



Groundwater Sample Results, Level 4 Laboratory Report, Electronic Data Deliverable, SDG BSI14

*Marine Corps Ballistics Base Barstow
Barstow, California*

November 2019

DoD Type I Data Package

Prepared for:

Gutierrez Canales Engineering

2655 Camino del Rio North

Suite 100

San Diego CA 92108

Project: Barstow Site Inspection

Soil Samples

Collected on 11/02/18

SDG# BSI14-V.2

GROUP	SAMPLE NUMBERS
2006157	9885066-9885067, 9885070-9885077

A2LA (DoD) Cert. # 0001.01

PA Cert. # 36-00037

NY Cert. # 10670

NJ Cert. # PA011

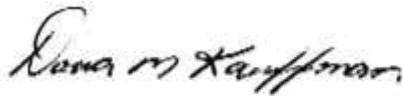
NC Cert. # 521

TX Cert. # T104704194-18-27

AZ Cert. # AZ0780

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by:



Date: 01/28/2019

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Lyssa Longenecker at (717) 556-7321.

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**Sample Reference List for SDG Number BSI14
with a Data Package Type of I-DOD**

43806 - Gutierrez Canales Engineering

Project: Barstow Site Inspection

Lab Sample Number	Client Sample ID	Collection Date	Date Received
9885066	OU1-GCI-S-01-05	11/02/2018 13:35	11/06/2018 10:35
9885067	OU1-GCI-S-01-08	11/02/2018 13:41	11/06/2018 10:35
9885070	OU1-WWTPE-S-01-01	11/02/2018 14:10	11/06/2018 10:35
9885071	OU1-WWTPE-S-01-01 MS	11/02/2018 14:10	11/06/2018 10:35
9885072	OU1-WWTPE-S-01-01 MSD	11/02/2018 14:10	11/06/2018 10:35
9885073	OU1-WWTPE-S-01-03	11/02/2018 14:25	11/06/2018 10:35
9885074	OU1-WWTPE-S-01-05	11/02/2018 14:30	11/06/2018 10:35
9885075	OU1-WWTPE-S-01-08	11/02/2018 14:32	11/06/2018 10:35
9885076	OU1-WWTPE-S-01-10	11/02/2018 14:34	11/06/2018 10:35
9885077	OU1-WWTPE-S-01-12	11/02/2018 14:36	11/06/2018 10:35

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 · 717-656-2300 Fax: 717-656-2681 · www.lancasterlabs.com**14478 PFAS in Soil by LC/MS/MS-DoD****14510 PFAS Solid Prep - DoD**

A 1 gram sample of soil/sediment is sonicated with an acetonitrile/methanol solution followed by dispersive cleanup of the extract using graphitized carbon. The resultant extract is analyzed by LC/MS/MS in negative electrospray ionization (ESI) mode.

Reference: Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LCMSMS), EPA 537 Version 1.1, September 2009, Modified. Department of Defense Quality System Manual Version 5.1, Table B-15.

00111 Moisture**00118 Moisture****00121 Moisture Duplicate**

A well-mixed sample is heated by reflected infrared in an aluminum pan and dried to a constant weight. The decrease in weight in weight after drying is calculated as the moisture content.

Reference: SM 2540 G-1997 %Moisture Calculation for Dry Weight Determination

Analysis Reports / Field Chain of Custody



ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Gutierrez Canales Engineering
2655 Camino del Rio North
Suite 100
San Diego CA 92108

Report Date: January 18, 2019 14:23

Project: Barstow Site Inspection

Account #: 43806
Group Number: 2006157
SDG: BSI14
State of Sample Origin: CA

Electronic Copy To Gutierrez Canales Engineering

Attn: Jesse MacNeill

Respectfully Submitted,



Lyssa M. Longenecker
Specialist

(717) 556-7321

To view our laboratory's current scopes of accreditation please go to <https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/> . Historical copies may be requested through your project manager.



SAMPLE INFORMATION

<u>Client Sample Description</u>	<u>Sample Collection</u> <u>Date/Time</u>	<u>ELLE#</u>
OU1-GCI-S-01-05 Grab Soil	11/02/2018 13:35	9885066
OU1-GCI-S-01-08 Grab Soil	11/02/2018 13:41	9885067
OU1-GCI-S-01-10 Grab Soil	11/02/2018 13:45	9885068
OU1-GCI-S-01-12 Grab Soil	11/02/2018 13:47	9885069
OU1-WWTPE-S-01-01 Grab Soil	11/02/2018 14:10	9885070
OU1-WWTPE-S-01-01 MS Grab Soil	11/02/2018 14:10	9885071
OU1-WWTPE-S-01-01 MSD Grab Soil	11/02/2018 14:10	9885072
OU1-WWTPE-S-01-03 Grab Soil	11/02/2018 14:25	9885073
OU1-WWTPE-S-01-05 Grab Soil	11/02/2018 14:30	9885074
OU1-WWTPE-S-01-08 Grab Soil	11/02/2018 14:32	9885075
OU1-WWTPE-S-01-10 Grab Soil	11/02/2018 14:34	9885076
OU1-WWTPE-S-01-12 Grab Soil	11/02/2018 14:36	9885077

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Project Name: Barstow Site Inspection
ELLE Group #: 2006157

General Comments:

All analyses have been performed in accordance with DOD QSM Version 5.0 unless otherwise noted below.

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below.

Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are included in this data set.

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**EPA 537 mod QSM 5.1 table B-15, LC/MS/MS Miscellaneous****Sample #s: 9885071**

The following analytes were manually integrated due to incorrect integrations:
Perfluoroheptanoic acid, Perfluoro-octanesulfonate, NEtFOSAA, NMeFOSAA

Sample #s: 9885072

The following analytes were manually integrated due to incorrect integrations:
Perfluorohexanesulfonate, Perfluoro-octanesulfonate, NEtFOSAA

Sample #s: 9885077

The following analytes were manually integrated due to incorrect integrations:
Perfluoro-octanesulfonate

Sample #s: 9885067

The following analytes were manually integrated due to incorrect integrations:
Perfluorooctanoic acid, Perfluorohexanesulfonate

Sample #s: 9885066, 9885070, 9885074, 9885075

The following analytes were manually integrated due to incorrect integrations:
Perfluorooctanoic acid, Perfluorohexanesulfonate, Perfluoro-octanesulfonate

Sample #s: 9885073

The following analytes were manually integrated due to incorrect integrations:

Perfluorooctanoic acid, Perfluorohexanesulfonate, Perfluoro-octanesulfonate, NEtFOSAA

Sample #s: 9885076

The following analytes were manually integrated due to incorrect integrations:

Perfluorooctanoic acid, Perfluoro-octanesulfonate

Batch #: 18312011 (Sample number(s): 9885066-9885067, 9885070-9885074 UNSPK: 9885070)

The recovery(ies) for the following analyte(s) in the MS and/or MSD exceeded the acceptance window indicating a positive bias: Perfluoroheptanoic acid, Perfluoro-octanesulfonate

The recovery(ies) for the following analyte(s) in the MS and/or MSD were below the acceptance window: NEtFOSAA

Analysis Report

Sample Description: OU1-GCI-S-01-05 Grab Soil
MCLB Barstow

Gutierrez Canales Engineering
ELLE Sample #: SW 9885066
ELLE Group #: 2006157
Matrix: Soil

Project Name: Barstow Site Inspection

Submission Date/Time: 11/06/2018 10:35
Collection Date/Time: 11/02/2018 13:35
SDG#: BSI14-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
LC/MS/MS Miscellaneous EPA 537 mod QSM 5.1 table B-15							
14478	NEtFOSAA	2991-50-6	N.D.	0.50	2.0	3.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.						
14478	NMeFOSAA	2355-31-9	N.D.	0.50	2.0	3.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.						
14478	Perfluorobutanesulfonate	375-73-5	N.D.	0.20	0.60	0.81	1
14478	Perfluorodecanoic acid	335-76-2	N.D.	0.30	0.69	1.0	1
14478	Perfluorododecanoic acid	307-55-1	N.D.	0.20	0.69	0.81	1
14478	Perfluoroheptanoic acid	375-85-9	N.D.	0.20	0.69	0.81	1
14478	Perfluorohexanesulfonate	355-46-4	0.24 J	0.20	0.65	0.81	1
14478	Perfluorohexanoic acid	307-24-4	N.D.	0.20	0.69	0.81	1
14478	Perfluorononanoic acid	375-95-1	N.D.	0.20	0.69	0.81	1
14478	Perfluoro-octanesulfonate	1763-23-1	0.22 J	0.20	0.66	0.81	1
14478	Perfluorooctanoic acid	335-67-1	0.39 J	0.20	0.69	0.81	1
14478	Perfluorotetradecanoic acid	376-06-7	N.D.	0.20	0.69	0.81	1
14478	Perfluorotridecanoic acid	72629-94-8	N.D.	0.20	0.69	0.81	1
14478	Perfluoroundecanoic acid	2058-94-8	N.D.	0.20	0.69	0.81	1
Wet Chemistry SM 2540 G-1997 %Moisture Calc							
00111	Moisture	n.a.	7.3	0.50	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	PFAS in Soil by LC/MS/MS-DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/09/2018 10:57	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/08/2018 17:45	Danielle D McCully	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18313820005A	11/09/2018 13:52	Larry E Bevins	1

*=This limit was used in the evaluation of the final result

Analysis Report

Sample Description: OU1-GCI-S-01-08 Grab Soil
MCLB Barstow

Gutierrez Canales Engineering
ELLE Sample #: SW 9885067
ELLE Group #: 2006157
Matrix: Soil

Project Name: Barstow Site Inspection

Submission Date/Time: 11/06/2018 10:35
Collection Date/Time: 11/02/2018 13:41
SDG#: BSI14-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
LC/MS/MS Miscellaneous EPA 537 mod QSM 5.1 table B-15							
14478	NEtFOSAA	2991-50-6	N.D.	0.53	2.1	3.2	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.						
14478	NMeFOSAA	2355-31-9	N.D.	0.53	2.1	3.2	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.						
14478	Perfluorobutanesulfonate	375-73-5	N.D.	0.21	0.64	0.85	1
14478	Perfluorodecanoic acid	335-76-2	N.D.	0.32	0.72	1.1	1
14478	Perfluorododecanoic acid	307-55-1	N.D.	0.21	0.72	0.85	1
14478	Perfluoroheptanoic acid	375-85-9	N.D.	0.21	0.72	0.85	1
14478	Perfluorohexanesulfonate	355-46-4	N.D.	0.21	0.68	0.85	1
14478	Perfluorohexanoic acid	307-24-4	N.D.	0.21	0.72	0.85	1
14478	Perfluorononanoic acid	375-95-1	N.D.	0.21	0.72	0.85	1
14478	Perfluoro-octanesulfonate	1763-23-1	N.D.	0.21	0.69	0.85	1
14478	Perfluorooctanoic acid	335-67-1	N.D.	0.21	0.72	0.85	1
14478	Perfluorotetradecanoic acid	376-06-7	N.D.	0.21	0.72	0.85	1
14478	Perfluorotridecanoic acid	72629-94-8	N.D.	0.21	0.72	0.85	1
14478	Perfluoroundecanoic acid	2058-94-8	N.D.	0.21	0.72	0.85	1
Wet Chemistry SM 2540 G-1997 %Moisture Calc							
00111	Moisture	n.a.	5.9	0.50	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	PFAS in Soil by LC/MS/MS-DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/09/2018 11:06	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/08/2018 17:45	Danielle D McCully	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18313820005A	11/09/2018 13:52	Larry E Bevins	1

*=This limit was used in the evaluation of the final result

Sample Description: OU1-GCI-S-01-10 Grab Soil
MCLB Barstow

Gutierrez Canales Engineering
ELLE Sample #: SW 9885068
ELLE Group #: 2006157

Project Name: Barstow Site Inspection

Submittal Date/Time: 11/06/2018 10:35
Collection Date/Time: 11/02/2018 13:45
SDG#: BSI14-03

Sample Comments

CA ELAP Lab Certification No. 2792

Sample Description: OU1-GCI-S-01-12 Grab Soil
MCLB Barstow

Gutierrez Canales Engineering
ELLE Sample #: SW 9885069
ELLE Group #: 2006157

Project Name: Barstow Site Inspection

Submittal Date/Time: 11/06/2018 10:35
Collection Date/Time: 11/02/2018 13:47
SDG#: BSI14-04

Sample Comments

CA ELAP Lab Certification No. 2792

Analysis Report

Sample Description: OU1-WWTPE-S-01-01 Grab Soil
MCLB Barstow

Gutierrez Canales Engineering
ELLE Sample #: SW 9885070
ELLE Group #: 2006157
Matrix: Soil

Project Name: Barstow Site Inspection

Submission Date/Time: 11/06/2018 10:35
Collection Date/Time: 11/02/2018 14:10
SDG#: BSI14-05BKG

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
LC/MS/MS Miscellaneous EPA 537 mod QSM 5.1 table B-15			ng/g	ng/g	ng/g	ng/g	
14478	NEtFOSAA NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.	2991-50-6	0.66 J	0.50	2.0	3.0	1
14478	NMeFOSAA NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.	2355-31-9	N.D.	0.50	2.0	3.0	1
14478	Perfluorobutanesulfonate	375-73-5	N.D.	0.20	0.59	0.79	1
14478	Perfluorodecanoic acid	335-76-2	N.D.	0.30	0.67	0.99	1
14478	Perfluorododecanoic acid	307-55-1	N.D.	0.20	0.67	0.79	1
14478	Perfluoroheptanoic acid	375-85-9	N.D.	0.20	0.67	0.79	1
14478	Perfluorohexanesulfonate	355-46-4	0.30 J	0.20	0.63	0.79	1
14478	Perfluorohexanoic acid	307-24-4	N.D.	0.20	0.67	0.79	1
14478	Perfluorononanoic acid	375-95-1	N.D.	0.20	0.67	0.79	1
14478	Perfluoro-octanesulfonate	1763-23-1	4.8	0.20	0.64	0.79	1
14478	Perfluorooctanoic acid	335-67-1	0.92	0.20	0.67	0.79	1
14478	Perfluorotetradecanoic acid	376-06-7	N.D.	0.20	0.67	0.79	1
14478	Perfluorotridecanoic acid	72629-94-8	N.D.	0.20	0.67	0.79	1
14478	Perfluoroundecanoic acid	2058-94-8	N.D.	0.20	0.67	0.79	1
Wet Chemistry SM 2540 G-1997 %Moisture Calc			%	%	%	%	
00111	Moisture Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.	n.a.	N.D.	0.50	0.50	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	PFAS in Soil by LC/MS/MS-DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/09/2018 11:15	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/08/2018 17:45	Danielle D McCully	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18313820005A	11/09/2018 13:52	Larry E Bevins	1

*=This limit was used in the evaluation of the final result

Sample Description: OU1-WWTPE-S-01-01 MS Grab Soil
MCLB Barstow

Gutierrez Canales Engineering
ELLE Sample #: SW 9885071
ELLE Group #: 2006157
Matrix: Soil

Project Name: Barstow Site Inspection

Submission Date/Time: 11/06/2018 10:35
Collection Date/Time: 11/02/2018 14:10
SDG#: BSI14-05MS

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
LC/MS/MS Miscellaneous EPA 537 mod QSM 5.1 table B-15							
14478	NEtFOSAA	2991-50-6	1.6 J	0.49	1.9	2.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.						
14478	NMeFOSAA	2355-31-9	1.2 J	0.49	1.9	2.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.						
14478	Perfluorobutanesulfonate	375-73-5	1.3	0.19	0.58	0.78	1
14478	Perfluorodecanoic acid	335-76-2	1.6	0.29	0.66	0.97	1
14478	Perfluorododecanoic acid	307-55-1	1.4	0.19	0.66	0.78	1
14478	Perfluoroheptanoic acid	375-85-9	1.7	0.19	0.66	0.78	1
14478	Perfluorohexanesulfonate	355-46-4	1.7	0.19	0.62	0.78	1
14478	Perfluorohexanoic acid	307-24-4	1.5	0.19	0.66	0.78	1
14478	Perfluorononanoic acid	375-95-1	1.6	0.19	0.66	0.78	1
14478	Perfluoro-octanesulfonate	1763-23-1	7.4	0.19	0.63	0.78	1
14478	Perfluorooctanoic acid	335-67-1	2.5	0.19	0.66	0.78	1
14478	Perfluorotetradecanoic acid	376-06-7	1.5	0.19	0.66	0.78	1
14478	Perfluorotridecanoic acid	72629-94-8	1.2	0.19	0.66	0.78	1
14478	Perfluoroundecanoic acid	2058-94-8	1.3	0.19	0.66	0.78	1
Wet Chemistry SM 2540 G-1997 %Moisture Calc							
00118	Moisture	n.a.	N.D.	0.50	0.50	0.50	1

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	PFAS in Soil by LC/MS/MS-DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/09/2018 12:01	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/08/2018 17:45	Danielle D McCully	1
00118	Moisture	SM 2540 G-1997 %Moisture Calc	1	18313820005A	11/09/2018 13:52	Larry E Bevins	1

*=This limit was used in the evaluation of the final result

Analysis Report

Sample Description: OU1-WWTPE-S-01-01 MSD Grab Soil
MCLB Barstow

Gutierrez Canales Engineering
ELLE Sample #: SW 9885072
ELLE Group #: 2006157
Matrix: Soil

Project Name: Barstow Site Inspection

Submission Date/Time: 11/06/2018 10:35
Collection Date/Time: 11/02/2018 14:10
SDG#: BSI14-05MSD

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
LC/MS/MS Miscellaneous EPA 537 mod QSM 5.1 table B-15							
14478	NEtFOSAA	2991-50-6	1.3 J	0.45	1.8	2.7	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.						
14478	NMeFOSAA	2355-31-9	0.95 J	0.45	1.8	2.7	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.						
14478	Perfluorobutanesulfonate	375-73-5	1.2	0.18	0.55	0.73	1
14478	Perfluorodecanoic acid	335-76-2	1.5	0.27	0.62	0.91	1
14478	Perfluorododecanoic acid	307-55-1	1.4	0.18	0.62	0.73	1
14478	Perfluoroheptanoic acid	375-85-9	1.5	0.18	0.62	0.73	1
14478	Perfluorohexanesulfonate	355-46-4	1.5	0.18	0.58	0.73	1
14478	Perfluorohexanoic acid	307-24-4	1.3	0.18	0.62	0.73	1
14478	Perfluorononanoic acid	375-95-1	1.5	0.18	0.62	0.73	1
14478	Perfluoro-octanesulfonate	1763-23-1	5.8	0.18	0.59	0.73	1
14478	Perfluorooctanoic acid	335-67-1	2.2	0.18	0.62	0.73	1
14478	Perfluorotetradecanoic acid	376-06-7	1.3	0.18	0.62	0.73	1
14478	Perfluorotridecanoic acid	72629-94-8	1.3	0.18	0.62	0.73	1
14478	Perfluoroundecanoic acid	2058-94-8	1.3	0.18	0.62	0.73	1
Wet Chemistry SM 2540 G-1997 %Moisture Calc							
00118	Moisture	n.a.	N.D.	0.50	0.50	0.50	1
00121	Moisture Duplicate	n.a.	N.D.	0.50	0.50	0.50	1
	The duplicate moisture value is provided to assess the precision of the moisture test. For comparability purposes, the initial moisture determination is the value used to perform dry weight calculations.						

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	PFAS in Soil by LC/MS/MS-DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/09/2018 12:10	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/08/2018 17:45	Danielle D McCully	1
00118	Moisture	SM 2540 G-1997 %Moisture Calc	1	18313820005A	11/09/2018 13:52	Larry E Bevins	1
00121	Moisture Duplicate	SM 2540 G-1997 %Moisture Calc	1	18313820005A	11/09/2018 13:52	Larry E Bevins	1

*=This limit was used in the evaluation of the final result

Analysis Report

Sample Description: OU1-WWTPE-S-01-03 Grab Soil
MCLB Barstow

Gutierrez Canales Engineering
ELLE Sample #: SW 9885073
ELLE Group #: 2006157
Matrix: Soil

Project Name: Barstow Site Inspection

Submission Date/Time: 11/06/2018 10:35
Collection Date/Time: 11/02/2018 14:25
SDG#: BSI14-06

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
LC/MS/MS Miscellaneous EPA 537 mod QSM 5.1 table B-15							
14478	NEtFOSAA	2991-50-6	N.D.	0.50	2.0	3.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.						
14478	NMeFOSAA	2355-31-9	N.D.	0.50	2.0	3.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.						
14478	Perfluorobutanesulfonate	375-73-5	N.D.	0.20	0.61	0.81	1
14478	Perfluorodecanoic acid	335-76-2	N.D.	0.30	0.69	1.0	1
14478	Perfluorododecanoic acid	307-55-1	N.D.	0.20	0.69	0.81	1
14478	Perfluoroheptanoic acid	375-85-9	N.D.	0.20	0.69	0.81	1
14478	Perfluorohexanesulfonate	355-46-4	N.D.	0.20	0.65	0.81	1
14478	Perfluorohexanoic acid	307-24-4	N.D.	0.20	0.69	0.81	1
14478	Perfluorononanoic acid	375-95-1	N.D.	0.20	0.69	0.81	1
14478	Perfluoro-octanesulfonate	1763-23-1	1.9	0.20	0.66	0.81	1
14478	Perfluorooctanoic acid	335-67-1	0.37 J	0.20	0.69	0.81	1
14478	Perfluorotetradecanoic acid	376-06-7	N.D.	0.20	0.69	0.81	1
14478	Perfluorotridecanoic acid	72629-94-8	N.D.	0.20	0.69	0.81	1
14478	Perfluoroundecanoic acid	2058-94-8	N.D.	0.20	0.69	0.81	1
Wet Chemistry SM 2540 G-1997 %Moisture Calc							
00111	Moisture	n.a.	0.83	0.50	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	PFAS in Soil by LC/MS/MS-DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/09/2018 11:33	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/08/2018 17:45	Danielle D McCully	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18313820005A	11/09/2018 13:52	Larry E Bevins	1

*=This limit was used in the evaluation of the final result

Analysis Report

Sample Description: OU1-WWTPE-S-01-05 Grab Soil
MCLB Barstow

Gutierrez Canales Engineering
ELLE Sample #: SW 9885074
ELLE Group #: 2006157
Matrix: Soil

Project Name: Barstow Site Inspection

Submission Date/Time: 11/06/2018 10:35
Collection Date/Time: 11/02/2018 14:30
SDG#: BSI14-07

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
LC/MS/MS Miscellaneous EPA 537 mod QSM 5.1 table B-15							
14478	NEtFOSAA	2991-50-6	N.D.	0.51	2.0	3.0	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.						
14478	NMeFOSAA	2355-31-9	N.D.	0.51	2.0	3.0	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.						
14478	Perfluorobutanesulfonate	375-73-5	N.D.	0.20	0.61	0.81	1
14478	Perfluorodecanoic acid	335-76-2	N.D.	0.30	0.69	1.0	1
14478	Perfluorododecanoic acid	307-55-1	N.D.	0.20	0.69	0.81	1
14478	Perfluoroheptanoic acid	375-85-9	N.D.	0.20	0.69	0.81	1
14478	Perfluorohexanesulfonate	355-46-4	N.D.	0.20	0.65	0.81	1
14478	Perfluorohexanoic acid	307-24-4	N.D.	0.20	0.69	0.81	1
14478	Perfluorononanoic acid	375-95-1	N.D.	0.20	0.69	0.81	1
14478	Perfluoro-octanesulfonate	1763-23-1	1.4	0.20	0.66	0.81	1
14478	Perfluorooctanoic acid	335-67-1	N.D.	0.20	0.69	0.81	1
14478	Perfluorotetradecanoic acid	376-06-7	N.D.	0.20	0.69	0.81	1
14478	Perfluorotridecanoic acid	72629-94-8	N.D.	0.20	0.69	0.81	1
14478	Perfluoroundecanoic acid	2058-94-8	N.D.	0.20	0.69	0.81	1
Wet Chemistry SM 2540 G-1997 %Moisture Calc							
00111	Moisture	n.a.	1.1	0.50	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	PFAS in Soil by LC/MS/MS-DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/09/2018 11:43	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	18312011	11/08/2018 17:45	Danielle D McCully	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18313820005A	11/09/2018 13:52	Larry E Bevins	1

*=This limit was used in the evaluation of the final result

Analysis Report

Sample Description: OU1-WWTPE-S-01-08 Grab Soil
MCLB Barstow

Gutierrez Canales Engineering
ELLE Sample #: SW 9885075
ELLE Group #: 2006157
Matrix: Soil

Project Name: Barstow Site Inspection

Submission Date/Time: 11/06/2018 10:35
Collection Date/Time: 11/02/2018 14:32
SDG#: BSI14-08

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
LC/MS/MS Miscellaneous EPA 537 mod QSM 5.1 table B-15							
14478	NEtFOSAA	2991-50-6	N.D.	0.48	1.9	2.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.						
14478	NMeFOSAA	2355-31-9	N.D.	0.48	1.9	2.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.						
14478	Perfluorobutanesulfonate	375-73-5	N.D.	0.19	0.58	0.77	1
14478	Perfluorodecanoic acid	335-76-2	N.D.	0.29	0.66	0.96	1
14478	Perfluorododecanoic acid	307-55-1	N.D.	0.19	0.66	0.77	1
14478	Perfluoroheptanoic acid	375-85-9	N.D.	0.19	0.66	0.77	1
14478	Perfluorohexanesulfonate	355-46-4	N.D.	0.19	0.62	0.77	1
14478	Perfluorohexanoic acid	307-24-4	N.D.	0.19	0.66	0.77	1
14478	Perfluorononanoic acid	375-95-1	N.D.	0.19	0.66	0.77	1
14478	Perfluoro-octanesulfonate	1763-23-1	0.97	0.19	0.63	0.77	1
14478	Perfluorooctanoic acid	335-67-1	N.D.	0.19	0.66	0.77	1
14478	Perfluorotetradecanoic acid	376-06-7	N.D.	0.19	0.66	0.77	1
14478	Perfluorotridecanoic acid	72629-94-8	N.D.	0.19	0.66	0.77	1
14478	Perfluoroundecanoic acid	2058-94-8	N.D.	0.19	0.66	0.77	1
Wet Chemistry SM 2540 G-1997 %Moisture Calc							
00111	Moisture	n.a.	3.9	0.50	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	PFAS in Soil by LC/MS/MS-DoD	EPA 537 mod QSM 5.1 table B-15	1	18319003	11/15/2018 14:36	Joshua P Trost	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	3	18319003	11/15/2018 08:50	Courtney J Fatta	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18313820005A	11/09/2018 13:52	Larry E Bevins	1

*=This limit was used in the evaluation of the final result

Analysis Report

Sample Description: OU1-WWTPE-S-01-10 Grab Soil
MCLB Barstow

Gutierrez Canales Engineering
ELLE Sample #: SW 9885076
ELLE Group #: 2006157
Matrix: Soil

Project Name: Barstow Site Inspection

Submission Date/Time: 11/06/2018 10:35
Collection Date/Time: 11/02/2018 14:34
SDG#: BSI14-09

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
LC/MS/MS Miscellaneous EPA 537 mod QSM 5.1 table B-15							
14478	NEtFOSAA	2991-50-6	N.D.	0.48	1.9	2.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.						
14478	NMeFOSAA	2355-31-9	N.D.	0.48	1.9	2.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.						
14478	Perfluorobutanesulfonate	375-73-5	N.D.	0.19	0.57	0.76	1
14478	Perfluorodecanoic acid	335-76-2	N.D.	0.29	0.65	0.95	1
14478	Perfluorododecanoic acid	307-55-1	N.D.	0.19	0.65	0.76	1
14478	Perfluoroheptanoic acid	375-85-9	N.D.	0.19	0.65	0.76	1
14478	Perfluorohexanesulfonate	355-46-4	N.D.	0.19	0.61	0.76	1
14478	Perfluorohexanoic acid	307-24-4	N.D.	0.19	0.65	0.76	1
14478	Perfluorononanoic acid	375-95-1	N.D.	0.19	0.65	0.76	1
14478	Perfluoro-octanesulfonate	1763-23-1	0.66 J	0.19	0.62	0.76	1
14478	Perfluorooctanoic acid	335-67-1	N.D.	0.19	0.65	0.76	1
14478	Perfluorotetradecanoic acid	376-06-7	N.D.	0.19	0.65	0.76	1
14478	Perfluorotridecanoic acid	72629-94-8	N.D.	0.19	0.65	0.76	1
14478	Perfluoroundecanoic acid	2058-94-8	N.D.	0.19	0.65	0.76	1
Wet Chemistry SM 2540 G-1997 %Moisture Calc							
00111	Moisture	n.a.	1.7	0.50	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	PFAS in Soil by LC/MS/MS-DoD	EPA 537 mod QSM 5.1 table B-15	1	18332003	11/29/2018 19:16	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	18332003	11/28/2018 09:45	Courtney J Fatta	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18337820002B	12/03/2018 10:37	Larry E Bevins	1

*=This limit was used in the evaluation of the final result

Analysis Report

Sample Description: OU1-WWTPE-S-01-12 Grab Soil
MCLB Barstow

Gutierrez Canales Engineering
ELLE Sample #: SW 9885077
ELLE Group #: 2006157
Matrix: Soil

Project Name: Barstow Site Inspection

Submission Date/Time: 11/06/2018 10:35
Collection Date/Time: 11/02/2018 14:36
SDG#: BSI14-10

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Detection Limit*	Dry Limit of Detection	Dry Limit of Quantitation	DF
LC/MS/MS Miscellaneous EPA 537 mod QSM 5.1 table B-15							
14478	NEtFOSAA	2991-50-6	N.D.	0.48	1.9	2.9	1
	NEtFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.						
14478	NMeFOSAA	2355-31-9	N.D.	0.48	1.9	2.9	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.						
14478	Perfluorobutanesulfonate	375-73-5	N.D.	0.19	0.58	0.77	1
14478	Perfluorodecanoic acid	335-76-2	N.D.	0.29	0.66	0.97	1
14478	Perfluorododecanoic acid	307-55-1	N.D.	0.19	0.66	0.77	1
14478	Perfluoroheptanoic acid	375-85-9	N.D.	0.19	0.66	0.77	1
14478	Perfluorohexanesulfonate	355-46-4	N.D.	0.19	0.62	0.77	1
14478	Perfluorohexanoic acid	307-24-4	N.D.	0.19	0.66	0.77	1
14478	Perfluorononanoic acid	375-95-1	N.D.	0.19	0.66	0.77	1
14478	Perfluoro-octanesulfonate	1763-23-1	0.34 J	0.19	0.63	0.77	1
14478	Perfluorooctanoic acid	335-67-1	N.D.	0.19	0.66	0.77	1
14478	Perfluorotetradecanoic acid	376-06-7	N.D.	0.19	0.66	0.77	1
14478	Perfluorotridecanoic acid	72629-94-8	N.D.	0.19	0.66	0.77	1
14478	Perfluoroundecanoic acid	2058-94-8	N.D.	0.19	0.66	0.77	1
Wet Chemistry SM 2540 G-1997 %Moisture Calc							
00111	Moisture	n.a.	3.2	0.50	0.50	0.50	1
	Moisture represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported is on an as-received basis.						

Sample Comments

CA ELAP Lab Certification No. 2792

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
14478	PFAS in Soil by LC/MS/MS-DoD	EPA 537 mod QSM 5.1 table B-15	1	18332003	11/29/2018 19:34	Marissa C Drexinger	1
14510	PFAS Solid Prep - DoD	EPA 537 mod QSM 5.1 table B-15	1	18332003	11/28/2018 09:45	Courtney J Fatta	1
00111	Moisture	SM 2540 G-1997 %Moisture Calc	1	18337820002B	12/03/2018 10:37	Larry E Bevins	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: Gutierrez Canales Engineering
Reported: 01/18/2019 14:23

Group Number: 2006157

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result ng/g	DL** ng/g	LOD ng/g	LOQ ng/g
Batch number: 18312011	Sample number(s): 9885066-9885067,9885070-9885074			
NEtFOSAA	N.D.	0.50	2.0	3.0
NMeFOSAA	N.D.	0.50	2.0	3.0
Perfluorobutanesulfonate	N.D.	0.20	0.60	0.80
Perfluorodecanoic acid	N.D.	0.30	0.68	1.0
Perfluorododecanoic acid	N.D.	0.20	0.68	0.80
Perfluoroheptanoic acid	N.D.	0.20	0.68	0.80
Perfluorohexanesulfonate	N.D.	0.20	0.64	0.80
Perfluorohexanoic acid	N.D.	0.20	0.68	0.80
Perfluorononanoic acid	N.D.	0.20	0.68	0.80
Perfluoro-octanesulfonate	N.D.	0.20	0.65	0.80
Perfluorooctanoic acid	N.D.	0.20	0.68	0.80
Perfluorotetradecanoic acid	N.D.	0.20	0.68	0.80
Perfluorotridecanoic acid	N.D.	0.20	0.68	0.80
Perfluoroundecanoic acid	N.D.	0.20	0.68	0.80
Batch number: 18319003	Sample number(s): 9885075			
NEtFOSAA	N.D.	0.50	2.0	3.0
NMeFOSAA	N.D.	0.50	2.0	3.0
Perfluorobutanesulfonate	N.D.	0.20	0.60	0.80
Perfluorodecanoic acid	N.D.	0.30	0.68	1.0
Perfluorododecanoic acid	N.D.	0.20	0.68	0.80
Perfluoroheptanoic acid	N.D.	0.20	0.68	0.80
Perfluorohexanesulfonate	N.D.	0.20	0.64	0.80
Perfluorohexanoic acid	N.D.	0.20	0.68	0.80
Perfluorononanoic acid	N.D.	0.20	0.68	0.80
Perfluoro-octanesulfonate	N.D.	0.20	0.65	0.80
Perfluorooctanoic acid	N.D.	0.20	0.68	0.80
Perfluorotetradecanoic acid	N.D.	0.20	0.68	0.80
Perfluorotridecanoic acid	N.D.	0.20	0.68	0.80
Perfluoroundecanoic acid	N.D.	0.20	0.68	0.80
Batch number: 18332003	Sample number(s): 9885076-9885077			
NEtFOSAA	N.D.	0.50	2.0	3.0
NMeFOSAA	N.D.	0.50	2.0	3.0
Perfluorobutanesulfonate	N.D.	0.20	0.60	0.80
Perfluorodecanoic acid	N.D.	0.30	0.68	1.0
Perfluorododecanoic acid	N.D.	0.20	0.68	0.80
Perfluoroheptanoic acid	N.D.	0.20	0.68	0.80
Perfluorohexanesulfonate	N.D.	0.20	0.64	0.80
Perfluorohexanoic acid	N.D.	0.20	0.68	0.80

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

(3) The surrogate spike amount was less than the LOD.

Quality Control Summary

Client Name: Gutierrez Canales Engineering
Reported: 01/18/2019 14:23

Group Number: 2006157

Method Blank (continued)

Analysis Name	Result	DL**	LOD	LOQ
	ng/g	ng/g	ng/g	ng/g
Perfluorononanoic acid	N.D.	0.20	0.68	0.80
Perfluoro-octanesulfonate	N.D.	0.20	0.65	0.80
Perfluorooctanoic acid	N.D.	0.20	0.68	0.80
Perfluorotetradecanoic acid	N.D.	0.20	0.68	0.80
Perfluorotridecanoic acid	N.D.	0.20	0.68	0.80
Perfluoroundecanoic acid	N.D.	0.20	0.68	0.80

LCS/LCSD

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 18312011	Sample number(s): 9885066-9885067,9885070-9885074								
NEtFOSAA	1.36	0.968			71		70-130		
NMeFOSAA	1.36	1.02			75		70-130		
Perfluorobutanesulfonate	1.20	1.20			99		70-130		
Perfluorodecanoic acid	1.36	1.50			110		70-130		
Perfluorododecanoic acid	1.36	1.37			100		70-130		
Perfluoroheptanoic acid	1.36	1.54			113		70-130		
Perfluorohexanesulfonate	1.29	1.28			99		70-130		
Perfluorohexanoic acid	1.36	1.56			115		70-130		
Perfluorononanoic acid	1.36	1.63			120		70-130		
Perfluoro-octanesulfonate	1.30	1.43			110		70-130		
Perfluorooctanoic acid	1.36	1.60			118		70-130		
Perfluorotetradecanoic acid	1.36	1.45			107		70-130		
Perfluorotridecanoic acid	1.36	1.27			93		70-130		
Perfluoroundecanoic acid	1.36	1.42			104		70-130		
Batch number: 18319003	Sample number(s): 9885075								
NEtFOSAA	1.36	1.40			103		70-130		
NMeFOSAA	1.36	1.21			89		70-130		
Perfluorobutanesulfonate	1.20	1.24			103		70-130		
Perfluorodecanoic acid	1.36	1.48			109		70-130		
Perfluorododecanoic acid	1.36	1.27			94		70-130		
Perfluoroheptanoic acid	1.36	1.45			106		70-130		
Perfluorohexanesulfonate	1.29	1.24			97		70-130		
Perfluorohexanoic acid	1.36	1.42			104		70-130		
Perfluorononanoic acid	1.36	1.40			103		70-130		
Perfluoro-octanesulfonate	1.30	1.21			93		70-130		
Perfluorooctanoic acid	1.36	1.36			100		70-130		
Perfluorotetradecanoic acid	1.36	1.36			100		70-130		
Perfluorotridecanoic acid	1.36	1.28			94		70-130		

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

(3) The surrogate spike amount was less than the LOD.

Quality Control Summary

Client Name: Gutierrez Canales Engineering
Reported: 01/18/2019 14:23

Group Number: 2006157

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ng/g	LCS Conc ng/g	LCSD Spike Added ng/g	LCSD Conc ng/g	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Perfluoroundecanoic acid	1.36	1.18			87		70-130		
Batch number: 18332003	Sample number(s): 9885076-9885077								
NEtFOSAA	1.36	1.24			91		70-130		
NMeFOSAA	1.36	1.13			83		70-130		
Perfluorobutanesulfonate	1.20	1.12			93		70-130		
Perfluorodecanoic acid	1.36	1.23			90		70-130		
Perfluorododecanoic acid	1.36	1.25			92		70-130		
Perfluoroheptanoic acid	1.36	1.28			94		70-130		
Perfluorohexanesulfonate	1.29	1.06			82		70-130		
Perfluorohexanoic acid	1.36	1.29			95		70-130		
Perfluorononanoic acid	1.36	1.31			97		70-130		
Perfluoro-octanesulfonate	1.30	0.910			70		70-130		
Perfluorooctanoic acid	1.36	1.15			85		70-130		
Perfluorotetradecanoic acid	1.36	1.26			93		70-130		
Perfluorotridecanoic acid	1.36	1.36			100		70-130		
Perfluoroundecanoic acid	1.36	1.35			100		70-130		
	%	%	%	%					
Batch number: 18313820005A	Sample number(s): 9885066-9885067,9885070-9885075								
Moisture	89.5	89.39			100		99-101		
Moisture	89.5	89.39			100		99-101		
Moisture Duplicate	89.5	89.39			100		99-101		
Batch number: 18337820002B	Sample number(s): 9885076-9885077								
Moisture	89.5	89.37			100		99-101		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/g	MS Spike Added ng/g	MS Conc ng/g	MSD Spike Added ng/g	MSD Conc ng/g	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 18312011	Sample number(s): 9885066-9885067,9885070-9885074 UNSPK: 9885070									
NEtFOSAA	0.655	1.32	1.57	1.24	1.32	70	54*	70-130	18	30
NMeFOSAA	N.D.	1.32	1.19	1.24	0.946	90	77	70-130	23	30
Perfluorobutanesulfonate	N.D.	1.17	1.29	1.09	1.15	110	105	70-130	11	30
Perfluorodecanoic acid	N.D.	1.32	1.56	1.24	1.51	118	122	70-130	3	30
Perfluorododecanoic acid	N.D.	1.32	1.37	1.24	1.40	104	113	70-130	2	30
Perfluoroheptanoic acid	N.D.	1.32	1.74	1.24	1.47	132*	119	70-130	17	30
Perfluorohexanesulfonate	0.295	1.25	1.68	1.17	1.49	111	102	70-130	12	30

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

(3) The surrogate spike amount was less than the LOD.

Quality Control Summary

Client Name: Gutierrez Canales Engineering
Reported: 01/18/2019 14:23

Group Number: 2006157

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/g	MS Spike Added ng/g	MS Conc ng/g	MSD Spike Added ng/g	MSD Conc ng/g	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Perfluorohexanoic acid	N.D.	1.32	1.54	1.24	1.34	117	108	70-130	14	30
Perfluorononanoic acid	N.D.	1.32	1.62	1.24	1.52	122	123	70-130	6	30
Perfluoro-octanesulfonate	4.81	1.26	7.38	1.18	5.77	204*	81 (2)	70-130	25	30
Perfluorooctanoic acid	0.924	1.32	2.46	1.24	2.18	117	102	70-130	12	30
Perfluorotetradecanoic acid	N.D.	1.32	1.46	1.24	1.28	110	103	70-130	13	30
Perfluorotridecanoic acid	N.D.	1.32	1.25	1.24	1.26	94	102	70-130	1	30
Perfluoroundecanoic acid	N.D.	1.32	1.33	1.24	1.34	101	109	70-130	1	30

Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc %	DUP Conc %	DUP RPD	DUP RPD Max
Batch number: 18313820005A	Sample number(s): 9885066-9885067, 9885070-9885075 BKG: 9885070			
Moisture	N.D.	N.D.	0 (1)	5
Moisture	N.D.	N.D.	0 (1)	5
Moisture Duplicate	N.D.	N.D.	0 (1)	5

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: PFAS in Soil by LC/MS/MS-DoD
Batch number: 18312011

	13C3-PFBS		13C5-PFHxA		13C3-PFHxS		13C4-PFHpA		13C8-PFOA		13C8-PFOS	
	%Rec	LOD (ng/g)	%Rec	LOD (ng/g)	%Rec	LOD (ng/g)	%Rec	LOD (ng/g)	%Rec	LOD (ng/g)	%Rec	LOD (ng/g)
9885066	81	0.56	86	0.37	85	0.56	89	0.56	93	0.56	87	0.84
9885067	89	1.2	98	0.80	95	1.2	96	1.2	100	1.2	95	1.8
9885070	88	0.59	94	0.40	96	0.59	91	0.59	98	0.59	95	0.89
9885071	71	0.58	73	0.39	79	0.58	72	0.58	79	0.58	80	0.87
9885072	75	0.55	81	0.36	83	0.55	81	0.55	83	0.55	82	0.82
9885073	67	1.2	73	0.80	72	1.2	71	1.2	79	1.2	69	1.8
9885074	83	1.2	91	0.80	85	1.2	87	1.2	94	1.2	84	1.8
Blank	81	1.2	88	0.80	90	1.2	85	1.2	88	1.2	86	1.8
LCS	85	1.2	91	0.80	92	1.2	91	1.2	94	1.2	90	1.8

*- Outside of specification

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(3) The surrogate spike amount was less than the LOD.

Quality Control Summary

Client Name: Gutierrez Canales Engineering
Reported: 01/18/2019 14:23

Group Number: 2006157

Labeled Isotope Quality Control

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: PFAS in Soil by LC/MS/MS-DoD
Batch number: 18312011

	13C3-PFBS		13C5-PFHxA		13C3-PFHxS		13C4-PFHpA		13C8-PFOA		13C8-PFOS	
	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD
	(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)	
MS	71	0.58	73	0.39	79	0.58	72	0.58	79	0.58	80	0.87
MSD	75	0.55	81	0.36	83	0.55	81	0.55	83	0.55	82	0.82
Limits:	50-150		50-150		50-150		50-150		50-150		50-150	
	13C9-PFNA		13C6-PFDA		d3-NMeFOSAA		13C7-PFUnDA		d5-NEtFOSAA		13C2-PFDoDA	
	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD
	(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)	
9885066	103	0.37	88	0.56	90	0.84	88	0.56	84	0.84	87	0.56
9885067	89	0.80	98	1.2	91	1.8	103	1.2	96	1.8	97	1.2
9885070	93	0.40	93	0.59	72	0.89	95	0.59	71	0.89	92	0.59
9885071	78	0.39	81	0.58	60	0.87	82	0.58	56	0.87	76	0.58
9885072	82	0.36	82	0.55	61	0.82	80	0.55	64	0.82	78	0.55
9885073	72	0.80	77	1.2	78	1.8	75	1.2	77	1.8	72	1.2
9885074	84	0.80	92	1.2	85	1.8	86	1.2	84	1.8	86	1.2
Blank	79	0.80	87	1.2	97	1.8	87	1.2	92	1.8	85	1.2
LCS	90	0.80	92	1.2	94	1.8	97	1.2	91	1.8	93	1.2
MS	78	0.39	81	0.58	60	0.87	82	0.58	56	0.87	76	0.58
MSD	82	0.36	82	0.55	61	0.82	80	0.55	64	0.82	78	0.55
Limits:	50-150		50-150		50-150		50-150		50-150		50-150	
	13C2-PFTeDA											
	%Rec	LOD										
	(ng/g)											
9885066	82	0.56										
9885067	93	1.2										
9885070	88	0.59										
9885071	72	0.58										
9885072	74	0.55										
9885073	69	1.2										
9885074	78	1.2										
Blank	77	1.2										
LCS	87	1.2										
MS	72	0.58										
MSD	74	0.55										
Limits:	50-150											

*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

(3) The surrogate spike amount was less than the LOD.

Quality Control Summary

Client Name: Gutierrez Canales Engineering
Reported: 01/18/2019 14:23

Group Number: 2006157

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: PFAS in Soil by LC/MS/MS-DoD

Batch number: 18319003

	13C3-PFBS		13C5-PFHxA		13C3-PFHxS		13C4-PFHpA		13C8-PFOA		13C8-PFOS	
	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD
	(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)	
9885075	84	0.56	90	0.37	94	0.56	93	0.56	100	0.56	97	0.83
Blank	75	1.2	83	0.80	83	1.2	86	1.2	89	1.2	85	1.8
LCS	83	1.2	98	0.80	92	1.2	96	1.2	100	1.2	91	1.8

Limits: 50-150 50-150 50-150 50-150 50-150 50-150

	13C9-PFNA		13C6-PFDA		d3-NMeFOSAA		13C7-PFUnDA		d5-NEtFOSAA		13C2-PFDoDA	
	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD
	(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)	
9885075	100	0.37	93	0.56	71	0.83	96	0.56	71	0.83	89	0.56
Blank	86	0.80	87	1.2	98	1.8	89	1.2	83	1.8	84	1.2
LCS	97	0.80	88	1.2	102	1.8	99	1.2	86	1.8	89	1.2

Limits: 50-150 50-150 50-150 50-150 50-150 50-150

	13C2-PFTeDA	
	%Rec	LOD
	(ng/g)	
9885075	83	0.56
Blank	79	1.2
LCS	84	1.2

Limits: 50-150

Analysis Name: PFAS in Soil by LC/MS/MS-DoD

Batch number: 18332003

	13C3-PFBS		13C5-PFHxA		13C3-PFHxS		13C4-PFHpA		13C8-PFOA		13C8-PFOS	
	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD
	(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)	
9885076	78	0.56	82	0.37	90	0.56	79	0.56	92	0.56	80	0.84
9885077	79	0.56	84	0.37	97	0.56	85	0.56	92	0.56	84	0.84
Blank	94	1.2	102	0.80	111	1.2	100	1.2	105	1.2	97	1.8
LCS	79	1.2	82	0.80	94	1.2	82	1.2	91	1.2	85	1.8

Limits: 50-150 50-150 50-150 50-150 50-150 50-150

	13C9-PFNA		13C6-PFDA		d3-NMeFOSAA		13C7-PFUnDA		d5-NEtFOSAA		13C2-PFDoDA	
	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD
	(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)	
9885076	73	0.37	82	0.56	84	0.84	84	0.56	75	0.84	84	0.56

*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

(3) The surrogate spike amount was less than the LOD.

Quality Control Summary

Client Name: Gutierrez Canales Engineering
Reported: 01/18/2019 14:23

Group Number: 2006157

Labeled Isotope Quality Control (continued)

Labeled isotope recoveries which are outside of the QC window are confirmed unless otherwise noted on the analysis report.

Analysis Name: PFAS in Soil by LC/MS/MS-DoD

Batch number: 18332003

	13C9-PFNA		13C6-PFDA		d3-NMeFOSAA		13C7-PFUnDA		d5-NEtFOSAA		13C2-PFDoDA	
	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD	%Rec	LOD
	(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)		(ng/g)	
9885077	75	0.37	98	0.56	93	0.84	82	0.56	81	0.84	81	0.56
Blank	91	0.80	103	1.2	131	1.8	104	1.2	104	1.8	103	1.2
LCS	74	0.80	85	1.2	106	1.8	88	1.2	94	1.8	84	1.2
Limits:	50-150		50-150		50-150		50-150		50-150		50-150	
	13C2-PFTeDA											
	%Rec	LOD										
	(ng/g)											
9885076	76	0.56										
9885077	76	0.56										
Blank	95	1.2										
LCS	82	1.2										
Limits:	50-150											

*- Outside of specification

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(2) The unspiked result was more than four times the spike added.

(3) The surrogate spike amount was less than the LOD.

Environmental Analysis Request/Chain of Custody



Lancaster Laboratories
Environmental

For Eurofins Lancaster Laboratories Environmental use only

9895066-77

Acct. # 43806 Group # 2006157 Sample # 9005054-45

COC # 568590

Client Information				Matrix				Analysis Requested												For Lab Use Only		
Client: <u>GCE</u>		Acct. #:		☐ Tissue ☐ Ground ☐ Surface ☐ Potable ☐ NPDES ☐ Water ☐ Other:		Preservation and Filtration Codes												FSC: _____				
Project Name/ID: <u>14G-C719-006</u>		PWSID #:				Total # of Containers: <u>PPHs (EPA 537 MOD)</u>												SCR#: _____				
Project Manager: <u>Eric Rider</u>		P.O. #:		Preservation Codes																		
Sampler: <u>Brad Closson</u>		Quote #:		H=HCl T=Thiosulfate N=HNO ₃ B=NaOH S=H ₂ SO ₄ P=H ₃ PO ₄ F=Field Filtered O=Other																		
State where samples were collected: <u>GA</u>		For Compliance: Yes ☐ No ☒		Remarks																		
Sample Identification		Collected		Grab	Composite	Soil	Water	Other:	Total # of Containers													
		Date	Time																			
<u>QUL-GCL-S-01-05</u>		<u>11/2/18</u>	<u>13:35</u>	<u>X</u>		<u>S</u>			<u>2</u>	<u>✓</u>												
<u>QUL-GCL-S-01-08</u>		<u>11/2/18</u>	<u>13:41</u>	<u>X</u>		<u>S</u>			<u>2</u>	<u>✓</u>												
<u>QUL-GCL-S-01-10</u>		<u>11/2/18</u>	<u>13:45</u>	<u>X</u>		<u>S</u>			<u>2</u>	<u>ARCHIVE</u>												<u>ARCHIVE</u>
<u>QUL-GCL-S-01-12</u>		<u>11/2/18</u>	<u>13:47</u>	<u>X</u>		<u>S</u>			<u>2</u>	<u>ARCHIVE</u>												<u>ARCHIVE</u>
<u>QUL-WWTPE-S-01-01</u>		<u>11/2/18</u>	<u>14:10</u>	<u>X</u>		<u>S</u>			<u>2</u>	<u>✓</u>												<u>MS/MSD</u>
<u>QUL-WWTPE-S-01-03</u>		<u>11/2/18</u>	<u>14:25</u>	<u>X</u>		<u>S</u>			<u>2</u>	<u>✓</u>												
<u>QUL-WWTPE-S-01-05</u>		<u>11/2/18</u>	<u>14:30</u>	<u>X</u>		<u>S</u>			<u>2</u>	<u>✓</u>												
<u>QUL-WWTPE-S-01-08</u>		<u>11/2/18</u>	<u>14:32</u>	<u>X</u>		<u>S</u>			<u>2</u>	<u>✓</u>												
<u>QUL-WWTPE-S-01-10</u>		<u>11/2/18</u>	<u>14:34</u>	<u>X</u>		<u>S</u>			<u>2</u>	<u>ARCHIVE</u>												<u>ARCHIVE</u>
<u>QUL-WWTPE-S-01-12</u>		<u>11/2/18</u>	<u>14:36</u>	<u>X</u>		<u>S</u>			<u>2</u>	<u>ARCHIVE</u>												<u>ARCHIVE</u>

Turnaround Time (TAT) Requested (please circle)		Relinquished by <u>[Signature]</u>		Date <u>11/5/18</u>	Time <u>1700</u>	Received by	Date	Time
☒ Standard ☐ Rush (Rush TAT is subject to laboratory approval and surcharge.)		Relinquished by		Date	Time	Received by	Date	Time
Requested TAT in business days: _____		Relinquished by		Date	Time	Received by	Date	Time
E-mail address: <u>jmacneill@neiaw.com</u>		Relinquished by		Date	Time	Received by	Date	Time
Data Package Options (circle if required) ☒ Type I (EPA Level 3 Equivalent/non-CLP) ☐ Type VI (Raw Data Only) ☐ Type III (Reduced non-CLP) ☐ NJ DKQP ☐ TX TRRP-13 ☐ NYSDEC Category A or B ☐ MA MCP ☐ CT RCP		Relinquished by		Date	Time	Received by <u>[Signature]</u>	Date <u>11/6/18</u>	Time <u>1055</u>
EDD Required? ☒ Yes ☐ No If yes, format: <u>NEBO, EDF</u> Site-Specific QC (MS/MSD/Dup)? ☒ Yes ☐ No (If yes, indicate QC sample and submit triplicate sample volume.)		Relinquished by Commercial Carrier:		UPS _____ FedEx _____ Other _____		Temperature upon receipt <u>0.9 2.8°C</u>		

Sample Administration
Receipt Documentation Log

Doc Log ID: 232250

Client: GCE

Group Number(s):

2006157 ⁽²⁾ 75092
11-7-182006157

Delivery and Receipt Information

Delivery Method: Fed Ex Arrival Timestamp: 11/06/2018 10:35
 Number of Packages: 4 Number of Projects: 4
 State/Province of Origin: CA

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace $\geq$ 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Melvin Sanchez (8943) at 17:10 on 11/06/2018

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT131	1.1	DT	Wet	Y	Bagged	N
2	DT131	1.4	DT	Wet	Y	Bagged	N
3	DT131	2.8	DT	Wet	Y	Bagged	N
4	DT131	0.9	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mL	milliliter(s)
C	degrees Celsius	MPN	Most Probable Number
cfu	colony forming units	N.D.	non-detect
CP Units	cobalt-chloroplatinate units	ng	nanogram(s)
F	degrees Fahrenheit	NTU	nephelometric turbidity units
g	gram(s)	pg/L	picogram/liter
IU	International Units	RL	Reporting Limit
kg	kilogram(s)	TNTC	Too Numerous To Count
L	liter(s)	µg	microgram(s)
lb.	pound(s)	µL	microliter(s)
m3	cubic meter(s)	umhos/cm	micromhos/cm
meq	milliequivalents	MCL	Maximum Contamination Limit
mg	milligram(s)		
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is ND
K2	Continuing Calibration Blank is above the QC limit and the sample result is ND
K3	Initial Calibration Verification is above the QC limit and the sample result is ND
K4	Continuing Calibration Verification is above the QC limit and the sample result is ND
J (or G, I, X)	Estimated value $\geq$ the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
P^	Concentration difference between the primary and confirmation column $> 40\%$. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.

Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

PFAS by LC/MS/MS Data

Case Narrative/Conformance Summary

PFAS by LC/MS/MS

Case Narrative/Conformance Summary

CLIENT: Gutierrez Canales Engineering
SDG: BSI14

PFAS Group

Fraction: PFAS by LC/MS/MS

Sample #	Client ID	Matrix			Comments
		Liquid	Solid	DF	
9885066	OU1-GCI-S-01-05		X	1	
9885067	OU1-GCI-S-01-08		X	1	
9885070	OU1-WWTPE-S-01-01		X	1	Unspiked
9885071	OU1-WWTPE-S-01-01 MS		X	1	Matrix Spike
9885072	OU1-WWTPE-S-01-01 MSD		X	1	Matrix Spike Duplicate
9885073	OU1-WWTPE-S-01-03		X	1	
9885074	OU1-WWTPE-S-01-05		X	1	
9885075	OU1-WWTPE-S-01-08		X	1	
9885076	OU1-WWTPE-S-01-10		X	1	
9885077	OU1-WWTPE-S-01-12		X	1	

All analyses have been performed in accordance with DOD QSM Version 5.0 unless otherwise noted below.
See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

Batch#: 18312011 (Sample number(s): 9885066-9885067, 9885070-9885074, UNSPK: 9885070)
The recovery(ies) for the following analyte(s) in the MS exceeded the acceptance window indicating a positive bias: Perfluoroheptanoic acid, Perfluoro-octanesulfonate
The recovery(ies) for the following analyte(s) in the MSD were below the acceptance window: NEtFOSAA

Case Narrative/Conformance Summary

CLIENT: Gutierrez Canales Engineering
SDG: BSI14

PFAS Group

Fraction: PFAS by LC/MS/MS

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

Quality Control and Calibration Summary Forms

PFAS by LC/MS/MS

Quality Control Reference List PFAS Group

CLIENT: Gutierrez Canales Engineering
SDG: BSI14

Fraction: PFAS by LC/MS/MS

Analysis	Batch Number	Sample Number	Analysis Date
PFAS in Soil by LC/MS/MS-DoD	18312011	BLK312011B	11/09/2018 10:39
		LCS312011Q	11/09/2018 10:48
		9885066	11/09/2018 10:57
		9885067	11/09/2018 11:06
		9885070 UNSPK	11/09/2018 11:15
		9885071 MS	11/09/2018 12:01
		9885072 MSD	11/09/2018 12:10
		9885073	11/09/2018 11:33
		9885074	11/09/2018 11:43
PFAS in Soil by LC/MS/MS-DoD	18319003	BLK319003B	11/15/2018 12:57
		LCS319003Q	11/15/2018 13:06
		9885075	11/15/2018 14:36
PFAS in Soil by LC/MS/MS-DoD	18332003	BLK332003B	11/29/2018 18:04
		LCS332003Q	11/29/2018 18:13
		9885076	11/29/2018 19:16
		9885077	11/29/2018 19:34

Fraction: PFAS by LC/MS/MS

18312011 / BLK312011B						
Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Perfluorooctanoic acid	11/09/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorononanoic acid	11/09/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorodecanoic acid	11/09/18	N.D.	ng/g	0.30	0.68	1.0
Perfluoroundecanoic acid	11/09/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorododecanoic acid	11/09/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorotridecanoic acid	11/09/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorotetradecanoic acid	11/09/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorohexanoic acid	11/09/18	N.D.	ng/g	0.20	0.68	0.80
Perfluoroheptanoic acid	11/09/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorobutanesulfonate	11/09/18	N.D.	ng/g	0.20	0.60	0.80
Perfluorohexanesulfonate	11/09/18	N.D.	ng/g	0.20	0.64	0.80
Perfluoro-octanesulfonate	11/09/18	N.D.	ng/g	0.20	0.65	0.80
NEtFOSAA	11/09/18	N.D.	ng/g	0.50	2.0	3.0
NMeFOSAA	11/09/18	N.D.	ng/g	0.50	2.0	3.0

18319003 / BLK319003B						
Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Perfluorooctanoic acid	11/15/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorononanoic acid	11/15/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorodecanoic acid	11/15/18	N.D.	ng/g	0.30	0.68	1.0
Perfluoroundecanoic acid	11/15/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorododecanoic acid	11/15/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorotridecanoic acid	11/15/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorotetradecanoic acid	11/15/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorohexanoic acid	11/15/18	N.D.	ng/g	0.20	0.68	0.80
Perfluoroheptanoic acid	11/15/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorobutanesulfonate	11/15/18	N.D.	ng/g	0.20	0.60	0.80
Perfluorohexanesulfonate	11/15/18	N.D.	ng/g	0.20	0.64	0.80
Perfluoro-octanesulfonate	11/15/18	N.D.	ng/g	0.20	0.65	0.80
NEtFOSAA	11/15/18	N.D.	ng/g	0.50	2.0	3.0
NMeFOSAA	11/15/18	N.D.	ng/g	0.50	2.0	3.0

18332003 / BLK332003B						
Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Perfluorooctanoic acid	11/29/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorononanoic acid	11/29/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorodecanoic acid	11/29/18	N.D.	ng/g	0.30	0.68	1.0
Perfluoroundecanoic acid	11/29/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorododecanoic acid	11/29/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorotridecanoic acid	11/29/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorotetradecanoic acid	11/29/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorohexanoic acid	11/29/18	N.D.	ng/g	0.20	0.68	0.80
Perfluoroheptanoic acid	11/29/18	N.D.	ng/g	0.20	0.68	0.80
Perfluorobutanesulfonate	11/29/18	N.D.	ng/g	0.20	0.60	0.80
Perfluorohexanesulfonate	11/29/18	N.D.	ng/g	0.20	0.64	0.80

Fraction: PFAS by LC/MS/MS

18332003 / BLK332003B Analyte	Analysis Date	Blank Results	Units	DL	LOD	LOQ
Perfluoro-octanesulfonate	11/29/18	N.D.	ng/g	0.20	0.65	0.80
NEtFOSAA	11/29/18	N.D.	ng/g	0.50	2.0	3.0
NMeFOSAA	11/29/18	N.D.	ng/g	0.50	2.0	3.0

SDG No.: BSI14
Matrix: SOIL

18312011			13C2-PFDODA	13C2-PFTEDA	13C3-PFBS	13C3-PFHXS	13C4-PFHPA
		Limits	50-150	50-150	50-150	50-150	50-150
LAB SAMPLE ID	DATE/TIME		% Recovery	% Recovery	% Recovery	% Recovery	% Recovery
BLK312011	11/09/18 10:39		85	77	81	90	85
LCS312011	11/09/18 10:48		93	87	85	92	91
9885066	11/09/18 10:57		87	82	81	85	89
9885067	11/09/18 11:06		97	93	89	95	96
9885070	11/09/18 11:15		92	88	88	96	91
9885073	11/09/18 11:33		72	69	67	72	71
9885074	11/09/18 11:43		86	78	83	85	87
9885071MS	11/09/18 12:01		76	72	71	79	72
9885072MSD	11/09/18 12:10		78	74	75	83	81

* Outside QC Limits

SDG No.: BSI14
Matrix: SOIL

18312011		13C5-PFHXA	13C6-PFDA	13C7-PFUNDA	13C8-PFOA	13C8-PFOS
	Limits	50-150	50-150	50-150	50-150	50-150
LAB SAMPLE ID	DATE/TIME	% Recovery	% Recovery	% Recovery	% Recovery	% Recovery
BLK312011	11/09/18 10:39	88	87	87	88	86
LCS312011	11/09/18 10:48	91	92	97	94	90
9885066	11/09/18 10:57	86	88	88	93	87
9885067	11/09/18 11:06	98	98	103	100	95
9885070	11/09/18 11:15	94	93	95	98	95
9885073	11/09/18 11:33	73	77	75	79	69
9885074	11/09/18 11:43	91	92	86	94	84
9885071MS	11/09/18 12:01	73	81	82	79	80
9885072MSD	11/09/18 12:10	81	82	80	83	82

* Outside QC Limits

SDG No.: BSI14
Matrix: SOIL

18312011		13C9-PFNA	D3-NMEFOSAA	D5-NETFOSAA
	Limits	50-150	50-150	50-150
LAB SAMPLE ID	DATE/TIME	% Recovery	% Recovery	% Recovery
BLK312011	11/09/18 10:39	79	97	92
LCS312011	11/09/18 10:48	90	94	91
9885066	11/09/18 10:57	103	90	84
9885067	11/09/18 11:06	89	91	96
9885070	11/09/18 11:15	93	72	71
9885073	11/09/18 11:33	72	78	77
9885074	11/09/18 11:43	84	85	84
9885071MS	11/09/18 12:01	78	60	56
9885072MSD	11/09/18 12:10	82	61	64

* Outside QC Limits

SDG No.: BSI14
Matrix: SOIL

18319003			13C2-PFDODA	13C2-PFTEDA	13C3-PFBS	13C3-PFHXS	13C4-PFHPA
		Limits	50-150	50-150	50-150	50-150	50-150
LAB SAMPLE ID	DATE/TIME		% Recovery	% Recovery	% Recovery	% Recovery	% Recovery
BLK319003	11/15/18 12:57		84	79	75	83	86
LCS319003	11/15/18 13:06		89	84	83	92	96
9885075	11/15/18 14:36		89	83	84	94	93

* Outside QC Limits

SDG No.: BSI14
Matrix: SOIL

18319003			13C5-PFHXA	13C6-PFDA	13C7-PFUNDA	13C8-PFOA	13C8-PFOS
		Limits	50-150	50-150	50-150	50-150	50-150
LAB SAMPLE ID	DATE/TIME		% Recovery	% Recovery	% Recovery	% Recovery	% Recovery
BLK319003	11/15/18 12:57		83	87	89	89	85
LCS319003	11/15/18 13:06		98	88	99	100	91
9885075	11/15/18 14:36		90	93	96	100	97

* Outside QC Limits

SDG No.: BSI14
Matrix: SOIL

18319003			13C9-PFNA	D3-NMEFOSAA	D5-NETFOSAA
		Limits	50-150	50-150	50-150
LAB SAMPLE ID	DATE/TIME		% Recovery	% Recovery	% Recovery
BLK319003	11/15/18 12:57		86	98	83
LCS319003	11/15/18 13:06		97	102	86
9885075	11/15/18 14:36		100	71	71

* Outside QC Limits

SDG No.: BSI14
Matrix: SOIL

18332003		13C2-PFDODA	13C2-PFTEDA	13C3-PFBS	13C3-PFHXS	13C4-PFHPA
	Limits	50-150	50-150	50-150	50-150	50-150
LAB SAMPLE ID	DATE/TIME	% Recovery	% Recovery	% Recovery	% Recovery	% Recovery
BLK332003	11/29/18 18:04	103	95	94	111	100
LCS332003	11/29/18 18:13	84	82	79	94	82
9885076	11/29/18 19:16	84	76	78	90	79
9885077	11/29/18 19:34	81	76	79	97	85

* Outside QC Limits

SDG No.: BSI14
Matrix: SOIL

18332003		13C5-PFHXA	13C6-PFDA	13C7-PFUNDA	13C8-PFOA	13C8-PFOS
	Limits	50-150	50-150	50-150	50-150	50-150
LAB SAMPLE ID	DATE/TIME	% Recovery	% Recovery	% Recovery	% Recovery	% Recovery
BLK332003	11/29/18 18:04	102	103	104	105	97
LCS332003	11/29/18 18:13	82	85	88	91	85
9885076	11/29/18 19:16	82	82	84	92	80
9885077	11/29/18 19:34	84	98	82	92	84

* Outside QC Limits

SDG No.: BSI14
Matrix: SOIL

18332003			13C9-PFNA	D3-NMEFOSAA	D5-NETFOSAA
		Limits	50-150	50-150	50-150
LAB SAMPLE ID	DATE/TIME		% Recovery	% Recovery	% Recovery
BLK332003	11/29/18 18:04		91	131	104
LCS332003	11/29/18 18:13		74	106	94
9885076	11/29/18 19:16		73	84	75
9885077	11/29/18 19:34		75	93	81

* Outside QC Limits

PFAS Group

Fraction: PFAS by LC/MS/MS

UNSPK: 9885070 MS: 9885071 MSD: 9885072 Analyte	Batch: 18312011 (Sample number(s): 9885066-9885067, 9885070-9885074)								
	Spike Added ng/g MS/MSD	Unspiked Conc ng/g	MS Conc ng/g	MSD Conc ng/g	MS %Rec	MSD %Rec	%Rec Limits	%RPD	%RPD Limits
Perfluorooctanoic acid	1.32 / 1.24	0.924	2.46	2.18	117	102	70-130	12	30
Perfluorononanoic acid	1.32 / 1.24	N.D.	1.62	1.52	122	123	70-130	6	30
Perfluorodecanoic acid	1.32 / 1.24	N.D.	1.56	1.51	118	122	70-130	3	30
Perfluoroundecanoic acid	1.32 / 1.24	N.D.	1.33	1.34	101	109	70-130	1	30
Perfluorododecanoic acid	1.32 / 1.24	N.D.	1.37	1.40	104	113	70-130	2	30
Perfluorotridecanoic acid	1.32 / 1.24	N.D.	1.25	1.26	94	102	70-130	1	30
Perfluorotetradecanoic acid	1.32 / 1.24	N.D.	1.46	1.28	110	103	70-130	13	30
Perfluorohexanoic acid	1.32 / 1.24	N.D.	1.54	1.34	117	108	70-130	14	30
Perfluoroheptanoic acid	1.32 / 1.24	N.D.	1.74	1.47	132 *	119	70-130	17	30
Perfluorobutanesulfonate	1.17 / 1.09	N.D.	1.29	1.15	110	105	70-130	11	30
Perfluorohexanesulfonate	1.25 / 1.17	0.295 J	1.68	1.49	111	102	70-130	12	30
Perfluoro-octanesulfonate	1.26 / 1.18	4.81	7.38	5.77	204 *	81 (2)	70-130	25	30
NEtFOSAA	1.32 / 1.24	0.655 J	1.57 J	1.32 J	70	54 *	70-130	18	30
NMeFOSAA	1.32 / 1.24	N.D.	1.19 J	0.946 J	90	77	70-130	23	30

Comments:

(2) The unspiked sample result is greater than four times the spike added.

* = Out of Specification

Results are being reported on an as received basis.

SDG: BSI14
Matrix: SOLID

PFAS Group
Fraction: PFAS by LC/MS/MS

LCS: LCS312011Q		Batch: 18312011 (Sample number(s): 9885066-9885067, 9885070-9885074)						
Analyte	Spike Added ng/g	LCS Conc ng/g	LCSD Conc ng/g	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
Perfluorooctanoic acid	1.36	1.60	NA	118	NA	70-130	NA	NA
Perfluorononanoic acid	1.36	1.63	NA	120	NA	70-130	NA	NA
Perfluorodecanoic acid	1.36	1.50	NA	110	NA	70-130	NA	NA
Perfluoroundecanoic acid	1.36	1.42	NA	104	NA	70-130	NA	NA
Perfluorododecanoic acid	1.36	1.37	NA	100	NA	70-130	NA	NA
Perfluorotridecanoic acid	1.36	1.27	NA	93	NA	70-130	NA	NA
Perfluorotetradecanoic acid	1.36	1.45	NA	107	NA	70-130	NA	NA
Perfluorohexanoic acid	1.36	1.56	NA	115	NA	70-130	NA	NA
Perfluoroheptanoic acid	1.36	1.54	NA	113	NA	70-130	NA	NA
Perfluorobutanesulfonate	1.20	1.20	NA	99	NA	70-130	NA	NA
Perfluorohexanesulfonate	1.29	1.28	NA	99	NA	70-130	NA	NA
Perfluoro-octanesulfonate	1.30	1.43	NA	110	NA	70-130	NA	NA
NEtFOSAA	1.36	0.968 J	NA	71	NA	70-130	NA	NA
NMeFOSAA	1.36	1.02 J	NA	75	NA	70-130	NA	NA

LCS: LCS319003Q		Batch: 18319003 (Sample number(s): 9885075)						
Analyte	Spike Added ng/g	LCS Conc ng/g	LCSD Conc ng/g	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
Perfluorooctanoic acid	1.36	1.36	NA	100	NA	70-130	NA	NA
Perfluorononanoic acid	1.36	1.40	NA	103	NA	70-130	NA	NA
Perfluorodecanoic acid	1.36	1.48	NA	109	NA	70-130	NA	NA
Perfluoroundecanoic acid	1.36	1.18	NA	87	NA	70-130	NA	NA
Perfluorododecanoic acid	1.36	1.27	NA	94	NA	70-130	NA	NA
Perfluorotridecanoic acid	1.36	1.28	NA	94	NA	70-130	NA	NA
Perfluorotetradecanoic acid	1.36	1.36	NA	100	NA	70-130	NA	NA
Perfluorohexanoic acid	1.36	1.42	NA	104	NA	70-130	NA	NA
Perfluoroheptanoic acid	1.36	1.45	NA	106	NA	70-130	NA	NA
Perfluorobutanesulfonate	1.20	1.24	NA	103	NA	70-130	NA	NA
Perfluorohexanesulfonate	1.29	1.24	NA	97	NA	70-130	NA	NA
Perfluoro-octanesulfonate	1.30	1.21	NA	93	NA	70-130	NA	NA
NEtFOSAA	1.36	1.40 J	NA	103	NA	70-130	NA	NA
NMeFOSAA	1.36	1.21 J	NA	89	NA	70-130	NA	NA

LCS: LCS332003Q		Batch: 18332003 (Sample number(s): 9885076-9885077)						
Analyte	Spike Added ng/g	LCS Conc ng/g	LCSD Conc ng/g	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
Perfluorooctanoic acid	1.36	1.15	NA	85	NA	70-130	NA	NA
Perfluorononanoic acid	1.36	1.31	NA	97	NA	70-130	NA	NA
Perfluorodecanoic acid	1.36	1.23	NA	90	NA	70-130	NA	NA
Perfluoroundecanoic acid	1.36	1.35	NA	100	NA	70-130	NA	NA

PFAS Group

Fraction: PFAS by LC/MS/MS

LCS: LCS332003Q		Batch: 18332003 (Sample number(s): 9885076-9885077)						
Analyte	Spike Added ng/g	LCS Conc ng/g	LCSD Conc ng/g	LCS %Rec	LCSD %Rec	%Rec Limits	%RPD	%RPD Limits
Perfluorododecanoic acid	1.36	1.25	NA	92	NA	70-130	NA	NA
Perfluorotridecanoic acid	1.36	1.36	NA	100	NA	70-130	NA	NA
Perfluorotetradecanoic acid	1.36	1.26	NA	93	NA	70-130	NA	NA
Perfluorohexanoic acid	1.36	1.29	NA	95	NA	70-130	NA	NA
Perfluoroheptanoic acid	1.36	1.28	NA	94	NA	70-130	NA	NA
Perfluorobutanesulfonate	1.20	1.12	NA	93	NA	70-130	NA	NA
Perfluorohexanesulfonate	1.29	1.06	NA	82	NA	70-130	NA	NA
Perfluoro-octanesulfonate	1.30	0.910	NA	70	NA	70-130	NA	NA
NEtFOSAA	1.36	1.24 J	NA	91	NA	70-130	NA	NA
NMeFOSAA	1.36	1.13 J	NA	83	NA	70-130	NA	NA

Fraction: PFAS by LC/MS/MS

14478: PFAS in Soil by LC/MS/MS- DoD Analyte Name	Default DL	Default LOD	Default LOQ	Units
Perfluorooctanoic acid	.2	.68	0.80	ng/g
Perfluorononanoic acid	.2	.68	0.80	ng/g
Perfluorodecanoic acid	.3	.68	1.0	ng/g
Perfluoroundecanoic acid	.2	.68	0.80	ng/g
Perfluorododecanoic acid	.2	.68	0.80	ng/g
Perfluorotridecanoic acid	.2	.68	0.80	ng/g
Perfluorotetradecanoic acid	.2	.68	0.80	ng/g
Perfluorohexanoic acid	.2	.68	0.80	ng/g
Perfluoroheptanoic acid	.2	.68	0.80	ng/g
Perfluorobutanesulfonate	.2	.6	0.80	ng/g
Perfluorohexanesulfonate	.2	.64	0.80	ng/g
Perfluoro-octanesulfonate	.2	.65	0.80	ng/g
NEtFOSAA	.5	2	3.0	ng/g
NMeFOSAA	.5	2	3.0	ng/g

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/07/2018 09:39 11/07/2018 10:33

Lab File Names: CAL1= 18NOV07DCAL-10.WIFF; CAL2= 18NOV07DCAL-11.WIFF; CAL3= 18NOV07DCAL-12.WIFF;
 CAL4= 18NOV07DCAL-13.WIFF; CAL5= 18NOV07DCAL-14.WIFF; CAL6= 18NOV07DCAL-15.WIFF;
 CAL7= 18NOV07DCAL-16.WIFF; CAL8= ;

Perfluorobutanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.041	0.20	0.238	19.1	±30
CAL2	0.093	0.50	0.545	9.0	±30
CAL3	0.362	2.00	2.120	6.0	±30
CAL4	1.495	8.00	8.747	9.3	±30
CAL5	3.745	20.00	21.919	9.6	±30
CAL6	8.813	50.00	51.576	3.2	±30
CAL7	16.327	100.00	95.554	-4.4	±30

Perfluoropentanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.039	0.20	0.234	16.8	±30
CAL2	0.090	0.50	0.533	6.6	±30
CAL3	0.345	2.00	2.052	2.6	±30
CAL4	1.413	8.00	8.399	5.0	±30
CAL5	3.658	20.00	21.739	8.7	±30
CAL6	8.578	50.00	50.979	2.0	±30
CAL7	16.282	100.00	96.765	-3.2	±30

Perfluorobutanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.042	0.17	0.213	25.6	±30
CAL2	0.093	0.44	0.470	6.7	±30
CAL3	0.345	1.77	1.740	-1.7	±30
CAL4	1.491	7.08	7.518	6.2	±30
CAL5	3.619	17.69	18.246	3.1	±30
CAL6	9.131	44.22	46.035	4.1	±30
CAL7	16.978	88.45	85.599	-3.2	±30

4:2 fluorotelomersulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.071	0.19	0.191	2.3	±30
CAL2	0.183	0.47	0.492	5.3	±30
CAL3	0.731	1.87	1.964	5.2	±30
CAL4	2.975	7.47	7.999	7.1	±30
CAL5	7.477	18.68	20.102	7.6	±30
CAL6	17.311	46.70	46.538	-0.3	±30
CAL7	34.031	93.40	91.487	-2.0	±30

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/07/2018 09:39 11/07/2018 10:33

Lab File Names: CAL1= 18NOV07DCAL-10.WIFF; CAL2= 18NOV07DCAL-11.WIFF; CAL3= 18NOV07DCAL-12.WIFF;
 CAL4= 18NOV07DCAL-13.WIFF; CAL5= 18NOV07DCAL-14.WIFF; CAL6= 18NOV07DCAL-15.WIFF;
 CAL7= 18NOV07DCAL-16.WIFF; CAL8= ;

Perfluorohexanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.055	0.20	0.235	17.4	±30
CAL2	0.123	0.50	0.529	5.8	±30
CAL3	0.498	2.00	2.137	6.9	±30
CAL4	2.041	8.00	8.751	9.4	±30
CAL5	5.013	20.00	21.499	7.5	±30
CAL6	11.088	50.00	47.549	-4.9	±30
CAL7	20.388	100.00	87.434	-12.6	±30

Perfluoropentanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.019	0.19	0.183	-3.7	±30
CAL2	0.047	0.47	0.465	-0.9	±30
CAL3	0.180	1.88	1.772	-5.7	±30
CAL4	0.803	7.50	7.922	5.6	±30
CAL5	1.911	18.76	18.849	0.5	±30
CAL6	4.746	46.90	46.806	-0.2	±30
CAL7	9.480	93.80	93.501	-0.3	±30

Perfluorohexanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.038	0.19	0.194	2.3	±30
CAL2	0.095	0.47	0.484	2.3	±30
CAL3	0.357	1.89	1.809	-4.3	±30
CAL4	1.514	7.56	7.676	1.5	±30
CAL5	3.791	18.91	19.215	1.6	±30
CAL6	9.344	47.28	47.360	0.2	±30
CAL7	18.567	94.55	94.113	-0.5	±30

Perfluoroheptanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.065	0.20	0.220	9.9	±30
CAL2	0.160	0.50	0.539	7.8	±30
CAL3	0.636	2.00	2.139	6.9	±30
CAL4	2.500	8.00	8.409	5.1	±30
CAL5	6.316	20.00	21.243	6.2	±30
CAL6	14.317	50.00	48.150	-3.7	±30
CAL7	25.595	100.00	86.081	-13.9	±30

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/07/2018 09:39 11/07/2018 10:33

Lab File Names: CAL1= 18NOV07DCAL-10.WIFF; CAL2= 18NOV07DCAL-11.WIFF; CAL3= 18NOV07DCAL-12.WIFF;
 CAL4= 18NOV07DCAL-13.WIFF; CAL5= 18NOV07DCAL-14.WIFF; CAL6= 18NOV07DCAL-15.WIFF;
 CAL7= 18NOV07DCAL-16.WIFF; CAL8= ;

6:2 fluorotelomersulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.058	0.19	0.146	-23.1	±30
CAL2	0.229	0.47	0.570	20.3	±30
CAL3	0.830	1.90	2.071	9.3	±30
CAL4	3.200	7.58	7.982	5.2	±30
CAL5	8.507	18.96	21.223	11.9	±30
CAL6	18.600	47.40	46.401	-2.1	±30
CAL7	37.244	94.80	92.910	-2.0	±30

Perfluoroheptanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.040	0.19	0.207	8.9	±30
CAL2	0.091	0.48	0.476	0.0	±30
CAL3	0.359	1.90	1.877	-1.2	±30
CAL4	1.523	7.61	7.966	4.7	±30
CAL5	3.716	19.03	19.439	2.2	±30
CAL6	8.964	47.58	46.896	-1.4	±30
CAL7	18.173	95.15	95.074	-0.1	±30

Perfluorooctanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.039	0.20	0.218	9.1	±30
CAL2	0.097	0.50	0.547	9.5	±30
CAL3	0.378	2.00	2.131	6.5	±30
CAL4	1.592	8.00	8.963	12.0	±30
CAL5	3.824	20.00	21.532	7.7	±30
CAL6	9.132	50.00	51.417	2.8	±30
CAL7	17.031	100.00	95.892	-4.1	±30

Perfluoro-octanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.040	0.19	0.206	8.2	±30
CAL2	0.100	0.48	0.517	8.1	±30
CAL3	0.375	1.91	1.943	1.7	±30
CAL4	1.534	7.65	7.953	4.0	±30
CAL5	3.719	19.12	19.287	0.9	±30
CAL6	9.270	47.80	48.067	0.6	±30
CAL7	18.277	95.60	94.776	-0.9	±30

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/07/2018 09:39 11/07/2018 10:33

Lab File Names: CAL1= 18NOV07DCAL-10.WIFF; CAL2= 18NOV07DCAL-11.WIFF; CAL3= 18NOV07DCAL-12.WIFF;
 CAL4= 18NOV07DCAL-13.WIFF; CAL5= 18NOV07DCAL-14.WIFF; CAL6= 18NOV07DCAL-15.WIFF;
 CAL7= 18NOV07DCAL-16.WIFF; CAL8= ;

Perfluorononanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.063	0.20	0.235	17.4	±30
CAL2	0.138	0.50	0.517	3.4	±30
CAL3	0.584	2.00	2.182	9.1	±30
CAL4	2.302	8.00	8.604	7.6	±30
CAL5	5.965	20.00	22.292	11.5	±30
CAL6	13.786	50.00	51.521	3.0	±30
CAL7	25.514	100.00	95.349	-4.7	±30

Perfluorononanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.022	0.19	0.174	-8.3	±30
CAL2	0.061	0.48	0.485	1.1	±30
CAL3	0.245	1.92	1.946	1.3	±30
CAL4	1.045	7.68	8.284	7.9	±30
CAL5	2.423	19.20	19.215	0.1	±30
CAL6	6.277	48.00	49.770	3.7	±30
CAL7	11.805	96.00	93.596	-2.5	±30

Perfluorodecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.039	0.20	0.216	7.8	±30
CAL2	0.095	0.50	0.520	4.0	±30
CAL3	0.383	2.00	2.107	5.3	±30
CAL4	1.568	8.00	8.626	7.8	±30
CAL5	4.015	20.00	22.091	10.5	±30
CAL6	9.247	50.00	50.875	1.7	±30
CAL7	17.498	100.00	96.265	-3.7	±30

8:2 fluorotelomersulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.104	0.19	0.235	22.5	±30
CAL2	0.251	0.48	0.567	18.3	±30
CAL3	0.845	1.92	1.904	-0.6	±30
CAL4	3.495	7.66	7.877	2.8	±30
CAL5	8.887	19.16	20.031	4.5	±30
CAL6	20.717	47.90	46.697	-2.5	±30
CAL7	38.137	95.80	85.963	-10.3	±30

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/07/2018 09:39 11/07/2018 10:33

Lab File Names: CAL1= 18NOV07DCAL-10.WIFF; CAL2= 18NOV07DCAL-11.WIFF; CAL3=
18NOV07DCAL-12.WIFF;
CAL4= 18NOV07DCAL-13.WIFF; CAL5= 18NOV07DCAL-14.WIFF; CAL6=
18NOV07DCAL-15.WIFF;
CAL7= 18NOV07DCAL-16.WIFF; CAL8= ;

Perfluorooctanesulfonamide	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.036	0.20	0.194	-3.1	±30
CAL2	0.098	0.50	0.529	5.8	±30
CAL3	0.386	2.00	2.084	4.2	±30
CAL4	1.581	8.00	8.545	6.8	±30
CAL5	3.322	20.00	17.959	-10.2	±30
CAL6	9.665	50.00	52.247	4.5	±30
CAL7	18.341	100.00	99.141	-0.9	±30

NMeFOSAA	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.035	0.20	0.178	-10.8	±30
CAL2	0.118	0.50	0.607	21.4	±30
CAL3	0.396	2.00	2.039	2.0	±30
CAL4	1.685	8.00	8.670	8.4	±30
CAL5	4.175	20.00	21.482	7.4	±30
CAL6	9.476	50.00	48.760	-2.5	±30
CAL7	19.233	100.00	98.963	-1.0	±30

Perfluorodecanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.021	0.19	0.201	5.6	±30
CAL2	0.055	0.48	0.525	8.9	±30
CAL3	0.199	1.93	1.898	-1.6	±30
CAL4	0.859	7.70	8.210	6.6	±30
CAL5	2.032	19.26	19.412	0.8	±30
CAL6	4.983	48.15	47.605	-1.1	±30
CAL7	10.066	96.30	96.161	-0.1	±30

Perfluoroundecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.079	0.20	0.227	13.7	±30
CAL2	0.187	0.50	0.535	7.0	±30
CAL3	0.757	2.00	2.170	8.5	±30
CAL4	2.909	8.00	8.341	4.3	±30
CAL5	7.397	20.00	21.214	6.1	±30
CAL6	17.761	50.00	50.936	1.9	±30
CAL7	33.921	100.00	97.277	-2.7	±30

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/07/2018 09:39 11/07/2018 10:33

Lab File Names: CAL1= 18NOV07DCAL-10.WIFF; CAL2= 18NOV07DCAL-11.WIFF; CAL3= 18NOV07DCAL-12.WIFF;
 CAL4= 18NOV07DCAL-13.WIFF; CAL5= 18NOV07DCAL-14.WIFF; CAL6= 18NOV07DCAL-15.WIFF;
 CAL7= 18NOV07DCAL-16.WIFF; CAL8= ;

NetFOSAA	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.043	0.20	0.183	-8.7	±30
CAL2	0.110	0.50	0.474	-5.3	±30
CAL3	0.441	2.00	1.896	-5.2	±30
CAL4	1.838	8.00	7.900	-1.3	±30
CAL5	5.175	20.00	22.240	11.2	±30
CAL6	11.319	50.00	48.645	-2.7	±30
CAL7	23.121	100.00	99.363	-0.6	±30

Perfluorododecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.041	0.20	0.224	11.9	±30
CAL2	0.101	0.50	0.545	9.0	±30
CAL3	0.377	2.00	2.046	2.3	±30
CAL4	1.466	8.00	7.946	-0.7	±30
CAL5	3.887	20.00	21.067	5.3	±30
CAL6	9.018	50.00	48.873	-2.3	±30
CAL7	15.613	100.00	84.613	-15.4	±30

10:2-fluorotelomersulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.071	0.19	0.222	15.0	±30
CAL2	0.177	0.48	0.551	14.4	±30
CAL3	0.647	1.93	2.014	4.5	±30
CAL4	2.271	7.71	7.073	-8.3	±30
CAL5	6.446	19.28	20.071	4.1	±30
CAL6	15.876	48.20	49.437	2.6	±30
CAL7	30.453	96.40	94.827	-1.6	±30

NMePFOSAE	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.054	0.20	0.244	22.1	±30
CAL2	0.124	0.50	0.555	11.0	±30
CAL3	0.453	2.00	2.029	1.5	±30
CAL4	1.959	8.00	8.781	9.8	±30
CAL5	4.923	20.00	22.062	10.3	±30
CAL6	11.752	50.00	52.660	5.3	±30
CAL7	21.059	100.00	94.369	-5.6	±30

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/07/2018 09:39 11/07/2018 10:33

Lab File Names: CAL1= 18NOV07DCAL-10.WIFF; CAL2= 18NOV07DCAL-11.WIFF; CAL3= 18NOV07DCAL-12.WIFF;
 CAL4= 18NOV07DCAL-13.WIFF; CAL5= 18NOV07DCAL-14.WIFF; CAL6= 18NOV07DCAL-15.WIFF;
 CAL7= 18NOV07DCAL-16.WIFF; CAL8= ;

NMePFOSA	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.036	0.20	0.201	0.6	±30
CAL2	0.101	0.50	0.568	13.6	±30
CAL3	0.375	2.00	2.101	5.1	±30
CAL4	1.368	8.00	7.657	-4.3	±30
CAL5	3.939	20.00	22.050	10.2	±30
CAL6	9.140	50.00	51.162	2.3	±30
CAL7	17.323	100.00	96.961	-3.0	±30

Perfluorododecanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.010	0.19	0.189	-0.3	±30
CAL2	0.025	0.48	0.487	0.7	±30
CAL3	0.108	1.94	2.084	7.4	±30
CAL4	0.416	7.74	8.039	3.9	±30
CAL5	0.991	19.36	19.132	-1.2	±30
CAL6	2.465	48.40	47.576	-1.7	±30
CAL7	5.047	96.80	97.407	0.6	±30

NEtPFOSAE	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.074	0.20	0.237	18.5	±30
CAL2	0.181	0.50	0.579	15.9	±30
CAL3	0.650	2.00	2.083	4.2	±30
CAL4	2.703	8.00	8.666	8.3	±30
CAL5	6.965	20.00	22.328	11.6	±30
CAL6	16.033	50.00	51.396	2.8	±30
CAL7	29.763	100.00	95.411	-4.6	±30

NEtPFOSA	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.043	0.20	0.191	-4.7	±30
CAL2	0.096	0.50	0.424	-15.3	±30
CAL3	0.393	2.00	1.732	-13.4	±30
CAL4	1.711	8.00	7.534	-5.8	±30
CAL5	4.679	20.00	20.605	3.0	±30
CAL6	11.449	50.00	50.423	0.8	±30
CAL7	22.658	100.00	99.791	-0.2	±30

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/07/2018 09:39 11/07/2018 10:33

Lab File Names: CAL1= 18NOV07DCAL-10.WIFF; CAL2= 18NOV07DCAL-11.WIFF; CAL3= 18NOV07DCAL-12.WIFF;
 CAL4= 18NOV07DCAL-13.WIFF; CAL5= 18NOV07DCAL-14.WIFF; CAL6= 18NOV07DCAL-15.WIFF;
 CAL7= 18NOV07DCAL-16.WIFF; CAL8= ;

Perfluorotridecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.040	0.20	0.250	25.1	±30
CAL2	0.082	0.50	0.519	3.9	±30
CAL3	0.337	2.00	2.128	6.4	±30
CAL4	1.306	8.00	8.235	2.9	±30
CAL5	3.375	20.00	21.280	6.4	±30
CAL6	7.657	50.00	48.287	-3.4	±30
CAL7	12.611	100.00	79.528	-20.5	±30

Perfluorotetradecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.040	0.20	0.232	16.2	±30
CAL2	0.082	0.50	0.482	-3.6	±30
CAL3	0.358	2.00	2.103	5.1	±30
CAL4	1.428	8.00	8.383	4.8	±30
CAL5	3.558	20.00	20.892	4.5	±30
CAL6	8.573	50.00	50.344	0.7	±30
CAL7	16.733	100.00	98.263	-1.7	±30

Perfluorohexadecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.019	0.20	0.236	17.9	±30
CAL2	0.042	0.50	0.524	4.8	±30
CAL3	0.167	2.00	2.078	3.9	±30
CAL4	0.673	8.00	8.351	4.4	±30
CAL5	1.699	20.00	21.085	5.4	±30
CAL6	3.954	50.00	49.083	-1.8	±30
CAL7	8.003	100.00	99.343	-0.7	±30

Perfluorooctadecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.015	0.20	0.220	10.2	±30
CAL2	0.036	0.50	0.511	2.2	±30
CAL3	0.142	2.00	2.041	2.0	±30
CAL4	0.570	8.00	8.162	2.0	±30
CAL5	1.481	20.00	21.218	6.1	±30
CAL6	3.399	50.00	48.698	-2.6	±30
CAL7	6.970	100.00	99.849	-0.2	±30

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/12/2018 15:05 11/12/2018 16:00

Lab File Names: CAL1= 18NOV12DCAL-42.WIFF; CAL2= 18NOV12DCAL-43.WIFF; CAL3= 18NOV12DCAL-44.WIFF;
 CAL4= 18NOV12DCAL-45.WIFF; CAL5= 18NOV12DCAL-46.WIFF; CAL6= 18NOV12DCAL-47.WIFF;
 CAL7= 18NOV12DCAL-48.WIFF; CAL8= ;

Perfluorobutanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.042	0.20	0.235	17.3	±30
CAL2	0.104	0.60	0.577	-3.8	±30
CAL3	0.413	2.00	2.291	14.5	±30
CAL4	1.471	8.00	8.148	1.9	±30
CAL5	3.863	20.00	21.403	7.0	±30
CAL6	9.099	50.00	50.404	0.8	±30
CAL7	17.644	100.00	97.743	-2.3	±30

Perfluoropentanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.042	0.20	0.245	22.5	±30
CAL2	0.114	0.60	0.661	10.2	±30
CAL3	0.421	2.00	2.435	21.8	±30
CAL4	1.502	8.00	8.694	8.7	±30
CAL5	3.622	20.00	20.969	4.8	±30
CAL6	8.759	50.00	50.702	1.4	±30
CAL7	16.773	100.00	97.094	-2.9	±30

Perfluorobutanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.040	0.18	0.192	8.5	±30
CAL2	0.107	0.53	0.510	-4.0	±30
CAL3	0.404	1.77	1.921	8.5	±30
CAL4	1.452	7.08	6.906	-2.5	±30
CAL5	3.809	17.70	18.121	2.4	±30
CAL6	9.475	44.20	45.072	2.0	±30
CAL7	18.318	88.40	87.136	-1.4	±30

4:2 fluorotelomersulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.071	0.19	0.192	2.5	±30
CAL2	0.191	0.56	0.518	-7.5	±30
CAL3	0.720	1.87	1.954	4.5	±30
CAL4	2.675	7.47	7.263	-2.8	±30
CAL5	6.655	18.70	18.070	-3.4	±30
CAL6	17.824	46.70	48.392	3.6	±30
CAL7	34.069	93.40	92.499	-1.0	±30

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/12/2018 15:05 11/12/2018 16:00

Lab File Names: CAL1= 18NOV12DCAL-42.WIFF; CAL2= 18NOV12DCAL-43.WIFF; CAL3= 18NOV12DCAL-44.WIFF;
 CAL4= 18NOV12DCAL-45.WIFF; CAL5= 18NOV12DCAL-46.WIFF; CAL6= 18NOV12DCAL-47.WIFF;
 CAL7= 18NOV12DCAL-48.WIFF; CAL8= ;

Perfluorohexanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.059	0.20	0.246	22.8	±30
CAL2	0.149	0.60	0.622	3.7	±30
CAL3	0.544	2.00	2.272	13.6	±30
CAL4	1.973	8.00	8.239	3.0	±30
CAL5	5.022	20.00	20.968	4.8	±30
CAL6	11.605	50.00	48.453	-3.1	±30
CAL7	21.693	100.00	90.577	-9.4	±30

Perfluoropentanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.022	0.19	0.209	11.4	±30
CAL2	0.048	0.56	0.470	-16.4	±30
CAL3	0.202	1.88	1.960	4.3	±30
CAL4	0.773	7.50	7.508	0.1	±30
CAL5	1.906	18.80	18.506	-1.6	±30
CAL6	4.880	46.90	47.375	1.0	±30
CAL7	9.641	93.80	93.602	-0.2	±30

Perfluoroheptanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.071	0.20	0.235	17.7	±30
CAL2	0.178	0.60	0.591	-1.5	±30
CAL3	0.706	2.00	2.342	17.1	±30
CAL4	2.590	8.00	8.586	7.3	±30
CAL5	6.218	20.00	20.612	3.1	±30
CAL6	14.612	50.00	48.434	-3.1	±30
CAL7	27.372	100.00	90.732	-9.3	±30

Perfluorohexanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.039	0.18	0.190	4.5	±30
CAL2	0.097	0.55	0.470	-14.1	±30
CAL3	0.396	1.82	1.920	5.5	±30
CAL4	1.518	7.30	7.361	0.8	±30
CAL5	3.681	18.20	17.849	-1.9	±30
CAL6	9.372	45.60	45.444	-0.3	±30
CAL7	18.895	91.20	91.615	0.5	±30

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/12/2018 15:05 11/12/2018 16:00

Lab File Names: CAL1= 18NOV12DCAL-42.WIFF; CAL2= 18NOV12DCAL-43.WIFF; CAL3= 18NOV12DCAL-44.WIFF;
 CAL4= 18NOV12DCAL-45.WIFF; CAL5= 18NOV12DCAL-46.WIFF; CAL6= 18NOV12DCAL-47.WIFF;
 CAL7= 18NOV12DCAL-48.WIFF; CAL8= ;

6:2 fluorotelomersulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.076	0.19	0.183	-3.6	±30
CAL2	0.226	0.57	0.547	-3.8	±30
CAL3	0.886	1.90	2.143	12.8	±30
CAL4	3.371	7.58	8.157	7.6	±30
CAL5	8.392	19.00	20.308	6.9	±30
CAL6	18.720	47.40	45.301	-4.4	±30
CAL7	31.980	94.80	77.388	-18.4	±30

Perfluoroheptanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.040	0.19	0.213	12.0	±30
CAL2	0.093	0.57	0.491	-14.0	±30
CAL3	0.397	1.90	2.089	10.0	±30
CAL4	1.378	7.61	7.252	-4.7	±30
CAL5	3.704	19.00	19.496	2.6	±30
CAL6	9.168	47.60	48.262	1.4	±30
CAL7	17.908	95.20	94.267	-1.0	±30

Perfluorooctanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.045	0.20	0.243	21.4	±30
CAL2	0.113	0.60	0.603	0.4	±30
CAL3	0.424	2.00	2.262	13.1	±30
CAL4	1.537	8.00	8.207	2.6	±30
CAL5	4.087	20.00	21.830	9.2	±30
CAL6	9.558	50.00	51.047	2.1	±30
CAL7	18.088	100.00	96.608	-3.4	±30

Perfluoro-octanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.046	0.19	0.202	9.3	±30
CAL2	0.119	0.56	0.520	-6.4	±30
CAL3	0.430	1.85	1.881	1.7	±30
CAL4	1.679	7.40	7.341	-0.8	±30
CAL5	4.296	18.50	18.789	1.6	±30
CAL6	10.528	46.30	46.040	-0.6	±30
CAL7	21.179	92.60	92.617	0.0	±30

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/12/2018 15:05 11/12/2018 16:00

Lab File Names: CAL1= 18NOV12DCAL-42.WIFF; CAL2= 18NOV12DCAL-43.WIFF; CAL3= 18NOV12DCAL-44.WIFF;
 CAL4= 18NOV12DCAL-45.WIFF; CAL5= 18NOV12DCAL-46.WIFF; CAL6= 18NOV12DCAL-47.WIFF;
 CAL7= 18NOV12DCAL-48.WIFF; CAL8= ;

Perfluorononanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.062	0.20	0.223	11.4	±30
CAL2	0.179	0.60	0.644	7.4	±30
CAL3	0.663	2.00	2.391	19.5	±30
CAL4	2.279	8.00	8.218	2.7	±30
CAL5	6.168	20.00	22.243	11.2	±30
CAL6	14.066	50.00	50.720	1.4	±30
CAL7	26.723	100.00	96.360	-3.6	±30

Perfluoronananesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.024	0.19	0.169	-11.9	±30
CAL2	0.075	0.58	0.523	-9.2	±30
CAL3	0.271	1.92	1.893	-1.4	±30
CAL4	1.009	7.68	7.057	-8.1	±30
CAL5	2.715	19.20	18.997	-1.1	±30
CAL6	6.755	48.00	47.262	-1.5	±30
CAL7	13.960	96.00	97.666	1.7	±30

Perfluorodecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.045	0.20	0.238	18.9	±30
CAL2	0.106	0.60	0.562	-6.3	±30
CAL3	0.415	2.00	2.198	9.9	±30
CAL4	1.539	8.00	8.159	2.0	±30
CAL5	3.946	20.00	20.920	4.6	±30
CAL6	9.190	50.00	48.722	-2.6	±30
CAL7	16.908	100.00	89.640	-10.4	±30

8:2 fluorotelomersulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.088	0.19	0.206	7.1	±30
CAL2	0.225	0.58	0.524	-8.8	±30
CAL3	0.899	1.92	2.096	9.2	±30
CAL4	2.969	7.66	6.923	-9.6	±30
CAL5	8.524	19.20	19.873	3.5	±30
CAL6	20.513	47.90	47.825	-0.2	±30
CAL7	35.402	95.80	82.540	-13.8	±30

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Instrument ID: 27631

Init. Calib. Date/Times: 11/12/2018 15:05 11/12/2018 16:00

Lab File Names: CAL1= 18NOV12DCAL-42.WIFF; CAL2= 18NOV12DCAL-43.WIFF; CAL3= 18NOV12DCAL-44.WIFF;
 CAL4= 18NOV12DCAL-45.WIFF; CAL5= 18NOV12DCAL-46.WIFF; CAL6= 18NOV12DCAL-47.WIFF;
 CAL7= 18NOV12DCAL-48.WIFF; CAL8= ;

Perfluorooctanesulfonamide	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.045	0.20	0.217	8.7	±30
CAL2	0.112	0.60	0.545	-9.1	±30
CAL3	0.429	2.00	2.098	4.9	±30
CAL4	1.526	8.00	7.455	-6.8	±30
CAL5	4.189	20.00	20.460	2.3	±30
CAL6	10.242	50.00	50.024	0.0	±30
CAL7	18.353	100.00	89.642	-10.4	±30

NMeFOSAA	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.027	0.20	0.150	-25.0	±30
CAL2	0.074	0.60	0.421	-29.9	±30
CAL3	0.351	2.00	1.983	-0.8	±30
CAL4	1.424	8.00	8.048	0.6	±30
CAL5	3.462	20.00	19.564	-2.2	±30
CAL6	8.928	50.00	50.461	0.9	±30
CAL7	17.725	100.00	100.173	0.2	±30

Perfluorodecanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.021	0.19	0.190	-1.3	±30
CAL2	0.060	0.58	0.543	-6.0	±30
CAL3	0.206	1.93	1.869	-3.2	±30
CAL4	0.838	7.70	7.592	-1.4	±30
CAL5	2.167	19.30	19.633	1.7	±30
CAL6	5.189	48.20	47.020	-2.4	±30
CAL7	10.744	96.30	97.353	1.1	±30

Perfluoroundecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.091	0.20	0.238	19.2	±30
CAL2	0.211	0.60	0.551	-8.1	±30
CAL3	0.810	2.00	2.119	5.9	±30
CAL4	3.310	8.00	8.654	8.2	±30
CAL5	7.672	20.00	20.055	0.3	±30
CAL6	18.813	50.00	49.183	-1.6	±30
CAL7	34.057	100.00	89.032	-11.0	±30

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Instrument ID: 27631

Init. Calib. Date/Times: 11/12/2018 15:05 11/12/2018 16:00

Lab File Names: CAL1= 18NOV12DCAL-42.WIFF; CAL2= 18NOV12DCAL-43.WIFF; CAL3=
18NOV12DCAL-44.WIFF;
CAL4= 18NOV12DCAL-45.WIFF; CAL5= 18NOV12DCAL-46.WIFF; CAL6=
18NOV12DCAL-47.WIFF;
CAL7= 18NOV12DCAL-48.WIFF; CAL8= ;

NetFOSAA	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.028	0.20	0.149	-25.7	±30
CAL2	0.121	0.60	0.636	6.0	±30
CAL3	0.461	2.00	2.418	20.9	±30
CAL4	1.449	8.00	7.596	-5.1	±30
CAL5	3.724	20.00	19.520	-2.4	±30
CAL6	9.630	50.00	50.481	1.0	±30
CAL7	18.030	100.00	94.517	-5.5	±30

Perfluorododecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.041	0.20	0.207	3.4	±30
CAL2	0.112	0.60	0.571	-4.8	±30
CAL3	0.432	2.00	2.198	9.9	±30
CAL4	1.541	8.00	7.847	-1.9	±30
CAL5	4.136	20.00	21.062	5.3	±30
CAL6	9.606	50.00	48.914	-2.2	±30
CAL7	17.225	100.00	87.711	-12.3	±30

10:2-fluorotelomersulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.069	0.19	0.229	18.4	±30
CAL2	0.188	0.58	0.627	8.6	±30
CAL3	0.634	1.93	2.111	9.4	±30
CAL4	2.056	7.71	6.849	-11.2	±30
CAL5	6.339	19.30	21.113	9.4	±30
CAL6	15.209	48.20	50.658	5.1	±30
CAL7	27.838	96.40	92.724	-3.8	±30

NMePFOSAE	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.051	0.20	0.214	7.1	±30
CAL2	0.133	0.60	0.554	-7.6	±30
CAL3	0.533	2.00	2.216	10.8	±30
CAL4	1.886	8.00	7.850	-1.9	±30
CAL5	5.021	20.00	20.896	4.5	±30
CAL6	12.781	50.00	53.193	6.4	±30
CAL7	23.037	100.00	95.876	-4.1	±30

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Instrument ID: 27631

Init. Calib. Date/Times: 11/12/2018 15:05 11/12/2018 16:00

Lab File Names: CAL1= 18NOV12DCAL-42.WIFF; CAL2= 18NOV12DCAL-43.WIFF; CAL3= 18NOV12DCAL-44.WIFF;
 CAL4= 18NOV12DCAL-45.WIFF; CAL5= 18NOV12DCAL-46.WIFF; CAL6= 18NOV12DCAL-47.WIFF;
 CAL7= 18NOV12DCAL-48.WIFF; CAL8= ;

NMePFOSA	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.030	0.20	0.150	-25.2	±30
CAL2	0.114	0.60	0.562	-6.3	±30
CAL3	0.390	2.00	1.923	-3.8	±30
CAL4	1.632	8.00	8.049	0.6	±30
CAL5	4.385	20.00	21.631	8.2	±30
CAL6	9.828	50.00	48.485	-3.0	±30
CAL7	17.679	100.00	87.214	-12.8	±30

Perfluorododecanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.012	0.19	0.218	12.3	±30
CAL2	0.033	0.58	0.580	-0.3	±30
CAL3	0.107	1.94	1.876	-3.3	±30
CAL4	0.440	7.74	7.707	-0.4	±30
CAL5	1.081	19.40	18.940	-2.4	±30
CAL6	2.811	48.40	49.234	1.7	±30
CAL7	5.510	96.80	96.500	-0.3	±30

NEtPFOSAE	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.075	0.20	0.240	20.2	±30
CAL2	0.178	0.60	0.573	-4.6	±30
CAL3	0.687	2.00	2.204	10.2	±30
CAL4	2.595	8.00	8.324	4.0	±30
CAL5	6.492	20.00	20.830	4.1	±30
CAL6	15.157	50.00	48.629	-2.7	±30
CAL7	27.283	100.00	87.532	-12.5	±30

NEtPFOSA	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.045	0.20	0.207	3.7	±30
CAL2	0.139	0.60	0.637	6.1	±30
CAL3	0.463	2.00	2.124	6.2	±30
CAL4	1.801	8.00	8.269	3.4	±30
CAL5	4.664	20.00	21.421	7.1	±30
CAL6	10.701	50.00	49.142	-1.7	±30
CAL7	21.557	100.00	98.999	-1.0	±30

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Instrument ID: 27631

Init. Calib. Date/Times: 11/12/2018 15:05 11/12/2018 16:00

Lab File Names: CAL1= 18NOV12DCAL-42.WIFF; CAL2= 18NOV12DCAL-43.WIFF; CAL3= 18NOV12DCAL-44.WIFF;
 CAL4= 18NOV12DCAL-45.WIFF; CAL5= 18NOV12DCAL-46.WIFF; CAL6= 18NOV12DCAL-47.WIFF;
 CAL7= 18NOV12DCAL-48.WIFF; CAL8= ;

Perfluorotridecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.037	0.20	0.234	16.8	±30
CAL2	0.090	0.60	0.569	-5.1	±30
CAL3	0.335	2.00	2.117	5.8	±30
CAL4	1.293	8.00	8.159	2.0	±30
CAL5	3.309	20.00	20.884	4.4	±30
CAL6	7.738	50.00	48.838	-2.3	±30
CAL7	13.241	100.00	83.569	-16.4	±30

Perfluorotetradecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.040	0.20	0.223	11.6	±30
CAL2	0.102	0.60	0.572	-4.6	±30
CAL3	0.398	2.00	2.228	11.4	±30
CAL4	1.458	8.00	8.171	2.1	±30
CAL5	3.737	20.00	20.945	4.7	±30
CAL6	8.923	50.00	50.021	0.0	±30
CAL7	17.596	100.00	98.638	-1.4	±30

Perfluorohexadecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.019	0.20	0.231	15.7	±30
CAL2	0.048	0.60	0.575	-4.2	±30
CAL3	0.177	2.00	2.109	5.4	±30
CAL4	0.654	8.00	7.793	-2.6	±30
CAL5	1.653	20.00	19.691	-1.5	±30
CAL6	4.347	50.00	51.786	3.6	±30
CAL7	8.277	100.00	98.615	-1.4	±30

Perfluorooctadecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.015	0.20	0.204	2.1	±30
CAL2	0.038	0.60	0.528	-11.9	±30
CAL3	0.147	2.00	2.045	2.3	±30
CAL4	0.559	8.00	7.786	-2.7	±30
CAL5	1.434	20.00	19.971	-0.1	±30
CAL6	3.601	50.00	50.157	0.3	±30
CAL7	7.188	100.00	100.107	0.1	±30

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Lab File Names: CAL1= 18NOV28DCAL-06.WIFF; CAL2= 18NOV28DCAL-07.WIFF; CAL3= 18NOV28DCAL-08.WIFF;
 CAL4= 18NOV28DCAL-09.WIFF; CAL5= 18NOV28DCAL-10.WIFF; CAL6= 18NOV28DCAL-11.WIFF;
 CAL7= 18NOV28DCAL-12.WIFF; CAL8= ;

Perfluorobutanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.043	0.20	0.237	18.4	±30
CAL2	0.107	0.60	0.584	-2.7	±30
CAL3	0.406	2.00	2.225	11.2	±30
CAL4	1.463	8.00	8.021	0.3	±30
CAL5	3.811	20.00	20.892	4.5	±30
CAL6	8.910	50.00	48.841	-2.3	±30
CAL7	15.845	100.00	86.862	-13.1	±30

Perfluoropentanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.046	0.20	0.225	12.5	±30
CAL2	0.103	0.60	0.505	-15.8	±30
CAL3	0.466	2.00	2.284	14.2	±30
CAL4	1.556	8.00	7.634	-4.6	±30
CAL5	4.107	20.00	20.152	0.8	±30
CAL6	9.020	50.00	44.258	-11.5	±30
CAL7	16.145	100.00	79.219	-20.8	±30

Perfluorobutanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.040	0.18	0.194	9.4	±30
CAL2	0.098	0.53	0.475	-10.6	±30
CAL3	0.401	1.77	1.948	10.1	±30
CAL4	1.393	7.08	6.761	-4.5	±30
CAL5	3.638	17.70	17.661	-0.2	±30
CAL6	9.036	44.20	43.864	-0.8	±30
CAL7	18.326	88.40	88.956	0.6	±30

4:2 fluorotelomersulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.075	0.19	0.200	6.8	±30
CAL2	0.202	0.56	0.540	-3.7	±30
CAL3	0.800	1.87	2.142	14.5	±30
CAL4	2.854	7.47	7.640	2.3	±30
CAL5	7.396	18.70	19.798	5.9	±30
CAL6	17.601	46.70	47.117	0.9	±30
CAL7	34.162	93.40	91.451	-2.1	±30

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Instrument ID: 27631

Init. Calib. Date/Times: 11/28/2018 13:42 11/28/2018 14:36

Lab File Names: CAL1= 18NOV28DCAL-06.WIFF; CAL2= 18NOV28DCAL-07.WIFF; CAL3= 18NOV28DCAL-08.WIFF;
 CAL4= 18NOV28DCAL-09.WIFF; CAL5= 18NOV28DCAL-10.WIFF; CAL6= 18NOV28DCAL-11.WIFF;
 CAL7= 18NOV28DCAL-12.WIFF; CAL8= ;

Perfluorohexanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.058	0.20	0.233	16.5	±30
CAL2	0.146	0.60	0.586	-2.4	±30
CAL3	0.551	2.00	2.211	10.5	±30
CAL4	2.004	8.00	8.042	0.5	±30
CAL5	4.915	20.00	19.728	-1.4	±30
CAL6	11.061	50.00	44.400	-11.2	±30
CAL7	20.035	100.00	80.421	-19.6	±30

Perfluoropentanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.020	0.19	0.207	10.1	±30
CAL2	0.054	0.56	0.549	-2.4	±30
CAL3	0.213	1.88	2.157	14.7	±30
CAL4	0.735	7.50	7.436	-0.9	±30
CAL5	1.909	18.80	19.314	2.7	±30
CAL6	4.502	46.90	45.538	-2.9	±30
CAL7	9.335	93.80	94.429	0.7	±30

Perfluoroheptanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.078	0.20	0.240	19.9	±30
CAL2	0.184	0.60	0.567	-5.5	±30
CAL3	0.725	2.00	2.238	11.9	±30
CAL4	2.537	8.00	7.829	-2.1	±30
CAL5	6.457	20.00	19.926	-0.4	±30
CAL6	14.179	50.00	43.759	-12.5	±30
CAL7	23.161	100.00	71.480	-28.5	±30

Perfluorohexanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.039	0.18	0.181	-0.6	±30
CAL2	0.093	0.55	0.435	-20.6	±30
CAL3	0.391	1.82	1.831	0.6	±30
CAL4	1.405	7.30	6.580	-9.9	±30
CAL5	3.854	18.20	18.044	-0.9	±30
CAL6	9.382	45.60	43.929	-3.7	±30
CAL7	20.044	91.20	93.850	2.9	±30

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Instrument ID: 27631

Init. Calib. Date/Times: 11/28/2018 13:42 11/28/2018 14:36

Lab File Names: CAL1= 18NOV28DCAL-06.WIFF; CAL2= 18NOV28DCAL-07.WIFF; CAL3= 18NOV28DCAL-08.WIFF;
 CAL4= 18NOV28DCAL-09.WIFF; CAL5= 18NOV28DCAL-10.WIFF; CAL6= 18NOV28DCAL-11.WIFF;
 CAL7= 18NOV28DCAL-12.WIFF; CAL8= ;

6:2 fluorotelomersulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.087	0.19	0.226	18.9	±30
CAL2	0.227	0.57	0.591	3.9	±30
CAL3	0.823	1.90	2.149	13.1	±30
CAL4	3.275	7.58	8.546	12.7	±30
CAL5	7.342	19.00	19.156	0.8	±30
CAL6	17.619	47.40	45.972	-3.0	±30
CAL7	33.528	94.80	87.481	-7.7	±30

Perfluoroheptanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.042	0.19	0.209	10.2	±30
CAL2	0.097	0.57	0.485	-15.1	±30
CAL3	0.396	1.90	1.976	4.0	±30
CAL4	1.490	7.61	7.439	-2.2	±30
CAL5	3.788	19.00	18.906	-0.5	±30
CAL6	9.599	47.60	47.909	0.6	±30
CAL7	19.064	95.20	95.147	-0.1	±30

Perfluorooctanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.041	0.20	0.213	6.6	±30
CAL2	0.103	0.60	0.533	-11.1	±30
CAL3	0.425	2.00	2.197	9.8	±30
CAL4	1.618	8.00	8.361	4.5	±30
CAL5	3.950	20.00	20.411	2.1	±30
CAL6	9.499	50.00	49.084	-1.8	±30
CAL7	17.301	100.00	89.401	-10.6	±30

Perfluoro-octanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.041	0.19	0.172	-7.0	±30
CAL2	0.109	0.56	0.457	-17.6	±30
CAL3	0.450	1.85	1.888	2.1	±30
CAL4	1.627	7.40	6.826	-7.8	±30
CAL5	4.356	18.50	18.273	-1.2	±30
CAL6	10.840	46.30	45.472	-1.8	±30
CAL7	22.481	92.60	94.301	1.8	±30

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Instrument ID: 27631

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Lab File Names: CAL1= 18NOV28DCAL-06.WIFF; CAL2= 18NOV28DCAL-07.WIFF; CAL3= 18NOV28DCAL-08.WIFF;
 CAL4= 18NOV28DCAL-09.WIFF; CAL5= 18NOV28DCAL-10.WIFF; CAL6= 18NOV28DCAL-11.WIFF;
 CAL7= 18NOV28DCAL-12.WIFF; CAL8= ;

Perfluorononanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.060	0.20	0.229	14.7	±30
CAL2	0.156	0.60	0.599	-0.1	±30
CAL3	0.588	2.00	2.253	12.6	±30
CAL4	2.104	8.00	8.064	0.8	±30
CAL5	5.611	20.00	21.504	7.5	±30
CAL6	12.565	50.00	48.151	-3.7	±30
CAL7	23.016	100.00	88.201	-11.8	±30

Perfluoronananesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.031	0.19	0.193	0.7	±30
CAL2	0.077	0.58	0.486	-15.7	±30
CAL3	0.295	1.92	1.864	-2.9	±30
CAL4	1.249	7.68	7.885	2.7	±30
CAL5	3.037	19.20	19.177	-0.1	±30
CAL6	7.581	48.00	47.867	-0.3	±30
CAL7	15.220	96.00	96.096	0.1	±30

Perfluorodecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.039	0.20	0.222	11.2	±30
CAL2	0.108	0.60	0.612	2.0	±30
CAL3	0.417	2.00	2.360	18.0	±30
CAL4	1.454	8.00	8.227	2.8	±30
CAL5	3.687	20.00	20.868	4.3	±30
CAL6	8.633	50.00	48.868	-2.3	±30
CAL7	17.604	100.00	99.643	-0.4	±30

8:2 fluorotelomersulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.104	0.19	0.197	2.4	±30
CAL2	0.284	0.58	0.536	-6.9	±30
CAL3	1.067	1.92	2.011	4.8	±30
CAL4	3.846	7.66	7.253	-5.3	±30
CAL5	10.368	19.20	19.551	1.8	±30
CAL6	21.098	47.90	39.786	-16.9	±30
CAL7	39.430	95.80	74.355	-22.4	±30

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Instrument ID: 27631

Init. Calib. Date/Times: 11/28/2018 13:42 11/28/2018 14:36

Lab File Names: CAL1= 18NOV28DCAL-06.WIFF; CAL2= 18NOV28DCAL-07.WIFF; CAL3= 18NOV28DCAL-08.WIFF;
 CAL4= 18NOV28DCAL-09.WIFF; CAL5= 18NOV28DCAL-10.WIFF; CAL6= 18NOV28DCAL-11.WIFF;
 CAL7= 18NOV28DCAL-12.WIFF; CAL8= ;

Perfluorooctanesulfonamide	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.042	0.20	0.212	5.9	±30
CAL2	0.111	0.60	0.562	-6.3	±30
CAL3	0.420	2.00	2.128	6.4	±30
CAL4	1.562	8.00	7.914	-1.1	±30
CAL5	4.013	20.00	20.329	1.6	±30
CAL6	9.802	50.00	49.655	-0.7	±30
CAL7	17.627	100.00	89.294	-10.7	±30

NMeFOSAA	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.030	0.20	0.193	-3.7	±30
CAL2	0.091	0.60	0.582	-3.0	±30
CAL3	0.348	2.00	2.220	11.0	±30
CAL4	1.243	8.00	7.928	-0.9	±30
CAL5	3.230	20.00	20.602	3.0	±30
CAL6	7.997	50.00	51.010	2.0	±30
CAL7	15.405	100.00	98.267	-1.7	±30

Perfluorodecanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.022	0.19	0.171	-11.6	±30
CAL2	0.059	0.58	0.471	-18.5	±30
CAL3	0.260	1.93	2.060	6.8	±30
CAL4	0.956	7.70	7.582	-1.5	±30
CAL5	2.461	19.30	19.512	1.1	±30
CAL6	5.967	48.20	47.309	-1.8	±30
CAL7	12.246	96.30	97.096	0.8	±30

Perfluoroundecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.062	0.20	0.222	10.9	±30
CAL2	0.157	0.60	0.563	-6.2	±30
CAL3	0.626	2.00	2.236	11.8	±30
CAL4	2.346	8.00	8.387	4.8	±30
CAL5	5.860	20.00	20.945	4.7	±30
CAL6	14.523	50.00	51.912	3.8	±30
CAL7	27.007	100.00	96.536	-3.5	±30

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Init. Calib. Date/Times: 11/28/2018 13:42 11/28/2018 14:36

Lab File Names: CAL1= 18NOV28DCAL-06.WIFF; CAL2= 18NOV28DCAL-07.WIFF; CAL3= 18NOV28DCAL-08.WIFF;
 CAL4= 18NOV28DCAL-09.WIFF; CAL5= 18NOV28DCAL-10.WIFF; CAL6= 18NOV28DCAL-11.WIFF;
 CAL7= 18NOV28DCAL-12.WIFF; CAL8= ;

NetFOSAA	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.040	0.20	0.194	-3.2	±30
CAL2	0.115	0.60	0.560	-6.7	±30
CAL3	0.407	2.00	1.980	-1.0	±30
CAL4	1.473	8.00	7.175	-10.3	±30
CAL5	4.109	20.00	20.014	0.1	±30
CAL6	10.300	50.00	50.166	0.3	±30
CAL7	20.679	100.00	100.712	0.7	±30

Perfluorododecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.045	0.20	0.249	24.6	±30
CAL2	0.107	0.60	0.589	-1.9	±30
CAL3	0.446	2.00	2.442	22.1	±30
CAL4	1.434	8.00	7.854	-1.8	±30
CAL5	3.673	20.00	20.121	0.6	±30
CAL6	9.045	50.00	49.545	-0.9	±30
CAL7	16.657	100.00	91.243	-8.8	±30

10:2-fluorotelomersulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.097	0.19	0.214	10.9	±30
CAL2	0.277	0.58	0.610	5.6	±30
CAL3	1.087	1.93	2.396	24.1	±30
CAL4	3.492	7.71	7.701	-0.1	±30
CAL5	10.411	19.30	22.957	18.9	±30
CAL6	21.857	48.20	48.197	0.0	±30
CAL7	41.828	96.40	92.235	-4.3	±30

NMePFOSAE	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.049	0.20	0.207	3.7	±30
CAL2	0.139	0.60	0.587	-2.2	±30
CAL3	0.532	2.00	2.239	12.0	±30
CAL4	1.893	8.00	7.968	-0.4	±30
CAL5	5.008	20.00	21.073	5.4	±30
CAL6	12.293	50.00	51.733	3.5	±30
CAL7	23.048	100.00	96.993	-3.0	±30

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Instrument ID: 27631

Init. Calib. Date/Times: 11/28/2018 13:42 11/28/2018 14:36

Lab File Names: CAL1= 18NOV28DCAL-06.WIFF; CAL2= 18NOV28DCAL-07.WIFF; CAL3= 18NOV28DCAL-08.WIFF;
 CAL4= 18NOV28DCAL-09.WIFF; CAL5= 18NOV28DCAL-10.WIFF; CAL6= 18NOV28DCAL-11.WIFF;
 CAL7= 18NOV28DCAL-12.WIFF; CAL8= ;

NMePFOSA	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.038	0.20	0.203	1.3	±30
CAL2	0.108	0.60	0.575	-4.1	±30
CAL3	0.411	2.00	2.179	9.0	±30
CAL4	1.485	8.00	7.873	-1.6	±30
CAL5	3.882	20.00	20.577	2.9	±30
CAL6	9.378	50.00	49.716	-0.6	±30
CAL7	18.802	100.00	99.677	-0.3	±30

Perfluorododecanesulfonate	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.013	0.19	0.181	-6.8	±30
CAL2	0.037	0.58	0.531	-8.6	±30
CAL3	0.132	1.94	1.892	-2.5	±30
CAL4	0.539	7.74	7.744	0.0	±30
CAL5	1.303	19.40	18.718	-3.5	±30
CAL6	3.225	48.40	46.320	-4.3	±30
CAL7	6.940	96.80	99.670	3.0	±30

NEtPFOSAE	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.068	0.20	0.245	22.4	±30
CAL2	0.166	0.60	0.596	-0.6	±30
CAL3	0.706	2.00	2.540	27.0	±30
CAL4	2.364	8.00	8.504	6.3	±30
CAL5	6.065	20.00	21.818	9.1	±30
CAL6	13.925	50.00	50.088	0.2	±30
CAL7	26.969	100.00	97.008	-3.0	±30

NEtPFOSA	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.048	0.20	0.217	8.3	±30
CAL2	0.118	0.60	0.530	-11.6	±30
CAL3	0.473	2.00	2.122	6.1	±30
CAL4	1.779	8.00	7.975	-0.3	±30
CAL5	4.417	20.00	19.796	-1.0	±30
CAL6	11.703	50.00	52.452	4.9	±30
CAL7	21.801	100.00	97.709	-2.3	±30

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Instrument ID: 27631

Init. Calib. Date/Times: 11/28/2018 13:42 11/28/2018 14:36

Lab File Names: CAL1= 18NOV28DCAL-06.WIFF; CAL2= 18NOV28DCAL-07.WIFF; CAL3= 18NOV28DCAL-08.WIFF;
 CAL4= 18NOV28DCAL-09.WIFF; CAL5= 18NOV28DCAL-10.WIFF; CAL6= 18NOV28DCAL-11.WIFF;
 CAL7= 18NOV28DCAL-12.WIFF; CAL8= ;

Perfluorotridecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.041	0.20	0.249	24.7	±30
CAL2	0.103	0.60	0.621	3.5	±30
CAL3	0.427	2.00	2.576	28.8	±30
CAL4	1.410	8.00	8.500	6.2	±30
CAL5	3.304	20.00	19.916	-0.4	±30
CAL6	8.119	50.00	48.938	-2.1	±30
CAL7	14.467	100.00	87.197	-12.8	±30

Perfluorotetradecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.039	0.20	0.221	10.5	±30
CAL2	0.103	0.60	0.583	-2.8	±30
CAL3	0.406	2.00	2.303	15.2	±30
CAL4	1.418	8.00	8.033	0.4	±30
CAL5	3.685	20.00	20.882	4.4	±30
CAL6	8.609	50.00	48.777	-2.4	±30
CAL7	15.696	100.00	88.936	-11.1	±30

Perfluorohexadecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.022	0.20	0.251	25.6	±30
CAL2	0.051	0.60	0.588	-1.9	±30
CAL3	0.206	2.00	2.359	17.9	±30
CAL4	0.728	8.00	8.321	4.0	±30
CAL5	1.973	20.00	22.560	12.8	±30
CAL6	4.311	50.00	49.281	-1.4	±30
CAL7	8.524	100.00	97.440	-2.6	±30

Perfluorooctadecanoic acid	Area Ratio	Specified Amount	Calculated Amount	% Difference	Limit
CAL1	0.016	0.20	0.219	9.6	±30
CAL2	0.042	0.60	0.565	-5.8	±30
CAL3	0.165	2.00	2.201	10.0	±30
CAL4	0.598	8.00	7.964	-0.4	±30
CAL5	1.619	20.00	21.571	7.9	±30
CAL6	3.728	50.00	49.663	-0.7	±30
CAL7	7.403	100.00	98.616	-1.4	±30

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/07/2018 09:39 11/07/2018 10:33

Lab File Names: CAL1=18NOV07DCAL-10.WIFF; CAL2=18NOV07DCAL-11.WIFF; CAL3=18NOV07DCAL-12.WIFF;
CAL4=18NOV07DCAL-13.WIFF; CAL5=18NOV07DCAL-14.WIFF; CAL6=18NOV07DCAL-15.WIFF;
CAL7=18NOV07DCAL-16.WIFF;

Analyte	RF							RF %RSD
	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6	CAL7	
Perfluorobutanoic acid	1.018	0.931	0.905	0.934	0.936	0.881	0.816	6
Perfluoropentanoic acid	0.983	0.897	0.863	0.883	0.914	0.858	0.814	6
Perfluorobutanesulfonate	1.158	0.984	0.907	0.979	0.951	0.960	0.893	8
4:2 fluorotelomersulfonate	1.777	1.830	1.827	1.860	1.869	1.731	1.702	3
Perfluorohexanoic acid	1.369	1.233	1.246	1.275	1.253	1.109	---	6
Perfluoropentanesulfonate	0.454	0.467	0.444	0.498	0.474	0.471	0.470	3
Perfluorohexanesulfonate	0.955	0.955	0.893	0.948	0.948	0.935	0.929	2
Perfluoroheptanoic acid	1.634	1.603	1.590	1.563	1.579	1.432	---	4
6:2 fluorotelomersulfonate	1.464	2.292	2.080	2.004	2.131	1.864	1.866	13
Perfluoroheptanesulfonate	0.984	0.904	0.893	0.946	0.924	0.891	0.903	3
Perfluorooctanoic acid	0.969	0.972	0.946	0.995	0.956	0.913	0.852	5
Perfluoro-octanesulfonate	0.998	0.997	0.938	0.958	0.930	0.927	0.914	3
Perfluorononanoic acid	1.571	1.383	1.459	1.439	1.491	1.379	1.276	6
Perfluorononanesulfonate	0.553	0.609	0.611	0.650	0.603	0.625	0.588	5
Perfluorodecanoic acid	0.980	0.945	0.957	0.980	1.004	0.925	0.875	4
8:2 fluorotelomersulfonate	2.603	2.513	2.112	2.184	2.222	2.072	---	9
Perfluorooctanesulfonamide	0.896	0.979	0.964	0.988	0.831	0.967	0.917	6
NMeFOSAA	0.867	1.180	0.991	1.053	1.044	0.948	0.962	9
Perfluorodecanesulfonate	0.528	0.545	0.492	0.534	0.504	0.495	0.500	4
Perfluoroundecanoic acid	1.982	1.865	1.891	1.818	1.849	1.776	1.696	5
NEtFOSAA	1.063	1.102	1.103	1.149	1.294	1.132	1.156	6
Perfluorododecanoic acid	1.032	1.006	0.944	0.916	0.972	0.902	---	5
10:2-fluorotelomersulfonate	1.769	1.760	1.607	1.411	1.601	1.578	1.513	7
NMePFOSAE	1.362	1.238	1.132	1.225	1.231	1.175	1.053	7
NMePFOSA	0.899	1.015	0.938	0.855	0.985	0.914	0.866	6
Perfluorododecanesulfonate	0.247	0.249	0.266	0.257	0.245	0.243	0.249	3
NEtPFOSAE	1.848	1.807	1.624	1.689	1.741	1.603	1.488	7
NEtPFOSA	1.082	0.962	0.983	1.069	1.170	1.145	1.133	7
Perfluorotridecanoic acid	0.992	0.824	0.844	0.816	0.844	0.766	---	8
Perfluorotetradecanoic acid	0.989	0.821	0.895	0.892	0.889	0.857	0.837	6
Perfluorohexadecanoic acid	0.475	0.422	0.418	0.420	0.425	0.395	0.400	6
Perfluorooctadecanoic acid	0.385	0.357	0.356	0.356	0.370	0.340	0.348	4

--- Calibration point does not apply

* = % RSD > 20

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/12/2018 15:05 11/12/2018 16:00

Lab File Names: CAL1=18NOV12DCAL-42.WIFF; CAL2=18NOV12DCAL-43.WIFF; CAL3=18NOV12DCAL-44.WIFF;
CAL4=18NOV12DCAL-45.WIFF; CAL5=18NOV12DCAL-46.WIFF; CAL6=18NOV12DCAL-47.WIFF;
CAL7=18NOV12DCAL-48.WIFF;

Analyte	RF							RF %RSD
	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6	CAL7	
Perfluorobutanoic acid	1.059	0.868	1.034	0.919	0.966	0.910	0.882	7
Perfluoropentanoic acid	1.058	0.952	1.052	0.939	0.906	0.876	0.839	8
Perfluorobutanesulfonate	1.061	0.938	1.061	0.954	1.001	0.997	0.964	5
4:2 fluorotelomersulfonate	1.764	1.591	1.797	1.672	1.662	1.782	1.703	4
Perfluorohexanoic acid	1.470	1.241	1.361	1.233	1.255	1.160	---	8
Perfluoropentanesulfonate	0.534	0.400	0.499	0.479	0.471	0.484	0.478	8
Perfluoroheptanoic acid	1.776	1.486	1.766	1.619	1.555	1.461	---	8
Perfluorohexanesulfonate	1.019	0.838	1.029	0.984	0.957	0.972	0.980	6
6:2 fluorotelomersulfonate	1.892	1.888	2.214	2.112	2.098	1.876	---	7
Perfluoroheptanesulfonate	1.007	0.773	0.988	0.856	0.922	0.911	0.890	8
Perfluorooctanoic acid	1.136	0.940	1.059	0.960	1.022	0.956	0.904	7
Perfluoro-octanesulfonate	1.194	1.024	1.112	1.084	1.110	1.087	1.093	4
Perfluorononanoic acid	1.545	1.489	1.658	1.424	1.542	1.407	1.336	7
Perfluorononanesulfonate	0.602	0.621	0.674	0.628	0.676	0.673	0.695	5
Perfluorodecanoic acid	1.122	0.883	1.037	0.962	0.987	0.919	---	8
8:2 fluorotelomersulfonate	2.201	1.873	2.243	1.857	2.127	2.051	---	7
Perfluorooctanesulfonamide	1.113	0.931	1.074	0.954	1.047	1.024	---	6
NMeFOSAA	0.663	0.620	0.877	0.890	0.865	0.893	0.886	13
Perfluorodecanesulfonate	0.521	0.496	0.511	0.520	0.537	0.515	0.533	2
Perfluoroundecanoic acid	2.280	1.757	2.026	2.069	1.918	1.881	---	8
NEtFOSAA	0.709	1.011	1.153	0.906	0.931	0.963	---	14
Perfluorododecanoic acid	1.015	0.935	1.079	0.963	1.034	0.961	---	5
10:2-fluorotelomersulfonate	1.703	1.561	1.573	1.278	1.573	1.511	1.383	9
NMePFOSAE	1.287	1.110	1.331	1.179	1.255	1.278	1.152	6
NMePFOSA	0.758	0.950	0.975	1.020	1.096	0.983	---	11
Perfluorododecanesulfonate	0.306	0.272	0.264	0.272	0.266	0.278	0.272	5
NEtPFOSAE	1.873	1.487	1.717	1.622	1.623	1.516	---	8
NEtPFOSA	1.129	1.156	1.156	1.125	1.166	1.070	1.078	3
Perfluorotridecanoic acid	0.925	0.751	0.839	0.808	0.827	0.774	---	7
Perfluorotetradecanoic acid	0.996	0.851	0.994	0.911	0.934	0.892	0.880	6
Perfluorohexadecanoic acid	0.486	0.402	0.442	0.409	0.413	0.435	0.414	6
Perfluorooctadecanoic acid	0.367	0.316	0.367	0.349	0.358	0.360	0.359	5

--- Calibration point does not apply

* = % RSD > 20

SDG No.: BSI14

Instrument ID: 27631

Init. Calib. Date/Times: 11/28/2018 13:42 11/28/2018 14:36

Lab File Names: CAL1=18NOV28DCAL-06.WIFF; CAL2=18NOV28DCAL-07.WIFF; CAL3=18NOV28DCAL-08.WIFF;
CAL4=18NOV28DCAL-09.WIFF; CAL5=18NOV28DCAL-10.WIFF; CAL6=18NOV28DCAL-11.WIFF;
CAL7=18NOV28DCAL-12.WIFF;

Analyte	RF							RF %RSD
	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6	CAL7	
Perfluorobutanoic acid	1.080	0.888	1.015	0.915	0.953	0.891	---	7
Perfluoropentanoic acid	1.146	0.858	1.164	0.972	1.027	---	---	11
Perfluorobutanesulfonate	1.048	0.856	1.054	0.915	0.956	0.951	0.964	7
4:2 fluorotelomersulfonate	1.863	1.681	1.998	1.784	1.847	1.760	1.708	6
Perfluorohexanoic acid	1.451	1.216	1.377	1.252	1.229	---	---	7
Perfluoropentanesulfonate	0.506	0.448	0.528	0.456	0.472	0.446	0.463	6
Perfluoroheptanoic acid	1.943	1.531	1.813	1.585	1.614	---	---	9
Perfluorohexanesulfonate	1.004	0.803	1.016	0.911	1.002	0.973	1.040	8
6:2 fluorotelomersulfonate	2.165	1.891	2.059	2.052	1.835	1.766	---	7
Perfluoroheptanesulfonate	1.044	0.805	0.986	0.926	0.943	0.954	0.947	7
Perfluorooctanoic acid	1.031	0.860	1.063	1.011	0.988	0.950	---	7
Perfluoro-octanesulfonate	1.059	0.938	1.163	1.051	1.126	1.119	1.160	7
Perfluorononanoic acid	1.496	1.303	1.470	1.315	1.403	1.256	---	6
Perfluorononanesulfonate	0.763	0.638	0.735	0.777	0.756	0.755	0.758	6
Perfluorodecanoic acid	0.983	0.901	1.042	0.908	0.922	0.863	0.880	6
8:2 fluorotelomersulfonate	2.600	2.366	2.661	2.405	2.587	---	---	5
Perfluorooctanesulfonamide	1.045	0.925	1.050	0.976	1.003	0.980	---	4
NMeFOSAA	0.755	0.760	0.870	0.777	0.807	0.800	0.770	5
Perfluorodecanesulfonate	0.533	0.491	0.644	0.594	0.609	0.592	0.608	8
Perfluoroundecanoic acid	1.551	1.312	1.564	1.466	1.465	1.452	1.350	6
NEtFOSAA	0.994	0.958	1.016	0.921	1.027	1.030	1.034	4
Perfluorododecanoic acid	1.137	0.896	1.115	0.896	0.918	0.904	---	11
10:2-fluorotelomersulfonate	2.409	2.294	2.697	2.170	2.584	2.172	2.078	9
NMePFOSAE	1.232	1.162	1.330	1.183	1.252	1.229	1.152	5
NMePFOSA	0.955	0.904	1.028	0.928	0.970	0.938	0.940	4
Perfluorododecanesulfonate	0.310	0.304	0.325	0.333	0.321	0.319	0.343	4
NEtPFOSAE	1.702	1.382	1.766	1.478	1.516	1.392	1.348	10
NEtPFOSA	1.208	0.986	1.184	1.112	1.104	1.170	1.090	6
Perfluorotridecanoic acid	1.034	0.859	1.068	0.881	0.826	0.812	---	11
Perfluorotetradecanoic acid	0.975	0.858	1.016	0.886	0.921	0.861	---	6
Perfluorohexadecanoic acid	0.549	0.429	0.516	0.455	0.493	0.431	0.426	10
Perfluorooctadecanoic acid	0.411	0.354	0.413	0.374	0.405	0.373	0.370	6

--- Calibration point does not apply

* = % RSD > 20

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV07DCAL-20.WIFF

Date/Time Analyzed: 11/07/2018 11:09

Lab Sample ID: CCV1_CAL3

Init. Calib. Date/Times: 11/07/2018 09:39

11/07/2018 10:33

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	2.00	2.09	4.37	±30
Perfluoropentanoic acid	2.00	2.08	4.09	±30
Perfluorobutanesulfonate	1.77	1.83	3.13	±30
4:2 fluorotelomersulfonate	1.98	2.11	6.41	±30
Perfluorohexanoic acid	2.00	2.25	12.42	±30
Perfluoropentanesulfonate	1.88	1.94	3.35	±30
Perfluorohexanesulfonate	1.89	1.93	1.87	±30
Perfluoroheptanoic acid	2.00	2.19	9.28	±30
6:2 fluorotelomersulfonate	2.09	1.92	-8.35	±30
Perfluoroheptanesulfonate	1.90	1.87	-1.62	±30
Perfluorooctanoic acid	2.00	2.15	7.42	±30
Perfluoro-octanesulfonate	1.91	2.09	9.36	±30
Perfluorononanoic acid	2.00	2.06	3.07	±30
Perfluorononanesulfonate	1.92	1.98	2.88	±30
Perfluorodecanoic acid	2.00	2.08	3.96	±30
8:2 fluorotelomersulfonate	2.11	2.09	-0.82	±30
Perfluorooctanesulfonamide	2.00	2.07	3.64	±30
NMeFOSAA	2.00	1.63	-18.67	±30
Perfluorodecanesulfonate	1.93	1.96	1.77	±30
Perfluoroundecanoic acid	2.00	2.16	8.03	±30
NEtFOSAA	2.00	1.95	-2.25	±30
Perfluorododecanoic acid	2.00	2.04	1.95	±30
10:2-fluorotelomersulfonate	2.12	1.64	-22.85	±30
NMePFOSAE	2.00	2.16	7.79	±30
NMePFOSA	2.00	2.14	6.78	±30
Perfluorododecanesulfonate	1.94	2.09	7.77	±30
NEtPFOSAE	2.00	2.19	9.62	±30
NEtPFOSA	2.00	1.79	-10.51	±30
Perfluorotridecanoic acid	2.00	2.06	2.83	±30
Perfluorotetradecanoic acid	2.00	2.10	4.78	±30
Perfluorohexadecanoic acid	2.00	2.06	2.88	±30
Perfluorooctadecanoic acid	2.00	2.01	0.72	±30

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV09D-03.WIFF

Date/Time Analyzed: 11/09/2018 04:56

Lab Sample ID: CCV1_ISC_CAL2

Init. Calib. Date/Times: 11/07/2018 09:39

11/07/2018 10:33

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	0.50	0.54	7.87	±30
Perfluoropentanoic acid	0.50	0.55	10.31	±30
Perfluorobutanesulfonate	0.44	0.45	2.98	±30
4:2 fluorotelomersulfonate	0.47	0.52	10.54	±30
Perfluorohexanoic acid	0.50	0.58	16.39	±30
Perfluoropentanesulfonate	0.47	0.47	-0.76	±30
Perfluorohexanesulfonate	0.47	0.47	-0.05	±30
Perfluoroheptanoic acid	0.50	0.54	8.64	±30
6:2 fluorotelomersulfonate	0.47	0.54	13.88	±30
Perfluoroheptanesulfonate	0.48	0.47	-1.08	±30
Perfluorooctanoic acid	0.50	0.55	9.34	±30
Perfluoro-octanesulfonate	0.48	0.55	14.79	±30
Perfluorononanoic acid	0.50	0.53	5.38	±30
Perfluorononanesulfonate	0.48	0.50	5.17	±30
Perfluorodecanoic acid	0.50	0.55	9.15	±30
8:2 fluorotelomersulfonate	0.48	0.47	-2.00	±30
Perfluorooctanesulfonamide	0.50	0.56	11.05	±30
NMeFOSAA	0.50	0.47	-6.24	±30
Perfluorodecanesulfonate	0.48	0.49	1.85	±30
Perfluoroundecanoic acid	0.50	0.53	6.13	±30
NEtFOSAA	0.50	0.54	7.04	±30
Perfluorododecanoic acid	0.50	0.50	-0.23	±30
10:2-fluorotelomersulfonate	0.48	0.45	-7.45	±30
NMePFOSAE	0.50	0.55	10.93	±30
NMePFOSA	0.50	0.56	11.94	±30
Perfluorododecanesulfonate	0.48	0.59	22.71	±30
NEtPFOSAE	0.50	0.56	12.33	±30
NEtPFOSA	0.50	0.41	-17.10	±30
Perfluorotridecanoic acid	0.50	0.49	-1.60	±30
Perfluorotetradecanoic acid	0.50	0.52	4.56	±30
Perfluorohexadecanoic acid	0.50	0.54	7.30	±30
Perfluorooctadecanoic acid	0.50	0.56	11.23	±30

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV09D-34.WIFF

Date/Time Analyzed: 11/09/2018 09:36

Lab Sample ID: CCV4_ISC_CAL2

Init. Calib. Date/Times: 11/07/2018 09:39

11/07/2018 10:33

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	0.50	0.54	7.99	±30
Perfluoropentanoic acid	0.50	0.57	13.29	±30
Perfluorobutanesulfonate	0.44	0.49	10.83	±30
4:2 fluorotelomersulfonate	0.47	0.45	-3.61	±30
Perfluorohexanoic acid	0.50	0.56	12.07	±30
Perfluoropentanesulfonate	0.47	0.49	3.90	±30
Perfluorohexanesulfonate	0.47	0.49	3.22	±30
Perfluoroheptanoic acid	0.50	0.51	1.42	±30
6:2 fluorotelomersulfonate	0.47	0.48	1.27	±30
Perfluoroheptanesulfonate	0.48	0.47	-1.00	±30
Perfluorooctanoic acid	0.50	0.56	11.23	±30
Perfluoro-octanesulfonate	0.48	0.53	9.92	±30
Perfluorononanoic acid	0.50	0.55	9.01	±30
Perfluorononanesulfonate	0.48	0.50	4.81	±30
Perfluorodecanoic acid	0.50	0.54	8.52	±30
8:2 fluorotelomersulfonate	0.48	0.54	11.84	±30
Perfluorooctanesulfonamide	0.50	0.51	1.77	±30
NMeFOSAA	0.50	0.58	15.13	±30
Perfluorodecanesulfonate	0.48	0.55	13.91	±30
Perfluoroundecanoic acid	0.50	0.52	3.02	±30
NEtFOSAA	0.50	0.51	2.93	±30
Perfluorododecanoic acid	0.50	0.44	-12.44	±30
10:2-fluorotelomersulfonate	0.48	0.49	1.51	±30
NMePFOSAE	0.50	0.51	1.79	±30
NMePFOSA	0.50	0.53	5.11	±30
Perfluorododecanesulfonate	0.48	0.48	-0.82	±30
NEtPFOSAE	0.50	0.57	14.17	±30
NEtPFOSA	0.50	0.53	5.40	±30
Perfluorotridecanoic acid	0.50	0.46	-7.10	±30
Perfluorotetradecanoic acid	0.50	0.52	4.61	±30
Perfluorohexadecanoic acid	0.50	0.57	14.27	±30
Perfluorooctadecanoic acid	0.50	0.53	5.21	±30

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV09D-46.WIFF

Date/Time Analyzed: 11/09/2018 11:24

Lab Sample ID: CCV5_CAL3

Init. Calib. Date/Times: 11/07/2018 09:39

11/07/2018 10:33

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	2.00	2.14	7.18	±30
Perfluoropentanoic acid	2.00	2.04	2.23	±30
Perfluorobutanesulfonate	1.77	1.78	0.74	±30
4:2 fluorotelomersulfonate	1.87	2.11	13.07	±30
Perfluorohexanoic acid	2.00	2.17	8.59	±30
Perfluoropentanesulfonate	1.88	1.85	-1.70	±30
Perfluorohexanesulfonate	1.89	1.92	1.35	±30
Perfluoroheptanoic acid	2.00	2.11	5.36	±30
6:2 fluorotelomersulfonate	1.90	2.06	8.86	±30
Perfluoroheptanesulfonate	1.90	1.88	-0.80	±30
Perfluorooctanoic acid	2.00	2.04	1.89	±30
Perfluoro-octanesulfonate	1.91	1.95	2.13	±30
Perfluorononanoic acid	2.00	2.16	7.82	±30
Perfluorononanesulfonate	1.92	1.82	-5.18	±30
Perfluorodecanoic acid	2.00	2.03	1.61	±30
8:2 fluorotelomersulfonate	1.92	2.14	11.93	±30
Perfluorooctanesulfonamide	2.00	1.99	-0.35	±30
NMeFOSAA	2.00	1.98	-1.07	±30
Perfluorodecanesulfonate	1.93	1.95	0.84	±30
Perfluoroundecanoic acid	2.00	2.01	0.47	±30
NEtFOSAA	2.00	2.01	0.53	±30
Perfluorododecanoic acid	2.00	1.90	-4.81	±30
10:2-fluorotelomersulfonate	1.93	1.72	-10.57	±30
NMePFOSAE	2.00	2.10	5.15	±30
NMePFOSA	2.00	2.40	19.84	±30
Perfluorododecanesulfonate	1.94	1.94	-0.14	±30
NEtPFOSAE	2.00	2.08	3.88	±30
NEtPFOSA	2.00	1.82	-9.00	±30
Perfluorotridecanoic acid	2.00	1.85	-7.52	±30
Perfluorotetradecanoic acid	2.00	2.19	9.72	±30
Perfluorohexadecanoic acid	2.00	2.17	8.48	±30
Perfluorooctadecanoic acid	2.00	2.16	8.09	±30

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV09D-58.WIFF

Date/Time Analyzed: 11/09/2018 13:13

Lab Sample ID: CCV6_CAL4

Init. Calib. Date/Times: 11/07/2018 09:39

11/07/2018 10:33

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	8.00	8.51	6.39	±30
Perfluoropentanoic acid	8.00	8.46	5.74	±30
Perfluorobutanesulfonate	7.08	7.45	5.21	±30
4:2 fluorotelomersulfonate	7.47	7.94	6.22	±30
Perfluorohexanoic acid	8.00	8.43	5.39	±30
Perfluoropentanesulfonate	7.50	7.79	3.80	±30
Perfluorohexanesulfonate	7.56	7.28	-3.75	±30
Perfluoroheptanoic acid	8.00	8.66	8.29	±30
6:2 fluorotelomersulfonate	7.58	8.33	9.77	±30
Perfluoroheptanesulfonate	7.61	7.57	-0.47	±30
Perfluorooctanoic acid	8.00	8.43	5.37	±30
Perfluoro-octanesulfonate	7.65	7.84	2.49	±30
Perfluorononanoic acid	8.00	8.61	7.58	±30
Perfluorononanesulfonate	7.68	7.91	3.00	±30
Perfluorodecanoic acid	8.00	8.14	1.73	±30
8:2 fluorotelomersulfonate	7.66	7.22	-5.78	±30
Perfluorooctanesulfonamide	8.00	8.42	5.28	±30
NMeFOSAA	8.00	8.04	0.53	±30
Perfluorodecanesulfonate	7.70	7.70	0.04	±30
Perfluoroundecanoic acid	8.00	8.20	2.52	±30
NEtFOSAA	8.00	8.19	2.38	±30
Perfluorododecanoic acid	8.00	8.29	3.60	±30
10:2-fluorotelomersulfonate	7.71	6.93	-10.14	±30
NMePFOSAE	8.00	8.75	9.36	±30
NMePFOSA	8.00	8.01	0.09	±30
Perfluorododecanesulfonate	7.74	7.59	-1.96	±30
NEtPFOSAE	8.00	8.52	6.50	±30
NEtPFOSA	8.00	7.70	-3.74	±30
Perfluorotridecanoic acid	8.00	8.05	0.66	±30
Perfluorotetradecanoic acid	8.00	8.77	9.58	±30
Perfluorohexadecanoic acid	8.00	9.09	13.67	±30
Perfluorooctadecanoic acid	8.00	9.40	17.44	±30

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV12DCAL-52.WIFF

Date/Time Analyzed: 11/12/2018 16:36

Lab Sample ID: CCV1_CAL3

Init. Calib. Date/Times: 11/12/2018 15:05

11/12/2018 16:00

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	2.00	2.29	14.39	±30
Perfluoropentanoic acid	2.00	2.35	17.52	±30
Perfluorobutanesulfonate	1.77	1.85	4.70	±30
4:2 fluorotelomersulfonate	1.87	1.97	5.23	±30
Perfluorohexanoic acid	2.00	2.37	18.39	±30
Perfluoropentanesulfonate	1.88	1.99	5.89	±30
Perfluoroheptanoic acid	2.00	2.33	16.60	±30
Perfluorohexanesulfonate	1.82	1.97	8.45	±30
6:2 fluorotelomersulfonate	1.90	2.38	25.21	±30
Perfluoroheptanesulfonate	1.90	2.05	7.87	±30
Perfluorooctanoic acid	2.00	2.34	17.00	±30
Perfluoro-octanesulfonate	1.85	2.05	10.87	±30
Perfluorononanoic acid	2.00	2.25	12.52	±30
Perfluorononanesulfonate	1.92	2.04	6.21	±30
Perfluorodecanoic acid	2.00	2.21	10.29	±30
8:2 fluorotelomersulfonate	1.92	1.86	-3.14	±30
Perfluorooctanesulfonamide	2.00	1.66	-17.08	±30
NMeFOSAA	2.00	2.20	10.04	±30
Perfluorodecanesulfonate	1.93	2.17	12.52	±30
Perfluoroundecanoic acid	2.00	2.13	6.44	±30
NEtFOSAA	2.00	1.83	-8.35	±30
Perfluorododecanoic acid	2.00	2.34	17.18	±30
10:2-fluorotelomersulfonate	1.93	1.71	-11.18	±30
NMePFOSAE	2.00	2.39	19.28	±30
NMePFOSA	2.00	2.07	3.39	±30
Perfluorododecanesulfonate	1.94	2.27	16.87	±30
NEtPFOSAE	2.00	2.32	15.96	±30
NEtPFOSA	2.00	2.04	2.16	±30
Perfluorotridecanoic acid	2.00	2.35	17.54	±30
Perfluorotetradecanoic acid	2.00	2.36	18.05	±30
Perfluorohexadecanoic acid	2.00	2.15	7.32	±30
Perfluorooctadecanoic acid	2.00	2.13	6.56	±30

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV15D-05.WIFF

Date/Time Analyzed: 11/15/2018 12:39

Lab Sample ID: CCV1_ISC_CAL2

Init. Calib. Date/Times: 11/12/2018 15:05

11/12/2018 16:00

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	0.60	0.60	-0.40	±30
Perfluoropentanoic acid	0.60	0.60	0.11	±30
Perfluorobutanesulfonate	0.53	0.48	-10.30	±30
4:2 fluorotelomersulfonate	0.56	0.52	-6.91	±30
Perfluorohexanoic acid	0.60	0.58	-3.39	±30
Perfluoropentanesulfonate	0.56	0.52	-8.03	±30
Perfluoroheptanoic acid	0.60	0.62	2.92	±30
Perfluorohexanesulfonate	0.55	0.46	-15.51	±30
6:2 fluorotelomersulfonate	0.57	0.59	3.73	±30
Perfluoroheptanesulfonate	0.57	0.52	-8.47	±30
Perfluorooctanoic acid	0.60	0.58	-3.21	±30
Perfluoro-octanesulfonate	0.56	0.47	-15.27	±30
Perfluorononanoic acid	0.60	0.60	-0.18	±30
Perfluorononanesulfonate	0.58	0.51	-10.79	±30
Perfluorodecanoic acid	0.60	0.58	-2.79	±30
8:2 fluorotelomersulfonate	0.58	0.49	-14.07	±30
Perfluorooctanesulfonamide	0.60	0.58	-4.04	±30
NMeFOSAA	0.60	0.63	4.34	±30
Perfluorodecanesulfonate	0.58	0.49	-14.38	±30
Perfluoroundecanoic acid	0.60	0.56	-6.93	±30
NEtFOSAA	0.60	0.49	-18.21	±30
Perfluorododecanoic acid	0.60	0.58	-2.78	±30
10:2-fluorotelomersulfonate	0.58	0.54	-7.13	±30
NMePFOSAE	0.60	0.58	-2.86	±30
NMePFOSA	0.60	0.56	-6.38	±30
Perfluorododecanesulfonate	0.58	0.43	-26.17	±30
NEtPFOSAE	0.60	0.62	3.26	±30
NEtPFOSA	0.60	0.60	0.34	±30
Perfluorotridecanoic acid	0.60	0.57	-5.13	±30
Perfluorotetradecanoic acid	0.60	0.55	-7.91	±30
Perfluorohexadecanoic acid	0.60	0.55	-8.48	±30
Perfluorooctadecanoic acid	0.60	0.52	-13.87	±30

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV15D-17.WIFF

Date/Time Analyzed: 11/15/2018 14:27

Lab Sample ID: CCV2_CAL3

Init. Calib. Date/Times: 11/12/2018 15:05

11/12/2018 16:00

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	2.00	2.27	13.57	±30
Perfluoropentanoic acid	2.00	2.27	13.26	±30
Perfluorobutanesulfonate	1.77	1.84	4.10	±30
4:2 fluorotelomersulfonate	1.87	1.94	3.57	±30
Perfluorohexanoic acid	2.00	1.98	-1.00	±30
Perfluoropentanesulfonate	1.88	2.04	8.27	±30
Perfluoroheptanoic acid	2.00	2.43	21.33	±30
Perfluorohexanesulfonate	1.82	1.94	6.52	±30
6:2 fluorotelomersulfonate	1.90	2.10	10.44	±30
Perfluoroheptanesulfonate	1.90	2.11	10.87	±30
Perfluorooctanoic acid	2.00	2.20	9.82	±30
Perfluoro-octanesulfonate	1.85	1.98	7.03	±30
Perfluorononanoic acid	2.00	2.33	16.35	±30
Perfluorononanesulfonate	1.92	2.08	8.57	±30
Perfluorodecanoic acid	2.00	2.02	1.07	±30
8:2 fluorotelomersulfonate	1.92	2.24	16.77	±30
Perfluorooctanesulfonamide	2.00	2.03	1.65	±30
NMeFOSAA	2.00	2.31	15.61	±30
Perfluorodecanesulfonate	1.93	2.01	4.12	±30
Perfluoroundecanoic acid	2.00	2.01	0.69	±30
NEtFOSAA	2.00	2.05	2.66	±30
Perfluorododecanoic acid	2.00	2.24	11.77	±30
10:2-fluorotelomersulfonate	1.93	2.40	24.33	±30
NMePFOSAE	2.00	2.30	14.81	±30
NMePFOSA	2.00	2.09	4.45	±30
Perfluorododecanesulfonate	1.94	1.98	2.11	±30
NEtPFOSAE	2.00	2.18	8.92	±30
NEtPFOSA	2.00	2.05	2.29	±30
Perfluorotridecanoic acid	2.00	2.28	14.08	±30
Perfluorotetradecanoic acid	2.00	2.25	12.55	±30
Perfluorohexadecanoic acid	2.00	2.09	4.50	±30
Perfluorooctadecanoic acid	2.00	2.03	1.45	±30

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV15D-29.WIFF

Date/Time Analyzed: 11/15/2018 16:15

Lab Sample ID: CCV3_CAL4

Init. Calib. Date/Times: 11/12/2018 15:05

11/12/2018 16:00

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	8.00	8.10	1.31	±30
Perfluoropentanoic acid	8.00	8.28	3.45	±30
Perfluorobutanesulfonate	7.08	6.97	-1.60	±30
4:2 fluorotelomersulfonate	7.47	7.16	-4.10	±30
Perfluorohexanoic acid	8.00	8.46	5.81	±30
Perfluoropentanesulfonate	7.50	7.41	-1.18	±30
Perfluoroheptanoic acid	8.00	8.36	4.54	±30
Perfluorohexanesulfonate	7.30	6.97	-4.50	±30
6:2 fluorotelomersulfonate	7.58	7.44	-1.85	±30
Perfluoroheptanesulfonate	7.61	7.75	1.85	±30
Perfluorooctanoic acid	8.00	8.22	2.81	±30
Perfluoro-octanesulfonate	7.40	7.35	-0.73	±30
Perfluorononanoic acid	8.00	8.54	6.72	±30
Perfluorononanesulfonate	7.68	8.03	4.51	±30
Perfluorodecanoic acid	8.00	7.90	-1.22	±30
8:2 fluorotelomersulfonate	7.66	8.01	4.52	±30
Perfluorooctanesulfonamide	8.00	7.83	-2.13	±30
NMeFOSAA	8.00	8.30	3.72	±30
Perfluorodecanesulfonate	7.70	7.69	-0.07	±30
Perfluoroundecanoic acid	8.00	7.70	-3.75	±30
NEtFOSAA	8.00	6.45	-19.34	±30
Perfluorododecanoic acid	8.00	7.56	-5.45	±30
10:2-fluorotelomersulfonate	7.71	8.62	11.79	±30
NMePFOSAE	8.00	7.80	-2.56	±30
NMePFOSA	8.00	7.38	-7.73	±30
Perfluorododecanesulfonate	7.74	7.66	-1.06	±30
NEtPFOSAE	8.00	7.98	-0.22	±30
NEtPFOSA	8.00	7.98	-0.21	±30
Perfluorotridecanoic acid	8.00	7.45	-6.93	±30
Perfluorotetradecanoic acid	8.00	8.05	0.57	±30
Perfluorohexadecanoic acid	8.00	7.74	-3.29	±30
Perfluorooctadecanoic acid	8.00	7.90	-1.30	±30

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV28DCAL-16.WIFF

Date/Time Analyzed: 11/28/2018 15:12

Lab Sample ID: CCV1_CAL3

Init. Calib. Date/Times: 11/28/2018 13:42

11/28/2018 14:36

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	2.00	2.29	14.50	±30
Perfluoropentanoic acid	2.00	2.15	7.30	±30
Perfluorobutanesulfonate	1.77	1.90	7.57	±30
4:2 fluorotelomersulfonate	1.87	2.10	12.26	±30
Perfluorohexanoic acid	2.00	2.32	16.20	±30
Perfluoropentanesulfonate	1.88	2.10	11.73	±30
Perfluoroheptanoic acid	2.00	2.13	6.53	±30
Perfluorohexanesulfonate	1.82	1.84	1.19	±30
6:2 fluorotelomersulfonate	1.90	2.35	23.67	±30
Perfluoroheptanesulfonate	1.90	2.07	8.75	±30
Perfluorooctanoic acid	2.00	2.15	7.45	±30
Perfluoro-octanesulfonate	1.85	1.89	2.39	±30
Perfluorononanoic acid	2.00	2.37	18.31	±30
Perfluorononanesulfonate	1.92	1.96	2.24	±30
Perfluorodecanoic acid	2.00	2.38	18.95	±30
8:2 fluorotelomersulfonate	1.92	1.87	-2.39	±30
Perfluorooctanesulfonamide	2.00	2.10	4.85	±30
NMeFOSAA	2.00	2.08	3.82	±30
Perfluorodecanesulfonate	1.93	2.07	7.49	±30
Perfluoroundecanoic acid	2.00	2.39	19.73	±30
NEtFOSAA	2.00	1.90	-5.08	±30
Perfluorododecanoic acid	2.00	2.49	24.44	±30
10:2-fluorotelomersulfonate	1.93	2.22	14.77	±30
NMePFOSAE	2.00	2.10	5.15	±30
NMePFOSA	2.00	2.11	5.69	±30
Perfluorododecanesulfonate	1.94	1.96	1.21	±30
NEtPFOSAE	2.00	2.30	14.93	±30
NEtPFOSA	2.00	2.22	10.99	±30
Perfluorotridecanoic acid	2.00	2.59	29.28	±30
Perfluorotetradecanoic acid	2.00	2.29	14.59	±30
Perfluorohexadecanoic acid	2.00	2.22	11.22	±30
Perfluorooctadecanoic acid	2.00	2.22	11.09	±30

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV29D-05.WIFF

Date/Time Analyzed: 11/29/2018 10:33

Lab Sample ID: CCV1_ISC_CAL2

Init. Calib. Date/Times: 11/28/2018 13:42

11/28/2018 14:36

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	0.60	0.59	-1.98	±30
Perfluoropentanoic acid	0.60	0.52	-14.14	±30
Perfluorobutanesulfonate	0.53	0.47	-10.86	±30
4:2 fluorotelomersulfonate	0.56	0.49	-13.37	±30
Perfluorohexanoic acid	0.60	0.58	-2.77	±30
Perfluoropentanesulfonate	0.56	0.57	0.99	±30
Perfluoroheptanoic acid	0.60	0.56	-6.28	±30
Perfluorohexanesulfonate	0.55	0.48	-12.13	±30
6:2 fluorotelomersulfonate	0.57	0.64	12.30	±30
Perfluoroheptanesulfonate	0.57	0.49	-14.63	±30
Perfluorooctanoic acid	0.60	0.53	-11.76	±30
Perfluoro-octanesulfonate	0.56	0.51	-8.84	±30
Perfluorononanoic acid	0.60	0.55	-7.57	±30
Perfluorononanesulfonate	0.58	0.45	-21.13	±30
Perfluorodecanoic acid	0.60	0.58	-4.04	±30
8:2 fluorotelomersulfonate	0.58	0.51	-11.58	±30
Perfluorooctanesulfonamide	0.60	0.53	-10.95	±30
NMeFOSAA	0.60	0.54	-9.99	±30
Perfluorodecanesulfonate	0.58	0.56	-3.35	±30
Perfluoroundecanoic acid	0.60	0.58	-3.79	±30
NEtFOSAA	0.60	0.52	-12.77	±30
Perfluorododecanoic acid	0.60	0.60	0.40	±30
10:2-fluorotelomersulfonate	0.58	0.59	1.43	±30
NMePFOSAE	0.60	0.59	-1.65	±30
NMePFOSA	0.60	0.52	-14.03	±30
Perfluorododecanesulfonate	0.58	0.49	-15.15	±30
NEtPFOSAE	0.60	0.58	-3.30	±30
NEtPFOSA	0.60	0.50	-17.33	±30
Perfluorotridecanoic acid	0.60	0.66	9.17	±30
Perfluorotetradecanoic acid	0.60	0.60	0.18	±30
Perfluorohexadecanoic acid	0.60	0.61	2.42	±30
Perfluorooctadecanoic acid	0.60	0.56	-5.99	±30

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV29D-52.WIFF

Date/Time Analyzed: 11/29/2018 17:37

Lab Sample ID: CCV5_CAL3

Init. Calib. Date/Times: 11/28/2018 13:42

11/28/2018 14:36

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	2.00	2.24	12.08	±30
Perfluoropentanoic acid	2.00	2.10	5.00	±30
Perfluorobutanesulfonate	1.77	1.97	11.32	±30
4:2 fluorotelomersulfonate	1.87	2.13	14.12	±30
Perfluorohexanoic acid	2.00	2.37	18.38	±30
Perfluoropentanesulfonate	1.88	2.13	13.27	±30
Perfluoroheptanoic acid	2.00	2.24	11.85	±30
Perfluorohexanesulfonate	1.82	1.82	-0.10	±30
6:2 fluorotelomersulfonate	1.90	2.31	21.74	±30
Perfluoroheptanesulfonate	1.90	1.97	3.62	±30
Perfluorooctanoic acid	2.00	2.19	9.74	±30
Perfluoro-octanesulfonate	1.85	1.73	-6.32	±30
Perfluorononanoic acid	2.00	2.29	14.58	±30
Perfluorononanesulfonate	1.92	1.84	-3.91	±30
Perfluorodecanoic acid	2.00	2.26	13.23	±30
8:2 fluorotelomersulfonate	1.92	1.83	-4.47	±30
Perfluorooctanesulfonamide	2.00	2.11	5.65	±30
NMeFOSAA	2.00	2.25	12.29	±30
Perfluorodecanesulfonate	1.93	1.88	-2.44	±30
Perfluoroundecanoic acid	2.00	2.24	12.04	±30
NEtFOSAA	2.00	2.27	13.26	±30
Perfluorododecanoic acid	2.00	2.24	11.88	±30
10:2-fluorotelomersulfonate	1.93	2.14	10.97	±30
NMePFOSAE	2.00	2.24	11.91	±30
NMePFOSA	2.00	2.27	13.75	±30
Perfluorododecanesulfonate	1.94	1.84	-5.06	±30
NEtPFOSAE	2.00	2.43	21.53	±30
NEtPFOSA	2.00	2.13	6.63	±30
Perfluorotridecanoic acid	2.00	2.51	25.70	±30
Perfluorotetradecanoic acid	2.00	2.29	14.50	±30
Perfluorohexadecanoic acid	2.00	2.31	15.50	±30
Perfluorooctadecanoic acid	2.00	2.20	10.10	±30

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV29D-64.WIFF

Date/Time Analyzed: 11/29/2018 19:25

Lab Sample ID: CCV6_CAL4

Init. Calib. Date/Times: 11/28/2018 13:42

11/28/2018 14:36

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	8.00	8.16	2.03	±30
Perfluoropentanoic acid	8.00	7.11	-11.08	±30
Perfluorobutanesulfonate	7.08	7.07	-0.12	±30
4:2 fluorotelomersulfonate	7.47	7.32	-2.02	±30
Perfluorohexanoic acid	8.00	8.16	1.96	±30
Perfluoropentanesulfonate	7.50	7.77	3.53	±30
Perfluoroheptanoic acid	8.00	7.80	-2.52	±30
Perfluorohexanesulfonate	7.30	6.78	-7.11	±30
6:2 fluorotelomersulfonate	7.58	8.06	6.29	±30
Perfluoroheptanesulfonate	7.61	7.48	-1.72	±30
Perfluorooctanoic acid	8.00	8.14	1.75	±30
Perfluoro-octanesulfonate	7.40	6.68	-9.71	±30
Perfluorononanoic acid	8.00	7.92	-0.97	±30
Perfluorononanesulfonate	7.68	7.11	-7.42	±30
Perfluorodecanoic acid	8.00	8.89	11.08	±30
8:2 fluorotelomersulfonate	7.66	7.36	-3.88	±30
Perfluorooctanesulfonamide	8.00	7.93	-0.83	±30
NMeFOSAA	8.00	7.77	-2.92	±30
Perfluorodecanesulfonate	7.70	7.14	-7.33	±30
Perfluoroundecanoic acid	8.00	8.04	0.51	±30
NEtFOSAA	8.00	7.69	-3.84	±30
Perfluorododecanoic acid	8.00	8.51	6.41	±30
10:2-fluorotelomersulfonate	7.71	8.18	6.04	±30
NMePFOSAE	8.00	8.01	0.07	±30
NMePFOSA	8.00	8.07	0.88	±30
Perfluorododecanesulfonate	7.74	7.30	-5.64	±30
NEtPFOSAE	8.00	8.53	6.66	±30
NEtPFOSA	8.00	7.51	-6.10	±30
Perfluorotridecanoic acid	8.00	9.20	14.98	±30
Perfluorotetradecanoic acid	8.00	8.37	4.65	±30
Perfluorohexadecanoic acid	8.00	8.82	10.29	±30
Perfluorooctadecanoic acid	8.00	8.26	3.28	±30

SDG No.: BSI14

Instrument ID: 27631

Lab File ID: 18NOV29D-72.WIFF

Date/Time Analyzed: 11/29/2018 20:38

Lab Sample ID: CCV7_ISC_CAL2

Init. Calib. Date/Times: 11/28/2018 13:42

11/28/2018 14:36

Analytes	Specified Amount	Calculated Amount	% Difference	Limit
Perfluorobutanoic acid	0.60	0.58	-3.74	±30
Perfluoropentanoic acid	0.60	0.53	-12.23	±30
Perfluorobutanesulfonate	0.53	0.47	-10.95	±30
4:2 fluorotelomersulfonate	0.56	0.54	-3.07	±30
Perfluorohexanoic acid	0.60	0.58	-3.41	±30
Perfluoropentanesulfonate	0.56	0.51	-9.82	±30
Perfluoroheptanoic acid	0.60	0.59	-2.01	±30
Perfluorohexanesulfonate	0.55	0.43	-21.05	±30
6:2 fluorotelomersulfonate	0.57	0.66	15.67	±30
Perfluoroheptanesulfonate	0.57	0.51	-10.49	±30
Perfluorooctanoic acid	0.60	0.56	-6.71	±30
Perfluoro-octanesulfonate	0.56	0.47	-15.33	±30
Perfluorononanoic acid	0.60	0.61	1.85	±30
Perfluorononanesulfonate	0.58	0.51	-10.95	±30
Perfluorodecanoic acid	0.60	0.59	-1.84	±30
8:2 fluorotelomersulfonate	0.58	0.44	-23.93	±30
Perfluorooctanesulfonamide	0.60	0.52	-13.07	±30
NMeFOSAA	0.60	0.60	0.77	±30
Perfluorodecanesulfonate	0.58	0.51	-11.72	±30
Perfluoroundecanoic acid	0.60	0.57	-4.74	±30
NEtFOSAA	0.60	0.53	-11.48	±30
Perfluorododecanoic acid	0.60	0.55	-8.02	±30
10:2-fluorotelomersulfonate	0.58	0.51	-12.52	±30
NMePFOSAE	0.60	0.53	-11.19	±30
NMePFOSA	0.60	0.55	-8.90	±30
Perfluorododecanesulfonate	0.58	0.51	-12.78	±30
NEtPFOSAE	0.60	0.63	5.33	±30
NEtPFOSA	0.60	0.51	-15.34	±30
Perfluorotridecanoic acid	0.60	0.63	4.33	±30
Perfluorotetradecanoic acid	0.60	0.59	-1.38	±30
Perfluorohexadecanoic acid	0.60	0.60	0.60	±30
Perfluorooctadecanoic acid	0.60	0.56	-6.95	±30

SDG No.: BSI14

Matrix: SOIL

Batch: 18312011		13C2-PFDA	13C2-PFOA	13C3-PFBA	13C4-PFOS
File Name:18NOV09D-03.WIFF		Area	Area	Area	Area
CAL3 Area/ CCV Area		307277	506877	725975	274910
LOWER LIMIT		153639	253439	362988	137455
UPPER LIMIT		460916	760316	1088963	412365
LAB SAMPLE ID	DATE ANALYZED				
BLK312011	11/09/18 10:39	310858	497646	729941	277759
LCS312011	11/09/18 10:48	312502	503673	717779	273220
9885066	11/09/18 10:57	314382	517627	727473	270321
9885067	11/09/18 11:06	296433	496376	724118	273239
9885070	11/09/18 11:15	315156	499372	720616	274585
9885073	11/09/18 11:33	304056	496325	725235	279556
9885074	11/09/18 11:43	313213	508816	731589	287750
9885071MS	11/09/18 12:01	312314	515025	718033	268209
9885072MSD	11/09/18 12:10	315648	504629	729144	268918

AREA: Upper limit: 150% of the internal standard area.
Lower Limit: 50% of the internal standard area.

* Outside QC Limits

SDG No.: BSI14

Matrix: SOIL

Batch: 18319003		13C2-PFDA	13C2-PFOA	13C3-PFBA	13C4-PFOS
File Name:18NOV15D-05.WIFF		Area	Area	Area	Area
CAL3 Area/ CCV Area		302310	479663	732179	269685
LOWER LIMIT		151155	239832	366090	134843
UPPER LIMIT		453465	719495	1098269	404528
LAB SAMPLE ID	DATE ANALYZED				
BLK319003	11/15/18 12:57	311632	510636	742585	281649
LCS319003	11/15/18 13:06	329903	502285	756224	282773
9885075	11/15/18 14:36	315777	487752	733506	264471

AREA: Upper limit: 150% of the internal standard area.
Lower Limit: 50% of the internal standard area.

* Outside QC Limits

SDG No.: BSI14

Matrix: SOIL

Batch: 18332003		13C2-PFDA	13C2-PFOA	13C3-PFBA	13C4-PFOS
File Name:18NOV29D-05.WIFF		Area	Area	Area	Area
CAL3 Area/ CCV Area		451203	495984	906425	296262
LOWER LIMIT		225602	247992	453213	148131
UPPER LIMIT		676805	743976	1359638	444393
LAB SAMPLE ID	DATE ANALYZED				
BLK332003	11/29/18 18:04	538786	583595	1052099	370221
LCS332003	11/29/18 18:13	557510	600874	1066377	371549
9885076	11/29/18 19:16	574702	603685	1091239	371397
9885077	11/29/18 19:34	604306	595195	1088531	363393

AREA: Upper limit: 150% of the internal standard area.
Lower Limit: 50% of the internal standard area.

* Outside QC Limits

Sample Data

PFAS by LC/MS/MS

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	9885066		Data File:	18NOV09D-43.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18312011 OU1-GCI-S-01-05 Grab Soil		Acquis Date:	2018-11-09T10:57:51
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	15		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18312011
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	18312011		Operator:	MCD7824
Sample Wt.:	1.07000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	727473.0	725974.7	0	50	
13C2-PFOA	5.0	517626.8	506876.7	2	50	
13C4-PFOS	4.8	270321.1	274910.1	-2	50	
13C2-PFDA	5.0	314382.0	307276.7	2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C3-PFBS	374766.3	13C3-PFBA	727473.0	0.515	8.692	7.067	81	50-150	
E13C5-PFHxA	608271.8	13C2-PFOA	517626.8	1.175	9.346	8.080	86	50-150	
E13C3-PFHxS	291297.7	13C2-PFOA	517626.8	0.563	8.841	7.551	85	50-150	
E13C4-PFHpA	508763.8	13C2-PFOA	517626.8	0.983	9.346	8.357	89	50-150	
E13C8-PFOA	860646.2	13C2-PFOA	517626.8	1.663	9.346	8.667	93	50-150	
E13C8-PFOS	253610.5	13C4-PFOS	270321.1	0.938	8.935	7.754	87	50-150	
E13C9-PFNA	511650.4	13C4-PFOS	270321.1	1.893	9.346	9.664	103	50-150	
E13C6-PFDA	551663.4	13C2-PFDA	314382.0	1.755	9.346	8.248	88	50-150	
Ed3-NMeFOSAA	76242.3	13C2-PFDA	314382.0	0.243	9.346	8.429	90	50-150	
E13C7-PFUnDA	240814.7	13C2-PFDA	314382.0	0.766	9.346	8.260	88	50-150	
Ed5-NEtFOSAA	56807.2	13C2-PFDA	314382.0	0.181	9.346	7.816	84	50-150	
E13C2-PFDODA	506359.1	13C2-PFDA	314382.0	1.611	9.346	8.116	87	50-150	
E13C2-PFTeDA	357096.1	13C2-PFDA	314382.0	1.136	9.346	7.643	82	50-150	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: 9885066

Instrument Name: LM27631

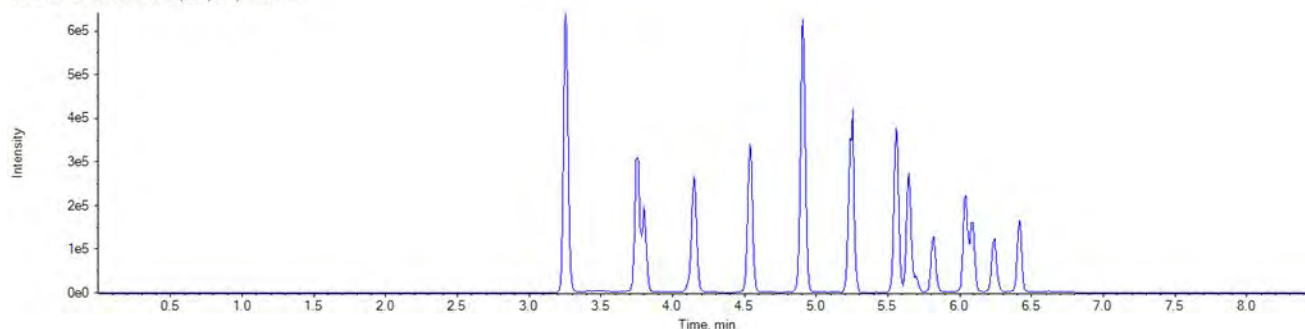
File Name: 18NOV09D-43.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.07000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.80	374766.3	N/A	
PFHxA	4.15	1.000	8162.6		A	13C5-PFHxA	4.15	608271.8	0.013	0.108
PFHxS	4.54	1.000	6806.1		M	13C3-PFHxS	4.54	291297.7	0.023	0.221
PFHpA	4.54	1.000	4584.9		A	13C4-PFHpA	4.54	508763.8	0.009	0.057
PFOA	4.91	1.000	29820.6		M	13C8-PFOA	4.91	860646.2	0.035	0.365
PFOS	5.17	0.990	5272.4		M	13C8-PFOS	5.23	253610.5	0.021	0.201
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.25	511650.4	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	551663.4	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	76242.3	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.81	240814.7	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	56807.2	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	506359.1	N/A	
PFTTrDA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	506359.1	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	357096.1	N/A	

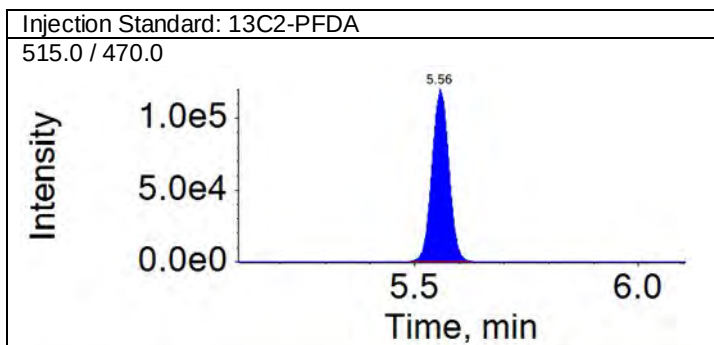
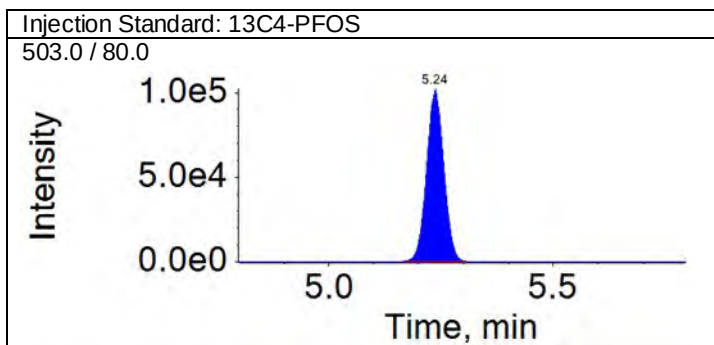
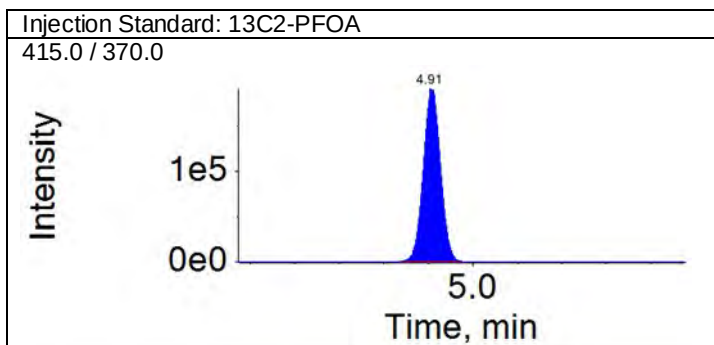
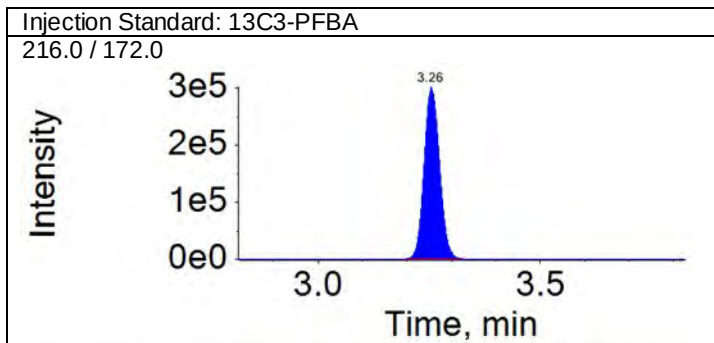
Total Ion Chromatogram

TIC from 18NOV09D-43.wiff (sample 1) - 9885066



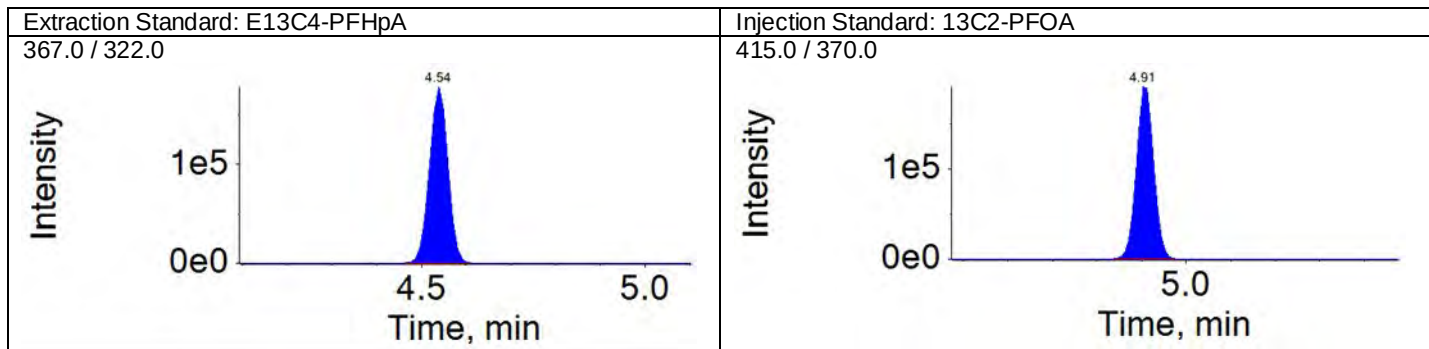
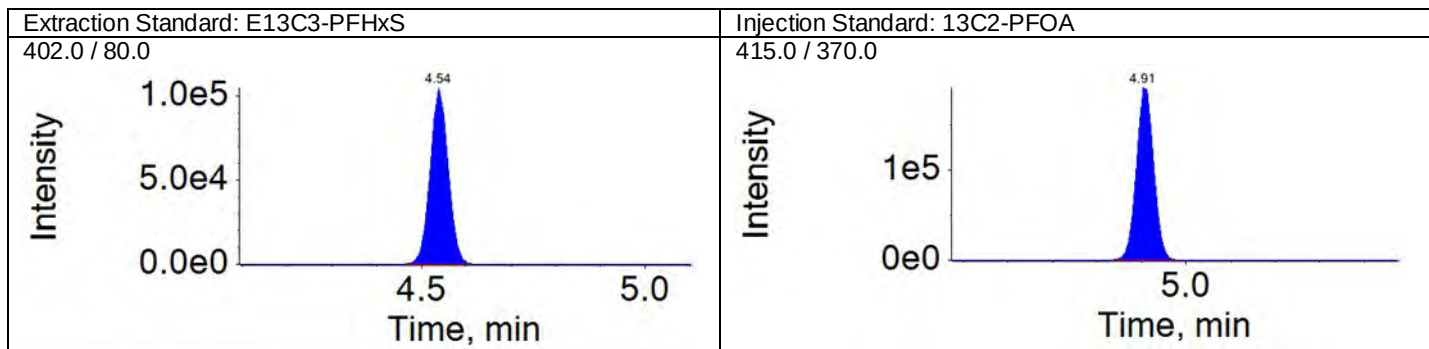
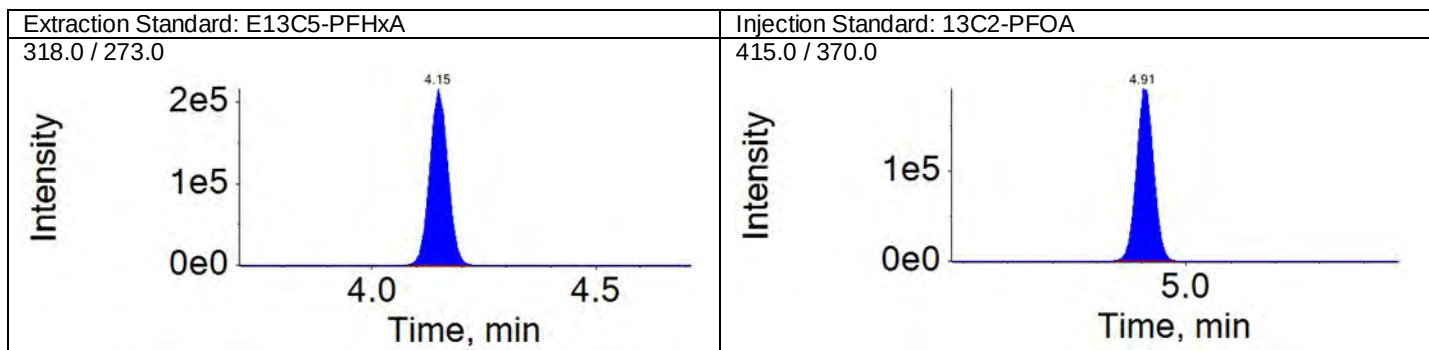
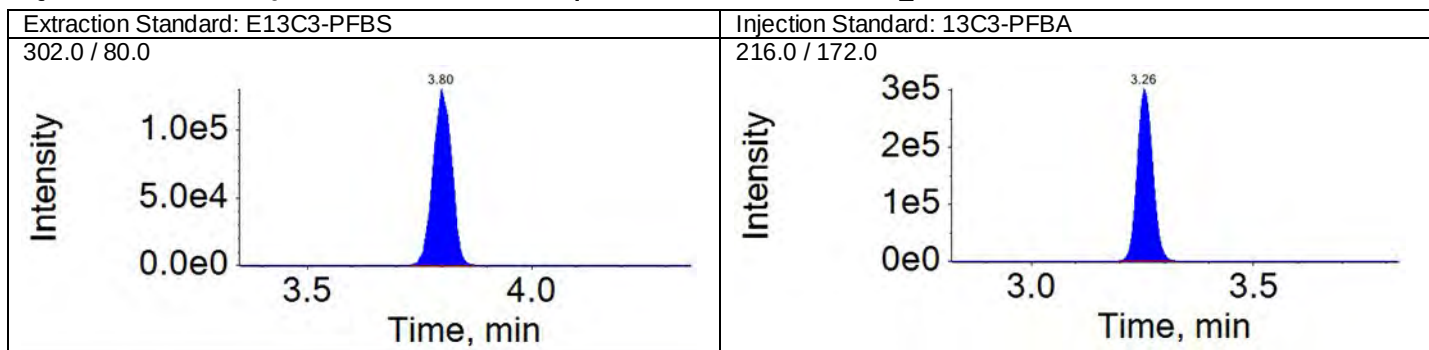
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



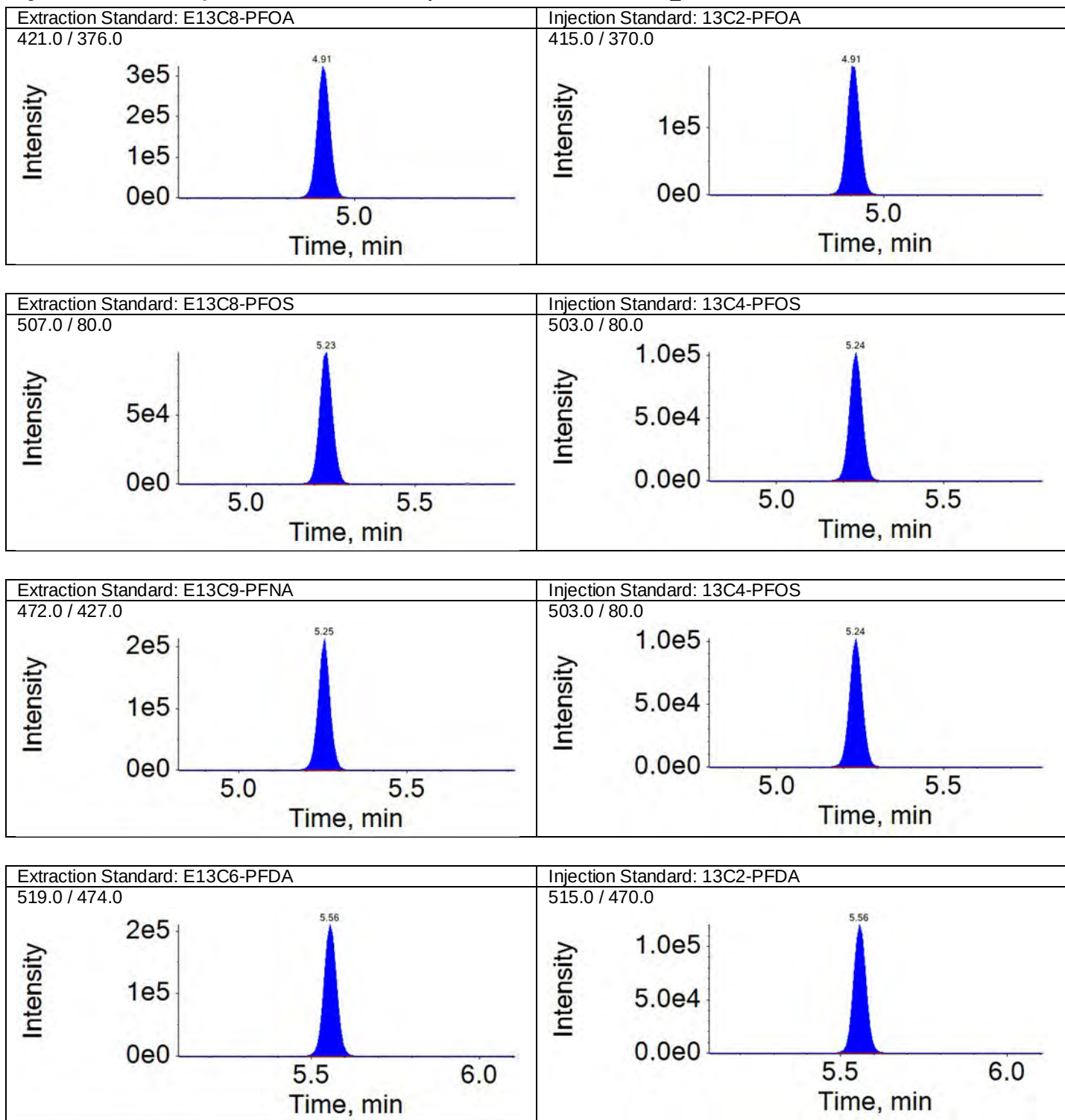
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



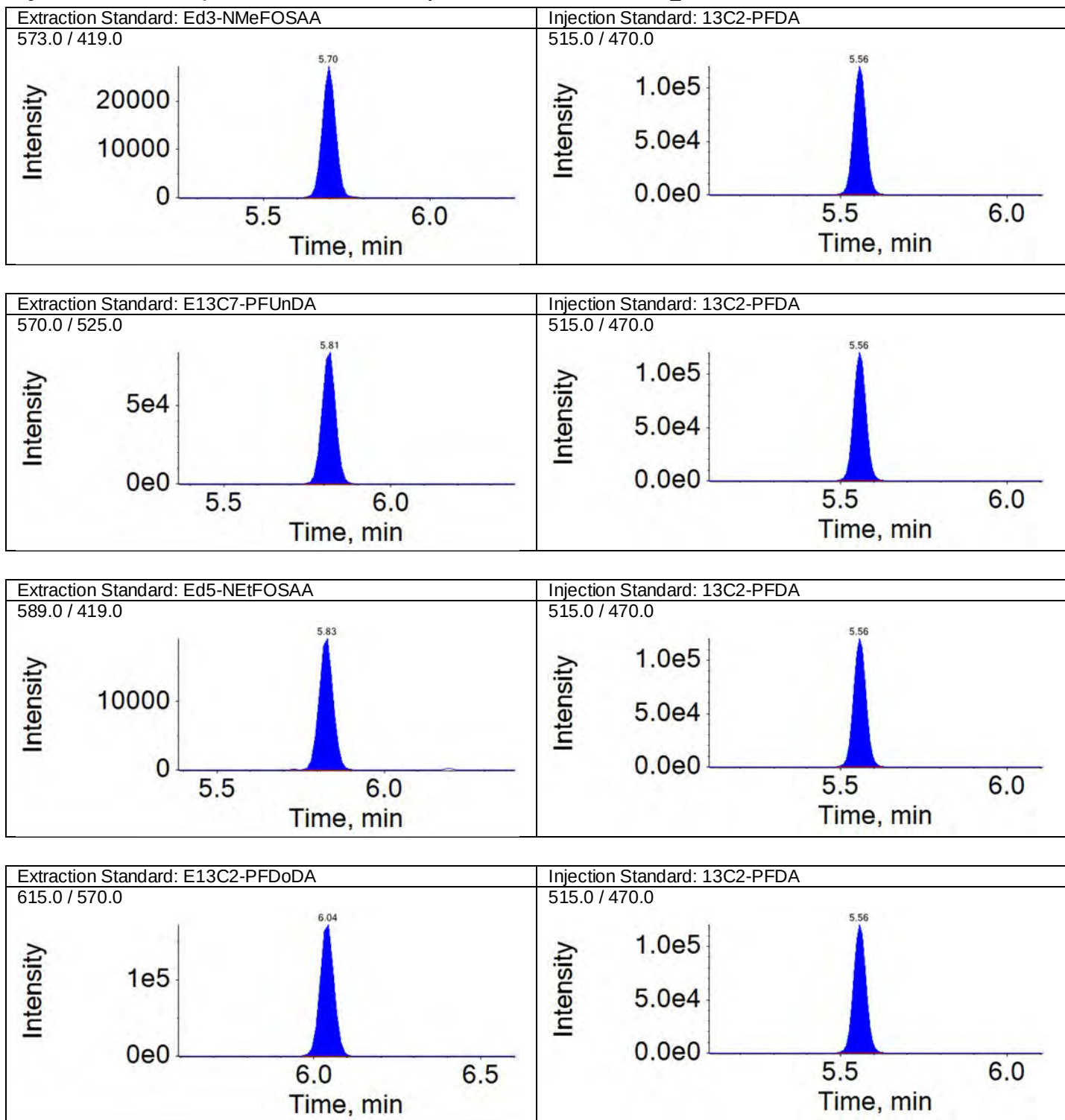
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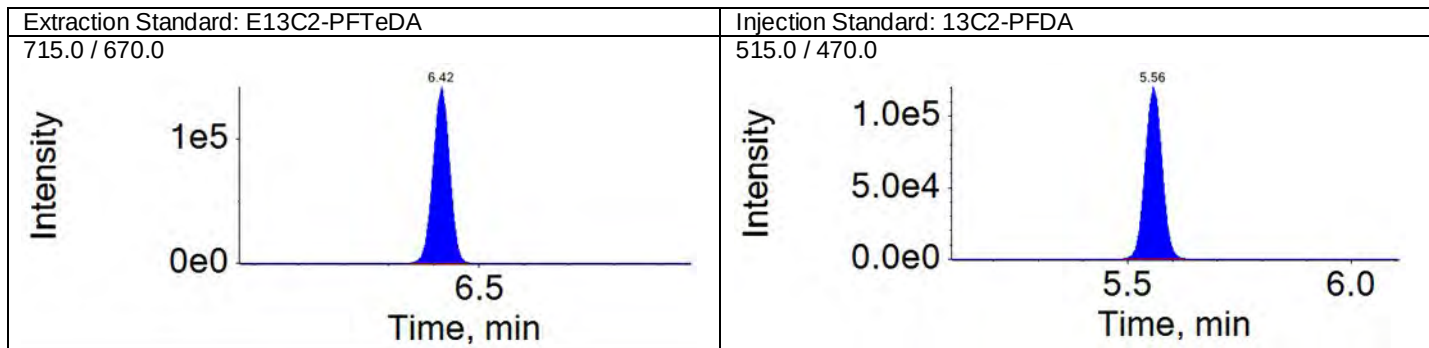
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QMethod Name: MQ4-18AUG13

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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

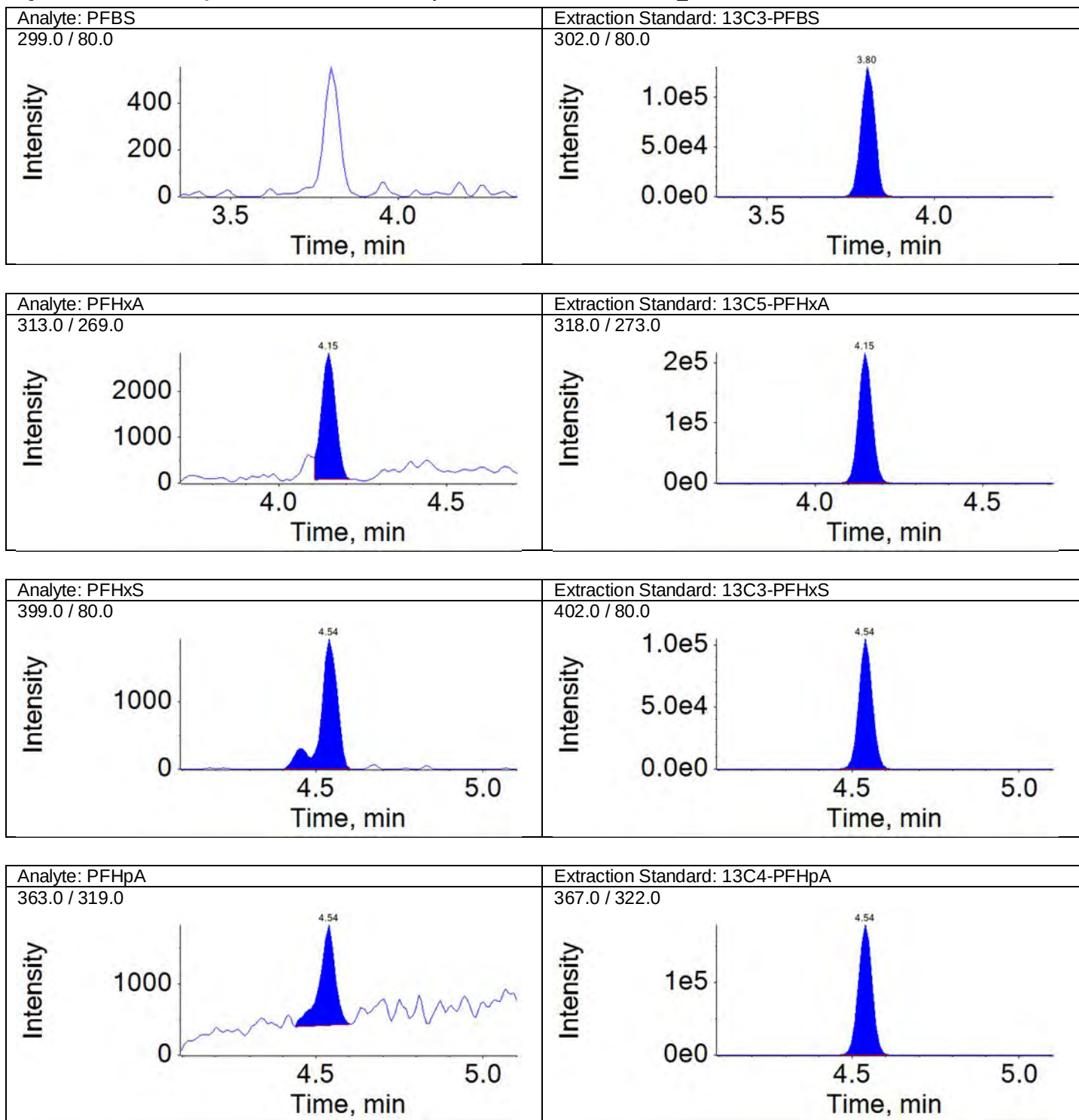
By MCD at 4:32 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

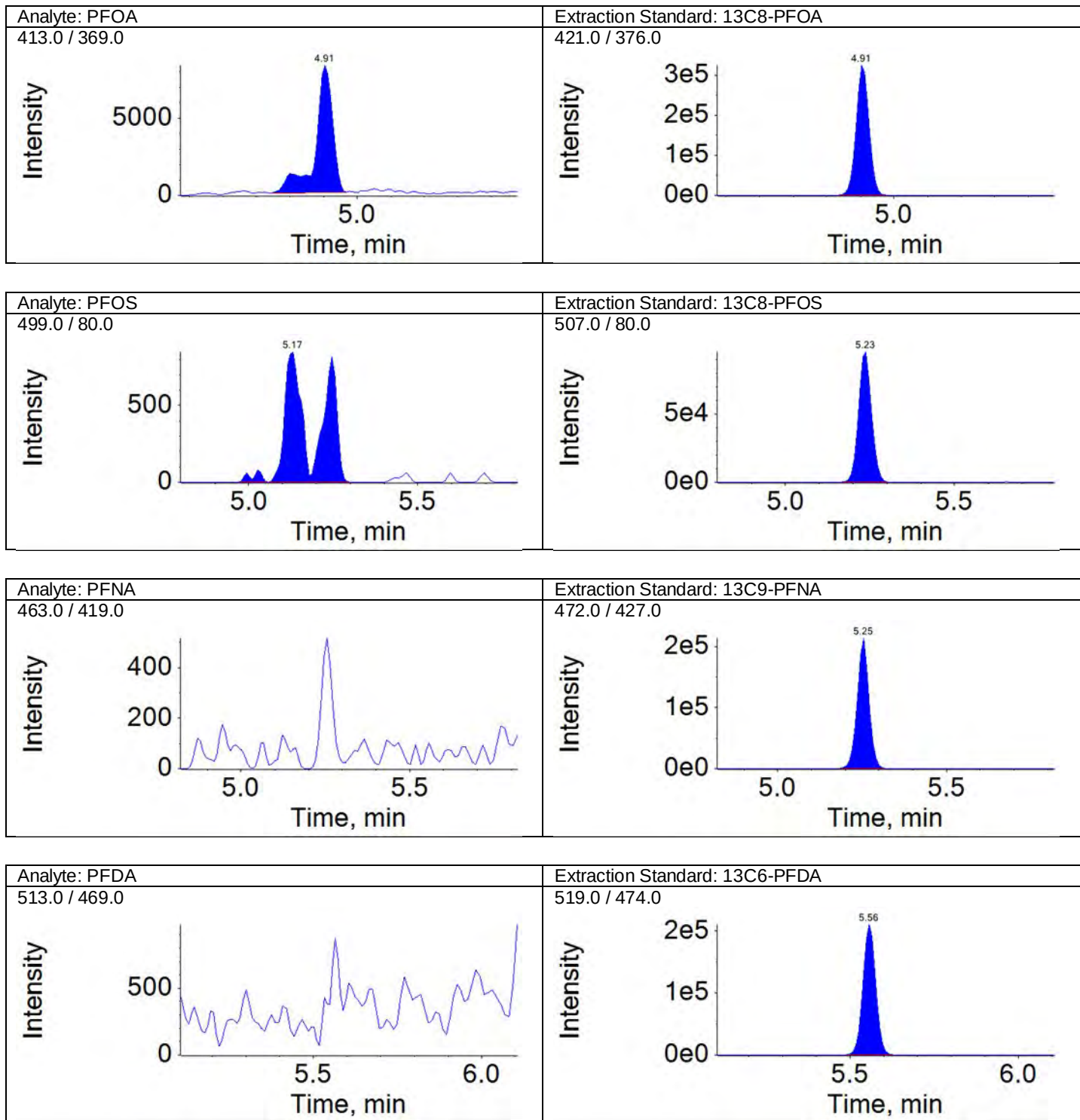
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
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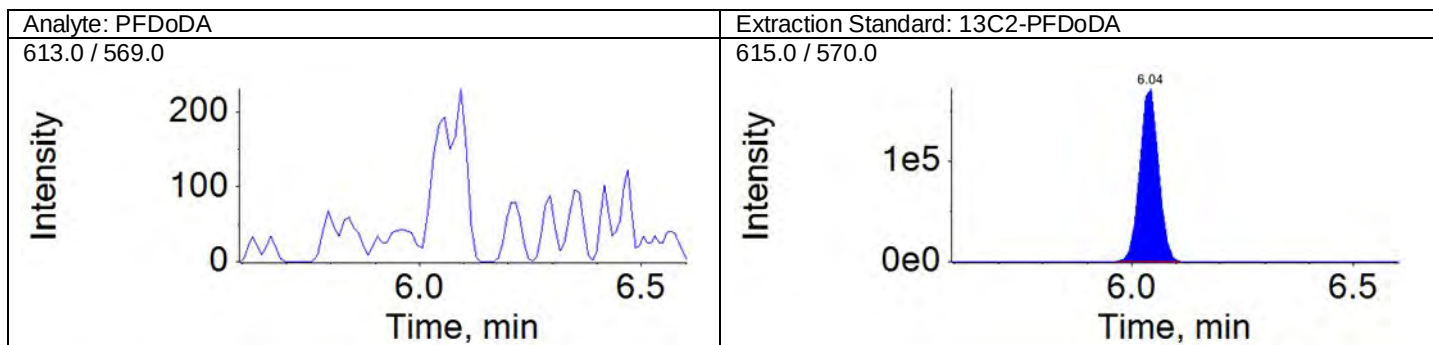
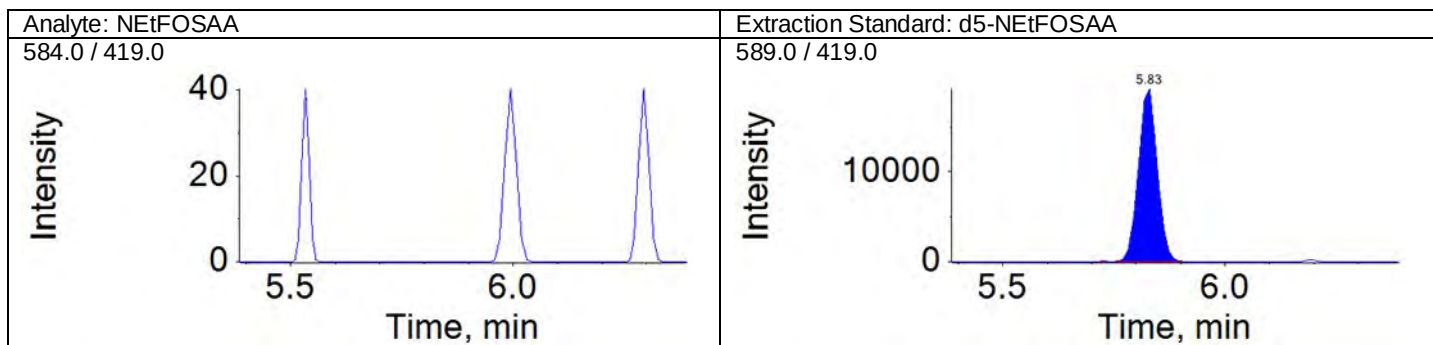
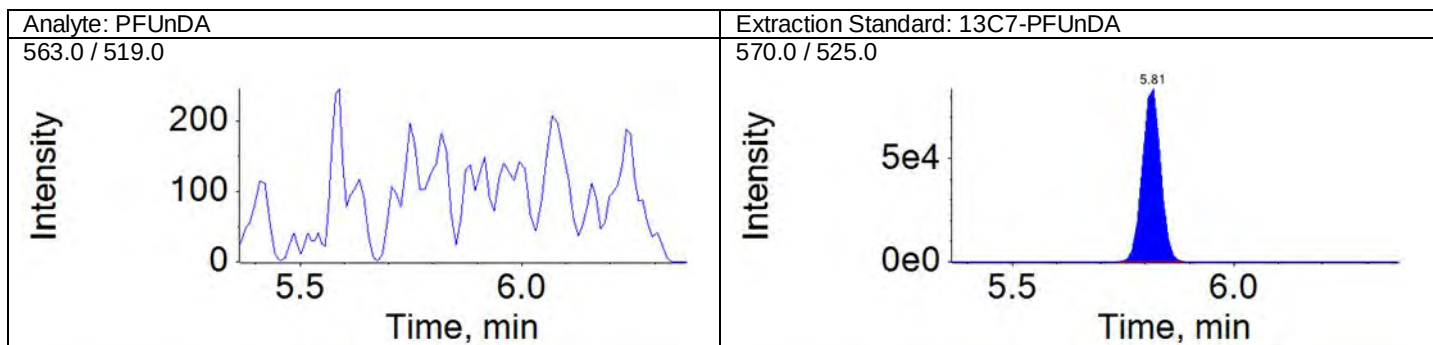
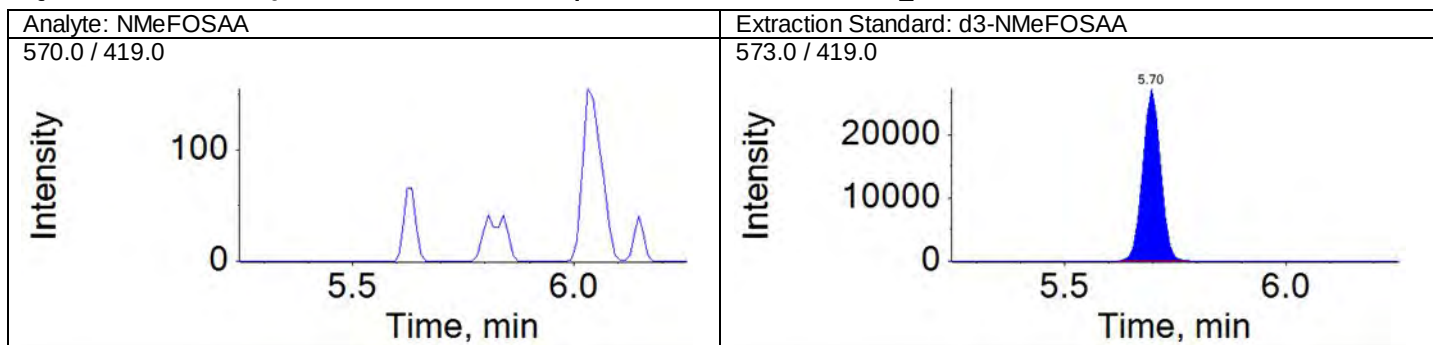
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Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



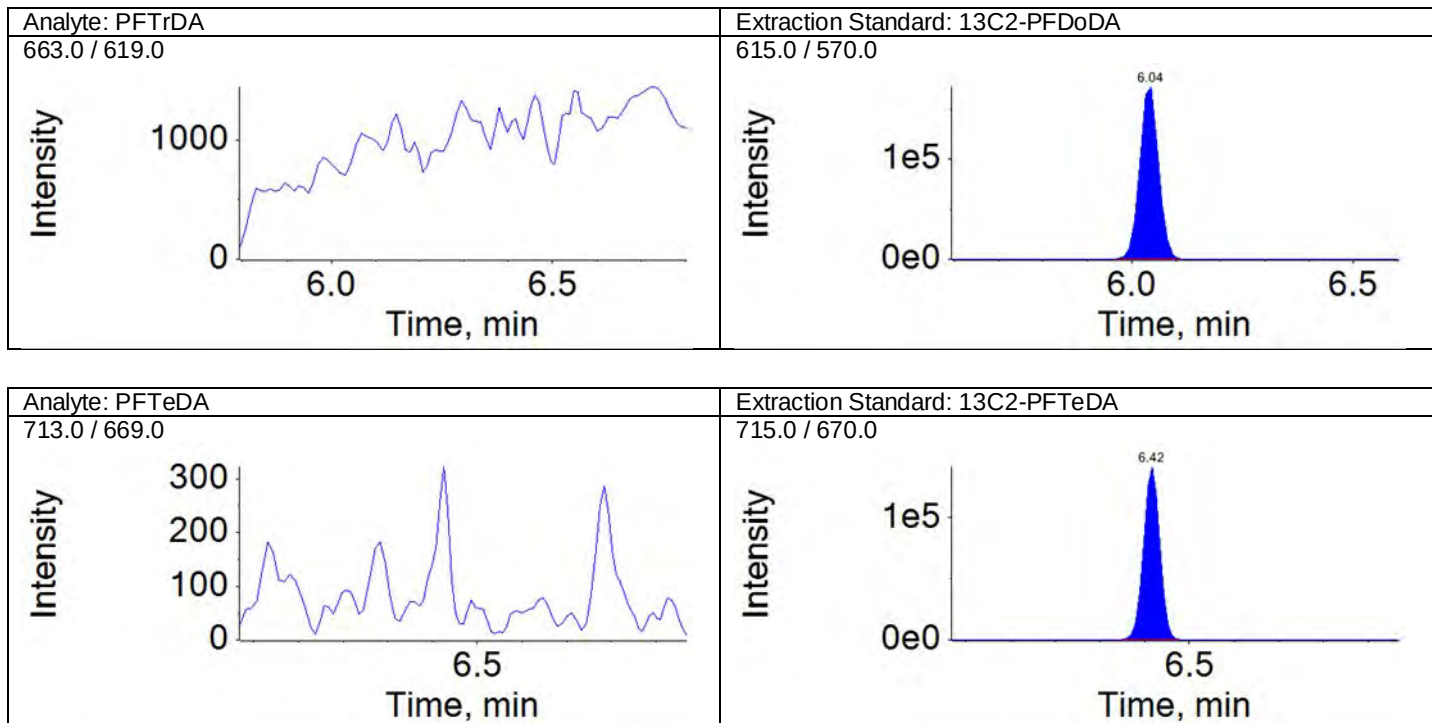
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QMethod Name: MQ4-18AUG13

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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

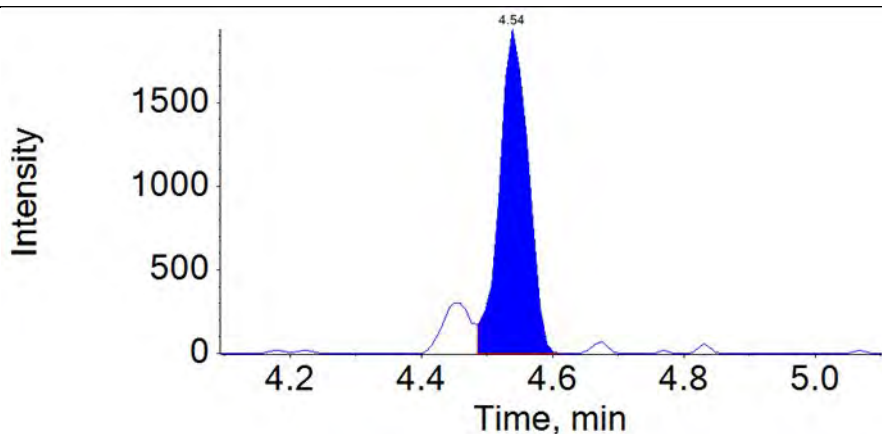
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Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

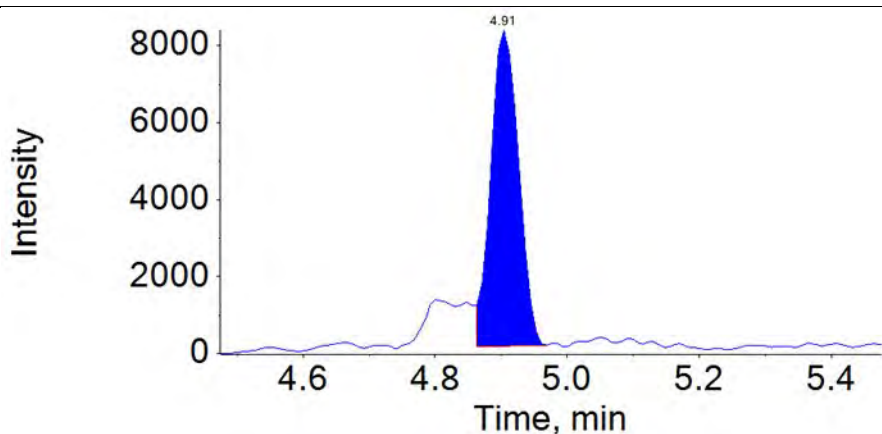
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
5879.3
Mass Range:
399.0 / 80.0
File Name:
18NOV09D-43.wiff
Sample Name:
9885066



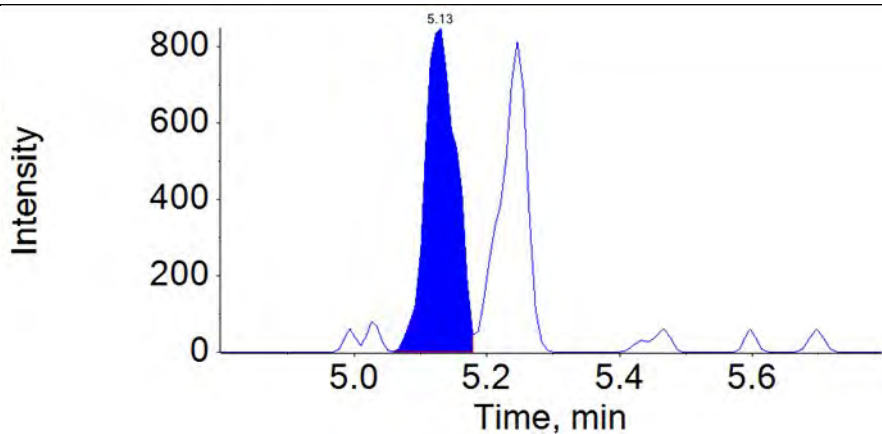
Integration Comment: incorrect integration

Component Name:
PFOA
RT (min.):
4.91
Peak Area:
23944.1
Mass Range:
413.0 / 369.0
File Name:
18NOV09D-43.wiff
Sample Name:
9885066



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.13
Peak Area:
2796.7
Mass Range:
499.0 / 80.0
File Name:
18NOV09D-43.wiff
Sample Name:
9885066

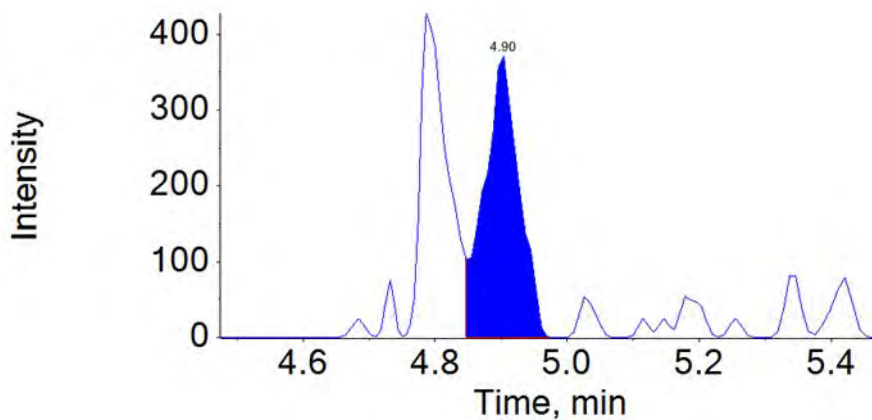


Integration Comment: incorrect integration

Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

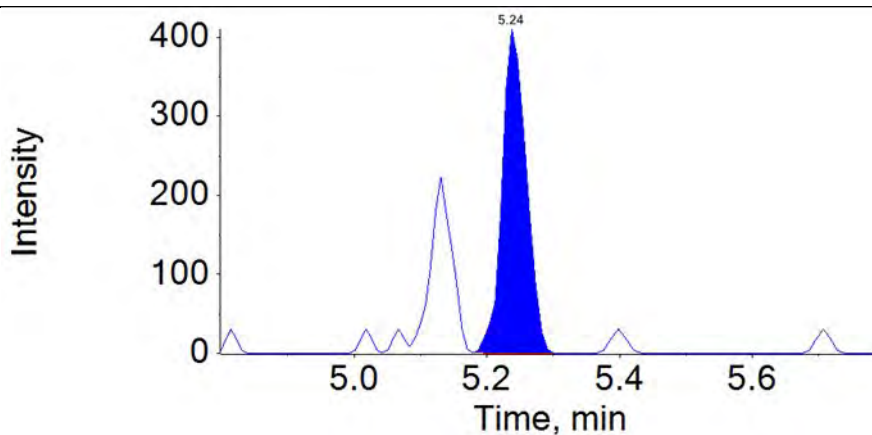
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
PFOA_2
RT (min.):
4.90
Peak Area:
1359.7
Mass Range:
413.0 / 169.0
File Name:
18NOV09D-43.wiff
Sample Name:
9885066



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
1036.8
Mass Range:
499.0 / 99.0
File Name:
18NOV09D-43.wiff
Sample Name:
9885066



Integration Comment: incorrect integration

Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED

By MCD at 4:32 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

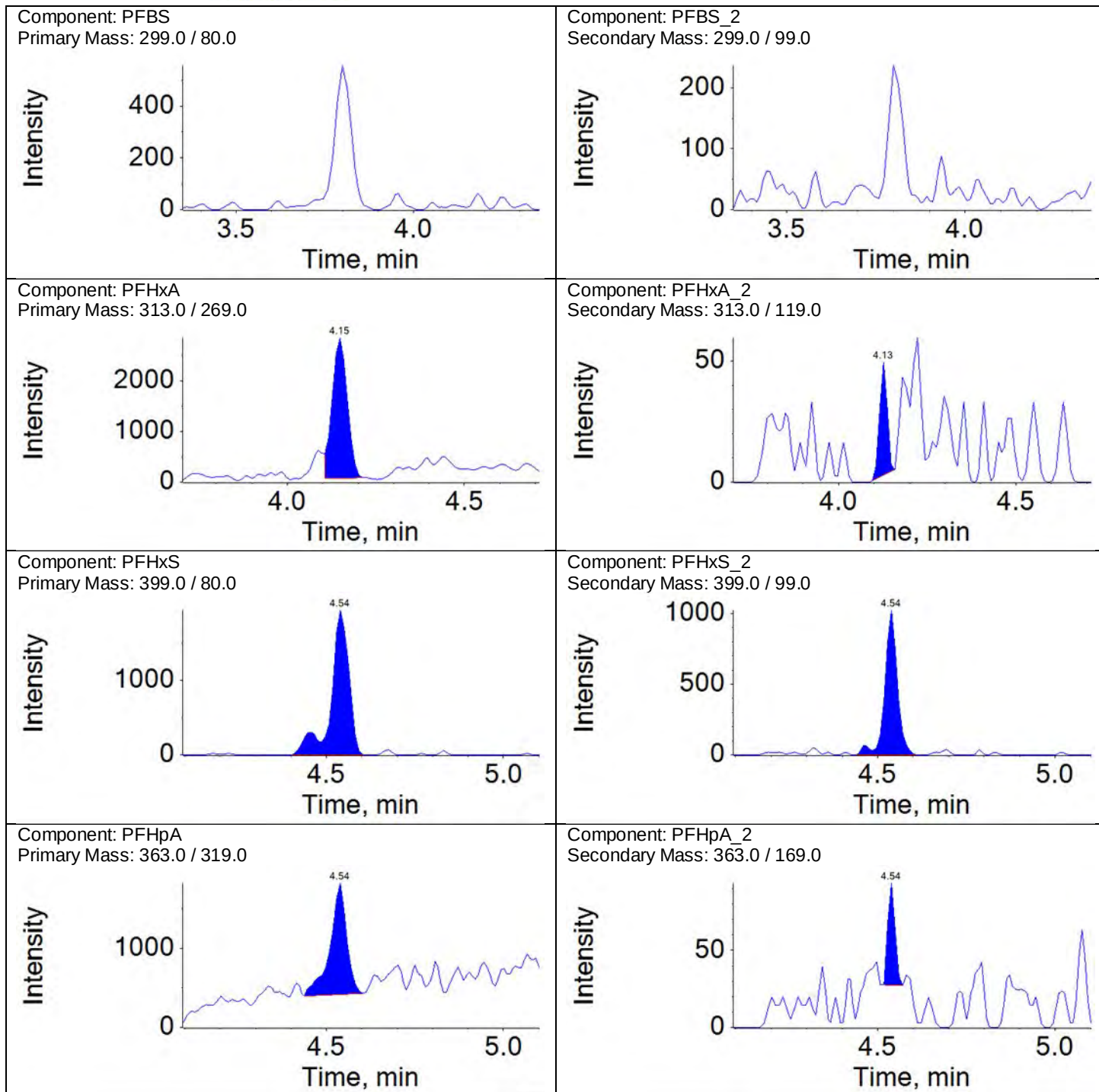
Ion Ratio Report

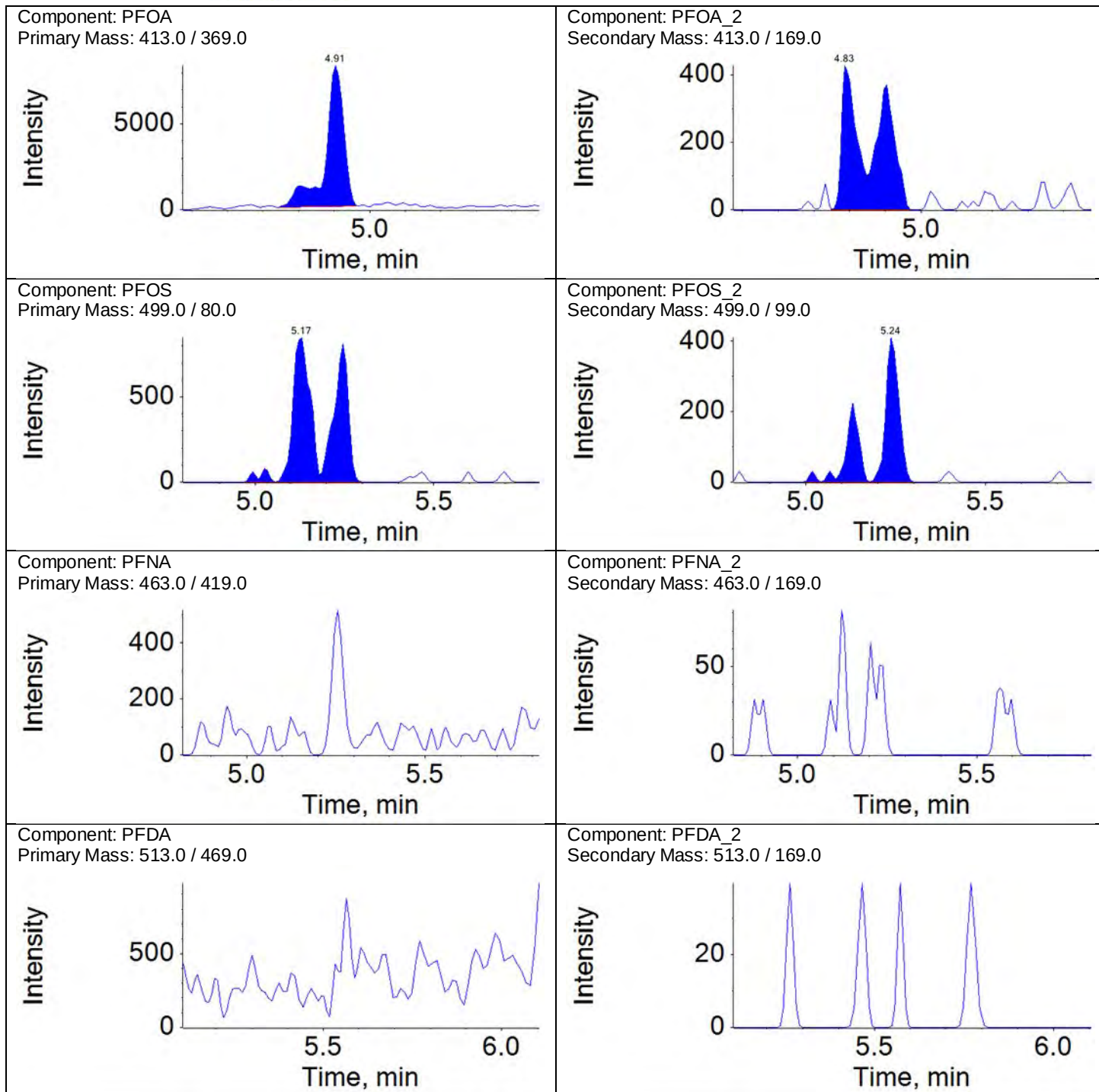
Sample Name: 9885066

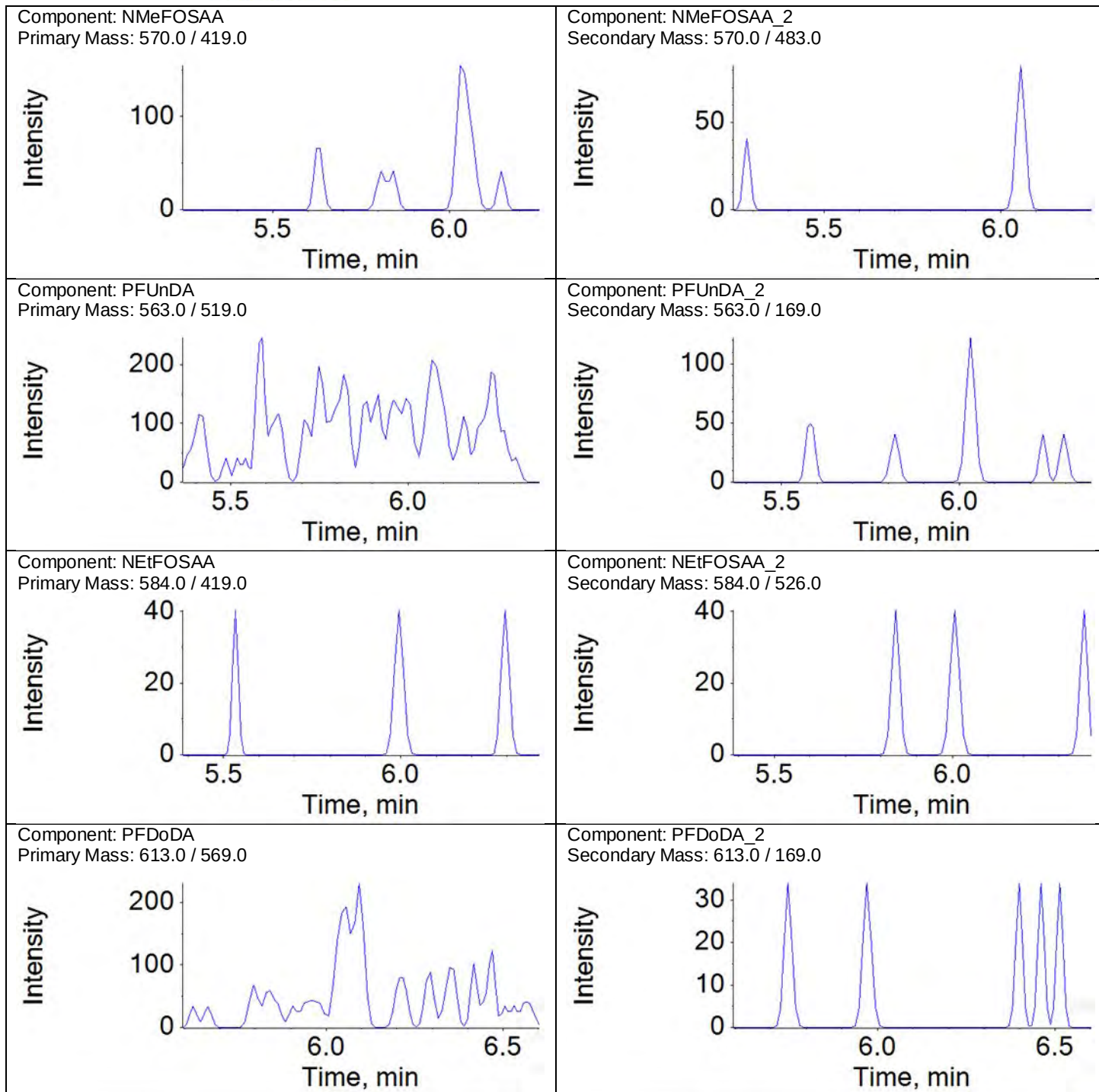
Instrument Name: LM27631

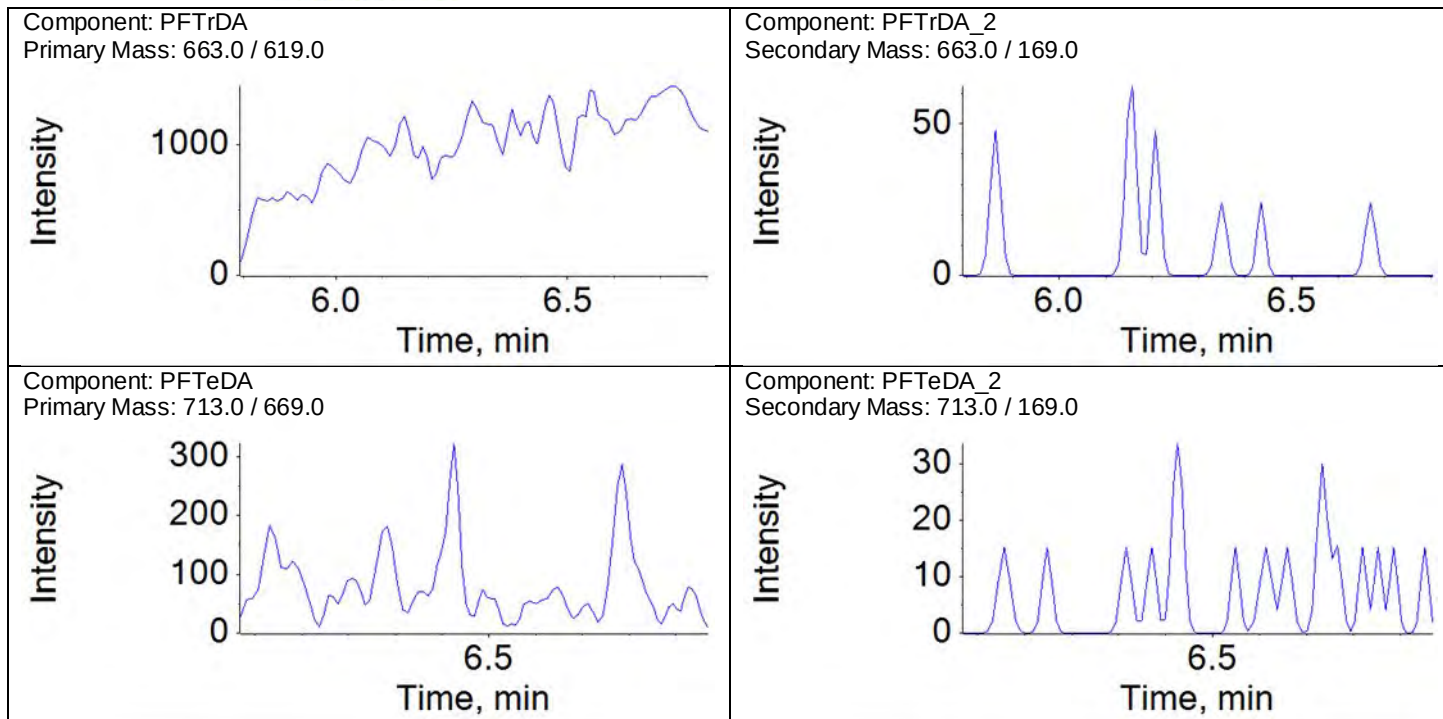
File Name: 18NOV09D-43.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	4.15	1.00	8162.6	A	N/A	0.0085			
PFHxA_2	4.13	0.99	69.4	A	N/A	0.0085	-25	50	
PFHxS	4.54	1.00	6806.1	M	N/A	0.3661			
PFHxS_2	4.54	1.00	2491.8	A	N/A	0.3661	2	50	
PFHpA	4.54	1.00	4584.9	A	N/A	0.0203			
PFHpA_2	4.54	1.00	93.1	A	N/A	0.0203	-65	50	OOS
PFOA	4.91	1.00	29820.6	M	N/A	0.0865			
PFOA_2	4.83	0.99	2579.1	M	N/A	0.0865	36	50	
PFOS	5.17	0.99	5272.4	M	N/A	0.3074			
PFOS_2	5.24	1.00	1620.9	M	N/A	0.3074	-13	50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	









ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	9885067		Data File:	18NOV09D-44.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18312011 OU1-GCI-S-01-08 Grab Soil		Acquis Date:	2018-11-09T11:06:54
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	16		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18312011
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	18312011		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	724118.2	725974.7	0	50	
13C2-PFOA	5.0	496375.8	506876.7	-2	50	
13C4-PFOS	4.8	273239.0	274910.1	-1	50	
13C2-PFDA	5.0	296432.9	307276.7	-4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C3-PFBS	409103.1	13C3-PFBA	724118.2	0.565	9.300	8.293	89	50-150	
E13C5-PFHxA	658254.0	13C2-PFOA	496375.8	1.326	10.000	9.756	98	50-150	
E13C3-PFHxS	311860.7	13C2-PFOA	496375.8	0.628	9.460	9.021	95	50-150	
E13C4-PFHpA	521953.9	13C2-PFOA	496375.8	1.052	10.000	9.567	96	50-150	
E13C8-PFOA	894190.5	13C2-PFOA	496375.8	1.801	10.000	10.047	100	50-150	
E13C8-PFOS	279339.8	13C4-PFOS	273239.0	1.022	9.560	9.041	95	50-150	
E13C9-PFNA	443629.8	13C4-PFOS	273239.0	1.624	10.000	8.870	89	50-150	
E13C6-PFDA	578707.4	13C2-PFDA	296432.9	1.952	10.000	9.819	98	50-150	
Ed3-NMeFOSAA	72577.4	13C2-PFDA	296432.9	0.245	10.000	9.106	91	50-150	
E13C7-PFUnDA	265324.5	13C2-PFDA	296432.9	0.895	10.000	10.327	103	50-150	
Ed5-NEtFOSAA	61386.4	13C2-PFDA	296432.9	0.207	10.000	9.585	96	50-150	
E13C2-PFDODA	531147.0	13C2-PFDA	296432.9	1.792	10.000	9.661	97	50-150	
E13C2-PFTeDA	381230.4	13C2-PFDA	296432.9	1.286	10.000	9.260	93	50-150	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: 9885067

Instrument Name: LM27631

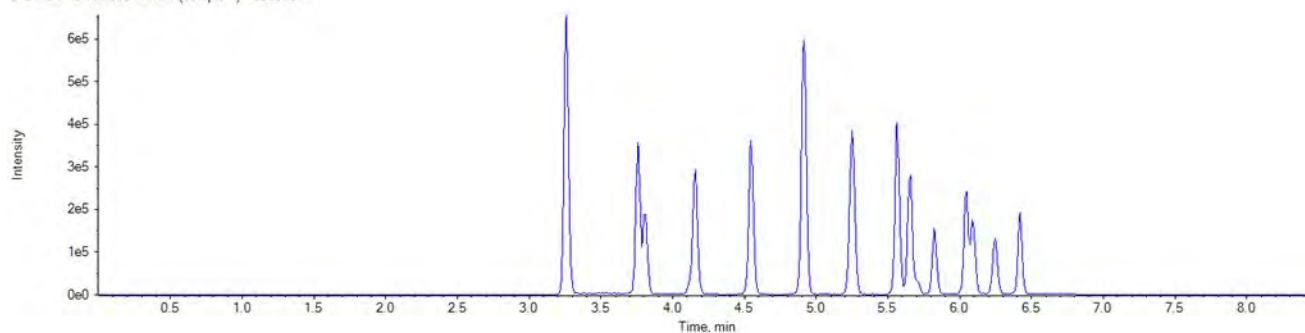
File Name: 18NOV09D-44.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	409103.1	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	658254.0	N/A	
PFHxS	4.54	1.000	3543.2		M	13C3-PFHxS	4.55	311860.7	0.011	0.115
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	521953.9	N/A	
PFOA	4.91	1.000	15439.3		M	13C8-PFOA	4.91	894190.5	0.017	0.194
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	279339.8	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	443629.8	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	578707.4	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	72577.4	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	265324.5	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	61386.4	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	531147.0	N/A	
PFTTrDA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	531147.0	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	381230.4	N/A	

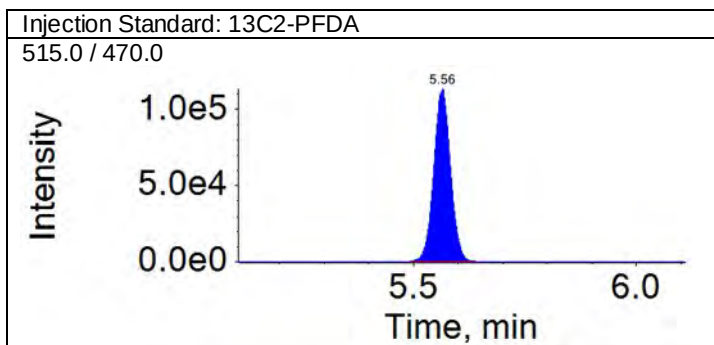
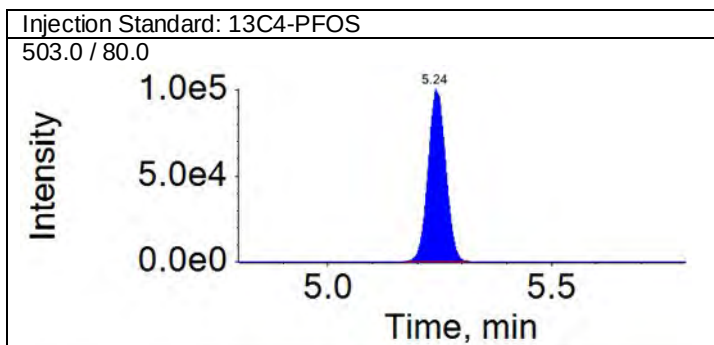
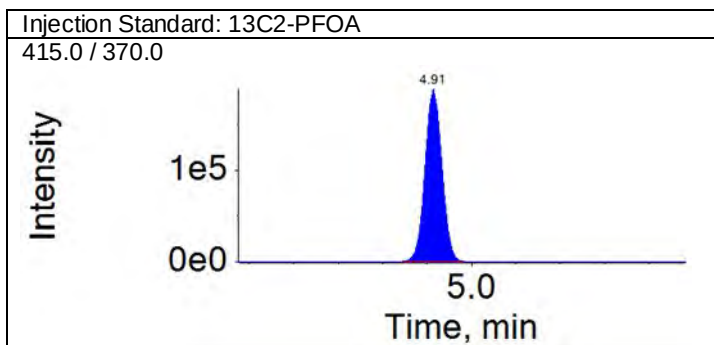
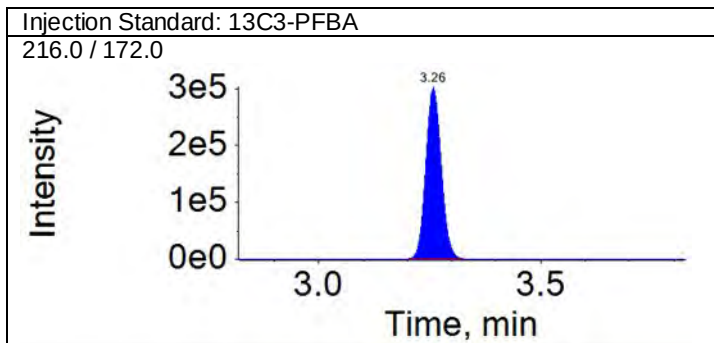
Total Ion Chromatogram

TIC from 18NOV09D-44.wiff (sample 1) - 9885067



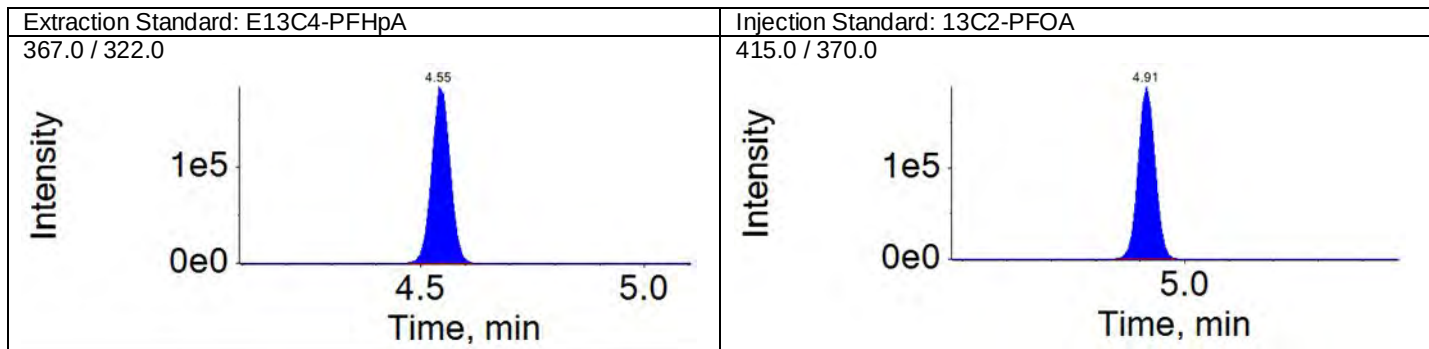
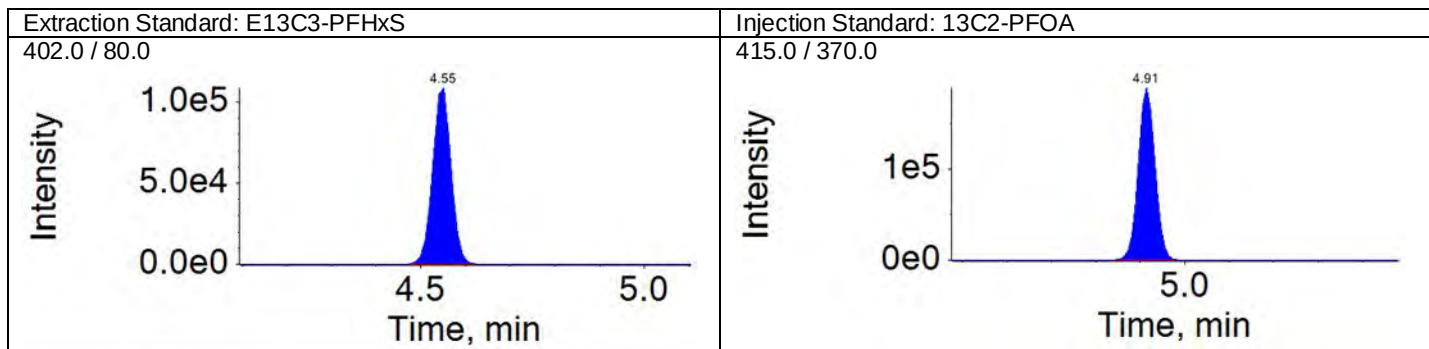
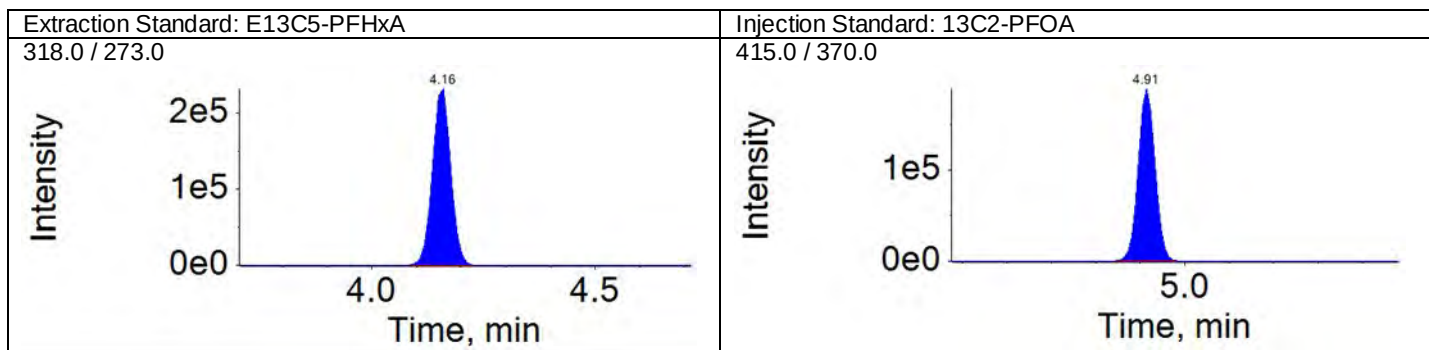
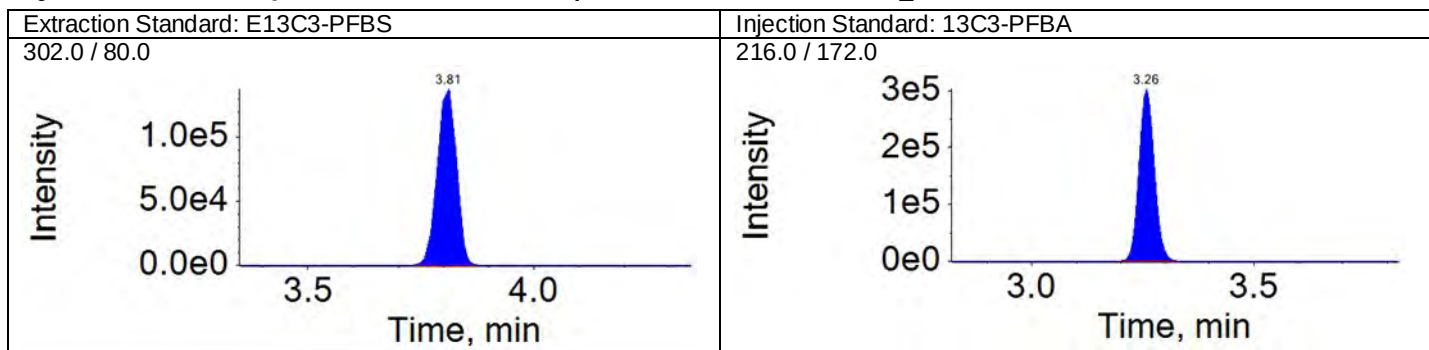
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



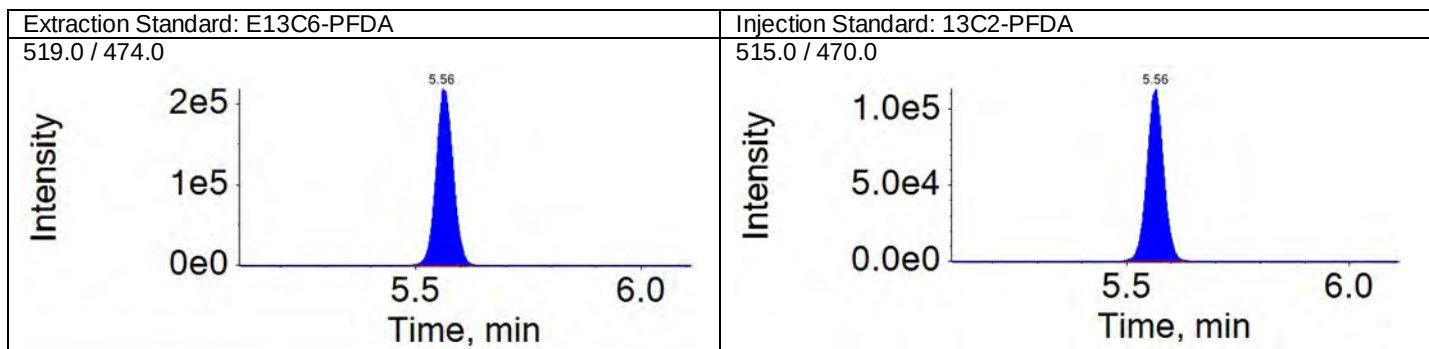
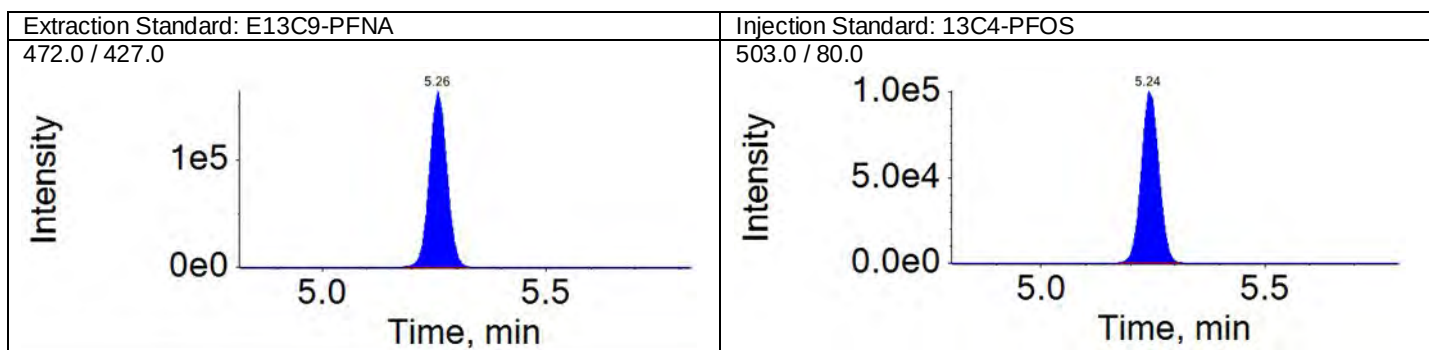
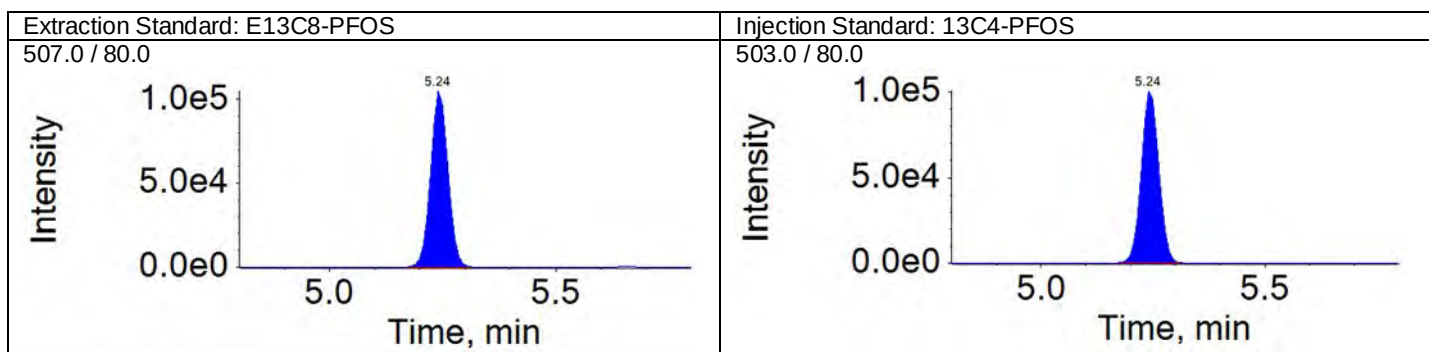
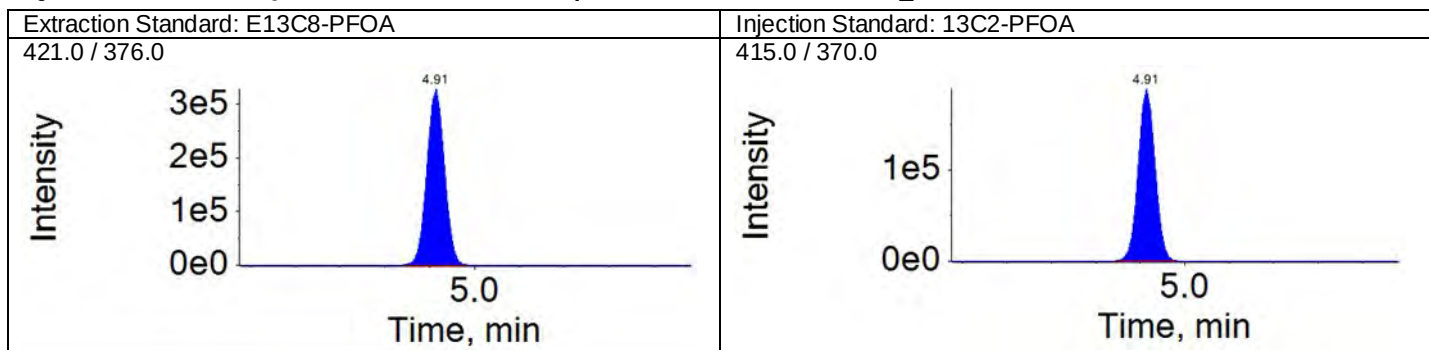
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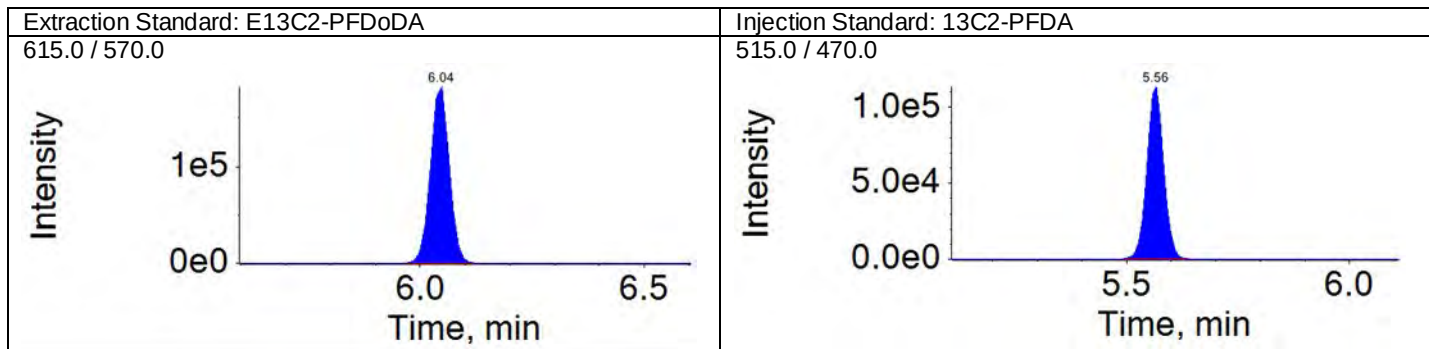
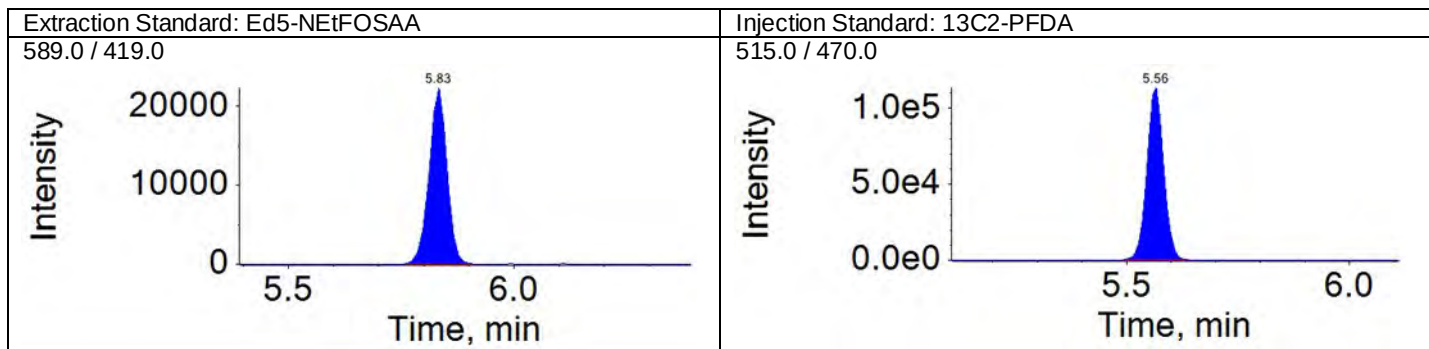
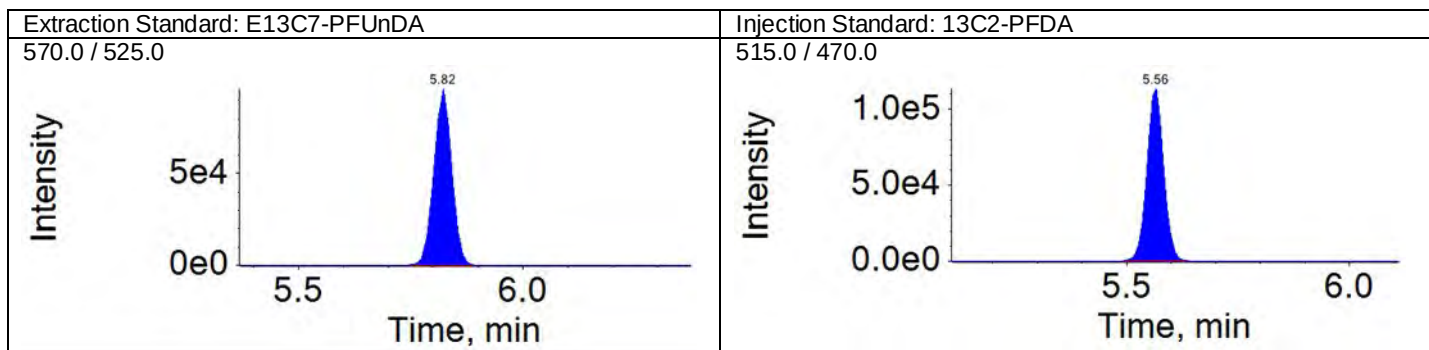
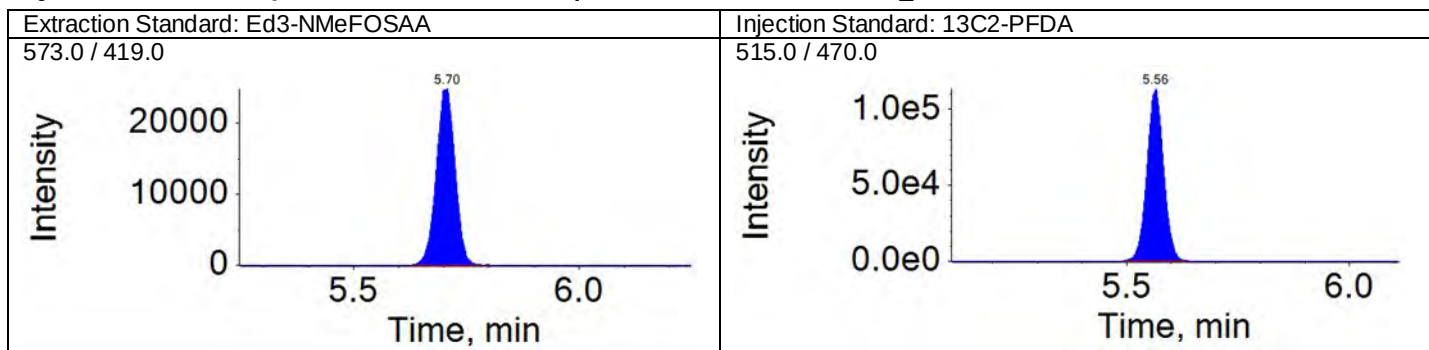
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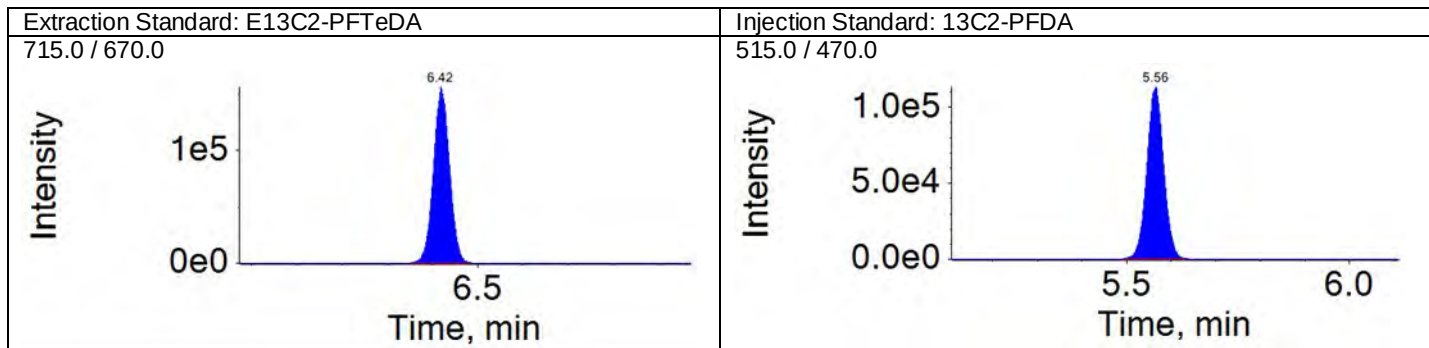
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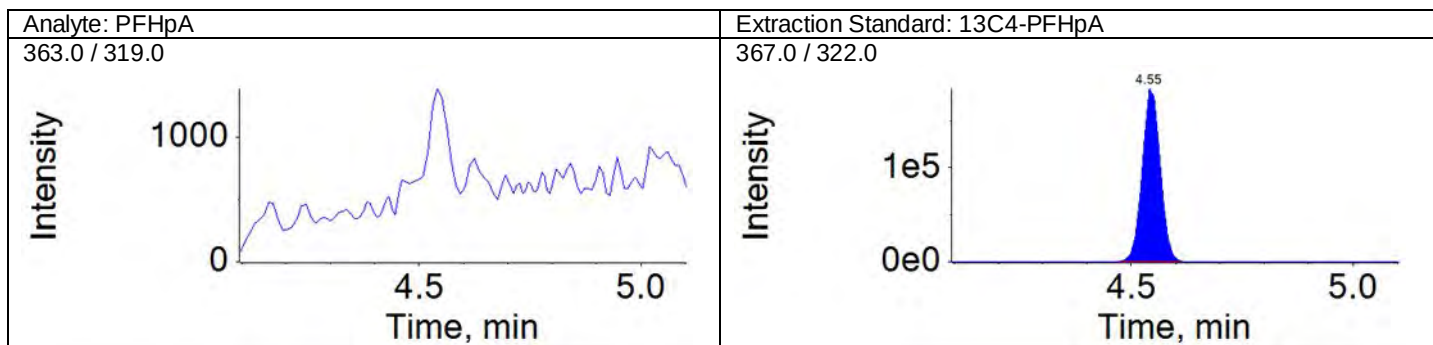
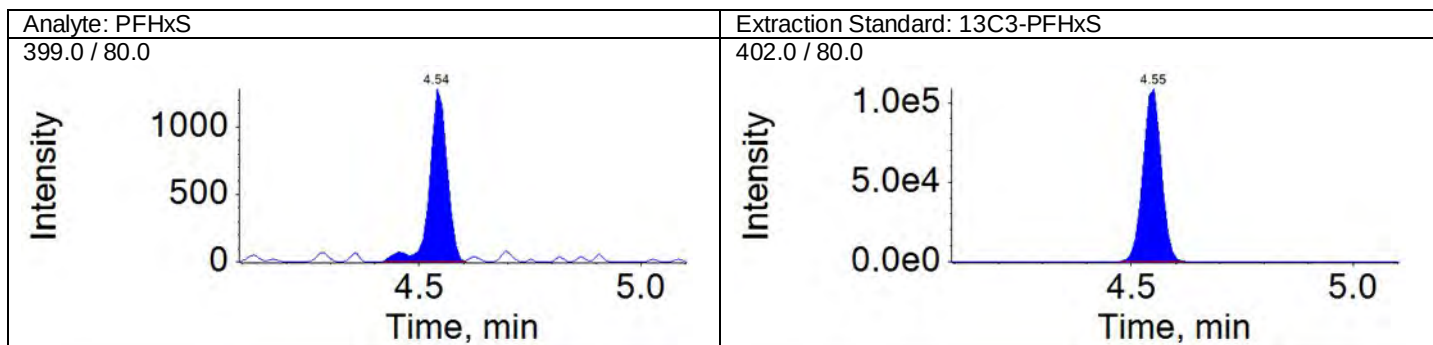
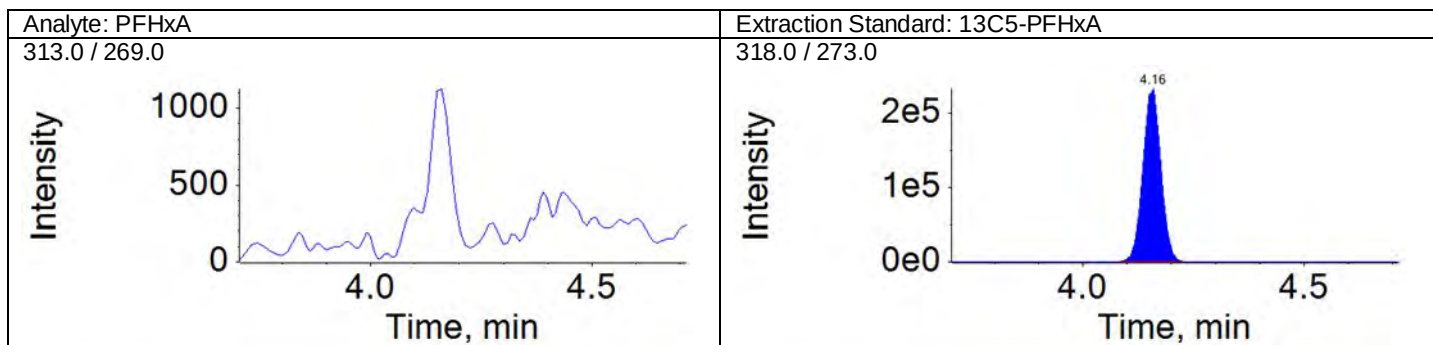
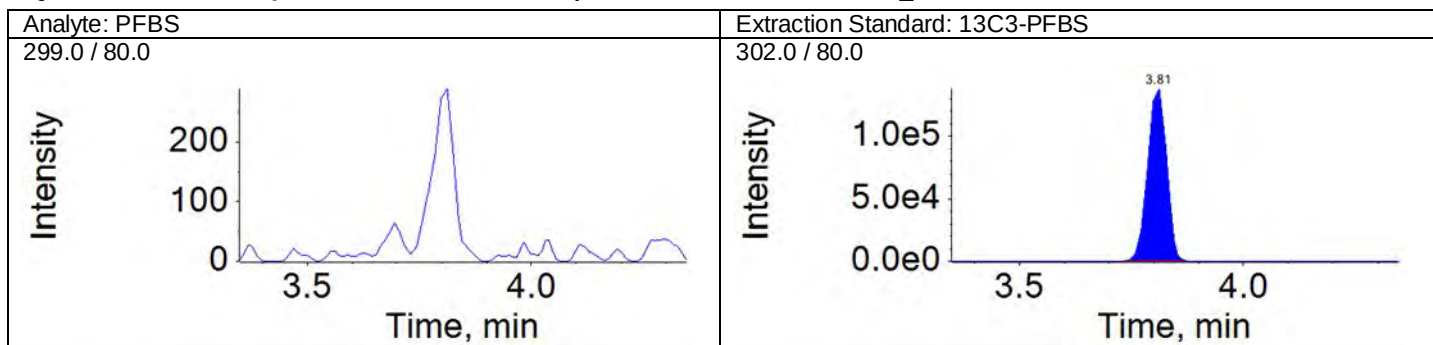
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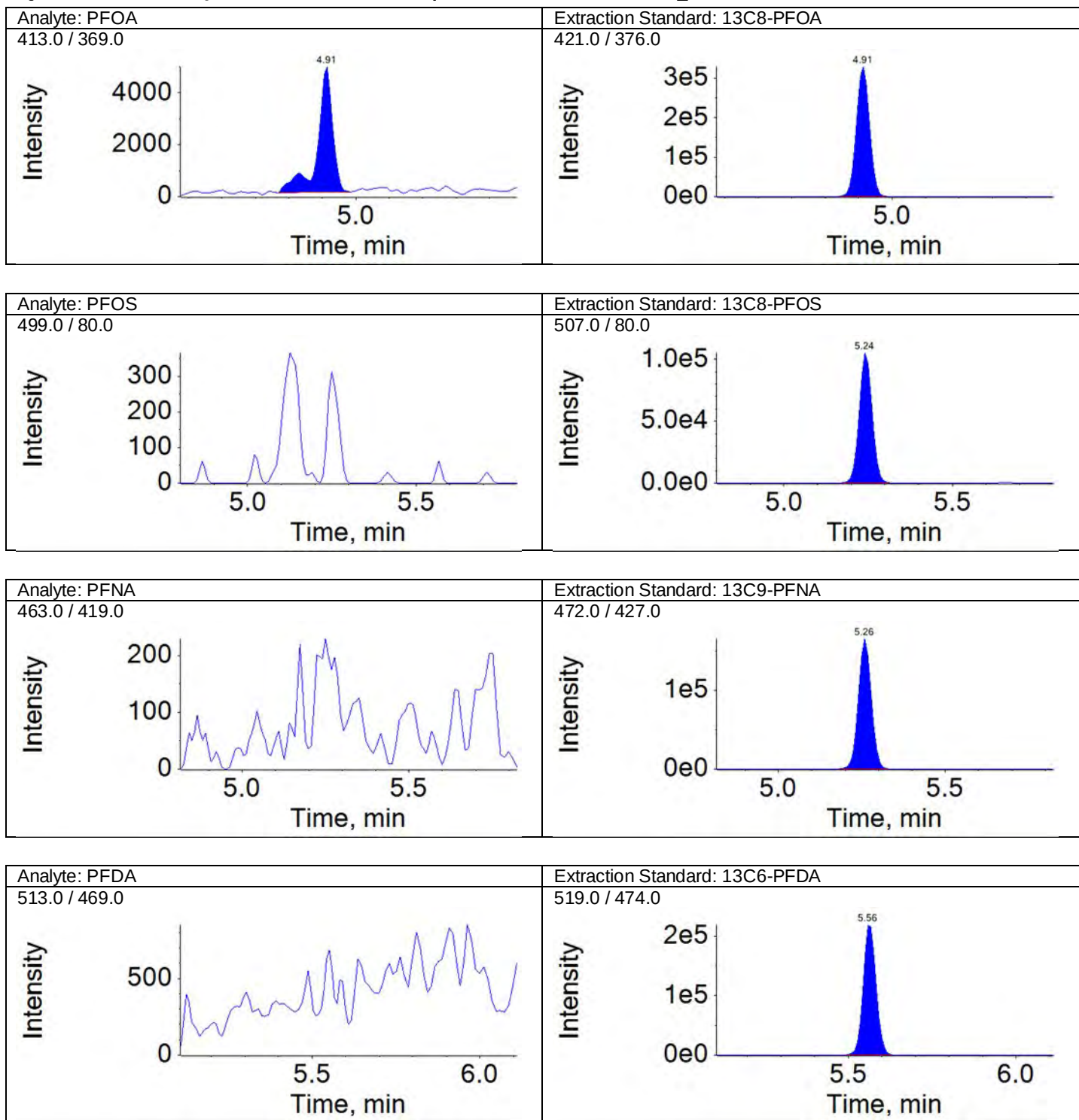
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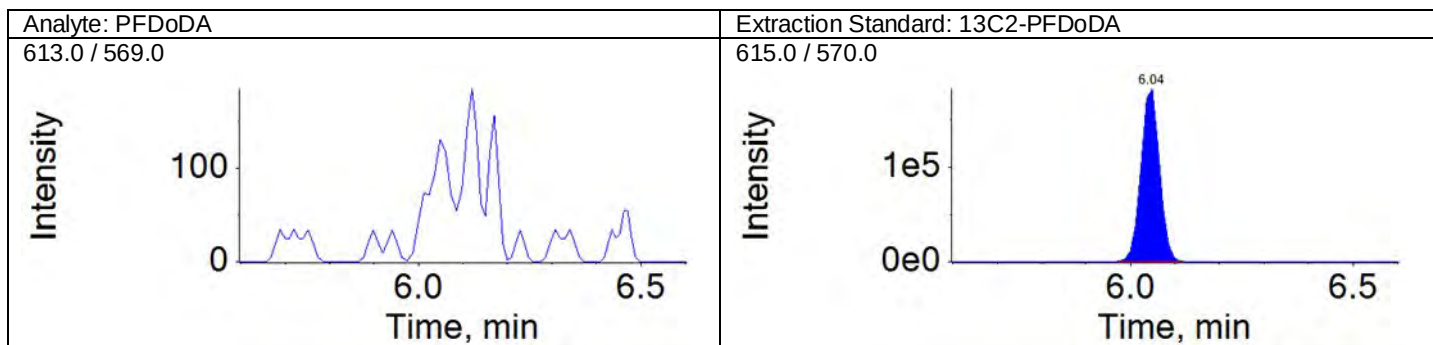
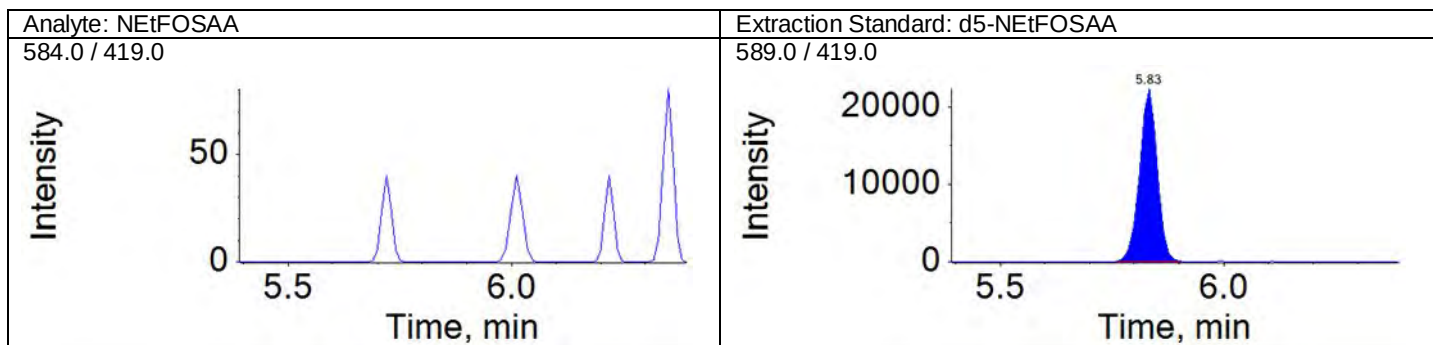
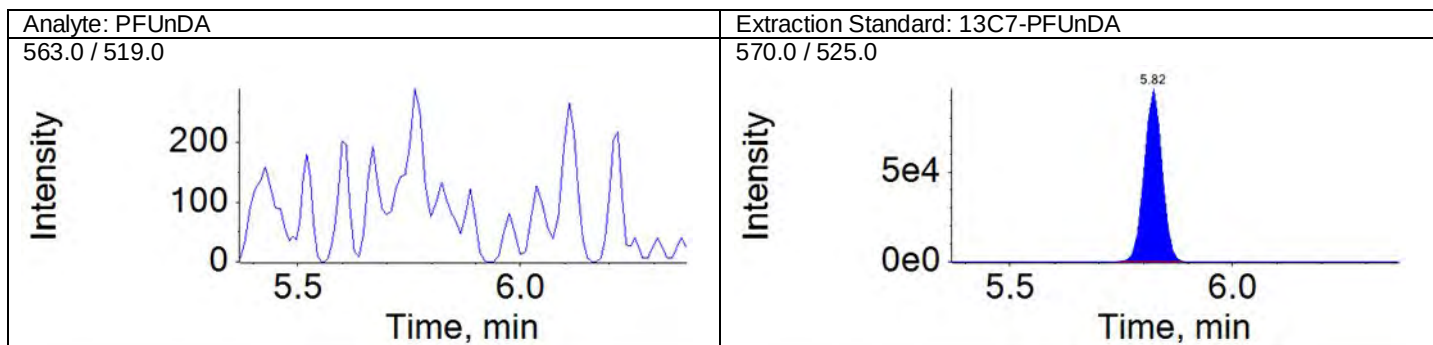
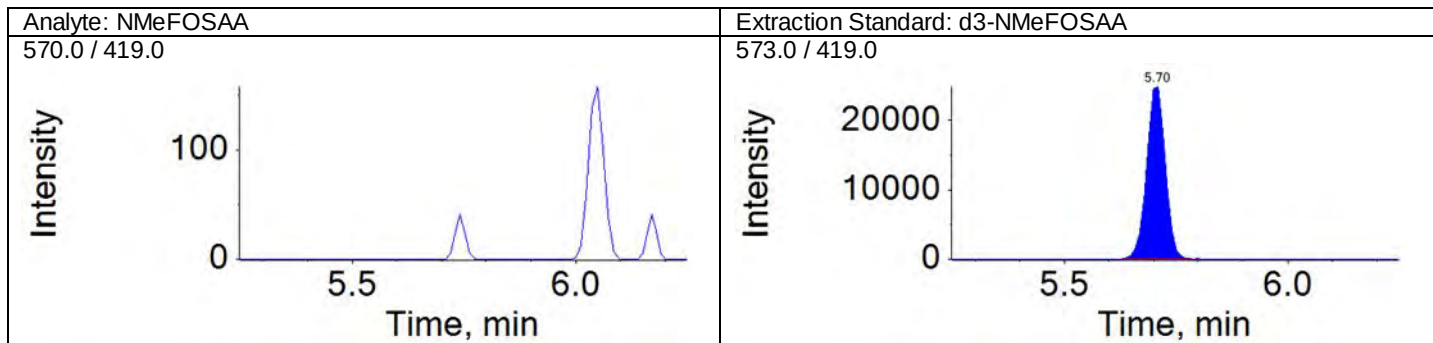
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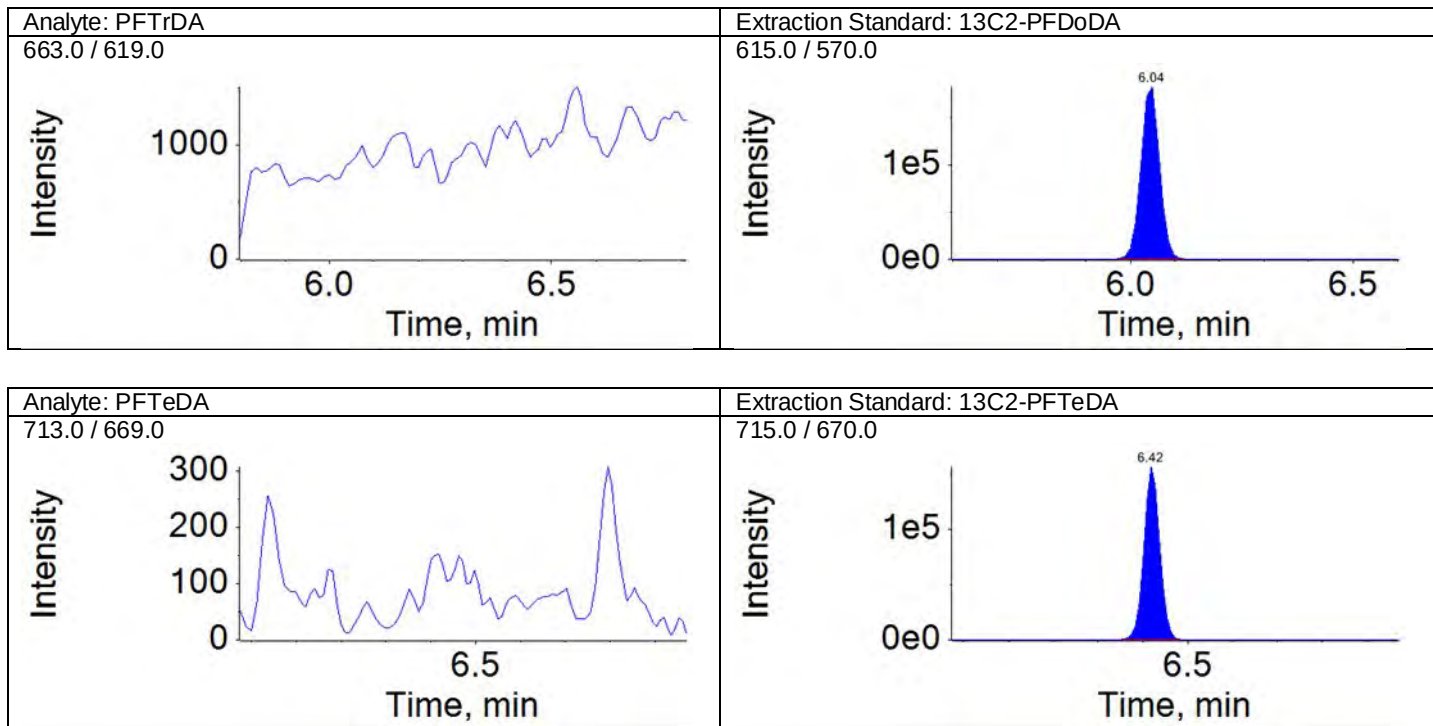
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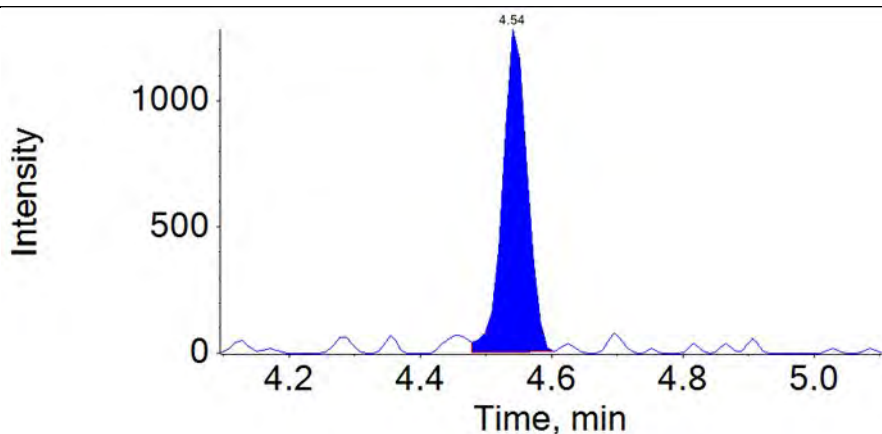
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Results Table Date: 11/10/2018 4:23:04 PM

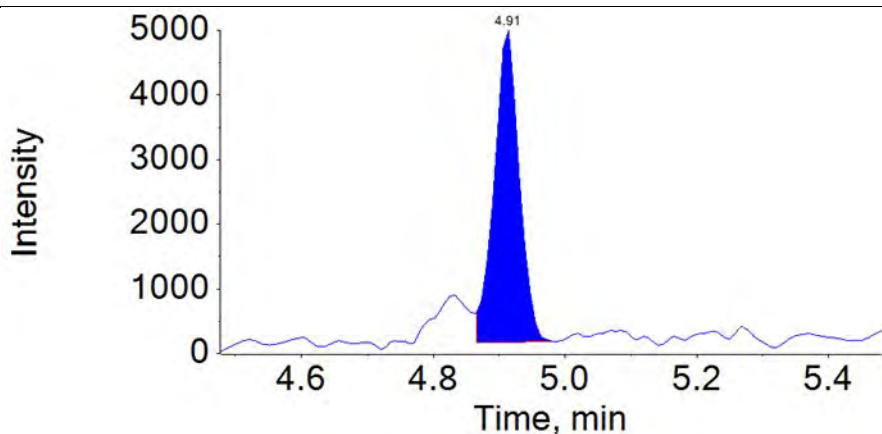
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QMethod File: MQ4-18AUG13

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
3327.3
Mass Range:
399.0 / 80.0
File Name:
18NOV09D-44.wiff
Sample Name:
9885067



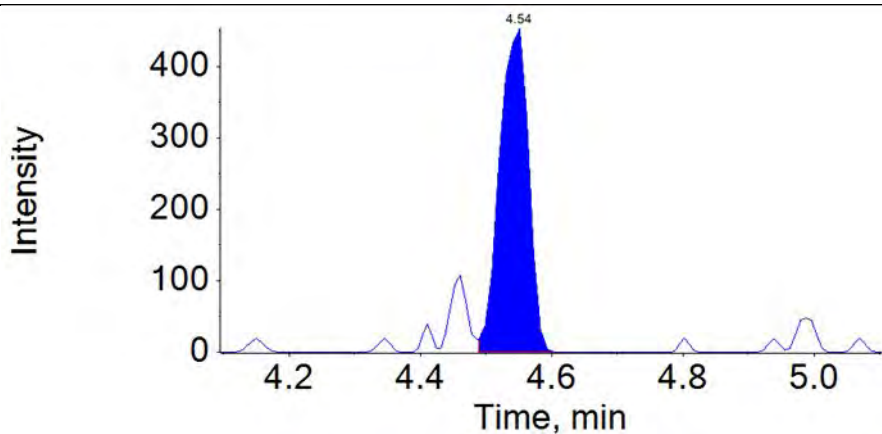
Integration Comment: incorrect integration

Component Name:
PFOA
RT (min.):
4.91
Peak Area:
12716.5
Mass Range:
413.0 / 369.0
File Name:
18NOV09D-44.wiff
Sample Name:
9885067



Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
1393.8
Mass Range:
399.0 / 99.0
File Name:
18NOV09D-44.wiff
Sample Name:
9885067



Integration Comment: incorrect integration

Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:

PFOA_2

RT (min.):

4.81

Peak Area:

579.7

Mass Range:

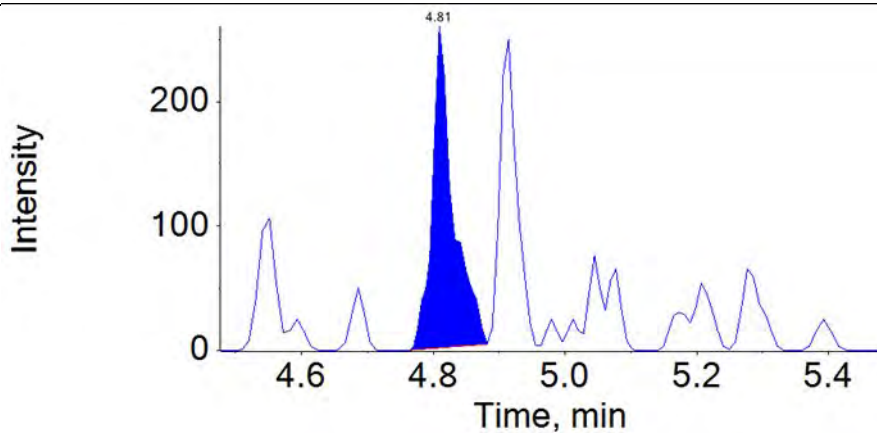
413.0 / 169.0

File Name:

18NOV09D-44.wiff

Sample Name:

9885067



APPROVED

By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED

By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

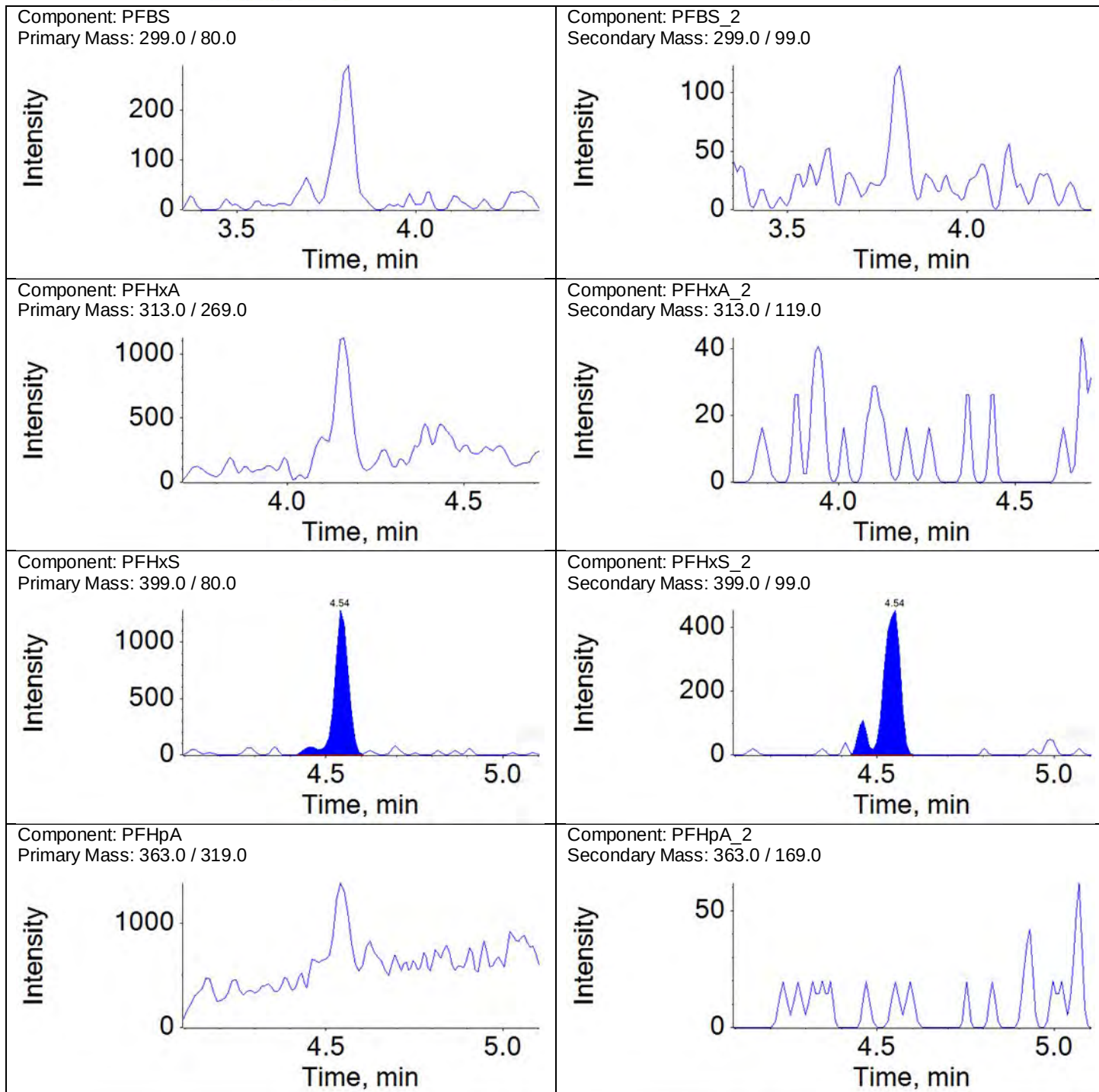
Ion Ratio Report

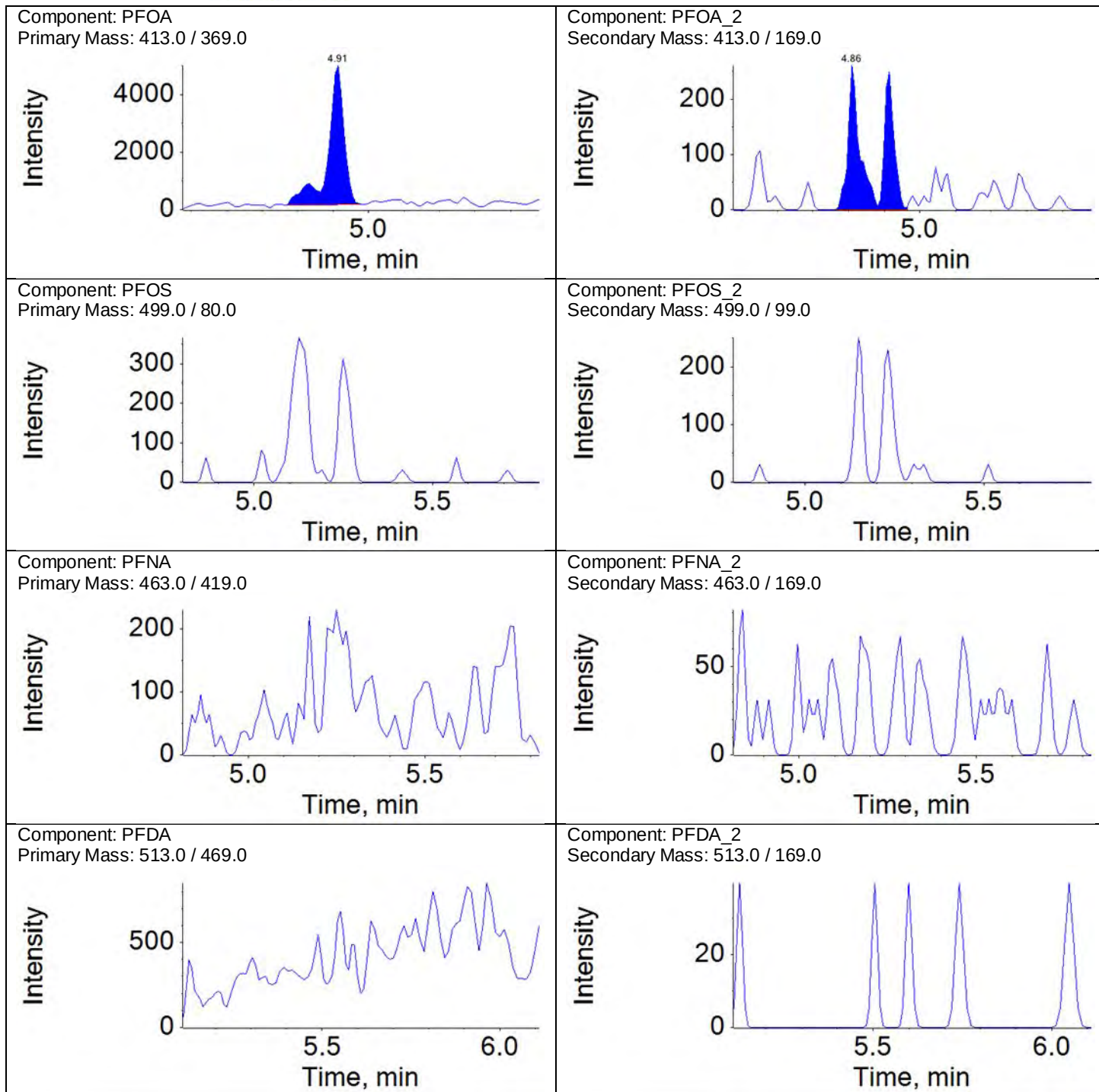
Sample Name: 9885067

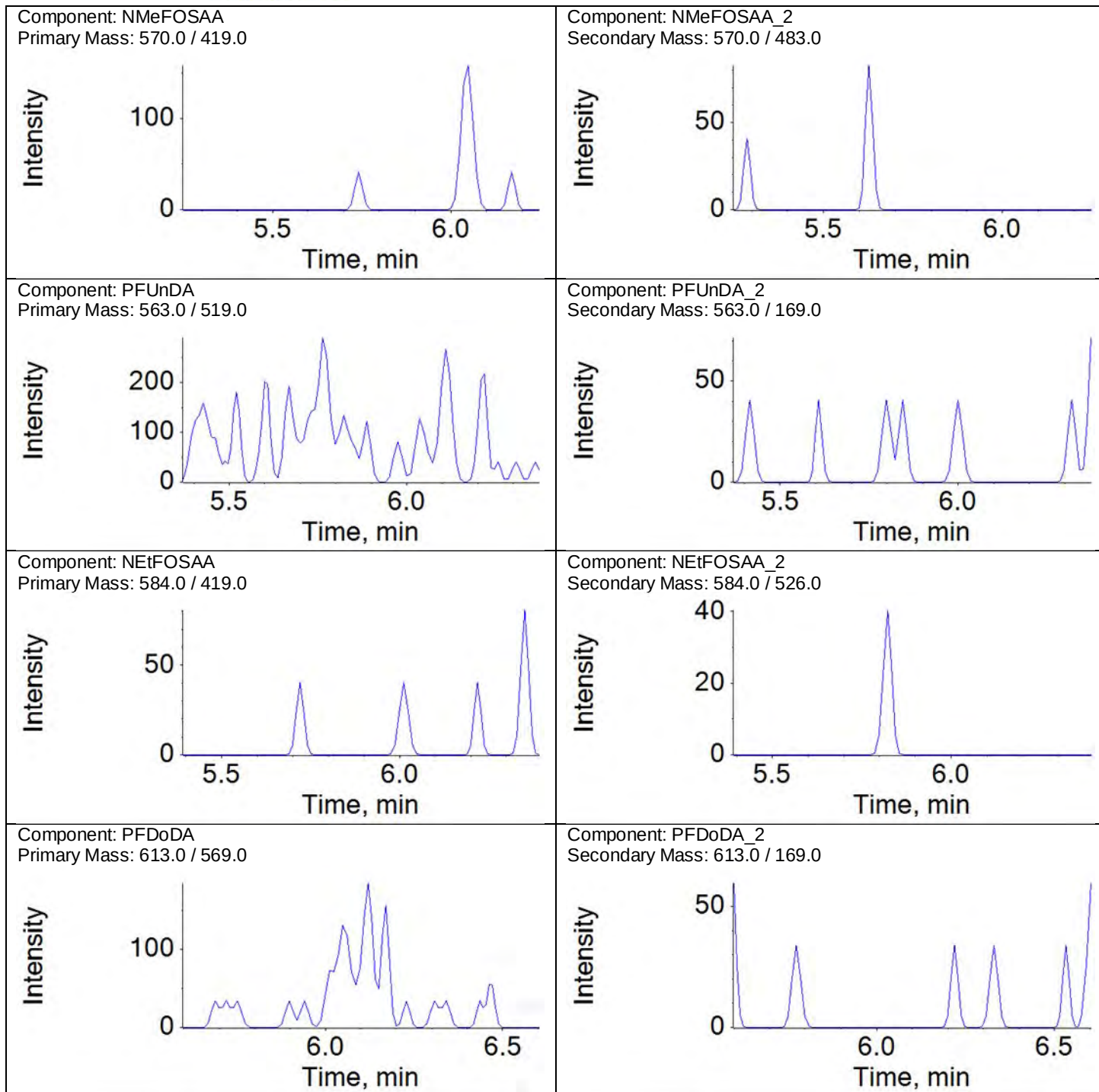
Instrument Name: LM27631

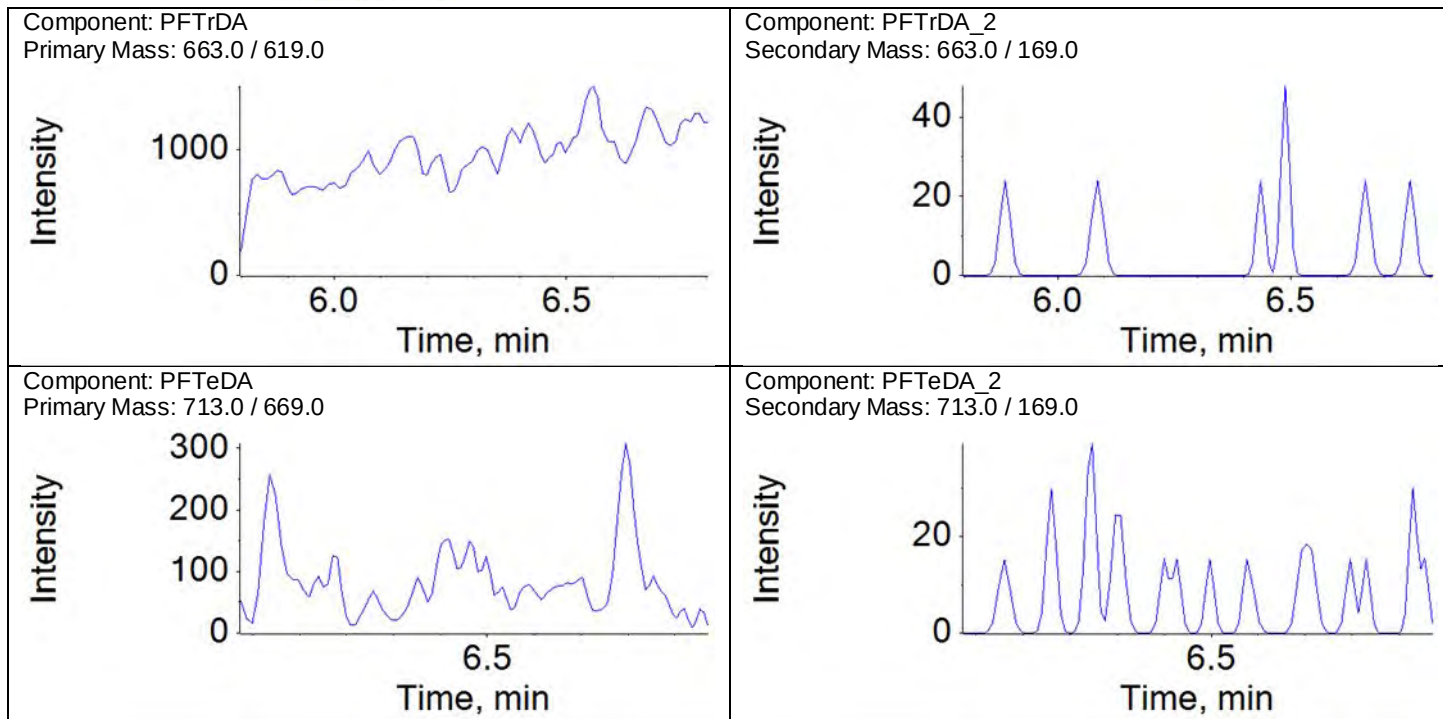
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Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	4.54	1.00	3543.2	M	N/A	0.4484			
PFHxS_2	4.54	1.00	1588.7	M	N/A	0.4484	25	50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	4.91	1.00	15439.3	M	N/A	0.0689			
PFOA_2	4.86	0.99	1064.1	M	N/A	0.0689	8	50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	









ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	9885070BKG			Data File:		18NOV09D-45.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18312011 OU1-WWTPE-S-01-01 Grab Soil			Acquis Date:		2018-11-09T11:15:53
Sample Type:	Unknown			Instrument:		LM27631
Vial Position:	17			Acquis Method:		18AUG13_3uL.dam
Injection Vol:	3.00			Result Table:		18312011
QMethod File:	MQ4-18AUG13			ICAL Name:		18NOV07DCAL
Batch Number:	18312011			Operator:		MCD7824
Sample Wt.:	1.01000			Dilution Factor:		1.00
Sample Vol.:	1.000			Prep Factor:		2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	720615.8	725974.7	-1	50	
13C2-PFOA	5.0	499372.2	506876.7	-1	50	
13C4-PFOS	4.8	274584.9	274910.1	0	50	
13C2-PFDA	5.0	315155.8	307276.7	3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C3-PFBS	400983.5	13C3-PFBA	720615.8	0.556	9.208	8.087	88	50-150	
E13C5-PFHxA	639355.2	13C2-PFOA	499372.2	1.280	9.901	9.326	94	50-150	
E13C3-PFHxS	317451.9	13C2-PFOA	499372.2	0.636	9.366	9.037	96	50-150	
E13C4-PFHpA	500107.8	13C2-PFOA	499372.2	1.001	9.901	9.021	91	50-150	
E13C8-PFOA	878653.9	13C2-PFOA	499372.2	1.760	9.901	9.716	98	50-150	
E13C8-PFOS	281707.1	13C4-PFOS	274584.9	1.026	9.465	8.983	95	50-150	
E13C9-PFNA	469024.2	13C4-PFOS	274584.9	1.708	9.901	9.239	93	50-150	
E13C6-PFDA	582081.0	13C2-PFDA	315155.8	1.847	9.901	9.198	93	50-150	
Ed3-NMeFOSAA	60740.8	13C2-PFDA	315155.8	0.193	9.901	7.097	72	50-150	
E13C7-PFUnDA	260722.4	13C2-PFDA	315155.8	0.827	9.901	9.450	95	50-150	
Ed5-NEtFOSAA	48536.1	13C2-PFDA	315155.8	0.154	9.901	7.057	71	50-150	
E13C2-PFDODA	535806.2	13C2-PFDA	315155.8	1.700	9.901	9.076	92	50-150	
E13C2-PFTeDA	383989.9	13C2-PFDA	315155.8	1.218	9.901	8.686	88	50-150	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: 9885070BKG

Instrument Name: LM27631

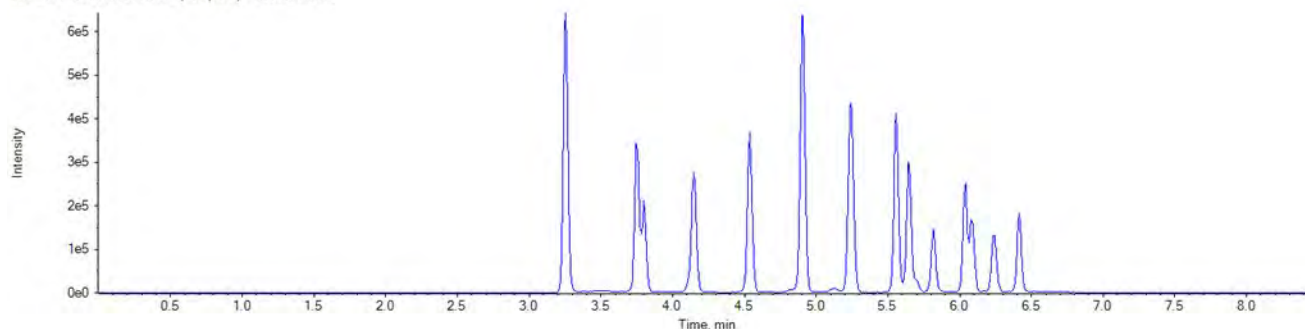
File Name: 18NOV09D-45.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.01000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.80	400983.5	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	639355.2	N/A	
PFHxS	4.54	1.000	9341.1		M	13C3-PFHxS	4.54	317451.9	0.029	0.295
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	500107.8	N/A	
PFOA	4.91	1.000	72845.9		M	13C8-PFOA	4.91	878653.9	0.083	0.924
PFOS	5.24	1.000	131997.4		M	13C8-PFOS	5.23	281707.1	0.469	4.811
PFNA	5.25	1.000	9619.5		A	13C9-PFNA	5.25	469024.2	0.021	0.152
PFDA	5.56	1.000	9100.0		A	13C6-PFDA	5.56	582081.0	0.016	0.170
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	60740.8	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	260722.4	N/A	
NEtFOSAA	5.83	1.000	3737.5		A	d5-NEtFOSAA	5.83	48536.1	0.077	0.655
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	535806.2	N/A	
PFTTrDA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	535806.2	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	383989.9	N/A	

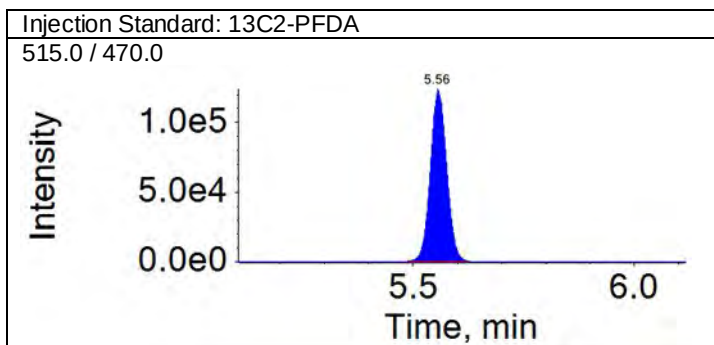
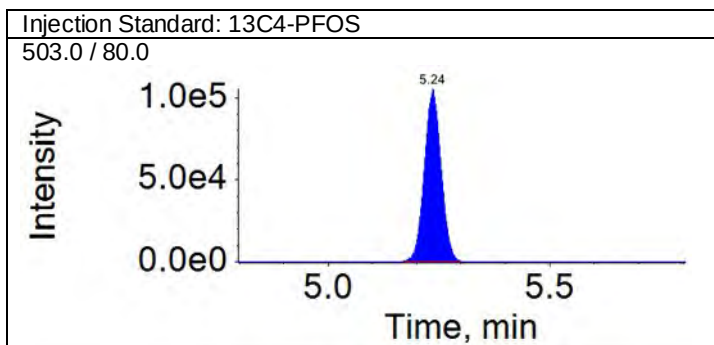
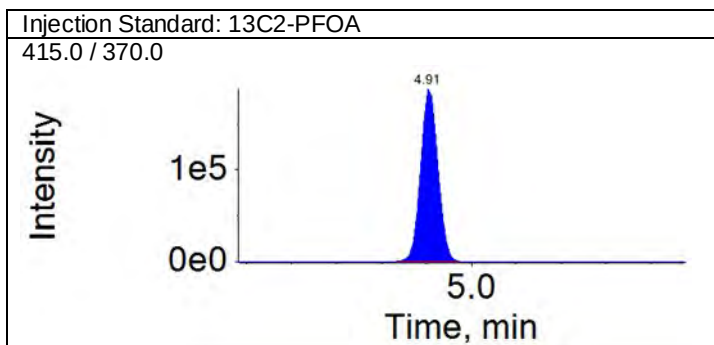
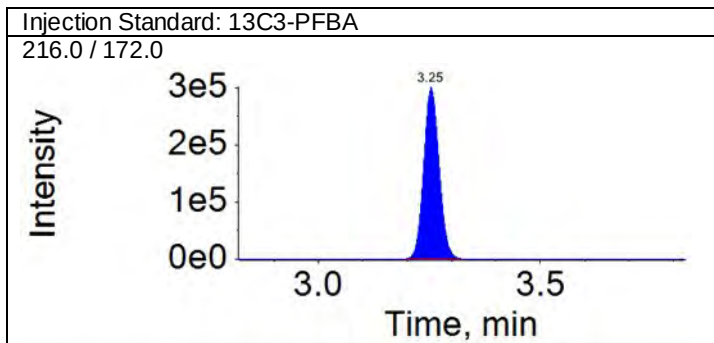
Total Ion Chromatogram

TIC from 18NOV09D-45.wiff (sample 1) - 9885070BKG



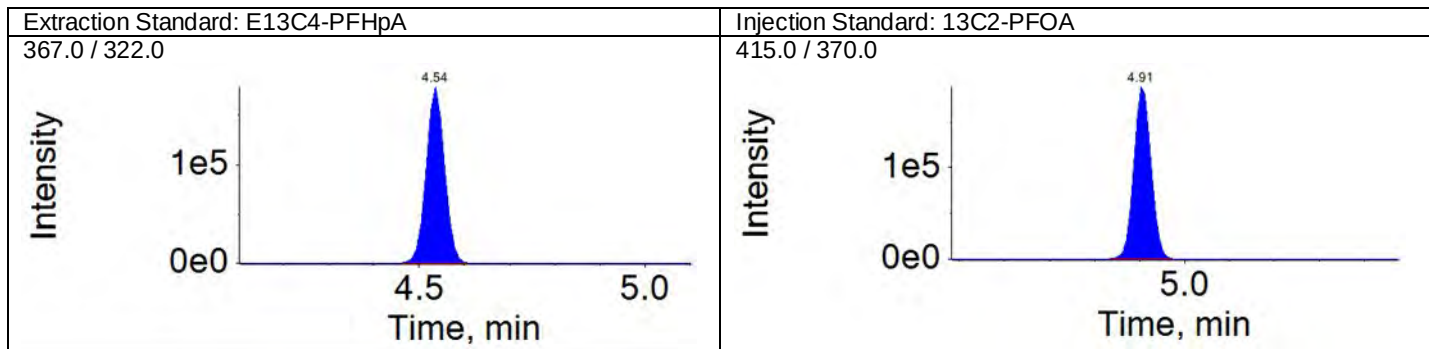
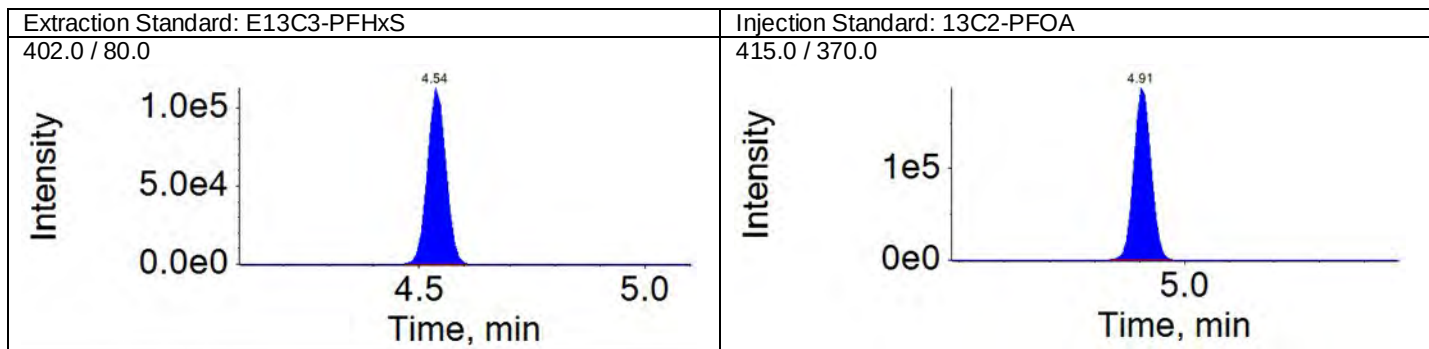
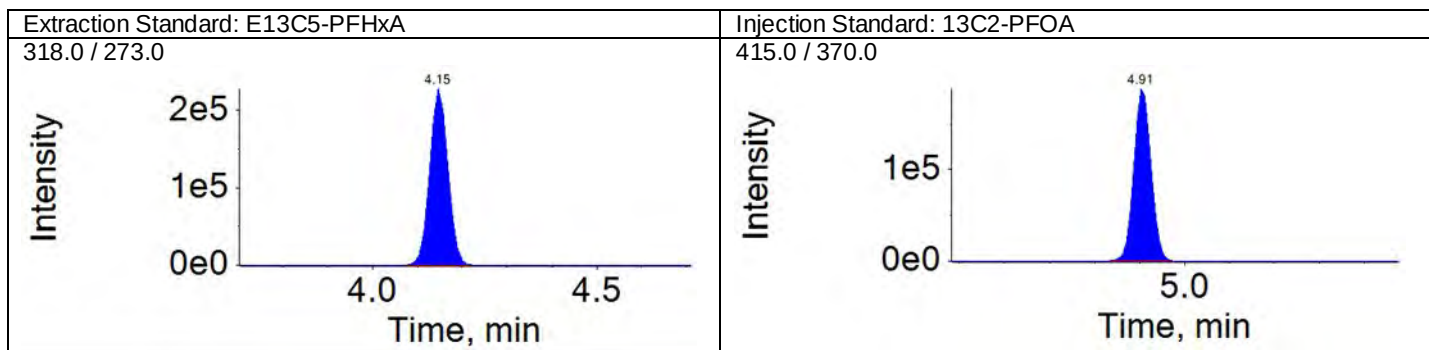
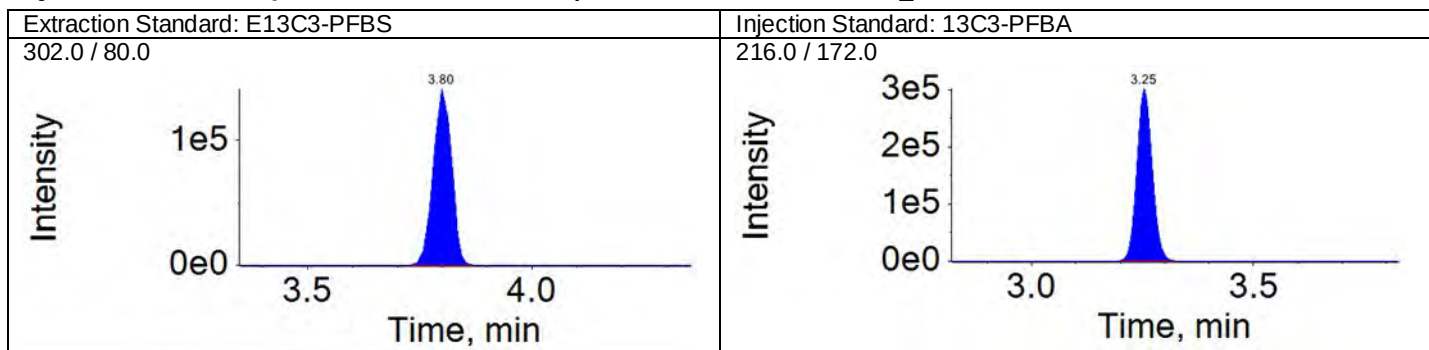
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



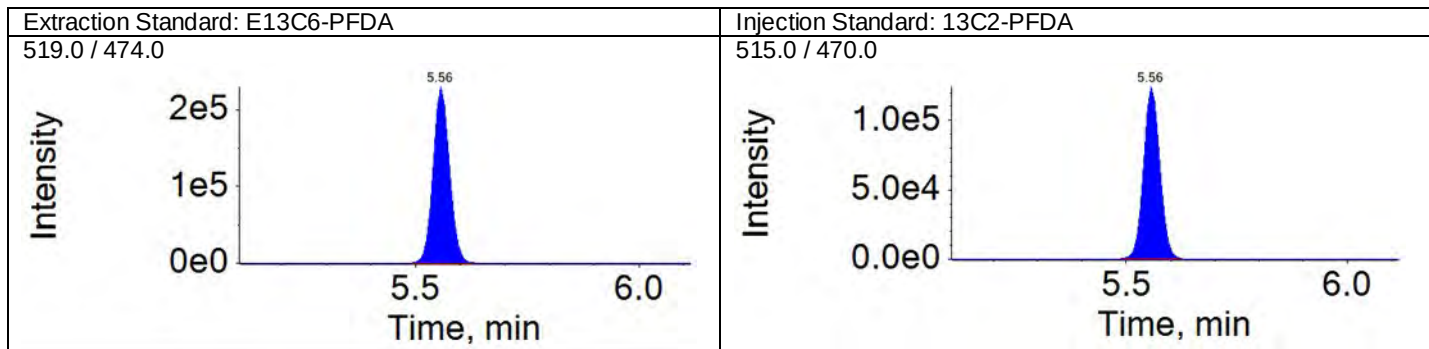
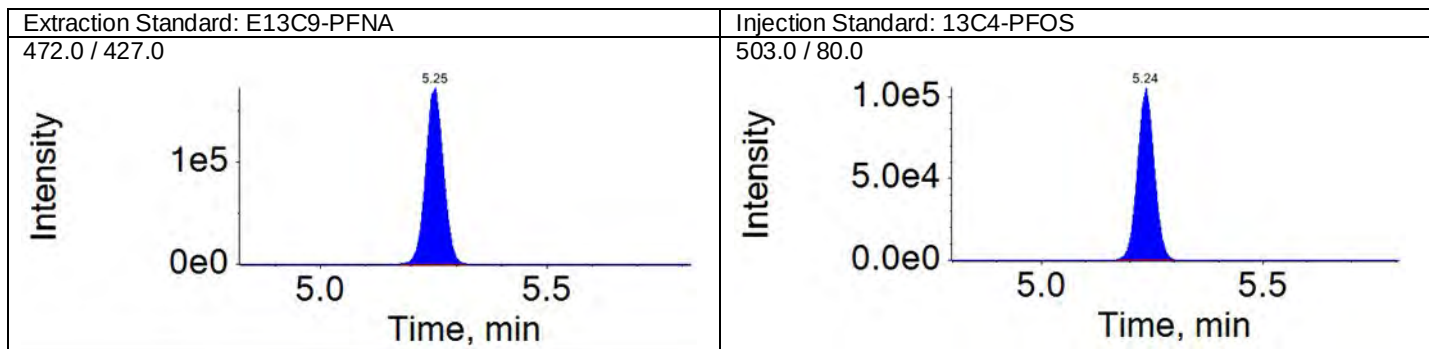
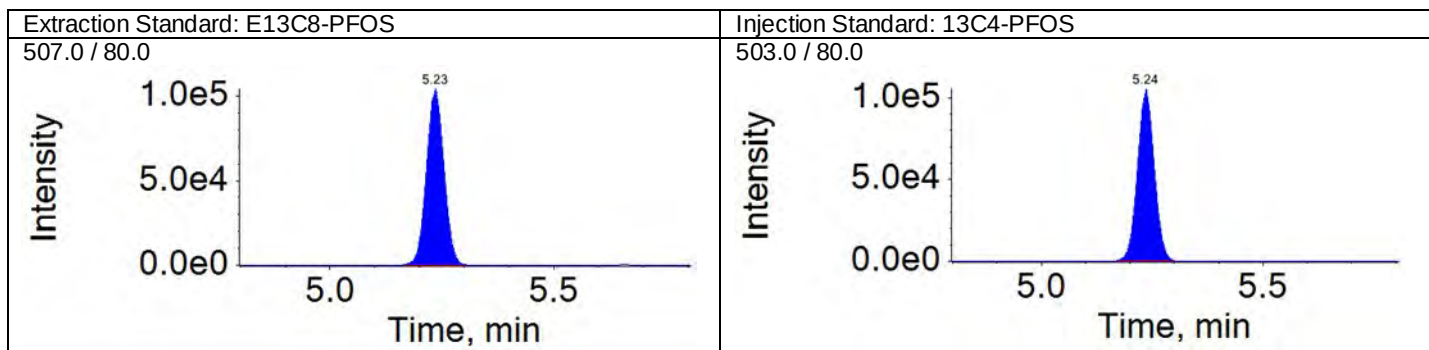
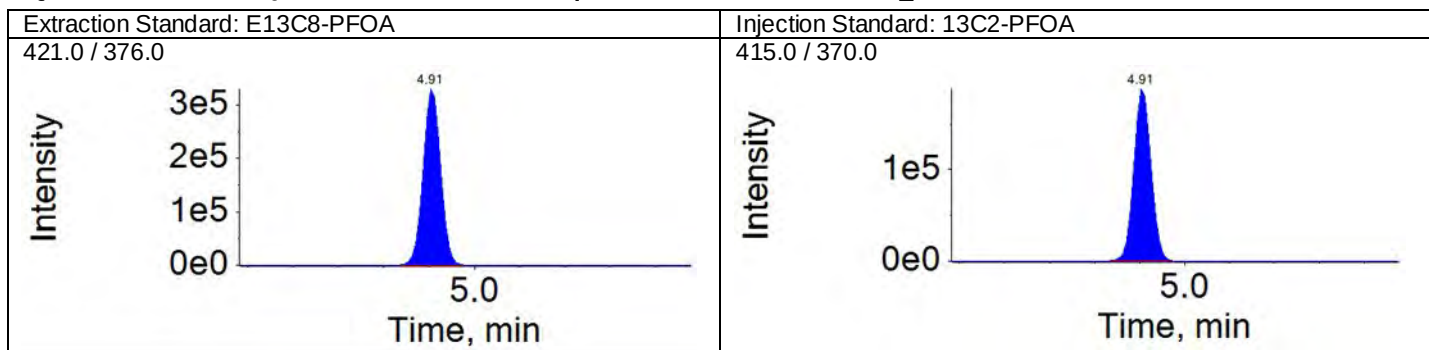
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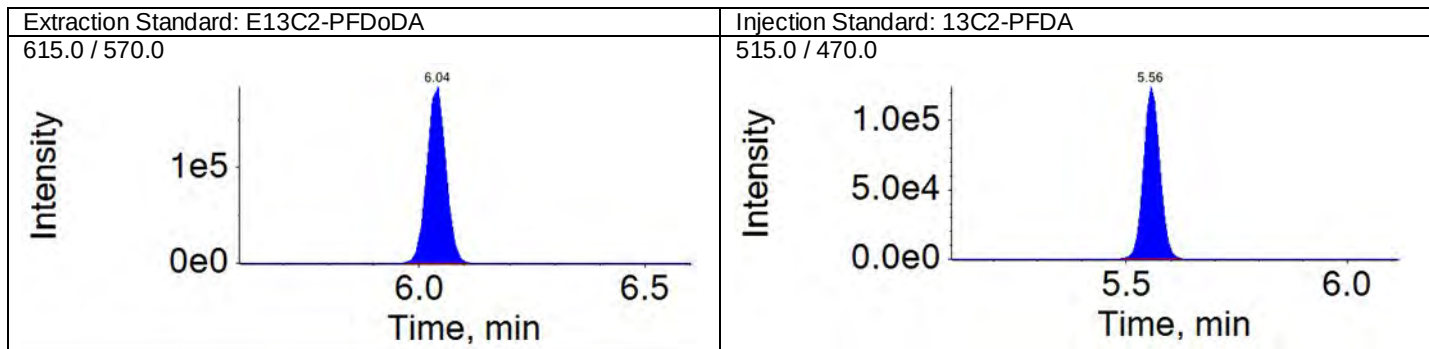
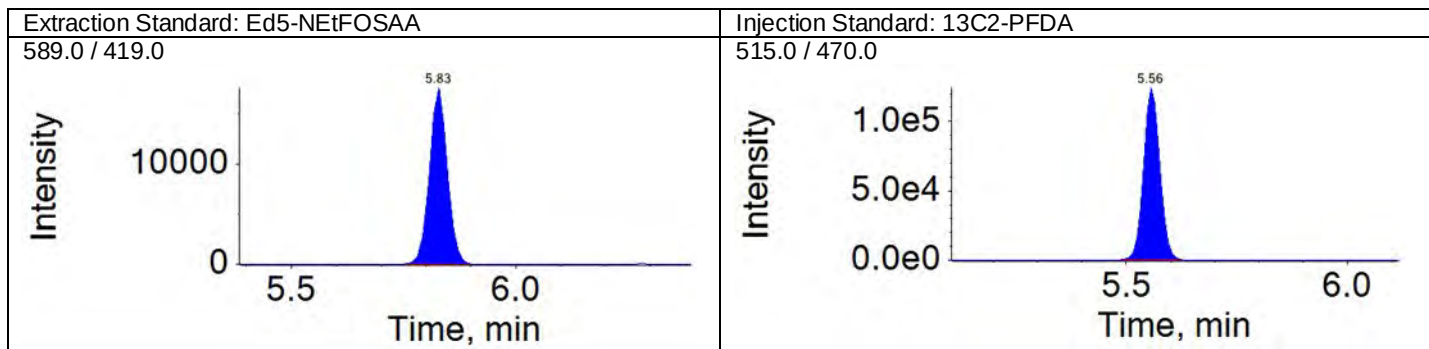
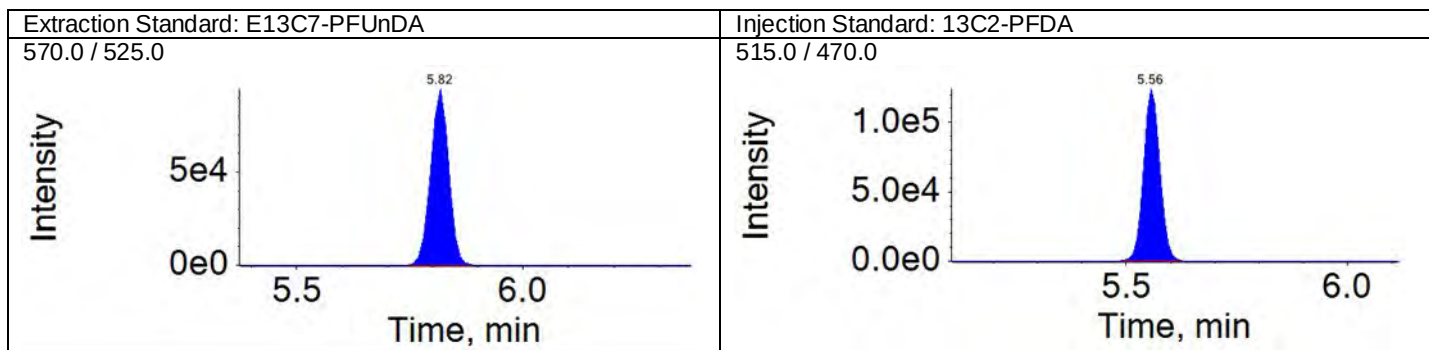
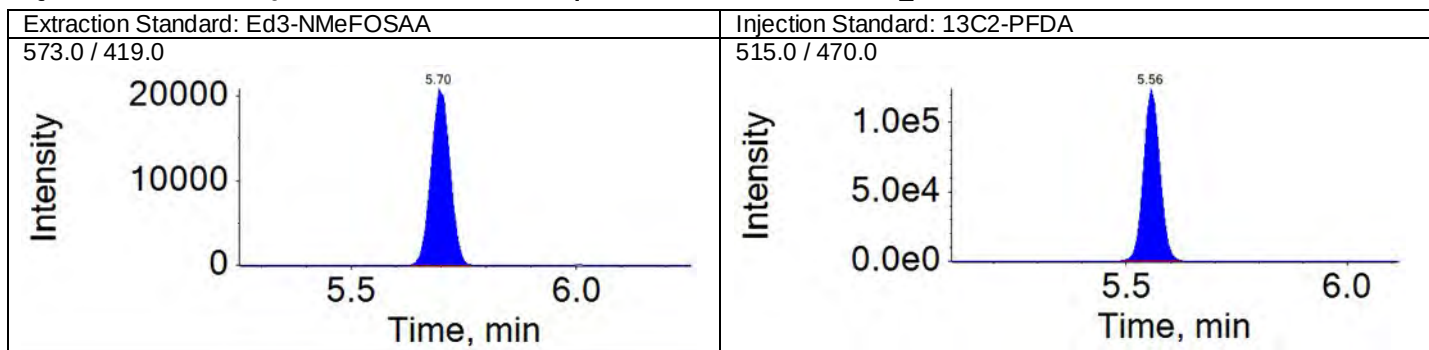
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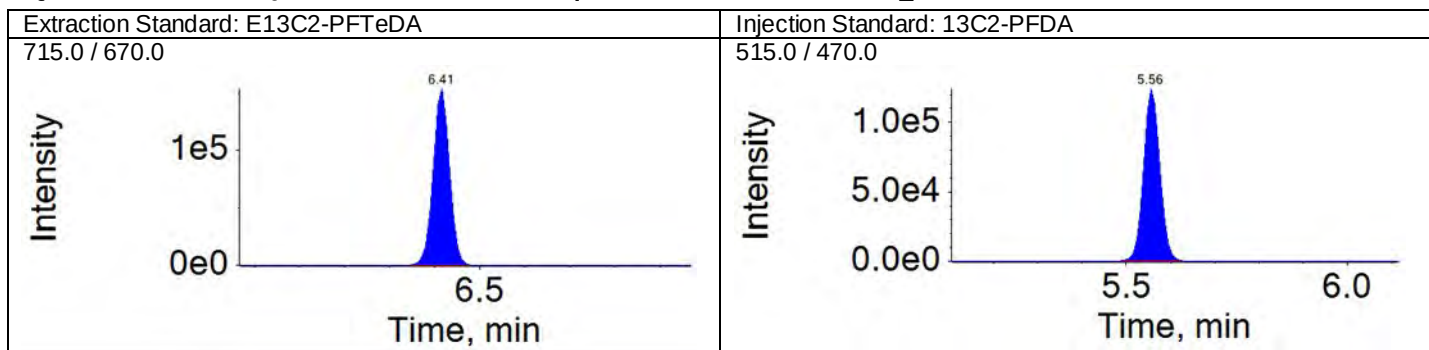
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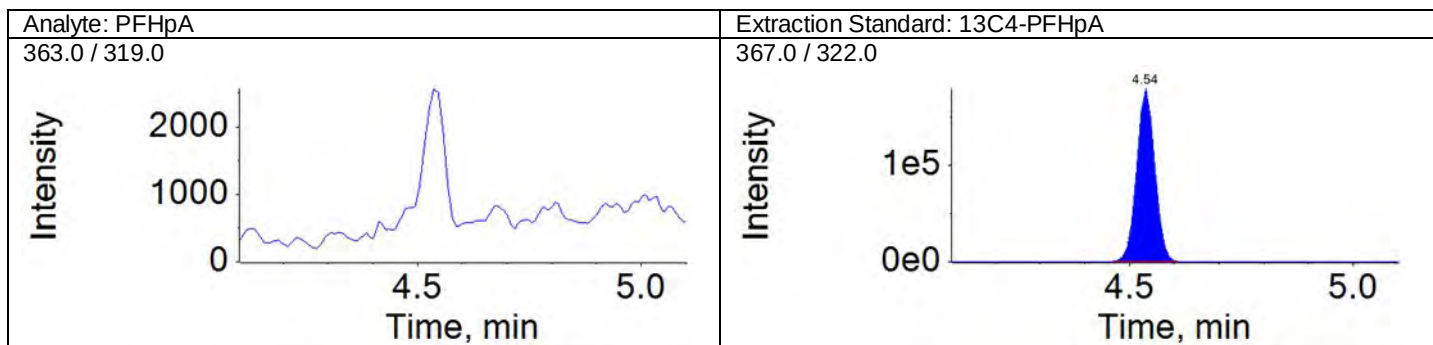
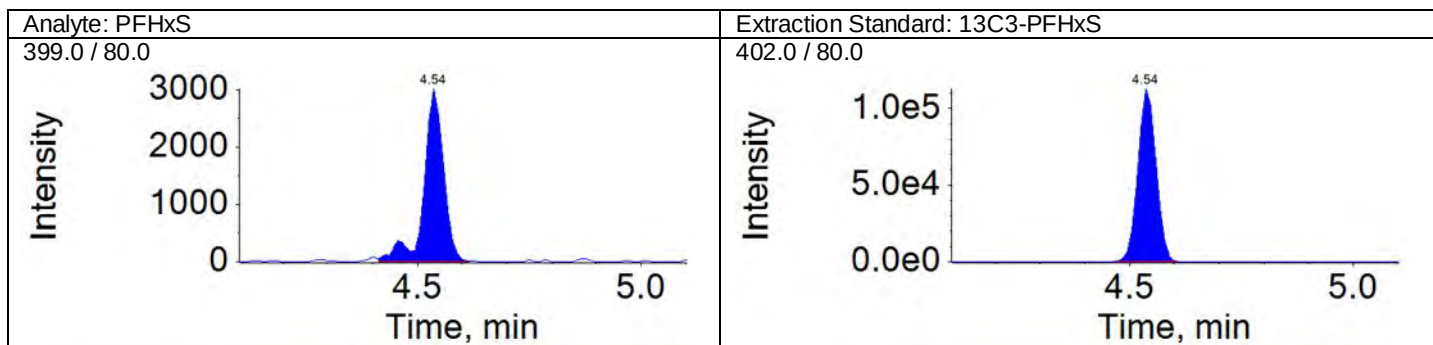
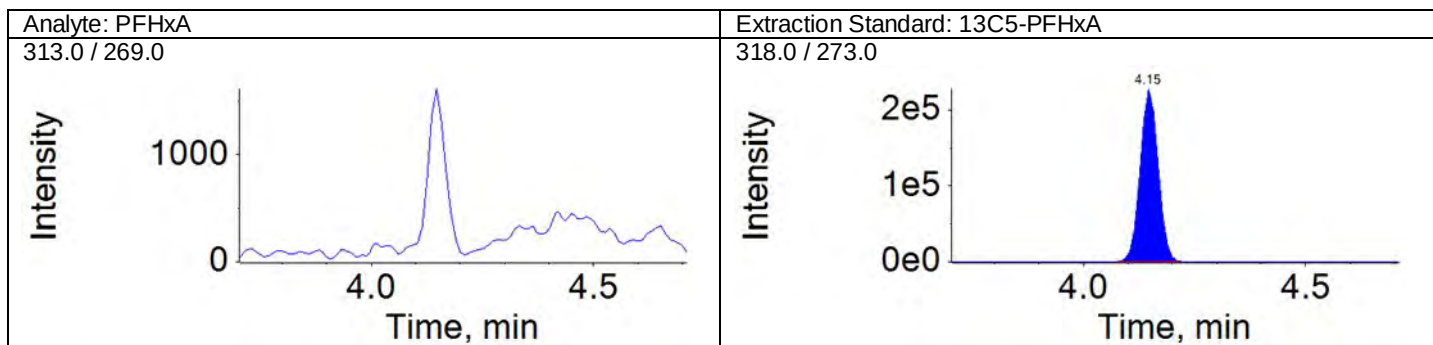
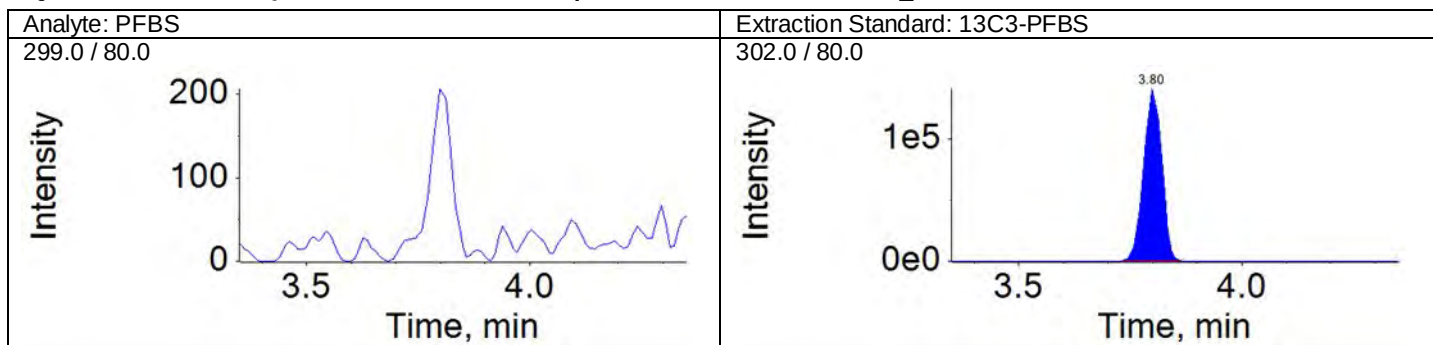
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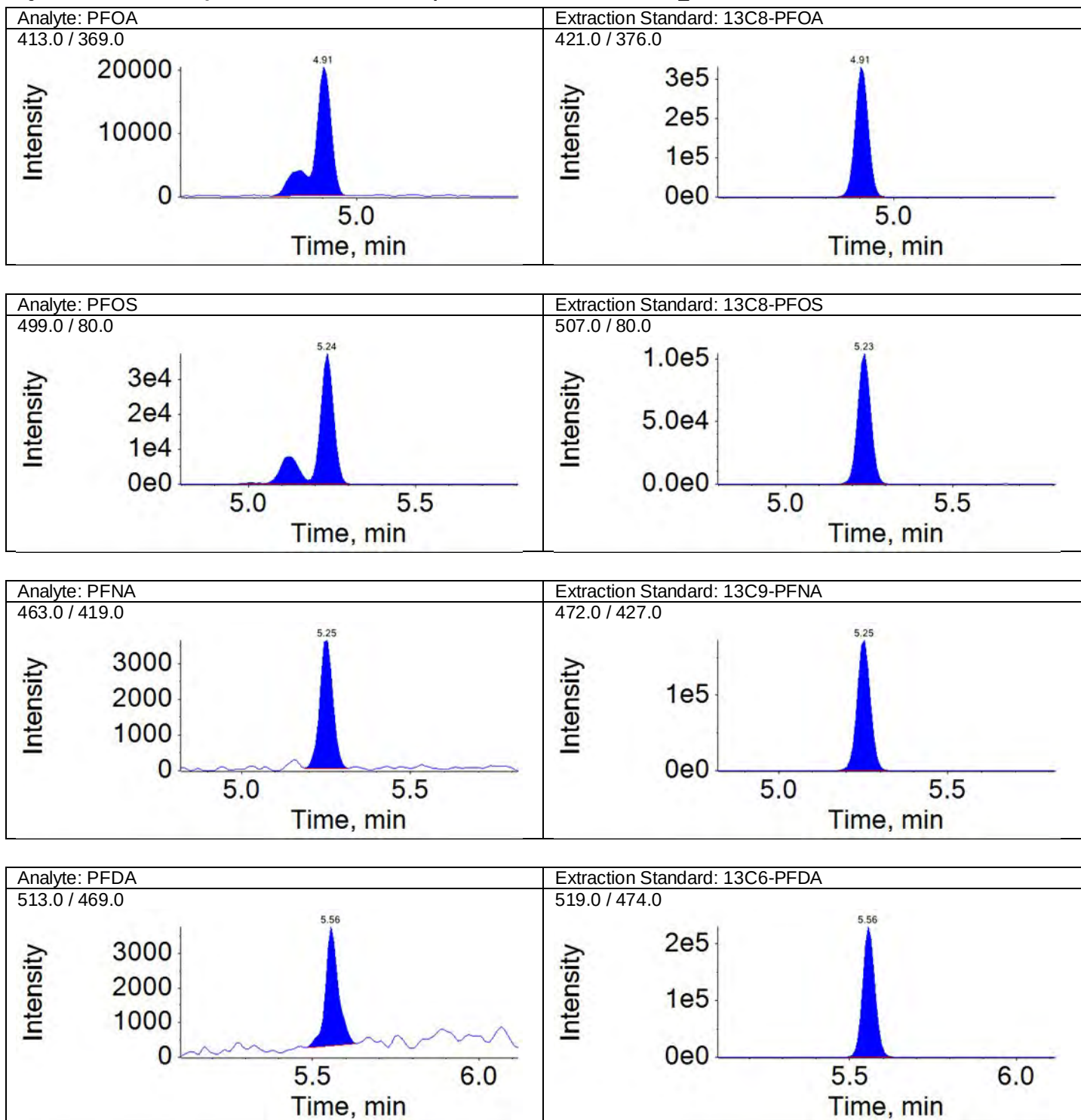
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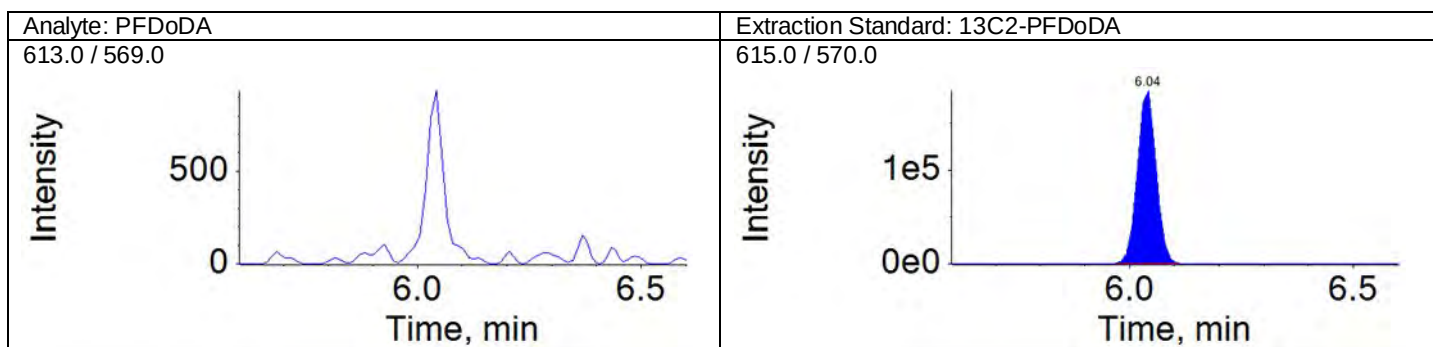
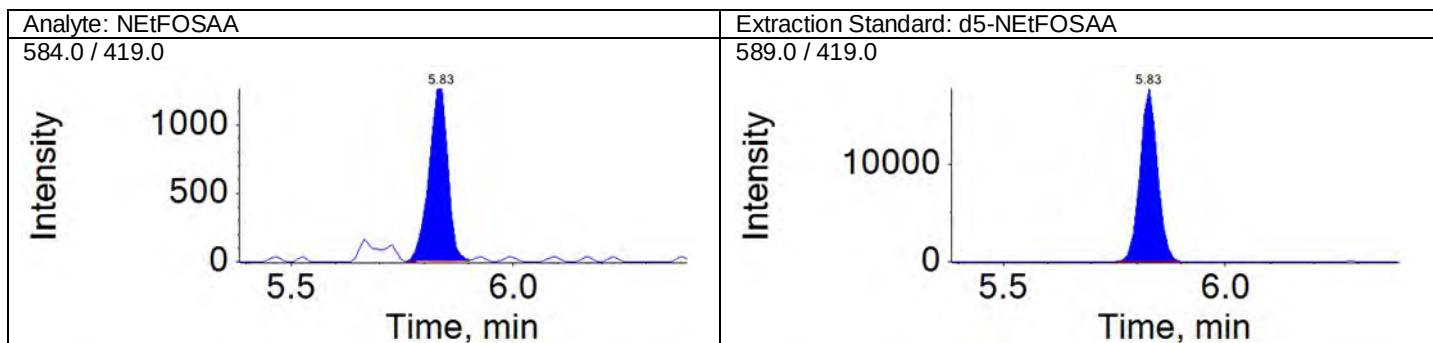
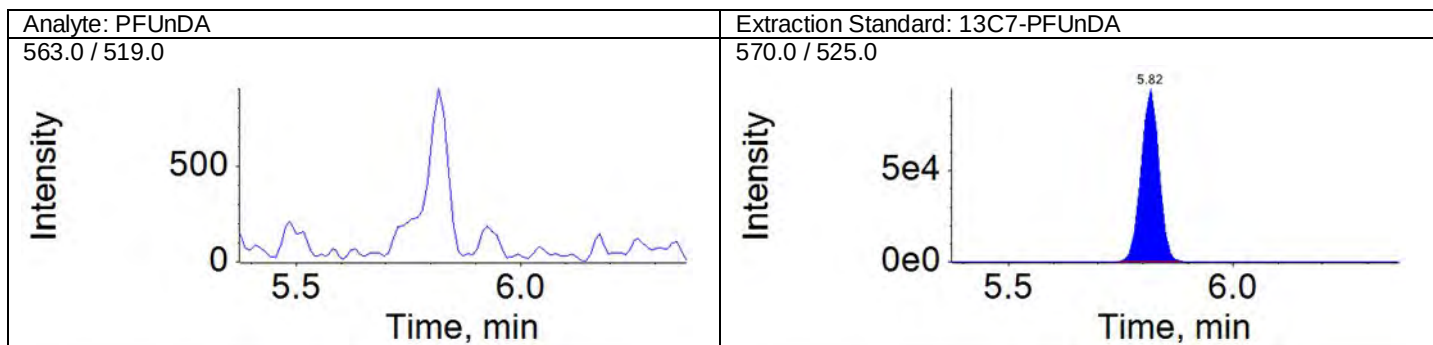
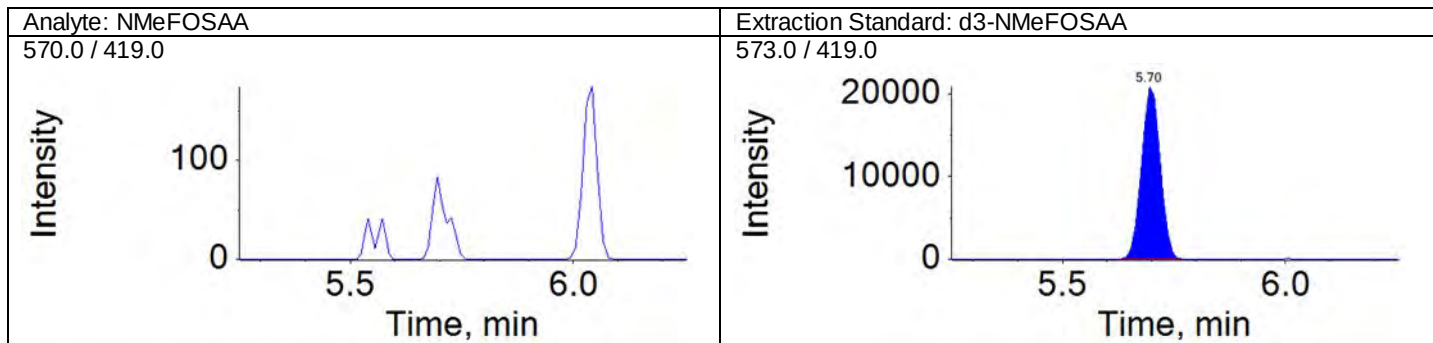
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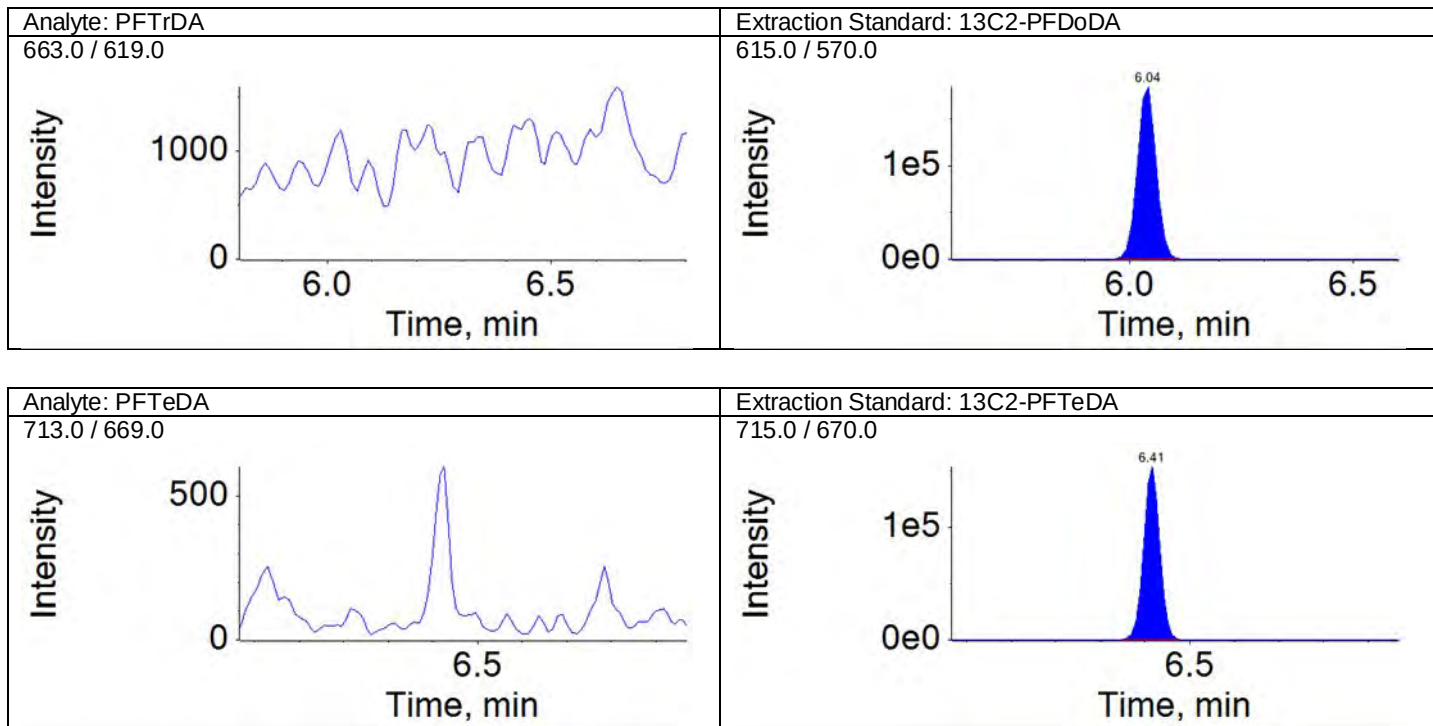
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Acquisition Method: 18AUG13_3uL.dam



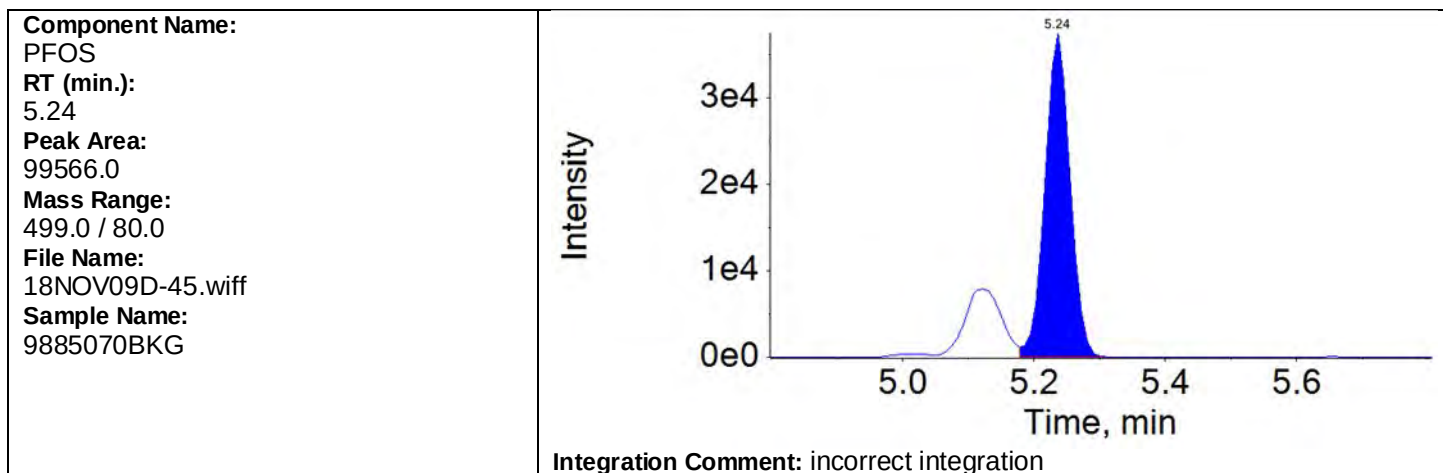
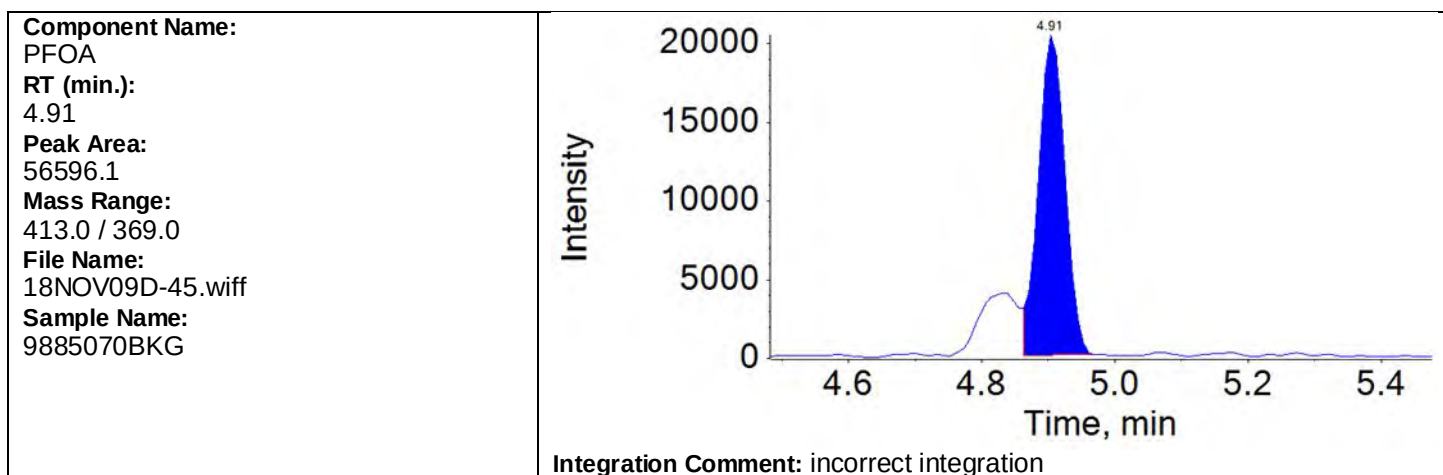
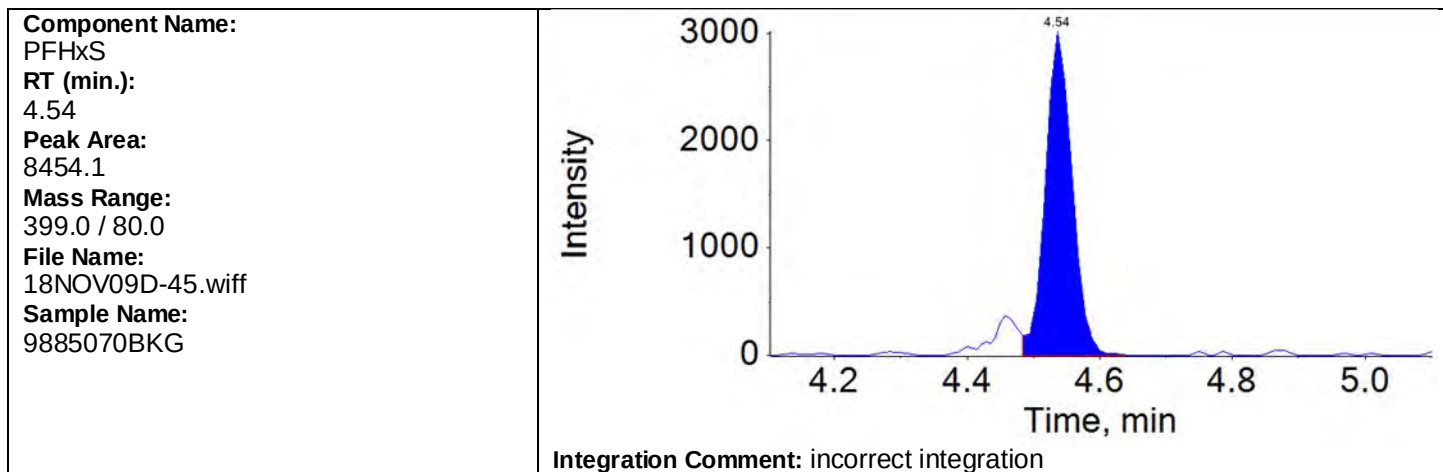
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Result Table: 18312011 11/10/2018 4:23:04 PM
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Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

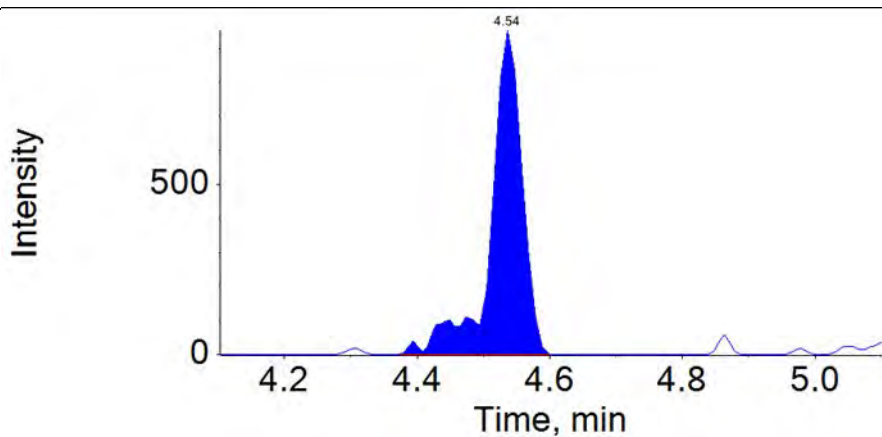
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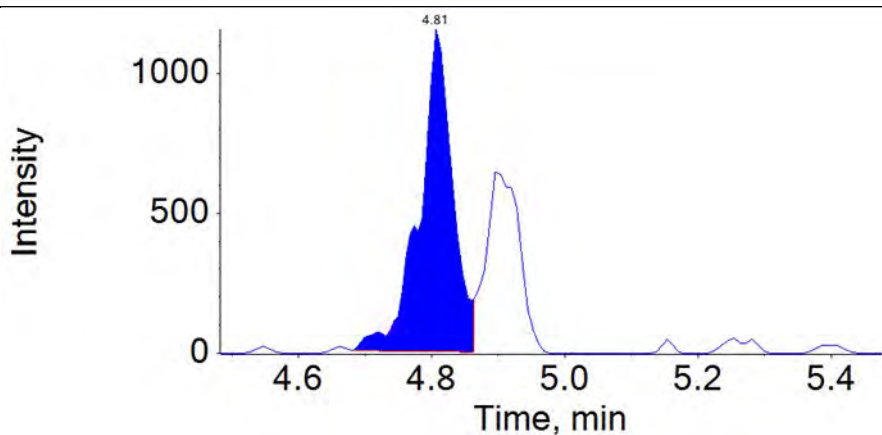
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QMethod File: MQ4-18AUG13

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
3176.8
Mass Range:
399.0 / 99.0
File Name:
18NOV09D-45.wiff
Sample Name:
9885070BKG



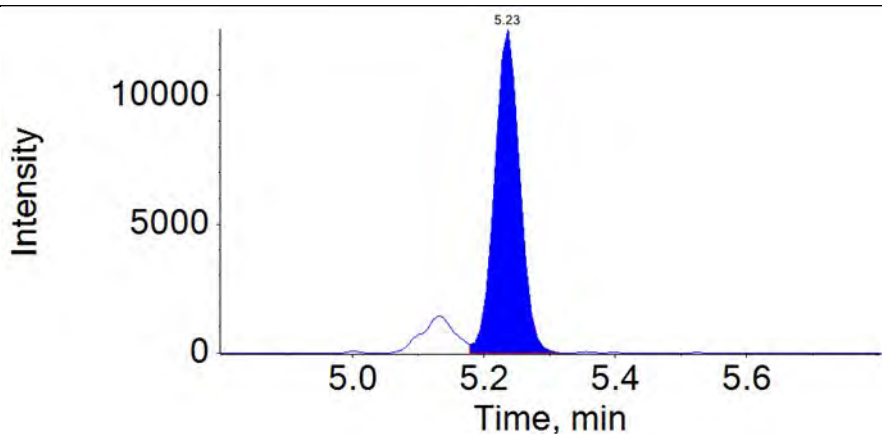
Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.81
Peak Area:
4007.9
Mass Range:
413.0 / 169.0
File Name:
18NOV09D-45.wiff
Sample Name:
9885070BKG



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.23
Peak Area:
33508.4
Mass Range:
499.0 / 99.0
File Name:
18NOV09D-45.wiff
Sample Name:
9885070BKG



Integration Comment: incorrect integration

Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED

By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

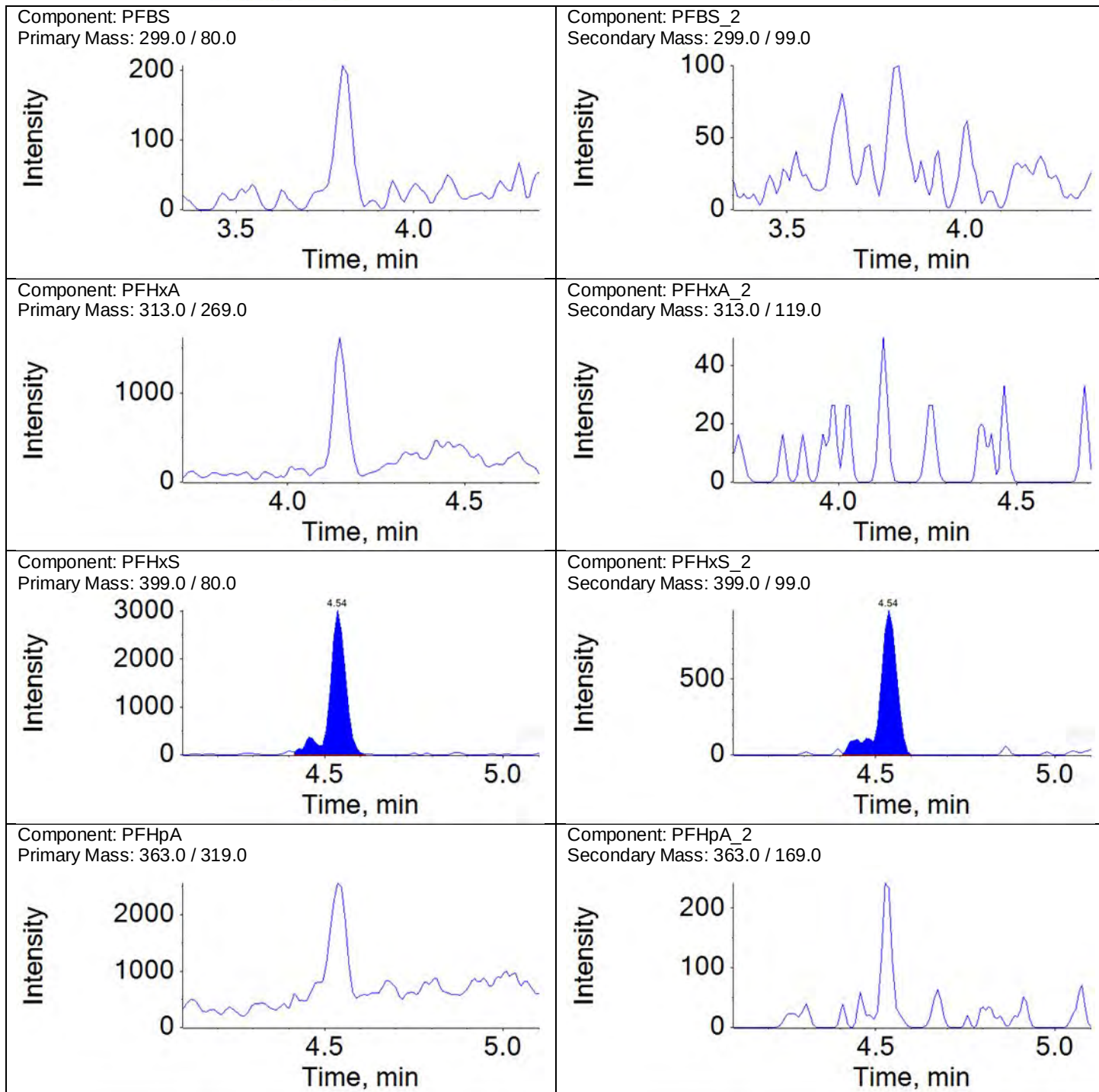
Ion Ratio Report

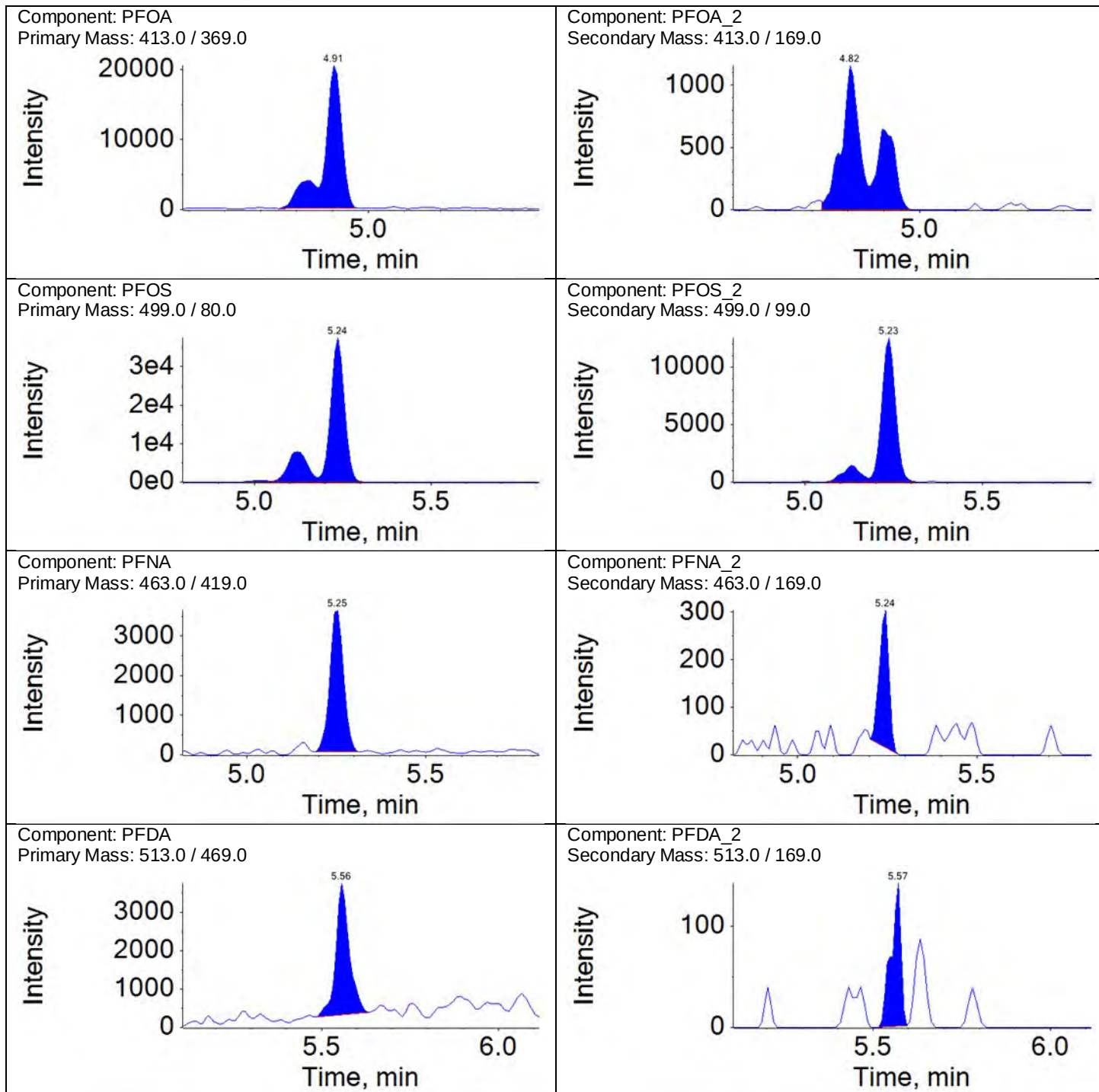
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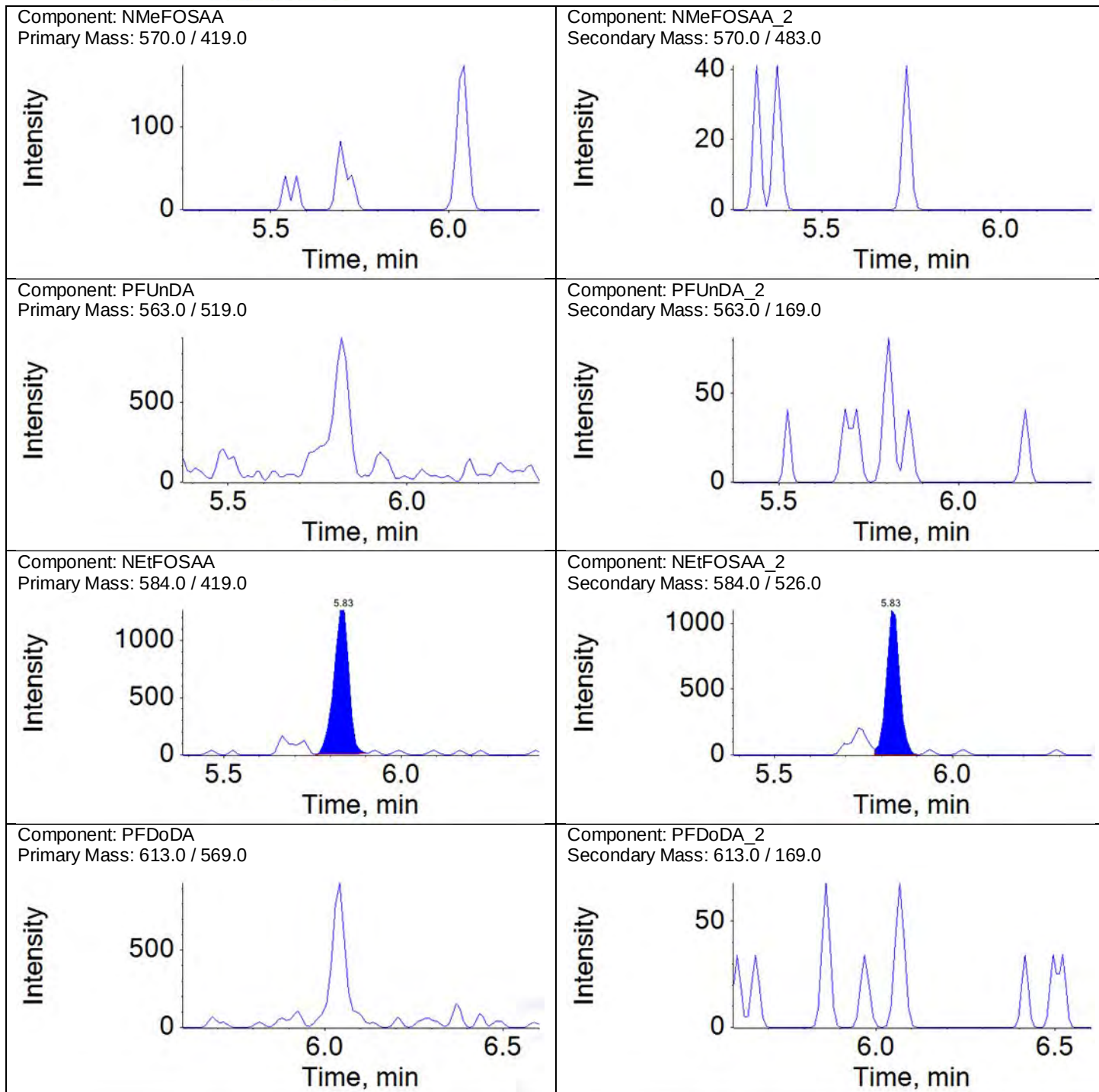
Instrument Name: LM27631

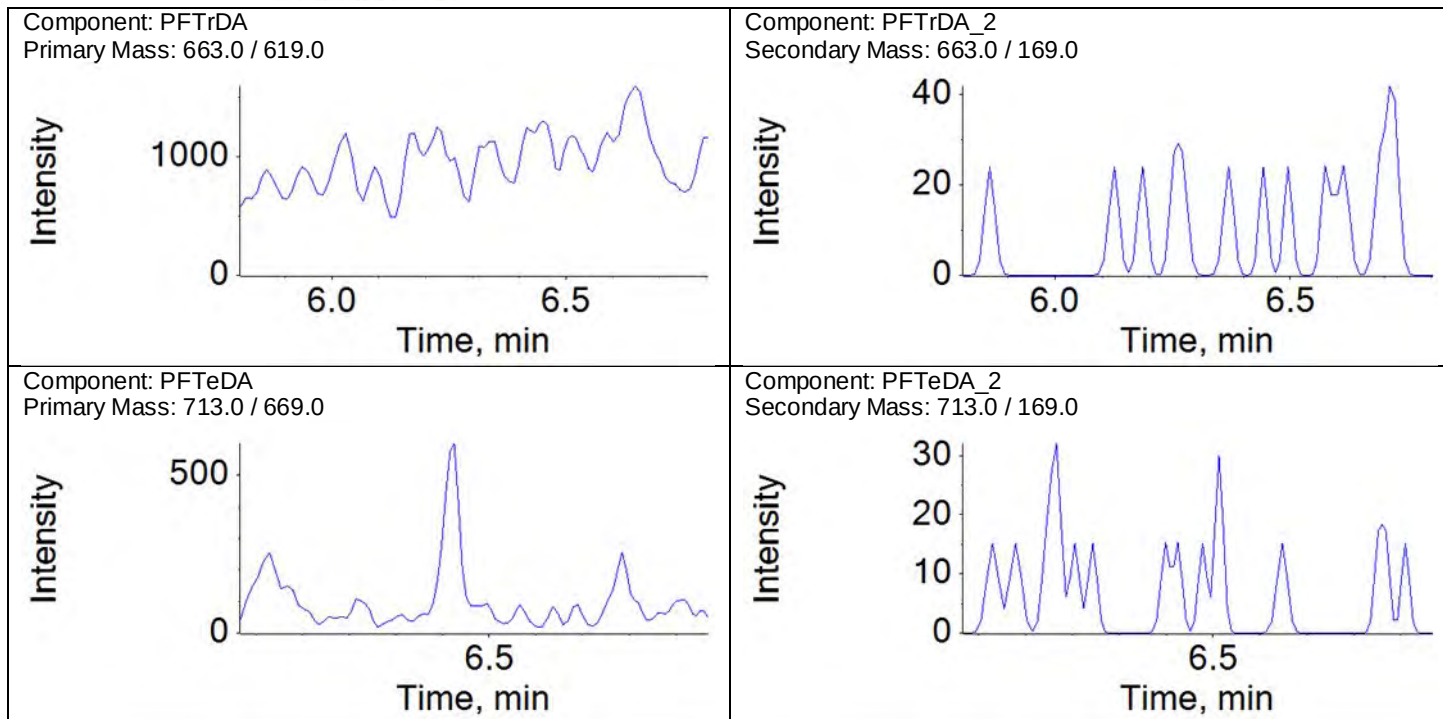
File Name: 18NOV09D-45.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	4.54	1.00	9341.1	M	N/A	0.3358			
PFHxS_2	4.54	1.00	3136.5	M	N/A	0.3358	-6	50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	4.91	1.00	72845.9	M	N/A	0.0854			
PFOA_2	4.82	0.98	6223.6	M	N/A	0.0854	34	50	
PFOS	5.24	1.00	131997.4	M	N/A	0.2938			
PFOS_2	5.23	1.00	38776.5	M	N/A	0.2938	-16	50	
PFNA	5.25	1.00	9619.5	A	N/A	0.0559			
PFNA_2	5.24	1.00	537.7	A	N/A	0.0559	172	50	OOS
PFDA	5.56	1.00	9100.0	A	N/A	0.0302			
PFDA_2	5.57	1.00	274.8	A	N/A	0.0302	455	50	OOS
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	5.83	1.00	3737.5	A	N/A	0.7598			
NEtFOSAA_2	5.83	1.00	2839.9	A	N/A	0.7598	25	50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	









ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	9885073		Data File:	18NOV09D-47.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18312011 OU1-WWTPE-S-01-03 Grab Soil		Acquis Date:	2018-11-09T11:33:57
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	18		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18312011
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	18312011		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	725235.2	725974.7	0	50	
13C2-PFOA	5.0	496325.4	506876.7	-2	50	
13C4-PFOS	4.8	279555.7	274910.1	2	50	
13C2-PFDA	5.0	304055.7	307276.7	-1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C3-PFBS	306290.9	13C3-PFBA	725235.2	0.422	9.300	6.199	67	50-150	
E13C5-PFHxA	493439.0	13C2-PFOA	496325.4	0.994	10.000	7.314	73	50-150	
E13C3-PFHxS	233891.8	13C2-PFOA	496325.4	0.471	9.460	6.766	72	50-150	
E13C4-PFHpA	387343.3	13C2-PFOA	496325.4	0.780	10.000	7.100	71	50-150	
E13C8-PFOA	699002.8	13C2-PFOA	496325.4	1.408	10.000	7.855	79	50-150	
E13C8-PFOS	207385.6	13C4-PFOS	279555.7	0.742	9.560	6.561	69	50-150	
E13C9-PFNA	368026.1	13C4-PFOS	279555.7	1.316	10.000	7.192	72	50-150	
E13C6-PFDA	466890.2	13C2-PFDA	304055.7	1.536	10.000	7.723	77	50-150	
Ed3-NMeFOSAA	63515.3	13C2-PFDA	304055.7	0.209	10.000	7.769	78	50-150	
E13C7-PFUnDA	198491.6	13C2-PFDA	304055.7	0.653	10.000	7.532	75	50-150	
Ed5-NEtFOSAA	50577.9	13C2-PFDA	304055.7	0.166	10.000	7.699	77	50-150	
E13C2-PFDODA	406256.8	13C2-PFDA	304055.7	1.336	10.000	7.204	72	50-150	
E13C2-PFTeDA	292148.2	13C2-PFDA	304055.7	0.961	10.000	6.918	69	50-150	

APPROVED

By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: 9885073

Instrument Name: LM27631

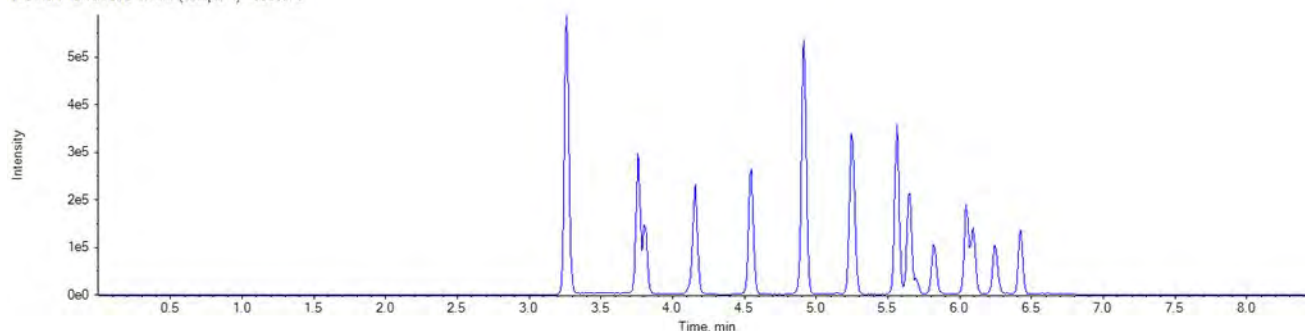
File Name: 18NOV09D-47.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	306290.9	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	493439.0	N/A	
PFHxS	4.55	1.000	3789.6		M	13C3-PFHxS	4.55	233891.8	0.016	0.164
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	387343.3	N/A	
PFOA	4.91	1.000	22487.2		M	13C8-PFOA	4.91	699002.8	0.032	0.362
PFOS	5.24	1.000	37264.9		M	13C8-PFOS	5.24	207385.6	0.180	1.864
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	368026.1	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	466890.2	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	63515.3	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	198491.6	N/A	
NEtFOSAA	5.84	1.000	1344.5		M	d5-NEtFOSAA	5.83	50577.9	0.027	0.228
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	406256.8	N/A	
PFTTrDA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	406256.8	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	292148.2	N/A	

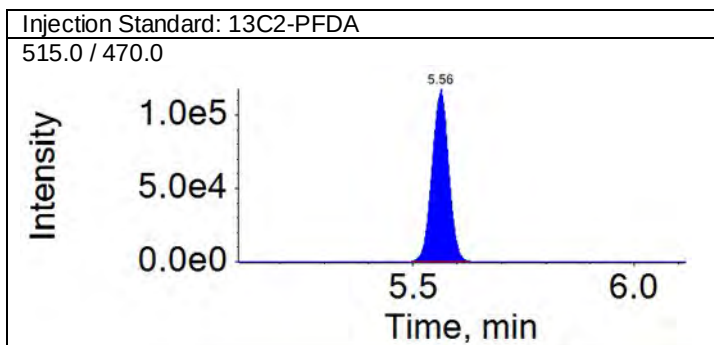
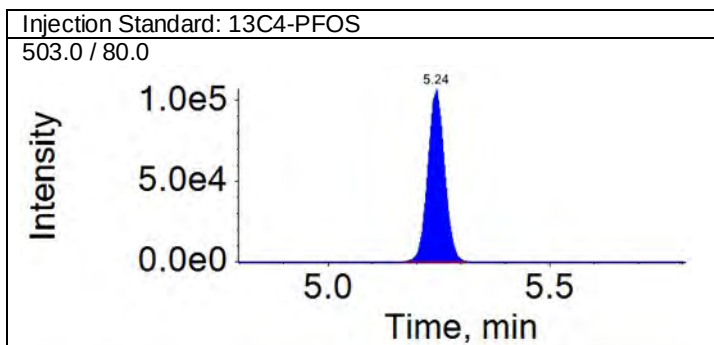
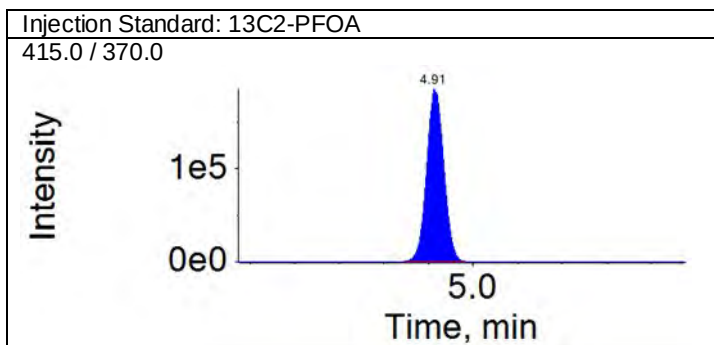
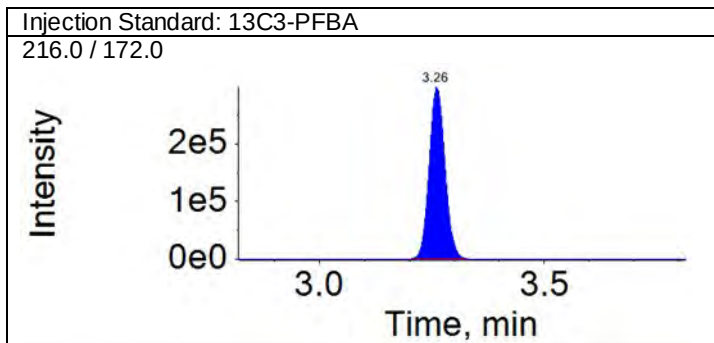
Total Ion Chromatogram

TIC from 18NOV09D-47.wiff (sample 1) - 9885073



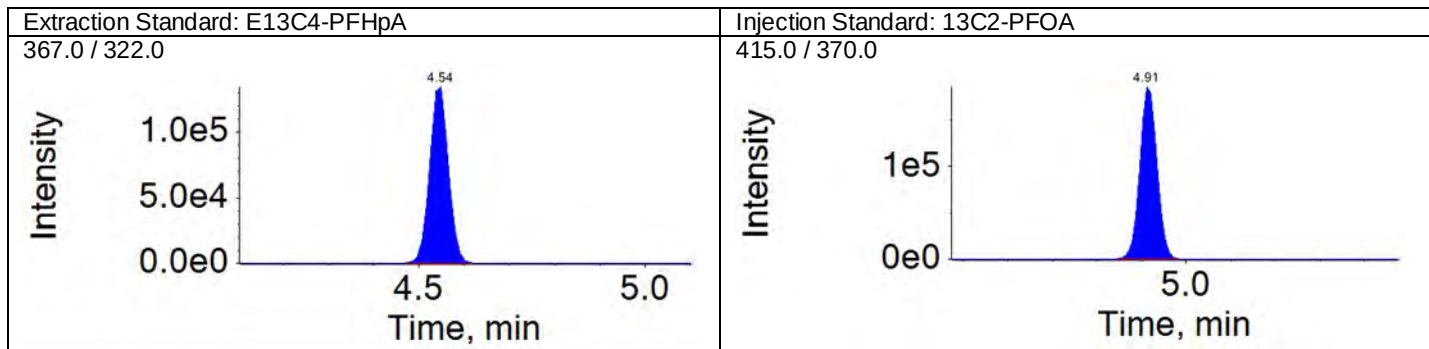
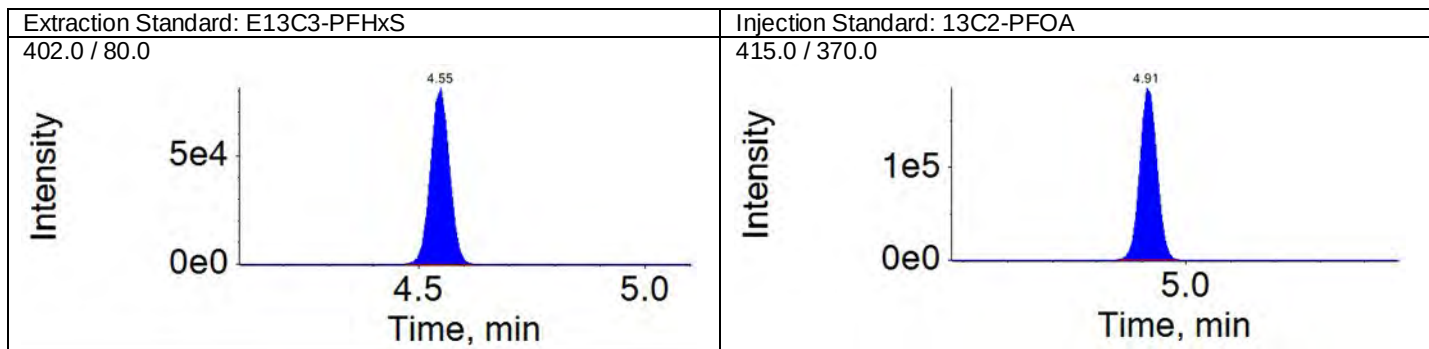
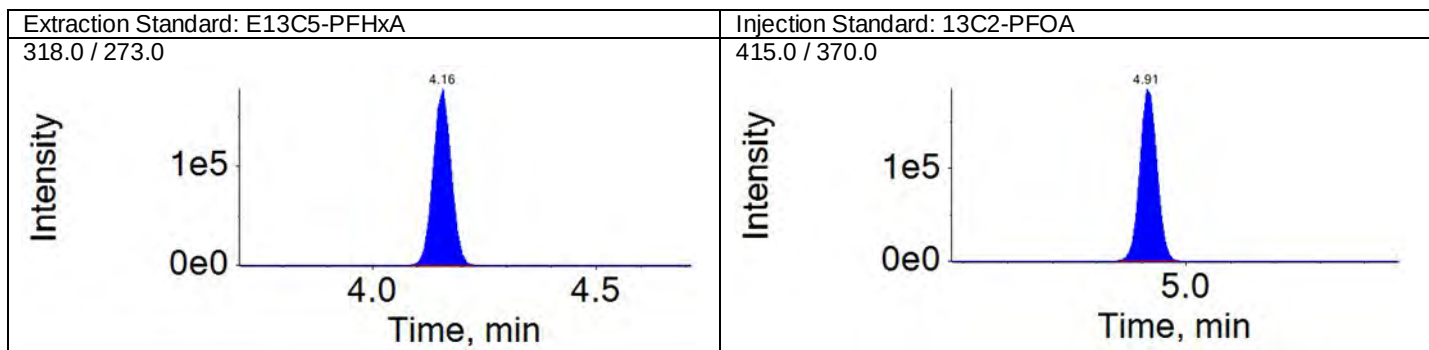
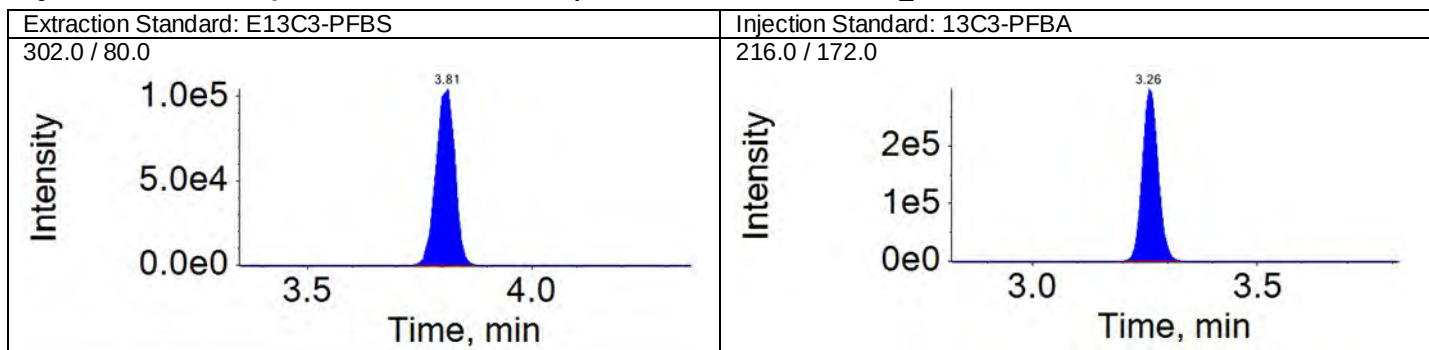
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



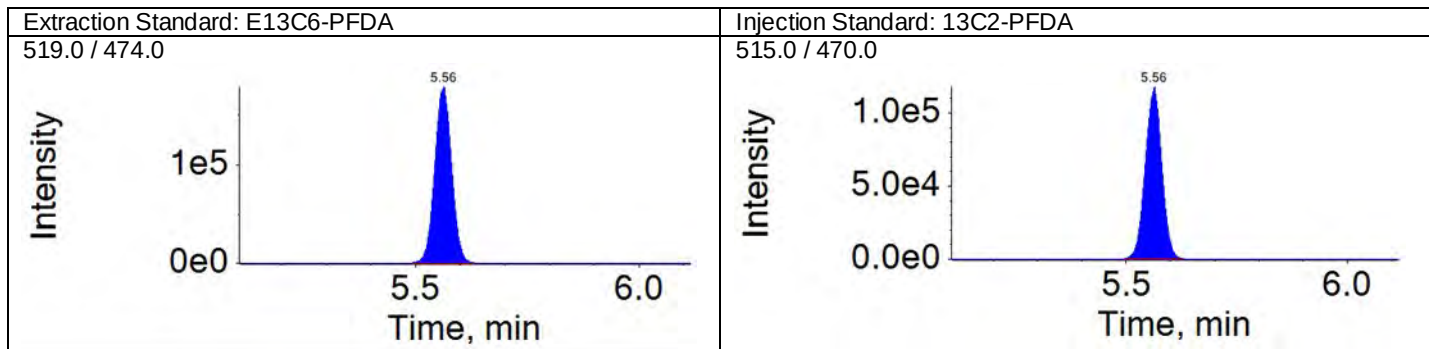
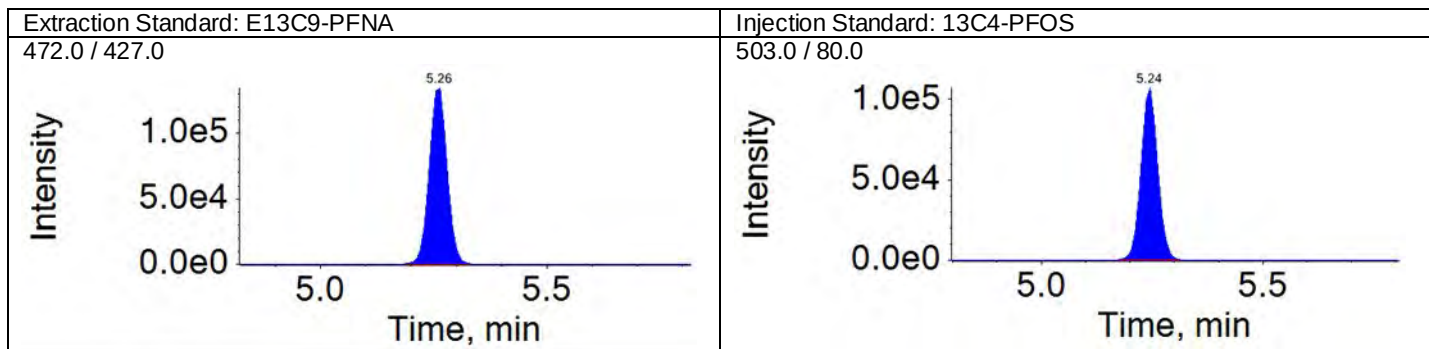
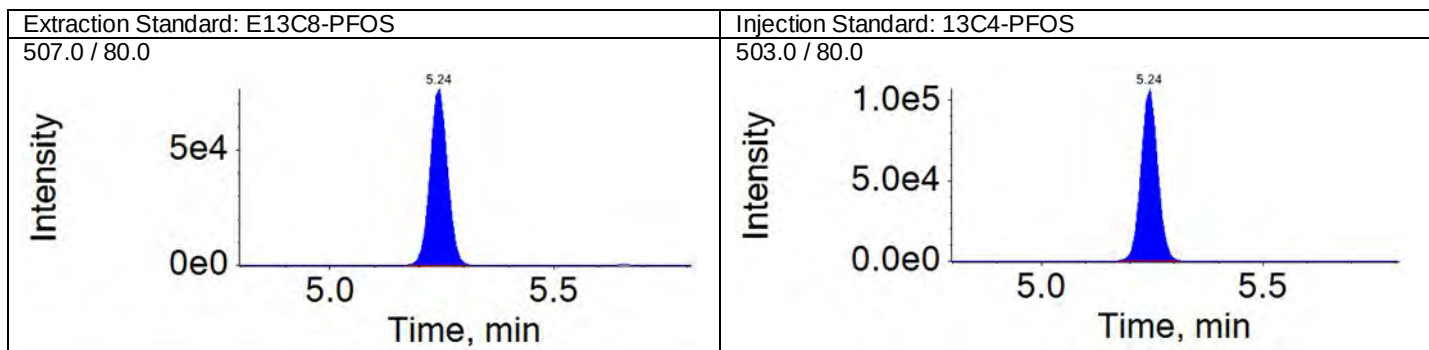
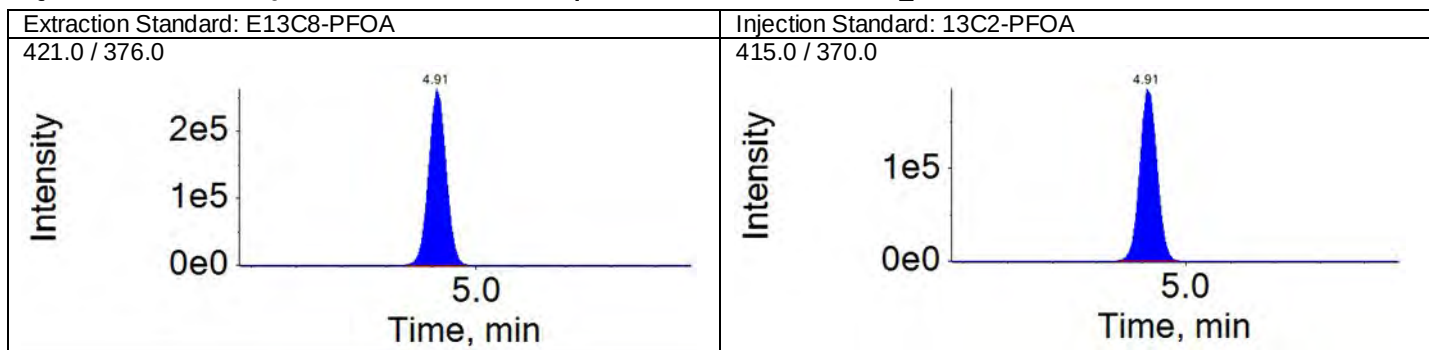
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



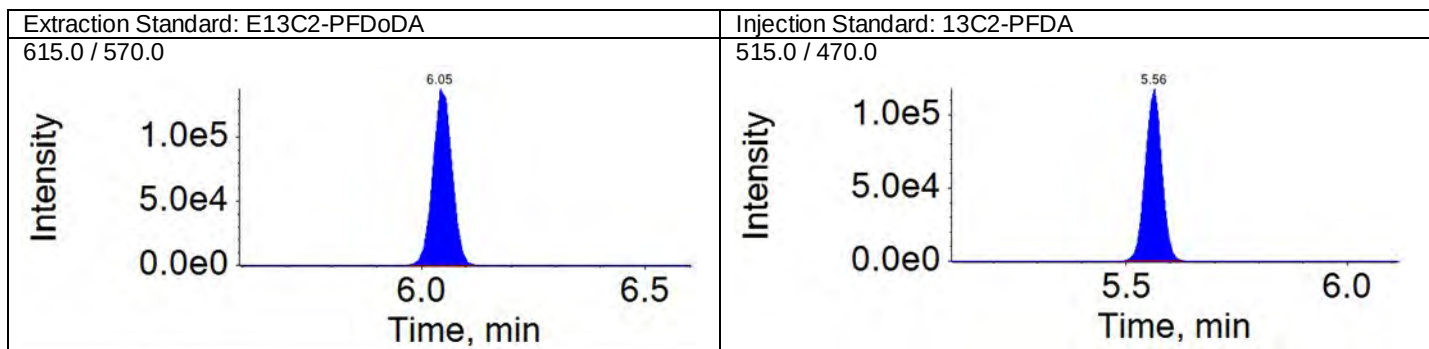
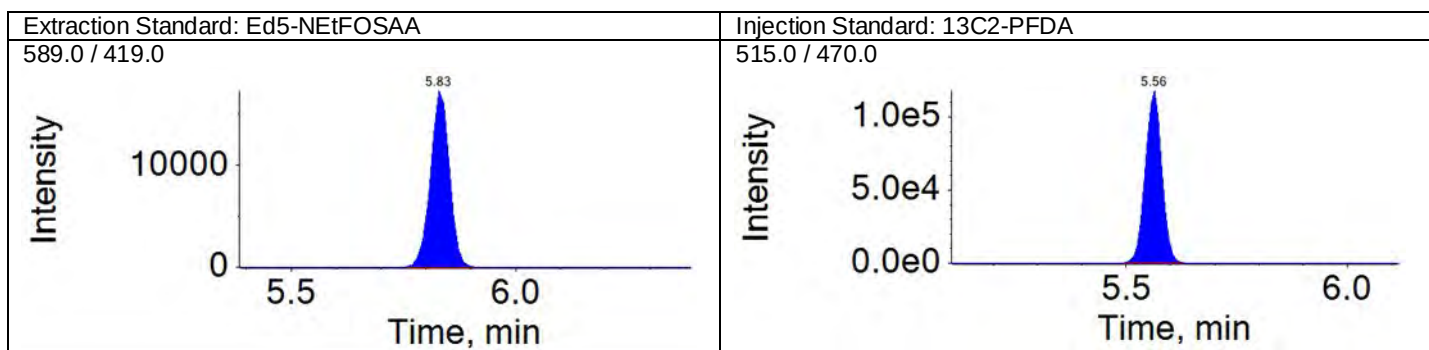
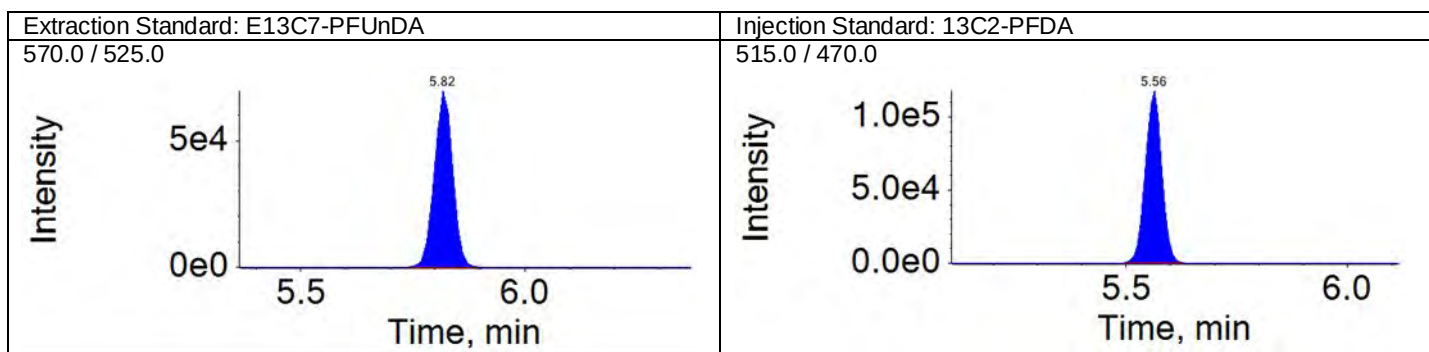
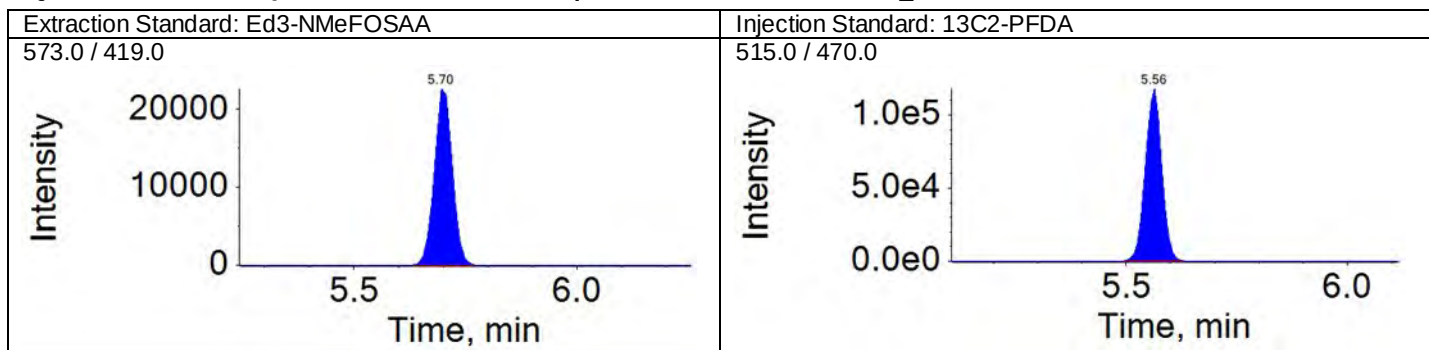
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Acquisition Method: 18AUG13_3uL.dam



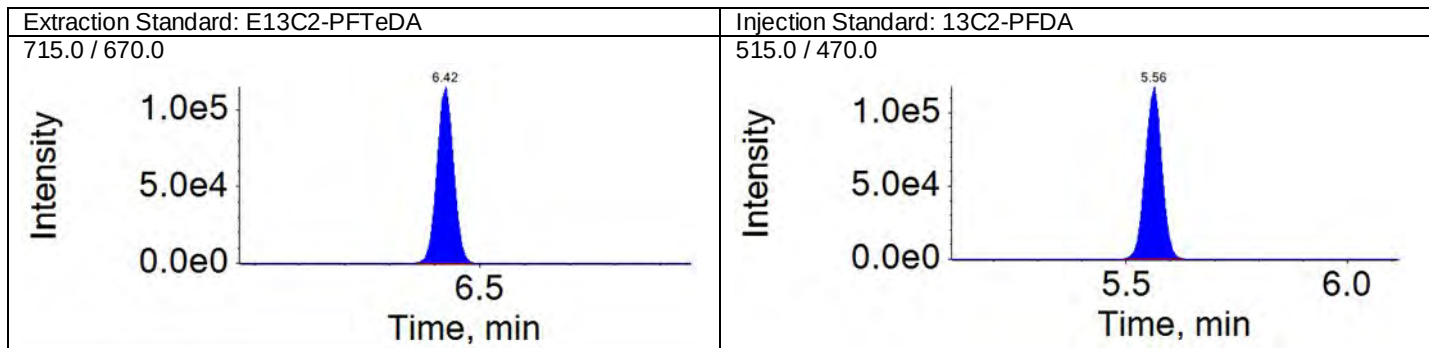
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



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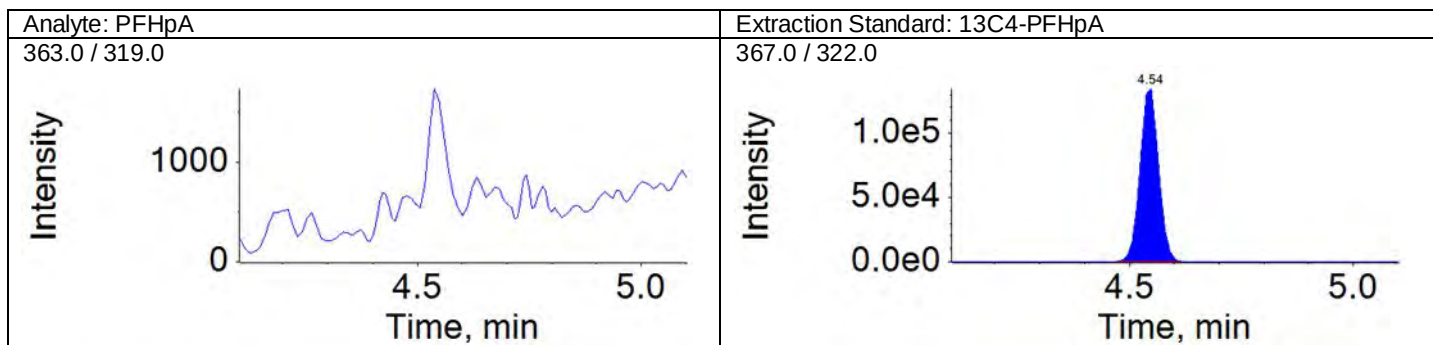
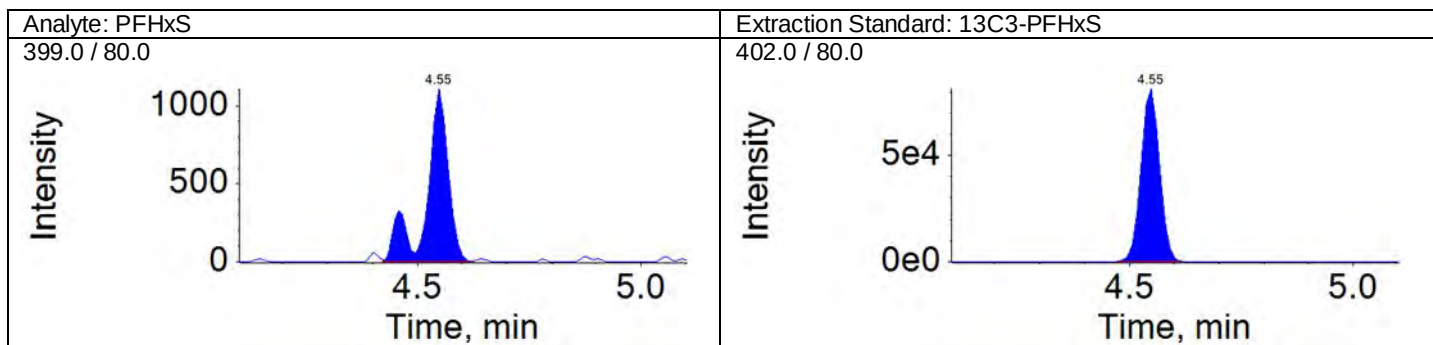
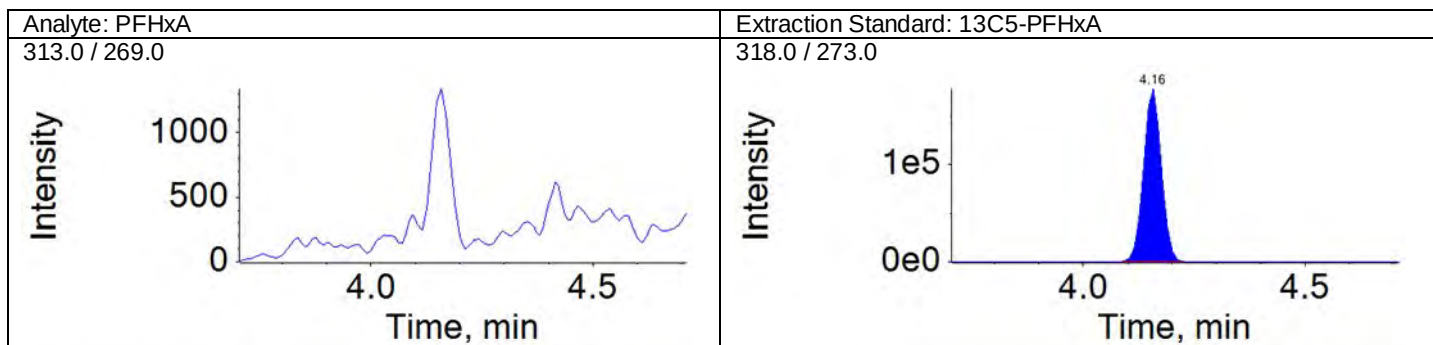
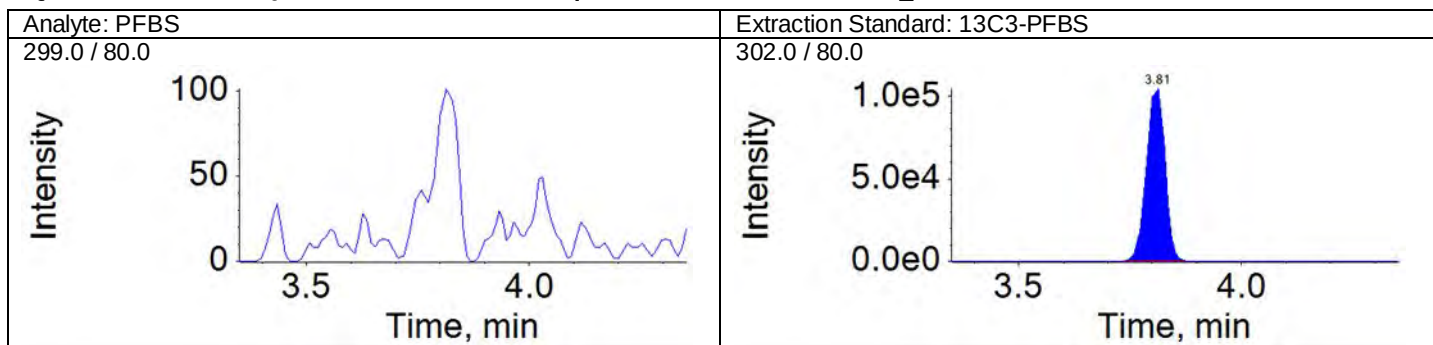
By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

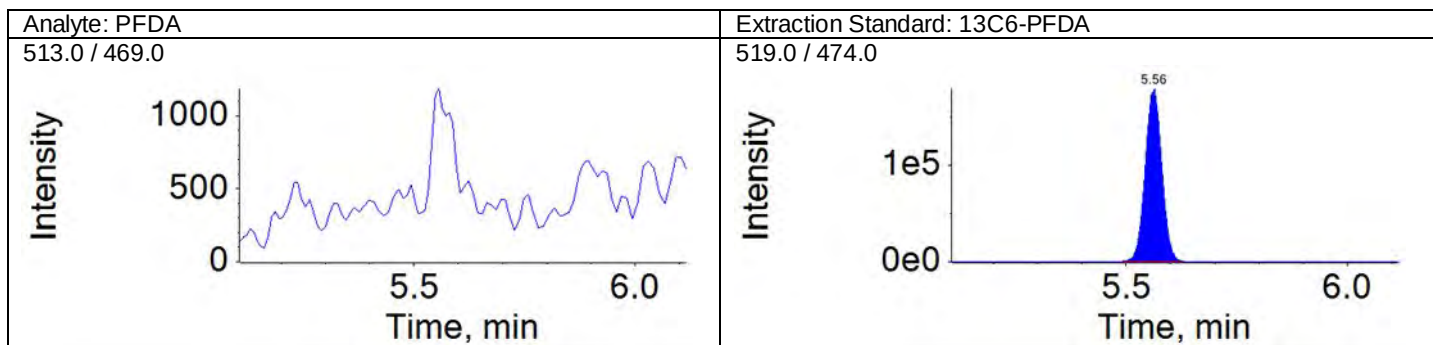
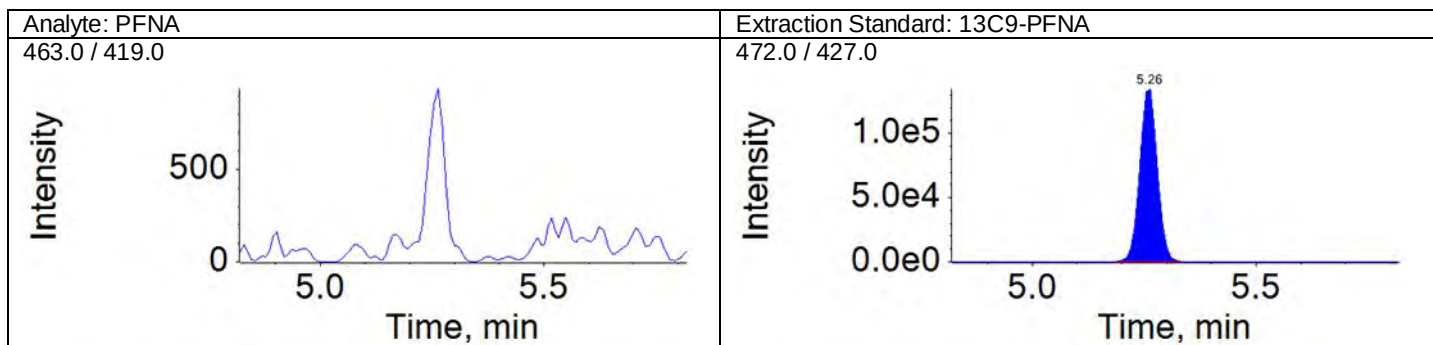
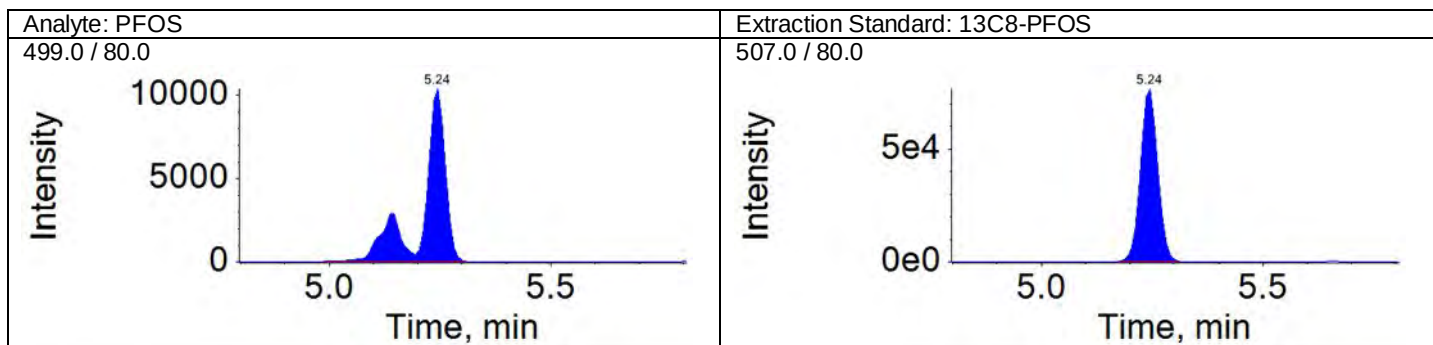
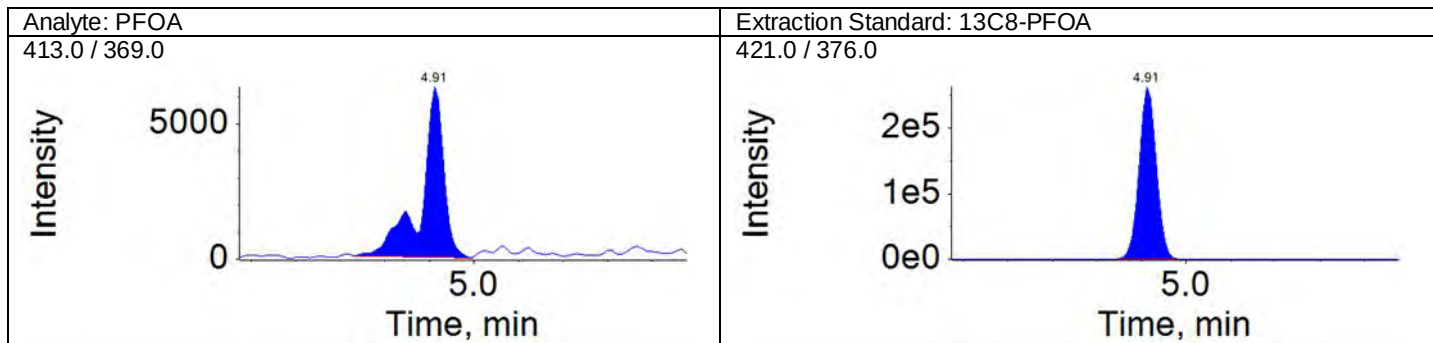
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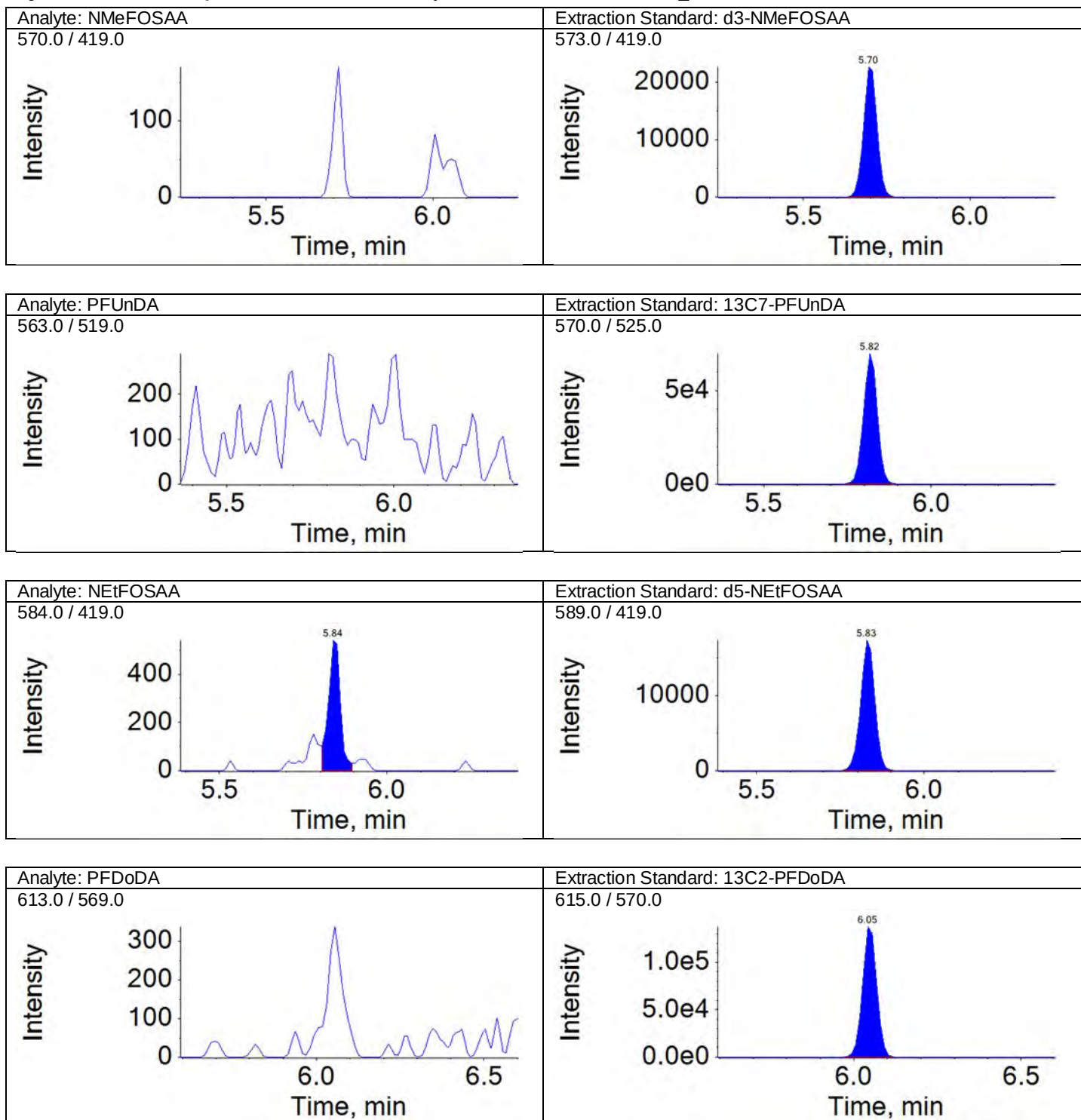
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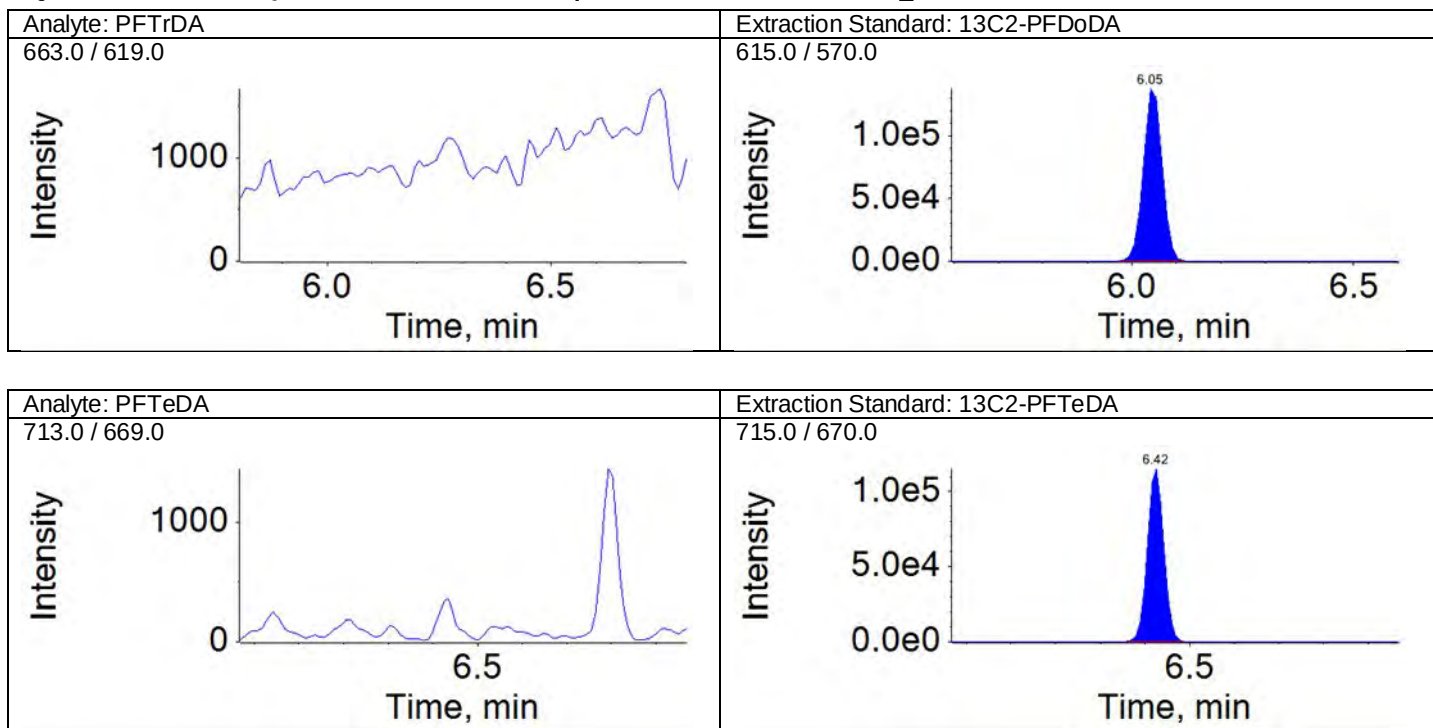
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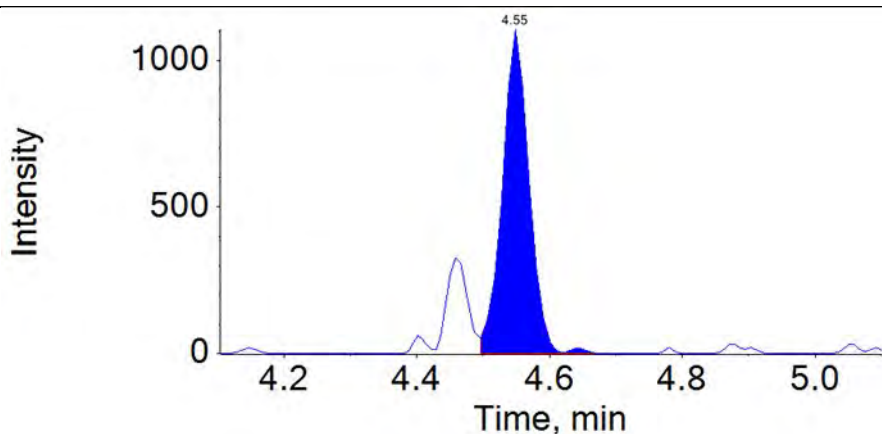
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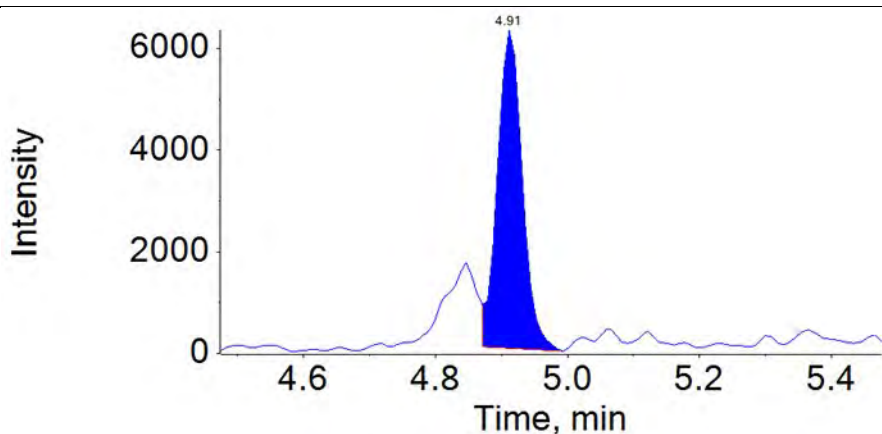
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QMethod File: MQ4-18AUG13

Component Name:
PFHxS
RT (min.):
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Peak Area:
3096.8
Mass Range:
399.0 / 80.0
File Name:
18NOV09D-47.wiff
Sample Name:
9885073



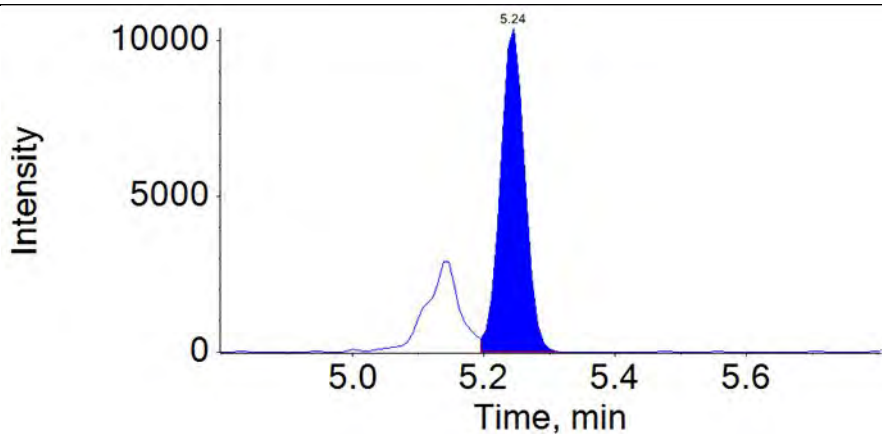
Integration Comment: incorrect integration

Component Name:
PFOA
RT (min.):
4.91
Peak Area:
16440.0
Mass Range:
413.0 / 369.0
File Name:
18NOV09D-47.wiff
Sample Name:
9885073



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
26721.4
Mass Range:
499.0 / 80.0
File Name:
18NOV09D-47.wiff
Sample Name:
9885073

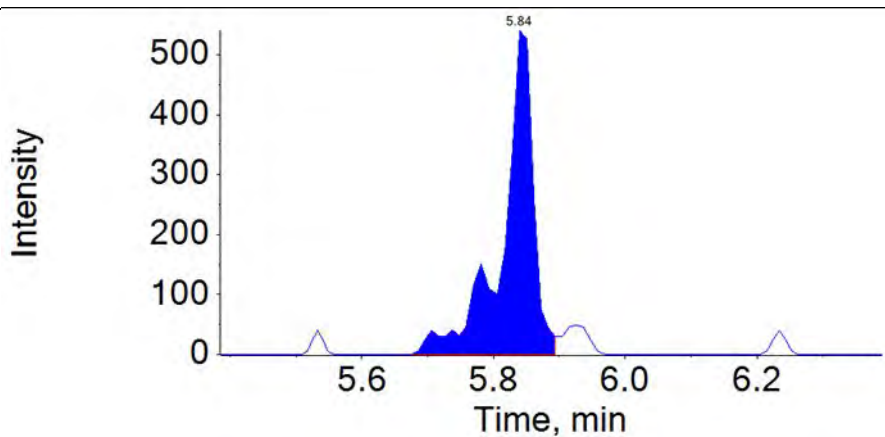


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Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

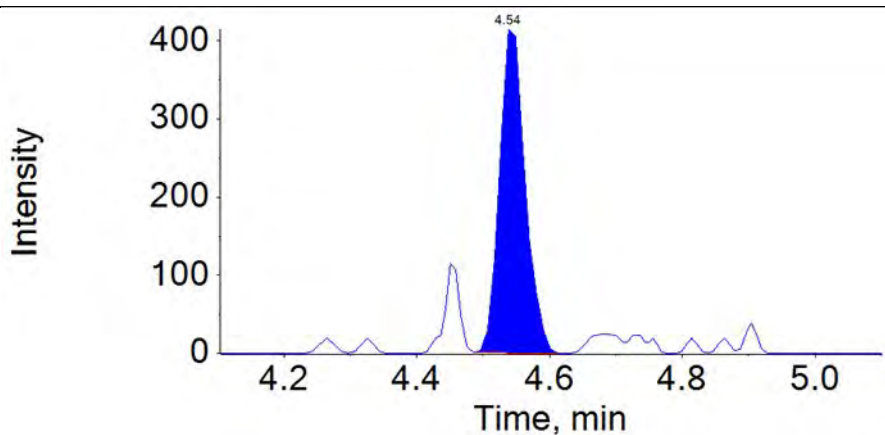
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QMethod File: MQ4-18AUG13

Component Name:
NETFOSAA
RT (min.):
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Peak Area:
1795.2
Mass Range:
584.0 / 419.0
File Name:
18NOV09D-47.wiff
Sample Name:
9885073



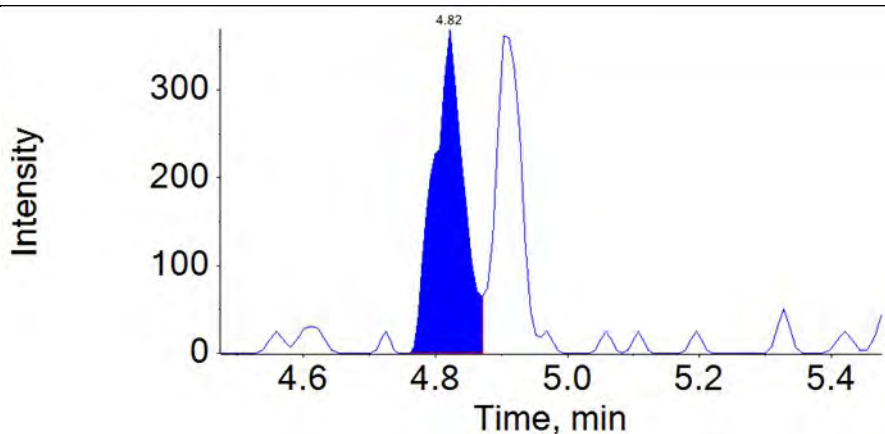
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
1115.6
Mass Range:
399.0 / 99.0
File Name:
18NOV09D-47.wiff
Sample Name:
9885073



Integration Comment: incorrect integration

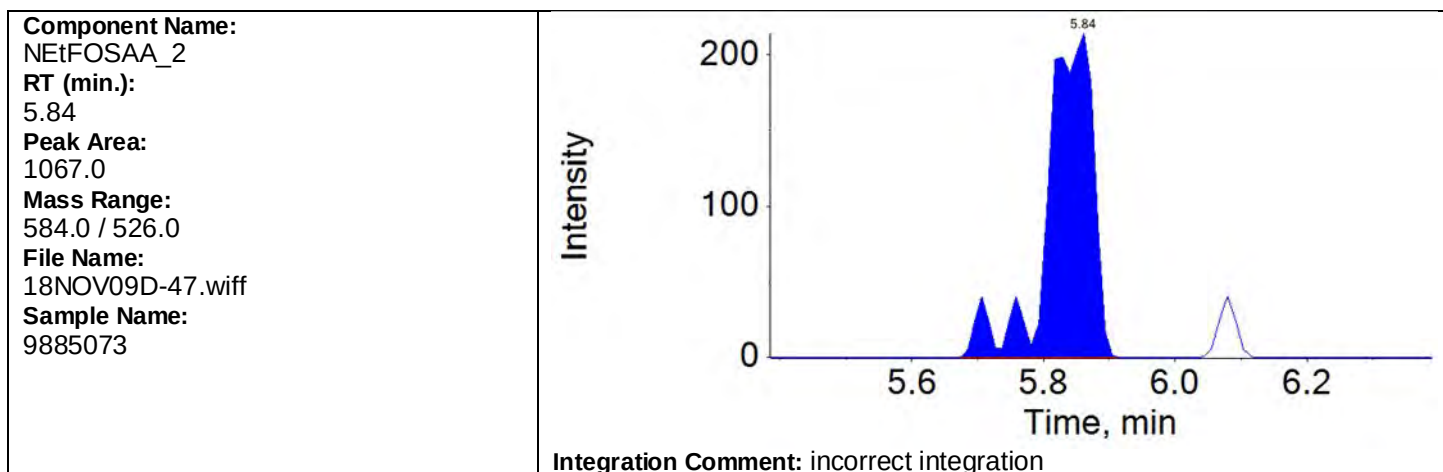
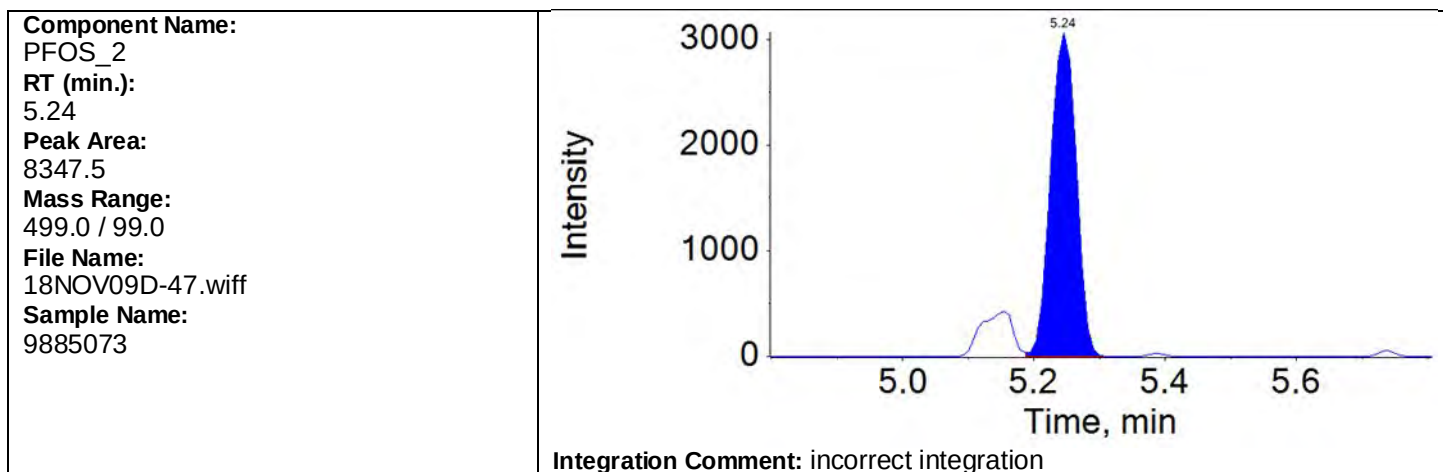
Component Name:
PFOA_2
RT (min.):
4.82
Peak Area:
1162.3
Mass Range:
413.0 / 169.0
File Name:
18NOV09D-47.wiff
Sample Name:
9885073



Integration Comment: incorrect integration

Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13



Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED

By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

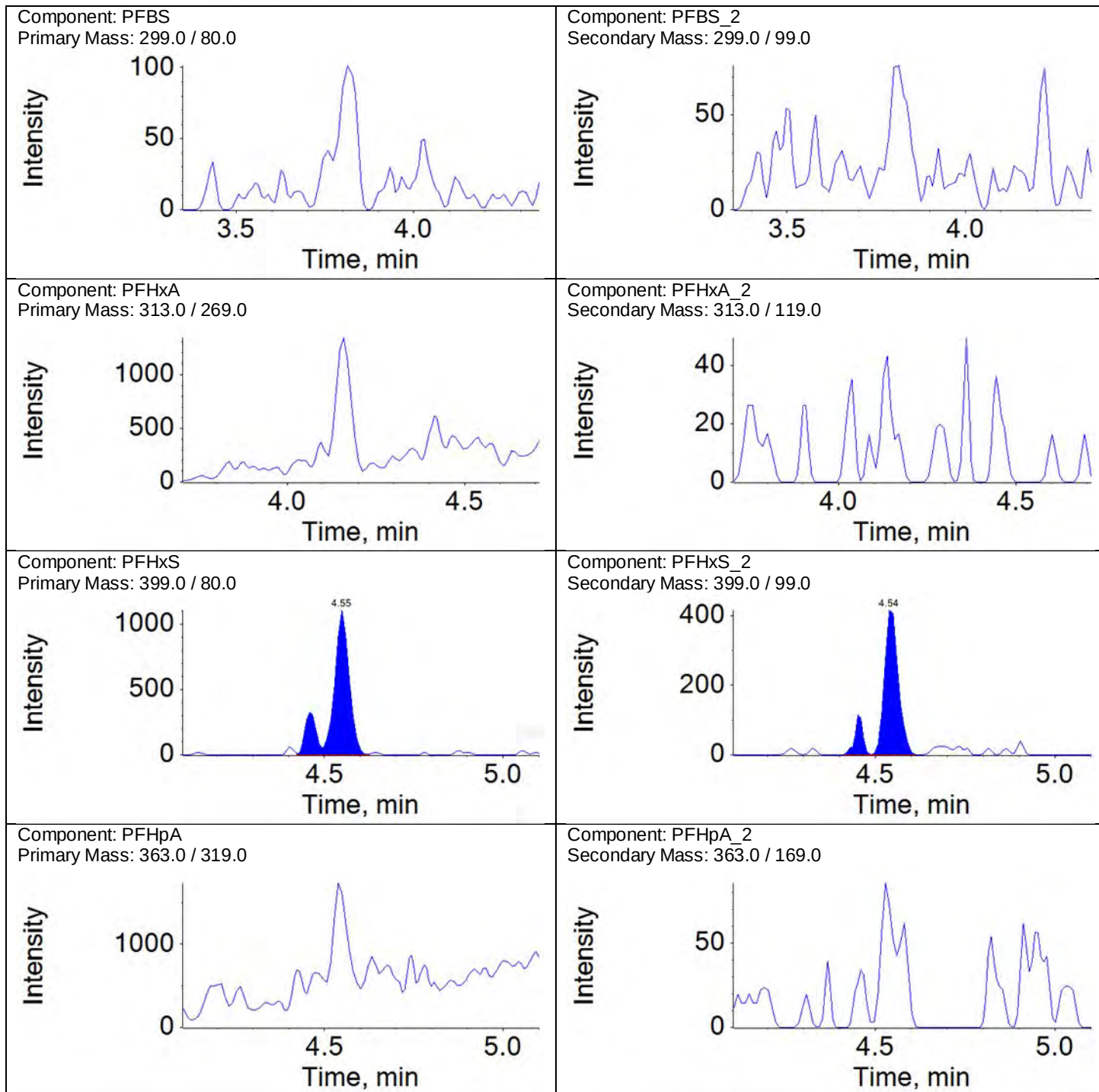
Ion Ratio Report

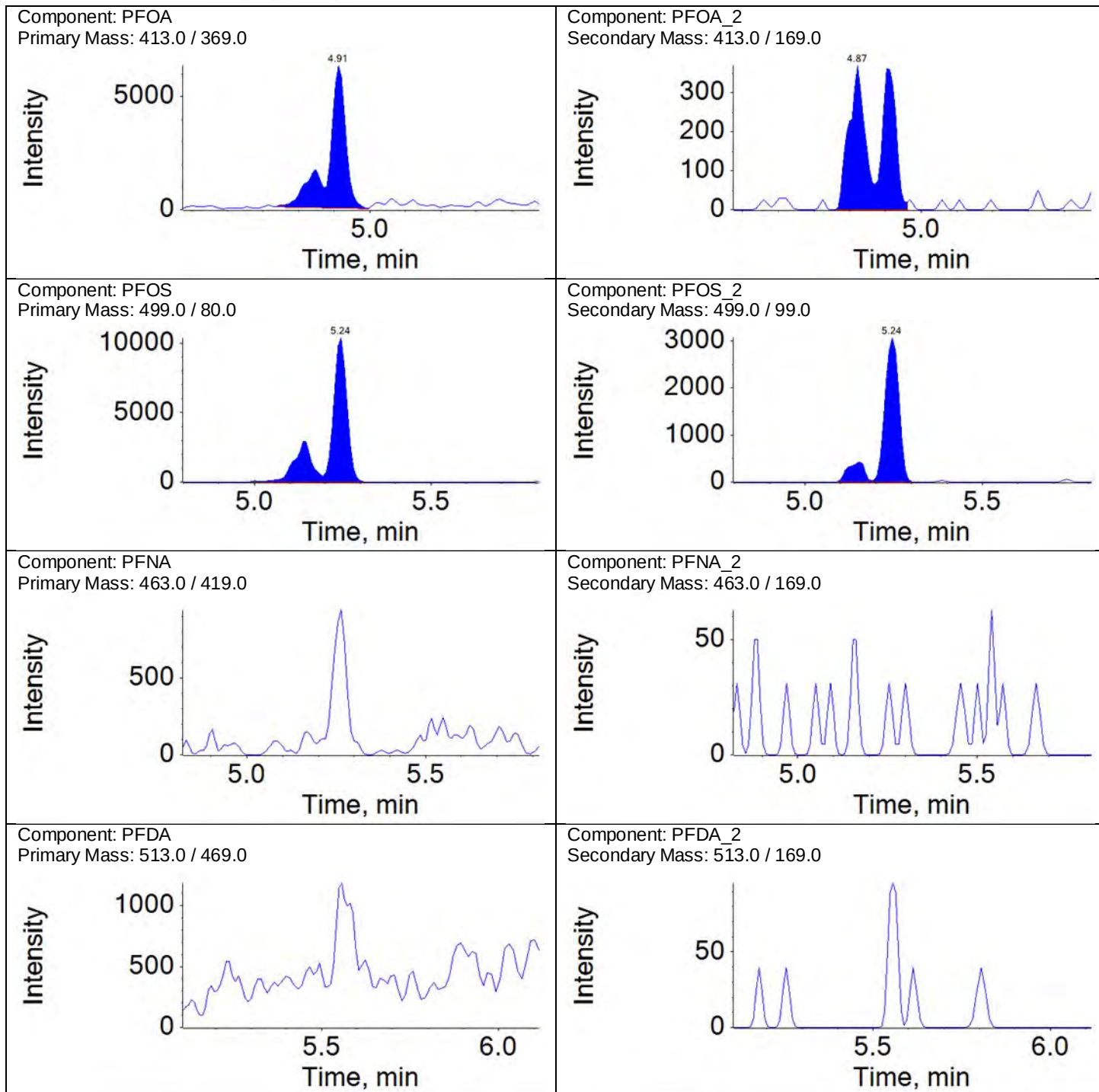
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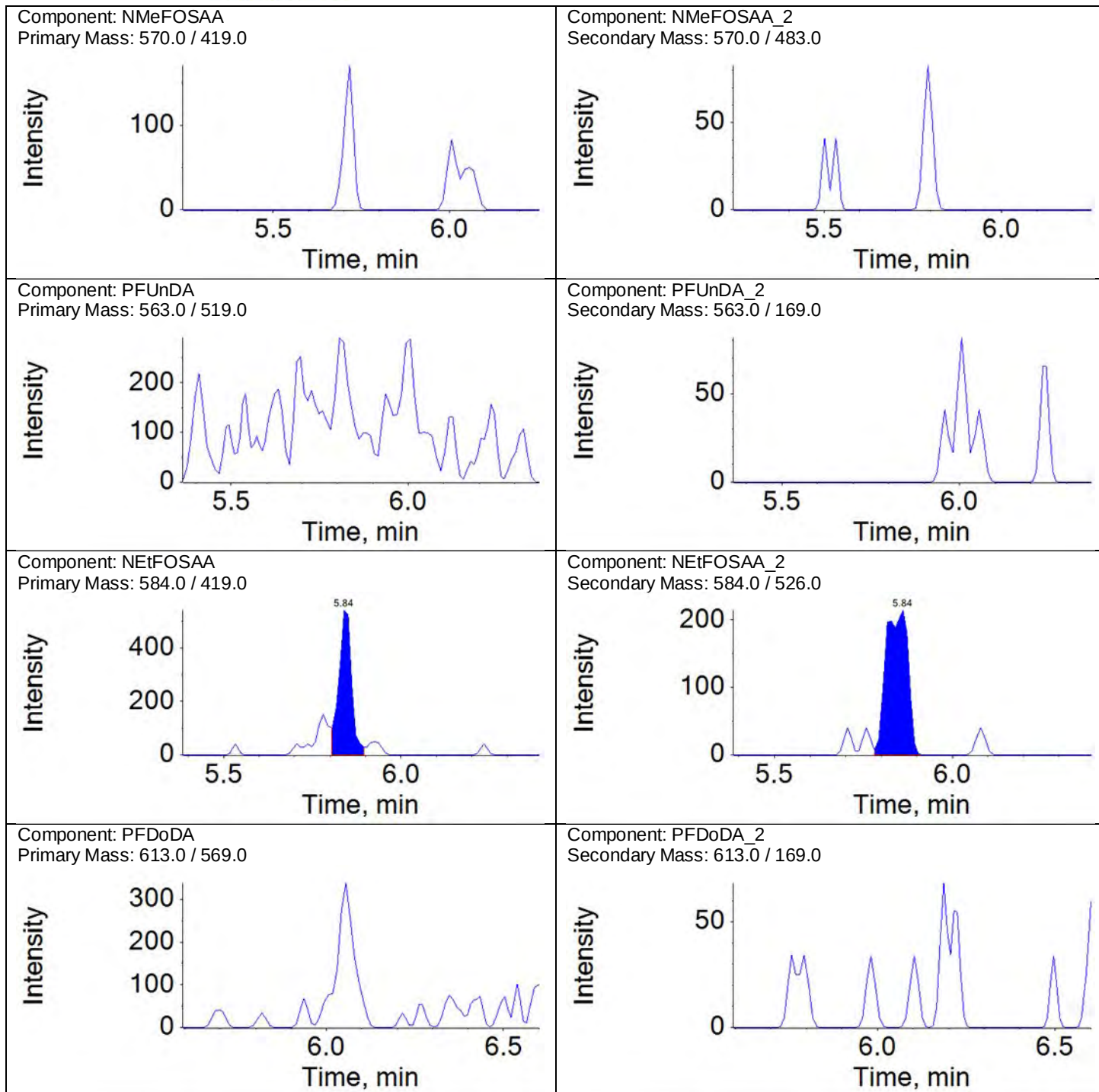
Instrument Name: LM27631

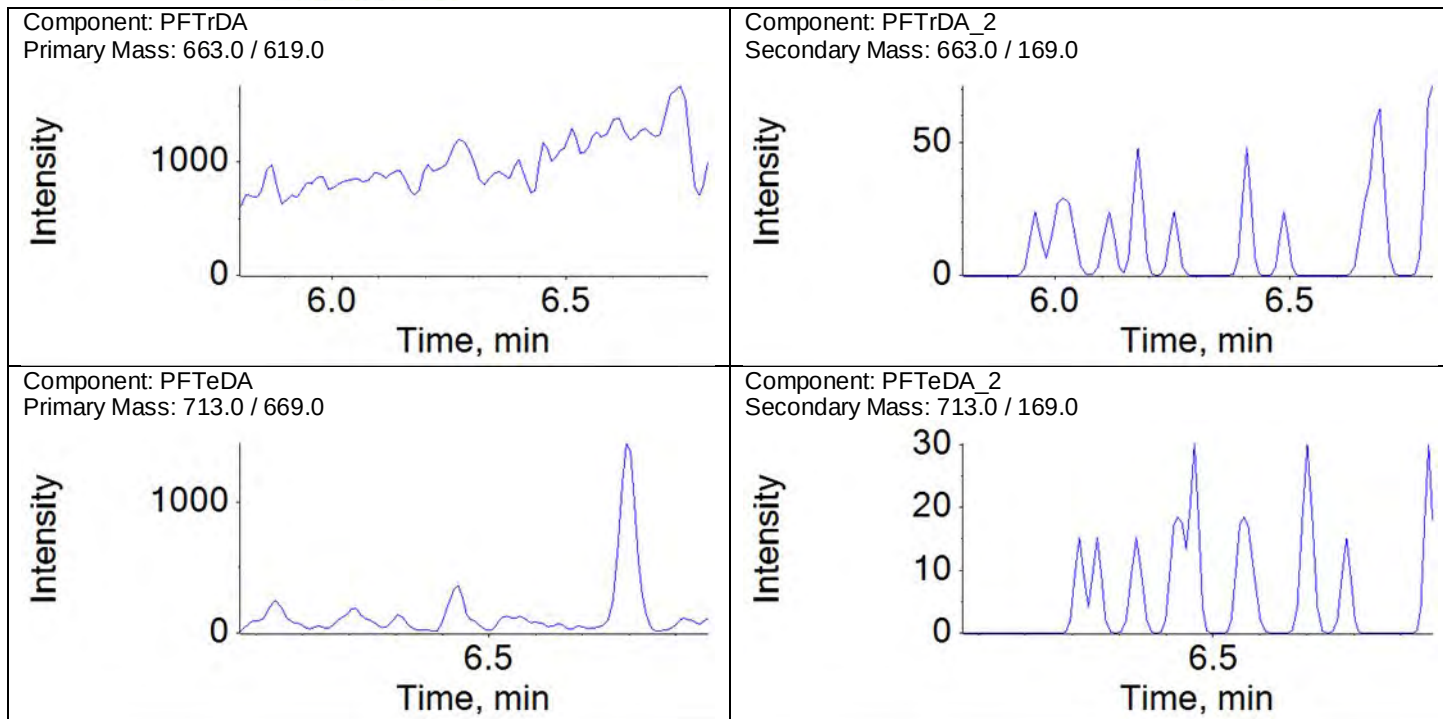
File Name: 18NOV09D-47.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	4.55	1.00	3789.6	M	N/A	0.3433			
PFHxS_2	4.54	1.00	1301.0	M	N/A	0.3433	-4	50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	4.91	1.00	22487.2	M	N/A	0.0953			
PFOA_2	4.87	0.99	2142.7	M	N/A	0.0953	49	50	
PFOS	5.24	1.00	37264.9	M	N/A	0.2624			
PFOS_2	5.24	1.00	9779.5	M	N/A	0.2624	-25	50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	5.84	1.00	1344.5	M	N/A	0.6987			
NEtFOSAA_2	5.84	1.00	939.4	M	N/A	0.6987	15	50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	









ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	9885074		Data File:	18NOV09D-48.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18312011 OU1-WWTPE-S-01-05 Grab Soil		Acquis Date:	2018-11-09T11:43:00
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	19		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18312011
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	18312011		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	731589.5	725974.7	1	50	
13C2-PFOA	5.0	508815.6	506876.7	0	50	
13C4-PFOS	4.8	287750.0	274910.1	5	50	
13C2-PFDA	5.0	313212.9	307276.7	2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C3-PFBS	383269.1	13C3-PFBA	731589.5	0.524	9.300	7.690	83	50-150	
E13C5-PFHxA	625998.2	13C2-PFOA	508815.6	1.230	10.000	9.051	91	50-150	
E13C3-PFHxS	283888.3	13C2-PFOA	508815.6	0.558	9.460	8.011	85	50-150	
E13C4-PFHpA	486452.9	13C2-PFOA	508815.6	0.956	10.000	8.698	87	50-150	
E13C8-PFOA	854402.4	13C2-PFOA	508815.6	1.679	10.000	9.365	94	50-150	
E13C8-PFOS	260608.5	13C4-PFOS	287750.0	0.906	9.560	8.010	84	50-150	
E13C9-PFNA	442840.2	13C4-PFOS	287750.0	1.539	10.000	8.408	84	50-150	
E13C6-PFDA	570414.6	13C2-PFDA	313212.9	1.821	10.000	9.160	92	50-150	
Ed3-NMeFOSAA	71370.4	13C2-PFDA	313212.9	0.228	10.000	8.475	85	50-150	
E13C7-PFUnDA	233481.3	13C2-PFDA	313212.9	0.745	10.000	8.601	86	50-150	
Ed5-NEtFOSAA	56618.4	13C2-PFDA	313212.9	0.181	10.000	8.367	84	50-150	
E13C2-PFDoDA	501011.1	13C2-PFDA	313212.9	1.600	10.000	8.624	86	50-150	
E13C2-PFTeDA	339925.3	13C2-PFDA	313212.9	1.085	10.000	7.814	78	50-150	

APPROVED

By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: 9885074

Instrument Name: LM27631

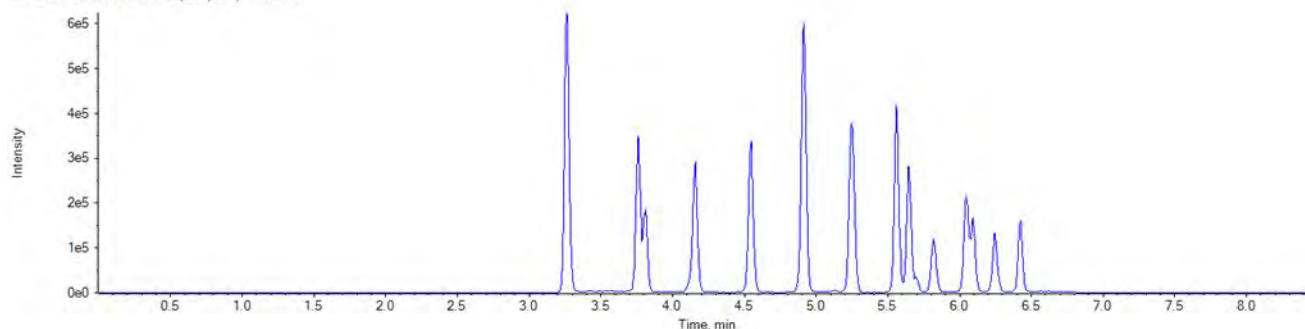
File Name: 18NOV09D-48.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	383269.1	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	625998.2	N/A	
PFHxS	4.54	1.000	2732.1		M	13C3-PFHxS	4.55	283888.3	0.010	0.098
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	486452.9	N/A	
PFOA	4.91	1.000	11637.2		M	13C8-PFOA	4.91	854402.4	0.014	0.153
PFOS	5.24	1.000	34535.3		M	13C8-PFOS	5.24	260608.5	0.133	1.374
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	442840.2	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	570414.6	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	71370.4	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.82	233481.3	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	56618.4	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	501011.1	N/A	
PFTTrDA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	501011.1	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	339925.3	N/A	

Total Ion Chromatogram

TIC from 18NOV09D-48.wiff (sample 1) - 9885074



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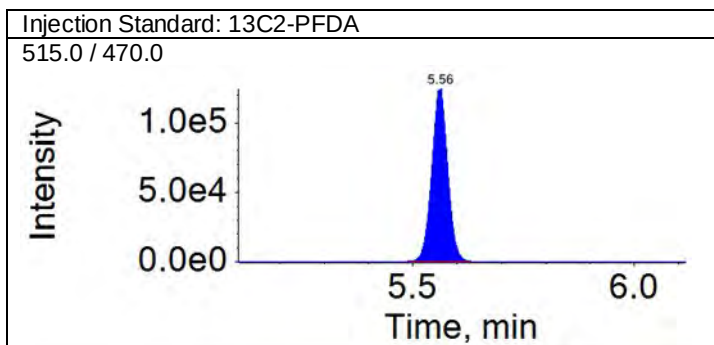
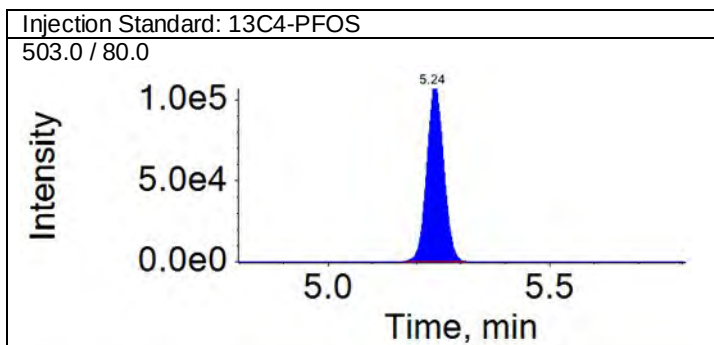
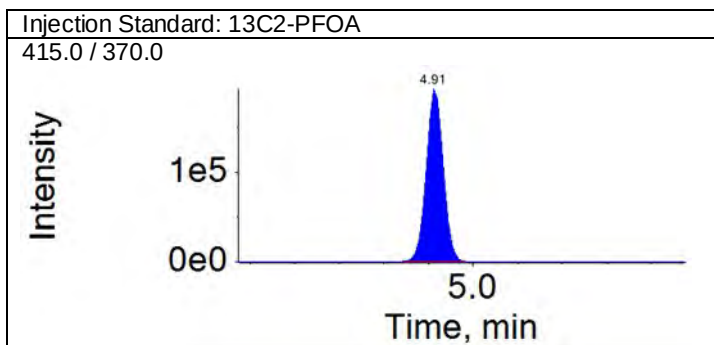
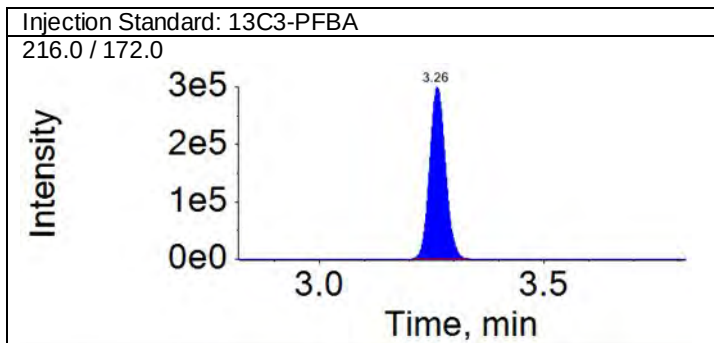
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By HMK at 9:08 am, 11/15/18

