



**Groundwater Sample Results,
Level 2 Laboratory Report, Level 4 Laboratory Report,
Electronic Data Deliverable, Data Validation Report,
and the Sample Location Report, SDG 18-0590**

*Naval Air Station Point Mugu
Point Mugu, California*

July 2019

CTO-4164 Naval Base Ventura County, California

Project No 100110125-01

PFAS by DoD QSM 5.1 Table B-15

SB, SS

Batch 18-0590

Package DP-18-0296

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

BATTELLE


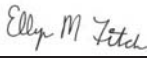

It can be done

CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15
SB, SS
Batch 18-0590
Package DP-18-0296

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

<u>Analyst Approval:</u>		<u>schumitzd@battelle.org</u> 2018.10.23 18:18:39 -04'00'
<u>QC Chemist Approval:</u>		<u>fitche@battelle.org</u> 2018.10.26 15:37:25 -04'00'
<u>Project Manager Approval:</u>		<u>Digitally signed by Jonathan Thorn</u> Date: 2018.10.26 20:24:08 -04'00'

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It can be done

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

SD

Batch 18-0590


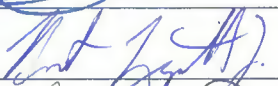
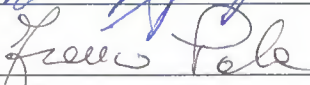
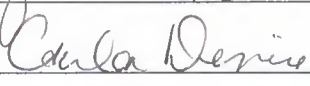




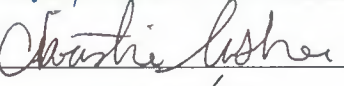

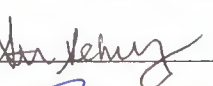

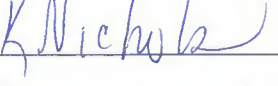



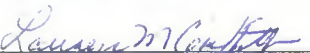
Package DP-18-0296

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BATTELLE

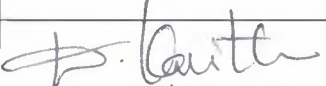
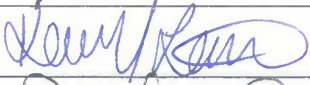


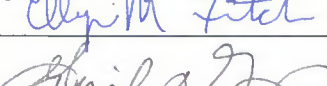
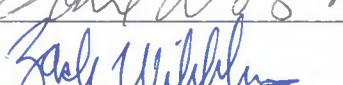
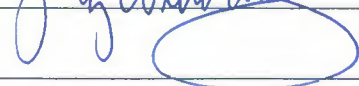
It can be done

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
FRANC PALA		FP	4-4-2018
Carla Devine		CRD	4/4/18
Denise Schumitz		DNS	4/4/18
Carol Ann McManis		CM	4/4/2018
Rich Rostucci		RR	4/4/2018
Michael Mena		MM	4/4/2018
Christie Usher		CU	4/4/18
Kevin Matroney		KM	4/4/18
Stephanie Schmitz		SAS	4/4/18
Jordan Tower		JT	4/4/18
KRISTEN NICHOLS		KN	4/4/18
Quimiao H Brown		CB	4/4/18
Matt Schumitz		MS	4-4-18
Sam Guimaraes		SG	4-4-18
Lauren Griffith		LMG	4.4.18

Signature Page

Battelle 2018 (2 of 2)
Signature Page

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

Sample Summary

Client: CH2M

SDG: 18-0590

Project/Site: Naval Base Ventura County

CTO: 4164

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Receipt Date
CR904PB-FS	180507-02: Ottawa Sand	SEDIMENT	10/8/2018	10/8/2018
CR905LCS-FS	180507-02: Ottawa Sand	SEDIMENT	10/8/2018	10/8/2018
J8465-FS	VC-PM367-SS01-000H	SS	9/27/2018	9/28/2018
J8466-FS	VC-PM367-SB01-0102	SB	9/27/2018	9/28/2018
J8467-FS	VC-PM367-SB01-0506	SB	9/27/2018	9/28/2018
J8468-FS	VC-PM367-SS02-000H	SS	9/27/2018	9/28/2018
J8469-FS	VC-PM367-SB02-0102	SB	9/27/2018	9/28/2018
J8470-FS	VC-PM367-SB02-0506	SB	9/27/2018	9/28/2018
J8471-FS	VC-PM367-SS03-000H	SS	9/27/2018	9/28/2018
J8472-FS	VC-PM367-SB03-0102	SB	9/27/2018	9/28/2018
J8473-FS	VC-PM367-SB03-0506	SB	9/27/2018	9/28/2018
J8474-FS	VC-PM367-SS04-000H	SS	9/27/2018	9/28/2018
J8475-FS	VC-PM367-SB04-0102	SB	9/27/2018	9/28/2018
J8476-FS	VC-PM367-SB04-0506	SB	9/27/2018	9/28/2018

Miscellaneous Documentation

QA/QC Summary
Batch 18-0590

Project:	CTO-4164 Naval Base Ventura County, California
Parameters:	PFAS
Laboratory:	Battelle, Norwell, MA
Matrix:	SS, SB
Data Set:	DP-18-0296
Analytical SOP:	5-369
Method Reference:	PFAS to QSM 5.1 Table B-15

Sample Custody		
Collection Date	Receipt Date	Temp (°C)
9/26-27/2018	9/28/2018	0.7 and 0.4
Corrective Actions	Minor discrepancies between the COC and the sample containers were corrected by the Project Chemist, email clarifying IDs is 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 extraction to check potential levels of PFAS in the samples.
Analysis	PFAS were measured by liquid chromatography tandem mass spectrometry (LC-MS/MS) in the multiple reaction monitoring (MRM). An initial calibration consisting of representative target analytes, labelled analogs, and internal standards was analyzed prior to analysis to demonstrate the linear range of analysis. Calibration verification was performed at the beginning and end of 10 injections and at the end of each sequence. Target PFAS were quantified using the isotope dilution method. Samples are reported in ng/g concentrations.
Analysis Comments	<p>Samples analyzed on Sciex 5500 LC-MS/MS.</p> <p>The first time the samples ran, the CCV in the middle of the sequence did not inject and the samples needed to be rerun. The raw data for the first run of these samples can be found in the unused data section of the full data package.</p> <p>Where detected in samples, PFOS is a mixture of linear and branched isomers.</p>

Holding Times	Extraction Date(s)	Analysis Date(s)
	10/8/2018	10/17-19/2018 & 10/25/2018

QA/QC Summary
Batch 18-0590

Procedural Blank (PB)	A PB was prepared with this analytical batch to ensure the sample extraction and analysis methods are free of contamination.
$\leq \frac{1}{2}$ the LOQ	No exceedances noted.
Samples >10x PB	The initial run for the PB had a hit for PFOS. A fresh aliquot was run to verify the PFOS concentration. The second aliquot was reported. The quant report from the initial run are included in the unused data section of the full data package.
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	MS/MSD not extracted with batch.
	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.
	Sample J8473 was outside of the injected internal standard criteria. There was no original extract left so the lab took a fresh aliquot and passed it thru an Envicarb cartridge and then submitted for analysis. The original data can be found in the unused data section of this data package.
Initial Calibration (ICAL)	The LC-MS/MS was calibrated with multi-level calibration curve for all compounds using linear or quadratic curve fitting.
+/- 30% of true value, $R^2 \geq 0.99$	No exceedances noted.
	No comments.
Independent Calibration Check (ICC)	The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL.
+/- 30% of true value	No exceedances noted.
	No comments.

QA/QC Summary
Batch 18-0590

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.



It can be done

Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project Number: 100110125-01
 Preparation Batch: 18-0590
 Data Set: DP-18-0296
 Test Code: Master_369

QC Parameter:	Exceed:	Justification:
Procedural Blank	0	None
PB Measurement Quality Objective	0	None
Laboratory Control Sample	0	None
Matrix Spike / Matrix Spike Duplicate Recovery	NA	None
Matrix Spike / Matrix Spike Duplicate Precision	NA	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-18-0296
Project Number:	100110125-01	Prep Batch Number:	18-0590
Entered By:	Denise Schumitz	Entered On:	10/23/2018
Test Code (Matrix Type):	Master_369(S)		

Samples that were manually integrated are noted on the quant reports with the comment (TRUE). DMS 10/23/2018

Sample J8473 was outside of the injected internal standard criteria. There was no original extract left so the lab took a fresh aliquot and passed it thru an Envicarb cartridge and then submitted for analysis. The original data can be found in the unused data section of this data package. DMS 10/26/2018

The first time the samples ran the CCV in the middle of the sequence did not inject and the samples needed to be rerun. The raw data for the first run of these samples can be found in the unused data section of this data package. DMS 10/23/2018

CR904PB-FS had a fresh aliquot taken and rerun due to PFOS found in the procedural blank. The sample that ran before the PB was extremely contaminated with PFOS and there may have been some instrument carry over. The fresh aliquot did not have any PFOS in it and is being reported with the batch. DMS 10/23/2018

Task Leader Approval:

Supervisor Approval:

PM Approval:

Digitally signed by Jonathan Thorn
Date: 2018.10.23 21:30:59 -04'00'



Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01
 Preparation Batch: 18-0590
 Data Set: DP-18-0296

		CR904PB-FS (180507-02: Ottawa Sand)	CR905LCS-FS (180507-02: Ottawa Sand)	18465-FS (VC-PM367-SS01-000H)	18466-FS (VC-PM367-SB01-0102)	18467-FS (VC-PM367-SB01-0506)	18468-FS (VC-PM367-SS02-000H)
PFHxA	307-24-4	-	L	L	L	L	-
PFHpA	375-85-9	-	L	-	-	-	-
PFOA	335-67-1	-	L	L	-	L	-
PFNA	375-95-1	-	L	-	-	-	-
PFDA	335-76-2	-	L	-	-	-	-
PFUnA	2058-94-8	-	L	-	-	-	-
PFDoA	307-55-1	-	L	-	-	-	-
PFTTrDA	72629-94-8	-	L	-	-	-	-
PFTeDA	376-06-7	-	L	-	-	-	-
NMeFOSAA	2355-31-9	-	L	-	-	-	-
NEtFOSAA	2991-50-6	-	L	-	-	-	-
PFBS	375-73-5	-	L	-	-	-	-
PFHxS	355-46-4	-	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": 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-

	J8469-FS (VC-PM367-SB02-0102)	J8470-FS (VC-PM367-SB02-0506)	J8471-FS (VC-PM367-SS03-000H)	J8472-FS (VC-PM367-SB03-0102)	J8473-FS (VC-PM367-SB03-0506)	J8474-FS (VC-PM367-SS04-000H)	J8475-FS (VC-PM367-SB04-0102)	J8476-FS (VC-PM367-SB04-0506)
PFHxA	-	-	L	L	L	L	L	L
PFHpA	-	-	L	L	L	-	-	L
PFOA	-	L	-	L	L	L	L	L
PFNA	-	-	-	-	-	L	L	-
PFDA	-	-	-	-	-	-	-	-
PFUnA	-	-	-	-	-	-	-	-
PFDoA	-	-	-	-	-	-	-	-
PFTTrDA	-	-	-	-	-	-	-	-
PFTeDA	-	-	-	-	-	-	-	-
NMeFOSAA	-	-	-	-	-	-	-	-
NEtFOSAA	-	-	-	-	-	-	-	-
PFBS	-	-	-	-	-	-	-	-
PFHxS	L/Br	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

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

Sample Receipt Form

Approved: Authorized

Project Number: 695803 Client: CH2M
Received by: Schumitz, Matt Date/Time Received: Friday, September 28, 2018 11:00 AM
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 7942 9567	Custody Seals	Intact	Intact	Therm_1	0.7	20
2 of 2	Cooler	7829 7942 9578	Custody Seals	Intact	Intact	Therm_1	0.4	26

Samples

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

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

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

Temperature upon receipt (°C): 0.7 Temperature Blank used Yes No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA
Individual sample deviations noted on sample log

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

Storage Location: Custody: Refrigerator - R0119 (NA) BDO IDs Assigned: J8438 - J8483

Samples logged in by: Schumitz, Matt Date/Time: 09/28/2018 11:00 AM

Approved By: _____ Approved On: _____

Authorized By: _____ Authorized On: _____

Report Corrective Actions

Corrective Action No: 1 of 1

Authorized Approved:

COC Client: CH2M
COC Project: NBVC Basewide SI
COC Date: 9/28/2018 1:26:0

	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 VC-SO-FB07-092618 (J8455) VC-SO-EB07-092618 (J8456) VC-AQ-EB08-092718 (J8483) Labels 1 bottle: VC-SO-FB07-092618, 1 bottle: VC-AQ-FB07-092618 (J8455) 1 bottle: VC-SO-EB07-092618, 1 bottle: VC-AQ-EB07-092618 (J8456) 1 bottle: VC-SO-EB08-092718, 1 bottle: VC-AQ-EB08-092618 (J8483)
	Jars and C-O-C do not have matching Ids	Sample VC-MS09-SB04-0102-MSD only lists VC-MS09-SB04-0102-SD on the sample label. Logged in per COC

Documentation of project manager notification

Sample Custodian Schumitz, Matt **Date:** 9/28/2018 5:18:00 PM
Laboratory Manager: Thorn, Jonathan **Date:** 10/24/2018 11:17:00 A
Project Manager: Thorn, Jonathan **Date:** 10/24/2018 11:18:00 A

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

On 28-Sep-18 **I contacted** Hill, Tiffany **at** CH2M

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

email attached with clarification on sample IDs.

Date this form was received back to the custodian: _____

Reference Number: _____

Schumitz, Matthew

From: Thorn, Jonathan R
Sent: Monday, October 01, 2018 5:07 PM
To: Schumitz, Matthew
Subject: FW: 9.28.2018 shipment receipt

Here is the last one

From: Hill, Tiffany/CVO <Tiffany.Hill@jacobs.com>
Sent: Monday, October 1, 2018 5:07 PM
To: Thorn, Jonathan R <thorn@battelle.org>
Subject: RE: 9.28.2018 shipment receipt

Message received from outside the Battelle network. Carefully examine it before you open any links or attachments.

Thanks Jon, made my way through these. Please follow IDs per the CoC as done.

From: Thorn, Jonathan R [<mailto:thorn@battelle.org>]
Sent: Monday, October 01, 2018 9:09 AM
To: Hill, Tiffany/CVO <Tiffany.Hill@jacobs.com>
Subject: [EXTERNAL] 9.28.2018 shipment receipt

Hi Tiffany,

Here are the custody records from Friday's shipment. Cooler temperatures are all good. A few questions on some of the sample IDs are on page 2. (Matt still need update the cooler to sample link in our LIMS system o show which samples were in each cooler too).

These will be in Battelle SDGs 18-0588, 18-0589, 18-0590. I will get you the sample to SDG links once we have the IDs updated.

Best Regards,
Jon

Jonathan Thorn

Laboratory Director
Analytical Chemistry Services
Office: 781.681.5565 | Mobile: 781.710.9664 | Fax: 614.458.6917
thorn@battelle.org

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It can be done

ShpNo SHP-180928-03

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: Authorized

Project Number: 695803 Client: CH2M

Received by: Schumitz, Matt Date/Time Received: Friday, September 28, 2018 11:00 AM

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:
J8438	VC-MS09-SS01-000H	09/26/18 9:41	09/28/18 13:29	1	SS	0.7	NA	NA	NA	F0117 (NA)			
J8439	VC-MS09-SB01-0102	09/26/18 9:43	09/28/18 13:29	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8440	VC-MS09-SB01-0506	09/26/18 9:52	09/28/18 13:29	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8441	VC-MS09-SS02-000H	09/26/18 9:30	09/28/18 13:30	1	SS	0.7	NA	NA	NA	F0117 (NA)			
J8442	VC-MS09-SB02-0102	09/26/18 9:34	09/28/18 13:31	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8443	VC-MS09-SB02-0506	09/26/18 9:41	09/28/18 13:32	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8444	VC-MS09-SS03-000H	09/26/18 10:15	09/28/18 13:32	1	SS	0.7	NA	NA	NA	F0117 (NA)			
J8445	VC-MS09-SB03-0102	09/26/18 10:20	09/28/18 13:32	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8446	VC-MS09-SB03-0506	09/26/18 10:25	09/28/18 13:32	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8447	VC-MS09-SS04-000H	09/26/18 11:16	09/28/18 13:33	1	SS	0.7	NA	NA	NA	F0117 (NA)			
J8448	VC-MS09-SB04-0102	09/26/18 11:18	09/28/18 13:33	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8449	VC-MS09-SB04-0506	09/26/18 11:25	09/28/18 13:33	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8450	VC-MS09-SS05-000H	09/26/18 10:44	09/28/18 13:37	1	SS	0.4	NA	NA	NA	F0117 (NA)			
J8451	VC-MS09-SB05-0102	09/26/18 10:45	09/28/18 13:37	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8452	VC-MS09-SB05-0506	09/26/18 10:50	09/28/18 13:37	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8453	VC-MS09-SB04-0102-MS	09/26/18 11:18	09/28/18 13:38	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8454	VC-MS09-SB04-0102-MSD	09/26/18 11:18	09/28/18 13:38	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8455	VC-SO-FB07-09262018	09/26/18 11:43	09/28/18 13:39	2	AQ	0.4	NA	NA	NA	R0118 (NA)			
J8456	VC-SO-EB07-09262018	09/26/18 11:45	09/28/18 13:40	2	AQ	0.4	NA	NA	NA	R0118 (NA)			
J8457	VC-MS09-DW01-0918	09/26/18 10:16	09/28/18 13:43	2	GW	0.7	NA	NA	NA	R0118 (NA)			
J8458	VC-MS09-DW02-0918	09/26/18 10:05	09/28/18 13:43	2	GW	0.7	NA	NA	NA	R0118 (NA)			
J8459	VC-MS09-DW03-0918	09/26/18 11:10	09/28/18 13:44	2	GW	0.7	NA	NA	NA	R0118 (NA)			
J8460	VC-MS09-DW04-0918	09/26/18 12:22	09/28/18 13:44	2	GW	0.7	NA	NA	NA	R0118 (NA)			
J8461	VC-MS09-DW04P-0918	09/26/18 12:20	09/28/18 13:44	2	GW	0.7	NA	NA	NA	R0118 (NA)			
J8462	VC-MS09-DW05-0918	09/26/18 11:35	09/28/18 13:45	2	GW	0.7	NA	NA	NA	R0118 (NA)			
J8463	VC-MS09-DW05-0918-MS	09/26/18 11:15	09/28/18 13:46	2	AQ	0.7	NA	NA	NA	R0118 (NA)			
J8464	VC-MS09-DW05-0918-MSD	09/26/18 11:15	09/28/18 13:48	2	AQ	0.7	NA	NA	NA	R0118 (NA)			
J8465	VC-PM367-SS01-000H	09/27/18 10:12	09/28/18 13:49	1	SS	0.4	NA	NA	NA	F0117 (NA)			



It can be done

ShpNo SHP-180928-03

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: Authorized

Project Number: 695803 Client: CH2M

Received by: Schumitz, Matt Date/Time Received: Friday, September 28, 2018 11:00 AM

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:
J8466	VC-PM367-SB01-0102	09/27/18 10:15	09/28/18 13:51	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8467	VC-PM367-SB01-0506	09/27/18 10:26	09/28/18 13:51	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8468	VC-PM367-SS02-000H	09/27/18 9:25	09/28/18 13:52	1	SS	0.4	NA	NA	NA	F0117 (NA)			
J8469	VC-PM367-SB02-0102	09/27/18 9:31	09/28/18 13:52	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8470	VC-PM367-SB02-0506	09/27/18 9:37	09/28/18 13:52	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8471	VC-PM367-SS03-000H	09/27/18 10:19	09/28/18 13:53	1	SS	0.4	NA	NA	NA	F0117 (NA)			
J8472	VC-PM367-SB03-0102	09/27/18 10:20	09/28/18 13:54	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8473	VC-PM367-SB03-0506	09/27/18 10:26	09/28/18 13:55	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8474	VC-PM367-SS04-000H	09/27/18 9:30	09/28/18 13:55	1	SS	0.4	NA	NA	NA	F0117 (NA)			
J8475	VC-PM367-SB04-0102	09/27/18 9:31	09/28/18 13:56	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8476	VC-PM367-SB04-0506	09/27/18 9:38	09/28/18 13:56	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8477	VC-PM367-DW01-0918	09/27/18 10:36	09/28/18 13:58	2	GW	0.4	NA	NA	NA	R0119 (NA)			
J8478	VC-PM367-DW02-0918	09/27/18 9:50	09/28/18 14:00	2	GW	0.4	NA	NA	NA	R0119 (NA)			
J8479	VC-PM367-DW03-0918	09/27/18 10:43	09/28/18 14:00	2	GW	0.4	NA	NA	NA	R0119 (NA)			
J8480	VC-PM367-DW03P-0918	09/27/18 10:46	09/28/18 14:00	2	GW	0.4	NA	NA	NA	R0119 (NA)			
J8481	VC-PM367-DW04-0918	09/27/18 10:04	09/28/18 14:01	2	GW	0.4	NA	NA	NA	R0119 (NA)			
J8482	VC-AQ-FB08-09272018	09/27/18 10:00	09/28/18 14:01	2	AQ	0.4	NA	NA	NA	R0119 (NA)			
J8483	VC-AQ-EB08-09272018	09/27/18 12:00	09/28/18 14:02	2	AQ	0.4	NA	NA	NA	R0119 (NA)			

Total Samples: 46



It can be done

Chain-of-Custody

Client Contact Information Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Project Manager: Eric Davis Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:			Sampling Site: Pt Mugu MSC9		Site Information:				
Project Name: NBVC Basewide SI Project No.: 695803		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/> Time Zone: PST			Preservative NA		COC # 4				
Sample Identification		Analysis PFAS by Method 517/Mod									
Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.							
VC-MS09-SS01-000H	J8438 9/26/18 0941	Grab	SS	1	X						
VC-MS09-SB01-0102	39 9/26/18 0943	Grab	SB	1	X						
VC-MS09-SB01-0506	40 9/26/18 0952	Grab	SB	1	X						
VC-MS09-SS02-000H	41 9/26/18 0930	Grab	SS	1	X						
VC-MS09-SB02-0102	42 9/26/18 0934	Grab	SB	1	X						
VC-MS09-SB02-0506	43 9/26/18 0941	Grab	SB	1	X						
VC-MS09-SS03-000H	44 9/26/18 1015	Grab	SS	1	X						
VC-MS09-SB03-0102	45 9/26/18 1020	Grab	SB	1	X						
VC-MS09-SB03-0506	46 9/26/18 1025	Grab	SB	1	X						
VC-MS09-SS04-000H	47 9/26/18 1116	Grab	SS	1	X						
VC-MS09-SB04-0102	48 9/26/18 1119	Grab	SB	1	X						
VC-MS09-SB04-0506	J8449 9/26/18 1125	Grab	SB	1	X						
Receipt Temperature:(°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No					Receipt Comments:	
Relinquished by (Print/Sign): V. Kilbert		Company: Jacobs	Date/Time: 9/27/18 1300		Received by (Print/Sign): MS		Company: Battelle	Date/Time: 9-28-18 1100			
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):		Company:	Date/Time:			
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):		Company:	Date/Time:			
Comments:											



Chain-of-Custody

Client Contact Information Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Project Manager: Eric Davis Sampler Information (print name): <i>Victoria Kilbert</i> Phone: <i>724-977-3628</i> Email: <i>victoria.kilbert@jacobs.com</i>				Sampling Site: <i>At Mugu MS09</i>				Site Information:					
Project Name: NBVC Basewide SI		Turnaround Time (TAT) Requested: Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>				Preservative NA				COC # <i>4</i>					
Project No.: <i>695803</i>		Time Zone: <i>PST</i>								Analysis PFAS by Method 517 Mod				Page# <i>2 of 6</i>	
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.									
<i>J8450</i> VC-MS09-SS05-000H		<i>9/26/18</i>	<i>1044</i>	Grab	SS	<i>1</i>	X								
<i>J8451</i> VC-MS09-SB05- <i>0102</i>		<i>9/26/18</i>	<i>1045</i>	Grab	SB	<i>1</i>	X								
<i>J8452</i> VC-MS09-SB05- <i>0506</i>		<i>9/26/18</i>	<i>1050</i>	Grab	SB	<i>1</i>	X								
<i>J8453</i> VC-MS09-S <i>B04</i> - <i>0102</i> -MS		<i>9/26/18</i>	<i>1118</i>	Grab	SB	<i>1</i>	X								
<i>J8454</i> VC-MS09-S <i>B04</i> - <i>0102</i> -MSD		<i>9/26/18</i>	<i>1118</i>	Grab	SB	<i>1</i>	X								
<i>J8455</i> VC-FDT-SO-FB <i>07-09262018</i>		<i>9/26/18</i>	<i>1143</i>	Grab	AQ	<i>2</i>	X								
<i>J8456</i> VC-FDT-SO-EB <i>07-09262018</i>		<i>9/26/18</i>	<i>1145</i>	Grab	AQ	<i>2</i>	X							<i>bow</i>	
Receipt Temperature:(°C)		Samples Intact: Yes - No				Samples on Ice: Yes - No				Receipt Comments:					
Relinquished by (Print/Sign): <i>V. Kilbert</i>		Company: <i>Jacobs</i>		Date/Time: <i>9/27/18 1300</i>		Received by (Print/Sign): <i>[Signature]</i>		Company: <i>Battelle</i>		Date/Time: <i>9-28-18 1100</i>					
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign):		Company:		Date/Time:					
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign):		Company:		Date/Time:					
Comments:															

J8450
J8451
J8452
J8453
J8454
J8455 VC
J8456 VC



Chain-of-Custody

Client Contact Information Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Project Manager: Eric Davis Sampler Information (print name): <u>Victoria Kilbert</u> Phone: <u>724-977-3628</u> Email: <u>victoria.kilbert@jacobs.com</u> Turnaround Time (TAT) Requested:				Sampling Site: <u>P+ Mugh MS09</u>		Site Information:					
Project Name: NBVC Basewide SI Project No.: <u>6915803</u>		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/> Time Zone: <u>PST</u>				Preservative NA		COC # <div style="font-size: 2em; text-align: center;">4</div>					
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis	Page# <div style="font-size: 2em; text-align: center;">3 of 6</div>					
VC-MS09-DW01- <u>0918</u> <u>J8457</u>		<u>9/26/18</u>	<u>1016</u>	Grab	GW	<u>2</u>	X						
VC-MS09-DW02- <u>0918</u> <u>J8458</u>		<u>9/26/18</u>	<u>1005</u>	Grab	GW	<u>2</u>	X						
VC-MS09-DW03- <u>0918</u> <u>J8459</u>		<u>9/26/18</u>	<u>1110</u>	Grab	GW	<u>2</u>	X						
VC-MS09-DW04- <u>0918</u> <u>J8460</u>		<u>9/26/18</u>	<u>1222</u>	Grab	GW	<u>2</u>	X						
VC-MS09-DW04P- <u>0918</u> <u>J8461</u>		<u>9/26/18</u>	<u>1220</u>	Grab	GW	<u>2</u>	X						
VC-MS09-DW05- <u>0918</u> <u>J8462</u>		<u>9/26/18</u>	<u>1135</u>	Grab	GW	<u>2</u>	X						
FDL-AQ-EB		9/26/18	1143	Grab	AQ	2	X						
FDT-AQ-EB		9/26/18	1148	Grab	AQ	2	X						
Receipt Temperature: (°C)		Samples Intact: Yes - No				Samples on Ice: Yes - No				Receipt Comments:			
Relinquished by (Print/Sign): <u>V. Kilbert</u>		Company: <u>Jacobs</u>		Date/Time: <u>9/27/18 1300</u>		Received by (Print/Sign): <u>[Signature]</u>		Company: <u>Battelle</u>		Date/Time: <u>9-28-18 1100</u>			
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign):		Company:		Date/Time:			
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign):		Company:		Date/Time:			
Comments:													



Chain-of-Custody

Client Contact Information Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Project Manager: Eric Davis			Sampling Site: <u>PT-MUWU PM367</u>			Site Information:		
Project Name: NBVC Basewide SI		Sampler Information (print name): <u>Victoria Kilbert</u> Phone: <u>24-977-3628</u> Email: <u>victoria.kilbert@jacobs.com</u>			Turnaround Time (TAT) Requested:			Preservative: <u>NA</u>		
Project No.: <u>695803</u>		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>			Time Zone: <u>PST</u>			COC # <u>4</u>		
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis: PEFAS by Method 537 Mod			Page# <u>4 of 6</u>
VC-PM367-S -MS				Grab			X			
VC-PM367-S -SD				Grab			X			
FDT-SO-FB				Grab	AQ		X			
FDT-SO-EB				Grab	AQ		X			
VC-MS09-DW05-0918-MS										
<u>VC-MS09-DW05-0918-MS</u>		<u>9/20/18</u>	<u>11:15</u>	<u>Grab</u>	<u>AQ</u>	<u>2</u>	<u>X</u>			
<u>VC-MS09-DW05-0918-MS</u>		<u>9/20/18</u>	<u>11:21</u>	<u>Grab</u>	<u>AQ</u>	<u>2</u>	<u>X</u>			
								(VK)		
Receipt Temperature:(°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No			Receipt Comments:		
Relinquished by (Print/Sign): <u>[Signature]</u>		Company: <u>Jacobs</u>	Date/Time: <u>9/27/18 1300</u>		Received by (Print/Sign): <u>[Signature]</u>		Company: <u>Battelle</u>	Date/Time: <u>9-28-18 1100</u>		
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):		Company:	Date/Time:		
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):		Company:	Date/Time:		
Comments:										

J8463
J8464



Chain-of-Custody

Client Contact Information		Project Manager: Eric Davis		Sampling Site: <u>PM367</u>		Site Information:	
Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Sampler Information (print name): <u>Victoria Kilbert</u> Phone: <u>724-977-3628</u> Email: <u>victoria.kilbert@jacobs.com</u>		Preservative NA		COC # <u>4</u>	
Project Name: <u>NBVC Basewide SI</u>		Turnaround Time (TAT) Requested:					
Project No.: <u>695803</u>		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>		Analysis PFAS by Method 517 Mod		Page# <u>5 A 6</u>	
Sample Identification		Time Zone: <u>PST</u>					
Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.			
<u>9/27/18</u>	<u>1012</u>	<u>Grab</u>	<u>SS</u>	<u>1</u>	<input checked="" type="checkbox"/>		
<u>9/27/18</u>	<u>1015</u>	<u>Grab</u>	<u>SB</u>	<u>1</u>	<input checked="" type="checkbox"/>		
<u>9/27/18</u>	<u>1026</u>	<u>Grab</u>	<u>SB</u>	<u>1</u>	<input checked="" type="checkbox"/>		
<u>9/27/18</u>	<u>0925</u>	<u>Grab</u>	<u>SS</u>	<u>1</u>	<input checked="" type="checkbox"/>		
<u>9/27/18</u>	<u>0931</u>	<u>Grab</u>	<u>SB</u>	<u>1</u>	<input checked="" type="checkbox"/>		
<u>9/27/18</u>	<u>0937</u>	<u>Grab</u>	<u>SB</u>	<u>1</u>	<input checked="" type="checkbox"/>		
<u>9/27/18</u>	<u>1019</u>	<u>Grab</u>	<u>SS</u>	<u>1</u>	<input checked="" type="checkbox"/>		
<u>9/27/18</u>	<u>1020</u>	<u>Grab</u>	<u>SB</u>	<u>1</u>	<input checked="" type="checkbox"/>		
<u>9/27/18</u>	<u>1026</u>	<u>Grab</u>	<u>SB</u>	<u>1</u>	<input checked="" type="checkbox"/>		
<u>9/27/18</u>	<u>0930</u>	<u>Grab</u>	<u>SS</u>	<u>1</u>	<input checked="" type="checkbox"/>		
<u>9/27/18</u>	<u>0931</u>	<u>Grab</u>	<u>SB</u>	<u>1</u>	<input checked="" type="checkbox"/>		
<u>9/27/18</u>	<u>0938</u>	<u>Grab</u>	<u>SB</u>	<u>1</u>	<input checked="" type="checkbox"/>		
Receipt Temperature: (°C)		Samples Intact: <u>Yes - No</u>		Samples on Ice: <u>Yes - No</u>		Receipt Comments:	
Relinquished by (Print/Sign): <u>V. Kilbert</u>		Company: <u>Jacobs</u>		Date/Time: <u>9/27/18 1300</u>		Received by (Print/Sign): <u>MB</u>	
						Company: <u>Battelle</u>	
						Date/Time: <u>9-28-18 1100</u>	
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign):	
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign):	
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign):	
Comments:							



Chain-of-Custody

Client Contact Information Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Project Manager: Eric Davis Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com			Sampling Site: PT Mugu PM367		Site Information: COC # 4																																																	
Project Name: NBVC Basewide SI Project No.: 6915803		Turnaround Time (TAT) Requested: Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>			Analysis PFAS by Method 517 Mod		Page# 6 of 6																																																	
Time Zone: PST		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Sample Identification</th> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type</th> <th>Matrix</th> <th>Total # of Cont.</th> </tr> </thead> <tbody> <tr> <td>VC-PM367-DW01-0918</td> <td>9/27/18</td> <td>1036</td> <td>Grab</td> <td>GW</td> <td>2</td> </tr> <tr> <td>VC-PM367-DW02-0918</td> <td>9/27/18</td> <td>1035</td> <td>Grab</td> <td>GW</td> <td>2</td> </tr> <tr> <td>VC-PM367-DW03-0918</td> <td>9/27/18</td> <td>1043</td> <td>Grab</td> <td>GW</td> <td>2</td> </tr> <tr> <td>VC-PM367-DW03P-0918</td> <td>9/27/18</td> <td>1046</td> <td>Grab</td> <td>GW</td> <td>2</td> </tr> <tr> <td>VC-PM367-DW04-0918</td> <td>9/27/18</td> <td>1004</td> <td>Grab</td> <td>GW</td> <td>2</td> </tr> <tr> <td>VC-FDT AQ-FB 08 - 09272018</td> <td>9/27/18</td> <td>1000</td> <td>Grab</td> <td>AQ</td> <td>2</td> </tr> <tr> <td>VC-FDT AQ-EB 08 - 09272018</td> <td>9/27/18</td> <td>1200</td> <td>Grab</td> <td>AQ</td> <td>2</td> </tr> </tbody> </table>					Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	VC-PM367-DW01-0918	9/27/18	1036	Grab	GW	2	VC-PM367-DW02-0918	9/27/18	1035	Grab	GW	2	VC-PM367-DW03-0918	9/27/18	1043	Grab	GW	2	VC-PM367-DW03P-0918	9/27/18	1046	Grab	GW	2	VC-PM367-DW04-0918	9/27/18	1004	Grab	GW	2	VC- FDT AQ-FB 08 - 09272018	9/27/18	1000	Grab	AQ	2	VC- FDT AQ-EB 08 - 09272018	9/27/18	1200	Grab	AQ	2	on juw screen 	
Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.																																																			
VC-PM367-DW01-0918	9/27/18	1036	Grab	GW	2																																																			
VC-PM367-DW02-0918	9/27/18	1035	Grab	GW	2																																																			
VC-PM367-DW03-0918	9/27/18	1043	Grab	GW	2																																																			
VC-PM367-DW03P-0918	9/27/18	1046	Grab	GW	2																																																			
VC-PM367-DW04-0918	9/27/18	1004	Grab	GW	2																																																			
VC- FDT AQ-FB 08 - 09272018	9/27/18	1000	Grab	AQ	2																																																			
VC- FDT AQ-EB 08 - 09272018	9/27/18	1200	Grab	AQ	2																																																			
Receipt Temperature:(°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No			Receipt Comments:																																																
Relinquished by (Print/Sign): V. Kilbert		Company: Jacobs		Date/Time: 9/27/18 1305		Received by (Print/Sign): 		Company: Battelle		Date/Time: 9-28-18 1100																																														
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:																																																								

② 0.4° FRI - 28 SEP 10:30A
MPS# 7829 7942 9578 PRIORITY OVERNIGHT

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5169367 28Sep 02:01 MEMH 547C1/F78C/A17C

① 0.7° FRI - 28 SEP 10:30A
IRK# 7829 7942 9567 PRIORITY OVERNIGHT

XE XPUA

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985519 28Sep 02:02 MEMH 547

Data Tables



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

Client ID VC-PM367-SS01-000H

Battelle ID J8465-FS
 Sample Type SA
 Collection Date 09/27/2018
 Extraction Date 10/08/2018
 Analysis Date 10/19/2018
 Analytical Instrument Sciex 5500 LC/MS/MS
 % Moisture 2.08
 Matrix SS
 Sample Size 1.87
 Size Unit-Basis g
 Units ng/g_Dry MDL LOD LOQ

	ng/g_Dry	MDL	LOD	LOQ
PFHxA	1.87 J	0.35	1.07	5.35
PFHpA	1.07 U	0.47	1.07	5.35
PFOA	1.02 J	0.53	1.07	5.35
PFNA	1.07 U	0.46	1.07	5.35
PFDA	1.07 U	0.29	1.07	5.35
PFUnA	1.07 U	0.44	1.07	5.35
PFDaA	0.53 U	0.26	0.53	5.35
PFTeDA	1.07 U	0.30	1.07	5.35
PFTeDA	2.14 U	0.67	2.14	5.35
NMeFOSAA	2.67 U	1.20	2.67	5.35
NEtFOSAA	2.14 U	0.61	2.14	5.35
PFBS	1.07 U	0.39	1.07	5.35
PFHxS	2.05 J	0.24	0.53	5.35
PFOS	17.33	0.29	1.07	5.35

Surrogate Recoveries (%)

13C5-PFHxA	107
13C4-PFHpA	102
13C8-PFOA	107
13C9-PFNA	104
13C6-PFDA	111
13C7-PFUnA	119
13C2-PFDaA	100
13C2-PFTeDA	109
d3-MeFOSAA	83
d5-EtFOSAA	103
13C3-PFBS	106
13C3-PFHxS	106
13C8-PFOS	108



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

Client ID	VC-PM367-SB01-0102				
Battelle ID	J8466-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	1.63				
Matrix	SB				
Sample Size	2.02				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	3.12 J	0.33	0.99	4.95	
PFHpA	0.99 U	0.44	0.99	4.95	
PFOA	0.99 U	0.50	0.99	4.95	
PFNA	0.99 U	0.43	0.99	4.95	
PFDA	0.99 U	0.27	0.99	4.95	
PFUnA	0.99 U	0.41	0.99	4.95	
PFDaA	0.50 U	0.24	0.50	4.95	
PFTeDA	0.99 U	0.28	0.99	4.95	
PFTeDA	1.98 U	0.62	1.98	4.95	
NMeFOSAA	2.48 U	1.11	2.48	4.95	
NEtFOSAA	1.98 U	0.56	1.98	4.95	
PFBS	0.99 U	0.36	0.99	4.95	
PFHxS	1.44 J	0.22	0.50	4.95	
PFOS	13.96	0.27	0.99	4.95	

Surrogate Recoveries (%)

13C5-PFHxA	92
13C4-PFHpA	95
13C8-PFOA	99
13C9-PFNA	86
13C6-PFDA	99
13C7-PFUnA	105
13C2-PFDaA	92
13C2-PFTeDA	92
d3-MeFOSAA	93
d5-EtFOSAA	80
13C3-PFBS	88
13C3-PFHxS	90
13C8-PFOS	92



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

Client ID	VC-PM367-SB01-0506				
Battelle ID	J8467-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	4.29				
Matrix	SB				
Sample Size	1.87				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	0.58 J	0.35	1.07	5.35	
PFHpA	1.07 U	0.47	1.07	5.35	
PFOA	0.82 J	0.53	1.07	5.35	
PFNA	1.07 U	0.46	1.07	5.35	
PFDA	1.07 U	0.29	1.07	5.35	
PFUnA	1.07 U	0.44	1.07	5.35	
PFDaA	0.53 U	0.26	0.53	5.35	
PFTeDA	1.07 U	0.30	1.07	5.35	
PFTeDA	2.14 U	0.67	2.14	5.35	
NMeFOSAA	2.67 U	1.20	2.67	5.35	
NEtFOSAA	2.14 U	0.61	2.14	5.35	
PFBS	1.07 U	0.39	1.07	5.35	
PFHxS	1.54 J	0.24	0.53	5.35	
PFOS	21.52	0.29	1.07	5.35	

Surrogate Recoveries (%)

13C5-PFHxA	92
13C4-PFHpA	91
13C8-PFOA	104
13C9-PFNA	94
13C6-PFDA	94
13C7-PFUnA	111
13C2-PFDaA	96
13C2-PFTeDA	97
d3-MeFOSAA	102
d5-EtFOSAA	87
13C3-PFBS	102
13C3-PFHxS	100
13C8-PFOS	104



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

Client ID	VC-PM367-SS02-000H				
Battelle ID	J8468-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	5.03				
Matrix	SS				
Sample Size	1.96				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	1.02 U	0.34	1.02	5.10	
PFHpA	1.02 U	0.45	1.02	5.10	
PFOA	1.02 U	0.51	1.02	5.10	
PFNA	1.02 U	0.44	1.02	5.10	
PFDA	1.02 U	0.28	1.02	5.10	
PFUnA	1.02 U	0.42	1.02	5.10	
PFDaA	0.51 U	0.24	0.51	5.10	
PFTeDA	1.02 U	0.29	1.02	5.10	
PFTeDA	2.04 U	0.64	2.04	5.10	
NMeFOSAA	2.55 U	1.14	2.55	5.10	
NEtFOSAA	2.04 U	0.58	2.04	5.10	
PFBS	1.02 U	0.37	1.02	5.10	
PFHxS	2.03 J	0.22	0.51	5.10	
PFOS	7.65	0.28	1.02	5.10	

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	97
13C8-PFOA	109
13C9-PFNA	100
13C6-PFDA	100
13C7-PFUnA	102
13C2-PFDaA	104
13C2-PFTeDA	105
d3-MeFOSAA	102
d5-EtFOSAA	95
13C3-PFBS	101
13C3-PFHxS	104
13C8-PFOS	101



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

Client ID	VC-PM367-SB02-0102				
Battelle ID	J8469-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	4.44				
Matrix	SB				
Sample Size	1.98				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	1.01 U	0.33	1.01	5.05	
PFHpA	1.01 U	0.44	1.01	5.05	
PFOA	1.01 U	0.51	1.01	5.05	
PFNA	1.01 U	0.43	1.01	5.05	
PFDA	1.01 U	0.27	1.01	5.05	
PFUnA	1.01 U	0.41	1.01	5.05	
PFDaA	0.51 U	0.24	0.51	5.05	
PFTTrDA	1.01 U	0.28	1.01	5.05	
PFTeDA	2.02 U	0.64	2.02	5.05	
NMeFOSAA	2.53 U	1.13	2.53	5.05	
NEtFOSAA	2.02 U	0.58	2.02	5.05	
PFBS	1.01 U	0.36	1.01	5.05	
PFHxS	0.76 J	0.22	0.51	5.05	
PFOS	6.25	0.27	1.01	5.05	

Surrogate Recoveries (%)

13C5-PFHxA	100
13C4-PFHpA	101
13C8-PFOA	107
13C9-PFNA	96
13C6-PFDA	98
13C7-PFUnA	108
13C2-PFDaA	96
13C2-PFTeDA	97
d3-MeFOSAA	110
d5-EtFOSAA	114
13C3-PFBS	125
13C3-PFHxS	127
13C8-PFOS	115



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

Client ID	VC-PM367-SB02-0506				
Battelle ID	J8470-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	3.63				
Matrix	SB				
Sample Size	1.98				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	1.01 U	0.33	1.01	5.05	
PFHpA	1.01 U	0.44	1.01	5.05	
PFOA	2.33 J	0.51	1.01	5.05	
PFNA	1.01 U	0.43	1.01	5.05	
PFDA	1.01 U	0.27	1.01	5.05	
PFUnA	1.01 U	0.41	1.01	5.05	
PFDaA	0.51 U	0.24	0.51	5.05	
PFTeDA	1.01 U	0.28	1.01	5.05	
PFTeDA	2.02 U	0.64	2.02	5.05	
NMeFOSAA	2.53 U	1.13	2.53	5.05	
NEtFOSAA	2.02 U	0.58	2.02	5.05	
PFBS	1.01 U	0.36	1.01	5.05	
PFHxS	4.68 J	0.22	0.51	5.05	
PFOS	12.24	0.27	1.01	5.05	

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	93
13C8-PFOA	103
13C9-PFNA	90
13C6-PFDA	97
13C7-PFUnA	106
13C2-PFDaA	99
13C2-PFTeDA	97
d3-MeFOSAA	79
d5-EtFOSAA	84
13C3-PFBS	96
13C3-PFHxS	89
13C8-PFOS	97



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

Client ID	VC-PM367-SS03-000H			
Battelle ID	J8471-FS			
Sample Type	SA			
Collection Date	09/27/2018			
Extraction Date	10/08/2018			
Analysis Date	10/19/2018			
Analytical Instrument	Sciex 5500 LC/MS/MS			
% Moisture	8.66			
Matrix	SS			
Sample Size	1.80			
Size Unit-Basis	g			
Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	13.56	0.37	1.11	5.56
PFHpA	2.73 J	0.49	1.11	5.56
PFOA	1.11 U	0.56	1.11	5.56
PFNA	1.11 U	0.48	1.11	5.56
PFDA	1.11 U	0.30	1.11	5.56
PFUnA	1.11 U	0.46	1.11	5.56
PFDaA	0.56 U	0.27	0.56	5.56
PFTeDA	1.11 U	0.31	1.11	5.56
PFTeDA	2.22 U	0.70	2.22	5.56
NMeFOSAA	2.78 U	1.24	2.78	5.56
NEtFOSAA	2.22 U	0.63	2.22	5.56
PFBS	1.11 U	0.40	1.11	5.56
PFHxS	0.93 J	0.24	0.56	5.56
PFOS	4.75 J	0.30	1.11	5.56

Surrogate Recoveries (%)

13C5-PFHxA	107
13C4-PFHpA	103
13C8-PFOA	107
13C9-PFNA	101
13C6-PFDA	101
13C7-PFUnA	120
13C2-PFDaA	104
13C2-PFTeDA	104
d3-MeFOSAA	103
d5-EtFOSAA	104
13C3-PFBS	103
13C3-PFHxS	106
13C8-PFOS	96



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

Client ID	VC-PM367-SB03-0102				
Battelle ID	J8472-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	20.52				
Matrix	SB				
Sample Size	1.57				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	4.13 J	0.42	1.27	6.37	
PFHpA	1.09 J	0.56	1.27	6.37	
PFOA	27.18	0.64	1.27	6.37	
PFNA	1.27 U	0.55	1.27	6.37	
PFDA	1.27 U	0.34	1.27	6.37	
PFUnA	1.27 U	0.52	1.27	6.37	
PFDaA	0.64 U	0.31	0.64	6.37	
PFTeDA	1.27 U	0.36	1.27	6.37	
PFTeDA	2.55 U	0.80	2.55	6.37	
NMeFOSAA	3.18 U	1.43	3.18	6.37	
NEtFOSAA	2.55 U	0.73	2.55	6.37	
PFBS	1.27 U	0.46	1.27	6.37	
PFHxS	15.36	0.28	0.64	6.37	
PFOS	2.53 J	0.34	1.27	6.37	

Surrogate Recoveries (%)

13C5-PFHxA	91
13C4-PFHpA	89
13C8-PFOA	97
13C9-PFNA	91
13C6-PFDA	97
13C7-PFUnA	103
13C2-PFDaA	90
13C2-PFTeDA	95
d3-MeFOSAA	67
d5-EtFOSAA	95
13C3-PFBS	93
13C3-PFHxS	98
13C8-PFOS	89



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

Client ID	VC-PM367-SB03-0506				
Battelle ID	J8473-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/25/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	23.73				
Matrix	SB				
Sample Size	1.45				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	11.62	0.46	1.38	6.90	
PFHpA	1.94 J	0.61	1.38	6.90	
PFOA	15.42	0.69	1.38	6.90	
PFNA	1.38 U	0.59	1.38	6.90	
PFDA	1.38 U	0.37	1.38	6.90	
PFUnA	1.38 U	0.57	1.38	6.90	
PFDaA	0.69 U	0.33	0.69	6.90	
PFTeDA	1.38 U	0.39	1.38	6.90	
PFTeDA	2.76 U	0.87	2.76	6.90	
NMeFOSAA	3.45 U	1.54	3.45	6.90	
NEtFOSAA	2.76 U	0.79	2.76	6.90	
PFBS	1.38 U	0.50	1.38	6.90	
PFHxS	11.32	0.30	0.69	6.90	
PFOS	12.98	0.37	1.38	6.90	

Surrogate Recoveries (%)

13C5-PFHxA	97
13C4-PFHpA	106
13C8-PFOA	103
13C9-PFNA	87
13C6-PFDA	95
13C7-PFUnA	99
13C2-PFDaA	101
13C2-PFTeDA	108
d3-MeFOSAA	108
d5-EtFOSAA	111
13C3-PFBS	102
13C3-PFHxS	96
13C8-PFOS	95



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

Client ID	VC-PM367-SS04-000H				
Battelle ID	J8474-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	14.38				
Matrix	SS				
Sample Size	1.77				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	0.75 J	0.37	1.13	5.65	
PFHpA	1.13 U	0.50	1.13	5.65	
PFOA	1.63 J	0.56	1.13	5.65	
PFNA	0.83 J	0.49	1.13	5.65	
PFDA	1.13 U	0.31	1.13	5.65	
PFUnA	1.13 U	0.46	1.13	5.65	
PFDaA	0.56 U	0.27	0.56	5.65	
PFTeDA	1.13 U	0.32	1.13	5.65	
PFTeDA	2.26 U	0.71	2.26	5.65	
NMeFOSAA	2.82 U	1.27	2.82	5.65	
NEtFOSAA	2.26 U	0.64	2.26	5.65	
PFBS	1.13 U	0.41	1.13	5.65	
PFHxS	1.80 J	0.25	0.56	5.65	
PFOS	73.95	0.31	1.13	5.65	

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	98
13C8-PFOA	106
13C9-PFNA	87
13C6-PFDA	110
13C7-PFUnA	119
13C2-PFDaA	107
13C2-PFTeDA	110
d3-MeFOSAA	86
d5-EtFOSAA	116
13C3-PFBS	106
13C3-PFHxS	110
13C8-PFOS	110



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

Client ID	VC-PM367-SB04-0102				
Battelle ID	J8475-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	16.35				
Matrix	SB				
Sample Size	1.65				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	0.77 J	0.40	1.21	6.06	
PFHpA	1.21 U	0.53	1.21	6.06	
PFOA	3.39 J	0.61	1.21	6.06	
PFNA	0.86 J	0.52	1.21	6.06	
PFDA	1.21 U	0.33	1.21	6.06	
PFUnA	1.21 U	0.50	1.21	6.06	
PFDaA	0.61 U	0.29	0.61	6.06	
PFTeDA	1.21 U	0.34	1.21	6.06	
PFTeDA	2.42 U	0.76	2.42	6.06	
NMeFOSAA	3.03 U	1.36	3.03	6.06	
NEtFOSAA	2.42 U	0.69	2.42	6.06	
PFBS	1.21 U	0.44	1.21	6.06	
PFHxS	4.89 J	0.27	0.61	6.06	
PFOS	63.03	0.33	1.21	6.06	

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	90
13C8-PFOA	98
13C9-PFNA	87
13C6-PFDA	104
13C7-PFUnA	108
13C2-PFDaA	98
13C2-PFTeDA	98
d3-MeFOSAA	116
d5-EtFOSAA	101
13C3-PFBS	121
13C3-PFHxS	116
13C8-PFOS	112



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

Client ID	VC-PM367-SB04-0506				
Battelle ID	J8476-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	5.56				
Matrix	SB				
Sample Size	1.82				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	3.30 J	0.36	1.10	5.49	
PFHpA	0.69 J	0.48	1.10	5.49	
PFOA	4.57 J	0.55	1.10	5.49	
PFNA	1.10 U	0.47	1.10	5.49	
PFDA	1.10 U	0.30	1.10	5.49	
PFUnA	1.10 U	0.45	1.10	5.49	
PFDaA	0.55 U	0.26	0.55	5.49	
PFTeDA	1.10 U	0.31	1.10	5.49	
PFTeDA	2.20 U	0.69	2.20	5.49	
NMeFOSAA	2.75 U	1.23	2.75	5.49	
NEtFOSAA	2.20 U	0.63	2.20	5.49	
PFBS	1.10 U	0.40	1.10	5.49	
PFHxS	8.12	0.24	0.55	5.49	
PFOS	8.26	0.30	1.10	5.49	

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	94
13C8-PFOA	101
13C9-PFNA	92
13C6-PFDA	96
13C7-PFUnA	101
13C2-PFDaA	92
13C2-PFTeDA	98
d3-MeFOSAA	82
d5-EtFOSAA	90
13C3-PFBS	89
13C3-PFHxS	89
13C8-PFOS	95



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

Client ID	KB80 IB				
Battelle ID	KB80 IB_10/17/2018				
Sample Type	IB				
Collection Date	NA				
Extraction Date	NA				
Analysis Date	10/17/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	NA				
Matrix	Solid				
Sample Size	2.00				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	1.00 U	0.33	1.00	5.00	
PFHpA	1.00 U	0.44	1.00	5.00	
PFOA	1.00 U	0.50	1.00	5.00	
PFNA	1.00 U	0.43	1.00	5.00	
PFDA	1.00 U	0.27	1.00	5.00	
PFUnA	1.00 U	0.41	1.00	5.00	
PFDaA	0.50 U	0.24	0.50	5.00	
PFTeDA	1.00 U	0.28	1.00	5.00	
PFTeDA	2.00 U	0.63	2.00	5.00	
NMeFOSAA	2.50 U	1.12	2.50	5.00	
NEtFOSAA	2.00 U	0.57	2.00	5.00	
PFBS	1.00 U	0.36	1.00	5.00	
PFHxS	0.50 U	0.22	0.50	5.00	
PFOS	1.00 U	0.27	1.00	5.00	

Surrogate Recoveries (%)

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



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

Client ID	KB80 IB				
Battelle ID	KB80 IB_10/19/2018				
Sample Type	IB				
Collection Date	NA				
Extraction Date	NA				
Analysis Date	10/19/2018				
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	1.00 U	0.33	1.00	5.00	
PFHpA	1.00 U	0.44	1.00	5.00	
PFOA	1.00 U	0.50	1.00	5.00	
PFNA	1.00 U	0.43	1.00	5.00	
PFDA	1.00 U	0.27	1.00	5.00	
PFUnA	1.00 U	0.41	1.00	5.00	
PFDaA	0.50 U	0.24	0.50	5.00	
PFTeDA	1.00 U	0.28	1.00	5.00	
PFTeDA	2.00 U	0.63	2.00	5.00	
NMeFOSAA	2.50 U	1.12	2.50	5.00	
NEtFOSAA	2.00 U	0.57	2.00	5.00	
PFBS	1.00 U	0.36	1.00	5.00	
PFHxS	0.50 U	0.22	0.50	5.00	
PFOS	1.00 U	0.27	1.00	5.00	

Surrogate Recoveries (%)

13C5-PFHxA	106
13C4-PFHpA	103
13C8-PFOA	104
13C9-PFNA	103
13C6-PFDA	99
13C7-PFUnA	101
13C2-PFDaA	102
13C2-PFTeDA	104
d3-MeFOSAA	59
d5-EtFOSAA	64
13C3-PFBS	88
13C3-PFHxS	86
13C8-PFOS	103



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

Client ID	KB80 IB				
Battelle ID	KB80 IB_10/25/2018				
Sample Type	IB				
Collection Date	NA				
Extraction Date	NA				
Analysis Date	10/25/2018				
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	1.00 U	0.33	1.00	5.00	
PFHpA	1.00 U	0.44	1.00	5.00	
PFOA	1.00 U	0.50	1.00	5.00	
PFNA	1.00 U	0.43	1.00	5.00	
PFDA	1.00 U	0.27	1.00	5.00	
PFUnA	1.00 U	0.41	1.00	5.00	
PFDaA	0.50 U	0.24	0.50	5.00	
PFTeDA	1.00 U	0.28	1.00	5.00	
PFTeDA	2.00 U	0.63	2.00	5.00	
NMeFOSAA	2.50 U	1.12	2.50	5.00	
NEtFOSAA	2.00 U	0.57	2.00	5.00	
PFBS	1.00 U	0.36	1.00	5.00	
PFHxS	0.50 U	0.22	0.50	5.00	
PFOS	1.00 U	0.27	1.00	5.00	

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	110
13C8-PFOA	97
13C9-PFNA	88
13C6-PFDA	98
13C7-PFUnA	106
13C2-PFDaA	102
13C2-PFTeDA	102
d3-MeFOSAA	132
d5-EtFOSAA	120
13C3-PFBS	113
13C3-PFHxS	105
13C8-PFOS	120



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

Client ID 180507-02: Ottawa Sand

Battelle ID CR904PB-FS
 Sample Type PB
 Collection Date 10/08/2018
 Extraction Date 10/08/2018
 Analysis Date 10/19/2018
 Analytical Instrument Sciex 5500 LC/MS/MS
 % Moisture 0.00
 Matrix SEDIMENT
 Sample Size 1.99
 Size Unit-Basis g
 Units ng/g_Dry MDL LOD LOQ

		MDL	LOD	LOQ
PFHxA	1.01 U	0.33	1.01	5.03
PFHpA	1.01 U	0.44	1.01	5.03
PFOA	1.01 U	0.50	1.01	5.03
PFNA	1.01 U	0.43	1.01	5.03
PFDA	1.01 U	0.27	1.01	5.03
PFUnA	1.01 U	0.41	1.01	5.03
PFDaA	0.50 U	0.24	0.50	5.03
PFTrDA	1.01 U	0.28	1.01	5.03
PFTeDA	2.01 U	0.63	2.01	5.03
NMeFOSAA	2.51 U	1.13	2.51	5.03
NEtFOSAA	2.01 U	0.57	2.01	5.03
PFBS	1.01 U	0.36	1.01	5.03
PFHxS	0.50 U	0.22	0.50	5.03
PFOS	1.01 U	0.27	1.01	5.03

Surrogate Recoveries (%)

13C5-PFHxA	97
13C4-PFHpA	98
13C8-PFOA	98
13C9-PFNA	90
13C6-PFDA	97
13C7-PFUnA	97
13C2-PFDaA	93
13C2-PFTeDA	103
d3-MeFOSAA	63
d5-EtFOSAA	69
13C3-PFBS	88
13C3-PFHxS	87
13C8-PFOS	84



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

Client ID 180507-02: Ottawa Sand

Battelle ID CR905LCS-FS
 Sample Type LCS
 Collection Date 10/08/2018
 Extraction Date 10/08/2018
 Analysis Date 10/19/2018
 Analytical Instrument Sciex 5500 LC/MS/MS
 % Moisture 0.00
 Matrix SEDIMENT

Sample Size 1.95
 Size Unit-Basis g
 Units ng/g_Dry

	Target	Recovery	Qual	Control Limits	
				Lower	Upper

PFHxA	10.93	10.36	106	45	135
PFHpA	11.45	10.26	112	60	128
PFOA	10.84	10.26	106	56	136
PFNA	12.43	10.26	121	54	130
PFDA	11.88	10.26	116	55	141
PFUnA	10.63	10.26	104	57	137
PFDaA	10.78	10.26	105	62	134
PFTTrDA	11.82	10.26	115	51	127
PFTeDA	11.62	10.26	113	34	162
NMeFOSAA	13.10	10.26	128	52	146
NEtFOSAA	10.71	10.26	104	54	124
PFBS	10.39	10.36	100	57	145
PFHxS	12.22	10.36	118	52	132
PFOS	13.24	10.26	129	50	130

Surrogate Recoveries (%)

13C5-PFHxA	87
13C4-PFHpA	79
13C8-PFOA	92
13C9-PFNA	82
13C6-PFDA	82
13C7-PFUnA	103
13C2-PFDaA	93
13C2-PFTeDA	91
d3-MeFOSAA	82
d5-EtFOSAA	95
13C3-PFBS	96
13C3-PFHxS	87
13C8-PFOS	85



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 highest 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 18-0590

Package DP-18-0296

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

BATTELLE


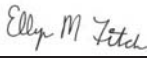

It can be done

CTO-4164 Naval Base Ventura County, California
Project No 100110125-01
PFAS by DoD QSM 5.1 Table B-15
SB, SS
Batch 18-0590
Package DP-18-0296

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

<u>Analyst Approval:</u>		<u>schumitzd@battelle.org</u> 2018.10.23 18:18:39 -04'00'
<u>QC Chemist Approval:</u>		<u>fitche@battelle.org</u> 2018.10.26 15:37:25 -04'00'
<u>Project Manager Approval:</u>		<u>Digitally signed by Jonathan Thorn</u> Date: 2018.10.26 20:24:08 -04'00'

BATTELLE
It can be done

CTO-4164 Naval Base Ventura County, California

Project No 100110125-01

PFAS by DoD QSM 5.1 Table B-15

SB, SS

Batch 18-0590


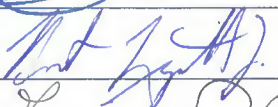
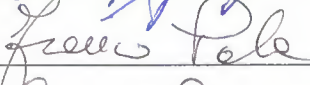





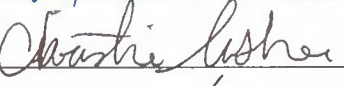

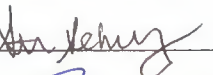



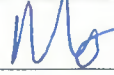

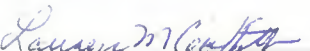
Package DP-18-0296

1	<i>Work Plan</i> Laboratory Work Plan, Addendums To Work Plan, Memos From Project Manager, Special Instructions, Chain-of-Custody Reports.	1
2	<i>Tables</i> Analytical Data Tables, Qualifier Definitions.	31
3	<i>Miscellaneous Documentation</i> Case Narrative, Miscellaneous Documentation Form, Quality Control Summary, Example Calculations, Internal Standard Recovery Report, Retention Time Window Report.	50
4	<i>Sample Preparation Records</i> Sample Preparation Records, Dilution Worksheets, Standard Preparation Records, Certificates Of Analysis, GPC Check Report.	214
5	<i>Analytical Calibrations</i> Analytical Sequence, Analytical Method, Tune Report, Initial Calibration, Pesticide Degradation Report, RF Summary, Calibration Verifications, Independent Calibration Verification Check.	238
6	<i>Analytical Data</i> Raw Data Quantification Reports.	382
7	<i>Chromatograms</i> Sample And Standard Chromatograms.	468
8	<i>Unused Data</i>	629

BATTELLE

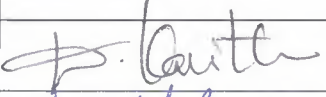
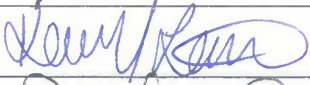
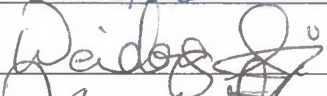
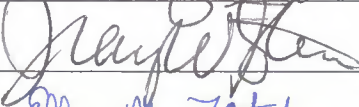

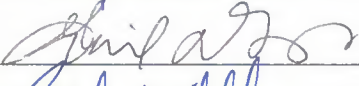
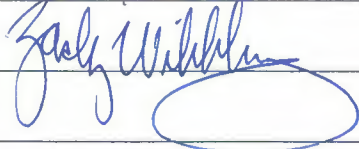
It can be done

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
FRANC PALA		FP	4-4-2018
Carla Devine		CRD	4/4/18
Denise Schumitz		DNS	4/4/18
Carolus Keum Meay		CKM	4/4/2018
Rich Rostucci		RR	4/4/2018
Michael Mena		MM	4/4/2018
Christie Usher		CU	4/4/18
Kevin Matroney		KM	4/4/18
Stephanie Schmitz		SAS	4/4/18
Jordan Tower		JT	4/4/18
KRISTEN NICHOLS		KN	4/4/18
Quimiao H Brown		CB	4/4/18
Matt Schumitz		MS	4-4-18
Sam Guimaraes		SG	4-4-18
Lauren Griffith		LMG	4.4.18

Signature Page

Battelle 2018 (2 of 2)
Signature Page

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

Sample Summary

Client: CH2M

SDG: 18-0590

Project/Site: Naval Base Ventura County

CTO: 4164

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Receipt Date
CR904PB-FS	180507-02: Ottawa Sand	SEDIMENT	10/8/2018	10/8/2018
CR905LCS-FS	180507-02: Ottawa Sand	SEDIMENT	10/8/2018	10/8/2018
J8465-FS	VC-PM367-SS01-000H	SS	9/27/2018	9/28/2018
J8466-FS	VC-PM367-SB01-0102	SB	9/27/2018	9/28/2018
J8467-FS	VC-PM367-SB01-0506	SB	9/27/2018	9/28/2018
J8468-FS	VC-PM367-SS02-000H	SS	9/27/2018	9/28/2018
J8469-FS	VC-PM367-SB02-0102	SB	9/27/2018	9/28/2018
J8470-FS	VC-PM367-SB02-0506	SB	9/27/2018	9/28/2018
J8471-FS	VC-PM367-SS03-000H	SS	9/27/2018	9/28/2018
J8472-FS	VC-PM367-SB03-0102	SB	9/27/2018	9/28/2018
J8473-FS	VC-PM367-SB03-0506	SB	9/27/2018	9/28/2018
J8474-FS	VC-PM367-SS04-000H	SS	9/27/2018	9/28/2018
J8475-FS	VC-PM367-SB04-0102	SB	9/27/2018	9/28/2018
J8476-FS	VC-PM367-SB04-0506	SB	9/27/2018	9/28/2018

Work Plan



It can be done

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.



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

2.1.2 Sample Preparation

None

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

Batch quality control samples are defined in Table 1.

Target samples are presented in Attachment 1.

Table 1: Quality Control Samples

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

2.1.3 Extraction/Preparation

2.1.3.1 Extraction

SOP No.-Rev:	5-370-06
SOP Title:	<i>Extraction of Poly and Perfluoroalkyl Substances from Environmental Matrices</i>
Sample Size:	2 g
SIS and LCS/MS Compounds:	Defined in Table 2.
Deviations:	<ul style="list-style-type: none"> • no split post ENVI-Carb • PIV changed to 1 mL
Comments:	<ul style="list-style-type: none"> • 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



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

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



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

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

3.0 QUALITY

The Method Quality Objectives are defined in Attachment 3.

4.0 ORGANIZATION AND COMMUNICATION

4.1 ORGANIZATION

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

Table 4: Project Team and Roles

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

4.2 COMMUNICATION

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

5.0 SCHEDULE

The project schedule is presented in Table 5.

Table 5. Schedule of Laboratory Activities

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



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

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

6.0 BUDGET

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

Table 6. Labor Budget (Laboratory Analytical Task)

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

7.0 STAFF DEVELOPMENT

None anticipated.



It can be done

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)		



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: SHP-180921-01
Status: Pending
Description: NBVC Basewide SI
Range: J8201-J8271
Comment: NA

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

Shipment: SHP-180925-02
Status: Approved
Description: NBVC Basewide SI
Range: J8291-J8334
Comment: NA

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



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: SHP-180925-02
Status: Approved
Description: NBVC Basewide SI
Range: J8291-J8334
Comment: NA

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

Shipment: SHP-180927-02
Status: Approved
Description: NBVC Basewide SI
Range: J8352-J8411
Comment: NA

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



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: SHP-180927-02
Status: Approved
Description: NBVC Basewide SI
Range: J8352-J8411
Comment: NA

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

Shipment: SHP-180928-03
Status: Pending
Description: NBVC Basewide SI
Range: J8438-J8476
Comment: NA

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



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: SHP-180928-03
Status: Pending
Description: NBVC Basewide SI
Range: J8438-J8476
Comment: NA

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

Shipment: SHP-181009-01
Status: Pending
Description: NBVC Basewide SI
Range: J8658-J8711
Comment: NA

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



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Shipment: SHP-181009-01
Status: Pending
Description: NBVC Basewide SI
Range: J8658-J8711
Comment: NA

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



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 2: Test Codes

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

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

No:	Analyte:	Report Name:	Type	RIS	SIS	Hidden:	Graph:
1	Perfluoro-n-hexanoic acid	PFHxA	T		13C5-PFHxA	No	No
2	Perfluoro-n-heptanoic Acid	PFHpA	T		13C4-PFHpA	No	No
3	Perfluoro-n-octanoic Acid	PFOA	T		13C8-PFOA	No	No
4	Perfluorononanoic Acid	PFNA	T		13C9-PFNA	No	No
5	Perfluoro-n-decanoic Acid	PFDA	T		13C6-PFDA	No	No
6	Perfluoro-n-undecanoic acid	PFUnA	T		13C7-PFUnA	No	No
7	Perfluoro-n-dodecanoic acid	PFDoA	T		13C2-PFDoA	No	No
8	Perfluoro-n-tridecanoic acid	PFTTrDA	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-butanefulfonate	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



It can be done

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



It can be done

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

Degradation Check Criteria:

None



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

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



It can be done

WORK/QUALITY ASSURANCE PROJECT PLAN

Attachment 3: Method Quality Objectives

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

Sample Receipt Form

Approved: Authorized

Project Number: 695803 Client: CH2M
Received by: Schumitz, Matt Date/Time Received: Friday, September 28, 2018 11:00 AM
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 7942 9567	Custody Seals	Intact	Intact	Therm_1	0.7	20
2 of 2	Cooler	7829 7942 9578	Custody Seals	Intact	Intact	Therm_1	0.4	26

Samples

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

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

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

Temperature upon receipt (°C): 0.7 Temperature Blank used Yes No
(Note: If temperature upon receipt differs from required conditions, see sample log comment field)

Samples Acidified: Yes No Unknown

Initial pH 5-9?: Yes No NA
If no, individual sample adjustments on the Auxiliary Sample Receipt Form

Total Residual Chlorine Present?: Yes No NA
If yes, individual sample adjustments on the Auxiliary Sample Receipt Form

Head Space <1% in samples for water VOC analysis: Yes No NA
Individual sample deviations noted on sample log

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

Storage Location: Custody: Refrigerator - R0119 (NA) BDO IDs Assigned: J8438 - J8483

Samples logged in by: Schumitz, Matt Date/Time: 09/28/2018 11:00 AM

Approved By: _____ Approved On: _____

Authorized By: _____ Authorized On: _____

Report Corrective Actions

Corrective Action No: 1 of 1

Authorized Approved:

COC Client: CH2M
COC Project: NBVC Basewide SI
COC Date: 9/28/2018 1:26:0

	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 VC-SO-FB07-092618 (J8455) VC-SO-EB07-092618 (J8456) VC-AQ-EB08-092718 (J8483) Labels 1 bottle: VC-SO-FB07-092618, 1 bottle: VC-AQ-FB07-092618 (J8455) 1 bottle: VC-SO-EB07-092618, 1 bottle: VC-AQ-EB07-092618 (J8456) 1 bottle: VC-SO-EB08-092718, 1 bottle: VC-AQ-EB08-092618 (J8483)
	Jars and C-O-C do not have matching Ids	Sample VC-MS09-SB04-0102-MSD only lists VC-MS09-SB04-0102-SD on the sample label. Logged in per COC

Documentation of project manager notification

Sample Custodian: Schumitz, Matt **Date:** 9/28/2018 5:18:00 PM
Laboratory Manager: Thorn, Jonathan **Date:** 10/24/2018 11:17:00 A
Project Manager: Thorn, Jonathan **Date:** 10/24/2018 11:18:00 A

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

On 28-Sep-18 **I contacted** Hill, Tiffany **at** CH2M

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

email attached with clarification on sample IDs.

Date this form was received back to the custodian: _____

Reference Number: _____

Schumitz, Matthew

From: Thorn, Jonathan R
Sent: Monday, October 01, 2018 5:07 PM
To: Schumitz, Matthew
Subject: FW: 9.28.2018 shipment receipt

Here is the last one

From: Hill, Tiffany/CVO <Tiffany.Hill@jacobs.com>
Sent: Monday, October 1, 2018 5:07 PM
To: Thorn, Jonathan R <thorn@battelle.org>
Subject: RE: 9.28.2018 shipment receipt

Message received from outside the Battelle network. Carefully examine it before you open any links or attachments.

Thanks Jon, made my way through these. Please follow IDs per the CoC as done.

From: Thorn, Jonathan R [<mailto:thorn@battelle.org>]
Sent: Monday, October 01, 2018 9:09 AM
To: Hill, Tiffany/CVO <Tiffany.Hill@jacobs.com>
Subject: [EXTERNAL] 9.28.2018 shipment receipt

Hi Tiffany,

Here are the custody records from Friday's shipment. Cooler temperatures are all good. A few questions on some of the sample IDs are on page 2. (Matt still need update the cooler to sample link in our LIMS system o show which samples were in each cooler too).

These will be in Battelle SDGs 18-0588, 18-0589, 18-0590. I will get you the sample to SDG links once we have the IDs updated.

Best Regards,
Jon

Jonathan Thorn

Laboratory Director
Analytical Chemistry Services
Office: 781.681.5565 | Mobile: 781.710.9664 | Fax: 614.458.6917
thorn@battelle.org

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It can be done

ShpNo SHP-180928-03

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: Authorized

Project Number: 695803 Client: CH2M

Received by: Schumitz, Matt Date/Time Received: Friday, September 28, 2018 11:00 AM

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:
J8438	VC-MS09-SS01-000H	09/26/18 9:41	09/28/18 13:29	1	SS	0.7	NA	NA	NA	F0117 (NA)			
J8439	VC-MS09-SB01-0102	09/26/18 9:43	09/28/18 13:29	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8440	VC-MS09-SB01-0506	09/26/18 9:52	09/28/18 13:29	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8441	VC-MS09-SS02-000H	09/26/18 9:30	09/28/18 13:30	1	SS	0.7	NA	NA	NA	F0117 (NA)			
J8442	VC-MS09-SB02-0102	09/26/18 9:34	09/28/18 13:31	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8443	VC-MS09-SB02-0506	09/26/18 9:41	09/28/18 13:32	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8444	VC-MS09-SS03-000H	09/26/18 10:15	09/28/18 13:32	1	SS	0.7	NA	NA	NA	F0117 (NA)			
J8445	VC-MS09-SB03-0102	09/26/18 10:20	09/28/18 13:32	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8446	VC-MS09-SB03-0506	09/26/18 10:25	09/28/18 13:32	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8447	VC-MS09-SS04-000H	09/26/18 11:16	09/28/18 13:33	1	SS	0.7	NA	NA	NA	F0117 (NA)			
J8448	VC-MS09-SB04-0102	09/26/18 11:18	09/28/18 13:33	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8449	VC-MS09-SB04-0506	09/26/18 11:25	09/28/18 13:33	1	SB	0.7	NA	NA	NA	F0117 (NA)			
J8450	VC-MS09-SS05-000H	09/26/18 10:44	09/28/18 13:37	1	SS	0.4	NA	NA	NA	F0117 (NA)			
J8451	VC-MS09-SB05-0102	09/26/18 10:45	09/28/18 13:37	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8452	VC-MS09-SB05-0506	09/26/18 10:50	09/28/18 13:37	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8453	VC-MS09-SB04-0102-MS	09/26/18 11:18	09/28/18 13:38	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8454	VC-MS09-SB04-0102-MSD	09/26/18 11:18	09/28/18 13:38	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8455	VC-SO-FB07-09262018	09/26/18 11:43	09/28/18 13:39	2	AQ	0.4	NA	NA	NA	R0118 (NA)			
J8456	VC-SO-EB07-09262018	09/26/18 11:45	09/28/18 13:40	2	AQ	0.4	NA	NA	NA	R0118 (NA)			
J8457	VC-MS09-DW01-0918	09/26/18 10:16	09/28/18 13:43	2	GW	0.7	NA	NA	NA	R0118 (NA)			
J8458	VC-MS09-DW02-0918	09/26/18 10:05	09/28/18 13:43	2	GW	0.7	NA	NA	NA	R0118 (NA)			
J8459	VC-MS09-DW03-0918	09/26/18 11:10	09/28/18 13:44	2	GW	0.7	NA	NA	NA	R0118 (NA)			
J8460	VC-MS09-DW04-0918	09/26/18 12:22	09/28/18 13:44	2	GW	0.7	NA	NA	NA	R0118 (NA)			
J8461	VC-MS09-DW04P-0918	09/26/18 12:20	09/28/18 13:44	2	GW	0.7	NA	NA	NA	R0118 (NA)			
J8462	VC-MS09-DW05-0918	09/26/18 11:35	09/28/18 13:45	2	GW	0.7	NA	NA	NA	R0118 (NA)			
J8463	VC-MS09-DW05-0918-MS	09/26/18 11:15	09/28/18 13:46	2	AQ	0.7	NA	NA	NA	R0118 (NA)			
J8464	VC-MS09-DW05-0918-MSD	09/26/18 11:15	09/28/18 13:48	2	AQ	0.7	NA	NA	NA	R0118 (NA)			
J8465	VC-PM367-SS01-000H	09/27/18 10:12	09/28/18 13:49	1	SS	0.4	NA	NA	NA	F0117 (NA)			



It can be done

ShpNo SHP-180928-03

Battelle Project No: 0110125-01

Sample Receipt Form Details

Approved: Authorized

Project Number: 695803 Client: CH2M

Received by: Schumitz, Matt Date/Time Received: Friday, September 28, 2018 11:00 AM

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:
J8466	VC-PM367-SB01-0102	09/27/18 10:15	09/28/18 13:51	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8467	VC-PM367-SB01-0506	09/27/18 10:26	09/28/18 13:51	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8468	VC-PM367-SS02-000H	09/27/18 9:25	09/28/18 13:52	1	SS	0.4	NA	NA	NA	F0117 (NA)			
J8469	VC-PM367-SB02-0102	09/27/18 9:31	09/28/18 13:52	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8470	VC-PM367-SB02-0506	09/27/18 9:37	09/28/18 13:52	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8471	VC-PM367-SS03-000H	09/27/18 10:19	09/28/18 13:53	1	SS	0.4	NA	NA	NA	F0117 (NA)			
J8472	VC-PM367-SB03-0102	09/27/18 10:20	09/28/18 13:54	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8473	VC-PM367-SB03-0506	09/27/18 10:26	09/28/18 13:55	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8474	VC-PM367-SS04-000H	09/27/18 9:30	09/28/18 13:55	1	SS	0.4	NA	NA	NA	F0117 (NA)			
J8475	VC-PM367-SB04-0102	09/27/18 9:31	09/28/18 13:56	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8476	VC-PM367-SB04-0506	09/27/18 9:38	09/28/18 13:56	1	SB	0.4	NA	NA	NA	F0117 (NA)			
J8477	VC-PM367-DW01-0918	09/27/18 10:36	09/28/18 13:58	2	GW	0.4	NA	NA	NA	R0119 (NA)			
J8478	VC-PM367-DW02-0918	09/27/18 9:50	09/28/18 14:00	2	GW	0.4	NA	NA	NA	R0119 (NA)			
J8479	VC-PM367-DW03-0918	09/27/18 10:43	09/28/18 14:00	2	GW	0.4	NA	NA	NA	R0119 (NA)			
J8480	VC-PM367-DW03P-0918	09/27/18 10:46	09/28/18 14:00	2	GW	0.4	NA	NA	NA	R0119 (NA)			
J8481	VC-PM367-DW04-0918	09/27/18 10:04	09/28/18 14:01	2	GW	0.4	NA	NA	NA	R0119 (NA)			
J8482	VC-AQ-FB08-09272018	09/27/18 10:00	09/28/18 14:01	2	AQ	0.4	NA	NA	NA	R0119 (NA)			
J8483	VC-AQ-EB08-09272018	09/27/18 12:00	09/28/18 14:02	2	AQ	0.4	NA	NA	NA	R0119 (NA)			

Total Samples: 46



Chain-of-Custody

Client Contact Information Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Project Manager: Eric Davis Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com Turnaround Time (TAT) Requested:			Sampling Site: PT MUGH MSC9 Site Information:	
Project Name: NBVC Basewide SI Project No.: 695803 Time Zone: PST		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>			COC # 4	
Sample Identification		Sample Date Sample Time Sample Type Matrix Total # of Cont.			Analysis PFAS by Method 517/Mod	
VC-MS09-SS01-000H J8438		9/26/18 0941 Grab SS 1			X	
VC-MS09-SB01-0102 39		9/26/18 0943 Grab SB 1			X	
VC-MS09-SB01-0506 40		9/26/18 0952 Grab SB 1			X	
VC-MS09-SS02-000H 41		9/26/18 0930 Grab SS 1			X	
VC-MS09-SB02-0102 42		9/26/18 0934 Grab SB 1			X	
VC-MS09-SB02-0506 43		9/26/18 0941 Grab SB 1			X	
VC-MS09-SS03-000H 44		9/26/18 1015 Grab SS 1			X	
VC-MS09-SB03-0102 45		9/26/18 1020 Grab SB 1			X	
VC-MS09-SB03-0506 46		9/26/18 1025 Grab SB 1			X	
VC-MS09-SS04-000H 47		9/26/18 1116 Grab SS 1			X	
VC-MS09-SB04-0102 48		9/26/18 1119 Grab SB 1			X	
VC-MS09-SB04-0506 J8449		9/26/18 1125 Grab SB 1			X	
Receipt Temperature: (°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No	
Relinquished by (Print/Sign): V. Kilbert		Company: Jacobs	Date/Time: 9/27/18 1300		Received by (Print/Sign): 	Company: Battelle
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):	Date/Time: 9-28-18 1100
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):	Date/Time:
Comments:						



Chain-of-Custody

Client Contact Information Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Project Manager: Eric Davis Sampler Information (print name): <i>Victoria Kilbert</i> Phone: <i>724-977-3628</i> Email: <i>victoria.kilbert@jacobs.com</i> Turnaround Time (TAT) Requested:				Sampling Site: <i>At Mugu MS09</i>				Site Information:					
Project Name: NBVC Basewide SI Project No.: <i>695803</i>		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/> Time Zone: <i>PST</i>				Preservative NA				COC # 4					
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	Analysis	PFAS by Method 517 Mod							Page#
VC-MS09-SS05-000H		<i>9/26/18</i>	<i>1044</i>	Grab	SS	1	X								
VC-MS09-SB05- <i>0102</i>		<i>9/26/18</i>	<i>1045</i>	Grab	SB	1	X								
VC-MS09-SB05- <i>0506</i>		<i>9/26/18</i>	<i>1050</i>	Grab	SB	1	X								
VC-MS09-S <i>B04</i> - <i>0102</i> -MS		<i>9/26/18</i>	<i>1118</i>	Grab	SB	1	X								
VC-MS09-S <i>B04</i> - <i>0102</i> -MSD		<i>9/26/18</i>	<i>1118</i>	Grab	SB	1	X								
FDT-SO-FB <i>07-09262018</i>		<i>9/26/18</i>	<i>1143</i>	Grab	AQ	2	X								
FDT-SO-EB <i>07-09262018</i>		<i>9/26/18</i>	<i>1145</i>	Grab	AQ	2	X								<i>bow</i>
Receipt Temperature: (°C)		Samples Intact: Yes - No				Samples on Ice: Yes - No				Receipt Comments:					
Relinquished by (Print/Sign): <i>V. Kilbert</i>		Company: <i>Jacobs</i>		Date/Time: <i>9/27/18 1300</i>		Received by (Print/Sign): <i>[Signature]</i>		Company: <i>Battelle</i>		Date/Time: <i>9-28-18 1100</i>					
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign):		Company:		Date/Time:					
Relinquished by (Print/Sign):		Company:		Date/Time:		Received by (Print/Sign):		Company:		Date/Time:					
Comments:															

J8450
J8451
J8452
J8453
J8454
J8455 VC
J8456 VC

(V)



Chain-of-Custody

Client Contact Information Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Project Manager: Eric Davis Sampler Information (print name): <u>Victoria Kilbert</u> Phone: <u>724-977-3628</u> Email: <u>victoria.kilbert@jacobs.com</u> Turnaround Time (TAT) Requested:			Sampling Site: <u>P+ Mugh MS09</u>		Site Information:					
					Preservative NA		COC # <u>4</u>					
Project Name: NBVC Basewide SI		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>			Analysis PFAS by Method 517 Mod							Page# <u>3 of 6</u>
Project No.: <u>6915803</u>		Time Zone: <u>PST</u>										
Sample Identification		Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.						
VC-MS09-DW01-	<u>0918</u>	<u>J8457</u>	<u>9/26/18</u>	<u>1016</u>	Grab	GW	<u>2</u>	X				
VC-MS09-DW02-	<u>0918</u>	<u>J8458</u>	<u>9/26/18</u>	<u>1005</u>	Grab	GW	<u>2</u>	X				
VC-MS09-DW03-	<u>0918</u>	<u>J8459</u>	<u>9/26/18</u>	<u>1110</u>	Grab	GW	<u>2</u>	X				
VC-MS09-DW04-	<u>0918</u>	<u>J8460</u>	<u>9/26/18</u>	<u>1222</u>	Grab	GW	<u>2</u>	X				
VC-MS09-DW04P-	<u>0918</u>	<u>J8461</u>	<u>9/26/18</u>	<u>1220</u>	Grab	GW	<u>2</u>	X				
VC-MS09-DW05-	<u>0918</u>	<u>J8462</u>	<u>9/26/18</u>	<u>1135</u>	Grab	GW	<u>2</u>	X				
FDL-AQ-EB			9/26/18	1143	Grab	AQ	2	X				
FDT-AQ-EB			9/26/18	1148	Grab	AQ	2	X				
							<u>VB</u>					
Receipt Temperature: (°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No			Receipt Comments:				
Relinquished by (Print/Sign): <u>V. Kilbert</u>		Company: <u>Jacobs</u>	Date/Time: <u>9/27/18 1300</u>		Received by (Print/Sign): <u>[Signature]</u>		Company: <u>Battelle</u>	Date/Time: <u>9-28-18 1100</u>				
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):		Company:	Date/Time:				
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):		Company:	Date/Time:				
Comments:												



Chain-of-Custody

Client Contact Information Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Project Manager: Eric Davis Sampler Information (print name): <u>Victoria Kilbert</u> Phone: <u>24-977-3628</u> Email: <u>victoria.kilbert@jacobs.com</u>			Sampling Site: <u>PT-MUWU PM367</u>		Site Information:			
Project Name: NBVC Basewide SI		Turnaround Time (TAT) Requested:			Preservative NA		COC # <u>4</u>			
Project No.: <u>695803</u>		Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/>								
Sample Identification		Time Zone: <u>PST</u>		Analysis PFAS by Method 537 Mod		Page# <u>4 of 6</u>				
		Sample Date	Sample Time							Sample Type
VC-PM367-S -MS				Grab			X			
VC-PM367-S -SD				Grab			X			
FDT-SO-FB				Grab	AQ		X			
FDT-SO-EB				Grab	AQ		X			
VC-MS09-DW05-0918-MS										
<u>VC-MS09-DW05-0918-MS</u>		<u>9/20/18</u>	<u>11:15</u>	<u>Grab</u>	<u>AQ</u>	<u>2</u>	<u>X</u>			
<u>VC-MS09-DW05-0918-MS</u>		<u>9/20/18</u>	<u>11:21</u>	<u>Grab</u>	<u>AQ</u>	<u>2</u>	<u>X</u>			
								(VK)		
Receipt Temperature: (°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No			Receipt Comments:		
Relinquished by (Print/Sign): <u>[Signature]</u>		Company: <u>Jacobs</u>	Date/Time: <u>9/27/18 1300</u>		Received by (Print/Sign): <u>[Signature]</u>		Company: <u>Battelle</u>	Date/Time: <u>9-28-18 1100</u>		
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):		Company:	Date/Time:		
Relinquished by (Print/Sign):		Company:	Date/Time:		Received by (Print/Sign):		Company:	Date/Time:		
Comments:										

J8463
J8464



Chain-of-Custody

Client Contact Information Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Project Manager: Eric Davis Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com		Sampling Site: PM367 Site Information:	
Project Name: NBVC Basewide SI Project No.: 695803		Turnaround Time (TAT) Requested: Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/> Time Zone: PST		Preservative: NA Analysis: PFAS by Method 517 Mod	
Sample Identification				COC # 4 Page# 5 A 6	
Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS by Method 517 Mod
9/27/18	1012	Grab	SS	1	X
9/27/18	1015	Grab	SB	1	X
9/27/18	1026	Grab	SB	1	X
9/27/18	0925	Grab	SS	1	X
9/27/18	0931	Grab	SB	1	X
9/27/18	0937	Grab	SB	1	X
9/27/18	1019	Grab	SS	1	X
9/27/18	1020	Grab	SB	1	X
9/27/18	1026	Grab	SB	1	X
9/27/18	0930	Grab	SS	1	X
9/27/18	0931	Grab	SB	1	X
9/27/18	0938	Grab	SB	1	X

Receipt Temperature: (°C)	Samples Intact: Yes - No	Samples on Ice: Yes - No	Receipt Comments:
Relinquished by (Print/Sign): V. Kilbert	Company: Jacobs Date/Time: 9/27/18 1300	Received by (Print/Sign): MB	Company: Battelle Date/Time: 9-28-18 1100
Relinquished by (Print/Sign):	Company:	Received by (Print/Sign):	Company:
Relinquished by (Print/Sign):	Company:	Received by (Print/Sign):	Company:
Comments:			



Chain-of-Custody

Client Contact Information Tiffany Hill 1100 NE Circle Blvd, Suite 300 Corvallis, OR 97330		Project Manager: Eric Davis Sampler Information (print name): Victoria Kilbert Phone: 724-977-3628 Email: victoria.kilbert@jacobs.com			Sampling Site: PT MUGU PM367		Site Information:				
Project Name: NBVC Basewide SI Project No.: 6915803		Turnaround Time (TAT) Requested: Normal <input checked="" type="checkbox"/> Priority <input type="checkbox"/> RUSH <input type="checkbox"/> Time Zone: PST			Preservation NA		COC # 4				
Sample Identification		Analysis PFAS by Method 517 Mod					Page# 6 of 6				
Sample ID	Sample Date	Sample Time	Sample Type	Matrix	Total # of Cont.	PFAS					
VC-PM367-DW01-0918	9/27/18	1036	Grab	GW	2	X					
VC-PM367-DW02-0918	9/27/18	0950	Grab	GW	2	X					
VC-PM367-DW03-0918	9/27/18	1043	Grab	GW	2	X					
VC-PM367-DW03P-0918	9/27/18	1046	Grab	GW	2	X					
VC-PM367-DW04-0918	9/27/18	1004	Grab	GW	2	X					
VC- FDT AQ-FB08-09272018	9/27/18	1000	Grab	AQ	2	X					
VC- FDT AQ-EB08-09272018	9/27/18	1200	Grab	AQ	2	X					on juv screen
Receipt Temperature:(°C)		Samples Intact: Yes - No			Samples on Ice: Yes - No			Receipt Comments:			
Relinquished by (Print/Sign): V. Kilbert		Company: J. Jacobs		Date/Time: 9/27/18 1305		Received by (Print/Sign): [Signature]		Company: Battelle		Date/Time: 9-28-18 1100	
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:											

② 0.4° FRI - 28 SEP 10:30A
MPS# 7829 7942 9578 PRIORITY OVERNIGHT

XE XPUA

02061
MA-US
BOS



5169367 28Sep 02:01 MEMH 547C1/F78C/A17C

① 0.7° FRI - 28 SEP 10:30A
IRK# 7829 7942 9567 PRIORITY OVERNIGHT

XE XPUA

02061
MA-US
BOS



985519 28Sep 02:02 MEMH 547

Data Tables



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

Client ID VC-PM367-SS01-000H

Battelle ID J8465-FS
 Sample Type SA
 Collection Date 09/27/2018
 Extraction Date 10/08/2018
 Analysis Date 10/19/2018
 Analytical Instrument Sciex 5500 LC/MS/MS
 % Moisture 2.08
 Matrix SS
 Sample Size 1.87
 Size Unit-Basis g
 Units ng/g_Dry MDL LOD LOQ

	ng/g_Dry	MDL	LOD	LOQ
PFHxA	1.87 J	0.35	1.07	5.35
PFHpA	1.07 U	0.47	1.07	5.35
PFOA	1.02 J	0.53	1.07	5.35
PFNA	1.07 U	0.46	1.07	5.35
PFDA	1.07 U	0.29	1.07	5.35
PFUnA	1.07 U	0.44	1.07	5.35
PFDaA	0.53 U	0.26	0.53	5.35
PFTeDA	1.07 U	0.30	1.07	5.35
PFTeDA	2.14 U	0.67	2.14	5.35
NMeFOSAA	2.67 U	1.20	2.67	5.35
NEtFOSAA	2.14 U	0.61	2.14	5.35
PFBS	1.07 U	0.39	1.07	5.35
PFHxS	2.05 J	0.24	0.53	5.35
PFOS	17.33	0.29	1.07	5.35

Surrogate Recoveries (%)

13C5-PFHxA	107
13C4-PFHpA	102
13C8-PFOA	107
13C9-PFNA	104
13C6-PFDA	111
13C7-PFUnA	119
13C2-PFDaA	100
13C2-PFTeDA	109
d3-MeFOSAA	83
d5-EtFOSAA	103
13C3-PFBS	106
13C3-PFHxS	106
13C8-PFOS	108



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

Client ID	VC-PM367-SB01-0102				
Battelle ID	J8466-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	1.63				
Matrix	SB				
Sample Size	2.02				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	3.12 J	0.33	0.99	4.95	
PFHpA	0.99 U	0.44	0.99	4.95	
PFOA	0.99 U	0.50	0.99	4.95	
PFNA	0.99 U	0.43	0.99	4.95	
PFDA	0.99 U	0.27	0.99	4.95	
PFUnA	0.99 U	0.41	0.99	4.95	
PFDaA	0.50 U	0.24	0.50	4.95	
PFTeDA	0.99 U	0.28	0.99	4.95	
PFTeDA	1.98 U	0.62	1.98	4.95	
NMeFOSAA	2.48 U	1.11	2.48	4.95	
NEtFOSAA	1.98 U	0.56	1.98	4.95	
PFBS	0.99 U	0.36	0.99	4.95	
PFHxS	1.44 J	0.22	0.50	4.95	
PFOS	13.96	0.27	0.99	4.95	

Surrogate Recoveries (%)

13C5-PFHxA	92
13C4-PFHpA	95
13C8-PFOA	99
13C9-PFNA	86
13C6-PFDA	99
13C7-PFUnA	105
13C2-PFDaA	92
13C2-PFTeDA	92
d3-MeFOSAA	93
d5-EtFOSAA	80
13C3-PFBS	88
13C3-PFHxS	90
13C8-PFOS	92



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

Client ID	VC-PM367-SB01-0506				
Battelle ID	J8467-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	4.29				
Matrix	SB				
Sample Size	1.87				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	0.58 J	0.35	1.07	5.35	
PFHpA	1.07 U	0.47	1.07	5.35	
PFOA	0.82 J	0.53	1.07	5.35	
PFNA	1.07 U	0.46	1.07	5.35	
PFDA	1.07 U	0.29	1.07	5.35	
PFUnA	1.07 U	0.44	1.07	5.35	
PFDaA	0.53 U	0.26	0.53	5.35	
PFTeDA	1.07 U	0.30	1.07	5.35	
PFTeDA	2.14 U	0.67	2.14	5.35	
NMeFOSAA	2.67 U	1.20	2.67	5.35	
NEtFOSAA	2.14 U	0.61	2.14	5.35	
PFBS	1.07 U	0.39	1.07	5.35	
PFHxS	1.54 J	0.24	0.53	5.35	
PFOS	21.52	0.29	1.07	5.35	

Surrogate Recoveries (%)

13C5-PFHxA	92
13C4-PFHpA	91
13C8-PFOA	104
13C9-PFNA	94
13C6-PFDA	94
13C7-PFUnA	111
13C2-PFDaA	96
13C2-PFTeDA	97
d3-MeFOSAA	102
d5-EtFOSAA	87
13C3-PFBS	102
13C3-PFHxS	100
13C8-PFOS	104



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

Client ID	VC-PM367-SS02-000H				
Battelle ID	J8468-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	5.03				
Matrix	SS				
Sample Size	1.96				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	1.02 U	0.34	1.02	5.10	
PFHpA	1.02 U	0.45	1.02	5.10	
PFOA	1.02 U	0.51	1.02	5.10	
PFNA	1.02 U	0.44	1.02	5.10	
PFDA	1.02 U	0.28	1.02	5.10	
PFUnA	1.02 U	0.42	1.02	5.10	
PFDaA	0.51 U	0.24	0.51	5.10	
PFTeDA	1.02 U	0.29	1.02	5.10	
PFTeDA	2.04 U	0.64	2.04	5.10	
NMeFOSAA	2.55 U	1.14	2.55	5.10	
NEtFOSAA	2.04 U	0.58	2.04	5.10	
PFBS	1.02 U	0.37	1.02	5.10	
PFHxS	2.03 J	0.22	0.51	5.10	
PFOS	7.65	0.28	1.02	5.10	

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	97
13C8-PFOA	109
13C9-PFNA	100
13C6-PFDA	100
13C7-PFUnA	102
13C2-PFDaA	104
13C2-PFTeDA	105
d3-MeFOSAA	102
d5-EtFOSAA	95
13C3-PFBS	101
13C3-PFHxS	104
13C8-PFOS	101



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

Client ID	VC-PM367-SB02-0102				
Battelle ID	J8469-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	4.44				
Matrix	SB				
Sample Size	1.98				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	1.01 U	0.33	1.01	5.05	
PFHpA	1.01 U	0.44	1.01	5.05	
PFOA	1.01 U	0.51	1.01	5.05	
PFNA	1.01 U	0.43	1.01	5.05	
PFDA	1.01 U	0.27	1.01	5.05	
PFUnA	1.01 U	0.41	1.01	5.05	
PFDaA	0.51 U	0.24	0.51	5.05	
PFTTrDA	1.01 U	0.28	1.01	5.05	
PFTeDA	2.02 U	0.64	2.02	5.05	
NMeFOSAA	2.53 U	1.13	2.53	5.05	
NEtFOSAA	2.02 U	0.58	2.02	5.05	
PFBS	1.01 U	0.36	1.01	5.05	
PFHxS	0.76 J	0.22	0.51	5.05	
PFOS	6.25	0.27	1.01	5.05	

Surrogate Recoveries (%)

13C5-PFHxA	100
13C4-PFHpA	101
13C8-PFOA	107
13C9-PFNA	96
13C6-PFDA	98
13C7-PFUnA	108
13C2-PFDaA	96
13C2-PFTeDA	97
d3-MeFOSAA	110
d5-EtFOSAA	114
13C3-PFBS	125
13C3-PFHxS	127
13C8-PFOS	115



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

Client ID	VC-PM367-SB02-0506				
Battelle ID	J8470-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	3.63				
Matrix	SB				
Sample Size	1.98				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	1.01 U	0.33	1.01	5.05	
PFHpA	1.01 U	0.44	1.01	5.05	
PFOA	2.33 J	0.51	1.01	5.05	
PFNA	1.01 U	0.43	1.01	5.05	
PFDA	1.01 U	0.27	1.01	5.05	
PFUnA	1.01 U	0.41	1.01	5.05	
PFDaA	0.51 U	0.24	0.51	5.05	
PFTeDA	1.01 U	0.28	1.01	5.05	
PFTeDA	2.02 U	0.64	2.02	5.05	
NMeFOSAA	2.53 U	1.13	2.53	5.05	
NEtFOSAA	2.02 U	0.58	2.02	5.05	
PFBS	1.01 U	0.36	1.01	5.05	
PFHxS	4.68 J	0.22	0.51	5.05	
PFOS	12.24	0.27	1.01	5.05	

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	93
13C8-PFOA	103
13C9-PFNA	90
13C6-PFDA	97
13C7-PFUnA	106
13C2-PFDaA	99
13C2-PFTeDA	97
d3-MeFOSAA	79
d5-EtFOSAA	84
13C3-PFBS	96
13C3-PFHxS	89
13C8-PFOS	97



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

Client ID	VC-PM367-SS03-000H			
Battelle ID	J8471-FS			
Sample Type	SA			
Collection Date	09/27/2018			
Extraction Date	10/08/2018			
Analysis Date	10/19/2018			
Analytical Instrument	Sciex 5500 LC/MS/MS			
% Moisture	8.66			
Matrix	SS			
Sample Size	1.80			
Size Unit-Basis	g			
Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	13.56	0.37	1.11	5.56
PFHpA	2.73 J	0.49	1.11	5.56
PFOA	1.11 U	0.56	1.11	5.56
PFNA	1.11 U	0.48	1.11	5.56
PFDA	1.11 U	0.30	1.11	5.56
PFUnA	1.11 U	0.46	1.11	5.56
PFDaA	0.56 U	0.27	0.56	5.56
PFTeDA	1.11 U	0.31	1.11	5.56
PFTeDA	2.22 U	0.70	2.22	5.56
NMeFOSAA	2.78 U	1.24	2.78	5.56
NEtFOSAA	2.22 U	0.63	2.22	5.56
PFBS	1.11 U	0.40	1.11	5.56
PFHxS	0.93 J	0.24	0.56	5.56
PFOS	4.75 J	0.30	1.11	5.56

Surrogate Recoveries (%)

13C5-PFHxA	107
13C4-PFHpA	103
13C8-PFOA	107
13C9-PFNA	101
13C6-PFDA	101
13C7-PFUnA	120
13C2-PFDaA	104
13C2-PFTeDA	104
d3-MeFOSAA	103
d5-EtFOSAA	104
13C3-PFBS	103
13C3-PFHxS	106
13C8-PFOS	96



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

Client ID	VC-PM367-SB03-0102				
Battelle ID	J8472-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	20.52				
Matrix	SB				
Sample Size	1.57				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	4.13 J	0.42	1.27	6.37	
PFHpA	1.09 J	0.56	1.27	6.37	
PFOA	27.18	0.64	1.27	6.37	
PFNA	1.27 U	0.55	1.27	6.37	
PFDA	1.27 U	0.34	1.27	6.37	
PFUnA	1.27 U	0.52	1.27	6.37	
PFDaA	0.64 U	0.31	0.64	6.37	
PFTeDA	1.27 U	0.36	1.27	6.37	
PFTeDA	2.55 U	0.80	2.55	6.37	
NMeFOSAA	3.18 U	1.43	3.18	6.37	
NEtFOSAA	2.55 U	0.73	2.55	6.37	
PFBS	1.27 U	0.46	1.27	6.37	
PFHxS	15.36	0.28	0.64	6.37	
PFOS	2.53 J	0.34	1.27	6.37	

Surrogate Recoveries (%)

13C5-PFHxA	91
13C4-PFHpA	89
13C8-PFOA	97
13C9-PFNA	91
13C6-PFDA	97
13C7-PFUnA	103
13C2-PFDaA	90
13C2-PFTeDA	95
d3-MeFOSAA	67
d5-EtFOSAA	95
13C3-PFBS	93
13C3-PFHxS	98
13C8-PFOS	89



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

Client ID	VC-PM367-SB03-0506				
Battelle ID	J8473-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/25/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	23.73				
Matrix	SB				
Sample Size	1.45				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	11.62	0.46	1.38	6.90	
PFHpA	1.94 J	0.61	1.38	6.90	
PFOA	15.42	0.69	1.38	6.90	
PFNA	1.38 U	0.59	1.38	6.90	
PFDA	1.38 U	0.37	1.38	6.90	
PFUnA	1.38 U	0.57	1.38	6.90	
PFDaA	0.69 U	0.33	0.69	6.90	
PFTeDA	1.38 U	0.39	1.38	6.90	
PFTeDA	2.76 U	0.87	2.76	6.90	
NMeFOSAA	3.45 U	1.54	3.45	6.90	
NEtFOSAA	2.76 U	0.79	2.76	6.90	
PFBS	1.38 U	0.50	1.38	6.90	
PFHxS	11.32	0.30	0.69	6.90	
PFOS	12.98	0.37	1.38	6.90	

Surrogate Recoveries (%)

13C5-PFHxA	97
13C4-PFHpA	106
13C8-PFOA	103
13C9-PFNA	87
13C6-PFDA	95
13C7-PFUnA	99
13C2-PFDaA	101
13C2-PFTeDA	108
d3-MeFOSAA	108
d5-EtFOSAA	111
13C3-PFBS	102
13C3-PFHxS	96
13C8-PFOS	95



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

Client ID	VC-PM367-SS04-000H				
Battelle ID	J8474-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	14.38				
Matrix	SS				
Sample Size	1.77				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	0.75 J	0.37	1.13	5.65	
PFHpA	1.13 U	0.50	1.13	5.65	
PFOA	1.63 J	0.56	1.13	5.65	
PFNA	0.83 J	0.49	1.13	5.65	
PFDA	1.13 U	0.31	1.13	5.65	
PFUnA	1.13 U	0.46	1.13	5.65	
PFDaA	0.56 U	0.27	0.56	5.65	
PFTeDA	1.13 U	0.32	1.13	5.65	
PFTeDA	2.26 U	0.71	2.26	5.65	
NMeFOSAA	2.82 U	1.27	2.82	5.65	
NEtFOSAA	2.26 U	0.64	2.26	5.65	
PFBS	1.13 U	0.41	1.13	5.65	
PFHxS	1.80 J	0.25	0.56	5.65	
PFOS	73.95	0.31	1.13	5.65	

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	98
13C8-PFOA	106
13C9-PFNA	87
13C6-PFDA	110
13C7-PFUnA	119
13C2-PFDaA	107
13C2-PFTeDA	110
d3-MeFOSAA	86
d5-EtFOSAA	116
13C3-PFBS	106
13C3-PFHxS	110
13C8-PFOS	110



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

Client ID	VC-PM367-SB04-0102				
Battelle ID	J8475-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	16.35				
Matrix	SB				
Sample Size	1.65				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	0.77 J	0.40	1.21	6.06	
PFHpA	1.21 U	0.53	1.21	6.06	
PFOA	3.39 J	0.61	1.21	6.06	
PFNA	0.86 J	0.52	1.21	6.06	
PFDA	1.21 U	0.33	1.21	6.06	
PFUnA	1.21 U	0.50	1.21	6.06	
PFDaA	0.61 U	0.29	0.61	6.06	
PFTeDA	1.21 U	0.34	1.21	6.06	
PFTeDA	2.42 U	0.76	2.42	6.06	
NMeFOSAA	3.03 U	1.36	3.03	6.06	
NEtFOSAA	2.42 U	0.69	2.42	6.06	
PFBS	1.21 U	0.44	1.21	6.06	
PFHxS	4.89 J	0.27	0.61	6.06	
PFOS	63.03	0.33	1.21	6.06	

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	90
13C8-PFOA	98
13C9-PFNA	87
13C6-PFDA	104
13C7-PFUnA	108
13C2-PFDaA	98
13C2-PFTeDA	98
d3-MeFOSAA	116
d5-EtFOSAA	101
13C3-PFBS	121
13C3-PFHxS	116
13C8-PFOS	112



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

Client ID	VC-PM367-SB04-0506				
Battelle ID	J8476-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	5.56				
Matrix	SB				
Sample Size	1.82				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	3.30 J	0.36	1.10	5.49	
PFHpA	0.69 J	0.48	1.10	5.49	
PFOA	4.57 J	0.55	1.10	5.49	
PFNA	1.10 U	0.47	1.10	5.49	
PFDA	1.10 U	0.30	1.10	5.49	
PFUnA	1.10 U	0.45	1.10	5.49	
PFDaA	0.55 U	0.26	0.55	5.49	
PFTeDA	1.10 U	0.31	1.10	5.49	
PFTeDA	2.20 U	0.69	2.20	5.49	
NMeFOSAA	2.75 U	1.23	2.75	5.49	
NEtFOSAA	2.20 U	0.63	2.20	5.49	
PFBS	1.10 U	0.40	1.10	5.49	
PFHxS	8.12	0.24	0.55	5.49	
PFOS	8.26	0.30	1.10	5.49	

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	94
13C8-PFOA	101
13C9-PFNA	92
13C6-PFDA	96
13C7-PFUnA	101
13C2-PFDaA	92
13C2-PFTeDA	98
d3-MeFOSAA	82
d5-EtFOSAA	90
13C3-PFBS	89
13C3-PFHxS	89
13C8-PFOS	95



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

Client ID	KB80 IB				
Battelle ID	KB80 IB_10/17/2018				
Sample Type	IB				
Collection Date	NA				
Extraction Date	NA				
Analysis Date	10/17/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	NA				
Matrix	Solid				
Sample Size	2.00				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	1.00 U	0.33	1.00	5.00	
PFHpA	1.00 U	0.44	1.00	5.00	
PFOA	1.00 U	0.50	1.00	5.00	
PFNA	1.00 U	0.43	1.00	5.00	
PFDA	1.00 U	0.27	1.00	5.00	
PFUnA	1.00 U	0.41	1.00	5.00	
PFDaA	0.50 U	0.24	0.50	5.00	
PFTeDA	1.00 U	0.28	1.00	5.00	
PFTeDA	2.00 U	0.63	2.00	5.00	
NMeFOSAA	2.50 U	1.12	2.50	5.00	
NEtFOSAA	2.00 U	0.57	2.00	5.00	
PFBS	1.00 U	0.36	1.00	5.00	
PFHxS	0.50 U	0.22	0.50	5.00	
PFOS	1.00 U	0.27	1.00	5.00	

Surrogate Recoveries (%)

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



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

Client ID	KB80 IB			
Battelle ID	KB80 IB_10/19/2018			
Sample Type	IB			
Collection Date	NA			
Extraction Date	NA			
Analysis Date	10/19/2018			
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	1.00 U	0.33	1.00	5.00
PFHpA	1.00 U	0.44	1.00	5.00
PFOA	1.00 U	0.50	1.00	5.00
PFNA	1.00 U	0.43	1.00	5.00
PFDA	1.00 U	0.27	1.00	5.00
PFUnA	1.00 U	0.41	1.00	5.00
PFDaA	0.50 U	0.24	0.50	5.00
PFTeDA	1.00 U	0.28	1.00	5.00
PFTeDA	2.00 U	0.63	2.00	5.00
NMeFOSAA	2.50 U	1.12	2.50	5.00
NEtFOSAA	2.00 U	0.57	2.00	5.00
PFBS	1.00 U	0.36	1.00	5.00
PFHxS	0.50 U	0.22	0.50	5.00
PFOS	1.00 U	0.27	1.00	5.00

Surrogate Recoveries (%)

13C5-PFHxA	106
13C4-PFHpA	103
13C8-PFOA	104
13C9-PFNA	103
13C6-PFDA	99
13C7-PFUnA	101
13C2-PFDaA	102
13C2-PFTeDA	104
d3-MeFOSAA	59
d5-EtFOSAA	64
13C3-PFBS	88
13C3-PFHxS	86
13C8-PFOS	103



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

Client ID	KB80 IB				
Battelle ID	KB80 IB_10/25/2018				
Sample Type	IB				
Collection Date	NA				
Extraction Date	NA				
Analysis Date	10/25/2018				
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	1.00 U	0.33	1.00	5.00	
PFHpA	1.00 U	0.44	1.00	5.00	
PFOA	1.00 U	0.50	1.00	5.00	
PFNA	1.00 U	0.43	1.00	5.00	
PFDA	1.00 U	0.27	1.00	5.00	
PFUnA	1.00 U	0.41	1.00	5.00	
PFDaA	0.50 U	0.24	0.50	5.00	
PFTeDA	1.00 U	0.28	1.00	5.00	
PFTeDA	2.00 U	0.63	2.00	5.00	
NMeFOSAA	2.50 U	1.12	2.50	5.00	
NEtFOSAA	2.00 U	0.57	2.00	5.00	
PFBS	1.00 U	0.36	1.00	5.00	
PFHxS	0.50 U	0.22	0.50	5.00	
PFOS	1.00 U	0.27	1.00	5.00	

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	110
13C8-PFOA	97
13C9-PFNA	88
13C6-PFDA	98
13C7-PFUnA	106
13C2-PFDaA	102
13C2-PFTeDA	102
d3-MeFOSAA	132
d5-EtFOSAA	120
13C3-PFBS	113
13C3-PFHxS	105
13C8-PFOS	120



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

Client ID 180507-02: Ottawa Sand

Battelle ID CR904PB-FS
 Sample Type PB
 Collection Date 10/08/2018
 Extraction Date 10/08/2018
 Analysis Date 10/19/2018
 Analytical Instrument Sciex 5500 LC/MS/MS
 % Moisture 0.00
 Matrix SEDIMENT
 Sample Size 1.99
 Size Unit-Basis g
 Units ng/g_Dry MDL LOD LOQ

		MDL	LOD	LOQ
PFHxA	1.01 U	0.33	1.01	5.03
PFHpA	1.01 U	0.44	1.01	5.03
PFOA	1.01 U	0.50	1.01	5.03
PFNA	1.01 U	0.43	1.01	5.03
PFDA	1.01 U	0.27	1.01	5.03
PFUnA	1.01 U	0.41	1.01	5.03
PFDaA	0.50 U	0.24	0.50	5.03
PFTrDA	1.01 U	0.28	1.01	5.03
PFTeDA	2.01 U	0.63	2.01	5.03
NMeFOSAA	2.51 U	1.13	2.51	5.03
NEtFOSAA	2.01 U	0.57	2.01	5.03
PFBS	1.01 U	0.36	1.01	5.03
PFHxS	0.50 U	0.22	0.50	5.03
PFOS	1.01 U	0.27	1.01	5.03

Surrogate Recoveries (%)

13C5-PFHxA	97
13C4-PFHpA	98
13C8-PFOA	98
13C9-PFNA	90
13C6-PFDA	97
13C7-PFUnA	97
13C2-PFDaA	93
13C2-PFTeDA	103
d3-MeFOSAA	63
d5-EtFOSAA	69
13C3-PFBS	88
13C3-PFHxS	87
13C8-PFOS	84



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

Client ID 180507-02: Ottawa Sand

Battelle ID CR905LCS-FS
 Sample Type LCS
 Collection Date 10/08/2018
 Extraction Date 10/08/2018
 Analysis Date 10/19/2018
 Analytical Instrument Sciex 5500 LC/MS/MS
 % Moisture 0.00
 Matrix SEDIMENT

Sample Size 1.95
 Size Unit-Basis g
 Units ng/g_Dry

	Target	Recovery	Qual	Control Limits	
				Lower	Upper

PFHxA	10.93	10.36	106	45	135
PFHpA	11.45	10.26	112	60	128
PFOA	10.84	10.26	106	56	136
PFNA	12.43	10.26	121	54	130
PFDA	11.88	10.26	116	55	141
PFUnA	10.63	10.26	104	57	137
PFDaA	10.78	10.26	105	62	134
PFTTrDA	11.82	10.26	115	51	127
PFTeDA	11.62	10.26	113	34	162
NMeFOSAA	13.10	10.26	128	52	146
NEtFOSAA	10.71	10.26	104	54	124
PFBS	10.39	10.36	100	57	145
PFHxS	12.22	10.36	118	52	132
PFOS	13.24	10.26	129	50	130

Surrogate Recoveries (%)

13C5-PFHxA	87
13C4-PFHpA	79
13C8-PFOA	92
13C9-PFNA	82
13C6-PFDA	82
13C7-PFUnA	103
13C2-PFDaA	93
13C2-PFTeDA	91
d3-MeFOSAA	82
d5-EtFOSAA	95
13C3-PFBS	96
13C3-PFHxS	87
13C8-PFOS	85



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 highest 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

Project:	CTO-4164 Naval Base Ventura County, California
Parameters:	PFAS
Laboratory:	Battelle, Norwell, MA
Matrix:	SS, SB
Data Set:	DP-18-0296
Analytical SOP:	5-369
Method Reference:	PFAS to QSM 5.1 Table B-15

Sample Custody		
Collection Date	Receipt Date	Temp (°C)
9/26-27/2018	9/28/2018	0.7 and 0.4
Corrective Actions	Minor discrepancies between the COC and the sample containers were corrected by the Project Chemist, email clarifying IDs is 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 extraction to check potential levels of PFAS in the samples.
Analysis	PFAS were measured by liquid chromatography tandem mass spectrometry (LC-MS/MS) in the multiple reaction monitoring (MRM). An initial calibration consisting of representative target analytes, labelled analogs, and internal standards was analyzed prior to analysis to demonstrate the linear range of analysis. Calibration verification was performed at the beginning and end of 10 injections and at the end of each sequence. Target PFAS were quantified using the isotope dilution method. Samples are reported in ng/g concentrations.
Analysis Comments	<p>Samples analyzed on Sciex 5500 LC-MS/MS.</p> <p>The first time the samples ran, the CCV in the middle of the sequence did not inject and the samples needed to be rerun. The raw data for the first run of these samples can be found in the unused data section of the full data package.</p> <p>Where detected in samples, PFOS is a mixture of linear and branched isomers.</p>

Holding Times	Extraction Date(s)	Analysis Date(s)
	10/8/2018	10/17-19/2018 & 10/25/2018

Procedural Blank (PB)	A PB was prepared with this analytical batch to ensure the sample extraction and analysis methods are free of contamination.
$\leq \frac{1}{2}$ the LOQ	No exceedances noted.
Samples >10x PB	The initial run for the PB had a hit for PFOS. A fresh aliquot was run to verify the PFOS concentration. The second aliquot was reported. The quant report from the initial run are included in the unused data section of the full data package.
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	MS/MSD not extracted with batch.
	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.
	Sample J8473 was outside of the injected internal standard criteria. There was no original extract left so the lab took a fresh aliquot and passed it thru an Envicarb cartridge and then submitted for analysis. The original data can be found in the unused data section of this data package.
Initial Calibration (ICAL)	The LC-MS/MS was calibrated with multi-level calibration curve for all compounds using linear or quadratic curve fitting.
+/- 30% of true value, $R^2 \geq 0.99$	No exceedances noted.
	No comments.
Independent Calibration Check (ICC)	The independent check was run after each initial calibration to verify the calibration. This standard is from a different source than the ICAL.
+/- 30% of true value	No exceedances noted.
	No comments.

Continuing Calibration Verification (CCV)	Continuing calibration standards were run at the beginning and end of 10 injections and at the end of the sequence to ensure that initial calibration is still valid.
+/- 30% of true value	No exceedances noted.
	No comments.
Instrument Blank (IB)	Immediately following the highest standard analyzed and daily prior to sample analysis.
$\leq \frac{1}{2}$ the LOQ	No exceedances noted.
	No comments.



Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project Number: 100110125-01
 Preparation Batch: 18-0590
 Data Set: DP-18-0296
 Test Code: Master_369

QC Parameter:	Exceed:	Justification:
Procedural Blank	0	None
PB Measurement Quality Objective	0	None
Laboratory Control Sample	0	None
Matrix Spike / Matrix Spike Duplicate Recovery	NA	None
Matrix Spike / Matrix Spike Duplicate Precision	NA	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

BATTELLE

It can be done

BATTELLE - NORWELL OPERATIONS MISCELLANEOUS DOCUMENTATION FORM

Project Title:	CTO-4164 Naval Base Ventura County,	Data Set Number:	DP-18-0296
Project Number:	100110125-01	Prep Batch Number:	18-0590
Entered By:	Denise Schumitz	Entered On:	10/23/2018
Test Code (Matrix Type):	Master_369(S)		

Samples that were manually integrated are noted on the quant reports with the comment (TRUE). DMS 10/23/2018

Sample J8473 was outside of the injected internal standard criteria. There was no original extract left so the lab took a fresh aliquot and passed it thru an Envicarb cartridge and then submitted for analysis. The original data can be found in the unused data section of this data package. DMS 10/26/2018

The first time the samples ran the CCV in the middle of the sequence did not inject and the samples needed to be rerun. The raw data for the first run of these samples can be found in the unused data section of this data package. DMS 10/23/2018

CR904PB-FS had a fresh aliquot taken and rerun due to PFOS found in the procedural blank. The sample that ran before the PB was extremely contaminated with PFOS and there may have been some instrument carry over. The fresh aliquot did not have any PFOS in it and is being reported with the batch. DMS 10/23/2018

Task Leader Approval:

Supervisor Approval:

PM Approval:



Digitally signed by Jonathan Thorn
Date: 2018.10.23 21:30:59 -04'00'



Example Calculation for PFAS

Calculation of final concentration from area:

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

Where:

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

Sample ID: J8476-FS(3)
 Client Sample ID: VC-PM367-SB04-0506
 Sample Size: 1.82
 Units: g
 Dilution Factor: 10.000
 PIV (L): 0.001
 Target Analyte: PFHxS
 MRM Transition: 399.0 / 80.0
 Data file: Data18-0590_18-01588_18-0589.wiff
 Result table: 18-0590_18-0588_18-0589_BASE
 Area: 460,047.45
 IS Name: 13C5-PFHxA
 IS Area: 21,334.28
 IS Amount (ng/L): 236.5
 y-intercept: 0.28942
 slope: 3.40443

$$\text{Concentration} = \frac{[(460047.45/21334.28) - 0.28942]}{3.40443} * 236.5 * 0.001 * 10 / 1.82$$

$$\text{ng/g} = 8.12$$

*Final concentration may vary based on rounding.



Project Client: CH2M
 Project Name: CTO-4164 Naval Base Ventura County, California
 Project No.: 100110125-01
 Preparation Batch: 18-0590
 Data Set: DP-18-0296

		CR904PB-FS (180507-02: Ottawa Sand)	CR905LCS-FS (180507-02: Ottawa Sand)	18465-FS (VC-PM367-SS01-000H)	18466-FS (VC-PM367-SB01-0102)	18467-FS (VC-PM367-SB01-0506)	18468-FS (VC-PM367-SS02-000H)
PFHxA	307-24-4	-	L	L	L	L	-
PFHpA	375-85-9	-	L	-	-	-	-
PFOA	335-67-1	-	L	L	-	L	-
PFNA	375-95-1	-	L	-	-	-	-
PFDA	335-76-2	-	L	-	-	-	-
PFUnA	2058-94-8	-	L	-	-	-	-
PFDoA	307-55-1	-	L	-	-	-	-
PFTTrDA	72629-94-8	-	L	-	-	-	-
PFTeDA	376-06-7	-	L	-	-	-	-
NMeFOSAA	2355-31-9	-	L	-	-	-	-
NEtFOSAA	2991-50-6	-	L	-	-	-	-
PFBS	375-73-5	-	L	-	-	-	-
PFHxS	355-46-4	-	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": 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-

	18469-FS (VC-PM367-SB02-0102)	18470-FS (VC-PM367-SB02-0506)	18471-FS (VC-PM367-SS03-000H)	18472-FS (VC-PM367-SB03-0102)	18473-FS (VC-PM367-SB03-0506)	18474-FS (VC-PM367-SS04-000H)	18475-FS (VC-PM367-SB04-0102)	18476-FS (VC-PM367-SB04-0506)
PFHxA	-	-	L	L	L	L	L	L
PFHpA	-	-	L	L	L	-	-	L
PFOA	-	L	-	L	L	L	L	L
PFNA	-	-	-	-	-	L	L	-
PFDA	-	-	-	-	-	-	-	-
PFUnA	-	-	-	-	-	-	-	-
PFDoA	-	-	-	-	-	-	-	-
PFTTrDA	-	-	-	-	-	-	-	-
PFTeDA	-	-	-	-	-	-	-	-
NMeFOSAA	-	-	-	-	-	-	-	-
NEtFOSAA	-	-	-	-	-	-	-	-
PFBS	-	-	-	-	-	-	-	-
PFHxS	L/Br	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



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

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/17/18 19:46	13C2-PFOA	79,095.63	40,184.56	120,553.68	
KB74	L2	10/17/18 19:57	13C2-PFOA	89,971.31	40,184.56	120,553.68	
KB75	L3	10/17/18 20:08	13C2-PFOA	87,799.30	40,184.56	120,553.68	
KB76	L4	10/17/18 20:19	13C2-PFOA	84,567.91	40,184.56	120,553.68	
KB77	L5	10/17/18 20:30	13C2-PFOA	80,369.12	40,184.56	120,553.68	
KB78	L6	10/17/18 20:41	13C2-PFOA	85,964.25	40,184.56	120,553.68	
KB79	L7	10/17/18 20:52	13C2-PFOA	86,636.81	40,184.56	120,553.68	
KB80 IB	Instrument Blank	10/17/18 21:02	13C2-PFOA	85,730.94	40,184.56	120,553.68	
KB81 ICC	ICC	10/17/18 21:13	13C2-PFOA	85,242.44	40,184.56	120,553.68	
KB76 CCV	CCV	10/18/18 22:14	13C2-PFOA	87,920.60	40,184.56	120,553.68	
CR904PB-FS(3)	Procedural Blank	10/18/18 23:51	13C2-PFOA	82,360.22	40,184.56	120,553.68	
CR905LCS-FS(3)	Laboratory Control Sample	10/19/18 0:02	13C2-PFOA	78,503.32	40,184.56	120,553.68	
J8465-FS(3)	VC-PM367-SS01-000H	10/19/18 0:13	13C2-PFOA	82,682.59	40,184.56	120,553.68	
J8466-FS(3)	VC-PM367-SB01-0102	10/19/18 0:24	13C2-PFOA	85,778.88	40,184.56	120,553.68	
J8467-FS(3)	VC-PM367-SB01-0506	10/19/18 0:35	13C2-PFOA	79,072.36	40,184.56	120,553.68	
J8468-FS(3)	VC-PM367-SS02-000H	10/19/18 0:46	13C2-PFOA	82,496.23	40,184.56	120,553.68	
J8469-FS(3)	VC-PM367-SB02-0102	10/19/18 0:57	13C2-PFOA	78,652.71	40,184.56	120,553.68	
J8470-FS(3)	VC-PM367-SB02-0506	10/19/18 1:08	13C2-PFOA	75,459.91	40,184.56	120,553.68	
J8471-FS(3)	VC-PM367-SS03-000H	10/19/18 1:19	13C2-PFOA	79,204.28	40,184.56	120,553.68	
KB76 CCV	CCV	10/19/18 1:29	13C2-PFOA	75,749.56	40,184.56	120,553.68	
J8472-FS(3)	VC-PM367-SB03-0102	10/19/18 1:51	13C2-PFOA	76,738.89	40,184.56	120,553.68	
J8473-FS(3)	VC-PM367-SB03-0506	10/19/18 2:02	13C2-PFOA	21,842.83	40,184.56	120,553.68	N
J8474-FS(3)	VC-PM367-SS04-000H	10/19/18 2:13	13C2-PFOA	80,793.66	40,184.56	120,553.68	
J8475-FS(3)	VC-PM367-SB04-0102	10/19/18 2:24	13C2-PFOA	71,395.39	40,184.56	120,553.68	
J8476-FS(3)	VC-PM367-SB04-0506	10/19/18 2:35	13C2-PFOA	76,828.24	40,184.56	120,553.68	
KB77 CCV	CCV	10/19/18 2:56	13C2-PFOA	69,772.43	40,184.56	120,553.68	
KB75 ISC	Instrument Sensitivity Check	10/19/18 18:16	13C2-PFOA	81,344.96	40,184.56	120,553.68	
KB80 IB	Instrument Blank	10/19/18 18:27	13C2-PFOA	68,811.37	40,184.56	120,553.68	
CR904PB-FS(3)	Procedural Blank	10/19/18 19:11	13C2-PFOA	83,110.44	40,184.56	120,553.68	
KB76 CCV	CCV	10/19/18 20:38	13C2-PFOA	80,189.24	40,184.56	120,553.68	
KB75 ISC	Instrument Sensitivity Check	10/25/18 16:26	13C2-PFOA	74,227.28	40,184.56	120,553.68	
KB80 IB	Instrument Blank	10/25/18 16:37	13C2-PFOA	82,086.71	40,184.56	120,553.68	
J8473-FS(5)	VC-PM367-SB03-0506	10/25/18 16:59	13C2-PFOA	84,512.20	40,184.56	120,553.68	
KB77 CCV	CCV	10/25/18 17:10	13C2-PFOA	85,552.76	40,184.56	120,553.68	

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



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

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/17/18 19:46	13C2-PFDA	100,139.46	45,064.85	135,194.55	
KB74	L2	10/17/18 19:57	13C2-PFDA	103,883.83	45,064.85	135,194.55	
KB75	L3	10/17/18 20:08	13C2-PFDA	98,052.33	45,064.85	135,194.55	
KB76	L4	10/17/18 20:19	13C2-PFDA	99,978.99	45,064.85	135,194.55	
KB77	L5	10/17/18 20:30	13C2-PFDA	90,129.70	45,064.85	135,194.55	
KB78	L6	10/17/18 20:41	13C2-PFDA	104,169.70	45,064.85	135,194.55	
KB79	L7	10/17/18 20:52	13C2-PFDA	100,765.46	45,064.85	135,194.55	
KB80 IB	Instrument Blank	10/17/18 21:02	13C2-PFDA	96,280.28	45,064.85	135,194.55	
KB81 ICC	ICC	10/17/18 21:13	13C2-PFDA	103,402.36	45,064.85	135,194.55	
KB76 CCV	CCV	10/18/18 22:14	13C2-PFDA	97,797.45	45,064.85	135,194.55	
CR904PB-FS(3)	Procedural Blank	10/18/18 23:51	13C2-PFDA	93,577.43	45,064.85	135,194.55	
CR905LCS-FS(3)	Laboratory Control Sample	10/19/18 0:02	13C2-PFDA	91,008.23	45,064.85	135,194.55	
J8465-FS(3)	VC-PM367-SS01-000H	10/19/18 0:13	13C2-PFDA	101,403.41	45,064.85	135,194.55	
J8466-FS(3)	VC-PM367-SB01-0102	10/19/18 0:24	13C2-PFDA	107,589.70	45,064.85	135,194.55	
J8467-FS(3)	VC-PM367-SB01-0506	10/19/18 0:35	13C2-PFDA	94,891.76	45,064.85	135,194.55	
J8468-FS(3)	VC-PM367-SS02-000H	10/19/18 0:46	13C2-PFDA	108,392.72	45,064.85	135,194.55	
J8469-FS(3)	VC-PM367-SB02-0102	10/19/18 0:57	13C2-PFDA	97,690.92	45,064.85	135,194.55	
J8470-FS(3)	VC-PM367-SB02-0506	10/19/18 1:08	13C2-PFDA	93,072.61	45,064.85	135,194.55	
J8471-FS(3)	VC-PM367-SS03-000H	10/19/18 1:19	13C2-PFDA	96,014.50	45,064.85	135,194.55	
KB76 CCV	CCV	10/19/18 1:29	13C2-PFDA	92,280.41	45,064.85	135,194.55	
J8472-FS(3)	VC-PM367-SB03-0102	10/19/18 1:51	13C2-PFDA	96,243.30	45,064.85	135,194.55	
J8473-FS(3)	VC-PM367-SB03-0506	10/19/18 2:02	13C2-PFDA	27,178.36	45,064.85	135,194.55	N
J8474-FS(3)	VC-PM367-SS04-000H	10/19/18 2:13	13C2-PFDA	92,388.52	45,064.85	135,194.55	
J8475-FS(3)	VC-PM367-SB04-0102	10/19/18 2:24	13C2-PFDA	85,520.90	45,064.85	135,194.55	
J8476-FS(3)	VC-PM367-SB04-0506	10/19/18 2:35	13C2-PFDA	94,751.65	45,064.85	135,194.55	
KB77 CCV	CCV	10/19/18 2:56	13C2-PFDA	84,016.05	45,064.85	135,194.55	
KB75 ISC	Instrument Sensitivity Check	10/19/18 18:16	13C2-PFDA	90,191.16	45,064.85	135,194.55	
KB80 IB	Instrument Blank	10/19/18 18:27	13C2-PFDA	83,787.58	45,064.85	135,194.55	
CR904PB-FS(3)	Procedural Blank	10/19/18 19:11	13C2-PFDA	94,825.14	45,064.85	135,194.55	
KB76 CCV	CCV	10/19/18 20:38	13C2-PFDA	87,976.17	45,064.85	135,194.55	
KB75 ISC	Instrument Sensitivity Check	10/25/18 16:26	13C2-PFDA	96,318.27	45,064.85	135,194.55	
KB80 IB	Instrument Blank	10/25/18 16:37	13C2-PFDA	98,812.53	45,064.85	135,194.55	
J8473-FS(5)	VC-PM367-SB03-0506	10/25/18 16:59	13C2-PFDA	101,077.82	45,064.85	135,194.55	
KB77 CCV	CCV	10/25/18 17:10	13C2-PFDA	101,606.89	45,064.85	135,194.55	

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



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

Sample Name	Sample ID	Analysis Date	Analyte	Area	Lower	Upper	Qualifier
KB73	L1	10/17/18 19:46	13C4-PFOS	29,846.55	15,759.13	47,277.39	
KB74	L2	10/17/18 19:57	13C4-PFOS	34,856.85	15,759.13	47,277.39	
KB75	L3	10/17/18 20:08	13C4-PFOS	30,684.77	15,759.13	47,277.39	
KB76	L4	10/17/18 20:19	13C4-PFOS	30,962.75	15,759.13	47,277.39	
KB77	L5	10/17/18 20:30	13C4-PFOS	31,518.26	15,759.13	47,277.39	
KB78	L6	10/17/18 20:41	13C4-PFOS	29,589.19	15,759.13	47,277.39	
KB79	L7	10/17/18 20:52	13C4-PFOS	26,984.04	15,759.13	47,277.39	
KB80 IB	Instrument Blank	10/17/18 21:02	13C4-PFOS	29,371.12	15,759.13	47,277.39	
KB81 ICC	ICC	10/17/18 21:13	13C4-PFOS	33,690.55	15,759.13	47,277.39	
KB76 CCV	CCV	10/18/18 22:14	13C4-PFOS	30,615.59	15,759.13	47,277.39	
CR904PB-FS(3)	Procedural Blank	10/18/18 23:51	13C4-PFOS	28,948.56	15,759.13	47,277.39	
CR905LCS-FS(3)	Laboratory Control Sample	10/19/18 0:02	13C4-PFOS	27,314.59	15,759.13	47,277.39	
J8465-FS(3)	VC-PM367-SS01-000H	10/19/18 0:13	13C4-PFOS	30,301.77	15,759.13	47,277.39	
J8466-FS(3)	VC-PM367-SB01-0102	10/19/18 0:24	13C4-PFOS	32,108.17	15,759.13	47,277.39	
J8467-FS(3)	VC-PM367-SB01-0506	10/19/18 0:35	13C4-PFOS	26,950.30	15,759.13	47,277.39	
J8468-FS(3)	VC-PM367-SS02-000H	10/19/18 0:46	13C4-PFOS	29,464.83	15,759.13	47,277.39	
J8469-FS(3)	VC-PM367-SB02-0102	10/19/18 0:57	13C4-PFOS	23,852.91	15,759.13	47,277.39	
J8470-FS(3)	VC-PM367-SB02-0506	10/19/18 1:08	13C4-PFOS	27,860.94	15,759.13	47,277.39	
J8471-FS(3)	VC-PM367-SS03-000H	10/19/18 1:19	13C4-PFOS	29,830.13	15,759.13	47,277.39	
KB76 CCV	CCV	10/19/18 1:29	13C4-PFOS	26,912.55	15,759.13	47,277.39	
J8472-FS(3)	VC-PM367-SB03-0102	10/19/18 1:51	13C4-PFOS	28,436.34	15,759.13	47,277.39	
J8473-FS(3)	VC-PM367-SB03-0506	10/19/18 2:02	13C4-PFOS	8,890.05	15,759.13	47,277.39	N
J8474-FS(3)	VC-PM367-SS04-000H	10/19/18 2:13	13C4-PFOS	26,903.63	15,759.13	47,277.39	
J8475-FS(3)	VC-PM367-SB04-0102	10/19/18 2:24	13C4-PFOS	21,293.41	15,759.13	47,277.39	
J8476-FS(3)	VC-PM367-SB04-0506	10/19/18 2:35	13C4-PFOS	29,112.85	15,759.13	47,277.39	
KB77 CCV	CCV	10/19/18 2:56	13C4-PFOS	25,262.39	15,759.13	47,277.39	
KB75 ISC	Instrument Sensitivity Check	10/19/18 18:16	13C4-PFOS	31,112.11	15,759.13	47,277.39	
KB80 IB	Instrument Blank	10/19/18 18:27	13C4-PFOS	28,447.31	15,759.13	47,277.39	
CR904PB-FS(3)	Procedural Blank	10/19/18 19:11	13C4-PFOS	31,807.83	15,759.13	47,277.39	
KB76 CCV	CCV	10/19/18 20:38	13C4-PFOS	28,672.60	15,759.13	47,277.39	
KB75 ISC	Instrument Sensitivity Check	10/25/18 16:26	13C4-PFOS	28,184.95	15,759.13	47,277.39	
KB80 IB	Instrument Blank	10/25/18 16:37	13C4-PFOS	24,821.18	15,759.13	47,277.39	
J8473-FS(5)	VC-PM367-SB03-0506	10/25/18 16:59	13C4-PFOS	29,659.51	15,759.13	47,277.39	
KB77 CCV	CCV	10/25/18 17:10	13C4-PFOS	35,131.92	15,759.13	47,277.39	

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 8:52:06 PM	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Spectra Acquisition Rate	Passing Range
PFBS_1	298.9 / 80.0	1.56	22	>10
PFBS_2	298.9 / 99.0	1.56	22	>10
PFHxA_1	313.0 / 269.0	1.89	21	>10
PFHxA_2	313.0 / 119.0	1.88	22	>10
PFHpA_1	363.0 / 319.0	2.29	30	>10
PFHpA_2	363.0 / 169.0	2.30	23	>10
PFHxS_1	399.0 / 80.0	2.32	33	>10
PFHxS_2	399.0 / 99.0	2.32	35	>10
PFOA_1	413.0 / 369.0	2.71	32	>10
PFOA_2	413.0 / 169.0	2.71	30	>10
PFNA_1	463.0 / 419.0	3.11	29	>10
PFNA_2	463.0 / 219.0	3.11	27	>10
PFOS_1	499.0 / 80.0	3.10	43	>10
PFOS_2	499.0 / 99.0	3.10	45	>10
PFDA_1	513.0 / 469.0	3.47	31	>10
PFDA_2	513.0 / 219.0	3.47	34	>10
PFUnA_1	563.0 / 519.0	3.79	30	>10
PFUnA_2	563.0 / 269.0	3.79	43	>10
PFDoA_1	613.0 / 569.0	4.07	39	>10
PFDoA_2	613.0 / 319.0	4.07	46	>10
PFTTrDA_1	663.0 / 619.0	4.32	56	>10
PFTTrDA_2	663.0 / 169.0	4.32	40	>10
PFTeDA_1	713.0 / 669.0	4.54	59	>10
PFTeDA_2	713.0 / 169.0	4.54	64	>10
NMeFOSAA_1	570.0 / 419.0	3.62	29	>10
NMeFOSAA_2	570.0 / 512.0	3.62	39	>10
NEtFOSAA_1	584.0 / 419.0	3.78	31	>10
NEtFOSAA_2	584.0 / 483.0	3.78	19	>10

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 8:52:06 PM	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

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



Precision and Bias at the LOQ for PFAS in Solids

Analyte	CAS No.	Average (ng/g)	ST DEV	2 Sigma	n
PFBA	375-22-4	11.08	1.57	3.14	20
PFPeA	2706-90-3	10.94	1.44	2.88	20
PFHxA	307-24-4	11.14	2.12	4.24	25
PFHpA	375-85-9	11.16	1.86	3.72	25
PFOA	335-67-1	11.26	1.86	3.72	25
PFNA	375-95-1	11.05	1.67	3.34	25
PFDA	335-76-2	11.73	2.09	4.18	25
PFUnA	2058-94-8	11.47	1.85	3.7	25
PFDoA	307-55-1	11.57	1.56	3.12	25
PFTTrDA	72629-94-8	10.91	1.30	2.6	25
PFTeDA	376-06-7	11.91	2.2	4.4	25
NMeFOSAA	2355-31-9	11.7	1.6	3.2	25
NEtFOSAA	2991-50-6	10.73	1.47	2.94	25
PFOSA	754-91-6	10.75	1.63	3.26	4
PFBS	375-73-5	11.58	1.74	3.48	25
PFPeS	BDO-2114	11.67	1.22	2.44	4
PFHxS	355-46-4	11.28	1.76	3.52	25
PFHpS	375-99-6	11.05	1.68	3.36	20
PFOS	1763-23-1	11.08	1.63	3.26	25
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
PFTTrDA	72629-94-8	0.28	1.0	5.0
PFTeDA	376-06-7	0.63	2.0	5.0
NMeFOSAA	2355-31-9	1.12	2.5	5.0
NEtFOSAA	2991-50-6	0.57	2.0	5.0
PFOSA	754-91-6	0.39	1.0	5.0
PFBS	375-73-5	0.36	1.0	5.0
PFPeS	BDO-2114	0.57	2.0	5.0
PFHxS	355-46-4	0.22	0.5	5.0
PFHpS	375-99-6	0.34	1.0	5.0
PFOS	1763-23-1	0.27	1.0	5.0
PFNS	98789-57-2	0.74	2.0	5.0
PFDS	2806-15-7	0.19	0.5	5.0
4:2FTS	BDO-2205	0.29	1.0	5.0
6:2FTS	27619-97-2	2.31	2.5	5.0
8:2FTS	39108-34-4	0.59	2.0	5.0

Analytes on NELAP and ELAP QSM 5.1 Scope of accreditation

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

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

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

Analyte	CAS No.	Type	Primary Transition	Secondary Transition
13C4-PFH _p A	BDO-2218	SIS ¹	367.0 / 322.0	NA
13C8-PFOA	BDO-2219	SIS ¹	421.0 / 376.0	NA
13C9-PFNA	BDO-2221	SIS ¹	472.0 / 427.0	NA
13C6-PFDA	BDO-2222	SIS ¹	519.0 / 474.0	NA
13C7-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-PFH _x S	BDO-2227	SIS ¹	402.0 / 99.0	NA
13C8-PFOS	BDO-2228	SIS ¹	507.0 / 99.0	NA
13C2-4:2FTS	BDO-2229	SIS ¹	329.0 / 81.0	NA
13C2-6:2FTS	BDO-2230	SIS ¹	429.0 / 81.0	NA
13C2-8:2FTS	BDO-2220	SIS ¹	529.0 / 81.0	NA
13C3-PFBA	BDO-2231	IS ²	216.0 / 172.0	NA
13C2-PFOA	BDO-2107	IS ²	415.0 / 370.0	NA
13C2-PFDA	BDO-2110	IS ²	515.0 / 470.0	NA
13C4-PFOS	BDO-2121	IS ²	503.0 / 99.0	NA

¹ – extracted internal standard (surrogate)

² – injection internal standard



Solids Calibration to Sample Equivalents

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

¹ - base level dilution as part of the extraction procedure

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

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

Appendix ZEFPM003-2L

QTRAP 5500 Preventive Maintenance Checklist

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

 PASS **FAIL**

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

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

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

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

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

Approved By : _____ **Date:** _____

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

Appendix ZEFPM003-2L

PRE PM PPG PERFORMANCE EVALUATION:

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

CAD Settings	Vacuum Reading (x 10 ⁻⁵ Torr)	Acceptance Criteria
<input checked="" type="checkbox"/> CAD 0	0.6	0.4 to 1.1 x10 ⁻⁵ Torr
<input checked="" type="checkbox"/> CAD Low	1.3	Read Only
<input checked="" type="checkbox"/> CAD Medium	2.7	Read Only
<input checked="" type="checkbox"/> CAD High	3.7	Read Only
<input checked="" type="checkbox"/> CAD 12	3.7	2.4 to 4.5 x10 ⁻⁵ Torr

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

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

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

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

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

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

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

Appendix ZEFPM003-2L

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

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

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

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

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

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

Perform Product Ion scan using NEG PPG 3e-5M. Record 10mca.

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

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QTRAP 5500

LC/MS/MS Detector System

Appendix ZEFPM003-2L

PREVENTIVE MAINTENANCE CHECKLIST:

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

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

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

- Pump down overnight if possible. N/A

- Perform Maintenance on Turbo V source.

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

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QTRAP 5500

LC/MS/MS Detector System

Appendix ZEFPM003-2L

POST PM PPG PERFORMANCE TESTS:

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

CAD Settings	Vacuum Reading (x 10 ⁻⁵ Torr)	Acceptance Criteria
<input checked="" type="checkbox"/> CAD 0	0.7	0.4 to 1.1 x10 ⁻⁵ Torr
<input checked="" type="checkbox"/> CAD Low	1.3	Read Only
<input checked="" type="checkbox"/> CAD Medium	2.7	Read Only
<input checked="" type="checkbox"/> CAD High	3.7	Read Only
<input checked="" type="checkbox"/> CAD 12	3.7	2.4 to 4.5 x10 ⁻⁵ Torr

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

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

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

Mass	Q3 Intensity		Q3 Width Value	Width Specs
	Value	Spec		
Scan Rate 10 Da/s Record 10 mca				
Q3 175.133	5.02 e6	≥1.2 ^{e6}	0.6719	0.6 to 0.8
Q3 500.380	1.72 e7	≥9.0 ^{e6}	0.7443	0.6 to 0.8
Q3 906.673	3.00 e7	≥1.4 ^{e7}	0.7504	0.6 to 0.8
Scan Rate 1000 Da/s Record 50 mca				
Q3 906.673	1.46 e8	≥6.8 ^{e7}	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 Value	Width Specs
	Value	Spec		
Q1 609.3	5.78 e7	N/A	0.6888	Read Only
MS/MS 195.1	1.22 e7	N/A	0.7003	Read Only

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

Appendix ZEFPM003-2L

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

Mass	Scan Rate	Mca	Q1 Intensity		Q1 Width Value	Width Specs
			Value	Spec		
Q1 933.636	10	10	1.35 e7	$\geq 1.0^{e7}$	0.7486	0.6 to 0.8
Q1 933.636	1000	50	7.52 e7	$\geq 4.0^{e7}$	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	$\geq 8.0^{e6}$	0.7492	0.6 to 0.8
Q3 933.636	1000	50	8.33 e7	$\geq 4.0^{e7}$	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	$\geq 7.2^{e6}$	0.1473	<0.35
ER 922.010	0.05	4.96 e7	$\geq 2.8^{e6}$	0.2434	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 118.087	0.05		$\geq 2.4^{e7}$		<0.65
ER 922.010	0.05		$\geq 6.8^{e7}$		<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	$\geq 4.4^{e7}$	0.1862	<0.35
ER 601.978	0.05	1.70 e8	$\geq 5.6^{e7}$	0.1809	<0.35
ScanRate : 10000 Da/s ; 50 Mca					
ER 431.982	0.05	5.72 e8	$\geq 1.2^{e8}$	0.5102	<0.65
ER 601.978	0.05	4.52 e8	$\geq 1.6^{e8}$	0.6187	<0.65

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

Appendix ZEFPM003-2L

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

Mass	Scan Rate (Da/s)	Q0 Trapping OFF		Q0 Trapping ON	
		Intensity	Spec	Intensity	Spec
EPI 397.2	10000	> 3.0 e6	≥2.0 e6	> 7.0 e6	≥6.4 e6

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

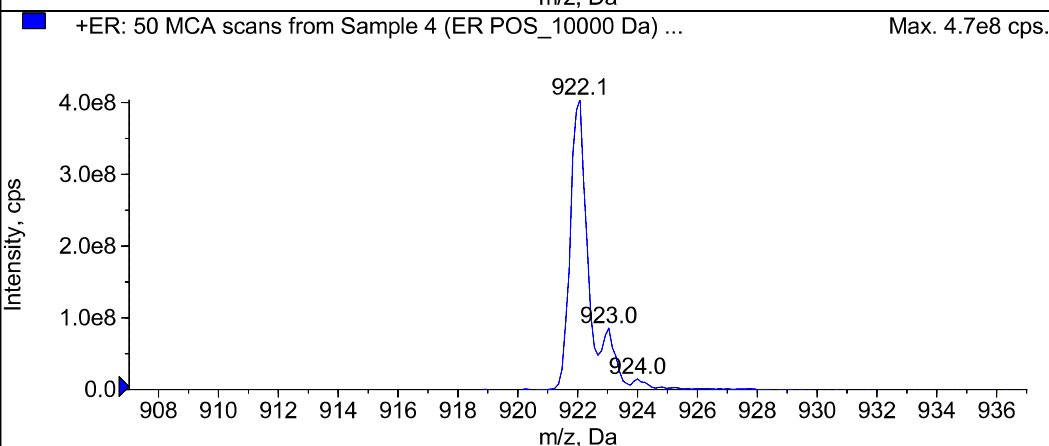
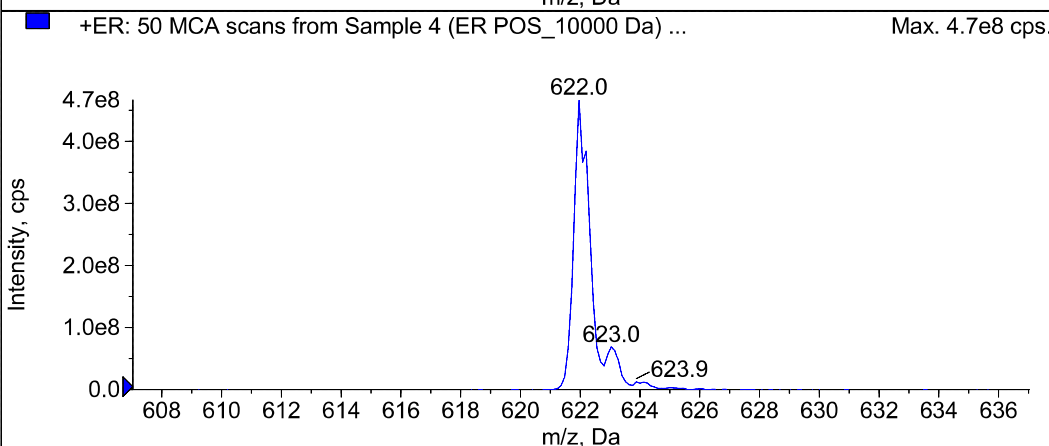
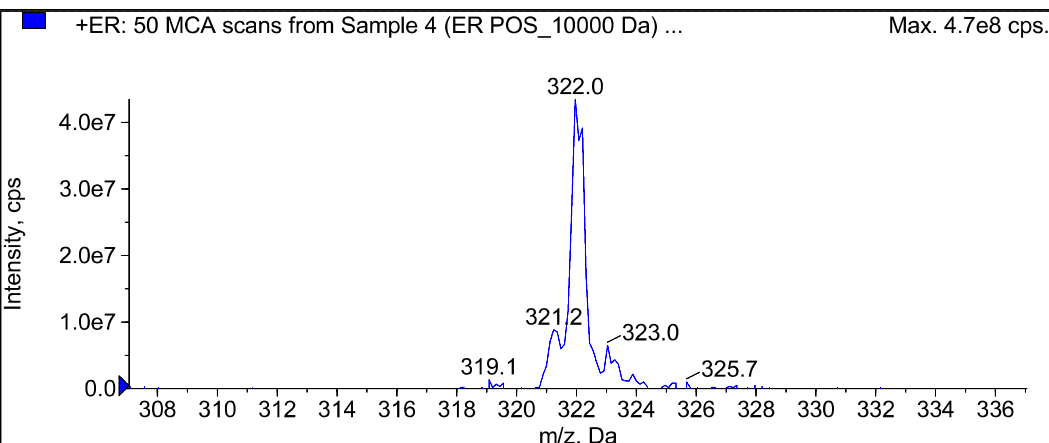
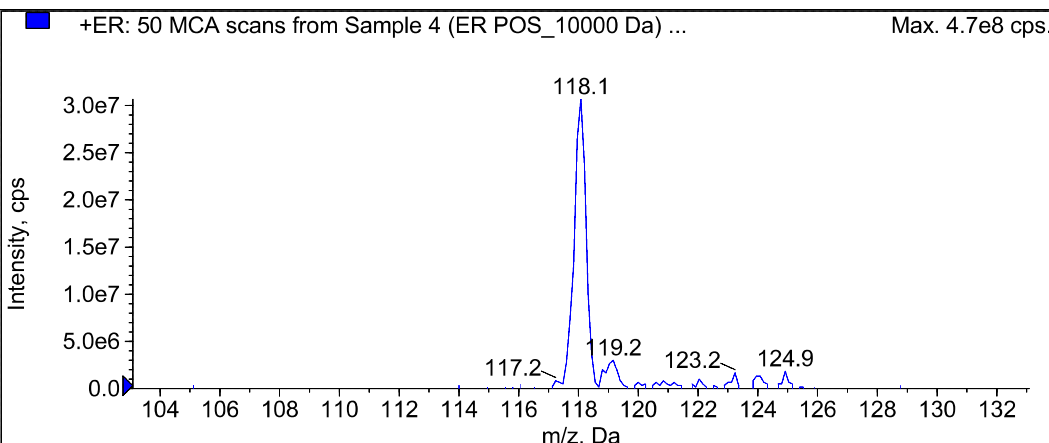
Mass	Scan Rate (Da/s)	Fragamentation OFF		Fragmentation ON	
		Intensity	Spec	Intensity	Spec
MS3 397.2	1000	Yes	Contains only 397.2	N/A	N/A
<input type="checkbox"/> 236 OR <input checked="" type="checkbox"/> 365	1000	Yes	Fragment Intensity	> 2.0 e6	≥1.6x 10 ^{e6}

REVIEW:

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

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

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



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

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

Battelle Standard ID	Description	Intermediate Solutions	Battelle Reagent ID (purchased solutions)
KB33	PFAS - DoD Low Level Labelled Extracted Internal Standards (SIS)	JY27	180726-05
KC19	PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)	KB71	180726-05
KB71	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	-	180726-05
KB72	PFAS - DoD Low Level Labelled Extracted Internal Standard (SIS)	KB71	180726-05
JZ88	PFAS - DoD Second Source LCS/MS Solution	-	170724-01
KB83	PFAS - DoD High Level Second Source LCS/MS Solution	-	181001-01
KC02	PFAS - DoD High Level Second Source LCS/MS Solution	-	181001-01
KC03	PFAS - DoD Internal Standard Spiking Solution	JY25	180726-04
KC52	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

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	~50.0000 00	01/17/23	---	---	100 uL	1	10	~0.5000
180618-03	Branched NMeFOSAA Standard (50 µg/mL)	Neat	~50.0000 00	01/17/23	---	---	100 uL	1	10	~0.5000
180618-04	PFOA - Technical Mix	Neat	~50.0000 00	02/16/22	---	---	100 uL	1	10	~0.5000
180618-06	Branched PFHxS Standard (50 µg/mL)	Neat	~50.0000 00	01/04/22	---	---	100 uL	1	10	~0.5000
180618-07	Branched PFOS Standard (50 µg/mL)	Neat	~50.0000 00	01/12/22	---	---	100 uL	1	10	~0.5000

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

Balance ID:	Solvent:	Lot:
Comment:	Methanol (HPLC)	179315

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

It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: JX28

Description: PFAS Branched Standard Stock

Stock Id: 180618-02

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

Stock Id: 180618-03

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

Stock Id: 180618-04

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

Stock Id: 180618-06

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

Stock Id: 180618-07

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

Final Concentrations:

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

Syringes/Pipettes:

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

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

Solution Volume 25 mL X 1 Vials Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107

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

It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: JY23

Description: PFAS - DoD Low ICAL Stock

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

Solution Prepared By: Schultz, Stephanie

Date Prepared: 7/16/2018

Expiration Date: 7/16/2019

Solution Volume 40 mL X 4 Vials

Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107

Balance ID:

Comment: 96/4 Methanol/milli-q water

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

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-butanedisulfonate	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-butanedisulfonate	.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

It can be done

Standard Solution Prep Form II

Approved:

Standard Laboratory ID Number: **JY25**

Description: PFAS - DoD Internal Standard Stock Solution

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

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

Balance ID: _____

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

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



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: JY25

Description: PFAS - DoD Internal Standard Stock Solution

Stock ID: 180726-04

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	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

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	~1.00000 0	02/07/23	---	---	1000 uL	1	20	~0.0500

Solution Prepared By: Schultz, Stephanie

Date Prepared: 7/16/2018

Expiration Date: 7/16/2019

Solution Volume 40 mL X 1 Vials

Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107

Balance ID: _____

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

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



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: JY27

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

Stock Id: 180726-05

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
13C2-4:2FTS	1000	0.94	1	100.000	1	20	0.04675
13C2-6:2FTS	1000	0.95	1	100.000	1	20	0.04745
13C2-8:2FTS	1000	0.96	1	100.000	1	20	0.04790
13C2-PFDoA	1000	1.00	1	100.000	1	20	0.05000
13C2-PFTeDA	1000	1.00	1	100.000	1	20	0.05000
13C3-PFBS	1000	0.93	1	100.000	1	20	0.04645
13C3-PFHxS	1000	0.95	1	100.000	1	20	0.04730
13C4-PFBA	1000	1.00	1	100.000	1	20	0.05000
13C4-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
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Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107
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Comment: 96/4 Methanol/Milli-q water (RP-180803-1)
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Approved By: Schumitz, Denise Date: 8/8/2018 9:17:00 AM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **JZ88**

Description: PFAS - DoD Second Source LCS/MS Solution

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

Solution Prepared By: Schultz, Stephanie	Date Prepared: 8/20/2018	Expiration Date: 8/20/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

Approved By: Thorn, Jonathan Date: 8/21/2018 7:17:00 AM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **JZ88**

Description: PFAS - DoD Second Source LCS/MS Solution

Stock Id: **170724-01**

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	1000	1.01	1	100.000	1	20	0.05050
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-decanesulfonate	1000	1.01	1	100.000	1	20	0.05050
(NA) Perfluoro-1-heptanesulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-nonanesulfonate	1000	1.01	1	100.000	1	20	0.05050
N-ethylperfluoro-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	20	0.05000
N-methylperfluoro-1-octanesulfonamidoacetic acid	1000	1.00	1	100.000	1	20	0.05000
Perfluoro-1-butanefulfonate	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-butanefulfonate	.05050

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

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

Comment: 80/20 Methanol/Milli-q water

Approved By: Thorn, Jonathan Date: 8/21/2018 7:17:00 AM



It can be done

Standard Solution Concentrations Approved:

Standard Laboratory ID Number: JZ88

Description: PFAS - DoD Second Source LCS/MS Solution

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

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
170724-01	Pipette	C0982448K

Solution Prepared By: Schultz, Stephanie	Date Prepared: 8/20/2018	Expiration Date: 8/20/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	
Comment: 80/20 Methanol/Milli-q water		

Approved By: Thorn, Jonathan **Date:** 8/21/2018 7:17:00 AM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB33**

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

Assigned Lab ID (from receipt log)	Chemical Name:	Source	Stock (ug/mL)	Expir. Date	Purity (%)	Density (g/mL)	Amount Taken	Conv. Fact.	Final Vol. (mL)	Std. Conc. (ug/mL)
JY27	PFAS - DoD High Level Labelled Extracted Internal Standards (SIS)	Solution	~0	07/16/19	---	---	2500 uL	1	25	~0.0000

Solution Prepared By	Schultz, Stephanie	Date Prepared:	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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB33**

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

Stock Id: **JY27**

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

Final Concentrations:

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

Solution Prepared By: Schultz, Stephanie Date Prepared: 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



It can be done

Standard Solution Concentrations Approved:

Standard Laboratory ID Number: KB33

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

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

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY27	Pipette	OU16914

Solution Prepared By: Schultz, Stephanie	Date Prepared: 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



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	~1.00000 0	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



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-butanedisulfonate	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-butanedisulfonate	.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



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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB71**

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

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

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

Balance ID: _____

Comment: 96/4 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB71**

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

Stock Id: **180726-05**

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

Final Concentrations:

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

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

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

Comment: 96/4 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations Approved:

Standard Laboratory ID Number: KB71

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

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

Syringes/Pipettes:

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

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/1/2018	Expiration Date: 10/1/2019
Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107	
Comment: 96/4 Methanol/Milli-q water		

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB72**

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

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

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

Balance ID: _____

Comment: 96/4 Methanol/milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB72**

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

Stock Id: **KB71**

Chemical Name	Stock Amount 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



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB72

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

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

Syringes/Pipettes:

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

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

Comment: 96/4 Methanol/milli-q water

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB73**

Description: PFAS - DoD Calibration L1

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

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

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB73**

Description: PFAS - DoD Calibration L1

Stock Id: **JY23**

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

Stock Id: **JY25**

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

Stock Id: **KB71**

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

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

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

Comment: 80/20 Methanol/milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB73**

Description: PFAS - DoD Calibration L1

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-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



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-butanefulfonate	.00010
Perfluoro-1-hexanesulfonate	.00010
Perfluoro-1-octanesulfonamide	.00010
Perfluoro-1-octanesulfonate	.00010
Perfluoro-n-butyanoic Acid	.00010
Perfluoro-n-decanoic Acid	.00010
Perfluoro-n-dodecanoic acid	.00010
Perfluoro-n-heptanoic Acid	.00010
Perfluoro-n-hexanoic acid	.00010
Perfluoro-n-octanoic Acid	.00010
Perfluorononanoic Acid	.00010
Perfluoro-n-pentanoic acid	.00010
Perfluoro-n-tetradecanoic acid	.00010
Perfluoro-n-tridecanoic acid	.00010
Perfluoro-n-undecanoic acid	.00010
Sodium perfluoro-1-pentanesulfonate	.00010

Syringes/Pipettes:

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

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

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

Comment: 80/20 Methanol/milli-q water

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB74**

Description: PFAS - DoD Calibration L2

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

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

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB74**

Description: PFAS - DoD Calibration L2

Stock Id: **JY23**

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

Stock Id: **JY25**

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

Stock Id: **KB71**

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

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

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

Comment: 80/20 Methanol/milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB74**

Description: PFAS - DoD Calibration L2

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-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



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-butanefulfonate	.00025
Perfluoro-1-hexanesulfonate	.00025
Perfluoro-1-octanesulfonamide	.00025
Perfluoro-1-octanesulfonate	.00025
Perfluoro-n-butanefulfonate	.00025
Perfluoro-n-decanoic Acid	.00025
Perfluoro-n-dodecanoic acid	.00025
Perfluoro-n-heptanoic Acid	.00025
Perfluoro-n-hexanoic acid	.00025
Perfluoro-n-octanoic Acid	.00025
Perfluorononanoic Acid	.00025
Perfluoro-n-pentanoic acid	.00025
Perfluoro-n-tetradecanoic acid	.00025
Perfluoro-n-tridecanoic acid	.00025
Perfluoro-n-undecanoic acid	.00025
Sodium perfluoro-1-pentanesulfonate	.00025

Syringes/Pipettes:

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

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

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

Comment: 80/20 Methanol/milli-q water

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB75**

Description: PFAS - DoD Calibration L3

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

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

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB75**

Description: PFAS - DoD Calibration L3

Stock Id: JY25

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

Stock Id: KB70

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

Stock Id: KB71

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

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

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

Comment: 80/20 Methanol/milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB75**

Description: PFAS - DoD Calibration L3

13C2-6:2FTS	50	0.05	---	---	1	10	0.00024
13C2-8:2FTS	50	0.05	---	---	1	10	0.00024
13C2-PFDoA	50	0.05	---	---	1	10	0.00025
13C2-PFTeDA	50	0.05	---	---	1	10	0.00025
13C3-PFBS	50	0.05	---	---	1	10	0.00023
13C3-PFHxS	50	0.05	---	---	1	10	0.00024
13C4-PFBA	50	0.05	---	---	1	10	0.00025
13C4-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



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-butanefulfonate	.00051
Perfluoro-1-hexanesulfonate	.00051
Perfluoro-1-octanesulfonamide	.00050
Perfluoro-1-octanesulfonate	.00050
Perfluoro-n-butyanoic Acid	.00050
Perfluoro-n-decanoic Acid	.00050
Perfluoro-n-dodecanoic acid	.00050
Perfluoro-n-heptanoic Acid	.00050
Perfluoro-n-hexanoic acid	.00051
Perfluoro-n-octanoic Acid	.00050
Perfluorononanoic Acid	.00050
Perfluoro-n-pentanoic acid	.00051
Perfluoro-n-tetradecanoic acid	.00050
Perfluoro-n-tridecanoic acid	.00050
Perfluoro-n-undecanoic acid	.00050
Sodium perfluoro-1-pentanesulfonate	.00050

Syringes/Pipettes:

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

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

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

Comment: 80/20 Methanol/milli-q water

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB76**

Description: PFAS - DoD Calibration L4

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

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

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB76**

Description: PFAS - DoD Calibration L4

Stock Id: JY25

Chemical Name	Stock Amount 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-butanedisulfonate	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



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



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-butanefulfonate	.00101
Perfluoro-1-hexanesulfonate	.00101
Perfluoro-1-octanesulfonamide	.00100
Perfluoro-1-octanesulfonate	.00100
Perfluoro-n-butyric Acid	.00100
Perfluoro-n-decanoic Acid	.00100
Perfluoro-n-dodecanoic acid	.00100
Perfluoro-n-heptanoic Acid	.00100
Perfluoro-n-hexanoic acid	.00101
Perfluoro-n-octanoic Acid	.00100
Perfluorononanoic Acid	.00100
Perfluoro-n-pentanoic acid	.00101
Perfluoro-n-tetradecanoic acid	.00100
Perfluoro-n-tridecanoic acid	.00100
Perfluoro-n-undecanoic acid	.00100
Sodium perfluoro-1-pentanesulfonate	.00100

Syringes/Pipettes:

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

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

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

Comment: 80/20 Methanol/milli-q water

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB77**

Description: PFAS - DoD Calibration L5

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

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

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB77**

Description: PFAS - DoD Calibration L5

Stock Id: JY25

Chemical Name	Stock Amount 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-butanedisulfonate	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



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



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-butanefulfonate	.00253
Perfluoro-1-hexanesulfonate	.00253
Perfluoro-1-octanesulfonamide	.00250
Perfluoro-1-octanesulfonate	.00250
Perfluoro-n-butanefulfonate	.00250
Perfluoro-n-decanoic Acid	.00250
Perfluoro-n-dodecanoic acid	.00250
Perfluoro-n-heptanoic Acid	.00250
Perfluoro-n-hexanoic acid	.00253
Perfluoro-n-octanoic Acid	.00250
Perfluorononanoic Acid	.00250
Perfluoro-n-pentanoic acid	.00253
Perfluoro-n-tetradecanoic acid	.00250
Perfluoro-n-tridecanoic acid	.00250
Perfluoro-n-undecanoic acid	.00250
Sodium perfluoro-1-pentanesulfonate	.00250

Syringes/Pipettes:

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

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

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

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB78**

Description: PFAS - DoD Calibraiton L6

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

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

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB78**

Description: PFAS - DoD 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-butanefulfonate	2000	0.05	---	---	1	10	0.01010
Perfluoro-1-hexanesulfonate	2000	0.05	---	---	1	10	0.01010
Perfluoro-1-octanesulfonamide	2000	0.05	---	---	1	10	0.01000
Perfluoro-1-octanesulfonate	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-butanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-decanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-dodecanoic acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-heptanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-hexanoic acid	2000	0.05	---	---	1	10	0.01010
Perfluoro-n-octanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluorononanoic Acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-pentanoic acid	2000	0.05	---	---	1	10	0.01010
Perfluoro-n-tetradecanoic acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-tridecanoic acid	2000	0.05	---	---	1	10	0.01000
Perfluoro-n-undecanoic acid	2000	0.05	---	---	1	10	0.01000
Sodium perfluoro-1-pentanesulfonate	2000	0.05	---	---	1	10	0.01000

Stock Id: KB71

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

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

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

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB78**

Description: PFAS - DoD 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



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB78

Description: PFAS - DoD Calibraton 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-butanefulfonate	.01010
Perfluoro-1-hexanesulfonate	.01010
Perfluoro-1-octanesulfonamide	.01000
Perfluoro-1-octanesulfonate	.01000
Perfluoro-n-butanefulfonate	.01000
Perfluoro-n-decanoic Acid	.01000
Perfluoro-n-dodecanoic acid	.01000
Perfluoro-n-heptanoic Acid	.01000
Perfluoro-n-hexanoic acid	.01010
Perfluoro-n-octanoic Acid	.01000
Perfluorononanoic Acid	.01000
Perfluoro-n-pentanoic acid	.01010
Perfluoro-n-tetradecanoic acid	.01000
Perfluoro-n-tridecanoic acid	.01000
Perfluoro-n-undecanoic acid	.01000
Sodium perfluoro-1-pentanesulfonate	.01000

Syringes/Pipettes:

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

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

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

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB79**

Description: PFAS - DoD Calibration L7

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

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

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB79**

Description: PFAS - DoD Calibration L7

Stock Id: JY25

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

Stock Id: KB70

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

Stock Id: KB71

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

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

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

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB79**

Description: PFAS - DoD Calibration L7

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

Final Concentrations:

Analyte:	Conc (ug/mL):
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	.02020
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	.02020
(Na) 1H,1H,2H,2H-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



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-butanefulfonate	.02020
Perfluoro-1-hexanesulfonate	.02020
Perfluoro-1-octanesulfonamide	.02000
Perfluoro-1-octanesulfonate	.02000
Perfluoro-n-butanefulfonic Acid	.02000
Perfluoro-n-decanefulfonic Acid	.02000
Perfluoro-n-dodecanefulfonic acid	.02000
Perfluoro-n-heptanefulfonic Acid	.02000
Perfluoro-n-hexanefulfonic acid	.02020
Perfluoro-n-octanefulfonic Acid	.02000
Perfluorononanefulfonic Acid	.02000
Perfluoro-n-pentanefulfonic acid	.02020
Perfluoro-n-tetradecanefulfonic acid	.02000
Perfluoro-n-tridecanefulfonic acid	.02000
Perfluoro-n-undecanefulfonic acid	.02000
Sodium perfluoro-1-pentanesulfonate	.02000

Syringes/Pipettes:

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

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

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

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB80**

Description: PFAS - DoD Instrument Blank

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

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

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB80**

Description: PFAS - DoD Instrument Blank

Stock Id: **JY25**

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

Stock Id: **KB71**

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

Final Concentrations:

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

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

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

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB80

Description: PFAS - DoD Instrument Blank

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB81**

Description: PFAS - DoD ICC

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

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

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB81**

Description: PFAS - DoD ICC

Stock Id: JY25

Chemical Name	Stock 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



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-butanedisulfonate	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-decanedisulfonate	.00101
(NA) Perfluoro-1-heptanedisulfonate	.00100
(Na) Perfluoro-1-nonanedisulfonate	.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



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-butanefulfonate	.00101
Perfluoro-1-hexanesulfonate	.00101
Perfluoro-1-octanesulfonamide	.00100
Perfluoro-1-octanesulfonate	.00100
Perfluoro-n-butanefulfonic Acid	.00100
Perfluoro-n-decanefulfonic Acid	.00100
Perfluoro-n-dodecanefulfonic acid	.00100
Perfluoro-n-heptanefulfonic Acid	.00100
Perfluoro-n-hexanefulfonic acid	.00101
Perfluoro-n-octanefulfonic Acid	.00100
Perfluorononanefulfonic Acid	.00100
Perfluoro-n-pentanefulfonic acid	.00100
Perfluoro-n-tetradecanefulfonic acid	.00100
Perfluoro-n-tridecanefulfonic acid	.00100
Perfluoro-n-undecanefulfonic acid	.00100
Sodium perfluoro-1-pentanesulfonate	.00100

Syringes/Pipettes:

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

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

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

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB82**

Description: PFAS - DoD Second Source LCS/MS Solution

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

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

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB82**

Description: PFAS - DoD Second Source LCS/MS Solution

Stock Id: **170724-01**

Chemical Name	Stock Amount uL	Initial Conc. (ug/mL)	Density (g/mL)	Purity	Conv. Factor	Final Vol mL	Concentration (ug/mL)
(Na) 1H,1H,2H,2H-Perfluorodecane sulfonate	1000	1.01	1	100.000	1	20	0.05050
(Na) 1H,1H,2H,2H-Perfluorohexane sulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) 1H,1H,2H,2H-Perfluorooctane sulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-decanesulfonate	1000	1.01	1	100.000	1	20	0.05050
(NA) Perfluoro-1-heptanesulfonate	1000	1.00	1	100.000	1	20	0.05000
(Na) Perfluoro-1-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-butanefulfonate	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-butanefulfonate	.05050

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

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

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB82

Description: PFAS - DoD Second Source LCS/MS Solution

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

Syringes/Pipettes:

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

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

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

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB83**

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

Stock Id: **181001-01**

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-butanedisulfonate	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-1-hexanesulfonate	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-1-octanesulfonamide	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-1-octanesulfonate	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-butanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-decanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-dodecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-heptanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-hexanoic acid	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-n-octanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluorononanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-pentanoic acid	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-n-tetradecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-tridecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-undecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Sodium perfluoro-1-pentanesulfonate	1000	1.00	1	100.000	1	5	0.20000

Final Concentrations:

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

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: _____ Date: _____



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KB83

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

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

Syringes/Pipettes:

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

Solution Prepared By: 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: _____ **Date:** _____



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB83**

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

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

Solution Prepared By	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: _____ Date: _____



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KB89**

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

Stock Id: **JX28**

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

Final Concentrations:

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

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JX28	Pipette	B814659662

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

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

Comment: 80/20 Methanol/milli-q water

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KB89**

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

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

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

Balance ID: _____

Comment: 80/20 Methanol/milli-q water

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC02**

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

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

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

Balance ID: _____

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC02**

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

Stock Id: **181001-01**

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-butanefulfonate	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-1-hexanesulfonate	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-1-octanesulfonamide	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-1-octanesulfonate	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-butanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-decanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-dodecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-heptanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-hexanoic acid	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-n-octanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluorononanoic Acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-pentanoic acid	1000	1.01	1	100.000	1	5	0.20200
Perfluoro-n-tetradecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-tridecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Perfluoro-n-undecanoic acid	1000	1.00	1	100.000	1	5	0.20000
Sodium perfluoro-1-pentanesulfonate	1000	1.00	1	100.000	1	5	0.20000

Final Concentrations:

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

Solution Prepared By: Schumitz, Denise Date Prepared: 10/8/2018 Expiration Date: 10/8/2019

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

Comment: 80/20 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC02**

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

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

Syringes/Pipettes:

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

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

Comment: 80/20 Methanol/Milli-q water
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Approved By: Schumitz, Denise **Date:** 10/8/2018 11:44:00 AM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC03**

Description: PFAS - DoD Internal Standard Spiking Solution

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

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

Balance ID: _____

Comment: 96/4 Methanol/Milli-q water

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



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC03**

Description: PFAS - DoD Internal Standard Spiking Solution

Stock Id: **JY25**

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

Final Concentrations:

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

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
JY25	Pipette	OU16914

Solution Prepared By: Schultz, Stephanie	Date Prepared: 10/9/2018	Expiration Date: 7/16/2019
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Solution Volume 40 mL X 1 Vials	Refrigerator/Freezer No: LC Laboratory: Refrigerator - R0107
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Comment: 96/4 Methanol/Milli-q water

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



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC19**

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: 10/16/2018	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: 10/18/2018 11:55:00 AM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC19**

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: 10/16/2018 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: 10/18/2018 11:55:00 AM



It can be done

Standard Solution Concentrations

Approved:

Standard Laboratory ID Number: KC19

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

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

Syringes/Pipettes:

Stock ID:	Type:	Battelle ID:
KB71	Pipette	OU16914

Solution Prepared By: Schultz, Stephanie **Date Prepared:** 10/16/2018 **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:** 10/18/2018 11:55:00 AM



It can be done

Standard Solution Prep Form II

Approved: Standard Laboratory ID Number: **KC52**

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: 10/19/2018	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: 10/23/2018 8:56:00 AM



It can be done

Standard Solution Concentrations

Approved: Standard Laboratory ID Number: **KC52**

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: 10/19/2018 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: 10/23/2018 8:56:00 AM



It can be done

BDO Id: 170724-01

Reagent Receipt Report

 Approved: Authorized

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

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

Total Analytes: 24

Notes:

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



CERTIFIED WEIGHT REPORT

170784-01

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

<i>Paul Barron</i>		032217
Formulated By:	Paul Barron	DATE
<i>Pedro L. Rentas</i>		032217
Reviewed By:	Pedro L. Rentas	DATE

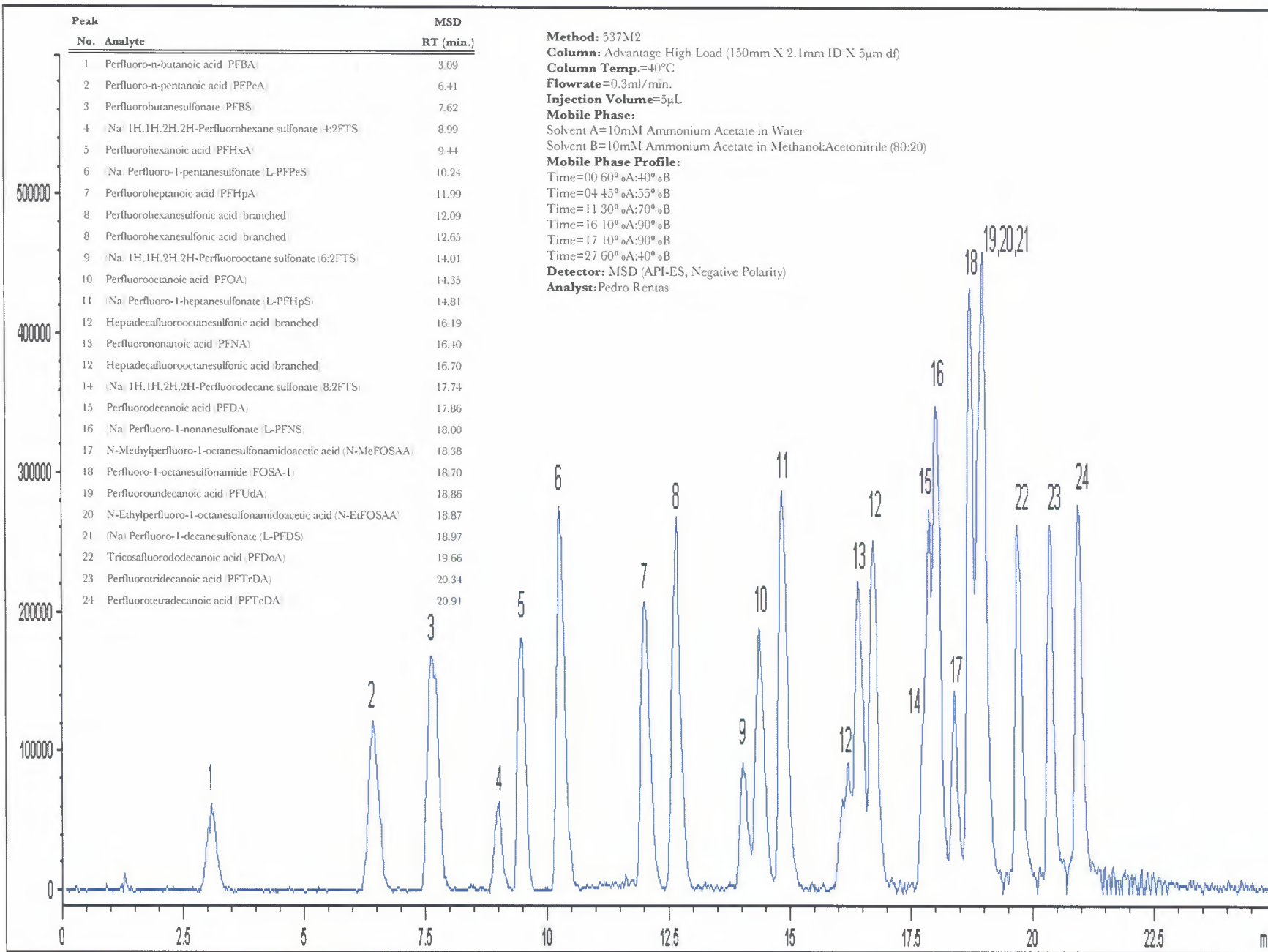
Volume(s) shown below were combined and diluted to (mL):

50.0 5E-05 Balance Uncertainty
0.007 Flask Uncertainty

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	ori-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	NEFOSAA0117	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	LFPFeS0117	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. Heptafluorooctanesulfonic 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 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).



