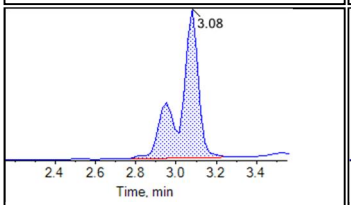
PFHxA_2



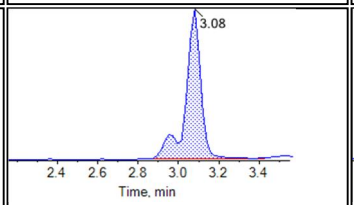
PFHxS_1



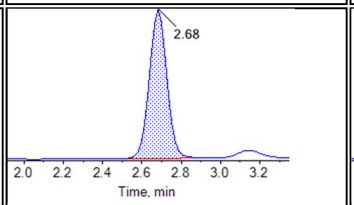
PFHxS_2



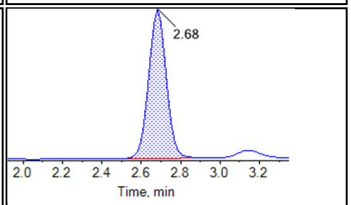
PFOS_1



PFOS_2

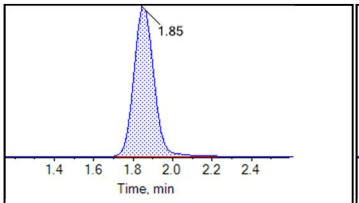


PFOA_1

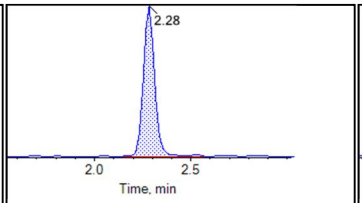


PFOA_2

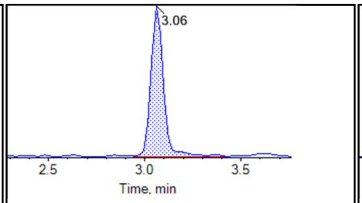
Internal Standards:



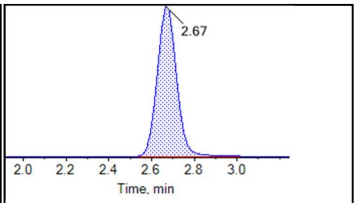
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

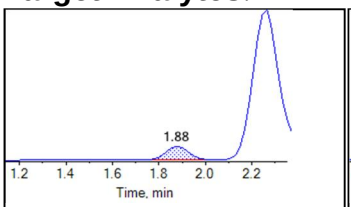
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:50:28 PM

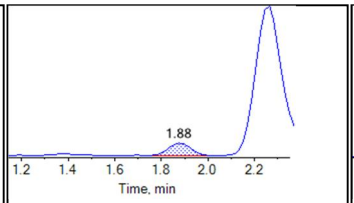
Sample Name	KB75 ISC	**Injection Vial**	1
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T17:53:40	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

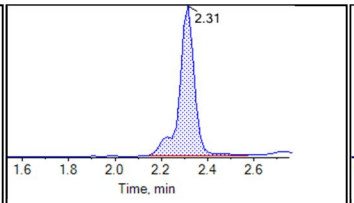
Target Analytes:



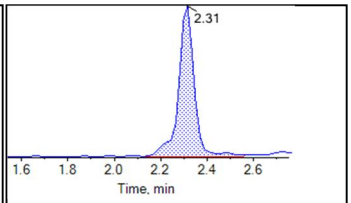
PFHxA_1



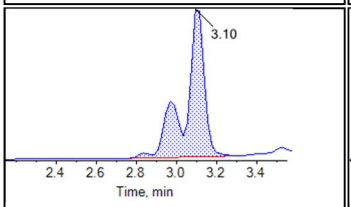
PFHxA_2



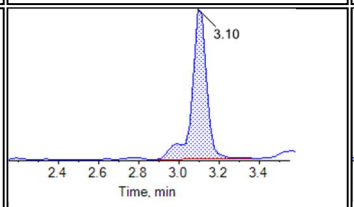
PFHxS_1



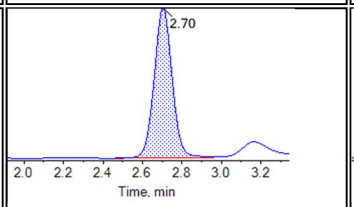
PFHxS_2



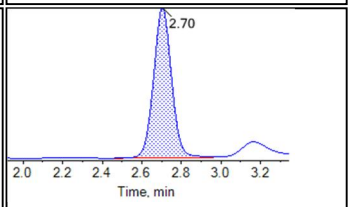
PFOS_1



PFOS_2

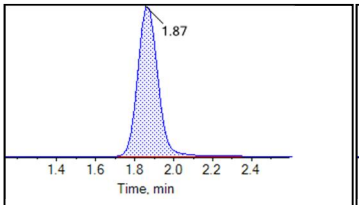


PFOA_1

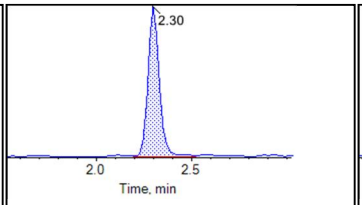


PFOA_2

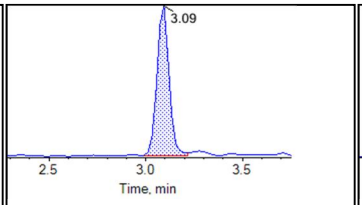
Internal Standards:



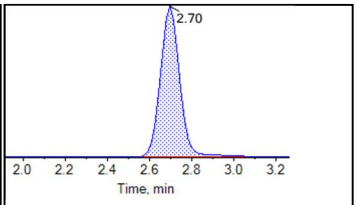
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

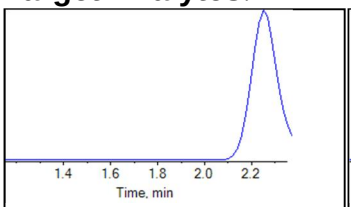
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:50:33 PM

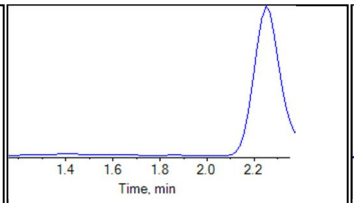
Sample Name	KB80 IB	**Injection Vial**	2
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T18:04:33	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

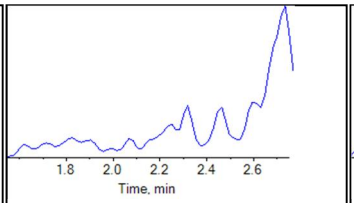
Target Analytes:



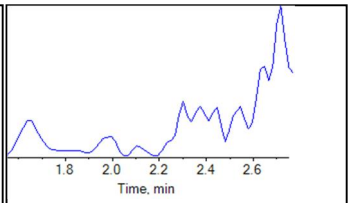
PFHxA_1



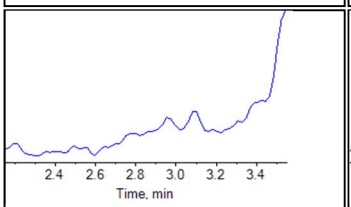
PFHxA_2



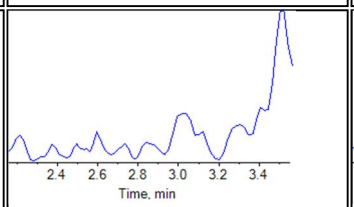
PFHxS_1



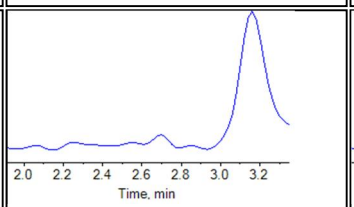
PFHxS_2



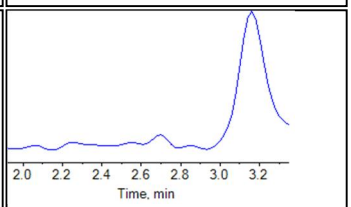
PFOS_1



PFOS_2

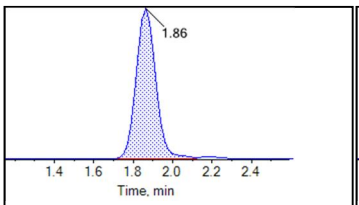


PFOA_1

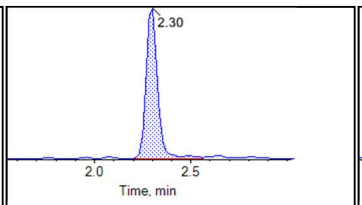


PFOA_2

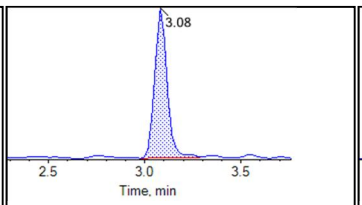
Internal Standards:



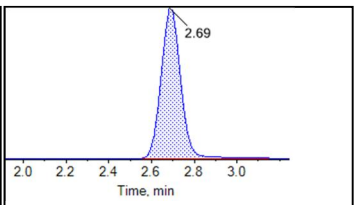
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

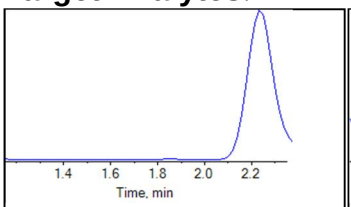
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:51:00 PM

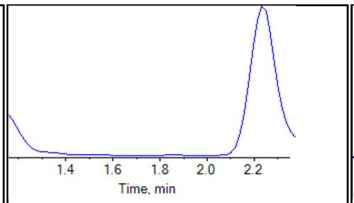
Sample Name	J8310-FS-D(7)	**Injection Vial**	8
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:09:47	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

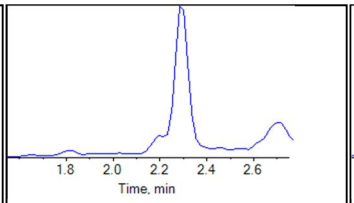
Target Analytes:



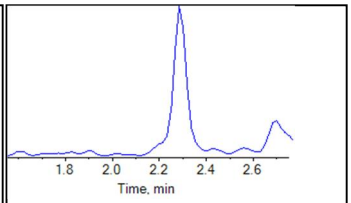
PFHxA_1



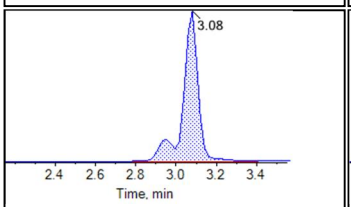
PFHxA_2



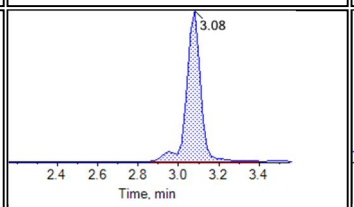
PFHxS_1



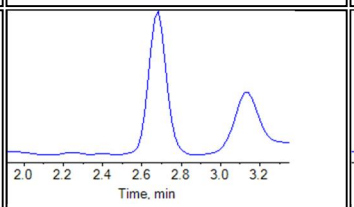
PFHxS_2



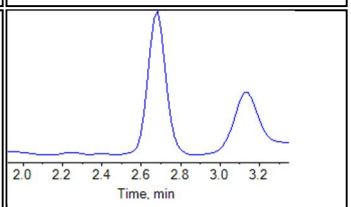
PFOS_1



PFOS_2

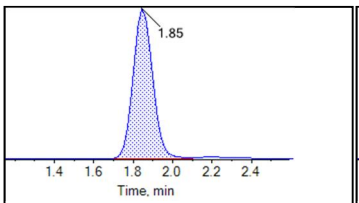


PFOA_1

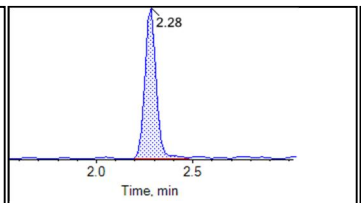


PFOA_2

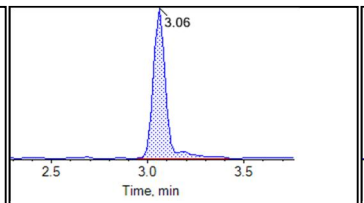
Internal Standards:



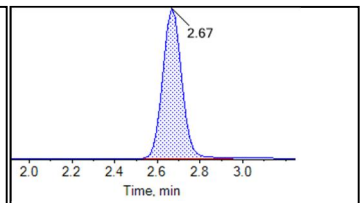
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

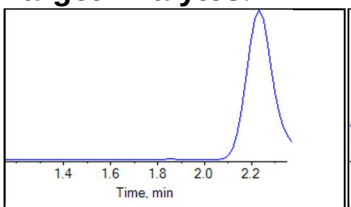
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:51:04 PM

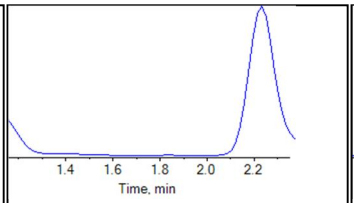
Sample Name	J8311-FS-D(7)	**Injection Vial**	9
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:20:39	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

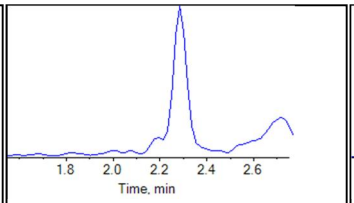
Target Analytes:



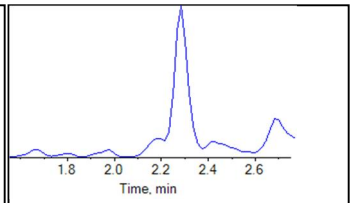
PFHxA_1



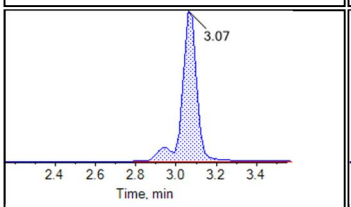
PFHxA_2



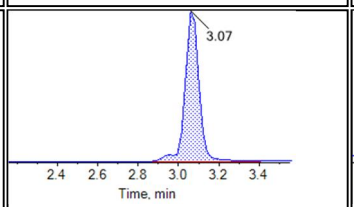
PFHxS_1



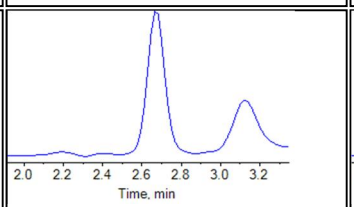
PFHxS_2



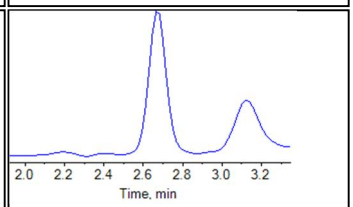
PFOS_1



PFOS_2

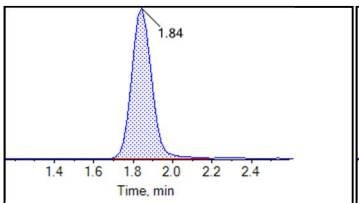


PFOA_1

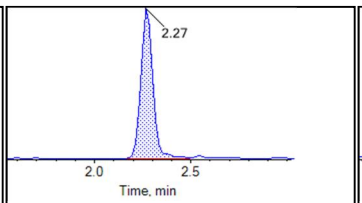


PFOA_2

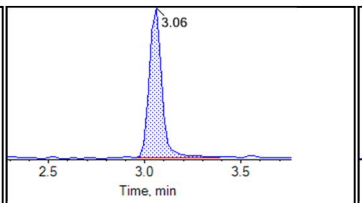
Internal Standards:



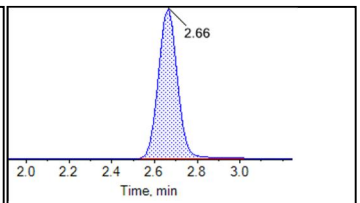
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

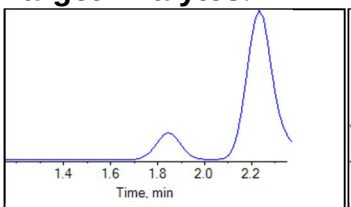
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:51:09 PM

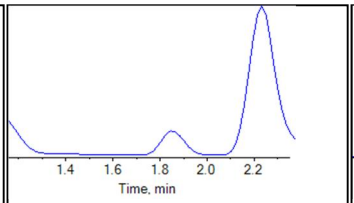
Sample Name	J8312-FS-D(9)	**Injection Vial**	10
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:31:30	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

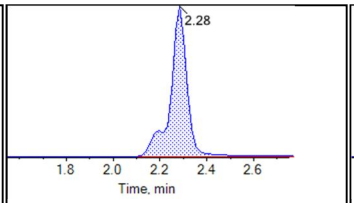
Target Analytes:



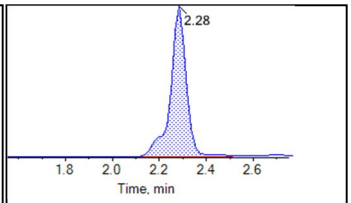
PFHxA_1



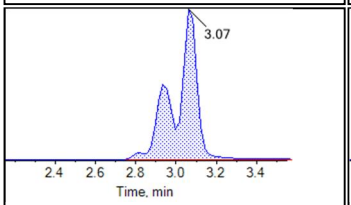
PFHxA_2



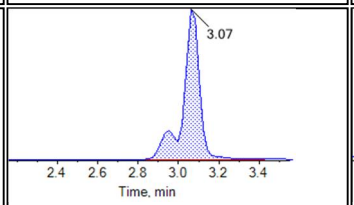
PFHxS_1



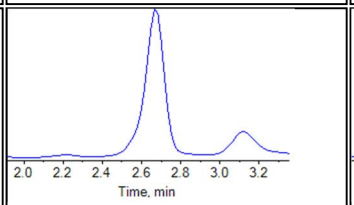
PFHxS_2



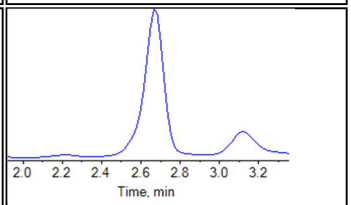
PFOS_1



PFOS_2

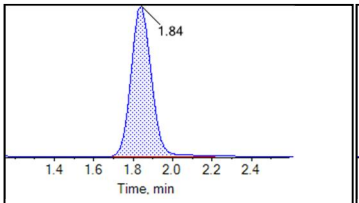


PFOA_1

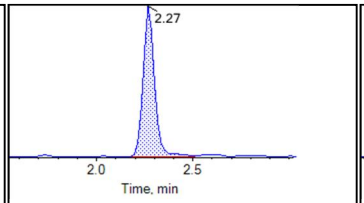


PFOA_2

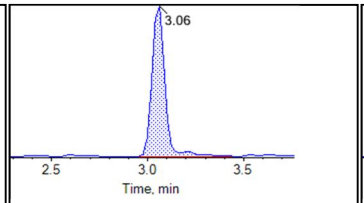
Internal Standards:



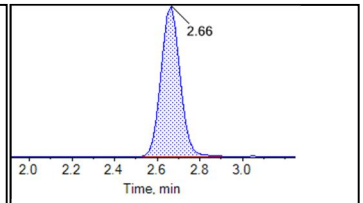
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

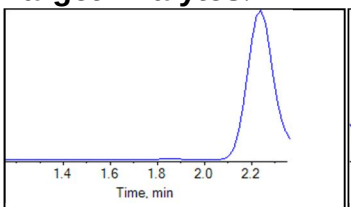
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:51:13 PM

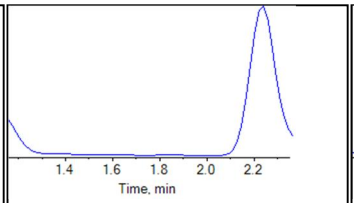
Sample Name	J8313-FS-D(7)	**Injection Vial**	11
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:42:21	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

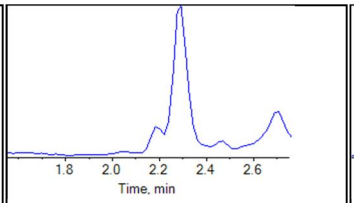
Target Analytes:



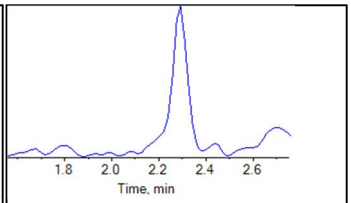
PFHxA_1



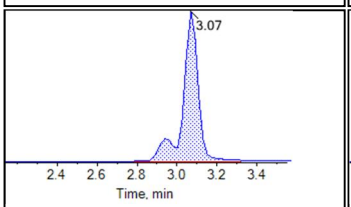
PFHxA_2



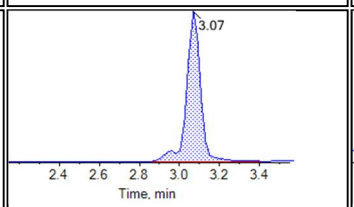
PFHxS_1



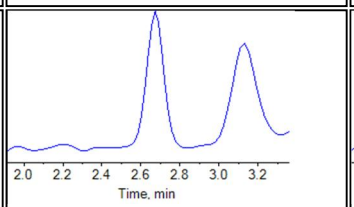
PFHxS_2



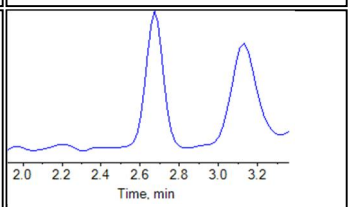
PFOS_1



PFOS_2

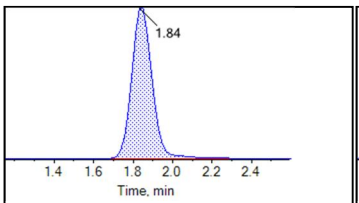


PFOA_1

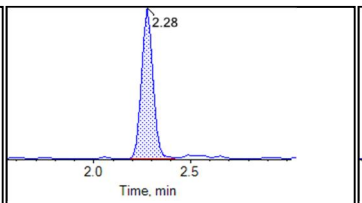


PFOA_2

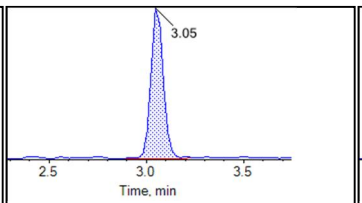
Internal Standards:



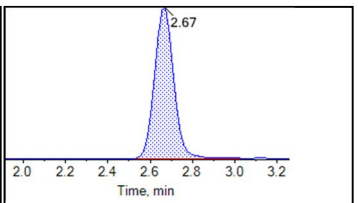
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

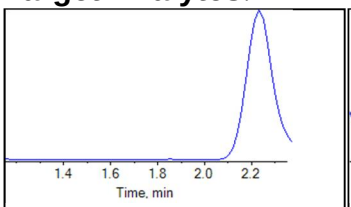
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:51:17 PM

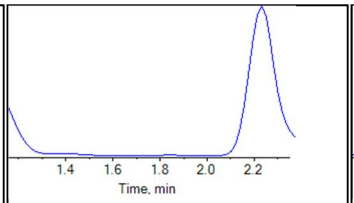
Sample Name	J8314-FS-D(7)	**Injection Vial**	12
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T19:53:13	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

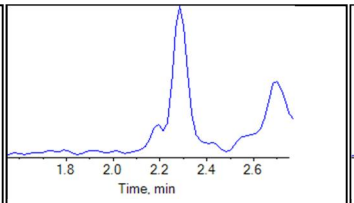
Target Analytes:



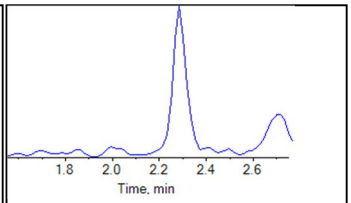
PFHxA_1



PFHxA_2



PFHxS_1



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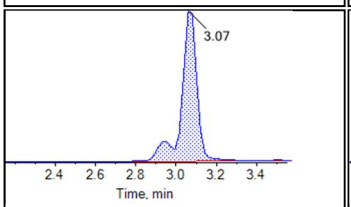
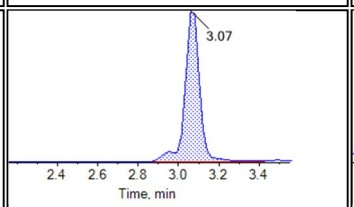
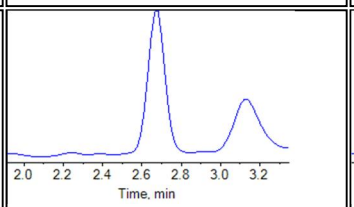


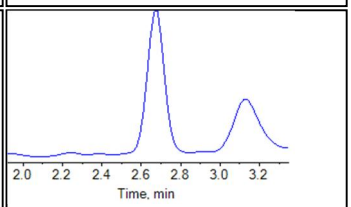
PFOS_1



PFOS_2

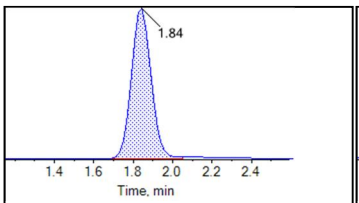


PFOA_1

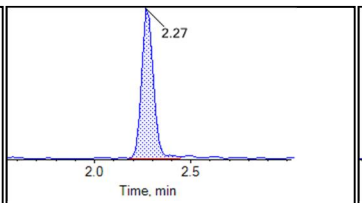


PFOA_2

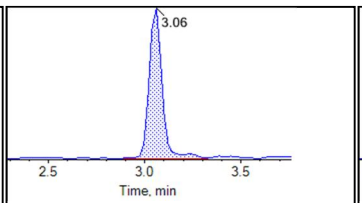
Internal Standards:



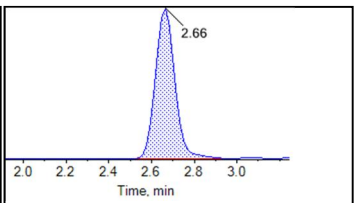
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

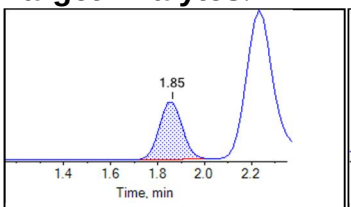
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:51:21 PM

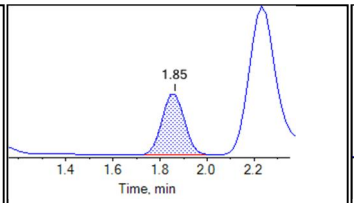
Sample Name	KB77 CCV	**Injection Vial**	13
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:04:05	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

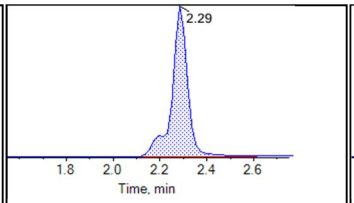
Target Analytes:



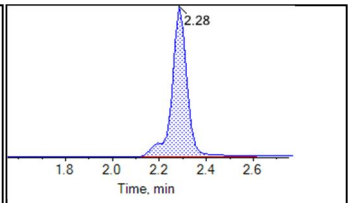
PFHxA_1



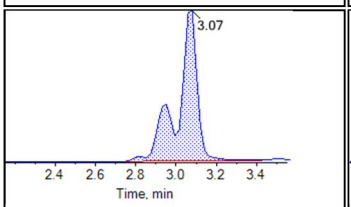
PFHxA_2



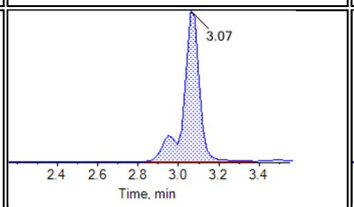
PFHxS_1



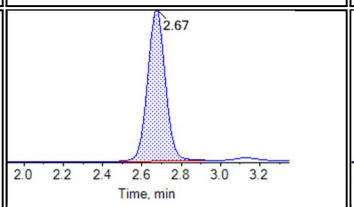
PFHxS_2



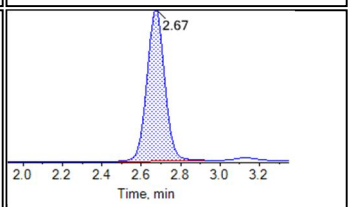
PFOS_1



PFOS_2



PFOA_1



PFOA_2

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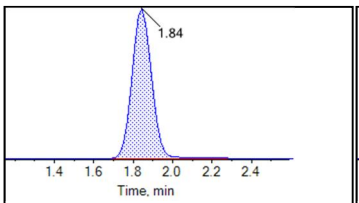
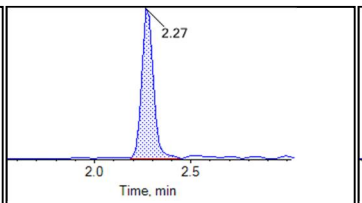
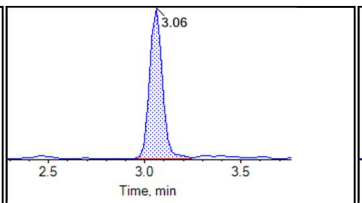


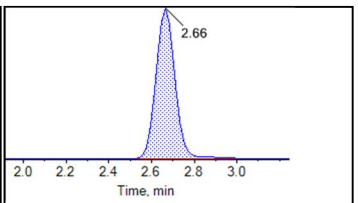
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

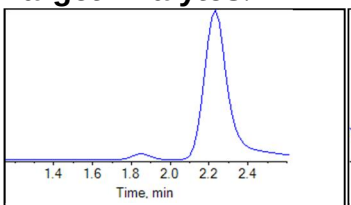
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:51:30 PM

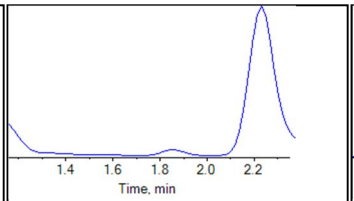
Sample Name	J8315-FS-D(7)	**Injection Vial**	15
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:25:51	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

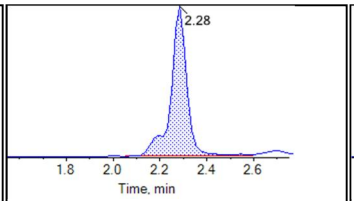
Target Analytes:



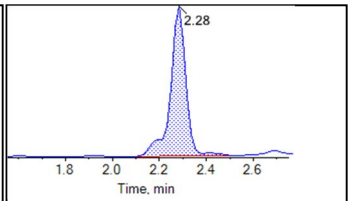
PFHxA_1



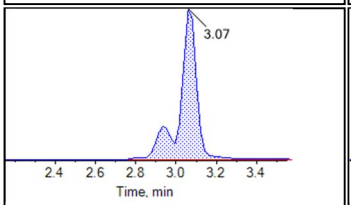
PFHxA_2



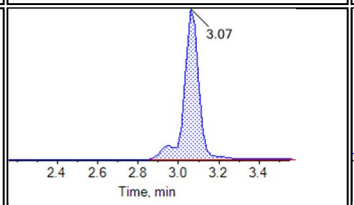
PFHxS_1



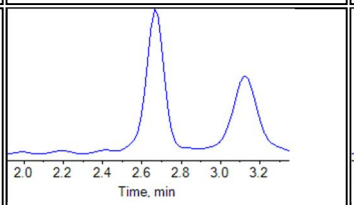
PFHxS_2



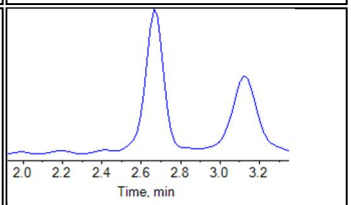
PFOS_1



PFOS_2

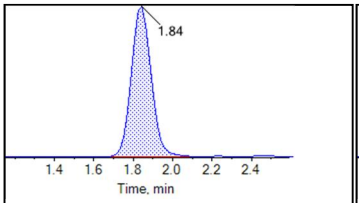


PFOA_1

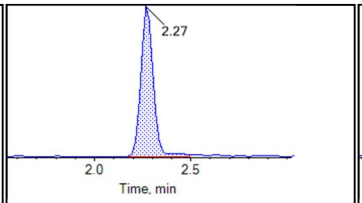


PFOA_2

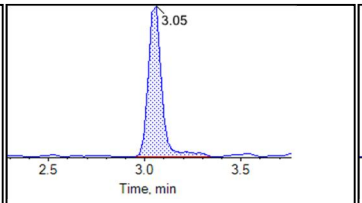
Internal Standards:



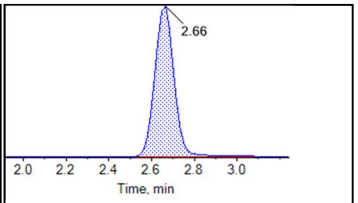
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

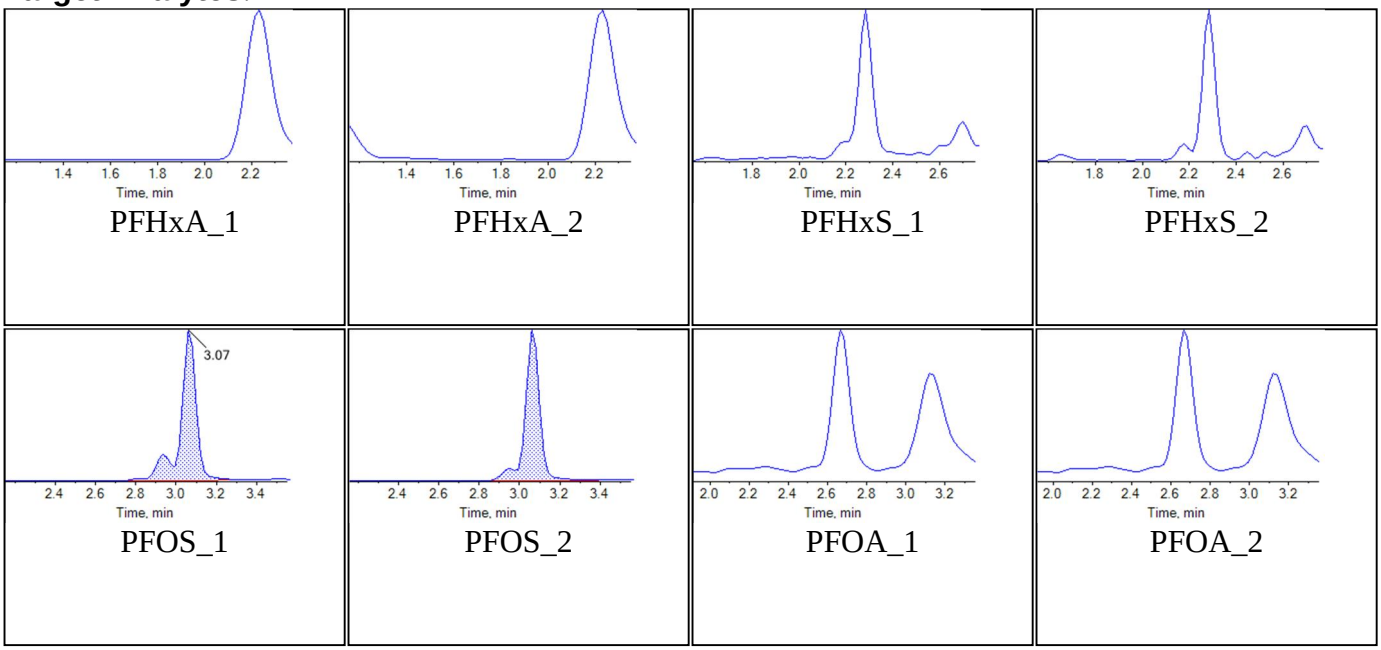
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:51:34 PM