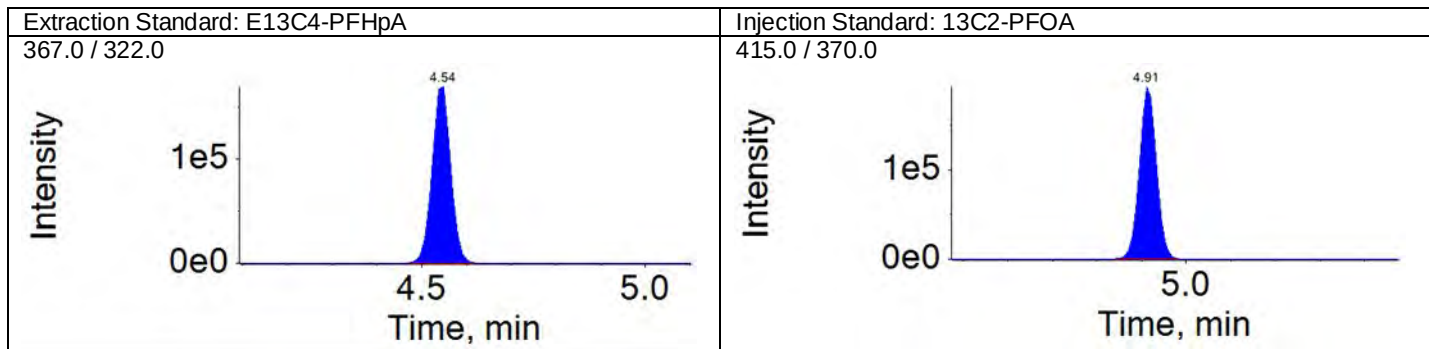
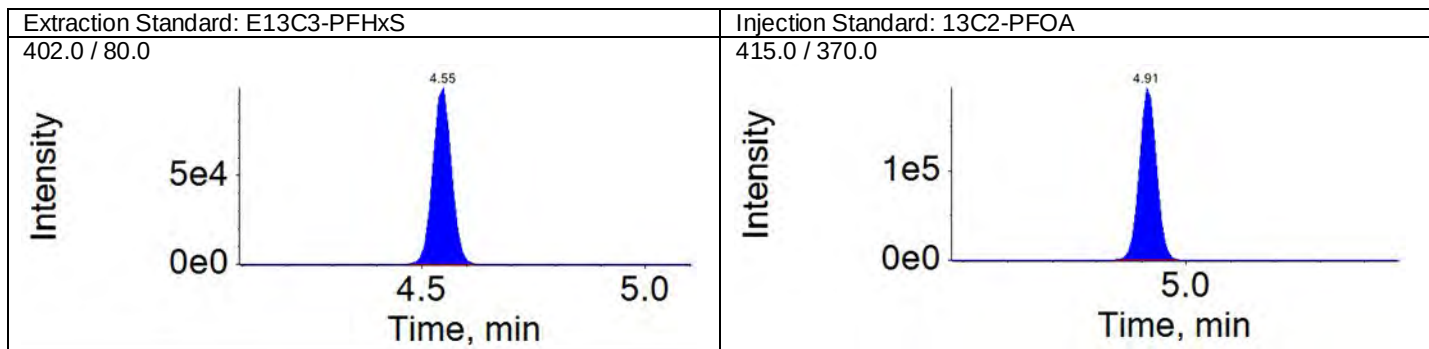
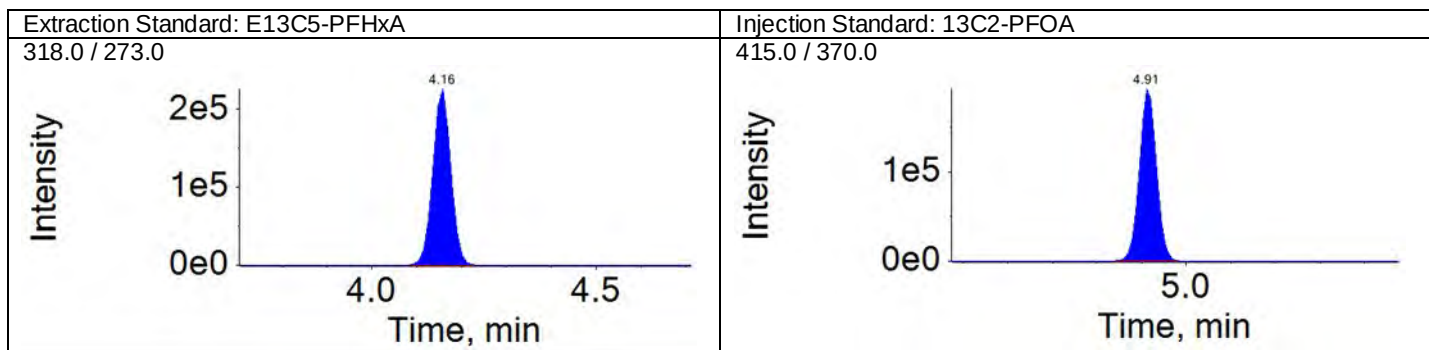
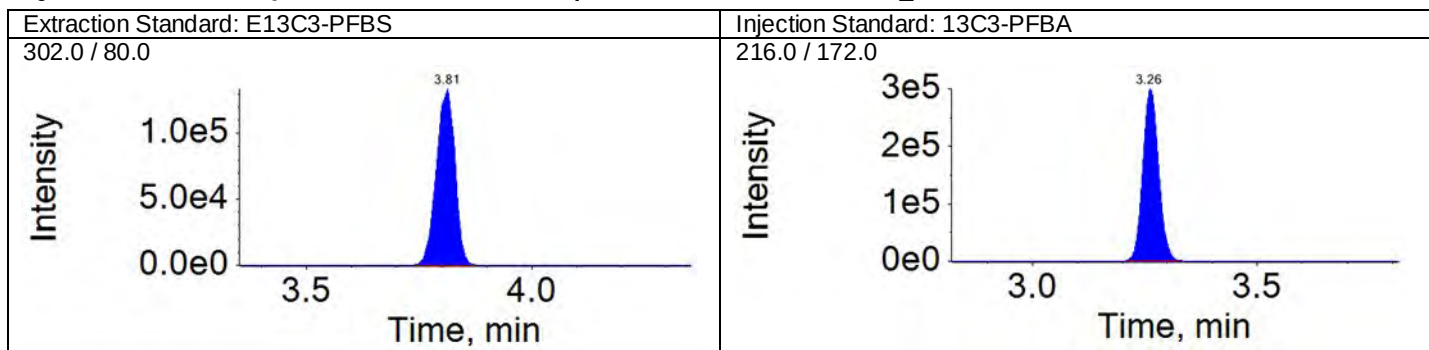
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
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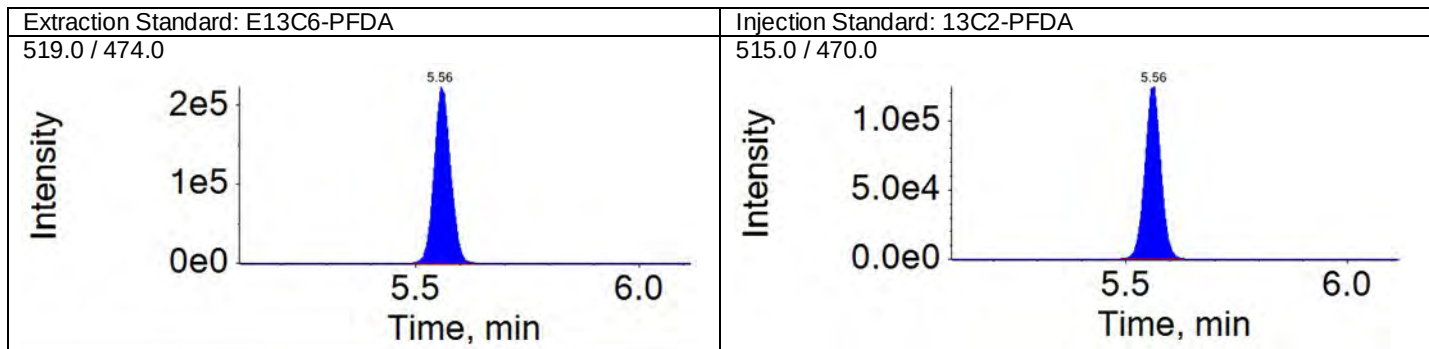
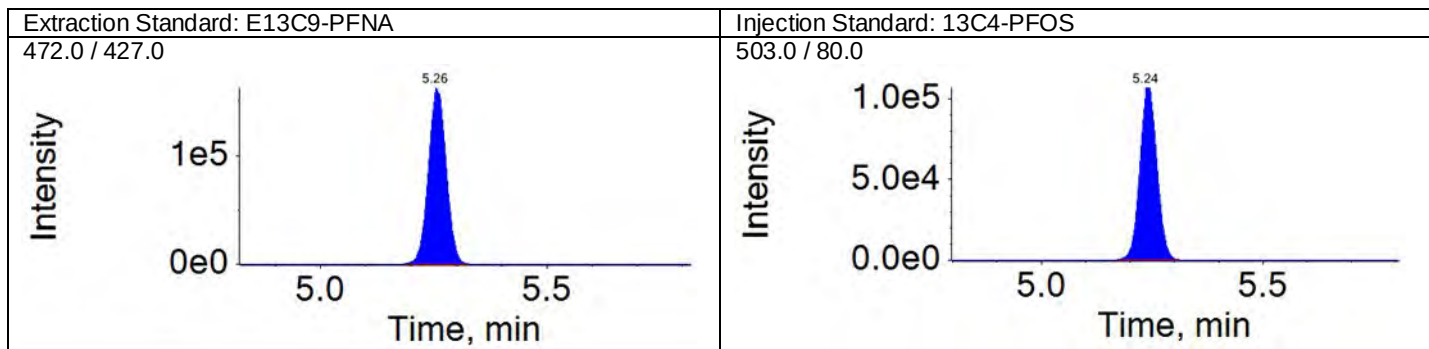
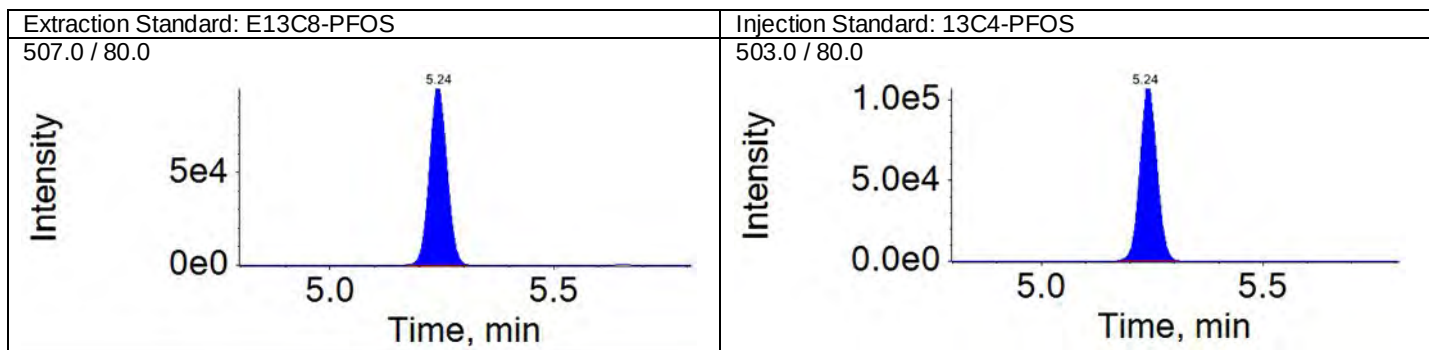
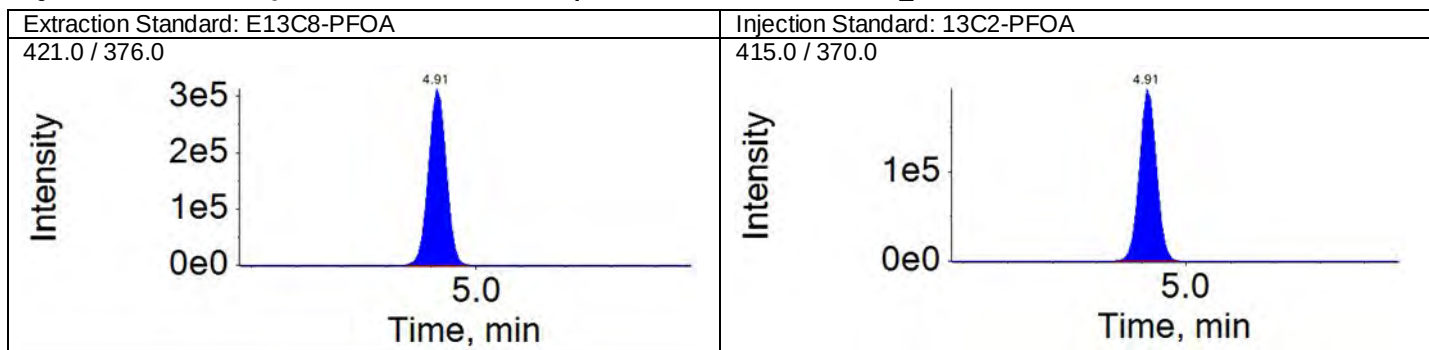
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
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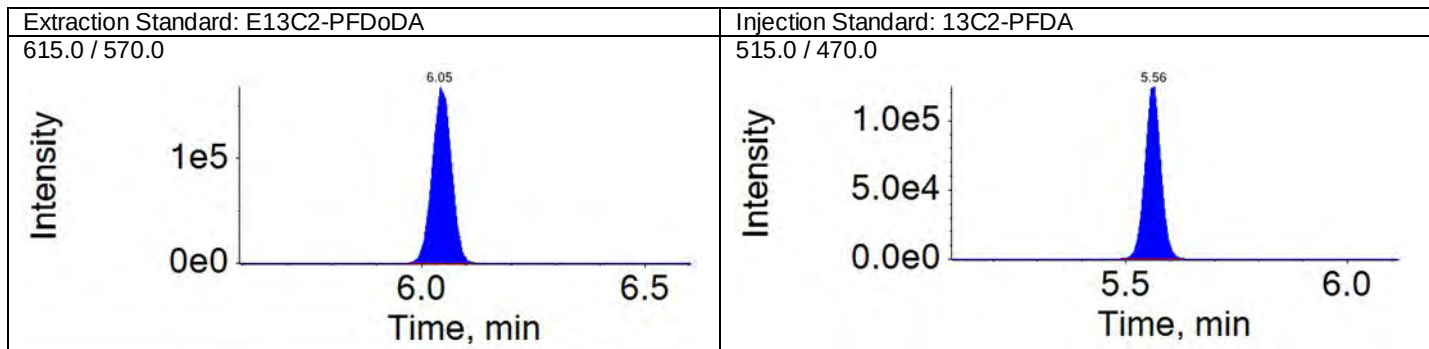
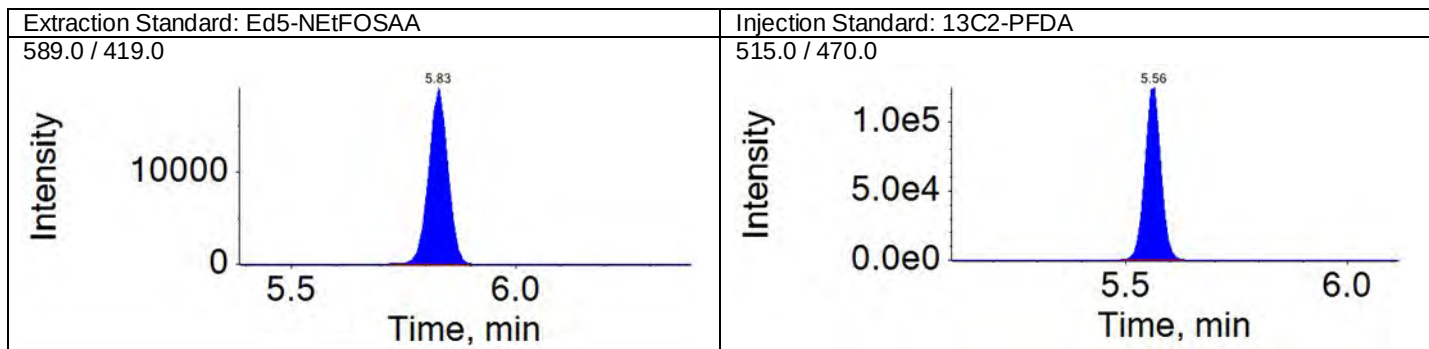
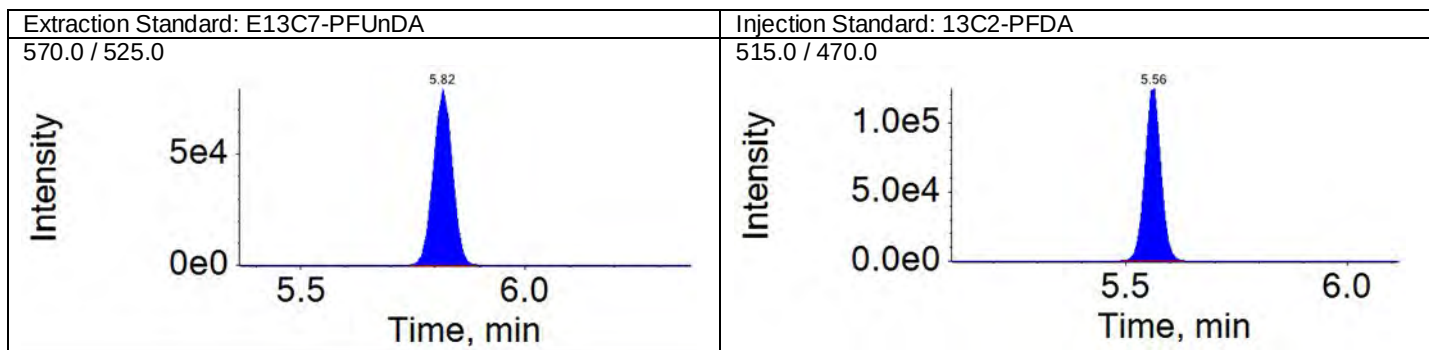
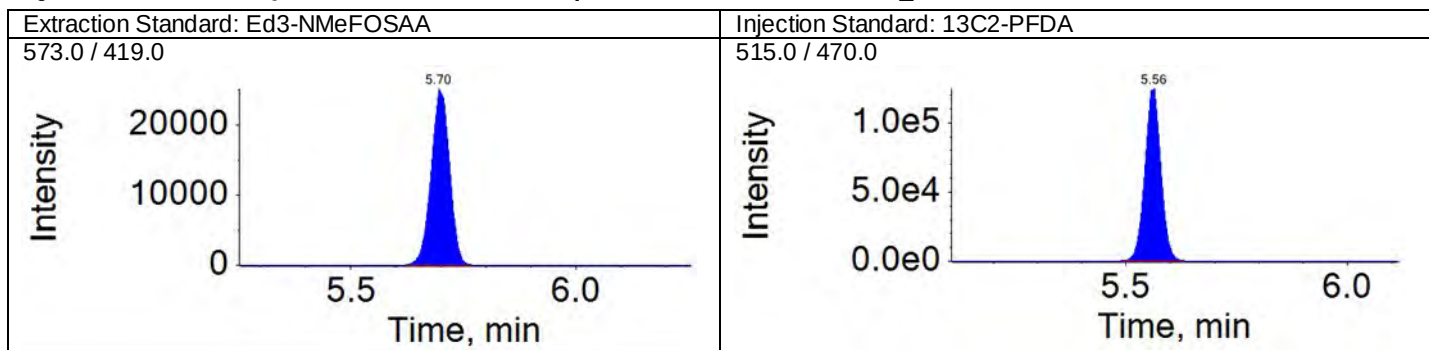
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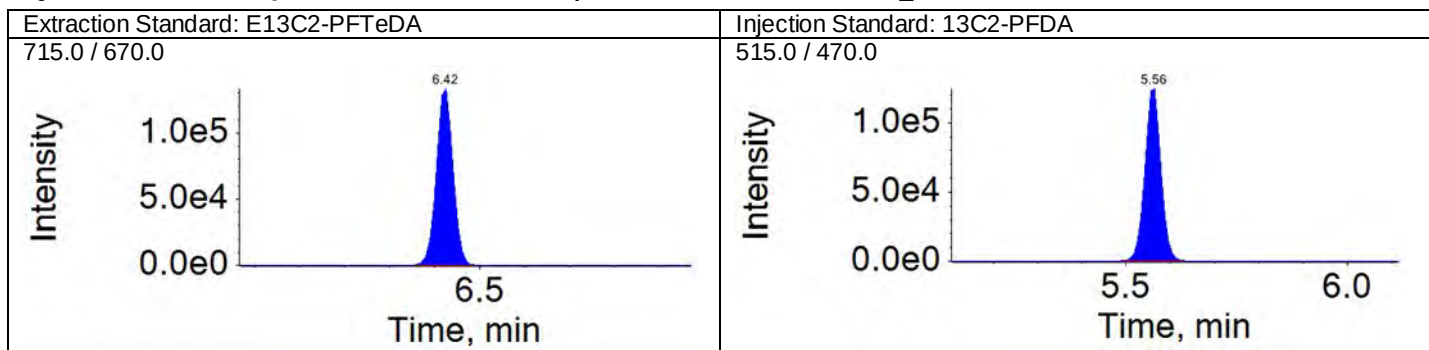
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QMethod Name: MQ4-18AUG13

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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
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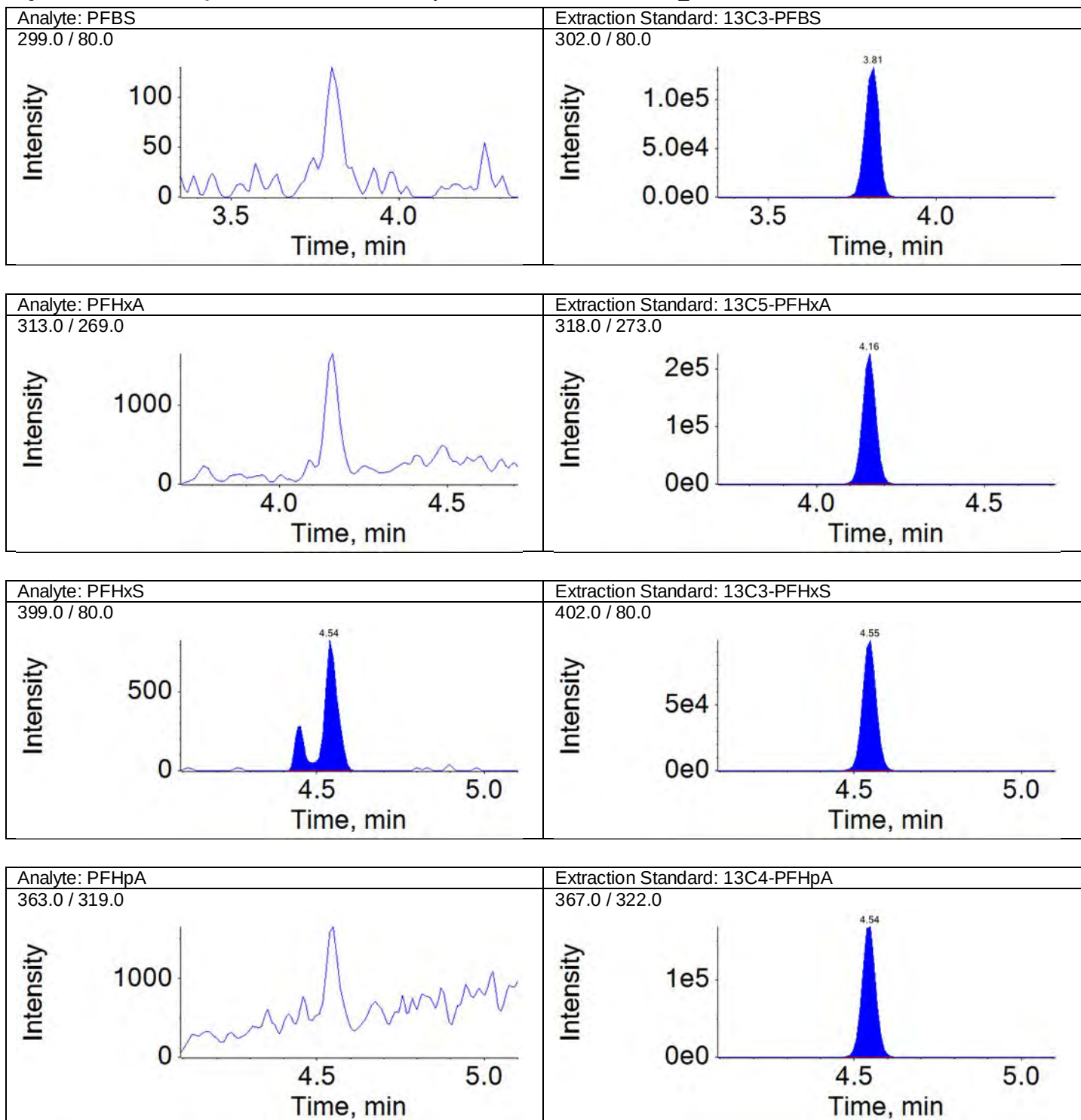
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REVIEWED

By HMK at 9:08 am, 11/15/18

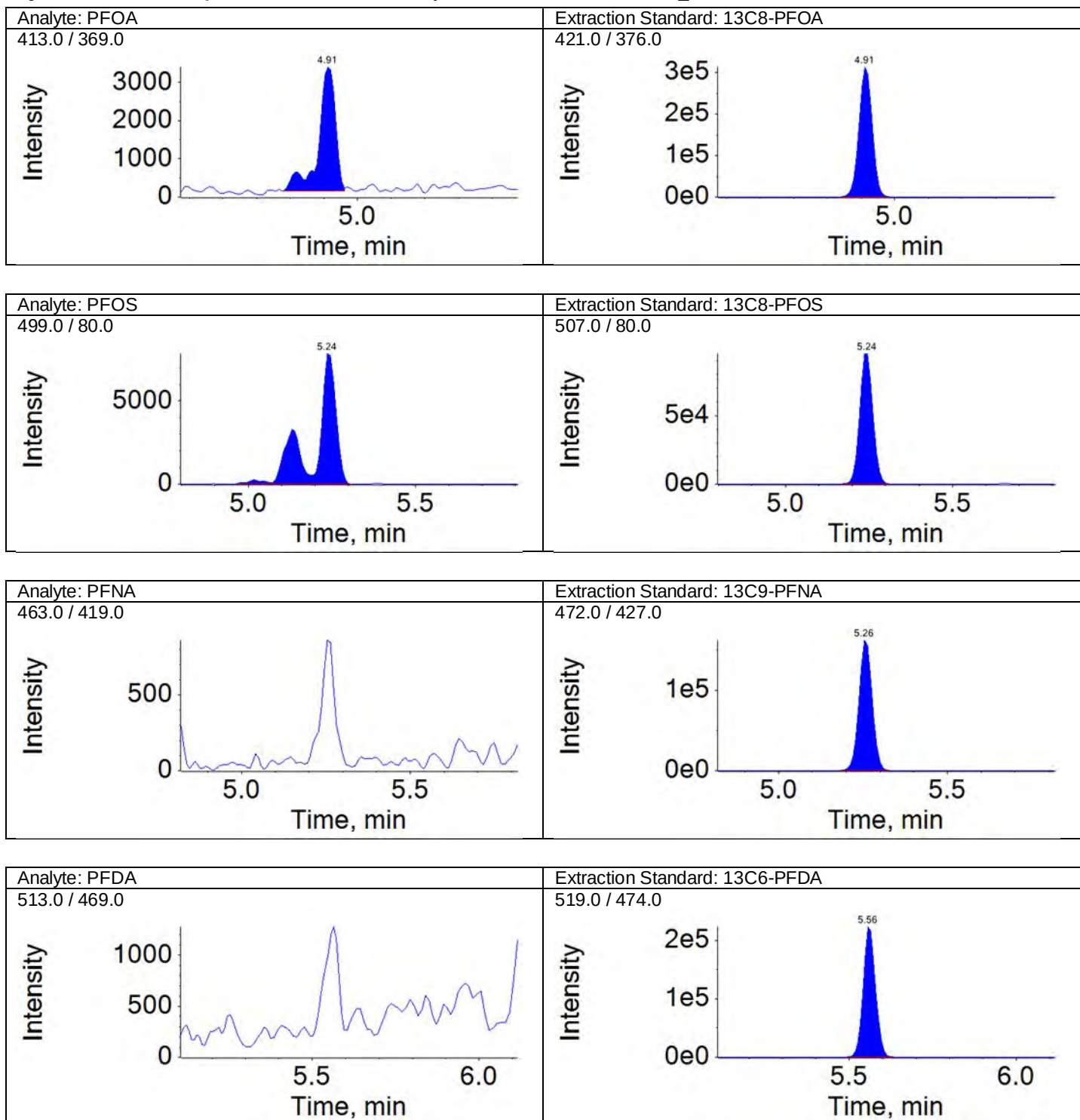
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Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



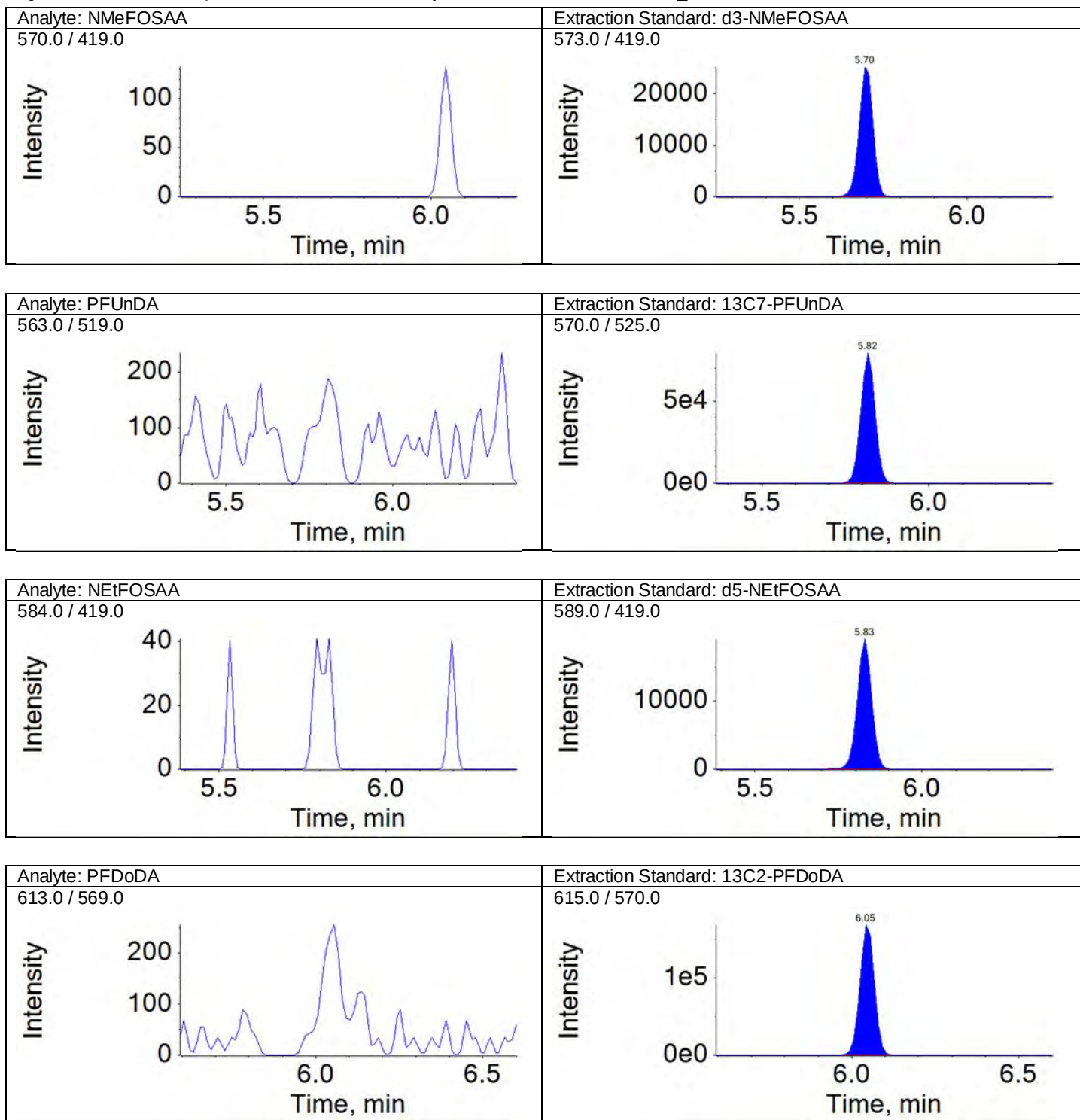
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



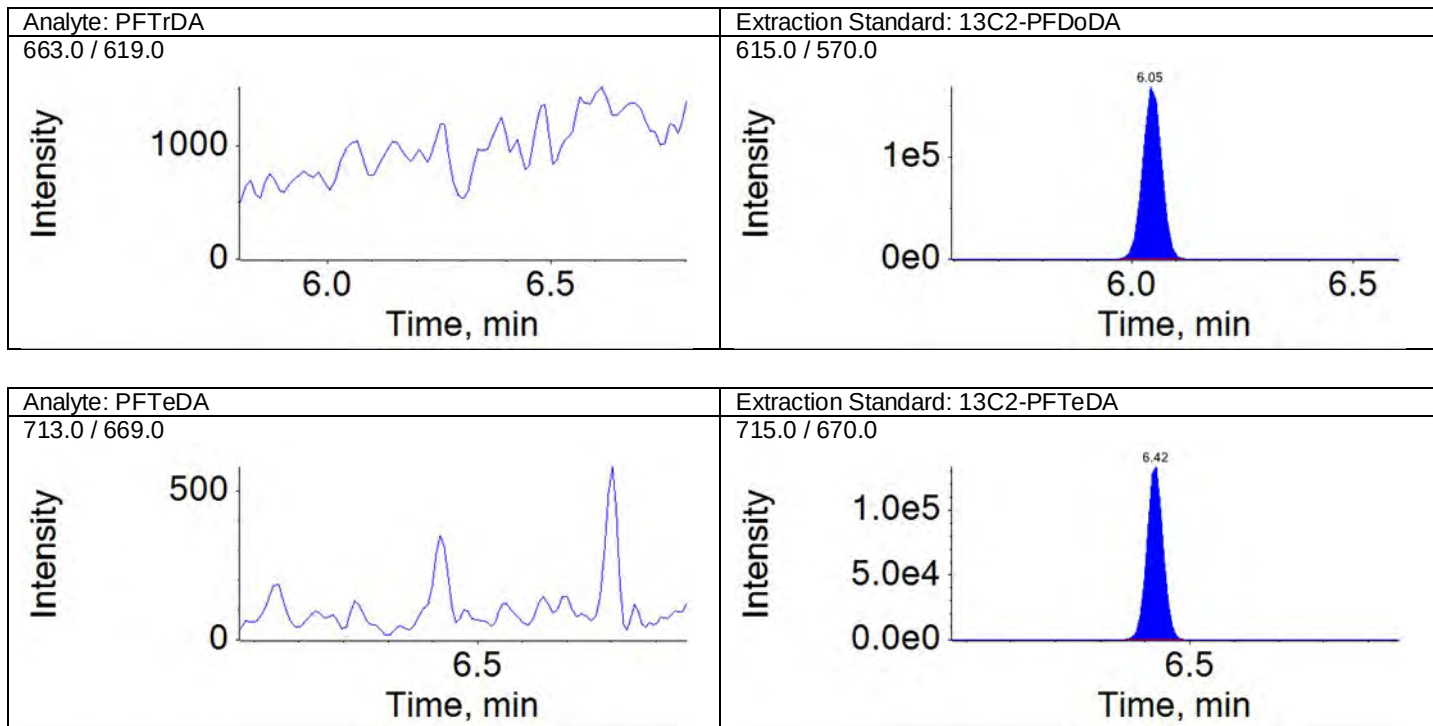
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

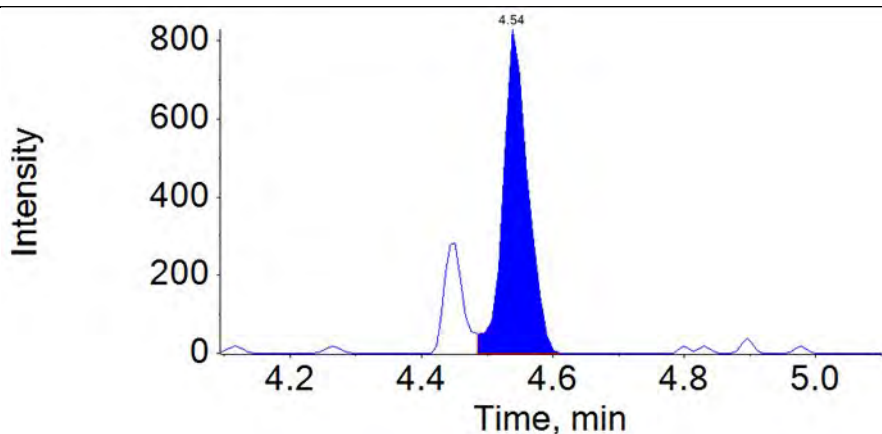
Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

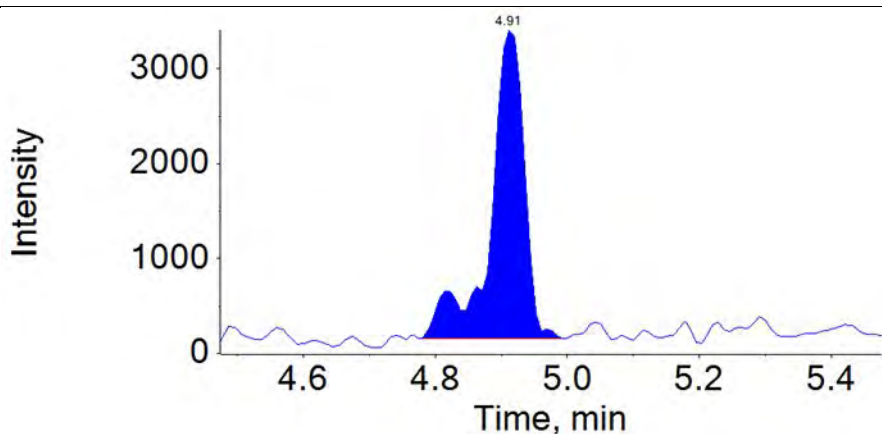
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
2160.6
Mass Range:
399.0 / 80.0
File Name:
18NOV09D-48.wiff
Sample Name:
9885074



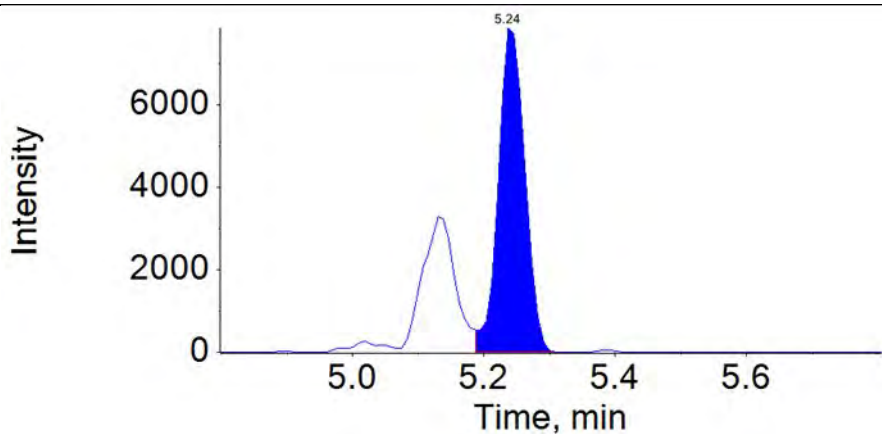
Integration Comment: incorrect integration

Component Name:
PFOA
RT (min.):
4.91
Peak Area:
11726.5
Mass Range:
413.0 / 369.0
File Name:
18NOV09D-48.wiff
Sample Name:
9885074



Integration Comment: incorrect integration

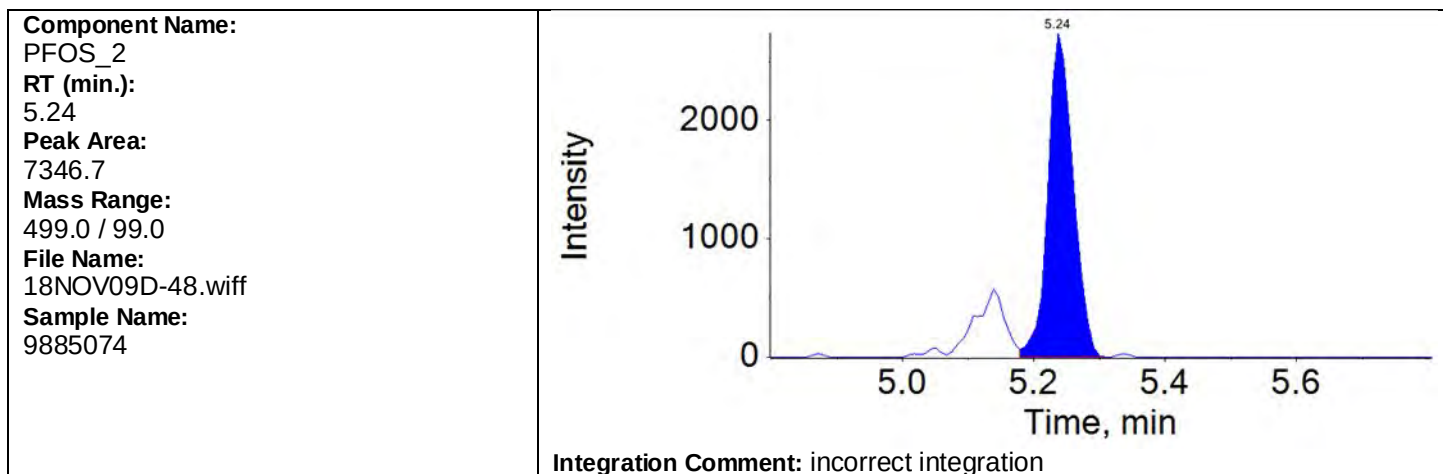
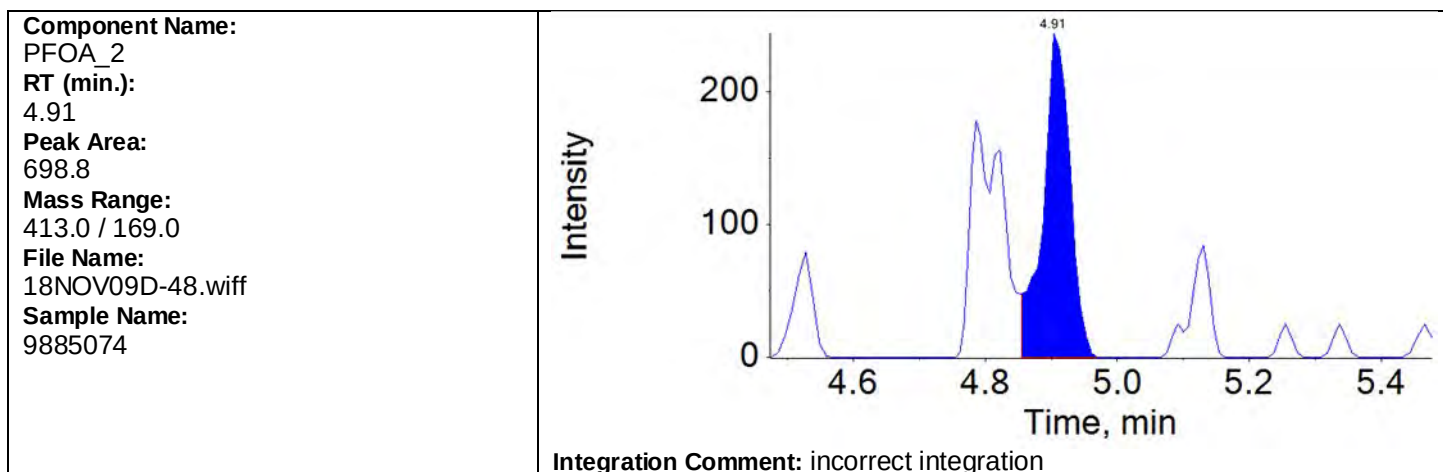
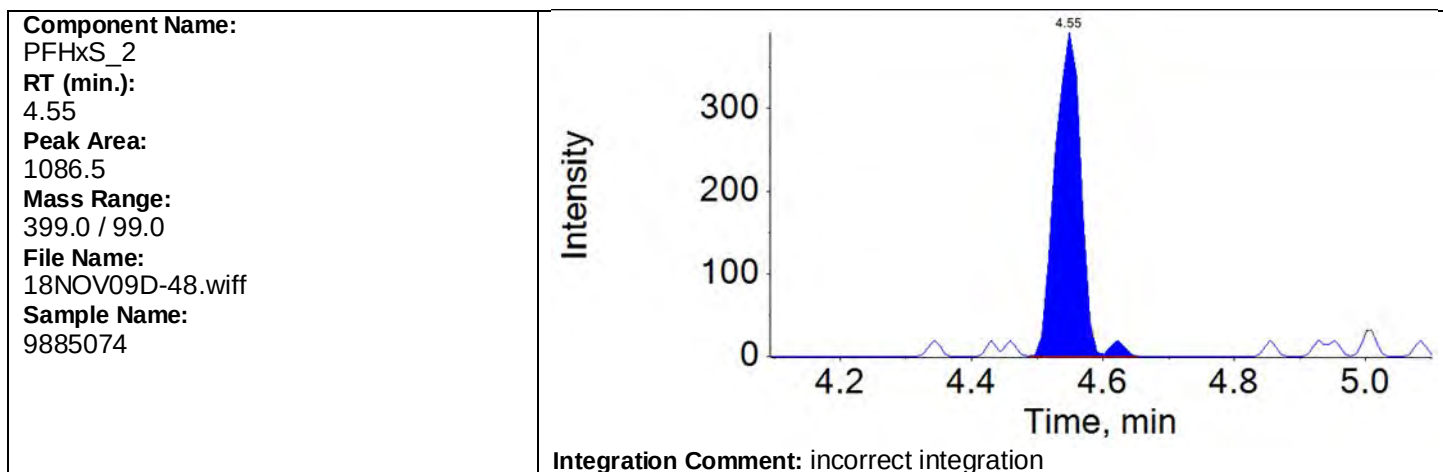
Component Name:
PFOS
RT (min.):
5.24
Peak Area:
22202.7
Mass Range:
499.0 / 80.0
File Name:
18NOV09D-48.wiff
Sample Name:
9885074



Integration Comment: incorrect integration

Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13



Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED

By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

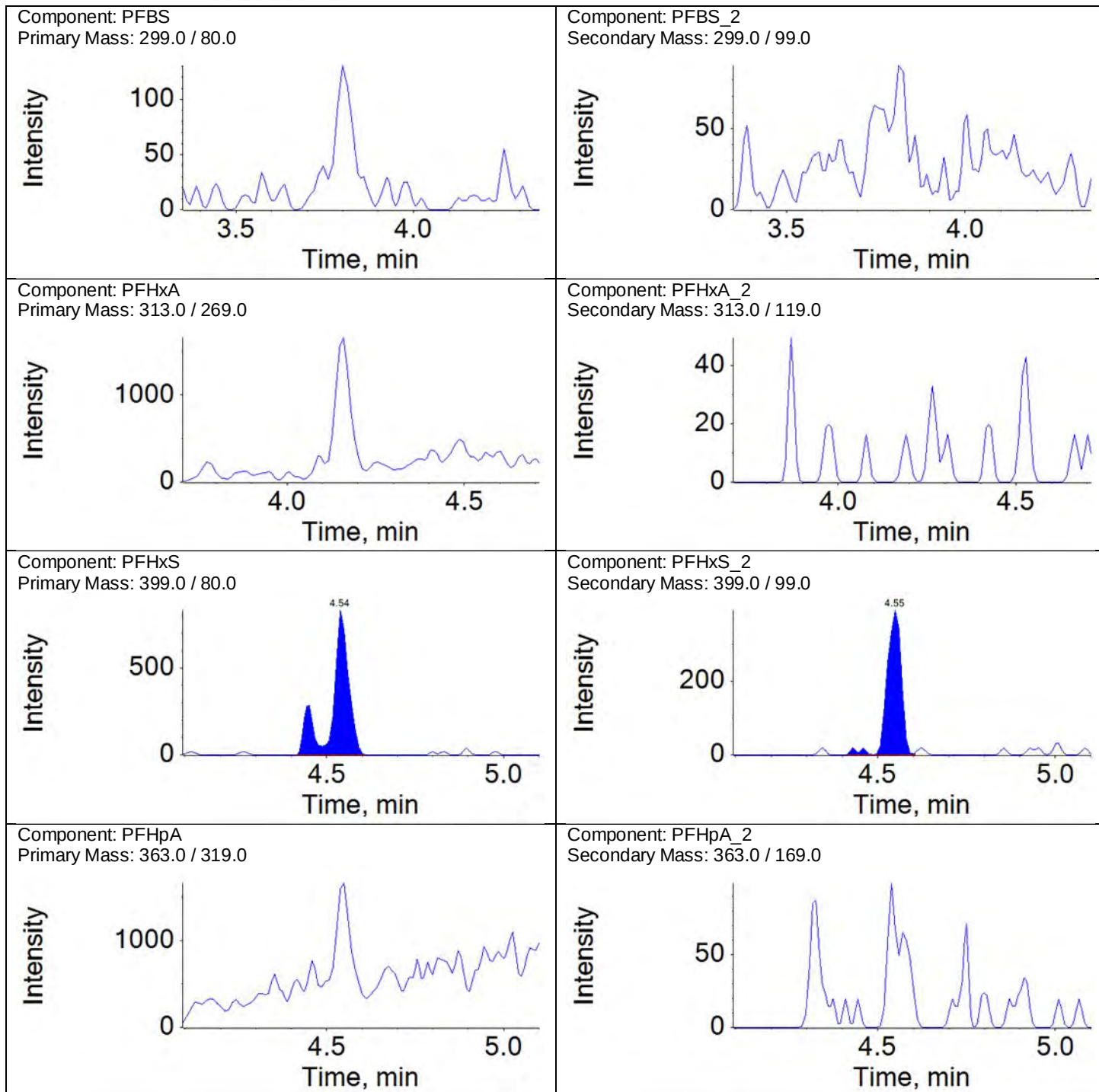
Ion Ratio Report

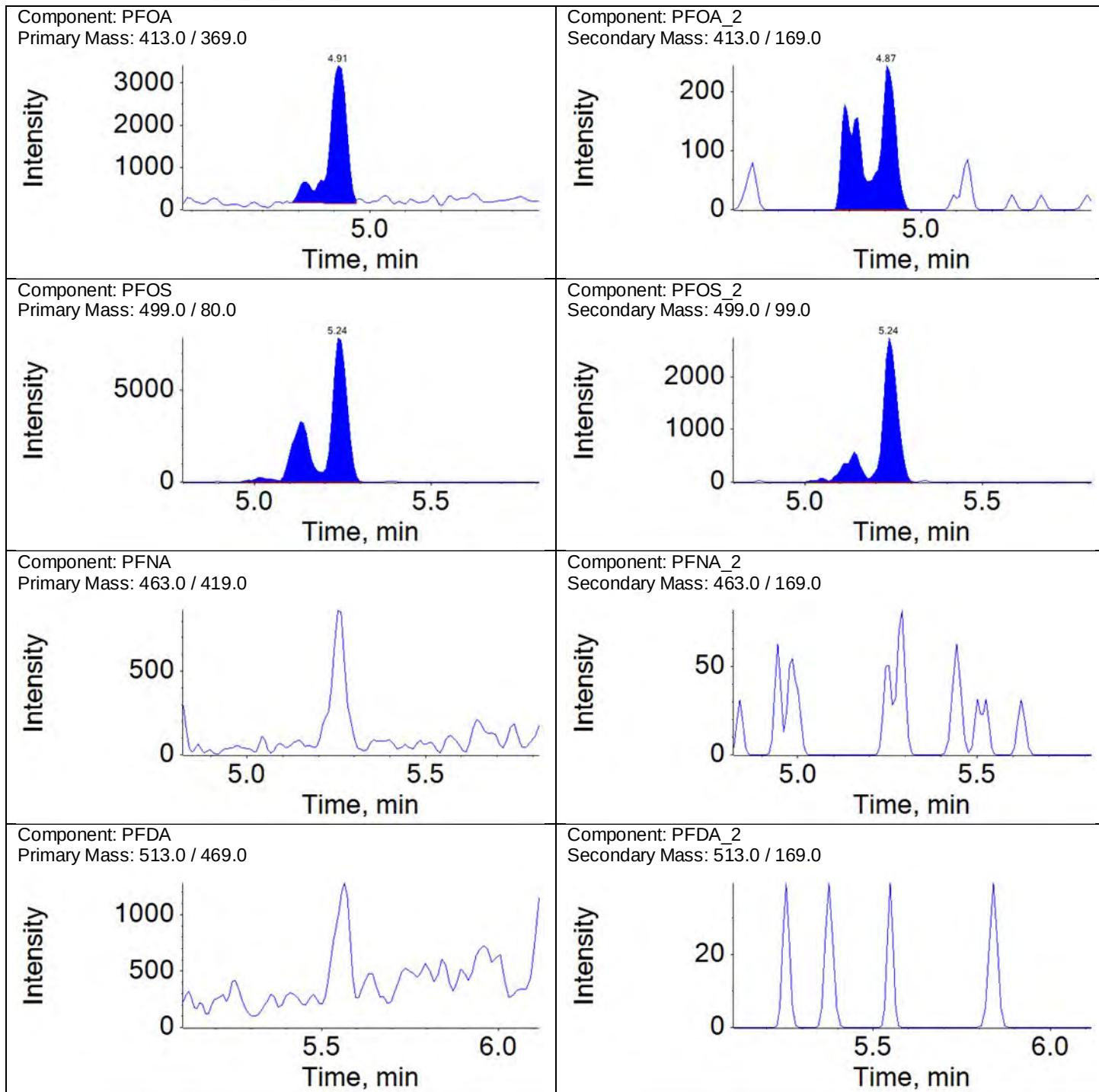
Sample Name: 9885074

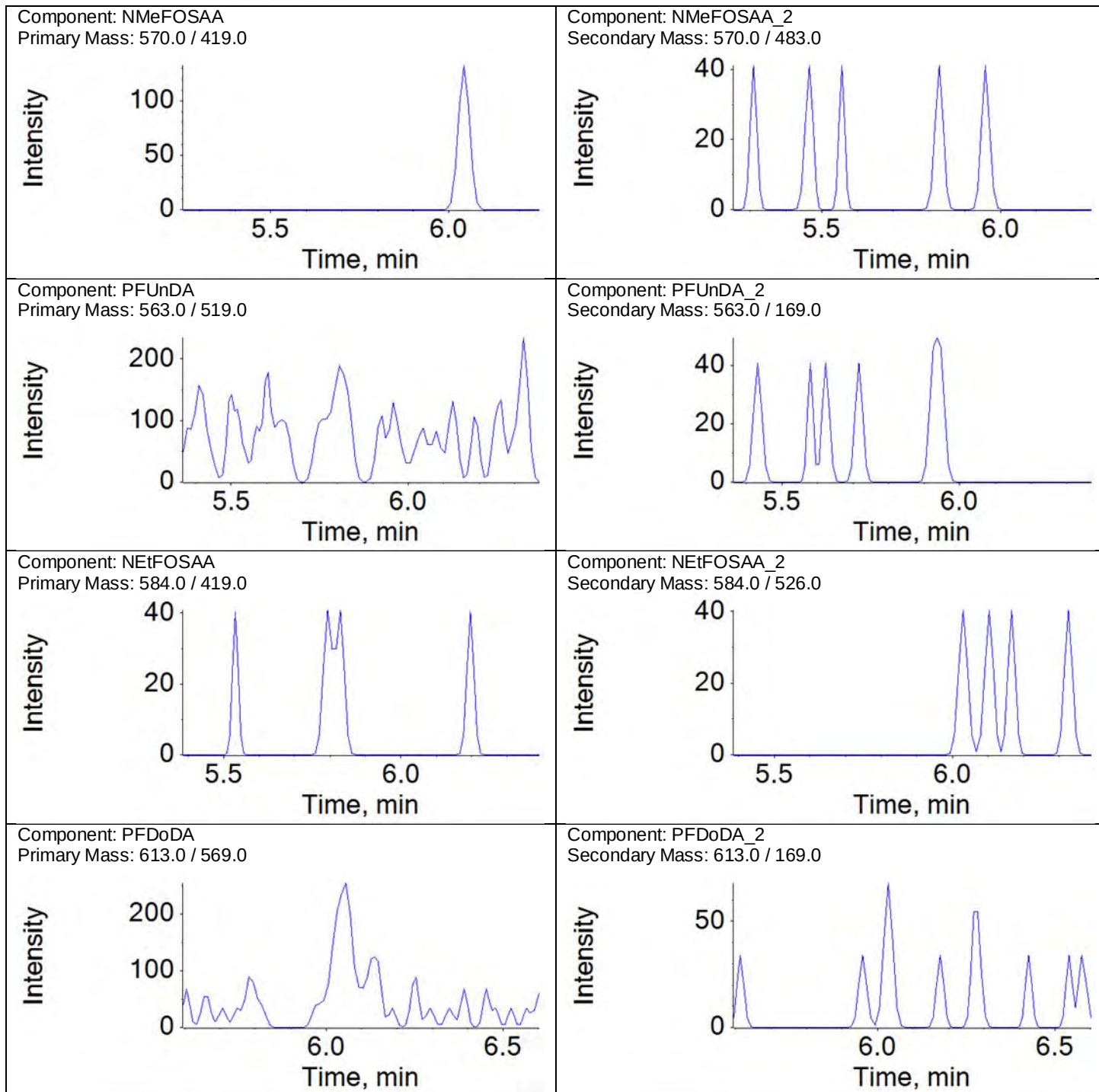
Instrument Name: LM27631

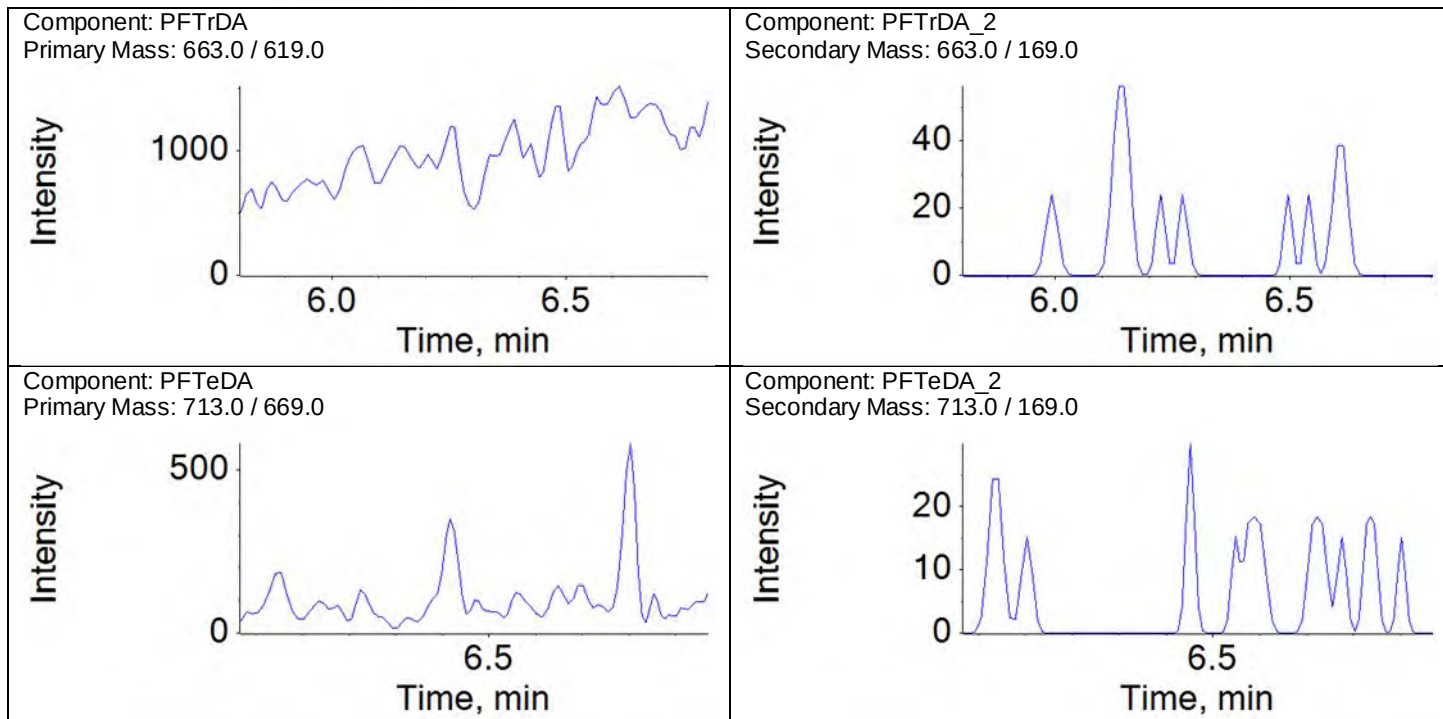
File Name: 18NOV09D-48.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	4.54	1.00	2732.1	M	N/A	0.4039			
PFHxS_2	4.55	1.00	1103.6	M	N/A	0.4039	13	50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	4.91	1.00	11637.2	M	N/A	0.1120			
PFOA_2	4.87	0.99	1303.2	M	N/A	0.1120	76	50	OOS
PFOS	5.24	1.00	34535.3	M	N/A	0.2697			
PFOS_2	5.24	1.00	9314.0	M	N/A	0.2697	-23	50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	









ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18319003 11/16/2018 11:16:11 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	9885075		Data File:	18NOV15D-18.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18319003 OU1-WWTPE-S-01-08 Grab Soil		Acquis Date:	2018-11-15T14:36:27
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	35		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18319003
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	18319003		Operator:	JPT12262
Sample Wt.:	1.08000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV15D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	733505.8	732179.1	0	50	
13C2-PFOA	5.0	487752.4	479663.2	2	50	
13C4-PFOS	4.8	264470.6	269685.3	-2	50	
13C2-PFDA	5.0	315776.8	302309.9	4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C3-PFBS	406410.2	13C3-PFBA	733505.8	0.554	8.611	7.243	84	50-150	
E13C5-PFHxA	610884.4	13C2-PFOA	487752.4	1.252	9.259	8.378	90	50-150	
E13C3-PFHxS	317605.1	13C2-PFOA	487752.4	0.651	8.759	8.274	94	50-150	
E13C4-PFHpA	502245.7	13C2-PFOA	487752.4	1.030	9.259	8.591	93	50-150	
E13C8-PFOA	886649.6	13C2-PFOA	487752.4	1.818	9.259	9.275	100	50-150	
E13C8-PFOS	277342.5	13C4-PFOS	264470.6	1.049	8.852	8.605	97	50-150	
E13C9-PFNA	472178.0	13C4-PFOS	264470.6	1.785	9.259	9.218	100	50-150	
E13C6-PFDA	626305.4	13C2-PFDA	315776.8	1.983	9.259	8.571	93	50-150	
Ed3-NMeFOSAA	61902.6	13C2-PFDA	315776.8	0.196	9.259	6.553	71	50-150	
E13C7-PFUnDA	260438.1	13C2-PFDA	315776.8	0.825	9.259	8.868	96	50-150	
Ed5-NEtFOSAA	52747.7	13C2-PFDA	315776.8	0.167	9.259	6.544	71	50-150	
E13C2-PFDODA	542194.7	13C2-PFDA	315776.8	1.717	9.259	8.256	89	50-150	
E13C2-PFTeDA	372143.4	13C2-PFDA	315776.8	1.179	9.259	7.662	83	50-150	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18319003 11/16/2018 11:16:11 AM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: 9885075

Instrument Name: LM27631

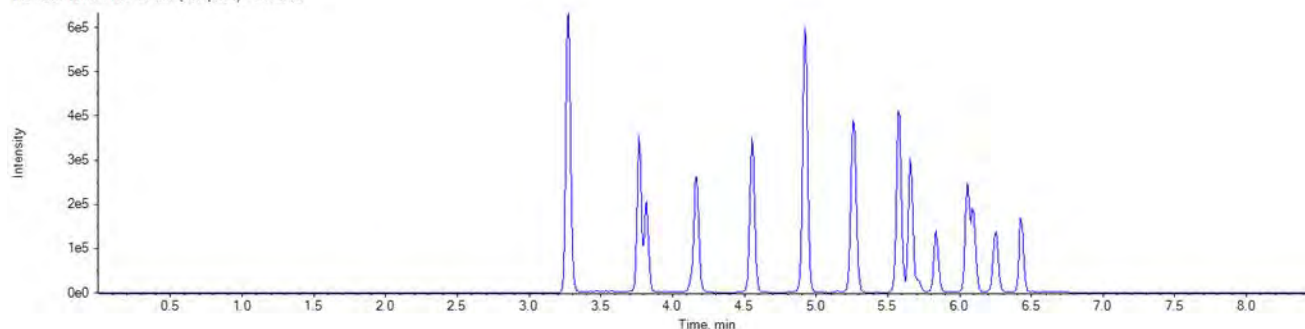
File Name: 18NOV15D-18.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.08000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.82	406410.2	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.17	610884.4	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	502245.7	N/A	
PFHxS	4.56	1.000	4215.8		M	13C3-PFHxS	4.56	317605.1	0.013	0.119
PFOA	4.92	1.000	15176.3		M	13C8-PFOA	4.92	886649.6	0.017	0.169
PFOS	5.25	1.000	31875.3		M	13C8-PFOS	5.25	277342.5	0.115	0.931
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.27	472178.0	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.58	626305.4	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.71	61902.6	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.83	260438.1	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	52747.7	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	542194.7	N/A	
PFTTrDA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	542194.7	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	372143.4	N/A	

Total Ion Chromatogram

TIC from 18NOV15D-18.wiff (sample 1) - 9885075



APPROVED

By JPT at 3:31 pm, 11/16/18

BSI14 Page 196 of 2132

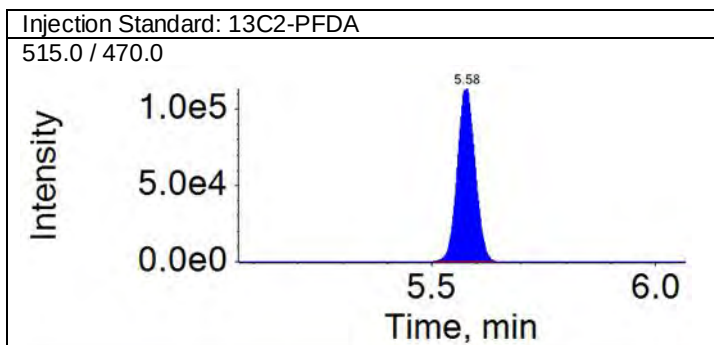
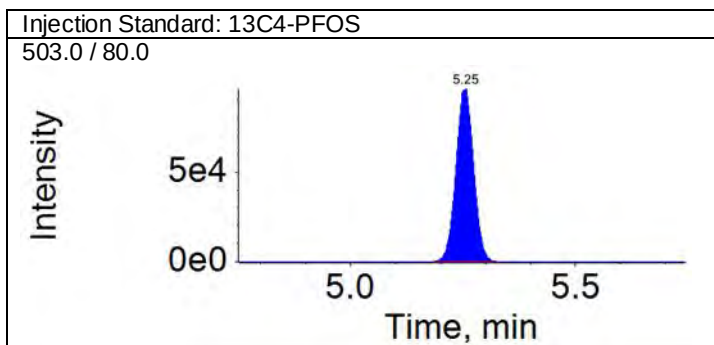
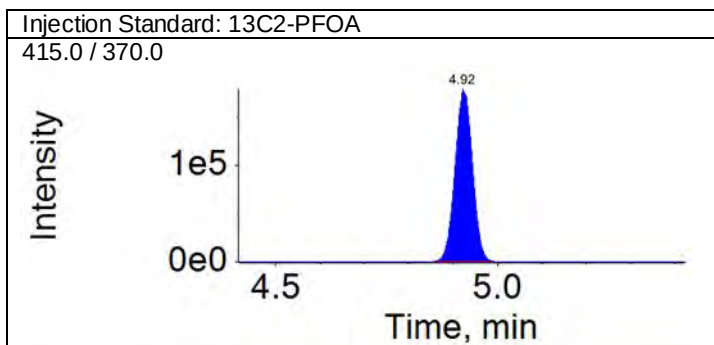
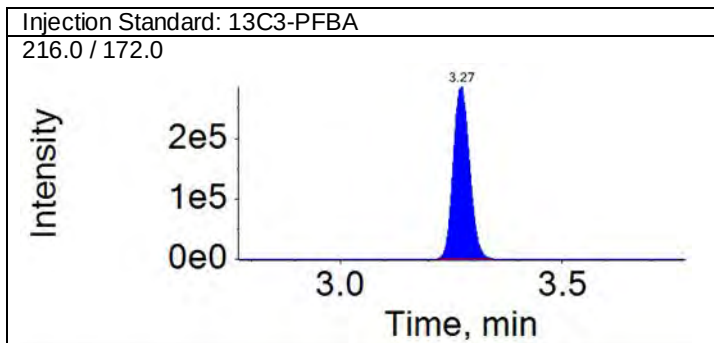
REVIEWED

By HMK at 9:04 am, 11/19/18

Page 2 of 11

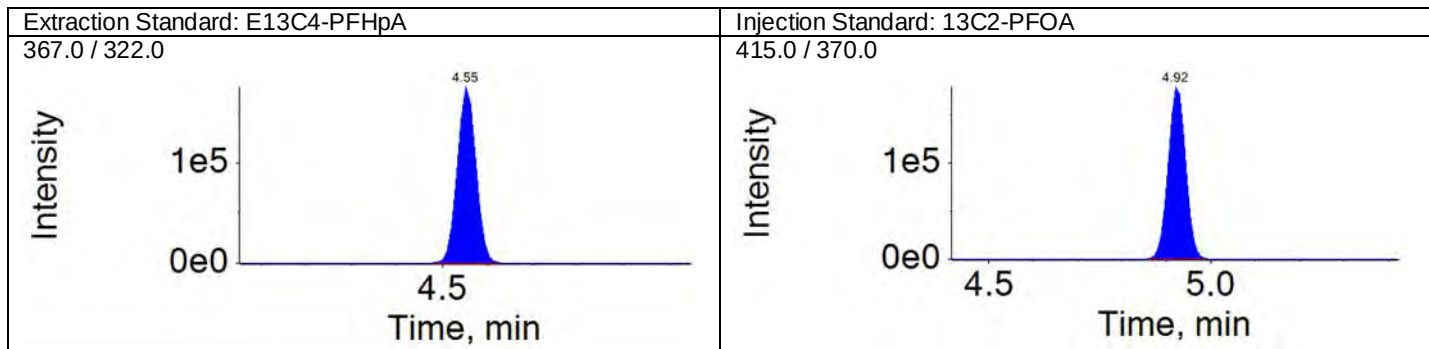
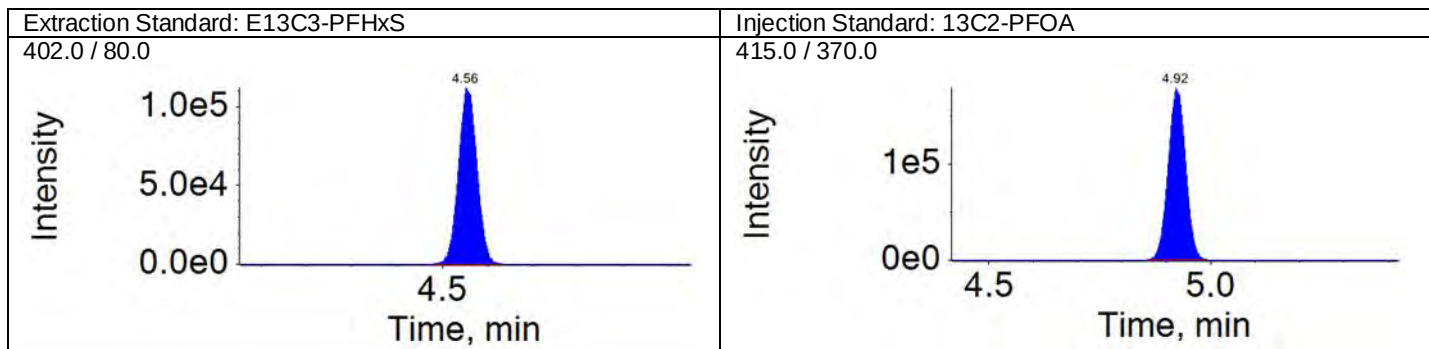
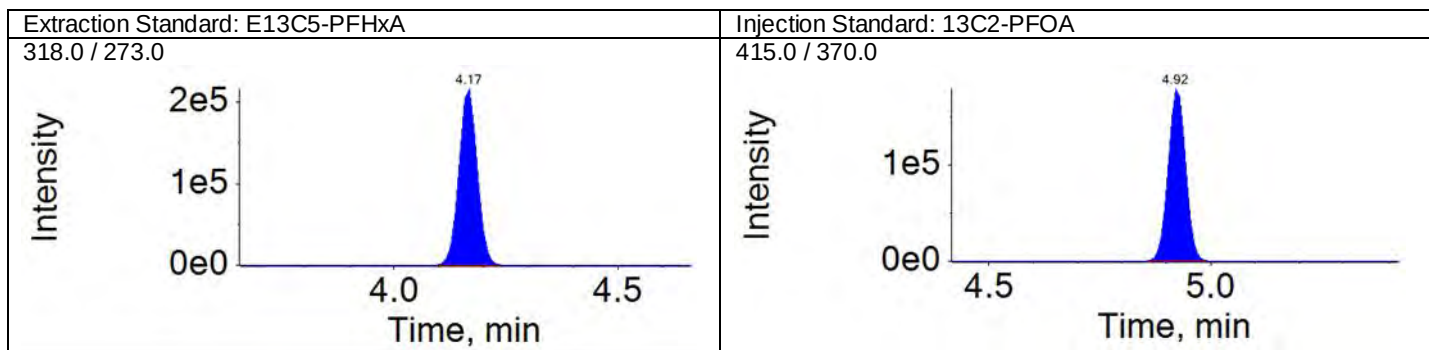
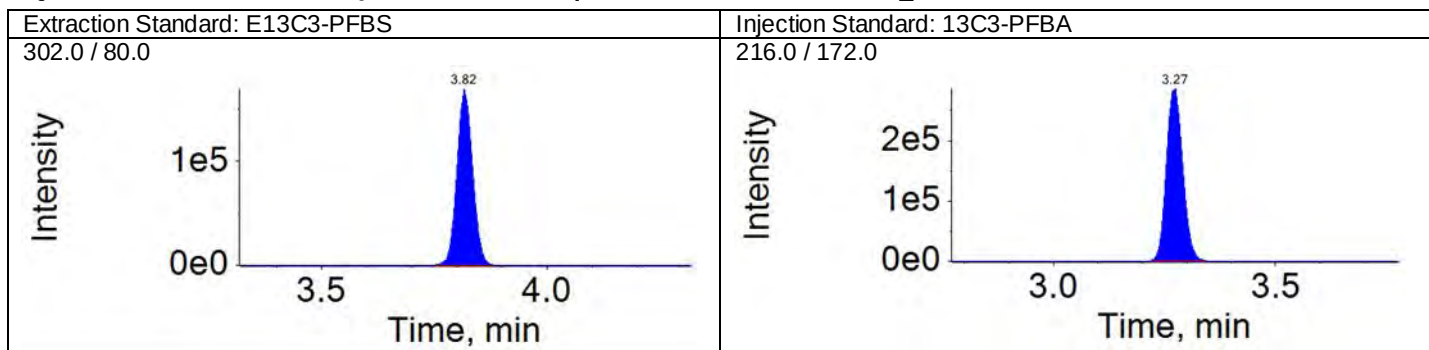
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QMethod Name: 18AUG20QM

Result Table: 18319003 11/16/2018 11:16:11 AM
Acquisition Method: 18AUG13_3uL.dam



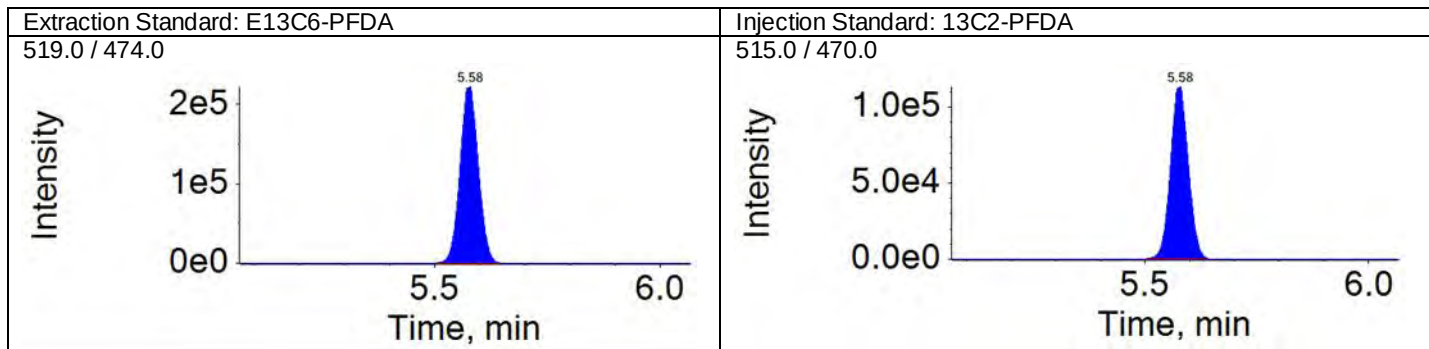
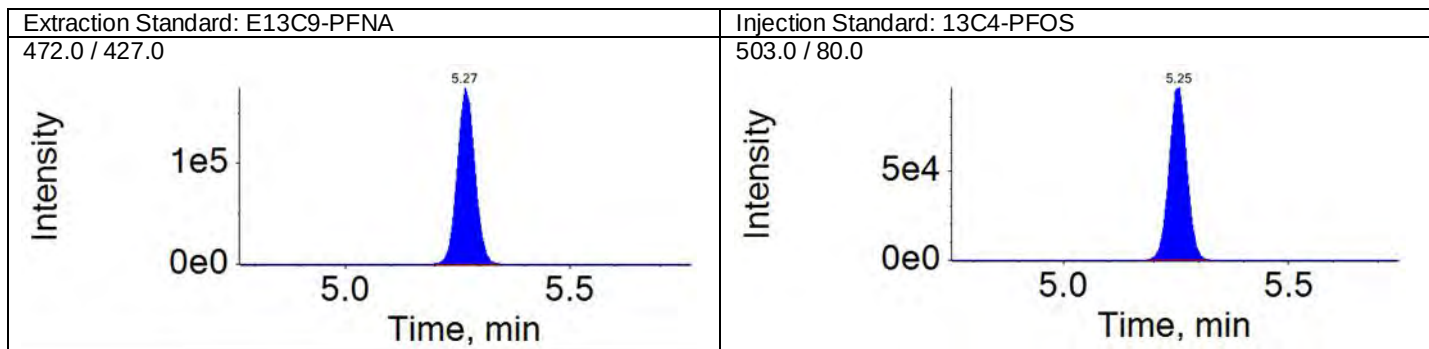
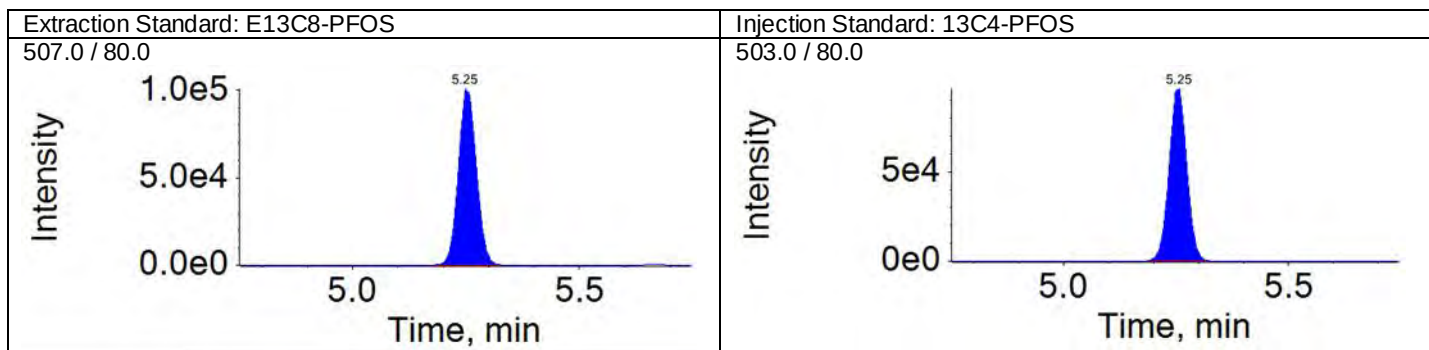
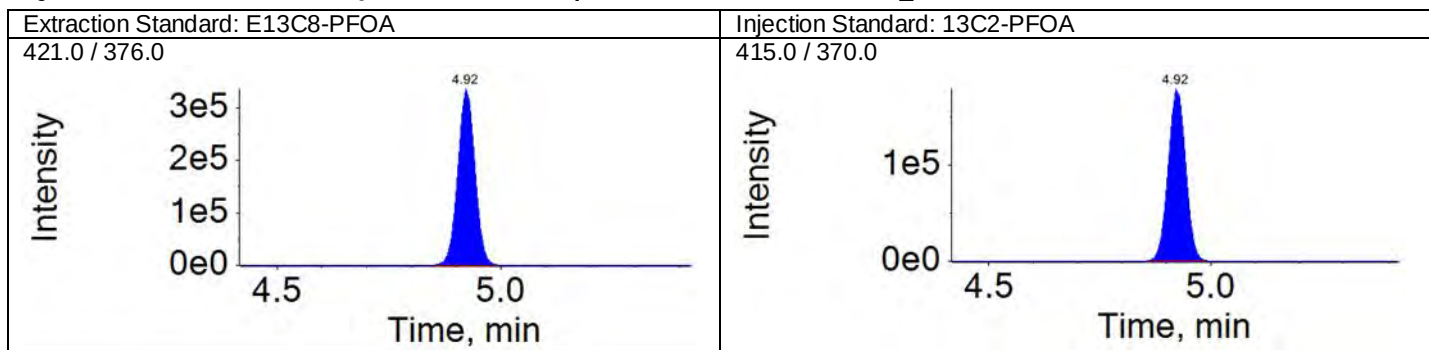
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QMethod Name: 18AUG20QM

Result Table: 18319003 11/16/2018 11:16:11 AM
Acquisition Method: 18AUG13_3uL.dam



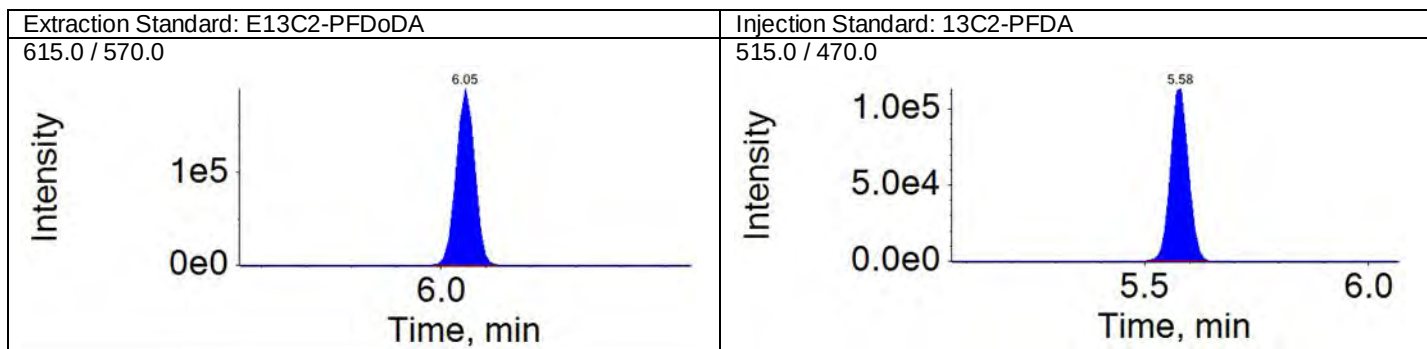
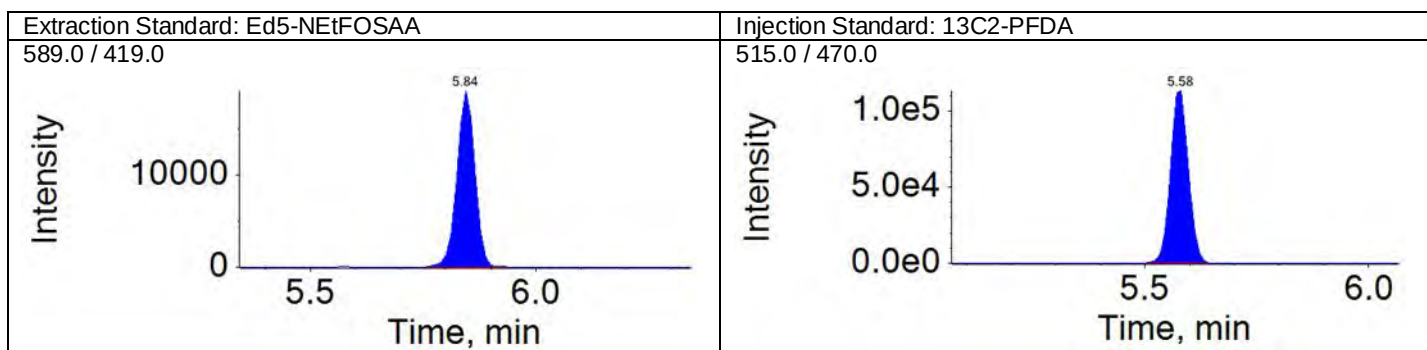
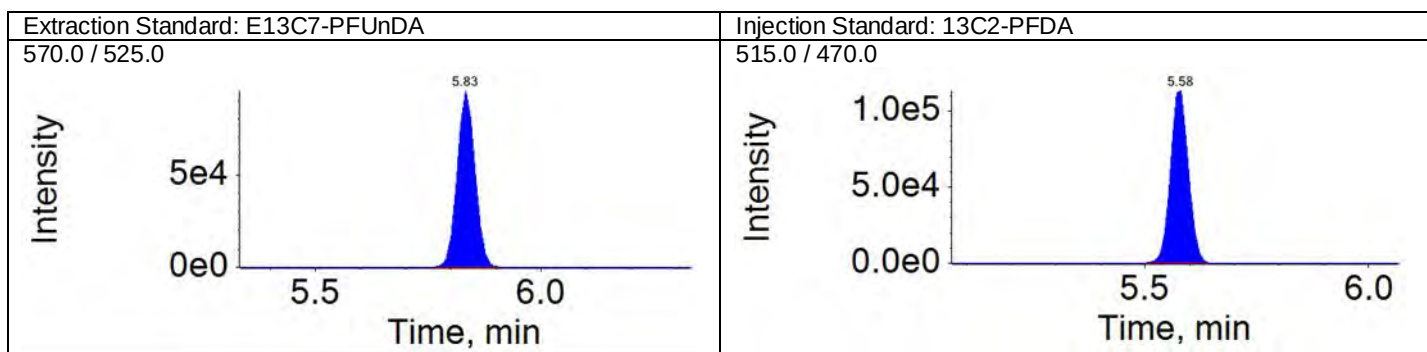
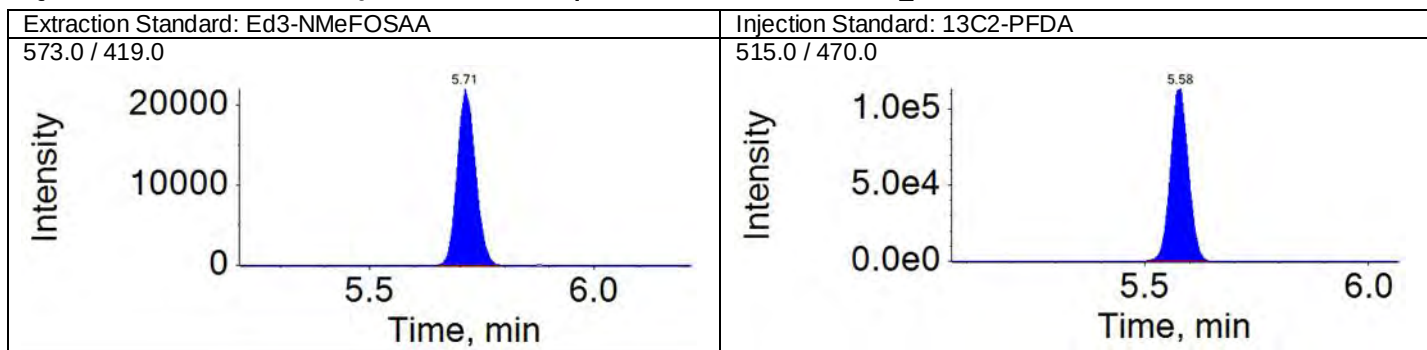
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Acquisition Method: 18AUG13_3uL.dam



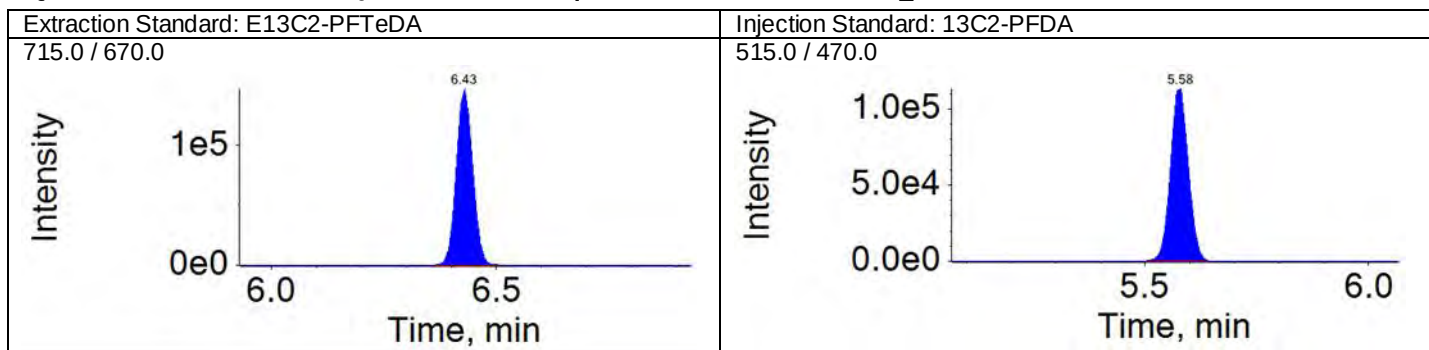
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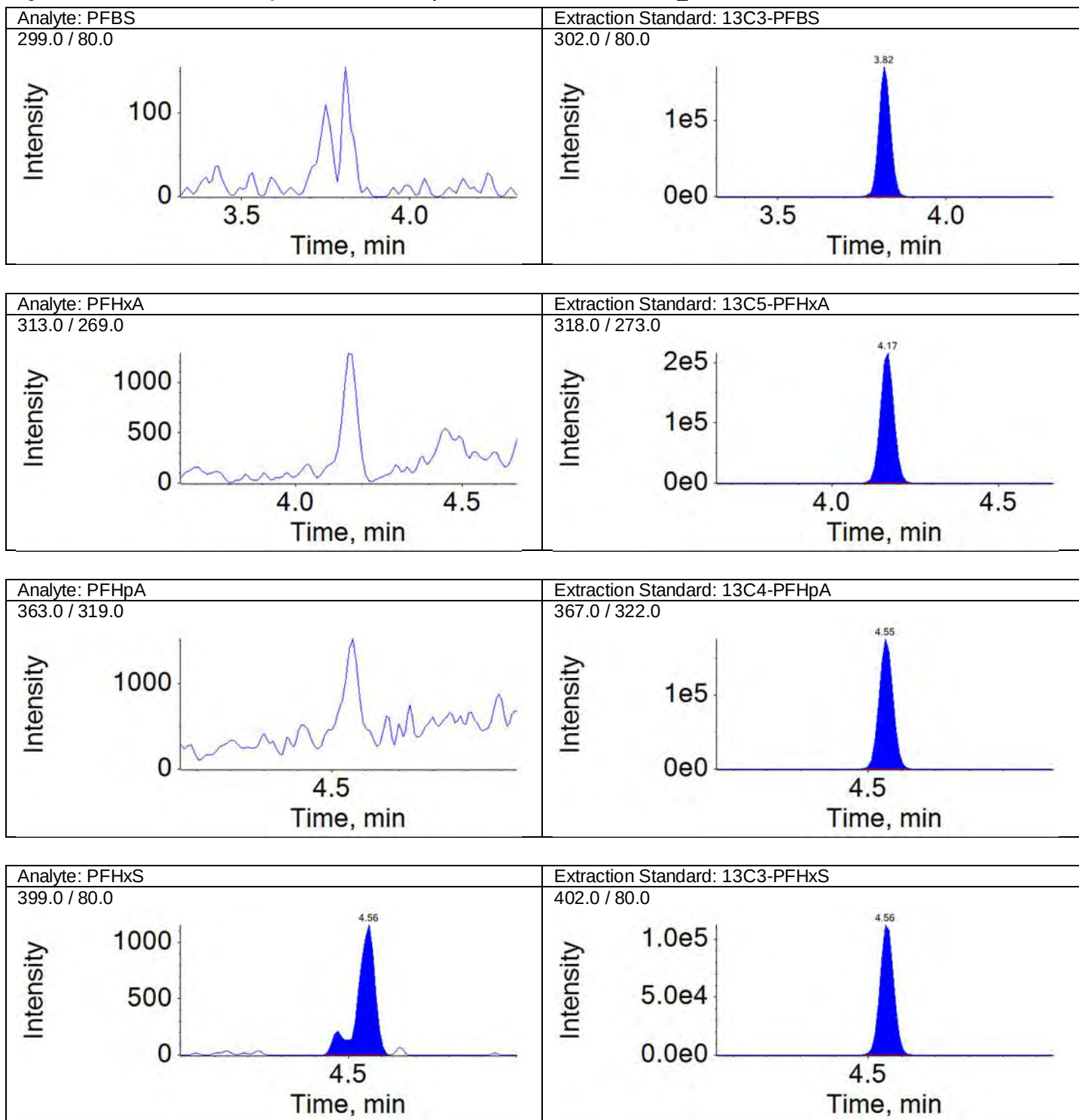
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QMethod Name: 18AUG20QM

Result Table: 18319003 11/16/2018 11:16:11 AM
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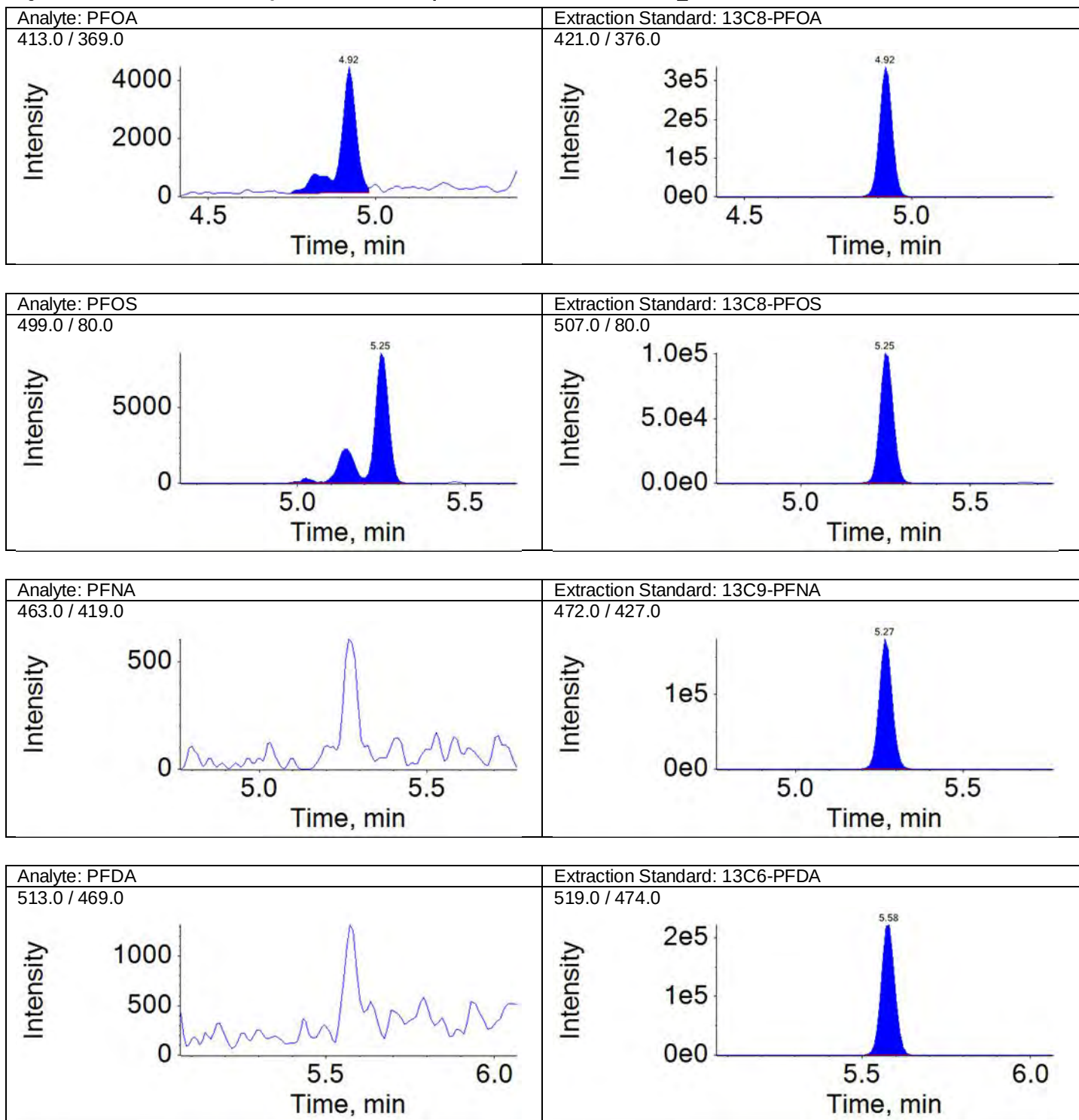
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QMethod Name: 18AUG20QM

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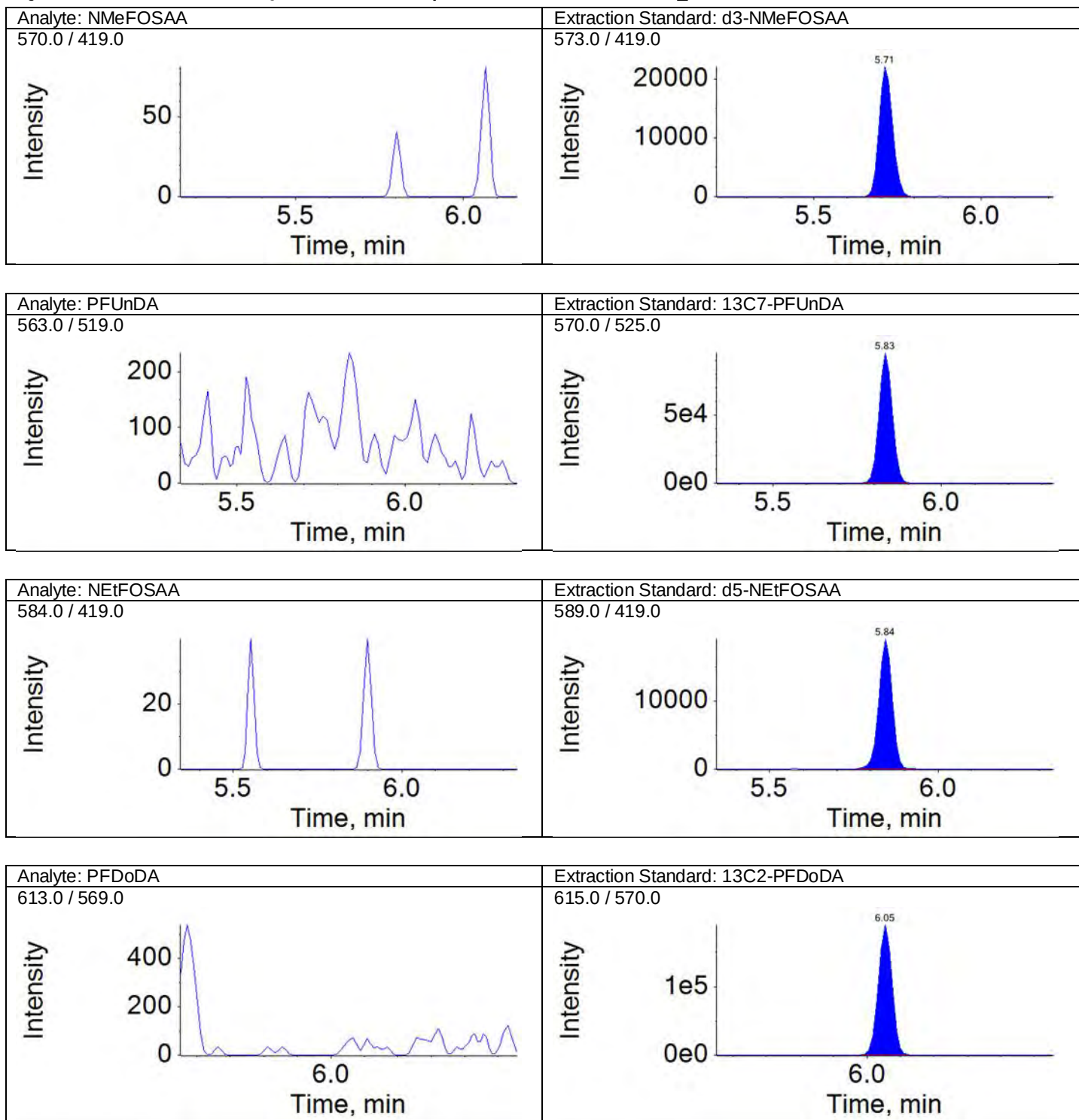
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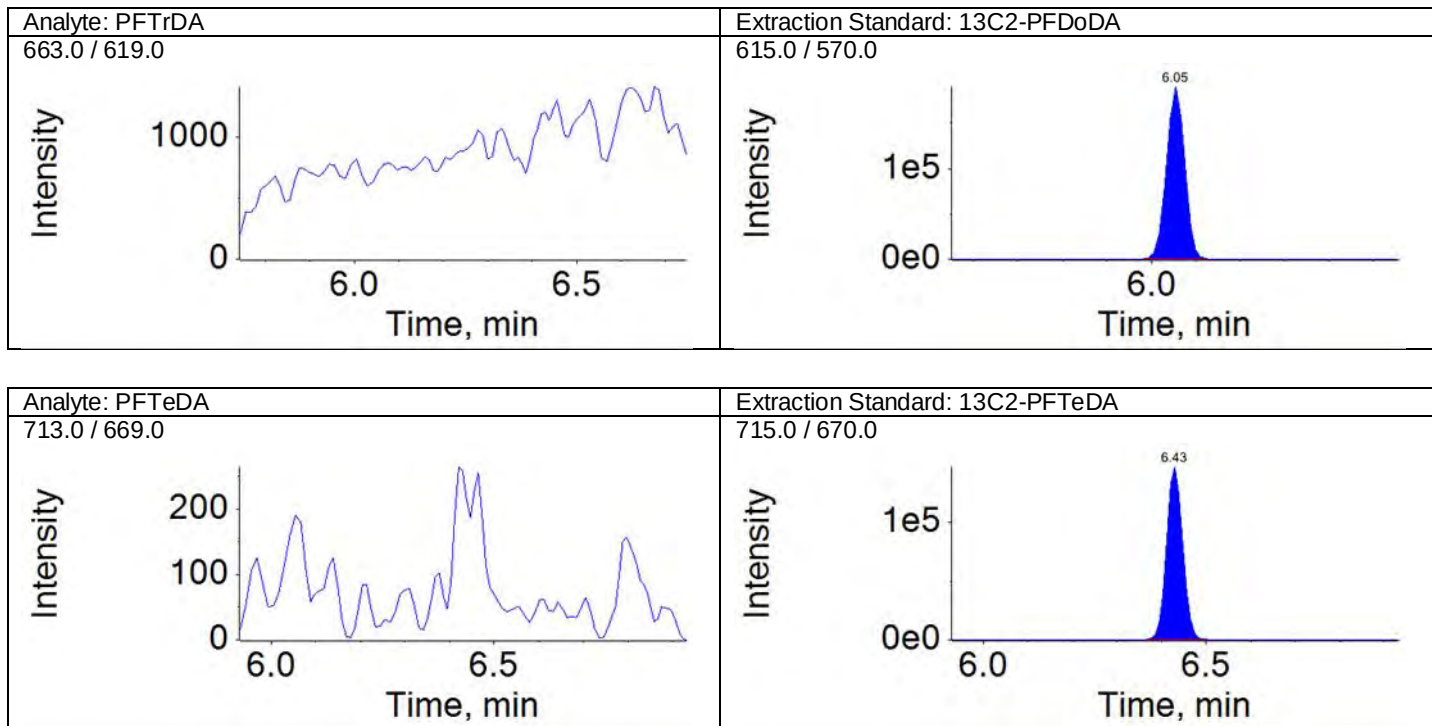
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QMethod Name: 18AUG20QM

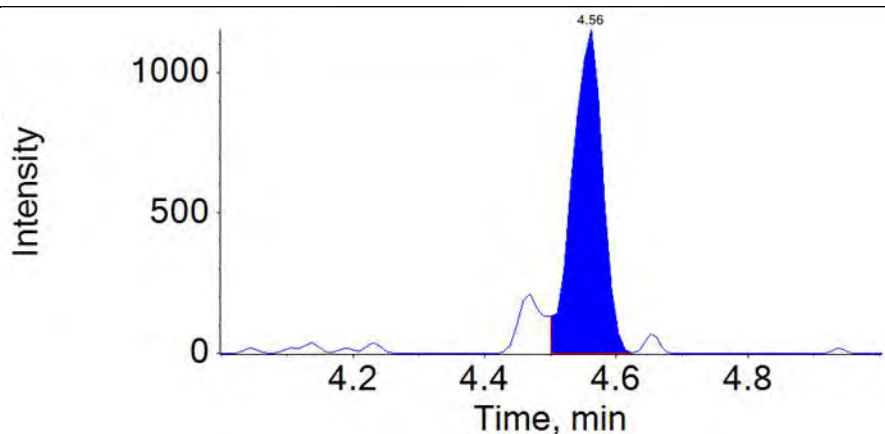
Result Table: 18319003 11/16/2018 11:16:11 AM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18319003
Results Table Date: 11/16/2018 3:25:03 PM

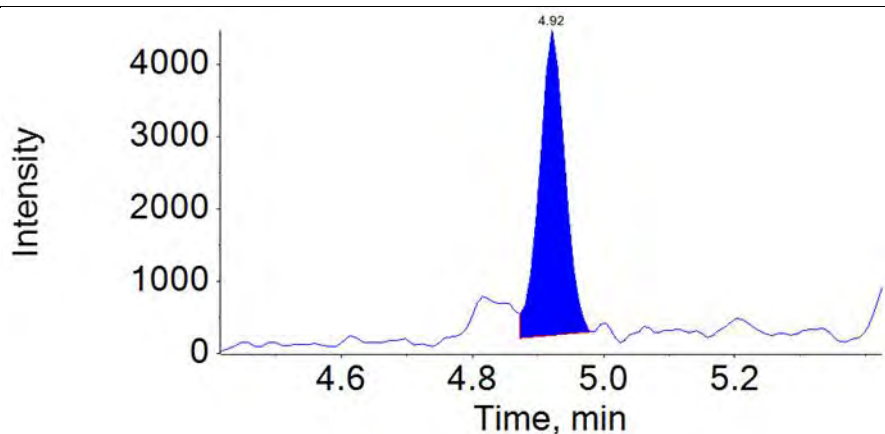
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
3658.2
Mass Range:
399.0 / 80.0
File Name:
18NOV15D-18.wiff
Sample Name:
9885075



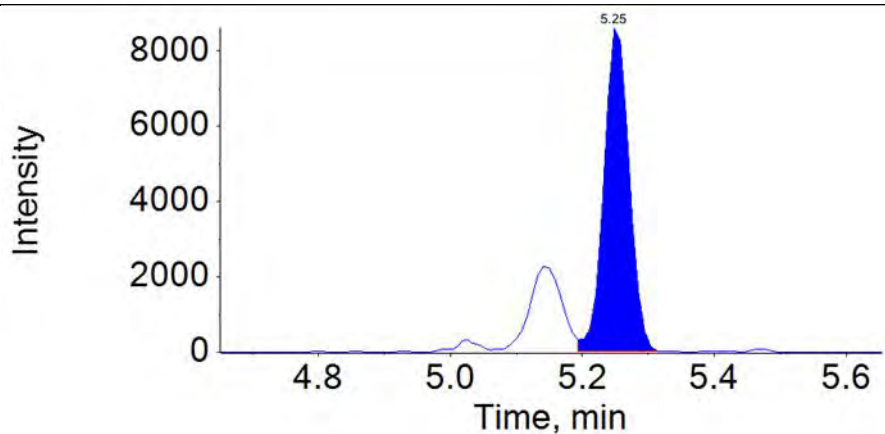
Integration Comment: incorrect integration

Component Name:
PFOA
RT (min.):
4.92
Peak Area:
11352.0
Mass Range:
413.0 / 369.0
File Name:
18NOV15D-18.wiff
Sample Name:
9885075



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
23015.1
Mass Range:
499.0 / 80.0
File Name:
18NOV15D-18.wiff
Sample Name:
9885075

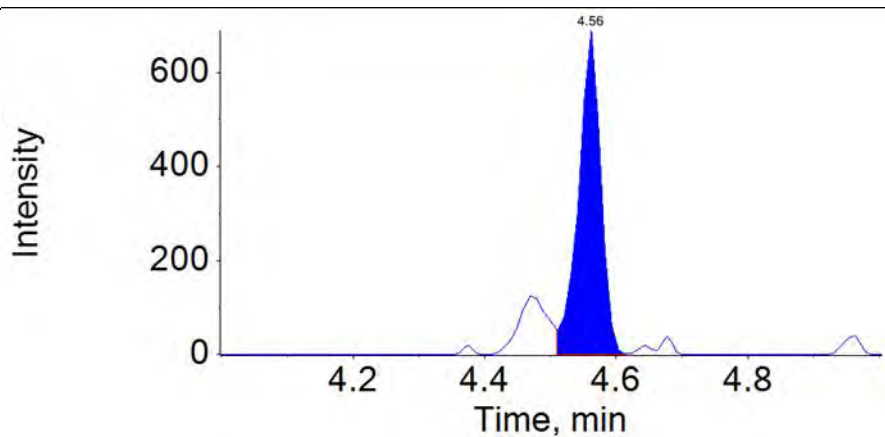


Integration Comment: incorrect integration

Results Table Name: 18319003
Results Table Date: 11/16/2018 3:25:03 PM

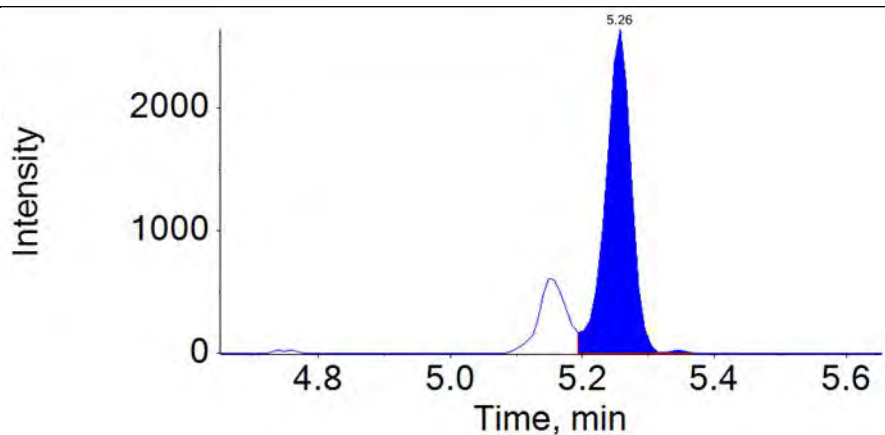
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QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
1611.1
Mass Range:
399.0 / 99.0
File Name:
18NOV15D-18.wiff
Sample Name:
9885075



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.26
Peak Area:
7175.7
Mass Range:
499.0 / 99.0
File Name:
18NOV15D-18.wiff
Sample Name:
9885075



Integration Comment: incorrect integration

Results Table Name: 18319003
Results Table Date: 11/16/2018 3:25:03 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By JPT at 3:31 pm, 11/16/18

REVIEWED
By HMK at 9:04 am, 11/19/18

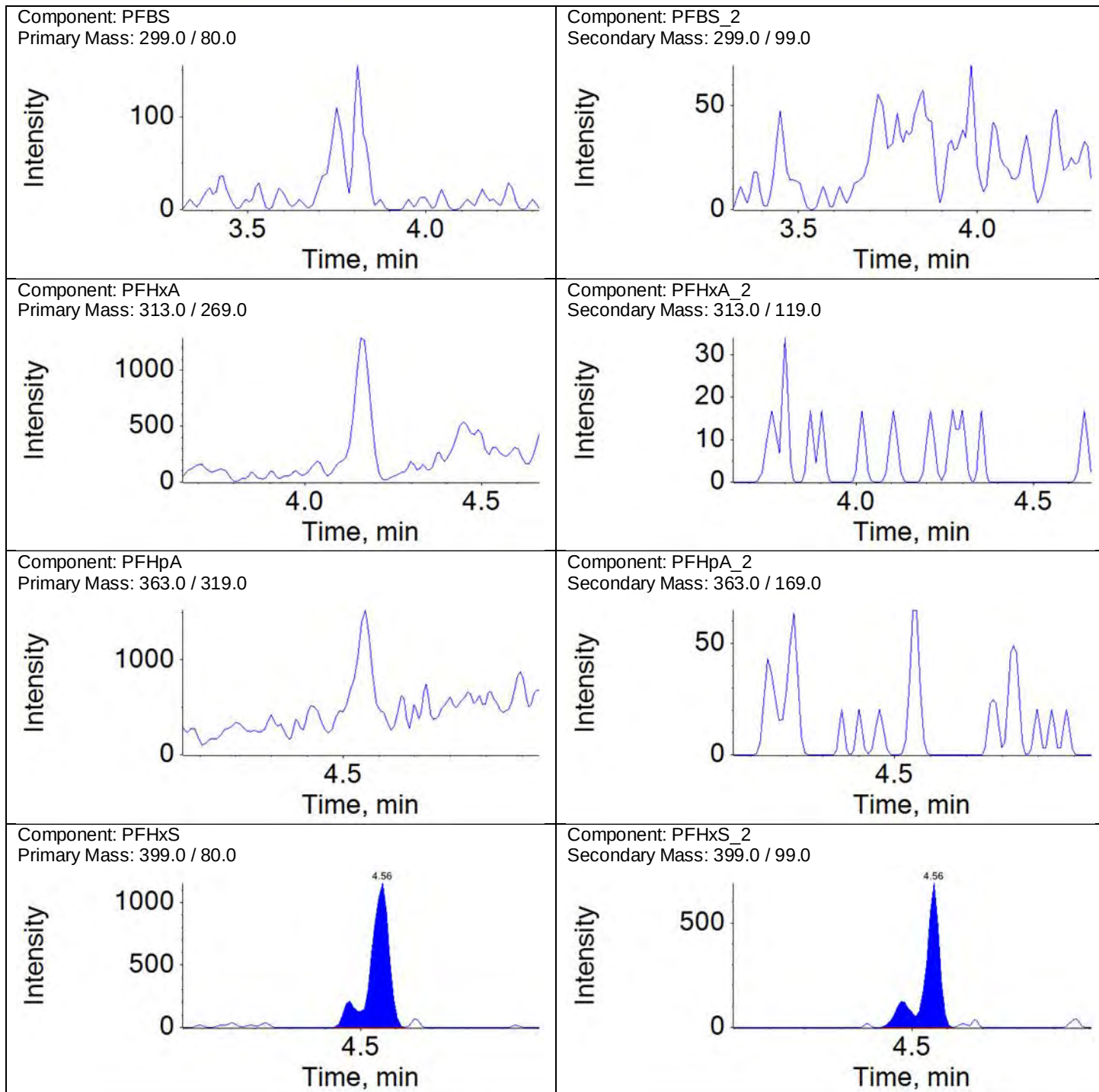
Ion Ratio Report

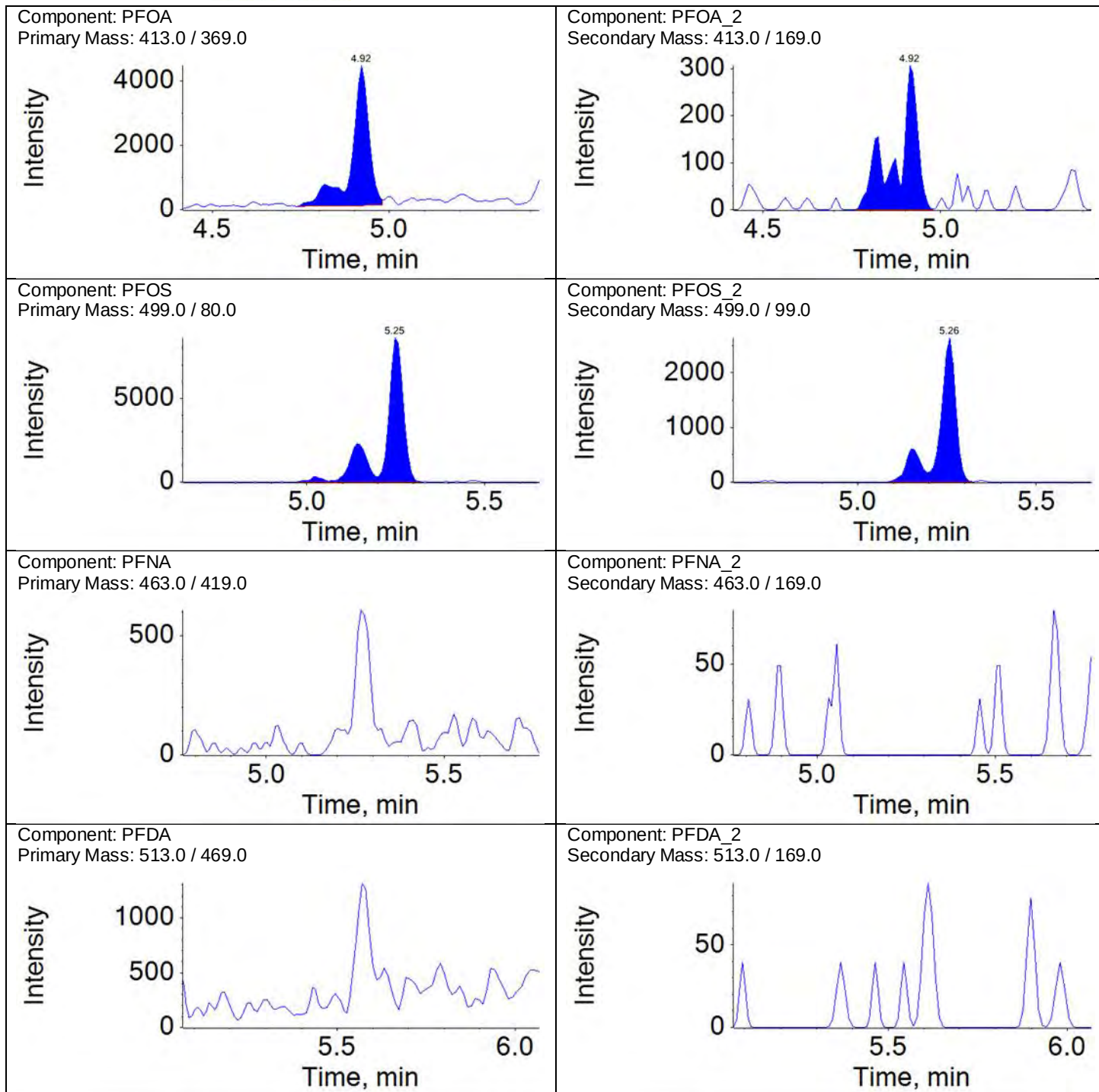
Sample Name: 9885075

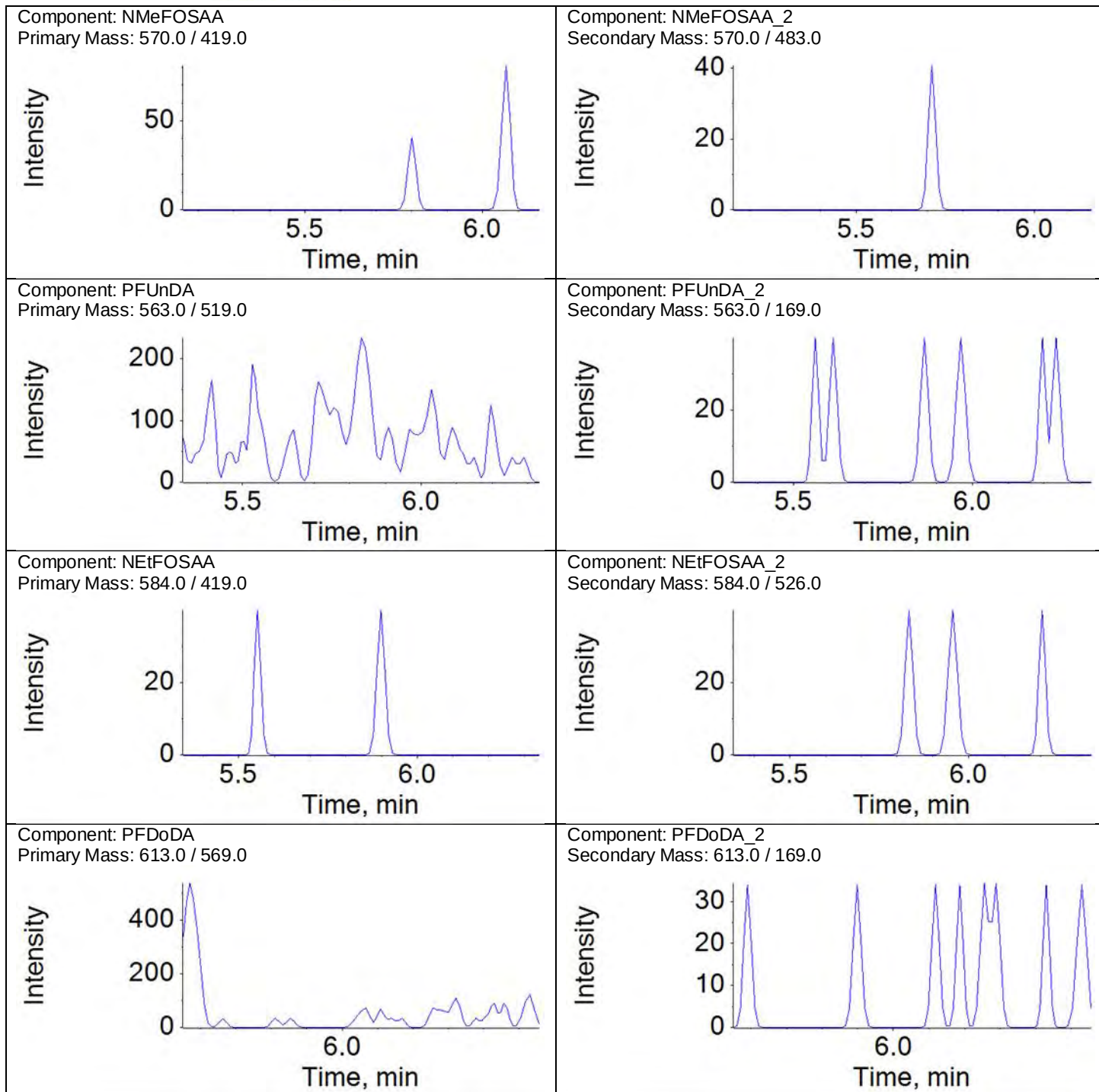
Instrument Name: LM27631

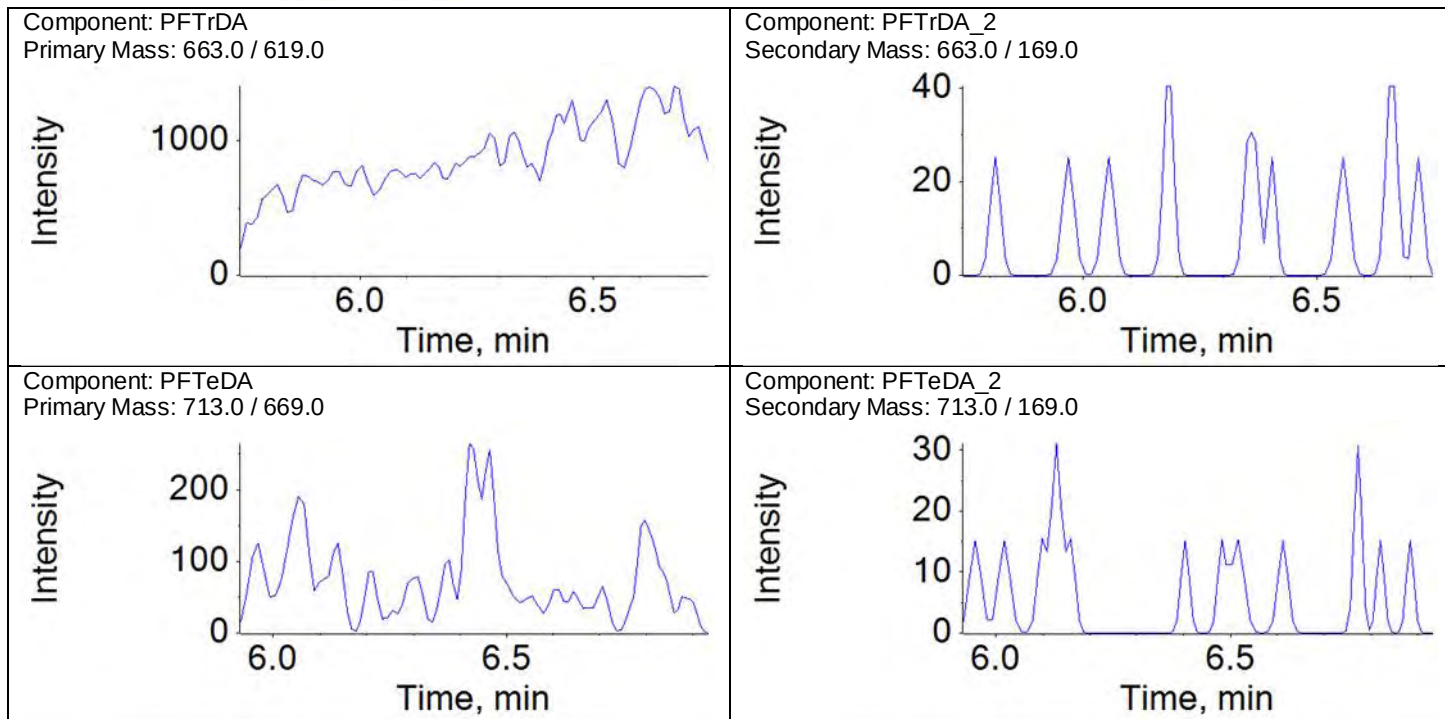
File Name: 18NOV15D-18.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	4.56	1.00	4215.8	M	N/A	1.0000			
PFHxS_2	4.56	1.00	1998.6	M	N/A	0.4741	38	50	
PFOA	4.92	1.00	15176.3	M	N/A	1.0000			
PFOA_2	4.92	1.00	1277.1	A	N/A	0.0842	48	50	
PFOS	5.25	1.00	31875.3	M	N/A	1.0000			
PFOS_2	5.26	1.00	8928.7	M	N/A	0.2801	-6	50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	









APPROVED

By JPT at 3:31 pm, 11/16/18

REVIEWED

By HMK at 9:04 am, 11/19/18

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	9885076		Data File:	18NOV29D-63.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18332003 OU1-WWTPE-S-01-10 Grab Soil		Acquis Date:	2018-11-29T19:16:48
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	43		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18332003
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	18332003		Operator:	MCD7824
Sample Wt.:	1.07000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1091238.6	906425.4	20	50	
13C2-PFOA	5.0	603684.9	495984.0	22	50	
13C4-PFOS	4.8	371396.9	296261.8	25	50	
13C2-PFDA	5.0	574702.0	451203.0	27	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C3-PFBS	417272.8	13C3-PFBA	1091238.6	0.382	8.692	6.819	78	50-150	
E13C5-PFHxA	677962.2	13C2-PFOA	603684.9	1.123	9.346	7.710	82	50-150	
E13C3-PFHxS	327660.0	13C2-PFOA	603684.9	0.543	8.841	7.952	90	50-150	
E13C4-PFHpA	520555.9	13C2-PFOA	603684.9	0.862	9.346	7.406	79	50-150	
E13C8-PFOA	1003661.1	13C2-PFOA	603684.9	1.663	9.346	8.554	92	50-150	
E13C8-PFOS	316297.5	13C4-PFOS	371396.9	0.852	8.935	7.186	80	50-150	
E13C9-PFNA	614137.3	13C4-PFOS	371396.9	1.654	9.346	6.789	73	50-150	
E13C6-PFDA	834597.5	13C2-PFDA	574702.0	1.452	9.346	7.653	82	50-150	
Ed3-NMeFOSAA	188995.0	13C2-PFDA	574702.0	0.329	9.346	7.804	84	50-150	
E13C7-PFUnDA	568758.0	13C2-PFDA	574702.0	0.990	9.346	7.818	84	50-150	
Ed5-NEtFOSAA	121662.9	13C2-PFDA	574702.0	0.212	9.346	7.050	75	50-150	
E13C2-PFDoDA	1150413.0	13C2-PFDA	574702.0	2.002	9.346	7.861	84	50-150	
E13C2-PFTeDA	789754.5	13C2-PFDA	574702.0	1.374	9.346	7.108	76	50-150	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: 9885076

Instrument Name: LM27631

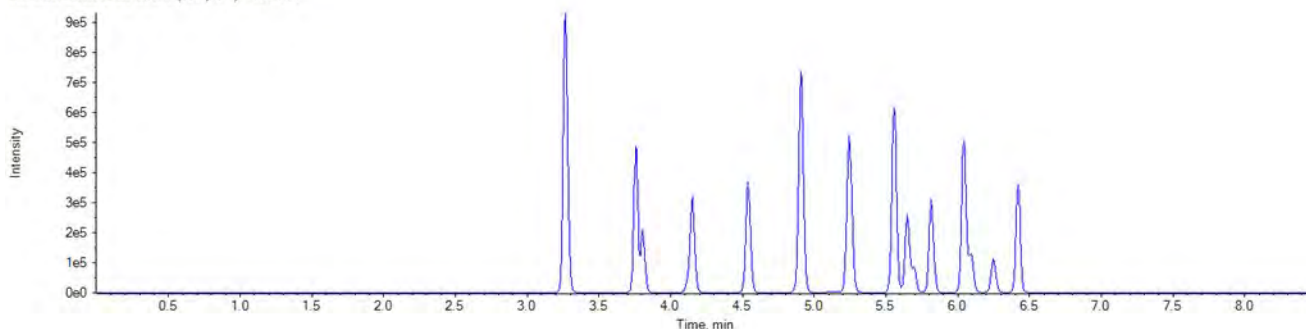
File Name: 18NOV29D-63.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.07000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	417272.8	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	677962.2	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	520555.9	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	327660.0	N/A	
PFOA	4.91	1.000	13002.0		M	13C8-PFOA	4.91	1003661.1	0.013	0.125
PFOS	5.24	1.000	26003.8		M	13C8-PFOS	5.24	316297.5	0.082	0.645
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.25	614137.3	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	834597.5	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	188995.0	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.81	568758.0	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	121662.9	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	1150413.0	N/A	
PFTTrDA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	1150413.0	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	789754.5	N/A	

Total Ion Chromatogram

TIC from 18NOV29D-63.wiff (sample 1) - 9885076



APPROVED

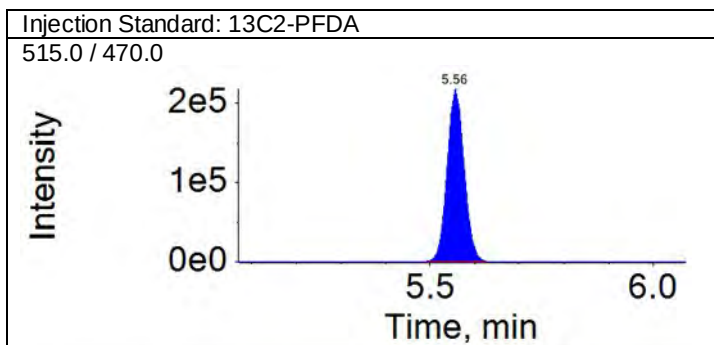
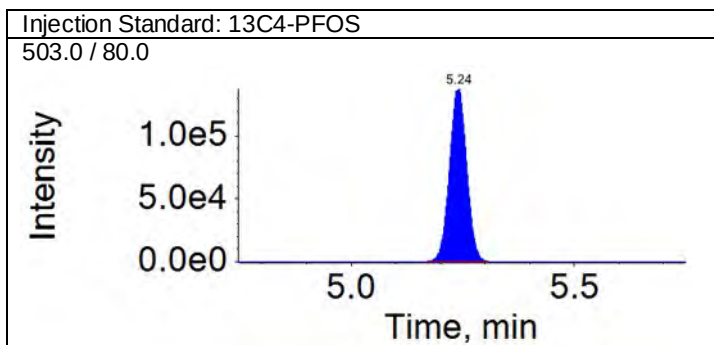
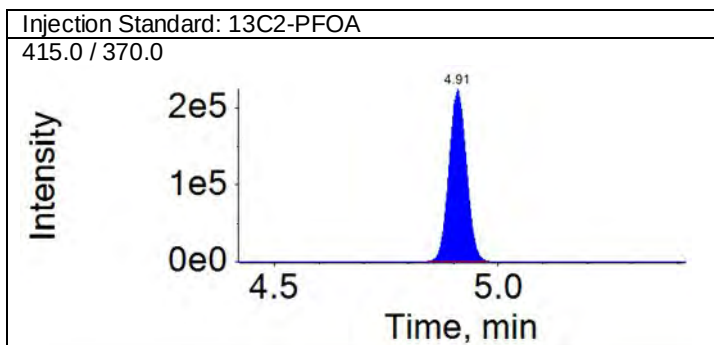
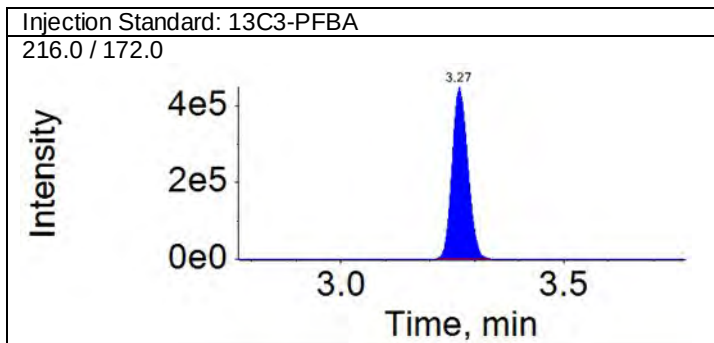
By MCD at 10:13 pm, 11/30/18

REVIEWED

By HMK at 2:26 pm, 12/6/18

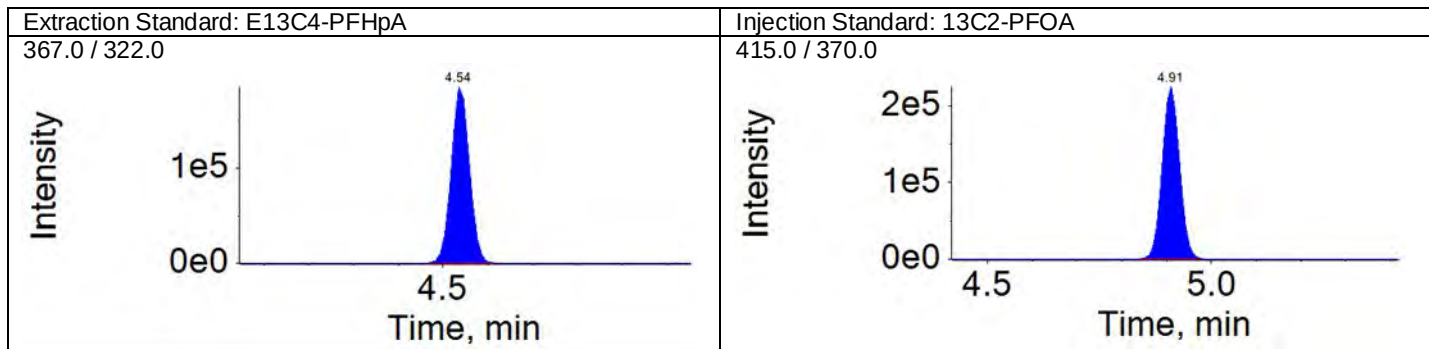
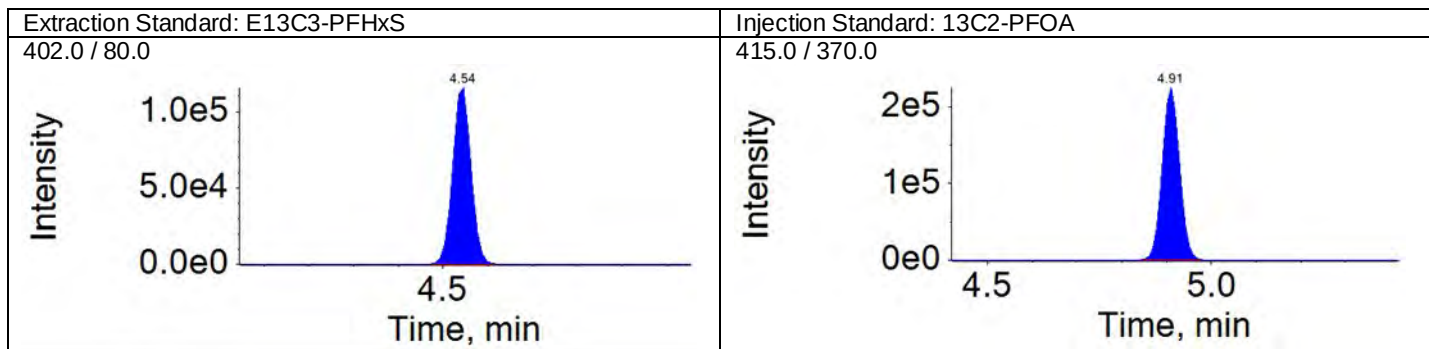
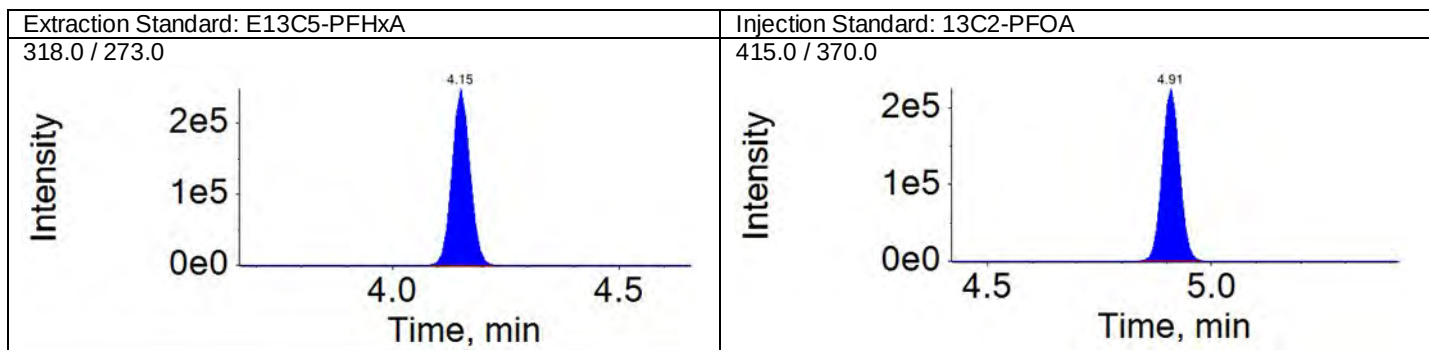
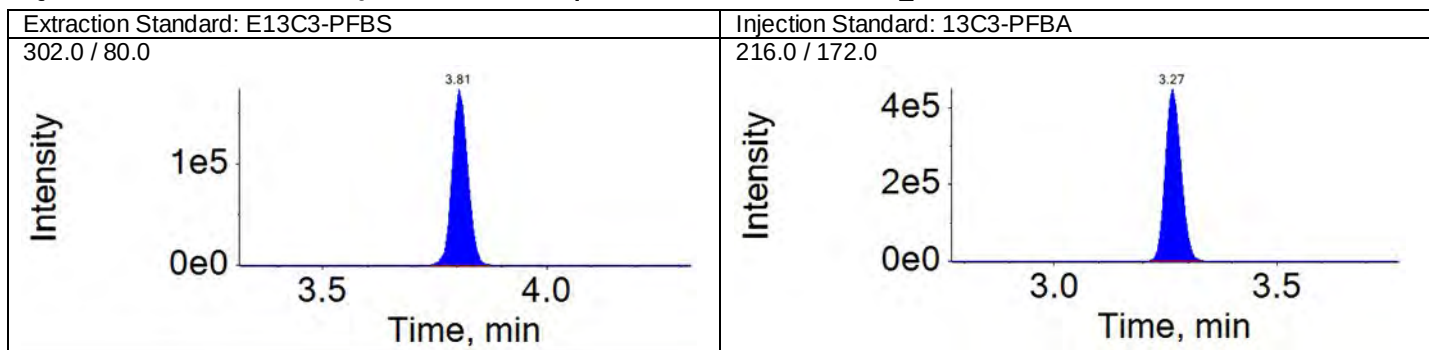
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



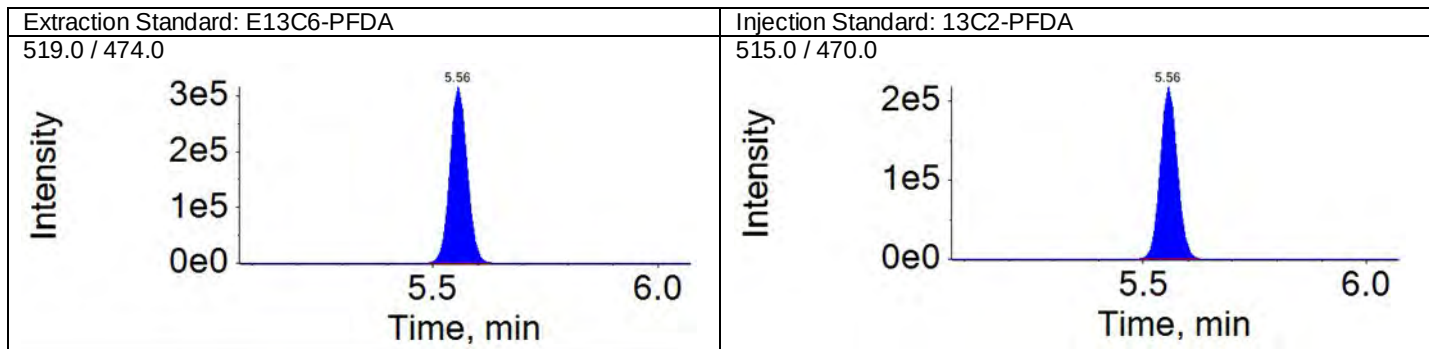
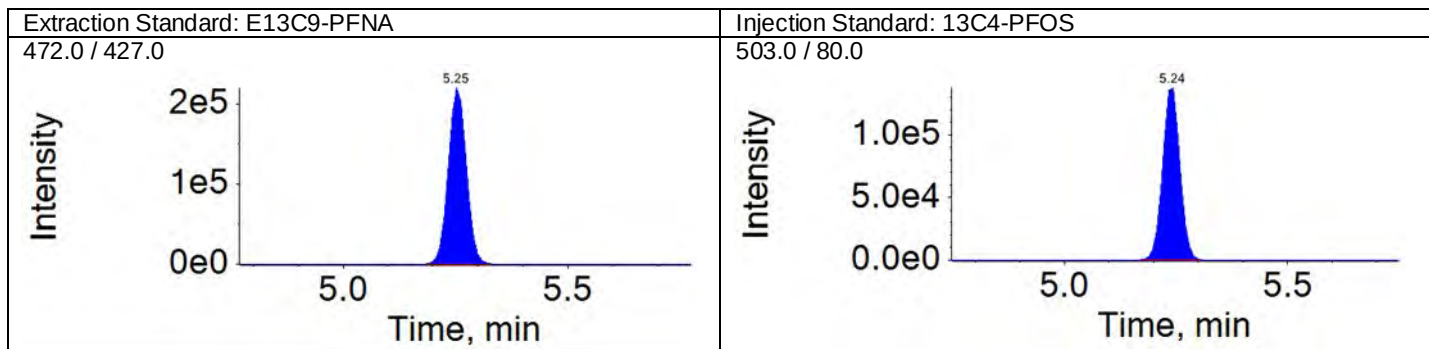
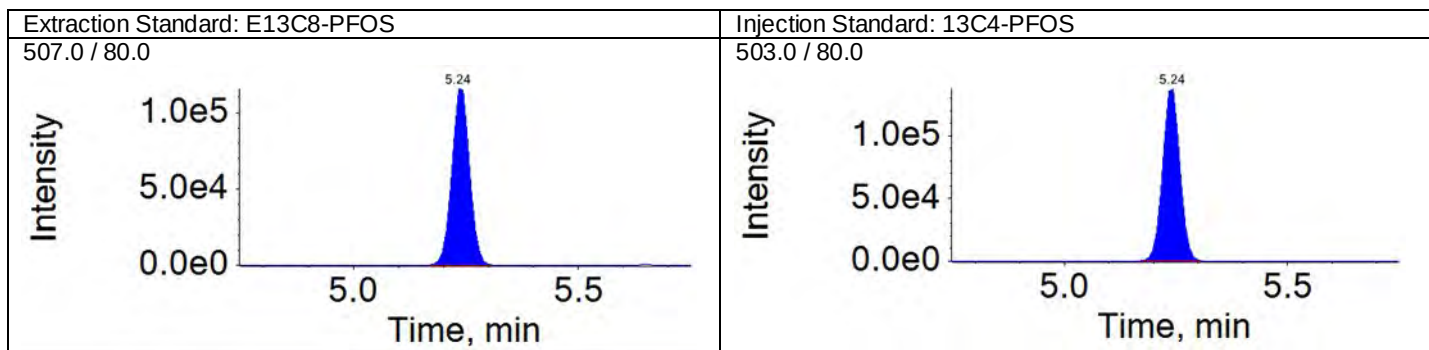
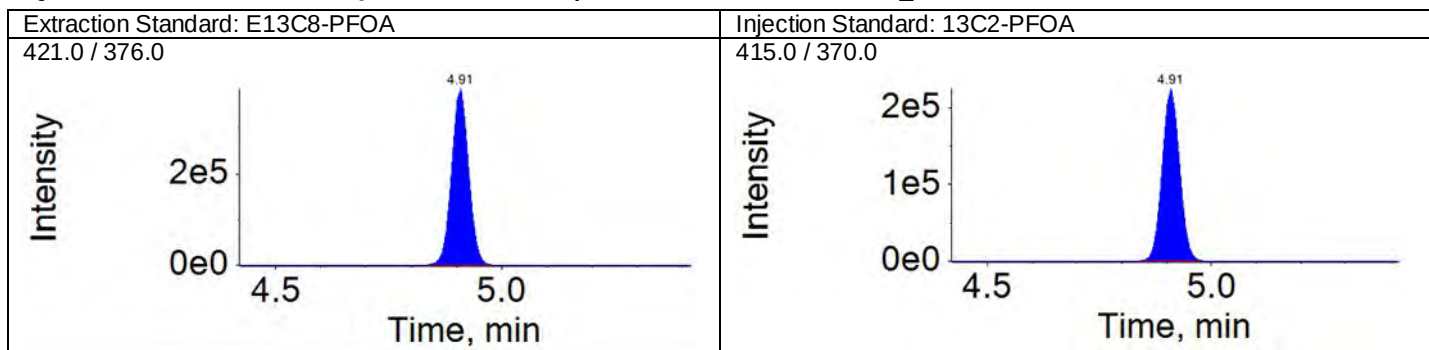
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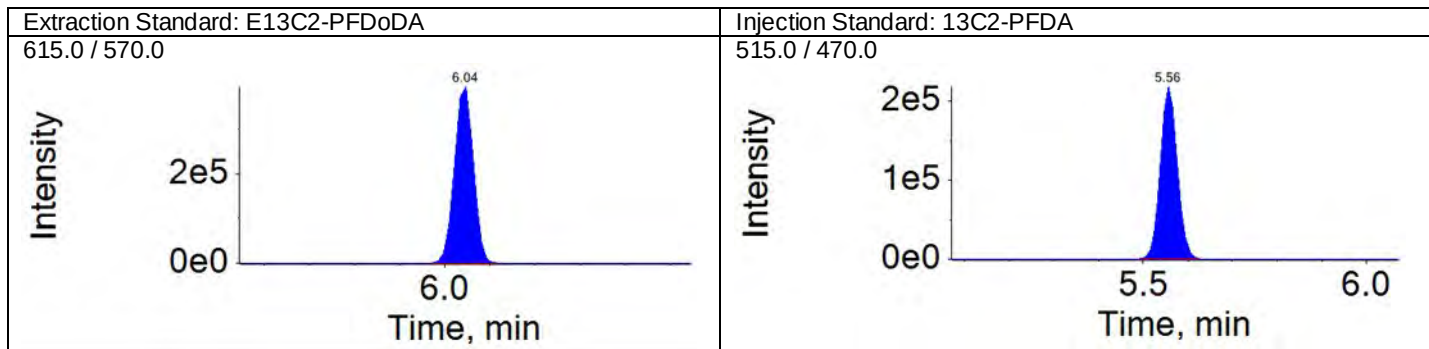
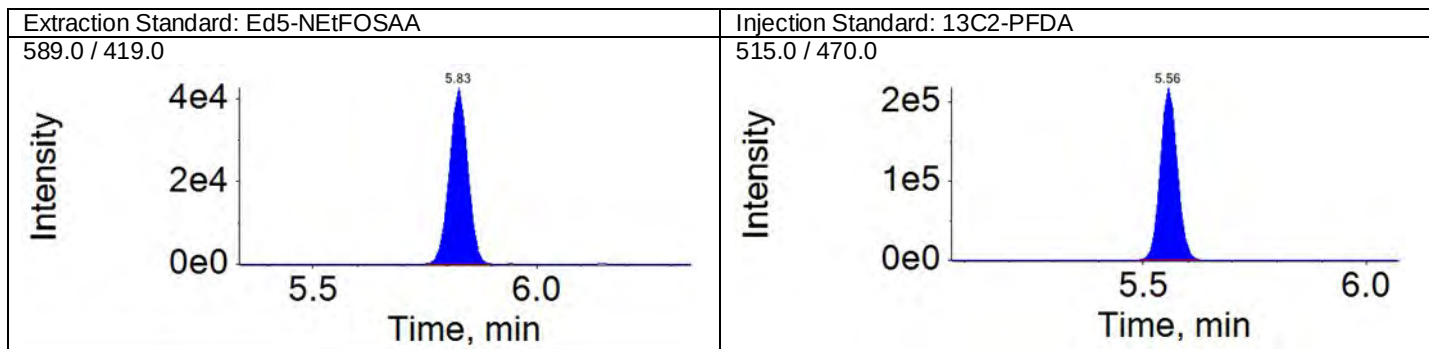
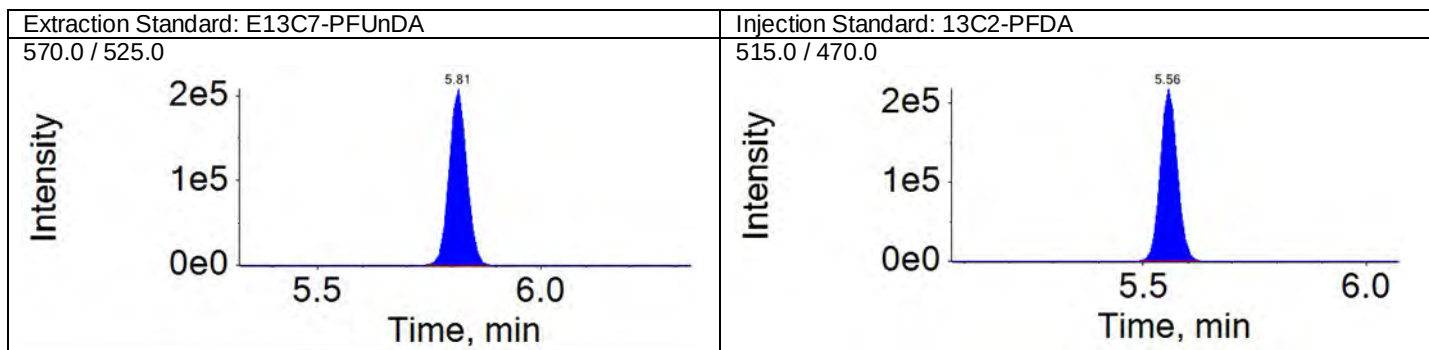
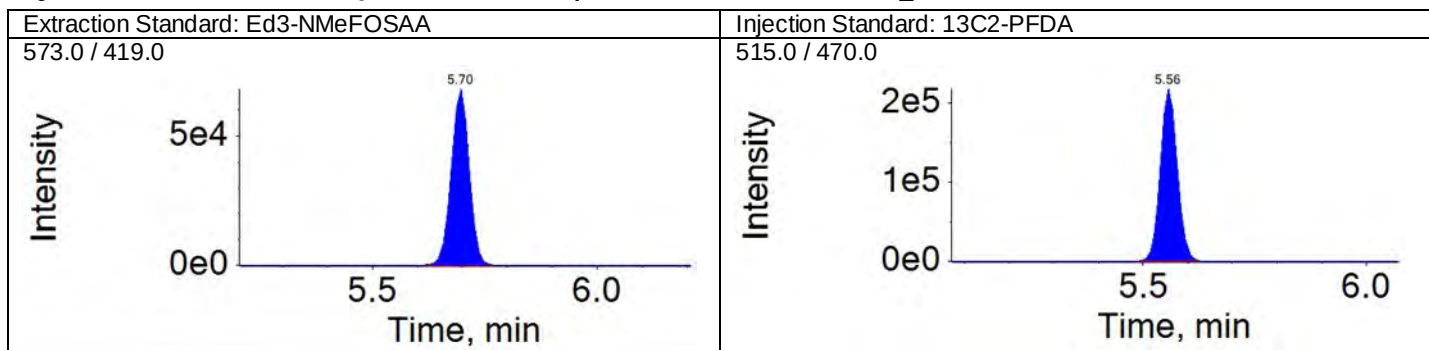
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



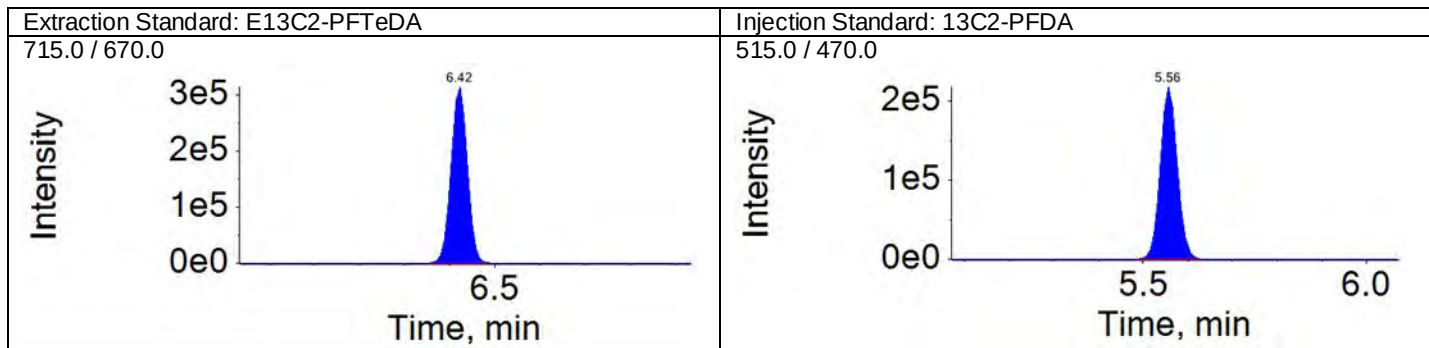
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Result Table: 18332003 11/30/2018 9:58:40 PM
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ICAL Name: 18NOV28DCAL
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APPROVED

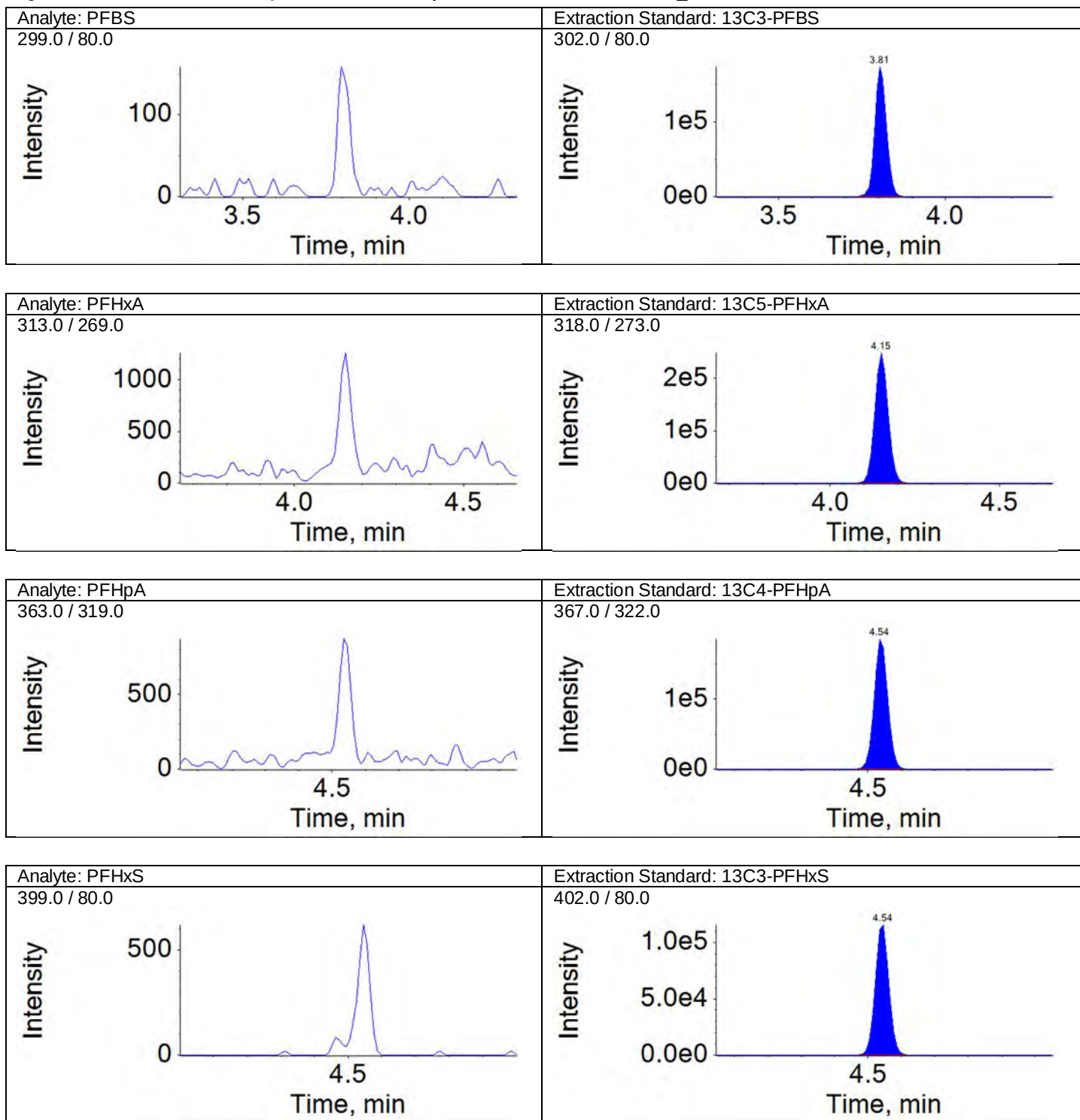
By MCD at 10:13 pm, 11/30/18

REVIEWED

By HMK at 2:26 pm, 12/6/18

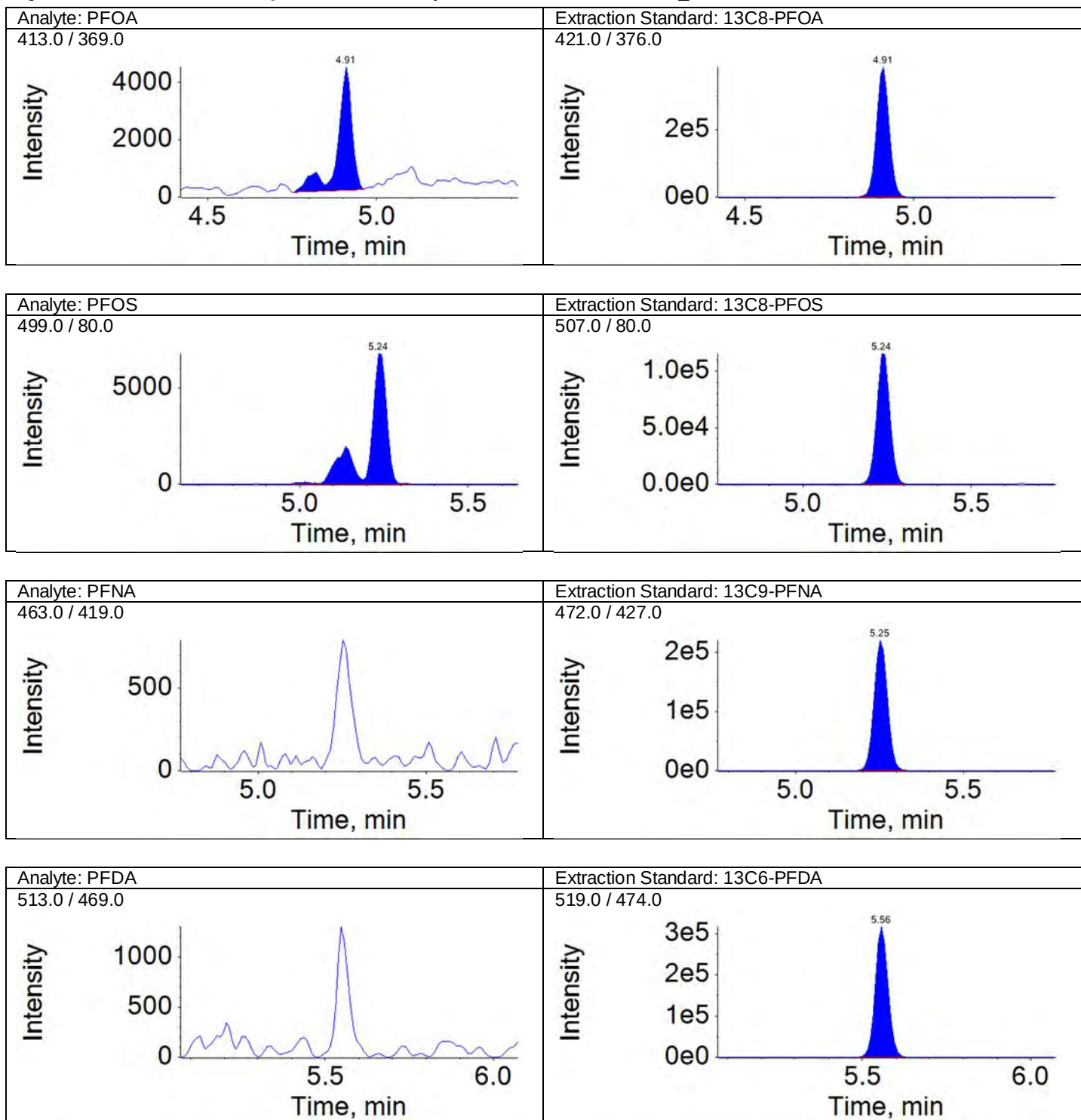
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



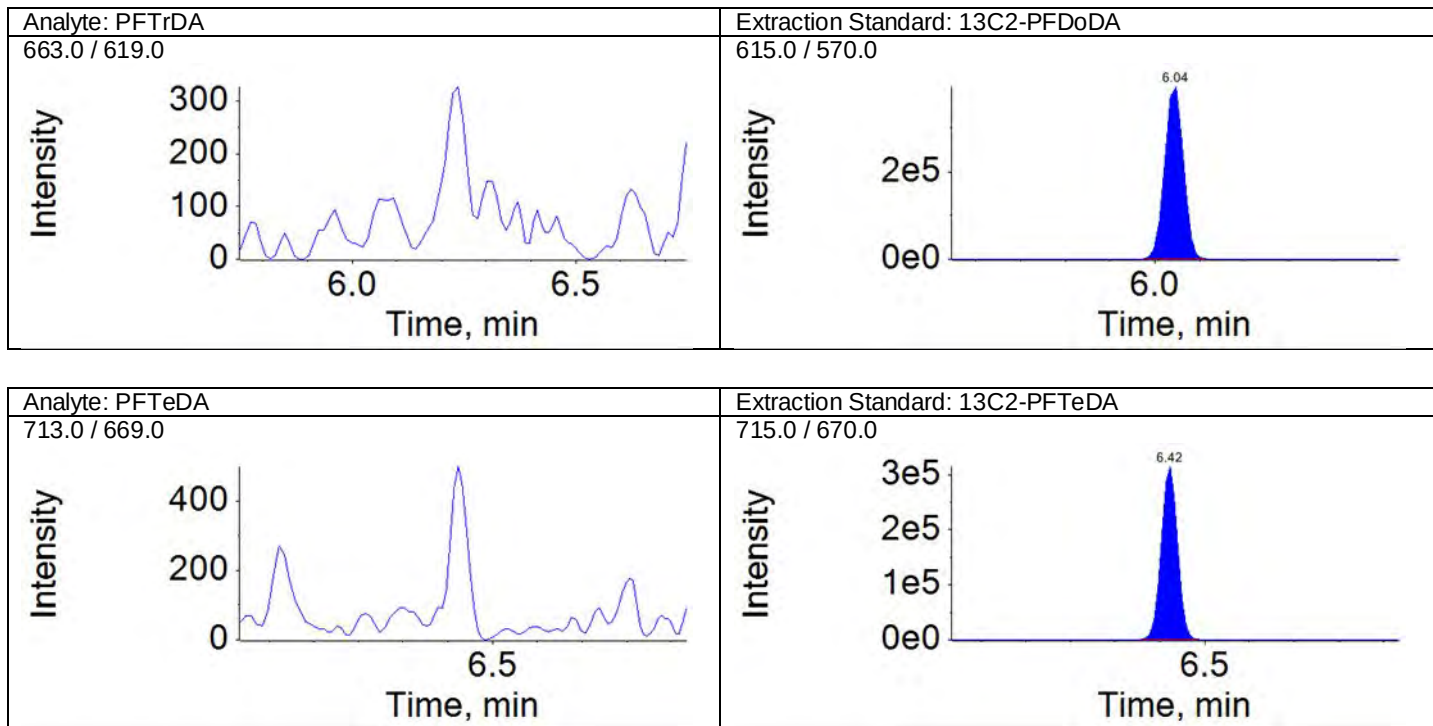
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte: NMeFOSAA 570.0 / 419.0	Extraction Standard: d3-NMeFOSAA 573.0 / 419.0
Analyte: PFUnDA 563.0 / 519.0	Extraction Standard: 13C7-PFUnDA 570.0 / 525.0
Analyte: NEtFOSAA 584.0 / 419.0	Extraction Standard: d5-NEtFOSAA 589.0 / 419.0
Analyte: PFDoDA 613.0 / 569.0	Extraction Standard: 13C2-PFDoDA 615.0 / 570.0

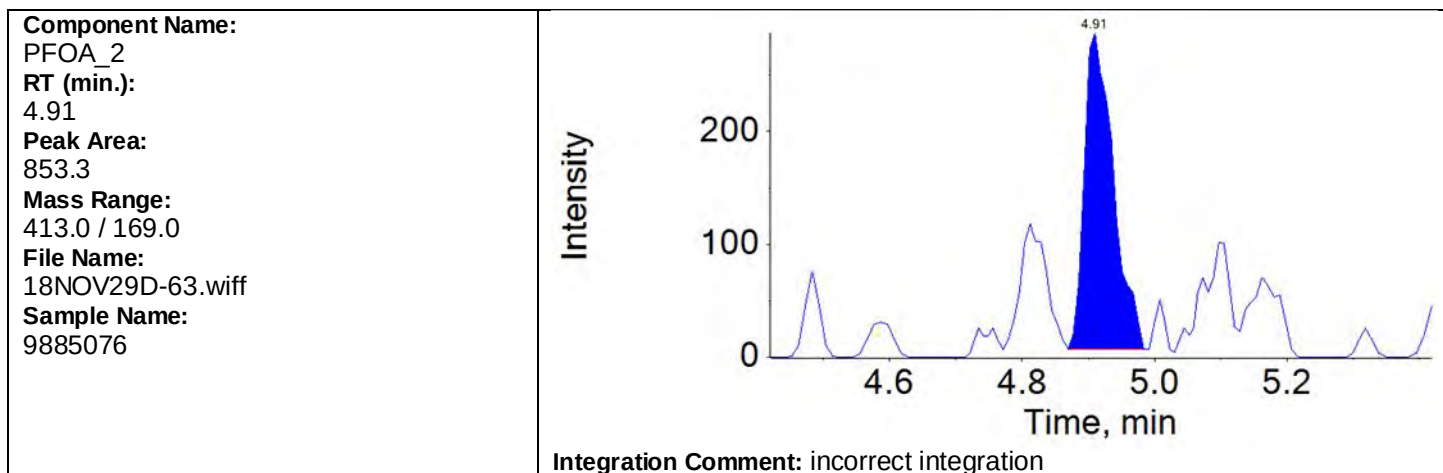
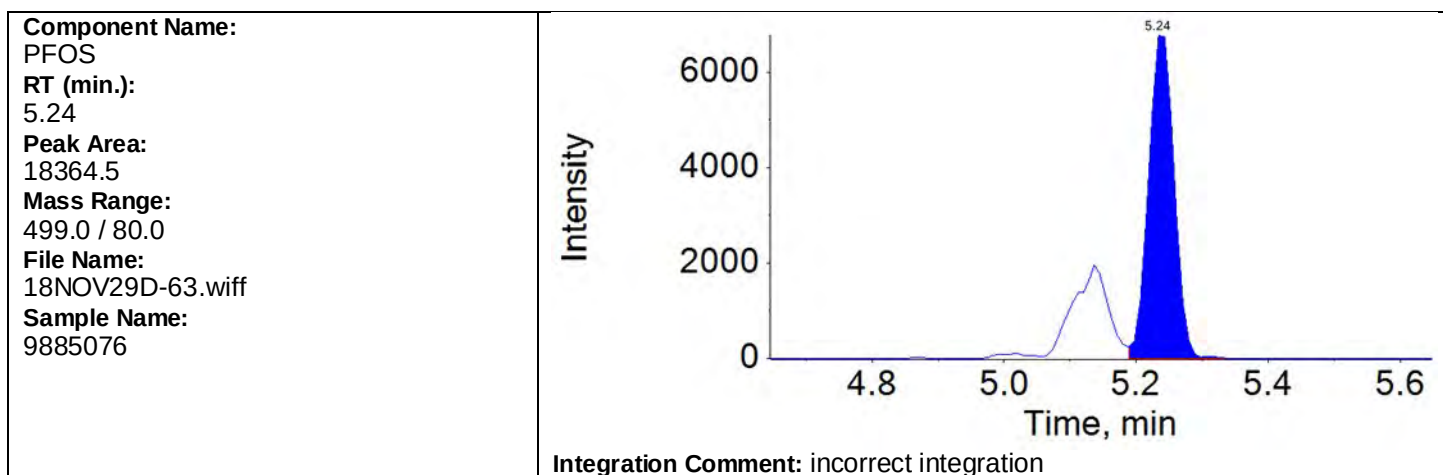
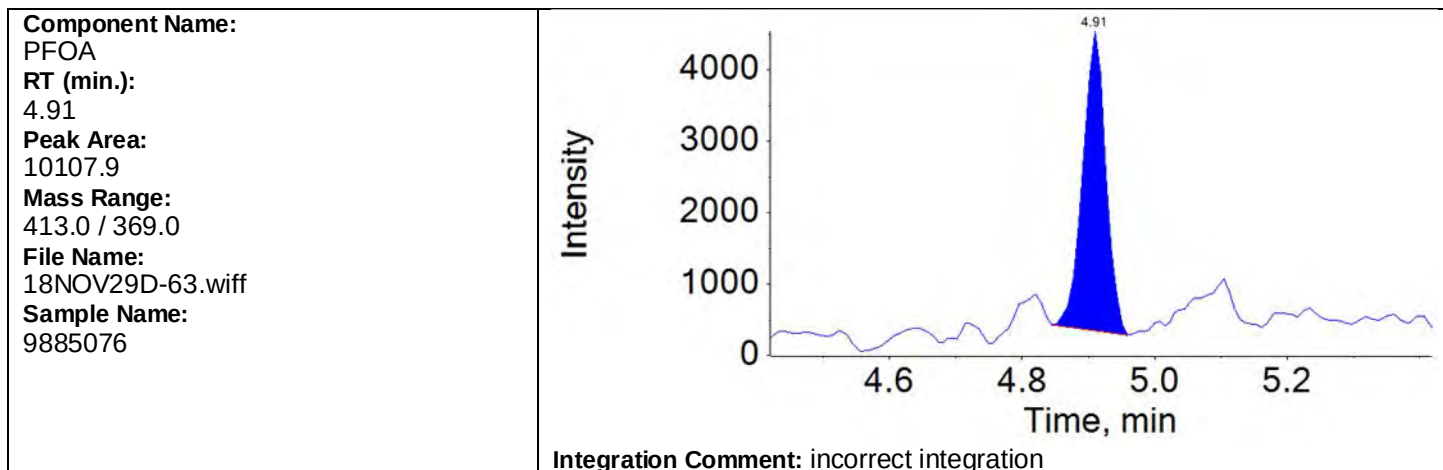
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:

PFOS_2

RT (min.):

5.24

Peak Area:

7311.8

Mass Range:

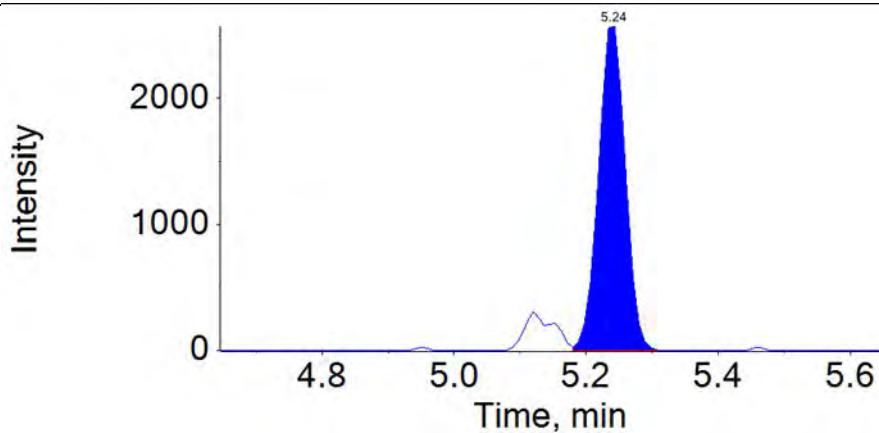
499.0 / 99.0

File Name:

18NOV29D-63.wiff

Sample Name:

9885076



Integration Comment: incorrect integration

APPROVED

By MCD at 10:13 pm, 11/30/18

REVIEWED

By HMK at 2:26 pm, 12/6/18

Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

Ion Ratio Report

Sample Name: 9885076

Instrument Name: LM27631

File Name: 18NOV29D-63.wiff

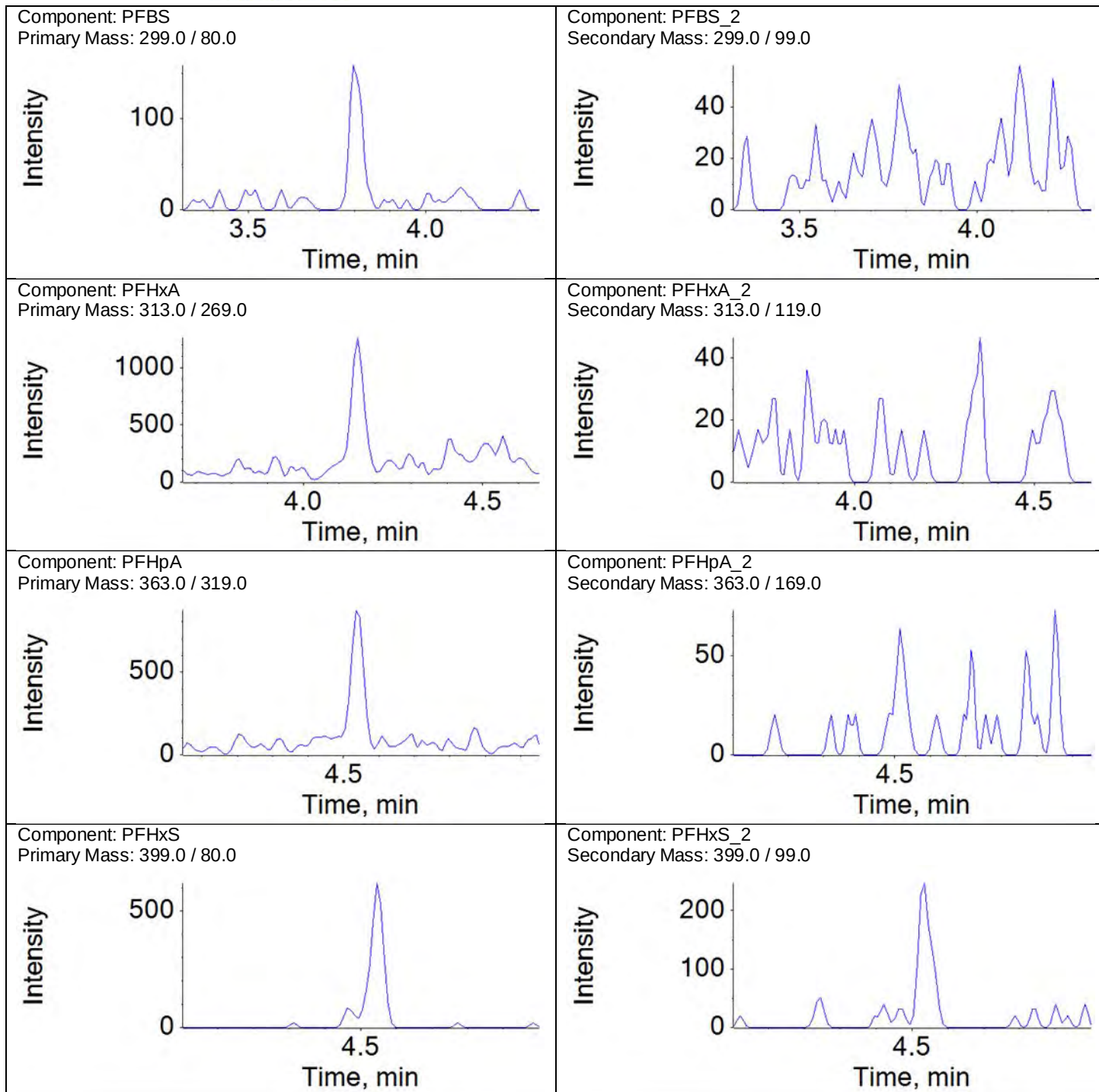
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	4.91	1.00	13002.0	M	N/A	0.0900			
PFOA_2	4.91	1.00	1170.6	M	N/A	0.0900	57	50	OOS
PFOS	5.24	1.00	26003.8	M	N/A	0.3175			
PFOS_2	5.24	1.00	8257.4	M	N/A	0.3175	7	50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	

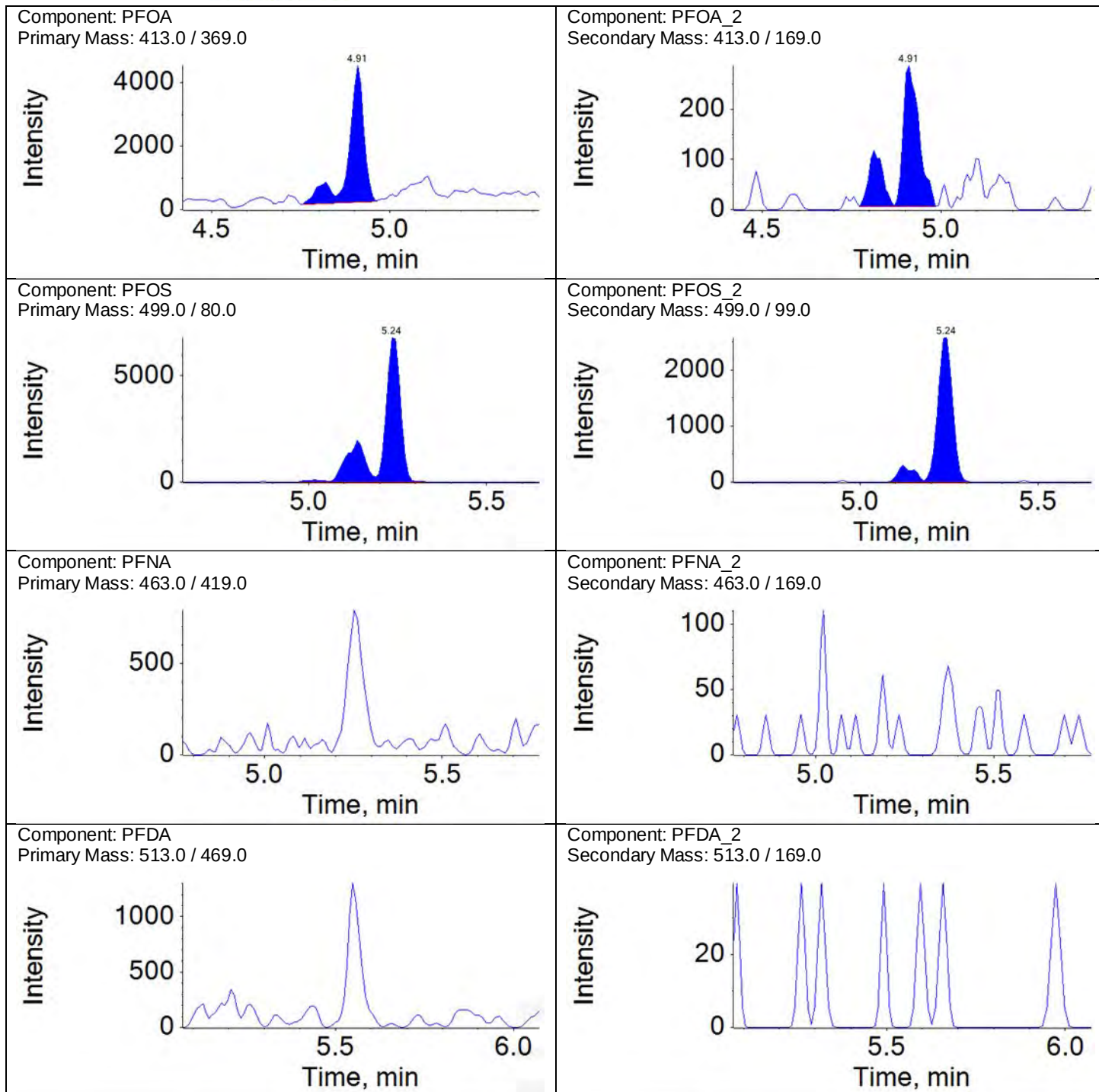
APPROVED

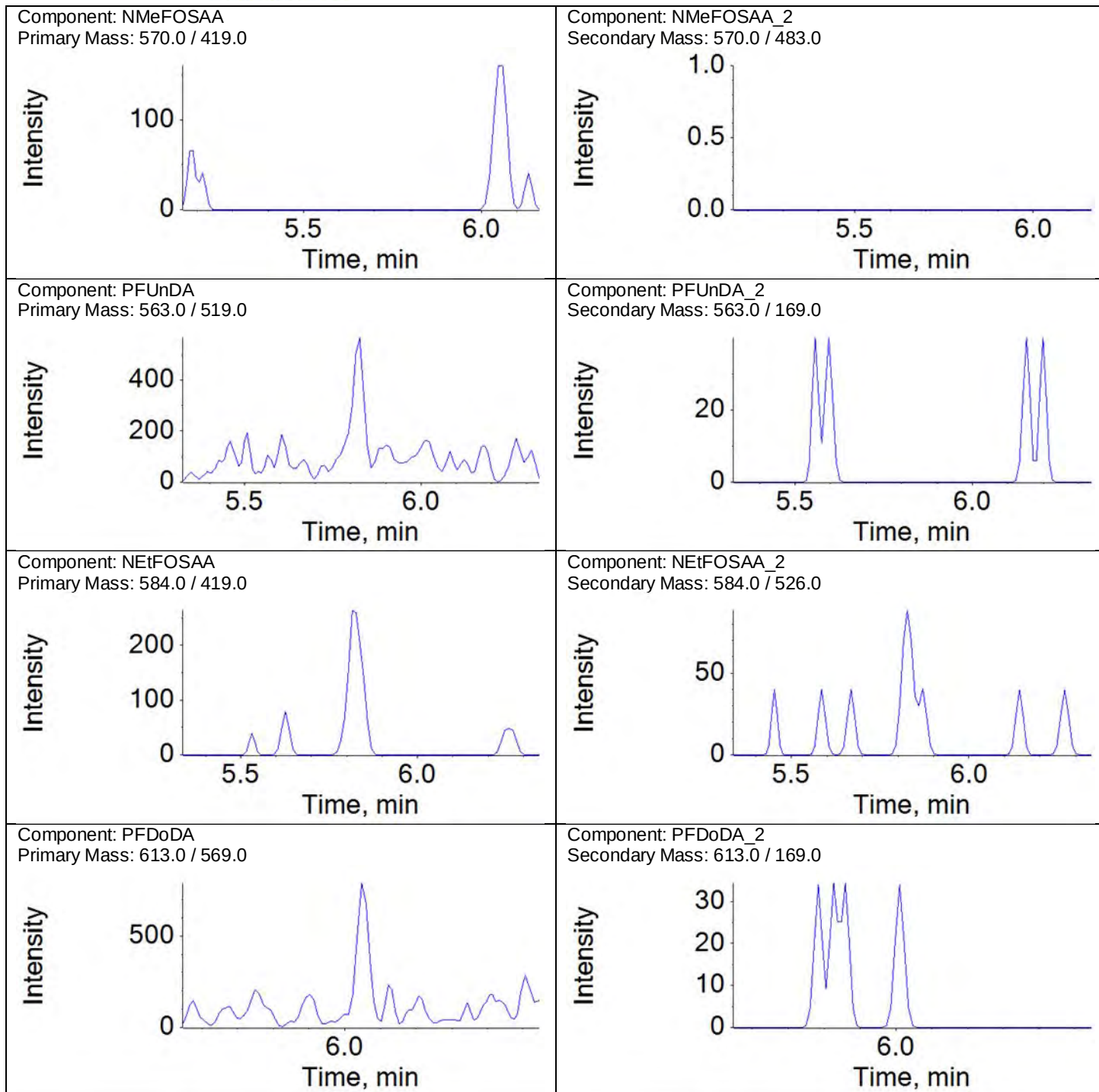
By MCD at 10:13 pm, 11/30/18

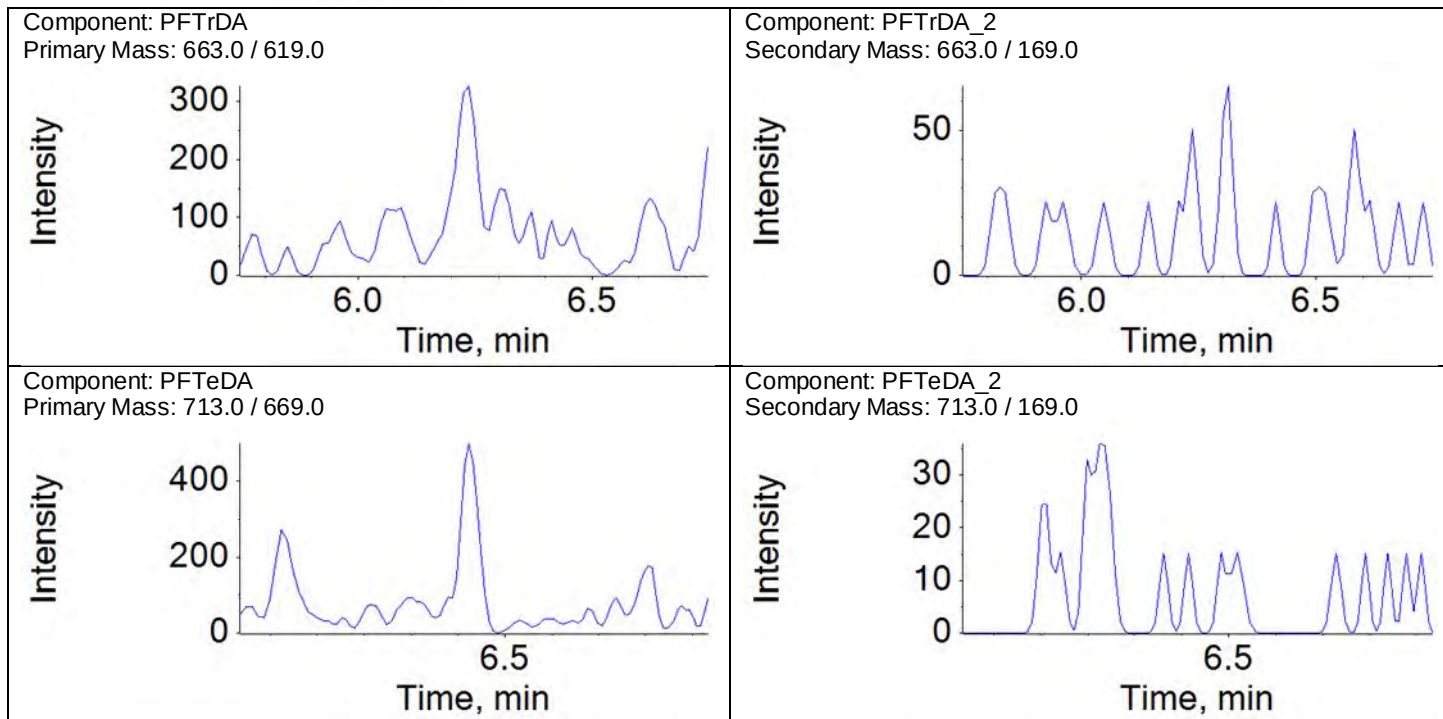
REVIEWED

By HMK at 2:26 pm, 12/6/18









ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	9885077			Data File:		18NOV29D-65.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18332003 OU1-WWTPE-S-01-12 Grab Soil			Acquis Date:		2018-11-29T19:34:51
Sample Type:	Unknown			Instrument:		LM27631
Vial Position:	44			Acquis Method:		18AUG13_3uL.dam
Injection Vol:	3.00			Result Table:		18332003
QMethod File:	18AUG20QM			ICAL Name:		18NOV28DCAL
Batch Number:	18332003			Operator:		MCD7824
Sample Wt.:	1.07000			Dilution Factor:		1.00
Sample Vol.:	1.000			Prep Factor:		2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1088531.0	906425.4	20	50	
13C2-PFOA	5.0	595194.8	495984.0	20	50	
13C4-PFOS	4.8	363393.2	296261.8	23	50	
13C2-PFDA	5.0	604305.7	451203.0	34	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C3-PFBS	421534.1	13C3-PFBA	1088531.0	0.387	8.692	6.906	79	50-150	
E13C5-PFHxA	682672.7	13C2-PFOA	595194.8	1.147	9.346	7.874	84	50-150	
E13C3-PFHxS	347399.6	13C2-PFOA	595194.8	0.584	8.841	8.551	97	50-150	
E13C4-PFHpA	553385.7	13C2-PFOA	595194.8	0.930	9.346	7.985	85	50-150	
E13C8-PFOA	994790.5	13C2-PFOA	595194.8	1.671	9.346	8.599	92	50-150	
E13C8-PFOS	322822.4	13C4-PFOS	363393.2	0.888	8.935	7.496	84	50-150	
E13C9-PFNA	620008.8	13C4-PFOS	363393.2	1.706	9.346	7.004	75	50-150	
E13C6-PFDA	1052352.3	13C2-PFDA	604305.7	1.741	9.346	9.177	98	50-150	
Ed3-NMeFOSAA	221913.4	13C2-PFDA	604305.7	0.367	9.346	8.715	93	50-150	
E13C7-PFUnDA	585024.7	13C2-PFDA	604305.7	0.968	9.346	7.648	82	50-150	
Ed5-NEtFOSAA	138094.9	13C2-PFDA	604305.7	0.229	9.346	7.610	81	50-150	
E13C2-PFDODA	1171649.4	13C2-PFDA	604305.7	1.939	9.346	7.614	81	50-150	
E13C2-PFTeDA	833803.2	13C2-PFDA	604305.7	1.380	9.346	7.136	76	50-150	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: 9885077

Instrument Name: LM27631

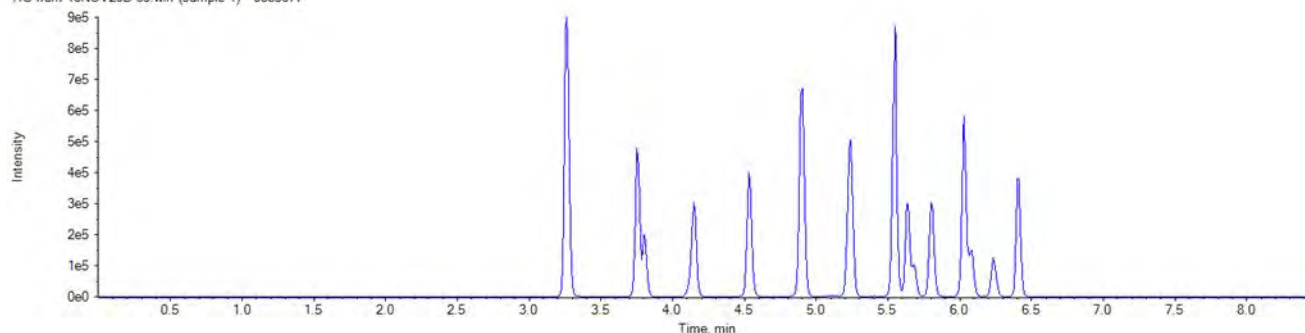
File Name: 18NOV29D-65.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.07000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.80	421534.1	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	682672.7	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.53	553385.7	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	347399.6	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.90	994790.5	N/A	
PFOS	5.23	1.000	13743.9		M	13C8-PFOS	5.23	322822.4	0.043	0.334
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.24	620008.8	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.55	1052352.3	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.68	221913.4	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.80	585024.7	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.81	138094.9	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.03	1171649.4	N/A	
PFTTrDA	N/A	N/A	N/A		A	13C2-PFDODA	6.03	1171649.4	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	833803.2	N/A	

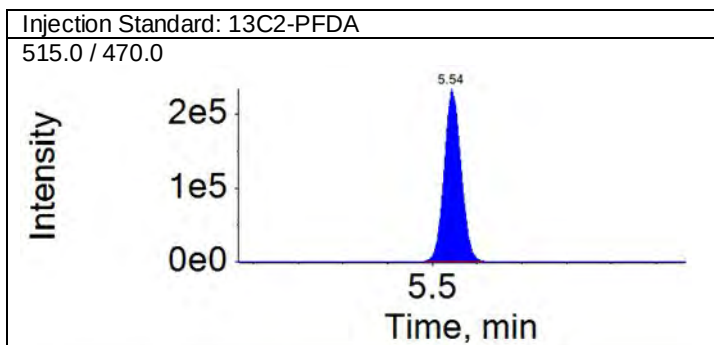
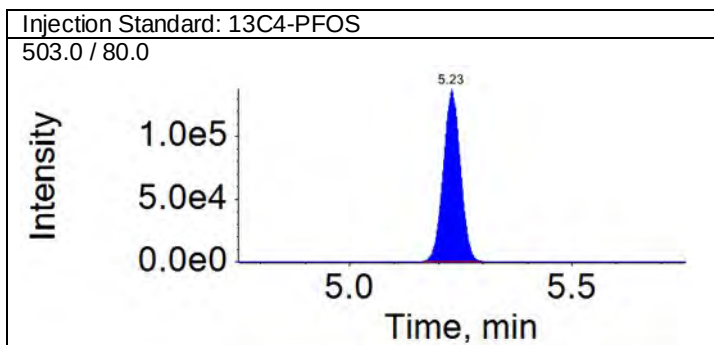
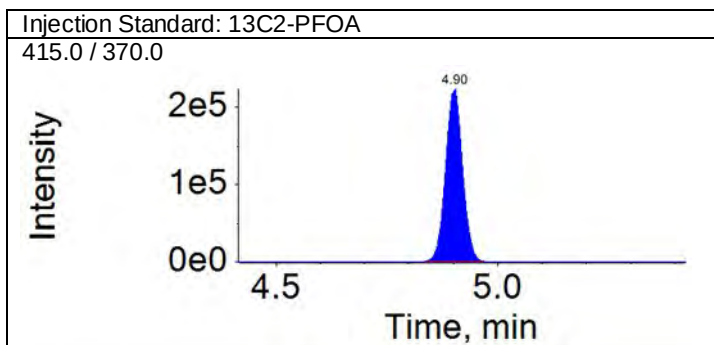
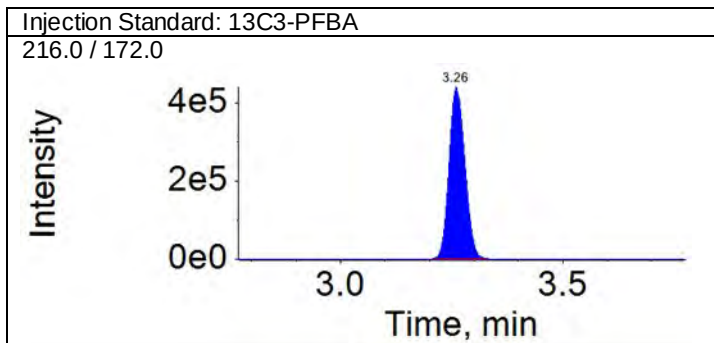
Total Ion Chromatogram

TIC from 18NOV29D-65.wiff (sample 1) - 9885077



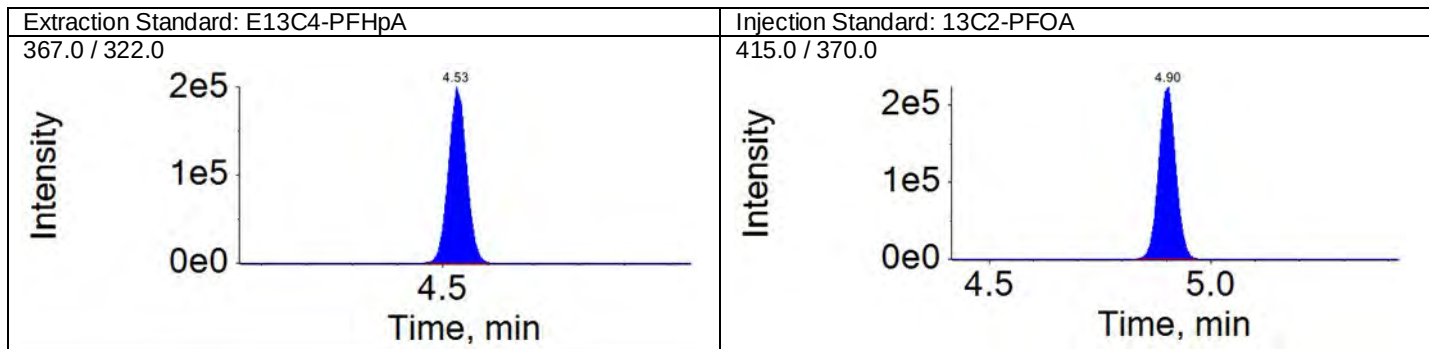
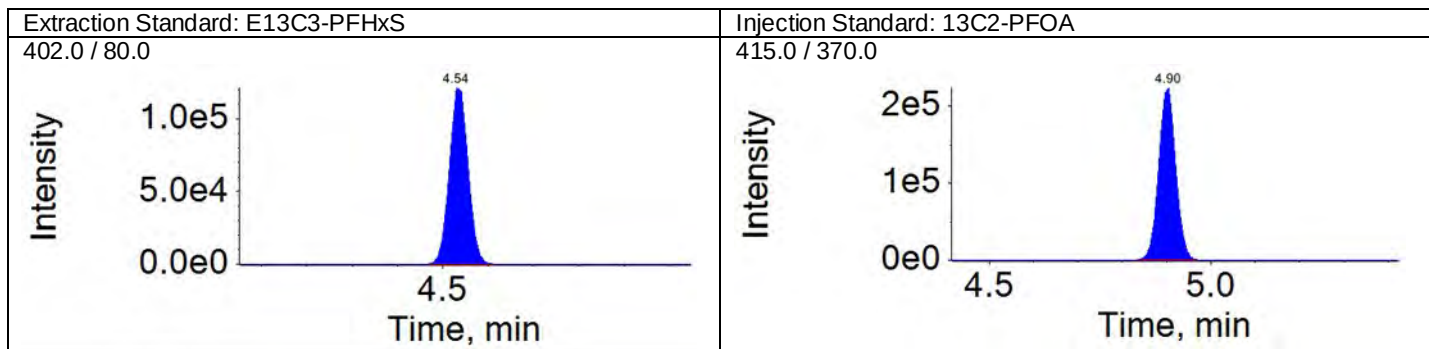
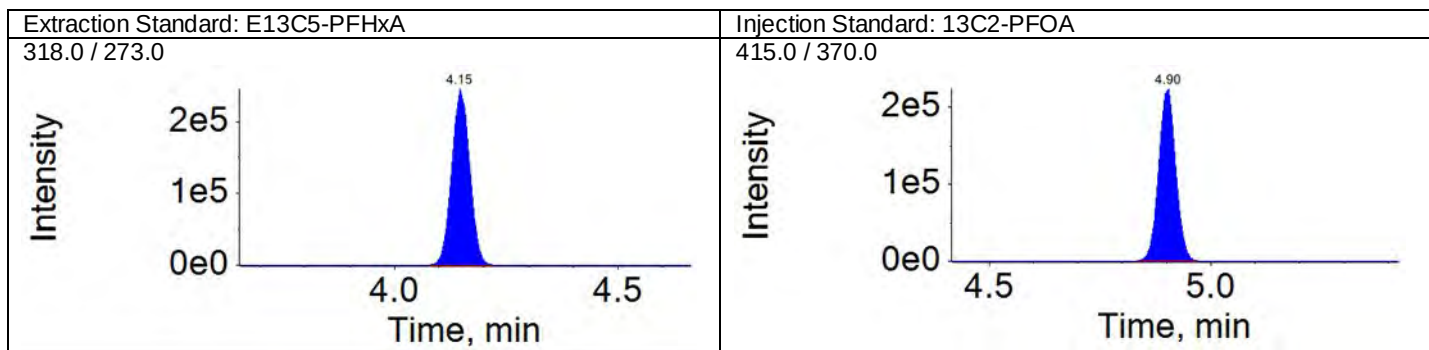
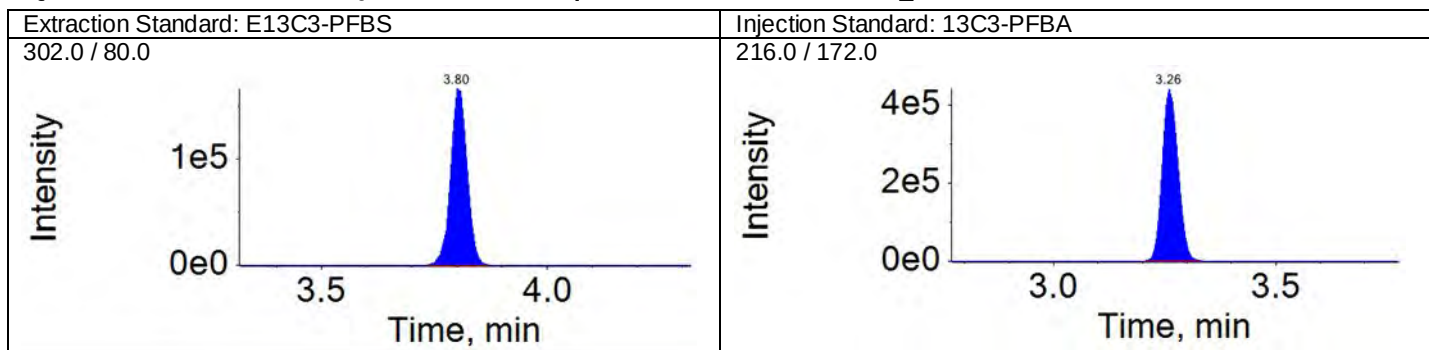
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



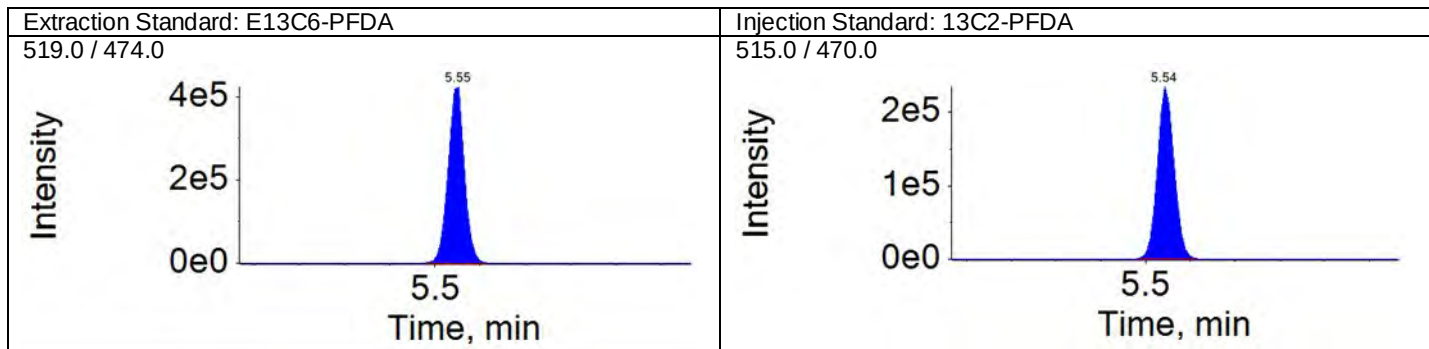
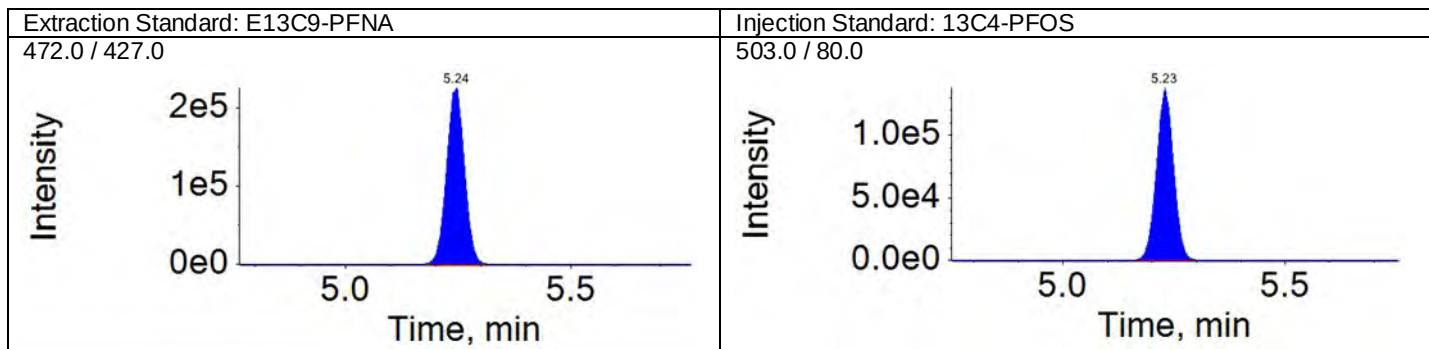
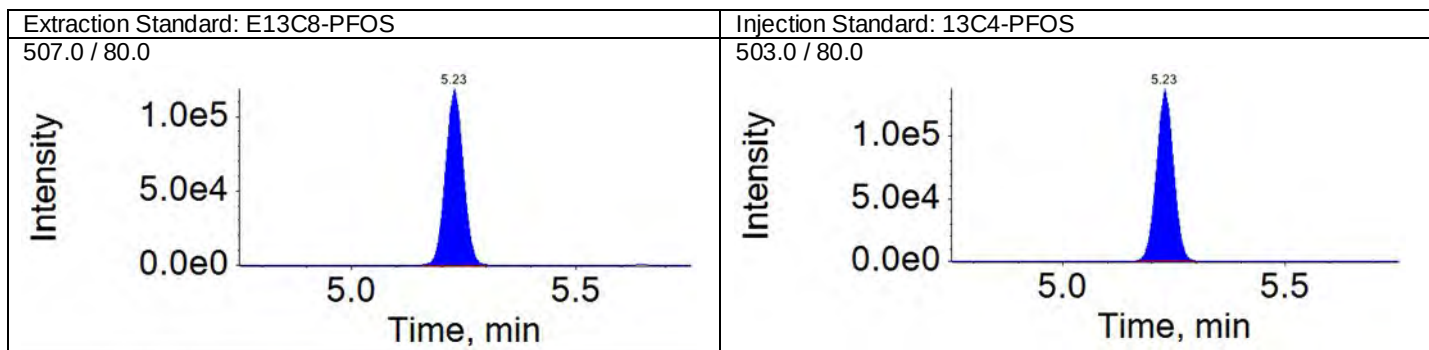
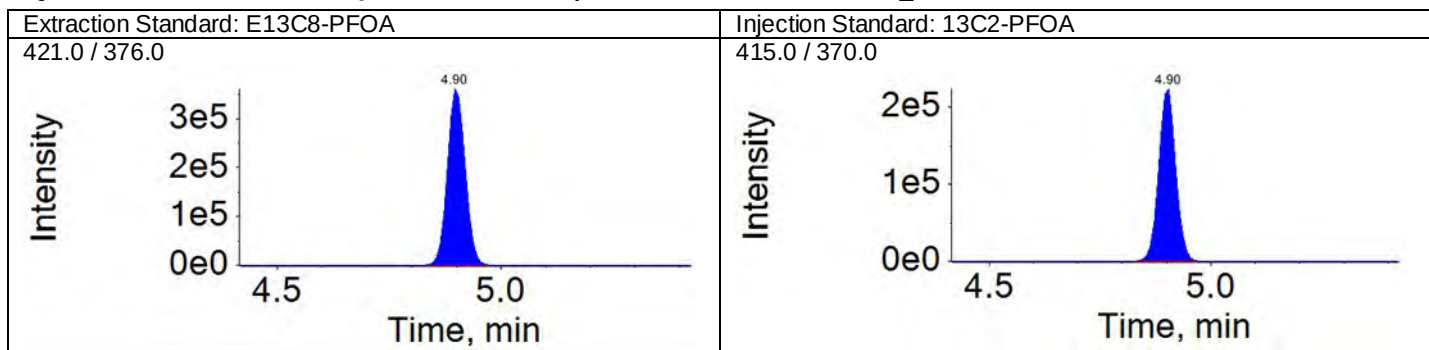
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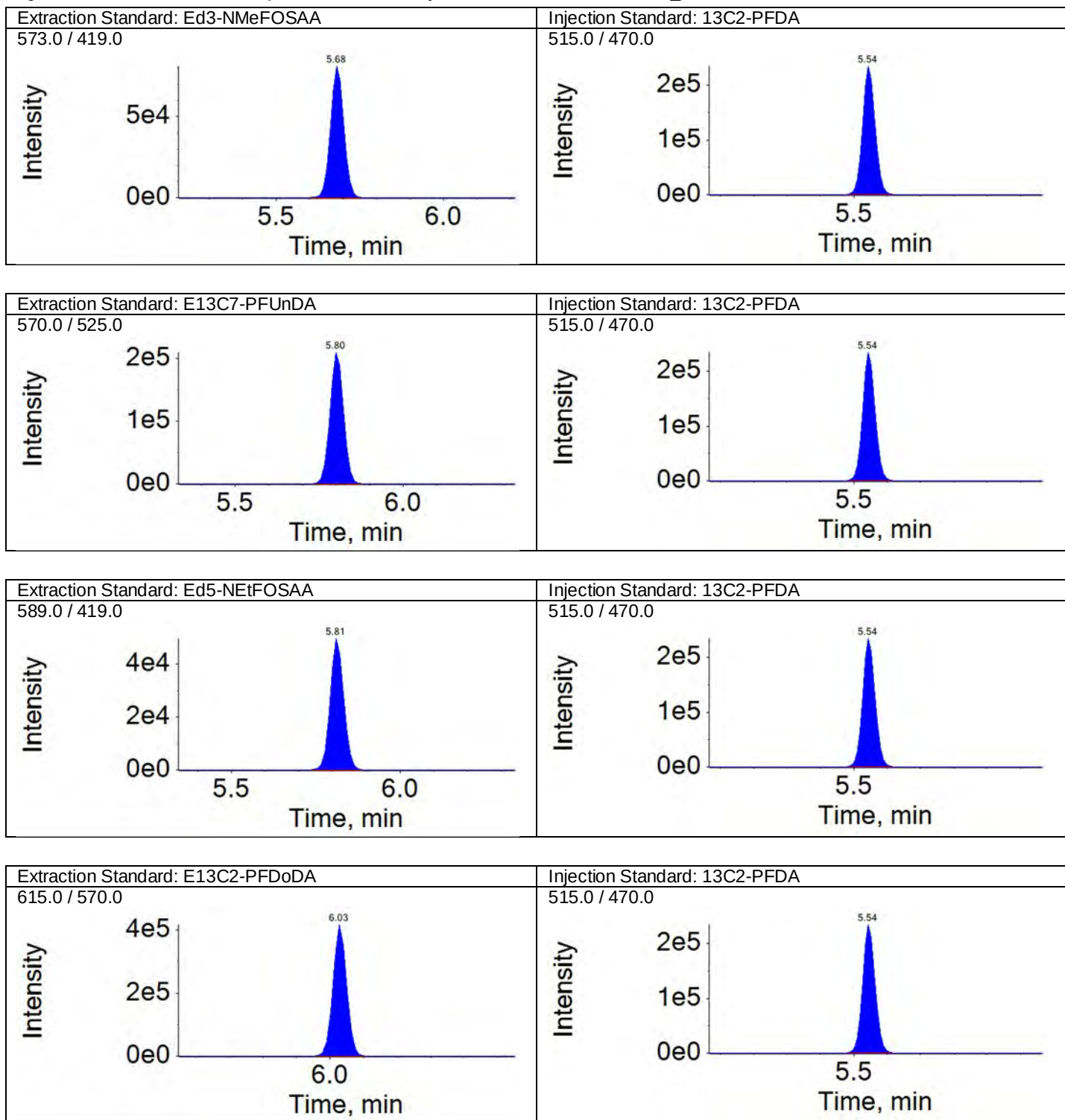
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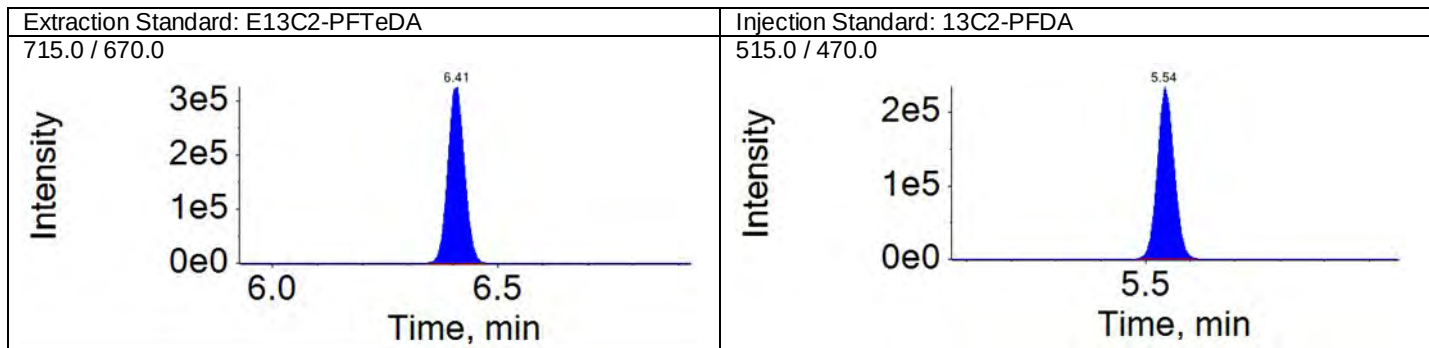
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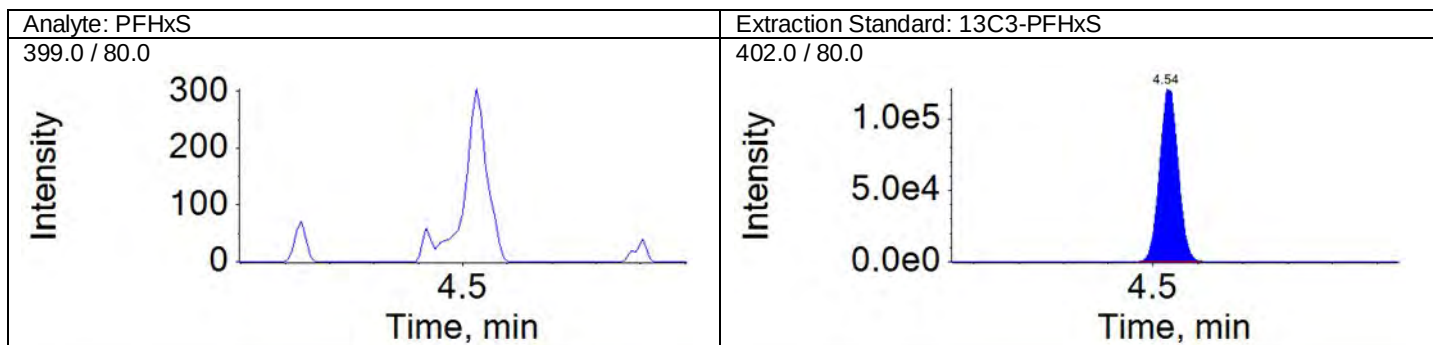
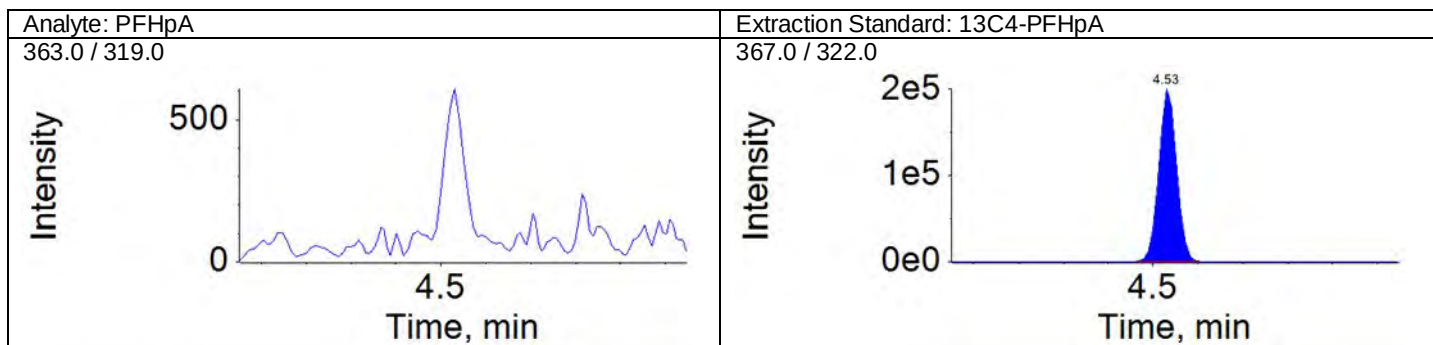
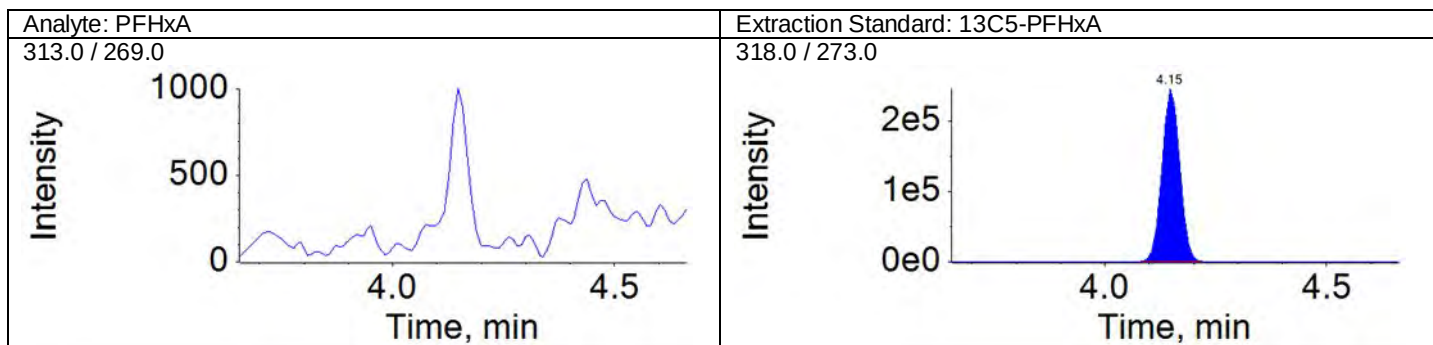
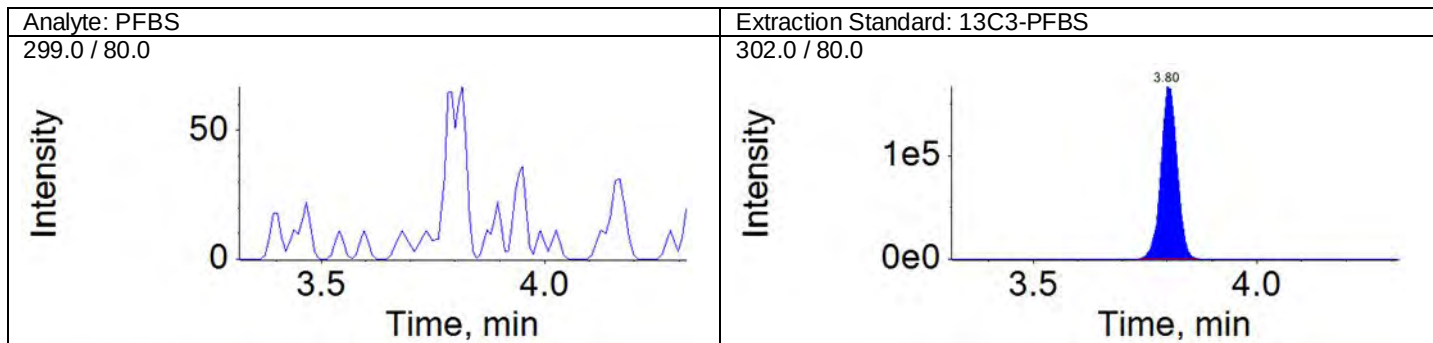
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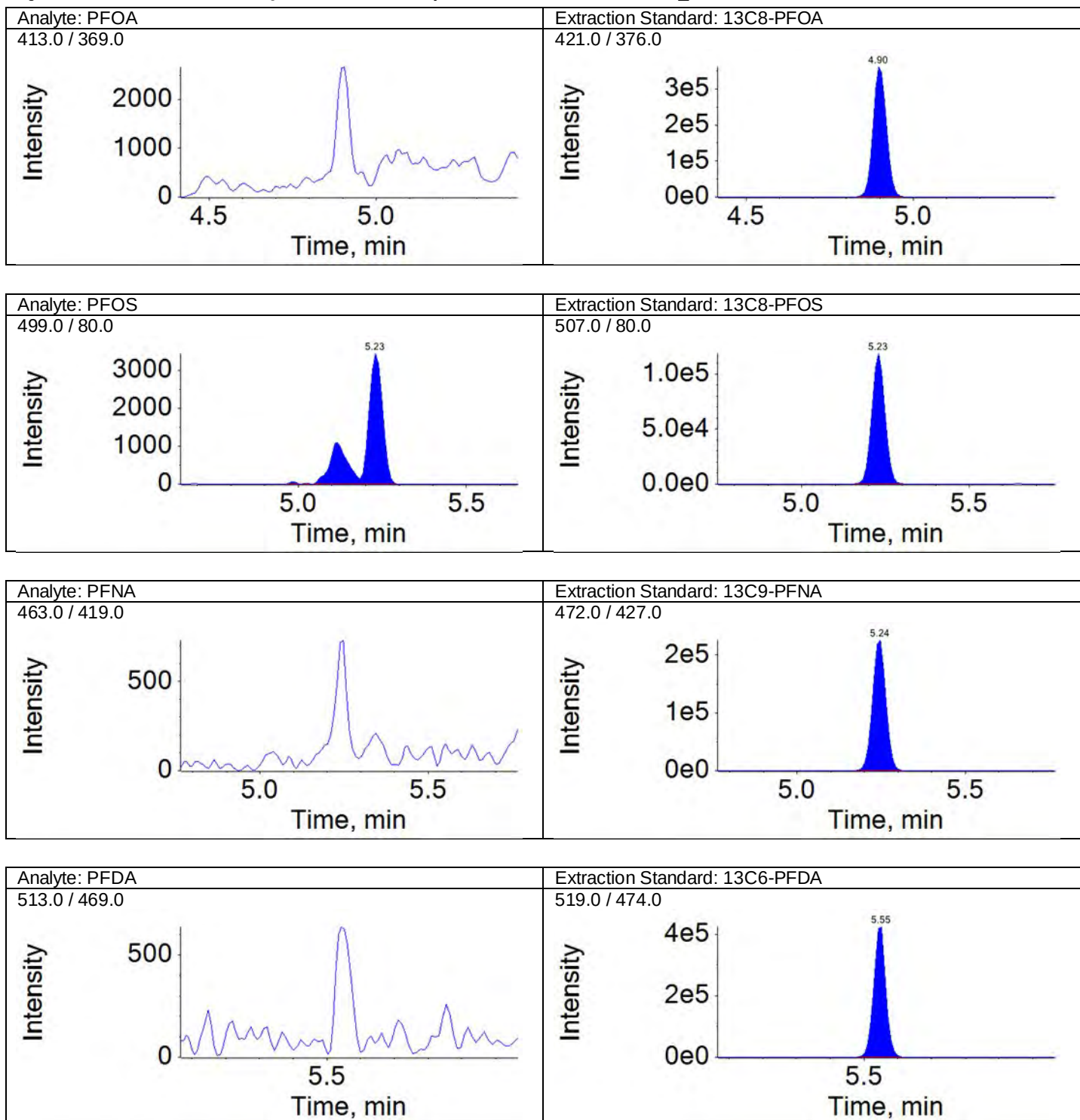
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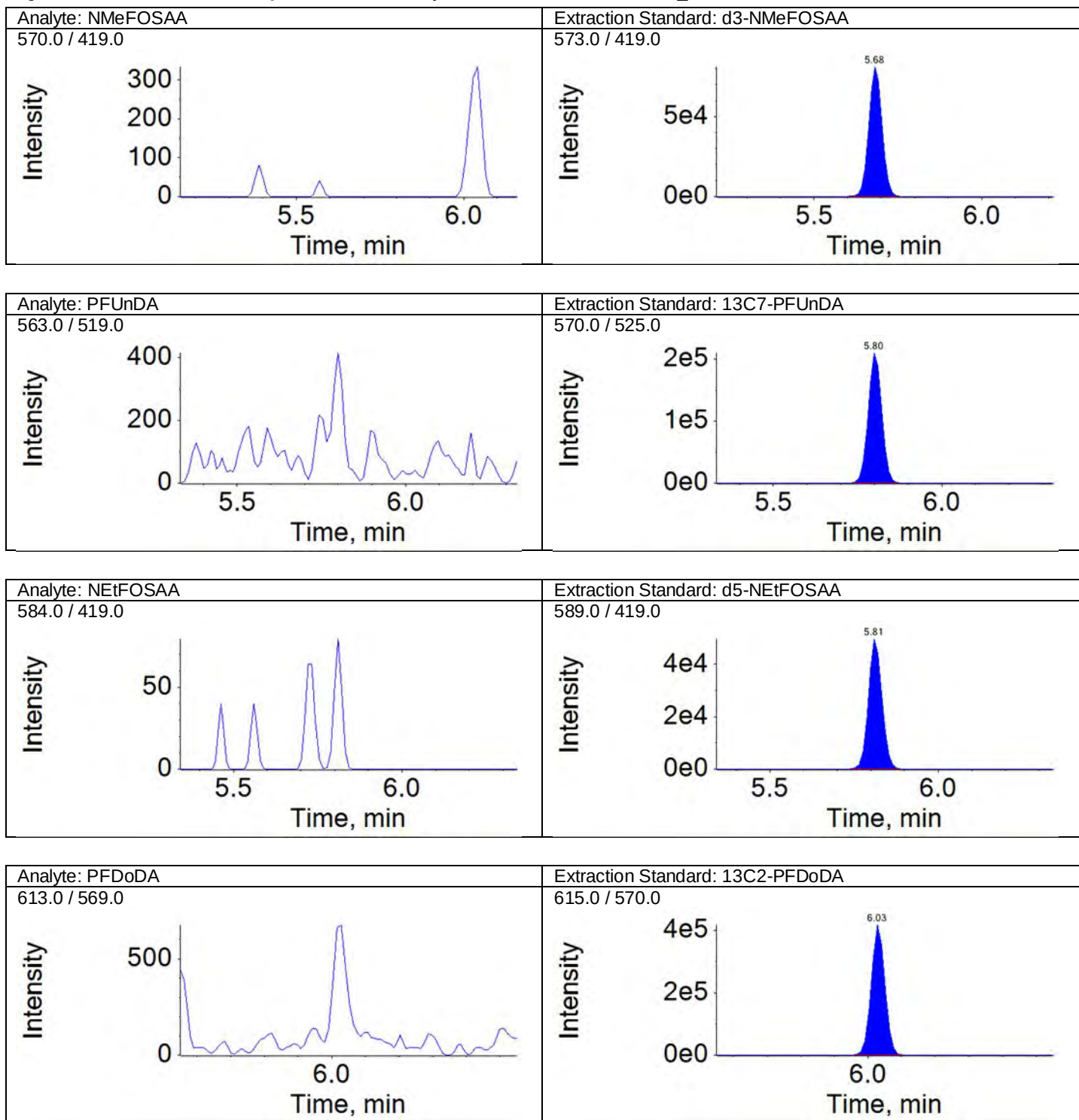
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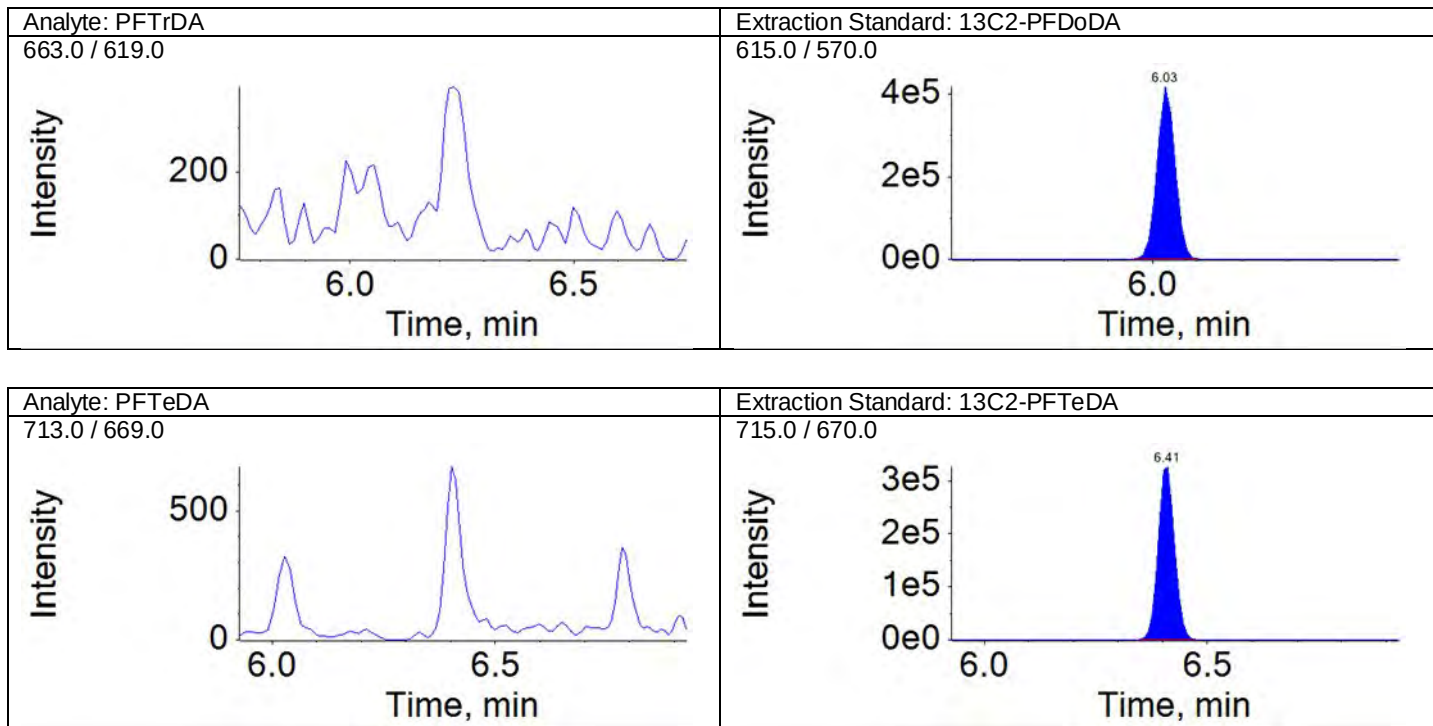
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
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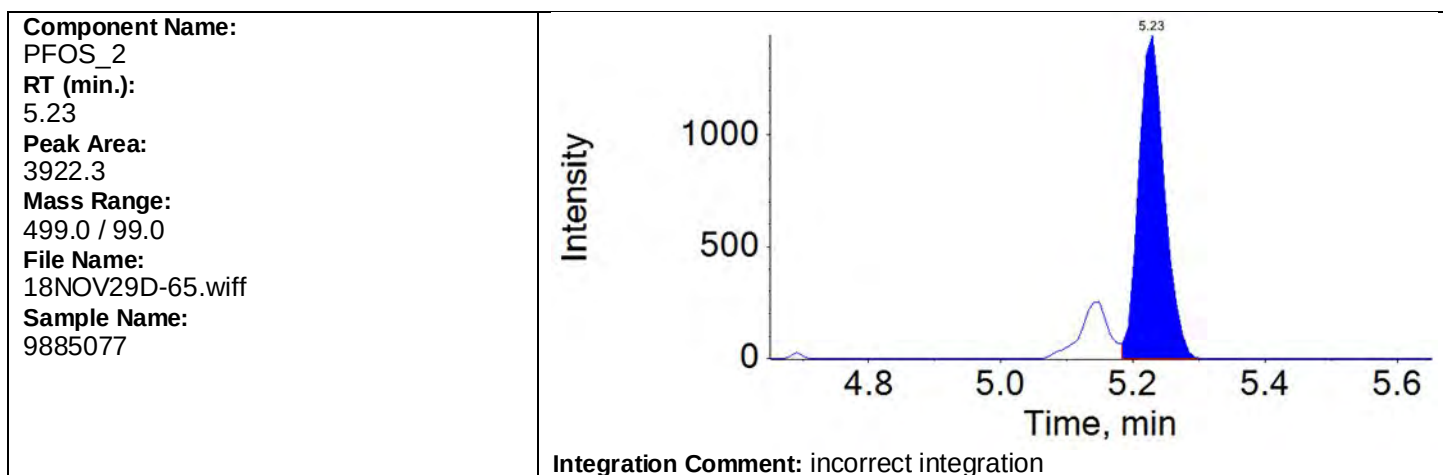
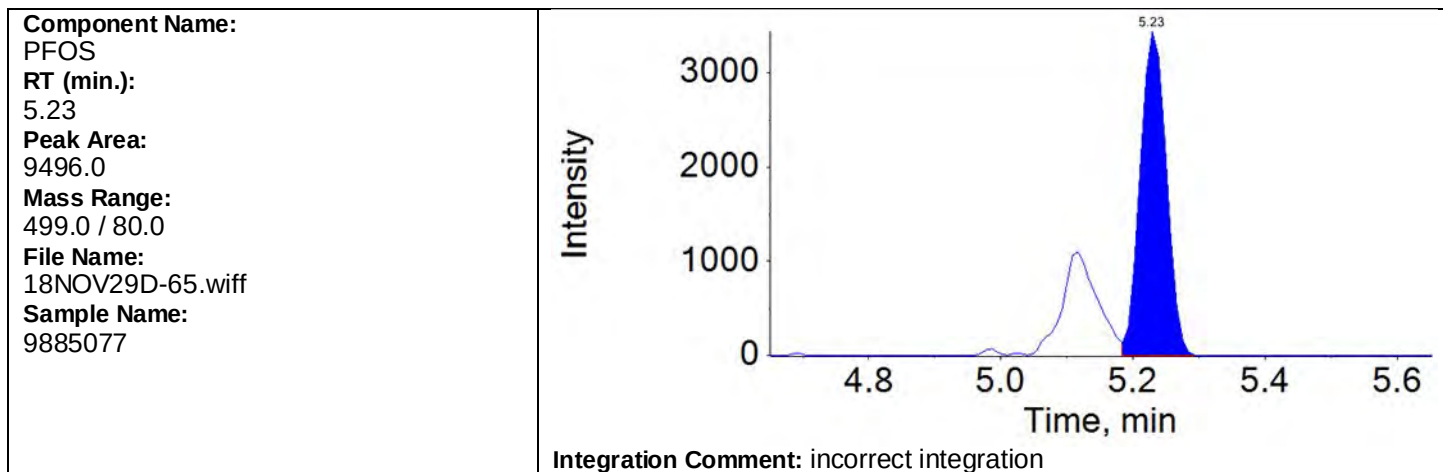
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
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Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:26 pm, 12/6/18