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 μ g/mL)

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

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

18 0618-02



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-NEtFOSAA

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

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

DESCRIPTION:

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

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

INTENDED USE:

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

HANDLING:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

x_1, x_2, \dots, x_n on which it depends is:

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

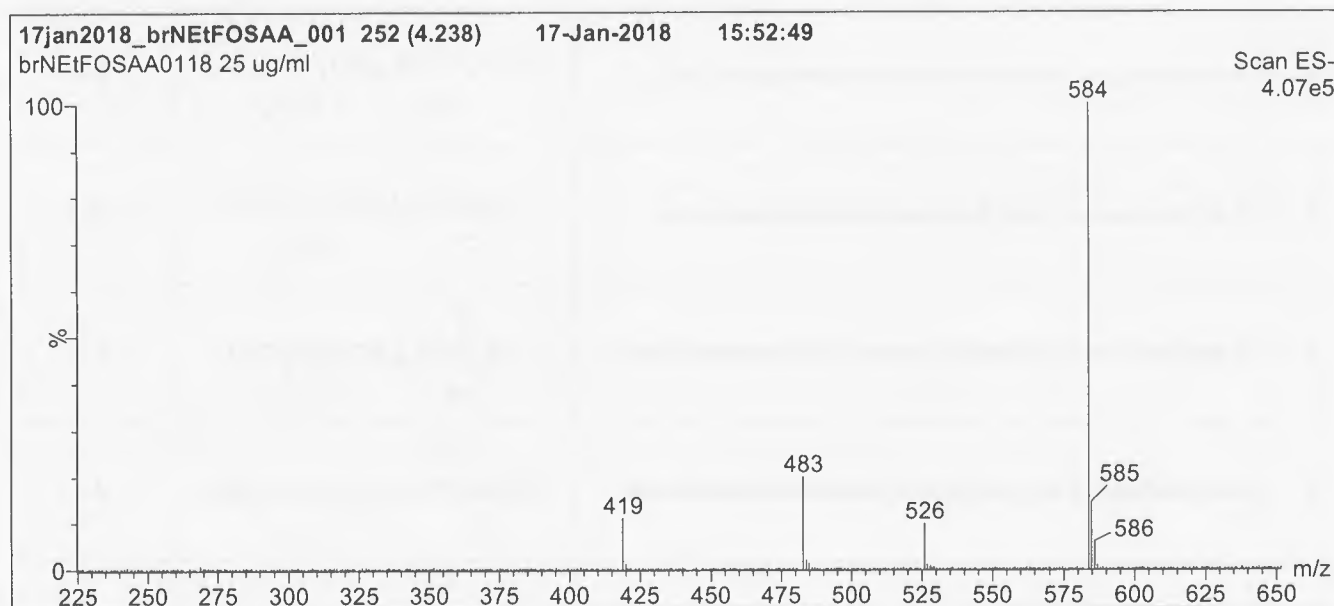
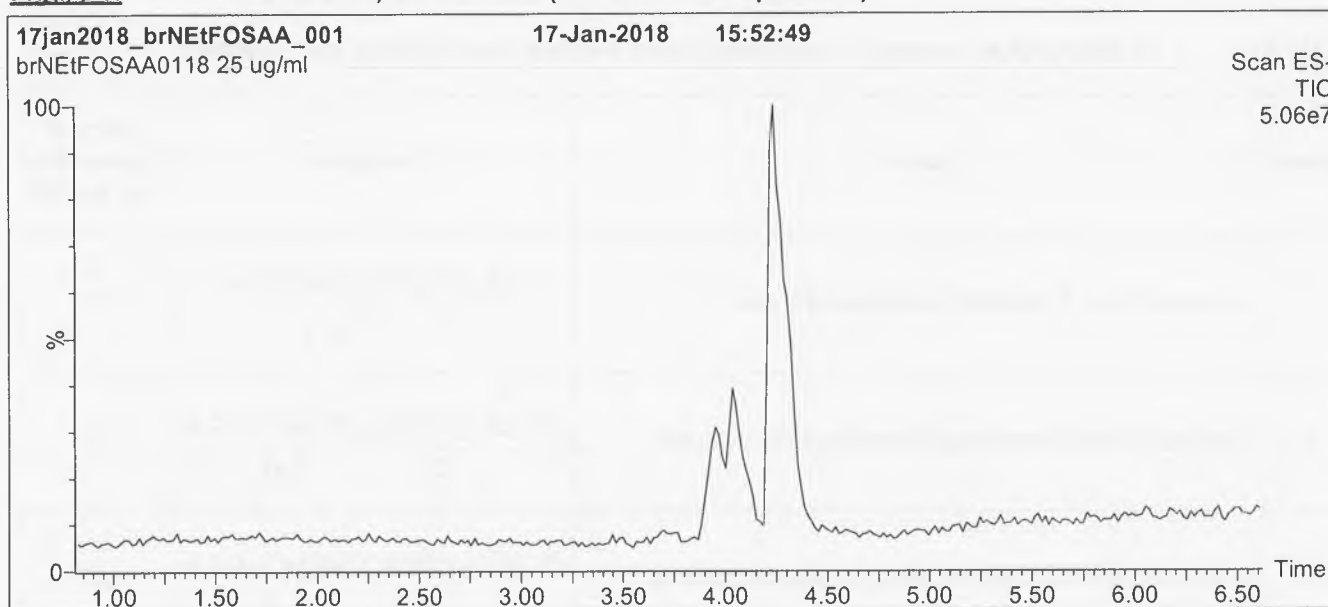
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

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



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

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 RP₁₈,
1.7 μ m, 2.1 x 100 mm

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

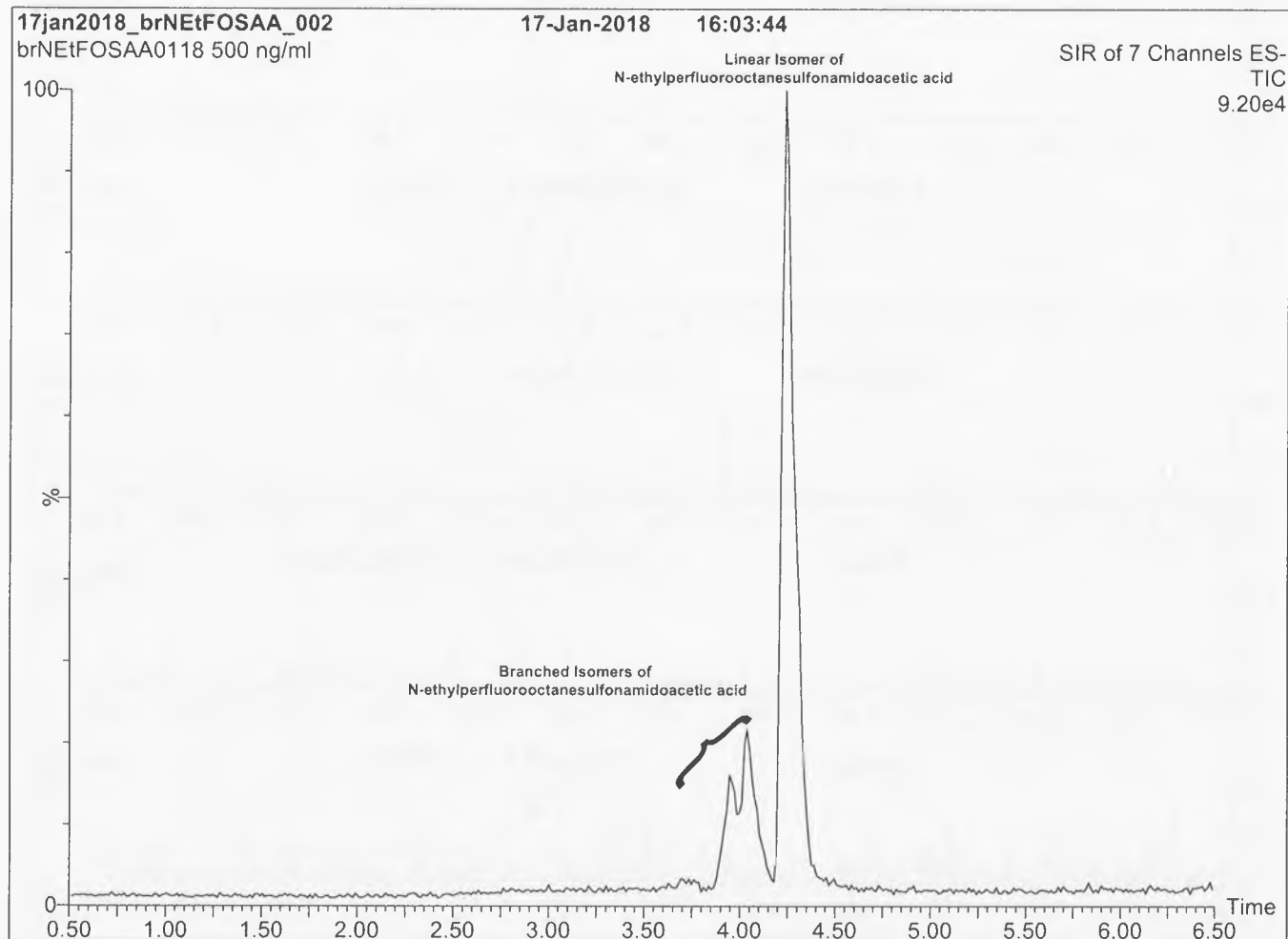
Time: 10 min

Flow: 300 μ l/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

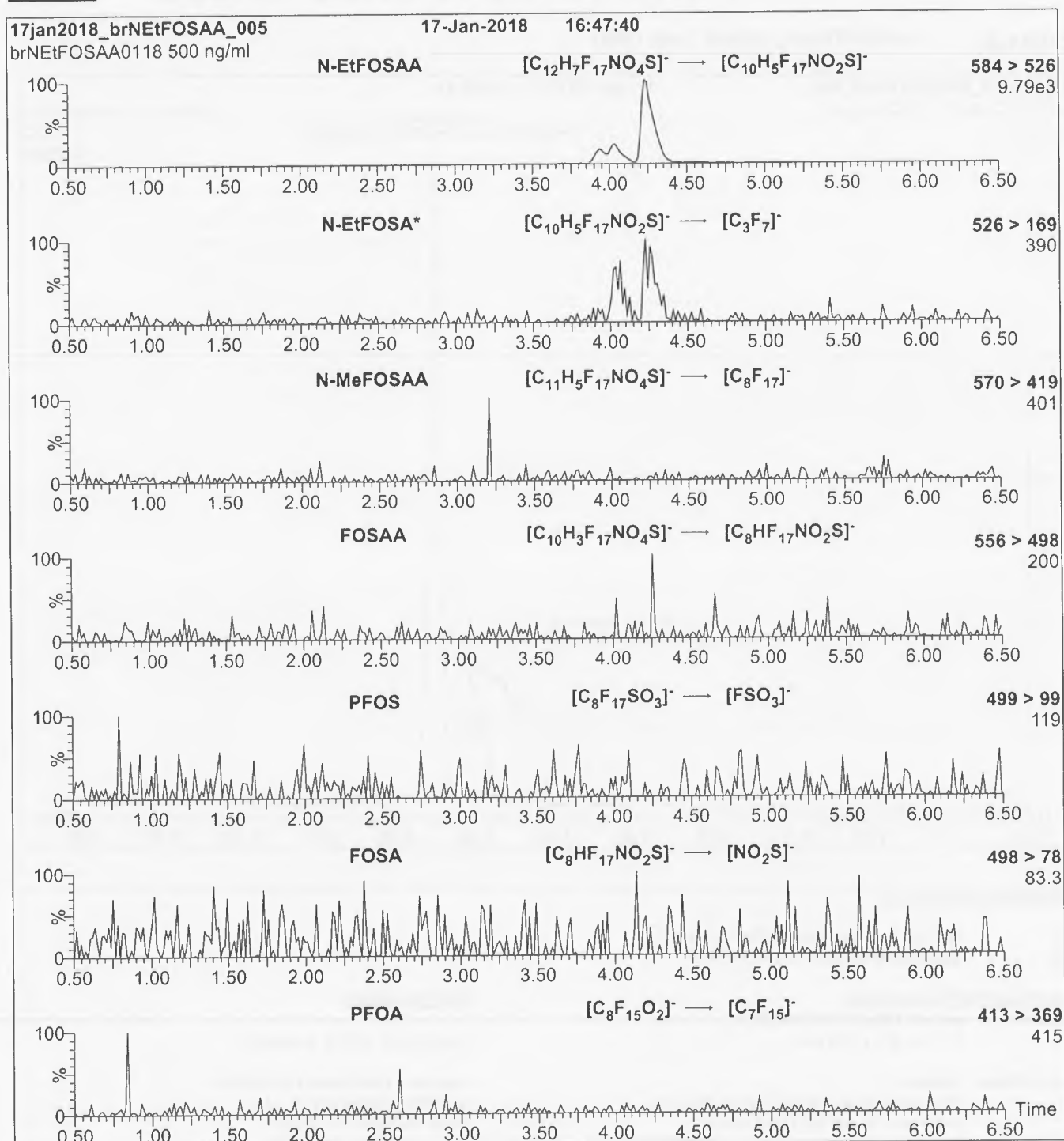
Figure 2: br-NEtFOSAA; LC/MS Data (SIR)**Conditions for Figure 2:****LC:** Waters Acquity Ultra Performance LC**MS:** Micromass Quattro *micro* API MS**Chromatographic Conditions**Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mmMobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.

Time: 10 min

Flow: 300 μ l/min**MS Parameters**

Experiment: SIR (7 channels)

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

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

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

Conditions for Figure 3:

Injection: On-column

MS Parameters

Mobile phase: Same as Figure 2

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

Flow: 300 μ l/min

BATTELLE

It can be done

BDO Id: 180618-03**Reagent Receipt Report**Approved: Authorized:

Name: Branched NMeFOSAA Standard (50
 Vendor: Wellington Laboratories
 Catalogue No: brNMeFOSAA
 Type: Solution
 Lot No: brNMeFOSAA0118
 Quantity: 1 ea mL % Moisture: 0
 Description: Branched NMeFOSAA Standard (50 µg/mL)

Received: 6/18/2018
 Custodian: Thorn, Jonathan
 Expires: 1/17/2023
 Consumed: _____
 Stored In: Sample Preparation - C0103

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

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

180618-03

**WELLINGTON**
LABORATORIES**CERTIFICATE OF ANALYSIS**
DOCUMENTATION**br-NMeFOSAA****N-Methylperfluorooctanesulfonamidoacetic
Acid Solution/Mixture of Linear and
Branched Isomers**

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 ¹⁹F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

INTENDED USE:

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

HANDLING:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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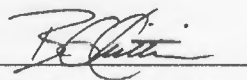


For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

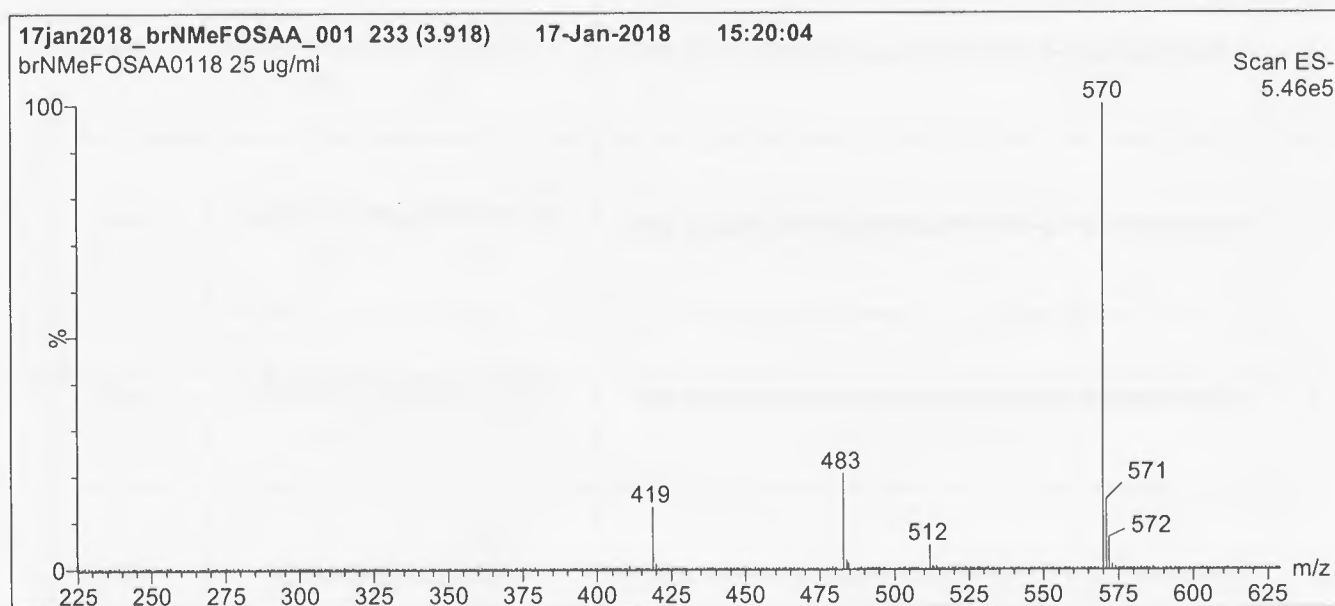
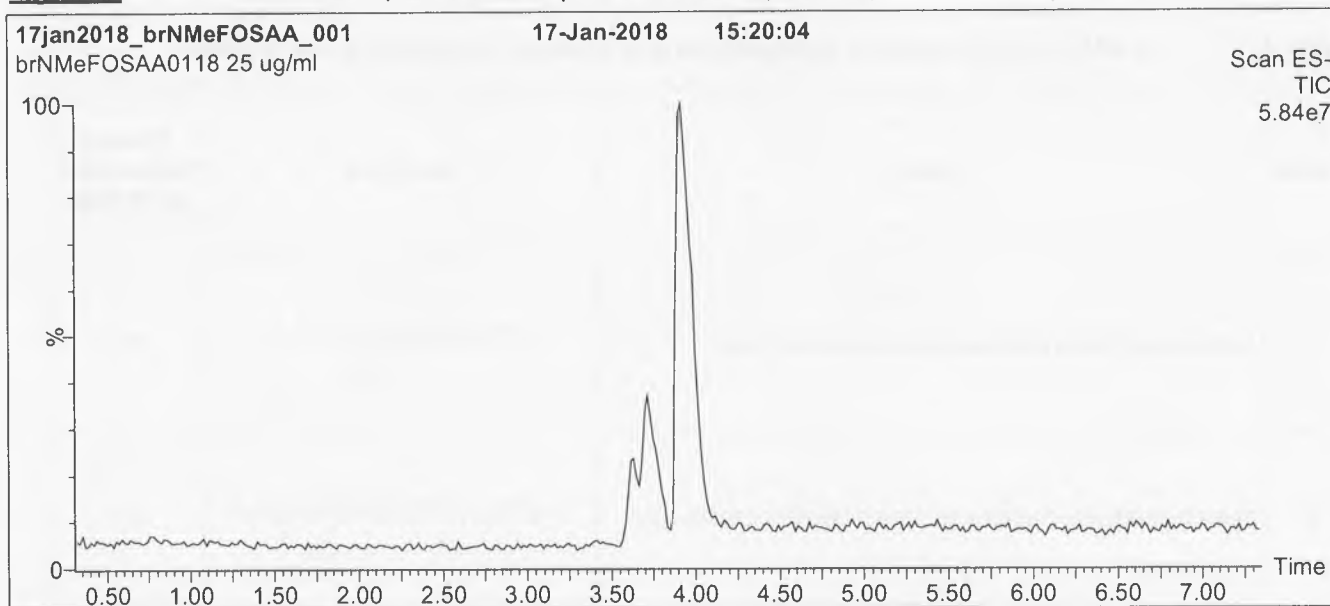
Table A: br-NMeFOSAA; Isomeric Components and Percent Composition (by ¹⁹F-NMR)*

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

* Percent of total N-methylperfluorooctanesulfonamidoacetic acid isomers only.

Certified By: 
B.G. Chittim, General Manager

Date: 03/22/2018
(mm/dd/yyyy)

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

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

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
1.7 μ m, 2.1 x 100 mm

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

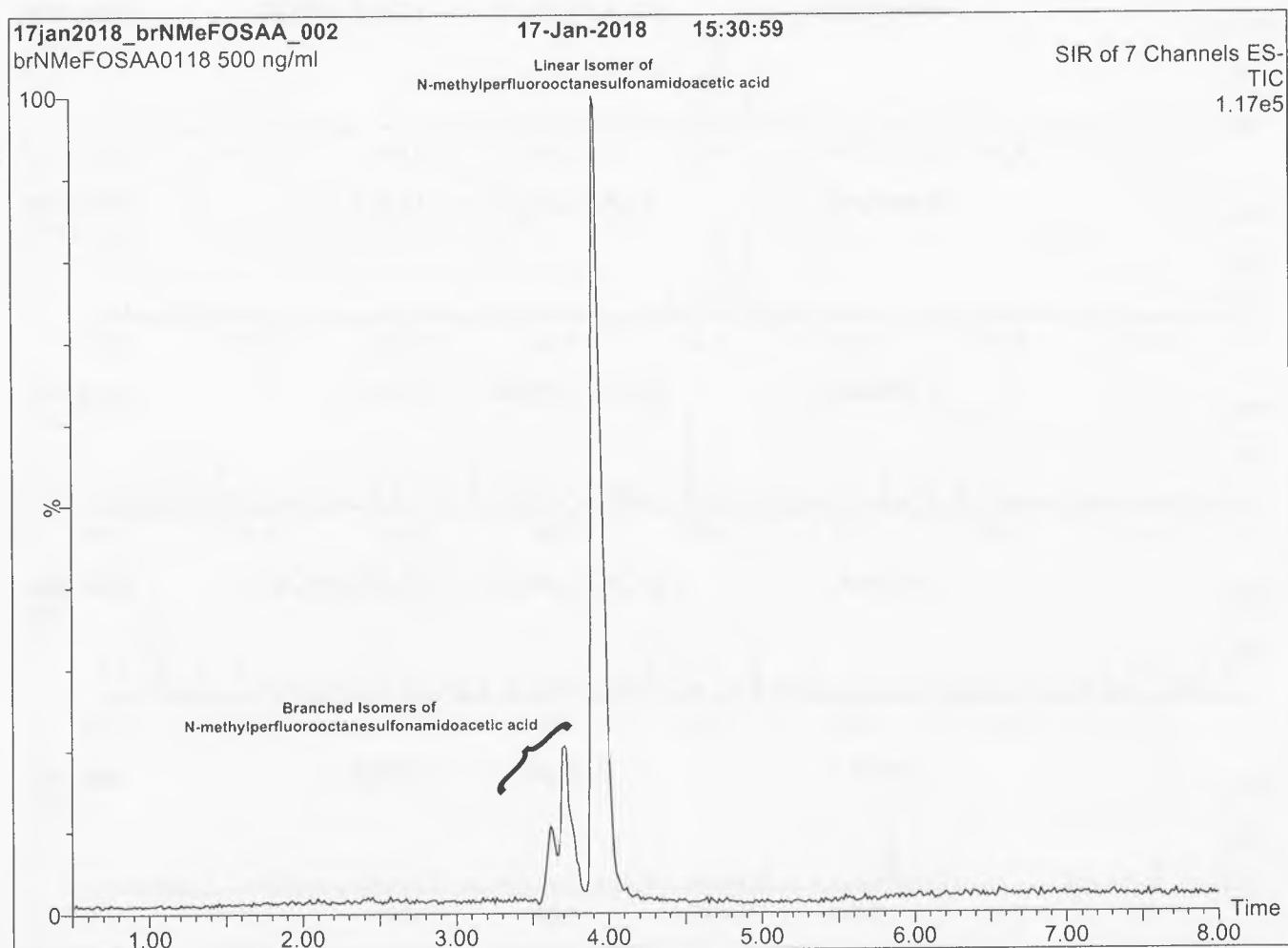
Time: 10 min

Flow: 300 μ l/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 RP₁₈
1.7 μ m, 2.1 x 100 mm

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

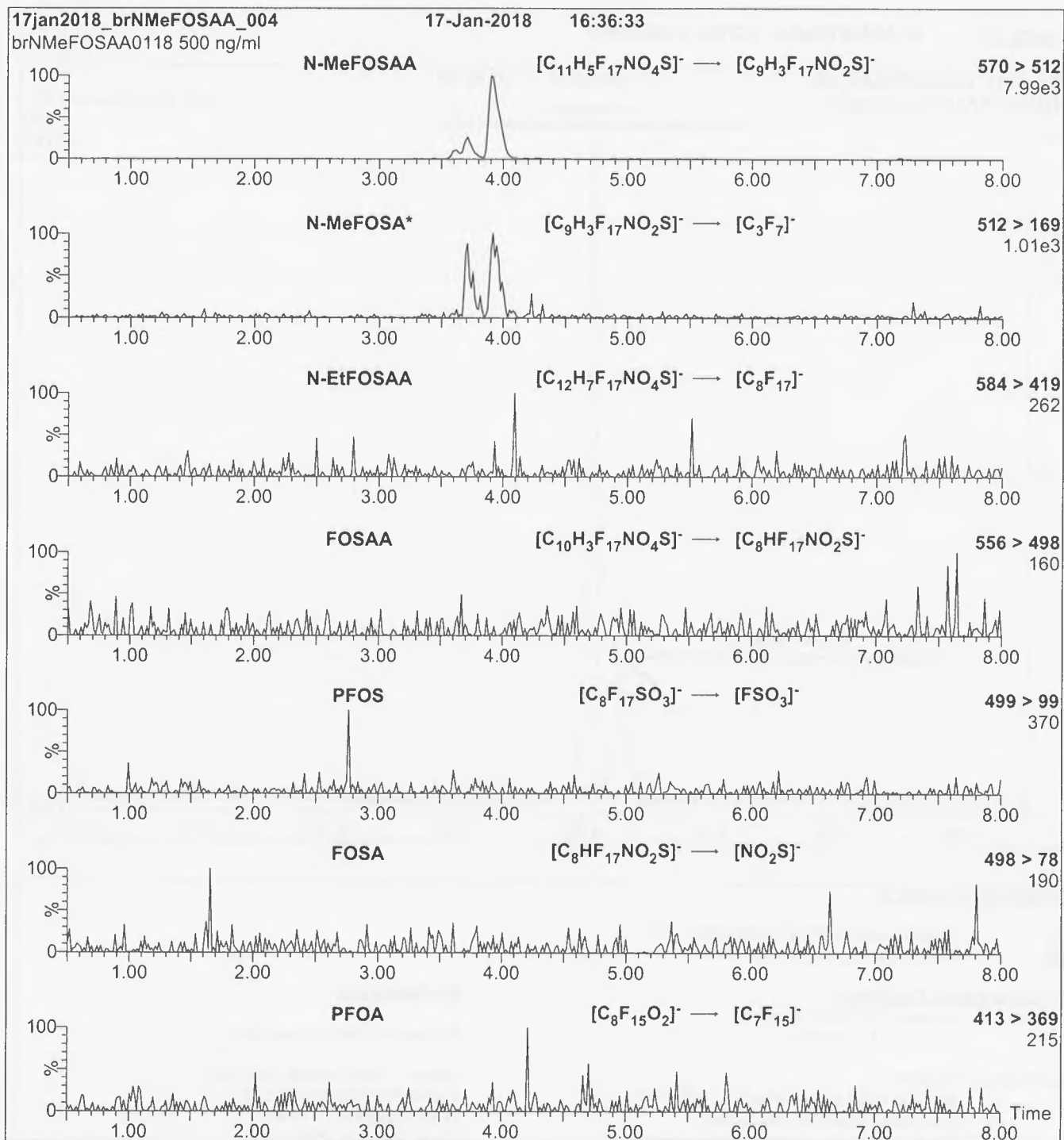
MS Parameters

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

Time: 10 min

Flow: 300 μ l/min

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

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

Conditions for Figure 3:

Injection: On-column

MS Parameters

Mobile phase: Same as Figure 2

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

Flow: 300 μ l/min

BATTELLE

It can be done

BDO Id: 180618-04**Reagent Receipt Report**Approved: Authorized:

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

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

Approved by:	<u></u>	Approved on:	<u></u>
Authorized by:	<u></u>	Authorized on:	<u></u>

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: $50 \pm 2.5 \mu\text{g/ml}$ (gravimetric)
CHEMICAL PURITY: Technical material
SOLVENT(S): Methanol/Water (<1%)
LAST TESTED: (mm/dd/yyyy) 02/16/2017
EXPIRY DATE: (mm/dd/yyyy) 02/16/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____

B.G. Chittim

Date: 02/22/2017

(mm/dd/yyyy)

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

INTENDED USE:

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

HAZARDS:

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

CHARACTERIZATION / HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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



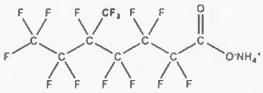
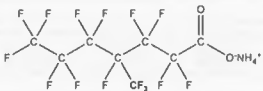
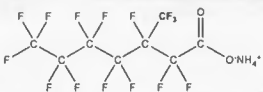
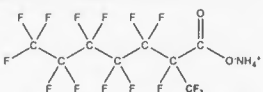
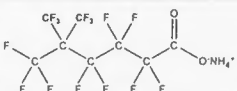
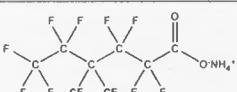
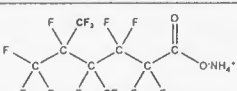
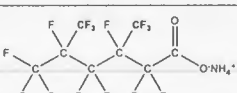
QUALITY MANAGEMENT:

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



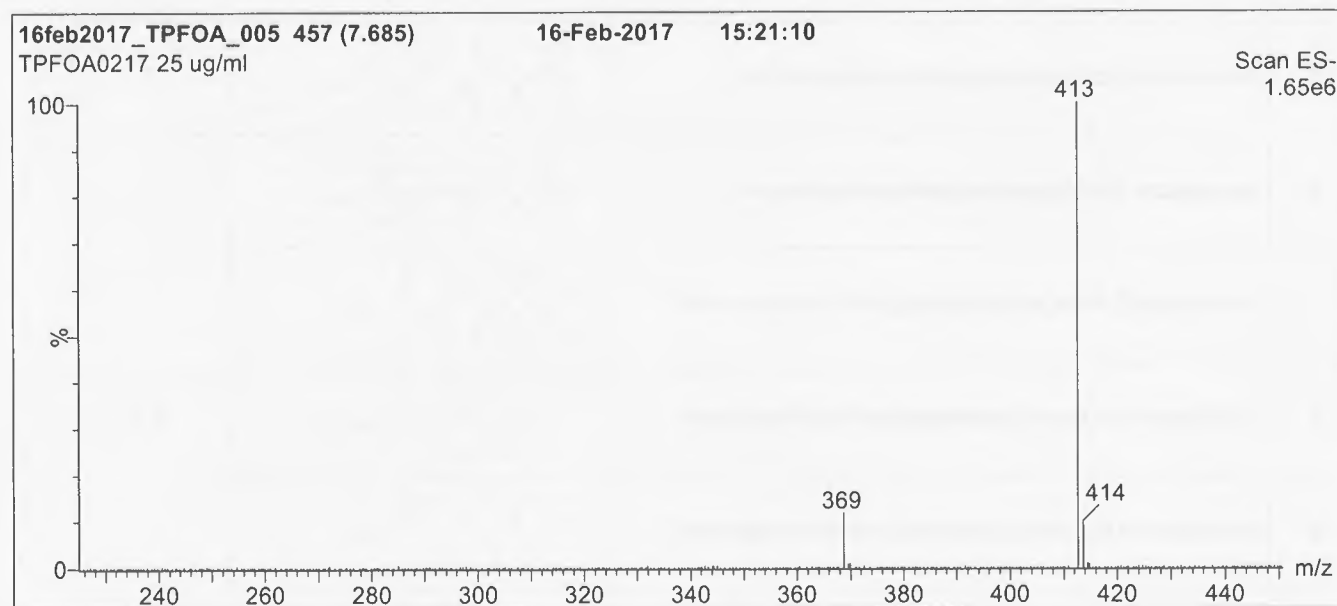
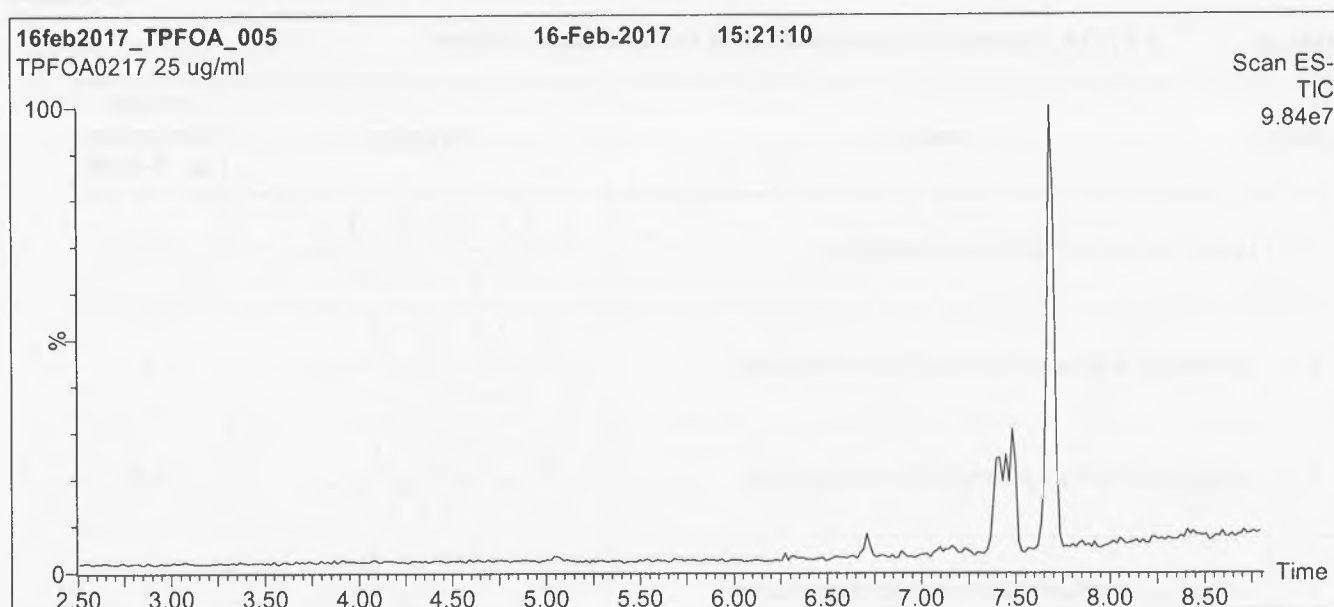
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

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

Isomer	Name	Structure	Percent Composition by ¹⁹ 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 ¹⁹F-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 μ m, 4.6 x 100 mm

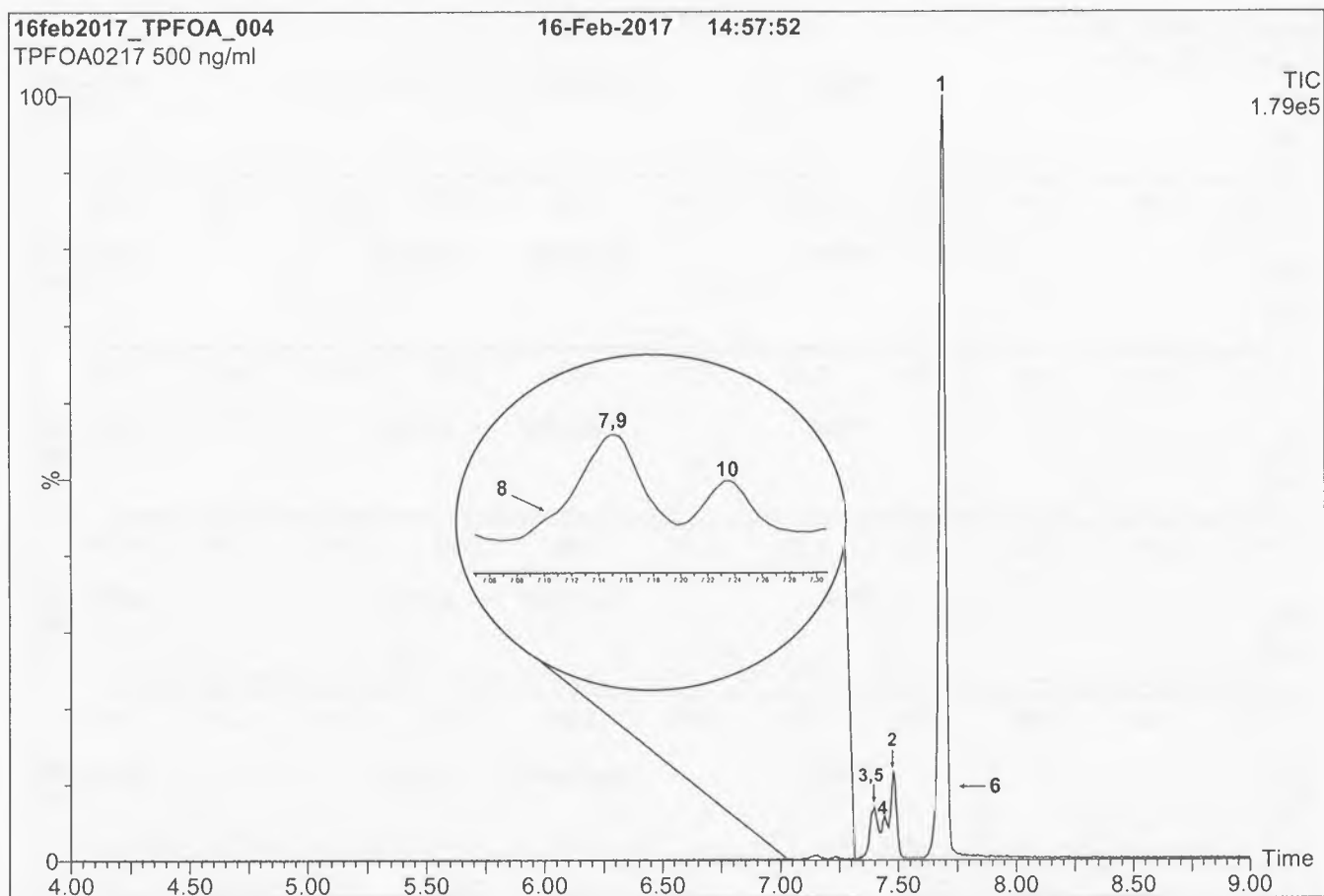
Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 50% organic over 5 min. Ramp to
90% organic over 5 min and hold for 1.5 min.
Return to initial conditions over 0.5 min.
Time: 13 min

Flow: 1.0 ml/min

MS Parameters:

Experiment: Full Scan (225 - 850 amu)

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

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

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

Chromatographic Conditions:

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

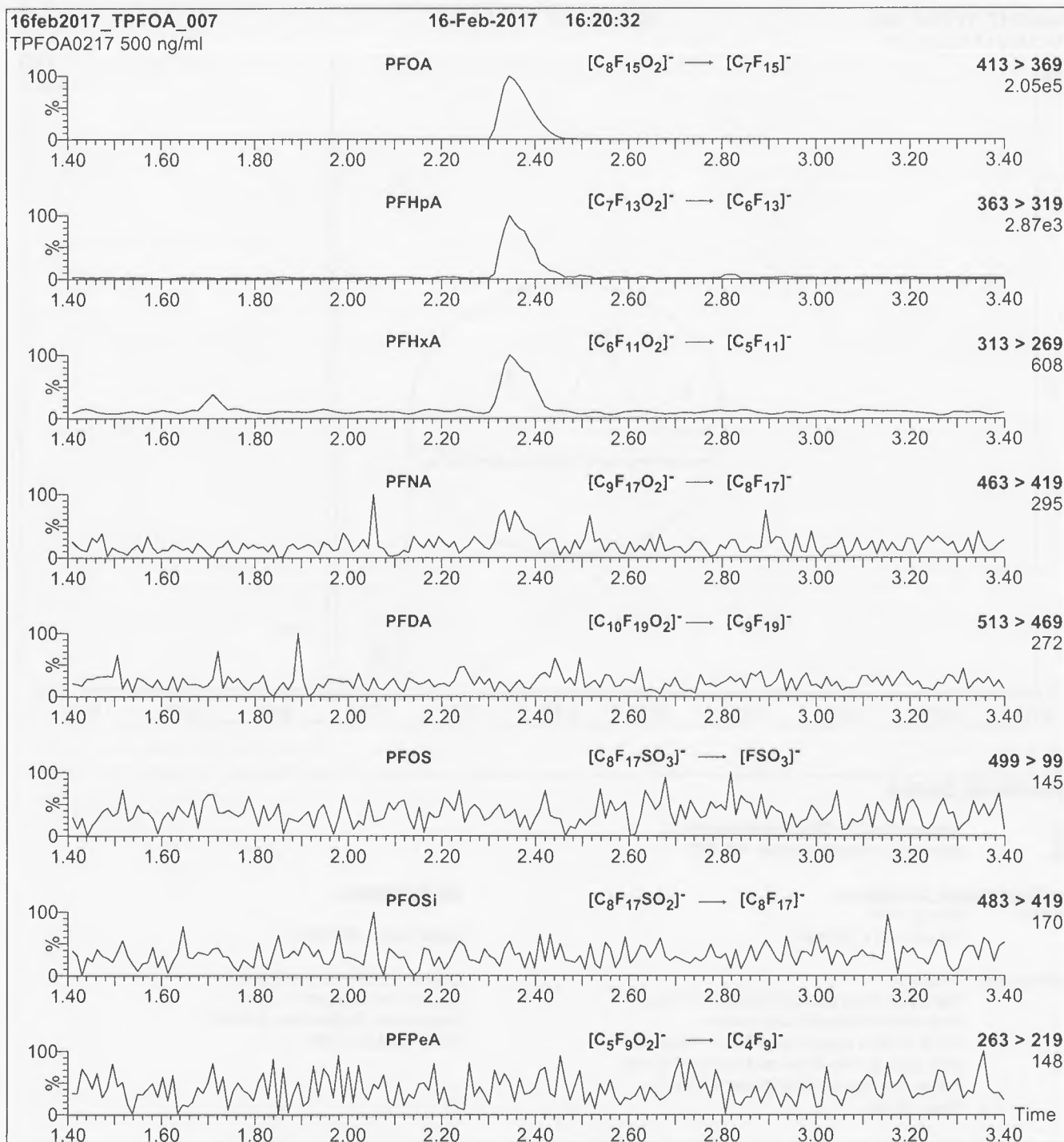
Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 50% organic over 5 min. Ramp to
90% organic over 5 min and hold for 1.5 min.
Return to initial conditions over 0.5 min.
Time: 13 min

Flow: 1.0 ml/min

MS Parameters:

Experiment: SIR (ES)

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

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

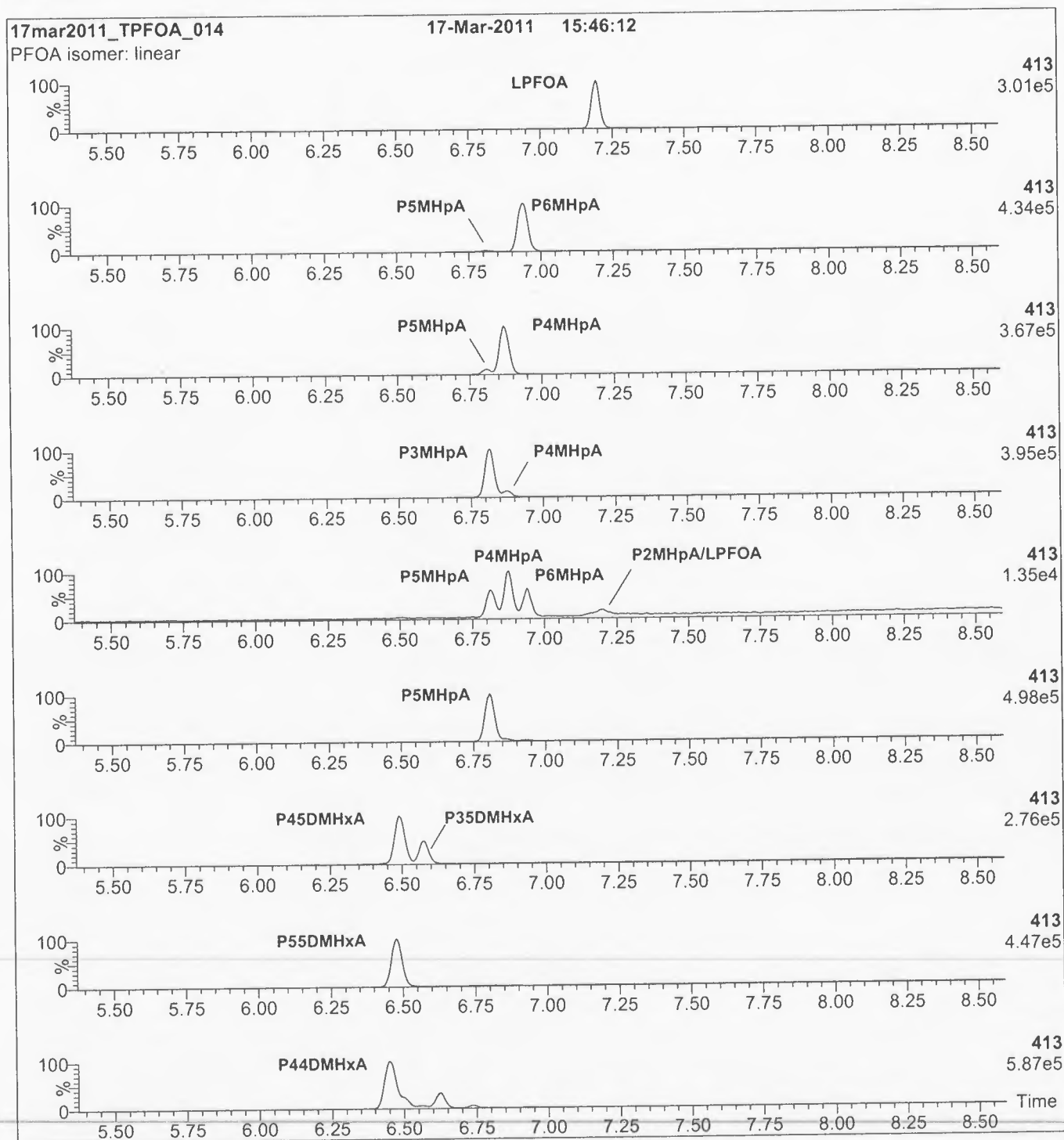
Injection: Direct loop injection
10 μ l (500 ng/ml T-PFOA)

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

Flow: 300 μ l/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:	<u>Branched PFHxS Standard (50 µg/m</u>	Received:	<u>6/18/2018</u>
Vendor:	<u>Wellington Laboratories</u>	Custodian:	<u>Thorn, Jonathan</u>
Catalogue No:	<u>br-PFHxSK</u>	Expires:	<u>1/4/2022</u>
Type:	<u>Solution</u>	Consumed:	<u></u>
Lot No:	<u>brPFHxSK0117</u>	Stored In:	<u>Sample Preparation - C0103</u>
Quantity:	<u>1 ea mL</u> % Moisture: <u>0</u>		
Description:	<u>Branched PFHxS Standard (50 µg/mL)</u>		

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

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

180618-06



WELLINGTON
LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFHxSK

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

PRODUCT CODE: br-PFHxSK
LOT NUMBER: brPFHxSK0117
CONCENTRATION: 50.0 ± 2.5 µg/ml (total potassium salt)
 45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S): Methanol
DATE PREPARED: (mm/dd/yyyy) 01/03/2017
LAST TESTED: (mm/dd/yyyy) 01/04/2017
EXPIRY DATE: (mm/dd/yyyy) 01/04/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DESCRIPTION:

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

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

INTENDED USE:

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

HAZARDS:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

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



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

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

Isomer	Name	Structure	Percent Composition by ^{19}F -NMR
1	Potassium perfluoro-1-hexanesulfonate	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3\cdot\text{K}^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}_2\text{CF}(\text{SO}_3\cdot\text{K}^+)\text{CF}_3$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$\text{CF}_3\text{CF}_2\text{CF}_2\text{CF}(\text{CF}_3)\text{CF}_2\text{SO}_3\cdot\text{K}^+$	1.4
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$\text{CF}_3\text{CF}_2\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{SO}_3\cdot\text{K}^+$	5.0
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$\text{CF}_3\text{CF}(\text{CF}_3)\text{CF}_2\text{CF}_2\text{CF}_2\text{SO}_3\cdot\text{K}^+$	8.9
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$\text{CF}_3\text{C}(\text{CF}_3)_2\text{CF}_2\text{CF}_2\text{SO}_3\cdot\text{K}^+$	0.2
7	Other Unidentified Isomers		0.5

* Percent of total perfluorohexanesulfonate isomers only.

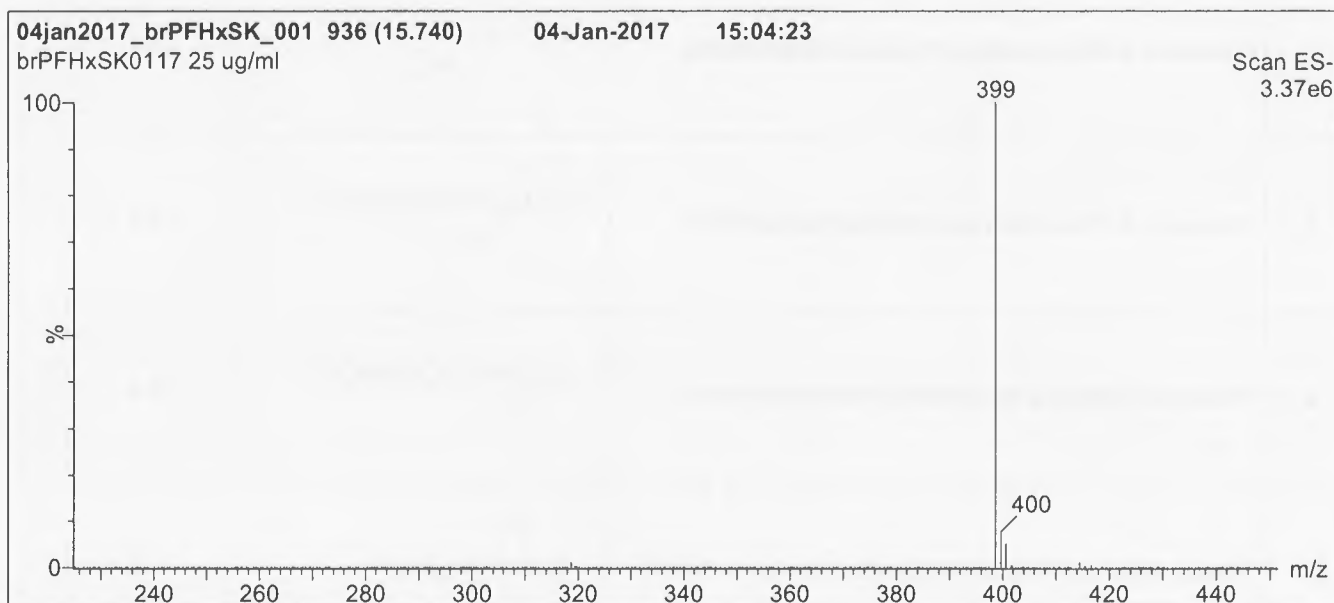
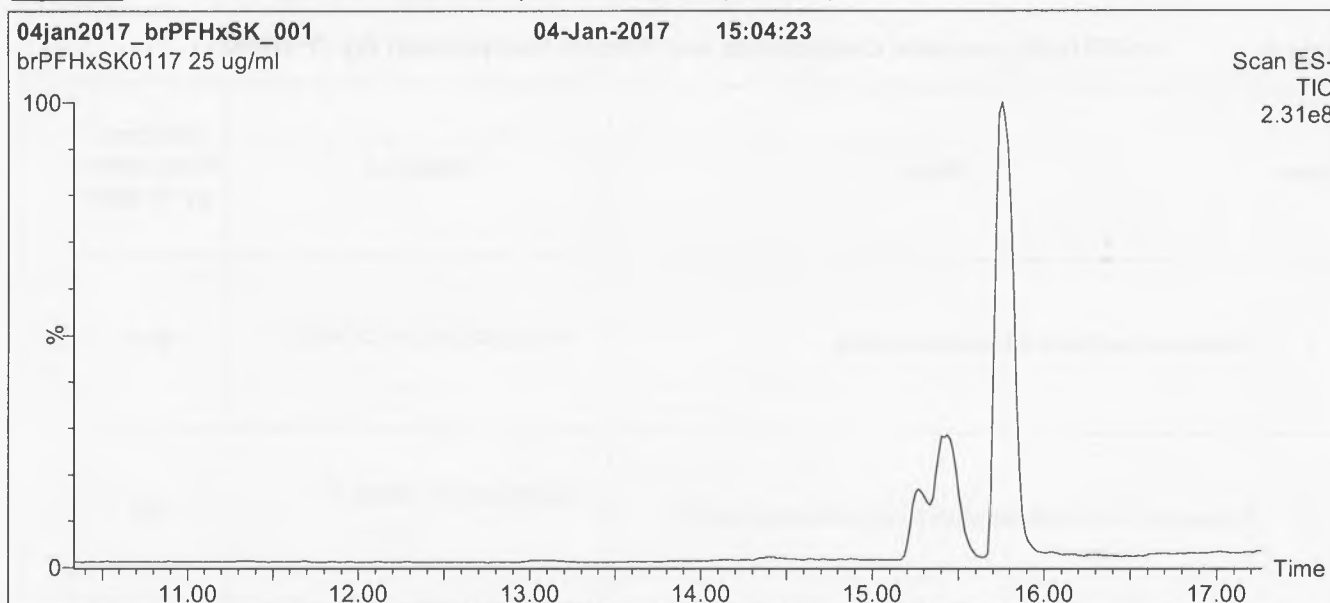
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

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 RP₁₈
1.7 μ m, 2.1 x 100 mm

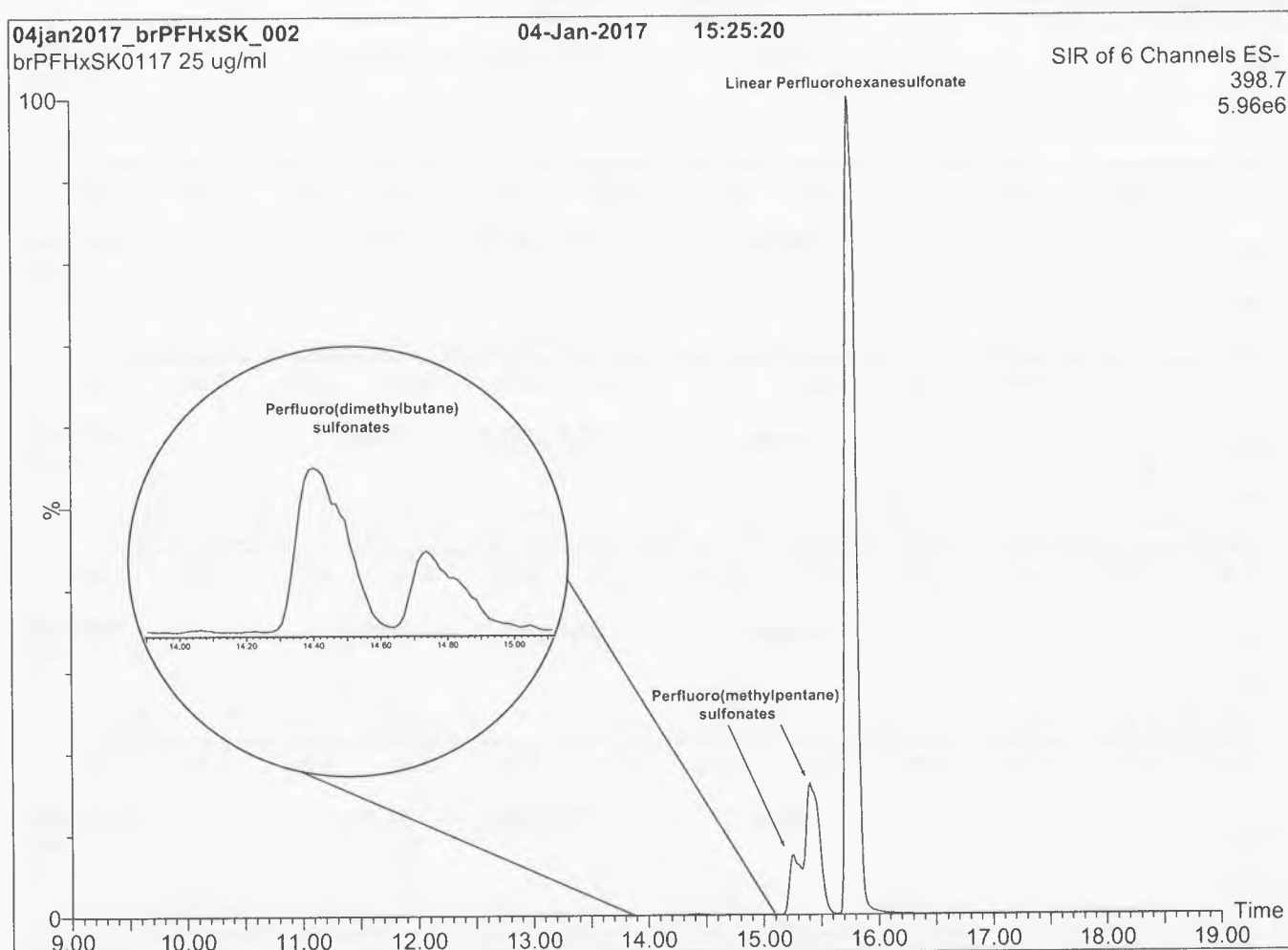
Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 50% organic over 14 min. Ramp to
90% organic over 3 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 20 min

Flow: 300 μ l/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 RP₁₈
1.7 μ m, 2.1 x 100 mm

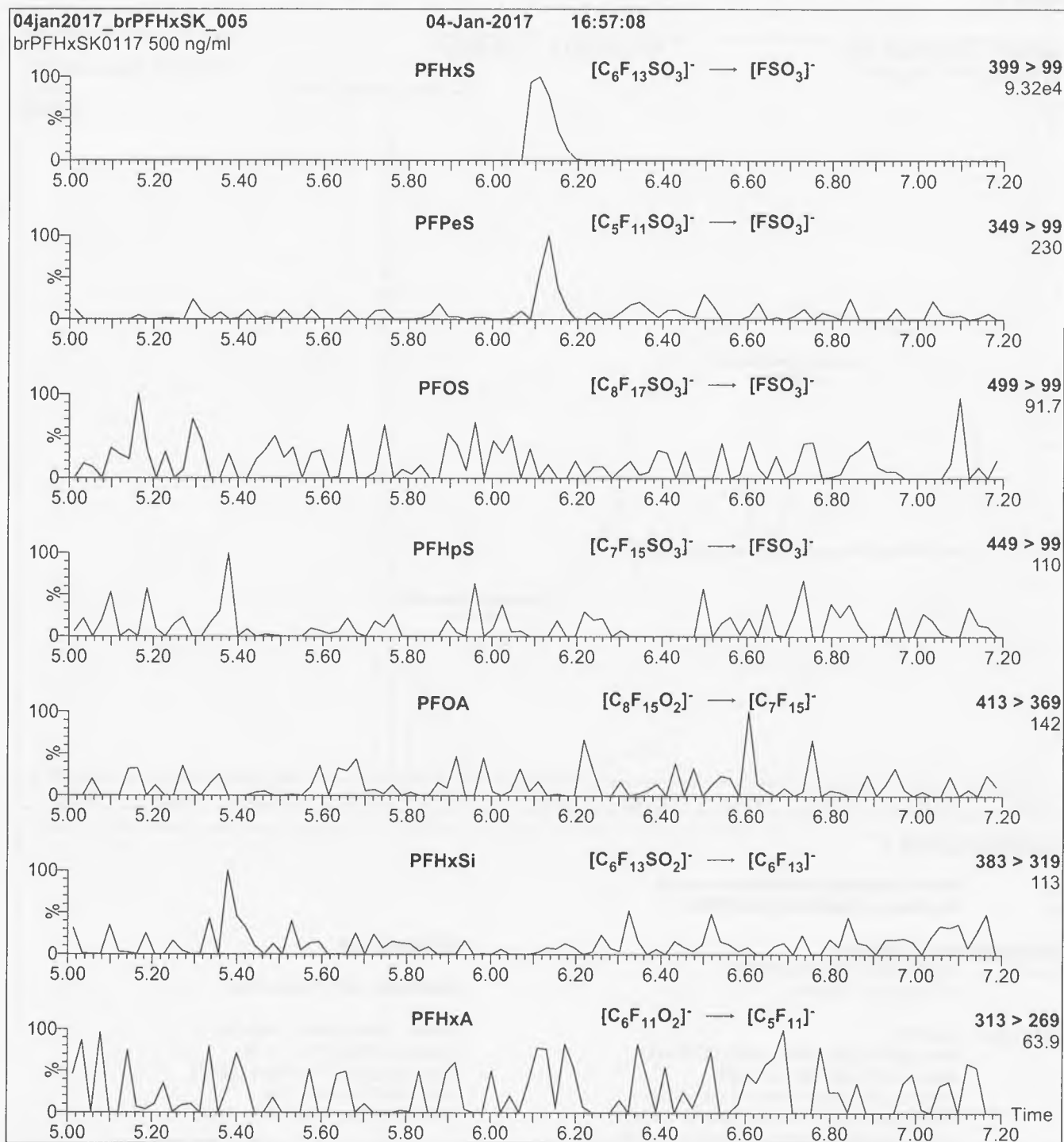
Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 50% organic over 14 min. Ramp to
90% organic over 3 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 20 min

Flow: 300 μ l/min

MS Parameters

Experiment: SIR (6 channels)

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

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

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

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

Flow: 300 μ l/min

MS Parameters

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



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 Val:	Cert Val:	Lower Limit:	Upper Limit:
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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**

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

DESCRIPTION:

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

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

INTENDED USE:

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

HAZARDS:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

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



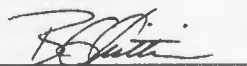
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

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

Isomer	Name	Structure	Percent Composition by ¹⁹ F-NMR
1	Potassium perfluoro-1-octanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	0.6
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	1.9
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	2.2
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	4.5
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃	10.0
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃ CF ₃	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃ CF ₃	0.03
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃ CF ₃	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	CF ₃ CF ₂ CF ₂ CF ₂ CF ₂ CF ₂ SO ₃ ⁻ K ⁺ CF ₃ CF ₃	0.07

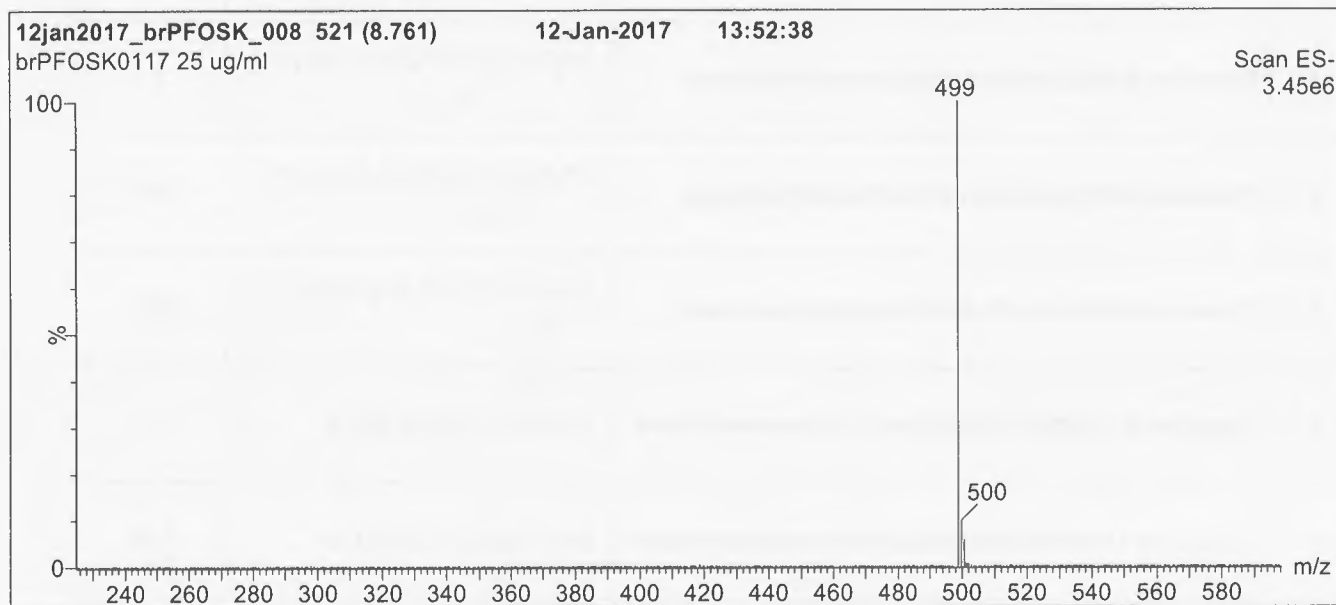
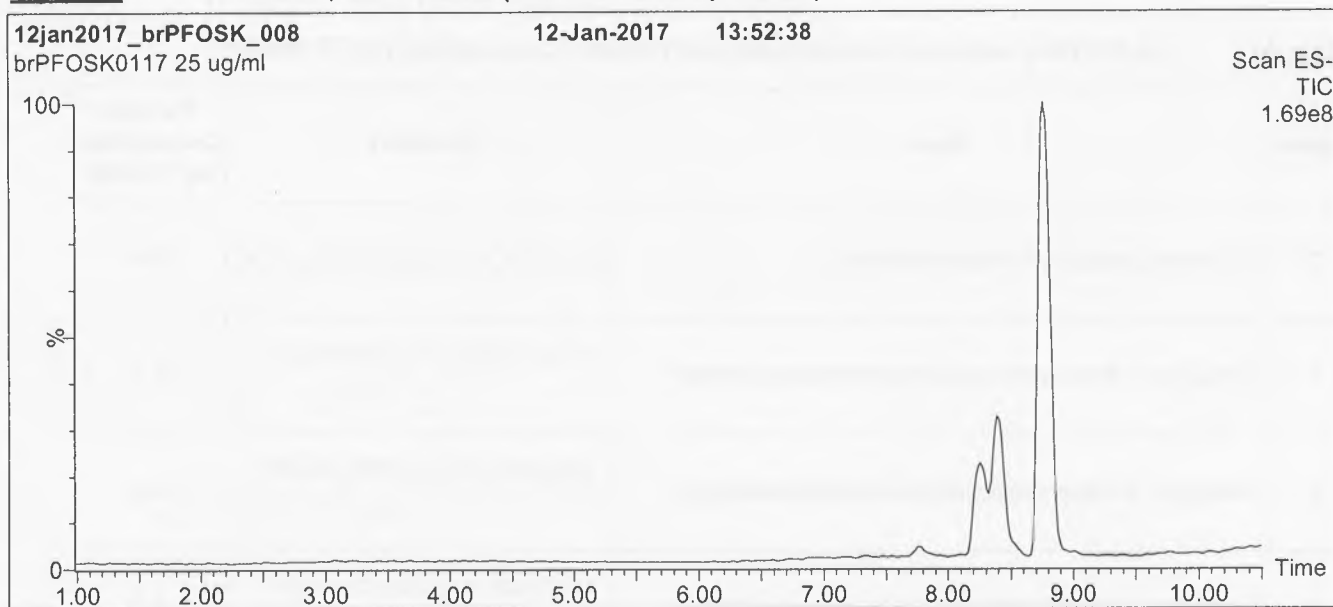
* Percent of total perfluorooctanesulfonate isomers only. Isomers are labelled in Figure 2.
 ** Systematic Name: Potassium perfluorooctane-2-sulfonate.

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 RP₁₈
1.7 μ m, 2.1 x 100 mm

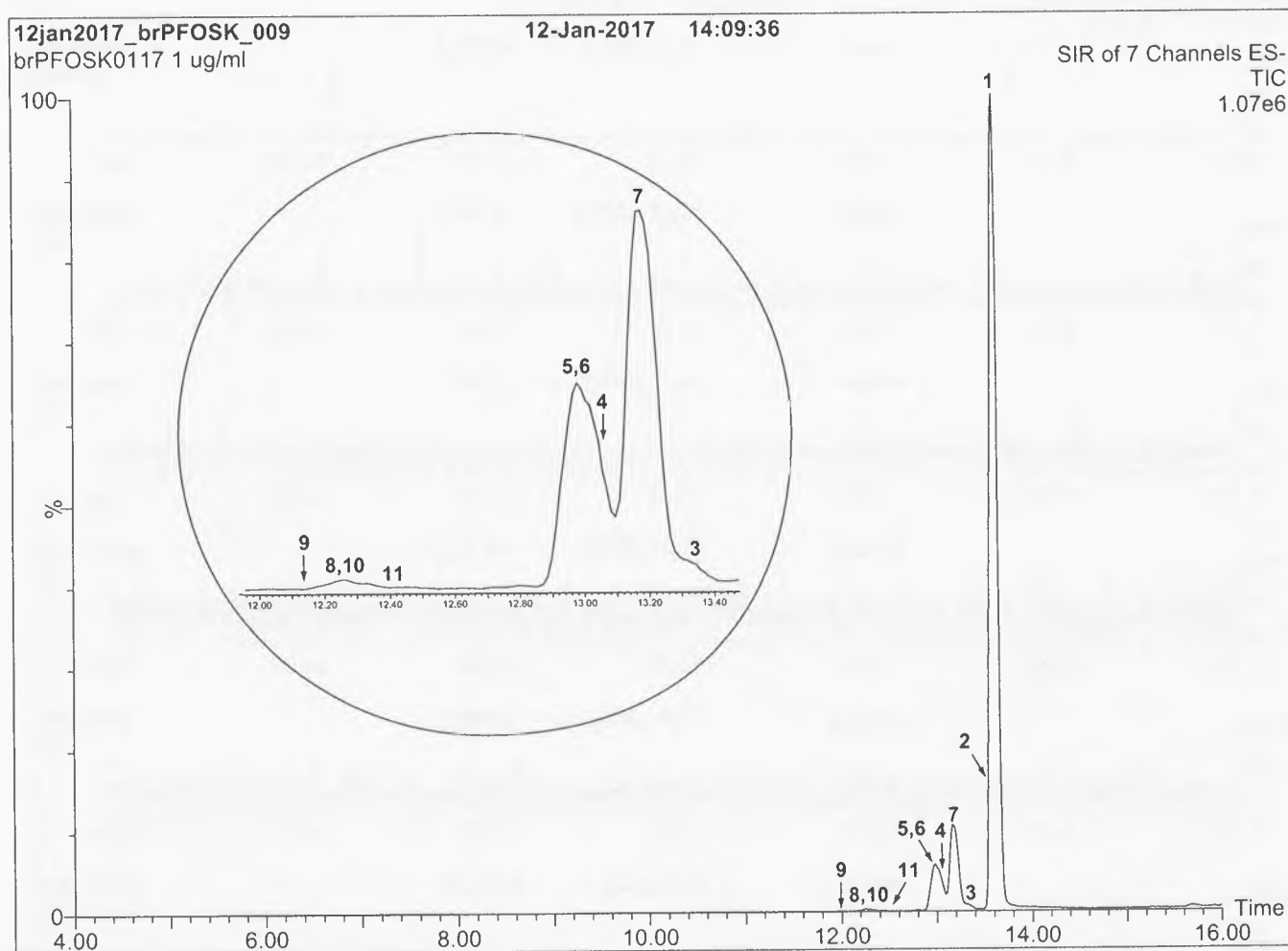
Mobile phase: Gradient
Start: 45% (80:20 MeOH:ACN) / 55% H₂O
(both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 12 min and hold for 2 min.
Return to initial conditions over 0.5 min.
Time: 16 min

Flow: 300 μ l/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

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

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

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

Chromatographic Conditions:

Column: Acquity UPLC BEH Shield RP₁₈ (1.7 μ m, 2.1 x 100 mm)

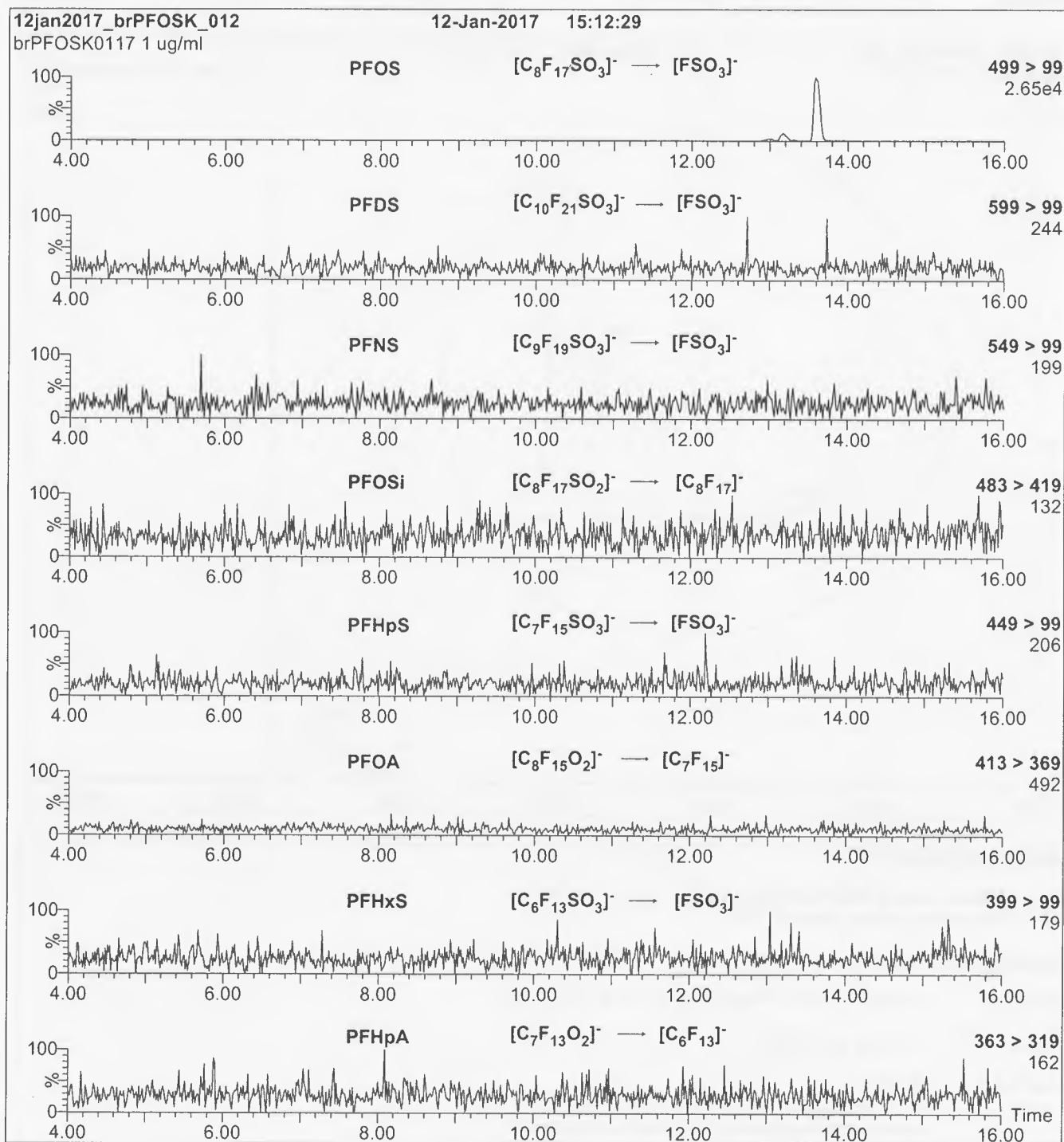
Injection: 1.0 μ g/ml of br-PFOSK

Mobile Phase: Gradient
45% (80:20 MeOH:ACN) / 55% H₂O (both with 10 mM NH₄OAc buffer)
Ramp to 90% organic over 15 min and hold for 3 min.
Return to initial conditions over 1 min.
Time: 20 min

Flow: 300 μ l/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 μ l/min**MS Parameters**

Collision Gas (mbar) = 3.31e-3

Collision Energy (eV) = 11-50 (variable)



CERTIFIED WEIGHT REPORT

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

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

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

Note: All assigned values are anion concentrations.

50.0 5E-05 Balance Uncertainty
0.007 Flask Uncertainty

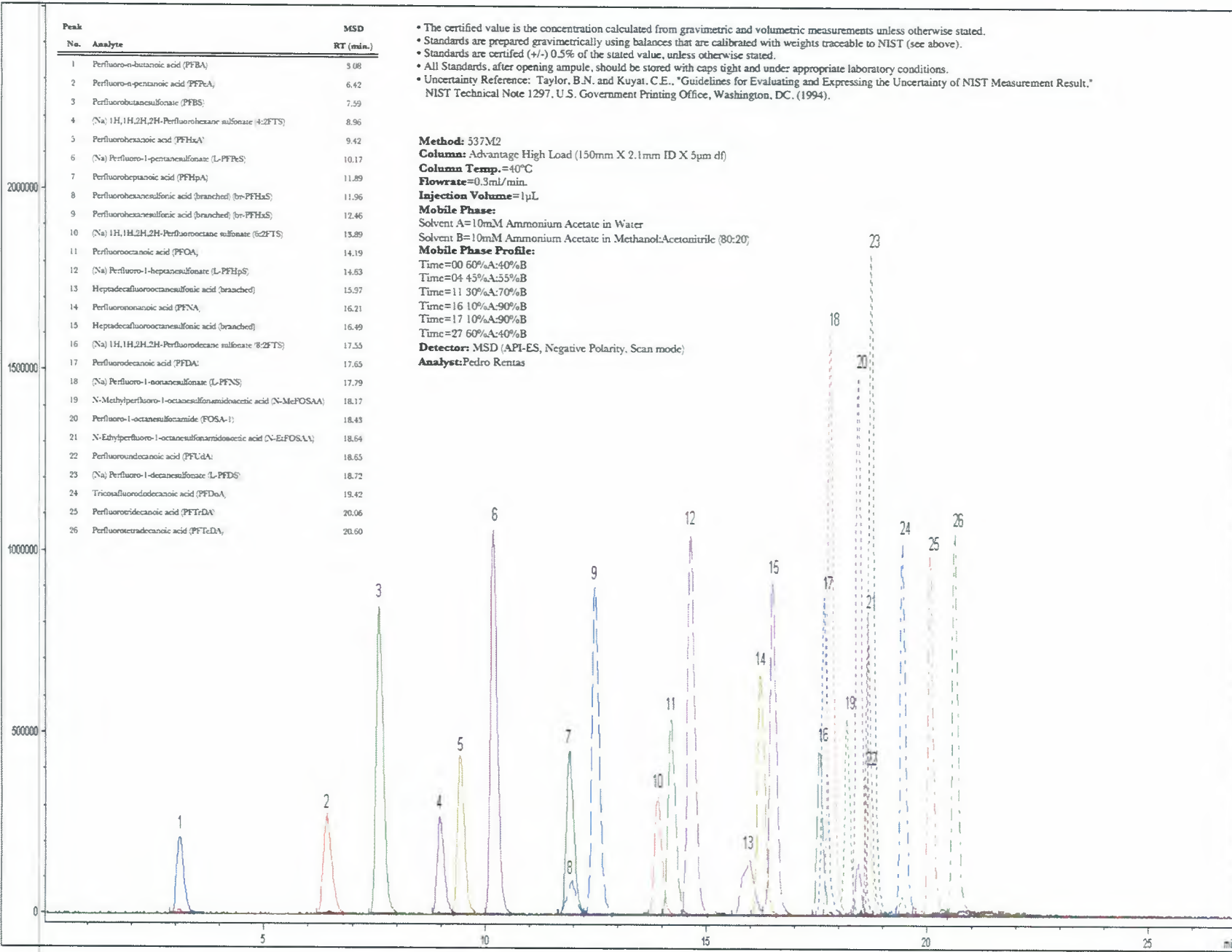
Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)		
									CAS#	OSHA PEL (TWA)	LD50
1. Perfluoro-n-butanoic acid (linear)	99542	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	ort-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. Tricosafuorododecanoic 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



- 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

Peak No.	Analyte	MSD RT (min.)
1	Perfluoro-n-butanoic acid (PFBA)	3.08
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	Perfluorooheptanoic 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 (8:2FTS)	13.89
11	Perfluorooctanoic acid (PFOA)	14.19
12	(Na) Perfluoro-1-heptanesulfonate (L-PFHpS)	14.63
13	Heptadecafluorooctanesulfonic acid (branched)	15.57
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-decenesulfonate (L-PFDS)	18.72
24	Tricosafluorododecanoic acid (PFDoA)	19.42
25	Perfluorotridecanoic acid (PFTrDA)	20.06
26	Perfluorotetradecanoic acid (PFTeDA)	20.60



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 Val:	Lower Limit:	Upper Limit:
13C2-PFDA	BDO-2110	2.0000	100.00	--	--	<input type="checkbox"/>		
13C2-PFOA	BDO-2107	2.0000	100.00	--	--	<input type="checkbox"/>		
13C3-PFBA	BDO-2231	2.0000	100.00	--	--	<input type="checkbox"/>		
13C4-PFOS	BDO-2121	1.9140	100.00	--	--	<input type="checkbox"/>		

Total Analytes: 4

Notes:

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

**WELLINGTON**
LABORATORIES**CERTIFICATE OF ANALYSIS**
DOCUMENTATION**MPFAC-C-IS****Mass-Labelled Perfluorinated
Compound Injection Standards Solution**

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 (¹³C) perfluoroalkylcarboxylic acids and a mass-labelled (¹³C) perfluoroalkylsulfonate. The components and their concentrations are given in Table A.

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

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

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

INTENDED USE:

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

HAZARDS:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

x_1, x_2, \dots, x_n on which it depends is:

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

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

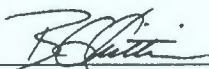


For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

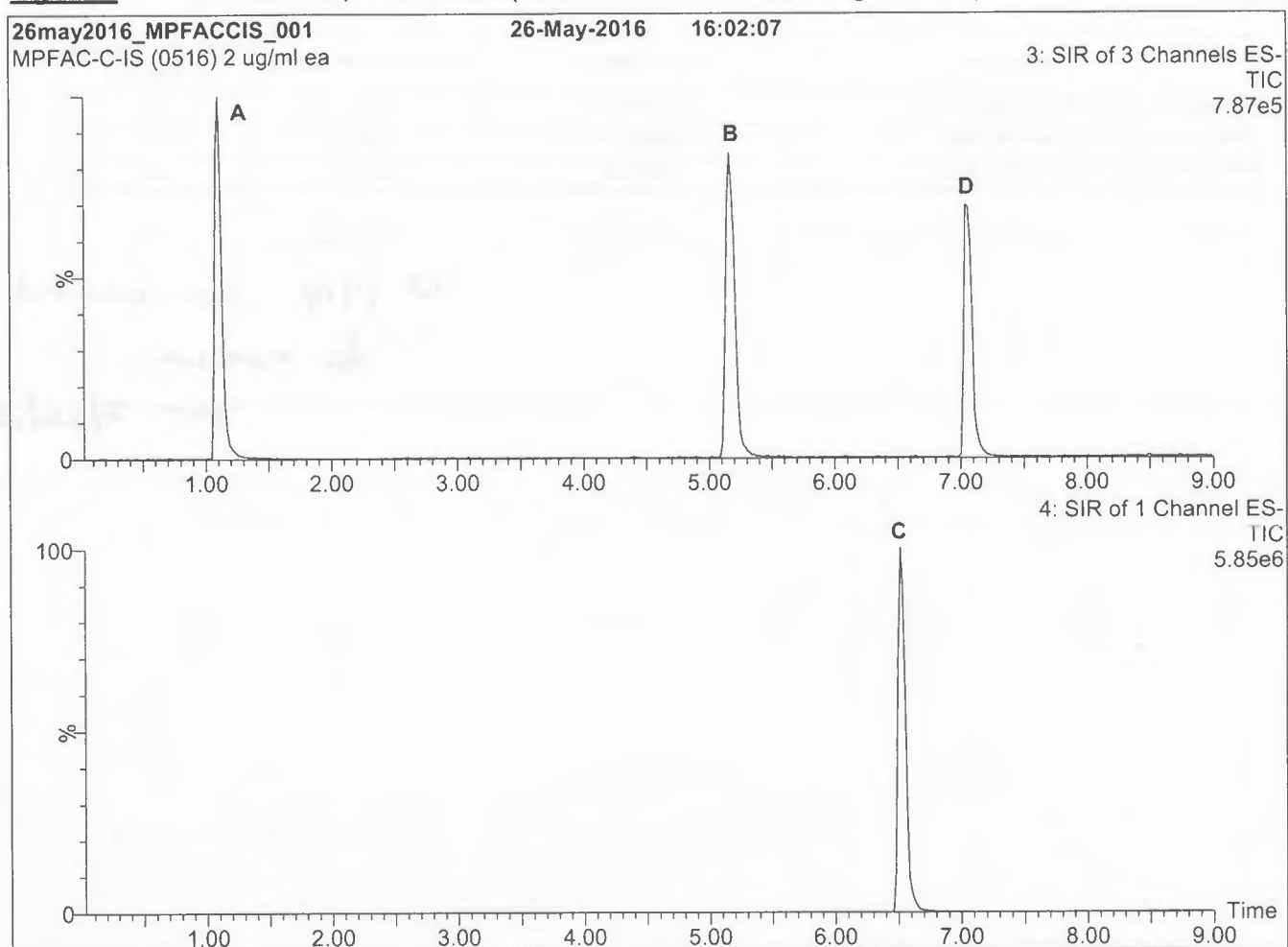
Table A: MPFAC-C-IS; Components and Concentrations (ng/ml; \pm 5% in Methanol / Water (<1%))

Compound	Abbreviation	Concentration (ng/ml)	Peak Assignment in Figure 1
Perfluoro-n-[2,3,4- $^{13}\text{C}_3$]butanoic acid	M3PFBA	2000	A
Perfluoro-n-[1,2- $^{13}\text{C}_2$]octanoic acid	M2PFOA	2000	B
Perfluoro-n-[1,2- $^{13}\text{C}_2$]decanoic acid	MPFDA	2000	D
Sodium perfluoro-1-[1,2,3,4- $^{13}\text{C}_4$]octanesulfonate	MPFOS	2000 $\text{\textcircled{N}}$	C

$\text{\textcircled{N}}$ 1914 when corrected
for sodium
JMS 7/26/2017

Certified By: 
B.G. Chittim, General Manager

Date: 05/04/2017
(mm/dd/yyyy)

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

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

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
 1.7 μ m, 2.1 x 100 mm

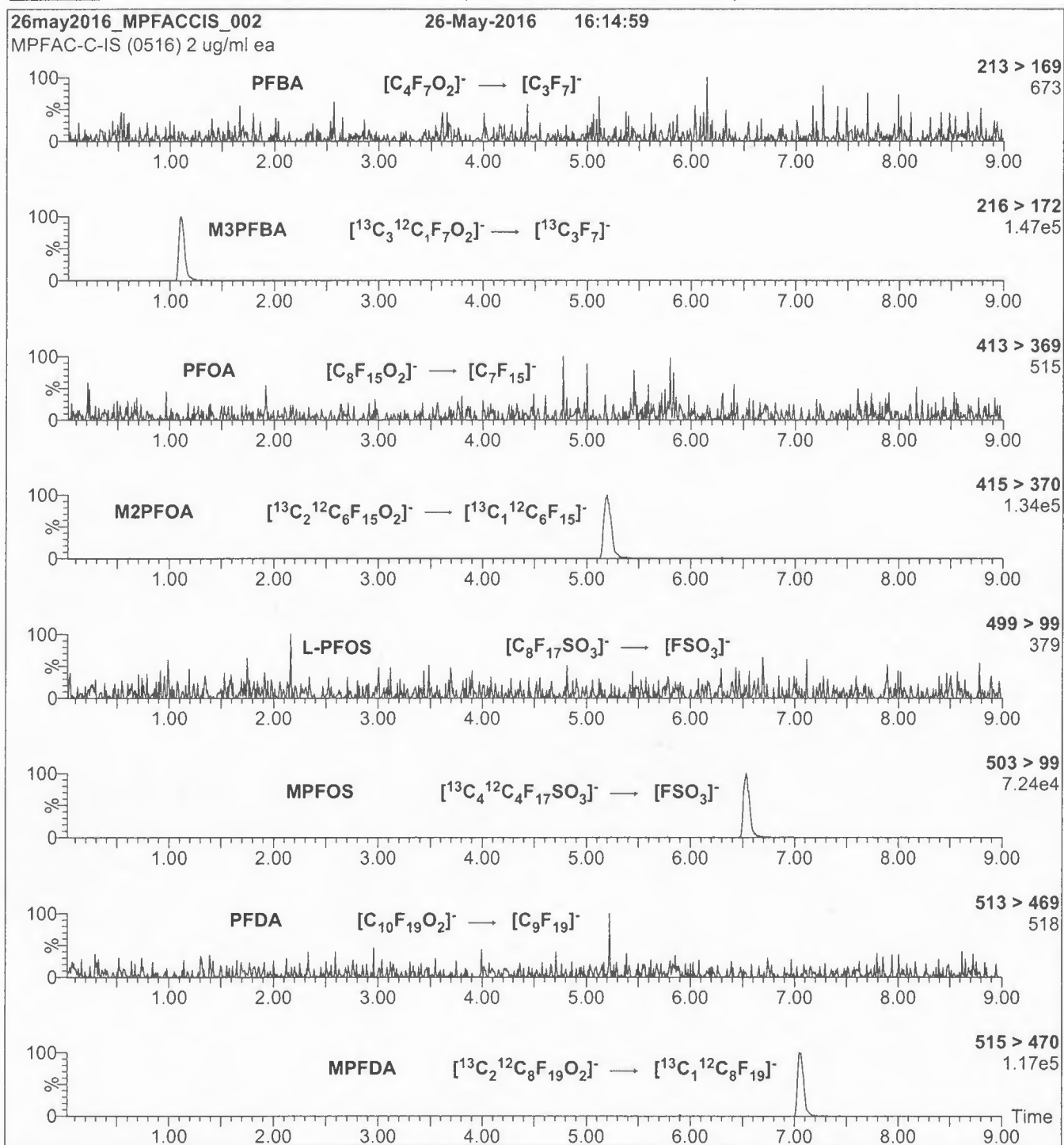
Mobile phase: Gradient
 Start: 50% (80:20 MeOH:ACN) / 50% H₂O
 (both with 10 mM NH₄OAc buffer)
 Ramp to 90% organic over 8 min
 and hold for 2 min before returning
 to initial conditions in 1 min.
 Time: 12 min

Flow: 300 μ l/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 μ l/min**MS Parameters**

Collision Gas (mbar) = 3.50e-3

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

It can be done

BDO Id: 180726-05

Reagent Receipt Report

Approved: Authorized

Name: Mass-labelled PFAS Extraction Stand Received: 7/26/2018
Vendor: Wellington Laboratories Custodian: Thorn, Jonathan
Catalogue No: MPFAC-24ES Expires: 2/7/2023
Type: Solution Consumed: _____
Lot No: MPFAC24ES0218 Stored In: LC Laboratory - R0107
Quantity: 2 ea 1.2 mL % Moisture: 0
Description: Mass-labelled PFAS Extraction Standard Solution

Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:
13C2-4:2FTS	BDO-2229	0.9350	100.00	--	--	<input type="checkbox"/>			
13C2-6:2FTS	BDO-2230	0.9490	100.00	--	--	<input type="checkbox"/>			
13C2-8:2FTS	BDO-2220	0.9580	100.00	--	--	<input type="checkbox"/>			
13C2-PFDoA	BDO-2112	1.0000	100.00	--	--	<input type="checkbox"/>			
13C2-PFTeDA	BDO-2224	1.0000	100.00	--	--	<input type="checkbox"/>			
13C3-PFBS	BDO-2226	0.9290	100.00	--	--	<input type="checkbox"/>			
13C3-PFHxS	BDO-2227	0.9460	100.00	--	--	<input type="checkbox"/>			
13C4-PFBA	BDO-2105	1.0000	100.00	--	--	<input type="checkbox"/>			
13C4-PFHpA	BDO-2218	1.0000	100.00	--	--	<input type="checkbox"/>			
13C5-PFHxA	BDO-2217	1.0000	100.00	--	--	<input type="checkbox"/>			
13C5-PFPeA	BDO-2216	1.0000	100.00	--	--	<input type="checkbox"/>			
13C6-PFDA	BDO-2222	1.0000	100.00	--	--	<input type="checkbox"/>			
13C7-PFUnA	BDO-2223	1.0000	100.00	--	--	<input type="checkbox"/>			
13C8-FOSA	BDO-2225	1.0000	100.00	--	--	<input type="checkbox"/>			
13C8-PFOA	BDO-2219	1.0000	100.00	--	--	<input type="checkbox"/>			
13C8-PFOS	BDO-2228	0.9570	100.00	--	--	<input type="checkbox"/>			
13C9-PFNA	BDO-2221	1.0000	100.00	--	--	<input type="checkbox"/>			
d3-MeFOSAA	BDO-1838	1.0000	100.00	--	--	<input type="checkbox"/>			
d5-EtFOSAA	BDO-1839	1.0000	100.00	--	--	<input type="checkbox"/>			

Total Analytes: 19

Notes:

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

**WELLINGTON**
LABORATORIES**CERTIFICATE OF ANALYSIS**
DOCUMENTATION**MPFAC-24ES****Mass-Labelled Per- and Poly-fluoroalkyl Substance
Extraction Standard Solution**

PRODUCT CODE: MPFAC-24ES
LOT NUMBER: MPFAC24ES0218
SOLVENT(S): Methanol / Isopropanol (2%) / Water (<1%)
DATE PREPARED: (mm/dd/yyyy) 02/07/2018
LAST TESTED: (mm/dd/yyyy) 02/07/2018
EXPIRY DATE: (mm/dd/yyyy) 02/07/2023
RECOMMENDED STORAGE: Refrigerate ampoule

DESCRIPTION:

MPFAC-24ES is a solution/mixture of ten mass-labelled (¹³C) perfluoroalkylcarboxylic acids (C₄-C₁₂ and C₁₄), three mass-labelled (¹³C) perfluoroalkylsulfonates (C₄, C₆, and C₈), three mass-labelled (¹³C) telomer sulfonates (4:2, 6:2, and 8:2), two mass-labelled (²H) perfluorooctanesulfonamidoacetic acids, and perfluoro-1-[¹³C₈]octanesulfonamide. The components and their concentrations are given in Table A.

The individual mass-labelled perfluoroalkylcarboxylic acids, mass-labelled perfluoroalkylsulfonates, mass-labelled telomer sulfonates, and perfluoro-1-[¹³C₈]octanesulfonamide all have chemical purities of >98% and isotopic purities of ≥99%. The individual mass-labelled perfluorooctanesulfonamidoacetic acids all have chemical purities of >98% and isotopic purities of ≥98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture

Figure 1: LC/MS Data (SIR)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

INTENDED USE:

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

HANDLING:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

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



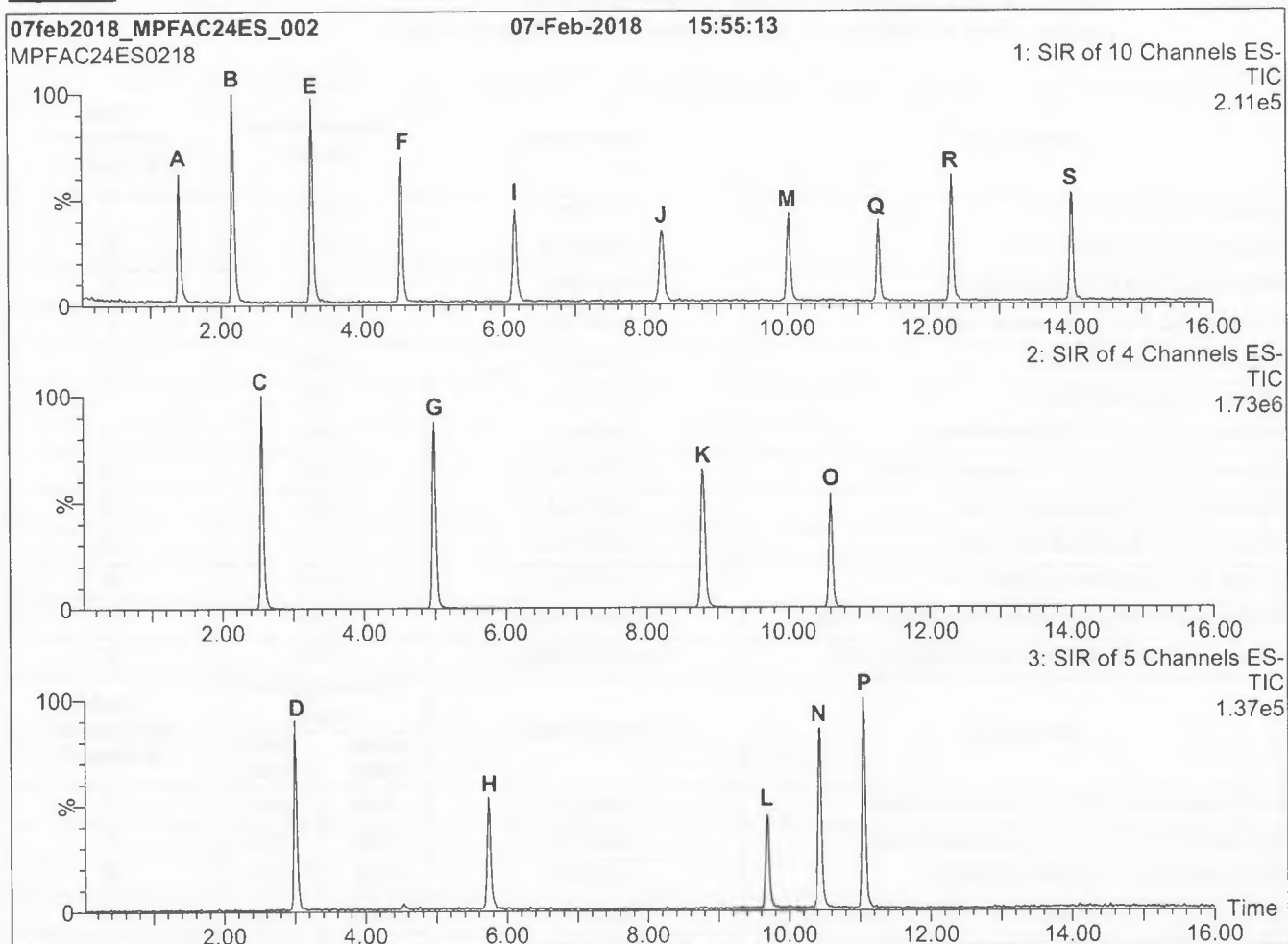
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: MPFAC-24ES; Components and Concentrations
(ng/ml, \pm 5% in Methanol / Isopropanol (2%) / Water (<1%))

Compound	Abbreviation	Concentration (ng/ml)		Peak Assignment in Figure 1
		as the salt	as the anion	
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 ₆]octanoic acid	M8PFOA	1000		I
Perfluoro-n-[¹³ C ₇]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: 
B.G. Chittim, General Manager

Date: 02/09/2018
(mm/dd/yyyy)

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

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

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP₁₈
 1.7 μ m, 2.1 x 100 mm

Mobile phase: Gradient
 Start: 40% (80:20 MeOH:ACN) / 60% H₂O
 (both with 10 mM NH₄OAc buffer)
 Ramp to 55% organic over 3.5 min.
 Ramp to 70% organic over 6.5 min.
 Ramp to 85% organic over 5 min and hold for
 1 min before returning to initial conditions in 0.5 min.
 Time: 17 min

Flow: 300 μ l/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

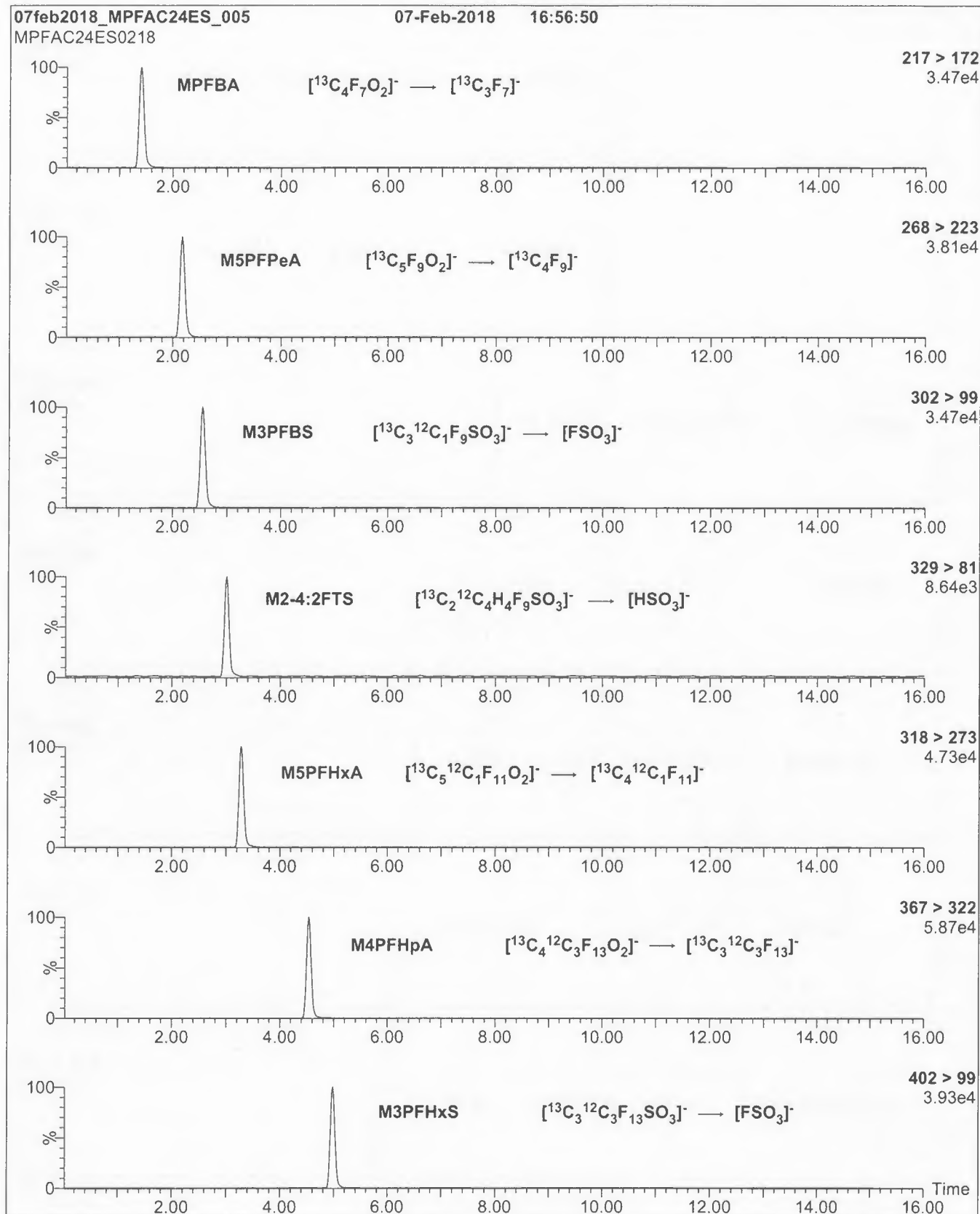
Figure 2: MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)

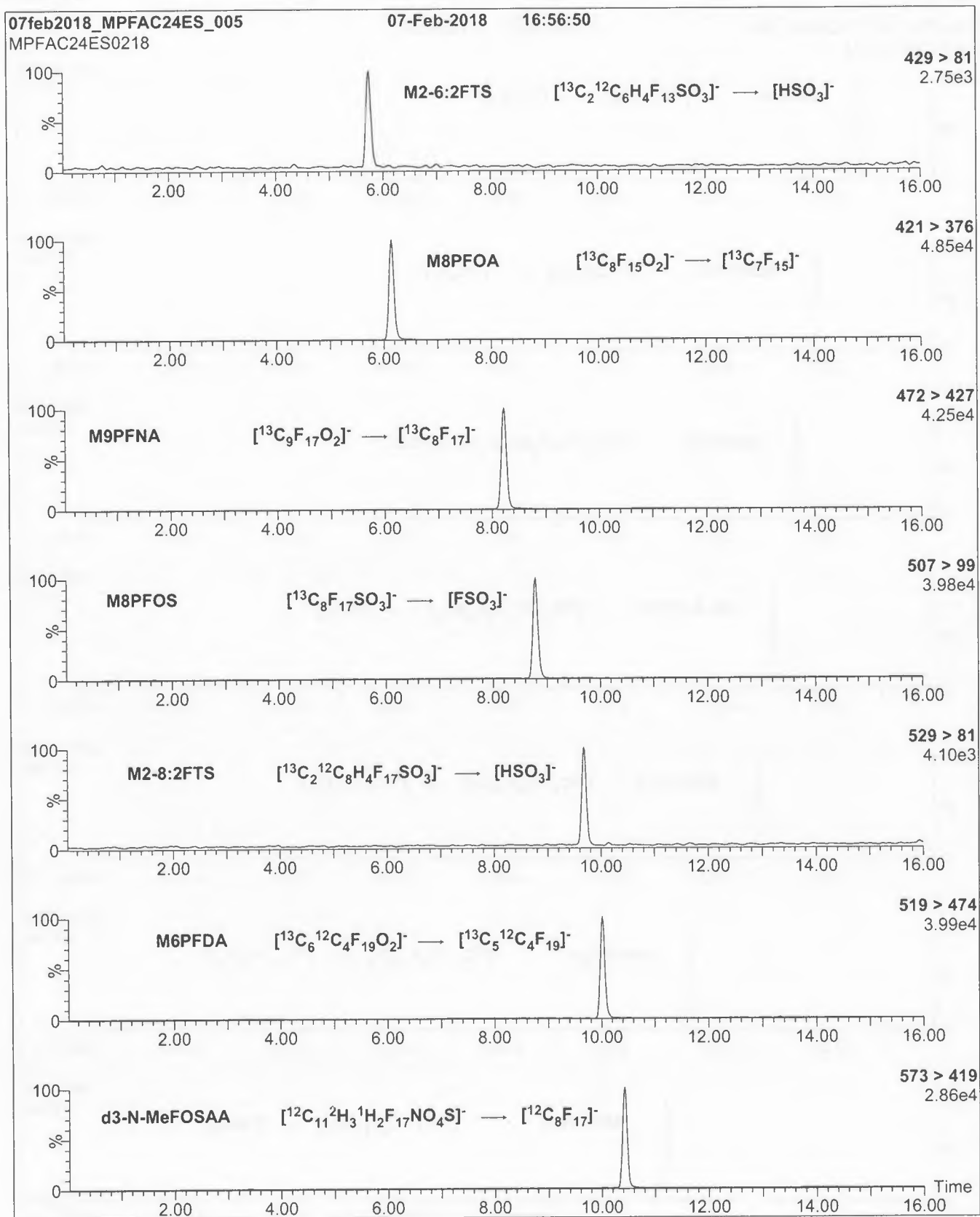
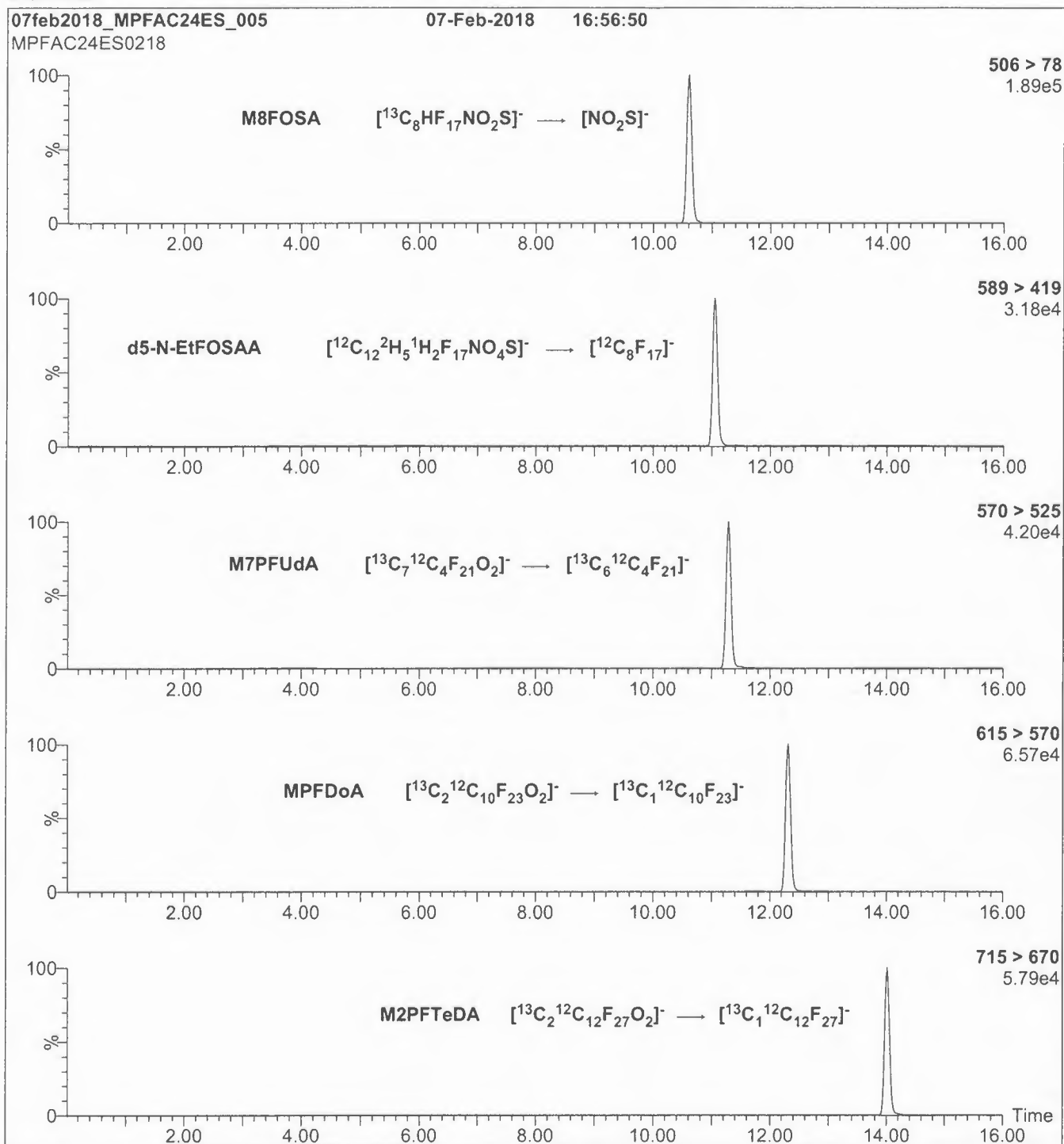
Figure 2: MPFAC-24ES; LC/MS/MS Data (Selected MRM Transitions)

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 $\mu\text{l}/\text{min}$ **MS Parameters**

Collision Gas (mbar) = 3.28e-3

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

It can be done

BDO Id: 181001-01

Reagent Receipt Report

Approved: Authorized

Name: PFOA - 2nd source Received: 10/1/2018
Vendor: ABSOLUTE STANDARDS Custodian: Schumitz, Matt
Catalogue No: 99207 Expires: 9/20/2023
Type: Solution Consumed: _____
Lot No: 092018 Stored In: Sample Preparation - F0035
Quantity: 2 ea mL % Moisture: _____
Description: PFOA - 2nd source

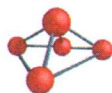
Analyte:	CAS No:	Concentration (ug/mL):	Purity:	Density:	Density Units:	Cert	Cert Val:	Lower Limit:	Upper Limit:
(Na) 1H,1H,2H,2H-Perfluorodecane	39108-34-4	1.0100	100.00	--	--	<input type="checkbox"/>			
(Na) 1H,1H,2H,2H-Perfluorohexane	414911-30-1	1.0000	100.00	--	--	<input type="checkbox"/>			
(Na)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

Total Analytes: 24

Notes:

Analyte:	Comment:
1 Perfluoro-1-hexanesulfonate	17 on C of A
2 Sodium perfluoro-1-pentanesulfonate	16 on C of A

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



CERTIFIED WEIGHT REPORT

Part Number: 99207
Lot Number: 092018
Description: PFOA - DOD
24 components
Expiration Date: 092023
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 1.0
NIST Test ID#: 2684186

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

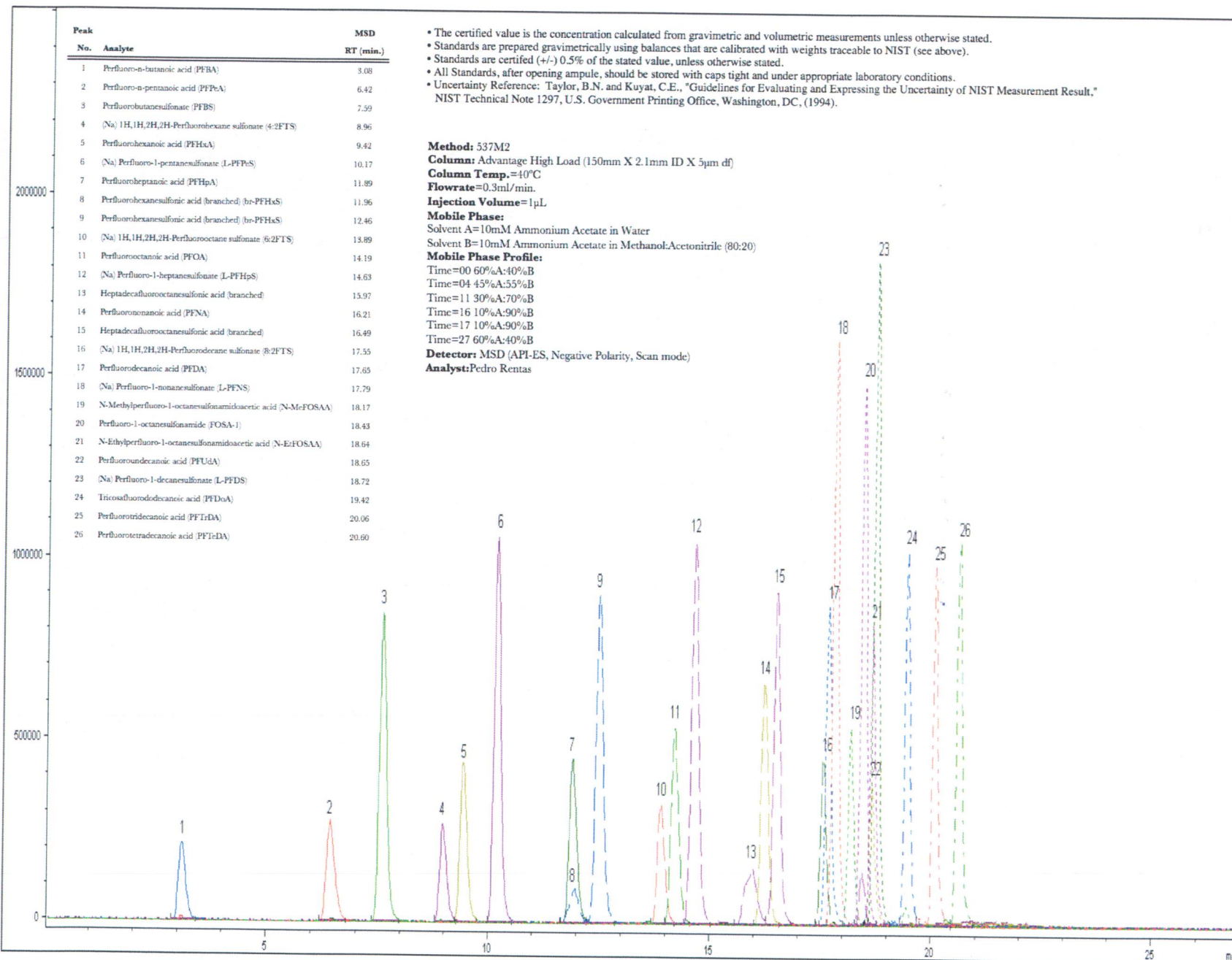
5E-05 Balance Uncertainty
50.0 0.007 Flask Uncertainty

<i>Eli Aliaga</i>		092018
Formulated By:	Eli Aliaga	DATE
<i>Pedro L. Rentas</i>		092018
Reviewed By:	Pedro L. Rentas	DATE

Volume(s) shown below were combined and diluted to (mL): 50.0
Note: All assigned values are anion concentrations.

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)		
									CAS#	OSHA PEL (TWA)	LD50
1. Perfluoro-n-butanoic acid (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	ori-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. Tricosafuorododecanoic acid	99196	030617	0.02	1.00	0.004	50.1	1.00	0.01	307-55-1	N/A	N/A
10. Perfluorotridecanoic acid	99204	030617	0.02	1.00	0.004	50.1	1.00	0.01	72629-94-8	N/A	N/A
11. Perfluorotetradecanoic acid	99203	030617	0.02	1.00	0.004	50.1	1.00	0.01	376-06-7	N/A	N/A
12. Perfluoro-1-octanesulfonamide	3677	FOSA0618I	0.02	1.00	0.004	50.0	1.00	0.01	754-91-6	N/A	N/A
13. N-Methylperfluoro-1-octanesulfonamidoacetic acid	3667	NMeFOSAA0118	0.02	1.00	0.004	50.0	1.00	0.01	2355-31-9	N/A	N/A
14. N-Ethylperfluoro-1-octanesulfonamidoacetic acid	3664	NEtFOSAA0118	0.02	1.00	0.004	50.0	1.00	0.01	2991-50-6	N/A	N/A
15. Perfluorobutanesulfonic acid	99194	031017	0.02	1.00	0.004	50.7	1.01	0.01	375-73-5	N/A	N/A
16. Perfluoro-1-pentanesulfonate	99544	111017	0.02	0.98	0.004	51.3	1.00	0.01	630402-22-1	N/A	N/A
17. Perfluorohexanesulfonic acid (branched)	99198	030617	0.02	1.00	0.004	50.6	1.01	0.01	3871-99-6	N/A	N/A
18. Perfluoro-1-heptanesulfonic acid	3672	LPFHpS0817	0.021	1.05	0.004	47.6	1.00	0.01	375-92-8	N/A	N/A
19. 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	LPFNS0718	0.021	1.05	0.004	48.0	1.01	0.01	98789-57-2	N/A	N/A
21. Perfluoro-1-decanesulfonic acid	3671	LPFDS1117	0.021	1.05	0.004	48.2	1.01	0.01	2806-15-7	N/A	N/A
22. 1H,1H,2H,2H-Perfluorohexane sulfonic acid	3955	42FTS1216	0.0214	1.07	0.004	46.7	1.00	0.01	00-00-0	N/A	N/A
23. 1H,1H,2H,2H-Perfluorooctane sulfonic acid	3661	62FTS0616	0.021	1.05	0.004	47.4	1.00	0.01	27619-97-2	N/A	N/A
24. 1H,1H,2H,2H-Perfluorodecane sulfonic acid	3662	82FTS1216	0.021	1.05	0.004	47.9	1.01	0.01	39108-34-4	N/A	N/A

181001-01
2nd Source



- 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).

Sample Preparation



It can be done

**BATTELLE - NORWELL OPERATIONS
SAMPLE PREPARATION RECORDS**

<u>Project Title(s)</u>	<u>Project No.(s)</u>
CTO-4164 Naval Base Ventura County, California	100110125-01
18-0590	
CTO-4164: Analysis of Solids	
SB, SS	
SOP Numbers (see workplan for modifications)	
ExtractionSOP No.	5-370

This Batch Contains The Following Samples:		
CR904PB-FS	J8469-FS	J8475-FS
CR905LCS-FS	J8470-FS	J8476-FS
J8465-FS	J8471-FS	
J8466-FS	J8472-FS	
J8467-FS	J8473-FS	
J8468-FS	J8474-FS	

Laboratory Preparation Records
COMPLETE AND VALIDATED

Prep Task Leader: Jonathan Thorn

Approved By:	Date	Initials
Denise Schumitz	10/24/2018	DMS



It can be done

**BATTELLE - NORWELL OPERATIONS
SAMPLE IDENTIFICATION PAGE**

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590**CTO-4164: Analysis of Solids****SB, SS**

Sample ID	Description
CR904PB-FS	Procedural Blank - Ottawa Sand (180507-02)
CR905LCS-FS	Laboratory Control Sample - Ottawa Sand (180507-02)
J8465-FS	VC-PM367-SS01-000H
J8466-FS	VC-PM367-SB01-0102
J8467-FS	VC-PM367-SB01-0506
J8468-FS	VC-PM367-SS02-000H
J8469-FS	VC-PM367-SB02-0102
J8470-FS	VC-PM367-SB02-0506
J8471-FS	VC-PM367-SS03-000H
J8472-FS	VC-PM367-SB03-0102
J8473-FS	VC-PM367-SB03-0506
J8474-FS	VC-PM367-SS04-000H
J8475-FS	VC-PM367-SB04-0102
J8476-FS	VC-PM367-SB04-0506

Samples Assigned By:

Jonathan Thorn

Date : September 28, 2018

Comments:



It can be done

BATTELLE - NORWELL OPERATIONS SAMPLE CUSTODY LOG

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590**CTO-4164: Analysis of Solids****SB, SS**

Requested On/By:	10/01/2018 SAS	Purpose:	Sample Preparation
Relinquished On/By:	10/01/2018 MDS	Last Activity:	Return
Accepted On/By:	10/01/2018 SAS	Returned On/To:	10/01/2018 MDS
Stored In Facility:	Sample Preparation	Returned To Facility:	Custody: NA
Stored Until	10/01/2018	Returned Comment:	NA
Stored Comment:	NA		

No.	BDO-ID:	Ctrs	*	Condition:	Custody Comment:
1	J8465	1	--	Intact	NA
2	J8466	1	--	Intact	NA
3	J8467	1	--	Intact	NA
4	J8468	1	--	Intact	NA
5	J8469	1	--	Intact	NA
6	J8470	1	--	Intact	NA
7	J8471	1	--	Intact	NA
8	J8472	1	--	Intact	NA
9	J8473	1	--	Intact	NA
10	J8474	1	--	Intact	NA
11	J8475	1	--	Intact	NA
12	J8476	1	--	Intact	NA
Total Samples		12		* "C" = Consumed Container	



It can be done

BATTELLE - NORWELL OPERATIONS ELECTRONIC DRY WEIGHT DETERMINATION

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590**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)
CR904PB-FS	NA	--	NA	NA	NA	1.99	100.00	0.00	1.99
CR905LCS-FS	NA	--	NA	NA	NA	1.95	100.00	0.00	1.95
J8465-FS	1	--	1.08	6.85	6.73	1.91	97.92	2.08	1.87
J8466-FS	1	--	1.07	8.41	8.29	2.05	98.37	1.63	2.02
J8467-FS	1	--	1.13	7.42	7.15	1.95	95.71	4.29	1.87
J8468-FS	1	--	1.06	7.02	6.72	2.06	94.97	5.03	1.96
J8469-FS	1	--	1.08	7.38	7.10	2.07	95.56	4.44	1.98
J8470-FS	1	--	1.11	7.17	6.95	2.05	96.37	3.63	1.98
J8471-FS	1	--	1.13	7.48	6.93	1.97	91.34	8.66	1.80
J8472-FS	1	--	1.10	9.14	7.49	1.97	79.48	20.52	1.57
J8473-FS	1	--	1.12	5.25	4.27	1.90	76.27	23.73	1.45
J8474-FS	1	--	1.12	7.03	6.18	2.07	85.62	14.38	1.77
J8475-FS	1	--	1.11	8.02	6.89	1.97	83.65	16.35	1.65
J8476-FS	1	--	1.07	7.18	6.84	1.93	94.44	5.56	1.82

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed



It can be done

**BATTELLE - NORWELL OPERATIONS
ELECTRONIC DRY WEIGHT DETERMINATION**

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590

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:
CR904PB-FS	10/08/2018 KB	BAL-015
CR905LCS-FS	10/08/2018 KB	BAL-015
J8465-FS	10/01/2018 KB	BAL-015
J8466-FS	10/01/2018 KB	BAL-015
J8467-FS	10/01/2018 KB	BAL-015
J8468-FS	10/01/2018 KB	BAL-015
J8469-FS	10/01/2018 KB	BAL-015
J8470-FS	10/01/2018 KB	BAL-015
J8471-FS	10/01/2018 KB	BAL-015
J8472-FS	10/01/2018 KB	BAL-015
J8473-FS	10/01/2018 KB	BAL-015
J8474-FS	10/01/2018 KB	BAL-015
J8475-FS	10/01/2018 KB	BAL-015
J8476-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



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

18-0590

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:
CR904PB-FS	--	--
CR905LCS-FS	--	--
J8465-FS	10/01/2018 KB	BAL-015
J8466-FS	10/01/2018 KB	BAL-015
J8467-FS	10/01/2018 KB	BAL-015
J8468-FS	10/01/2018 KB	BAL-015
J8469-FS	10/01/2018 KB	BAL-015
J8470-FS	10/01/2018 KB	BAL-015
J8471-FS	10/01/2018 KB	BAL-015
J8472-FS	10/01/2018 KB	BAL-015
J8473-FS	10/01/2018 KB	BAL-015
J8474-FS	10/01/2018 KB	BAL-015
J8475-FS	10/01/2018 KB	BAL-015
J8476-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



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

18-0590

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:
CR904PB-FS	--	--
CR905LCS-FS	--	--
J8465-FS	10/01/2018 KB	BAL-015
J8466-FS	10/01/2018 KB	BAL-015
J8467-FS	10/01/2018 KB	BAL-015
J8468-FS	10/01/2018 KB	BAL-015
J8469-FS	10/01/2018 KB	BAL-015
J8470-FS	10/01/2018 KB	BAL-015
J8471-FS	10/01/2018 KB	BAL-015
J8472-FS	10/01/2018 KB	BAL-015
J8473-FS	10/01/2018 KB	BAL-015
J8474-FS	10/01/2018 KB	BAL-015
J8475-FS	10/01/2018 KB	BAL-015
J8476-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



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

18-0590

CTO-4164: Analysis of Solids

SB, SS

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

BNO-ID:	Date/Initials:	Battelle-ID:
CR904PB-FS	--	--
CR905LCS-FS	--	--
J8465-FS	10/02/2018 KB	BAL-015
J8466-FS	10/02/2018 KB	BAL-015
J8467-FS	10/02/2018 KB	BAL-015
J8468-FS	10/02/2018 KB	BAL-015
J8469-FS	10/02/2018 KB	BAL-015
J8470-FS	10/02/2018 KB	BAL-015
J8471-FS	10/02/2018 KB	BAL-015
J8472-FS	10/02/2018 KB	BAL-015
J8473-FS	10/02/2018 KB	BAL-015
J8474-FS	10/02/2018 KB	BAL-015
J8475-FS	10/02/2018 KB	BAL-015
J8476-FS	10/02/2018 KB	BAL-015

Percent Dry Wt (%) = [(Sample Dry Wt. (g) - Tare Wt. (g))/(Aliquot Wet Wt. (g) - Tare Wt. (g))] * 100

Sample Dry Wt. (%) = [(Sample Wet Wt. (g) * (Percent Dry Wt./100)]

* "C" = Sample Container Is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS SURROGATE SPIKE FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590

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
CR904PB-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA
CR905LCS-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA
CR905LCS-FS	KB83	LCS/MS	1	100	10/08/18 KB	SG	NA
J8465-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA
J8466-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA
J8467-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA
J8468-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA
J8469-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA
J8470-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA
J8471-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA
J8472-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA
J8473-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA
J8474-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA
J8475-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA
J8476-FS	KB71	SIS	1	50	10/08/18 KB	SG	NA

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
KB71	Pipette	B814657482
KB83	Pipette	B814659662



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

18-0590**CTO-4164: Analysis of Solids****SB, SS**

Sample ID	1st Extraction	2nd Extraction	3rd Extraction	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comment
CR904PB-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA
CR905LCS-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA
J8465-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA
J8466-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA
J8467-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA
J8468-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA
J8469-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA
J8470-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA
J8471-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA
J8472-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA
J8473-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA
J8474-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA
J8475-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA
J8476-FS	10/08/18 KB	10/08/18 KB	NA	NA	NA	NA	NA	NA

Solvents/Reagent Preparations:

Name	ID	Expires	Lot No	Procedure	Comments
0.4% NH3 in Methanol	RP-181008-2	10/08/18	183857	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	
0.4% NH3 in Methanol	RP-181008-2	10/08/18	SHBJ0412	Per 100 mL, 3.5 mL ammonia solution brought to 100 mL with methanol	

Solvents/Reagents:



It can be done

BATTELLE - NORWELL OPERATIONS COLUMN FRACTIONATION FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590

CTO-4164: Analysis of Solids

SB, SS

Extract Id	Date	Init.	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comments
CR904PB-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA
CR905LCS-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA
J8465-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA
J8466-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA
J8467-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA
J8468-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA
J8469-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA
J8470-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA
J8471-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA
J8472-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA
J8473-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA
J8474-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA
J8475-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA
J8476-FS(3)	10/09/18	KB	NA	NA	NA	NA	NA



It can be done

BATTELLE - NORWELL OPERATIONS COLUMN FRACTIONATION FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590**CTO-4164: Analysis of Solids****SB, SS**

Extract Id	Date	Init.	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comments
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Column Diameter: 13 mm **Procedure Comment:****Elution Volume:** 10 mL**Solvents****Reagents**

Reagent Prep	Weight g	Name	Expires	Lot No	Procedure
RP-181009-1	Not Measured	0.4% NH3 in Methanol	10/09/18	183857	Per 100 mL, 3.5 mL am brought to 100 mL with
RP-181009-1	Not Measured	0.4% NH3 in Methanol	10/09/18	SHBJ0412	Per 100 mL, 3.5 mL am brought to 100 mL with
RP-181009-5	0.50	ENVI-CARB SPE	10/09/18	10215411	Rinse SPE cartridge wi

Fractions



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

18-0590**CTO-4164: Analysis of Solids****SB, SS**

Extract Id	Date	Init.	Conc. ID	Turbo °C	Turbo PSI	KD °C	Comments
J8473-FS(5)	10/25/18	SAS	NA	NA	NA	NA	NA

Column Diameter: 13 mm **Procedure Comment:****Elution Volume:** 10 mL**Solvents****Reagents**

Reagent Prep	Weight g	Name	Expires	Lot No	Procedure
RP-181025-2	Not Measured	0.4% NH3 in Methanol	10/25/18	SHBJ0412	Per 100 mL, 3.5 mL am brought to 100 mL with
RP-181025-2	Not Measured	0.4% NH3 in Methanol	10/25/18	182000	Per 100 mL, 3.5 mL am brought to 100 mL with
RP-181025-3	0.50	ENVI-CARB SPE	10/25/18	10527405	Rinse SPE cartridge wi

Fractions



It can be done

BATTELLE - NORWELL OPERATIONS INTERNAL STANDARD SPIKING FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590**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
CR904PB-FS(3)	950	50	KC03	50	1	1000	10.000	10/22/18 SAS	KB
CR905LCS-FS(3)	950	50	KC03	50	1	1000	10.000	10/22/18 SAS	KB
J8465-FS(3)	950	50	KC03	50	1	1000	10.000	10/22/18 SAS	KB
J8466-FS(3)	950	50	KC03	50	1	1000	10.000	10/22/18 SAS	KB
J8467-FS(3)	950	50	KC03	50	1	1000	10.000	10/22/18 SAS	KB
J8468-FS(3)	950	50	KC03	50	1	1000	10.000	10/22/18 SAS	KB
J8469-FS(3)	950	50	KC03	50	1	1000	10.000	10/22/18 SAS	KB
J8470-FS(3)	950	50	KC03	50	1	1000	10.000	10/22/18 SAS	KB
J8471-FS(3)	950	50	KC03	50	1	1000	10.000	10/11/18 SAS	KB
J8472-FS(3)	950	50	KC03	50	1	1000	10.000	10/11/18 SAS	KB
J8473-FS(3)	950	50	KC03	50	1	1000	10.000	10/11/18 SAS	KB
J8473-FS(5)	950	50	KC52	50	1	1000	10.000	10/25/18 SAS	KB
J8474-FS(3)	950	50	KC03	50	1	1000	10.000	10/11/18 SAS	KB
J8475-FS(3)	950	50	KC03	50	1	1000	10.000	10/11/18 SAS	KB
J8476-FS(3)	950	50	KC03	50	1	1000	10.000	10/11/18 SAS	KB

Syringes/Pipettes Used:

Std ID	Type	Syr/Pip
KC03	Pipette	B814659662
KC52	Pipette	B814659662

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

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



It can be done

BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590**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	#					
CR904PB-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB
CR904PB-FS	2	--	10/9/2018 3:21:00 PM	CR904PB-FS	0	10000	9000	1.111	1.111	10/09/18 KB
CR904PB-FS	3	--	10/9/2018 3:21:00 PM	CR904PB-FS	0	10000	1000	10.000	10.000	10/09/18 KB
CR905LCS-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB
CR905LCS-FS	2	--	10/9/2018 3:21:00 PM	CR905LCS-FS	0	10000	9000	1.111	1.111	10/09/18 KB
CR905LCS-FS	3	--	10/9/2018 3:21:00 PM	CR905LCS-FS	0	10000	1000	10.000	10.000	10/09/18 KB
J8465-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB
J8465-FS	2	--	10/9/2018 3:21:00 PM	J8465-FS	0	10000	9000	1.111	1.111	10/09/18 KB
J8465-FS	3	--	10/9/2018 3:21:00 PM	J8465-FS	0	10000	1000	10.000	10.000	10/09/18 KB
J8466-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB
J8466-FS	2	--	10/9/2018 3:21:00 PM	J8466-FS	0	10000	9000	1.111	1.111	10/09/18 KB
J8466-FS	3	--	10/9/2018 3:21:00 PM	J8466-FS	0	10000	1000	10.000	10.000	10/09/18 KB
J8467-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB
J8467-FS	2	--	10/9/2018 3:21:00 PM	J8467-FS	0	10000	9000	1.111	1.111	10/09/18 KB

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590**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	#					
J8467-FS	3	--	10/9/2018 3:21:00 PM	J8467-FS	0	10000	1000	10.000	10.000	10/09/18 KB
J8468-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB
J8468-FS	2	--	10/9/2018 3:21:00 PM	J8468-FS	0	10000	9000	1.111	1.111	10/09/18 KB
J8468-FS	3	--	10/9/2018 3:21:00 PM	J8468-FS	0	10000	1000	10.000	10.000	10/09/18 KB
J8469-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB
J8469-FS	2	--	10/9/2018 3:21:00 PM	J8469-FS	0	10000	9000	1.111	1.111	10/09/18 KB
J8469-FS	3	--	10/9/2018 3:21:00 PM	J8469-FS	0	10000	1000	10.000	10.000	10/09/18 KB
J8470-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB
J8470-FS	2	--	10/9/2018 3:21:00 PM	J8470-FS	0	10000	9000	1.111	1.111	10/09/18 KB
J8470-FS	3	--	10/9/2018 3:21:00 PM	J8470-FS	0	10000	1000	10.000	10.000	10/09/18 KB
J8471-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB
J8471-FS	2	--	10/9/2018 3:21:00 PM	J8471-FS	0	10000	9000	1.111	1.111	10/09/18 KB
J8471-FS	3	--	10/9/2018 3:21:00 PM	J8471-FS	0	10000	1000	10.000	10.000	10/09/18 KB
J8472-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590**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	#					
J8472-FS	2	--	10/9/2018 3:21:00 PM	J8472-FS	0	10000	9000	1.111	1.111	10/09/18 KB
J8472-FS	3	--	10/9/2018 3:21:00 PM	J8472-FS	0	10000	1000	10.000	10.000	10/09/18 KB
J8473-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB
J8473-FS	2	C	10/9/2018 3:21:00 PM	J8473-FS	0	10000	9000	1.111	1.111	10/09/18 KB
J8473-FS	3	--	10/9/2018 3:21:00 PM	J8473-FS	0	10000	1000	10.000	10.000	10/09/18 KB
J8473-FS	4	--	10/25/2018 11:46:00 AM	J8473-FS	2	9000	8000	1.125	1.250	10/25/18 SAS
J8473-FS	5	--	10/25/2018 11:46:00 AM	J8473-FS	2	9000	1000	9.000	10.000	10/25/18 SAS
J8474-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB
J8474-FS	2	--	10/9/2018 3:21:00 PM	J8474-FS	0	10000	9000	1.111	1.111	10/09/18 KB
J8474-FS	3	--	10/9/2018 3:21:00 PM	J8474-FS	0	10000	1000	10.000	10.000	10/09/18 KB
J8475-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB
J8475-FS	2	--	10/9/2018 3:21:00 PM	J8475-FS	0	10000	9000	1.111	1.111	10/09/18 KB
J8475-FS	3	--	10/9/2018 3:21:00 PM	J8475-FS	0	10000	1000	10.000	10.000	10/09/18 KB
J8476-FS	0	C	10/8/2018 11:55:00 AM	NA		NA	NA	1.000	1.000	10/08/18 KB

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS PREPARATION EXTRACT SPLIT FORM

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590**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	#					
J8476-FS	2	--	10/9/2018 3:21:00 PM	J8476-FS	0	10000	9000	1.111	1.111	10/09/18 KB
J8476-FS	3	--	10/9/2018 3:21:00 PM	J8476-FS	0	10000	1000	10.000	10.000	10/09/18 KB

Total Oil = [Sample Volume (uL) / Aliquot Volume (uL)] * [Aliquot Weight (mg)]

Dilution Factor = [Sample Volume (uL) / Aliquot Volume (uL)] * Prior Dilution Factor

* - "C" = Extract is Consumed



It can be done

BATTELLE - NORWELL OPERATIONS EXTRACT - INSTRUMENT FACILITY CUSTODY PAGE

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590**CTO-4164: Analysis of Solids****SB, SS**

Purpose: LC-MS/MS TRANSFER		Last Activity: Prep->Inst	
Relinquished On/By: Oct 15 2018 2:09PM LMG		Received On/By: Oct 15 2018 5:34PM 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	CR904PB-FS(3)	1000	10	Intact	NA
2	CR905LCS-FS(3)	1000	10	Intact	NA
3	J8465-FS(3)	1000	10	Intact	NA
4	J8466-FS(3)	1000	10	Intact	NA
5	J8467-FS(3)	1000	10	Intact	NA
6	J8468-FS(3)	1000	10	Intact	NA
7	J8469-FS(3)	1000	10	Intact	NA
8	J8470-FS(3)	1000	10	Intact	NA
9	J8471-FS(3)	1000	10	Intact	NA
10	J8472-FS(3)	1000	10	Intact	NA
11	J8473-FS(3)	1000	10	Intact	NA
12	J8474-FS(3)	1000	10	Intact	NA
13	J8475-FS(3)	1000	10	Intact	NA
14	J8476-FS(3)	1000	10	Intact	NA

Total Extracts:	14
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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

18-0590

CTO-4164: Analysis of Solids

SB, SS

Purpose: LC-MS/MS TRANSFER		Last Activity: Prep->Inst			
Relinquished On/By: Oct 25 2018 3:38PM DMS		Received On/By: Oct 25 2018 3:39PM 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	J8473-FS(5)	1000	10	Intact	NA
Total Extracts:		1			



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

18-0590

CTO-4164: Analysis of Solids

SB, SS

Sample ID:	Comment:	Date/Initials:
CR904PB-FS	NA	NA
CR905LCS-FS	NA	NA
J8465-FS	NA	NA
J8466-FS	NA	NA
J8467-FS	NA	NA
J8468-FS	NA	NA
J8469-FS	NA	NA
J8470-FS	NA	NA
J8471-FS	NA	NA
J8472-FS	NA	NA
J8473-FS	NA	NA
J8474-FS	NA	NA
J8475-FS	NA	NA
J8476-FS	NA	NA



It can be done

**BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM**

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590

CTO-4164: Analysis of Solids

SB, SS

Entered By:

On:

Task Leader Approval:

On:

SupervisorApproval:

On:

PM Approval:

On:



It can be done

**BATTELLE - NORWELL OPERATIONS
MISCELLANEOUS DOCUMENTATION FORM**

Project Title(s)

CTO-4164 Naval Base Ventura County, California

Project No.(s)

100110125-01

18-0590

CTO-4164: Analysis of Solids

SB, SS

Task Leader Approval:

On:

SupervisorApproval:

On:

PM Approval:

On:

Analytical Calibrations

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
1	MeOH		10/17/2018 7:36:00 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
2	KB73	L1	10/17/2018 7:46:52 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
3	KB74	L2	10/17/2018 7:57:45 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
4	KB75	L3	10/17/2018 8:08:39 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
5	KB76	L4	10/17/2018 8:19:32 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
6	KB77	L5	10/17/2018 8:30:23 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
7	KB78	L6	10/17/2018 8:41:14 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
8	KB79	L7	10/17/2018 8:52:06 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
9	KB80 IB	Instrument Blank	10/17/2018 9:02:57 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
10	KB81 ICC	ICC	10/17/2018 9:13:49 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
11	KB89 Branch	Branch Standard	10/17/2018 9:24:41 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
1	MeOH		10/17/2018 9:35:33 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
12	CR904PB-FS(3)	Procedural Blank	10/17/2018 9:46:25 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
13	CR905LGS-FS(3)	Laboratory Control Sample	10/17/2018 9:57:17 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
14	J8465-FS(3)	VC-PM367-SS01-000H	10/17/2018 10:08:09 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
15	J8466-FS(3)	VC-PM367-SB01-0102	10/17/2018 10:19:02 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
16	J8467-FS(3)	VC-PM367-SB01-0506	10/17/2018 10:29:52 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
17	J8468-FS(3)	VC-PM367-SS02-000H	10/17/2018 10:40:44 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
18	J8469-FS(3)	VC-PM367-SB02-0102	10/17/2018 10:51:34 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
19	J8470-FS(3)	VC-PM367-SB02-0506	10/17/2018 11:02:25 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
20	J8471-FS(3)	VC-PM367-S03-000H	10/17/2018 11:13:17 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
24	J8472-FS(3)	VC-PM367-SB03-0102	10/17/2018 11:24:10 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
22	KB77-CCV	CCV	10/17/2018 11:35:03 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
23	MeOH		10/17/2018 11:45:54 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
24	J8473-FS(3)	VC-PM367-SB03-0506	10/17/2018 11:56:46 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
25	K8474-FS(3)	VC-PM367-SS04-000H	10/18/2018 12:07:38 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
26	J8475-FS(3)	VC-PM367-SB04	10/18/2018 12:18:30	5-0369.dam	Data18-0590_18-

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1CCV did not inject, samples needed to be rerun DMS 10/23/2018

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
		0102	AM		01588_18-0589.wiff
27	J8476-FS(3)	VC-PM367-SB04-0506	10/18/2018 12:29:22 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
28	J8337-FS-D(13)	VC-PM324-DW02-0918	10/18/2018 12:40:14 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
29	KB76-CCV	CCV	10/18/2018 12:51:06 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
30	MeOH		10/18/2018 1:01:58 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
31	CR900PB-FS(0)	Procedural Blank	10/18/2018 1:12:51 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
32	CR901LCS-FS(0)	Laboratory Control Sample	10/18/2018 1:23:44 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
33	J8455-FS(0)	VC-SO-FB07-09262018	10/18/2018 1:34:36 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
34	J8456-FS(0)	VC-SO-EB07-09262018	10/18/2018 1:45:28 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
35	J8457-FS(0)	VC-MS09-DW01-0918	10/18/2018 1:56:20 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
36	J8457-FS-D(3)	VC-MS09-DW01-0918	10/18/2018 2:07:11 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
37	J8457-FS-D(5)	VC-MS09-DW01-0918	10/18/2018 2:18:02 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
38	J8457-FS-D(7)	VC-MS09-DW01-0918	10/18/2018 2:28:56 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
39	KB77-CCV	CCV	10/18/2018 2:39:48 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
40	MeOH		10/18/2018 2:50:41 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
41	J8458-FS(0)	VC-MS09-DW02-0918	10/18/2018 3:01:33 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
42	J8458-FS-D(3)	VC-MS09-DW02-0918	10/18/2018 3:12:26 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
43	J8458-FS-D(5)	VC-MS09-DW02-0918	10/18/2018 3:23:17 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
44	J8459-FS(0)	VC-MS09-DW03-0918	10/18/2018 3:34:08 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
45	J8459-FS-D(3)	VC-MS09-DW03-0918	10/18/2018 3:44:59 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
46	J8459-FS-D(5)	VC-MS09-DW03-0918	10/18/2018 3:55:51 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
47	J8460-FS(0)	VC-MS09-DW04-0918	10/18/2018 4:06:44 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
48	J8460-FS-D(3)	VC-MS09-DW04-0918	10/18/2018 4:17:36 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
49	J8460-FS-D(5)	VC-MS09-DW04-0918	10/18/2018 4:28:28 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
50	KB76-CCV	CCV	10/18/2018 4:39:20 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
51	MeOH		10/18/2018 4:50:12 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
52	J8461-FS(0)	VC-MS09-DW04P-0918	10/18/2018 5:01:04 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff

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1 CCV did not inject sample needed to be rerun. DMS 10/23/2018

2 samples from another batch not reported with this one. DMS 10/23/2018

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
53	J8461 FS-D(3)	VC-MS09-DW04P-0918	10/18/2018 5:11:56 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
54	J8461 FS-D(5)	VC-MS09-DW04P-0918	10/18/2018 5:22:47 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
1	J8462 FS(0)	VC-MS09-DW05-0918	10/18/2018 5:33:39 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
2	J8462 FS-D(3)	VC-MS09-DW05-0918	10/18/2018 5:44:32 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
3	J8462 FS-D(5)	VC-MS09-DW05-0918	10/18/2018 5:55:26 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
4	J8463MS FS(0)	VC-MS09-DW05-0918-MS	10/18/2018 6:06:18 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
5	J8463MS FS-D(3)	VC-MS09-DW05-0918-MS	10/18/2018 6:17:11 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
6	J8463MS FS-D(5)	VC-MS09-DW05-0918-MS	10/18/2018 6:28:05 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
7	KB77 CCV	CCV	10/18/2018 6:38:59 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
8	MeOH		10/18/2018 6:49:52 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
9	J8464MSD FS(0)	VC-MS09-DW05-0918-MSD	10/18/2018 7:00:44 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
10	J8464MSD FS-D(3)	VC-MS09-DW05-0918-MSD	10/18/2018 7:11:37 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
11	J8464MSD FS-D(5)	VC-MS09-DW05-0918-MSD	10/18/2018 7:22:30 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
12	J8477 FS(0)	VC-PM367-DW01-0918	10/18/2018 7:33:23 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
13	J8477 FS-D(3)	VC-PM367-DW01-0918	10/18/2018 7:44:17 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
14	J8477 FS-D(5)	VC-PM367-DW01-0918	10/18/2018 7:55:10 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
15	J8478 FS(0)	VC-PM367-DW02-0918	10/18/2018 8:06:03 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
16	J8478 FS-D(3)	VC-PM367-DW02-0918	10/18/2018 8:16:56 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
17	J8478 FS-D(5)	VC-PM367-DW02-0918	10/18/2018 8:27:49 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
18	KB76 CCV	CCV	10/18/2018 8:38:41 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
19	MeOH		10/18/2018 8:49:32 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
20	J8479 FS(0)	VC-PM367-DW03-0918	10/18/2018 9:00:25 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
24	J8479 FS-D(3)	VC-PM367-DW03-0918	10/18/2018 9:11:19 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
22	J8479 FS-D(5)	VC-PM367-DW03-0918	10/18/2018 9:22:14 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
23	J8480 FS(0)	VC-PM367-DW03P-0918	10/18/2018 9:33:08 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
24	J8480 FS-D(3)	VC-PM367-DW03P-0918	10/18/2018 9:44:00 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
25	J8480 FS-D(5)	VC-PM367-DW03P-0918	10/18/2018 9:54:54 AM	5-0369.dam	Data18-0590_18-

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2 samples from another batch not reported with this one. DMS 10/23/2018

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
		0918	AM		01588_18-0589.wiff
26	J8481-FS(0)	VC-PM367-DW04-0918	10/18/2018 10:05:48 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
27	J8481-FS-D(3)	VC-PM367-DW04-0918	10/18/2018 10:16:41 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
28	J8481-FS-D(5)	VC-PM367-DW04-0918	10/18/2018 10:27:34 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
29	KB77-CCV	CCV	10/18/2018 10:38:28 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
30	MeOH		10/18/2018 10:49:21 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
31	J8482-FS(0)	VC-AQ-FB08-09272018	10/18/2018 11:00:14 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
32	J8483-FS(0)	VC-AQ-EB08-09272018	10/18/2018 11:11:06 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
33	KB76-CCV		10/18/2018 11:22:00 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
34	MeOH		10/18/2018 11:32:53 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
35	CR902PB-FS(3)	Procedural Blank	10/18/2018 11:43:47 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
36	CR903LCS-FS(3)	Laboratory Control Sample	10/18/2018 11:54:39 AM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
37	J8438-FS(3)	VC-MS09-SS01-000H	10/18/2018 12:05:31 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
38	J8438-FS-D(5)	VC-MS09-SS01-000H	10/18/2018 12:16:25 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
39	J8439-FS(3)	VC-MS09-SB01-0102	10/18/2018 12:27:18 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
40	J8439-FS-D(5)	VC-MS09-SB01-0102	10/18/2018 12:38:11 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
41	J8440-FS(3)	VC-MS09-SB01-0506	10/18/2018 12:49:05 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
42	J8440-FS-D(5)	VC-MS09-SB01-0506	10/18/2018 12:59:57 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
43	KB77-CCV	CCV	10/18/2018 1:10:49 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
44	MeOH		10/18/2018 1:21:42 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
45	J8441-FS(3)	VC-MS09-SS02-000H	10/18/2018 1:32:35 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
46	J8441-FS-D(5)	VC-MS09-SS02-000H	10/18/2018 1:43:28 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
47	J8441-FS-D(7)	VC-MS09-SS02-000H	10/18/2018 1:54:21 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
48	J8441-FS-D(9)	VC-MS09-SS02-000H	10/18/2018 2:05:14 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
30	MeOH		10/18/2018 2:16:07 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
49	J8442-FS(3)	VC-MS09-SB02-0102	10/18/2018 2:48:44 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
50	J8442-FS-D(5)	VC-MS09-SB02-0102	10/18/2018 2:59:38 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff

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2 samples from another batch not reported with this one. DMS 10/23/2018

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
51	J8442 FS-D(7)	VC-MS09-SB02-0102	10/18/2018 3:10:33 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
52	J8442 FS-D(9)	VC-MS09-SB02-0102	10/18/2018 3:21:26 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
53	KB76-CCV	CCV	10/18/2018 3:32:19 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
54	MeOH		10/18/2018 3:43:13 PM	5-0369.dam	Data18-0590_18-01588_18-0589.wiff
1	J8443 FS(3)	VC-MS09-SB02-0506	10/18/2018 3:54:05 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
2	J8443 FS-D(5)	VC-MS09-SB02-0506	10/18/2018 4:04:56 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
3	J8443 FS-D(7)	VC-MS09-SB02-0506	10/18/2018 4:15:48 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
4	J8444 FS-D(7)	VC-MS09-SS03-000H	10/18/2018 4:26:39 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
5	J8444 FS-D(9)	VC-MS09-SS03-000H	10/18/2018 4:37:32 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
6	J8444 FS-D(11)	VC-MS09-SS03-000H	10/18/2018 4:48:24 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
7	J8444 FS-D(13)	VC-MS09-SS03-000H	10/18/2018 4:59:16 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
8	J8444 FS-D(15)	VC-MS09-SS03-000H	10/18/2018 5:10:08 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
9	KB77-CCV	CCV	10/18/2018 5:20:59 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
10	MeOH		10/18/2018 5:31:50 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
11	J8445 FS(3)	VC-MS09-SB03-0102	10/18/2018 5:42:42 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
12	J8445 FS-D(5)	VC-MS09-SB03-0102	10/18/2018 5:53:34 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
13	J8445 FS-D(7)	VC-MS09-SB03-0102	10/18/2018 6:04:26 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
14	J8445 FS-D(9)	VC-MS09-SB03-0102	10/18/2018 6:15:17 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
15	J8446 FS(3)	VC-MS09-SB03-0506	10/18/2018 6:26:09 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
16	J8446 FS-D(5)	VC-MS09-SB03-0506	10/18/2018 6:37:01 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
17	J8447 FS(3)	VC-MS09-SS04-000H	10/18/2018 6:47:52 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
18	J8448 FS(3)	VC-MS09-SB04-0102	10/18/2018 6:58:43 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
19	J8448 FS-D(5)	VC-MS09-SB04-0102	10/18/2018 7:09:33 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
20	KB76-CCV	CCV	10/18/2018 7:20:24 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
21	MeOH		10/18/2018 7:31:17 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
22	J8449 FS(3)	VC-MS09-SB04-0506	10/18/2018 7:42:10 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
23	J8449 FS-D(5)	VC-MS09-SB04-0506	10/18/2018 7:53:03 PM	5-0369.dam	18-0590_18-01588_18-

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2 samples from another batch not reported with this one. DMS 10/23/2018

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
			PM		0589.wiff
24	J8450-FS(3)	VC-MS09-SS05-000H	10/18/2018 8:03:55 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
25	J8450-FS-D(5)	VC-MS09-SS05-000H	10/18/2018 8:14:47 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
26	J8451-FS(3)	VC-MS09-SB05-0102	10/18/2018 8:25:38 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
27	J8451-FS-D(5)	VC-MS09-SB05-0102	10/18/2018 8:36:29 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
28	J5452-FS((3)	VC-MS09-SB05-0506	10/18/2018 8:47:20 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
29	J8452-FS-D(5)	VC-MS09-SB05-0506	10/18/2018 8:58:12 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
30	KB77-CCV	CCV	10/18/2018 9:09:03 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
34	MeOH		10/18/2018 9:19:54 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
32	J8453MS-FS(3)	VC-MS09-SB04-0102-MS	10/18/2018 9:30:47 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
33	J8453MS-FS-D(5)	VC-MS09-SB04-0102-MS	10/18/2018 9:41:39 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
34	J8454MSD-FS(3)	VC-MS09-SB04-0102-MSD	10/18/2018 9:52:29 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
35	J8454MSD-FS-D(5)	VC-MS09-SB04-0102-MSD	10/18/2018 10:03:21 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
36	KB76-CCV	CCV	10/18/2018 10:14:13 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
37	MeOH		10/18/2018 10:25:04 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
38	J8444-FS(5)	VC-MS09-SS03-000H	10/18/2018 10:35:56 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
19	MeOH		10/18/2018 11:41:06 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
4	CR904PB-FS(3)	Procedural Blank	10/18/2018 11:51:59 PM	5-0369.dam	18-0590_18-01588_18-0589.wiff
2	CR905LCS-FS(3)	Laboratory Control Sample	10/19/2018 12:02:52 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
3	J8465-FS(3)	VC-PM367-SS01-000H	10/19/2018 12:13:45 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
4	J8466-FS(3)	VC-PM367-SB01-0102	10/19/2018 12:24:40 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
5	J8467-FS(3)	VC-PM367-SB01-0506	10/19/2018 12:35:32 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
6	J8468-FS(3)	VC-PM367-SS02-000H	10/19/2018 12:46:24 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
7	J8469-FS(3)	VC-PM367-SB02-0102	10/19/2018 12:57:16 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
8	J8470-FS(3)	VC-PM367-SB02-0506	10/19/2018 1:08:08 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
9	J8471-FS(3)	VC-PM367-SS03-000H	10/19/2018 1:19:00 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
10	KB76-CCV	CCV	10/19/2018 1:29:53 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff

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2 samples from another batch not reported with this one. DMS 10/23/2018

3 PB reported from rerun. DMS 10/23/2018

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
11	MeOH		10/19/2018 1:40:47 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
12	J8472-FS(3)	VC-PM367-SB03-0102	10/19/2018 1:51:41 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
13	J8473-FS(3)	VC-PM367-SB03-0506	10/19/2018 2:02:34 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
14	J8474-FS(3)	VC-PM367-SS04-000H	10/19/2018 2:13:28 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
15	J8475-FS(3)	VC-PM367-SB04-0102	10/19/2018 2:24:20 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
16	J8476-FS(3)	VC-PM367-SB04-0506	10/19/2018 2:35:12 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
17	J8337-FS-D(13)	VC-PM324-DW02-0918	10/19/2018 2:46:05 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff
18	KB77 CCV	CCV	10/19/2018 2:56:57 AM	5-0369.dam	18-0590_18-01588_18-0589.wiff

4

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2 sample from another batch not reported with this one. DMS 10/23/2018

4 Sample J8473 was outside of the injected internal standard criteria. There was no original extract left so the lab took a fresh aliquot and passed it thru an Envicarb cartridge and then submitted for analysis. Sample was re-analyzed on 10/25/2018. EMF 10/26/2018

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
1	KB75 ISC	Instrument Sensitivity Check	10/25/2018 4:26:43 PM	5-0369.dam	AC_10252018_05-0369.wiff
2	KB80 IB	Instrument Blank	10/25/2018 4:37:35 PM	5-0369.dam	AC_10252018_05-0369.wiff
3	MeOH		10/25/2018 4:48:29 PM	5-0369.dam	AC_10252018_05-0369.wiff
4	J8473-FS(5)	VC-PM367-SB03-0506	10/25/2018 4:59:22 PM	5-0369.dam	AC_10252018_05-0369.wiff
5	KB77 CCV	CCV	10/25/2018 5:10:14 PM	5-0369.dam	AC_10252018_05-0369.wiff

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
1	KB75 ISC	Instrument Sensitivity Check	10/19/2018 6:16:51 PM	5-0369.dam	10192018.wiff
2	KB80 IB	Instrument Blank	10/19/2018 6:27:43 PM	5-0369.dam	10192018.wiff
3	MeOH		10/19/2018 6:38:37 PM	5-0369.dam	10192018.wiff
4	KC52-CKC-1	Standard Check	10/19/2018 6:49:30 PM	5-0369.dam	10192018.wiff
5	KC52-CHK2	Standard Check	10/19/2018 7:00:22 PM	5-0369.dam	10192018.wiff
6	CR904PB-FS(3)	Procedural Blank	10/19/2018 7:11:14 PM	5-0369.dam	10192018.wiff
7	CR890PB-FS(0)	Prodedural Blank	10/19/2018 7:22:06 PM	5-0369.dam	10192018.wiff
8	J8384-FS-D(5)	VC-PM64B-DW03-0918	10/19/2018 7:32:58 PM	5-0369.dam	10192018.wiff
9	J8358-FS(0)	VC-PM323-DW01-0918	10/19/2018 7:43:49 PM	5-0369.dam	10192018.wiff
4	MeOH		10/19/2018 7:54:40 PM	5-0369.dam	10192018.wiff
10	J8400-FS-D(9)	VC-HS09-DW03P-0918	10/19/2018 8:05:33 PM	5-0369.dam	10192018.wiff
11	J8371-FS-D(9)	VC-PM324-DW01P-0918	10/19/2018 8:16:26 PM	5-0369.dam	10192018.wiff
12	J8464MSD-FS-D(7)	VC-MS09-DW05-0918-MSD	10/19/2018 8:27:19 PM	5-0369.dam	10192018.wiff
13	KB76 CCV	CCV	10/19/2018 8:38:12 PM	5-0369.dam	10192018.wiff
4	MeOH		10/19/2018 8:49:05 PM	5-0369.dam	10192018.wiff
14	J8462-FS-D(7)	VC-CS12-SB02-0102	10/19/2018 8:59:57 PM	5-0369.dam	10192018.wiff
15	J8477-FS-D(7)	VC-CS10-SS03-000H	10/19/2018 9:10:49 PM	5-0369.dam	10192018.wiff
16	J8478-FS-D(7)	VC-CS10-SB03-0102	10/19/2018 9:21:41 PM	5-0369.dam	10192018.wiff
17	J8479-FS-D(7)	VC-CS10-SB03-0506	10/19/2018 9:32:32 PM	5-0369.dam	10192018.wiff
18	J8480-FS-D(7)	VC-CS10-SS04-000H	10/19/2018 9:43:23 PM	5-0369.dam	10192018.wiff
19	J8481-FS-D(7)	VC-CS10-SB04-0102	10/19/2018 9:54:14 PM	5-0369.dam	10192018.wiff
20	J8460-FS-D(7)	VC-CS12-SB01-0506	10/19/2018 10:05:06 PM	5-0369.dam	10192018.wiff
21	J8461-FS-D(7)	VC-CS12-SS02-000H	10/19/2018 10:15:59 PM	5-0369.dam	10192018.wiff
22	KB77-CCV	CCV	10/19/2018 10:26:52 PM	5-0369.dam	10192018.wiff
4	MeOH		10/19/2018 10:37:43 PM	5-0369.dam	10192018.wiff
23	J8440-FS-D(7)	VC-MS09-SB01-0506	10/19/2018 10:48:35 PM	5-0369.dam	10192018.wiff
24	J8443-FS-D(9)	VC-MS09-SB02-0506	10/19/2018 10:59:28 PM	5-0369.dam	10192018.wiff

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1 samples from another batch not reported with this one. DMS 10/23/2018

Vial	Laboratory Sample ID	Client Sample ID	Acquisition Date	Acquisition Method	Data File
			PM		
25	J8445-FS-D(11)	VC-MS09-SB03-0102	10/19/2018 11:10:20 PM	5-0369.dam	10192018.wiff
26	J8446-FS-D(7)	VC-MS09-SB03-0506	10/19/2018 11:21:12 PM	5-0369.dam	10192018.wiff
27	J8450-FS-D(7)	VC-MS09-SS05-000H	10/19/2018 11:32:04 PM	5-0369.dam	10192018.wiff
28	J8444-FS-D(17)	VC-MS09-SS03-000H	10/19/2018 11:42:56 PM	5-0369.dam	10192018.wiff
29	KB76-CCV	CCV	10/19/2018 11:53:48 PM	5-0369.dam	10192018.wiff

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1 samples from another batch not reported with this one. DMS 10/23/2018



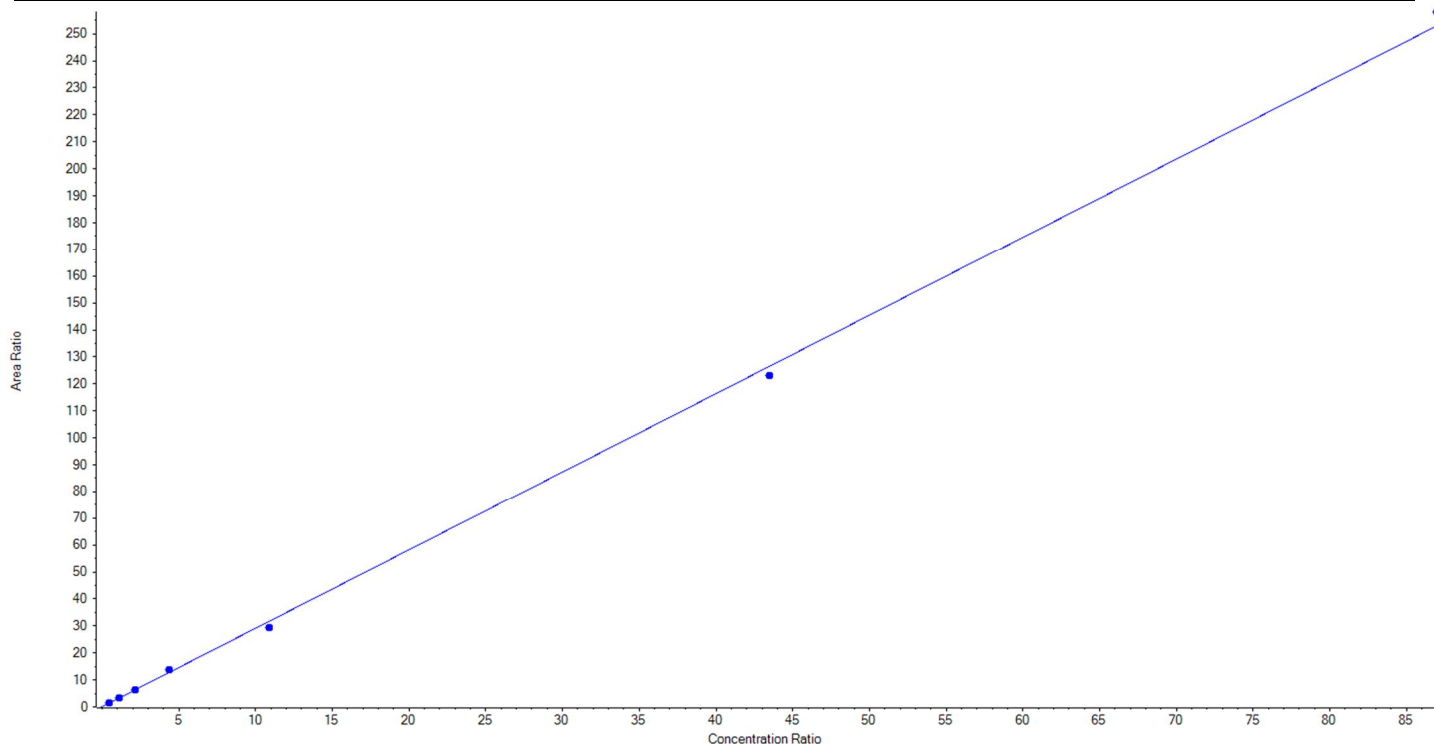
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 7:31:27 PM

Analyte Name	PFBS_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	298.9 / 80.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C3-PFBS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 2.90746x + 0.06970$ ($r = 0.99940$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	104.635578	103.6
3	KB74	L2	True	252.50	249.370464	98.8
4	KB75	L3	True	505.00	495.098560	98.0
5	KB76	L4	True	1010.00	1091.288759	108.1
6	KB77	L5	True	2525.00	2332.691625	92.4
7	KB78	L6	True	10100.00	9811.581725	97.1
8	KB79	L7	True	20200.00	20608.833290	102.0