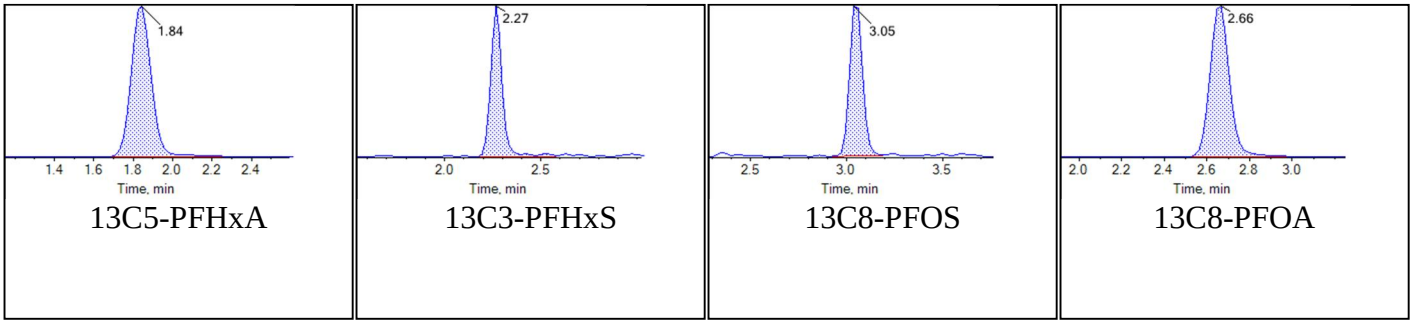
Sample Name	J8316-FS-D(7)	**Injection Vial**	16
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:36:42	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

Target Analytes:



Internal Standards:



BATTELLE

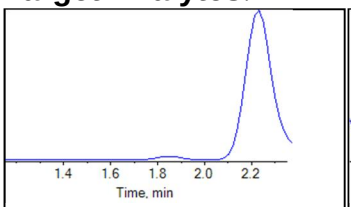
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:51:39 PM

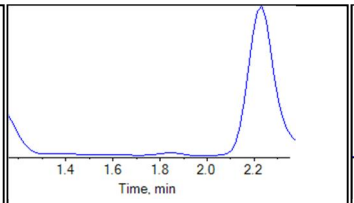
Sample Name	J8317-FS-D(7)	**Injection Vial**	17
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:47:33	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

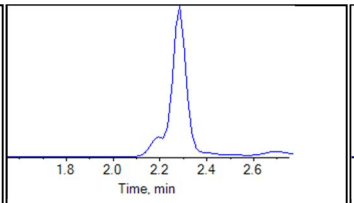
Target Analytes:



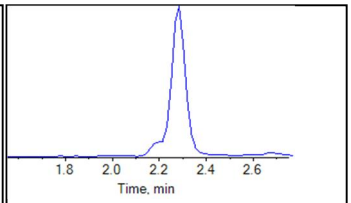
PFHxA_1



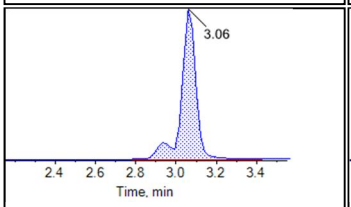
PFHxA_2



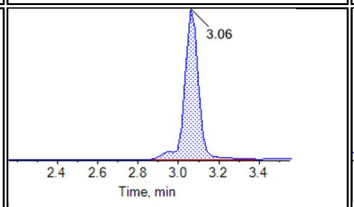
PFHxS_1



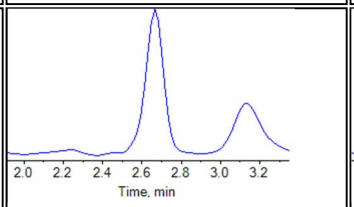
PFHxS_2



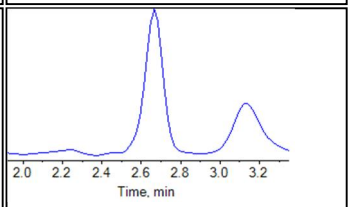
PFOS_1



PFOS_2

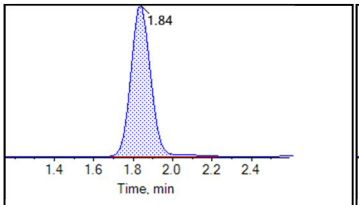


PFOA_1

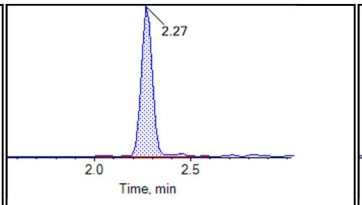


PFOA_2

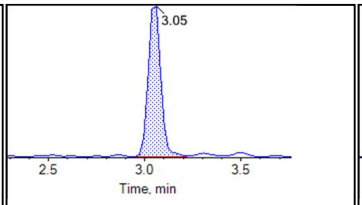
Internal Standards:



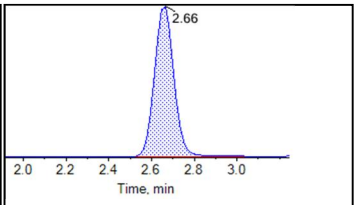
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

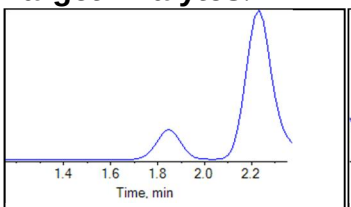
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:51:44 PM

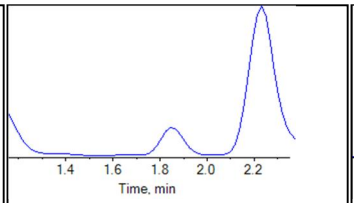
Sample Name	J8318-FS-D(9)	**Injection Vial**	18
Sample ID		**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T20:58:24	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

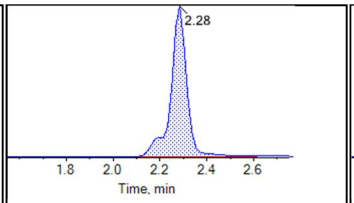
Target Analytes:



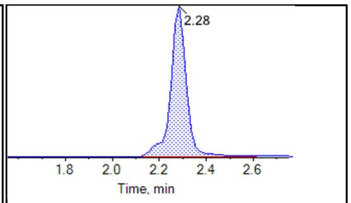
PFHxA_1



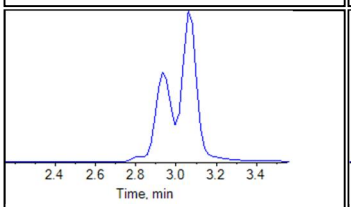
PFHxA_2



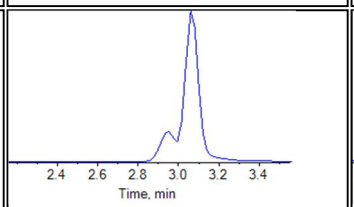
PFHxS_1



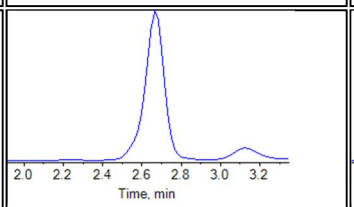
PFHxS_2



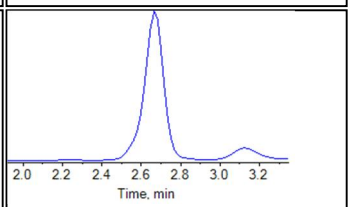
PFOS_1



PFOS_2

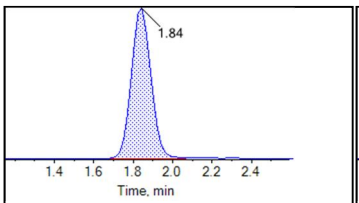


PFOA_1

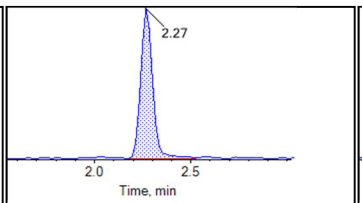


PFOA_2

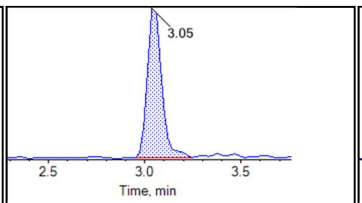
Internal Standards:



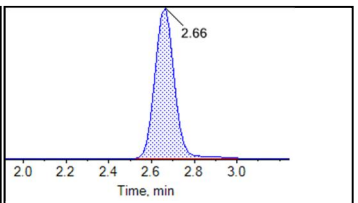
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

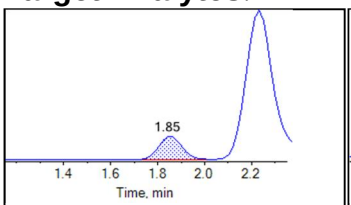
Chromatogram Report

Created with Analyst Reporter
Printed: 19/10/2018 4:51:48 PM

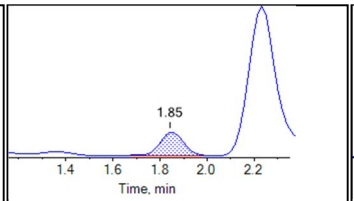
Sample Name	KB76 CCV	**Injection Vial**	19
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-15T21:09:15	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0582_18-0583_D_Base
Sample Comment			

Chromatograms

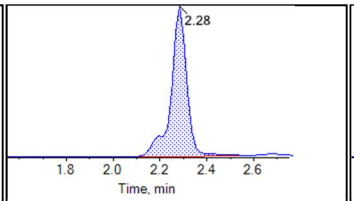
Target Analytes:



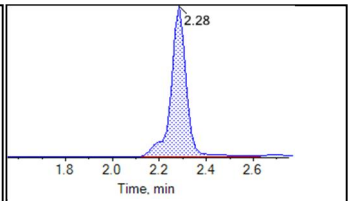
PFHxA_1



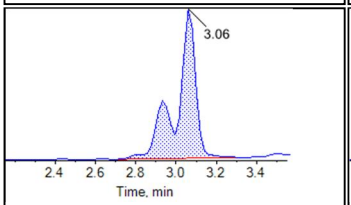
PFHxA_2



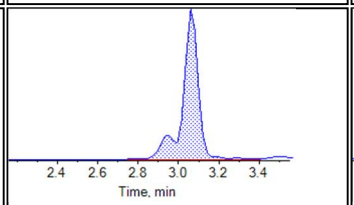
PFHxS_1



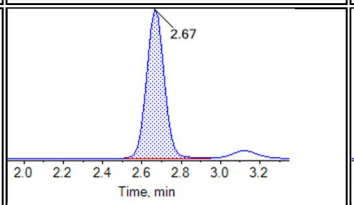
PFHxS_2



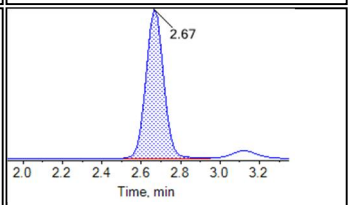
PFOS_1



PFOS_2

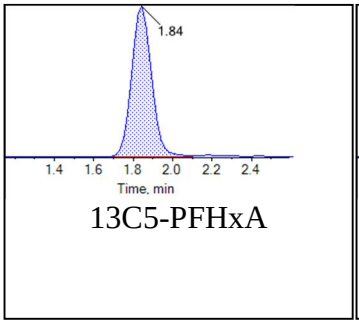


PFOA_1

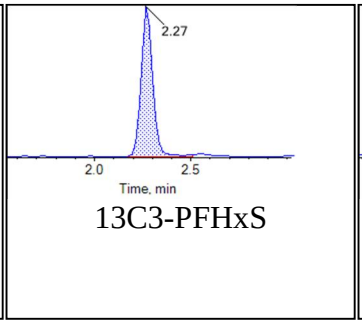


PFOA_2

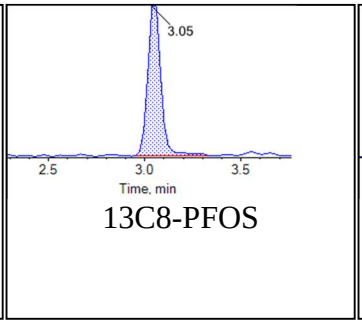
Internal Standards:



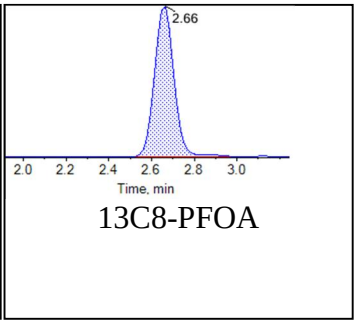
13C5-PFHxA



13C3-PFHxS



13C8-PFOS



13C8-PFOA

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 25/10/2018 3:00:04 PM

Sample Name	KB77 CCV	**Injection Vial**	10
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:00:57	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_BASE
Sample Comment			

Chromatograms

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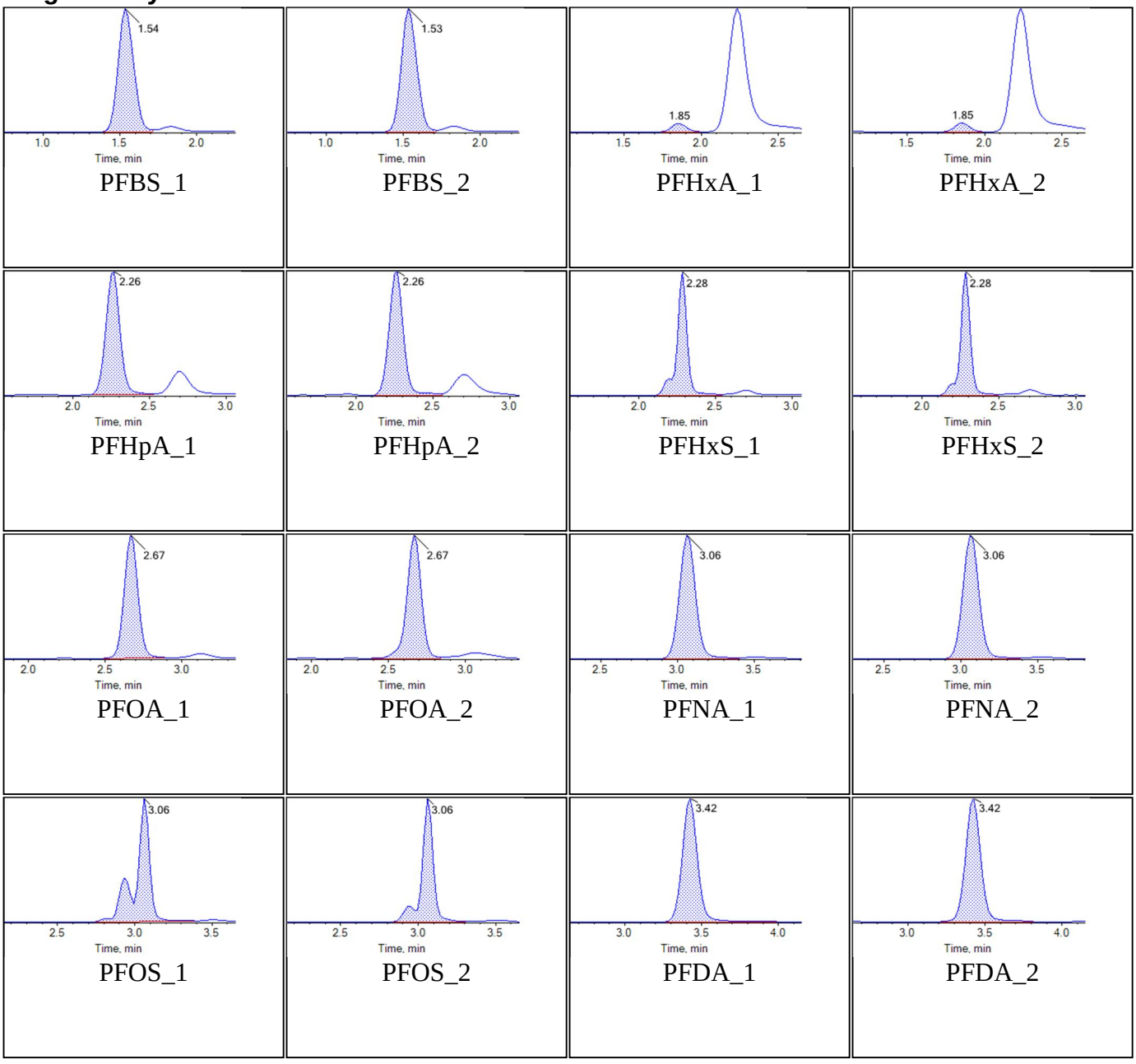

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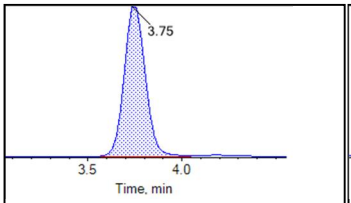
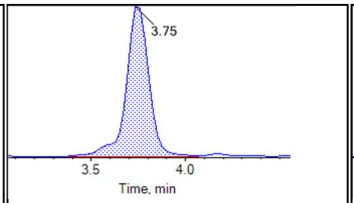
Chromatogram Report

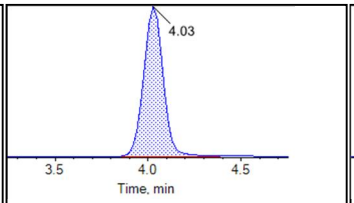
Created with Analyst Reporter
Printed: 25/10/2018 3:00:04 PM