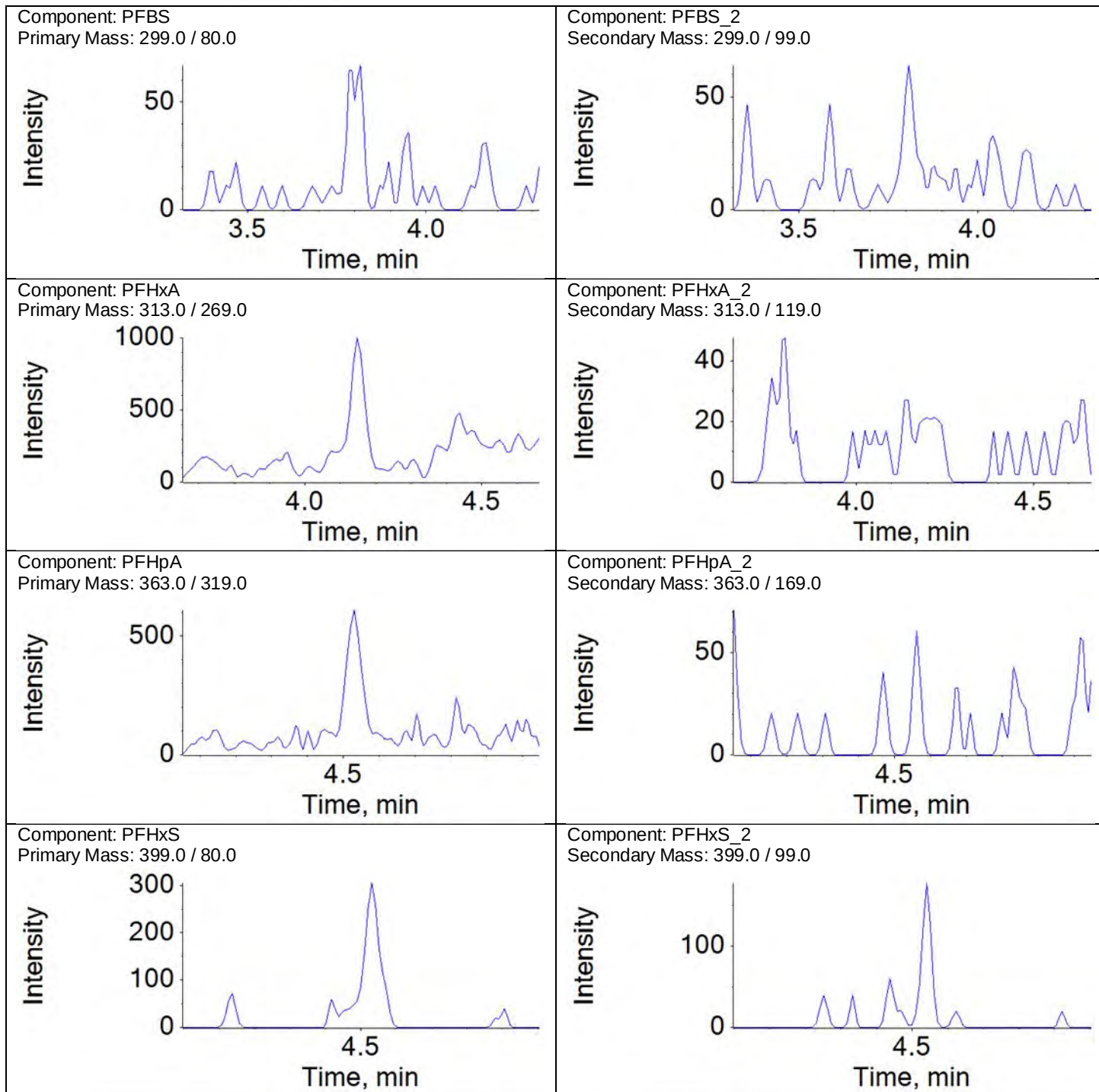
Ion Ratio Report

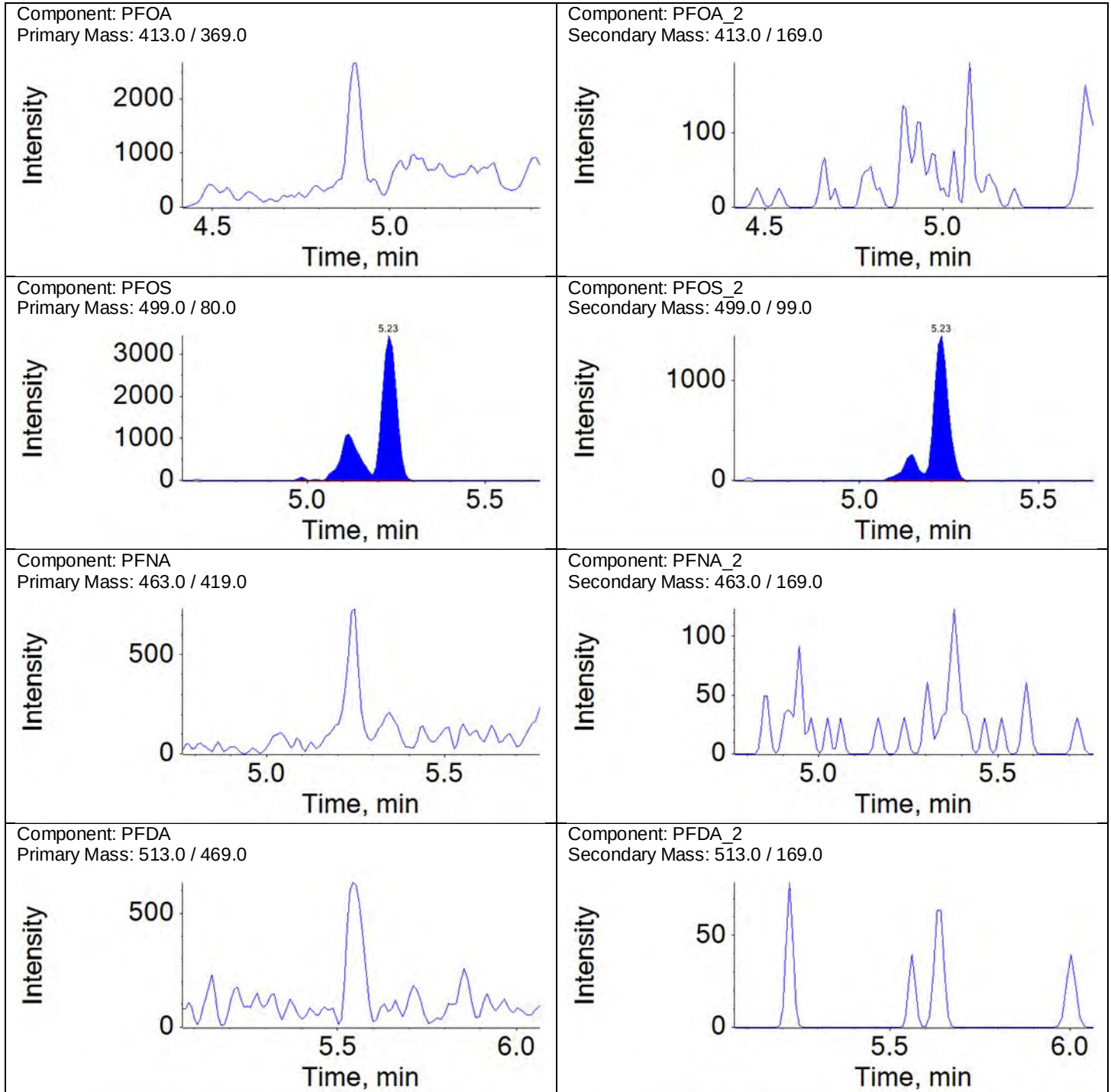
Sample Name: 9885077

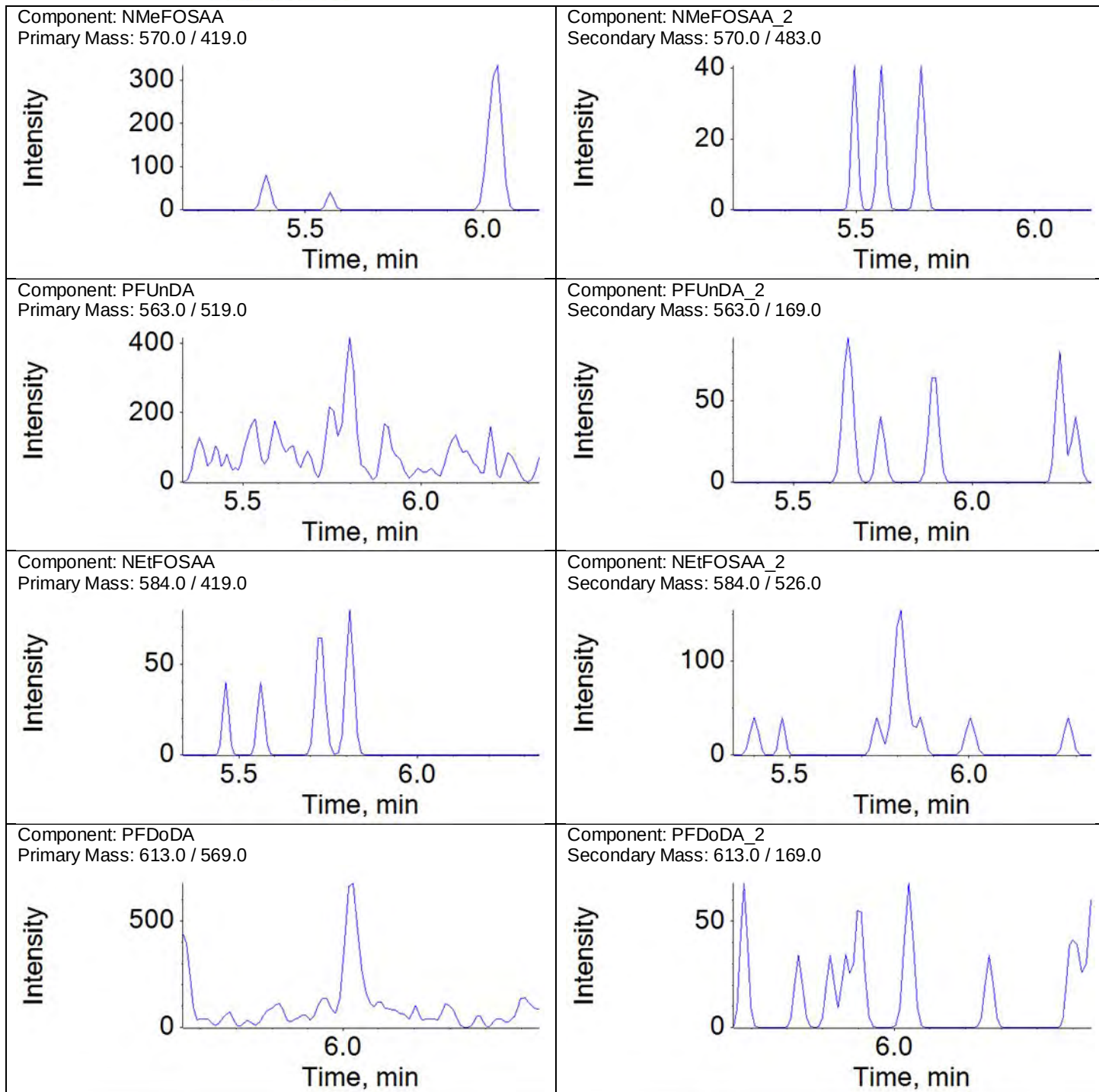
Instrument Name: LM27631

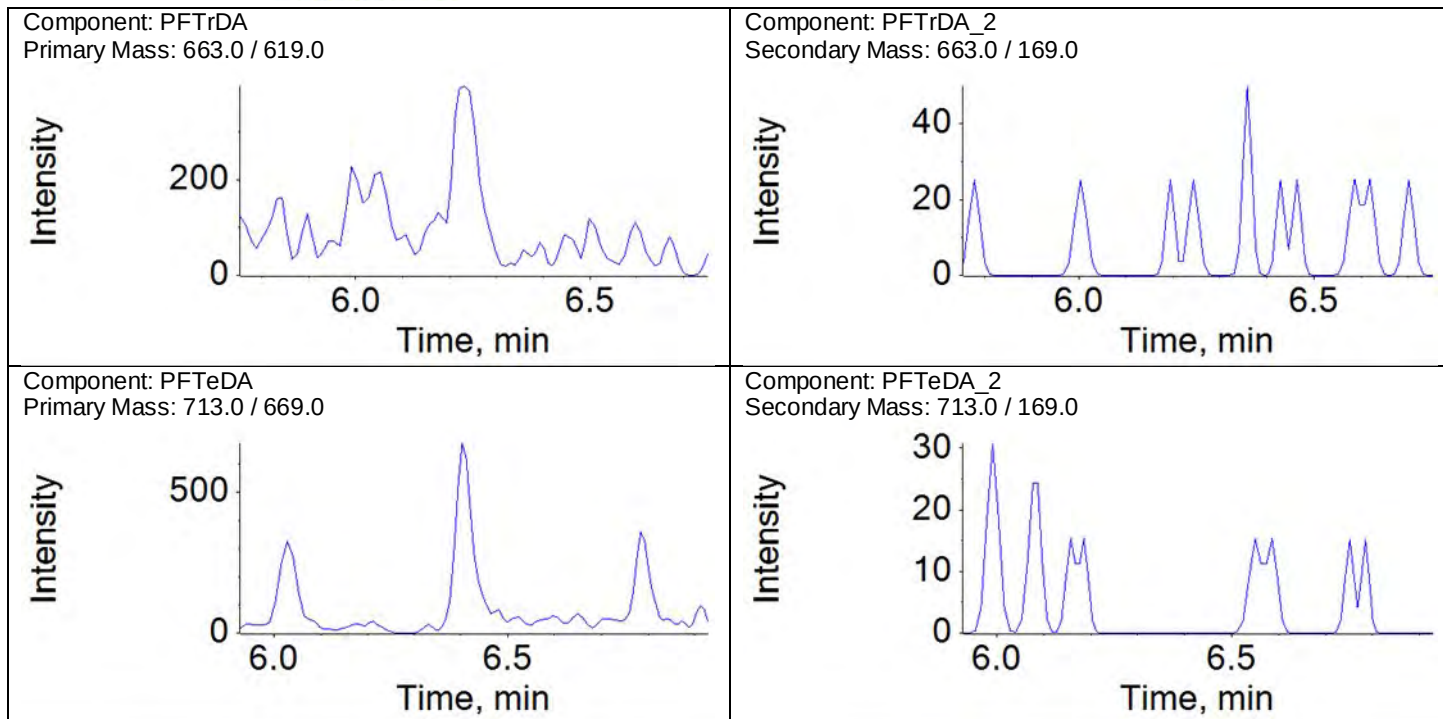
File Name: 18NOV29D-65.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	5.23	1.00	13743.9	M	N/A	0.3414			
PFOS_2	5.23	1.00	4691.5	M	N/A	0.3414	15	50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDoDA	N/A	N/A	N/A	A	N/A	N/A			
PFDoDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	









Standards Data

PFAS by LC/MS/MS

Instrument Name: LM27631

Data File Name	Sample ID	Batch No	Analysis Date/Time
18NOV07DCAL-09.wiff	MDL	N/A	11/7/2018 9:30:56 AM
18NOV07DCAL-10.wiff	CAL1	N/A	11/7/2018 9:39:56 AM
18NOV07DCAL-11.wiff	CAL2	N/A	11/7/2018 9:48:56 AM
18NOV07DCAL-12.wiff	CAL3	N/A	11/7/2018 9:57:56 AM
18NOV07DCAL-13.wiff	CAL4	N/A	11/7/2018 10:06:59 AM
18NOV07DCAL-14.wiff	CAL5	N/A	11/7/2018 10:15:59 AM
18NOV07DCAL-15.wiff	CAL6	N/A	11/7/2018 10:24:59 AM
18NOV07DCAL-16.wiff	CAL7	N/A	11/7/2018 10:33:59 AM
18NOV07DCAL-17.wiff	Instrument Blank	N/A	11/7/2018 10:42:59 AM
18NOV07DCAL-18.wiff	ICV	N/A	11/7/2018 10:51:59 AM
18NOV07DCAL-19.wiff	L+B CAL3	N/A	11/7/2018 11:00:59 AM
18NOV07DCAL-20.wiff	CCV1_CAL3	N/A	11/7/2018 11:09:59 AM
18NOV09D-01.wiff	solvent	N/A	11/9/2018 4:38:59 AM
18NOV09D-02.wiff	solvent	N/A	11/9/2018 4:47:59 AM
18NOV09D-03.wiff	CCV1 ISC CAL2	N/A	11/9/2018 4:56:59 AM
18NOV09D-04.wiff	Instrument Blank	N/A	11/9/2018 5:05:59 AM
18NOV09D-05.wiff	BLK312003	18312003	11/9/2018 5:15:02 AM
18NOV09D-06.wiff	LCS312003	18312003	11/9/2018 5:24:02 AM
18NOV09D-07.wiff	9885120	18312003	11/9/2018 5:33:05 AM
18NOV09D-08.wiff	9885123	18312003	11/9/2018 5:42:08 AM
18NOV09D-09.wiff	9885124	18312003	11/9/2018 5:51:08 AM
18NOV09D-10.wiff	9885125	18312003	11/9/2018 6:00:08 AM
18NOV09D-11.wiff	9885126	18312003	11/9/2018 6:09:11 AM
18NOV09D-12.wiff	9885129	18312003	11/9/2018 6:18:14 AM
18NOV09D-13.wiff	9885130	18312003	11/9/2018 6:27:14 AM
18NOV09D-14.wiff	9885131	18312003	11/9/2018 6:36:17 AM
18NOV09D-15.wiff	CCV2_CAL3	N/A	11/9/2018 6:45:20 AM
18NOV09D-16.wiff	9885132	18312003	11/9/2018 6:54:20 AM
18NOV09D-17.wiff	9885135	18312003	11/9/2018 7:03:20 AM
18NOV09D-18.wiff	9885136	18312003	11/9/2018 7:12:23 AM
18NOV09D-19.wiff	9885137	18312003	11/9/2018 7:21:23 AM
18NOV09D-20.wiff	9885138	18312003	11/9/2018 7:30:26 AM
18NOV09D-21.wiff	9885168	18312003	11/9/2018 7:39:26 AM
18NOV09D-22.wiff	9885169BKG	18312003	11/9/2018 7:48:26 AM
18NOV09D-23.wiff	9885172	18312003	11/9/2018 7:57:26 AM
18NOV09D-24.wiff	9885170MS	18312003	11/9/2018 8:06:26 AM
18NOV09D-25.wiff	9885171MSD	18312003	11/9/2018 8:15:29 AM
18NOV09D-26.wiff	CCV3_CAL4	N/A	11/9/2018 8:24:29 AM
18NOV09D-27.wiff	BLK311021	18311021	11/9/2018 8:33:29 AM
18NOV09D-28.wiff	LCS311021	18311021	11/9/2018 8:42:32 AM
18NOV09D-29.wiff	9885056	18311021	11/9/2018 8:51:32 AM
18NOV09D-30.wiff	9885057	18311021	11/9/2018 9:00:35 AM
18NOV09D-31.wiff	9885058	18311021	11/9/2018 9:09:38 AM
18NOV09D-32.wiff	9885059	18311021	11/9/2018 9:18:38 AM
18NOV09D-33.wiff	9885062BKG	18311021	11/9/2018 9:27:38 AM
18NOV09D-34.wiff	CCV4 ISC_CAL2	N/A	11/9/2018 9:36:38 AM
18NOV09D-35.wiff	9885065	18311021	11/9/2018 9:45:38 AM
18NOV09D-36.wiff	9885118	18311021	11/9/2018 9:54:38 AM
18NOV09D-37.wiff	9885119	18311021	11/9/2018 10:03:41 AM
18NOV09D-38.wiff	9885063MS	18311021	11/9/2018 10:12:41 AM
18NOV09D-39.wiff	9885064MSD	18311021	11/9/2018 10:21:41 AM
18NOV09D-40.wiff	solvent	N/A	11/9/2018 10:30:41 AM
18NOV09D-41.wiff	BLK312011	18312011	11/9/2018 10:39:45 AM
18NOV09D-42.wiff	LCS312011	18312011	11/9/2018 10:48:48 AM
18NOV09D-43.wiff	9885066	18312011	11/9/2018 10:57:51 AM
18NOV09D-44.wiff	9885067	18312011	11/9/2018 11:06:54 AM
18NOV09D-45.wiff	9885070BKG	18312011	11/9/2018 11:15:53 AM

Instrument Name: LM27631

18NOV09D-46.wiff	CCV5_CAL3	N/A	11/9/2018 11:24:54 AM
18NOV09D-47.wiff	9885073	18312011	11/9/2018 11:33:57 AM
18NOV09D-48.wiff	9885074	18312011	11/9/2018 11:43:00 AM
18NOV09D-49.wiff	9885075	18312011	11/9/2018 11:51:59 AM
18NOV09D-50.wiff	9885071MS	18312011	11/9/2018 12:01:00 PM
18NOV09D-51.wiff	9885072MSD	18312011	11/9/2018 12:10:03 PM
18NOV09D-52.wiff	solvent	N/A	11/9/2018 12:19:03 PM
18NOV09D-53.wiff	BLK311019	18311019	11/9/2018 12:28:06 PM
18NOV09D-54.wiff	LCS311019	18311019	11/9/2018 12:37:05 PM
18NOV09D-55.wiff	9885160	18311019	11/9/2018 12:46:09 PM
18NOV09D-56.wiff	9885161BKG	18311019	11/9/2018 12:55:12 PM
18NOV09D-57.wiff	9885164	18311019	11/9/2018 1:04:14 PM
18NOV09D-58.wiff	CCV6_CAL4	N/A	11/9/2018 1:13:18 PM
18NOV09D-59.wiff	9885165	18311019	11/9/2018 1:22:21 PM
18NOV09D-60.wiff	9885162MS	18311019	11/9/2018 1:31:24 PM
18NOV09D-61.wiff	9885163MSD	18311019	11/9/2018 1:40:24 PM
18NOV09D-62.wiff	solvent	N/A	11/9/2018 1:49:24 PM
18NOV09D-63.wiff	BLK312004	18312004	11/9/2018 1:58:27 PM
18NOV09D-64.wiff	LCS312004	18312004	11/9/2018 2:07:27 PM
18NOV09D-65.wiff	9884891BKG	18312004	11/9/2018 2:16:30 PM
18NOV09D-66.wiff	9884892MS	18312004	11/9/2018 2:25:30 PM
18NOV09D-67.wiff	9884893MSD	18312004	11/9/2018 2:34:30 PM
18NOV09D-68.wiff	9885109	18312004	11/9/2018 2:43:30 PM
18NOV09D-69.wiff	9885110	18312004	11/9/2018 2:52:30 PM
18NOV09D-70.wiff	CCV7_ISC_CAL2	N/A	11/9/2018 3:01:29 PM
18NOV09D-71.wiff	9885139	18312004	11/9/2018 3:10:30 PM
18NOV09D-72.wiff	9885140	18312004	11/9/2018 3:19:30 PM
18NOV09D-73.wiff	solvent	N/A	11/9/2018 3:28:33 PM
18NOV09D-74.wiff	BLK311015	18311015	11/9/2018 3:37:36 PM
18NOV09D-75.wiff	LCS311015	18311015	11/9/2018 3:46:35 PM
18NOV09D-76.wiff	9885078	18311015	11/9/2018 3:55:39 PM
18NOV09D-77.wiff	9885080	18311015	11/9/2018 4:04:38 PM
18NOV09D-78.wiff	9885081	18311015	11/9/2018 4:13:41 PM
18NOV09D-79.wiff	9885082	18311015	11/9/2018 4:22:41 PM
18NOV09D-80.wiff	9885085	18311015	11/9/2018 4:31:45 PM
18NOV09D-81.wiff	9885086BKG	18311015	11/9/2018 4:40:45 PM
18NOV09D-82.wiff	CCV8_CAL3	N/A	11/9/2018 4:49:48 PM
18NOV09D-83.wiff	9885087MS	18311015	11/9/2018 4:58:48 PM
18NOV09D-84.wiff	9885088MSD	18311015	11/9/2018 5:07:47 PM
18NOV09D-85.wiff	9885089	18311015	11/9/2018 5:16:48 PM
18NOV09D-86.wiff	9885090	18311015	11/9/2018 5:25:48 PM
18NOV09D-87.wiff	9885092	18311015	11/9/2018 5:34:48 PM
18NOV09D-88.wiff	9885093	18311015	11/9/2018 5:43:47 PM
18NOV09D-89.wiff	9885094	18311015	11/9/2018 5:52:48 PM
18NOV09D-90.wiff	9885095	18311015	11/9/2018 6:01:48 PM
18NOV09D-91.wiff	9885098	18311015	11/9/2018 6:10:48 PM
18NOV09D-92.wiff	9885099	18311015	11/9/2018 6:19:47 PM
18NOV09D-93.wiff	CCV9_CAL4	N/A	11/9/2018 6:28:48 PM
18NOV09D-94.wiff	9885100	18311015	11/9/2018 6:37:47 PM
18NOV09D-95.wiff	9885101	18311015	11/9/2018 6:46:51 PM
18NOV09D-96.wiff	9885104	18311015	11/9/2018 6:55:54 PM
18NOV09D-97.wiff	9885105	18311015	11/9/2018 7:04:57 PM
18NOV09D-98.wiff	9885106	18311015	11/9/2018 7:14:00 PM
18NOV09D-99.wiff	solvent	N/A	11/9/2018 7:23:03 PM
18NOV09D-100.wiff	9881544DL	18311004	11/9/2018 7:32:03 PM
18NOV09D-101.wiff	CCV10_ISC_CAL2	N/A	11/9/2018 7:41:03 PM

20 mM Ammonium Acetate in H2O: 782411021833A

Instrument Name: LM27631

20 mM Ammonium Acetate in 0.5% H₂O\Methanol: 782411021833B

Instrument Name: LM27631

Data File Name	Sample ID	Batch No	Analysis Date/Time
18NOV12DCAL-41.wiff	MDL	N/A	11/12/2018 2:56:51 PM
18NOV12DCAL-42.wiff	CAL1	N/A	11/12/2018 3:05:54 PM
18NOV12DCAL-43.wiff	CAL2	N/A	11/12/2018 3:15:03 PM
18NOV12DCAL-44.wiff	CAL3	N/A	11/12/2018 3:24:03 PM
18NOV12DCAL-45.wiff	CAL4	N/A	11/12/2018 3:33:03 PM
18NOV12DCAL-46.wiff	CAL5	N/A	11/12/2018 3:42:06 PM
18NOV12DCAL-47.wiff	CAL6	N/A	11/12/2018 3:51:06 PM
18NOV12DCAL-48.wiff	CAL7	N/A	11/12/2018 4:00:06 PM
18NOV12DCAL-49.wiff	solvent	N/A	11/12/2018 4:09:09 PM
18NOV12DCAL-50.wiff	ICV	N/A	11/12/2018 4:18:11 PM
18NOV12DCAL-51.wiff	L+B CAL3	N/A	11/12/2018 4:27:15 PM
18NOV12DCAL-52.wiff	CCV1_CAL3	N/A	11/12/2018 4:36:17 PM
18NOV15D-01.wiff	solvent	N/A	11/15/2018 12:03:07 PM
18NOV15D-02.wiff	solvent	N/A	11/15/2018 12:12:09 PM
18NOV15D-03.wiff	solvent	N/A	11/15/2018 12:21:09 PM
18NOV15D-04.wiff	solvent	N/A	11/15/2018 12:30:08 PM
18NOV15D-05.wiff	CCV1_ISC_CAL2	N/A	11/15/2018 12:39:12 PM
18NOV15D-06.wiff	INBLK	N/A	11/15/2018 12:48:12 PM
18NOV15D-07.wiff	BLK319003	18319003	11/15/2018 12:57:12 PM
18NOV15D-08.wiff	LCS319003	18319003	11/15/2018 1:06:11 PM
18NOV15D-09.wiff	9885056	18319003	11/15/2018 1:15:14 PM
18NOV15D-10.wiff	9885057	18319003	11/15/2018 1:24:18 PM
18NOV15D-11.wiff	9885058	18319003	11/15/2018 1:33:20 PM
18NOV15D-12.wiff	9885059	18319003	11/15/2018 1:42:23 PM
18NOV15D-13.wiff	9885062BKG	18319003	11/15/2018 1:51:27 PM
18NOV15D-14.wiff	9885063MS	18319003	11/15/2018 2:00:26 PM
18NOV15D-15.wiff	9885064MSD	18319003	11/15/2018 2:09:27 PM
18NOV15D-16.wiff	9885065	18319003	11/15/2018 2:18:27 PM
18NOV15D-17.wiff	CCV2_CAL3	N/A	11/15/2018 2:27:27 PM
18NOV15D-18.wiff	9885075	18319003	11/15/2018 2:36:27 PM
18NOV15D-19.wiff	9885147RE	18319003	11/15/2018 2:45:27 PM
18NOV15D-20.wiff	9885152RE	18319003	11/15/2018 2:54:26 PM
18NOV15D-21.wiff	solvent	N/A	11/15/2018 3:03:26 PM
18NOV15D-22.wiff	BLK318004	18318004	11/15/2018 3:12:30 PM
18NOV15D-23.wiff	LCS318004	18318004	11/15/2018 3:21:29 PM
18NOV15D-24.wiff	9889418	18318004	11/15/2018 3:30:30 PM
18NOV15D-25.wiff	9889419	18318004	11/15/2018 3:39:30 PM
18NOV15D-26.wiff	9889420	18318004	11/15/2018 3:48:33 PM
18NOV15D-27.wiff	9889421	18318004	11/15/2018 3:57:33 PM
18NOV15D-28.wiff	9889422	18318004	11/15/2018 4:06:35 PM
18NOV15D-29.wiff	CCV3_CAL4	N/A	11/15/2018 4:15:35 PM
18NOV15D-30.wiff	9889423BKG	18318004	11/15/2018 4:24:35 PM
18NOV15D-31.wiff	9889424MS	18318004	11/15/2018 4:33:38 PM
18NOV15D-32.wiff	9889425MSD	18318004	11/15/2018 4:42:42 PM
18NOV15D-33.wiff	9889426	18318004	11/15/2018 4:51:42 PM
18NOV15D-34.wiff	9897207	18318004	11/15/2018 5:00:42 PM
18NOV15D-35.wiff	CCV4_ISC_CAL2	N/A	11/15/2018 5:09:41 PM
18NOV15D-36.wiff	solvent	N/A	11/15/2018 5:18:42 PM
18NOV15D-37.wiff	solvent	N/A	11/15/2018 5:27:45 PM

20 mM Ammonium Acetate in H₂O: 782411091833A
20 mM Ammonium Acetate in 0.5% H₂O\Methanol: 782411091833B

Instrument Name: LM27631

Data File Name	Sample ID	Batch No	Analysis Date/Time
18NOV28DCAL-05.wiff	MDL	N/A	11/28/2018 1:33:07 PM
18NOV28DCAL-06.wiff	CAL1	N/A	11/28/2018 1:42:10 PM
18NOV28DCAL-07.wiff	CAL2	N/A	11/28/2018 1:51:13 PM
18NOV28DCAL-08.wiff	CAL3	N/A	11/28/2018 2:00:13 PM
18NOV28DCAL-09.wiff	CAL4	N/A	11/28/2018 2:09:13 PM
18NOV28DCAL-10.wiff	CAL5	N/A	11/28/2018 2:18:16 PM
18NOV28DCAL-11.wiff	CAL6	N/A	11/28/2018 2:27:16 PM
18NOV28DCAL-12.wiff	CAL7	N/A	11/28/2018 2:36:16 PM
18NOV28DCAL-13.wiff	Instrument Blank	N/A	11/28/2018 2:45:19 PM
18NOV28DCAL-14.wiff	ICV	N/A	11/28/2018 2:54:22 PM
18NOV28DCAL-15.wiff	L+B CAL3	N/A	11/28/2018 3:03:22 PM
18NOV28DCAL-16.wiff	CCV1_CAL3	N/A	11/28/2018 3:12:25 PM
18NOV29D-01.wiff	solvent	N/A	11/29/2018 9:57:32 AM
18NOV29D-02.wiff	solvent	N/A	11/29/2018 10:06:32 AM
18NOV29D-03.wiff	solvent	N/A	11/29/2018 10:15:35 AM
18NOV29D-04.wiff	solvent	N/A	11/29/2018 10:24:35 AM
18NOV29D-05.wiff	CCV1_ISC_CAL2	N/A	11/29/2018 10:33:38 AM
18NOV29D-06.wiff	Instrument Blank	N/A	11/29/2018 10:42:38 AM
18NOV29D-07.wiff	BLK331005	18331005	11/29/2018 10:51:41 AM
18NOV29D-08.wiff	LCS331005	18331005	11/29/2018 11:00:41 AM
18NOV29D-09.wiff	9911369	18331005	11/29/2018 11:09:41 AM
18NOV29D-10.wiff	9911370	18331005	11/29/2018 11:18:41 AM
18NOV29D-11.wiff	9911371	18331005	11/29/2018 11:27:41 AM
18NOV29D-12.wiff	9911372	18331005	11/29/2018 11:36:41 AM
18NOV29D-13.wiff	9911373BKG	18331005	11/29/2018 11:45:44 AM
18NOV29D-14.wiff	9911376	18331005	11/29/2018 11:54:47 AM
18NOV29D-15.wiff	9911377	18331005	11/29/2018 12:03:47 PM
18NOV29D-16.wiff	9911378	18331005	11/29/2018 12:12:50 PM
18NOV29D-17.wiff	CCV2_CAL3	N/A	11/29/2018 12:21:50 PM
18NOV29D-18.wiff	solvent	N/A	11/29/2018 12:30:50 PM
18NOV29D-19.wiff	BLK331006	18331006	11/29/2018 12:39:54 PM
18NOV29D-20.wiff	LCS331006	18331006	11/29/2018 12:48:53 PM
18NOV29D-21.wiff	9911416	18331006	11/29/2018 12:57:56 PM
18NOV29D-22.wiff	9911417	18331006	11/29/2018 1:06:56 PM
18NOV29D-23.wiff	9911418	18331006	11/29/2018 1:15:56 PM
18NOV29D-24.wiff	9911419	18331006	11/29/2018 1:24:56 PM
18NOV29D-25.wiff	9911420BKG	18331006	11/29/2018 1:33:59 PM
18NOV29D-26.wiff	9911423	18331006	11/29/2018 1:42:59 PM
18NOV29D-27.wiff	9911424	18331006	11/29/2018 1:51:59 PM
18NOV29D-28.wiff	9911425	18331006	11/29/2018 2:01:02 PM
18NOV29D-29.wiff	CCV3_CAL4	N/A	11/29/2018 2:10:02 PM
18NOV29D-30.wiff	9911426	18331006	11/29/2018 2:19:02 PM
18NOV29D-31.wiff	9911427	18331006	11/29/2018 2:28:02 PM
18NOV29D-32.wiff	9911428	18331006	11/29/2018 2:37:02 PM
18NOV29D-33.wiff	9911429	18331006	11/29/2018 2:46:03 PM
18NOV29D-34.wiff	9911430	18331006	11/29/2018 2:55:03 PM
18NOV29D-35.wiff	9911431	18331006	11/29/2018 3:04:03 PM
18NOV29D-36.wiff	9911432	18331006	11/29/2018 3:13:03 PM
18NOV29D-37.wiff	9911433	18331006	11/29/2018 3:22:03 PM
18NOV29D-38.wiff	9911434	18331006	11/29/2018 3:31:06 PM
18NOV29D-39.wiff	9911421MS	18331006	11/29/2018 3:40:06 PM
18NOV29D-40.wiff	CCV4_ISC_CAL2	N/A	11/29/2018 3:49:06 PM
18NOV29D-41.wiff	9911422MSD	18331006	11/29/2018 3:58:06 PM
18NOV29D-42.wiff	solvent	N/A	11/29/2018 4:07:08 PM
18NOV29D-43.wiff	BLK331014	18331014	11/29/2018 4:16:09 PM
18NOV29D-44.wiff	LCS331014	18331014	11/29/2018 4:25:12 PM
18NOV29D-45.wiff	LCSDA	18331014	11/29/2018 4:34:15 PM

Instrument Name: LM27631

18NOV29D-46.wiff	9881899	18331014	11/29/2018 4:43:18 PM
18NOV29D-47.wiff	9881900	18331014	11/29/2018 4:52:21 PM
18NOV29D-48.wiff	9881932	18331014	11/29/2018 5:01:24 PM
18NOV29D-49.wiff	9881933BKG	18331014	11/29/2018 5:10:27 PM
18NOV29D-50.wiff	9881947	18331014	11/29/2018 5:19:30 PM
18NOV29D-51.wiff	9881948	18331014	11/29/2018 5:28:33 PM
18NOV29D-52.wiff	CCV5_CAL3	N/A	11/29/2018 5:37:36 PM
18NOV29D-53.wiff	9881899MS	18331014	11/29/2018 5:46:36 PM
18NOV29D-54.wiff	solvent	N/A	11/29/2018 5:55:39 PM
18NOV29D-55.wiff	BLK332003	18332003	11/29/2018 6:04:39 PM
18NOV29D-56.wiff	LCS332003	18332003	11/29/2018 6:13:39 PM
18NOV29D-57.wiff	9881542	18332003	11/29/2018 6:22:39 PM
18NOV29D-58.wiff	9881543	18332003	11/29/2018 6:31:39 PM
18NOV29D-59.wiff	9883382BKG	18332003	11/29/2018 6:40:42 PM
18NOV29D-60.wiff	9883385	18332003	11/29/2018 6:49:45 PM
18NOV29D-61.wiff	9883396	18332003	11/29/2018 6:58:45 PM
18NOV29D-62.wiff	9883397	18332003	11/29/2018 7:07:45 PM
18NOV29D-63.wiff	9885076	18332003	11/29/2018 7:16:48 PM
18NOV29D-64.wiff	CCV6_CAL4	N/A	11/29/2018 7:25:48 PM
18NOV29D-65.wiff	9885077	18332003	11/29/2018 7:34:51 PM
18NOV29D-66.wiff	9885091	18332003	11/29/2018 7:43:54 PM
18NOV29D-67.wiff	9885133	18332003	11/29/2018 7:52:57 PM
18NOV29D-68.wiff	9885134	18332003	11/29/2018 8:02:00 PM
18NOV29D-69.wiff	9885151	18332003	11/29/2018 8:11:03 PM
18NOV29D-70.wiff	9883383MS	18332003	11/29/2018 8:20:03 PM
18NOV29D-71.wiff	9883384MSD	18332003	11/29/2018 8:29:03 PM
18NOV29D-72.wiff	CCV7_ISC_CAL2	N/A	11/29/2018 8:38:03 PM
18NOV29D-73.wiff	Instrument Blank	N/A	11/29/2018 8:47:06 PM
18NOV29D-74.wiff	9911358	18330003	11/29/2018 8:56:09 PM
18NOV29D-75.wiff	9911366	18330003	11/29/2018 9:05:09 PM
18NOV29D-76.wiff	9911367	18330003	11/29/2018 9:14:09 PM
18NOV29D-77.wiff	9909757	18330013	11/29/2018 9:23:09 PM
18NOV29D-78.wiff	9909762	18330013	11/29/2018 9:32:09 PM
18NOV29D-79.wiff	CCV8_CAL3	N/A	11/29/2018 9:41:09 PM
18NOV29D-80.wiff	BLK332013	18332013	11/29/2018 9:50:12 PM
18NOV29D-81.wiff	LCS332013	18332013	11/29/2018 9:59:15 PM
18NOV29D-82.wiff	9909732	18332013	11/29/2018 10:08:18 PM
18NOV29D-83.wiff	9909733	18332013	11/29/2018 10:17:21 PM
18NOV29D-84.wiff	9909734BKG	18332013	11/29/2018 10:26:24 PM
18NOV29D-85.wiff	9909735	18332013	11/29/2018 10:35:27 PM
18NOV29D-86.wiff	9909736	18332013	11/29/2018 10:44:30 PM
18NOV29D-87.wiff	9909737	18332013	11/29/2018 10:53:33 PM
18NOV29D-88.wiff	9909738	18332013	11/29/2018 11:02:33 PM
18NOV29D-89.wiff	9909739	18332013	11/29/2018 11:11:36 PM
18NOV29D-90.wiff	CCV9_CAL4	N/A	11/29/2018 11:20:36 PM
18NOV29D-91.wiff	9909740	18332013	11/29/2018 11:29:36 PM
18NOV29D-92.wiff	9909741	18332013	11/29/2018 11:38:36 PM
18NOV29D-93.wiff	9909742	18332013	11/29/2018 11:47:36 PM
18NOV29D-94.wiff	9909743MS	18332013	11/29/2018 11:56:36 PM
18NOV29D-95.wiff	9909744MSD	18332013	11/30/2018 12:05:36 AM

20 mM Ammonium Acetate in H₂O: 2615711261833A
20 mM Ammonium Acetate in 0.5% H₂O\Methanol: 2615711261833B

DOD Initial Calibration Verification

Instrument ID: LM27631 ICAI Name: 18NOV07DCAL QMethod Name: MQ4-18AUG13
Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM Acquisition Method: 18AUG13_3uL.dam

Sample File Name	Acquisition Date	Sample ID	Sample Name
18NOV07DCAL-10.wiff	11/7/2018 9:39:56 AM	CALMOD11833G	CAL1
18NOV07DCAL-11.wiff	11/7/2018 9:48:56 AM	CALMOD21833F	CAL2
18NOV07DCAL-12.wiff	11/7/2018 9:57:56 AM	CALMOD31833F	CAL3
18NOV07DCAL-13.wiff	11/7/2018 10:06:59 AM	CALMOD41833F	CAL4
18NOV07DCAL-14.wiff	11/7/2018 10:15:59 AM	CALMOD51833F	CAL5
18NOV07DCAL-15.wiff	11/7/2018 10:24:59 AM	CALMOD61833E	CAL6
18NOV07DCAL-16.wiff	11/7/2018 10:33:59 AM	CALMOD71833E	CAL7

CAL3 Injection Standard Areas

Sample Name	Injection Std Name	Injection Std Area
CAL3	13C3-PFBA	730410.6
CAL3	13C2-PFOA	524423.6
CAL3	13C4-PFOS	274061.7
CAL3	13C2-PFDA	311442.1

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

Response Factor Table

Analyte Name	CAL 1	CAL 2	CAL 3	CAL 4	CAL 5	CAL 6	CAL 7	%RSD	Limit	OOS	r ²	OOS
PFBA	1.018	0.931	0.905	0.934	0.936	0.881	0.816	6	20		0.997	
PFPeA	0.983	0.897	0.863	0.883	0.914	0.858	0.814	6	20		0.998	
PFBS	1.158	0.984	0.907	0.979	0.951	0.960	0.893	8	20		0.999	
4:2-FTS	1.777	1.830	1.827	1.860	1.869	1.731	1.702	3	20		0.999	
PFHxA	1.369	1.233	1.246	1.275	1.253	1.109	N/A	6	20		0.996	
PFPeS	0.454	0.467	0.444	0.498	0.474	0.471	0.470	3	20		1.000	
PFHxS	0.955	0.955	0.893	0.948	0.948	0.935	0.929	2	20		1.000	
PFHpA	1.634	1.603	1.590	1.563	1.579	1.432	N/A	4	20		0.998	
6:2-FTS	1.464	2.292	2.080	2.004	2.131	1.864	1.866	13	20		0.998	
PFHpS	0.984	0.904	0.893	0.946	0.924	0.891	0.903	3	20		1.000	
PFOA	0.969	0.972	0.946	0.995	0.956	0.913	0.852	5	20		0.998	
PFOS	0.998	0.997	0.938	0.958	0.930	0.927	0.914	3	20		1.000	
PFNA	1.571	1.383	1.459	1.439	1.491	1.379	1.276	6	20		0.997	
PFNS	0.553	0.609	0.611	0.650	0.603	0.625	0.588	5	20		0.999	
PFDA	0.980	0.945	0.957	0.980	1.004	0.925	0.875	4	20		0.998	
8:2-FTS	2.603	2.513	2.112	2.184	2.222	2.072	N/A	9	20		0.999	
PFOSA	0.896	0.979	0.964	0.988	0.831	0.967	0.917	6	20		0.998	
NMeFOSAA	0.867	1.180	0.991	1.053	1.044	0.948	0.962	9	20		0.999	
PFDS	0.528	0.545	0.492	0.534	0.504	0.495	0.500	4	20		1.000	
PFUnDA	1.982	1.865	1.891	1.818	1.849	1.776	1.696	5	20		0.999	
NEtFOSAA	1.063	1.102	1.103	1.149	1.294	1.132	1.156	6	20		0.998	
PFDODA	1.032	1.006	0.944	0.916	0.972	0.902	N/A	5	20		0.999	
10:2-FTS	1.769	1.760	1.607	1.411	1.601	1.578	1.513	7	20		0.999	
NMePFOSAE	1.362	1.238	1.132	1.225	1.231	1.175	1.053	7	20		0.996	
NMePFOSA	0.899	1.015	0.938	0.855	0.985	0.914	0.866	6	20		0.998	
PFDoS	0.247	0.249	0.266	0.257	0.245	0.243	0.249	3	20		1.000	
NEtPFOSAE	1.848	1.807	1.624	1.689	1.741	1.603	1.488	7	20		0.997	
NEtPFOSA	1.082	0.962	0.983	1.069	1.170	1.145	1.133	7	20		1.000	
PFTTrDA	0.992	0.824	0.844	0.816	0.844	0.766	N/A	8	20		0.998	
PFTeDA	0.989	0.821	0.895	0.892	0.889	0.857	0.837	6	20		0.999	
PFHxDA	0.475	0.422	0.418	0.420	0.425	0.395	0.400	6	20		0.999	
PFODA	0.385	0.357	0.356	0.356	0.370	0.340	0.348	4	20		0.999	

DOD Initial Calibration Verification

Instrument ID: LM27631

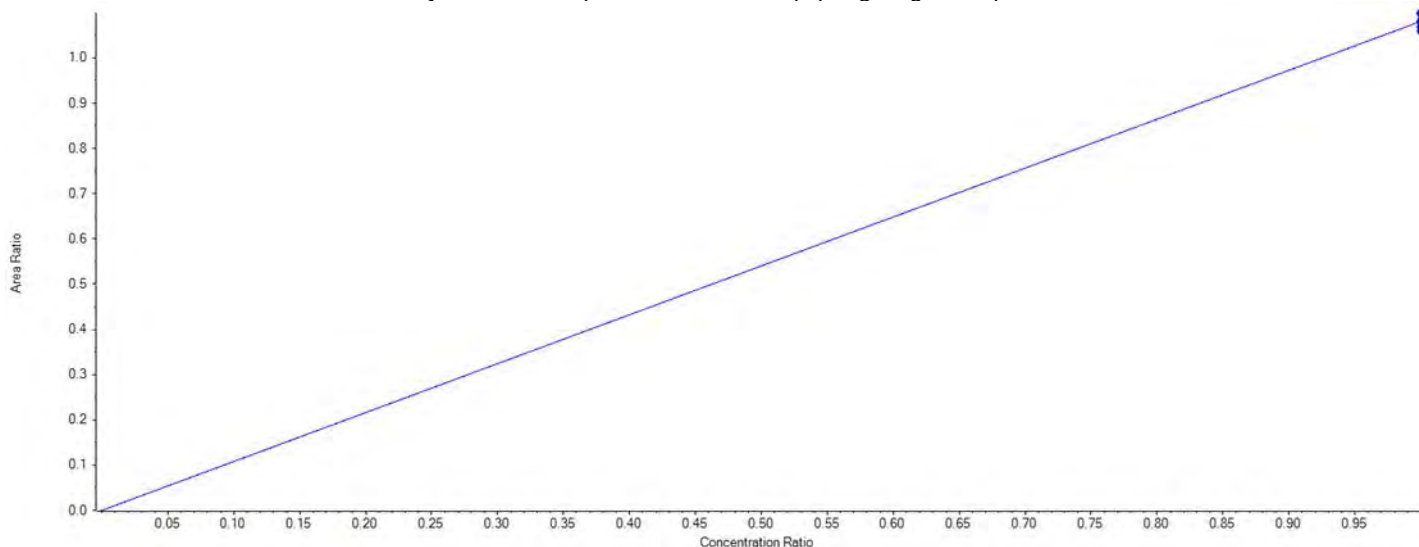
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C4-PFBA

 $y = 1.08045 x$ (std. dev. = 0.01457) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C4-PFBA Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	794718.9	750779.984	True	5.00	1.059	3.27	1.000	5.000	4.899	-2	30	
CAL2	782732.8	723209.911	True	5.00	1.082	3.27	1.000	5.000	5.009	0	30	
CAL3	787180.2	730410.641	True	5.00	1.078	3.27	1.000	5.000	4.987	0	30	
CAL4	771359.1	721806.781	True	5.00	1.069	3.27	1.000	5.000	4.945	-1	30	
CAL5	728925.1	664213.611	True	5.00	1.097	3.27	1.000	5.000	5.079	2	30	
CAL6	647849.6	600246.701	True	5.00	1.079	3.26	1.000	5.000	4.995	0	30	
CAL7	609686.1	554647.432	True	5.00	1.099	3.26	1.000	5.000	5.087	2	30	

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DOD Initial Calibration Verification

Instrument ID: LM27631

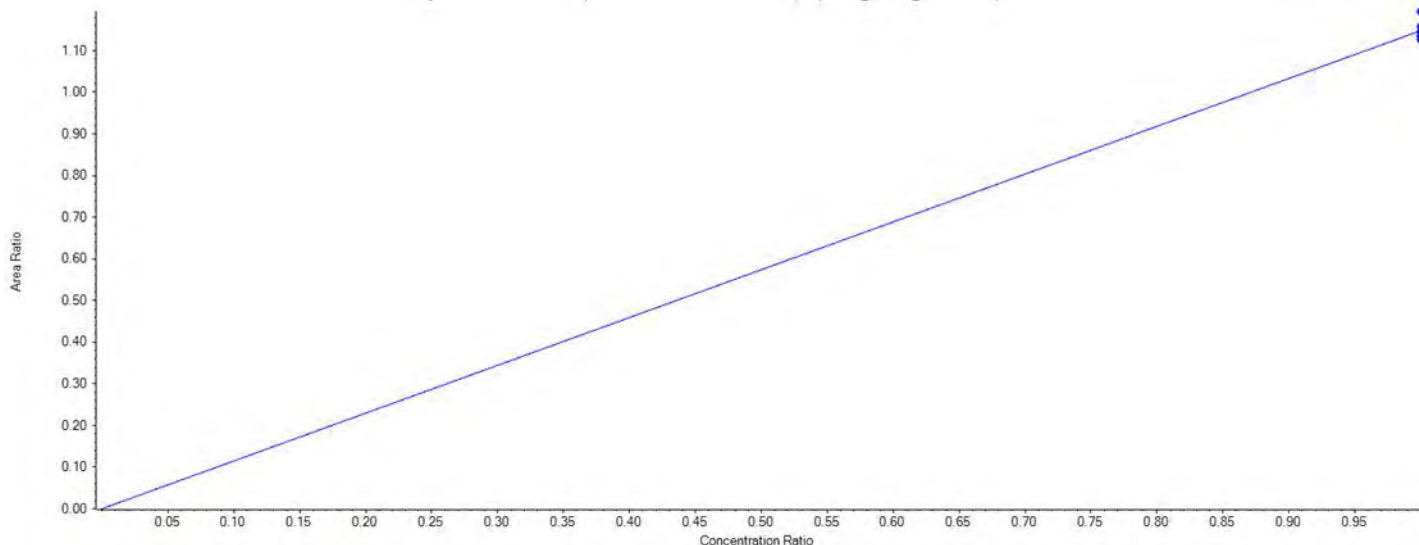
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C5-PFPeA

 $y = 1.14776 x$ (std. dev. = 0.02271) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C5-PFPeA Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	844850.2	750779.984	True	5.00	1.125	3.77	1.150	5.000	4.902	-2	30	
CAL2	863262.8	723209.911	True	5.00	1.194	3.77	1.150	5.000	5.200	4	30	
CAL3	829978.5	730410.641	True	5.00	1.136	3.77	1.150	5.000	4.950	-1	30	
CAL4	824842.8	721806.781	True	5.00	1.143	3.77	1.150	5.000	4.978	0	30	
CAL5	768958.1	664213.611	True	5.00	1.158	3.77	1.150	5.000	5.043	1	30	
CAL6	687796.7	600246.701	True	5.00	1.146	3.76	1.150	5.000	4.992	0	30	
CAL7	628265.5	554647.432	True	5.00	1.133	3.76	1.150	5.000	4.935	-1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

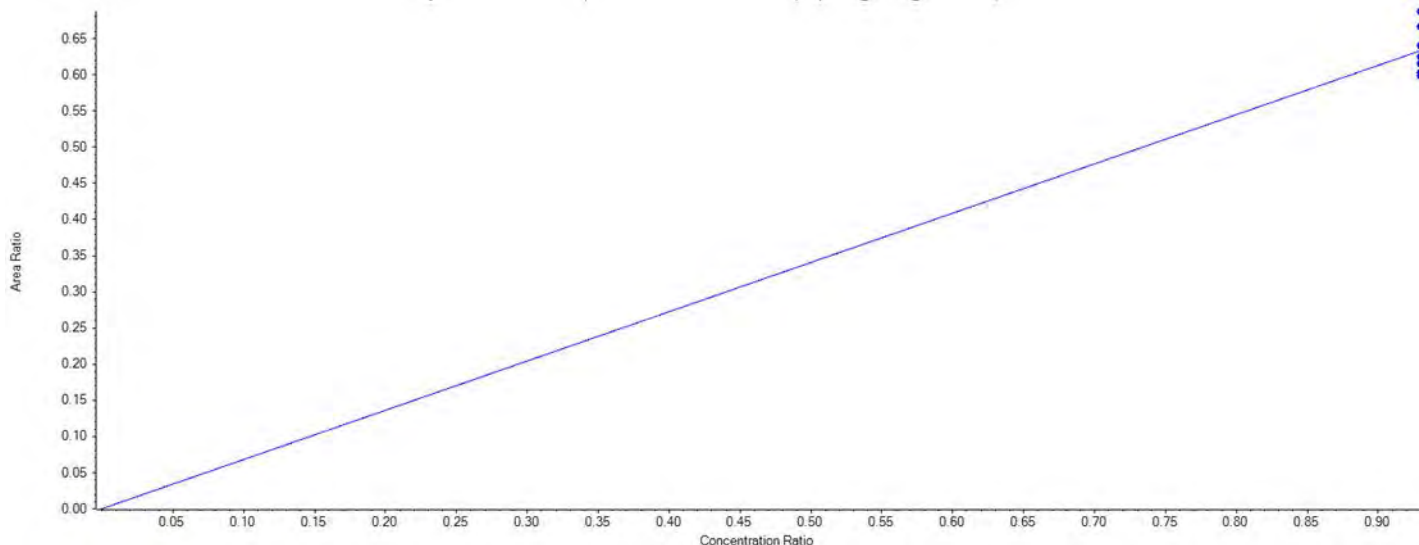
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C3-PFBS

 $y = 0.68128 x$ (std. dev. = 0.03575) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C3-PFBS Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	449266.3	750779.984	True	5.00	0.598	3.82	1.170	4.650	4.392	-6	30	
CAL2	444721.3	723209.911	True	5.00	0.615	3.82	1.170	4.650	4.513	-3	30	
CAL3	456815.2	730410.641	True	5.00	0.625	3.82	1.170	4.650	4.590	-1	30	
CAL4	434938.9	721806.781	True	5.00	0.603	3.81	1.170	4.650	4.422	-5	30	
CAL5	442479.7	664213.611	True	5.00	0.666	3.82	1.170	4.650	4.889	5	30	
CAL6	384220.8	600246.701	True	5.00	0.640	3.81	1.170	4.650	4.698	1	30	
CAL7	381345.5	554647.432	True	5.00	0.688	3.81	1.170	4.650	5.046	9	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

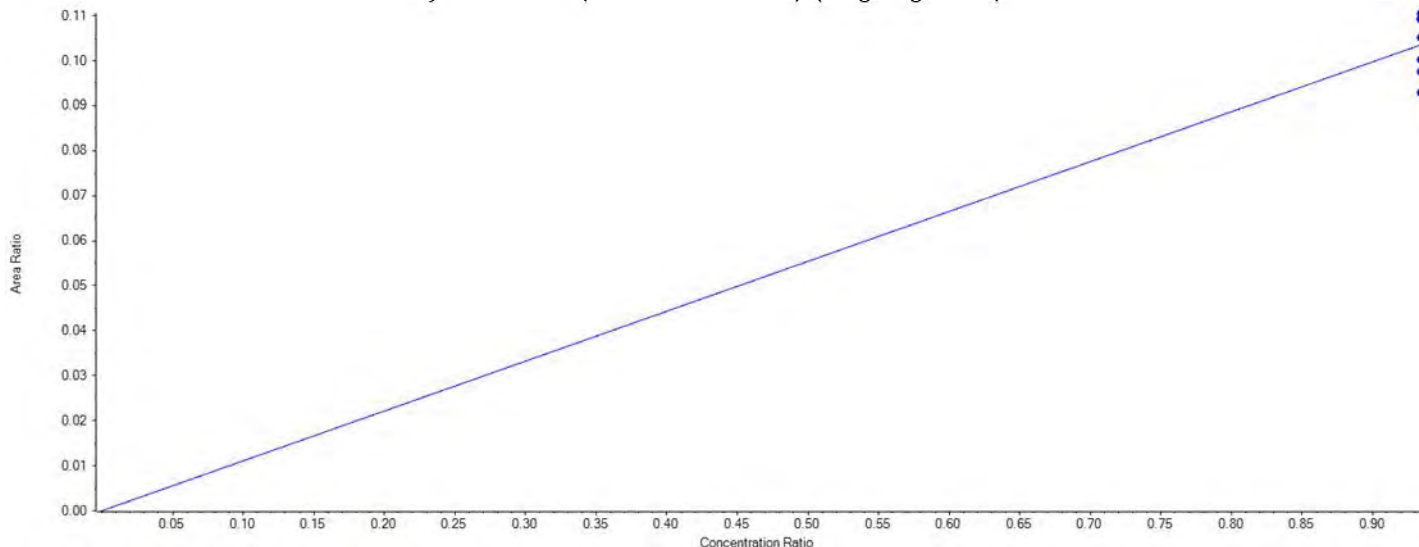
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-4:2-FTS

 $y = 0.11081 x$ (std. dev. = 0.00728) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-4:2-FTS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	58330.9	534171.859	True	5.00	0.109	4.13	0.840	4.670	4.927	6	30	
CAL2	54234.1	516360.932	True	5.00	0.105	4.13	0.840	4.670	4.739	1	30	
CAL3	48706.0	524423.602	True	5.00	0.093	4.13	0.840	4.670	4.191	-10	30	
CAL4	51520.6	528557.819	True	5.00	0.097	4.13	0.840	4.670	4.398	-6	30	
CAL5	48869.9	488019.600	True	5.00	0.100	4.13	0.840	4.670	4.519	-3	30	
CAL6	50041.3	457854.860	True	5.00	0.109	4.12	0.840	4.670	4.932	6	30	
CAL7	46334.2	419465.882	True	5.00	0.110	4.13	0.840	4.670	4.984	7	30	

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By JPT at 2:53 pm, 11/7/18

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By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

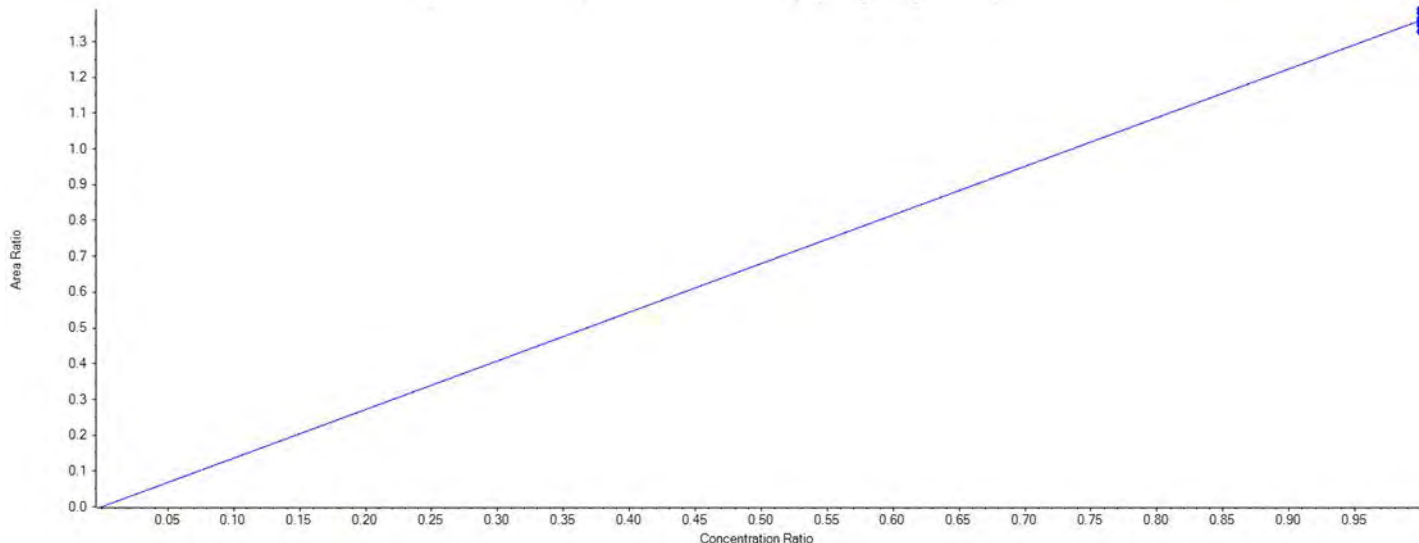
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C5-PFHxA

 $y = 1.35927 \times (\text{std. dev.} = 0.02135)$ (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C5-PFHxA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	725432.0	534171.859	True	5.00	1.358	4.17	0.850	5.000	4.996	0	30	
CAL2	717434.9	516360.932	True	5.00	1.389	4.17	0.850	5.000	5.111	2	30	
CAL3	705369.0	524423.602	True	5.00	1.345	4.17	0.850	5.000	4.948	-1	30	
CAL4	713446.3	528557.819	True	5.00	1.350	4.16	0.850	5.000	4.965	-1	30	
CAL5	674375.4	488019.600	True	5.00	1.382	4.17	0.850	5.000	5.083	2	30	
CAL6	607820.1	457854.860	True	5.00	1.328	4.16	0.850	5.000	4.883	-2	30	
CAL7	571807.5	419465.882	True	5.00	1.363	4.16	0.850	5.000	5.014	0	30	

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DOD Initial Calibration Verification

Instrument ID: LM27631

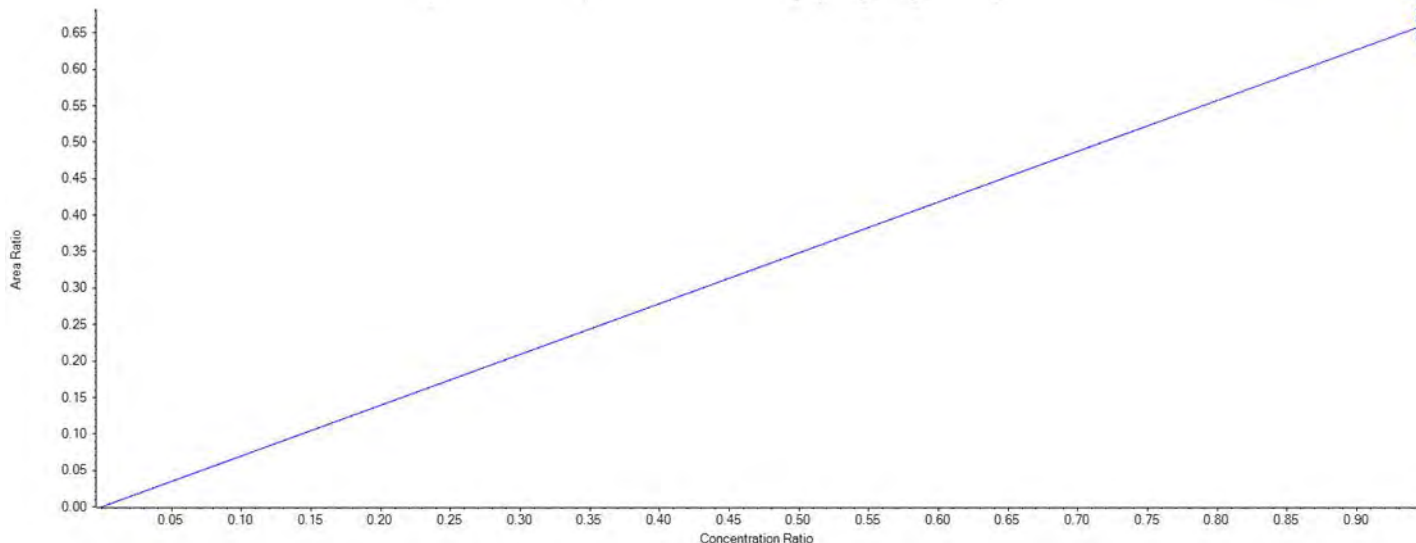
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C3-PFHxS

 $y = 0.69649x$ (std. dev. = 0.01583) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C3-PFHxS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	358771.3	534171.859	True	5.00	0.672	4.56	0.930	4.730	4.822	2	30	
CAL2	335732.1	516360.932	True	5.00	0.650	4.56	0.920	4.730	4.668	-1	30	
CAL3	343139.5	524423.602	True	5.00	0.654	4.56	0.930	4.730	4.697	-1	30	
CAL4	339090.5	528557.819	True	5.00	0.642	4.55	0.930	4.730	4.606	-3	30	
CAL5	332808.5	488019.600	True	5.00	0.682	4.55	0.920	4.730	4.896	4	30	
CAL6	295466.2	457854.860	True	5.00	0.645	4.55	0.920	4.730	4.633	-2	30	
CAL7	279859.6	419465.882	True	5.00	0.667	4.55	0.930	4.730	4.790	1	30	

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By JPT at 2:53 pm, 11/7/18

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DOD Initial Calibration Verification

Instrument ID: LM27631

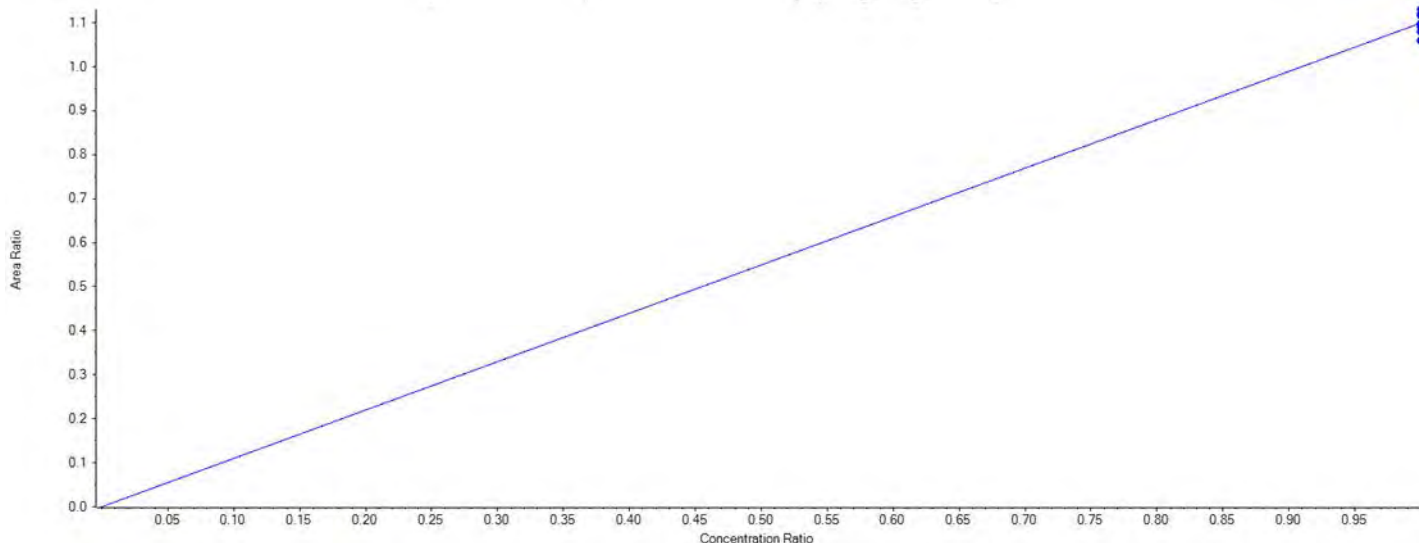
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C4-PFHpA

 $y = 1.09911 x$ (std. dev. = 0.02508) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C4-PFHpA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	586580.3	534171.859	True	5.00	1.098	4.56	0.930	5.000	4.995	0	30	
CAL2	583342.8	516360.932	True	5.00	1.130	4.55	0.920	5.000	5.139	3	30	
CAL3	566495.6	524423.602	True	5.00	1.080	4.56	0.930	5.000	4.914	-2	30	
CAL4	592497.9	528557.819	True	5.00	1.121	4.55	0.920	5.000	5.099	2	30	
CAL5	544681.1	488019.600	True	5.00	1.116	4.55	0.920	5.000	5.077	2	30	
CAL6	484763.2	457854.860	True	5.00	1.059	4.55	0.920	5.000	4.816	-4	30	
CAL7	457160.4	419465.882	True	5.00	1.090	4.55	0.920	5.000	4.958	-1	30	

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DOD Initial Calibration Verification

Instrument ID: LM27631

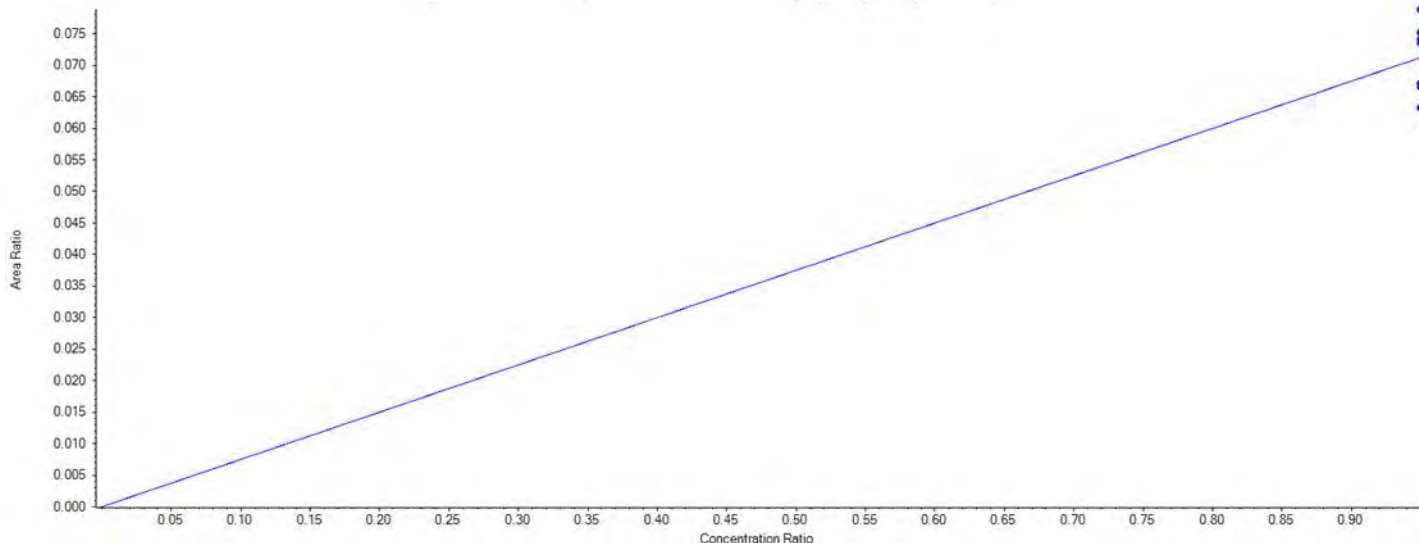
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-6:2-FTS

 $y = 0.07498 x$ (std. dev. = 0.00592) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-6:2-FTS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	42112.8	534171.859	True	5.00	0.079	4.91	1.000	4.750	5.257	11	30	
CAL2	38849.6	516360.932	True	5.00	0.075	4.91	1.000	4.750	5.017	6	30	
CAL3	38605.5	524423.602	True	5.00	0.074	4.91	1.000	4.750	4.909	3	30	
CAL4	39121.7	528557.819	True	5.00	0.074	4.91	1.000	4.750	4.936	4	30	
CAL5	32735.6	488019.600	True	5.00	0.067	4.91	1.000	4.750	4.473	-6	30	
CAL6	30466.8	457854.860	True	5.00	0.067	4.90	1.000	4.750	4.437	-7	30	
CAL7	26549.1	419465.882	True	5.00	0.063	4.91	1.000	4.750	4.221	-11	30	

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By JPT at 2:53 pm, 11/7/18

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DOD Initial Calibration Verification

Instrument ID: LM27631

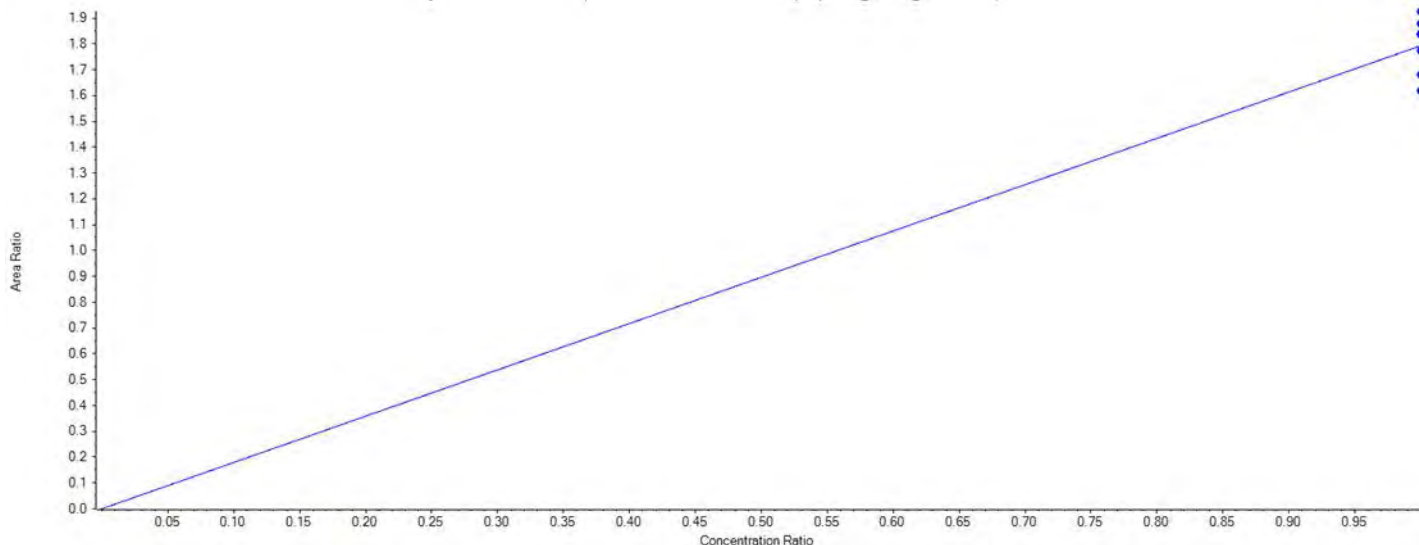
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C8-PFOA

 $y = 1.79299 x$ (std. dev. = 0.10993) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C8-PFOA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	1028414.9	534171.859	True	5.00	1.925	4.93	1.000	5.000	5.369	7	30	
CAL2	970523.2	516360.932	True	5.00	1.880	4.92	1.000	5.000	5.241	5	30	
CAL3	964414.6	524423.602	True	5.00	1.839	4.93	1.000	5.000	5.128	3	30	
CAL4	937287.5	528557.819	True	5.00	1.773	4.92	1.000	5.000	4.945	-1	30	
CAL5	895692.2	488019.600	True	5.00	1.835	4.92	1.000	5.000	5.118	2	30	
CAL6	769164.4	457854.860	True	5.00	1.680	4.92	1.000	5.000	4.685	-6	30	
CAL7	678914.6	419465.882	True	5.00	1.619	4.92	1.000	5.000	4.513	-10	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

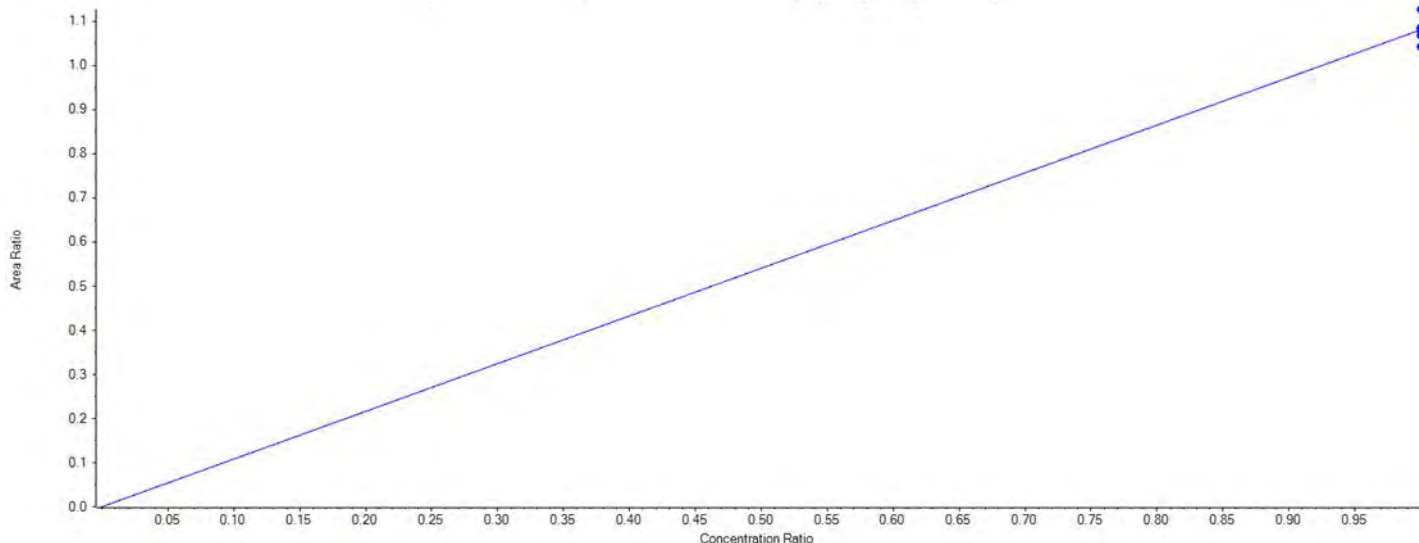
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C8-PFOS

 $y = 1.08099 x$ (std. dev. = 0.02540) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C8-PFOS Area	13C4-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	307224.3	272674.740	True	4.78	1.127	5.25	1.000	4.780	4.982	4	30	
CAL2	286174.8	263756.990	True	4.78	1.085	5.25	1.000	4.780	4.798	0	30	
CAL3	297259.7	274061.672	True	4.78	1.085	5.25	1.000	4.780	4.796	0	30	
CAL4	291941.6	270733.913	True	4.78	1.078	5.25	1.000	4.780	4.768	0	30	
CAL5	297995.6	275029.173	True	4.78	1.084	5.25	1.000	4.780	4.791	0	30	
CAL6	268369.0	251499.907	True	4.78	1.067	5.24	1.000	4.780	4.718	-1	30	
CAL7	264295.9	253720.801	True	4.78	1.042	5.24	1.000	4.780	4.606	-4	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

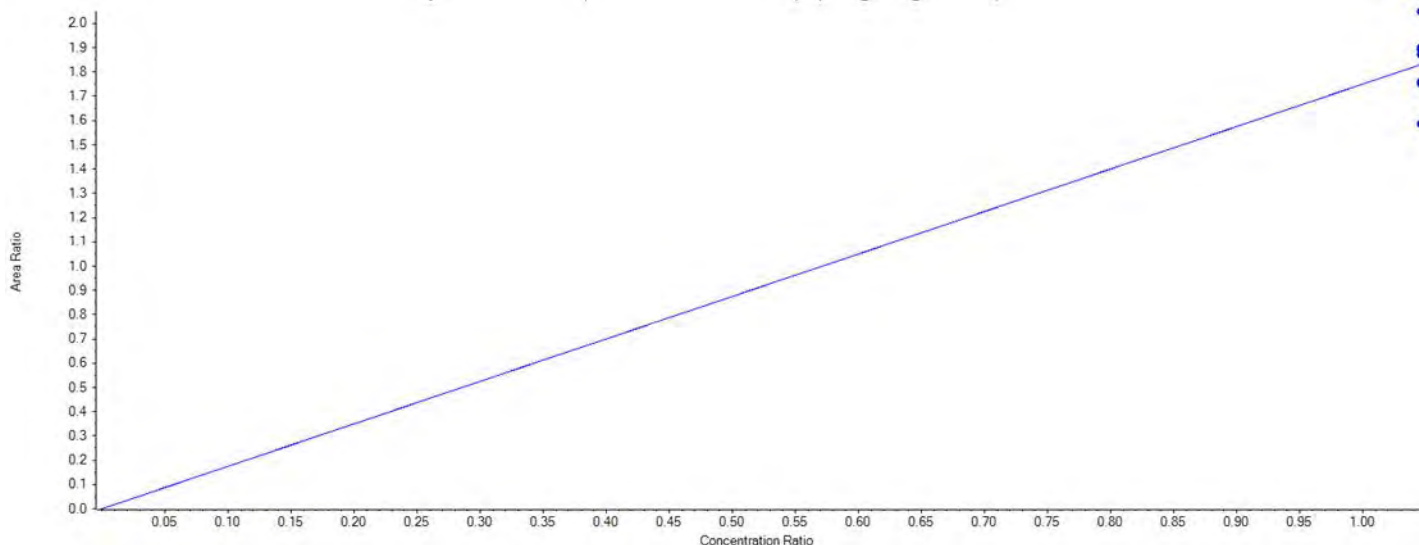
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C9-PFNA

 $y = 1.74992 x$ (std. dev. = 0.13964) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C9-PFNA Area	13C4-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	518118.7	272674.740	True	4.78	1.900	5.27	1.000	5.000	5.190	4	30	
CAL2	540435.4	263756.990	True	4.78	2.049	5.27	1.000	5.000	5.597	12	30	
CAL3	513116.0	274061.672	True	4.78	1.872	5.27	1.000	5.000	5.114	2	30	
CAL4	512147.4	270733.913	True	4.78	1.892	5.26	1.000	5.000	5.167	3	30	
CAL5	484419.3	275029.173	True	4.78	1.761	5.27	1.000	5.000	4.811	-4	30	
CAL6	440319.0	251499.907	True	4.78	1.751	5.26	1.000	5.000	4.782	-4	30	
CAL7	402916.7	253720.801	True	4.78	1.588	5.26	1.000	5.000	4.338	-13	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

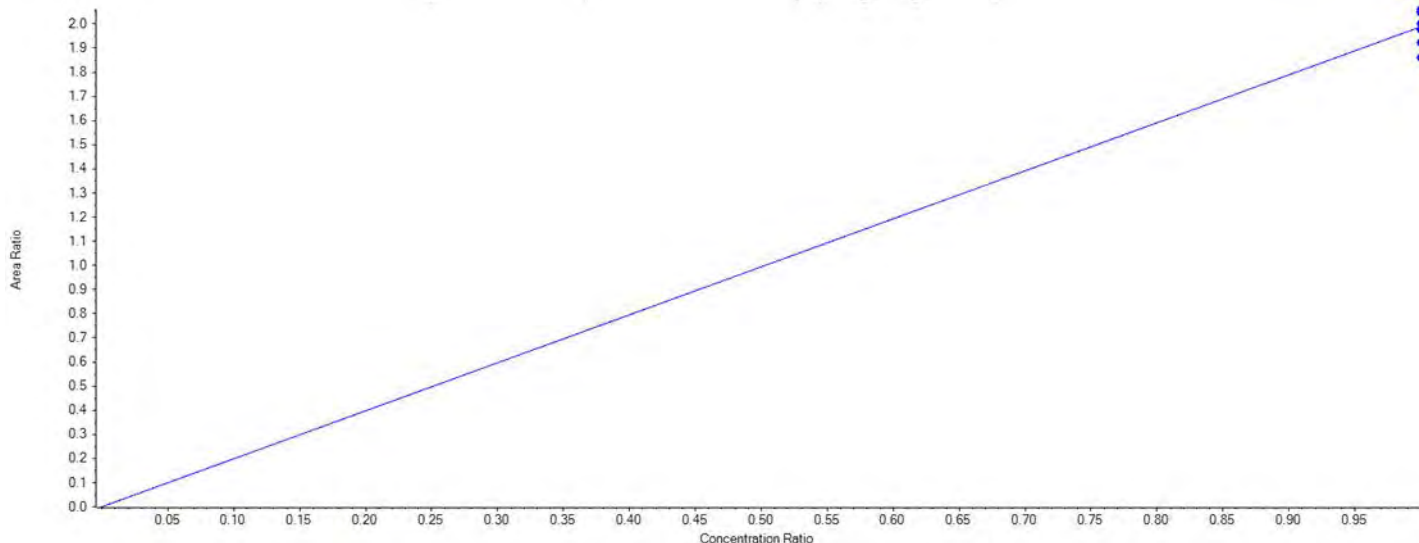
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C6-PFDA

 $y = 1.98822 x$ (std. dev. = 0.07436) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C6-PFDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	651348.0	338833.714	True	5.00	1.922	5.57	1.000	5.000	4.834	-3	30	
CAL2	661423.8	334958.441	True	5.00	1.975	5.57	1.000	5.000	4.966	-1	30	
CAL3	639022.8	311442.089	True	5.00	2.052	5.57	1.000	5.000	5.160	3	30	
CAL4	656868.3	320985.487	True	5.00	2.046	5.56	1.000	5.000	5.146	3	30	
CAL5	598009.7	298912.145	True	5.00	2.001	5.57	1.000	5.000	5.031	1	30	
CAL6	536626.2	260528.967	True	5.00	2.060	5.56	1.000	5.000	5.180	4	30	
CAL7	480927.9	258292.235	True	5.00	1.862	5.56	1.000	5.000	4.682	-6	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

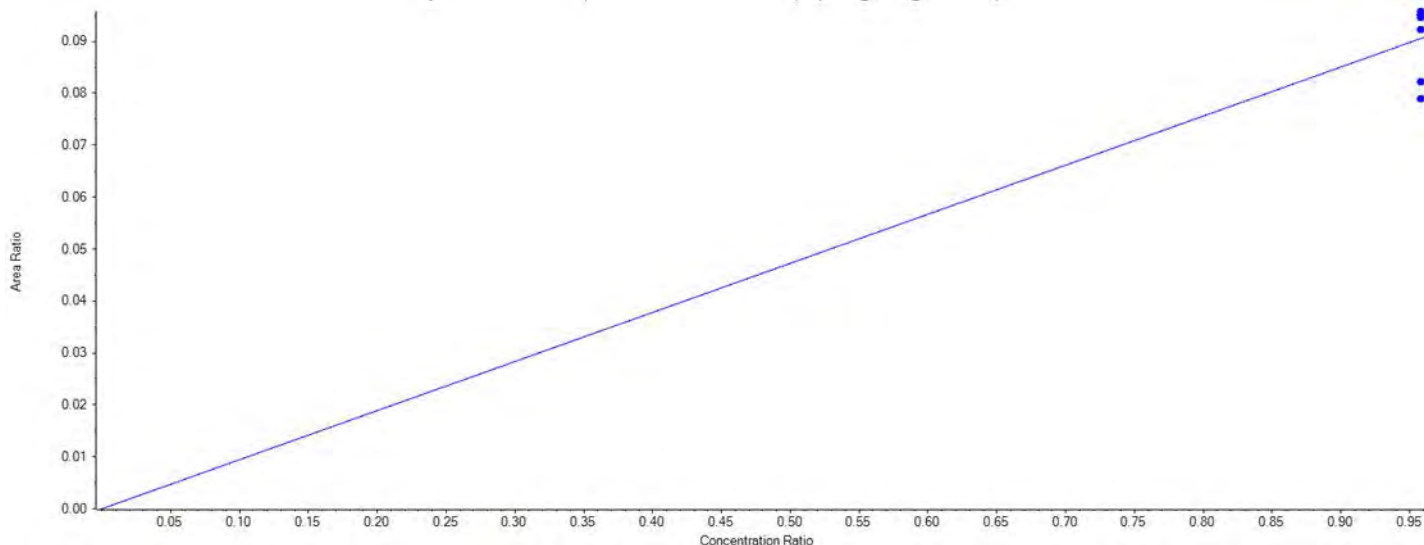
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-8:2-FTS

 $y = 0.09449x$ (std. dev. = 0.00729) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-8:2-FTS Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	26730.2	338833.714	True	5.00	0.079	5.57	1.000	4.790	4.174	-13	30	
CAL2	27523.0	334958.441	True	5.00	0.082	5.57	1.000	4.790	4.348	-9	30	
CAL3	29468.3	311442.089	True	5.00	0.095	5.57	1.000	4.790	5.007	5	30	
CAL4	30500.3	320985.487	True	5.00	0.095	5.57	1.000	4.790	5.028	5	30	
CAL5	27554.0	298912.145	True	5.00	0.092	5.57	1.000	4.790	4.878	2	30	
CAL6	24938.2	260528.967	True	5.00	0.096	5.56	1.000	4.790	5.065	6	30	
CAL7	24555.7	258292.235	True	5.00	0.095	5.57	1.000	4.790	5.031	5	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

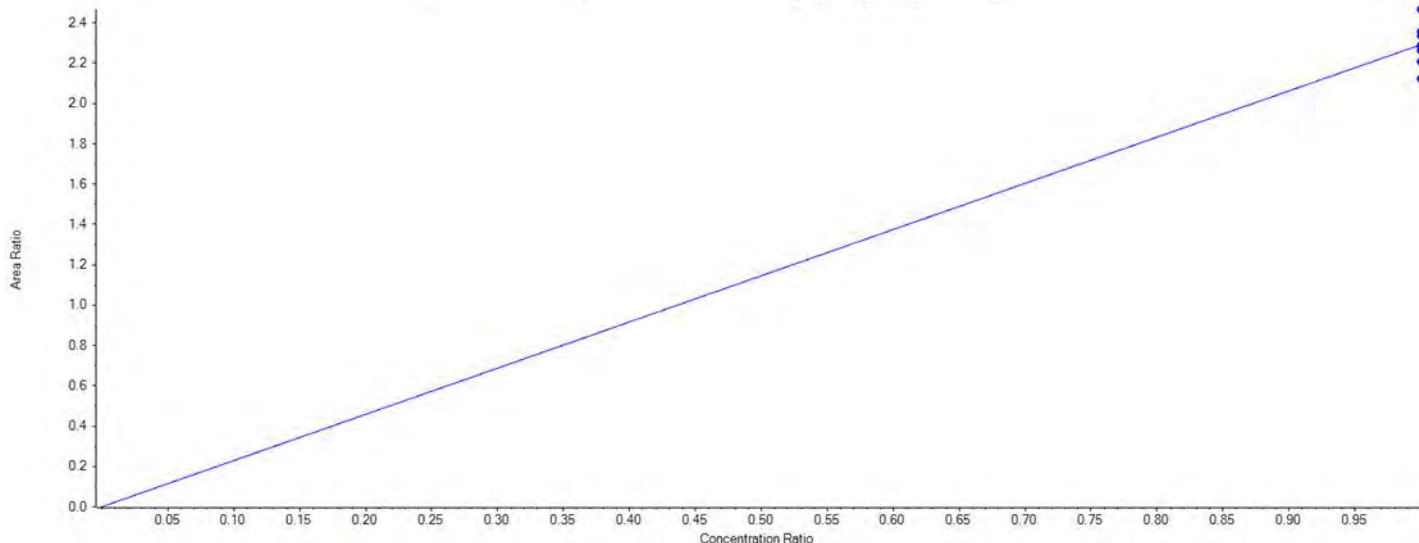
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C8-PFOSA

 $y = 2.29132 x$ (std. dev. = 0.11051) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C8-PFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	774962.8	338833.714	True	5.00	2.287	5.64	1.010	5.000	4.991	0	30	
CAL2	711032.2	334958.441	True	5.00	2.123	5.64	1.010	5.000	4.632	-7	30	
CAL3	704745.5	311442.089	True	5.00	2.263	5.64	1.010	5.000	4.938	-1	30	
CAL4	708330.5	320985.487	True	5.00	2.207	5.64	1.010	5.000	4.815	-4	30	
CAL5	737038.5	298912.145	True	5.00	2.466	5.64	1.010	5.000	5.381	8	30	
CAL6	614406.4	260528.967	True	5.00	2.358	5.64	1.010	5.000	5.146	3	30	
CAL7	603296.1	258292.235	True	5.00	2.336	5.64	1.010	5.000	5.097	2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

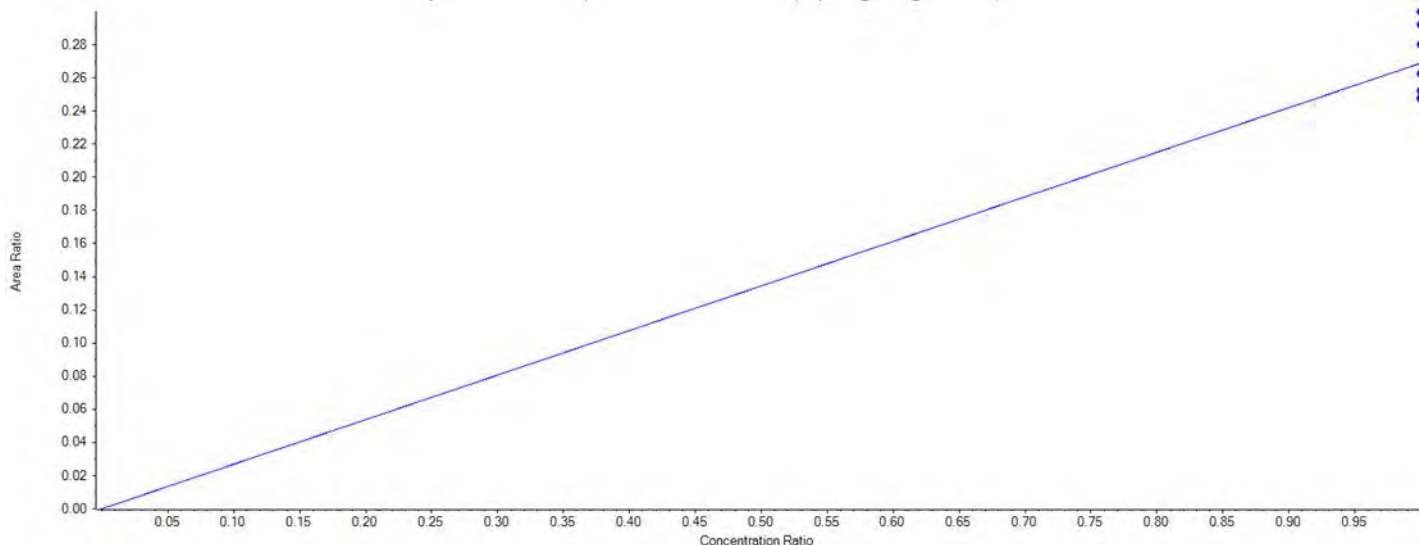
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

Ed3-NMeFOSAA

 $y = 0.26888 x$ (std. dev. = 0.02181) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed3-NMeFOSAA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	94967.0	338833.714	True	5.00	0.280	5.71	1.030	5.000	5.212	4	30	
CAL2	83112.2	334958.441	True	5.00	0.248	5.71	1.020	5.000	4.614	-8	30	
CAL3	81763.3	311442.089	True	5.00	0.263	5.71	1.030	5.000	4.882	-2	30	
CAL4	80900.1	320985.487	True	5.00	0.252	5.70	1.030	5.000	4.687	-6	30	
CAL5	73896.1	298912.145	True	5.00	0.247	5.71	1.020	5.000	4.597	-8	30	
CAL6	78158.0	260528.967	True	5.00	0.300	5.70	1.020	5.000	5.579	12	30	
CAL7	75408.7	258292.235	True	5.00	0.292	5.70	1.020	5.000	5.429	9	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

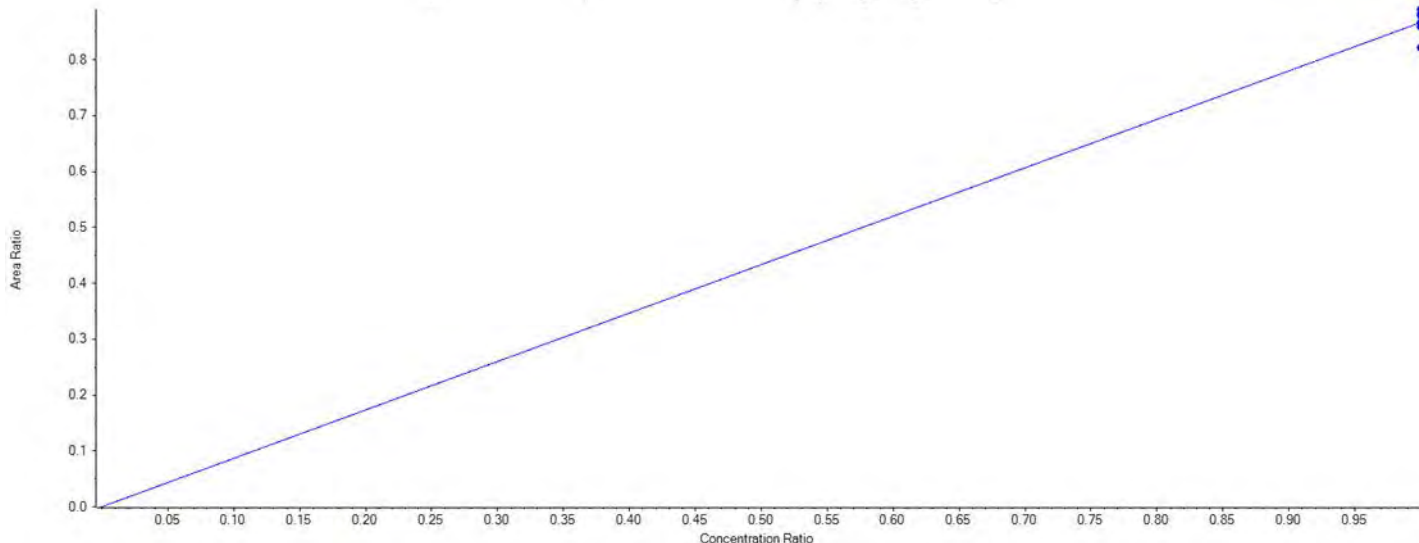
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C7-PFUnDA

 $y = 0.86673 \times (\text{std. dev.} = 0.02232)$ (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C7-PFUnDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	293658.7	338833.714	True	5.00	0.867	5.83	1.050	5.000	5.000	0	30	
CAL2	289985.1	334958.441	True	5.00	0.866	5.83	1.050	5.000	4.994	0	30	
CAL3	277115.5	311442.089	True	5.00	0.890	5.83	1.050	5.000	5.133	3	30	
CAL4	275977.2	320985.487	True	5.00	0.860	5.83	1.050	5.000	4.960	-1	30	
CAL5	263924.7	298912.145	True	5.00	0.883	5.83	1.050	5.000	5.094	2	30	
CAL6	229237.1	260528.967	True	5.00	0.880	5.82	1.050	5.000	5.076	2	30	
CAL7	212399.8	258292.235	True	5.00	0.822	5.82	1.050	5.000	4.744	-5	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

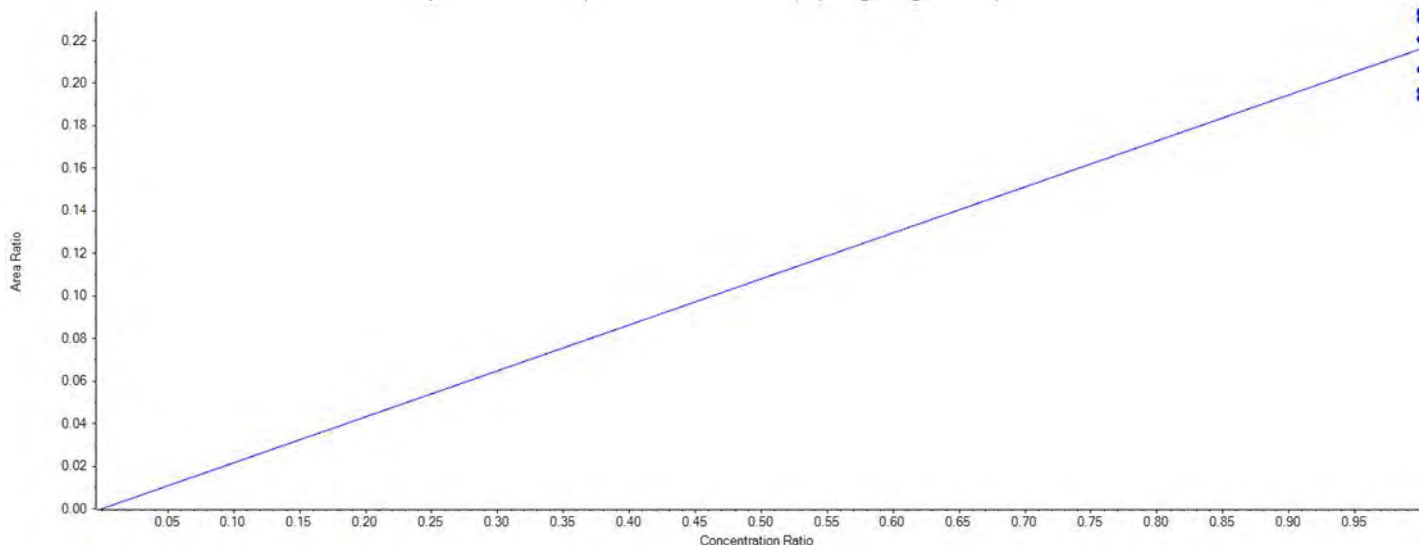
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

Ed5-NEtFOSAA

 $y = 0.21606 x$ (std. dev. = 0.01730) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed5-NEtFOSAA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	77938.3	338833.714	True	5.00	0.230	5.84	1.050	5.000	5.323	6	30	
CAL2	65815.9	334958.441	True	5.00	0.196	5.84	1.050	5.000	4.547	-9	30	
CAL3	72755.7	311442.089	True	5.00	0.234	5.84	1.050	5.000	5.406	8	30	
CAL4	66162.4	320985.487	True	5.00	0.206	5.84	1.050	5.000	4.770	-5	30	
CAL5	57745.7	298912.145	True	5.00	0.193	5.84	1.050	5.000	4.471	-11	30	
CAL6	60556.6	260528.967	True	5.00	0.232	5.83	1.050	5.000	5.379	8	30	
CAL7	56963.1	258292.235	True	5.00	0.221	5.84	1.050	5.000	5.104	2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

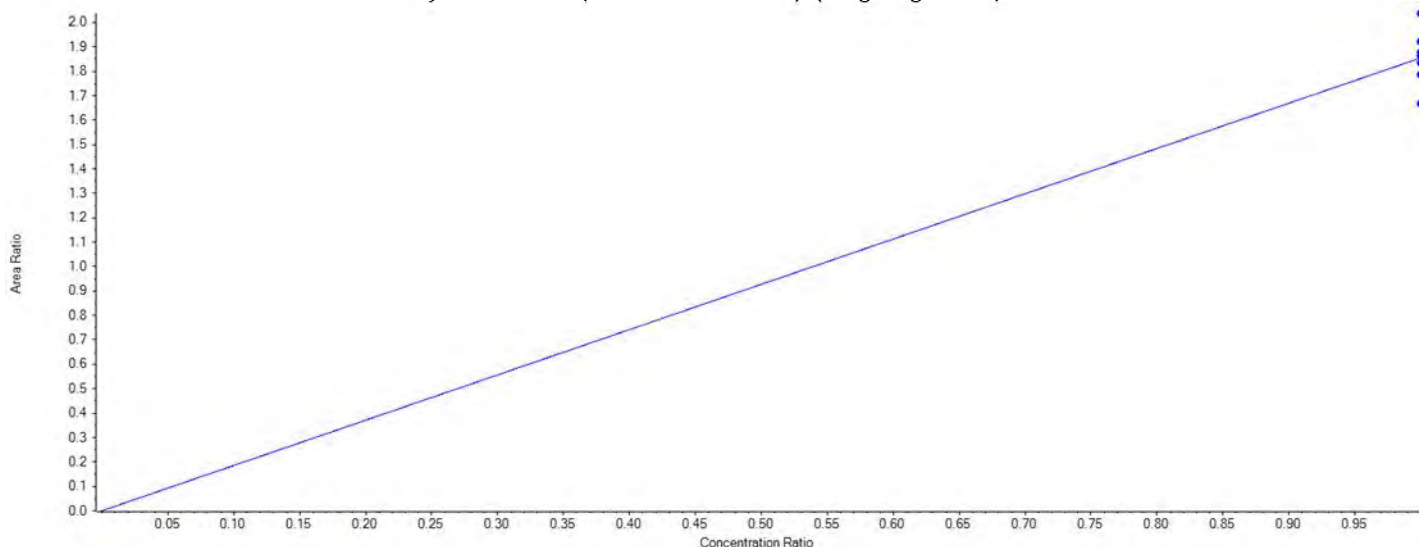
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-PFDoDA

 $y = 1.85471 x$ (std. dev. = 0.11432) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-PFDoDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	564794.9	338833.714	True	5.00	1.667	6.06	1.090	5.000	4.494	-10	30	
CAL2	597616.3	334958.441	True	5.00	1.784	6.06	1.090	5.000	4.810	-4	30	
CAL3	584631.5	311442.089	True	5.00	1.877	6.06	1.090	5.000	5.061	1	30	
CAL4	598287.4	320985.487	True	5.00	1.864	6.05	1.090	5.000	5.025	0	30	
CAL5	548536.0	298912.145	True	5.00	1.835	6.06	1.090	5.000	4.947	-1	30	
CAL6	500065.3	260528.967	True	5.00	1.919	6.05	1.090	5.000	5.174	3	30	
CAL7	525971.8	258292.235	True	5.00	2.036	6.05	1.090	5.000	5.490	10	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

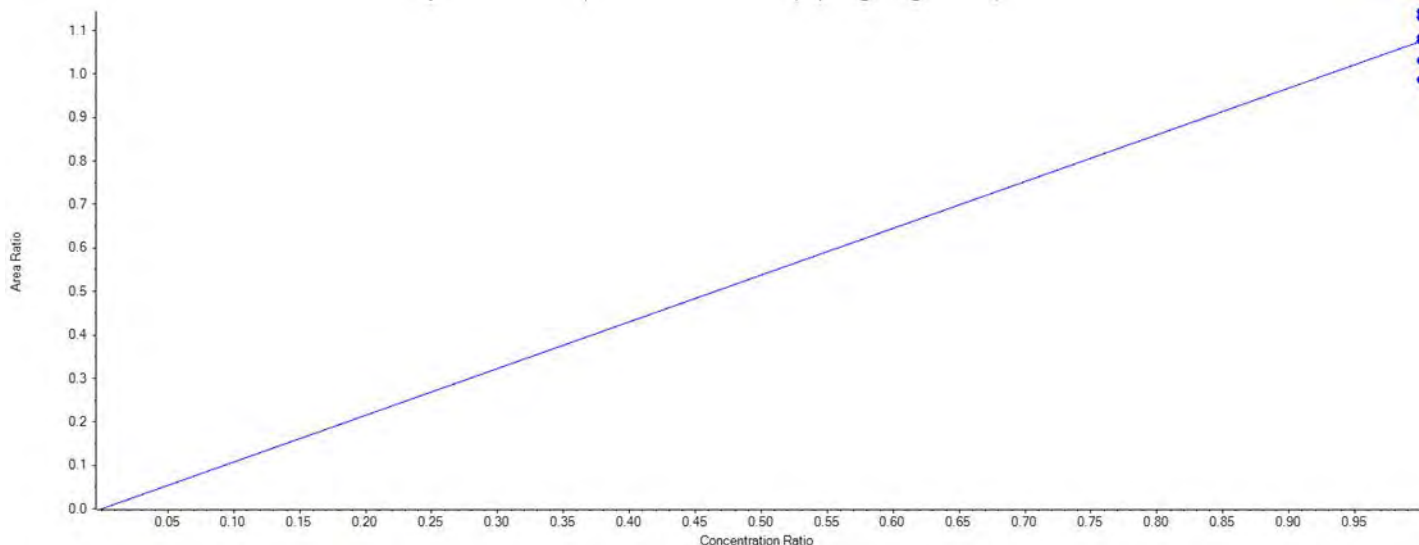
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

Ed7-NMePFOSAE

 $y = 1.07520 \times (\text{std. dev.} = 0.05435)$ (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed7-NMePFOSA E Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	366847.7	338833.714	True	5.00	1.083	6.09	1.090	5.000	5.035	1	30	
CAL2	330298.6	334958.441	True	5.00	0.986	6.09	1.090	5.000	4.586	-8	30	
CAL3	335206.8	311442.089	True	5.00	1.076	6.09	1.090	5.000	5.005	0	30	
CAL4	330968.7	320985.487	True	5.00	1.031	6.08	1.090	5.000	4.795	-4	30	
CAL5	321549.5	298912.145	True	5.00	1.076	6.09	1.090	5.000	5.002	0	30	
CAL6	294617.6	260528.967	True	5.00	1.131	6.08	1.090	5.000	5.259	5	30	
CAL7	295395.3	258292.235	True	5.00	1.144	6.08	1.090	5.000	5.318	6	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

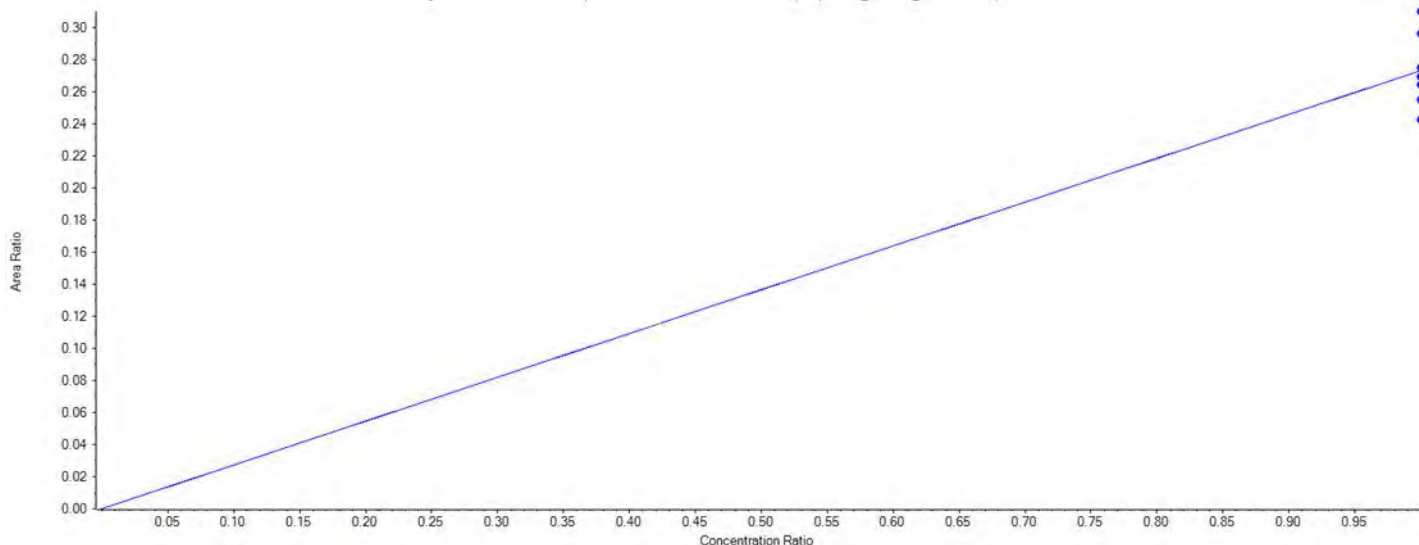
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

Ed3-NMePFOSA

 $y = 0.27311 x$ (std. dev. = 0.02323) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed3-NMePFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	89511.9	338833.714	True	5.00	0.264	6.10	1.100	5.000	4.836	-3	30	
CAL2	81301.2	334958.441	True	5.00	0.243	6.10	1.100	5.000	4.444	-11	30	
CAL3	79381.7	311442.089	True	5.00	0.255	6.10	1.100	5.000	4.666	-7	30	
CAL4	86399.4	320985.487	True	5.00	0.269	6.10	1.100	5.000	4.928	-1	30	
CAL5	82137.6	298912.145	True	5.00	0.275	6.10	1.100	5.000	5.031	1	30	
CAL6	77146.9	260528.967	True	5.00	0.296	6.09	1.100	5.000	5.421	8	30	
CAL7	80053.2	258292.235	True	5.00	0.310	6.10	1.100	5.000	5.674	13	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

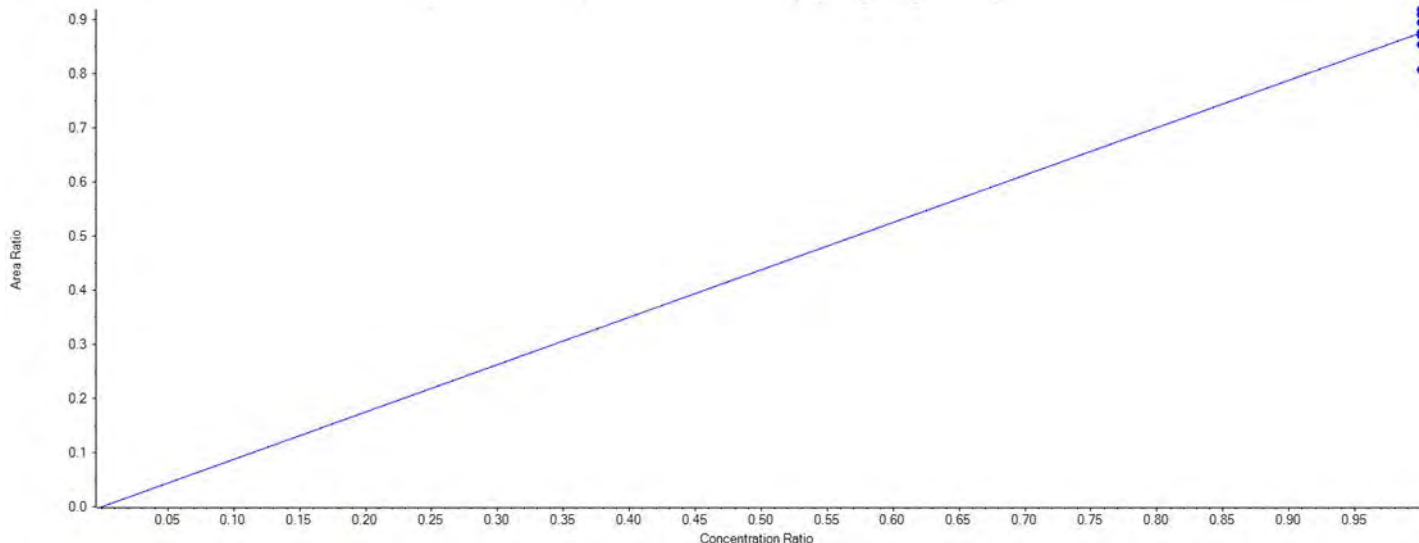
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

Ed9-NEtPFOSAE

 $y = 0.87553 x$ (std. dev. = 0.03759) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed9-NEtPFOSAE Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	296629.3	338833.714	True	5.00	0.875	6.24	1.120	5.000	5.000	0	30	
CAL2	270607.6	334958.441	True	5.00	0.808	6.24	1.120	5.000	4.614	-8	30	
CAL3	278375.1	311442.089	True	5.00	0.894	6.24	1.120	5.000	5.104	2	30	
CAL4	273909.1	320985.487	True	5.00	0.853	6.24	1.120	5.000	4.873	-3	30	
CAL5	259950.9	298912.145	True	5.00	0.870	6.24	1.120	5.000	4.966	-1	30	
CAL6	239317.0	260528.967	True	5.00	0.919	6.23	1.120	5.000	5.246	5	30	
CAL7	235038.0	258292.235	True	5.00	0.910	6.24	1.120	5.000	5.197	4	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

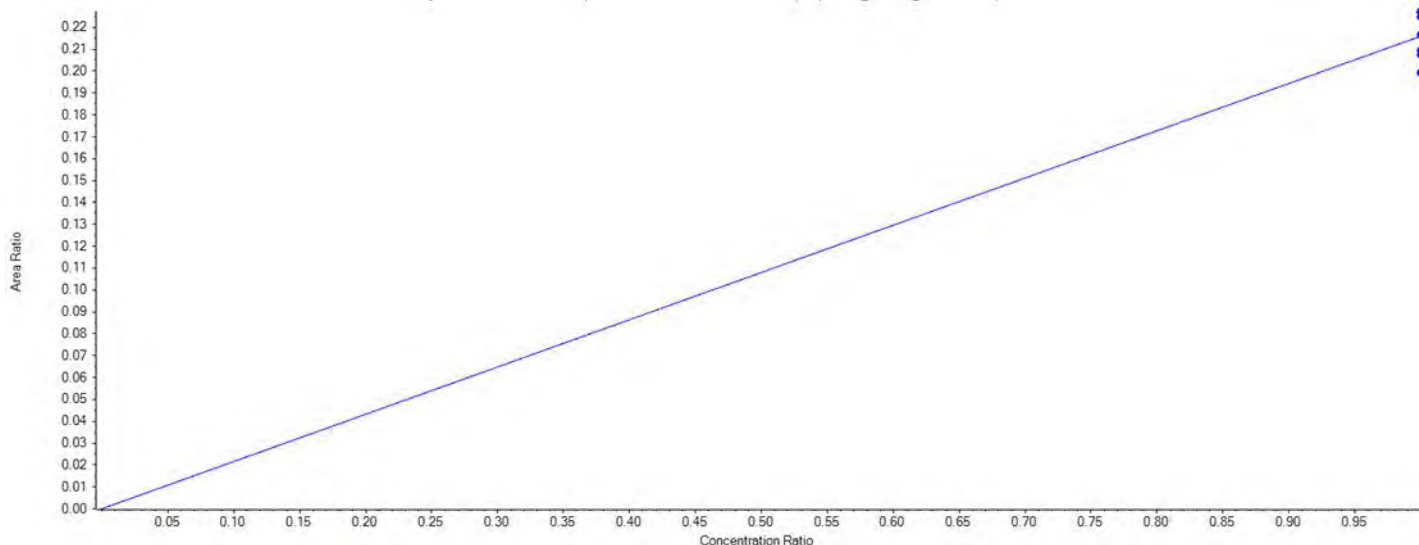
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

Ed5-NEtPFOSA

 $y = 0.21594 x$ (std. dev. = 0.01096) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed5-NEtPFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	70926.7	338833.714	True	5.00	0.209	6.26	1.120	5.000	4.847	-3	30	
CAL2	66745.4	334958.441	True	5.00	0.199	6.26	1.120	5.000	4.614	-8	30	
CAL3	67444.3	311442.089	True	5.00	0.217	6.26	1.120	5.000	5.014	0	30	
CAL4	72258.7	320985.487	True	5.00	0.225	6.26	1.120	5.000	5.212	4	30	
CAL5	62005.6	298912.145	True	5.00	0.207	6.26	1.120	5.000	4.803	-4	30	
CAL6	59054.4	260528.967	True	5.00	0.227	6.25	1.120	5.000	5.248	5	30	
CAL7	58686.1	258292.235	True	5.00	0.227	6.26	1.120	5.000	5.261	5	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

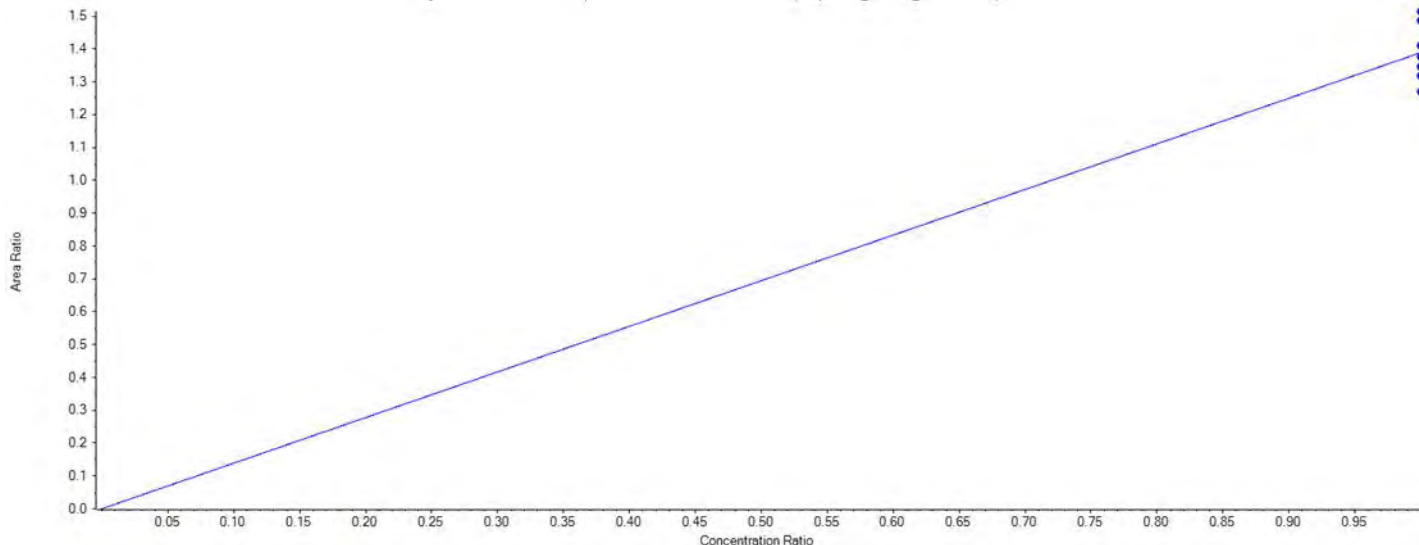
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-PFTeDA

 $y = 1.38890 x$ (std. dev. = 0.08847) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-PFTeDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	430341.3	338833.714	True	5.00	1.270	6.43	1.160	5.000	4.572	-9	30	
CAL2	441206.9	334958.441	True	5.00	1.317	6.43	1.160	5.000	4.742	-5	30	
CAL3	419341.7	311442.089	True	5.00	1.346	6.43	1.160	5.000	4.847	-3	30	
CAL4	441858.1	320985.487	True	5.00	1.377	6.43	1.160	5.000	4.956	-1	30	
CAL5	421798.8	298912.145	True	5.00	1.411	6.43	1.160	5.000	5.080	2	30	
CAL6	394433.9	260528.967	True	5.00	1.514	6.43	1.160	5.000	5.450	9	30	
CAL7	384058.1	258292.235	True	5.00	1.487	6.43	1.160	5.000	5.353	7	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

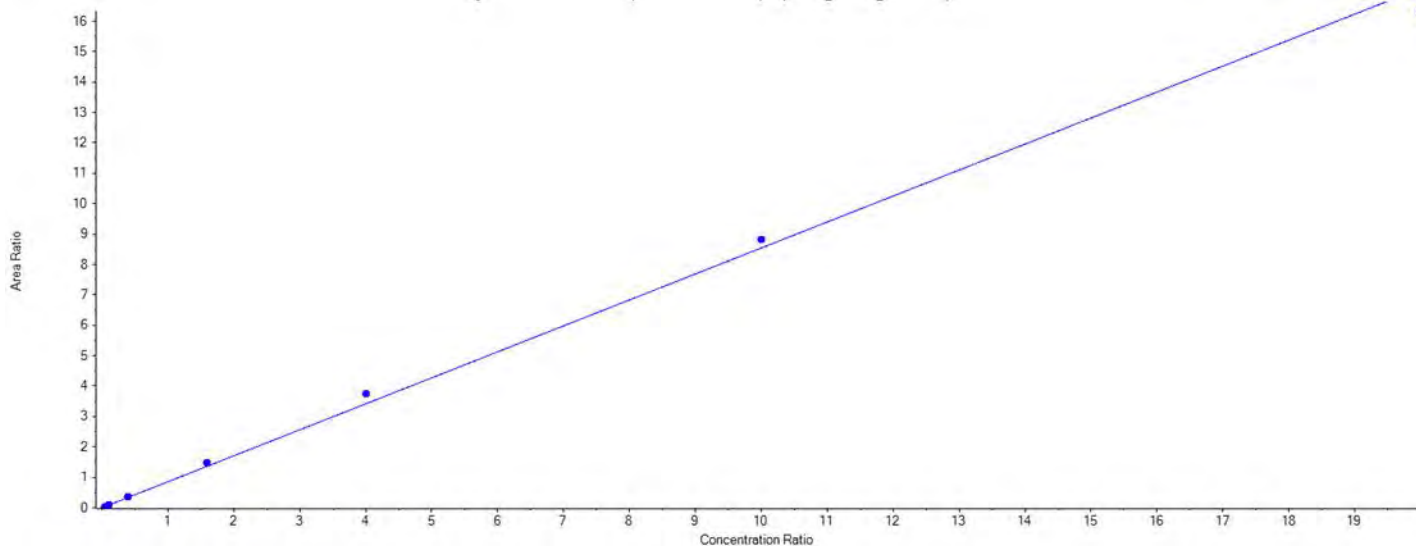
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFBA

 $y = 0.85434 x$ ($r = 0.99861$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	PFBA Area	S/N	13C4-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	32354.4	146.4	794718.852	True	5.00	0.041	3.27	1.000	0.200	0.238	19	30	
CAL2	72868.6	212.8	782732.821	True	5.00	0.093	3.27	1.000	0.500	0.545	9	30	
CAL3	285113.3	434.5	787180.244	True	5.00	0.362	3.27	1.000	2.000	2.120	6	30	
CAL4	1152870.9	735.9	771359.129	True	5.00	1.495	3.27	1.000	8.000	8.747	9	30	
CAL5	2730076.0	1045.3	728925.112	True	5.00	3.745	3.27	1.000	20.000	21.919	10	30	
CAL6	5709364.6	1410.1	647849.559	True	5.00	8.813	3.26	1.000	50.000	51.576	3	30	
CAL7	9954520.3	1648.1	609686.139	True	5.00	16.327	3.26	1.000	100.000	95.554	-4	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

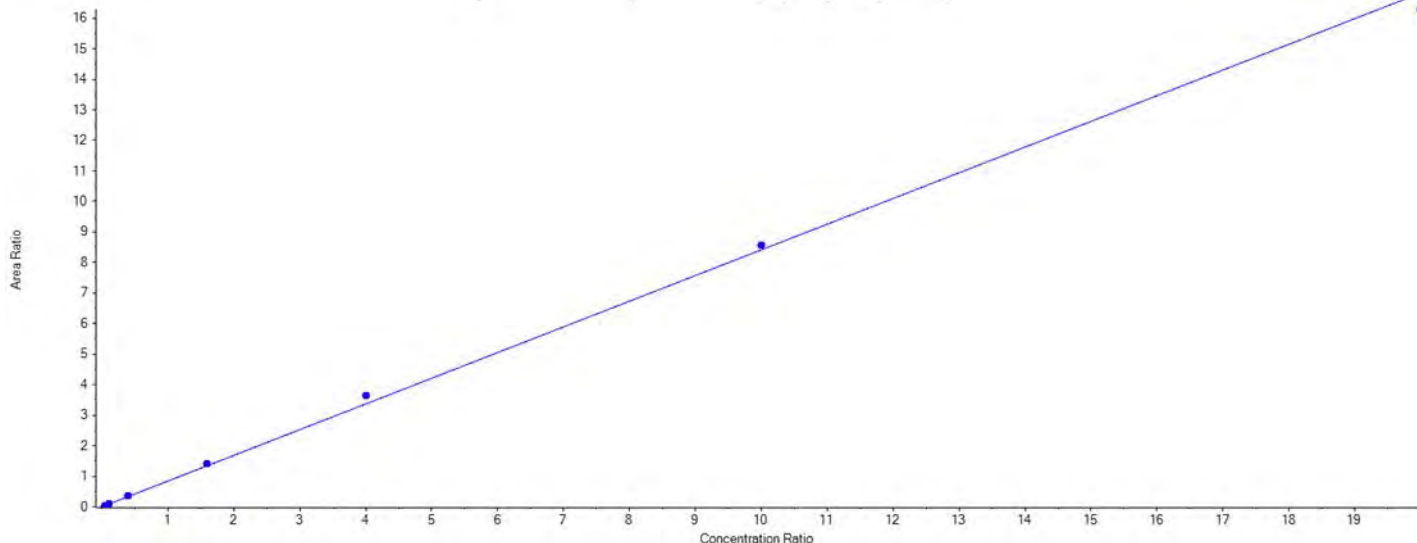
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFPeA

$$y = 0.84134 x \text{ (r = 0.99918) (weighting: 1 / x)}$$



Component Calibration Verification

Sample Name	PFPeA Area	S/N	13C5-PFPeA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	33205.5	67.0	844850.159	True	5.00	0.039	3.77	1.000	0.200	0.234	17	30	
CAL2	77403.9	97.9	863262.811	True	5.00	0.090	3.77	1.000	0.500	0.533	7	30	
CAL3	286630.7	271.7	829978.484	True	5.00	0.345	3.77	1.000	2.000	2.052	3	30	
CAL4	1165758.7	263.0	824842.795	True	5.00	1.413	3.76	1.000	8.000	8.399	5	30	
CAL5	2812772.2	497.5	768958.133	True	5.00	3.658	3.77	1.000	20.000	21.739	9	30	
CAL6	5899932.2	954.6	687796.699	True	5.00	8.578	3.76	1.000	50.000	50.979	2	30	
CAL7	10229627.8	783.9	628265.483	True	5.00	16.282	3.76	1.000	100.000	96.765	-3	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

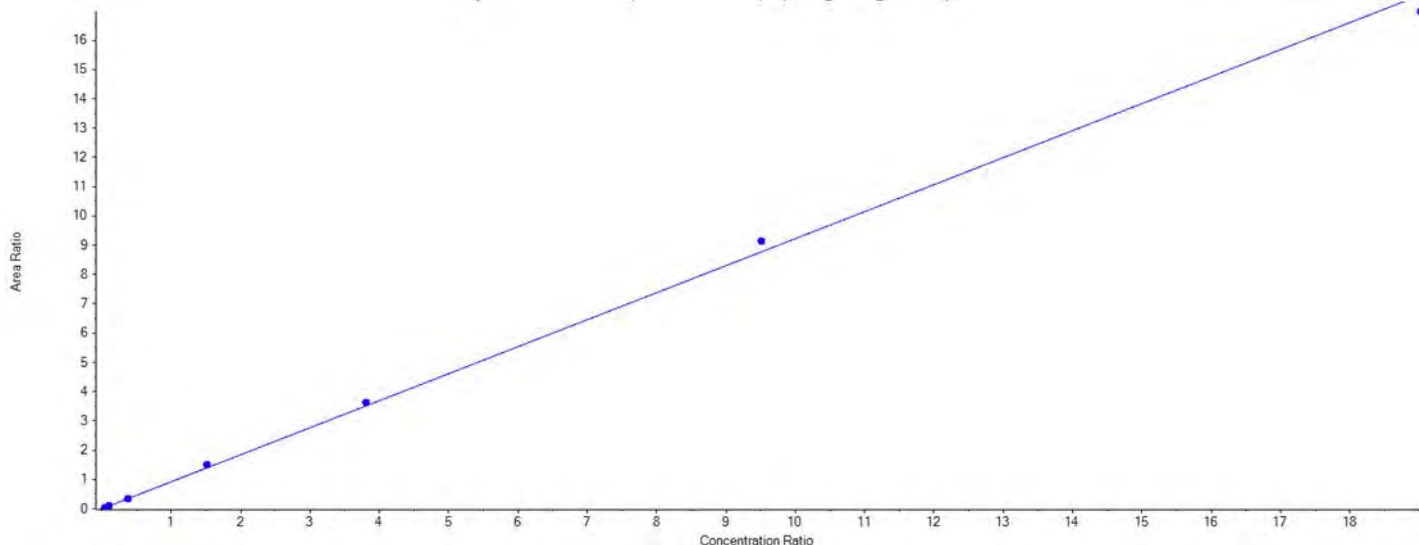
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFBS

$$y = 0.92230x \text{ (} r = 0.99933 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFBS Area	S/N	13C3-PFBS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	19024.1	393.3	449266.276	True	4.65	0.042	3.82	1.000	0.170	0.213	26	30	
CAL2	41415.1	562.8	444721.279	True	4.65	0.093	3.82	1.000	0.440	0.470	7	30	
CAL3	157656.3	933.8	456815.174	True	4.65	0.345	3.82	1.000	1.770	1.740	-2	30	
CAL4	648524.4	1539.0	434938.872	True	4.65	1.491	3.81	1.000	7.080	7.518	6	30	
CAL5	1601296.4	1306.5	442479.717	True	4.65	3.619	3.82	1.000	17.690	18.246	3	30	
CAL6	3508201.1	1595.6	384220.795	True	4.65	9.131	3.81	1.000	44.220	46.035	4	30	
CAL7	6474525.0	1528.4	381345.498	True	4.65	16.978	3.81	1.000	88.450	85.599	-3	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

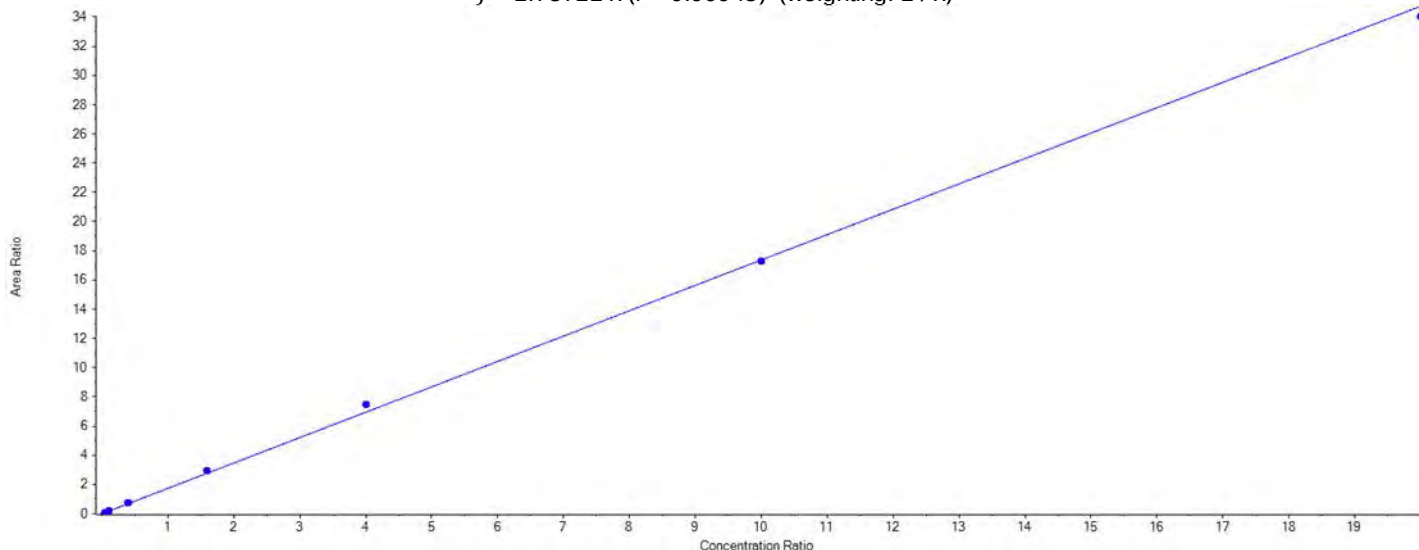
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

4:2-FTS

 $y = 1.73711x$ ($r = 0.99943$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	4:2-FTS Area	S/N	13C2-4:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	4145.4	132.5	58330.929	True	4.67	0.071	4.13	1.000	0.187	0.191	2	30	
CAL2	9924.9	268.5	54234.136	True	4.67	0.183	4.13	1.000	0.467	0.492	5	30	
CAL3	35586.2	540.9	48706.042	True	4.67	0.731	4.14	1.000	1.868	1.964	5	30	
CAL4	153295.4	973.4	51520.627	True	4.67	2.975	4.13	1.000	7.472	7.999	7	30	
CAL5	365423.8	1181.5	48869.851	True	4.67	7.477	4.13	1.000	18.680	20.102	8	30	
CAL6	866263.6	1274.7	50041.324	True	4.67	17.311	4.12	1.000	46.700	46.538	0	30	
CAL7	1576786.3	1225.2	46334.175	True	4.67	34.031	4.13	1.000	93.400	91.487	-2	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

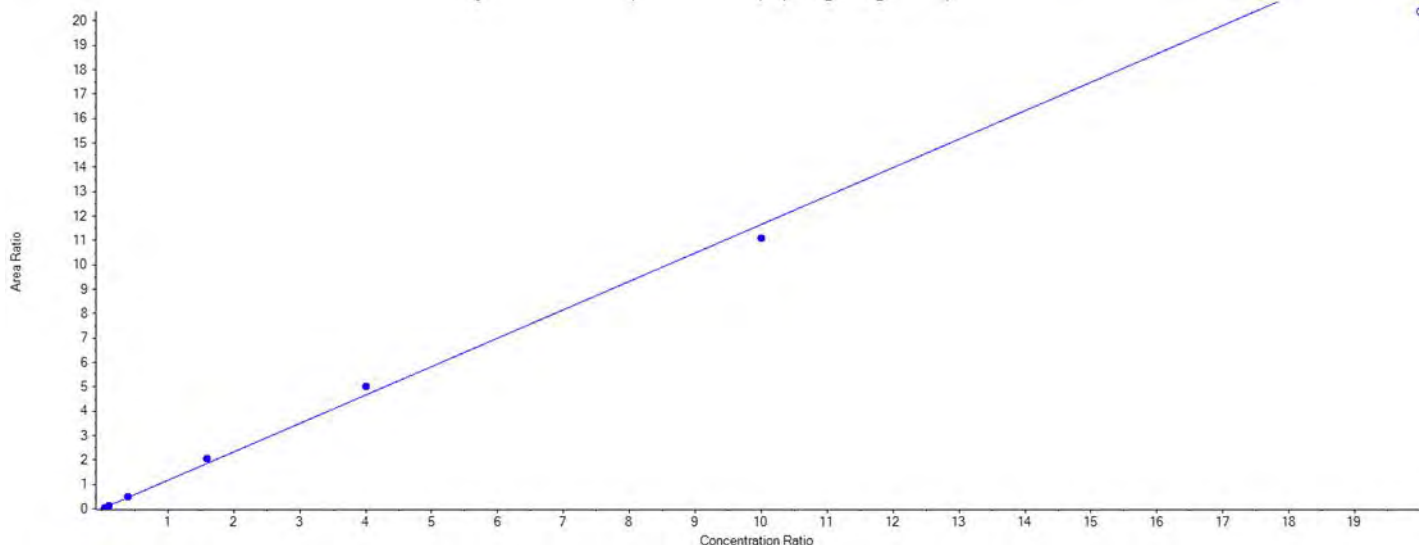
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFHxA

$$y = 1.16591x \text{ (} r = 0.99804 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFHxA Area	S/N	13C5-PFHxA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	39732.2	173.4	725432.031	True	5.00	0.055	4.17	1.000	0.200	0.235	17	30	
CAL2	88469.9	273.6	717434.931	True	5.00	0.123	4.17	1.000	0.500	0.529	6	30	
CAL3	351503.9	491.3	705369.014	True	5.00	0.498	4.17	1.000	2.000	2.137	7	30	
CAL4	1455862.5	897.7	713446.262	True	5.00	2.041	4.16	1.000	8.000	8.751	9	30	
CAL5	3380716.3	1094.5	674375.429	True	5.00	5.013	4.16	1.000	20.000	21.499	7	30	
CAL6	6739327.9	1094.4	607820.088	True	5.00	11.088	4.16	1.000	50.000	47.549	-5	30	
CAL7	11658104.6	1005.0	571807.508	False	5.00	20.388	4.16	1.000	100.000	87.434	-13	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

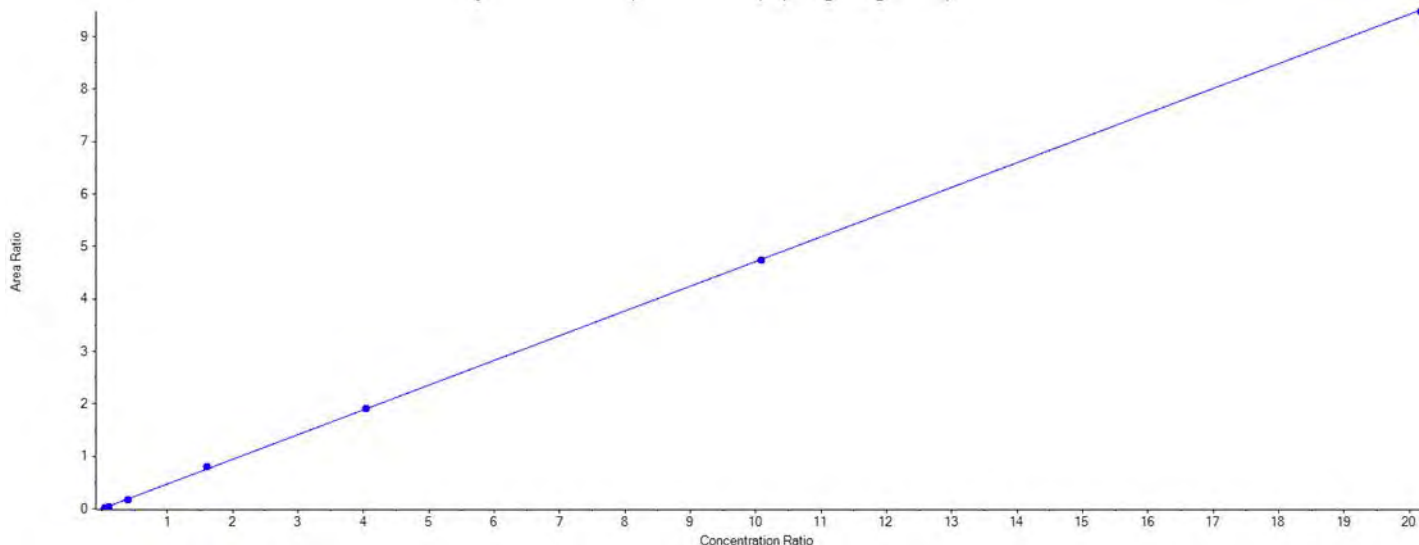
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFPeS

$$y = 0.47146 x \text{ (r = 0.99990) (weighting: 1 / x)}$$



Component Calibration Verification

Sample Name	PFPeS Area	S/N	¹³ C3-PFBS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	8335.4	274.6	449266.276	True	4.65	0.019	4.18	1.100	0.190	0.183	-4	30	
CAL2	20956.8	449.7	444721.279	True	4.65	0.047	4.19	1.100	0.469	0.465	-1	30	
CAL3	82090.1	729.5	456815.174	True	4.65	0.180	4.19	1.100	1.880	1.772	-6	30	
CAL4	349358.3	1303.9	434938.872	True	4.65	0.803	4.18	1.100	7.500	7.922	6	30	
CAL5	845636.3	1195.3	442479.717	True	4.65	1.911	4.18	1.100	18.760	18.849	0	30	
CAL6	1823355.9	1852.0	384220.795	True	4.65	4.746	4.18	1.100	46.900	46.806	0	30	
CAL7	3615170.2	1352.9	381345.498	True	4.65	9.480	4.18	1.100	93.800	93.501	0	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

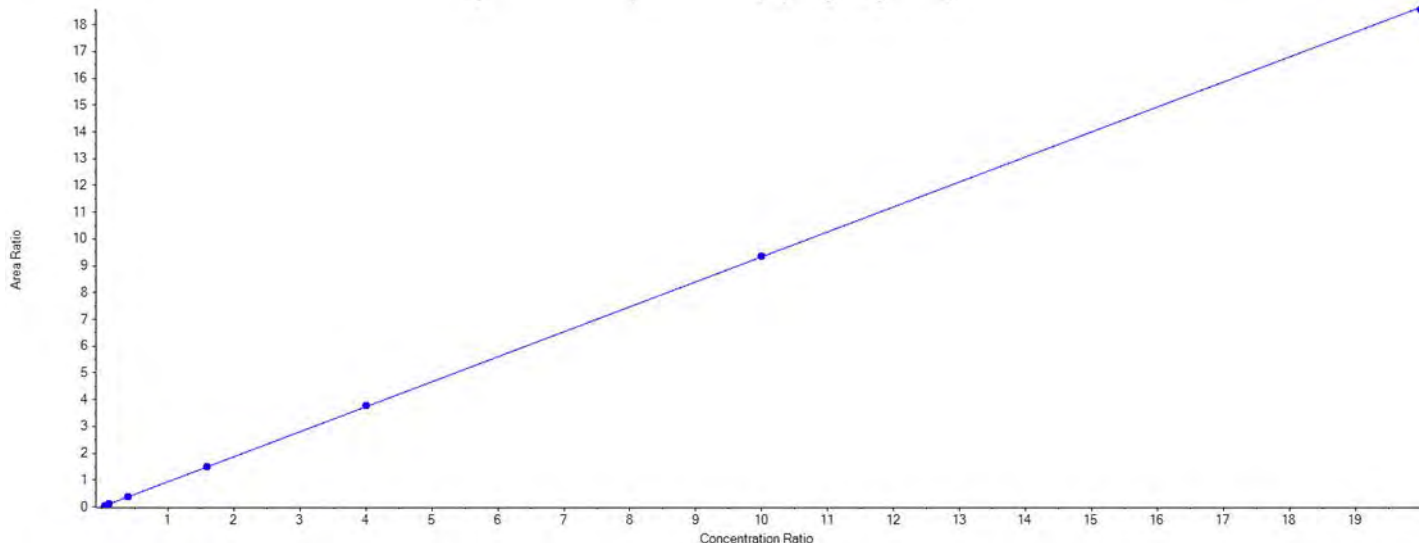
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFHxS

$$y = 0.93317 x \text{ (r = 0.99996) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFHxS Area	S/N	13C3-PFHxS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	13762.6	1166.5	358771.251	True	4.73	0.038	4.56	1.000	0.190	0.194	2	30	
CAL2	32061.0	6549.5	335732.100	True	4.73	0.095	4.56	1.000	0.473	0.484	2	30	
CAL3	122477.7	1994.1	343139.549	True	4.73	0.357	4.56	1.000	1.890	1.809	-4	30	
CAL4	513536.6	3164.6	339090.468	True	4.73	1.514	4.55	1.000	7.560	7.676	2	30	
CAL5	1261633.0	4348.9	332808.457	True	4.73	3.791	4.55	1.000	18.910	19.215	2	30	
CAL6	2760712.8	3934.3	295466.243	True	4.73	9.344	4.55	1.000	47.280	47.360	0	30	
CAL7	5196245.3	3688.8	279859.575	True	4.73	18.567	4.55	1.000	94.550	94.113	0	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

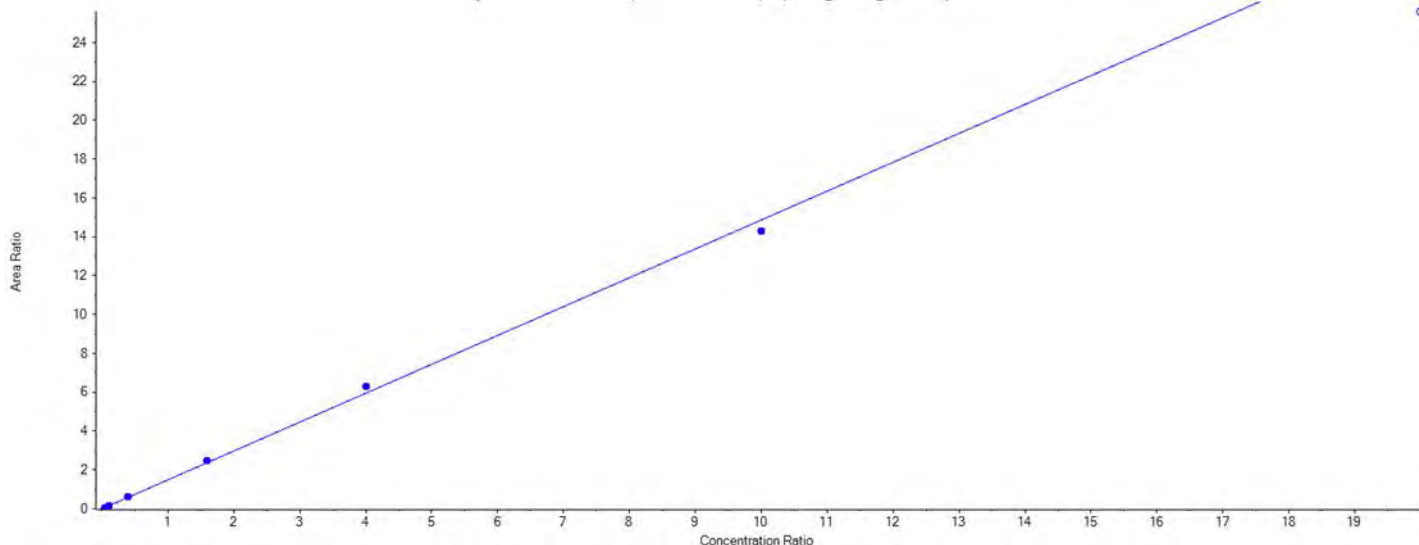
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFHpA

 $y = 1.48669x$ ($r = 0.99890$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	PFHpA Area	S/N	13C4-PFHpA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	38331.9	115.7	586580.259	True	5.00	0.065	4.55	1.000	0.200	0.220	10	30	
CAL2	93502.9	220.2	583342.783	True	5.00	0.160	4.56	1.000	0.500	0.539	8	30	
CAL3	360280.4	493.2	566495.562	True	5.00	0.636	4.56	1.000	2.000	2.139	7	30	
CAL4	1481489.5	591.4	592497.863	True	5.00	2.500	4.55	1.000	8.000	8.409	5	30	
CAL5	3440372.8	967.5	544681.071	True	5.00	6.316	4.55	1.000	20.000	21.243	6	30	
CAL6	6940304.7	1231.7	484763.199	True	5.00	14.317	4.55	1.000	50.000	48.150	-4	30	
CAL7	11701142.2	1512.0	457160.435	False	5.00	25.595	4.55	1.000	100.000	86.081	-14	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

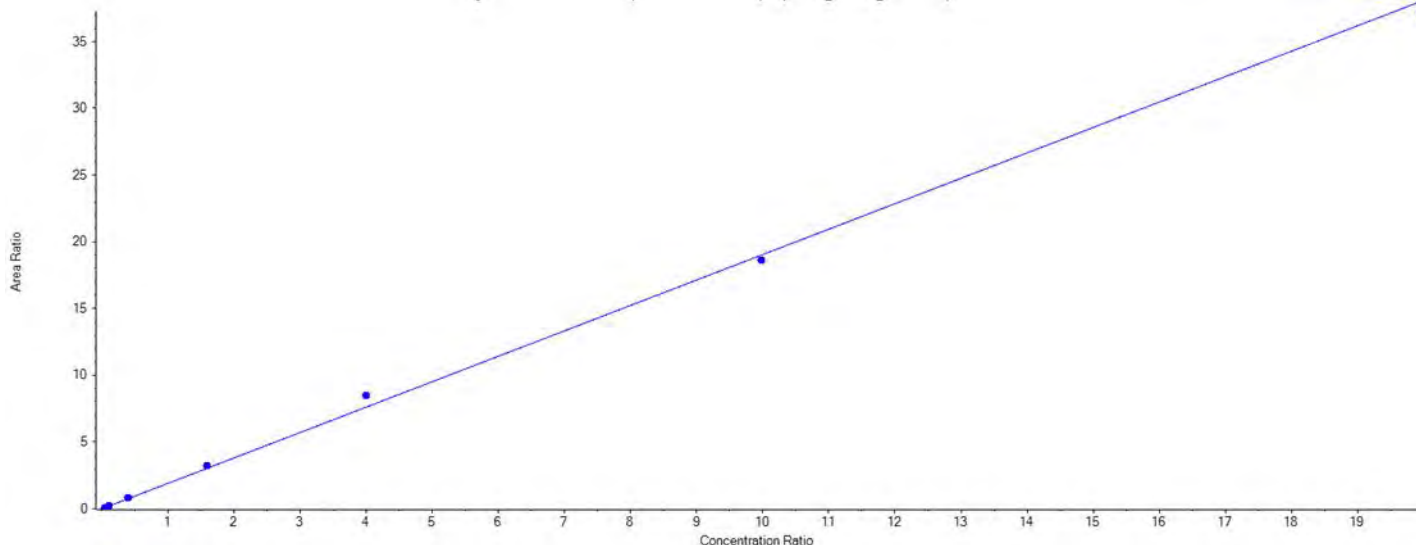
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

6:2-FTS

 $y = 1.90407 x$ ($r = 0.99882$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	6:2-FTS Area	S/N	13C2-6:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2460.6	100.5	42112.811	True	4.75	0.058	4.91	1.000	0.190	0.146	-23	30	
CAL2	8883.8	317.6	38849.605	True	4.75	0.229	4.91	1.000	0.474	0.570	20	30	
CAL3	32056.4	598.2	38605.475	True	4.75	0.830	4.92	1.000	1.896	2.071	9	30	
CAL4	125170.2	897.1	39121.731	True	4.75	3.200	4.91	1.000	7.584	7.982	5	30	
CAL5	278493.0	1000.7	32735.591	True	4.75	8.507	4.91	1.000	18.960	21.223	12	30	
CAL6	566692.8	797.2	30466.848	True	4.75	18.600	4.90	1.000	47.400	46.401	-2	30	
CAL7	988785.9	901.9	26549.079	True	4.75	37.244	4.90	1.000	94.800	92.910	-2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

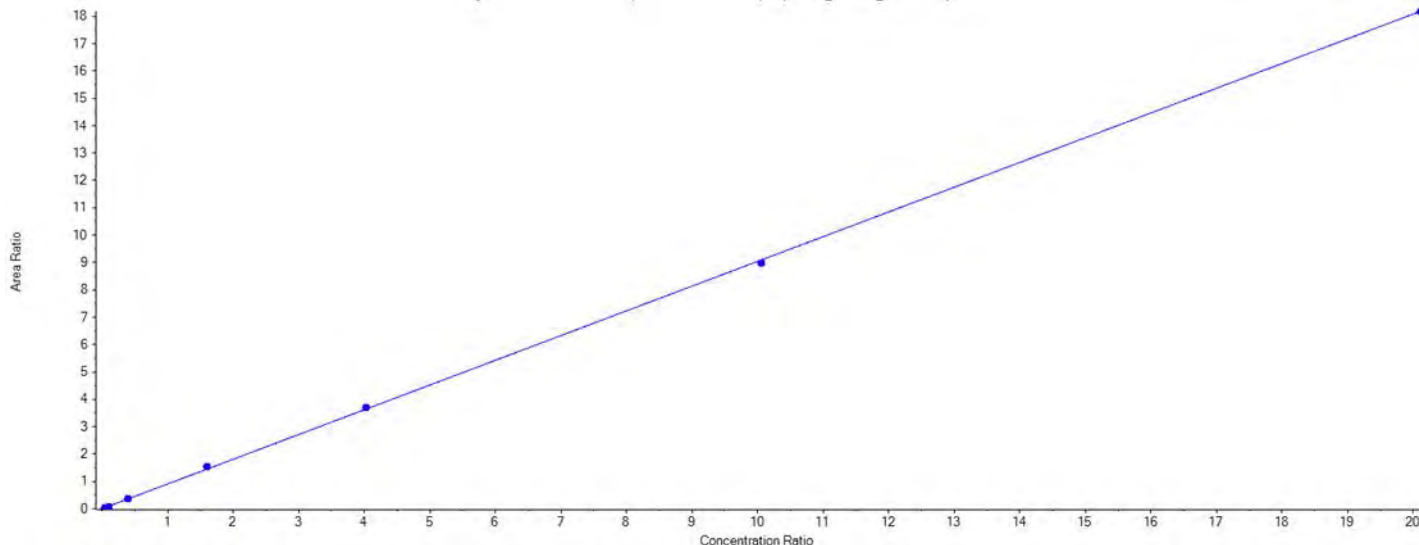
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFHpS

 $y = 0.90410 x$ ($r = 0.99989$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	PFHpS Area	S/N	¹³ C3-PFHxS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	14183.4	333.2	358771.251	True	4.73	0.040	4.91	1.080	0.190	0.207	9	30	
CAL2	30553.2	575.9	335732.100	True	4.73	0.091	4.92	1.080	0.476	0.476	0	30	
CAL3	123126.9	881.8	343139.549	True	4.73	0.359	4.92	1.080	1.900	1.877	-1	30	
CAL4	516333.1	1178.7	339090.468	True	4.73	1.523	4.91	1.080	7.610	7.966	5	30	
CAL5	1236603.7	1092.5	332808.457	True	4.73	3.716	4.92	1.080	19.030	19.439	2	30	
CAL6	2648512.9	1087.8	295466.243	True	4.73	8.964	4.91	1.080	47.580	46.896	-1	30	
CAL7	5085803.6	1089.6	279859.575	True	4.73	18.173	4.91	1.080	95.150	95.074	0	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

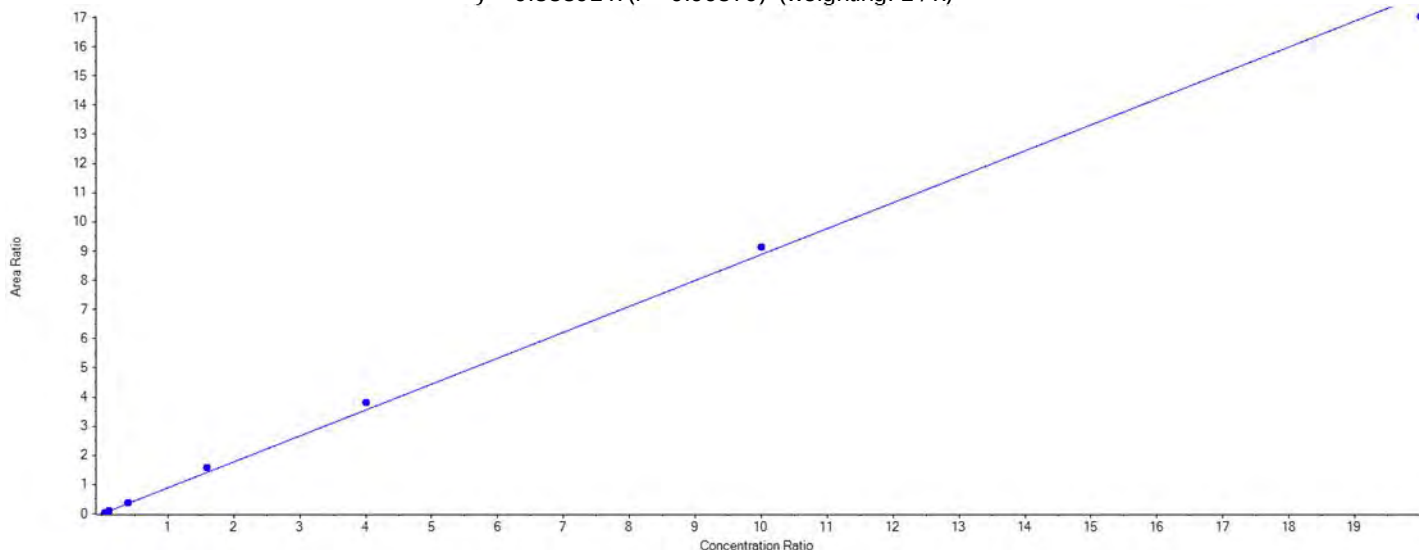
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFOA

$$y = 0.88801x \text{ (} r = 0.99876 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFOA Area	S/N	13C8-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	39843.5	233.7	1028414.921	True	5.00	0.039	4.93	1.000	0.200	0.218	9	30	
CAL2	94348.1	430.7	970523.191	True	5.00	0.097	4.93	1.000	0.500	0.547	9	30	
CAL3	364943.1	791.6	964414.633	True	5.00	0.378	4.93	1.000	2.000	2.131	7	30	
CAL4	1491946.3	1207.0	937287.469	True	5.00	1.592	4.92	1.000	8.000	8.963	12	30	
CAL5	3425279.8	1901.2	895692.173	True	5.00	3.824	4.92	1.000	20.000	21.532	8	30	
CAL6	7023921.1	2522.0	769164.416	True	5.00	9.132	4.92	1.000	50.000	51.417	3	30	
CAL7	11562348.7	2334.2	678914.551	True	5.00	17.031	4.92	1.000	100.000	95.892	-4	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

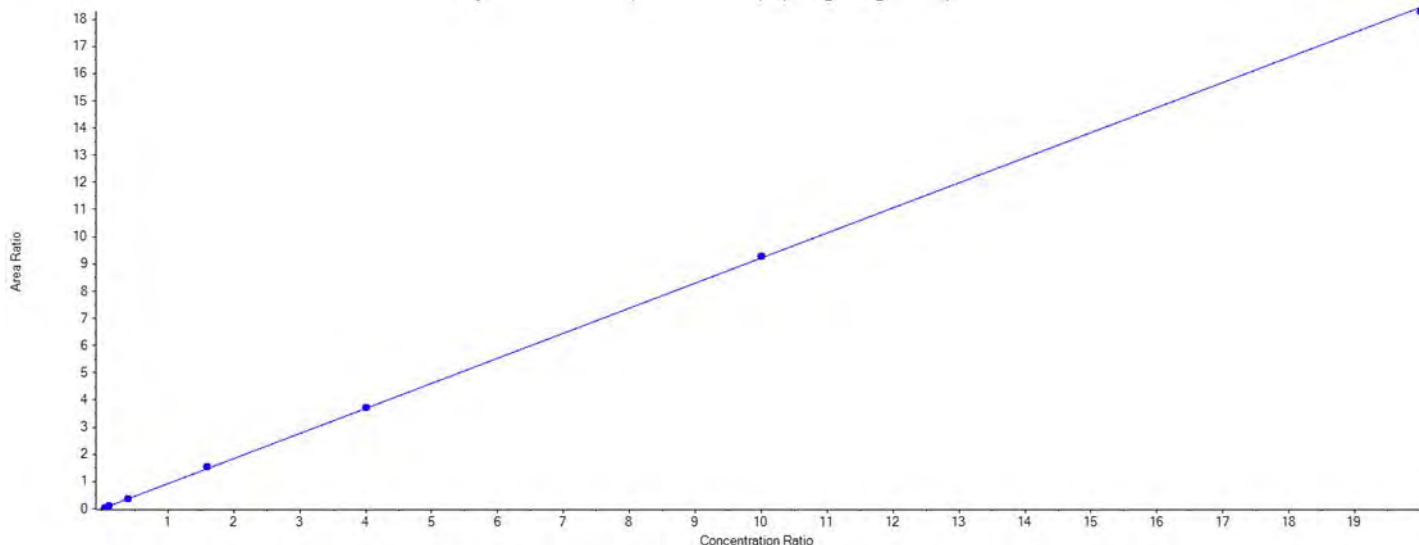
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFOS

$$y = 0.92182x \text{ (} r = 0.99994 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFOS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	12181.7	1599.7	307224.329	True	4.78	0.040	5.25	1.000	0.190	0.206	8	30	
CAL2	28529.2	1301.4	286174.783	True	4.78	0.100	5.25	1.000	0.478	0.517	8	30	
CAL3	111397.7	2913.4	297259.750	True	4.78	0.375	5.25	1.000	1.910	1.943	2	30	
CAL4	447769.0	1957.6	291941.558	True	4.78	1.534	5.25	1.000	7.650	7.953	4	30	
CAL5	1108359.9	3249.6	297995.609	True	4.78	3.719	5.25	1.000	19.120	19.287	1	30	
CAL6	2487687.4	4656.8	268368.993	True	4.78	9.270	5.24	1.000	47.800	48.067	1	30	
CAL7	4830627.6	3150.6	264295.900	True	4.78	18.277	5.25	1.000	95.600	94.776	-1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

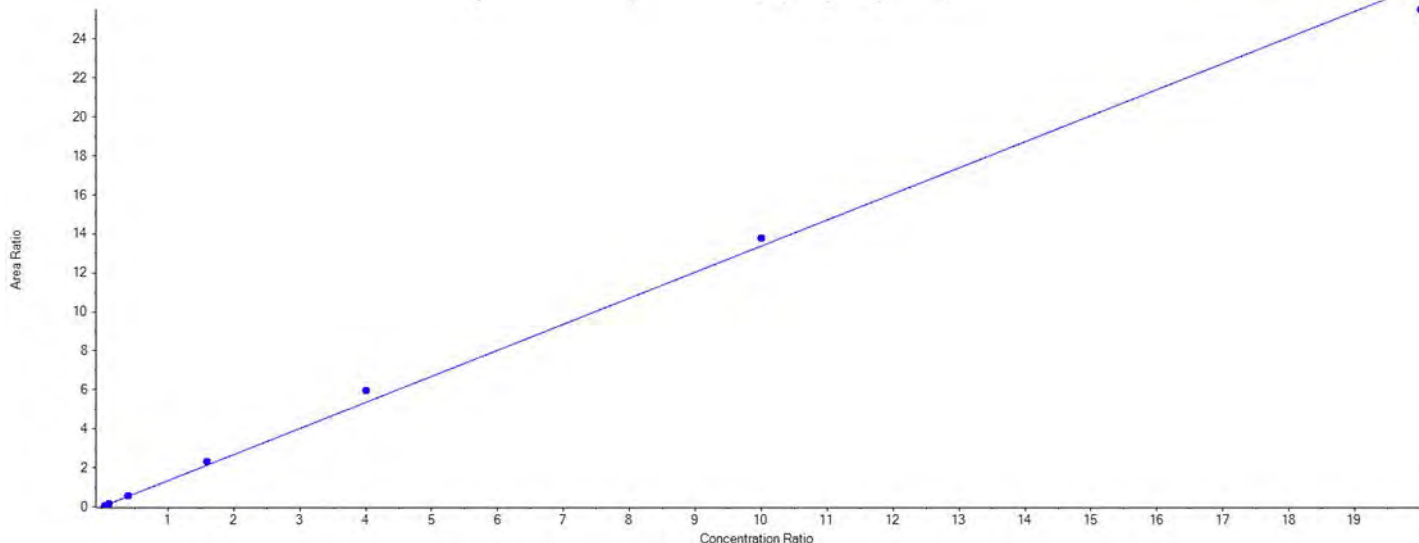
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFNA

$$y = 1.33790x \text{ (} r = 0.99838 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFNA Area	S/N	13C9-PFNA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	32563.3	212.6	518118.657	True	5.00	0.063	5.27	1.000	0.200	0.235	17	30	
CAL2	74743.9	385.8	540435.380	True	5.00	0.138	5.27	1.000	0.500	0.517	3	30	
CAL3	299530.4	891.6	513115.984	True	5.00	0.584	5.27	1.000	2.000	2.182	9	30	
CAL4	1179151.8	1096.7	512147.381	True	5.00	2.302	5.27	1.000	8.000	8.604	8	30	
CAL5	2889454.7	1462.7	484419.266	True	5.00	5.965	5.27	1.000	20.000	22.292	11	30	
CAL6	6070259.1	1061.5	440319.007	True	5.00	13.786	5.26	1.000	50.000	51.521	3	30	
CAL7	10279837.9	1111.6	402916.669	True	5.00	25.514	5.27	1.000	100.000	95.349	-5	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

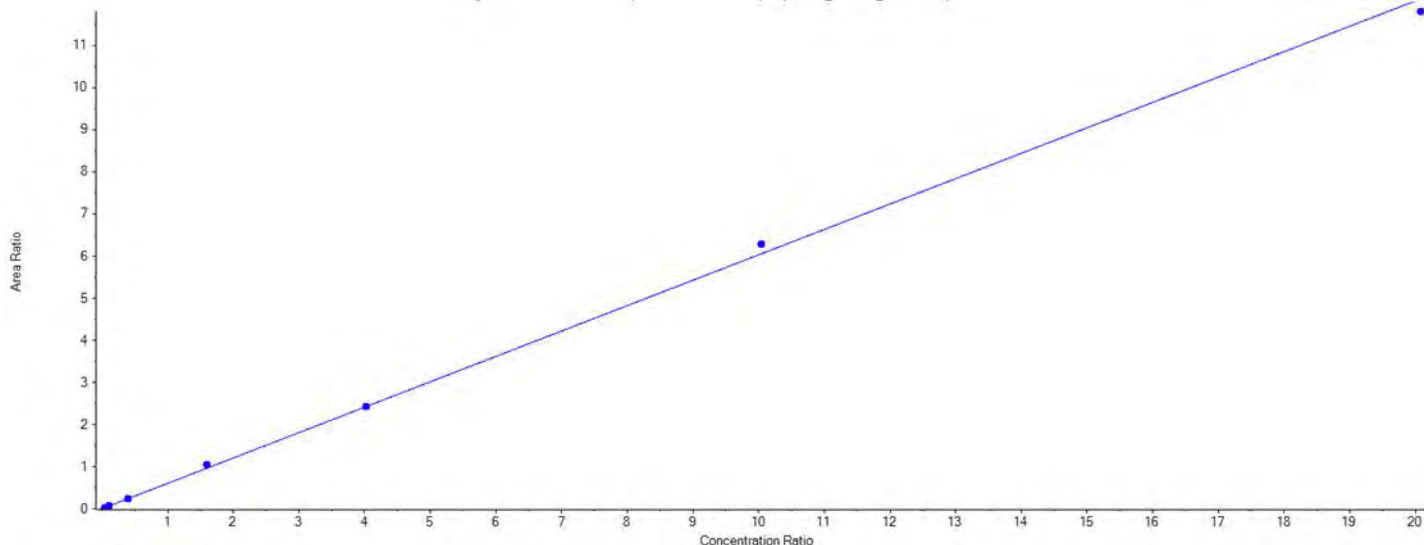
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFNS

$$y = 0.60287x \text{ (} r = 0.99948 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFNS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6748.5	139.2	307224.329	True	4.78	0.022	5.55	1.060	0.190	0.174	-8	30	
CAL2	17507.8	298.5	286174.783	True	4.78	0.061	5.55	1.060	0.480	0.485	1	30	
CAL3	72940.0	700.2	297259.750	True	4.78	0.245	5.55	1.060	1.920	1.946	1	30	
CAL4	305013.7	830.3	291941.558	True	4.78	1.045	5.54	1.060	7.680	8.284	8	30	
CAL5	722178.3	1119.3	297995.609	True	4.78	2.423	5.54	1.060	19.200	19.215	0	30	
CAL6	1684601.2	897.8	268368.993	True	4.78	6.277	5.54	1.060	48.000	49.770	4	30	
CAL7	3119908.2	856.2	264295.900	True	4.78	11.805	5.54	1.060	96.000	93.596	-3	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

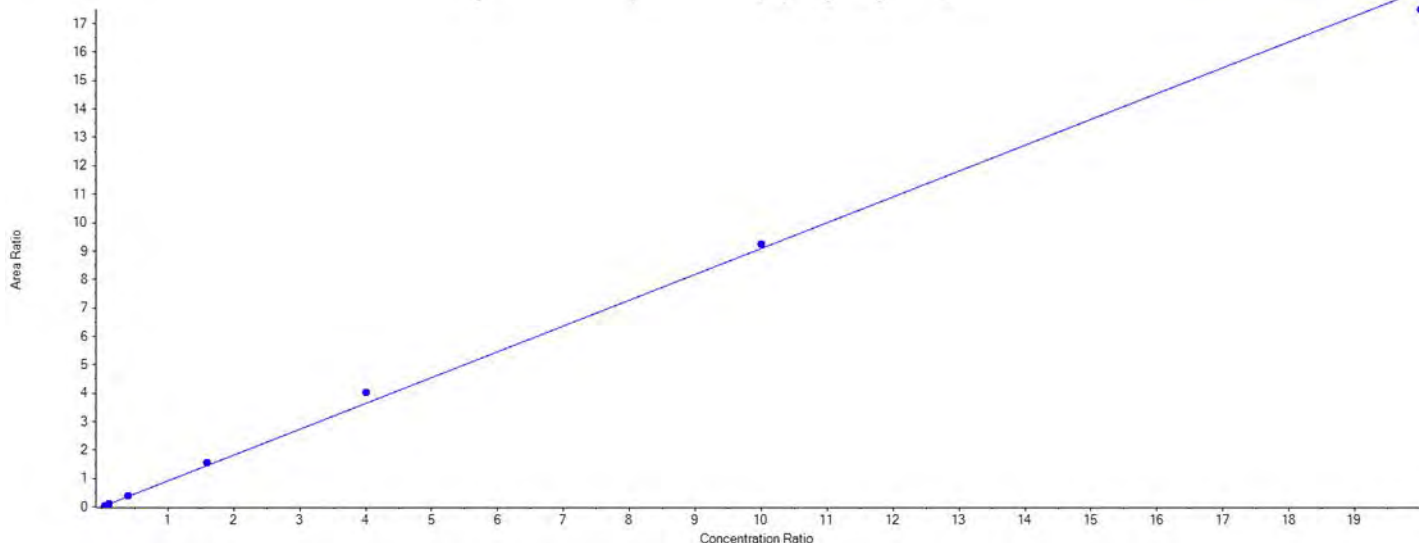
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFDA

 $y = 0.90882 x$ ($r = 0.99881$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	PFDA Area	S/N	13C6-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	25530.0	80.6	651347.959	True	5.00	0.039	5.57	1.000	0.200	0.216	8	30	
CAL2	62530.6	137.6	661423.810	True	5.00	0.095	5.57	1.000	0.500	0.520	4	30	
CAL3	244693.9	357.4	639022.779	True	5.00	0.383	5.57	1.000	2.000	2.107	5	30	
CAL4	1029893.8	556.8	656868.302	True	5.00	1.568	5.56	1.000	8.000	8.626	8	30	
CAL5	2401274.2	683.6	598009.725	True	5.00	4.015	5.57	1.000	20.000	22.091	10	30	
CAL6	4962332.7	791.5	536626.204	True	5.00	9.247	5.56	1.000	50.000	50.875	2	30	
CAL7	8415098.4	928.9	480927.883	True	5.00	17.498	5.56	1.000	100.000	96.265	-4	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

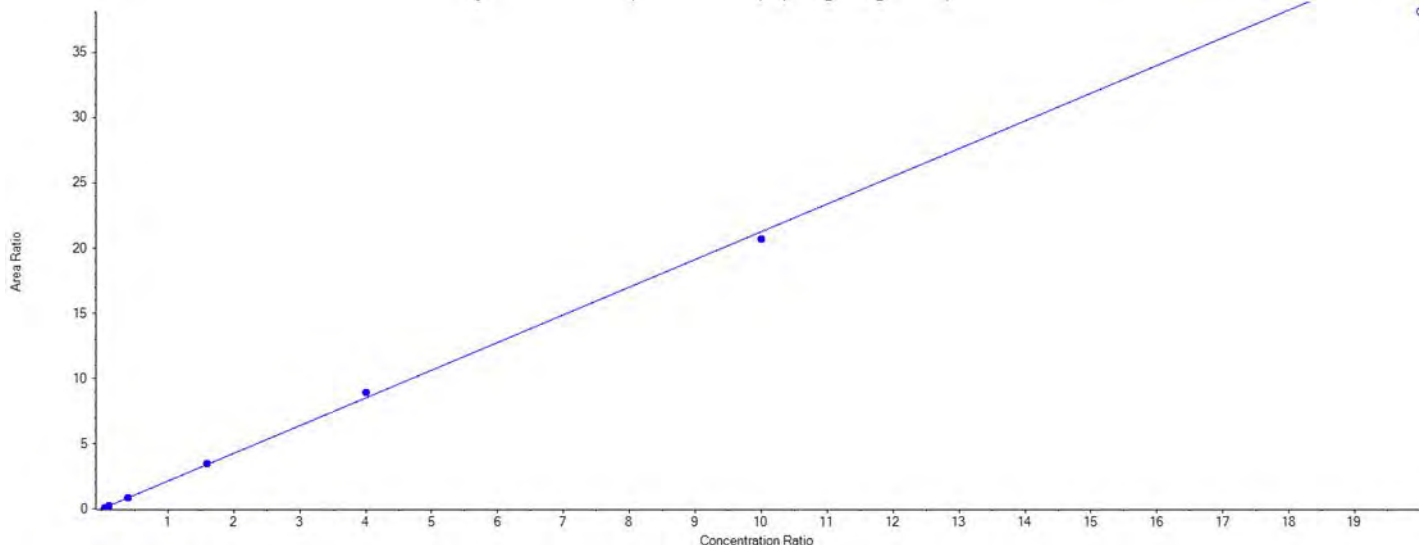
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

8:2-FTS

 $y = 2.12507 x$ ($r = 0.99948$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	8:2-FTS Area	S/N	13C2-8:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2783.3	121.0	26730.160	True	4.79	0.104	5.58	1.000	0.192	0.235	22	30	
CAL2	6917.6	207.6	27523.013	True	4.79	0.251	5.57	1.000	0.479	0.567	18	30	
CAL3	24892.6	1018.5	29468.270	True	4.79	0.845	5.57	1.000	1.916	1.904	-1	30	
CAL4	106591.3	873.6	30500.264	True	4.79	3.495	5.57	1.000	7.664	7.877	3	30	
CAL5	244867.6	996.2	27553.973	True	4.79	8.887	5.57	1.000	19.160	20.031	5	30	
CAL6	516640.5	1051.6	24938.159	True	4.79	20.717	5.56	1.000	47.900	46.697	-3	30	
CAL7	936483.2	582.0	24555.696	False	4.79	38.137	5.57	1.000	95.800	85.963	-10	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

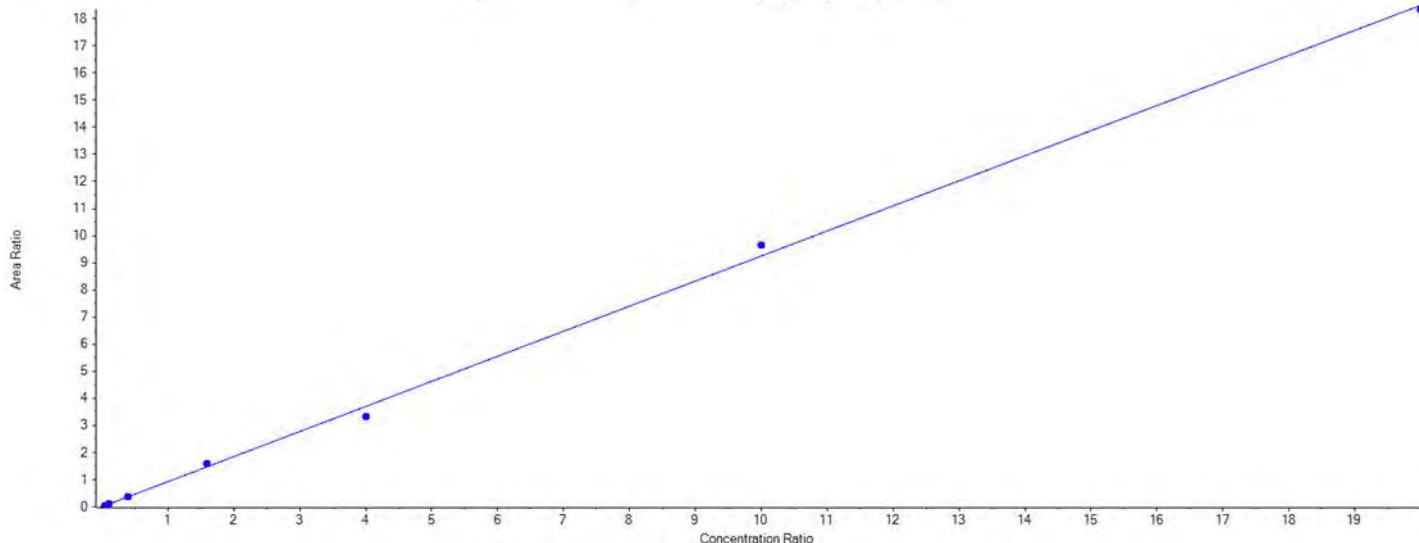
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFOSA

$$y = 0.92498x \text{ (} r = 0.99897 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFOSA Area	S/N	¹³ C8-PFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	27779.6	365.6	774962.773	True	5.00	0.036	5.64	1.000	0.200	0.194	-3	30	
CAL2	69586.0	485.9	711032.158	True	5.00	0.098	5.64	1.000	0.500	0.529	6	30	
CAL3	271753.2	606.8	704745.507	True	5.00	0.386	5.64	1.000	2.000	2.084	4	30	
CAL4	1119770.1	706.4	708330.461	True	5.00	1.581	5.64	1.000	8.000	8.545	7	30	
CAL5	2448684.3	761.3	737038.484	True	5.00	3.322	5.64	1.000	20.000	17.959	-10	30	
CAL6	5938541.7	607.4	614406.373	True	5.00	9.665	5.64	1.000	50.000	52.247	4	30	
CAL7	11064835.5	659.2	603296.116	True	5.00	18.341	5.64	1.000	100.000	99.141	-1	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

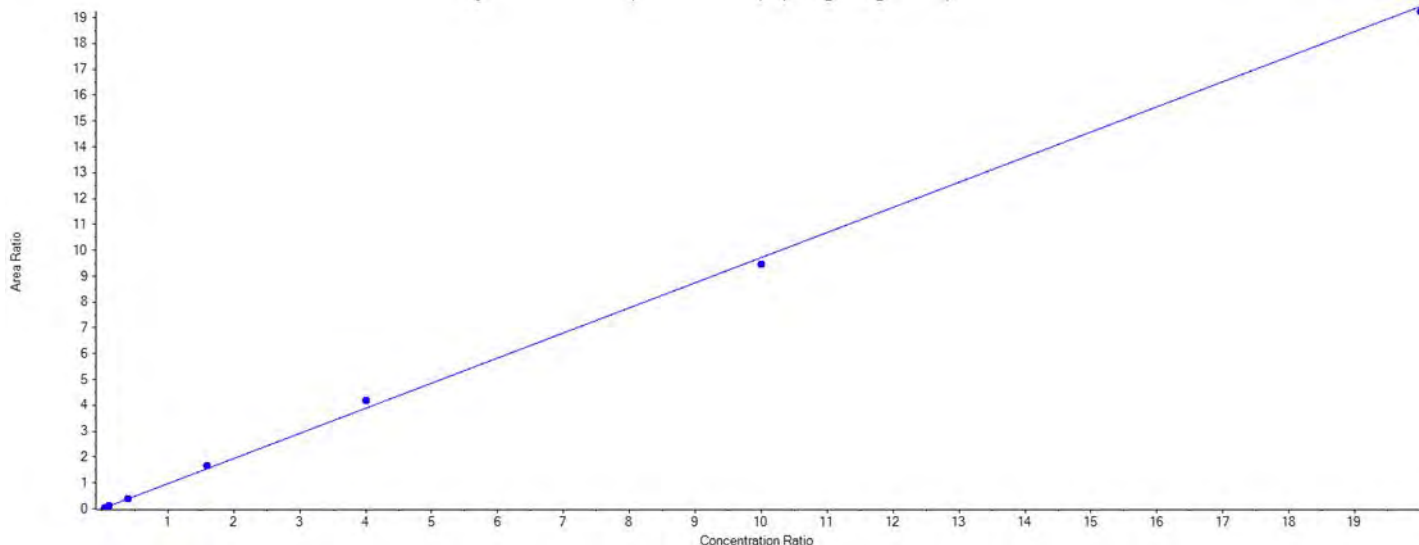
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

NMeFOSAA

$$y = 0.97172x \text{ (r = 0.99935) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	NMeFOSAA Area	S/N	d3-NMeFOSAA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3293.8	523.5	94966.986	True	5.00	0.035	5.71	1.000	0.200	0.178	-11	30	
CAL2	9807.4	1757.7	83112.192	True	5.00	0.118	5.71	1.000	0.500	0.607	21	30	
CAL3	32400.4	714.3	81763.338	True	5.00	0.396	5.71	1.000	2.000	2.039	2	30	
CAL4	136316.9	1055.9	80900.105	True	5.00	1.685	5.71	1.000	8.000	8.670	8	30	
CAL5	308507.7	1864.0	73896.081	True	5.00	4.175	5.71	1.000	20.000	21.482	7	30	
CAL6	740651.6	2592.1	78157.968	True	5.00	9.476	5.70	1.000	50.000	48.760	-2	30	
CAL7	1450331.2	3029.7	75408.724	True	5.00	19.233	5.70	1.000	100.000	98.963	-1	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

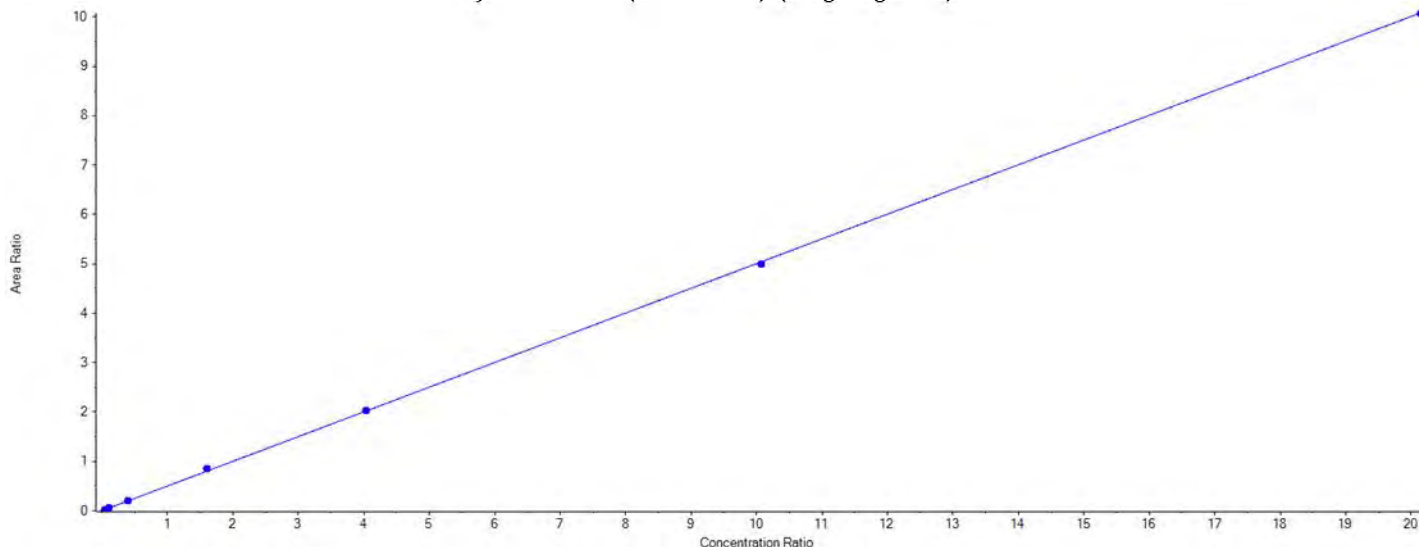
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFDS

$$y = 0.50039x \text{ (} r = 0.99988 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFDS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6453.6	144.3	307224.329	True	4.78	0.021	5.80	1.100	0.190	0.201	6	30	
CAL2	15726.3	346.3	286174.783	True	4.78	0.055	5.80	1.110	0.482	0.525	9	30	
CAL3	59073.9	499.2	297259.750	True	4.78	0.199	5.80	1.100	1.930	1.898	-2	30	
CAL4	250911.0	762.1	291941.558	True	4.78	0.859	5.80	1.110	7.700	8.210	7	30	
CAL5	605559.3	1144.8	297995.609	True	4.78	2.032	5.80	1.110	19.260	19.412	1	30	
CAL6	1337416.6	1228.3	268368.993	True	4.78	4.983	5.79	1.110	48.150	47.605	-1	30	
CAL7	2660525.2	1099.2	264295.900	True	4.78	10.066	5.80	1.110	96.300	96.161	0	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

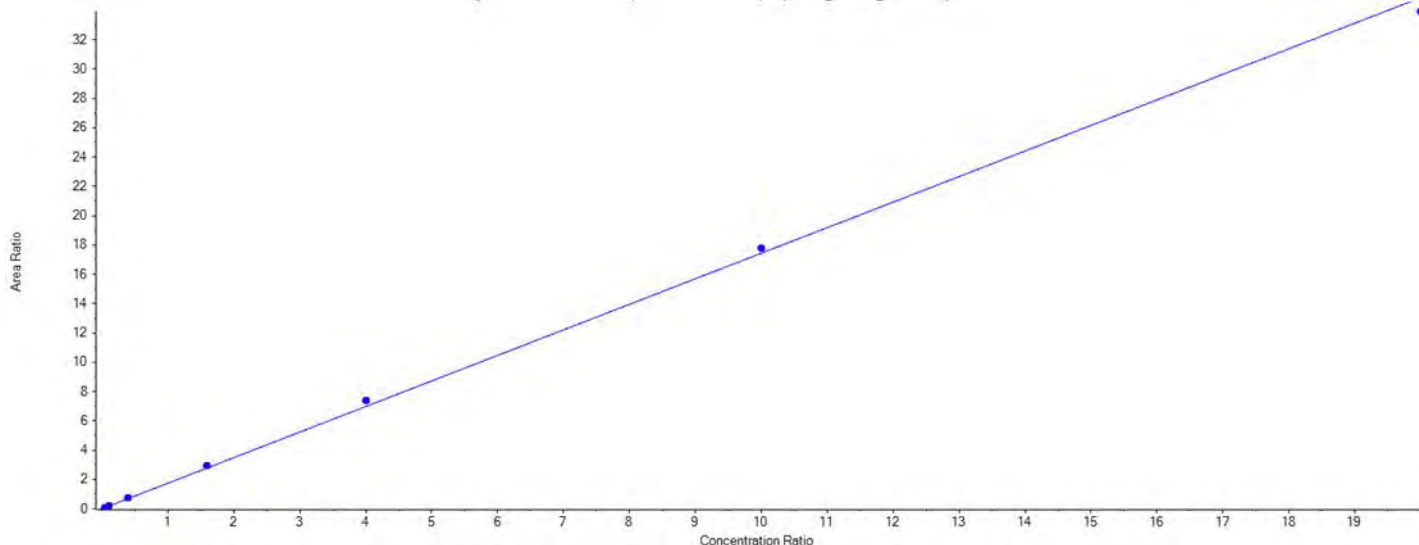
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFUnDA

$$y = 1.74352 x \text{ (r = 0.99948) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFUnDA Area	S/N	13C7-PFUnDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	23275.5	123.3	293658.674	True	5.00	0.079	5.83	1.000	0.200	0.227	14	30	
CAL2	54085.5	306.2	289985.074	True	5.00	0.187	5.83	1.000	0.500	0.535	7	30	
CAL3	209644.8	492.6	277115.542	True	5.00	0.757	5.83	1.000	2.000	2.170	8	30	
CAL4	802732.3	974.7	275977.201	True	5.00	2.909	5.83	1.000	8.000	8.341	4	30	
CAL5	1952356.4	1160.8	263924.687	True	5.00	7.397	5.83	1.000	20.000	21.214	6	30	
CAL6	4071590.3	1109.0	229237.069	True	5.00	17.761	5.82	1.000	50.000	50.936	2	30	
CAL7	7204782.9	1154.1	212399.757	True	5.00	33.921	5.82	1.000	100.000	97.277	-3	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

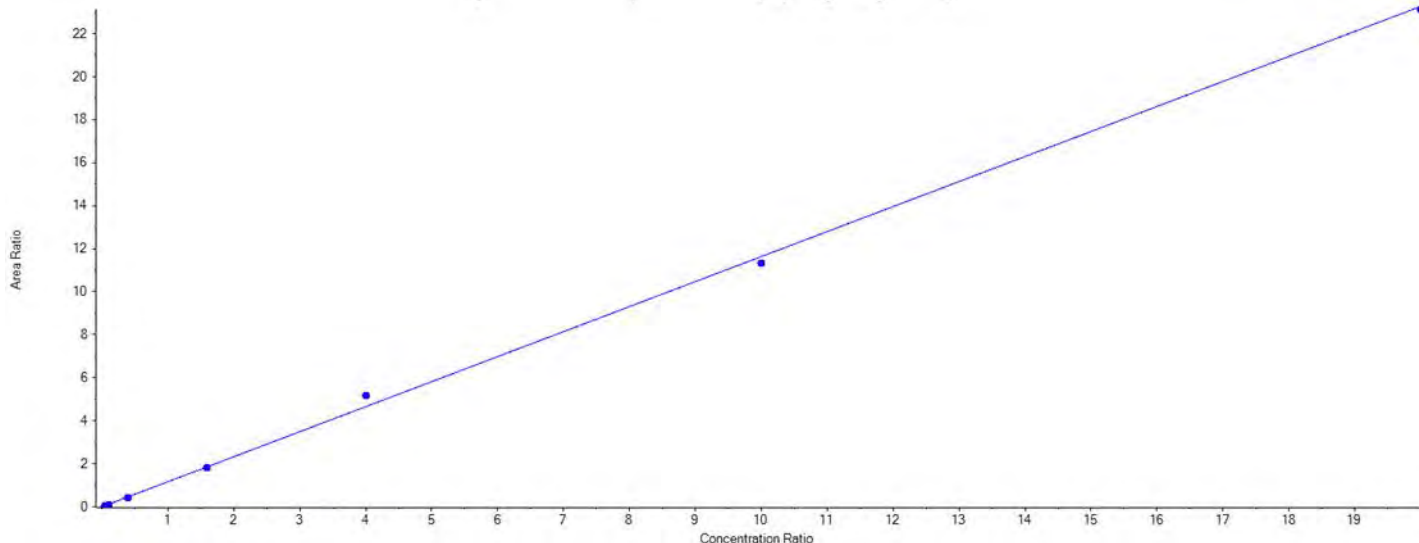
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

NEtFOSAA

$$y = 1.16344 x \text{ (r = 0.99914) (weighting: 1 / x)}$$



Component Calibration Verification

Sample Name	NEtFOSAA Area	S/N	d5-NEtFOSAA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3313.0	102.1	77938.309	True	5.00	0.043	5.84	1.000	0.200	0.183	-9	30	
CAL2	7253.7	357.6	65815.920	True	5.00	0.110	5.84	1.000	0.500	0.474	-5	30	
CAL3	32100.8	3488.9	72755.747	True	5.00	0.441	5.85	1.000	2.000	1.896	-5	30	
CAL4	121615.1	1770.9	66162.445	True	5.00	1.838	5.84	1.000	8.000	7.900	-1	30	
CAL5	298834.2	3536.0	57745.714	True	5.00	5.175	5.85	1.000	20.000	22.240	11	30	
CAL6	685447.7	2450.9	60556.615	True	5.00	11.319	5.84	1.000	50.000	48.645	-3	30	
CAL7	1317020.6	2554.3	56963.053	True	5.00	23.121	5.84	1.000	100.000	99.363	-1	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

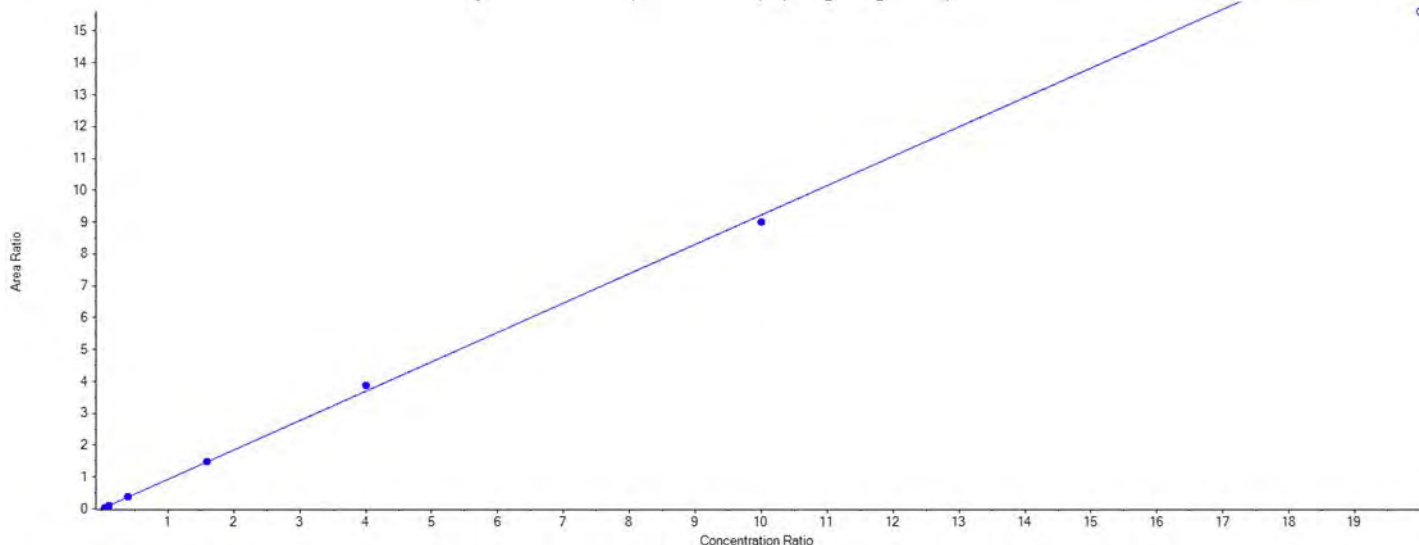
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFDODA

 $y = 0.92260 x$ ($r = 0.99946$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	PFDODA Area	S/N	¹³ C2-PFDODA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	23314.2	211.1	564794.852	True	5.00	0.041	6.06	1.000	0.200	0.224	12	30	
CAL2	60098.0	579.3	597616.302	True	5.00	0.101	6.06	1.000	0.500	0.545	9	30	
CAL3	220663.6	750.3	584631.538	True	5.00	0.377	6.06	1.000	2.000	2.046	2	30	
CAL4	877242.2	1049.4	598287.433	True	5.00	1.466	6.05	1.000	8.000	7.946	-1	30	
CAL5	2132260.7	1239.0	548536.046	True	5.00	3.887	6.06	1.000	20.000	21.067	5	30	
CAL6	4509578.7	1127.0	500065.276	True	5.00	9.018	6.05	1.000	50.000	48.873	-2	30	
CAL7	8211828.8	1159.6	525971.755	False	5.00	15.613	6.05	1.000	100.000	84.613	-15	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

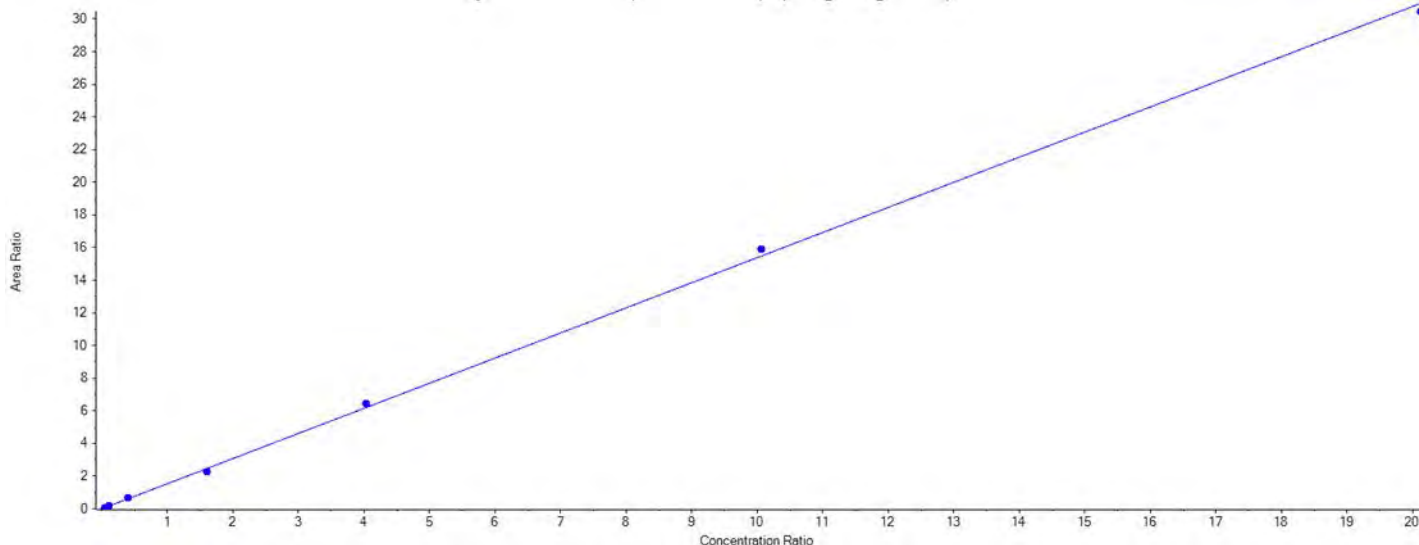
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

10:2-FTS

 $y = 1.53829x$ ($r = 0.99956$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	10:2-FTS Area	S/N	13C2-8:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	1903.7	172.7	26730.160	True	4.79	0.071	6.07	1.090	0.193	0.222	15	30	
CAL2	4874.3	125.8	27523.013	True	4.79	0.177	6.07	1.090	0.482	0.551	14	30	
CAL3	19060.5	262.9	29468.270	True	4.79	0.647	6.07	1.090	1.928	2.014	4	30	
CAL4	69275.8	544.3	30500.264	True	4.79	2.271	6.07	1.090	7.712	7.073	-8	30	
CAL5	177607.5	693.3	27553.973	True	4.79	6.446	6.07	1.090	19.280	20.071	4	30	
CAL6	395929.8	1104.6	24938.159	True	4.79	15.876	6.07	1.090	48.200	49.437	3	30	
CAL7	747804.5	1151.9	24555.696	True	4.79	30.453	6.07	1.090	96.400	94.827	-2	30	

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By JPT at 2:53 pm, 11/7/18

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By umar at 5:23 pm, 11/9/18

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DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

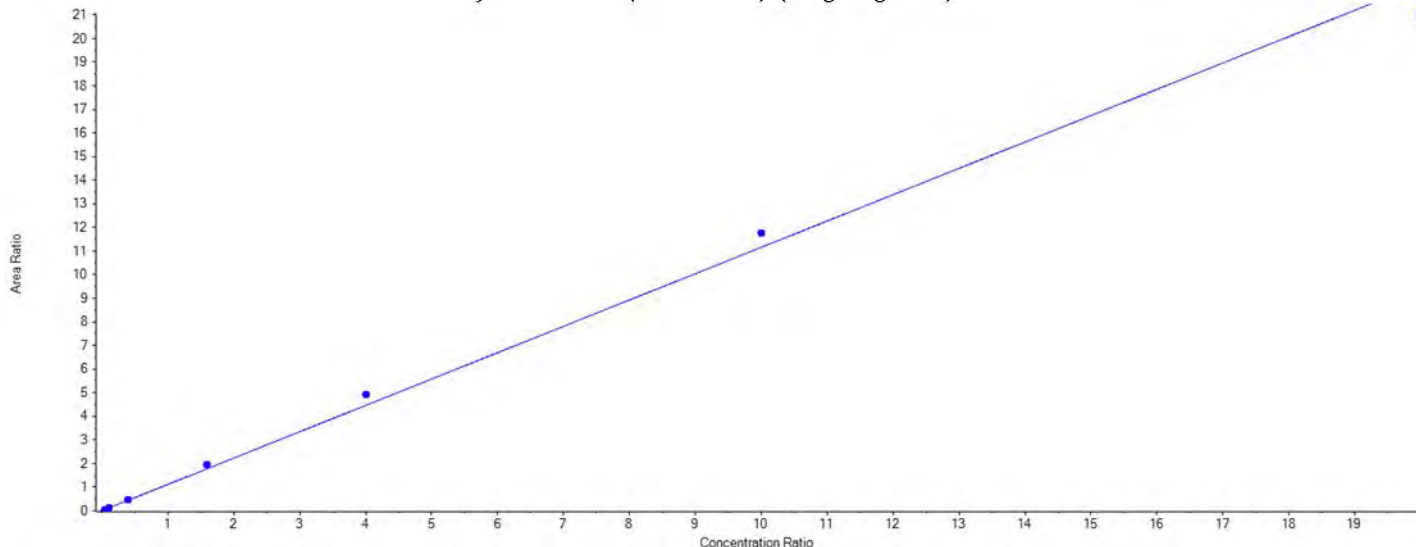
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

NMePFOSAE

$$y = 1.11579x \text{ (} r = 0.99792 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	NMePFOSAE Area	S/N	d7-NMePFOSAE Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	19989.4	87.7	366847.670	True	5.00	0.054	6.10	1.000	0.200	0.244	22	30	
CAL2	40902.1	140.8	330298.603	True	5.00	0.124	6.10	1.000	0.500	0.555	11	30	
CAL3	151795.0	297.4	335206.816	True	5.00	0.453	6.10	1.000	2.000	2.029	1	30	
CAL4	648523.4	496.3	330968.748	True	5.00	1.959	6.09	1.000	8.000	8.781	10	30	
CAL5	1583085.5	689.6	321549.477	True	5.00	4.923	6.10	1.000	20.000	22.062	10	30	
CAL6	3462215.2	801.3	294617.585	True	5.00	11.752	6.09	1.000	50.000	52.660	5	30	
CAL7	6220772.1	824.6	295395.339	True	5.00	21.059	6.09	1.000	100.000	94.369	-6	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

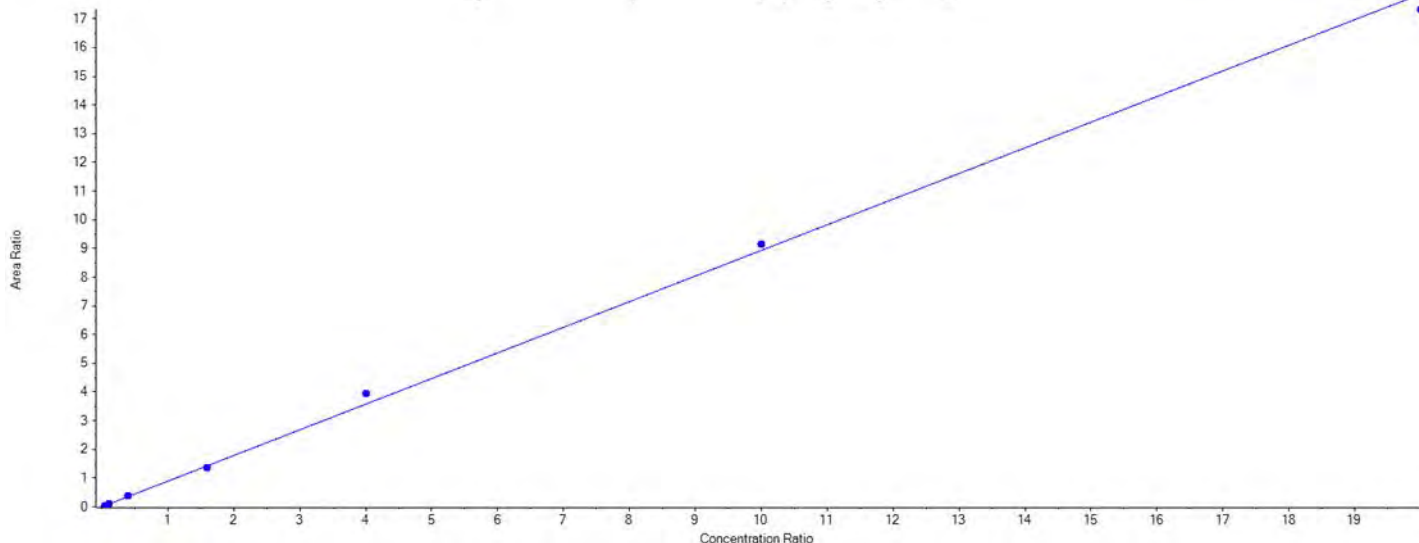
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

NMePFOSA

$$y = 0.89328x \text{ (r = 0.99899) (weighting: 1 / x)}$$



Component Calibration Verification

Sample Name	NMePFOSA Area	S/N	d3-NMePFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3218.9	123.4	89511.926	True	5.00	0.036	6.10	1.000	0.200	0.201	1	30	
CAL2	8251.9	123.5	81301.239	True	5.00	0.101	6.10	1.000	0.500	0.568	14	30	
CAL3	29797.4	354.6	79381.682	True	5.00	0.375	6.10	1.000	2.000	2.101	5	30	
CAL4	118194.2	528.2	86399.425	True	5.00	1.368	6.10	1.000	8.000	7.657	-4	30	
CAL5	323567.0	708.0	82137.635	True	5.00	3.939	6.10	1.000	20.000	22.050	10	30	
CAL6	705149.2	546.6	77146.949	True	5.00	9.140	6.10	1.000	50.000	51.162	2	30	
CAL7	1386738.5	563.9	80053.250	True	5.00	17.323	6.10	1.000	100.000	96.961	-3	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

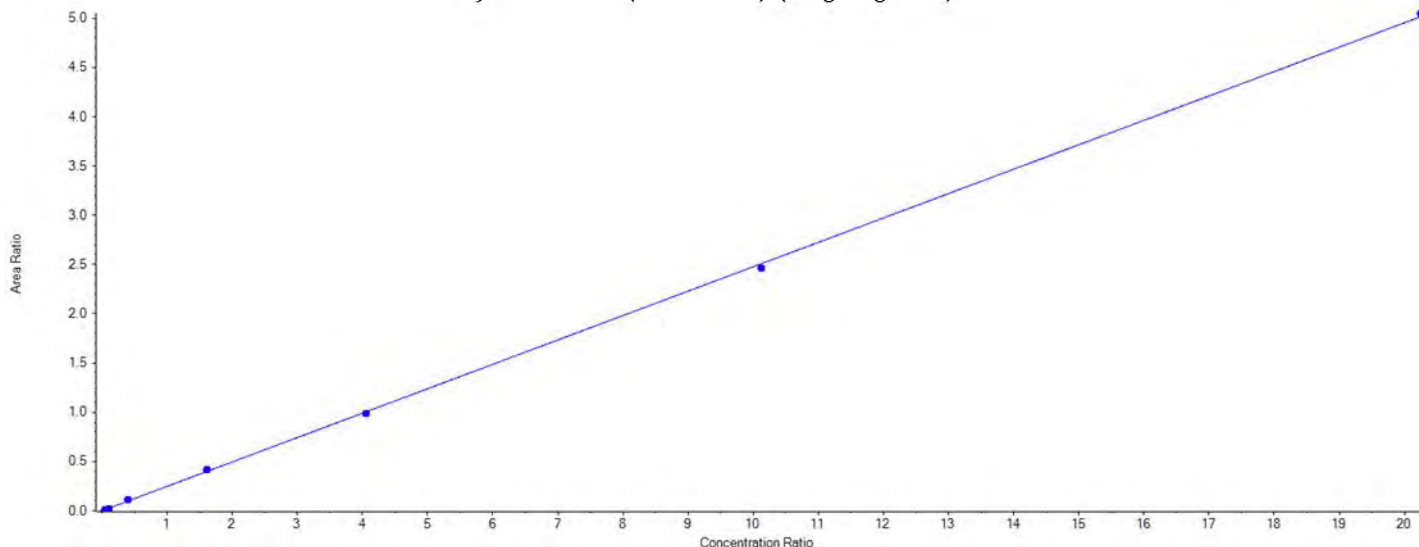
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFDoS

$$y = 0.24766 x \text{ (} r = 0.99988 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFDoS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3016.1	142.5	307224.329	True	4.78	0.010	6.22	1.190	0.190	0.189	0	30	
CAL2	7227.2	251.5	286174.783	True	4.78	0.025	6.23	1.190	0.484	0.487	1	30	
CAL3	32096.3	376.5	297259.750	True	4.78	0.108	6.22	1.190	1.940	2.084	7	30	
CAL4	121590.1	703.3	291941.558	True	4.78	0.416	6.22	1.190	7.740	8.039	4	30	
CAL5	295383.8	738.2	297995.609	True	4.78	0.991	6.22	1.190	19.360	19.132	-1	30	
CAL6	661528.1	1015.3	268368.993	True	4.78	2.465	6.22	1.190	48.400	47.576	-2	30	
CAL7	1333847.1	1122.7	264295.900	True	4.78	5.047	6.22	1.190	96.800	97.407	1	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

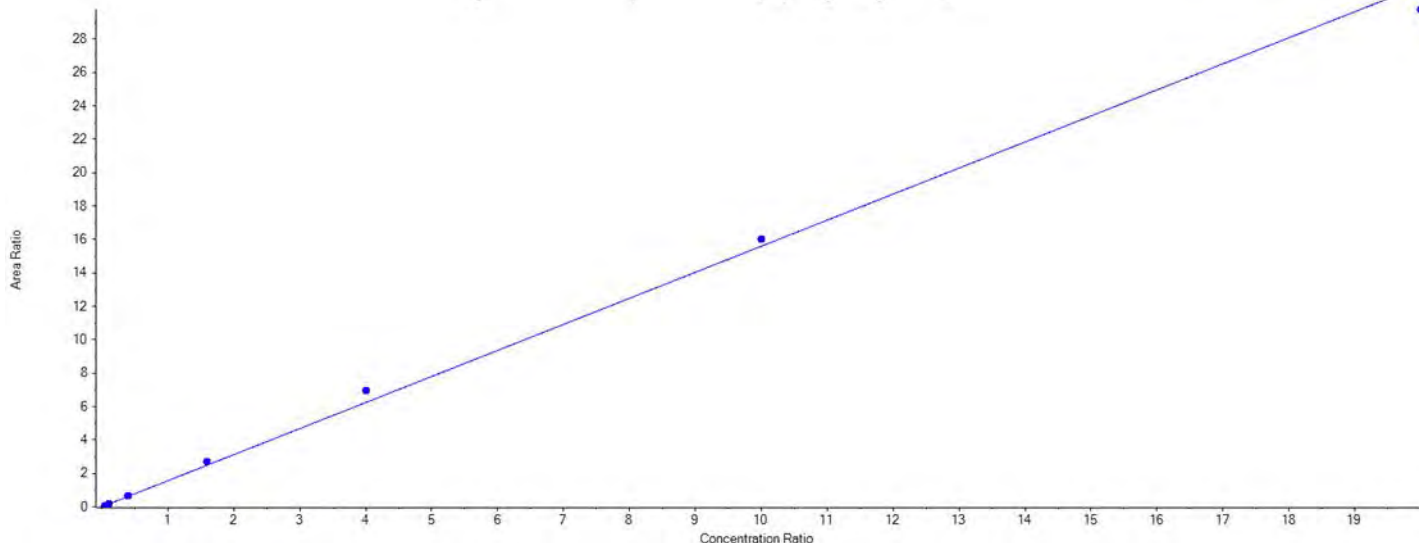
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

NEtPFOSAE

 $y = 1.55971x$ ($r = 0.99840$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	NEtPFOSAE Area	S/N	d9-NEtPFOSAE Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	21922.0	86.9	296629.265	True	5.00	0.074	6.25	1.000	0.200	0.237	18	30	
CAL2	48905.8	147.7	270607.582	True	5.00	0.181	6.25	1.000	0.500	0.579	16	30	
CAL3	180884.6	310.2	278375.126	True	5.00	0.650	6.25	1.000	2.000	2.083	4	30	
CAL4	740427.4	562.5	273909.084	True	5.00	2.703	6.25	1.000	8.000	8.666	8	30	
CAL5	1810587.6	560.5	259950.874	True	5.00	6.965	6.25	1.000	20.000	22.328	12	30	
CAL6	3836850.8	823.2	239316.963	True	5.00	16.033	6.25	1.000	50.000	51.396	3	30	
CAL7	6995371.5	738.3	235038.050	True	5.00	29.763	6.25	1.000	100.000	95.411	-5	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

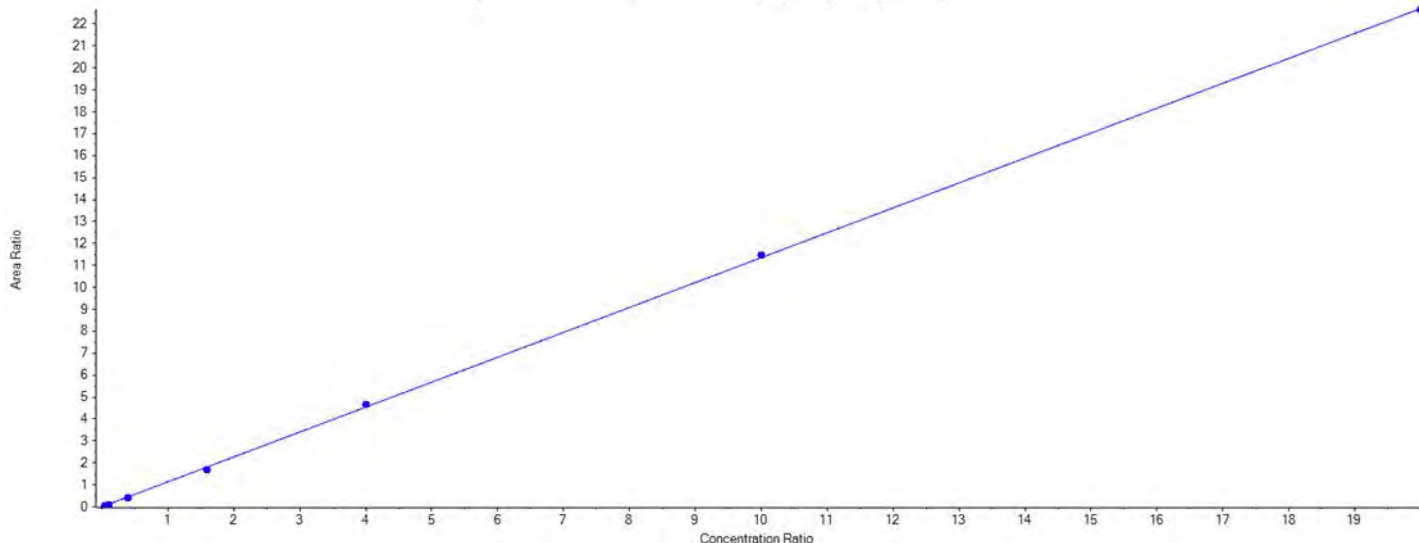
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

NEtPFOSA

 $y = 1.13527 x$ ($r = 0.99977$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	NEtPFOSA Area	S/N	d5-NEtPFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3068.5	69.6	70926.726	True	5.00	0.043	6.26	1.000	0.200	0.191	-5	30	
CAL2	6419.4	198.8	66745.434	True	5.00	0.096	6.26	1.000	0.500	0.424	-15	30	
CAL3	26524.6	267.9	67444.318	True	5.00	0.393	6.27	1.000	2.000	1.732	-13	30	
CAL4	123609.2	637.6	72258.683	True	5.00	1.711	6.26	1.000	8.000	7.534	-6	30	
CAL5	290096.1	630.6	62005.585	True	5.00	4.679	6.27	1.000	20.000	20.605	3	30	
CAL6	676107.2	667.5	59054.389	True	5.00	11.449	6.26	1.000	50.000	50.423	1	30	
CAL7	1329706.9	655.7	58686.052	True	5.00	22.658	6.26	1.000	100.000	99.791	0	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

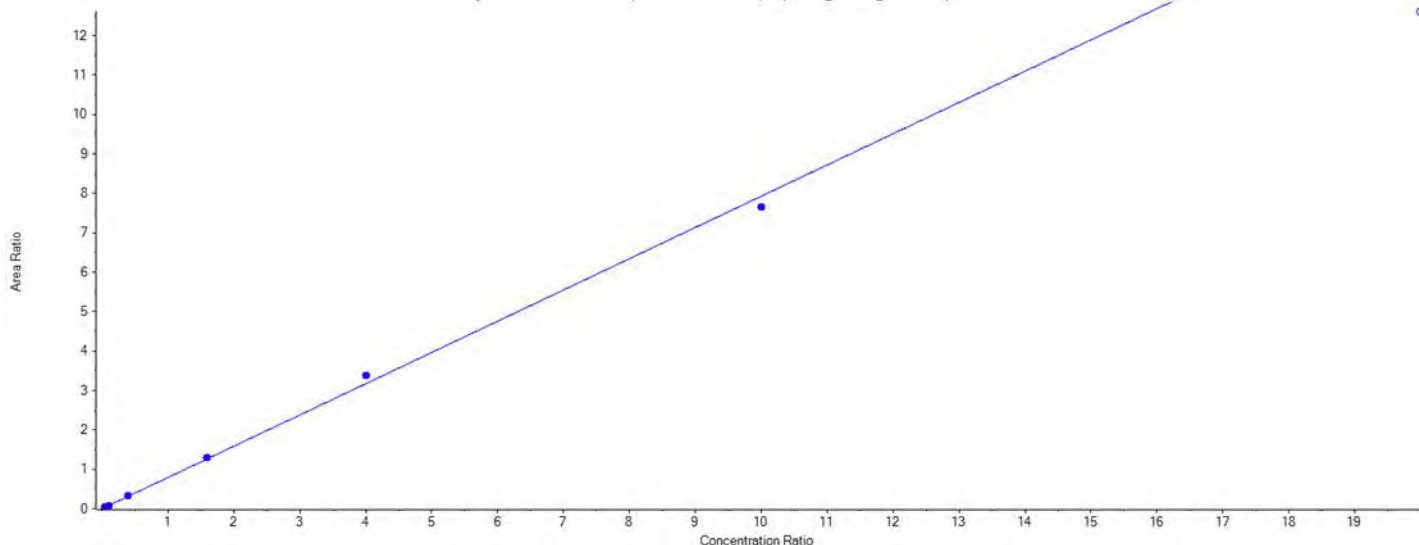
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFTrDA

$$y = 0.79287 x \text{ (} r = 0.99904 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFTrDA Area	S/N	13C2-PFDoDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	22403.2	67.6	564794.852	True	5.00	0.040	6.25	1.030	0.200	0.250	25	30	
CAL2	49218.5	108.1	597616.302	True	5.00	0.082	6.25	1.030	0.500	0.519	4	30	
CAL3	197290.7	195.6	584631.538	True	5.00	0.337	6.25	1.030	2.000	2.128	6	30	
CAL4	781283.7	366.6	598287.433	True	5.00	1.306	6.25	1.030	8.000	8.235	3	30	
CAL5	1851055.0	610.7	548536.046	True	5.00	3.375	6.25	1.030	20.000	21.280	6	30	
CAL6	3829048.4	757.6	500065.276	True	5.00	7.657	6.25	1.030	50.000	48.287	-3	30	
CAL7	6633128.3	811.0	525971.755	False	5.00	12.611	6.25	1.030	100.000	79.528	-20	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

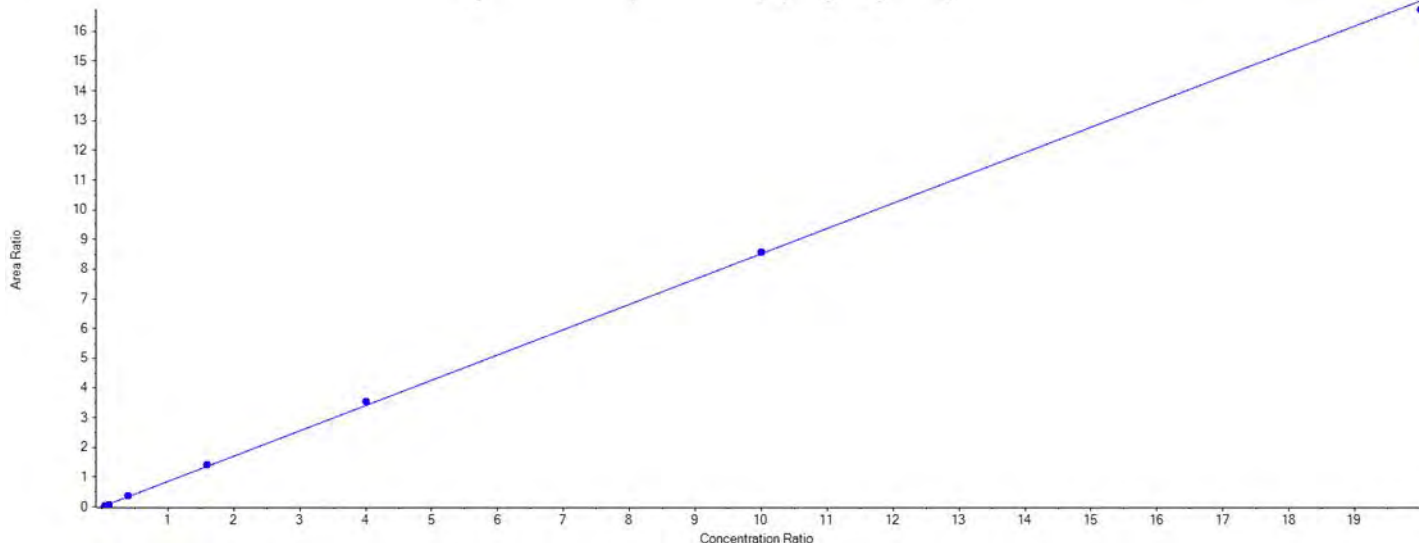
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFTeDA

 $y = 0.85145x$ ($r = 0.99973$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	PFTeDA Area	S/N	¹³ C2-PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	17031.0	49.1	430341.267	True	5.00	0.040	6.43	1.000	0.200	0.232	16	30	
CAL2	36223.2	102.6	441206.866	True	5.00	0.082	6.43	1.000	0.500	0.482	-4	30	
CAL3	150162.8	175.3	419341.711	True	5.00	0.358	6.43	1.000	2.000	2.103	5	30	
CAL4	630801.4	309.8	441858.057	True	5.00	1.428	6.43	1.000	8.000	8.383	5	30	
CAL5	1500655.1	416.1	421798.801	True	5.00	3.558	6.43	1.000	20.000	20.892	4	30	
CAL6	3381511.1	591.7	394433.888	True	5.00	8.573	6.42	1.000	50.000	50.344	1	30	
CAL7	6426587.4	783.6	384058.101	True	5.00	16.733	6.43	1.000	100.000	98.263	-2	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

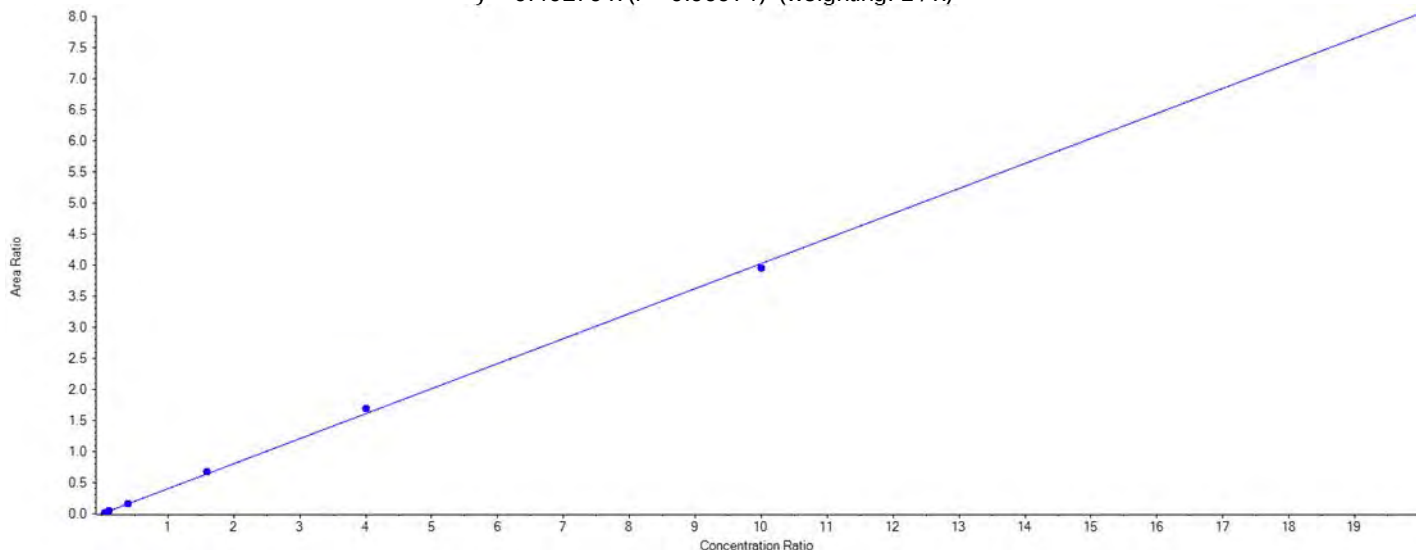
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFHxDA

$$y = 0.40279x \text{ (} r = 0.99974 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFHxDA Area	S/N	¹³ C ₂ -PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	8175.1	231.4	430341.267	True	5.00	0.019	6.74	1.050	0.200	0.236	18	30	
CAL2	18619.3	372.3	441206.866	True	5.00	0.042	6.74	1.050	0.500	0.524	5	30	
CAL3	70193.5	676.5	419341.711	True	5.00	0.167	6.74	1.050	2.000	2.078	4	30	
CAL4	297242.6	1318.1	441858.057	True	5.00	0.673	6.73	1.050	8.000	8.351	4	30	
CAL5	716467.3	1493.6	421798.801	True	5.00	1.699	6.73	1.050	20.000	21.085	5	30	
CAL6	1559604.6	1330.2	394433.888	True	5.00	3.954	6.73	1.050	50.000	49.083	-2	30	
CAL7	3073572.7	1322.0	384058.101	True	5.00	8.003	6.73	1.050	100.000	99.343	-1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

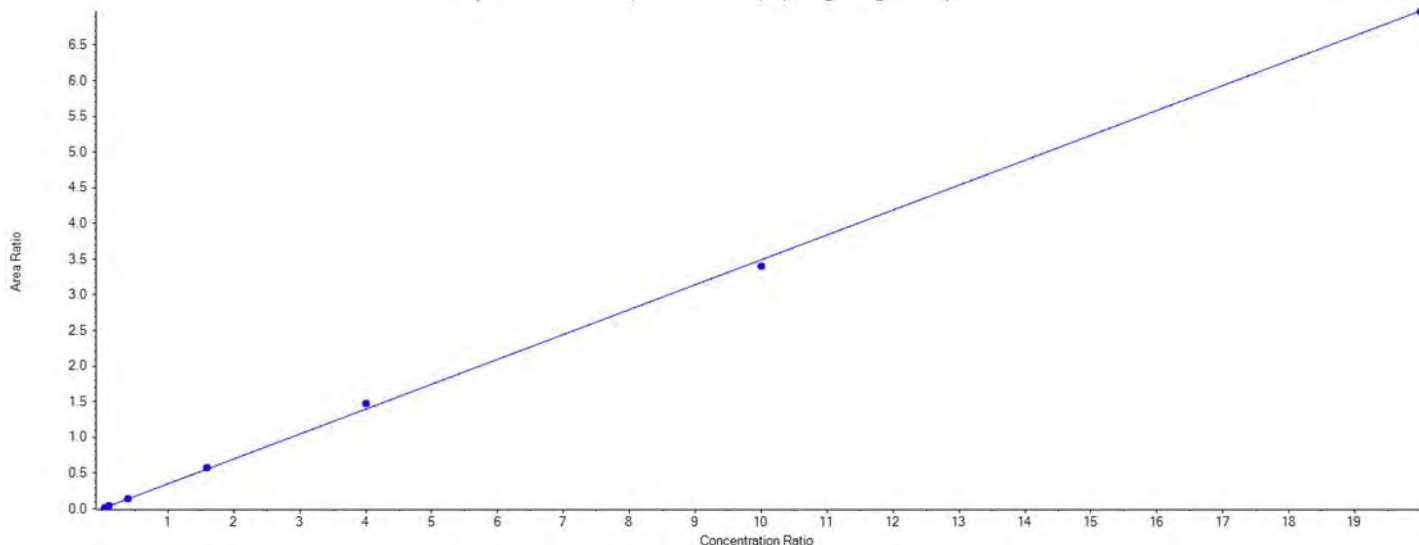
ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFODA

 $y = 0.34900 x$ ($r = 0.99969$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	PFODA Area	S/N	¹³ C ₂ -PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6622.6	295.7	430341.267	True	5.00	0.015	7.00	1.090	0.200	0.220	10	30	
CAL2	15742.1	618.0	441206.866	True	5.00	0.036	7.00	1.090	0.500	0.511	2	30	
CAL3	59736.9	980.9	419341.711	True	5.00	0.142	7.00	1.090	2.000	2.041	2	30	
CAL4	251726.5	1475.1	441858.057	True	5.00	0.570	7.00	1.090	8.000	8.162	2	30	
CAL5	624697.0	1672.6	421798.801	True	5.00	1.481	7.00	1.090	20.000	21.218	6	30	
CAL6	1340733.9	1995.4	394433.888	True	5.00	3.399	6.99	1.090	50.000	48.698	-3	30	
CAL7	2676698.5	2398.9	384058.101	True	5.00	6.970	6.99	1.090	100.000	99.849	0	30	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

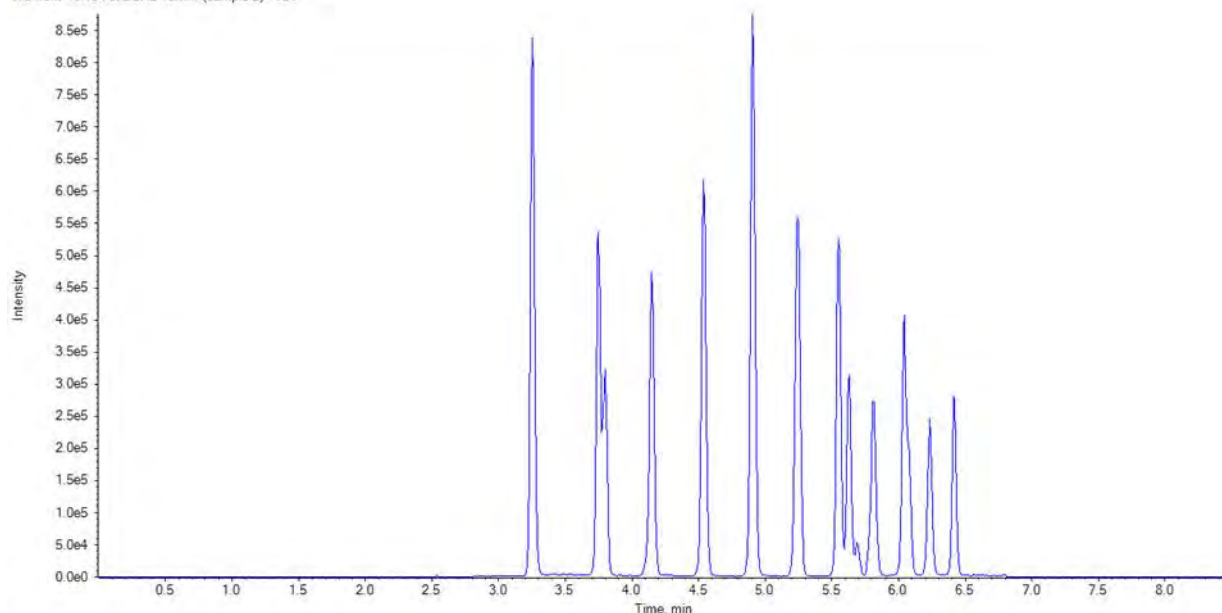
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

Sample Name	Sample ID:	Sample File:	Acquisition Date:
ICV	ICVMODX1833G	18NOV07DCAL-18.wiff	11/7/2018 10:51:59 AM

TIC from 18NOV07DCAL-18.wiff (sample 2) - ICV



Injection Standard Name	Inj Std Conc	Injection Std Peak Area	CAL3 Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.000	748799.9	730410.6	2.5	50	
13C2-PFOA	5.000	501855.0	524423.6	-4.3	50	
13C4-PFOS	4.780	265586.7	274061.7	-3.1	50	
13C2-PFDA	5.000	309656.0	311442.1	-0.6	50	

APPROVED

By JPT at 2:53 pm, 11/7/18

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By umar at 5:23 pm, 11/9/18

DOD Initial Calibration Verification

Instrument ID: LM27631 ICAL Name: 18NOV07DCAL QMethod Name: MQ4-18AUG13
Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM Acquisition Method: 18AUG13_3uL.dam

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By JPT at 2:53 pm, 11/7/18

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By umar at 5:23 pm, 11/9/18

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DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

Sample Name	Sample ID:	Sample File:	Acquisition Date:
ICV	ICVMODX1833G	18NOV07DCAL-18.wiff	11/7/2018 10:51:59 AM

Analyte Name	Analyte Area	Ext Std Name	Ext Std Area	Ext Std Con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	307777.1	13C4-PFBA	809267.46 0	5.00	0.380	3.25	1.00	2.000	2.226	11	30	
PFPeA	325574.9	13C5-PFPeA	881218.23 6	5.00	0.369	3.75	1.00	2.000	2.196	10	30	
PFBS	159719.5	13C3-PFBS	459507.47 1	4.65	0.348	3.80	1.00	1.770	1.752	-1	30	
4:2-FTS	N/A	13C2-4:2-FTS	53451.954	4.67	N/A	N/A	N/A	0.000	N/A		30	
PFHxA	397434.6	13C5-PFHxA	721013.61 3	5.00	0.551	4.15	1.00	2.000	2.364	18	30	
PFPeS	N/A	13C3-PFBS	459507.47 1	4.65	N/A	N/A	N/A	0.000	N/A		30	
PFHxS	126635.3	13C3-PFHxS	351165.97 5	4.73	0.361	4.54	1.00	1.890	1.828	-3	30	
PFHpA	390197.1	13C4-PFHpA	564695.35 2	5.00	0.691	4.54	1.00	2.000	2.324	16	30	
6:2-FTS	N/A	13C2-6:2-FTS	37550.072	4.75	N/A	N/A	N/A	0.000	N/A		30	
PFHpS	126812.1	13C3-PFHxS	351165.97 5	4.73	0.361	4.90	1.08	1.900	1.889	-1	30	
PFOA	387215.1	13C8-PFOA	985027.09 2	5.00	0.393	4.91	1.00	2.000	2.213	11	30	
PFOS	114911.8	13C8-PFOS	289450.12 1	4.78	0.397	5.23	1.00	1.910	2.059	8	30	
PFNA	329644.4	13C9-PFNA	531663.02 6	5.00	0.620	5.25	1.00	2.000	2.317	16	30	
PFNS	N/A	13C8-PFOS	289450.12 1	4.78	N/A	N/A	N/A	0.000	N/A		30	
PFDA	262760.0	13C6-PFDA	669137.11 1	5.00	0.393	5.55	1.00	2.000	2.160	8	30	
8:2-FTS	N/A	13C2-8:2-FTS	27983.400	4.79	N/A	N/A	N/A	0.000	N/A		30	
PFOSA	N/A	13C8-PFOSA	741232.18 6	5.00	N/A	N/A	N/A	0.000	N/A		30	
NMeFOSAA	33916.6	d3-NMeFOSAA	76665.384	5.00	0.442	5.69	1.00	2.000	2.276	14	30	
PFDS	65962.5	13C8-PFOS	289450.12 1	4.78	0.228	5.79	1.11	1.930	2.177	13	30	
PFUnDA	225137.5	13C7-PFUnDA	292761.51 1	5.00	0.769	5.81	1.00	2.000	2.205	10	30	
NEtFOSAA	29687.2	d5-NEtFOSAA	78938.706	5.00	0.376	5.83	1.00	2.000	1.616	-19	30	
PFDODA	232949.2	13C2-PFDODA	580675.05 6	5.00	0.401	6.04	1.00	2.000	2.174	9	30	
10:2-FTS	N/A	13C2-8:2-FTS	27983.400	4.79	N/A	N/A	N/A	0.000	N/A		30	
NMePFOSAE	N/A	d7-NMePFOSAE	334001.43 0	5.00	N/A	N/A	N/A	0.000	N/A		30	
NMePFOSA	N/A	d3-NMePFOSA	79719.053	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFDoS	N/A	13C8-PFOS	289450.12 1	4.78	N/A	N/A	N/A	0.000	N/A		30	
NEtPFOSAE	N/A	d9-NEtPFOSAE	293829.69 3	5.00	N/A	N/A	N/A	0.000	N/A		30	
NEtPFOSA	N/A	d5-NEtPFOSA	65412.861	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFTDA	206908.4	13C2-PFDODA	580675.05 6	5.00	0.356	6.24	1.03	2.000	2.247	12	30	

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By JPT at 2:53 pm, 11/7/18

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By umar at 5:23 pm, 11/9/18

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DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV07DCAL

QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam

PFTeDA	157975.3	13C2-PFTeDA	427601.64 3	5.00	0.369	6.42	1.00	2.000	2.169	8	30	
PFHxDA	N/A	13C2-PFTeDA	427601.64 3	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFODA	N/A	13C2-PFTeDA	427601.64 3	5.00	N/A	N/A	N/A	0.000	N/A		30	