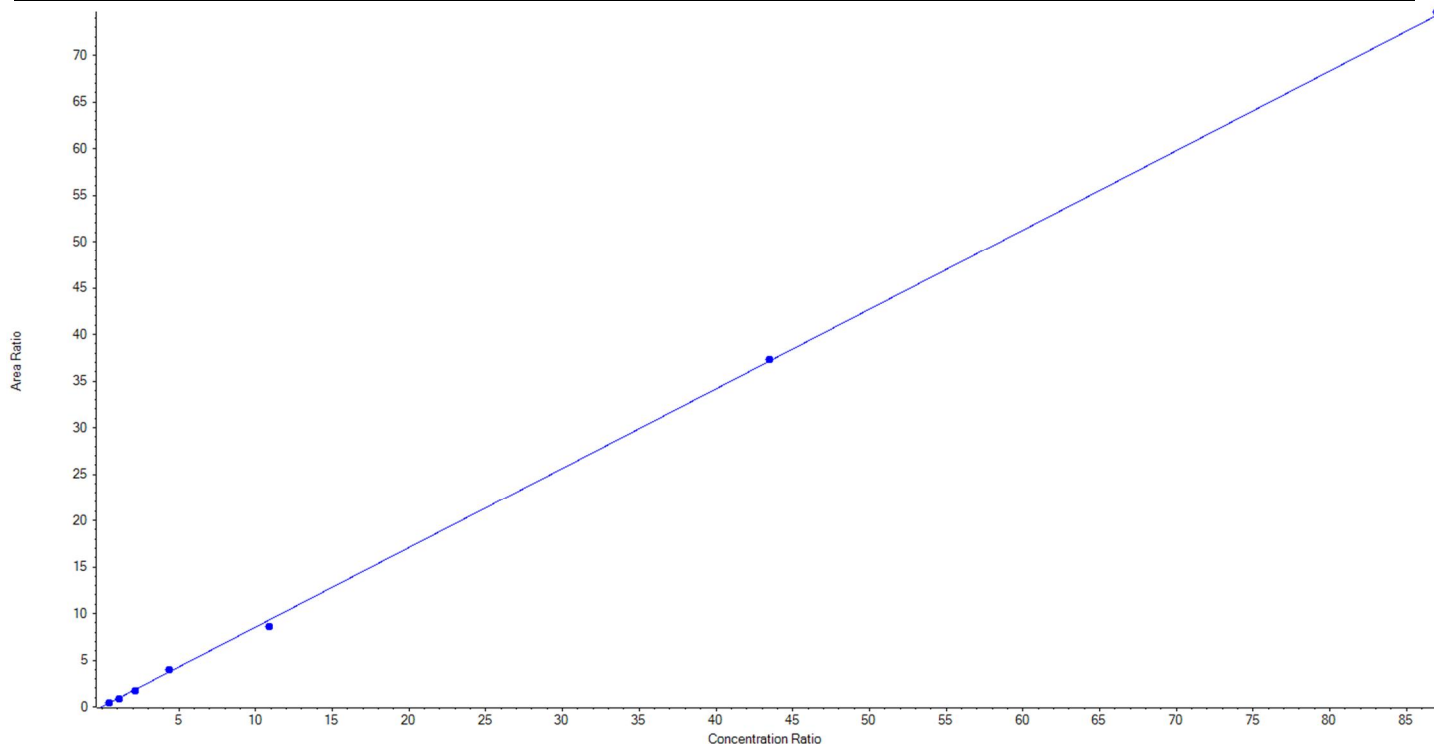
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 7:31:27 PM

Analyte Name	PFBS_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	298.9 / 99.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C3-PFBS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.85386x + 0.01367$ ($r = 0.99964$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	109.976962	108.9
3	KB74	L2	True	252.50	242.180085	95.9
4	KB75	L3	True	505.00	475.121472	94.1
5	KB76	L4	True	1010.00	1086.381545	107.6
6	KB77	L5	True	2525.00	2339.199841	92.6
7	KB78	L6	True	10100.00	10143.472130	100.4
8	KB79	L7	True	20200.00	20297.167965	100.5





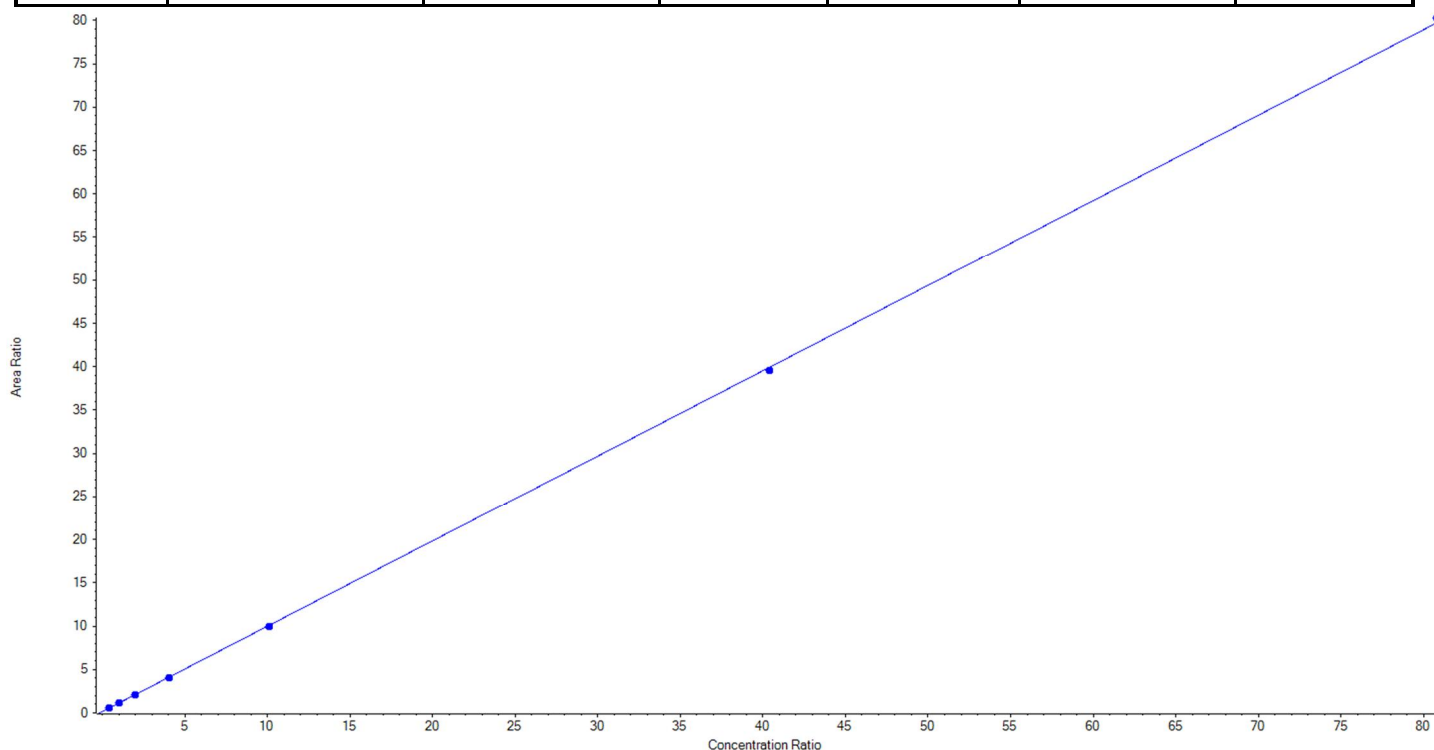
Calibration Summary Report

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Analyte Name	PFHxA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	313.0 / 269.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C5-PFHxA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.98501x + 0.13333$ ($r = 0.99994$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	98.968181	98.0
3	KB74	L2	True	252.50	269.910942	106.9
4	KB75	L3	True	505.00	490.752146	97.2
5	KB76	L4	True	1010.00	1004.472242	99.5
6	KB77	L5	True	2525.00	2495.865956	98.9
7	KB78	L6	True	10100.00	9993.499522	99.0
8	KB79	L7	True	20200.00	20340.031011	100.7





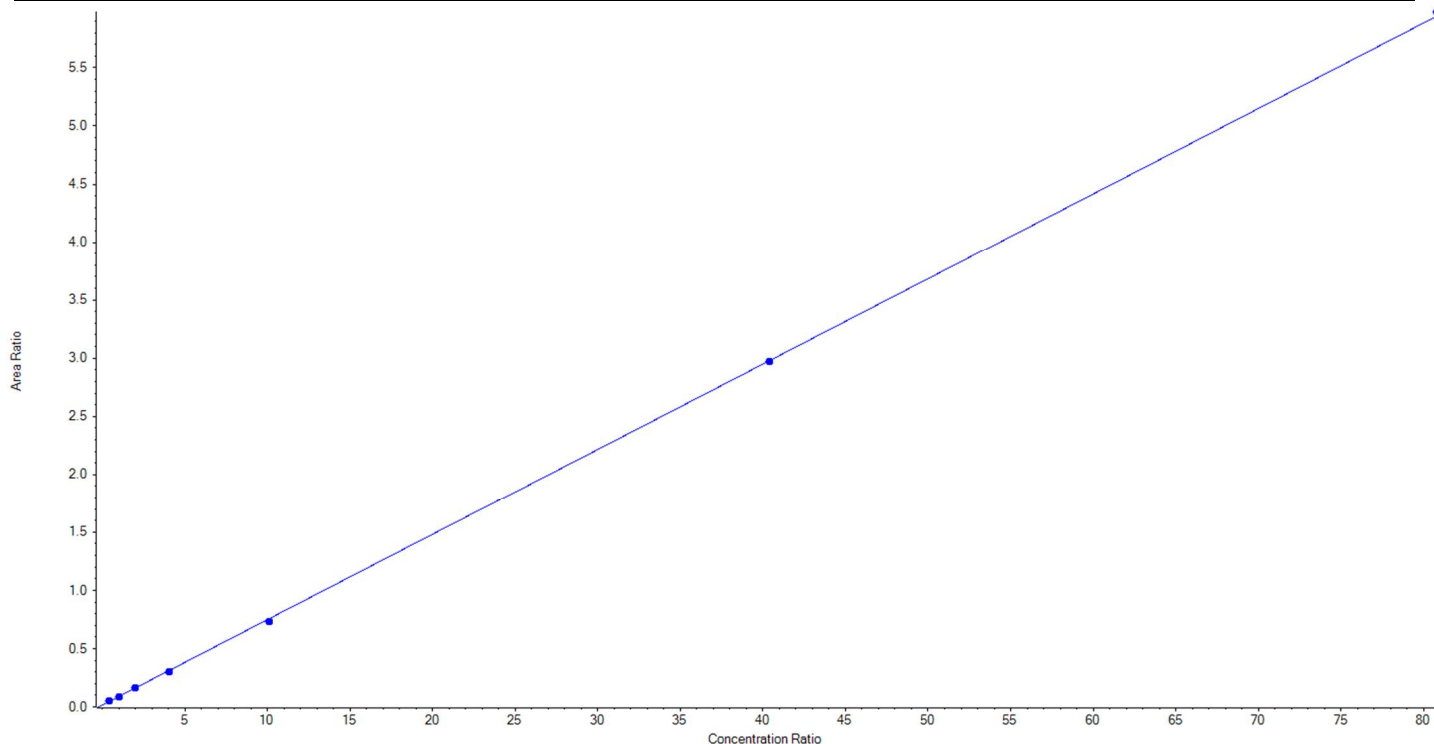
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Analyte Name	PFHxA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	313.0 / 119.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C5-PFHxA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.07336x + 0.01493$ ($r = 0.99989$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	113.183087	112.1
3	KB74	L2	True	252.50	230.645561	91.3
4	KB75	L3	True	505.00	514.901118	102.0
5	KB76	L4	True	1010.00	980.952621	97.1
6	KB77	L5	True	2525.00	2451.366061	97.1
7	KB78	L6	True	10100.00	10083.260482	99.8
8	KB79	L7	True	20200.00	20319.191070	100.6





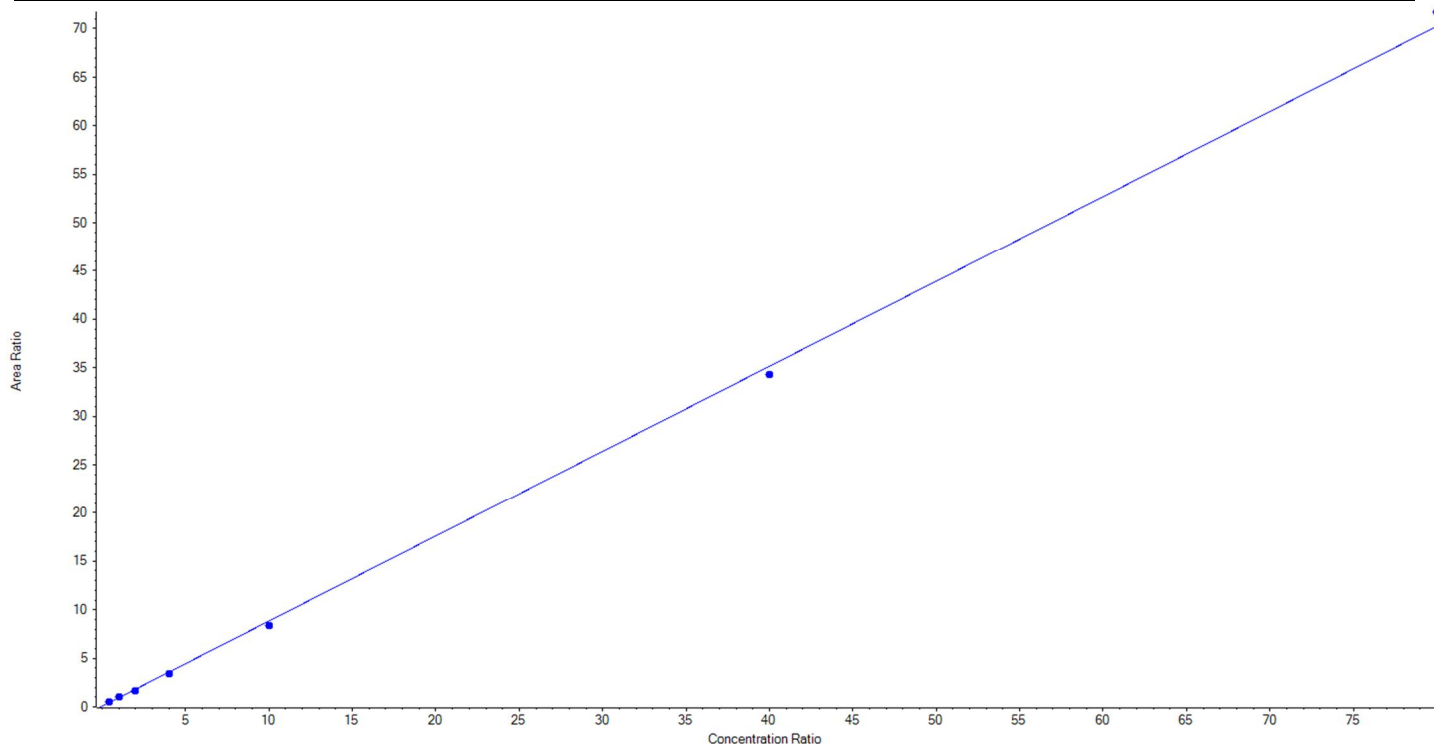
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Analyte Name	PFHpA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	363.0 / 319.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C4-PFHpA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.87722x + 0.06760$ ($r = 0.99955$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	113.465532	113.5
3	KB74	L2	True	250.00	261.922885	104.8
4	KB75	L3	True	500.00	452.888167	90.6
5	KB76	L4	True	1000.00	963.772233	96.4
6	KB77	L5	True	2500.00	2376.996854	95.1
7	KB78	L6	True	10000.00	9765.162244	97.7
8	KB79	L7	True	20000.00	20415.792084	102.1





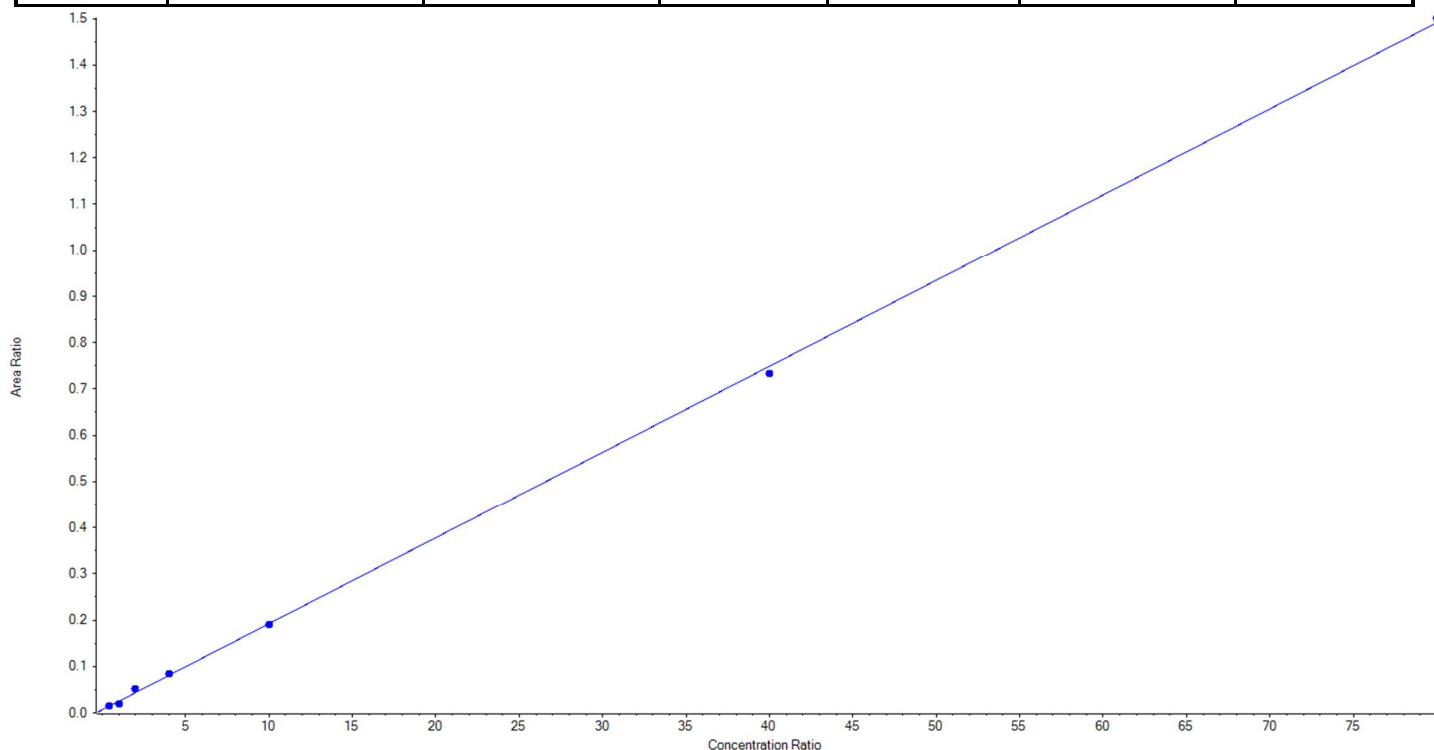
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Analyte Name	PFHpA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	363.0 / 169.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C4-PFHpA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.01856x + 0.00664$ ($r = 0.99907$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	103.311634	103.3
3	KB74	L2	True	250.00	175.823351	70.3
4	KB75	L3	True	500.00	618.850678	123.8
5	KB76	L4	True	1000.00	1051.701356	105.2
6	KB77	L5	True	2500.00	2469.602759	98.8
7	KB78	L6	True	10000.00	9796.218447	98.0
8	KB79	L7	True	20000.00	20134.491774	100.7





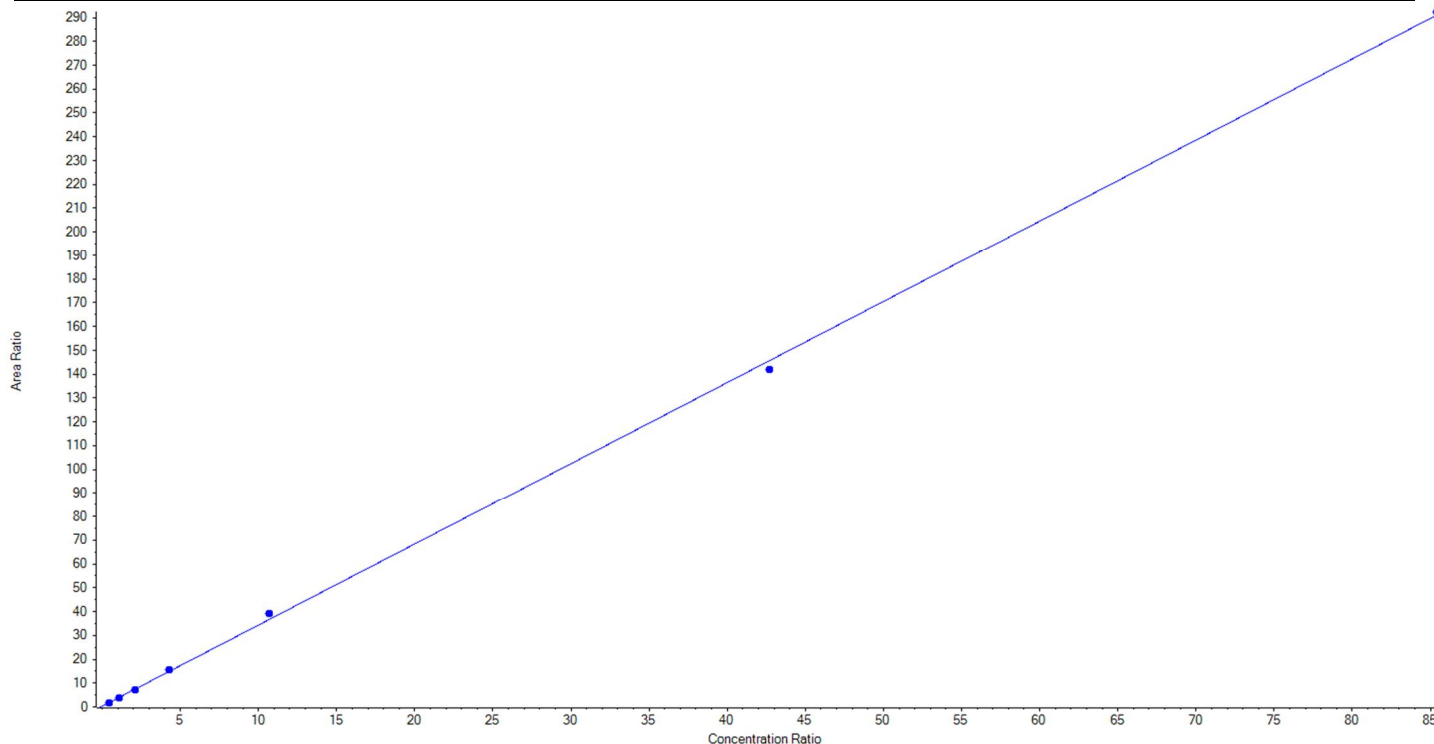
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Analyte Name	PFHxS_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	399.0 / 80.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C3-PFHxS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 3.40443x + 0.28942$ ($r = 0.99956$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	105.225987	104.2
3	KB74	L2	True	252.50	232.865372	92.2
4	KB75	L3	True	505.00	467.824000	92.6
5	KB76	L4	True	1010.00	1074.776448	106.4
6	KB77	L5	True	2525.00	2696.493262	106.8
7	KB78	L6	True	10100.00	9828.822898	97.3
8	KB79	L7	True	20200.00	20287.492034	100.4





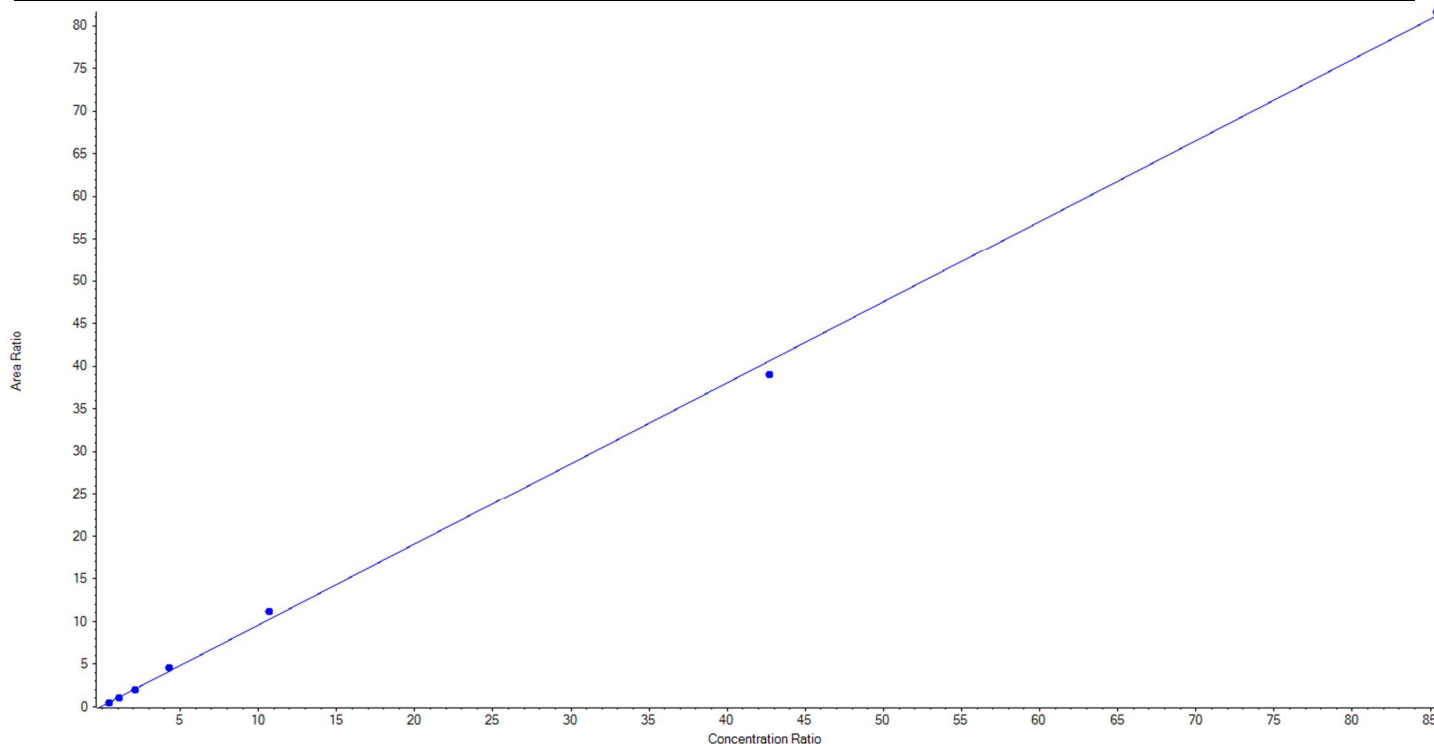
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Analyte Name	PFHxS_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	399.0 / 99.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C3-PFHxS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.94916x + 0.10161$ ($r = 0.99926$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	101.00	98.139274	97.2
3	KB74	L2	True	252.50	231.314187	91.6
4	KB75	L3	True	505.00	484.563583	96.0
5	KB76	L4	True	1010.00	1107.476178	109.7
6	KB77	L5	True	2525.00	2749.725828	108.9
7	KB78	L6	True	10100.00	9714.855919	96.2
8	KB79	L7	True	20200.00	20307.425032	100.5





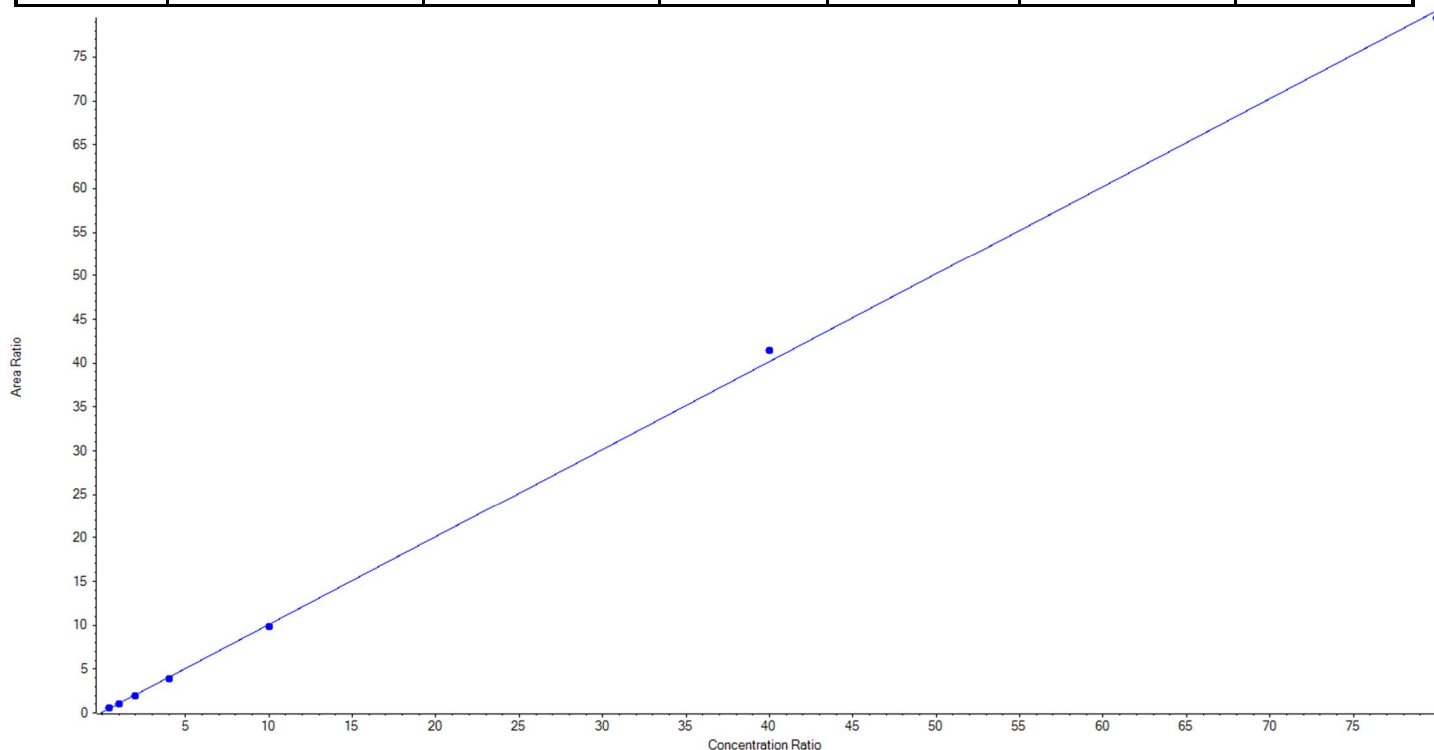
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Analyte Name	PFOA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	413.0 / 369.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C8-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.00279x + 0.06080$ ($r = 0.99969$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	113.608497	113.6
3	KB74	L2	True	250.00	242.259718	96.9
4	KB75	L3	True	500.00	467.456638	93.5
5	KB76	L4	True	1000.00	956.844142	95.7
6	KB77	L5	True	2500.00	2452.232813	98.1
7	KB78	L6	True	10000.00	10326.914009	103.3
8	KB79	L7	True	20000.00	19790.684183	99.0





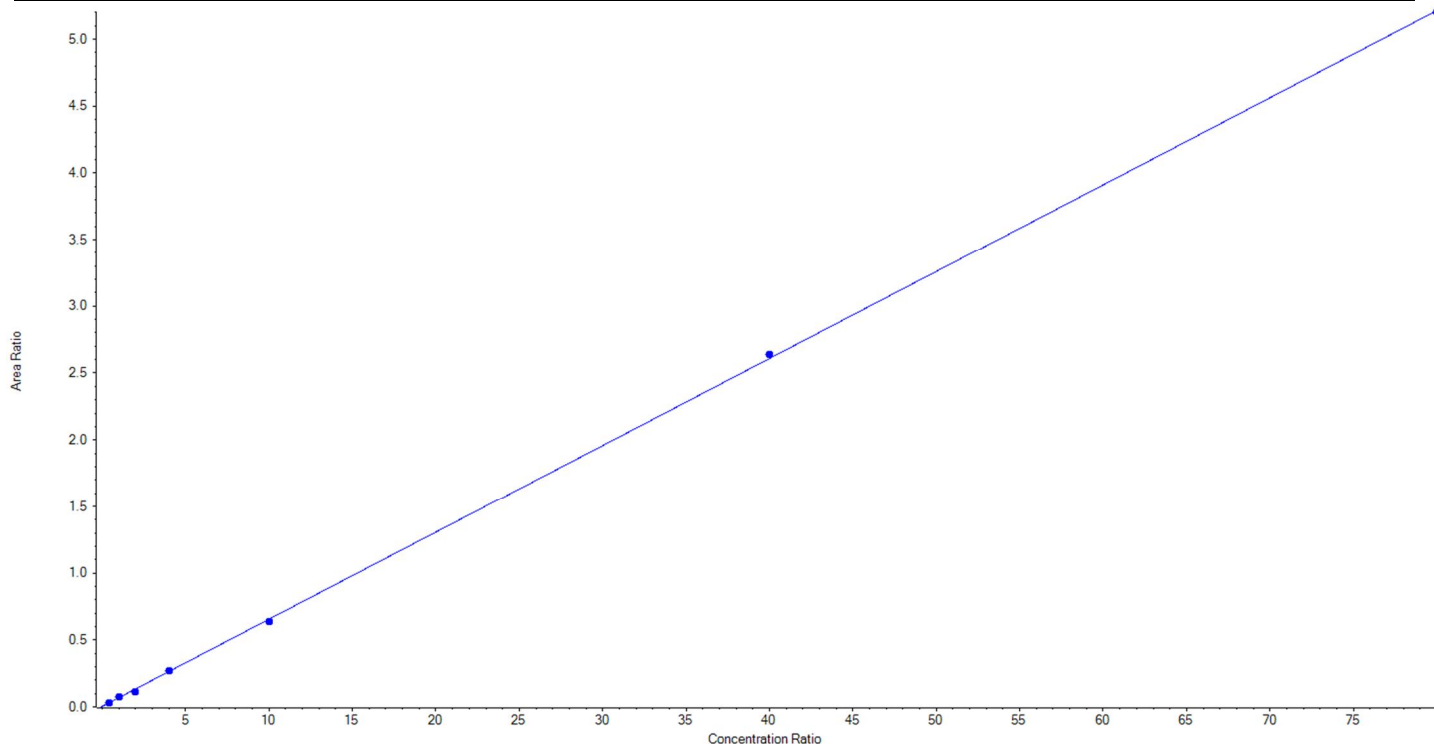
Calibration Summary Report

Created with Analyst Reporter
Printed: 23/10/2018 7:31:27 PM

Analyte Name	PFOA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	413.0 / 169.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C8-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.06512x + 0.00376$ ($r = 0.99971$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	104.849376	104.9
3	KB74	L2	True	250.00	273.238913	109.3
4	KB75	L3	True	500.00	421.303706	84.3
5	KB76	L4	True	1000.00	1028.034772	102.8
6	KB77	L5	True	2500.00	2444.883328	97.8
7	KB78	L6	True	10000.00	10121.411629	101.2
8	KB79	L7	True	20000.00	19956.278277	99.8





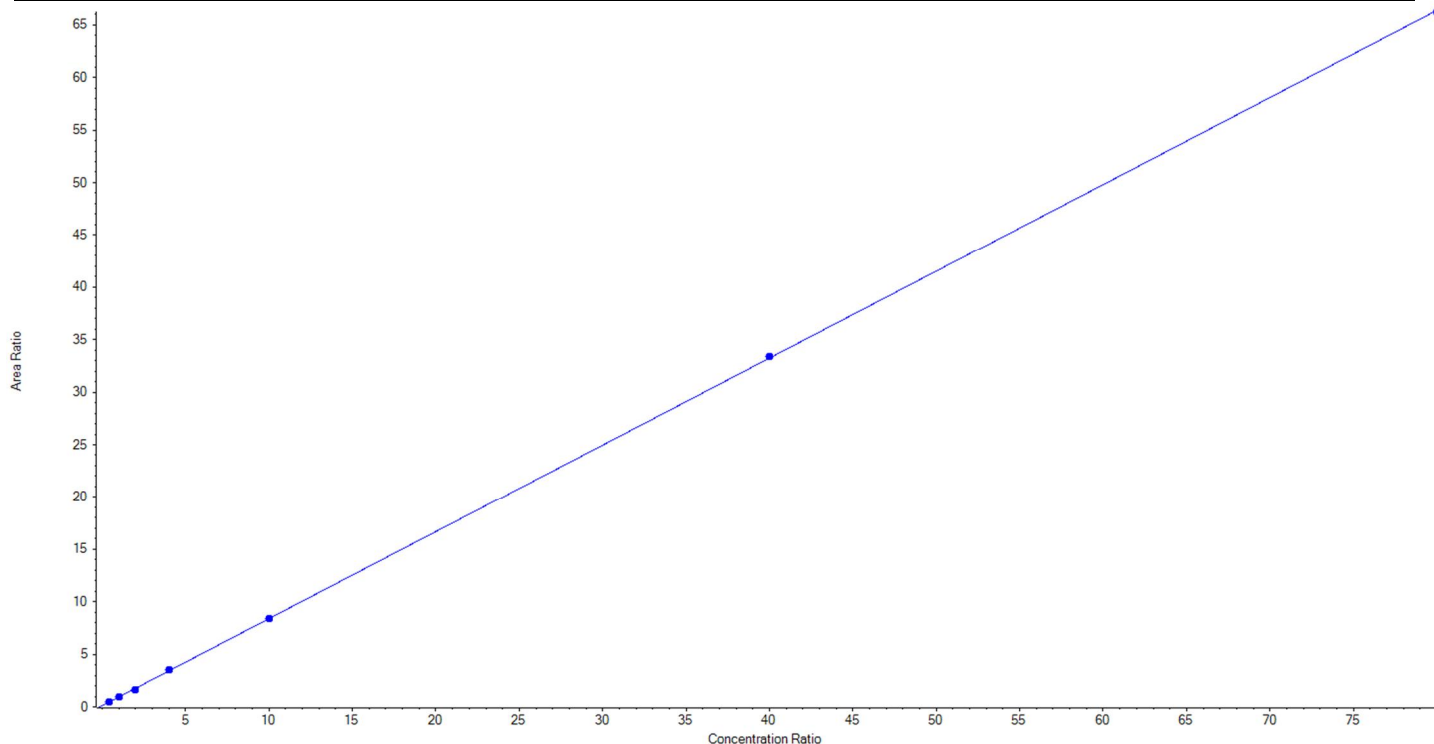
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Analyte Name	PFNA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	463.0 / 419.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C9-PFNA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.82839x + 0.10849$ ($r = 0.99987$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	100.132667	100.1
3	KB74	L2	True	250.00	263.216231	105.3
4	KB75	L3	True	500.00	450.336433	90.1
5	KB76	L4	True	1000.00	1046.243999	104.6
6	KB77	L5	True	2500.00	2491.510736	99.7
7	KB78	L6	True	10000.00	10047.185055	100.5
8	KB79	L7	True	20000.00	19951.374879	99.8





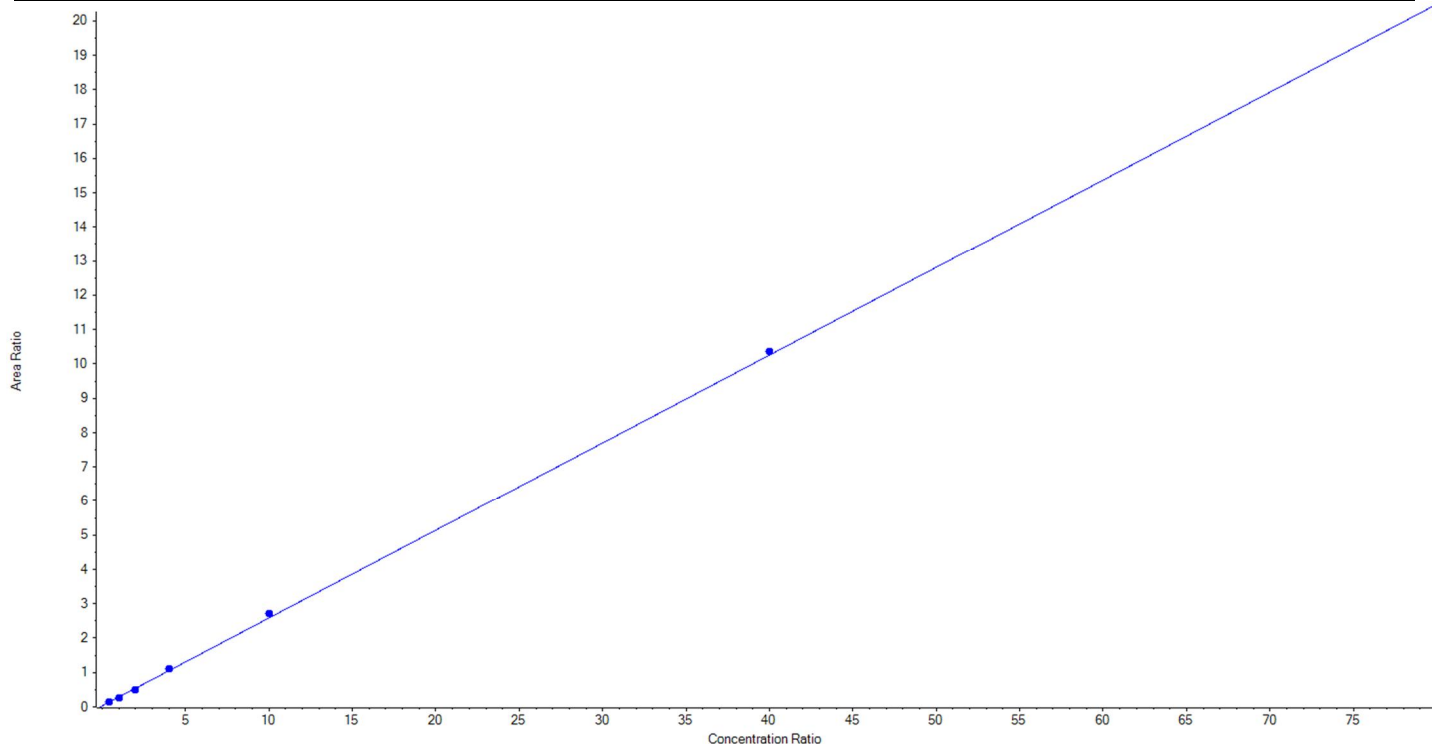
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Analyte Name	PFNA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	463.0 / 219.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C9-PFNA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.25566x + 0.02957$ ($r = 0.99963$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	111.702594	111.7
3	KB74	L2	True	250.00	220.916460	88.4
4	KB75	L3	True	500.00	448.287193	89.7
5	KB76	L4	True	1000.00	1050.052047	105.0
6	KB77	L5	True	2500.00	2632.290752	105.3
7	KB78	L6	True	10000.00	10108.558837	101.1
8	KB79	L7	True	20000.00	19778.192118	98.9





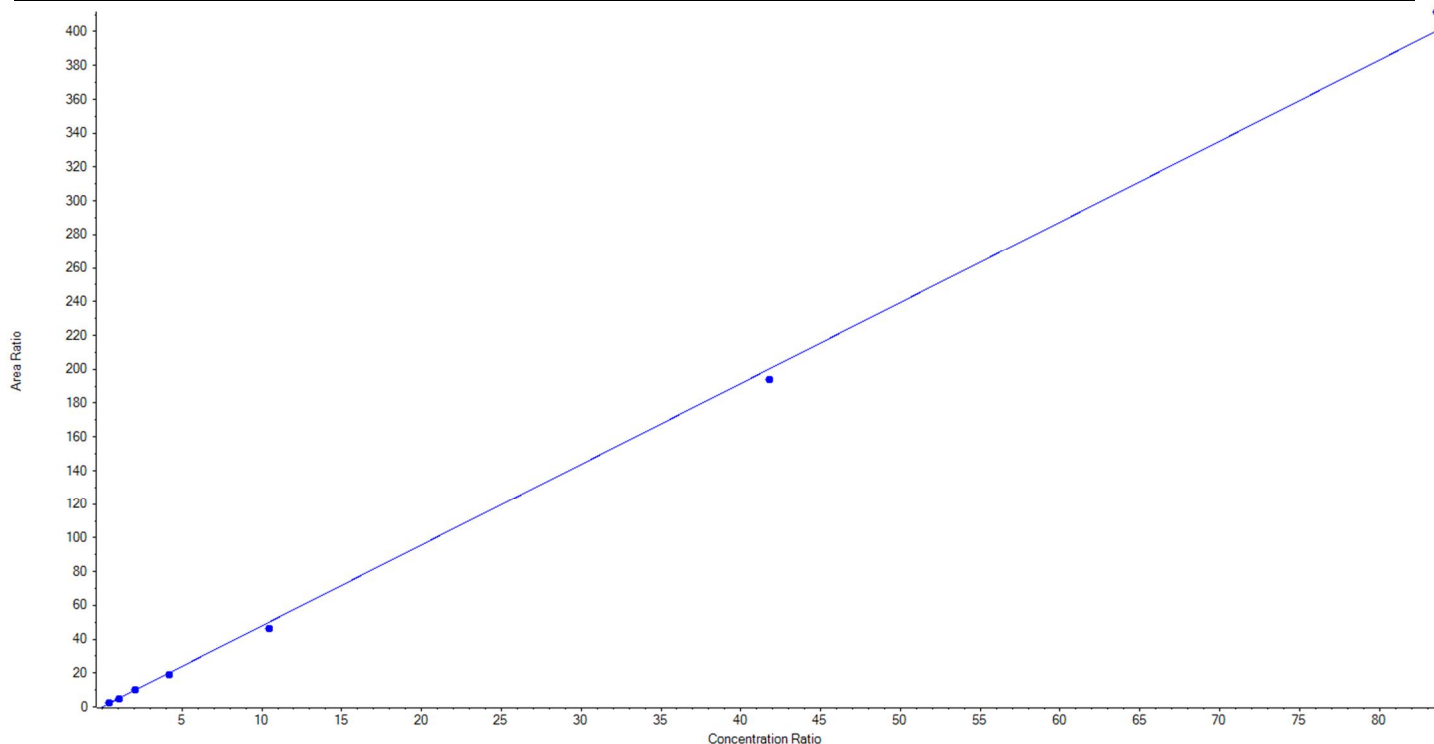
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Analyte Name	PFOS_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	499.0 / 80.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C8-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 4.79098x + -0.03583$ ($r = 0.99927$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	112.998705	113.0
3	KB74	L2	True	250.00	245.807613	98.3
4	KB75	L3	True	500.00	508.954098	101.8
5	KB76	L4	True	1000.00	953.422687	95.3
6	KB77	L5	True	2500.00	2300.880982	92.0
7	KB78	L6	True	10000.00	9674.048541	96.7
8	KB79	L7	True	20000.00	20553.887374	102.8





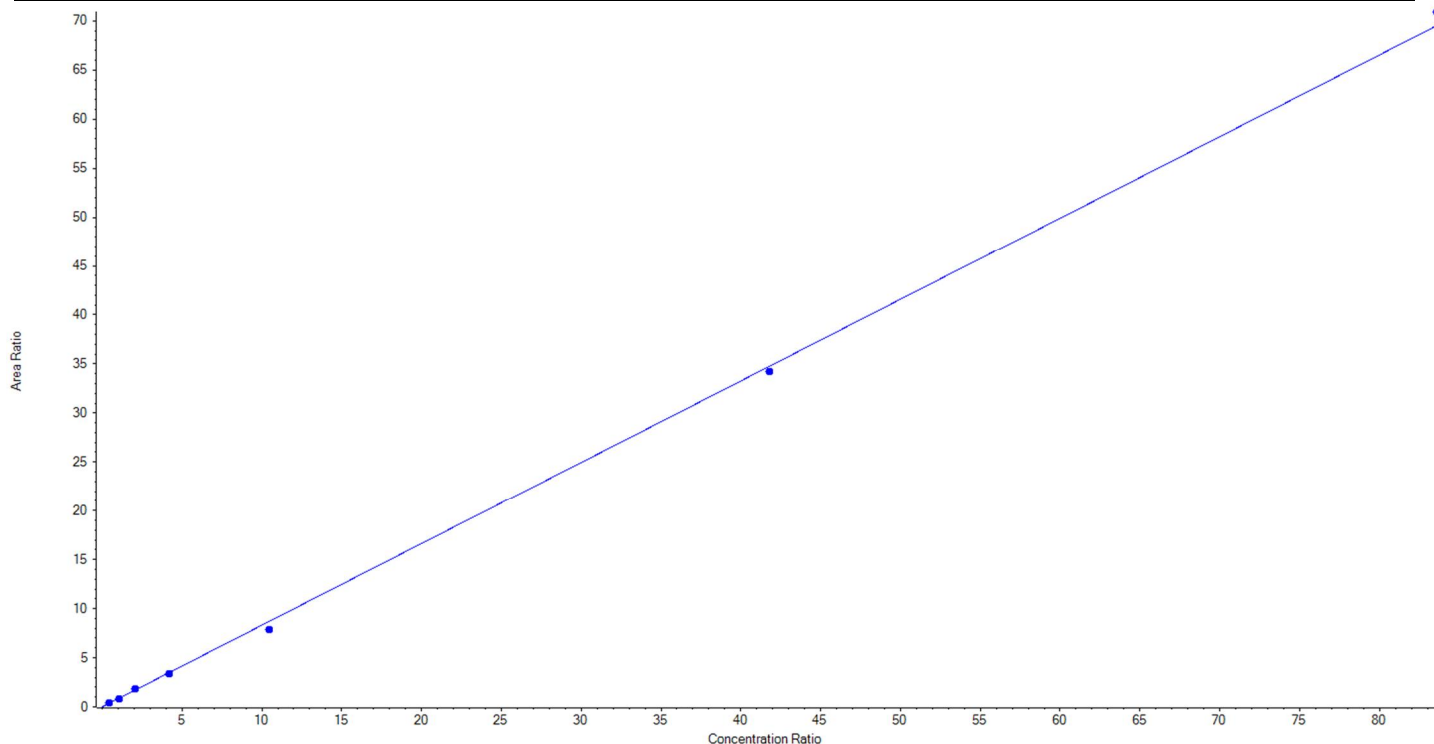
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Analyte Name	PFOS_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	499.0 / 99.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C8-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.83172x + -0.00135$ ($r = 0.99945$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	110.962710	111.0
3	KB74	L2	True	250.00	244.538081	97.8
4	KB75	L3	True	500.00	520.238814	104.1
5	KB76	L4	True	1000.00	958.547975	95.9
6	KB77	L5	True	2500.00	2271.299000	90.9
7	KB78	L6	True	10000.00	9849.093945	98.5
8	KB79	L7	True	20000.00	20395.319474	102.0





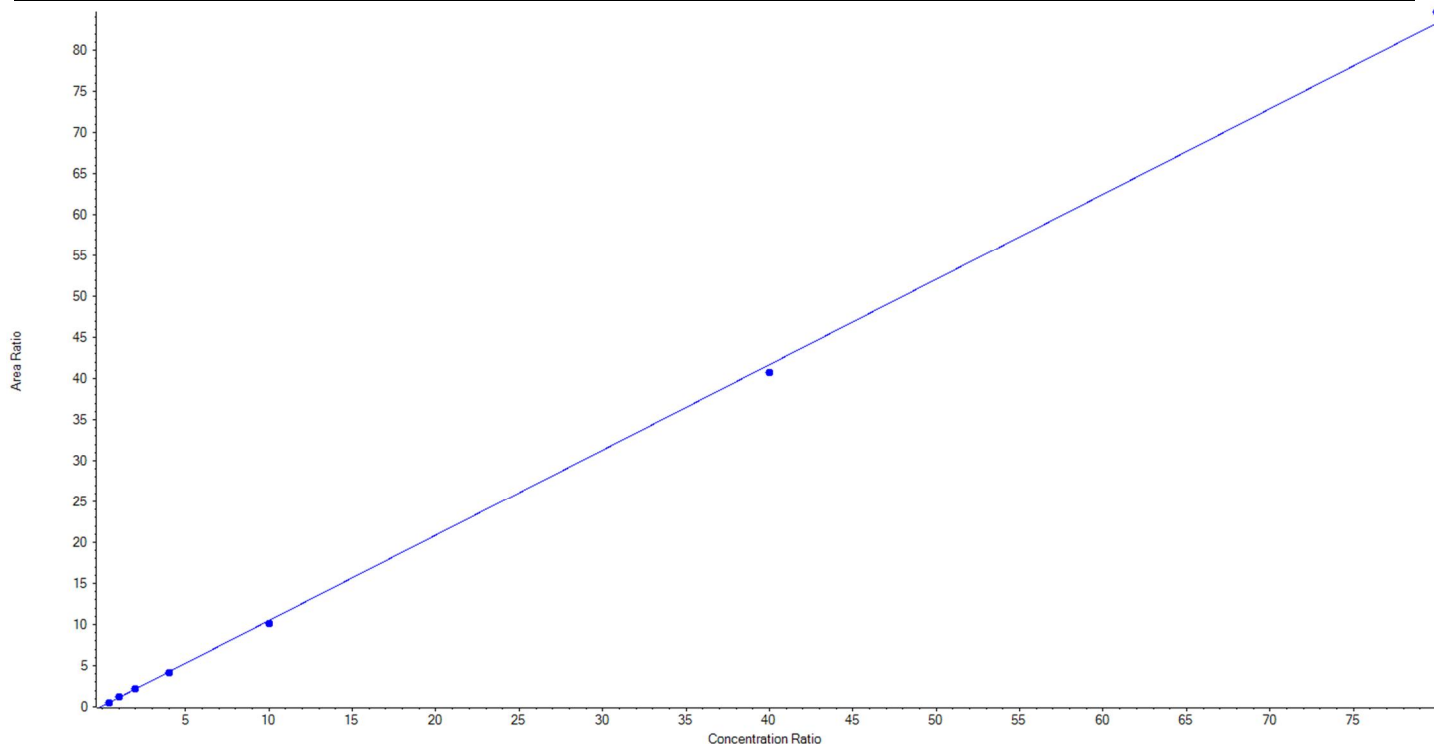
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Analyte Name	PFDA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	513.0 / 469.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C6-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.03992x + 0.08967$ ($r = 0.99977$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	100.375074	100.4
3	KB74	L2	True	250.00	264.467518	105.8
4	KB75	L3	True	500.00	495.556524	99.1
5	KB76	L4	True	1000.00	987.592944	98.8
6	KB77	L5	True	2500.00	2418.646707	96.8
7	KB78	L6	True	10000.00	9760.929085	97.6
8	KB79	L7	True	20000.00	20322.432148	101.6





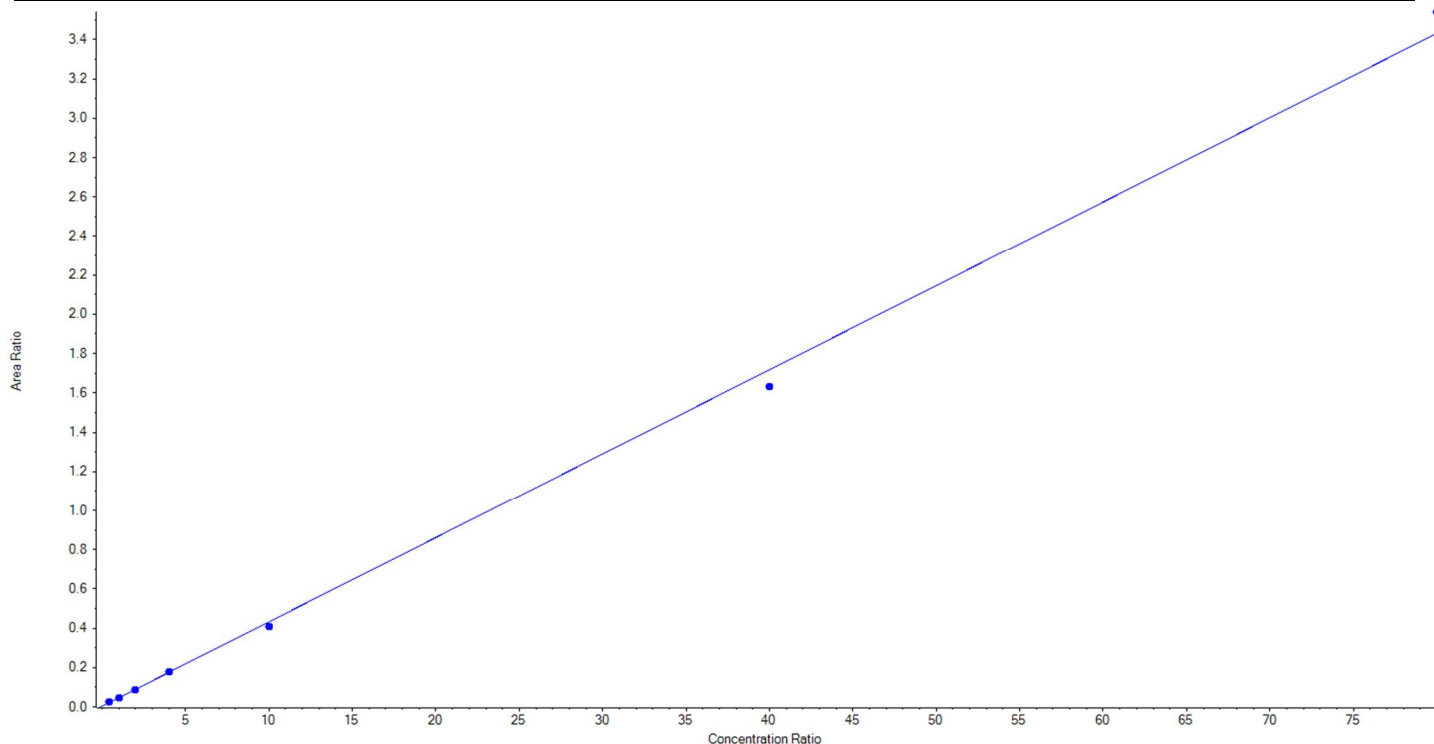
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Analyte Name	PFDA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	513.0 / 219.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C6-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.04284x + 0.00408$ ($r = 0.99914$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	112.406023	112.4
3	KB74	L2	True	250.00	245.500787	98.2
4	KB75	L3	True	500.00	479.073328	95.8
5	KB76	L4	True	1000.00	1010.924950	101.1
6	KB77	L5	True	2500.00	2354.317167	94.2
7	KB78	L6	True	10000.00	9514.985150	95.2
8	KB79	L7	True	20000.00	20632.792594	103.2





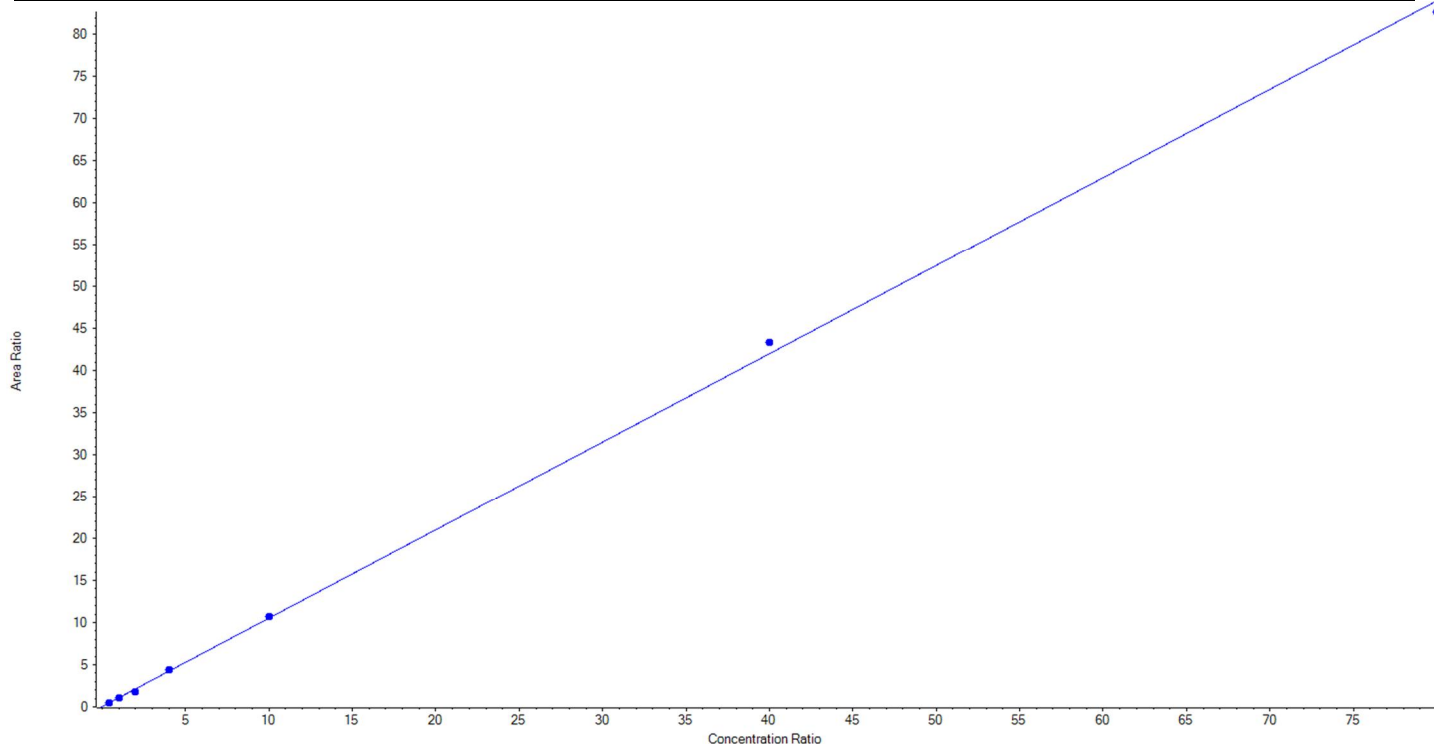
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Analyte Name	PFUnA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	563.0 / 519.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C7-PFUnA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.04939x + 0.04151$ ($r = 0.99953$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	111.527231	111.5
3	KB74	L2	True	250.00	244.824605	97.9
4	KB75	L3	True	500.00	423.690587	84.7
5	KB76	L4	True	1000.00	1026.343861	102.6
6	KB77	L5	True	2500.00	2538.187940	101.5
7	KB78	L6	True	10000.00	10323.155375	103.2
8	KB79	L7	True	20000.00	19682.270401	98.4





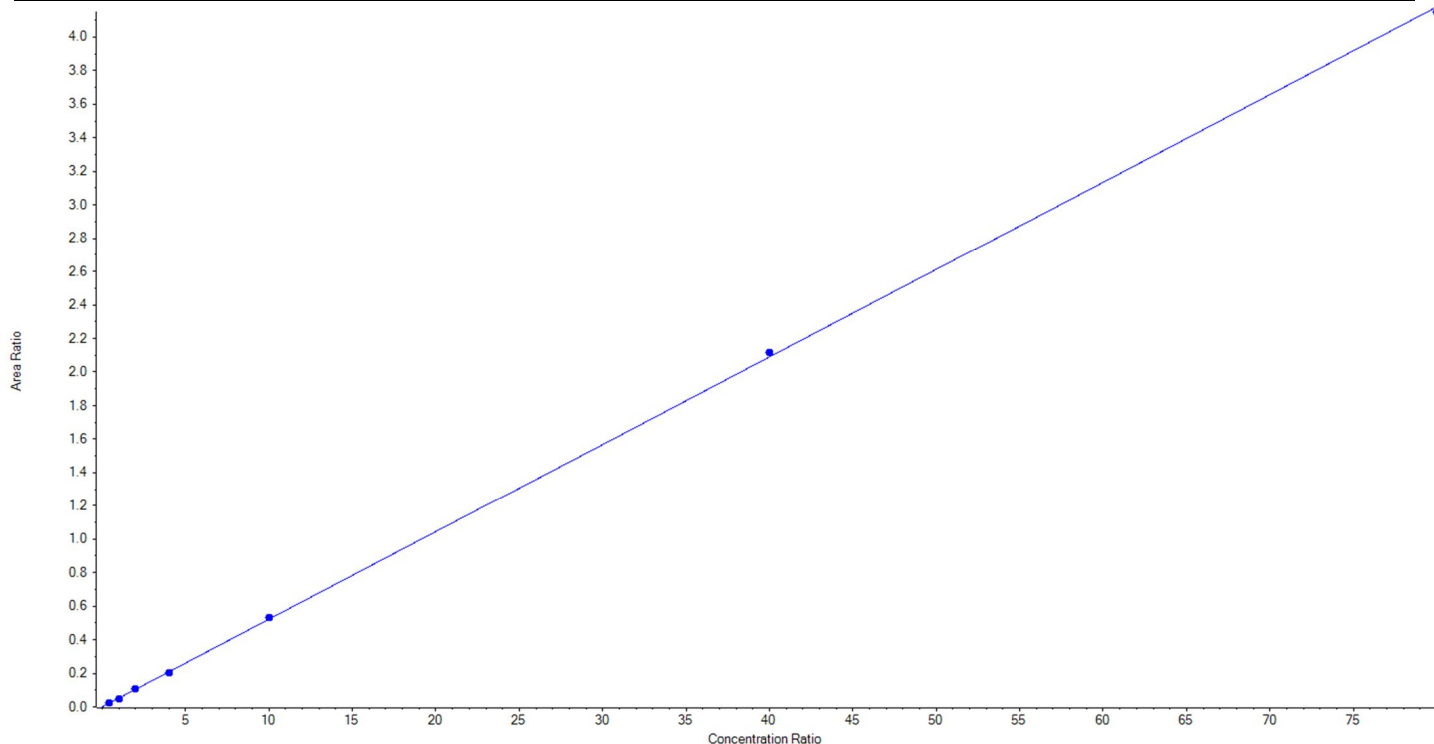
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Analyte Name	PFUnA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	563.0 / 269.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C7-PFUnA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.05225 x + -5.79528e-5$ ($r = 0.99994$) (weighting: $1 / x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	102.220892	102.2
3	KB74	L2	True	250.00	242.442598	97.0
4	KB75	L3	True	500.00	501.608235	100.3
5	KB76	L4	True	1000.00	981.918474	98.2
6	KB77	L5	True	2500.00	2544.385755	101.8
7	KB78	L6	True	10000.00	10125.204796	101.3
8	KB79	L7	True	20000.00	19852.219250	99.3





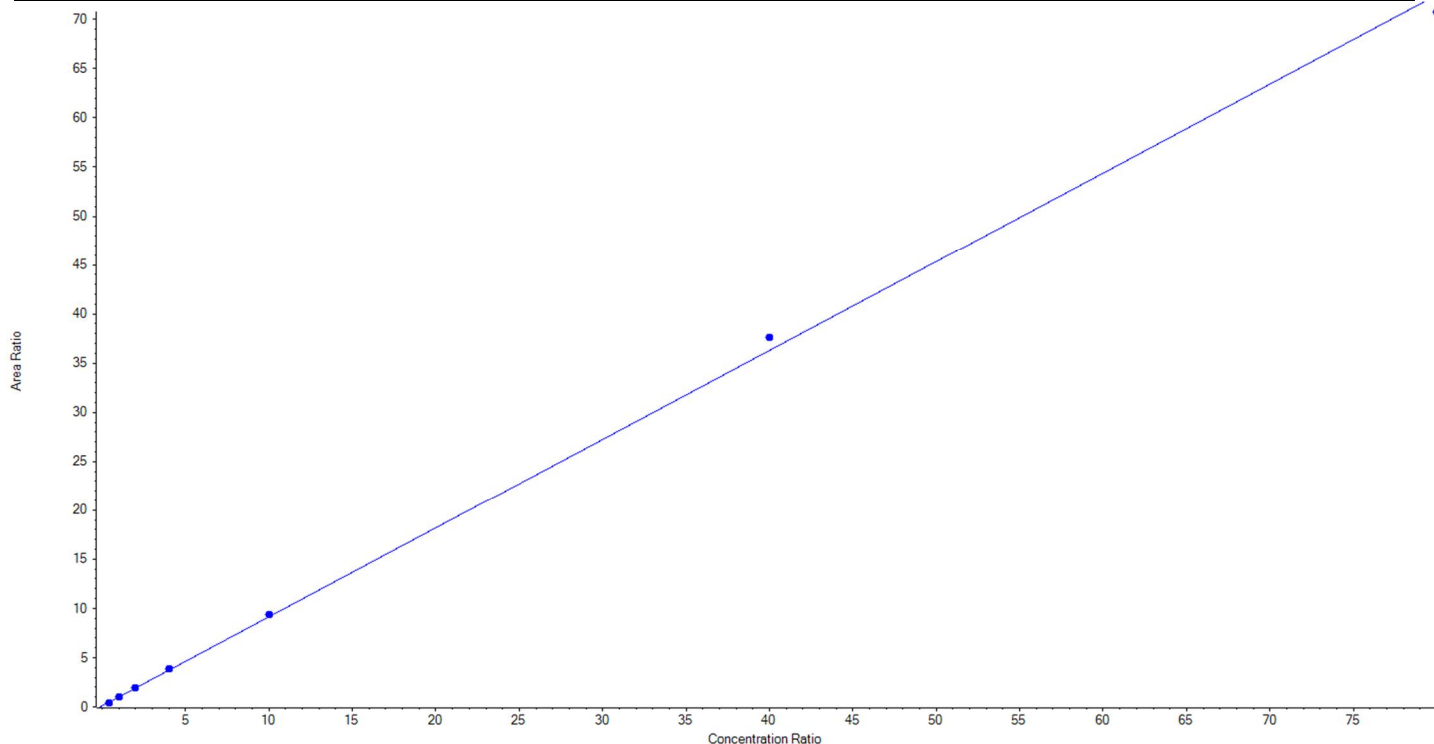
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Analyte Name	PFDoA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	613.0 / 569.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C2-PFDoA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.90471x + 0.10550$ ($r = 0.99952$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	90.939755	90.9
3	KB74	L2	True	250.00	247.072023	98.8
4	KB75	L3	True	500.00	506.360909	101.3
5	KB76	L4	True	1000.00	1050.478389	105.1
6	KB77	L5	True	2500.00	2565.539851	102.6
7	KB78	L6	True	10000.00	10368.355085	103.7
8	KB79	L7	True	20000.00	19521.253987	97.6





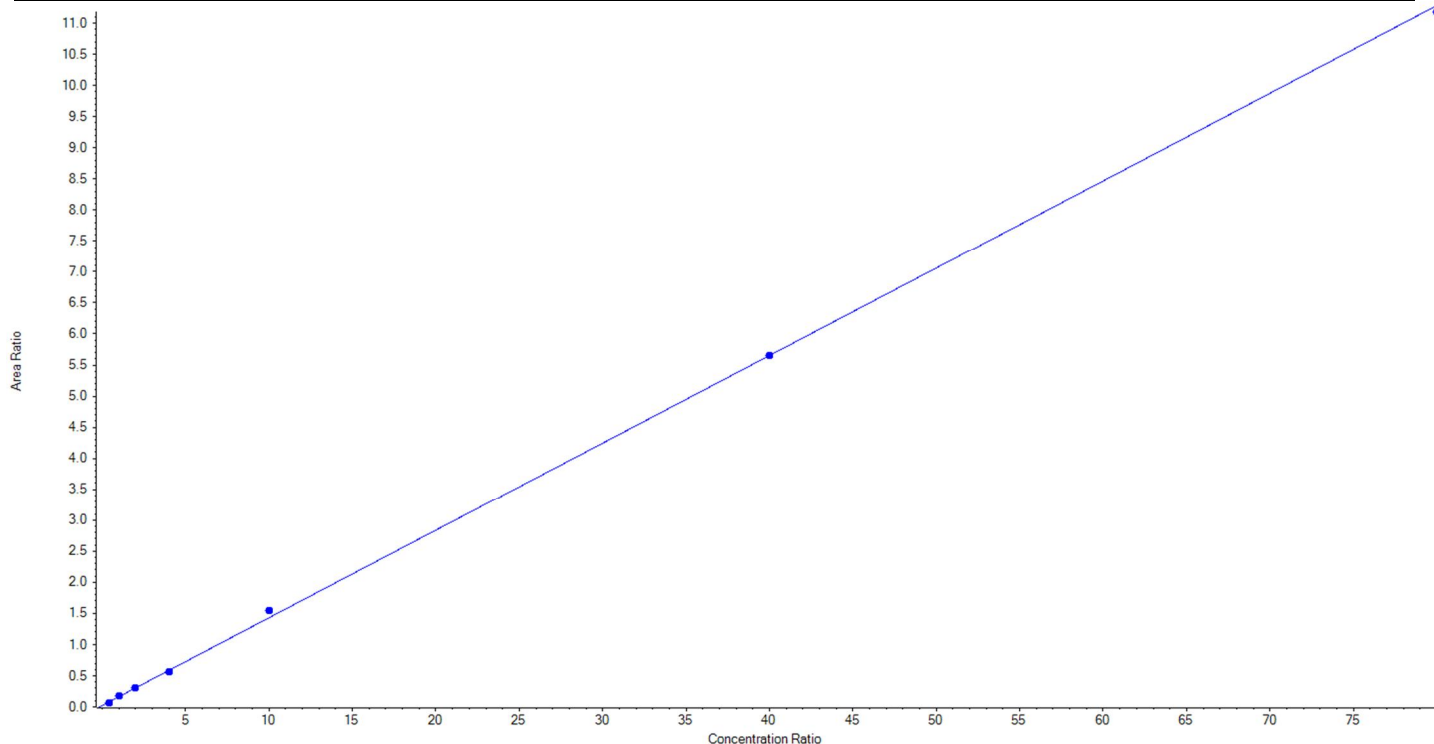
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Analyte Name	PFDoA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	613.0 / 319.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C2-PFDoA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.14074 x + 0.02292$ ($r = 0.99961$) (weighting: $1 / x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	86.545687	86.6
3	KB74	L2	True	250.00	274.615048	109.9
4	KB75	L3	True	500.00	494.661881	98.9
5	KB76	L4	True	1000.00	971.395687	97.1
6	KB77	L5	True	2500.00	2712.576260	108.5
7	KB78	L6	True	10000.00	9996.454238	100.0
8	KB79	L7	True	20000.00	19813.751199	99.1





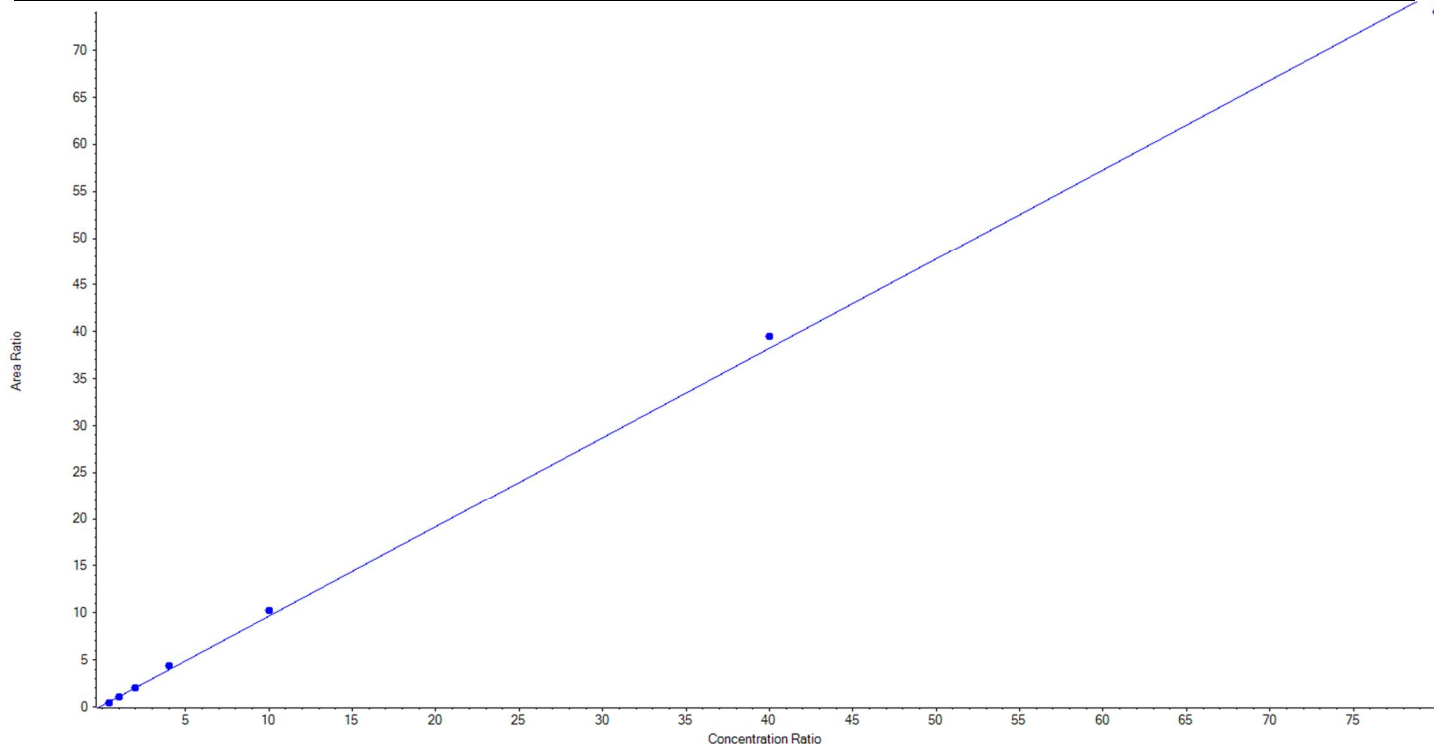
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Analyte Name	PFTrDA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	663.0 / 619.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C2-PFTeDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.95260x + 0.12887$ ($r = 0.99908$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	85.967911	86.0
3	KB74	L2	True	250.00	241.563939	96.6
4	KB75	L3	True	500.00	488.700899	97.7
5	KB76	L4	True	1000.00	1126.764608	112.7
6	KB77	L5	True	2500.00	2664.921530	106.6
7	KB78	L6	True	10000.00	10336.521146	103.4
8	KB79	L7	True	20000.00	19405.559967	97.0





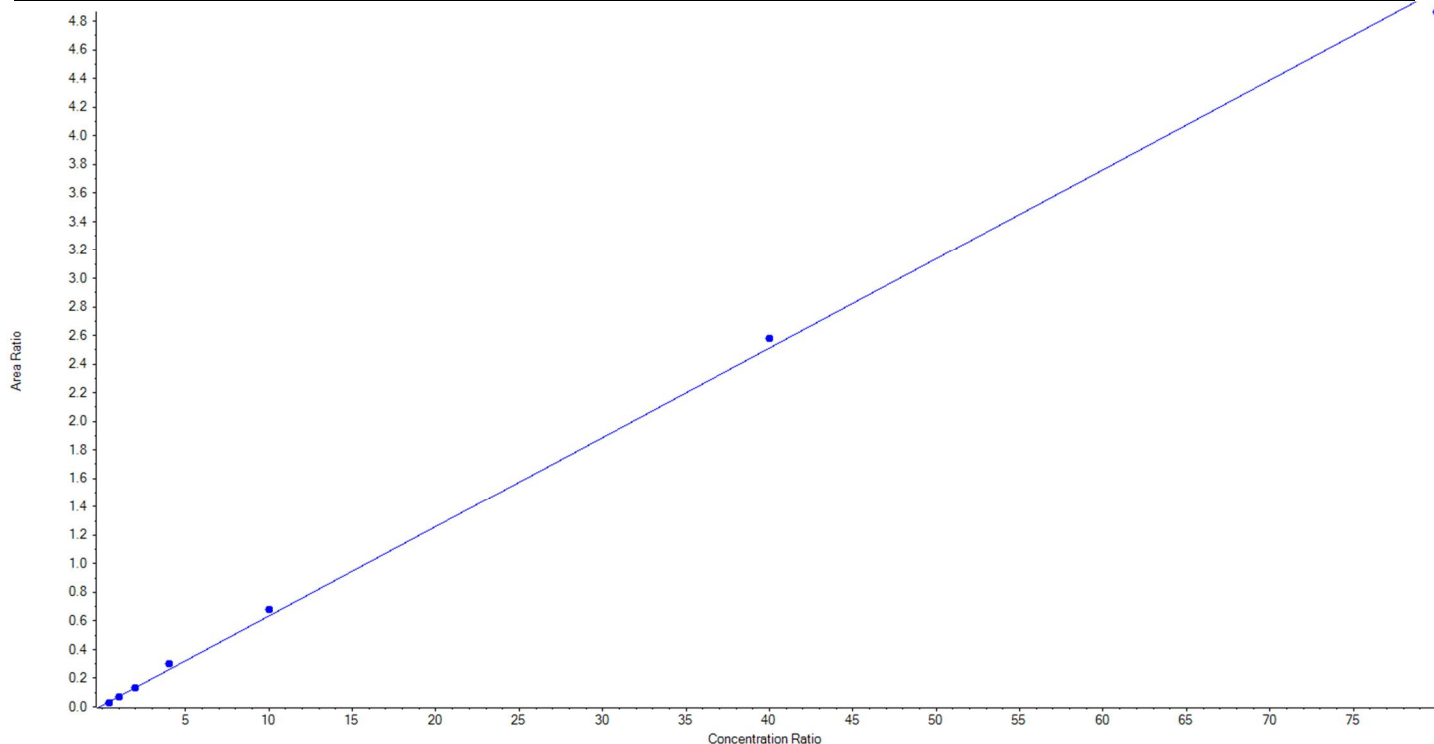
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Analyte Name	PFTrDA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	663.0 / 169.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C2-PFTeDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.06256 x + 0.00941$ ($r = 0.99887$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	78.198175	78.2
3	KB74	L2	True	250.00	247.986856	99.2
4	KB75	L3	True	500.00	495.036348	99.0
5	KB76	L4	True	1000.00	1164.067670	116.4
6	KB77	L5	True	2500.00	2684.712399	107.4
7	KB78	L6	True	10000.00	10280.911529	102.8
8	KB79	L7	True	20000.00	19399.087023	97.0





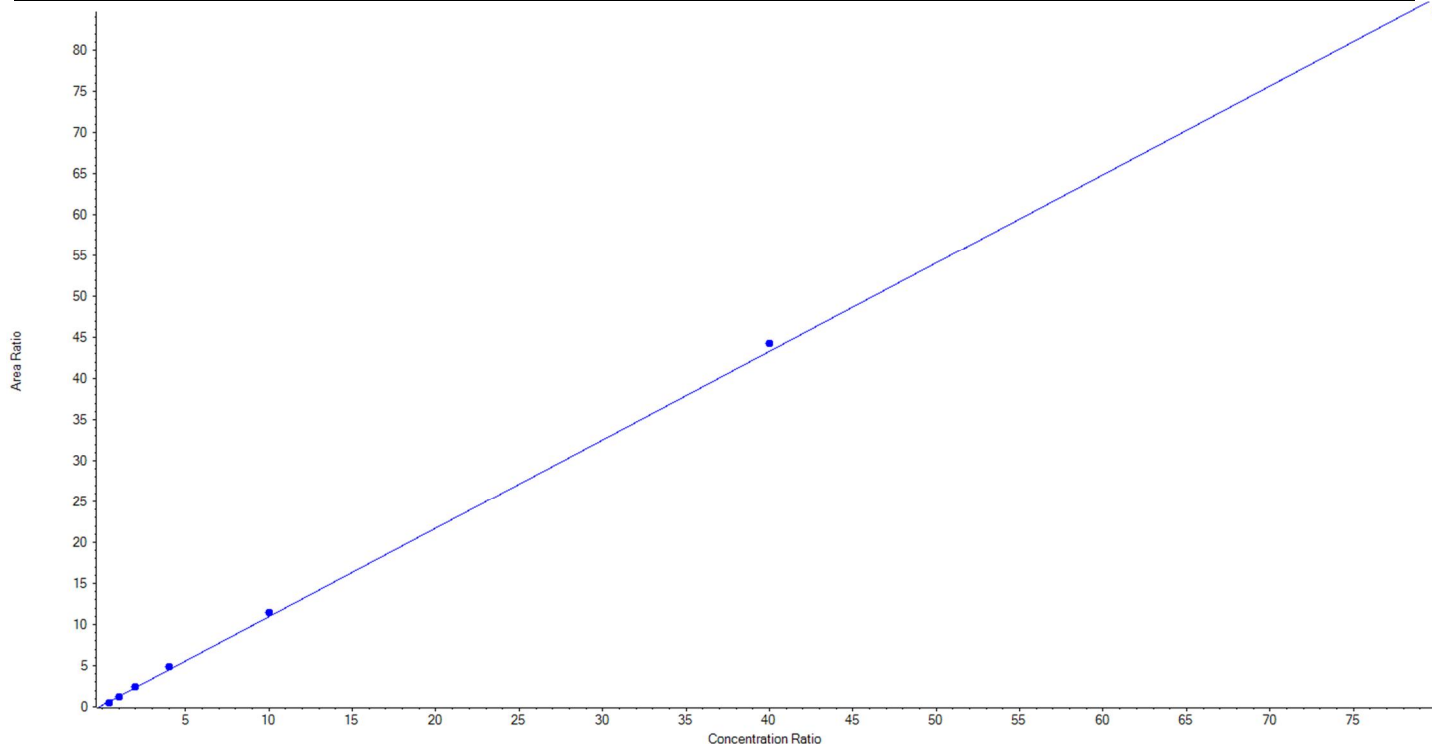
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Analyte Name	PFTeDA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	713.0 / 669.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C2-PFTeDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.07817x + 0.18334$ ($r = 0.99951$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	81.728327	81.7
3	KB74	L2	True	250.00	253.645310	101.5
4	KB75	L3	True	500.00	515.154084	103.0
5	KB76	L4	True	1000.00	1095.645152	109.6
6	KB77	L5	True	2500.00	2603.218162	104.1
7	KB78	L6	True	10000.00	10217.289136	102.2
8	KB79	L7	True	20000.00	19583.319829	97.9





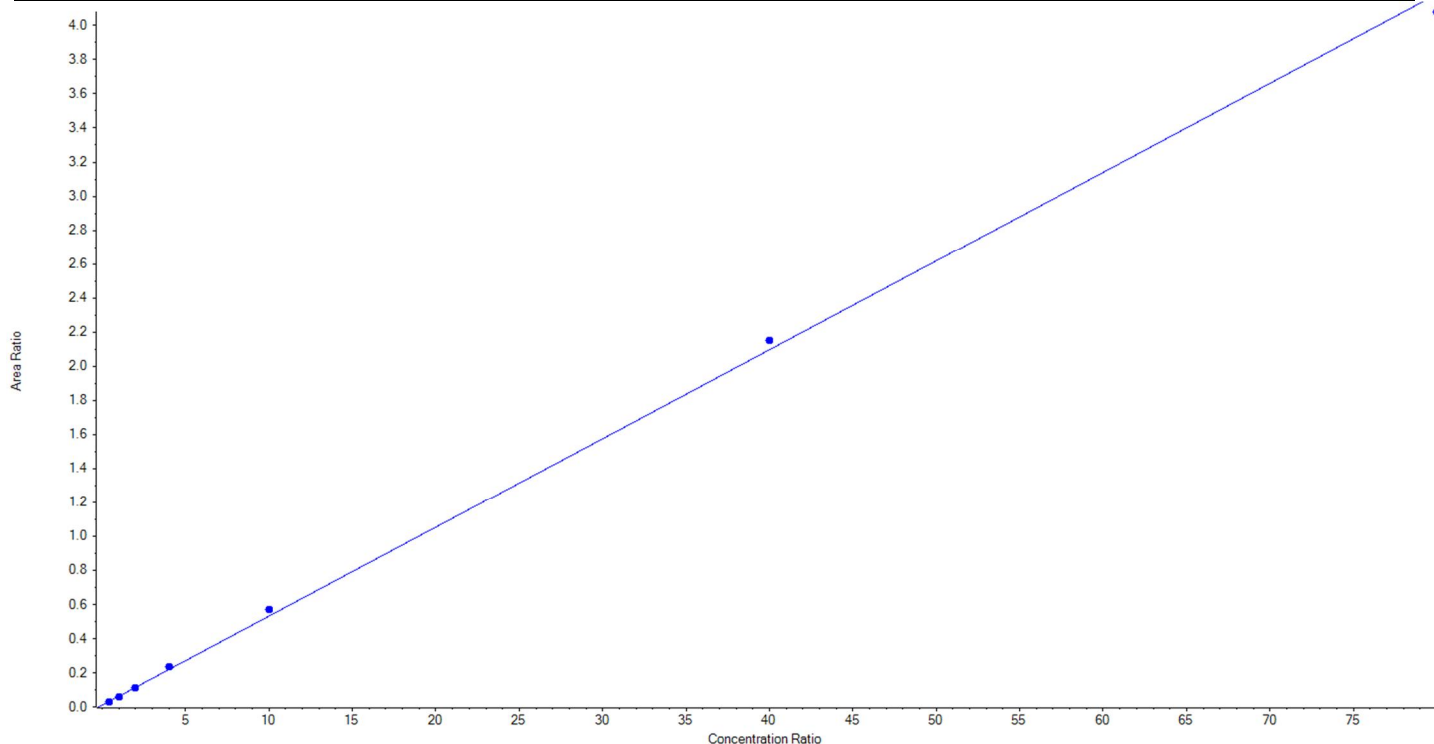
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Analyte Name	PFTeDA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	713.0 / 169.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	13C2-PFTeDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.05216x + 0.01003$ ($r = 0.99933$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	89.886117	89.9
3	KB74	L2	True	250.00	238.937138	95.6
4	KB75	L3	True	500.00	490.005825	98.0
5	KB76	L4	True	1000.00	1092.239213	109.2
6	KB77	L5	True	2500.00	2680.771848	107.2
7	KB78	L6	True	10000.00	10258.453725	102.6
8	KB79	L7	True	20000.00	19499.706134	97.5





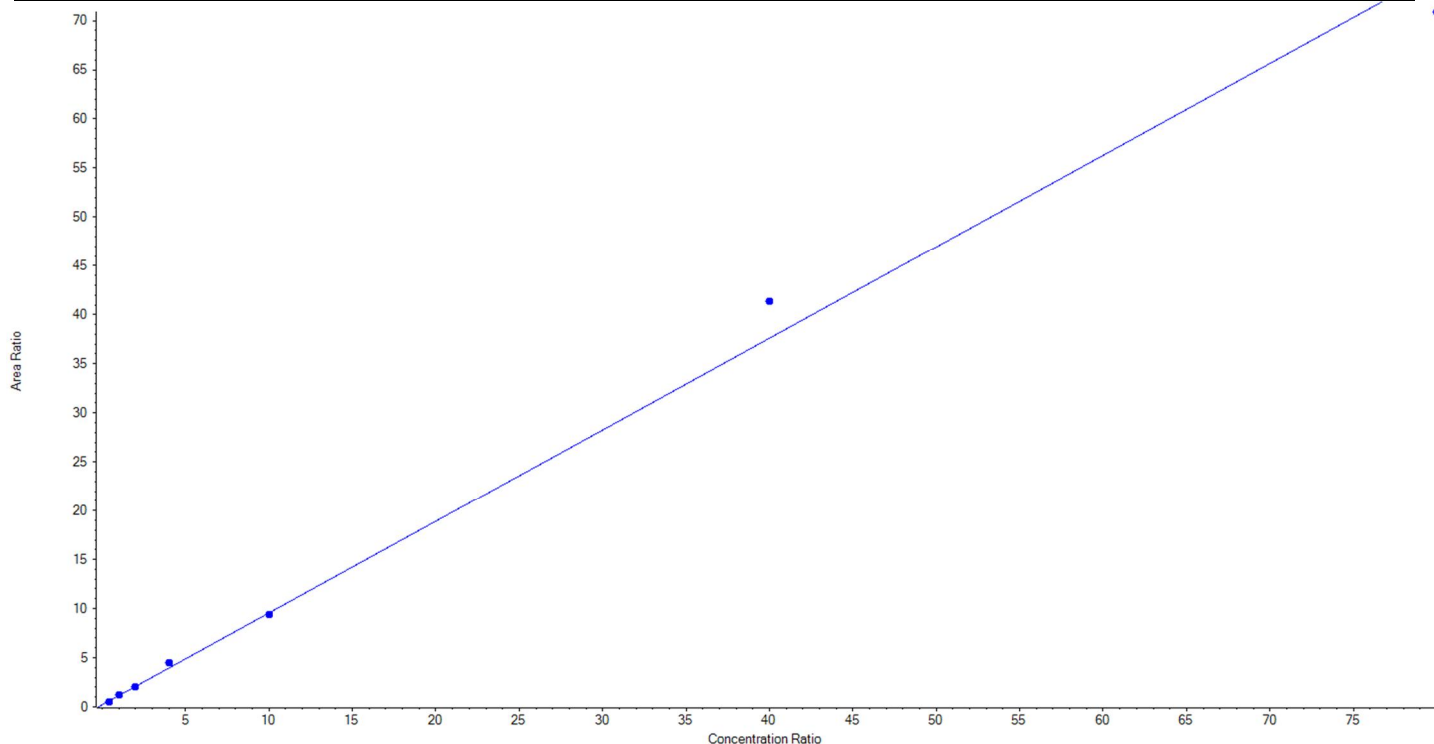
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Analyte Name	NMeFOSAA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	570.0 / 419.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	d3-MeFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.93472x + 0.21431$ ($r = 0.99704$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	75.824991	75.8
3	KB74	L2	True	250.00	268.876365	107.6
4	KB75	L3	True	500.00	500.524214	100.1
5	KB76	L4	True	1000.00	1133.404189	113.3
6	KB77	L5	True	2500.00	2465.257046	98.6
7	KB78	L6	True	10000.00	11007.670601	110.1
8	KB79	L7	True	20000.00	18898.442593	94.5





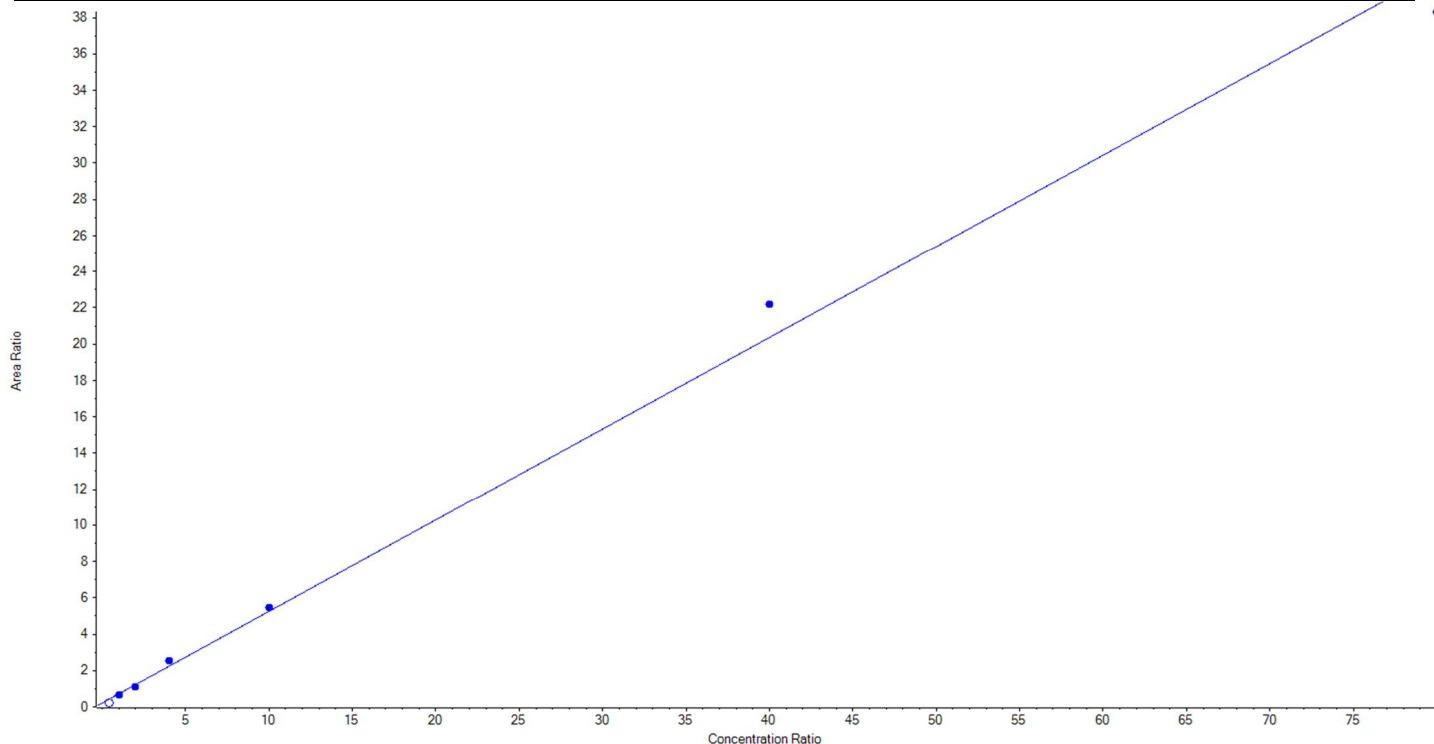
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Analyte Name	NMeFOSAA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	570.0 / 512.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	d3-MeFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.50367x + 0.21759$ ($r = 0.99687$) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	False	100.00	3.453918	3.5
3	KB74	L2	True	250.00	218.419800	87.4
4	KB75	L3	True	500.00	439.990383	88.0
5	KB76	L4	True	1000.00	1163.925478	116.4
6	KB77	L5	True	2500.00	2616.439396	104.7
7	KB78	L6	True	10000.00	10905.550987	109.1
8	KB79	L7	True	20000.00	18905.673956	94.5





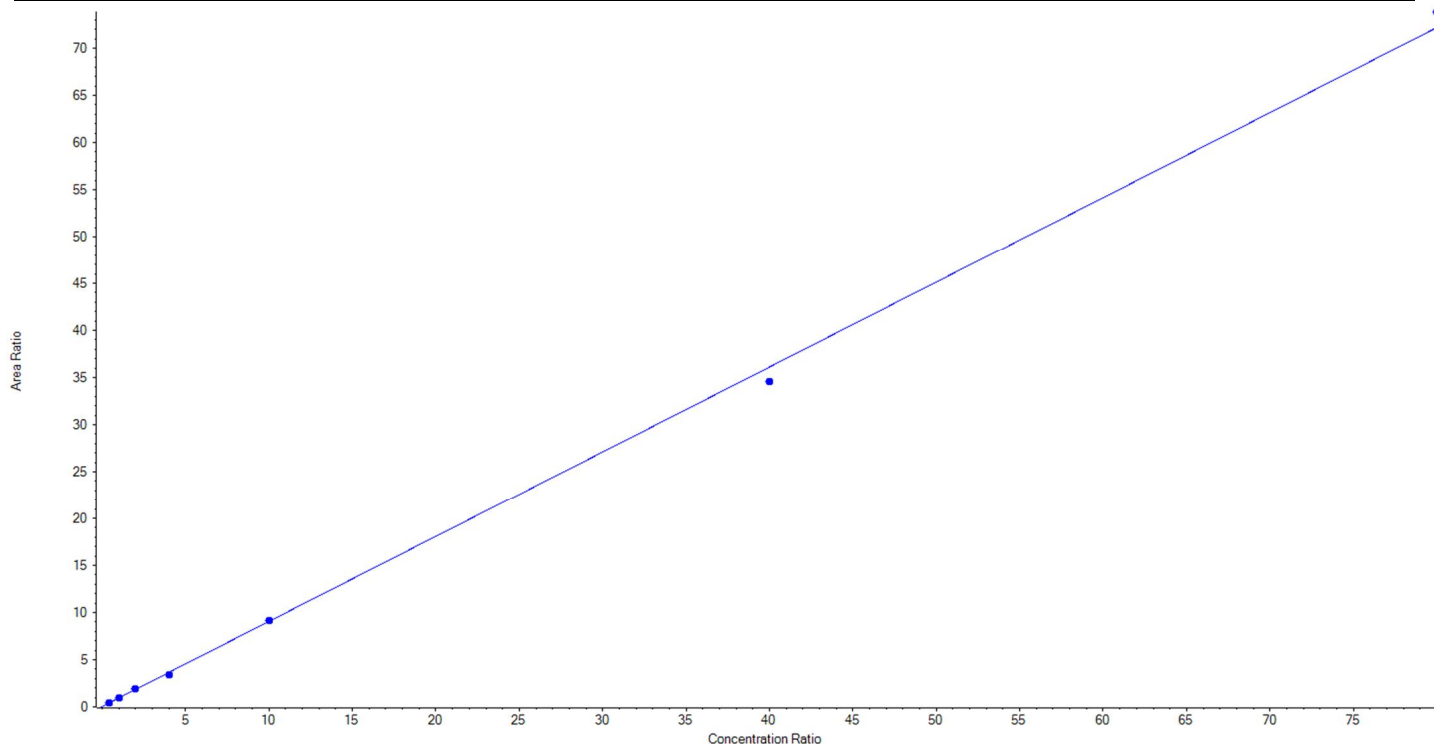
Calibration Summary Report

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Printed: 23/10/2018 7:31:27 PM

Analyte Name	NEtFOSAA_1	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	584.0 / 419.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	d5-EtFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.90168x + 0.04836$ ($r = 0.99948$) (weighting: $1/x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	100.00	104.771450	104.8
3	KB74	L2	True	250.00	251.018896	100.4
4	KB75	L3	True	500.00	508.056535	101.6
5	KB76	L4	True	1000.00	943.782521	94.4
6	KB77	L5	True	2500.00	2522.760733	100.9
7	KB78	L6	True	10000.00	9564.590700	95.7
8	KB79	L7	True	20000.00	20455.019164	102.3





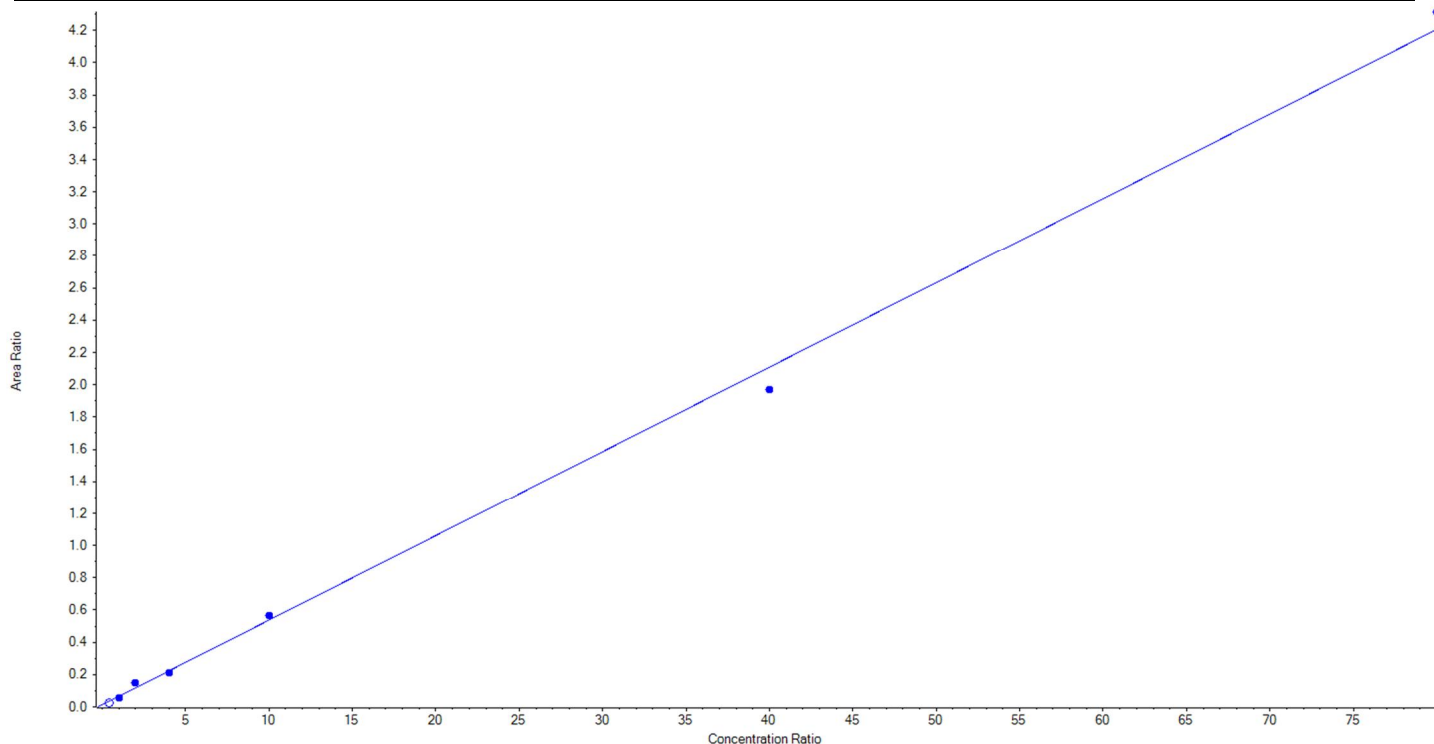
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Analyte Name	NEtFOSAA_2	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	584.0 / 483.0	Result Table	18-0590_18-0588_18-0589_BASE
Internal Standard	d5-EtFOSAA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.05241 x + 0.01326$ ($r = 0.99796$) (weighting: $1 / x$)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	False	100.00	41.412646	41.4
3	KB74	L2	True	250.00	191.667209	76.7
4	KB75	L3	True	500.00	637.470069	127.5
5	KB76	L4	True	1000.00	945.207707	94.5
6	KB77	L5	True	2500.00	2637.389496	105.5
7	KB78	L6	True	10000.00	9326.284871	93.3
8	KB79	L7	True	20000.00	20511.980648	102.6





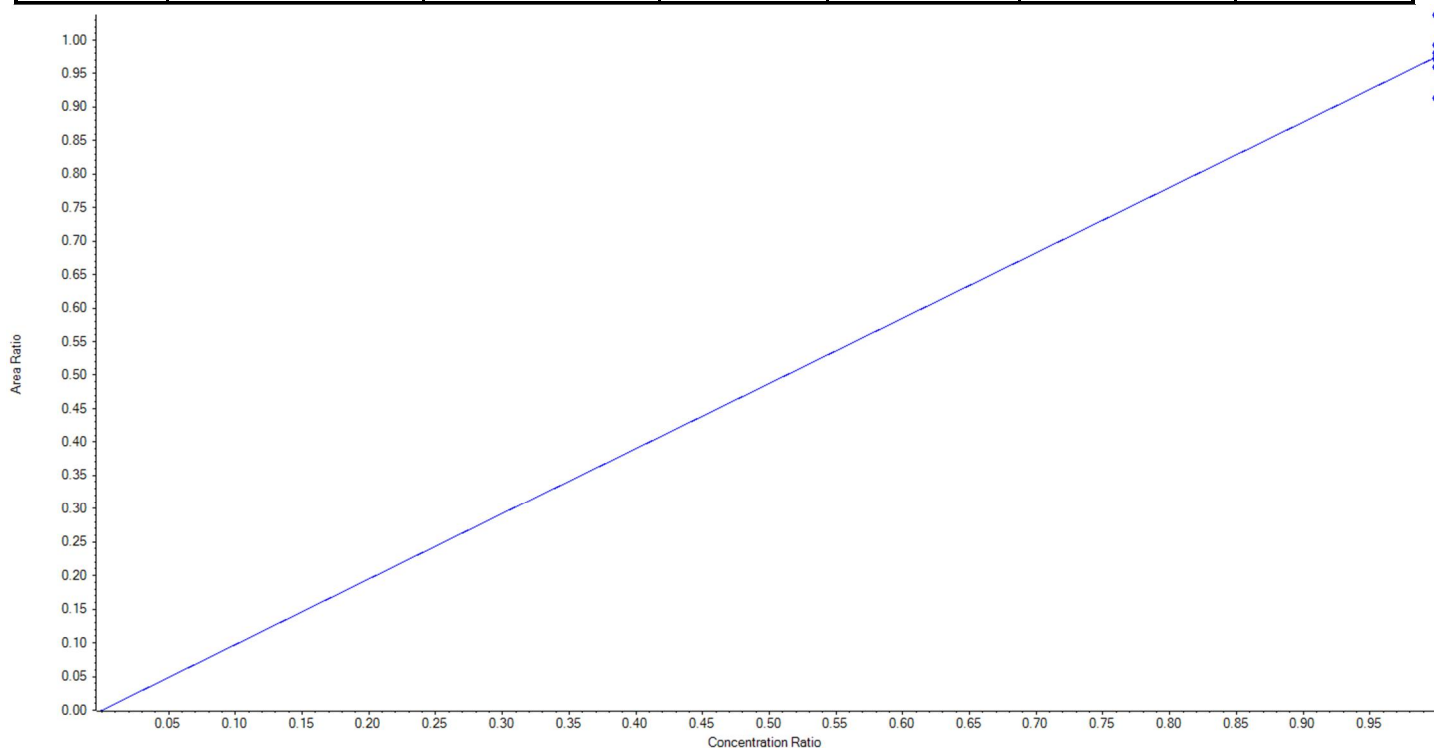
Calibration Summary Report

Created with Analyst Reporter
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Analyte Name	13C2-PFDoA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	615.0 / 570.0	Result Table	18-0590_18-0588_18-0589_SIS
Internal Standard	13C2-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.97505 x$ (std. dev. = 0.03727) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	234.027671	93.6
3	KB74	L2	True	250.00	265.932266	106.4
4	KB75	L3	True	250.00	249.447374	99.8
5	KB76	L4	True	250.00	245.945631	98.4
6	KB77	L5	True	250.00	248.975274	99.6
7	KB78	L6	True	250.00	251.235272	100.5
8	KB79	L7	True	250.00	254.436513	101.8





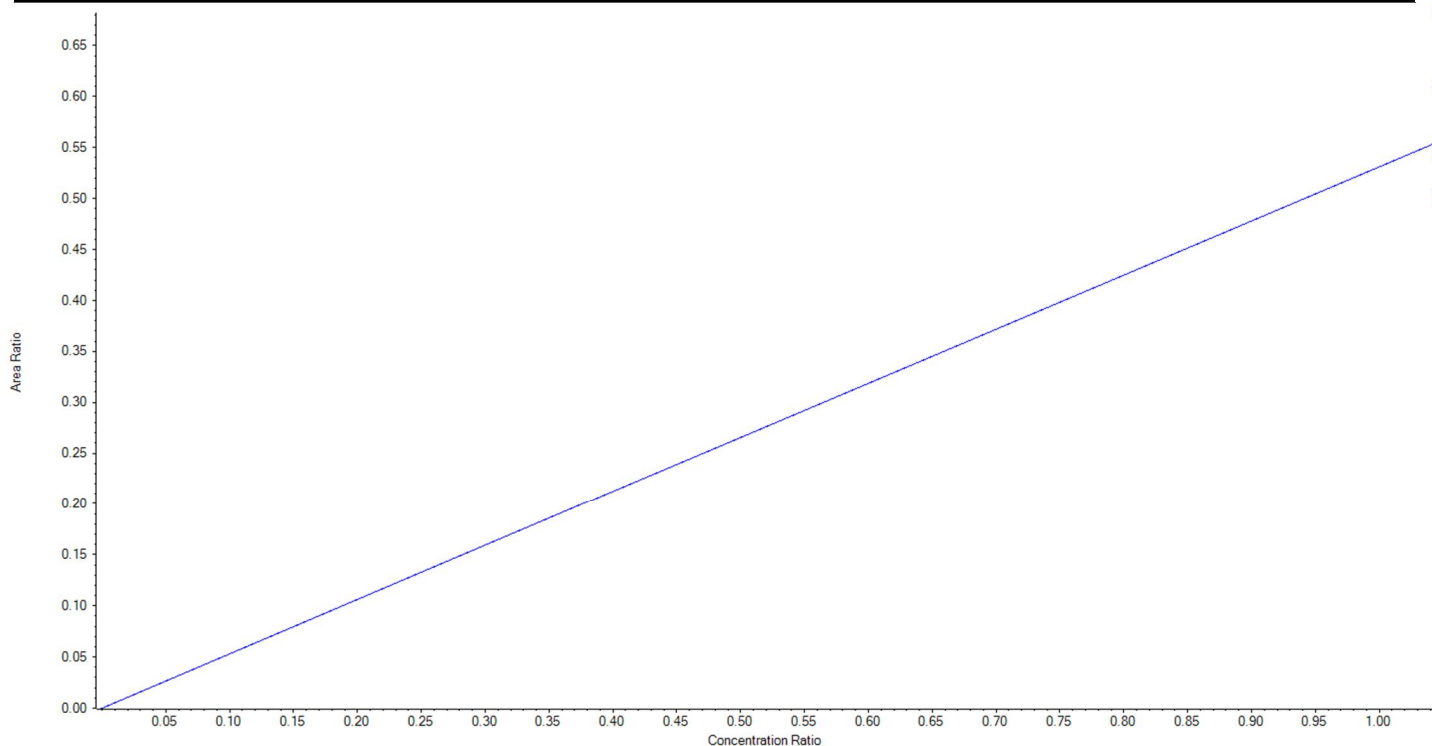
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Analyte Name	d3-MeFOSAA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	573.0 / 419.0	Result Table	18-0590_18-0588_18-0589_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.53102 x$ (std. dev. = 0.06498) (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	243.102584	97.2
3	KB74	L2	True	250.00	228.792666	91.5
4	KB75	L3	True	250.00	245.689732	98.3
5	KB76	L4	True	250.00	223.328296	89.3
6	KB77	L5	True	250.00	227.365315	91.0
7	KB78	L6	True	250.00	274.494088	109.8
8	KB79	L7	True	250.00	307.227320	122.9





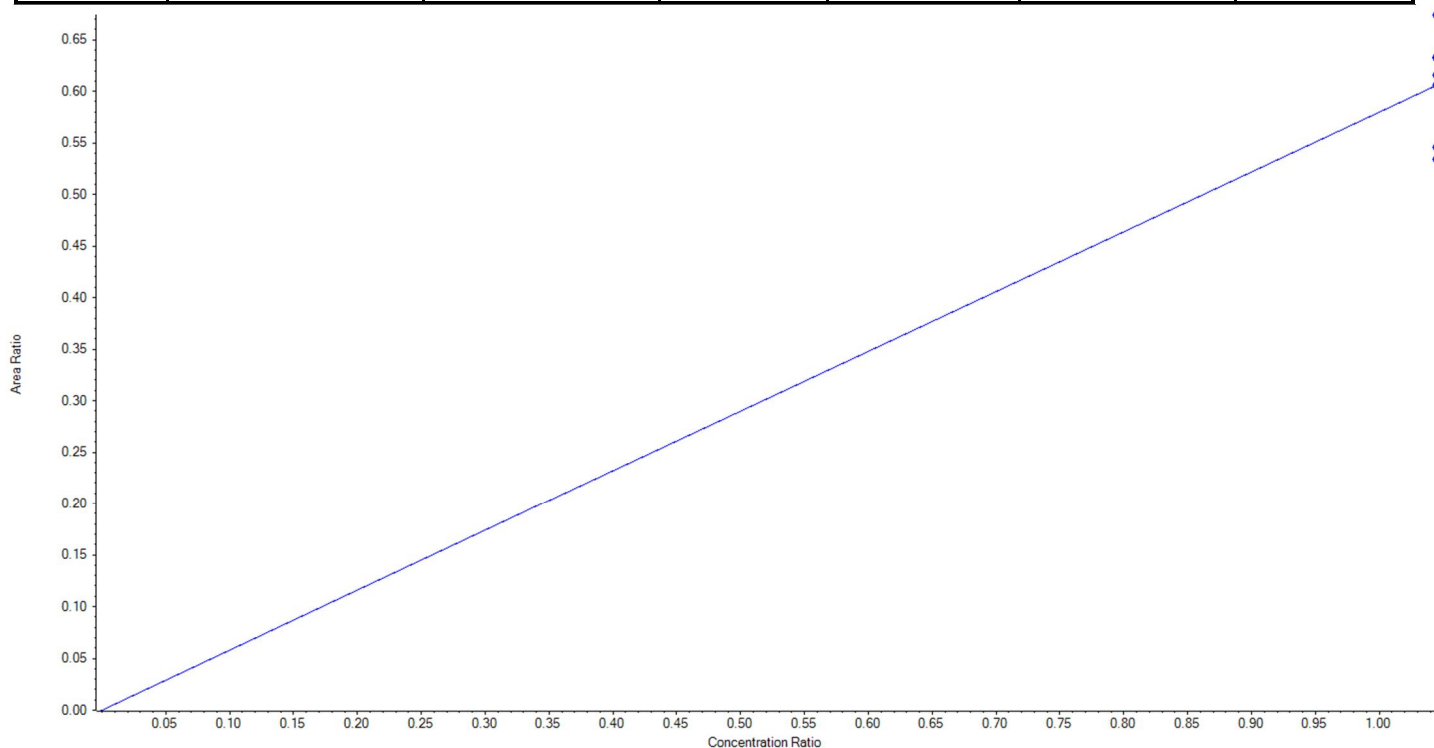
Calibration Summary Report

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Analyte Name	d5-EtFOSAA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	589.0 / 419.0	Result Table	18-0590_18-0588_18-0589_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.57975 x$ (std. dev. = 0.04771) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	261.116785	104.5
3	KB74	L2	True	250.00	260.842878	104.3
4	KB75	L3	True	250.00	225.192349	90.1
5	KB76	L4	True	250.00	254.251713	101.7
6	KB77	L5	True	250.00	220.425706	88.2
7	KB78	L6	True	250.00	278.106701	111.2
8	KB79	L7	True	250.00	250.063868	100.0





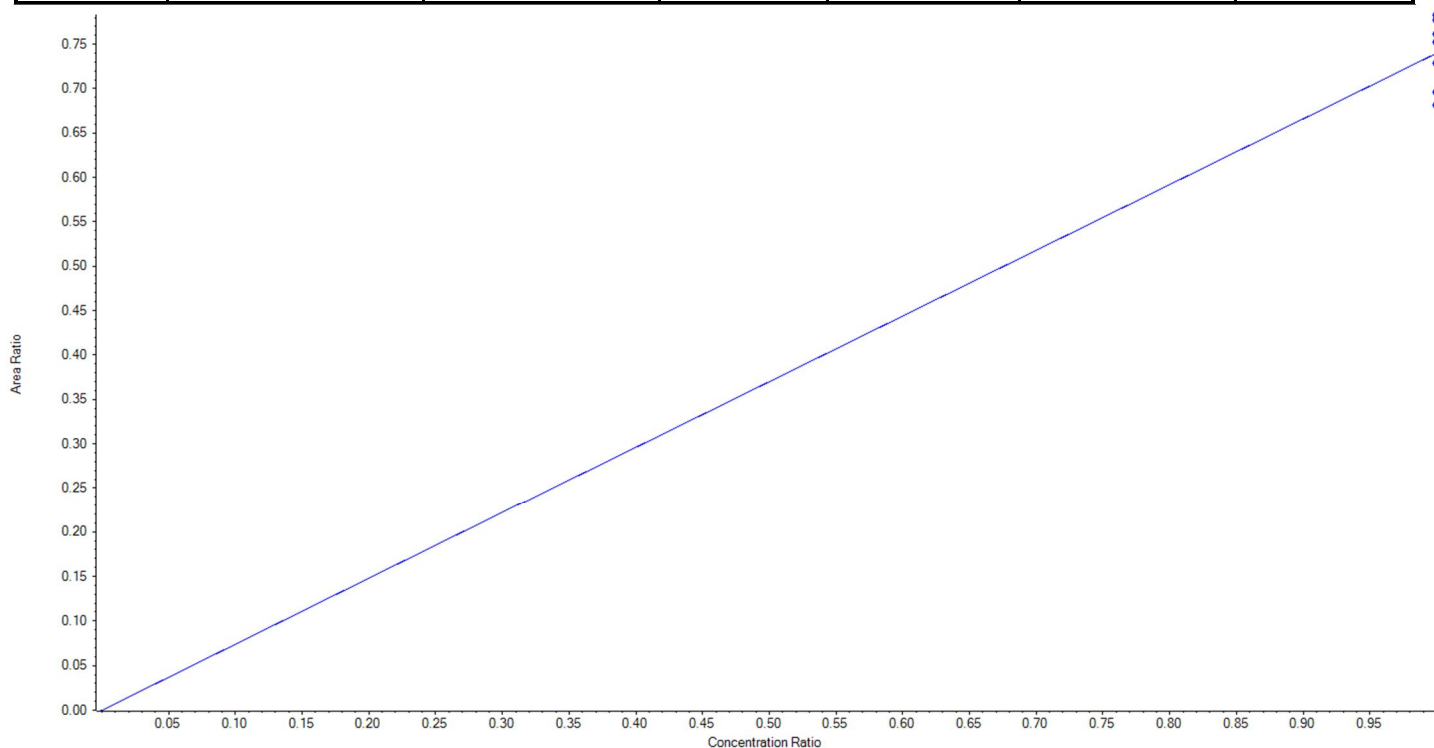
Calibration Summary Report

Created with Analyst Reporter
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Analyte Name	13C5-PFHxA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	318.0 / 273.0	Result Table	18-0590_18-0588_18-0589_SIS
Internal Standard	13C2-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.73994 x$ (std. dev. = 0.03937) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	262.567314	105.0
3	KB74	L2	True	250.00	254.187234	101.7
4	KB75	L3	True	250.00	230.325952	92.1
5	KB76	L4	True	250.00	235.058052	94.0
6	KB77	L5	True	250.00	257.145365	102.9
7	KB78	L6	True	250.00	264.503275	105.8
8	KB79	L7	True	250.00	246.212808	98.5





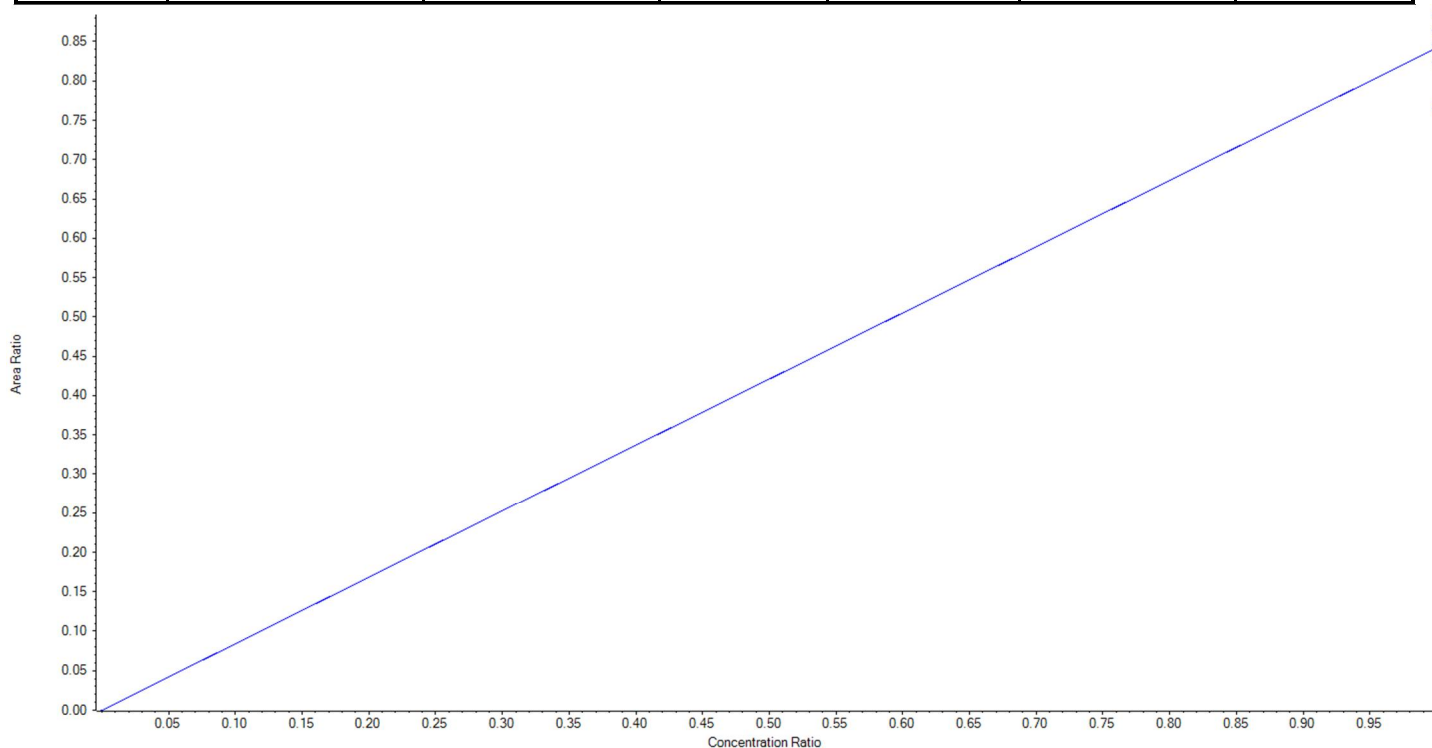
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Analyte Name	13C4-PFHpA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	367.0 / 322.0	Result Table	18-0590_18-0588_18-0589_SIS
Internal Standard	13C2-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.84182 x$ (std. dev. = 0.03866) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	262.427043	105.0
3	KB74	L2	True	250.00	251.075240	100.4
4	KB75	L3	True	250.00	244.763156	97.9
5	KB76	L4	True	250.00	256.507439	102.6
6	KB77	L5	True	250.00	256.669677	102.7
7	KB78	L6	True	250.00	251.342992	100.5
8	KB79	L7	True	250.00	227.214453	90.9





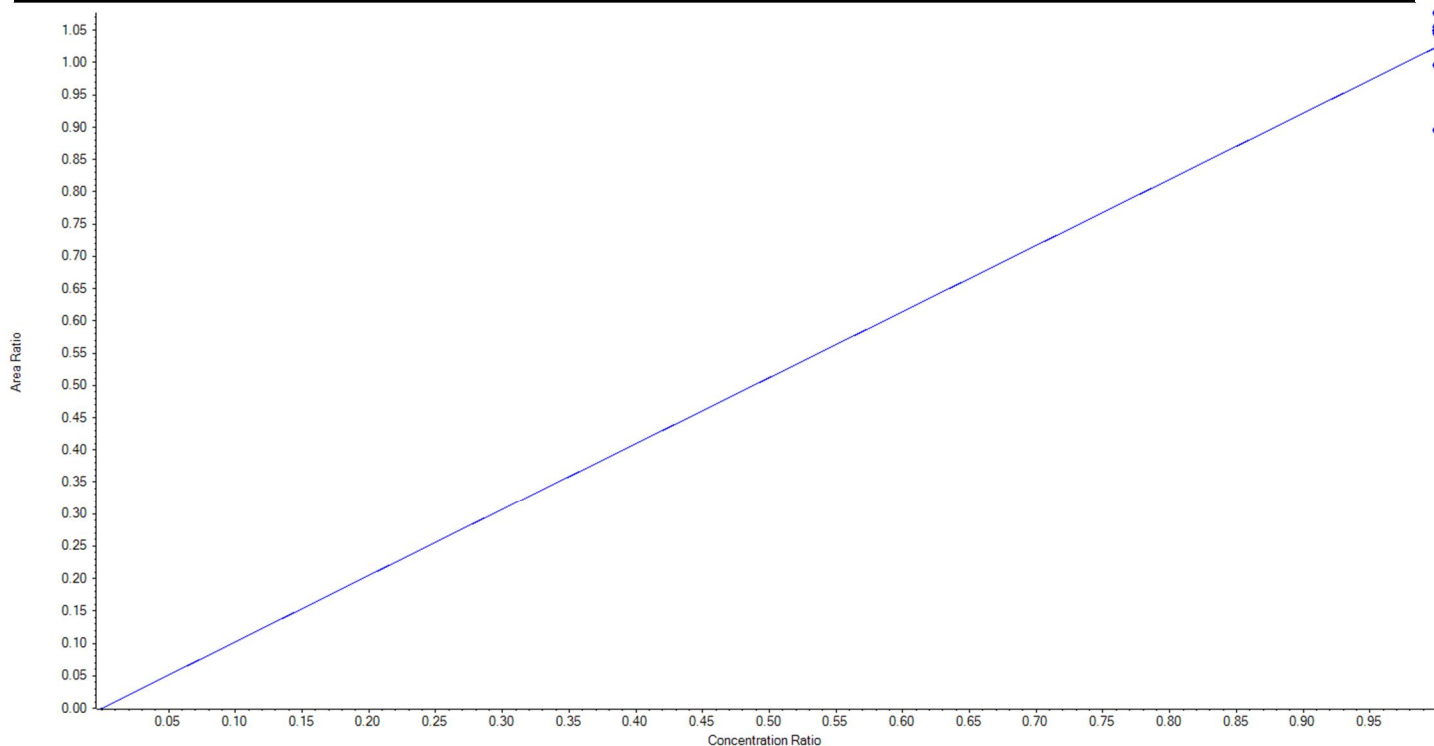
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Analyte Name	13C8-PFOA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	421.0 / 376.0	Result Table	18-0590_18-0588_18-0589_SIS
Internal Standard	13C2-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.02405 x$ (std. dev. = 0.06175) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	255.212785	102.1
3	KB74	L2	True	250.00	262.875155	105.2
4	KB75	L3	True	250.00	256.482263	102.6
5	KB76	L4	True	250.00	257.662297	103.1
6	KB77	L5	True	250.00	256.019871	102.4
7	KB78	L6	True	250.00	243.157749	97.3
8	KB79	L7	True	250.00	218.589880	87.4





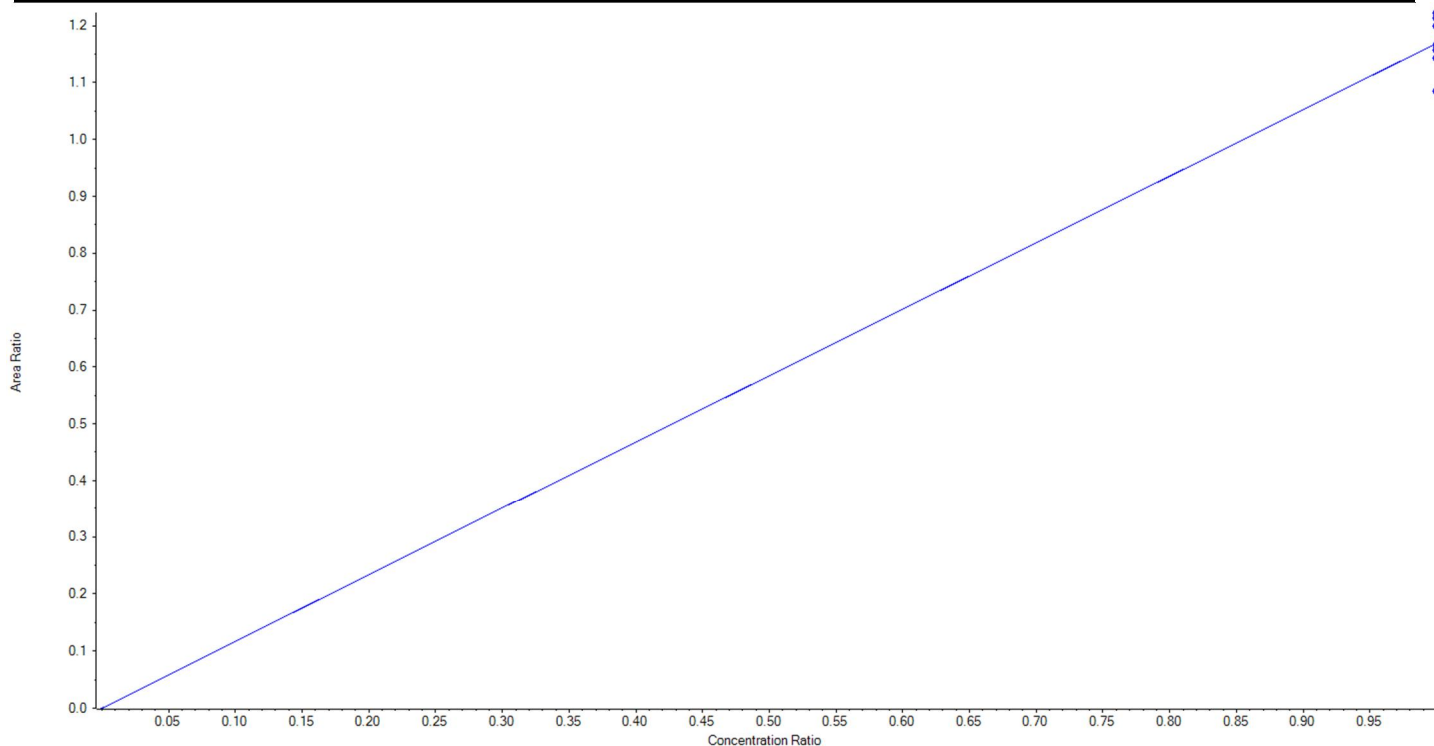
Calibration Summary Report

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Analyte Name	13C9-PFNA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	472.0 / 427.0	Result Table	18-0590_18-0588_18-0589_SIS
Internal Standard	13C2-PFOA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 1.16930 x$ (std. dev. = 0.04759) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	247.430463	99.0
3	KB74	L2	True	250.00	261.328420	104.5
4	KB75	L3	True	250.00	259.384215	103.8
5	KB76	L4	True	250.00	244.372857	97.8
6	KB77	L5	True	250.00	249.179395	99.7
7	KB78	L6	True	250.00	256.344825	102.5
8	KB79	L7	True	250.00	231.959824	92.8





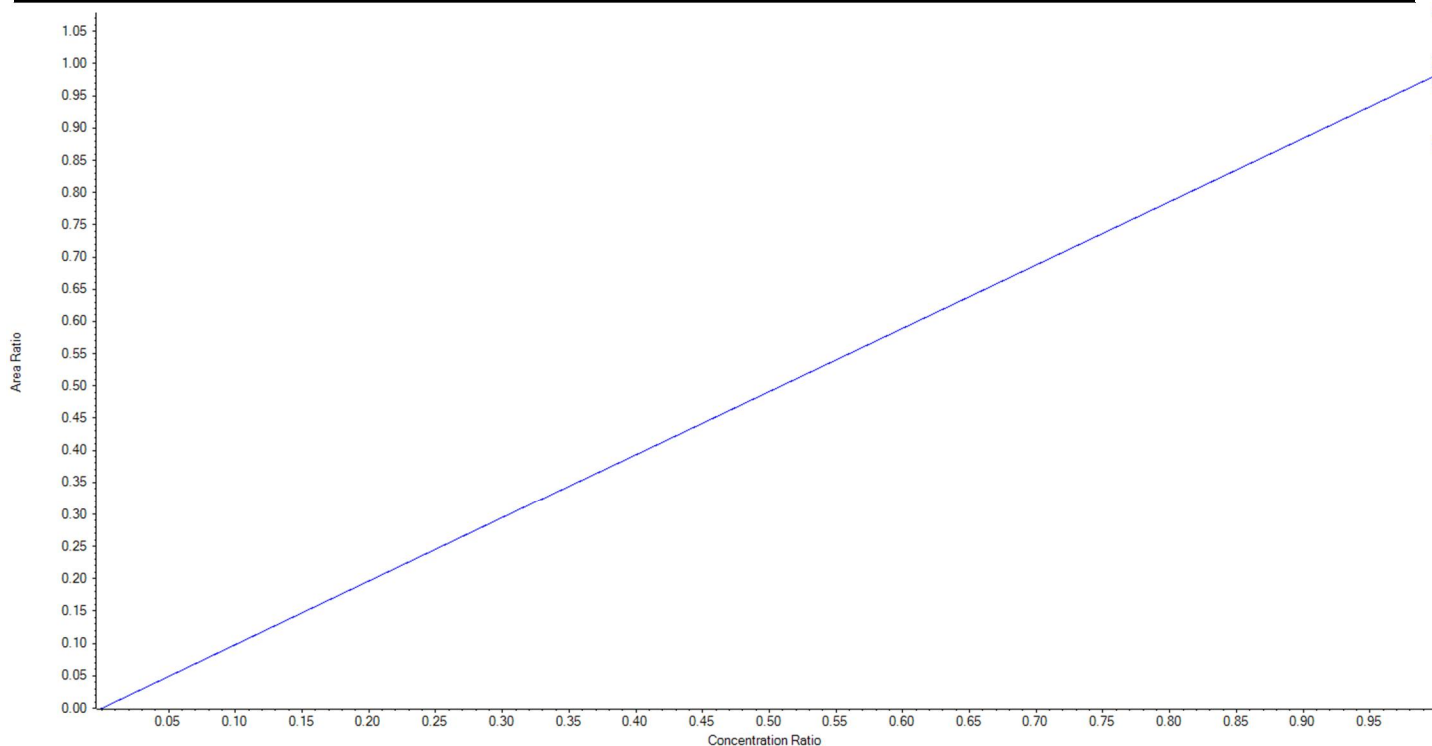
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Analyte Name	13C6-PFDA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	519.0 / 474.0	Result Table	18-0590_18-0588_18-0589_SIS
Internal Standard	13C2-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.98235 x$ (std. dev. = 0.06079) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	246.733475	98.7
3	KB74	L2	True	250.00	253.248818	101.3
4	KB75	L3	True	250.00	257.192135	102.9
5	KB76	L4	True	250.00	248.450649	99.4
6	KB77	L5	True	250.00	274.445566	109.8
7	KB78	L6	True	250.00	247.435316	99.0
8	KB79	L7	True	250.00	222.494042	89.0





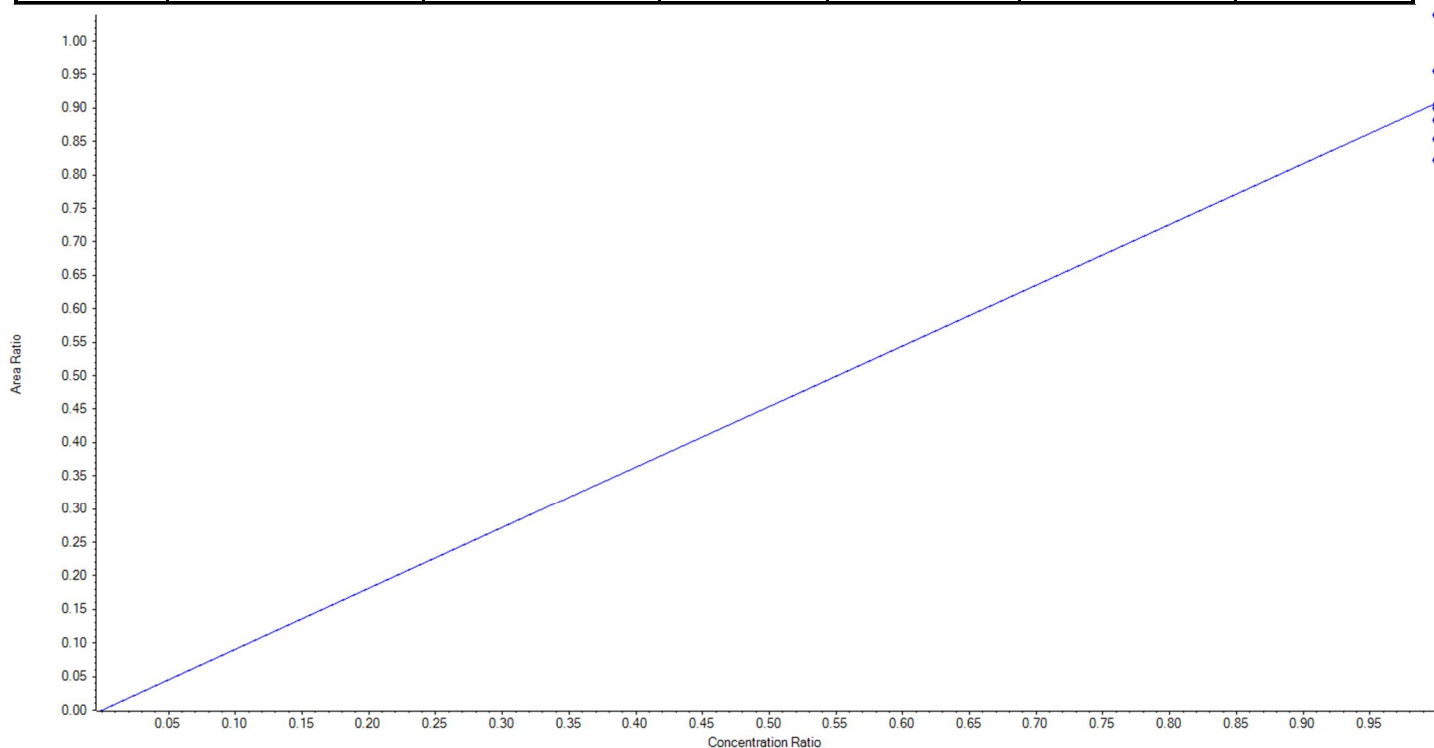
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Analyte Name	13C7-PFUnA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	570.0 / 525.0	Result Table	18-0590_18-0588_18-0589_SIS
Internal Standard	13C2-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.90743 x$ (std. dev. = 0.07148) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	247.760751	99.1
3	KB74	L2	True	250.00	262.960755	105.2
4	KB75	L3	True	250.00	286.201660	114.5
5	KB76	L4	True	250.00	234.954208	94.0
6	KB77	L5	True	250.00	249.135582	99.7
7	KB78	L6	True	250.00	242.726450	97.1
8	KB79	L7	True	250.00	226.260594	90.5





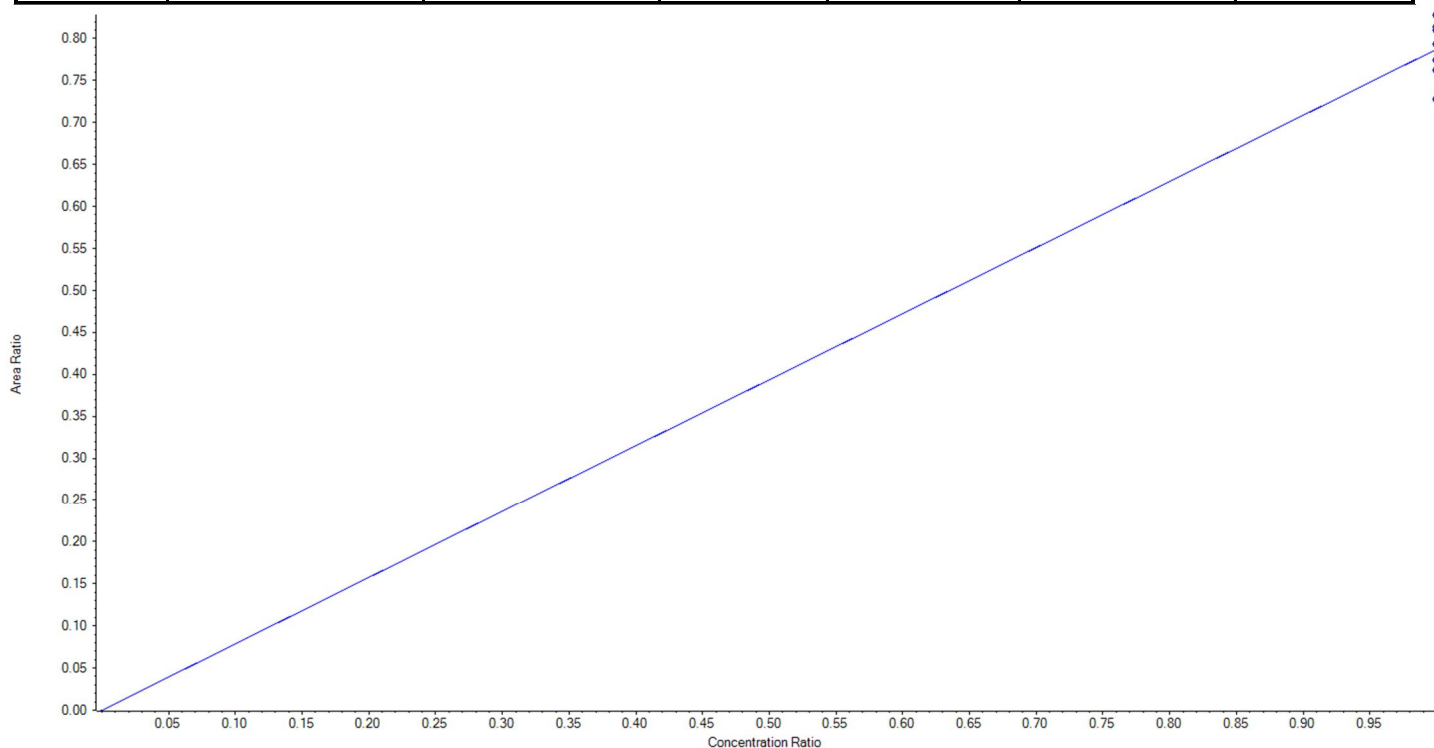
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Analyte Name	13C2-PFTeDA	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	715.0 / 670.0	Result Table	18-0590_18-0588_18-0589_SIS
Internal Standard	13C2-PFDA	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.78723 x$ (std. dev. = 0.03476) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	250.00	242.249601	96.9
3	KB74	L2	True	250.00	262.922814	105.2
4	KB75	L3	True	250.00	245.975733	98.4
5	KB76	L4	True	250.00	231.048930	92.4
6	KB77	L5	True	250.00	252.097071	100.8
7	KB78	L6	True	250.00	258.482884	103.4
8	KB79	L7	True	250.00	257.222966	102.9





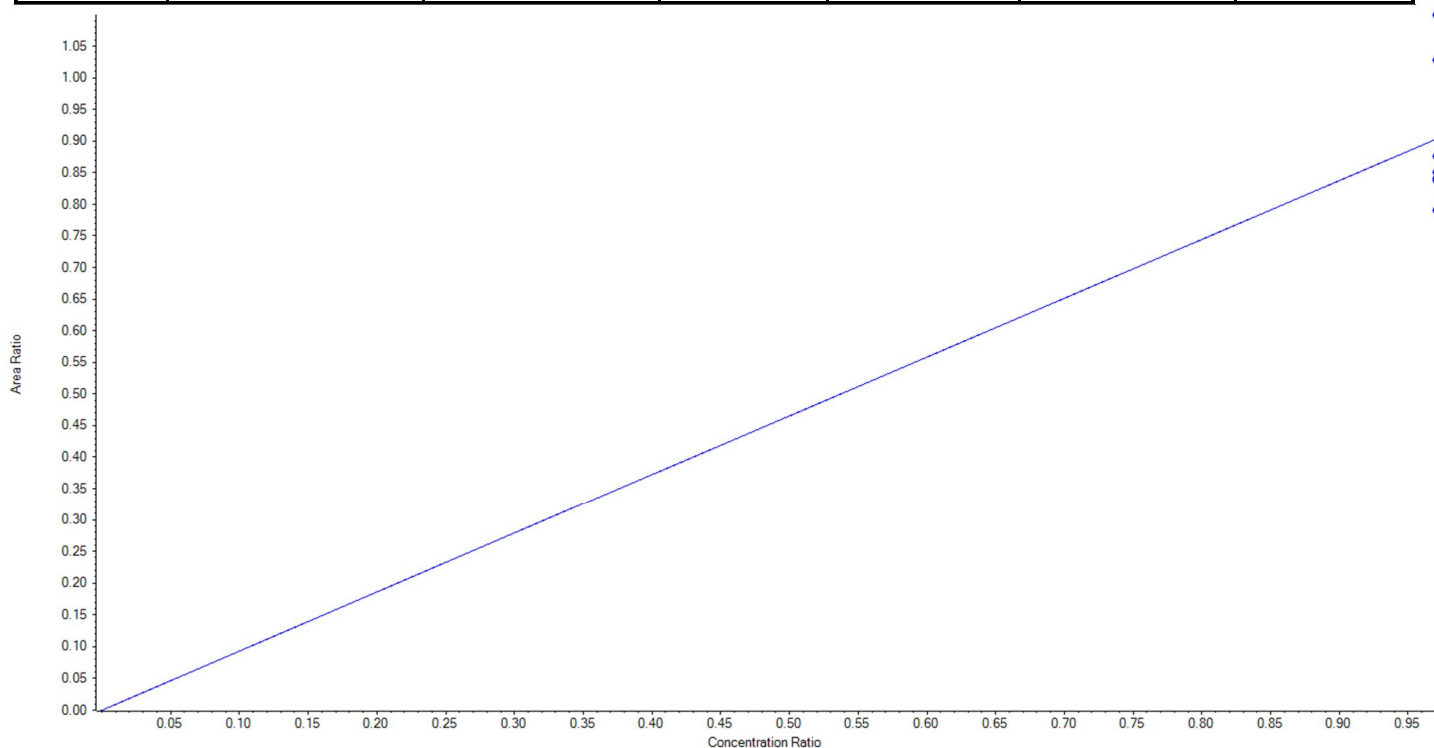
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Analyte Name	13C3-PFBS	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	302.0 / 99.0	Result Table	18-0590_18-0588_18-0589_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.93048 x$ (std. dev. = 0.11752) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	232.25	225.022462	96.9
3	KB74	L2	True	232.25	215.609121	92.8
4	KB75	L3	True	232.25	218.748838	94.2
5	KB76	L4	True	232.25	203.233433	87.5
6	KB77	L5	True	232.25	216.348971	93.2
7	KB78	L6	True	232.25	264.163371	113.7
8	KB79	L7	True	232.25	282.623804	121.7





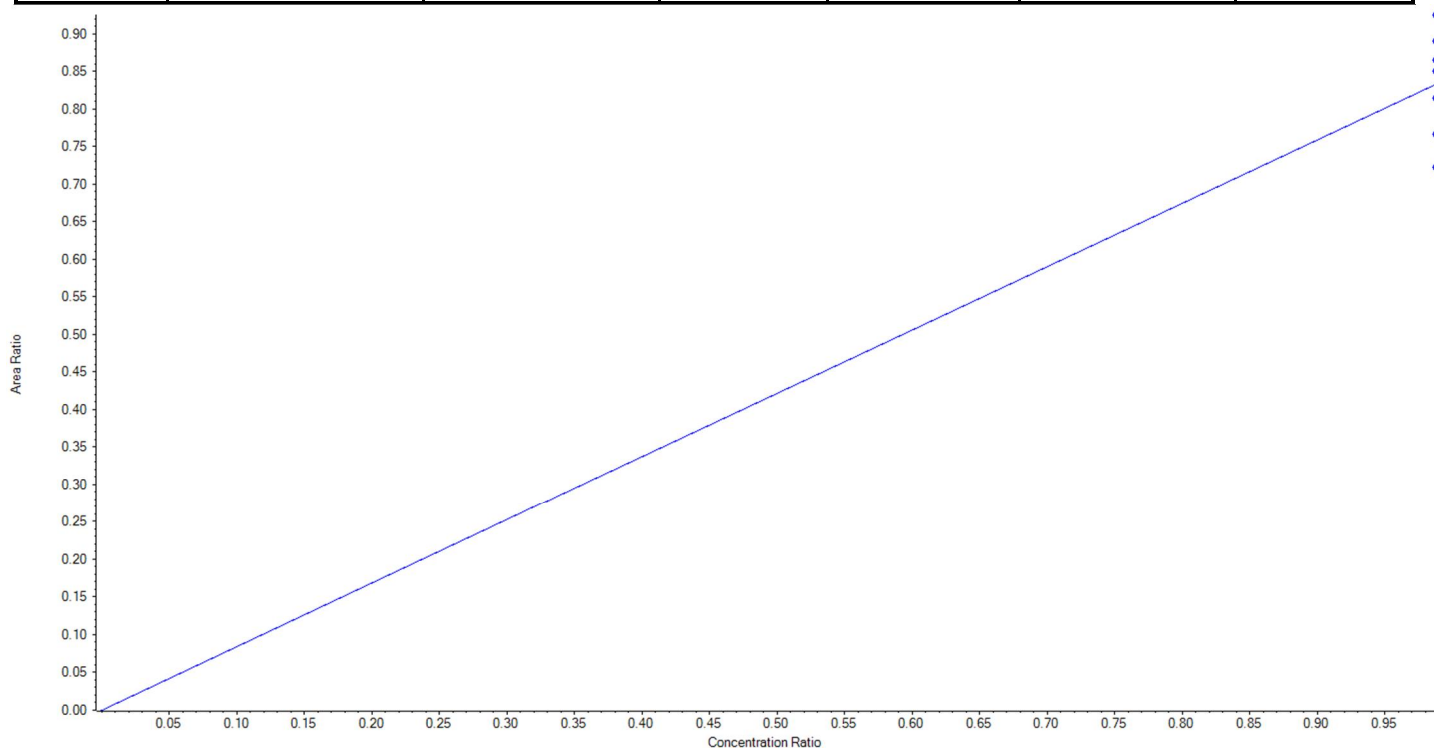
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Analyte Name	13C3-PFHxS	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	402.0 / 99.0	Result Table	18-0590_18-0588_18-0589_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.84316 x$ (std. dev. = 0.07172) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	236.50	231.144826	97.7
3	KB74	L2	True	236.50	241.172849	102.0
4	KB75	L3	True	236.50	245.474666	103.8
5	KB76	L4	True	236.50	217.481590	92.0
6	KB77	L5	True	236.50	204.966129	86.7
7	KB78	L6	True	236.50	262.529838	111.0
8	KB79	L7	True	236.50	252.730102	106.9





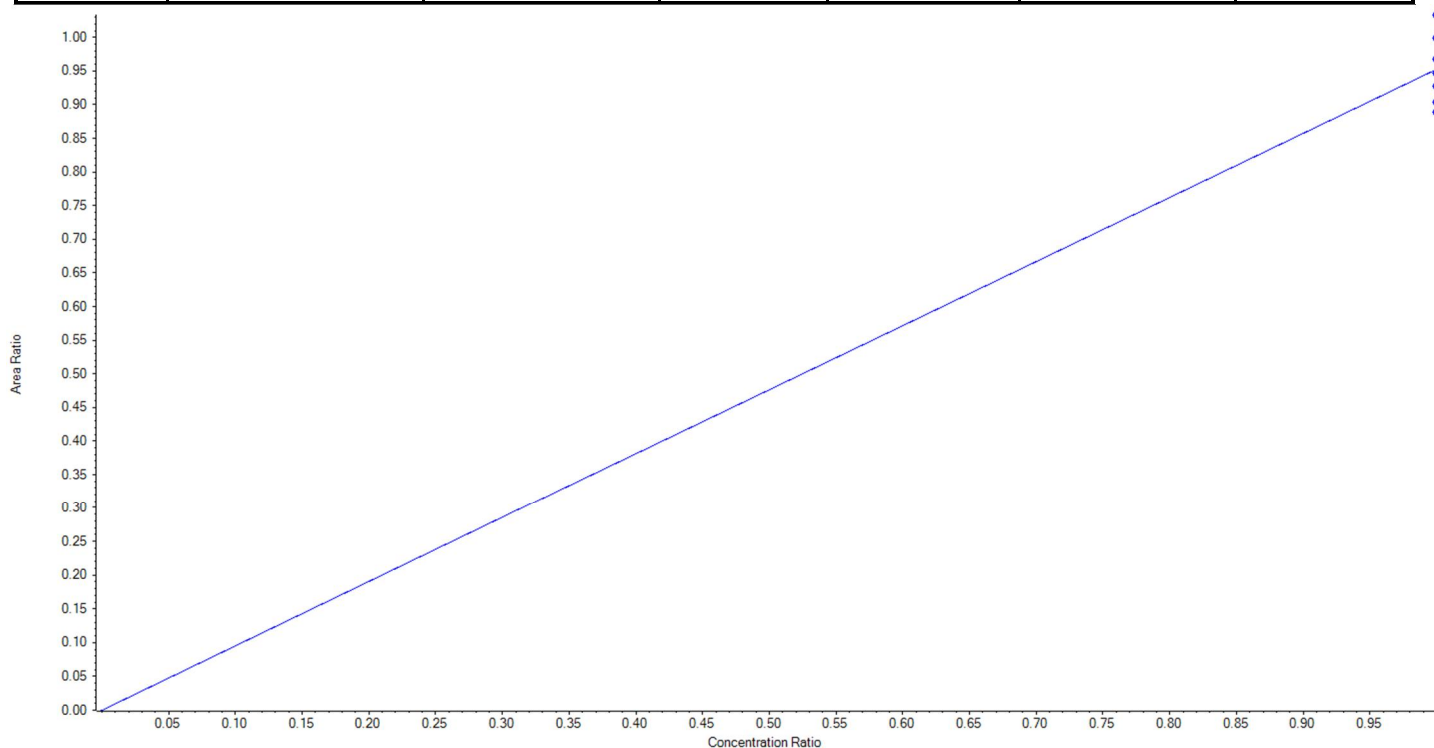
Calibration Summary Report

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Analyte Name	13C8-PFOS	Data File	Data18-0590_18-01588_18-0589.wiff
MRM Transition	507.0 / 99.0	Result Table	18-0590_18-0588_18-0589_SIS
Internal Standard	13C4-PFOS	Instrument Name	QTRAP 5500
Acquisition Date	10/17/2018 7:46:52 PM	Acquisition Method	5-0369.dam

Regression Equation: $y = 0.95250 x$ (std. dev. = 0.05159) (weighting: 1 / x)

Vial	Sample Name	Sample ID	Used for ICAL	Target Conc. (ng/L)	Calculated Conc. (ng/L)	Recovery (%)
2	KB73	L1	True	239.25	250.871078	104.9
3	KB74	L2	True	239.25	243.225761	101.7
4	KB75	L3	True	239.25	223.367998	93.4
5	KB76	L4	True	239.25	233.089271	97.4
6	KB77	L5	True	239.25	226.800752	94.8
7	KB78	L6	True	239.25	259.494294	108.5
8	KB79	L7	True	239.25	237.900846	99.4



Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.57	36035.22	104.635578	126.2	true
PFBS 2	298.9 / 99.0	1.57	10918.15	109.976962	78.2	true
PFHxA 1	313.0 / 269.0	1.90	32164.19	98.968181	3.3	false
PFHxA 2	313.0 / 119.0	1.91	2959.44	113.183087	3.5	false
PFHpA 1	363.0 / 319.0	2.32	32551.91	113.465532	39.8	false
PFHpA 2	363.0 / 169.0	2.32	1000.19	103.311634	29.1	false
PFHxS 1	399.0 / 80.0	2.34	44418.07	105.225987	134.5	false
PFHxS 2	399.0 / 99.0	2.34	12198.64	98.139274	86.9	false
PFOA 1	413.0 / 369.0	2.73	42708.15	113.608497	67.5	false
PFOA 2	413.0 / 169.0	2.73	2568.95	104.849376	46.6	false
PFNA 1	463.0 / 419.0	3.14	40302.36	100.132667	94.3	false
PFNA 2	463.0 / 219.0	3.14	13162.53	111.702594	118.3	false
PFOS 1	499.0 / 80.0	3.13	65728.52	112.998705	102.9	false
PFOS 2	499.0 / 99.0	3.13	11345.50	110.962710	100.1	false
PFDA 1	513.0 / 469.0	3.50	49242.60	100.375074	136.7	false
PFDA 2	513.0 / 219.0	3.49	2266.31	112.406023	88.7	false
PFUnA 1	563.0 / 519.0	3.83	45897.49	111.527231	163.3	false
PFUnA 2	563.0 / 269.0	3.82	1918.57	102.220892	42.6	true
PFDoA 1	613.0 / 569.0	4.11	39723.04	90.939755	179.1	false
PFDoA 2	613.0 / 319.0	4.11	6547.85	86.545687	145.5	false
PFTTrDA 1	663.0 / 619.0	4.37	34866.78	85.967911	309.6	false
PFTTrDA 2	663.0 / 169.0	4.36	2214.00	78.198175	110.2	false
PFTeDA 1	713.0 / 669.0	4.59	40930.04	81.728327	685.4	false
PFTeDA 2	713.0 / 169.0	4.58	2198.76	89.886117	212.0	false
NMeFOSAA 1	570.0 / 419.0	3.65	8081.03	75.824991	298.4	false
NMeFOSAA 2	570.0 / 512.0	3.65	3645.21	3.453918	224.2	false
NEtFOSAA 1	584.0 / 419.0	3.82	8180.80	104.771450	524.6	false
NEtFOSAA 2	584.0 / 483.0	3.82	421.19	41.412646	48.5	false

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.57	93283.23	249.370464	246.3	false
PFBS 2	298.9 / 99.0	1.57	26423.99	242.180085	146.1	false
PFHxA 1	313.0 / 269.0	1.90	81008.49	269.910942	7.1	false
PFHxA 2	313.0 / 119.0	1.89	5592.03	230.645561	6.5	false
PFHpA 1	363.0 / 319.0	2.31	75049.99	261.922885	57.6	false
PFHpA 2	363.0 / 169.0	2.31	1497.90	175.823351	28.9	true
PFHxS 1	399.0 / 80.0	2.33	108184.43	232.865372	188.9	false
PFHxS 2	399.0 / 99.0	2.33	30598.50	231.314187	310.4	false
PFOA 1	413.0 / 369.0	2.73	100033.19	242.259718	128.9	false
PFOA 2	413.0 / 169.0	2.73	7259.40	273.238913	110.3	false
PFNA 1	463.0 / 419.0	3.13	107846.09	263.216231	192.5	false
PFNA 2	463.0 / 219.0	3.12	28095.55	220.916460	213.9	false
PFOS 1	499.0 / 80.0	3.12	165271.40	245.807613	161.0	false
PFOS 2	499.0 / 99.0	3.12	28706.92	244.538081	211.7	true
PFDA 1	513.0 / 469.0	3.49	122994.62	264.467518	236.7	false
PFDA 2	513.0 / 219.0	3.48	4770.77	245.500787	791.7	false
PFUnA 1	563.0 / 519.0	3.82	106014.14	244.824605	237.3	false
PFUnA 2	563.0 / 269.0	3.81	5018.00	242.442598	81.5	false
PFDoA 1	613.0 / 569.0	4.10	107705.01	247.072023	318.6	false
PFDoA 2	613.0 / 319.0	4.10	19126.54	274.615048	276.9	false
PFTrDA 1	663.0 / 619.0	4.35	90249.73	241.563939	481.4	false
PFTrDA 2	663.0 / 169.0	4.35	6147.30	247.986856	208.6	false
PFTeDA 1	713.0 / 669.0	4.58	109852.37	253.645310	931.4	false
PFTeDA 2	713.0 / 169.0	4.58	5150.42	238.937138	369.4	false
NMeFOSAA 1	570.0 / 419.0	3.65	21539.90	268.876365	843.1	false
NMeFOSAA 2	570.0 / 512.0	3.65	11614.86	218.419800	528.2	false
NEtFOSAA 1	584.0 / 419.0	3.81	21525.62	251.018896	397.7	false
NEtFOSAA 2	584.0 / 483.0	3.80	1206.24	191.667209	290.9	false

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.57	163617.84	495.098560	296.3	false
PFBS 2	298.9 / 99.0	1.57	45956.46	475.121472	212.6	false
PFHxA 1	313.0 / 269.0	1.89	123711.77	490.752146	10.9	false
PFHxA 2	313.0 / 119.0	1.89	9937.29	514.901118	10.8	false
PFHpA 1	363.0 / 319.0	2.31	119885.50	452.888167	85.7	false
PFHpA 2	363.0 / 169.0	2.31	3804.54	618.850678	67.0	false
PFHxS 1	399.0 / 80.0	2.33	185842.71	467.824000	256.2	false
PFHxS 2	399.0 / 99.0	2.33	54144.25	484.563583	238.2	false
PFOA 1	413.0 / 369.0	2.72	178566.76	467.456638	160.8	false
PFOA 2	413.0 / 169.0	2.72	10469.56	421.303706	138.9	false
PFNA 1	463.0 / 419.0	3.12	170504.46	450.336433	203.9	false
PFNA 2	463.0 / 219.0	3.12	51980.47	448.287193	301.6	false
PFOS 1	499.0 / 80.0	3.12	275067.90	508.954098	204.8	false
PFOS 2	499.0 / 99.0	3.12	48946.70	520.238814	287.5	false
PFDA 1	513.0 / 469.0	3.48	213151.42	495.556524	301.2	false
PFDA 2	513.0 / 219.0	3.48	8539.13	479.073328	239.1	false
PFUnA 1	563.0 / 519.0	3.81	185383.49	423.690587	269.5	false
PFUnA 2	563.0 / 269.0	3.81	10671.72	501.608235	165.4	false
PFDoA 1	613.0 / 569.0	4.09	184868.00	506.360909	343.9	false
PFDoA 2	613.0 / 319.0	4.09	28751.08	494.661881	331.3	false
PFTrDA 1	663.0 / 619.0	4.35	151211.59	488.700899	597.4	false
PFTrDA 2	663.0 / 169.0	4.34	10123.70	495.036348	322.3	false
PFTeDA 1	713.0 / 669.0	4.57	182656.44	515.154084	1232.8	false
PFTeDA 2	713.0 / 169.0	4.56	8526.49	490.005825	501.7	false
NMeFOSAA 1	570.0 / 419.0	3.63	34656.73	500.524214	2338.0	false
NMeFOSAA 2	570.0 / 512.0	3.64	18345.00	439.990383	658.5	false
NEtFOSAA 1	584.0 / 419.0	3.80	31971.45	508.056535	633.3	false
NEtFOSAA 2	584.0 / 483.0	3.80	2497.16	637.470069	8056.1	true

Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	336045.72	1091.288759	552.2	false
PFBS 2	298.9 / 99.0	1.56	98081.89	1086.381545	407.4	false
PFHxA 1	313.0 / 269.0	1.89	240693.36	1004.472242	18.1	false
PFHxA 2	313.0 / 119.0	1.89	17814.42	980.952621	16.5	false
PFHpA 1	363.0 / 319.0	2.30	251954.77	963.772233	144.8	false
PFHpA 2	363.0 / 169.0	2.30	6187.13	1051.701356	84.1	false
PFHxS 1	399.0 / 80.0	2.32	369801.30	1074.776448	333.3	false
PFHxS 2	399.0 / 99.0	2.32	106671.06	1107.476178	416.8	false
PFOA 1	413.0 / 369.0	2.71	347996.75	956.844142	237.9	false
PFOA 2	413.0 / 169.0	2.71	24237.17	1028.034772	244.5	false
PFNA 1	463.0 / 419.0	3.11	345587.51	1046.243999	410.7	false
PFNA 2	463.0 / 219.0	3.11	106652.75	1050.052047	427.7	false
PFOS 1	499.0 / 80.0	3.11	549475.41	953.422687	298.0	false
PFOS 2	499.0 / 99.0	3.11	96044.01	958.547975	432.6	false
PFDA 1	513.0 / 469.0	3.47	409723.46	987.592944	454.6	false
PFDA 2	513.0 / 219.0	3.47	17306.29	1010.924950	319.9	false
PFUnA 1	563.0 / 519.0	3.80	370869.35	1026.343861	315.7	false
PFUnA 2	563.0 / 269.0	3.80	17491.40	981.918474	206.5	false
PFDoA 1	613.0 / 569.0	4.09	374694.74	1050.478389	498.6	false
PFDoA 2	613.0 / 319.0	4.09	54643.36	971.395687	458.0	false
PFTrDA 1	663.0 / 619.0	4.34	321677.62	1126.764608	812.9	false
PFTrDA 2	663.0 / 169.0	4.34	21874.98	1164.067670	449.0	false
PFTeDA 1	713.0 / 669.0	4.56	357047.01	1095.645152	1545.8	false
PFTeDA 2	713.0 / 169.0	4.56	17306.66	1092.239213	701.8	false
NMeFOSAA 1	570.0 / 419.0	3.63	68030.30	1133.404189	751.5	false
NMeFOSAA 2	570.0 / 512.0	3.63	39158.03	1163.925478	709.7	false
NEtFOSAA 1	584.0 / 419.0	3.80	66289.88	943.782521	754.6	false
NEtFOSAA 2	584.0 / 483.0	3.80	4059.44	945.207707	43600.8	false

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.57	776289.58	2332.691625	927.0	false
PFBS 2	298.9 / 99.0	1.56	228434.75	2339.199841	734.2	false
PFHxA 1	313.0 / 269.0	1.89	609668.03	2495.865956	39.8	false
PFHxA 2	313.0 / 119.0	1.89	44913.51	2451.366061	32.3	false
PFHpA 1	363.0 / 319.0	2.30	584043.68	2376.996854	232.0	false
PFHpA 2	363.0 / 169.0	2.30	13193.99	2469.602759	211.4	false
PFHxS 1	399.0 / 80.0	2.32	886495.01	2696.493262	388.0	false
PFHxS 2	399.0 / 99.0	2.32	252473.06	2749.725828	571.1	false
PFOA 1	413.0 / 369.0	2.71	834165.44	2452.232813	357.8	false
PFOA 2	413.0 / 169.0	2.71	53993.69	2444.883328	444.0	false
PFNA 1	463.0 / 419.0	3.11	783461.97	2491.510736	552.9	false
PFNA 2	463.0 / 219.0	3.11	254909.55	2632.290752	603.7	false
PFOS 1	499.0 / 80.0	3.11	1306443.89	2300.880982	452.4	false
PFOS 2	499.0 / 99.0	3.11	224020.69	2271.299000	545.6	false
PFDA 1	513.0 / 469.0	3.47	986588.88	2418.646707	564.2	false
PFDA 2	513.0 / 219.0	3.47	39607.95	2354.317167	415.6	false
PFUnA 1	563.0 / 519.0	3.80	871741.30	2538.187940	460.9	false
PFUnA 2	563.0 / 269.0	3.80	43333.05	2544.385755	300.0	false
PFDoA 1	613.0 / 569.0	4.09	821796.76	2565.539851	662.4	false
PFDoA 2	613.0 / 319.0	4.09	135656.47	2712.576260	522.0	false
PFTrDA 1	663.0 / 619.0	4.33	735746.86	2664.921530	986.7	false
PFTrDA 2	663.0 / 169.0	4.33	48743.98	2684.712399	618.7	false
PFTeDA 1	713.0 / 669.0	4.56	816378.76	2603.218162	1929.9	false
PFTeDA 2	713.0 / 169.0	4.55	40737.36	2680.771848	1193.3	false
NMeFOSAA 1	570.0 / 419.0	3.63	151508.36	2465.257046	2245.1	false
NMeFOSAA 2	570.0 / 512.0	3.63	88173.15	2616.439396	615.9	false
NEtFOSAA 1	584.0 / 419.0	3.79	155433.42	2522.760733	648.0	false
NEtFOSAA 2	584.0 / 483.0	3.79	9620.27	2637.389496	1231310.6	false

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	3735985.71	9811.581725	1503.9	false
PFBS 2	298.9 / 99.0	1.56	1134069.29	10143.472130	1449.0	false
PFHxA 1	313.0 / 269.0	1.88	2658827.36	9993.499522	90.8	false
PFHxA 2	313.0 / 119.0	1.88	200130.60	10083.260482	76.5	false
PFHpA 1	363.0 / 319.0	2.30	2497856.31	9765.162244	436.5	false
PFHpA 2	363.0 / 169.0	2.30	53385.07	9796.218447	441.5	false
PFHxS 1	399.0 / 80.0	2.32	3854430.51	9828.822898	984.2	false
PFHxS 2	399.0 / 99.0	2.32	1062752.95	9714.855919	1104.6	false
PFOA 1	413.0 / 369.0	2.71	3551933.53	10326.914009	921.2	false
PFOA 2	413.0 / 169.0	2.71	226064.95	10121.411629	875.1	false
PFNA 1	463.0 / 419.0	3.11	3442576.47	10047.185055	870.1	false
PFNA 2	463.0 / 219.0	3.11	1068510.97	10108.558837	1018.0	false
PFOS 1	499.0 / 80.0	3.10	5888305.73	9674.048541	719.2	false
PFOS 2	499.0 / 99.0	3.10	1040866.54	9849.093945	1187.7	false
PFDA 1	513.0 / 469.0	3.47	4121337.28	9760.929085	867.9	false
PFDA 2	513.0 / 219.0	3.46	165545.81	9514.985150	1080.3	false
PFUnA 1	563.0 / 519.0	3.79	3980687.38	10323.155375	894.2	false
PFUnA 2	563.0 / 269.0	3.79	194191.57	10125.204796	674.2	false
PFDoA 1	613.0 / 569.0	4.08	3840657.97	10368.355085	1057.4	false
PFDoA 2	613.0 / 319.0	4.08	576764.61	9996.454238	1020.7	false
PFTrDA 1	663.0 / 619.0	4.33	3350407.66	10336.521146	1444.2	false
PFTrDA 2	663.0 / 169.0	4.33	218945.29	10280.911529	1007.9	false
PFTeDA 1	713.0 / 669.0	4.55	3751651.69	10217.289136	2725.0	false
PFTeDA 2	713.0 / 169.0	4.54	182332.73	10258.453725	1759.6	false
NMeFOSAA 1	570.0 / 419.0	3.62	753927.92	11007.670601	2278.1	false
NMeFOSAA 2	570.0 / 512.0	3.62	404364.11	10905.550987	1426.8	false
NEtFOSAA 1	584.0 / 419.0	3.79	707833.72	9564.590700	1144.3	false
NEtFOSAA 2	584.0 / 483.0	3.79	40332.26	9326.284871	2770.2	false

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	7654212.63	20608.833290	2863.5	false
PFBS 2	298.9 / 99.0	1.56	2213700.05	20297.167965	1861.8	false
PFHxA 1	313.0 / 269.0	1.89	5068064.70	20340.031011	123.0	false
PFHxA 2	313.0 / 119.0	1.88	377383.63	20319.191070	98.6	false
PFHpA 1	363.0 / 319.0	2.29	4752932.81	20415.792084	545.6	false
PFHpA 2	363.0 / 169.0	2.30	99502.18	20134.491774	637.6	false
PFHxS 1	399.0 / 80.0	2.32	6929917.90	20287.492034	1348.5	false
PFHxS 2	399.0 / 99.0	2.32	1934460.53	20307.425032	1153.9	false
PFOA 1	413.0 / 369.0	2.71	6162786.15	19790.684183	1174.3	false
PFOA 2	413.0 / 169.0	2.71	403546.52	19956.278277	1429.0	false
PFNA 1	463.0 / 419.0	3.11	6224206.25	19951.374879	1314.8	false
PFNA 2	463.0 / 219.0	3.11	1903895.81	19778.192118	1655.3	false
PFOS 1	499.0 / 80.0	3.10	10402856.43	20553.887374	904.0	true
PFOS 2	499.0 / 99.0	3.10	1792140.82	20395.319474	1641.5	false
PFDA 1	513.0 / 469.0	3.47	7455074.70	20322.432148	1181.3	false
PFDA 2	513.0 / 219.0	3.47	311824.53	20632.792594	1380.7	false
PFUnA 1	563.0 / 519.0	3.79	6840458.50	19682.270401	830.9	false
PFUnA 2	563.0 / 269.0	3.79	343323.53	19852.219250	642.0	false
PFDoA 1	613.0 / 569.0	4.07	7074590.20	19521.253987	1036.7	false
PFDoA 2	613.0 / 319.0	4.07	1117673.36	19813.751199	984.9	false
PFTrDA 1	663.0 / 619.0	4.32	6045542.29	19405.559967	1420.4	false
PFTrDA 2	663.0 / 169.0	4.32	396998.36	19399.087023	1127.9	false
PFTeDA 1	713.0 / 669.0	4.54	6908120.06	19583.319829	2951.8	false
PFTeDA 2	713.0 / 169.0	4.54	332887.97	19499.706134	2522.7	false
NMeFOSAA 1	570.0 / 419.0	3.62	1331189.45	18898.442593	2363.5	false
NMeFOSAA 2	570.0 / 512.0	3.62	719500.36	18905.673956	1612.0	false
NEtFOSAA 1	584.0 / 419.0	3.78	1231583.02	20455.019164	1168.4	false
NEtFOSAA 2	584.0 / 483.0	3.78	71957.40	20511.980648	877.0	false

Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.10	91402.83	234.027671	1231.7	false
d3-MeFOSAA	573.0 / 419.0	3.65	16104.22	243.102584	203.5	false
d5-EtFOSAA	589.0 / 419.0	3.81	18885.04	261.116785	197.5	false
13C5-PFHxA	318.0 / 273.0	1.89	61468.01	262.567314	846.3	false
13C4-PFHpA	367.0 / 322.0	2.30	69894.37	262.427043	1233.4	false
13C8-PFOA	421.0 / 376.0	2.72	82686.75	255.212785	7328.7	false
13C9-PFNA	472.0 / 427.0	3.12	91536.04	247.430463	984.5	false
13C6-PFDA	519.0 / 474.0	3.48	97086.56	246.733475	862.5	false
13C7-PFUnA	570.0 / 525.0	3.81	90055.69	247.760751	681.9	false
13C2-PFTeDA	715.0 / 670.0	4.58	76389.03	242.249601	2670.6	false
13C3-PFBS	302.0 / 99.0	1.55	26120.14	225.022462	521.2	false
13C3-PFHxS	402.0 / 99.0	2.33	24312.83	231.144826	504.5	false
13C8-PFOS	507.0 / 99.0	3.12	29809.56	250.871078	289.5	false

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.09	107747.25	265.932266	1391.1	false
d3-MeFOSAA	573.0 / 419.0	3.64	17700.53	228.792666	243.9	false
d5-EtFOSAA	589.0 / 419.0	3.80	22032.11	260.842878	257.9	false
13C5-PFHxA	318.0 / 273.0	1.89	67688.32	254.187234	641.8	false
13C4-PFHpA	367.0 / 322.0	2.30	76065.72	251.075240	798.7	false
13C8-PFOA	421.0 / 376.0	2.72	96880.10	262.875155	404.7	false
13C9-PFNA	472.0 / 427.0	3.11	109970.74	261.328420	1372.3	false
13C6-PFDA	519.0 / 474.0	3.48	103376.35	253.248818	1556.3	false
13C7-PFUnA	570.0 / 525.0	3.80	99154.47	262.960755	932.2	false
13C2-PFTeDA	715.0 / 670.0	4.57	86008.02	262.922814	1938.6	false
13C3-PFBS	302.0 / 99.0	1.55	29228.78	215.609121	465.4	false
13C3-PFHxS	402.0 / 99.0	2.32	29626.05	241.172849	441.9	false
13C8-PFOS	507.0 / 99.0	3.11	33752.70	243.225761	275.4	false

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	95394.66	249.447374	1919.0	false
d3-MeFOSAA	573.0 / 419.0	3.63	16732.69	245.689732	259.5	false
d5-EtFOSAA	589.0 / 419.0	3.79	16744.24	225.192349	304.7	false
13C5-PFHxA	318.0 / 273.0	1.88	59853.55	230.325952	495.7	false
13C4-PFHpA	367.0 / 322.0	2.29	72363.27	244.763156	5134.6	false
13C8-PFOA	421.0 / 376.0	2.71	92242.14	256.482263	3147.3	false
13C9-PFNA	472.0 / 427.0	3.10	106517.52	259.384215	1506.1	false
13C6-PFDA	519.0 / 474.0	3.47	99092.64	257.192135	1016.5	false
13C7-PFUnA	570.0 / 525.0	3.79	101859.96	286.201660	947.8	false
13C2-PFTeDA	715.0 / 670.0	4.56	75947.40	245.975733	2310.8	false
13C3-PFBS	302.0 / 99.0	1.55	26105.02	218.748838	604.7	false
13C3-PFHxS	402.0 / 99.0	2.32	26545.24	245.474666	396.8	false
13C8-PFOS	507.0 / 99.0	3.10	27286.93	223.367998	263.5	false

Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	95903.63	245.945631	1244.5	false
d3-MeFOSAA	573.0 / 419.0	3.62	15347.55	223.328296	188.7	false
d5-EtFOSAA	589.0 / 419.0	3.79	19076.22	254.251713	210.8	false
13C5-PFHxA	318.0 / 273.0	1.88	58835.13	235.058052	1009.1	false
13C4-PFHpA	367.0 / 322.0	2.29	73044.35	256.507439	778.8	false
13C8-PFOA	421.0 / 376.0	2.70	89256.01	257.662297	1337.8	false
13C9-PFNA	472.0 / 427.0	3.10	96659.60	244.372857	1496.3	false
13C6-PFDA	519.0 / 474.0	3.46	97605.58	248.450649	1104.6	false
13C7-PFUnA	570.0 / 525.0	3.78	85263.94	234.954208	671.4	false
13C2-PFTeDA	715.0 / 670.0	4.55	72740.35	231.048930	2036.8	false
13C3-PFBS	302.0 / 99.0	1.55	24473.16	203.233433	669.1	false
13C3-PFHxS	402.0 / 99.0	2.32	23731.17	217.481590	485.7	false
13C8-PFOS	507.0 / 99.0	3.10	28732.45	233.089271	315.7	false

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	87520.82	248.975274	984.0	false
d3-MeFOSAA	573.0 / 419.0	3.62	15905.32	227.365315	163.7	false
d5-EtFOSAA	589.0 / 419.0	3.78	16835.01	220.425706	271.8	false
13C5-PFHxA	318.0 / 273.0	1.88	61167.94	257.145365	677.6	false
13C4-PFHpA	367.0 / 322.0	2.29	69461.61	256.669677	849.4	false
13C8-PFOA	421.0 / 376.0	2.70	84283.75	256.019871	1295.1	false
13C9-PFNA	472.0 / 427.0	3.10	93667.25	249.179395	1439.8	false
13C6-PFDA	519.0 / 474.0	3.46	97196.35	274.445566	2304.2	false
13C7-PFUnA	570.0 / 525.0	3.78	81503.66	249.135582	792.6	false
13C2-PFTeDA	715.0 / 670.0	4.55	71548.15	252.097071	2268.3	false
13C3-PFBS	302.0 / 99.0	1.55	26519.94	216.348971	787.4	false
13C3-PFHxS	402.0 / 99.0	2.31	22766.78	204.966129	549.1	false
13C8-PFOS	507.0 / 99.0	3.10	28458.87	226.800752	280.5	false

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	102072.61	251.235272	905.7	false
d3-MeFOSAA	573.0 / 419.0	3.61	18026.94	274.494088	140.7	false
d5-EtFOSAA	589.0 / 419.0	3.78	19940.39	278.106701	245.9	false
13C5-PFHxA	318.0 / 273.0	1.87	67298.42	264.503275	733.1	false
13C4-PFHpA	367.0 / 322.0	2.28	72755.48	251.342992	508.8	false
13C8-PFOA	421.0 / 376.0	2.70	85622.31	243.157749	1201.3	false
13C9-PFNA	472.0 / 427.0	3.09	103069.19	256.344825	1142.1	false
13C6-PFDA	519.0 / 474.0	3.45	101281.21	247.435316	1442.1	false
13C7-PFUnA	570.0 / 525.0	3.78	91776.59	242.726450	856.9	false
13C2-PFTeDA	715.0 / 670.0	4.54	84788.29	258.482884	1567.2	false
13C3-PFBS	302.0 / 99.0	1.54	30399.13	264.163371	680.5	false
13C3-PFHxS	402.0 / 99.0	2.31	27375.94	262.529838	495.9	false
13C8-PFOS	507.0 / 99.0	3.09	30568.34	259.494294	315.3	false

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	99995.01	254.436513	1141.6	false
d3-MeFOSAA	573.0 / 419.0	3.62	18400.21	307.227320	102.1	false
d5-EtFOSAA	589.0 / 419.0	3.78	16351.10	250.063868	251.7	false
13C5-PFHxA	318.0 / 273.0	1.87	63134.84	246.212808	622.1	false
13C4-PFHpA	367.0 / 322.0	2.28	66285.64	227.214453	928.8	false
13C8-PFOA	421.0 / 376.0	2.70	77573.52	218.589880	452635.8	false
13C9-PFNA	472.0 / 427.0	3.09	93994.33	231.959824	113653.9	false
13C6-PFDA	519.0 / 474.0	3.45	88095.93	222.494042	731.4	false
13C7-PFUnA	570.0 / 525.0	3.78	82754.96	226.260594	1283.3	false
13C2-PFTeDA	715.0 / 670.0	4.54	81617.66	257.222966	1991.1	false
13C3-PFBS	302.0 / 99.0	1.54	29660.00	282.623804	815.0	false
13C3-PFHxS	402.0 / 99.0	2.31	24033.73	252.730102	656.4	false
13C8-PFOS	507.0 / 99.0	3.09	25557.23	237.900846	289.4	false

Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.300	0.292	ü
PFHxA_1	313.0 / 269.0	1.90	PFHxA			
PFHxA_2	313.0 / 119.0	1.91	PFHxA	0.090	0.077	ü
PFHpA_1	363.0 / 319.0	2.32	PFHpA			
PFHpA_2	363.0 / 169.0	2.32	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.34	PFHxS			
PFHxS_2	399.0 / 99.0	2.34	PFHxS	0.270	0.282	ü
PFOA_1	413.0 / 369.0	2.73	PFOA			
PFOA_2	413.0 / 169.0	2.73	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.14	PFNA			
PFNA_2	463.0 / 219.0	3.14	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.13	PFOS			
PFOS_2	499.0 / 99.0	3.13	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.50	PFDA			
PFDA_2	513.0 / 219.0	3.49	PFDA	0.050	0.041	ü
PFUnA_1	563.0 / 519.0	3.83	PFUnA			
PFUnA_2	563.0 / 269.0	3.82	PFUnA	0.040	0.049	ü
PFDoA_1	613.0 / 569.0	4.11	PFDoA			
PFDoA_2	613.0 / 319.0	4.11	PFDoA	0.160	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.37	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.36	PFTTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.59	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.58	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.65	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.65	NMeFOSAA	0.450	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.82	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.82	NEtFOSAA	0.050	0.062	ü

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.280	0.292	ü
PFHxA_1	313.0 / 269.0	1.90	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.73	PFOA			
PFOA_2	413.0 / 169.0	2.73	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.13	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.260	0.306	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.49	PFDA			
PFDA_2	513.0 / 219.0	3.48	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.82	PFUnA			
PFUnA_2	563.0 / 269.0	3.81	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.10	PFDoA			
PFDoA_2	613.0 / 319.0	4.10	PFDoA	0.180	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.35	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.35	PFTTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.58	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.58	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.65	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.65	NMeFOSAA	0.540	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.81	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.060	0.062	ü

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.280	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.290	0.282	ü
PFOA_1	413.0 / 369.0	2.72	PFOA			
PFOA_2	413.0 / 169.0	2.72	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.12	PFNA			
PFNA_2	463.0 / 219.0	3.12	PFNA	0.300	0.306	ü
PFOS_1	499.0 / 80.0	3.12	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.48	PFDA			
PFDA_2	513.0 / 219.0	3.48	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.81	PFUnA			
PFUnA_2	563.0 / 269.0	3.81	PFUnA	0.060	0.049	ü
PFDoA_1	613.0 / 569.0	4.09	PFDoA			
PFDoA_2	613.0 / 319.0	4.09	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.35	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.34	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.57	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.56	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.64	NMeFOSAA	0.530	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.80	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.080	0.062	ü

Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.290	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.80	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.09	PFDoA			
PFDoA_2	613.0 / 319.0	4.09	PFDoA	0.150	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.34	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.34	PFTTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.56	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.56	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.580	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.80	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.80	NEtFOSAA	0.060	0.062	ü

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.11	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.80	PFUnA			
PFUnA_2	563.0 / 269.0	3.80	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.09	PFDoA			
PFDoA_2	613.0 / 319.0	4.09	PFDoA	0.170	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.33	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.33	PFTTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.56	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.55	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.63	NMeFOSAA	0.580	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.060	0.062	ü

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.300	0.292	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.08	PFDoA			
PFDoA_2	613.0 / 319.0	4.08	PFDoA	0.150	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.33	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.33	PFTTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.55	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.540	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.79	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.79	NEtFOSAA	0.060	0.062	ü

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.47	PFDA			
PFDA_2	513.0 / 219.0	3.47	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.160	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.32	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.32	PFTTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.540	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.060	0.062	ü

Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS 1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	26120.14	232.25
PFBS 2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	26120.14	232.25
PFHxA 1	313.0 / 269.0	1.90	13C5-PFHxA	318.0 / 273.0	61468.01	250.00
PFHxA 2	313.0 / 119.0	1.91	13C5-PFHxA	318.0 / 273.0	61468.01	250.00
PFHpA 1	363.0 / 319.0	2.32	13C4-PFHpA	367.0 / 322.0	69894.37	250.00
PFHpA 2	363.0 / 169.0	2.32	13C4-PFHpA	367.0 / 322.0	69894.37	250.00
PFHxS 1	399.0 / 80.0	2.34	13C3-PFHxS	402.0 / 99.0	24619.85	236.50
PFHxS 2	399.0 / 99.0	2.34	13C3-PFHxS	402.0 / 99.0	24619.85	236.50
PFOA 1	413.0 / 369.0	2.73	13C8-PFOA	421.0 / 376.0	82686.75	250.00
PFOA 2	413.0 / 169.0	2.73	13C8-PFOA	421.0 / 376.0	82686.75	250.00
PFNA 1	463.0 / 419.0	3.14	13C9-PFNA	472.0 / 427.0	91536.04	250.00
PFNA 2	463.0 / 219.0	3.14	13C9-PFNA	472.0 / 427.0	91536.04	250.00
PFOS 1	499.0 / 80.0	3.13	13C8-PFOS	507.0 / 99.0	29514.87	239.25
PFOS 2	499.0 / 99.0	3.13	13C8-PFOS	507.0 / 99.0	29514.87	239.25
PFDA 1	513.0 / 469.0	3.50	13C6-PFDA	519.0 / 474.0	97086.56	250.00
PFDA 2	513.0 / 219.0	3.49	13C6-PFDA	519.0 / 474.0	97086.56	250.00
PFUnA 1	563.0 / 519.0	3.83	13C7-PFUnA	570.0 / 525.0	90055.69	250.00
PFUnA 2	563.0 / 269.0	3.82	13C7-PFUnA	570.0 / 525.0	90055.69	250.00
PFDoA 1	613.0 / 569.0	4.11	13C2-PFDoA	615.0 / 570.0	91402.83	250.00
PFDoA 2	613.0 / 319.0	4.11	13C2-PFDoA	615.0 / 570.0	91402.83	250.00
PFTeDA 1	663.0 / 619.0	4.37	13C2-PFTeDA	715.0 / 670.0	76389.03	250.00
PFTeDA 2	663.0 / 169.0	4.36	13C2-PFTeDA	715.0 / 670.0	76389.03	250.00
PFTeDA 1	713.0 / 669.0	4.59	13C2-PFTeDA	715.0 / 670.0	76389.03	250.00
PFTeDA 2	713.0 / 169.0	4.58	13C2-PFTeDA	715.0 / 670.0	76389.03	250.00
NMeFOSAA 1	570.0 / 419.0	3.65	d3-MeFOSAA	573.0 / 419.0	16233.26	250.00
NMeFOSAA 2	570.0 / 512.0	3.65	d3-MeFOSAA	573.0 / 419.0	16233.26	250.00
NEtFOSAA 1	584.0 / 419.0	3.82	d5-EtFOSAA	589.0 / 419.0	19192.99	250.00
NEtFOSAA 2	584.0 / 483.0	3.82	d5-EtFOSAA	589.0 / 419.0	19192.99	250.00

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS 1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	29228.78	232.25
PFBS 2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	29228.78	232.25
PFHxA 1	313.0 / 269.0	1.90	13C5-PFHxA	318.0 / 273.0	67688.32	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	67688.32	250.00
PFHpA 1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	76065.72	250.00
PFHpA 2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	76065.72	250.00
PFHxS 1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	29708.48	236.50
PFHxS 2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	29708.48	236.50
PFOA 1	413.0 / 369.0	2.73	13C8-PFOA	421.0 / 376.0	96880.10	250.00
PFOA 2	413.0 / 169.0	2.73	13C8-PFOA	421.0 / 376.0	96880.10	250.00
PFNA 1	463.0 / 419.0	3.13	13C9-PFNA	472.0 / 427.0	109970.74	250.00
PFNA 2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	109970.74	250.00
PFOS 1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	33822.33	239.25
PFOS 2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	33822.33	239.25
PFDA 1	513.0 / 469.0	3.49	13C6-PFDA	519.0 / 474.0	103376.35	250.00
PFDA 2	513.0 / 219.0	3.48	13C6-PFDA	519.0 / 474.0	103376.35	250.00
PFUnA 1	563.0 / 519.0	3.82	13C7-PFUnA	570.0 / 525.0	99154.47	250.00
PFUnA 2	563.0 / 269.0	3.81	13C7-PFUnA	570.0 / 525.0	99154.47	250.00
PFDoA 1	613.0 / 569.0	4.10	13C2-PFDoA	615.0 / 570.0	107747.25	250.00
PFDoA 2	613.0 / 319.0	4.10	13C2-PFDoA	615.0 / 570.0	107747.25	250.00
PFTTrDA 1	663.0 / 619.0	4.35	13C2-PFTeDA	715.0 / 670.0	86008.02	250.00
PFTTrDA 2	663.0 / 169.0	4.35	13C2-PFTeDA	715.0 / 670.0	86008.02	250.00
PFTeDA 1	713.0 / 669.0	4.58	13C2-PFTeDA	715.0 / 670.0	86008.02	250.00
PFTeDA 2	713.0 / 169.0	4.58	13C2-PFTeDA	715.0 / 670.0	86008.02	250.00
NMeFOSAA 1	570.0 / 419.0	3.65	d3-MeFOSAA	573.0 / 419.0	17661.42	250.00
NMeFOSAA 2	570.0 / 512.0	3.65	d3-MeFOSAA	573.0 / 419.0	17661.42	250.00
NEtFOSAA 1	584.0 / 419.0	3.81	d5-EtFOSAA	589.0 / 419.0	22570.27	250.00
NEtFOSAA 2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	22570.27	250.00

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS 1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	26105.02	232.25
PFBS 2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	26105.02	232.25
PFHxA 1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	59853.55	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	59853.55	250.00
PFHpA 1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	72363.27	250.00
PFHpA 2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	72363.27	250.00
PFHxS 1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	26459.07	236.50
PFHxS 2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	26459.07	236.50
PFOA 1	413.0 / 369.0	2.72	13C8-PFOA	421.0 / 376.0	92242.14	250.00
PFOA 2	413.0 / 169.0	2.72	13C8-PFOA	421.0 / 376.0	92242.14	250.00
PFNA 1	463.0 / 419.0	3.12	13C9-PFNA	472.0 / 427.0	106517.52	250.00
PFNA 2	463.0 / 219.0	3.12	13C9-PFNA	472.0 / 427.0	106517.52	250.00
PFOS 1	499.0 / 80.0	3.12	13C8-PFOS	507.0 / 99.0	27084.38	239.25
PFOS 2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	27084.38	239.25
PFDA 1	513.0 / 469.0	3.48	13C6-PFDA	519.0 / 474.0	99092.64	250.00
PFDA 2	513.0 / 219.0	3.48	13C6-PFDA	519.0 / 474.0	99092.64	250.00
PFUnA 1	563.0 / 519.0	3.81	13C7-PFUnA	570.0 / 525.0	101859.96	250.00
PFUnA 2	563.0 / 269.0	3.81	13C7-PFUnA	570.0 / 525.0	101859.96	250.00
PFDoA 1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	95394.66	250.00
PFDoA 2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	95394.66	250.00
PFTrDA 1	663.0 / 619.0	4.35	13C2-PFTeDA	715.0 / 670.0	75947.40	250.00
PFTrDA 2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	75947.40	250.00
PFTeDA 1	713.0 / 669.0	4.57	13C2-PFTeDA	715.0 / 670.0	75947.40	250.00
PFTeDA 2	713.0 / 169.0	4.56	13C2-PFTeDA	715.0 / 670.0	75947.40	250.00
NMeFOSAA 1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	16616.33	250.00
NMeFOSAA 2	570.0 / 512.0	3.64	d3-MeFOSAA	573.0 / 419.0	16616.33	250.00
NEtFOSAA 1	584.0 / 419.0	3.80	d5-EtFOSAA	589.0 / 419.0	16999.01	250.00
NEtFOSAA 2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	16999.01	250.00

Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS 1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	24473.16	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	24473.16	232.25
PFHxA 1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	58835.13	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	58835.13	250.00
PFHpA 1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	73044.35	250.00
PFHpA 2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	73044.35	250.00
PFHxS 1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	23463.21	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	23463.21	236.50
PFOA 1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	89256.01	250.00
PFOA 2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	89256.01	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	96659.60	250.00
PFNA 2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	96659.60	250.00
PFOS 1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	28834.11	239.25
PFOS 2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	28834.11	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	97605.58	250.00
PFDA 2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	97605.58	250.00
PFUnA 1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	85263.94	250.00
PFUnA 2	563.0 / 269.0	3.80	13C7-PFUnA	570.0 / 525.0	85263.94	250.00
PFDoA 1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	95903.63	250.00
PFDoA 2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	95903.63	250.00
PFTrDA 1	663.0 / 619.0	4.34	13C2-PFTeDA	715.0 / 670.0	72740.35	250.00
PFTrDA 2	663.0 / 169.0	4.34	13C2-PFTeDA	715.0 / 670.0	72740.35	250.00
PFTeDA 1	713.0 / 669.0	4.56	13C2-PFTeDA	715.0 / 670.0	72740.35	250.00
PFTeDA 2	713.0 / 169.0	4.56	13C2-PFTeDA	715.0 / 670.0	72740.35	250.00
NMeFOSAA 1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	15280.98	250.00
NMeFOSAA 2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	15280.98	250.00
NEtFOSAA 1	584.0 / 419.0	3.80	d5-EtFOSAA	589.0 / 419.0	19201.47	250.00
NEtFOSAA 2	584.0 / 483.0	3.80	d5-EtFOSAA	589.0 / 419.0	19201.47	250.00

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS 1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	26519.94	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	26519.94	232.25
PFHxA 1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	61167.94	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	61167.94	250.00
PFHpA 1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	69461.61	250.00
PFHpA 2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	69461.61	250.00
PFHxS 1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	22669.25	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	22669.25	236.50
PFOA 1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	84283.75	250.00
PFOA 2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	84283.75	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	93667.25	250.00
PFNA 2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	93667.25	250.00
PFOS 1	499.0 / 80.0	3.11	13C8-PFOS	507.0 / 99.0	28376.74	239.25
PFOS 2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	28376.74	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	97196.35	250.00
PFDA 2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	97196.35	250.00
PFUnA 1	563.0 / 519.0	3.80	13C7-PFUnA	570.0 / 525.0	81503.66	250.00
PFUnA 2	563.0 / 269.0	3.80	13C7-PFUnA	570.0 / 525.0	81503.66	250.00
PFDoA 1	613.0 / 569.0	4.09	13C2-PFDoA	615.0 / 570.0	87520.82	250.00
PFDoA 2	613.0 / 319.0	4.09	13C2-PFDoA	615.0 / 570.0	87520.82	250.00
PFTTrDA 1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	71548.15	250.00
PFTTrDA 2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	71548.15	250.00
PFTeDA 1	713.0 / 669.0	4.56	13C2-PFTeDA	715.0 / 670.0	71548.15	250.00
PFTeDA 2	713.0 / 169.0	4.55	13C2-PFTeDA	715.0 / 670.0	71548.15	250.00
NMeFOSAA 1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	16063.93	250.00
NMeFOSAA 2	570.0 / 512.0	3.63	d3-MeFOSAA	573.0 / 419.0	16063.93	250.00
NEtFOSAA 1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	16992.28	250.00
NEtFOSAA 2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	16992.28	250.00

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS 1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	30399.13	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	30399.13	232.25
PFHxA 1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	67298.42	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	67298.42	250.00
PFHpA 1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	72755.48	250.00
PFHpA 2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	72755.48	250.00
PFHxS 1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	27186.76	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	27186.76	236.50
PFOA 1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	85622.31	250.00
PFOA 2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	85622.31	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	103069.19	250.00
PFNA 2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	103069.19	250.00
PFOS 1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	30401.17	239.25
PFOS 2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	30401.17	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	101281.21	250.00
PFDA 2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	101281.21	250.00
PFUnA 1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	91776.59	250.00
PFUnA 2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	91776.59	250.00
PFDoA 1	613.0 / 569.0	4.08	13C2-PFDoA	615.0 / 570.0	102072.61	250.00
PFDoA 2	613.0 / 319.0	4.08	13C2-PFDoA	615.0 / 570.0	102072.61	250.00
PFTrDA 1	663.0 / 619.0	4.33	13C2-PFTeDA	715.0 / 670.0	84788.29	250.00
PFTrDA 2	663.0 / 169.0	4.33	13C2-PFTeDA	715.0 / 670.0	84788.29	250.00
PFTeDA 1	713.0 / 669.0	4.55	13C2-PFTeDA	715.0 / 670.0	84788.29	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	84788.29	250.00
NMeFOSAA 1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	18223.77	250.00
NMeFOSAA 2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	18223.77	250.00
NEtFOSAA 1	584.0 / 419.0	3.79	d5-EtFOSAA	589.0 / 419.0	20489.99	250.00
NEtFOSAA 2	584.0 / 483.0	3.79	d5-EtFOSAA	589.0 / 419.0	20489.99	250.00

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS 1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	29660.00	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	29660.00	232.25
PFHxA 1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	63134.84	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	63134.84	250.00
PFHpA 1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	66285.64	250.00
PFHpA 2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	66285.64	250.00
PFHxS 1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	23705.87	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	23705.87	236.50
PFOA 1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	77573.52	250.00
PFOA 2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	77573.52	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	93994.33	250.00
PFNA 2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	93994.33	250.00
PFOS 1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	25276.93	239.25
PFOS 2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	25276.93	239.25
PFDA 1	513.0 / 469.0	3.47	13C6-PFDA	519.0 / 474.0	88095.93	250.00
PFDA 2	513.0 / 219.0	3.47	13C6-PFDA	519.0 / 474.0	88095.93	250.00
PFUnA 1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	82754.96	250.00
PFUnA 2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	82754.96	250.00
PFDoA 1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	99995.01	250.00
PFDoA 2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	99995.01	250.00
PFTrDA 1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	81617.66	250.00
PFTrDA 2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	81617.66	250.00
PFTeDA 1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	81617.66	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	81617.66	250.00
NMeFOSAA 1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	18782.71	250.00
NMeFOSAA 2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	18782.71	250.00
NEtFOSAA 1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	16682.63	250.00
NEtFOSAA 2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	16682.63	250.00

Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.10	13C2-PFDA	515.0 / 470.0	100139.46	250.00
d3-MeFOSAA	573.0 / 419.0	3.65	13C4-PFOS	503.0 / 99.0	29846.55	239.25
d5-EtFOSAA	589.0 / 419.0	3.81	13C4-PFOS	503.0 / 99.0	29846.55	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	79095.63	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	79095.63	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	79095.63	250.00
13C9-PFNA	472.0 / 427.0	3.12	13C2-PFOA	415.0 / 370.0	79095.63	250.00
13C6-PFDA	519.0 / 474.0	3.48	13C2-PFDA	515.0 / 470.0	100139.46	250.00
13C7-PFUnA	570.0 / 525.0	3.81	13C2-PFDA	515.0 / 470.0	100139.46	250.00
13C2-PFTeDA	715.0 / 670.0	4.58	13C2-PFDA	515.0 / 470.0	100139.46	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	29846.55	239.25
13C3-PFHxS	402.0 / 99.0	2.33	13C4-PFOS	503.0 / 99.0	29846.55	239.25
13C8-PFOS	507.0 / 99.0	3.12	13C4-PFOS	503.0 / 99.0	29846.55	239.25

Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.09	13C2-PFDA	515.0 / 470.0	103883.83	250.00
d3-MeFOSAA	573.0 / 419.0	3.64	13C4-PFOS	503.0 / 99.0	34856.85	239.25
d5-EtFOSAA	589.0 / 419.0	3.80	13C4-PFOS	503.0 / 99.0	34856.85	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	89971.31	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	89971.31	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	89971.31	250.00
13C9-PFNA	472.0 / 427.0	3.11	13C2-PFOA	415.0 / 370.0	89971.31	250.00
13C6-PFDA	519.0 / 474.0	3.48	13C2-PFDA	515.0 / 470.0	103883.83	250.00
13C7-PFUnA	570.0 / 525.0	3.80	13C2-PFDA	515.0 / 470.0	103883.83	250.00
13C2-PFTeDA	715.0 / 670.0	4.57	13C2-PFDA	515.0 / 470.0	103883.83	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	34856.85	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	34856.85	239.25
13C8-PFOS	507.0 / 99.0	3.11	13C4-PFOS	503.0 / 99.0	34856.85	239.25

Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.08	13C2-PFDA	515.0 / 470.0	98052.33	250.00
d3-MeFOSAA	573.0 / 419.0	3.63	13C4-PFOS	503.0 / 99.0	30684.77	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	30684.77	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	87799.30	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	87799.30	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	87799.30	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	87799.30	250.00
13C6-PFDA	519.0 / 474.0	3.47	13C2-PFDA	515.0 / 470.0	98052.33	250.00
13C7-PFUnA	570.0 / 525.0	3.79	13C2-PFDA	515.0 / 470.0	98052.33	250.00
13C2-PFTeDA	715.0 / 670.0	4.56	13C2-PFDA	515.0 / 470.0	98052.33	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	30684.77	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	30684.77	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	30684.77	239.25

Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.08	13C2-PFDA	515.0 / 470.0	99978.99	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	30962.75	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	30962.75	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	84567.91	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	84567.91	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	84567.91	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	84567.91	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	99978.99	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	99978.99	250.00
13C2-PFTeDA	715.0 / 670.0	4.55	13C2-PFDA	515.0 / 470.0	99978.99	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	30962.75	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	30962.75	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	30962.75	239.25

Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	90129.70	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	31518.26	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	31518.26	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	80369.12	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	80369.12	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	80369.12	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	80369.12	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	90129.70	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	90129.70	250.00
13C2-PFTeDA	715.0 / 670.0	4.55	13C2-PFDA	515.0 / 470.0	90129.70	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	31518.26	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	31518.26	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	31518.26	239.25

Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	104169.70	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	29589.19	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	29589.19	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	85964.25	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	85964.25	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	85964.25	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	85964.25	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	104169.70	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	104169.70	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	104169.70	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	29589.19	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	29589.19	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	29589.19	239.25

Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	100765.46	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	26984.04	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	26984.04	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	86636.81	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	86636.81	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	86636.81	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	86636.81	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	100765.46	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	100765.46	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	100765.46	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	26984.04	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	26984.04	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	26984.04	239.25

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.56	877.420602	1010.00	86.87
PFBS_2	298.9 / 99.0	1.56	838.659062	1010.00	83.04
PFHxA_1	313.0 / 269.0	1.89	1006.652936	1010.00	99.67
PFHxA_2	313.0 / 119.0	1.89	896.376115	1010.00	88.75
PFHpA_1	363.0 / 319.0	2.30	856.292979	1000.00	85.63
PFHpA_2	363.0 / 169.0	2.29	976.724688	1000.00	97.67
PFHxS_1	399.0 / 80.0	2.32	998.233289	1010.00	98.83
PFHxS_2	399.0 / 99.0	2.32	992.688608	1010.00	98.29
PFOA_1	413.0 / 369.0	2.71	930.879127	1000.00	93.09
PFOA_2	413.0 / 169.0	2.71	872.168076	1000.00	87.22
PFNA_1	463.0 / 419.0	3.11	1034.052055	1000.00	103.41
PFNA_2	463.0 / 219.0	3.10	1037.625087	1000.00	103.76
PFOS_1	499.0 / 80.0	3.10	906.626239	1000.00	90.66
PFOS_2	499.0 / 99.0	3.10	919.881718	1000.00	91.99
PFDA_1	513.0 / 469.0	3.46	983.979238	1000.00	98.40
PFDA_2	513.0 / 219.0	3.46	976.593938	1000.00	97.66
PFUnA_1	563.0 / 519.0	3.79	923.159866	1000.00	92.32
PFUnA_2	563.0 / 269.0	3.79	975.741234	1000.00	97.57
PFDoA_1	613.0 / 569.0	4.07	980.552902	1000.00	98.06
PFDoA_2	613.0 / 319.0	4.07	934.947666	1000.00	93.49
PFTrDA_1	663.0 / 619.0	4.32	1073.075185	1000.00	107.31
PFTrDA_2	663.0 / 169.0	4.32	1041.820014	1000.00	104.18
PFTeDA_1	713.0 / 669.0	4.54	1020.055697	1000.00	102.01
PFTeDA_2	713.0 / 169.0	4.54	1079.815842	1000.00	107.98
NMeFOSAA_1	570.0 / 419.0	3.62	945.129517	1000.00	94.51
NMeFOSAA_2	570.0 / 512.0	3.62	965.108458	1000.00	96.51
NEtFOSAA_1	584.0 / 419.0	3.78	1244.646852	1000.00	124.46
NEtFOSAA_2	584.0 / 483.0	3.78	1233.660110	1000.00	123.37

Sample Name	KB76 CCV	Injection Vial	36
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T22:14:13	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	996.485985	1010.00	98.66
PFBS_2	298.9 / 99.0	1.53	1000.372875	1010.00	99.05
PFHxA_1	313.0 / 269.0	1.85	977.437042	1010.00	96.78
PFHxA_2	313.0 / 119.0	1.85	981.712472	1010.00	97.20
PFHpA_1	363.0 / 319.0	2.26	976.835914	1000.00	97.68
PFHpA_2	363.0 / 169.0	2.27	812.349526	1000.00	81.23
PFHxS_1	399.0 / 80.0	2.29	1063.716441	1010.00	105.32
PFHxS_2	399.0 / 99.0	2.29	1041.583255	1010.00	103.13
PFOA_1	413.0 / 369.0	2.67	1051.896414	1000.00	105.19
PFOA_2	413.0 / 169.0	2.67	976.312150	1000.00	97.63
PFNA_1	463.0 / 419.0	3.07	1032.549403	1000.00	103.25
PFNA_2	463.0 / 219.0	3.07	1086.393081	1000.00	108.64
PFOS_1	499.0 / 80.0	3.07	869.792420	1000.00	86.98
PFOS_2	499.0 / 99.0	3.07	882.826262	1000.00	88.28
PFDA_1	513.0 / 469.0	3.42	989.476098	1000.00	98.95
PFDA_2	513.0 / 219.0	3.42	1055.500870	1000.00	105.55
PFUnA_1	563.0 / 519.0	3.74	1077.907346	1000.00	107.79
PFUnA_2	563.0 / 269.0	3.74	1178.928083	1000.00	117.89
PFDoA_1	613.0 / 569.0	4.02	1008.278825	1000.00	100.83
PFDoA_2	613.0 / 319.0	4.02	1009.621633	1000.00	100.96
PFTTrDA_1	663.0 / 619.0	4.26	1092.935983	1000.00	109.29
PFTTrDA_2	663.0 / 169.0	4.26	1124.888837	1000.00	112.49
PFTeDA_1	713.0 / 669.0	4.47	1027.280136	1000.00	102.73
PFTeDA_2	713.0 / 169.0	4.47	1068.140424	1000.00	106.81
NMeFOSAA_1	570.0 / 419.0	3.58	1087.130075	1000.00	108.71
NMeFOSAA_2	570.0 / 512.0	3.57	1052.854293	1000.00	105.29
NEtFOSAA_1	584.0 / 419.0	3.73	1048.796327	1000.00	104.88
NEtFOSAA_2	584.0 / 483.0	3.73	1119.836994	1000.00	111.98

Sample Name	KB76 CCV	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:29:53	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	956.389077	1010.00	94.69
PFBS_2	298.9 / 99.0	1.53	981.318602	1010.00	97.16
PFHxA_1	313.0 / 269.0	1.85	1025.620499	1010.00	101.55
PFHxA_2	313.0 / 119.0	1.85	1003.776643	1010.00	99.38
PFHpA_1	363.0 / 319.0	2.26	917.746844	1000.00	91.77
PFHpA_2	363.0 / 169.0	2.26	992.950732	1000.00	99.30
PFHxS_1	399.0 / 80.0	2.28	1092.761428	1010.00	108.19
PFHxS_2	399.0 / 99.0	2.28	1088.553503	1010.00	107.78
PFOA_1	413.0 / 369.0	2.67	1025.791649	1000.00	102.58
PFOA_2	413.0 / 169.0	2.67	900.820792	1000.00	90.08
PFNA_1	463.0 / 419.0	3.06	1121.856972	1000.00	112.19
PFNA_2	463.0 / 219.0	3.06	1107.587043	1000.00	110.76
PFOS_1	499.0 / 80.0	3.06	1157.277499	1000.00	115.73
PFOS_2	499.0 / 99.0	3.06	1205.128560	1000.00	120.51
PFDA_1	513.0 / 469.0	3.42	952.992958	1000.00	95.30
PFDA_2	513.0 / 219.0	3.42	1003.984822	1000.00	100.40
PFUnA_1	563.0 / 519.0	3.74	1049.219338	1000.00	104.92
PFUnA_2	563.0 / 269.0	3.74	1185.641235	1000.00	118.56
PFDoA_1	613.0 / 569.0	4.01	1020.457319	1000.00	102.05
PFDoA_2	613.0 / 319.0	4.01	1075.976997	1000.00	107.60
PFTTrDA_1	663.0 / 619.0	4.26	1077.547399	1000.00	107.75
PFTTrDA_2	663.0 / 169.0	4.25	1083.254336	1000.00	108.33
PFTeDA_1	713.0 / 669.0	4.47	1030.691144	1000.00	103.07
PFTeDA_2	713.0 / 169.0	4.47	1043.734938	1000.00	104.37
NMeFOSAA_1	570.0 / 419.0	3.57	1003.036559	1000.00	100.30
NMeFOSAA_2	570.0 / 512.0	3.57	916.089890	1000.00	91.61
NEtFOSAA_1	584.0 / 419.0	3.73	1048.296795	1000.00	104.83
NEtFOSAA_2	584.0 / 483.0	3.73	977.121338	1000.00	97.71

Sample Name	KB77 CCV	Injection Vial	18
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:56:57	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	2358.633743	2525.00	93.41
PFBS_2	298.9 / 99.0	1.53	2475.138354	2525.00	98.03
PFHxA_1	313.0 / 269.0	1.85	2476.029256	2525.00	98.06
PFHxA_2	313.0 / 119.0	1.86	2422.738968	2525.00	95.95
PFHpA_1	363.0 / 319.0	2.26	2410.138109	2500.00	96.41
PFHpA_2	363.0 / 169.0	2.26	2182.736127	2500.00	87.31
PFHxS_1	399.0 / 80.0	2.29	2666.856374	2525.00	105.62
PFHxS_2	399.0 / 99.0	2.28	2682.945201	2525.00	106.26
PFOA_1	413.0 / 369.0	2.67	2548.456773	2500.00	101.94
PFOA_2	413.0 / 169.0	2.67	2272.106310	2500.00	90.88
PFNA_1	463.0 / 419.0	3.07	2740.636762	2500.00	109.63
PFNA_2	463.0 / 219.0	3.06	2863.021906	2500.00	114.52
PFOS_1	499.0 / 80.0	3.06	2452.709745	2500.00	98.11
PFOS_2	499.0 / 99.0	3.06	2518.048964	2500.00	100.72
PFDA_1	513.0 / 469.0	3.42	2525.234199	2500.00	101.01
PFDA_2	513.0 / 219.0	3.42	2550.996672	2500.00	102.04
PFUnA_1	563.0 / 519.0	3.74	2370.361498	2500.00	94.81
PFUnA_2	563.0 / 269.0	3.74	2665.275474	2500.00	106.61
PFDoA_1	613.0 / 569.0	4.02	2671.516758	2500.00	106.86
PFDoA_2	613.0 / 319.0	4.02	2783.535154	2500.00	111.34
PFTTrDA_1	663.0 / 619.0	4.26	2701.255354	2500.00	108.05
PFTTrDA_2	663.0 / 169.0	4.26	2624.618424	2500.00	104.98
PFTTeDA_1	713.0 / 669.0	4.47	2490.682580	2500.00	99.63
PFTTeDA_2	713.0 / 169.0	4.47	2662.989165	2500.00	106.52
NMeFOSAA_1	570.0 / 419.0	3.57	2861.060367	2500.00	114.44
NMeFOSAA_2	570.0 / 512.0	3.57	2867.324668	2500.00	114.69
NEtFOSAA_1	584.0 / 419.0	3.73	2604.095377	2500.00	104.16
NEtFOSAA_2	584.0 / 483.0	3.73	2493.181545	2500.00	99.73

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.06	231.611603	250.00	92.64
d3-MeFOSAA	573.0 / 419.0	3.61	235.098552	250.00	94.04
d5-EtFOSAA	589.0 / 419.0	3.78	176.181506	250.00	70.47
13C5-PFHxA	318.0 / 273.0	1.88	233.905404	250.00	93.56
13C4-PFHpA	367.0 / 322.0	2.29	244.843738	250.00	97.94
13C8-PFOA	421.0 / 376.0	2.70	255.222211	250.00	102.09
13C9-PFNA	472.0 / 427.0	3.09	253.115276	250.00	101.25
13C6-PFDA	519.0 / 474.0	3.45	223.796875	250.00	89.52
13C7-PFUnA	570.0 / 525.0	3.77	237.910809	250.00	95.16
13C2-PFTeDA	715.0 / 670.0	4.54	218.862217	250.00	87.54
13C3-PFBS	302.0 / 99.0	1.55	206.860264	232.25	89.07
13C3-PFHxS	402.0 / 99.0	2.31	210.154754	236.50	88.86
13C8-PFOS	507.0 / 99.0	3.09	222.736043	239.25	93.10

Sample Name	KB76 CCV	Injection Vial	36
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T22:14:13	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	264.617967	250.00	105.85
d3-MeFOSAA	573.0 / 419.0	3.57	222.730750	250.00	89.09
d5-EtFOSAA	589.0 / 419.0	3.72	231.395931	250.00	92.56
13C5-PFHxA	318.0 / 273.0	1.84	240.245977	250.00	96.10
13C4-PFHpA	367.0 / 322.0	2.25	236.686452	250.00	94.67
13C8-PFOA	421.0 / 376.0	2.66	241.843152	250.00	96.74
13C9-PFNA	472.0 / 427.0	3.06	234.354318	250.00	93.74
13C6-PFDA	519.0 / 474.0	3.41	263.984340	250.00	105.59
13C7-PFUnA	570.0 / 525.0	3.72	264.937251	250.00	105.97
13C2-PFTeDA	715.0 / 670.0	4.46	246.336541	250.00	98.53
13C3-PFBS	302.0 / 99.0	1.52	227.157987	232.25	97.81
13C3-PFHxS	402.0 / 99.0	2.28	242.957336	236.50	102.73
13C8-PFOS	507.0 / 99.0	3.05	289.898023	239.25	121.17

Sample Name	KB76 CCV	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:29:53	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	239.029987	250.00	95.61
d3-MeFOSAA	573.0 / 419.0	3.57	245.088085	250.00	98.04
d5-EtFOSAA	589.0 / 419.0	3.72	251.921278	250.00	100.77
13C5-PFHxA	318.0 / 273.0	1.84	238.948279	250.00	95.58
13C4-PFHpA	367.0 / 322.0	2.25	239.872612	250.00	95.95
13C8-PFOA	421.0 / 376.0	2.66	254.993940	250.00	102.00
13C9-PFNA	472.0 / 427.0	3.05	236.785517	250.00	94.71
13C6-PFDA	519.0 / 474.0	3.40	256.302750	250.00	102.52
13C7-PFUnA	570.0 / 525.0	3.72	252.408689	250.00	100.96
13C2-PFTeDA	715.0 / 670.0	4.46	237.157464	250.00	94.86
13C3-PFBS	302.0 / 99.0	1.52	229.924192	232.25	99.00
13C3-PFHxS	402.0 / 99.0	2.27	239.967035	236.50	101.47
13C8-PFOS	507.0 / 99.0	3.05	239.321833	239.25	100.03

Sample Name	KB77 CCV	Injection Vial	18
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:56:57	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	241.530532	250.00	96.61
d3-MeFOSAA	573.0 / 419.0	3.57	211.940830	250.00	84.78
d5-EtFOSAA	589.0 / 419.0	3.72	238.003225	250.00	95.20
13C5-PFHxA	318.0 / 273.0	1.84	244.509175	250.00	97.80
13C4-PFHpA	367.0 / 322.0	2.25	234.731832	250.00	93.89
13C8-PFOA	421.0 / 376.0	2.66	257.228637	250.00	102.89
13C9-PFNA	472.0 / 427.0	3.05	224.767036	250.00	89.91
13C6-PFDA	519.0 / 474.0	3.40	241.363448	250.00	96.55
13C7-PFUnA	570.0 / 525.0	3.72	257.133171	250.00	102.85
13C2-PFTeDA	715.0 / 670.0	4.47	244.208864	250.00	97.68
13C3-PFBS	302.0 / 99.0	1.52	227.574779	232.25	97.99
13C3-PFHxS	402.0 / 99.0	2.28	232.641738	236.50	98.37
13C8-PFOS	507.0 / 99.0	3.05	240.153141	239.25	100.38

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:26:43	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.57	484.754015	505.00	95.99
PFBS_2	298.9 / 99.0	1.57	460.129667	505.00	91.11
PFHxA_1	313.0 / 269.0	1.90	499.859458	505.00	98.98
PFHxA_2	313.0 / 119.0	1.90	576.477169	505.00	114.15
PFHpA_1	363.0 / 319.0	2.31	471.017380	500.00	94.20
PFHpA_2	363.0 / 169.0	2.31	436.165761	500.00	87.23
PFHxS_1	399.0 / 80.0	2.34	513.112977	505.00	101.61
PFHxS_2	399.0 / 99.0	2.33	489.788084	505.00	96.99
PFOA_1	413.0 / 369.0	2.73	515.841656	500.00	103.17
PFOA_2	413.0 / 169.0	2.73	514.415457	500.00	102.88
PFNA_1	463.0 / 419.0	3.13	520.080727	500.00	104.02
PFNA_2	463.0 / 219.0	3.13	556.083264	500.00	111.22
PFOS_1	499.0 / 80.0	3.13	436.705182	500.00	87.34
PFOS_2	499.0 / 99.0	3.12	453.370724	500.00	90.67
PFDA_1	513.0 / 469.0	3.49	476.762125	500.00	95.35
PFDA_2	513.0 / 219.0	3.49	450.324500	500.00	90.06
PFOuA_1	563.0 / 519.0	3.82	491.199250	500.00	98.24
PFOuA_2	563.0 / 269.0	3.82	460.483278	500.00	92.10
PFDoA_1	613.0 / 569.0	4.10	501.048127	500.00	100.21
PFDoA_2	613.0 / 319.0	4.10	559.603662	500.00	111.92
PFTTrDA_1	663.0 / 619.0	4.35	482.323681	500.00	96.46
PFTTrDA_2	663.0 / 169.0	4.35	495.196388	500.00	99.04
PFTeDA_1	713.0 / 669.0	4.57	504.774637	500.00	100.95
PFTeDA_2	713.0 / 169.0	4.57	502.172391	500.00	100.43
NMeFOSAA_1	570.0 / 419.0	3.65	532.487486	500.00	106.50
NMeFOSAA_2	570.0 / 512.0	3.65	388.465632	500.00	77.69
NEtFOSAA_1	584.0 / 419.0	3.81	553.294527	500.00	110.66
NEtFOSAA_2	584.0 / 483.0	3.81	589.430119	500.00	117.89

Sample Name	KB77 CCV	Injection Vial	5
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T17:10:14	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.56	2580.741452	2525.00	102.21
PFBS_2	298.9 / 99.0	1.56	2475.370383	2525.00	98.03
PFHxA_1	313.0 / 269.0	1.88	2535.301054	2525.00	100.41
PFHxA_2	313.0 / 119.0	1.88	2534.834138	2525.00	100.39
PFHpA_1	363.0 / 319.0	2.29	2327.940844	2500.00	93.12
PFHpA_2	363.0 / 169.0	2.30	2112.392909	2500.00	84.50
PFHxS_1	399.0 / 80.0	2.32	2458.885644	2525.00	97.38
PFHxS_2	399.0 / 99.0	2.32	2421.099647	2525.00	95.89
PFOA_1	413.0 / 369.0	2.71	2474.628909	2500.00	98.99
PFOA_2	413.0 / 169.0	2.71	2445.684821	2500.00	97.83
PFNA_1	463.0 / 419.0	3.11	2391.184413	2500.00	95.65
PFNA_2	463.0 / 219.0	3.10	2484.130663	2500.00	99.37
PFOS_1	499.0 / 80.0	3.10	2135.039001	2500.00	85.40
PFOS_2	499.0 / 99.0	3.10	2243.154541	2500.00	89.73
PFDA_1	513.0 / 469.0	3.46	2207.313705	2500.00	88.29
PFDA_2	513.0 / 219.0	3.46	2054.979734	2500.00	82.20
PFUnA_1	563.0 / 519.0	3.79	2339.152164	2500.00	93.57
PFUnA_2	563.0 / 269.0	3.78	2535.177537	2500.00	101.41
PFDoA_1	613.0 / 569.0	4.07	2526.110756	2500.00	101.04
PFDoA_2	613.0 / 319.0	4.07	2609.357813	2500.00	104.37
PFTrDA_1	663.0 / 619.0	4.32	2710.380433	2500.00	108.42
PFTrDA_2	663.0 / 169.0	4.31	2614.868135	2500.00	104.59
PFTeDA_1	713.0 / 669.0	4.53	2724.320311	2500.00	108.97
PFTeDA_2	713.0 / 169.0	4.53	2619.822125	2500.00	104.79
NMeFOSAA_1	570.0 / 419.0	3.61	2562.672994	2500.00	102.51
NMeFOSAA_2	570.0 / 512.0	3.61	2559.422983	2500.00	102.38
NEtFOSAA_1	584.0 / 419.0	3.78	3039.747245	2500.00	121.59
NEtFOSAA_2	584.0 / 483.0	3.78	3069.784410	2500.00	122.79

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:26:43	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.09	248.481577	250.00	99.39
d3-MeFOSAA	573.0 / 419.0	3.64	274.156186	250.00	109.66
d5-EtFOSAA	589.0 / 419.0	3.80	241.528333	250.00	96.61
13C5-PFHxA	318.0 / 273.0	1.89	281.490799	250.00	112.60
13C4-PFHpA	367.0 / 322.0	2.30	281.687014	250.00	112.67
13C8-PFOA	421.0 / 376.0	2.72	257.597627	250.00	103.04
13C9-PFNA	472.0 / 427.0	3.12	235.101963	250.00	94.04
13C6-PFDA	519.0 / 474.0	3.48	244.921857	250.00	97.97
13C7-PFUnA	570.0 / 525.0	3.80	241.728100	250.00	96.69
13C2-PFTeDA	715.0 / 670.0	4.57	288.553002	250.00	115.42
13C3-PFBS	302.0 / 99.0	1.55	232.800259	232.25	100.24
13C3-PFHxS	402.0 / 99.0	2.32	234.237542	236.50	99.04
13C8-PFOS	507.0 / 99.0	3.11	243.421728	239.25	101.74

Sample Name	KB77 CCV	Injection Vial	5
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T17:10:14	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.06	272.773091	250.00	109.11
d3-MeFOSAA	573.0 / 419.0	3.61	275.293447	250.00	110.12
d5-EtFOSAA	589.0 / 419.0	3.77	210.814390	250.00	84.33
13C5-PFHxA	318.0 / 273.0	1.87	280.109533	250.00	112.04
13C4-PFHpA	367.0 / 322.0	2.28	288.718445	250.00	115.49
13C8-PFOA	421.0 / 376.0	2.70	266.405056	250.00	106.56
13C9-PFNA	472.0 / 427.0	3.09	268.923530	250.00	107.57
13C6-PFDA	519.0 / 474.0	3.45	275.846621	250.00	110.34
13C7-PFUnA	570.0 / 525.0	3.77	262.275129	250.00	104.91
13C2-PFTeDA	715.0 / 670.0	4.53	296.105909	250.00	118.44
13C3-PFBS	302.0 / 99.0	1.54	222.091712	232.25	95.63
13C3-PFHxS	402.0 / 99.0	2.31	221.073888	236.50	93.48
13C8-PFOS	507.0 / 99.0	3.09	238.116290	239.25	99.53

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.57	502.963491	505.00	99.60
PFBS_2	298.9 / 99.0	1.57	496.453145	505.00	98.31
PFHxA_1	313.0 / 269.0	1.91	480.896992	505.00	95.23
PFHxA_2	313.0 / 119.0	1.91	485.682826	505.00	96.17
PFHpA_1	363.0 / 319.0	2.33	481.224420	500.00	96.24
PFHpA_2	363.0 / 169.0	2.32	452.441038	500.00	90.49
PFHxS_1	399.0 / 80.0	2.35	518.322649	505.00	102.64
PFHxS_2	399.0 / 99.0	2.35	520.806905	505.00	103.13
PFOA_1	413.0 / 369.0	2.74	450.789129	500.00	90.16
PFOA_2	413.0 / 169.0	2.74	546.555914	500.00	109.31
PFNA_1	463.0 / 419.0	3.14	494.521439	500.00	98.90
PFNA_2	463.0 / 219.0	3.14	507.732683	500.00	101.55
PFOS_1	499.0 / 80.0	3.14	441.273324	500.00	88.25
PFOS_2	499.0 / 99.0	3.14	470.431215	500.00	94.09
PFDA_1	513.0 / 469.0	3.50	451.709750	500.00	90.34
PFDA_2	513.0 / 219.0	3.50	556.902124	500.00	111.38
PFUnA_1	563.0 / 519.0	3.83	457.038917	500.00	91.41
PFUnA_2	563.0 / 269.0	3.83	585.085583	500.00	117.02
PFDoA_1	613.0 / 569.0	4.11	507.066970	500.00	101.41
PFDoA_2	613.0 / 319.0	4.11	531.157147	500.00	106.23
PFTTrDA_1	663.0 / 619.0	4.36	452.740787	500.00	90.55
PFTTrDA_2	663.0 / 169.0	4.36	467.337333	500.00	93.47
PFTeDA_1	713.0 / 669.0	4.58	504.192869	500.00	100.84
PFTeDA_2	713.0 / 169.0	4.58	503.867021	500.00	100.77
NMeFOSAA_1	570.0 / 419.0	3.66	429.345311	500.00	85.87
NMeFOSAA_2	570.0 / 512.0	3.66	376.857105	500.00	75.37
NEtFOSAA_1	584.0 / 419.0	3.82	419.389608	500.00	83.88
NEtFOSAA_2	584.0 / 483.0	3.81	616.043667	500.00	123.21

Sample Name	KB76 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	1.55	1001.344883	1010.00	99.14
PFBS_2	298.9 / 99.0	1.55	1000.991268	1010.00	99.11
PFHxA_1	313.0 / 269.0	1.87	1056.822100	1010.00	104.64
PFHxA_2	313.0 / 119.0	1.88	1063.589580	1010.00	105.31
PFHpA_1	363.0 / 319.0	2.29	1028.757834	1000.00	102.88
PFHpA_2	363.0 / 169.0	2.28	1078.591914	1000.00	107.86
PFHxS_1	399.0 / 80.0	2.31	1019.434169	1010.00	100.93
PFHxS_2	399.0 / 99.0	2.31	1082.086267	1010.00	107.14
PFOA_1	413.0 / 369.0	2.70	932.235404	1000.00	93.22
PFOA_2	413.0 / 169.0	2.70	933.002458	1000.00	93.30
PFNA_1	463.0 / 419.0	3.09	969.448009	1000.00	96.94
PFNA_2	463.0 / 219.0	3.09	1051.266014	1000.00	105.13
PFOS_1	499.0 / 80.0	3.09	897.563869	1000.00	89.76
PFOS_2	499.0 / 99.0	3.09	878.460836	1000.00	87.85
PFDA_1	513.0 / 469.0	3.45	961.338899	1000.00	96.13
PFDA_2	513.0 / 219.0	3.45	966.373157	1000.00	96.64
PFUnA_1	563.0 / 519.0	3.77	987.093706	1000.00	98.71
PFUnA_2	563.0 / 269.0	3.77	910.317875	1000.00	91.03
PFDoA_1	613.0 / 569.0	4.05	1015.587992	1000.00	101.56
PFDoA_2	613.0 / 319.0	4.05	1054.052180	1000.00	105.41
PFTrDA_1	663.0 / 619.0	4.29	1124.598888	1000.00	112.46
PFTrDA_2	663.0 / 169.0	4.29	1060.017484	1000.00	106.00
PFTeDA_1	713.0 / 669.0	4.51	1082.017300	1000.00	108.20
PFTeDA_2	713.0 / 169.0	4.50	1150.888154	1000.00	115.09
NMeFOSAA_1	570.0 / 419.0	3.60	1103.795666	1000.00	110.38
NMeFOSAA_2	570.0 / 512.0	3.60	1164.756781	1000.00	116.48
NEtFOSAA_1	584.0 / 419.0	3.76	1000.785651	1000.00	100.08
NEtFOSAA_2	584.0 / 483.0	3.76	1121.091255	1000.00	112.11

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.10	259.132404	250.00	103.65
d3-MeFOSAA	573.0 / 419.0	3.65	208.974174	250.00	83.59
d5-EtFOSAA	589.0 / 419.0	3.81	206.830753	250.00	82.73
13C5-PFHxA	318.0 / 273.0	1.89	259.924320	250.00	103.97
13C4-PFHpA	367.0 / 322.0	2.31	255.044502	250.00	102.02
13C8-PFOA	421.0 / 376.0	2.73	260.077016	250.00	104.03
13C9-PFNA	472.0 / 427.0	3.13	231.388886	250.00	92.56
13C6-PFDA	519.0 / 474.0	3.49	276.436354	250.00	110.57
13C7-PFUnA	570.0 / 525.0	3.81	284.738017	250.00	113.90
13C2-PFTeDA	715.0 / 670.0	4.57	291.091815	250.00	116.44
13C3-PFBS	302.0 / 99.0	1.55	219.366193	232.25	94.45
13C3-PFHxS	402.0 / 99.0	2.34	221.464127	236.50	93.64
13C8-PFOS	507.0 / 99.0	3.13	250.834474	239.25	104.84

Sample Name	KB76 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.04	256.341694	250.00	102.54
d3-MeFOSAA	573.0 / 419.0	3.60	178.456423	250.00	71.38
d5-EtFOSAA	589.0 / 419.0	3.76	179.468006	250.00	71.79
13C5-PFHxA	318.0 / 273.0	1.86	235.917680	250.00	94.37
13C4-PFHpA	367.0 / 322.0	2.28	242.401821	250.00	96.96
13C8-PFOA	421.0 / 376.0	2.69	262.212463	250.00	104.88
13C9-PFNA	472.0 / 427.0	3.08	239.637060	250.00	95.85
13C6-PFDA	519.0 / 474.0	3.43	265.216691	250.00	106.09
13C7-PFUnA	570.0 / 525.0	3.75	266.281774	250.00	106.51
13C2-PFTeDA	715.0 / 670.0	4.50	261.638965	250.00	104.66
13C3-PFBS	302.0 / 99.0	1.53	250.521132	232.25	107.87
13C3-PFHxS	402.0 / 99.0	2.30	227.825684	236.50	96.33
13C8-PFOS	507.0 / 99.0	3.08	260.938939	239.25	109.07

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	299608.43	877.420602	544.9	false
PFBS 2	298.9 / 99.0	1.56	83942.08	838.659062	365.9	false
PFHxA 1	313.0 / 269.0	1.89	241930.51	1006.652936	19.8	false
PFHxA 2	313.0 / 119.0	1.89	16403.84	896.376115	16.0	false
PFHpA 1	363.0 / 319.0	2.30	215911.99	856.292979	126.4	false
PFHpA 2	363.0 / 169.0	2.29	5561.78	976.724688	99.7	false
PFHxS 1	399.0 / 80.0	2.32	361966.55	998.233289	454.9	false
PFHxS 2	399.0 / 99.0	2.32	100883.75	992.688608	416.4	false
PFOA 1	413.0 / 369.0	2.71	338169.16	930.879127	304.4	false
PFOA 2	413.0 / 169.0	2.71	20580.91	872.168076	223.7	false
PFNA 1	463.0 / 419.0	3.11	356729.03	1034.052055	304.0	false
PFNA 2	463.0 / 219.0	3.10	110066.88	1037.625087	466.5	false
PFOS 1	499.0 / 80.0	3.10	539708.03	906.626239	343.1	false
PFOS 2	499.0 / 99.0	3.10	95211.86	919.881718	450.1	false
PFDA 1	513.0 / 469.0	3.46	380336.88	983.979238	327.0	false
PFDA 2	513.0 / 219.0	3.46	15587.84	976.593938	361.3	false
PFUnA 1	563.0 / 519.0	3.79	349720.15	923.159866	376.6	false
PFUnA 2	563.0 / 269.0	3.79	18202.70	975.741234	188.3	false
PFDaA 1	613.0 / 569.0	4.07	341302.82	980.552902	460.6	false
PFDaA 2	613.0 / 319.0	4.07	51304.06	934.947666	412.2	false
PFTrDA 1	663.0 / 619.0	4.32	300565.45	1073.075185	751.7	false
PFTrDA 2	663.0 / 169.0	4.32	19250.55	1041.820014	533.2	false
PFTeDA 1	713.0 / 669.0	4.54	326564.00	1020.055697	1259.1	false
PFTeDA 2	713.0 / 169.0	4.54	16770.44	1079.815842	804.1	false
NMeFOSAA 1	570.0 / 419.0	3.62	66944.31	945.129517	505.3	false
NMeFOSAA 2	570.0 / 512.0	3.62	38615.63	965.108458	1105.4	false
NEtFOSAA 1	584.0 / 419.0	3.78	66942.43	1244.646852	673.7	true
NEtFOSAA 2	584.0 / 483.0	3.78	4011.16	1233.660110	1226.3	false

Sample Name	KB76 CCV	Injection Vial	36
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T22:14:13	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	339293.48	996.485985	773.9	false
PFBS 2	298.9 / 99.0	1.53	99846.23	1000.372875	494.6	false
PFHxA 1	313.0 / 269.0	1.85	249099.17	977.437042	48.6	false
PFHxA 2	313.0 / 119.0	1.85	18943.38	981.712472	35.7	false
PFHpA 1	363.0 / 319.0	2.26	244914.45	976.835914	166.5	false
PFHpA 2	363.0 / 169.0	2.27	4690.48	812.349526	107.9	false
PFHxS 1	399.0 / 80.0	2.29	402107.01	1063.716441	437.0	false
PFHxS 2	399.0 / 99.0	2.29	110357.64	1041.583255	603.9	false
PFOA 1	413.0 / 369.0	2.67	372788.45	1051.896414	340.4	false
PFOA 2	413.0 / 169.0	2.67	22477.55	976.312150	278.1	false
PFNA 1	463.0 / 419.0	3.07	340185.39	1032.549403	367.2	false
PFNA 2	463.0 / 219.0	3.07	109916.72	1086.393081	383.4	false
PFOS 1	499.0 / 80.0	3.07	620922.69	869.792420	319.6	false
PFOS 2	499.0 / 99.0	3.07	109585.80	882.826262	343.6	false
PFDA 1	513.0 / 469.0	3.42	426635.84	989.476098	409.5	false
PFDA 2	513.0 / 219.0	3.42	18761.95	1055.500870	435.7	false
PFUnA 1	563.0 / 519.0	3.74	429427.40	1077.907346	389.2	false
PFUnA 2	563.0 / 269.0	3.74	23165.18	1178.928083	255.7	false
PFDaA 1	613.0 / 569.0	4.02	378931.47	1008.278825	467.5	false
PFDaA 2	613.0 / 319.0	4.02	59681.13	1009.621633	462.1	false
PFTrDA 1	663.0 / 619.0	4.26	325699.87	1092.935983	767.1	false
PFTrDA 2	663.0 / 169.0	4.26	22069.68	1124.888837	408.4	false
PFTeDA 1	713.0 / 669.0	4.47	349998.56	1027.280136	1175.7	false
PFTeDA 2	713.0 / 169.0	4.47	17667.72	1068.140424	679.2	false
NMeFOSAA 1	570.0 / 419.0	3.58	65328.04	1087.130075	887.0	false
NMeFOSAA 2	570.0 / 512.0	3.57	35706.61	1052.854293	794.0	false
NEtFOSAA 1	584.0 / 419.0	3.73	66569.48	1048.796327	1718.8	false
NEtFOSAA 2	584.0 / 483.0	3.73	4309.65	1119.836994	45963.5	false

Sample Name	KB76 CCV	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:29:53	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	289807.06	956.389077	572.0	false
PFBS 2	298.9 / 99.0	1.53	87152.51	981.318602	426.2	false
PFHxA 1	313.0 / 269.0	1.85	223626.96	1025.620499	44.8	false
PFHxA 2	313.0 / 119.0	1.85	16579.70	1003.776643	31.5	false
PFHpA 1	363.0 / 319.0	2.26	201165.21	917.746844	147.5	false
PFHpA 2	363.0 / 169.0	2.26	4915.75	992.950732	101.6	false
PFHxS 1	399.0 / 80.0	2.28	359129.50	1092.761428	613.2	false
PFHxS 2	399.0 / 99.0	2.28	100216.08	1088.553503	730.9	false
PFOA 1	413.0 / 369.0	2.67	330362.81	1025.791649	264.0	false
PFOA 2	413.0 / 169.0	2.67	18863.12	900.820792	193.8	false
PFNA 1	463.0 / 419.0	3.06	320959.37	1121.856972	309.2	false
PFNA 2	463.0 / 219.0	3.06	97501.40	1107.587043	383.4	false
PFOS 1	499.0 / 80.0	3.06	602374.00	1157.277499	328.1	false
PFOS 2	499.0 / 99.0	3.06	109030.47	1205.128560	443.3	true
PFDA 1	513.0 / 469.0	3.42	376749.93	952.992958	424.7	false
PFDA 2	513.0 / 219.0	3.42	16367.98	1003.984822	425.0	false
PFUnA 1	563.0 / 519.0	3.74	375859.75	1049.219338	314.1	false
PFUnA 2	563.0 / 269.0	3.74	20943.32	1185.641235	233.3	false
PFDaA 1	613.0 / 569.0	4.01	326771.56	1020.457319	468.2	false
PFDaA 2	613.0 / 319.0	4.01	54082.56	1075.976997	609.8	false
PFTrDA 1	663.0 / 619.0	4.26	291833.62	1077.547399	661.8	false
PFTrDA 2	663.0 / 169.0	4.25	19330.66	1083.254336	361.2	false
PFTeDA 1	713.0 / 669.0	4.47	318961.85	1030.691144	1265.4	false
PFTeDA 2	713.0 / 169.0	4.47	15698.90	1043.734938	677.0	false
NMeFOSAA 1	570.0 / 419.0	3.57	59041.88	1003.036559	540.6	false
NMeFOSAA 2	570.0 / 512.0	3.57	30726.62	916.089890	461.2	false
NEtFOSAA 1	584.0 / 419.0	3.73	61772.01	1048.296795	1184.7	false
NEtFOSAA 2	584.0 / 483.0	3.73	3518.32	977.121338	261.3	false

Sample Name	KB77 CCV	Injection Vial	18
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:56:57	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	661754.71	2358.633743	1022.9	false
PFBS 2	298.9 / 99.0	1.53	203768.93	2475.138354	764.4	false
PFHxA 1	313.0 / 269.0	1.85	499327.62	2476.029256	74.0	false
PFHxA 2	313.0 / 119.0	1.86	36651.43	2422.738968	51.1	false
PFHpA 1	363.0 / 319.0	2.26	470113.50	2410.138109	250.1	false
PFHpA 2	363.0 / 169.0	2.26	9301.09	2182.736127	179.1	false
PFHxS 1	399.0 / 80.0	2.29	784438.36	2666.856374	526.0	false
PFHxS 2	399.0 / 99.0	2.28	220436.03	2682.945201	786.3	false
PFOA 1	413.0 / 369.0	2.67	755974.78	2548.456773	478.8	false
PFOA 2	413.0 / 169.0	2.67	43787.22	2272.106310	366.1	false
PFNA 1	463.0 / 419.0	3.07	674076.87	2740.636762	403.2	false
PFNA 2	463.0 / 219.0	3.06	216926.03	2863.021906	447.2	false
PFOS 1	499.0 / 80.0	3.06	1200187.15	2452.709745	507.4	false
PFOS 2	499.0 / 99.0	3.06	214027.97	2518.048964	521.0	false
PFDA 1	513.0 / 469.0	3.42	844137.29	2525.234199	611.4	false
PFDA 2	513.0 / 219.0	3.42	35156.16	2550.996672	574.2	false
PFUnA 1	563.0 / 519.0	3.74	783455.69	2370.361498	489.4	false
PFUnA 2	563.0 / 269.0	3.74	43671.41	2665.275474	338.2	false
PFDaA 1	613.0 / 569.0	4.02	773499.62	2671.516758	699.8	false
PFDaA 2	613.0 / 319.0	4.02	125835.08	2783.535154	529.2	false
PFTrDA 1	663.0 / 619.0	4.26	673324.44	2701.255354	1017.1	false
PFTrDA 2	663.0 / 169.0	4.26	43044.21	2624.618424	529.1	false
PFTeDA 1	713.0 / 669.0	4.47	705834.13	2490.682580	1666.2	false
PFTeDA 2	713.0 / 169.0	4.47	36546.14	2662.989165	968.0	false
NMeFOSAA 1	570.0 / 419.0	3.57	129358.91	2861.060367	1333.6	false
NMeFOSAA 2	570.0 / 512.0	3.57	71065.01	2867.324668	1395.2	false
NEtFOSAA 1	584.0 / 419.0	3.73	139157.89	2604.095377	1023.5	false
NEtFOSAA 2	584.0 / 483.0	3.73	7899.68	2493.181545	1797.4	false

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.06	93406.68	231.611603	1689.5	false
d3-MeFOSAA	573.0 / 419.0	3.61	17579.80	235.098552	175.3	false
d5-EtFOSAA	589.0 / 419.0	3.78	14383.26	176.181506	200.6	false
13C5-PFHxA	318.0 / 273.0	1.88	59013.59	233.905404	685.2	false
13C4-PFHpA	367.0 / 322.0	2.29	70279.06	244.843738	1118.6	false
13C8-PFOA	421.0 / 376.0	2.70	89115.92	255.222211	9011.3	false
13C9-PFNA	472.0 / 427.0	3.09	100916.15	253.115276	1888.1	false
13C6-PFDA	519.0 / 474.0	3.45	90930.64	223.796875	1073.3	false
13C7-PFUnA	570.0 / 525.0	3.77	89293.12	237.910809	829.4	false
13C2-PFTeDA	715.0 / 670.0	4.54	71262.97	218.862217	1767.1	false
13C3-PFBS	302.0 / 99.0	1.55	27104.45	206.860264	624.1	false
13C3-PFHxS	402.0 / 99.0	2.31	24951.95	210.154754	577.2	false
13C8-PFOS	507.0 / 99.0	3.09	29875.11	222.736043	244.5	false

Sample Name	KB76 CCV	Injection Vial	36
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T22:14:13	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	100933.21	264.617967	1174.9	false
d3-MeFOSAA	573.0 / 419.0	3.57	15134.87	222.730750	217.3	false
d5-EtFOSAA	589.0 / 419.0	3.72	17166.72	231.395931	239.9	false
13C5-PFHxA	318.0 / 273.0	1.84	62517.66	240.245977	933.1	false
13C4-PFHpA	367.0 / 322.0	2.25	70072.09	236.686452	1125.9	false
13C8-PFOA	421.0 / 376.0	2.66	87097.44	241.843152	1205.9	false
13C9-PFNA	472.0 / 427.0	3.06	96371.81	234.354318	15768.0	false
13C6-PFDA	519.0 / 474.0	3.41	101445.20	263.984340	1283.8	false
13C7-PFUnA	570.0 / 525.0	3.72	94046.79	264.937251	1162.2	false
13C2-PFTeDA	715.0 / 670.0	4.46	75861.09	246.336541	1515.2	false
13C3-PFBS	302.0 / 99.0	1.52	27047.43	227.157987	664.7	false
13C3-PFHxS	402.0 / 99.0	2.28	26213.79	242.957336	567.2	false
13C8-PFOS	507.0 / 99.0	3.05	35334.48	289.898023	300.8	false

Sample Name	KB76 CCV	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:29:53	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	86029.84	239.029987	1753.8	false
d3-MeFOSAA	573.0 / 419.0	3.57	14639.73	245.088085	233.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	16428.91	251.921278	231.9	false
13C5-PFHxA	318.0 / 273.0	1.84	53572.26	238.948279	611.2	false
13C4-PFHpA	367.0 / 322.0	2.25	61184.56	239.872612	786.0	false
13C8-PFOA	421.0 / 376.0	2.66	79120.85	254.993940	2052.0	false
13C9-PFNA	472.0 / 427.0	3.05	83892.22	236.785517	1691.9	false
13C6-PFDA	519.0 / 474.0	3.40	92936.99	256.302750	1145.4	false
13C7-PFUnA	570.0 / 525.0	3.72	84544.87	252.408689	899.9	false
13C2-PFTeDA	715.0 / 670.0	4.46	68914.25	237.157464	1449.8	false
13C3-PFBS	302.0 / 99.0	1.52	24065.50	229.924192	1260.3	false
13C3-PFHxS	402.0 / 99.0	2.27	22759.55	239.967035	500.1	false
13C8-PFOS	507.0 / 99.0	3.05	25641.77	239.321833	293.3	false

Sample Name	KB77 CCV	Injection Vial	18
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:56:57	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	79144.64	241.530532	1309.1	false
d3-MeFOSAA	573.0 / 419.0	3.57	11883.52	211.940830	147.0	false
d5-EtFOSAA	589.0 / 419.0	3.72	14569.55	238.003225	208.4	false
13C5-PFHxA	318.0 / 273.0	1.84	50493.44	244.509175	1000.9	false
13C4-PFHpA	367.0 / 322.0	2.25	55148.91	234.731832	1088.4	false
13C8-PFOA	421.0 / 376.0	2.66	73516.39	257.228637	4071.7	false
13C9-PFNA	472.0 / 427.0	3.05	73350.48	224.767036	27262.8	false
13C6-PFDA	519.0 / 474.0	3.40	79681.88	241.363448	760.3	false
13C7-PFUnA	570.0 / 525.0	3.72	78414.03	257.133171	706.2	false
13C2-PFTeDA	715.0 / 670.0	4.47	64608.01	244.208864	1401.8	false
13C3-PFBS	302.0 / 99.0	1.52	22359.08	227.574779	667.9	false
13C3-PFHxS	402.0 / 99.0	2.28	20711.87	232.641738	600.1	false
13C8-PFOS	507.0 / 99.0	3.05	24153.14	240.153141	273.5	false

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:26:43	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.57	156637.46	484.754015	262.8	false
PFBS 2	298.9 / 99.0	1.57	43517.52	460.129667	214.7	false
PFHxA 1	313.0 / 269.0	1.90	130040.84	499.859458	56.8	false
PFHxA 2	313.0 / 119.0	1.90	11384.85	576.477169	44.8	false
PFHpA 1	363.0 / 319.0	2.31	121122.08	471.017380	111.3	false
PFHpA 2	363.0 / 169.0	2.31	2746.97	436.165761	75.6	false
PFHxS 1	399.0 / 80.0	2.34	173952.54	513.112977	288.8	false
PFHxS 2	399.0 / 99.0	2.33	46850.78	489.788084	366.8	false
PFOA 1	413.0 / 369.0	2.73	166821.22	515.841656	181.2	false
PFOA 2	413.0 / 169.0	2.73	10789.33	514.415457	139.3	false
PFNA 1	463.0 / 419.0	3.13	149516.53	520.080727	196.1	false
PFNA 2	463.0 / 219.0	3.13	48829.04	556.083264	252.5	false
PFOS 1	499.0 / 80.0	3.13	239634.39	436.705182	142.7	false
PFOS 2	499.0 / 99.0	3.12	43329.08	453.370724	258.7	false
PFDA 1	513.0 / 469.0	3.49	192145.64	476.762125	286.1	false
PFDA 2	513.0 / 219.0	3.49	7531.29	450.324500	124.9	false
PFUnA 1	563.0 / 519.0	3.82	177755.10	491.199250	276.9	false
PFUnA 2	563.0 / 269.0	3.82	8127.71	460.483278	95.7	false
PFDaA 1	613.0 / 569.0	4.10	181007.95	501.048127	387.8	false
PFDaA 2	613.0 / 319.0	4.10	31881.83	559.603662	217.7	false
PFTrDA 1	663.0 / 619.0	4.35	172121.90	482.323681	471.0	false
PFTrDA 2	663.0 / 169.0	4.35	11669.54	495.196388	242.9	false
PFTeDA 1	713.0 / 669.0	4.57	206566.41	504.774637	972.2	false
PFTeDA 2	713.0 / 169.0	4.57	10047.66	502.172391	417.6	false
NMeFOSAA 1	570.0 / 419.0	3.65	36712.48	532.487486	986.8	false
NMeFOSAA 2	570.0 / 512.0	3.65	16651.87	388.465632	243.1	false
NEtFOSAA 1	584.0 / 419.0	3.81	33457.81	553.294527	428.3	false
NEtFOSAA 2	584.0 / 483.0	3.81	2239.79	589.430119	477.9	false

Sample Name	KB77 CCV	Injection Vial	5
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T17:10:14	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.56	982491.17	2580.741452	604.3	false
PFBS 2	298.9 / 99.0	1.56	276575.85	2475.370383	601.6	false
PFHxA 1	313.0 / 269.0	1.88	717968.37	2535.301054	144.8	false
PFHxA 2	313.0 / 119.0	1.88	53817.24	2534.834138	112.1	false
PFHpA 1	363.0 / 319.0	2.29	685025.91	2327.940844	307.2	false
PFHpA 2	363.0 / 169.0	2.30	13593.43	2112.392909	143.8	false
PFHxS 1	399.0 / 80.0	2.32	975619.70	2458.885644	654.9	false
PFHxS 2	399.0 / 99.0	2.32	268429.71	2421.099647	891.2	false
PFOA 1	413.0 / 369.0	2.71	932373.70	2474.628909	530.2	false
PFOA 2	413.0 / 169.0	2.71	59827.12	2445.684821	530.7	false
PFNA 1	463.0 / 419.0	3.11	864302.93	2391.184413	496.7	false
PFNA 2	463.0 / 219.0	3.10	276547.33	2484.130663	603.3	false
PFOS 1	499.0 / 80.0	3.10	1421430.10	2135.039001	306.2	false
PFOS 2	499.0 / 99.0	3.10	259430.73	2243.154541	715.9	false
PFDA 1	513.0 / 469.0	3.46	1021084.55	2207.313705	593.8	false
PFDA 2	513.0 / 219.0	3.46	39230.59	2054.979734	247.9	false
PFUnA 1	563.0 / 519.0	3.79	953767.02	2339.152164	429.3	false
PFUnA 2	563.0 / 269.0	3.78	51241.41	2535.177537	299.4	false
PFDaA 1	613.0 / 569.0	4.07	1010217.18	2526.110756	582.9	false
PFDaA 2	613.0 / 319.0	4.07	162984.63	2609.357813	494.0	false
PFTrDA 1	663.0 / 619.0	4.32	990643.64	2710.380433	799.0	false
PFTrDA 2	663.0 / 169.0	4.31	62888.00	2614.868135	550.1	false
PFTeDA 1	713.0 / 669.0	4.53	1130481.56	2724.320311	1688.1	false
PFTeDA 2	713.0 / 169.0	4.53	52737.23	2619.822125	716.2	false
NMeFOSAA 1	570.0 / 419.0	3.61	204254.11	2562.672994	787.9	false
NMeFOSAA 2	570.0 / 512.0	3.61	112054.59	2559.422983	452.6	false
NEtFOSAA 1	584.0 / 419.0	3.78	205947.51	3039.747245	1016.4	false
NEtFOSAA 2	584.0 / 483.0	3.78	12283.63	3069.784410	463.8	false

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:26:43	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.09	94338.75	248.481577	1365.2	false
d3-MeFOSAA	573.0 / 419.0	3.64	16495.97	274.156186	183.9	false
d5-EtFOSAA	589.0 / 419.0	3.80	16495.84	241.528333	209.2	false
13C5-PFHxA	318.0 / 273.0	1.89	61842.02	281.490799	535.3	false
13C4-PFHpA	367.0 / 322.0	2.30	70406.28	281.687014	906.0	false
13C8-PFOA	421.0 / 376.0	2.72	78322.47	257.597627	350.9	false
13C9-PFNA	472.0 / 427.0	3.12	81621.81	235.101963	2597.8	false
13C6-PFDA	519.0 / 474.0	3.48	92696.22	244.921857	1436.4	false
13C7-PFUnA	570.0 / 525.0	3.80	84510.22	241.728100	8760.5	false
13C2-PFTeDA	715.0 / 670.0	4.57	87517.92	288.553002	2379.7	false
13C3-PFBS	302.0 / 99.0	1.55	25518.56	232.800259	357.2	false
13C3-PFHxS	402.0 / 99.0	2.32	23266.50	234.237542	363.5	false
13C8-PFOS	507.0 / 99.0	3.11	27314.14	243.421728	277.9	false

Sample Name	KB77 CCV	Injection Vial	5
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T17:10:14	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.06	109247.60	272.773091	1305.2	false
d3-MeFOSAA	573.0 / 419.0	3.61	20647.16	275.293447	214.3	false
d5-EtFOSAA	589.0 / 419.0	3.77	17946.97	210.814390	205.2	false
13C5-PFHxA	318.0 / 273.0	1.87	70928.02	280.109533	627.4	false
13C4-PFHpA	367.0 / 322.0	2.28	83174.39	288.718445	583.1	false
13C8-PFOA	421.0 / 376.0	2.70	93359.27	266.405056	1716.9	false
13C9-PFNA	472.0 / 427.0	3.09	107609.17	268.923530	352246.7	false
13C6-PFDA	519.0 / 474.0	3.45	110132.78	275.846621	1601.8	false
13C7-PFUnA	570.0 / 525.0	3.77	96728.33	262.275129	929.5	false
13C2-PFTeDA	715.0 / 670.0	4.53	94739.90	296.105909	1569.1	false
13C3-PFBS	302.0 / 99.0	1.54	30345.18	222.091712	458.0	false
13C3-PFHxS	402.0 / 99.0	2.31	27371.37	221.073888	318.0	false
13C8-PFOS	507.0 / 99.0	3.09	33304.42	238.116290	293.6	false

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.57	1.69e5	502.963491	322.3	false
PFBS 2	298.9 / 99.0	1.57	4.88e4	496.453145	291.2	false
PFHxA 1	313.0 / 269.0	1.91	1.27e5	480.896992	53.4	false
PFHxA 2	313.0 / 119.0	1.91	9.85e3	485.682826	37.8	false
PFHpA 1	363.0 / 319.0	2.33	1.23e5	481.224420	144.6	false
PFHpA 2	363.0 / 169.0	2.32	2.81e3	452.441038	71.0	false
PFHxS 1	399.0 / 80.0	2.35	1.90e5	518.322649	373.4	false
PFHxS 2	399.0 / 99.0	2.35	5.36e4	520.806905	306.2	false
PFOA 1	413.0 / 369.0	2.74	1.62e5	450.789129	221.4	false
PFOA 2	413.0 / 169.0	2.74	1.27e4	546.555914	171.1	false
PFNA 1	463.0 / 419.0	3.14	1.54e5	494.521439	245.9	false
PFNA 2	463.0 / 219.0	3.14	4.83e4	507.732683	267.6	false
PFOS 1	499.0 / 80.0	3.14	2.71e5	441.273324	138.3	false
PFOS 2	499.0 / 99.0	3.14	5.04e4	470.431215	328.2	false
PFDA 1	513.0 / 469.0	3.50	1.93e5	451.709750	246.1	false
PFDA 2	513.0 / 219.0	3.50	9.75e3	556.902124	140.1	false
PFUnA 1	563.0 / 519.0	3.83	1.83e5	457.038917	282.3	false
PFUnA 2	563.0 / 269.0	3.83	1.14e4	585.085583	150.5	false
PFDaA 1	613.0 / 569.0	4.11	1.77e5	507.066970	383.4	false
PFDaA 2	613.0 / 319.0	4.11	2.93e4	531.157147	282.3	false
PFTrDA 1	663.0 / 619.0	4.36	1.53e5	452.740787	539.5	false
PFTrDA 2	663.0 / 169.0	4.36	1.04e4	467.337333	231.0	false
PFTeDA 1	713.0 / 669.0	4.58	1.95e5	504.192869	1043.6	false
PFTeDA 2	713.0 / 169.0	4.58	9.52e3	503.867021	572.8	false
NMeFOSAA 1	570.0 / 419.0	3.66	2.59e4	429.345311	543.2	false
NMeFOSAA 2	570.0 / 512.0	3.66	1.39e4	376.857105	561.8	false
NEtFOSAA 1	584.0 / 419.0	3.82	2.51e4	419.389608	464.9	false
NEtFOSAA 2	584.0 / 483.0	3.81	2.29e3	616.043667	3911.2	false

Sample Name	KB76 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS 1	298.9 / 80.0	1.55	3.45e5	1001.344883	363.2	false
PFBS 2	298.9 / 99.0	1.55	1.01e5	1000.991268	347.0	false
PFHxA 1	313.0 / 269.0	1.87	2.41e5	1056.822100	68.9	false
PFHxA 2	313.0 / 119.0	1.88	1.83e4	1063.589580	54.4	false
PFHpA 1	363.0 / 319.0	2.29	2.41e5	1028.757834	195.6	false
PFHpA 2	363.0 / 169.0	2.28	5.67e3	1078.591914	112.9	false
PFHxS 1	399.0 / 80.0	2.31	3.39e5	1019.434169	275.0	false
PFHxS 2	399.0 / 99.0	2.31	1.01e5	1082.086267	379.8	false
PFOA 1	413.0 / 369.0	2.70	3.27e5	932.235404	257.0	false
PFOA 2	413.0 / 169.0	2.70	2.13e4	933.002458	227.2	false
PFNA 1	463.0 / 419.0	3.09	2.98e5	969.448009	405.7	false
PFNA 2	463.0 / 219.0	3.09	9.93e4	1051.266014	343.9	false
PFOS 1	499.0 / 80.0	3.09	5.24e5	897.563869	175.5	false
PFOS 2	499.0 / 99.0	3.09	8.92e4	878.460836	366.4	false
PFDA 1	513.0 / 469.0	3.45	3.75e5	961.338899	373.2	false
PFDA 2	513.0 / 219.0	3.45	1.56e4	966.373157	174.9	false
PFUnA 1	563.0 / 519.0	3.77	3.56e5	987.093706	367.6	false
PFUnA 2	563.0 / 269.0	3.77	1.62e4	910.317875	247.9	false
PFDaA 1	613.0 / 569.0	4.05	3.33e5	1015.587992	398.9	false
PFDaA 2	613.0 / 319.0	4.05	5.42e4	1054.052180	301.9	false
PFTrDA 1	663.0 / 619.0	4.29	3.20e5	1124.598888	685.2	false
PFTrDA 2	663.0 / 169.0	4.29	1.99e4	1060.017484	312.7	false
PFTeDA 1	713.0 / 669.0	4.51	3.52e5	1082.017300	1357.7	false
PFTeDA 2	713.0 / 169.0	4.50	1.81e4	1150.888154	636.2	false
NMeFOSAA 1	570.0 / 419.0	3.60	4.87e4	1103.795666	481.5	false
NMeFOSAA 2	570.0 / 512.0	3.60	2.87e4	1164.756781	467.2	false
NEtFOSAA 1	584.0 / 419.0	3.76	4.57e4	1000.785651	590.8	false
NEtFOSAA 2	584.0 / 483.0	3.76	3.10e3	1121.091255	136.1	false

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.10	91153.41	259.132404	1635.1	false
d3-MeFOSAA	573.0 / 419.0	3.65	14430.39	208.974174	229.9	false
d5-EtFOSAA	589.0 / 419.0	3.81	15593.14	206.830753	180.2	false
13C5-PFHxA	318.0 / 273.0	1.89	62579.70	259.924320	518.8	false
13C4-PFHpA	367.0 / 322.0	2.31	69859.85	255.044502	892.1	false
13C8-PFOA	421.0 / 376.0	2.73	86658.98	260.077016	2121.4	false
13C9-PFNA	472.0 / 427.0	3.13	88035.85	231.388886	1040.8	false
13C6-PFDA	519.0 / 474.0	3.49	97968.15	276.436354	928.7	false
13C7-PFUnA	570.0 / 525.0	3.81	93214.36	284.738017	747.8	false
13C2-PFTeDA	715.0 / 670.0	4.57	82671.66	291.091815	2248.9	false
13C3-PFBS	302.0 / 99.0	1.55	26543.28	219.366193	494.4	false
13C3-PFHxS	402.0 / 99.0	2.34	24282.31	221.464127	509.7	false
13C8-PFOS	507.0 / 99.0	3.13	31069.02	250.834474	285.1	false

Sample Name	KB76 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	87957.23	256.341694	1355.5	false
d3-MeFOSAA	573.0 / 419.0	3.60	11117.53	178.456423	200.1	true
d5-EtFOSAA	589.0 / 419.0	3.76	12206.64	179.468006	204.1	false
13C5-PFHxA	318.0 / 273.0	1.86	55992.85	235.917680	677.5	false
13C4-PFHpA	367.0 / 322.0	2.28	65453.53	242.401821	1043.4	false
13C8-PFOA	421.0 / 376.0	2.69	86129.20	262.212463	4771.1	false
13C9-PFNA	472.0 / 427.0	3.08	89878.65	239.637060	8301.6	false
13C6-PFDA	519.0 / 474.0	3.43	91683.61	265.216691	2695.3	false
13C7-PFUnA	570.0 / 525.0	3.75	85031.52	266.281774	1033.9	false
13C2-PFTeDA	715.0 / 670.0	4.50	72482.00	261.638965	1286.2	false
13C3-PFBS	302.0 / 99.0	1.53	27347.65	250.521132	298.7	false
13C3-PFHxS	402.0 / 99.0	2.30	22536.17	227.825684	267.9	false
13C8-PFOS	507.0 / 99.0	3.08	29158.82	260.938939	206.0	false

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.280	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.29	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.79	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.07	PFDoA			
PFDoA_2	613.0 / 319.0	4.07	PFDoA	0.150	0.160	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.32	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.62	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.62	NMeFOSAA	0.580	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.060	0.062	ü

Sample Name	KB76 CCV	Injection Vial	36
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T22:14:13	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.54	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.270	0.282	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.065	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	0.174	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	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.050	0.049	ü
PFDaA_1	613.0 / 569.0	4.02	PFDaA			
PFDaA_2	613.0 / 319.0	4.02	PFDaA	0.160	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.26	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.26	PFTTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.58	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.550	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.062	ü

Sample Name	KB76 CCV	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:29:53	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	0.292	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.300	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.060	0.049	ü
PFDaA_1	613.0 / 569.0	4.01	PFDaA			
PFDaA_2	613.0 / 319.0	4.01	PFDaA	0.170	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.26	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.25	PFTTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.520	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.062	ü

Sample Name	KB77 CCV	Injection Vial	18
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:56:57	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	0.310	0.292	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.07	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.42	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	3.74	PFUnA	0.060	0.049	ü
PFDaA_1	613.0 / 569.0	4.02	PFDaA			
PFDaA_2	613.0 / 319.0	4.02	PFDaA	0.160	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.26	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.26	PFTTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.550	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.062	ü

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:26:43	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.280	0.292	ü
PFHxA_1	313.0 / 269.0	1.90	PFHxA			
PFHxA_2	313.0 / 119.0	1.90	PFHxA	0.090	0.077	ü
PFHpA_1	363.0 / 319.0	2.31	PFHpA			
PFHpA_2	363.0 / 169.0	2.31	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.34	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.270	0.282	ü
PFOA_1	413.0 / 369.0	2.73	PFOA			
PFOA_2	413.0 / 169.0	2.73	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.13	PFNA			
PFNA_2	463.0 / 219.0	3.13	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.13	PFOS			
PFOS_2	499.0 / 99.0	3.12	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.49	PFDA			
PFDA_2	513.0 / 219.0	3.49	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.82	PFUnA			
PFUnA_2	563.0 / 269.0	3.82	PFUnA	0.050	0.049	ü
PFDaA_1	613.0 / 569.0	4.10	PFDaA			
PFDaA_2	613.0 / 319.0	4.10	PFDaA	0.180	0.160	ü
PFTrDA_1	663.0 / 619.0	4.35	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.35	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.57	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.57	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.65	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.65	NMeFOSAA	0.450	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.81	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.81	NEtFOSAA	0.070	0.062	ü

Sample Name	KB77 CCV	Injection Vial	5
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T17:10:14	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.280	0.292	ü
PFHxA_1	313.0 / 269.0	1.88	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.32	PFHxS			
PFHxS_2	399.0 / 99.0	2.32	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.71	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.10	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	3.46	PFDA			
PFDA_2	513.0 / 219.0	3.46	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.79	PFUnA			
PFUnA_2	563.0 / 269.0	3.78	PFUnA	0.050	0.049	ü
PFDaA_1	613.0 / 569.0	4.07	PFDaA			
PFDaA_2	613.0 / 319.0	4.07	PFDaA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.32	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.31	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.53	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.53	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.550	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.78	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.78	NEtFOSAA	0.060	0.062	ü

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
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	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.91	PFHxA			
PFHxA_2	313.0 / 119.0	1.91	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.33	PFHpA			
PFHpA_2	363.0 / 169.0	2.32	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.35	PFHxS			
PFHxS_2	399.0 / 99.0	2.35	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.74	PFOA			
PFOA_2	413.0 / 169.0	2.74	PFOA	0.080	0.065	ü
PFNA_1	463.0 / 419.0	3.14	PFNA			
PFNA_2	463.0 / 219.0	3.14	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.14	PFOS			
PFOS_2	499.0 / 99.0	3.14	PFOS	0.190	0.174	ü
PFDA_1	513.0 / 469.0	3.50	PFDA			
PFDA_2	513.0 / 219.0	3.50	PFDA	0.050	0.041	ü
PFUnA_1	563.0 / 519.0	3.83	PFUnA			
PFUnA_2	563.0 / 269.0	3.83	PFUnA	0.060	0.049	ü
PFDaA_1	613.0 / 569.0	4.11	PFDaA			
PFDaA_2	613.0 / 319.0	4.11	PFDaA	0.170	0.160	ü
PFTrDA_1	663.0 / 619.0	4.36	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.36	PFTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.58	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.58	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.66	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.66	NMeFOSAA	0.540	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.82	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.81	NEtFOSAA	0.090	0.062	ü

Sample Name	KB76 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.88	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.29	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.31	PFHxS	0.300	0.282	ü
PFOA_1	413.0 / 369.0	2.70	PFOA			
PFOA_2	413.0 / 169.0	2.70	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.330	0.306	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.050	0.049	ü
PFDaA_1	613.0 / 569.0	4.05	PFDaA			
PFDaA_2	613.0 / 319.0	4.05	PFDaA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.29	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.29	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.51	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.50	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.60	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.60	NMeFOSAA	0.590	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.76	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.76	NEtFOSAA	0.070	0.062	ü

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS 1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	27104.45	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	27104.45	232.25
PFHxA 1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	59013.59	250.00
PFHxA 2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	59013.59	250.00
PFHpA 1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	70279.06	250.00
PFHpA 2	363.0 / 169.0	2.29	13C4-PFHpA	367.0 / 322.0	70279.06	250.00
PFHxS 1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	24692.35	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	24692.35	236.50
PFOA 1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	89115.92	250.00
PFOA 2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	89115.92	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	100916.15	250.00
PFNA 2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	100916.15	250.00
PFOS 1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	29786.30	239.25
PFOS 2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	29786.30	239.25
PFDA 1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	90930.64	250.00
PFDA 2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	90930.64	250.00
PFUnA 1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	89293.12	250.00
PFUnA 2	563.0 / 269.0	3.79	13C7-PFUnA	570.0 / 525.0	89293.12	250.00
PFDoA 1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	93406.68	250.00
PFDoA 2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	93406.68	250.00
PFTeDA 1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	71262.97	250.00
PFTeDA 2	663.0 / 169.0	4.32	13C2-PFTeDA	715.0 / 670.0	71262.97	250.00
PFTeDA 1	713.0 / 669.0	4.54	13C2-PFTeDA	715.0 / 670.0	71262.97	250.00
PFTeDA 2	713.0 / 169.0	4.54	13C2-PFTeDA	715.0 / 670.0	71262.97	250.00
NMeFOSAA 1	570.0 / 419.0	3.62	d3-MeFOSAA	573.0 / 419.0	17861.22	250.00
NMeFOSAA 2	570.0 / 512.0	3.62	d3-MeFOSAA	573.0 / 419.0	17861.22	250.00
NEtFOSAA 1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	14753.24	250.00
NEtFOSAA 2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	14753.24	250.00

Sample Name	KB76 CCV	Injection Vial	36
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T22:14:13	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	27047.43	232.25
PFBS 2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	27047.43	232.25
PFHxA 1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	62517.66	250.00
PFHxA 2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	62517.66	250.00
PFHpA 1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	70072.09	250.00
PFHpA 2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	70072.09	250.00
PFHxS 1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	25773.30	236.50
PFHxS 2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	25773.30	236.50
PFOA 1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	87097.44	250.00
PFOA 2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	87097.44	250.00
PFNA 1	463.0 / 419.0	3.07	13C9-PFNA	472.0 / 427.0	96371.81	250.00
PFNA 2	463.0 / 219.0	3.07	13C9-PFNA	472.0 / 427.0	96371.81	250.00
PFOS 1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	35722.70	239.25
PFOS 2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	35722.70	239.25
PFDA 1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	101445.20	250.00
PFDA 2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	101445.20	250.00
PFUnA 1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	94046.79	250.00
PFUnA 2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	94046.79	250.00
PFDoA 1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	100933.21	250.00
PFDoA 2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	100933.21	250.00
PFTeDA 1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	75861.09	250.00
PFTeDA 2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	75861.09	250.00
PFTeDA 1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	75861.09	250.00
PFTeDA 2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	75861.09	250.00
NMeFOSAA 1	570.0 / 419.0	3.58	d3-MeFOSAA	573.0 / 419.0	15267.32	250.00
NMeFOSAA 2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	15267.32	250.00
NEtFOSAA 1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	17376.12	250.00
NEtFOSAA 2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	17376.12	250.00

Sample Name	KB76 CCV	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:29:53	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	24065.50	232.25
PFBS 2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	24065.50	232.25
PFHxA 1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	53572.26	250.00
PFHxA 2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	53572.26	250.00
PFHpA 1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	61184.56	250.00
PFHpA 2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	61184.56	250.00
PFHxS 1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	22417.86	236.50
PFHxS 2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	22417.86	236.50
PFOA 1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	79120.85	250.00
PFOA 2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	79120.85	250.00
PFNA 1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	83892.22	250.00
PFNA 2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	83892.22	250.00
PFOS 1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	26033.27	239.25
PFOS 2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	26033.27	239.25
PFDA 1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	92936.99	250.00
PFDA 2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	92936.99	250.00
PFUnA 1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	84544.87	250.00
PFUnA 2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	84544.87	250.00
PFDoA 1	613.0 / 569.0	4.01	13C2-PFDoA	615.0 / 570.0	86029.84	250.00
PFDoA 2	613.0 / 319.0	4.01	13C2-PFDoA	615.0 / 570.0	86029.84	250.00
PFTeDA 1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	68914.25	250.00
PFTeDA 2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	68914.25	250.00
PFTeDA 1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	68914.25	250.00
PFTeDA 2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	68914.25	250.00
NMeFOSAA 1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	14892.52	250.00
NMeFOSAA 2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	14892.52	250.00
NEtFOSAA 1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	16131.46	250.00
NEtFOSAA 2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	16131.46	250.00

Sample Name	KB77 CCV	Injection Vial	18
Sample ID	CCCX	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:56:57	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	22359.08	232.25
PFBS 2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	22359.08	232.25
PFHxA 1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	50493.44	250.00
PFHxA 2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	50493.44	250.00
PFHpA 1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	55148.91	250.00
PFHpA 2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	55148.91	250.00
PFHxS 1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	20280.73	236.50
PFHxS 2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	20280.73	236.50
PFOA 1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	73516.39	250.00
PFOA 2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	73516.39	250.00
PFNA 1	463.0 / 419.0	3.07	13C9-PFNA	472.0 / 427.0	73350.48	250.00
PFNA 2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	73350.48	250.00
PFOS 1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	24453.88	239.25
PFOS 2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	24453.88	239.25
PFDA 1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	79681.88	250.00
PFDA 2	513.0 / 219.0	3.42	13C6-PFDA	519.0 / 474.0	79681.88	250.00
PFUnA 1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	78414.03	250.00
PFUnA 2	563.0 / 269.0	3.74	13C7-PFUnA	570.0 / 525.0	78414.03	250.00
PFDoA 1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	79144.64	250.00
PFDoA 2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	79144.64	250.00
PFTeDA 1	663.0 / 619.0	4.26	13C2-PFTeDA	715.0 / 670.0	64608.01	250.00
PFTeDA 2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	64608.01	250.00
PFTeDA 1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	64608.01	250.00
PFTeDA 2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	64608.01	250.00
NMeFOSAA 1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	11855.34	250.00
NMeFOSAA 2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	11855.34	250.00
NEtFOSAA 1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	14740.29	250.00
NEtFOSAA 2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	14740.29	250.00

Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.06	13C2-PFDA	515.0 / 470.0	103402.36	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	33690.55	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	33690.55	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	85242.44	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	85242.44	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	85242.44	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	85242.44	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	103402.36	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	103402.36	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	103402.36	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	33690.55	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	33690.55	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	33690.55	239.25

Sample Name	KB76 CCV	Injection Vial	36
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T22:14:13	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	97797.45	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	30615.59	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	30615.59	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	87920.60	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	87920.60	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	87920.60	250.00
13C9-PFNA	472.0 / 427.0	3.06	13C2-PFOA	415.0 / 370.0	87920.60	250.00
13C6-PFDA	519.0 / 474.0	3.41	13C2-PFDA	515.0 / 470.0	97797.45	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	97797.45	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	97797.45	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	30615.59	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	30615.59	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	30615.59	239.25

Sample Name	KB76 CCV	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:29:53	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	92280.41	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	26912.55	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26912.55	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	75749.56	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	75749.56	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	75749.56	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	75749.56	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	92280.41	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	92280.41	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	92280.41	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	26912.55	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	26912.55	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	26912.55	239.25

Sample Name	KB77 CCV	Injection Vial	18
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:56:57	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	84016.05	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	25262.39	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	25262.39	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	69772.43	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	69772.43	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	69772.43	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	69772.43	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	84016.05	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	84016.05	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	84016.05	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	25262.39	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	25262.39	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	25262.39	239.25

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:26:43	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS 1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	25518.56	232.25
PFBS 2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	25518.56	232.25
PFHxA 1	313.0 / 269.0	1.90	13C5-PFHxA	318.0 / 273.0	61842.02	250.00
PFHxA 2	313.0 / 119.0	1.90	13C5-PFHxA	318.0 / 273.0	61842.02	250.00
PFHpA 1	363.0 / 319.0	2.31	13C4-PFHpA	367.0 / 322.0	70406.28	250.00
PFHpA 2	363.0 / 169.0	2.31	13C4-PFHpA	367.0 / 322.0	70406.28	250.00
PFHxS 1	399.0 / 80.0	2.34	13C3-PFHxS	402.0 / 99.0	22662.71	236.50
PFHxS 2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	22662.71	236.50
PFOA 1	413.0 / 369.0	2.73	13C8-PFOA	421.0 / 376.0	78322.47	250.00
PFOA 2	413.0 / 169.0	2.73	13C8-PFOA	421.0 / 376.0	78322.47	250.00
PFNA 1	463.0 / 419.0	3.13	13C9-PFNA	472.0 / 427.0	81621.81	250.00
PFNA 2	463.0 / 219.0	3.13	13C9-PFNA	472.0 / 427.0	81621.81	250.00
PFOS 1	499.0 / 80.0	3.13	13C8-PFOS	507.0 / 99.0	27515.16	239.25
PFOS 2	499.0 / 99.0	3.12	13C8-PFOS	507.0 / 99.0	27515.16	239.25
PFDA 1	513.0 / 469.0	3.49	13C6-PFDA	519.0 / 474.0	92696.22	250.00
PFDA 2	513.0 / 219.0	3.49	13C6-PFDA	519.0 / 474.0	92696.22	250.00
PFUnA 1	563.0 / 519.0	3.82	13C7-PFUnA	570.0 / 525.0	84510.22	250.00
PFUnA 2	563.0 / 269.0	3.82	13C7-PFUnA	570.0 / 525.0	84510.22	250.00
PFDoA 1	613.0 / 569.0	4.10	13C2-PFDoA	615.0 / 570.0	94338.75	250.00
PFDoA 2	613.0 / 319.0	4.10	13C2-PFDoA	615.0 / 570.0	94338.75	250.00
PFTrDA 1	663.0 / 619.0	4.35	13C2-PFTeDA	715.0 / 670.0	87517.92	250.00
PFTrDA 2	663.0 / 169.0	4.35	13C2-PFTeDA	715.0 / 670.0	87517.92	250.00
PFTeDA 1	713.0 / 669.0	4.57	13C2-PFTeDA	715.0 / 670.0	87517.92	250.00
PFTeDA 2	713.0 / 169.0	4.57	13C2-PFTeDA	715.0 / 670.0	87517.92	250.00
NMeFOSAA 1	570.0 / 419.0	3.65	d3-MeFOSAA	573.0 / 419.0	16648.07	250.00
NMeFOSAA 2	570.0 / 512.0	3.65	d3-MeFOSAA	573.0 / 419.0	16648.07	250.00
NEtFOSAA 1	584.0 / 419.0	3.81	d5-EtFOSAA	589.0 / 419.0	16369.23	250.00
NEtFOSAA 2	584.0 / 483.0	3.81	d5-EtFOSAA	589.0 / 419.0	16369.23	250.00

Sample Name	KB77 CCV	Injection Vial	5
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T17:10:14	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS 1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	30345.18	232.25
PFBS 2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	30345.18	232.25
PFHxA 1	313.0 / 269.0	1.88	13C5-PFHxA	318.0 / 273.0	70928.02	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	70928.02	250.00
PFHpA 1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	83174.39	250.00
PFHpA 2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	83174.39	250.00
PFHxS 1	399.0 / 80.0	2.32	13C3-PFHxS	402.0 / 99.0	27339.58	236.50
PFHxS 2	399.0 / 99.0	2.32	13C3-PFHxS	402.0 / 99.0	27339.58	236.50
PFOA 1	413.0 / 369.0	2.71	13C8-PFOA	421.0 / 376.0	93359.27	250.00
PFOA 2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	93359.27	250.00
PFNA 1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	107609.17	250.00
PFNA 2	463.0 / 219.0	3.10	13C9-PFNA	472.0 / 427.0	107609.17	250.00
PFOS 1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	33274.52	239.25
PFOS 2	499.0 / 99.0	3.10	13C8-PFOS	507.0 / 99.0	33274.52	239.25
PFDA 1	513.0 / 469.0	3.46	13C6-PFDA	519.0 / 474.0	110132.78	250.00
PFDA 2	513.0 / 219.0	3.46	13C6-PFDA	519.0 / 474.0	110132.78	250.00
PFUnA 1	563.0 / 519.0	3.79	13C7-PFUnA	570.0 / 525.0	96728.33	250.00
PFUnA 2	563.0 / 269.0	3.78	13C7-PFUnA	570.0 / 525.0	96728.33	250.00
PFDoA 1	613.0 / 569.0	4.07	13C2-PFDoA	615.0 / 570.0	109247.60	250.00
PFDoA 2	613.0 / 319.0	4.07	13C2-PFDoA	615.0 / 570.0	109247.60	250.00
PFTrDA 1	663.0 / 619.0	4.32	13C2-PFTeDA	715.0 / 670.0	94739.90	250.00
PFTrDA 2	663.0 / 169.0	4.31	13C2-PFTeDA	715.0 / 670.0	94739.90	250.00
PFTeDA 1	713.0 / 669.0	4.53	13C2-PFTeDA	715.0 / 670.0	94739.90	250.00
PFTeDA 2	713.0 / 169.0	4.53	13C2-PFTeDA	715.0 / 670.0	94739.90	250.00
NMeFOSAA 1	570.0 / 419.0	3.61	d3-MeFOSAA	573.0 / 419.0	20851.17	250.00
NMeFOSAA 2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	20851.17	250.00
NEtFOSAA 1	584.0 / 419.0	3.78	d5-EtFOSAA	589.0 / 419.0	18702.21	250.00
NEtFOSAA 2	584.0 / 483.0	3.78	d5-EtFOSAA	589.0 / 419.0	18702.21	250.00

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:26:43	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.09	13C2-PFDA	515.0 / 470.0	96318.27	250.00
d3-MeFOSAA	573.0 / 419.0	3.64	13C4-PFOS	503.0 / 99.0	28184.95	239.25
d5-EtFOSAA	589.0 / 419.0	3.80	13C4-PFOS	503.0 / 99.0	28184.95	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	74227.28	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	74227.28	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	74227.28	250.00
13C9-PFNA	472.0 / 427.0	3.12	13C2-PFOA	415.0 / 370.0	74227.28	250.00
13C6-PFDA	519.0 / 474.0	3.48	13C2-PFDA	515.0 / 470.0	96318.27	250.00
13C7-PFUnA	570.0 / 525.0	3.80	13C2-PFDA	515.0 / 470.0	96318.27	250.00
13C2-PFTeDA	715.0 / 670.0	4.57	13C2-PFDA	515.0 / 470.0	96318.27	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	28184.95	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	28184.95	239.25
13C8-PFOS	507.0 / 99.0	3.11	13C4-PFOS	503.0 / 99.0	28184.95	239.25

Sample Name	KB77 CCV	Injection Vial	5
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T17:10:14	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.06	13C2-PFDA	515.0 / 470.0	101606.89	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	35131.92	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	35131.92	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	85552.76	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	85552.76	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	85552.76	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	85552.76	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	101606.89	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	101606.89	250.00
13C2-PFTeDA	715.0 / 670.0	4.53	13C2-PFDA	515.0 / 470.0	101606.89	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	35131.92	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	35131.92	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	35131.92	239.25

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
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	26543.28	232.25
PFBS 2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	26543.28	232.25
PFHxA 1	313.0 / 269.0	1.91	13C5-PFHxA	318.0 / 273.0	62579.70	250.00
PFHxA 2	313.0 / 119.0	1.91	13C5-PFHxA	318.0 / 273.0	62579.70	250.00
PFHpA 1	363.0 / 319.0	2.33	13C4-PFHpA	367.0 / 322.0	69859.85	250.00
PFHpA 2	363.0 / 169.0	2.32	13C4-PFHpA	367.0 / 322.0	69859.85	250.00
PFHxS 1	399.0 / 80.0	2.35	13C3-PFHxS	402.0 / 99.0	24467.83	236.50
PFHxS 2	399.0 / 99.0	2.35	13C3-PFHxS	402.0 / 99.0	24467.83	236.50
PFOA 1	413.0 / 369.0	2.74	13C8-PFOA	421.0 / 376.0	86658.98	250.00
PFOA 2	413.0 / 169.0	2.74	13C8-PFOA	421.0 / 376.0	86658.98	250.00
PFNA 1	463.0 / 419.0	3.14	13C9-PFNA	472.0 / 427.0	88035.85	250.00
PFNA 2	463.0 / 219.0	3.14	13C9-PFNA	472.0 / 427.0	88035.85	250.00
PFOS 1	499.0 / 80.0	3.14	13C8-PFOS	507.0 / 99.0	30825.96	239.25
PFOS 2	499.0 / 99.0	3.14	13C8-PFOS	507.0 / 99.0	30825.96	239.25
PFDA 1	513.0 / 469.0	3.50	13C6-PFDA	519.0 / 474.0	97968.15	250.00
PFDA 2	513.0 / 219.0	3.50	13C6-PFDA	519.0 / 474.0	97968.15	250.00
PFUnA 1	563.0 / 519.0	3.83	13C7-PFUnA	570.0 / 525.0	93214.36	250.00
PFUnA 2	563.0 / 269.0	3.83	13C7-PFUnA	570.0 / 525.0	93214.36	250.00
PFDoA 1	613.0 / 569.0	4.11	13C2-PFDoA	615.0 / 570.0	91153.41	250.00
PFDoA 2	613.0 / 319.0	4.11	13C2-PFDoA	615.0 / 570.0	91153.41	250.00
PFTeDA 1	663.0 / 619.0	4.36	13C2-PFTeDA	715.0 / 670.0	82671.66	250.00
PFTeDA 2	663.0 / 169.0	4.36	13C2-PFTeDA	715.0 / 670.0	82671.66	250.00
PFTeDA 1	713.0 / 669.0	4.58	13C2-PFTeDA	715.0 / 670.0	82671.66	250.00
PFTeDA 2	713.0 / 169.0	4.58	13C2-PFTeDA	715.0 / 670.0	82671.66	250.00
NMeFOSAA 1	570.0 / 419.0	3.66	d3-MeFOSAA	573.0 / 419.0	14257.30	250.00
NMeFOSAA 2	570.0 / 512.0	3.66	d3-MeFOSAA	573.0 / 419.0	14257.30	250.00
NEtFOSAA 1	584.0 / 419.0	3.82	d5-EtFOSAA	589.0 / 419.0	16047.60	250.00
NEtFOSAA 2	584.0 / 483.0	3.81	d5-EtFOSAA	589.0 / 419.0	16047.60	250.00

Sample Name	KB76 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
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	27347.65	232.25
PFBS 2	298.9 / 99.0	1.55	13C3-PFBS	302.0 / 99.0	27347.65	232.25
PFHxA 1	313.0 / 269.0	1.87	13C5-PFHxA	318.0 / 273.0	55992.85	250.00
PFHxA 2	313.0 / 119.0	1.88	13C5-PFHxA	318.0 / 273.0	55992.85	250.00
PFHpA 1	363.0 / 319.0	2.29	13C4-PFHpA	367.0 / 322.0	65453.53	250.00
PFHpA 2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	65453.53	250.00
PFHxS 1	399.0 / 80.0	2.31	13C3-PFHxS	402.0 / 99.0	22621.36	236.50
PFHxS 2	399.0 / 99.0	2.31	13C3-PFHxS	402.0 / 99.0	22621.36	236.50
PFOA 1	413.0 / 369.0	2.70	13C8-PFOA	421.0 / 376.0	86129.20	250.00
PFOA 2	413.0 / 169.0	2.70	13C8-PFOA	421.0 / 376.0	86129.20	250.00
PFNA 1	463.0 / 419.0	3.09	13C9-PFNA	472.0 / 427.0	89878.65	250.00
PFNA 2	463.0 / 219.0	3.09	13C9-PFNA	472.0 / 427.0	89878.65	250.00
PFOS 1	499.0 / 80.0	3.09	13C8-PFOS	507.0 / 99.0	29216.40	239.25
PFOS 2	499.0 / 99.0	3.09	13C8-PFOS	507.0 / 99.0	29216.40	239.25
PFDA 1	513.0 / 469.0	3.45	13C6-PFDA	519.0 / 474.0	91683.61	250.00
PFDA 2	513.0 / 219.0	3.45	13C6-PFDA	519.0 / 474.0	91683.61	250.00
PFUnA 1	563.0 / 519.0	3.77	13C7-PFUnA	570.0 / 525.0	85031.52	250.00
PFUnA 2	563.0 / 269.0	3.77	13C7-PFUnA	570.0 / 525.0	85031.52	250.00
PFDoA 1	613.0 / 569.0	4.05	13C2-PFDoA	615.0 / 570.0	87957.23	250.00
PFDoA 2	613.0 / 319.0	4.05	13C2-PFDoA	615.0 / 570.0	87957.23	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	72482.00	250.00
PFTeDA 2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	72482.00	250.00
PFTeDA 1	713.0 / 669.0	4.51	13C2-PFTeDA	715.0 / 670.0	72482.00	250.00
PFTeDA 2	713.0 / 169.0	4.50	13C2-PFTeDA	715.0 / 670.0	72482.00	250.00
NMeFOSAA 1	570.0 / 419.0	3.60	d3-MeFOSAA	573.0 / 419.0	11210.49	250.00
NMeFOSAA 2	570.0 / 512.0	3.60	d3-MeFOSAA	573.0 / 419.0	11210.49	250.00
NEtFOSAA 1	584.0 / 419.0	3.76	d5-EtFOSAA	589.0 / 419.0	12487.00	250.00
NEtFOSAA 2	584.0 / 483.0	3.76	d5-EtFOSAA	589.0 / 419.0	12487.00	250.00

Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.10	13C2-PFDA	515.0 / 470.0	90191.16	250.00
d3-MeFOSAA	573.0 / 419.0	3.65	13C4-PFOS	503.0 / 99.0	31112.11	239.25
d5-EtFOSAA	589.0 / 419.0	3.81	13C4-PFOS	503.0 / 99.0	31112.11	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	81344.96	250.00
13C4-PFHpA	367.0 / 322.0	2.31	13C2-PFOA	415.0 / 370.0	81344.96	250.00
13C8-PFOA	421.0 / 376.0	2.73	13C2-PFOA	415.0 / 370.0	81344.96	250.00
13C9-PFNA	472.0 / 427.0	3.13	13C2-PFOA	415.0 / 370.0	81344.96	250.00
13C6-PFDA	519.0 / 474.0	3.49	13C2-PFDA	515.0 / 470.0	90191.16	250.00
13C7-PFUnA	570.0 / 525.0	3.81	13C2-PFDA	515.0 / 470.0	90191.16	250.00
13C2-PFTeDA	715.0 / 670.0	4.57	13C2-PFDA	515.0 / 470.0	90191.16	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	31112.11	239.25
13C3-PFHxS	402.0 / 99.0	2.34	13C4-PFOS	503.0 / 99.0	31112.11	239.25
13C8-PFOS	507.0 / 99.0	3.13	13C4-PFOS	503.0 / 99.0	31112.11	239.25

Sample Name	KB76 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	87976.17	250.00
d3-MeFOSAA	573.0 / 419.0	3.60	13C4-PFOS	503.0 / 99.0	28672.60	239.25
d5-EtFOSAA	589.0 / 419.0	3.76	13C4-PFOS	503.0 / 99.0	28672.60	239.25
13C5-PFHxA	318.0 / 273.0	1.86	13C2-PFOA	415.0 / 370.0	80189.24	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	80189.24	250.00
13C8-PFOA	421.0 / 376.0	2.69	13C2-PFOA	415.0 / 370.0	80189.24	250.00
13C9-PFNA	472.0 / 427.0	3.08	13C2-PFOA	415.0 / 370.0	80189.24	250.00
13C6-PFDA	519.0 / 474.0	3.43	13C2-PFDA	515.0 / 470.0	87976.17	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	87976.17	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	87976.17	250.00
13C3-PFBS	302.0 / 99.0	1.53	13C4-PFOS	503.0 / 99.0	28672.60	239.25
13C3-PFHxS	402.0 / 99.0	2.30	13C4-PFOS	503.0 / 99.0	28672.60	239.25
13C8-PFOS	507.0 / 99.0	3.08	13C4-PFOS	503.0 / 99.0	28672.60	239.25

Raw Analytical Data

Sample Name	KB80 IB	Injection Vial	9
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	4270.08	7.967207	23.4	true
PFBS_2	298.9 / 99.0	1.57	1751.65	15.187213	22.1	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	N/A	N/A	N/A	N/A	true
PFHxS_2	399.0 / 99.0	N/A	N/A	N/A	N/A	true
PFOA_1	413.0 / 369.0	N/A	N/A	N/A	N/A	true
PFOA_2	413.0 / 169.0	N/A	N/A	N/A	N/A	true
PFNA_1	463.0 / 419.0	3.11	5116.99	< 0	29.4	false
PFNA_2	463.0 / 219.0	3.11	1412.81	< 0	28.4	false
PFOS_1	499.0 / 80.0	3.10	10007.21	20.457445	28.3	false
PFOS_2	499.0 / 99.0	3.11	2107.71	23.036162	36.0	false
PFDA_1	513.0 / 469.0	N/A	N/A	N/A	N/A	true
PFDA_2	513.0 / 219.0	N/A	N/A	N/A	N/A	true
PFUnA_1	563.0 / 519.0	N/A	N/A	N/A	N/A	true
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.08	4132.45	< 0	50.7	false
PFDoA_2	613.0 / 319.0	4.08	648.21	< 0	25.1	false
PFTTrDA_1	663.0 / 619.0	4.32	3827.82	< 0	101.8	false
PFTTrDA_2	663.0 / 169.0	4.34	292.14	< 0	21.8	false
PFTeDA_1	713.0 / 669.0	4.54	4005.90	< 0	149.6	false
PFTeDA_2	713.0 / 169.0	4.54	211.66	< 0	28.3	false
NMeFOSAA_1	570.0 / 419.0	3.63	1091.61	< 0	277.3	false
NMeFOSAA_2	570.0 / 512.0	3.61	558.08	< 0	27.6	false
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	CR905LCS-FS(3)	Injection Vial	2
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:02:52	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	603161.37	2026.174289	764.5	false
PFBS_2	298.9 / 99.0	1.53	176764.60	2023.760631	565.9	false
PFHxA_1	313.0 / 269.0	1.85	432958.46	2131.673736	67.1	false
PFHxA_2	313.0 / 119.0	1.85	31319.20	2052.421283	49.1	false
PFHpA_1	363.0 / 319.0	2.26	413713.77	2233.286111	227.7	false
PFHpA_2	363.0 / 169.0	2.26	8424.14	2078.819557	133.3	false
PFHxS_1	399.0 / 80.0	2.28	673010.00	2382.551536	828.5	false
PFHxS_2	399.0 / 99.0	2.28	189905.86	2406.405669	922.3	false
PFOA_1	413.0 / 369.0	2.67	633449.42	2114.391619	343.6	false
PFOA_2	413.0 / 169.0	2.67	37556.37	1929.788021	329.5	false
PFNA_1	463.0 / 419.0	3.06	612500.61	2424.535459	452.9	false
PFNA_2	463.0 / 219.0	3.06	193779.22	2490.109185	523.2	false
PFOS_1	499.0 / 80.0	3.06	1177364.84	2582.658613	478.3	true
PFOS_2	499.0 / 99.0	3.06	202248.68	2554.189375	519.9	false
PFDA_1	513.0 / 469.0	3.42	717338.89	2317.566147	557.1	false
PFDA_2	513.0 / 219.0	3.41	29719.09	2328.676163	378.5	false
PFUnA_1	563.0 / 519.0	3.73	745306.75	2073.693481	506.6	false
PFUnA_2	563.0 / 269.0	3.73	37988.51	2133.417512	340.4	false
PFDoA_1	613.0 / 569.0	4.02	639638.60	2101.665831	613.1	false
PFDoA_2	613.0 / 319.0	4.02	101802.78	2139.312789	687.5	false
PFTTrDA_1	663.0 / 619.0	4.25	583330.23	2304.322405	888.4	false
PFTTrDA_2	663.0 / 169.0	4.25	38870.01	2334.618883	589.8	false
PFTeDA_1	713.0 / 669.0	4.47	651811.35	2265.825786	1539.9	false
PFTeDA_2	713.0 / 169.0	4.47	31768.38	2277.365270	913.9	false
NMeFOSAA_1	570.0 / 419.0	3.57	120501.26	2554.035788	770.8	false
NMeFOSAA_2	570.0 / 512.0	3.57	66446.21	2564.253116	3551483.5	false
NEtFOSAA_1	584.0 / 419.0	3.73	119927.14	2089.323282	1074.1	false
NEtFOSAA_2	584.0 / 483.0	3.73	7499.54	2199.029362	423.1	false

Sample Name	J8465-FS(3)	Injection Vial	3
Sample ID	VC-PM367-SS01-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:13:45	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	6867.22	13.367473	37.9	true
PFBS_2	298.9 / 99.0	1.53	2709.76	21.723143	36.9	true
PFHxA_1	313.0 / 269.0	1.85	98978.72	349.258506	22.3	false
PFHxA_2	313.0 / 119.0	1.85	7152.14	320.800848	14.6	false
PFHpA_1	363.0 / 319.0	2.26	19675.89	59.546526	27.0	false
PFHpA_2	363.0 / 169.0	2.26	555.45	15.692494	29.5	false
PFHxS_1	399.0 / 80.0	2.28	152468.98	382.962895	426.4	false
PFHxS_2	399.0 / 99.0	2.28	42000.16	372.929957	397.6	false
PFOA_1	413.0 / 369.0	2.66	74418.88	189.922387	102.6	false
PFOA_2	413.0 / 169.0	2.65	3534.03	135.546164	57.4	true
PFNA_1	463.0 / 419.0	3.06	11438.10	1.599948	45.8	false
PFNA_2	463.0 / 219.0	3.07	3415.36	4.315339	53.3	false
PFOS_1	499.0 / 80.0	3.06	2026372.64	3240.854779	771.3	false
PFOS_2	499.0 / 99.0	3.06	378628.47	3486.651302	1144.8	false
PFDA_1	513.0 / 469.0	3.41	23055.75	28.365613	97.8	false
PFDA_2	513.0 / 219.0	3.41	974.08	27.380552	41.1	true
PFUnA_1	563.0 / 519.0	3.73	5613.46	2.282641	39.9	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	4.01	6045.62	< 0	57.3	false
PFDoA_2	613.0 / 319.0	4.00	854.82	< 0	29.4	true
PFTTrDA_1	663.0 / 619.0	4.25	1967.04	< 0	52.3	true
PFTTrDA_2	663.0 / 169.0	4.26	476.96	< 0	26.0	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

Sample Name	J8466-FS(3)	Injection Vial	4
Sample ID	VC-PM367-SB01-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:24:40	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	2483.79	2.195482	24.7	true
PFBS_2	298.9 / 99.0	1.52	1368.25	10.843208	21.0	true
PFHxA_1	313.0 / 269.0	1.85	152982.74	630.506729	30.8	false
PFHxA_2	313.0 / 119.0	1.85	12520.73	679.172189	27.6	false
PFHpA_1	363.0 / 319.0	2.26	22339.39	73.940851	33.4	false
PFHpA_2	363.0 / 169.0	2.25	1097.35	126.954773	36.0	false
PFHxS_1	399.0 / 80.0	2.29	105874.88	290.975578	290.9	false
PFHxS_2	399.0 / 99.0	2.28	28394.70	273.924431	270.1	false
PFOA_1	413.0 / 369.0	2.67	38279.25	94.427911	70.1	false
PFOA_2	413.0 / 169.0	2.66	2303.35	87.119074	61.4	false
PFNA_1	463.0 / 419.0	3.07	10567.38	4.288729	45.7	false
PFNA_2	463.0 / 219.0	3.06	3383.48	9.506937	43.2	false
PFOS_1	499.0 / 80.0	3.06	1616870.88	2819.702723	677.7	false
PFOS_2	499.0 / 99.0	3.06	315334.02	3166.087088	790.0	false
PFDA_1	513.0 / 469.0	3.42	15831.86	14.944601	80.1	false
PFDA_2	513.0 / 219.0	3.41	568.25	7.983890	53.7	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
PFTTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8467-FS(3)	Injection Vial	5
Sample ID	VC-PM367-SB01-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:35:32	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	2855.87	3.631191	27.1	true
PFBS_2	298.9 / 99.0	1.53	755.71	4.570224	14.1	true
PFHxA_1	313.0 / 269.0	1.85	30251.74	108.899895	7.7	false
PFHxA_2	313.0 / 119.0	1.86	2498.63	107.406921	7.8	false
PFHpA_1	363.0 / 319.0	2.26	15900.14	55.828735	24.1	false
PFHpA_2	363.0 / 169.0	2.26	731.46	73.826375	32.8	false
PFHxS_1	399.0 / 80.0	2.28	97397.07	287.310144	308.0	false
PFHxS_2	399.0 / 99.0	2.28	29091.18	304.023663	321.6	false
PFOA_1	413.0 / 369.0	2.67	57305.15	153.777668	88.7	false
PFOA_2	413.0 / 169.0	2.63	4507.86	190.215514	52.5	false
PFNA_1	463.0 / 419.0	3.06	4040.24	< 0	20.2	false
PFNA_2	463.0 / 219.0	3.07	1287.39	< 0	19.7	false
PFOS_1	499.0 / 80.0	3.06	2152436.94	4024.224521	789.1	false
PFOS_2	499.0 / 99.0	3.06	398033.80	4285.134057	857.6	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
PFTTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8468-FS(3)	Injection Vial	6
Sample ID	VC-PM367-SS02-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:46:24	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	7185.72	15.686987	33.9	true
PFBS_2	298.9 / 99.0	1.53	1819.58	14.608295	22.7	true
PFHxA_1	313.0 / 269.0	1.85	21374.57	58.979966	4.6	false
PFHxA_2	313.0 / 119.0	1.85	1597.59	42.260185	4.2	false
PFHpA_1	363.0 / 319.0	2.26	9651.28	21.485955	13.9	false
PFHpA_2	363.0 / 169.0	2.23	236.52	< 0	10.4	false
PFHxS_1	399.0 / 80.0	2.28	151766.13	398.080338	315.5	false
PFHxS_2	399.0 / 99.0	2.28	42599.06	395.699166	356.7	false
PFOA_1	413.0 / 369.0	2.67	32514.98	72.970269	62.8	false
PFOA_2	413.0 / 169.0	2.65	1350.55	41.946338	40.0	true
PFNA_1	463.0 / 419.0	3.06	9114.93	< 0	40.9	false
PFNA_2	463.0 / 219.0	3.07	2133.69	< 0	28.4	false
PFOS_1	499.0 / 80.0	3.06	852855.81	1498.879980	397.0	false
PFOS_2	499.0 / 99.0	3.06	157715.49	1595.140407	585.6	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
PFTTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8469-FS(3)	Injection Vial	7
Sample ID	VC-PM367-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:57:16	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	60468.34	149.527067	250.1	false
PFHxS_2	399.0 / 99.0	2.29	15989.96	135.573604	209.2	false
PFOA_1	413.0 / 369.0	2.67	18990.21	39.655250	42.3	false
PFOA_2	413.0 / 169.0	2.66	1007.67	30.367159	23.6	false
PFNA_1	463.0 / 419.0	3.06	4835.77	< 0	26.6	false
PFNA_2	463.0 / 219.0	3.08	3014.16	4.546312	49.0	false
PFOS_1	499.0 / 80.0	3.06	656994.76	1237.712095	367.8	false
PFOS_2	499.0 / 99.0	3.07	119984.74	1300.563097	400.8	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
PFTTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8470-FS(3)	Injection Vial	8
Sample ID	VC-PM367-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:08:08	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	2.25	11861.42	37.672626	19.9	false
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.28	278854.63	926.781836	560.8	false
PFHxS_2	399.0 / 99.0	2.28	77460.15	918.100325	563.7	false
PFOA_1	413.0 / 369.0	2.66	152533.88	460.620458	165.0	false
PFOA_2	413.0 / 169.0	2.66	8678.15	402.399899	131.9	true
PFNA_1	463.0 / 419.0	3.06	6302.11	< 0	29.1	false
PFNA_2	463.0 / 219.0	3.06	1792.68	< 0	29.0	false
PFOS_1	499.0 / 80.0	3.04	1255922.87	2422.673068	351.1	false
PFOS_2	499.0 / 99.0	3.06	195703.83	2173.373112	527.5	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
PFTTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8471-FS(3)	Injection Vial	9
Sample ID	VC-PM367-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:19:00	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	3976.36	5.828948	21.2	true
PFBS_2	298.9 / 99.0	1.52	1574.76	11.650073	18.9	true
PFHxA_1	313.0 / 269.0	1.85	610285.41	2440.621450	76.7	false
PFHxA_2	313.0 / 119.0	1.85	43857.78	2336.770015	58.8	false
PFHpA_1	363.0 / 319.0	2.26	122434.41	491.096979	83.1	false
PFHpA_2	363.0 / 169.0	2.26	2710.06	444.556560	77.6	false
PFHxS_1	399.0 / 80.0	2.28	70328.08	167.350968	253.6	false
PFHxS_2	399.0 / 99.0	2.28	19820.66	164.175726	193.5	false
PFOA_1	413.0 / 369.0	2.67	21014.36	45.218913	45.4	false
PFOA_2	413.0 / 169.0	2.65	1808.19	65.578297	44.7	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	473541.23	854.178969	254.5	false
PFOS_2	499.0 / 99.0	3.06	83780.44	869.086918	433.3	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
PFTTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8472-FS(3)	Injection Vial	12
Sample ID	VC-PM367-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:51:41	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	3314.61	5.573063	22.0	true
PFBS_2	298.9 / 99.0	1.52	1294.32	11.094796	21.2	true
PFHxA_1	313.0 / 269.0	1.85	139374.13	648.473935	30.1	false
PFHxA_2	313.0 / 119.0	1.85	10084.21	611.969778	24.6	false
PFHpA_1	363.0 / 319.0	2.26	38285.33	170.764913	45.5	false
PFHpA_2	363.0 / 169.0	2.26	513.04	30.898439	14.8	false
PFHxS_1	399.0 / 80.0	2.28	804685.64	2412.249826	917.8	false
PFHxS_2	399.0 / 99.0	2.28	220632.33	2366.760969	906.0	false
PFOA_1	413.0 / 369.0	2.67	1306476.09	4267.796376	517.6	false
PFOA_2	413.0 / 169.0	2.66	73514.59	3696.647672	296.2	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	3.01	193757.21	397.912831	139.0	false
PFOS_2	499.0 / 99.0	3.06	29765.31	350.921058	157.2	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
PFTTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8474-FS(3)	Injection Vial	14
Sample ID	VC-PM367-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:13:28	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	5150.82	10.427051	34.7	true
PFBS_2	298.9 / 99.0	1.54	2142.85	18.939340	26.8	true
PFHxA_1	313.0 / 269.0	1.85	38810.14	133.561764	11.1	false
PFHxA_2	313.0 / 119.0	1.87	2353.02	85.384922	7.4	false
PFHpA_1	363.0 / 319.0	2.26	11241.73	28.753372	22.3	false
PFHpA_2	363.0 / 169.0	2.28	264.99	< 0	10.2	false
PFHxS_1	399.0 / 80.0	2.29	117485.91	318.453583	379.7	false
PFHxS_2	399.0 / 99.0	2.28	32006.84	305.505810	357.6	false
PFOA_1	413.0 / 369.0	2.67	106658.01	289.134432	143.5	false
PFOA_2	413.0 / 169.0	2.66	6091.29	253.182055	101.5	true
PFNA_1	463.0 / 419.0	3.07	48978.12	147.763863	116.5	false
PFNA_2	463.0 / 219.0	3.06	16926.45	173.219337	164.3	false
PFOS_1	499.0 / 80.0	3.06	7417286.69	13089.559135	1265.3	false
PFOS_2	499.0 / 99.0	3.06	1407340.35	14304.677076	1688.2	false
PFDA_1	513.0 / 469.0	3.42	19280.41	24.672221	88.1	false
PFDA_2	513.0 / 219.0	3.41	1024.07	35.786658	44.2	true
PFUnA_1	563.0 / 519.0	3.74	12617.23	20.357562	69.8	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8475-FS(3)	Injection Vial	15
Sample ID	VC-PM367-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:24:20	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	5157.56	12.156333	34.9	true
PFBS_2	298.9 / 99.0	1.53	1556.78	14.498481	23.3	true
PFHxA_1	313.0 / 269.0	1.85	32598.86	126.784575	10.1	false
PFHxA_2	313.0 / 119.0	1.87	3502.22	180.811965	9.6	false
PFHpA_1	363.0 / 319.0	2.26	14535.14	57.327134	24.9	false
PFHpA_2	363.0 / 169.0	2.26	687.77	81.844040	36.3	false
PFHxS_1	399.0 / 80.0	2.28	242032.58	806.357337	431.3	false
PFHxS_2	399.0 / 99.0	2.28	65928.14	782.150906	404.5	false
PFOA_1	413.0 / 369.0	2.67	164137.04	558.766885	183.3	false
PFOA_2	413.0 / 169.0	2.66	8847.34	461.949755	110.3	true
PFNA_1	463.0 / 419.0	3.06	41877.85	141.161378	112.3	false
PFNA_2	463.0 / 219.0	3.07	11680.34	128.254018	135.3	false
PFOS_1	499.0 / 80.0	3.06	4757732.96	10400.037971	1039.7	false
PFOS_2	499.0 / 99.0	3.06	908964.99	11443.755458	1136.1	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
PFTTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8476-FS(3)	Injection Vial	16
Sample ID	VC-PM367-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:35:12	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	18773.46	58.776850	117.5	true
PFBS_2	298.9 / 99.0	1.53	7340.96	81.955003	69.7	false
PFHxA_1	313.0 / 269.0	1.85	135257.50	601.441175	29.1	false
PFHxA_2	313.0 / 119.0	1.85	11673.82	685.309046	27.8	false
PFHpA_1	363.0 / 319.0	2.26	31020.02	125.693387	40.6	false
PFHpA_2	363.0 / 169.0	2.26	864.98	101.601782	24.7	false
PFHxS_1	399.0 / 80.0	2.28	460047.45	1477.891295	684.2	false
PFHxS_2	399.0 / 99.0	2.28	126196.74	1448.561447	788.4	false
PFOA_1	413.0 / 369.0	2.67	271405.03	832.420479	220.8	false
PFOA_2	413.0 / 169.0	2.66	13669.87	642.949359	143.1	true
PFNA_1	463.0 / 419.0	3.07	9630.39	2.514298	35.8	false
PFNA_2	463.0 / 219.0	3.06	3843.18	16.677798	47.5	false
PFOS_1	499.0 / 80.0	3.07	806855.24	1502.527383	369.8	false
PFOS_2	499.0 / 99.0	3.07	143786.76	1540.933681	380.4	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
PFTTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	KB80 IB	Injection Vial	9
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	91698.47	244.195426	1281.1	false
d3-MeFOSAA	573.0 / 419.0	3.61	16302.89	250.085369	195.5	false
d5-EtFOSAA	589.0 / 419.0	3.78	17051.45	239.580705	212.6	false
13C5-PFHxA	318.0 / 273.0	1.87	61987.66	244.293373	826.7	false
13C4-PFHpA	367.0 / 322.0	2.28	70438.43	244.000657	1152.0	false
13C8-PFOA	421.0 / 376.0	2.70	88535.23	252.114367	1604.4	false
13C9-PFNA	472.0 / 427.0	3.09	100138.19	249.732890	1149.5	false
13C6-PFDA	519.0 / 474.0	3.45	97258.51	257.077741	4005.3	false
13C7-PFUnA	570.0 / 525.0	3.78	88898.52	254.380465	800.7	false
13C2-PFTeDA	715.0 / 670.0	4.54	70451.22	232.374509	2131.0	false
13C3-PFBS	302.0 / 99.0	1.55	25201.92	220.626542	798.1	false
13C3-PFHxS	402.0 / 99.0	2.31	25094.63	242.439381	606.8	false
13C8-PFOS	507.0 / 99.0	3.09	26831.98	229.467599	276.5	false

Sample Name	CR905LCS-FS(3)	Injection Vial	2
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:02:52	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	82950.89	233.697017	1384.4	false
d3-MeFOSAA	573.0 / 419.0	3.56	12390.94	204.387230	187.0	false
d5-EtFOSAA	589.0 / 419.0	3.72	15728.50	237.631240	225.2	false
13C5-PFHxA	318.0 / 273.0	1.84	50744.13	218.394567	1121.3	false
13C4-PFHpA	367.0 / 322.0	2.25	52343.06	198.011331	857.2	false
13C8-PFOA	421.0 / 376.0	2.66	74157.28	230.613538	1825.9	false
13C9-PFNA	472.0 / 427.0	3.05	75223.76	204.871045	852.3	false
13C6-PFDA	519.0 / 474.0	3.40	73724.37	206.160110	84234.3	false
13C7-PFUnA	570.0 / 525.0	3.72	85217.02	257.971819	894.0	false
13C2-PFTeDA	715.0 / 670.0	4.46	65474.90	228.471209	1046.5	false
13C3-PFBS	302.0 / 99.0	1.51	23714.09	223.231892	490.2	false
13C3-PFHxS	402.0 / 99.0	2.27	19711.03	204.765793	420.6	false
13C8-PFOS	507.0 / 99.0	3.05	22200.95	204.157807	240.0	false

Sample Name	J8465-FS(3)	Injection Vial	3
Sample ID	VC-PM367-SS01-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:13:45	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	98969.99	250.244051	990.8	false
d3-MeFOSAA	573.0 / 419.0	3.56	13934.90	207.195304	310.2	false
d5-EtFOSAA	589.0 / 419.0	3.72	18889.90	257.260261	227.2	false
13C5-PFHxA	318.0 / 273.0	1.84	65574.07	267.955139	734.7	false
13C4-PFHpA	367.0 / 322.0	2.25	71151.33	255.557069	2290.1	false
13C8-PFOA	421.0 / 376.0	2.66	90466.47	267.111510	1138.3	false
13C9-PFNA	472.0 / 427.0	3.05	100516.19	259.917480	2304.2	false
13C6-PFDA	519.0 / 474.0	3.40	111022.87	278.633974	1029.8	false
13C7-PFUnA	570.0 / 525.0	3.72	109863.10	298.487298	948.8	false
13C2-PFTeDA	715.0 / 670.0	4.46	86761.33	271.713329	1339.9	false
13C3-PFBS	302.0 / 99.0	1.51	28970.84	245.831605	597.5	false
13C3-PFHxS	402.0 / 99.0	2.27	26786.94	250.840632	449.7	false
13C8-PFOS	507.0 / 99.0	3.04	31224.37	258.830182	265.2	false

Sample Name	J8466-FS(3)	Injection Vial	4
Sample ID	VC-PM367-SB01-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:24:40	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	96556.00	230.102513	1422.4	false
d3-MeFOSAA	573.0 / 419.0	3.57	16505.59	231.611211	334.2	false
d5-EtFOSAA	589.0 / 419.0	3.72	15593.73	200.422076	238.9	false
13C5-PFHxA	318.0 / 273.0	1.84	58445.12	230.203513	636.3	false
13C4-PFHpA	367.0 / 322.0	2.25	68307.11	236.485455	1082.0	false
13C8-PFOA	421.0 / 376.0	2.66	87083.61	247.842109	2511.5	false
13C9-PFNA	472.0 / 427.0	3.05	86121.50	214.656858	54634.1	false
13C6-PFDA	519.0 / 474.0	3.41	104267.04	246.632624	1071.1	false
13C7-PFUnA	570.0 / 525.0	3.72	102485.64	262.433280	824.2	false
13C2-PFTeDA	715.0 / 670.0	4.46	78190.94	230.793210	2085.6	false
13C3-PFBS	302.0 / 99.0	1.51	25558.51	204.674886	503.6	false
13C3-PFHxS	402.0 / 99.0	2.28	24019.37	212.270125	549.6	false
13C8-PFOS	507.0 / 99.0	3.05	28026.32	219.250039	331.6	false

Sample Name	J8467-FS(3)	Injection Vial	5
Sample ID	VC-PM367-SB01-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:35:32	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	88384.50	238.814346	1010.6	false
d3-MeFOSAA	573.0 / 419.0	3.56	15201.23	254.131951	233.7	false
d5-EtFOSAA	589.0 / 419.0	3.72	14169.54	216.971781	186.2	false
13C5-PFHxA	318.0 / 273.0	1.84	53790.58	229.840001	605.0	false
13C4-PFHpA	367.0 / 322.0	2.25	60344.25	226.636656	1014.6	false
13C8-PFOA	421.0 / 376.0	2.66	84566.95	261.092883	561.2	false
13C9-PFNA	472.0 / 427.0	3.05	86581.83	234.107658	1104.2	false
13C6-PFDA	519.0 / 474.0	3.40	87659.08	235.094561	826.6	false
13C7-PFUnA	570.0 / 525.0	3.72	95239.25	276.512038	810.3	false
13C2-PFTeDA	715.0 / 670.0	4.46	72477.59	242.556282	1751.0	false
13C3-PFBS	302.0 / 99.0	1.51	24800.54	236.614965	794.1	false
13C3-PFHxS	402.0 / 99.0	2.27	22354.83	235.369738	534.7	false
13C8-PFOS	507.0 / 99.0	3.05	26632.23	248.217926	280.5	false

Sample Name	J8468-FS(3)	Injection Vial	6
Sample ID	VC-PM367-SS02-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:46:24	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	109414.69	258.814324	1420.9	false
d3-MeFOSAA	573.0 / 419.0	3.56	16626.33	254.235669	225.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	16913.51	236.886784	211.1	false
13C5-PFHxA	318.0 / 273.0	1.84	58446.40	239.368901	682.3	false
13C4-PFHpA	367.0 / 322.0	2.25	67497.83	242.982282	892.0	false
13C8-PFOA	421.0 / 376.0	2.66	91980.45	272.195180	10804.1	false
13C9-PFNA	472.0 / 427.0	3.05	96661.30	250.514047	2465.1	false
13C6-PFDA	519.0 / 474.0	3.40	106959.49	251.126998	1706.8	false
13C7-PFUnA	570.0 / 525.0	3.72	99836.07	253.754625	786.6	false
13C2-PFTeDA	715.0 / 670.0	4.46	89619.44	262.566578	1690.2	false
13C3-PFBS	302.0 / 99.0	1.51	27006.24	235.670270	509.2	false
13C3-PFHxS	402.0 / 99.0	2.27	25505.56	245.625638	495.0	false
13C8-PFOS	507.0 / 99.0	3.05	28336.21	241.561055	248.2	false

Sample Name	J8469-FS(3)	Injection Vial	7
Sample ID	VC-PM367-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:57:16	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	91058.76	238.990337	1266.9	false
d3-MeFOSAA	573.0 / 419.0	3.56	14574.91	275.301495	228.5	false
d5-EtFOSAA	589.0 / 419.0	3.72	16485.46	285.213911	213.7	false
13C5-PFHxA	318.0 / 273.0	1.84	58092.14	249.544345	695.2	false
13C4-PFHpA	367.0 / 322.0	2.25	66926.73	252.699784	654.6	false
13C8-PFOA	421.0 / 376.0	2.66	86371.41	268.086745	2548.9	false
13C9-PFNA	472.0 / 427.0	3.05	88096.32	239.473602	6096.3	false
13C6-PFDA	519.0 / 474.0	3.40	94152.34	245.273793	1062.7	false
13C7-PFUnA	570.0 / 525.0	3.72	95619.52	269.661516	1008.4	false
13C2-PFTeDA	715.0 / 670.0	4.46	74815.26	243.205454	1829.8	false
13C3-PFBS	302.0 / 99.0	1.52	26993.37	290.978121	676.7	false
13C3-PFHxS	402.0 / 99.0	2.28	25176.03	299.494382	679.7	false
13C8-PFOS	507.0 / 99.0	3.05	26184.44	275.734437	283.2	false

Sample Name	J8470-FS(3)	Injection Vial	8
Sample ID	VC-PM367-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:08:08	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	89760.78	247.273469	965.2	false
d3-MeFOSAA	573.0 / 419.0	3.56	12226.86	197.725714	208.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	14210.71	210.489820	248.6	false
13C5-PFHxA	318.0 / 273.0	1.83	53485.72	239.477965	839.7	false
13C4-PFHpA	367.0 / 322.0	2.25	59371.43	233.657710	600.5	false
13C8-PFOA	421.0 / 376.0	2.66	79926.50	258.579156	1469.3	false
13C9-PFNA	472.0 / 427.0	3.05	79753.37	225.967666	1175.8	false
13C6-PFDA	519.0 / 474.0	3.40	88231.74	241.255446	1185.9	false
13C7-PFUnA	570.0 / 525.0	3.72	89163.94	263.933143	897.6	false
13C2-PFTeDA	715.0 / 670.0	4.46	71107.90	242.623714	1629.6	false
13C3-PFBS	302.0 / 99.0	1.51	24099.18	222.408358	620.8	false
13C3-PFHxS	402.0 / 99.0	2.27	20702.09	210.844021	474.1	false
13C8-PFOS	507.0 / 99.0	3.04	25769.28	232.324890	258.1	false

Sample Name	J8471-FS(3)	Injection Vial	9
Sample ID	VC-PM367-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:19:00	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	97154.84	259.442075	1280.2	false
d3-MeFOSAA	573.0 / 419.0	3.56	17082.57	258.013325	290.9	false
d5-EtFOSAA	589.0 / 419.0	3.72	18859.29	260.904223	227.6	false
13C5-PFHxA	318.0 / 273.0	1.84	62596.90	267.022698	542.9	false
13C4-PFHpA	367.0 / 322.0	2.25	68369.05	256.347945	761.8	false
13C8-PFOA	421.0 / 376.0	2.66	86770.33	267.449405	1442.8	false
13C9-PFNA	472.0 / 427.0	3.04	93836.39	253.300571	1091.3	false
13C6-PFDA	519.0 / 474.0	3.40	95515.30	253.168894	2495.9	false
13C7-PFUnA	570.0 / 525.0	3.72	104281.47	299.224345	914.1	false
13C2-PFTeDA	715.0 / 670.0	4.46	78845.52	260.781954	1607.1	false
13C3-PFBS	302.0 / 99.0	1.51	27871.71	240.244196	538.2	false
13C3-PFHxS	402.0 / 99.0	2.27	26460.21	251.698639	404.7	false
13C8-PFOS	507.0 / 99.0	3.04	27307.99	229.944865	275.3	false

Sample Name	J8472-FS(3)	Injection Vial	12
Sample ID	VC-PM367-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:51:41	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	84574.24	225.309975	1397.0	false
d3-MeFOSAA	573.0 / 419.0	3.56	10564.44	167.385050	227.6	false
d5-EtFOSAA	589.0 / 419.0	3.72	16381.00	237.726573	206.6	false
13C5-PFHxA	318.0 / 273.0	1.84	51844.01	228.258562	648.2	false
13C4-PFHpA	367.0 / 322.0	2.25	57417.73	222.202768	828.0	false
13C8-PFOA	421.0 / 376.0	2.66	76047.98	241.930811	1866.2	false
13C9-PFNA	472.0 / 427.0	3.05	81646.55	227.476151	1195.4	false
13C6-PFDA	519.0 / 474.0	3.40	92105.56	243.550786	821.7	false
13C7-PFUnA	570.0 / 525.0	3.72	90033.01	257.725778	880.0	false
13C2-PFTeDA	715.0 / 670.0	4.46	72228.19	238.327156	1624.7	false
13C3-PFBS	302.0 / 99.0	1.51	23766.93	214.903669	529.6	false
13C3-PFHxS	402.0 / 99.0	2.27	23256.88	232.070830	364.5	false
13C8-PFOS	507.0 / 99.0	3.05	24162.48	213.430724	312.3	false

Sample Name	J8474-FS(3)	Injection Vial	14
Sample ID	VC-PM367-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:13:28	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	96685.42	268.321667	918.8	false
d3-MeFOSAA	573.0 / 419.0	3.57	12816.58	214.637383	211.1	false
d5-EtFOSAA	589.0 / 419.0	3.72	18931.88	290.398143	259.7	false
13C5-PFHxA	318.0 / 273.0	1.84	58841.86	246.066890	635.3	false
13C4-PFHpA	367.0 / 322.0	2.25	66721.73	245.249979	1161.7	false
13C8-PFOA	421.0 / 376.0	2.66	87383.88	264.042031	2227.1	false
13C9-PFNA	472.0 / 427.0	3.05	81886.87	216.695838	1057.0	false
13C6-PFDA	519.0 / 474.0	3.40	100260.40	276.175781	1352.5	false
13C7-PFUnA	570.0 / 525.0	3.72	99375.01	296.336923	853.5	false
13C2-PFTeDA	715.0 / 670.0	4.46	79678.05	273.878530	1631.9	false
13C3-PFBS	302.0 / 99.0	1.52	25724.68	245.857617	457.9	false
13C3-PFHxS	402.0 / 99.0	2.28	24620.07	259.669690	537.9	false
13C8-PFOS	507.0 / 99.0	3.05	28103.92	262.388729	272.7	false

Sample Name	J8475-FS(3)	Injection Vial	15
Sample ID	VC-PM367-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:24:20	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	81579.83	244.581361	1078.4	false
d3-MeFOSAA	573.0 / 419.0	3.57	13690.73	289.684695	249.9	false
d5-EtFOSAA	589.0 / 419.0	3.73	13069.43	253.292520	266.5	false
13C5-PFHxA	318.0 / 273.0	1.84	51510.00	243.761700	822.9	false
13C4-PFHpA	367.0 / 322.0	2.25	54084.61	224.968881	1521.3	false
13C8-PFOA	421.0 / 376.0	2.66	71298.58	243.797786	7669.5	false
13C9-PFNA	472.0 / 427.0	3.05	72674.13	217.632244	2672.0	false
13C6-PFDA	519.0 / 474.0	3.41	87528.62	260.466583	1126.9	false
13C7-PFUnA	570.0 / 525.0	3.72	83785.80	269.913592	769.0	false
13C2-PFTeDA	715.0 / 670.0	4.47	66263.49	246.059042	1535.2	false
13C3-PFBS	302.0 / 99.0	1.52	23245.10	280.692479	451.1	false
13C3-PFHxS	402.0 / 99.0	2.28	20660.97	275.326634	439.4	false
13C8-PFOS	507.0 / 99.0	3.05	22783.28	268.757241	292.4	false

Sample Name	J8476-FS(3)	Injection Vial	16
Sample ID	VC-PM367-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:35:12	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	85280.45	230.767943	978.5	false
d3-MeFOSAA	573.0 / 419.0	3.57	13237.47	204.863373	266.2	false
d5-EtFOSAA	589.0 / 419.0	3.72	15950.21	226.096008	263.1	false
13C5-PFHxA	318.0 / 273.0	1.84	54037.59	237.639797	744.5	false
13C4-PFHpA	367.0 / 322.0	2.25	60986.68	235.739869	767.0	false
13C8-PFOA	421.0 / 376.0	2.66	79830.24	253.667931	2624.5	false
13C9-PFNA	472.0 / 427.0	3.05	82435.48	229.407090	1108.6	false
13C6-PFDA	519.0 / 474.0	3.41	89691.50	240.901070	1296.4	false
13C7-PFUnA	570.0 / 525.0	3.72	87181.60	253.492237	878.7	false
13C2-PFTeDA	715.0 / 670.0	4.46	73323.22	245.749155	1533.2	false
13C3-PFBS	302.0 / 99.0	1.52	23306.46	205.843046	649.9	false
13C3-PFHxS	402.0 / 99.0	2.27	21679.92	211.307951	374.7	false
13C8-PFOS	507.0 / 99.0	3.05	26382.02	227.621093	338.7	false

Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:37:35	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.57	2579.27	2.554309	19.0	true
PFBS_2	298.9 / 99.0	1.57	1003.69	7.043480	19.4	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
PFTTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	J8473-FS(5)	Injection Vial	4
Sample ID	VC-PM367-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:59:22	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	1.56	19613.28	51.609138	50.5	false
PFBS_2	298.9 / 99.0	1.56	5770.47	53.562204	44.6	false
PFHxA_1	313.0 / 269.0	1.89	412024.20	1684.516712	101.2	false
PFHxA_2	313.0 / 119.0	1.89	26558.08	1436.296134	70.4	false
PFHpA_1	363.0 / 319.0	2.30	79164.77	281.067218	76.0	false
PFHpA_2	363.0 / 169.0	2.30	1986.32	266.753932	49.3	false
PFHxS_1	399.0 / 80.0	2.33	557903.25	1640.932458	521.3	false
PFHxS_2	399.0 / 99.0	2.33	156323.05	1644.039144	706.0	false
PFOA_1	413.0 / 369.0	2.72	803859.49	2235.835895	415.8	false
PFOA_2	413.0 / 169.0	2.71	40655.20	1738.627001	266.9	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	3.07	1007686.47	1882.056075	193.9	false
PFOS_2	499.0 / 99.0	3.11	164085.74	1764.033538	547.2	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

Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:37:35	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	99465.87	255.372930	965.4	false
d3-MeFOSAA	573.0 / 419.0	3.63	17478.19	329.846157	168.6	false
d5-EtFOSAA	589.0 / 419.0	3.79	17992.71	299.147377	210.0	false
13C5-PFHxA	318.0 / 273.0	1.88	59578.92	245.224501	533.3	false
13C4-PFHpA	367.0 / 322.0	2.30	76310.16	276.075863	877.0	false
13C8-PFOA	421.0 / 376.0	2.71	81619.66	242.739792	1414.7	false
13C9-PFNA	472.0 / 427.0	3.10	84686.59	220.574541	1007.0	false
13C6-PFDA	519.0 / 474.0	3.47	94947.53	244.537713	1028.6	false
13C7-PFUnA	570.0 / 525.0	3.79	94745.29	264.163124	1138.0	false
13C2-PFTeDA	715.0 / 670.0	4.55	79263.46	254.740674	1411.3	false
13C3-PFBS	302.0 / 99.0	1.55	25368.46	262.794432	439.0	false
13C3-PFHxS	402.0 / 99.0	2.32	21696.12	248.028928	292.0	false
13C8-PFOS	507.0 / 99.0	3.10	28466.87	288.075497	217.6	false

Sample Name	J8473-FS(5)	Injection Vial	4
Sample ID	VC-PM367-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:59:22	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.07	100811.27	253.026485	1321.9	false
d3-MeFOSAA	573.0 / 419.0	3.62	17139.62	270.691502	211.5	false
d5-EtFOSAA	589.0 / 419.0	3.78	20020.56	278.562941	216.7	false
13C5-PFHxA	318.0 / 273.0	1.87	60856.91	243.295779	511.2	false
13C4-PFHpA	367.0 / 322.0	2.29	75121.61	263.976005	730.4	false
13C8-PFOA	421.0 / 376.0	2.71	89029.81	257.178747	1250.0	false
13C9-PFNA	472.0 / 427.0	3.10	85899.63	217.312890	1511.8	false
13C6-PFDA	519.0 / 474.0	3.46	94545.16	238.044208	2599785.0	false
13C7-PFUnA	570.0 / 525.0	3.78	90805.10	247.503281	874.2	false
13C2-PFTeDA	715.0 / 670.0	4.53	85655.14	269.113123	1404.5	false
13C3-PFBS	302.0 / 99.0	1.54	27401.49	237.549838	392.7	false
13C3-PFHxS	402.0 / 99.0	2.31	23826.36	227.948413	309.7	false
13C8-PFOS	507.0 / 99.0	3.10	26709.36	226.197970	245.6	false

Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
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

Sample Name	CR904PB-FS(3)	Injection Vial	6
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T19:11:14	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
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

Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.08	83378.86	255.146181	1181.3	false
d3-MeFOSAA	573.0 / 419.0	3.64	9307.65	147.415465	160.5	false
d5-EtFOSAA	589.0 / 419.0	3.80	11069.66	160.584720	190.1	false
13C5-PFHxA	318.0 / 273.0	1.89	53978.91	265.037881	552.5	false
13C4-PFHpA	367.0 / 322.0	2.30	59454.32	256.591413	770.0	false
13C8-PFOA	421.0 / 376.0	2.72	73559.14	260.972929	2105.8	false
13C9-PFNA	472.0 / 427.0	3.12	82966.73	257.784793	1321.9	false
13C6-PFDA	519.0 / 474.0	3.48	81246.25	246.773110	673.0	false
13C7-PFUnA	570.0 / 525.0	3.80	77126.81	253.601788	7704.2	false
13C2-PFTeDA	715.0 / 670.0	4.56	68651.72	260.201077	1906.3	false
13C3-PFBS	302.0 / 99.0	1.55	22650.61	204.730817	383.7	false
13C3-PFHxS	402.0 / 99.0	2.33	20358.95	203.075227	270.2	false
13C8-PFOS	507.0 / 99.0	3.11	27967.03	246.941588	220.5	false

Sample Name	CR904PB-FS(3)	Injection Vial	6
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T19:11:14	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.06	86175.39	233.008922	1261.9	false
d3-MeFOSAA	573.0 / 419.0	3.61	11049.88	156.519224	193.9	false
d5-EtFOSAA	589.0 / 419.0	3.77	13297.31	172.520503	252.8	false
13C5-PFHxA	318.0 / 273.0	1.87	59462.82	241.731886	645.4	false
13C4-PFHpA	367.0 / 322.0	2.28	68563.86	244.995794	860.0	false
13C8-PFOA	421.0 / 376.0	2.70	83298.69	244.681780	2448.6	false
13C9-PFNA	472.0 / 427.0	3.10	87713.87	225.645274	1454.6	false
13C6-PFDA	519.0 / 474.0	3.45	90108.39	241.833209	861.7	false
13C7-PFUnA	570.0 / 525.0	3.77	83102.48	241.444348	1820.7	false
13C2-PFTeDA	715.0 / 670.0	4.52	76923.13	257.614756	2348.8	false
13C3-PFBS	302.0 / 99.0	1.54	25379.52	205.160567	346.5	false
13C3-PFHxS	402.0 / 99.0	2.31	22956.72	204.794649	266.5	false
13C8-PFOS	507.0 / 99.0	3.09	25316.49	199.921068	265.1	false

Sample Name	KB80 IB	Injection Vial	9
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.410	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	ü
PFNA_1	463.0 / 419.0	3.11	PFNA			
PFNA_2	463.0 / 219.0	3.11	PFNA	0.280	0.306	ü
PFOS_1	499.0 / 80.0	3.10	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.210	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	4.08	PFDoA			
PFDoA_2	613.0 / 319.0	4.08	PFDoA	0.160	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.32	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.34	PFTTrDA	0.080	0.066	ü
PFTeDA_1	713.0 / 669.0	4.54	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.54	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.63	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.510	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	CR905LCS-FS(3)	Injection Vial	2
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:02:52	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.67	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	3.73	PFUnA	0.050	0.049	ü
PFDaA_1	613.0 / 569.0	4.02	PFDaA			
PFDaA_2	613.0 / 319.0	4.02	PFDaA	0.160	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.25	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.25	PFTTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.47	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.47	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.57	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.57	NMeFOSAA	0.550	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.73	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.73	NEtFOSAA	0.060	0.062	ü

Sample Name	J8465-FS(3)	Injection Vial	3
Sample ID	VC-PM367-SS01-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:13:45	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	0.390	0.292	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.07	PFNA	0.300	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.190	0.174	ü
PFDA_1	513.0 / 469.0	3.41	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.73	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	
PFDaA_1	613.0 / 569.0	4.01	PFDaA			
PFDaA_2	613.0 / 319.0	4.00	PFDaA	0.140	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.25	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.26	PFTTrDA	0.240	0.066	
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	N/A	PFTeDA	N/A	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8466-FS(3)	Injection Vial	4
Sample ID	VC-PM367-SB01-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:24:40	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	1.52	PFBS	0.550	0.292	
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.25	PFHpA	0.050	0.025	
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.270	0.282	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.07	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.200	0.174	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8467-FS(3)	Injection Vial	5
Sample ID	VC-PM367-SB01-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:35:32	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.53	PFBS			
PFBS_2	298.9 / 99.0	1.53	PFBS	0.260	0.292	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.050	0.025	
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.300	0.282	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.63	PFOA	0.080	0.065	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.07	PFNA	0.320	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDaA_1	613.0 / 569.0	N/A	PFDaA			
PFDaA_2	613.0 / 319.0	N/A	PFDaA	N/A	0.160	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8468-FS(3)	Injection Vial	6
Sample ID	VC-PM367-SS02-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:46:24	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	0.250	0.292	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.23	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.040	0.065	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.07	PFNA	0.230	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDaA_1	613.0 / 569.0	N/A	PFDaA			
PFDaA_2	613.0 / 319.0	N/A	PFDaA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8469-FS(3)	Injection Vial	7
Sample ID	VC-PM367-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:57:16	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.260	0.282	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.620	0.306	
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDaA_1	613.0 / 569.0	N/A	PFDaA			
PFDaA_2	613.0 / 319.0	N/A	PFDaA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8470-FS(3)	Injection Vial	8
Sample ID	VC-PM367-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:08:08	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	2.25	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.66	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.280	0.306	ü
PFOS_1	499.0 / 80.0	3.04	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.160	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDaA_1	613.0 / 569.0	N/A	PFDaA			
PFDaA_2	613.0 / 319.0	N/A	PFDaA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8471-FS(3)	Injection Vial	9
Sample ID	VC-PM367-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:19:00	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	1.52	PFBS	0.400	0.292	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.65	PFOA	0.090	0.065	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	3.05	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDaA_1	613.0 / 569.0	N/A	PFDaA			
PFDaA_2	613.0 / 319.0	N/A	PFDaA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8472-FS(3)	Injection Vial	12
Sample ID	VC-PM367-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:51:41	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	1.52	PFBS	0.390	0.292	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.010	0.025	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.270	0.282	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.01	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.150	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDaA_1	613.0 / 569.0	N/A	PFDaA			
PFDaA_2	613.0 / 319.0	N/A	PFDaA	N/A	0.160	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8474-FS(3)	Injection Vial	14
Sample ID	VC-PM367-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:13:28	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	1.54	PFBS	0.420	0.292	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.060	0.077	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.270	0.282	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.07	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.350	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.190	0.174	ü
PFDA_1	513.0 / 469.0	3.42	PFDA			
PFDA_2	513.0 / 219.0	3.41	PFDA	0.050	0.041	ü
PFUnA_1	563.0 / 519.0	3.74	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8475-FS(3)	Injection Vial	15
Sample ID	VC-PM367-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:24:20	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	0.292	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.110	0.077	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.050	0.025	
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.270	0.282	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	3.07	PFNA	0.280	0.306	ü
PFOS_1	499.0 / 80.0	3.06	PFOS			
PFOS_2	499.0 / 99.0	3.06	PFOS	0.190	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDaA_1	613.0 / 569.0	N/A	PFDaA			
PFDaA_2	613.0 / 319.0	N/A	PFDaA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8476-FS(3)	Injection Vial	16
Sample ID	VC-PM367-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:35:12	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	0.390	0.292	ü
PFHxA_1	313.0 / 269.0	1.85	PFHxA			
PFHxA_2	313.0 / 119.0	1.85	PFHxA	0.090	0.077	ü
PFHpA_1	363.0 / 319.0	2.26	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.28	PFHxS			
PFHxS_2	399.0 / 99.0	2.28	PFHxS	0.270	0.282	ü
PFOA_1	413.0 / 369.0	2.67	PFOA			
PFOA_2	413.0 / 169.0	2.66	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	3.07	PFNA			
PFNA_2	463.0 / 219.0	3.06	PFNA	0.400	0.306	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.07	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDaA_1	613.0 / 569.0	N/A	PFDaA			
PFDaA_2	613.0 / 319.0	N/A	PFDaA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:37:35	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.57	PFBS			
PFBS_2	298.9 / 99.0	1.57	PFBS	0.390	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	ü
PFNA_1	463.0 / 419.0	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	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDaA_1	613.0 / 569.0	N/A	PFDaA			
PFDaA_2	613.0 / 319.0	N/A	PFDaA	N/A	0.160	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8473-FS(5)	Injection Vial	4
Sample ID	VC-PM367-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:59:22	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.56	PFBS			
PFBS_2	298.9 / 99.0	1.56	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	1.89	PFHxA			
PFHxA_2	313.0 / 119.0	1.89	PFHxA	0.060	0.077	ü
PFHpA_1	363.0 / 319.0	2.30	PFHpA			
PFHpA_2	363.0 / 169.0	2.30	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.33	PFHxS			
PFHxS_2	399.0 / 99.0	2.33	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.72	PFOA			
PFOA_2	413.0 / 169.0	2.71	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.11	PFOS	0.160	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDaA_1	613.0 / 569.0	N/A	PFDaA			
PFDaA_2	613.0 / 319.0	N/A	PFDaA	N/A	0.160	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDaA_1	613.0 / 569.0	N/A	PFDaA			
PFDaA_2	613.0 / 319.0	N/A	PFDaA	N/A	0.160	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	CR904PB-FS(3)	Injection Vial	6
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T19:11:14	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	N/A	PFOS			
PFOS_2	499.0 / 99.0	N/A	PFOS	N/A	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDaA_1	613.0 / 569.0	N/A	PFDaA			
PFDaA_2	613.0 / 319.0	N/A	PFDaA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	KB80 IB	Injection Vial	9
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	25201.92	232.25
PFBS_2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	25201.92	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	61987.66	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	61987.66	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	70438.43	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	70438.43	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	24683.15	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	24683.15	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	88535.23	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	88535.23	250.00
PFNA_1	463.0 / 419.0	3.11	13C9-PFNA	472.0 / 427.0	100138.19	250.00
PFNA_2	463.0 / 219.0	3.11	13C9-PFNA	472.0 / 427.0	100138.19	250.00
PFOS_1	499.0 / 80.0	3.10	13C8-PFOS	507.0 / 99.0	26769.68	239.25
PFOS_2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	26769.68	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	97258.51	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	97258.51	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	88898.52	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	88898.52	250.00
PFDaA_1	613.0 / 569.0	4.08	13C2-PFDaA	615.0 / 570.0	91698.47	250.00
PFDaA_2	613.0 / 319.0	4.08	13C2-PFDaA	615.0 / 570.0	91698.47	250.00
PFTTrDA_1	663.0 / 619.0	4.32	13C2-PFTTeDA	715.0 / 670.0	70451.22	250.00
PFTTrDA_2	663.0 / 169.0	4.34	13C2-PFTTeDA	715.0 / 670.0	70451.22	250.00
PFTTeDA_1	713.0 / 669.0	4.54	13C2-PFTTeDA	715.0 / 670.0	70451.22	250.00
PFTTeDA_2	713.0 / 169.0	4.54	13C2-PFTTeDA	715.0 / 670.0	70451.22	250.00
NMeFOSAA_1	570.0 / 419.0	3.63	d3-MeFOSAA	573.0 / 419.0	16454.46	250.00
NMeFOSAA_2	570.0 / 512.0	3.61	d3-MeFOSAA	573.0 / 419.0	16454.46	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	17612.55	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	17612.55	250.00

Sample Name	CR905LCS-FS(3)	Injection Vial	2
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:02:52	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	23714.09	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	23714.09	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	50744.13	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	50744.13	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	52343.06	250.00
PFHpA_2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	52343.06	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	19458.80	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	19458.80	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	74157.28	250.00
PFOA_2	413.0 / 169.0	2.67	13C8-PFOA	421.0 / 376.0	74157.28	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	75223.76	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	75223.76	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	22781.01	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	22781.01	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	73724.37	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	73724.37	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	85217.02	250.00
PFUnA_2	563.0 / 269.0	3.73	13C7-PFUnA	570.0 / 525.0	85217.02	250.00
PFDoA_1	613.0 / 569.0	4.02	13C2-PFDoA	615.0 / 570.0	82950.89	250.00
PFDoA_2	613.0 / 319.0	4.02	13C2-PFDoA	615.0 / 570.0	82950.89	250.00
PFTeDA_1	663.0 / 619.0	4.25	13C2-PFTeDA	715.0 / 670.0	65474.90	250.00
PFTeDA_2	663.0 / 169.0	4.25	13C2-PFTeDA	715.0 / 670.0	65474.90	250.00
PFTeDA_1	713.0 / 669.0	4.47	13C2-PFTeDA	715.0 / 670.0	65474.90	250.00
PFTeDA_2	713.0 / 169.0	4.47	13C2-PFTeDA	715.0 / 670.0	65474.90	250.00
NMeFOSAA_1	570.0 / 419.0	3.57	d3-MeFOSAA	573.0 / 419.0	12341.99	250.00
NMeFOSAA_2	570.0 / 512.0	3.57	d3-MeFOSAA	573.0 / 419.0	12341.99	250.00
NEtFOSAA_1	584.0 / 419.0	3.73	d5-EtFOSAA	589.0 / 419.0	15813.18	250.00
NEtFOSAA_2	584.0 / 483.0	3.73	d5-EtFOSAA	589.0 / 419.0	15813.18	250.00

Sample Name	J8465-FS(3)	Injection Vial	3
Sample ID	VC-PM367-SS01-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:13:45	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	28970.84	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	28970.84	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	65574.07	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	65574.07	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	71151.33	250.00
PFHpA_2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	71151.33	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	26277.80	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	26277.80	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	90466.47	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	90466.47	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	100516.19	250.00
PFNA_2	463.0 / 219.0	3.07	13C9-PFNA	472.0 / 427.0	100516.19	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	31241.19	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	31241.19	239.25
PFDA_1	513.0 / 469.0	3.41	13C6-PFDA	519.0 / 474.0	111022.87	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	111022.87	250.00
PFUnA_1	563.0 / 519.0	3.73	13C7-PFUnA	570.0 / 525.0	109863.10	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	109863.10	250.00
PFDoA_1	613.0 / 569.0	4.01	13C2-PFDoA	615.0 / 570.0	98969.99	250.00
PFDoA_2	613.0 / 319.0	4.00	13C2-PFDoA	615.0 / 570.0	98969.99	250.00
PFTeDA_1	663.0 / 619.0	4.25	13C2-PFTeDA	715.0 / 670.0	86761.33	250.00
PFTeDA_2	663.0 / 169.0	4.26	13C2-PFTeDA	715.0 / 670.0	86761.33	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	86761.33	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	86761.33	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14155.73	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14155.73	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	18679.51	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	18679.51	250.00