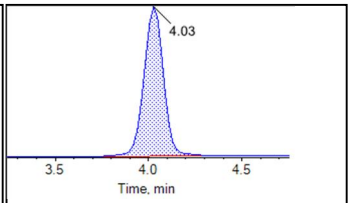
PFUnA_1



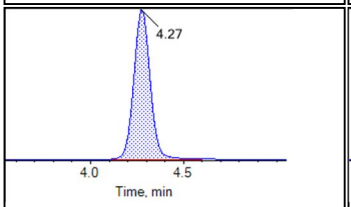
PFUnA_2



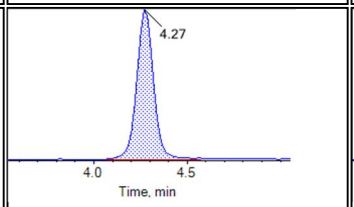
PFDoA_1



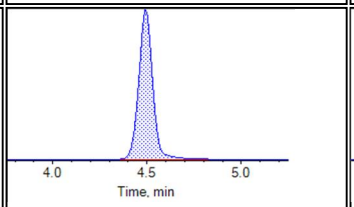
PFDoA_2



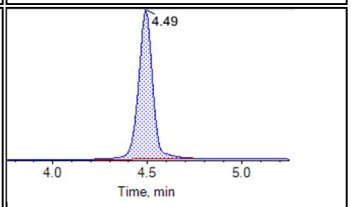
PFTrDA_1



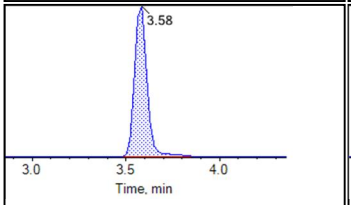
PFTrDA_2



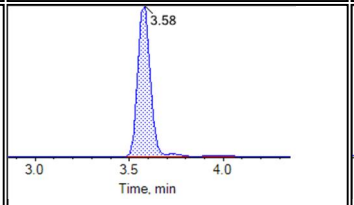
PFTeDA_1



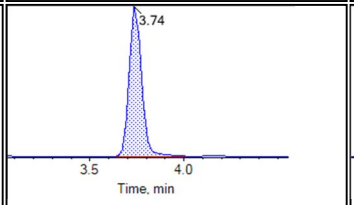
PFTeDA_2



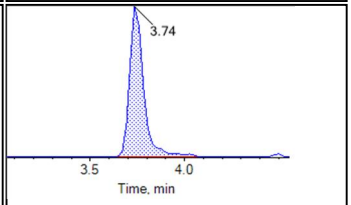
NMeFOSAA_1



NMeFOSAA_2

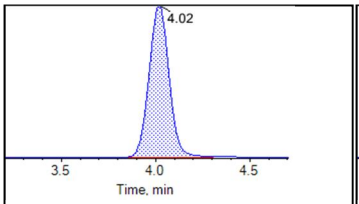


NEtFOSAA_1

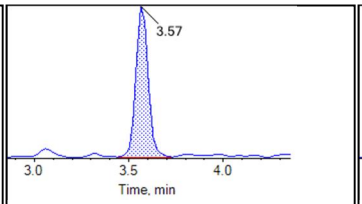


NEtFOSAA_2

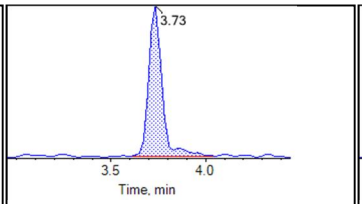
Internal Standards:



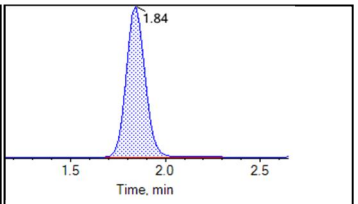
13C2-PFDoA



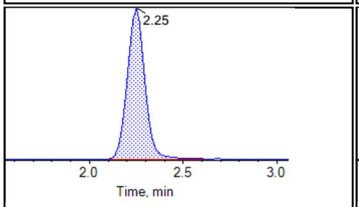
d3-MeFOSAA



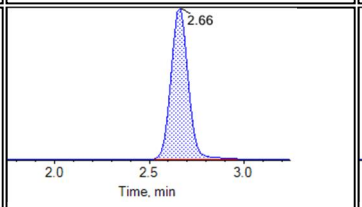
d5-EtFOSAA



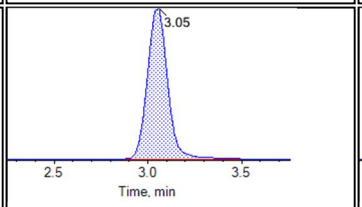
13C5-PFHxA



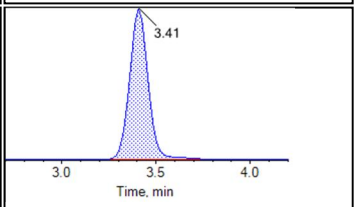
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

BATTELLE

Chromatogram Report

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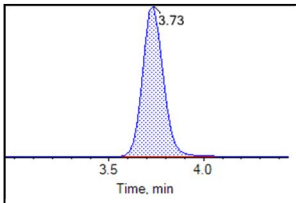
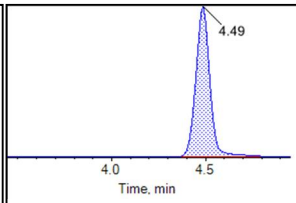
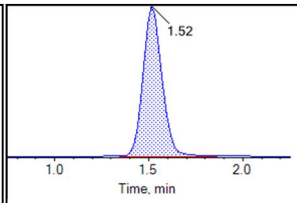


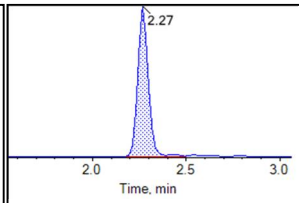
13C7-PFUnA



13C2-PFTeDA



13C3-PFBS



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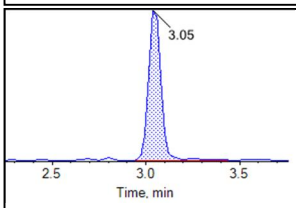


13C8-PFOS

BATTELLE

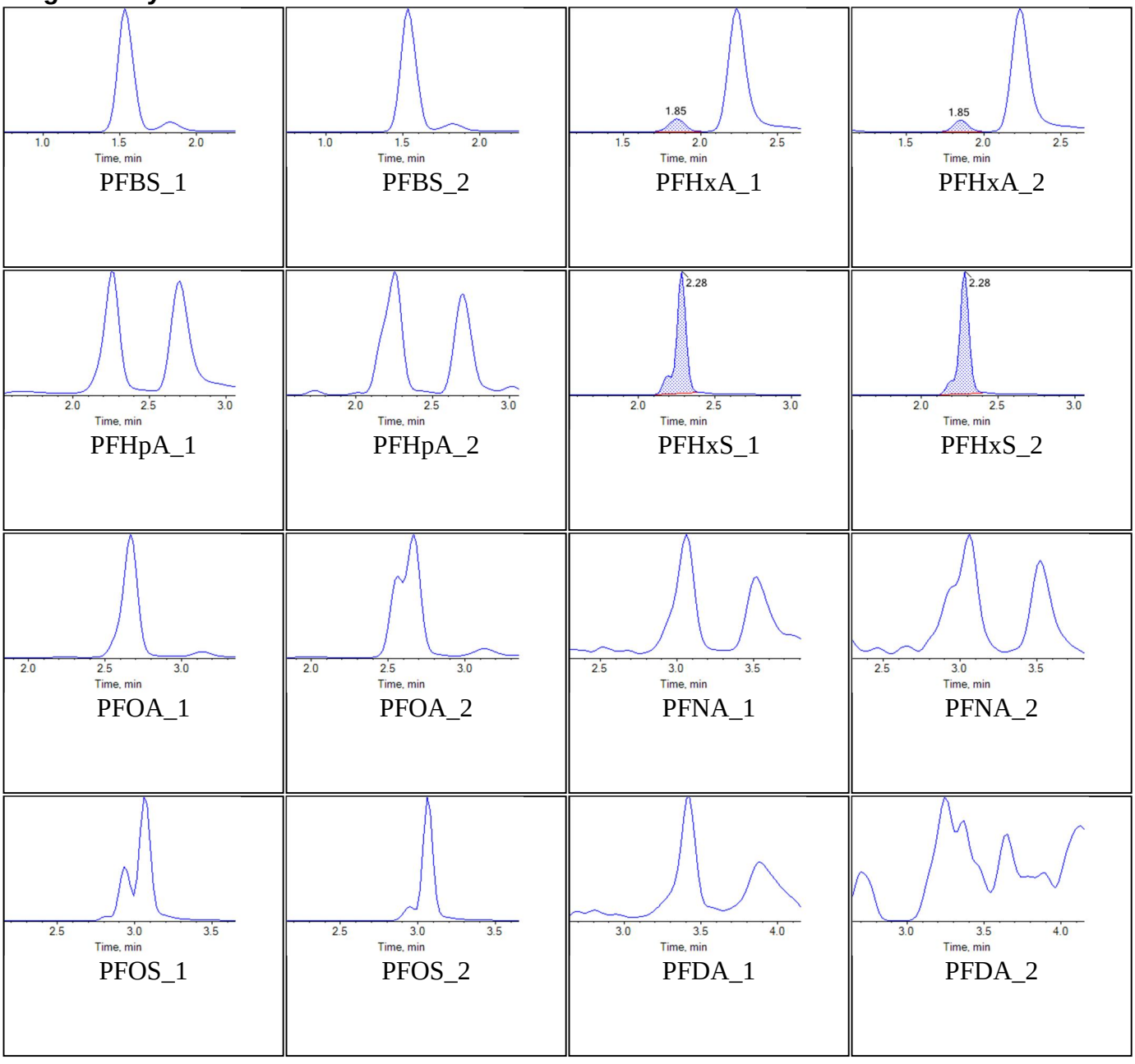
Chromatogram Report

Created with Analyst Reporter
Printed: 25/10/2018 3:00:08 PM

Sample Name	J8315-FS-D(9)	**Injection Vial**	9
Sample ID	VC-PM323-324-SB02-0506	**Injection Volume**	10.00
Sample Type	Unknown	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:11:49	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_BASE
Sample Comment			

Chromatograms

Target Analytes:



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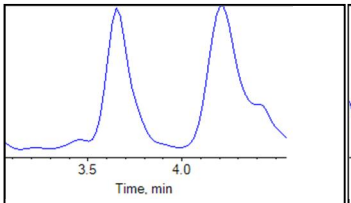

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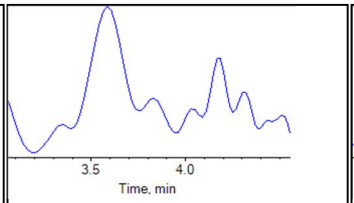

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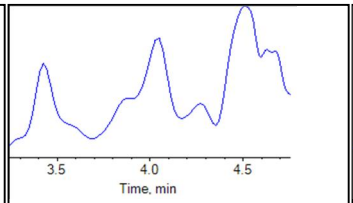

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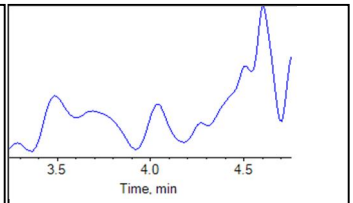
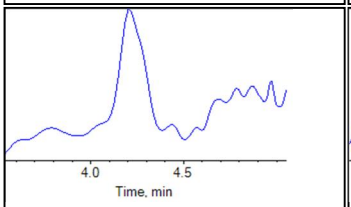
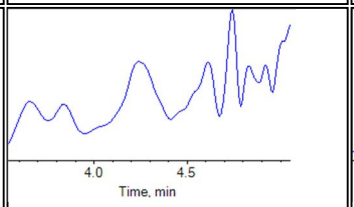


PFDoA_2



PFTrDA_1



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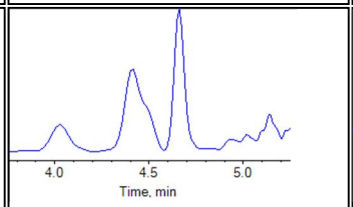

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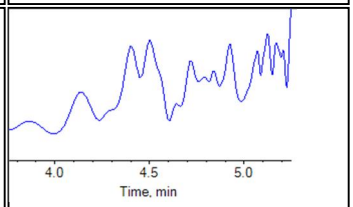

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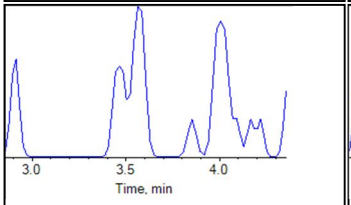

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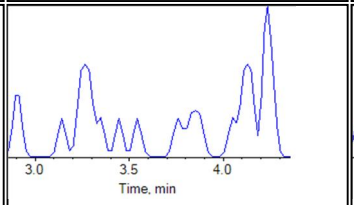

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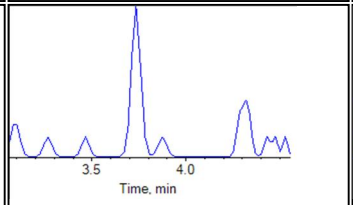

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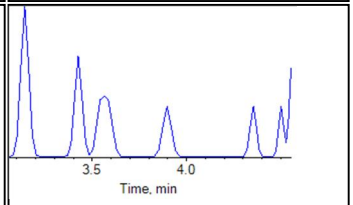

NEtFOSAA_2

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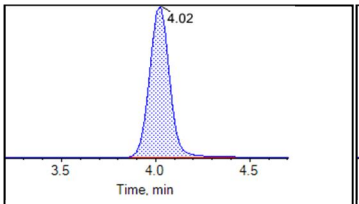
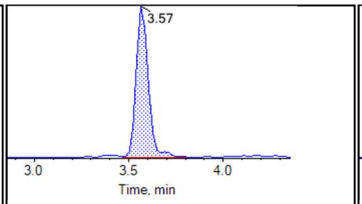
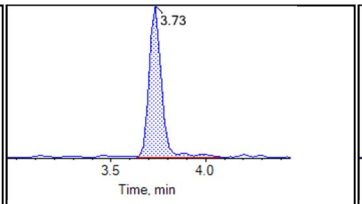


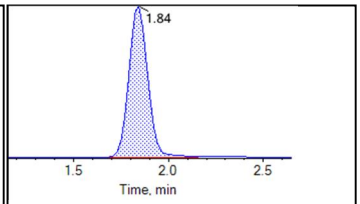
13C2-PFDoA



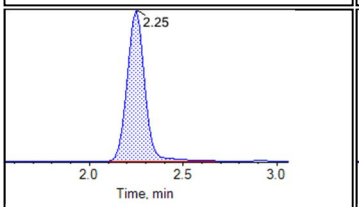
d3-MeFOSAA



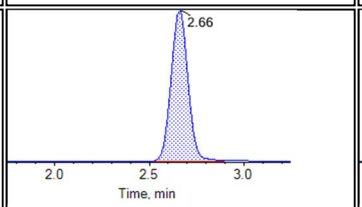
d5-EtFOSAA



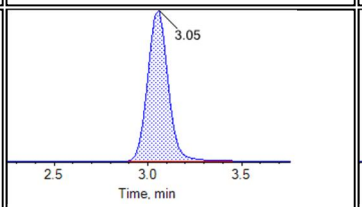
13C5-PFHxA



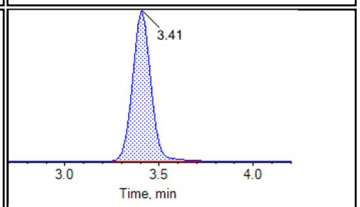
13C4-PFHpA



13C8-PFOA



13C9-PFNA



13C6-PFDA

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Chromatogram Report

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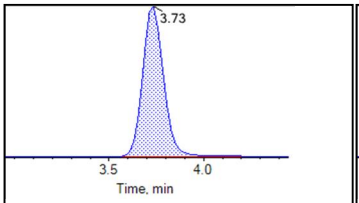
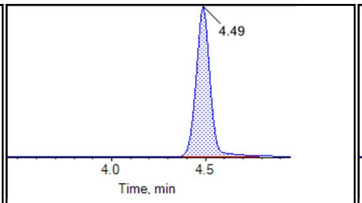
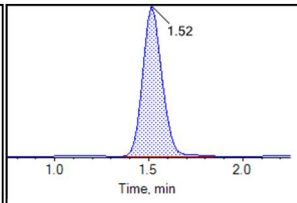
Printed: 25/10/2018 3:00:08 PM