APPROVED

By JPT at 2:53 pm, 11/7/18

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By umar at 5:23 pm, 11/9/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL1		Data File:	18NOV07DCAL-10.wiff
Sample ID:	CALMOD11833G		Acquis Date:	2018-11-07T09:39:56
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	3		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV07DCAL
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	N/A		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV07DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	750780.0	730410.6	3	50	
13C2-PFOA	5.0	534171.9	524423.6	2	50	
13C4-PFOS	4.8	272674.7	274061.7	-1	50	
13C2-PFDA	5.0	338833.7	311442.1	9	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	794718.9	13C3-PFBA	750780.0	1.059	5.000	4.899	98	70-130	
E13C5-PFPeA	844850.2	13C3-PFBA	750780.0	1.125	5.000	4.902	98	70-130	
E13C3-PFBS	449266.3	13C3-PFBA	750780.0	0.598	4.650	4.392	94	70-130	
E13C2-4:2-FTS	58330.9	13C2-PFOA	534171.9	0.109	4.670	4.927	106	70-130	
E13C5-PFHxA	725432.0	13C2-PFOA	534171.9	1.358	5.000	4.996	100	70-130	
E13C3-PFHxS	358771.3	13C2-PFOA	534171.9	0.672	4.730	4.822	102	70-130	
E13C4-PFHpA	586580.3	13C2-PFOA	534171.9	1.098	5.000	4.995	100	70-130	
E13C2-6:2-FTS	42112.8	13C2-PFOA	534171.9	0.079	4.750	5.257	111	70-130	
E13C8-PFOA	1028414.9	13C2-PFOA	534171.9	1.925	5.000	5.369	107	70-130	
E13C8-PFOS	307224.3	13C4-PFOS	272674.7	1.127	4.780	4.982	104	70-130	
E13C9-PFNA	518118.7	13C4-PFOS	272674.7	1.900	5.000	5.190	104	70-130	
E13C6-PFDA	651348.0	13C2-PFDA	338833.7	1.922	5.000	4.834	97	70-130	
E13C2-8:2-FTS	26730.2	13C2-PFDA	338833.7	0.079	4.790	4.174	87	70-130	
E13C8-PFOSA	774962.8	13C2-PFDA	338833.7	2.287	5.000	4.991	100	70-130	
Ed3-NMeFOSAA	94967.0	13C2-PFDA	338833.7	0.280	5.000	5.212	104	70-130	
E13C7-PFUnDA	293658.7	13C2-PFDA	338833.7	0.867	5.000	5.000	100	70-130	
Ed5-NEtFOSAA	77938.3	13C2-PFDA	338833.7	0.230	5.000	5.323	106	70-130	
E13C2-PFDODA	564794.9	13C2-PFDA	338833.7	1.667	5.000	4.494	90	70-130	
Ed7-NMePFOSAE	366847.7	13C2-PFDA	338833.7	1.083	5.000	5.035	101	70-130	
Ed3-NMePFOSA	89511.9	13C2-PFDA	338833.7	0.264	5.000	4.836	97	70-130	
Ed9-NEtPFOSAE	296629.3	13C2-PFDA	338833.7	0.875	5.000	5.000	100	70-130	
Ed5-NEtPFOSA	70926.7	13C2-PFDA	338833.7	0.209	5.000	4.847	97	70-130	
E13C2-PFTeDA	430341.3	13C2-PFDA	338833.7	1.270	5.000	4.572	91	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL1

Instrument Name: LM27631

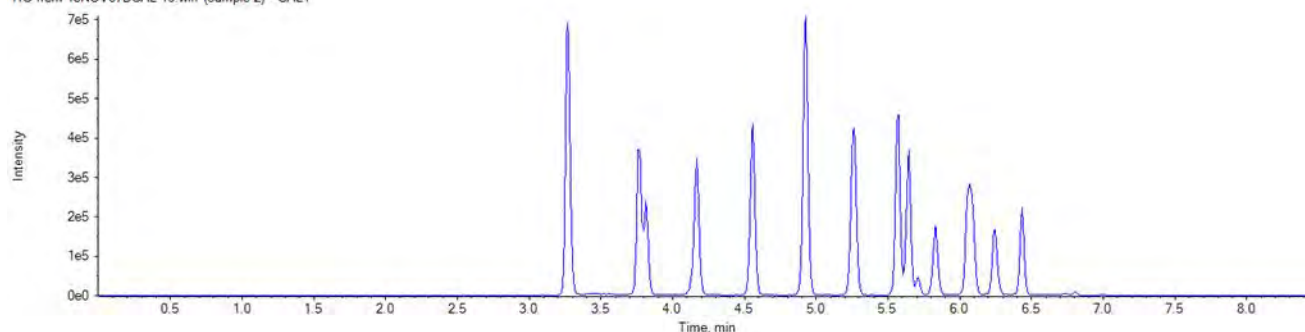
File Name: 18NOV07DCAL-10.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	32354.4		A	13C4-PFBA	3.27	794718.9	0.041	0.238
PFPeA	3.77	1.000	33205.5		A	13C5-PFPeA	3.77	844850.2	0.039	0.234
PFBS	3.82	1.000	19024.1		A	13C3-PFBS	3.82	449266.3	0.042	0.213
4:2-FTS	4.13	1.000	4145.4		M	13C2-4:2-FTS	4.13	58330.9	0.071	0.191
PFHxA	4.17	1.000	39732.2		A	13C5-PFHxA	4.17	725432.0	0.055	0.235
PFPeS	4.18	1.100	8335.4		A	13C3-PFBS	3.82	449266.3	0.019	0.183
PFHxS	4.56	1.000	13762.6		M	13C3-PFHxS	4.56	358771.3	0.038	0.194
PFHpA	4.55	1.000	38331.9		M	13C4-PFHpA	4.56	586580.3	0.065	0.220
6:2-FTS	4.91	1.000	2460.6		A	13C2-6:2-FTS	4.91	42112.8	0.058	0.146
PFHpS	4.91	1.080	14183.4		M	13C3-PFHxS	4.56	358771.3	0.040	0.207
PFOA	4.93	1.000	39843.5		A	13C8-PFOA	4.93	1028414.9	0.039	0.218
PFOS	5.25	1.000	12181.7		A	13C8-PFOS	5.25	307224.3	0.040	0.206
PFNA	5.27	1.000	32563.3		M	13C9-PFNA	5.27	518118.7	0.063	0.235
PFNS	5.55	1.060	6748.5		A	13C8-PFOS	5.25	307224.3	0.022	0.174
PFDA	5.57	1.000	25530.0		A	13C6-PFDA	5.57	651348.0	0.039	0.216
8:2-FTS	5.58	1.000	2783.3		M	13C2-8:2-FTS	5.57	26730.2	0.104	0.235
PFOSA	5.64	1.000	27779.6		A	13C8-PFOSA	5.64	774962.8	0.036	0.194
NMeFOSAA	5.71	1.000	3293.8		M	d3-NMeFOSAA	5.71	94967.0	0.035	0.178
PFDS	5.80	1.100	6453.6		A	13C8-PFOS	5.25	307224.3	0.021	0.201
PfUnDA	5.83	1.000	23275.5		M	13C7-PfUnDA	5.83	293658.7	0.079	0.227
NEtFOSAA	5.84	1.000	3313.0		A	d5-NEtFOSAA	5.84	77938.3	0.043	0.183
PFDODA	6.06	1.000	23314.2		M	13C2-PFDODA	6.06	564794.9	0.041	0.224
10:2-FTS	6.07	1.090	1903.7		A	13C2-8:2-FTS	5.57	26730.2	0.071	0.222
NMePFOSAE	6.10	1.000	19989.4		A	d7-NMePFOSAE	6.09	366847.7	0.054	0.244
NMePFOSA	6.10	1.000	3218.9		M	d3-NMePFOSA	6.10	89511.9	0.036	0.201
PFDoS	6.22	1.190	3016.1		M	13C8-PFOS	5.25	307224.3	0.010	0.189
NEtPFOSAE	6.25	1.000	21922.0		A	d9-NEtPFOSAE	6.24	296629.3	0.074	0.237
NEtPFOSA	6.26	1.000	3068.5		M	d5-NEtPFOSA	6.26	70926.7	0.043	0.191
PFTDA	6.25	1.030	22403.2		A	13C2-PFDODA	6.06	564794.9	0.040	0.250
PFTeDA	6.43	1.000	17031.0		A	13C2-PFTeDA	6.43	430341.3	0.040	0.232
PFHxDA	6.74	1.050	8175.1		A	13C2-PFTeDA	6.43	430341.3	0.019	0.236
PFODA	7.00	1.090	6622.6		A	13C2-PFTeDA	6.43	430341.3	0.015	0.220

Total Ion Chromatogram

TIC from 18NOV07DCAL-10.wiff (sample 2) - CAL1



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By JPT at 2:53 pm, 11/7/18

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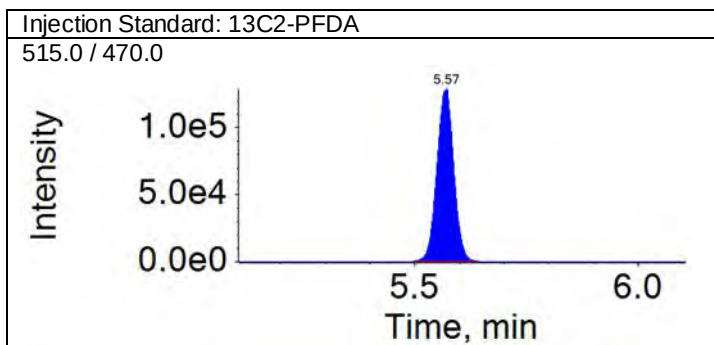
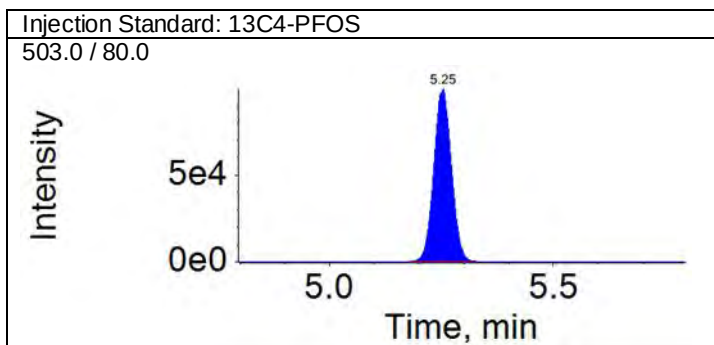
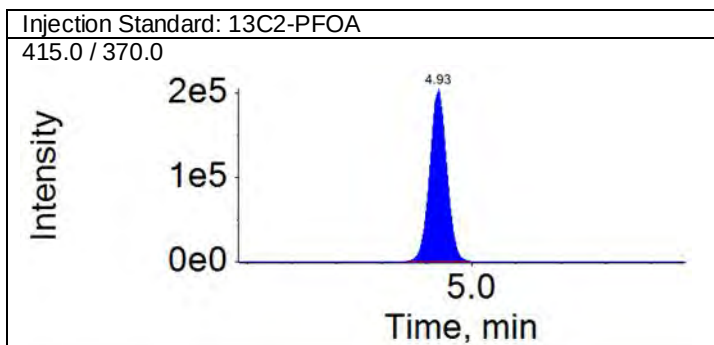
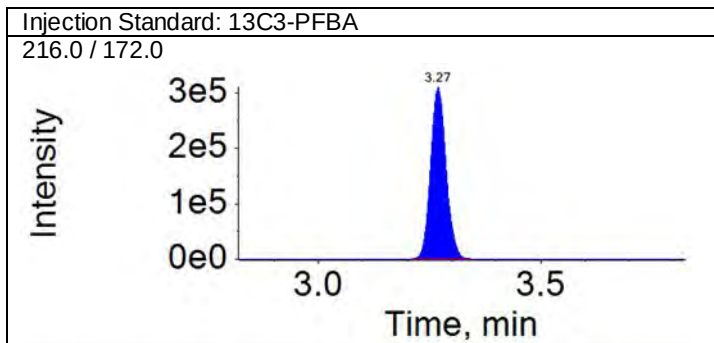
REVIEWED

By umar at 5:23 pm, 11/9/18

Page 2 of 17

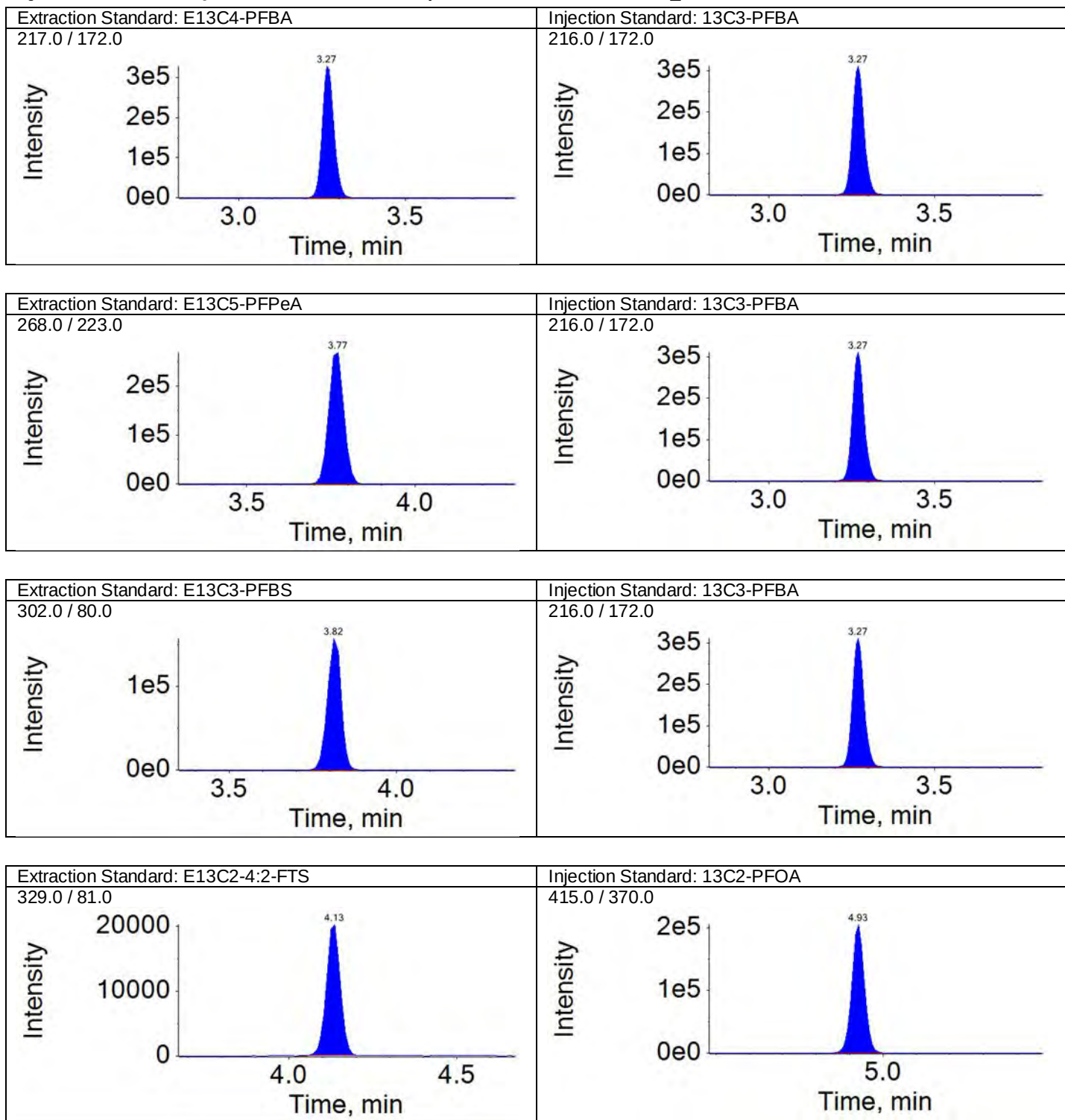
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
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APPROVED

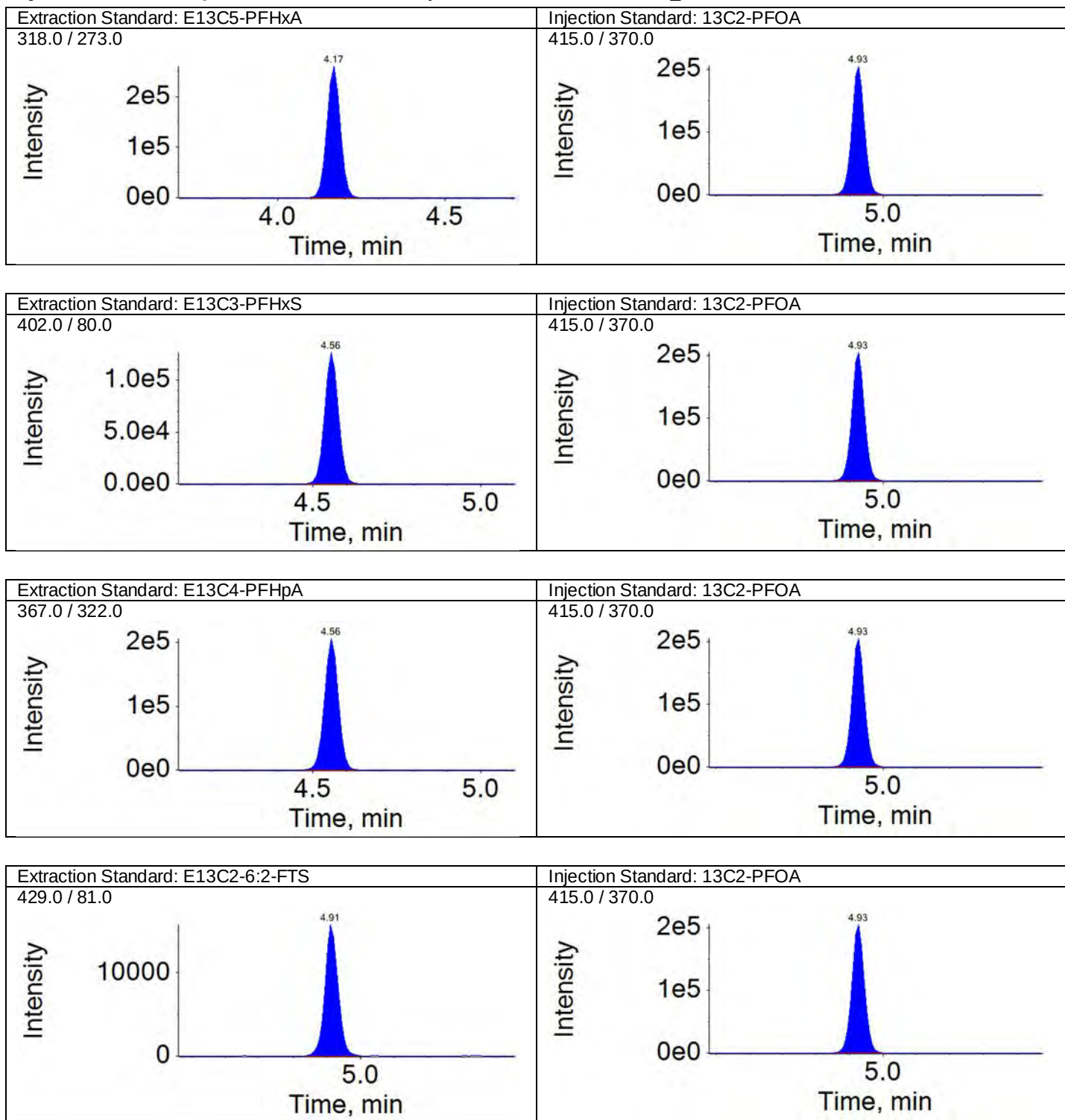
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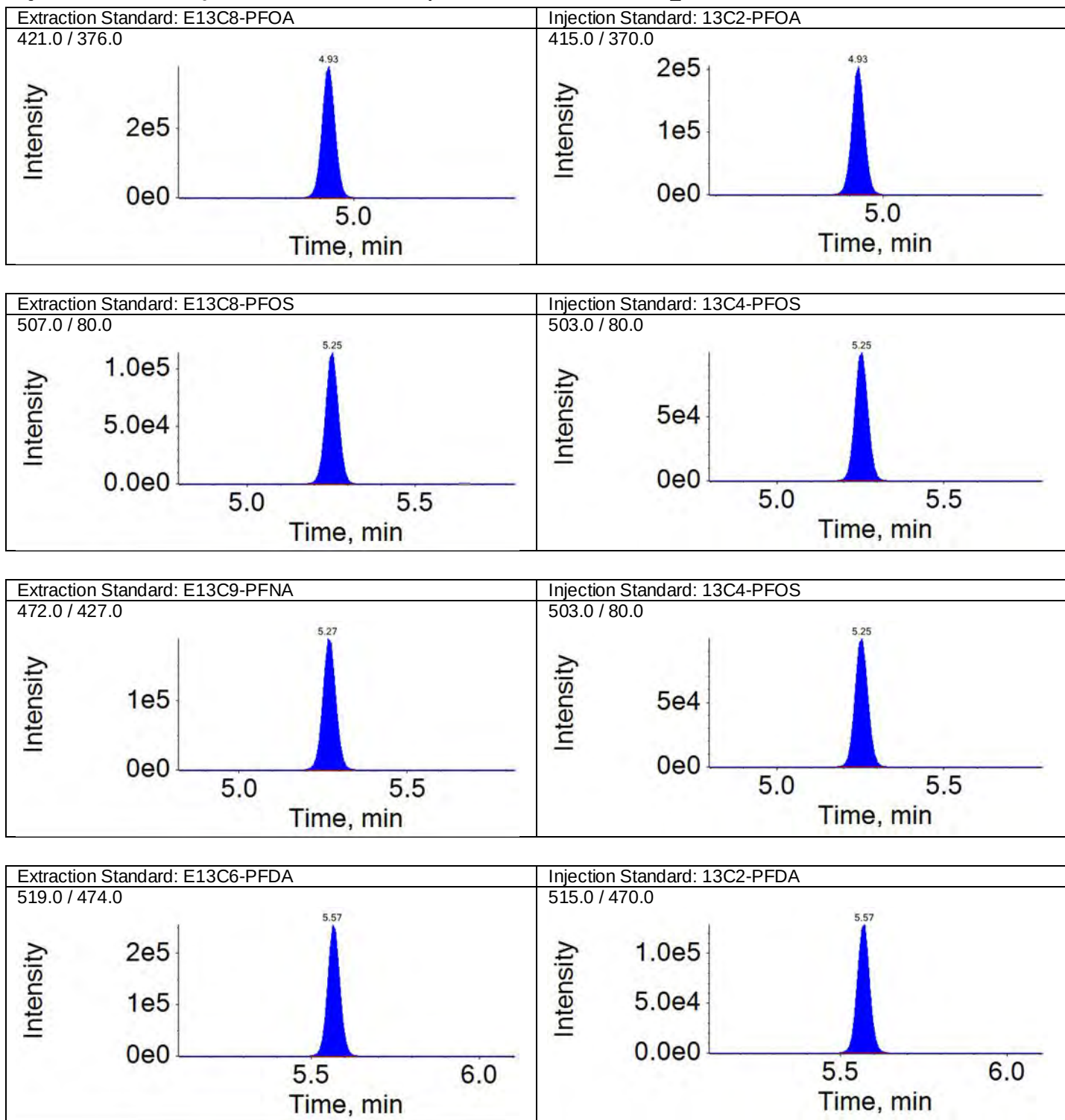
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Acquisition Method: 18AUG13_3uL.dam



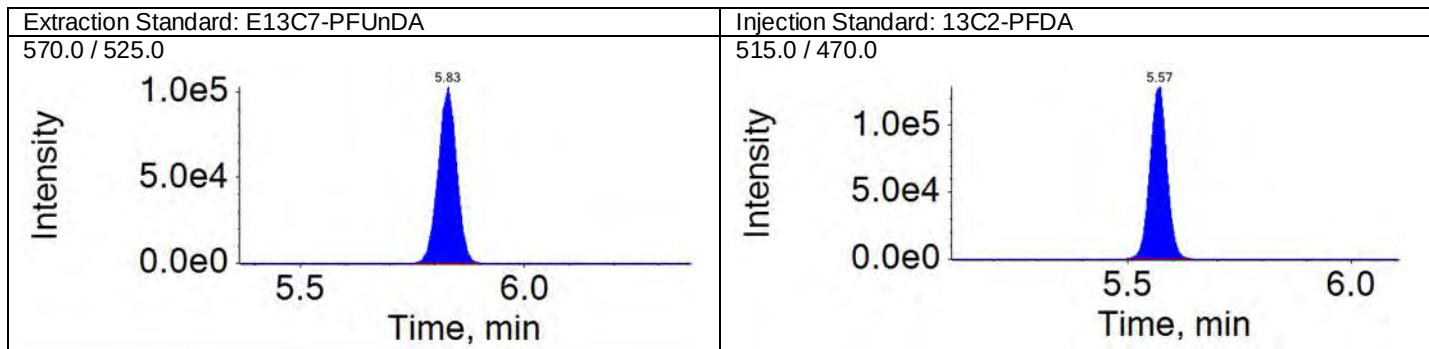
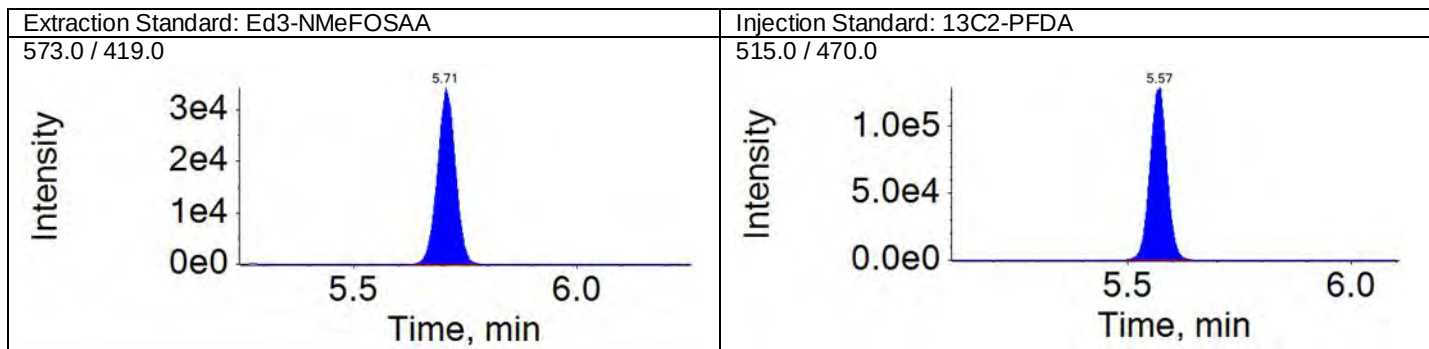
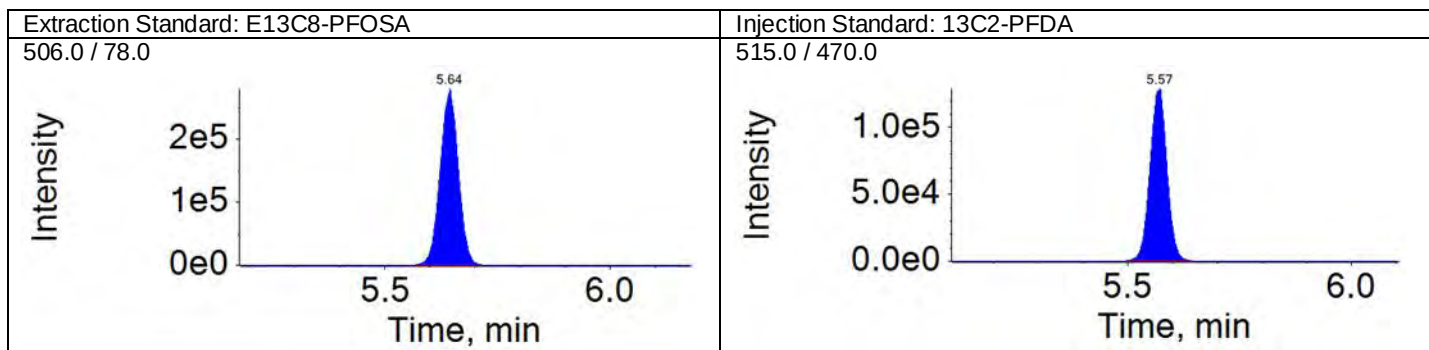
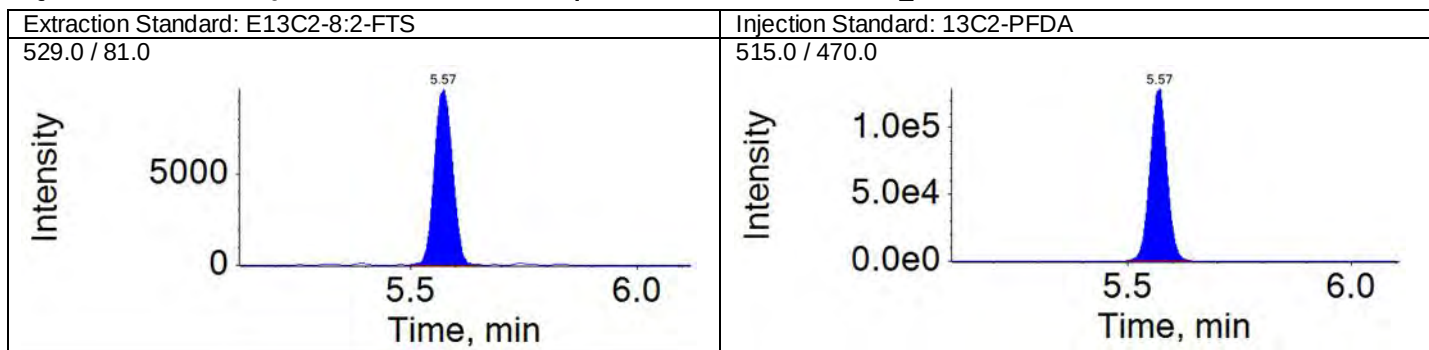
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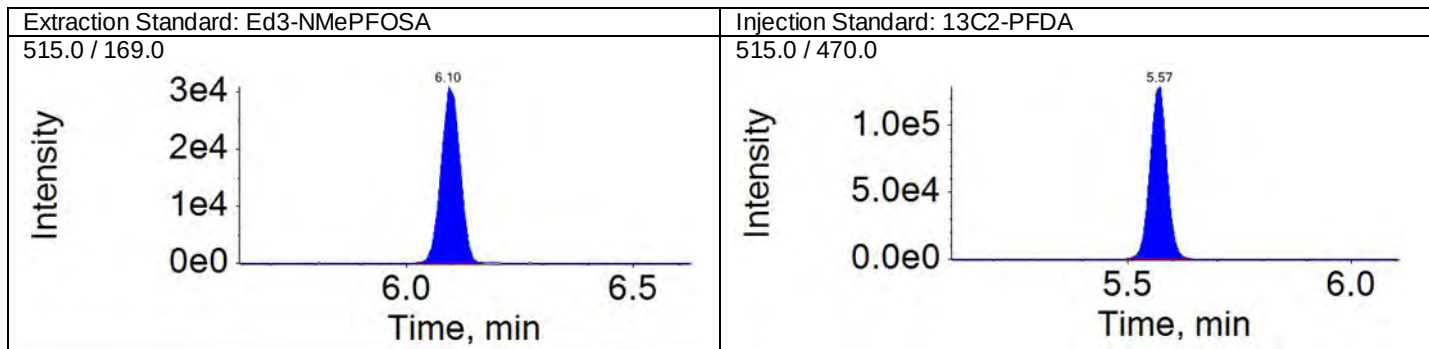
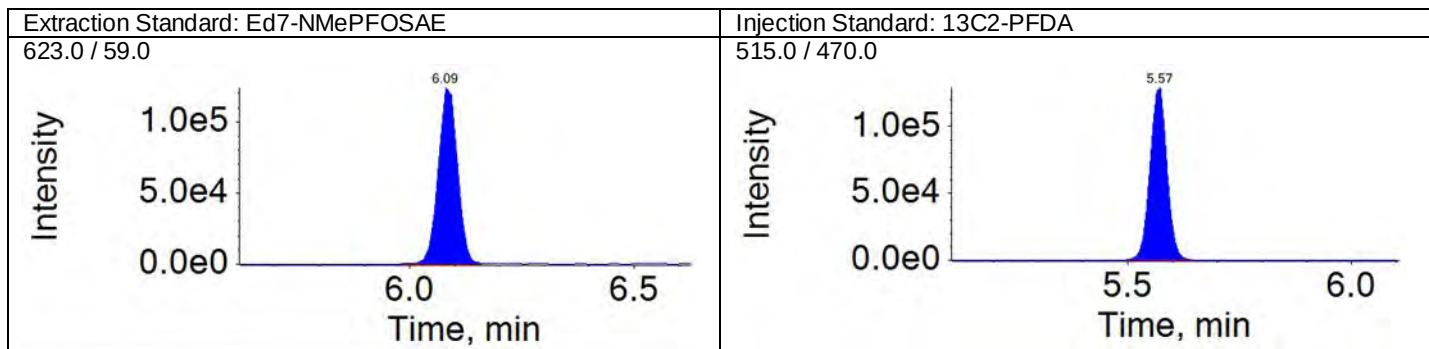
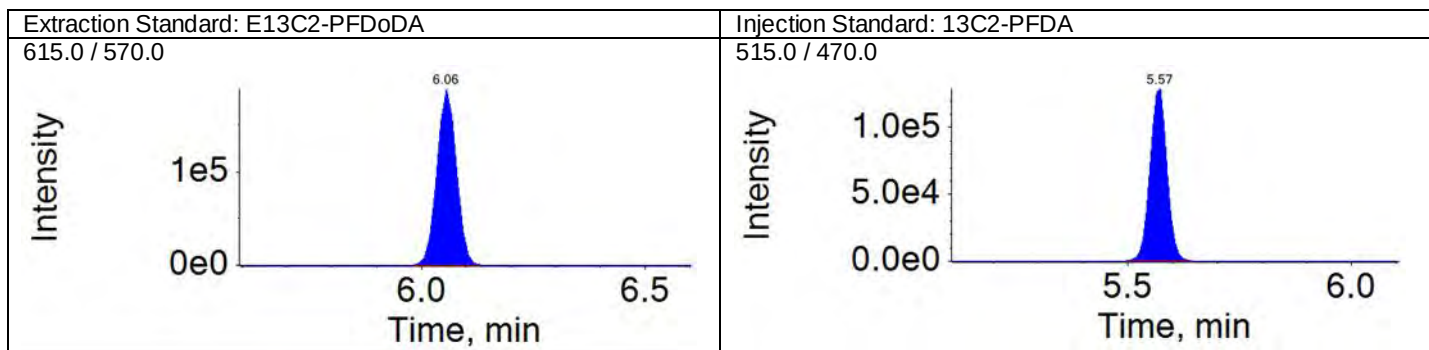
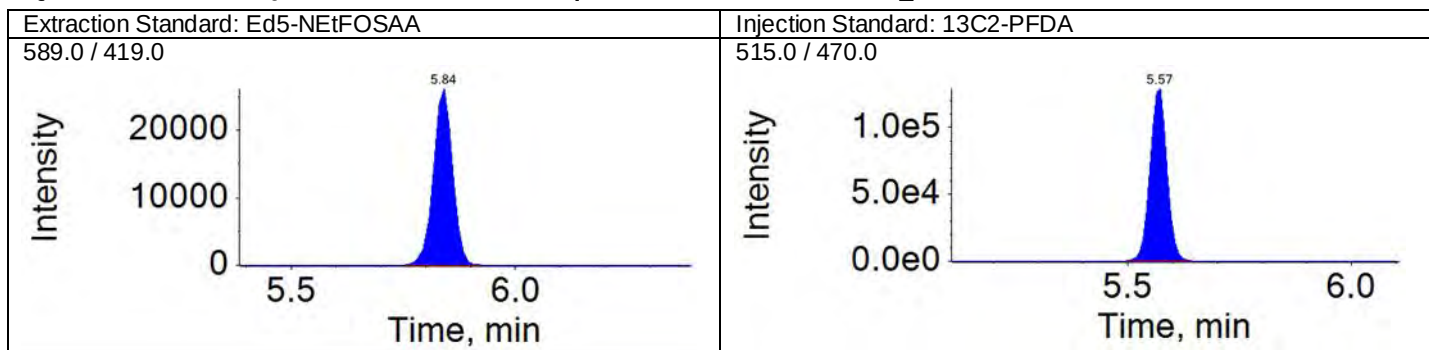
By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

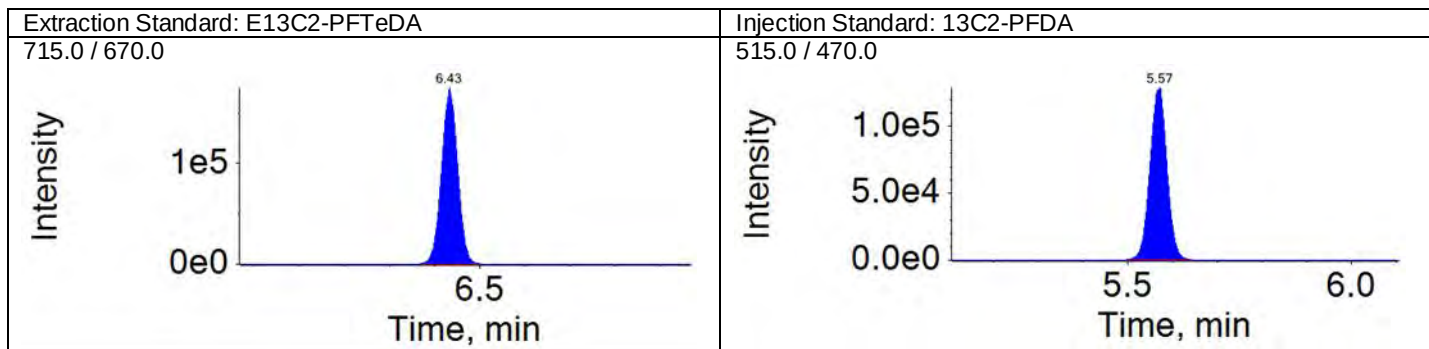
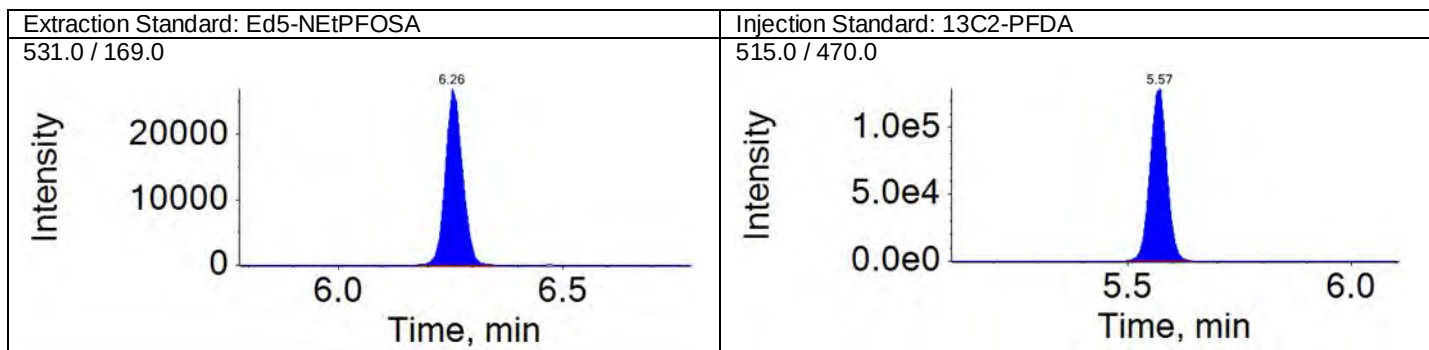
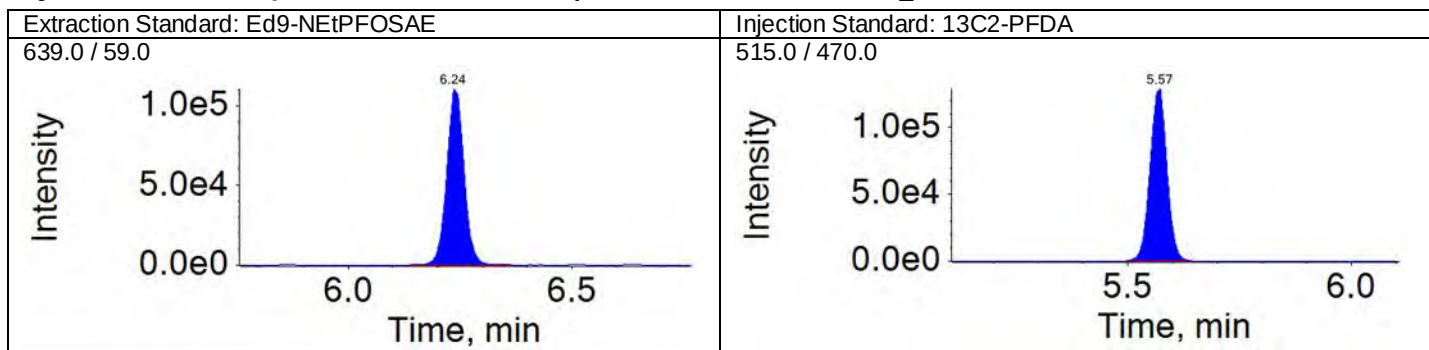
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QMethod Name: MQ4-18AUG13

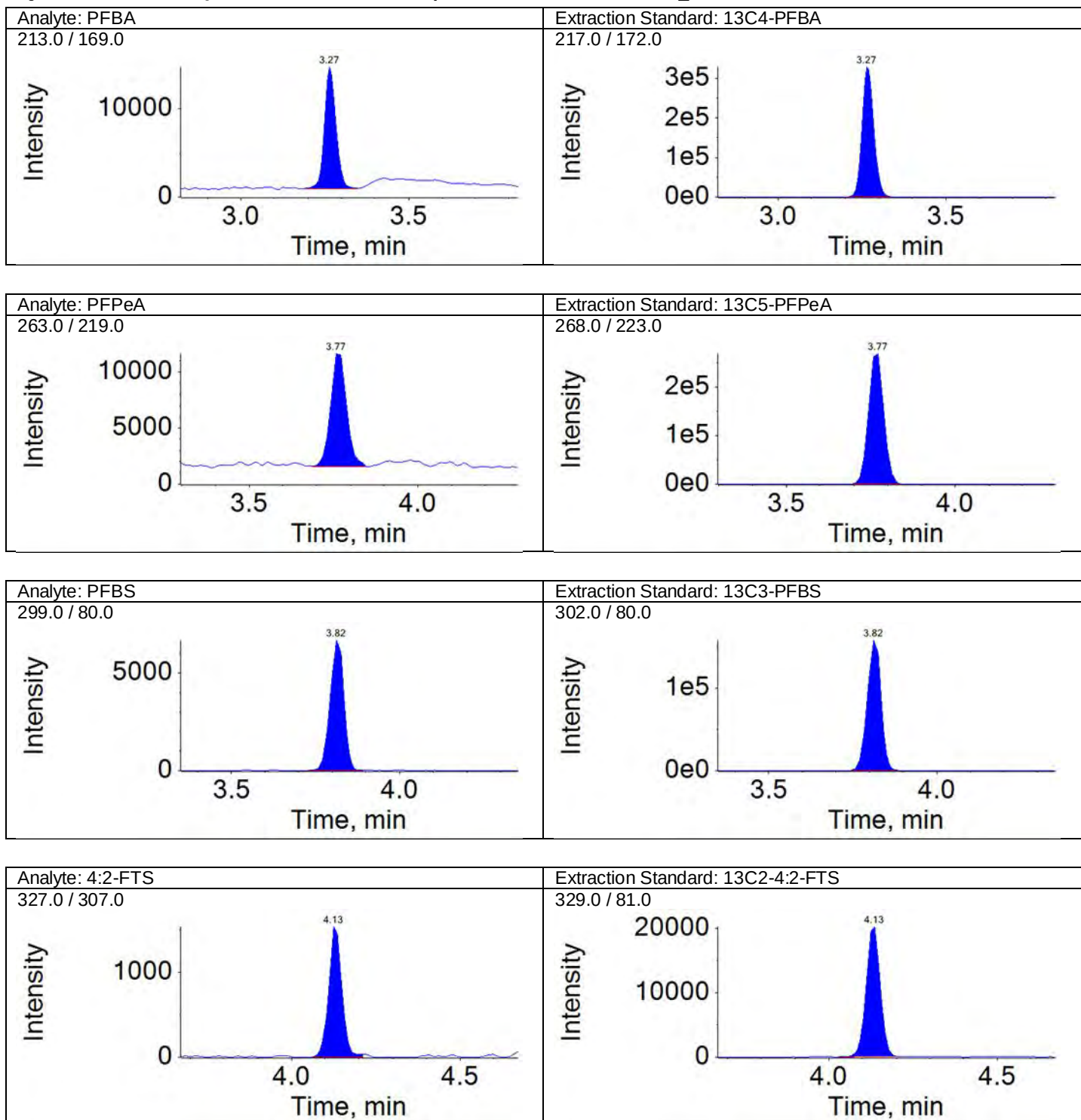
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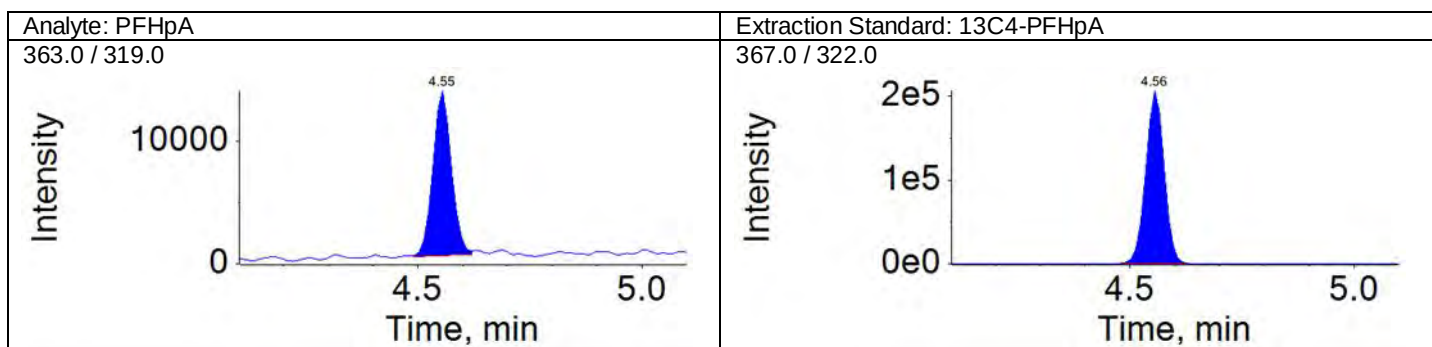
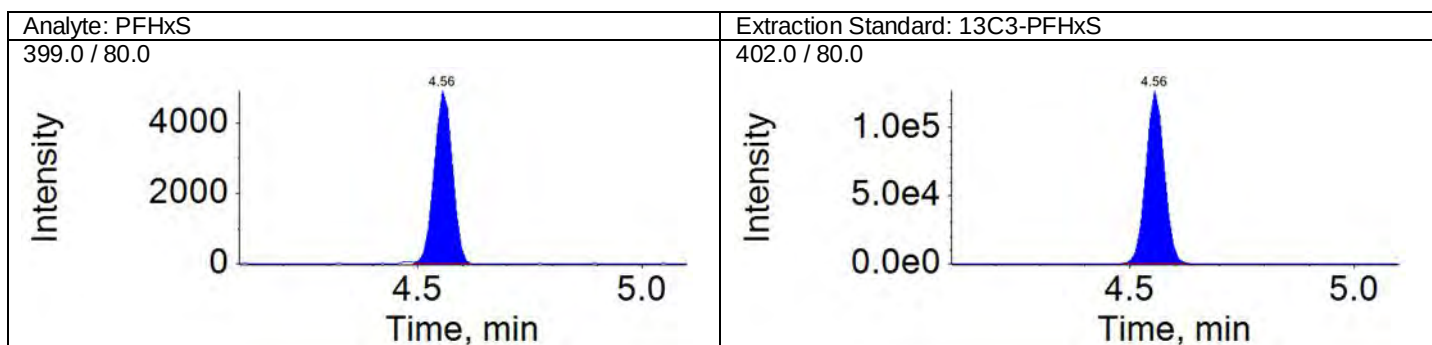
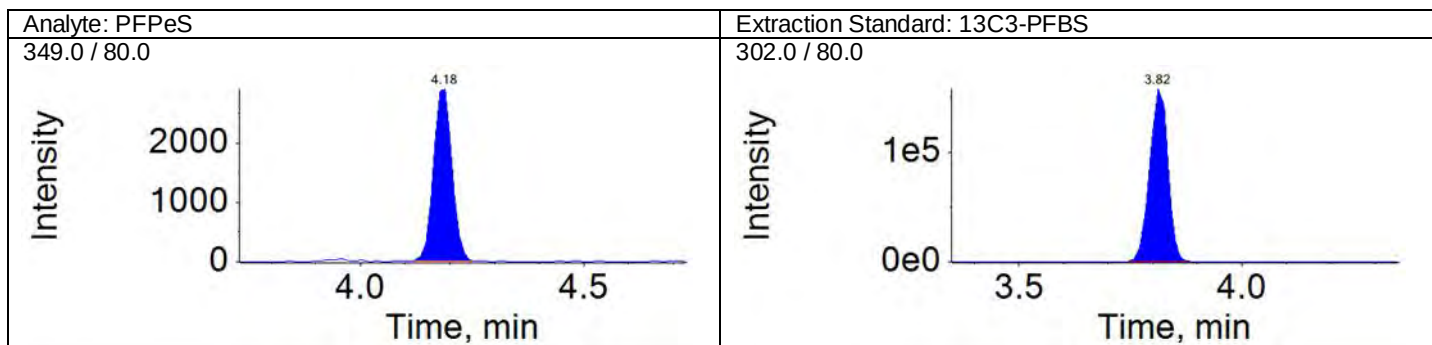
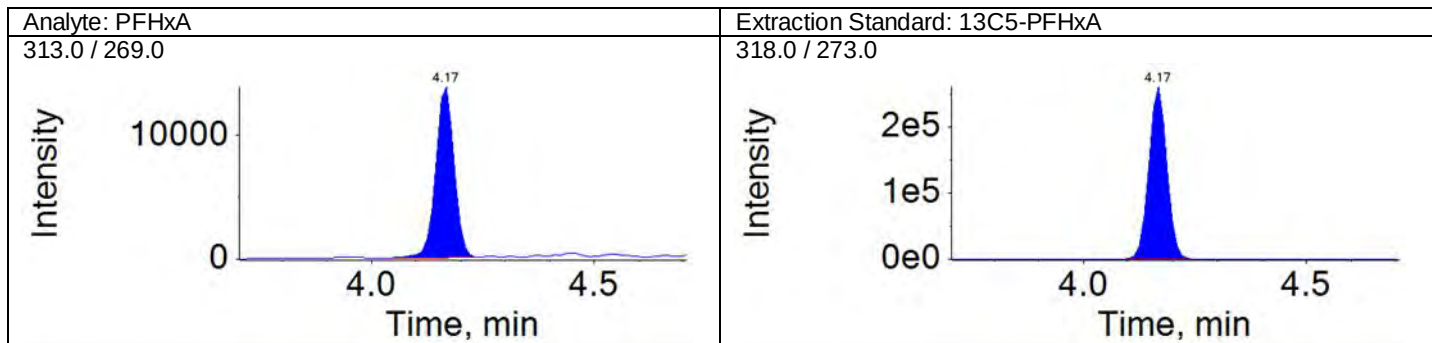
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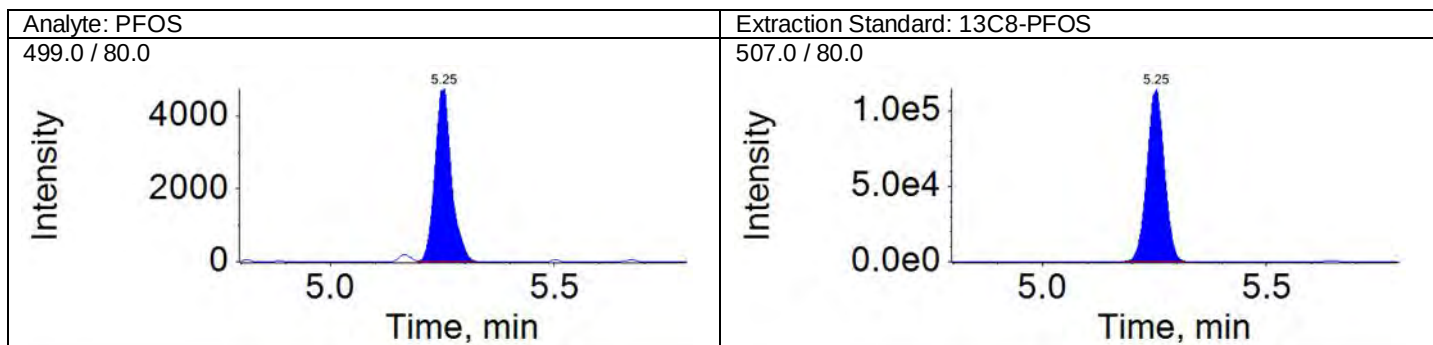
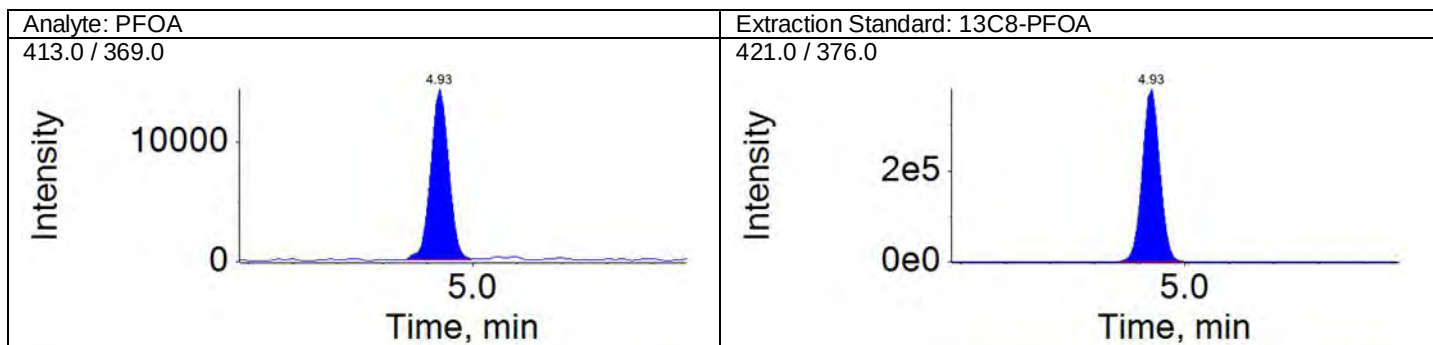
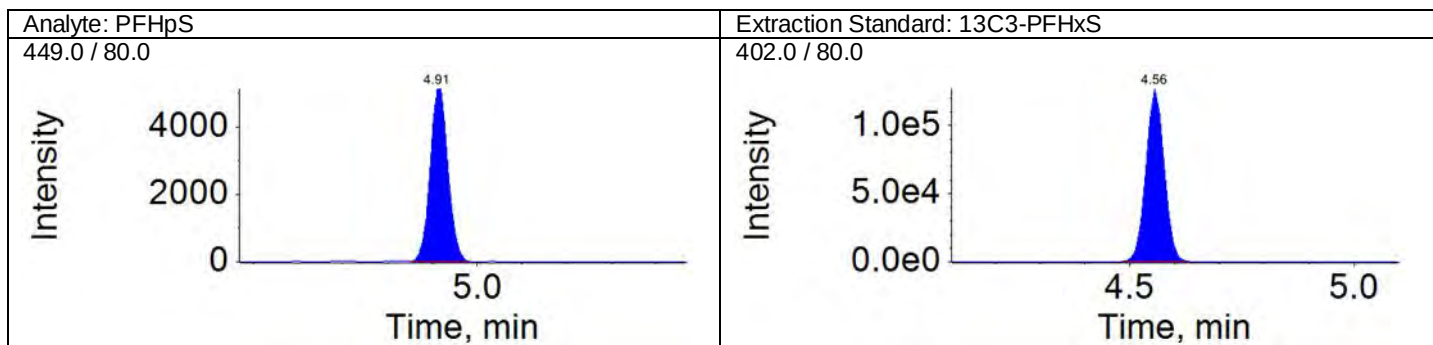
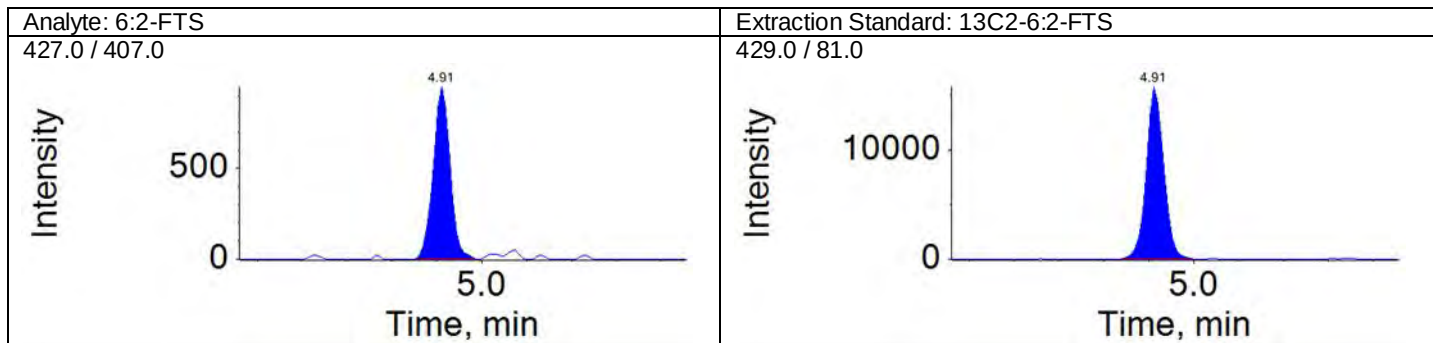
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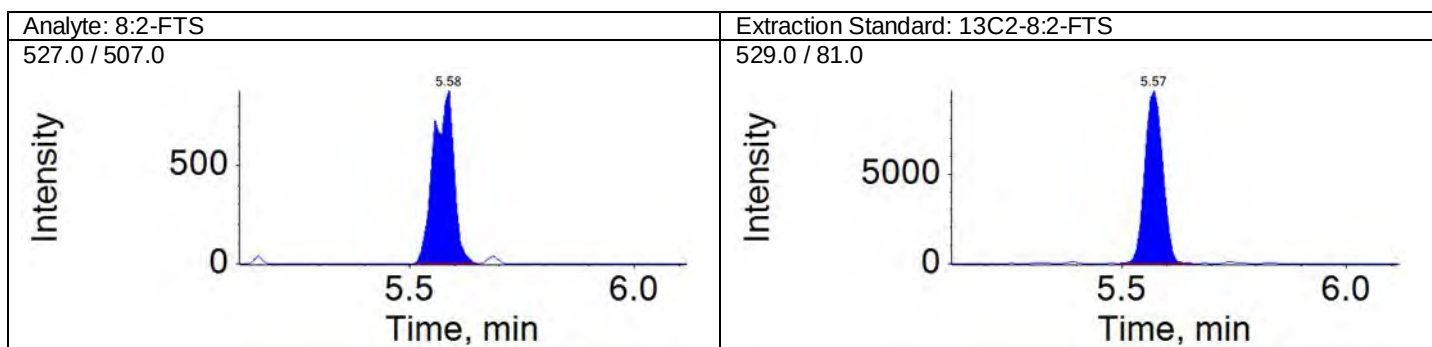
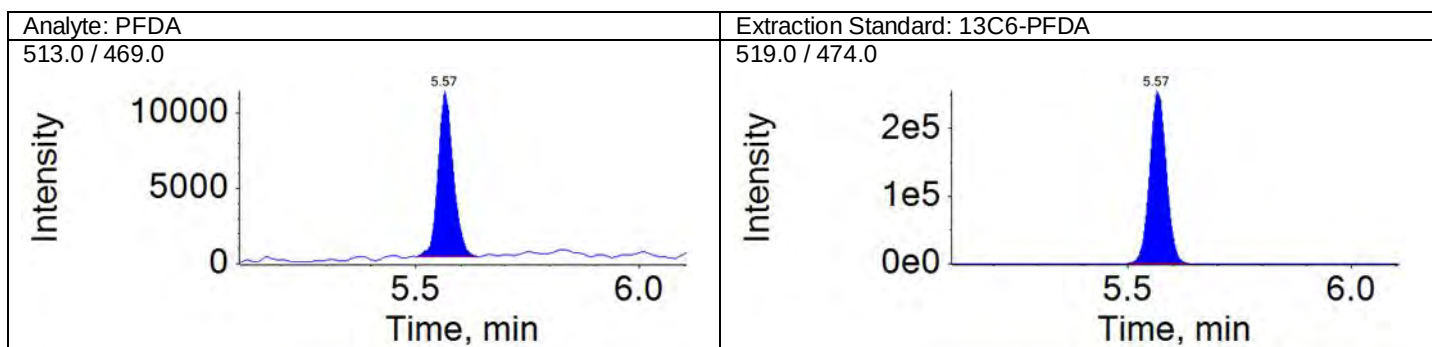
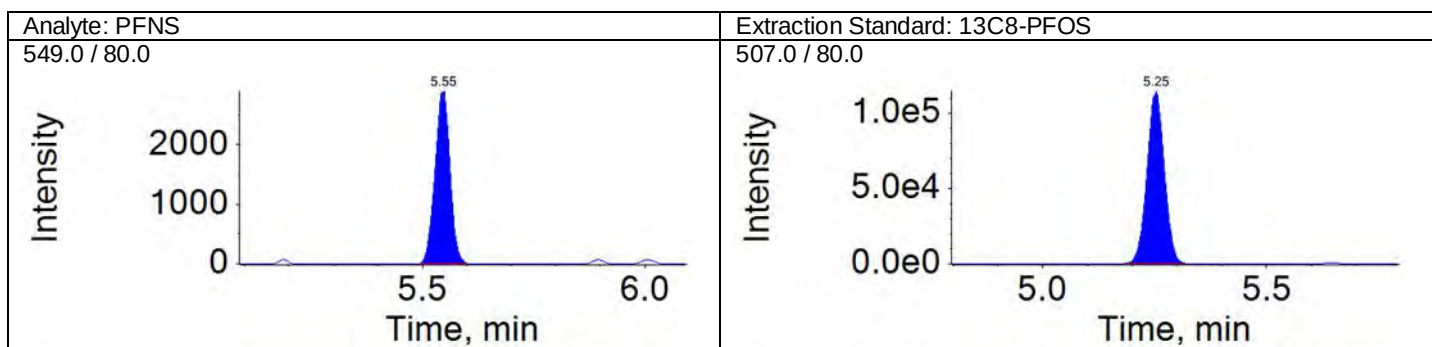
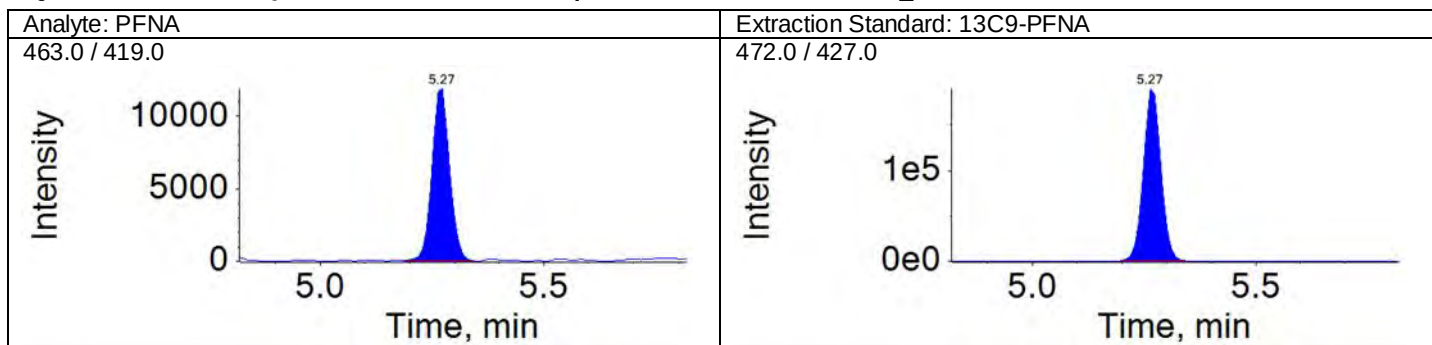
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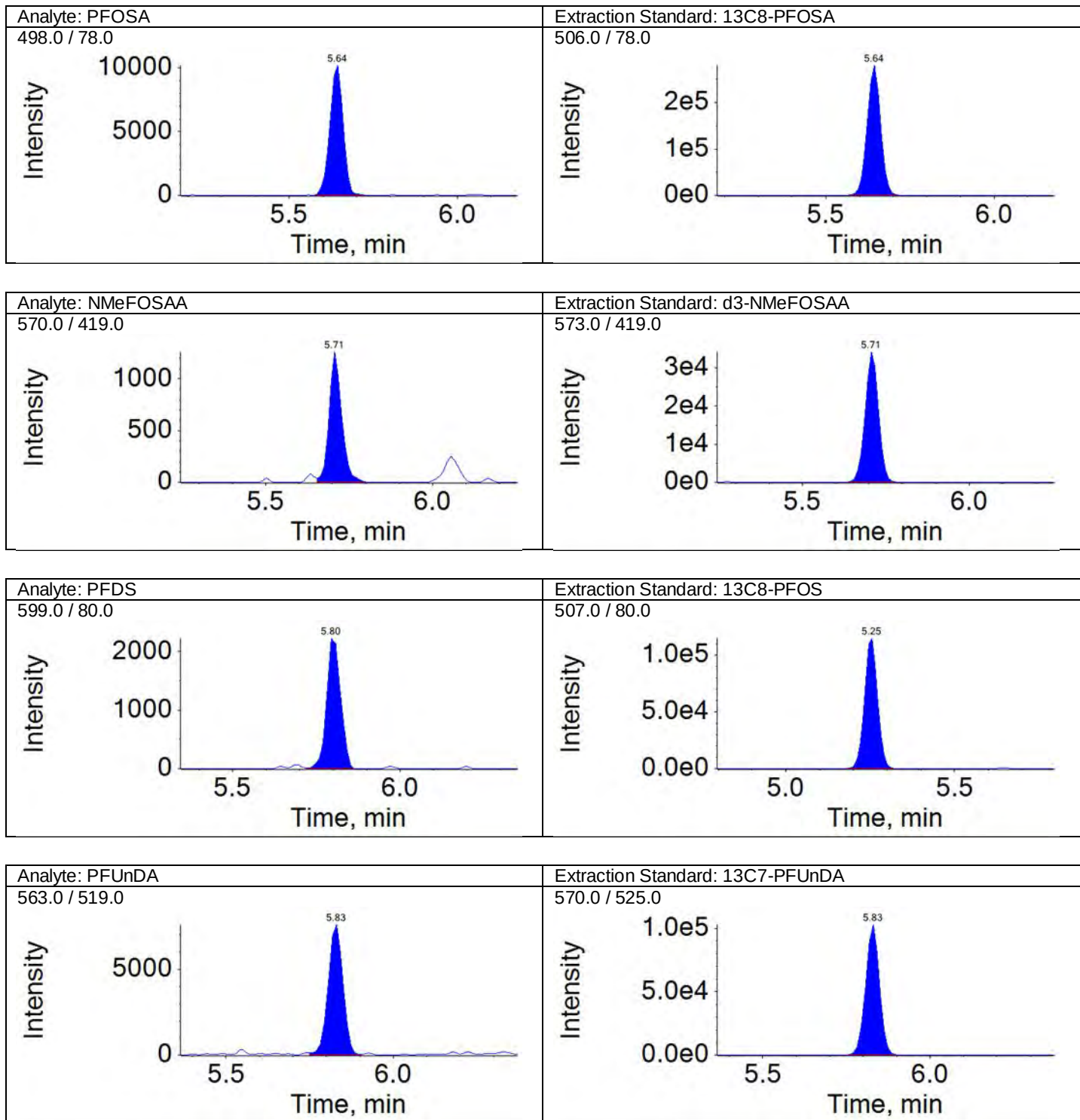
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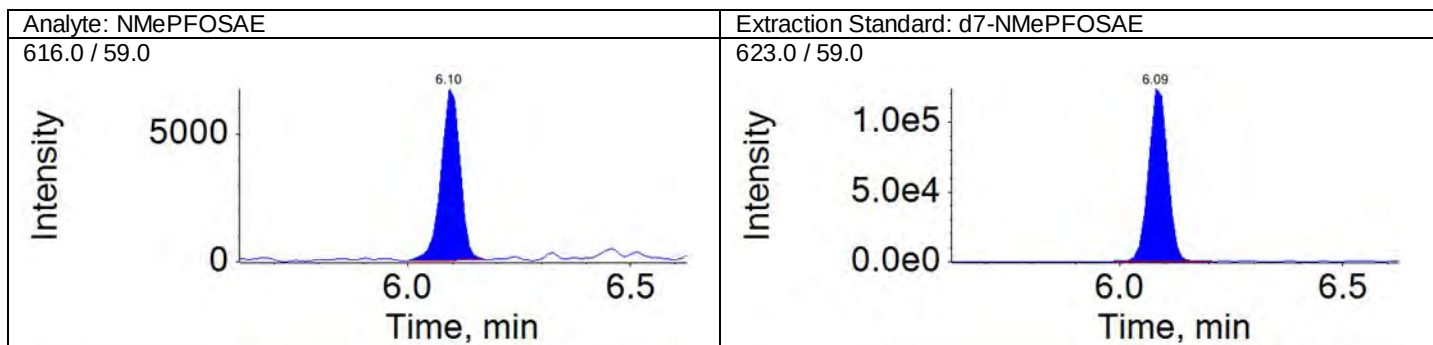
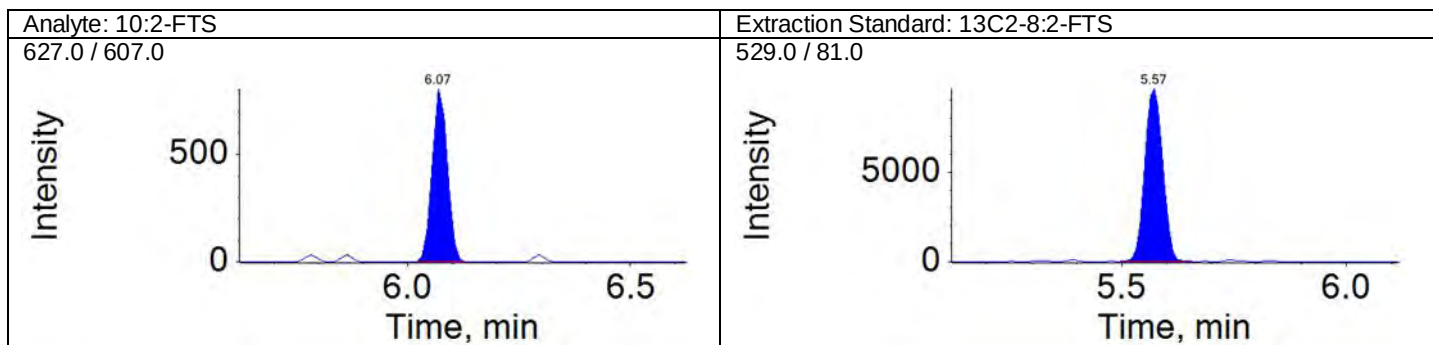
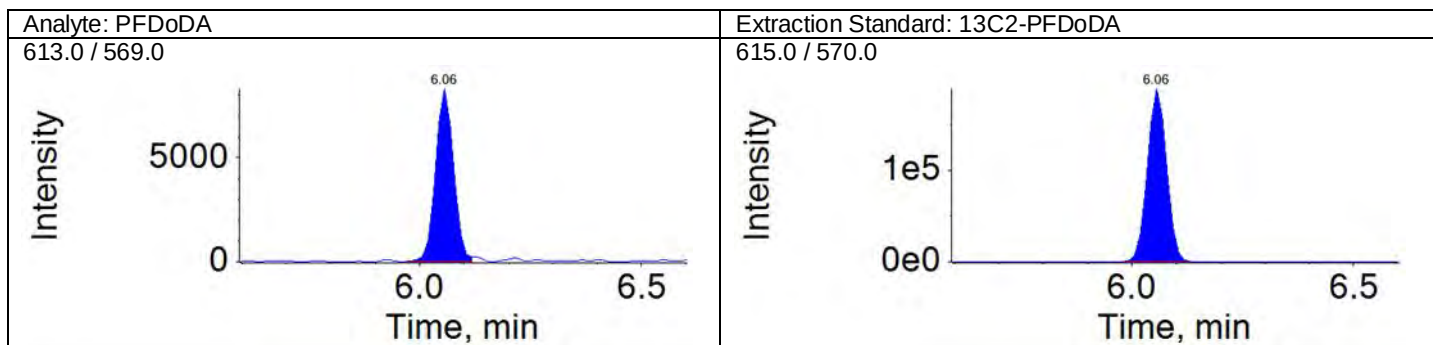
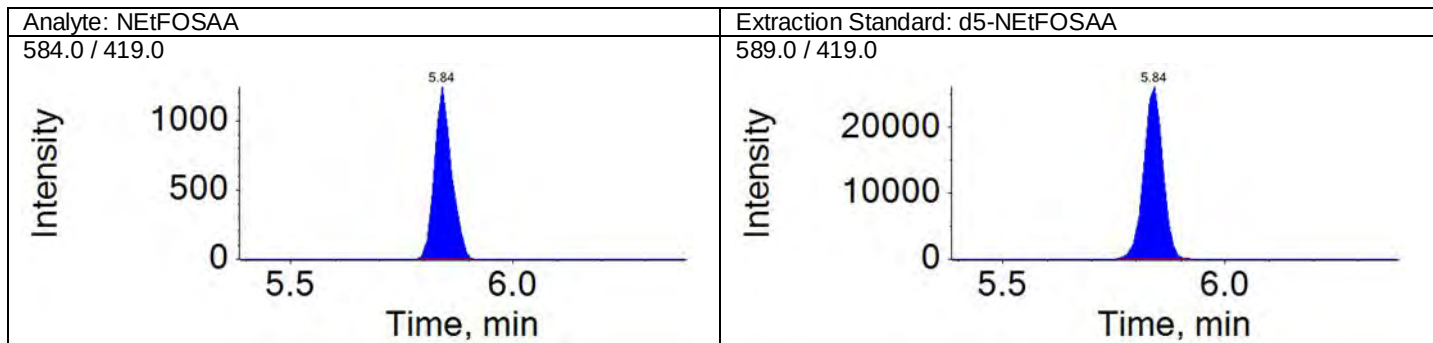
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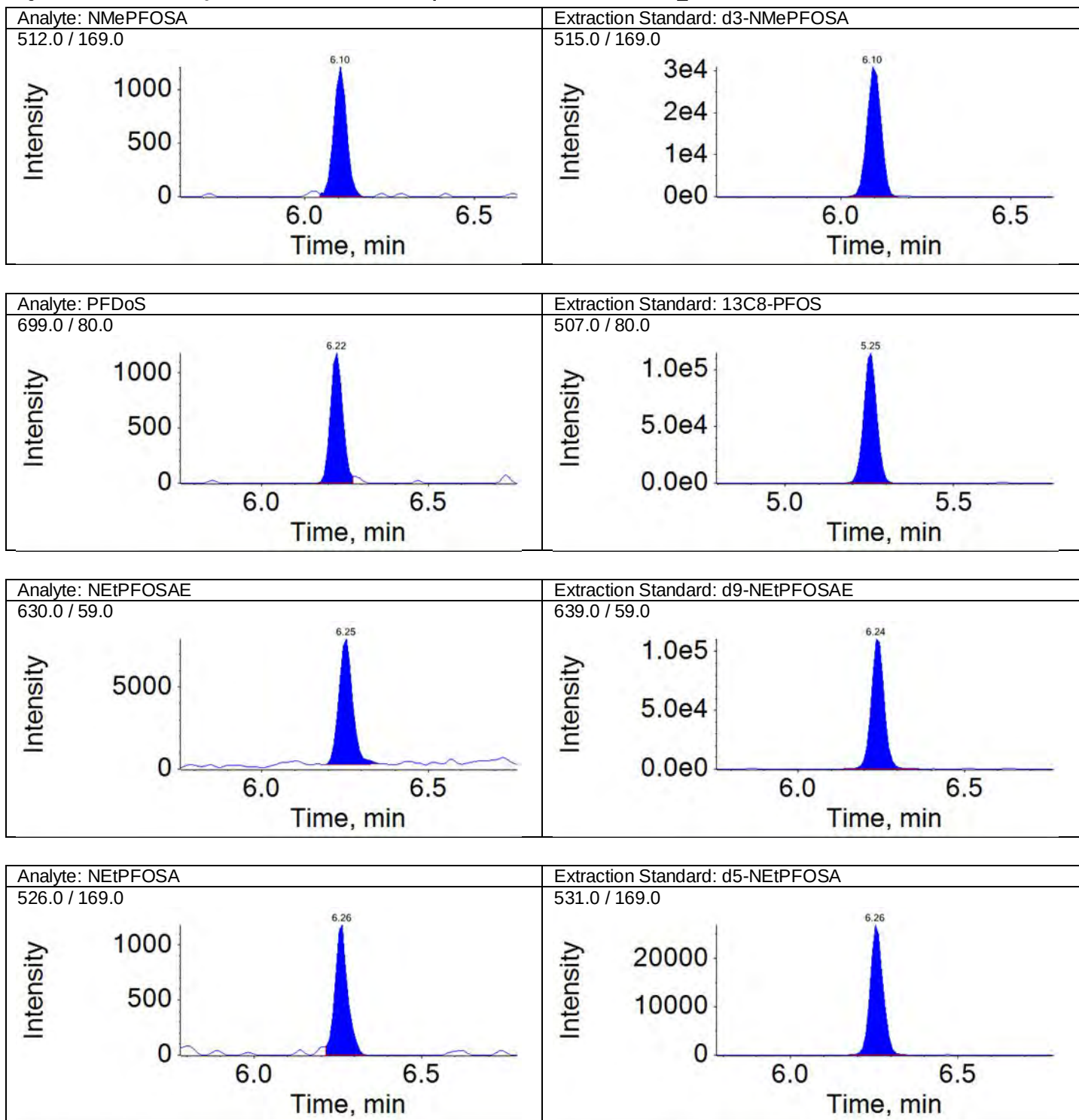
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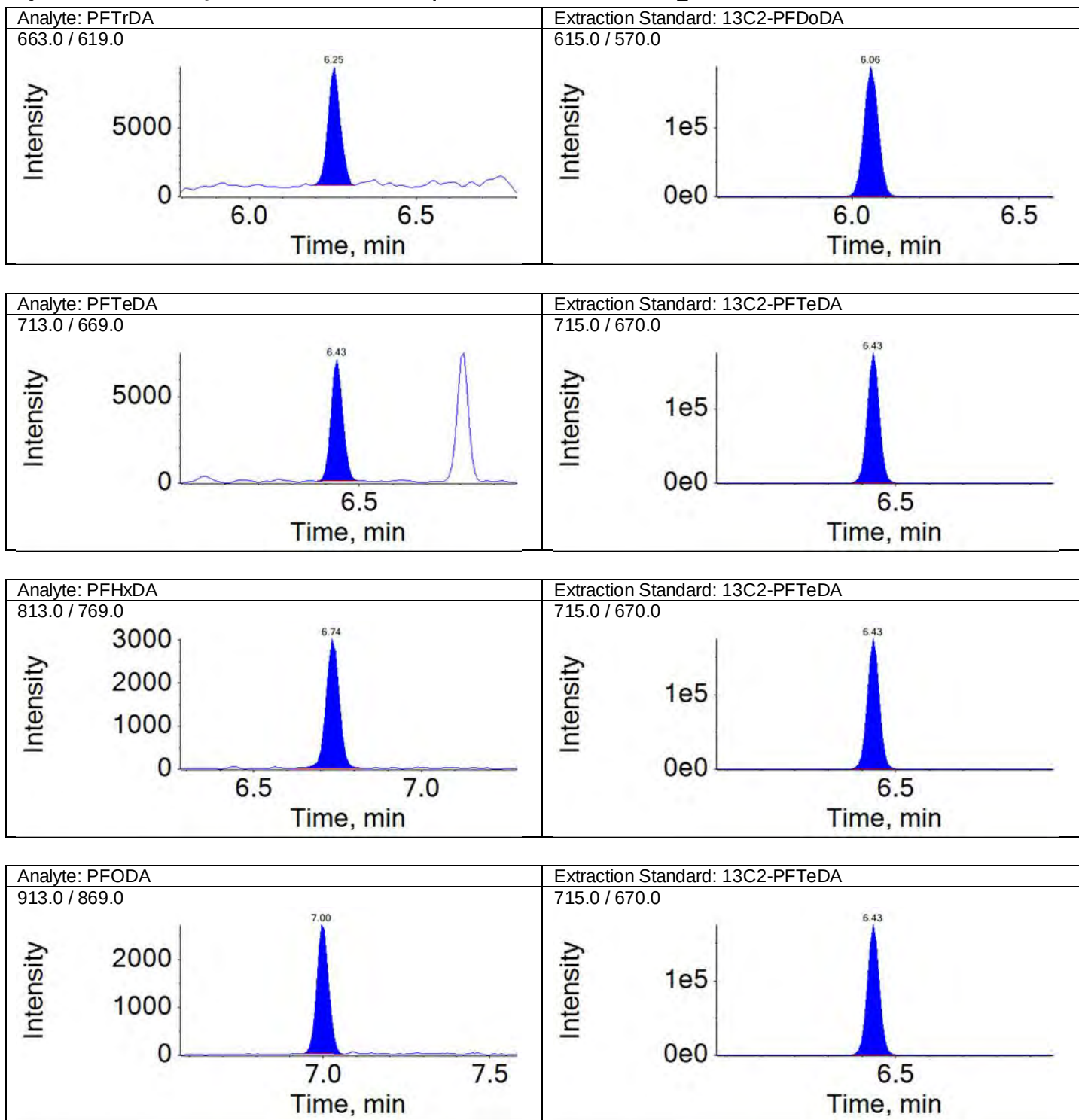
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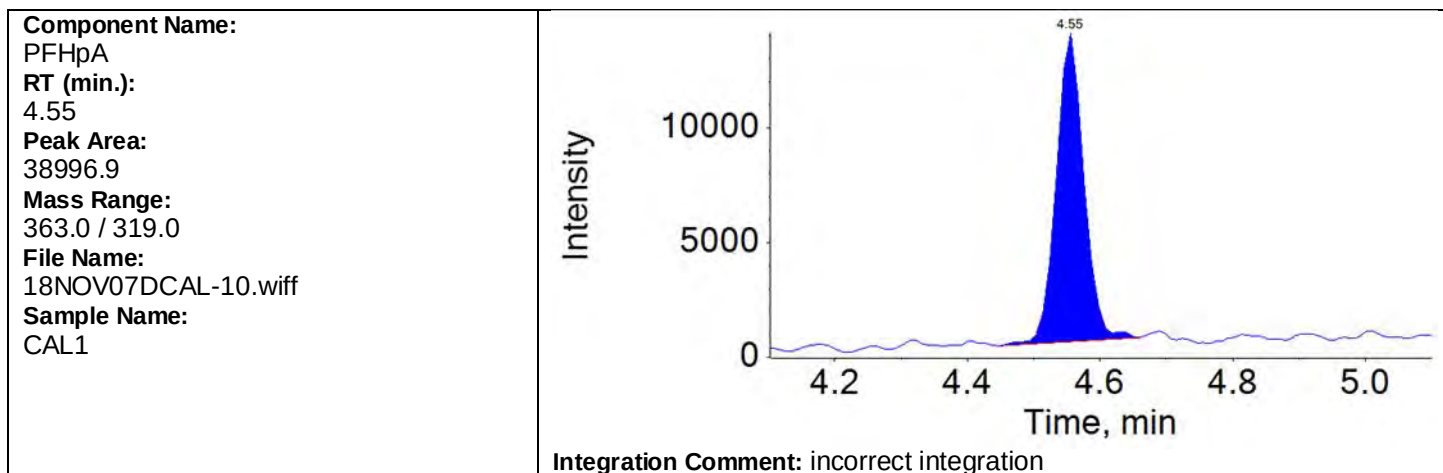
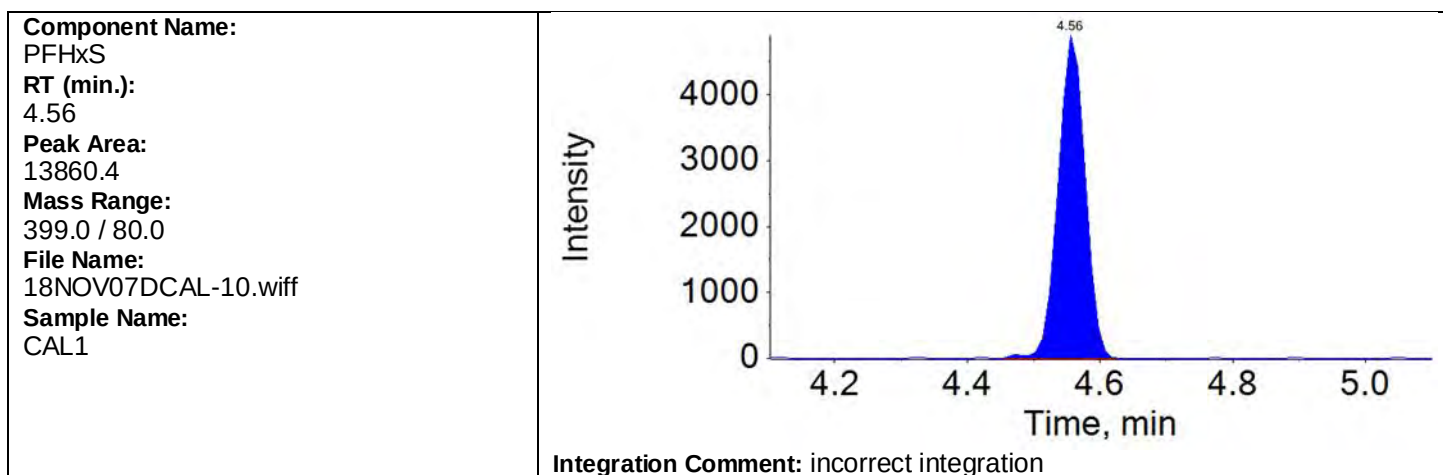
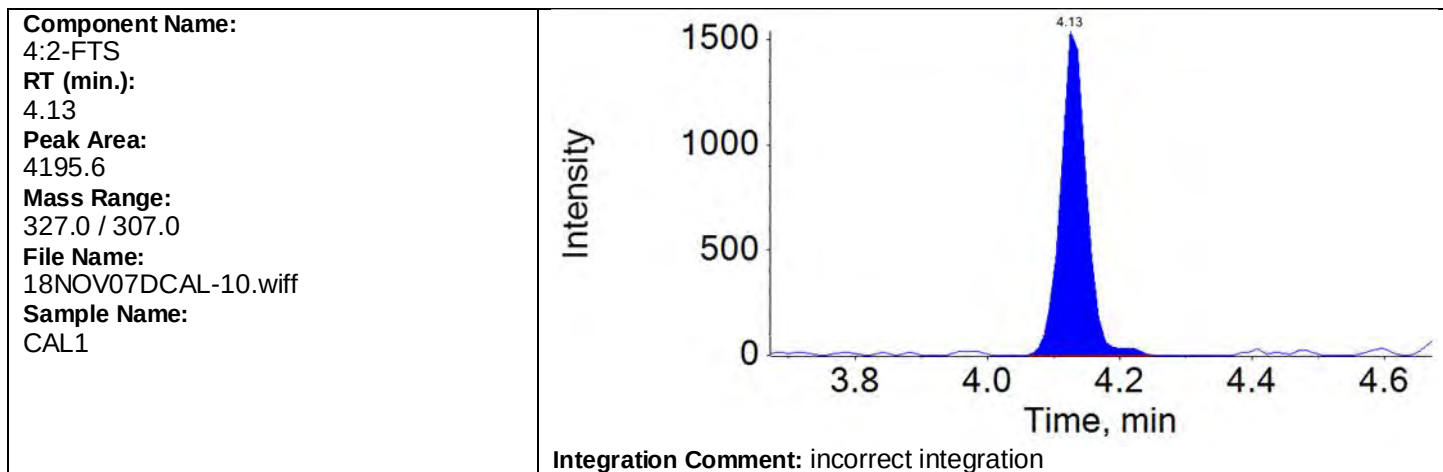
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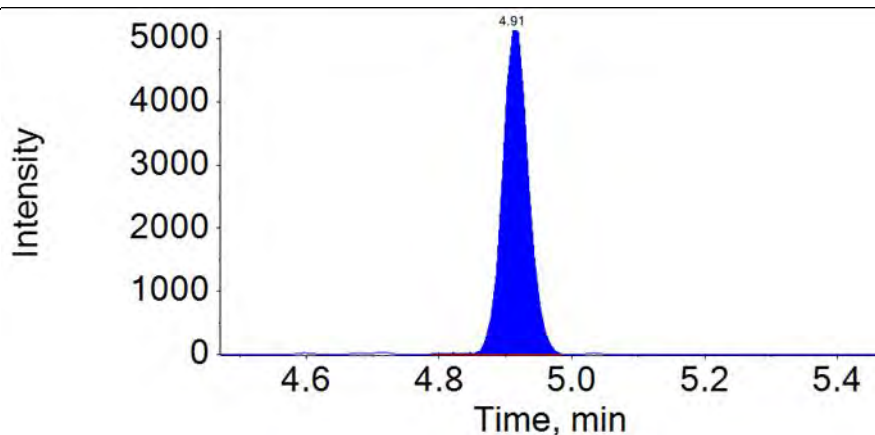
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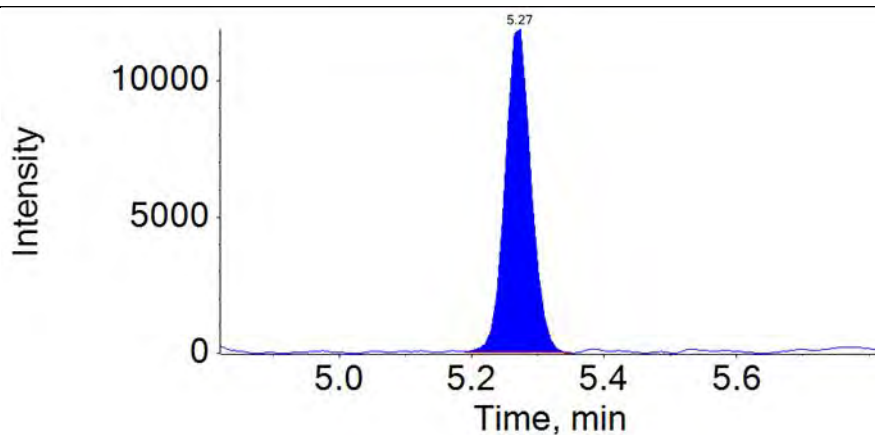
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QMethod File: MQ4-18AUG13

Component Name:
PFHpS
RT (min.):
4.91
Peak Area:
14266.0
Mass Range:
449.0 / 80.0
File Name:
18NOV07DCAL-10.wiff
Sample Name:
CAL1



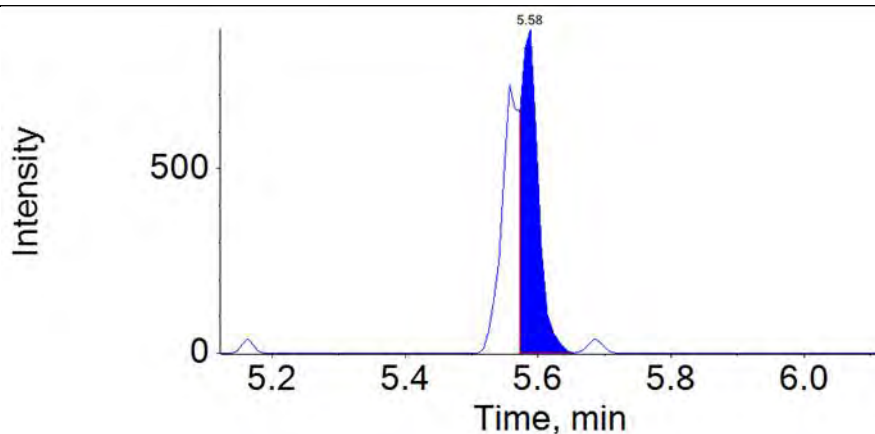
Integration Comment: incorrect integration

Component Name:
PFNA
RT (min.):
5.27
Peak Area:
32355.6
Mass Range:
463.0 / 419.0
File Name:
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Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
8:2-FTS
RT (min.):
5.58
Peak Area:
1513.1
Mass Range:
527.0 / 507.0
File Name:
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Sample Name:
CAL1

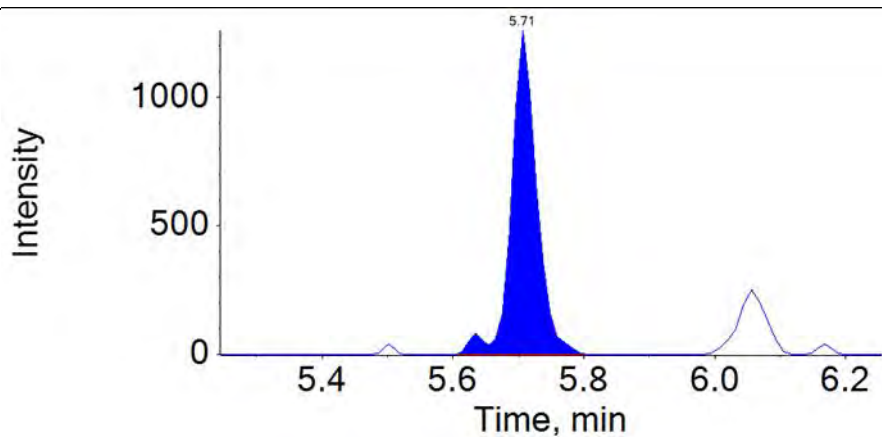


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Results Table Name: 18NOV07DCAL
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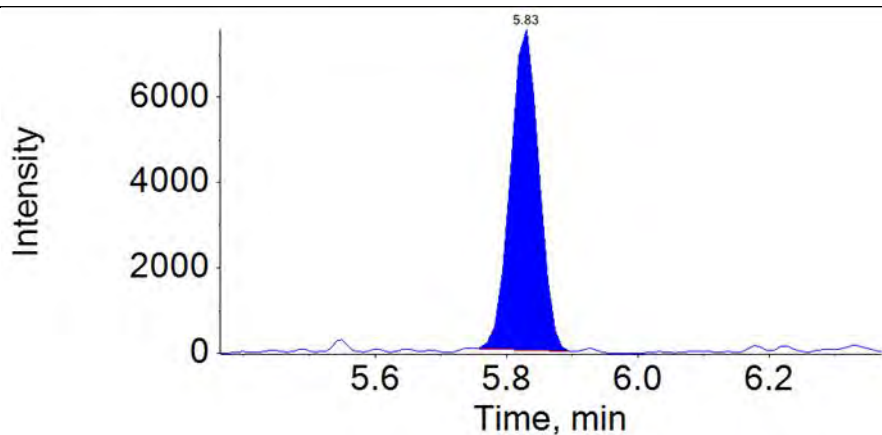
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QMethod File: MQ4-18AUG13

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
3425.3
Mass Range:
570.0 / 419.0
File Name:
18NOV07DCAL-10.wiff
Sample Name:
CAL1



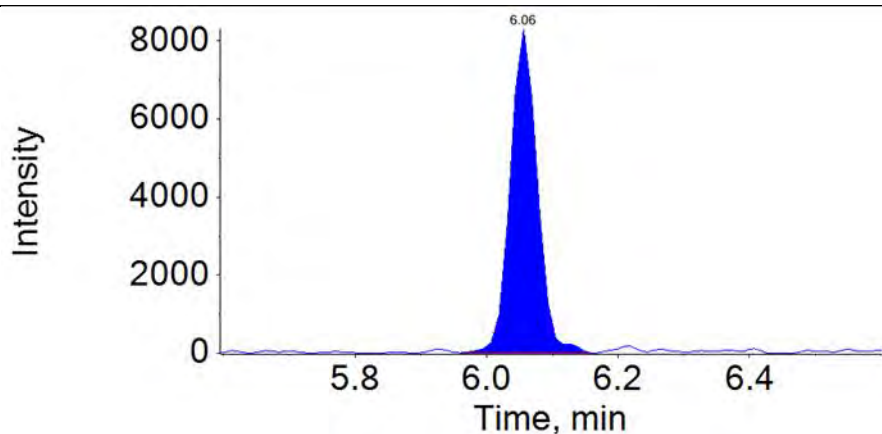
Integration Comment: incorrect integration

Component Name:
PUnDA
RT (min.):
5.83
Peak Area:
22631.3
Mass Range:
563.0 / 519.0
File Name:
18NOV07DCAL-10.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
PFDaDA
RT (min.):
6.06
Peak Area:
23623.5
Mass Range:
613.0 / 569.0
File Name:
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Sample Name:
CAL1

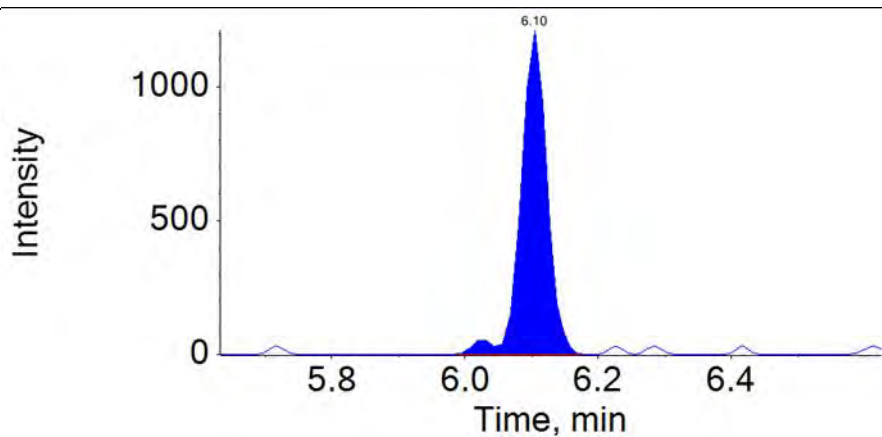


Integration Comment: incorrect integration

Results Table Name: 18NOV07DCAL
Results Table Date: 11/7/2018 2:18:30 PM

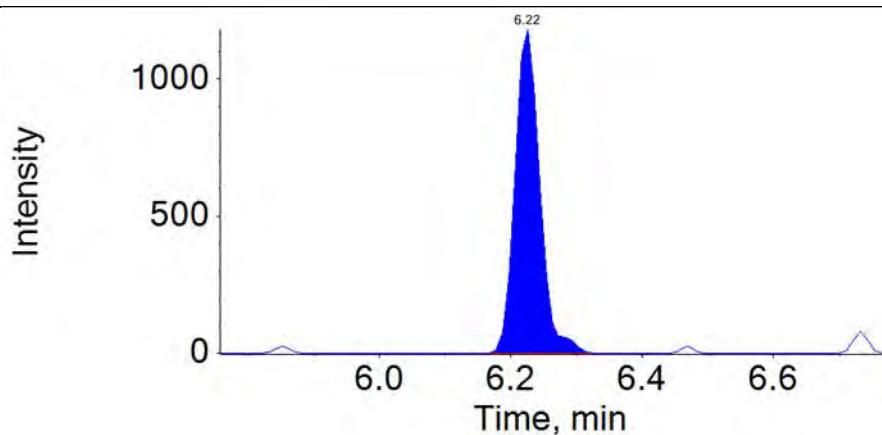
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QMethod File: MQ4-18AUG13

Component Name:
NMePFOSA
RT (min.):
6.10
Peak Area:
3327.7
Mass Range:
512.0 / 169.0
File Name:
18NOV07DCAL-10.wiff
Sample Name:
CAL1



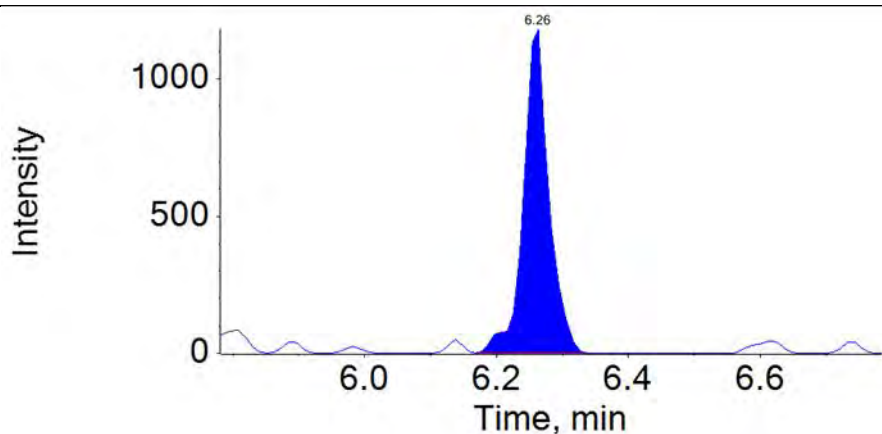
Integration Comment: incorrect integration

Component Name:
PFDoS
RT (min.):
6.22
Peak Area:
3114.4
Mass Range:
699.0 / 80.0
File Name:
18NOV07DCAL-10.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
NEtPFOSA
RT (min.):
6.26
Peak Area:
3185.1
Mass Range:
526.0 / 169.0
File Name:
18NOV07DCAL-10.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Results Table Name: 18NOV07DCAL
Results Table Date: 11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED
By JPT at 2:53 pm, 11/7/18

REVIEWED
By umar at 5:23 pm, 11/9/18

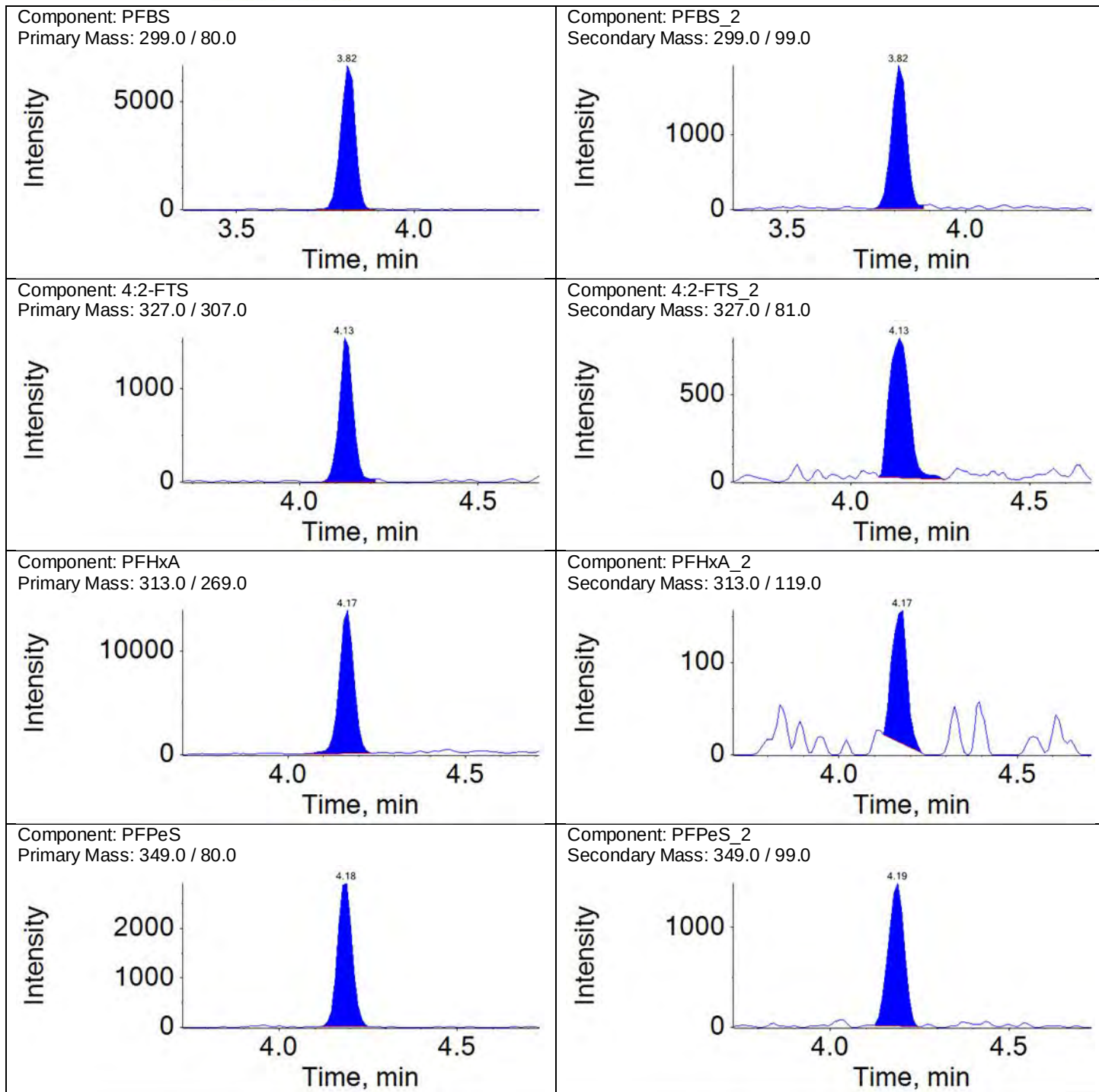
Ion Ratio Report

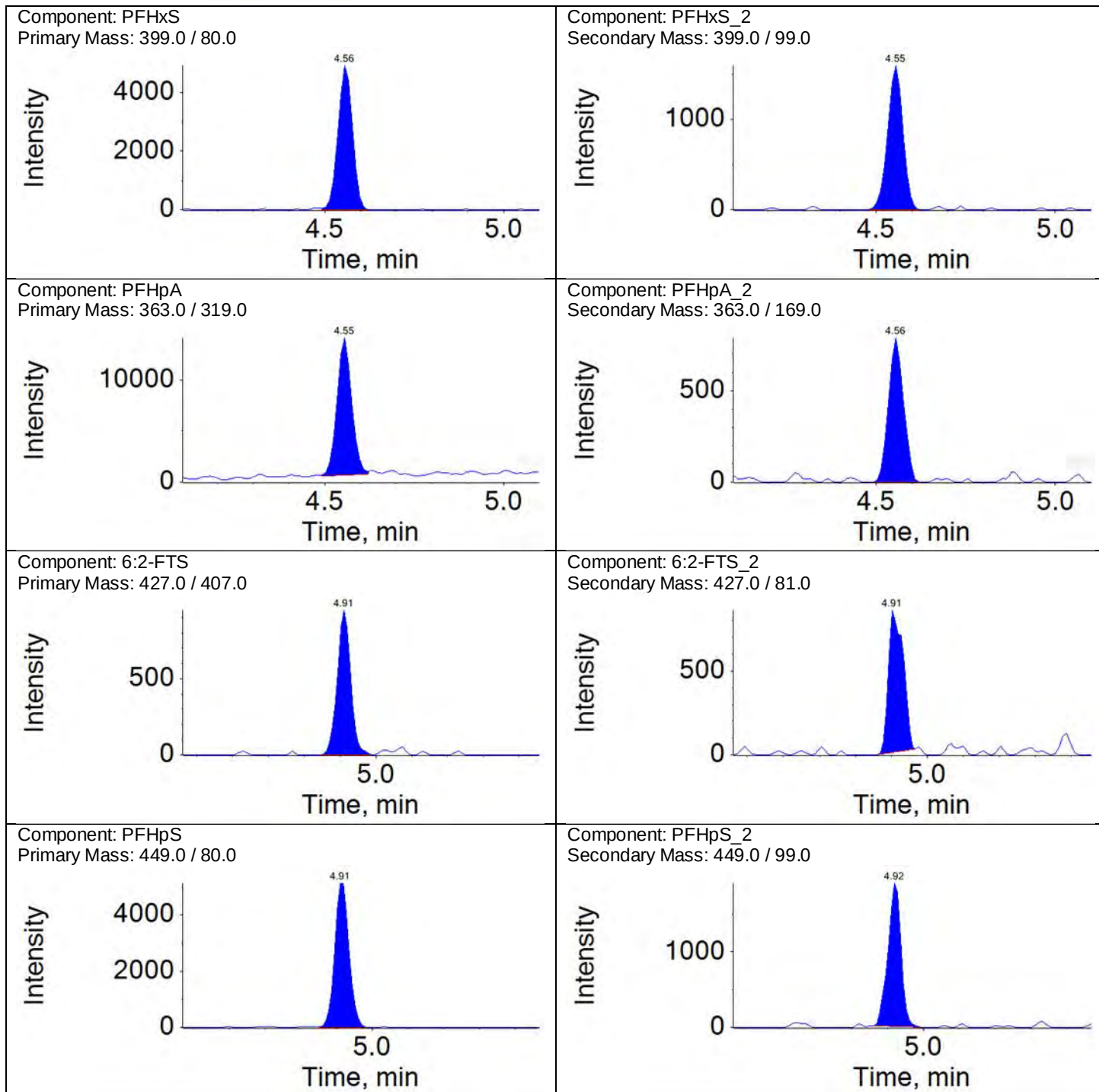
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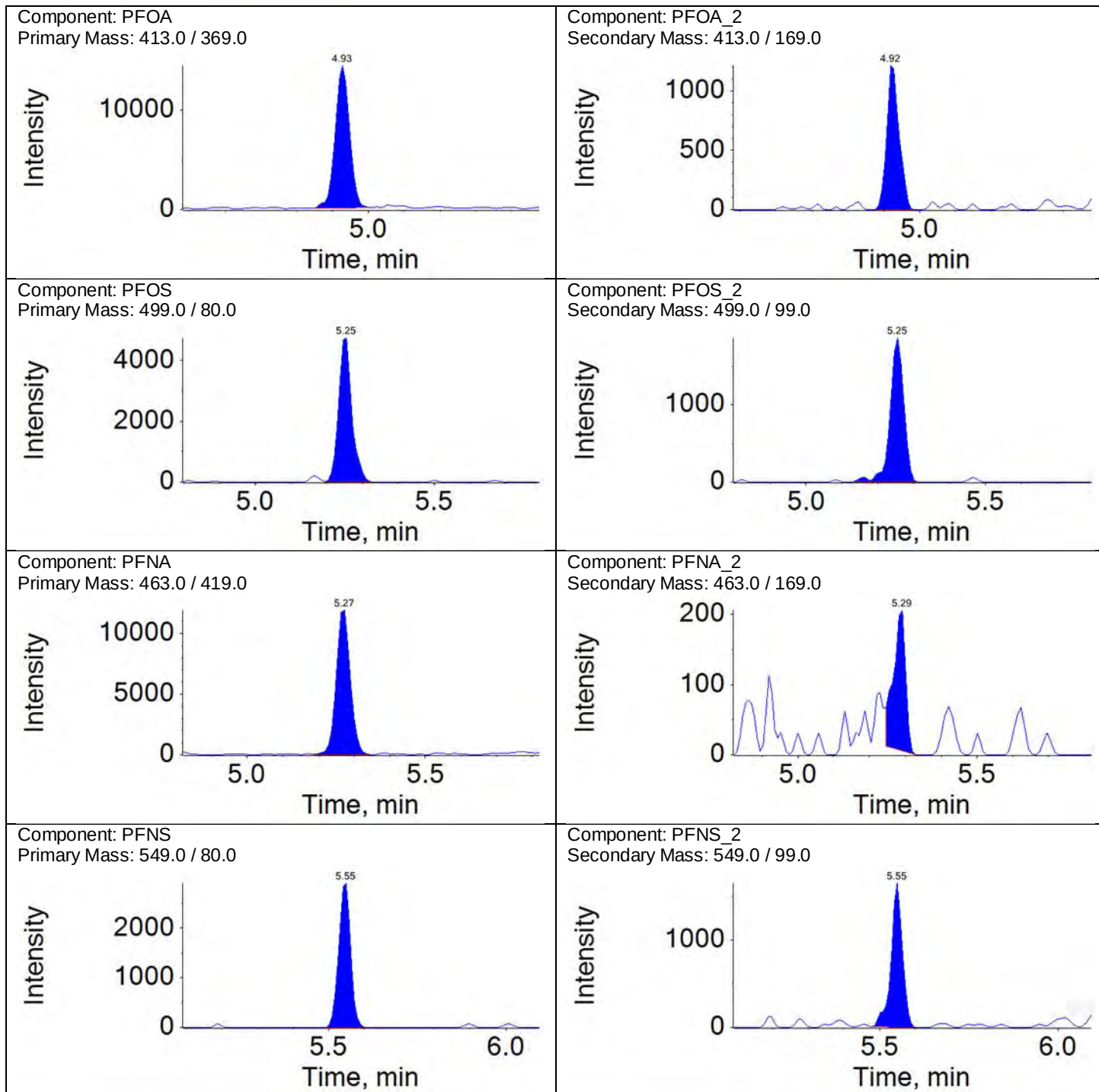
Instrument Name: LM27631

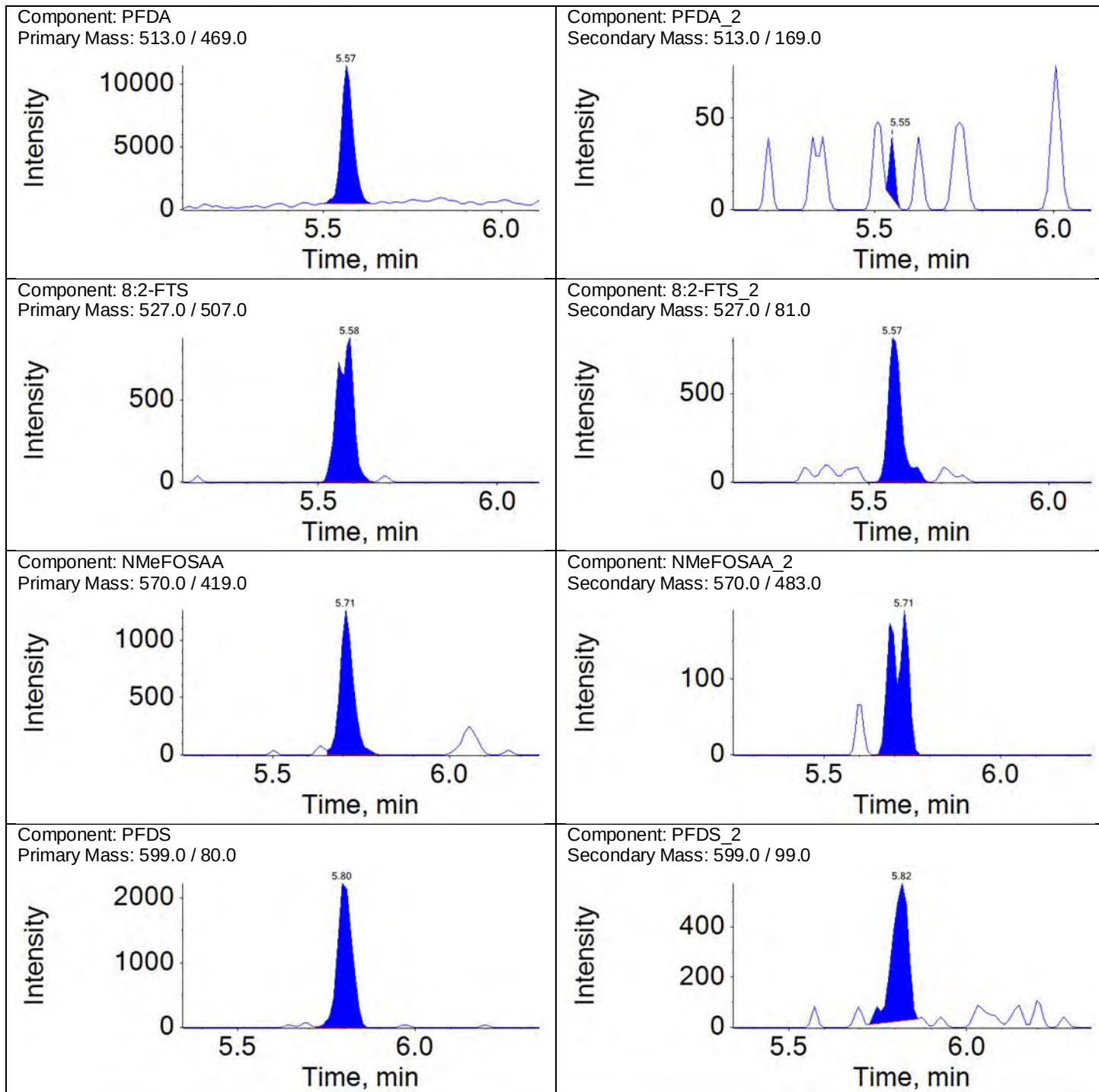
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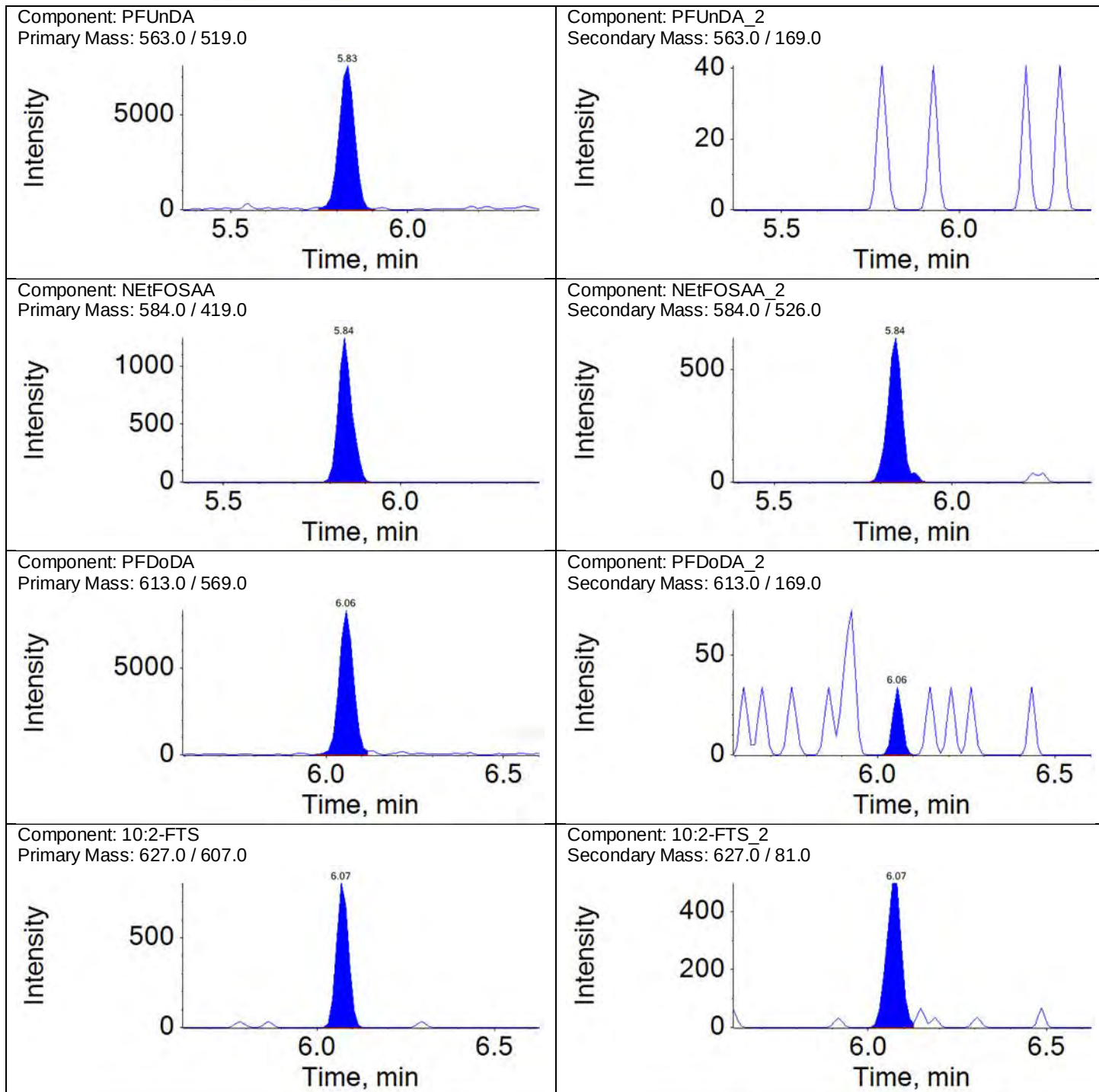
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PFBS_2	3.82	1.00	5667.0	A	0.3576	0.2979	-17	50	
4:2-FTS	4.13	1.00	4145.4	M	1.0000	1.0000			
4:2-FTS_2	4.13	1.00	3113.1	A	0.6359	0.7510	18	50	
PFHxA	4.17	1.00	39732.2	A	1.0000	1.0000			
PFHxA_2	4.17	1.00	426.0	A	0.0115	0.0107	-7	50	
PFPeS	4.18	1.10	8335.4	A	1.0000	1.0000			
PFPeS_2	4.19	1.10	4437.8	A	0.5384	0.5324	-1	50	
PFHxS	4.56	1.00	13762.6	M	1.0000	1.0000			
PFHxS_2	4.55	1.00	4694.9	A	0.3569	0.3411	-4	50	
PFHpA	4.55	1.00	38331.9	M	1.0000	1.0000			
PFHpA_2	4.56	1.00	2299.9	A	0.0577	0.0600	4	50	
6:2-FTS	4.91	1.00	2460.6	A	1.0000	1.0000			
6:2-FTS_2	4.91	1.00	2419.1	A	0.6752	0.9832	46	50	
PFHpS	4.91	1.08	14183.4	M	1.0000	1.0000			
PFHpS_2	4.92	1.08	4803.7	A	0.3950	0.3387	-14	50	
PFOA	4.93	1.00	39843.5	A	1.0000	1.0000			
PFOA_2	4.92	1.00	2905.3	A	0.0635	0.0729	15	50	
PFOS	5.25	1.00	12181.7	A	1.0000	1.0000			
PFOS_2	5.25	1.00	4968.4	A	0.3494	0.4079	17	50	
PFNA	5.27	1.00	32563.3	M	1.0000	1.0000			
PFNA_2	5.29	1.00	475.0	A	0.0207	0.0146	-29	50	
PFNS	5.55	1.06	6748.5	A	1.0000	1.0000			
PFNS_2	5.55	1.06	3646.4	A	0.4890	0.5403	10	50	
PFDA	5.57	1.00	25530.0	A	1.0000	1.0000			
PFDA_2	5.55	1.00	33.4	A	0.0057	0.0013	-77	50	OOS
8:2-FTS	5.58	1.00	2783.3	M	1.0000	1.0000			
8:2-FTS_2	5.57	1.00	2168.5	A	0.6169	0.7791	26	50	
NMeFOSAA	5.71	1.00	3293.8	M	1.0000	1.0000			
NMeFOSAA_2	5.71	1.00	644.8	A	0.2206	0.1958	-11	50	
PFDS	5.80	1.10	6453.6	A	1.0000	1.0000			
PFDS_2	5.82	1.11	1756.6	A	0.4648	0.2722	-41	50	
PFUnDA	5.83	1.00	23275.5	M	1.0000	1.0000			
PFUnDA_2	N/A	N/A	N/A	A	0.0031	N/A		50	
NEtFOSAA	5.84	1.00	3313.0	A	1.0000	1.0000			
NEtFOSAA_2	5.84	1.00	1807.4	A	0.6082	0.5455	-10	50	
PFDODA	6.06	1.00	23314.2	M	1.0000	1.0000			
PFDODA_2	6.06	1.00	62.7	A	0.0109	0.0027	-75	50	OOS
10:2-FTS	6.07	1.09	1903.7	A	1.0000	1.0000			
10:2-FTS_2	6.07	1.09	1472.7	A	0.7082	0.7736	9	50	
PFTTrDA	6.25	1.03	22403.2	A	1.0000	1.0000			
PFTTrDA_2	6.26	1.03	178.7	A	0.0096	0.0080	-17	50	
PFTeDA	6.43	1.00	17031.0	A	1.0000	1.0000			
PFTeDA_2	6.48	1.01	40.0	A	0.0055	0.0023	-58	50	OOS
PFHxDA	6.74	1.05	8175.1	A	1.0000	1.0000			
PFHxDA_2	6.74	1.05	437.4	A	0.0596	0.0535	-10	50	
PFODA	7.00	1.09	6622.6	A	1.0000	1.0000			
PFODA_2	6.99	1.09	171.3	A	0.0257	0.0259	1	50	

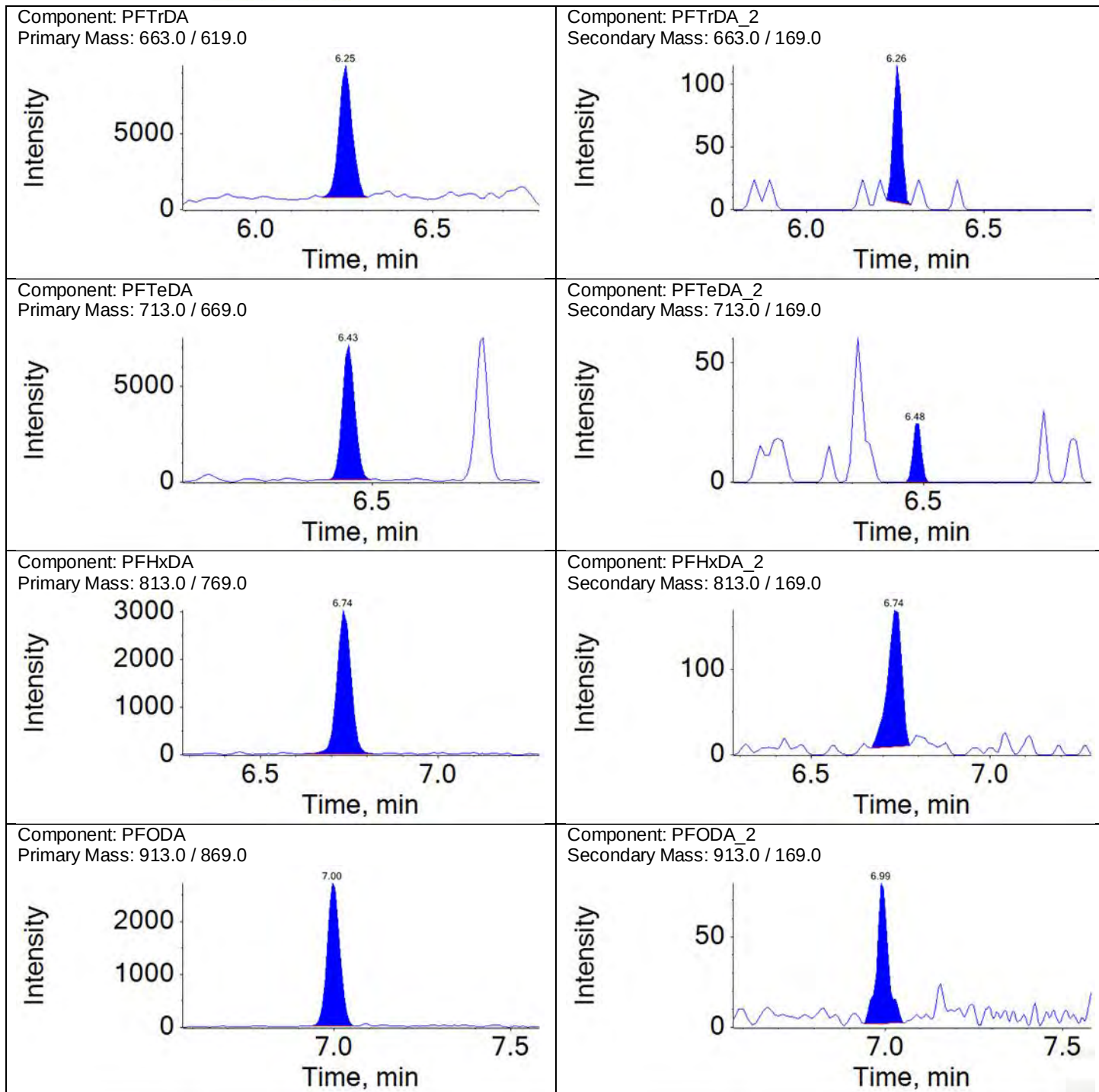












ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL2		Data File:	18NOV07DCAL-11.wiff
Sample ID:	CALMOD21833F		Acquis Date:	2018-11-07T09:48:56
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	4		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV07DCAL
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	N/A		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV07DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	723209.9	730410.6	-1	50	
13C2-PFOA	5.0	516360.9	524423.6	-2	50	
13C4-PFOS	4.8	263757.0	274061.7	-4	50	
13C2-PFDA	5.0	334958.4	311442.1	8	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	782732.8	13C3-PFBA	723209.9	1.082	5.000	5.009	100	70-130	
E13C5-PFPeA	863262.8	13C3-PFBA	723209.9	1.194	5.000	5.200	104	70-130	
E13C3-PFBS	444721.3	13C3-PFBA	723209.9	0.615	4.650	4.513	97	70-130	
E13C2-4:2-FTS	54234.1	13C2-PFOA	516360.9	0.105	4.670	4.739	101	70-130	
E13C5-PFHxA	717434.9	13C2-PFOA	516360.9	1.389	5.000	5.111	102	70-130	
E13C3-PFHxS	335732.1	13C2-PFOA	516360.9	0.650	4.730	4.668	99	70-130	
E13C4-PFHpA	583342.8	13C2-PFOA	516360.9	1.130	5.000	5.139	103	70-130	
E13C2-6:2-FTS	38849.6	13C2-PFOA	516360.9	0.075	4.750	5.017	106	70-130	
E13C8-PFOA	970523.2	13C2-PFOA	516360.9	1.880	5.000	5.241	105	70-130	
E13C8-PFOS	286174.8	13C4-PFOS	263757.0	1.085	4.780	4.798	100	70-130	
E13C9-PFNA	540435.4	13C4-PFOS	263757.0	2.049	5.000	5.597	112	70-130	
E13C6-PFDA	661423.8	13C2-PFDA	334958.4	1.975	5.000	4.966	99	70-130	
E13C2-8:2-FTS	27523.0	13C2-PFDA	334958.4	0.082	4.790	4.348	91	70-130	
E13C8-PFOSA	711032.2	13C2-PFDA	334958.4	2.123	5.000	4.632	93	70-130	
Ed3-NMeFOSAA	83112.2	13C2-PFDA	334958.4	0.248	5.000	4.614	92	70-130	
E13C7-PFUnDA	289985.1	13C2-PFDA	334958.4	0.866	5.000	4.994	100	70-130	
Ed5-NEtFOSAA	65815.9	13C2-PFDA	334958.4	0.196	5.000	4.547	91	70-130	
E13C2-PFDoDA	597616.3	13C2-PFDA	334958.4	1.784	5.000	4.810	96	70-130	
Ed7-NMePFOSAE	330298.6	13C2-PFDA	334958.4	0.986	5.000	4.586	92	70-130	
Ed3-NMePFOSA	81301.2	13C2-PFDA	334958.4	0.243	5.000	4.444	89	70-130	
Ed9-NEtPFOSAE	270607.6	13C2-PFDA	334958.4	0.808	5.000	4.614	92	70-130	
Ed5-NEtPFOSA	66745.4	13C2-PFDA	334958.4	0.199	5.000	4.614	92	70-130	
E13C2-PFTeDA	441206.9	13C2-PFDA	334958.4	1.317	5.000	4.742	95	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL2

Instrument Name: LM27631

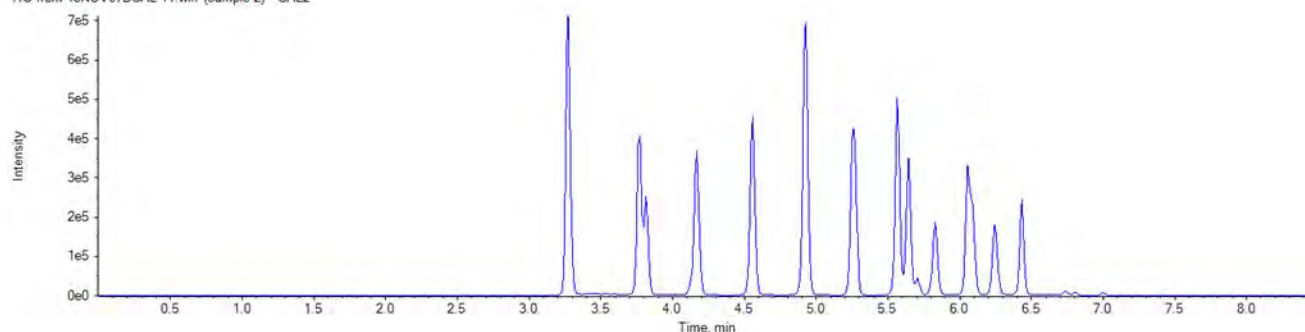
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	72868.6		A	13C4-PFBA	3.27	782732.8	0.093	0.545
PFPeA	3.77	1.000	77403.9		A	13C5-PFPeA	3.77	863262.8	0.090	0.533
PFBS	3.82	1.000	41415.1		A	13C3-PFBS	3.82	444721.3	0.093	0.470
4:2-FTS	4.13	1.000	9924.9		M	13C2-4:2-FTS	4.13	54234.1	0.183	0.492
PFHxA	4.17	1.000	88469.9		A	13C5-PFHxA	4.17	717434.9	0.123	0.529
PFPeS	4.19	1.100	20956.8		A	13C3-PFBS	3.82	444721.3	0.047	0.465
PFHxS	4.56	1.000	32061.0		M	13C3-PFHxS	4.56	335732.1	0.095	0.484
PFHpA	4.56	1.000	93502.9		A	13C4-PFHpA	4.55	583342.8	0.160	0.539
6:2-FTS	4.91	1.000	8883.8		A	13C2-6:2-FTS	4.91	38849.6	0.229	0.570
PFHpS	4.92	1.080	30553.2		A	13C3-PFHxS	4.56	335732.1	0.091	0.476
PFOA	4.93	1.000	94348.1		A	13C8-PFOA	4.92	970523.2	0.097	0.547
PFOS	5.25	1.000	28529.2		M	13C8-PFOS	5.25	286174.8	0.100	0.517
PFNA	5.27	1.000	74743.9		A	13C9-PFNA	5.27	540435.4	0.138	0.517
PFNS	5.55	1.060	17507.8		A	13C8-PFOS	5.25	286174.8	0.061	0.485
PFDA	5.57	1.000	62530.6		A	13C6-PFDA	5.57	661423.8	0.095	0.520
8:2-FTS	5.57	1.000	6917.6		A	13C2-8:2-FTS	5.57	27523.0	0.251	0.567
PFOSA	5.64	1.000	69586.0		A	13C8-PFOSA	5.64	711032.2	0.098	0.529
NMeFOSAA	5.71	1.000	9807.4		A	d3-NMeFOSAA	5.71	83112.2	0.118	0.607
PFDS	5.80	1.110	15726.3		A	13C8-PFOS	5.25	286174.8	0.055	0.525
PfUnDA	5.83	1.000	54085.5		A	13C7-PfUnDA	5.83	289985.1	0.187	0.535
NEtFOSAA	5.84	1.000	7253.7		A	d5-NEtFOSAA	5.84	65815.9	0.110	0.474
PFDODA	6.06	1.000	60098.0		A	13C2-PFDODA	6.06	597616.3	0.101	0.545
10:2-FTS	6.07	1.090	4874.3		A	13C2-8:2-FTS	5.57	27523.0	0.177	0.551
NMePFOSAE	6.10	1.000	40902.1		A	d7-NMePFOSAE	6.09	330298.6	0.124	0.555
NMePFOSA	6.10	1.000	8251.9		A	d3-NMePFOSA	6.10	81301.2	0.101	0.568
PFDoS	6.23	1.190	7227.2		A	13C8-PFOS	5.25	286174.8	0.025	0.487
NEtPFOSAE	6.25	1.000	48905.8		A	d9-NEtPFOSAE	6.24	270607.6	0.181	0.579
NEtPFOSA	6.26	1.000	6419.4		A	d5-NEtPFOSA	6.26	66745.4	0.096	0.424
PFTDA	6.25	1.030	49218.5		A	13C2-PFDODA	6.06	597616.3	0.082	0.519
PFTeDA	6.43	1.000	36223.2		A	13C2-PFTeDA	6.43	441206.9	0.082	0.482
PFHxDA	6.74	1.050	18619.3		A	13C2-PFTeDA	6.43	441206.9	0.042	0.524
PFODA	7.00	1.090	15742.1		A	13C2-PFTeDA	6.43	441206.9	0.036	0.511

Total Ion Chromatogram

TIC from 18NOV07DCAL-11.wiff (sample 2) - CAL2



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By JPT at 2:53 pm, 11/7/18

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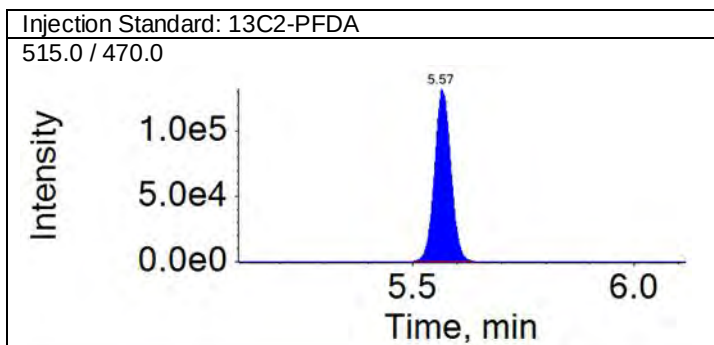
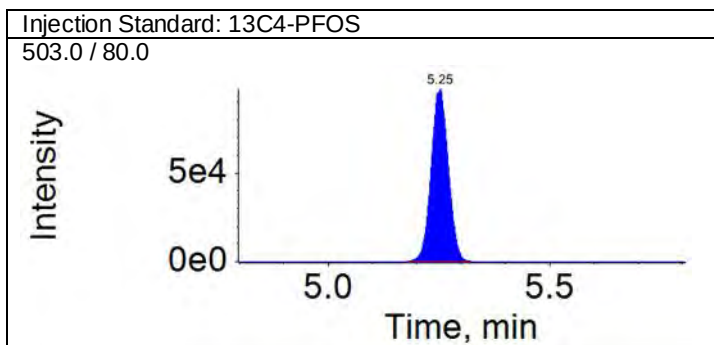
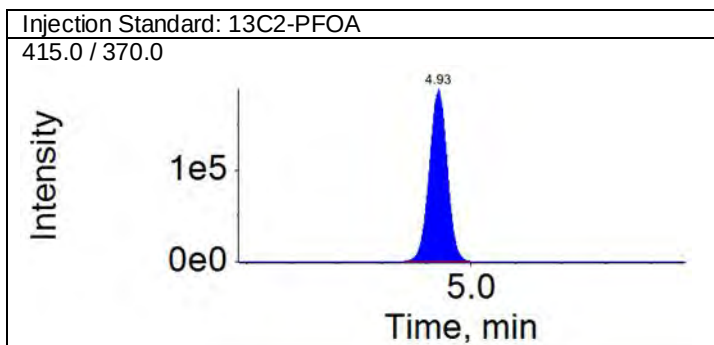
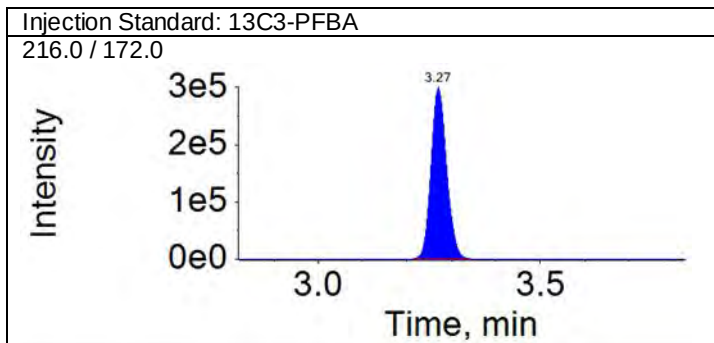
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By umar at 5:23 pm, 11/9/18

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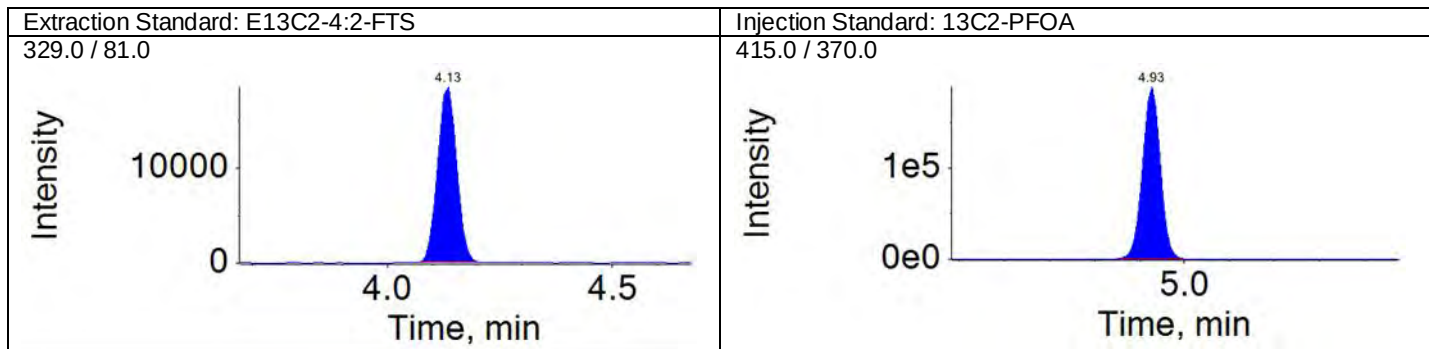
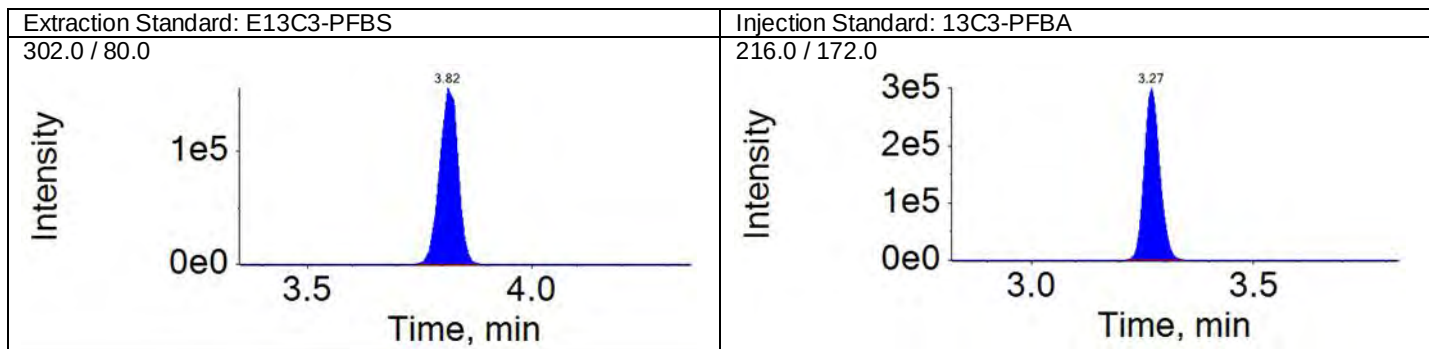
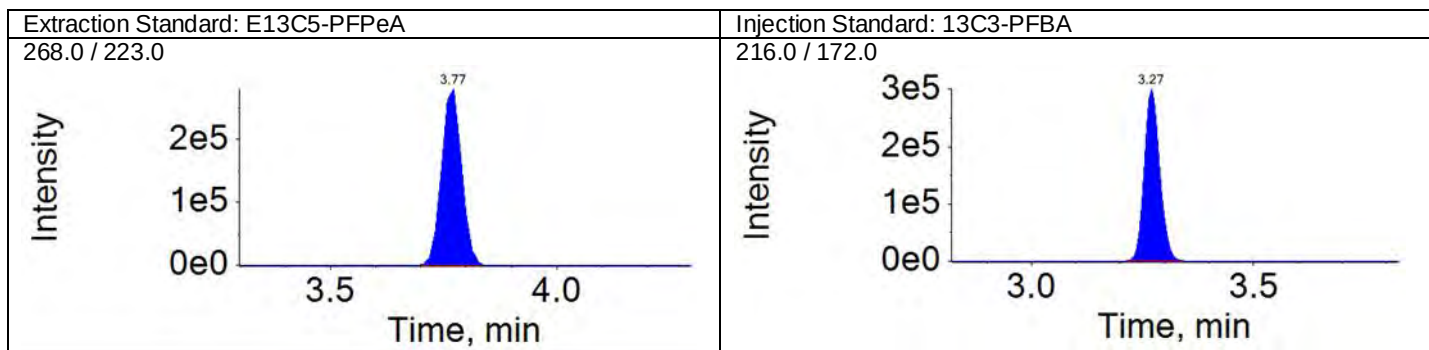
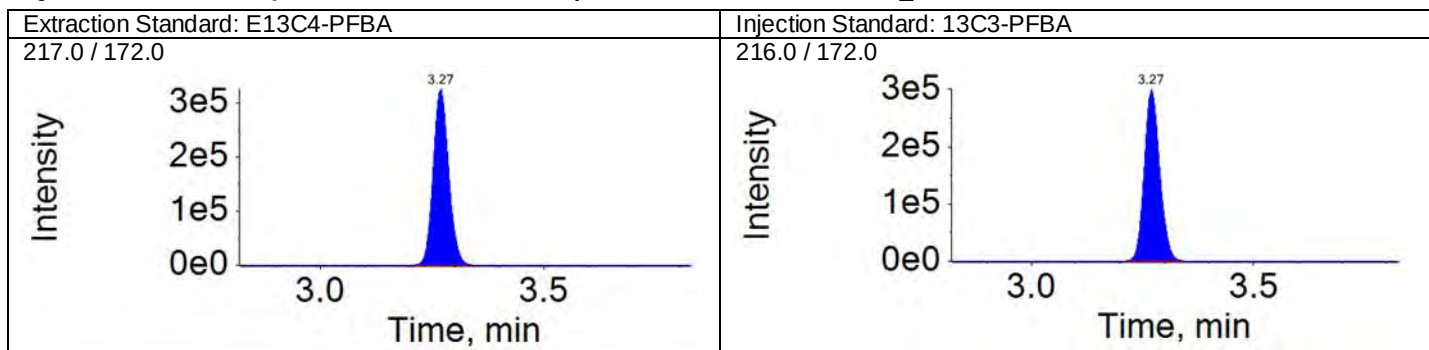
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



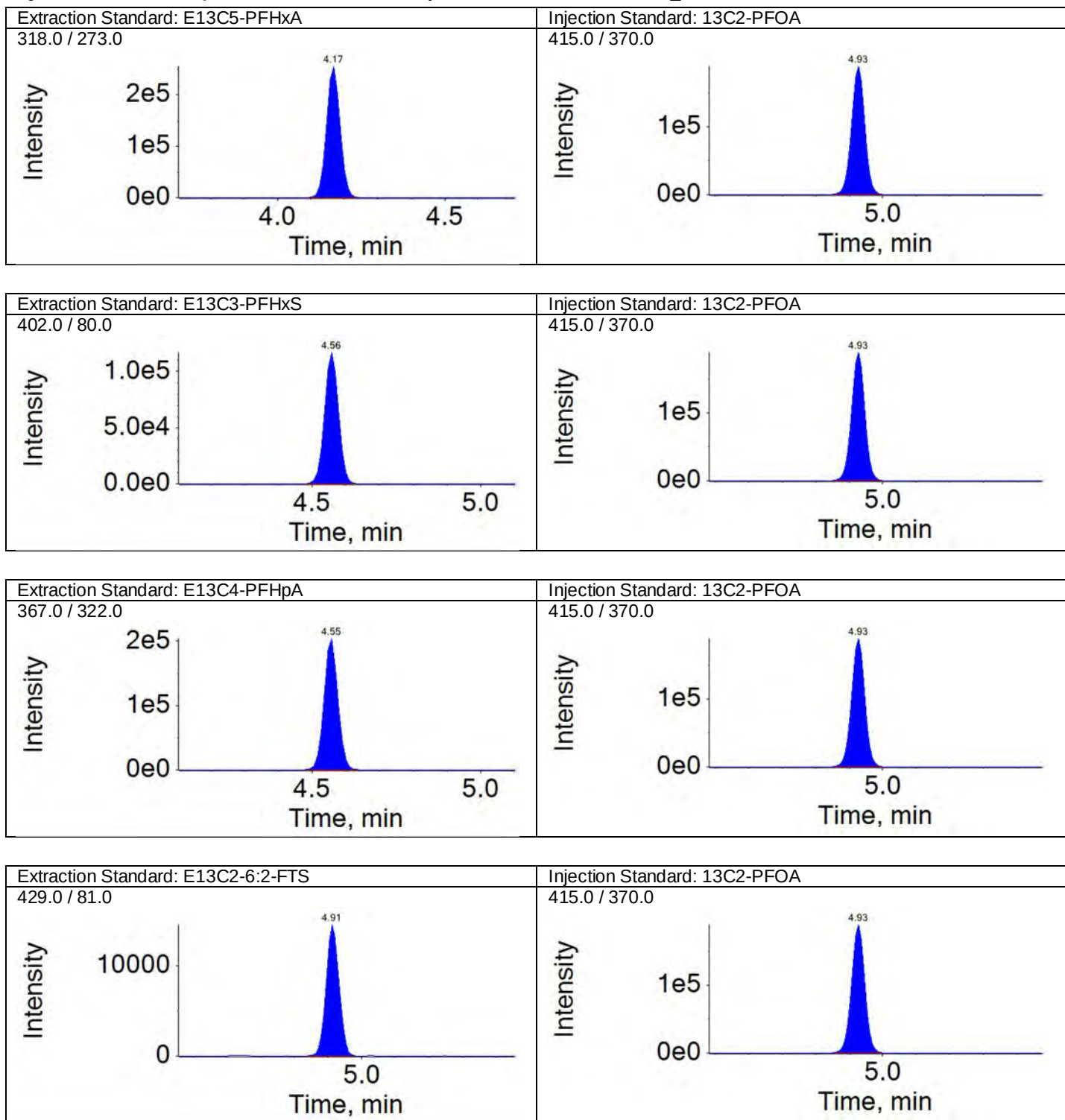
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
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ICAL Name: 18NOV07DCAL
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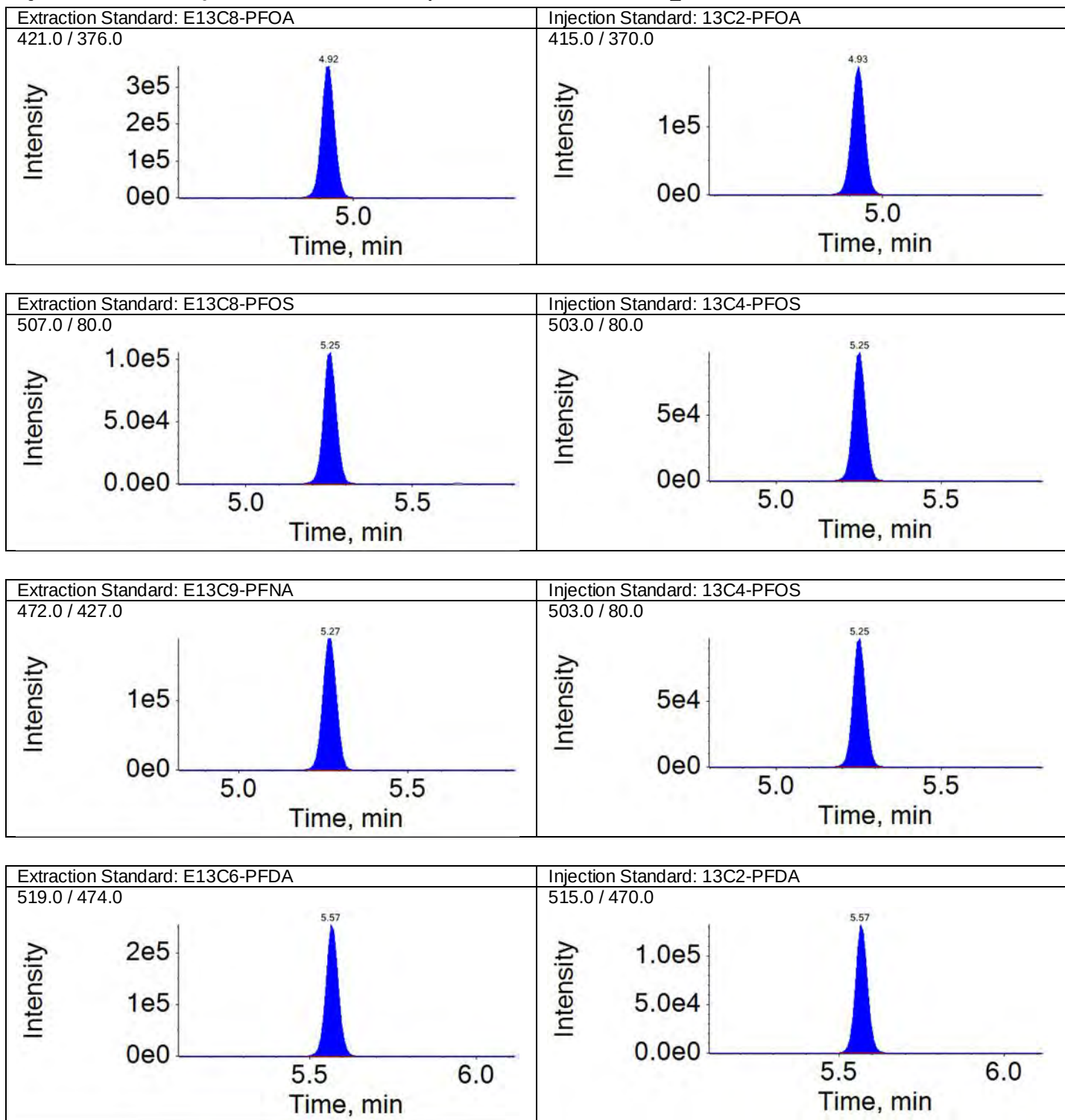
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REVIEWED

By umar at 5:23 pm, 11/9/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

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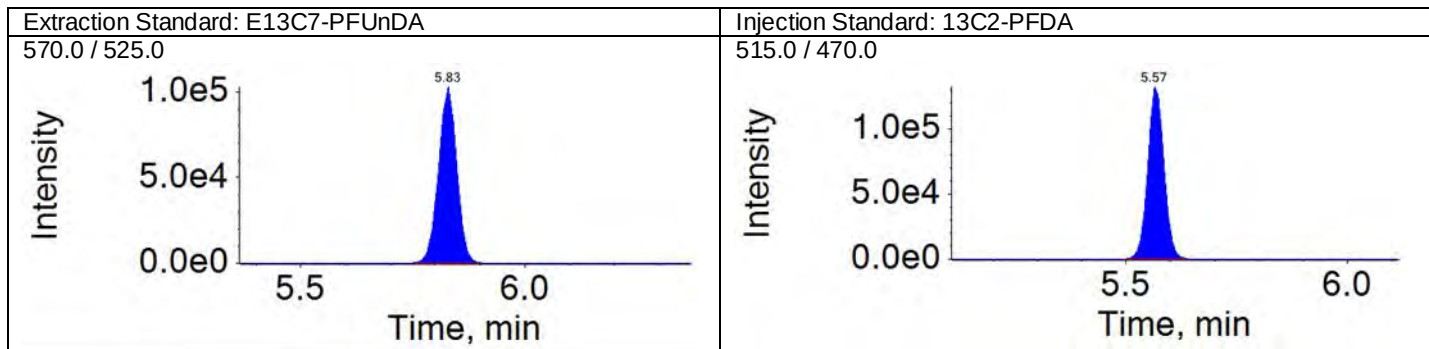
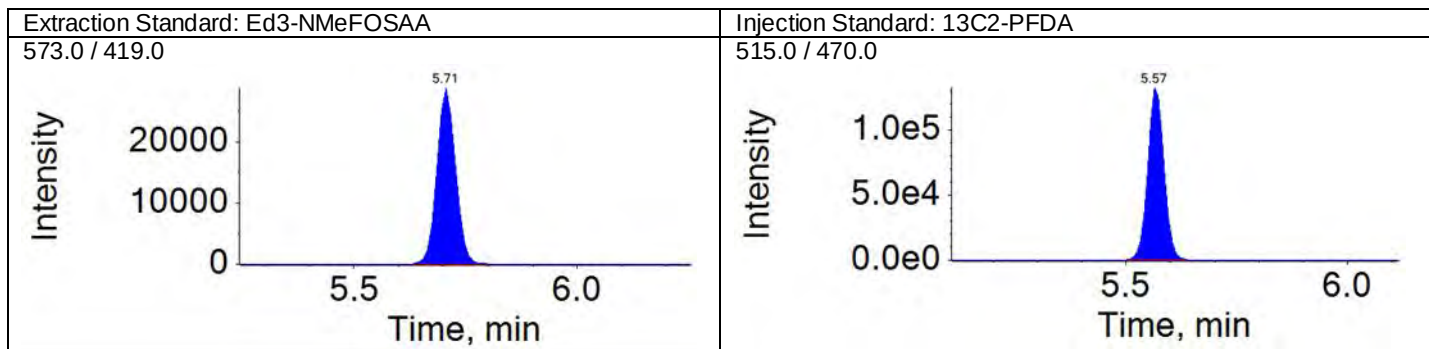
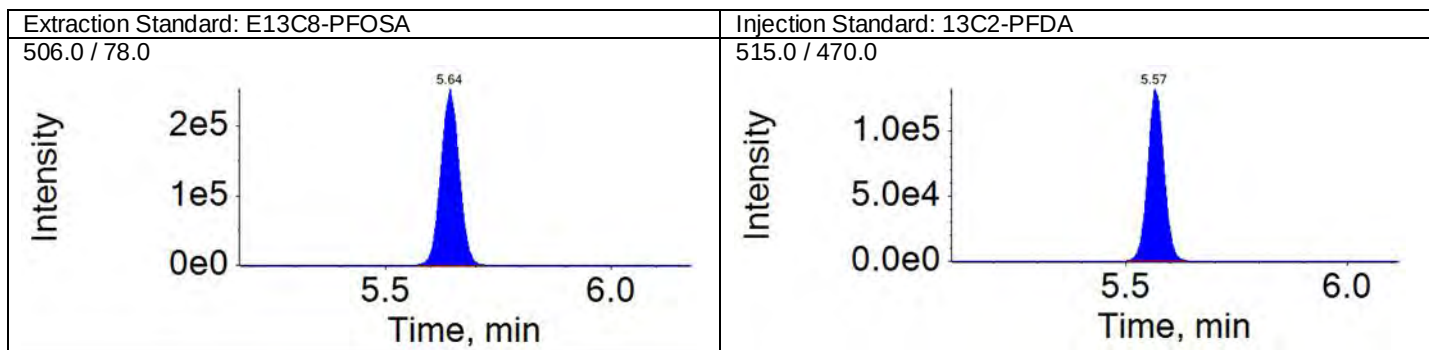
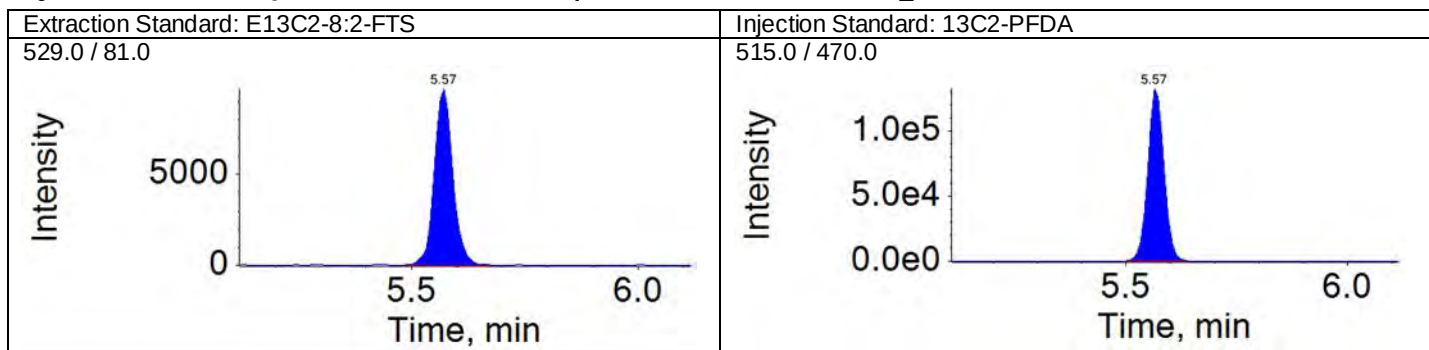
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By umar at 5:23 pm, 11/9/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



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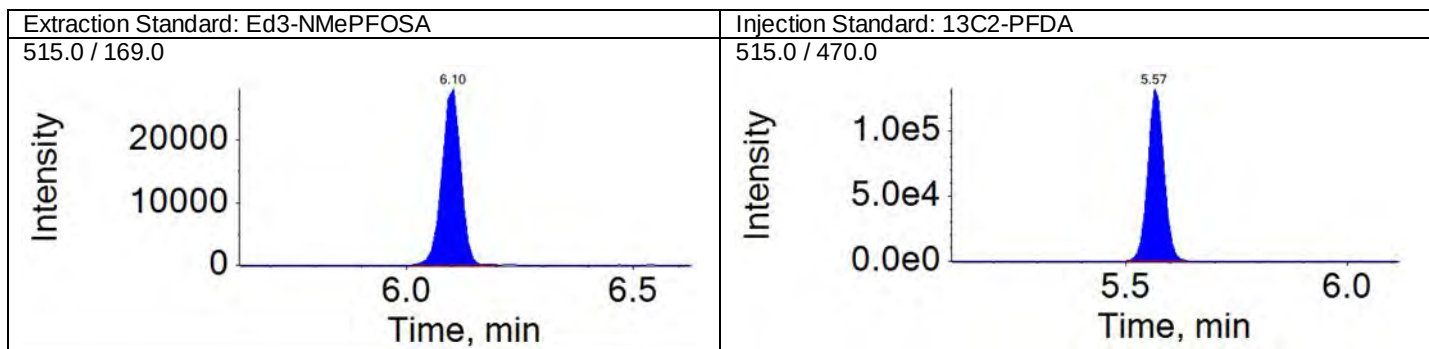
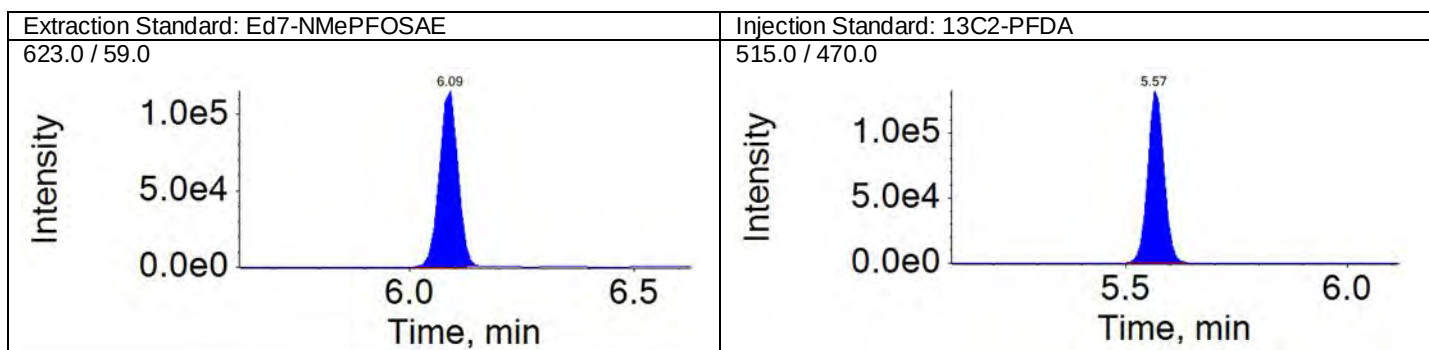
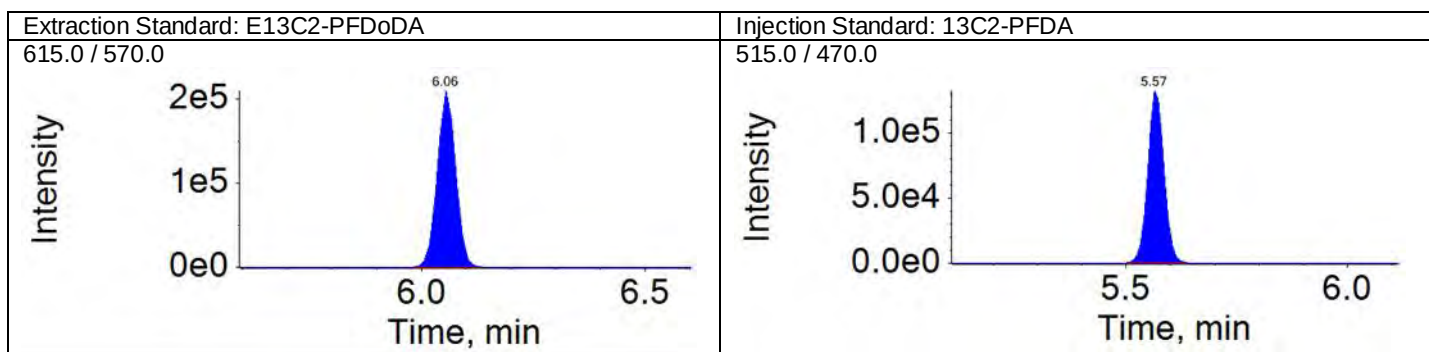
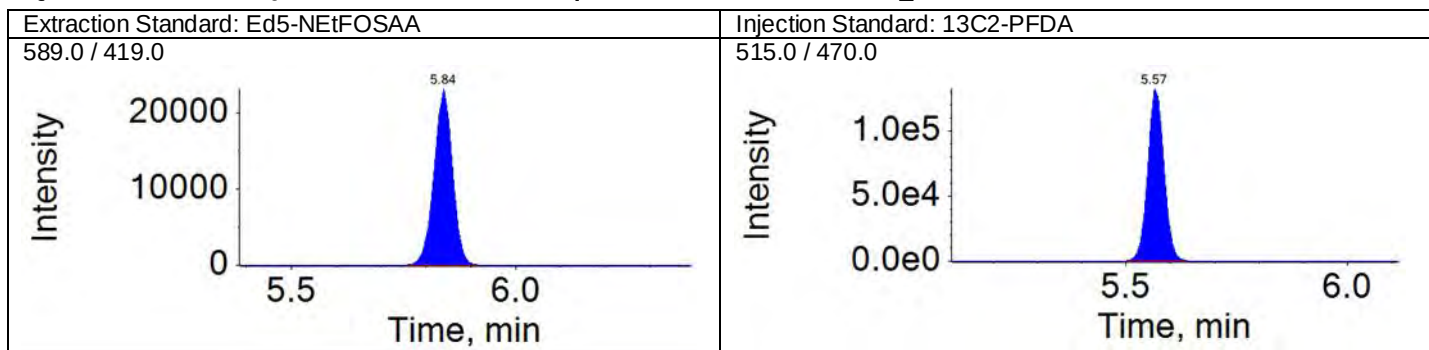
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By umar at 5:23 pm, 11/9/18

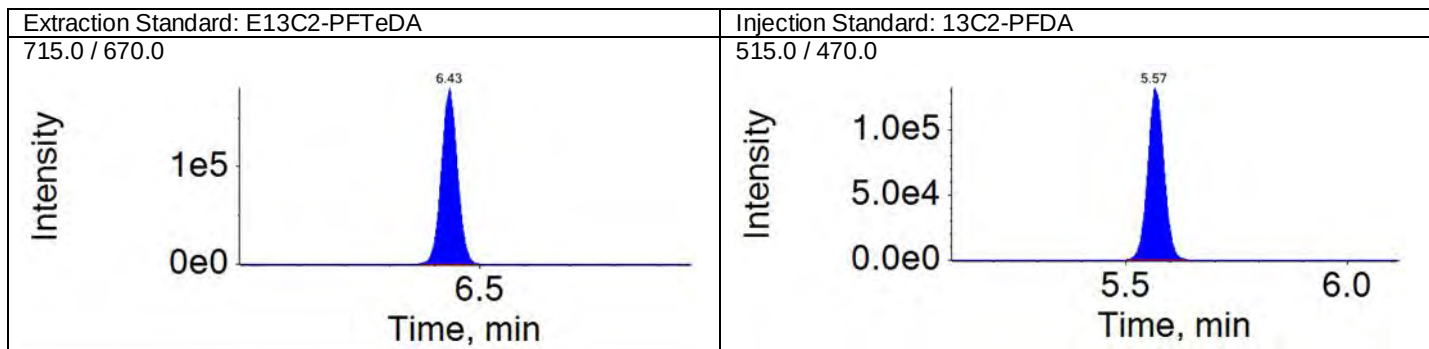
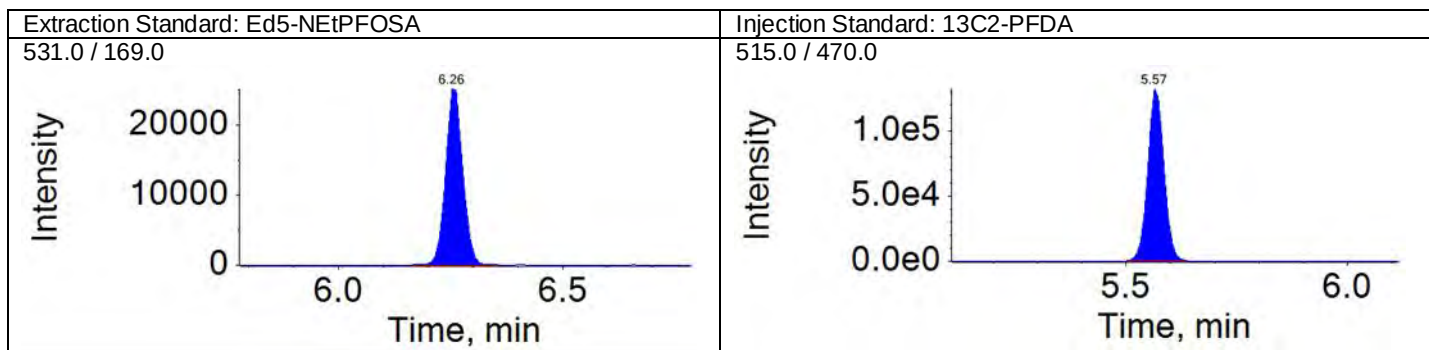
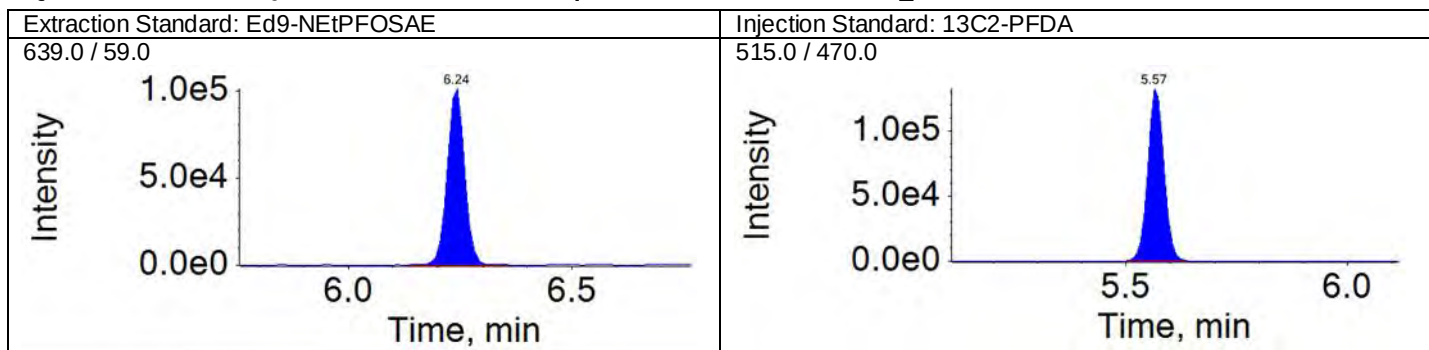
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



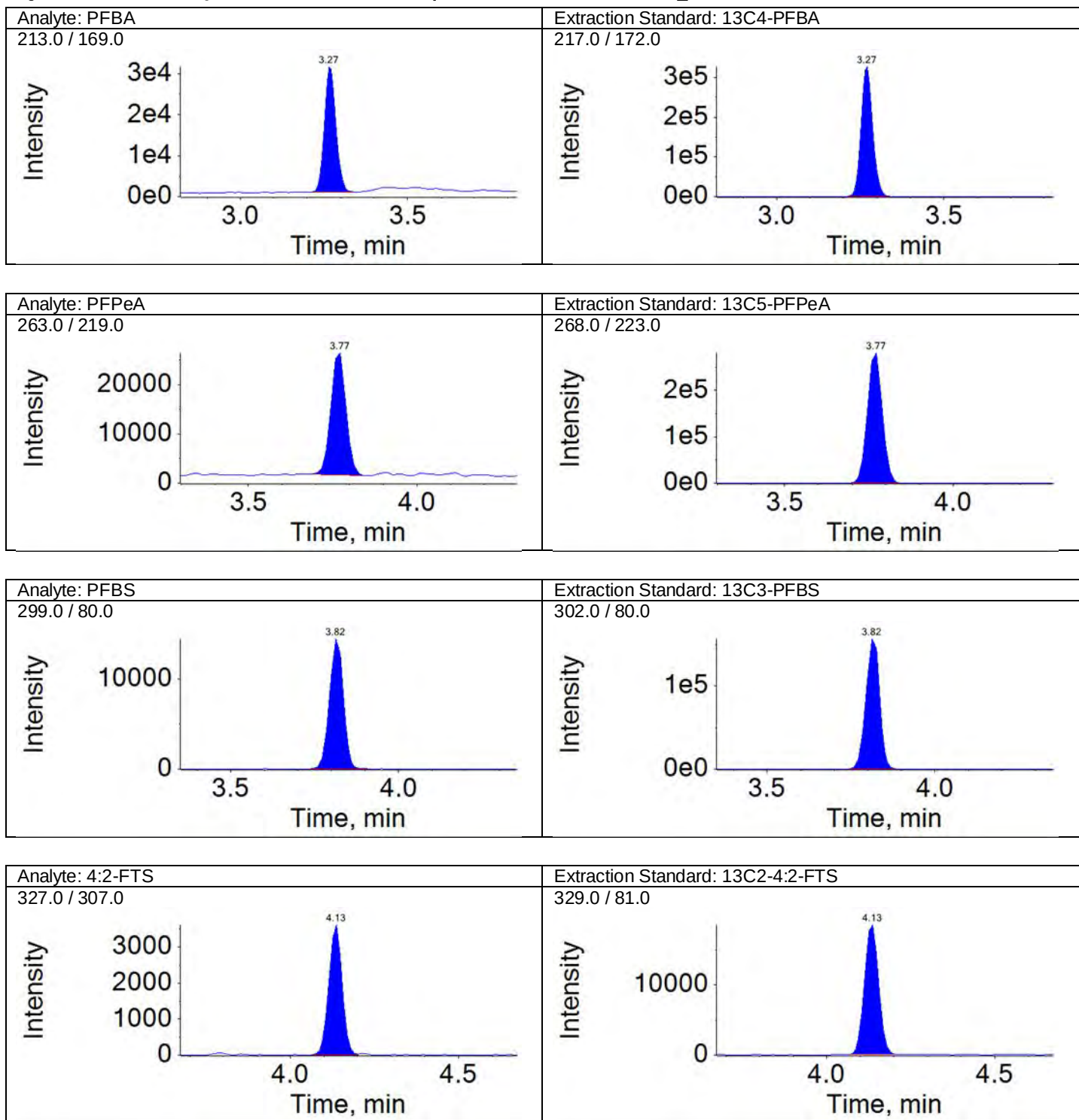
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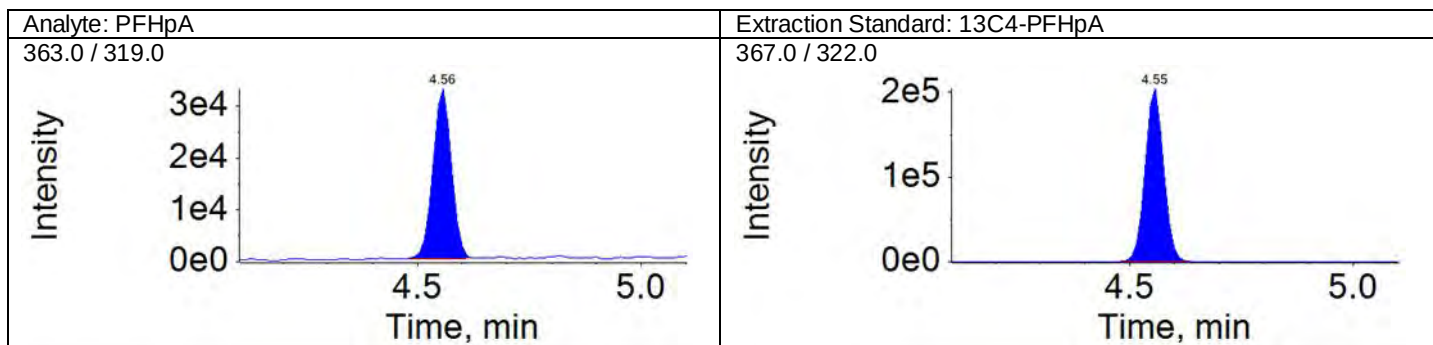
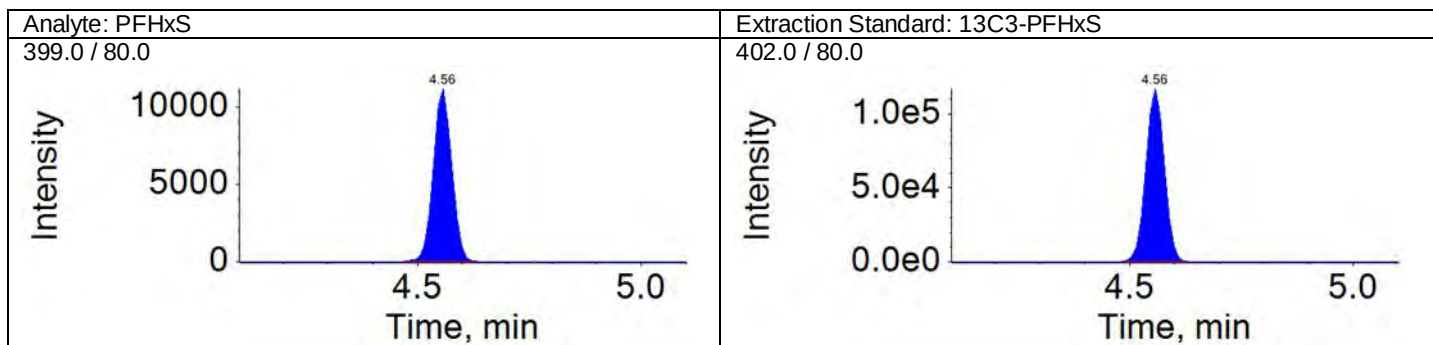
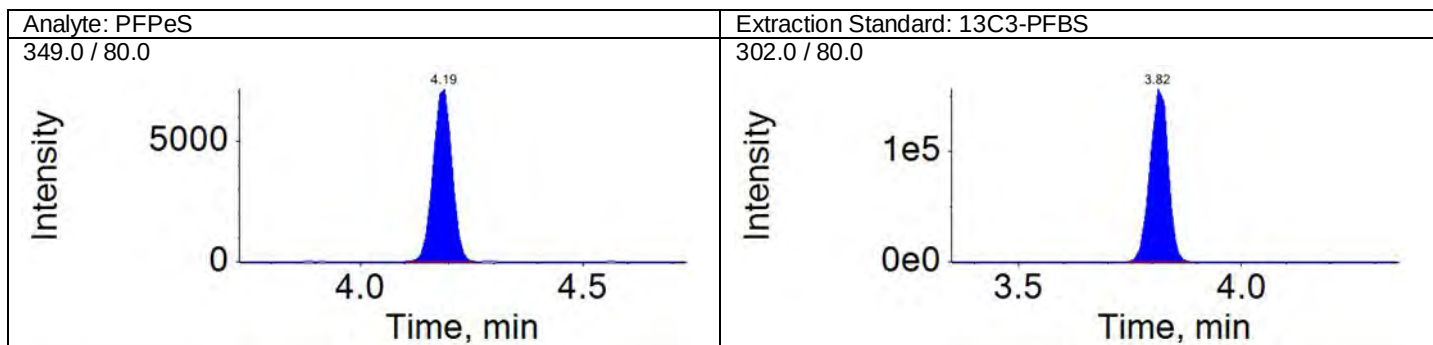
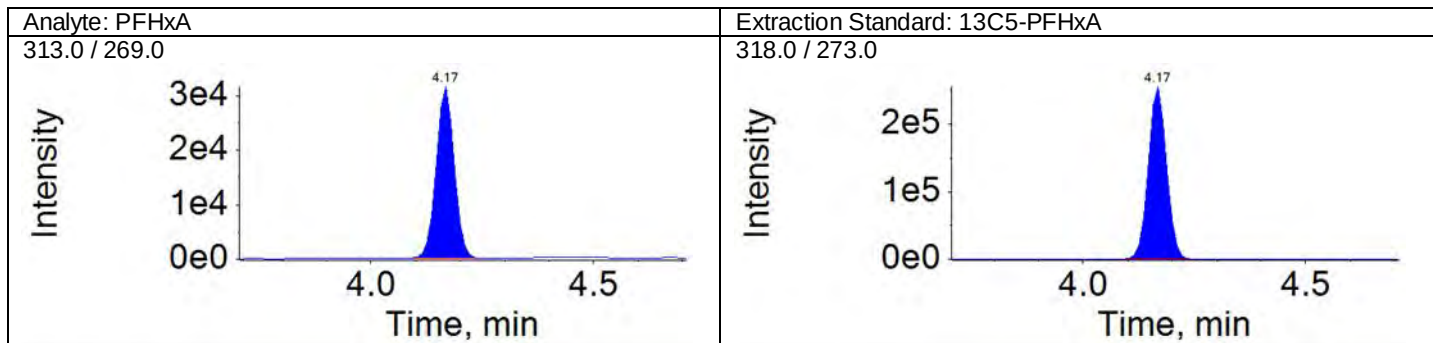
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

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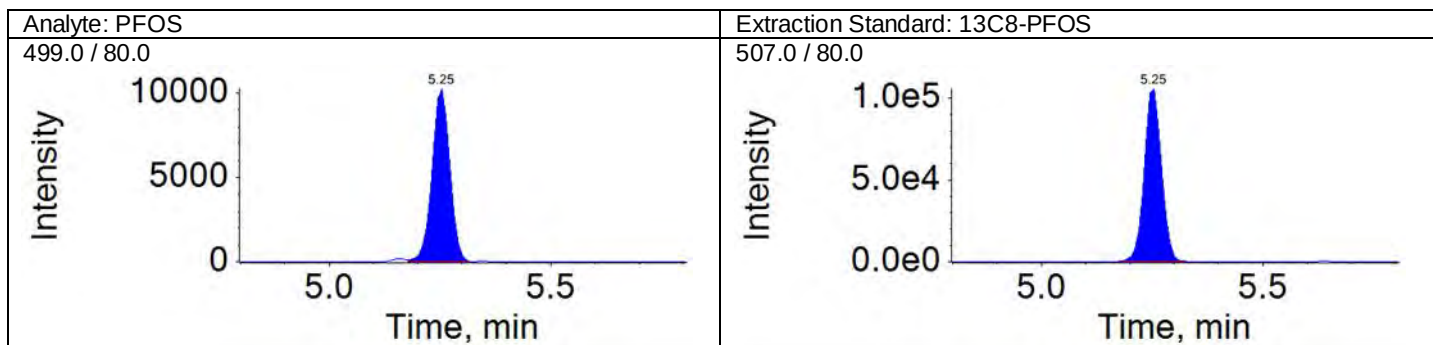
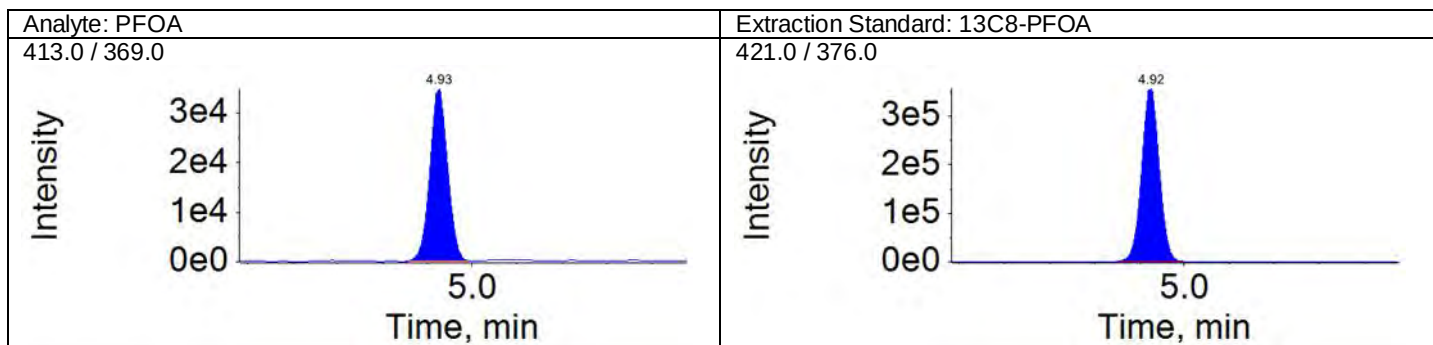
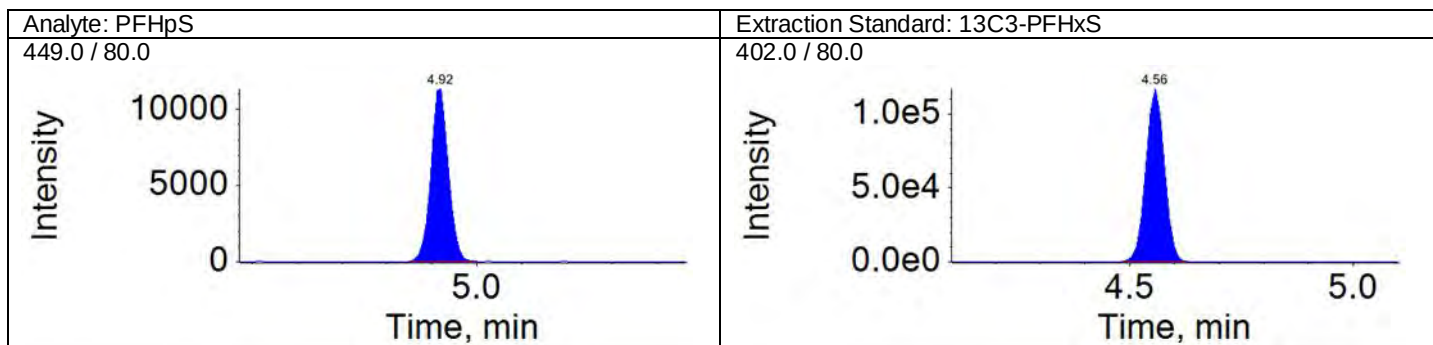
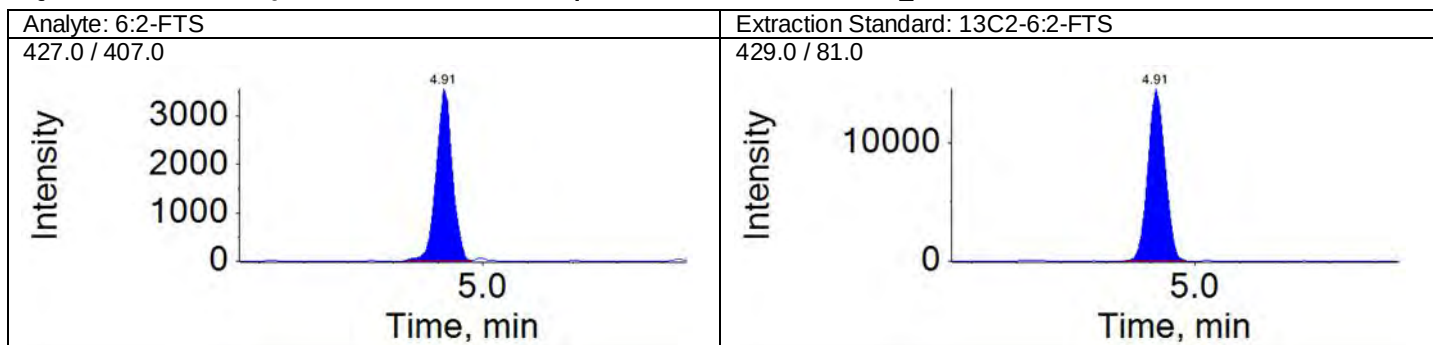
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



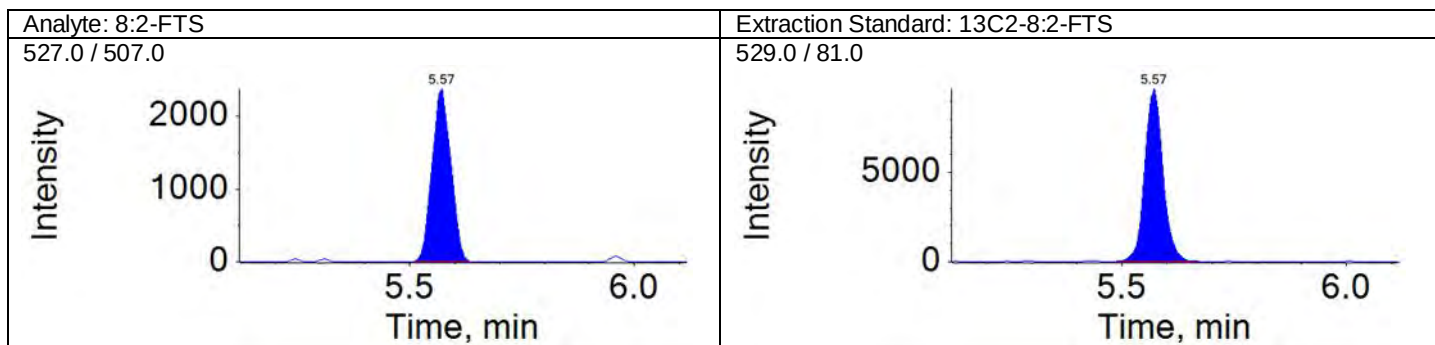
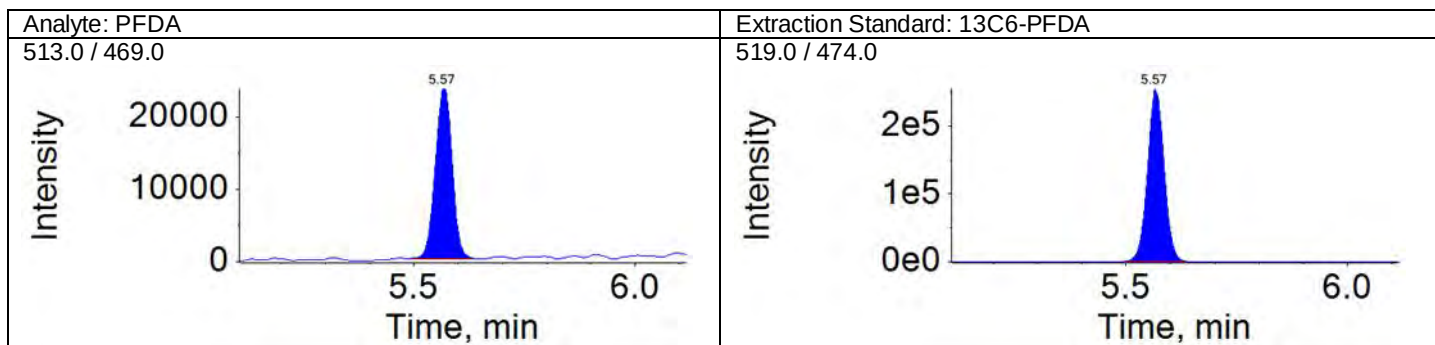
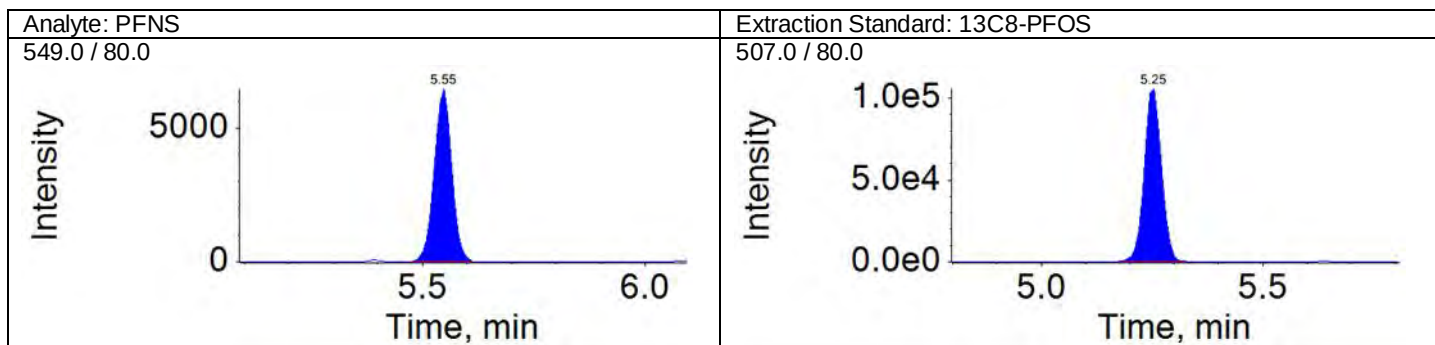
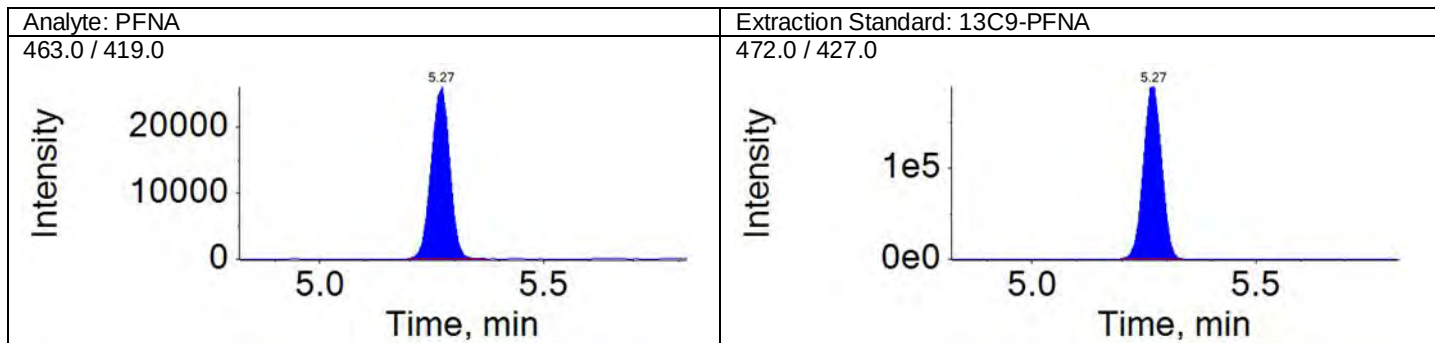
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

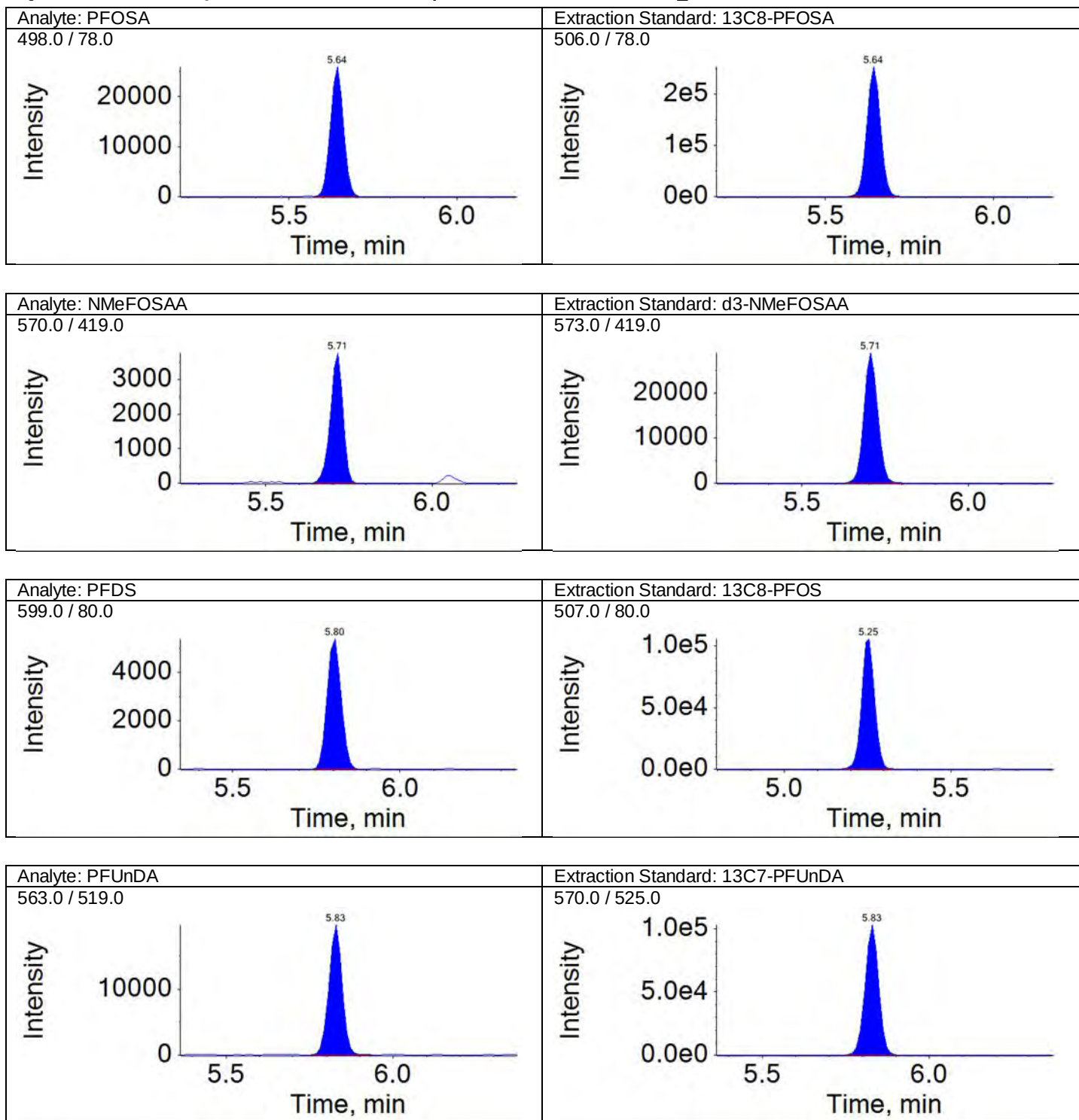
By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

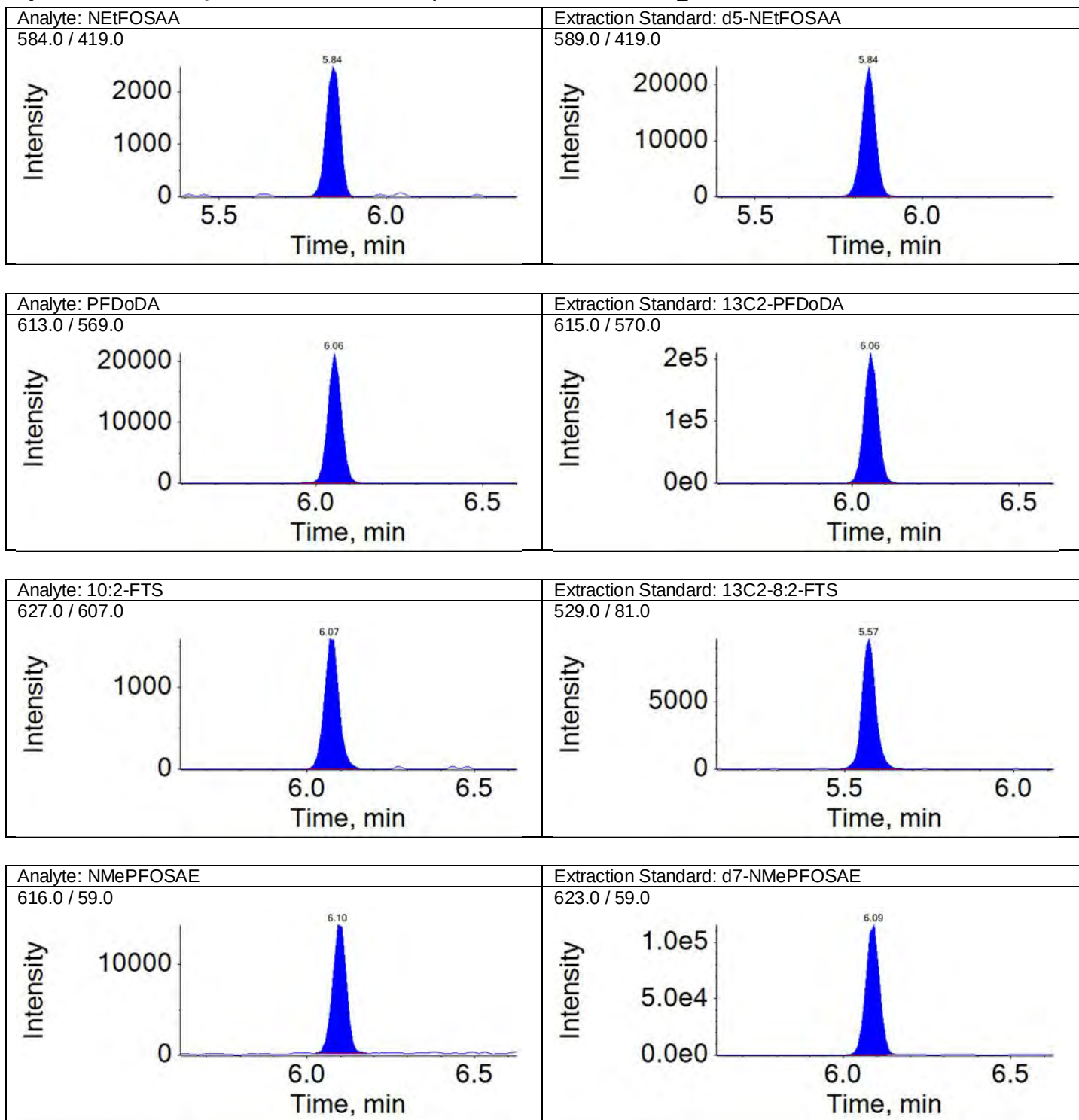
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Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



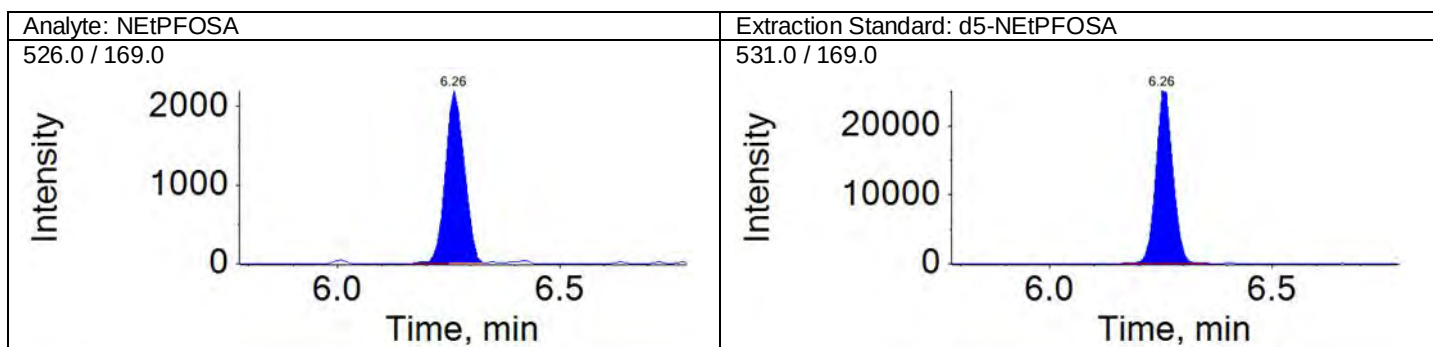
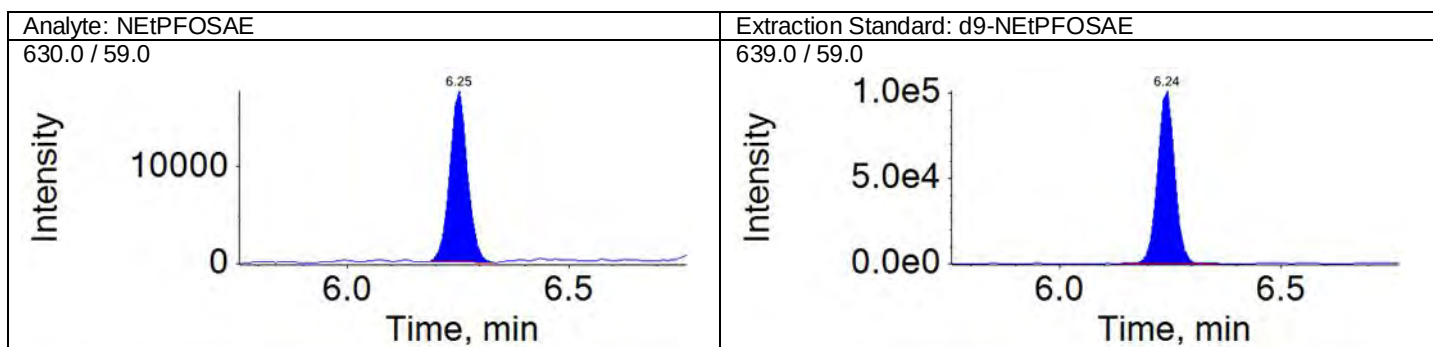
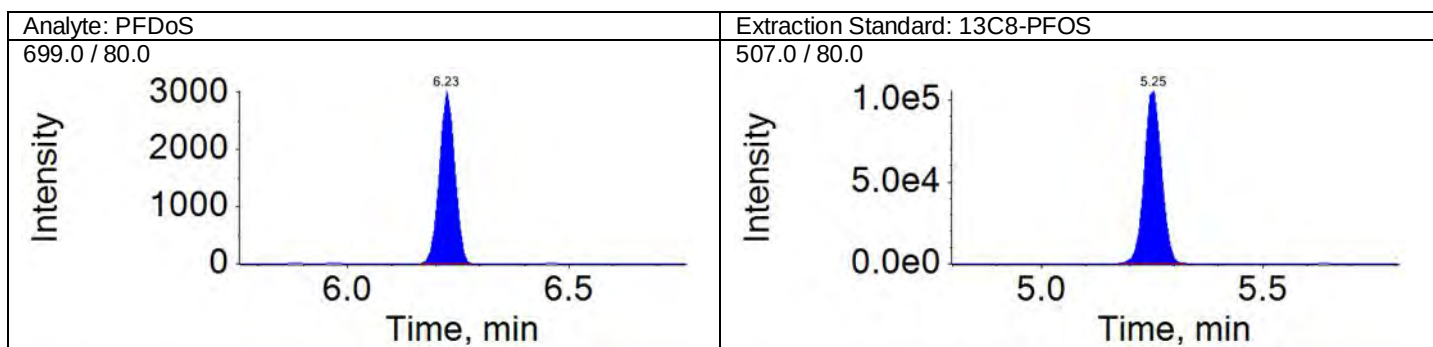
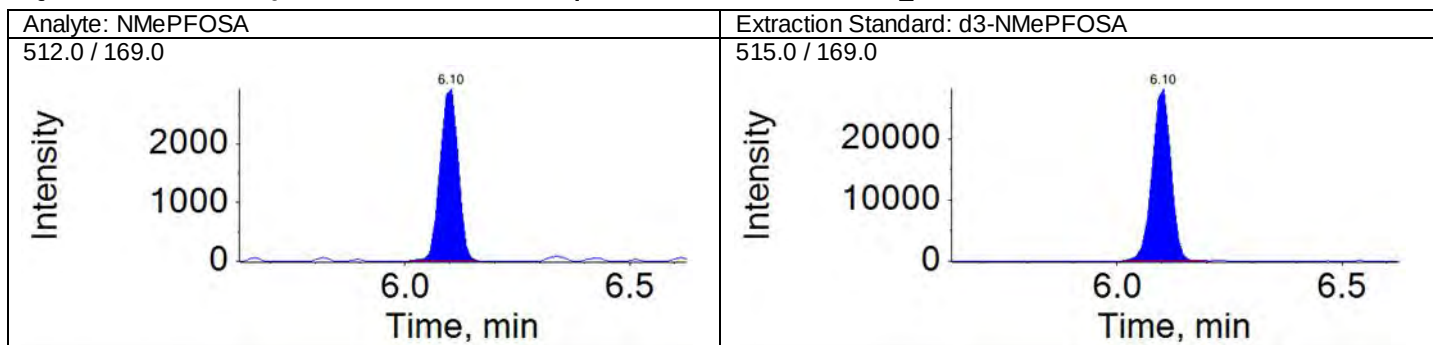
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Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



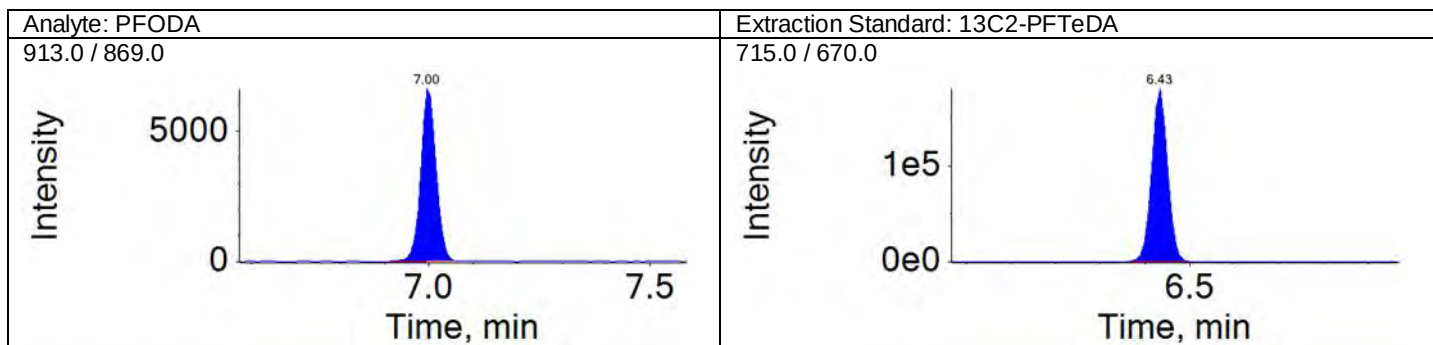
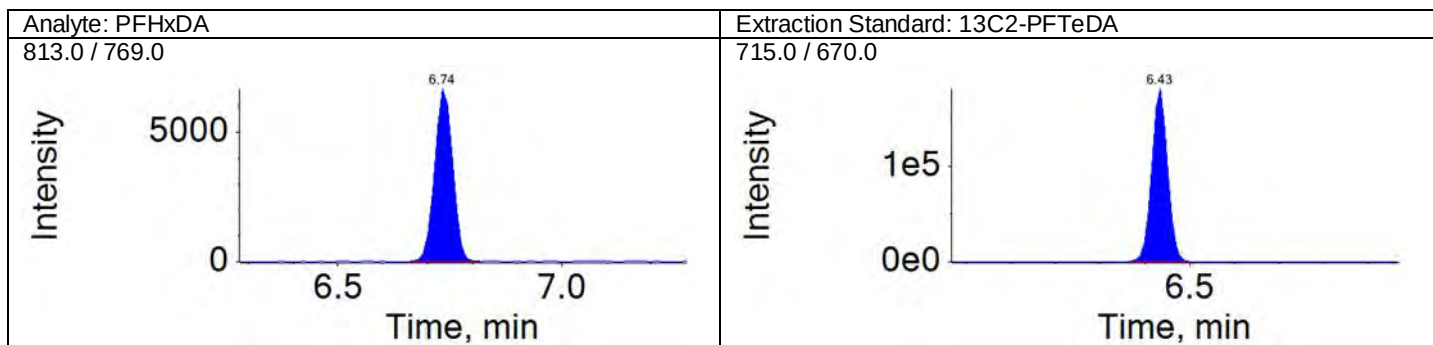
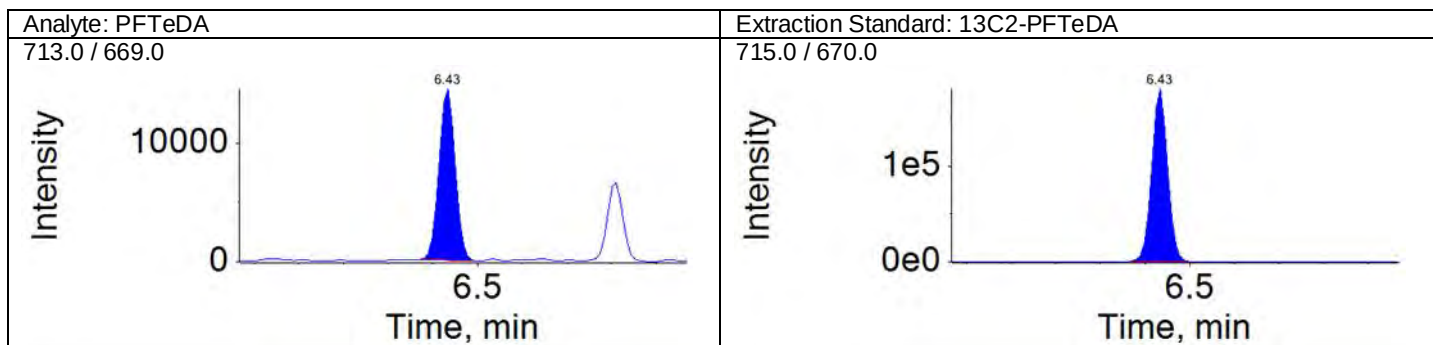
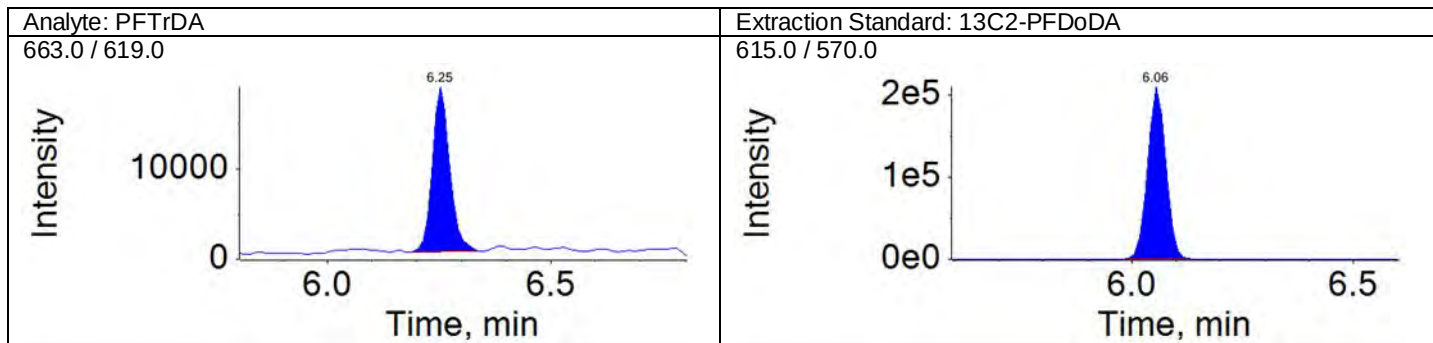
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
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ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

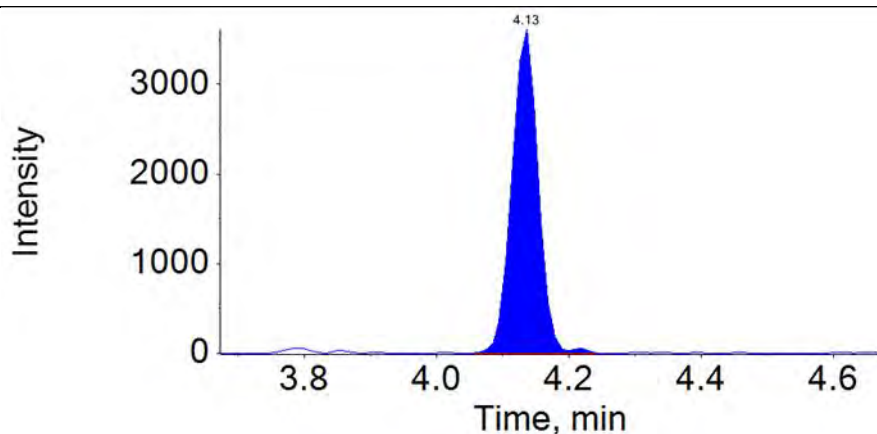
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Results Table Name: 18NOV07DCAL
Results Table Date: 11/7/2018 2:18:30 PM

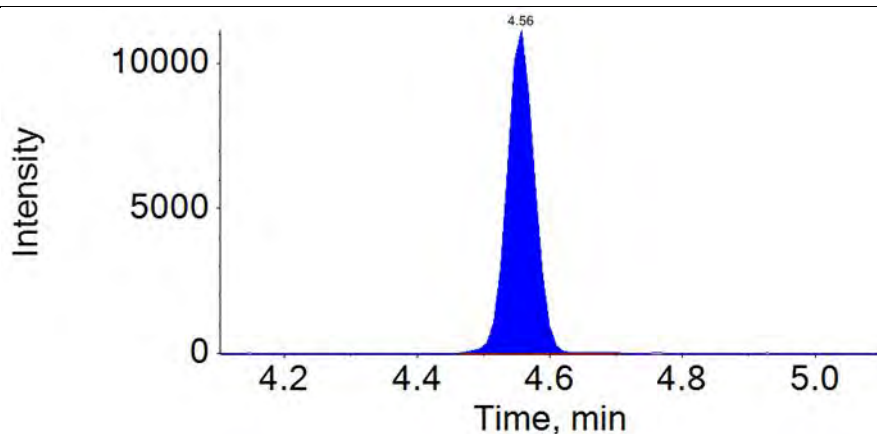
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QMethod File: MQ4-18AUG13

Component Name:
4:2-FTS
RT (min.):
4.13
Peak Area:
10015.5
Mass Range:
327.0 / 307.0
File Name:
18NOV07DCAL-11.wiff
Sample Name:
CAL2



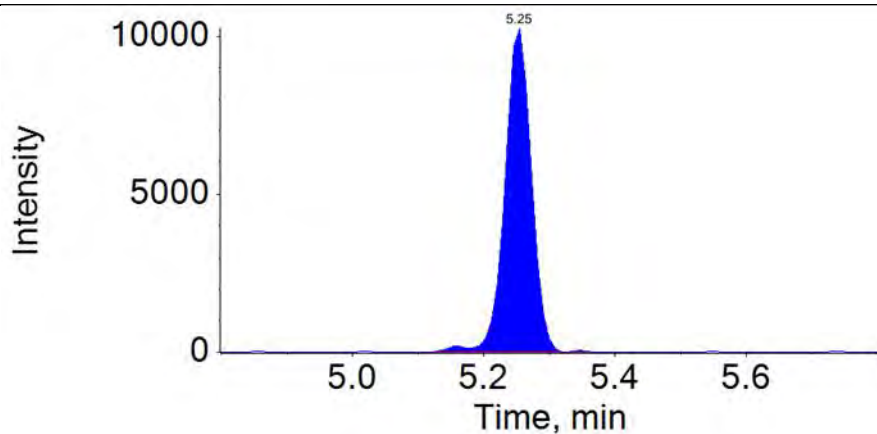
Integration Comment: incorrect integration

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
32165.6
Mass Range:
399.0 / 80.0
File Name:
18NOV07DCAL-11.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
29015.4
Mass Range:
499.0 / 80.0
File Name:
18NOV07DCAL-11.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Results Table Name: 18NOV07DCAL
Results Table Date: 11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED
By JPT at 2:53 pm, 11/7/18

REVIEWED
By umar at 5:23 pm, 11/9/18

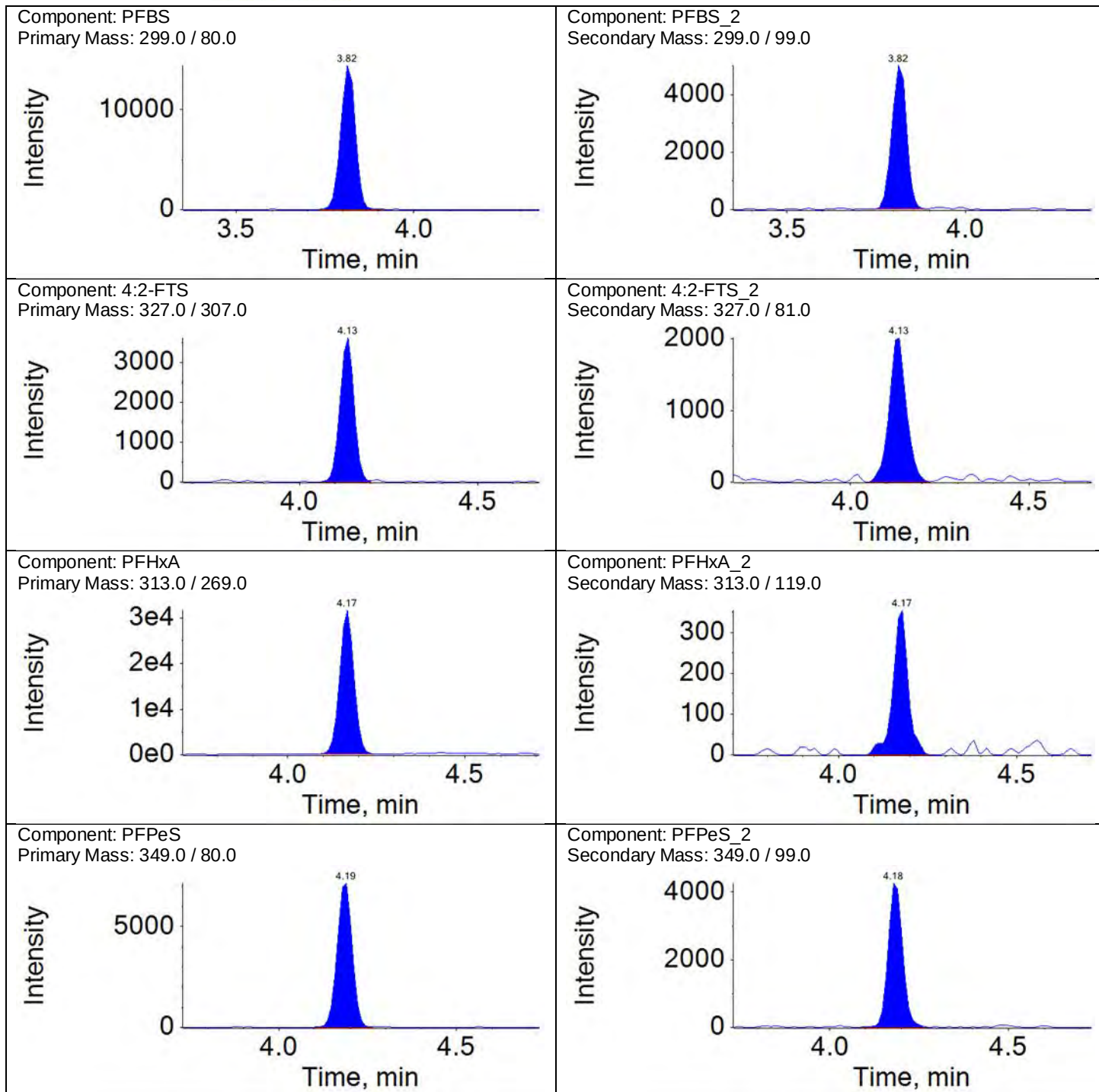
Ion Ratio Report

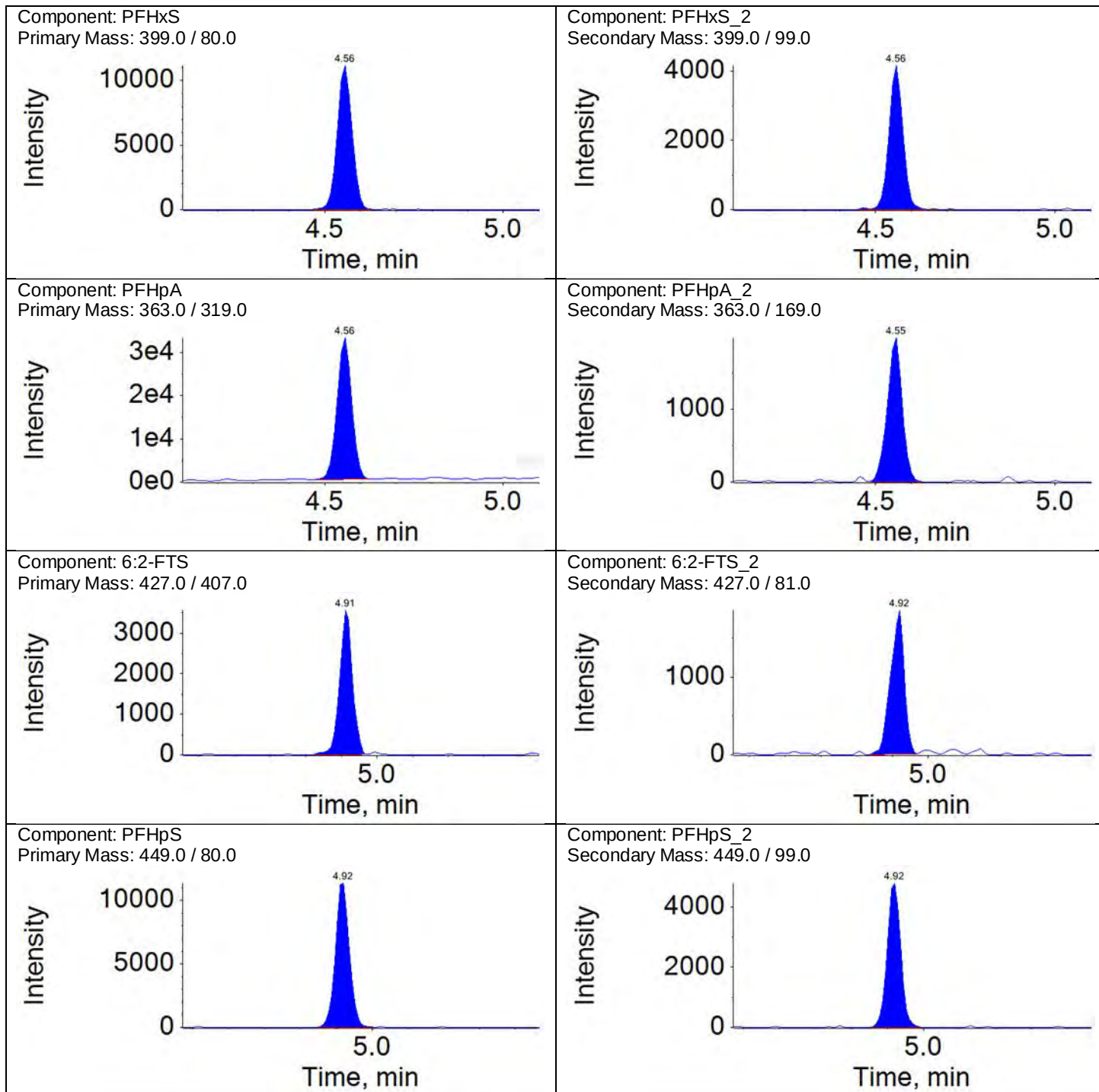
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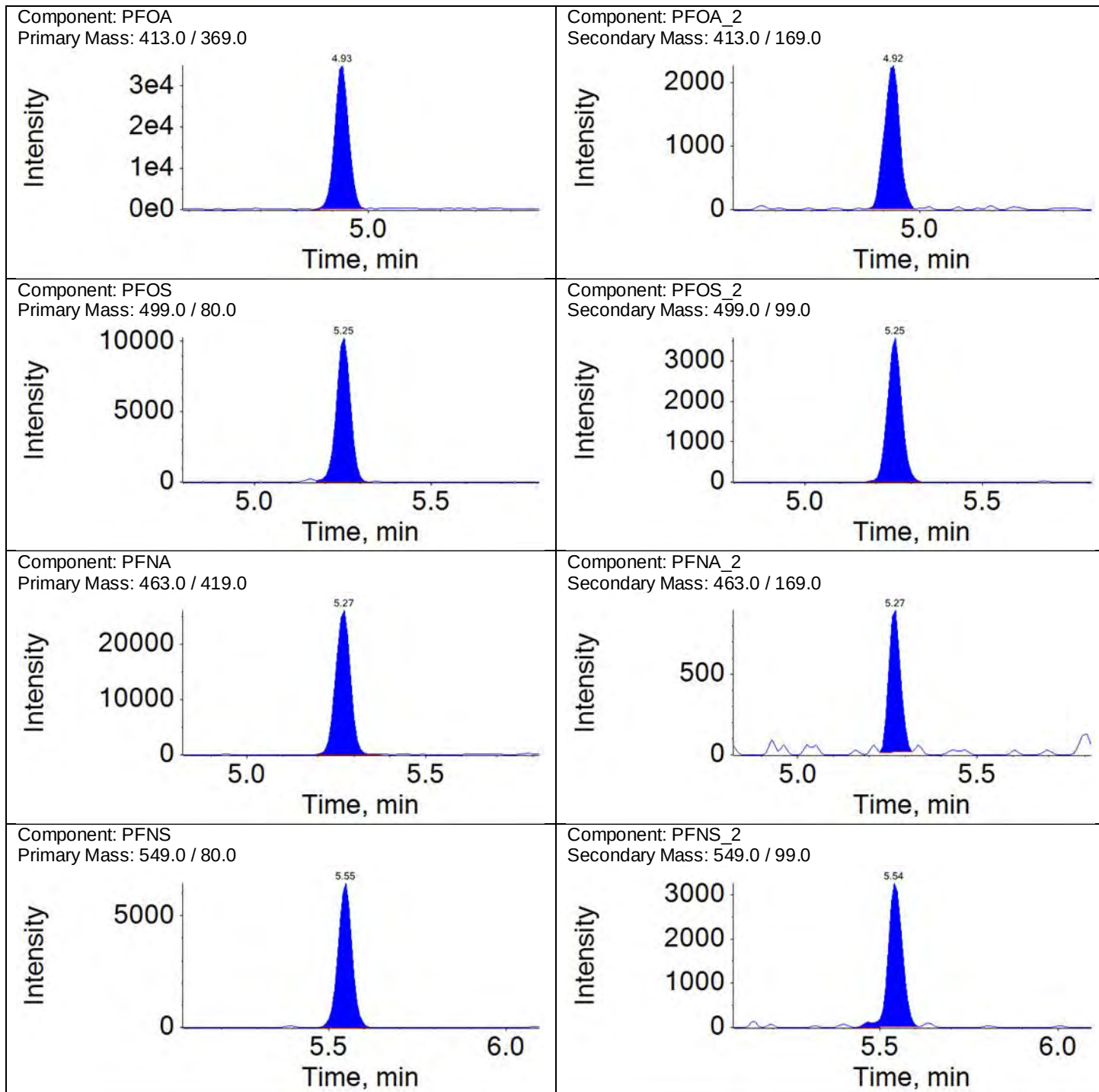
Instrument Name: LM27631