Sample Name	J8466-FS(3)	Injection Vial	4
Sample ID	VC-PM367-SB01-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:24:40	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	25558.51	232.25
PFBS_2	298.9 / 99.0	1.52	13C3-PFBS	302.0 / 99.0	25558.51	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	58445.12	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	58445.12	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	68307.11	250.00
PFHpA_2	363.0 / 169.0	2.25	13C4-PFHpA	367.0 / 322.0	68307.11	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	23643.16	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	23643.16	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	87083.61	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	87083.61	250.00
PFNA_1	463.0 / 419.0	3.07	13C9-PFNA	472.0 / 427.0	86121.50	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	86121.50	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	28653.37	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	28653.37	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	104267.04	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	104267.04	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	102485.64	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	102485.64	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	96556.00	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	96556.00	250.00
PFTeDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	78190.94	250.00
PFTeDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	78190.94	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	78190.94	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	78190.94	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	16698.01	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	16698.01	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	15675.68	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	15675.68	250.00

Sample Name	J8467-FS(3)	Injection Vial	5
Sample ID	VC-PM367-SB01-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:35:32	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	24800.54	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	24800.54	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	53790.58	250.00
PFHxA_2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	53790.58	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	60344.25	250.00
PFHpA_2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	60344.25	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	22009.29	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	22009.29	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	84566.95	250.00
PFOA_2	413.0 / 169.0	2.63	13C8-PFOA	421.0 / 376.0	84566.95	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	86581.83	250.00
PFNA_2	463.0 / 219.0	3.07	13C9-PFNA	472.0 / 427.0	86581.83	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	26722.02	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	26722.02	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	87659.08	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	87659.08	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	95239.25	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	95239.25	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	88384.50	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	88384.50	250.00
PFTeDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	72477.59	250.00
PFTeDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	72477.59	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	72477.59	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	72477.59	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	15440.18	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	15440.18	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	14295.37	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	14295.37	250.00

Sample Name	J8468-FS(3)	Injection Vial	6
Sample ID	VC-PM367-SS02-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:46:24	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	27006.24	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	27006.24	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	58446.40	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	58446.40	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	67497.83	250.00
PFHpA_2	363.0 / 169.0	2.23	13C4-PFHpA	367.0 / 322.0	67497.83	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	25211.10	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	25211.10	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	91980.45	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	91980.45	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	96661.30	250.00
PFNA_2	463.0 / 219.0	3.07	13C9-PFNA	472.0 / 427.0	96661.30	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	28448.25	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	28448.25	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	106959.49	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	106959.49	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	99836.07	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	99836.07	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	109414.69	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	109414.69	250.00
PFTeDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	89619.44	250.00
PFTeDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	89619.44	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	89619.44	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	89619.44	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	16671.84	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	16671.84	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16998.04	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16998.04	250.00

Sample Name	J8469-FS(3)	Injection Vial	7
Sample ID	VC-PM367-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:57:16	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	26993.37	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	26993.37	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	58092.14	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	58092.14	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	66926.73	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	66926.73	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	24763.10	236.50
PFHxS_2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	24763.10	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	86371.41	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	86371.41	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	88096.32	250.00
PFNA_2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	88096.32	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	26545.97	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	26545.97	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	94152.34	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	94152.34	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	95619.52	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	95619.52	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	91058.76	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	91058.76	250.00
PFTeDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	74815.26	250.00
PFTeDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	74815.26	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	74815.26	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	74815.26	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	14372.11	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	14372.11	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16338.26	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16338.26	250.00

Sample Name	J8470-FS(3)	Injection Vial	8
Sample ID	VC-PM367-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:08:08	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	24099.18	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	24099.18	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	53485.72	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	53485.72	250.00
PFHpA_1	363.0 / 319.0	2.25	13C4-PFHpA	367.0 / 322.0	59371.43	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	59371.43	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	20458.12	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	20458.12	236.50
PFOA_1	413.0 / 369.0	2.66	13C8-PFOA	421.0 / 376.0	79926.50	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	79926.50	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	79753.37	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	79753.37	250.00
PFOS_1	499.0 / 80.0	3.04	13C8-PFOS	507.0 / 99.0	25906.99	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	25906.99	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	88231.74	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	88231.74	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	89163.94	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	89163.94	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	89760.78	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	89760.78	250.00
PFTeDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	71107.90	250.00
PFTeDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	71107.90	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	71107.90	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	71107.90	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	12275.46	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	12275.46	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13999.08	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13999.08	250.00

Sample Name	J8471-FS(3)	Injection Vial	9
Sample ID	VC-PM367-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:19:00	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	27871.71	232.25
PFBS_2	298.9 / 99.0	1.52	13C3-PFBS	302.0 / 99.0	27871.71	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	62596.90	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	62596.90	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	68369.05	250.00
PFHpA_2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	68369.05	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	26062.40	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	26062.40	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	86770.33	250.00
PFOA_2	413.0 / 169.0	2.65	13C8-PFOA	421.0 / 376.0	86770.33	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	93836.39	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	93836.39	250.00
PFOS_1	499.0 / 80.0	3.05	13C8-PFOS	507.0 / 99.0	27742.63	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	27742.63	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	95515.30	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	95515.30	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	104281.47	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	104281.47	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	97154.84	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	97154.84	250.00
PFTeDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	78845.52	250.00
PFTeDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	78845.52	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	78845.52	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	78845.52	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	16965.73	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	16965.73	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	18245.52	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	18245.52	250.00

Sample Name	J8472-FS(3)	Injection Vial	12
Sample ID	VC-PM367-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:51:41	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	23766.93	232.25
PFBS_2	298.9 / 99.0	1.52	13C3-PFBS	302.0 / 99.0	23766.93	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	51844.01	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	51844.01	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	57417.73	250.00
PFHpA_2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	57417.73	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	22981.88	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	22981.88	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	76047.98	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	76047.98	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	81646.55	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	81646.55	250.00
PFOS_1	499.0 / 80.0	3.01	13C8-PFOS	507.0 / 99.0	24426.17	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	24426.17	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	92105.56	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	92105.56	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	90033.01	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	90033.01	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	84574.24	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	84574.24	250.00
PFTeDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	72228.19	250.00
PFTeDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	72228.19	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	72228.19	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	72228.19	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	10825.85	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	10825.85	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16599.01	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16599.01	250.00

Sample Name	J8474-FS(3)	Injection Vial	14
Sample ID	VC-PM367-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:13:28	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	25724.68	232.25
PFBS_2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	25724.68	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	58841.86	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	58841.86	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	66721.73	250.00
PFHpA_2	363.0 / 169.0	2.28	13C4-PFHpA	367.0 / 322.0	66721.73	250.00
PFHxS_1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	24106.69	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	24106.69	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	87383.88	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	87383.88	250.00
PFNA_1	463.0 / 419.0	3.07	13C9-PFNA	472.0 / 427.0	81886.87	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	81886.87	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	28301.36	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	28301.36	239.25
PFDA_1	513.0 / 469.0	3.42	13C6-PFDA	519.0 / 474.0	100260.40	250.00
PFDA_2	513.0 / 219.0	3.41	13C6-PFDA	519.0 / 474.0	100260.40	250.00
PFUnA_1	563.0 / 519.0	3.74	13C7-PFUnA	570.0 / 525.0	99375.01	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	99375.01	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	96685.42	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	96685.42	250.00
PFTeDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	79678.05	250.00
PFTeDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	79678.05	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	79678.05	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	79678.05	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13110.24	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13110.24	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	19088.92	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	19088.92	250.00

Sample Name	J8475-FS(3)	Injection Vial	15
Sample ID	VC-PM367-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:24:20	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	23245.10	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	23245.10	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	51510.00	250.00
PFHxA_2	313.0 / 119.0	1.87	13C5-PFHxA	318.0 / 273.0	51510.00	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	54084.61	250.00
PFHpA_2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	54084.61	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	20344.02	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	20344.02	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	71298.58	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	71298.58	250.00
PFNA_1	463.0 / 419.0	3.06	13C9-PFNA	472.0 / 427.0	72674.13	250.00
PFNA_2	463.0 / 219.0	3.07	13C9-PFNA	472.0 / 427.0	72674.13	250.00
PFOS_1	499.0 / 80.0	3.06	13C8-PFOS	507.0 / 99.0	22849.03	239.25
PFOS_2	499.0 / 99.0	3.06	13C8-PFOS	507.0 / 99.0	22849.03	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	87528.62	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	87528.62	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	83785.80	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	83785.80	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	81579.83	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	81579.83	250.00
PFTeDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	66263.49	250.00
PFTeDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66263.49	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	66263.49	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	66263.49	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13938.90	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13938.90	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13033.03	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13033.03	250.00

Sample Name	J8476-FS(3)	Injection Vial	16
Sample ID	VC-PM367-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:35:12	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	23306.46	232.25
PFBS_2	298.9 / 99.0	1.53	13C3-PFBS	302.0 / 99.0	23306.46	232.25
PFHxA_1	313.0 / 269.0	1.85	13C5-PFHxA	318.0 / 273.0	54037.59	250.00
PFHxA_2	313.0 / 119.0	1.85	13C5-PFHxA	318.0 / 273.0	54037.59	250.00
PFHpA_1	363.0 / 319.0	2.26	13C4-PFHpA	367.0 / 322.0	60986.68	250.00
PFHpA_2	363.0 / 169.0	2.26	13C4-PFHpA	367.0 / 322.0	60986.68	250.00
PFHxS_1	399.0 / 80.0	2.28	13C3-PFHxS	402.0 / 99.0	21334.28	236.50
PFHxS_2	399.0 / 99.0	2.28	13C3-PFHxS	402.0 / 99.0	21334.28	236.50
PFOA_1	413.0 / 369.0	2.67	13C8-PFOA	421.0 / 376.0	79830.24	250.00
PFOA_2	413.0 / 169.0	2.66	13C8-PFOA	421.0 / 376.0	79830.24	250.00
PFNA_1	463.0 / 419.0	3.07	13C9-PFNA	472.0 / 427.0	82435.48	250.00
PFNA_2	463.0 / 219.0	3.06	13C9-PFNA	472.0 / 427.0	82435.48	250.00
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	26848.42	239.25
PFOS_2	499.0 / 99.0	3.07	13C8-PFOS	507.0 / 99.0	26848.42	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	89691.50	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	89691.50	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	87181.60	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	87181.60	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	85280.45	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	85280.45	250.00
PFTeDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	73323.22	250.00
PFTeDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73323.22	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	73323.22	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	73323.22	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	13461.24	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	13461.24	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	16024.43	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	16024.43	250.00

Sample Name	KB80 IB	Injection Vial	9
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	96280.28	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	29371.12	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	29371.12	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	85730.94	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	85730.94	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	85730.94	250.00
13C9-PFNA	472.0 / 427.0	3.09	13C2-PFOA	415.0 / 370.0	85730.94	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	96280.28	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	96280.28	250.00
13C2-PFTeDA	715.0 / 670.0	4.54	13C2-PFDA	515.0 / 470.0	96280.28	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	29371.12	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	29371.12	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	29371.12	239.25

Sample Name	CR905LCS-FS(3)	Injection Vial	2
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:02:52	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	91008.23	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	27314.59	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	27314.59	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	78503.32	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	78503.32	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	78503.32	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	78503.32	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	91008.23	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	91008.23	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	91008.23	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	27314.59	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	27314.59	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	27314.59	239.25

Sample Name	J8465-FS(3)	Injection Vial	3
Sample ID	VC-PM367-SS01-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:13:45	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	101403.41	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	30301.77	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	30301.77	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	82682.59	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	82682.59	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	82682.59	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	82682.59	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	101403.41	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	101403.41	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	101403.41	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	30301.77	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	30301.77	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	30301.77	239.25

Sample Name	J8466-FS(3)	Injection Vial	4
Sample ID	VC-PM367-SB01-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:24:40	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	107589.70	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	32108.17	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	32108.17	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	85778.88	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	85778.88	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	85778.88	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	85778.88	250.00
13C6-PFDA	519.0 / 474.0	3.41	13C2-PFDA	515.0 / 470.0	107589.70	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	107589.70	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	107589.70	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	32108.17	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	32108.17	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	32108.17	239.25

Sample Name	J8467-FS(3)	Injection Vial	5
Sample ID	VC-PM367-SB01-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:35:32	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	94891.76	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	26950.30	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26950.30	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	79072.36	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	79072.36	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	79072.36	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	79072.36	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	94891.76	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	94891.76	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	94891.76	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	26950.30	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	26950.30	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	26950.30	239.25

Sample Name	J8468-FS(3)	Injection Vial	6
Sample ID	VC-PM367-SS02-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:46:24	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	108392.72	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	29464.83	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	29464.83	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	82496.23	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	82496.23	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	82496.23	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	82496.23	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	108392.72	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	108392.72	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	108392.72	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	29464.83	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29464.83	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	29464.83	239.25

Sample Name	J8469-FS(3)	Injection Vial	7
Sample ID	VC-PM367-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:57:16	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	97690.92	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	23852.91	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	23852.91	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	78652.71	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	78652.71	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	78652.71	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	78652.71	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	97690.92	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	97690.92	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	97690.92	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	23852.91	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	23852.91	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	23852.91	239.25

Sample Name	J8470-FS(3)	Injection Vial	8
Sample ID	VC-PM367-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:08:08	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	93072.61	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	27860.94	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	27860.94	239.25
13C5-PFHxA	318.0 / 273.0	1.83	13C2-PFOA	415.0 / 370.0	75459.91	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	75459.91	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	75459.91	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	75459.91	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	93072.61	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	93072.61	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	93072.61	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	27860.94	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	27860.94	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	27860.94	239.25

Sample Name	J8471-FS(3)	Injection Vial	9
Sample ID	VC-PM367-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:19:00	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	96014.50	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	29830.13	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	29830.13	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	79204.28	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	79204.28	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	79204.28	250.00
13C9-PFNA	472.0 / 427.0	3.04	13C2-PFOA	415.0 / 370.0	79204.28	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	96014.50	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	96014.50	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	96014.50	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	29830.13	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29830.13	239.25
13C8-PFOS	507.0 / 99.0	3.04	13C4-PFOS	503.0 / 99.0	29830.13	239.25

Sample Name	J8472-FS(3)	Injection Vial	12
Sample ID	VC-PM367-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:51:41	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	96243.30	250.00
d3-MeFOSAA	573.0 / 419.0	3.56	13C4-PFOS	503.0 / 99.0	28436.34	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	28436.34	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	76738.89	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	76738.89	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	76738.89	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	76738.89	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	96243.30	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	96243.30	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	96243.30	250.00
13C3-PFBS	302.0 / 99.0	1.51	13C4-PFOS	503.0 / 99.0	28436.34	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	28436.34	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	28436.34	239.25

Sample Name	J8474-FS(3)	Injection Vial	14
Sample ID	VC-PM367-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:13:28	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	92388.52	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	26903.63	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	26903.63	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	80793.66	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	80793.66	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	80793.66	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	80793.66	250.00
13C6-PFDA	519.0 / 474.0	3.40	13C2-PFDA	515.0 / 470.0	92388.52	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	92388.52	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	92388.52	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	26903.63	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	26903.63	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	26903.63	239.25

Sample Name	J8475-FS(3)	Injection Vial	15
Sample ID	VC-PM367-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:24:20	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	85520.90	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	21293.41	239.25
d5-EtFOSAA	589.0 / 419.0	3.73	13C4-PFOS	503.0 / 99.0	21293.41	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	71395.39	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	71395.39	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	71395.39	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	71395.39	250.00
13C6-PFDA	519.0 / 474.0	3.41	13C2-PFDA	515.0 / 470.0	85520.90	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	85520.90	250.00
13C2-PFTeDA	715.0 / 670.0	4.47	13C2-PFDA	515.0 / 470.0	85520.90	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	21293.41	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	21293.41	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	21293.41	239.25

Sample Name	J8476-FS(3)	Injection Vial	16
Sample ID	VC-PM367-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:35:12	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	94751.65	250.00
d3-MeFOSAA	573.0 / 419.0	3.57	13C4-PFOS	503.0 / 99.0	29112.85	239.25
d5-EtFOSAA	589.0 / 419.0	3.72	13C4-PFOS	503.0 / 99.0	29112.85	239.25
13C5-PFHxA	318.0 / 273.0	1.84	13C2-PFOA	415.0 / 370.0	76828.24	250.00
13C4-PFHpA	367.0 / 322.0	2.25	13C2-PFOA	415.0 / 370.0	76828.24	250.00
13C8-PFOA	421.0 / 376.0	2.66	13C2-PFOA	415.0 / 370.0	76828.24	250.00
13C9-PFNA	472.0 / 427.0	3.05	13C2-PFOA	415.0 / 370.0	76828.24	250.00
13C6-PFDA	519.0 / 474.0	3.41	13C2-PFDA	515.0 / 470.0	94751.65	250.00
13C7-PFUnA	570.0 / 525.0	3.72	13C2-PFDA	515.0 / 470.0	94751.65	250.00
13C2-PFTeDA	715.0 / 670.0	4.46	13C2-PFDA	515.0 / 470.0	94751.65	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	29112.85	239.25
13C3-PFHxS	402.0 / 99.0	2.27	13C4-PFOS	503.0 / 99.0	29112.85	239.25
13C8-PFOS	507.0 / 99.0	3.05	13C4-PFOS	503.0 / 99.0	29112.85	239.25

Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:37:35	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.57	13C3-PFBS	302.0 / 99.0	25368.46	232.25
PFBS_2	298.9 / 99.0	1.57	13C3-PFBS	302.0 / 99.0	25368.46	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	59578.92	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	59578.92	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	76310.16	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	76310.16	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	21643.45	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	21643.45	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	81619.66	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	81619.66	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	84686.59	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	84686.59	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	28500.89	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	28500.89	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	94947.53	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	94947.53	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	94745.29	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	94745.29	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	99465.87	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	99465.87	250.00
PFTeDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	79263.46	250.00
PFTeDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	79263.46	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	79263.46	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	79263.46	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	17385.14	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	17385.14	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	18626.54	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	18626.54	250.00

Sample Name	J8473-FS(5)	Injection Vial	4
Sample ID	VC-PM367-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:59:22	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
PFBS_1	298.9 / 80.0	1.56	13C3-PFBS	302.0 / 99.0	27401.49	232.25
PFBS_2	298.9 / 99.0	1.56	13C3-PFBS	302.0 / 99.0	27401.49	232.25
PFHxA_1	313.0 / 269.0	1.89	13C5-PFHxA	318.0 / 273.0	60856.91	250.00
PFHxA_2	313.0 / 119.0	1.89	13C5-PFHxA	318.0 / 273.0	60856.91	250.00
PFHpA_1	363.0 / 319.0	2.30	13C4-PFHpA	367.0 / 322.0	75121.61	250.00
PFHpA_2	363.0 / 169.0	2.30	13C4-PFHpA	367.0 / 322.0	75121.61	250.00
PFHxS_1	399.0 / 80.0	2.33	13C3-PFHxS	402.0 / 99.0	23332.73	236.50
PFHxS_2	399.0 / 99.0	2.33	13C3-PFHxS	402.0 / 99.0	23332.73	236.50
PFOA_1	413.0 / 369.0	2.72	13C8-PFOA	421.0 / 376.0	89029.81	250.00
PFOA_2	413.0 / 169.0	2.71	13C8-PFOA	421.0 / 376.0	89029.81	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	85899.63	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	85899.63	250.00
PFOS_1	499.0 / 80.0	3.07	13C8-PFOS	507.0 / 99.0	26762.95	239.25
PFOS_2	499.0 / 99.0	3.11	13C8-PFOS	507.0 / 99.0	26762.95	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	94545.16	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	94545.16	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	90805.10	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	90805.10	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	100811.27	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	100811.27	250.00
PFTeDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	85655.14	250.00
PFTeDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	85655.14	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	85655.14	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	85655.14	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	17209.58	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	17209.58	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	20169.81	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	20169.81	250.00

Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:37:35	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.08	13C2-PFDA	515.0 / 470.0	98812.53	250.00
d3-MeFOSAA	573.0 / 419.0	3.63	13C4-PFOS	503.0 / 99.0	24821.18	239.25
d5-EtFOSAA	589.0 / 419.0	3.79	13C4-PFOS	503.0 / 99.0	24821.18	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	82086.71	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	82086.71	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	82086.71	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	82086.71	250.00
13C6-PFDA	519.0 / 474.0	3.47	13C2-PFDA	515.0 / 470.0	98812.53	250.00
13C7-PFUnA	570.0 / 525.0	3.79	13C2-PFDA	515.0 / 470.0	98812.53	250.00
13C2-PFTeDA	715.0 / 670.0	4.55	13C2-PFDA	515.0 / 470.0	98812.53	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	24821.18	239.25
13C3-PFHxS	402.0 / 99.0	2.32	13C4-PFOS	503.0 / 99.0	24821.18	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	24821.18	239.25

Sample Name	J8473-FS(5)	Injection Vial	4
Sample ID	VC-PM367-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:59:22	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.07	13C2-PFDA	515.0 / 470.0	101077.82	250.00
d3-MeFOSAA	573.0 / 419.0	3.62	13C4-PFOS	503.0 / 99.0	29659.51	239.25
d5-EtFOSAA	589.0 / 419.0	3.78	13C4-PFOS	503.0 / 99.0	29659.51	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	84512.20	250.00
13C4-PFHpA	367.0 / 322.0	2.29	13C2-PFOA	415.0 / 370.0	84512.20	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	84512.20	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	84512.20	250.00
13C6-PFDA	519.0 / 474.0	3.46	13C2-PFDA	515.0 / 470.0	101077.82	250.00
13C7-PFUnA	570.0 / 525.0	3.78	13C2-PFDA	515.0 / 470.0	101077.82	250.00
13C2-PFTeDA	715.0 / 670.0	4.53	13C2-PFDA	515.0 / 470.0	101077.82	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	29659.51	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	29659.51	239.25
13C8-PFOS	507.0 / 99.0	3.10	13C4-PFOS	503.0 / 99.0	29659.51	239.25

Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
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	22650.61	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	22650.61	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	53978.91	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	53978.91	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	59454.32	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	59454.32	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	20402.34	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	20402.34	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	73559.14	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	73559.14	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	82966.73	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	82966.73	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	27675.45	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	27675.45	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	81246.25	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	81246.25	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	77126.81	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	77126.81	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	83378.86	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	83378.86	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	68651.72	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	68651.72	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	68651.72	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	68651.72	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	9065.50	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	9065.50	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	11404.63	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	11404.63	250.00

Sample Name	CR904PB-FS(3)	Injection Vial	6
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T19:11:14	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
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	25379.52	232.25
PFBS_2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	25379.52	232.25
PFHxA_1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	59462.82	250.00
PFHxA_2	313.0 / 119.0	N/A	13C5-PFHxA	318.0 / 273.0	59462.82	250.00
PFHpA_1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	68563.86	250.00
PFHpA_2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	68563.86	250.00
PFHxS_1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	22555.63	236.50
PFHxS_2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	22555.63	236.50
PFOA_1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	83298.69	250.00
PFOA_2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	83298.69	250.00
PFNA_1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	87713.87	250.00
PFNA_2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	87713.87	250.00
PFOS_1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	25388.16	239.25
PFOS_2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	25388.16	239.25
PFDA_1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	90108.39	250.00
PFDA_2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	90108.39	250.00
PFUnA_1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	83102.48	250.00
PFUnA_2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	83102.48	250.00
PFDoA_1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	86175.39	250.00
PFDoA_2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	86175.39	250.00
PFTrDA_1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	76923.13	250.00
PFTrDA_2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	76923.13	250.00
PFTeDA_1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	76923.13	250.00
PFTeDA_2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	76923.13	250.00
NMeFOSAA_1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	11106.42	250.00
NMeFOSAA_2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	11106.42	250.00
NEtFOSAA_1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	13614.41	250.00
NEtFOSAA_2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	13614.41	250.00

Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
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	83787.58	250.00
d3-MeFOSAA	573.0 / 419.0	3.64	13C4-PFOS	503.0 / 99.0	28447.31	239.25
d5-EtFOSAA	589.0 / 419.0	3.80	13C4-PFOS	503.0 / 99.0	28447.31	239.25
13C5-PFHxA	318.0 / 273.0	1.89	13C2-PFOA	415.0 / 370.0	68811.37	250.00
13C4-PFHpA	367.0 / 322.0	2.30	13C2-PFOA	415.0 / 370.0	68811.37	250.00
13C8-PFOA	421.0 / 376.0	2.72	13C2-PFOA	415.0 / 370.0	68811.37	250.00
13C9-PFNA	472.0 / 427.0	3.12	13C2-PFOA	415.0 / 370.0	68811.37	250.00
13C6-PFDA	519.0 / 474.0	3.48	13C2-PFDA	515.0 / 470.0	83787.58	250.00
13C7-PFUnA	570.0 / 525.0	3.80	13C2-PFDA	515.0 / 470.0	83787.58	250.00
13C2-PFTeDA	715.0 / 670.0	4.56	13C2-PFDA	515.0 / 470.0	83787.58	250.00
13C3-PFBS	302.0 / 99.0	1.55	13C4-PFOS	503.0 / 99.0	28447.31	239.25
13C3-PFHxS	402.0 / 99.0	2.33	13C4-PFOS	503.0 / 99.0	28447.31	239.25
13C8-PFOS	507.0 / 99.0	3.11	13C4-PFOS	503.0 / 99.0	28447.31	239.25

Sample Name	CR904PB-FS(3)	Injection Vial	6
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T19:11:14	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
Sample Comment			

Results Summary

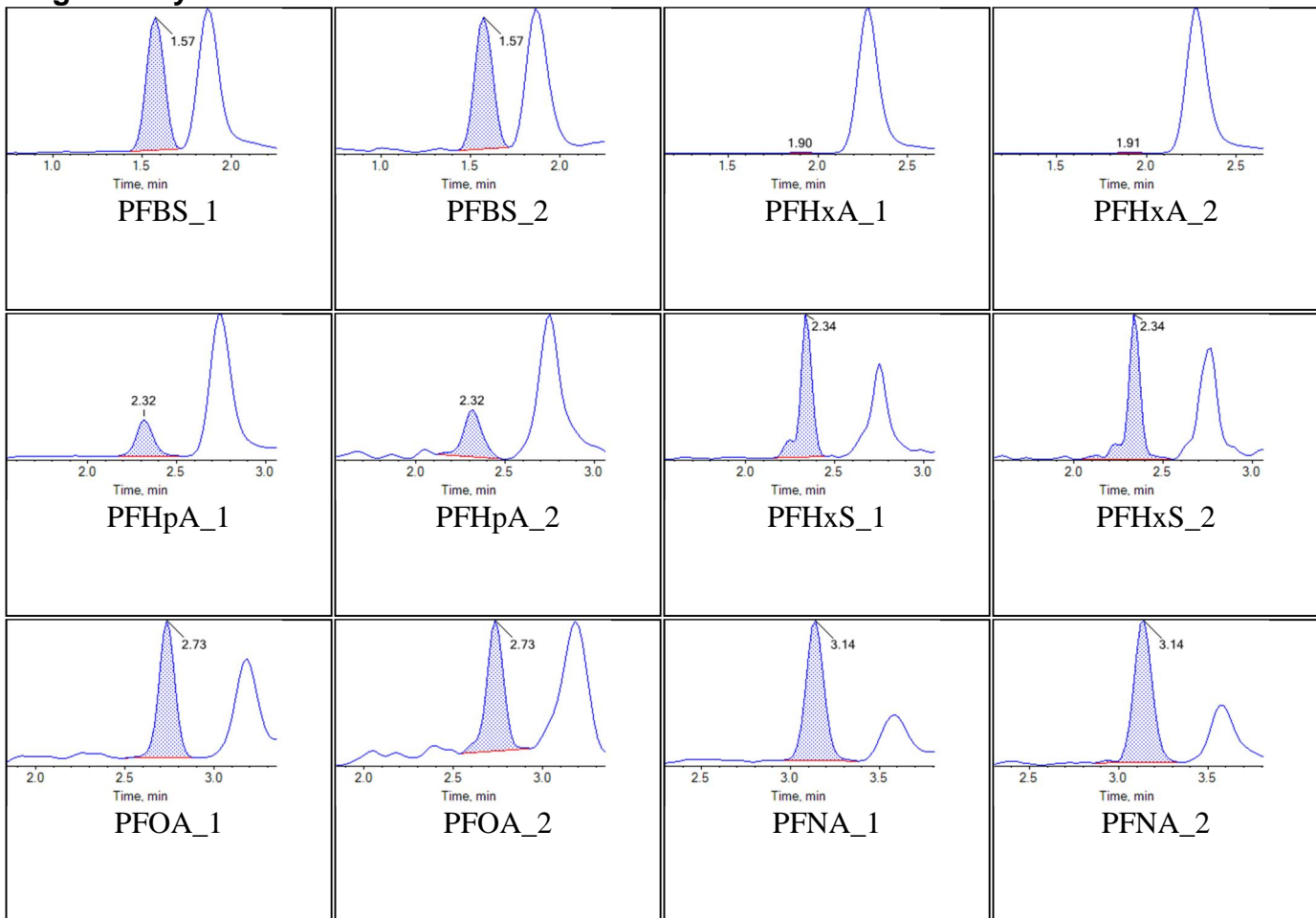
Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.06	13C2-PFDA	515.0 / 470.0	94825.14	250.00
d3-MeFOSAA	573.0 / 419.0	3.61	13C4-PFOS	503.0 / 99.0	31807.83	239.25
d5-EtFOSAA	589.0 / 419.0	3.77	13C4-PFOS	503.0 / 99.0	31807.83	239.25
13C5-PFHxA	318.0 / 273.0	1.87	13C2-PFOA	415.0 / 370.0	83110.44	250.00
13C4-PFHpA	367.0 / 322.0	2.28	13C2-PFOA	415.0 / 370.0	83110.44	250.00
13C8-PFOA	421.0 / 376.0	2.70	13C2-PFOA	415.0 / 370.0	83110.44	250.00
13C9-PFNA	472.0 / 427.0	3.10	13C2-PFOA	415.0 / 370.0	83110.44	250.00
13C6-PFDA	519.0 / 474.0	3.45	13C2-PFDA	515.0 / 470.0	94825.14	250.00
13C7-PFUnA	570.0 / 525.0	3.77	13C2-PFDA	515.0 / 470.0	94825.14	250.00
13C2-PFTeDA	715.0 / 670.0	4.52	13C2-PFDA	515.0 / 470.0	94825.14	250.00
13C3-PFBS	302.0 / 99.0	1.54	13C4-PFOS	503.0 / 99.0	31807.83	239.25
13C3-PFHxS	402.0 / 99.0	2.31	13C4-PFOS	503.0 / 99.0	31807.83	239.25
13C8-PFOS	507.0 / 99.0	3.09	13C4-PFOS	503.0 / 99.0	31807.83	239.25

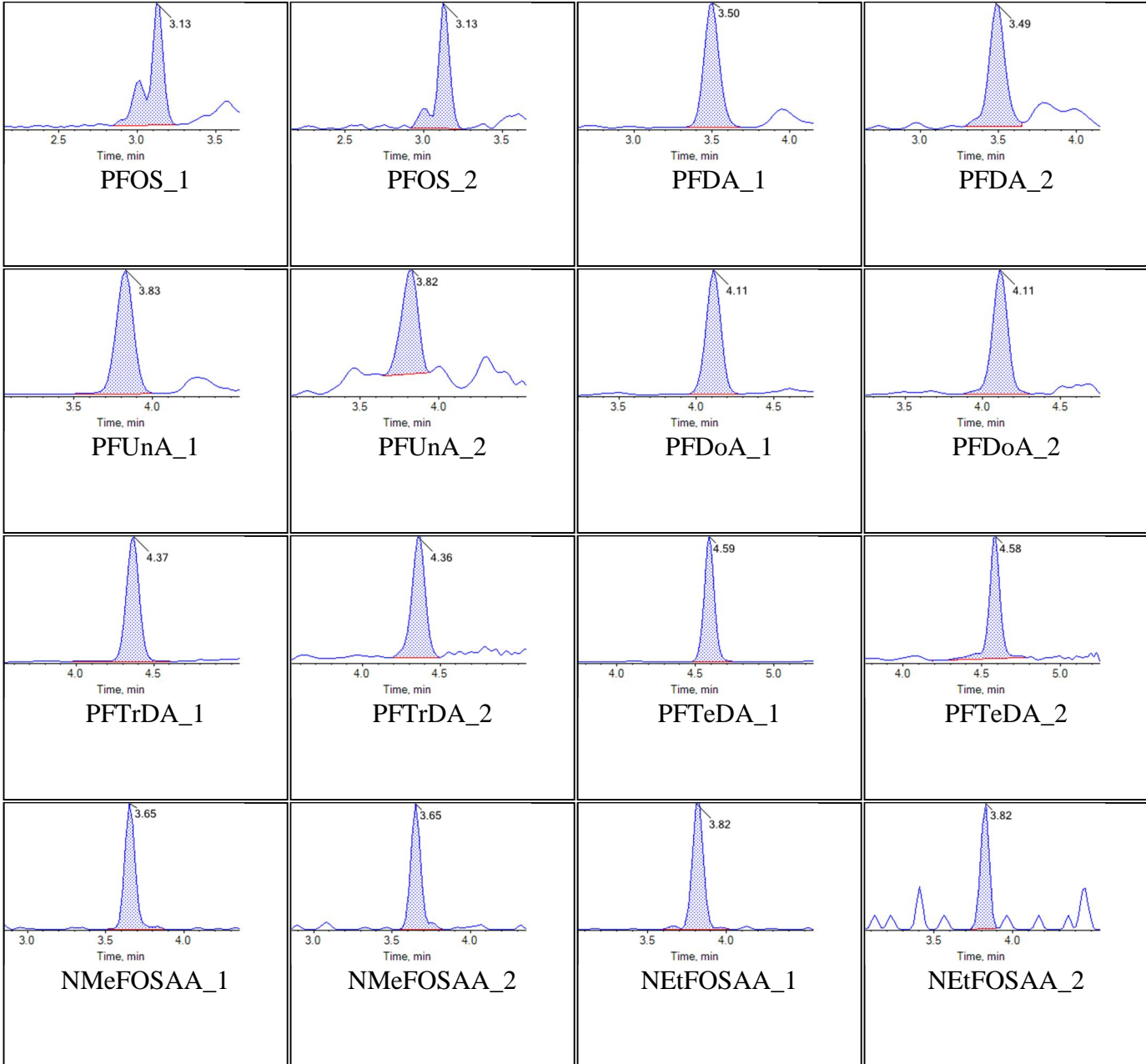
Chromatograms

Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

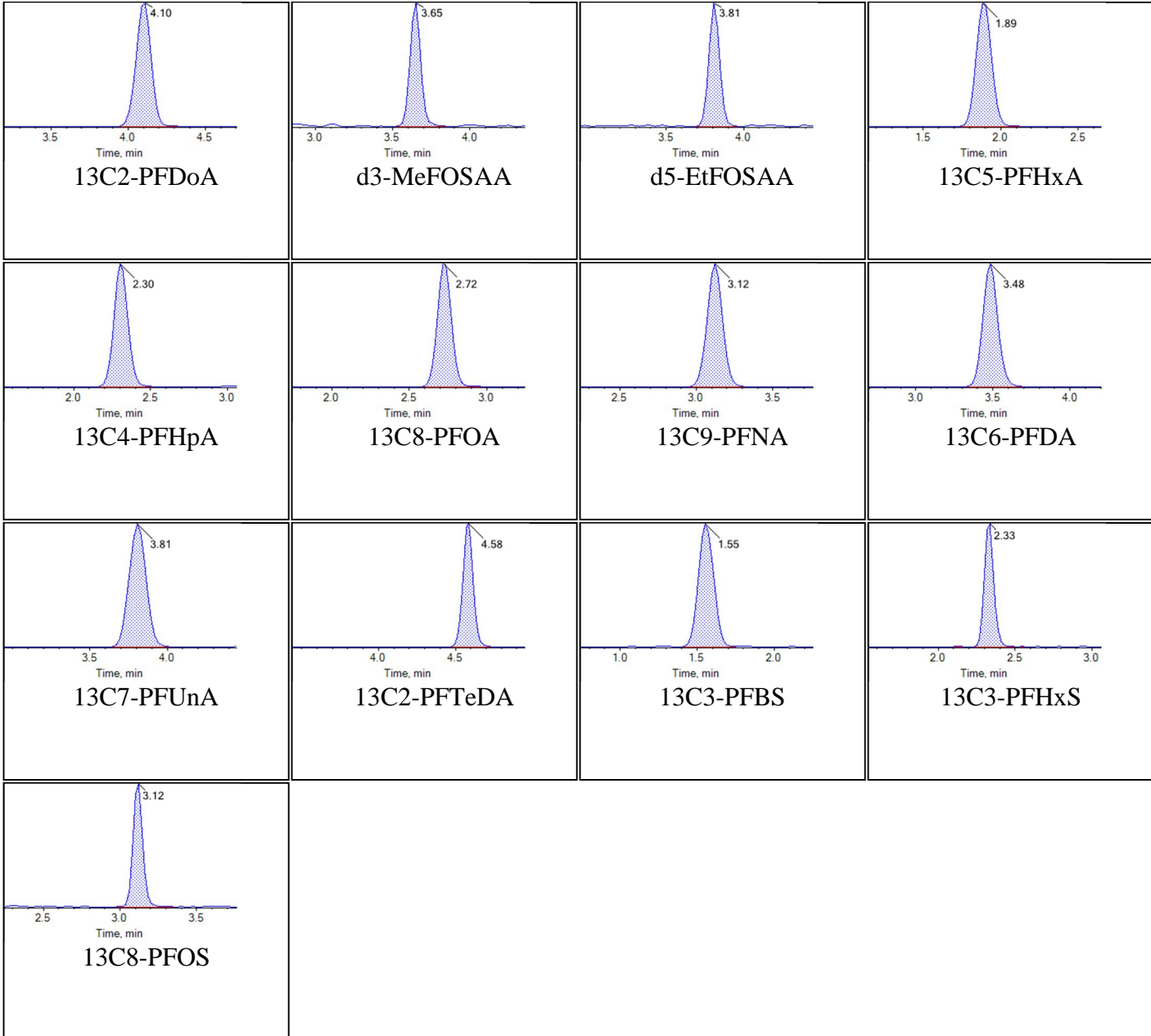
Chromatograms

Target Analytes:





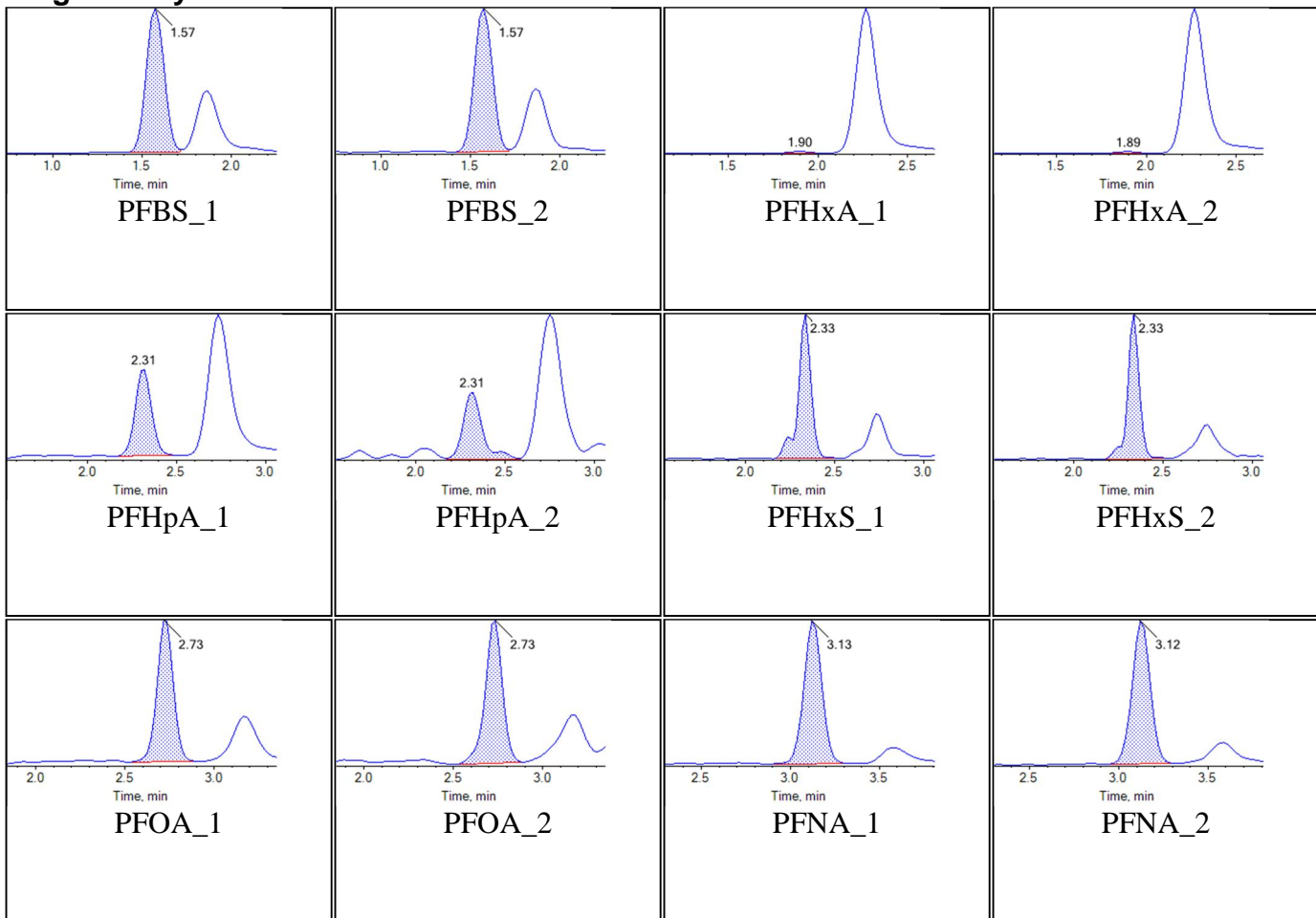
Internal Standards:

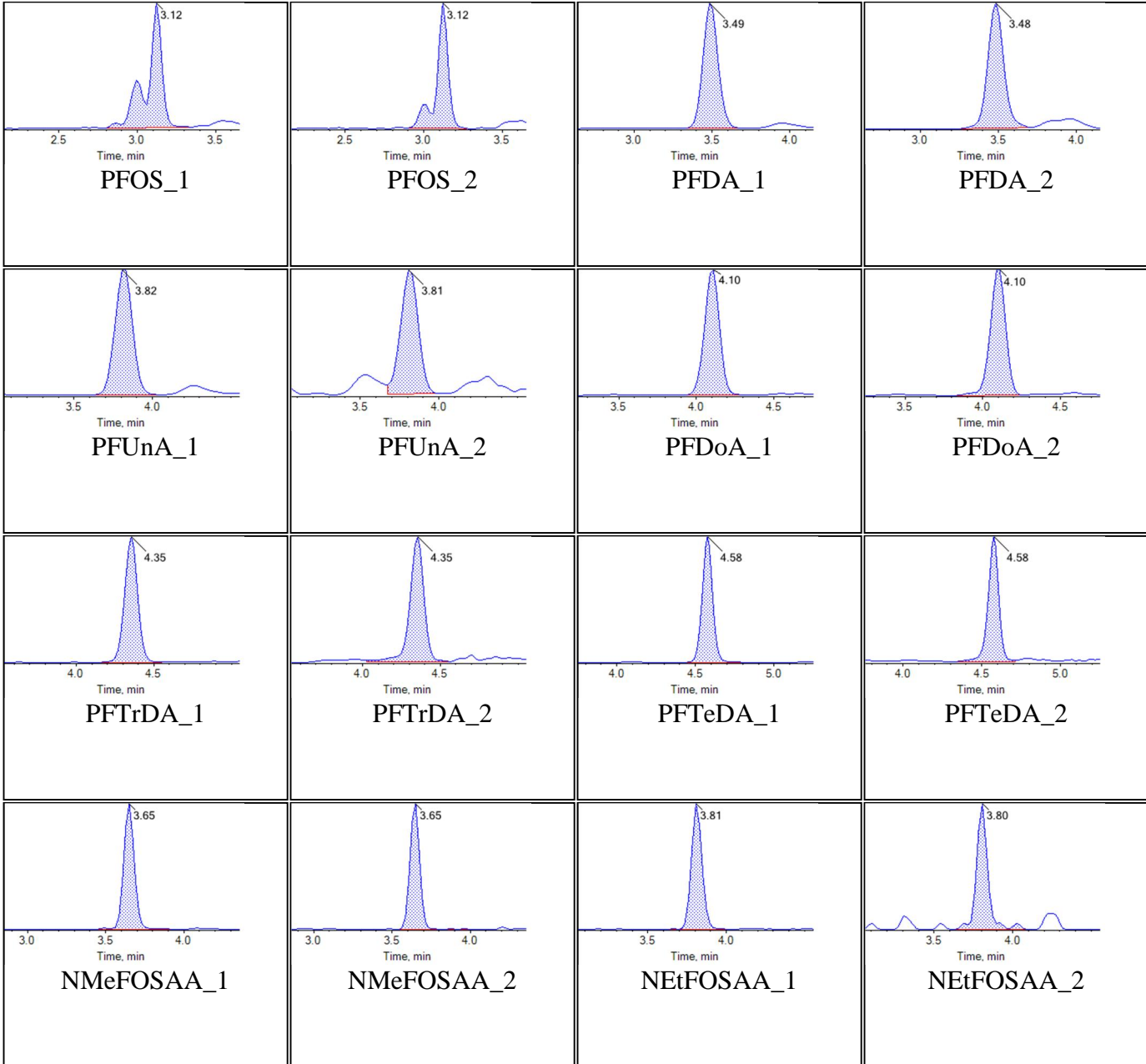


Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

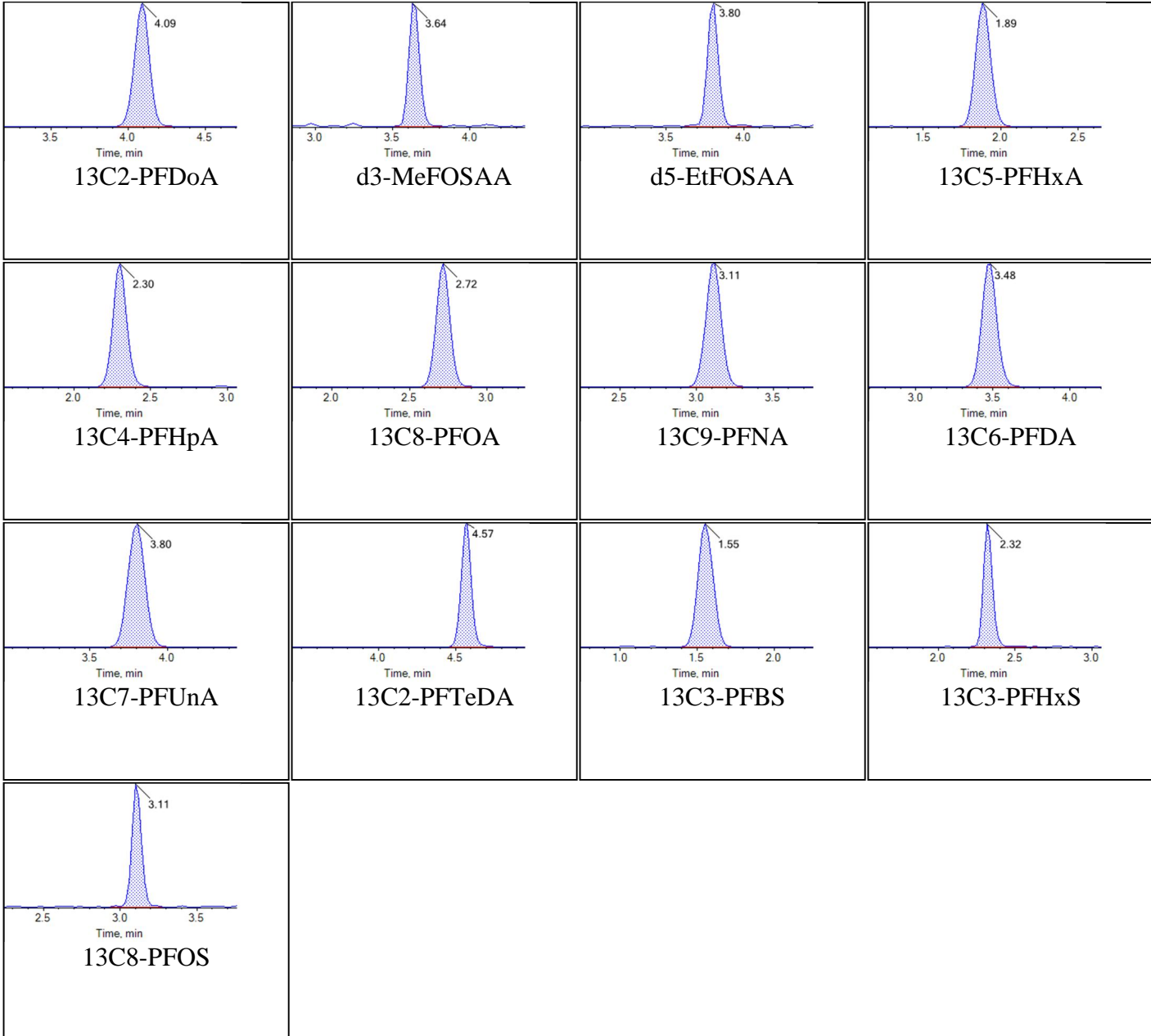
Chromatograms

Target Analytes:





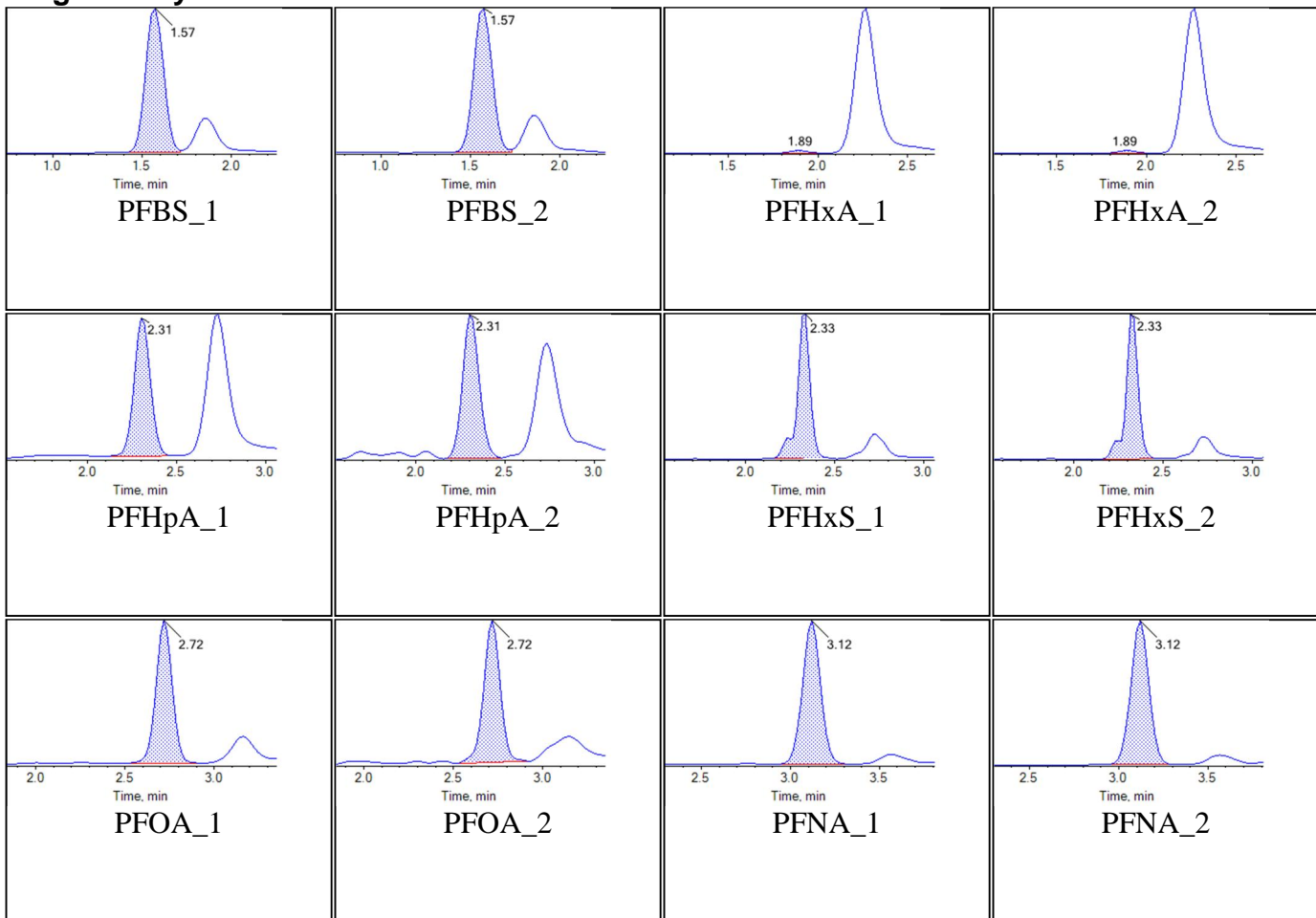
Internal Standards:



Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Chromatograms

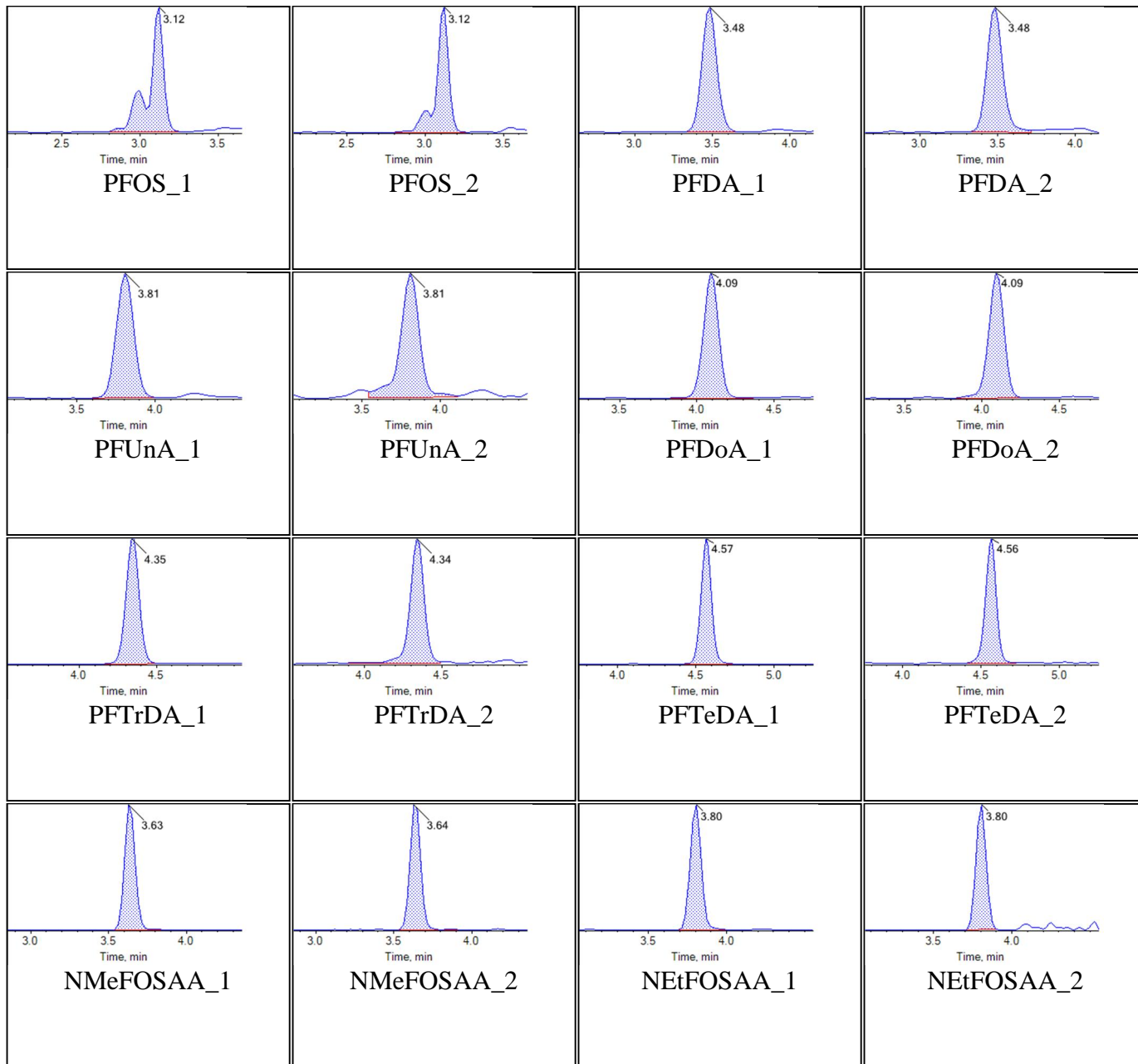
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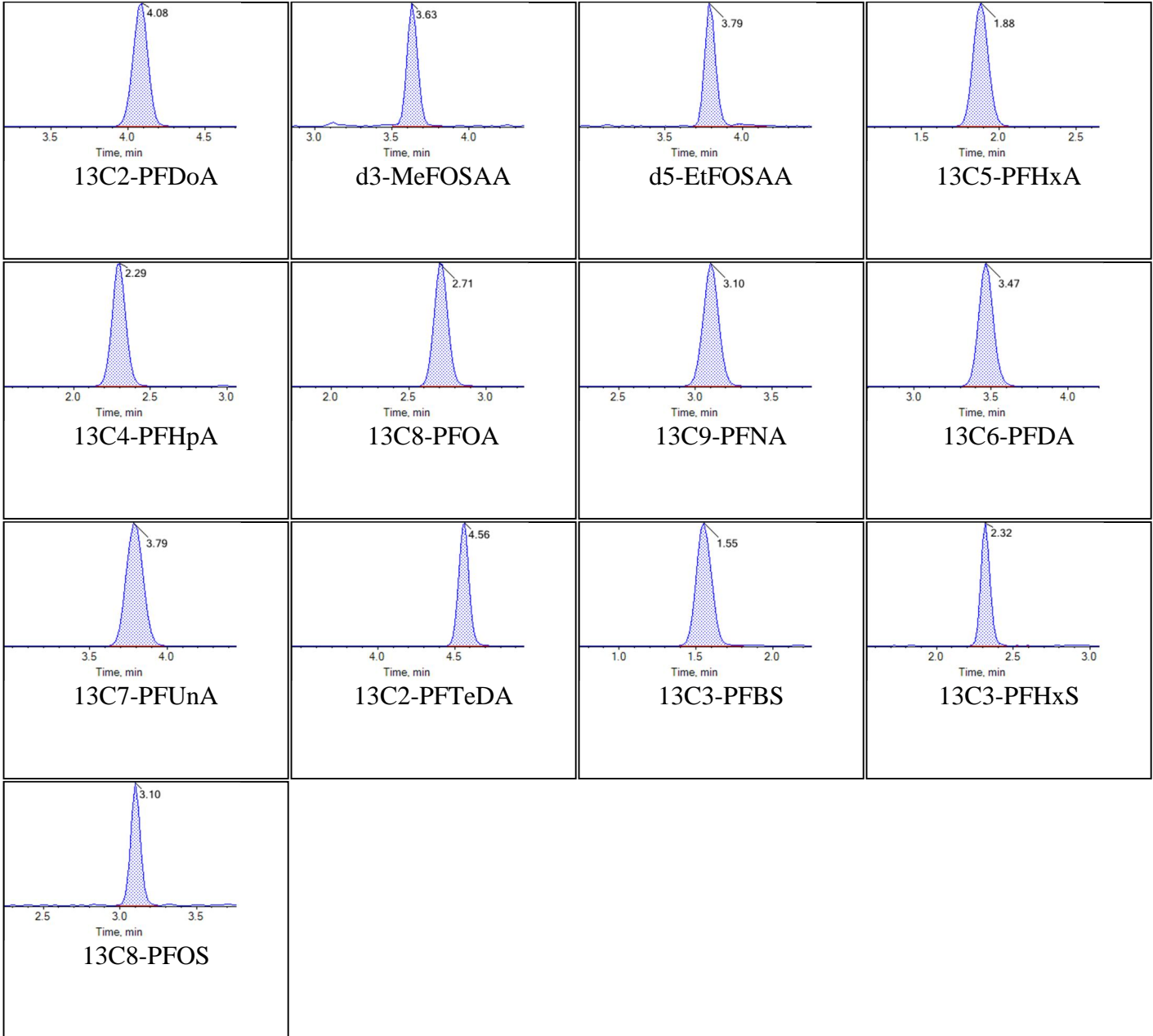


Chromatogram Report

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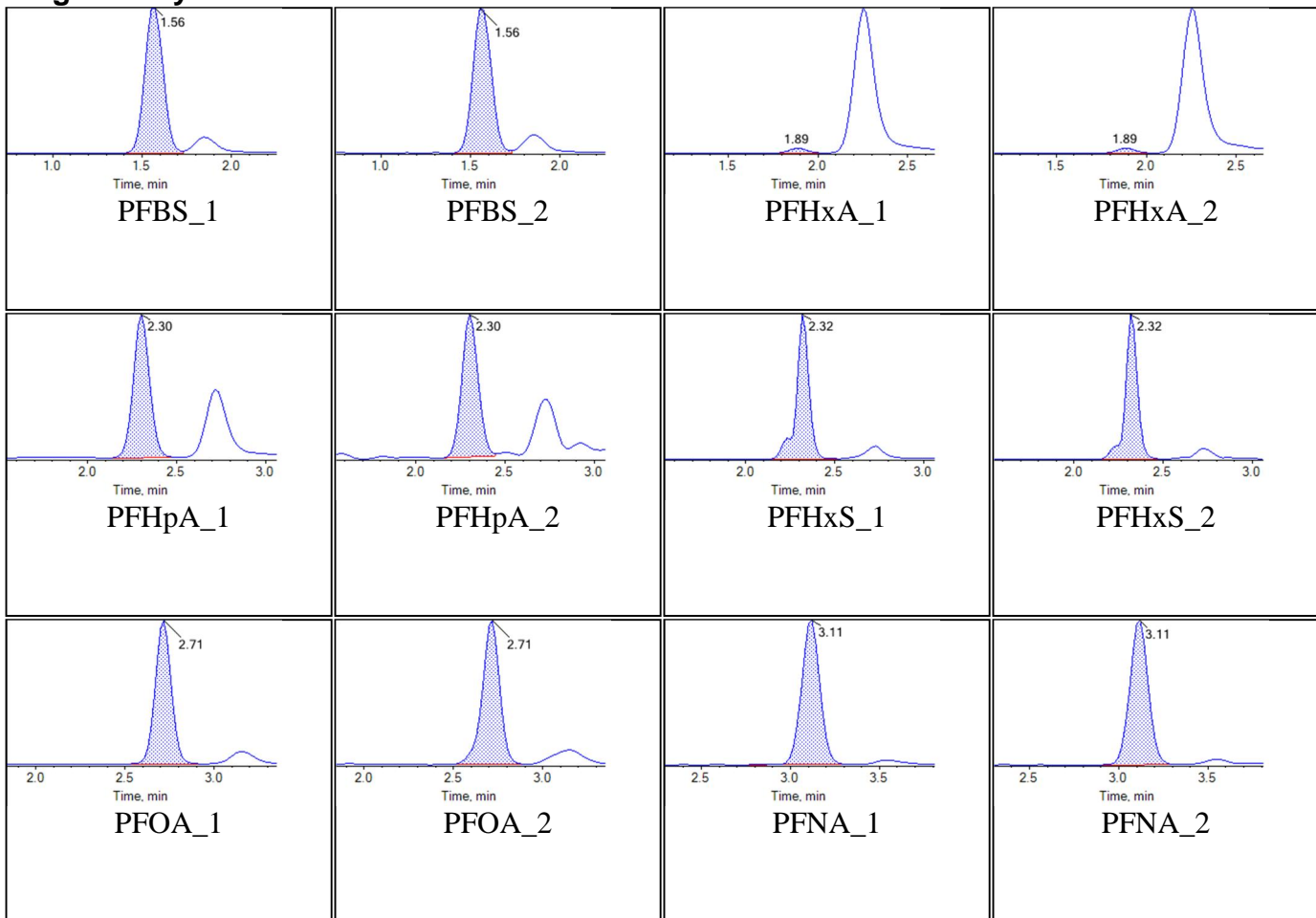
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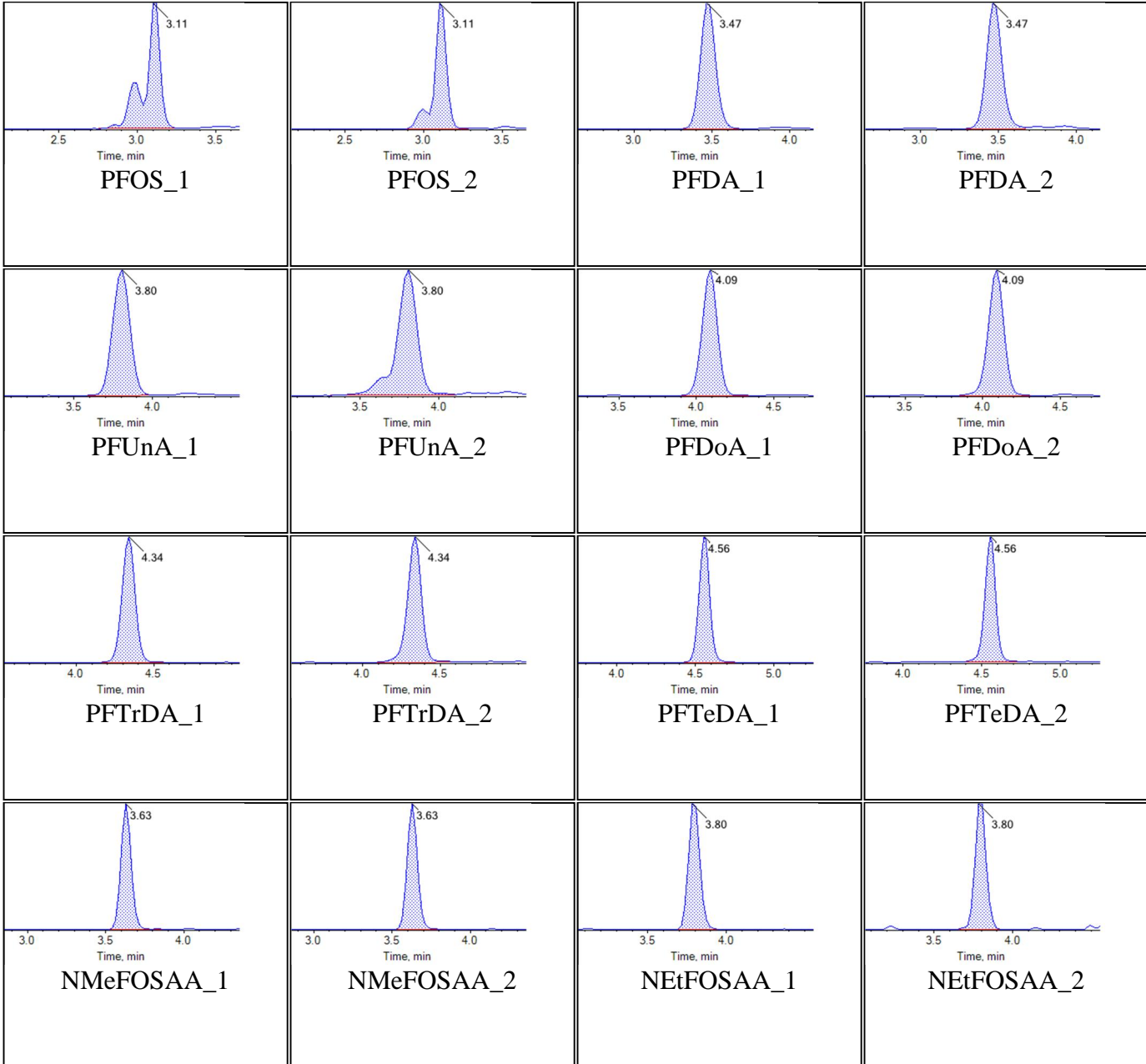


Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

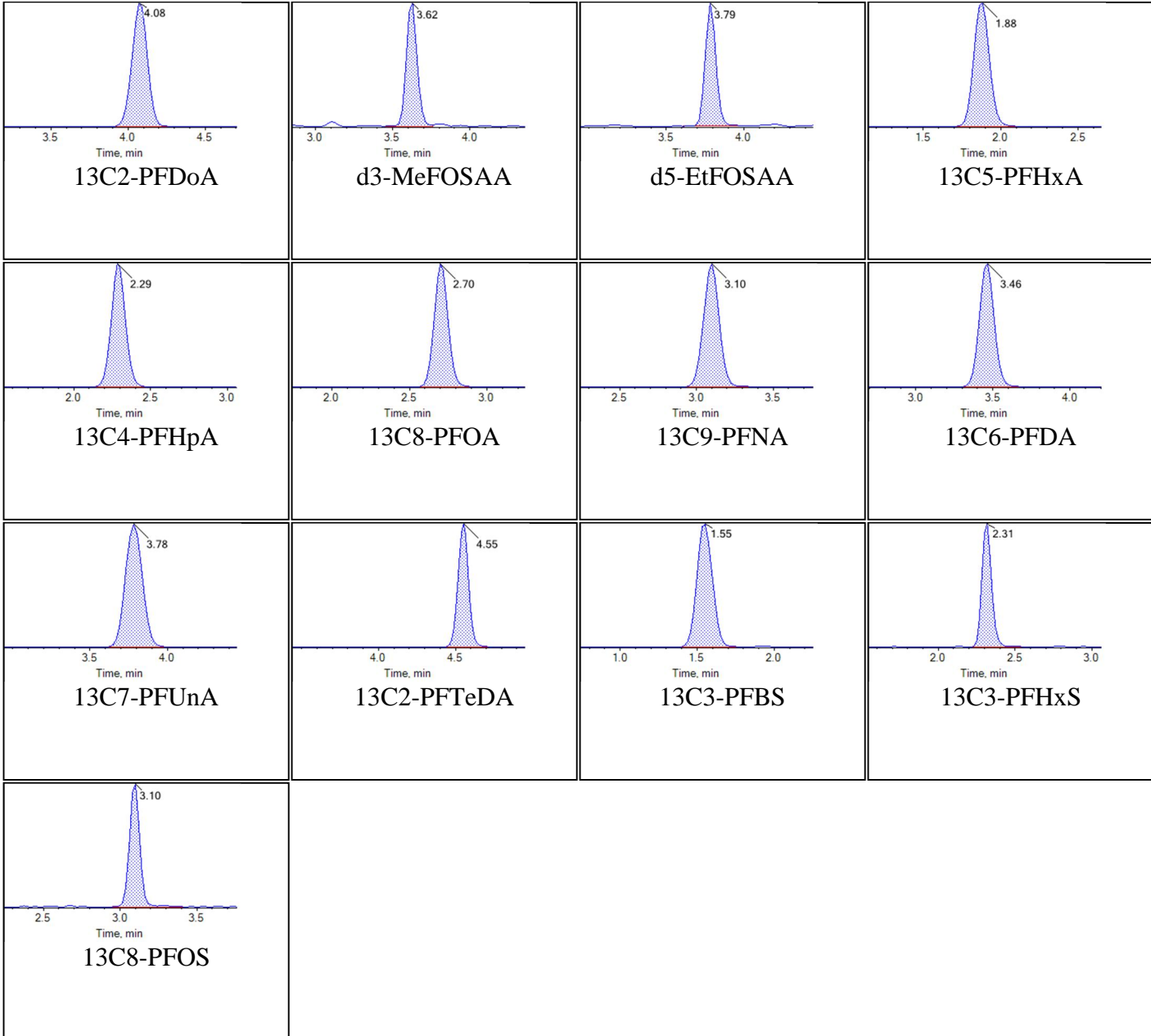
Chromatograms

Target Analytes:





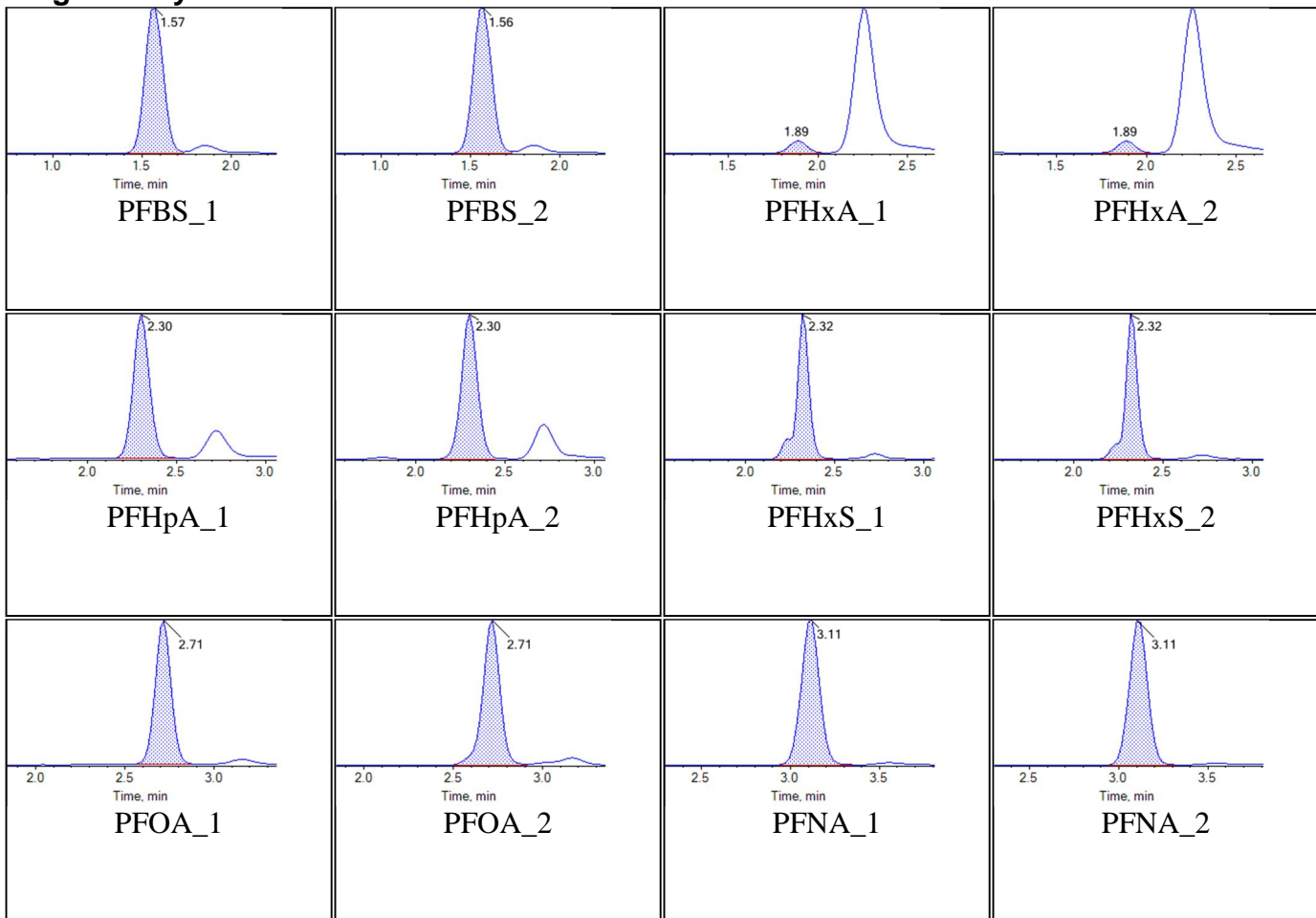
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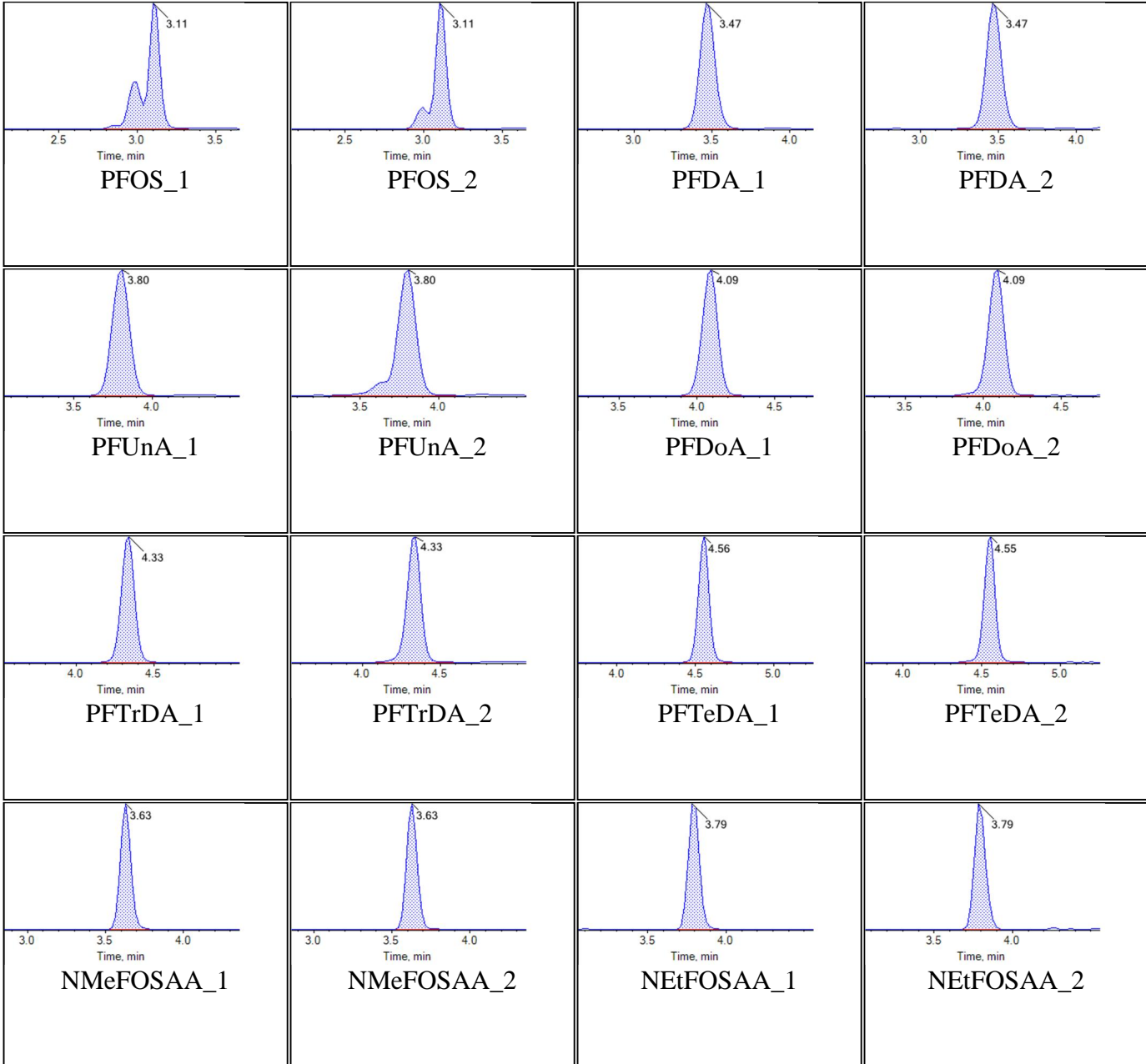


Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

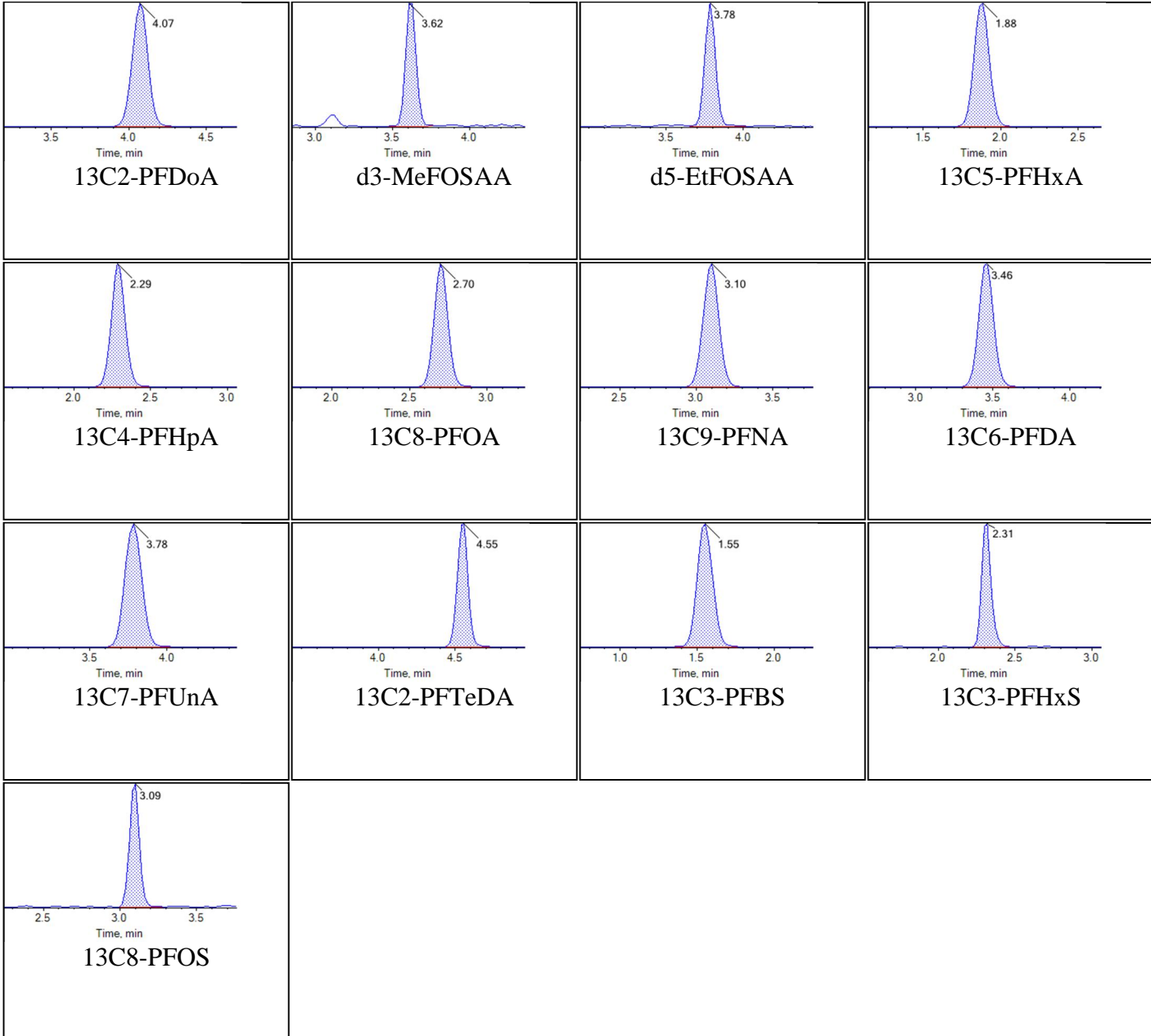
Chromatograms

Target Analytes:





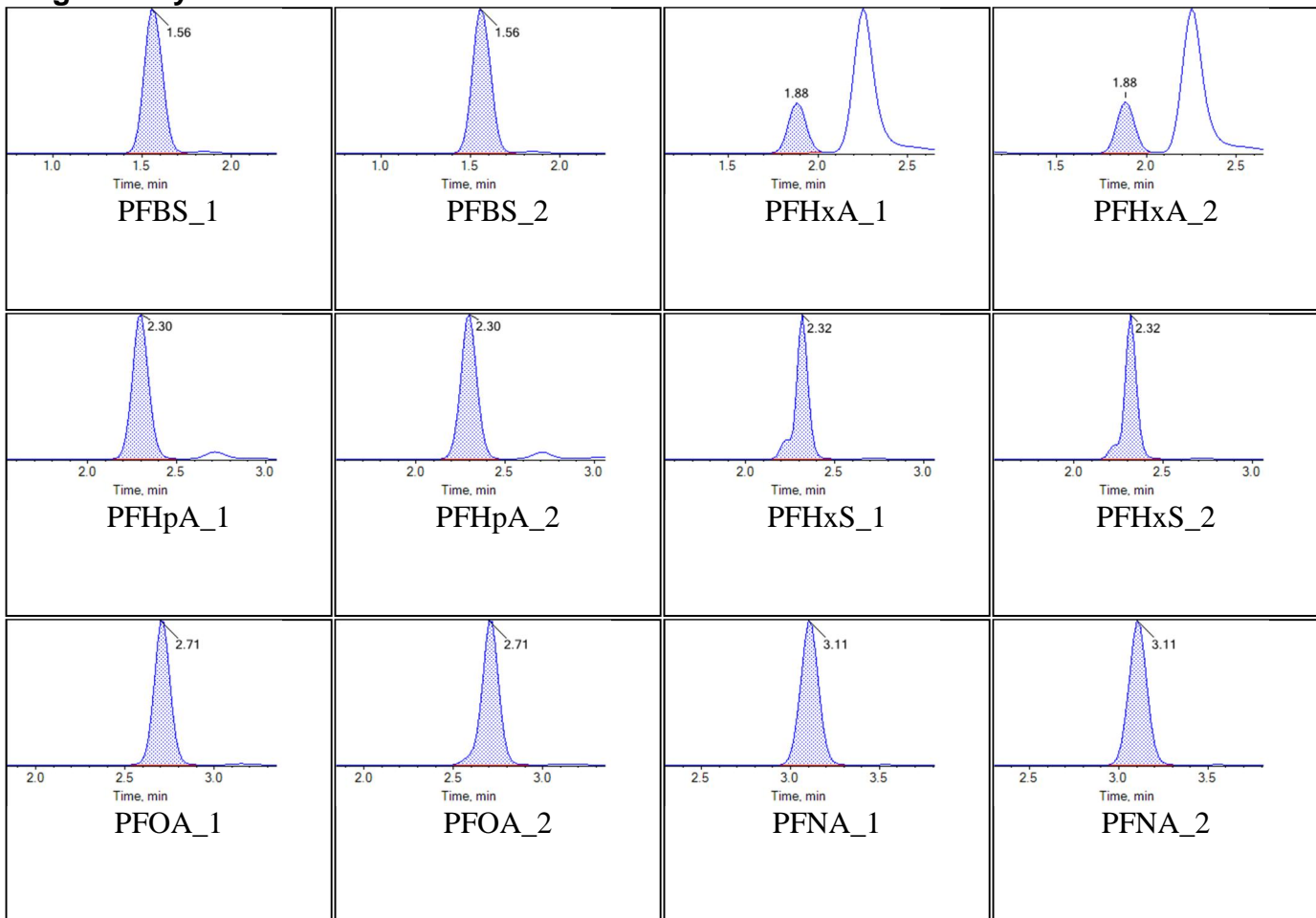
Internal Standards:



Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Chromatograms

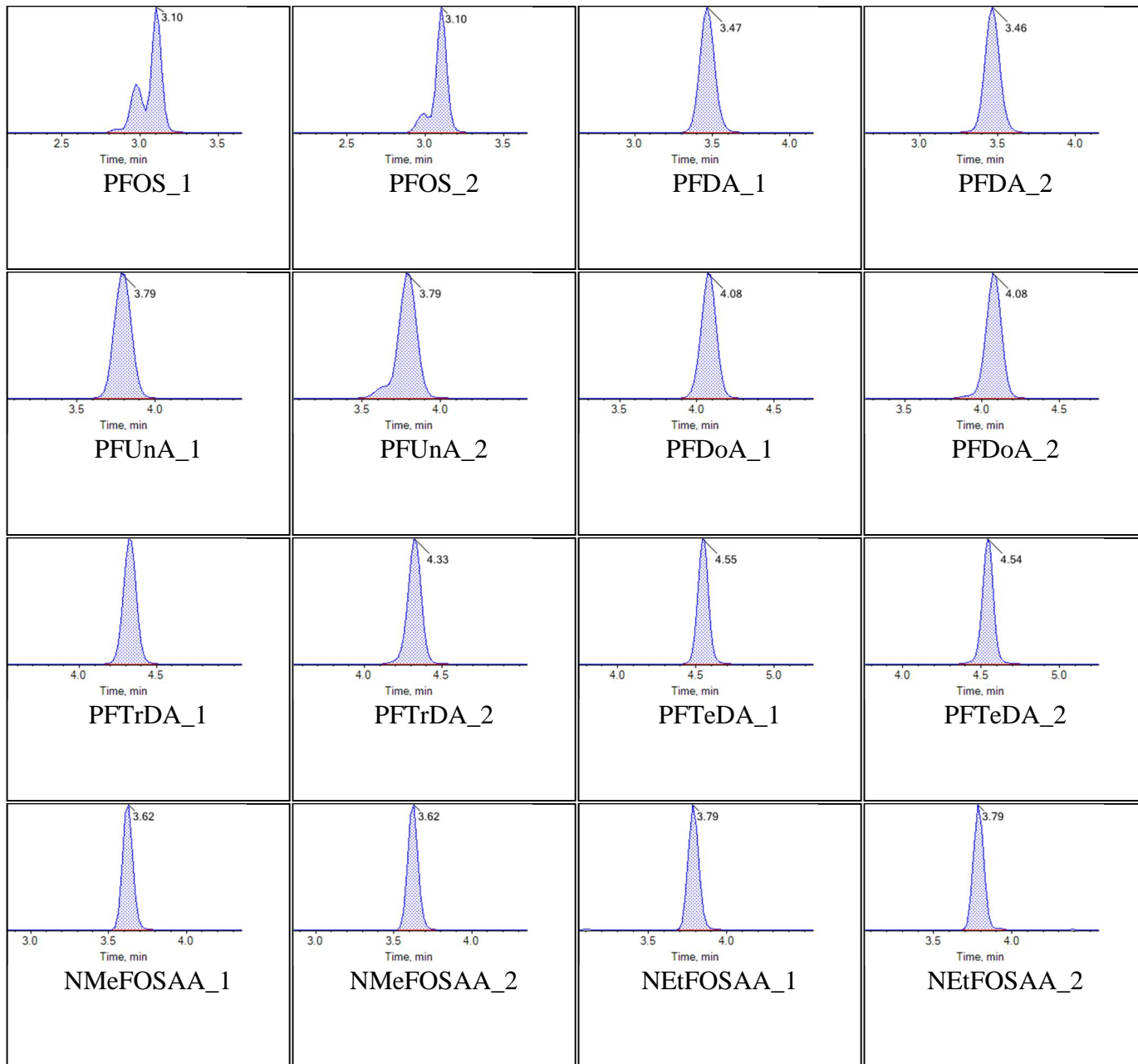
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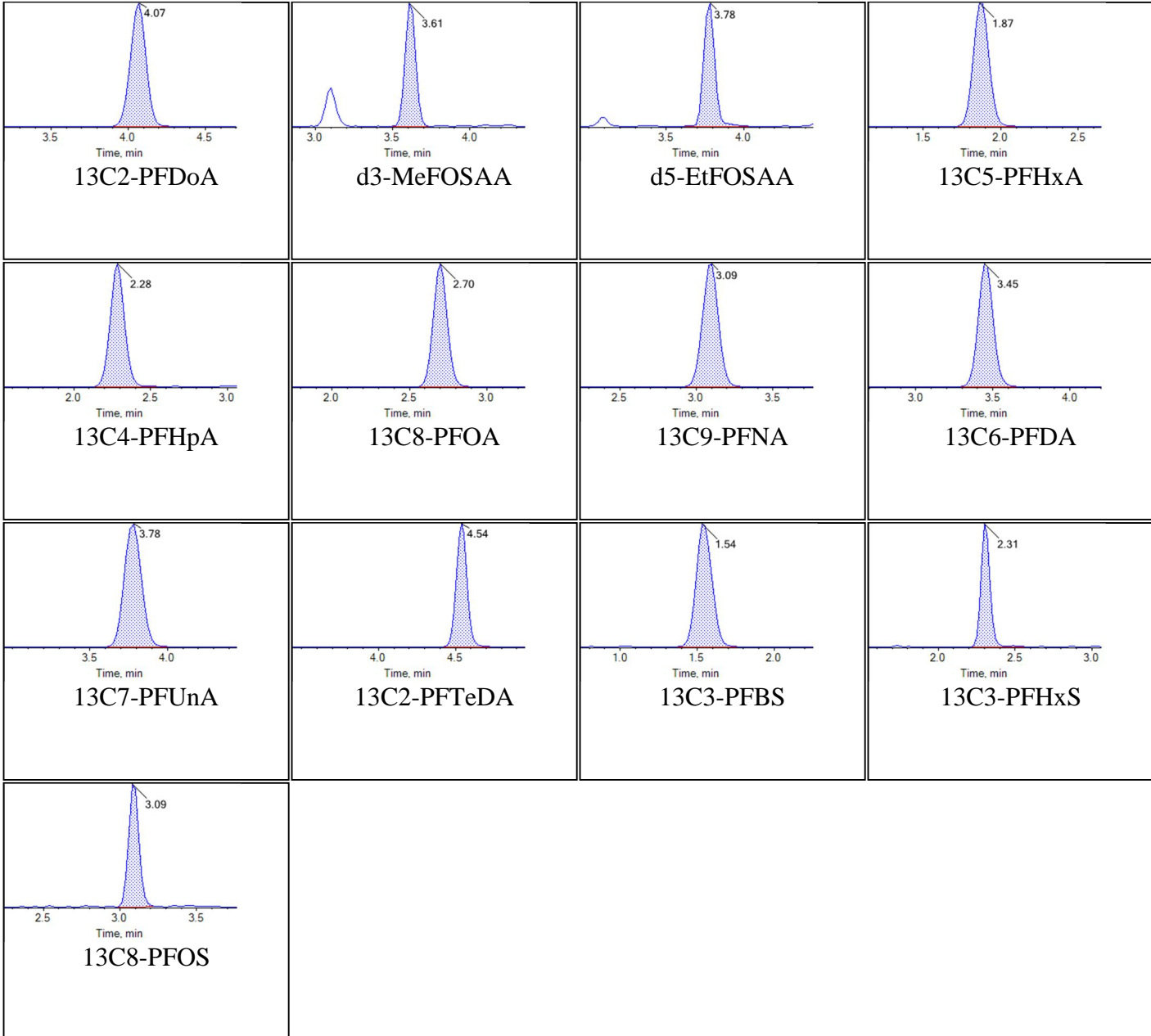


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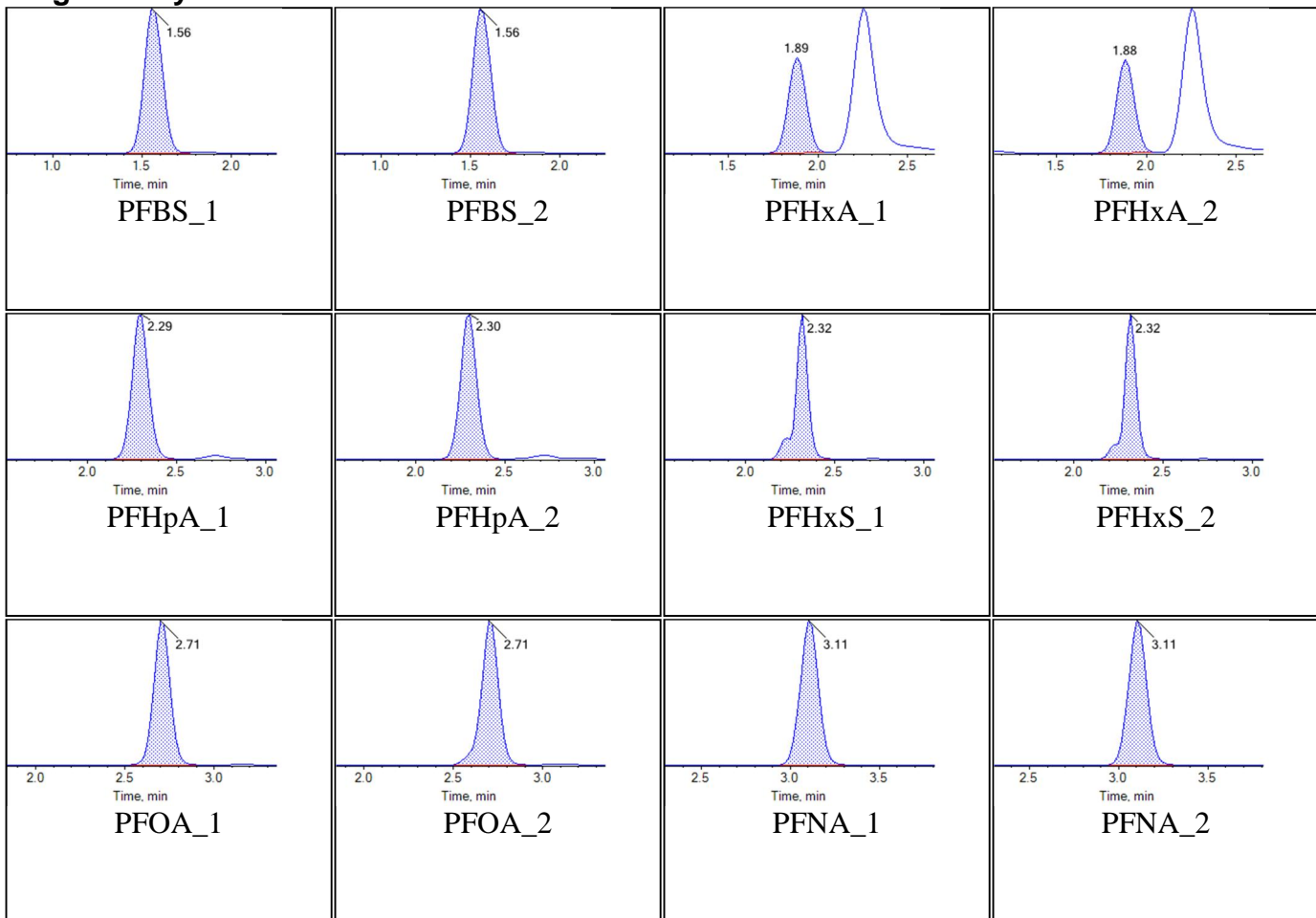
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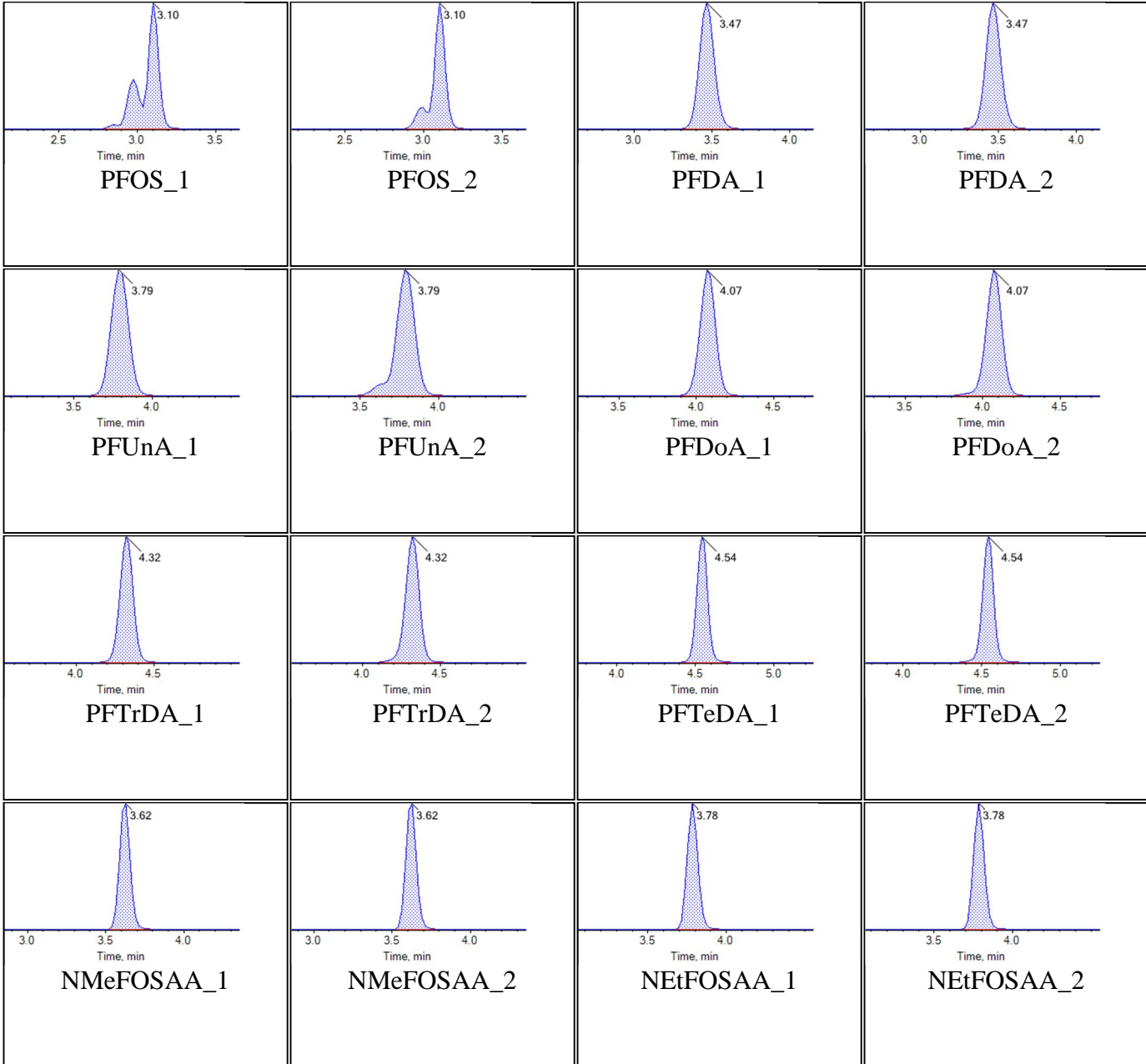


Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

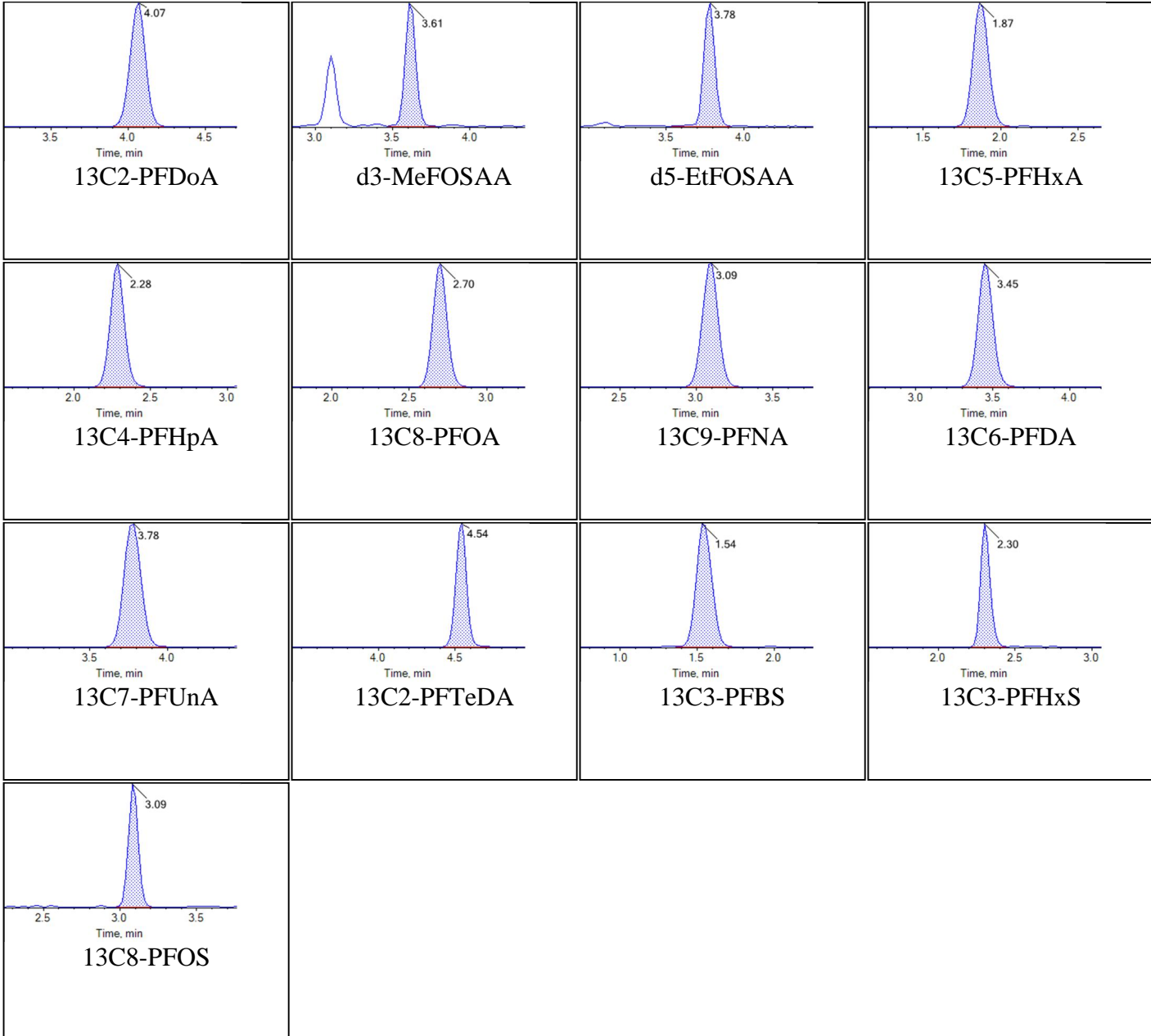
Chromatograms

Target Analytes:





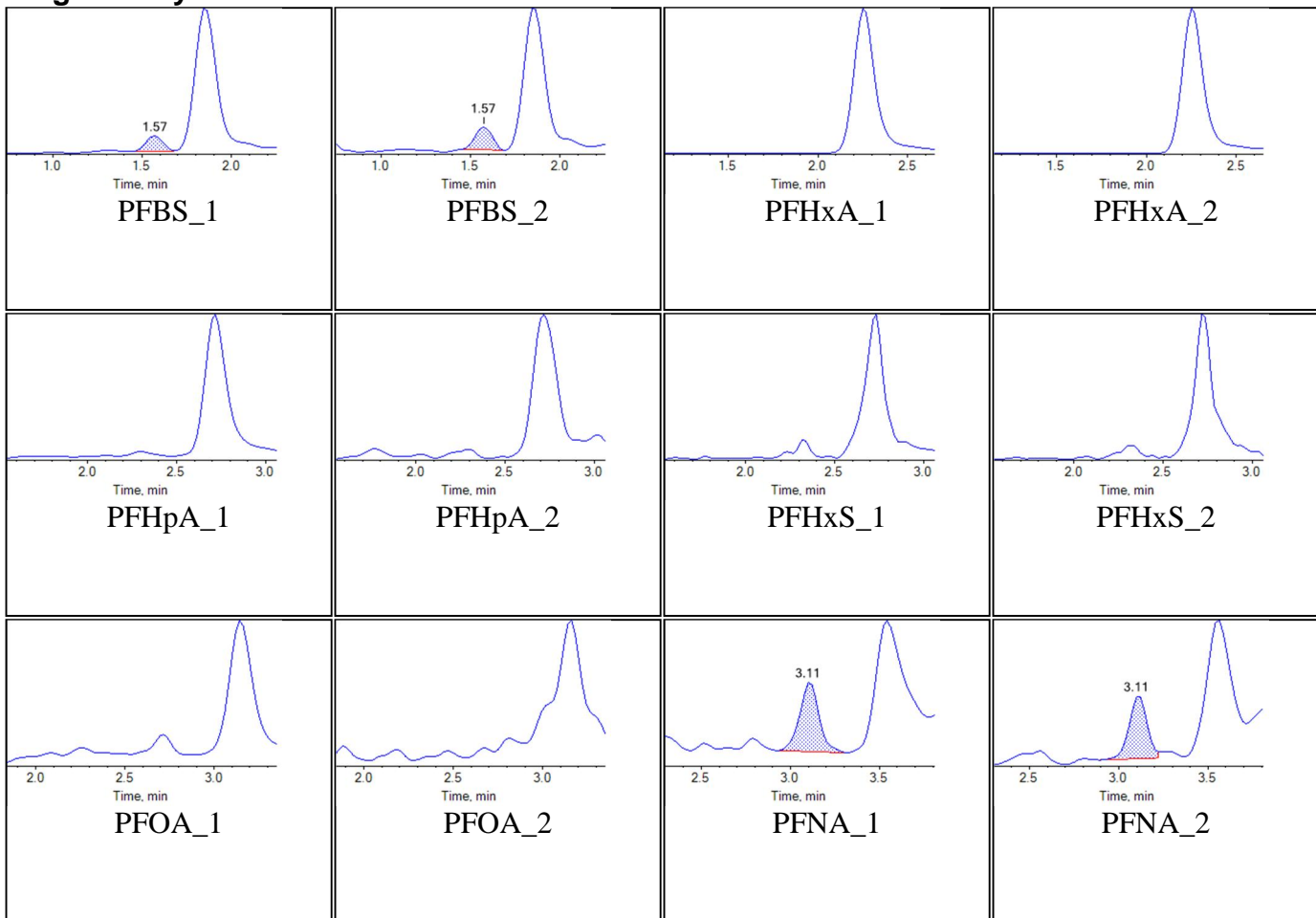
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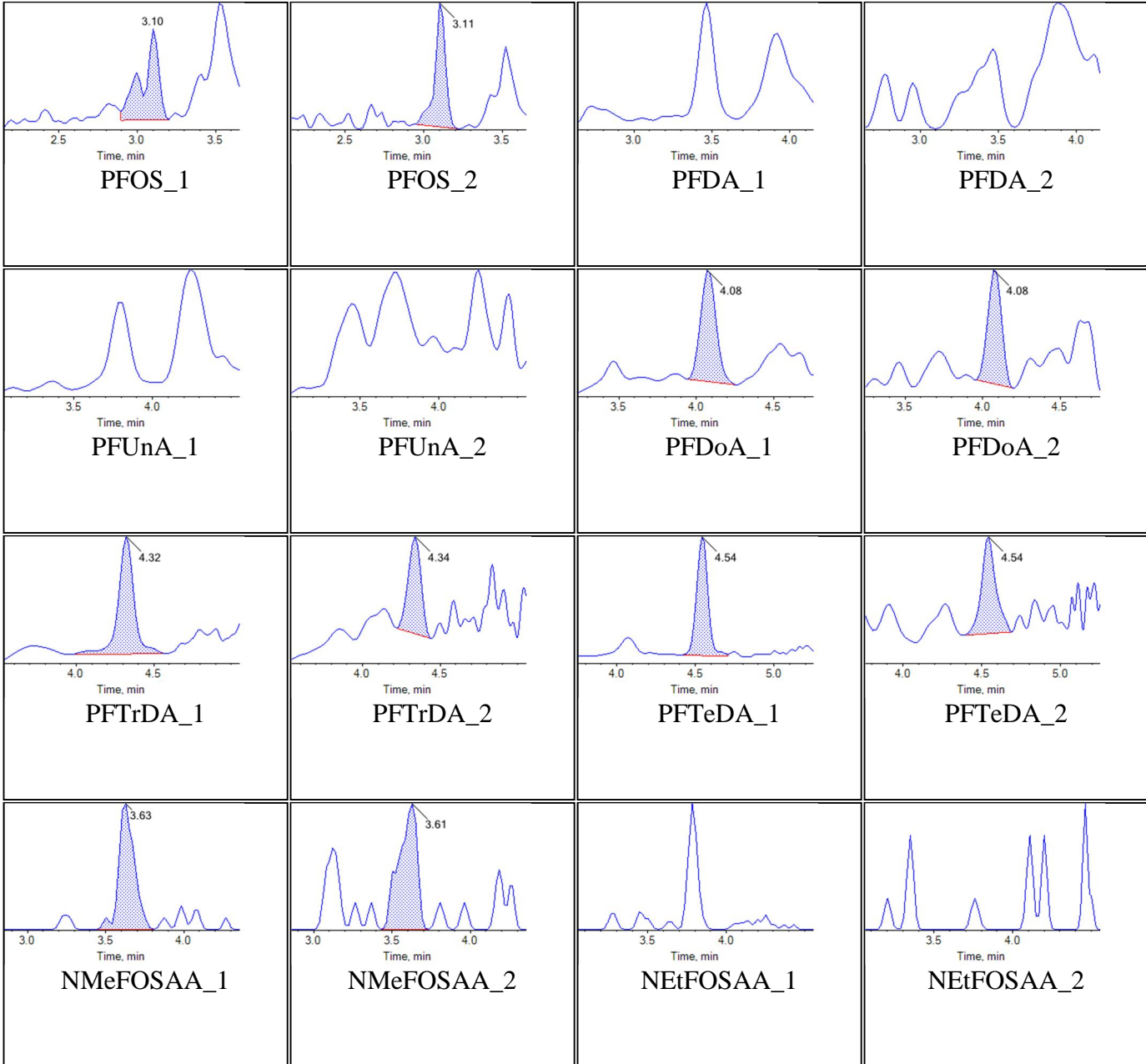


Sample Name	KB80 IB	Injection Vial	9
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

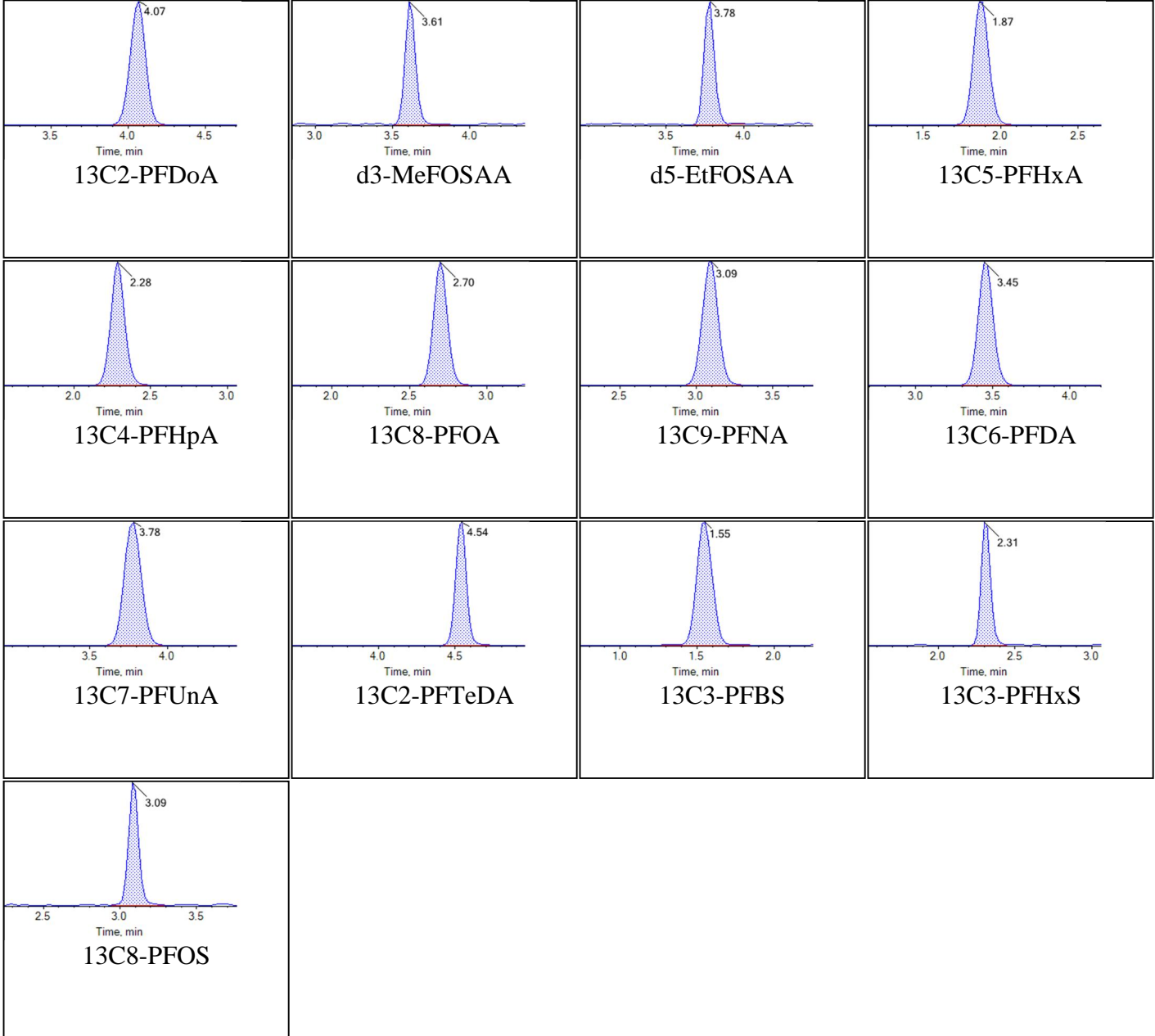
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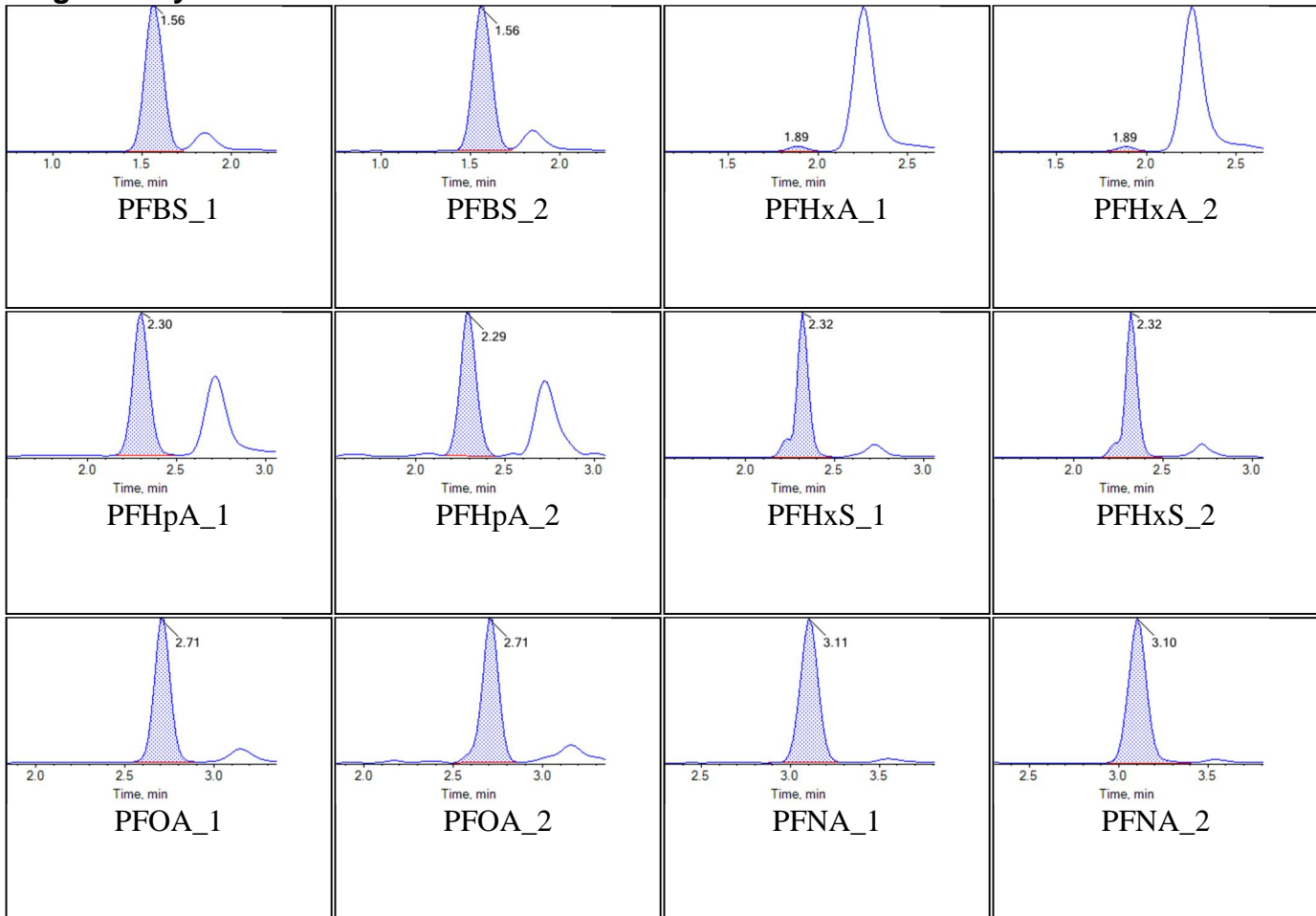
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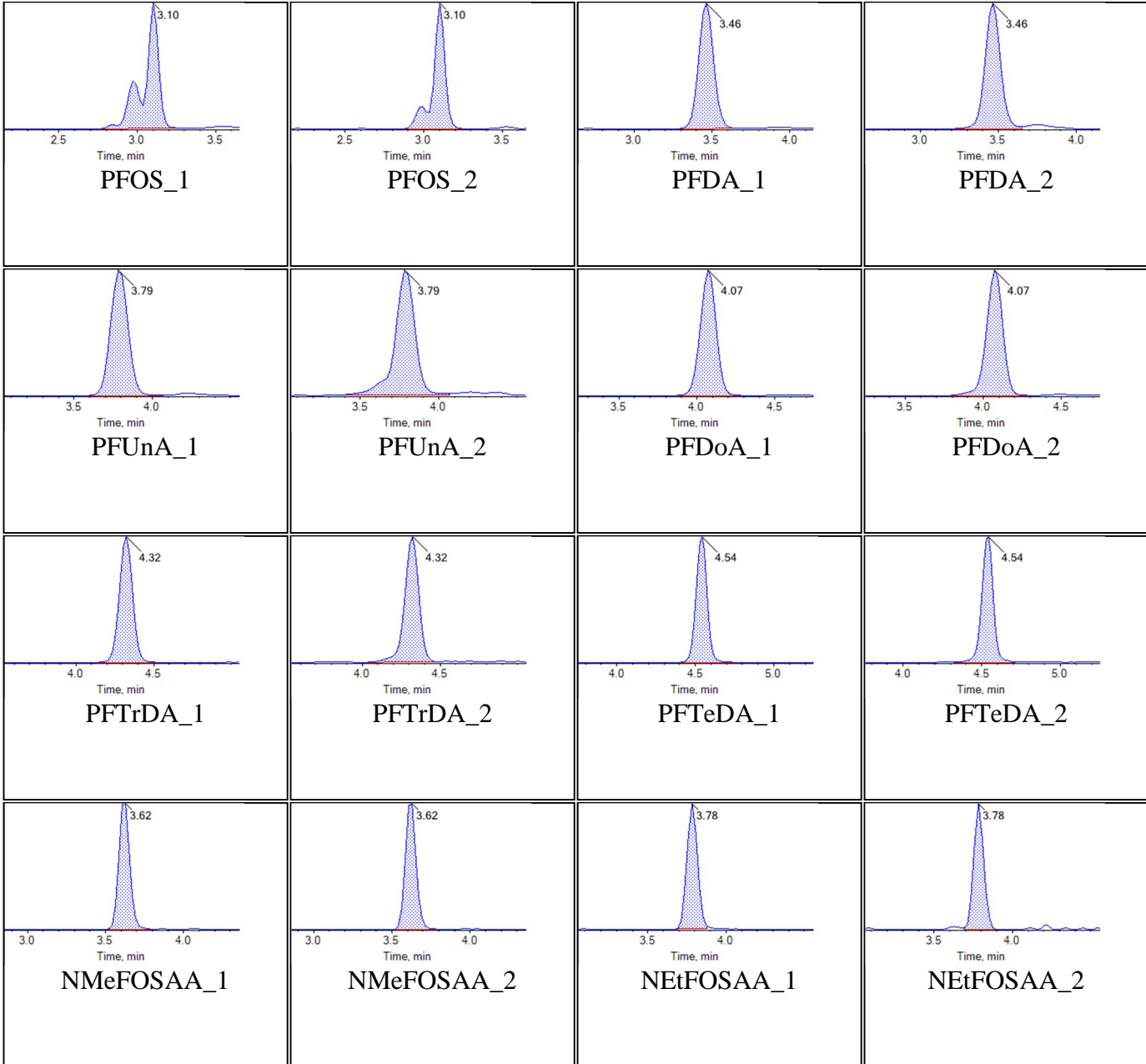


Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

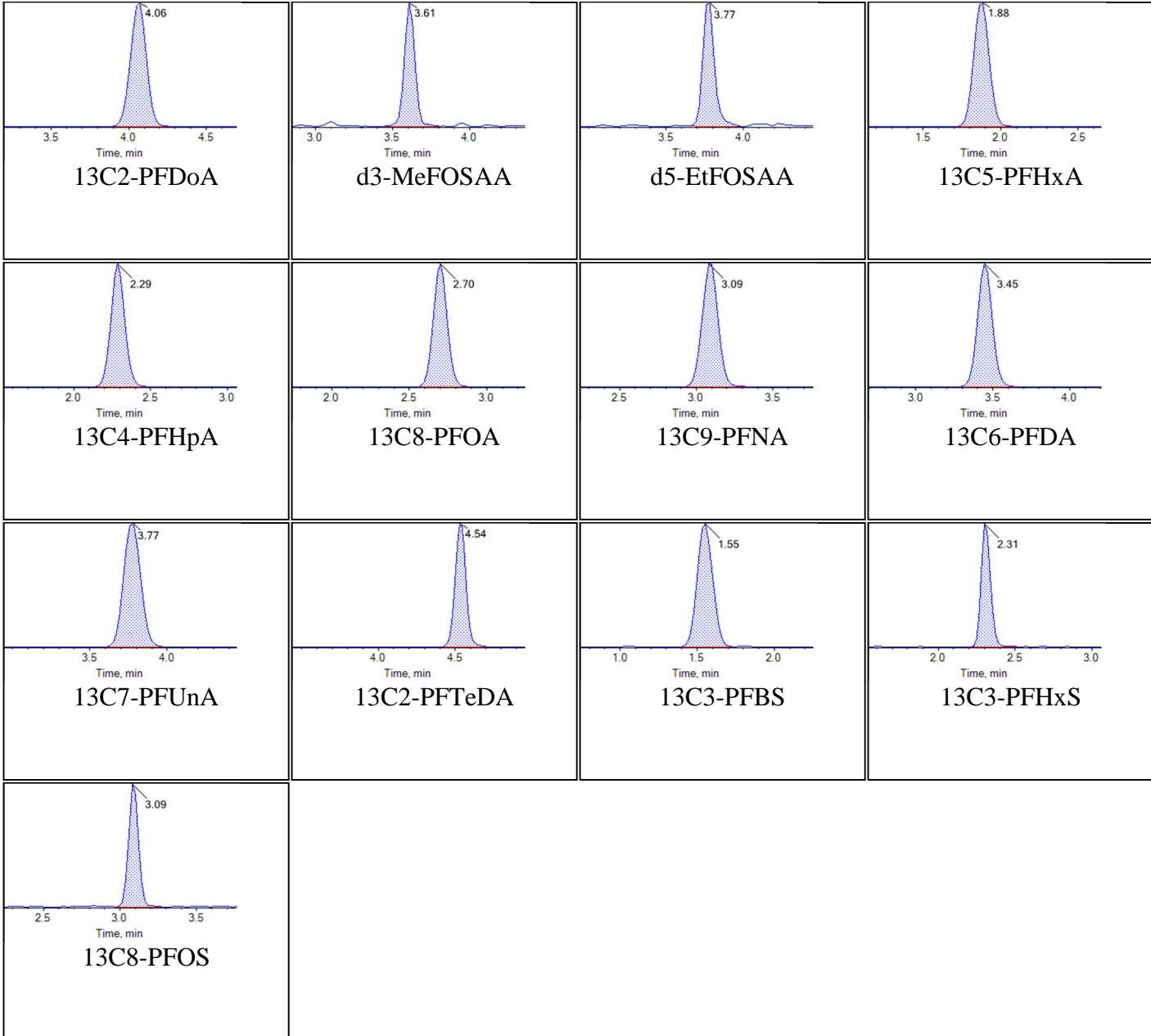
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Target Analytes:





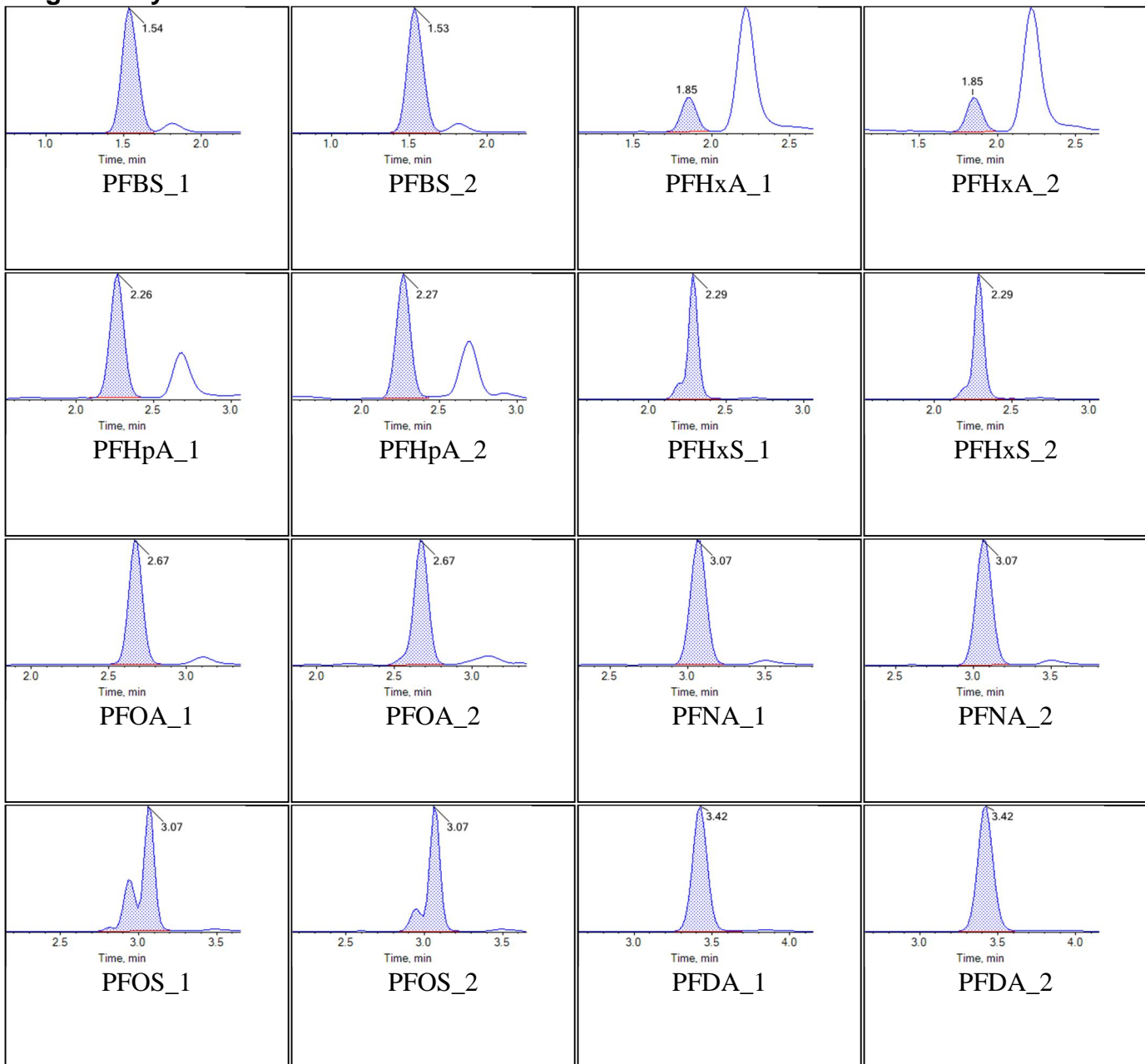
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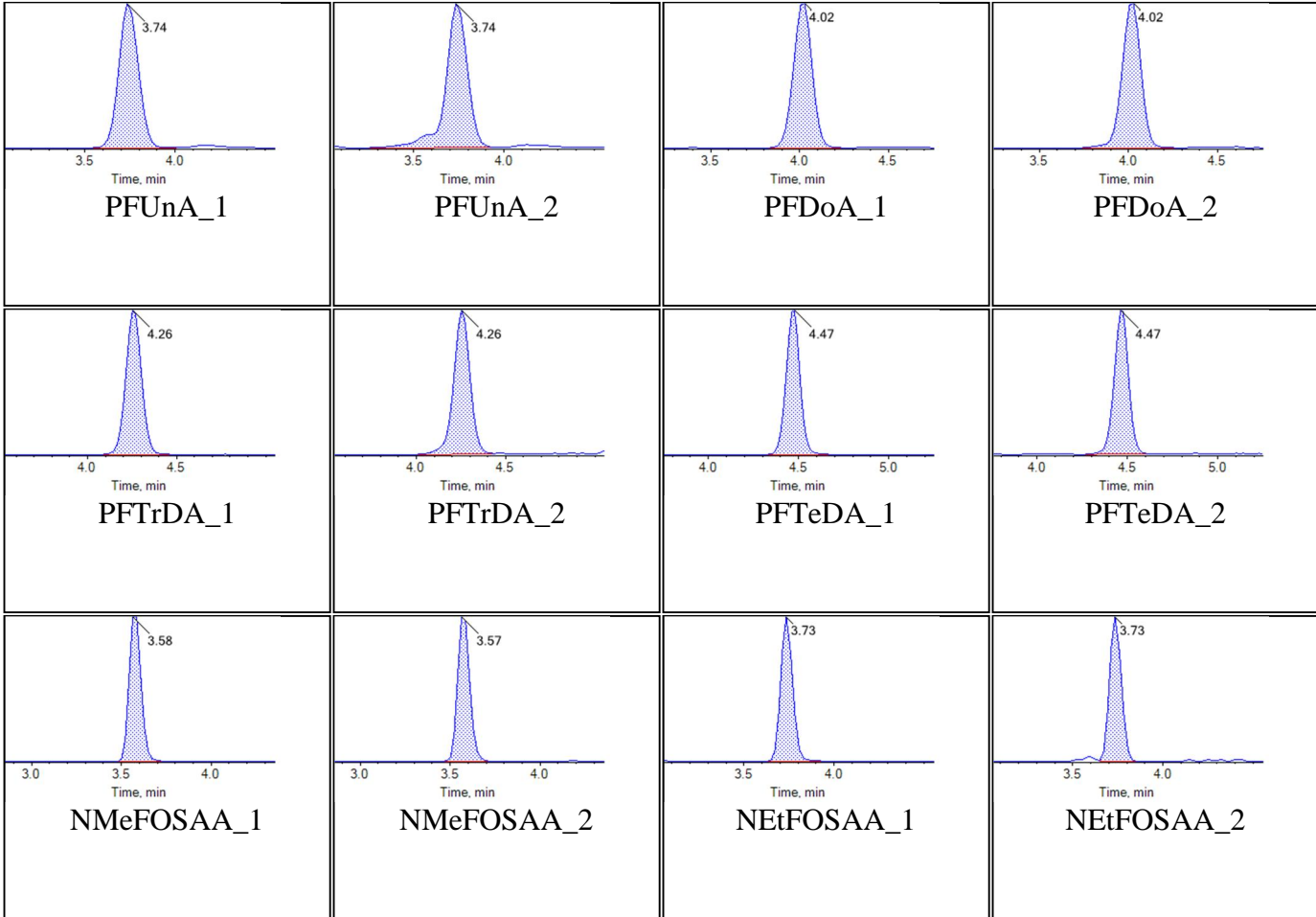


Sample Name	KB76 CCV	Injection Vial	36
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T22:14:13	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

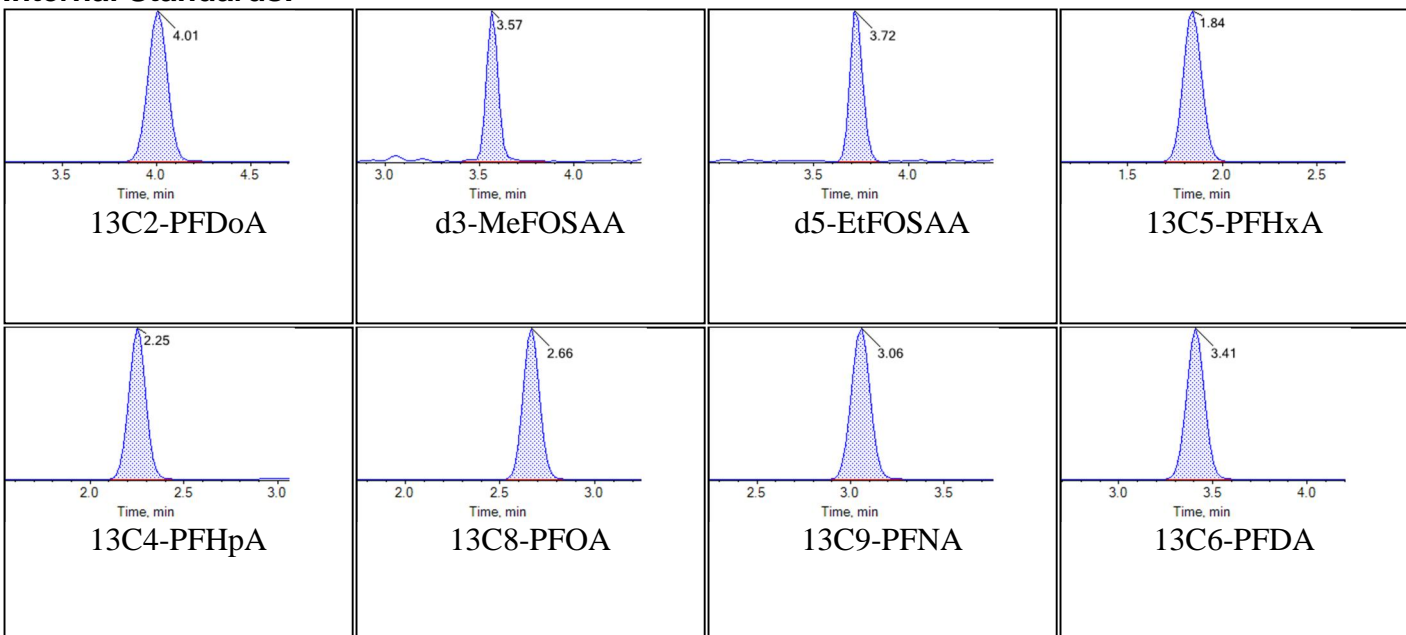
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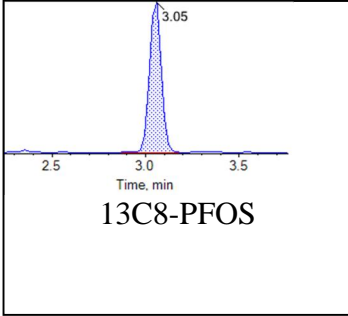
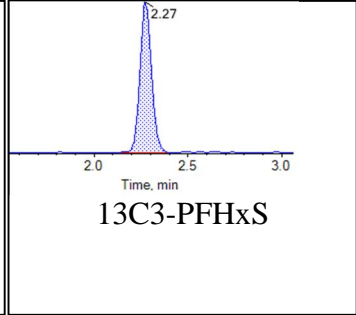
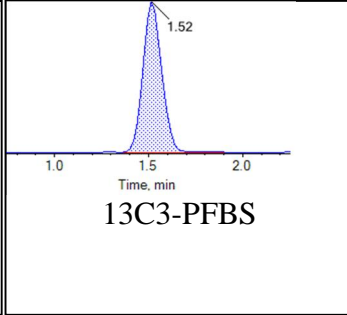
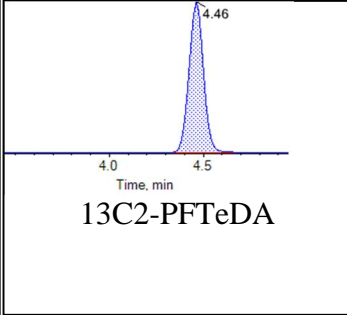
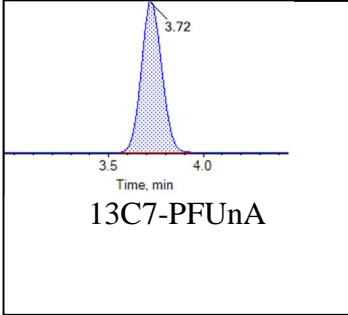


Internal Standards:



Chromatogram Report

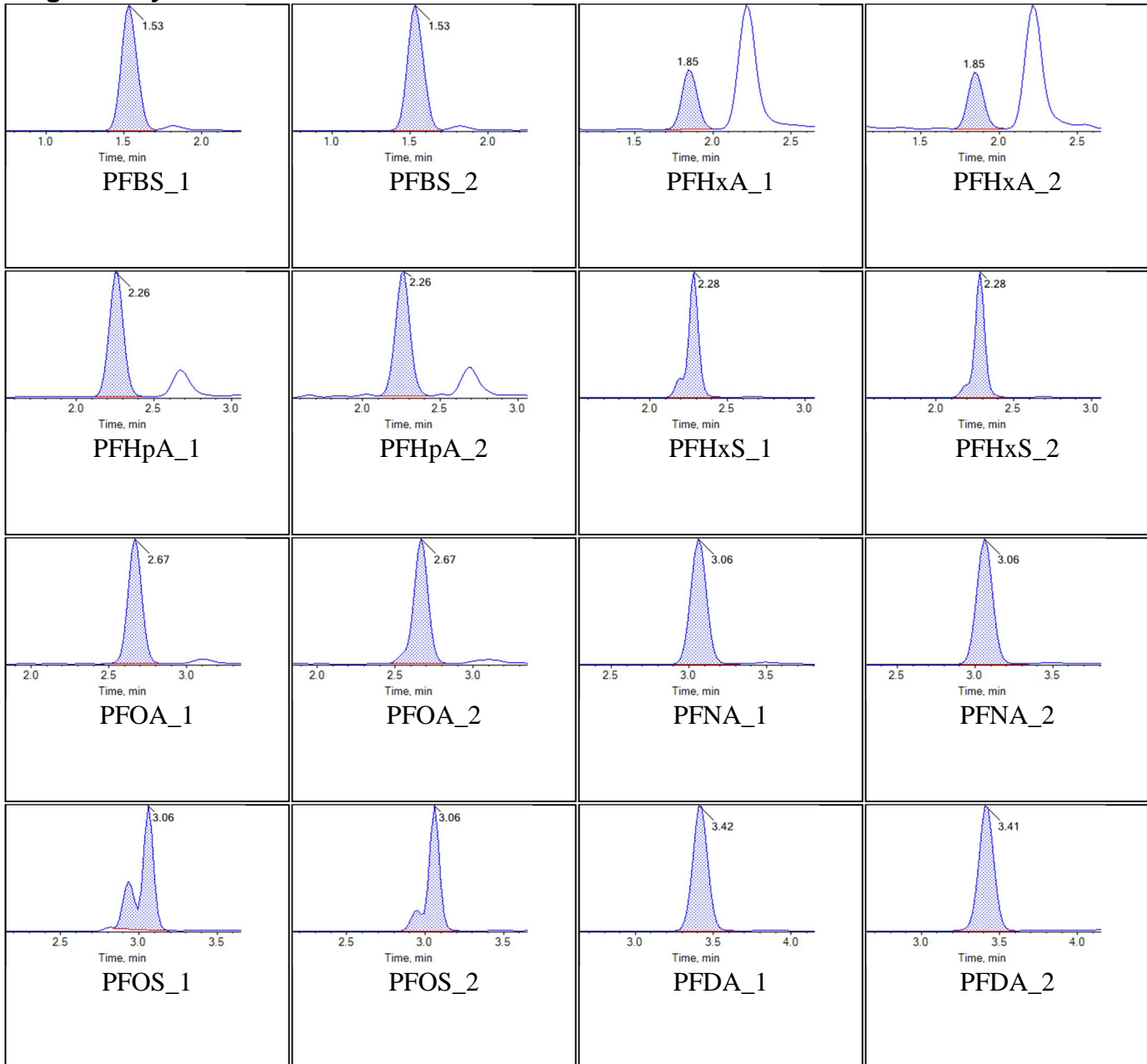
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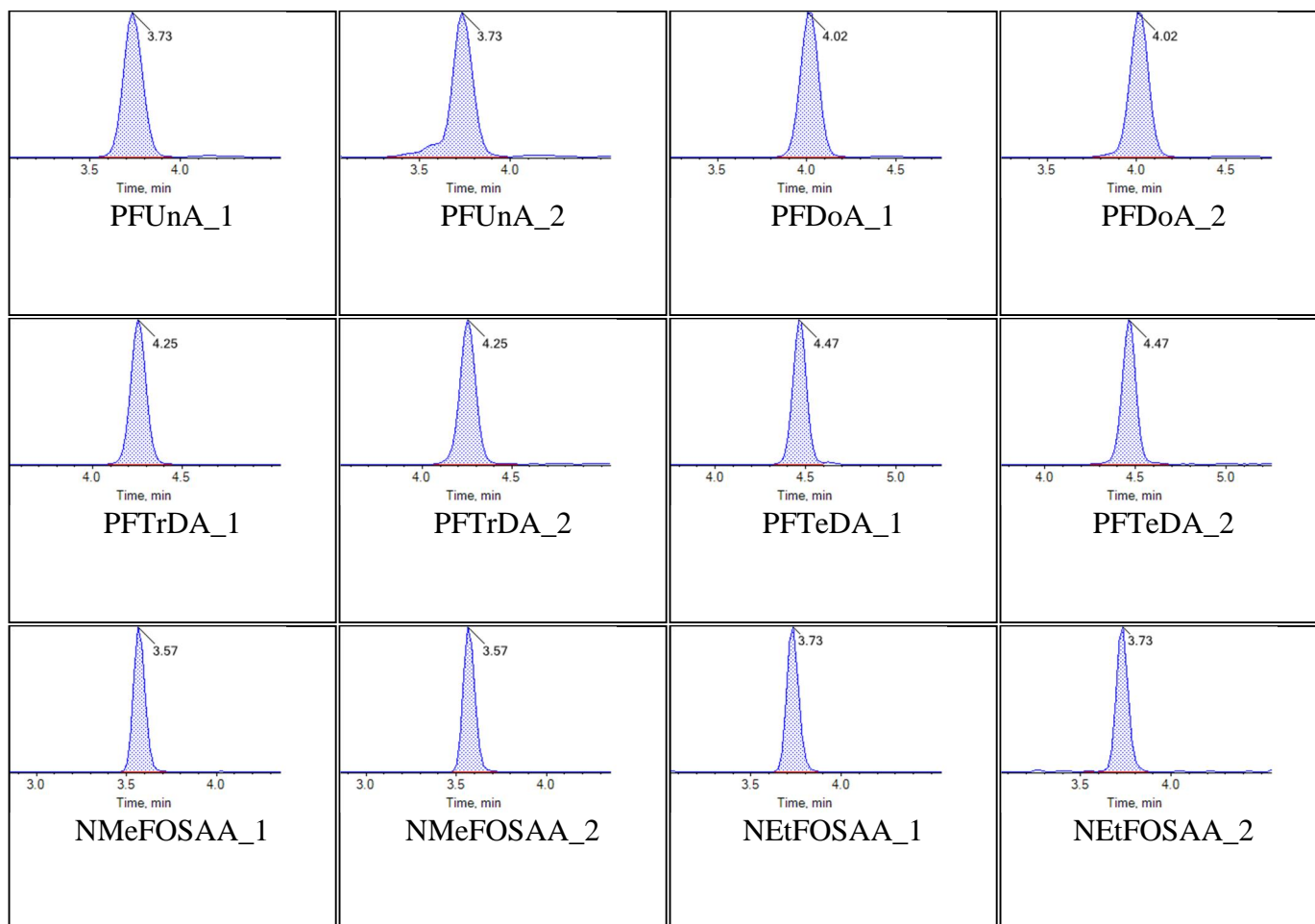
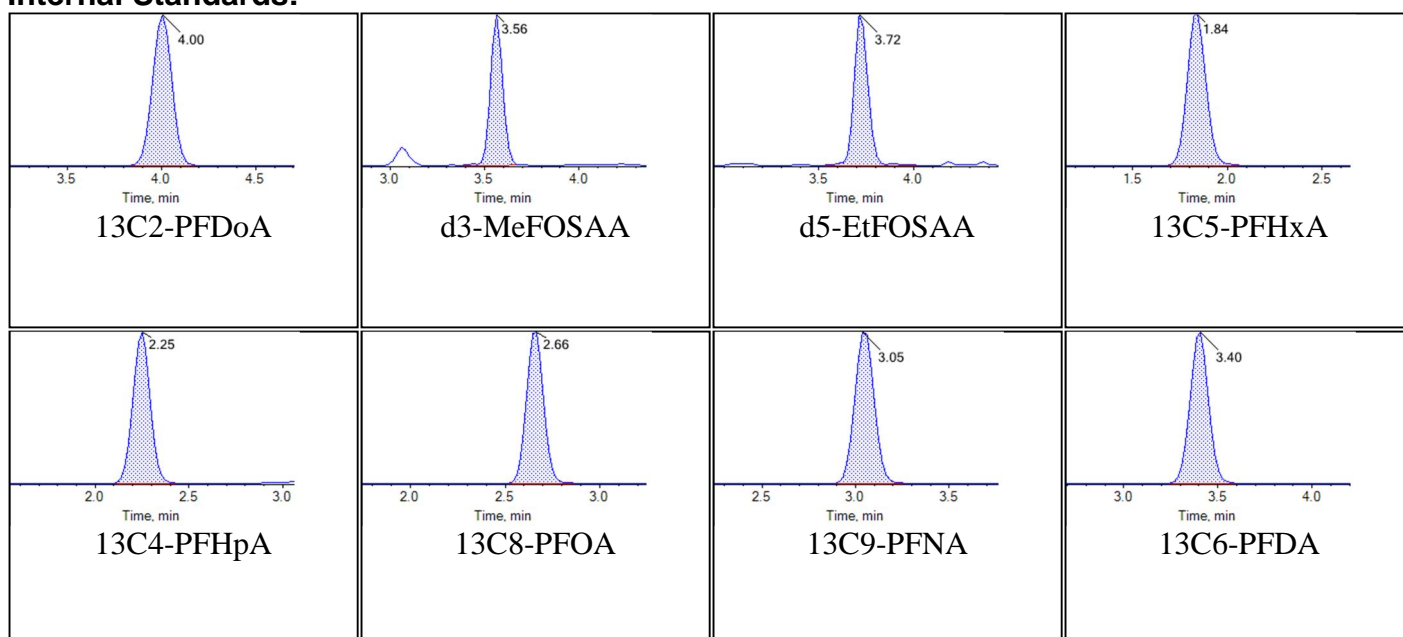


Sample Name	CR905LCS-FS(3)	Injection Vial	2
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:02:52	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Chromatograms

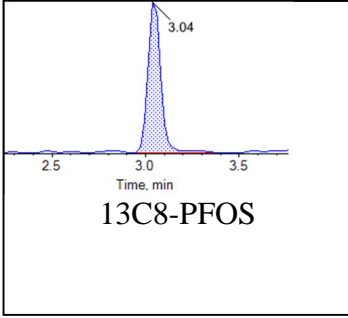
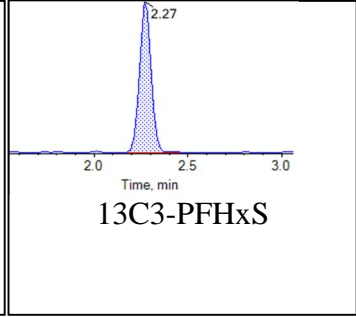
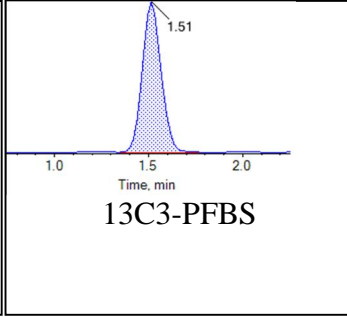
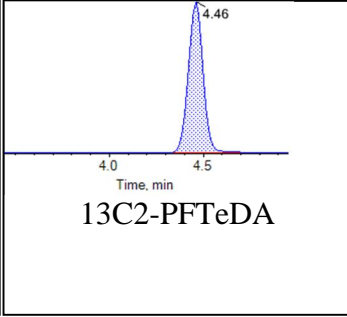
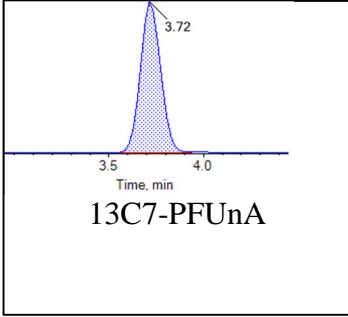
Target Analytes:



**Internal Standards:**

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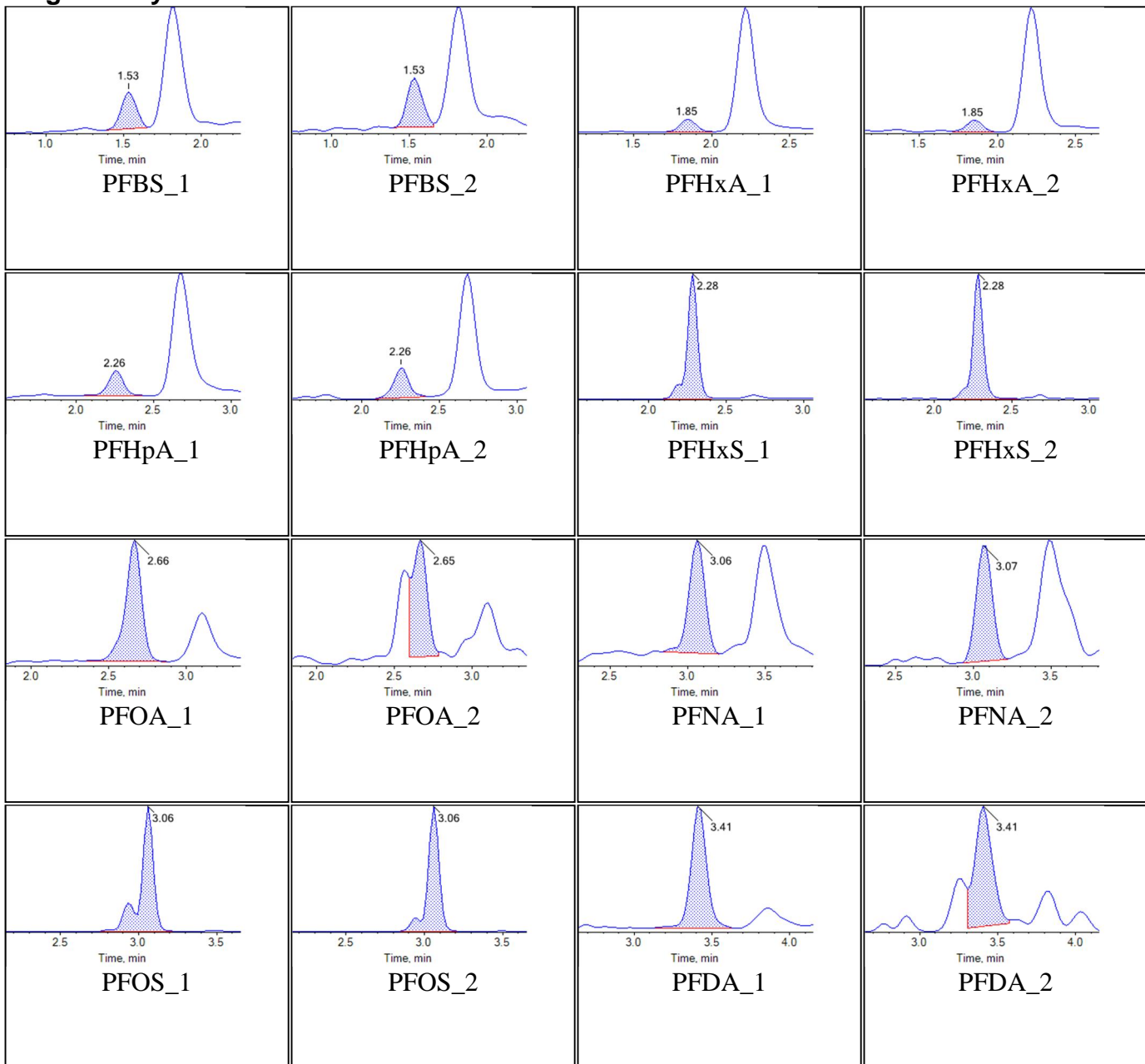
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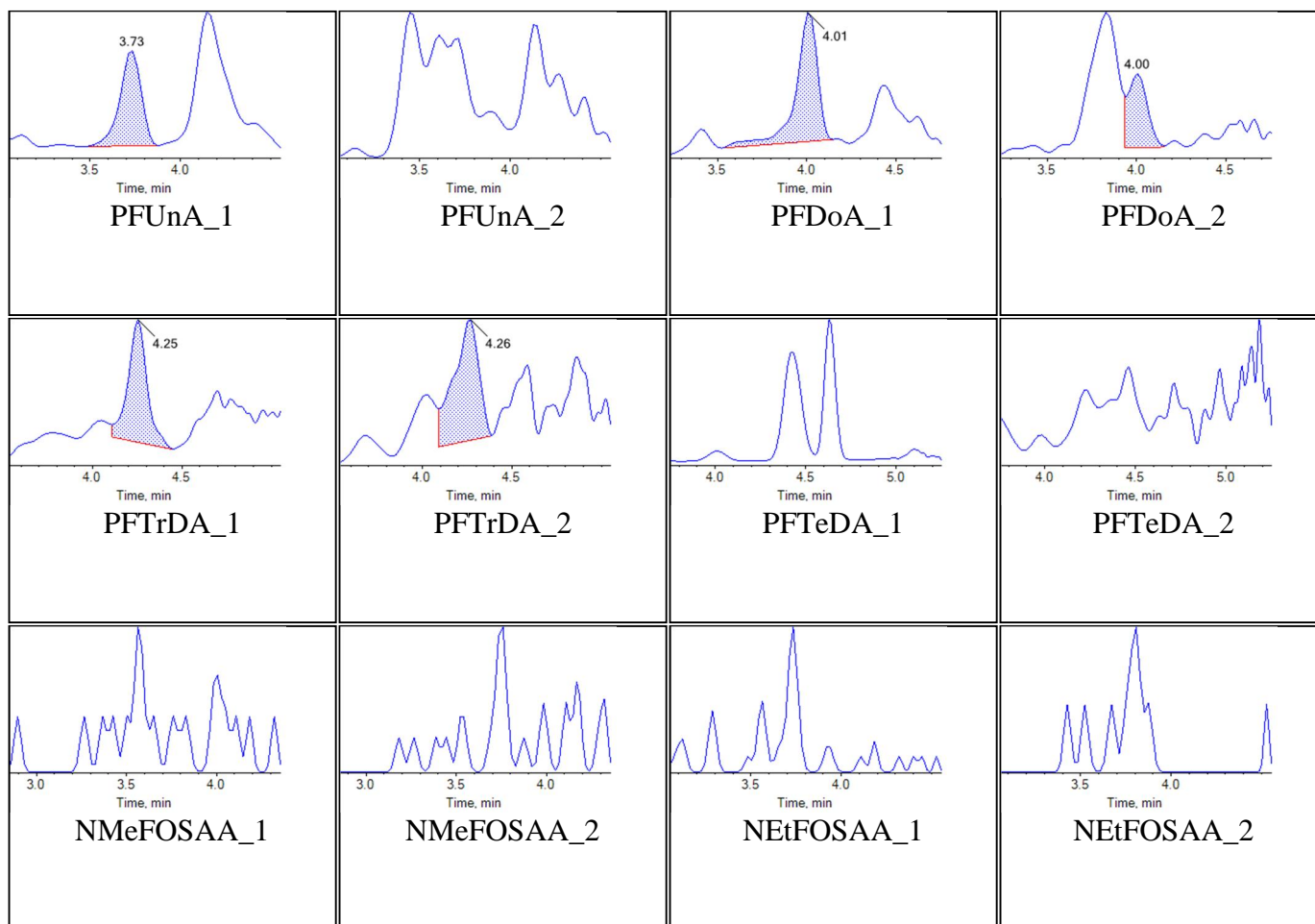
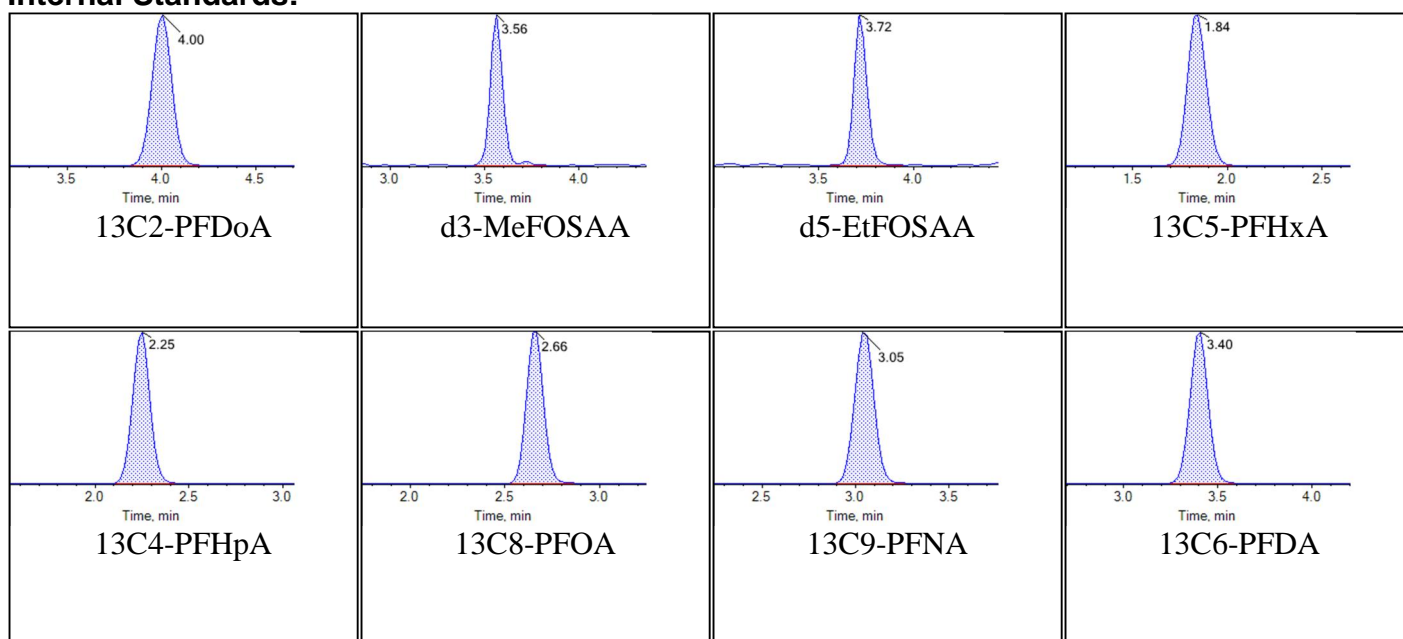


Sample Name	J8465-FS(3)	Injection Vial	3
Sample ID	VC-PM367-SS01-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:13:45	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Chromatograms

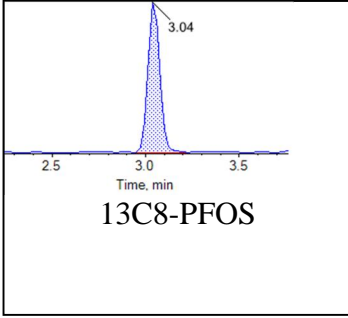
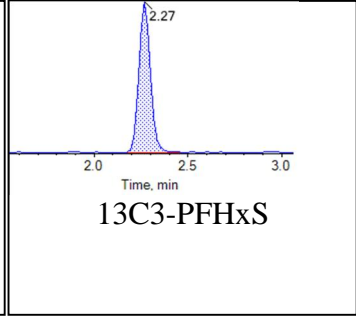
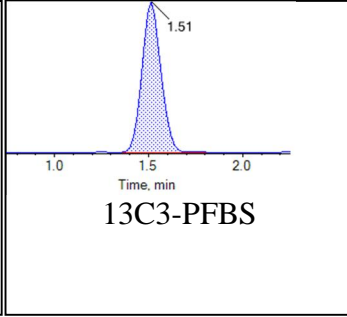
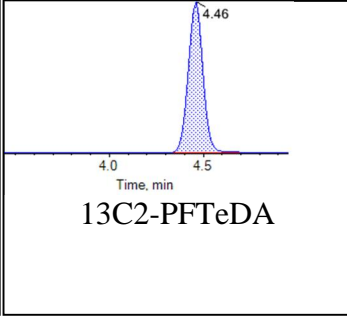
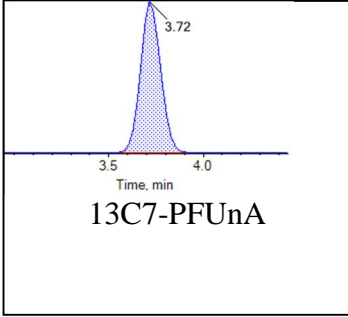
Target Analytes:



**Internal Standards:**

Chromatogram Report

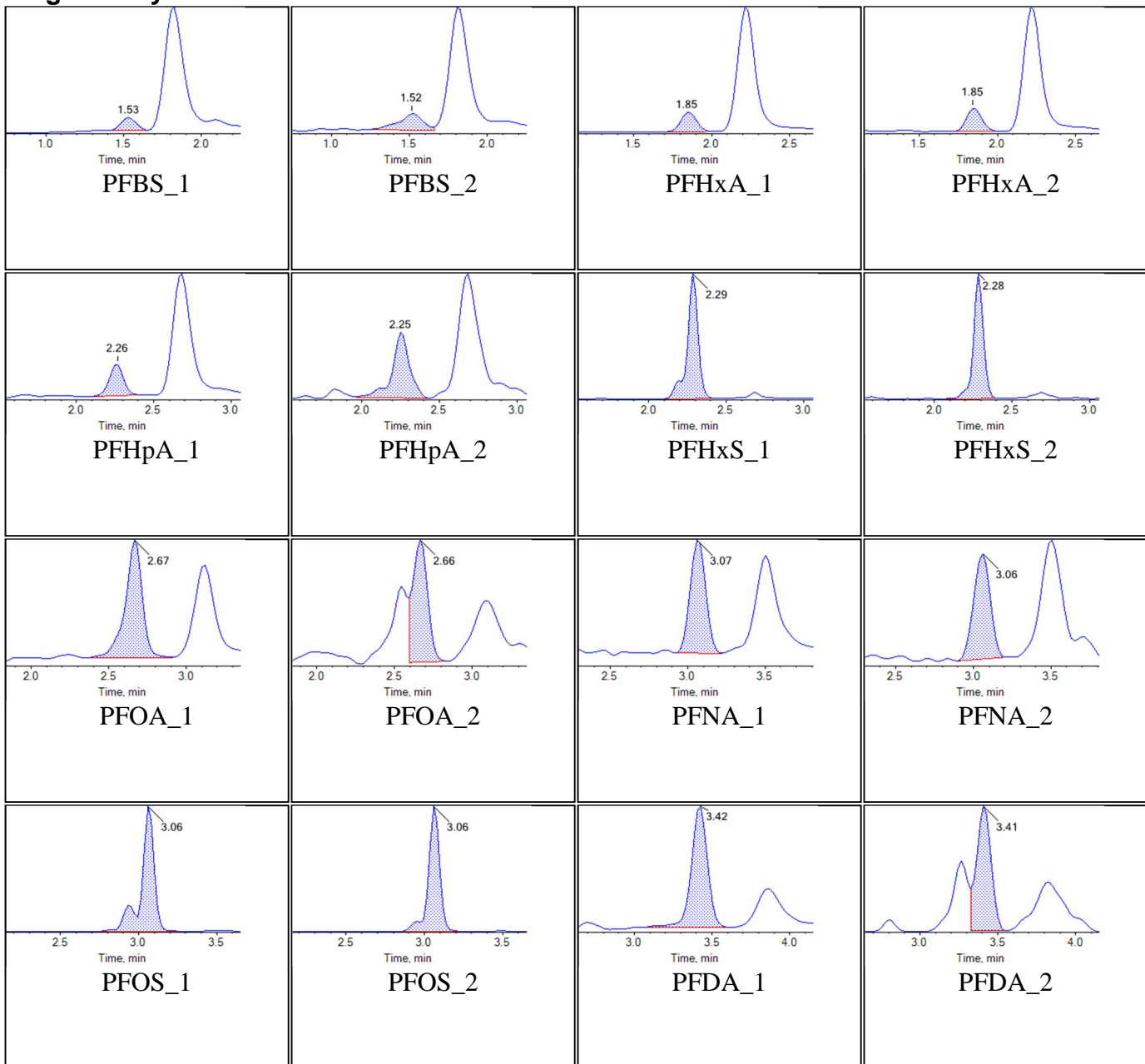
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Sample Name	J8466-FS(3)	Injection Vial	4
Sample ID	VC-PM367-SB01-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:24:40	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Chromatograms

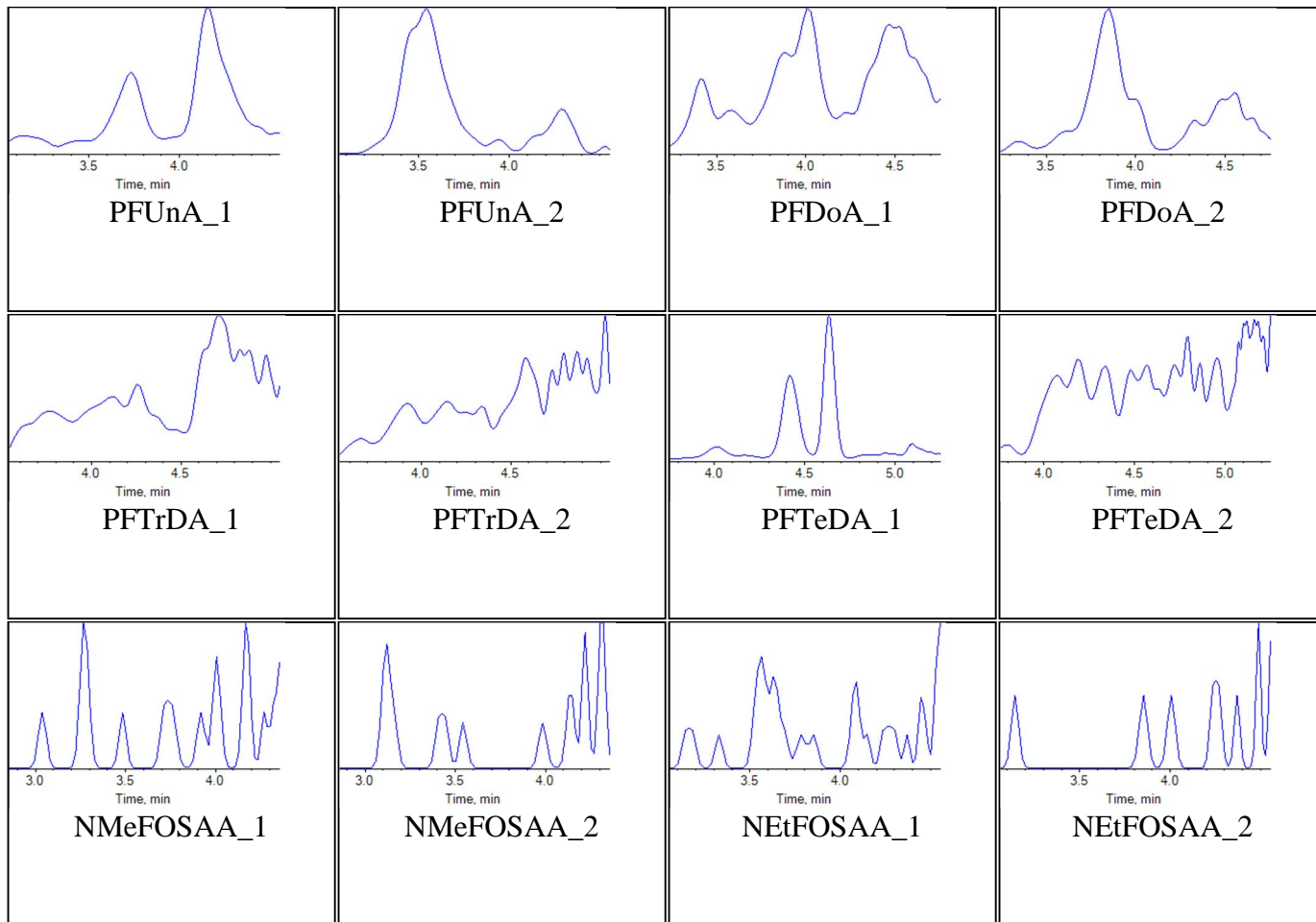
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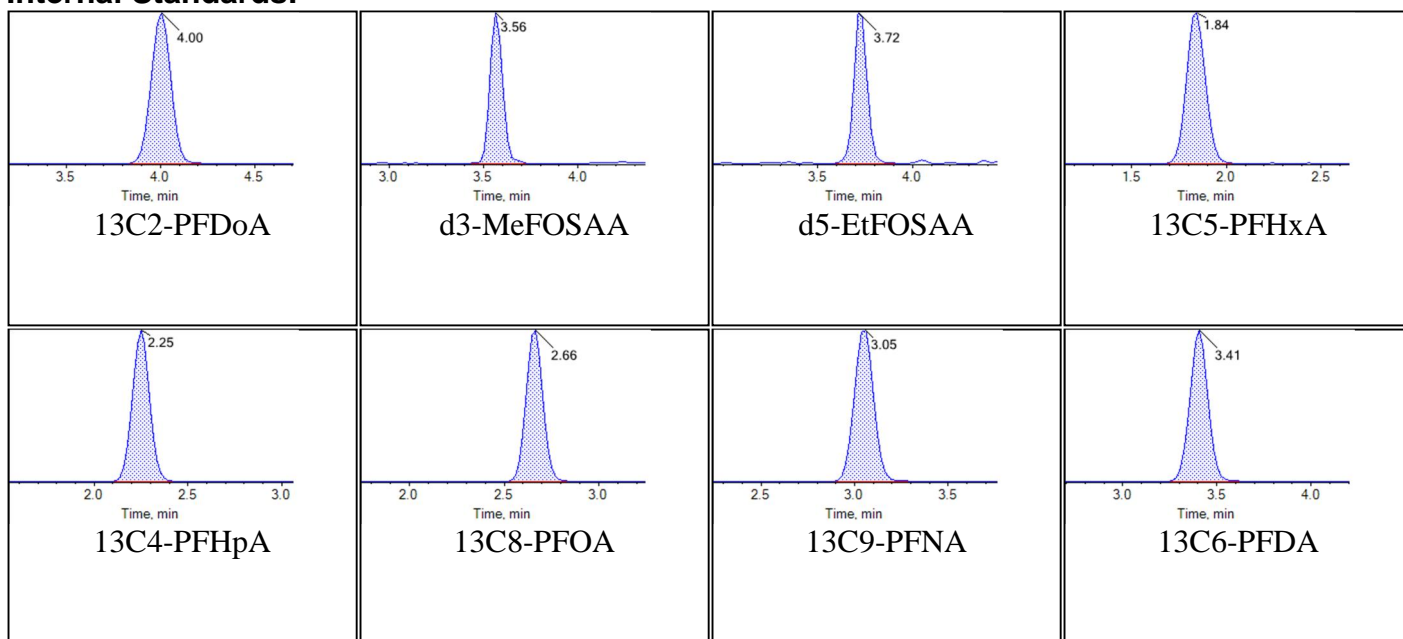