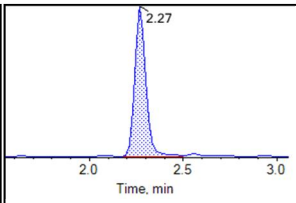
13C7-PFUnA



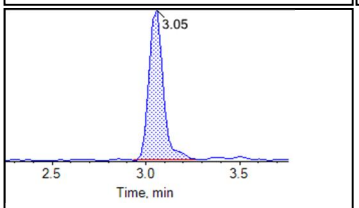
13C2-PFTeDA



13C3-PFBS



13C3-PFHxS



13C8-PFOS

BATTELLE

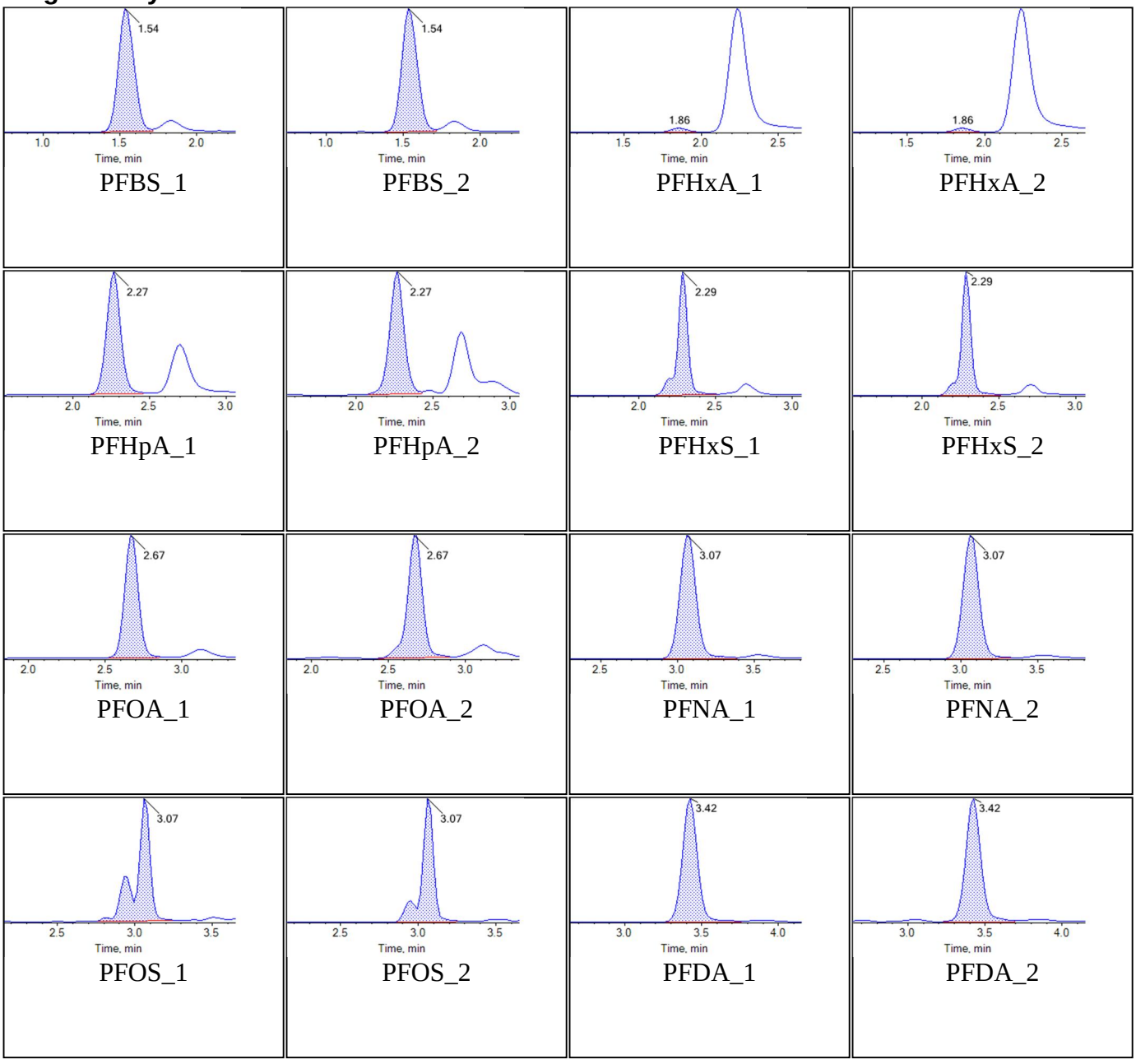
Chromatogram Report

Created with Analyst Reporter
Printed: 25/10/2018 3:00:12 PM

Sample Name	KB76 CCV	**Injection Vial**	5
Sample ID	CCV	**Injection Volume**	10.00
Sample Type	Quality Control	**Instrument Name**	QTRAP 5500
Acquisition Date	2018-10-16T13:55:18	**Data File**	10152018.wiff
Acquisition Method	5-0369.dam	**Result Table**	18-0615-0616_BASE
Sample Comment			

Chromatograms

Target Analytes:



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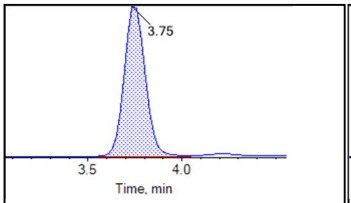

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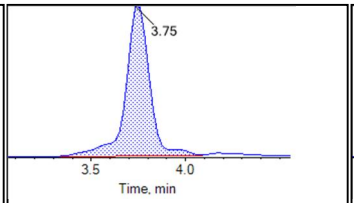
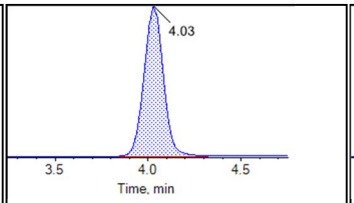


PFUnA_2



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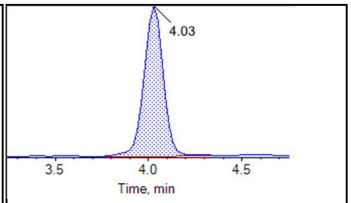
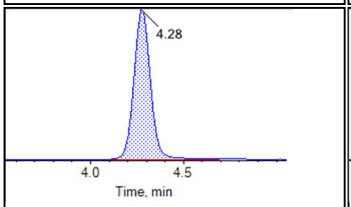


PFDoA_2



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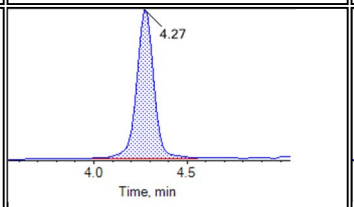
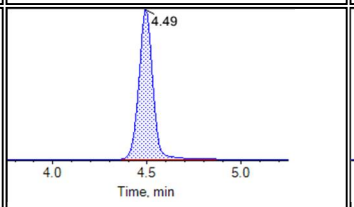
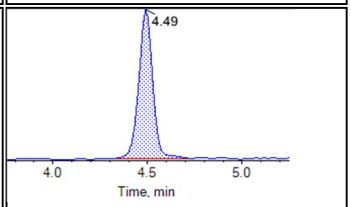


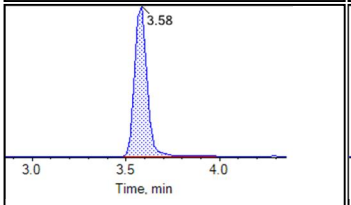
PFTrDA_2



PFTeDA_1



PFTeDA_2



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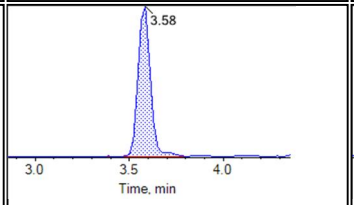

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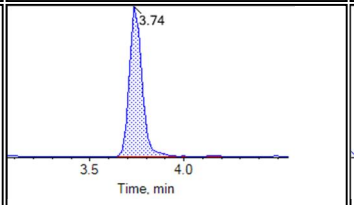
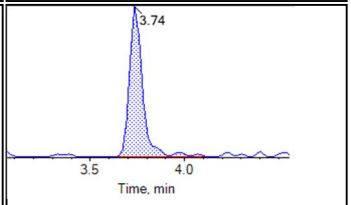
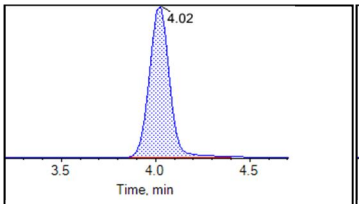


NEtFOSAA_1

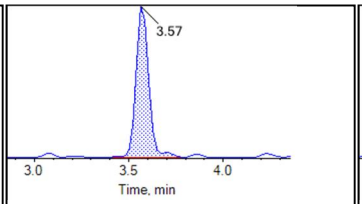


NEtFOSAA_2

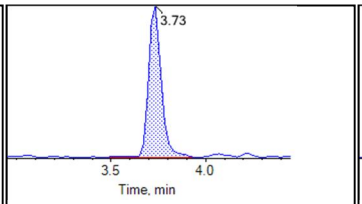
Internal Standards:



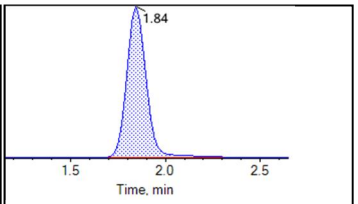
13C2-PFDoA



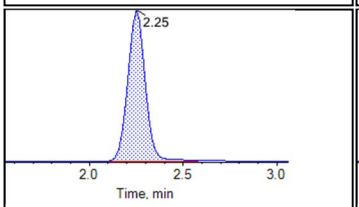
d3-MeFOSAA



d5-EtFOSAA



13C5-PFHxA



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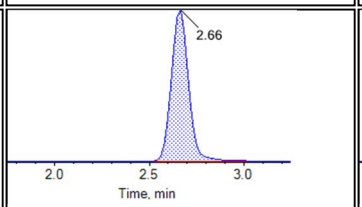

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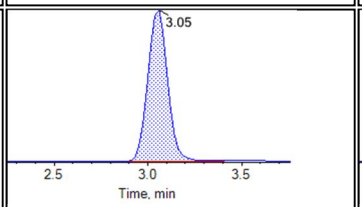

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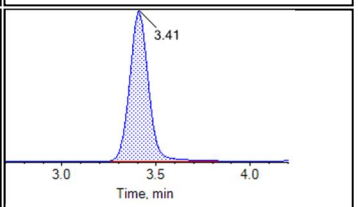
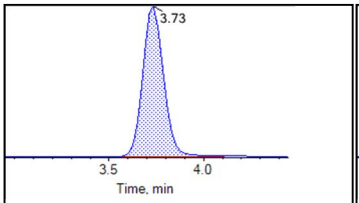


13C6-PFDA

BATTELLE

Chromatogram Report

Created with Analyst Reporter
Printed: 25/10/2018 3:00:12 PM



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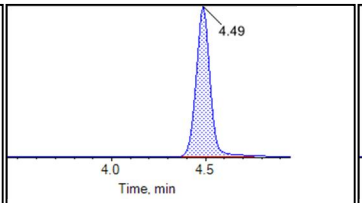

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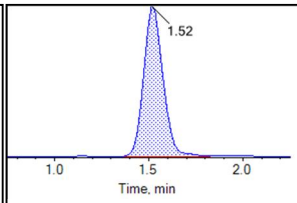
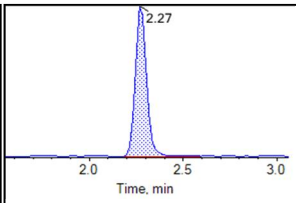


13C3-PFBS



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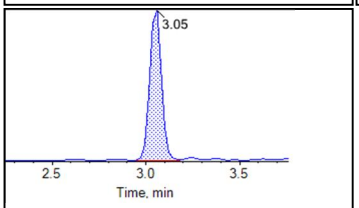

13C8-PFOS

EDD

Contract_I	DO_CTO_N	Phase	Installatior	Sample_Nu	CH2M_Cor	Analysis_G	Analytical_	PRC_Code	Lab_Code	Lab_Name	Leachate_I	SAMPLE_B	Extraction_	Result_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	DateTime_	Date_Rece	Leachate_I	Leachate_	Extraction_	Extraction_	Analysis_D	Analysis_T	Lab_Sampl	Dilution	Run_Numt	PERCENT_I	PERCENT_I	Chem_Nan	Analyte_ID	Analyte_Vi	Original_A	Result_Uni	Lab_Qualif	Validator_	GC_Colum	Analysis_R	Result_Nar	QC_Contrc	QC_Accura	QC_Accura	Control_Lir	QC_Narrat	MDL		Detection_Q	SM_Vers	DL		LOD		LOQ		SDG	Analysis_B	Validator_	Val_Date
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N6247016I	4164		POINT_MU	CR888PB-F	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BLK	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:20:36	CR888PB-F	10	1	0		Perfluoro	1763-23-1	1.04	NG_G	U		TRG					20171116		0.28	0.28	5.1	70	1.04	5.21	18-0582	DP-18-0287											
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N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		Perfluoro	375-85-9	84	PCT_REC			TRG	LSA	128		60	20171116		0.44	0.44	5.1		0.99	4.95	18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		Perfluoroo	335-67-1	104	PCT_REC			TRG	LSA	136		56	20171116		0.5	0.5	5.1		0.99	4.95	18-0582	DP-18-0287											
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N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		N-Methyl	F2355-31-9	91	PCT_REC			TRG	LSA	146		52	20171116		1.11	1.11	5.1		2.48	4.95	18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		N-Ethyl Pe	r2991-50-6	88	PCT_REC			TRG	LSA	124		54	20171116		0.56	0.56	5.1		1.98	4.95	18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		Perfluorob	375-73-5	90	PCT_REC			TRG	LSA	145		57	20171116		0.36	0.36	5.1		0.99	4.95	18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		Perfluoro	355-46-4	82	PCT_REC			TRG	LSA	132		52	20171116		0.22	0.22	5.1		0.5	4.95	18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		Perfluoro	1763-23-1	85	PCT_REC			TRG	LSA	130		50	20171116		0.27	0.27	5.1		0.99	4.95	18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		13C5-PFHx	BDO-2217	111	PCT_REC			SURR	SLSP	150		50	20171116				5.1				18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		13C4-PFHp	BDO-2218	117	PCT_REC			SURR	SLSP	150		50	20171116				5.1				18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		13C8-PFOA	BDO-2219	110	PCT_REC			SURR	SLSP	150		50	20171116				5.1				18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		13C9-PFNA	BDO-2221	107	PCT_REC			SURR	SLSP	150		50	20171116				5.1				18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		13C6-PFDA	BDO-2222	112	PCT_REC			SURR	SLSP	150		50	20171116				5.1				18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		13C7-PFUn	BDO-2223	120	PCT_REC			SURR	SLSP	150		50	20171116				5.1				18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		13C2-PFDo	BDO-2112	121	PCT_REC			SURR	SLSP	150		50	20171116				5.1				18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		13C2-PFTe	BDO-2224	110	PCT_REC			SURR	SLSP	150		50	20171116				5.1				18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		d3-MeFOS	BDO-1838	119	PCT_REC			SURR	SLSP	150		50	20171116				5.1				18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		d5-EtFOSA	BDO-1839	119	PCT_REC			SURR	SLSP	150		50	20171116				5.1				18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		13C3-PFBS	BDO-2226	113	PCT_REC			SURR	SLSP	150		50	20171116				5.1				18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		13C3-PFHx	BDO-2227	118	PCT_REC			SURR	SLSP	150		50	20171116				5.1				18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	CR889LCS-	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	BS	SD	4	20181002	20181002			20181002	15:28:00	20181009	04:31:27	CR889LCS-	10	1	0		13C8-PFOS	BDO-2228	113	PCT_REC			SURR	SLSP	150		50	20171116				5.1				18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	04:42:20	JB310-FS	10	1	15.14		Perfluoroh	307-24-4	1.6	NG_G	J		TRG					20171116		0.4	0.4	5.1	70	1.21	6.06	18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	04:42:20	JB310-FS	10	1	15.14		Perfluoro	375-85-9	1.21	NG_G	U		TRG					20171116		0.53	0.53	5.1	70	1.21	6.06	18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	04:42:20	JB310-FS	10	1	15.14		Perfluoroo	335-67-1	4.51	NG_G	J		TRG					20171116		0.61	0.61	5.1	70	1.21	6.06	18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	04:42:20	JB310-FS	10	1	15.14		Perfluoro	375-95-1	3.51	NG_G	J		TRG					20171116		0.52	0.52	5.1	70	1.21	6.06	18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	04:42:20	JB310-FS	10	1	15.14		Perfluorod	335-76-2	1.21	NG_G	U		TRG					20171116		0.5	0.5	5.1	70	1.21	6.06	18-0582	DP-18-0287											
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	04:42