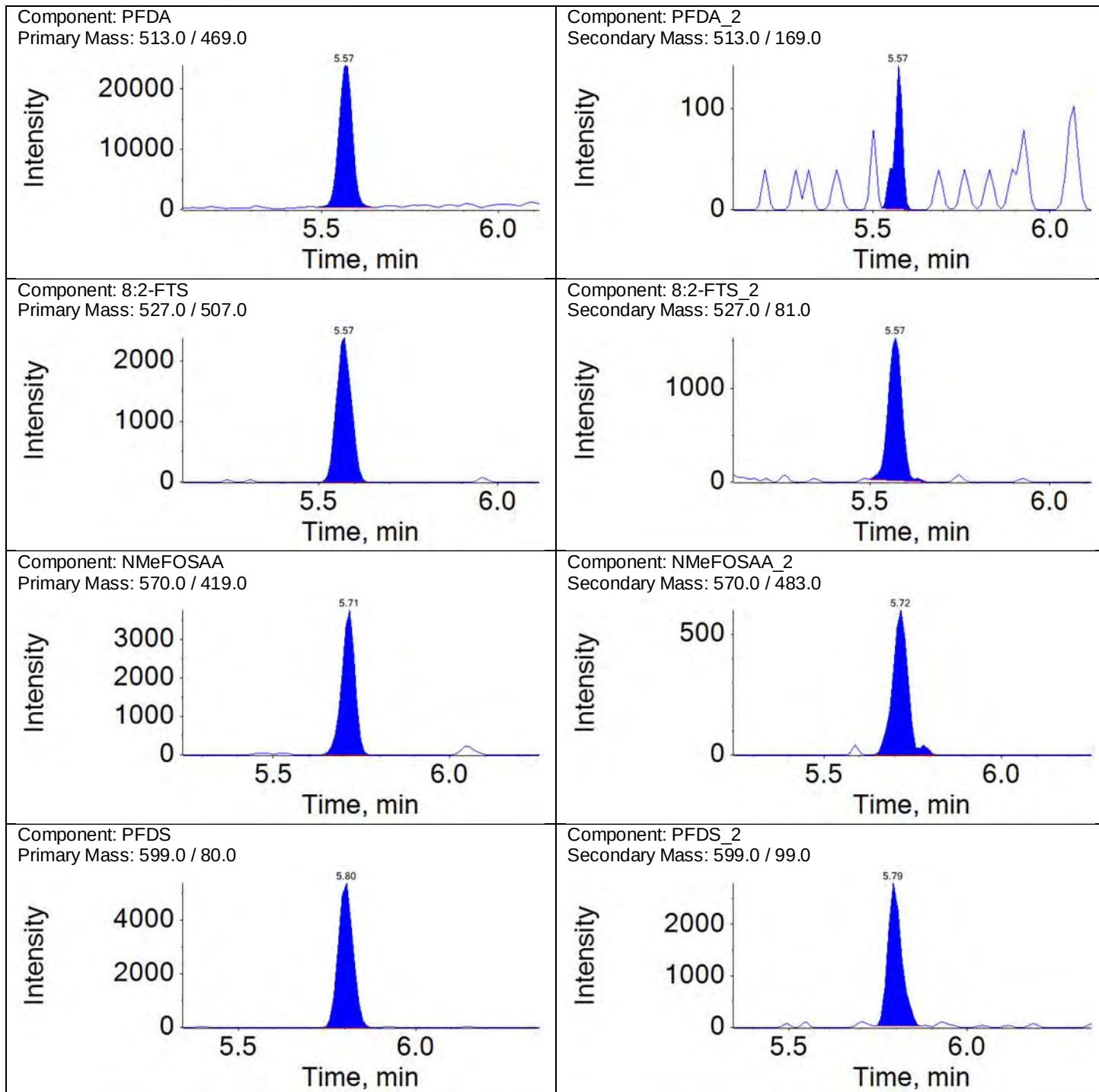
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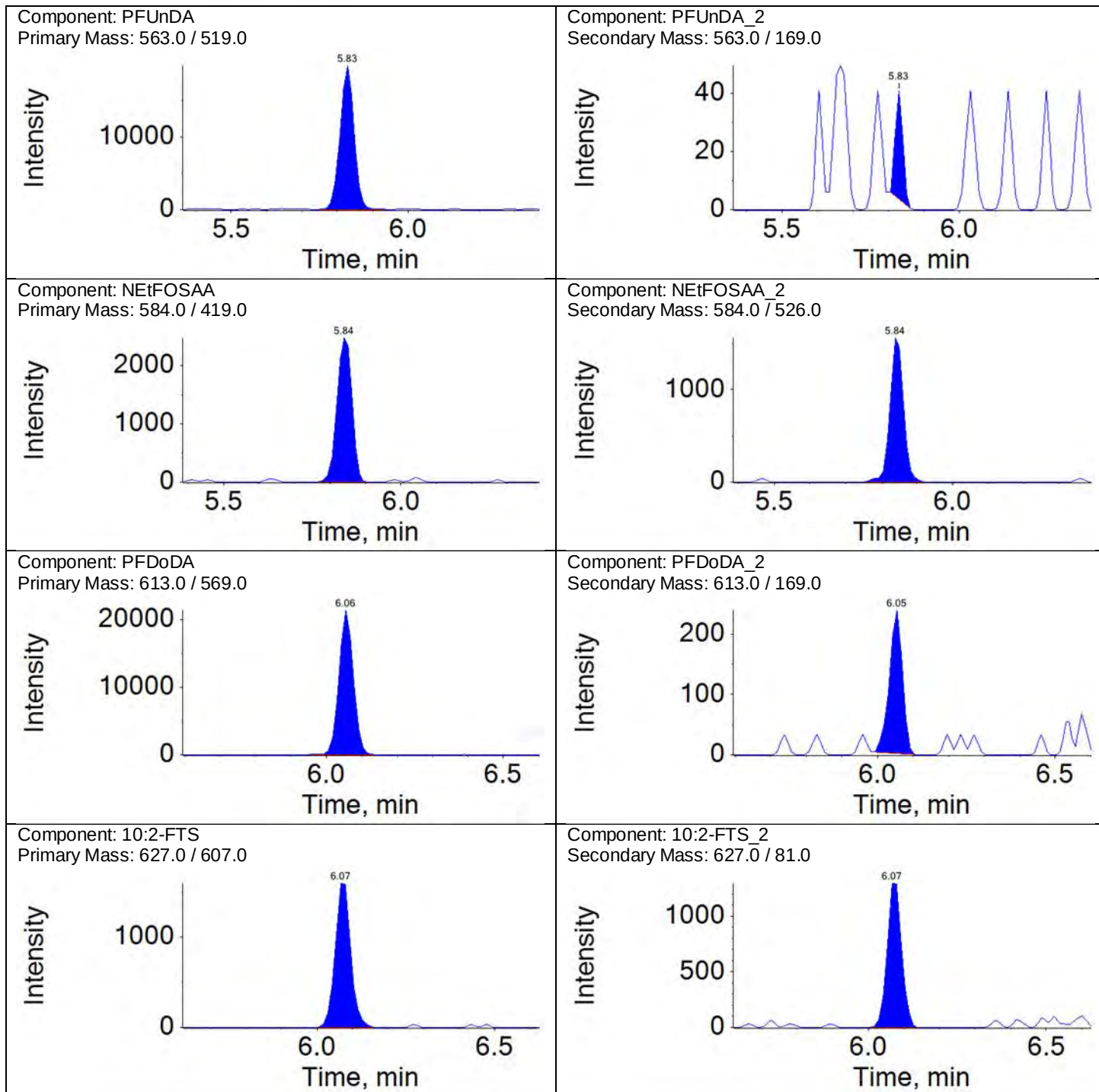
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	41415.1	A	1.0000	1.0000			
PFBS_2	3.82	1.00	14355.0	A	0.3576	0.3466	-3	50	
4:2-FTS	4.13	1.00	9924.9	M	1.0000	1.0000			
4:2-FTS_2	4.13	1.00	6720.6	A	0.6359	0.6771	6	50	
PFHxA	4.17	1.00	88469.9	A	1.0000	1.0000			
PFHxA_2	4.17	1.00	1053.3	A	0.0115	0.0119	4	50	
PFPeS	4.19	1.10	20956.8	A	1.0000	1.0000			
PFPeS_2	4.18	1.10	12018.2	A	0.5384	0.5735	7	50	
PFHxS	4.56	1.00	32061.0	M	1.0000	1.0000			
PFHxS_2	4.56	1.00	11356.8	A	0.3569	0.3542	-1	50	
PFHpA	4.56	1.00	93502.9	A	1.0000	1.0000			
PFHpA_2	4.55	1.00	5694.0	A	0.0577	0.0609	6	50	
6:2-FTS	4.91	1.00	8883.8	A	1.0000	1.0000			
6:2-FTS_2	4.92	1.00	4933.5	A	0.6752	0.5553	-18	50	
PFHpS	4.92	1.08	30553.2	A	1.0000	1.0000			
PFHpS_2	4.92	1.08	12511.0	A	0.3950	0.4095	4	50	
PFOA	4.93	1.00	94348.1	A	1.0000	1.0000			
PFOA_2	4.92	1.00	6706.8	A	0.0635	0.0711	12	50	
PFOS	5.25	1.00	28529.2	M	1.0000	1.0000			
PFOS_2	5.25	1.00	9986.4	A	0.3494	0.3500	0	50	
PFNA	5.27	1.00	74743.9	A	1.0000	1.0000			
PFNA_2	5.27	1.00	2006.2	A	0.0207	0.0268	30	50	
PFNS	5.55	1.06	17507.8	A	1.0000	1.0000			
PFNS_2	5.54	1.06	9005.6	A	0.4890	0.5144	5	50	
PFDA	5.57	1.00	62530.6	A	1.0000	1.0000			
PFDA_2	5.57	1.00	229.8	A	0.0057	0.0037	-35	50	
8:2-FTS	5.57	1.00	6917.6	A	1.0000	1.0000			
8:2-FTS_2	5.57	1.00	4092.7	A	0.6169	0.5916	-4	50	
NMeFOSAA	5.71	1.00	9807.4	A	1.0000	1.0000			
NMeFOSAA_2	5.72	1.00	1815.6	A	0.2206	0.1851	-16	50	
PFDS	5.80	1.11	15726.3	A	1.0000	1.0000			
PFDS_2	5.79	1.10	7422.2	A	0.4648	0.4720	2	50	
PFUnDA	5.83	1.00	54085.5	A	1.0000	1.0000			
PFUnDA_2	5.83	1.00	55.5	A	0.0031	0.0010	-67	50	OOS
NEtFOSAA	5.84	1.00	7253.7	A	1.0000	1.0000			
NEtFOSAA_2	5.84	1.00	4097.5	A	0.6082	0.5649	-7	50	
PFDODA	6.06	1.00	60098.0	A	1.0000	1.0000			
PFDODA_2	6.05	1.00	610.7	A	0.0109	0.0102	-7	50	
10:2-FTS	6.07	1.09	4874.3	A	1.0000	1.0000			
10:2-FTS_2	6.07	1.09	3667.0	A	0.7082	0.7523	6	50	
PFTTrDA	6.25	1.03	49218.5	A	1.0000	1.0000			
PFTTrDA_2	6.26	1.03	479.8	A	0.0096	0.0097	1	50	
PFTeDA	6.43	1.00	36223.2	A	1.0000	1.0000			
PFTeDA_2	6.44	1.00	219.8	A	0.0055	0.0061	10	50	
PFHxDA	6.74	1.05	18619.3	A	1.0000	1.0000			
PFHxDA_2	6.74	1.05	1073.0	A	0.0596	0.0576	-3	50	
PFODA	7.00	1.09	15742.1	A	1.0000	1.0000			
PFODA_2	7.00	1.09	416.9	A	0.0257	0.0265	3	50	

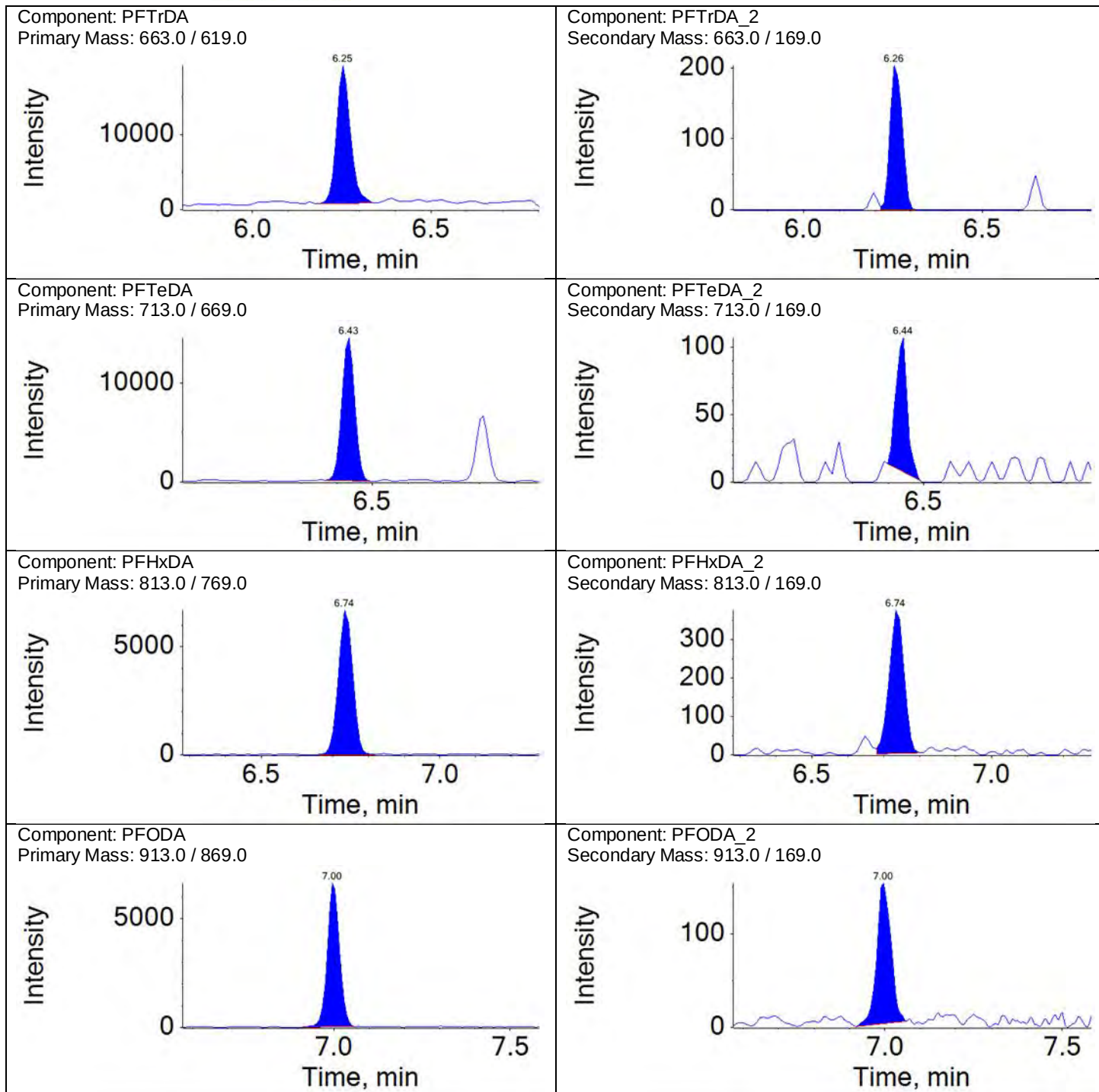












ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL3		Data File:	18NOV07DCAL-12.wiff
Sample ID:	CALMOD31833F		Acquis Date:	2018-11-07T09:57:56
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	5		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV07DCAL
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	N/A		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV07DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	730410.6	730410.6	0	50	
13C2-PFOA	5.0	524423.6	524423.6	0	50	
13C4-PFOS	4.8	274061.7	274061.7	0	50	
13C2-PFDA	5.0	311442.1	311442.1	0	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	787180.2	13C3-PFBA	730410.6	1.078	5.000	4.987	100	70-130	
E13C5-PFPeA	829978.5	13C3-PFBA	730410.6	1.136	5.000	4.950	99	70-130	
E13C3-PFBS	456815.2	13C3-PFBA	730410.6	0.625	4.650	4.590	99	70-130	
E13C2-4:2-FTS	48706.0	13C2-PFOA	524423.6	0.093	4.670	4.191	90	70-130	
E13C5-PFHxA	705369.0	13C2-PFOA	524423.6	1.345	5.000	4.948	99	70-130	
E13C3-PFHxS	343139.5	13C2-PFOA	524423.6	0.654	4.730	4.697	99	70-130	
E13C4-PFHpA	566495.6	13C2-PFOA	524423.6	1.080	5.000	4.914	98	70-130	
E13C2-6:2-FTS	38605.5	13C2-PFOA	524423.6	0.074	4.750	4.909	103	70-130	
E13C8-PFOA	964414.6	13C2-PFOA	524423.6	1.839	5.000	5.128	103	70-130	
E13C8-PFOS	297259.7	13C4-PFOS	274061.7	1.085	4.780	4.796	100	70-130	
E13C9-PFNA	513116.0	13C4-PFOS	274061.7	1.872	5.000	5.114	102	70-130	
E13C6-PFDA	639022.8	13C2-PFDA	311442.1	2.052	5.000	5.160	103	70-130	
E13C2-8:2-FTS	29468.3	13C2-PFDA	311442.1	0.095	4.790	5.007	105	70-130	
E13C8-PFOSA	704745.5	13C2-PFDA	311442.1	2.263	5.000	4.938	99	70-130	
Ed3-NMeFOSAA	81763.3	13C2-PFDA	311442.1	0.263	5.000	4.882	98	70-130	
E13C7-PFUnDA	277115.5	13C2-PFDA	311442.1	0.890	5.000	5.133	103	70-130	
Ed5-NEtFOSAA	72755.7	13C2-PFDA	311442.1	0.234	5.000	5.406	108	70-130	
E13C2-PFDoDA	584631.5	13C2-PFDA	311442.1	1.877	5.000	5.061	101	70-130	
Ed7-NMePFOSAE	335206.8	13C2-PFDA	311442.1	1.076	5.000	5.005	100	70-130	
Ed3-NMePFOSA	79381.7	13C2-PFDA	311442.1	0.255	5.000	4.666	93	70-130	
Ed9-NEtPFOSAE	278375.1	13C2-PFDA	311442.1	0.894	5.000	5.104	102	70-130	
Ed5-NEtPFOSA	67444.3	13C2-PFDA	311442.1	0.217	5.000	5.014	100	70-130	
E13C2-PFTeDA	419341.7	13C2-PFDA	311442.1	1.346	5.000	4.847	97	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL3

Instrument Name: LM27631

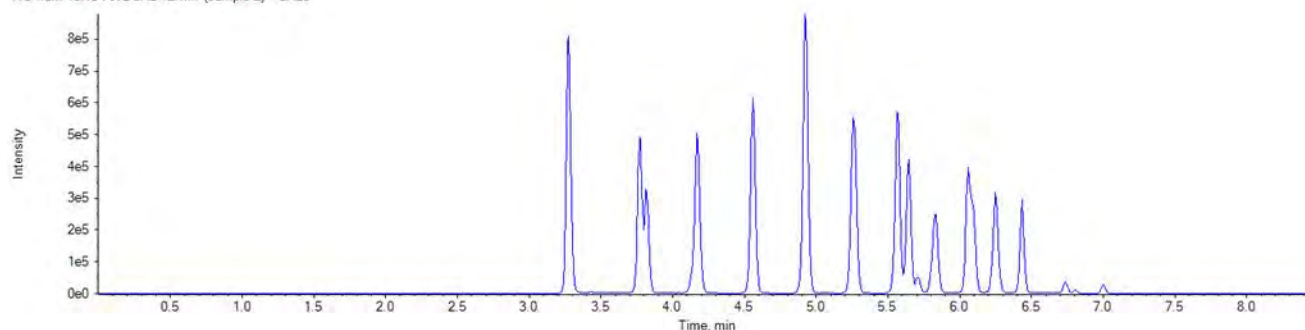
File Name: 18NOV07DCAL-12.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	285113.3		A	13C4-PFBA	3.27	787180.2	0.362	2.120
PFPeA	3.77	1.000	286630.7		A	13C5-PFPeA	3.77	829978.5	0.345	2.052
PFBS	3.82	1.000	157656.3		A	13C3-PFBS	3.82	456815.2	0.345	1.740
4:2-FTS	4.14	1.000	35586.2		A	13C2-4:2-FTS	4.13	48706.0	0.731	1.964
PFHxA	4.17	1.000	351503.9		A	13C5-PFHxA	4.17	705369.0	0.498	2.137
PFPeS	4.19	1.100	82090.1		A	13C3-PFBS	3.82	456815.2	0.180	1.772
PFHxS	4.56	1.000	122477.7		A	13C3-PFHxS	4.56	343139.5	0.357	1.809
PFHpA	4.56	1.000	360280.4		A	13C4-PFHpA	4.56	566495.6	0.636	2.139
6:2-FTS	4.92	1.000	32056.4		A	13C2-6:2-FTS	4.91	38605.5	0.830	2.071
PFHpS	4.92	1.080	123126.9		A	13C3-PFHxS	4.56	343139.5	0.359	1.877
PFOA	4.93	1.000	364943.1		A	13C8-PFOA	4.93	964414.6	0.378	2.131
PFOS	5.25	1.000	111397.7		A	13C8-PFOS	5.25	297259.8	0.375	1.943
PFNA	5.27	1.000	299530.4		A	13C9-PFNA	5.27	513116.0	0.584	2.182
PFNS	5.55	1.060	72940.0		A	13C8-PFOS	5.25	297259.8	0.245	1.946
PFDA	5.57	1.000	244693.9		A	13C6-PFDA	5.57	639022.8	0.383	2.107
8:2-FTS	5.57	1.000	24892.6		A	13C2-8:2-FTS	5.57	29468.3	0.845	1.904
PFOSA	5.64	1.000	271753.2		A	13C8-PFOSA	5.64	704745.5	0.386	2.084
NMeFOSAA	5.71	1.000	32400.4		A	d3-NMeFOSAA	5.71	81763.3	0.396	2.039
PFDS	5.80	1.100	59073.9		A	13C8-PFOS	5.25	297259.8	0.199	1.898
PFUnDA	5.83	1.000	209644.8		A	13C7-PFUnDA	5.83	277115.5	0.757	2.170
NEtFOSAA	5.85	1.000	32100.8		A	d5-NEtFOSAA	5.84	72755.7	0.441	1.896
PFDODA	6.06	1.000	220663.6		A	13C2-PFDODA	6.06	584631.5	0.377	2.046
10:2-FTS	6.07	1.090	19060.5		A	13C2-8:2-FTS	5.57	29468.3	0.647	2.014
NMePFOSAE	6.10	1.000	151795.0		A	d7-NMePFOSAE	6.09	335206.8	0.453	2.029
NMePFOSA	6.10	1.000	29797.4		A	d3-NMePFOSA	6.10	79381.7	0.375	2.101
PFDoS	6.22	1.190	32096.3		A	13C8-PFOS	5.25	297259.8	0.108	2.084
NEtPFOSAE	6.25	1.000	180884.6		A	d9-NEtPFOSAE	6.24	278375.1	0.650	2.083
NEtPFOSA	6.27	1.000	26524.6		A	d5-NEtPFOSA	6.26	67444.3	0.393	1.732
PFTDA	6.25	1.030	197290.7		A	13C2-PFDODA	6.06	584631.5	0.337	2.128
PFTeDA	6.43	1.000	150162.8		A	13C2-PFTeDA	6.43	419341.7	0.358	2.103
PFHxDA	6.74	1.050	70193.5		A	13C2-PFTeDA	6.43	419341.7	0.167	2.078
PFODA	7.00	1.090	59736.9		A	13C2-PFTeDA	6.43	419341.7	0.142	2.041

Total Ion Chromatogram

TIC from 18NOV07DCAL-12.wiff (sample 2) - CAL3



APPROVED

By JPT at 2:53 pm, 11/7/18

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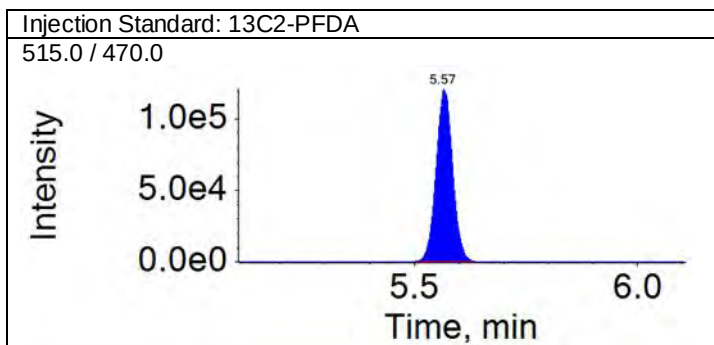
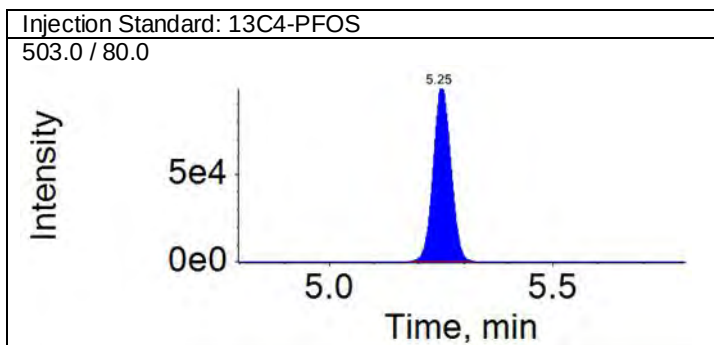
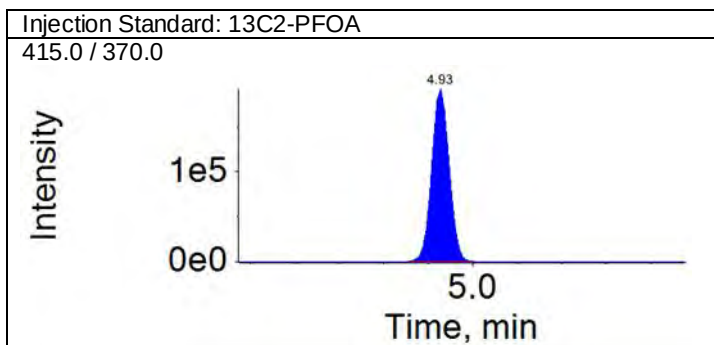
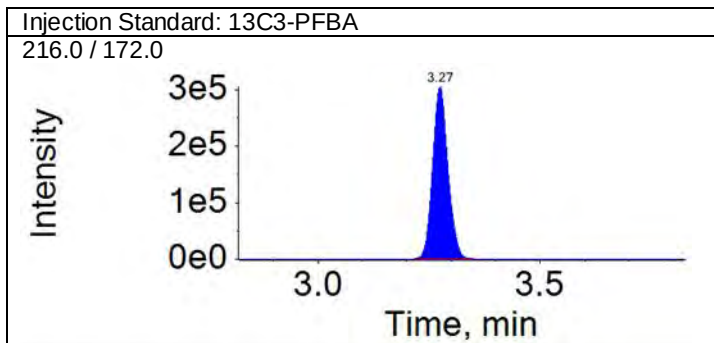
REVIEWED

By umar at 5:23 pm, 11/9/18

Page 2 of 17

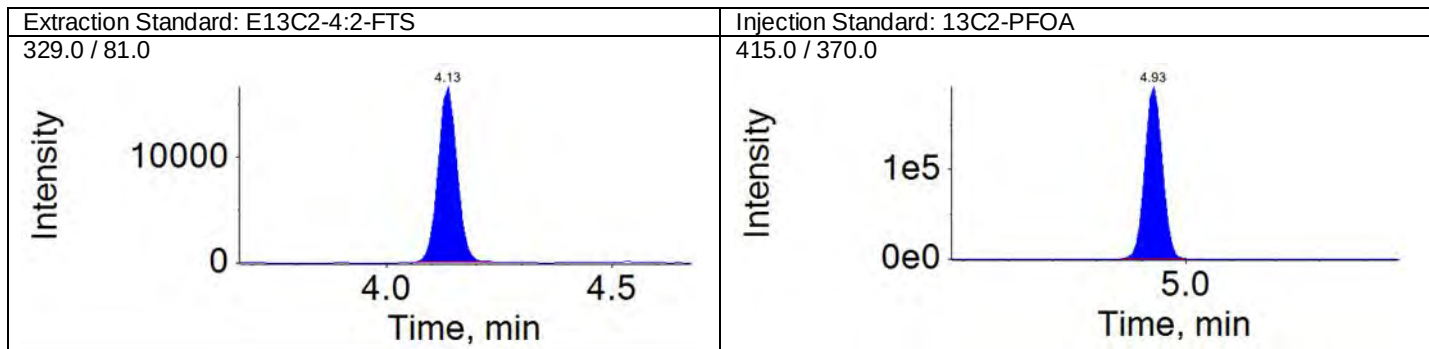
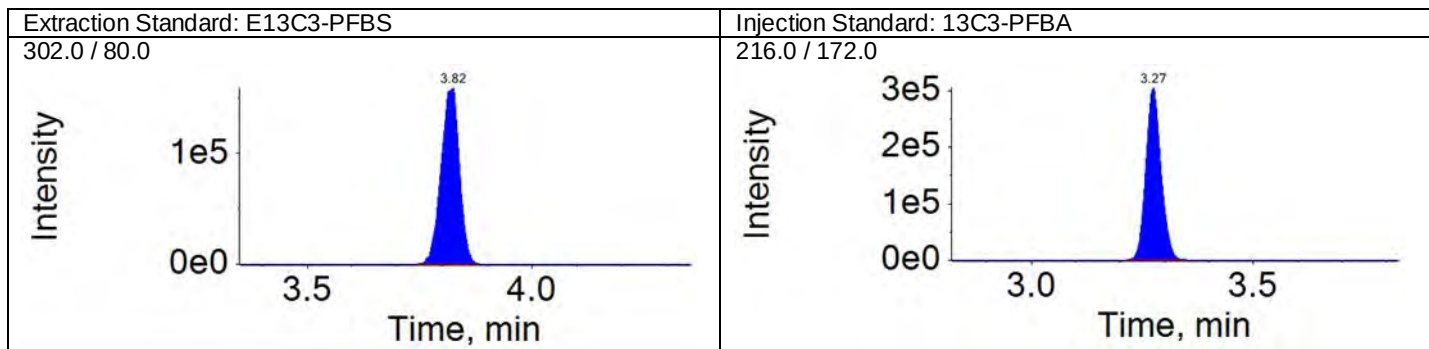
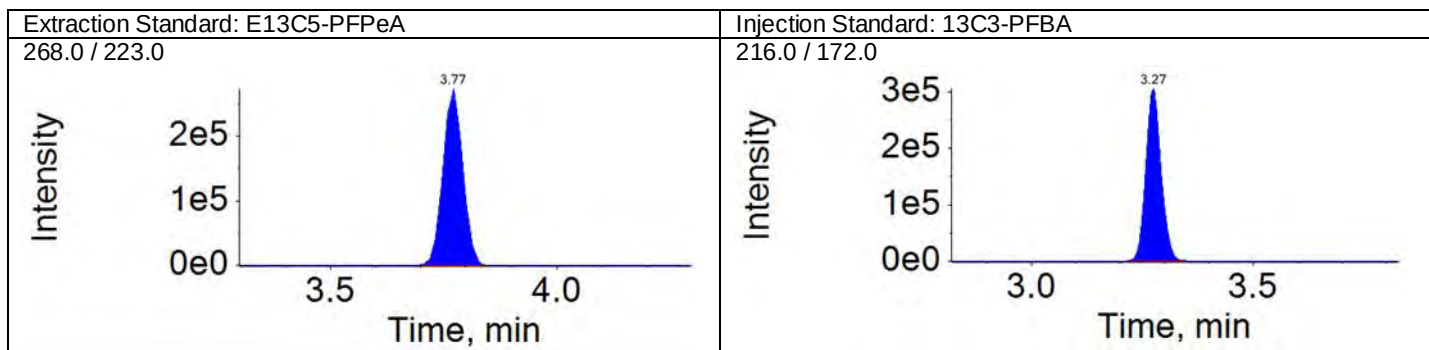
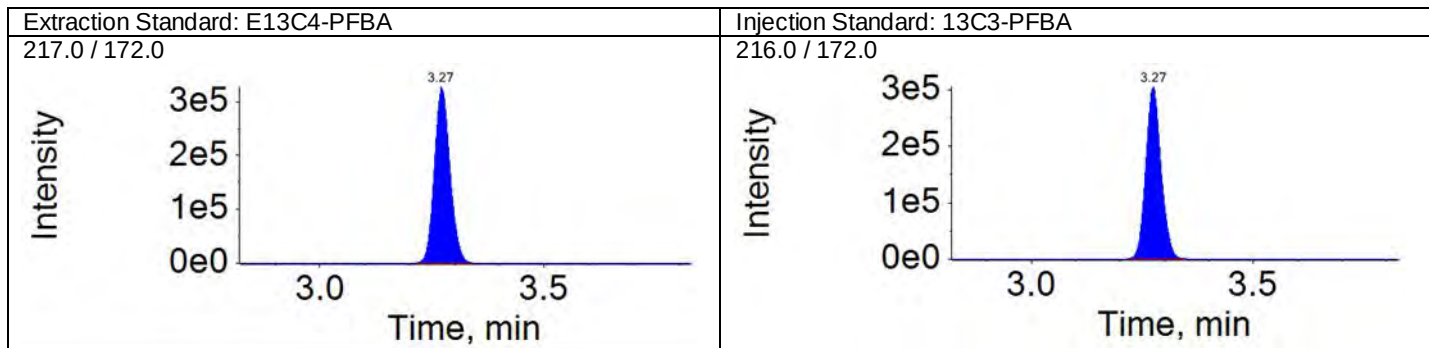
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



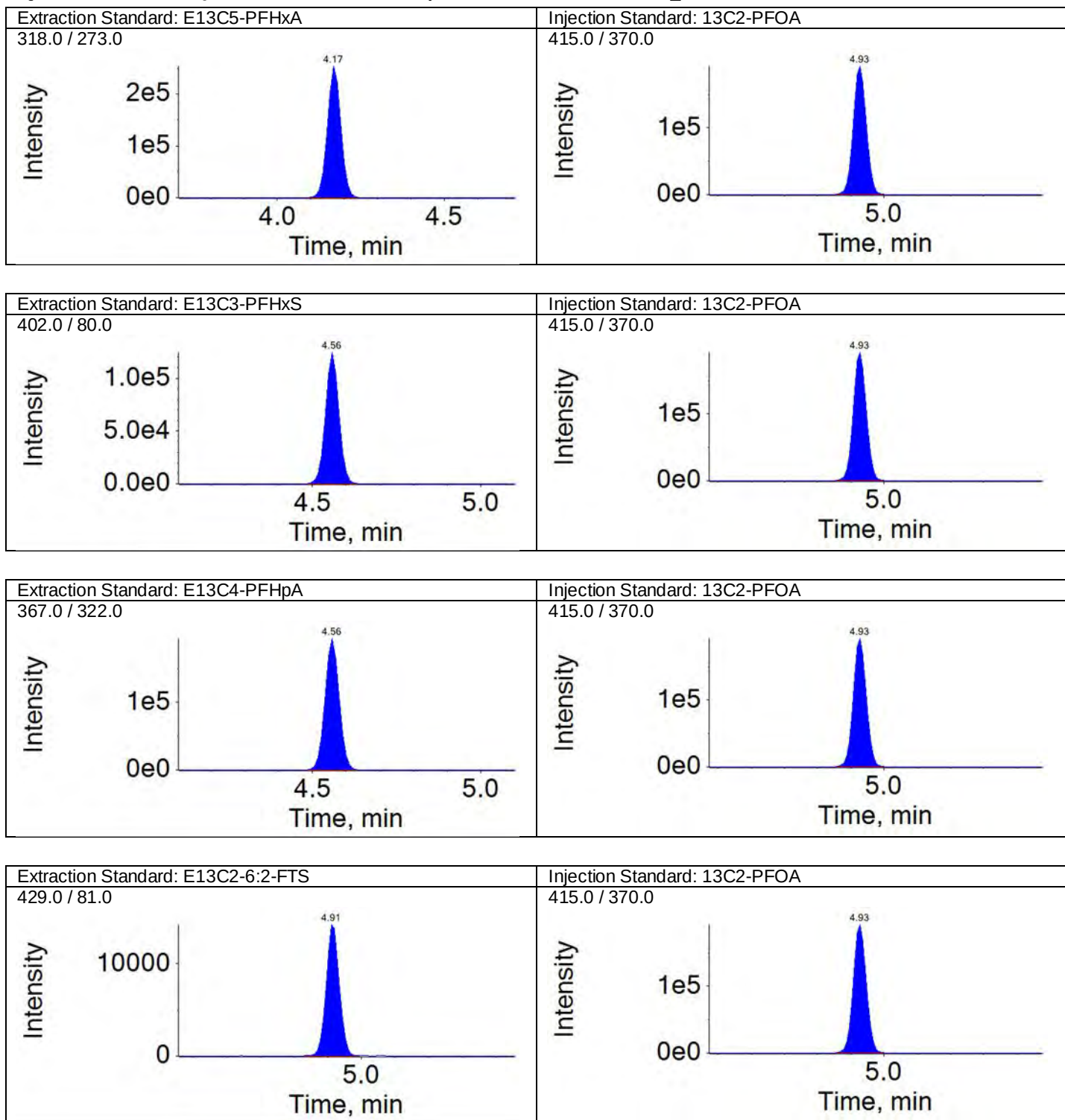
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

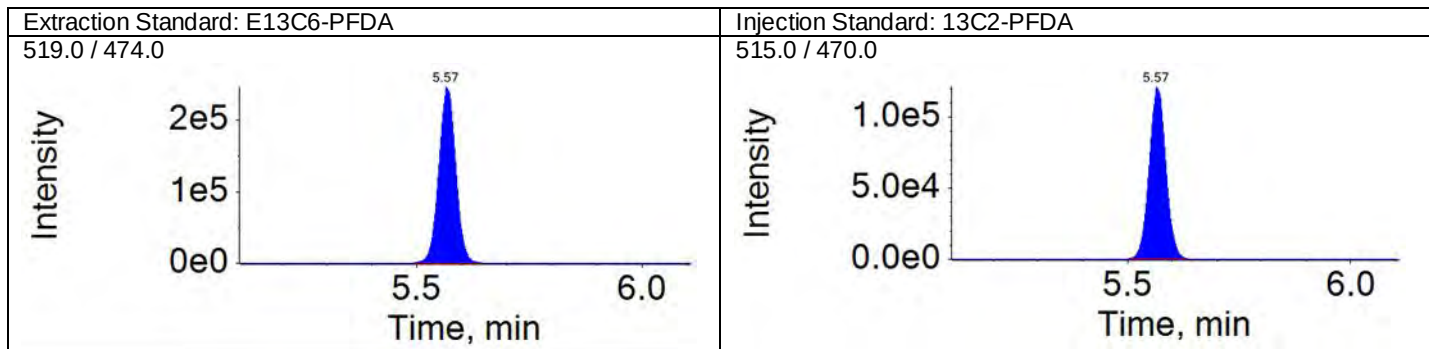
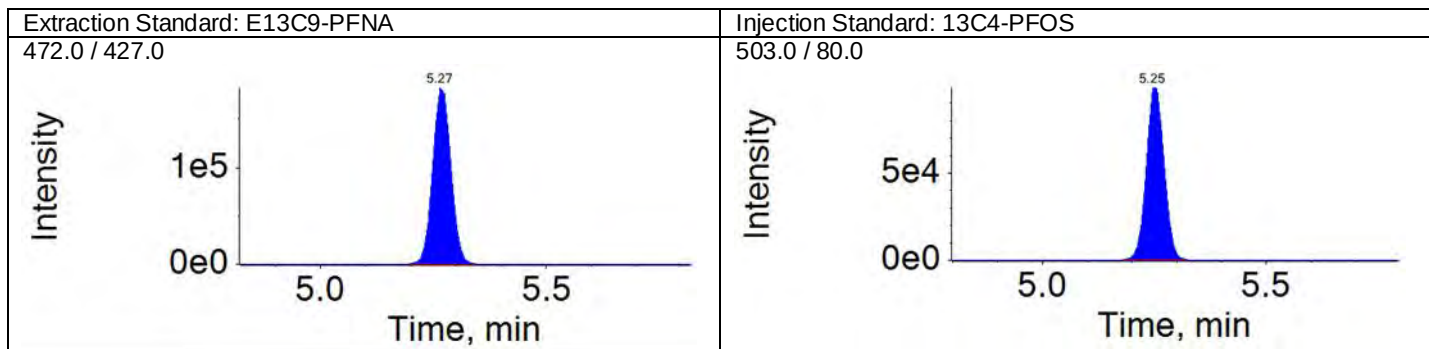
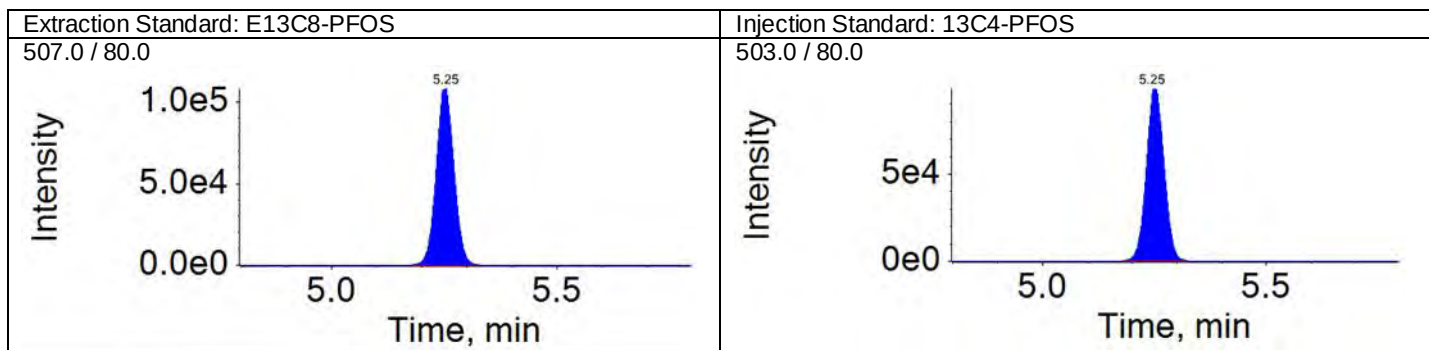
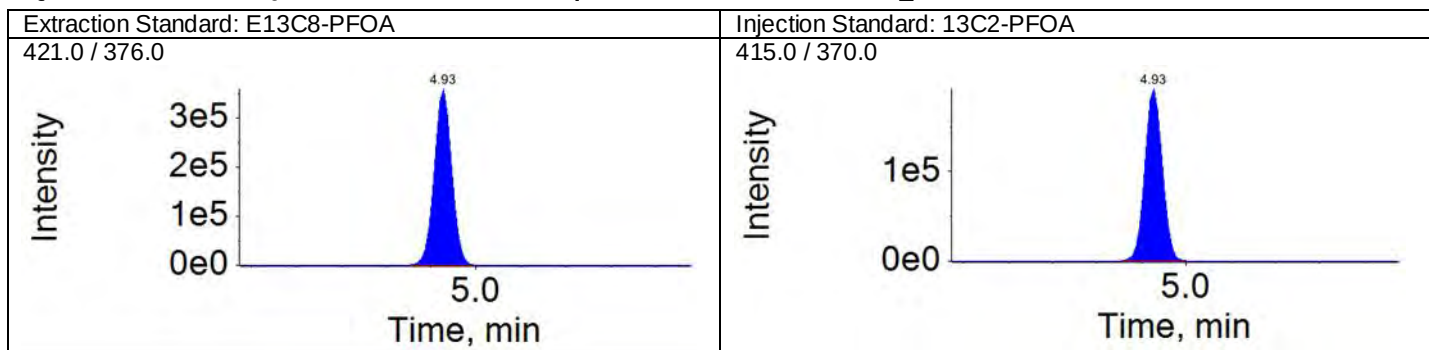
By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

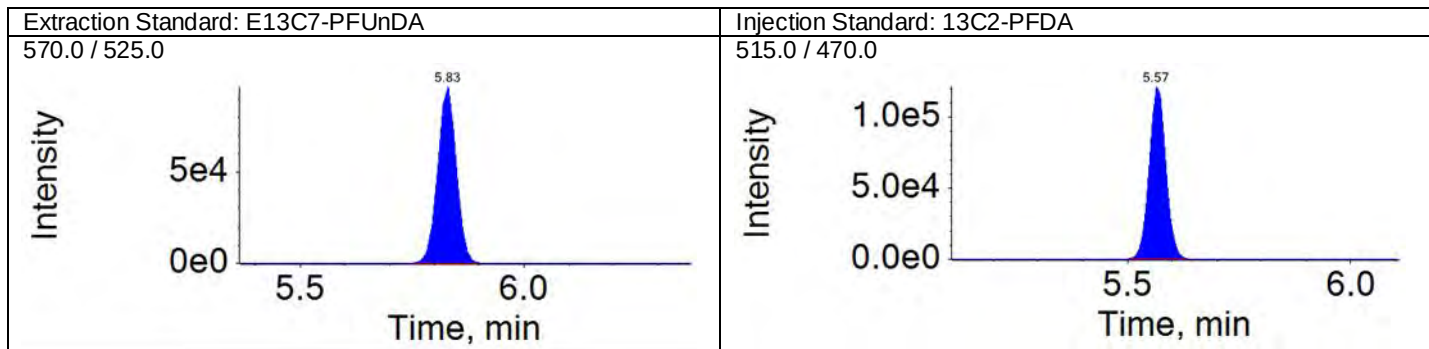
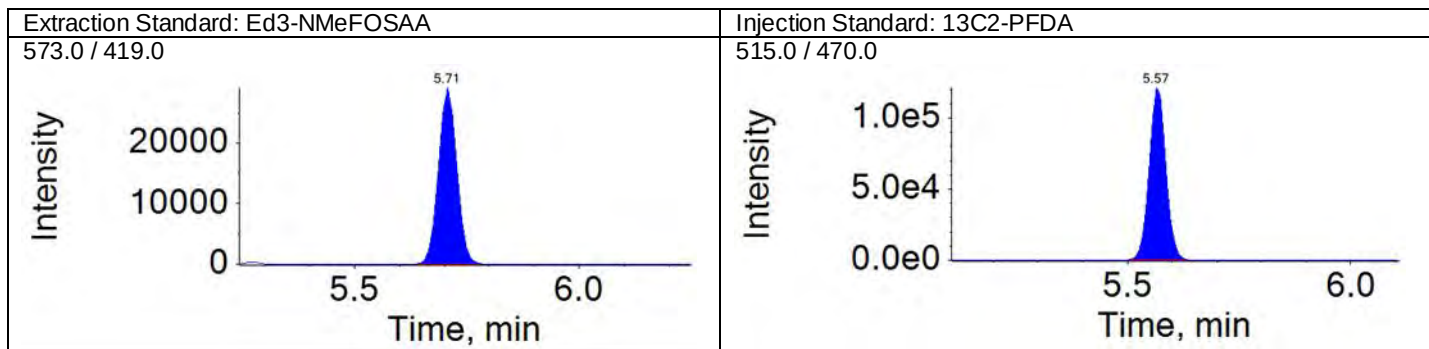
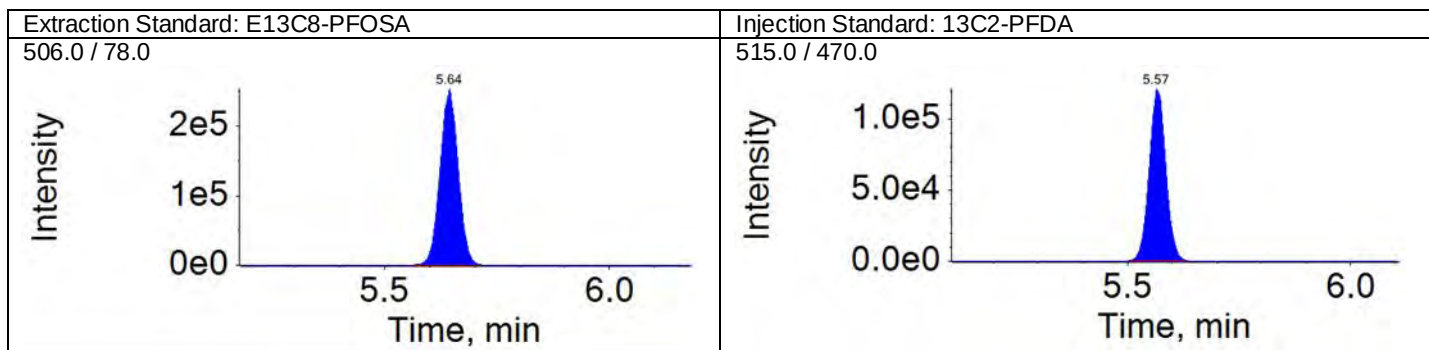
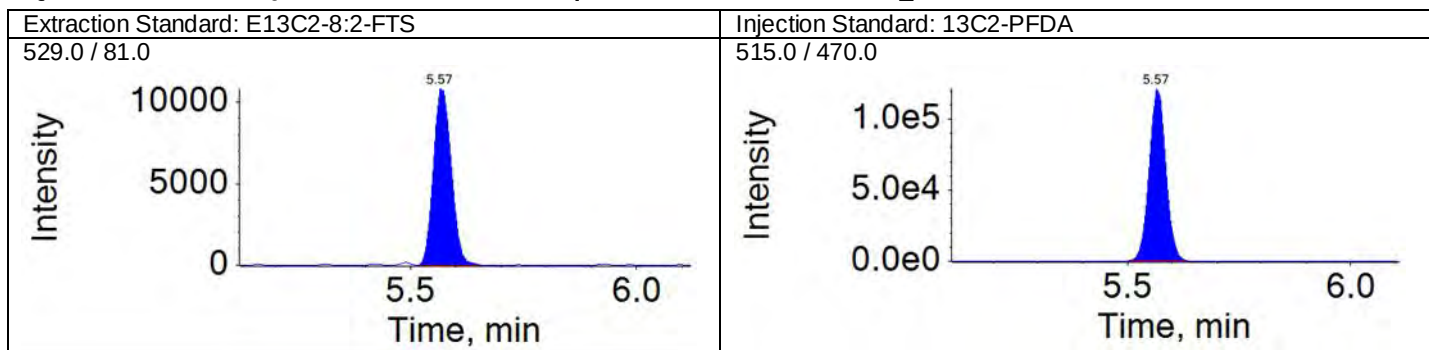
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

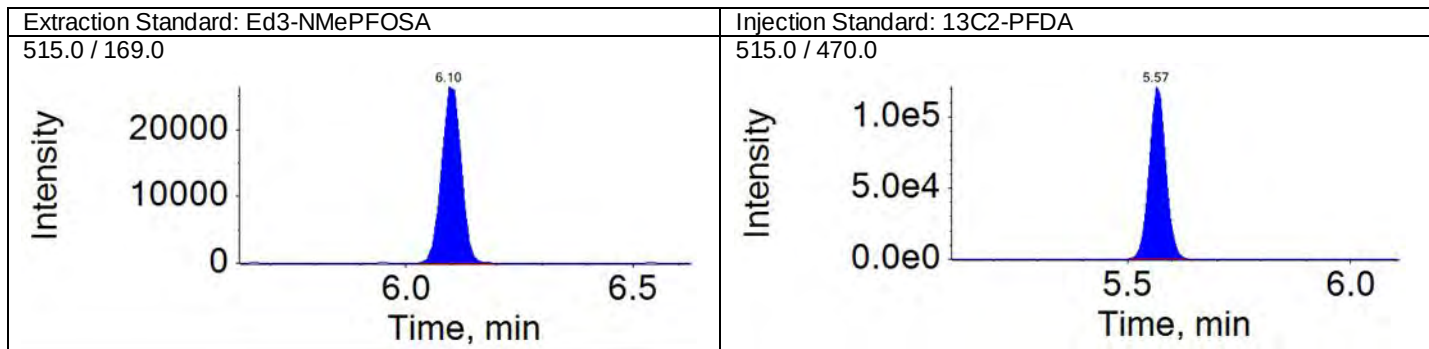
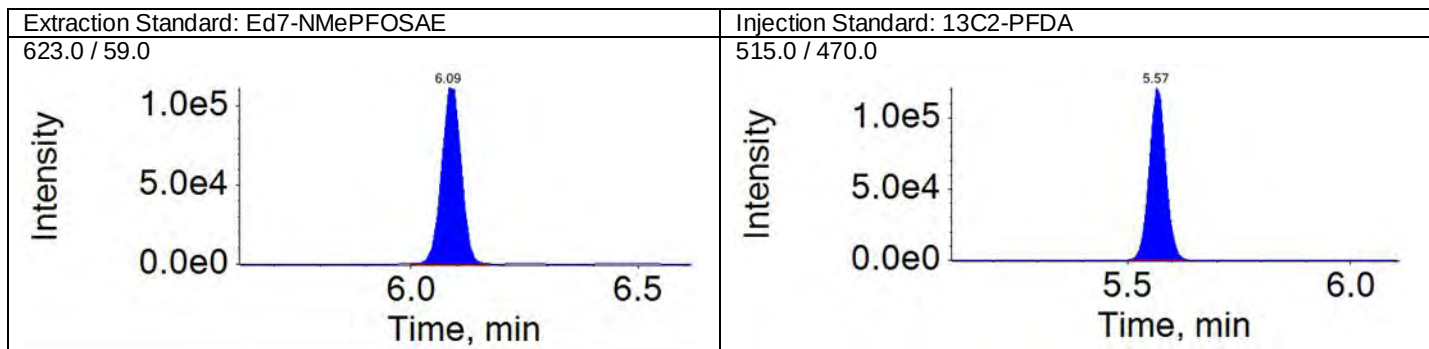
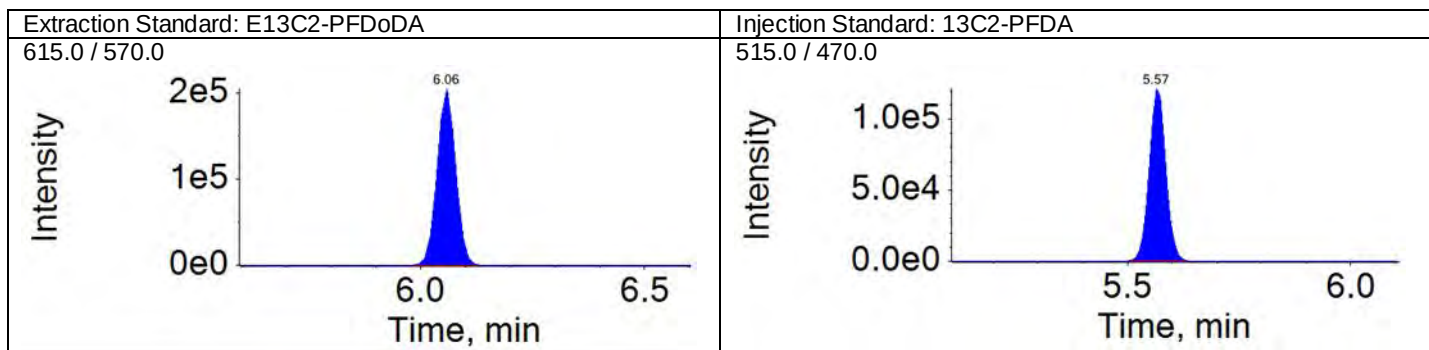
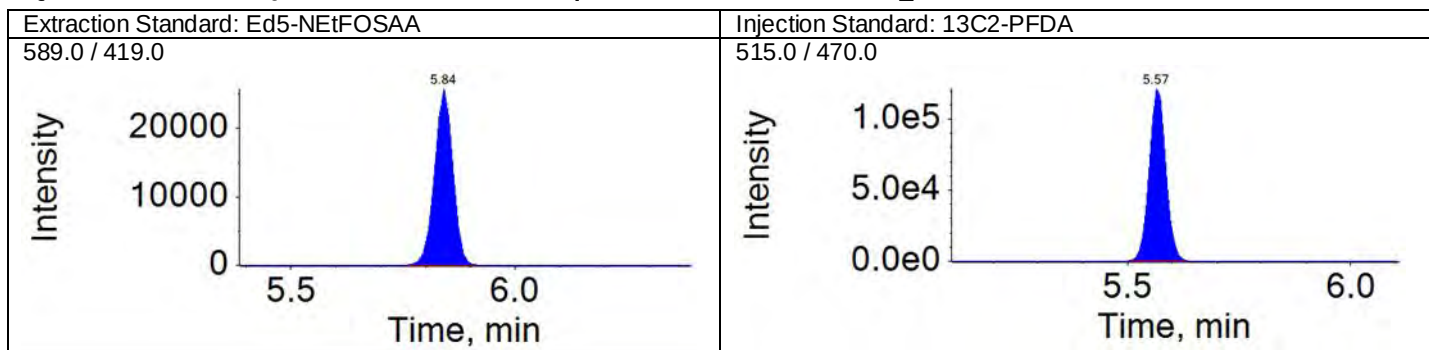
By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



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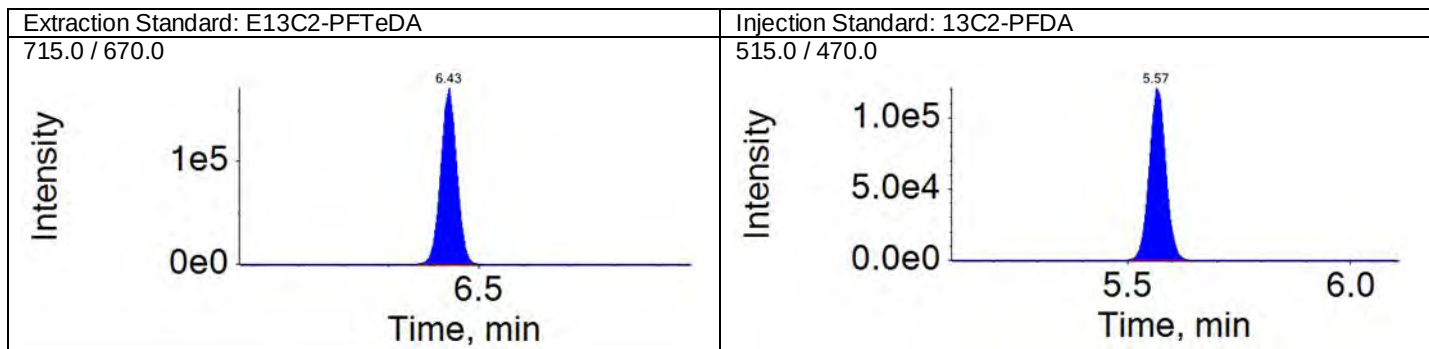
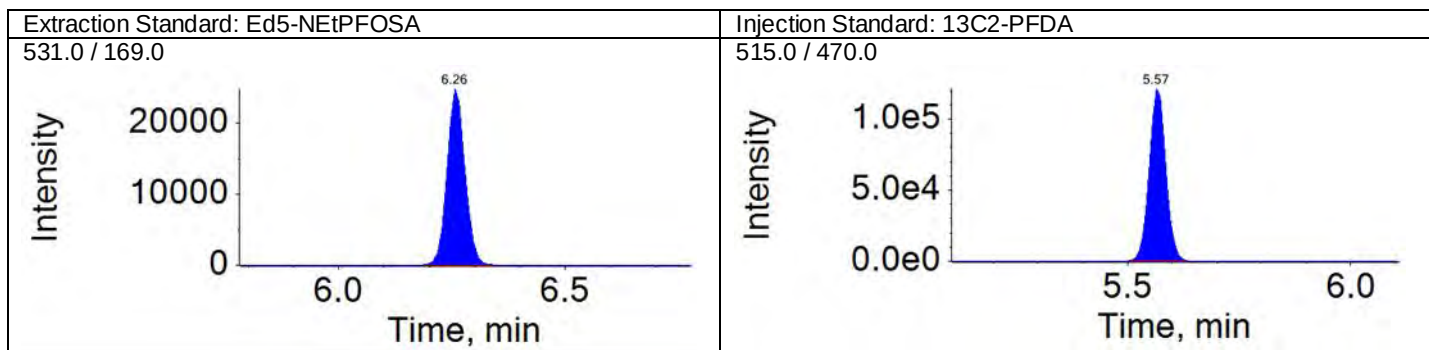
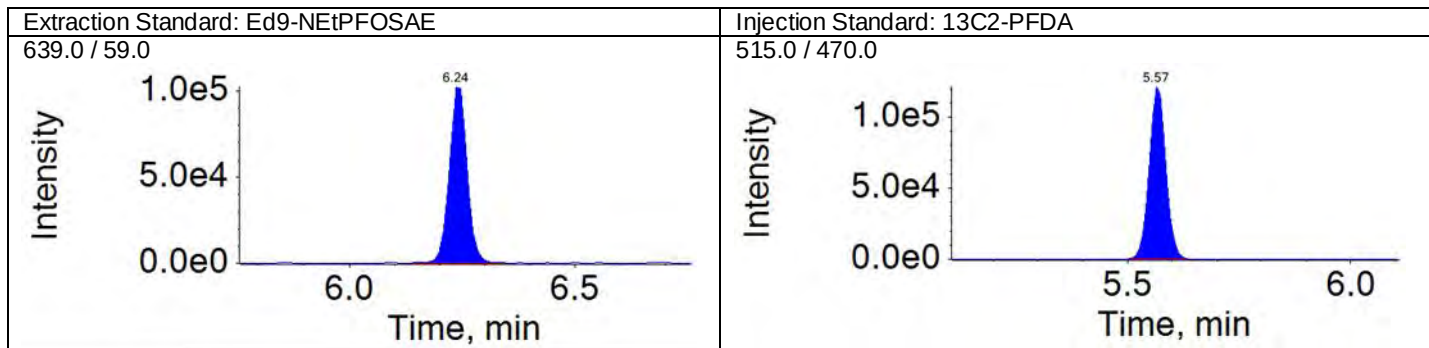
By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

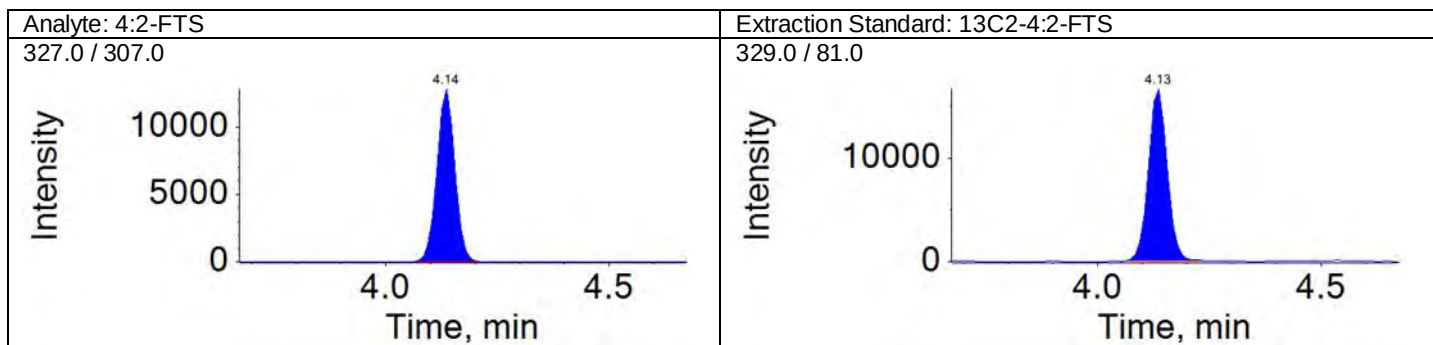
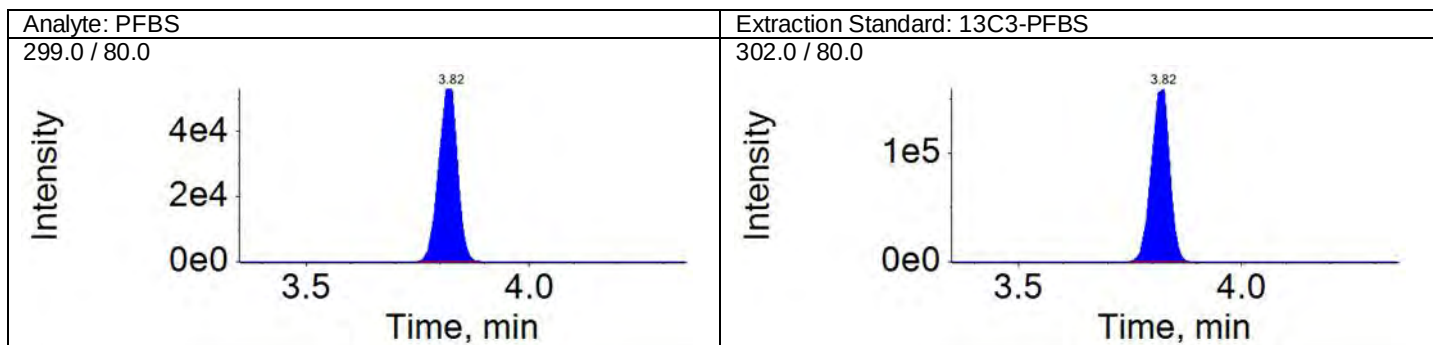
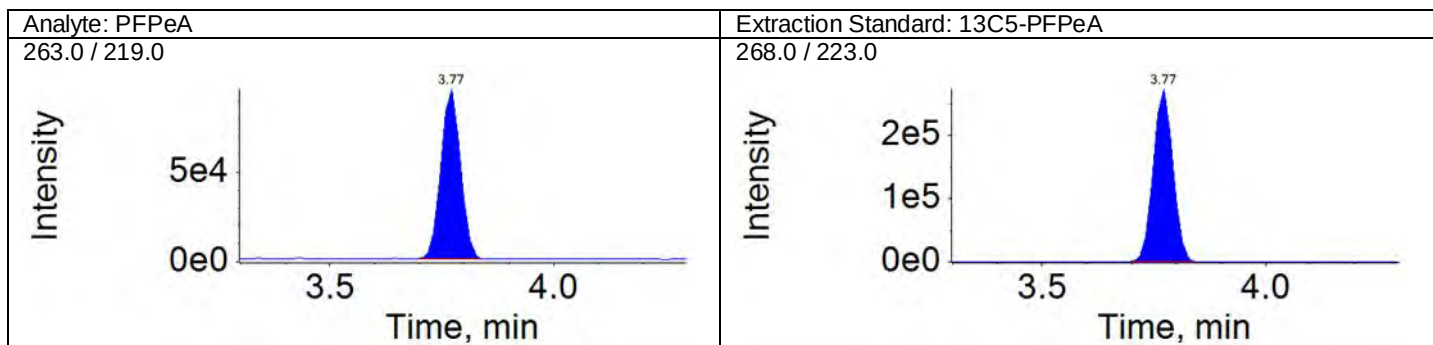
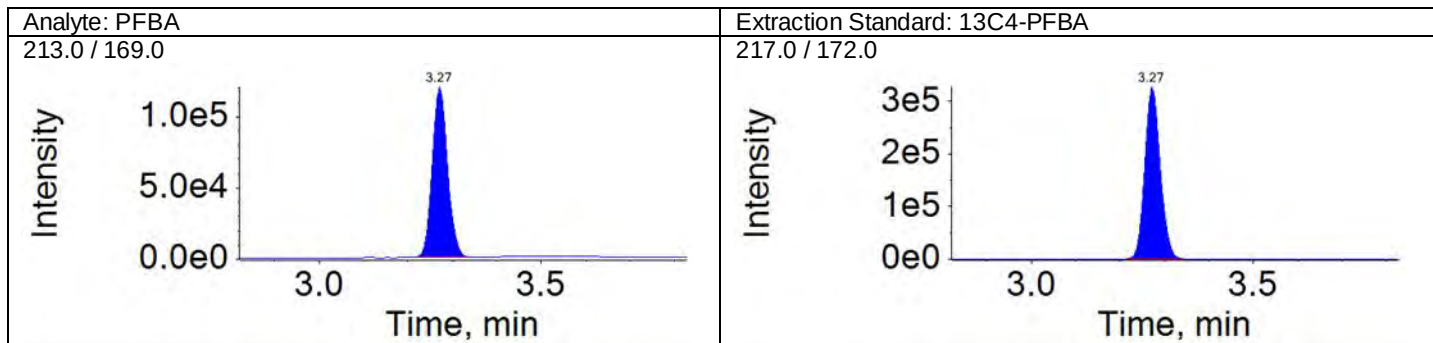
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



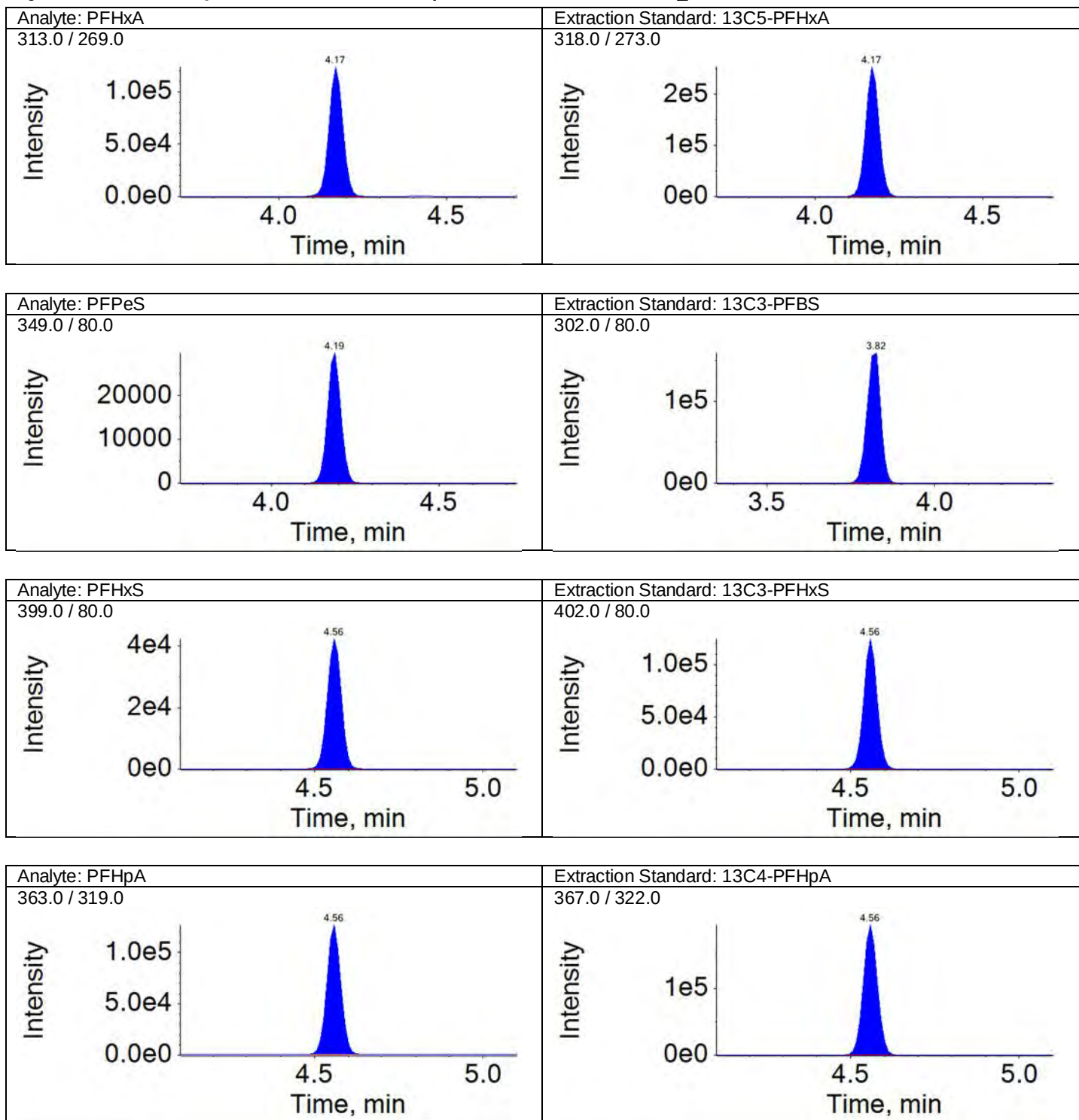
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Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



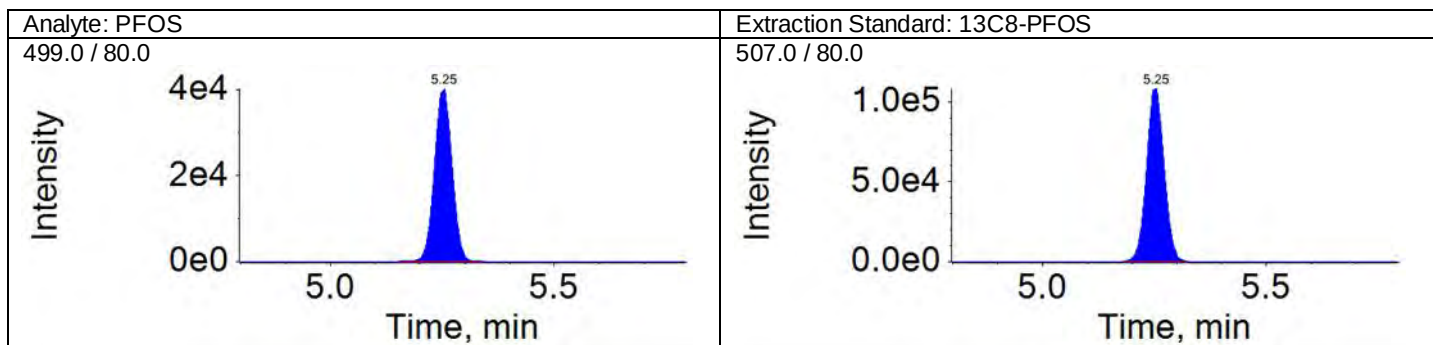
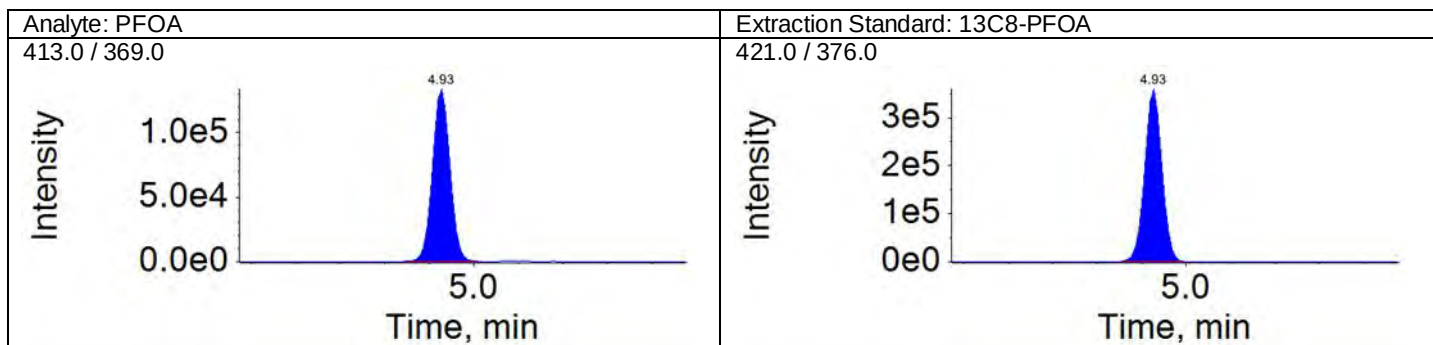
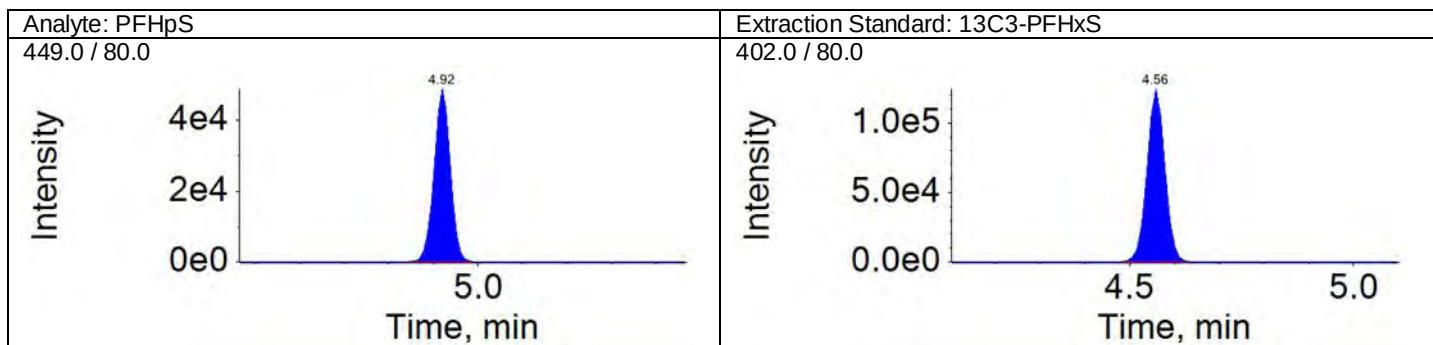
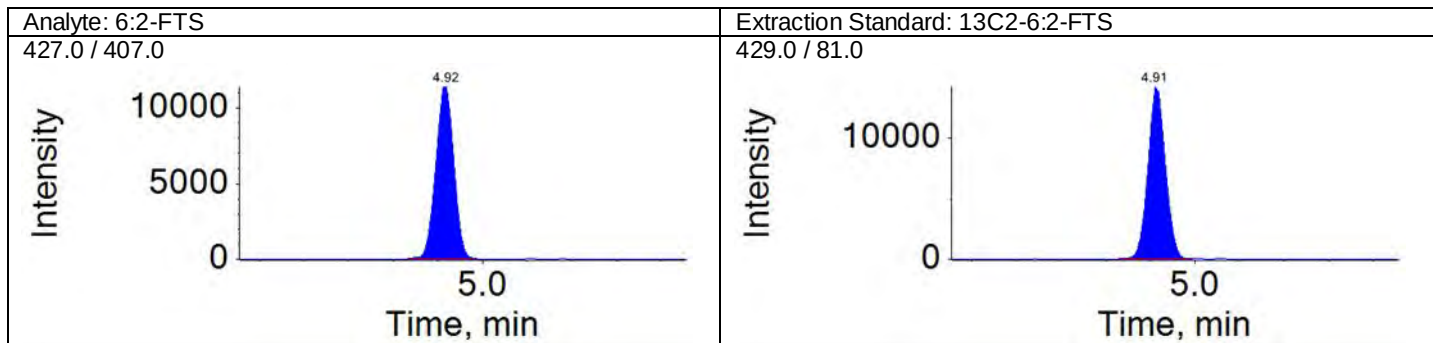
ICAL Name: 18NOV07DCAL
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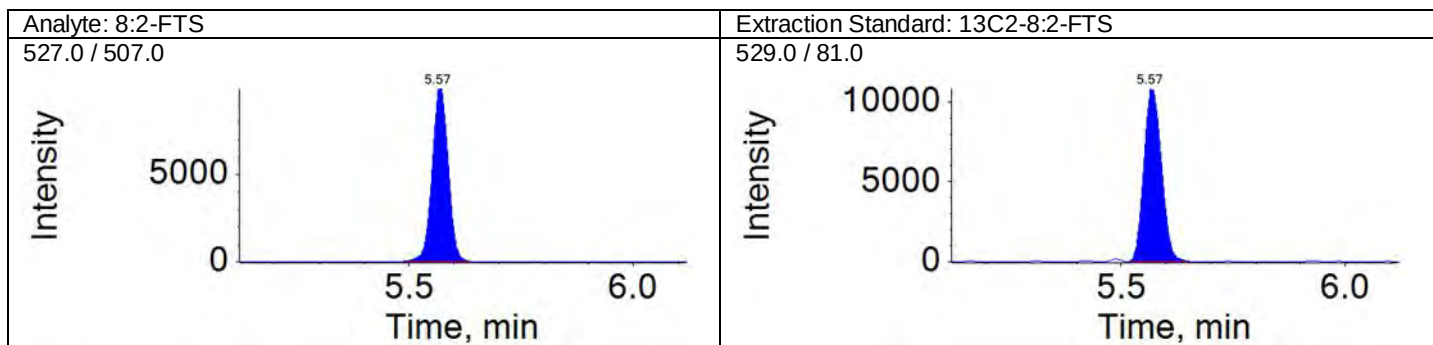
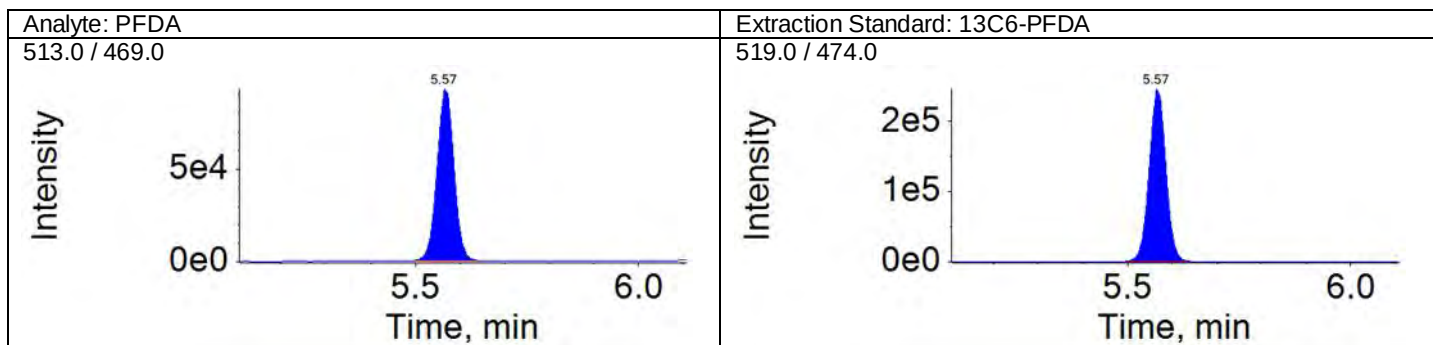
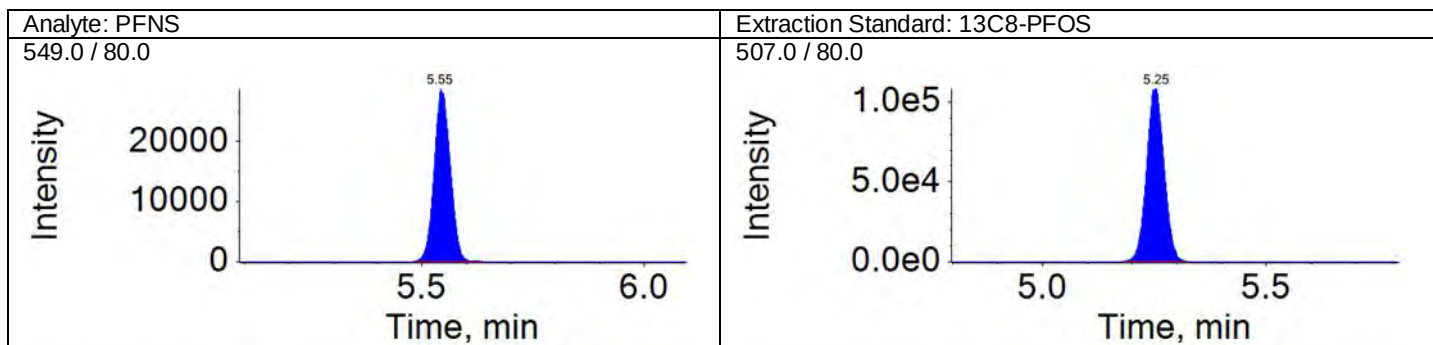
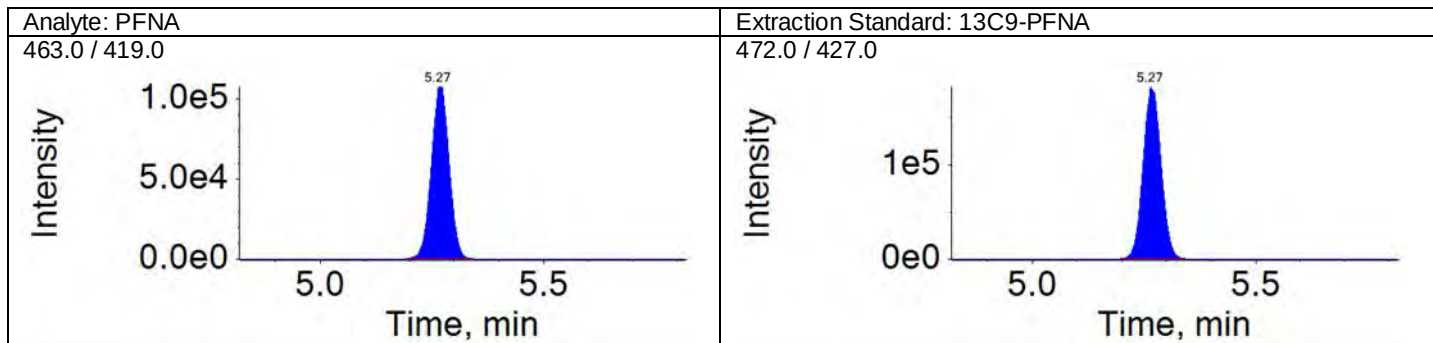
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Acquisition Method: 18AUG13_3uL.dam



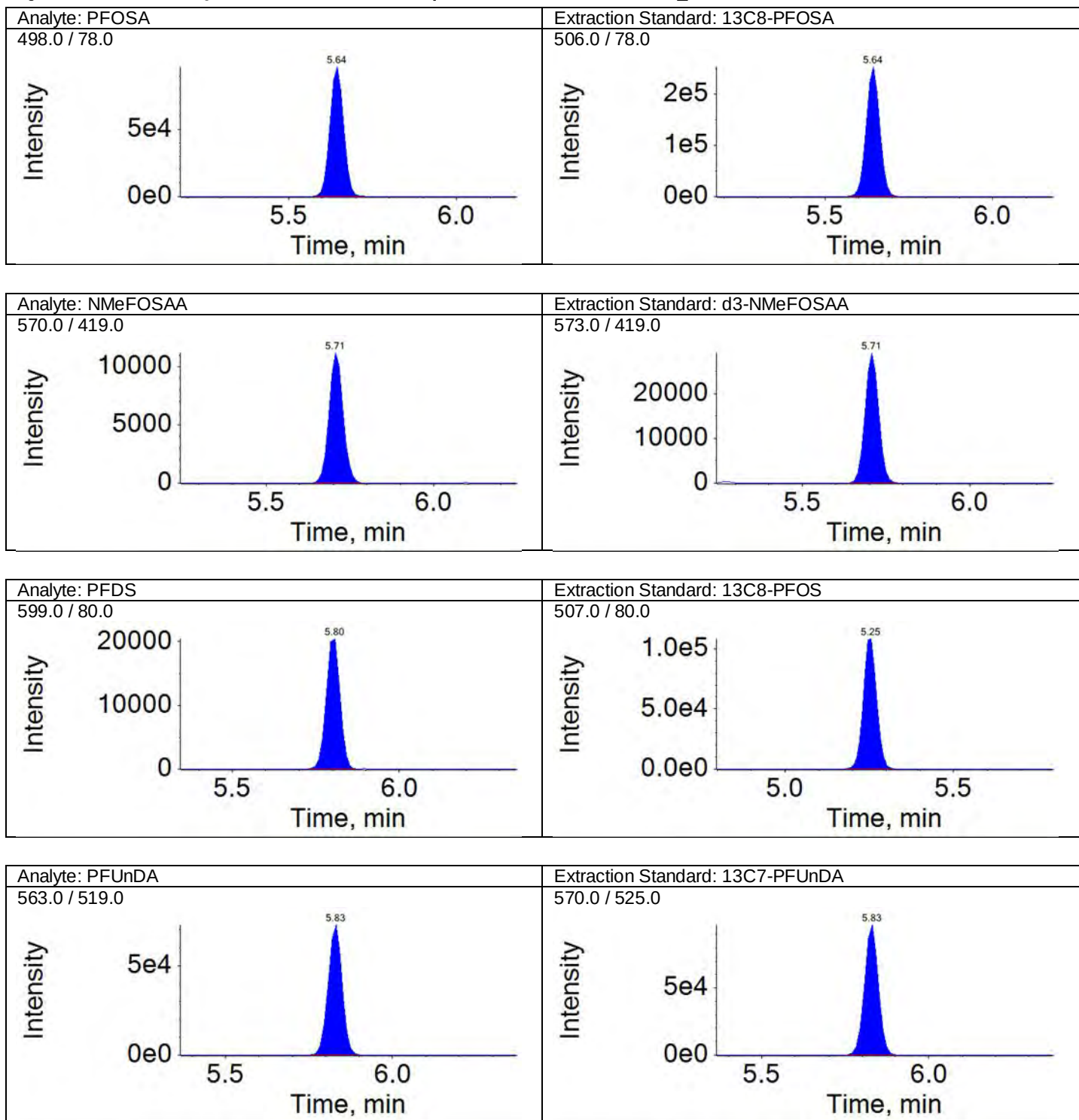
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



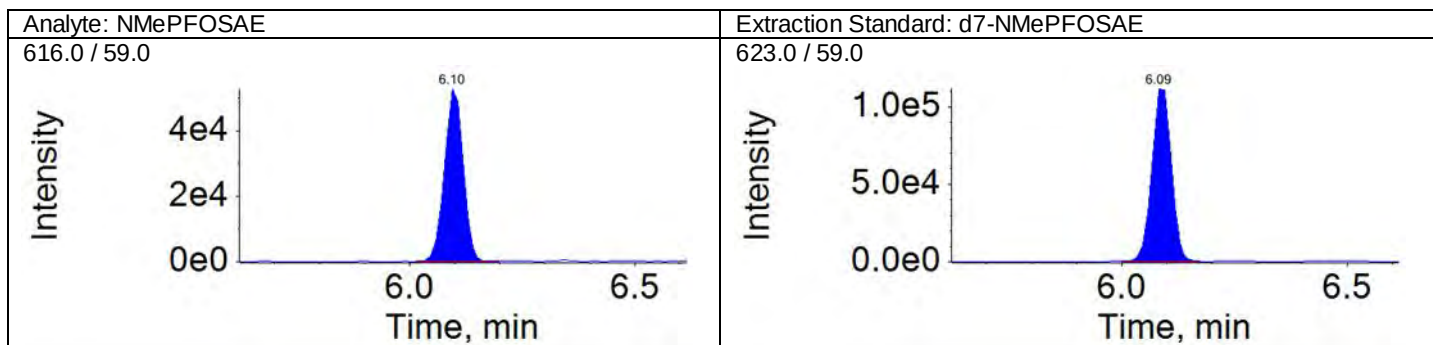
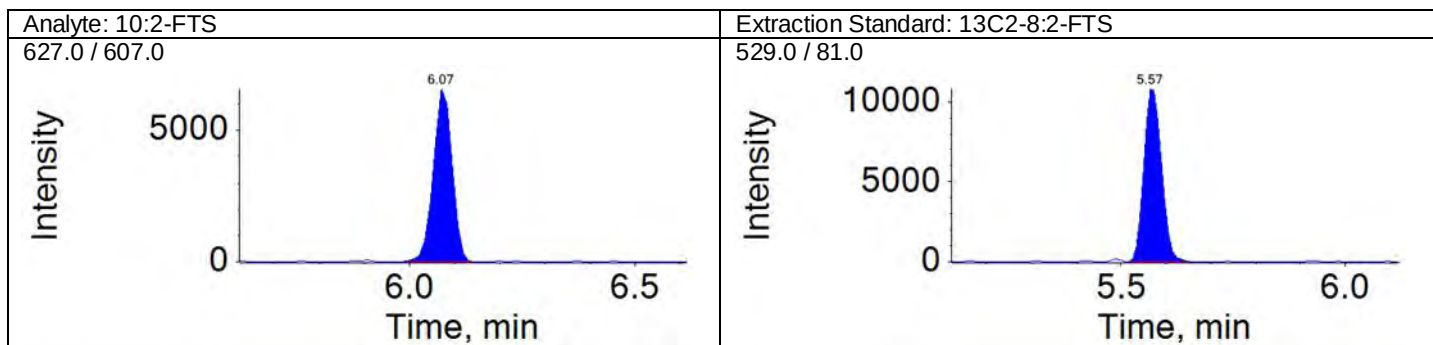
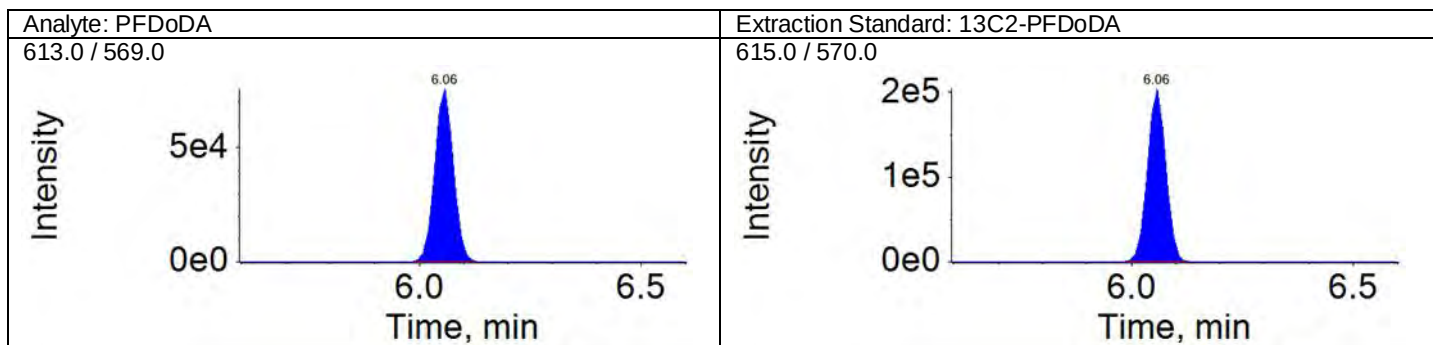
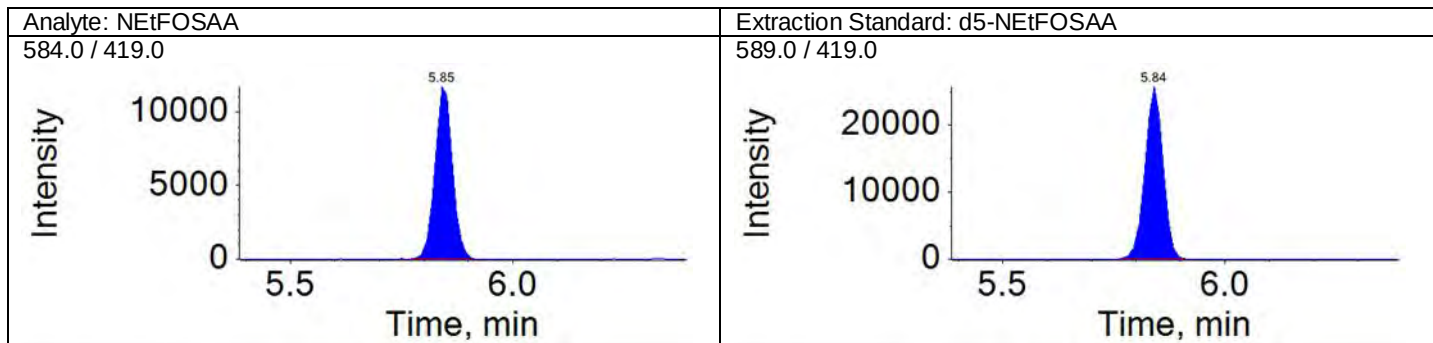
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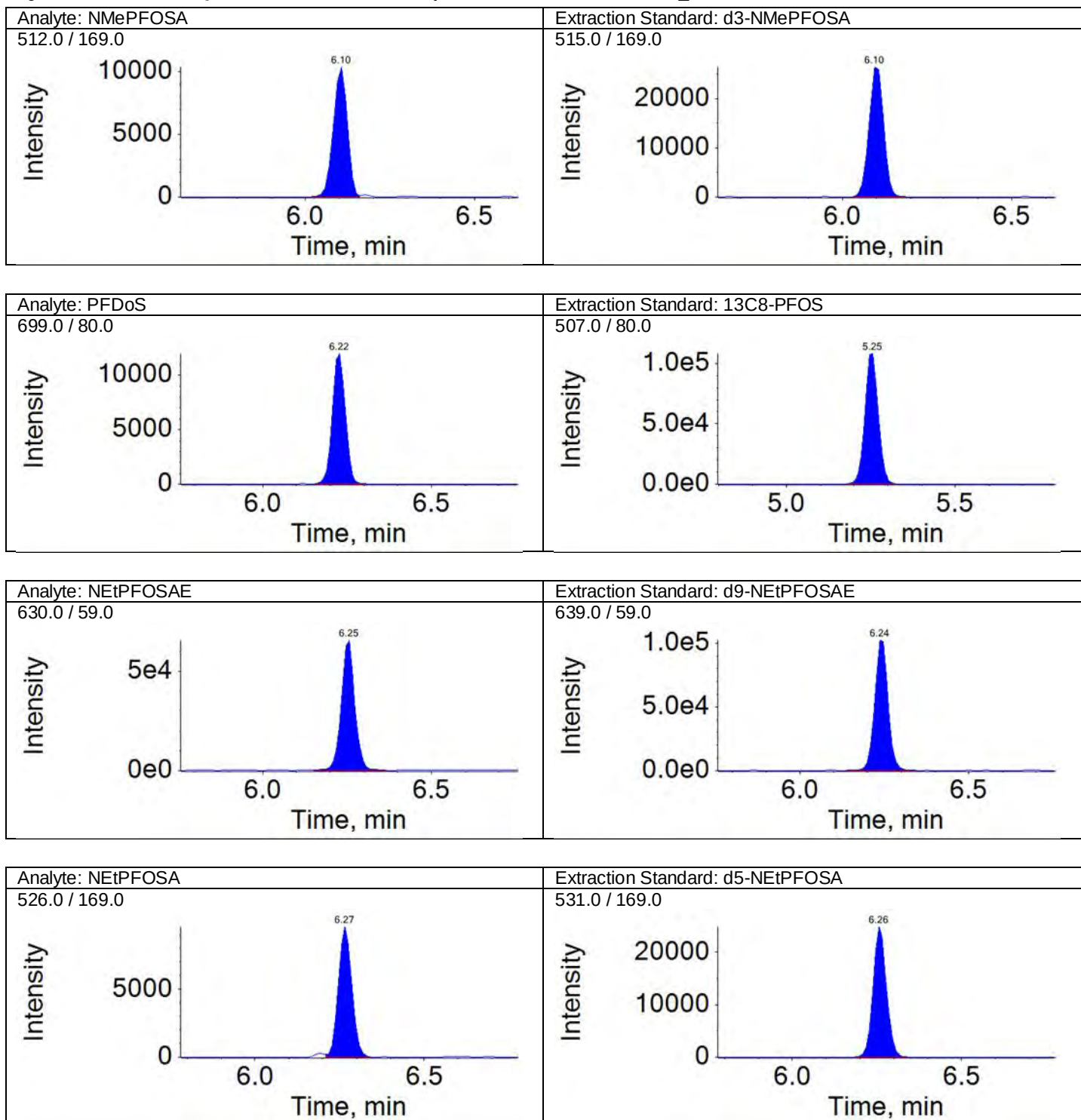
Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

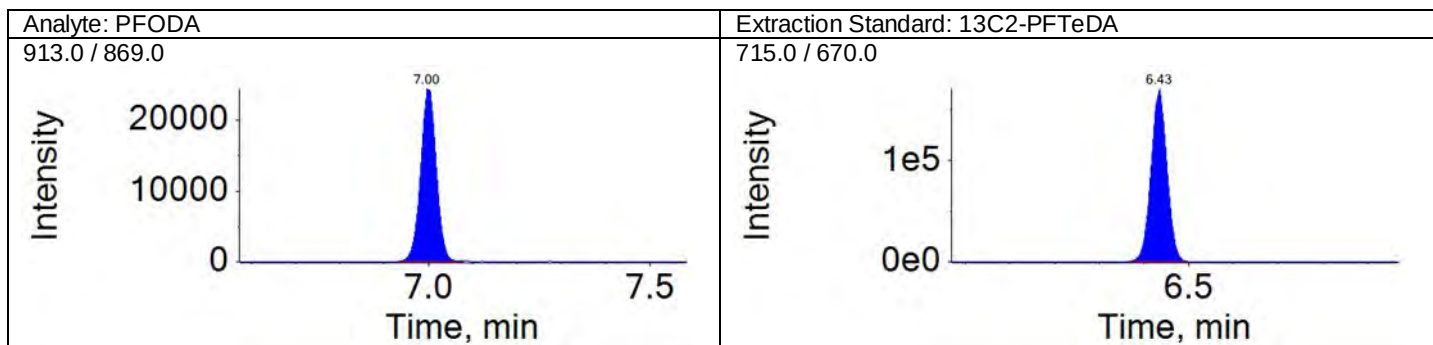
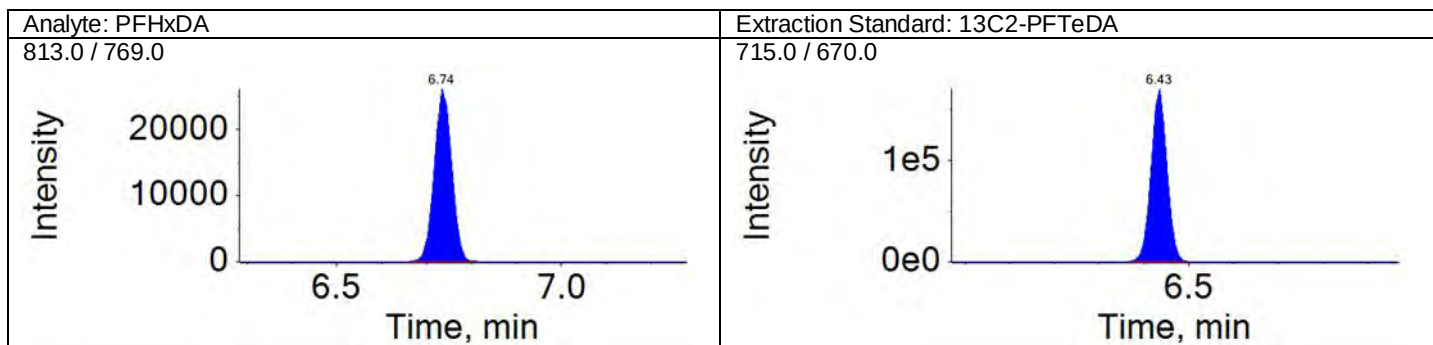
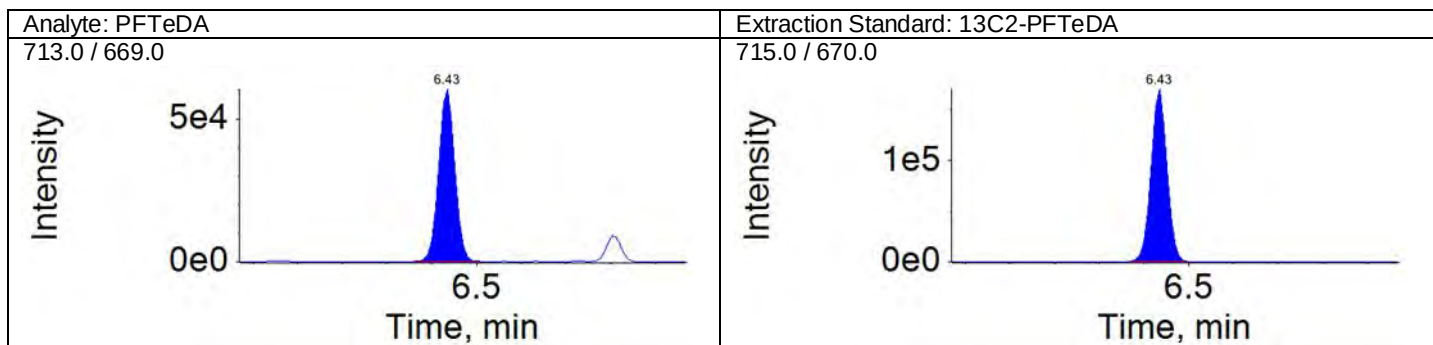
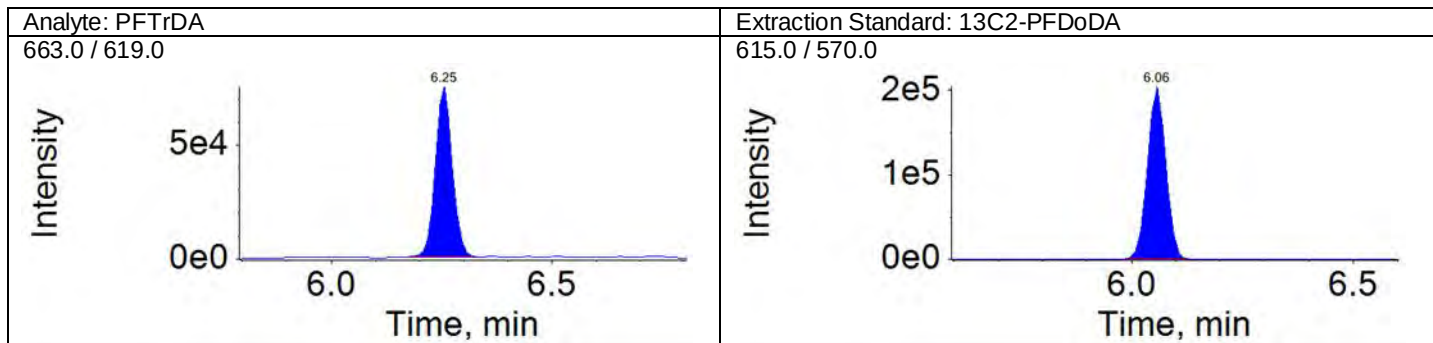
Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



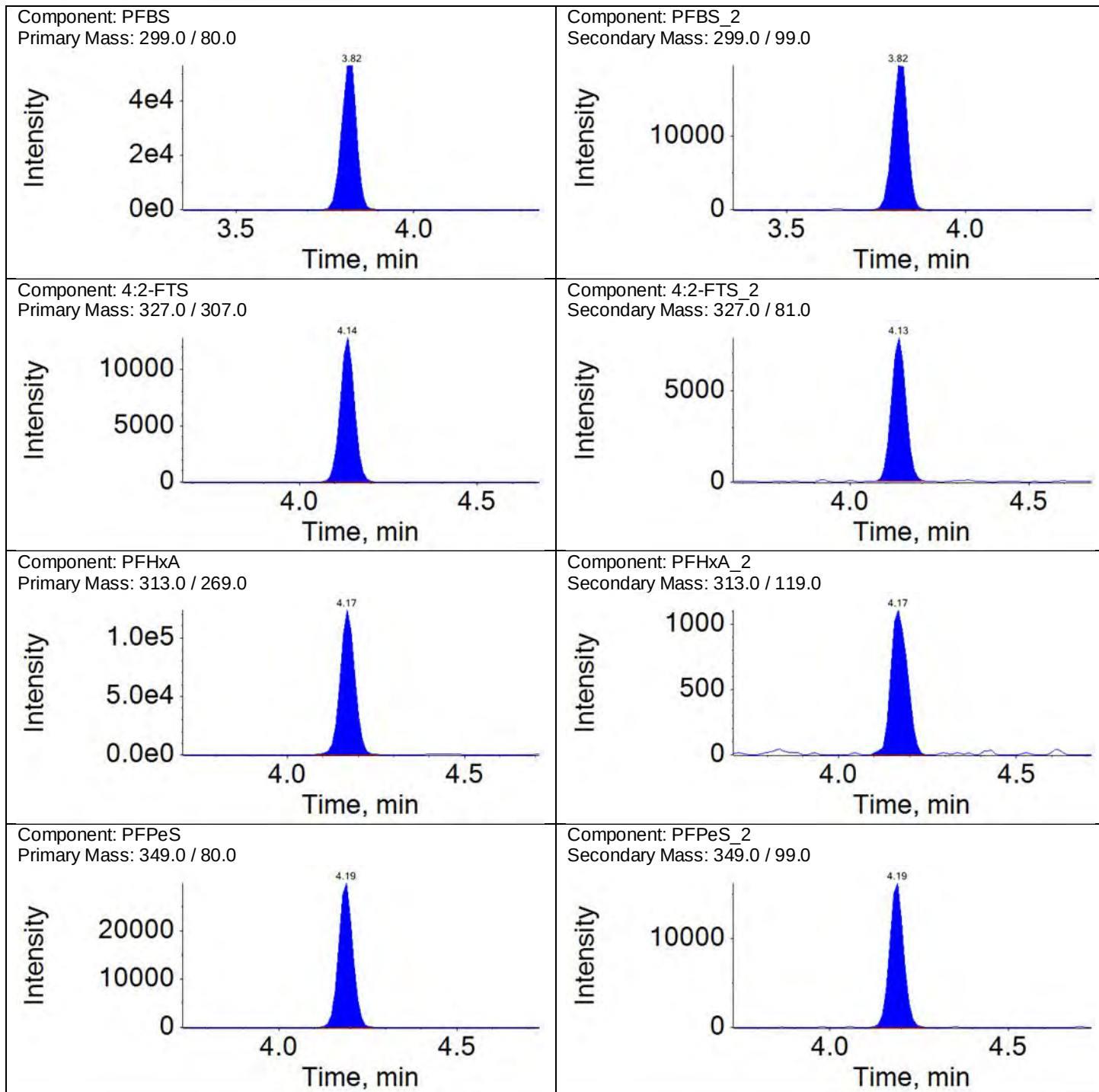
Ion Ratio Report

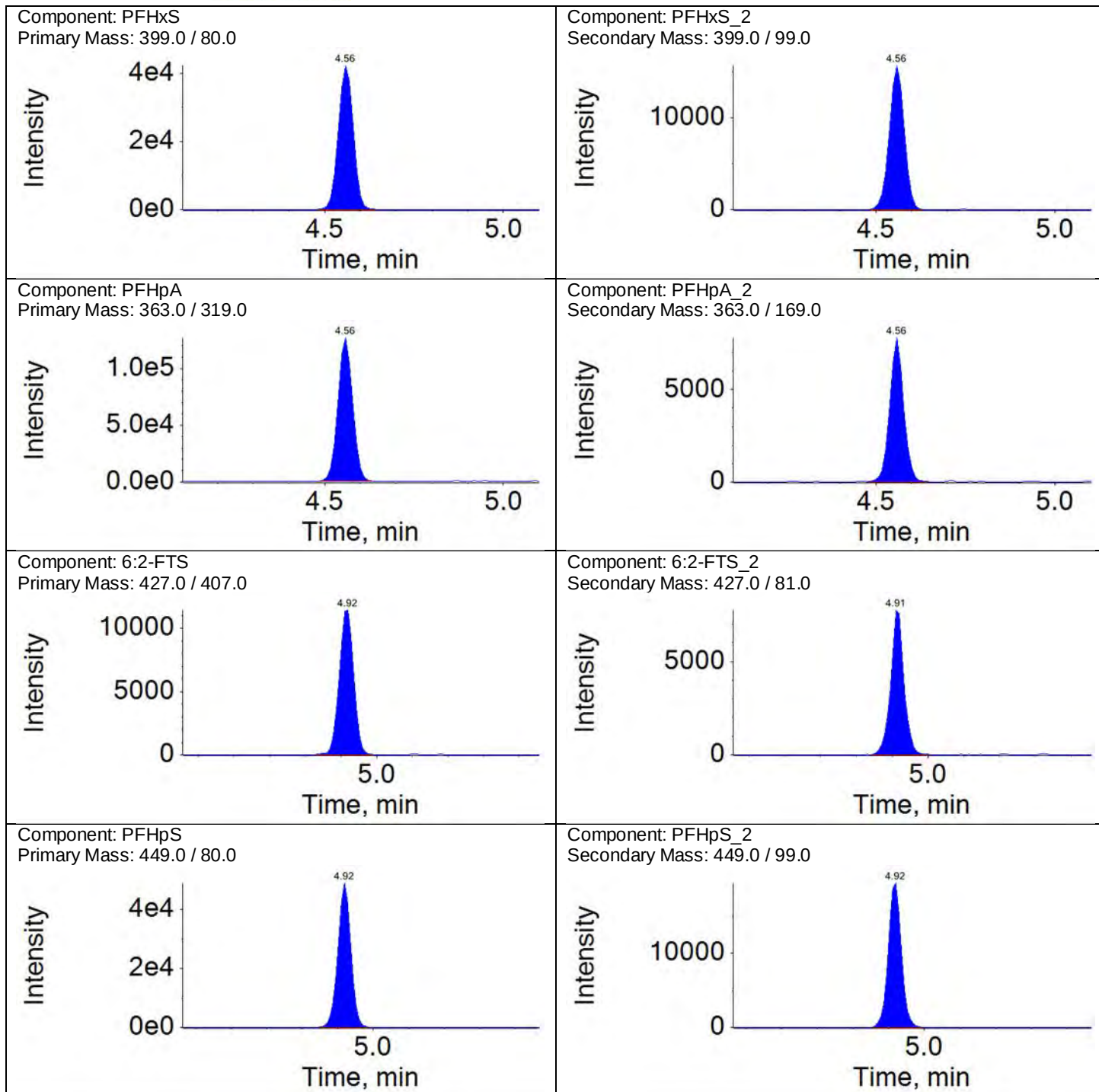
Sample Name: CAL3

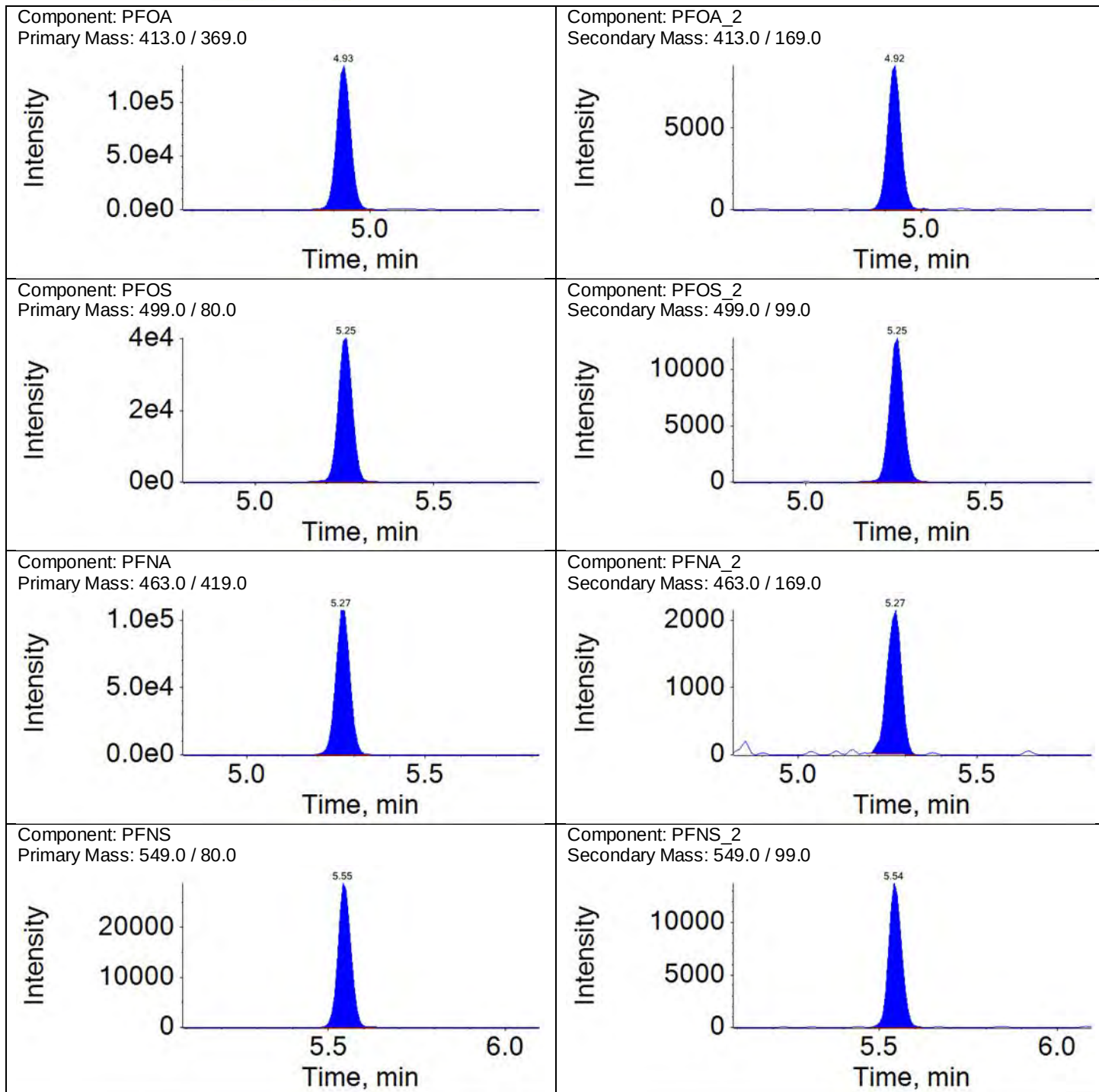
Instrument Name: LM27631

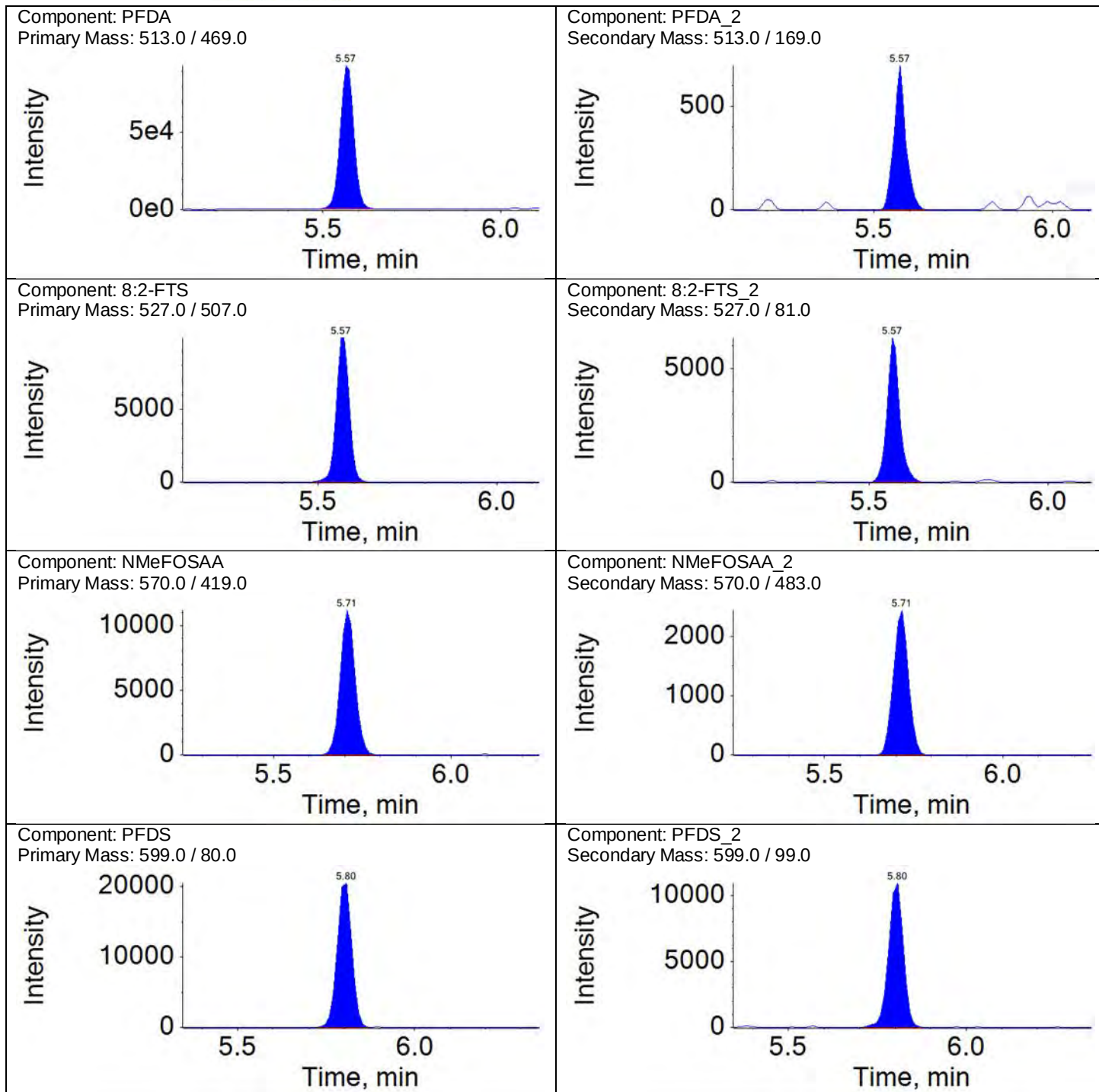
File Name: 18NOV07DCAL-12.wiff

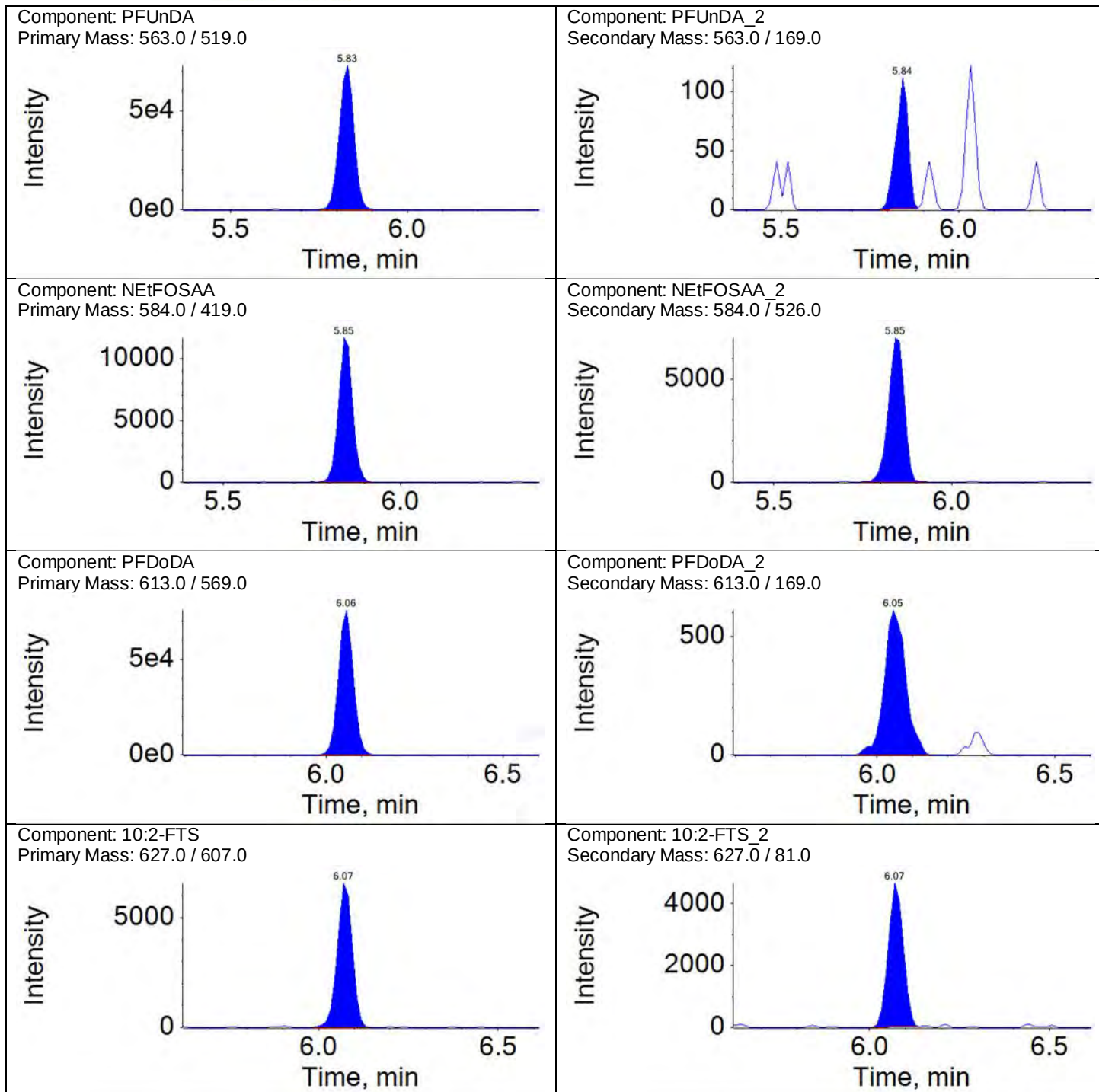
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PFBS	3.82	1.00	157656.3	A	1.0000	1.0000			
PFBS_2	3.82	1.00	57942.5	A	0.3576	0.3675	3	50	
4:2-FTS	4.14	1.00	35586.2	A	1.0000	1.0000			
4:2-FTS_2	4.13	1.00	22248.8	A	0.6359	0.6252	-2	50	
PFHxA	4.17	1.00	351503.9	A	1.0000	1.0000			
PFHxA_2	4.17	1.00	3580.7	A	0.0115	0.0102	-11	50	
PFPeS	4.19	1.10	82090.1	A	1.0000	1.0000			
PFPeS_2	4.19	1.10	44176.0	A	0.5384	0.5381	0	50	
PFHxS	4.56	1.00	122477.7	A	1.0000	1.0000			
PFHxS_2	4.56	1.00	45270.2	A	0.3569	0.3696	4	50	
PFHpA	4.56	1.00	360280.4	A	1.0000	1.0000			
PFHpA_2	4.56	1.00	20898.8	A	0.0577	0.0580	1	50	
6:2-FTS	4.92	1.00	32056.4	A	1.0000	1.0000			
6:2-FTS_2	4.91	1.00	19790.8	A	0.6752	0.6174	-9	50	
PFHpS	4.92	1.08	123126.9	A	1.0000	1.0000			
PFHpS_2	4.92	1.08	49357.0	A	0.3950	0.4009	1	50	
PFOA	4.93	1.00	364943.1	A	1.0000	1.0000			
PFOA_2	4.92	1.00	23223.3	A	0.0635	0.0636	0	50	
PFOS	5.25	1.00	111397.7	A	1.0000	1.0000			
PFOS_2	5.25	1.00	35008.5	A	0.3494	0.3143	-10	50	
PFNA	5.27	1.00	299530.4	A	1.0000	1.0000			
PFNA_2	5.27	1.00	6077.4	A	0.0207	0.0203	-2	50	
PFNS	5.55	1.06	72940.0	A	1.0000	1.0000			
PFNS_2	5.54	1.06	34560.8	A	0.4890	0.4738	-3	50	
PFDA	5.57	1.00	244693.9	A	1.0000	1.0000			
PFDA_2	5.57	1.00	1604.2	A	0.0057	0.0066	16	50	
8:2-FTS	5.57	1.00	24892.6	A	1.0000	1.0000			
8:2-FTS_2	5.57	1.00	15231.3	A	0.6169	0.6119	-1	50	
NMeFOSAA	5.71	1.00	32400.4	A	1.0000	1.0000			
NMeFOSAA_2	5.71	1.00	7101.6	A	0.2206	0.2192	-1	50	
PFDS	5.80	1.10	59073.9	A	1.0000	1.0000			
PFDS_2	5.80	1.11	31660.9	A	0.4648	0.5360	15	50	
PFUnDA	5.83	1.00	209644.8	A	1.0000	1.0000			
PFUnDA_2	5.84	1.00	267.4	A	0.0031	0.0013	-59	50	OOS
NEtFOSAA	5.85	1.00	32100.8	A	1.0000	1.0000			
NEtFOSAA_2	5.85	1.00	21563.1	A	0.6082	0.6717	10	50	
PFDODA	6.06	1.00	220663.6	A	1.0000	1.0000			
PFDODA_2	6.05	1.00	2566.4	A	0.0109	0.0116	6	50	
10:2-FTS	6.07	1.09	19060.5	A	1.0000	1.0000			
10:2-FTS_2	6.07	1.09	13428.2	A	0.7082	0.7045	-1	50	
PFTTrDA	6.25	1.03	197290.7	A	1.0000	1.0000			
PFTTrDA_2	6.26	1.03	2128.7	A	0.0096	0.0108	12	50	
PFTeDA	6.43	1.00	150162.8	A	1.0000	1.0000			
PFTeDA_2	6.43	1.00	849.9	A	0.0055	0.0057	2	50	
PFHxDA	6.74	1.05	70193.5	A	1.0000	1.0000			
PFHxDA_2	6.74	1.05	4327.4	A	0.0596	0.0616	3	50	
PFODA	7.00	1.09	59736.9	A	1.0000	1.0000			
PFODA_2	7.00	1.09	1504.6	A	0.0257	0.0252	-2	50	

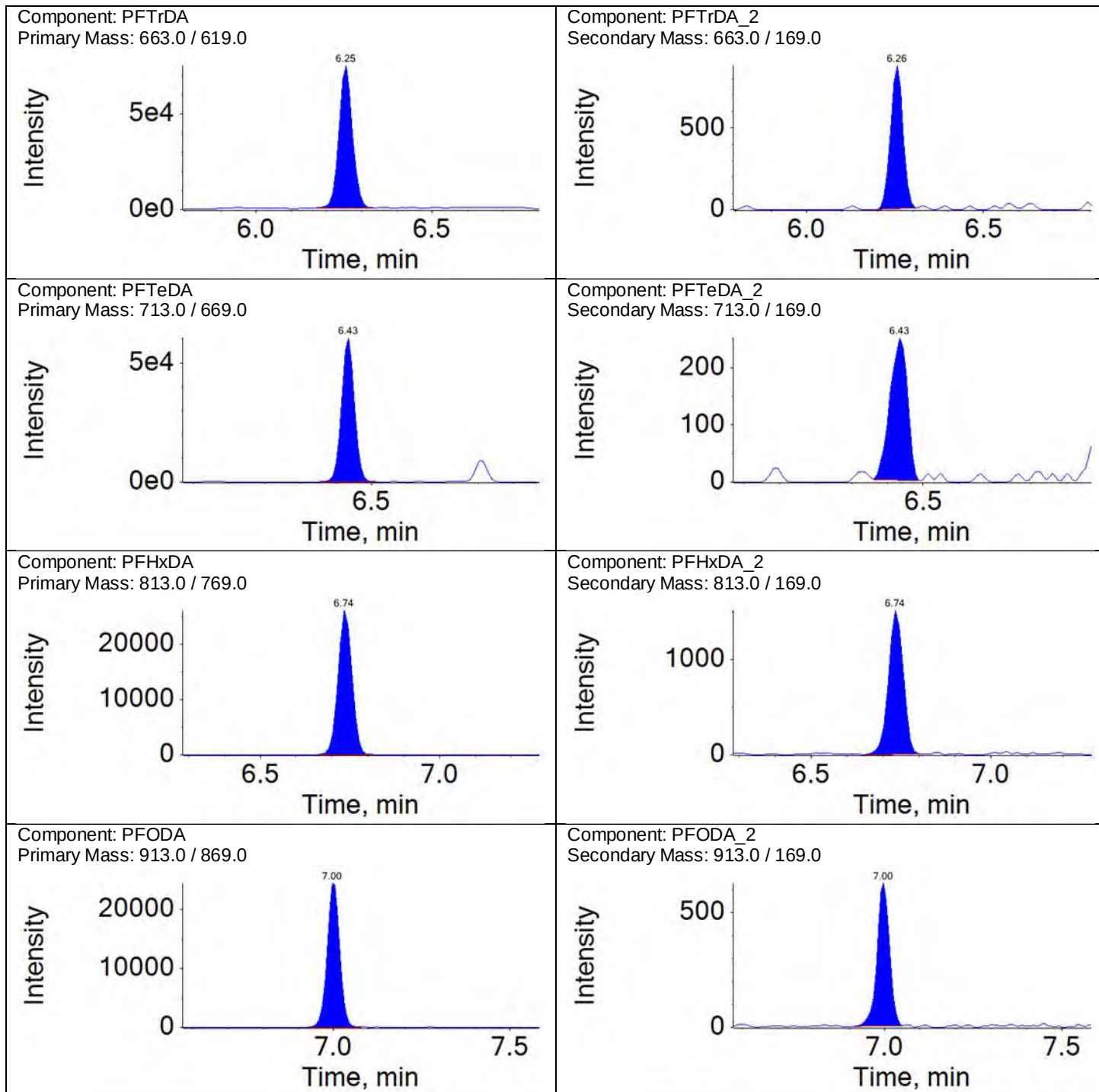












ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL4		Data File:	18NOV07DCAL-13.wiff
Sample ID:	CALMOD41833F		Acquis Date:	2018-11-07T10:06:59
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	6		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV07DCAL
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	N/A		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV07DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	721806.8	730410.6	-1	50	
13C2-PFOA	5.0	528557.8	524423.6	1	50	
13C4-PFOS	4.8	270733.9	274061.7	-1	50	
13C2-PFDA	5.0	320985.5	311442.1	3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	771359.1	13C3-PFBA	721806.8	1.069	5.000	4.945	99	70-130	
E13C5-PFPeA	824842.8	13C3-PFBA	721806.8	1.143	5.000	4.978	100	70-130	
E13C3-PFBS	434938.9	13C3-PFBA	721806.8	0.603	4.650	4.422	95	70-130	
E13C2-4:2-FTS	51520.6	13C2-PFOA	528557.8	0.097	4.670	4.398	94	70-130	
E13C5-PFHxA	713446.3	13C2-PFOA	528557.8	1.350	5.000	4.965	99	70-130	
E13C3-PFHxS	339090.5	13C2-PFOA	528557.8	0.642	4.730	4.606	97	70-130	
E13C4-PFHpA	592497.9	13C2-PFOA	528557.8	1.121	5.000	5.099	102	70-130	
E13C2-6:2-FTS	39121.7	13C2-PFOA	528557.8	0.074	4.750	4.936	104	70-130	
E13C8-PFOA	937287.5	13C2-PFOA	528557.8	1.773	5.000	4.945	99	70-130	
E13C8-PFOS	291941.6	13C4-PFOS	270733.9	1.078	4.780	4.768	100	70-130	
E13C9-PFNA	512147.4	13C4-PFOS	270733.9	1.892	5.000	5.167	103	70-130	
E13C6-PFDA	656868.3	13C2-PFDA	320985.5	2.046	5.000	5.146	103	70-130	
E13C2-8:2-FTS	30500.3	13C2-PFDA	320985.5	0.095	4.790	5.028	105	70-130	
E13C8-PFOSA	708330.5	13C2-PFDA	320985.5	2.207	5.000	4.815	96	70-130	
Ed3-NMeFOSAA	80900.1	13C2-PFDA	320985.5	0.252	5.000	4.687	94	70-130	
E13C7-PFUnDA	275977.2	13C2-PFDA	320985.5	0.860	5.000	4.960	99	70-130	
Ed5-NEtFOSAA	66162.4	13C2-PFDA	320985.5	0.206	5.000	4.770	95	70-130	
E13C2-PFDODA	598287.4	13C2-PFDA	320985.5	1.864	5.000	5.025	100	70-130	
Ed7-NMePFOSAE	330968.7	13C2-PFDA	320985.5	1.031	5.000	4.795	96	70-130	
Ed3-NMePFOSA	86399.4	13C2-PFDA	320985.5	0.269	5.000	4.928	99	70-130	
Ed9-NEtPFOSAE	273909.1	13C2-PFDA	320985.5	0.853	5.000	4.873	97	70-130	
Ed5-NEtPFOSA	72258.7	13C2-PFDA	320985.5	0.225	5.000	5.212	104	70-130	
E13C2-PFTeDA	441858.1	13C2-PFDA	320985.5	1.377	5.000	4.956	99	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL4

Instrument Name: LM27631

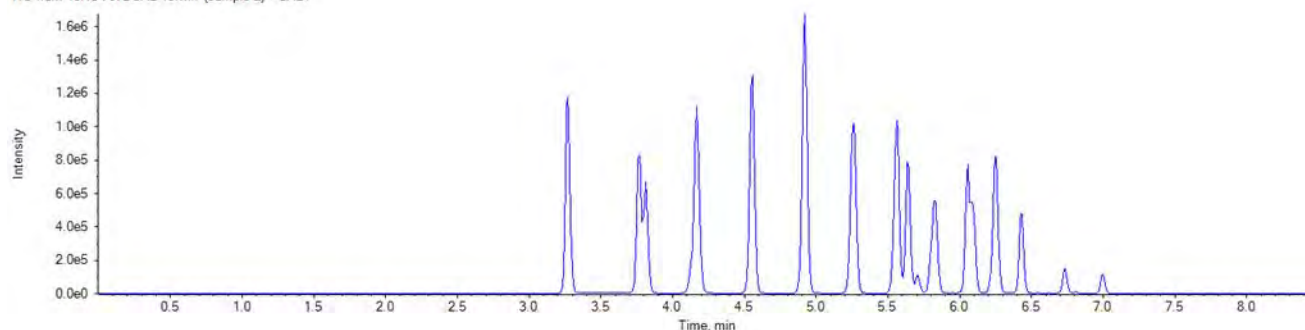
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	1152870.9		A	13C4-PFBA	3.27	771359.1	1.495	8.747
PFPeA	3.76	1.000	1165758.7		A	13C5-PFPeA	3.77	824842.8	1.413	8.399
PFBS	3.81	1.000	648524.4		A	13C3-PFBS	3.81	434938.9	1.491	7.518
4:2-FTS	4.13	1.000	153295.4		A	13C2-4:2-FTS	4.13	51520.6	2.975	7.999
PFHxA	4.16	1.000	1455862.5		A	13C5-PFHxA	4.16	713446.3	2.041	8.751
PFPeS	4.18	1.100	349358.3		A	13C3-PFBS	3.81	434938.9	0.803	7.922
PFHxS	4.55	1.000	513536.6		A	13C3-PFHxS	4.55	339090.5	1.514	7.676
PFHpA	4.55	1.000	1481489.5		A	13C4-PFHpA	4.55	592497.9	2.500	8.409
6:2-FTS	4.91	1.000	125170.2		A	13C2-6:2-FTS	4.91	39121.7	3.200	7.982
PFHpS	4.91	1.080	516333.1		A	13C3-PFHxS	4.55	339090.5	1.523	7.966
PFOA	4.92	1.000	1491946.3		A	13C8-PFOA	4.92	937287.5	1.592	8.963
PFOS	5.25	1.000	447769.0		A	13C8-PFOS	5.25	291941.6	1.534	7.953
PFNA	5.27	1.000	1179151.8		A	13C9-PFNA	5.26	512147.4	2.302	8.604
PFNS	5.54	1.060	305013.7		A	13C8-PFOS	5.25	291941.6	1.045	8.284
PFDA	5.56	1.000	1029893.8		A	13C6-PFDA	5.56	656868.3	1.568	8.626
8:2-FTS	5.57	1.000	106591.3		A	13C2-8:2-FTS	5.57	30500.3	3.495	7.877
PFOSA	5.64	1.000	1119770.1		A	13C8-PFOSA	5.64	708330.5	1.581	8.545
NMeFOSAA	5.71	1.000	136316.9		A	d3-NMeFOSAA	5.70	80900.1	1.685	8.670
PFDS	5.80	1.110	250911.0		A	13C8-PFOS	5.25	291941.6	0.859	8.210
PFUnDA	5.83	1.000	802732.3		A	13C7-PFUnDA	5.83	275977.2	2.909	8.341
NEtFOSAA	5.84	1.000	121615.1		A	d5-NEtFOSAA	5.84	66162.4	1.838	7.900
PFDODA	6.05	1.000	877242.2		A	13C2-PFDODA	6.05	598287.4	1.466	7.946
10:2-FTS	6.07	1.090	69275.8		A	13C2-8:2-FTS	5.57	30500.3	2.271	7.073
NMePFOSAE	6.09	1.000	648523.4		A	d7-NMePFOSAE	6.08	330968.7	1.959	8.781
NMePFOSA	6.10	1.000	118194.2		A	d3-NMePFOSA	6.10	86399.4	1.368	7.657
PFDoS	6.22	1.190	121590.1		A	13C8-PFOS	5.25	291941.6	0.416	8.039
NEtPFOSAE	6.25	1.000	740427.4		A	d9-NEtPFOSAE	6.24	273909.1	2.703	8.666
NEtPFOSA	6.26	1.000	123609.2		A	d5-NEtPFOSA	6.26	72258.7	1.711	7.534
PFTrDA	6.25	1.030	781283.7		A	13C2-PFDODA	6.05	598287.4	1.306	8.235
PFTeDA	6.43	1.000	630801.4		A	13C2-PFTeDA	6.43	441858.1	1.428	8.383
PFHxDA	6.73	1.050	297242.6		A	13C2-PFTeDA	6.43	441858.1	0.673	8.351
PFODA	7.00	1.090	251726.5		A	13C2-PFTeDA	6.43	441858.1	0.570	8.162

Total Ion Chromatogram

TIC from 18NOV07DCAL-13.wiff (sample 2) - CAL4



APPROVED

By JPT at 2:53 pm, 11/7/18

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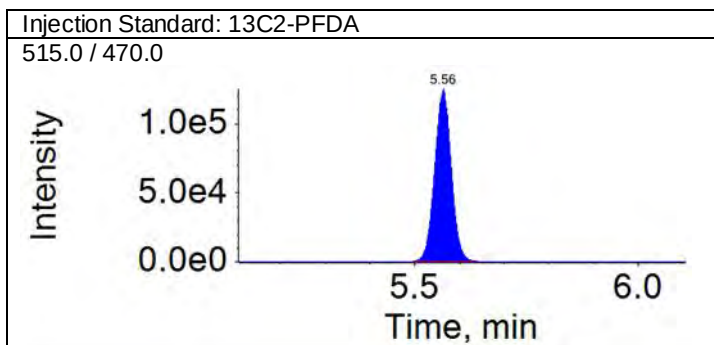
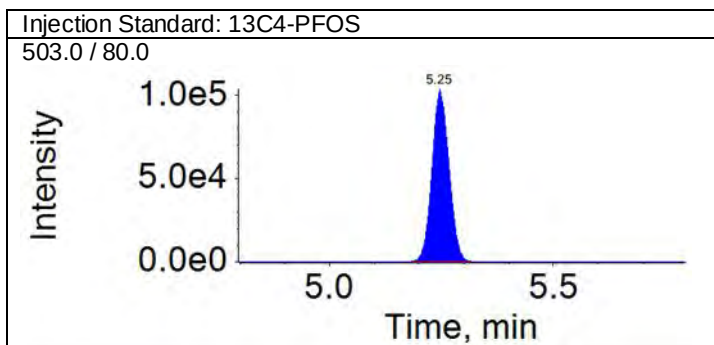
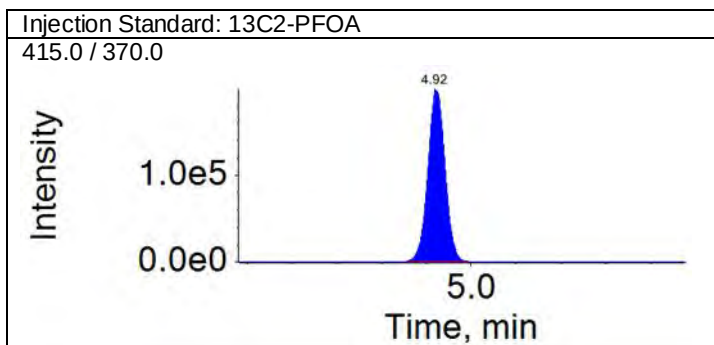
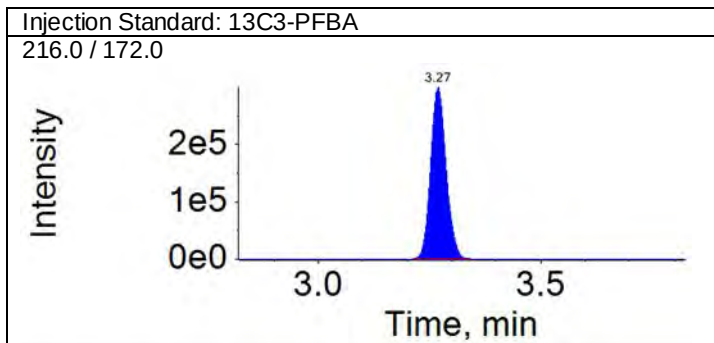
REVIEWED

By umar at 5:23 pm, 11/9/18

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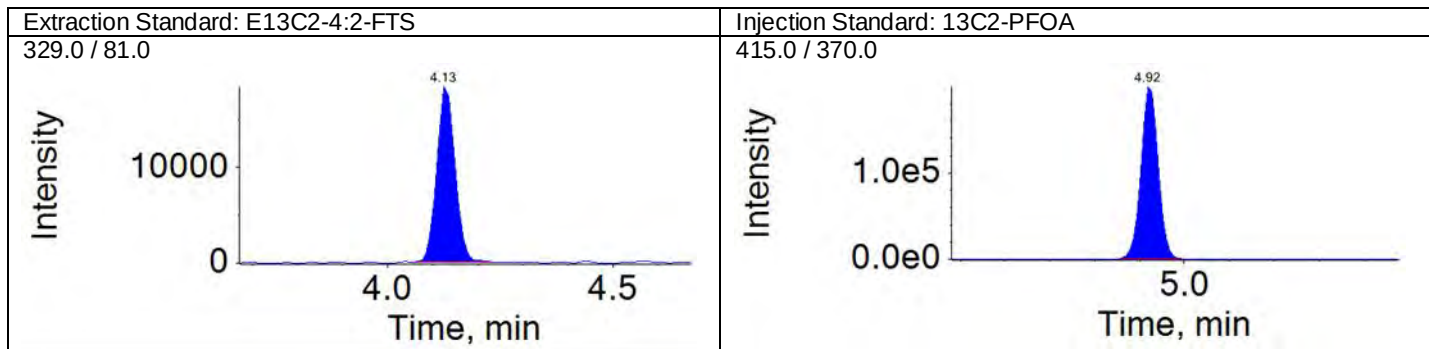
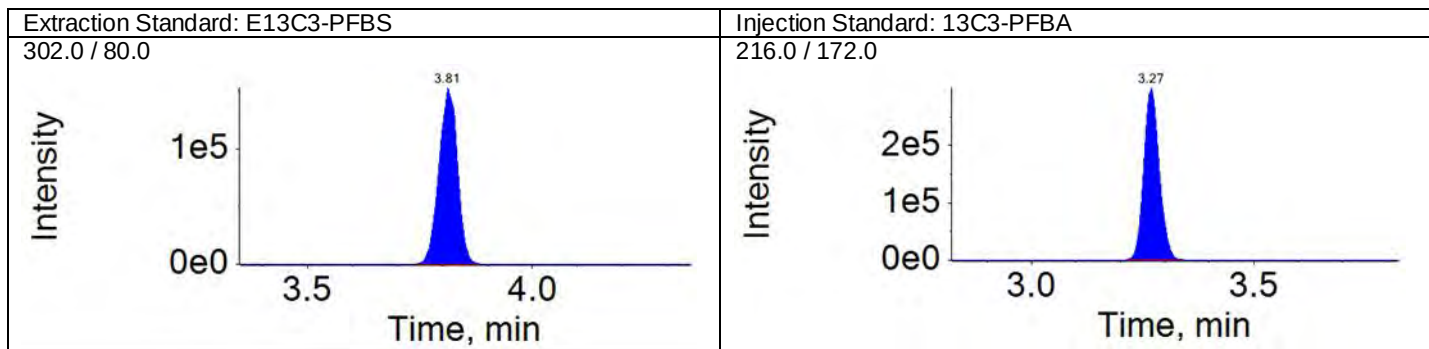
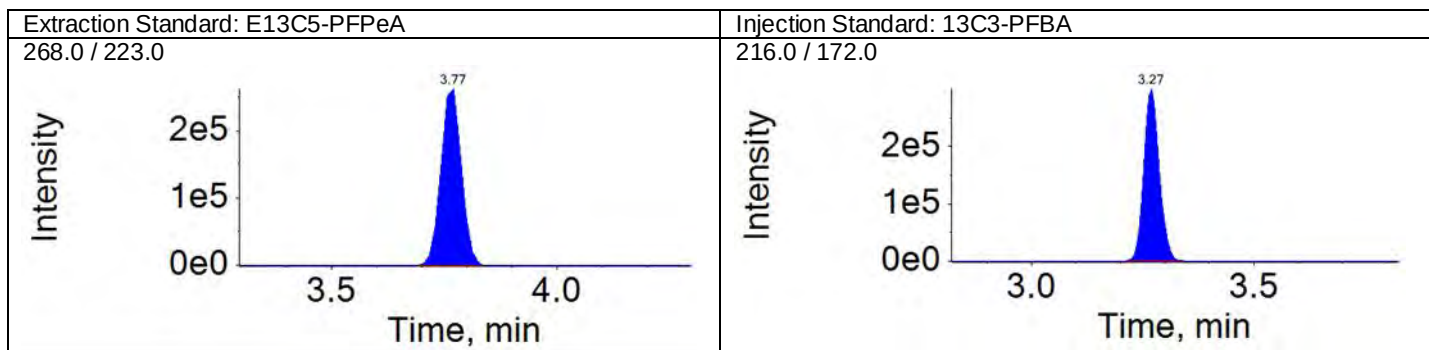
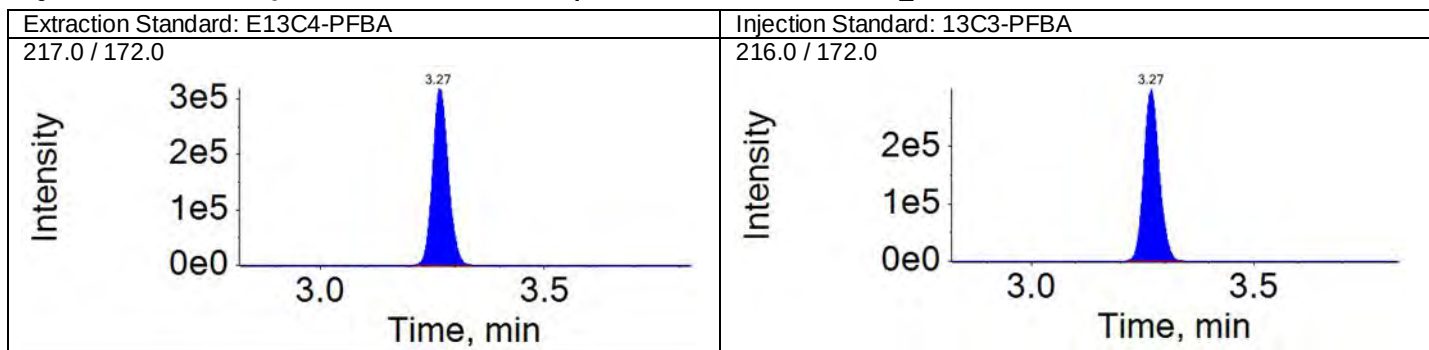
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



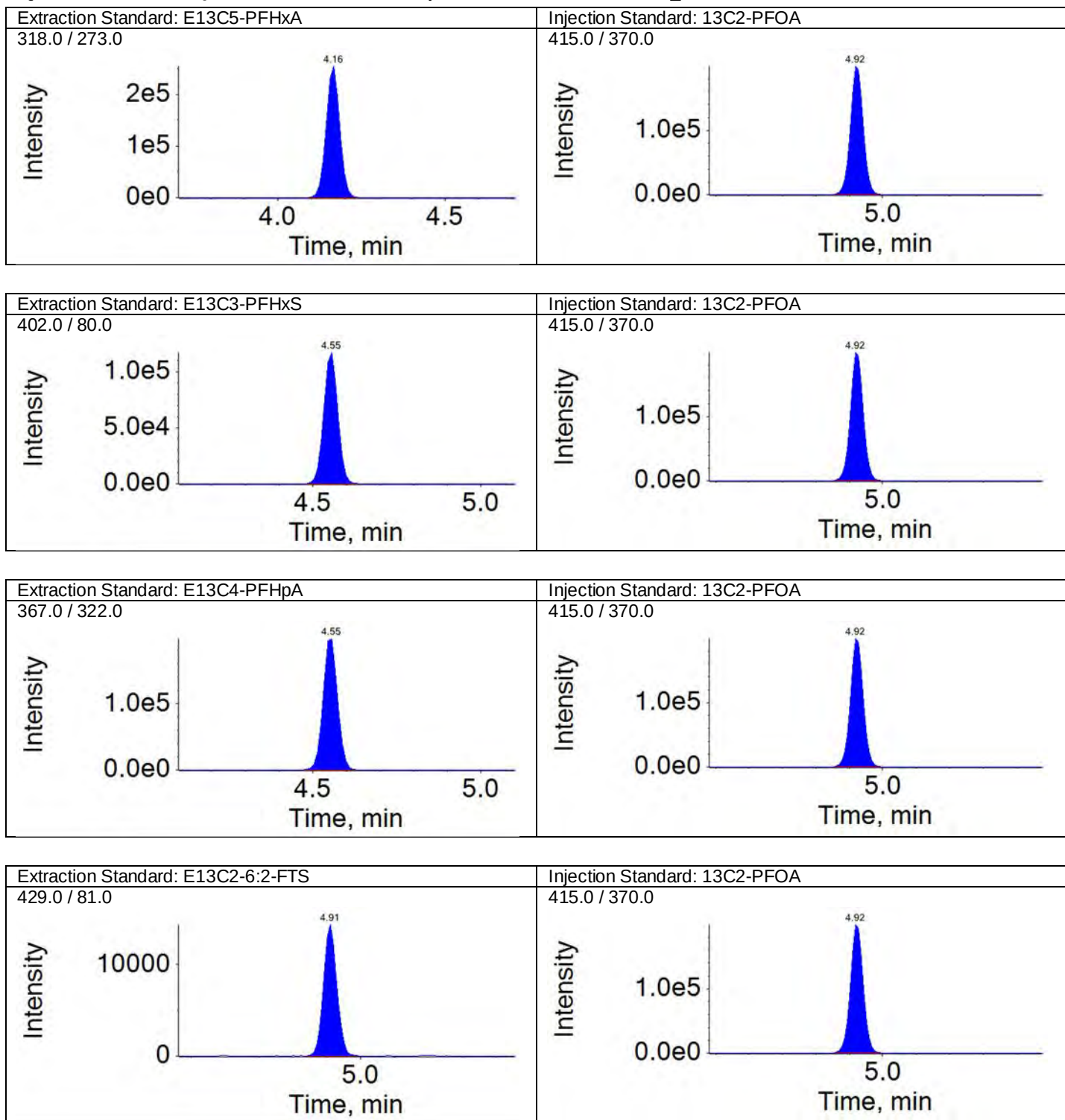
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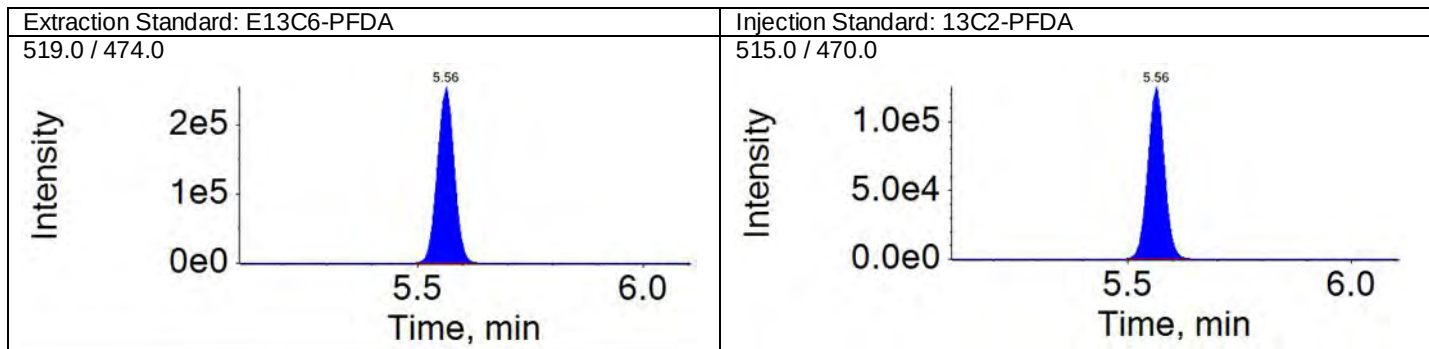
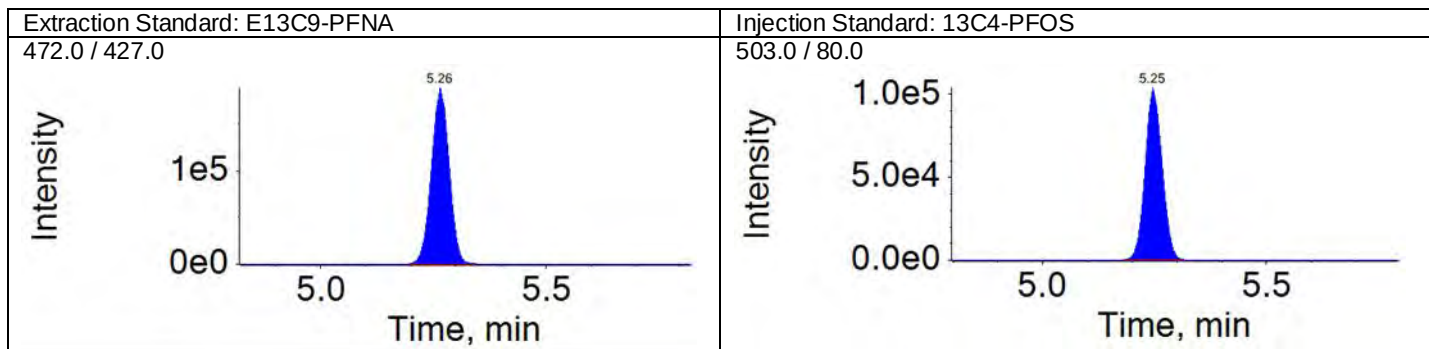
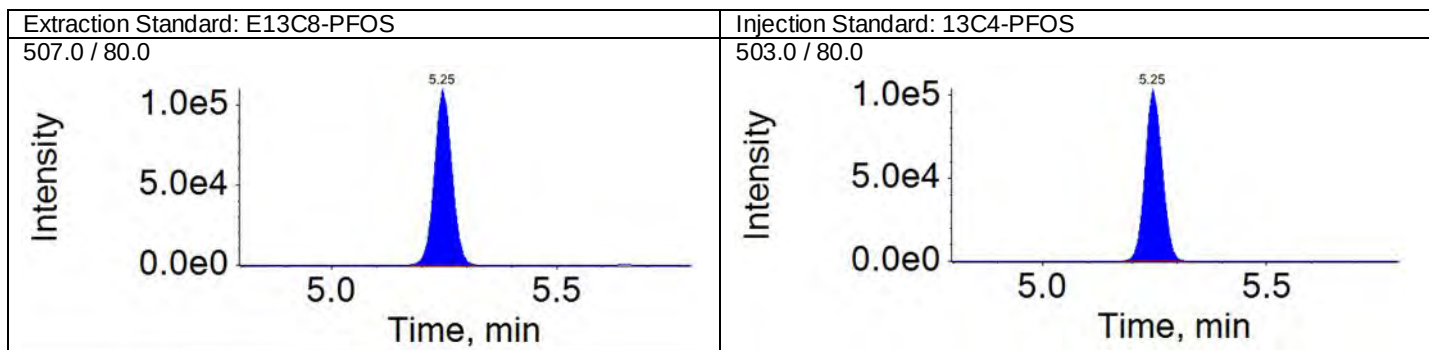
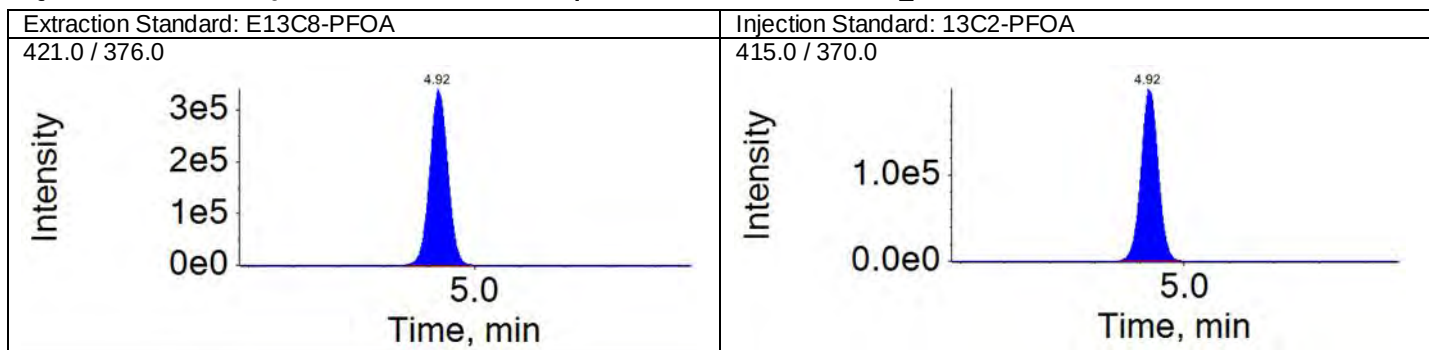
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ICAL Name: 18NOV07DCAL
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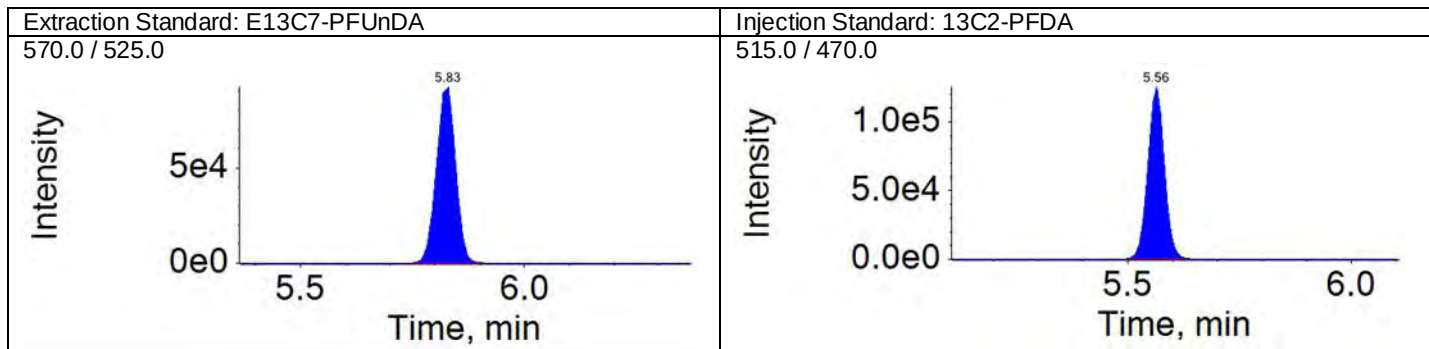
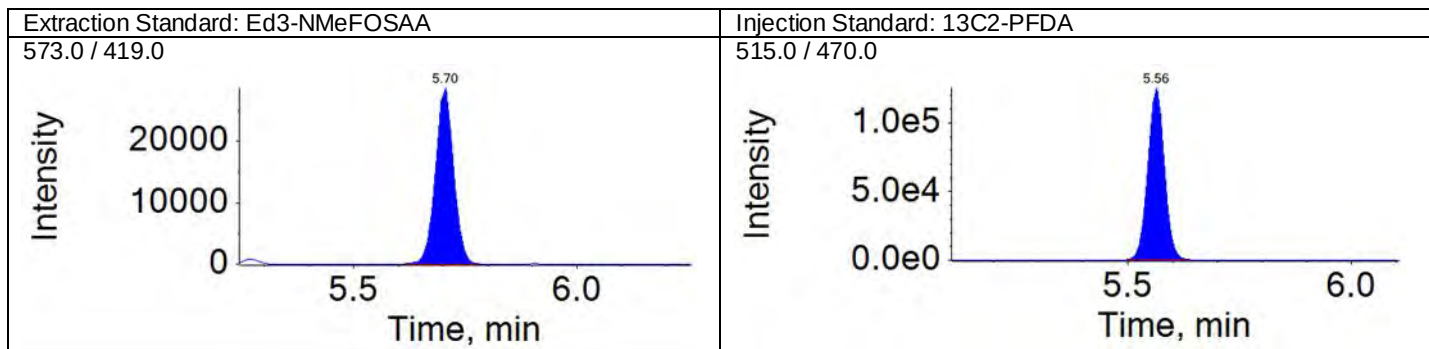
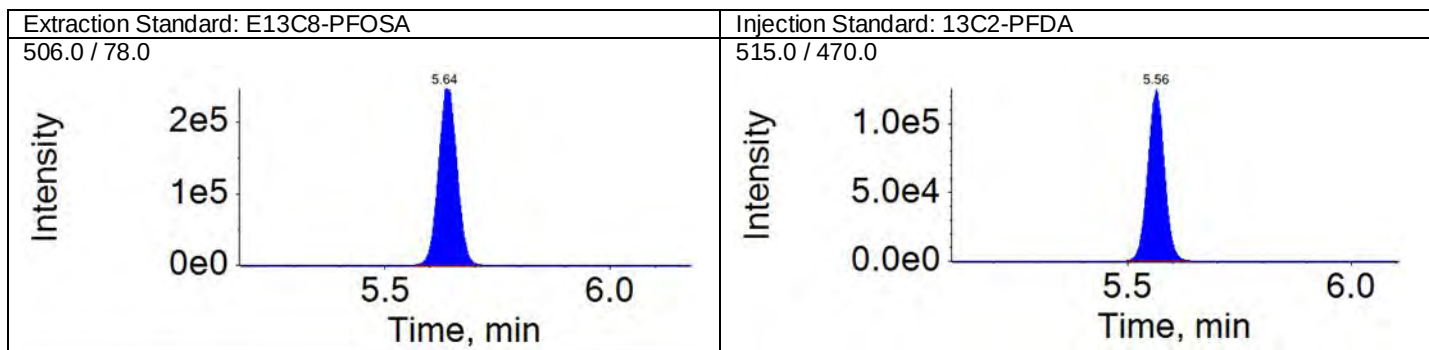
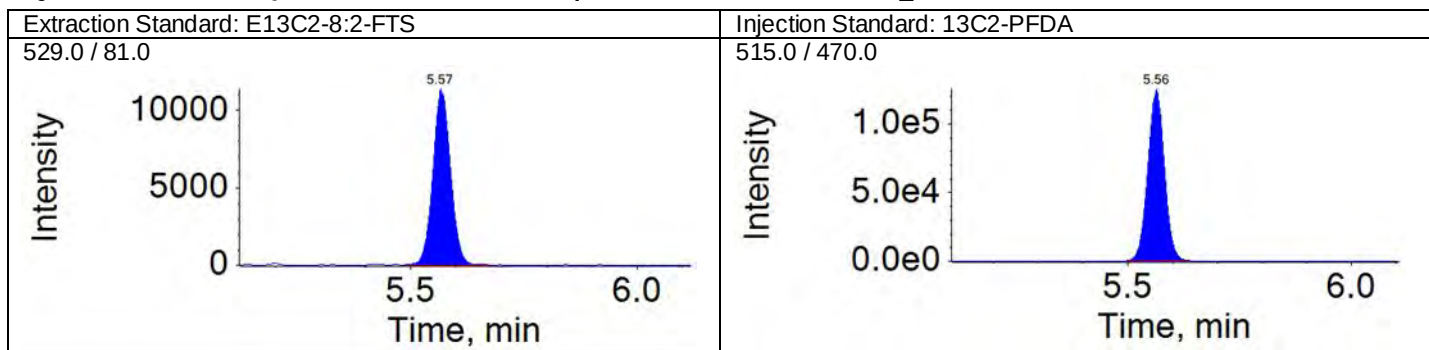
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By umar at 5:23 pm, 11/9/18

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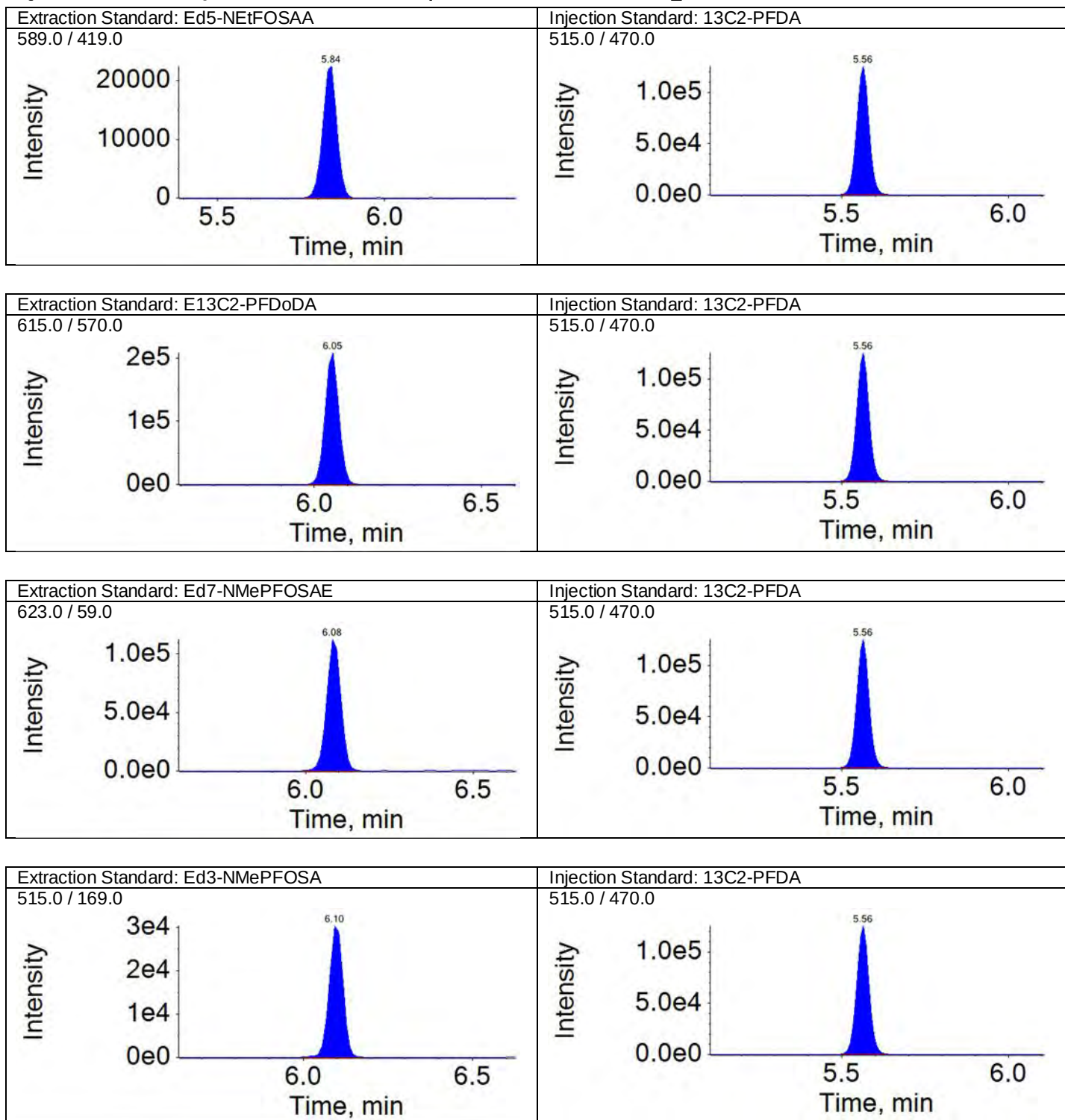


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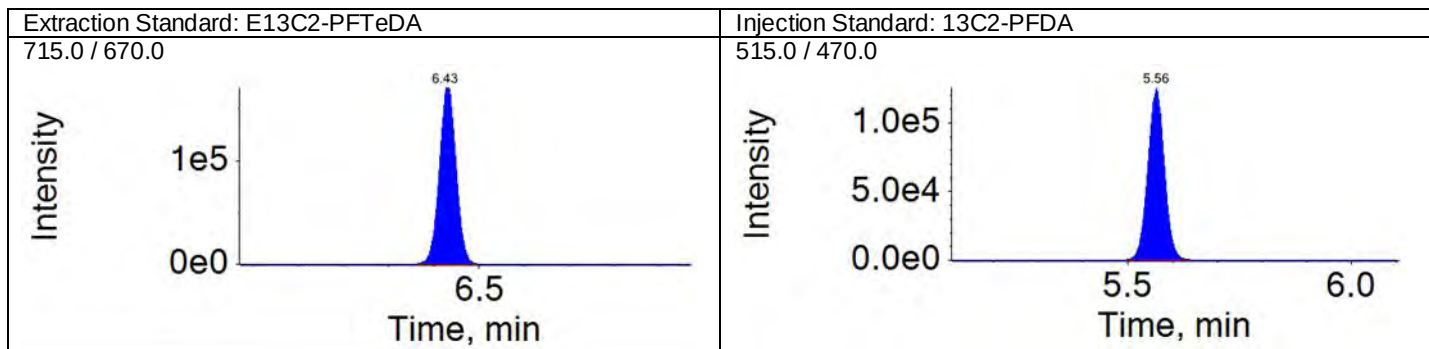
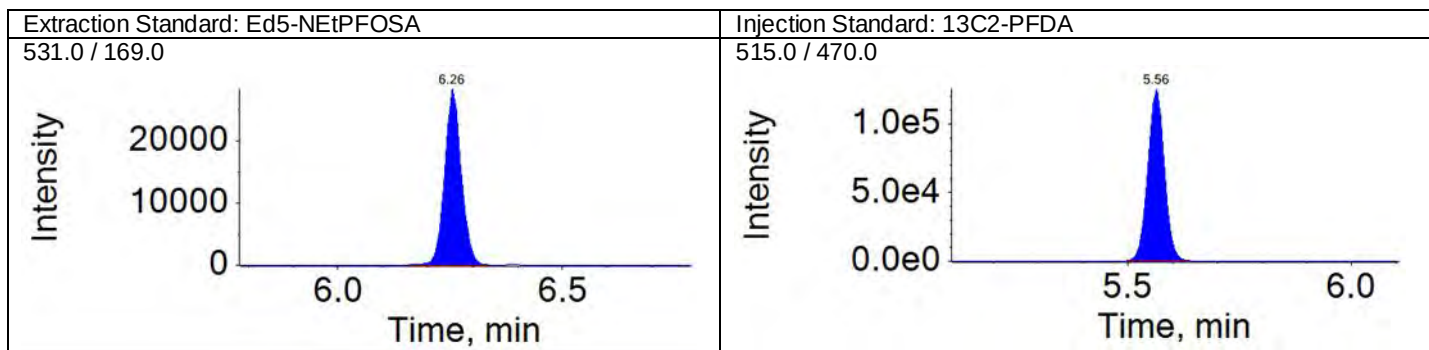
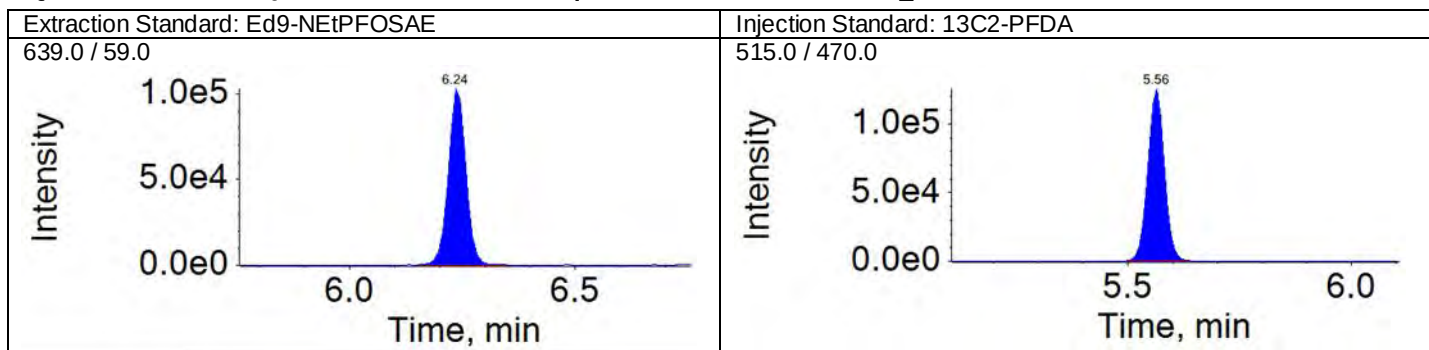
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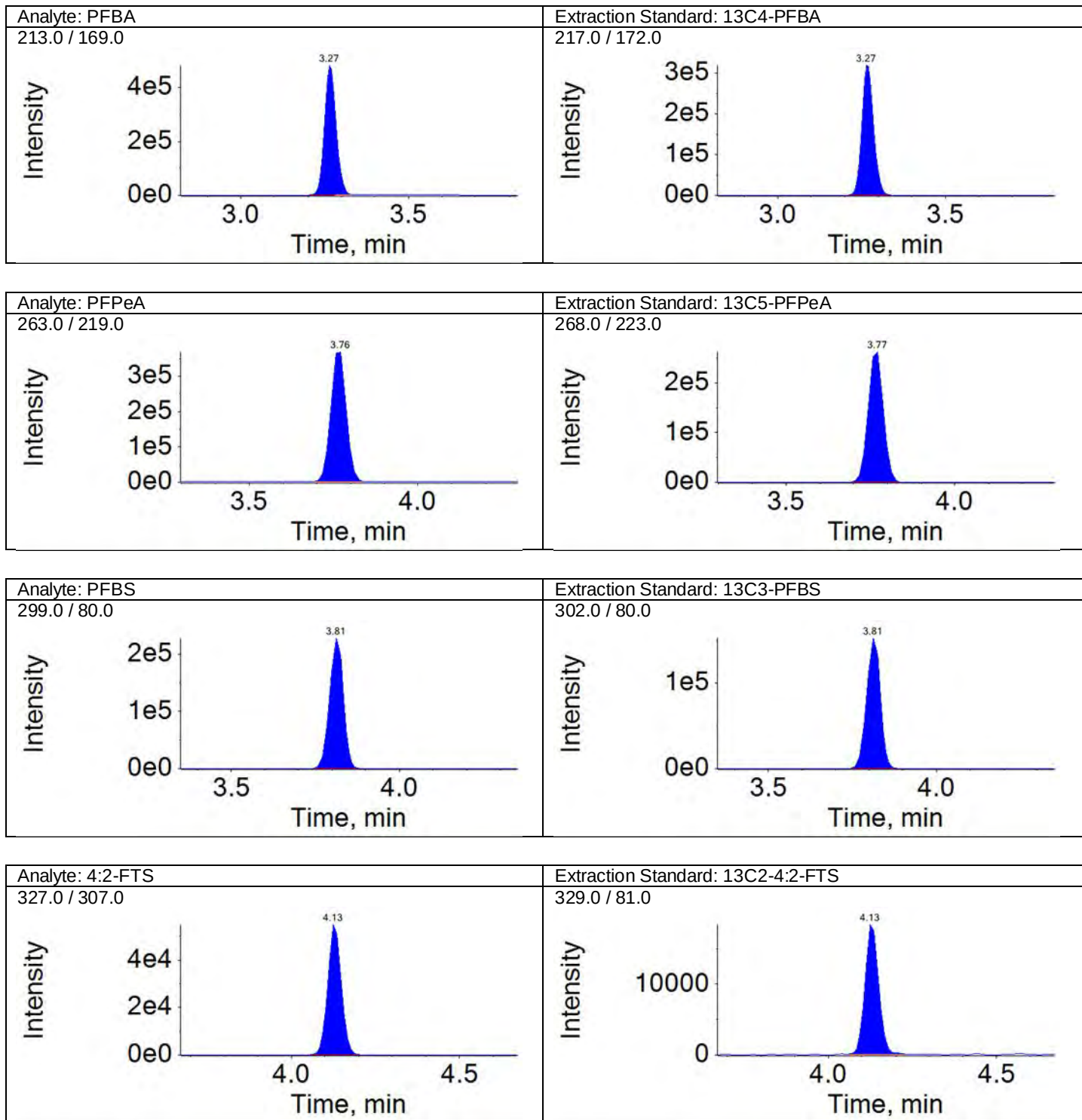
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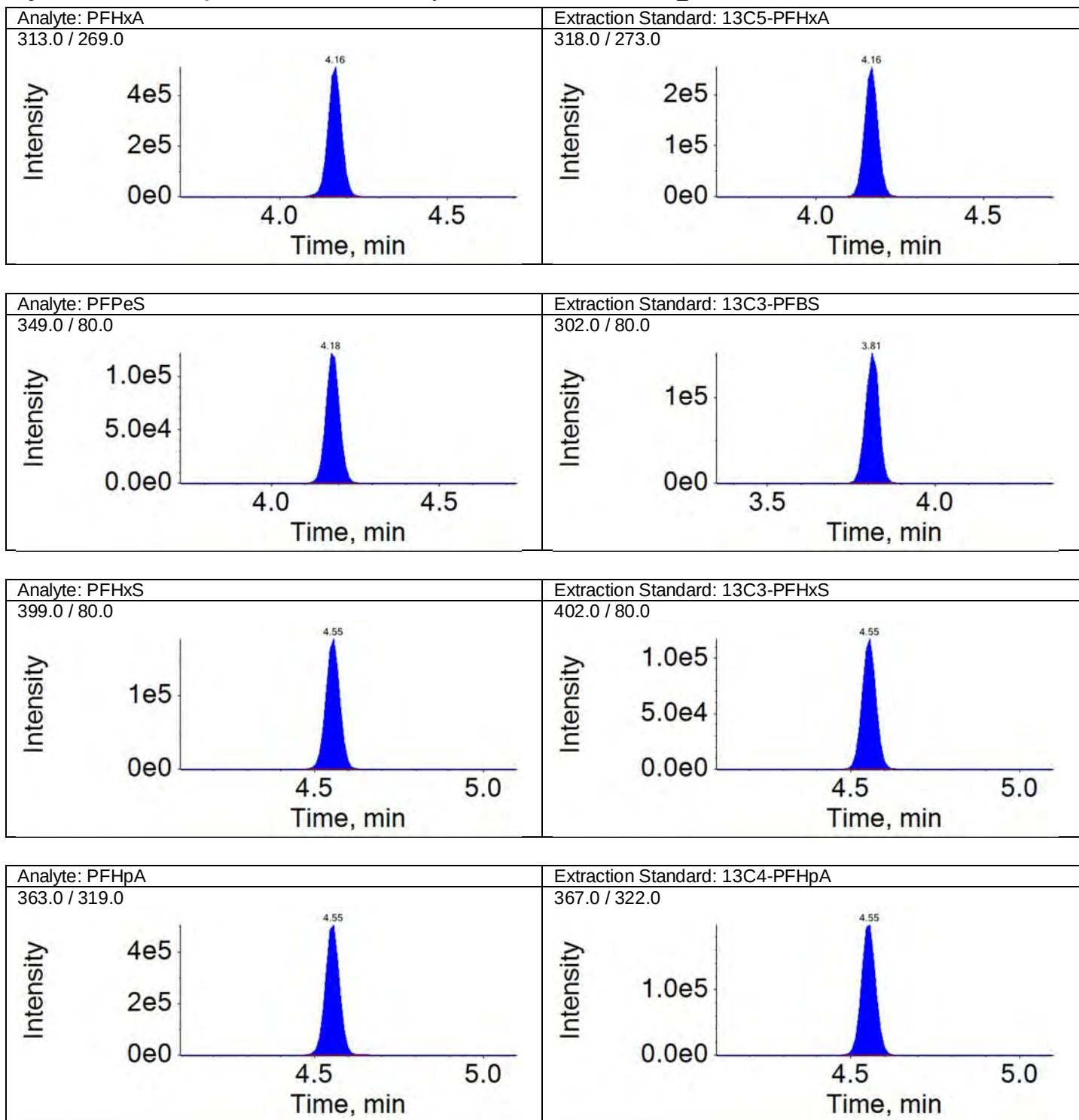
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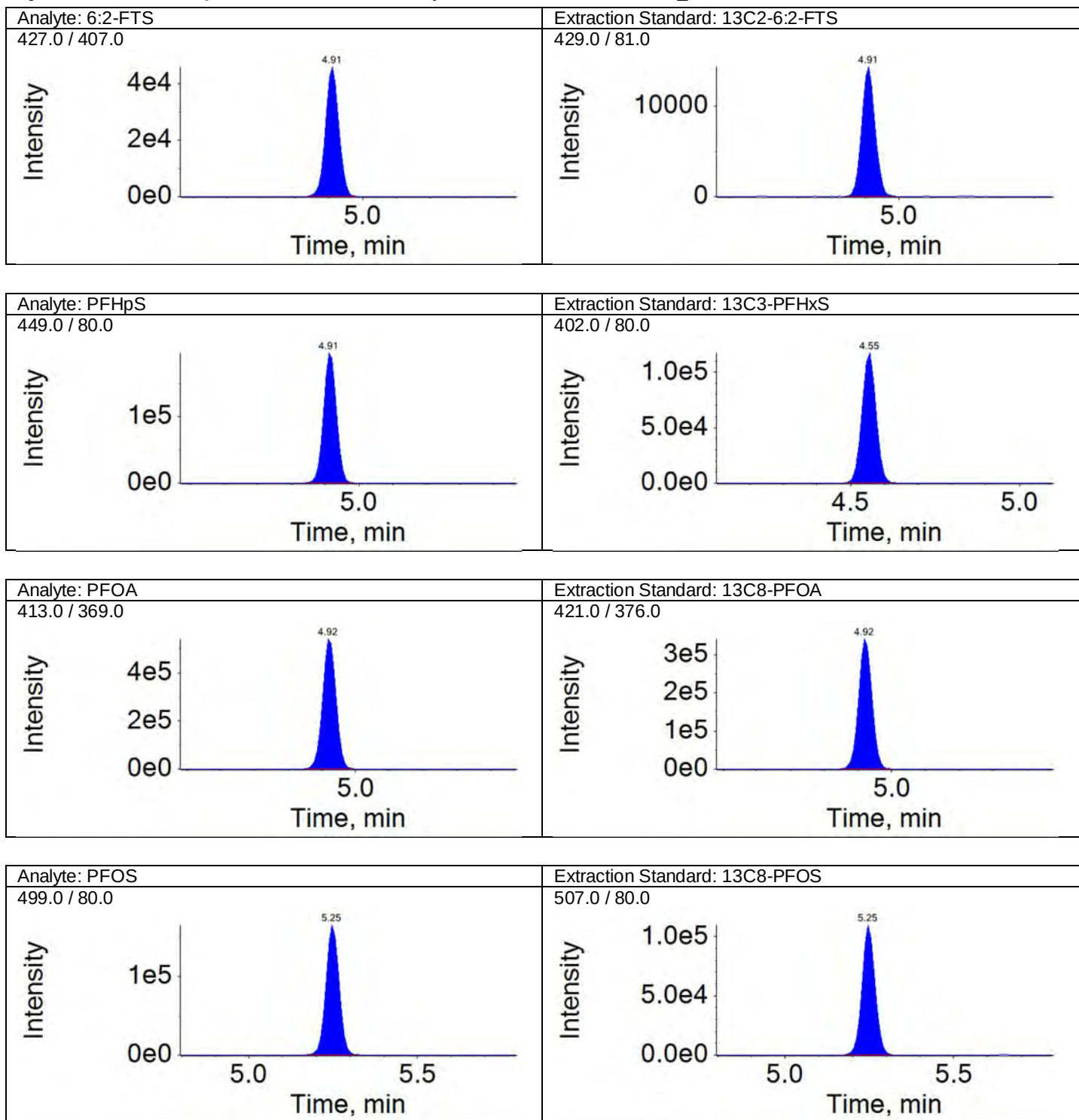
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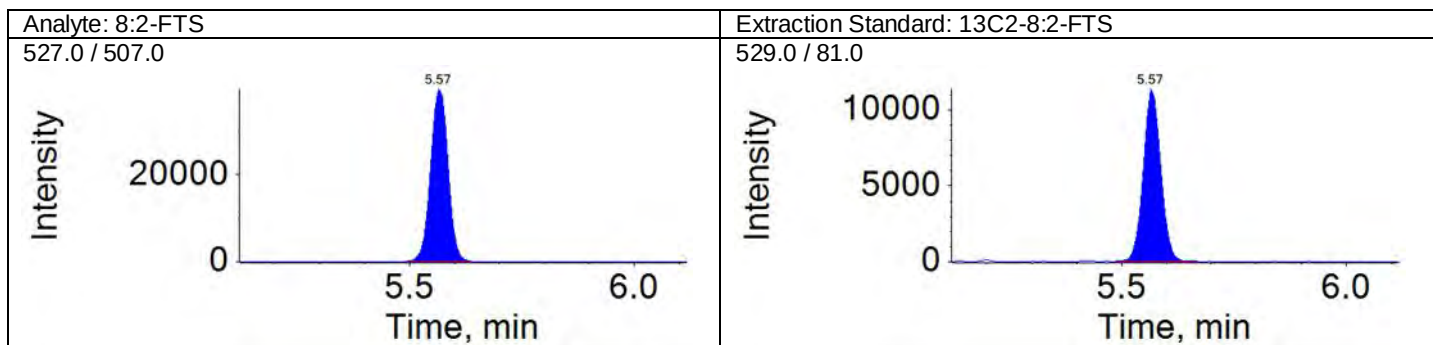
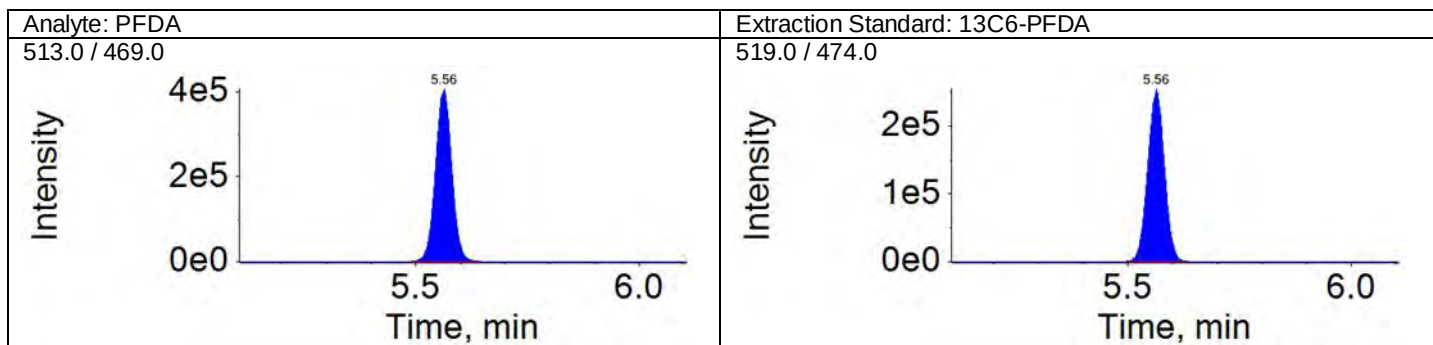
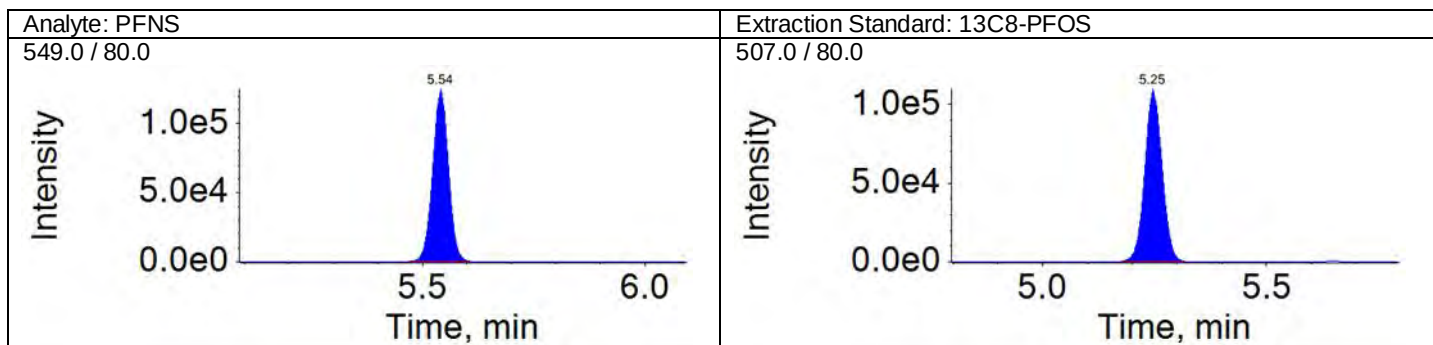
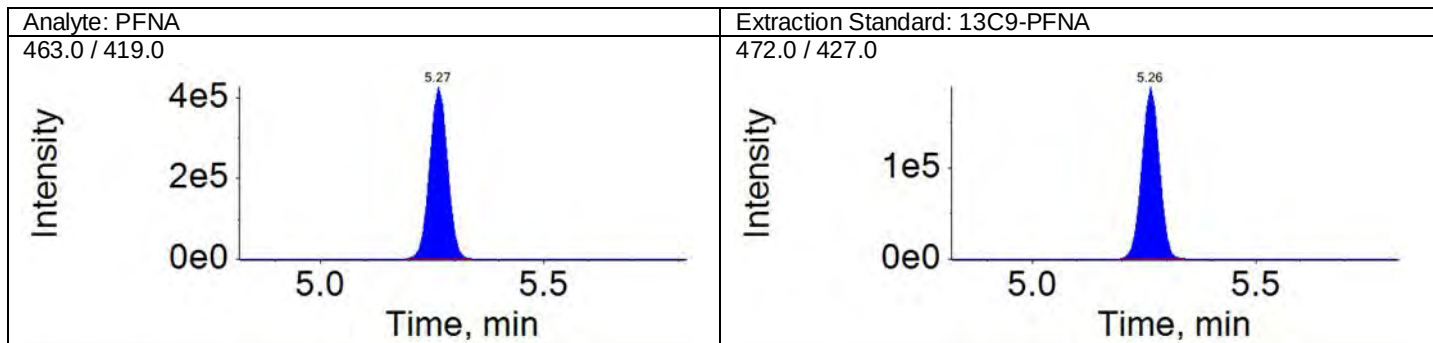
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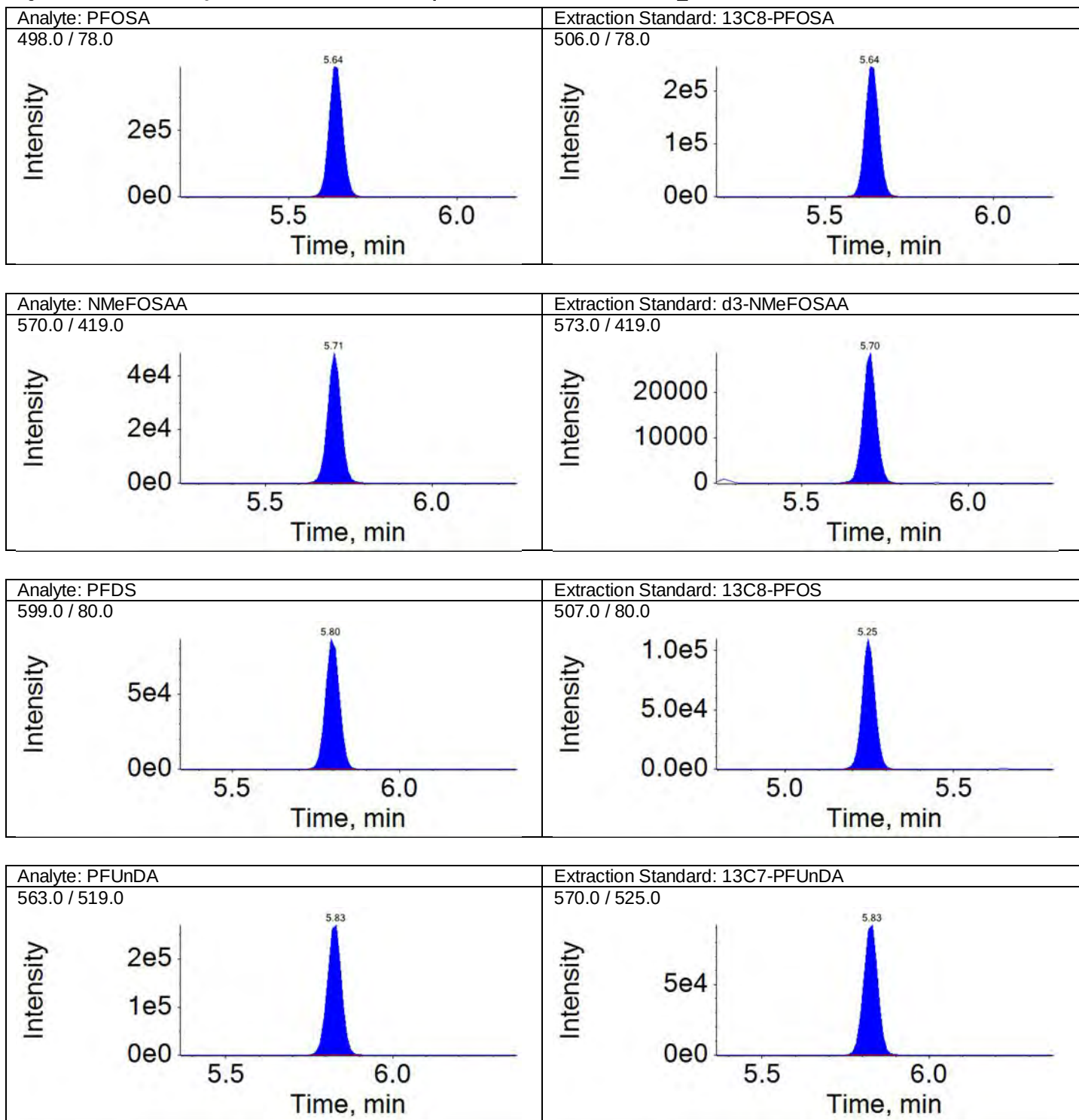
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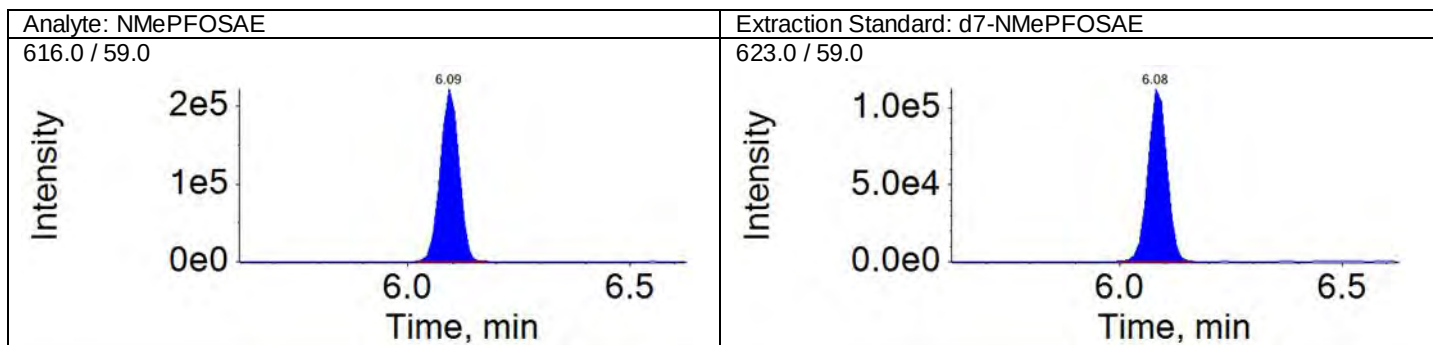
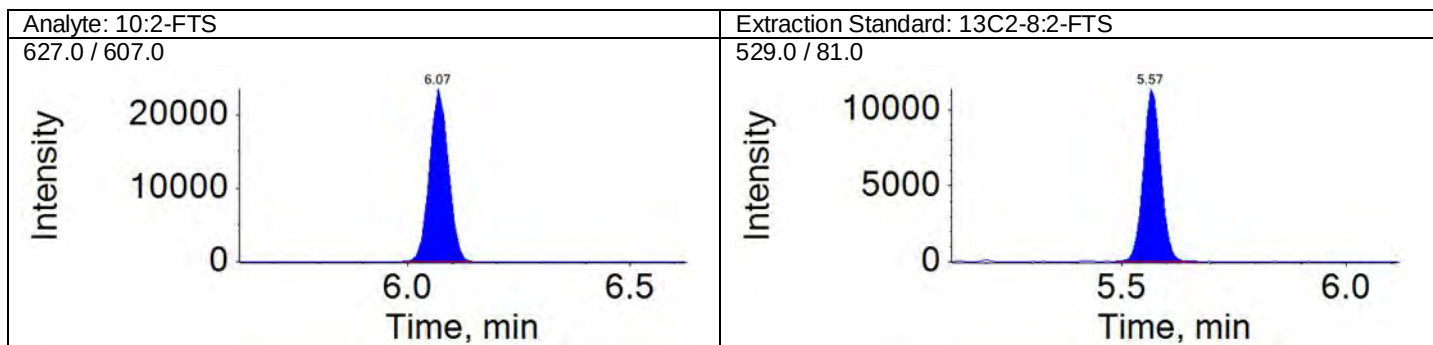
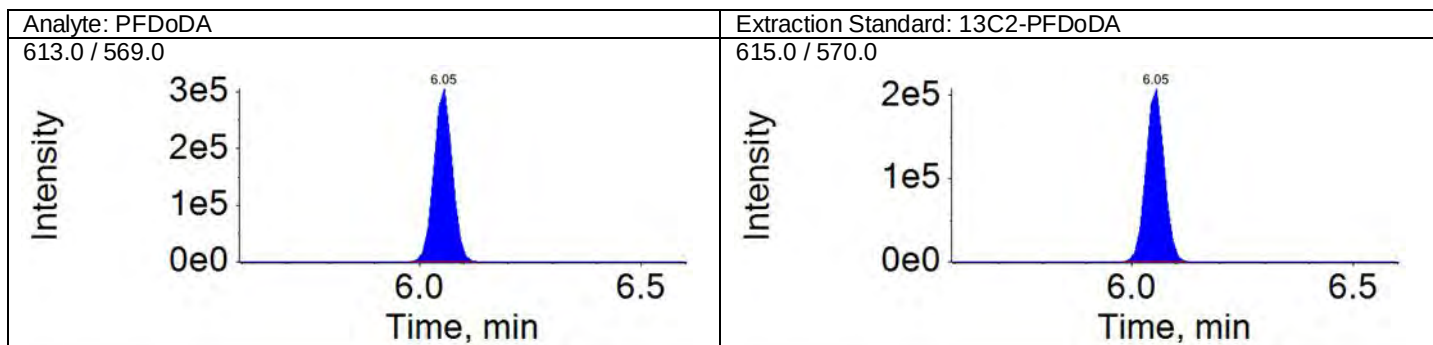
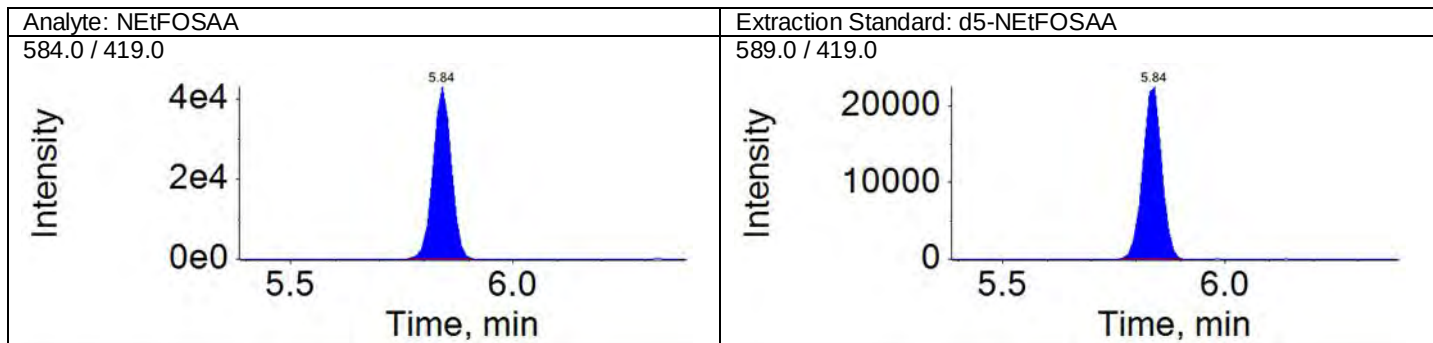
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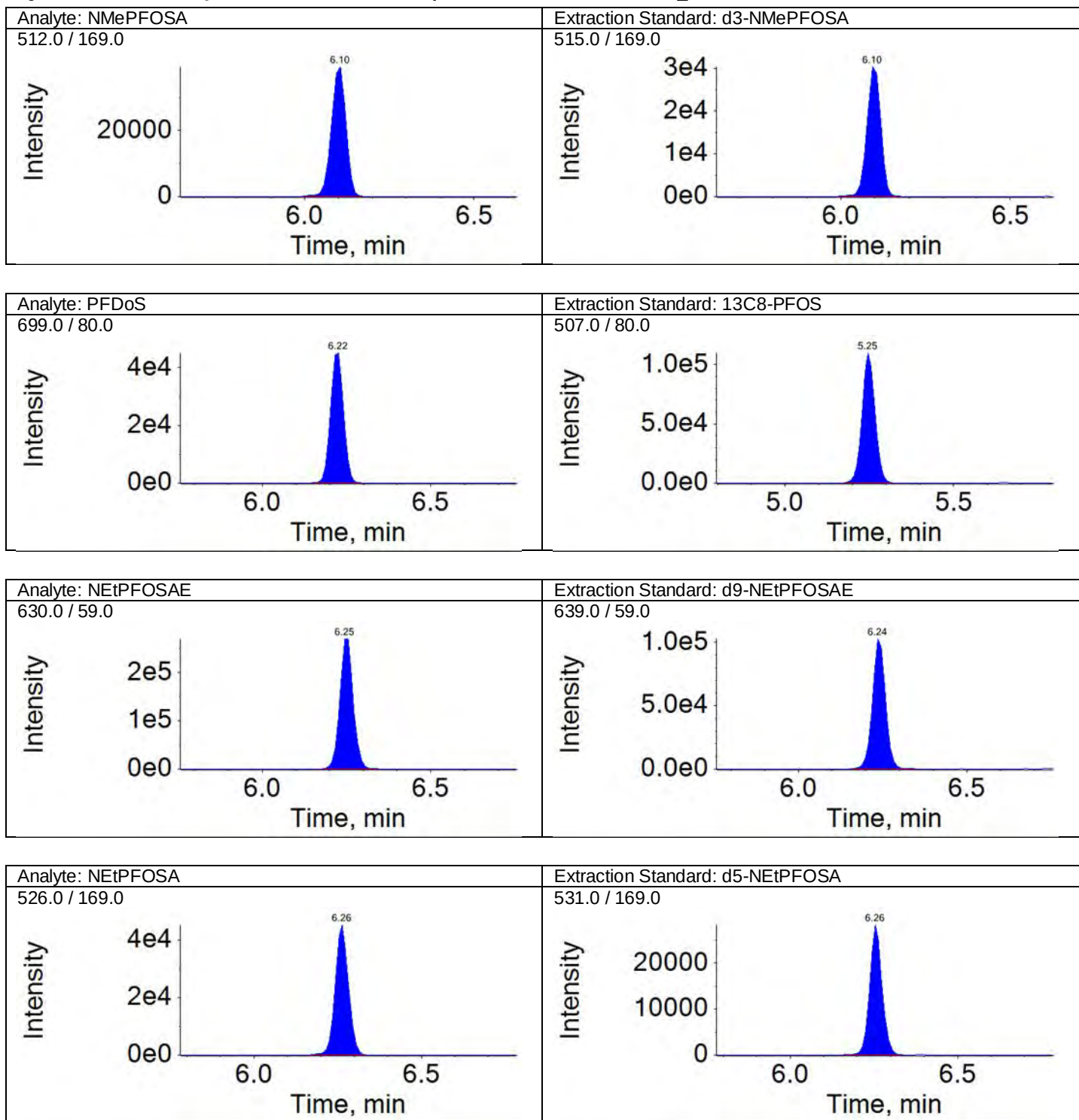
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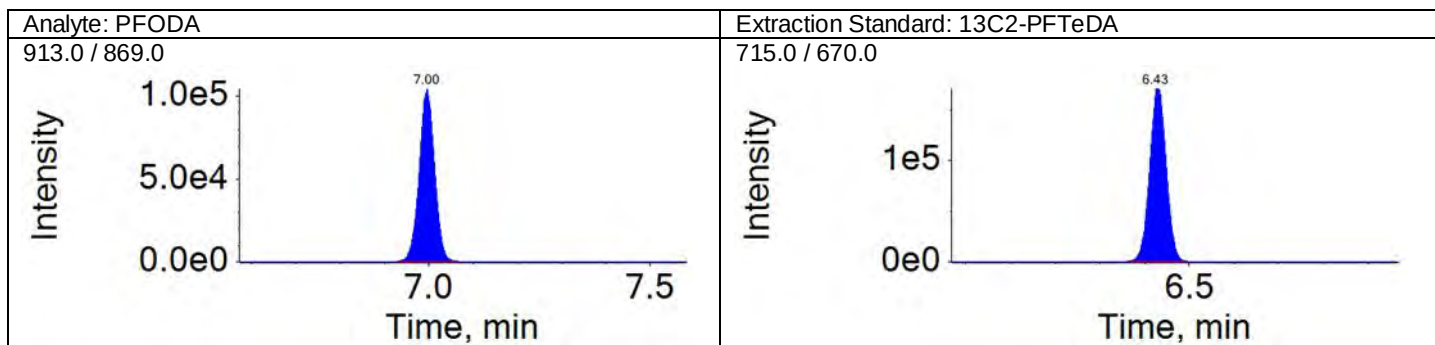
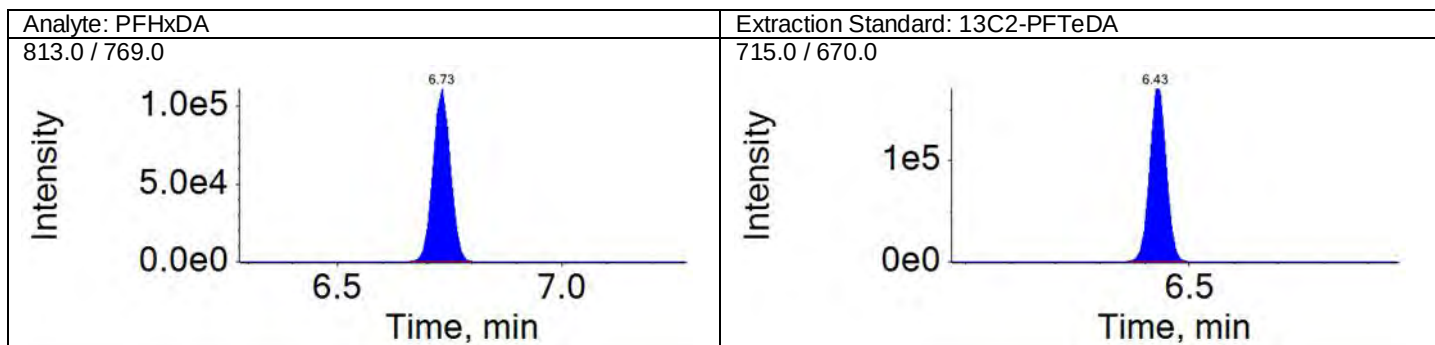
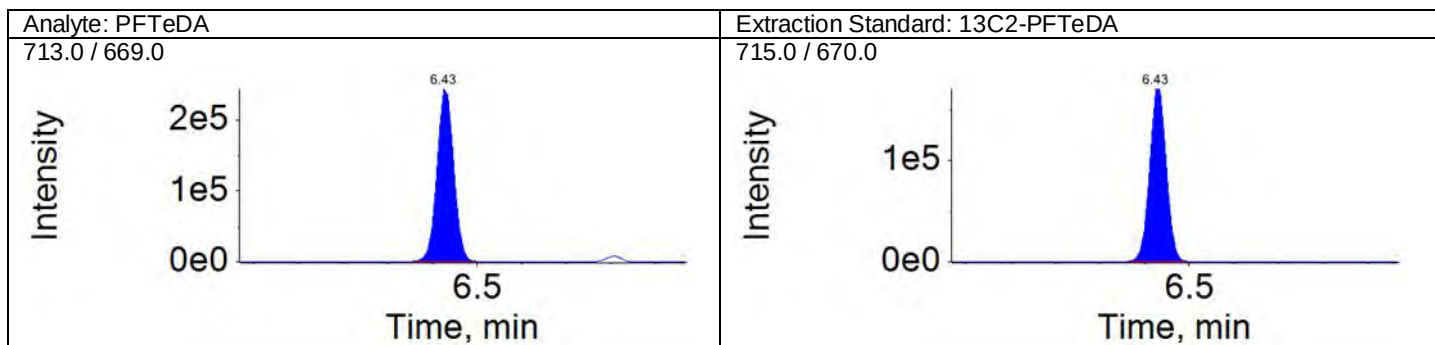
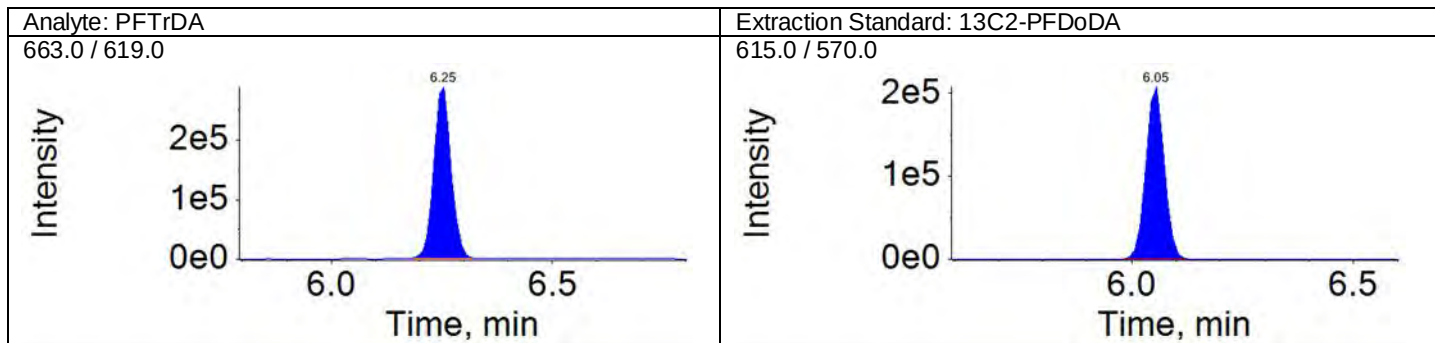
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Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
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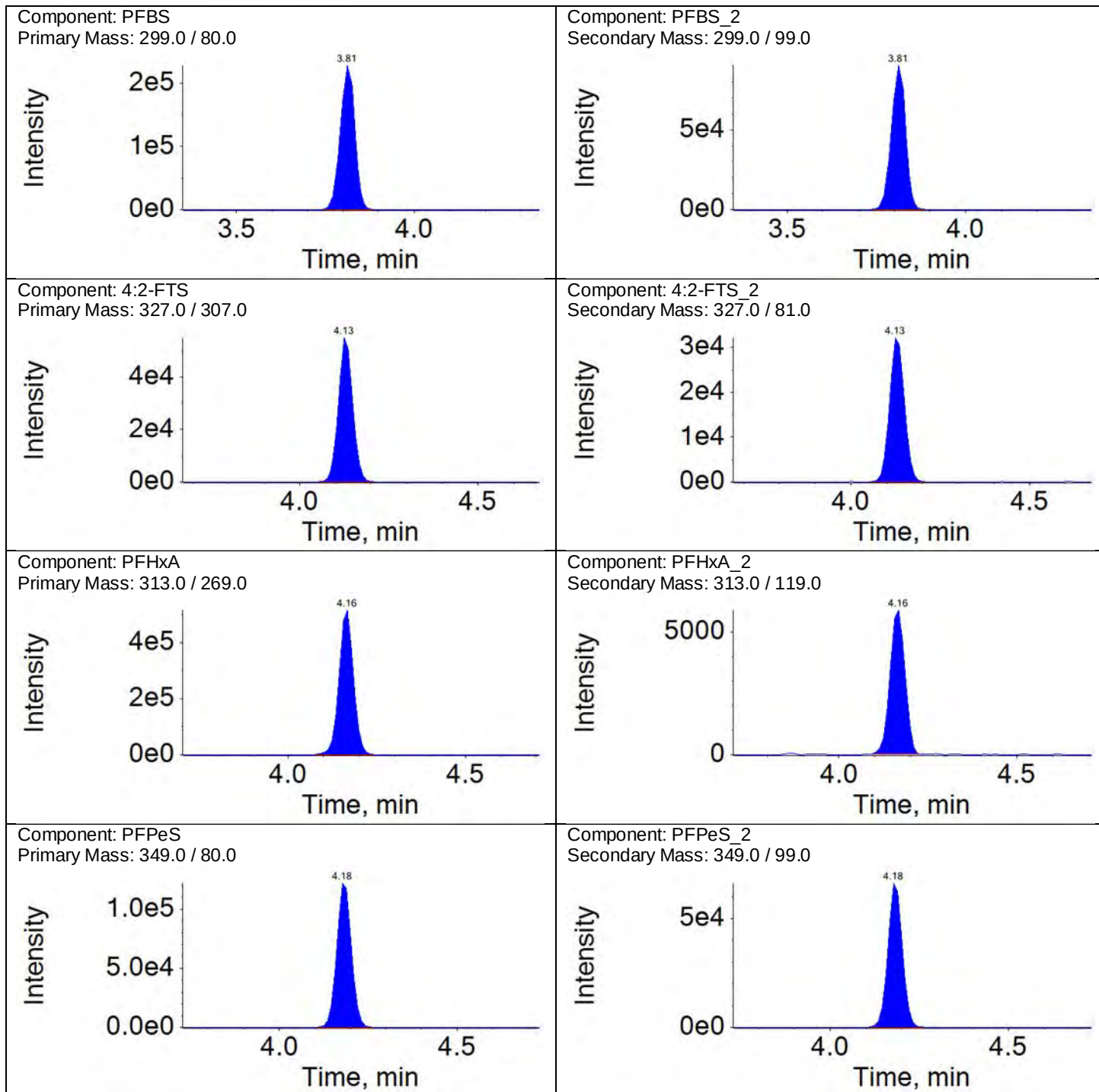
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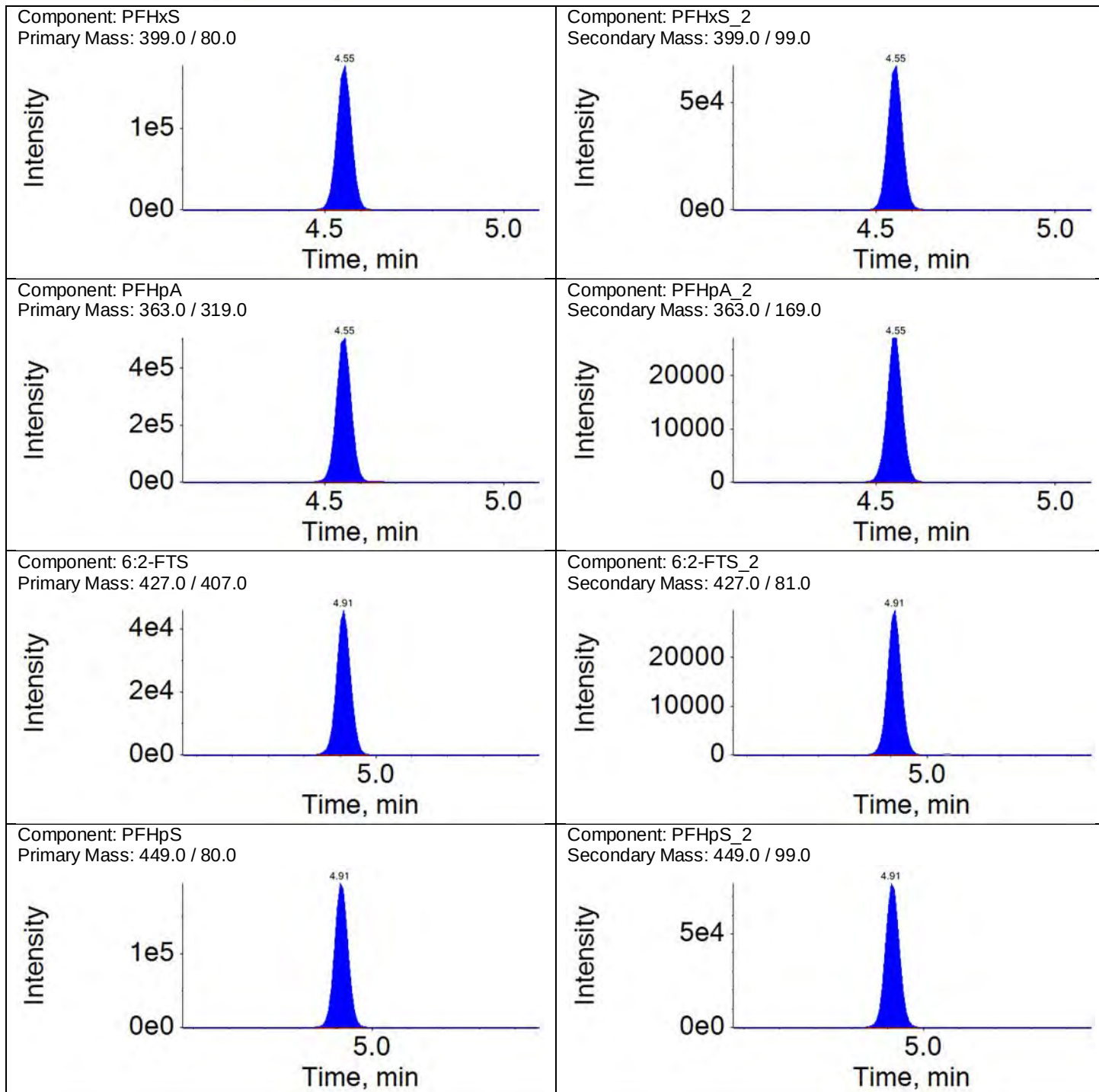
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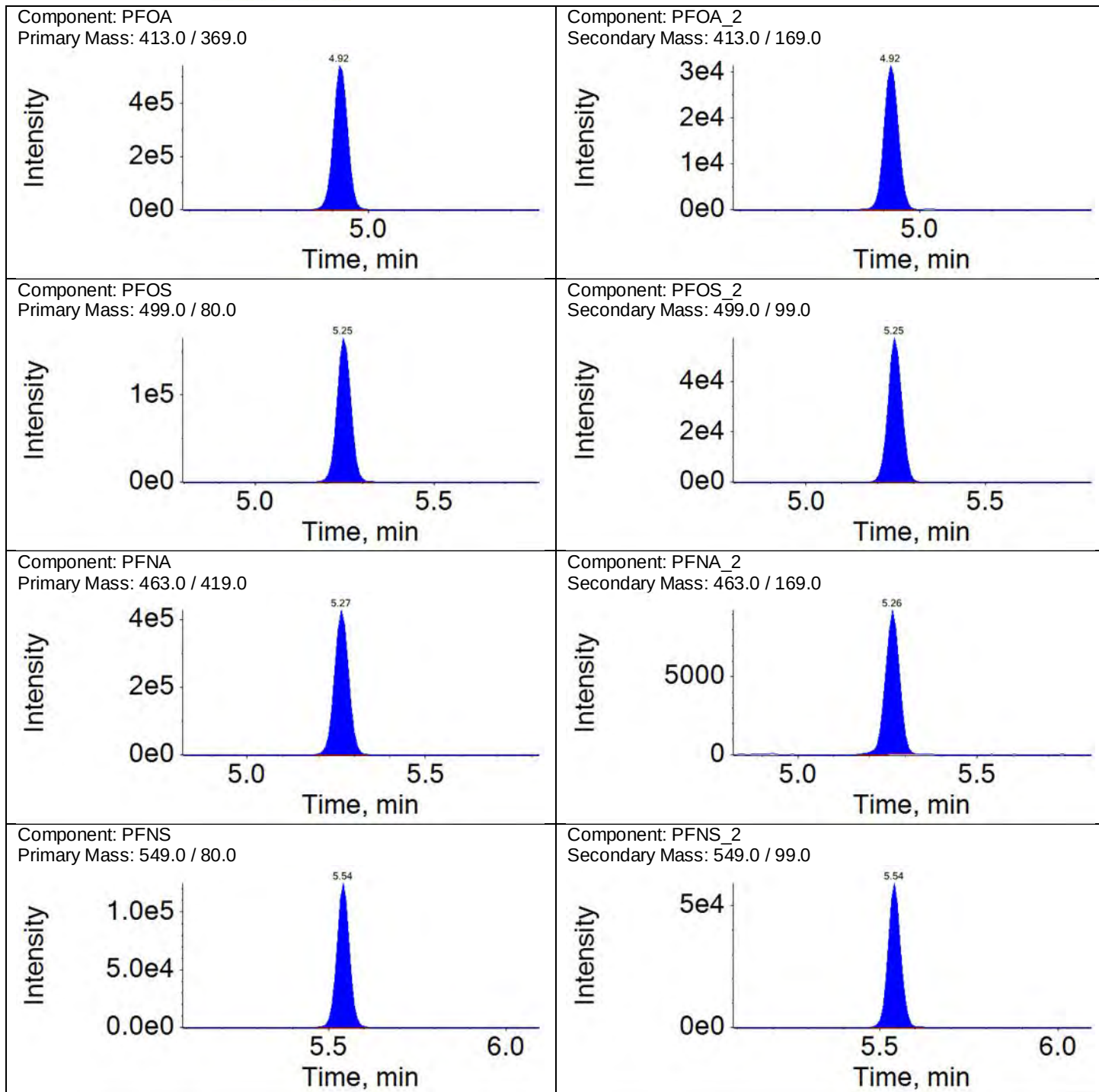
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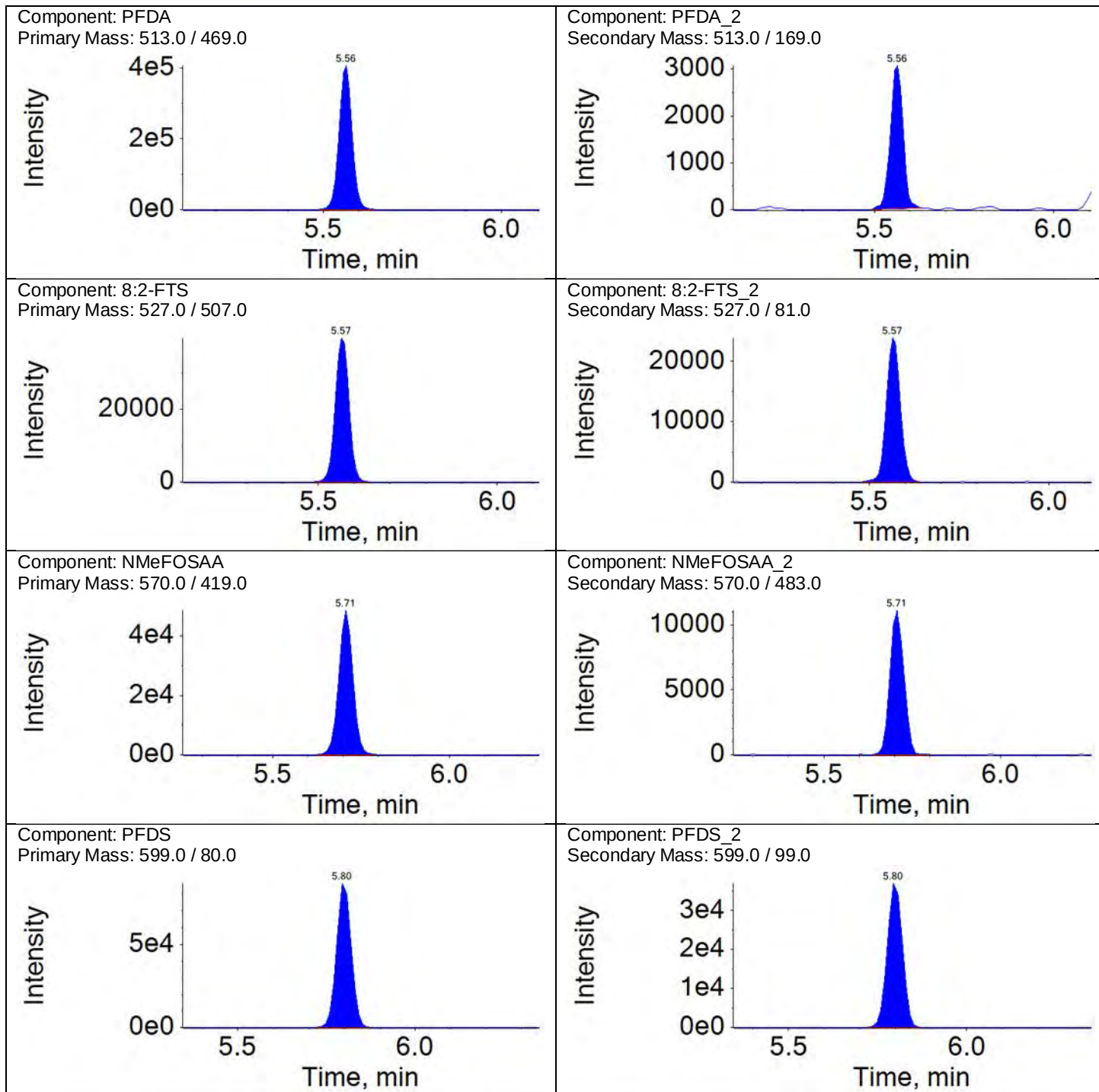
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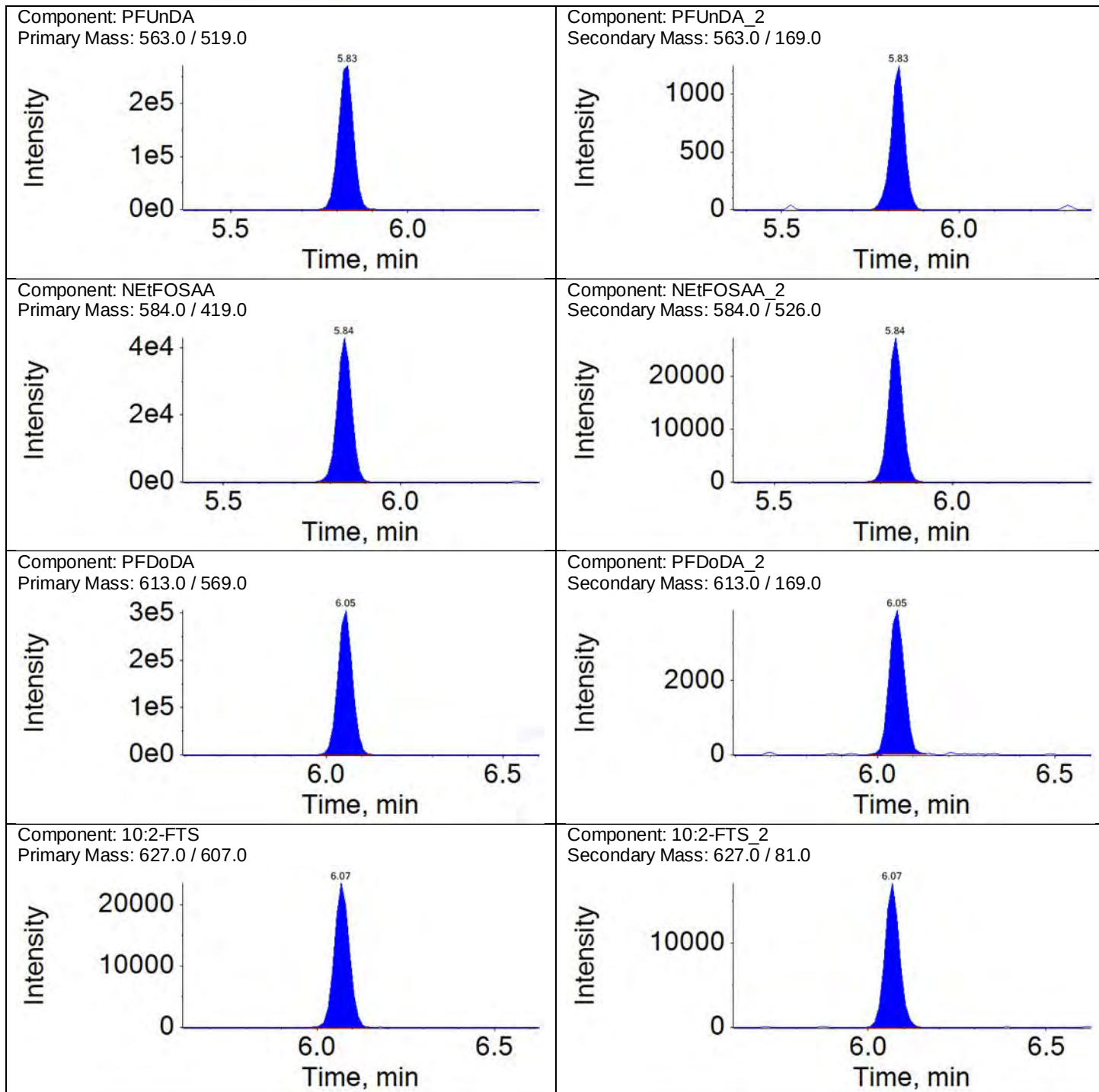
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PFBS_2	3.81	1.00	251751.9	A	0.3576	0.3882	9	50	
4:2-FTS	4.13	1.00	153295.4	A	1.0000	1.0000			
4:2-FTS_2	4.13	1.00	92676.3	A	0.6359	0.6046	-5	50	
PFHxA	4.16	1.00	1455862.5	A	1.0000	1.0000			
PFHxA_2	4.16	1.00	17238.3	A	0.0115	0.0118	3	50	
PFPeS	4.18	1.10	349358.3	A	1.0000	1.0000			
PFPeS_2	4.18	1.10	186638.0	A	0.5384	0.5342	-1	50	
PFHxS	4.55	1.00	513536.6	A	1.0000	1.0000			
PFHxS_2	4.55	1.00	191630.2	A	0.3569	0.3732	5	50	
PFHpA	4.55	1.00	1481489.5	A	1.0000	1.0000			
PFHpA_2	4.55	1.00	81361.9	A	0.0577	0.0549	-5	50	
6:2-FTS	4.91	1.00	125170.2	A	1.0000	1.0000			
6:2-FTS_2	4.91	1.00	79402.5	A	0.6752	0.6344	-6	50	
PFHpS	4.91	1.08	516333.1	A	1.0000	1.0000			
PFHpS_2	4.91	1.08	209566.6	A	0.3950	0.4059	3	50	
PFOA	4.92	1.00	1491946.3	A	1.0000	1.0000			
PFOA_2	4.92	1.00	87116.1	A	0.0635	0.0584	-8	50	
PFOS	5.25	1.00	447769.0	A	1.0000	1.0000			
PFOS_2	5.25	1.00	153925.0	A	0.3494	0.3438	-2	50	
PFNA	5.27	1.00	1179151.8	A	1.0000	1.0000			
PFNA_2	5.26	1.00	25252.4	A	0.0207	0.0214	4	50	
PFNS	5.54	1.06	305013.7	A	1.0000	1.0000			
PFNS_2	5.54	1.06	144136.3	A	0.4890	0.4726	-3	50	
PFDA	5.56	1.00	1029893.8	A	1.0000	1.0000			
PFDA_2	5.56	1.00	7604.6	A	0.0057	0.0074	31	50	
8:2-FTS	5.57	1.00	106591.3	A	1.0000	1.0000			
8:2-FTS_2	5.57	1.00	64856.7	A	0.6169	0.6085	-1	50	
NMeFOSAA	5.71	1.00	136316.9	A	1.0000	1.0000			
NMeFOSAA_2	5.71	1.00	30839.5	A	0.2206	0.2262	3	50	
PFDS	5.80	1.11	250911.0	A	1.0000	1.0000			
PFDS_2	5.80	1.11	110579.9	A	0.4648	0.4407	-5	50	
PFUnDA	5.83	1.00	802732.3	A	1.0000	1.0000			
PFUnDA_2	5.83	1.00	3336.4	A	0.0031	0.0042	32	50	
NEtFOSAA	5.84	1.00	121615.1	A	1.0000	1.0000			
NEtFOSAA_2	5.84	1.00	75878.8	A	0.6082	0.6239	3	50	
PFDODA	6.05	1.00	877242.2	A	1.0000	1.0000			
PFDODA_2	6.05	1.00	11649.3	A	0.0109	0.0133	21	50	
10:2-FTS	6.07	1.09	69275.8	A	1.0000	1.0000			
10:2-FTS_2	6.07	1.09	48328.6	A	0.7082	0.6976	-2	50	
PFTTrDA	6.25	1.03	781283.7	A	1.0000	1.0000			
PFTTrDA_2	6.25	1.03	8100.4	A	0.0096	0.0104	8	50	
PFTeDA	6.43	1.00	630801.4	A	1.0000	1.0000			
PFTeDA_2	6.43	1.00	3863.1	A	0.0055	0.0061	11	50	
PFHxDA	6.73	1.05	297242.6	A	1.0000	1.0000			
PFHxDA_2	6.73	1.05	17318.1	A	0.0596	0.0583	-2	50	
PFODA	7.00	1.09	251726.5	A	1.0000	1.0000			
PFODA_2	6.99	1.09	6453.4	A	0.0257	0.0256	0	50	

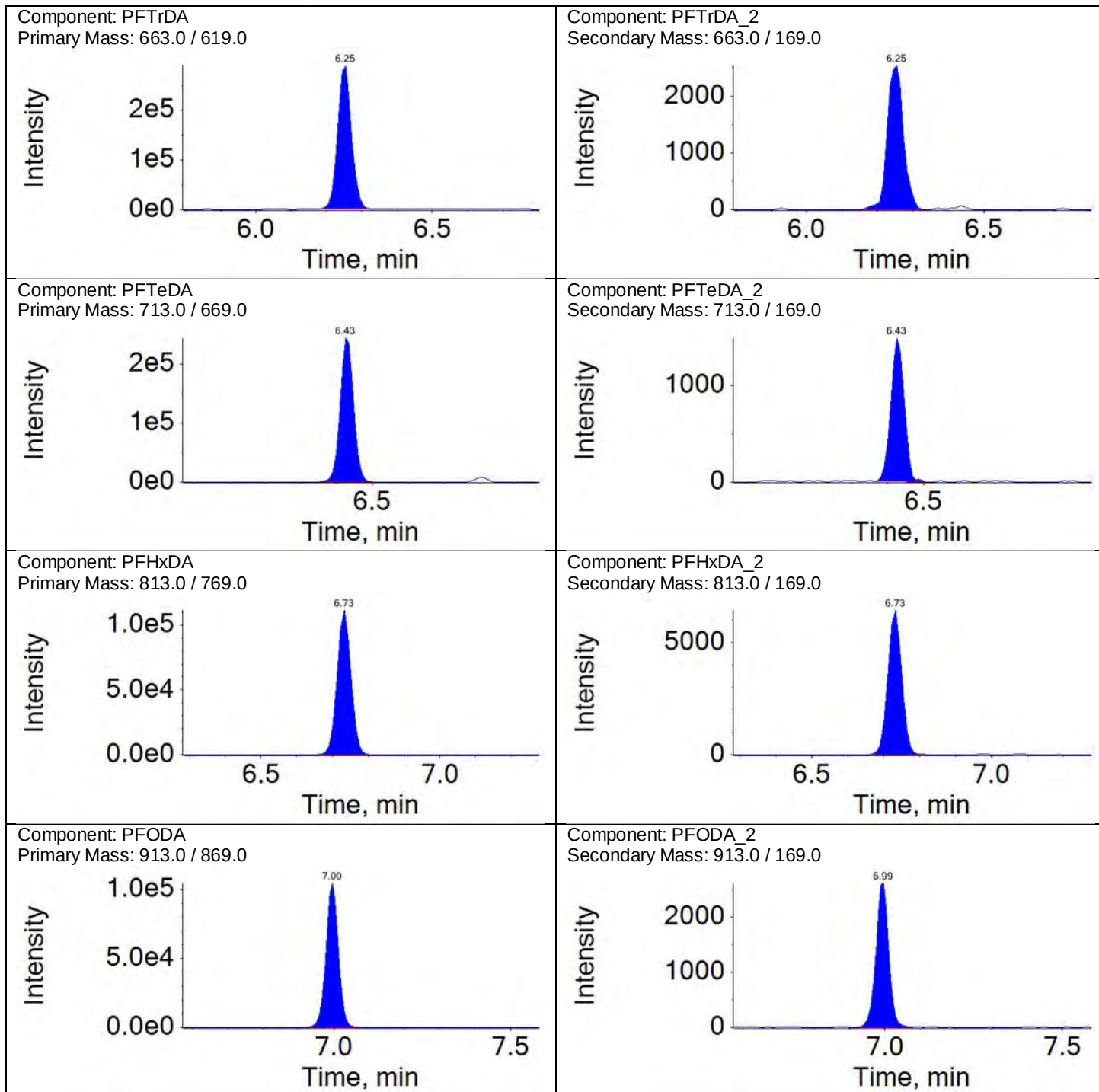












ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL5		Data File:	18NOV07DCAL-14.wiff
Sample ID:	CALMOD51833F		Acquis Date:	2018-11-07T10:15:59
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	7		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV07DCAL
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	N/A		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV07DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	664213.6	730410.6	-9	50	
13C2-PFOA	5.0	488019.6	524423.6	-7	50	
13C4-PFOS	4.8	275029.2	274061.7	0	50	
13C2-PFDA	5.0	298912.1	311442.1	-4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	728925.1	13C3-PFBA	664213.6	1.097	5.000	5.079	102	70-130	
E13C5-PFPeA	768958.1	13C3-PFBA	664213.6	1.158	5.000	5.043	101	70-130	
E13C3-PFBS	442479.7	13C3-PFBA	664213.6	0.666	4.650	4.889	105	70-130	
E13C2-4:2-FTS	48869.9	13C2-PFOA	488019.6	0.100	4.670	4.519	97	70-130	
E13C5-PFHxA	674375.4	13C2-PFOA	488019.6	1.382	5.000	5.083	102	70-130	
E13C3-PFHxS	332808.5	13C2-PFOA	488019.6	0.682	4.730	4.896	104	70-130	
E13C4-PFHpA	544681.1	13C2-PFOA	488019.6	1.116	5.000	5.077	102	70-130	
E13C2-6:2-FTS	32735.6	13C2-PFOA	488019.6	0.067	4.750	4.473	94	70-130	
E13C8-PFOA	895692.2	13C2-PFOA	488019.6	1.835	5.000	5.118	102	70-130	
E13C8-PFOS	297995.6	13C4-PFOS	275029.2	1.084	4.780	4.791	100	70-130	
E13C9-PFNA	484419.3	13C4-PFOS	275029.2	1.761	5.000	4.811	96	70-130	
E13C6-PFDA	598009.7	13C2-PFDA	298912.1	2.001	5.000	5.031	101	70-130	
E13C2-8:2-FTS	27554.0	13C2-PFDA	298912.1	0.092	4.790	4.878	102	70-130	
E13C8-PFOSA	737038.5	13C2-PFDA	298912.1	2.466	5.000	5.381	108	70-130	
Ed3-NMeFOSAA	73896.1	13C2-PFDA	298912.1	0.247	5.000	4.597	92	70-130	
E13C7-PFUnDA	263924.7	13C2-PFDA	298912.1	0.883	5.000	5.094	102	70-130	
Ed5-NEtFOSAA	57745.7	13C2-PFDA	298912.1	0.193	5.000	4.471	89	70-130	
E13C2-PFDoDA	548536.0	13C2-PFDA	298912.1	1.835	5.000	4.947	99	70-130	
Ed7-NMePFOSAE	321549.5	13C2-PFDA	298912.1	1.076	5.000	5.002	100	70-130	
Ed3-NMePFOSA	82137.6	13C2-PFDA	298912.1	0.275	5.000	5.031	101	70-130	
Ed9-NEtPFOSAE	259950.9	13C2-PFDA	298912.1	0.870	5.000	4.966	99	70-130	
Ed5-NEtPFOSA	62005.6	13C2-PFDA	298912.1	0.207	5.000	4.803	96	70-130	
E13C2-PFTeDA	421798.8	13C2-PFDA	298912.1	1.411	5.000	5.080	102	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL5