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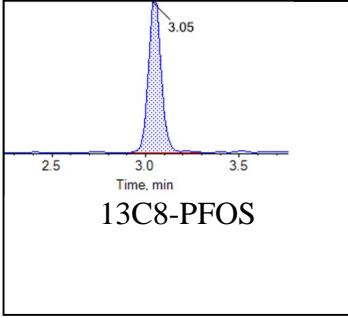
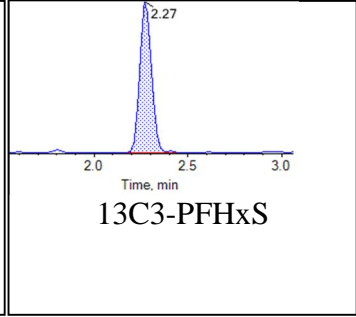
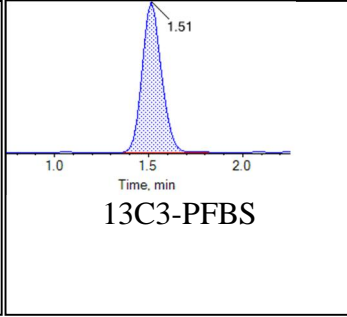
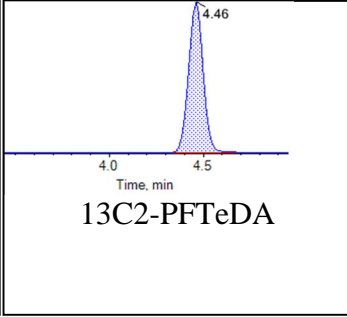
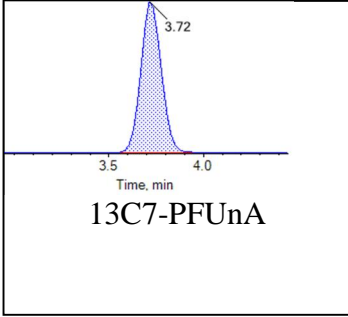


Internal Standards:



Chromatogram Report

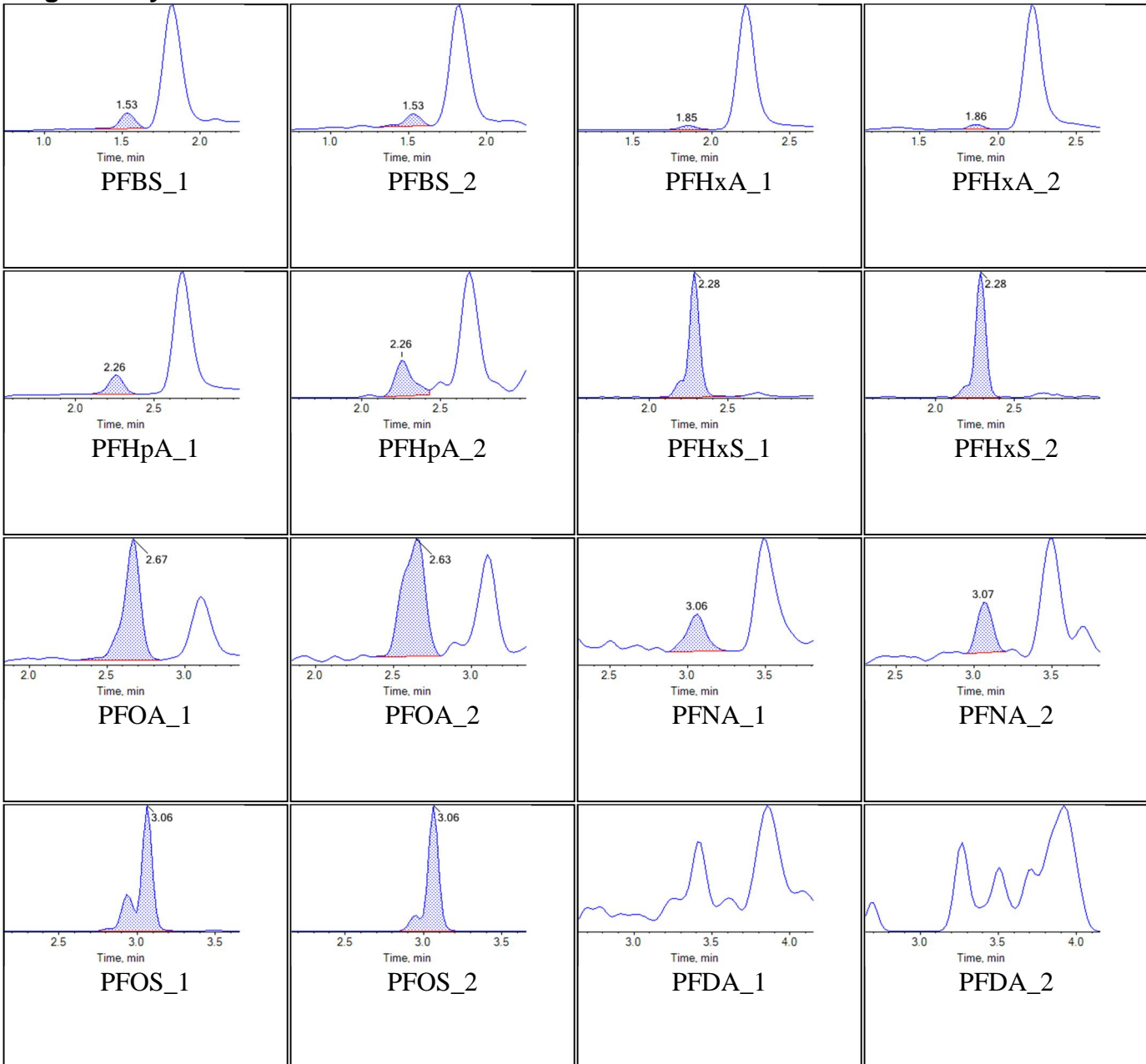
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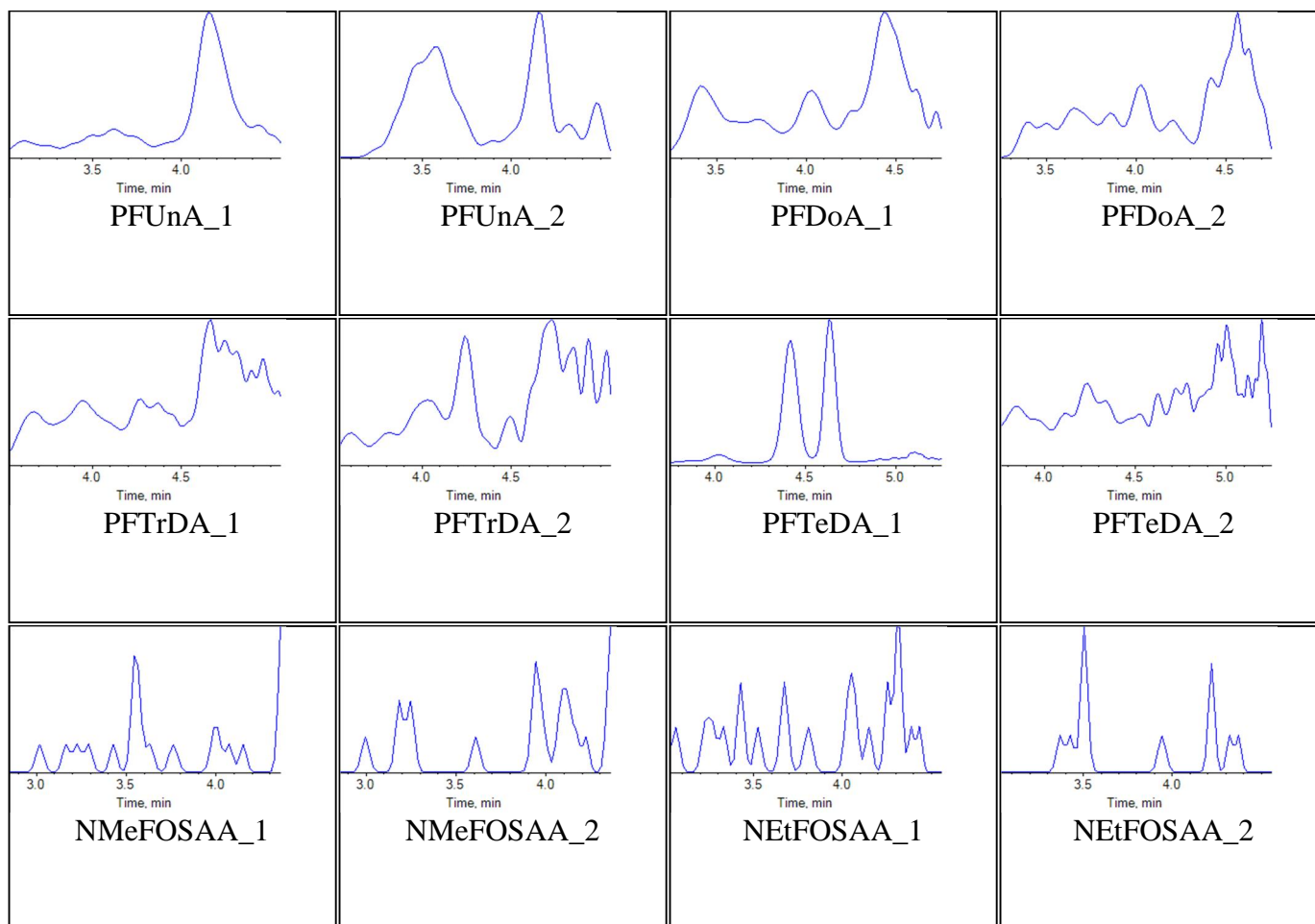
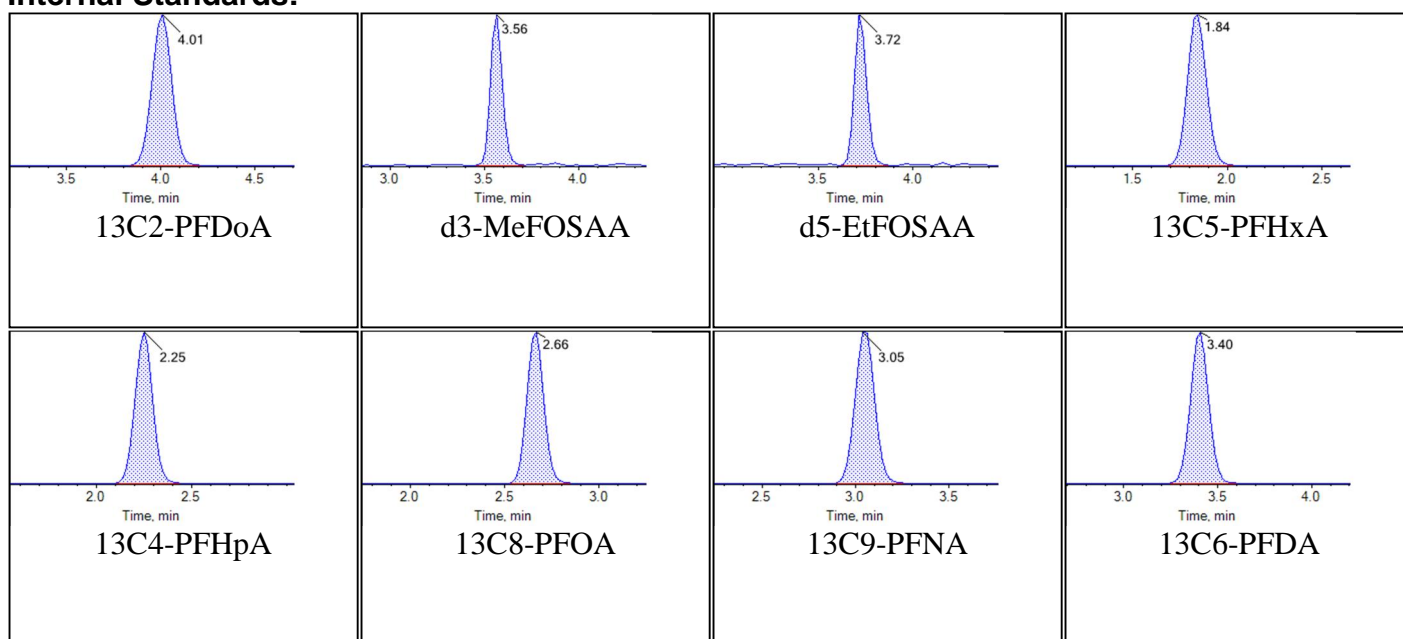


Sample Name	J8467-FS(3)	Injection Vial	5
Sample ID	VC-PM367-SB01-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:35:32	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Chromatograms

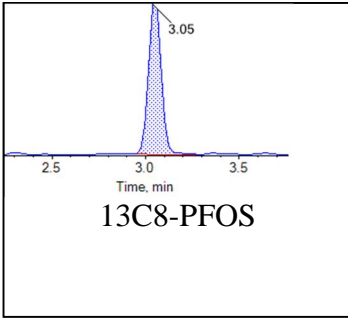
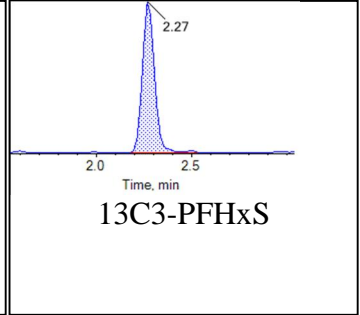
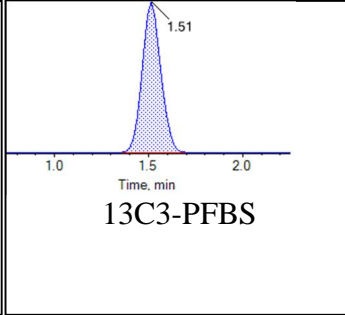
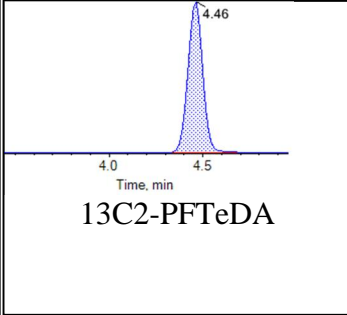
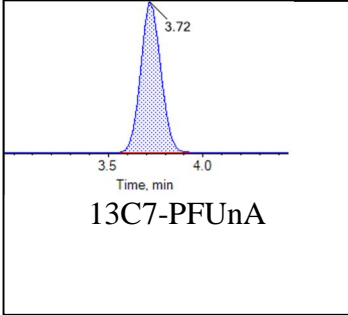
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**Internal Standards:**

Chromatogram Report

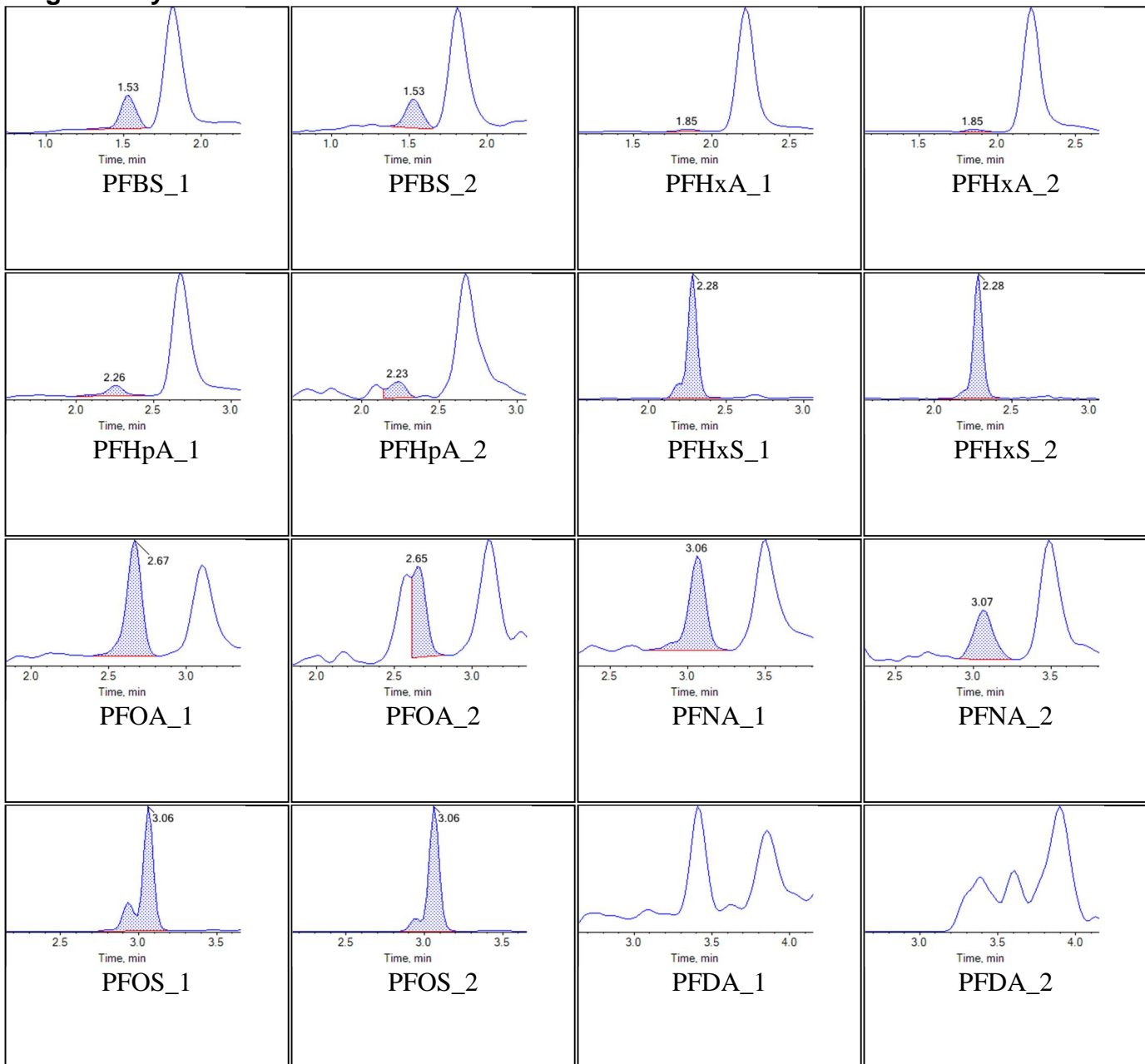
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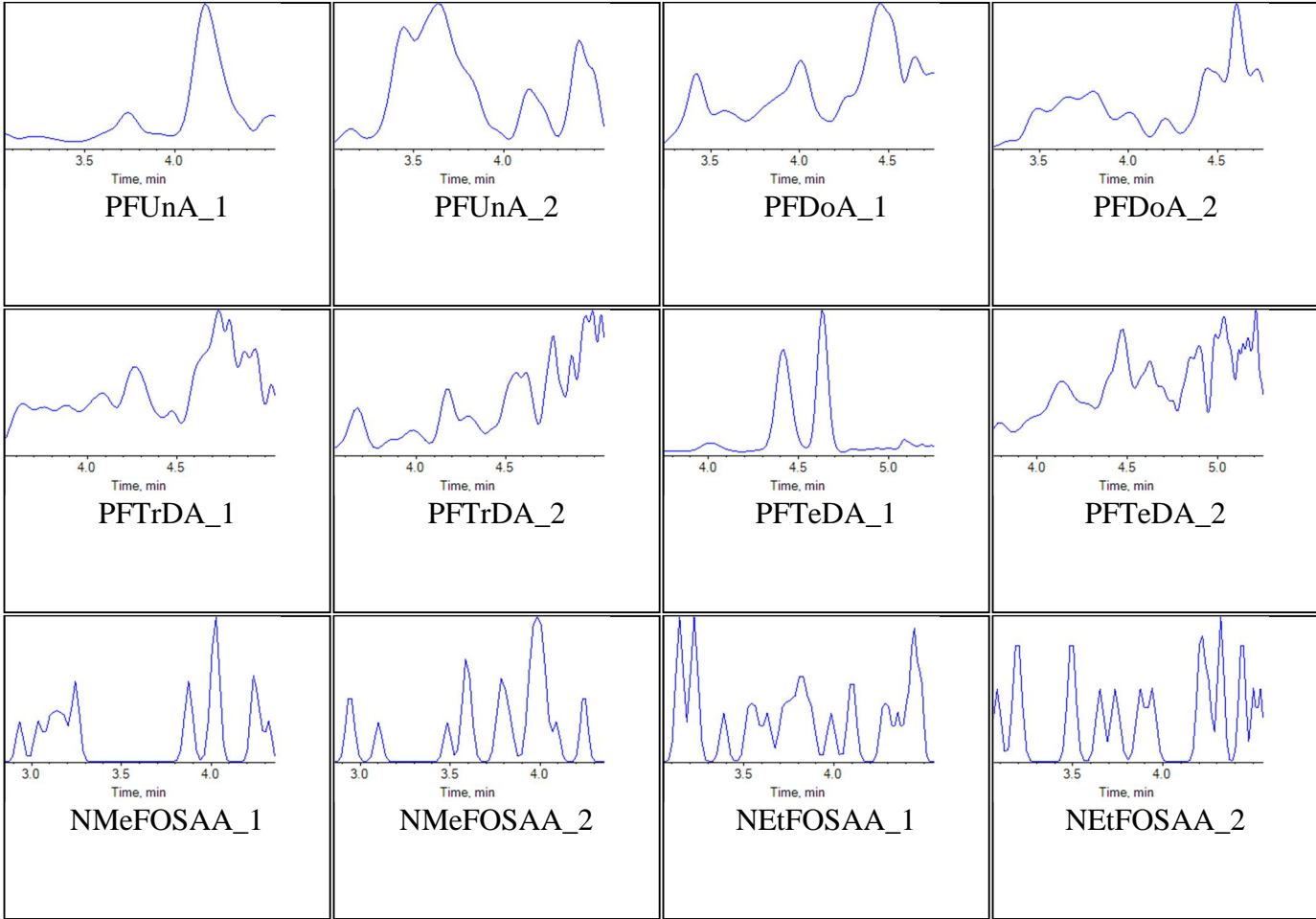


Sample Name	J8468-FS(3)	Injection Vial	6
Sample ID	VC-PM367-SS02-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:46:24	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

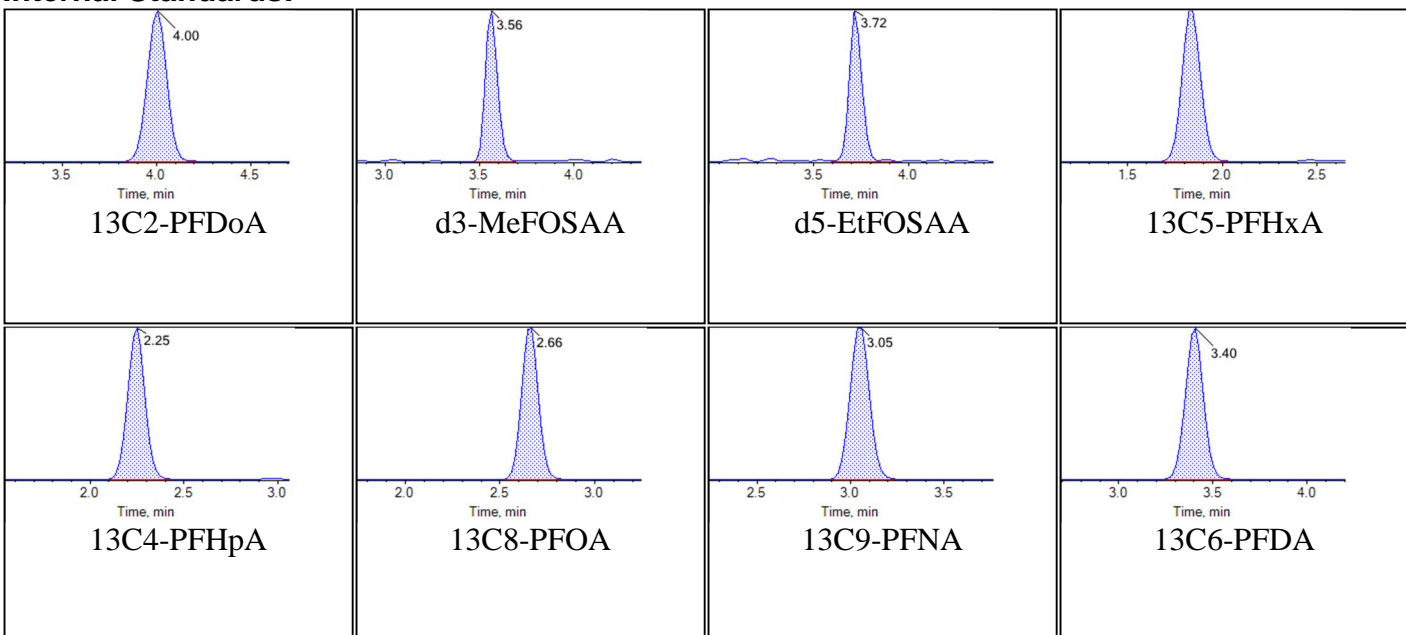
Chromatograms

Target Analytes:



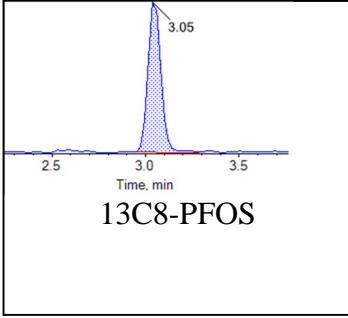
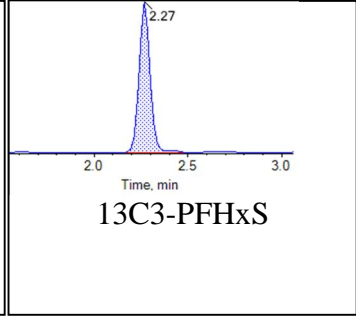
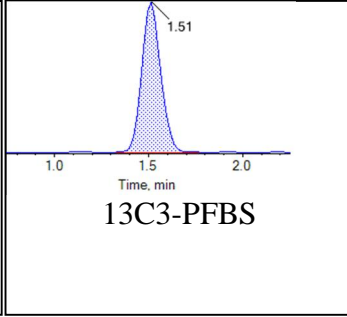
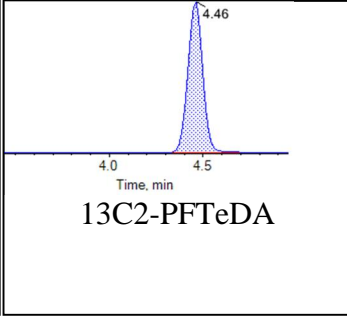
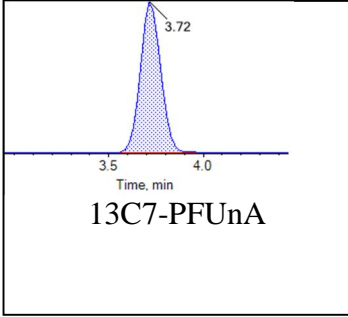


Internal Standards:



Chromatogram Report

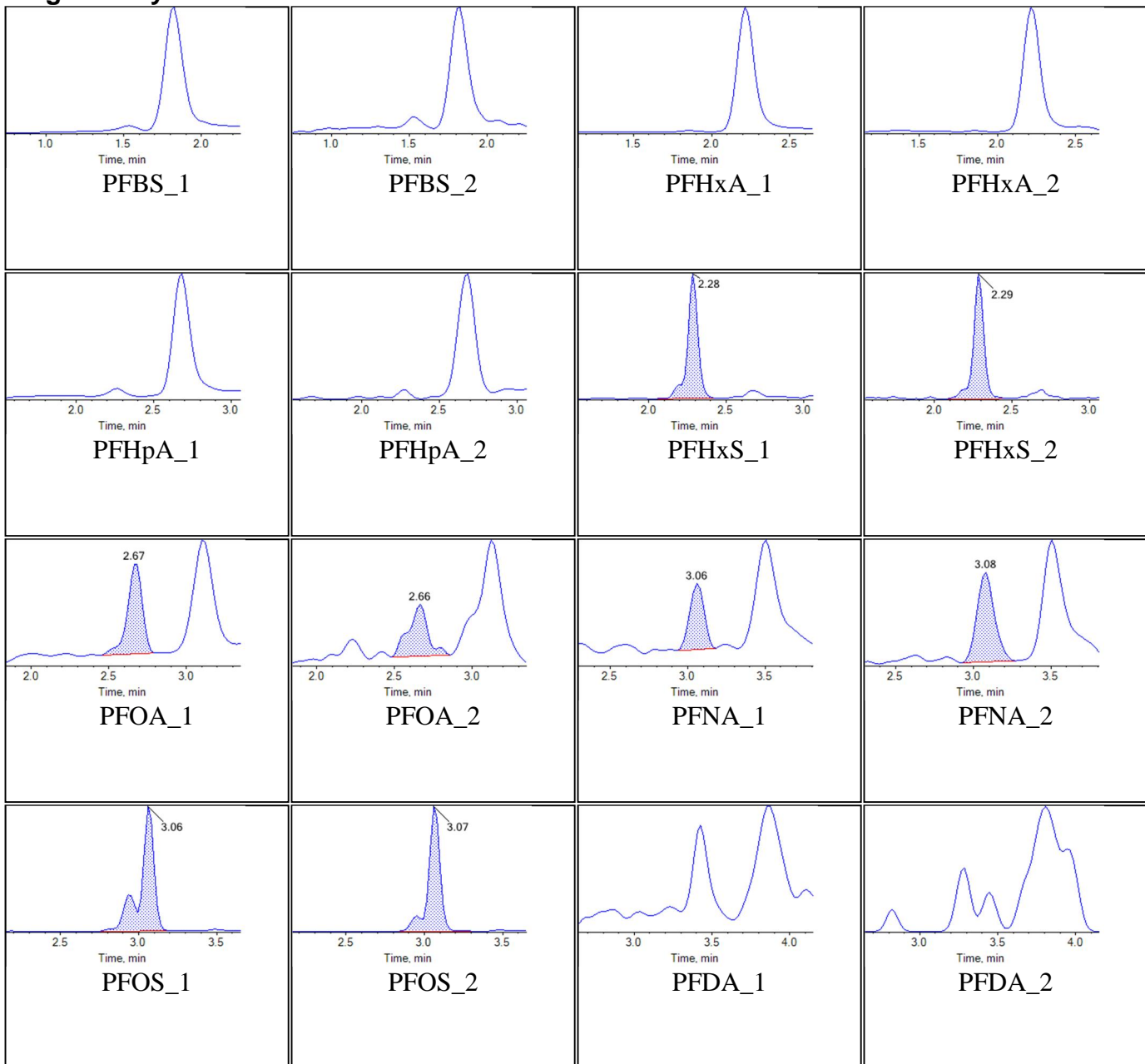
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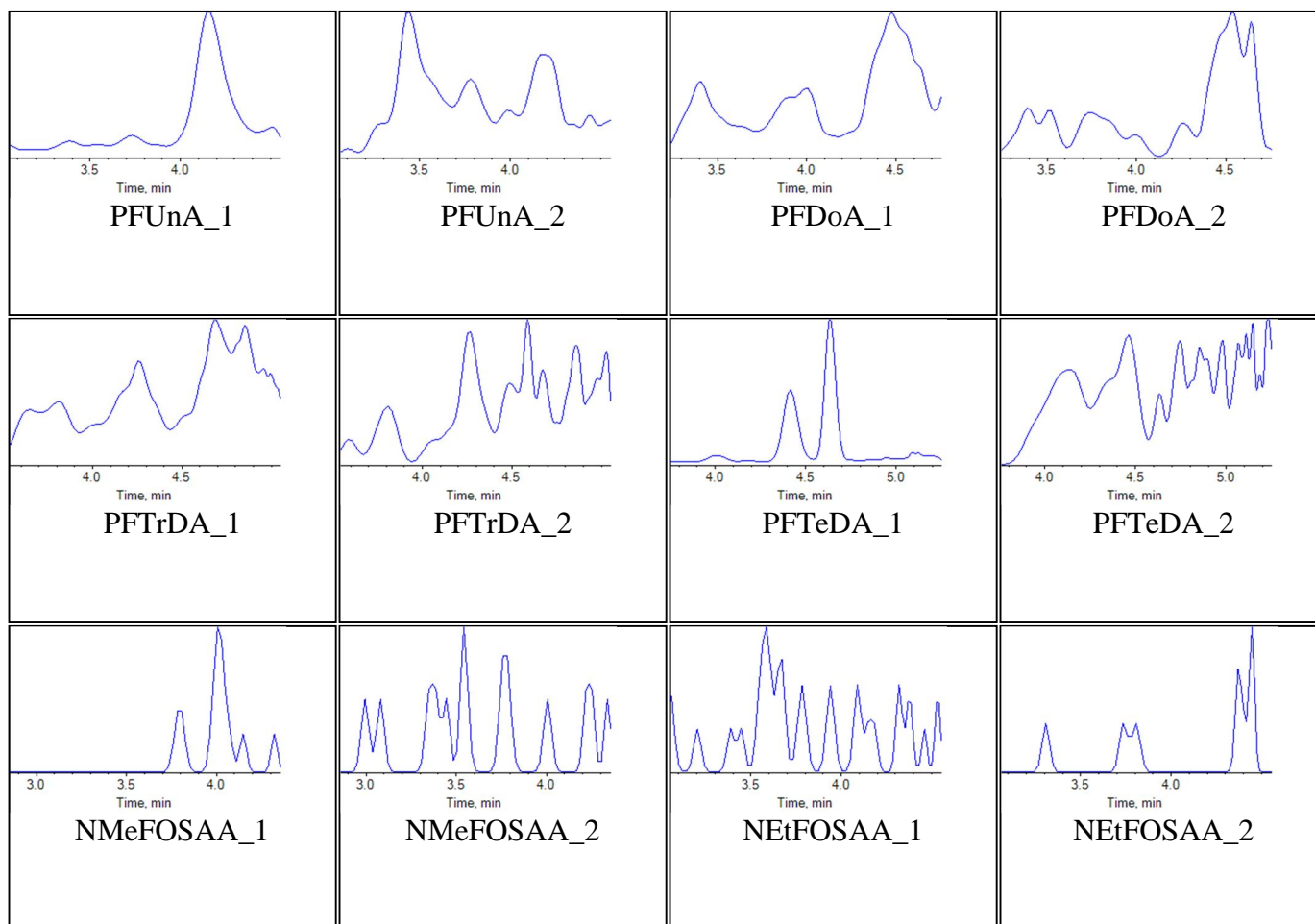
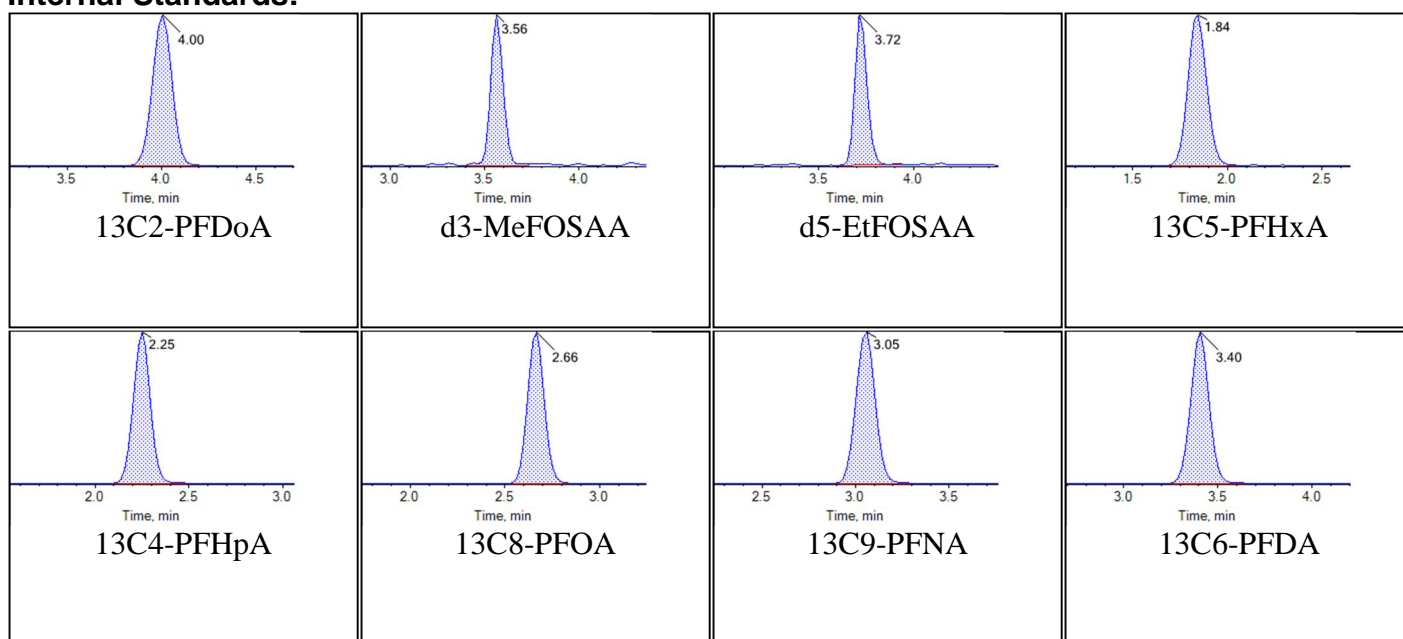


Sample Name	J8469-FS(3)	Injection Vial	7
Sample ID	VC-PM367-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:57:16	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Chromatograms

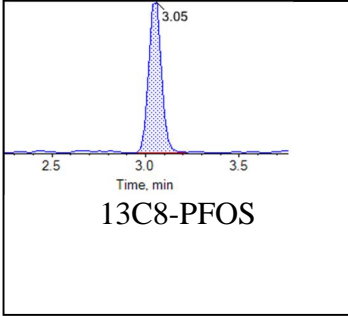
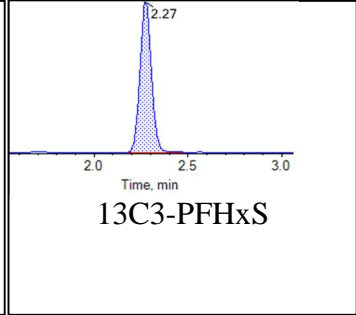
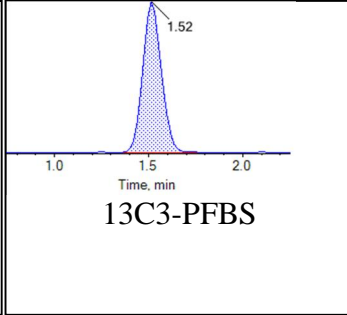
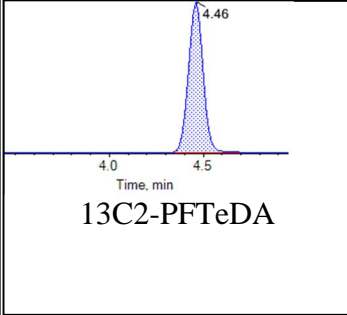
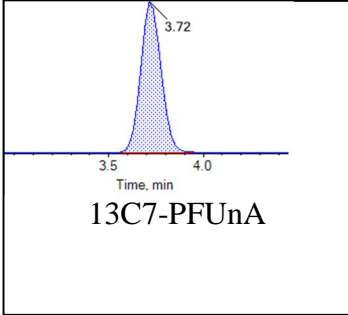
Target Analytes:



**Internal Standards:**

Chromatogram Report

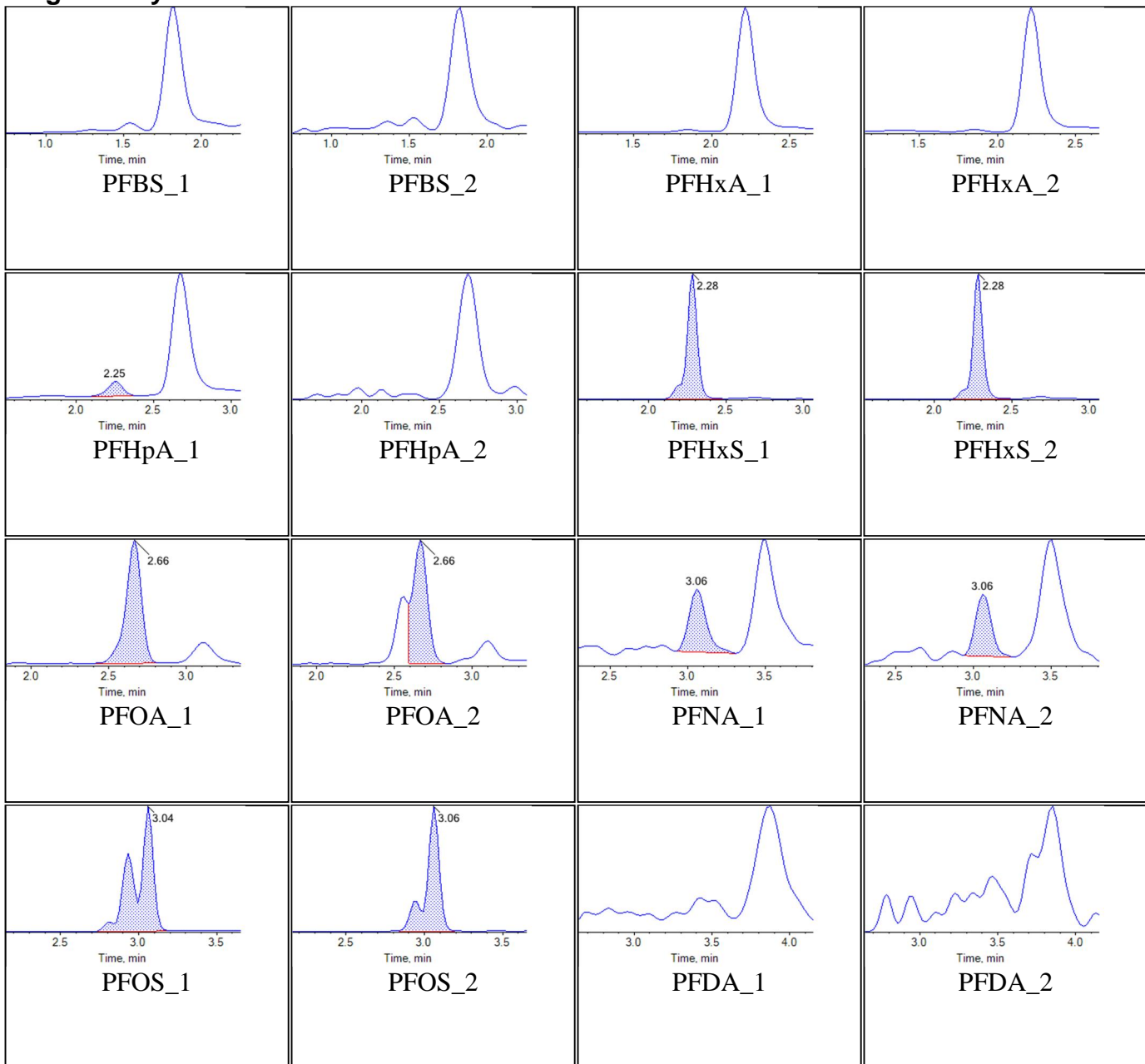
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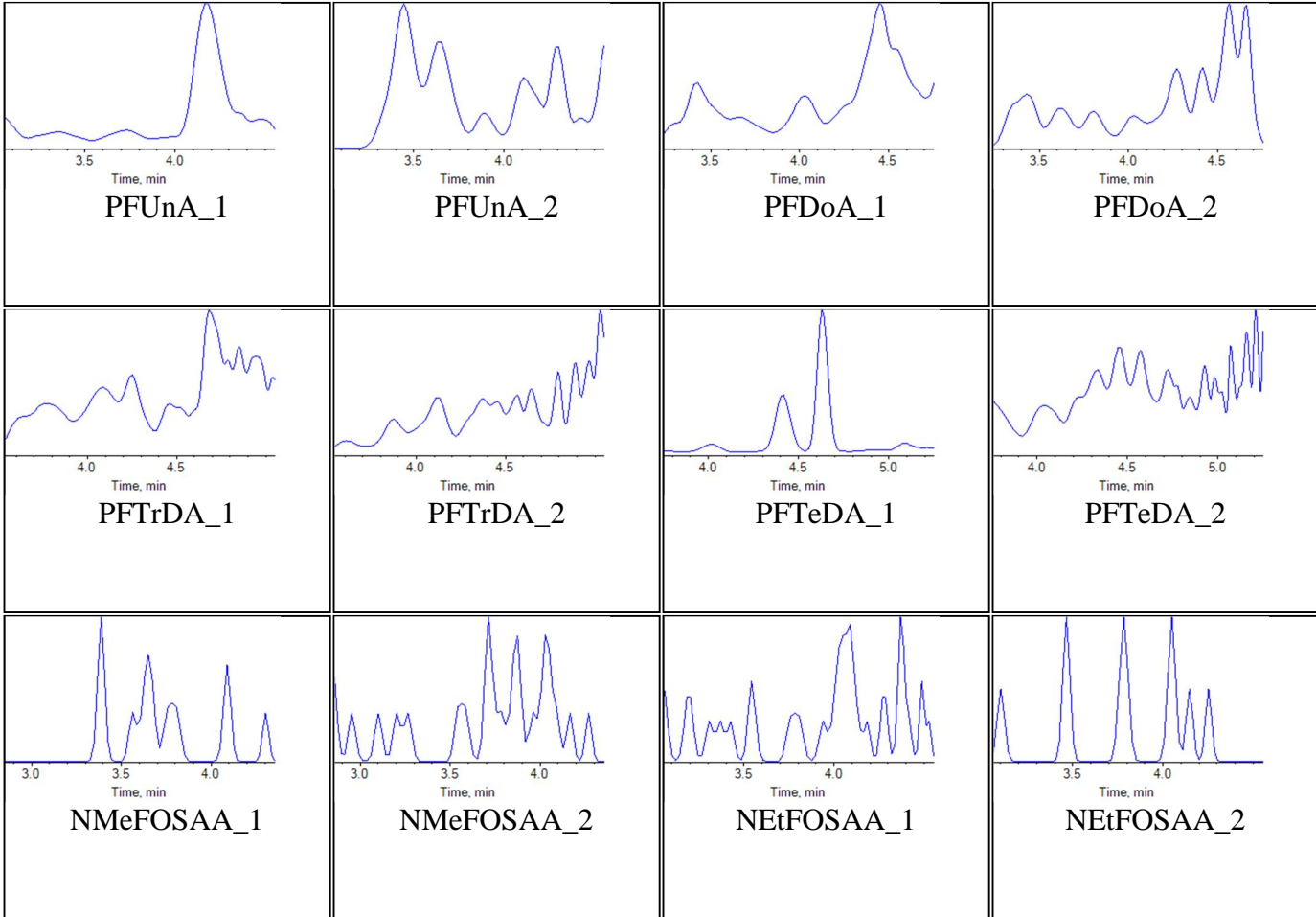


Sample Name	J8470-FS(3)	Injection Vial	8
Sample ID	VC-PM367-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:08:08	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

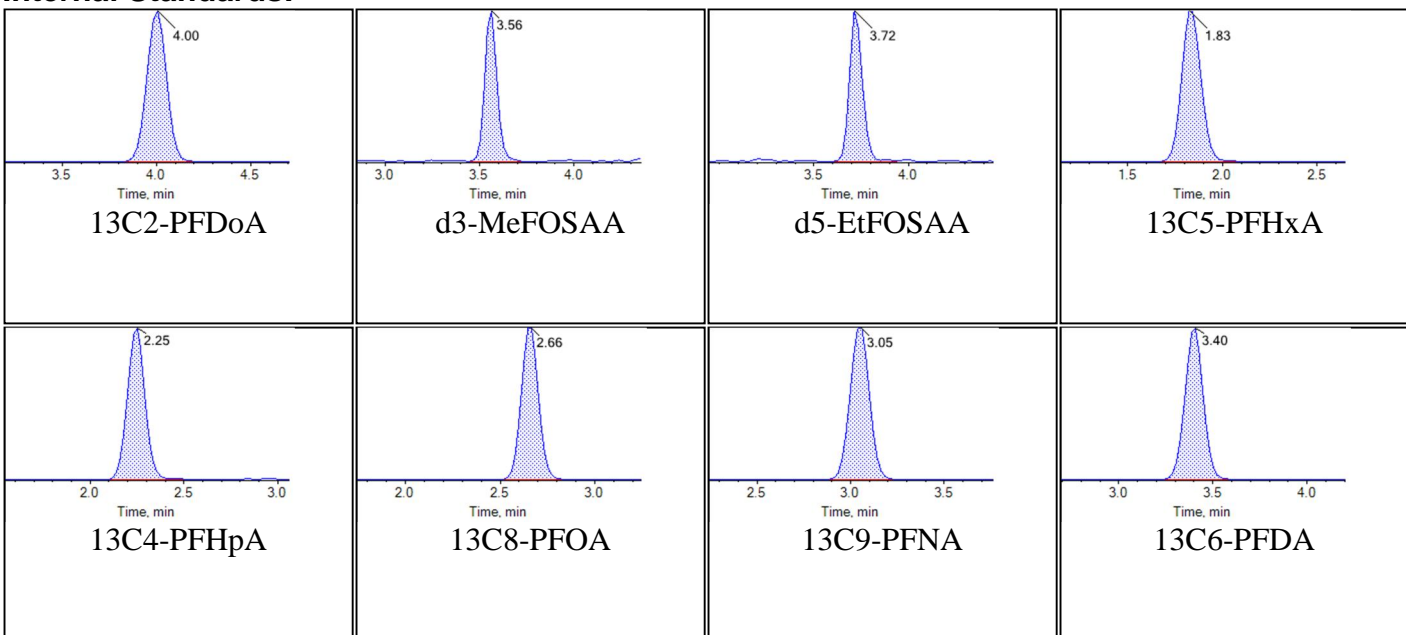
Chromatograms

Target Analytes:



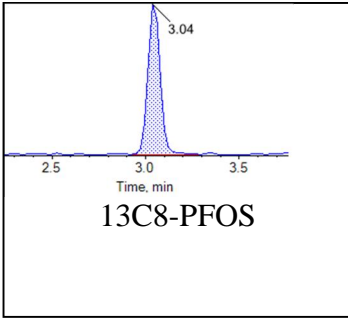
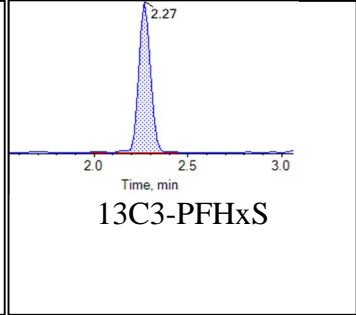
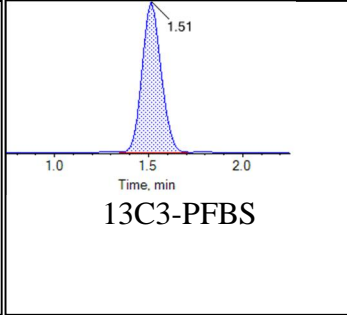
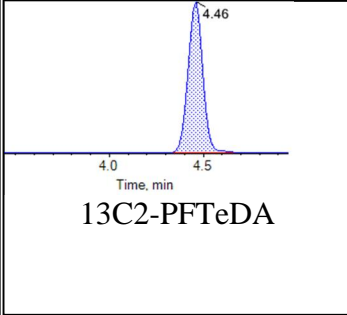
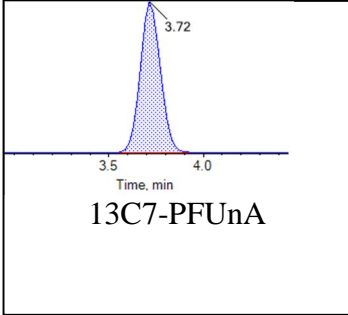


Internal Standards:



Chromatogram Report

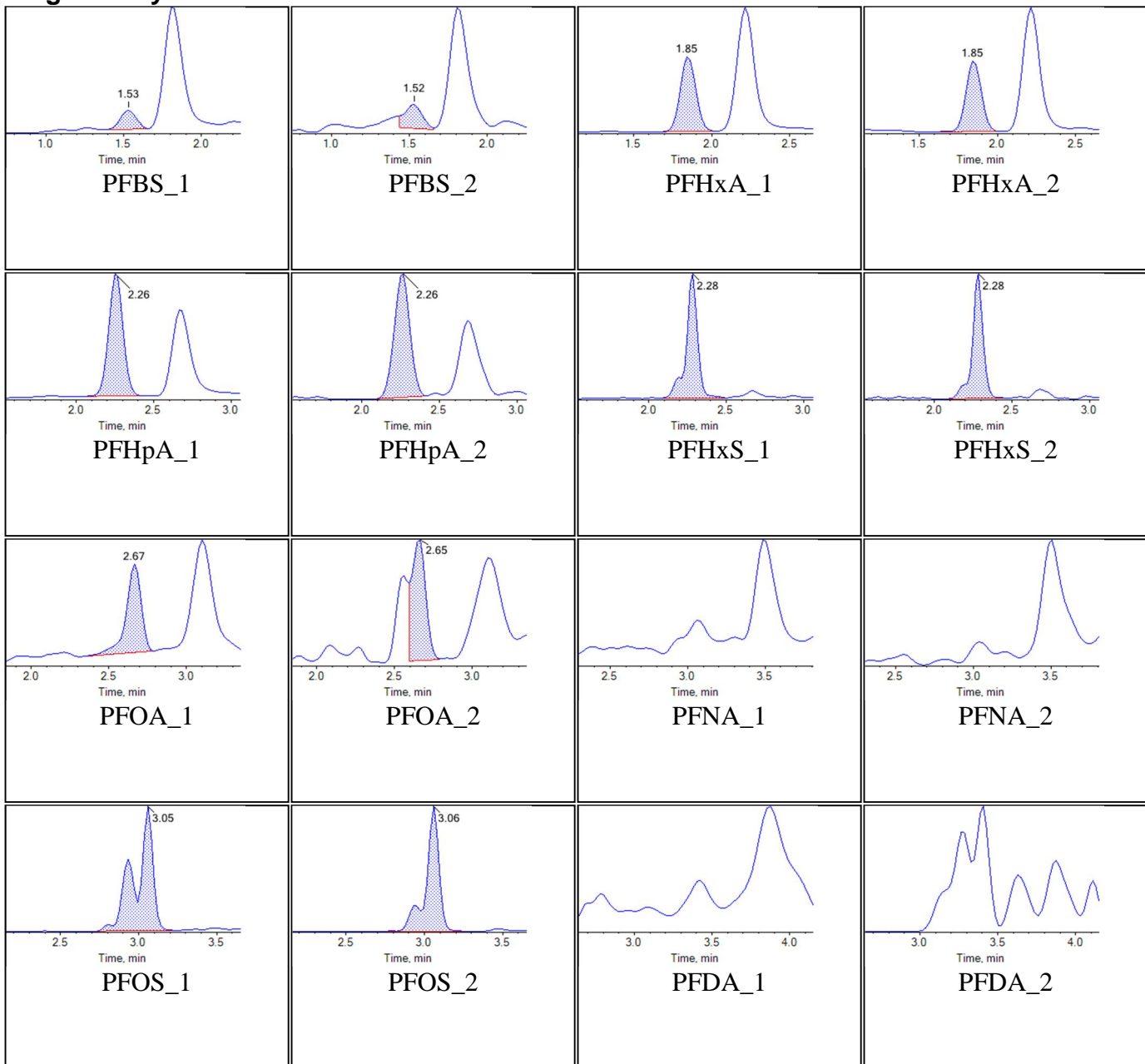
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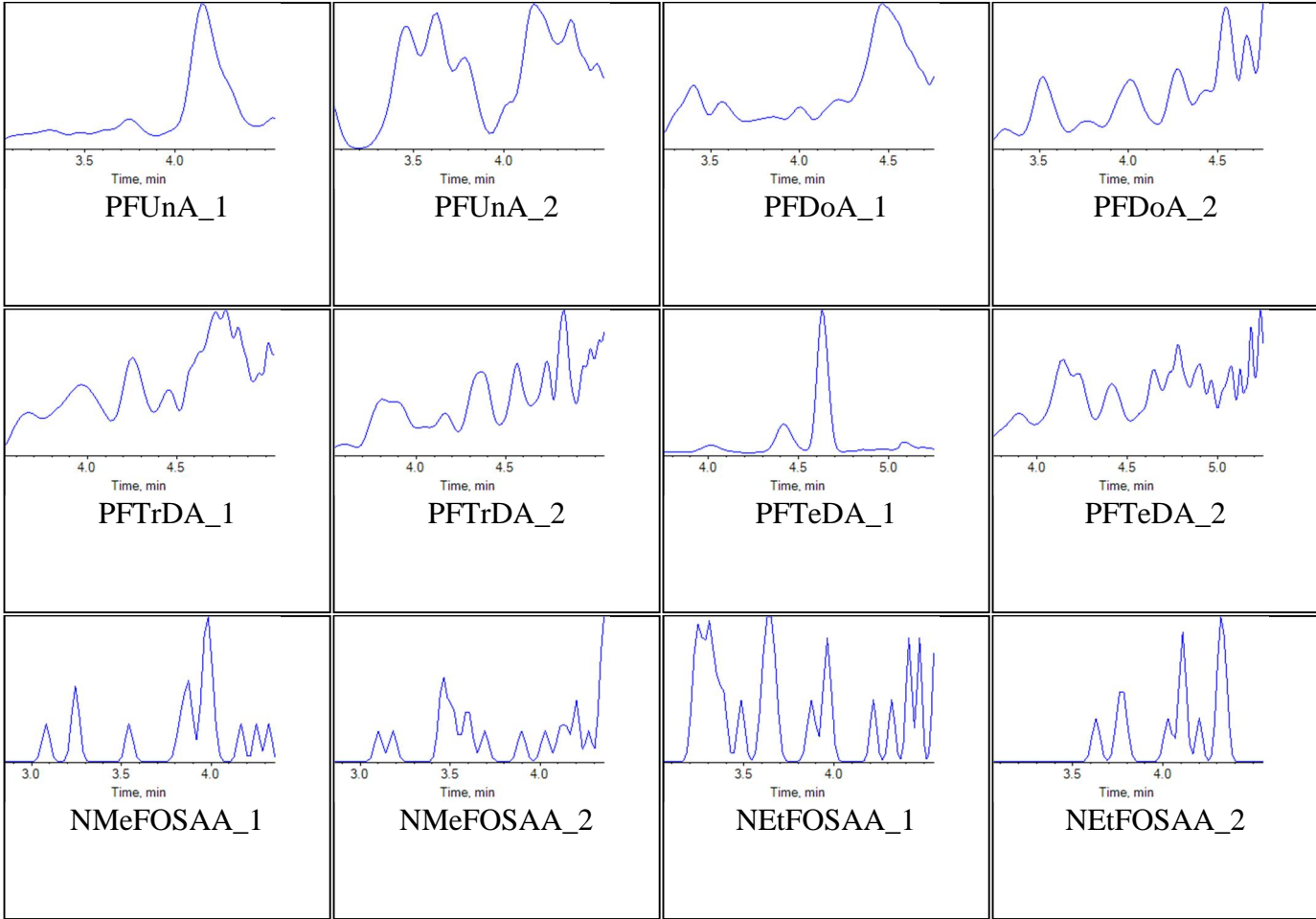


Sample Name	J8471-FS(3)	Injection Vial	9
Sample ID	VC-PM367-SS03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:19:00	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

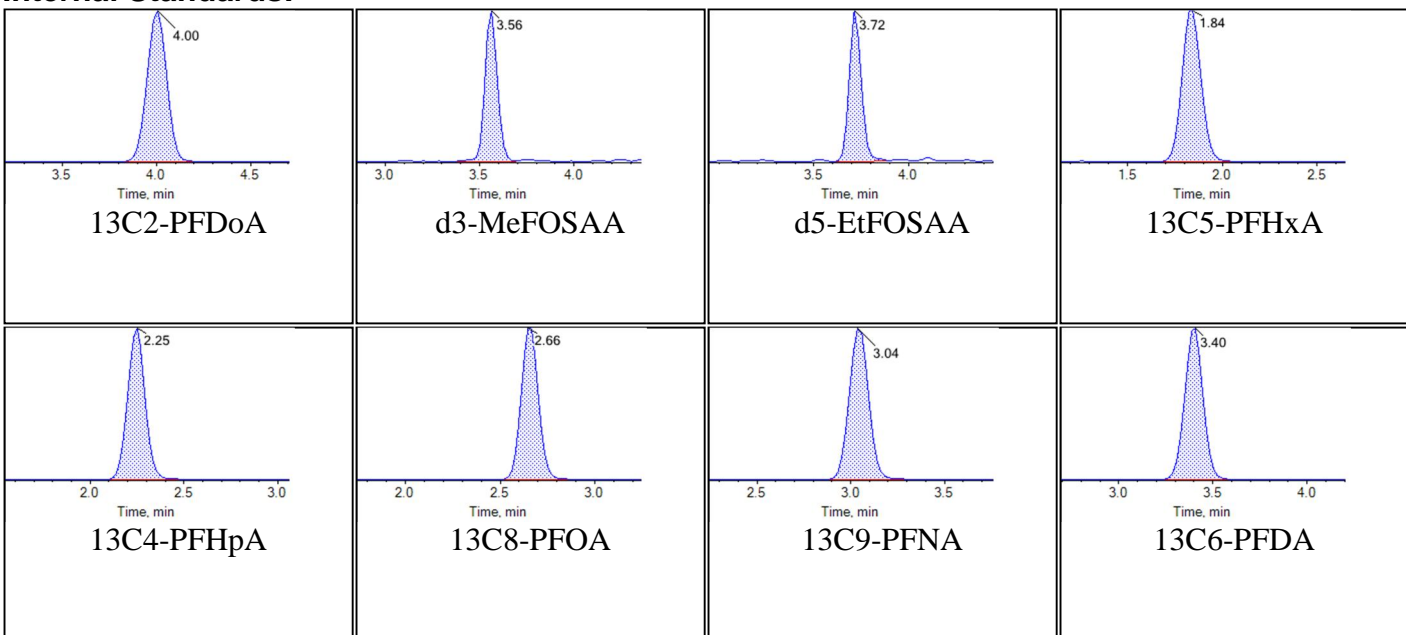
Chromatograms

Target Analytes:



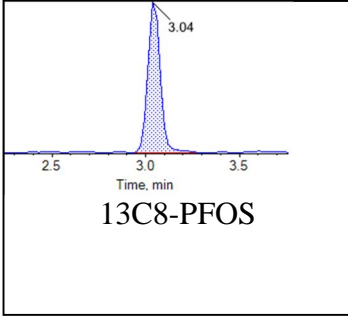
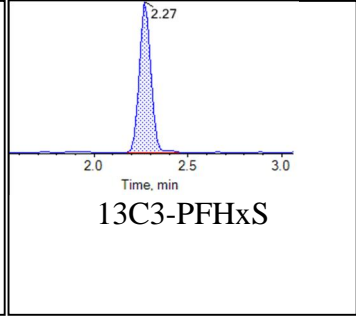
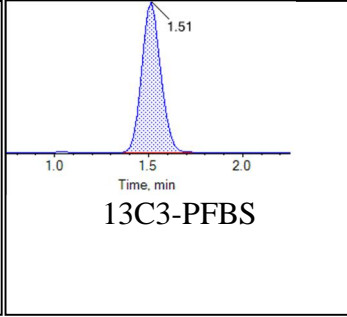
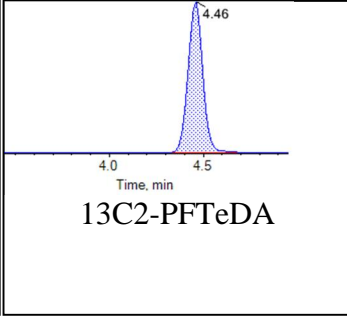
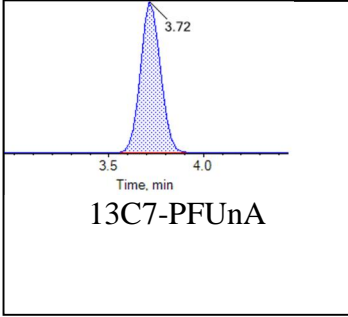


Internal Standards:



Chromatogram Report

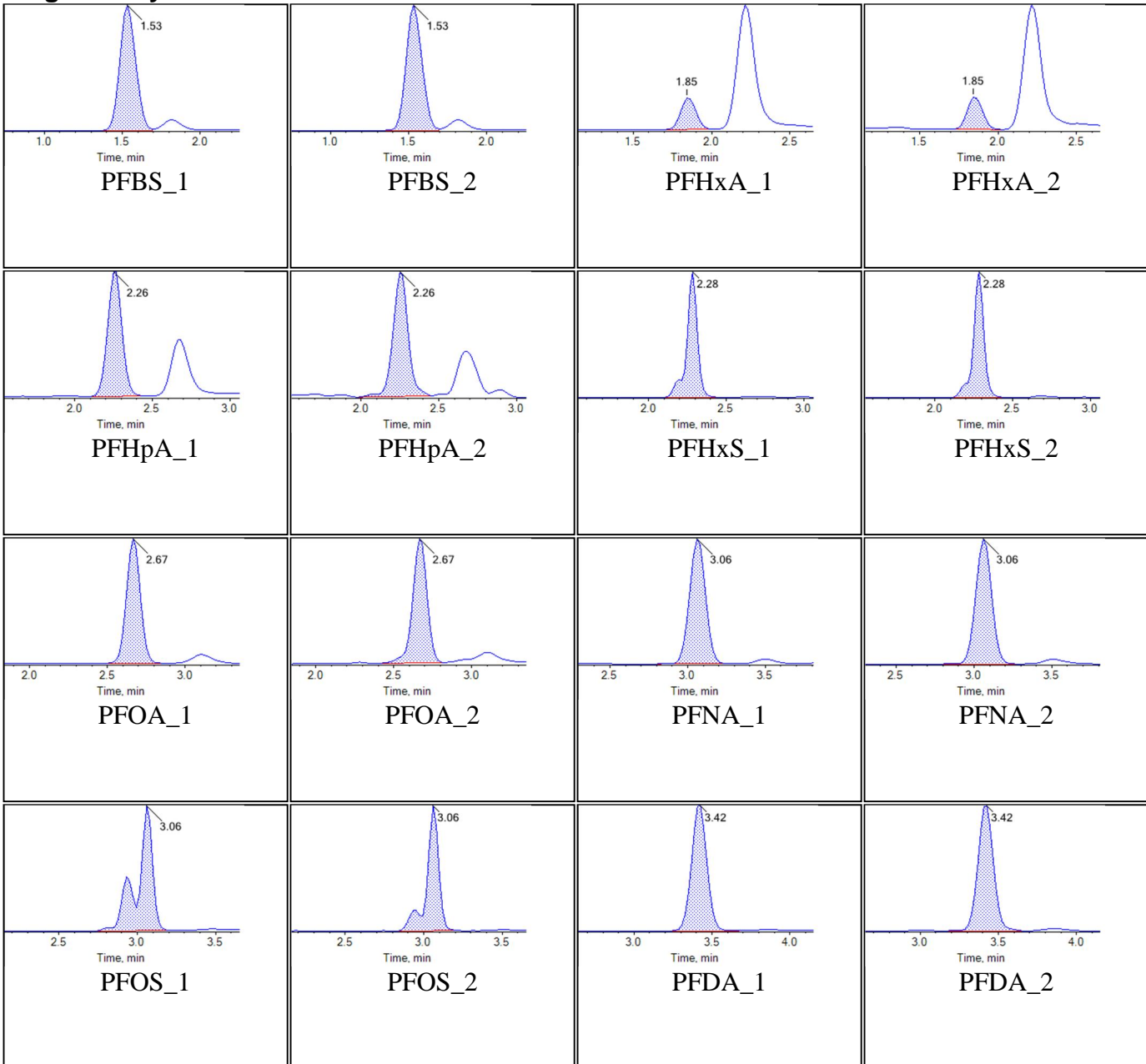
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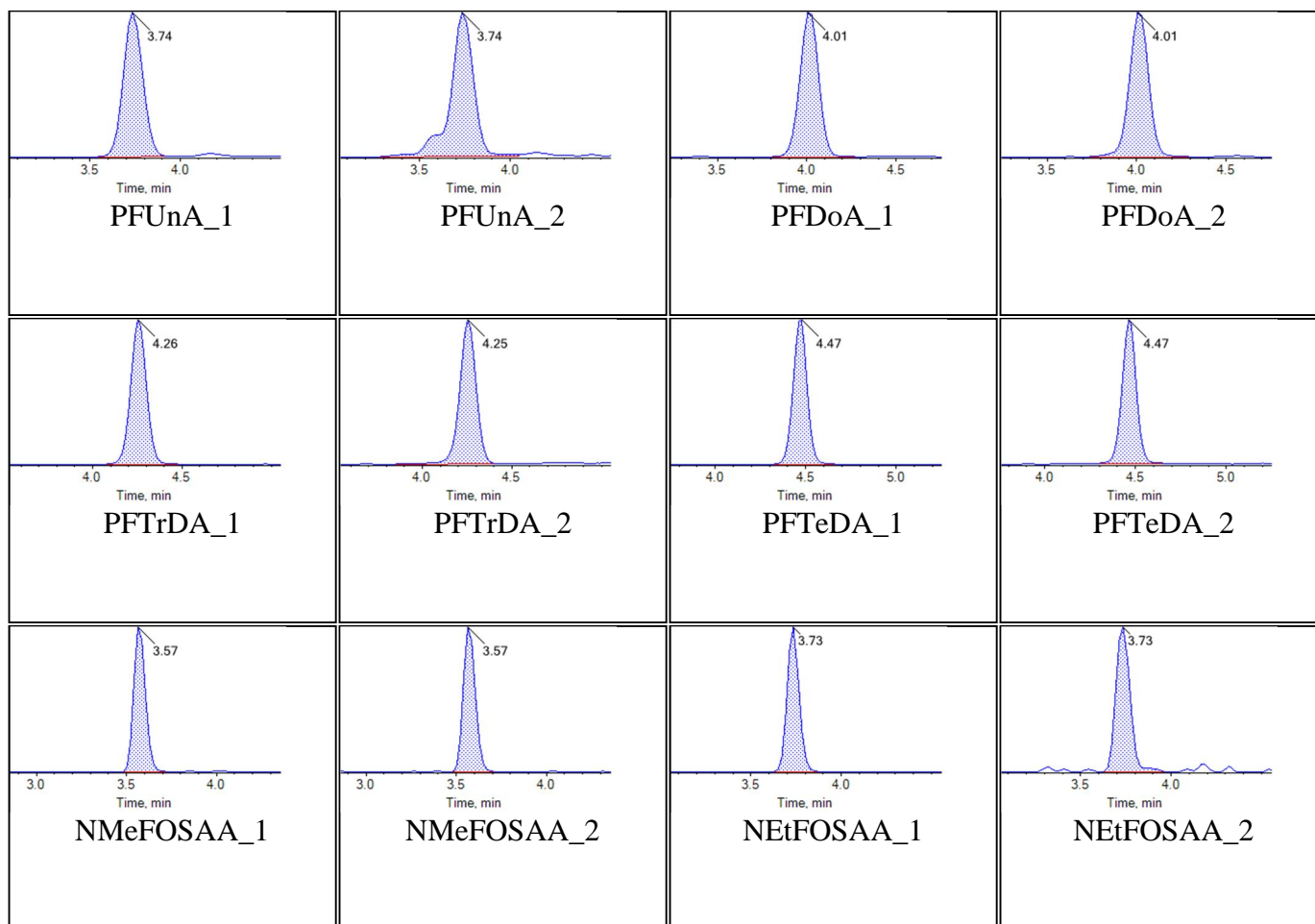
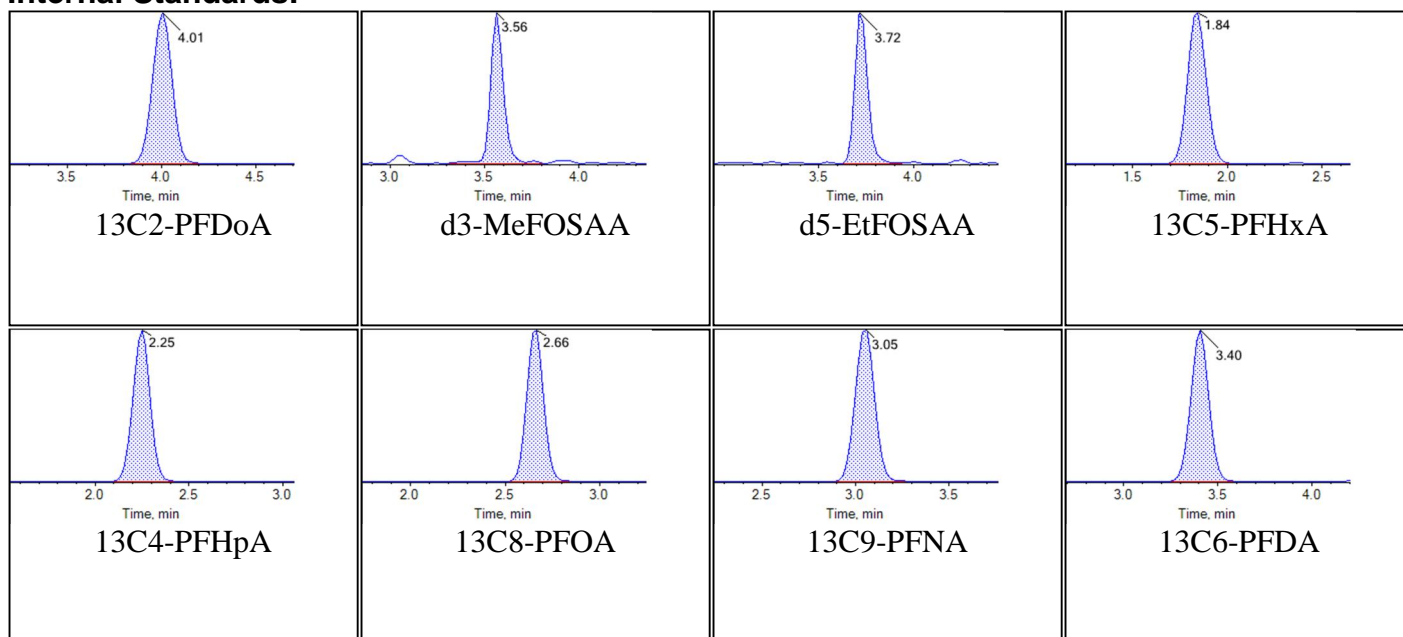


Sample Name	KB76 CCV	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:29:53	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Chromatograms

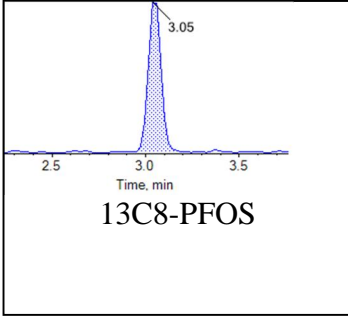
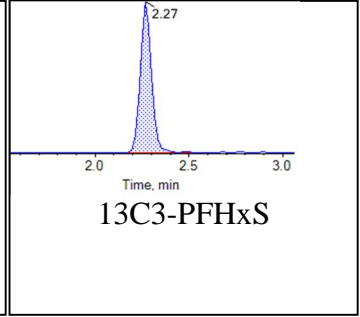
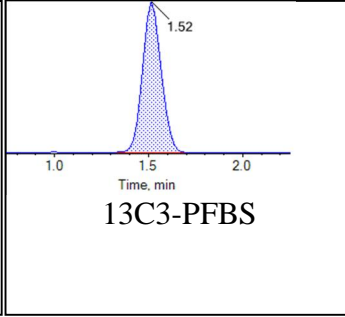
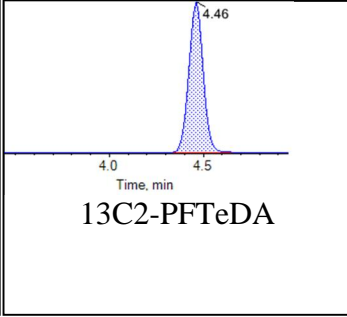
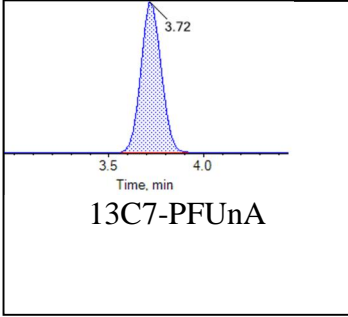
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**Internal Standards:**

Chromatogram Report

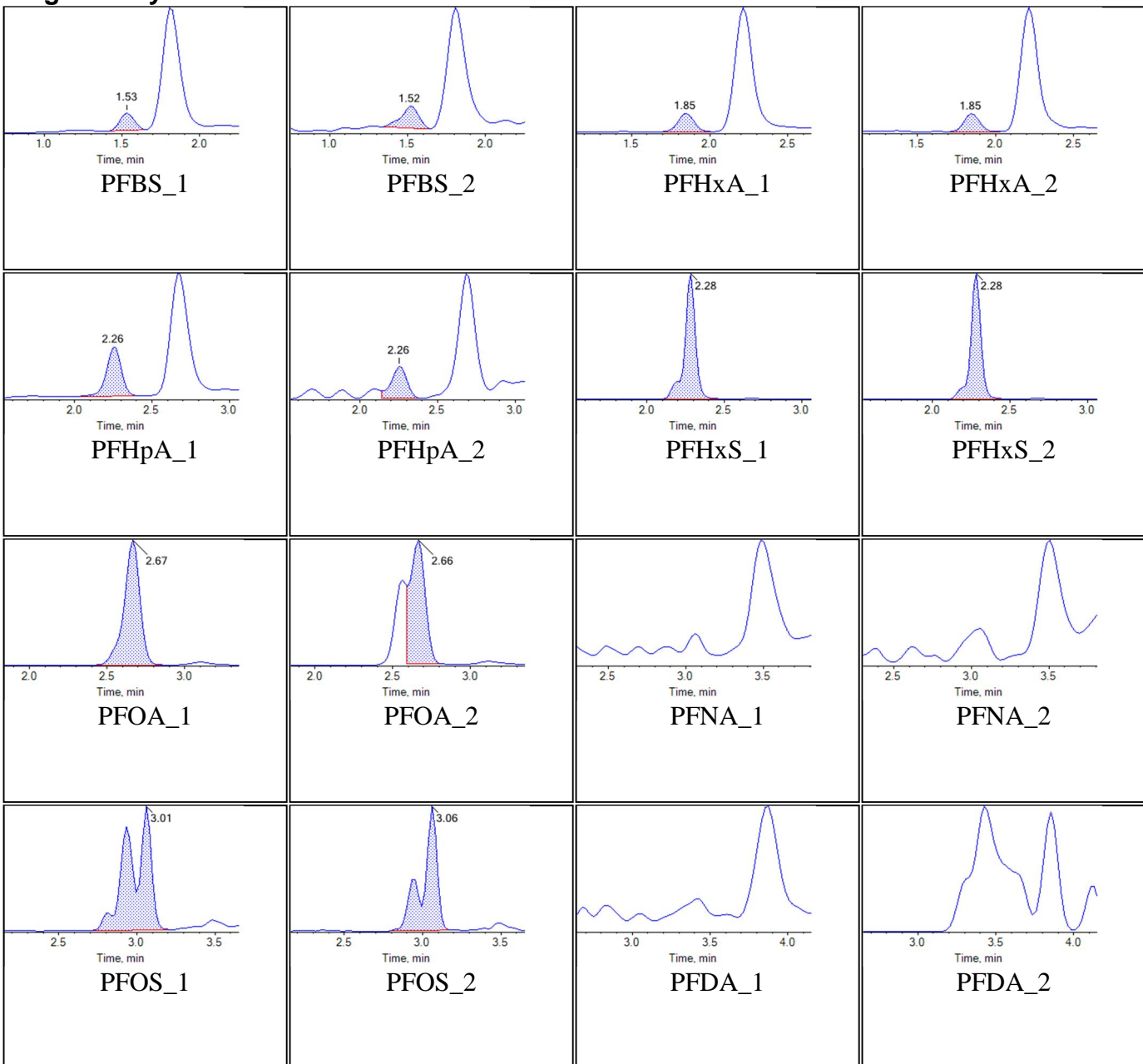
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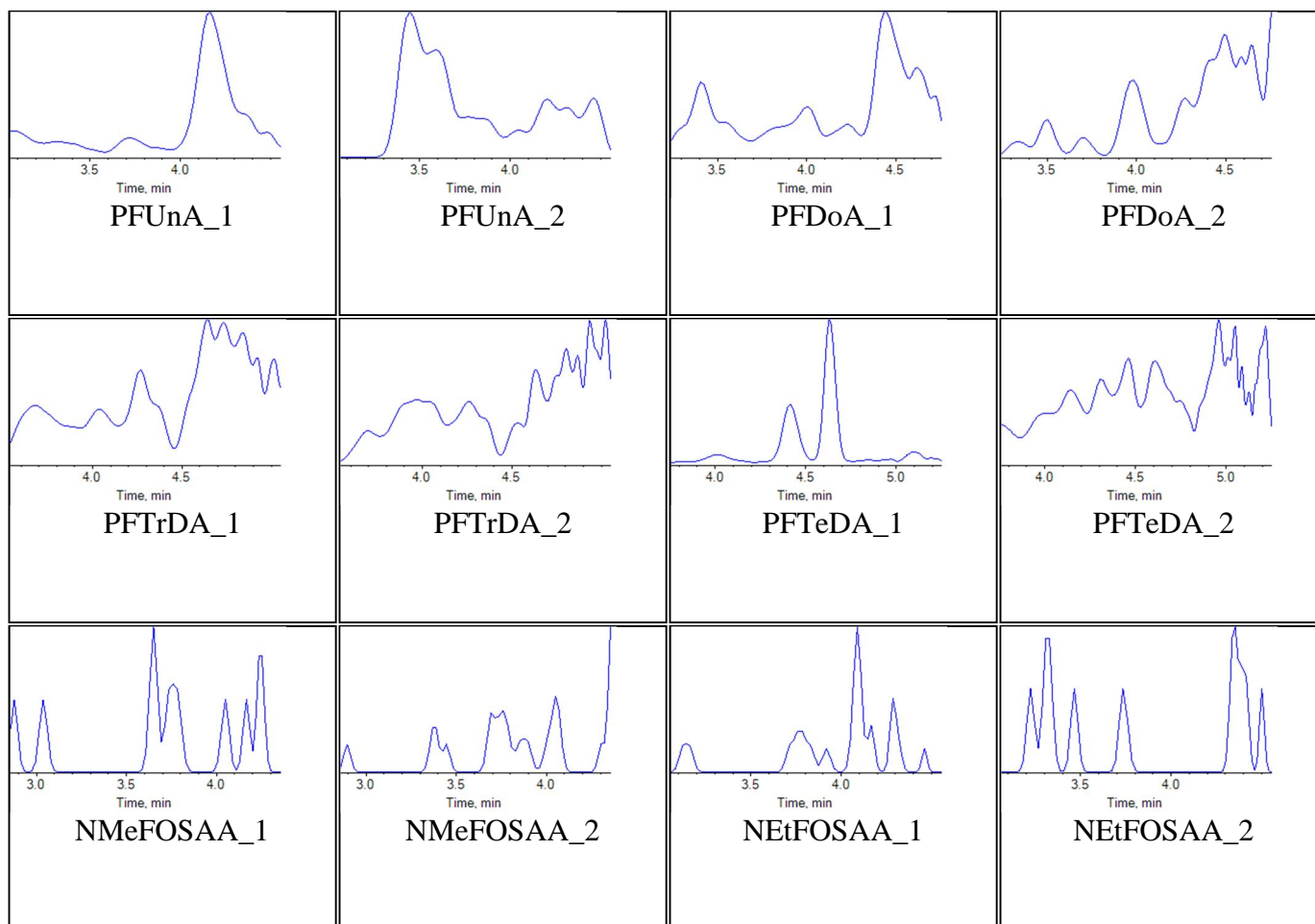
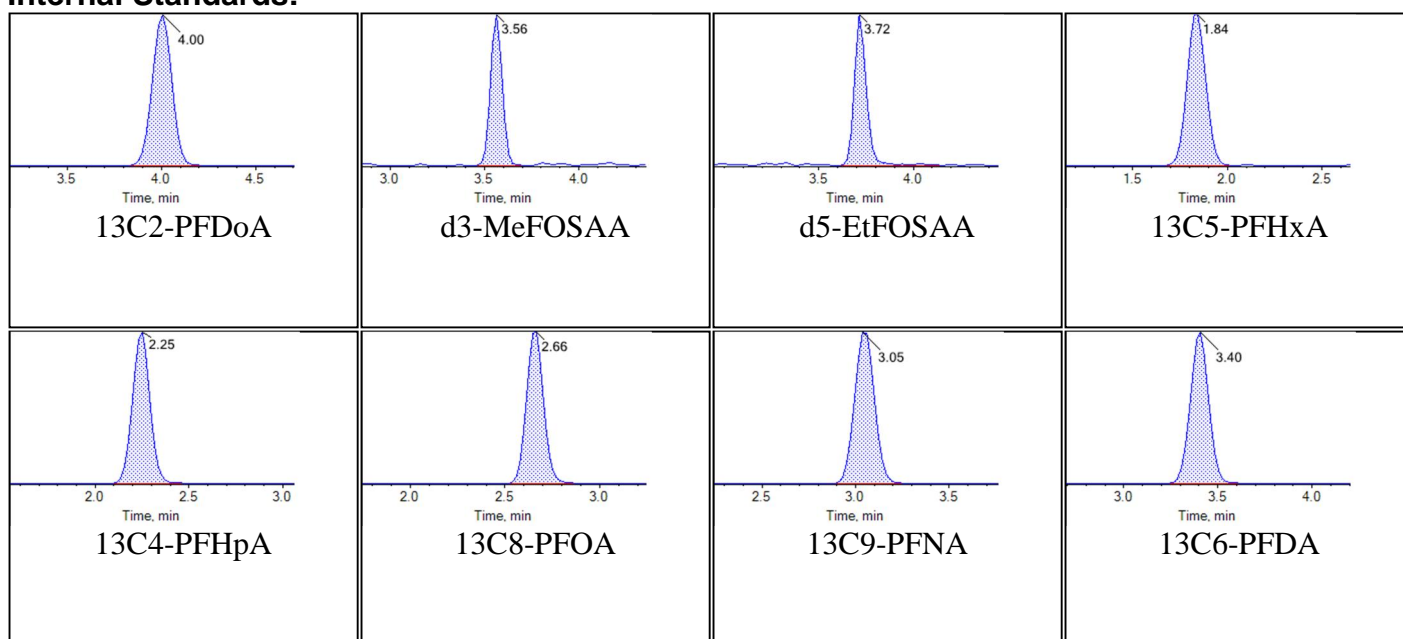


Sample Name	J8472-FS(3)	Injection Vial	12
Sample ID	VC-PM367-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:51:41	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Chromatograms

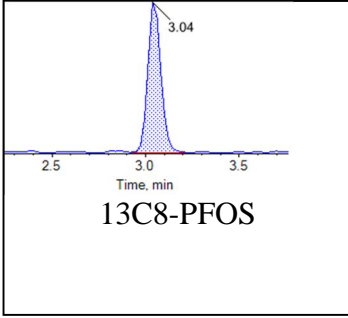
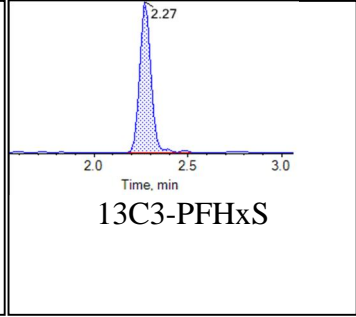
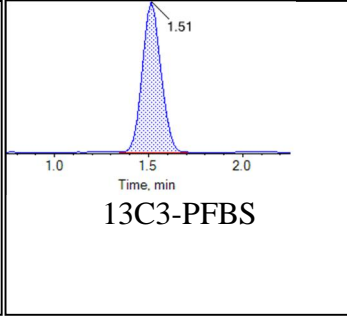
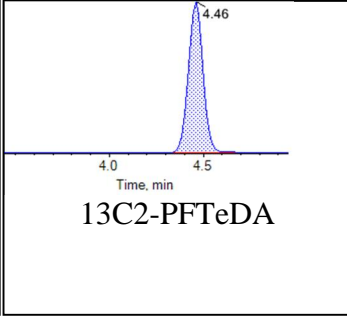
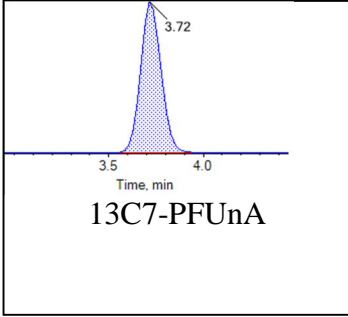
Target Analytes:



**Internal Standards:**

Chromatogram Report

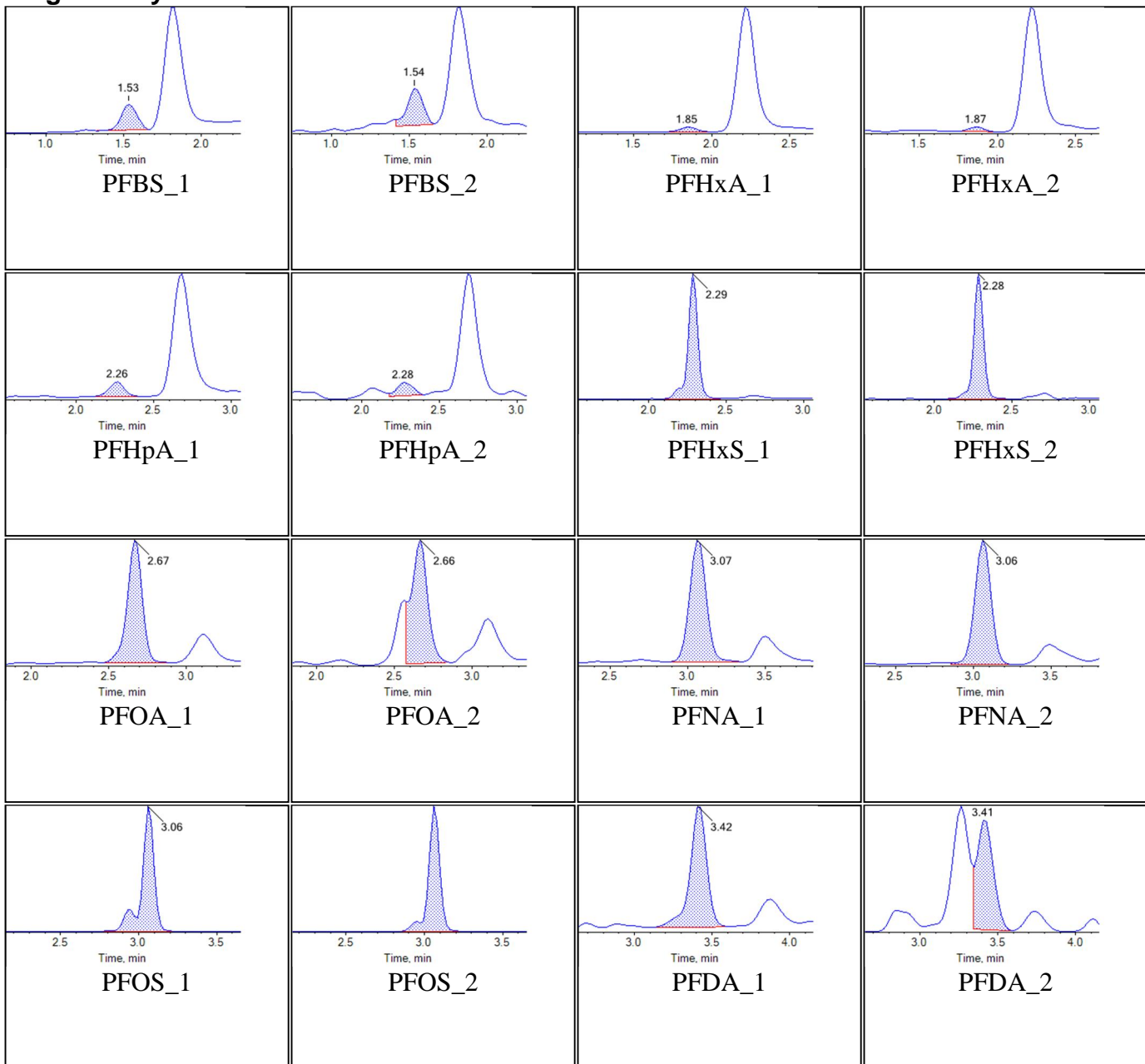
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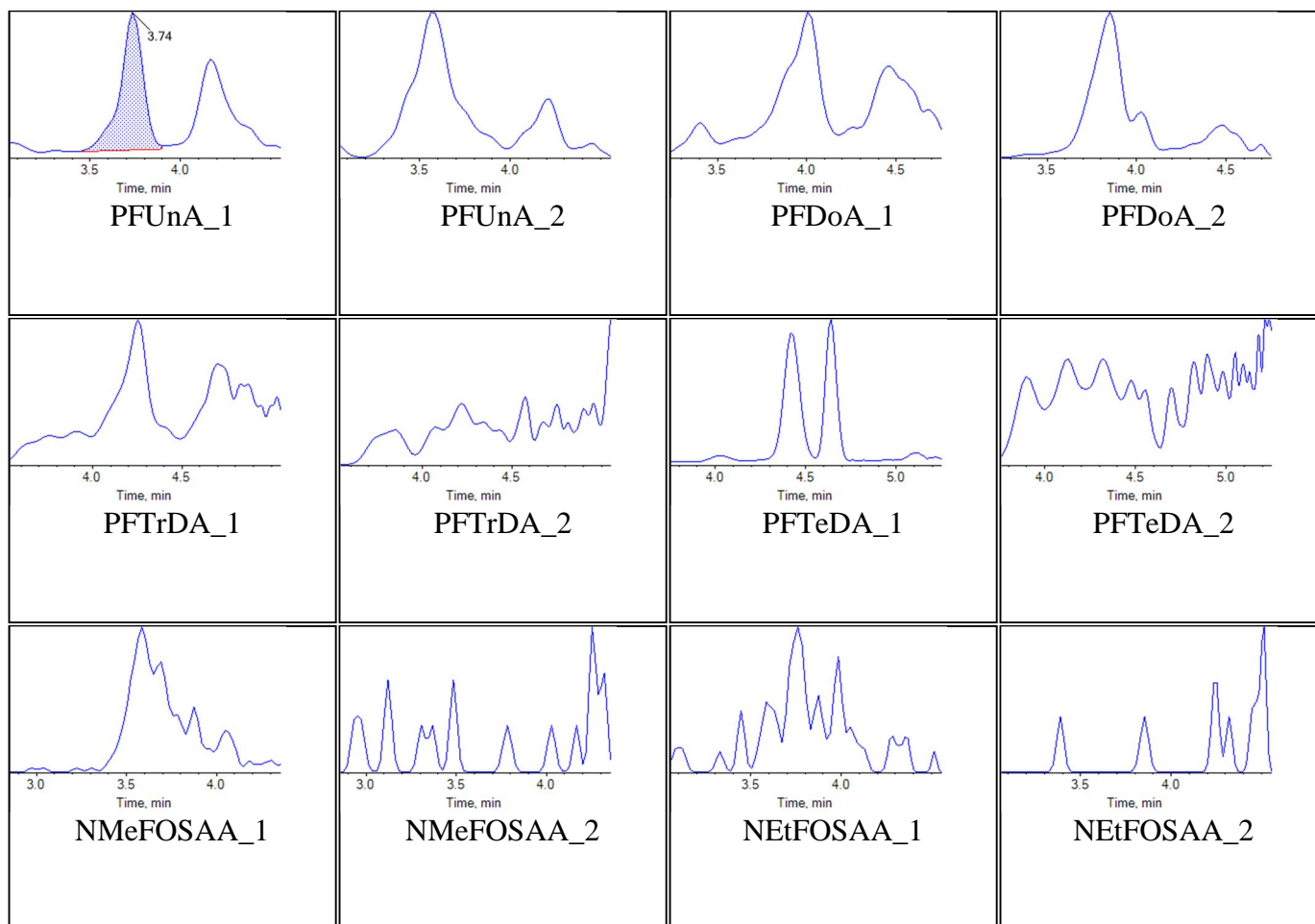
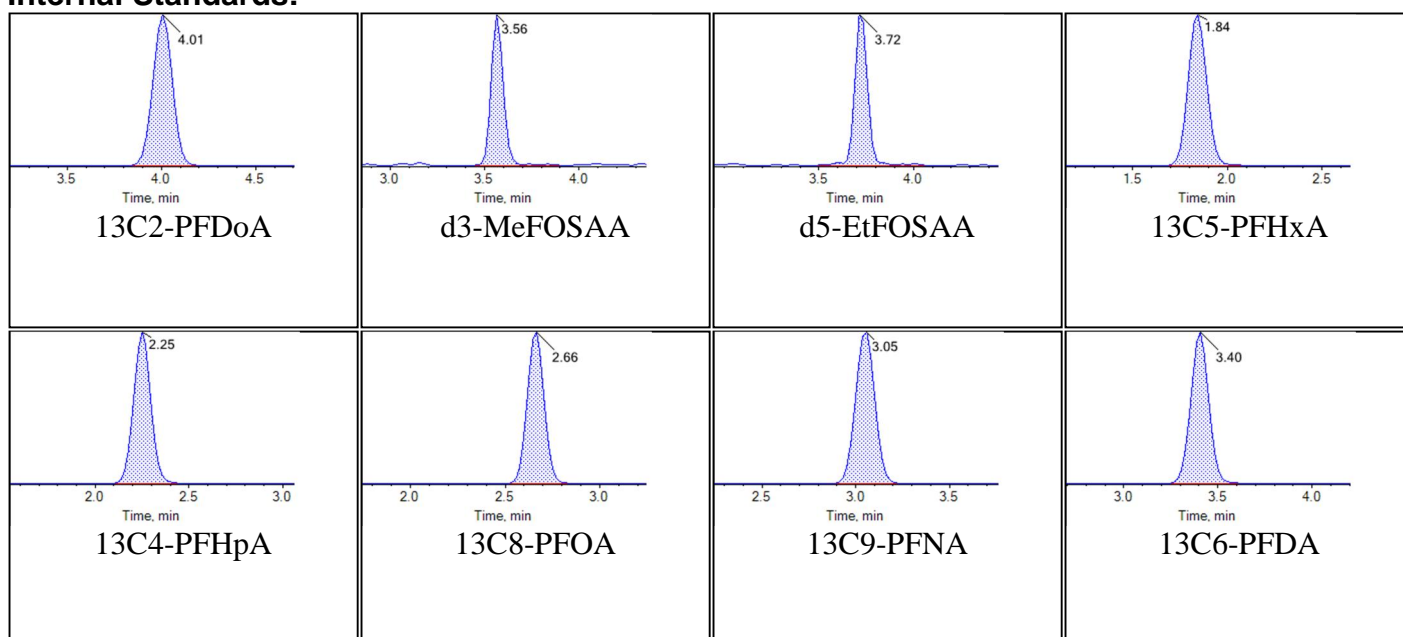


Sample Name	J8474-FS(3)	Injection Vial	14
Sample ID	VC-PM367-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:13:28	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Chromatograms

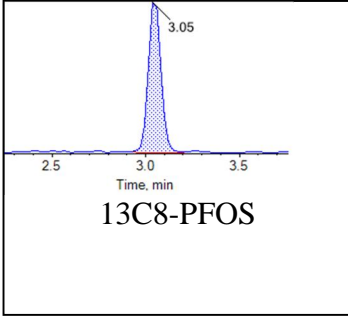
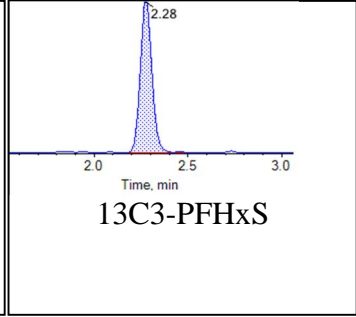
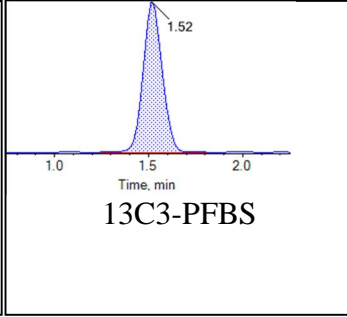
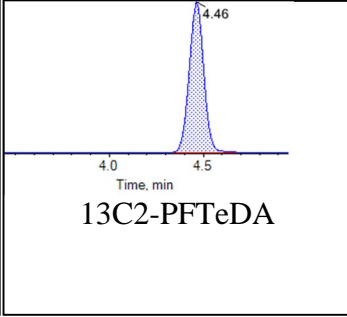
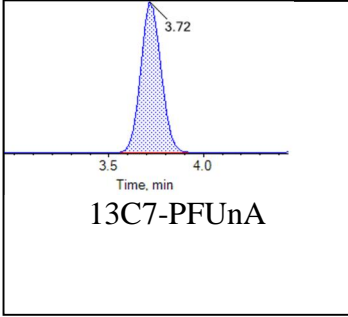
Target Analytes:



**Internal Standards:**

Chromatogram Report

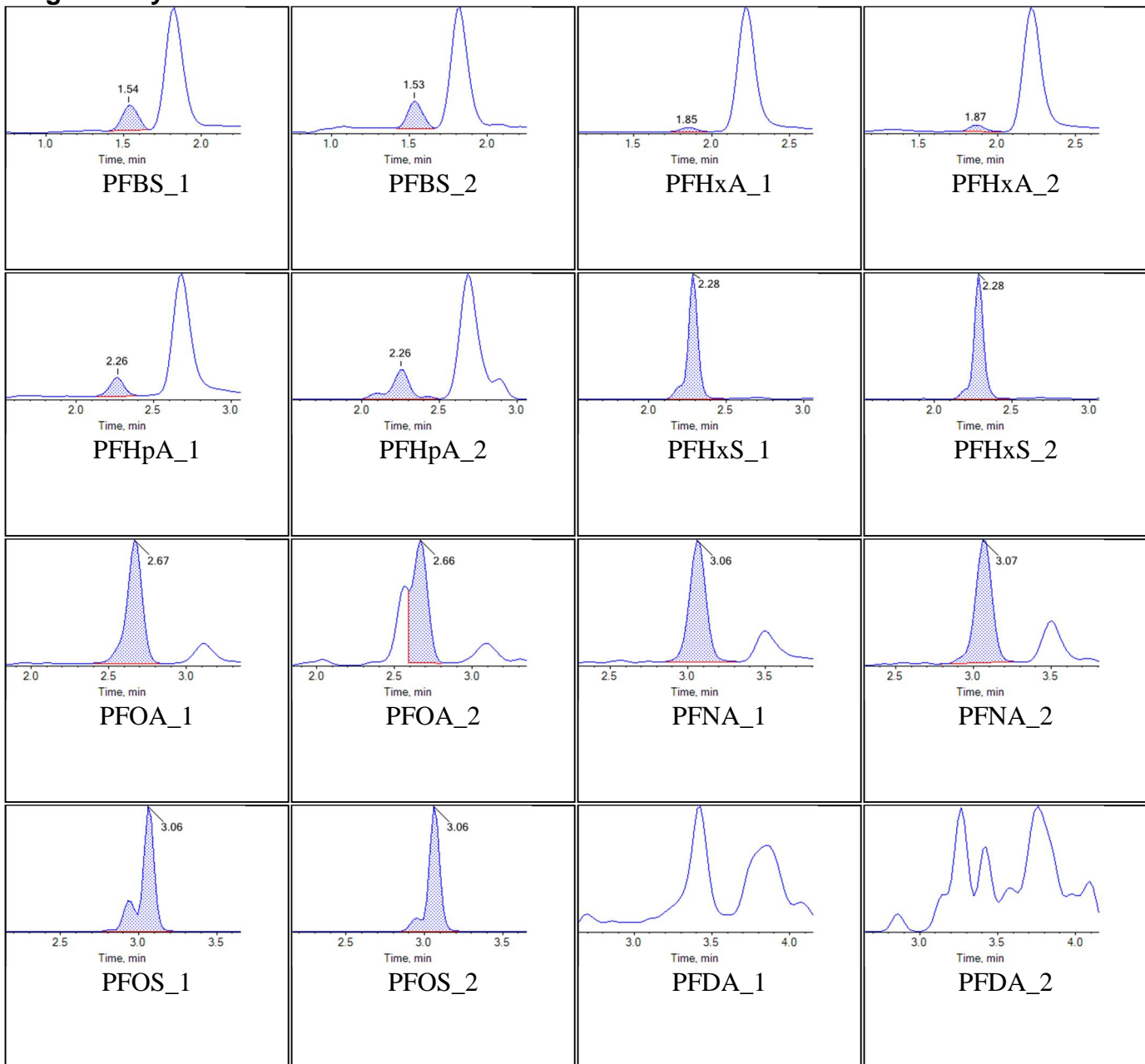
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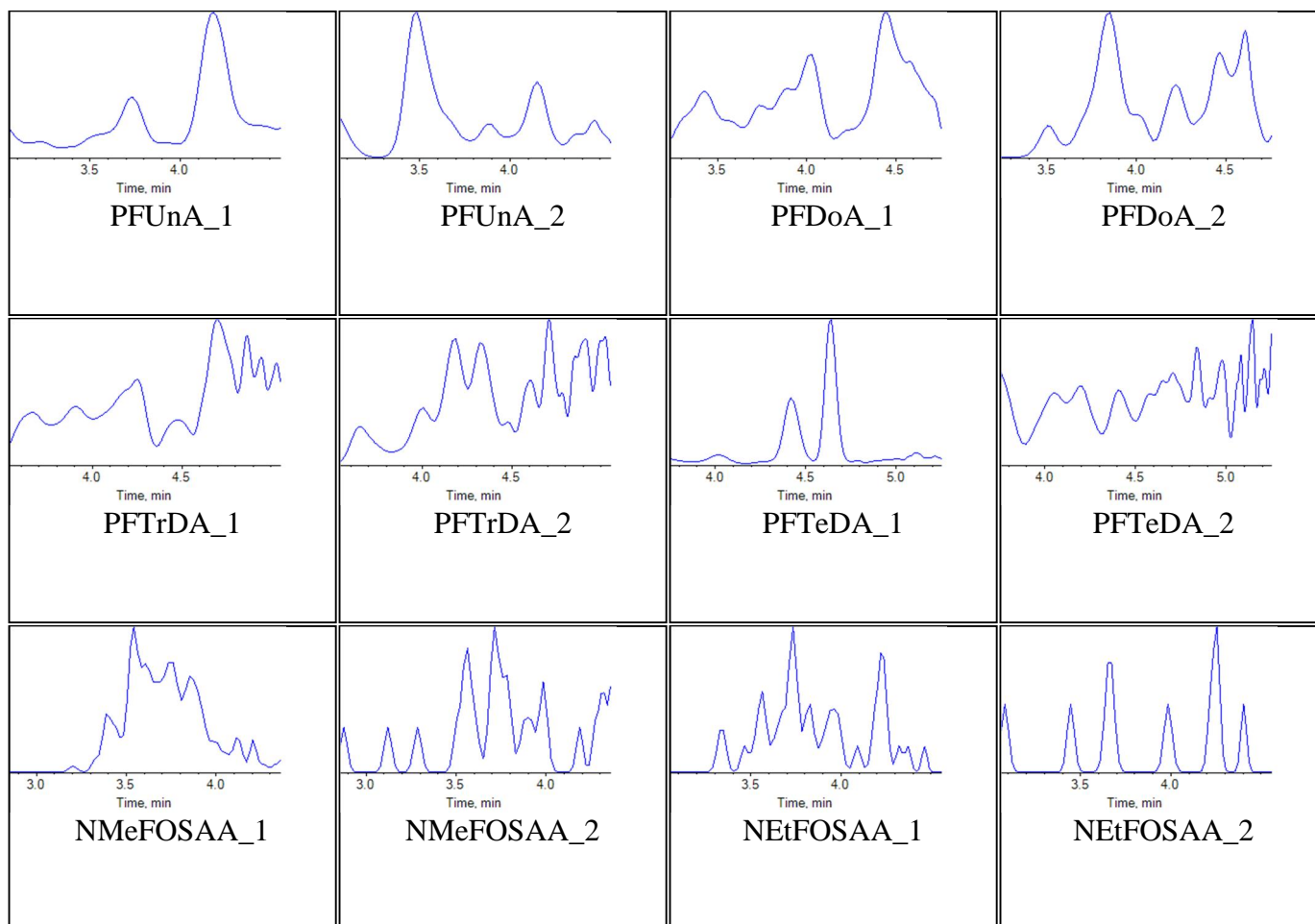
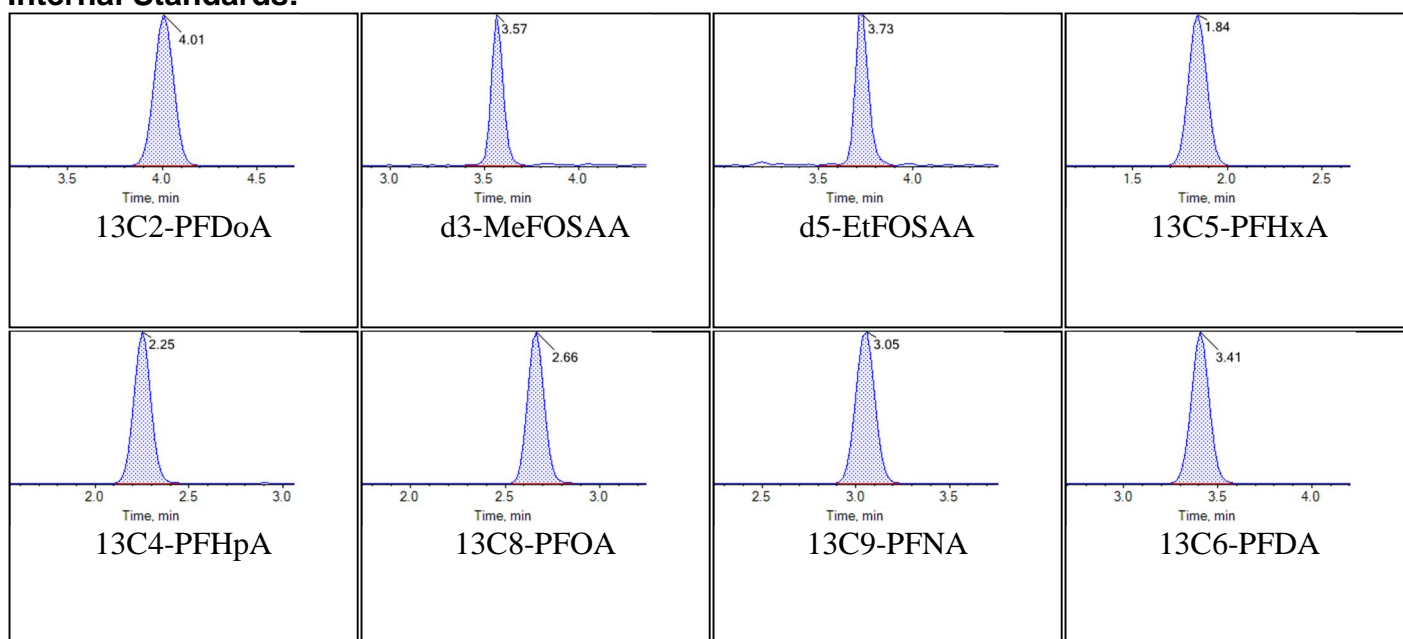


Sample Name	J8475-FS(3)	Injection Vial	15
Sample ID	VC-PM367-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:24:20	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Chromatograms

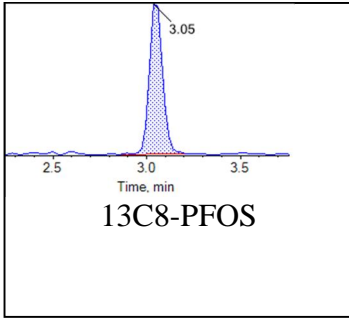
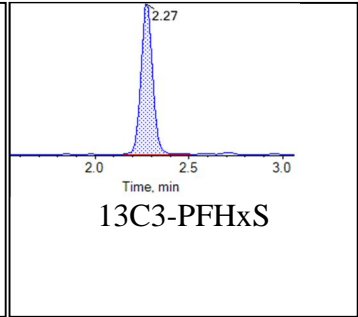
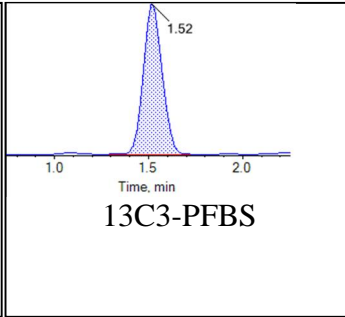
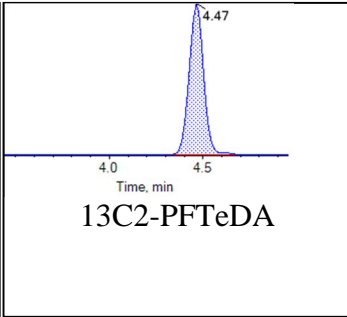
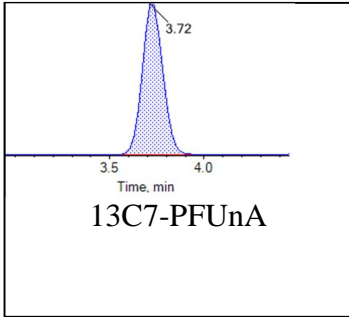
Target Analytes:



**Internal Standards:**

Chromatogram Report

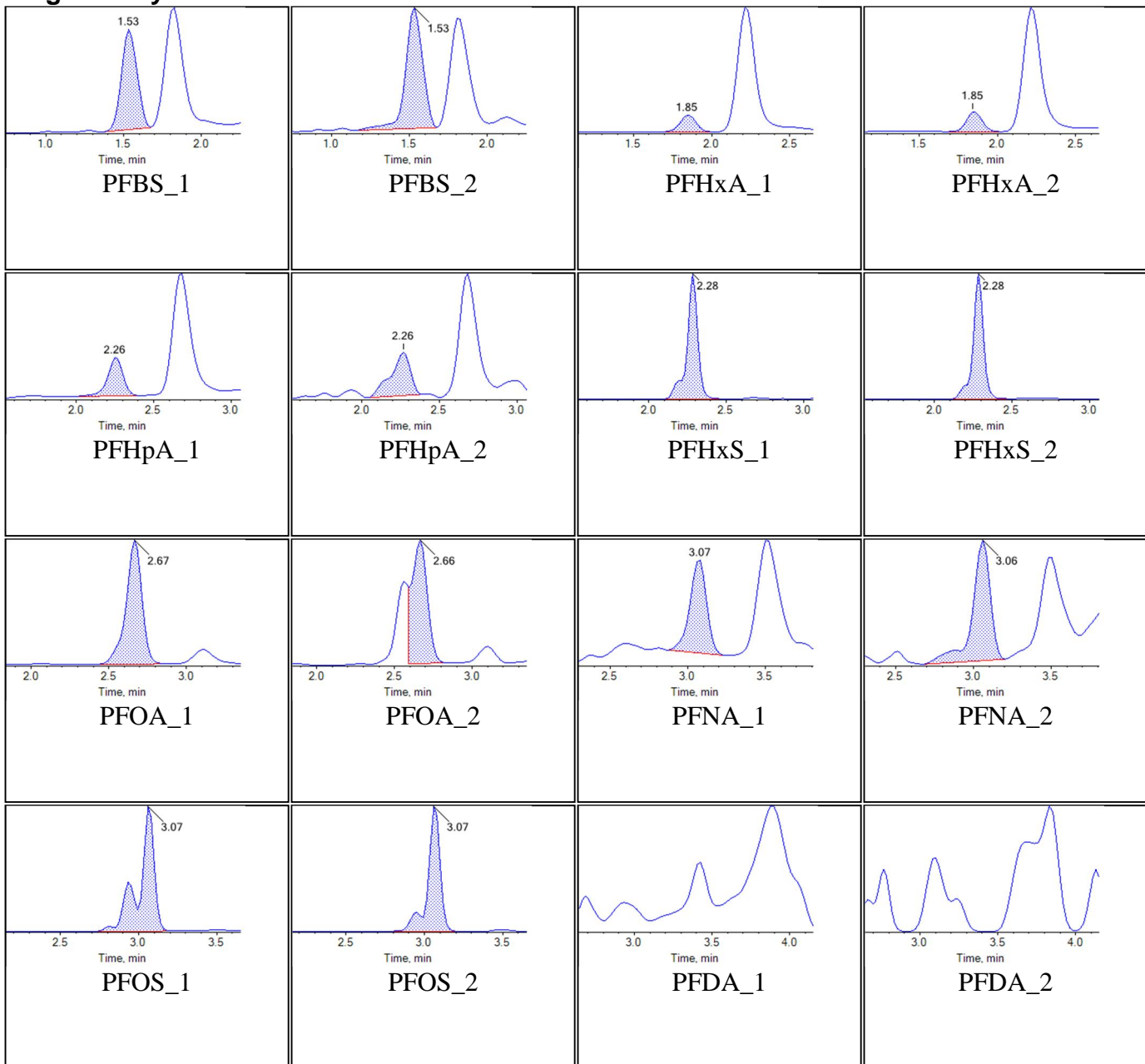
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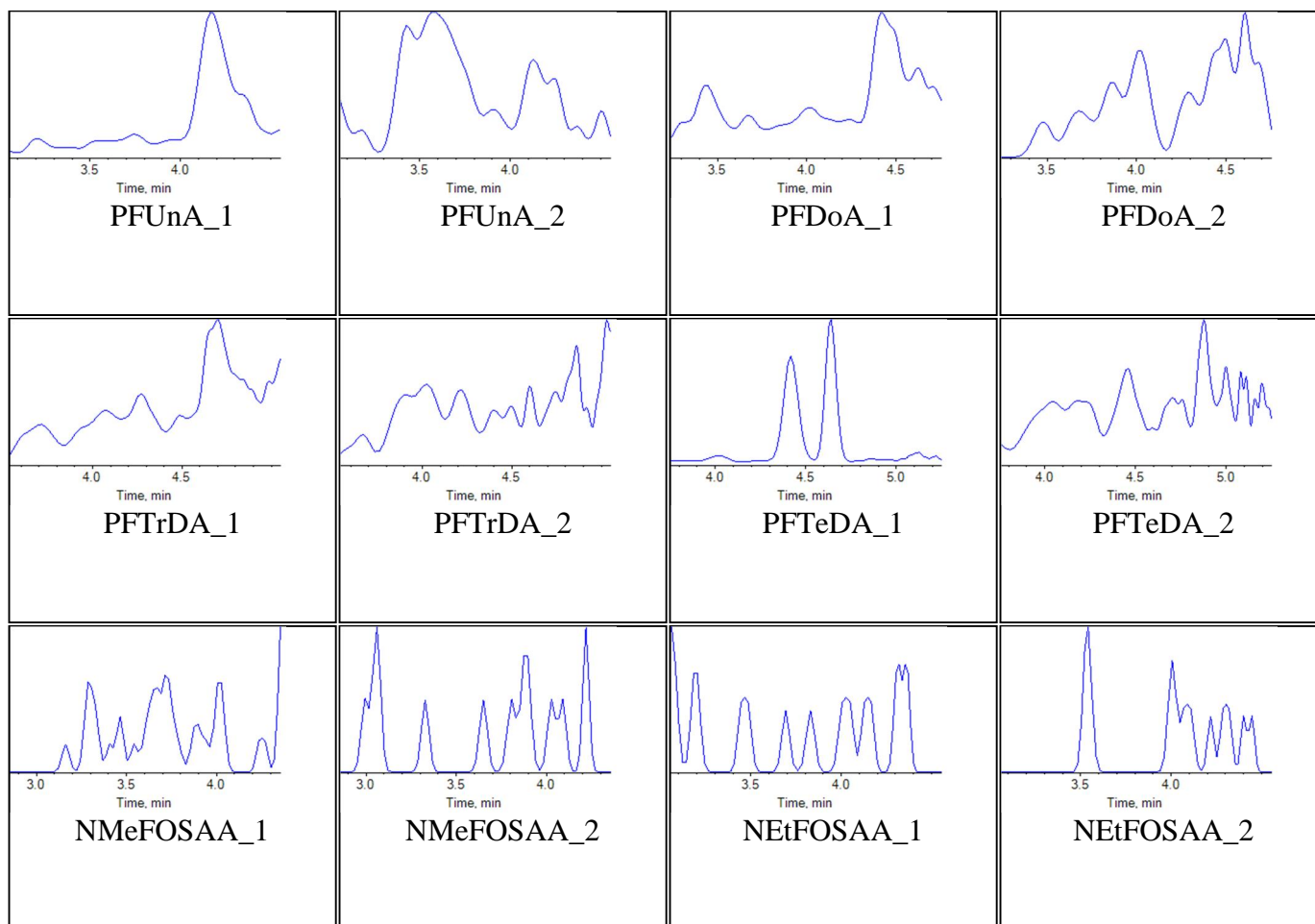
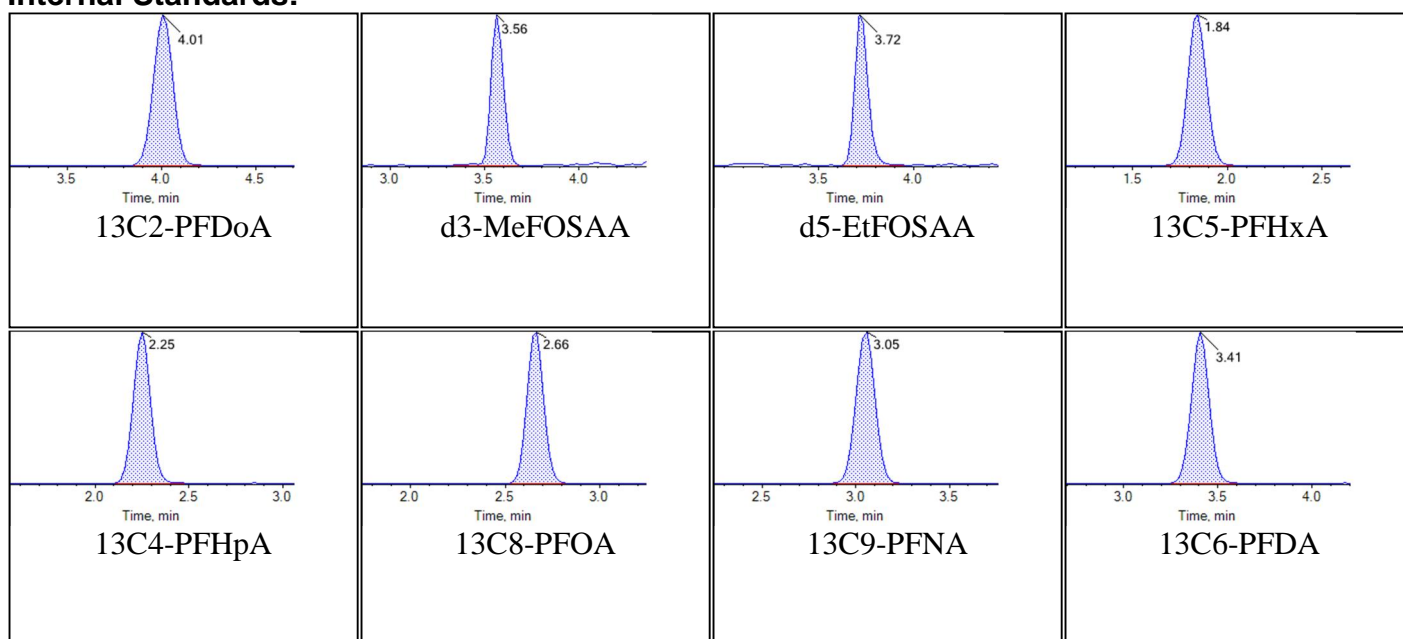


Sample Name	J8476-FS(3)	Injection Vial	16
Sample ID	VC-PM367-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:35:12	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Chromatograms

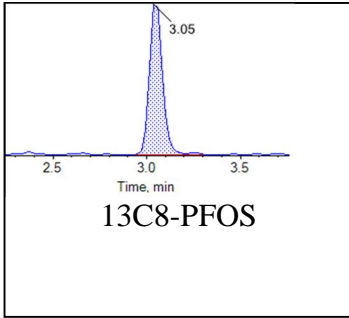
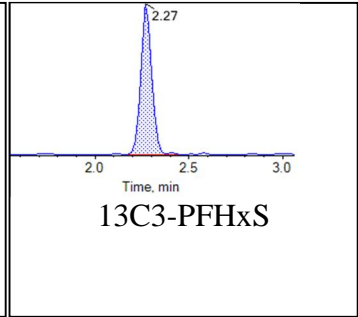
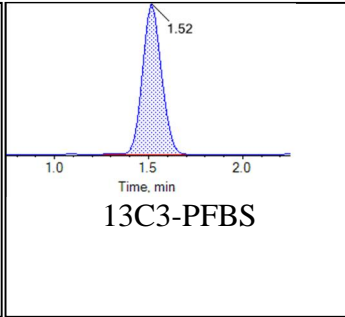
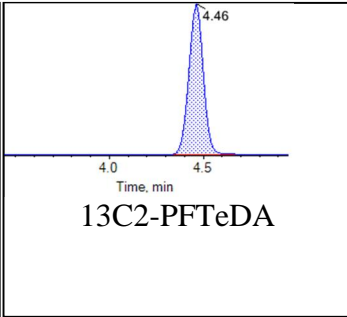
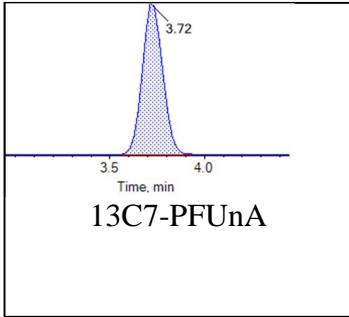
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**Internal Standards:**

Chromatogram Report

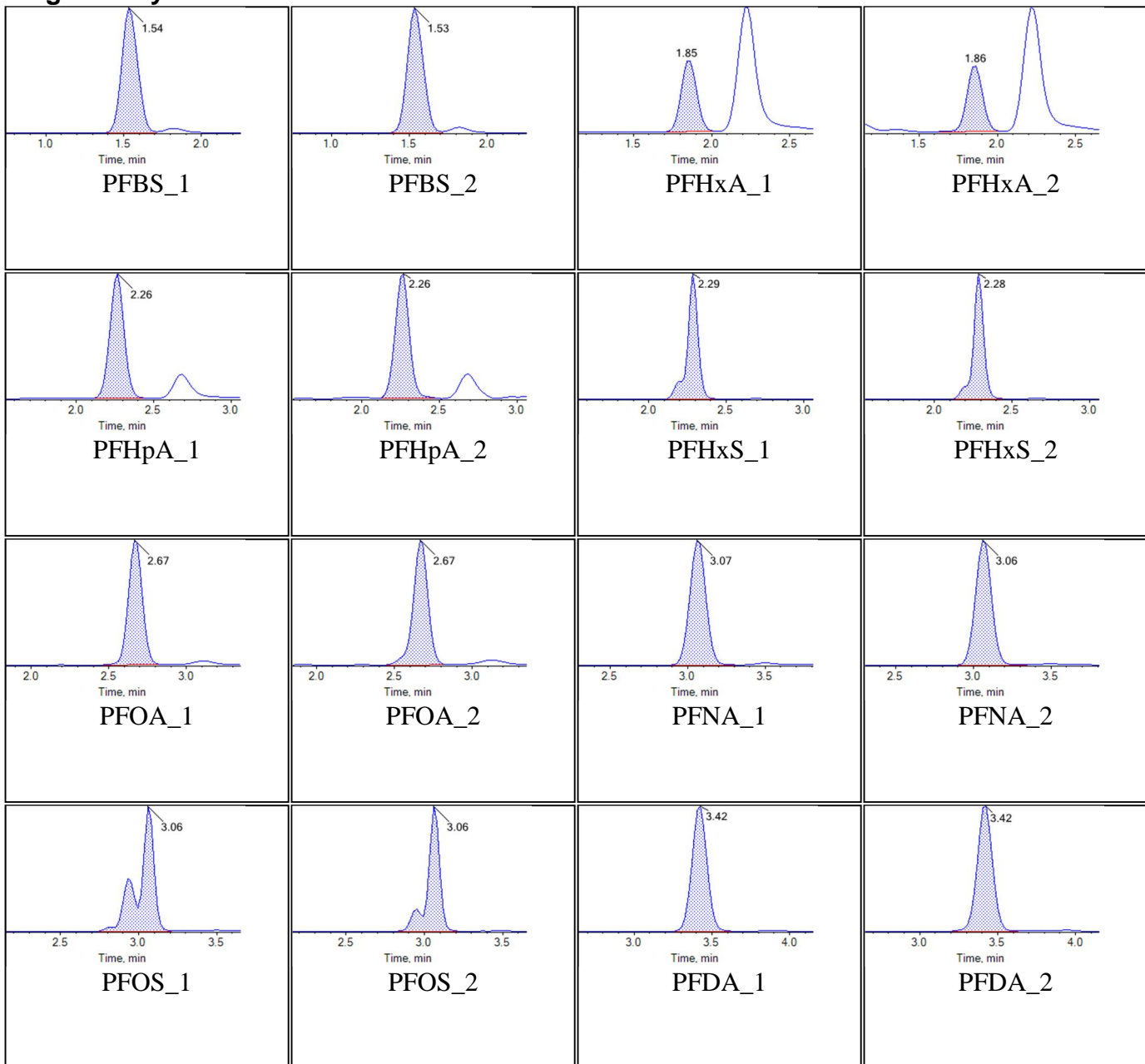
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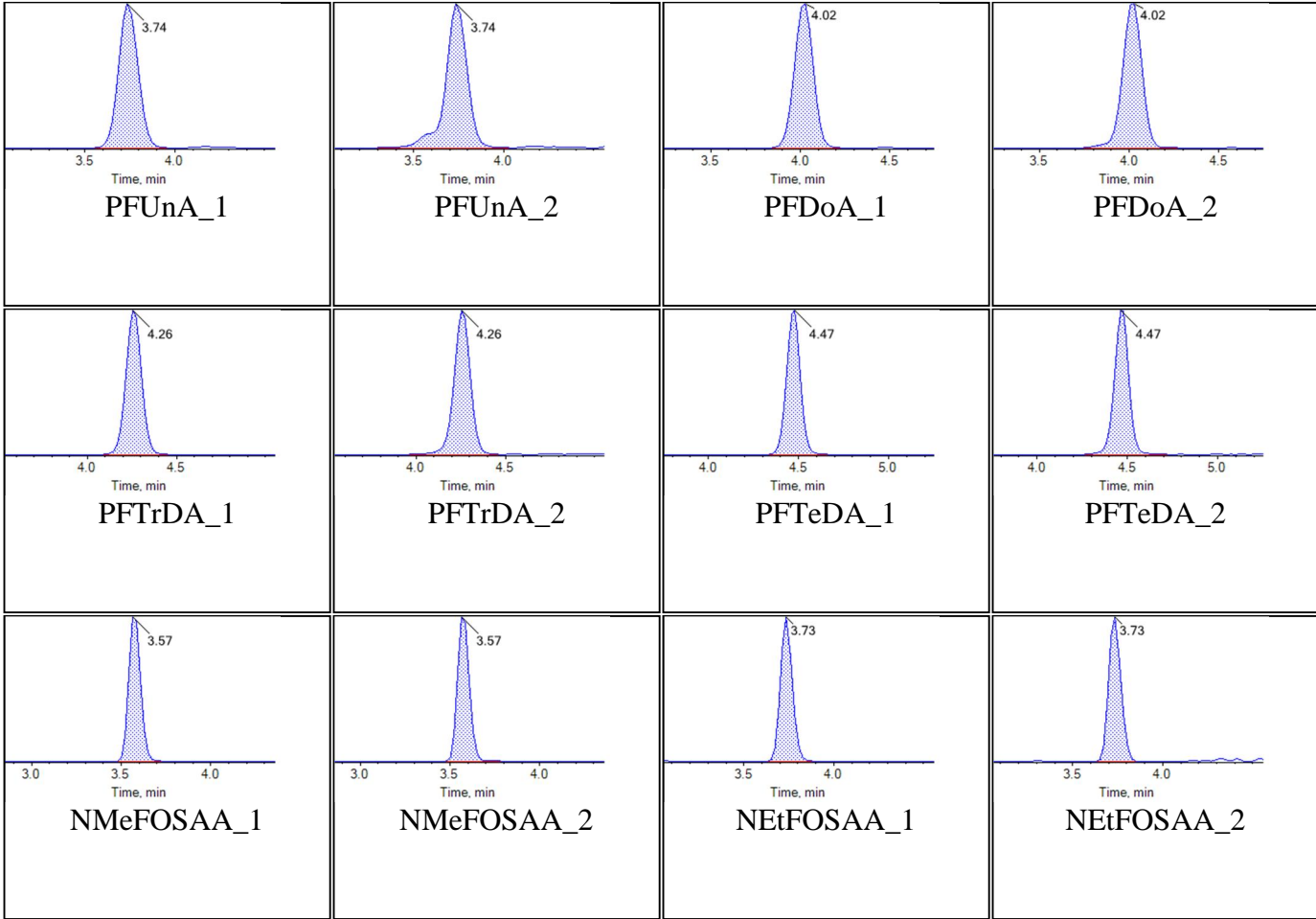


Sample Name	KB77 CCV	Injection Vial	18
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:56:57	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

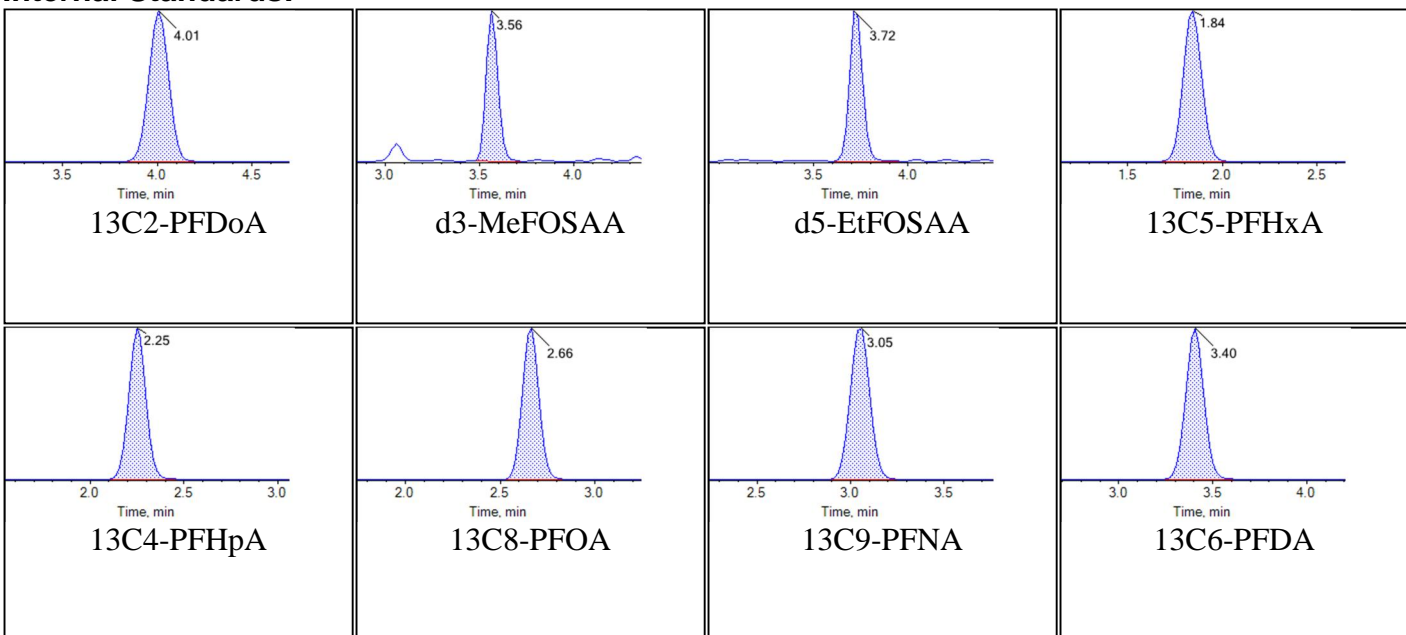
Chromatograms

Target Analytes:



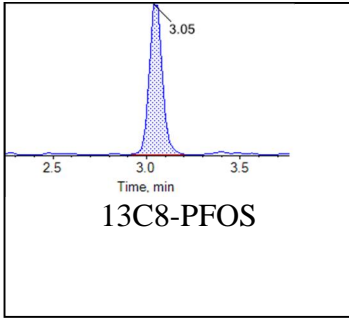
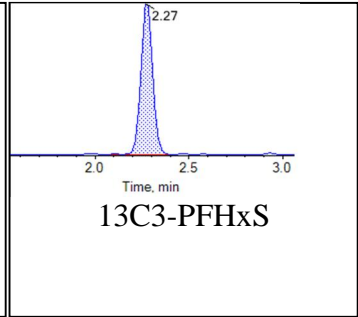
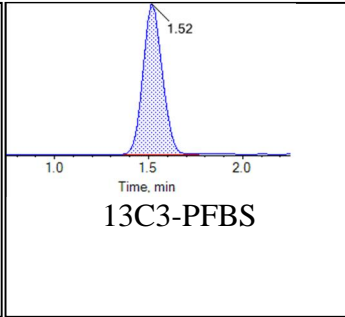
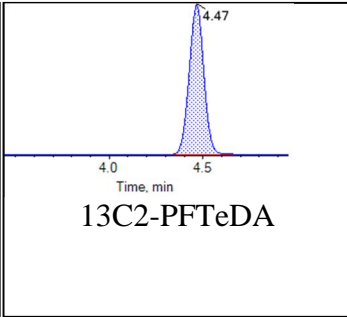
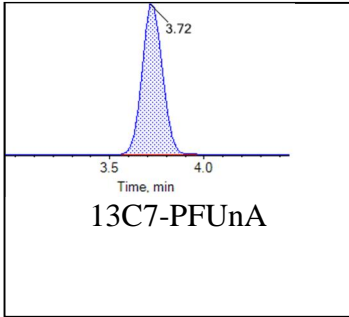


Internal Standards:



Chromatogram Report

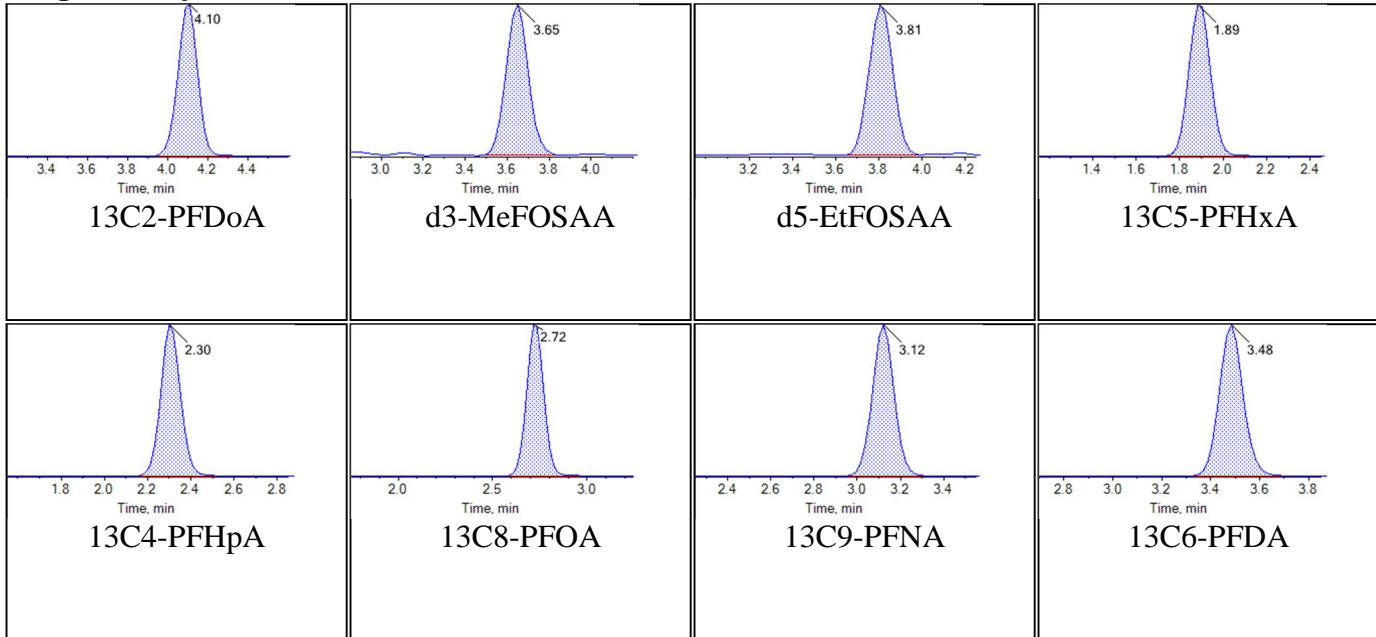
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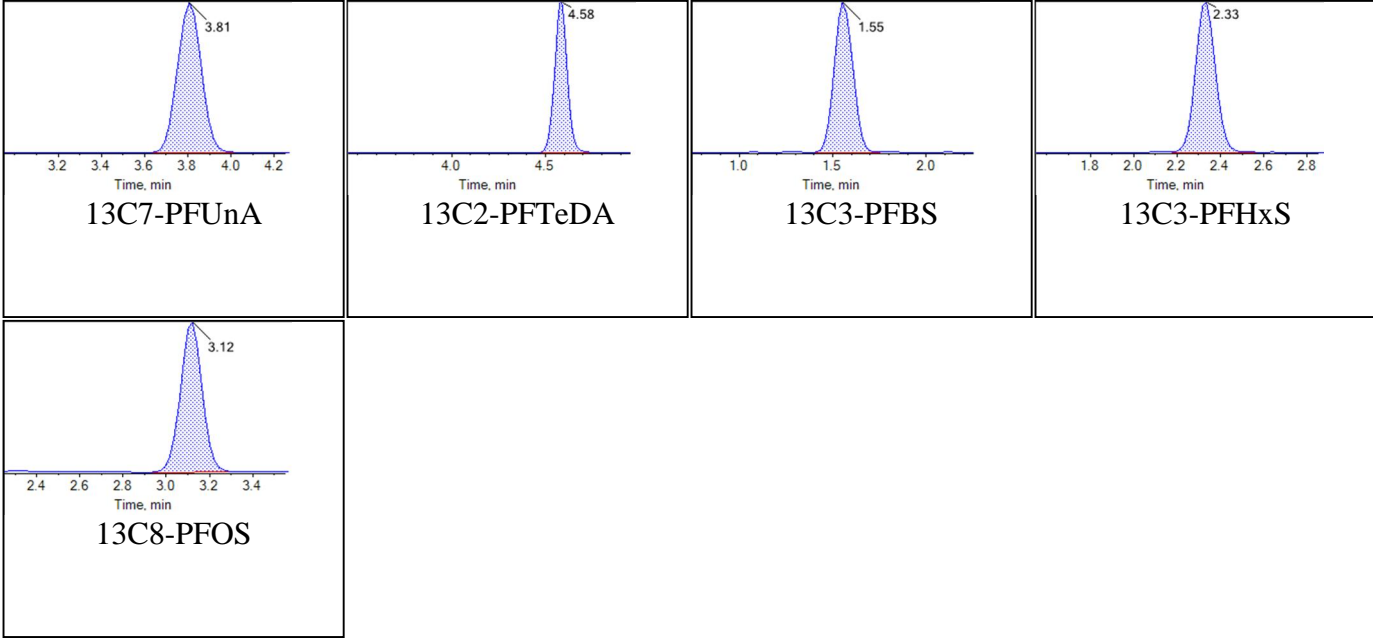


Sample Name	KB73	Injection Vial	2
Sample ID	L1	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:46:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

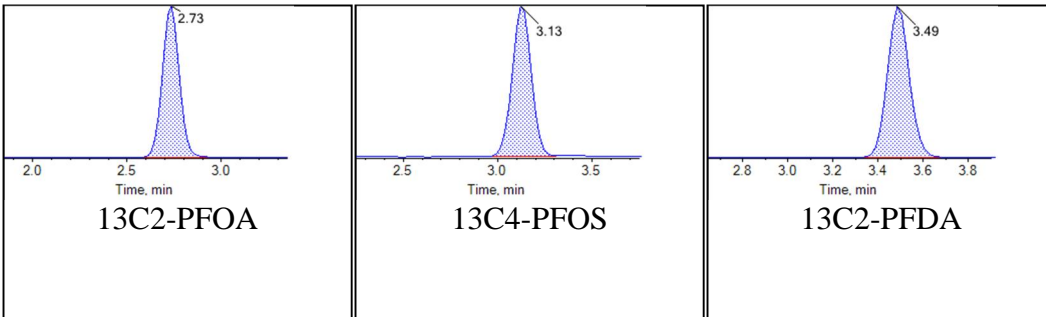
Chromatograms

Target Analytes:





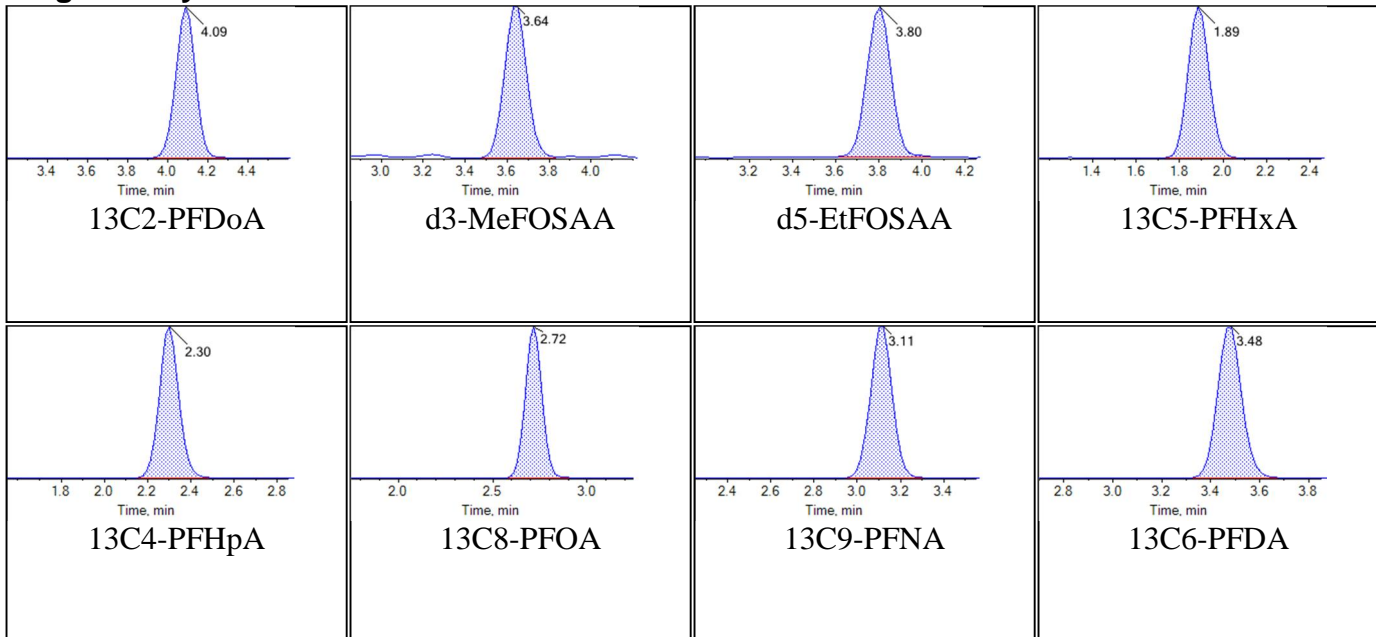
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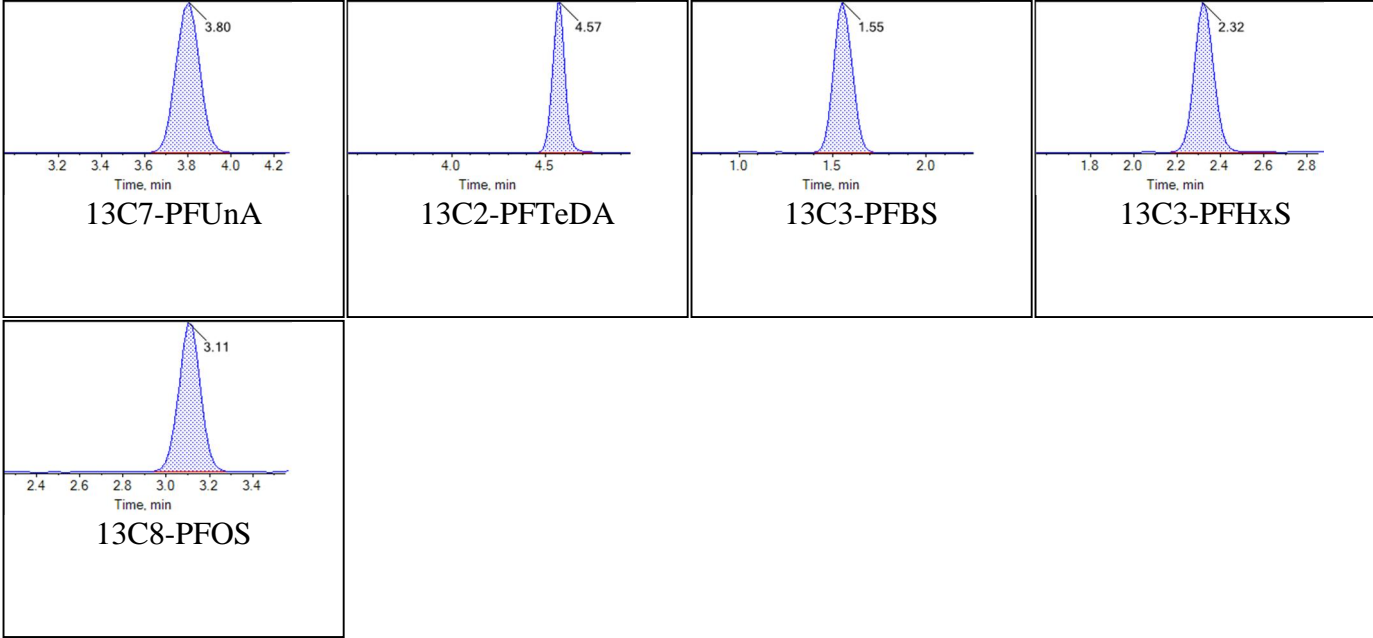


Sample Name	KB74	Injection Vial	3
Sample ID	L2	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T19:57:45	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

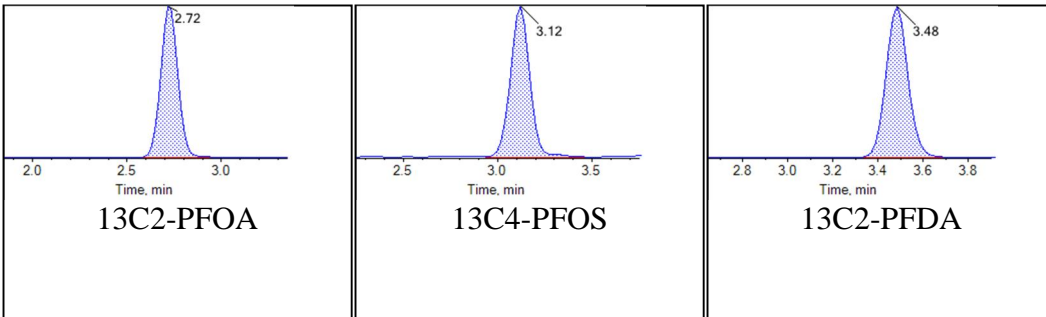
Chromatograms

Target Analytes:





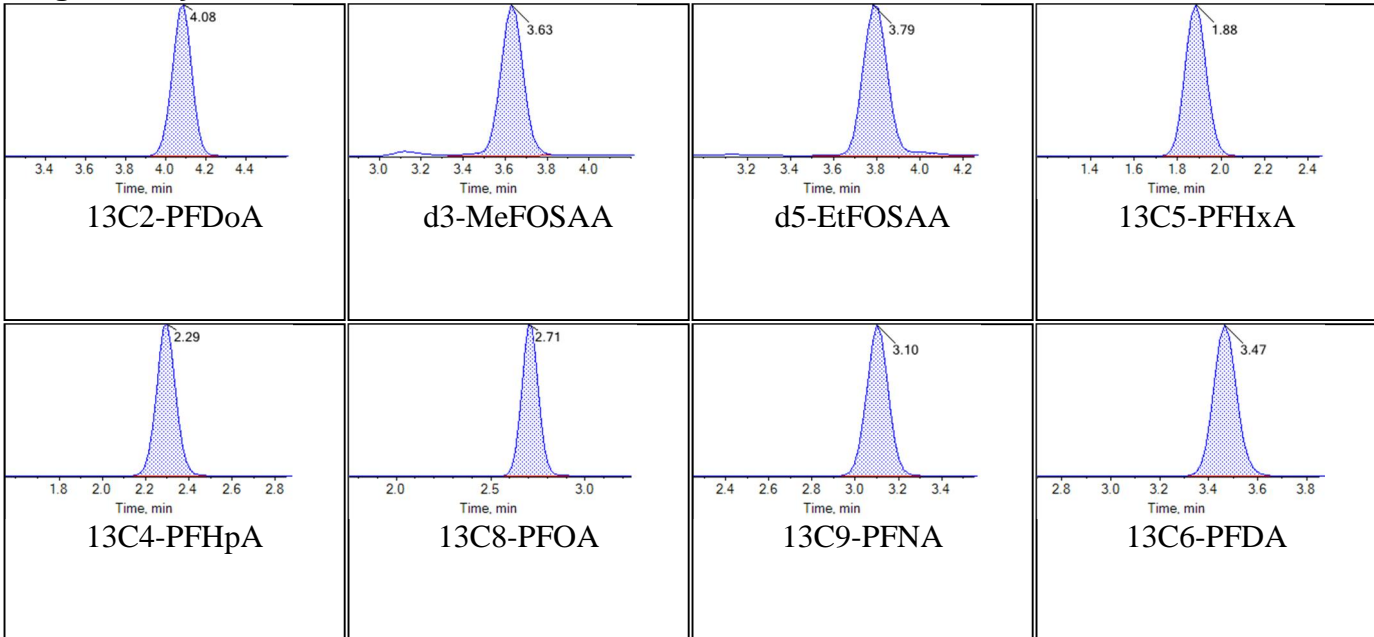
Internal Standards:

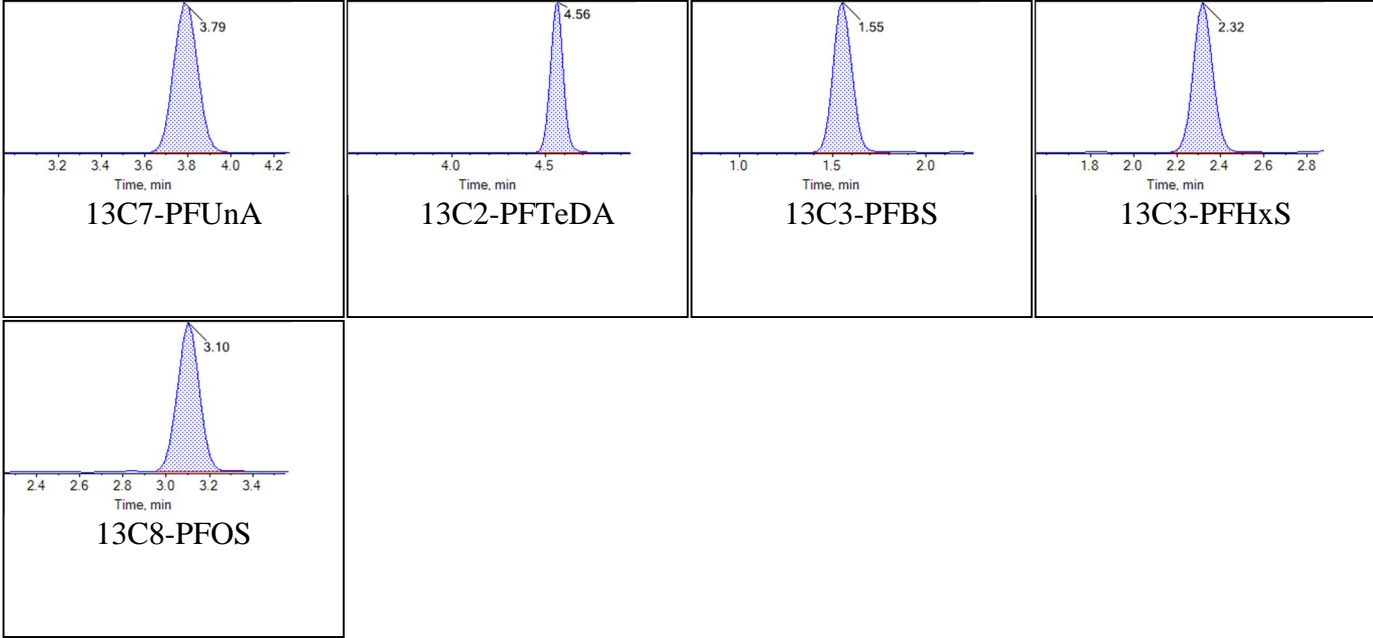


Sample Name	KB75	Injection Vial	4
Sample ID	L3	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:08:39	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

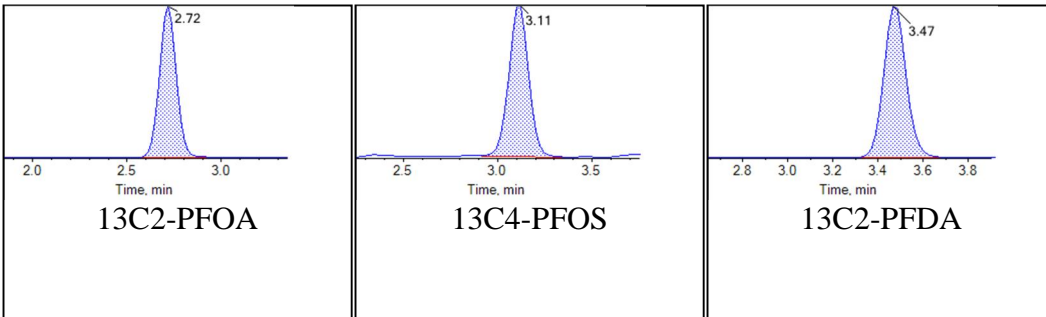
Chromatograms

Target Analytes:





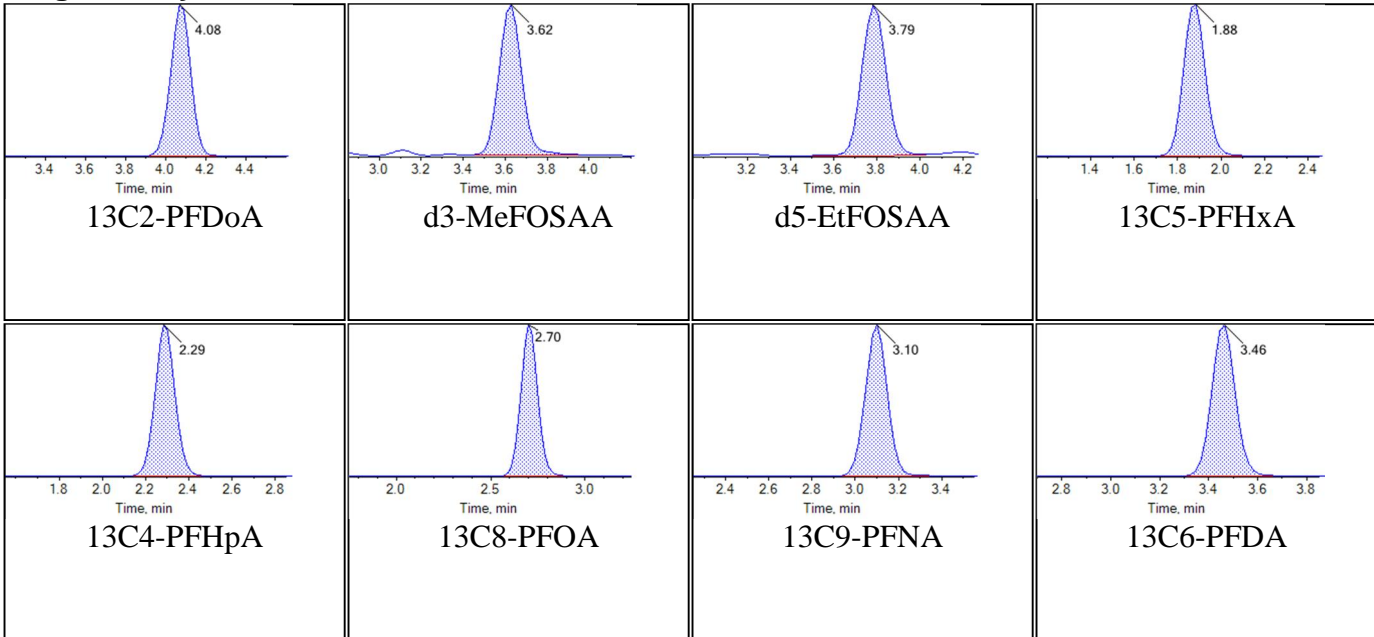
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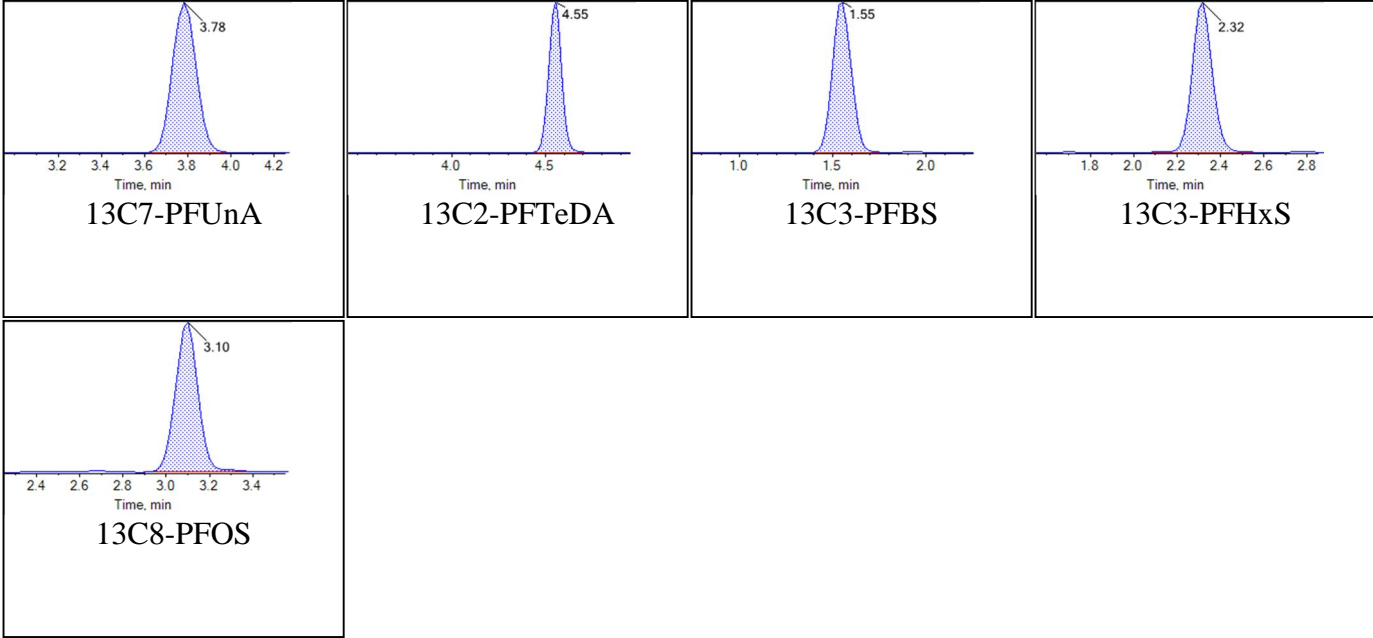


Sample Name	KB76	Injection Vial	5
Sample ID	L4	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:19:32	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

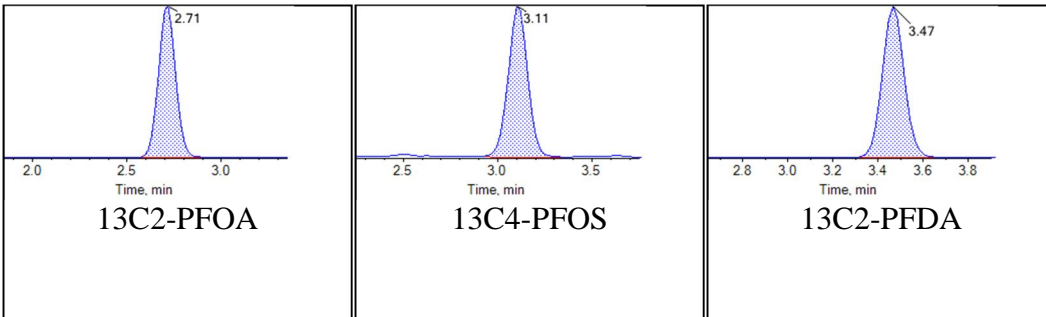
Chromatograms

Target Analytes:





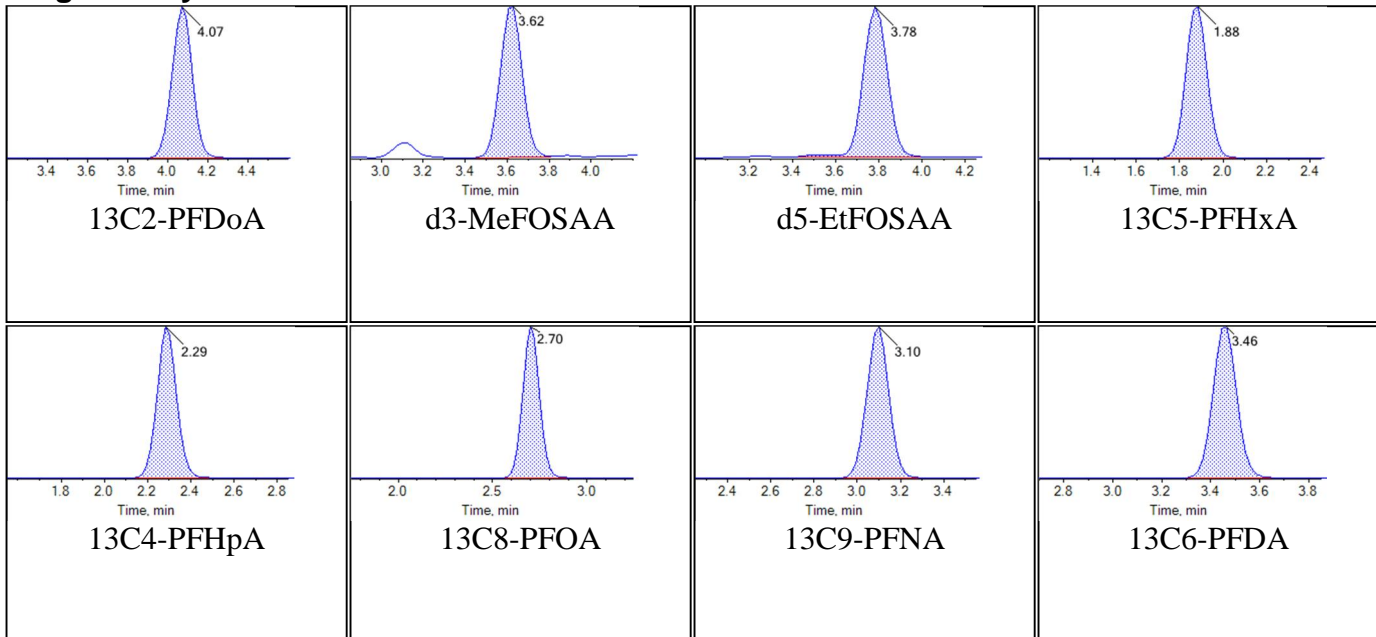
Internal Standards:



Sample Name	KB77	Injection Vial	6
Sample ID	L5	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:30:23	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

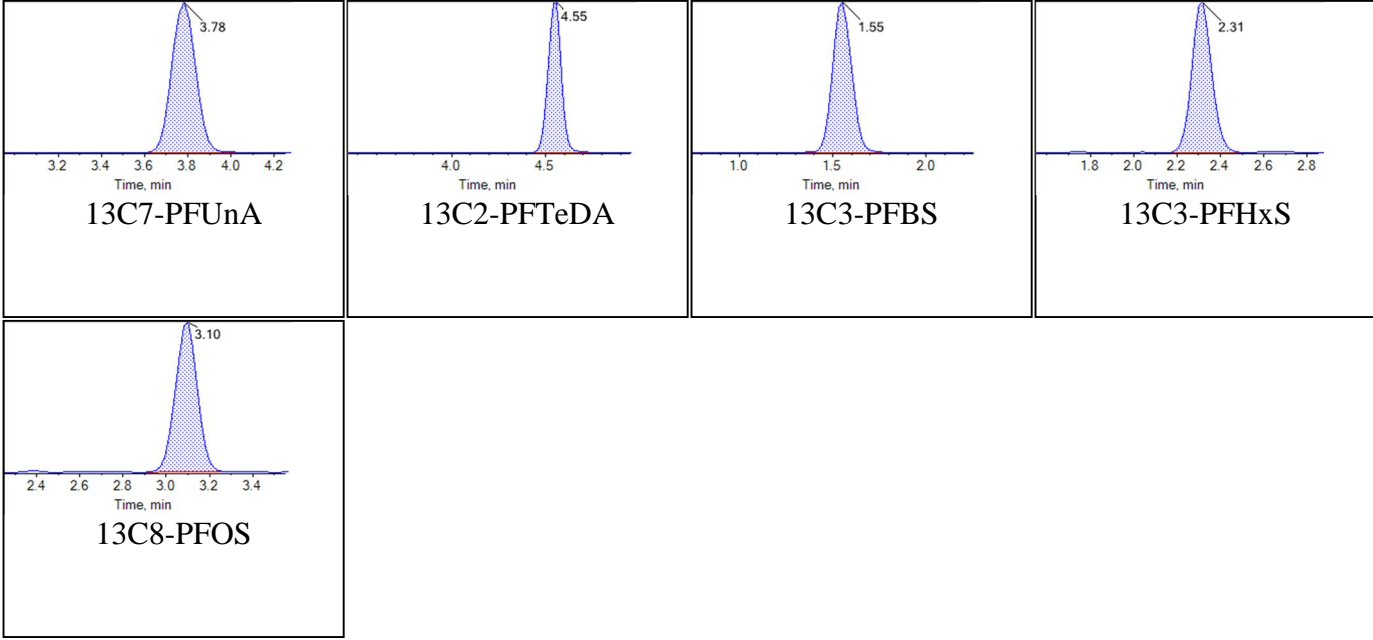
Target Analytes:



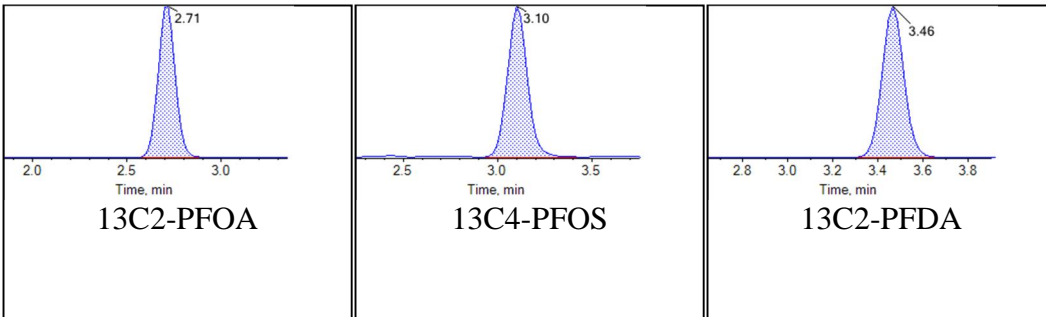


Chromatogram Report

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Printed: 23/10/2018 7:25:24 PM