Contract_I	DO_CTO_N	Phase	Installatior	Sample_Nu	CH2M_Cor	Analysis_G	Analytical_	PRC_Code	Lab_Code	Lab_Name	Leachate_I	SAMPLE_B	Extraction_	Result_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	DateTime_	Date_Rece	Leachate_I	Leachate_	Extraction_	Extraction_	Analysis_D	Analysis_T	Lab_Sampl	Dilution	Run_Numt	PERCENT_I	PERCENT_I	Chem_Nan	Analyte_ID	Analyte_Vi	Original_A	Result_Uni	Lab_Qualif	Validator_I	GC_Colum	Analysis_R	Result_Nat	QC_Contro	QC_Accura	QC_Accura	Control_Lir	QC_Narrat	MDL	Detection_Q	SM_Vers	DL	LOD	LOQ	SDG	Analysis_B	Validator_I	Val_Date
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	32.61		Perfluorot	376-06-7		2.82	NG_G	U				TRG					20171116		0.89	0.89	5.1	70	2.82	7.04	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:25:51	J8312-FS	10	1	32.61		N-Methyl	FOSA-N-M		3.52	NG_G	U				TRG					20171116		1.58	1.58	5.1	70	3.52	7.04	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:25:51	J8312-FS	10	1	32.61		N-Ethyl Pe	FOSE-N-M		2.82	NG_G	U				TRG					20171116		0.8	0.8	5.1	70	2.82	7.04	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:25:51	J8312-FS	10	1	32.61		Perfluorob	375-73-5		92.19	NG_G					TRG					20171116		0.51	0.51	5.1	70	1.41	7.04	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181015	19:31:30	J8312-FS	500	1	32.61		Perfluoroh	355-46-4		828.75	NG_G	D				TRG					20171116		15.49	15.49	5.1	70	35.21	352.11	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181015	19:31:30	J8312-FS	500	1	32.61		Perfluoro	1763-23-1		3759.66	NG_G	D				TRG					20171116		19.01	19.01	5.1	70	70.42	352.11	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:25:51	J8312-FS	10	1	32.61		13C5-PFH	BDO-2217		117	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:25:51	J8312-FS	10	1	32.61		13C4-PFH	BDO-2218		122	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:25:51	J8312-FS	10	1	32.61		13C8-PFO	BDO-2219		102	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:25:51	J8312-FS	10	1	32.61		13C9-PFN	BDO-2221		79	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:25:51	J8312-FS	10	1	32.61		13C6-PFD	BDO-2222		113	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:25:51	J8312-FS	10	1	32.61		13C7-PFU	BDO-2223		123	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:25:51	J8312-FS	10	1	32.61		13C2-PFD	BDO-2112		107	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:25:51	J8312-FS	10	1	32.61		13C2-PFT	BDO-2224		104	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:36:43	J8312-FS	50	1	32.61		d3-MeFOS	BDO-1838		130	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:36:43	J8312-FS	50	1	32.61		d5-EtFOS	BDO-1839		123	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:36:43	J8312-FS	50	1	32.61		13C3-PFB	BDO-2226		112	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:36:43	J8312-FS	50	1	32.61		13C3-PFH	BDO-2227		105	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:25:51	J8312-FS	10	1	32.61		13C8-PFO	BDO-2228		108	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		Perfluoroh	307-24-4		16.47	NG_G					TRG					20171116		0.35	0.35	5.1	70	1.05	5.26	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		Perfluoroh	375-85-9		2.56	NG_G	J				TRG					20171116		0.46	0.46	5.1	70	1.05	5.26	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		Perfluoro	335-67-1		8.22	NG_G					TRG					20171116		0.53	0.53	5.1	70	1.05	5.26	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		Perfluoro	375-95-1		3.94	NG_G	J				TRG					20171116		0.45	0.45	5.1	70	1.05	5.26	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		Perfluorod	335-76-2		5.47	NG_G					TRG					20171116		0.28	0.28	5.1	70	1.05	5.26	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		Perfluorou	2058-94-8		1.05	NG_G	U				TRG					20171116		0.43	0.43	5.1	70	1.05	5.26	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		Perfluorod	307-55-1		0.8	NG_G	J				TRG					20171116		0.25	0.25	5.1	70	0.53	5.26	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		Perfluorot	72629-94-8		2.1	NG_G	J				TRG					20171116		0.29	0.29	5.1	70	1.05	5.26	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		Perfluorot	376-06-7		2.11	NG_G	U				TRG					20171116		0.66	0.66	5.1	70	2.11	5.26	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		N-Methyl	FOSA-N-M		2.63	NG_G	U				TRG					20171116		1.18	1.18	5.1	70	2.63	5.26	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		N-Ethyl Pe	FOSE-N-M		2.11	NG_G	U				TRG					20171116		0.6	0.6	5.1	70	2.11	5.26	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		Perfluorob	375-73-5		5.06	NG_G	J				TRG					20171116		0.38	0.38	5.1	70	1.05	5.26	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		Perfluoroh	355-46-4		27.3	NG_G					TRG					20171116		0.23	0.23	5.1	70	0.53	5.26	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	DL1	REG	SS	4	20180920	20180925			20181002	15:28:00	20181015	19:42:21	J8313-FS	1000	1	4.24		Perfluoro	1763-23-1		2160.39	NG_G	D				TRG					20171116		28.42	28.42	5.1	70	105.26	526.32	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		13C5-PFH	BDO-2217		109	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		13C4-PFH	BDO-2218		108	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		13C8-PFO	BDO-2219		110	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		13C9-PFN	BDO-2221		63	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		13C6-PFD	BDO-2222		114	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		13C7-PFU	BDO-2223		129	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		13C2-PFD	BDO-2112		110	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		13C2-PFT	BDO-2224		111	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	DL1	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:41:58	J8313-FS	250	1	4.24		d3-MeFOS	BDO-1838		85	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	DL1	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:41:58	J8313-FS	250	1	4.24		d5-EtFOS	BDO-1839		110	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	DL1	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:41:58	J8313-FS	250	1	4.24		13C3-PFB	BDO-2226		87	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	DL1	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:41:58	J8313-FS	250	1	4.24		13C3-PFH	BDO-2227		92	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	06:31:06	J8313-FS	10	1	4.24		13C8-PFO	BDO-2228		103	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		Perfluoroh	307-24-4		4.34	NG_G	J				TRG					20171116		0.4	0.4	5.1	70	1.22	6.1	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		Perfluoroh	375-85-9		0.65	NG_G	J				TRG					20171116		0.54	0.54	5.1	70	1.22	6.1	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		Perfluoro	335-67-1		3.32	NG_G	J				TRG					20171116		0.61	0.61	5.1	70	1.22	6.1	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		Perfluoro	375-95-1		2.88	NG_G	J				TRG					20171116		0.52	0.52	5.1	70	1.22	6.1	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		Perfluorod	335-76-2		1.66	NG_G	J				TRG					20171116		0.33	0.33	5.1	70	1.22	6.1	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		Perfluorou	2058-94-8		1.22	NG_G	U				TRG					20171116		0.5	0.5	5.1	70	1.22	6.1	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		Perfluorod	307-55-1		0.61	NG_G	U				TRG					20171116		0.29	0.29	5.1	70	0.61	6.1	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		Perfluorot	72629-94-8		1.22	NG_G	U				TRG					20171116		0.34	0.34	5.1	70	1.22	6.1	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		Perfluorot	376-06-7		2.44	NG_G	U				TRG					20171116		0.77	0.77	5.1	70	2.44	6.1	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		N-Methyl	FOSA-N-M		3.05	NG_G	U				TRG					20171116		1.37	1.37	5.1	70	3.05	6.1	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		N-Ethyl Pe	FOSE-N-M		2.44	NG_G	U				TRG					20171116		0.7	0.7	5.1	70	2.44	6.1	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		Perfluorob	375-73-5		1.62	NG_G	J				TRG					20171116		0.44	0.44	5.1	70	1.22	6.1	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		Perfluoroh	355-46-4		16.36	NG_G					TRG					20171116		0.27	0.27	5.1	70	0.61	6.1	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181015	19:53:13	J8314-FS	50	1	15.06		Perfluoro	1763-23-1		114.91	NG_G	D				TRG					20171116		1.65	1.65	5.1	70	6.1	30.49	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	06:52:50	J8314-FS	10	1	15.06		13C5-PFH	BDO-2217		107	PCT_REC					SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_M

Contract_I	DO_CTO_N	Phase	Installatior	Sample_Nu	CH2M_Cor	Analysis_G	Analytical_	PRC_Code	Lab_Code	Lab_Name	Leachate_I	SAMPLE_B	Extraction_	Result_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	DateTime_	Date_Rece	Leachate_I	Leachate_	Extraction_	Extraction_	Analysis_D	Analysis_T	Lab_Sampl	Dilution	Run_Numt	PERCENT_I	PERCENT_I	Chem_Nan	Analyte_ID	Analyte_Vi	Original_A	Result_Uni	Lab_Qualif	Validator_I	QC_Colum	Analysis_R	Result_Nat	QC_Contro	QC_Accura	QC_Accura	Control_Lir	QC_Narrat	MDL	Detection_Q	SM_Vers	DL	LOD	LOQ	SDG	Analysis_B	Validator_I	Val_Date
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	07:36:19	J8316-FS	10	1	6.65		13C8-PFO	ABDO-2219		107	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	07:36:19	J8316-FS	10	1	6.65		13C9-PFN	ABDO-2221		70	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	07:36:19	J8316-FS	10	1	6.65		13C6-PFD	ABDO-2222		119	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	07:36:19	J8316-FS	10	1	6.65		13C7-PFU	nBDO-2223		127	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	07:36:19	J8316-FS	10	1	6.65		13C2-PFD	oBDO-2112		111	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	07:36:19	J8316-FS	10	1	6.65		13C2-PFTe	BDO-2224		106	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	07:47:10	J8316-FS	250	1	6.65		d3-MeFOS	BDO-1838		92	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	07:47:10	J8316-FS	250	1	6.65		d5-EtFOSA	BDO-1839		109	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	07:47:10	J8316-FS	250	1	6.65		13C3-PFB	BDO-2226		87	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	07:47:10	J8316-FS	250	1	6.65		13C3-PFH	xBDO-2227		92	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	07:36:19	J8316-FS	10	1	6.65		13C8-PFO	SBDO-2228		115	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		Perfluoroh	307-24-4		39.89	NG_G			TRG				20171116	0.4	0.4	5.1	70	1.23	6.13	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		Perfluoroh	375-85-9		5.32	NG_G	J		TRG				20171116	0.54	0.54	5.1	70	1.23	6.13	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		Perfluoroo	335-67-1		14.9	NG_G			TRG				20171116	0.61	0.61	5.1	70	1.23	6.13	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		Perfluoro	375-95-1		1.67	NG_G	J		TRG				20171116	0.53	0.53	5.1	70	1.23	6.13	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		Perfluorod	335-76-2		1.23	NG_G	U		TRG				20171116	0.33	0.33	5.1	70	1.23	6.13	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		Perfluorou	2058-94-8		1.23	NG_G	U		TRG				20171116	0.5	0.5	5.1	70	1.23	6.13	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		Perfluorod	307-55-1		0.61	NG_G	U		TRG				20171116	0.29	0.29	5.1	70	0.61	6.13	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		Perfluorot	72629-94-8		1.23	NG_G	U		TRG				20171116	0.34	0.34	5.1	70	1.23	6.13	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		Perfluorot	376-06-7		2.45	NG_G	U		TRG				20171116	0.77	0.77	5.1	70	2.45	6.13	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		N-Methyl	FOSA-31-9		3.07	NG_G	U		TRG				20171116	1.37	1.37	5.1	70	3.07	6.13	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		N-Ethyl Pe	rFOSA-50-6		2.45	NG_G	U		TRG				20171116	0.7	0.7	5.1	70	2.45	6.13	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		Perfluorob	375-73-5		6.68	NG_G	U		TRG				20171116	0.44	0.44	5.1	70	1.23	6.13	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:08:54	J8317-FS	100	1	22.14		Perfluoro	355-46-4		168.12	NG_G	D		TRG				20171116	2.7	2.7	5.1	70	6.13	61.35	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181015	20:47:33	J8317-FS	500	1	22.14		Perfluoro	1763-23-1		1808.15	NG_G	D		TRG				20171116	16.56	16.56	5.1	70	61.35	306.75	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		13C5-PFH	xBDO-2217		107	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		13C4-PFH	pBDO-2218		112	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		13C8-PFO	ABDO-2219		103	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		13C9-PFN	ABDO-2221		67	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		13C6-PFD	ABDO-2222		104	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		13C7-PFU	nBDO-2223		107	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		13C2-PFD	oBDO-2112		98	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	07:58:03	J8317-FS	10	1	22.14		13C2-PFTe	BDO-2224		94	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:08:54	J8317-FS	100	1	22.14		d3-MeFOS	BDO-1838		99	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:08:54	J8317-FS	100	1	22.14		d5-EtFOSA	BDO-1839		95	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:08:54	J8317-FS	100	1	22.14		13C3-PFB	SBDO-2226		89	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:08:54	J8317-FS	100	1	22.14		13C3-PFH	xBDO-2227		103	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:08:54	J8317-FS	10	1	22.14		13C8-PFO	SBDO-2228		100	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		Perfluoroh	307-24-4		61.43	NG_G			TRG				20171116	0.38	0.38	5.1	70	1.16	5.78	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		Perfluoroh	375-85-9		6	NG_G			TRG				20171116	0.51	0.51	5.1	70	1.16	5.78	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		Perfluoroo	335-67-1		29.32	NG_G			TRG				20171116	0.58	0.58	5.1	70	1.16	5.78	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		Perfluoro	375-95-1		1.98	NG_G	J		TRG				20171116	0.5	0.5	5.1	70	1.16	5.78	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		Perfluorod	335-76-2		1.16	NG_G	U		TRG				20171116	0.31	0.31	5.1	70	1.16	5.78	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		Perfluorou	2058-94-8		1.16	NG_G	U		TRG				20171116	0.47	0.47	5.1	70	1.16	5.78	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		Perfluorod	307-55-1		0.58	NG_G	U		TRG				20171116	0.28	0.28	5.1	70	0.58	5.78	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		Perfluorot	72629-94-8		1.16	NG_G	U		TRG				20171116	0.32	0.32	5.1	70	1.16	5.78	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		Perfluorot	376-06-7		2.31	NG_G	U		TRG				20171116	0.73	0.73	5.1	70	2.31	5.78	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		N-Methyl	FOSA-31-9		2.89	NG_G	U		TRG				20171116	1.29	1.29	5.1	70	2.89	5.78	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		N-Ethyl Pe	rFOSA-50-6		2.31	NG_G	U		TRG				20171116	0.66	0.66	5.1	70	2.31	5.78	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		Perfluorob	375-73-5		13.72	NG_G			TRG				20171116	0.42	0.42	5.1	70	1.16	5.78	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181015	20:58:24	J8318-FS	50	1	10.52		Perfluoro	355-46-4		125.17	NG_G	D		TRG				20171116	1.27	1.27	5.1	70	2.89	28.9	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:52:24	J8318-FS	1000	1	10.52		Perfluoroo	1763-23-1		10670.73	NG_G	D		TRG				20171116	31.21	31.21	5.1	70	115.61	578.03	18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		13C5-PFH	xBDO-2217		121	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		13C4-PFH	pBDO-2218		118	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		13C8-PFO	ABDO-2219		97	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		13C9-PFN	ABDO-2221		51	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		13C6-PFD	ABDO-2222		107	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		13C7-PFU	nBDO-2223		109	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		13C2-PFD	oBDO-2112		107	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:41:33	J8318-FS	10	1	10.52		13C2-PFTe	BDO-2224		95	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:52:24	J8318-FS	1000	1	10.52		d3-MeFOS	BDO-1838		105	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:52:24	J8318-FS	1000	1	10.52		d5-EtFOSA	BDO-1839		113	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016I	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	DL1	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	08:52:24	J8318-FS	1000

Contract_I	DO_CTO_N	Phase	Installatior	Sample_Nu	CH2M_Cor	Analysis_G	Analytical_PRC_Code	Lab_Code	Lab_Name	Leachate_I	SAMPLE_B	Extraction_	Result_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	DateTime_	Date_Rece	Leachate_I	Leachate_	Extraction_	Extraction_	Analysis_D	Analysis_T	Lab_Sampl	Dilution	Run_Numt	PERCENT_I	PERCENT_I	Chem_Nan	Analyte_ID	Analyte_Vi	Original_A	Result_Uni	Lab_Qualif	Validator_	QC_Colum	Analysis_R	Result_Nat	QC_Contrc	QC_Accura	QC_Accura	Control_Lir	QC_Narrat	MDL	Detection_	QSM_Vers	DL	LOD	LOQ	SDG	Analysis_B	Validator_	Val_Date
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:25:02	J8328-FS	10	1	3.77		13C3-PFBS	BDO-2226		112	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:25:02	J8328-FS	10	1	3.77		13C3-PFHx	BDO-2227		113	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:25:02	J8328-FS	10	1	3.77		13C8-PFOS	BDO-2228		99	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		Perfluoroh	307-24-4		1.16	NG_G	U		TRG				20171116		0.38	0.38	5.1	70	1.16	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		Perfluoroh	375-85-9		1.16	NG_G	U		TRG				20171116		0.51	0.51	5.1	70	1.16	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		Perfluoroo	335-67-1		1.3	NG_G	J		TRG				20171116		0.58	0.58	5.1	70	1.16	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		Perfluoro	375-95-1		1.16	NG_G	U		TRG				20171116		0.5	0.5	5.1	70	1.16	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		Perfluorod	335-76-2		1.16	NG_G	U		TRG				20171116		0.31	0.31	5.1	70	1.16	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		Perfluorou	2058-94-8		1.16	NG_G	U		TRG				20171116		0.48	0.48	5.1	70	1.16	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		Perfluorod	307-55-1		0.58	NG_G	U		TRG				20171116		0.28	0.28	5.1	70	0.58	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		Perfluorot	72629-94-8		1.16	NG_G	U		TRG				20171116		0.33	0.33	5.1	70	1.16	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		Perfluorot	376-06-7		2.33	NG_G	U		TRG				20171116		0.73	0.73	5.1	70	2.33	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		N-Methyl	FZ355-31-9		2.91	NG_G	U		TRG				20171116		1.3	1.3	5.1	70	2.91	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		N-Ethyl Pe	r2991-50-6		2.33	NG_G	U		TRG				20171116		0.66	0.66	5.1	70	2.33	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		Perfluorob	375-73-5		1.16	NG_G	U		TRG				20171116		0.42	0.42	5.1	70	1.16	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		Perfluoroh	355-46-4		0.58	NG_G	U		TRG				20171116		0.26	0.26	5.1	70	0.58	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		Perfluoroo	1763-23-1		0.53	NG_G	J		TRG				20171116		0.31	0.31	5.1	70	1.16	5.81	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		13C5-PFHx	BDO-2217		101	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		13C4-PFHp	BDO-2218		90	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		13C8-PFOA	BDO-2219		103	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		13C9-PFNA	BDO-2221		93	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		13C6-PFDA	BDO-2222		106	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		13C7-PFUn	BDO-2223		120	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		13C2-PFDo	BDO-2112		102	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		13C2-PFTe	BDO-2224		95	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		d3-MeFOS	BDO-1838		103	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		d5-EtFOSA	BDO-1839		107	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		13C3-PFBS	BDO-2226		97	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		13C3-PFHx	BDO-2227		116	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM323	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	09:35:55	J8329-FS	10	1	14.32		13C8-PFOS	BDO-2228		103	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		Perfluoroh	307-24-4		1.18	NG_G	U		TRG				20171116		0.39	0.39	5.1	70	1.18	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		Perfluoroh	375-85-9		1.18	NG_G	U		TRG				20171116		0.52	0.52	5.1	70	1.18	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		Perfluoroo	335-67-1		1.18	NG_G	U		TRG				20171116		0.59	0.59	5.1	70	1.18	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		Perfluoro	375-95-1		1.18	NG_G	U		TRG				20171116		0.51	0.51	5.1	70	1.18	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		Perfluorod	335-76-2		1.18	NG_G	U		TRG				20171116		0.32	0.32	5.1	70	1.18	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		Perfluorou	2058-94-8		1.18	NG_G	U		TRG				20171116		0.49	0.49	5.1	70	1.18	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		Perfluorod	307-55-1		0.59	NG_G	U		TRG				20171116		0.28	0.28	5.1	70	0.59	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		Perfluorot	72629-94-8		1.18	NG_G	U		TRG				20171116		0.33	0.33	5.1	70	1.18	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		Perfluorot	376-06-7		2.37	NG_G	U		TRG				20171116		0.75	0.75	5.1	70	2.37	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		N-Methyl	FZ355-31-9		2.96	NG_G	U		TRG				20171116		1.33	1.33	5.1	70	2.96	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		N-Ethyl Pe	r2991-50-6		2.37	NG_G	U		TRG				20171116		0.67	0.67	5.1	70	2.37	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		Perfluorob	375-73-5		1.18	NG_G	U		TRG				20171116		0.43	0.43	5.1	70	1.18	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		Perfluoroh	355-46-4		0.59	NG_G	U		TRG				20171116		0.26	0.26	5.1	70	0.59	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		Perfluoroo	1763-23-1		1.31	NG_G	J		TRG				20171116		0.32	0.32	5.1	70	1.18	5.92	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		13C5-PFHx	BDO-2217		95	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		13C4-PFHp	BDO-2218		91	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		13C8-PFOA	BDO-2219		101	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		13C9-PFNA	BDO-2221		90	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		13C6-PFDA	BDO-2222		105	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		13C7-PFUn	BDO-2223		110	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		13C2-PFDo	BDO-2112		103	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		13C2-PFTe	BDO-2224		95	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		d3-MeFOS	BDO-1838		110	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		d5-EtFOSA	BDO-1839		126	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		13C3-PFBS	BDO-2226		96	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		13C3-PFHx	BDO-2227		113	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SS	4	20180920	20180925			20181002	15:28:00	20181009	09:46:46	J8332-FS	10	1	19.44		13C8-PFOS	BDO-2228		100	PCT_REC			SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:58:27	J8333-FS	10	1	17.39		Perfluoroh	307-24-4		1.19	NG_G	U		TRG				20171116		0.39	0.39	5.1	70	1.19	5.95	18-0582	DP-18-0287															
N6247016(	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD_	000	REG	SB	4	20180920	20180925			20181002	15:28:00	20181009	05:58:27	J8333-FS	10	1	17.39		Perfluoroo	335-67-1		1.19	NG_G	U		TRG				20171116		0.6	0.6