Instrument Name: LM27631

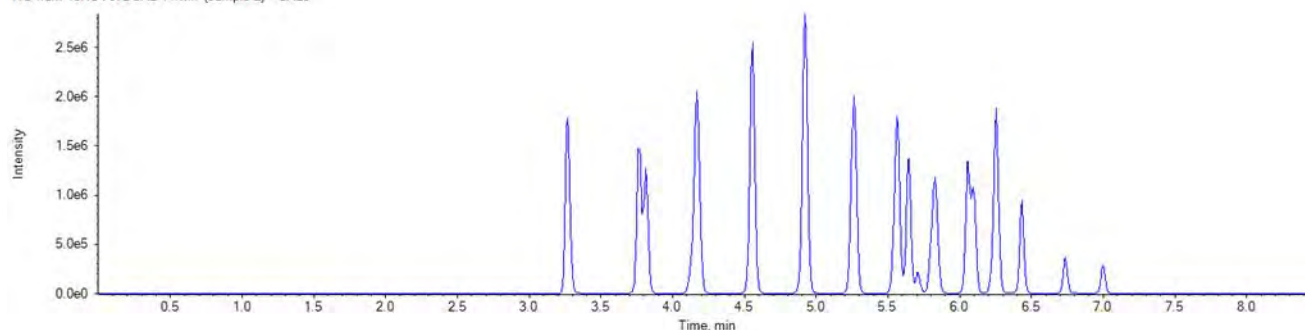
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	2730076.0		A	13C4-PFBA	3.27	728925.1	3.745	21.919
PFPeA	3.77	1.000	2812772.2		A	13C5-PFPeA	3.77	768958.1	3.658	21.739
PFBS	3.82	1.000	1601296.4		A	13C3-PFBS	3.82	442479.7	3.619	18.246
4:2-FTS	4.13	1.000	365423.8		A	13C2-4:2-FTS	4.13	48869.9	7.477	20.102
PFHxA	4.16	1.000	3380716.3		A	13C5-PFHxA	4.17	674375.4	5.013	21.499
PFPeS	4.18	1.100	845636.3		A	13C3-PFBS	3.82	442479.7	1.911	18.849
PFHxS	4.55	1.000	1261633.0		A	13C3-PFHxS	4.55	332808.5	3.791	19.215
PFHpA	4.55	1.000	3440372.8		A	13C4-PFHpA	4.55	544681.1	6.316	21.243
6:2-FTS	4.91	1.000	278493.0		A	13C2-6:2-FTS	4.91	32735.6	8.507	21.223
PFHpS	4.92	1.080	1236603.7		A	13C3-PFHxS	4.55	332808.5	3.716	19.439
PFOA	4.92	1.000	3425279.8		A	13C8-PFOA	4.92	895692.2	3.824	21.532
PFOS	5.25	1.000	1108359.9		A	13C8-PFOS	5.25	297995.6	3.719	19.287
PFNA	5.27	1.000	2889454.7		A	13C9-PFNA	5.27	484419.3	5.965	22.292
PFNS	5.54	1.060	722178.3		A	13C8-PFOS	5.25	297995.6	2.423	19.215
PFDA	5.57	1.000	2401274.2		A	13C6-PFDA	5.57	598009.7	4.015	22.091
8:2-FTS	5.57	1.000	244867.6		A	13C2-8:2-FTS	5.57	27554.0	8.887	20.031
PFOSA	5.64	1.000	2448684.3		A	13C8-PFOSA	5.64	737038.5	3.322	17.959
NMeFOSAA	5.71	1.000	308507.7		A	d3-NMeFOSAA	5.71	73896.1	4.175	21.482
PFDS	5.80	1.110	605559.3		A	13C8-PFOS	5.25	297995.6	2.032	19.412
PFUnDA	5.83	1.000	1952356.4		A	13C7-PFUnDA	5.83	263924.7	7.397	21.214
NEtFOSAA	5.85	1.000	298834.2		A	d5-NEtFOSAA	5.84	57745.7	5.175	22.240
PFDODA	6.06	1.000	2132260.7		A	13C2-PFDODA	6.06	548536.0	3.887	21.067
10:2-FTS	6.07	1.090	177607.5		A	13C2-8:2-FTS	5.57	27554.0	6.446	20.071
NMePFOSAE	6.10	1.000	1583085.5		A	d7-NMePFOSAE	6.09	321549.5	4.923	22.062
NMePFOSA	6.10	1.000	323567.0		A	d3-NMePFOSA	6.10	82137.6	3.939	22.050
PFDOS	6.22	1.190	295383.8		A	13C8-PFOS	5.25	297995.6	0.991	19.132
NEtPFOSAE	6.25	1.000	1810587.6		A	d9-NEtPFOSAE	6.24	259950.9	6.965	22.328
NEtPFOSA	6.27	1.000	290096.1		A	d5-NEtPFOSA	6.26	62005.6	4.679	20.605
PFTDA	6.25	1.030	1851055.0		A	13C2-PFDODA	6.06	548536.0	3.375	21.280
PFTeDA	6.43	1.000	1500655.1		A	13C2-PFTeDA	6.43	421798.8	3.558	20.892
PFHxDA	6.73	1.050	716467.3		A	13C2-PFTeDA	6.43	421798.8	1.699	21.085
PFODA	7.00	1.090	624697.0		A	13C2-PFTeDA	6.43	421798.8	1.481	21.218

Total Ion Chromatogram

TIC from 18NOV07DCAL-14.wiff (sample 2) - CAL5



APPROVED

By JPT at 2:53 pm, 11/7/18

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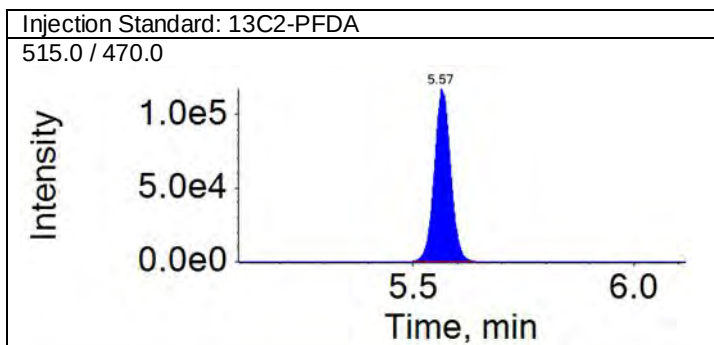
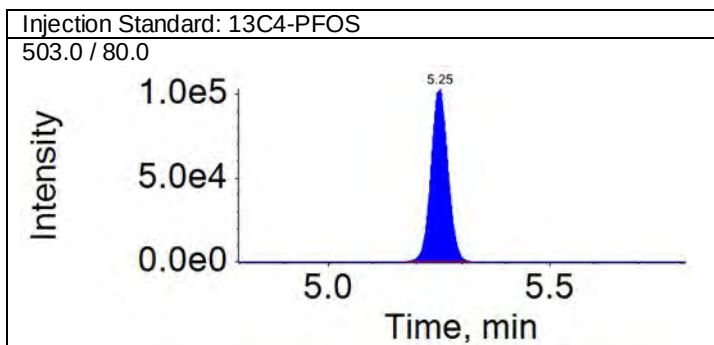
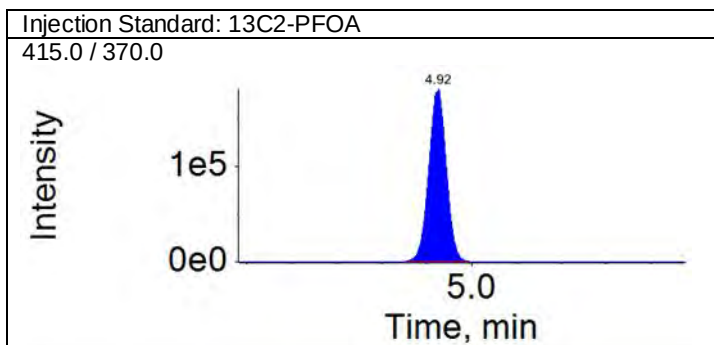
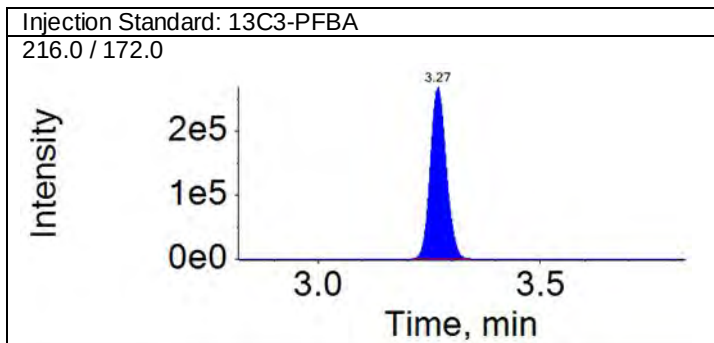
REVIEWED

By umar at 5:23 pm, 11/9/18

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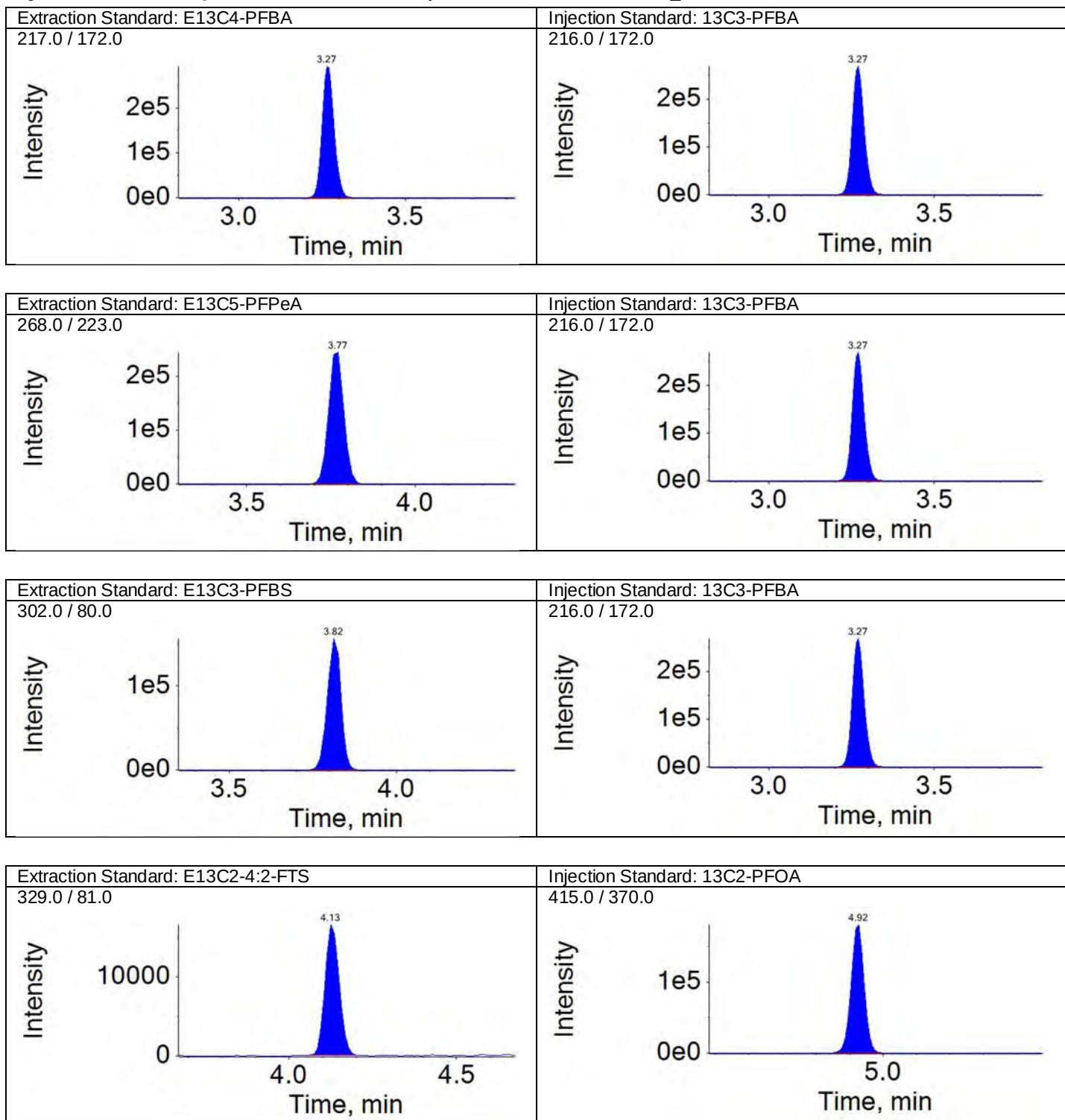
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



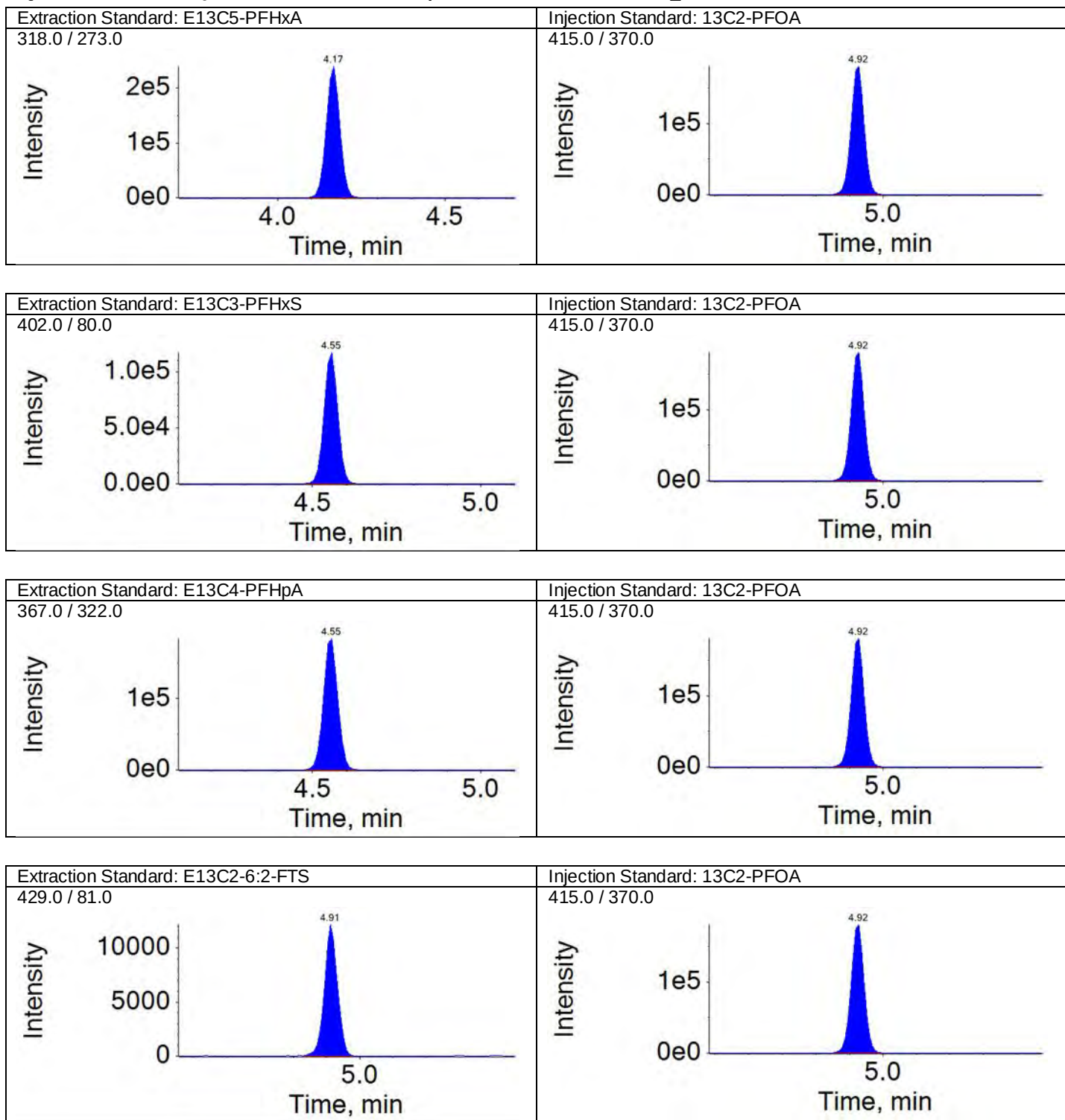
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ICAL Name: 18NOV07DCAL
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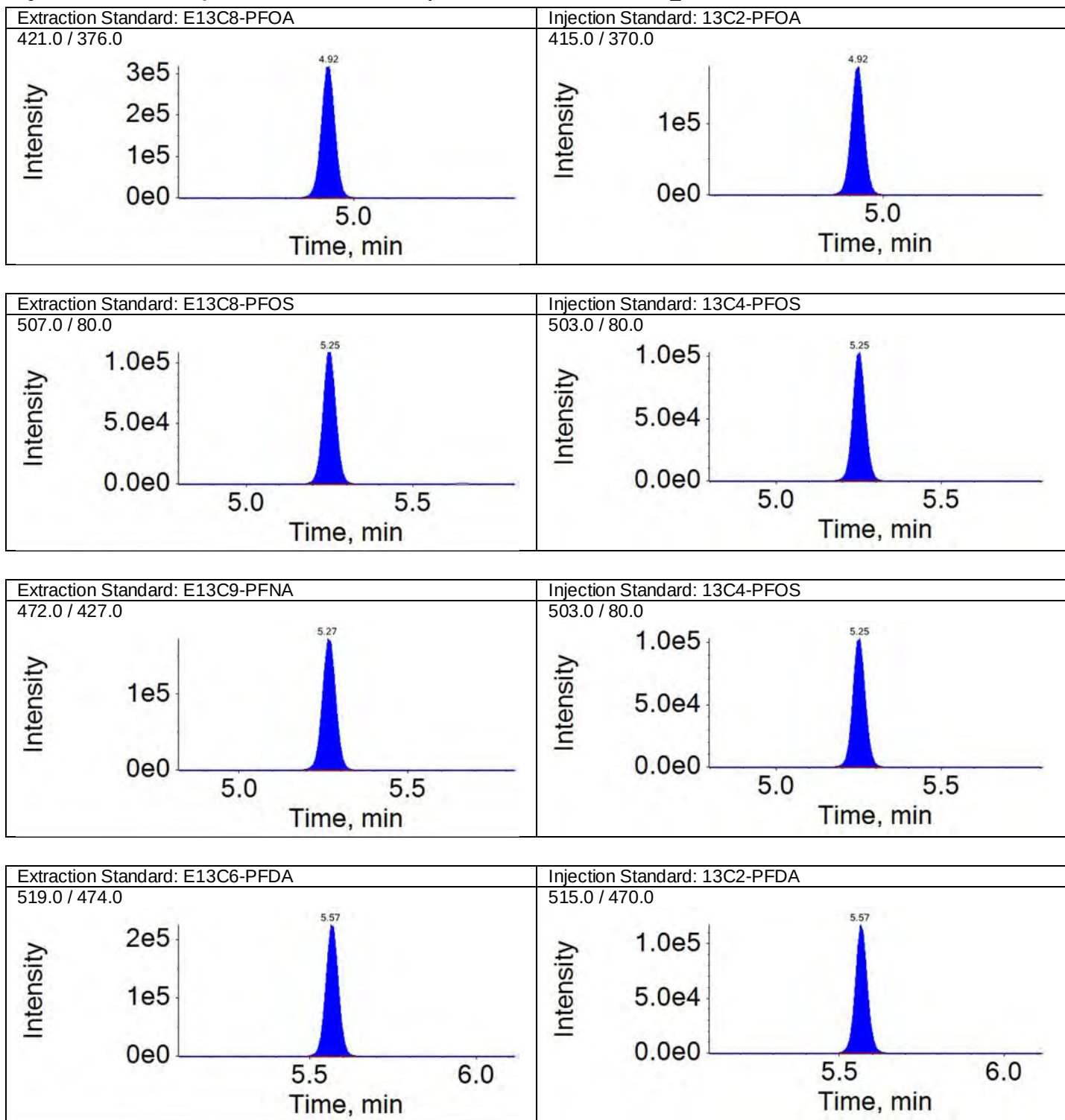
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ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
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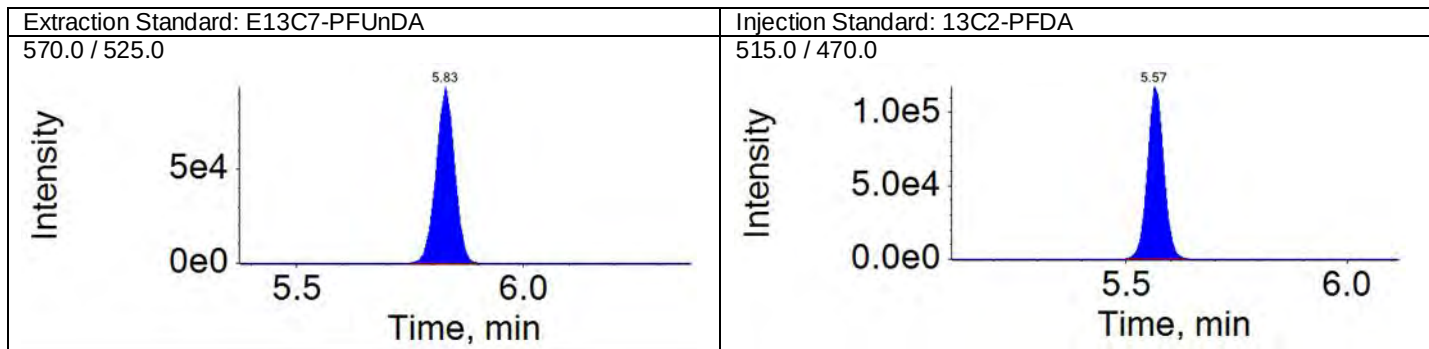
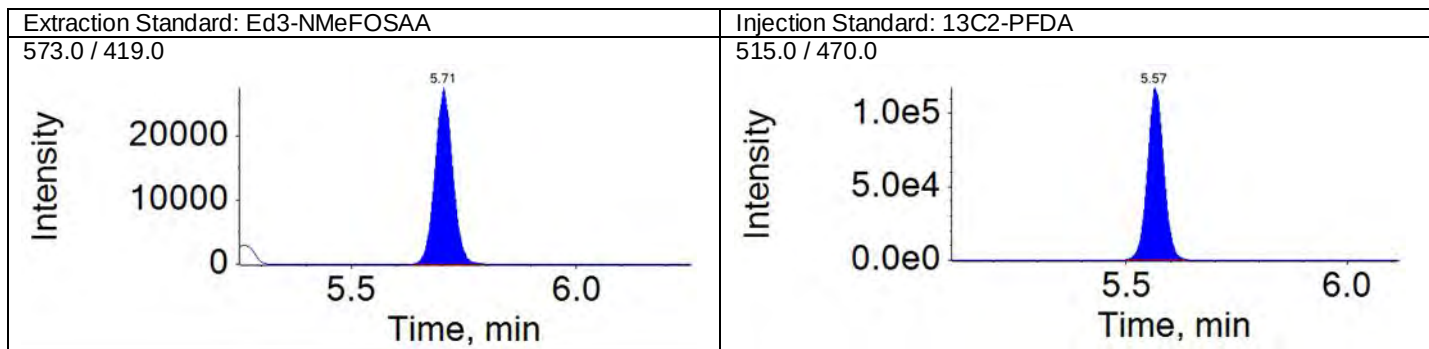
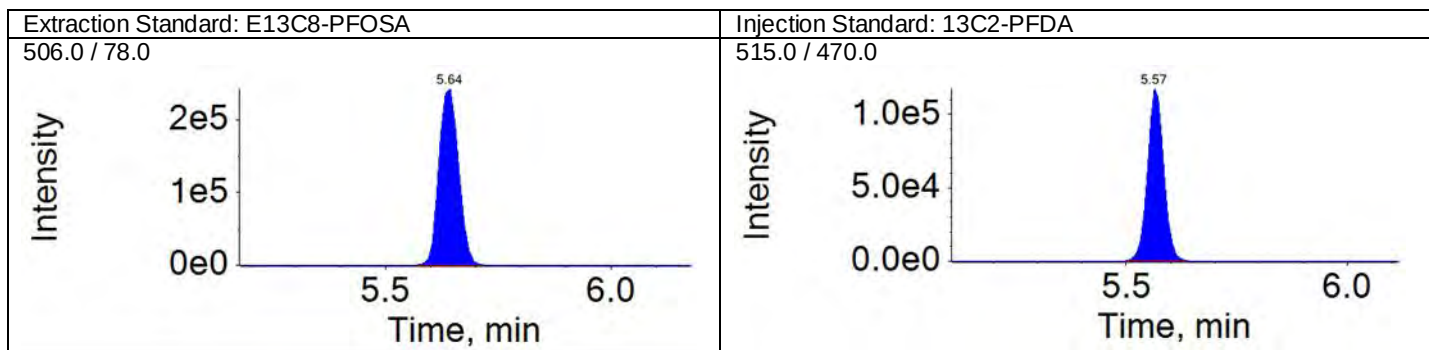
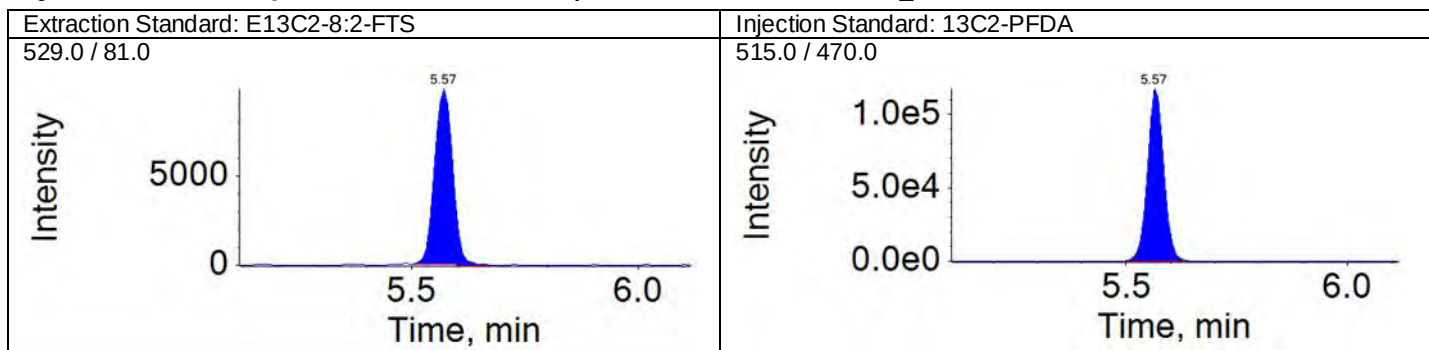
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ICAL Name: 18NOV07DCAL
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Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
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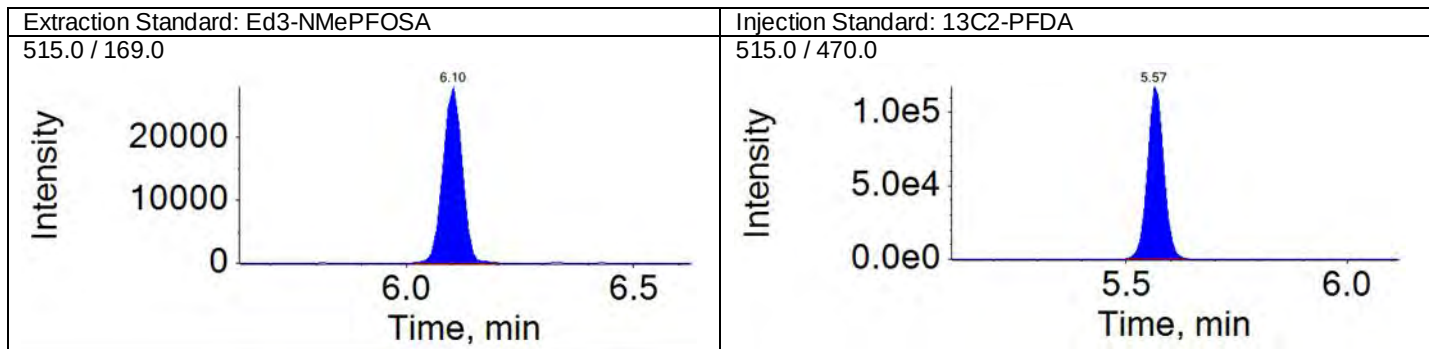
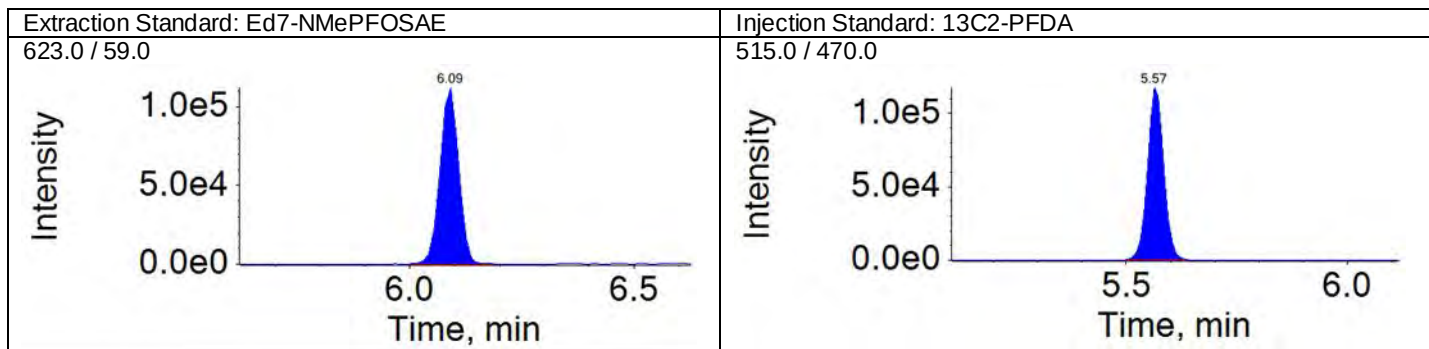
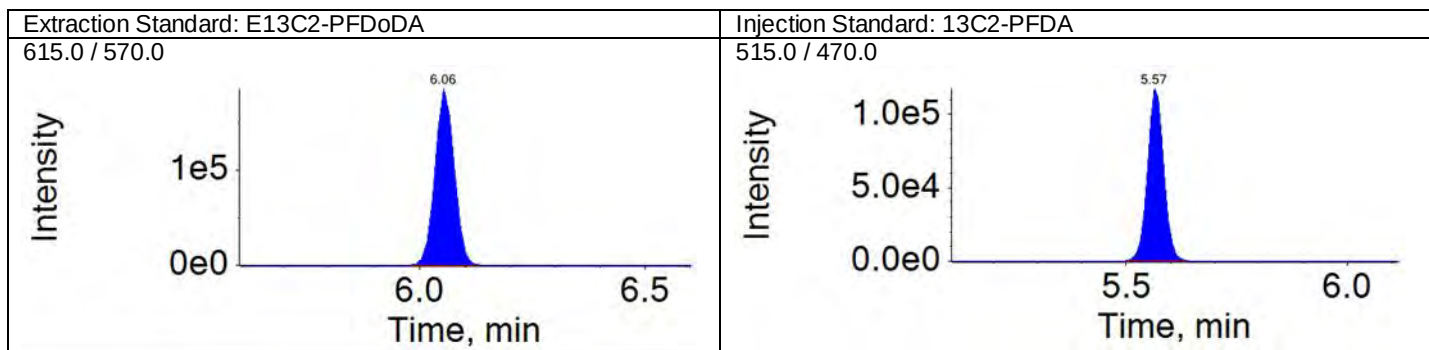
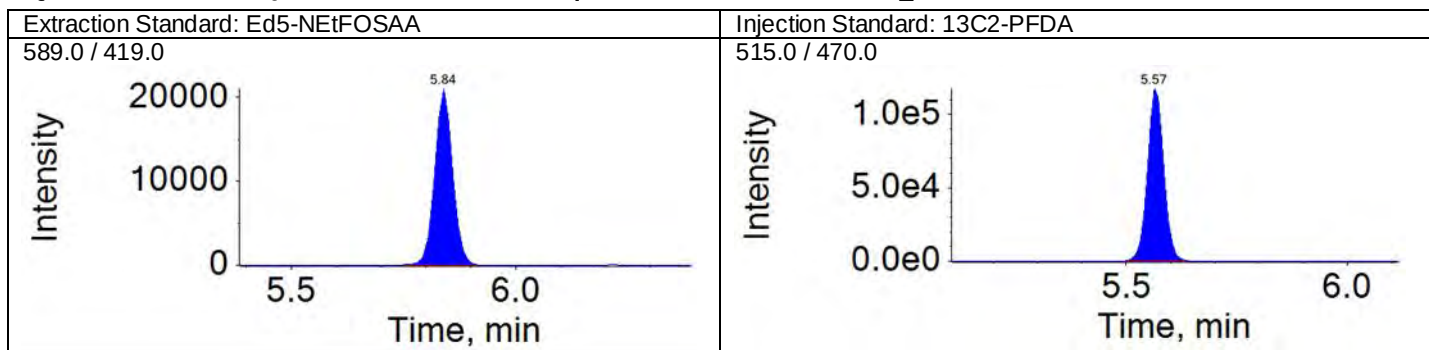
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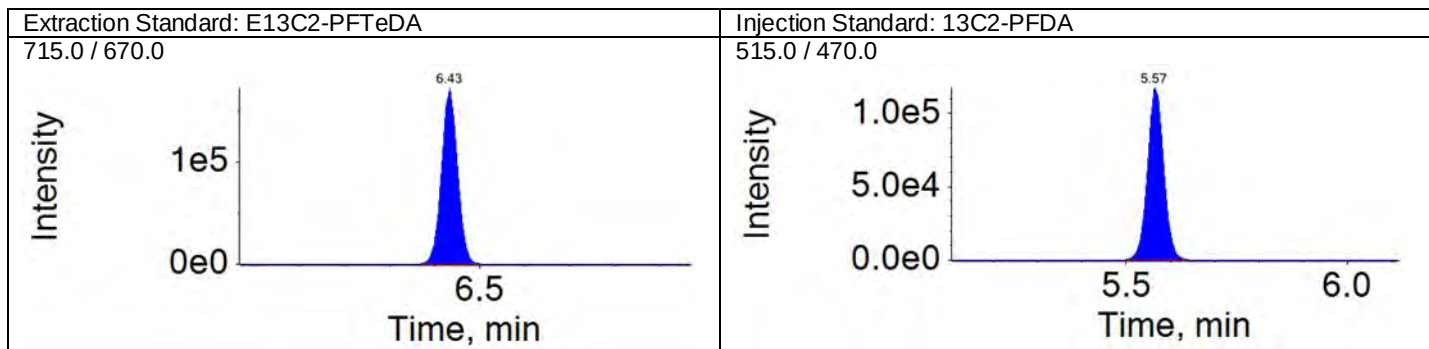
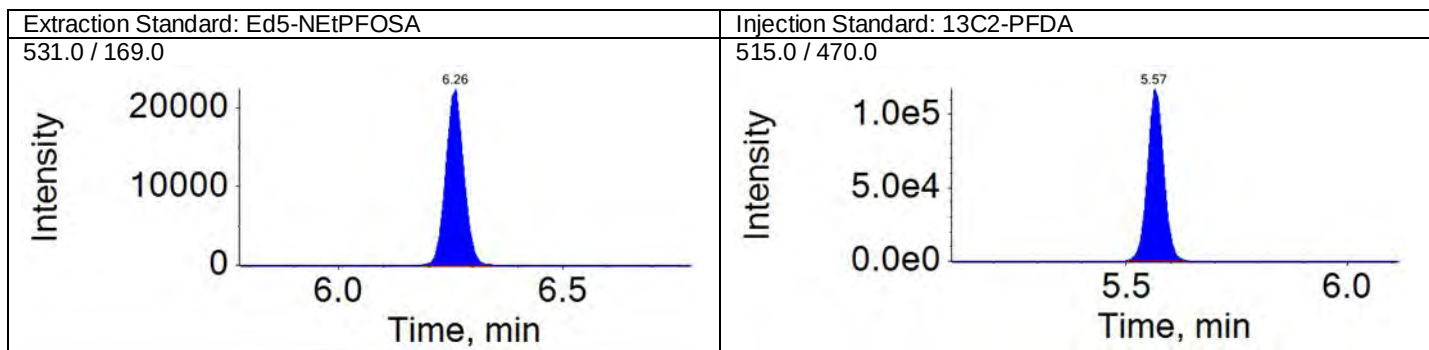
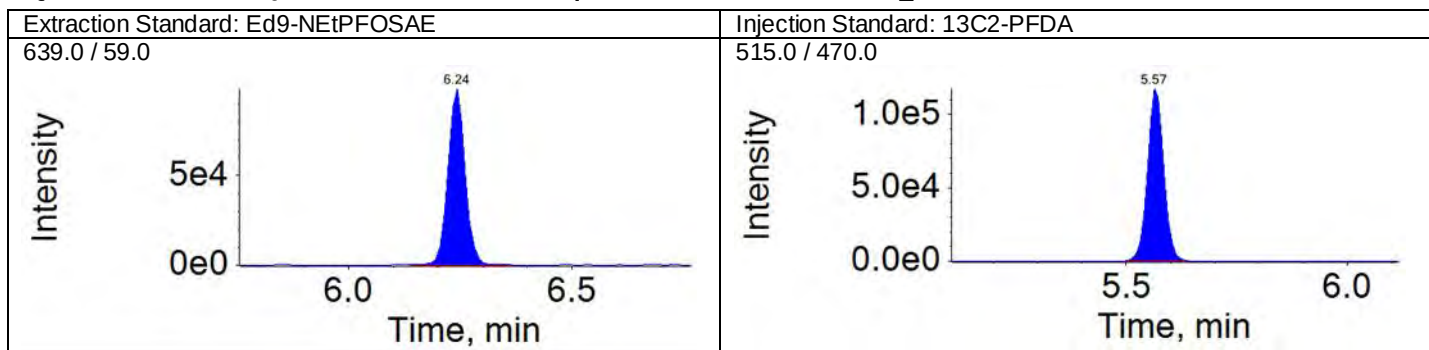
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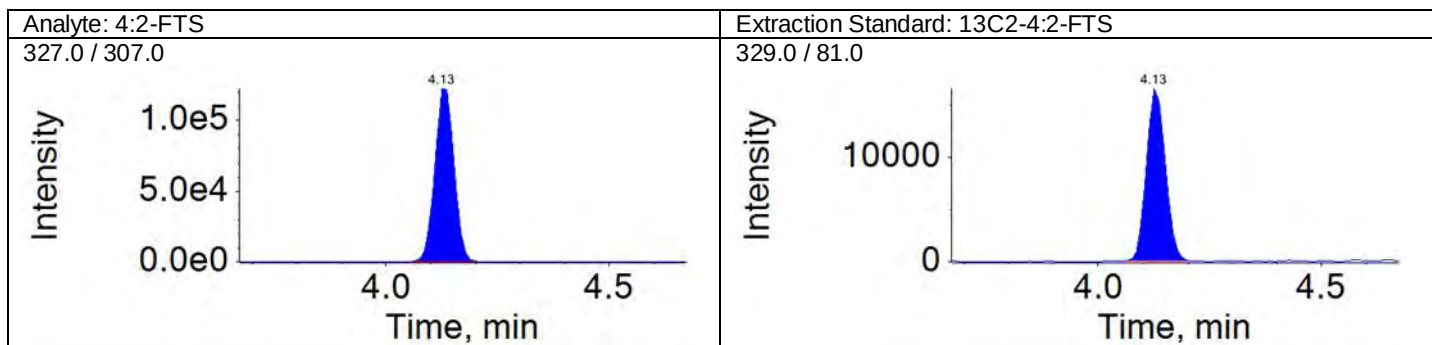
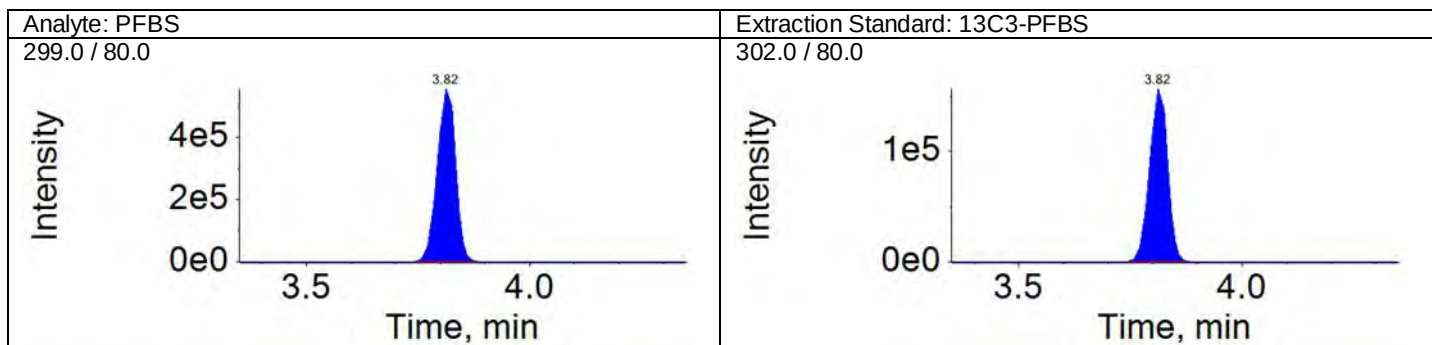
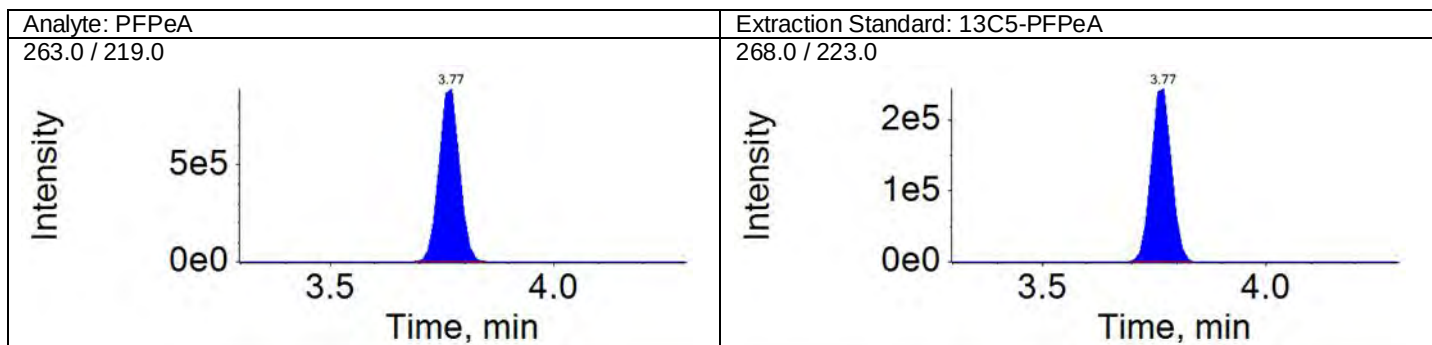
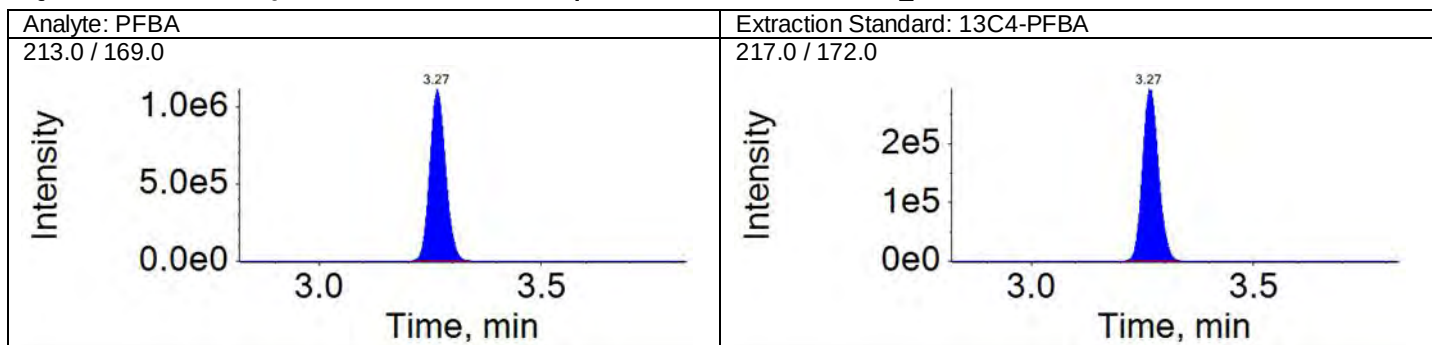
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



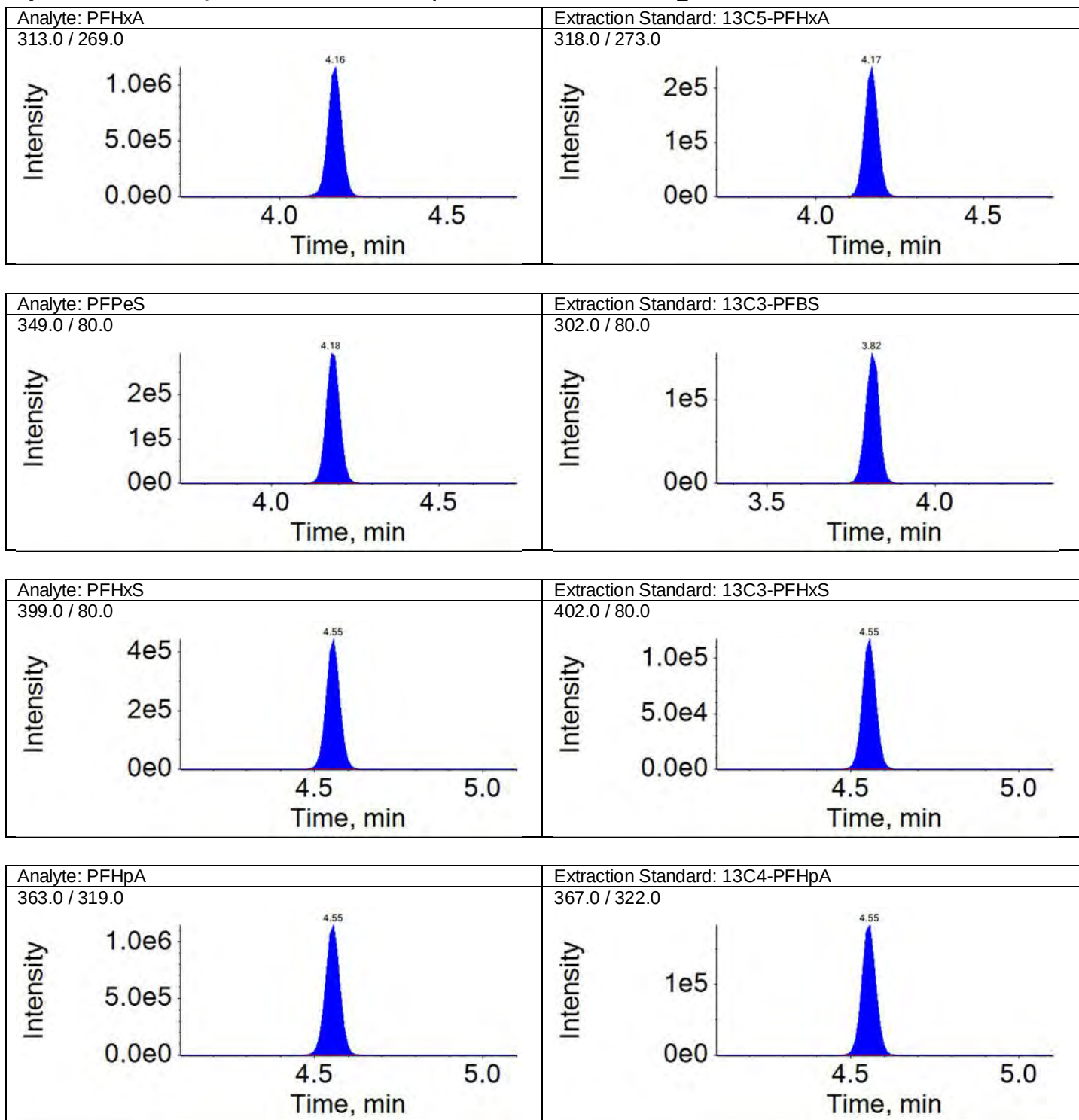
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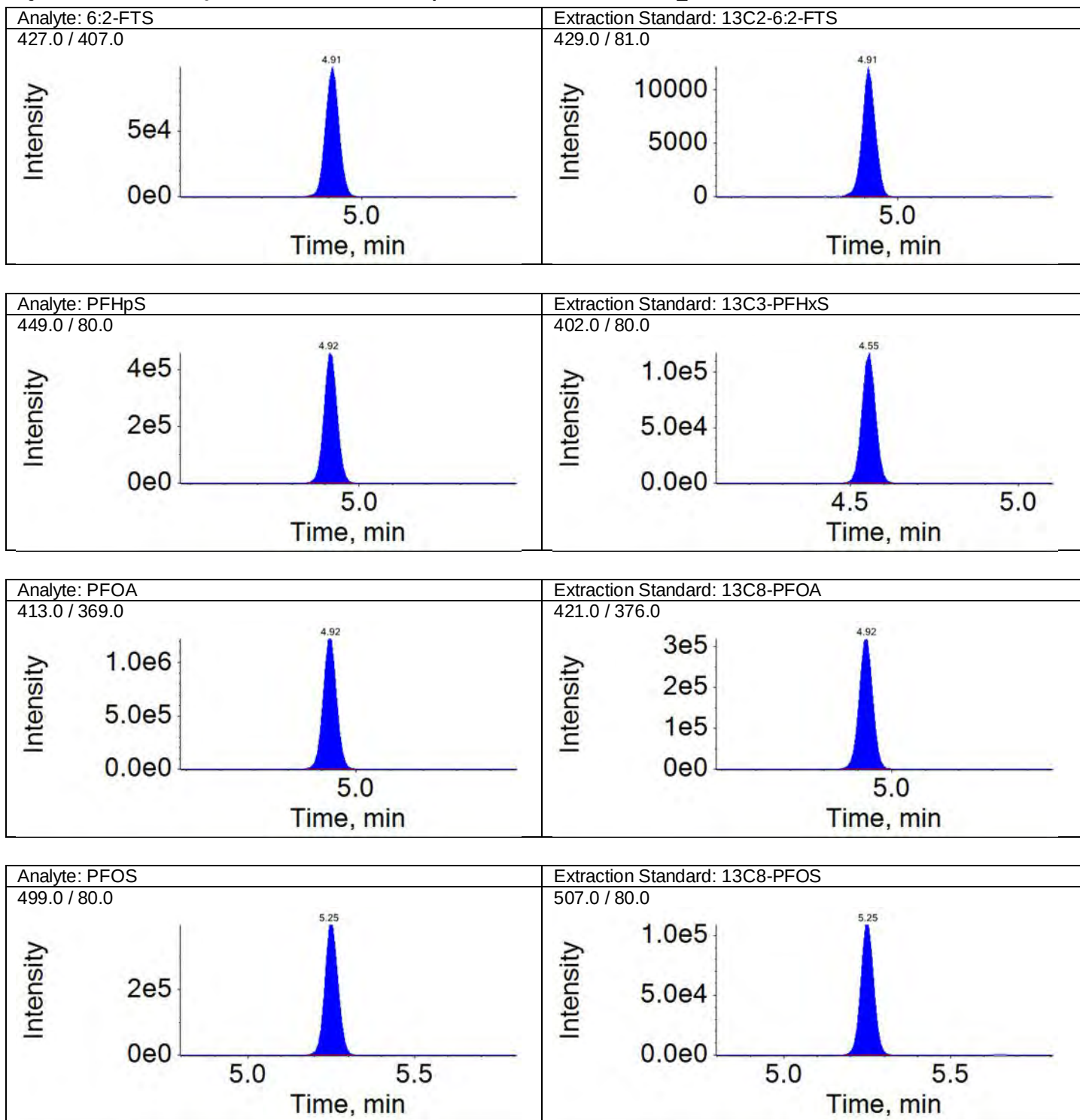
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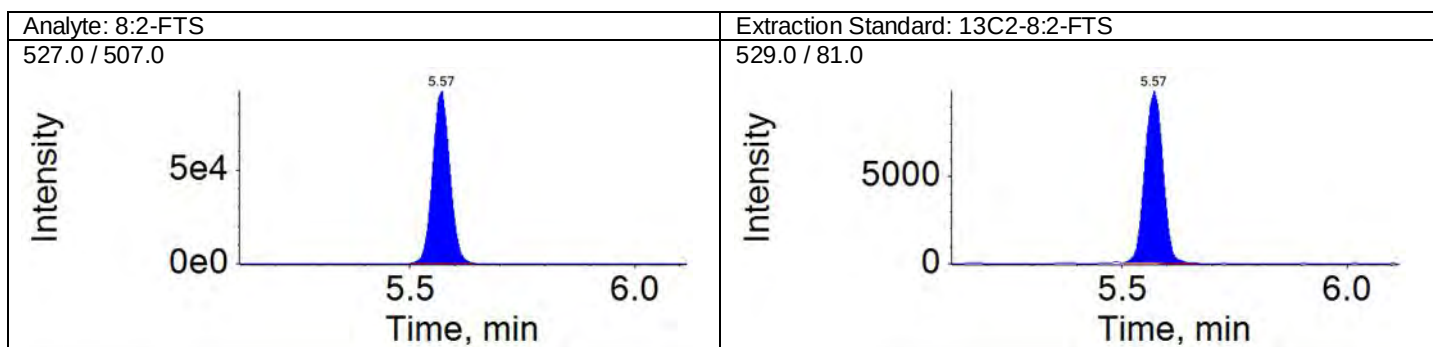
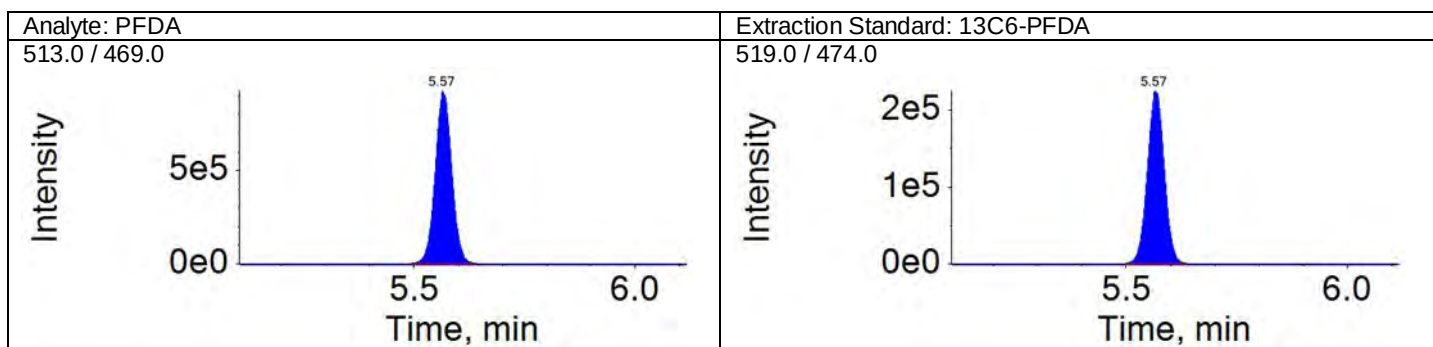
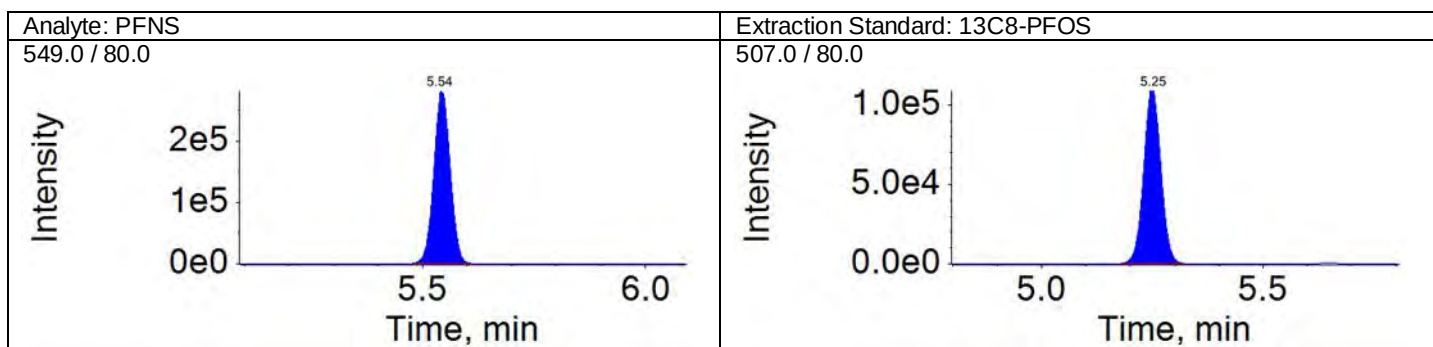
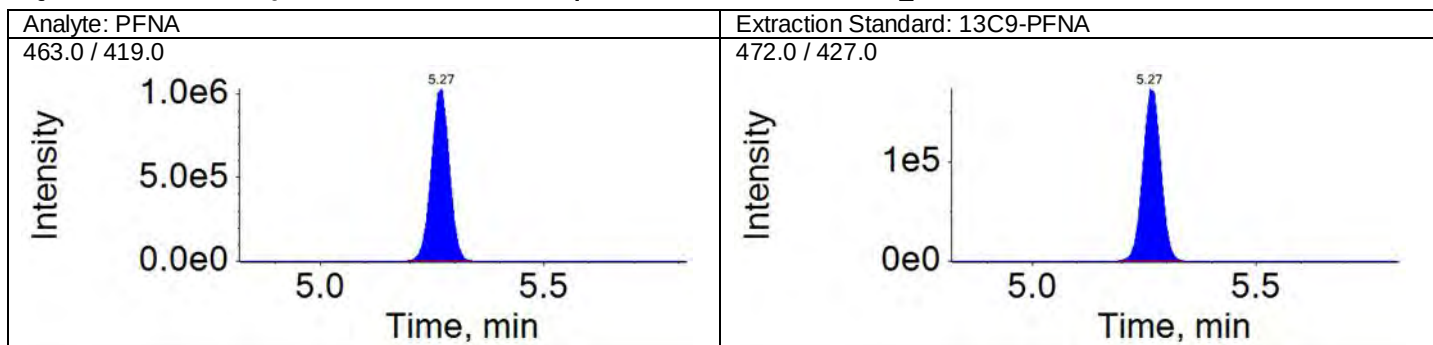
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QMethod Name: MQ4-18AUG13

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ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

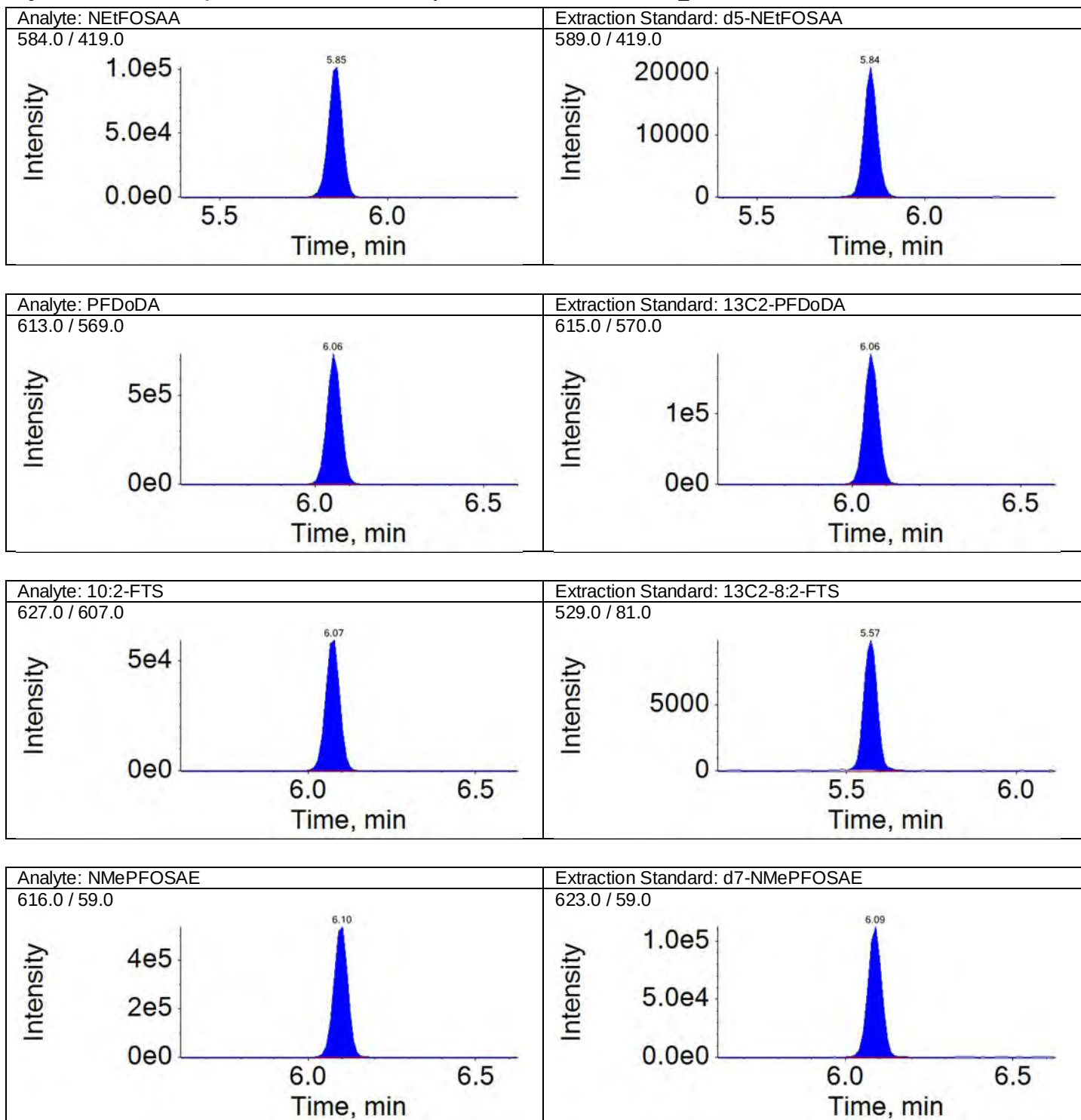
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QMethod Name: MQ4-18AUG13

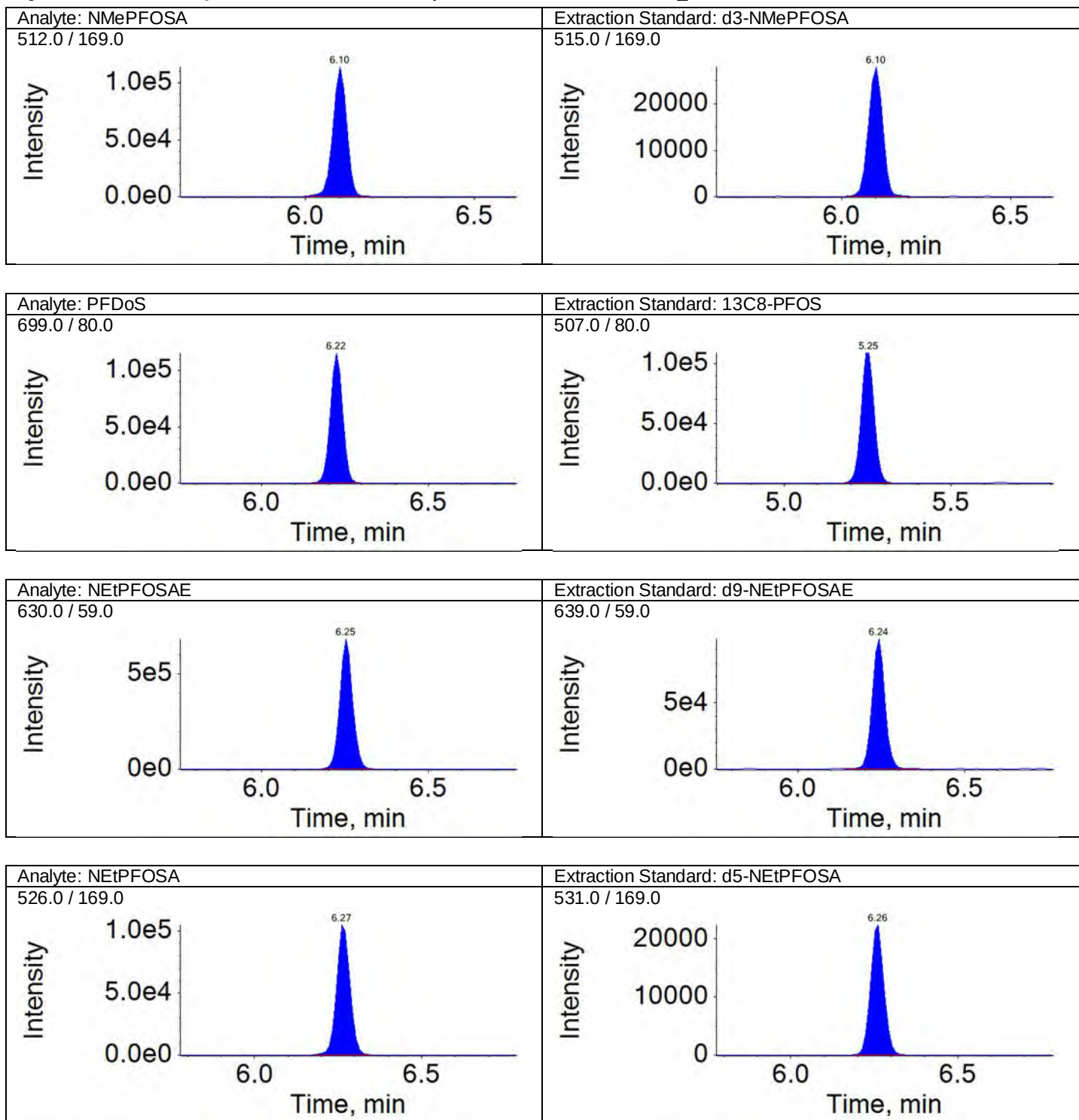
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Analyte: NMeFOSAA 570.0 / 419.0	Extraction Standard: d3-NMeFOSAA 573.0 / 419.0
Analyte: PFDS 599.0 / 80.0	Extraction Standard: 13C8-PFOS 507.0 / 80.0
Analyte: PFUnDA 563.0 / 519.0	Extraction Standard: 13C7-PFUnDA 570.0 / 525.0

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
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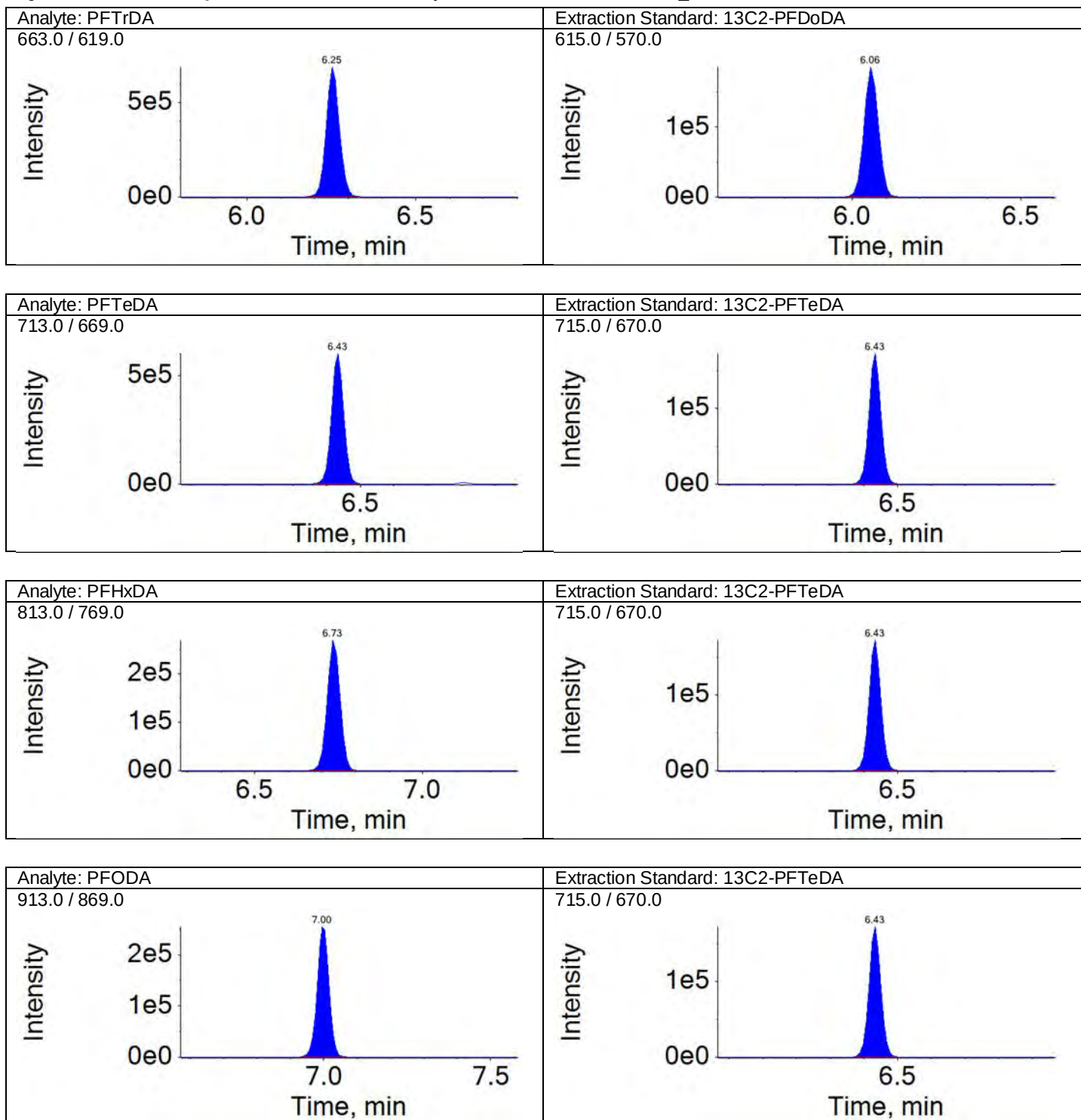
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ICAL Name: 18NOV07DCAL
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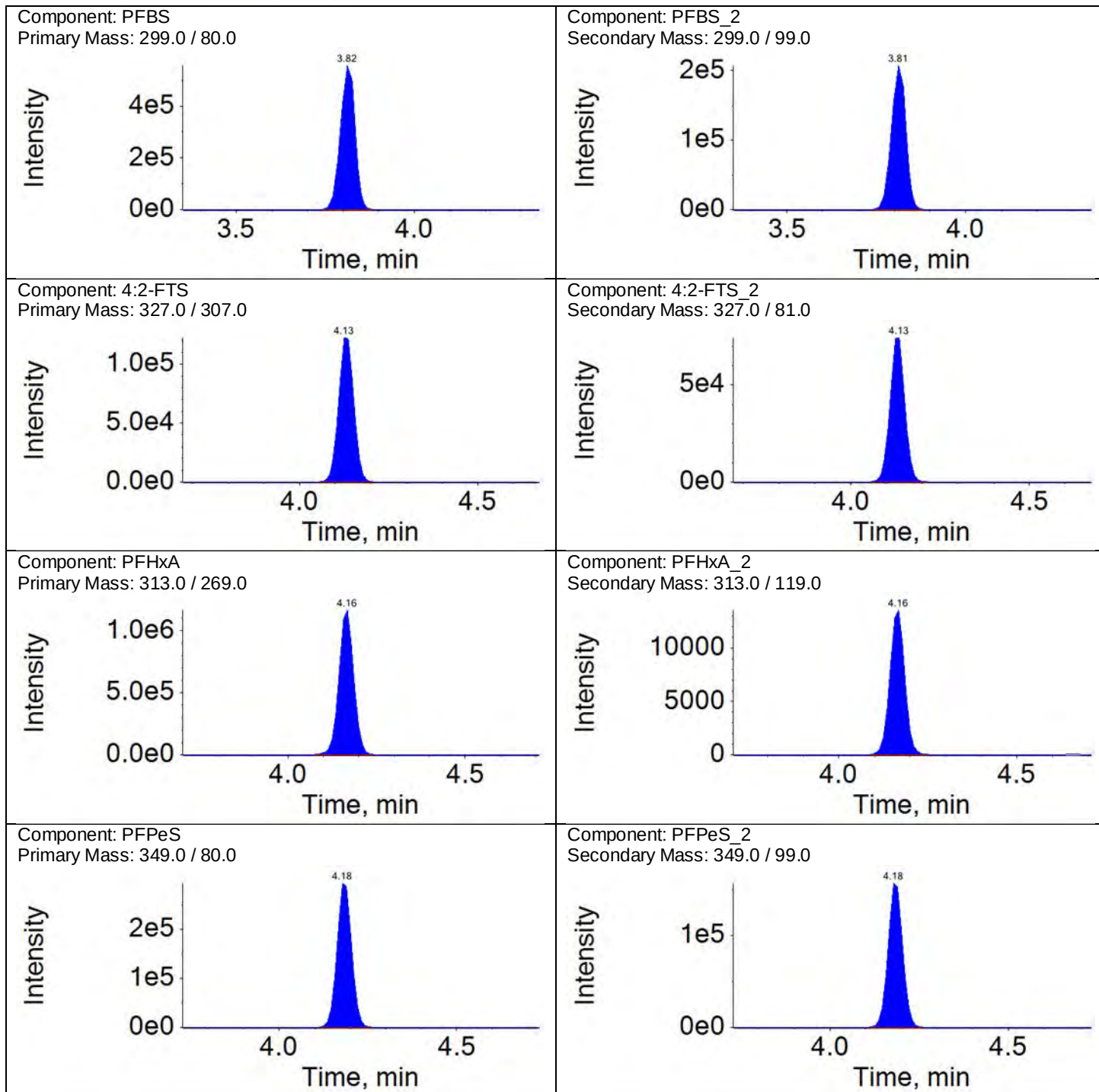
Ion Ratio Report

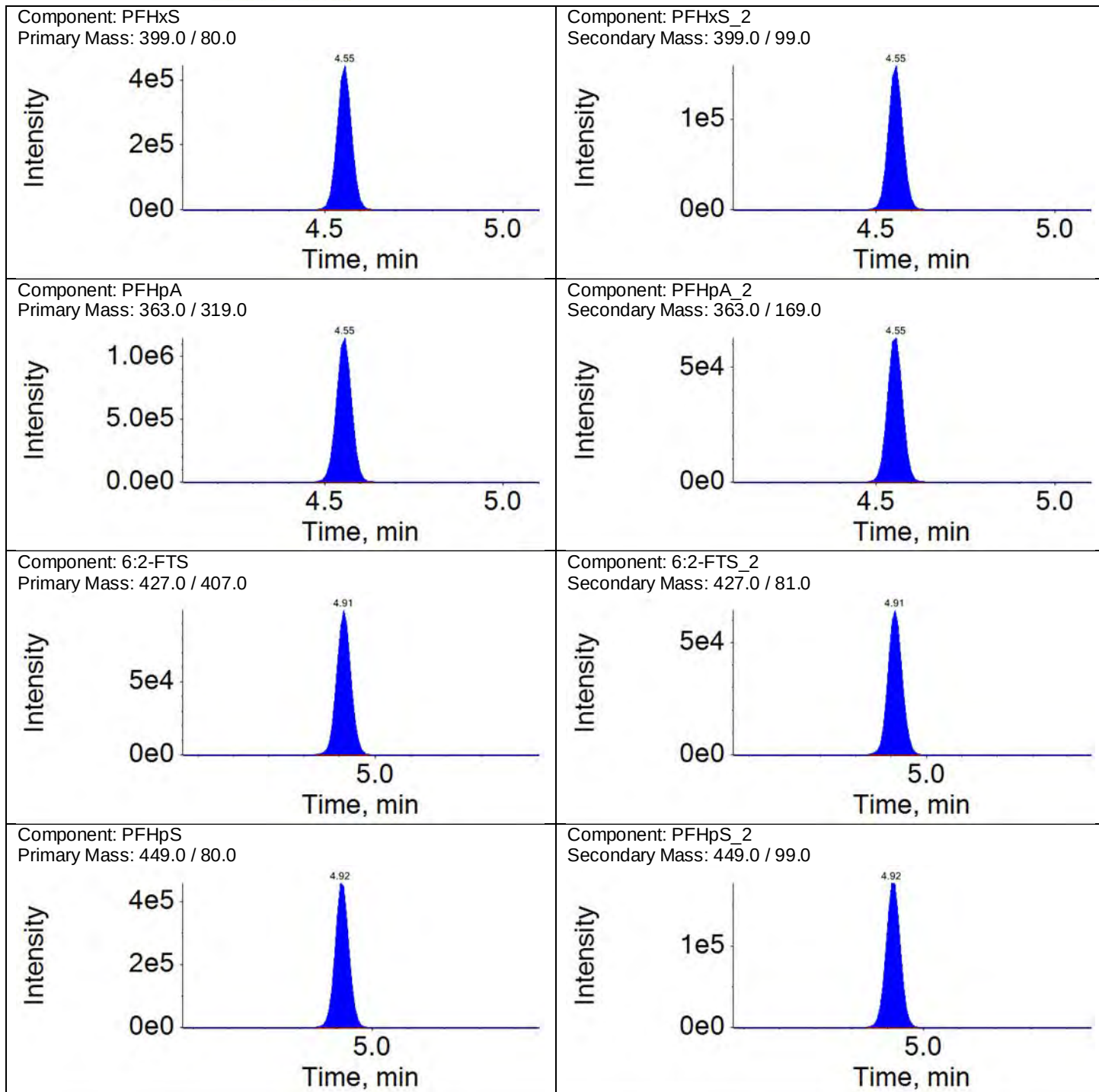
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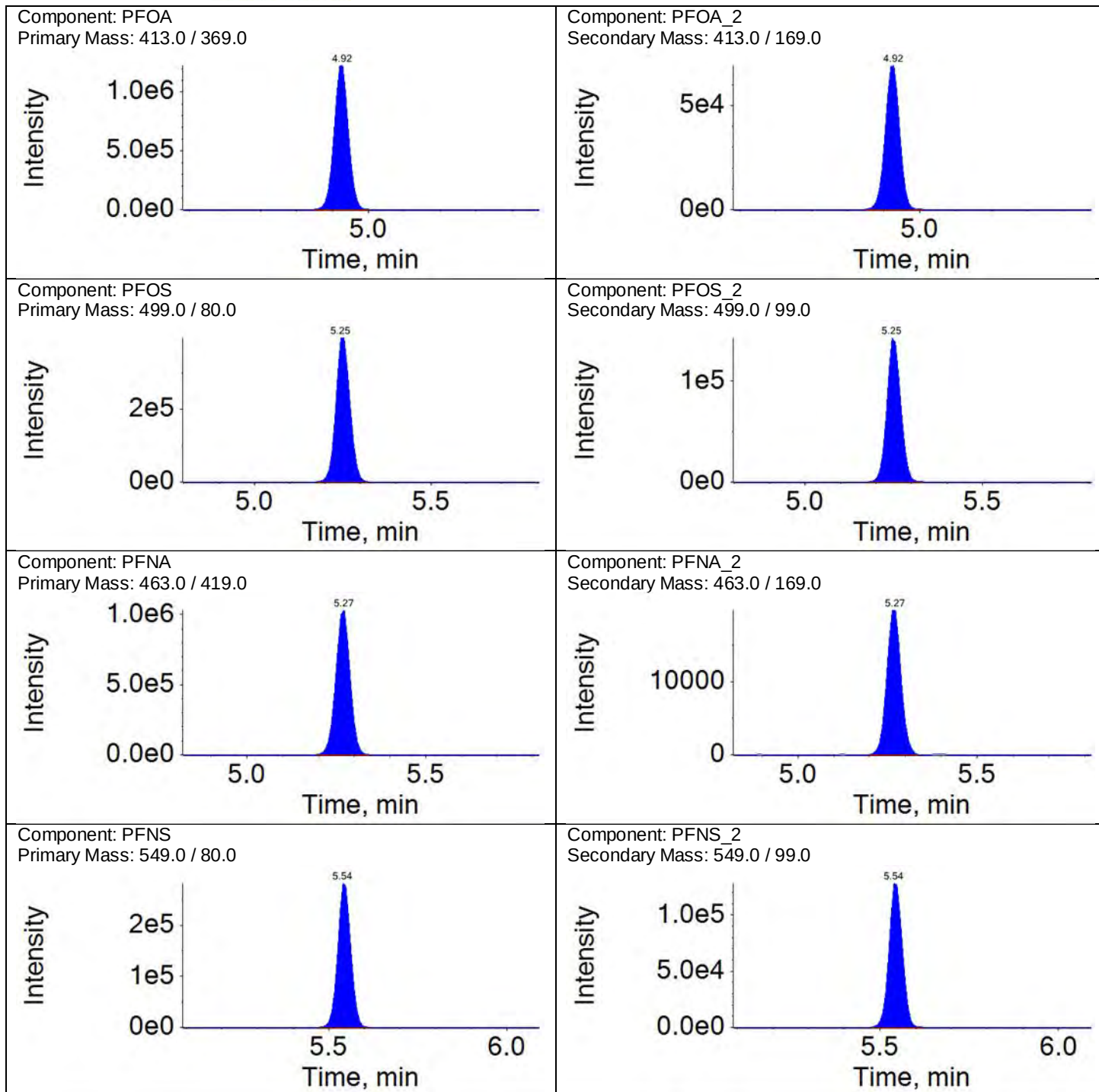
Instrument Name: LM27631

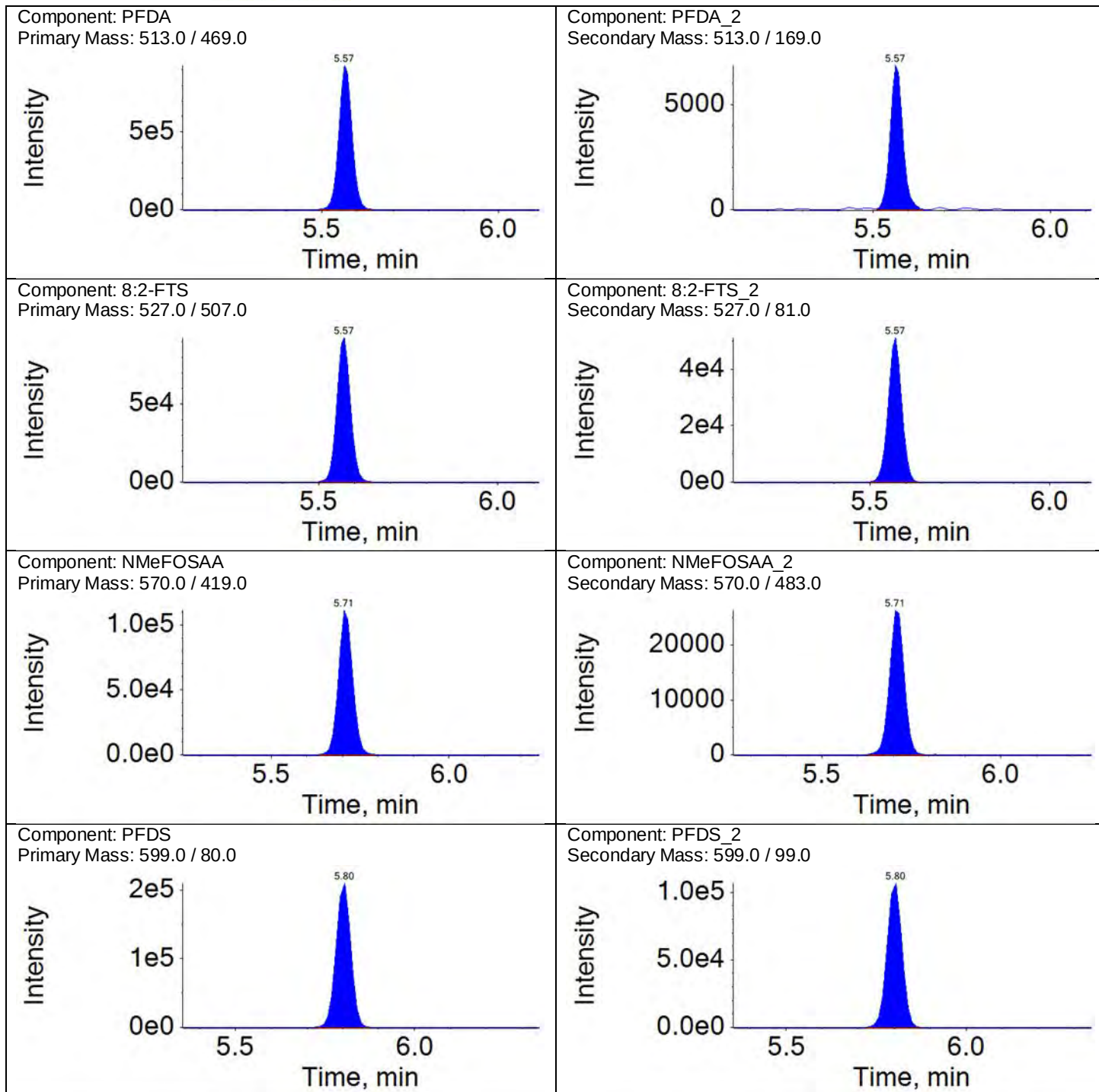
File Name: 18NOV07DCAL-14.wiff

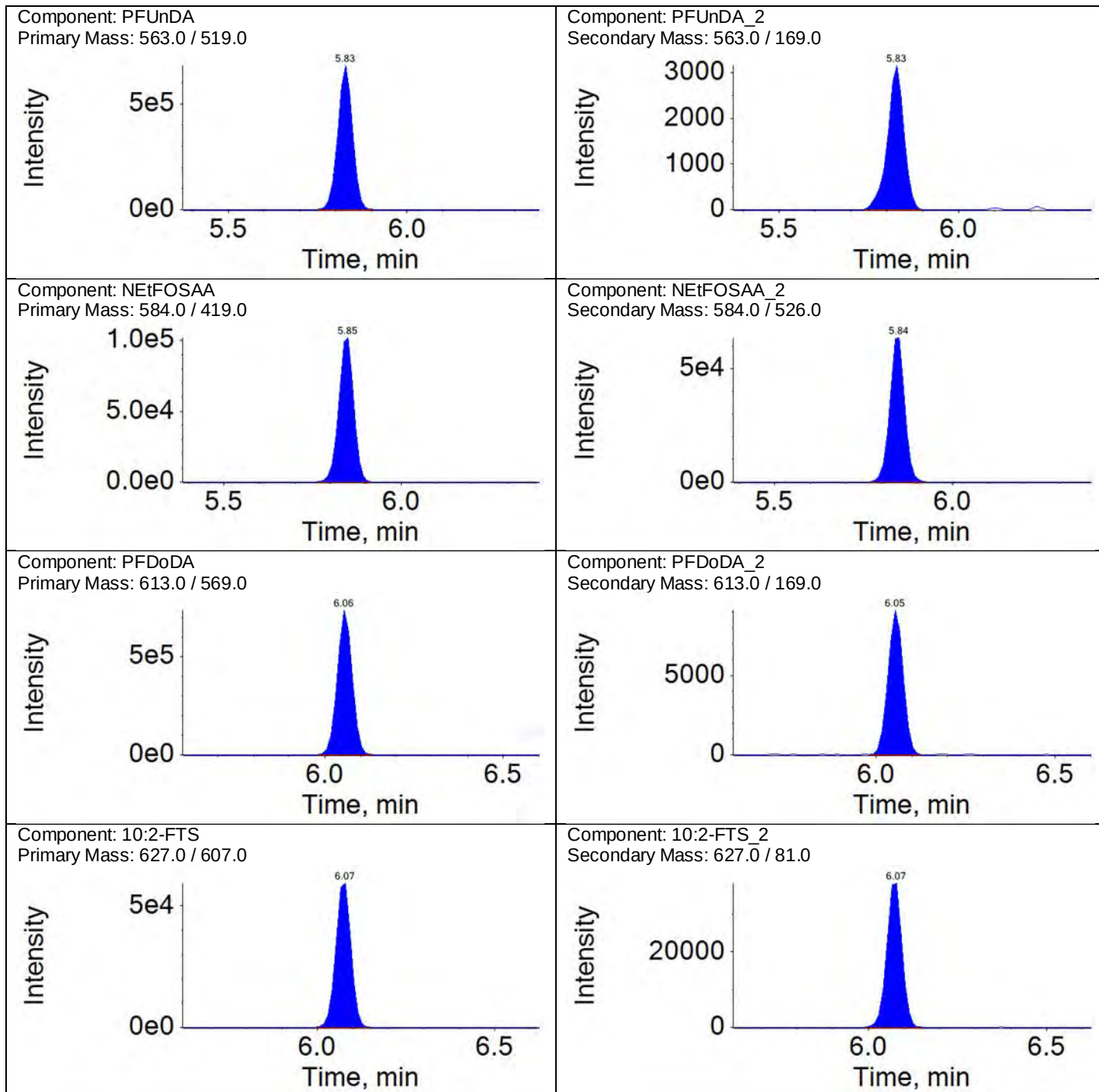
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	1601296.4	A	1.0000	1.0000			
PFBS_2	3.81	1.00	589199.3	A	0.3576	0.3680	3	50	
4:2-FTS	4.13	1.00	365423.8	A	1.0000	1.0000			
4:2-FTS_2	4.13	1.00	215025.0	A	0.6359	0.5884	-7	50	
PFHxA	4.16	1.00	3380716.3	A	1.0000	1.0000			
PFHxA_2	4.16	1.00	39429.8	A	0.0115	0.0117	2	50	
PFPeS	4.18	1.10	845636.3	A	1.0000	1.0000			
PFPeS_2	4.18	1.10	449010.4	A	0.5384	0.5310	-1	50	
PFHxS	4.55	1.00	1261633.0	A	1.0000	1.0000			
PFHxS_2	4.55	1.00	452452.3	A	0.3569	0.3586	0	50	
PFHpA	4.55	1.00	3440372.8	A	1.0000	1.0000			
PFHpA_2	4.55	1.00	189560.1	A	0.0577	0.0551	-4	50	
6:2-FTS	4.91	1.00	278493.0	A	1.0000	1.0000			
6:2-FTS_2	4.91	1.00	181363.3	A	0.6752	0.6512	-4	50	
PFHpS	4.92	1.08	1236603.7	A	1.0000	1.0000			
PFHpS_2	4.92	1.08	499368.1	A	0.3950	0.4038	2	50	
PFOA	4.92	1.00	3425279.8	A	1.0000	1.0000			
PFOA_2	4.92	1.00	194621.3	A	0.0635	0.0568	-10	50	
PFOS	5.25	1.00	1108359.9	A	1.0000	1.0000			
PFOS_2	5.25	1.00	389460.8	A	0.3494	0.3514	1	50	
PFNA	5.27	1.00	2889454.7	A	1.0000	1.0000			
PFNA_2	5.27	1.00	55493.0	A	0.0207	0.0192	-7	50	
PFNS	5.54	1.06	722178.3	A	1.0000	1.0000			
PFNS_2	5.54	1.06	336998.4	A	0.4890	0.4666	-5	50	
PFDA	5.57	1.00	2401274.2	A	1.0000	1.0000			
PFDA_2	5.57	1.00	16983.6	A	0.0057	0.0071	25	50	
8:2-FTS	5.57	1.00	244867.6	A	1.0000	1.0000			
8:2-FTS_2	5.57	1.00	133528.0	A	0.6169	0.5453	-12	50	
NMeFOSAA	5.71	1.00	308507.7	A	1.0000	1.0000			
NMeFOSAA_2	5.71	1.00	75576.5	A	0.2206	0.2450	11	50	
PFDS	5.80	1.11	605559.3	A	1.0000	1.0000			
PFDS_2	5.80	1.11	310462.1	A	0.4648	0.5127	10	50	
PFUnDA	5.83	1.00	1952356.4	A	1.0000	1.0000			
PFUnDA_2	5.83	1.00	9988.0	A	0.0031	0.0051	62	50	OOS
NEtFOSAA	5.85	1.00	298834.2	A	1.0000	1.0000			
NEtFOSAA_2	5.84	1.00	185748.9	A	0.6082	0.6216	2	50	
PFDODA	6.06	1.00	2132260.7	A	1.0000	1.0000			
PFDODA_2	6.05	1.00	26780.3	A	0.0109	0.0126	15	50	
10:2-FTS	6.07	1.09	177607.5	A	1.0000	1.0000			
10:2-FTS_2	6.07	1.09	115093.0	A	0.7082	0.6480	-9	50	
PFTTrDA	6.25	1.03	1851055.0	A	1.0000	1.0000			
PFTTrDA_2	6.25	1.03	17056.8	A	0.0096	0.0092	-4	50	
PFTeDA	6.43	1.00	1500655.1	A	1.0000	1.0000			
PFTeDA_2	6.43	1.00	8887.6	A	0.0055	0.0059	7	50	
PFHxDA	6.73	1.05	716467.3	A	1.0000	1.0000			
PFHxDA_2	6.73	1.05	43825.8	A	0.0596	0.0612	3	50	
PFODA	7.00	1.09	624697.0	A	1.0000	1.0000			
PFODA_2	7.00	1.09	15544.4	A	0.0257	0.0249	-3	50	

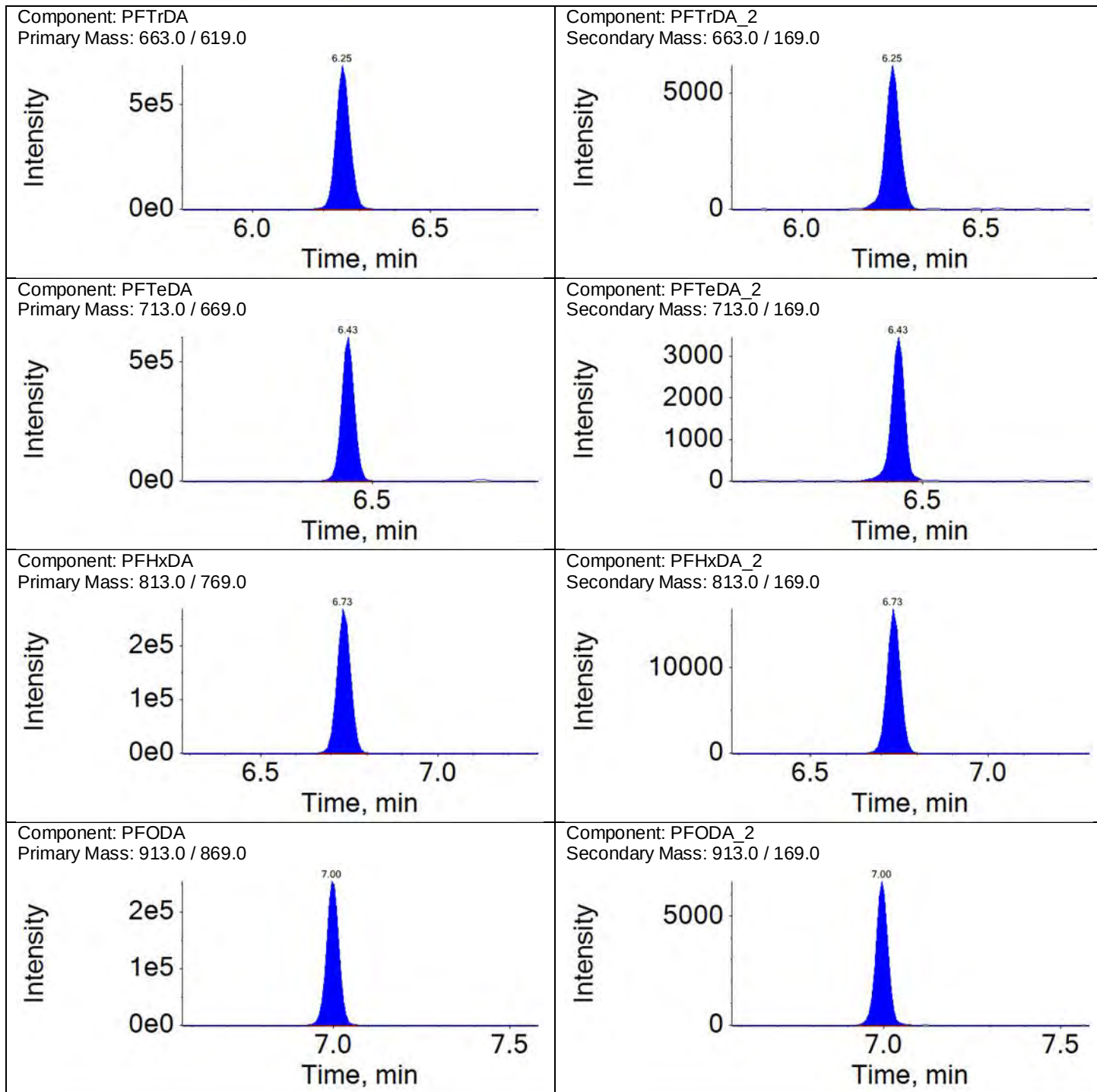












ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL6		Data File:	18NOV07DCAL-15.wiff
Sample ID:	CALMOD61833E		Acquis Date:	2018-11-07T10:24:59
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	8		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV07DCAL
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	N/A		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV07DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	600246.7	730410.6	-18	50	
13C2-PFOA	5.0	457854.9	524423.6	-13	50	
13C4-PFOS	4.8	251499.9	274061.7	-8	50	
13C2-PFDA	5.0	260529.0	311442.1	-16	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	647849.6	13C3-PFBA	600246.7	1.079	5.000	4.995	100	70-130	
E13C5-PFPeA	687796.7	13C3-PFBA	600246.7	1.146	5.000	4.992	100	70-130	
E13C3-PFBS	384220.8	13C3-PFBA	600246.7	0.640	4.650	4.698	101	70-130	
E13C2-4:2-FTS	50041.3	13C2-PFOA	457854.9	0.109	4.670	4.932	106	70-130	
E13C5-PFHxA	607820.1	13C2-PFOA	457854.9	1.328	5.000	4.883	98	70-130	
E13C3-PFHxS	295466.2	13C2-PFOA	457854.9	0.645	4.730	4.633	98	70-130	
E13C4-PFHpA	484763.2	13C2-PFOA	457854.9	1.059	5.000	4.816	96	70-130	
E13C2-6:2-FTS	30466.8	13C2-PFOA	457854.9	0.067	4.750	4.437	93	70-130	
E13C8-PFOA	769164.4	13C2-PFOA	457854.9	1.680	5.000	4.685	94	70-130	
E13C8-PFOS	268369.0	13C4-PFOS	251499.9	1.067	4.780	4.718	99	70-130	
E13C9-PFNA	440319.0	13C4-PFOS	251499.9	1.751	5.000	4.782	96	70-130	
E13C6-PFDA	536626.2	13C2-PFDA	260529.0	2.060	5.000	5.180	104	70-130	
E13C2-8:2-FTS	24938.2	13C2-PFDA	260529.0	0.096	4.790	5.065	106	70-130	
E13C8-PFOSA	614406.4	13C2-PFDA	260529.0	2.358	5.000	5.146	103	70-130	
Ed3-NMeFOSAA	78158.0	13C2-PFDA	260529.0	0.300	5.000	5.579	112	70-130	
E13C7-PFUnDA	229237.1	13C2-PFDA	260529.0	0.880	5.000	5.076	102	70-130	
Ed5-NEtFOSAA	60556.6	13C2-PFDA	260529.0	0.232	5.000	5.379	108	70-130	
E13C2-PFDoDA	500065.3	13C2-PFDA	260529.0	1.919	5.000	5.174	103	70-130	
Ed7-NMePFOSAE	294617.6	13C2-PFDA	260529.0	1.131	5.000	5.259	105	70-130	
Ed3-NMePFOSA	77146.9	13C2-PFDA	260529.0	0.296	5.000	5.421	108	70-130	
Ed9-NEtPFOSAE	239317.0	13C2-PFDA	260529.0	0.919	5.000	5.246	105	70-130	
Ed5-NEtPFOSA	59054.4	13C2-PFDA	260529.0	0.227	5.000	5.248	105	70-130	
E13C2-PFTeDA	394433.9	13C2-PFDA	260529.0	1.514	5.000	5.450	109	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL6

Instrument Name: LM27631

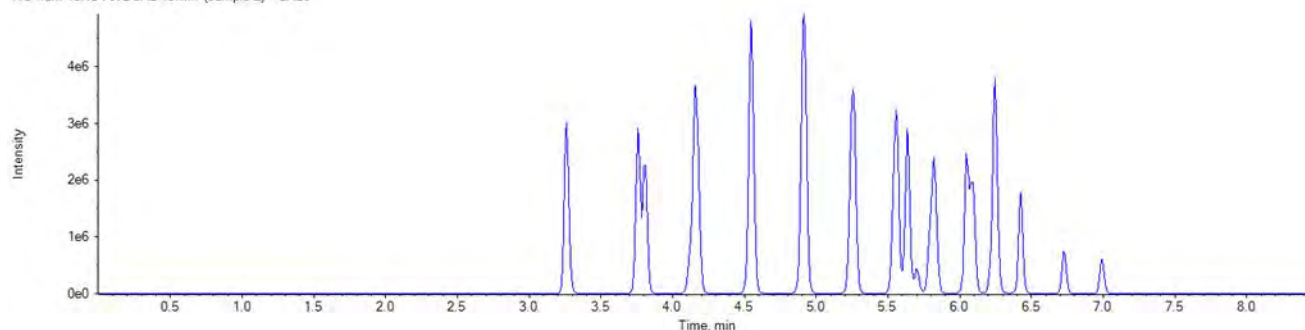
File Name: 18NOV07DCAL-15.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	5709364.6		A	13C4-PFBA	3.26	647849.6	8.813	51.576
PFPeA	3.76	1.000	5899932.2		A	13C5-PFPeA	3.76	687796.7	8.578	50.979
PFBS	3.81	1.000	3508201.1		A	13C3-PFBS	3.81	384220.8	9.131	46.035
4:2-FTS	4.12	1.000	866263.6		A	13C2-4:2-FTS	4.12	50041.3	17.311	46.538
PFHxA	4.16	1.000	6739327.9		A	13C5-PFHxA	4.16	607820.1	11.088	47.549
PFPeS	4.18	1.100	1823355.9		A	13C3-PFBS	3.81	384220.8	4.746	46.806
PFHxS	4.55	1.000	2760712.8		A	13C3-PFHxS	4.55	295466.2	9.344	47.360
PFHpA	4.55	1.000	6940304.7		A	13C4-PFHpA	4.55	484763.2	14.317	48.150
6:2-FTS	4.90	1.000	566692.8		A	13C2-6:2-FTS	4.90	30466.8	18.600	46.401
PFHpS	4.91	1.080	2648512.9		A	13C3-PFHxS	4.55	295466.2	8.964	46.896
PFOA	4.92	1.000	7023921.1		A	13C8-PFOA	4.92	769164.4	9.132	51.417
PFOS	5.24	1.000	2487687.4		A	13C8-PFOS	5.24	268369.0	9.270	48.067
PFNA	5.26	1.000	6070259.1		A	13C9-PFNA	5.26	440319.0	13.786	51.521
PFNS	5.54	1.060	1684601.2		A	13C8-PFOS	5.24	268369.0	6.277	49.770
PFDA	5.56	1.000	4962332.7		A	13C6-PFDA	5.56	536626.2	9.247	50.875
8:2-FTS	5.56	1.000	516640.5		A	13C2-8:2-FTS	5.56	24938.2	20.717	46.697
PFOSA	5.64	1.000	5938541.7		A	13C8-PFOSA	5.64	614406.4	9.665	52.247
NMeFOSAA	5.70	1.000	740651.6		A	d3-NMeFOSAA	5.70	78158.0	9.476	48.760
PFDS	5.79	1.110	1337416.6		A	13C8-PFOS	5.24	268369.0	4.983	47.605
PFUnDA	5.82	1.000	4071590.3		A	13C7-PFUnDA	5.82	229237.1	17.761	50.936
NEtFOSAA	5.84	1.000	685447.7		A	d5-NEtFOSAA	5.83	60556.6	11.319	48.645
PFDODA	6.05	1.000	4509578.7		A	13C2-PFDODA	6.05	500065.3	9.018	48.873
10:2-FTS	6.07	1.090	395929.8		A	13C2-8:2-FTS	5.56	24938.2	15.876	49.437
NMePFOSAE	6.09	1.000	3462215.2		A	d7-NMePFOSAE	6.08	294617.6	11.752	52.660
NMePFOSA	6.10	1.000	705149.2		A	d3-NMePFOSA	6.09	77146.9	9.140	51.162
PFDoS	6.22	1.190	661528.1		A	13C8-PFOS	5.24	268369.0	2.465	47.576
NEtPFOSAE	6.25	1.000	3836850.8		A	d9-NEtPFOSAE	6.23	239317.0	16.033	51.396
NEtPFOSA	6.26	1.000	676107.2		A	d5-NEtPFOSA	6.25	59054.4	11.449	50.423
PFTDA	6.25	1.030	3829048.4		A	13C2-PFDODA	6.05	500065.3	7.657	48.287
PFTeDA	6.42	1.000	3381511.1		A	13C2-PFTeDA	6.43	394433.9	8.573	50.344
PFHxDA	6.73	1.050	1559604.6		A	13C2-PFTeDA	6.43	394433.9	3.954	49.083
PFODA	6.99	1.090	1340733.9		A	13C2-PFTeDA	6.43	394433.9	3.399	48.698

Total Ion Chromatogram

TIC from 18NOV07DCAL-15.wiff (sample 2) - CAL6



APPROVED

By JPT at 2:53 pm, 11/7/18

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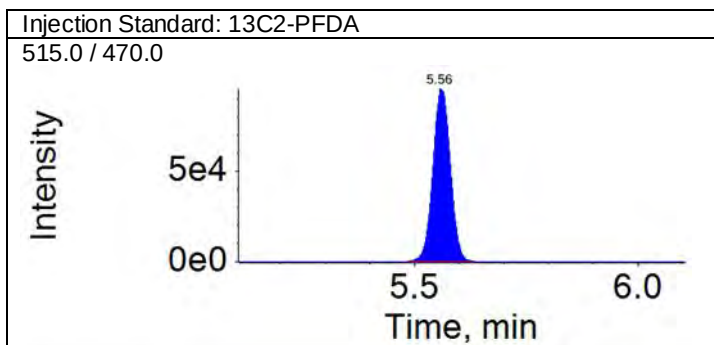
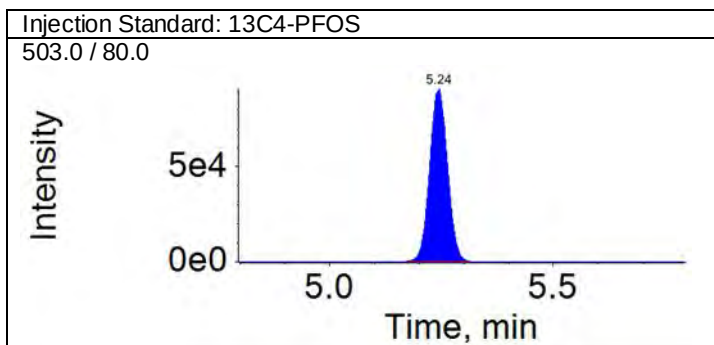
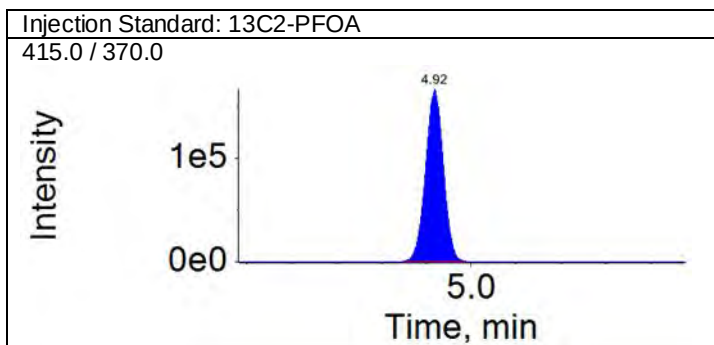
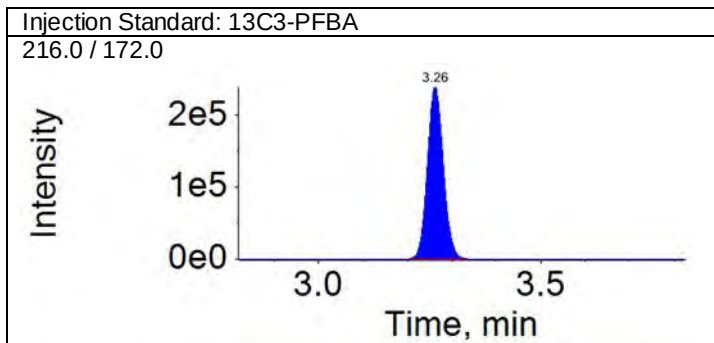
REVIEWED

By umar at 5:23 pm, 11/9/18

Page 2 of 17

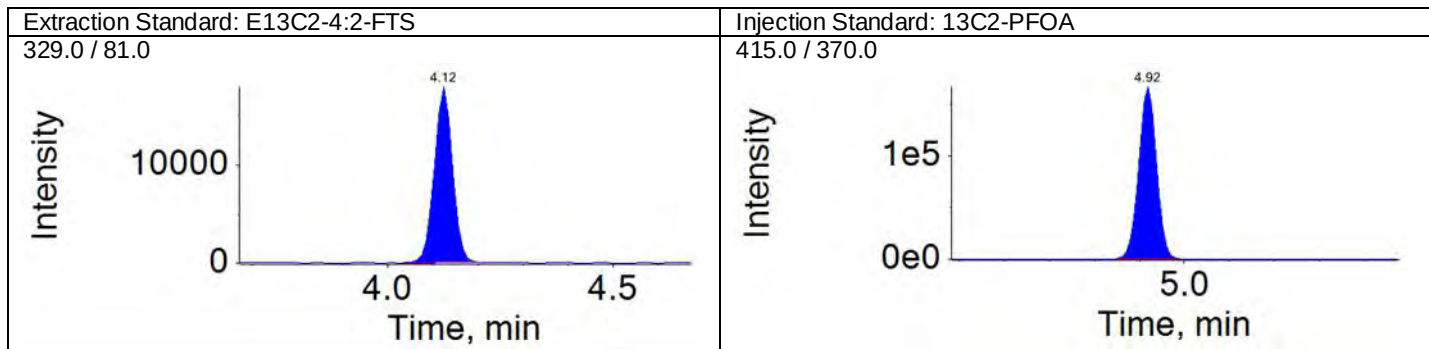
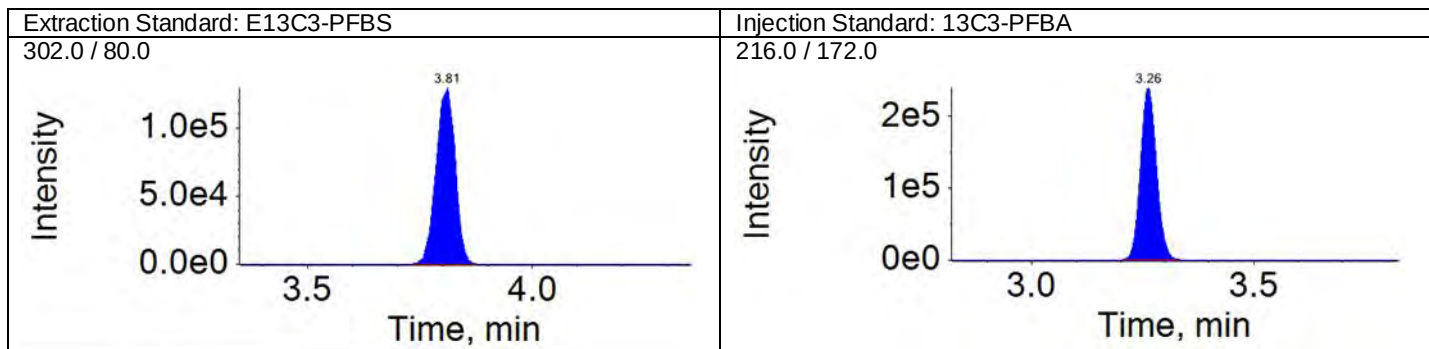
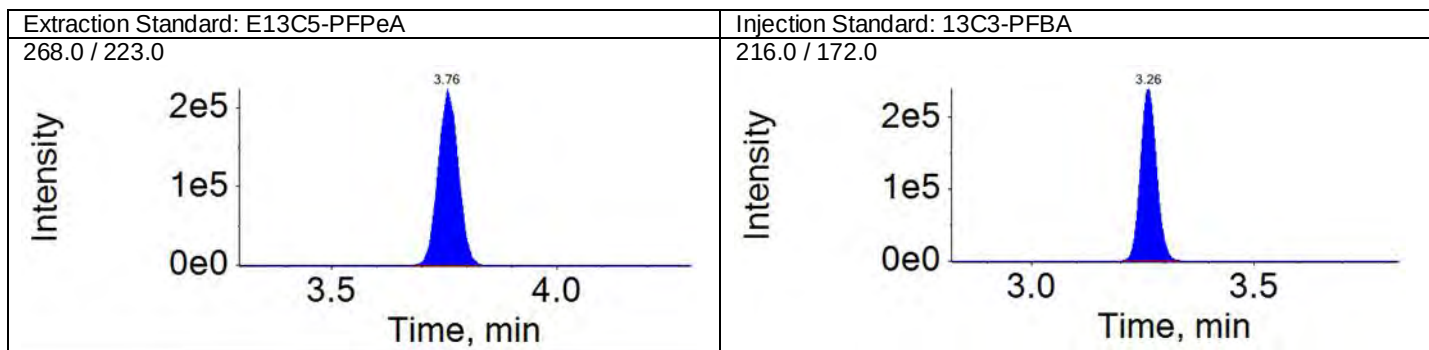
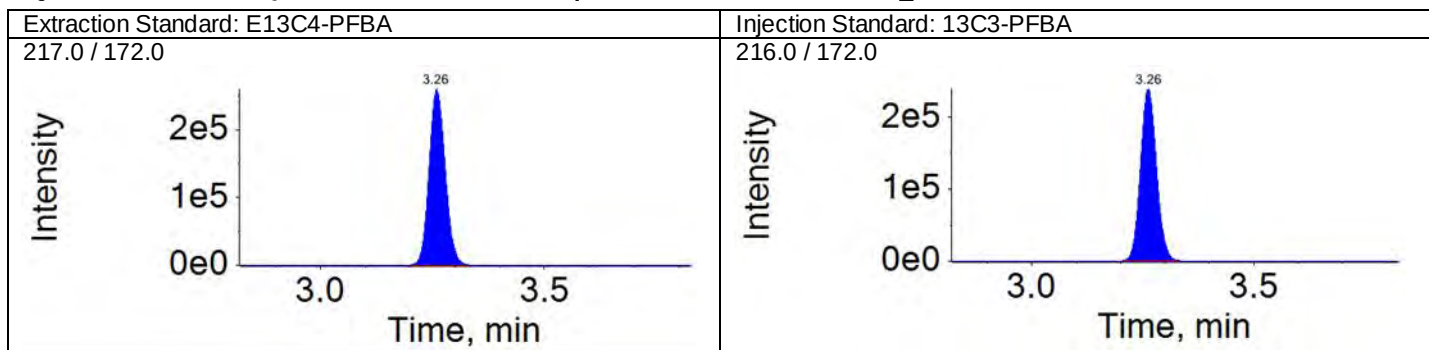
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



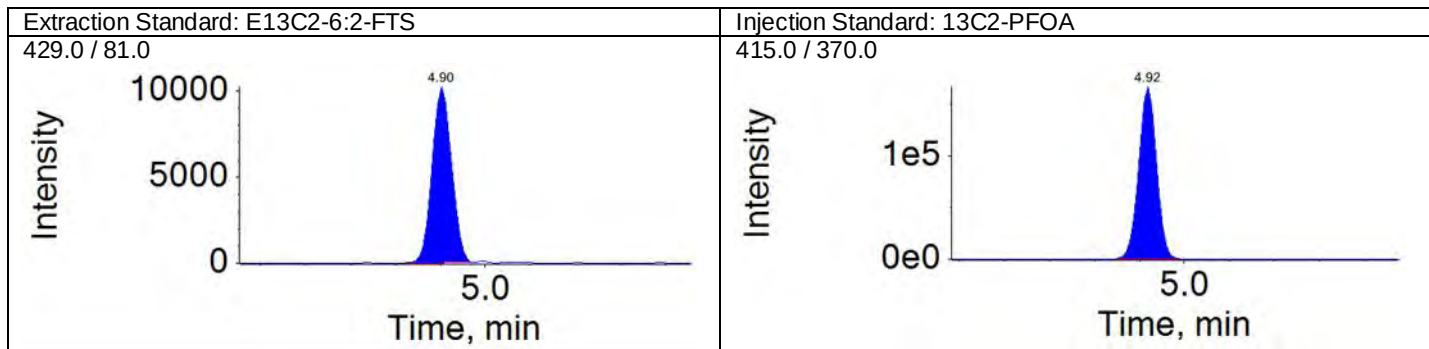
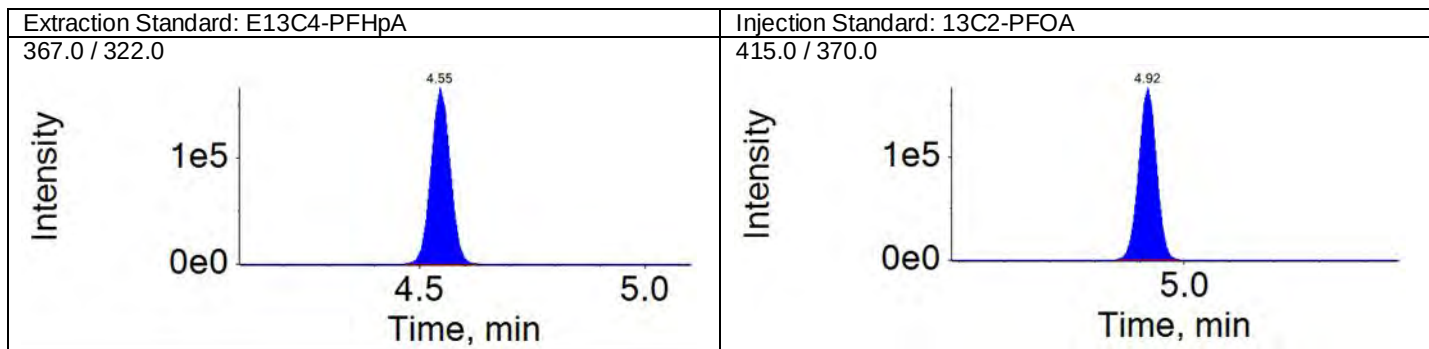
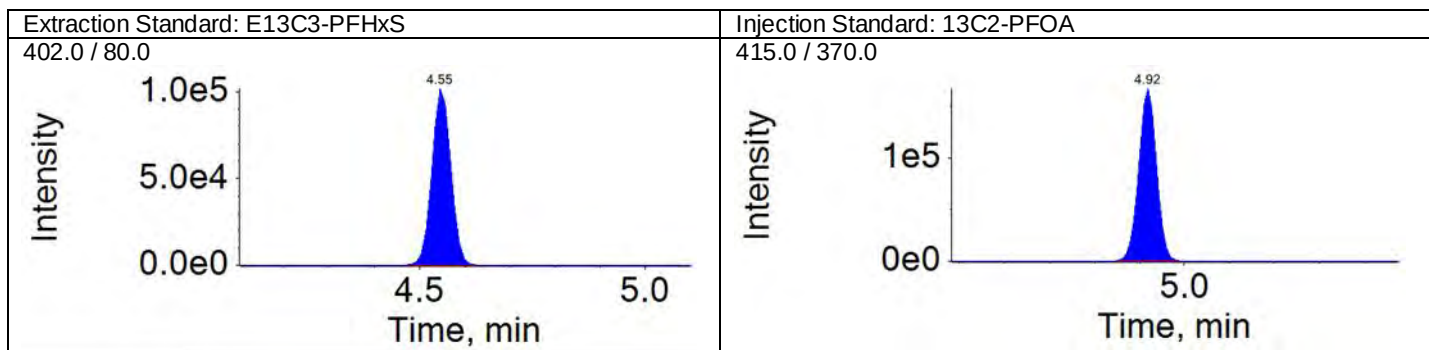
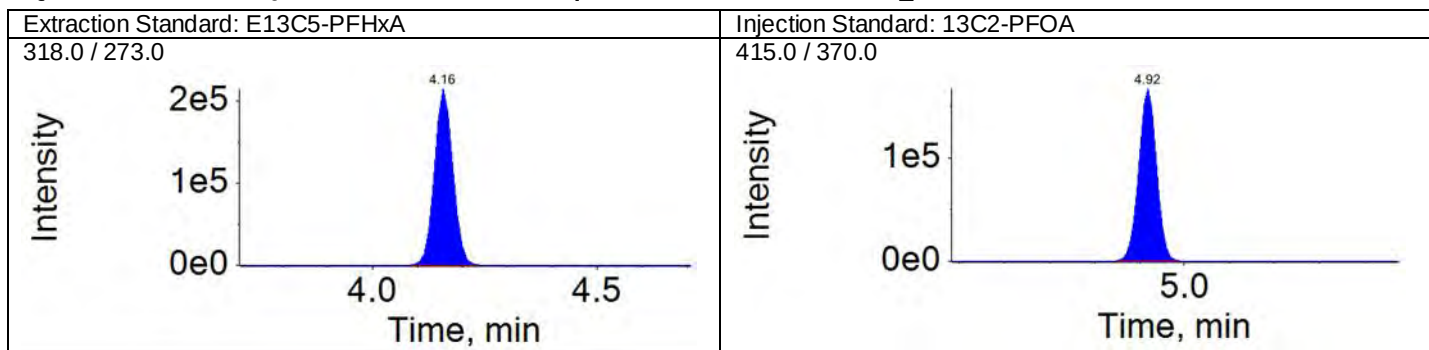
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



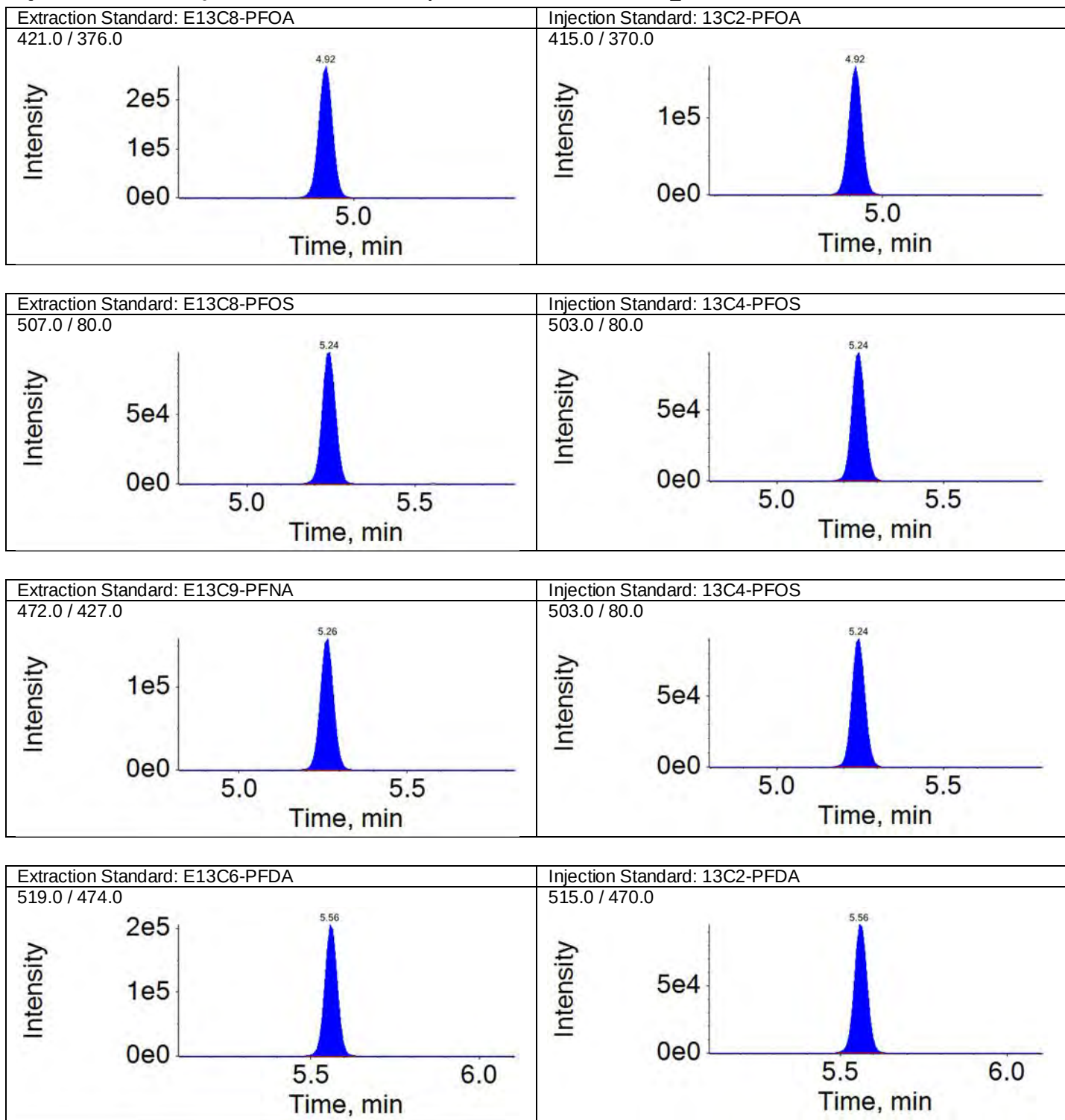
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



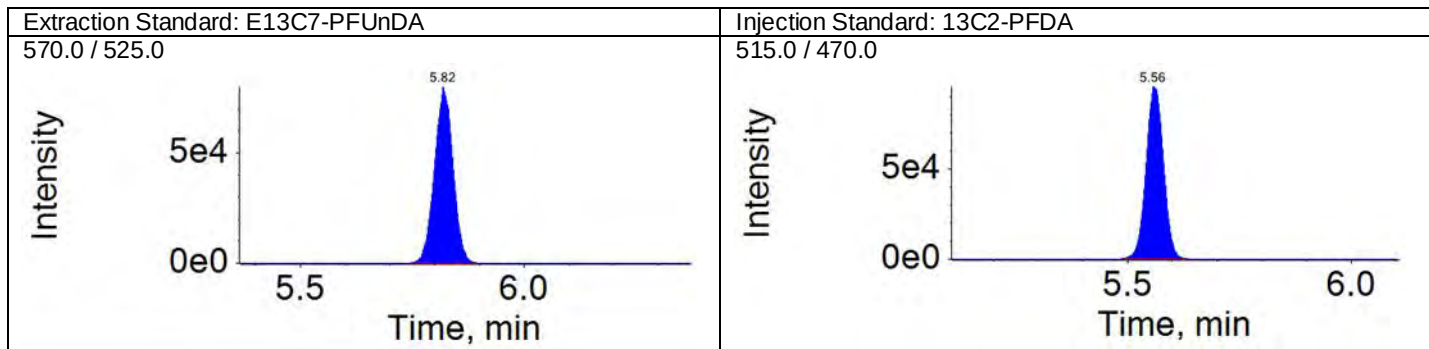
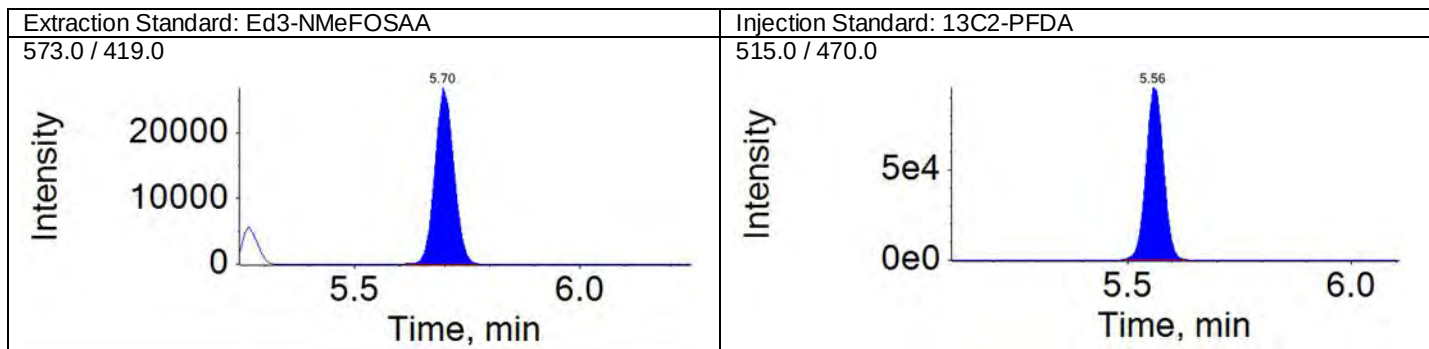
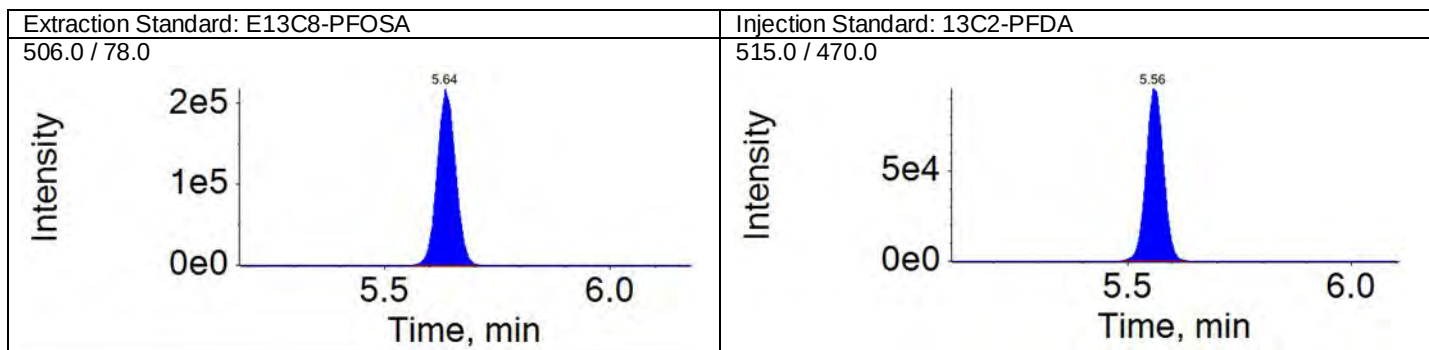
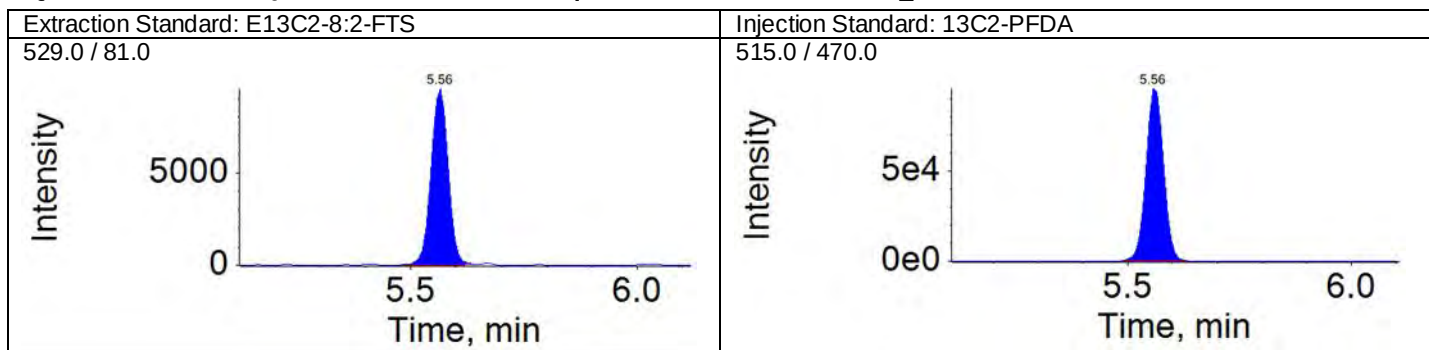
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
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APPROVED

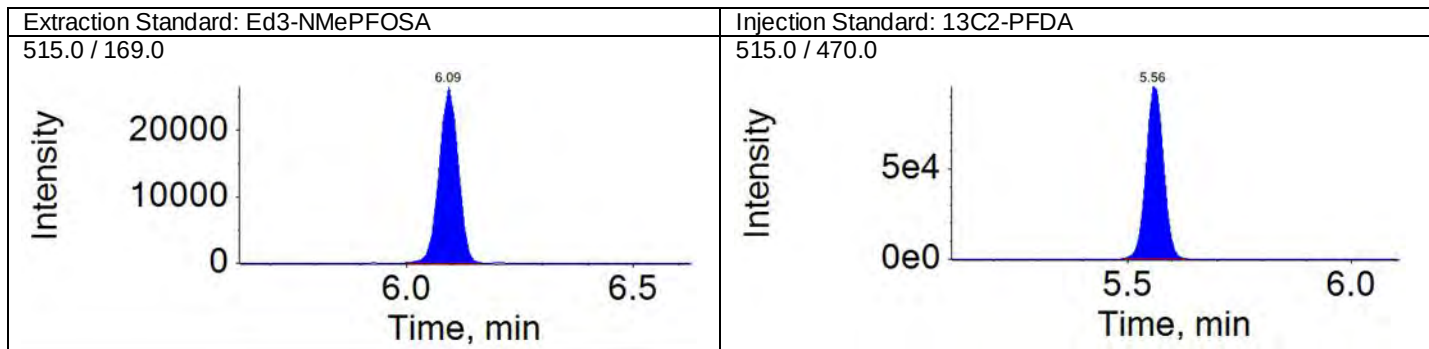
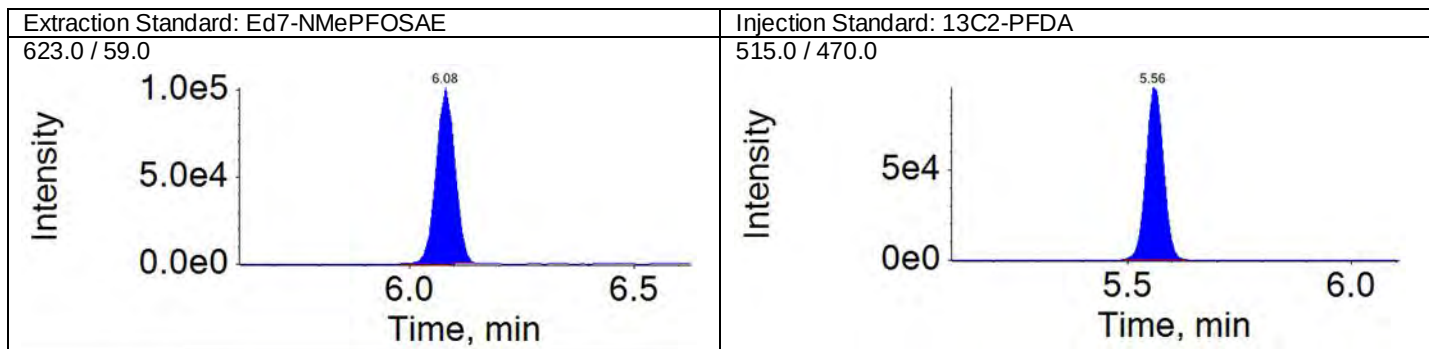
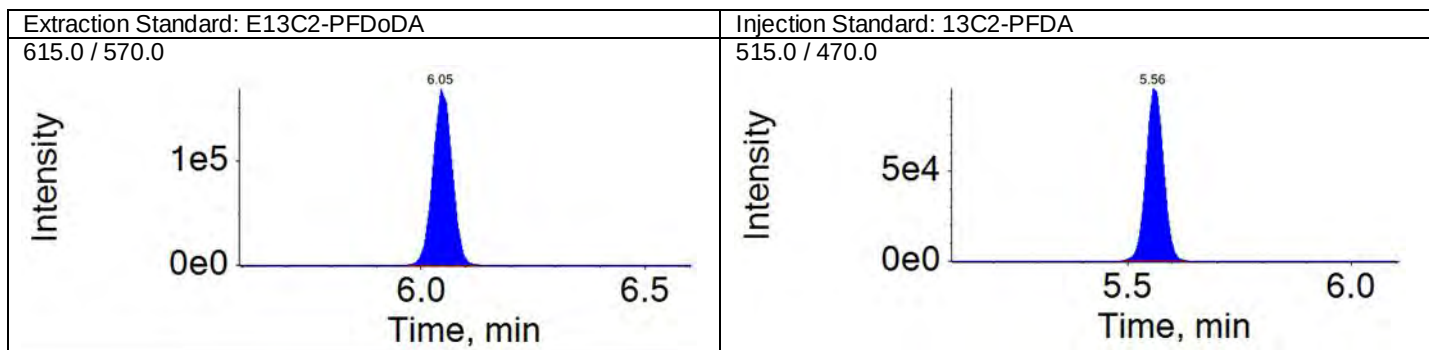
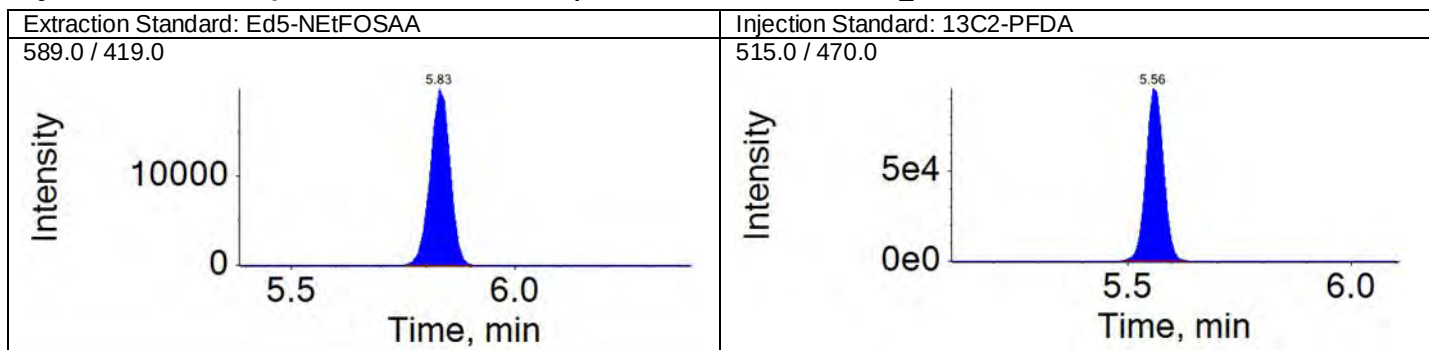
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REVIEWED

By umar at 5:23 pm, 11/9/18

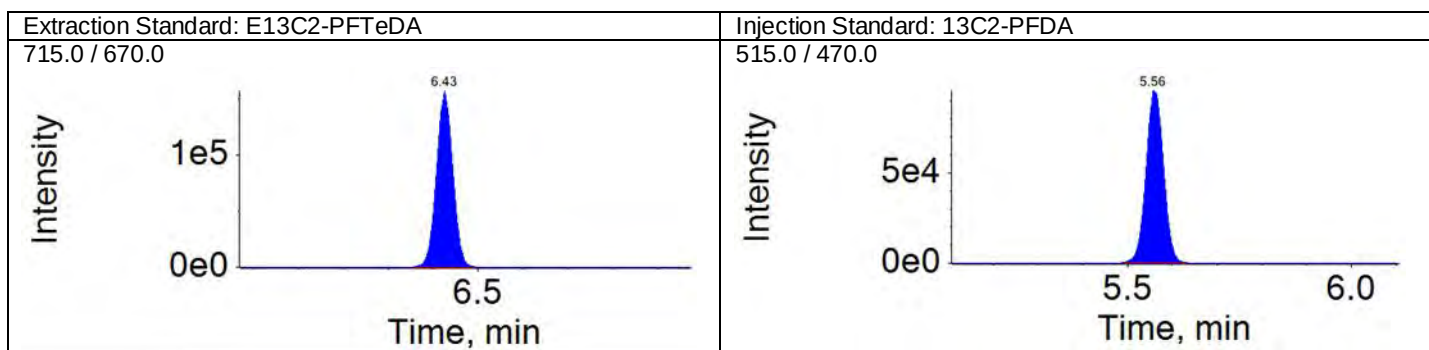
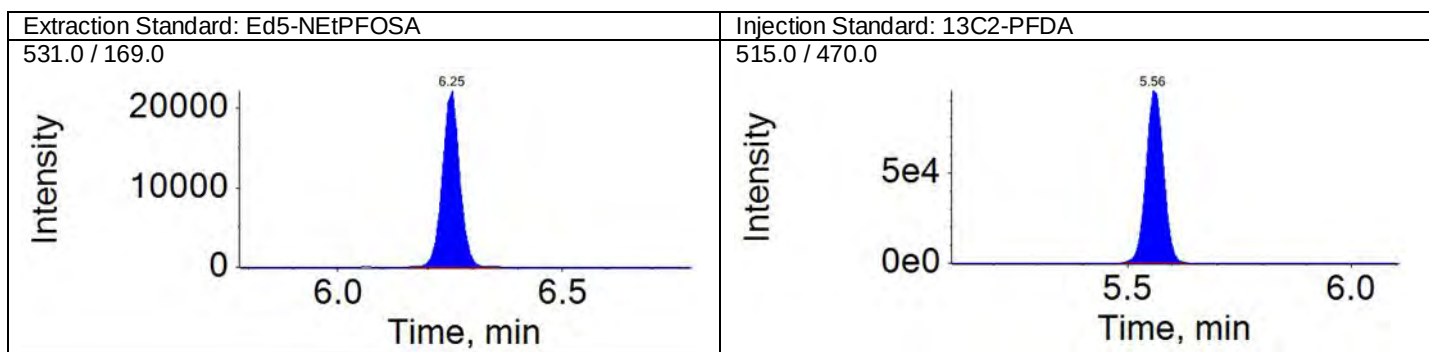
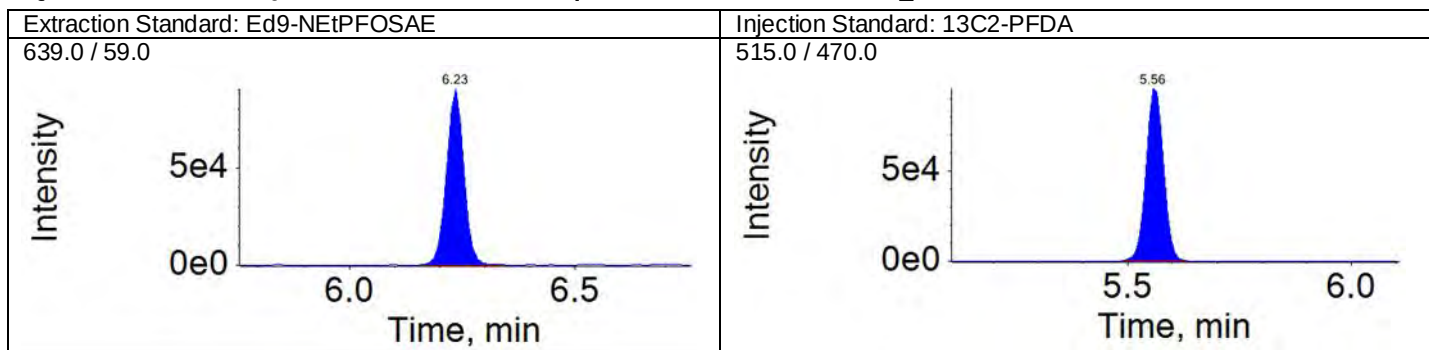
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



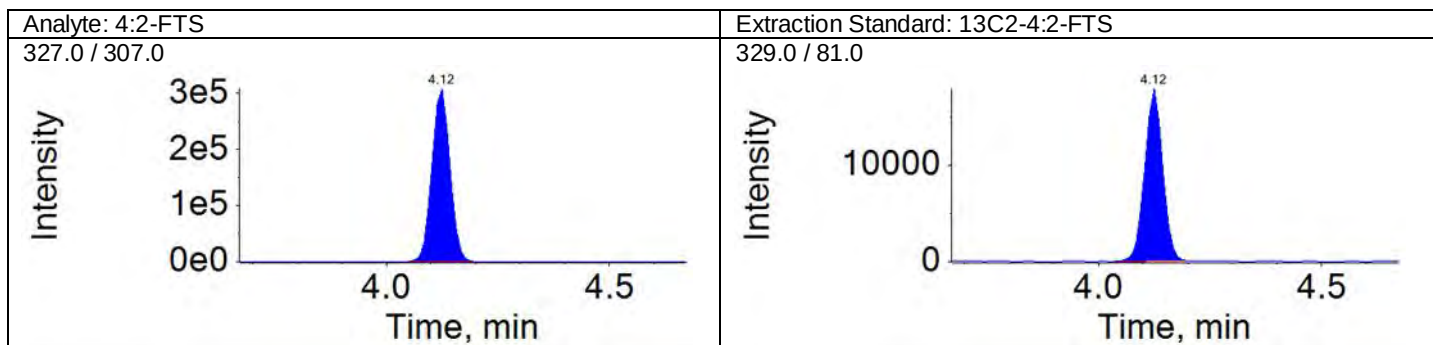
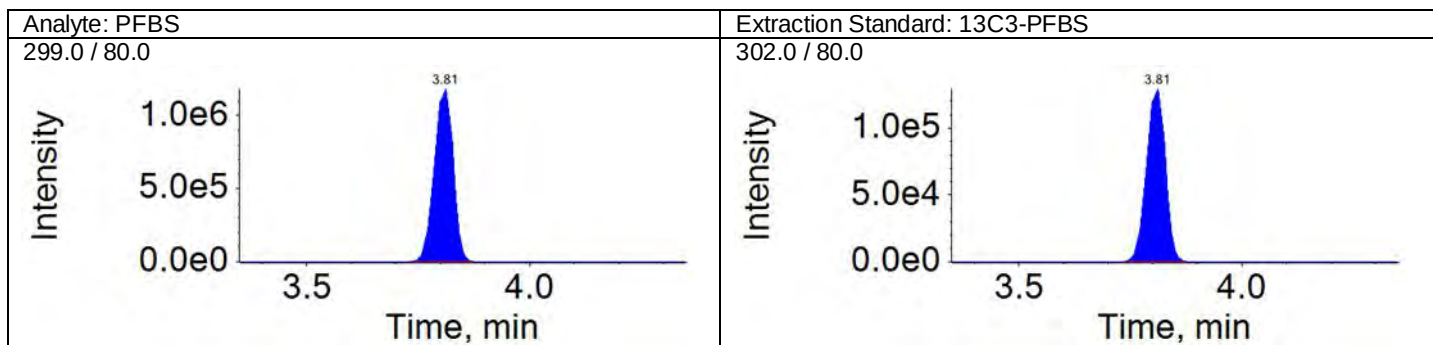
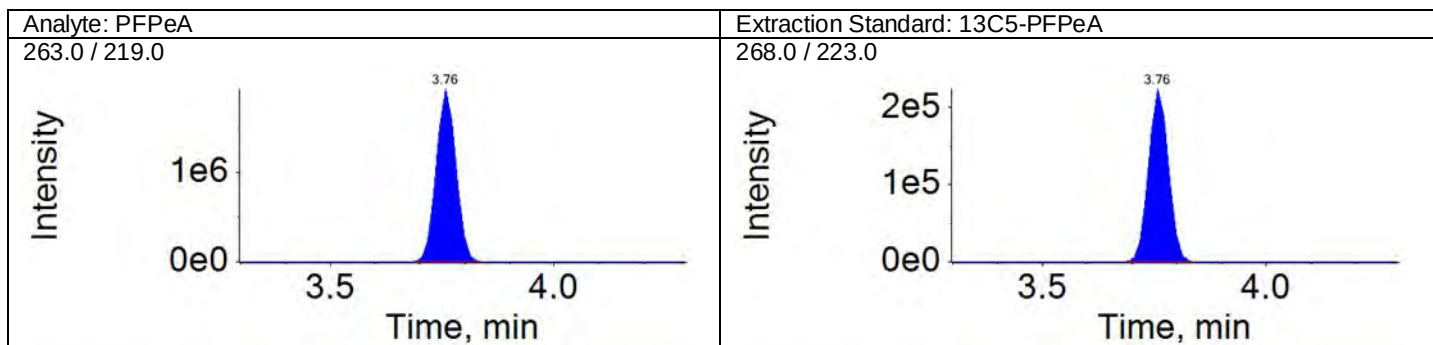
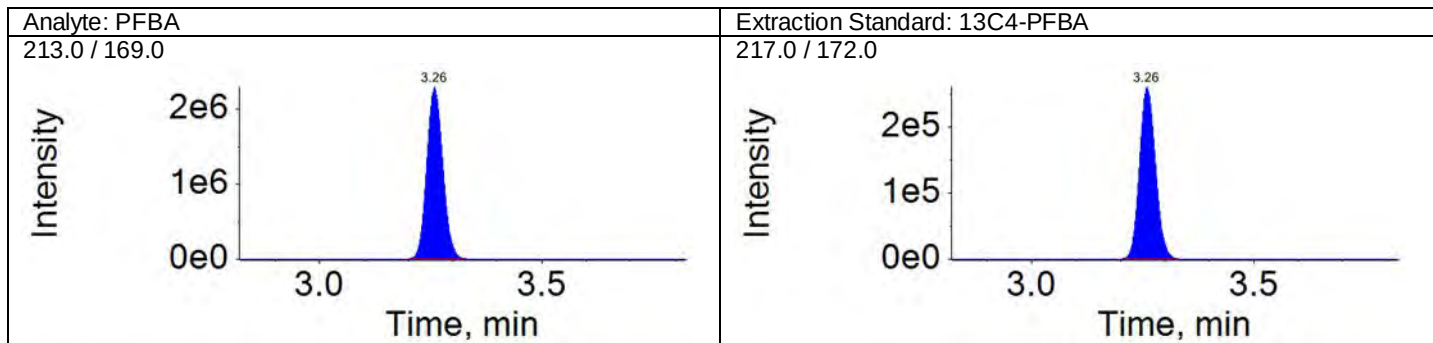
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



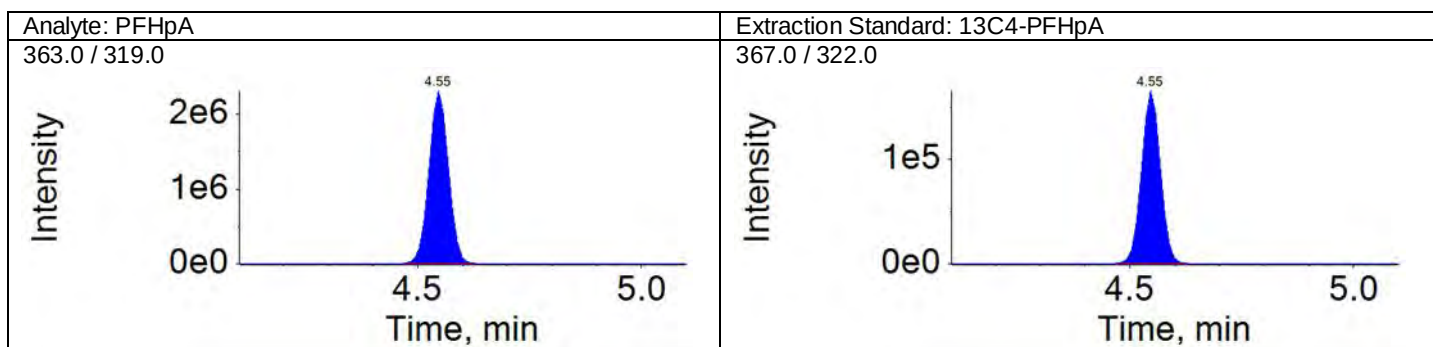
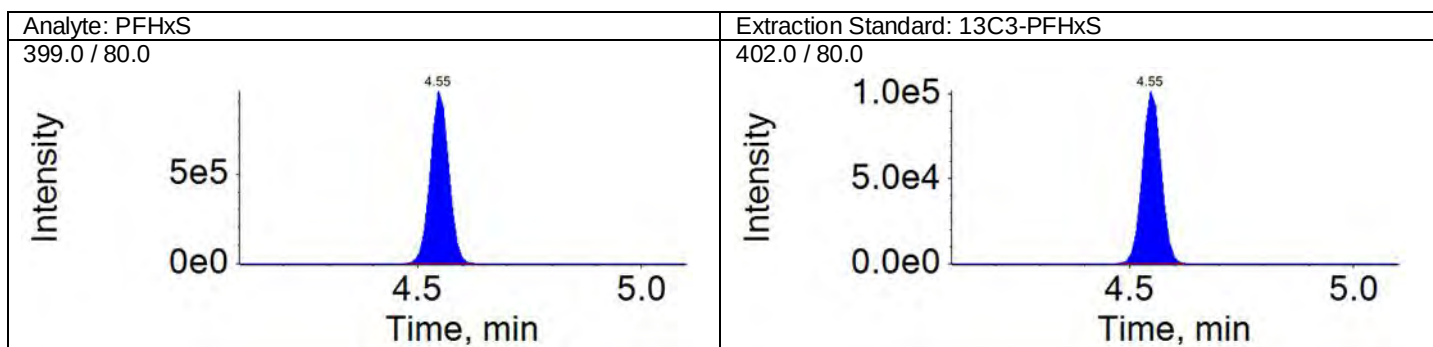
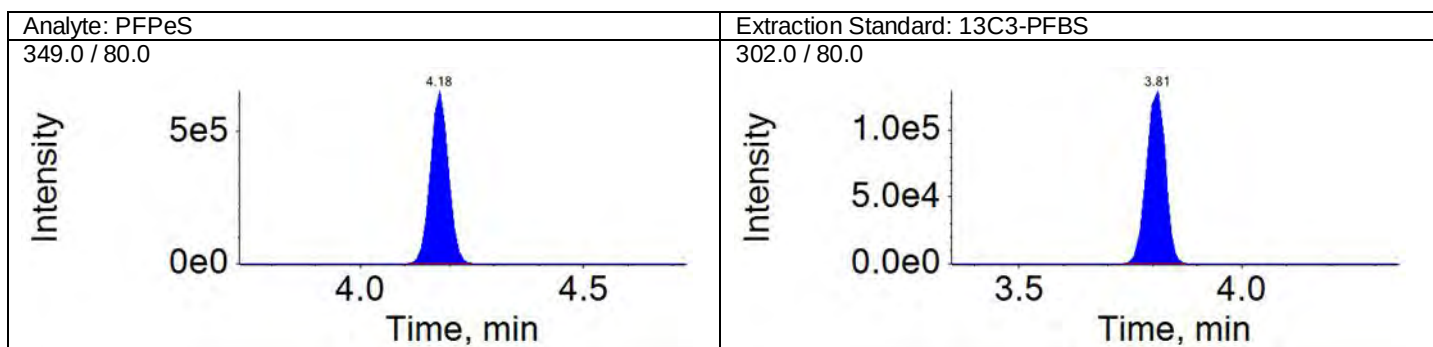
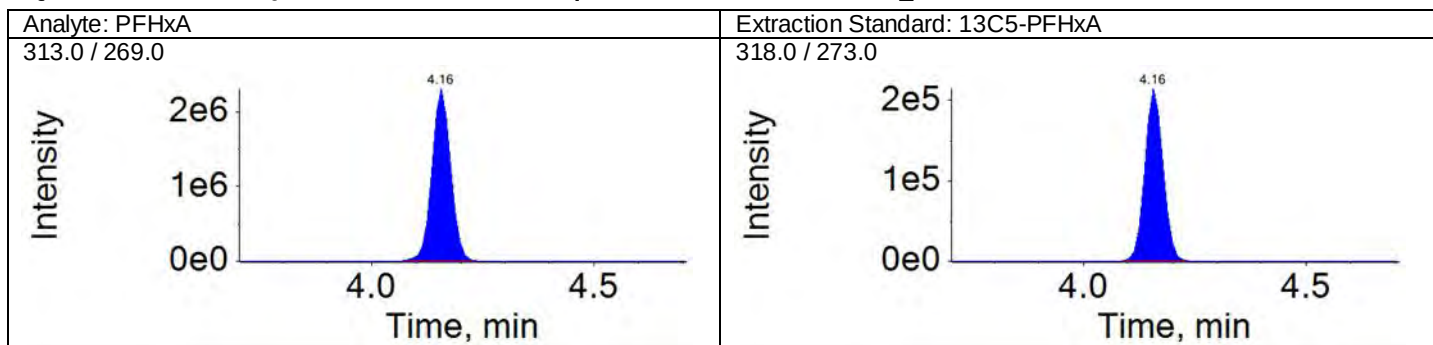
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Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



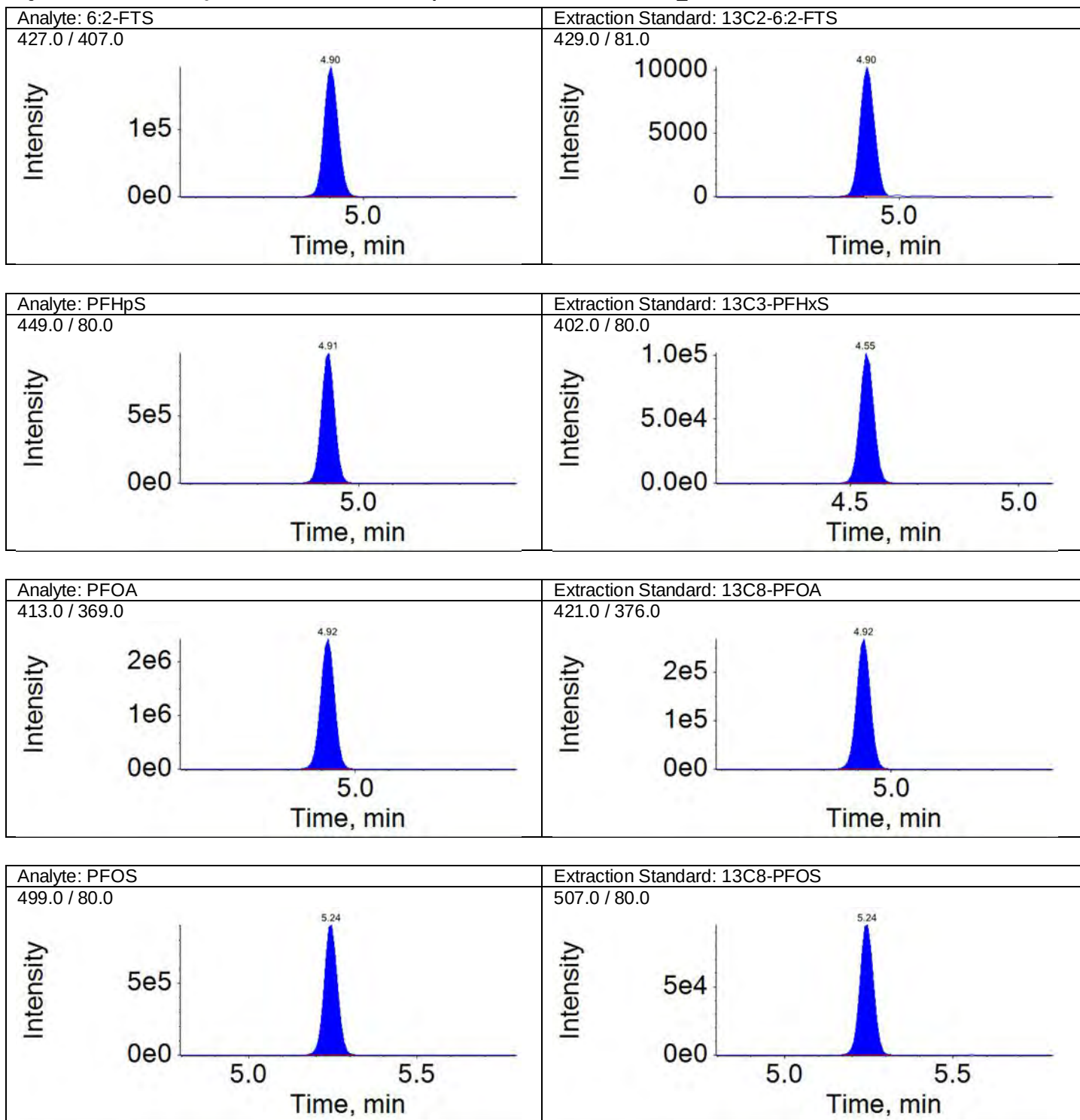
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Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



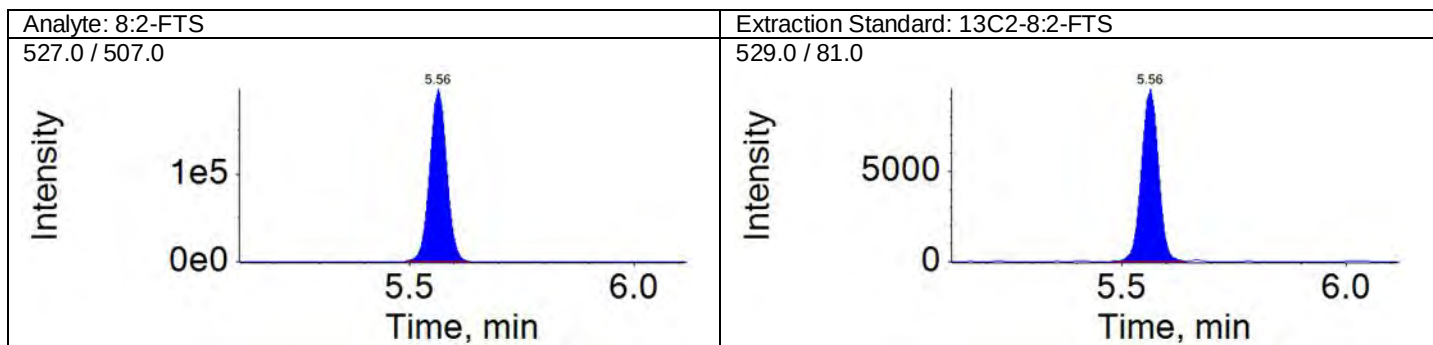
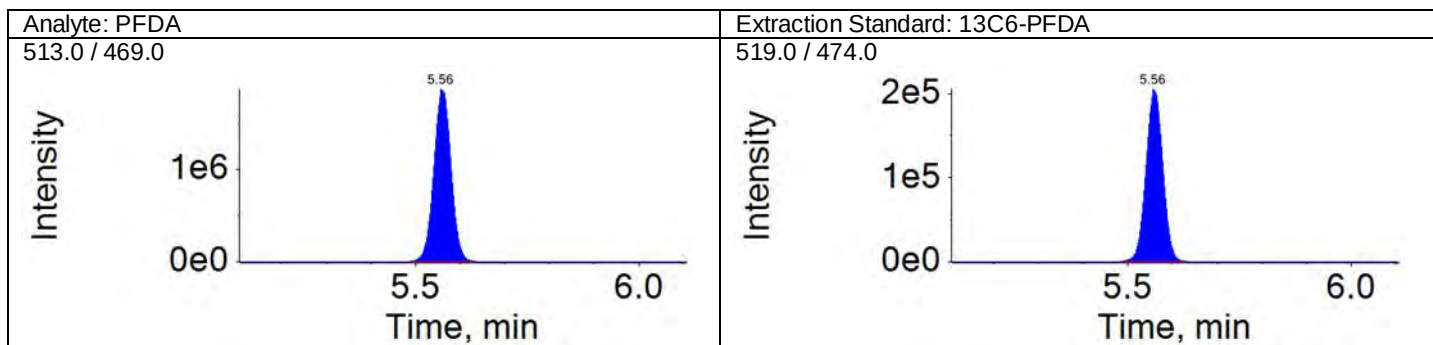
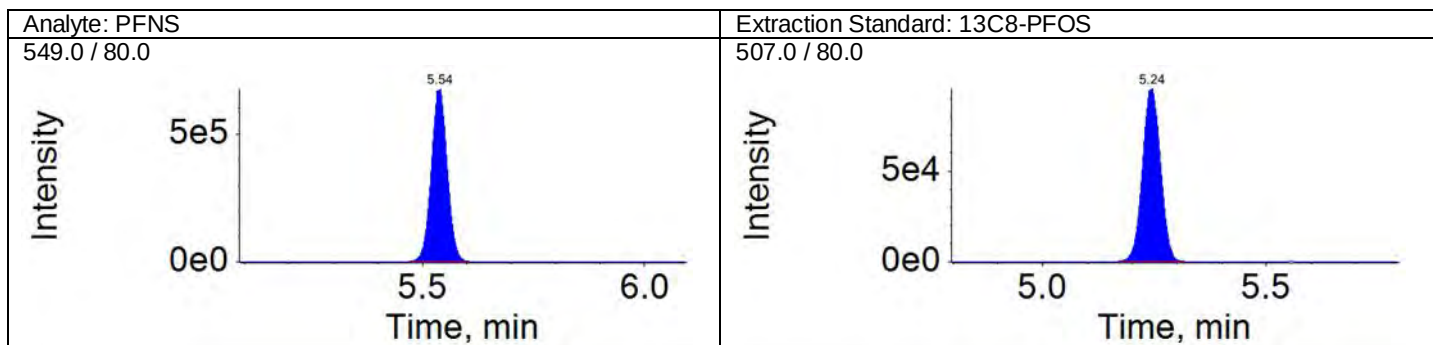
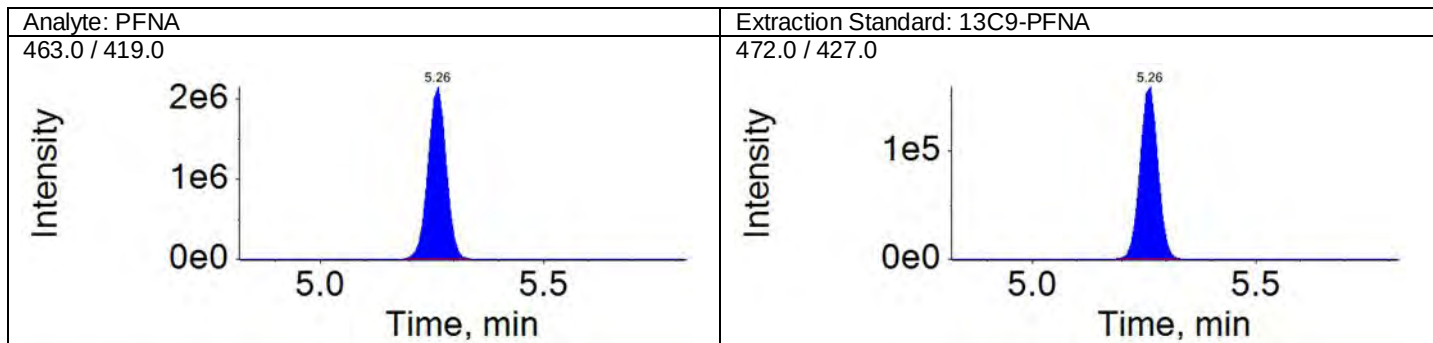
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QMethod Name: MQ4-18AUG13

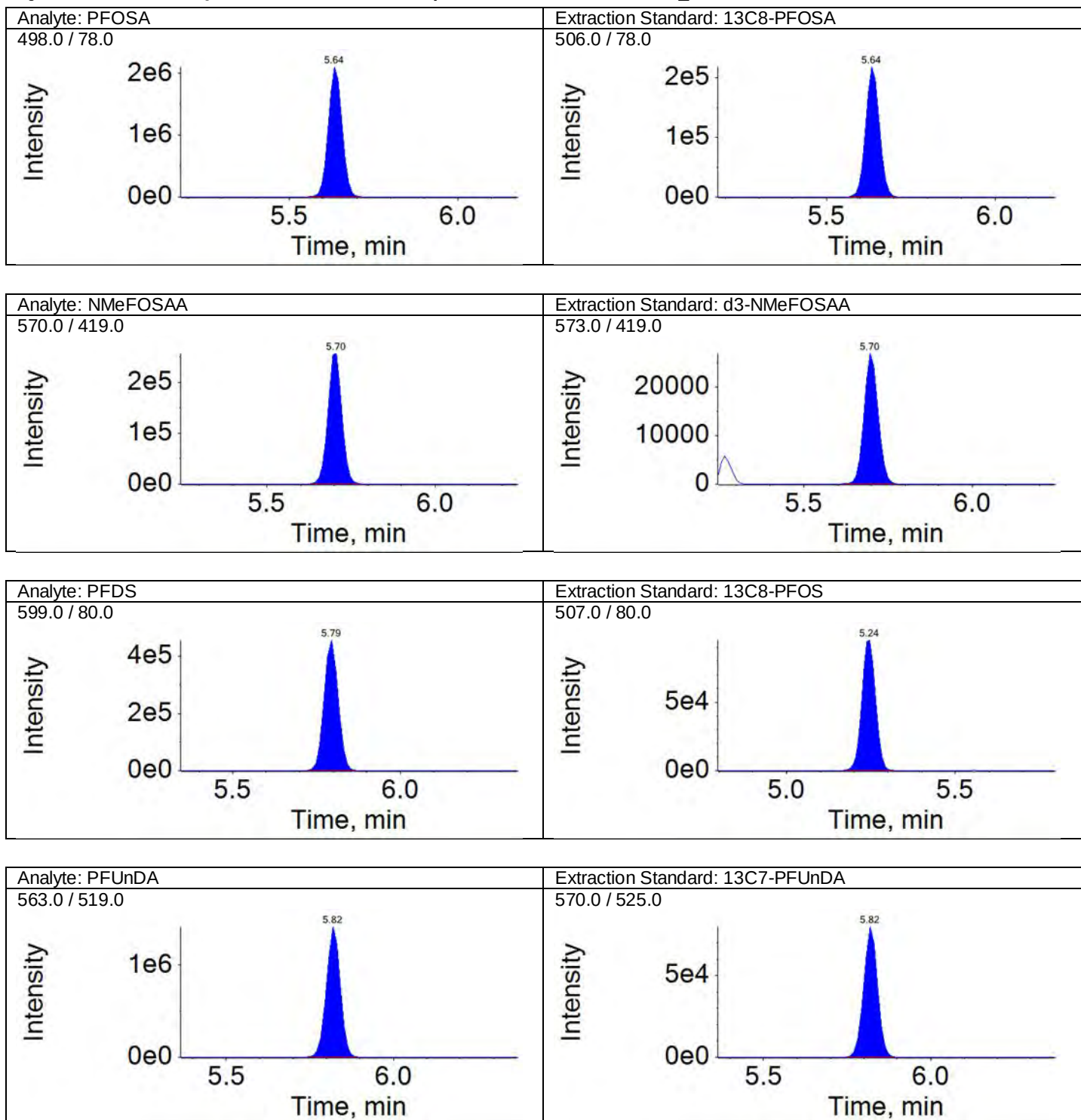
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

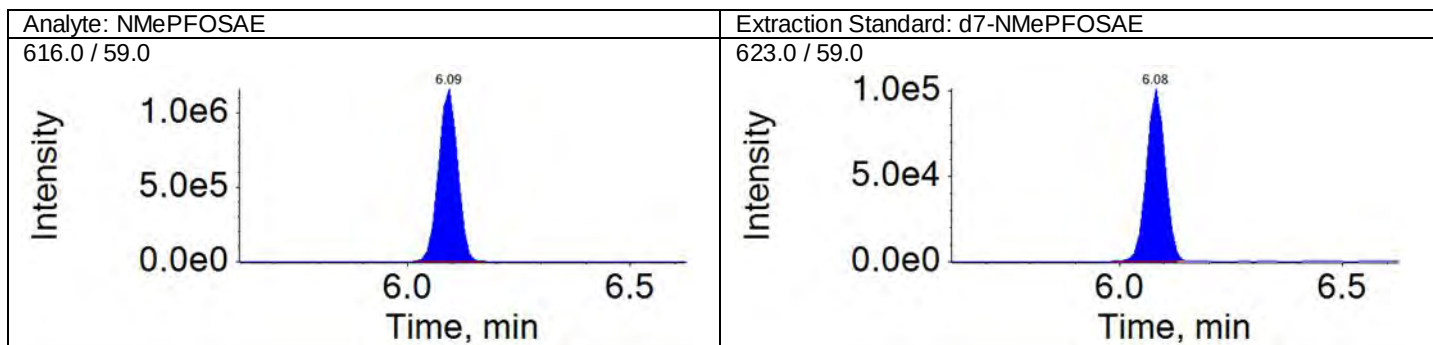
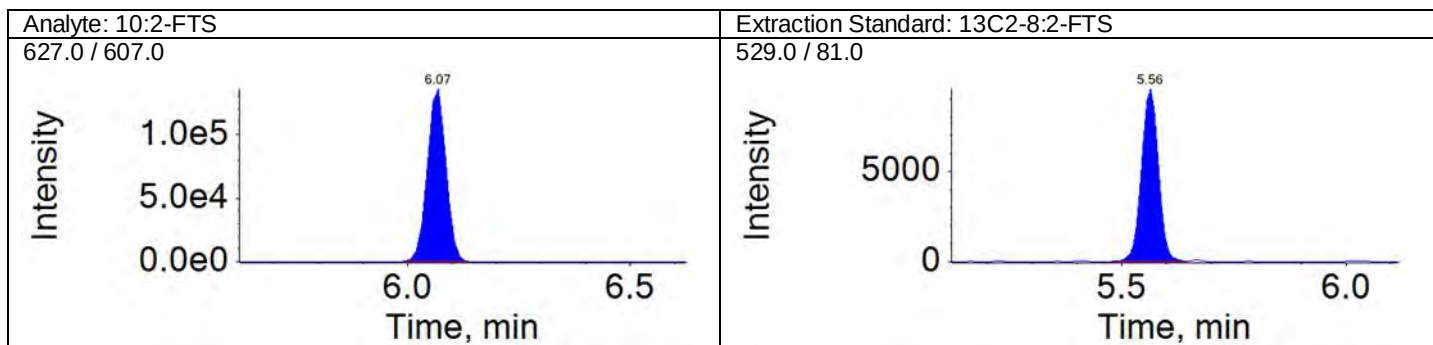
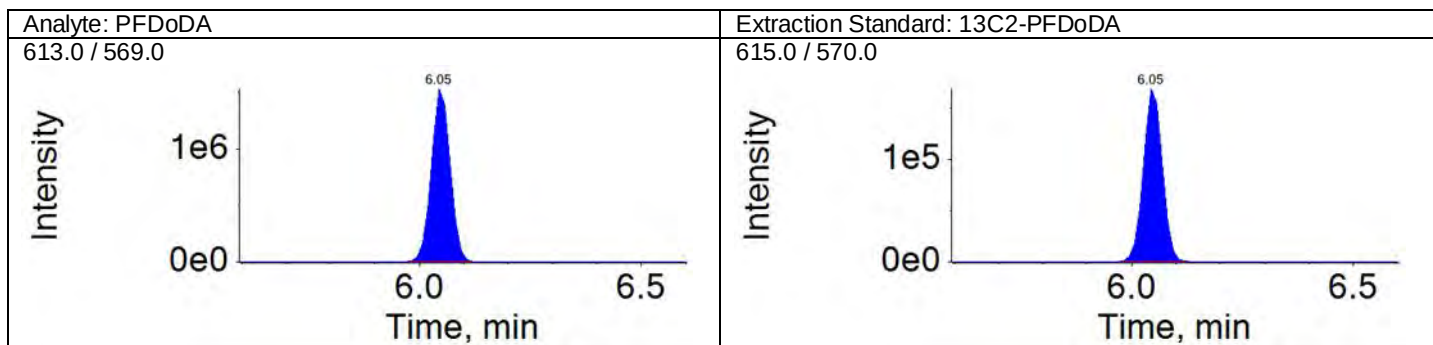
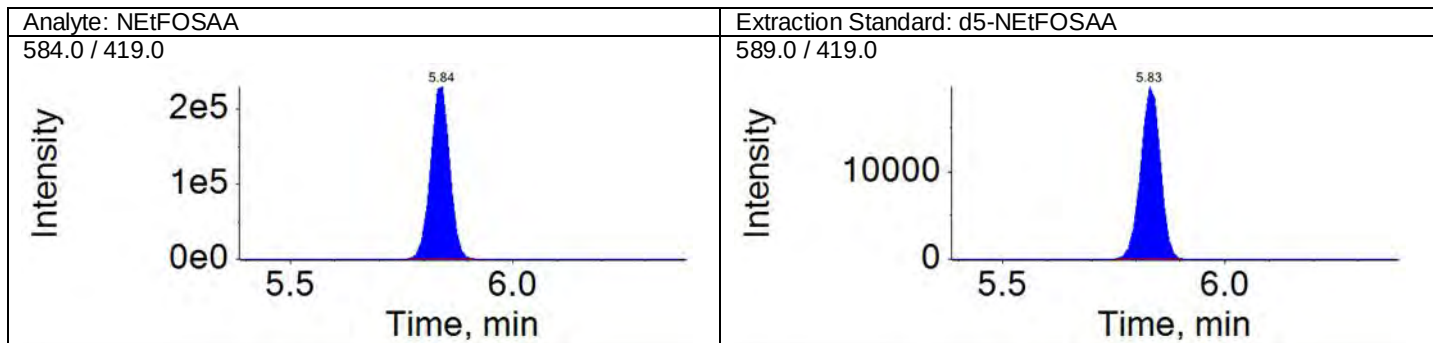
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

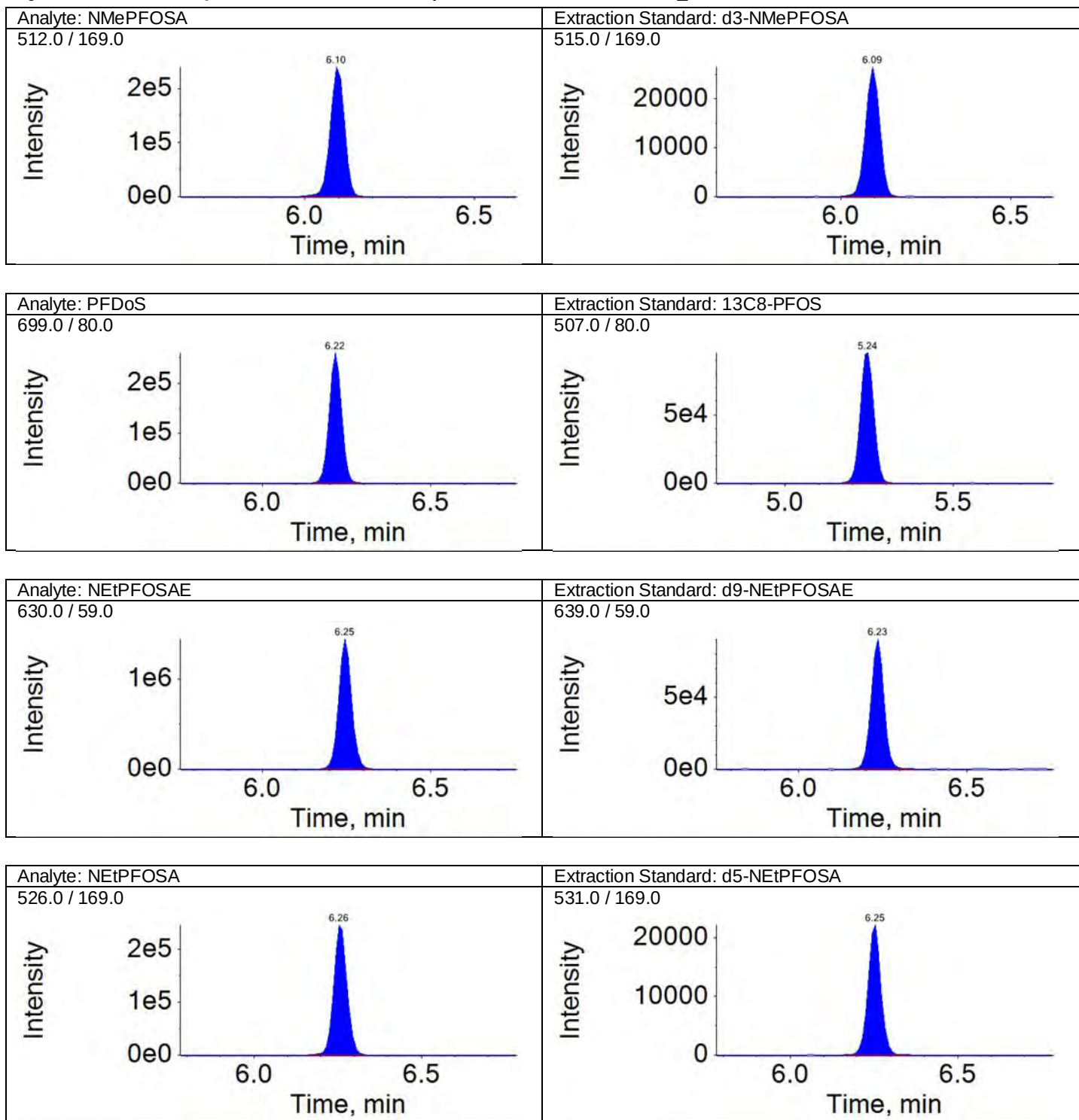
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Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



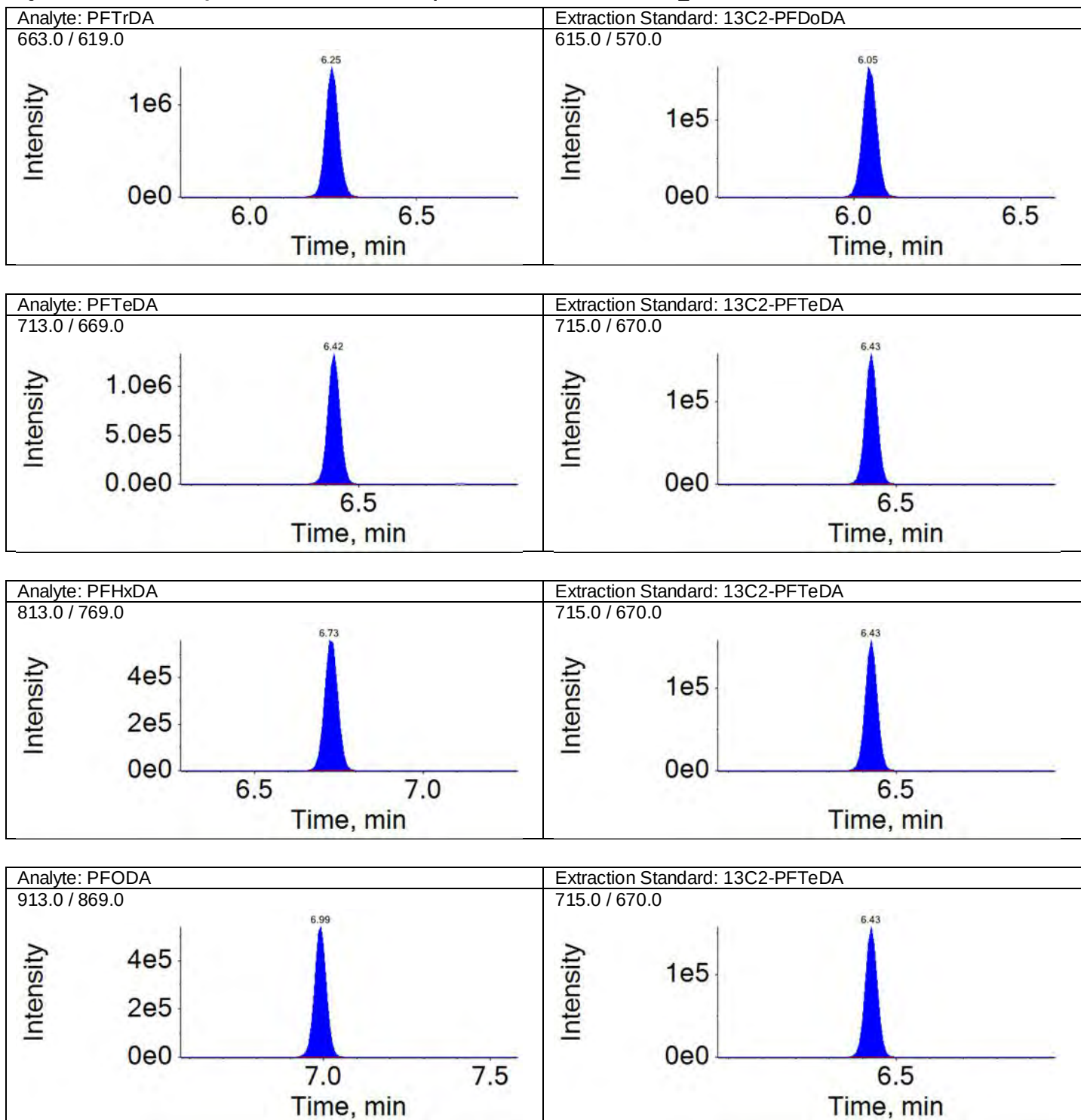
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



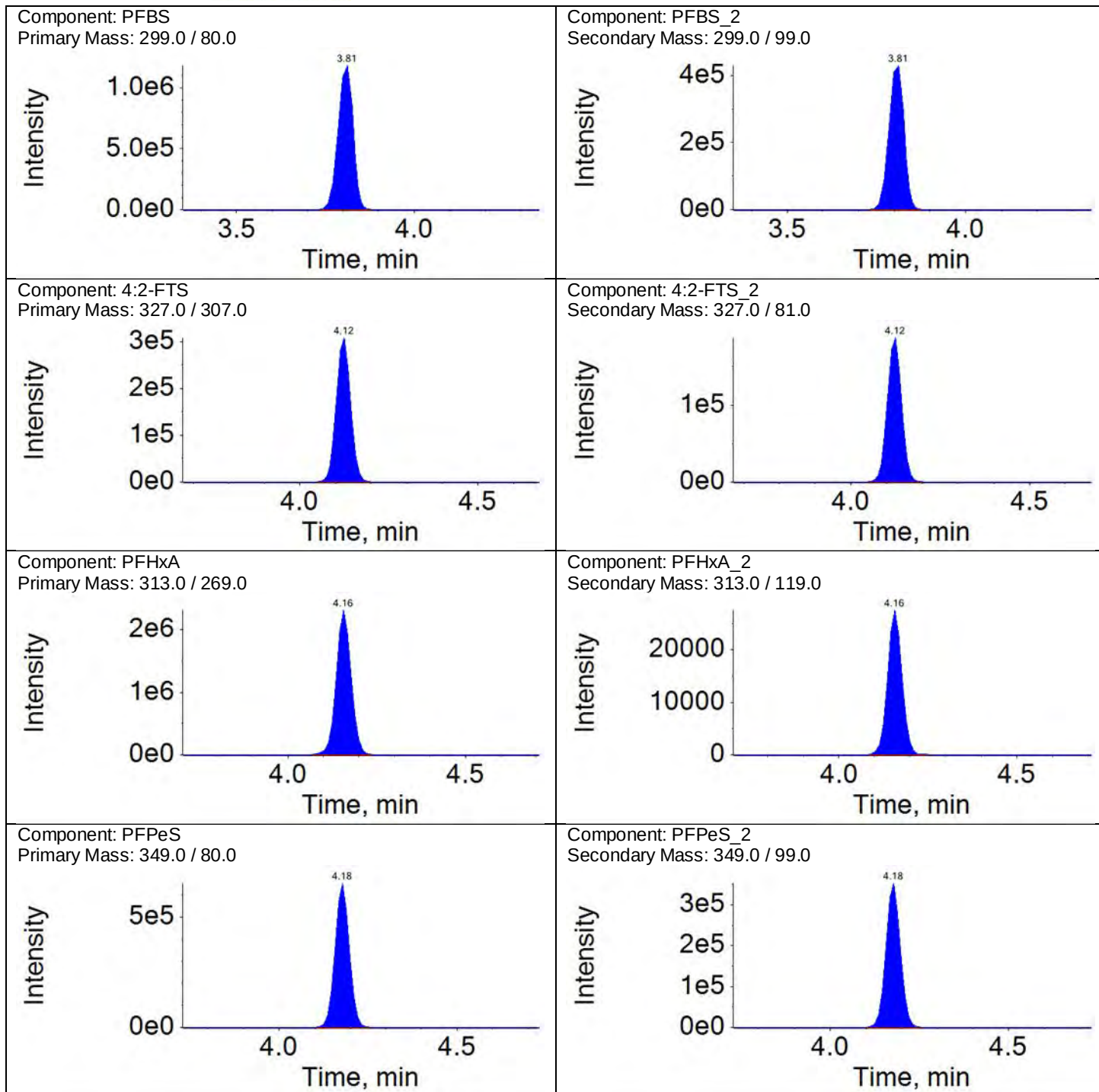
Ion Ratio Report

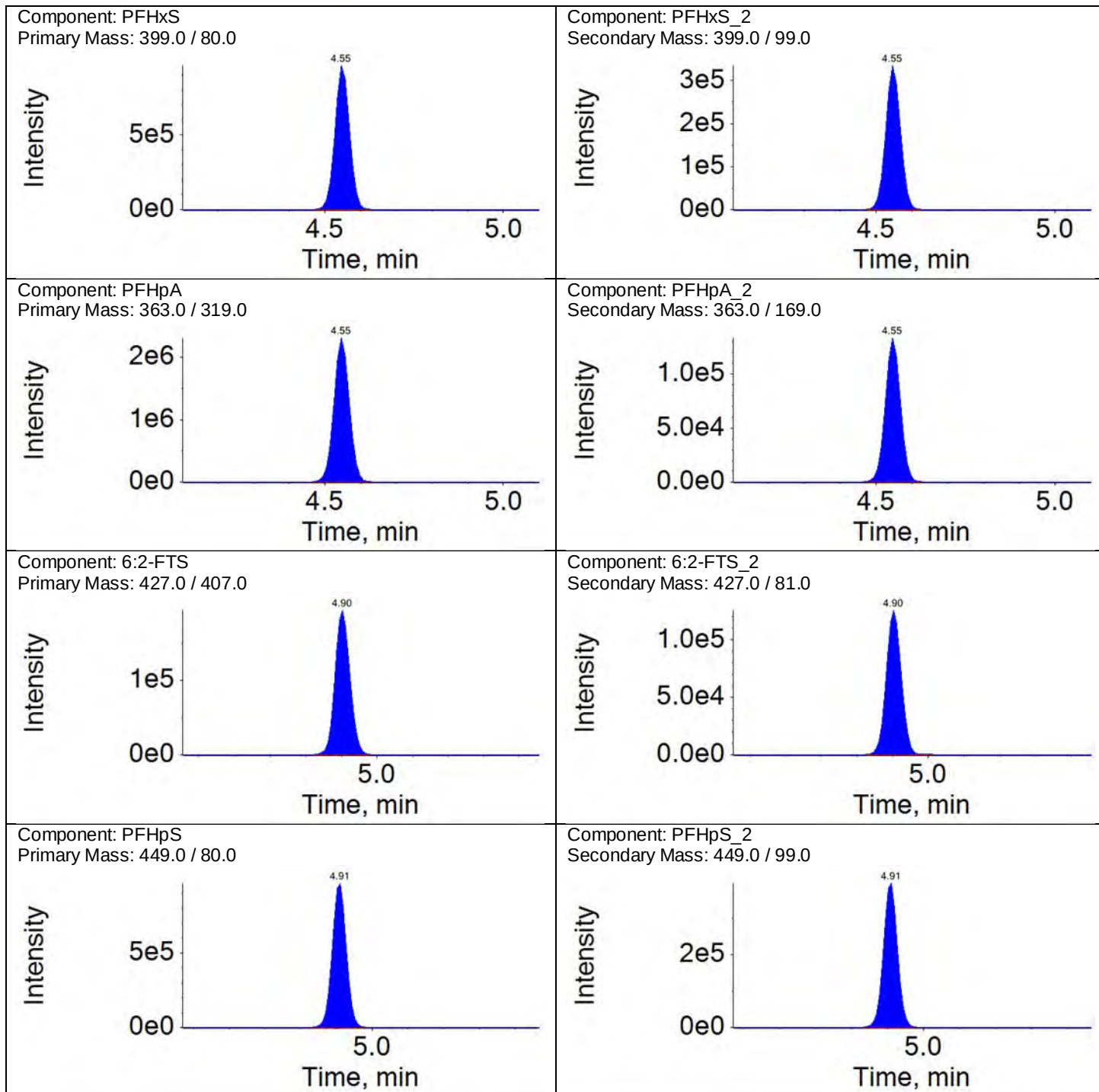
Sample Name: CAL6

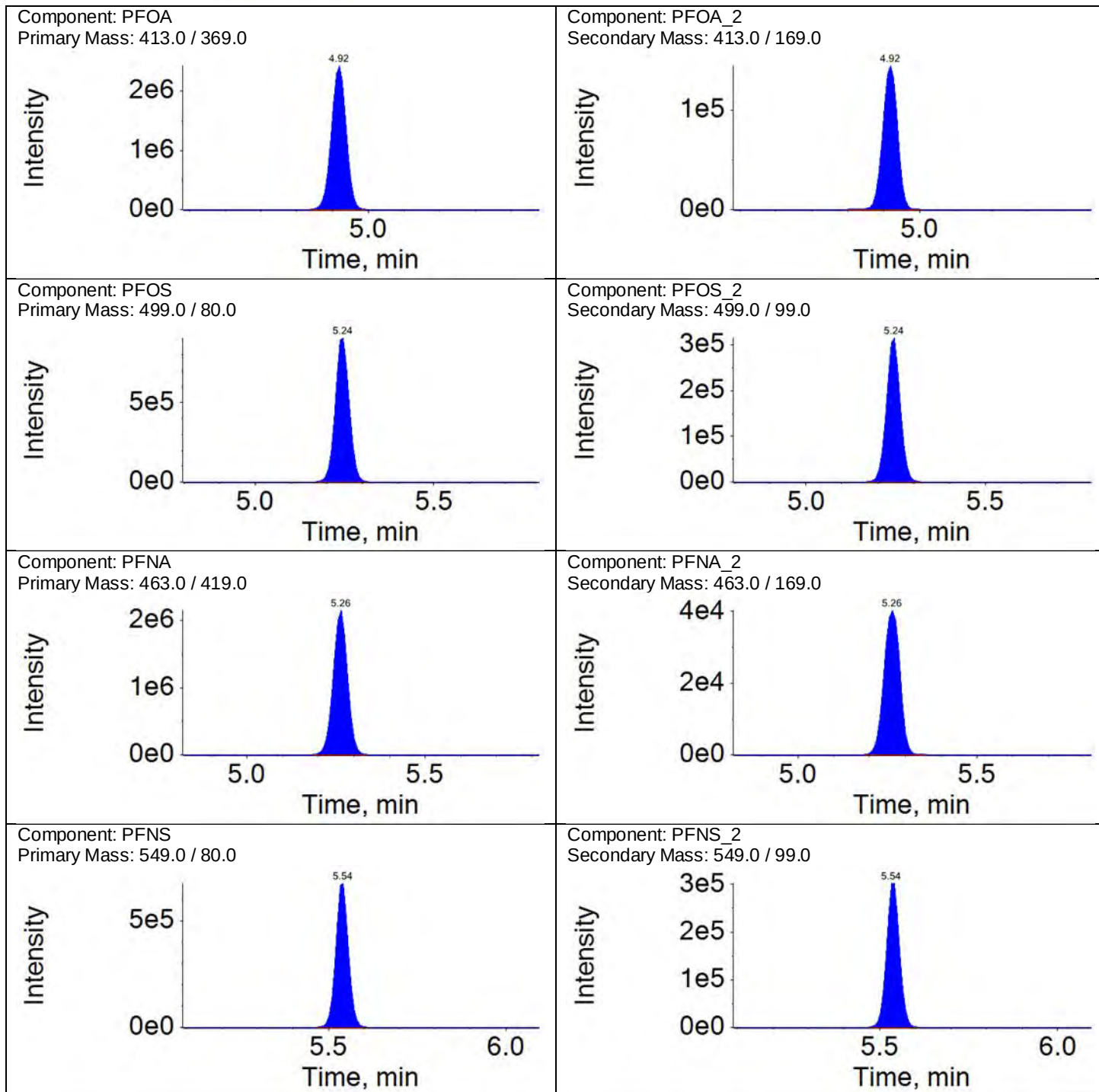
Instrument Name: LM27631

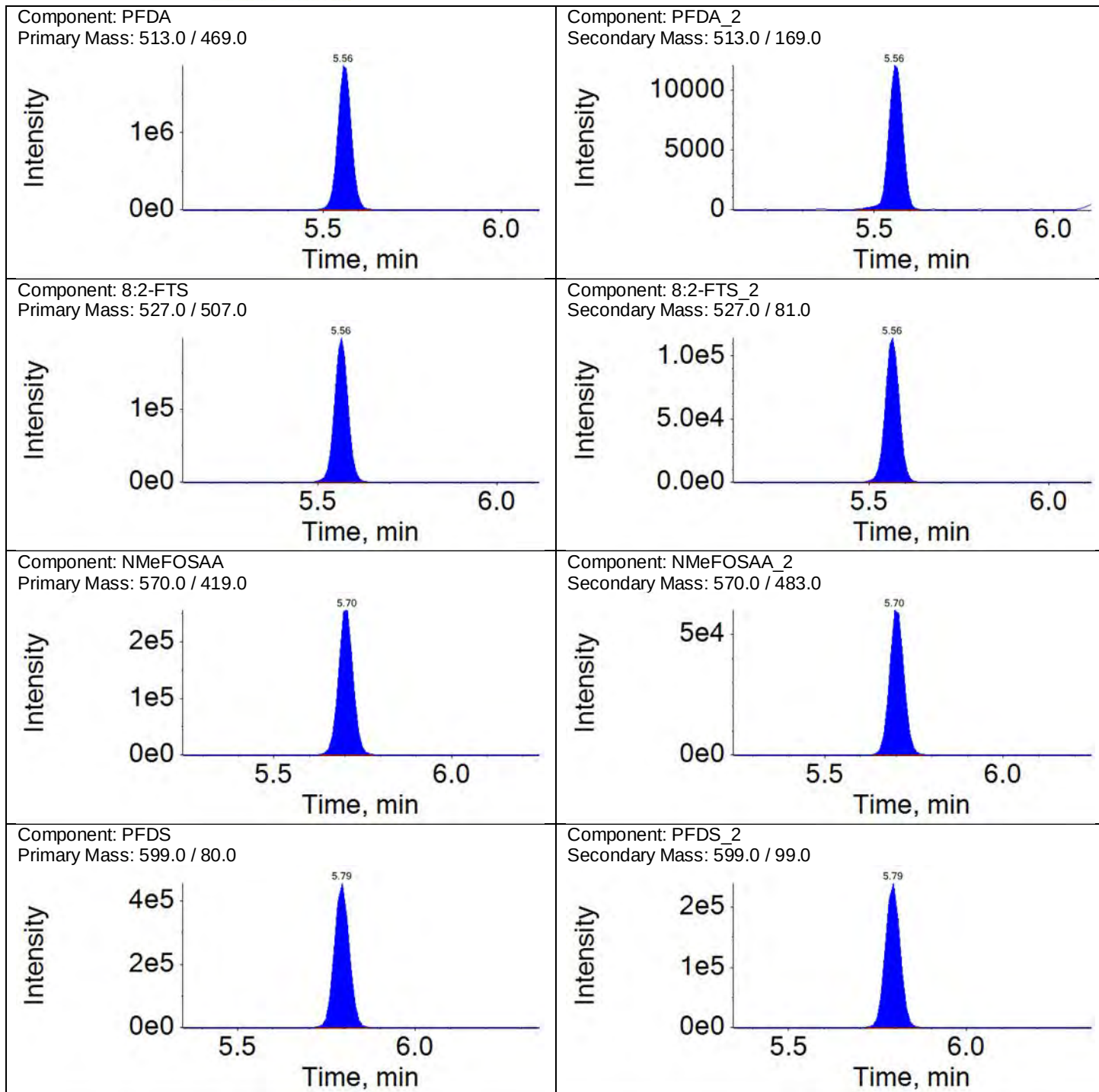
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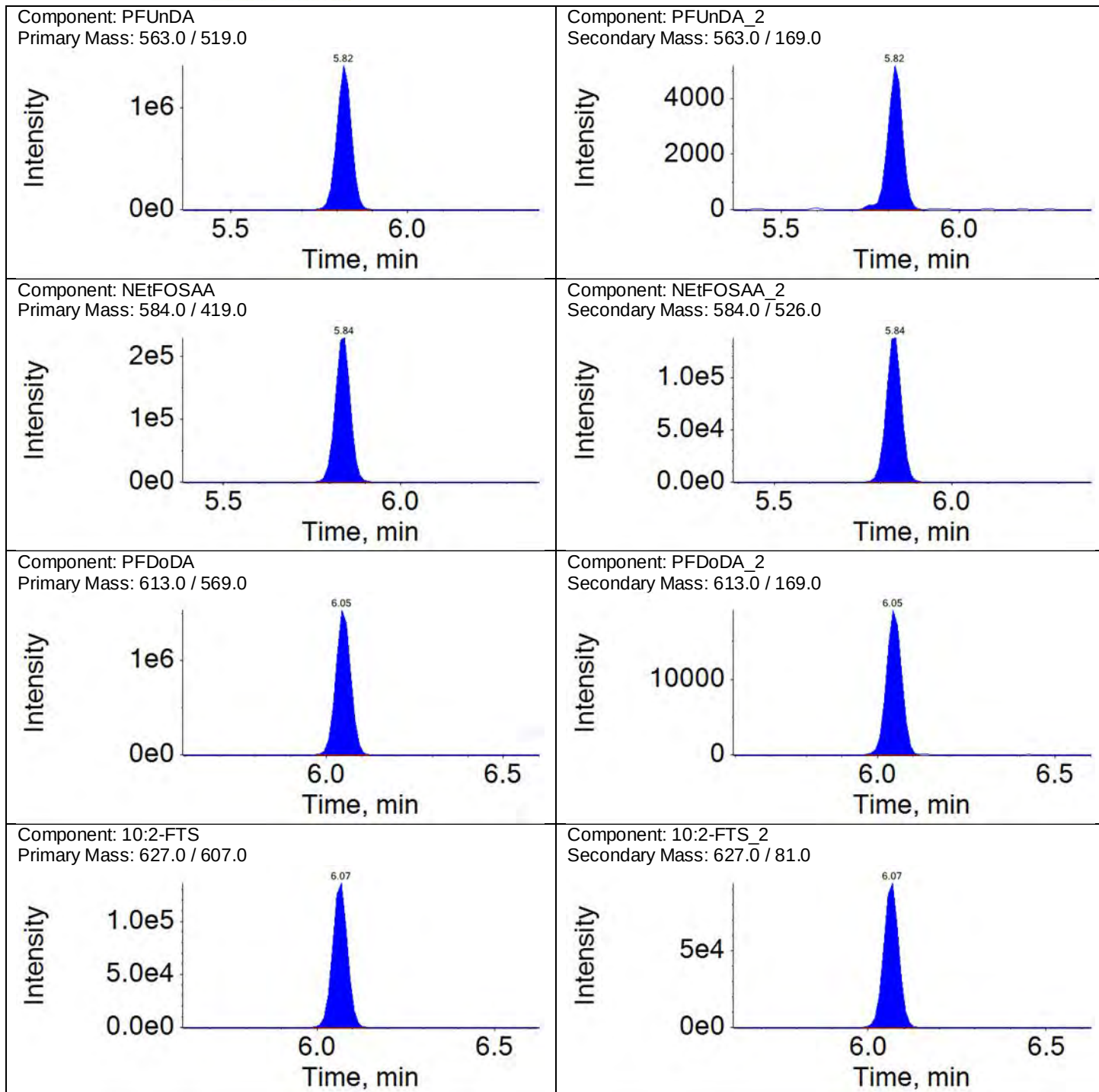
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	3508201.1	A	1.0000	1.0000			
PFBS_2	3.81	1.00	1286846.1	A	0.3576	0.3668	3	50	
4:2-FTS	4.12	1.00	866263.6	A	1.0000	1.0000			
4:2-FTS_2	4.12	1.00	524123.7	A	0.6359	0.6050	-5	50	
PFHxA	4.16	1.00	6739327.9	A	1.0000	1.0000			
PFHxA_2	4.16	1.00	77061.9	A	0.0115	0.0114	0	50	
PFPeS	4.18	1.10	1823355.9	A	1.0000	1.0000			
PFPeS_2	4.18	1.10	993764.2	A	0.5384	0.5450	1	50	
PFHxS	4.55	1.00	2760712.8	A	1.0000	1.0000			
PFHxS_2	4.55	1.00	964116.9	A	0.3569	0.3492	-2	50	
PFHpA	4.55	1.00	6940304.7	A	1.0000	1.0000			
PFHpA_2	4.55	1.00	395462.8	A	0.0577	0.0570	-1	50	
6:2-FTS	4.90	1.00	566692.8	A	1.0000	1.0000			
6:2-FTS_2	4.90	1.00	369783.6	A	0.6752	0.6525	-3	50	
PFHpS	4.91	1.08	2648512.9	A	1.0000	1.0000			
PFHpS_2	4.91	1.08	1077513.1	A	0.3950	0.4068	3	50	
PFOA	4.92	1.00	7023921.1	A	1.0000	1.0000			
PFOA_2	4.92	1.00	420903.3	A	0.0635	0.0599	-6	50	
PFOS	5.24	1.00	2487687.4	A	1.0000	1.0000			
PFOS_2	5.24	1.00	854704.9	A	0.3494	0.3436	-2	50	
PFNA	5.26	1.00	6070259.1	A	1.0000	1.0000			
PFNA_2	5.26	1.00	127695.8	A	0.0207	0.0210	2	50	
PFNS	5.54	1.06	1684601.2	A	1.0000	1.0000			
PFNS_2	5.54	1.06	776478.1	A	0.4890	0.4609	-6	50	
PFDA	5.56	1.00	4962332.7	A	1.0000	1.0000			
PFDA_2	5.56	1.00	33135.1	A	0.0057	0.0067	18	50	
8:2-FTS	5.56	1.00	516640.5	A	1.0000	1.0000			
8:2-FTS_2	5.56	1.00	308500.7	A	0.6169	0.5971	-3	50	
NMeFOSAA	5.70	1.00	740651.6	A	1.0000	1.0000			
NMeFOSAA_2	5.70	1.00	170978.8	A	0.2206	0.2308	5	50	
PFDS	5.79	1.11	1337416.6	A	1.0000	1.0000			
PFDS_2	5.79	1.10	697007.4	A	0.4648	0.5212	12	50	
PFUnDA	5.82	1.00	4071590.3	A	1.0000	1.0000			
PFUnDA_2	5.82	1.00	14961.6	A	0.0031	0.0037	17	50	
NEtFOSAA	5.84	1.00	685447.7	A	1.0000	1.0000			
NEtFOSAA_2	5.84	1.00	416391.3	A	0.6082	0.6075	0	50	
PFDODA	6.05	1.00	4509578.7	A	1.0000	1.0000			
PFDODA_2	6.05	1.00	57065.9	A	0.0109	0.0127	16	50	
10:2-FTS	6.07	1.09	395929.8	A	1.0000	1.0000			
10:2-FTS_2	6.07	1.09	276017.2	A	0.7082	0.6971	-2	50	
PFTTrDA	6.25	1.03	3829048.4	A	1.0000	1.0000			
PFTTrDA_2	6.25	1.03	35358.1	A	0.0096	0.0092	-4	50	
PFTeDA	6.42	1.00	3381511.1	A	1.0000	1.0000			
PFTeDA_2	6.42	1.00	21143.9	A	0.0055	0.0063	13	50	
PFHxDA	6.73	1.05	1559604.6	A	1.0000	1.0000			
PFHxDA_2	6.73	1.05	97226.7	A	0.0596	0.0623	5	50	
PFODA	6.99	1.09	1340733.9	A	1.0000	1.0000			
PFODA_2	6.99	1.09	34220.3	A	0.0257	0.0255	-1	50	

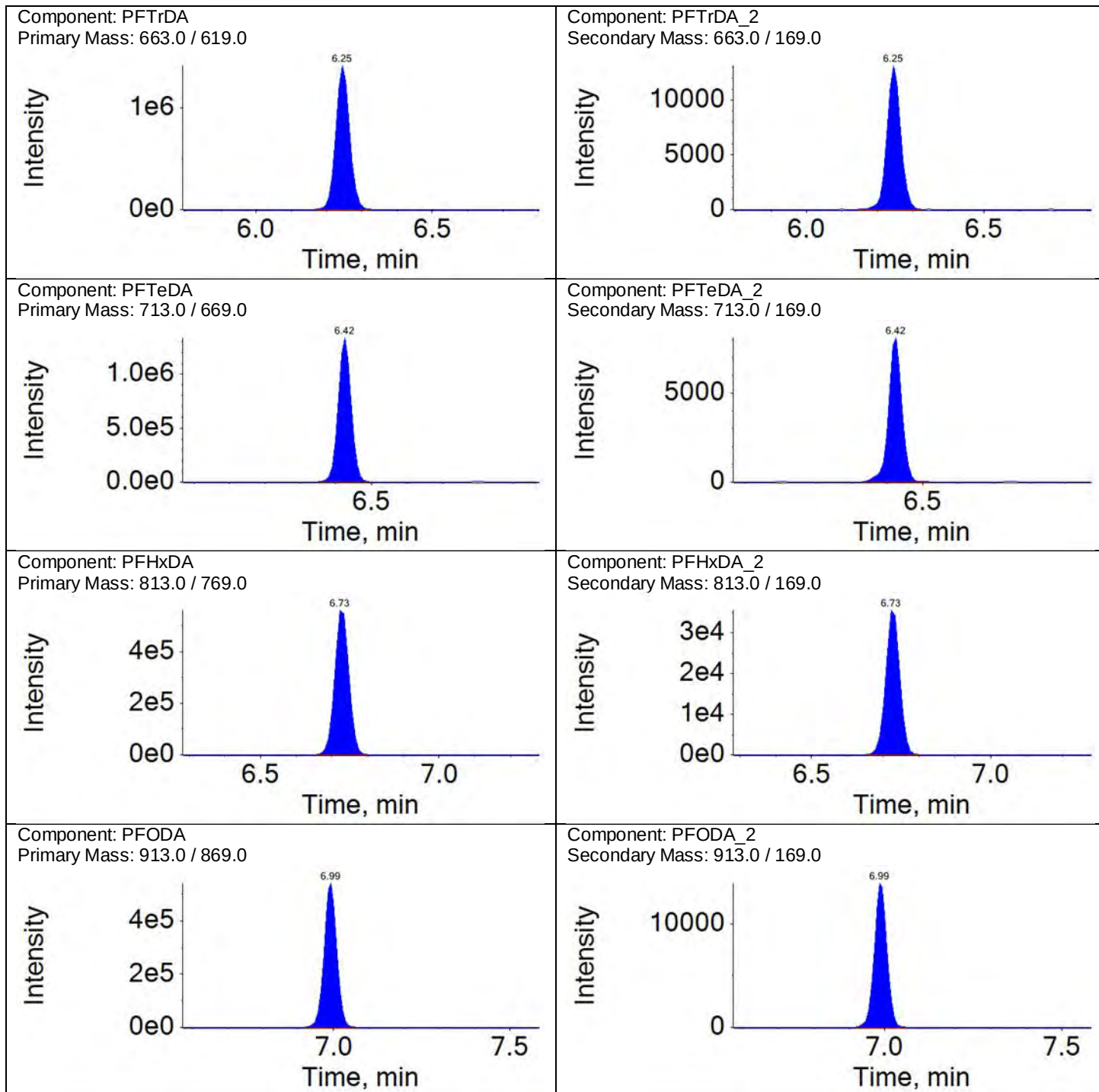












ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL7		Data File:	18NOV07DCAL-16.wiff
Sample ID:	CALMOD71833E		Acquis Date:	2018-11-07T10:33:59
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	9		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV07DCAL
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	N/A		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV07DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	554647.4	730410.6	-24	50	
13C2-PFOA	5.0	419465.9	524423.6	-20	50	
13C4-PFOS	4.8	253720.8	274061.7	-7	50	
13C2-PFDA	5.0	258292.2	311442.1	-17	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	609686.1	13C3-PFBA	554647.4	1.099	5.000	5.087	102	70-130	
E13C5-PFPeA	628265.5	13C3-PFBA	554647.4	1.133	5.000	4.935	99	70-130	
E13C3-PFBS	381345.5	13C3-PFBA	554647.4	0.688	4.650	5.046	109	70-130	
E13C2-4:2-FTS	46334.2	13C2-PFOA	419465.9	0.110	4.670	4.984	107	70-130	
E13C5-PFHxA	571807.5	13C2-PFOA	419465.9	1.363	5.000	5.014	100	70-130	
E13C3-PFHxS	279859.6	13C2-PFOA	419465.9	0.667	4.730	4.790	101	70-130	
E13C4-PFHpA	457160.4	13C2-PFOA	419465.9	1.090	5.000	4.958	99	70-130	
E13C2-6:2-FTS	26549.1	13C2-PFOA	419465.9	0.063	4.750	4.221	89	70-130	
E13C8-PFOA	678914.6	13C2-PFOA	419465.9	1.619	5.000	4.513	90	70-130	
E13C8-PFOS	264295.9	13C4-PFOS	253720.8	1.042	4.780	4.606	96	70-130	
E13C9-PFNA	402916.7	13C4-PFOS	253720.8	1.588	5.000	4.338	87	70-130	
E13C6-PFDA	480927.9	13C2-PFDA	258292.2	1.862	5.000	4.682	94	70-130	
E13C2-8:2-FTS	24555.7	13C2-PFDA	258292.2	0.095	4.790	5.031	105	70-130	
E13C8-PFOSA	603296.1	13C2-PFDA	258292.2	2.336	5.000	5.097	102	70-130	
Ed3-NMeFOSAA	75408.7	13C2-PFDA	258292.2	0.292	5.000	5.429	109	70-130	
E13C7-PFUnDA	212399.8	13C2-PFDA	258292.2	0.822	5.000	4.744	95	70-130	
Ed5-NEtFOSAA	56963.1	13C2-PFDA	258292.2	0.221	5.000	5.104	102	70-130	
E13C2-PFDoDA	525971.8	13C2-PFDA	258292.2	2.036	5.000	5.490	110	70-130	
Ed7-NMePFOSAE	295395.3	13C2-PFDA	258292.2	1.144	5.000	5.318	106	70-130	
Ed3-NMePFOSA	80053.2	13C2-PFDA	258292.2	0.310	5.000	5.674	113	70-130	
Ed9-NEtPFOSAE	235038.0	13C2-PFDA	258292.2	0.910	5.000	5.197	104	70-130	
Ed5-NEtPFOSA	58686.1	13C2-PFDA	258292.2	0.227	5.000	5.261	105	70-130	
E13C2-PFTeDA	384058.1	13C2-PFDA	258292.2	1.487	5.000	5.353	107	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL7

Instrument Name: LM27631

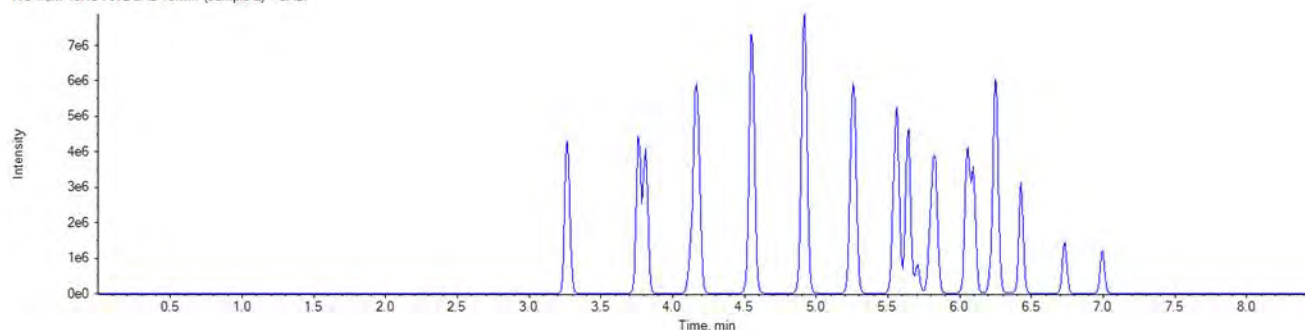
File Name: 18NOV07DCAL-16.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	9954520.3		A	13C4-PFBA	3.26	609686.1	16.327	95.554
PFPeA	3.76	1.000	10229627.8		A	13C5-PFPeA	3.76	628265.5	16.282	96.765
PFBS	3.81	1.000	6474525.0		A	13C3-PFBS	3.81	381345.5	16.978	85.599
4:2-FTS	4.13	1.000	1576786.3		A	13C2-4:2-FTS	4.13	46334.2	34.031	91.487
PFHxA	4.16	1.000	11658104.6		A	13C5-PFHxA	4.16	571807.5	20.388	87.434
PFPeS	4.18	1.100	3615170.2		A	13C3-PFBS	3.81	381345.5	9.480	93.501
PFHxS	4.55	1.000	5196245.3		A	13C3-PFHxS	4.55	279859.6	18.567	94.113
PFHpA	4.55	1.000	11701142.2		A	13C4-PFHpA	4.55	457160.4	25.595	86.081
6:2-FTS	4.90	1.000	988785.9		A	13C2-6:2-FTS	4.91	26549.1	37.244	92.910
PFHpS	4.91	1.080	5085803.6		A	13C3-PFHxS	4.55	279859.6	18.173	95.074
PFOA	4.92	1.000	11562348.7		A	13C8-PFOA	4.92	678914.6	17.031	95.892
PFOS	5.25	1.000	4830627.6		A	13C8-PFOS	5.24	264295.9	18.277	94.776
PFNA	5.27	1.000	10279837.9		A	13C9-PFNA	5.26	402916.7	25.514	95.349
PFNS	5.54	1.060	3119908.2		A	13C8-PFOS	5.24	264295.9	11.805	93.596
PFDA	5.56	1.000	8415098.4		A	13C6-PFDA	5.56	480927.9	17.498	96.265
8:2-FTS	5.57	1.000	936483.2		A	13C2-8:2-FTS	5.57	24555.7	38.137	85.963
PFOSA	5.64	1.000	11064835.5		A	13C8-PFOSA	5.64	603296.1	18.341	99.141
NMeFOSAA	5.70	1.000	1450331.2		A	d3-NMeFOSAA	5.70	75408.7	19.233	98.963
PFDS	5.80	1.110	2660525.2		A	13C8-PFOS	5.24	264295.9	10.066	96.161
PfUnDA	5.82	1.000	7204782.9		A	13C7-PfUnDA	5.82	212399.8	33.921	97.277
NEtFOSAA	5.84	1.000	1317020.6		A	d5-NEtFOSAA	5.84	56963.1	23.121	99.363
PFDODA	6.05	1.000	8211828.8		A	13C2-PFDODA	6.05	525971.8	15.613	84.613
10:2-FTS	6.07	1.090	747804.5		A	13C2-8:2-FTS	5.57	24555.7	30.453	94.827
NMePFOSAE	6.09	1.000	6220772.1		A	d7-NMePFOSAE	6.08	295395.3	21.059	94.369
NMePFOSA	6.10	1.000	1386738.5		A	d3-NMePFOSA	6.10	80053.3	17.323	96.961
PFDOS	6.22	1.190	1333847.1		A	13C8-PFOS	5.24	264295.9	5.047	97.407
NEtPFOSAE	6.25	1.000	6995371.5		A	d9-NEtPFOSAE	6.24	235038.1	29.763	95.411
NEtPFOSA	6.26	1.000	1329706.9		A	d5-NEtPFOSA	6.26	58686.1	22.658	99.791
PFTDA	6.25	1.030	6633128.3		A	13C2-PFDODA	6.05	525971.8	12.611	79.528
PFTeDA	6.43	1.000	6426587.4		A	13C2-PFTeDA	6.43	384058.1	16.733	98.263
PFHxDA	6.73	1.050	3073572.7		A	13C2-PFTeDA	6.43	384058.1	8.003	99.343
PFODA	6.99	1.090	2676698.5		A	13C2-PFTeDA	6.43	384058.1	6.970	99.849

Total Ion Chromatogram

TIC from 18NOV07DCAL-16.wiff (sample 2) - CAL7



APPROVED

By JPT at 2:53 pm, 11/7/18

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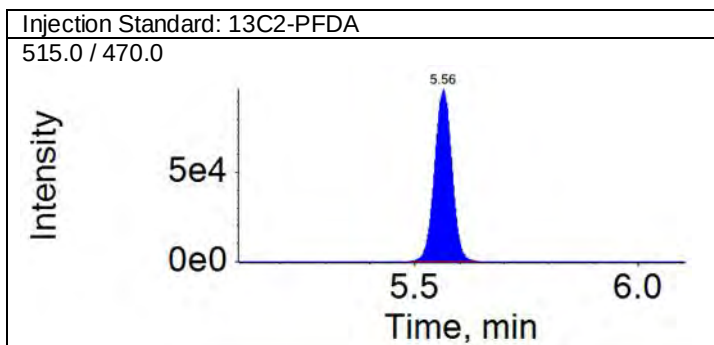
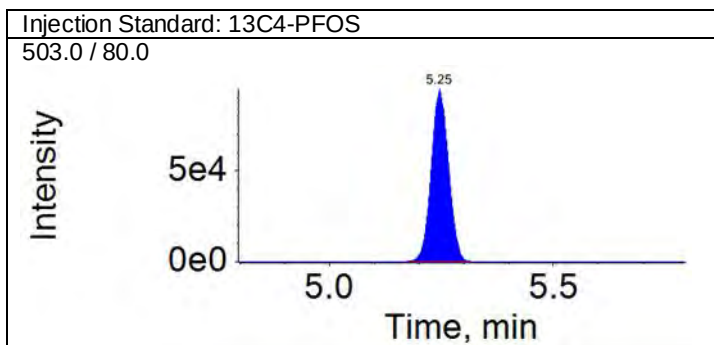
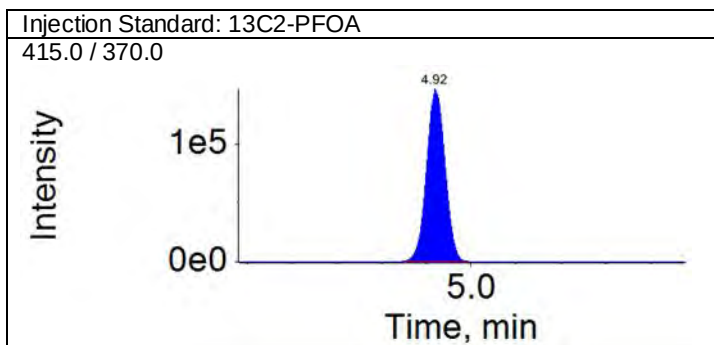
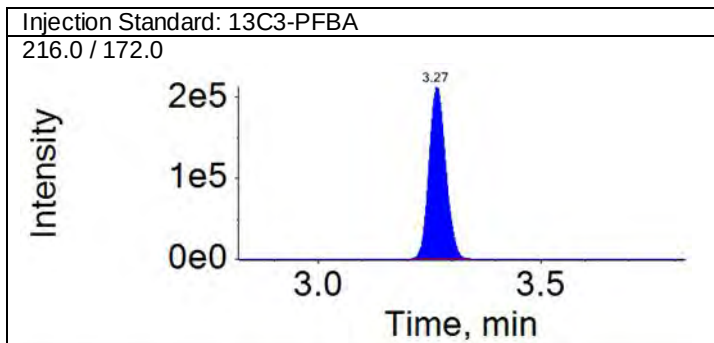
REVIEWED

By umar at 5:23 pm, 11/9/18

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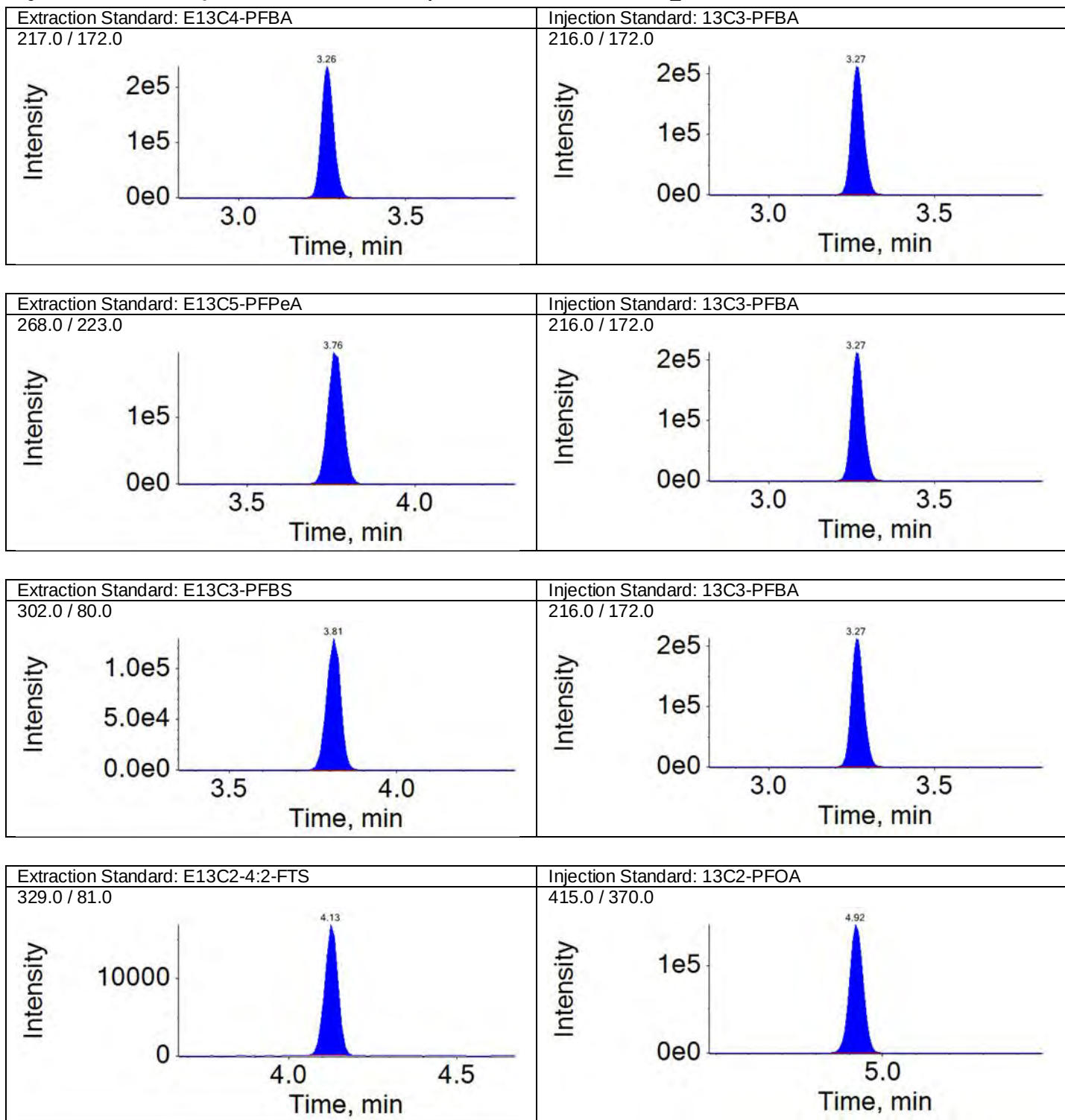
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



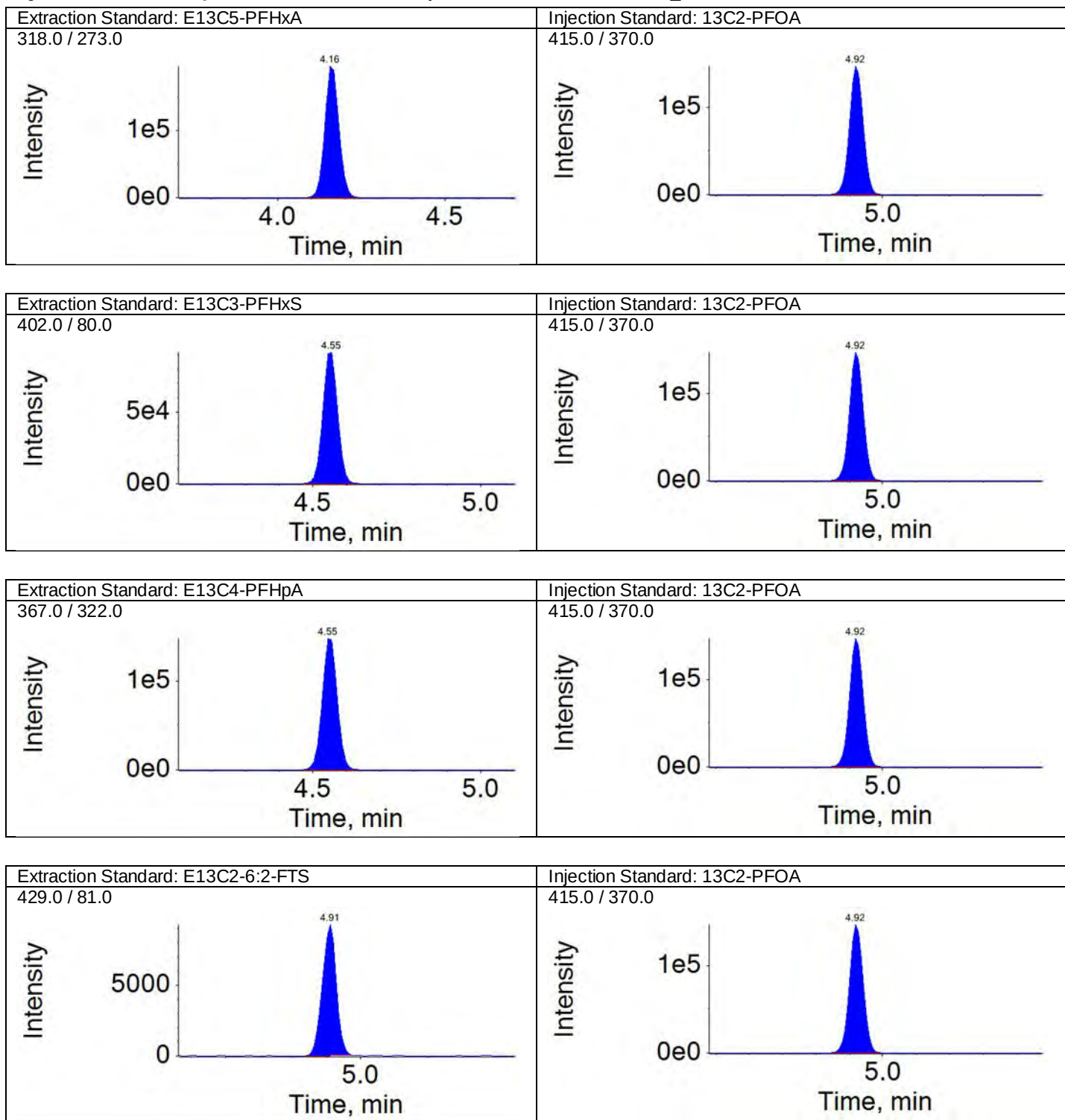
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



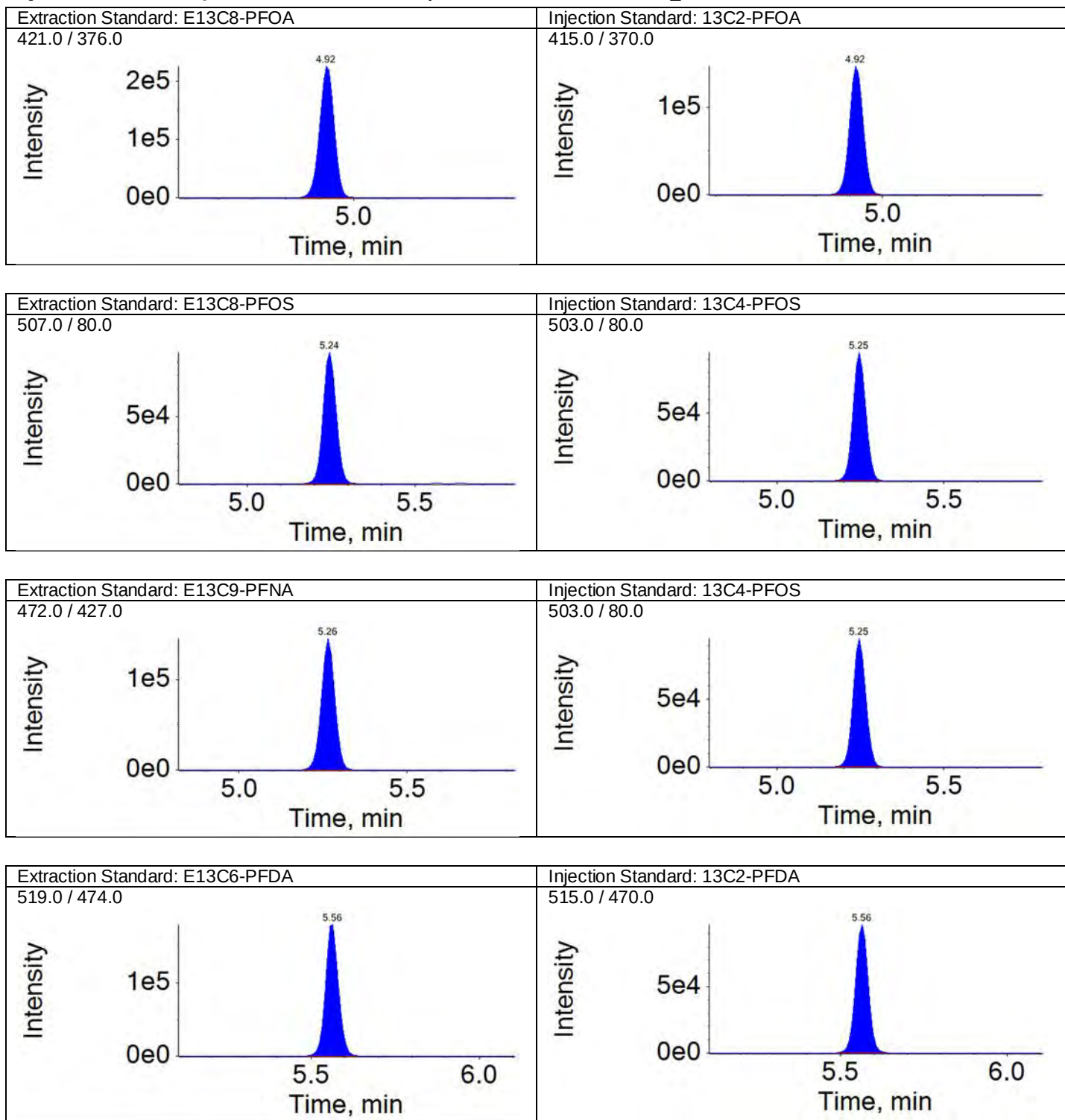
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