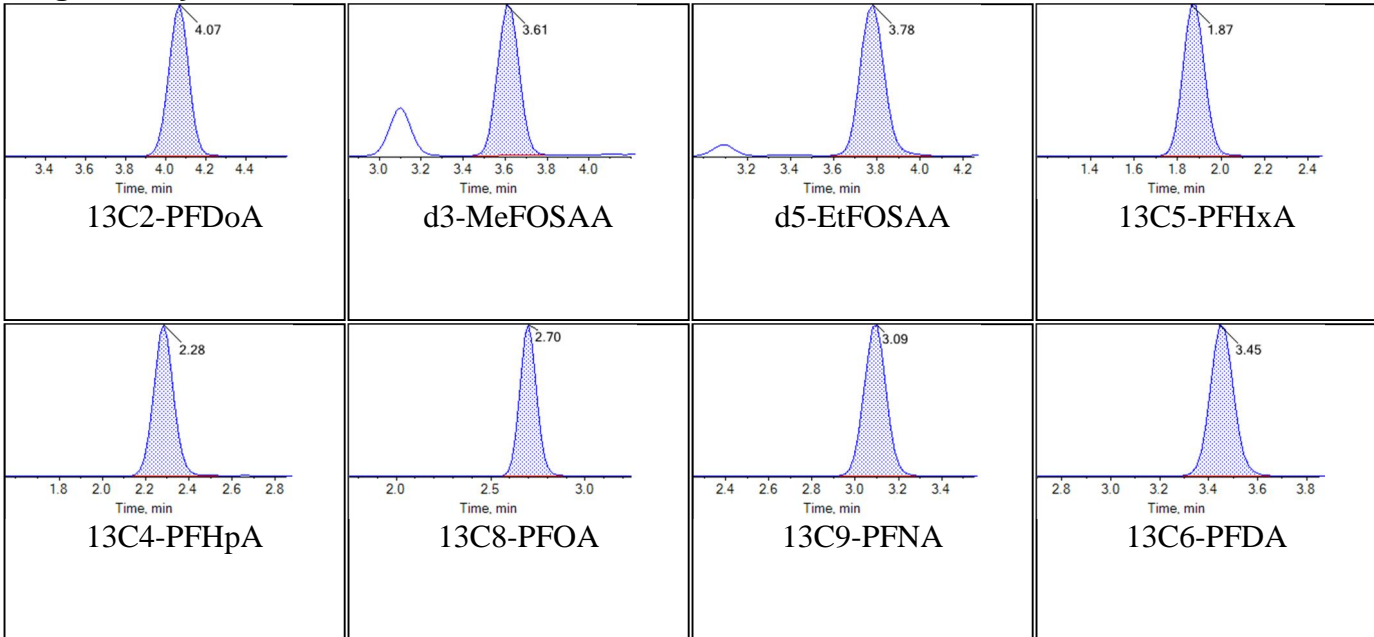
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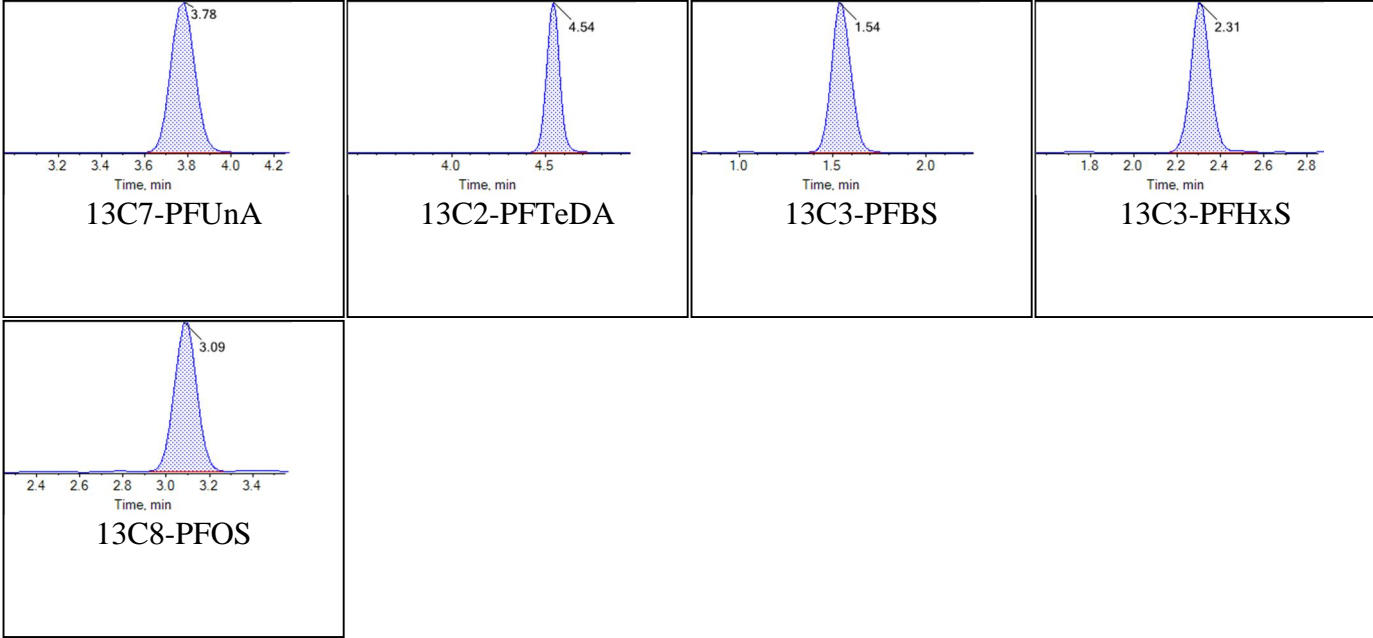


Sample Name	KB78	Injection Vial	7
Sample ID	L6	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:41:14	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

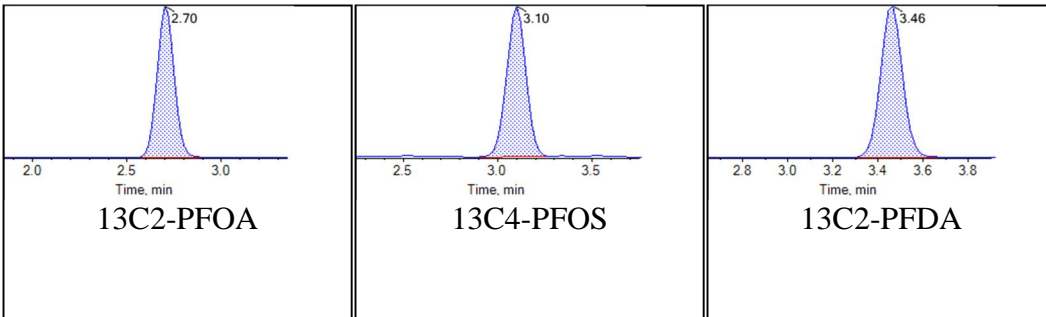
Chromatograms

Target Analytes:





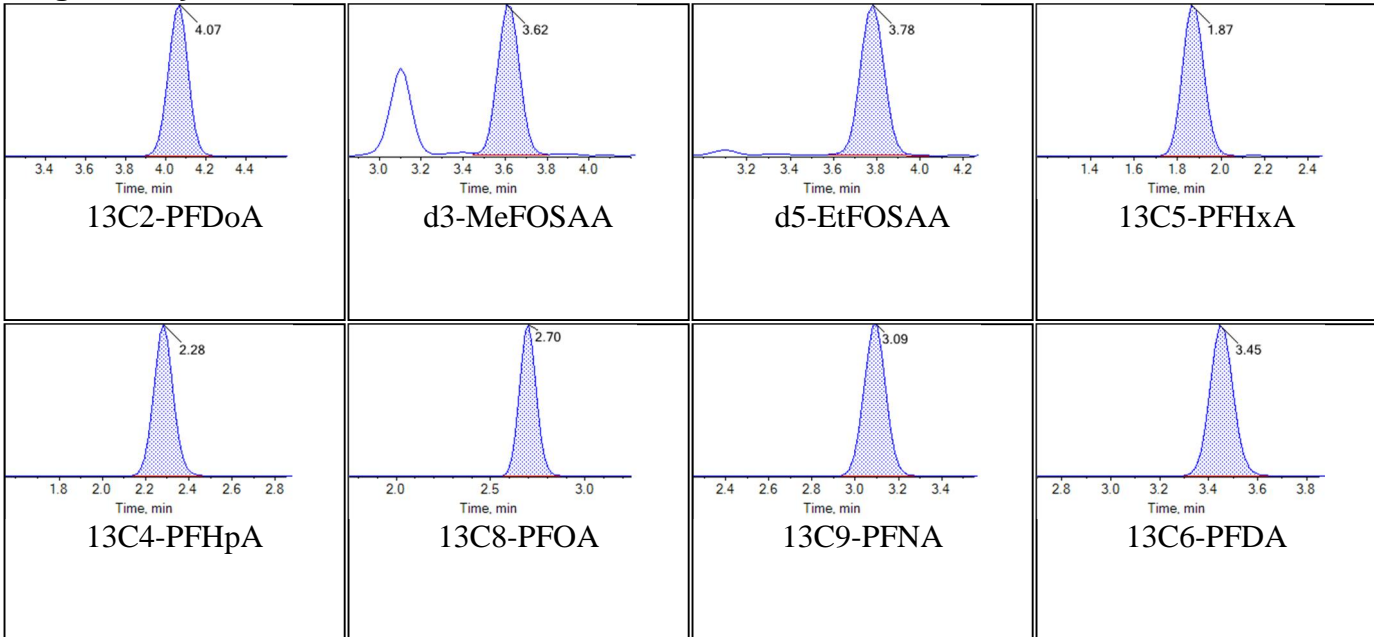
Internal Standards:

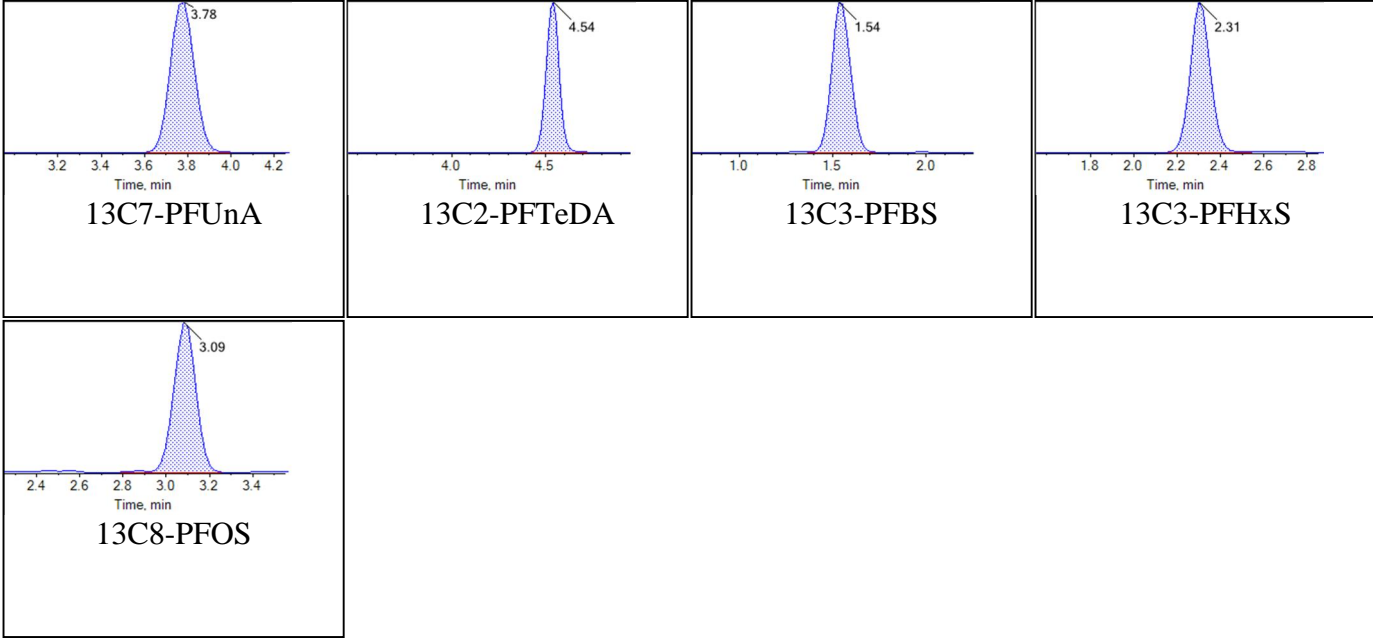


Sample Name	KB79	Injection Vial	8
Sample ID	L7	Injection Volume	10.00
Sample Type	Standard	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T20:52:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

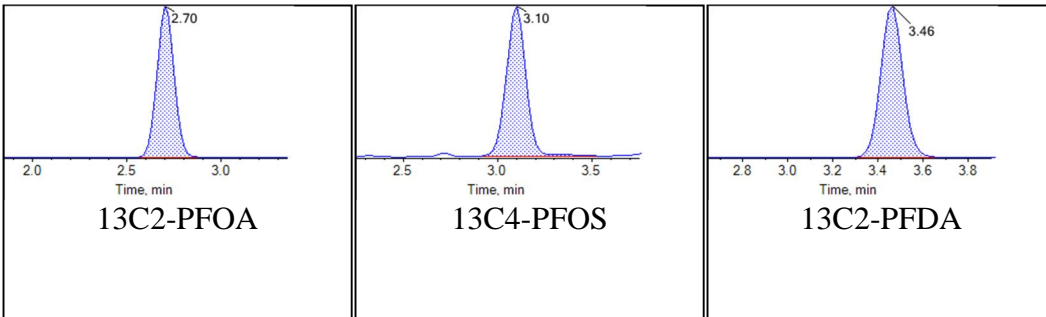
Chromatograms

Target Analytes:





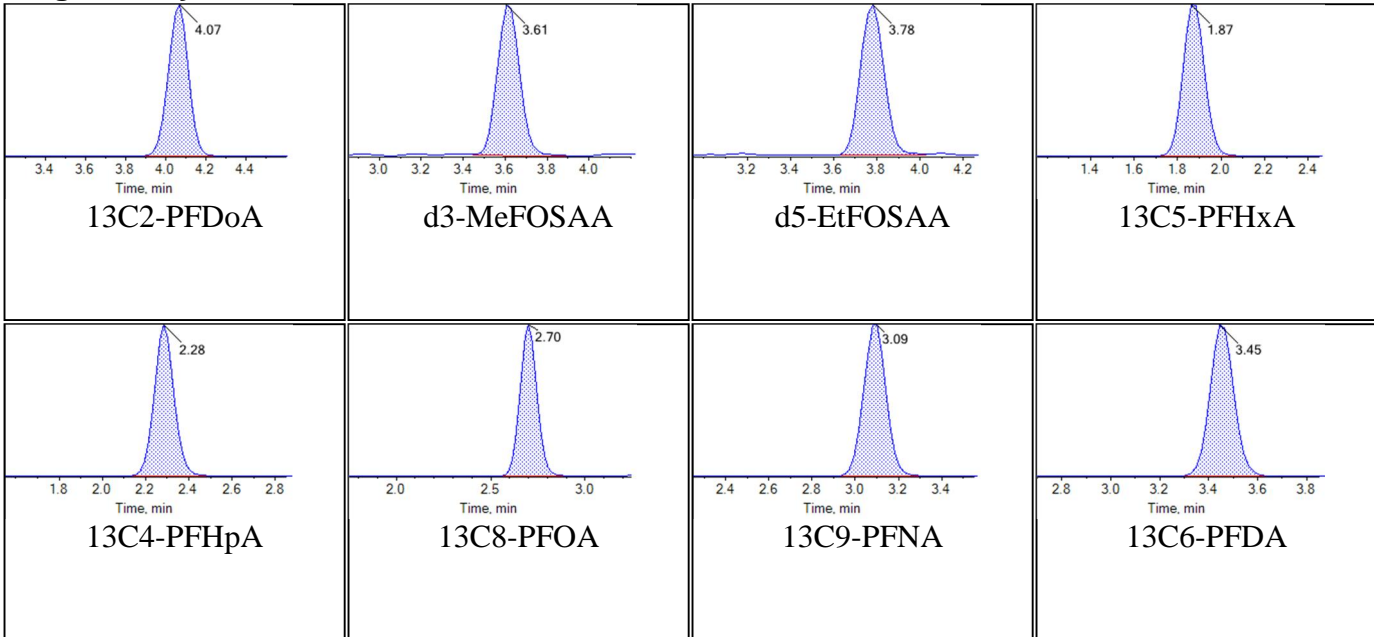
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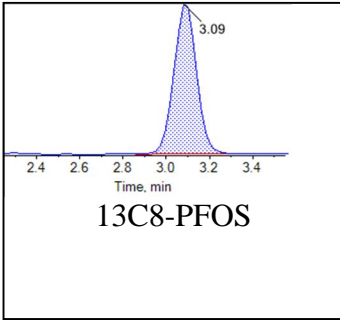
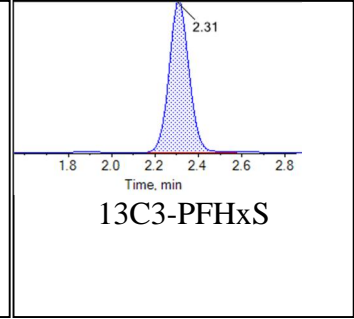
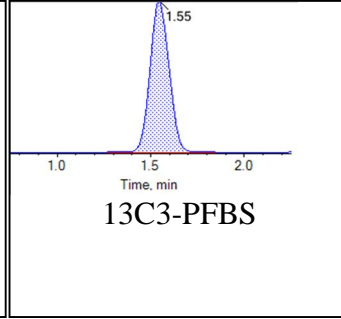
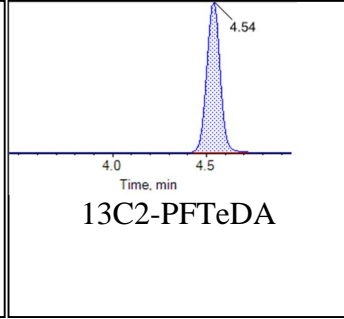
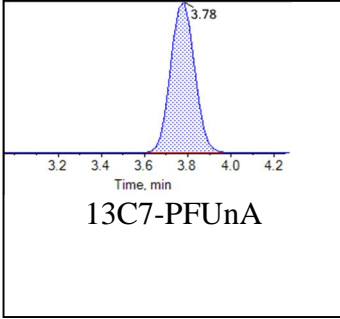


Sample Name	KB80 IB	Injection Vial	9
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:02:57	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

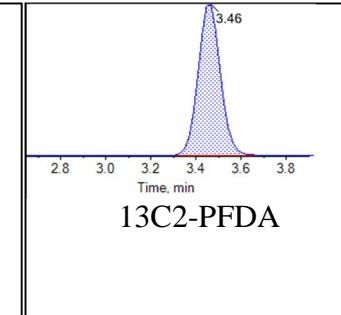
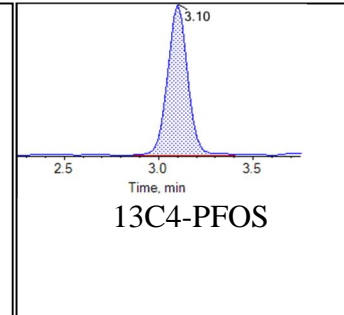
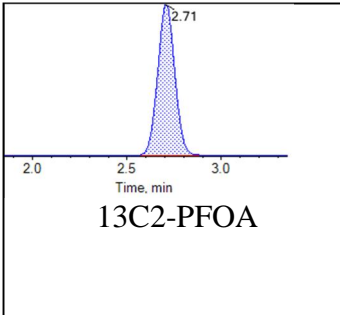
Chromatograms

Target Analytes:





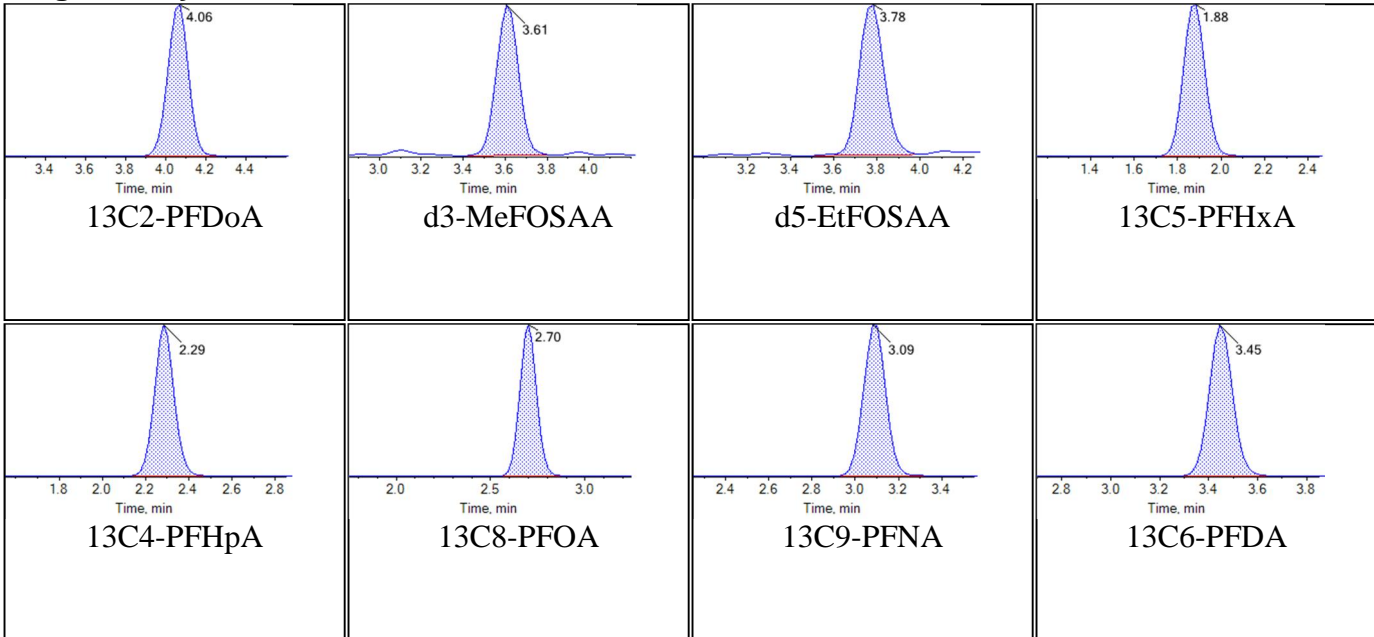
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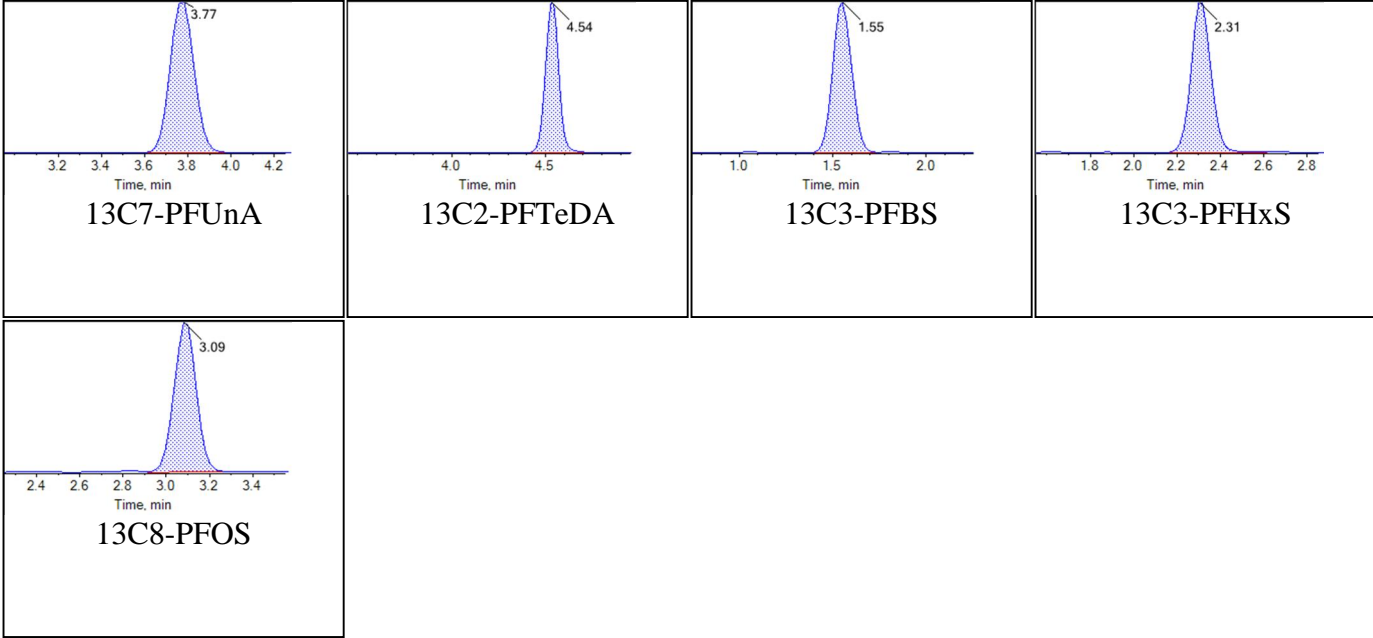


Sample Name	KB81 ICC	Injection Vial	10
Sample ID	ICC	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:13:49	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

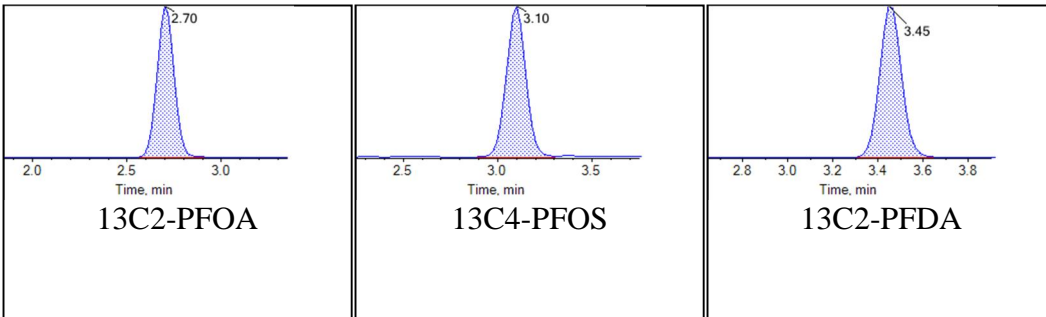
Chromatograms

Target Analytes:





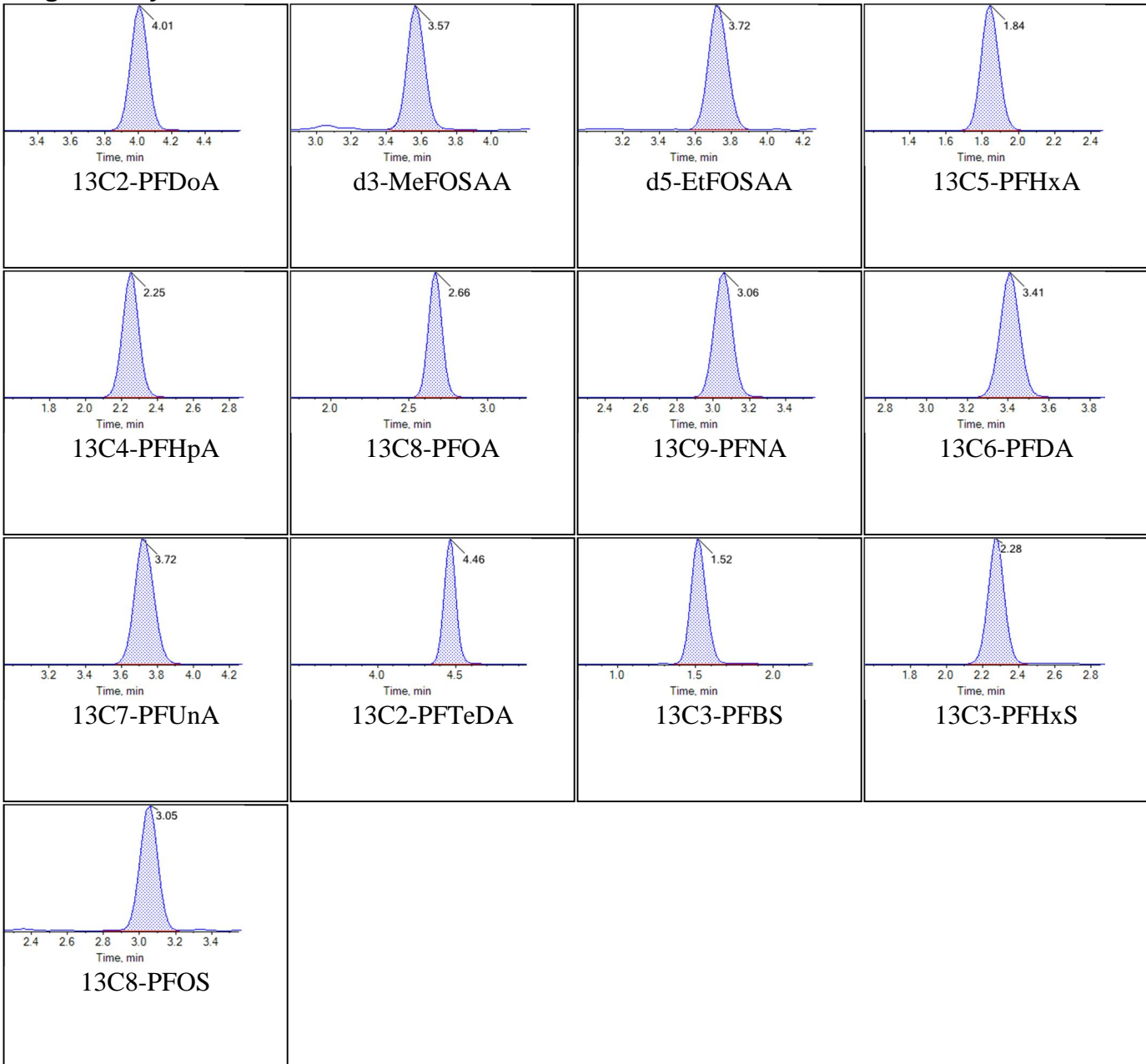
Internal Standards:



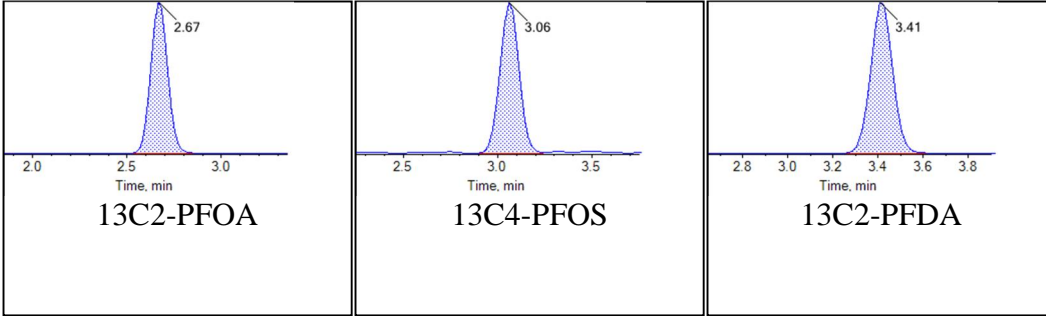
Sample Name	KB76 CCV	Injection Vial	36
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T22:14:13	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



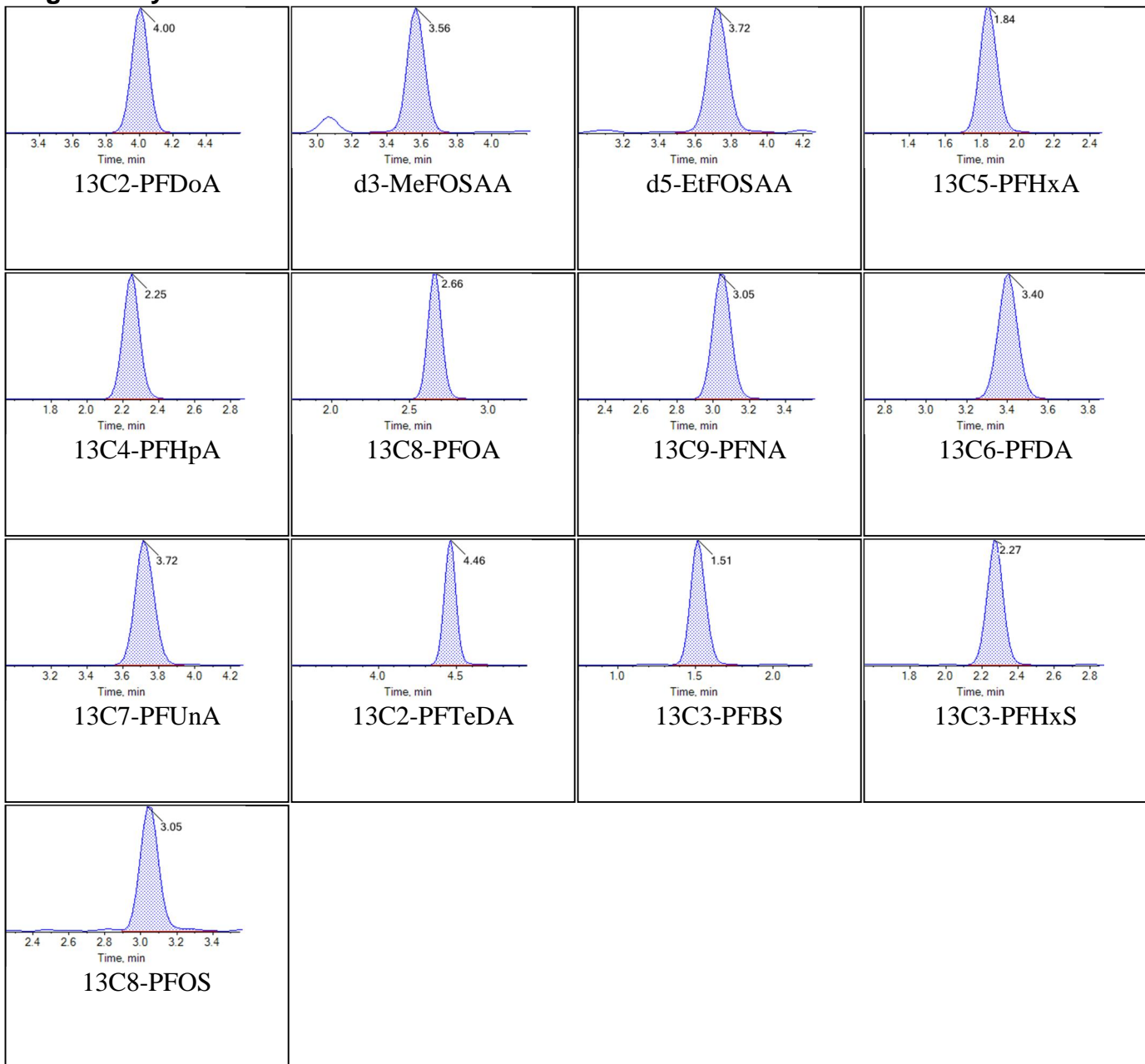
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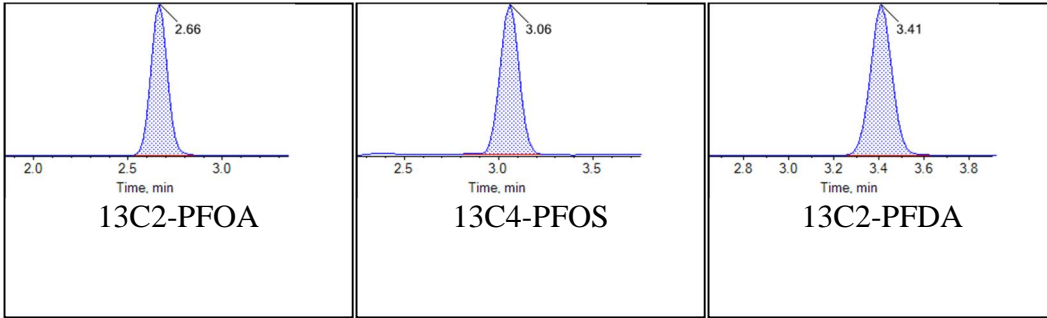
Sample Name	CR905LCS-FS(3)	Injection Vial	2
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:02:52	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



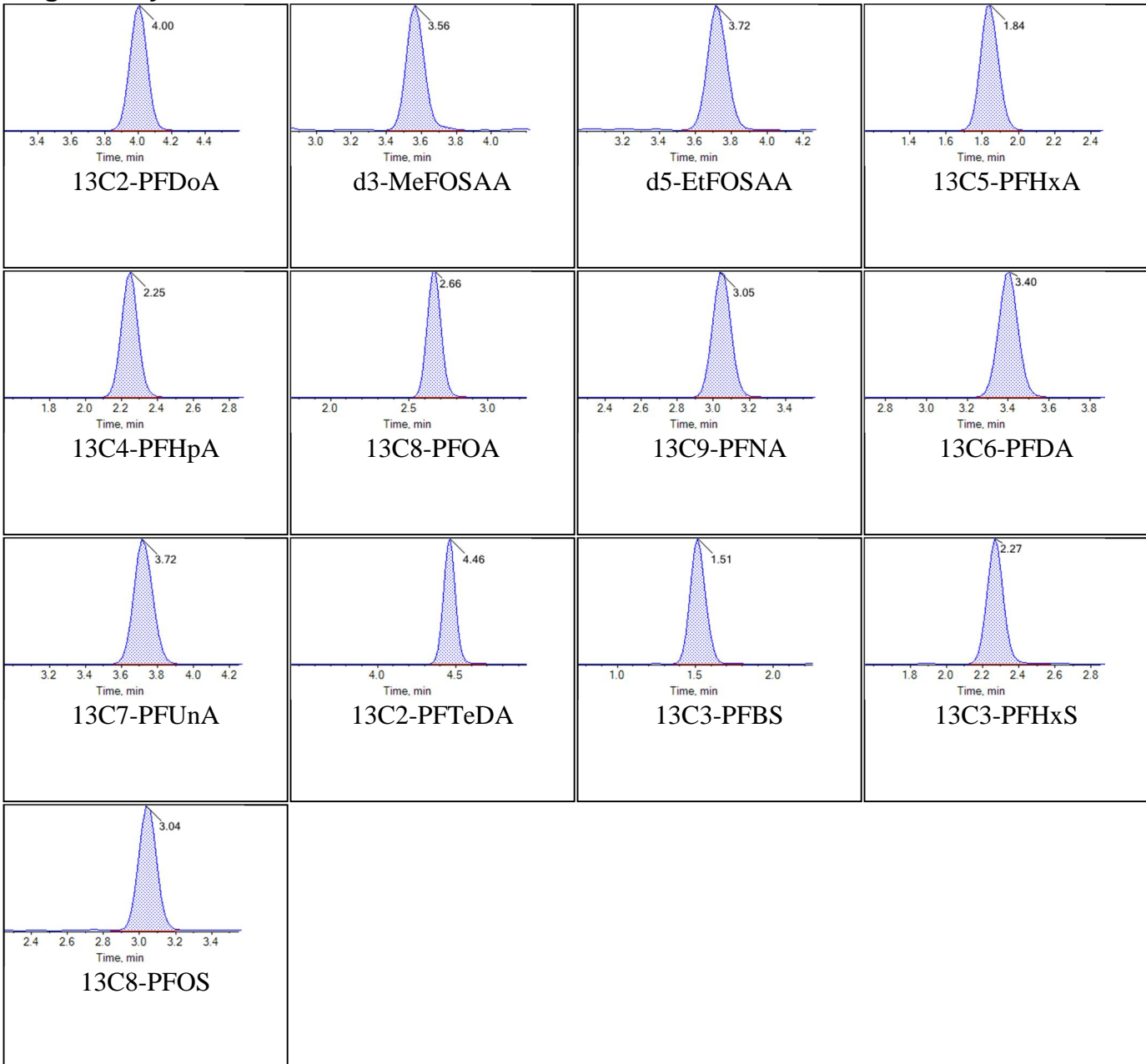
Internal Standards:



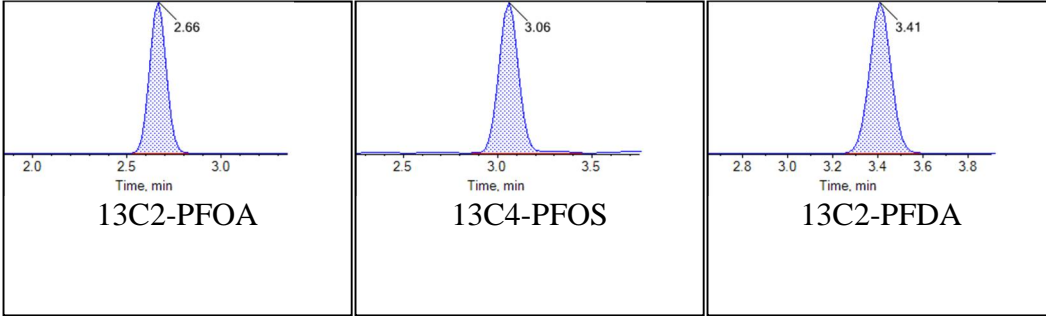
Sample Name	J8465-FS(3)	Injection Vial	3
Sample ID	VC-PM367-SS01-000H	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:13:45	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



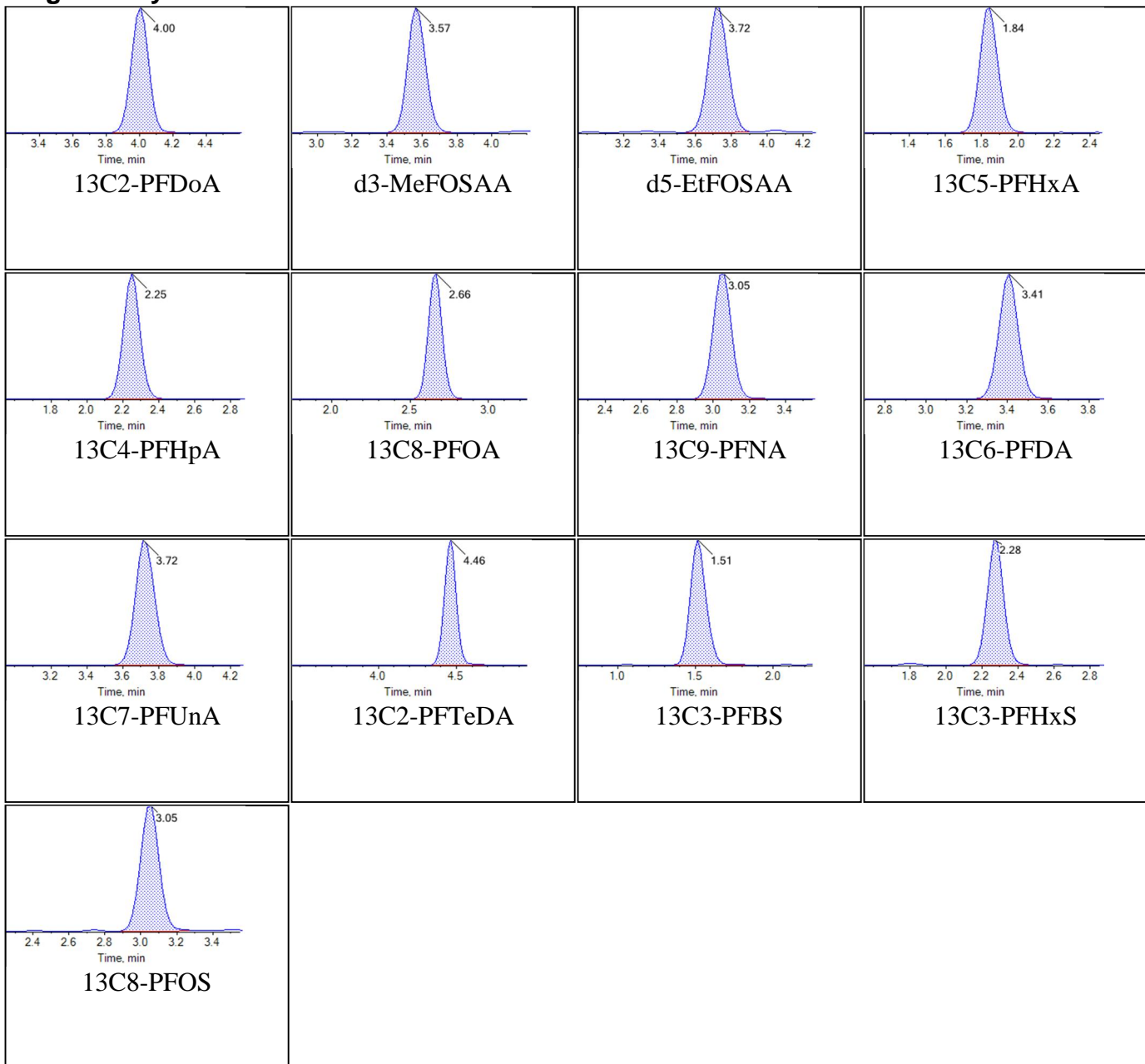
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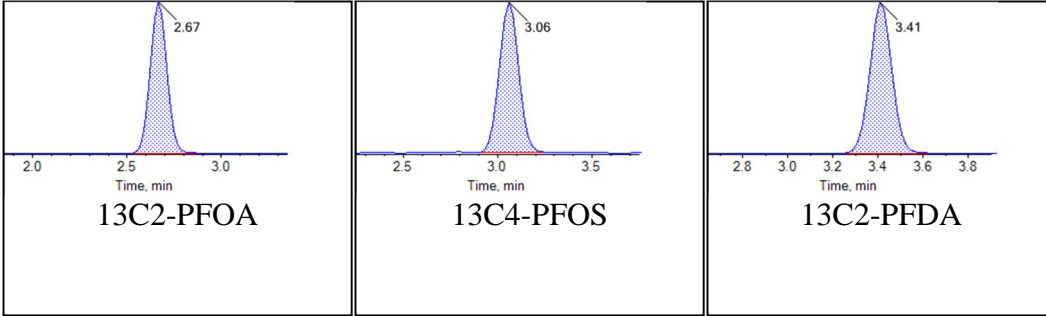
Sample Name	J8466-FS(3)	Injection Vial	4
Sample ID	VC-PM367-SB01-0102	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:24:40	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



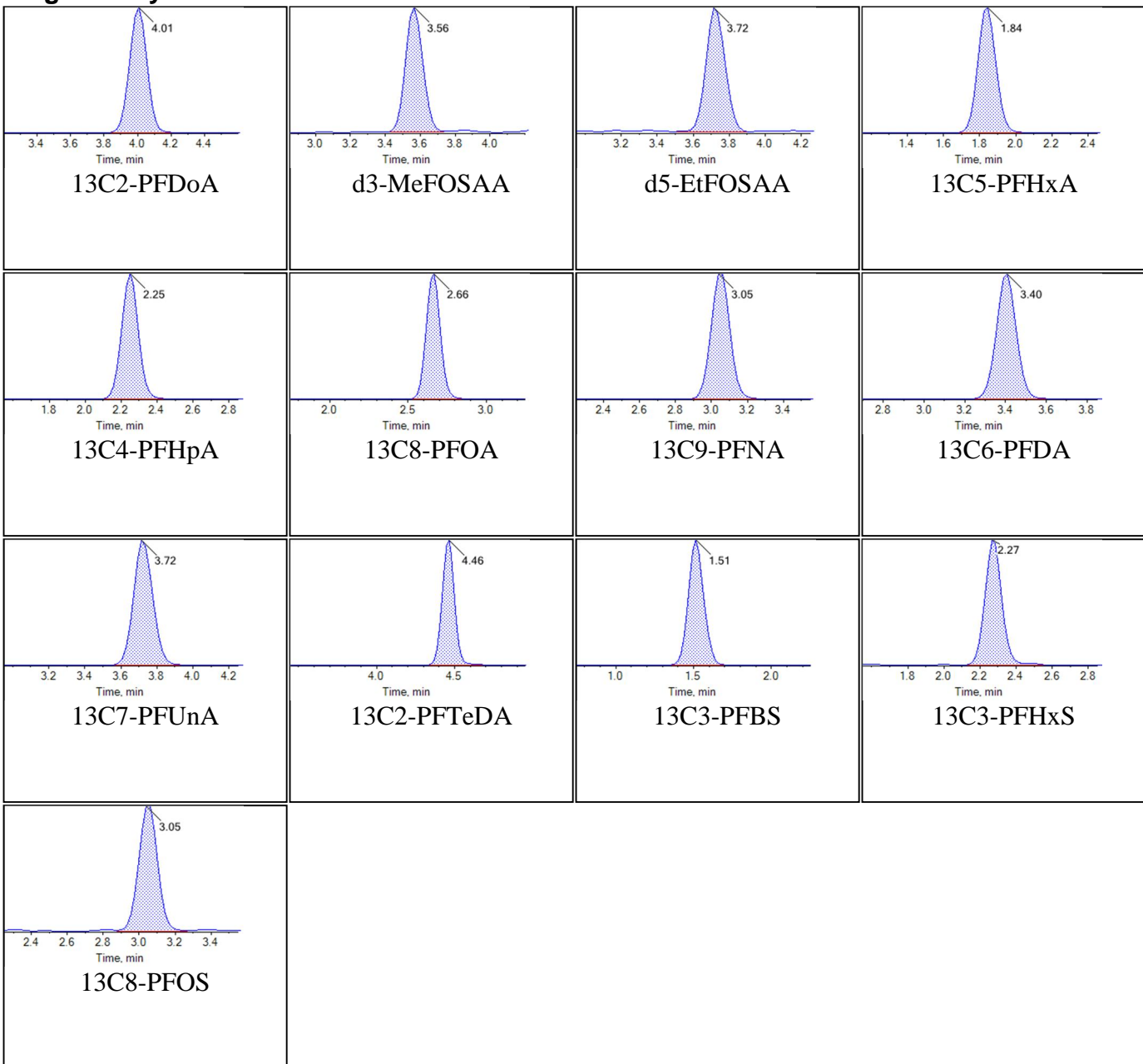
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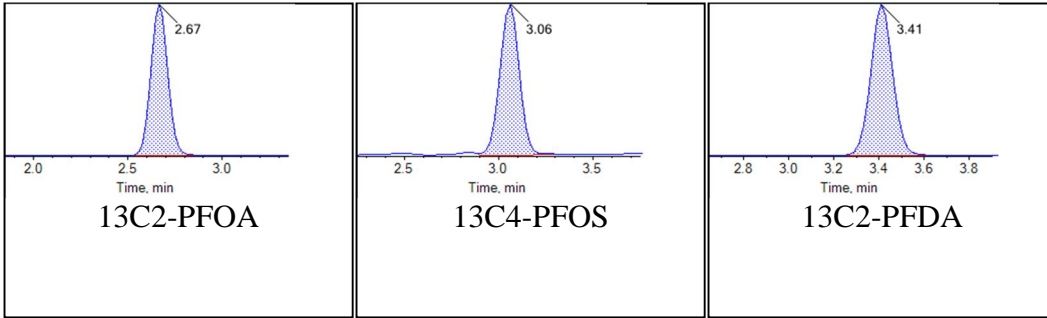
Sample Name	J8467-FS(3)	Injection Vial	5
Sample ID	VC-PM367-SB01-0506	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:35:32	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



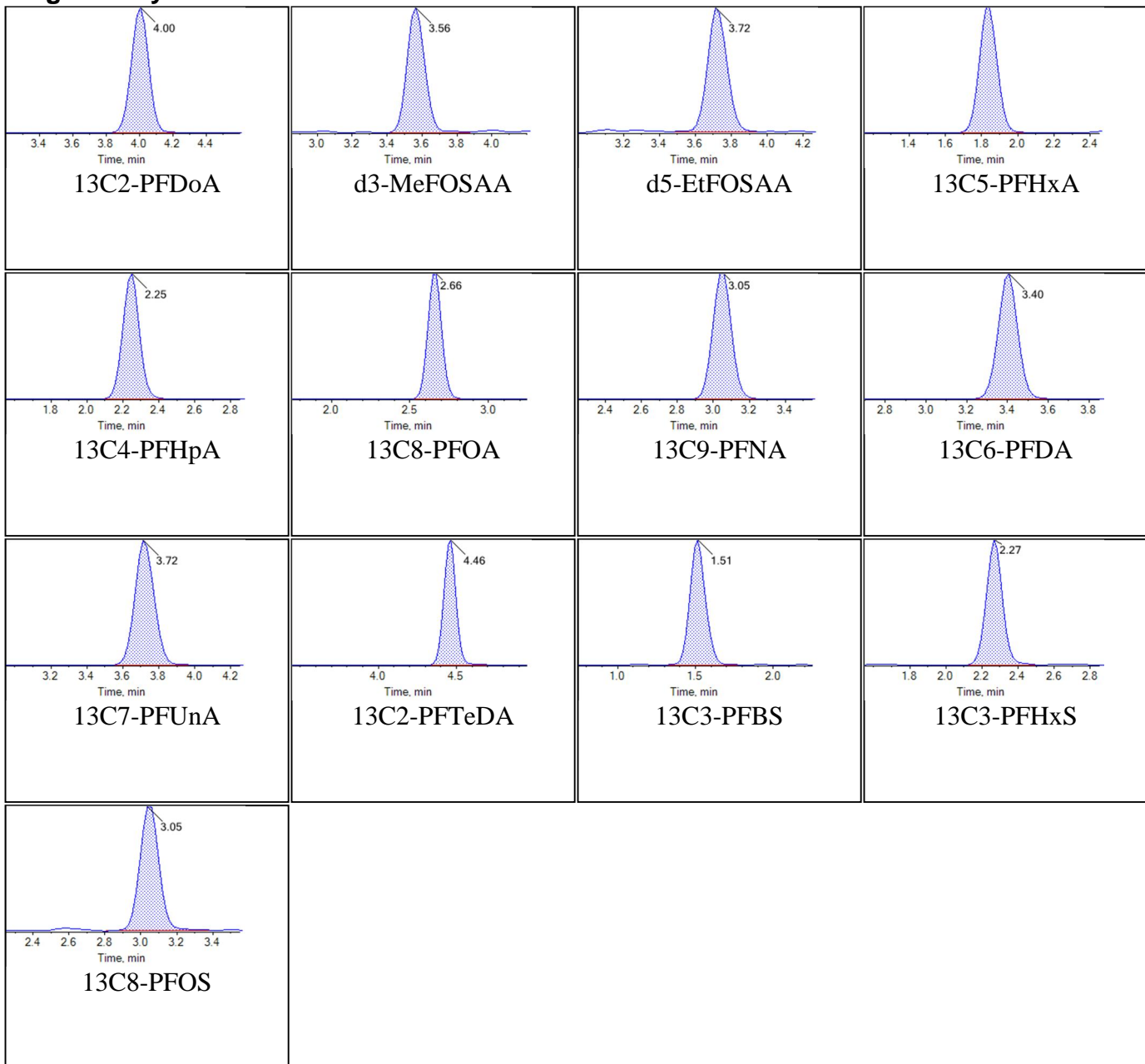
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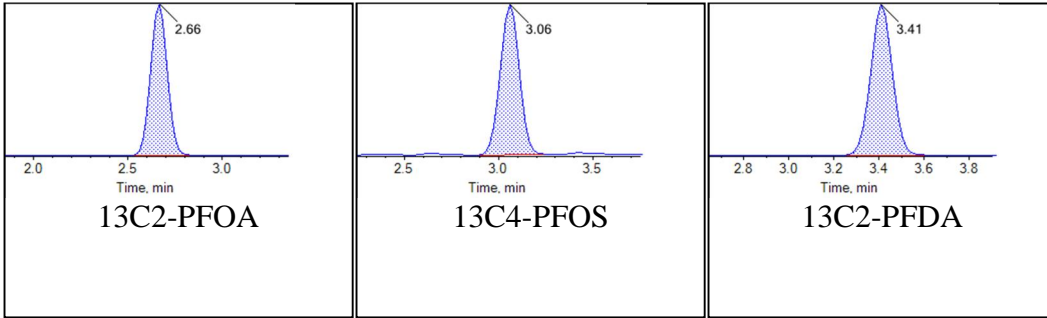
Sample Name	J8468-FS(3)	Injection Vial	6
Sample ID	VC-PM367-SS02-000H	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:46:24	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



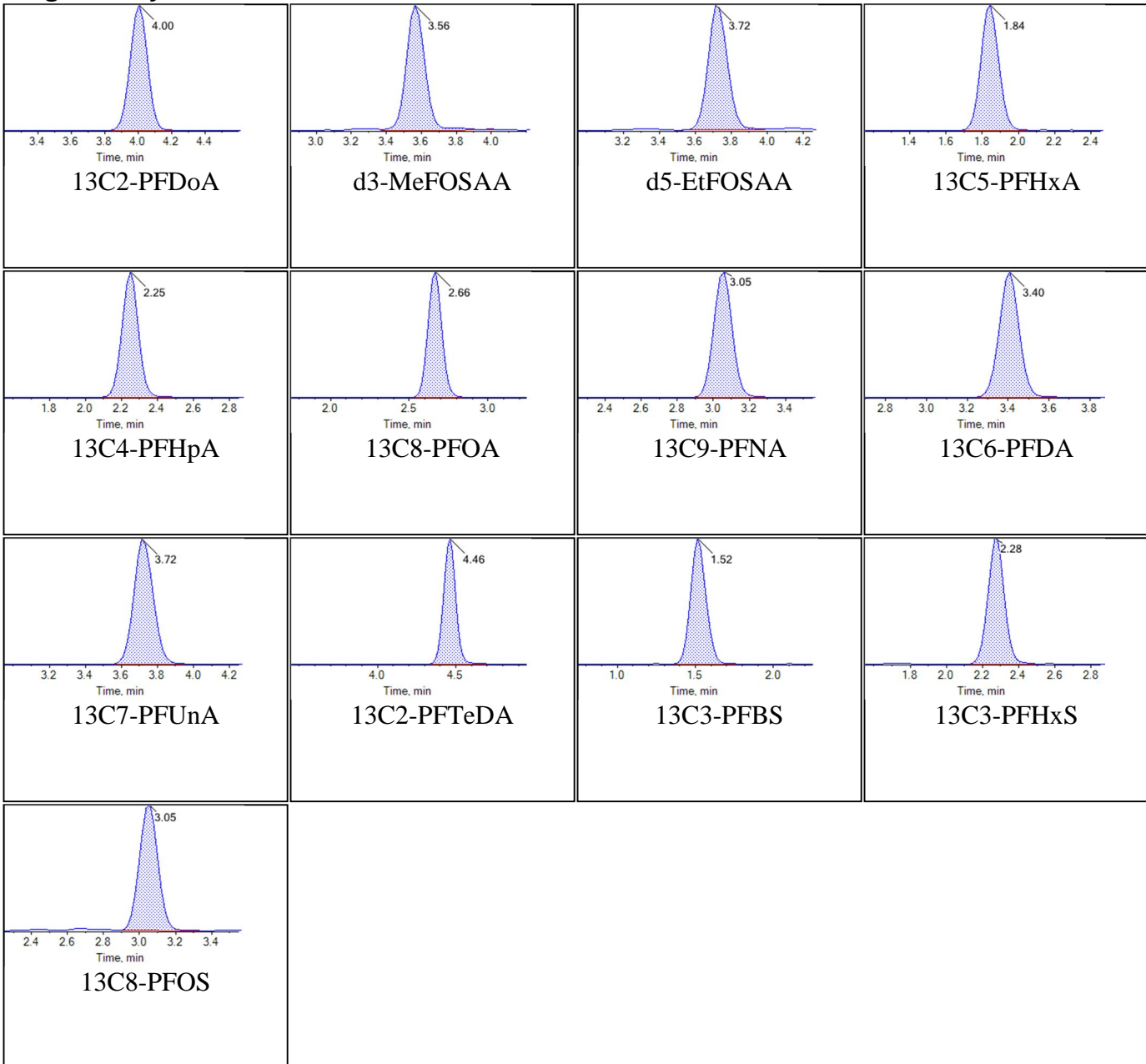
Internal Standards:



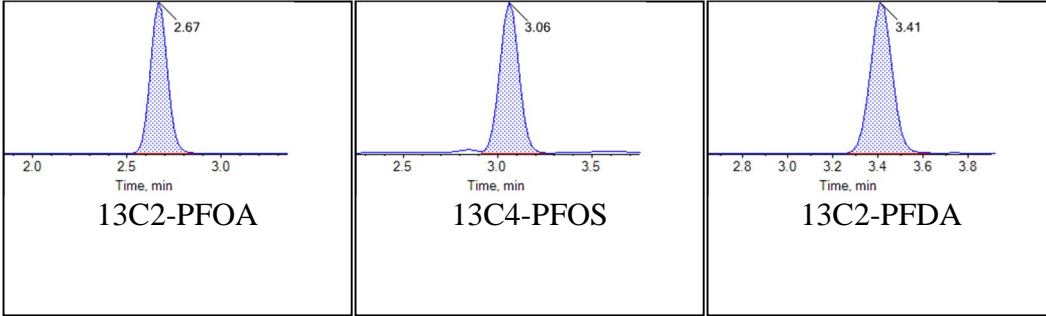
Sample Name	J8469-FS(3)	Injection Vial	7
Sample ID	VC-PM367-SB02-0102	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T00:57:16	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



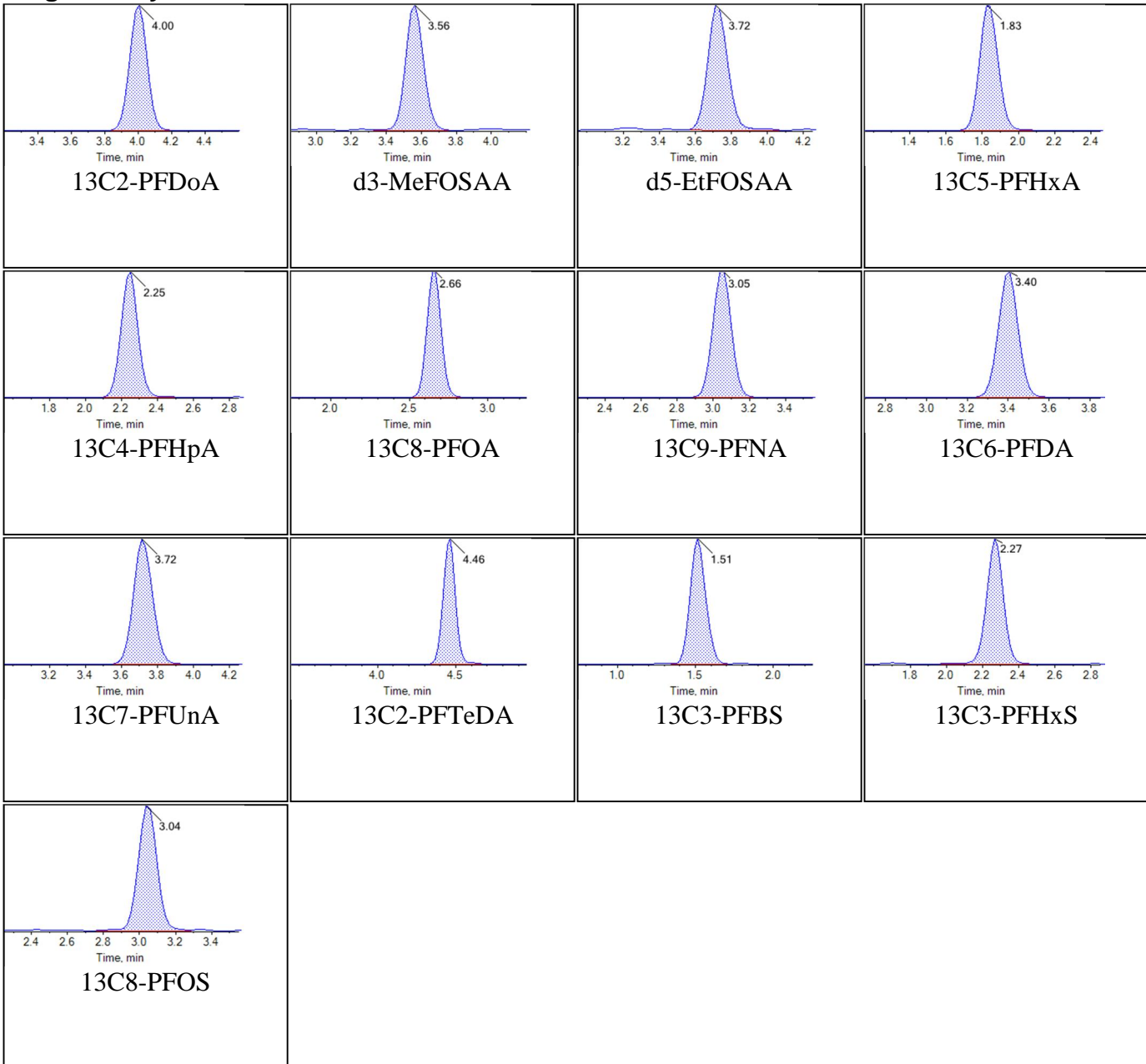
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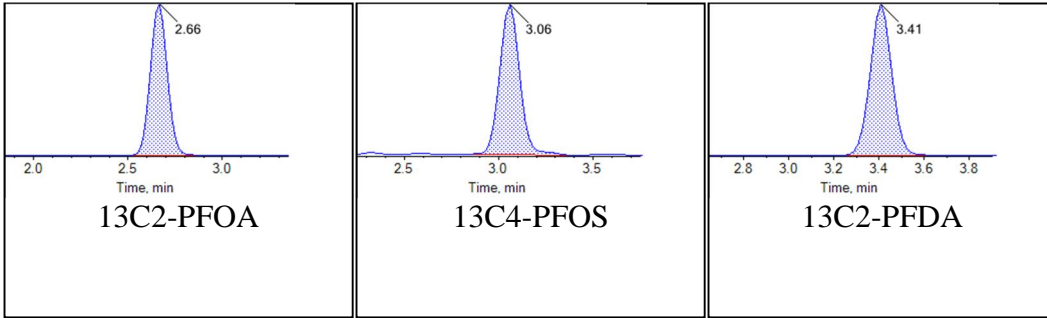
Sample Name	J8470-FS(3)	Injection Vial	8
Sample ID	VC-PM367-SB02-0506	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:08:08	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



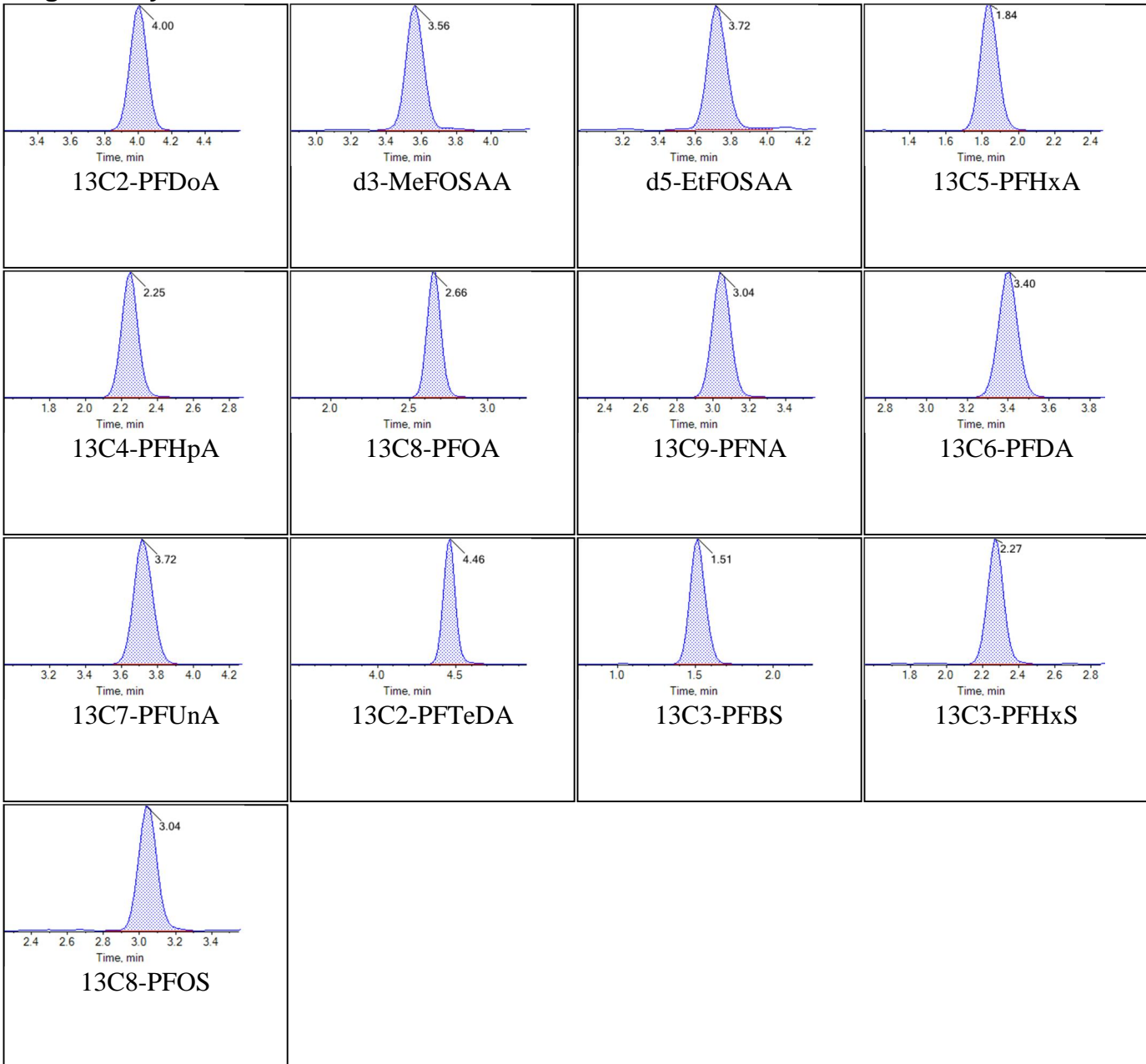
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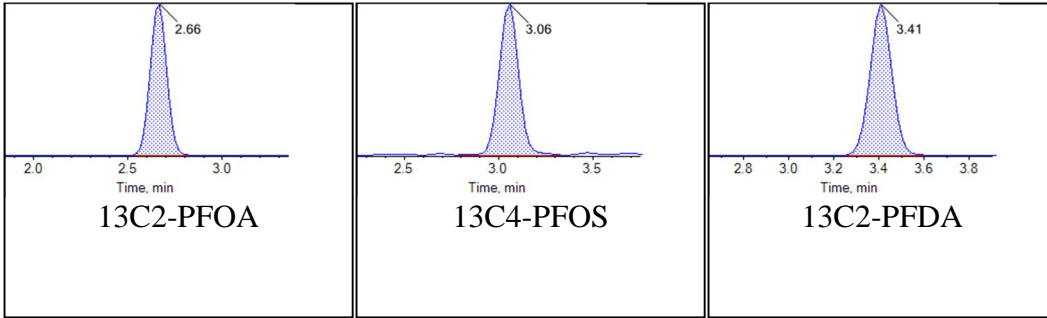
Sample Name	J8471-FS(3)	Injection Vial	9
Sample ID	VC-PM367-SS03-000H	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:19:00	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



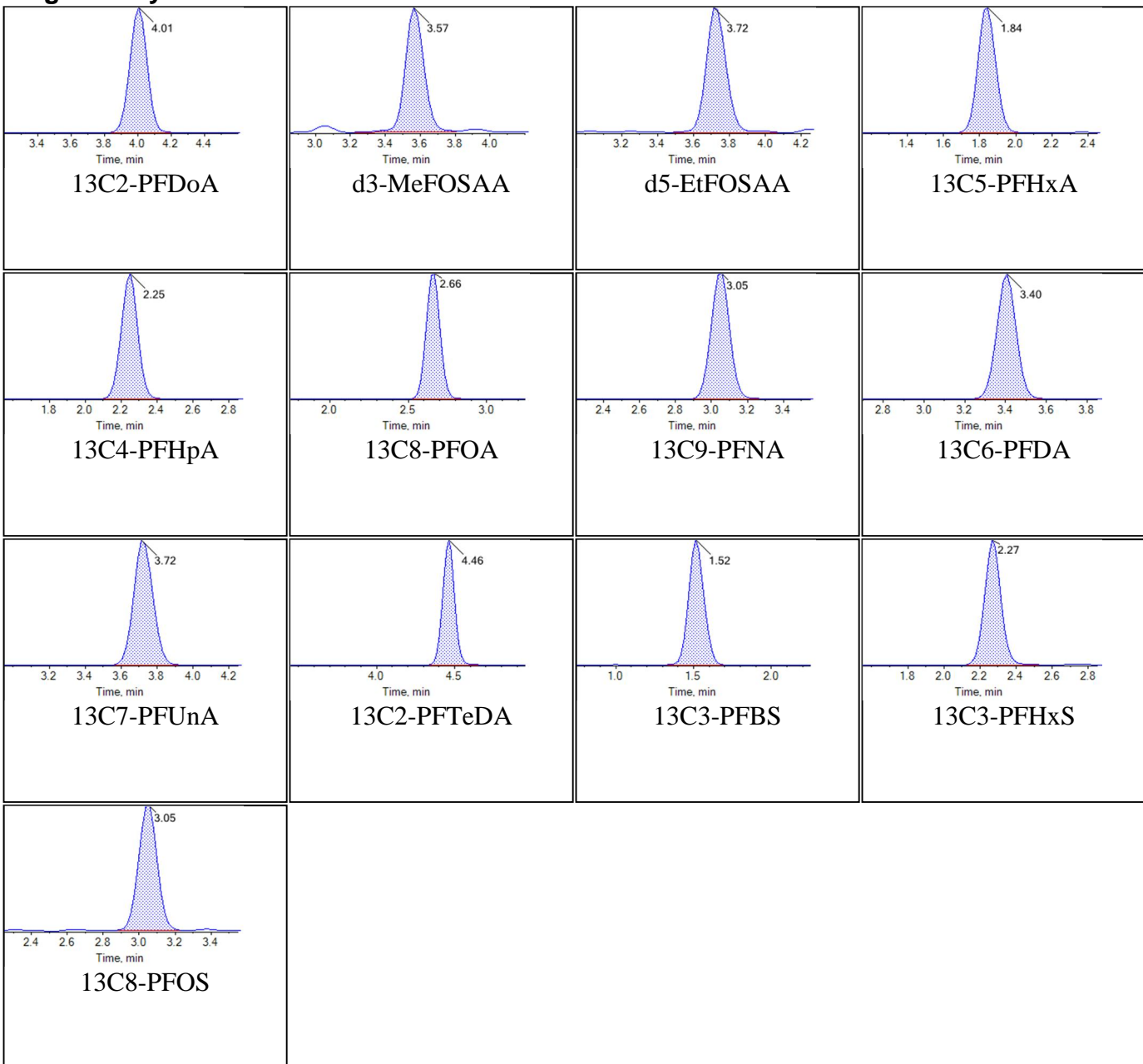
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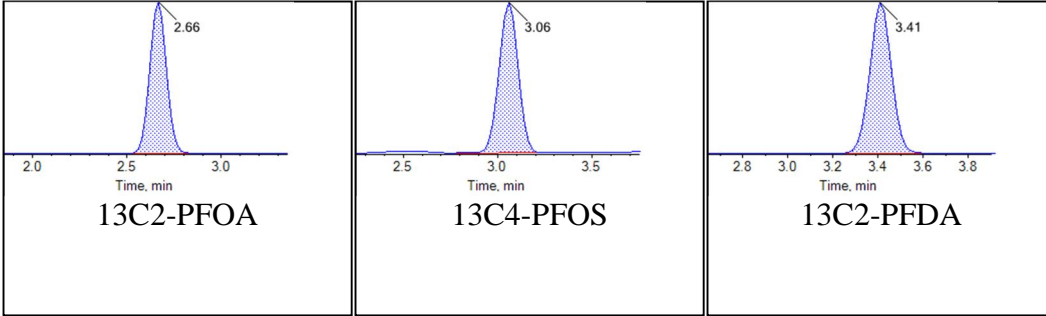
Sample Name	KB76 CCV	Injection Vial	10
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:29:53	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



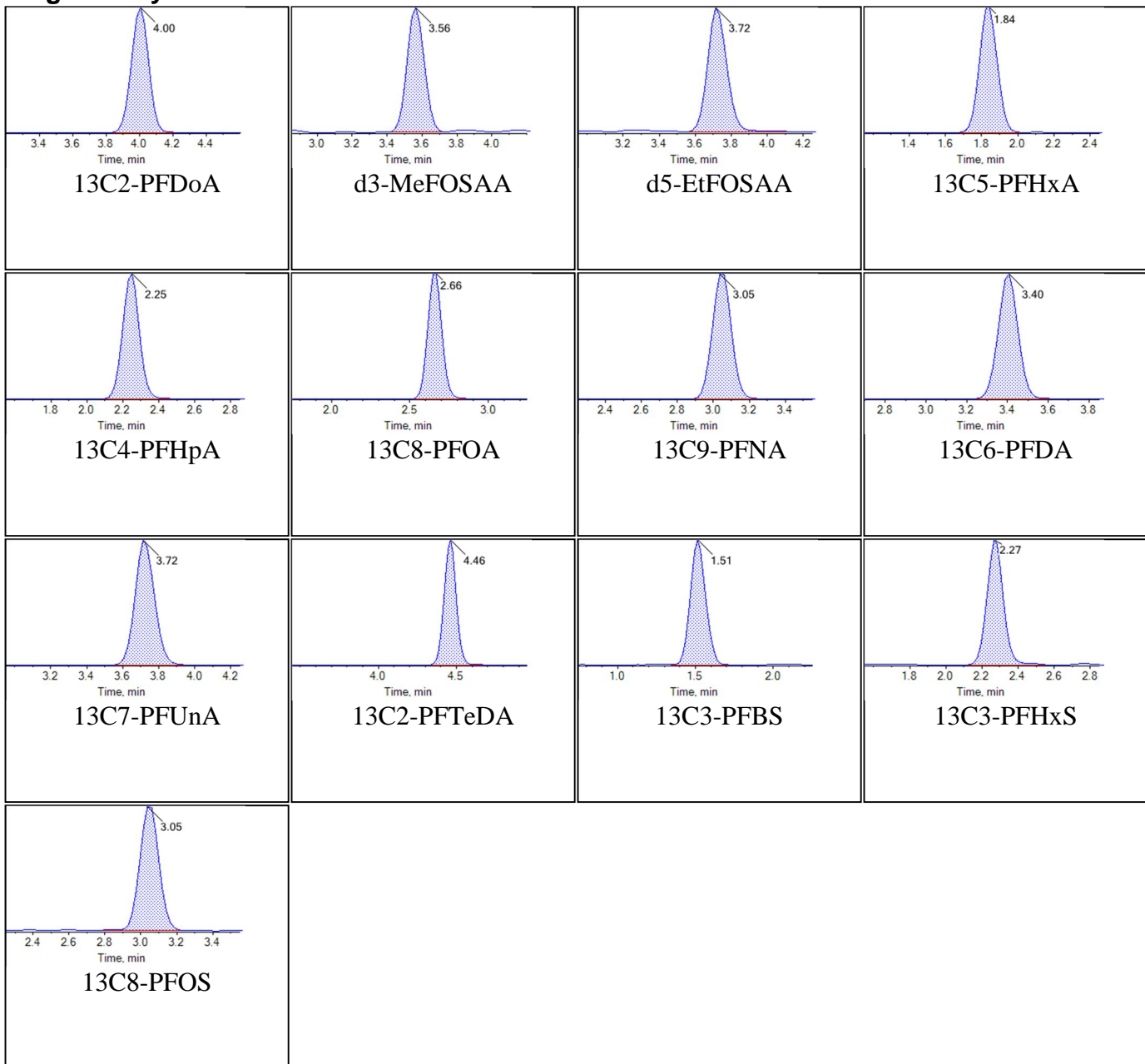
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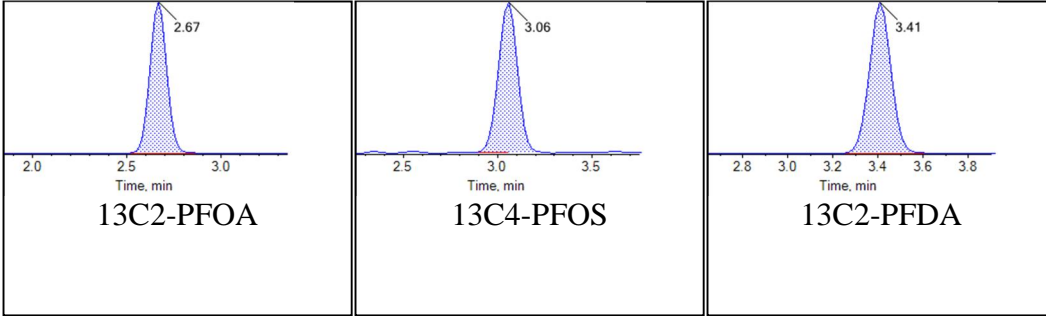
Sample Name	J8472-FS(3)	Injection Vial	12
Sample ID	VC-PM367-SB03-0102	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T01:51:41	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



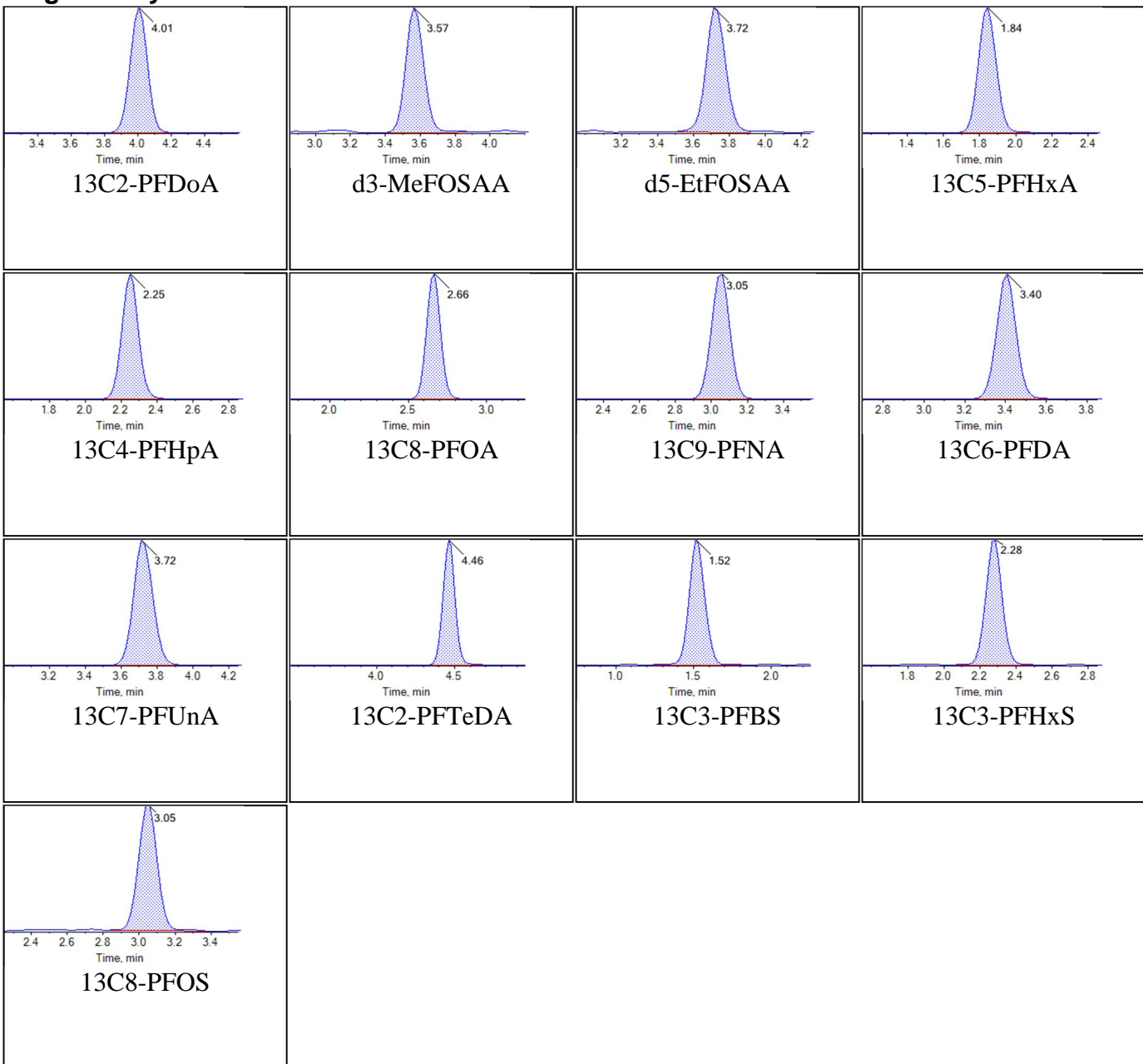
Internal Standards:



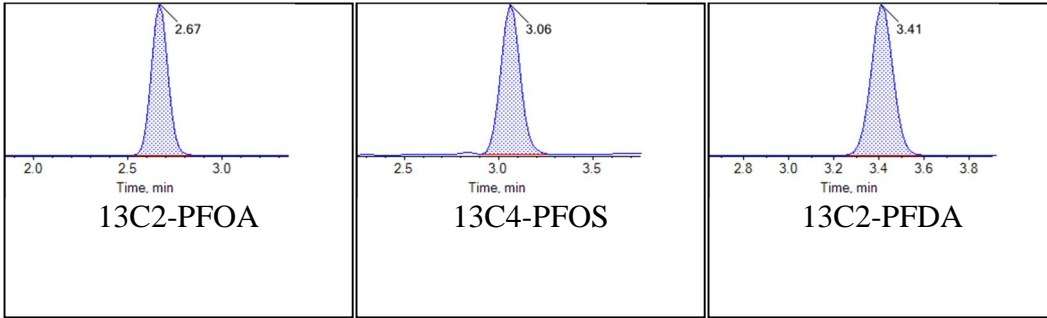
Sample Name	J8474-FS(3)	Injection Vial	14
Sample ID	VC-PM367-SS04-000H	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:13:28	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



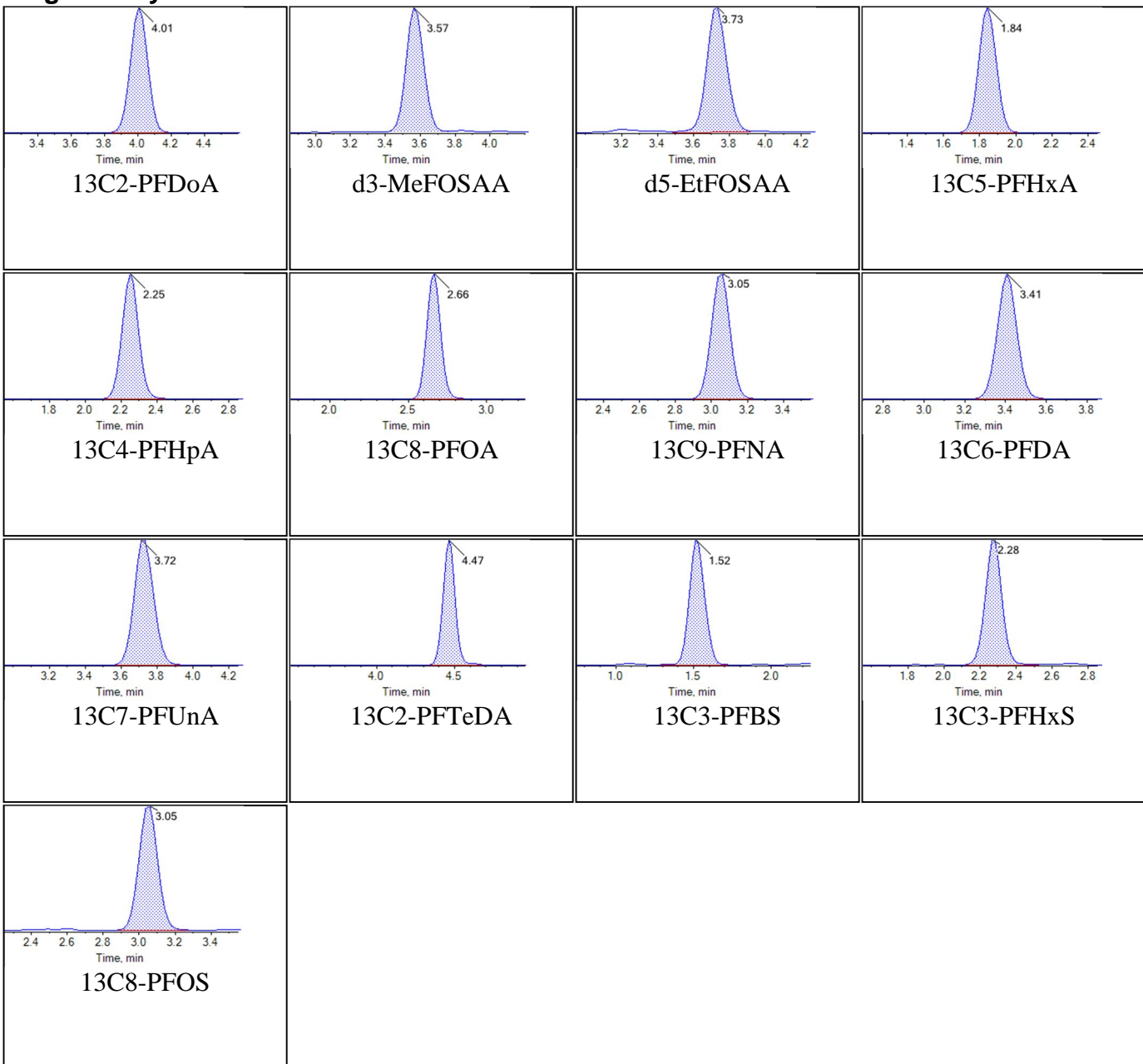
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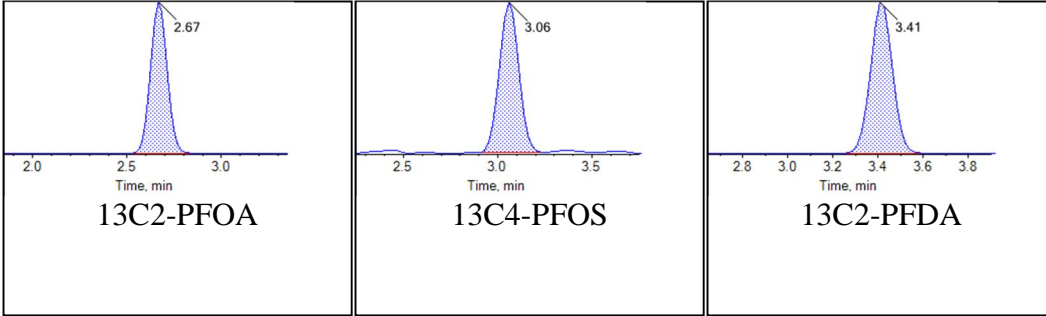
Sample Name	J8475-FS(3)	Injection Vial	15
Sample ID	VC-PM367-SB04-0102	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:24:20	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



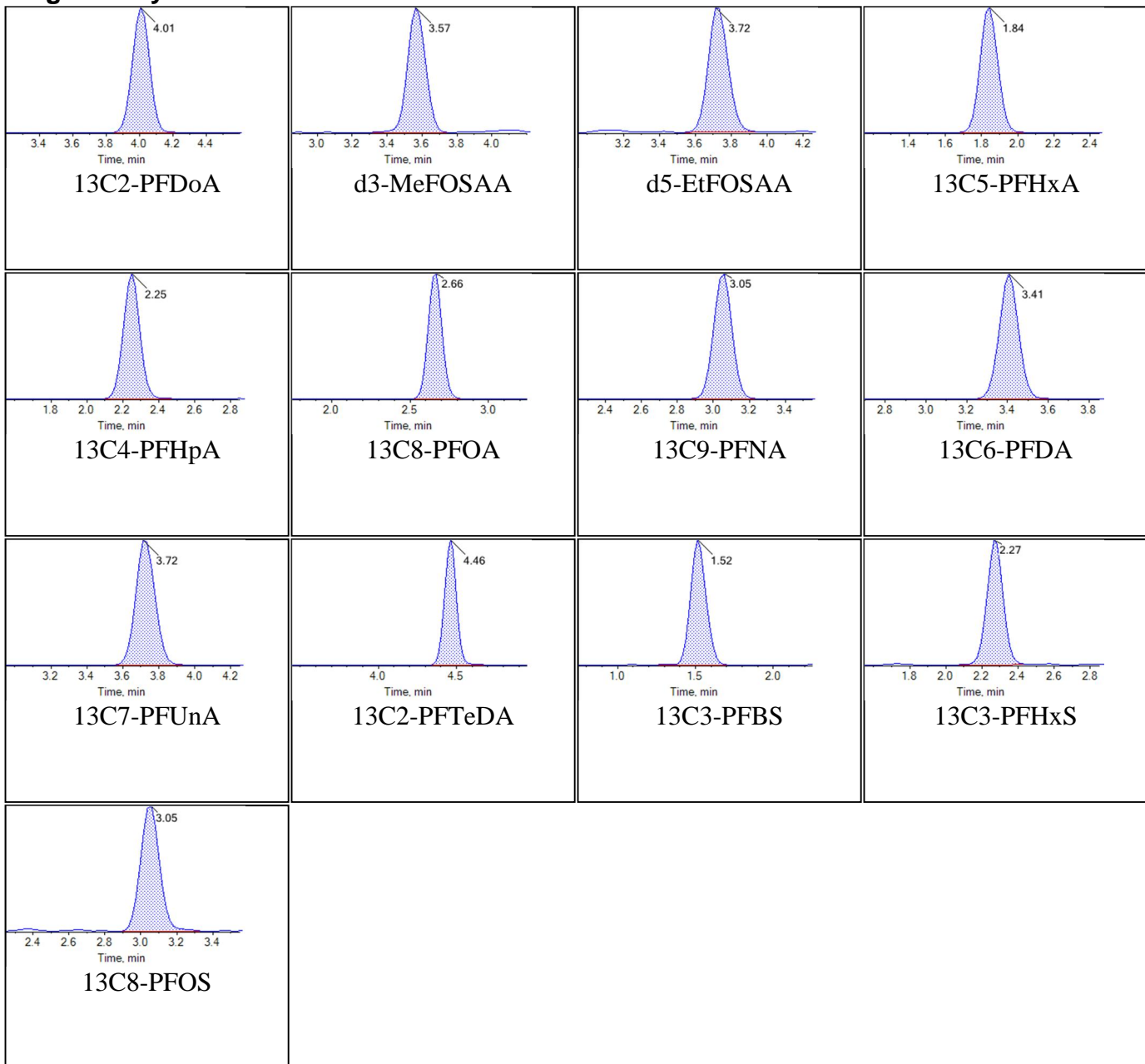
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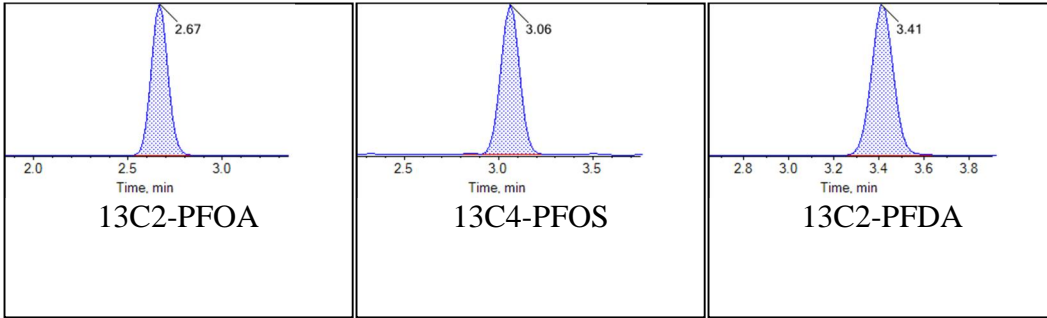
Sample Name	J8476-FS(3)	Injection Vial	16
Sample ID	VC-PM367-SB04-0506	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:35:12	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



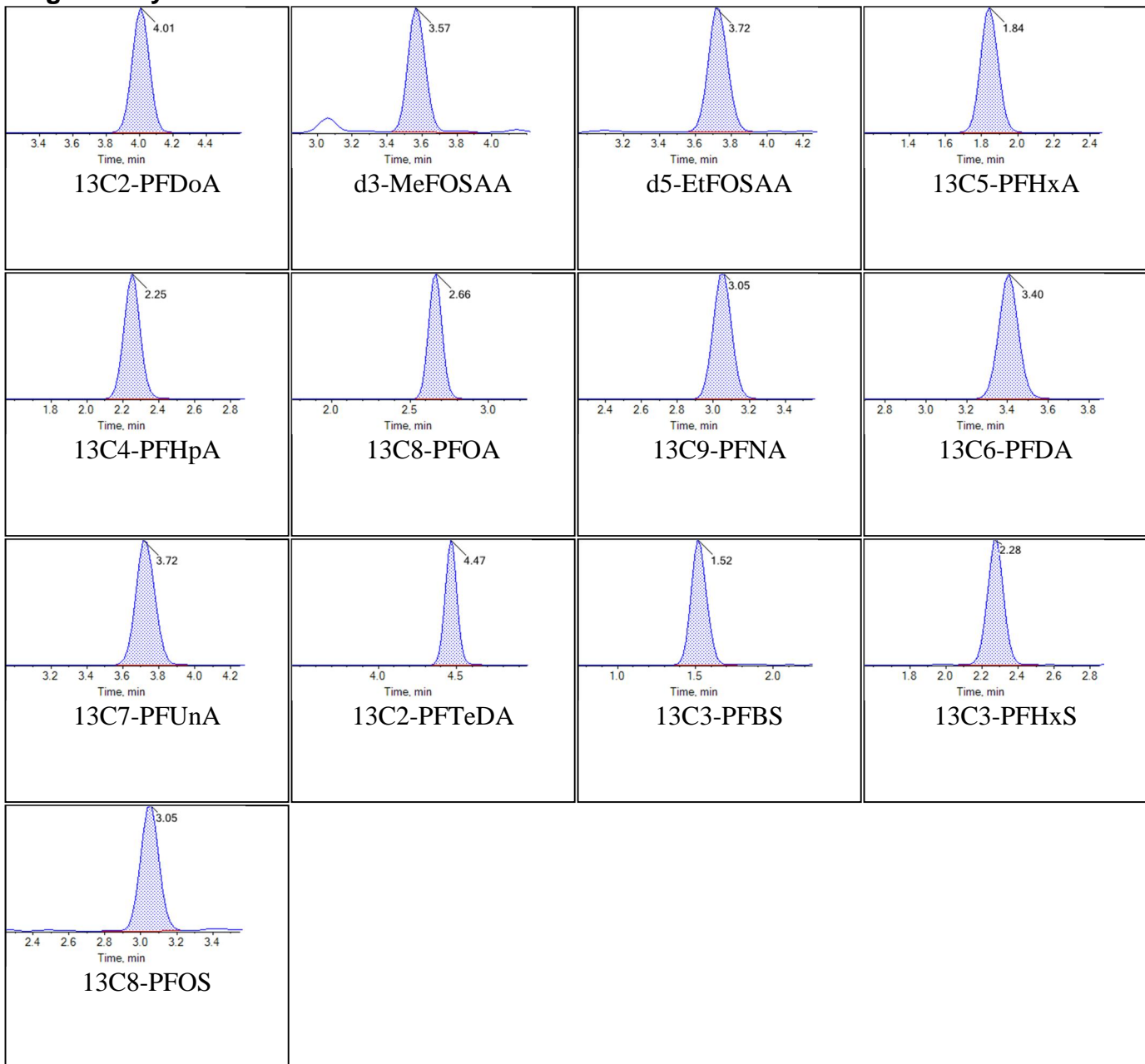
Internal Standards:



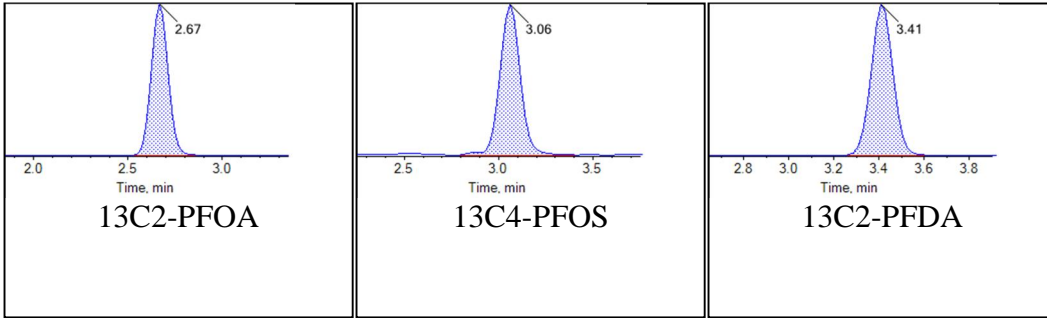
Sample Name	KB77 CCV	Injection Vial	18
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:56:57	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



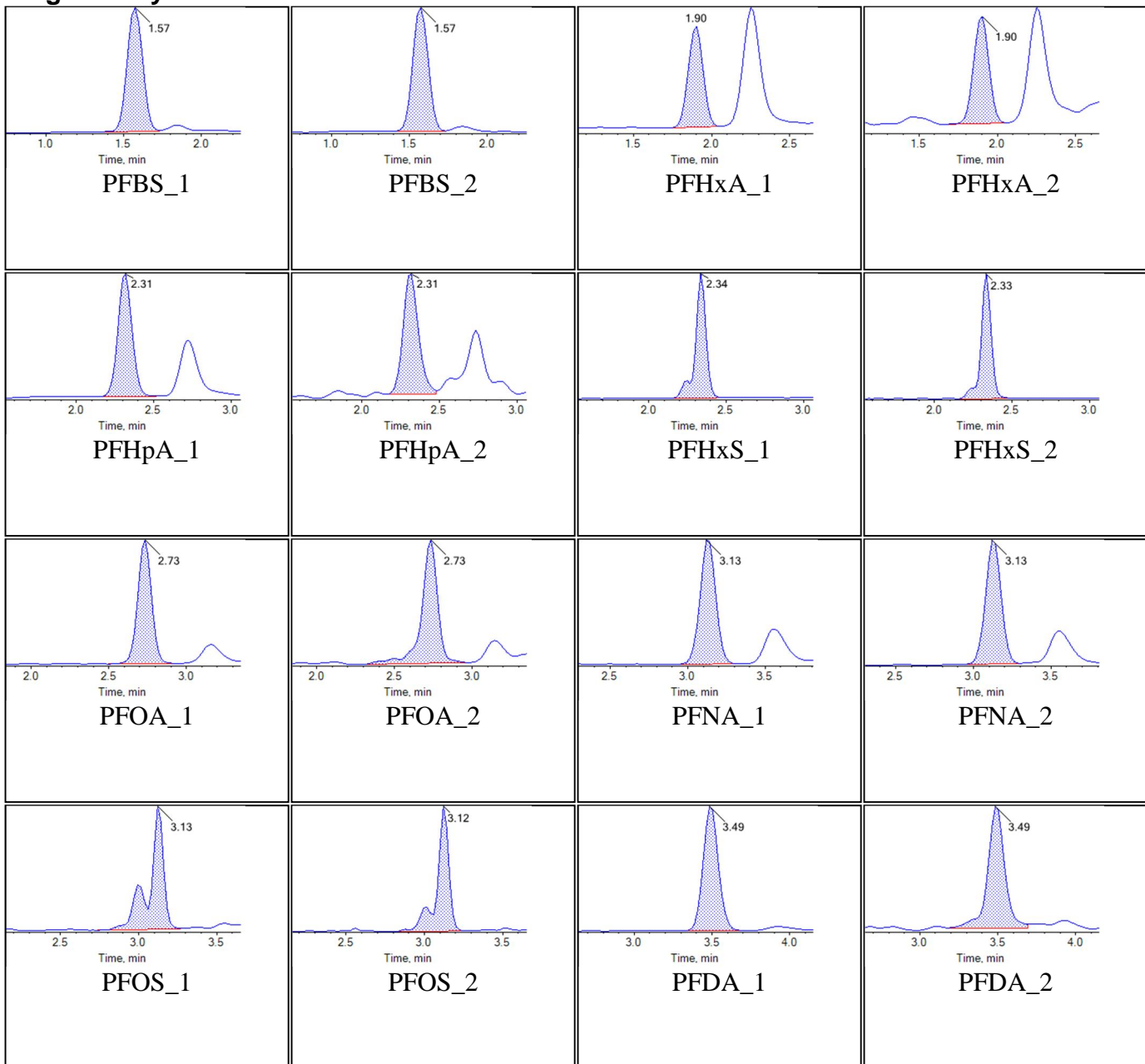
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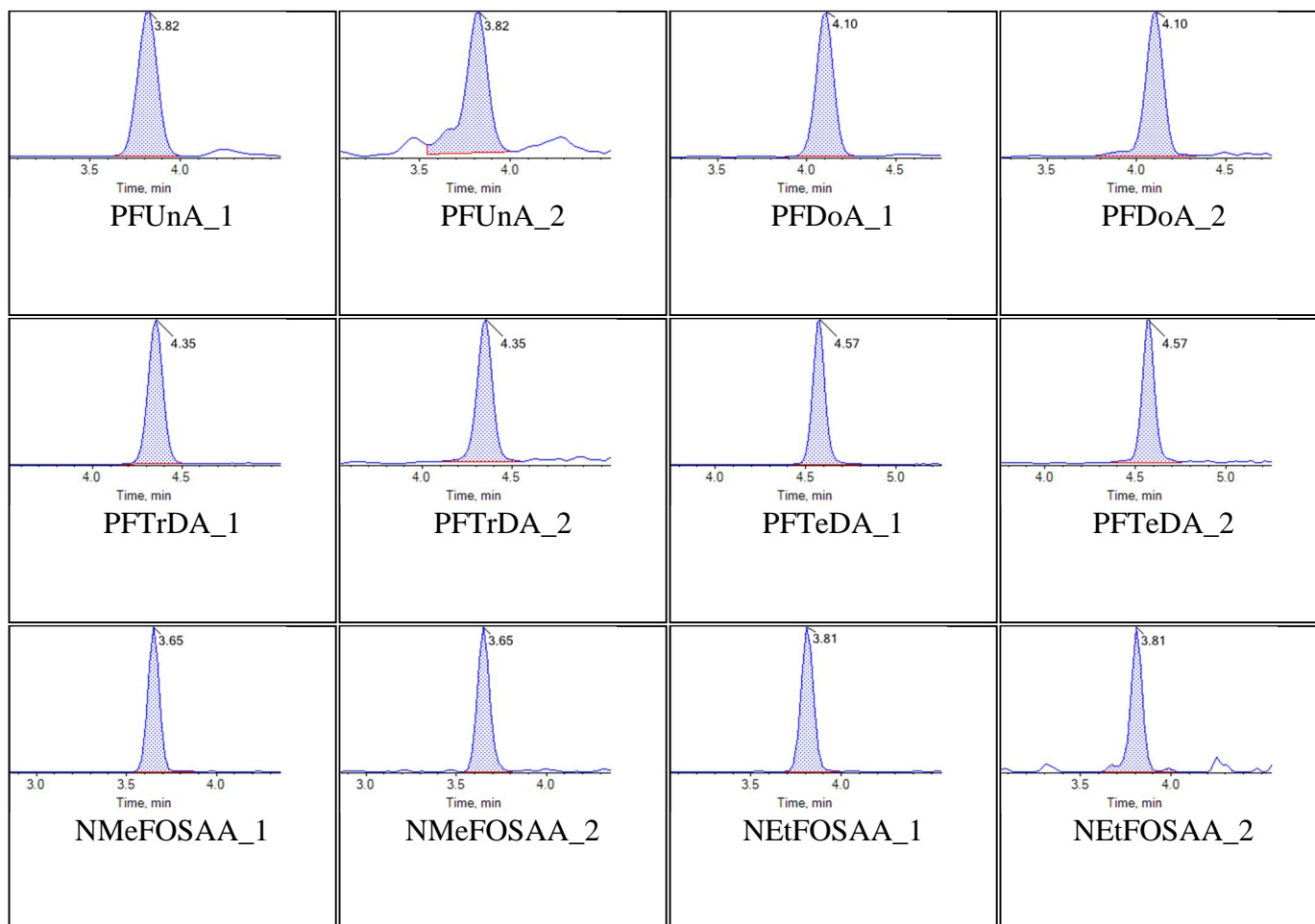
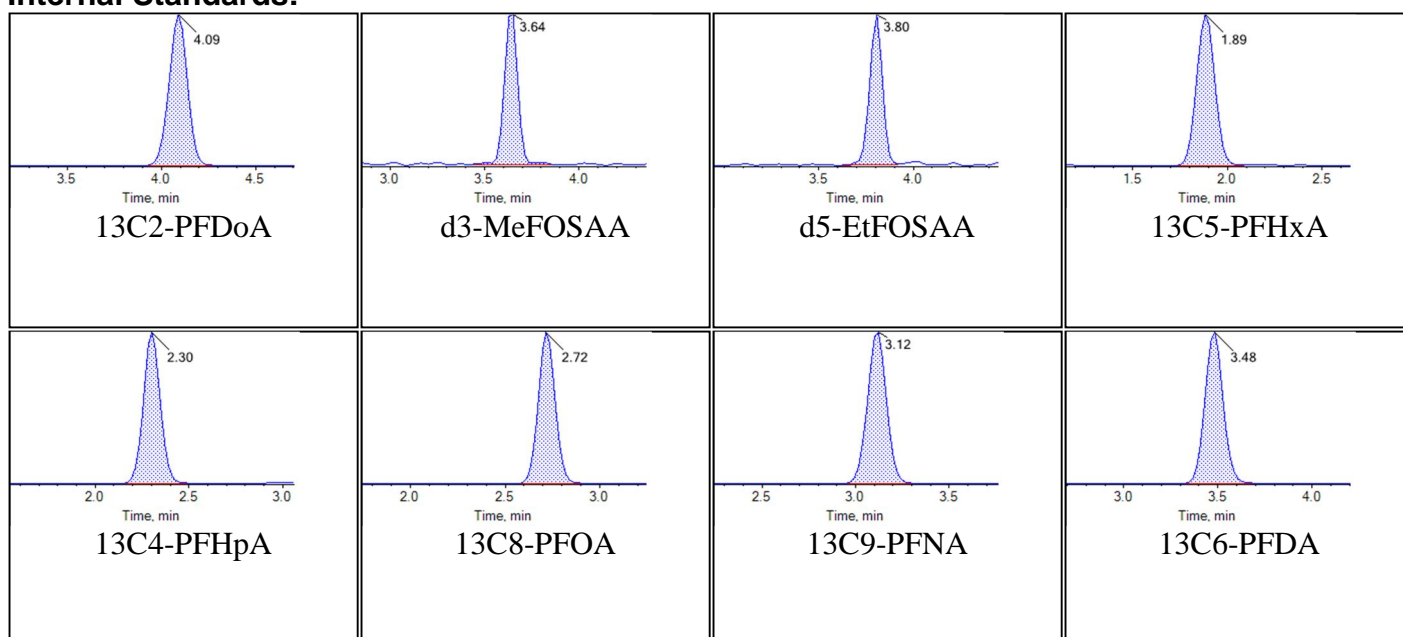


Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:26:43	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

Chromatograms

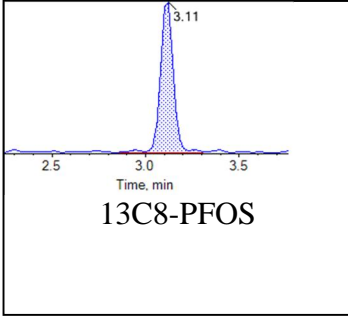
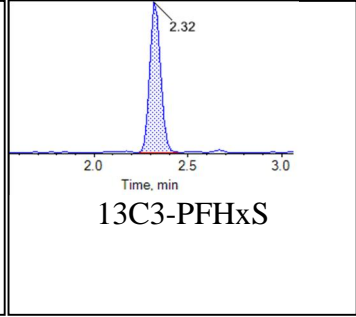
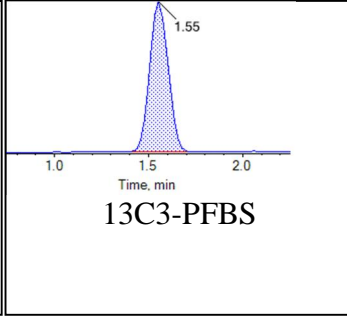
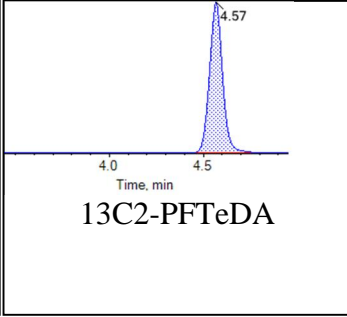
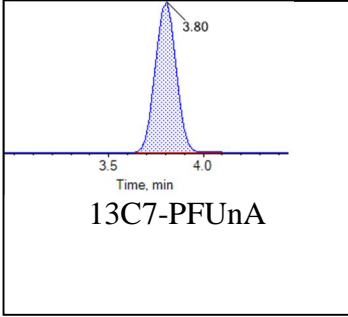
Target Analytes:



**Internal Standards:**

Chromatogram Report

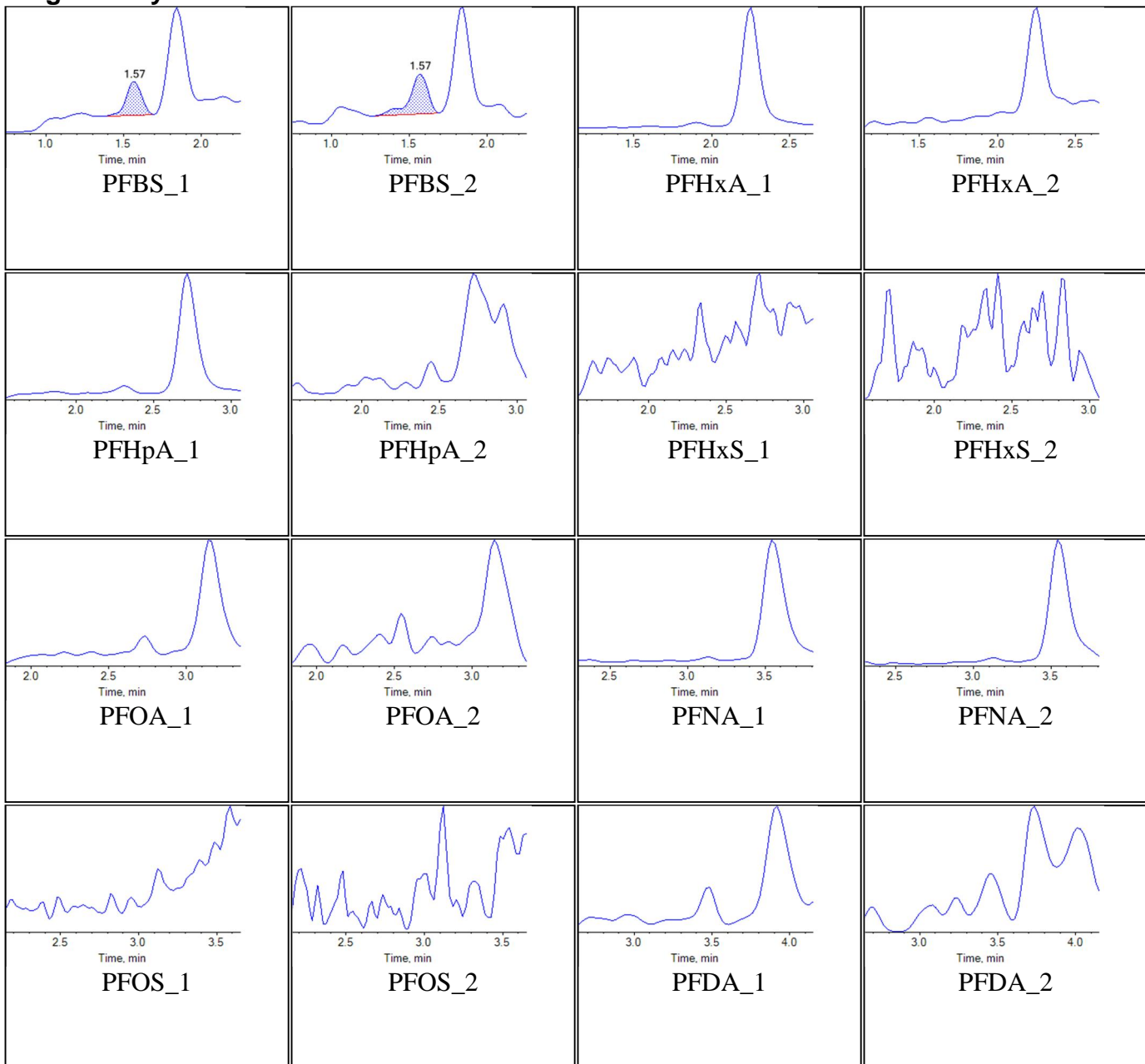
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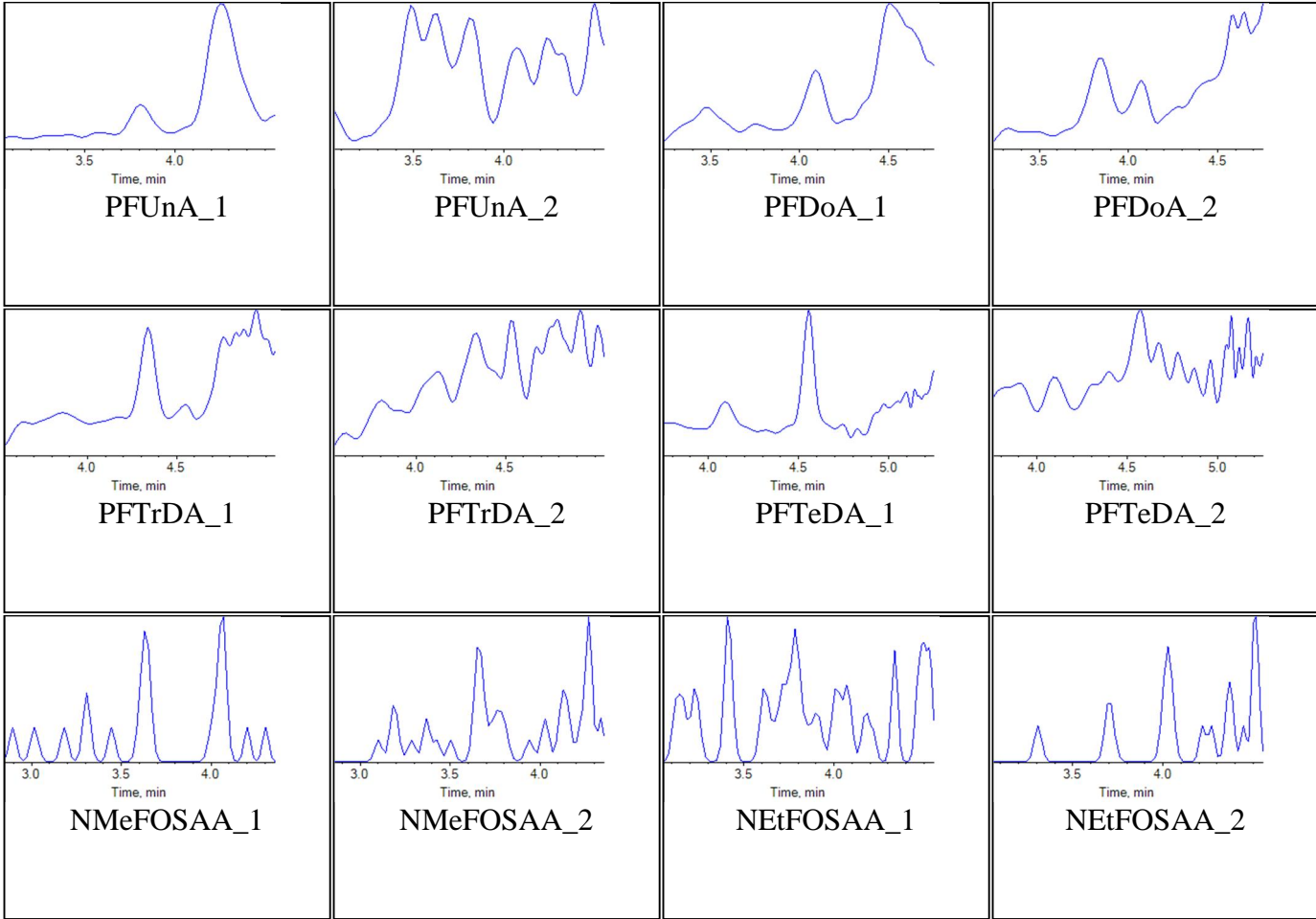


Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:37:35	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

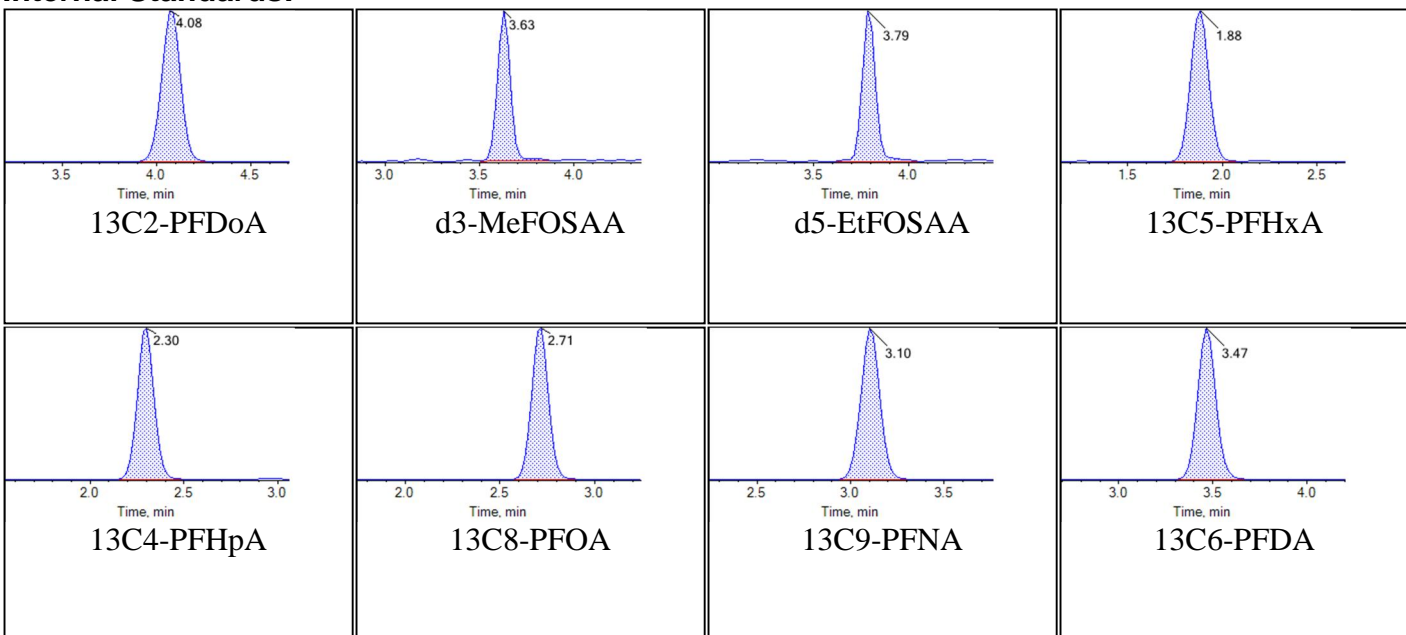
Chromatograms

Target Analytes:



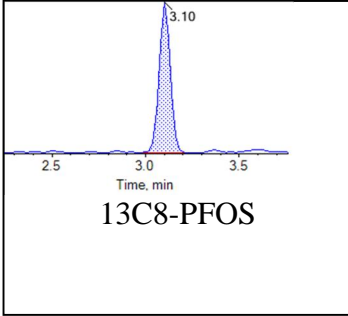
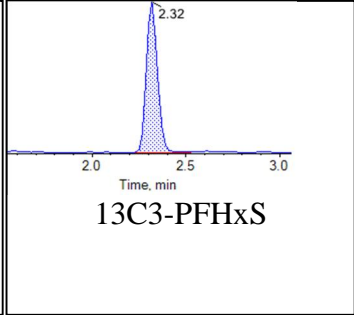
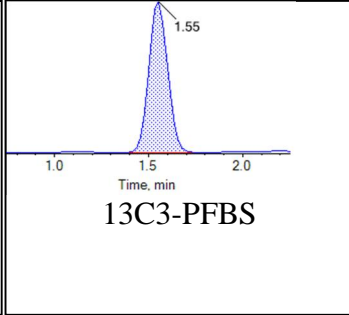
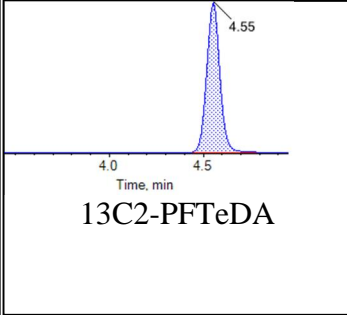
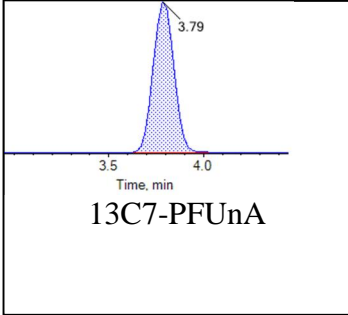


Internal Standards:



Chromatogram Report

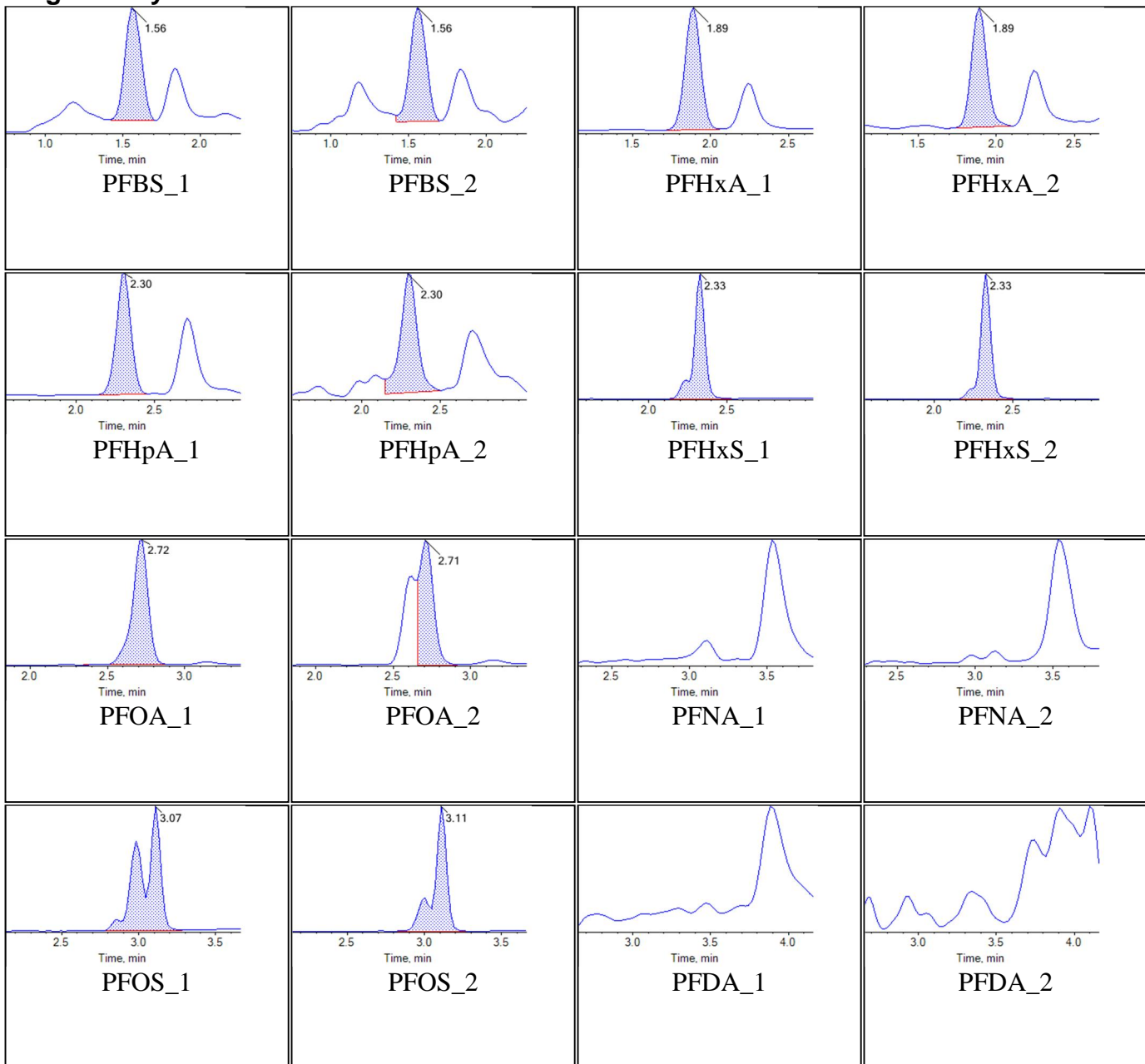
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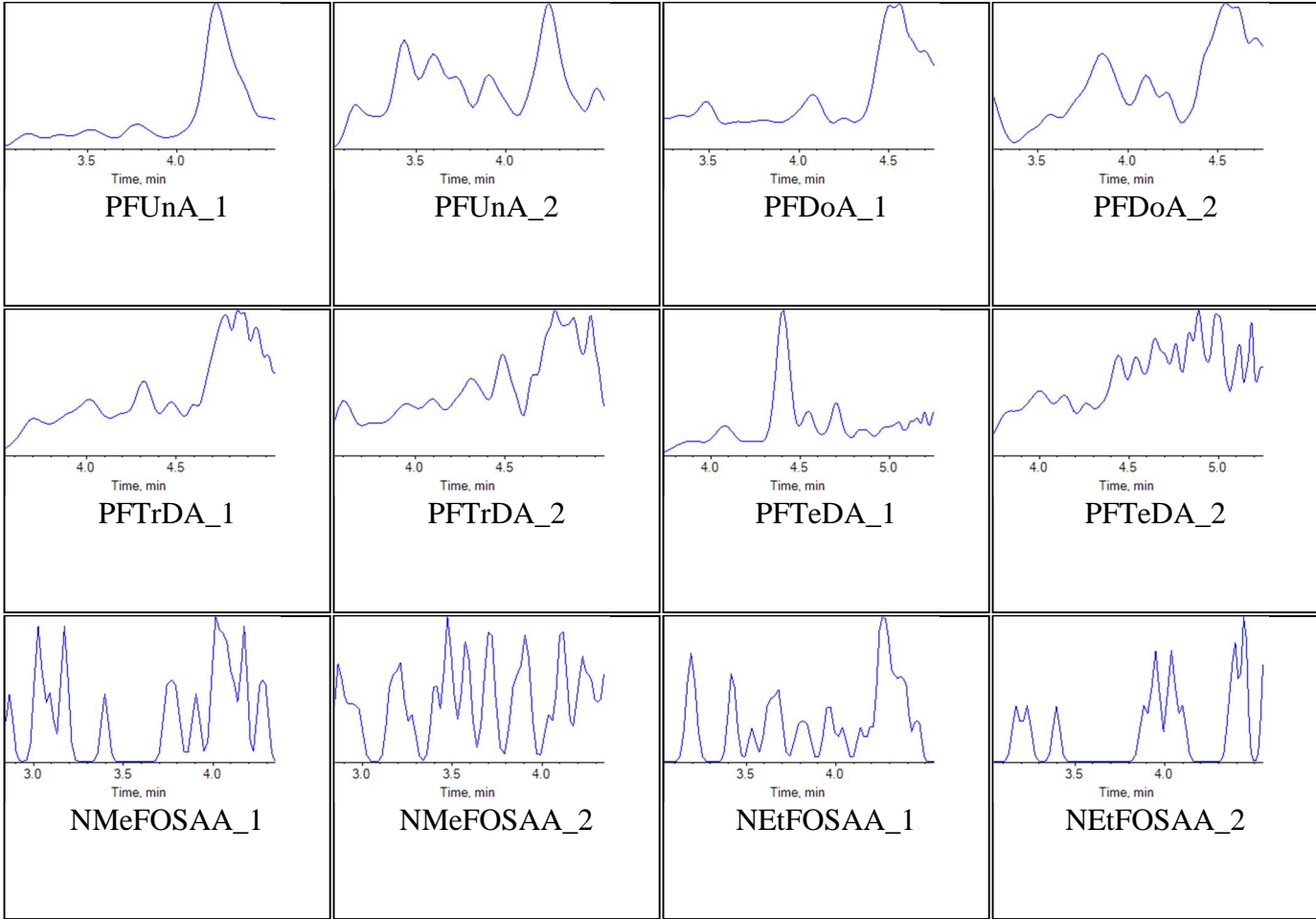


Sample Name	J8473-FS(5)	Injection Vial	4
Sample ID	VC-PM367-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:59:22	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

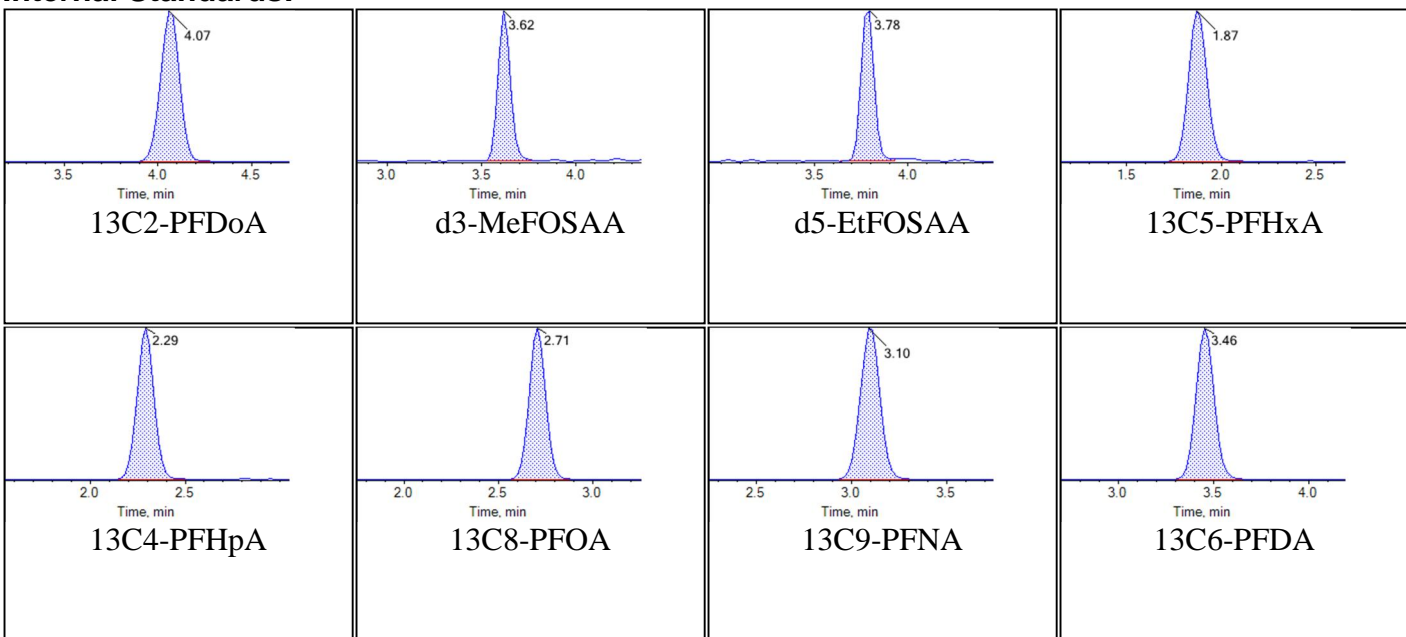
Chromatograms

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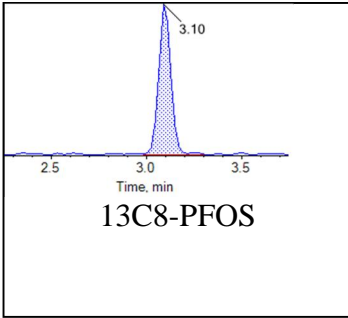
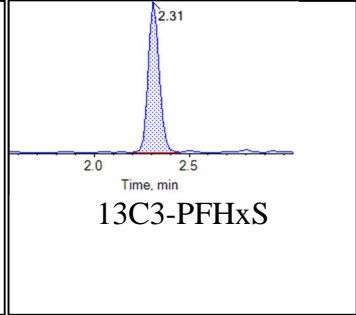
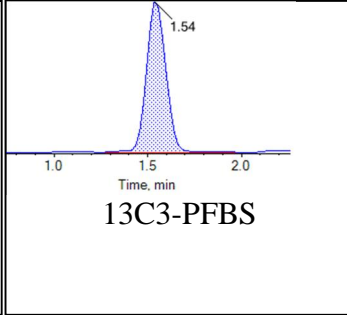
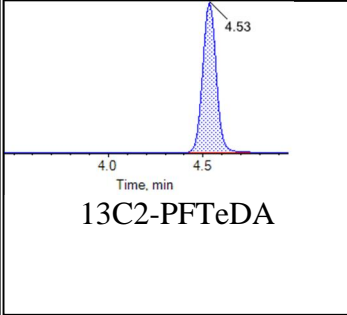
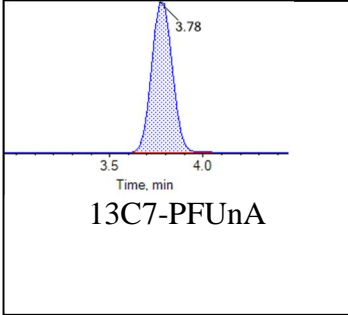


Internal Standards:



Chromatogram Report

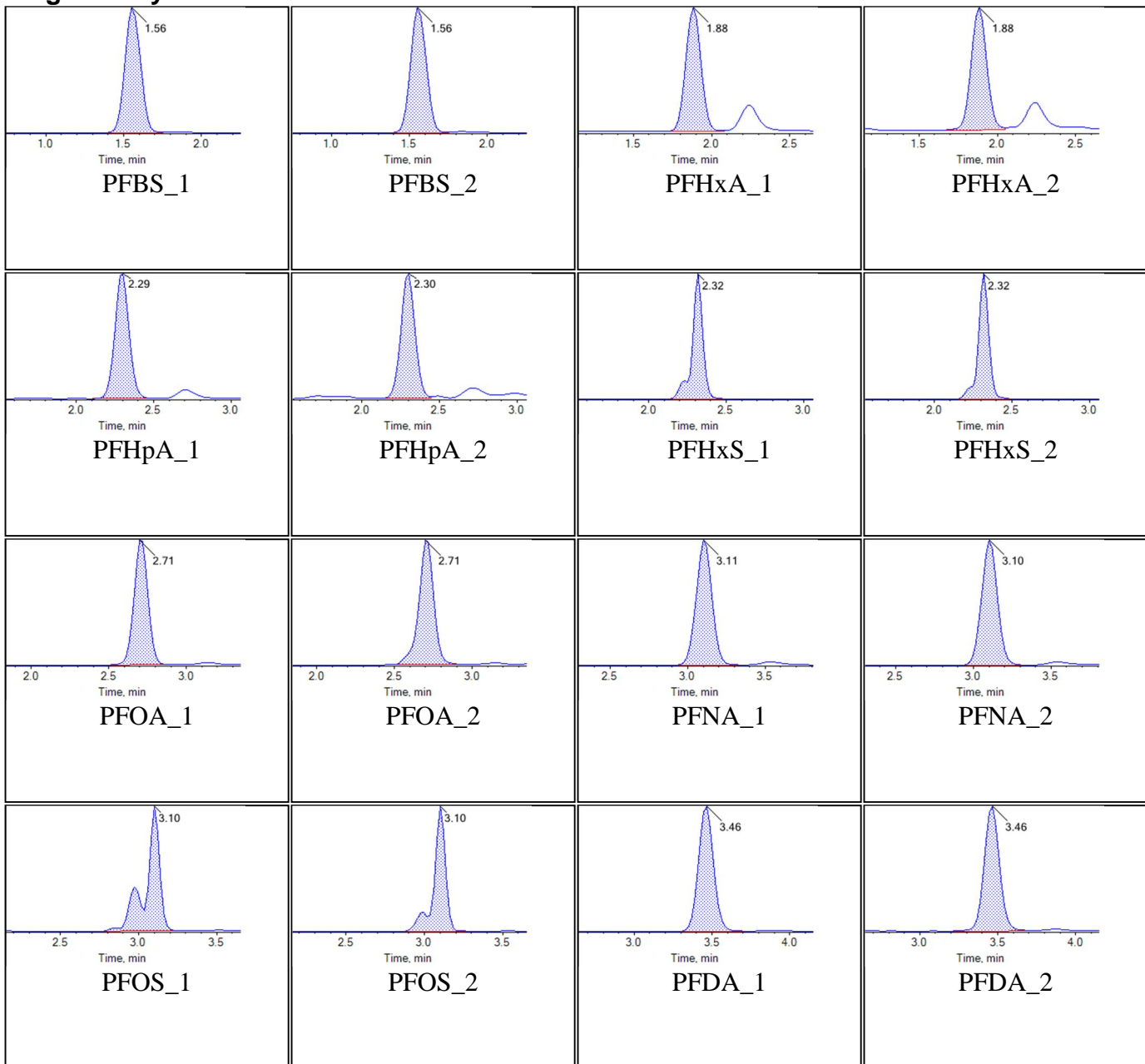
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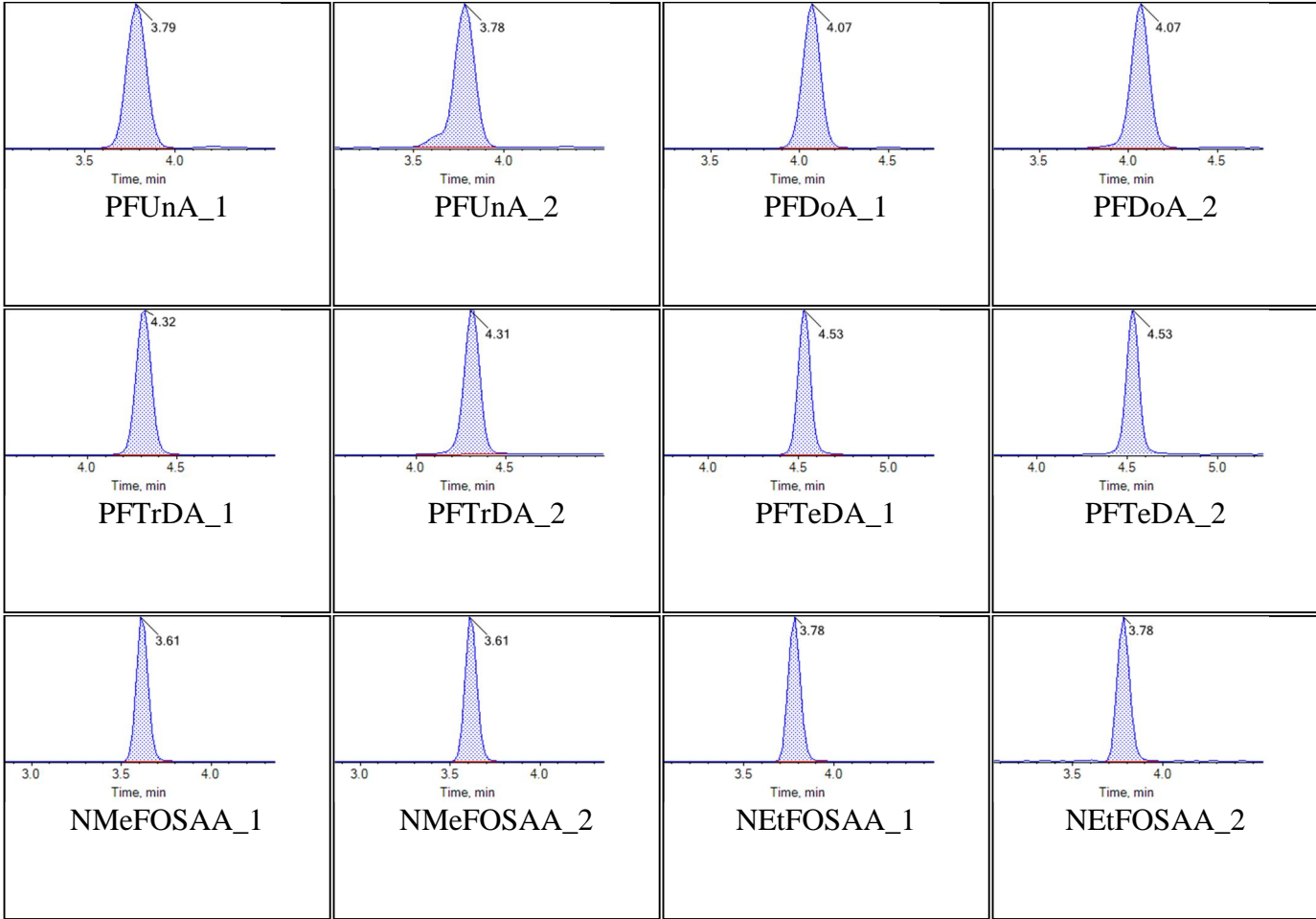


Sample Name	KB77 CCV	Injection Vial	5
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T17:10:14	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_A
Sample Comment			

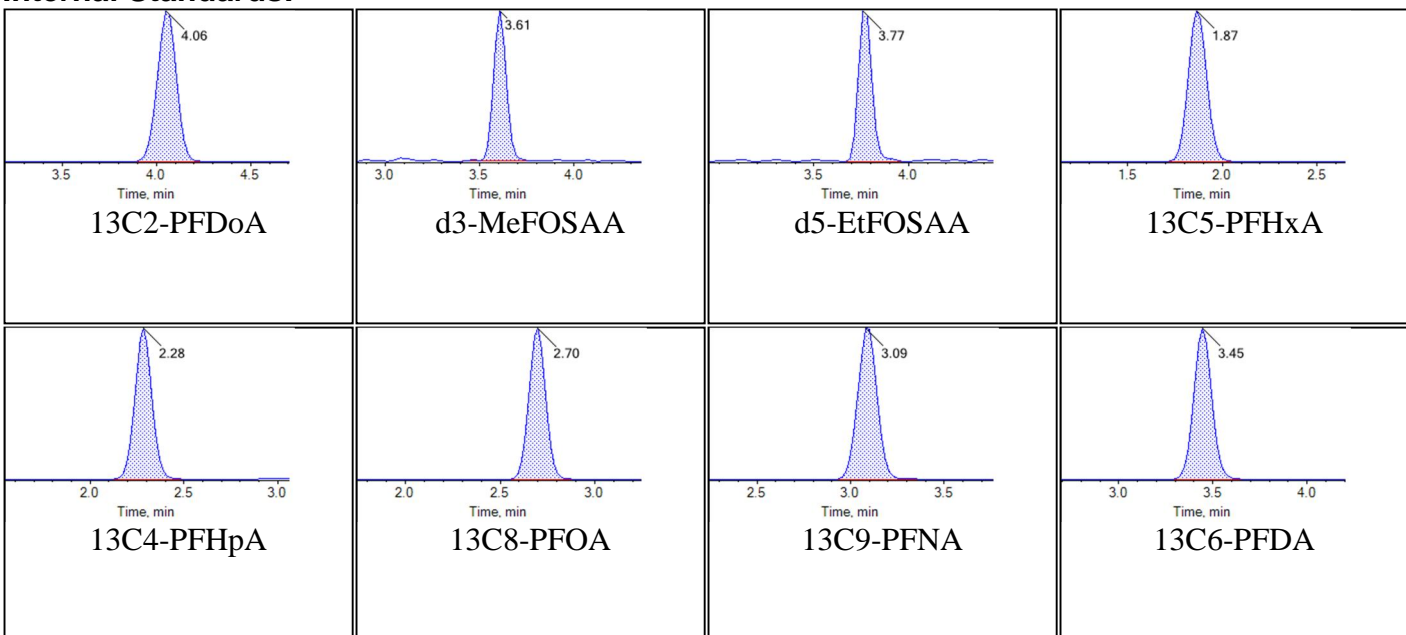
Chromatograms

Target Analytes:



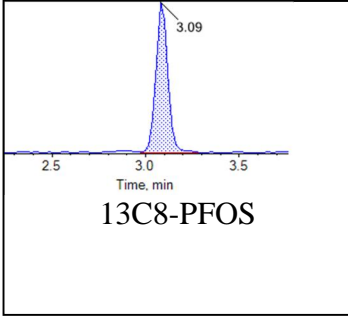
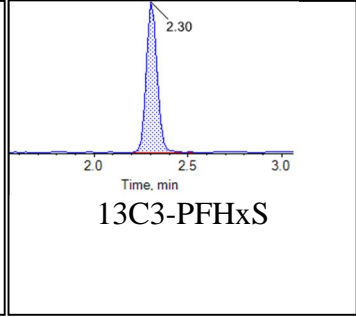
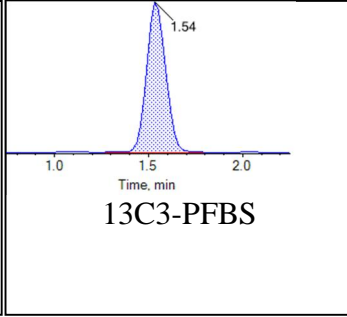
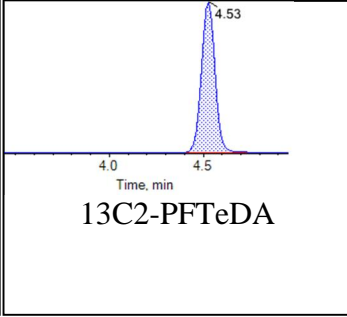
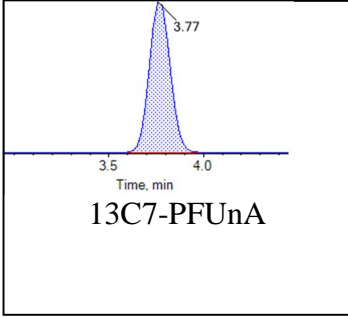


Internal Standards:



Chromatogram Report

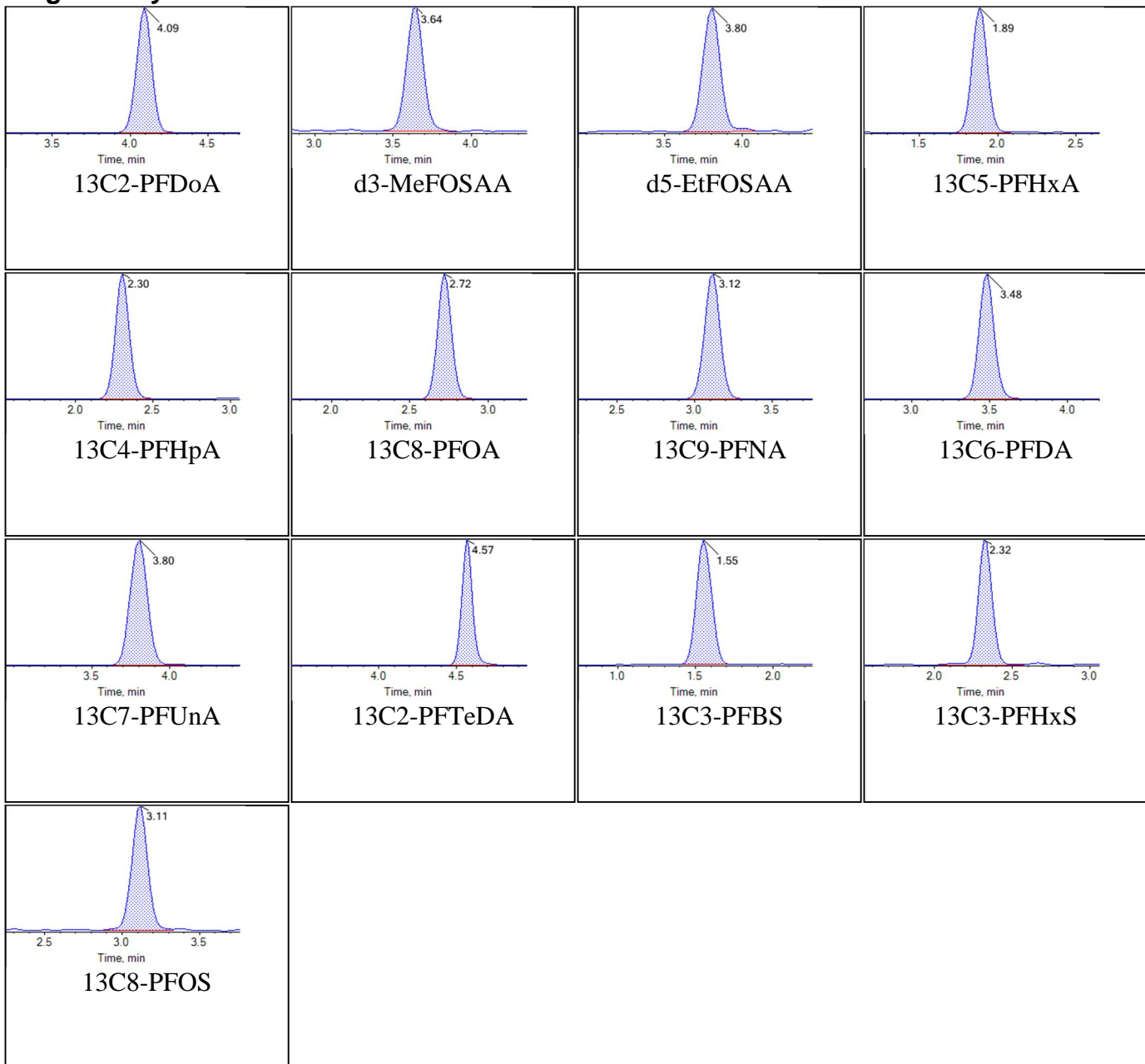
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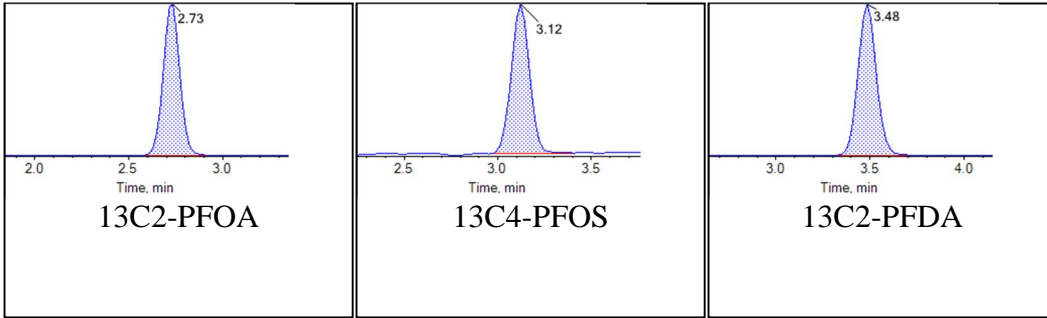
Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:26:43	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Chromatograms

Target Analytes:



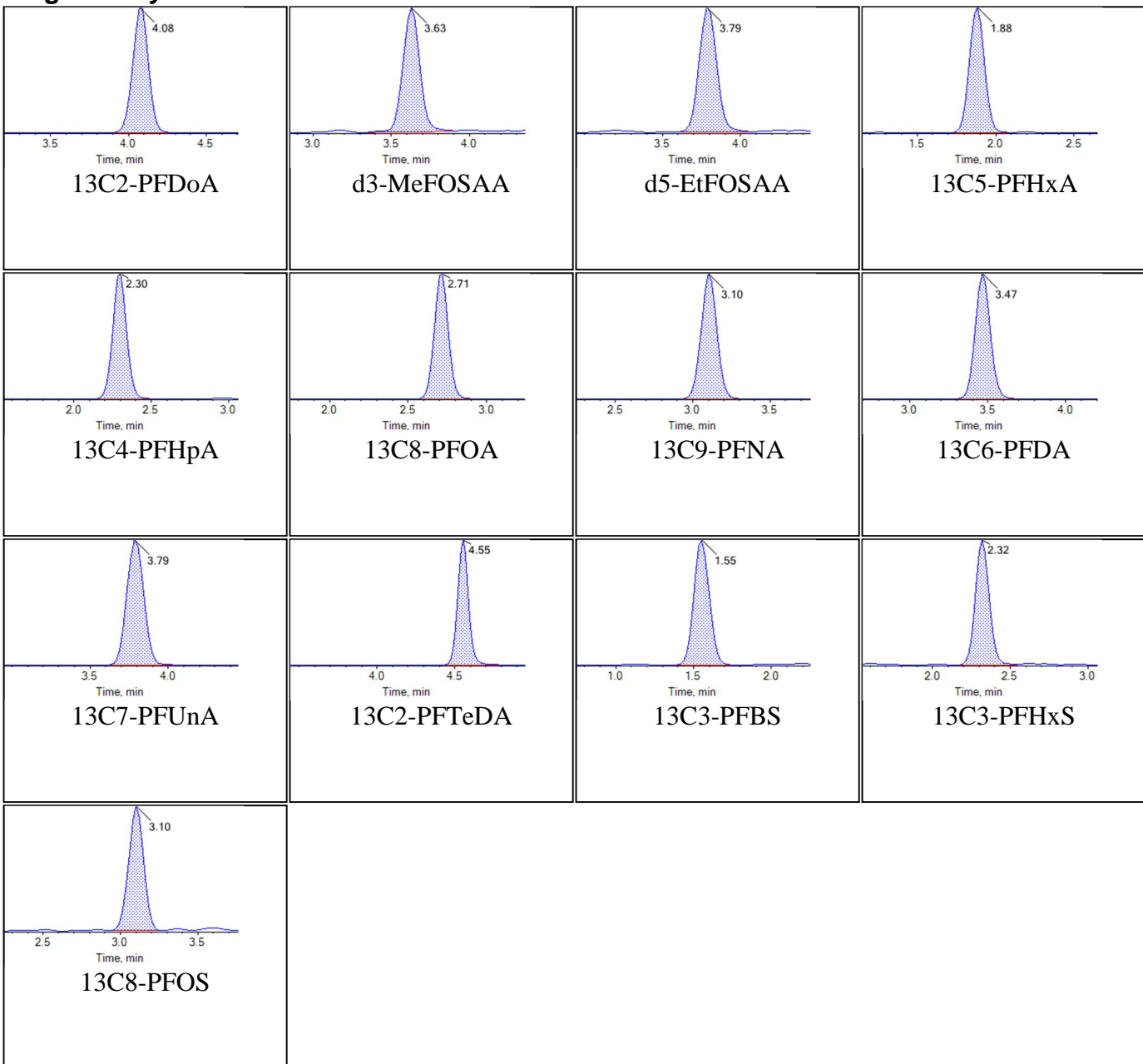
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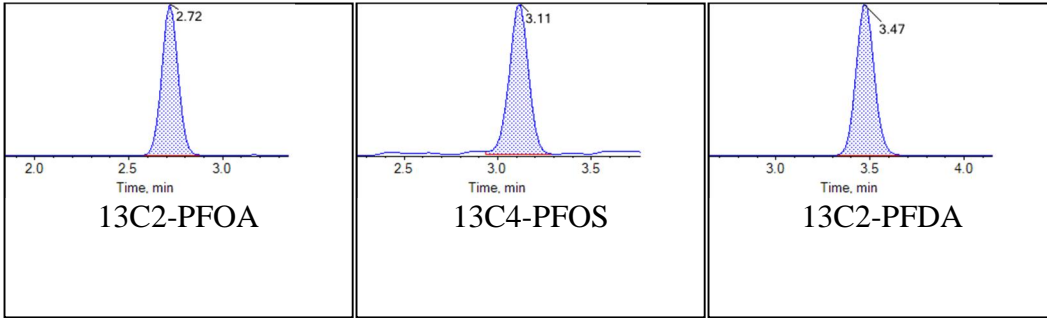
Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:37:35	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Chromatograms

Target Analytes:



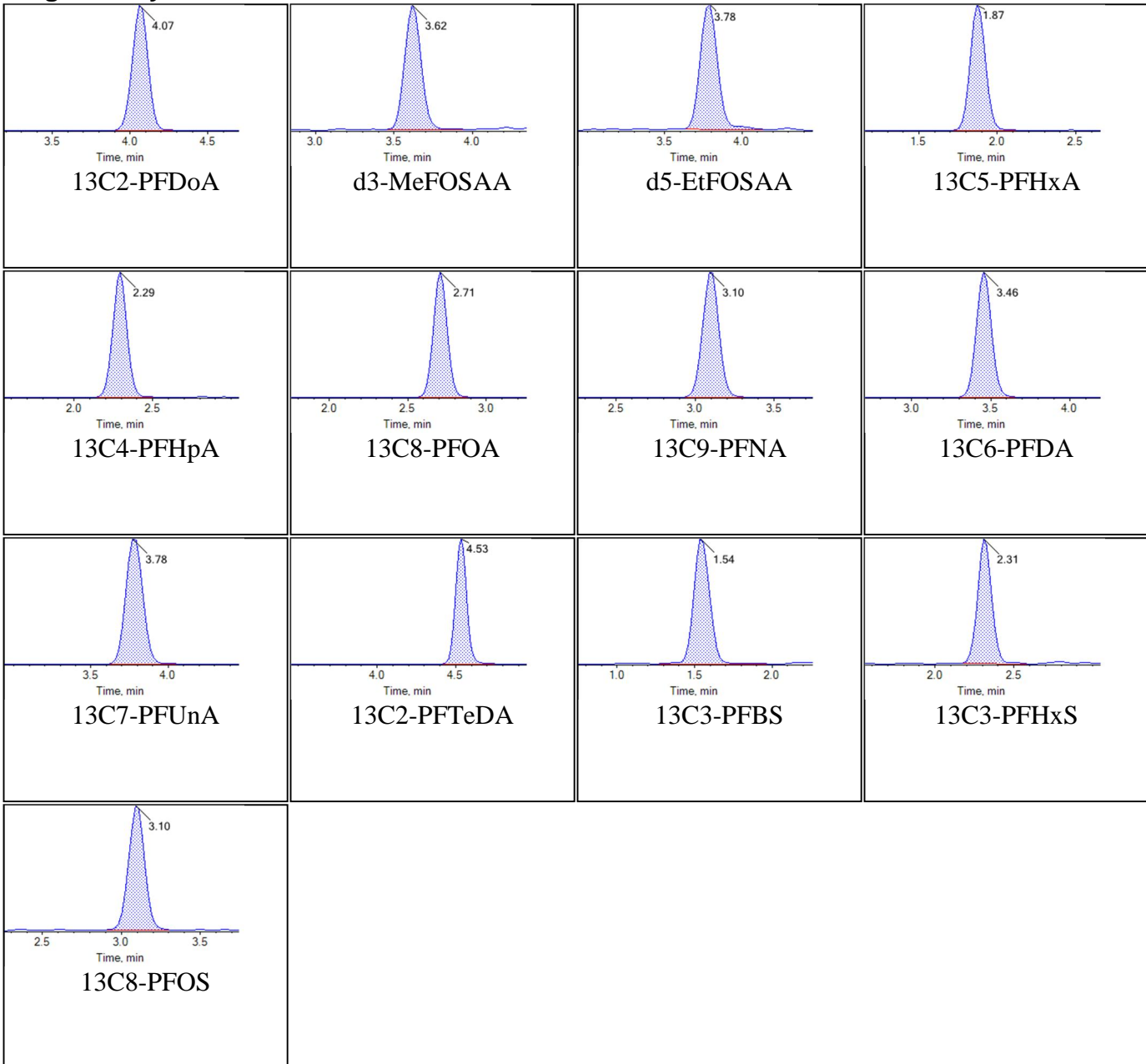
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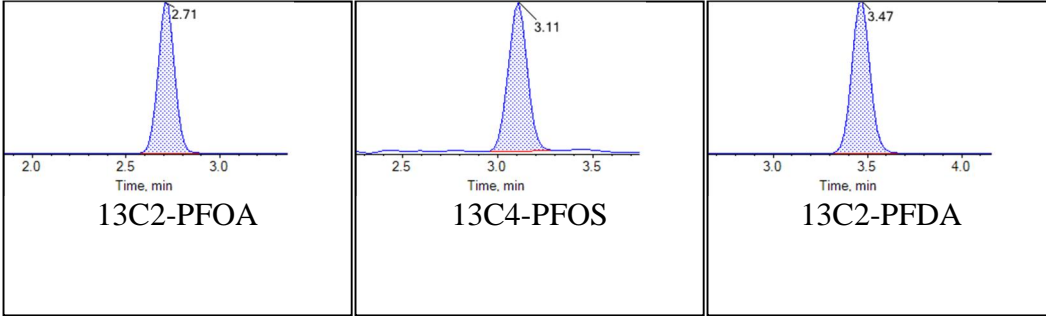
Sample Name	J8473-FS(5)	Injection Vial	4
Sample ID	VC-PM367-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T16:59:22	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Chromatograms

Target Analytes:



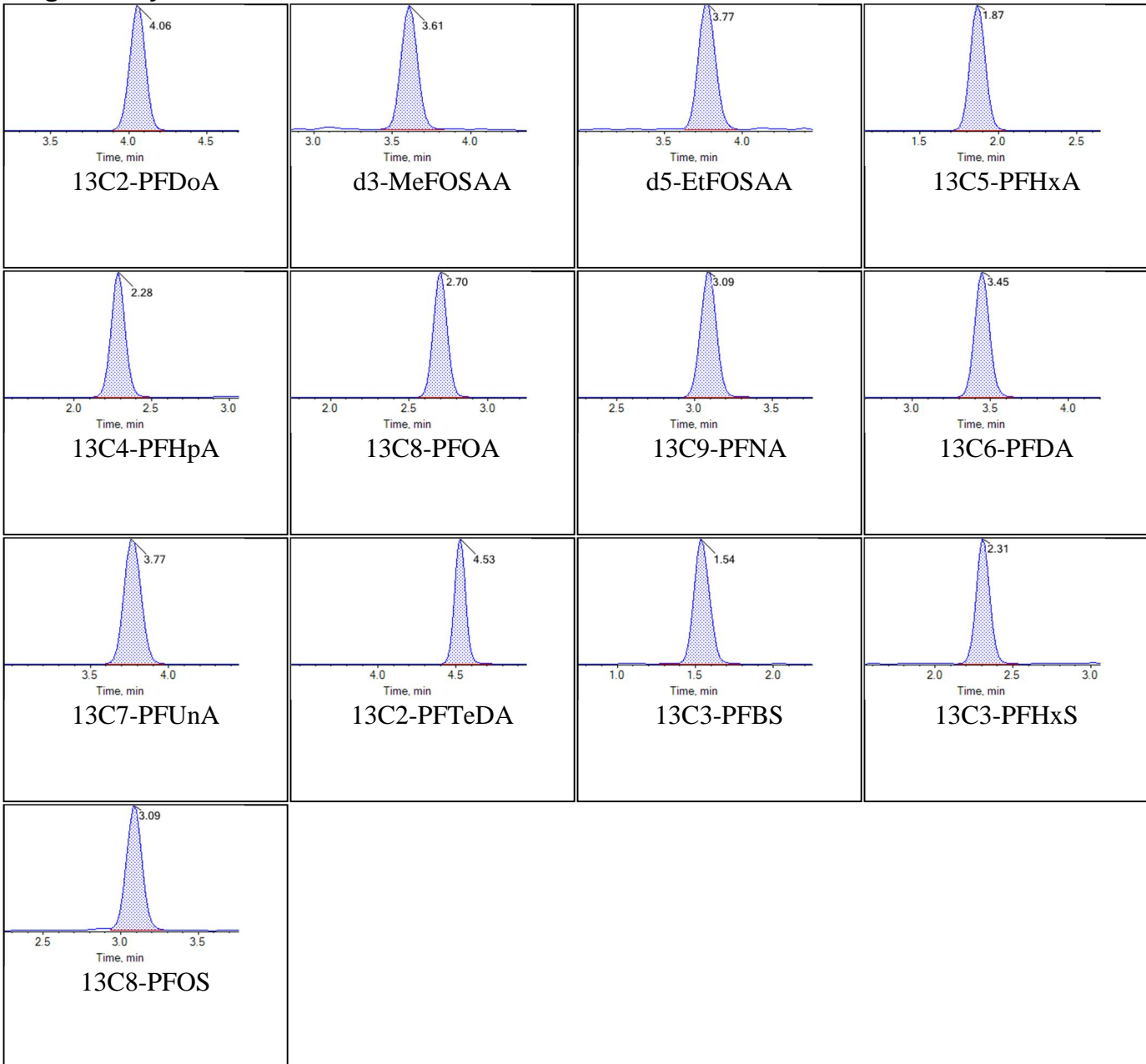
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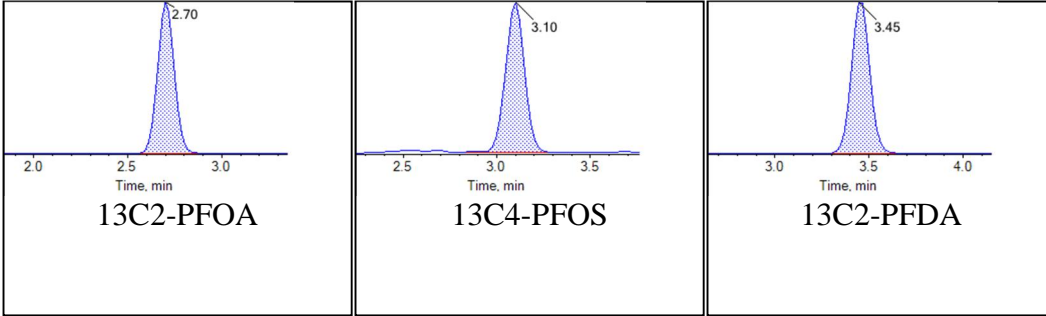
Sample Name	KB77 CCV	Injection Vial	5
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-25T17:10:14	Data File	AC_10252018_05-0369.wiff
Acquisition Method	5-0369.dam	Result Table	18-0390_SIS_A
Sample Comment			

Chromatograms

Target Analytes:



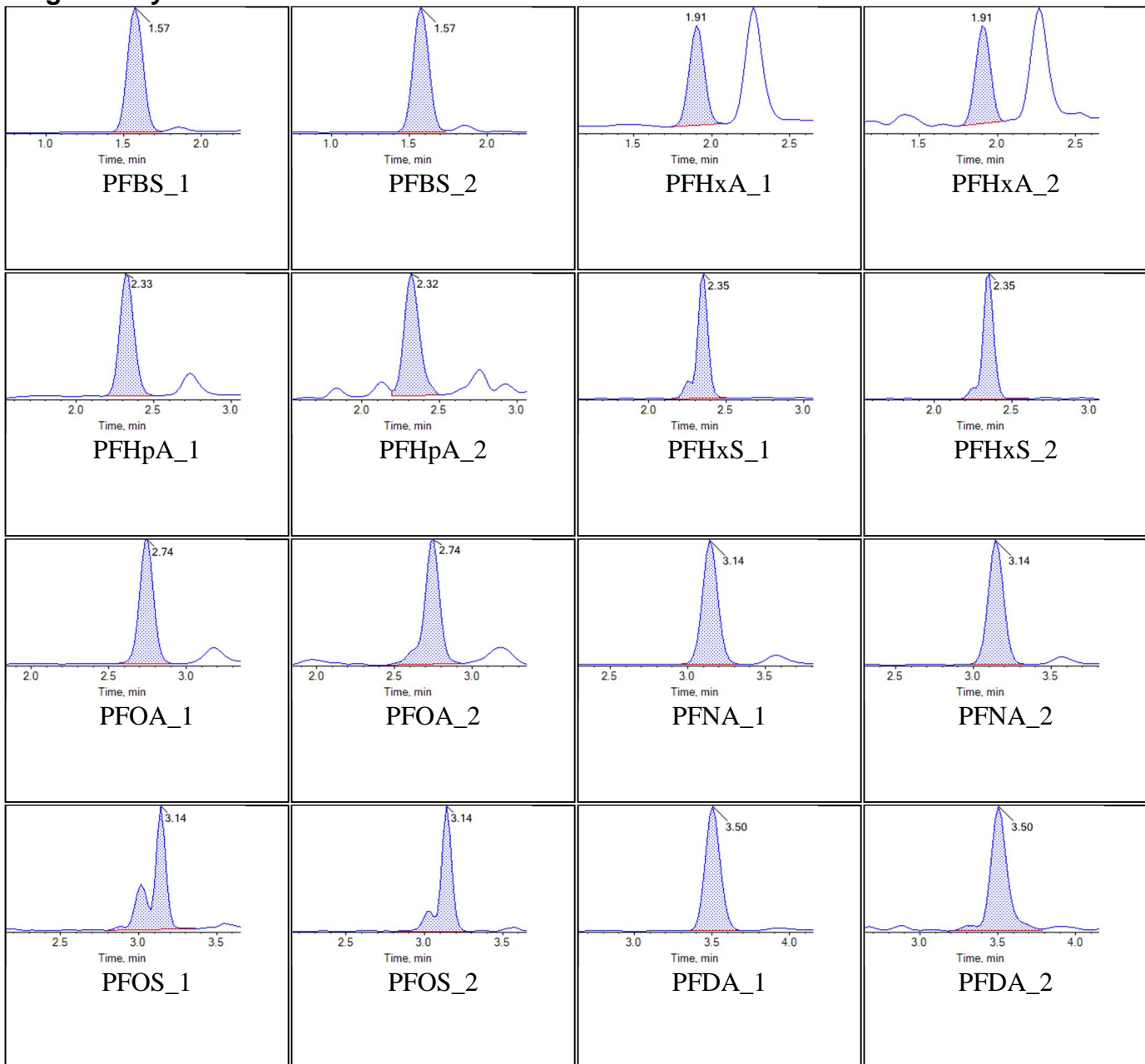
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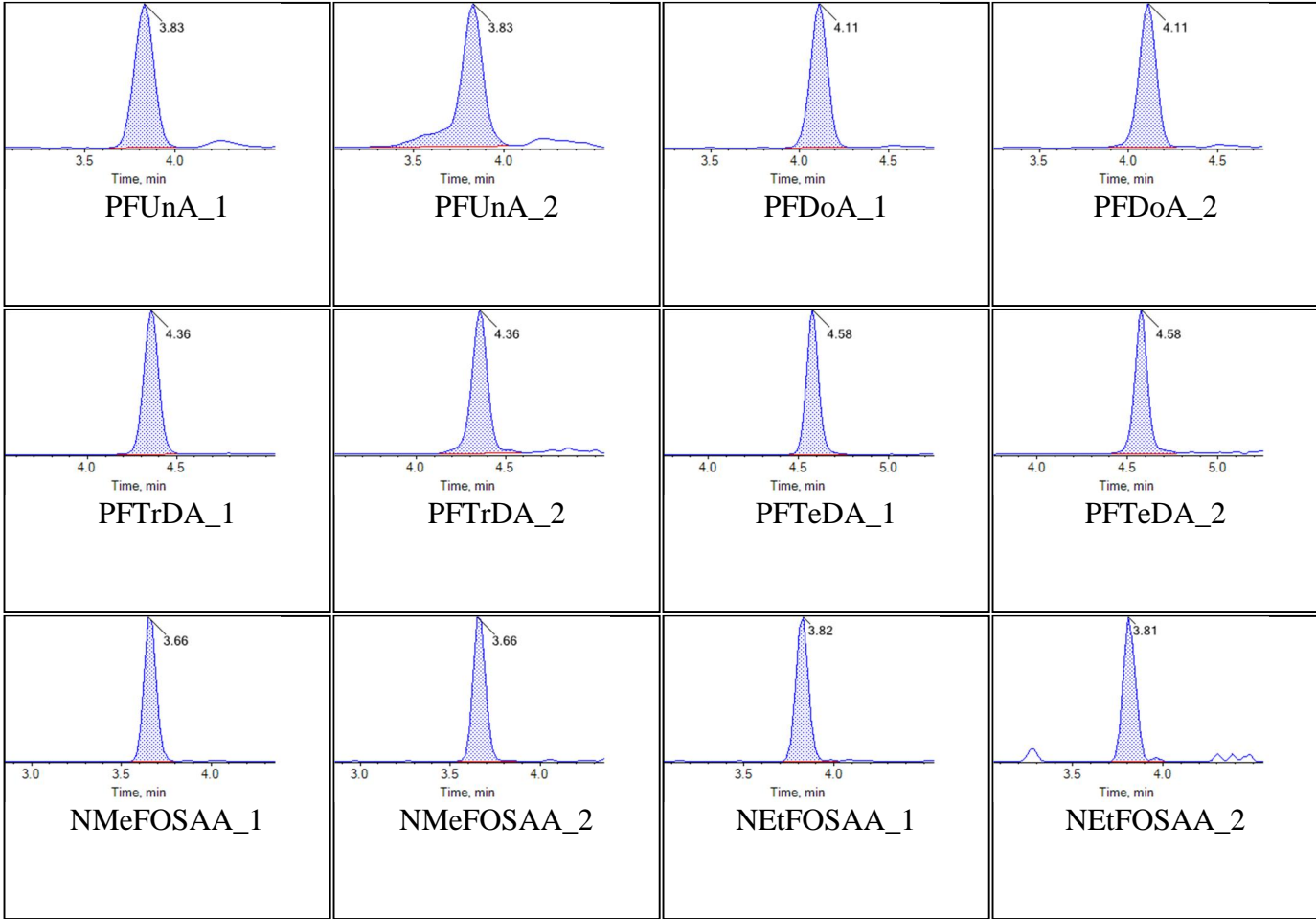


Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
Sample Comment			

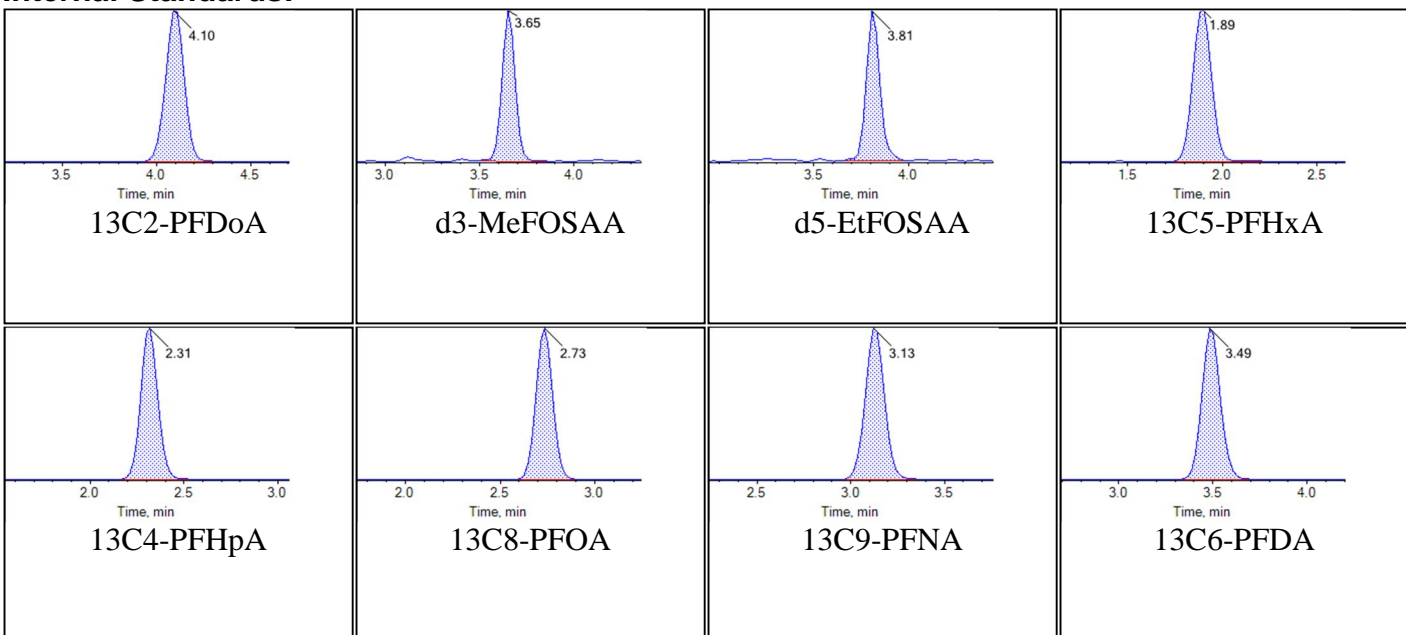
Chromatograms

Target Analytes:



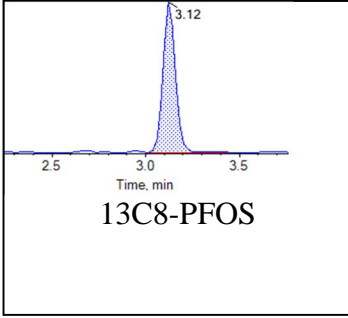
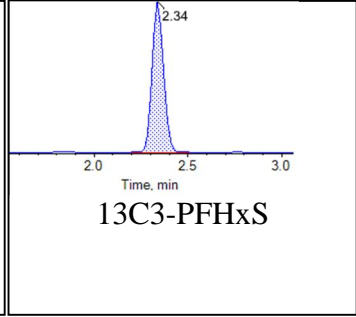
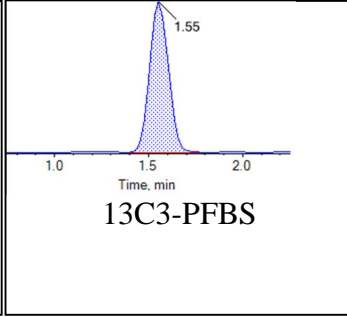
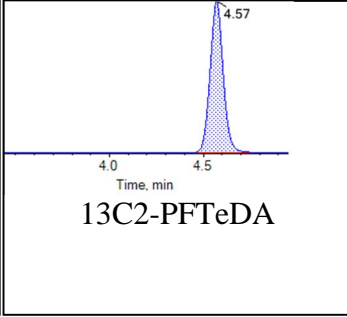
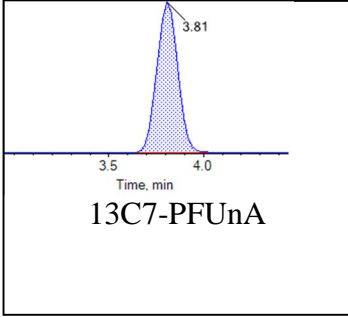


Internal Standards:



Chromatogram Report

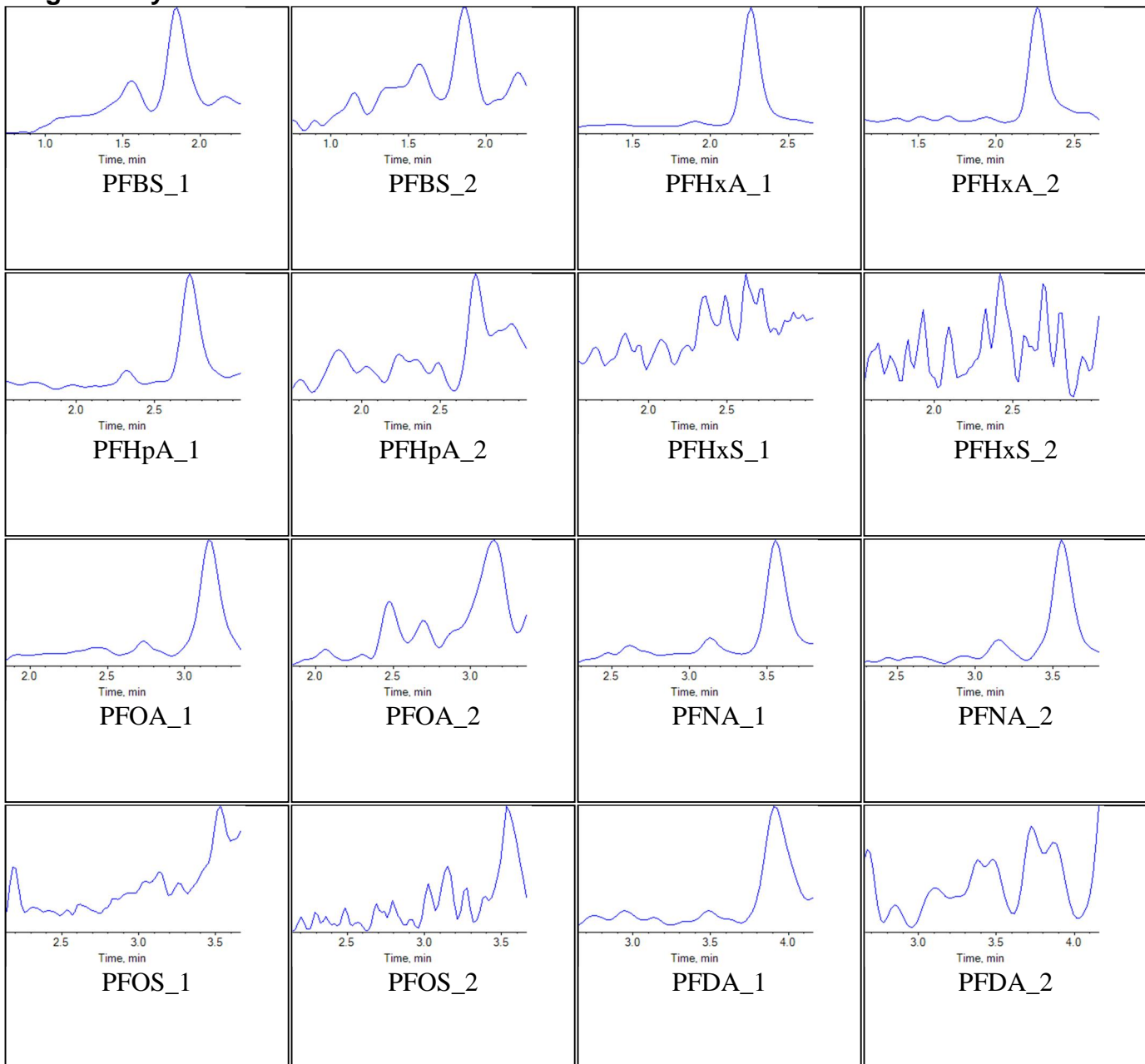
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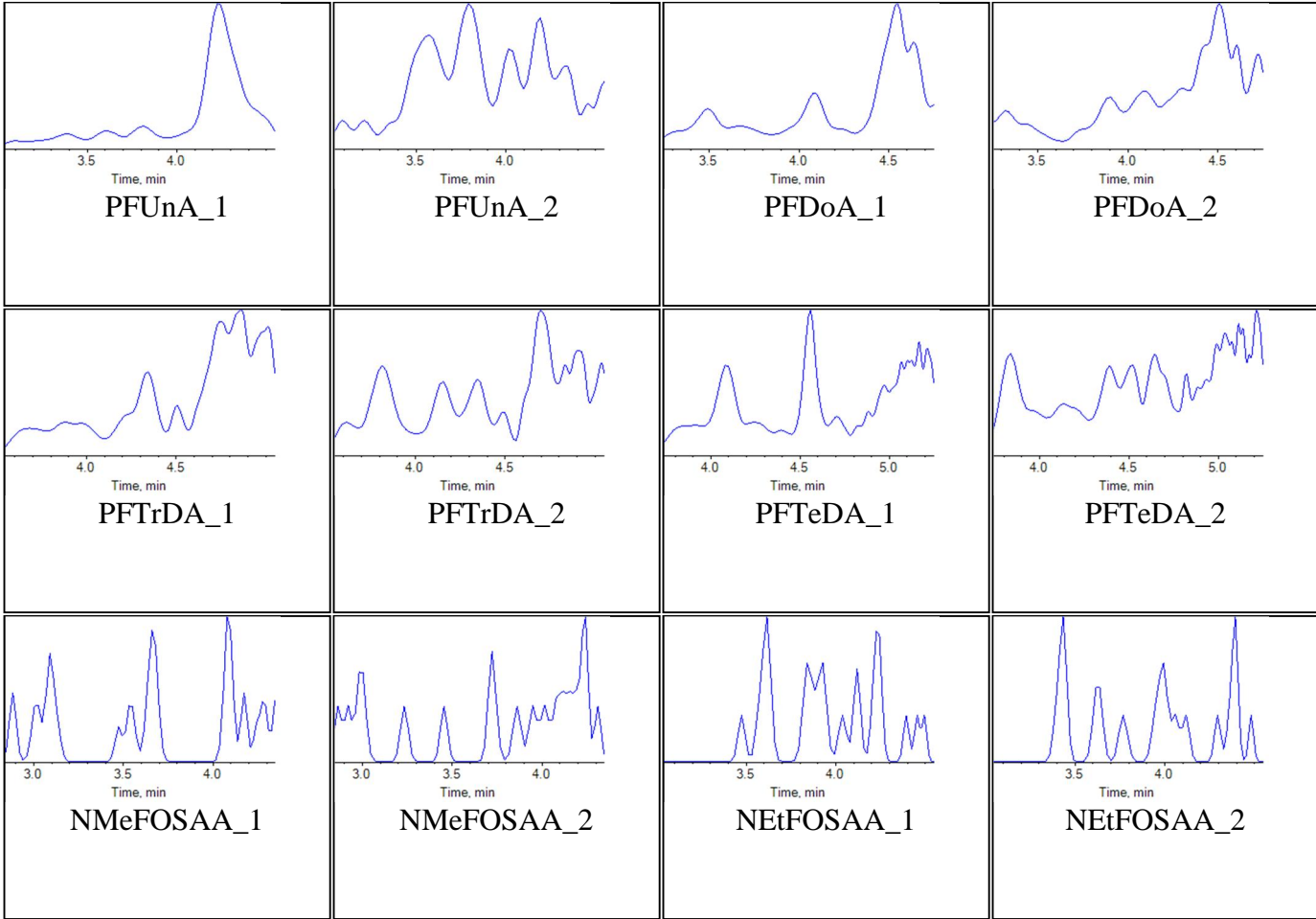


Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
Sample Comment			

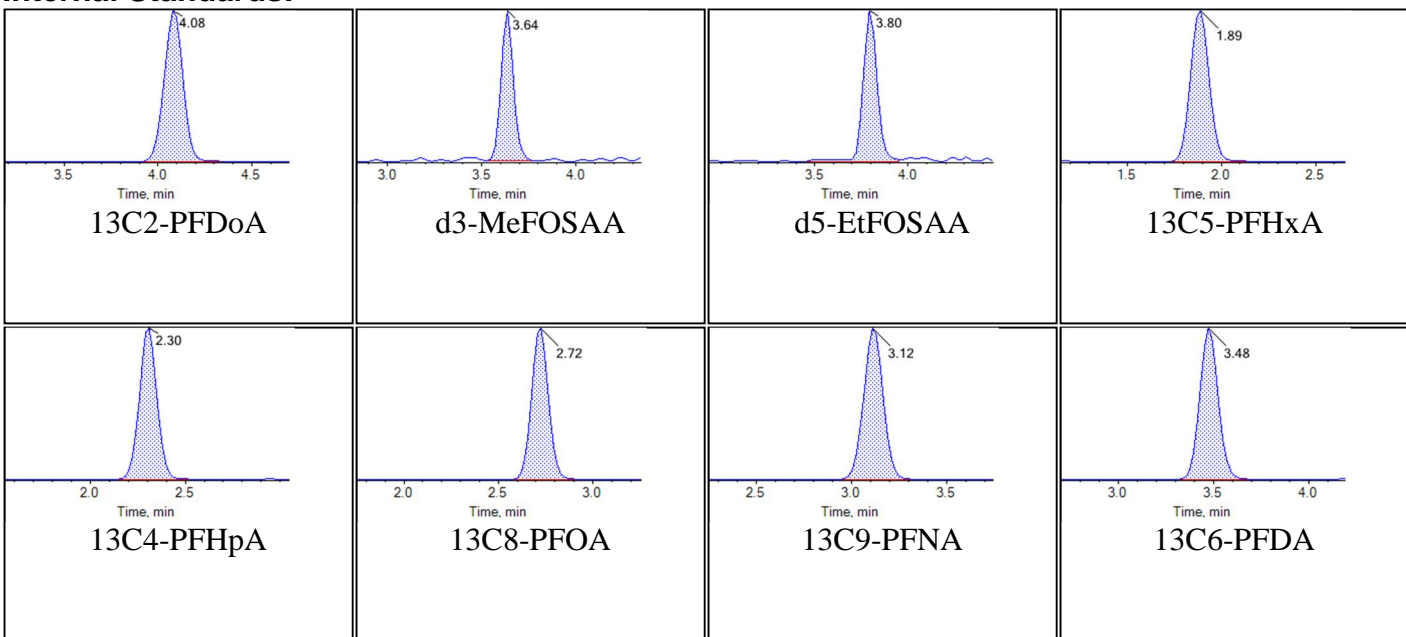
Chromatograms

Target Analytes:



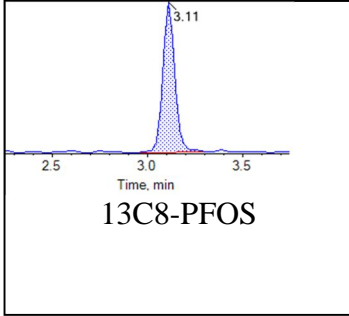
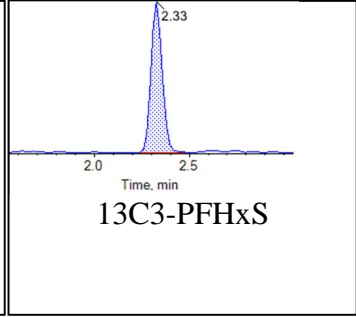
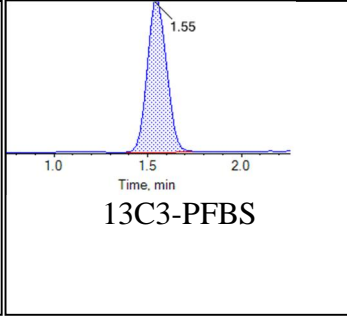
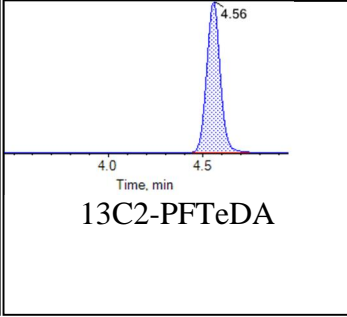
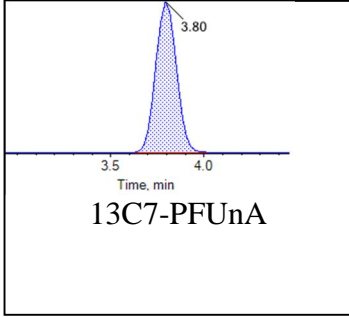


Internal Standards:



Chromatogram Report

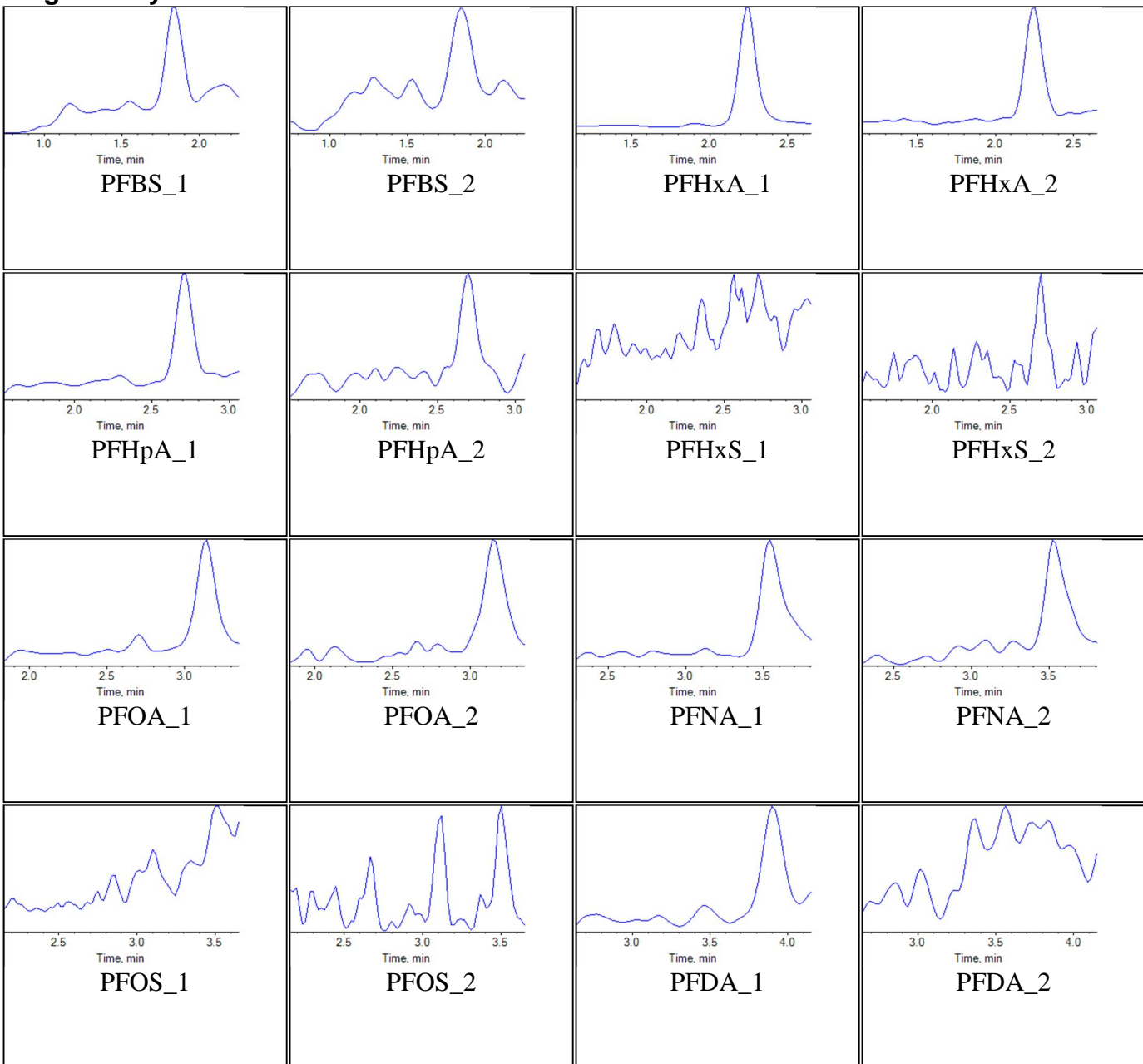
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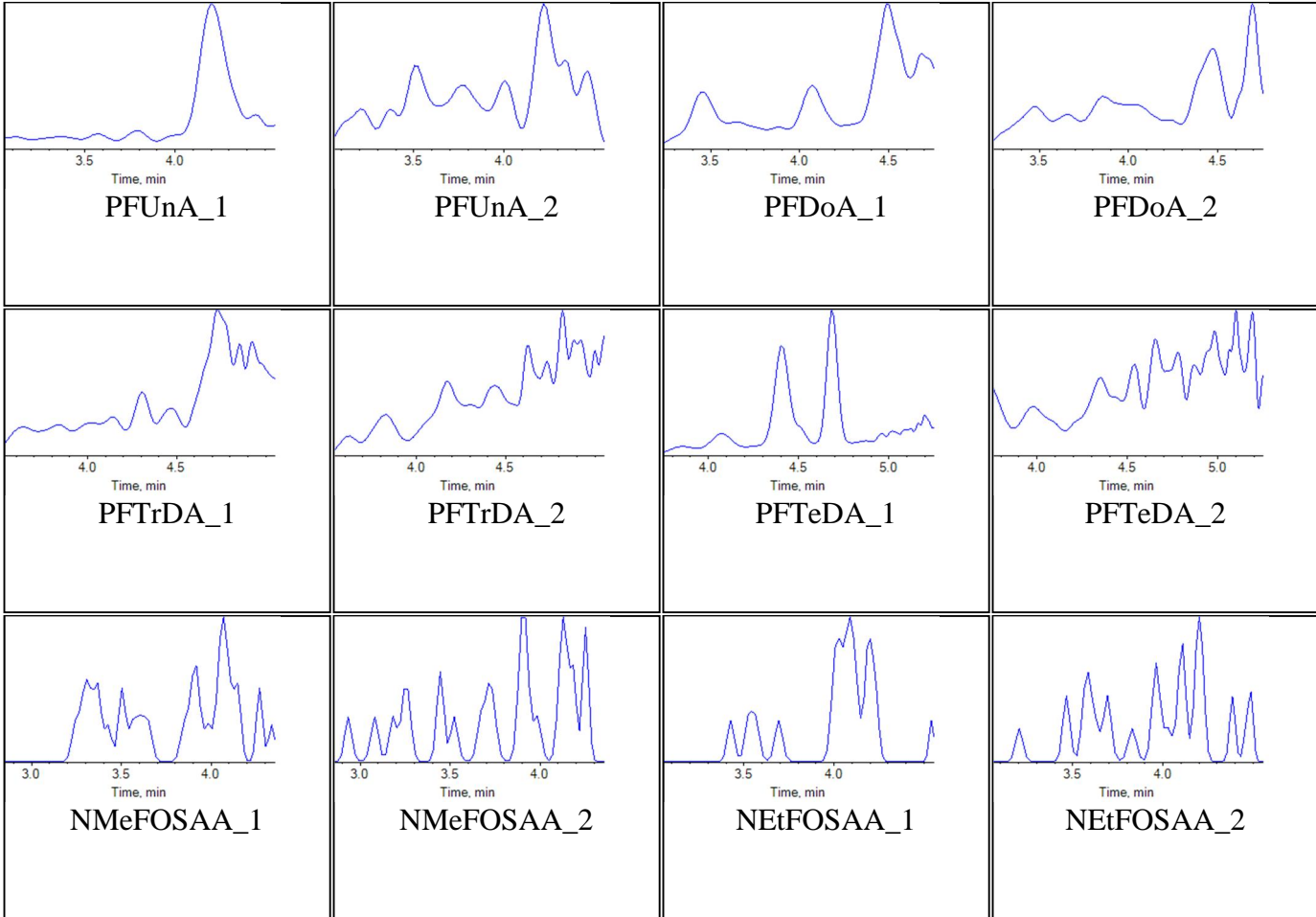


Sample Name	CR904PB-FS(3)	Injection Vial	6
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T19:11:14	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
Sample Comment			

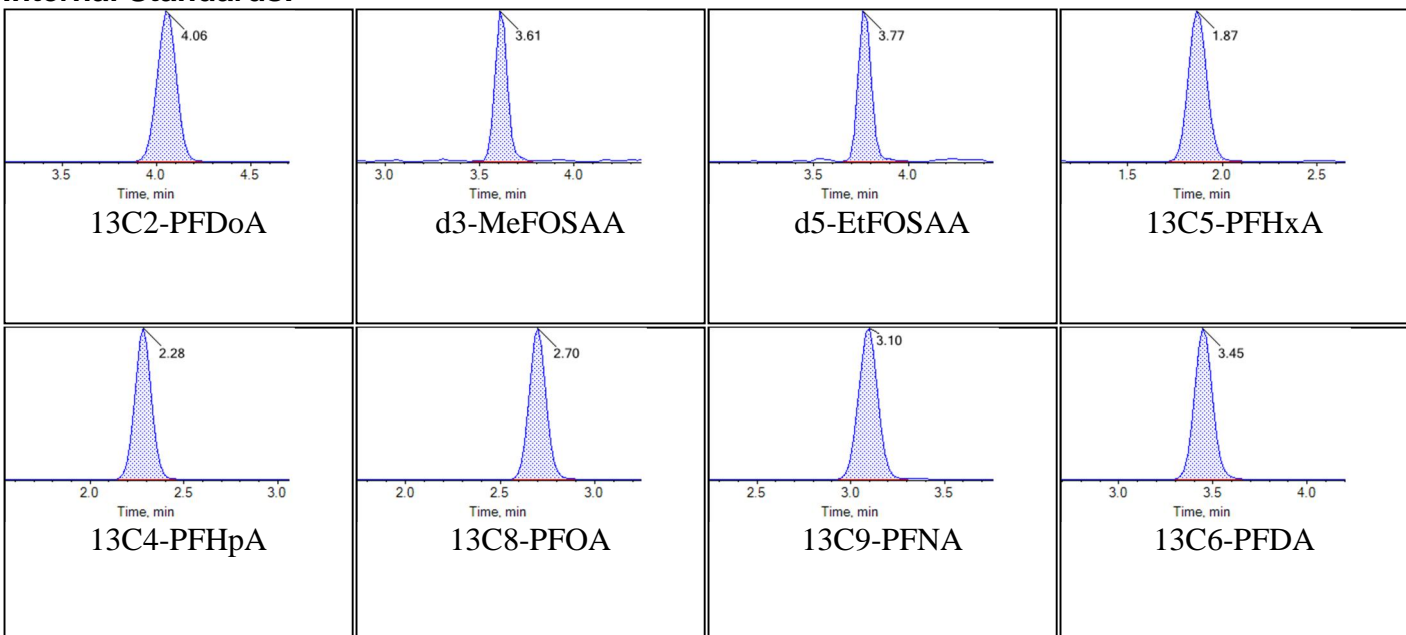
Chromatograms

Target Analytes:



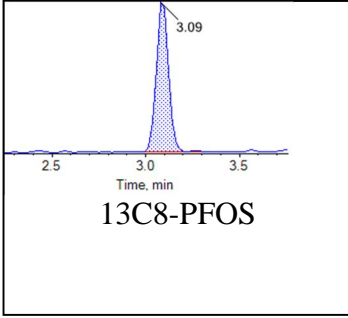
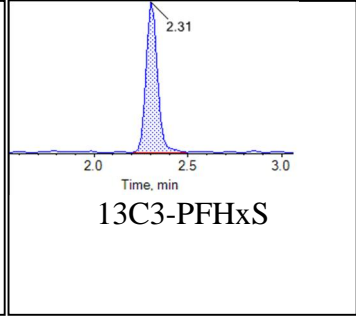
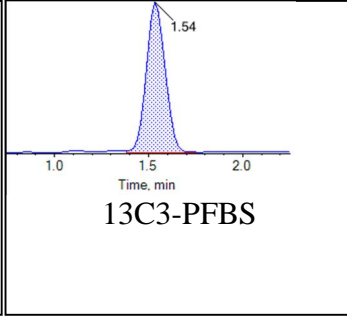
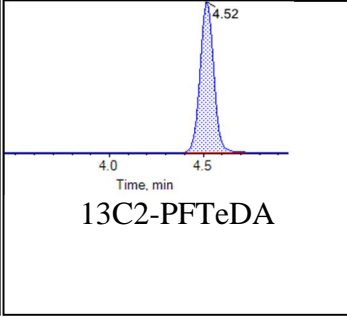
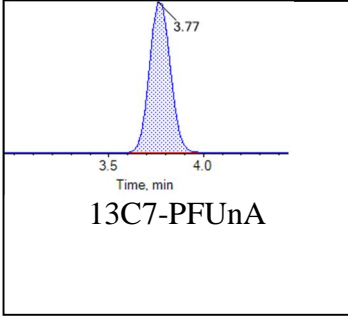


Internal Standards:



Chromatogram Report

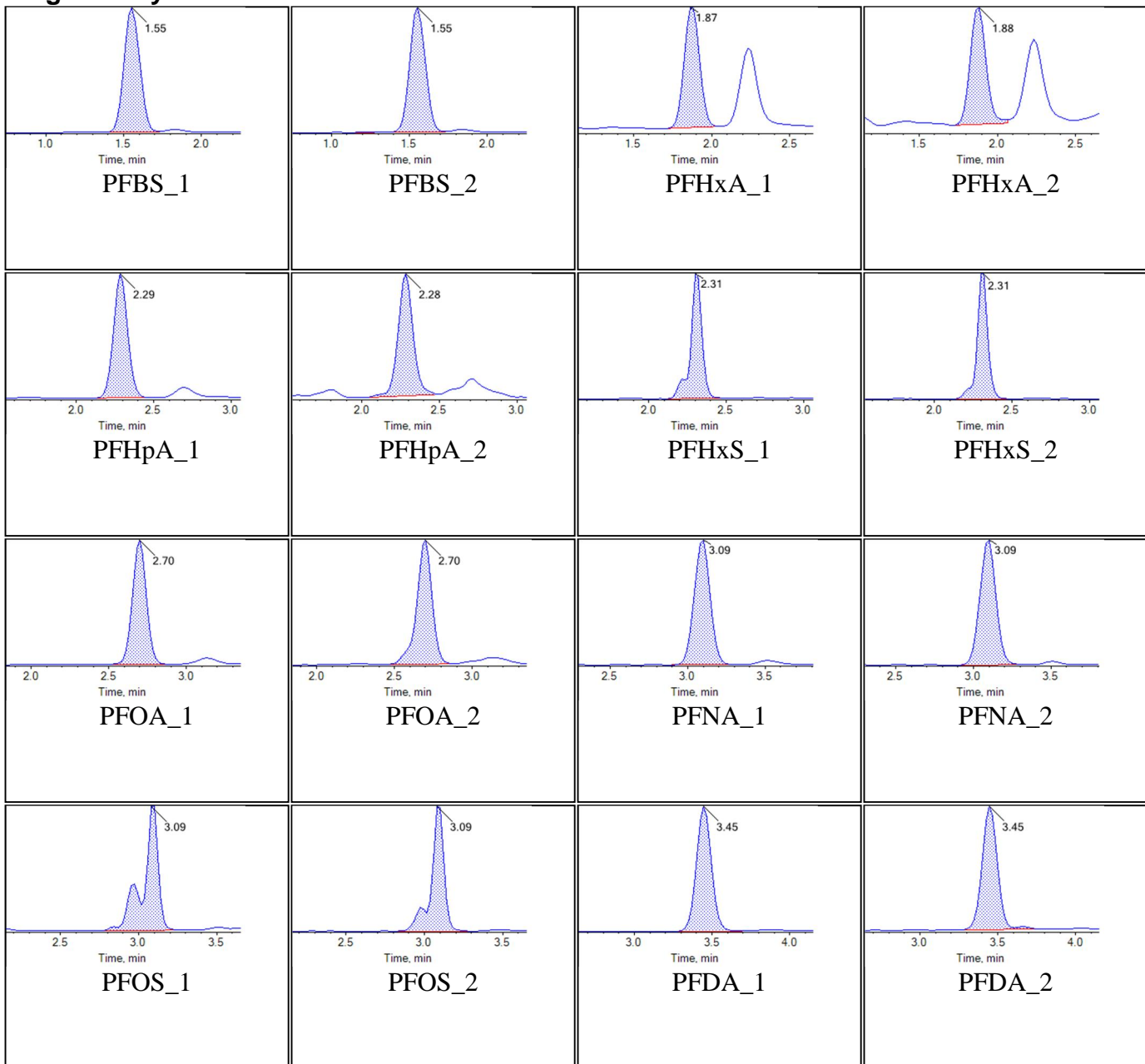
Created with Analyst Reporter
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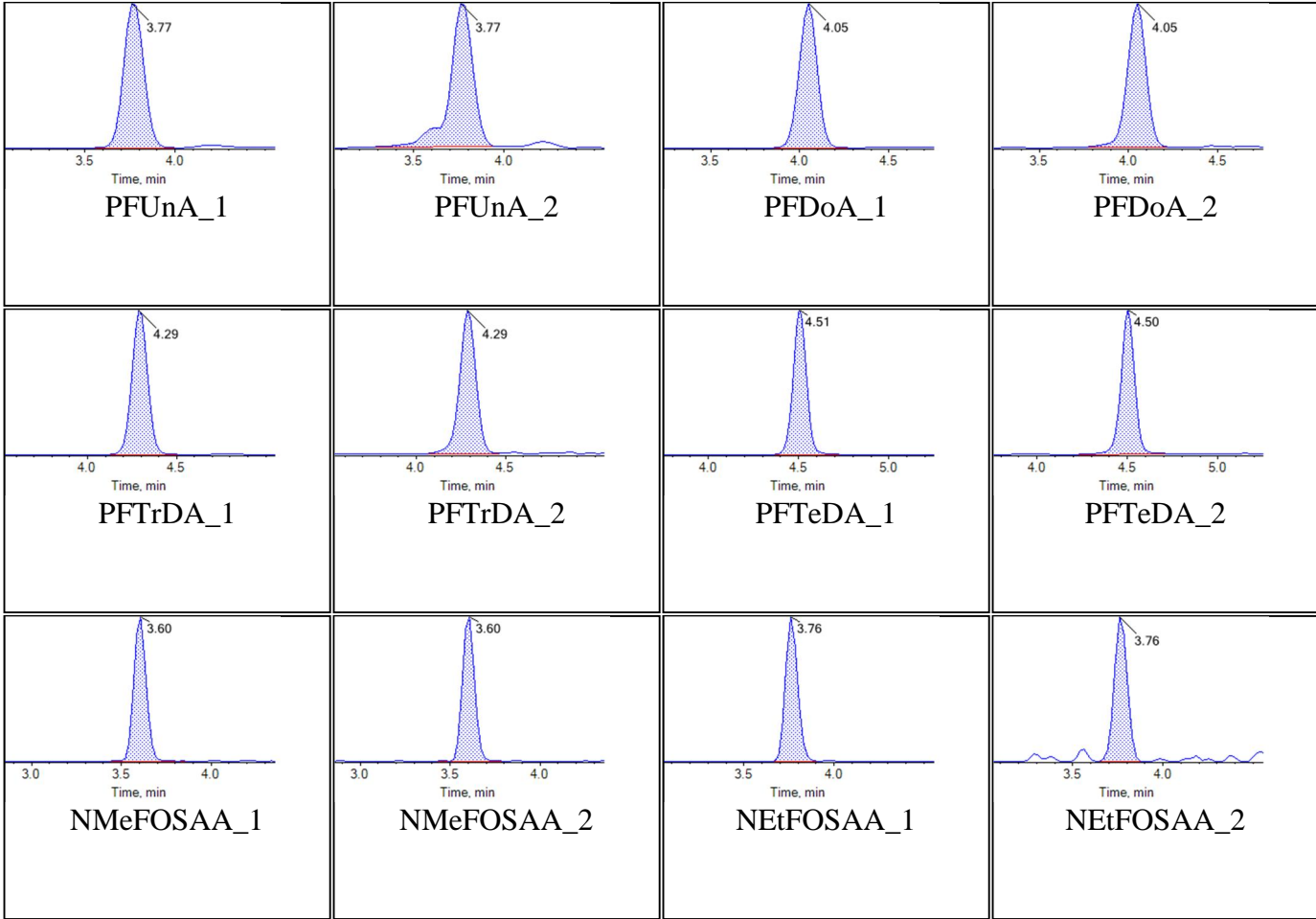


Sample Name	KB76 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_D
Sample Comment			

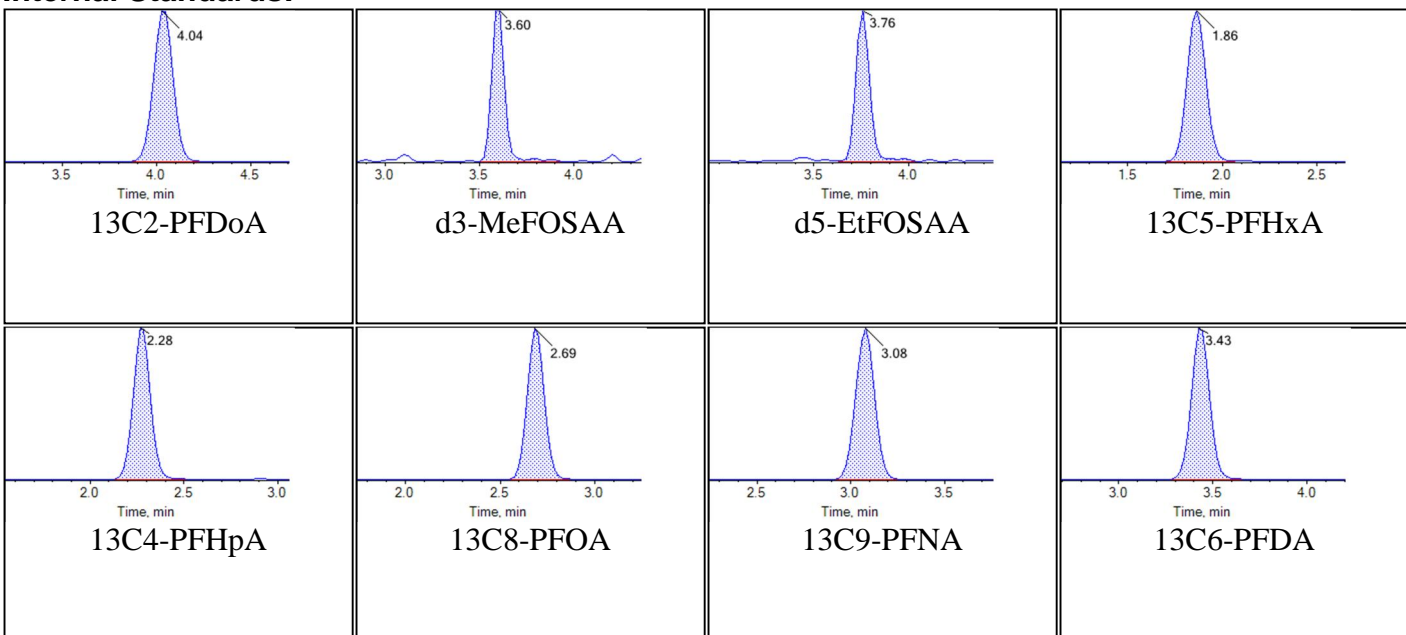
Chromatograms

Target Analytes:



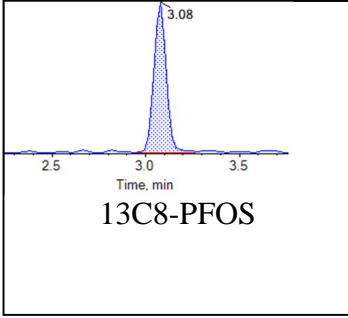
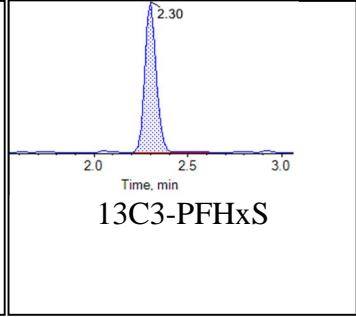
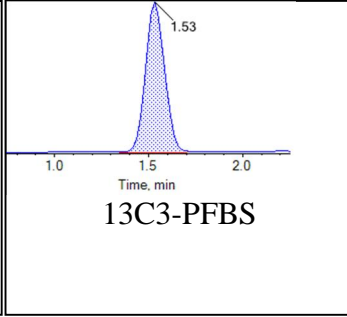
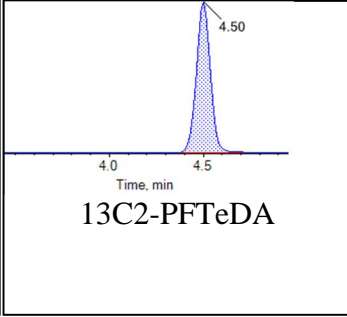
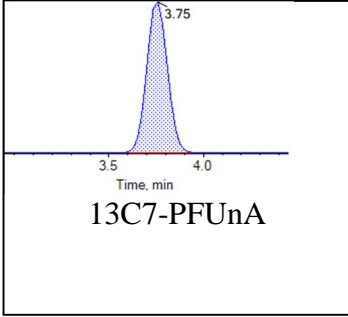


Internal Standards:



Chromatogram Report

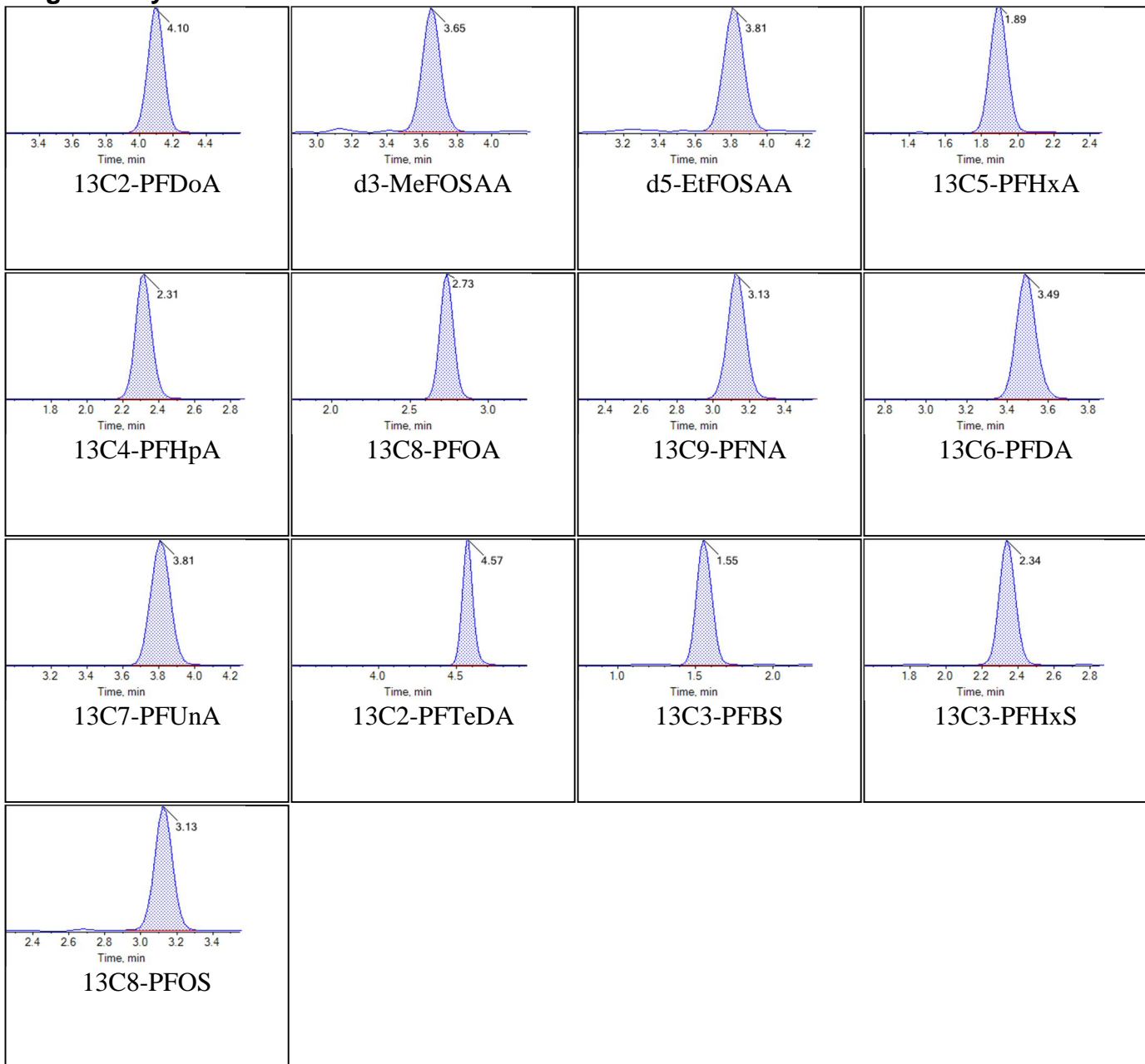
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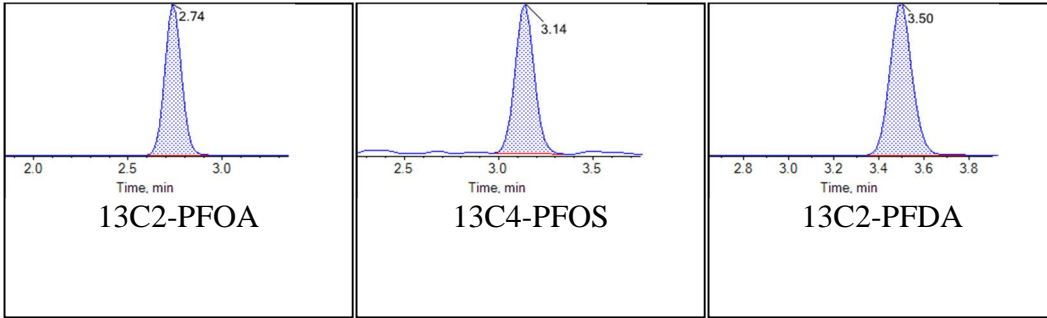
Sample Name	KB75 ISC	Injection Vial	1
Sample ID	Instrument Sensitivity Check	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:16:51	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
Sample Comment			

Chromatograms

Target Analytes:



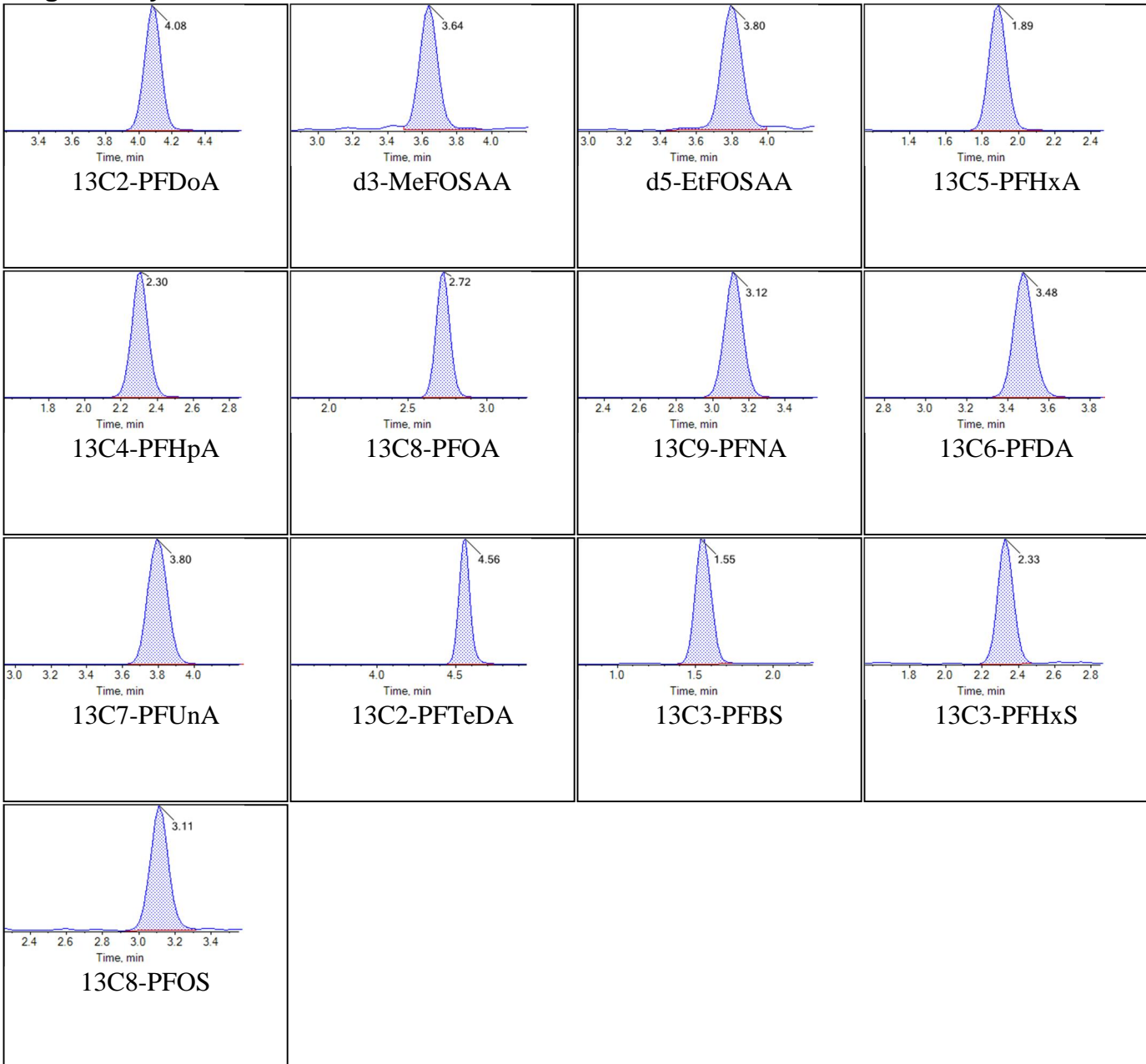
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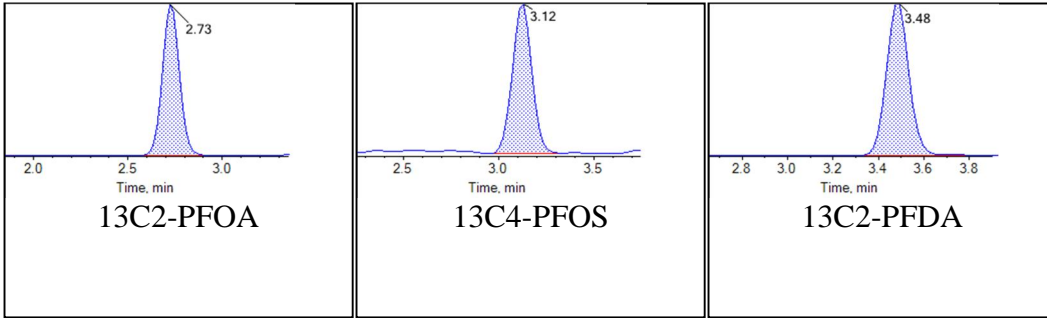
Sample Name	KB80 IB	Injection Vial	2
Sample ID	Instrument Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T18:27:43	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
Sample Comment			

Chromatograms

Target Analytes:



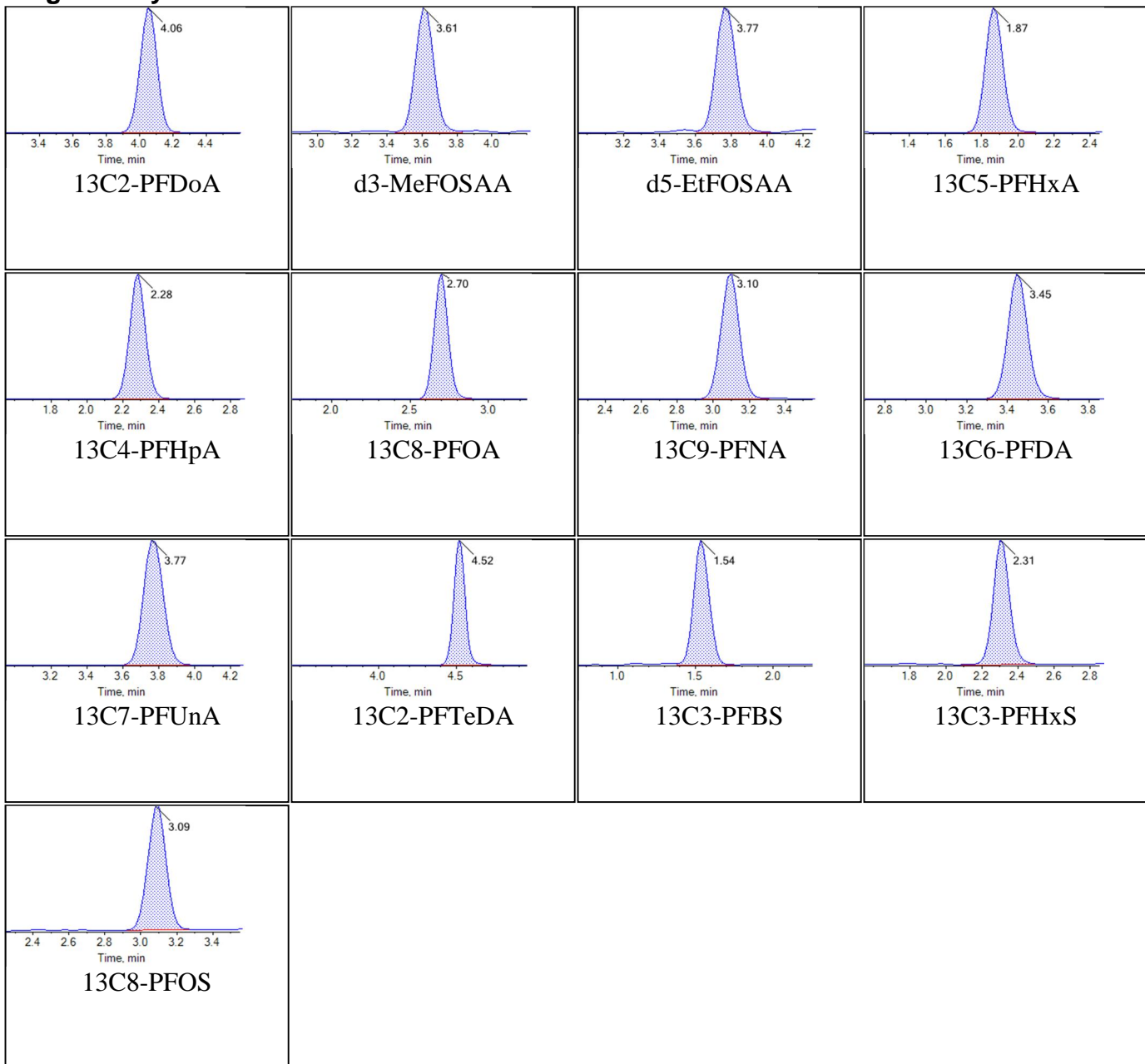
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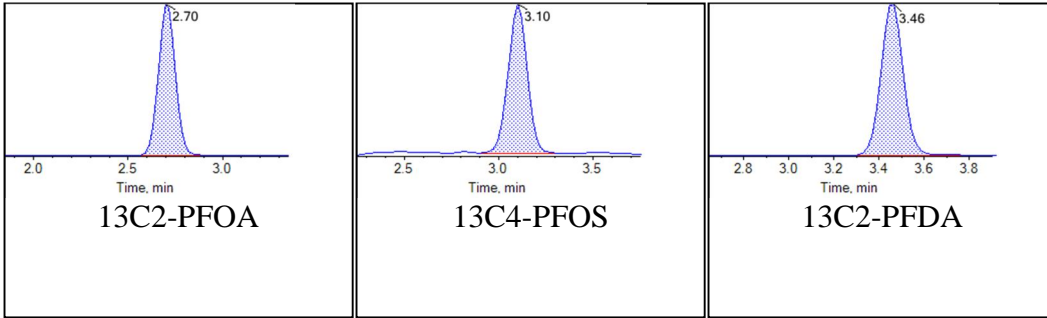
Sample Name	CR904PB-FS(3)	Injection Vial	6
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T19:11:14	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
Sample Comment			

Chromatograms

Target Analytes:



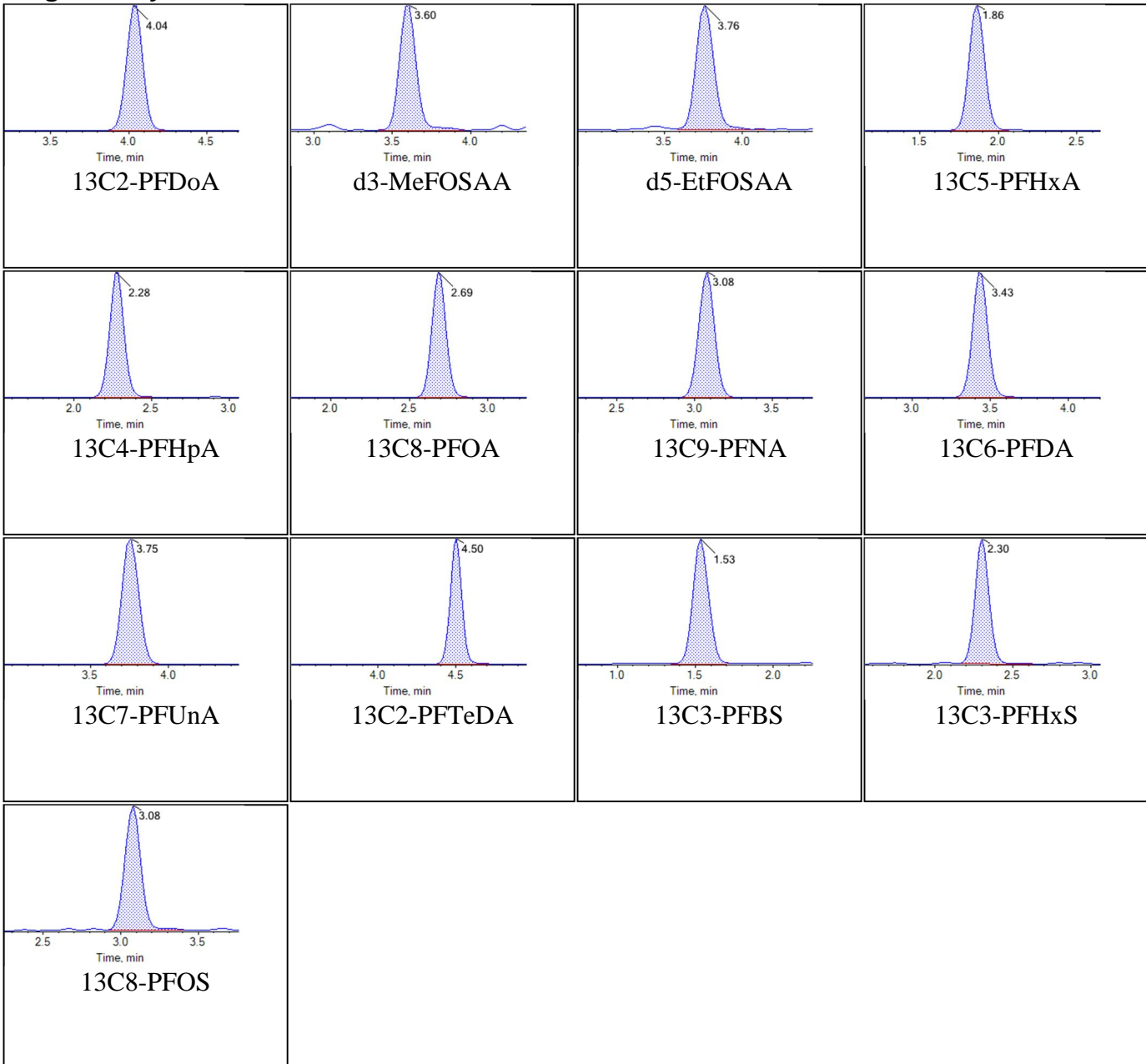
Internal Standards:



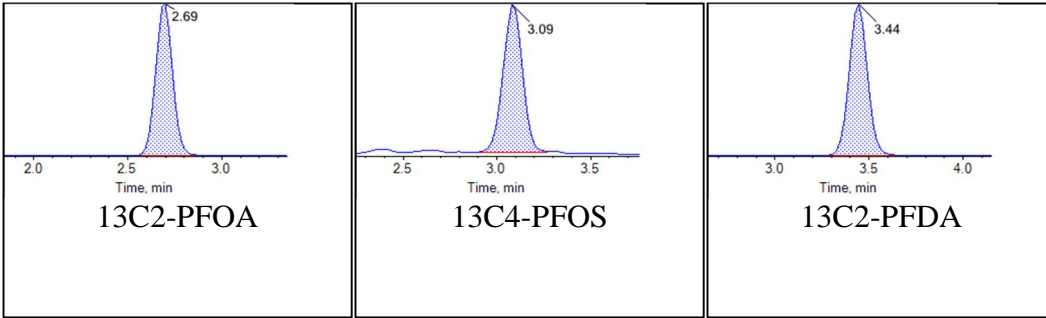
Sample Name	KB76 CCV	Injection Vial	13
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T20:38:12	Data File	10192018.wiff
Acquisition Method	5-0369.dam	Result Table	18222018_SIS_D
Sample Comment			

Chromatograms

Target Analytes:



Internal Standards:



Unused Data

Sample Name	KB77 CCV	Injection Vial	22
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:35:03	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	1.64	PFHxA	N/A	0.077	
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	ü
PFNA_1	463.0 / 419.0	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	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	KB76 CCV	Injection Vial	29
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T00:51:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.54	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.300	0.292	ü
PFHxA_1	313.0 / 269.0	1.86	PFHxA			
PFHxA_2	313.0 / 119.0	1.86	PFHxA	0.080	0.077	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.29	PFHxS			
PFHxS_2	399.0 / 99.0	2.29	PFHxS	0.300	0.282	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.08	PFNA	0.310	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	3.43	PFDA			
PFDA_2	513.0 / 219.0	3.43	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.76	PFUnA			
PFUnA_2	563.0 / 269.0	3.76	PFUnA	0.060	0.049	ü
PFDoA_1	613.0 / 569.0	4.04	PFDoA			
PFDoA_2	613.0 / 319.0	4.04	PFDoA	0.160	0.160	ü
PFTTrDA_1	663.0 / 619.0	4.29	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	4.29	PFTTrDA	0.070	0.066	ü
PFTeDA_1	713.0 / 669.0	4.50	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.50	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.59	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.59	NMeFOSAA	0.550	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.75	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.75	NEtFOSAA	0.060	0.062	ü

Sample Name	KB77 CCV	Injection Vial	22
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:35:03	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	N/A	232.25
PFBS 2	298.9 / 99.0	N/A	13C3-PFBS	302.0 / 99.0	N/A	232.25
PFHxA 1	313.0 / 269.0	N/A	13C5-PFHxA	318.0 / 273.0	N/A	250.00
PFHxA 2	313.0 / 119.0	1.64	13C5-PFHxA	318.0 / 273.0	N/A	250.00
PFHpA 1	363.0 / 319.0	N/A	13C4-PFHpA	367.0 / 322.0	N/A	250.00
PFHpA 2	363.0 / 169.0	N/A	13C4-PFHpA	367.0 / 322.0	N/A	250.00
PFHxS 1	399.0 / 80.0	N/A	13C3-PFHxS	402.0 / 99.0	N/A	236.50
PFHxS 2	399.0 / 99.0	N/A	13C3-PFHxS	402.0 / 99.0	N/A	236.50
PFOA 1	413.0 / 369.0	N/A	13C8-PFOA	421.0 / 376.0	N/A	250.00
PFOA 2	413.0 / 169.0	N/A	13C8-PFOA	421.0 / 376.0	N/A	250.00
PFNA 1	463.0 / 419.0	N/A	13C9-PFNA	472.0 / 427.0	N/A	250.00
PFNA 2	463.0 / 219.0	N/A	13C9-PFNA	472.0 / 427.0	N/A	250.00
PFOS 1	499.0 / 80.0	N/A	13C8-PFOS	507.0 / 99.0	N/A	239.25
PFOS 2	499.0 / 99.0	N/A	13C8-PFOS	507.0 / 99.0	N/A	239.25
PFDA 1	513.0 / 469.0	N/A	13C6-PFDA	519.0 / 474.0	N/A	250.00
PFDA 2	513.0 / 219.0	N/A	13C6-PFDA	519.0 / 474.0	N/A	250.00
PFUnA 1	563.0 / 519.0	N/A	13C7-PFUnA	570.0 / 525.0	N/A	250.00
PFUnA 2	563.0 / 269.0	N/A	13C7-PFUnA	570.0 / 525.0	N/A	250.00
PFDoA 1	613.0 / 569.0	N/A	13C2-PFDoA	615.0 / 570.0	N/A	250.00
PFDoA 2	613.0 / 319.0	N/A	13C2-PFDoA	615.0 / 570.0	N/A	250.00
PFTTrDA 1	663.0 / 619.0	N/A	13C2-PFTeDA	715.0 / 670.0	N/A	250.00
PFTTrDA 2	663.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	N/A	250.00
PFTeDA 1	713.0 / 669.0	N/A	13C2-PFTeDA	715.0 / 670.0	N/A	250.00
PFTeDA 2	713.0 / 169.0	N/A	13C2-PFTeDA	715.0 / 670.0	N/A	250.00
NMeFOSAA 1	570.0 / 419.0	N/A	d3-MeFOSAA	573.0 / 419.0	N/A	250.00
NMeFOSAA 2	570.0 / 512.0	N/A	d3-MeFOSAA	573.0 / 419.0	N/A	250.00
NEtFOSAA 1	584.0 / 419.0	N/A	d5-EtFOSAA	589.0 / 419.0	N/A	250.00
NEtFOSAA 2	584.0 / 483.0	N/A	d5-EtFOSAA	589.0 / 419.0	N/A	250.00

Sample Name	KB76 CCV	Injection Vial	29
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T00:51:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	26320.16	232.25
PFBS 2	298.9 / 99.0	1.54	13C3-PFBS	302.0 / 99.0	26320.16	232.25
PFHxA 1	313.0 / 269.0	1.86	13C5-PFHxA	318.0 / 273.0	65651.87	250.00
PFHxA 2	313.0 / 119.0	1.86	13C5-PFHxA	318.0 / 273.0	65651.87	250.00
PFHpA 1	363.0 / 319.0	2.27	13C4-PFHpA	367.0 / 322.0	70975.97	250.00
PFHpA 2	363.0 / 169.0	2.27	13C4-PFHpA	367.0 / 322.0	70975.97	250.00
PFHxS 1	399.0 / 80.0	2.29	13C3-PFHxS	402.0 / 99.0	28057.50	236.50
PFHxS 2	399.0 / 99.0	2.29	13C3-PFHxS	402.0 / 99.0	28057.50	236.50
PFOA 1	413.0 / 369.0	2.68	13C8-PFOA	421.0 / 376.0	94634.29	250.00
PFOA 2	413.0 / 169.0	2.68	13C8-PFOA	421.0 / 376.0	94634.29	250.00
PFNA 1	463.0 / 419.0	3.08	13C9-PFNA	472.0 / 427.0	97770.66	250.00
PFNA 2	463.0 / 219.0	3.08	13C9-PFNA	472.0 / 427.0	97770.66	250.00
PFOS 1	499.0 / 80.0	3.08	13C8-PFOS	507.0 / 99.0	28751.00	239.25
PFOS 2	499.0 / 99.0	3.08	13C8-PFOS	507.0 / 99.0	28751.00	239.25
PFDA 1	513.0 / 469.0	3.43	13C6-PFDA	519.0 / 474.0	109784.66	250.00
PFDA 2	513.0 / 219.0	3.43	13C6-PFDA	519.0 / 474.0	109784.66	250.00
PFUnA 1	563.0 / 519.0	3.76	13C7-PFUnA	570.0 / 525.0	96273.43	250.00
PFUnA 2	563.0 / 269.0	3.76	13C7-PFUnA	570.0 / 525.0	96273.43	250.00
PFDoA 1	613.0 / 569.0	4.04	13C2-PFDoA	615.0 / 570.0	95664.50	250.00
PFDoA 2	613.0 / 319.0	4.04	13C2-PFDoA	615.0 / 570.0	95664.50	250.00
PFTeDA 1	663.0 / 619.0	4.29	13C2-PFTeDA	715.0 / 670.0	79092.70	250.00
PFTeDA 2	663.0 / 169.0	4.29	13C2-PFTeDA	715.0 / 670.0	79092.70	250.00
PFTeDA 1	713.0 / 669.0	4.50	13C2-PFTeDA	715.0 / 670.0	79092.70	250.00
PFTeDA 2	713.0 / 169.0	4.50	13C2-PFTeDA	715.0 / 670.0	79092.70	250.00
NMeFOSAA 1	570.0 / 419.0	3.59	d3-MeFOSAA	573.0 / 419.0	16692.66	250.00
NMeFOSAA 2	570.0 / 512.0	3.59	d3-MeFOSAA	573.0 / 419.0	16692.66	250.00
NEtFOSAA 1	584.0 / 419.0	3.75	d5-EtFOSAA	589.0 / 419.0	18305.46	250.00
NEtFOSAA 2	584.0 / 483.0	3.75	d5-EtFOSAA	589.0 / 419.0	18305.46	250.00

Sample Name	KB77 CCV	Injection Vial	22
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:35:03	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.04	13C2-PFDA	515.0 / 470.0	150.85	250.00
d3-MeFOSAA	573.0 / 419.0	3.81	13C4-PFOS	503.0 / 99.0	542.59	239.25
d5-EtFOSAA	589.0 / 419.0	3.33	13C4-PFOS	503.0 / 99.0	542.59	239.25
13C5-PFHxA	318.0 / 273.0	1.88	13C2-PFOA	415.0 / 370.0	121.61	250.00
13C4-PFHpA	367.0 / 322.0	2.17	13C2-PFOA	415.0 / 370.0	121.61	250.00
13C8-PFOA	421.0 / 376.0	2.71	13C2-PFOA	415.0 / 370.0	121.61	250.00
13C9-PFNA	472.0 / 427.0	2.98	13C2-PFOA	415.0 / 370.0	121.61	250.00
13C6-PFDA	519.0 / 474.0	3.44	13C2-PFDA	515.0 / 470.0	150.85	250.00
13C7-PFUnA	570.0 / 525.0	3.75	13C2-PFDA	515.0 / 470.0	150.85	250.00
13C2-PFTeDA	715.0 / 670.0	4.52	13C2-PFDA	515.0 / 470.0	150.85	250.00
13C3-PFBS	302.0 / 99.0	1.17	13C4-PFOS	503.0 / 99.0	542.59	239.25
13C3-PFHxS	402.0 / 99.0	1.97	13C4-PFOS	503.0 / 99.0	542.59	239.25
13C8-PFOS	507.0 / 99.0	2.47	13C4-PFOS	503.0 / 99.0	542.59	239.25

Sample Name	KB76 CCV	Injection Vial	29
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T00:51:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	IS	IS MRM Transition	IS Area	IS Conc. (ng/L)
13C2-PFDoA	615.0 / 570.0	4.03	13C2-PFDA	515.0 / 470.0	106995.00	250.00
d3-MeFOSAA	573.0 / 419.0	3.58	13C4-PFOS	503.0 / 99.0	30190.57	239.25
d5-EtFOSAA	589.0 / 419.0	3.75	13C4-PFOS	503.0 / 99.0	30190.57	239.25
13C5-PFHxA	318.0 / 273.0	1.85	13C2-PFOA	415.0 / 370.0	90764.47	250.00
13C4-PFHpA	367.0 / 322.0	2.26	13C2-PFOA	415.0 / 370.0	90764.47	250.00
13C8-PFOA	421.0 / 376.0	2.67	13C2-PFOA	415.0 / 370.0	90764.47	250.00
13C9-PFNA	472.0 / 427.0	3.07	13C2-PFOA	415.0 / 370.0	90764.47	250.00
13C6-PFDA	519.0 / 474.0	3.42	13C2-PFDA	515.0 / 470.0	106995.00	250.00
13C7-PFUnA	570.0 / 525.0	3.74	13C2-PFDA	515.0 / 470.0	106995.00	250.00
13C2-PFTeDA	715.0 / 670.0	4.50	13C2-PFDA	515.0 / 470.0	106995.00	250.00
13C3-PFBS	302.0 / 99.0	1.52	13C4-PFOS	503.0 / 99.0	30190.57	239.25
13C3-PFHxS	402.0 / 99.0	2.28	13C4-PFOS	503.0 / 99.0	30190.57	239.25
13C8-PFOS	507.0 / 99.0	3.06	13C4-PFOS	503.0 / 99.0	30190.57	239.25

Sample Name	KB77 CCV	Injection Vial	22
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:35:03	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	1.64	998.99	N/A	1.1	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	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
PFDaA 1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDaA 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

Sample Name	KB76 CCV	Injection Vial	29
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T00:51:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	349885.03	1056.319317	487.6	false
PFBS 2	298.9 / 99.0	1.54	103527.88	1066.164680	453.7	false
PFHxA 1	313.0 / 269.0	1.86	269056.02	1006.310537	23.7	false
PFHxA 2	313.0 / 119.0	1.86	20921.57	1035.099395	23.5	false
PFHpA 1	363.0 / 319.0	2.27	247200.20	973.328737	128.7	false
PFHpA 2	363.0 / 169.0	2.27	4603.37	784.329237	94.5	false
PFHxS 1	399.0 / 80.0	2.29	397851.88	964.945274	337.3	false
PFHxS 2	399.0 / 99.0	2.29	119077.08	1032.158976	559.9	false
PFOA 1	413.0 / 369.0	2.68	370736.52	961.508595	334.9	false
PFOA 2	413.0 / 169.0	2.68	24738.80	989.138979	323.7	false
PFNA 1	463.0 / 419.0	3.08	365479.14	1095.381999	403.9	false
PFNA 2	463.0 / 219.0	3.08	112755.24	1098.825745	527.1	false
PFOS 1	499.0 / 80.0	3.08	577424.99	1004.719445	347.6	false
PFOS 2	499.0 / 99.0	3.08	100165.87	1002.557518	494.7	false
PFDA 1	513.0 / 469.0	3.43	452061.54	968.352330	415.4	false
PFDA 2	513.0 / 219.0	3.43	18099.86	938.318692	323.7	false
PFUnA 1	563.0 / 519.0	3.76	413539.65	1013.433490	418.1	false
PFUnA 2	563.0 / 269.0	3.76	24108.66	1198.562024	285.1	false
PFDaA 1	613.0 / 569.0	4.04	391703.88	1102.309135	400.3	false
PFDaA 2	613.0 / 319.0	4.04	61042.54	1092.747202	439.6	false
PFTrDA 1	663.0 / 619.0	4.29	328809.05	1057.215163	797.4	false
PFTrDA 2	663.0 / 169.0	4.29	23239.11	1136.472694	427.1	false
PFTeDA 1	713.0 / 669.0	4.50	374613.66	1055.733551	1351.5	false
PFTeDA 2	713.0 / 169.0	4.50	19406.58	1127.902826	725.0	false
NMeFOSAA 1	570.0 / 419.0	3.59	71259.73	1084.449796	1591.8	false
NMeFOSAA 2	570.0 / 512.0	3.59	39491.25	1066.267565	1206.5	false
NEtFOSAA 1	584.0 / 419.0	3.75	71151.74	1064.273503	725.4	false
NEtFOSAA 2	584.0 / 483.0	3.75	4009.95	981.674460	791.1	false

Sample Name	KB77 CCV	Injection Vial	22
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:35:03	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	154.74	263.001977	46.7	false
d3-MeFOSAA	573.0 / 419.0	3.81	338.28	280.896890	10.0	false
d5-EtFOSAA	589.0 / 419.0	3.33	116.84	88.864656	9.3	false
13C5-PFHxA	318.0 / 273.0	1.88	178.09	494.774029	14.7	false
13C4-PFHpA	367.0 / 322.0	2.17	77.44	189.099047	30.6	false
13C8-PFOA	421.0 / 376.0	2.71	151.65	304.429694	31.5	false
13C9-PFNA	472.0 / 427.0	2.98	308.09	541.654385	10288.1	false
13C6-PFDA	519.0 / 474.0	3.44	138.19	233.137480	2417.5	false
13C7-PFUnA	570.0 / 525.0	3.75	183.59	335.292310	21.9	false
13C2-PFTeDA	715.0 / 670.0	4.52	95.43	200.889691	14.2	false
13C3-PFBS	302.0 / 99.0	1.17	265.60	125.865380	31.7	false
13C3-PFHxS	402.0 / 99.0	1.97	76.80	40.161925	22.2	false
13C8-PFOS	507.0 / 99.0	2.47	307.38	142.297392	11.4	false

Sample Name	KB76 CCV	Injection Vial	29
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T00:51:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	95664.50	229.245135	1246.3	false
d3-MeFOSAA	573.0 / 419.0	3.58	16446.60	245.442059	225.7	false
d5-EtFOSAA	589.0 / 419.0	3.75	18371.60	251.123119	218.9	false
13C5-PFHxA	318.0 / 273.0	1.85	65651.87	244.385402	719.7	false
13C4-PFHpA	367.0 / 322.0	2.26	70975.97	232.227890	1320.6	false
13C8-PFOA	421.0 / 376.0	2.67	94634.29	254.537446	1392.9	false
13C9-PFNA	472.0 / 427.0	3.07	97770.66	230.306517	686.4	false
13C6-PFDA	519.0 / 474.0	3.42	109784.66	261.127375	859.1	false
13C7-PFUnA	570.0 / 525.0	3.74	96273.43	247.896014	1059.8	false
13C2-PFTeDA	715.0 / 670.0	4.50	79092.70	234.752494	1739.5	false
13C3-PFBS	302.0 / 99.0	1.52	26320.16	224.161896	625.7	false
13C3-PFHxS	402.0 / 99.0	2.28	28510.03	267.959477	495.6	false
13C8-PFOS	507.0 / 99.0	3.06	28263.43	235.148719	316.1	false

Sample Name	KB77 CCV	Injection Vial	22
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:35:03	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
PFBS_1	298.9 / 80.0	N/A	N/A	2525.00	N/A
PFBS_2	298.9 / 99.0	N/A	N/A	2525.00	N/A
PFHxA_1	313.0 / 269.0	N/A	N/A	2525.00	N/A
PFHxA_2	313.0 / 119.0	1.64	N/A	2525.00	N/A
PFHpA_1	363.0 / 319.0	N/A	N/A	2500.00	N/A
PFHpA_2	363.0 / 169.0	N/A	N/A	2500.00	N/A
PFHxS_1	399.0 / 80.0	N/A	N/A	2525.00	N/A
PFHxS_2	399.0 / 99.0	N/A	N/A	2525.00	N/A
PFOA_1	413.0 / 369.0	N/A	N/A	2500.00	N/A
PFOA_2	413.0 / 169.0	N/A	N/A	2500.00	N/A
PFNA_1	463.0 / 419.0	N/A	N/A	2500.00	N/A
PFNA_2	463.0 / 219.0	N/A	N/A	2500.00	N/A
PFOS_1	499.0 / 80.0	N/A	N/A	2500.00	N/A
PFOS_2	499.0 / 99.0	N/A	N/A	2500.00	N/A
PFDA_1	513.0 / 469.0	N/A	N/A	2500.00	N/A
PFDA_2	513.0 / 219.0	N/A	N/A	2500.00	N/A
PFUnA_1	563.0 / 519.0	N/A	N/A	2500.00	N/A
PFUnA_2	563.0 / 269.0	N/A	N/A	2500.00	N/A
PFDoA_1	613.0 / 569.0	N/A	N/A	2500.00	N/A
PFDoA_2	613.0 / 319.0	N/A	N/A	2500.00	N/A
PFTTrDA_1	663.0 / 619.0	N/A	N/A	2500.00	N/A
PFTTrDA_2	663.0 / 169.0	N/A	N/A	2500.00	N/A
PFTeDA_1	713.0 / 669.0	N/A	N/A	2500.00	N/A
PFTeDA_2	713.0 / 169.0	N/A	N/A	2500.00	N/A
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	2500.00	N/A
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	2500.00	N/A
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	2500.00	N/A
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	2500.00	N/A

Sample Name	KB76 CCV	Injection Vial	29
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T00:51:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	1056.319317	1010.00	104.59
PFBS_2	298.9 / 99.0	1.54	1066.164680	1010.00	105.56
PFHxA_1	313.0 / 269.0	1.86	1006.310537	1010.00	99.63
PFHxA_2	313.0 / 119.0	1.86	1035.099395	1010.00	102.49
PFHpA_1	363.0 / 319.0	2.27	973.328737	1000.00	97.33
PFHpA_2	363.0 / 169.0	2.27	784.329237	1000.00	78.43
PFHxS_1	399.0 / 80.0	2.29	964.945274	1010.00	95.54
PFHxS_2	399.0 / 99.0	2.29	1032.158976	1010.00	102.19
PFOA_1	413.0 / 369.0	2.68	961.508595	1000.00	96.15
PFOA_2	413.0 / 169.0	2.68	989.138979	1000.00	98.91
PFNA_1	463.0 / 419.0	3.08	1095.381999	1000.00	109.54
PFNA_2	463.0 / 219.0	3.08	1098.825745	1000.00	109.88
PFOS_1	499.0 / 80.0	3.08	1004.719445	1000.00	100.47
PFOS_2	499.0 / 99.0	3.08	1002.557518	1000.00	100.26
PFDA_1	513.0 / 469.0	3.43	968.352330	1000.00	96.84
PFDA_2	513.0 / 219.0	3.43	938.318692	1000.00	93.83
PFUnA_1	563.0 / 519.0	3.76	1013.433490	1000.00	101.34
PFUnA_2	563.0 / 269.0	3.76	1198.562024	1000.00	119.86
PFDoA_1	613.0 / 569.0	4.04	1102.309135	1000.00	110.23
PFDoA_2	613.0 / 319.0	4.04	1092.747202	1000.00	109.27
PFTrDA_1	663.0 / 619.0	4.29	1057.215163	1000.00	105.72
PFTrDA_2	663.0 / 169.0	4.29	1136.472694	1000.00	113.65
PFTeDA_1	713.0 / 669.0	4.50	1055.733551	1000.00	105.57
PFTeDA_2	713.0 / 169.0	4.50	1127.902826	1000.00	112.79
NMeFOSAA_1	570.0 / 419.0	3.59	1084.449796	1000.00	108.44
NMeFOSAA_2	570.0 / 512.0	3.59	1066.267565	1000.00	106.63
NEtFOSAA_1	584.0 / 419.0	3.75	1064.273503	1000.00	106.43
NEtFOSAA_2	584.0 / 483.0	3.75	981.674460	1000.00	98.17

Sample Name	KB77 CCV	Injection Vial	22
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:35:03	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.04	263.001977	250.00	105.20
d3-MeFOSAA	573.0 / 419.0	3.81	280.896890	250.00	112.36
d5-EtFOSAA	589.0 / 419.0	3.33	88.864656	250.00	35.55
13C5-PFHxA	318.0 / 273.0	1.88	494.774029	250.00	197.91
13C4-PFHpA	367.0 / 322.0	2.17	189.099047	250.00	75.64
13C8-PFOA	421.0 / 376.0	2.71	304.429694	250.00	121.77
13C9-PFNA	472.0 / 427.0	2.98	541.654385	250.00	216.66
13C6-PFDA	519.0 / 474.0	3.44	233.137480	250.00	93.25
13C7-PFUnA	570.0 / 525.0	3.75	335.292310	250.00	134.12
13C2-PFTeDA	715.0 / 670.0	4.52	200.889691	250.00	80.36
13C3-PFBS	302.0 / 99.0	1.17	125.865380	232.25	54.19
13C3-PFHxS	402.0 / 99.0	1.97	40.161925	236.50	16.98
13C8-PFOS	507.0 / 99.0	2.47	142.297392	239.25	59.48

Sample Name	KB76 CCV	Injection Vial	29
Sample ID	CCV	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T00:51:06	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Conc. (ng/L)	Target Conc. (ng/L)	Recovery (%)
13C2-PFDoA	615.0 / 570.0	4.03	229.245135	250.00	91.70
d3-MeFOSAA	573.0 / 419.0	3.58	245.442059	250.00	98.18
d5-EtFOSAA	589.0 / 419.0	3.75	251.123119	250.00	100.45
13C5-PFHxA	318.0 / 273.0	1.85	244.385402	250.00	97.75
13C4-PFHpA	367.0 / 322.0	2.26	232.227890	250.00	92.89
13C8-PFOA	421.0 / 376.0	2.67	254.537446	250.00	101.81
13C9-PFNA	472.0 / 427.0	3.07	230.306517	250.00	92.12
13C6-PFDA	519.0 / 474.0	3.42	261.127375	250.00	104.45
13C7-PFUnA	570.0 / 525.0	3.74	247.896014	250.00	99.16
13C2-PFTeDA	715.0 / 670.0	4.50	234.752494	250.00	93.90
13C3-PFBS	302.0 / 99.0	1.52	224.161896	232.25	96.52
13C3-PFHxS	402.0 / 99.0	2.28	267.959477	236.50	113.30
13C8-PFOS	507.0 / 99.0	3.06	235.148719	239.25	98.29

Sample Name	CR904PB-FS(3)	Injection Vial	12
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:46:25	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	N/A	PFHxS			
PFHxS_2	399.0 / 99.0	N/A	PFHxS	N/A	0.282	ü
PFOA_1	413.0 / 369.0	N/A	PFOA			
PFOA_2	413.0 / 169.0	N/A	PFOA	N/A	0.065	ü
PFNA_1	463.0 / 419.0	N/A	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.170	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	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	0.049	ü
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	CR905LCS-FS(3)	Injection Vial	13
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:57:17	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.55	PFBS	0.300	0.292	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.260	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.300	0.306	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.190	0.174	ü
PFDA_1	513.0 / 469.0	3.45	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	3.78	PFUnA			
PFUnA_2	563.0 / 269.0	3.77	PFUnA	0.050	0.049	ü
PFDoA_1	613.0 / 569.0	4.06	PFDoA			
PFDoA_2	613.0 / 319.0	4.06	PFDoA	0.160	0.160	ü
PFTrDA_1	663.0 / 619.0	4.30	PFTrDA			
PFTrDA_2	663.0 / 169.0	4.30	PFTrDA	0.060	0.066	ü
PFTeDA_1	713.0 / 669.0	4.52	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.52	PFTeDA	0.050	0.049	ü
NMeFOSAA_1	570.0 / 419.0	3.61	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	3.61	NMeFOSAA	0.580	0.551	ü
NEtFOSAA_1	584.0 / 419.0	3.77	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	3.77	NEtFOSAA	0.070	0.062	ü

Sample Name	J8465-FS(3)	Injection Vial	14
Sample ID	VC-PM367-SS01-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:08:09	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	0.340	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.31	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.270	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.10	PFNA	0.290	0.306	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.190	0.174	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.45	PFDA	0.050	0.041	ü
PFUnA_1	563.0 / 519.0	3.77	PFUnA			
PFUnA_2	563.0 / 269.0	3.64	PFUnA	0.220	0.049	
PFDoA_1	613.0 / 569.0	4.05	PFDoA			
PFDoA_2	613.0 / 319.0	4.04	PFDoA	0.120	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.52	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8466-FS(3)	Injection Vial	15
Sample ID	VC-PM367-SB01-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:19:02	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	0.190	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.300	0.306	ü
PFOS_1	499.0 / 80.0	3.09	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.190	0.174	ü
PFDA_1	513.0 / 469.0	3.44	PFDA			
PFDA_2	513.0 / 219.0	3.44	PFDA	0.040	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	3.90	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8467-FS(3)	Injection Vial	16
Sample ID	VC-PM367-SB01-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:29:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	N/A	PFHpA			
PFHpA_2	363.0 / 169.0	N/A	PFHpA	N/A	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.380	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.180	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.72	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8468-FS(3)	Injection Vial	17
Sample ID	VC-PM367-SS02-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:40:44	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	1.55	PFBS			
PFBS_2	298.9 / 99.0	1.54	PFBS	0.290	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.060	0.065	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.230	0.306	ü
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.200	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTrDA_1	663.0 / 619.0	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	4.03	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8469-FS(3)	Injection Vial	18
Sample ID	VC-PM367-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:51:34	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	2.27	PFHpA			
PFHpA_2	363.0 / 169.0	2.27	PFHpA	0.050	0.025	
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.300	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	3.08	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.480	0.306	
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.200	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.13	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8470-FS(3)	Injection Vial	19
Sample ID	VC-PM367-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:02:25	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Ratio Group	Calculated Ion ratio	Expected Ion Ratio	Ratio OK
PFBS_1	298.9 / 80.0	N/A	PFBS			
PFBS_2	298.9 / 99.0	N/A	PFBS	N/A	0.292	ü
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.280	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.070	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	3.09	PFNA	0.390	0.306	ü
PFOS_1	499.0 / 80.0	3.07	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.160	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.32	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8471-FS(3)	Injection Vial	20
Sample ID	VC-PM367-S03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:13:17	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	1.55	PFBS	0.260	0.292	ü
PFHxA_1	313.0 / 269.0	1.87	PFHxA			
PFHxA_2	313.0 / 119.0	1.87	PFHxA	0.070	0.077	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.28	PFHpA	0.020	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.290	0.282	ü
PFOA_1	413.0 / 369.0	2.68	PFOA			
PFOA_2	413.0 / 169.0	2.69	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	3.09	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	
PFOS_1	499.0 / 80.0	3.08	PFOS			
PFOS_2	499.0 / 99.0	3.08	PFOS	0.160	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	4.18	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	J8472-FS(3)	Injection Vial	21
Sample ID	VC-PM367-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:24:10	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	0.490	0.292	
PFHxA_1	313.0 / 269.0	N/A	PFHxA			
PFHxA_2	313.0 / 119.0	N/A	PFHxA	N/A	0.077	ü
PFHpA_1	363.0 / 319.0	2.28	PFHpA			
PFHpA_2	363.0 / 169.0	2.26	PFHpA	0.030	0.025	ü
PFHxS_1	399.0 / 80.0	2.30	PFHxS			
PFHxS_2	399.0 / 99.0	2.30	PFHxS	0.290	0.282	ü
PFOA_1	413.0 / 369.0	2.69	PFOA			
PFOA_2	413.0 / 169.0	2.68	PFOA	0.050	0.065	ü
PFNA_1	463.0 / 419.0	3.06	PFNA			
PFNA_2	463.0 / 219.0	N/A	PFNA	N/A	0.306	
PFOS_1	499.0 / 80.0	3.01	PFOS			
PFOS_2	499.0 / 99.0	3.09	PFOS	0.140	0.174	ü
PFDA_1	513.0 / 469.0	N/A	PFDA			
PFDA_2	513.0 / 219.0	N/A	PFDA	N/A	0.041	ü
PFUnA_1	563.0 / 519.0	N/A	PFUnA			
PFUnA_2	563.0 / 269.0	N/A	PFUnA	N/A	0.049	ü
PFDoA_1	613.0 / 569.0	N/A	PFDoA			
PFDoA_2	613.0 / 319.0	N/A	PFDoA	N/A	0.160	ü
PFTTrDA_1	663.0 / 619.0	N/A	PFTTrDA			
PFTTrDA_2	663.0 / 169.0	N/A	PFTTrDA	N/A	0.066	ü
PFTeDA_1	713.0 / 669.0	N/A	PFTeDA			
PFTeDA_2	713.0 / 169.0	3.97	PFTeDA	N/A	0.049	
NMeFOSAA_1	570.0 / 419.0	N/A	NMeFOSAA			
NMeFOSAA_2	570.0 / 512.0	N/A	NMeFOSAA	N/A	0.551	ü
NEtFOSAA_1	584.0 / 419.0	N/A	NEtFOSAA			
NEtFOSAA_2	584.0 / 483.0	N/A	NEtFOSAA	N/A	0.062	ü

Sample Name	CR904PB-FS(3)	Injection Vial	12
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:46:25	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	3.09	9976.80	18.637985	31.0	false
PFOS_2	499.0 / 99.0	3.08	1660.43	16.539955	31.3	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

Sample Name	CR905LCS-FS(3)	Injection Vial	13
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:57:17	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	690862.37	1965.409137	672.1	false
PFBS_2	298.9 / 99.0	1.55	207105.64	2008.188793	463.1	false
PFHxA_1	313.0 / 269.0	1.87	506069.75	2106.740923	31.7	false
PFHxA_2	313.0 / 119.0	1.87	35158.69	1945.898340	27.0	false
PFHpA_1	363.0 / 319.0	2.28	503195.93	2034.773459	230.7	false
PFHpA_2	363.0 / 169.0	2.28	9431.38	1730.495088	174.8	false
PFHxS_1	399.0 / 80.0	2.30	774985.16	2456.504763	421.2	false
PFHxS_2	399.0 / 99.0	2.30	203775.19	2310.404180	537.8	false
PFOA_1	413.0 / 369.0	2.69	747761.88	2093.973628	405.0	false
PFOA_2	413.0 / 169.0	2.69	48292.78	2083.099033	350.9	false
PFNA_1	463.0 / 419.0	3.09	687887.97	2232.729203	555.1	false
PFNA_2	463.0 / 219.0	3.09	206574.57	2175.509601	515.0	false
PFOS_1	499.0 / 80.0	3.09	1100848.90	1991.344250	333.3	false
PFOS_2	499.0 / 99.0	3.09	206695.16	2152.203281	608.5	false
PFDA_1	513.0 / 469.0	3.45	829344.50	2088.747370	672.2	false
PFDA_2	513.0 / 219.0	3.45	32903.10	2008.591170	375.9	false
PFUnA_1	563.0 / 519.0	3.78	795872.29	2190.004505	447.5	false
PFUnA_2	563.0 / 269.0	3.77	38654.84	2146.395142	260.0	false
PFDoA_1	613.0 / 569.0	4.06	731658.20	2111.979069	631.0	false
PFDoA_2	613.0 / 319.0	4.06	114904.75	2120.827238	627.2	false
PFTrDA_1	663.0 / 619.0	4.30	647917.57	2175.789890	1005.2	false
PFTrDA_2	663.0 / 169.0	4.30	42060.01	2146.379709	572.2	false
PFTeDA_1	713.0 / 669.0	4.52	748990.00	2214.286747	1718.8	false
PFTeDA_2	713.0 / 169.0	4.52	35975.92	2192.509863	976.7	false
NMeFOSAA_1	570.0 / 419.0	3.61	137150.33	2121.194986	1109.1	false
NMeFOSAA_2	570.0 / 512.0	3.61	79049.76	2222.220835	750.7	false
NEtFOSAA_1	584.0 / 419.0	3.77	132909.61	2098.456282	659.2	false
NEtFOSAA_2	584.0 / 483.0	3.77	8925.97	2376.865406	5909.9	false

Sample Name	J8465-FS(3)	Injection Vial	14
Sample ID	VC-PM367-SS01-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:08:09	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	7853.41	17.067777	30.3	true
PFBS_2	298.9 / 99.0	1.55	2666.27	22.449075	25.4	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	2.28	22071.59	63.542366	25.0	false
PFHpA_2	363.0 / 169.0	2.28	339.18	< 0	13.2	false
PFHxS_1	399.0 / 80.0	2.31	153145.87	354.910726	204.5	false
PFHxS_2	399.0 / 99.0	2.30	41700.76	340.945806	266.2	false
PFOA_1	413.0 / 369.0	2.69	76669.75	179.595966	102.5	false
PFOA_2	413.0 / 169.0	2.69	4154.06	148.066450	95.5	true
PFNA_1	463.0 / 419.0	3.09	11606.21	1.814186	44.4	false
PFNA_2	463.0 / 219.0	3.10	3395.33	3.845115	51.6	false
PFOS_1	499.0 / 80.0	3.09	1863791.94	2641.074455	550.6	false
PFOS_2	499.0 / 99.0	3.09	361627.25	2950.214834	720.2	false
PFDA_1	513.0 / 469.0	3.44	20713.63	25.536877	90.5	false
PFDA_2	513.0 / 219.0	3.45	966.00	29.494617	79.3	true
PFUnA_1	563.0 / 519.0	3.77	6147.63	5.669185	41.2	false
PFUnA_2	563.0 / 269.0	3.64	1324.08	67.587575	33.2	true
PFDoA_1	613.0 / 569.0	4.05	7970.99	< 0	65.5	false
PFDoA_2	613.0 / 319.0	4.04	924.26	< 0	44.3	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	4.52	118.05	< 0	19.5	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

Sample Name	J8466-FS(3)	Injection Vial	15
Sample ID	VC-PM367-SB01-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:19:02	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	3416.54	3.239646	16.9	true
PFBS_2	298.9 / 99.0	1.55	655.03	2.031471	9.5	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	2.28	27926.88	79.250398	37.2	false
PFHpA_2	363.0 / 169.0	2.28	726.11	31.605876	31.4	false
PFHxS_1	399.0 / 80.0	2.30	105118.36	230.145475	230.5	false
PFHxS_2	399.0 / 99.0	2.30	29240.87	224.367112	192.8	false
PFOA_1	413.0 / 369.0	2.69	43467.24	88.282808	67.0	false
PFOA_2	413.0 / 169.0	2.68	3259.34	105.017769	56.6	true
PFNA_1	463.0 / 419.0	3.09	11049.26	< 0	44.8	false
PFNA_2	463.0 / 219.0	3.09	3316.63	0.741858	43.1	false
PFOS_1	499.0 / 80.0	3.09	1687967.98	2623.462432	576.6	false
PFOS_2	499.0 / 99.0	3.08	323628.65	2895.782745	725.4	false
PFDA_1	513.0 / 469.0	3.44	17514.95	13.646340	75.9	false
PFDA_2	513.0 / 219.0	3.44	648.95	7.842209	28.5	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	3.90	168.67	< 0	12.0	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

Sample Name	J8467-FS(3)	Injection Vial	16
Sample ID	VC-PM367-SB01-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:29:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_BASE
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
PFBS_1	298.9 / 80.0	N/A	N/A	N/A	N/A	true
PFBS_2	298.9 / 99.0	N/A	N/A	N/A	N/A	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	N/A	N/A	N/A	N/A	true
PFHpA_2	363.0 / 169.0	N/A	N/A	N/A	N/A	true
PFHxS_1	399.0 / 80.0	2.30	104164.21	299.827245	308.9	false
PFHxS_2	399.0 / 99.0	2.30	29184.35	296.192709	171.9	false
PFOA_1	413.0 / 369.0	2.69	56261.16	131.091492	76.9	false
PFOA_2	413.0 / 169.0	2.68	3127.21	110.756866	63.3	true
PFNA_1	463.0 / 419.0	3.09	5507.21	< 0	24.8	false
PFNA_2	463.0 / 219.0	3.09	2081.03	< 0	30.3	false
PFOS_1	499.0 / 80.0	3.08	2220183.18	3360.316276	658.8	false
PFOS_2	499.0 / 99.0	3.09	407408.48	3550.455396	671.9	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	4.72	123.97	< 0	21.5	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

Sample Name	J8468-FS(3)	Injection Vial	17
Sample ID	VC-PM367-SS02-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:40:44	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	6936.45	11.722602	24.4	true
PFBS_2	298.9 / 99.0	1.54	2006.01	13.308101	18.9	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	2.27	10393.66	15.008065	12.4	false
PFHpA_2	363.0 / 169.0	2.26	206.46	< 0	7.9	false
PFHxS_1	399.0 / 80.0	2.30	159527.33	399.620946	215.1	false
PFHxS_2	399.0 / 99.0	2.30	44100.22	390.858267	216.9	false
PFOA_1	413.0 / 369.0	2.68	32596.10	62.085493	52.6	false
PFOA_2	413.0 / 169.0	2.68	1956.75	56.982355	39.4	true
PFNA_1	463.0 / 419.0	3.08	10506.11	< 0	38.6	false
PFNA_2	463.0 / 219.0	3.09	2455.21	< 0	35.2	false
PFOS_1	499.0 / 80.0	3.08	778325.33	1189.353542	377.6	false
PFOS_2	499.0 / 99.0	3.08	153727.24	1351.505609	692.3	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	4.03	269.06	< 0	14.3	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

Sample Name	J8469-FS(3)	Injection Vial	18
Sample ID	VC-PM367-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:51:34	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	2.27	6393.19	4.372861	10.1	false
PFHpA_2	363.0 / 169.0	2.27	297.55	< 0	13.2	false
PFHxS_1	399.0 / 80.0	2.30	52155.93	102.668492	114.4	false
PFHxS_2	399.0 / 99.0	2.30	15826.54	108.308742	150.4	false
PFOA_1	413.0 / 369.0	2.69	14486.83	20.821381	32.1	false
PFOA_2	413.0 / 169.0	2.68	733.92	13.647445	18.8	false
PFNA_1	463.0 / 419.0	3.08	7574.32	< 0	35.6	false
PFNA_2	463.0 / 219.0	3.09	3655.99	6.547210	54.4	false
PFOS_1	499.0 / 80.0	3.08	534247.24	899.418303	353.0	false
PFOS_2	499.0 / 99.0	3.08	106281.17	1029.013383	463.8	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	4.13	42.70	< 0	7.4	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

Sample Name	J8470-FS(3)	Injection Vial	19
Sample ID	VC-PM367-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:02:25	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	2.28	15319.00	42.002699	19.7	false
PFHpA_2	363.0 / 169.0	2.26	452.50	< 0	15.1	false
PFHxS_1	399.0 / 80.0	2.30	305724.39	813.369380	362.2	false
PFHxS_2	399.0 / 99.0	2.30	86407.32	819.607628	415.4	false
PFOA_1	413.0 / 369.0	2.69	163261.83	440.452491	180.2	false
PFOA_2	413.0 / 169.0	2.68	11211.11	467.351233	177.3	true
PFNA_1	463.0 / 419.0	3.09	6728.19	< 0	27.8	false
PFNA_2	463.0 / 219.0	3.09	2621.51	1.001351	38.8	false
PFOS_1	499.0 / 80.0	3.07	1198907.97	1951.727713	305.5	false
PFOS_2	499.0 / 99.0	3.08	192930.40	1807.904007	546.3	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
PFTTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTTrDA_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	4.32	124.16	< 0	13.2	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

Sample Name	J8471-FS(3)	Injection Vial	20
Sample ID	VC-PM367-S03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:13:17	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	4359.18	6.210900	15.2	true
PFBS_2	298.9 / 99.0	1.55	1118.37	6.571384	14.5	true
PFHxA_1	313.0 / 269.0	1.87	648781.75	2427.747910	37.4	false
PFHxA_2	313.0 / 119.0	1.87	46675.95	2326.979616	34.4	false
PFHpA_1	363.0 / 319.0	2.28	145287.83	544.900838	86.2	false
PFHpA_2	363.0 / 169.0	2.28	2796.06	423.784234	67.6	false
PFHxS_1	399.0 / 80.0	2.30	70975.39	167.106717	147.6	false
PFHxS_2	399.0 / 99.0	2.30	20421.18	167.884262	184.3	false
PFOA_1	413.0 / 369.0	2.68	21006.25	40.576640	40.7	false
PFOA_2	413.0 / 169.0	2.69	970.91	25.247347	26.6	true
PFNA_1	463.0 / 419.0	3.09	3996.74	< 0	23.3	false
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.08	406041.46	717.455557	189.3	false
PFOS_2	499.0 / 99.0	3.08	66189.63	672.398874	349.9	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	4.18	170.33	< 0	10.4	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

Sample Name	J8472-FS(3)	Injection Vial	21
Sample ID	VC-PM367-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:24:10	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	4877.84	7.396067	26.8	true
PFBS_2	298.9 / 99.0	1.55	2399.93	17.999894	21.8	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	2.28	51517.51	173.959309	47.8	false
PFHpA_2	363.0 / 169.0	2.26	1718.43	215.207009	52.1	false
PFHxS_1	399.0 / 80.0	2.30	947314.59	2374.122285	619.9	false
PFHxS_2	399.0 / 99.0	2.30	270155.91	2423.696192	760.1	false
PFOA_1	413.0 / 369.0	2.69	1562275.46	4007.484129	528.9	false
PFOA_2	413.0 / 169.0	2.68	84101.60	3320.162267	313.2	true
PFNA_1	463.0 / 419.0	3.06	2354.54	< 0	11.9	false
PFNA_2	463.0 / 219.0	N/A	N/A	N/A	N/A	true
PFOS_1	499.0 / 80.0	3.01	149358.62	229.273601	99.3	false
PFOS_2	499.0 / 99.0	3.09	20668.12	181.717027	187.3	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	3.97	138.51	< 0	9.9	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

Sample Name	J8473-FS(3)	Injection Vial	24
Sample ID	VC-PM367-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:56:46	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	22851.79	50.738273	52.4	true
PFBS_2	298.9 / 99.0	1.54	6046.57	47.012240	38.0	true
PFHxA_1	313.0 / 269.0	1.87	491814.85	1544.378314	30.0	false
PFHxA_2	313.0 / 119.0	1.87	36119.46	1505.379248	28.8	false
PFHpA_1	363.0 / 319.0	2.28	94847.59	290.676910	75.8	false
PFHpA_2	363.0 / 169.0	2.27	2102.79	235.356985	90.3	false
PFHxS_1	399.0 / 80.0	2.30	697497.29	1629.301896	486.3	false
PFHxS_2	399.0 / 99.0	2.30	188576.74	1574.163093	679.6	false
PFOA_1	413.0 / 369.0	2.69	1061397.36	2566.404876	475.3	false
PFOA_2	413.0 / 169.0	2.68	62632.81	2331.374474	346.8	true
PFNA_1	463.0 / 419.0	3.07	6965.77	< 0	36.9	false
PFNA_2	463.0 / 219.0	3.08	1831.74	< 0	23.8	false
PFOS_1	499.0 / 80.0	3.04	1286729.31	1754.597497	298.5	false
PFOS_2	499.0 / 99.0	3.08	202402.80	1588.606069	640.8	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	4.62	106.76	< 0	21.1	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

Sample Name	K8474-FS(3)	Injection Vial	25
Sample ID	VC-PM367-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T00:07:38	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	5717.15	10.319778	27.8	true
PFBS_2	298.9 / 99.0	1.54	1308.68	8.664945	16.9	true
PFHxA_1	313.0 / 269.0	N/A	N/A	N/A	N/A	true
PFHxA_2	313.0 / 119.0	N/A	N/A	N/A	N/A	true
PFHpA_1	363.0 / 319.0	2.28	11486.90	27.784219	15.8	false
PFHpA_2	363.0 / 169.0	2.30	215.09	< 0	9.8	false
PFHxS_1	399.0 / 80.0	2.30	120267.38	296.590485	260.6	false
PFHxS_2	399.0 / 99.0	2.30	33928.15	295.131870	230.4	false
PFOA_1	413.0 / 369.0	2.69	106933.14	273.052671	124.2	false
PFOA_2	413.0 / 169.0	2.68	4699.23	180.612144	72.1	true
PFNA_1	463.0 / 419.0	3.08	58317.61	158.401236	133.9	false
PFNA_2	463.0 / 219.0	3.09	16380.85	145.058132	186.4	false
PFOS_1	499.0 / 80.0	3.08	7551190.79	12602.980524	1526.1	false
PFOS_2	499.0 / 99.0	3.08	1442595.87	13867.543911	1872.0	false
PFDA_1	513.0 / 469.0	3.44	21341.11	29.692347	104.1	false
PFDA_2	513.0 / 219.0	3.45	985.47	33.628061	32.1	false
PFUnA_1	563.0 / 519.0	3.76	11507.25	19.676592	57.9	false
PFUnA_2	563.0 / 269.0	N/A	N/A	N/A	N/A	true
PFDoA_1	613.0 / 569.0	N/A	N/A	N/A	N/A	true
PFDoA_2	613.0 / 319.0	N/A	N/A	N/A	N/A	true
PFTrDA_1	663.0 / 619.0	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	4.31	98.10	< 0	8.7	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

Sample Name	J8475-FS(3)	Injection Vial	26
Sample ID	VC-PM367-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T00:18:30	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	4970.16	10.683560	23.7	true
PFBS_2	298.9 / 99.0	1.53	2111.63	19.791952	21.7	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	2.28	18788.60	57.537384	24.3	false
PFHpA_2	363.0 / 169.0	2.25	892.85	83.050534	28.3	false
PFHxS_1	399.0 / 80.0	2.30	258133.93	778.127174	486.7	false
PFHxS_2	399.0 / 99.0	2.30	74238.55	798.098144	331.6	false
PFOA_1	413.0 / 369.0	2.69	171483.07	476.760956	180.5	false
PFOA_2	413.0 / 169.0	2.67	9533.74	406.712133	119.7	true
PFNA_1	463.0 / 419.0	3.08	49022.24	141.084850	127.8	false
PFNA_2	463.0 / 219.0	3.08	16941.19	165.734324	152.2	false
PFOS_1	499.0 / 80.0	3.08	5174552.78	10138.173596	1045.3	false
PFOS_2	499.0 / 99.0	3.08	953949.30	10764.596140	2467.7	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	4.47	48.96	< 0	9.1	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

Sample Name	J8476-FS(3)	Injection Vial	27
Sample ID	VC-PM367-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T00:29:22	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	22826.77	59.600024	81.4	true
PFBS_2	298.9 / 99.0	1.55	7210.43	66.374769	59.8	true
PFHxA_1	313.0 / 269.0	1.86	156357.28	579.348408	12.4	false
PFHxA_2	313.0 / 119.0	1.87	10877.44	521.879867	10.1	false
PFHpA_1	363.0 / 319.0	2.27	40544.27	137.633621	45.8	false
PFHpA_2	363.0 / 169.0	2.26	1576.17	198.861539	29.9	false
PFHxS_1	399.0 / 80.0	2.30	531883.95	1369.526305	435.9	false
PFHxS_2	399.0 / 99.0	2.30	144007.07	1324.179927	593.1	false
PFOA_1	413.0 / 369.0	2.68	314819.68	841.666696	242.3	false
PFOA_2	413.0 / 169.0	2.67	16905.01	694.061631	154.9	true
PFNA_1	463.0 / 419.0	3.09	9834.93	< 0	40.9	false
PFNA_2	463.0 / 219.0	3.08	3189.85	3.769142	46.4	false
PFOS_1	499.0 / 80.0	3.08	847738.91	1573.862721	381.9	false
PFOS_2	499.0 / 99.0	3.08	148827.35	1590.178456	510.2	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	4.38	243.50	< 0	15.1	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

Sample Name	J8473-FS(3)	Injection Vial	13
Sample ID	VC-PM367-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:02:34	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	4464.03	37.223424	27.0	true
PFBS_2	298.9 / 99.0	1.54	2086.31	64.379000	28.0	true
PFHxA_1	313.0 / 269.0	1.86	114398.24	1472.839351	27.8	false
PFHxA_2	313.0 / 119.0	1.86	8834.08	1511.324629	22.3	false
PFHpA_1	363.0 / 319.0	2.27	24824.37	315.674547	35.7	false
PFHpA_2	363.0 / 169.0	2.26	214.95	47.616440	11.8	false
PFHxS_1	399.0 / 80.0	2.29	183687.14	1627.237685	330.6	false
PFHxS_2	399.0 / 99.0	2.29	50109.16	1586.544468	398.0	false
PFOA_1	413.0 / 369.0	2.67	262764.21	2441.436415	239.4	false
PFOA_2	413.0 / 169.0	2.66	15838.43	2265.726083	167.2	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	396555.11	2310.518199	218.6	false
PFOS_2	499.0 / 99.0	3.06	65314.78	2190.807440	392.1	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
PFTTrDA_1	663.0 / 619.0	N/A	N/A	N/A	N/A	true
PFTTrDA_2	663.0 / 169.0	N/A	N/A	N/A	N/A	true
PFTeDA_1	713.0 / 669.0	N/A	N/A	N/A	N/A	true
PFTeDA_2	713.0 / 169.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_1	570.0 / 419.0	N/A	N/A	N/A	N/A	true
NMeFOSAA_2	570.0 / 512.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_1	584.0 / 419.0	N/A	N/A	N/A	N/A	true
NEtFOSAA_2	584.0 / 483.0	N/A	N/A	N/A	N/A	true

Sample Name	CR904PB-FS(3)	Injection Vial	1
Sample ID		Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T23:51:59	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	2.29	13587.26	25.987665	79.6	false
PFHxS_2	399.0 / 99.0	2.29	3424.88	16.354815	56.7	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	3.02	194800.53	397.946370	162.3	true
PFOS_2	499.0 / 99.0	3.06	31669.89	371.384473	172.4	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

Sample Name	CR904PB-FS(3)	Injection Vial	12
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:46:25	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	99524.58	232.667616	923.5	false
d3-MeFOSAA	573.0 / 419.0	3.60	14189.83	200.770781	238.9	false
d5-EtFOSAA	589.0 / 419.0	3.76	16693.92	216.345950	193.7	false
13C5-PFHxA	318.0 / 273.0	1.86	62081.70	230.448619	826.4	false
13C4-PFHpA	367.0 / 322.0	2.27	71147.72	232.138069	1000.6	false
13C8-PFOA	421.0 / 376.0	2.69	89684.90	240.549685	1317.9	false
13C9-PFNA	472.0 / 427.0	3.08	95838.84	225.123867	1022.3	false
13C6-PFDA	519.0 / 474.0	3.44	101929.72	236.519993	1370.8	false
13C7-PFUnA	570.0 / 525.0	3.76	86532.95	217.370641	830.1	false
13C2-PFTeDA	715.0 / 670.0	4.52	75475.58	218.542834	2003.0	false
13C3-PFBS	302.0 / 99.0	1.54	26706.20	215.643356	641.5	false
13C3-PFHxS	402.0 / 99.0	2.29	25332.66	225.737140	580.5	false
13C8-PFOS	507.0 / 99.0	3.08	29927.83	236.071617	295.7	false

Sample Name	CR905LCS-FS(3)	Injection Vial	13
Sample ID	Laboratory Control Sample	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T21:57:17	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	94427.33	231.321814	1217.6	false
d3-MeFOSAA	573.0 / 419.0	3.60	16556.50	249.159447	241.4	false
d5-EtFOSAA	589.0 / 419.0	3.76	16955.64	233.716789	226.2	false
13C5-PFHxA	318.0 / 273.0	1.86	60003.87	245.088606	540.1	false
13C4-PFHpA	367.0 / 322.0	2.27	69817.19	250.657753	1077.9	false
13C8-PFOA	421.0 / 376.0	2.68	88387.17	260.860374	1220.4	false
13C9-PFNA	472.0 / 427.0	3.08	91635.10	236.851031	1549.2	false
13C6-PFDA	519.0 / 474.0	3.44	94477.77	229.725899	2896835.5	false
13C7-PFUnA	570.0 / 525.0	3.76	86187.39	226.869657	765.5	false
13C2-PFTeDA	715.0 / 670.0	4.52	76954.75	233.495692	2197.7	false
13C3-PFBS	302.0 / 99.0	1.53	27999.58	240.469862	563.2	false
13C3-PFHxS	402.0 / 99.0	2.29	21990.80	208.424357	552.8	false
13C8-PFOS	507.0 / 99.0	3.07	27530.67	230.977960	271.0	false

Sample Name	J8465-FS(3)	Injection Vial	14
Sample ID	VC-PM367-SS01-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:08:09	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.05	104531.91	241.607185	1892.5	false
d3-MeFOSAA	573.0 / 419.0	3.60	18515.28	270.655723	262.1	false
d5-EtFOSAA	589.0 / 419.0	3.76	19594.27	262.351196	231.1	false
13C5-PFHxA	318.0 / 273.0	1.86	65848.05	266.885590	908.5	false
13C4-PFHpA	367.0 / 322.0	2.27	75963.14	270.620038	828.9	false
13C8-PFOA	421.0 / 376.0	2.68	98144.58	287.424292	1049.9	false
13C9-PFNA	472.0 / 427.0	3.08	101361.21	259.970151	1510.0	false
13C6-PFDA	519.0 / 474.0	3.43	105735.74	242.573958	1171.9	false
13C7-PFUnA	570.0 / 525.0	3.75	94129.54	233.776416	866.3	false
13C2-PFTeDA	715.0 / 670.0	4.51	83842.42	240.021021	1703.8	false
13C3-PFBS	302.0 / 99.0	1.53	27715.11	231.208668	666.6	false
13C3-PFHxS	402.0 / 99.0	2.29	28851.74	265.618138	832.9	false
13C8-PFOS	507.0 / 99.0	3.07	34958.27	284.893157	388.9	false

Sample Name	J8466-FS(3)	Injection Vial	15
Sample ID	VC-PM367-SB01-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:19:02	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	108495.91	225.680708	1452.8	false
d3-MeFOSAA	573.0 / 419.0	3.59	19720.19	284.864098	251.2	false
d5-EtFOSAA	589.0 / 419.0	3.76	19676.33	260.338119	245.1	false
13C5-PFHxA	318.0 / 273.0	1.86	69021.82	244.478931	579.7	false
13C4-PFHpA	367.0 / 322.0	2.27	80789.67	251.527663	913.6	false
13C8-PFOA	421.0 / 376.0	2.68	104760.55	268.119125	1320.4	false
13C9-PFNA	472.0 / 427.0	3.08	109373.83	245.153434	1285.3	false
13C6-PFDA	519.0 / 474.0	3.43	119605.59	246.941421	53755.8	false
13C7-PFUnA	570.0 / 525.0	3.75	100877.27	225.469676	625.5	false
13C2-PFTeDA	715.0 / 670.0	4.51	82416.98	212.335336	1795.8	false
13C3-PFBS	302.0 / 99.0	1.53	30988.46	255.462504	504.0	false
13C3-PFHxS	402.0 / 99.0	2.29	29780.08	270.926337	603.0	false
13C8-PFOS	507.0 / 99.0	3.07	32704.16	263.375116	295.1	false

Sample Name	J8467-FS(3)	Injection Vial	16
Sample ID	VC-PM367-SB01-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:29:52	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	101048.43	247.910461	985.9	false
d3-MeFOSAA	573.0 / 419.0	3.59	15596.23	221.719958	235.2	false
d5-EtFOSAA	589.0 / 419.0	3.75	17946.99	233.691894	207.1	false
13C5-PFHxA	318.0 / 273.0	1.86	65856.50	253.282428	678.6	false
13C4-PFHpA	367.0 / 322.0	2.27	73791.36	249.451925	952.2	false
13C8-PFOA	421.0 / 376.0	2.68	95905.28	266.516412	936.4	false
13C9-PFNA	472.0 / 427.0	3.07	93499.44	227.554246	3466.2	false
13C6-PFDA	519.0 / 474.0	3.43	98584.94	240.069651	1170.2	false
13C7-PFUnA	570.0 / 525.0	3.75	88214.48	232.551413	1076.1	false
13C2-PFTeDA	715.0 / 670.0	4.51	77887.60	236.678141	3011.6	false
13C3-PFBS	302.0 / 99.0	1.53	26308.68	213.444373	594.4	false
13C3-PFHxS	402.0 / 99.0	2.29	22879.17	204.844365	596.7	false
13C8-PFOS	507.0 / 99.0	3.07	32767.56	259.701393	316.9	false

Sample Name	J8468-FS(3)	Injection Vial	17
Sample ID	VC-PM367-SS02-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:40:44	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	116714.09	258.743788	1513.3	false
d3-MeFOSAA	573.0 / 419.0	3.59	17215.31	238.768924	309.2	false
d5-EtFOSAA	589.0 / 419.0	3.75	20649.75	262.328123	232.2	false
13C5-PFHxA	318.0 / 273.0	1.85	75873.98	275.497208	568.6	false
13C4-PFHpA	367.0 / 322.0	2.26	86429.15	275.841403	615.9	false
13C8-PFOA	421.0 / 376.0	2.68	105203.61	276.013280	1425.5	false
13C9-PFNA	472.0 / 427.0	3.07	109266.32	251.061518	1885.0	false
13C6-PFDA	519.0 / 474.0	3.43	120579.06	265.326093	966.1	false
13C7-PFUnA	570.0 / 525.0	3.75	105486.73	251.280197	821.1	false
13C2-PFTeDA	715.0 / 670.0	4.51	98484.21	270.419345	1625.9	false
13C3-PFBS	302.0 / 99.0	1.53	32046.83	253.657991	507.6	false
13C3-PFHxS	402.0 / 99.0	2.29	27470.37	239.953007	471.8	false
13C8-PFOS	507.0 / 99.0	3.07	32141.47	248.527165	269.9	false

Sample Name	J8469-FS(3)	Injection Vial	18
Sample ID	VC-PM367-SB02-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T22:51:34	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	100534.00	250.736442	1094.7	false
d3-MeFOSAA	573.0 / 419.0	3.59	16371.12	225.765147	260.6	false
d5-EtFOSAA	589.0 / 419.0	3.75	20653.87	260.883768	219.5	false
13C5-PFHxA	318.0 / 273.0	1.86	70223.27	275.628339	772.5	false
13C4-PFHpA	367.0 / 322.0	2.27	77083.09	265.935823	803.4	false
13C8-PFOA	421.0 / 376.0	2.68	100379.10	284.682729	1735.9	false
13C9-PFNA	472.0 / 427.0	3.07	100825.60	250.428155	1382.7	false
13C6-PFDA	519.0 / 474.0	3.43	108121.69	267.657073	1382.5	false
13C7-PFUnA	570.0 / 525.0	3.75	98989.89	265.282817	1096.8	false
13C2-PFTeDA	715.0 / 670.0	4.51	86962.99	268.635555	1783.3	false
13C3-PFBS	302.0 / 99.0	1.53	29225.79	230.009277	754.4	false
13C3-PFHxS	402.0 / 99.0	2.29	29874.54	259.464889	514.6	false
13C8-PFOS	507.0 / 99.0	3.07	29279.76	225.108137	323.0	false

Sample Name	J8470-FS(3)	Injection Vial	19
Sample ID	VC-PM367-SB02-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:02:25	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	87000.00	216.478374	1038.5	false
d3-MeFOSAA	573.0 / 419.0	3.59	15397.44	233.299748	276.3	false
d5-EtFOSAA	589.0 / 419.0	3.76	15957.82	221.465553	199.0	false
13C5-PFHxA	318.0 / 273.0	1.86	58285.66	235.072288	869.6	false
13C4-PFHpA	367.0 / 322.0	2.27	71258.84	252.611635	887.5	false
13C8-PFOA	421.0 / 376.0	2.68	89334.70	260.336395	2446.2	false
13C9-PFNA	472.0 / 427.0	3.07	85700.49	218.722038	1261.2	false
13C6-PFDA	519.0 / 474.0	3.43	96276.72	237.781457	121130.2	false
13C7-PFUnA	570.0 / 525.0	3.75	81782.64	218.660426	883.0	false
13C2-PFTeDA	715.0 / 670.0	4.51	75025.48	231.221699	1864.7	false
13C3-PFBS	302.0 / 99.0	1.53	26689.39	230.783518	441.3	false
13C3-PFHxS	402.0 / 99.0	2.29	25617.92	244.460229	556.5	false
13C8-PFOS	507.0 / 99.0	3.07	30529.19	257.884960	385.5	false

Sample Name	J8471-FS(3)	Injection Vial	20
Sample ID	VC-PM367-S03-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:13:17	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	99642.02	270.365379	3515.7	false
d3-MeFOSAA	573.0 / 419.0	3.59	15728.97	248.227633	181.8	false
d5-EtFOSAA	589.0 / 419.0	3.75	17836.00	257.818593	256.3	false
13C5-PFHxA	318.0 / 273.0	1.85	66893.48	269.584256	606.4	false
13C4-PFHpA	367.0 / 322.0	2.27	73393.36	259.981465	825.1	false
13C8-PFOA	421.0 / 376.0	2.68	93961.31	273.611783	1311.3	false
13C9-PFNA	472.0 / 427.0	3.07	98990.25	252.448424	2583.1	false
13C6-PFDA	519.0 / 474.0	3.43	102620.62	276.378730	969.9	false
13C7-PFUnA	570.0 / 525.0	3.75	92812.70	270.601245	754.4	false
13C2-PFTeDA	715.0 / 670.0	4.51	80953.09	272.061125	1400.5	false
13C3-PFBS	302.0 / 99.0	1.53	29564.12	266.265713	562.3	false
13C3-PFHxS	402.0 / 99.0	2.29	26751.21	265.883769	456.3	false
13C8-PFOS	507.0 / 99.0	3.07	27824.04	244.801994	238.5	false

Sample Name	J8472-FS(3)	Injection Vial	21
Sample ID	VC-PM367-SB03-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:24:10	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	100161.71	237.467520	1808.2	false
d3-MeFOSAA	573.0 / 419.0	3.59	17078.35	222.127972	301.3	false
d5-EtFOSAA	589.0 / 419.0	3.75	20097.69	239.425545	185.2	false
13C5-PFHxA	318.0 / 273.0	1.86	68255.70	257.718064	823.9	false
13C4-PFHpA	367.0 / 322.0	2.27	75985.14	252.179319	655.8	false
13C8-PFOA	421.0 / 376.0	2.68	96822.40	264.153747	1251.4	false
13C9-PFNA	472.0 / 427.0	3.07	106659.88	254.845248	1238.2	false
13C6-PFDA	519.0 / 474.0	3.43	98378.41	231.506759	995.6	false
13C7-PFUnA	570.0 / 525.0	3.75	99671.39	253.914075	966.0	false
13C2-PFTeDA	715.0 / 670.0	4.51	80772.67	237.187287	1626.7	false
13C3-PFBS	302.0 / 99.0	1.53	30057.24	223.103757	462.1	false
13C3-PFHxS	402.0 / 99.0	2.29	27804.26	227.754709	440.4	false
13C8-PFOS	507.0 / 99.0	3.07	32597.72	236.368512	287.8	false

Sample Name	J8473-FS(3)	Injection Vial	24
Sample ID	VC-PM367-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-17T23:56:46	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	115179.34	263.710108	1522.1	false
d3-MeFOSAA	573.0 / 419.0	3.59	19396.47	252.098724	246.0	false
d5-EtFOSAA	589.0 / 419.0	3.75	21026.93	250.317369	217.7	false
13C5-PFHxA	318.0 / 273.0	1.86	79092.46	287.956720	951.6	false
13C4-PFHpA	367.0 / 322.0	2.27	87212.92	279.092307	801.7	false
13C8-PFOA	421.0 / 376.0	2.68	102500.25	269.644789	339.8	false
13C9-PFNA	472.0 / 427.0	3.07	119703.59	275.783847	1430.0	false
13C6-PFDA	519.0 / 474.0	3.43	116685.53	265.173806	667.4	false
13C7-PFUnA	570.0 / 525.0	3.75	108301.81	266.441394	1430.9	false
13C2-PFTeDA	715.0 / 670.0	4.50	95753.20	271.537632	1769.6	false
13C3-PFBS	302.0 / 99.0	1.53	32419.77	240.468625	522.2	false
13C3-PFHxS	402.0 / 99.0	2.29	30009.47	245.643418	744.3	false
13C8-PFOS	507.0 / 99.0	3.07	36185.84	262.199449	362.0	false

Sample Name	K8474-FS(3)	Injection Vial	25
Sample ID	VC-PM367-SS04-000H	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T00:07:38	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.04	95850.79	247.155593	1184.6	false
d3-MeFOSAA	573.0 / 419.0	3.59	15010.87	248.879340	205.4	false
d5-EtFOSAA	589.0 / 419.0	3.75	15348.76	233.089771	211.2	false
13C5-PFHxA	318.0 / 273.0	1.86	63292.11	248.385177	865.2	false
13C4-PFHpA	367.0 / 322.0	2.27	69581.19	240.017484	690.7	false
13C8-PFOA	421.0 / 376.0	2.68	92497.76	262.290361	2790.9	false
13C9-PFNA	472.0 / 427.0	3.07	92075.53	228.659827	1244.7	false
13C6-PFDA	519.0 / 474.0	3.43	100105.84	256.209715	853.9	false
13C7-PFUnA	570.0 / 525.0	3.75	92720.13	256.899093	774.2	false
13C2-PFTeDA	715.0 / 670.0	4.50	78613.36	251.070451	1601.9	false
13C3-PFBS	302.0 / 99.0	1.53	28745.89	271.993928	462.2	false
13C3-PFHxS	402.0 / 99.0	2.29	26614.30	277.905197	412.0	false
13C8-PFOS	507.0 / 99.0	3.07	29610.00	273.694710	385.4	false

Sample Name	J8475-FS(3)	Injection Vial	26
Sample ID	VC-PM367-SB04-0102	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T00:18:30	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	89538.87	215.923970	1098.9	false
d3-MeFOSAA	573.0 / 419.0	3.59	12841.01	237.648490	205.1	false
d5-EtFOSAA	589.0 / 419.0	3.75	14091.14	238.863012	193.7	false
13C5-PFHxA	318.0 / 273.0	1.85	56519.48	236.929476	648.8	false
13C4-PFHpA	367.0 / 322.0	2.27	69720.15	256.894097	1537.1	false
13C8-PFOA	421.0 / 376.0	2.68	86907.44	263.240605	1649.0	false
13C9-PFNA	472.0 / 427.0	3.07	85109.84	225.772092	1334.0	false
13C6-PFDA	519.0 / 474.0	3.43	89833.38	215.024732	2266.7	false
13C7-PFUnA	570.0 / 525.0	3.74	78162.56	202.535799	728.4	false
13C2-PFTeDA	715.0 / 670.0	4.50	69348.18	207.132774	1889.4	false
13C3-PFBS	302.0 / 99.0	1.53	24430.57	258.029892	408.9	false
13C3-PFHxS	402.0 / 99.0	2.29	22811.56	265.882368	665.2	false
13C8-PFOS	507.0 / 99.0	3.07	25384.06	261.903917	248.2	false

Sample Name	J8476-FS(3)	Injection Vial	27
Sample ID	VC-PM367-SB04-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T00:29:22	Data File	Data18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.03	97733.31	236.687806	1000.5	false
d3-MeFOSAA	573.0 / 419.0	3.59	15104.51	208.977561	227.8	false
d5-EtFOSAA	589.0 / 419.0	3.75	17672.98	223.959592	236.1	false
13C5-PFHxA	318.0 / 273.0	1.85	64717.96	248.321160	955.4	false
13C4-PFHpA	367.0 / 322.0	2.26	73645.53	248.376334	915.0	false
13C8-PFOA	421.0 / 376.0	2.67	91600.82	253.958785	1782.5	false
13C9-PFNA	472.0 / 427.0	3.07	95448.40	231.753908	1037.3	false
13C6-PFDA	519.0 / 474.0	3.42	104169.80	250.401267	2813.1	false
13C7-PFUnA	570.0 / 525.0	3.74	94880.67	246.902108	938.9	false
13C2-PFTeDA	715.0 / 670.0	4.50	80665.37	241.960747	1711.1	false
13C3-PFBS	302.0 / 99.0	1.53	27980.51	220.927152	556.3	false
13C3-PFHxS	402.0 / 99.0	2.29	26954.85	234.870557	601.0	false
13C8-PFOS	507.0 / 99.0	3.06	26885.92	207.378069	329.1	false

Sample Name	CR904PB-FS(3)	Injection Vial	1
Sample ID	Procedural Blank	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-18T23:51:59	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_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	81010.99	221.965594	1370.2	false
d3-MeFOSAA	573.0 / 419.0	3.56	13288.06	206.813365	227.7	false
d5-EtFOSAA	589.0 / 419.0	3.72	15519.90	221.244813	189.0	false
13C5-PFHxA	318.0 / 273.0	1.84	53917.76	221.186363	939.4	false
13C4-PFHpA	367.0 / 322.0	2.25	58160.68	209.715668	851.6	false
13C8-PFOA	421.0 / 376.0	2.66	76707.08	227.371982	2822.7	false
13C9-PFNA	472.0 / 427.0	3.05	80404.06	208.724791	1200.6	false
13C6-PFDA	519.0 / 474.0	3.40	87511.34	237.994775	12188.7	false
13C7-PFUnA	570.0 / 525.0	3.72	90931.73	267.713910	778.7	false
13C2-PFTeDA	715.0 / 670.0	4.46	70629.30	239.690649	1334.9	false
13C3-PFBS	302.0 / 99.0	1.51	25027.29	222.295944	496.4	false
13C3-PFHxS	402.0 / 99.0	2.27	20938.63	205.241019	454.4	false
13C8-PFOS	507.0 / 99.0	3.05	24109.86	209.197740	262.9	false

Sample Name	J8473-FS(3)	Injection Vial	13
Sample ID	VC-PM367-SB03-0506	Injection Volume	10.00
Sample Type	Unknown	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:02:34	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

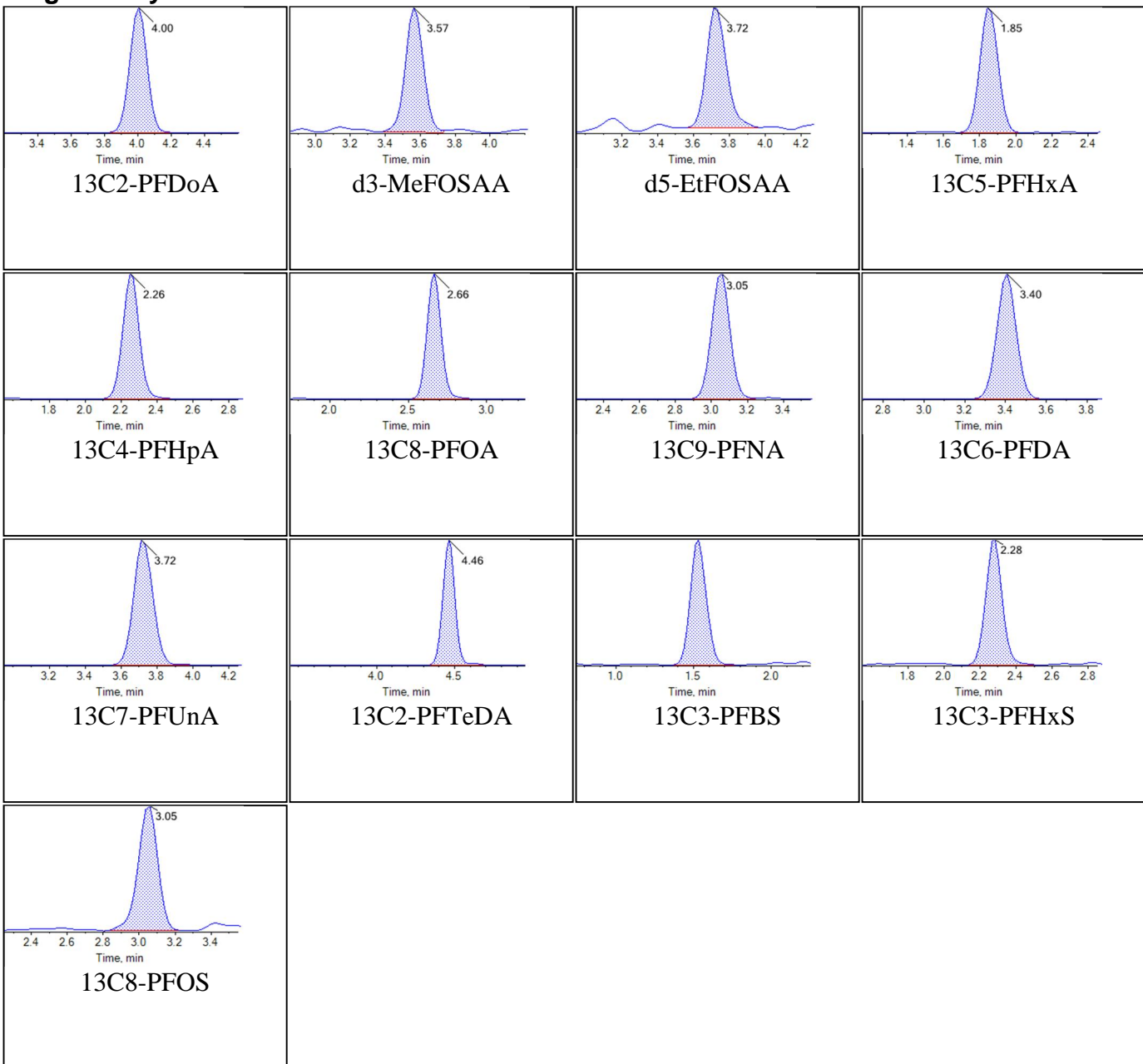
Results Summary

Analyte	MRM Transition	RT	Area	Conc. (ng/L)	Signal/Noise Ratio	Modified
13C2-PFDoA	615.0 / 570.0	4.00	26947.66	254.220434	1340.7	false
d3-MeFOSAA	573.0 / 419.0	3.57	4564.00	231.305261	116.4	false
d5-EtFOSAA	589.0 / 419.0	3.72	4890.01	226.995334	84.0	false
13C5-PFHxA	318.0 / 273.0	1.85	19270.77	298.080862	447.6	false
13C4-PFHpA	367.0 / 322.0	2.26	21122.56	287.181566	2323.4	false
13C8-PFOA	421.0 / 376.0	2.66	26666.28	298.038536	140247.1	false
13C9-PFNA	472.0 / 427.0	3.05	27731.09	271.438518	864.0	false
13C6-PFDA	519.0 / 474.0	3.40	31088.70	291.107568	67948.2	false
13C7-PFUnA	570.0 / 525.0	3.72	30794.30	312.157341	4778.3	false
13C2-PFTeDA	715.0 / 670.0	4.46	23521.34	274.837531	907.6	false
13C3-PFBS	302.0 / 99.0	1.53	8333.32	241.022948	279.3	false
13C3-PFHxS	402.0 / 99.0	2.28	7859.13	250.849401	213.8	false
13C8-PFOS	507.0 / 99.0	3.05	8425.39	238.053702	176.1	false

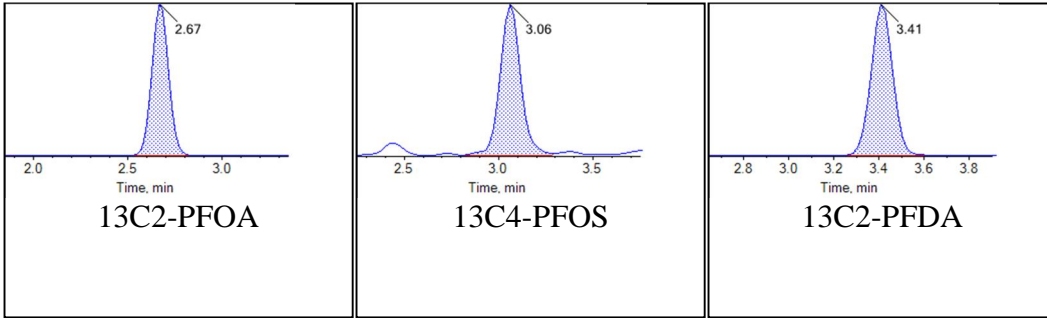
Sample Name	J8473-FS(3)	Injection Vial	13
Sample ID	VC-PM367-SB03-0506	Injection Volume	10.00
Sample Type	Quality Control	Instrument Name	QTRAP 5500
Acquisition Date	2018-10-19T02:02:34	Data File	18-0590_18-01588_18-0589.wiff
Acquisition Method	5-0369.dam	Result Table	18-0590_18-0588_18-0589_SIS
Sample Comment			

Chromatograms

Target Analytes:



Internal Standards:



Contract_ID	DO_CTO_Phase	Installator	Sample_Nr	CH2M_CocAnalysis	GAAnalytical_PRC_Code	Lab_Code	Lab_Name	Leachate_ISAMPLE	B	Extraction_Result_Typ	Lab_OC_ty	SAMPLE_Nr	QC_Level	DateTime_Date	ReceLeachate_Leachate_	Extraction	Extraction_Analysis_D	Analysis_T	Lab_Samp	Dilution	Run_Numt	PERCENT_J	PERCENT_I	Chem_NanAnalyte	ICAnalyte_V	Original_A	Result_Uni	Lab_Quallif	Validator	IGC_Column	Analysis_B	Result_Nar	QC_Contre	QC_Accura	QC_Accurs	Control_Lit	QC_Narrat	MDL	Detection_QSM_Vers	DL	LOD	LOQ	SDG	Analysis_B	Validator_Val_Date	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:24:20	J8476-F5	10	1	16.35	13C3-PFB8	BDO-2226	121	PCT_REC	SURR	SLSL	150	50	20171116							5.1				18-0590	DP-18-0296		
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:24:20	J8476-F5	10	1	16.35	13C3-PFH8	BDO-2227	116	PCT_REC	SURR	SLSL	150	50	20171116							5.1				18-0590	DP-18-0296		
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:24:20	J8476-F5	10	1	16.35	13C8-PFOS	BDO-2228	112	PCT_REC	SURR	SLSL	150	50	20171116							5.1				18-0590	DP-18-0296		
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	Perfluoroh	307-244	3.3	NG_L	J	TRG									0.36	0.36	5.1	70	1.1	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	Perfluoroh	375-85-9	0.69	NG_L	J	TRG									0.48	0.48	5.1	70	1.1	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	Perfluoroo	335-67-1	4.57	NG_L	J	TRG									0.55	0.55	5.1	70	1.1	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	Perfluoroh	375-95-1	1.1	NG_L	U	TRG									0.47	0.47	5.1	70	1.1	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	Perfluorod	335-76-2	1.1	NG_L	U	TRG									0.3	0.3	5.1	70	1.1	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	Perfluorou	2058-94-8	1.1	NG_L	U	TRG									0.45	0.45	5.1	70	1.1	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	Perfluorod	307-55-1	0.55	NG_L	U	TRG									0.26	0.26	5.1	70	0.55	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	Perfluorotr	72629-94-8	1.1	NG_L	U	TRG									0.31	0.31	5.1	70	1.1	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	Perfluorotr	376-06-7	2.2	NG_L	U	TRG									0.69	0.69	5.1	70	2.2	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	N-Methyl	F2355-31-9	2.75	NG_L	U	TRG									1.23	1.23	5.1	70	2.75	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	N-Ethyl	Pe2991-50-6	2.2	NG_L	U	TRG									0.63	0.63	5.1	70	2.2	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	Perfluorob	375-73-5	1.1	NG_L	U	TRG									0.4	0.4	5.1	70	1.1	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	Perfluoroh	355-46-4	8.12	NG_L	U	TRG									0.24	0.24	5.1	70	0.55	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	Perfluoroo	1763-23-1	8.26	NG_L	U	TRG									0.3	0.3	5.1	70	1.1	5.49	18-0590	DP-18-0296	
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	13C5-PFH8	BDO-2217	95	PCT_REC	SURR	SLSL	150	50	20171116									5.1				18-0590	DP-18-0296
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	13C4-PFH8	BDO-2218	94	PCT_REC	SURR	SLSL	150	50	20171116									5.1				18-0590	DP-18-0296
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	13C8-PFOA	BDO-2219	101	PCT_REC	SURR	SLSL	150	50	20171116									5.1				18-0590	DP-18-0296
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	13C9-PFNA	BDO-2221	92	PCT_REC	SURR	SLSL	150	50	20171116									5.1				18-0590	DP-18-0296
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	13C6-PFDA	BDO-2222	96	PCT_REC	SURR	SLSL	150	50	20171116									5.1				18-0590	DP-18-0296
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	13C7-PFU8	BDO-2223	101	PCT_REC	SURR	SLSL	150	50	20171116									5.1				18-0590	DP-18-0296
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	13C2-PFO8	BDO-2112	92	PCT_REC	SURR	SLSL	150	50	20171116									5.1				18-0590	DP-18-0296
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	13C2-PFTe	BDO-2224	98	PCT_REC	SURR	SLSL	150	50	20171116									5.1				18-0590	DP-18-0296
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	d3-MeFOS	BDO-1838	82	PCT_REC	SURR	SLSL	150	50	20171116									5.1				18-0590	DP-18-0296
N62470164	4164	POINT_MLVC-PM367	NONS	SVOA	537_MOD	ORG	BMSL_NOFBATTELLE	NULL	DRY	METHOD	000	REG	SB	4	20180927/20180928	20181008	11:55:00	20181019	02:35:12	J8476-F5	10	1	5.56	d5-EFOSA	BDO-1839	90	PCT_REC	SURR	SLSL	150	50	20171116									5.1				18-0590	DP-18-0296
N62470164	4164	POINT_MLVC-PM367																																												

**DATA VALIDATION SUMMARY REPORT
NAVAL BASE VENTURA COUNTY, CALIFORNIA**

Client: CH2M HILL, Inc., Corvallis, Oregon
 SDG: 18-0590
 Laboratory: Battelle Norwell Operations, Norwell, Massachusetts
 Site: Naval Base Ventura County, CTO-4164, California
 Date: January 11, 2019

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	VC-PM367-SS01-000H	J8465-FS	Soil
2	VC-PM367-SB01-0102	J8466-FS	Soil
3	VC-PM367-SB01-0506	J8467-FS	Soil
4	VC-PM367-SS02-000H	J8468-FS	Soil
5	VC-PM367-SB02-0102	J8469-FS	Soil
6	VC-PM367-SB02-0506	J8470-FS	Soil
7	VC-PM367-SS03-000H	J8471-FS	Soil
8	VC-PM367-SB03-0102	J8472-FS	Soil
9	VC-PM367-SB03-0506	J8473-FS	Soil
10	VC-PM367-SS04-000H	J8474-FS	Soil
11	VC-PM367-SB04-0102	J8475-FS	Soil
12	VC-PM367-SB04-0506	J8476-FS	Soil

A full data validation was performed on the analytical data for twelve soil samples collected on September 27, 2018 by CH2M HILL at the Naval Base Ventura County site in California. The samples were analyzed under the Battelle SOP Method for “Analysis of Perfluoroalkyl Substances in Environmental Samples by Liquid Chromatography and Tandem Mass Spectrometry (LC-MS/MS)”.

Specific method references are as follows:

Analysis
PFCs

Method References
SOP 5-369

The data have been validated according to the protocols and quality control (QC) requirements of the analytical method, the DoD Quality Systems Manual for Environmental Laboratories, Version 5.1, February 2018, the Final Sampling and Analysis Plan Basewide Preliminary Assessments/Site Inspections of Per- and Polyfluoroalkyl Substances, August 2018, and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA “Contract Laboratories Program National Functional Guidelines for Organic Superfund Methods Data Review,” January 2017;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report

Organics

- Date Completeness, Case Narrative & Custody Documentation
- Holding times
- Liquid Chromatography/Mass Spectrometry (LC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

Data Usability Assessment

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedances of QC criteria.

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.

Holding Times

- All samples were extracted within 28 days for soil samples and analyzed within 30 days.

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent recovery (%R) criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- Field QC samples are summarized below.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
VC-AQ-FB08-09272018	PFHxS	0.16	None	See EB08
VC-AQ-EB08-09272018	PFHpA	0.19	U	8, 12
	PFBS	0.30	None	All Associated ND
	PFHxS	1.98	U	1-7-12
	PFOS	11.18	U	1-12

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- MS/MSD samples were not analyzed.

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
Nancy Weaver
Senior Chemist

Dated: 1/11/19

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limits is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.



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

Client ID	VC-PM367-SS01-000H			
Battelle ID	J8465-FS			
Sample Type	SA			
Collection Date	09/27/2018			
Extraction Date	10/08/2018			
Analysis Date	10/19/2018			
Analytical Instrument	Sciex 5500 LC/MS/MS			
% Moisture	2.08			
Matrix	SS			
Sample Size	1.87			
Size Unit-Basis	g			
Units	ng/g_Dry	MDL	LOD	LOQ

PFHxA	1.87 J	0.35	1.07	5.35
PFHpA	1.07 U	0.47	1.07	5.35
PFOA	1.02 J	0.53	1.07	5.35
PFNA	1.07 U	0.46	1.07	5.35
PFDA	1.07 U	0.29	1.07	5.35
PFUnA	1.07 U	0.44	1.07	5.35
PFDoA	0.53 U	0.26	0.53	5.35
PFTeDA	1.07 U	0.30	1.07	5.35
PFTeDA	2.14 U	0.67	2.14	5.35
NMeFOSAA	2.67 U	1.20	2.67	5.35
NEtFOSAA	2.14 U	0.61	2.14	5.35
PFBS	1.07 U	0.39	1.07	5.35
PFHxS	2.05 ✓ U	0.24	0.53	5.35
PFOS	17.33 U	0.29	1.07	5.35

EBL
EBL

Surrogate Recoveries (%)

13C5-PFHxA	107
13C4-PFHpA	102
13C8-PFOA	107
13C9-PFNA	104
13C6-PFDA	111
13C7-PFUnA	119
13C2-PFDoA	100
13C2-PFTeDA	109
d3-MeFOSAA	83
d5-EtFOSAA	103
13C3-PFBS	106
13C3-PFHxS	106
13C8-PFOS	108



2

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

Client ID	VC-PM367-SB01-0102			
Battelle ID	J8466-FS			
Sample Type	SA			
Collection Date	09/27/2018			
Extraction Date	10/08/2018			
Analysis Date	10/19/2018			
Analytical Instrument	Sciex 5500 LC/MS/MS			
% Moisture	1.63			
Matrix	SB			
Sample Size	2.02			
Size Unit-Basis	g			
Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	3.12 J	0.33	0.99	4.95
PFHpA	0.99 U	0.44	0.99	4.95
PFOA	0.99 U	0.50	0.99	4.95
PFNA	0.99 U	0.43	0.99	4.95
PFDA	0.99 U	0.27	0.99	4.95
PFUnA	0.99 U	0.41	0.99	4.95
PFDoA	0.50 U	0.24	0.50	4.95
PFTeDA	0.99 U	0.28	0.99	4.95
PFTeDA	1.98 U	0.62	1.98	4.95
NMeFOSAA	2.48 U	1.11	2.48	4.95
NEtFOSAA	1.98 U	0.56	1.98	4.95
PFBS	0.99 U	0.36	0.99	4.95
PFHxS	1.44 U	0.22	0.50	4.95
PFOS	13.96 U	0.27	0.99	4.95

EBL
EBL

Surrogate Recoveries (%)

13C5-PFHxA	92
13C4-PFHpA	95
13C8-PFOA	99
13C9-PFNA	86
13C6-PFDA	99
13C7-PFUnA	105
13C2-PFDoA	92
13C2-PFTeDA	92
d3-MeFOSAA	93
d5-EtFOSAA	80
13C3-PFBS	88
13C3-PFHxS	90
13C8-PFOS	92



3

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

Client ID	VC-PM367-SB01-0506			
Battelle ID	J8467-FS			
Sample Type	SA			
Collection Date	09/27/2018			
Extraction Date	10/08/2018			
Analysis Date	10/19/2018			
Analytical Instrument	Sciex 5500 LC/MS/MS			
% Moisture	4.29			
Matrix	SB			
Sample Size	1.87			
Size Unit-Basis	g			
Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	0.58 J	0.35	1.07	5.35
PFHpA	1.07 U	0.47	1.07	5.35
PFOA	0.82 J	0.53	1.07	5.35
PFNA	1.07 U	0.46	1.07	5.35
PFDA	1.07 U	0.29	1.07	5.35
PFUnA	1.07 U	0.44	1.07	5.35
PFDoA	0.53 U	0.26	0.53	5.35
PFTeDA	1.07 U	0.30	1.07	5.35
PFTeDA	2.14 U	0.67	2.14	5.35
NMeFOSAA	2.67 U	1.20	2.67	5.35
NEtFOSAA	2.14 U	0.61	2.14	5.35
PFBS	1.07 U	0.39	1.07	5.35
PFHxS	1.54 <i>ru</i>	0.24	0.53	5.35
PFOS	21.52 <i>u</i>	0.29	1.07	5.35

EBL
EBL

Surrogate Recoveries (%)

13C5-PFHxA	92
13C4-PFHpA	91
13C8-PFOA	104
13C9-PFNA	94
13C6-PFDA	94
13C7-PFUnA	111
13C2-PFDoA	96
13C2-PFTeDA	97
d3-MeFOSAA	102
d5-EtFOSAA	87
13C3-PFBS	102
13C3-PFHxS	100
13C8-PFOS	104



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

Client ID VC-PM367-SS02-000H

Battelle ID J8468-FS
 Sample Type SA
 Collection Date 09/27/2018
 Extraction Date 10/08/2018
 Analysis Date 10/19/2018
 Analytical Instrument Sciex 5500 LC/MS/MS
 % Moisture 5.03
 Matrix SS
 Sample Size 1.96

Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	1.02 U	0.34	1.02	5.10	
PFHpA	1.02 U	0.45	1.02	5.10	
PFOA	1.02 U	0.51	1.02	5.10	
PFNA	1.02 U	0.44	1.02	5.10	
PFDA	1.02 U	0.28	1.02	5.10	
PFUnA	1.02 U	0.42	1.02	5.10	
PFDoA	0.51 U	0.24	0.51	5.10	
PFTeDA	1.02 U	0.29	1.02	5.10	
PFTeDA	2.04 U	0.64	2.04	5.10	
NMeFOSAA	2.55 U	1.14	2.55	5.10	
NEtFOSAA	2.04 U	0.58	2.04	5.10	
PFBS	1.02 U	0.37	1.02	5.10	
PFHxS	2.03 U	0.22	0.51	5.10	EBL
PFOS	7.65 U	0.28	1.02	5.10	EBL

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	97
13C8-PFOA	109
13C9-PFNA	100
13C6-PFDA	100
13C7-PFUnA	102
13C2-PFDoA	104
13C2-PFTeDA	105
d3-MeFOSAA	102
d5-EtFOSAA	95
13C3-PFBS	101
13C3-PFHxS	104
13C8-PFOS	101

new 2/28/18



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

Client ID VC-PM367-SB02-0102

Battelle ID J8469-FS
 Sample Type SA
 Collection Date 09/27/2018
 Extraction Date 10/08/2018
 Analysis Date 10/19/2018
 Analytical Instrument Sciex 5500 LC/MS/MS
 % Moisture 4.44
 Matrix SB
 Sample Size 1.98

Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	1.01 U	0.33	1.01	5.05	
PFHpA	1.01 U	0.44	1.01	5.05	
PFOA	1.01 U	0.51	1.01	5.05	
PFNA	1.01 U	0.43	1.01	5.05	
PFDA	1.01 U	0.27	1.01	5.05	
PFUnA	1.01 U	0.41	1.01	5.05	
PFDaA	0.51 U	0.24	0.51	5.05	
PFTeDA	1.01 U	0.28	1.01	5.05	
PFTeDA	2.02 U	0.64	2.02	5.05	
NMeFOSAA	2.53 U	1.13	2.53	5.05	
NEtFOSAA	2.02 U	0.58	2.02	5.05	
PFBS	1.01 U	0.36	1.01	5.05	
PFHxS	0.76 U	0.22	0.51	5.05	EBL
PFOS	6.25 U	0.27	1.01	5.05	EBL

Surrogate Recoveries (%)

13C5-PFHxA	100
13C4-PFHpA	101
13C8-PFOA	107
13C9-PFNA	96
13C6-PFDA	98
13C7-PFUnA	108
13C2-PFDaA	96
13C2-PFTeDA	97
d3-MeFOSAA	110
d5-EtFOSAA	114
13C3-PFBS	125
13C3-PFHxS	127
13C8-PFOS	115

10/26/2018



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

Client ID VC-PM367-SB02-0506

Battelle ID J8470-FS
 Sample Type SA
 Collection Date 09/27/2018
 Extraction Date 10/08/2018
 Analysis Date 10/19/2018
 Analytical Instrument Sciex 5500 LC/MS/MS
 % Moisture 3.63
 Matrix SB
 Sample Size 1.98
 Size Unit-Basis g

Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	1.01 U	0.33	1.01	5.05
PFHpA	1.01 U	0.44	1.01	5.05
PFOA	2.33 J	0.51	1.01	5.05
PFNA	1.01 U	0.43	1.01	5.05
PFDA	1.01 U	0.27	1.01	5.05
PFUnA	1.01 U	0.41	1.01	5.05
PFDoA	0.51 U	0.24	0.51	5.05
PFTeDA	1.01 U	0.28	1.01	5.05
PFTeDA	2.02 U	0.64	2.02	5.05
NMeFOSAA	2.53 U	1.13	2.53	5.05
NEtFOSAA	2.02 U	0.58	2.02	5.05
PFBS	1.01 U	0.36	1.01	5.05
PFHxS	4.68 U	0.22	0.51	5.05
PFOS	12.24 U	0.27	1.01	5.05

EBL
EBL

Surrogate Recoveries (%)

13C5-PFHxA	96
13C4-PFHpA	93
13C8-PFOA	103
13C9-PFNA	90
13C6-PFDA	97
13C7-PFUnA	106
13C2-PFDoA	99
13C2-PFTeDA	97
d3-MeFOSAA	79
d5-EtFOSAA	84
13C3-PFBS	96
13C3-PFHxS	89
13C8-PFOS	97

10/22/2018



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

Client ID	VC-PM367-SS03-000H			
Battelle ID	J8471-FS			
Sample Type	SA			
Collection Date	09/27/2018			
Extraction Date	10/08/2018			
Analysis Date	10/19/2018			
Analytical Instrument	Sciex 5500 LC/MS/MS			
% Moisture	8.66			
Matrix	SS			
Sample Size	1.80			
Size Unit-Basis	g			
Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	13.56	0.37	1.11	5.56
PFHpA	2.73 J	0.49	1.11	5.56
PFOA	1.11 U	0.56	1.11	5.56
PFNA	1.11 U	0.48	1.11	5.56
PFDA	1.11 U	0.30	1.11	5.56
PFUnA	1.11 U	0.46	1.11	5.56
PFDoA	0.56 U	0.27	0.56	5.56
PFTeDA	1.11 U	0.31	1.11	5.56
PFTeDA	2.22 U	0.70	2.22	5.56
NMeFOSAA	2.78 U	1.24	2.78	5.56
NEtFOSAA	2.22 U	0.63	2.22	5.56
PFBS	1.11 U	0.40	1.11	5.56
PFHxS	0.93 J U	0.24	0.56	5.56
PFOS	4.75 J U	0.30	1.11	5.56

EBL
EBL

Surrogate Recoveries (%)

13C5-PFHxA	107
13C4-PFHpA	103
13C8-PFOA	107
13C9-PFNA	101
13C6-PFDA	101
13C7-PFUnA	120
13C2-PFDoA	104
13C2-PFTeDA	104
d3-MeFOSAA	103
d5-EtFOSAA	104
13C3-PFBS	103
13C3-PFHxS	106
13C8-PFOS	96



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

Client ID VC-PM367-SB03-0102

Battelle ID J8472-FS
 Sample Type SA
 Collection Date 09/27/2018
 Extraction Date 10/08/2018
 Analysis Date 10/19/2018
 Analytical Instrument Sciex 5500 LC/MS/MS
 % Moisture 20.52
 Matrix SB
 Sample Size 1.57
 Size Unit-Basis g

Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	4.13 J	0.42	1.27	6.37
PFHpA	1.27 1.09 U	0.56	1.27	6.37
PFOA	27.18	0.64	1.27	6.37
PFNA	1.27 U	0.55	1.27	6.37
PFDA	1.27 U	0.34	1.27	6.37
PFUnA	1.27 U	0.52	1.27	6.37
PFDoA	0.64 U	0.31	0.64	6.37
PFTeDA	1.27 U	0.36	1.27	6.37
PFTeDA	2.55 U	0.80	2.55	6.37
NMeFOSAA	3.18 U	1.43	3.18	6.37
NEtFOSAA	2.55 U	0.73	2.55	6.37
PFBS	1.27 U	0.46	1.27	6.37
PFHxS	15.36 U	0.28	0.64	6.37
PFOS	2.53 U	0.34	1.27	6.37

EBL

EBL

EBL

Surrogate Recoveries (%)

13C5-PFHxA	91
13C4-PFHpA	89
13C8-PFOA	97
13C9-PFNA	91
13C6-PFDA	97
13C7-PFUnA	103
13C2-PFDoA	90
13C2-PFTeDA	95
d3-MeFOSAA	67
d5-EtFOSAA	95
13C3-PFBS	93
13C3-PFHxS	98
13C8-PFOS	89

11/2/28/18



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

Client ID VC-PM367-SB03-0506

Battelle ID J8473-FS
 Sample Type SA
 Collection Date 09/27/2018
 Extraction Date 10/08/2018
 Analysis Date 10/25/2018
 Analytical Instrument Sciex 5500 LC/MS/MS
 % Moisture 23.73
 Matrix SB
 Sample Size 1.45
 Size Unit-Basis g

Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	11.62	0.46	1.38	6.90	
PFHpA	1.94 J	0.61	1.38	6.90	
PFOA	15.42	0.69	1.38	6.90	
PFNA	1.38 U	0.59	1.38	6.90	
PFDA	1.38 U	0.37	1.38	6.90	
PFUnA	1.38 U	0.57	1.38	6.90	
PFDoA	0.69 U	0.33	0.69	6.90	
PFTeDA	1.38 U	0.39	1.38	6.90	
PFTeDA	2.76 U	0.87	2.76	6.90	
NMeFOSAA	3.45 U	1.54	3.45	6.90	
NEtFOSAA	2.76 U	0.79	2.76	6.90	
PFBS	1.38 U	0.50	1.38	6.90	
PFHxS	11.32 U	0.30	0.69	6.90	EBL
PFOS	12.98 U	0.37	1.38	6.90	EBL

Surrogate Recoveries (%)

13C5-PFHxA	97
13C4-PFHpA	106
13C8-PFOA	103
13C9-PFNA	87
13C6-PFDA	95
13C7-PFUnA	99
13C2-PFDoA	101
13C2-PFTeDA	108
d3-MeFOSAA	108
d5-EtFOSAA	111
13C3-PFBS	102
13C3-PFHxS	96
13C8-PFOS	95



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

Client ID	VC-PM367-SS04-000H				
Battelle ID	J8474-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	14.38				
Matrix	SS				
Sample Size	1.77				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	0.75 J	0.37	1.13	5.65	
PFHpA	1.13 U	0.50	1.13	5.65	
PFOA	1.63 J	0.56	1.13	5.65	
PFNA	0.83 J	0.49	1.13	5.65	
PFDA	1.13 U	0.31	1.13	5.65	
PFUnA	1.13 U	0.46	1.13	5.65	
PFDoA	0.56 U	0.27	0.56	5.65	
PFTeDA	1.13 U	0.32	1.13	5.65	
PFTeDA	2.26 U	0.71	2.26	5.65	
NMeFOSAA	2.82 U	1.27	2.82	5.65	
NEtFOSAA	2.26 U	0.64	2.26	5.65	
PFBS	1.13 U	0.41	1.13	5.65	
PFHxS	1.80 <i>u</i>	0.25	0.56	5.65	<i>EBL</i>
PFOS	73.95 <i>u</i>	0.31	1.13	5.65	<i>EBL</i>

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	98
13C8-PFOA	106
13C9-PFNA	87
13C6-PFDA	110
13C7-PFUnA	119
13C2-PFDoA	107
13C2-PFTeDA	110
d3-MeFOSAA	86
d5-EtFOSAA	116
13C3-PFBS	106
13C3-PFHxS	110
13C8-PFOS	110



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

Client ID	VC-PM367-SB04-0102			
Battelle ID	J8475-FS			
Sample Type	SA			
Collection Date	09/27/2018			
Extraction Date	10/08/2018			
Analysis Date	10/19/2018			
Analytical Instrument	Sciex 5500 LC/MS/MS			
% Moisture	16.35			
Matrix	SB			
Sample Size	1.65			
Size Unit-Basis	g			
Units	ng/g_Dry	MDL	LOD	LOQ
PFHxA	0.77 J	0.40	1.21	6.06
PFHpA	1.21 U	0.53	1.21	6.06
PFOA	3.39 J	0.61	1.21	6.06
PFNA	0.86 J	0.52	1.21	6.06
PFDA	1.21 U	0.33	1.21	6.06
PFUnA	1.21 U	0.50	1.21	6.06
PFDoA	0.61 U	0.29	0.61	6.06
PFTeDA	1.21 U	0.34	1.21	6.06
PFTeDA	2.42 U	0.76	2.42	6.06
NMeFOSAA	3.03 U	1.36	3.03	6.06
NEtFOSAA	2.42 U	0.69	2.42	6.06
PFBS	1.21 U	0.44	1.21	6.06
PFHxS	4.89 u	0.27	0.61	6.06
PFOS	63.03 u	0.33	1.21	6.06

EBL
EBL

Surrogate Recoveries (%)

13C5-PFHxA	98
13C4-PFHpA	90
13C8-PFOA	98
13C9-PFNA	87
13C6-PFDA	104
13C7-PFUnA	108
13C2-PFDoA	98
13C2-PFTeDA	98
d3-MeFOSAA	116
d5-EtFOSAA	101
13C3-PFBS	121
13C3-PFHxS	116
13C8-PFOS	112



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

Client ID	VC-PM367-SB04-0506				
Battelle ID	J8476-FS				
Sample Type	SA				
Collection Date	09/27/2018				
Extraction Date	10/08/2018				
Analysis Date	10/19/2018				
Analytical Instrument	Sciex 5500 LC/MS/MS				
% Moisture	5.56				
Matrix	SB				
Sample Size	1.82				
Size Unit-Basis	g				
Units	ng/g_Dry	MDL	LOD	LOQ	
PFHxA	3.30 J	0.36	1.10	5.49	
PFHpA	1.10 0.69 u	0.48	1.10	5.49	EBL
PFOA	4.57 J	0.55	1.10	5.49	
PFNA	1.10 U	0.47	1.10	5.49	
PFDA	1.10 U	0.30	1.10	5.49	
PFUnA	1.10 U	0.45	1.10	5.49	
PFDoA	0.55 U	0.26	0.55	5.49	
PFTeDA	1.10 U	0.31	1.10	5.49	
PFTeDA	2.20 U	0.69	2.20	5.49	
NMeFOSAA	2.75 U	1.23	2.75	5.49	
NEtFOSAA	2.20 U	0.63	2.20	5.49	
PFBS	1.10 U	0.40	1.10	5.49	
PFHxS	8.12 u	0.24	0.55	5.49	EBL
PFOS	8.26 u	0.30	1.10	5.49	EBL

Surrogate Recoveries (%)

13C5-PFHxA	95
13C4-PFHpA	94
13C8-PFOA	101
13C9-PFNA	92
13C6-PFDA	96
13C7-PFUnA	101
13C2-PFDoA	92
13C2-PFTeDA	98
d3-MeFOSAA	82
d5-EtFOSAA	90
13C3-PFBS	89
13C3-PFHxS	89
13C8-PFOS	95

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-PM367-SO01	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0590	6222670.8	1867173.7	Perfluoroalkyl Compounds	VC-PM367-SB01- 0102	SBS	Sub-surface soil (> 6)	27-Sep-18
VC-PM367-SO01	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0590	6222670.8	1867173.7	Perfluoroalkyl Compounds	VC-PM367-SB01- 0506	SBS	Sub-surface soil (> 6)	27-Sep-18
VC-PM367-SO01	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0590	6222670.8	1867173.7	Perfluoroalkyl Compounds	VC-PM367-SS01- 000H	SU	Surface soil (less than 6 inches)	27-Sep-18
VC-PM367-SO02	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0590	6222686.8	1867135.3	Perfluoroalkyl Compounds	VC-PM367-SB02- 0102	SBS	Sub-surface soil (> 6)	27-Sep-18
VC-PM367-SO02	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0590	6222686.8	1867135.3	Perfluoroalkyl Compounds	VC-PM367-SB02- 0506	SBS	Sub-surface soil (> 6)	27-Sep-18
VC-PM367-SO02	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0590	6222686.8	1867135.3	Perfluoroalkyl Compounds	VC-PM367-SS02- 000H	SU	Surface soil (less than 6 inches)	27-Sep-18
VC-PM367-SO03	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0590	6222657.3	1867105.8	Perfluoroalkyl Compounds	VC-PM367-SB03- 0102	SBS	Sub-surface soil (> 6)	27-Sep-18
VC-PM367-SO03	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0590	6222657.3	1867105.8	Perfluoroalkyl Compounds	VC-PM367-SB03- 0506	SBS	Sub-surface soil (> 6)	27-Sep-18
VC-PM367-SO03	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0590	6222657.3	1867105.8	Perfluoroalkyl Compounds	VC-PM367-SS03- 000H	SU	Surface soil (less than 6 inches)	27-Sep-18
VC-PM367-SO04	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0590	6222613.7	1867153.8	Perfluoroalkyl Compounds	VC-PM367-SB04- 0102	SBS	Sub-surface soil (> 6)	27-Sep-18
VC-PM367-SO04	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0590	6222613.7	1867153.8	Perfluoroalkyl Compounds	VC-PM367-SB04- 0506	SBS	Sub-surface soil (> 6)	27-Sep-18
VC-PM367-SO04	BASEWIDE PFAS	POINT_MUGU_NA S	DP	Direct Push/Geoprobe	18-0590	6222613.7	1867153.8	Perfluoroalkyl Compounds	VC-PM367-SS04- 000H	SU	Surface soil (less than 6 inches)	27-Sep-18