Contract_I	DO_CTO_h	Phase	Installatior	Sample_Ni	CH2M_Coc	Analysis_G	Analytical_	PRC_Code	Lab_Code	Lab_Name	Leachate_I	SAMPLE_B	Extraction_	Result_Typ	Lab_QC_ty	SAMPLE_N	QC_Level	DateTime_	Date_Rece	Leachate_I	Leachate_	Extraction_	Extraction_	Analysis_D	Analysis_T	Lab_Sampl	Dilution	Run_Numt	PERCENT_I	PERCENT_I	Chem_Nan	Analyte_ID	Analyte_Vi	Original_A	Result_Uni	Lab_Qualif	Validator_	GC_Colum	Analysis_R	Result_Nar	QC_Contrc	QC_Accura	QC_Accura	Control_Lir	QC_Narrat	MDL		Detection_	QSM_Vers	DL	LOD	LOQ	SDG	Analysis_B	Validator_	Val_Date
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		Perfluorou	2058-94-8	91	PCT_REC		TRG	LSA	137	57	20171116		0.51	0.51	5.1		1.24	6.21	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		Perfluorod	307-55-1	99	PCT_REC		TRG	LSA	134	62	20171116		0.3	0.3	5.1		0.62	6.21	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		Perfluorot	72629-94-8	100	PCT_REC		TRG	LSA	127	51	20171116		0.35	0.35	5.1		1.24	6.21	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		Perfluorot	376-06-7	93	PCT_REC		TRG	LSA	162	34	20171116		0.78	0.78	5.1		2.48	6.21	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		N-Methyl F	2355-31-9	92	PCT_REC		TRG	LSA	146	52	20171116		1.39	1.39	5.1		3.11	6.21	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		N-Ethyl Pe	r2991-50-6	93	PCT_REC		TRG	LSA	124	54	20171116		0.71	0.71	5.1		2.48	6.21	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		Perfluorob	375-73-5		PCT_REC		TRG	LSA	145	57	20171116		0.45	0.45	5.1		1.24	6.21	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		Perfluoro	355-46-4		PCT_REC		TRG	LSA	132	52	20171116		0.27	0.27	5.1		0.62	6.21	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		Perfluoro	1763-23-1		PCT_REC		TRG	LSA	130	50	20171116		0.34	0.34	5.1		1.24	6.21	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		13C5-PFHx	BDO-2217	107	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		13C4-PFHp	BDO-2218	99	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		13C8-PFOA	BDO-2219	107	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		13C9-PFNA	BDO-2221	105	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		13C6-PFDA	BDO-2222	103	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		13C7-PFUn	BDO-2223	115	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		13C2-PFDo	BDO-2112	107	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		13C2-PFTe	BDO-2224	102	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		d3-MeFOS	BDO-1838	106	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		d5-EtFOSA	BDO-1839	107	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		13C3-PFBS	BDO-2226	111	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		13C3-PFHx	BDO-2227	104	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MS	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:08:31	J8335MS-F	10	1	22.77		13C8-PFOS	BDO-2228	99	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MSD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		Perfluorou	307-24-4	86	PCT_REC		TRG	LSA	135	45	20171116		0.41	0.41	5.1		1.25	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		Perfluorob	375-85-9	78	PCT_REC		TRG	LSA	128	60	20171116		0.55	0.55	5.1		1.25	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		Perfluoro	335-67-1	92	PCT_REC		TRG	LSA	136	56	20171116		0.63	0.63	5.1		1.25	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		Perfluoro	375-95-1	94	PCT_REC		TRG	LSA	130	54	20171116		0.54	0.54	5.1		1.25	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		Perfluorod	335-76-2	99	PCT_REC		TRG	LSA	141	55	20171116		0.34	0.34	5.1		1.25	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		Perfluorou	2058-94-8	88	PCT_REC		TRG	LSA	137	57	20171116		0.51	0.51	5.1		1.25	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		Perfluorod	307-55-1	88	PCT_REC		TRG	LSA	134	62	20171116		0.3	0.3	5.1		0.63	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		Perfluorot	72629-94-8	92	PCT_REC		TRG	LSA	127	51	20171116		0.35	0.35	5.1		1.25	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		Perfluorot	376-06-7	85	PCT_REC		TRG	LSA	162	34	20171116		0.79	0.79	5.1		2.5	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		N-Methyl F	2355-31-9	82	PCT_REC		TRG	LSA	146	52	20171116		1.4	1.4	5.1		3.13	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		N-Ethyl Pe	r2991-50-6	92	PCT_REC		TRG	LSA	124	54	20171116		0.71	0.71	5.1		2.5	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		Perfluorob	375-73-5		PCT_REC		TRG	LSA	145	57	20171116		0.45	0.45	5.1		1.25	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		Perfluoro	355-46-4		PCT_REC		TRG	LSA	132	52	20171116		0.28	0.28	5.1		0.63	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		Perfluoro	1763-23-1		PCT_REC		TRG	LSA	130	50	20171116		0.34	0.34	5.1		1.25	6.25	18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		13C5-PFHx	BDO-2217	105	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		13C4-PFHp	BDO-2218	109	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		13C8-PFOA	BDO-2219	104	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		13C9-PFNA	BDO-2221	103	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		13C6-PFDA	BDO-2222	100	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		13C7-PFUn	BDO-2223	113	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		13C2-PFDo	BDO-2112	114	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		13C2-PFTe	BDO-2224	108	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		d3-MeFOS	BDO-1838	119	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		d5-EtFOSA	BDO-1839	107	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		13C3-PFBS	BDO-2226	112	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		13C3-PFHx	BDO-2227	117	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		
N6247016	4164		POINT_MU	VC-PM324	NONS	SVOA	537_MOD	ORG	BMSL_NO	FBATTELLE,	NULL	DRY	METHOD	000	MSD	SB	4	20181002	20181002			20181002	15:28:00	20181009	10:19:23	J8336MSD	10	1	17.2		13C8-PFOS	BDO-2228	113	PCT_REC		SURR	SLSP	150	50	20171116				5.1				18-0582	DP-18-0287		

ENVIRONMENTAL
Data Services, Inc.

DATA VALIDATION SUMMARY REPORT
NAVAL BASE VENTURA COUNTY, CALIFORNIA

Client: CH2M HILL, Inc., Corvallis, Oregon
SDG: 18-0582
Laboratory: Battelle Norwell Operations, Norwell, Massachusetts
Site: Naval Base Ventura County, CTO-4164, California
Date: December 27, 2018

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VC-PM323-324-SS01-000H	J8310-FS	Soil
2	VC-PM323-324-SB01-0102	J8311-FS	Soil
3	VC-PM323-324-SB01-0506	J8312-FS	Soil
4	VC-PM323-324-SS02-000H	J8313-FS	Soil
5	VC-PM323-324-SB02-0102	J8314-FS	Soil
6	VC-PM323-324-SB02-0506	J8315-FS	Soil
7	VC-PM323-324-SS03-000H	J8316-FS	Soil
8	VC-PM323-324-SB03-0102	J8317-FS	Soil
9	VC-PM323-324-SB03-0506	J8318-FS	Soil
10	VC-PM323-SS02-000H	J8327-FS	Soil
11	VC-PM323-SB02-0102	J8328-FS	Soil
12	VC-PM323-SB02-0506	J8329-FS	Soil
13	VC-PM324-SS02-000H	J8332-FS	Soil
14	VC-PM324-SB02-0102	J8333-FS	Soil
15	VC-PM324-SB02-0506	J8334-FS	Soil
15MS	VC-PM324-SB02-0506MS	J8335-FSMS	Soil
15MSD	VC-PM324-SB02-0506MSD	J8336-FSMSD	Soil

A full data validation was performed on the analytical data for fifteen soil samples collected on September 20, 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 were free of contamination.

Field QC Blank

- Field QC samples are summarized below.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
VC-AQ-FB03-092018	PFDoA	0.18	U	4
	PFTrDA	0.24	U	1-2, 4, 7
	PFTeDA	0.25	None	All Associated ND
VC-AQ-EB03-092018	PFTrDA	0.19	None	See FB03
	PFHxS	0.32	U	10-11
	PFOS	15.13	U	5, 10-15

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

- All criteria were met.

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: 12/27/18

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.

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1

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

Client ID	VC-PM323-324-SS01-000H				
Battelle ID	J8310-FS				
Sample Type	SA				
Collection Date	09/20/2018				
Extraction Date	10/02/2018				
Analysis Date	10/09/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	15.14				
Matrix	SS				
Sample Size	1.650				
Size Unit-Basis	g				
Units	ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.60 J	0.40	1.21	6.06
PFHpA	375-85-9	1.21 U	0.53	1.21	6.06
PFOA	335-67-1	4.51 J	0.61	1.21	6.06
PFNA	375-95-1	3.51 J	0.52	1.21	6.06
PFDA	335-76-2	4.57 J	0.33	1.21	6.06
PFUnA	2058-94-8	1.21 U	0.50	1.21	6.06
PFDoA	307-55-1	0.61 U	0.29	0.61	6.06
PFTrDA	72629-94-8	1.21 ~~0.51~~ U	0.34	1.21	6.06 FBL
PFTeDA	376-06-7	2.42 U	0.76	2.42	6.06
NMeFOSAA	2355-31-9	3.03 U	1.36	3.03	6.06
NEtFOSAA	2991-50-6	2.42 U	0.69	2.42	6.06
PFBS	375-73-5	1.21 U	0.44	1.21	6.06
PFHxS	355-46-4	6.85	0.27	0.61	6.06
PFOS	1763-23-1	799.11 D	8.18	30.30	151.52
Surrogate Recoveries (%)					
13C5-PFHxA		110			
13C4-PFHpA		105			
13C8-PFOA		115			
13C9-PFNA		86			
13C6-PFDA		123			
13C7-PFUnA		139			
13C2-PFDoA		124			
13C2-PFTeDA		112			
d3-MeFOSAA		138 D			
d5-EtFOSAA		147 D			
13C3-PFBS		112 D			
13C3-PFHxS		123 D			
13C8-PFOS		114			

NW 12/27/18
Analyzed by: Schumitz, Denise
Printed: 10/23/2018

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2

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

Client ID		VC-PM323-324-SB01-0102			
Battelle ID		J8311-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		11.73			
Matrix		SB			
Sample Size		1.810			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	3.28 J	0.36	1.10	5.52
PFHpA	375-85-9	0.60 J	0.49	1.10	5.52
PFOA	335-67-1	6.14	0.55	1.10	5.52
PFNA	375-95-1	2.26 J	0.48	1.10	5.52
PFDA	335-76-2	0.45 J	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 ~~0.61~~ JU	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	11.52	0.24	0.55	5.52
PFOS	1763-23-1	1188.93 D	14.92	55.25	276.24

FBL

Surrogate Recoveries (%)

13C5-PFHxA	99
13C4-PFHpA	103
13C8-PFOA	107
13C9-PFNA	75
13C6-PFDA	118
13C7-PFUnA	121
13C2-PFDoA	119
13C2-PFTeDA	100
d3-MeFOSAA	99 D
d5-EtFOSAA	111 D
13C3-PFBS	85 D
13C3-PFHxS	78 D
13C8-PFOS	122

AW12/27/18

Analyzed by: Schumitz, Denise
Printed: 10/23/2018

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-PM323-324-SB01-0506			
Battelle ID		J8312-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		32.61			
Matrix		SB			
Sample Size		1.420			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	359.01 D	2.32	7.04	35.21
PFHpA	375-85-9	23.28	0.62	1.41	7.04
PFOA	335-67-1	58.58	0.70	1.41	7.04
PFNA	375-95-1	0.94 J	0.61	1.41	7.04
PFDA	335-76-2	1.41 U	0.38	1.41	7.04
PFUnA	2058-94-8	1.41 U	0.58	1.41	7.04
PFDoA	307-55-1	0.70 U	0.34	0.70	7.04
PFTrDA	72629-94-8	1.41 U	0.39	1.41	7.04
PFTeDA	376-06-7	2.82 U	0.89	2.82	7.04
NMeFOSAA	2355-31-9	3.52 U	1.58	3.52	7.04
NEtFOSAA	2991-50-6	2.82 U	0.80	2.82	7.04
PFBS	375-73-5	92.19	0.51	1.41	7.04
PFHxS	355-46-4	828.75 D	15.49	35.21	352.11
PFOS	1763-23-1	3759.66 D	19.01	70.42	352.11
Surrogate Recoveries (%)					
13C5-PFHxA		117			
13C4-PFHpA		122			
13C8-PFOA		102			
13C9-PFNA		79			
13C6-PFDA		113			
13C7-PFUnA		123			
13C2-PFDoA		107			
13C2-PFTeDA		104			
d3-MeFOSAA		130 D			
d5-EtFOSAA		123 D			
13C3-PFBS		112 D			
13C3-PFHxS		105 D			
13C8-PFOS		108			

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

Client ID		VC-PM323-324-SS02-000H			
Battelle ID		J8313-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		4.24			
Matrix		SS			
Sample Size		1.900			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	16.47	0.35	1.05	5.26
PFHpA	375-85-9	2.56 J	0.46	1.05	5.26
PFOA	335-67-1	8.22	0.53	1.05	5.26
PFNA	375-95-1	3.94 J	0.45	1.05	5.26
PFDA	335-76-2	5.47	0.28	1.05	5.26
PFUnA	2058-94-8	1.05 U	0.43	1.05	5.26
PFDoA	307-55-1	0.80 U	0.25	0.53	5.26
PFTrDA	72629-94-8	2.10 U	0.29	1.05	5.26
PFTeDA	376-06-7	2.11 U	0.66	2.11	5.26
NMeFOSAA	2355-31-9	2.63 U	1.18	2.63	5.26
NEtFOSAA	2991-50-6	2.11 U	0.60	2.11	5.26
PFBS	375-73-5	5.06 J	0.38	1.05	5.26
PFHxS	355-46-4	27.30	0.23	0.53	5.26
PFOS	1763-23-1	2160.39	28.42	105.26	526.32

FBL

Surrogate Recoveries (%)	
13C5-PFHxA	109
13C4-PFHpA	108
13C8-PFOA	110
13C9-PFNA	63
13C6-PFDA	114
13C7-PFUnA	129
13C2-PFDoA	110
13C2-PFTeDA	111
d3-MeFOSAA	85 D
d5-EtFOSAA	110 D
13C3-PFBS	87 D
13C3-PFHxS	92 D
13C8-PFOS	103

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

Client ID		VC-PM323-324-SB02-0102			
Battelle ID		J8314-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		15.06			
Matrix		SB			
Sample Size		1.640			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	4.34 J	0.40	1.22	6.10
PFHpA	375-85-9	0.65 J	0.54	1.22	6.10
PFOA	335-67-1	3.32 J	0.61	1.22	6.10
PFNA	375-95-1	2.88 J	0.52	1.22	6.10
PFDA	335-76-2	1.66 J	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	1.62 J	0.44	1.22	6.10
PFHxS	355-46-4	16.36	0.27	0.61	6.10
PFOS	1763-23-1	114.91 U	1.65	6.10	30.49 EBL
Surrogate Recoveries (%)					
13C5-PFHxA		107			
13C4-PFHpA		101			
13C8-PFOA		107			
13C9-PFNA		68			
13C6-PFDA		112			
13C7-PFUnA		126			
13C2-PFDoA		113			
13C2-PFTeDA		108			
d3-MeFOSAA		100 D			
d5-EtFOSAA		110 D			
13C3-PFBS		95 D			
13C3-PFHxS		102 D			
13C8-PFOS		125			

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

Client ID		VC-PM323-324-SB02-0506			
Battelle ID		J8315-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		16.18			
Matrix		SB			
Sample Size		1.630			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	120.36 D	2.02	6.13	30.67
PFHpA	375-85-9	13.79	0.54	1.23	6.13
PFOA	335-67-1	62.80	0.61	1.23	6.13
PFNA	375-95-1	2.28 J	0.53	1.23	6.13
PFDA	335-76-2	1.23 U	0.33	1.23	6.13
PFUnA	2058-94-8	1.23 U	0.50	1.23	6.13
PFDoA	307-55-1	0.61 U	0.29	0.61	6.13
PFTrDA	72629-94-8	1.23 U	0.34	1.23	6.13
PFTeDA	376-06-7	2.45 U	0.77	2.45	6.13
NMeFOSAA	2355-31-9	3.07 U	1.37	3.07	6.13
NEtFOSAA	2991-50-6	2.45 U	0.70	2.45	6.13
PFBS	375-73-5	38.92	0.44	1.23	6.13
PFHxS	355-46-4	667.89 D	13.50	30.67	306.75
PFOS	1763-23-1	11774.04 D	82.82	306.75	1533.74
Surrogate Recoveries (%)					
13C5-PFHxA		130			
13C4-PFHpA		131			
13C8-PFOA		103			
13C9-PFNA		52			
13C6-PFDA		112			
13C7-PFUnA		121			
13C2-PFDoA		108			
13C2-PFTeDA		103			
d3-MeFOSAA		122 D			
d5-EtFOSAA		130 D			
13C3-PFBS		92 D			
13C3-PFHxS		102 D			
13C8-PFOS		105			

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

Client ID		VC-PM323-324-SS03-000H			
Battelle ID		J8316-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		6.65			
Matrix		SS			
Sample Size		1.830			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	4.41 J	0.36	1.09	5.46
PFHpA	375-85-9	1.01 J	0.48	1.09	5.46
PFOA	335-67-1	13.44	0.55	1.09	5.46
PFNA	375-95-1	3.74 J	0.47	1.09	5.46
PFDA	335-76-2	3.20 J	0.30	1.09	5.46
PFUnA	2058-94-8	1.09 U	0.45	1.09	5.46
PFDoA	307-55-1	0.55 U	0.26	0.55	5.46
PFTrDA	72629-94-8	1.09 ~~0.48 J~~ U	0.31	1.09	5.46
PFTeDA	376-06-7	2.19 U	0.69	2.19	5.46
NMeFOSAA	2355-31-9	2.73 U	1.22	2.73	5.46
NEtFOSAA	2991-50-6	2.19 U	0.62	2.19	5.46
PFBS	375-73-5	0.50 J	0.39	1.09	5.46
PFHxS	355-46-4	39.68	0.24	0.55	5.46
PFOS	1763-23-1	2444.93 D	36.89	136.61	683.06
Surrogate Recoveries (%)					
13C5-PFHxA		109			
13C4-PFHpA		107			
13C8-PFOA		107			
13C9-PFNA		70			
13C6-PFDA		119			
13C7-PFUnA		127			
13C2-PFDoA		111			
13C2-PFTeDA		106			
d3-MeFOSAA		92 D			
d5-EtFOSAA		109 D			
13C3-PFBS		87 D			
13C3-PFHxS		92 D			
13C8-PFOS		115			

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

Client ID		VC-PM323-324-SB03-0102			
Battelle ID		J8317-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		22.14			
Matrix		SB			
Sample Size		1.630			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	39.89	0.40	1.23	6.13
PFHpA	375-85-9	5.32 J	0.54	1.23	6.13
PFOA	335-67-1	14.90	0.61	1.23	6.13
PFNA	375-95-1	1.67 J	0.53	1.23	6.13
PFDA	335-76-2	1.23 U	0.33	1.23	6.13
PFUnA	2058-94-8	1.23 U	0.50	1.23	6.13
PFDoA	307-55-1	0.61 U	0.29	0.61	6.13
PFTrDA	72629-94-8	1.23 U	0.34	1.23	6.13
PFTeDA	376-06-7	2.45 U	0.77	2.45	6.13
NMeFOSAA	2355-31-9	3.07 U	1.37	3.07	6.13
NEtFOSAA	2991-50-6	2.45 U	0.70	2.45	6.13
PFBS	375-73-5	6.68	0.44	1.23	6.13
PFHxS	355-46-4	168.12 D	2.70	6.13	61.35
PFOS	1763-23-1	1808.15 D	16.56	61.35	306.75
Surrogate Recoveries (%)					
13C5-PFHxA		107			
13C4-PFHpA		112			
13C8-PFOA		103			
13C9-PFNA		67			
13C6-PFDA		104			
13C7-PFUnA		107			
13C2-PFDoA		98			
13C2-PFTeDA		94			
d3-MeFOSAA		99 D			
d5-EtFOSAA		95 D			
13C3-PFBS		89 D			
13C3-PFHxS		103 D			
13C8-PFOS		105			

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

Client ID		VC-PM323-324-SB03-0506				
Battelle ID		J8318-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		10.52				
Matrix		SB				
Sample Size		1.730				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	61.43		0.38	1.16	5.78
PFHpA	375-85-9	6.00		0.51	1.16	5.78
PFOA	335-67-1	29.32		0.58	1.16	5.78
PFNA	375-95-1	1.98	J	0.50	1.16	5.78
PFDA	335-76-2	1.16	U	0.31	1.16	5.78
PFUnA	2058-94-8	1.16	U	0.47	1.16	5.78
PFDoA	307-55-1	0.58	U	0.28	0.58	5.78
PFTrDA	72629-94-8	1.16	U	0.32	1.16	5.78
PFTeDA	376-06-7	2.31	U	0.73	2.31	5.78
NMeFOSAA	2355-31-9	2.89	U	1.29	2.89	5.78
NEtFOSAA	2991-50-6	2.31	U	0.66	2.31	5.78
PFBS	375-73-5	13.72		0.42	1.16	5.78
PFHxS	355-46-4	125.17	P	1.27	2.89	28.90
PFOS	1763-23-1	10670.73	D	31.21	115.61	578.03
Surrogate Recoveries (%)						
13C5-PFHxA		121				
13C4-PFHpA		118				
13C8-PFOA		97				
13C9-PFNA		51				
13C6-PFDA		107				
13C7-PFUnA		109				
13C2-PFDoA		107				
13C2-PFTeDA		95				
d3-MeFOSAA		105	D			
d5-EtFOSAA		113	D			
13C3-PFBS		83	D			
13C3-PFHxS		113	D			
13C8-PFOS		100				

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

Client ID		VC-PM323-SS02-000H			
Battelle ID		J8327-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		4.85			
Matrix		SS			
Sample Size		1.900			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	0.40 J	0.35	1.05	5.26
PFHpA	375-85-9	1.05 U	0.46	1.05	5.26
PFOA	335-67-1	1.05 U	0.53	1.05	5.26
PFNA	375-95-1	1.05 U	0.45	1.05	5.26
PFDA	335-76-2	1.05 U	0.28	1.05	5.26
PFUnA	2058-94-8	1.05 U	0.43	1.05	5.26
PFDoA	307-55-1	0.53 U	0.25	0.53	5.26
PFTrDA	72629-94-8	1.05 U	0.29	1.05	5.26
PFTeDA	376-06-7	2.11 U	0.66	2.11	5.26
NMeFOSAA	2355-31-9	2.63 U	1.18	2.63	5.26
NEtFOSAA	2991-50-6	2.11 U	0.60	2.11	5.26
PFBS	375-73-5	1.05 U	0.38	1.05	5.26
PFHxS	355-46-4	0.53 ~~0.35~~ J U	0.23	0.53	5.26
PFOS	1763-23-1	6.49 U	0.28	1.05	5.26

EBL

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	96
13C8-PFOA	102
13C9-PFNA	95
13C6-PFDA	113
13C7-PFUnA	111
13C2-PFDoA	102
13C2-PFTeDA	97
d3-MeFOSAA	103
d5-EtFOSAA	108
13C3-PFBS	102
13C3-PFHxS	105
13C8-PFOS	103

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

Client ID		VC-PM323-SB02-0102			
Battelle ID		J8328-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		3.77			
Matrix		SB			
Sample Size		1.950			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.03 U	0.34	1.03	5.13
PFHpA	375-85-9	1.03 U	0.45	1.03	5.13
PFOA	335-67-1	1.03 U	0.51	1.03	5.13
PFNA	375-95-1	1.03 U	0.44	1.03	5.13
PFDA	335-76-2	1.03 U	0.28	1.03	5.13
PFUnA	2058-94-8	1.03 U	0.42	1.03	5.13
PFDoA	307-55-1	0.51 U	0.25	0.51	5.13
PFTrDA	72629-94-8	1.03 U	0.29	1.03	5.13
PFTeDA	376-06-7	2.05 U	0.65	2.05	5.13
NMeFOSAA	2355-31-9	2.56 U	1.15	2.56	5.13
NEtFOSAA	2991-50-6	2.05 U	0.58	2.05	5.13
PFBS	375-73-5	1.03 U	0.37	1.03	5.13
PFHxS	355-46-4	0.51 ~~0.37 +~~ U	0.23	0.51	5.13
PFOS	1763-23-1	2.02 J U	0.28	1.03	5.13

EBL

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	94
13C8-PFOA	108
13C9-PFNA	96
13C6-PFDA	110
13C7-PFUnA	119
13C2-PFDoA	102
13C2-PFTeDA	100
d3-MeFOSAA	117
d5-EtFOSAA	116
13C3-PFBS	112
13C3-PFHxS	113
13C8-PFOS	99

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

Client ID		VC-PM323-SB02-0506				
Battelle ID		J8329-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		14.32				
Matrix		SB				
Sample Size		1.720				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.16 U		0.38	1.16	5.81
PFHpA	375-85-9	1.16 U		0.51	1.16	5.81
PFOA	335-67-1	1.30 J		0.58	1.16	5.81
PFNA	375-95-1	1.16 U		0.50	1.16	5.81
PFDA	335-76-2	1.16 U		0.31	1.16	5.81
PFUnA	2058-94-8	1.16 U		0.48	1.16	5.81
PFDoA	307-55-1	0.58 U		0.28	0.58	5.81
PFTrDA	72629-94-8	1.16 U		0.33	1.16	5.81
PFTeDA	376-06-7	2.33 U		0.73	2.33	5.81
NMeFOSAA	2355-31-9	2.91 U		1.30	2.91	5.81
NEtFOSAA	2991-50-6	2.33 U		0.66	2.33	5.81
PFBS	375-73-5	1.16 U		0.42	1.16	5.81
PFHxS	355-46-4	0.58 U		0.26	0.58	5.81
PFOS	1763-23-1	1.16 ~~0.53~~ U		0.31	1.16	5.81

EBL

Surrogate Recoveries (%)

13C5-PFHxA	101
13C4-PFHpA	90
13C8-PFOA	103
13C9-PFNA	93
13C6-PFDA	106
13C7-PFUnA	120
13C2-PFDoA	102
13C2-PFTeDA	95
d3-MeFOSAA	103
d5-EtFOSAA	107
13C3-PFBS	97
13C3-PFHxS	116
13C8-PFOS	103

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

Client ID		VC-PM324-SS02-000H			
Battelle ID		J8332-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		19.44			
Matrix		SS			
Sample Size		1.690			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.18 U	0.39	1.18	5.92
PFHpA	375-85-9	1.18 U	0.52	1.18	5.92
PFOA	335-67-1	1.18 U	0.59	1.18	5.92
PFNA	375-95-1	1.18 U	0.51	1.18	5.92
PFDA	335-76-2	1.18 U	0.32	1.18	5.92
PFUnA	2058-94-8	1.18 U	0.49	1.18	5.92
PFDoA	307-55-1	0.59 U	0.28	0.59	5.92
PFTrDA	72629-94-8	1.18 U	0.33	1.18	5.92
PFTeDA	376-06-7	2.37 U	0.75	2.37	5.92
NMeFOSAA	2355-31-9	2.96 U	1.33	2.96	5.92
NEtFOSAA	2991-50-6	2.37 U	0.67	2.37	5.92
PFBS	375-73-5	1.18 U	0.43	1.18	5.92
PFHxS	355-46-4	0.59 U	0.26	0.59	5.92
PFOS	1763-23-1	1.31 J U	0.32	1.18	5.92

EBL

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	91
13C8-PFOA	101
13C9-PFNA	90
13C6-PFDA	105
13C7-PFUnA	110
13C2-PFDoA	103
13C2-PFTeDA	95
d3-MeFOSAA	110
d5-EtFOSAA	126
13C3-PFBS	96
13C3-PFHxS	113
13C8-PFOS	100

MW 12/27/18

Analyzed by: Schumitz, Denise
Printed: 10/23/2018

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

Client ID		VC-PM324-SB02-0102			
Battelle ID		J8333-FS			
Sample Type		SA			
Collection Date		09/20/2018			
Extraction Date		10/02/2018			
Analysis Date		10/09/2018			
Analytical Instrument		Sciex 5500 LC/MS/MS			
% Moisture		17.39			
Matrix		SB			
Sample Size		1.680			
Size Unit-Basis		g			
Units		ng/g_Dry	MDL	LOD	LOQ
PFHxA	307-24-4	1.19 U	0.39	1.19	5.95
PFHpA	375-85-9	1.19 U	0.52	1.19	5.95
PFOA	335-67-1	1.19 U	0.60	1.19	5.95
PFNA	375-95-1	1.19 U	0.51	1.19	5.95
PFDA	335-76-2	1.19 U	0.32	1.19	5.95
PFUnA	2058-94-8	1.19 U	0.49	1.19	5.95
PFDoA	307-55-1	0.60 U	0.29	0.60	5.95
PFTrDA	72629-94-8	1.19 U	0.33	1.19	5.95
PFTeDA	376-06-7	2.38 U	0.75	2.38	5.95
NMeFOSAA	2355-31-9	2.98 U	1.33	2.98	5.95
NEtFOSAA	2991-50-6	2.38 U	0.68	2.38	5.95
PFBS	375-73-5	1.19 U	0.43	1.19	5.95
PFHxS	355-46-4	0.60 U	0.26	0.60	5.95
PFOS	1763-23-1	1.19 ~~0.73~~ U	0.32	1.19	5.95

EBC

Surrogate Recoveries (%)	
13C5-PFHxA	96
13C4-PFHpA	88
13C8-PFOA	100
13C9-PFNA	92
13C6-PFDA	103
13C7-PFUnA	105
13C2-PFDoA	93
13C2-PFTeDA	88
d3-MeFOSAA	92
d5-EtFOSAA	115
13C3-PFBS	95
13C3-PFHxS	115
13C8-PFOS	91

MW 12/27/18

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-PM324-SB02-0506				
Battelle ID		J8334-FS				
Sample Type		SA				
Collection Date		09/20/2018				
Extraction Date		10/02/2018				
Analysis Date		10/09/2018				
Analytical Instrument		Sciex 5500 LC/MS/MS				
% Moisture		27.11				
Matrix		SB				
Sample Size		1.490				
Size Unit-Basis		g				
Units		ng/g_Dry		MDL	LOD	LOQ
PFHxA	307-24-4	1.34 U		0.44	1.34	6.71
PFHpA	375-85-9	1.34 U		0.59	1.34	6.71
PFOA	335-67-1	1.34 U		0.67	1.34	6.71
PFNA	375-95-1	1.34 U		0.58	1.34	6.71
PFDA	335-76-2	1.34 U		0.36	1.34	6.71
PFUnA	2058-94-8	1.34 U		0.55	1.34	6.71
PFDoA	307-55-1	0.67 U		0.32	0.67	6.71
PFTrDA	72629-94-8	1.34 U		0.38	1.34	6.71
PFTeDA	376-06-7	2.68 U		0.85	2.68	6.71
NMeFOSAA	2355-31-9	3.36 U		1.50	3.36	6.71
NEtFOSAA	2991-50-6	2.68 U		0.77	2.68	6.71
PFBS	375-73-5	1.34 U		0.48	1.34	6.71
PFHxS	355-46-4	0.67 U		0.30	0.67	6.71
PFOS	1763-23-1	1.34 ~~1.25 J~~	U	0.36	1.34	6.71

EBL

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	94
13C8-PFOA	101
13C9-PFNA	90
13C6-PFDA	99
13C7-PFUnA	109
13C2-PFDoA	102
13C2-PFTeDA	89
d3-MeFOSAA	106
d5-EtFOSAA	114
13C3-PFBS	92
13C3-PFHxS	111
13C8-PFOS	97

NW.L 12/7/18

Analyzed by: Schumitz, Denise
Printed: 10/23/2018

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-PM323-324-SO01	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225733.1	1868828.2	Perfluoroalkyl Compounds	VC-PM323-324-SB01-0102	SBS	Sub-surface soil (> 6)	20-Sep-18
VC-PM323-324-SO01	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225733.1	1868828.2	Perfluoroalkyl Compounds	VC-PM323-324-SB01-0506	SBS	Sub-surface soil (> 6)	20-Sep-18
VC-PM323-324-SO01	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225733.1	1868828.2	Perfluoroalkyl Compounds	VC-PM323-324-SS01-000H	SU	Surface soil (less than 6 inches)	20-Sep-18
VC-PM323-324-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225820.7	1868773.2	Perfluoroalkyl Compounds	VC-PM323-324-SB02-0102	SBS	Sub-surface soil (> 6)	20-Sep-18
VC-PM323-324-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225820.7	1868773.2	Perfluoroalkyl Compounds	VC-PM323-324-SB02-0506	SBS	Sub-surface soil (> 6)	20-Sep-18
VC-PM323-324-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225820.7	1868773.2	Perfluoroalkyl Compounds	VC-PM323-324-SS02-000H	SU	Surface soil (less than 6 inches)	20-Sep-18
VC-PM323-324-SO03	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225752.8	1868693.8	Perfluoroalkyl Compounds	VC-PM323-324-SB03-0102	SBS	Sub-surface soil (> 6)	20-Sep-18
VC-PM323-324-SO03	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225752.8	1868693.8	Perfluoroalkyl Compounds	VC-PM323-324-SB03-0506	SBS	Sub-surface soil (> 6)	20-Sep-18
VC-PM323-324-SO03	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225752.8	1868693.8	Perfluoroalkyl Compounds	VC-PM323-324-SS03-000H	SU	Surface soil (less than 6 inches)	20-Sep-18
VC-PM323-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225584.6	1868670.6	Perfluoroalkyl Compounds	VC-PM323-SB02-0102	SBS	Sub-surface soil (> 6)	20-Sep-18
VC-PM323-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225584.6	1868670.6	Perfluoroalkyl Compounds	VC-PM323-SB02-0506	SBS	Sub-surface soil (> 6)	20-Sep-18
VC-PM323-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225584.6	1868670.6	Perfluoroalkyl Compounds	VC-PM323-SS02-000H	SU	Surface soil (less than 6 inches)	20-Sep-18
VC-PM324-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225429.5	1868974.2	Perfluoroalkyl Compounds	VC-PM324-SB02-0102	SBS	Sub-surface soil (> 6)	20-Sep-18
VC-PM324-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225429.5	1868974.2	Perfluoroalkyl Compounds	VC-PM324-SB02-0506	SBS	Sub-surface soil (> 6)	20-Sep-18
VC-PM324-SO02	BASEWIDE PFAS	POINT_MUGU_NAS	DP	Direct Push/Geoprobe	18-0582	6225429.5	1868974.2	Perfluoroalkyl Compounds	VC-PM324-SS02-000H	SU	Surface soil (less than 6 inches)	20-Sep-18