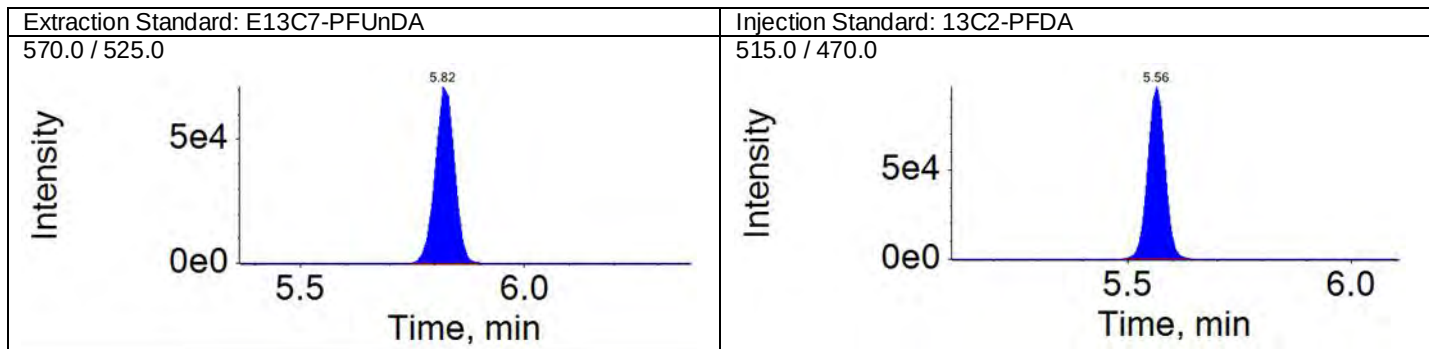
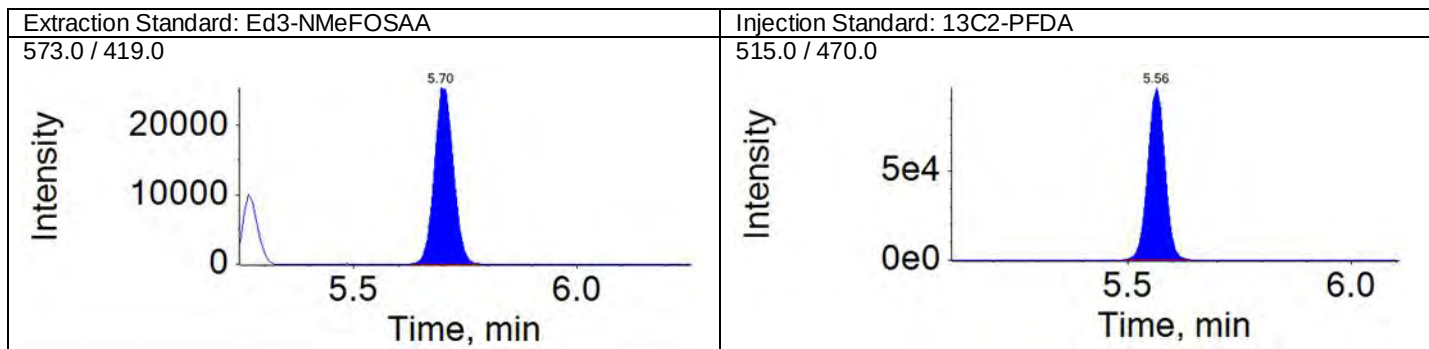
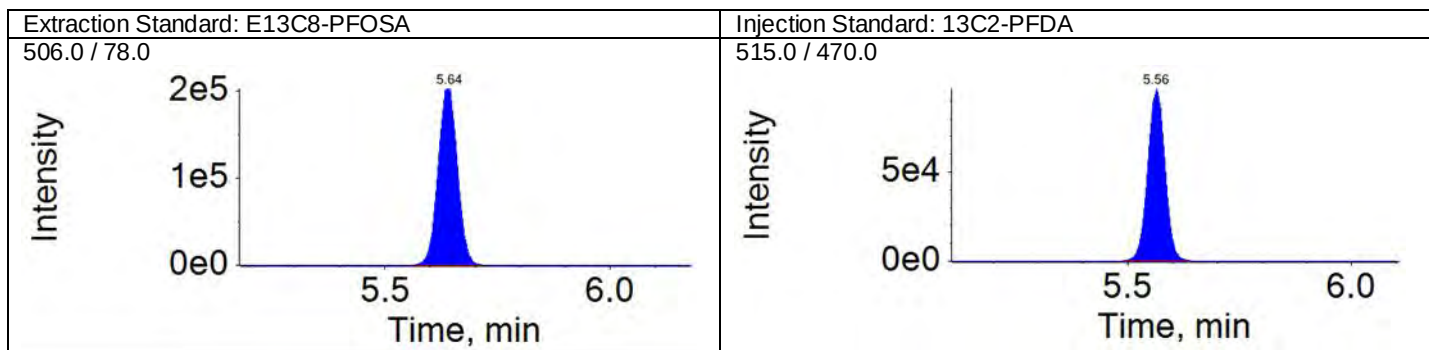
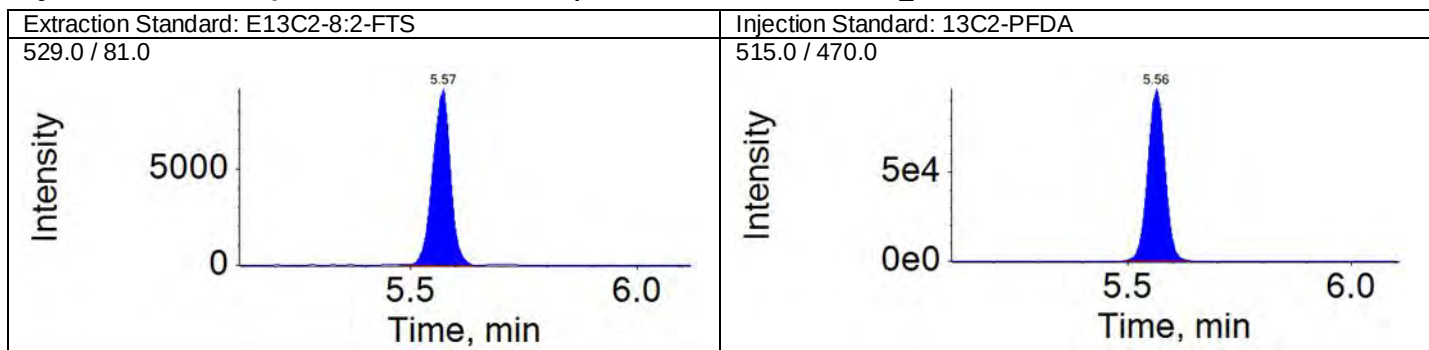
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

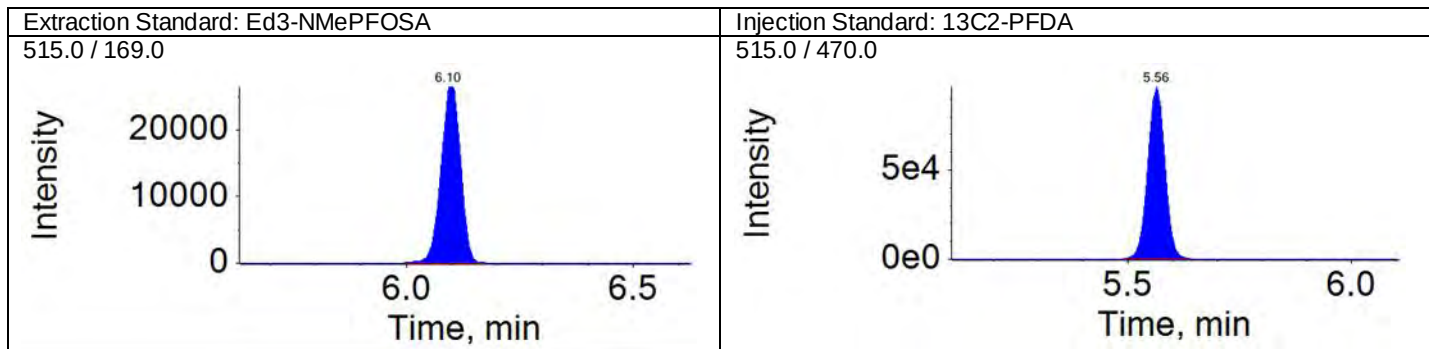
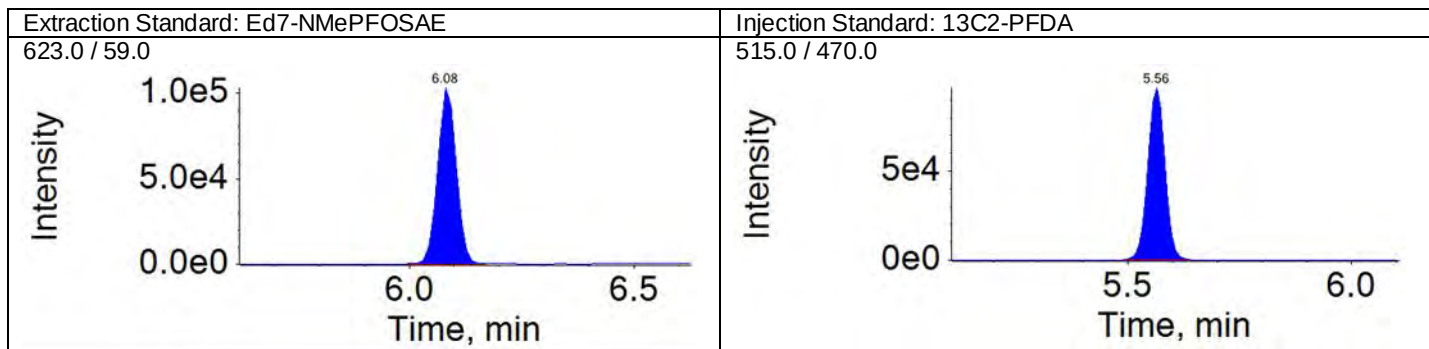
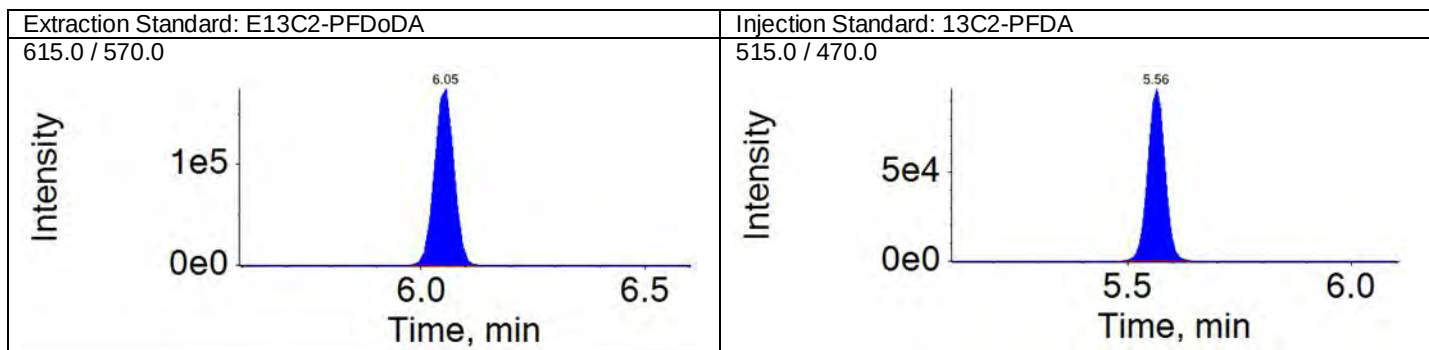
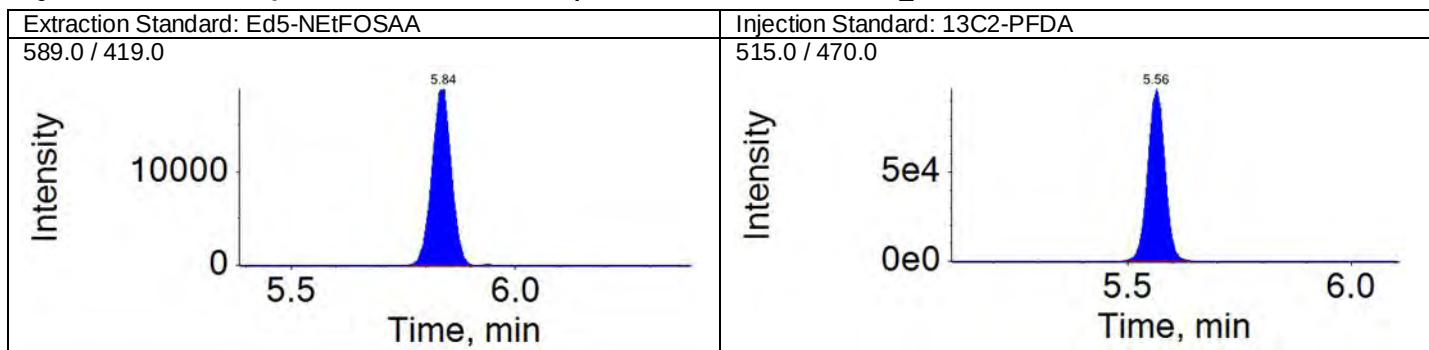
By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

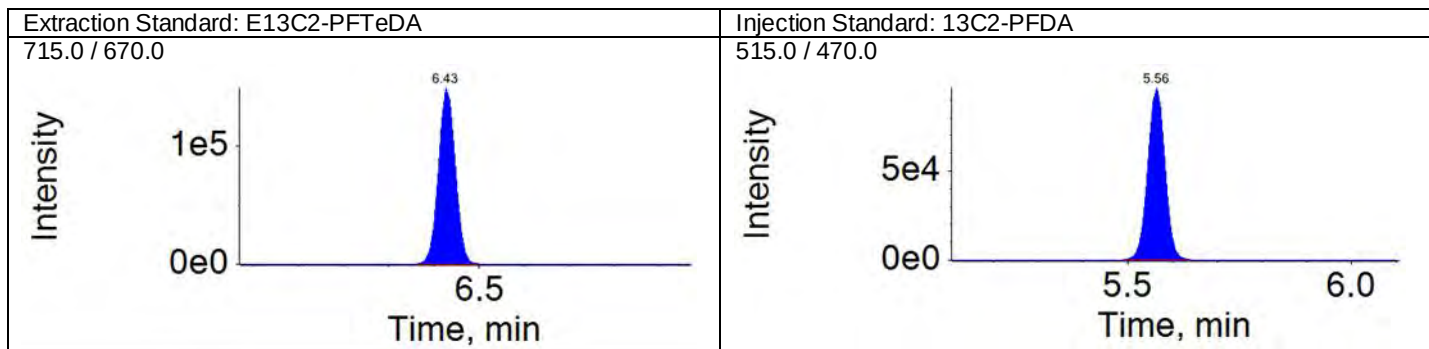
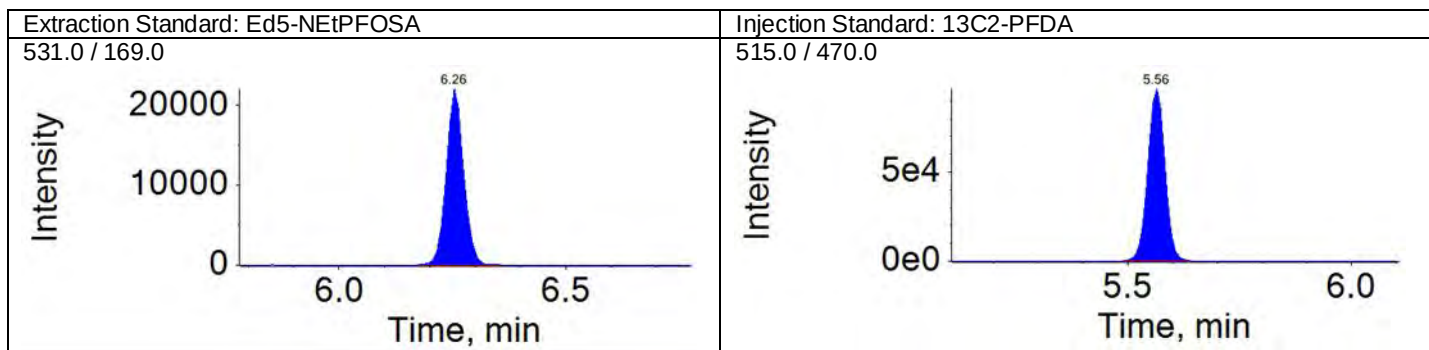
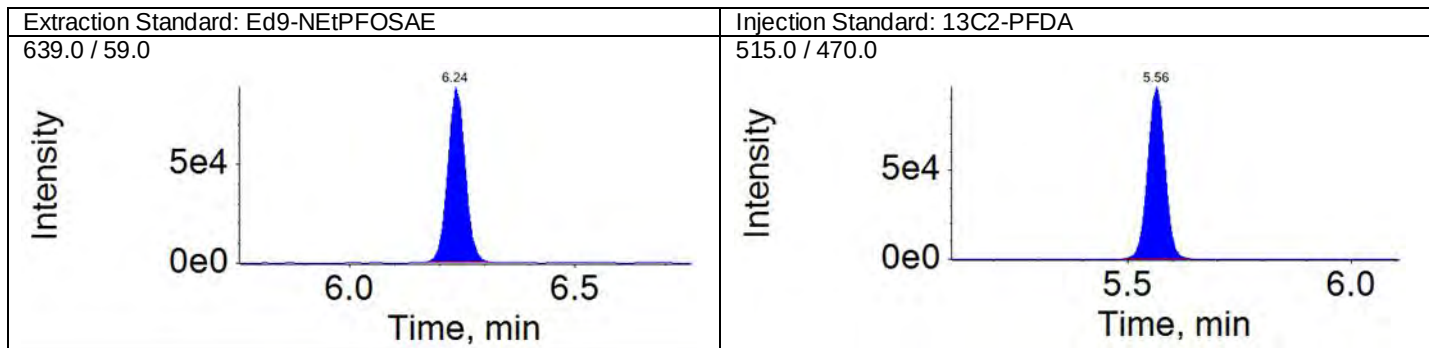
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



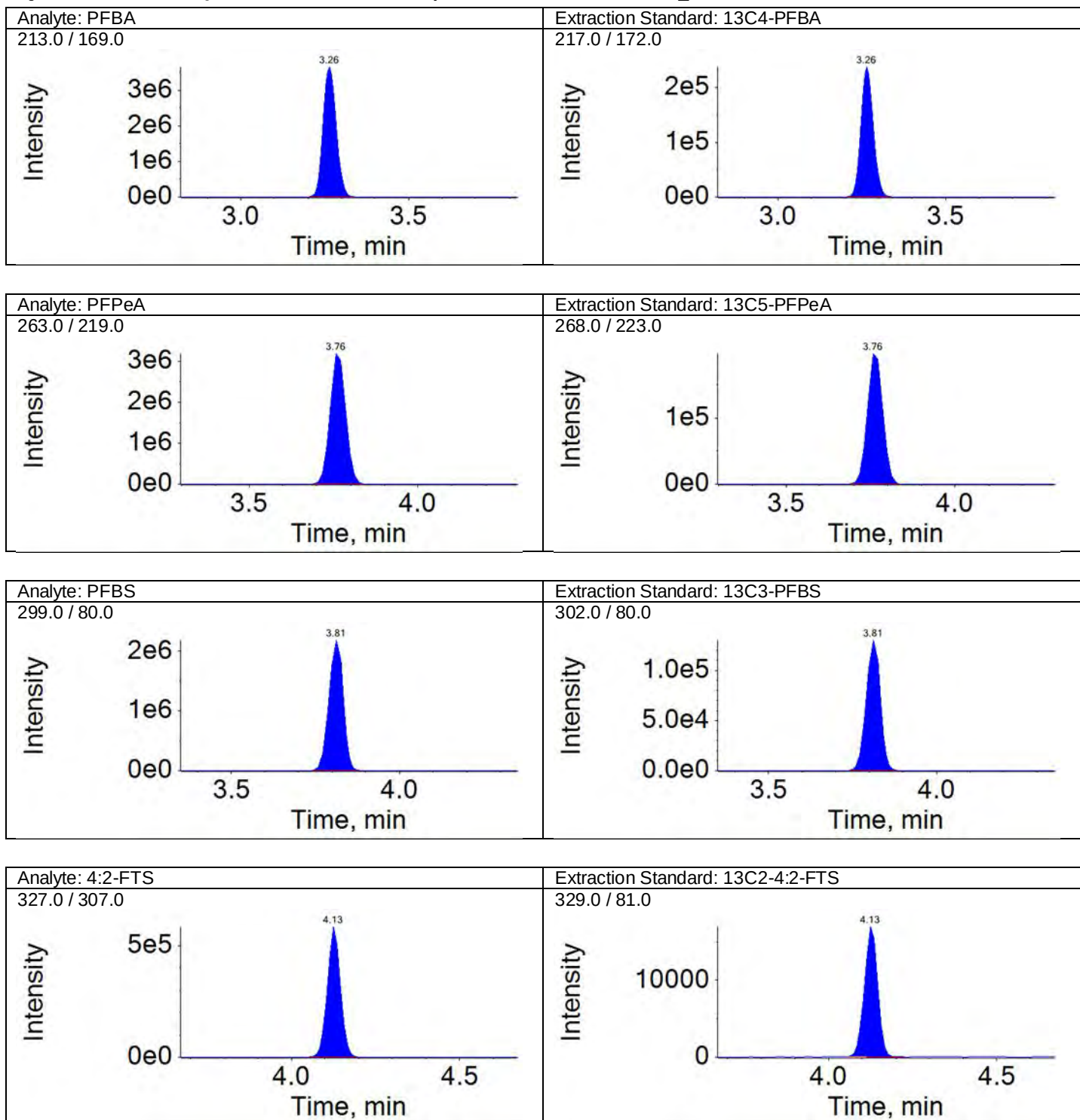
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Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

By JPT at 2:53 pm, 11/7/18

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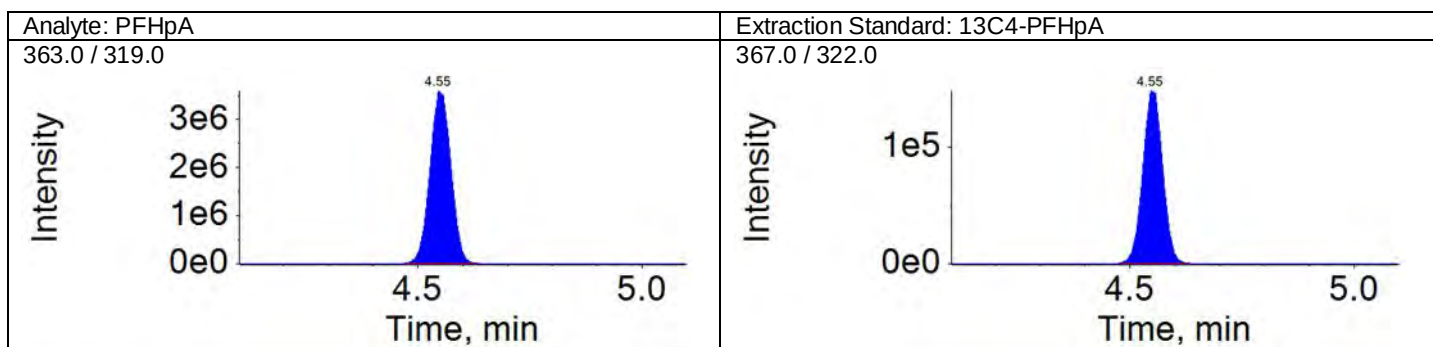
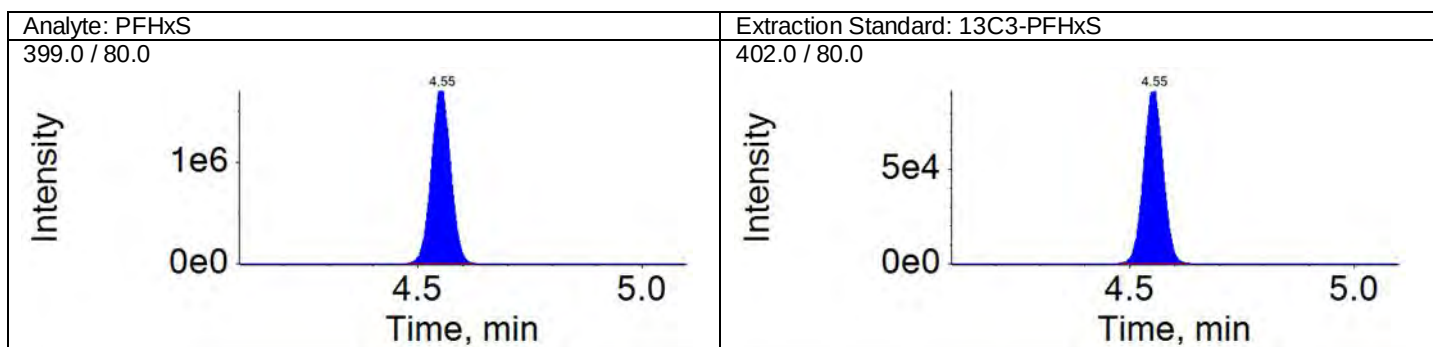
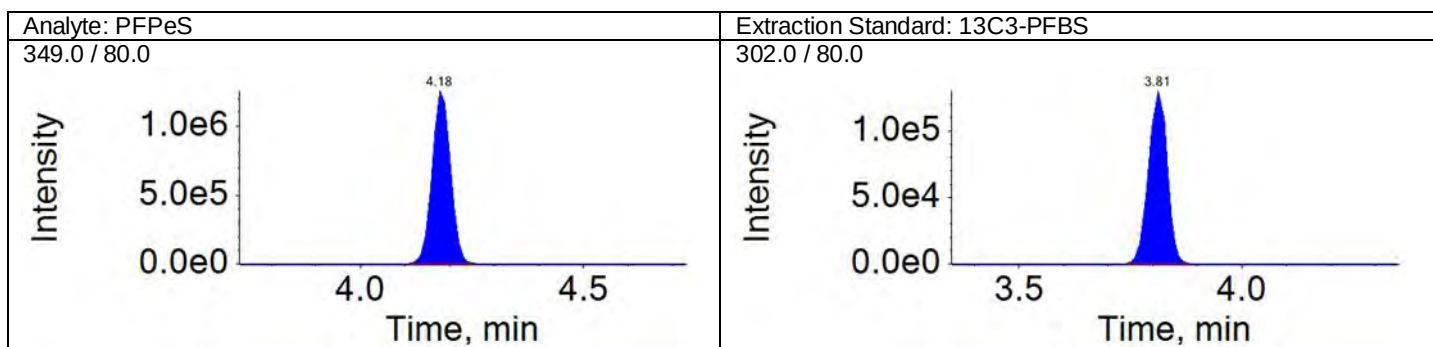
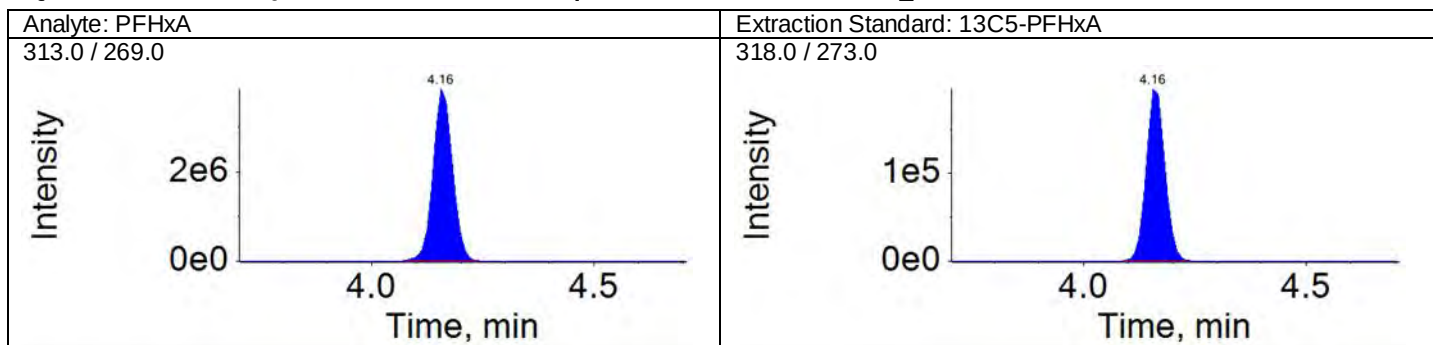
REVIEWED

By umar at 5:23 pm, 11/9/18

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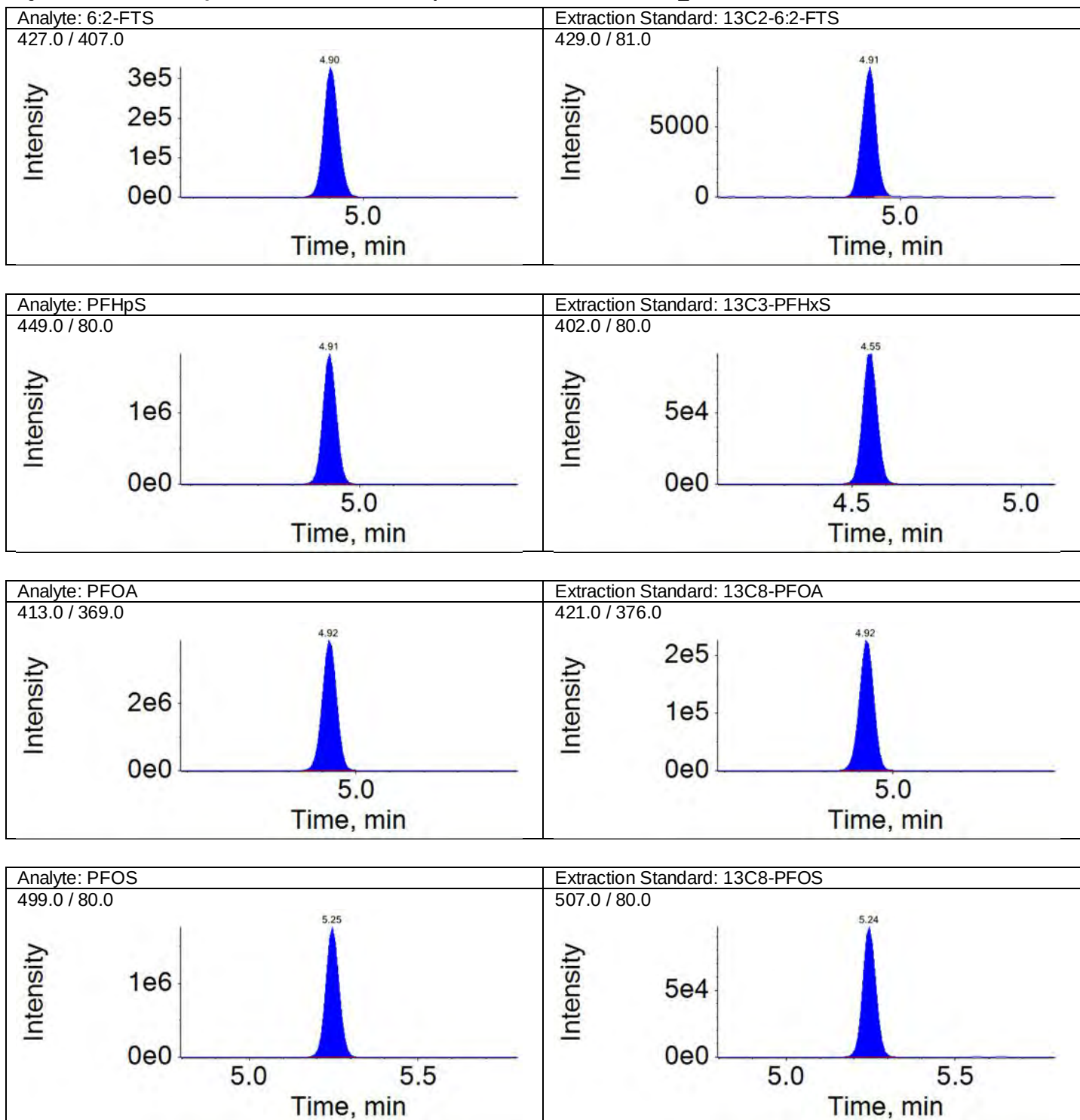
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



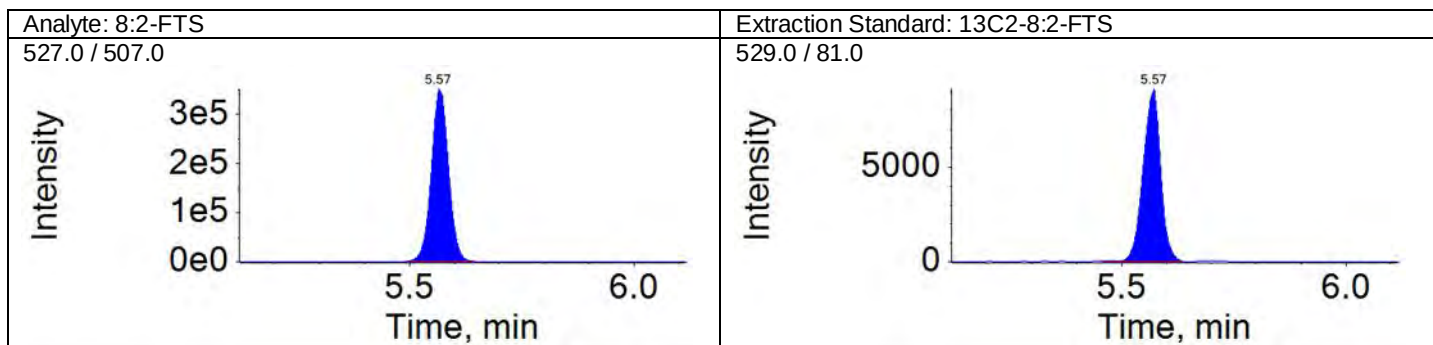
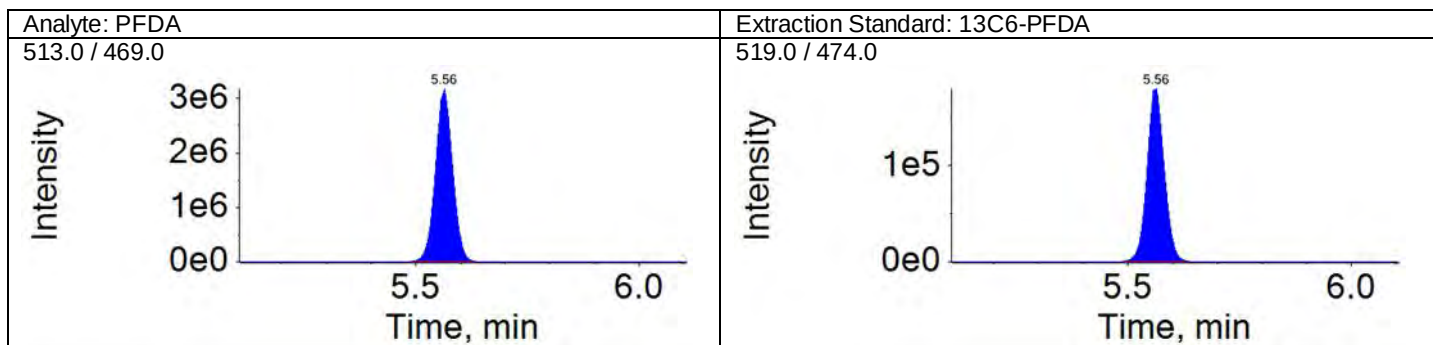
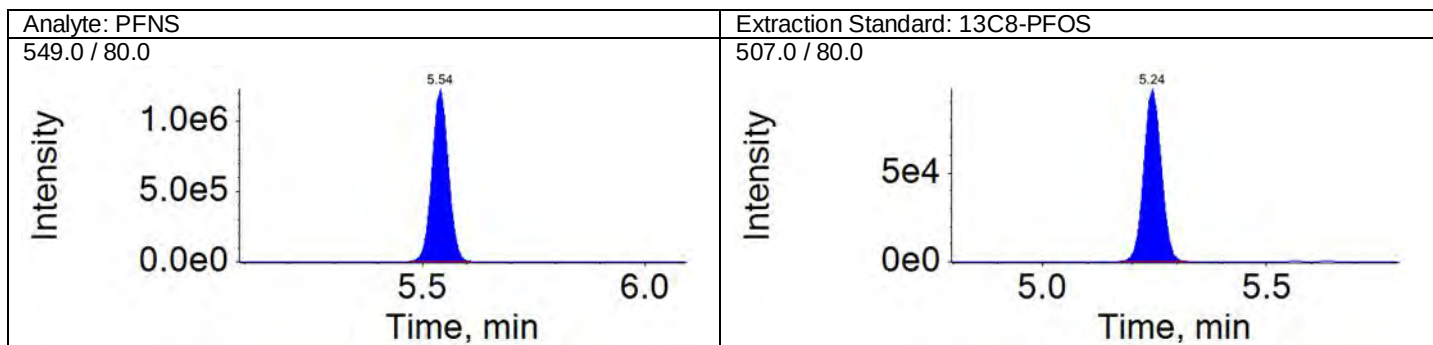
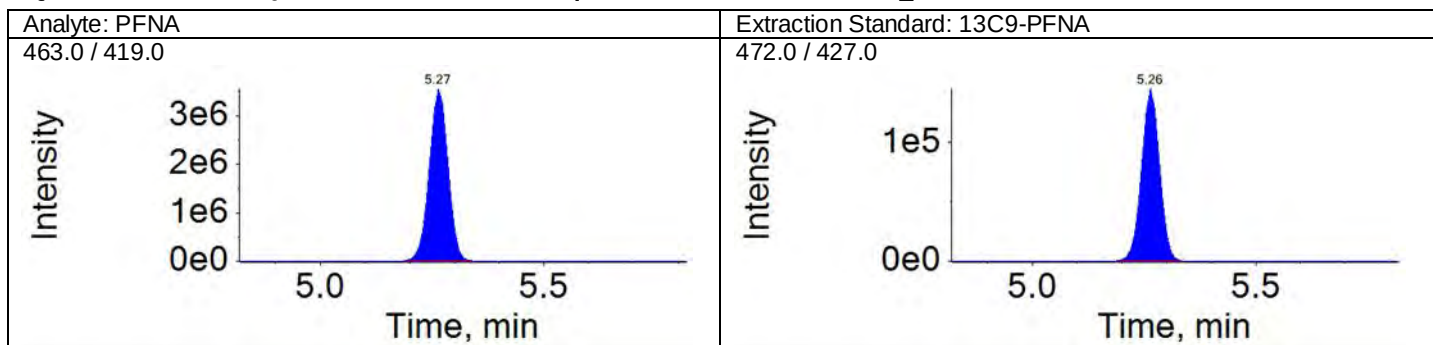
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



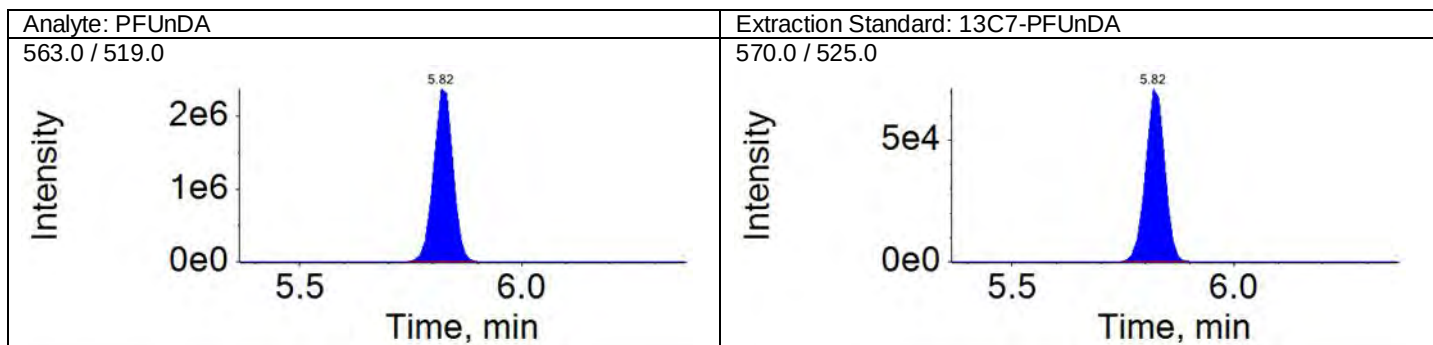
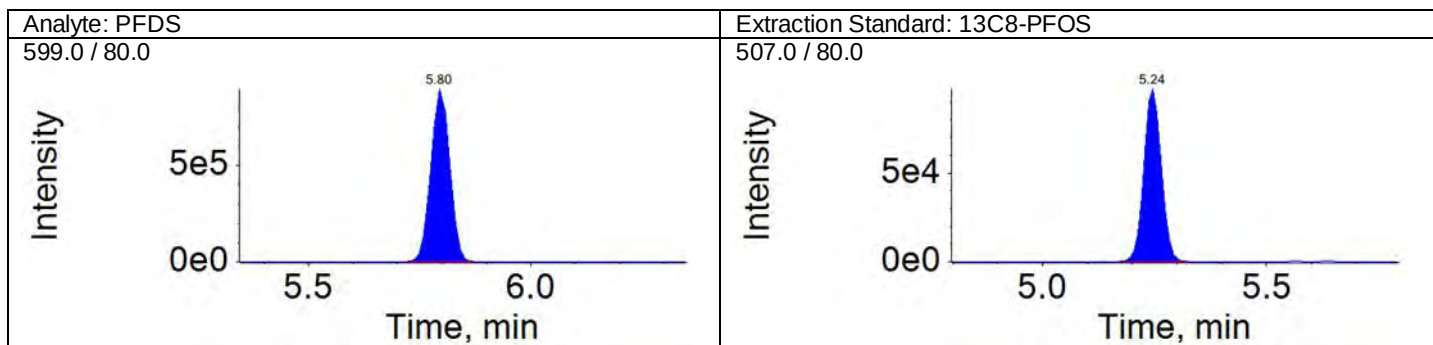
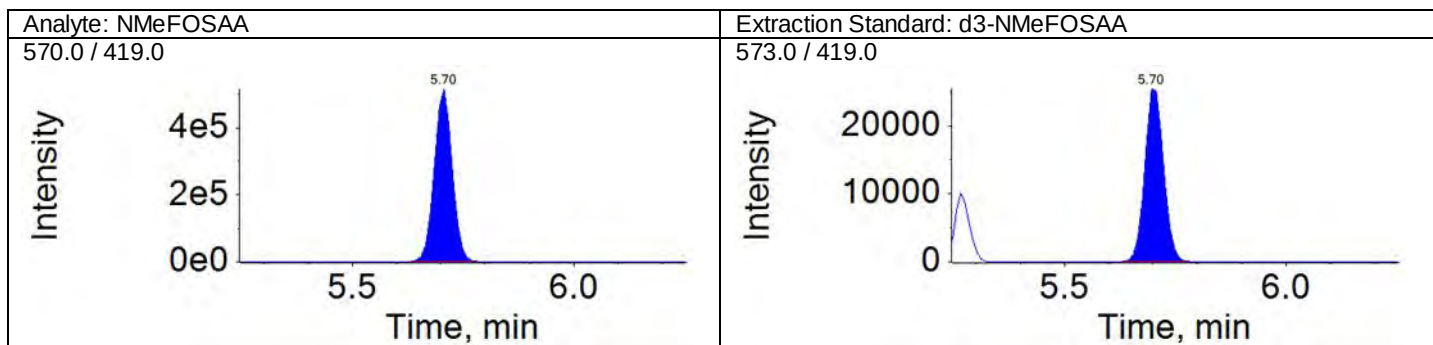
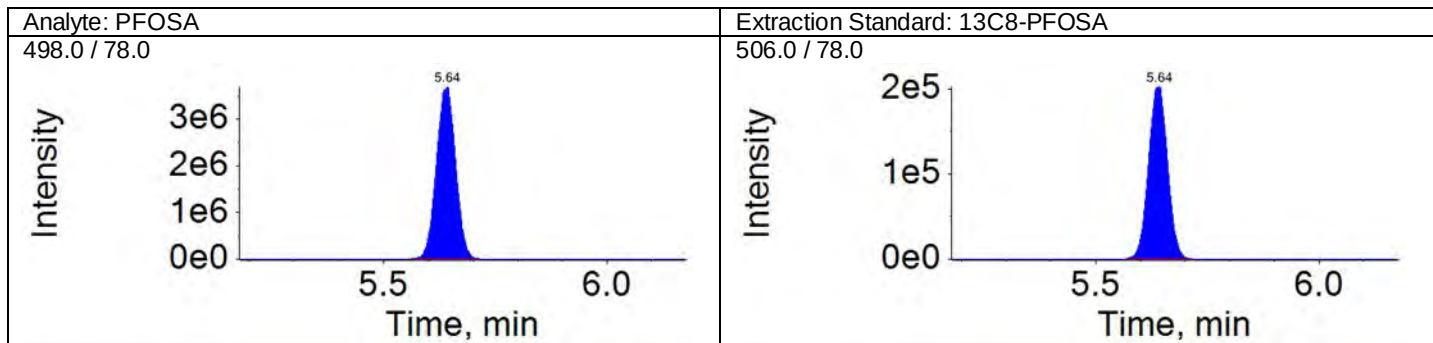
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



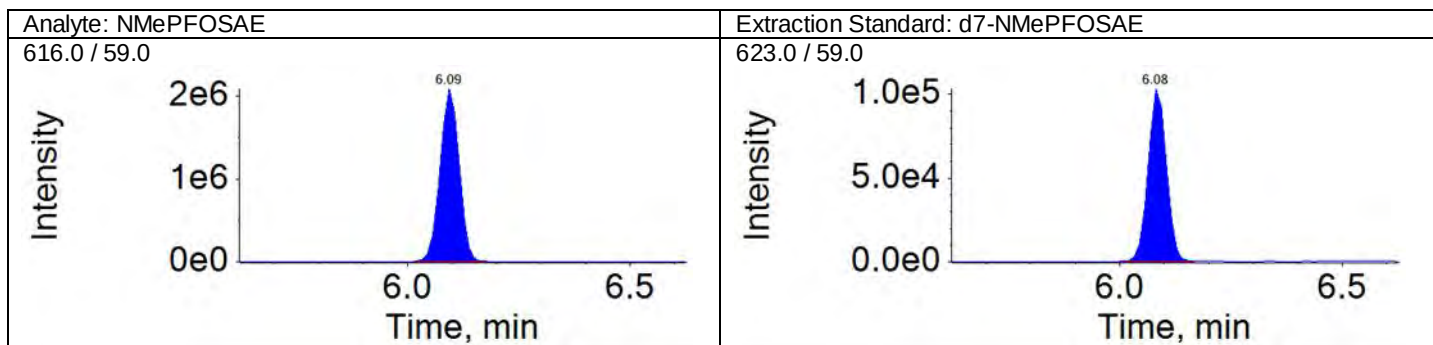
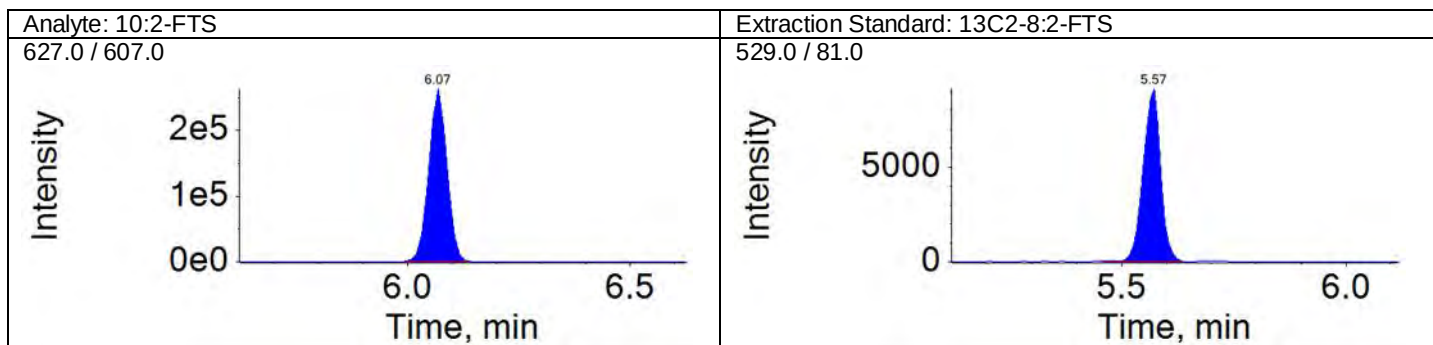
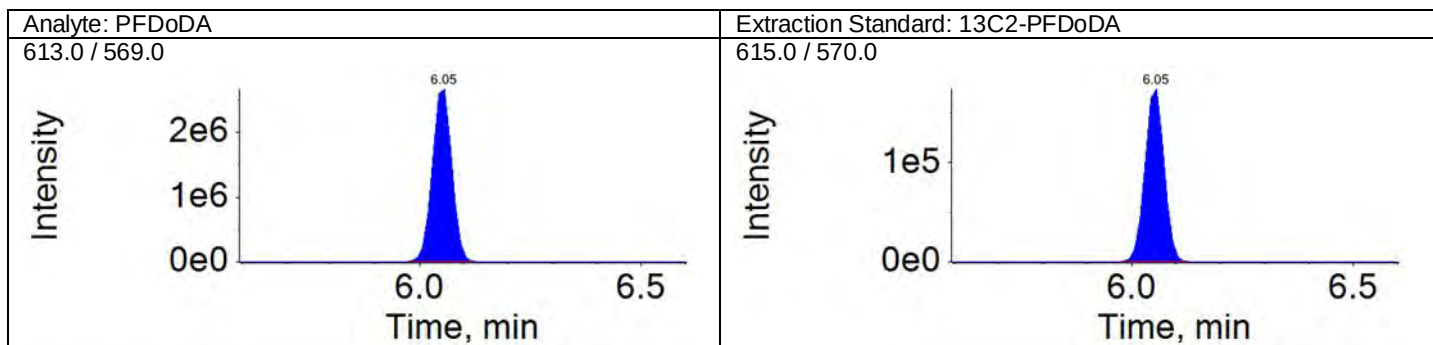
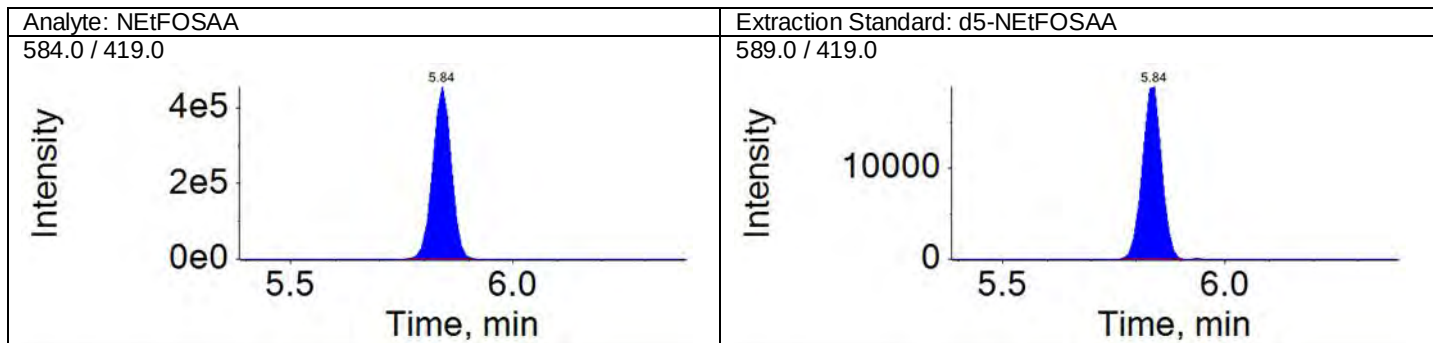
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



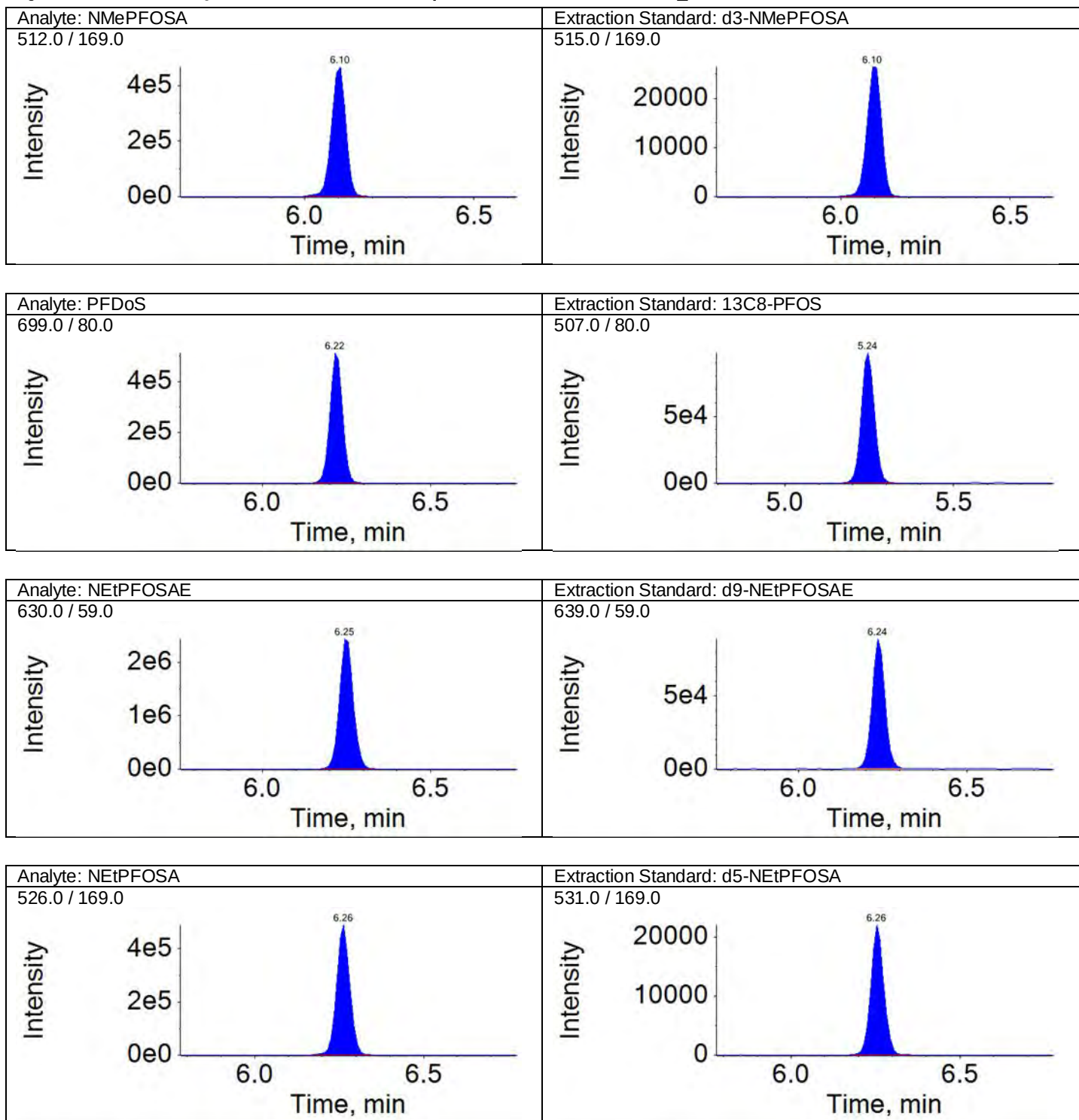
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



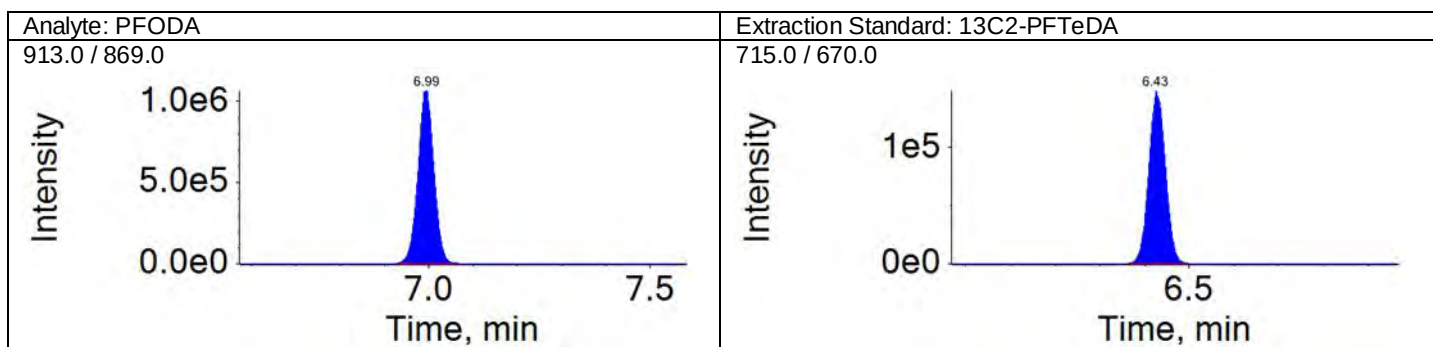
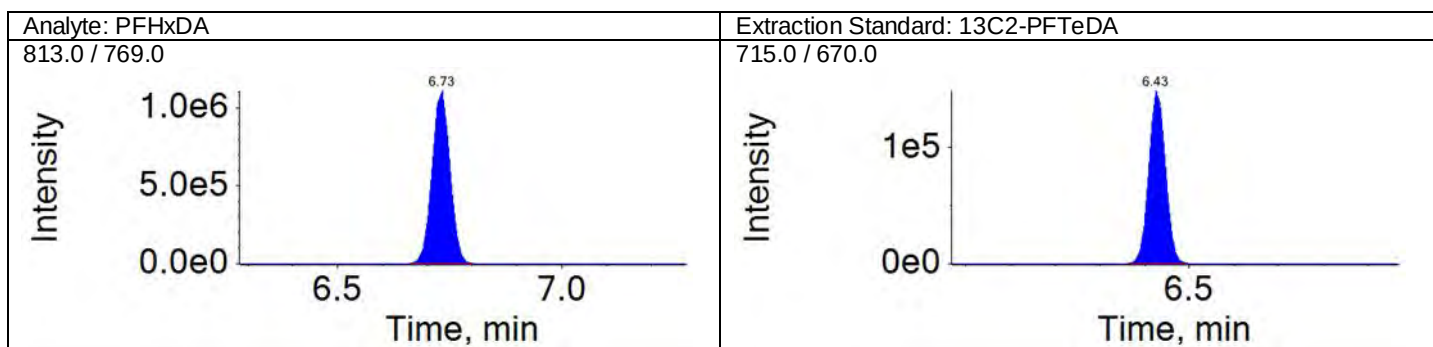
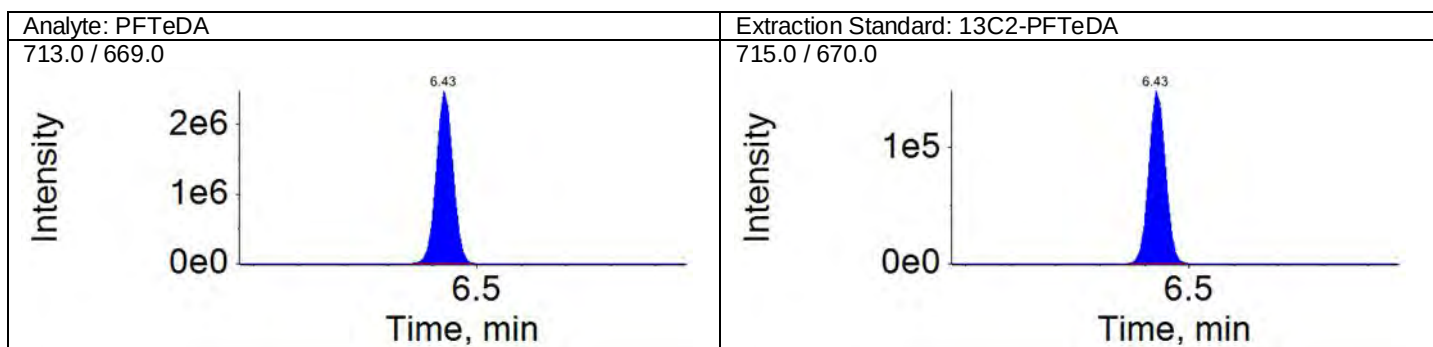
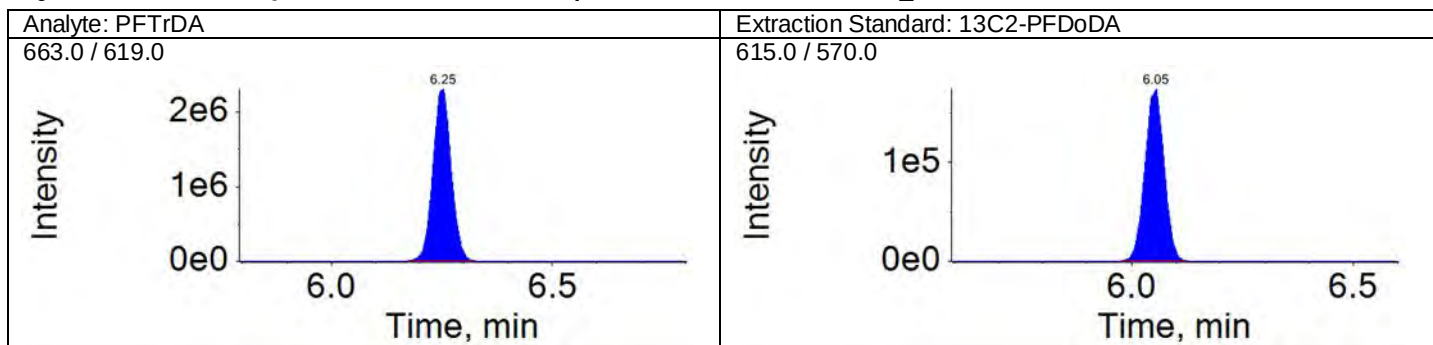
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



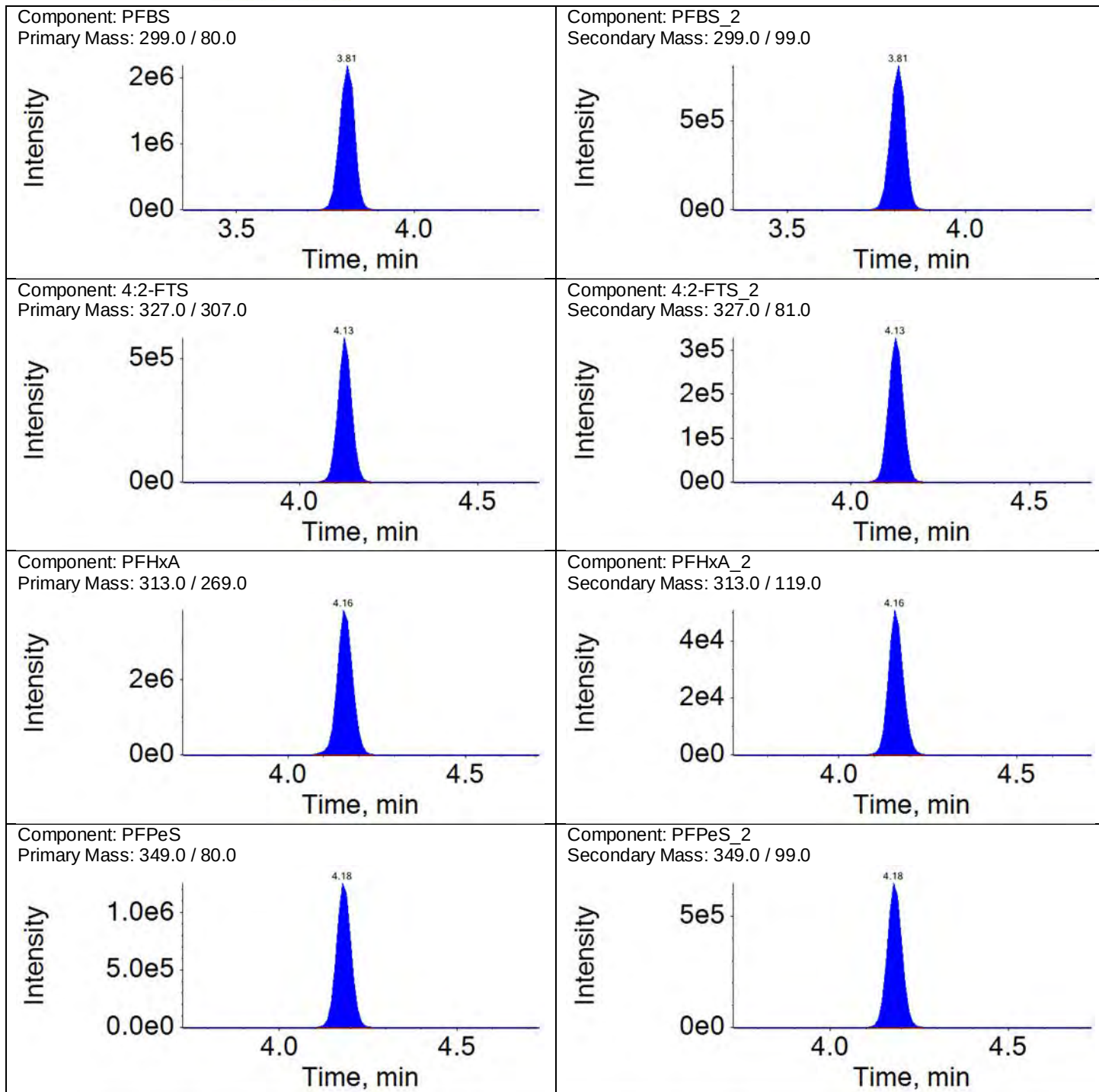
Ion Ratio Report

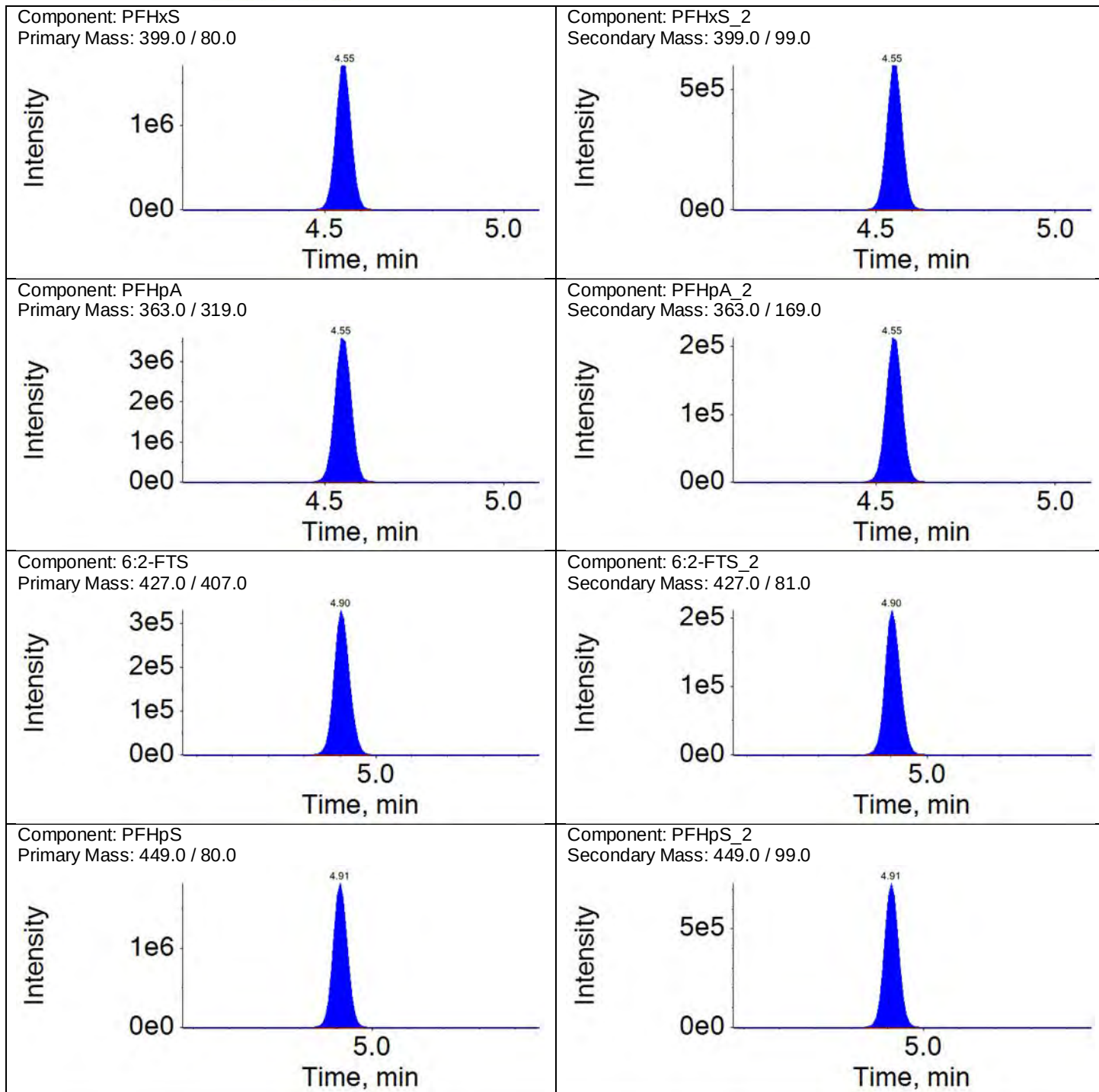
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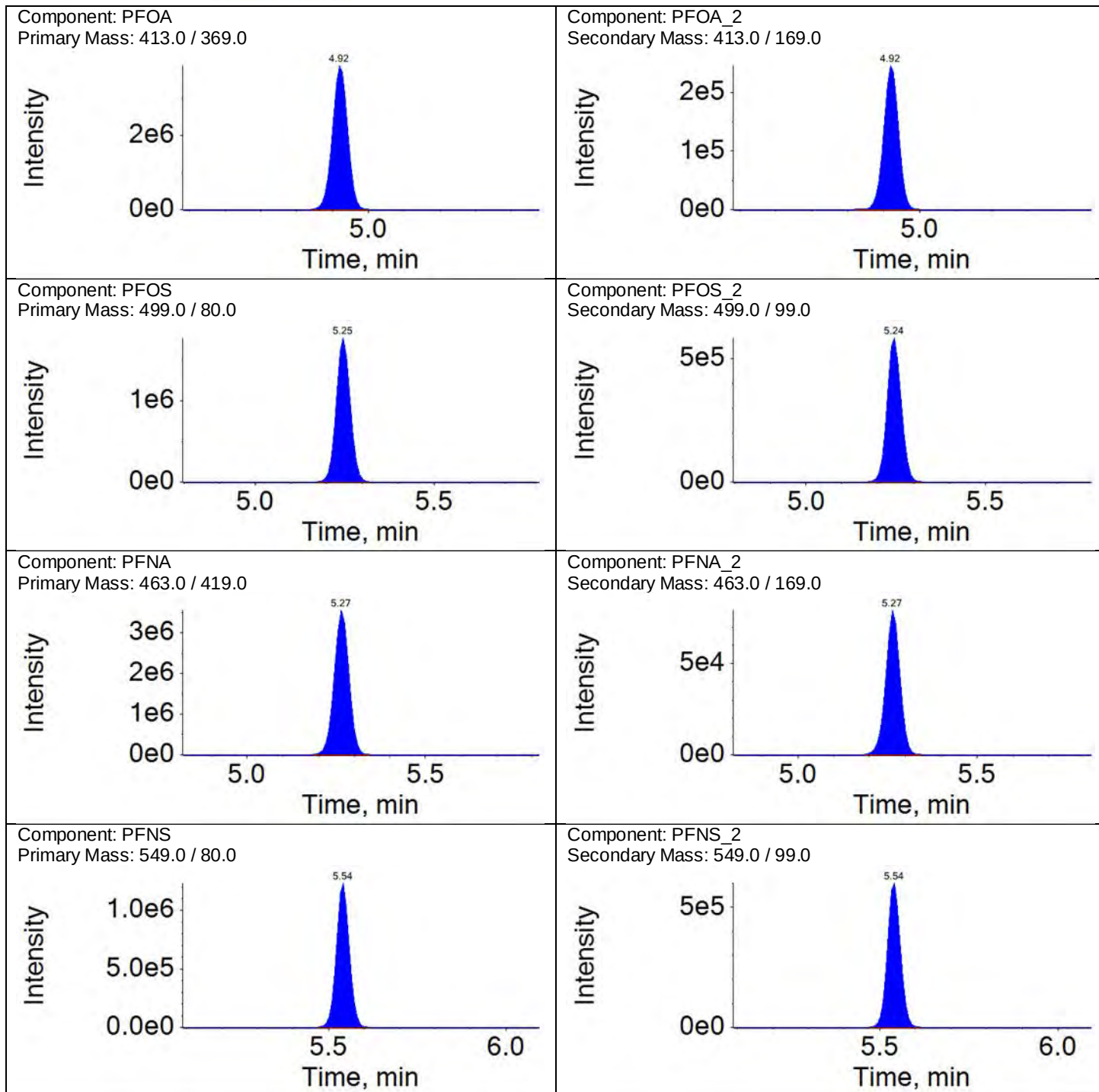
Instrument Name: LM27631

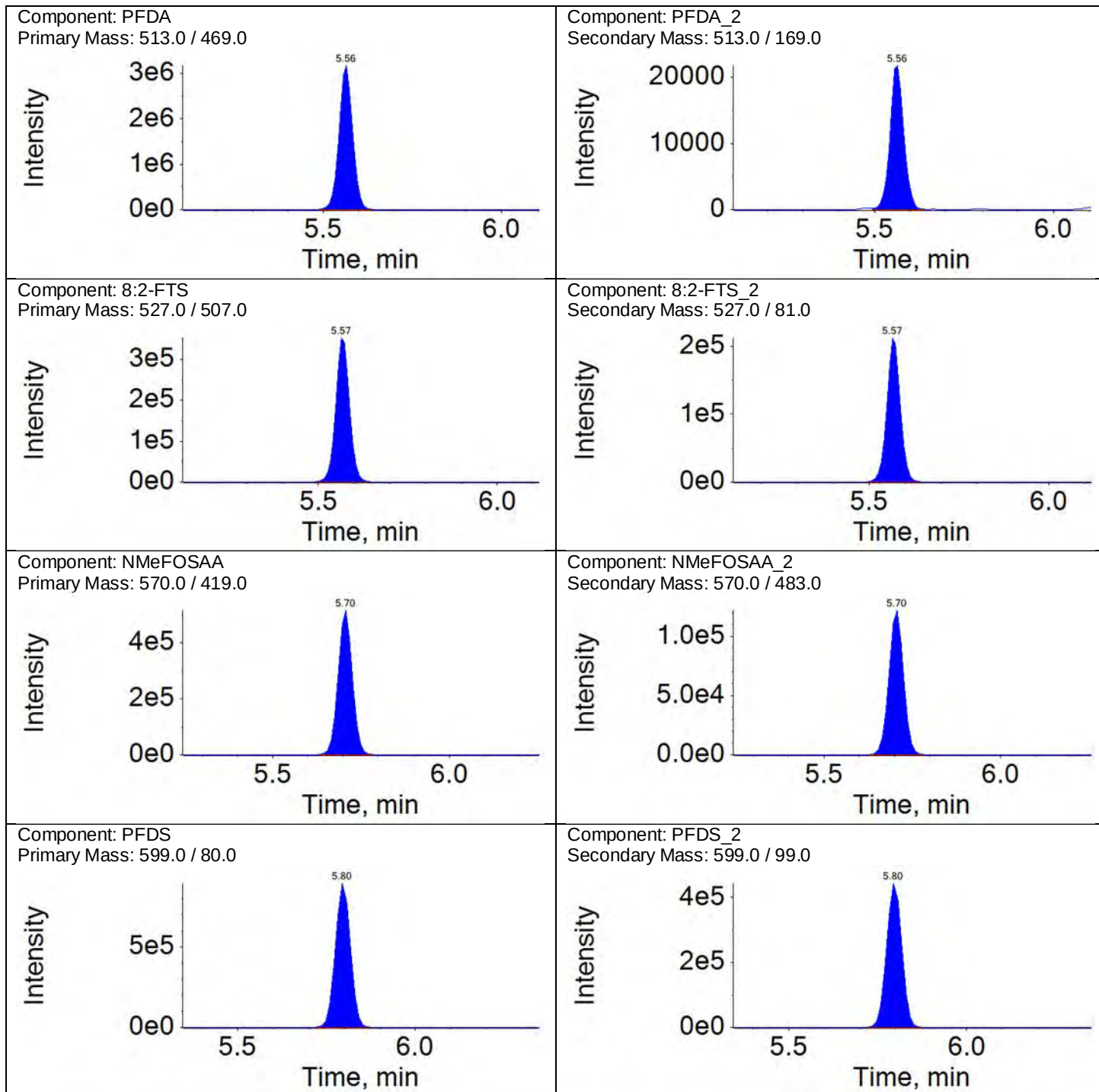
File Name: 18NOV07DCAL-16.wiff

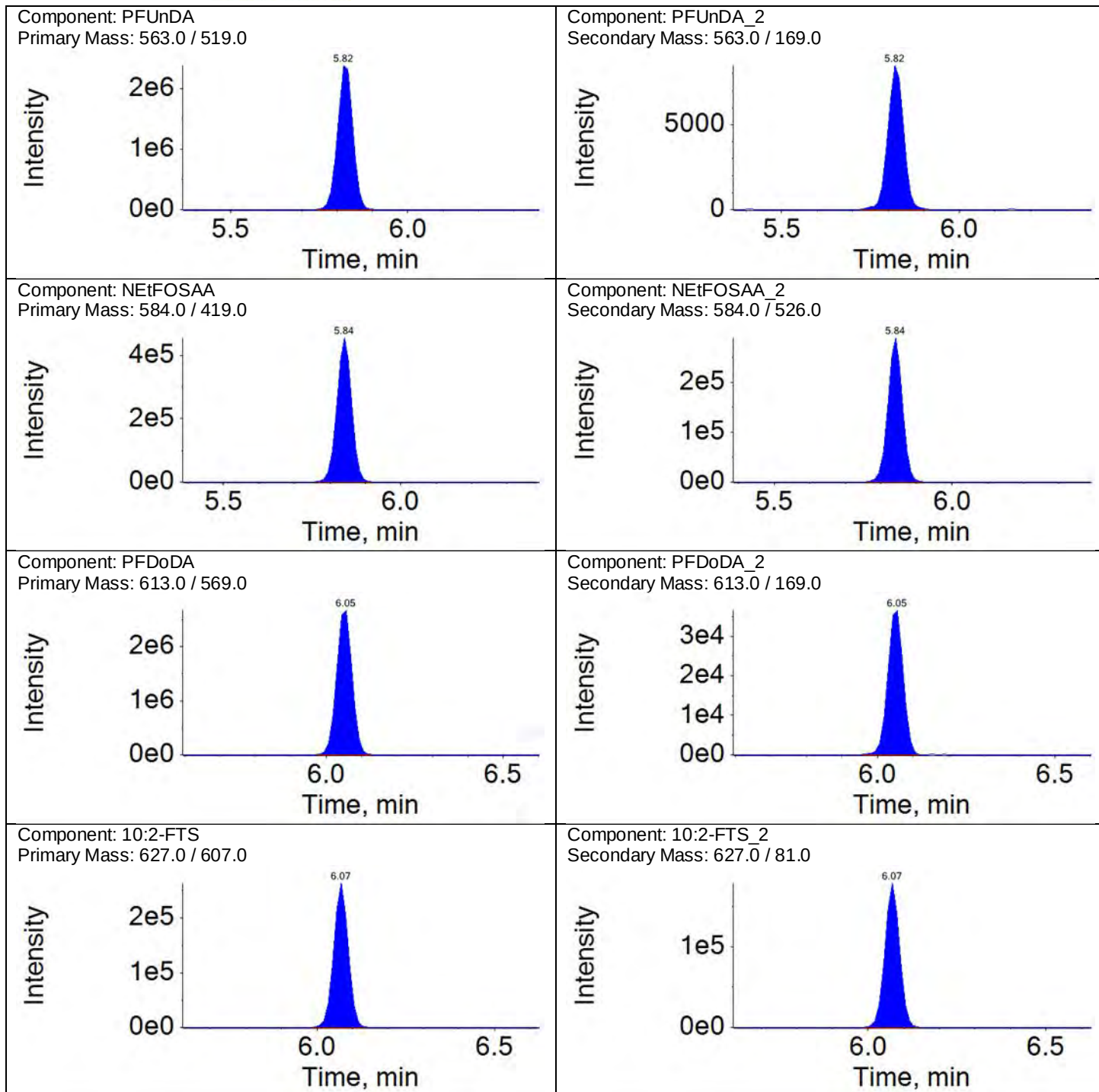
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	6474525.0	A	1.0000	1.0000			
PFBS_2	3.81	1.00	2381935.1	A	0.3576	0.3679	3	50	
4:2-FTS	4.13	1.00	1576786.3	A	1.0000	1.0000			
4:2-FTS_2	4.13	1.00	946320.6	A	0.6359	0.6002	-6	50	
PFHxA	4.16	1.00	11658104.6	A	1.0000	1.0000			
PFHxA_2	4.16	1.00	146733.2	A	0.0115	0.0126	10	50	
PFPeS	4.18	1.10	3615170.2	A	1.0000	1.0000			
PFPeS_2	4.18	1.10	1859405.8	A	0.5384	0.5143	-4	50	
PFHxS	4.55	1.00	5196245.3	A	1.0000	1.0000			
PFHxS_2	4.55	1.00	1830260.3	A	0.3569	0.3522	-1	50	
PFHpA	4.55	1.00	11701142.2	A	1.0000	1.0000			
PFHpA_2	4.55	1.00	676550.1	A	0.0577	0.0578	0	50	
6:2-FTS	4.90	1.00	988785.9	A	1.0000	1.0000			
6:2-FTS_2	4.90	1.00	625214.8	A	0.6752	0.6323	-6	50	
PFHpS	4.91	1.08	5085803.6	A	1.0000	1.0000			
PFHpS_2	4.91	1.08	2031737.5	A	0.3950	0.3995	1	50	
PFOA	4.92	1.00	11562348.7	A	1.0000	1.0000			
PFOA_2	4.92	1.00	711843.9	A	0.0635	0.0616	-3	50	
PFOS	5.25	1.00	4830627.6	A	1.0000	1.0000			
PFOS_2	5.24	1.00	1617879.0	A	0.3494	0.3349	-4	50	
PFNA	5.27	1.00	10279837.9	A	1.0000	1.0000			
PFNA_2	5.27	1.00	219746.5	A	0.0207	0.0214	3	50	
PFNS	5.54	1.06	3119908.2	A	1.0000	1.0000			
PFNS_2	5.54	1.06	1542771.9	A	0.4890	0.4945	1	50	
PFDA	5.56	1.00	8415098.4	A	1.0000	1.0000			
PFDA_2	5.56	1.00	58233.7	A	0.0057	0.0069	22	50	
8:2-FTS	5.57	1.00	936483.2	A	1.0000	1.0000			
8:2-FTS_2	5.57	1.00	547919.5	A	0.6169	0.5851	-5	50	
NMeFOSAA	5.70	1.00	1450331.2	A	1.0000	1.0000			
NMeFOSAA_2	5.70	1.00	350791.8	A	0.2206	0.2419	10	50	
PFDS	5.80	1.11	2660525.2	A	1.0000	1.0000			
PFDS_2	5.80	1.11	1326713.6	A	0.4648	0.4987	7	50	
PFUnDA	5.82	1.00	7204782.9	A	1.0000	1.0000			
PFUnDA_2	5.82	1.00	26281.4	A	0.0031	0.0036	16	50	
NEtFOSAA	5.84	1.00	1317020.6	A	1.0000	1.0000			
NEtFOSAA_2	5.84	1.00	819492.6	A	0.6082	0.6222	2	50	
PFDODA	6.05	1.00	8211828.8	A	1.0000	1.0000			
PFDODA_2	6.05	1.00	111190.9	A	0.0109	0.0135	24	50	
10:2-FTS	6.07	1.09	747804.5	A	1.0000	1.0000			
10:2-FTS_2	6.07	1.09	511885.1	A	0.7082	0.6845	-3	50	
PFTTrDA	6.25	1.03	6633128.3	A	1.0000	1.0000			
PFTTrDA_2	6.25	1.03	66200.2	A	0.0096	0.0100	4	50	
PFTeDA	6.43	1.00	6426587.4	A	1.0000	1.0000			
PFTeDA_2	6.43	1.00	41133.5	A	0.0055	0.0064	16	50	
PFHxDA	6.73	1.05	3073572.7	A	1.0000	1.0000			
PFHxDA_2	6.73	1.05	192350.4	A	0.0596	0.0626	5	50	
PFODA	6.99	1.09	2676698.5	A	1.0000	1.0000			
PFODA_2	6.99	1.09	70338.4	A	0.0257	0.0263	2	50	

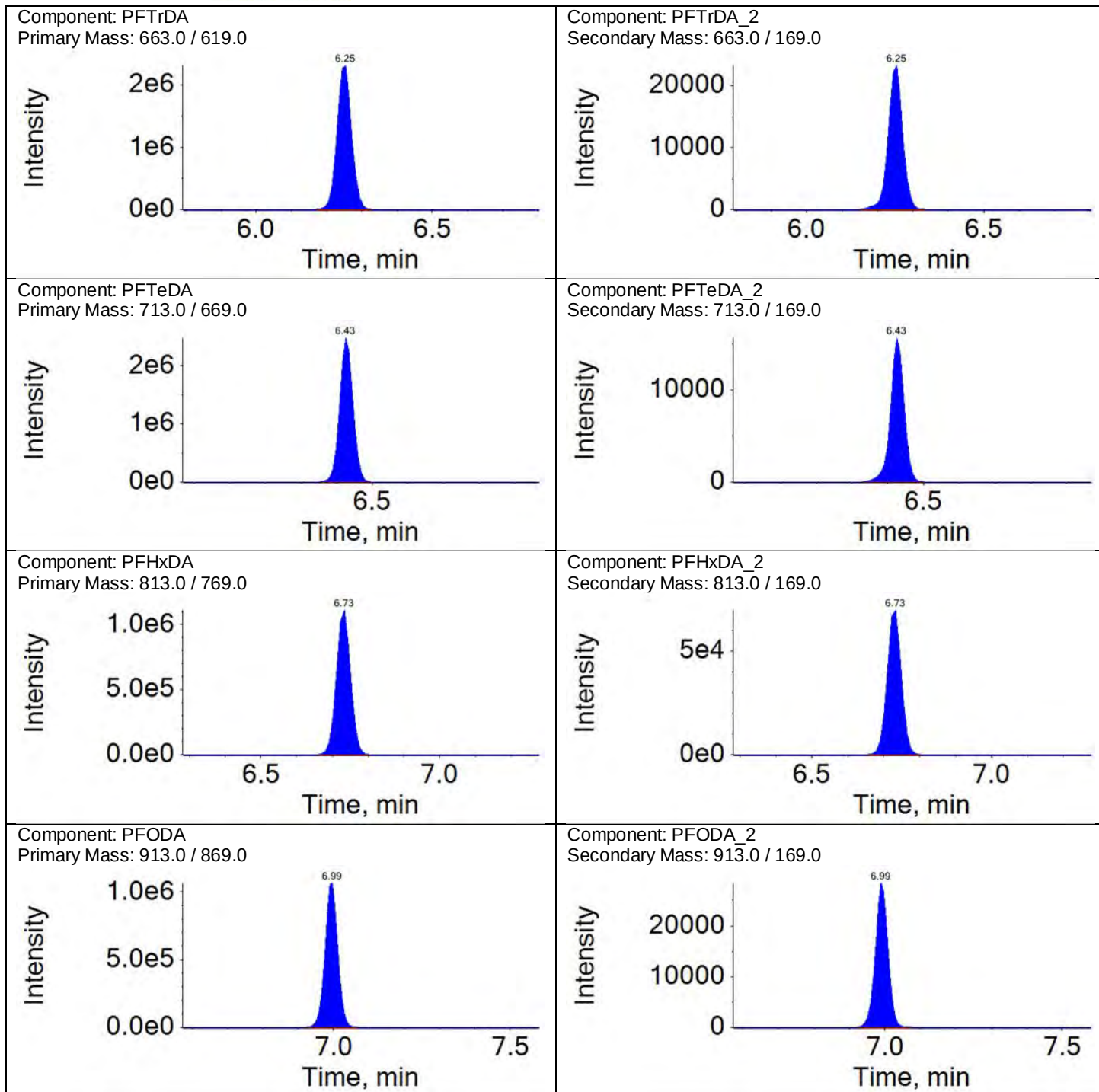












ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	MDL	Data File:	18NOV07DCAL-09.wiff
Sample ID:	MDLMDX1833E	Acquis Date:	2018-11-07T09:30:56
Sample Type:	Unknown	Instrument:	LM27631
Vial Position:	2	Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00	Result Table:	18NOV07DCAL
QMethod File:	MQ4-18AUG13	ICAL Name:	18NOV07DCAL
Batch Number:	N/A	Operator:	JPT12262
Sample Wt.:	1.00000	Dilution Factor:	1.00
Sample Vol.:	1.000	Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV07DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	727406.8	730410.6	0	50	
13C2-PFOA	5.0	526479.1	524423.6	0	50	
13C4-PFOS	4.8	275181.3	274061.7	0	50	
13C2-PFDA	5.0	315732.1	311442.1	1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	807312.5	13C3-PFBA	727406.8	1.110	5.000	5.136	103	70-130	
E13C5-PFPeA	823702.7	13C3-PFBA	727406.8	1.132	5.000	4.933	99	70-130	
E13C3-PFBS	442660.1	13C3-PFBA	727406.8	0.609	4.650	4.466	96	70-130	
E13C2-4:2-FTS	52398.7	13C2-PFOA	526479.1	0.100	4.670	4.491	96	70-130	
E13C5-PFHxA	716268.2	13C2-PFOA	526479.1	1.360	5.000	5.004	100	70-130	
E13C3-PFHxS	335727.6	13C2-PFOA	526479.1	0.638	4.730	4.578	97	70-130	
E13C4-PFHpA	575860.3	13C2-PFOA	526479.1	1.094	5.000	4.976	100	70-130	
E13C2-6:2-FTS	41140.3	13C2-PFOA	526479.1	0.078	4.750	5.211	110	70-130	
E13C8-PFOA	972540.0	13C2-PFOA	526479.1	1.847	5.000	5.151	103	70-130	
E13C8-PFOS	290003.4	13C4-PFOS	275181.3	1.054	4.780	4.660	97	70-130	
E13C9-PFNA	494088.2	13C4-PFOS	275181.3	1.796	5.000	4.905	98	70-130	
E13C6-PFDA	660922.5	13C2-PFDA	315732.1	2.093	5.000	5.264	105	70-130	
E13C2-8:2-FTS	30155.0	13C2-PFDA	315732.1	0.096	4.790	5.054	106	70-130	
E13C8-PFOSA	682695.0	13C2-PFDA	315732.1	2.162	5.000	4.718	94	70-130	
Ed3-NMeFOSAA	79243.0	13C2-PFDA	315732.1	0.251	5.000	4.667	93	70-130	
E13C7-PFUnDA	280781.9	13C2-PFDA	315732.1	0.889	5.000	5.130	103	70-130	
Ed5-NEtFOSAA	64527.2	13C2-PFDA	315732.1	0.204	5.000	4.730	95	70-130	
E13C2-PFDoDA	600395.5	13C2-PFDA	315732.1	1.902	5.000	5.126	103	70-130	
Ed7-NMePFOSAE	326457.3	13C2-PFDA	315732.1	1.034	5.000	4.808	96	70-130	
Ed3-NMePFOSA	82534.2	13C2-PFDA	315732.1	0.261	5.000	4.786	96	70-130	
Ed9-NEtPFOSAE	271491.0	13C2-PFDA	315732.1	0.860	5.000	4.911	98	70-130	
Ed5-NEtPFOSA	69328.7	13C2-PFDA	315732.1	0.220	5.000	5.084	102	70-130	
E13C2-PFTeDA	418605.6	13C2-PFDA	315732.1	1.326	5.000	4.773	95	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

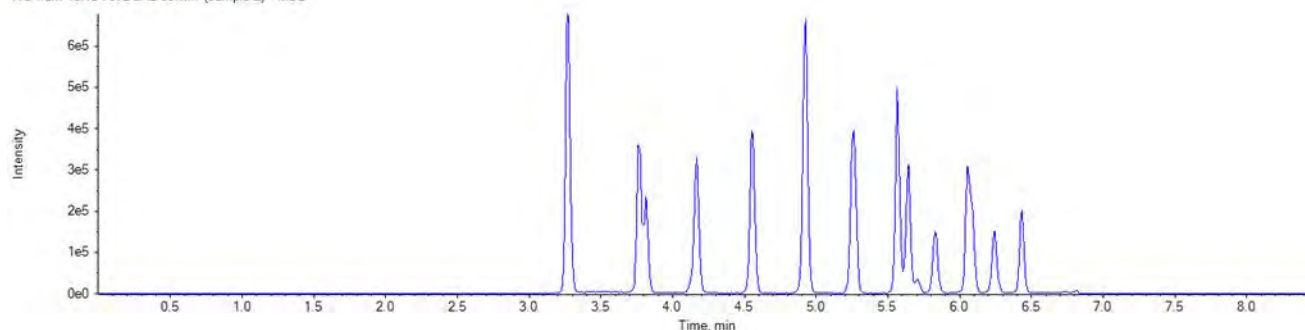
Sample Name: MDL Instrument Name: LM27631 File Name: 18NOV07DCAL-09.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	15305.2		A	13C4-PFBA	3.27	807312.5	0.019	0.111
PFPeA	3.76	1.000	17527.3		A	13C5-PFPeA	3.77	823702.7	0.021	0.126
PFBS	3.81	1.000	8179.1		A	13C3-PFBS	3.82	442660.1	0.018	0.093
4:2-FTS	4.14	1.000	2516.6		A	13C2-4:2-FTS	4.13	52398.7	0.048	0.129
PFHxA	4.16	1.000	19041.3		A	13C5-PFHxA	4.17	716268.2	0.027	0.114
PFPeS	4.18	1.100	4553.9		A	13C3-PFBS	3.82	442660.1	0.010	0.101
PFHxS	4.55	1.000	5720.4		A	13C3-PFHxS	4.55	335727.6	0.017	0.086
PFHpA	4.55	1.000	20611.7		A	13C4-PFHpA	4.55	575860.3	0.036	0.120
6:2-FTS	4.92	1.000	1337.7		A	13C2-6:2-FTS	4.91	41140.3	0.033	0.081
PFHpS	4.92	1.080	5811.8		A	13C3-PFHxS	4.55	335727.6	0.017	0.091
PFOA	4.92	1.000	21714.7		A	13C8-PFOA	4.92	972540.0	0.022	0.126
PFOS	5.25	1.000	7067.6		A	13C8-PFOS	5.25	290003.4	0.024	0.126
PFNA	5.27	1.000	14036.5		M	13C9-PFNA	5.27	494088.2	0.028	0.106
PFNS	5.54	1.060	4370.5		A	13C8-PFOS	5.25	290003.4	0.015	0.119
PFDA	5.57	1.000	13448.9		A	13C6-PFDA	5.57	660922.5	0.020	0.112
8:2-FTS	5.57	1.000	1277.3		A	13C2-8:2-FTS	5.57	30155.0	0.042	0.095
PFOSA	5.64	1.000	12732.2		A	13C8-PFOSA	5.64	682695.0	0.019	0.101
NMeFOSAA	5.71	1.000	1352.6		M	d3-NMeFOSAA	5.71	79243.0	0.017	0.088
PFDS	5.80	1.110	2949.3		A	13C8-PFOS	5.25	290003.4	0.010	0.097
PfUnDA	5.83	1.000	13003.8		A	13C7-PfUnDA	5.83	280781.9	0.046	0.133
NEtFOSAA	5.84	1.000	1823.4		A	d5-NEtFOSAA	5.84	64527.2	0.028	0.121
PFDODA	6.05	1.000	12755.8		A	13C2-PFDODA	6.05	600395.5	0.021	0.115
10:2-FTS	6.07	1.090	1033.2		A	13C2-8:2-FTS	5.57	30155.0	0.034	0.107
NMePFOSAE	6.10	1.000	8309.5		A	d7-NMePFOSAE	6.08	326457.3	0.025	0.114
NMePFOSA	6.10	1.000	1429.6		M	d3-NMePFOSA	6.10	82534.2	0.017	0.097
PFDoS	6.22	1.190	1360.5		A	13C8-PFOS	5.25	290003.4	0.005	0.091
NEtPFOSAE	6.25	1.000	9821.0		A	d9-NEtPFOSAE	6.24	271491.0	0.036	0.116
NEtPFOSA	6.26	1.000	1542.4		A	d5-NEtPFOSA	6.26	69328.7	0.022	0.098
PFTDA	6.26	1.030	10576.8		M	13C2-PFDODA	6.05	600395.5	0.018	0.111
PFTeDA	6.43	1.000	7741.6		A	13C2-PFTeDA	6.43	418605.6	0.018	0.109
PFHxDA	6.73	1.050	5030.0		A	13C2-PFTeDA	6.43	418605.6	0.012	0.149
PFODA	7.00	1.090	3044.8		A	13C2-PFTeDA	6.43	418605.6	0.007	0.104

Total Ion Chromatogram

TIC from 18NOV07DCAL-09.wiff (sample 2) - MDL



APPROVED

By JPT at 2:54 pm, 11/7/18

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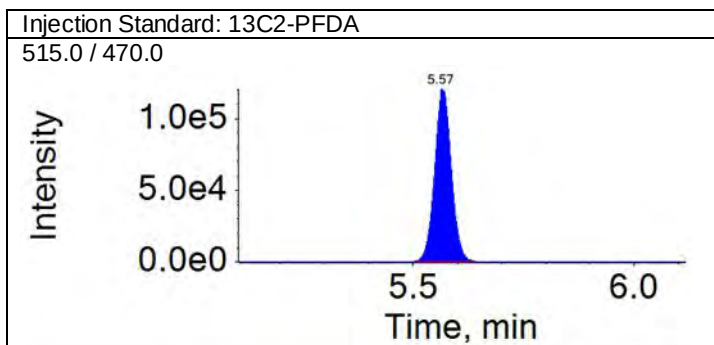
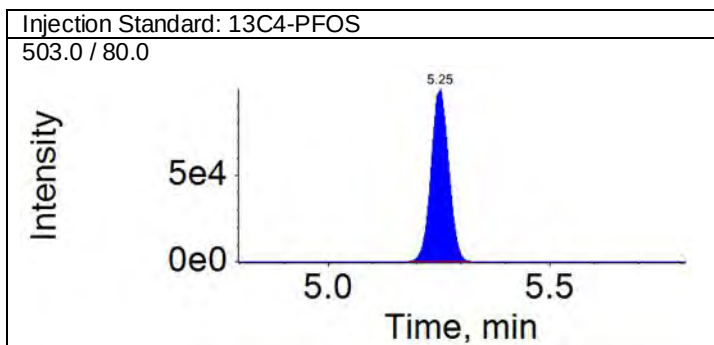
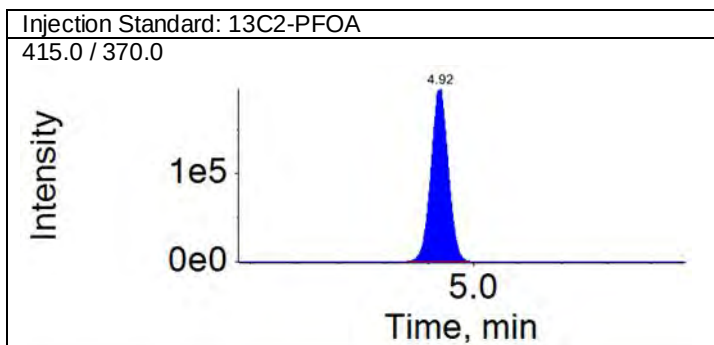
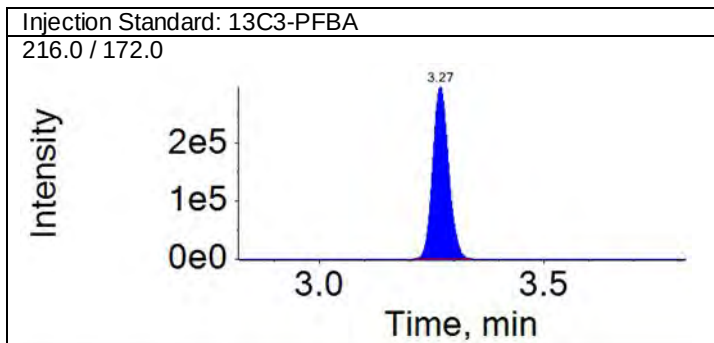
REVIEWED

By umar at 5:24 pm, 11/9/18

Page 2 of 17

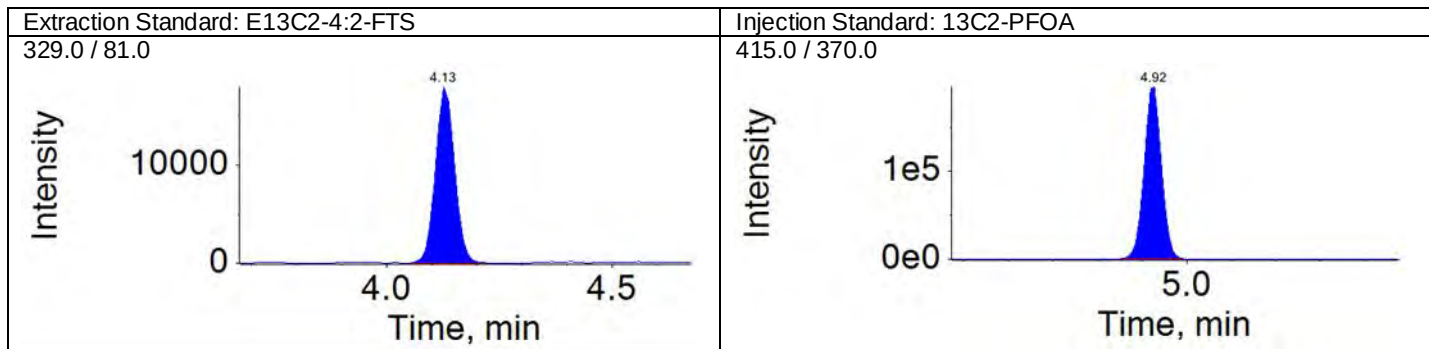
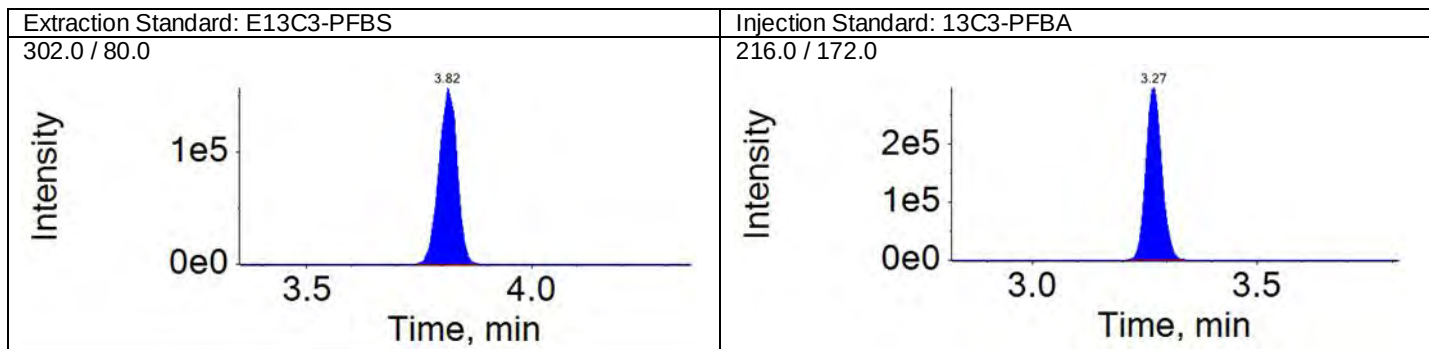
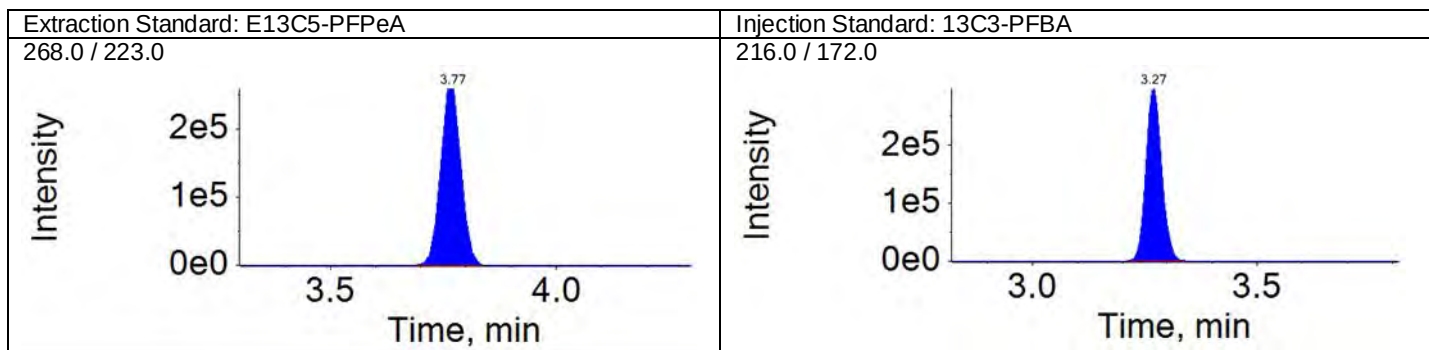
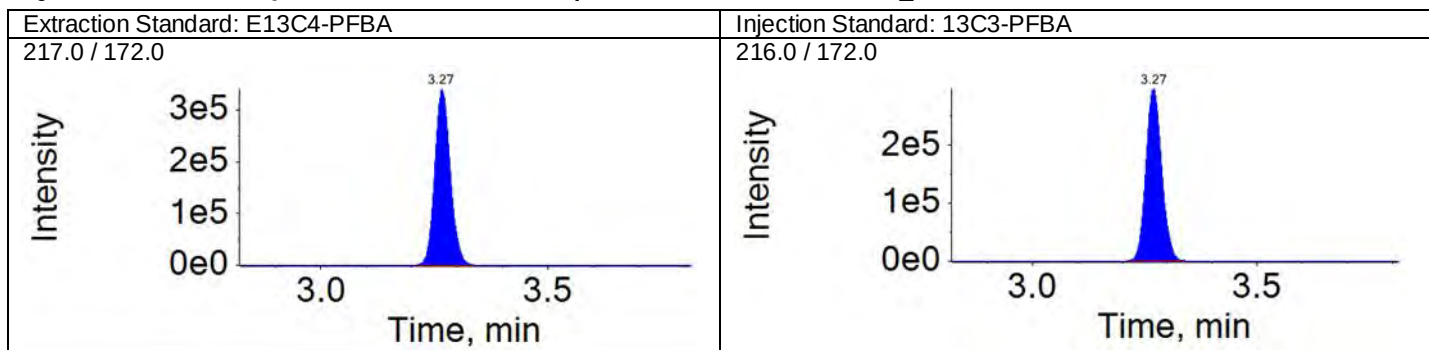
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



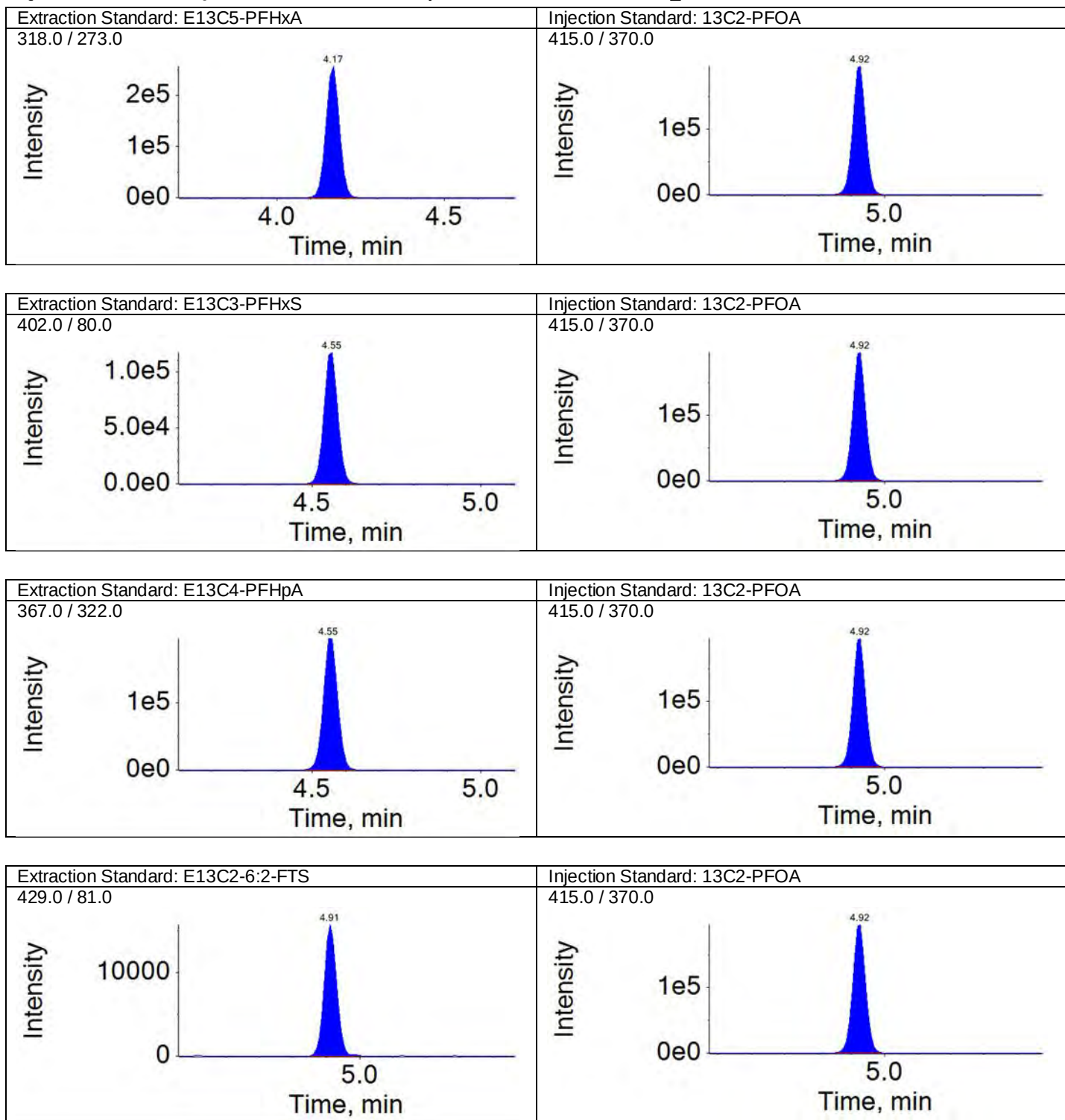
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Acquisition Method: 18AUG13_3uL.dam



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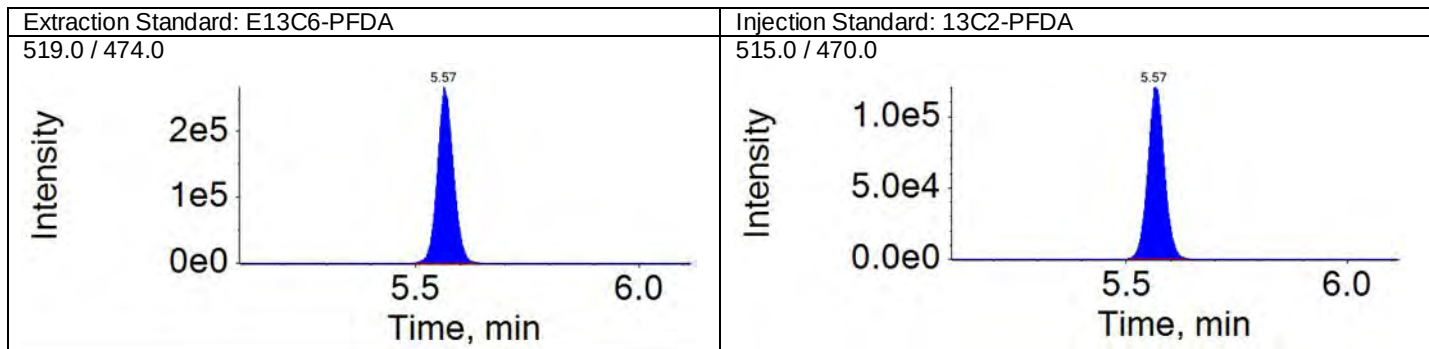
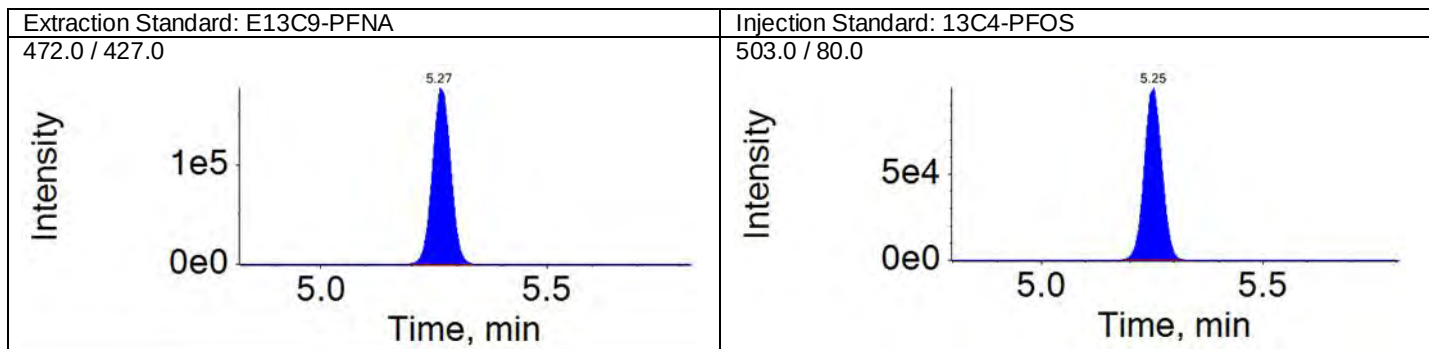
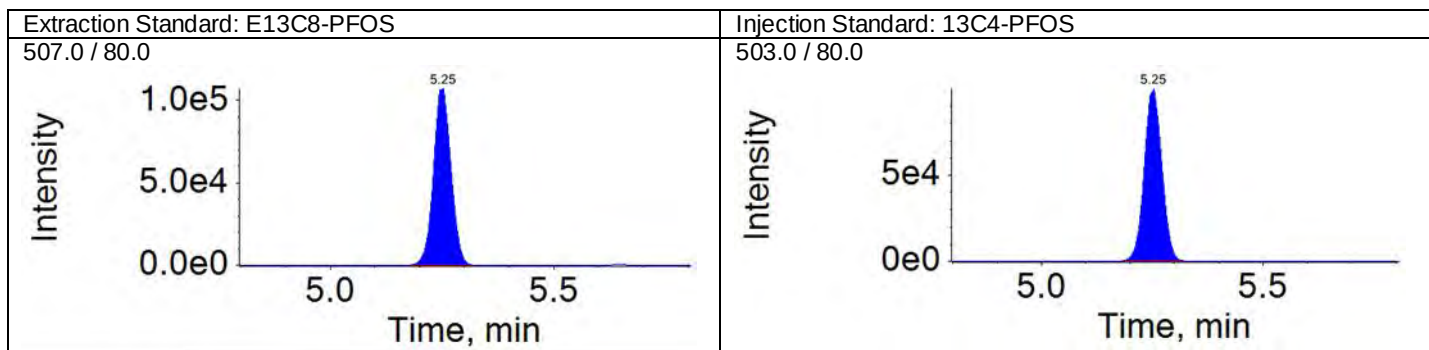
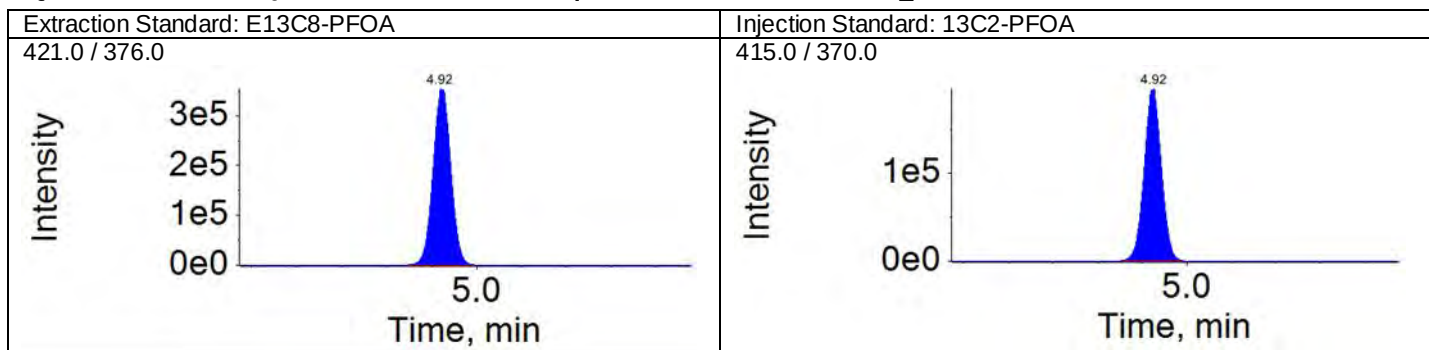
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REVIEWED

By umar at 5:24 pm, 11/9/18

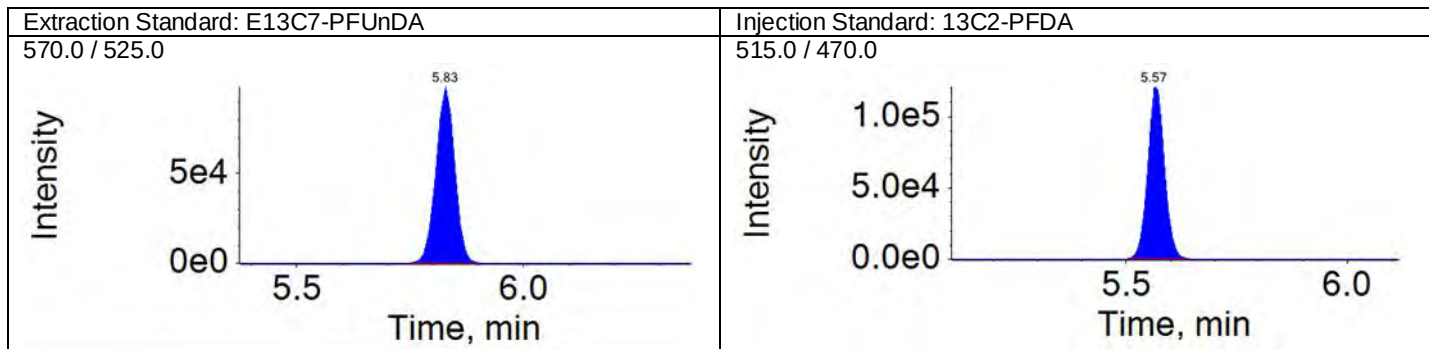
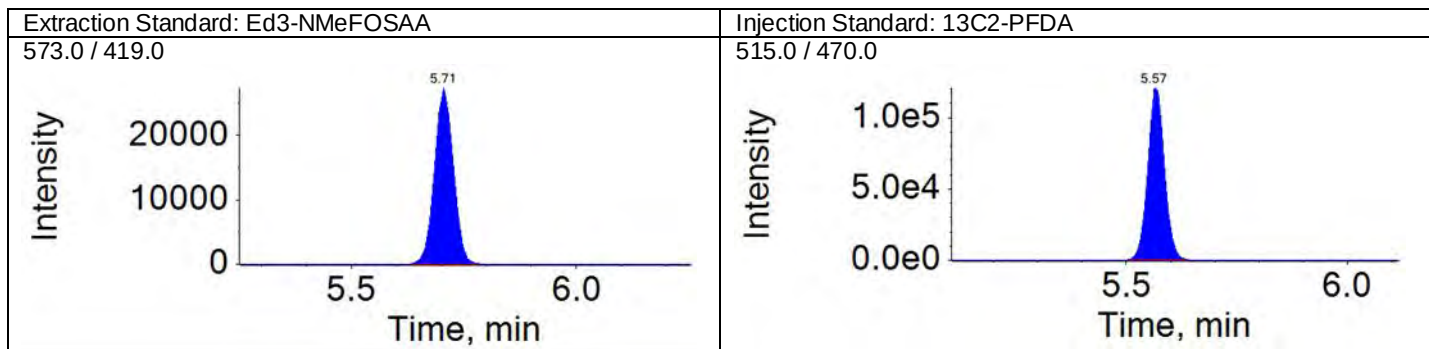
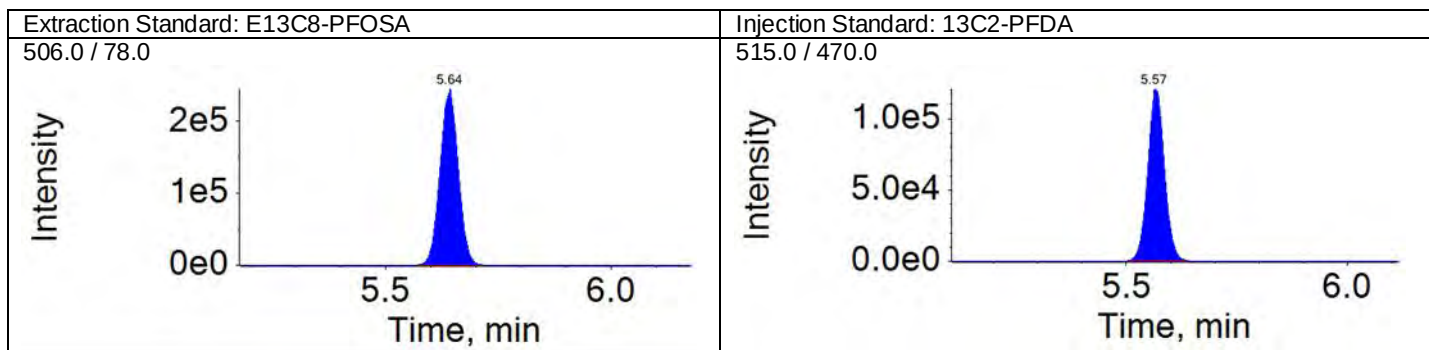
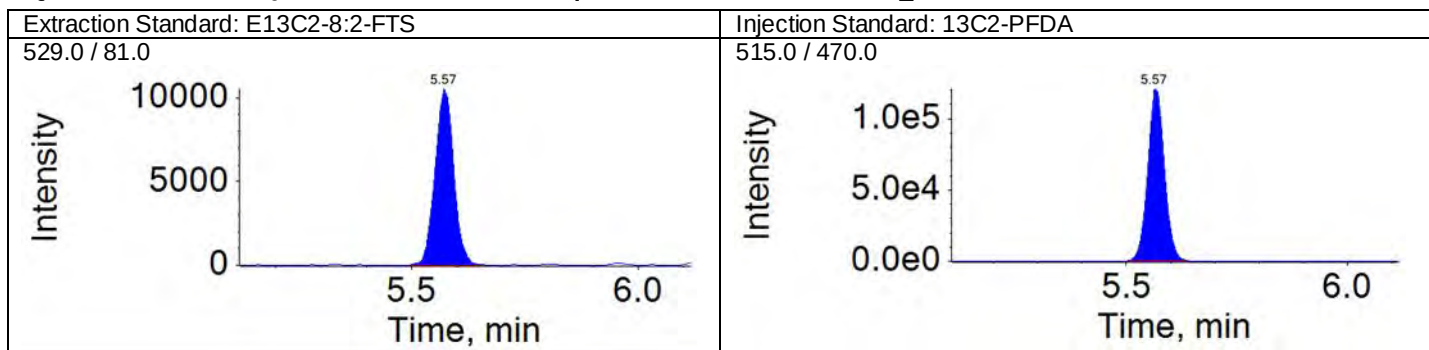
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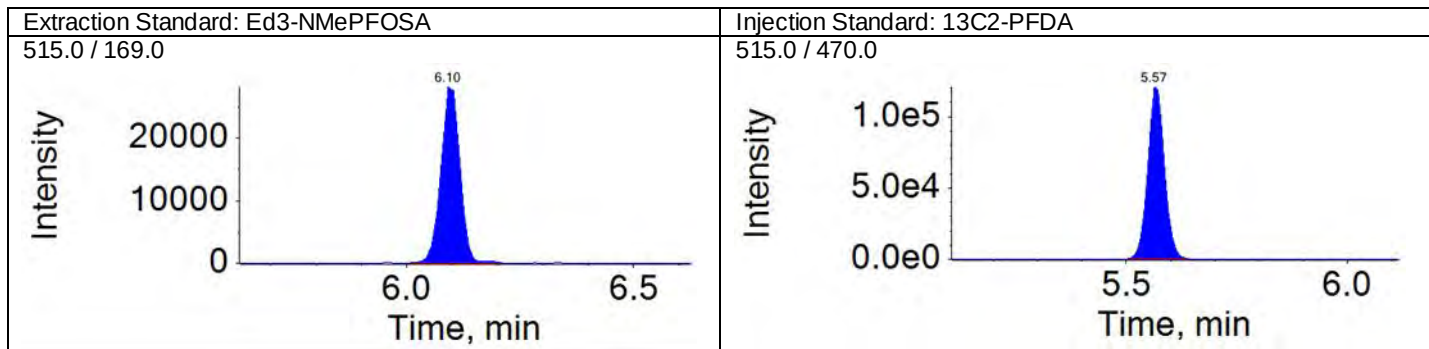
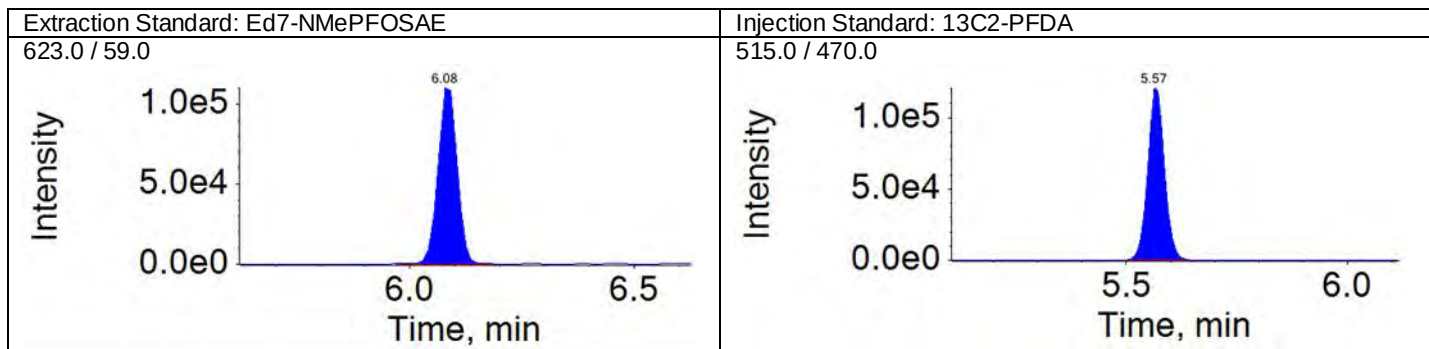
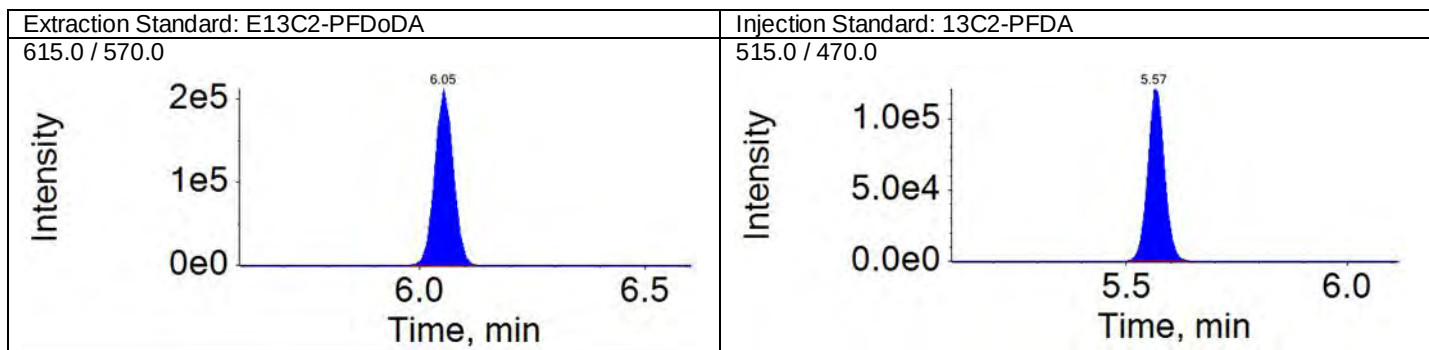
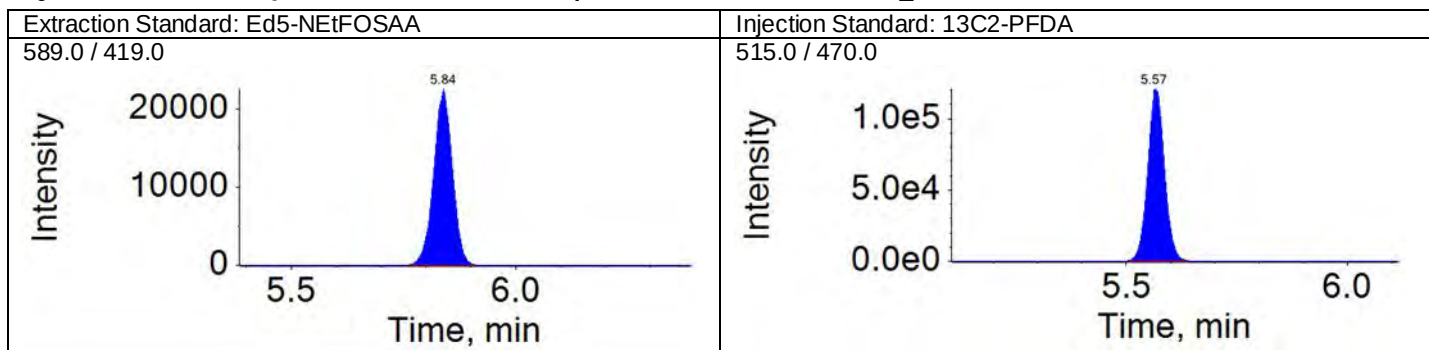
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Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
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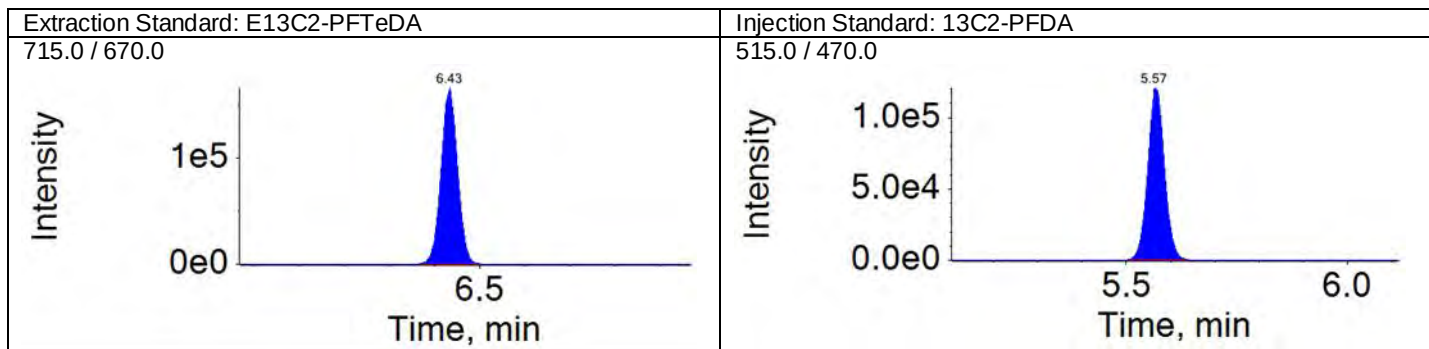
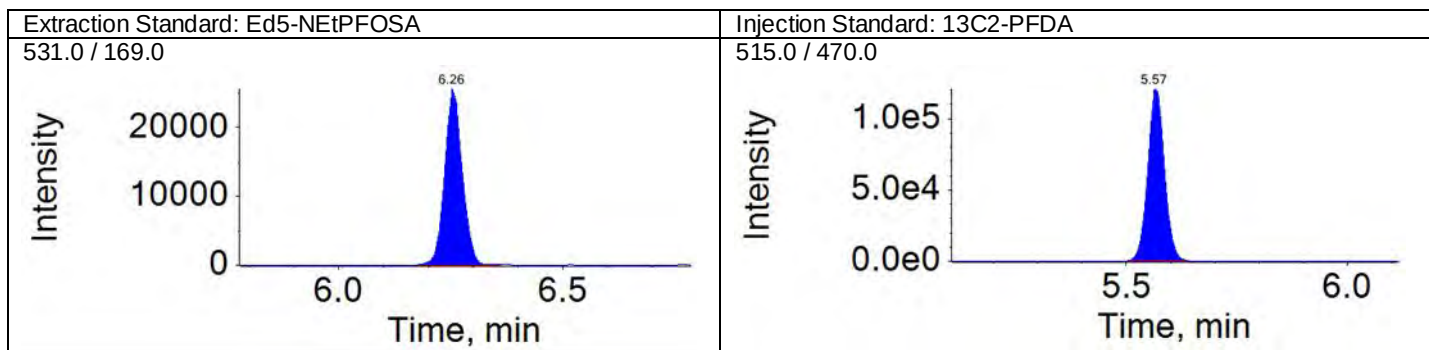
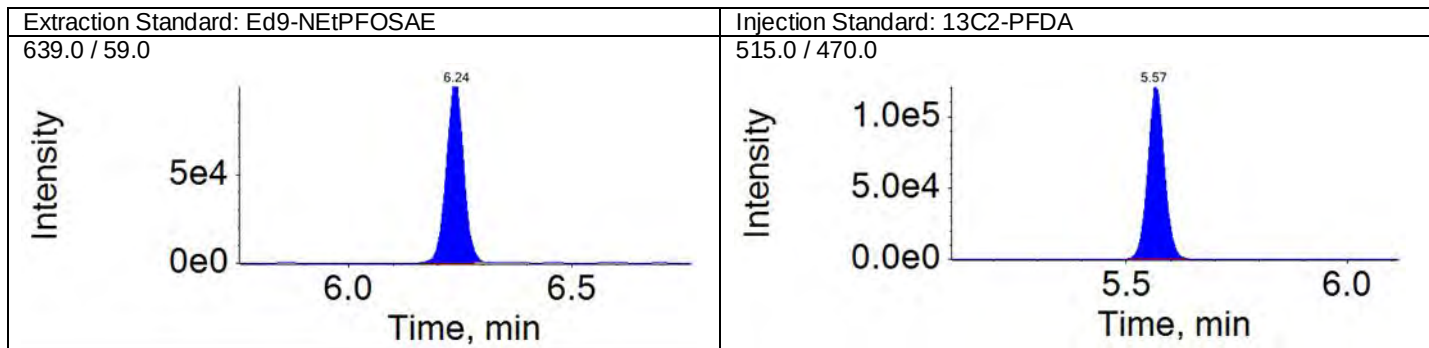
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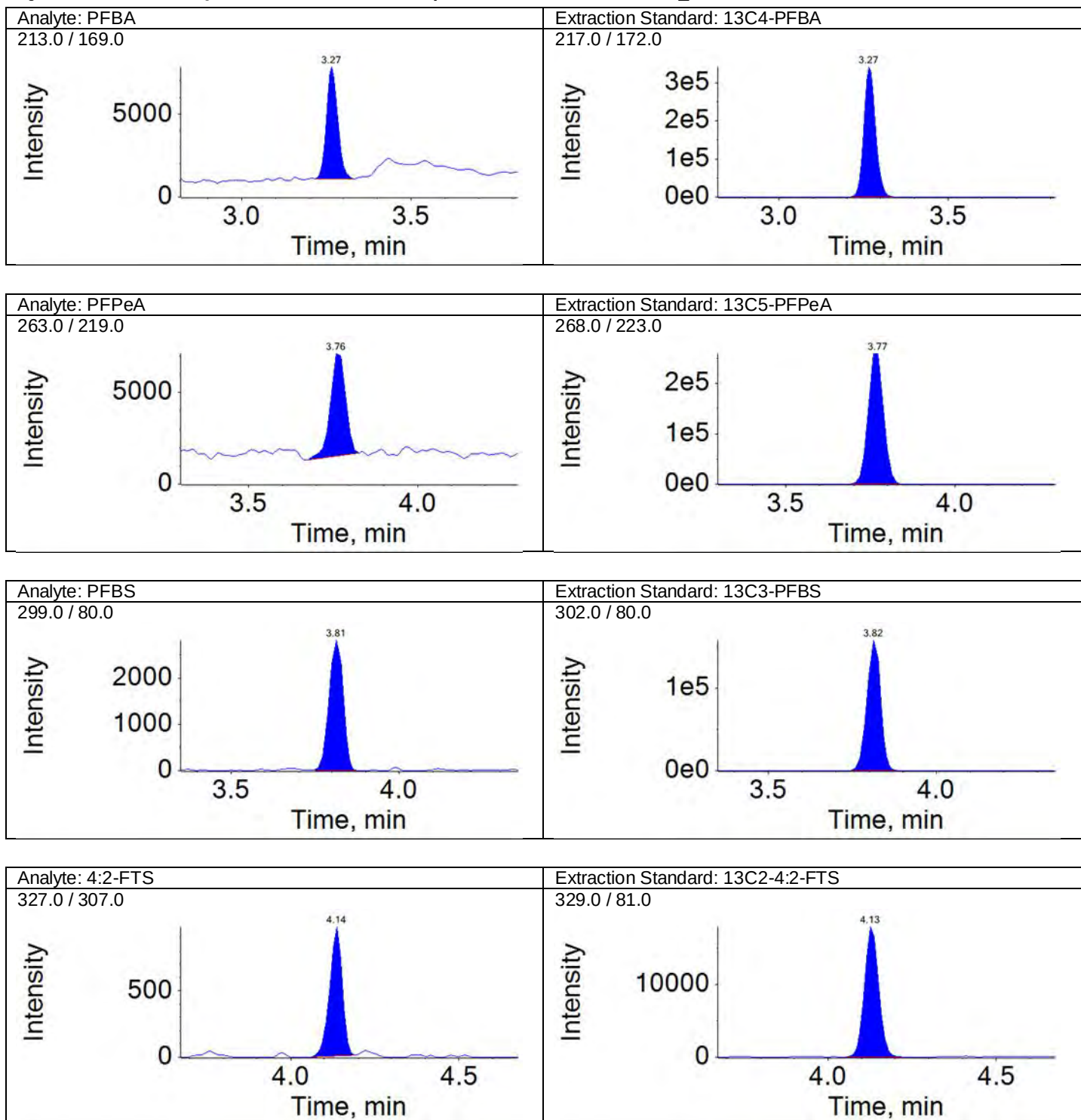
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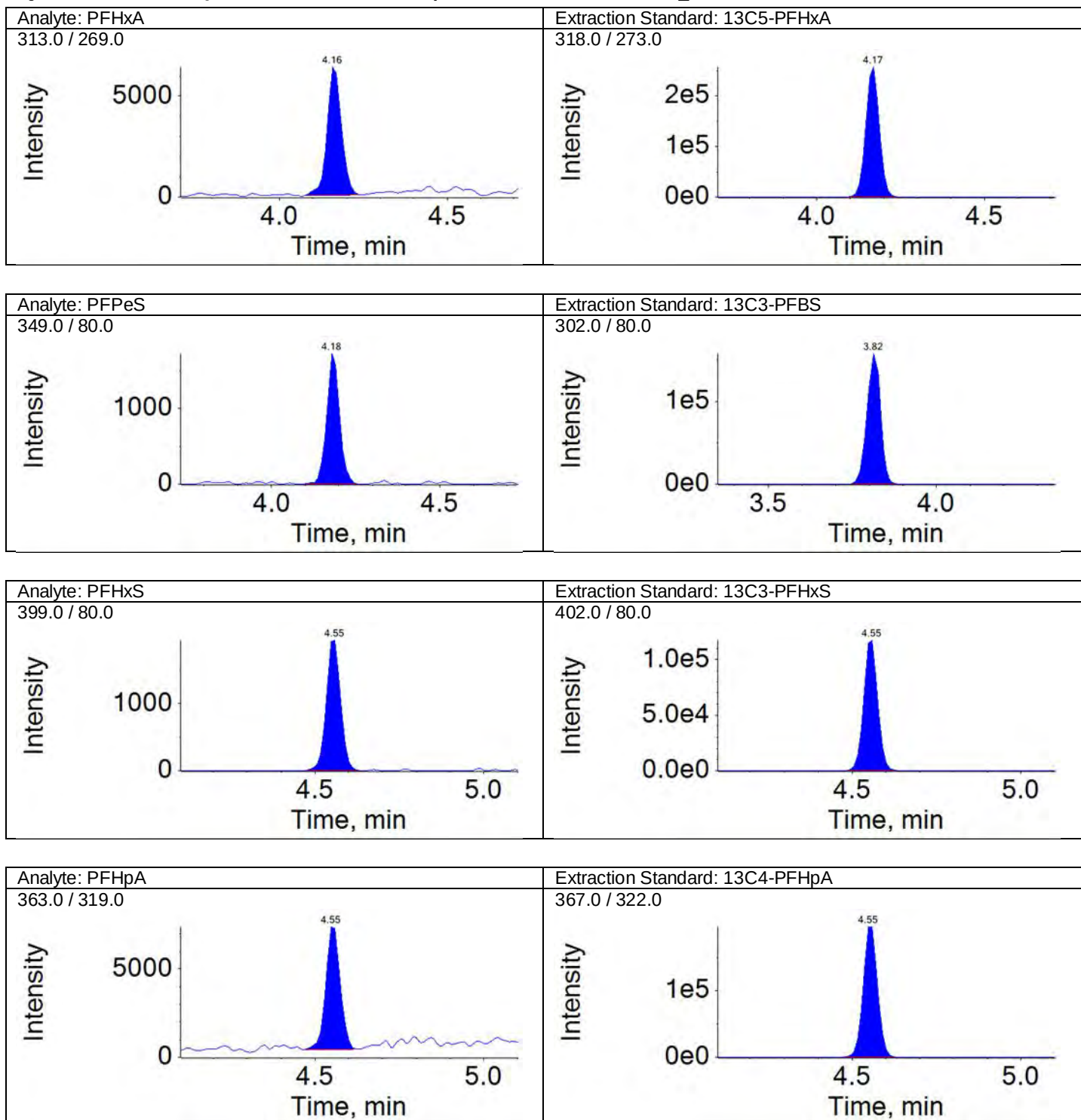
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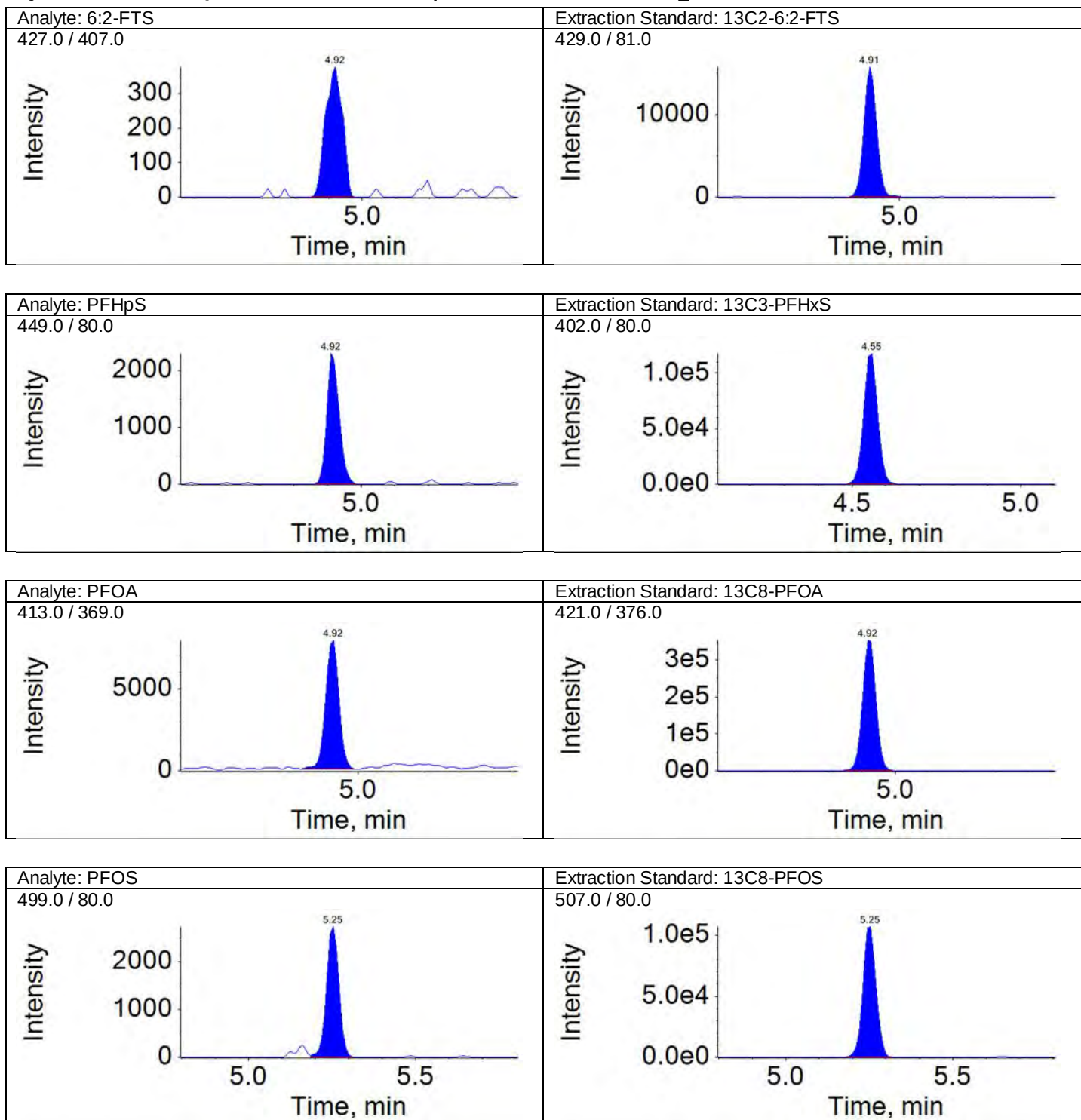
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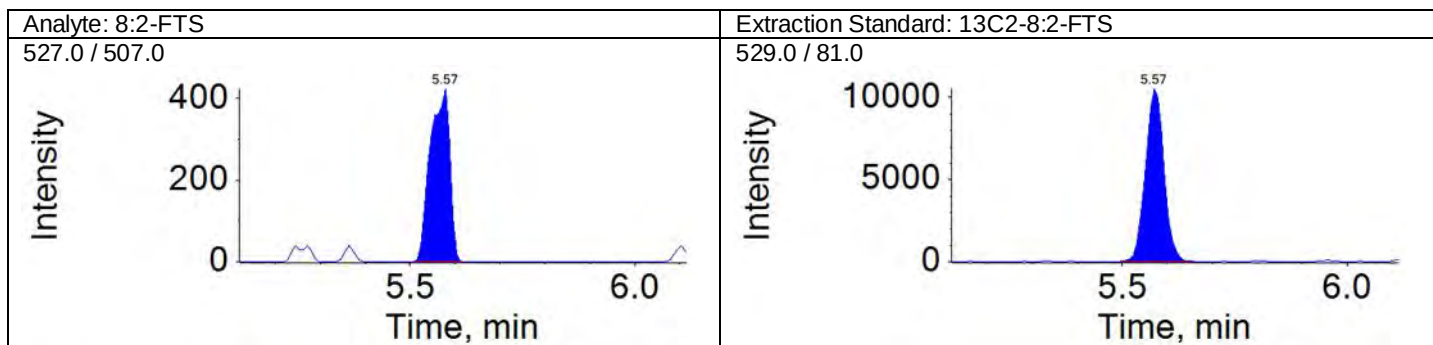
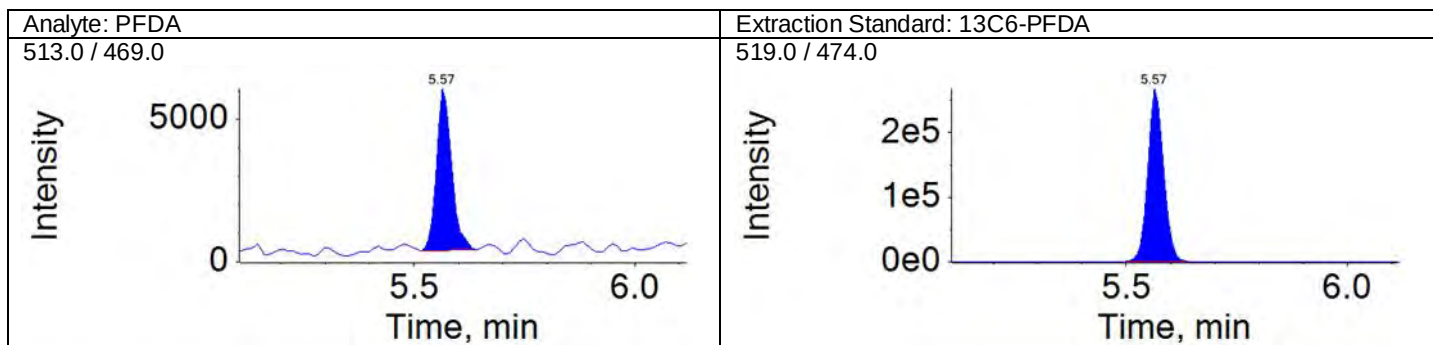
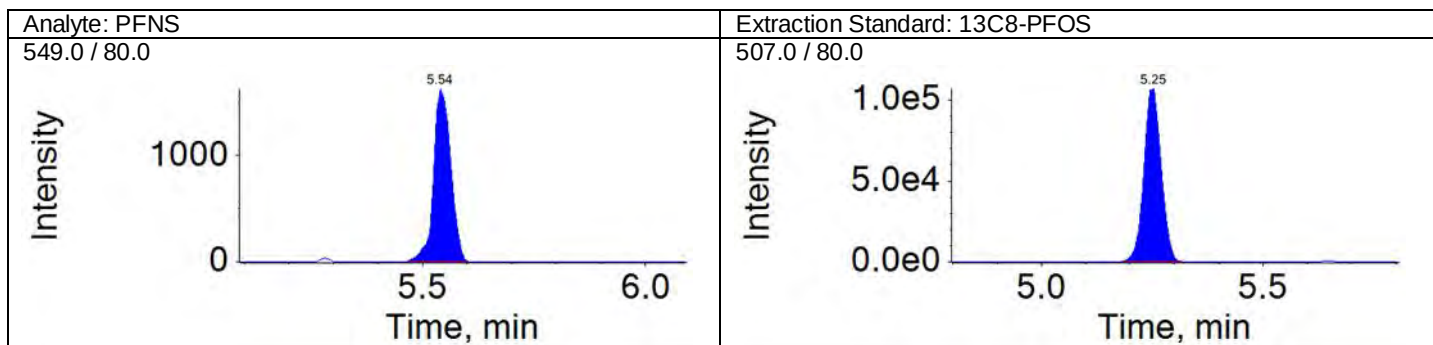
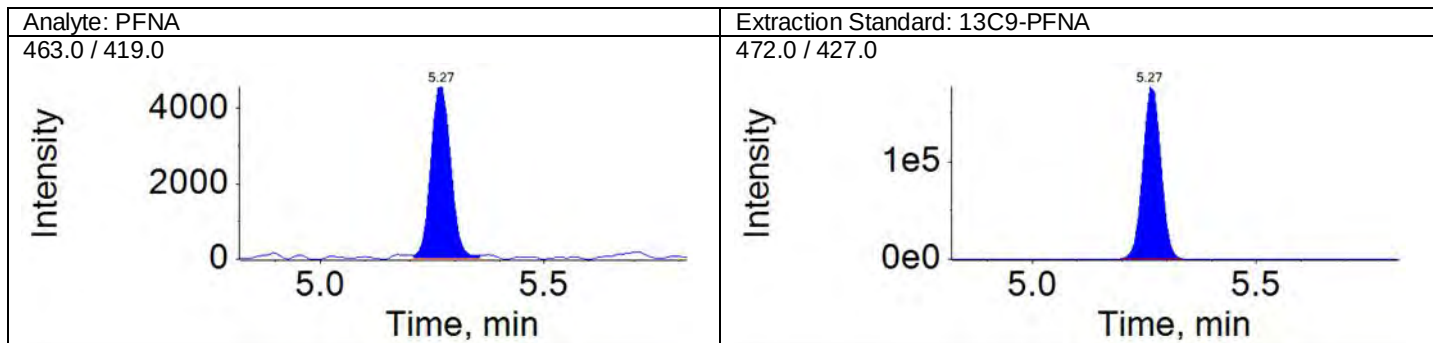
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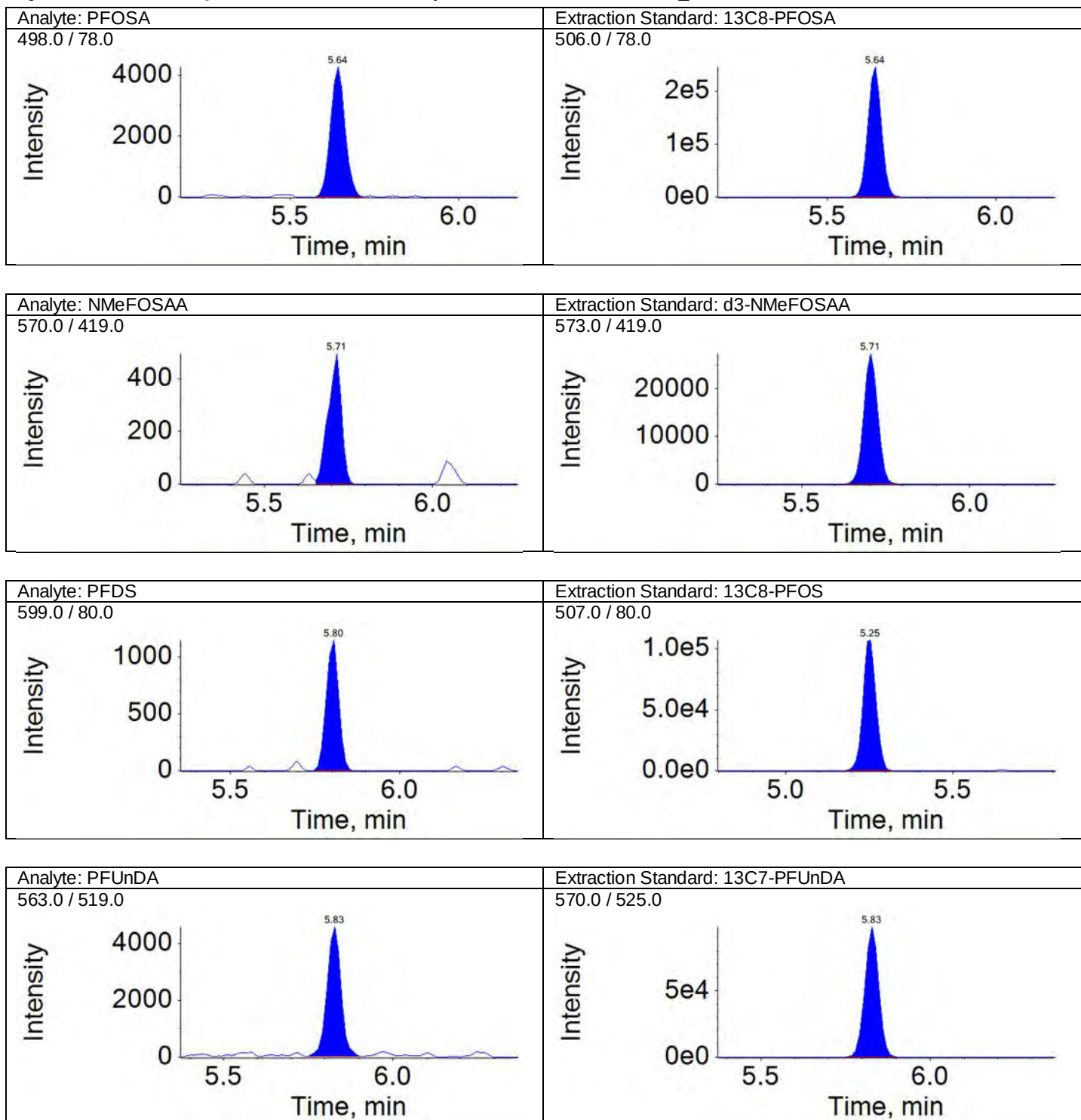
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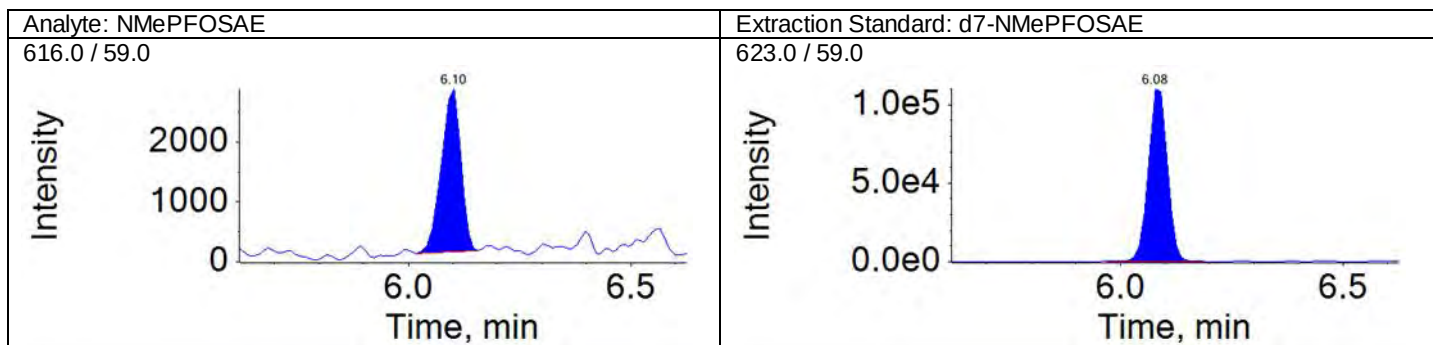
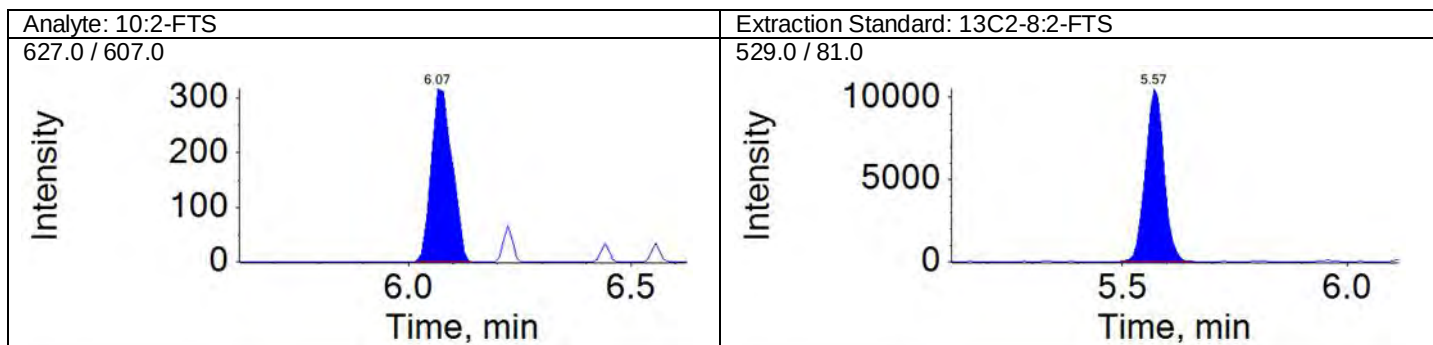
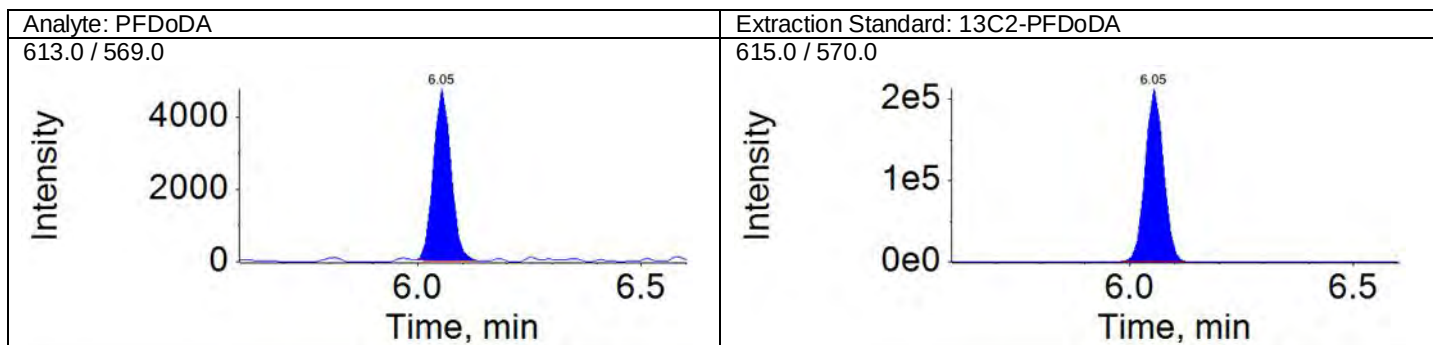
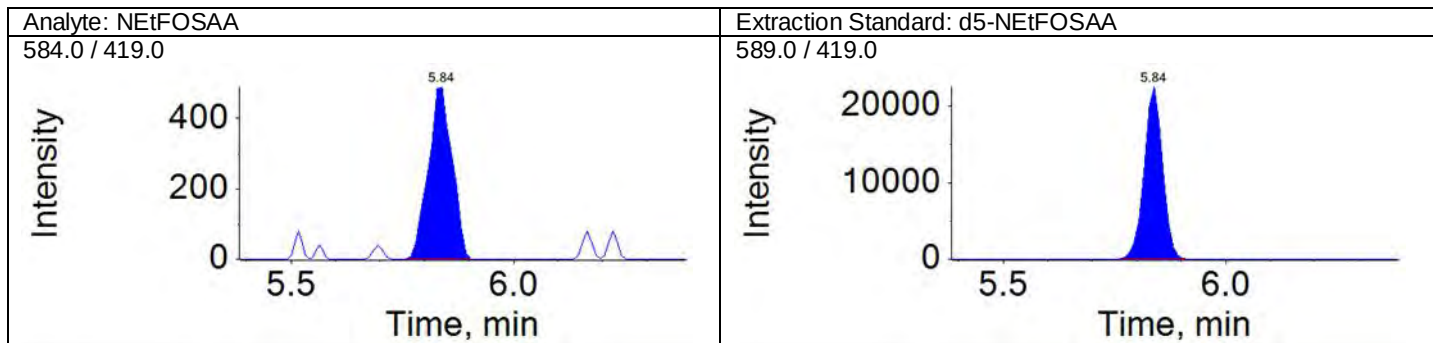
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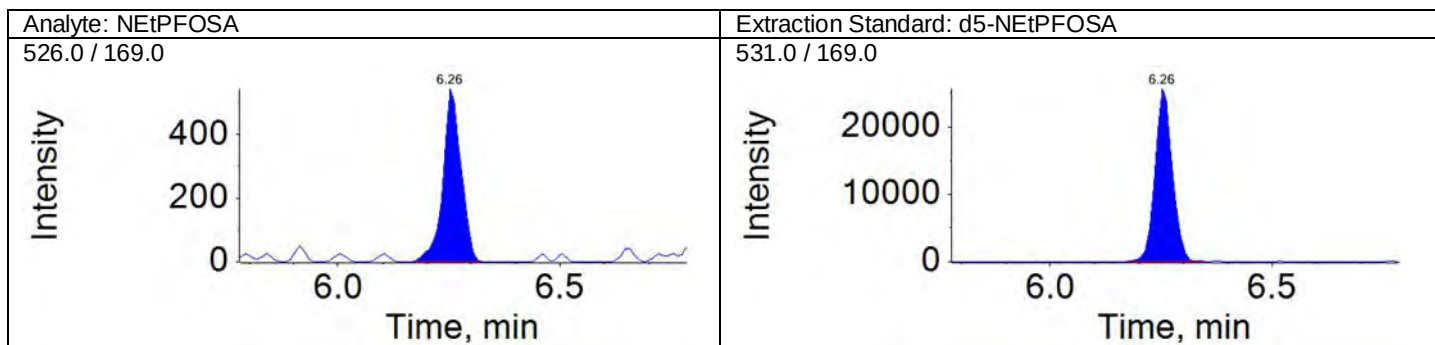
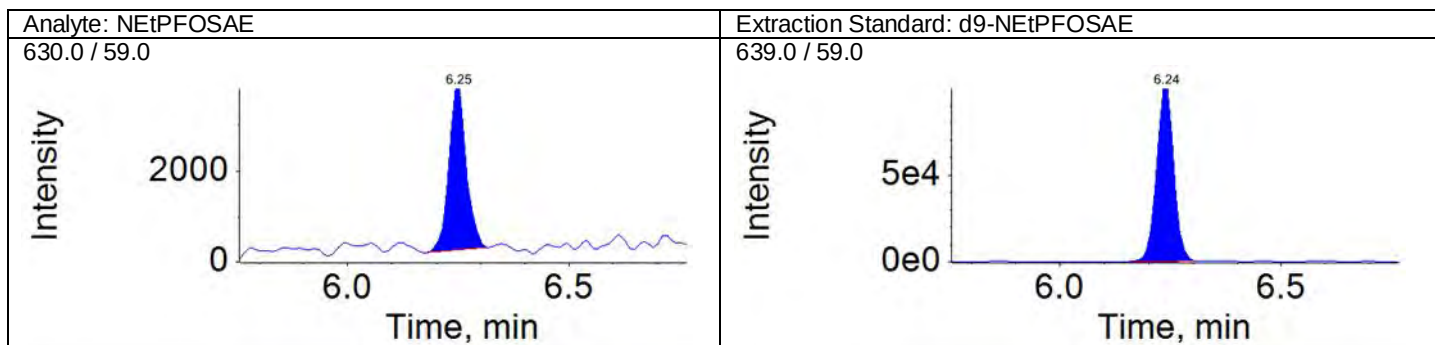
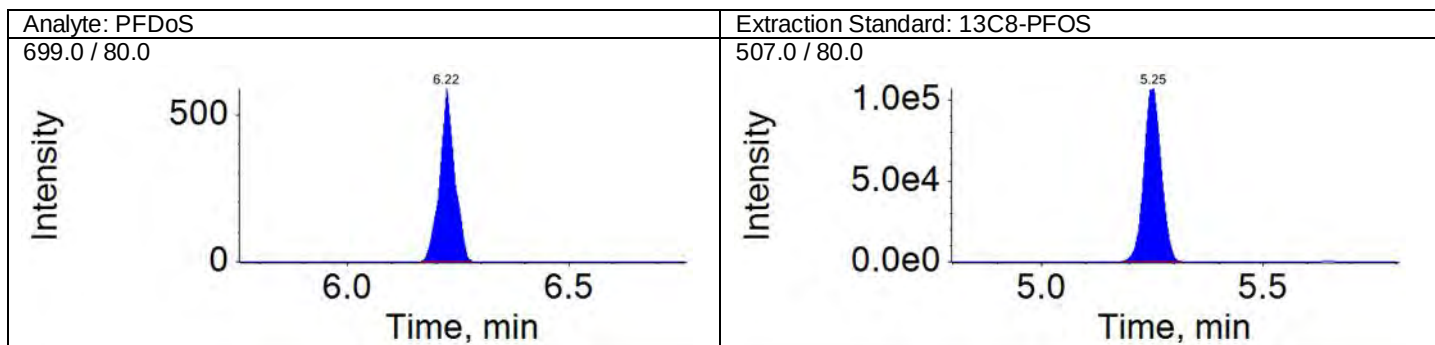
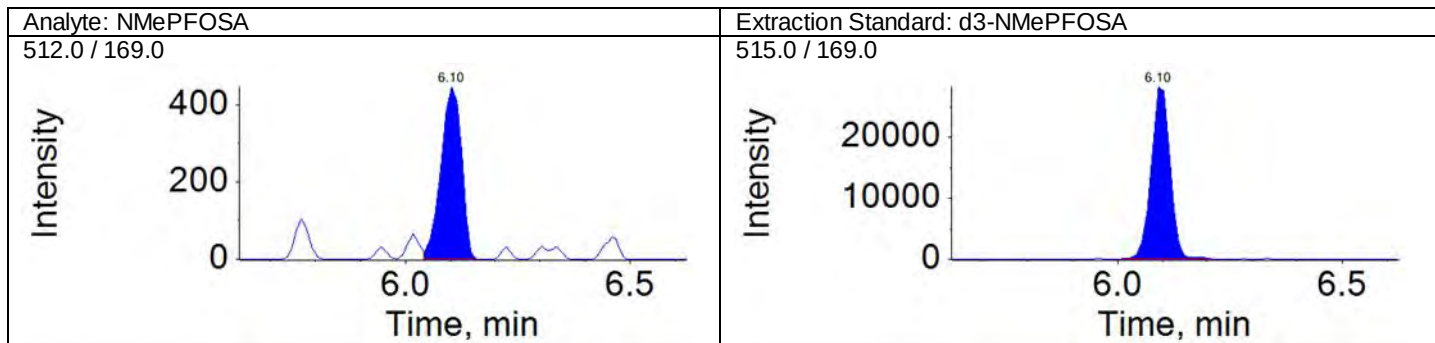
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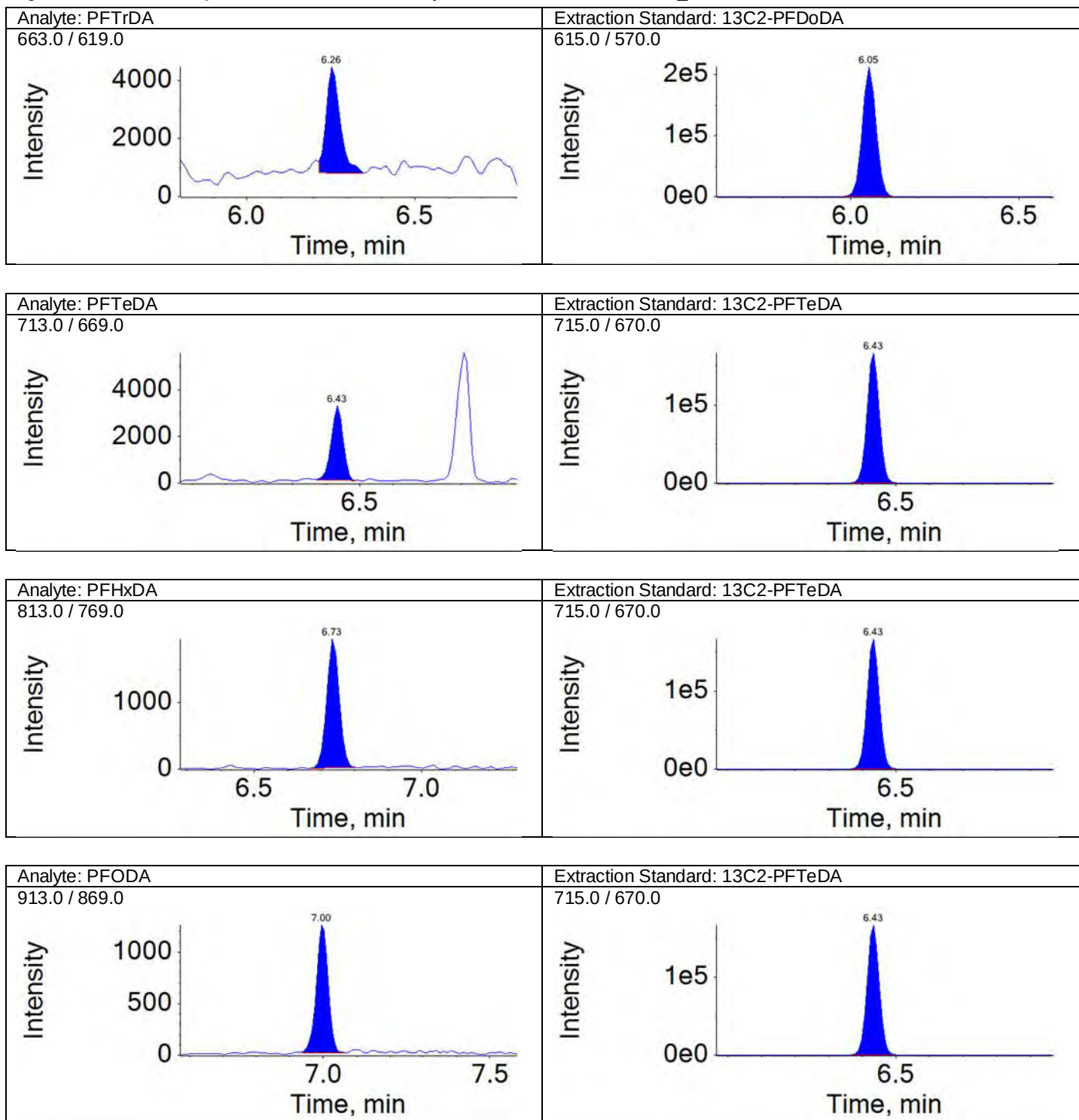
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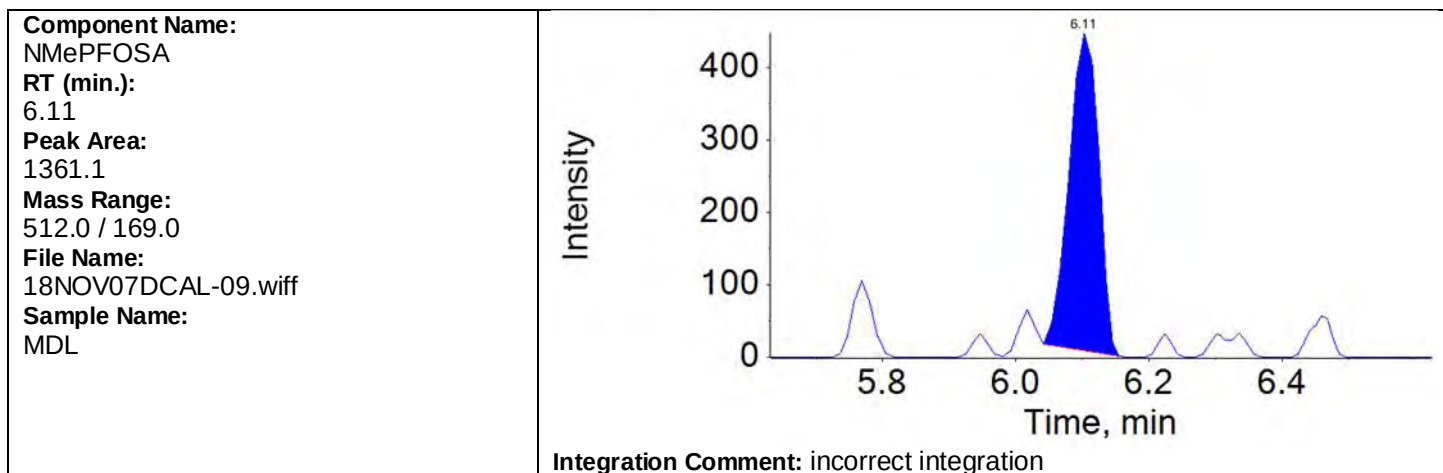
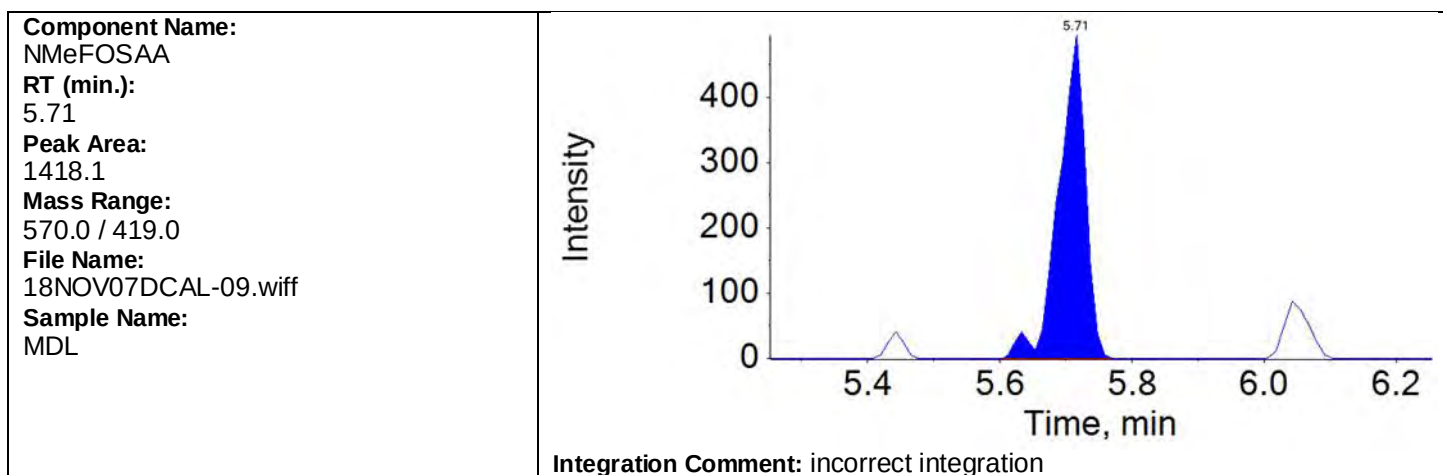
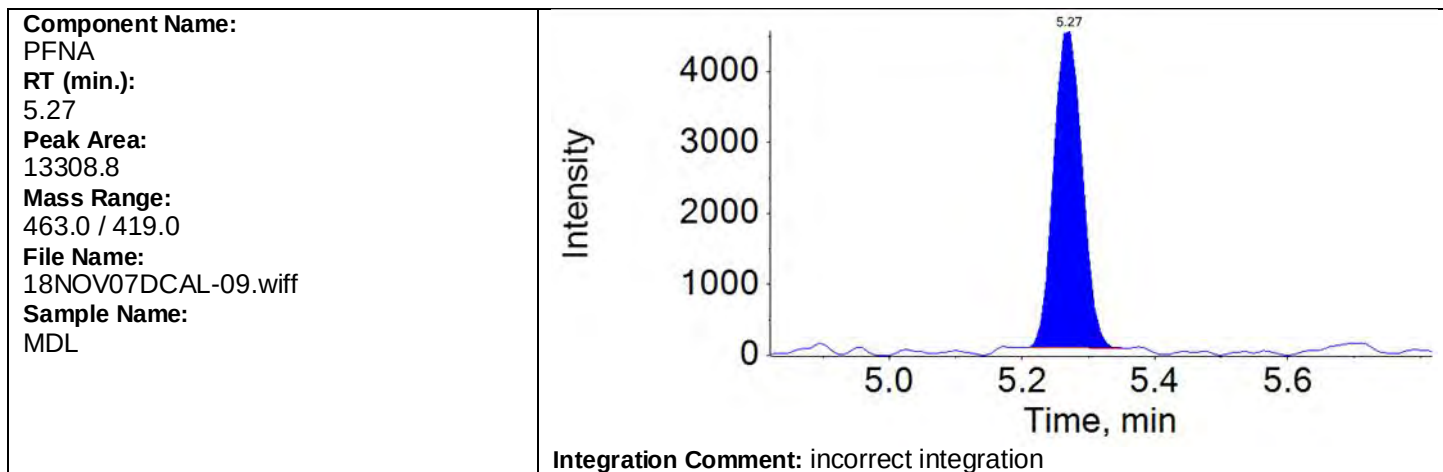
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Results Table Name: 18NOV07DCAL
Results Table Date: 11/7/2018 2:18:30 PM

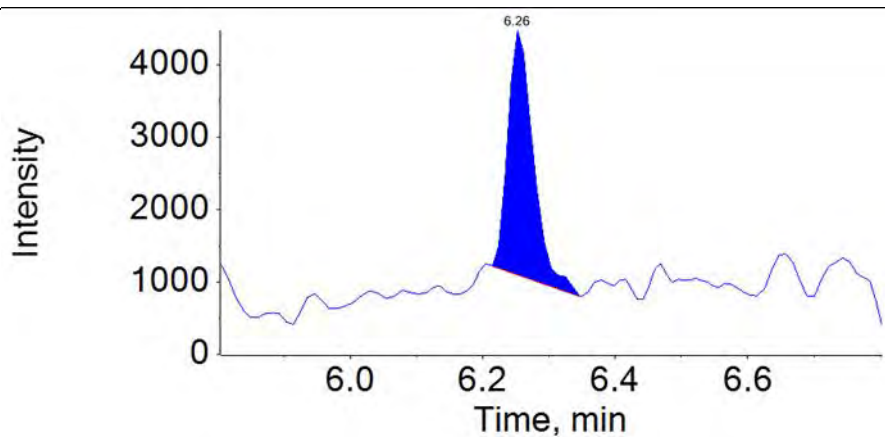
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Results Table Name: 18NOV07DCAL
Results Table Date: 11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
PFTrDA
RT (min.):
6.26
Peak Area:
8999.3
Mass Range:
663.0 / 619.0
File Name:
18NOV07DCAL-09.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Results Table Name: 18NOV07DCAL
Results Table Date: 11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED
By JPT at 2:54 pm, 11/7/18

REVIEWED
By umar at 5:24 pm, 11/9/18

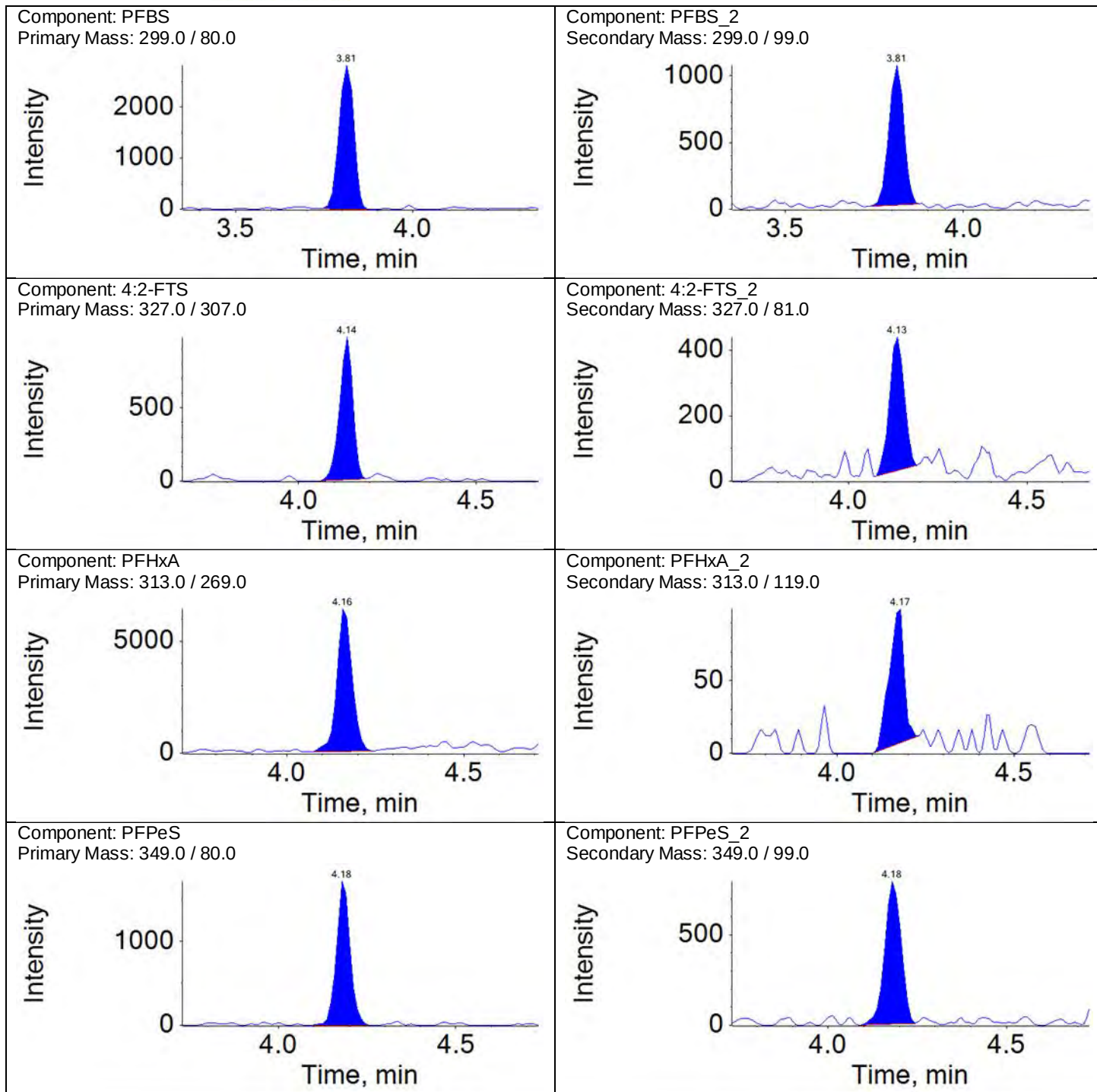
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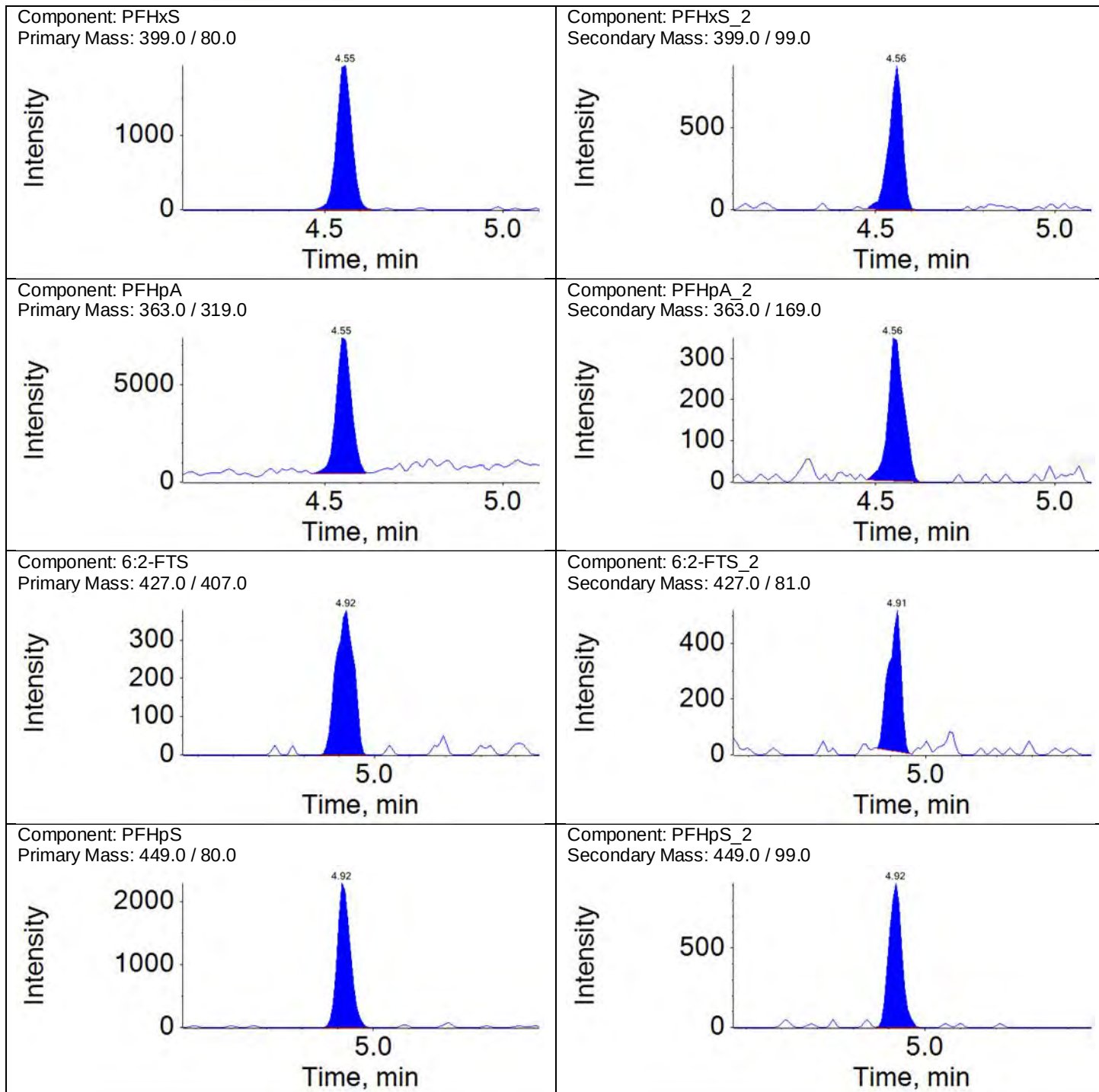
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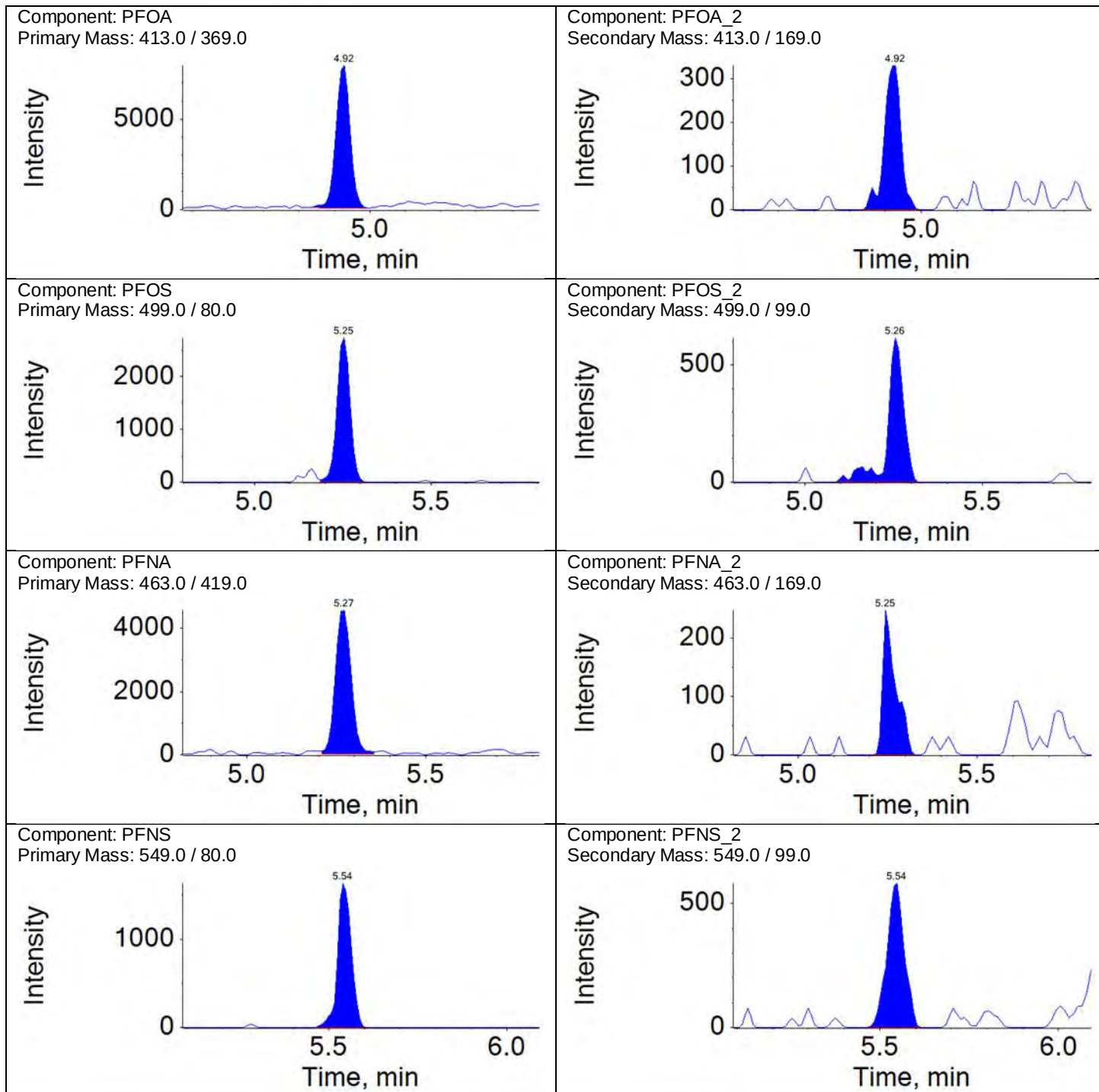
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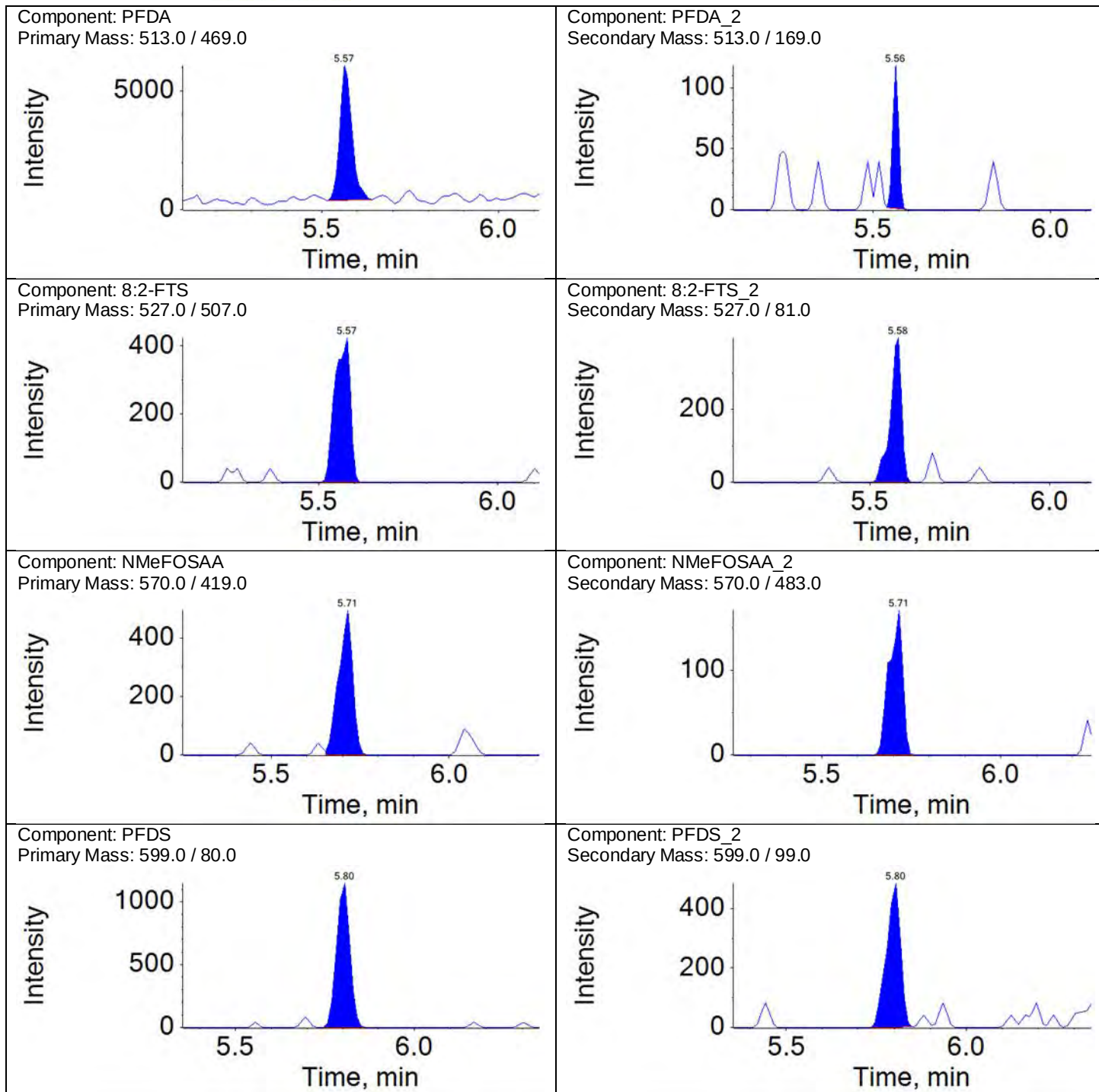
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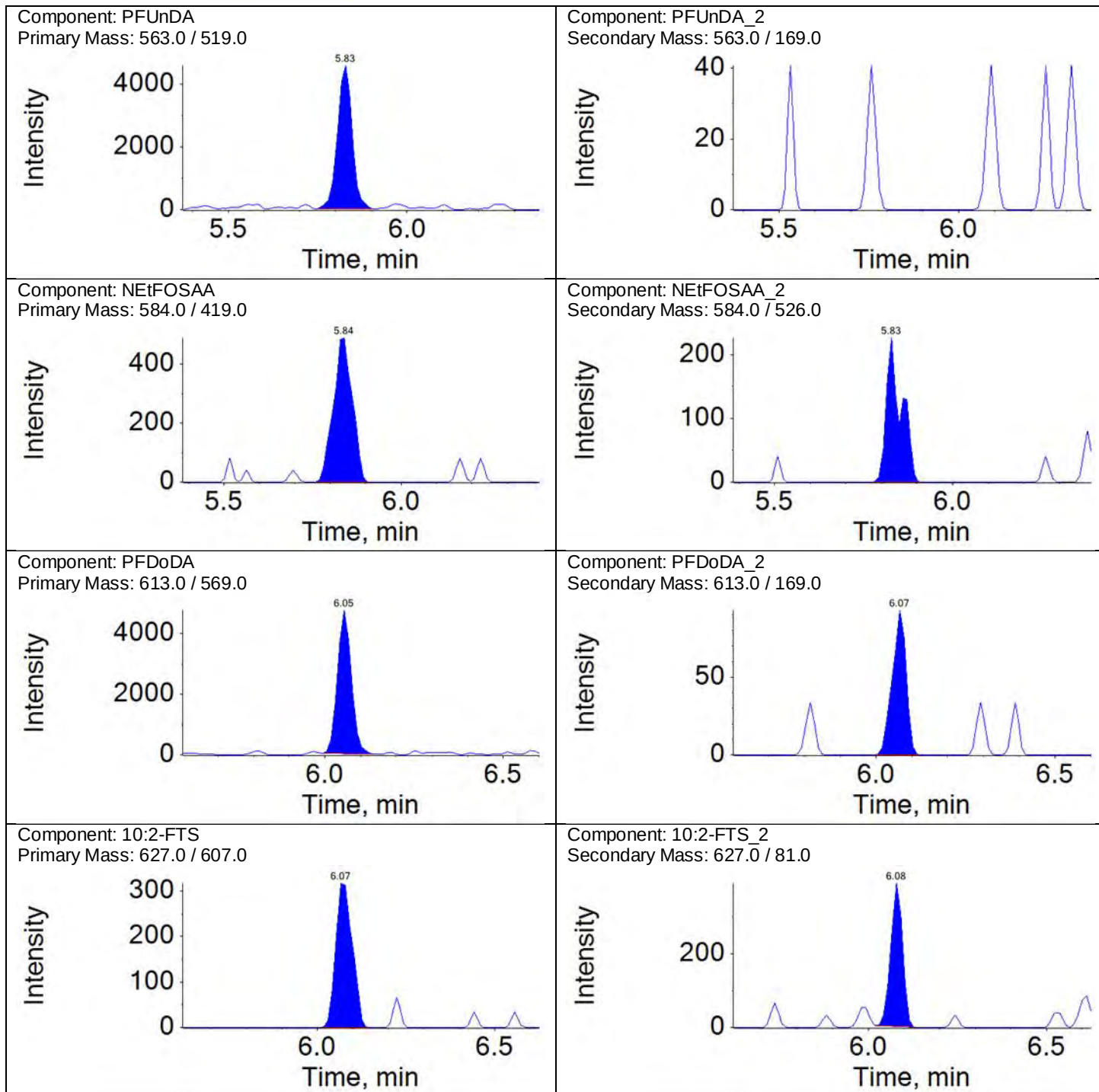
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PFBS_2	3.81	1.00	3067.3	A	0.3576	0.3750	5	50	
4:2-FTS	4.14	1.00	2516.6	A	1.0000	1.0000			
4:2-FTS_2	4.13	1.00	1184.6	A	0.6359	0.4707	-26	50	
PFHxA	4.16	1.00	19041.3	A	1.0000	1.0000			
PFHxA_2	4.17	1.00	272.1	A	0.0115	0.0143	25	50	
PFPeS	4.18	1.10	4553.9	A	1.0000	1.0000			
PFPeS_2	4.18	1.10	2517.9	A	0.5384	0.5529	3	50	
PFHxS	4.55	1.00	5720.4	A	1.0000	1.0000			
PFHxS_2	4.56	1.00	2255.5	A	0.3569	0.3943	10	50	
PFHpA	4.55	1.00	20611.7	A	1.0000	1.0000			
PFHpA_2	4.56	1.00	1062.3	A	0.0577	0.0515	-11	50	
6:2-FTS	4.92	1.00	1337.7	A	1.0000	1.0000			
6:2-FTS_2	4.91	1.00	1232.9	A	0.6752	0.9217	37	50	
PFHpS	4.92	1.08	5811.8	A	1.0000	1.0000			
PFHpS_2	4.92	1.08	2272.0	A	0.3950	0.3909	-1	50	
PFOA	4.92	1.00	21714.7	A	1.0000	1.0000			
PFOA_2	4.92	1.00	1080.5	A	0.0635	0.0498	-22	50	
PFOS	5.25	1.00	7067.6	A	1.0000	1.0000			
PFOS_2	5.26	1.00	1948.3	A	0.3494	0.2757	-21	50	
PFNA	5.27	1.00	14036.5	M	1.0000	1.0000			
PFNA_2	5.25	1.00	631.4	A	0.0207	0.0450	118	50	OOS
PFNS	5.54	1.06	4370.5	A	1.0000	1.0000			
PFNS_2	5.54	1.06	1979.5	A	0.4890	0.4529	-7	50	
PFDA	5.57	1.00	13448.9	A	1.0000	1.0000			
PFDA_2	5.56	1.00	136.4	A	0.0057	0.0101	79	50	OOS
8:2-FTS	5.57	1.00	1277.3	A	1.0000	1.0000			
8:2-FTS_2	5.58	1.00	851.4	A	0.6169	0.6666	8	50	
NMeFOSAA	5.71	1.00	1352.6	M	1.0000	1.0000			
NMeFOSAA_2	5.71	1.00	451.3	A	0.2206	0.3336	51	50	OOS
PFDS	5.80	1.11	2949.3	A	1.0000	1.0000			
PFDS_2	5.80	1.11	1315.3	A	0.4648	0.4460	-4	50	
PFUnDA	5.83	1.00	13003.8	A	1.0000	1.0000			
PFUnDA_2	N/A	N/A	N/A	A	0.0031	N/A		50	
NEtFOSAA	5.84	1.00	1823.4	A	1.0000	1.0000			
NEtFOSAA_2	5.83	1.00	670.0	A	0.6082	0.3675	-40	50	
PFDODA	6.05	1.00	12755.8	A	1.0000	1.0000			
PFDODA_2	6.07	1.00	250.5	A	0.0109	0.0196	80	50	OOS
10:2-FTS	6.07	1.09	1033.2	A	1.0000	1.0000			
10:2-FTS_2	6.08	1.09	898.7	A	0.7082	0.8698	23	50	
PFTTrDA	6.26	1.03	10576.8	M	1.0000	1.0000			
PFTTrDA_2	6.24	1.03	127.3	A	0.0096	0.0120	25	50	
PFTeDA	6.43	1.00	7741.6	A	1.0000	1.0000			
PFTeDA_2	6.42	1.00	40.1	A	0.0055	0.0052	-7	50	
PFHxDA	6.73	1.05	5030.0	A	1.0000	1.0000			
PFHxDA_2	6.73	1.05	165.8	A	0.0596	0.0330	-45	50	
PFODA	7.00	1.09	3044.8	A	1.0000	1.0000			
PFODA_2	7.00	1.09	76.0	A	0.0257	0.0250	-3	50	

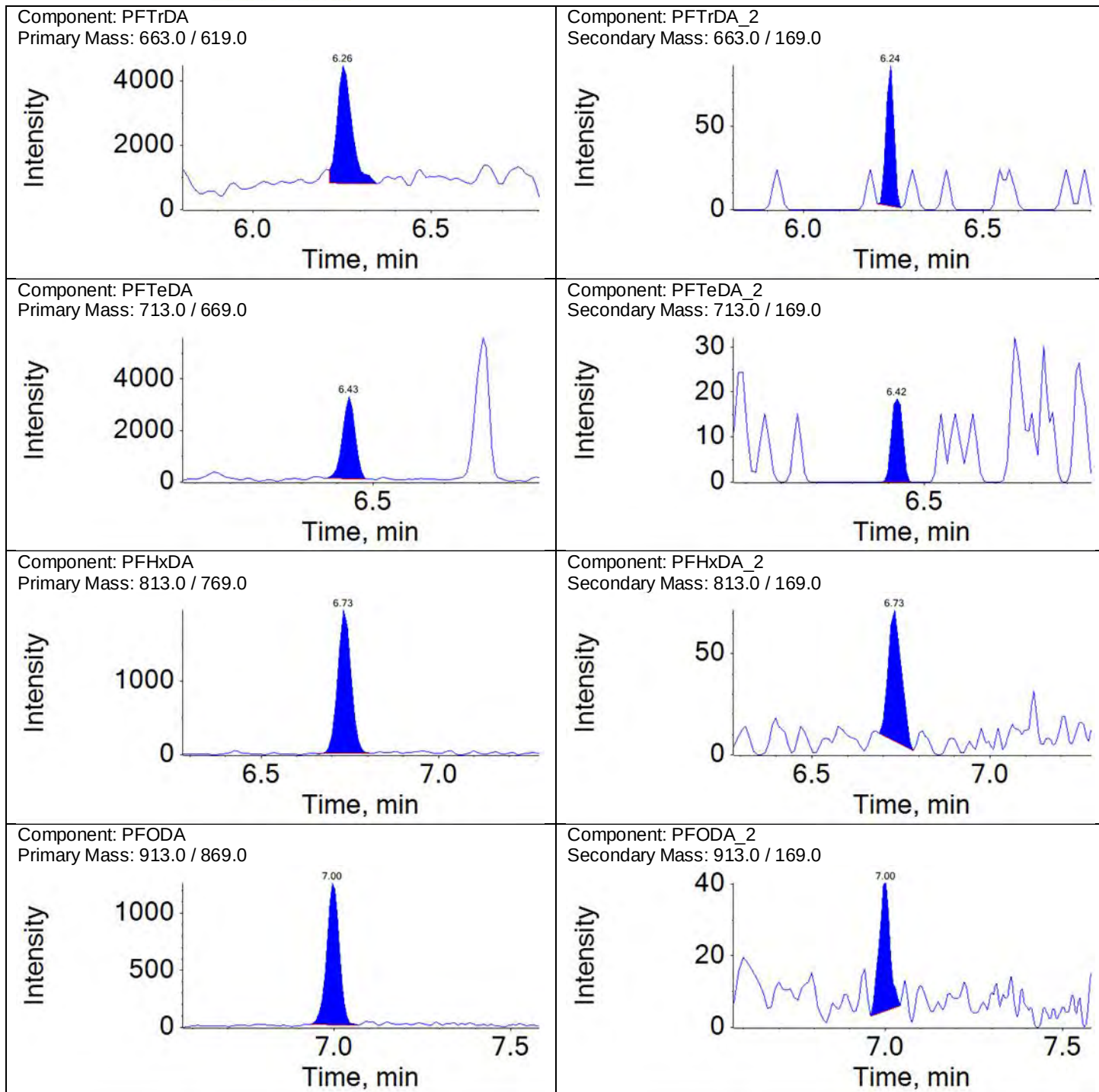












ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	Instrument Blank	Data File:	18NOV07DCAL-17.wiff
Sample ID:	methanol+labels	Acquis Date:	2018-11-07T10:42:59
Sample Type:	Unknown	Instrument:	LM27631
Vial Position:	1	Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00	Result Table:	18NOV07DCAL
QMethod File:	MQ4-18AUG13	ICAL Name:	18NOV07DCAL
Batch Number:	N/A	Operator:	JPT12262
Sample Wt.:	1.00000	Dilution Factor:	1.00
Sample Vol.:	1.000	Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV07DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	735610.3	730410.6	1	50	
13C2-PFOA	5.0	545052.0	524423.6	4	50	
13C4-PFOS	4.8	294815.1	274061.7	8	50	
13C2-PFDA	5.0	340045.1	311442.1	9	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	825928.3	13C3-PFBA	735610.3	1.123	5.000	5.196	104	70-130	
E13C5-PFPeA	881634.8	13C3-PFBA	735610.3	1.199	5.000	5.221	104	70-130	
E13C3-PFBS	456572.3	13C3-PFBA	735610.3	0.621	4.650	4.555	98	70-130	
E13C2-4:2-FTS	56024.0	13C2-PFOA	545052.0	0.103	4.670	4.638	99	70-130	
E13C5-PFHxA	745299.1	13C2-PFOA	545052.0	1.367	5.000	5.030	101	70-130	
E13C3-PFHxS	363559.9	13C2-PFOA	545052.0	0.667	4.730	4.788	101	70-130	
E13C4-PFHpA	680947.9	13C2-PFOA	545052.0	1.249	5.000	5.683	114	70-130	
E13C2-6:2-FTS	40789.9	13C2-PFOA	545052.0	0.075	4.750	4.990	105	70-130	
E13C8-PFOA	1030720.3	13C2-PFOA	545052.0	1.891	5.000	5.273	105	70-130	
E13C8-PFOS	325503.0	13C4-PFOS	294815.1	1.104	4.780	4.882	102	70-130	
E13C9-PFNA	562782.6	13C4-PFOS	294815.1	1.909	5.000	5.214	104	70-130	
E13C6-PFDA	680228.7	13C2-PFDA	340045.1	2.000	5.000	5.031	101	70-130	
E13C2-8:2-FTS	29365.3	13C2-PFDA	340045.1	0.086	4.790	4.570	95	70-130	
E13C8-PFOSA	750773.0	13C2-PFDA	340045.1	2.208	5.000	4.818	96	70-130	
Ed3-NMeFOSAA	84635.6	13C2-PFDA	340045.1	0.249	5.000	4.628	93	70-130	
E13C7-PFUnDA	301084.0	13C2-PFDA	340045.1	0.885	5.000	5.108	102	70-130	
Ed5-NEtFOSAA	71817.7	13C2-PFDA	340045.1	0.211	5.000	4.888	98	70-130	
E13C2-PFDoDA	636951.8	13C2-PFDA	340045.1	1.873	5.000	5.050	101	70-130	
Ed7-NMePFOSAE	359644.6	13C2-PFDA	340045.1	1.058	5.000	4.918	98	70-130	
Ed3-NMePFOSA	81798.8	13C2-PFDA	340045.1	0.241	5.000	4.404	88	70-130	
Ed9-NEtPFOSAE	287361.1	13C2-PFDA	340045.1	0.845	5.000	4.826	97	70-130	
Ed5-NEtPFOSA	66311.5	13C2-PFDA	340045.1	0.195	5.000	4.515	90	70-130	
E13C2-PFTeDA	458986.1	13C2-PFDA	340045.1	1.350	5.000	4.859	97	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

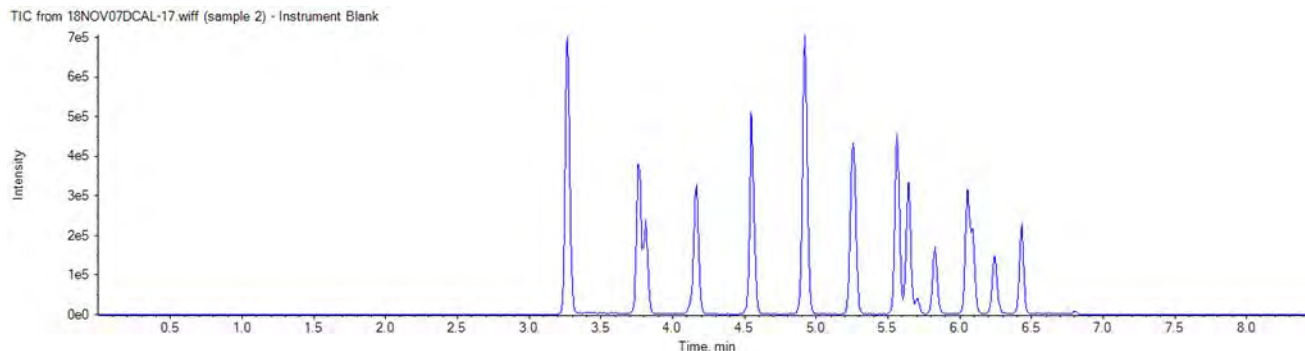
Analyte Quantitation Peak Table

Sample Name: Instrument Blank Instrument Name: LM27631 File Name: 18NOV07DCAL-17.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	825928.3	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	881634.8	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	456572.3	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.13	56024.0	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	745299.1	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	456572.3	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	363559.9	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	680947.9	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.91	40789.9	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	363559.9	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	1030720.3	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.25	325503.0	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.27	562782.6	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.25	325503.0	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	680228.7	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	29365.3	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.64	750773.0	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	84635.6	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.25	325503.0	N/A	
PfUnDA	N/A	N/A	N/A		A	13C7-PfUnDA	5.83	301084.0	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	71817.7	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	636951.8	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	29365.3	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	359644.6	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	81798.8	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.25	325503.0	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	287361.1	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	66311.5	N/A	
PFTDA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	636951.8	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	458986.1	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	458986.1	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	458986.1	N/A	

Total Ion Chromatogram

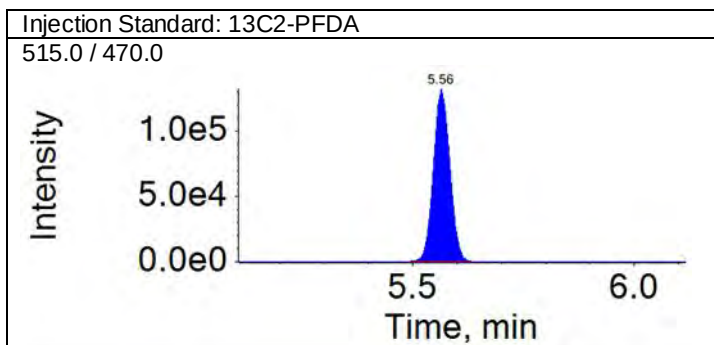
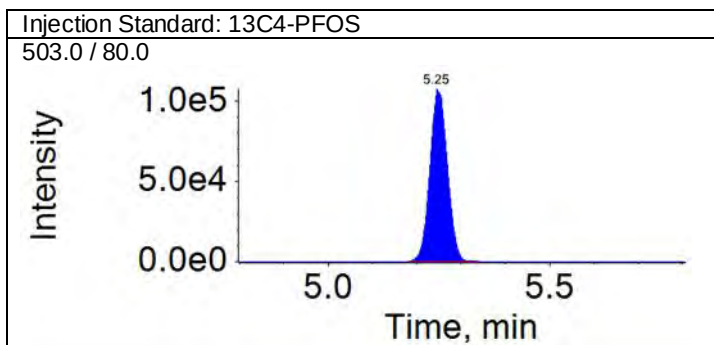
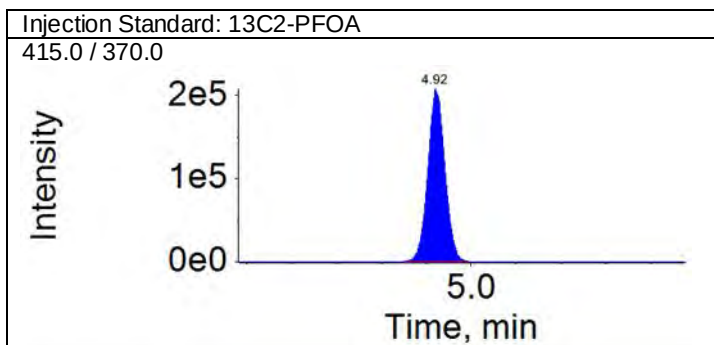
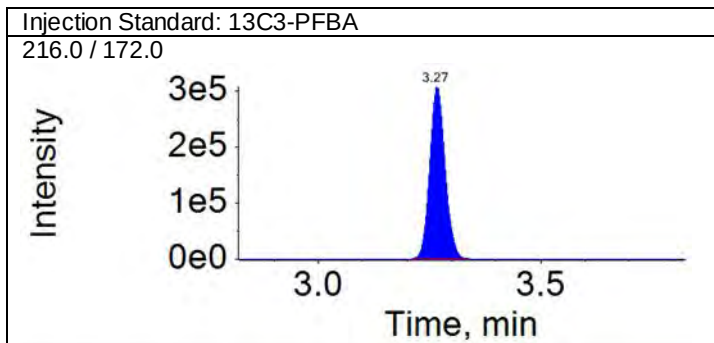


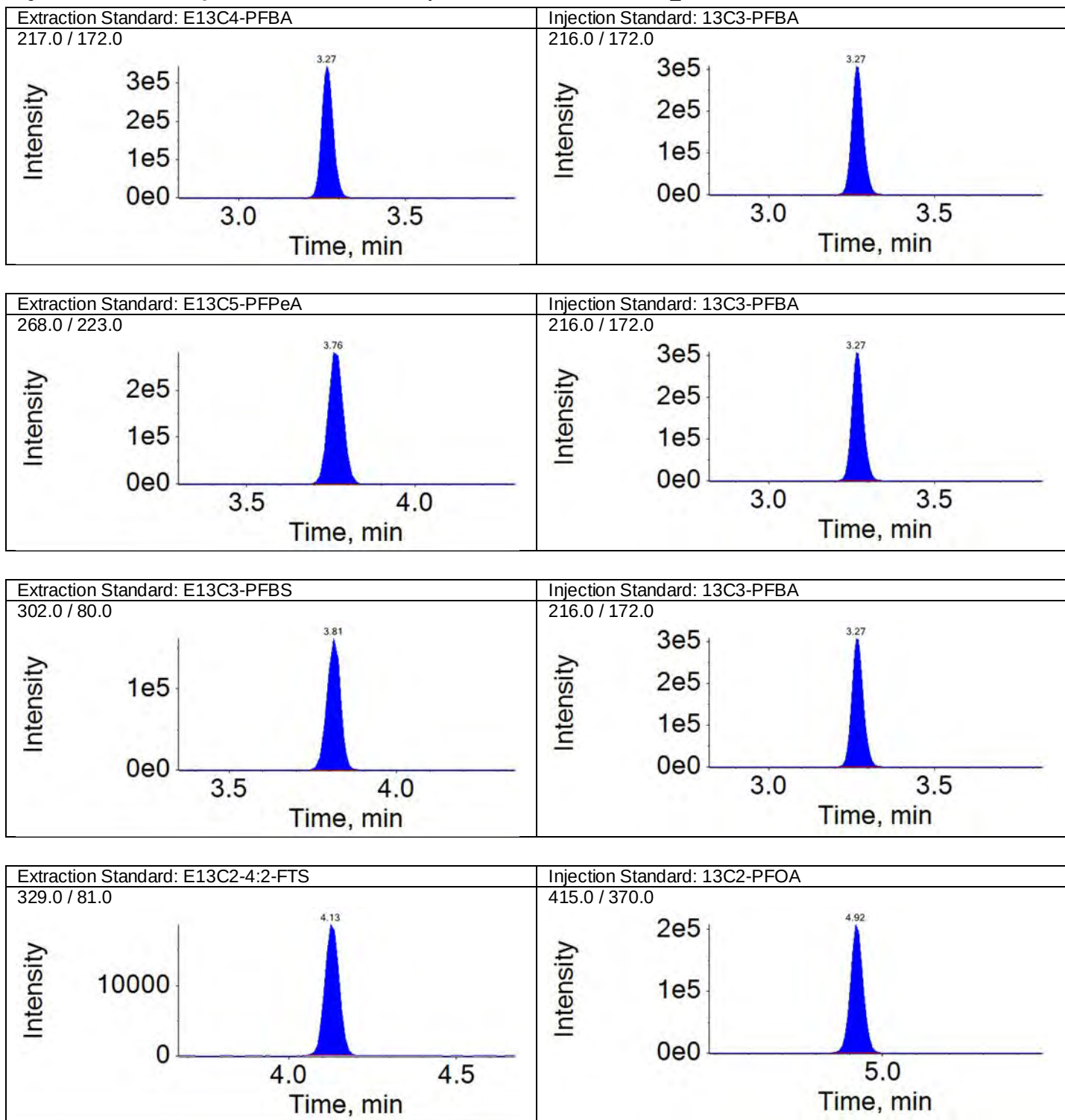
APPROVED
By JPT at 2:53 pm, 11/7/18

REVIEWED
By umar at 5:23 pm, 11/9/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

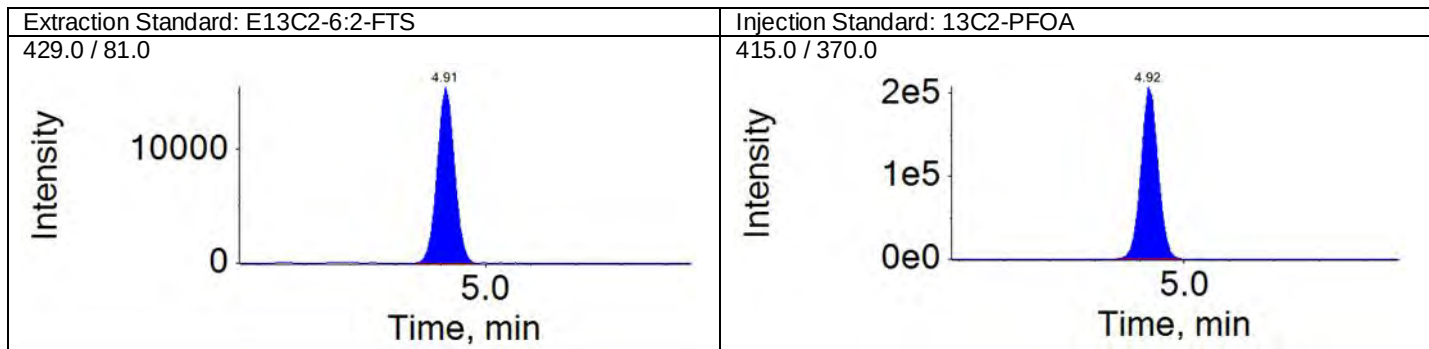
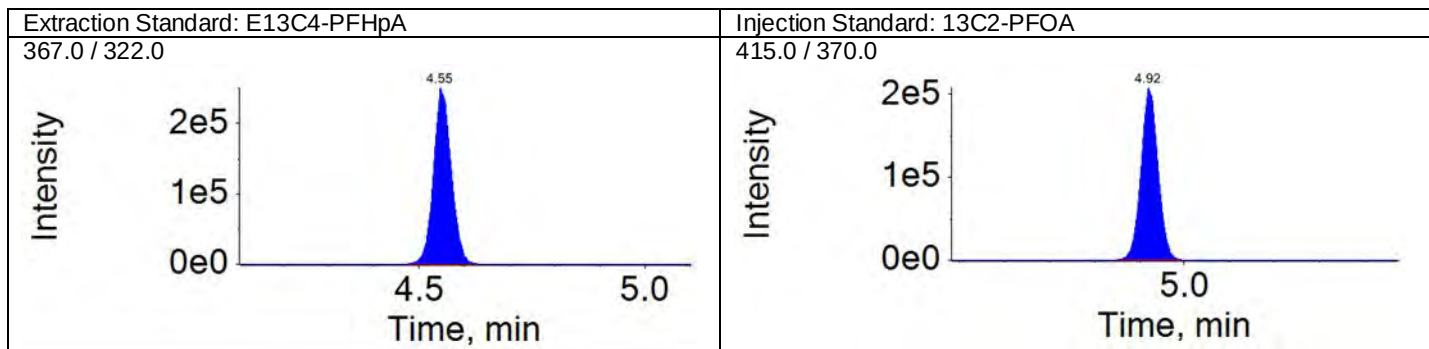
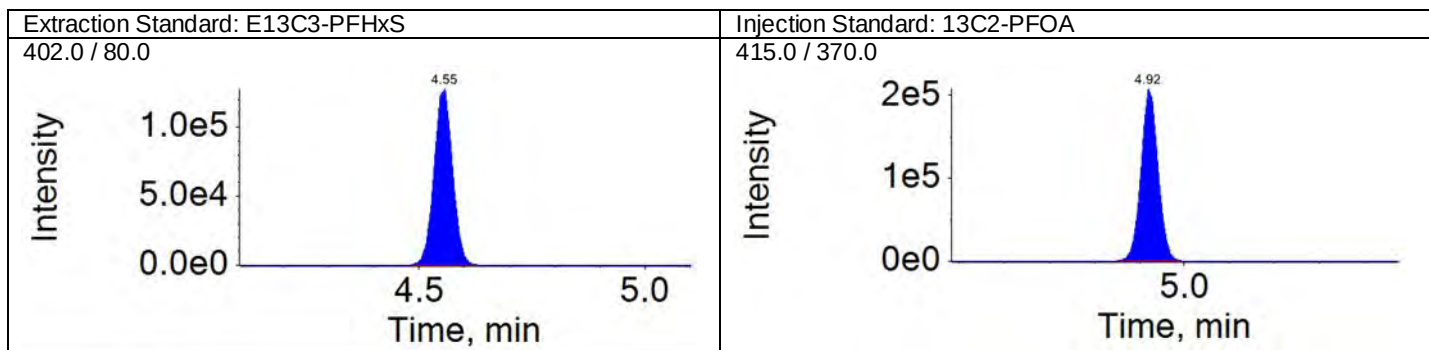
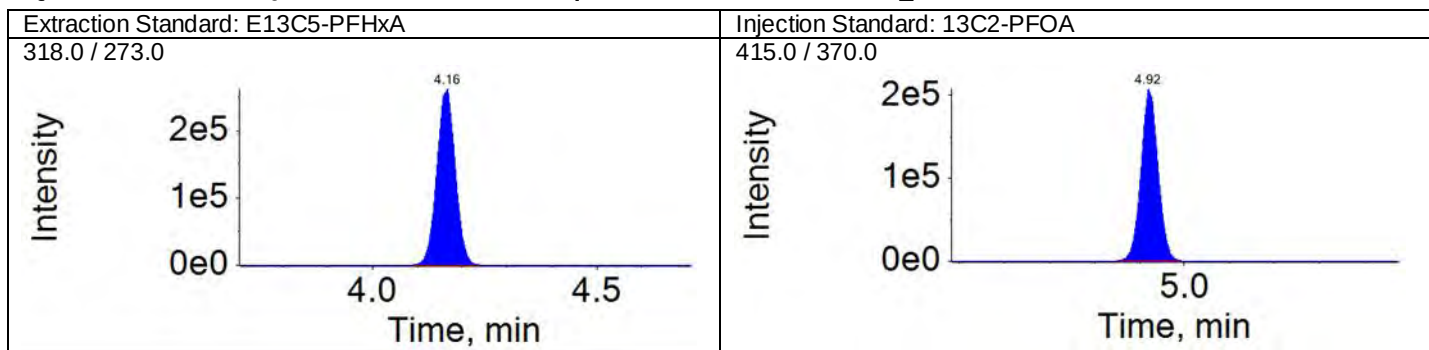
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
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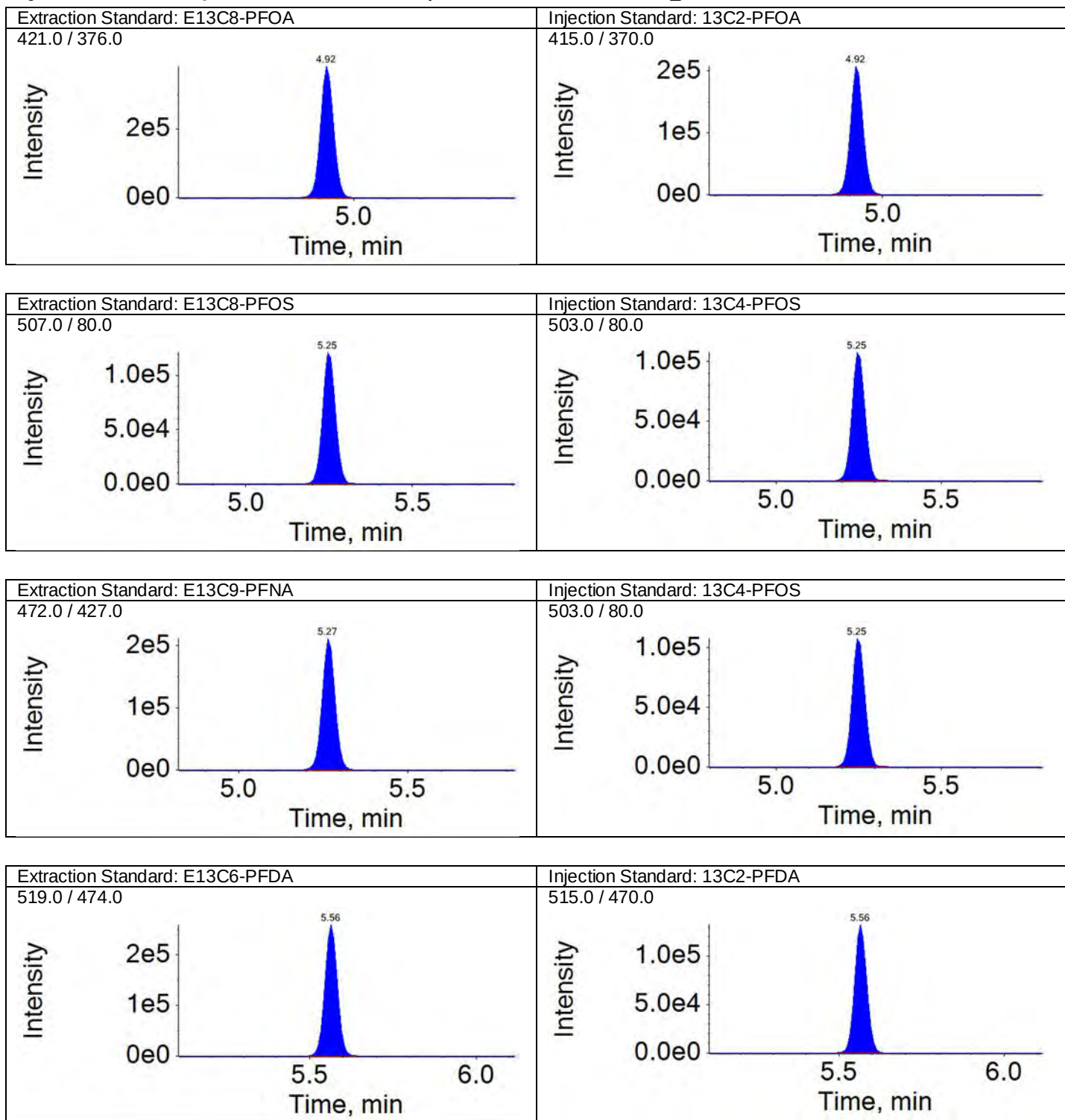
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
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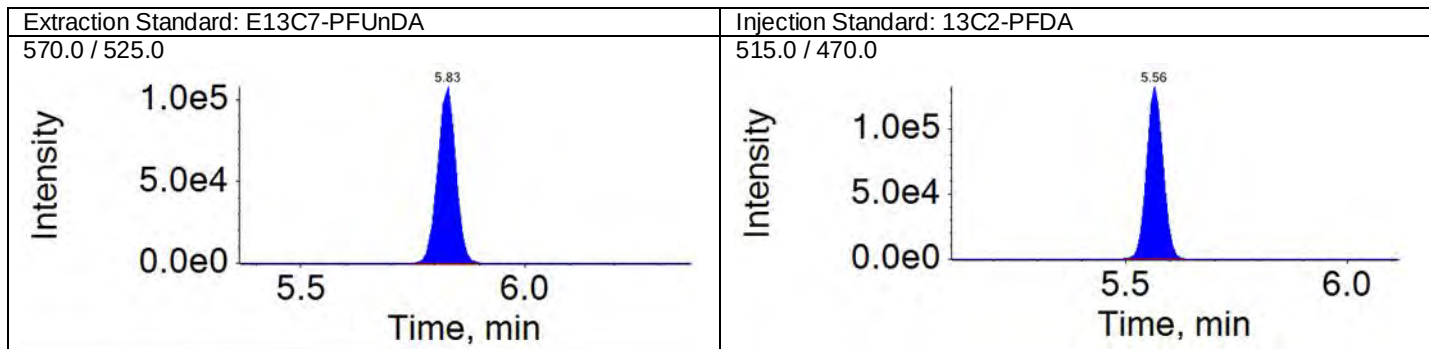
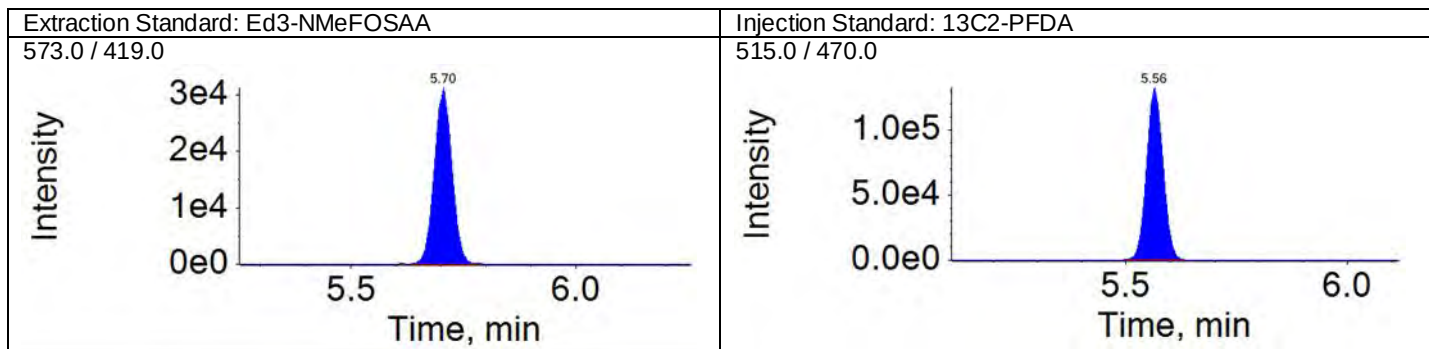
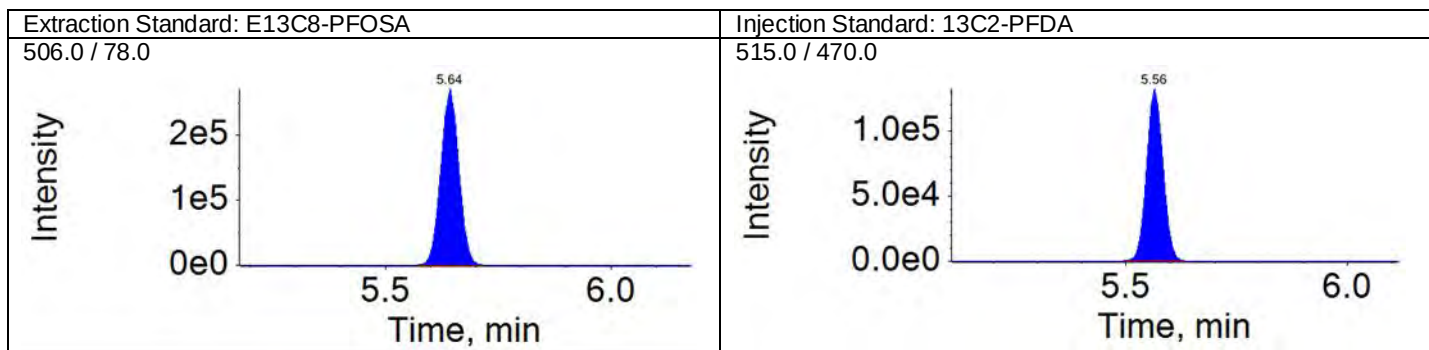
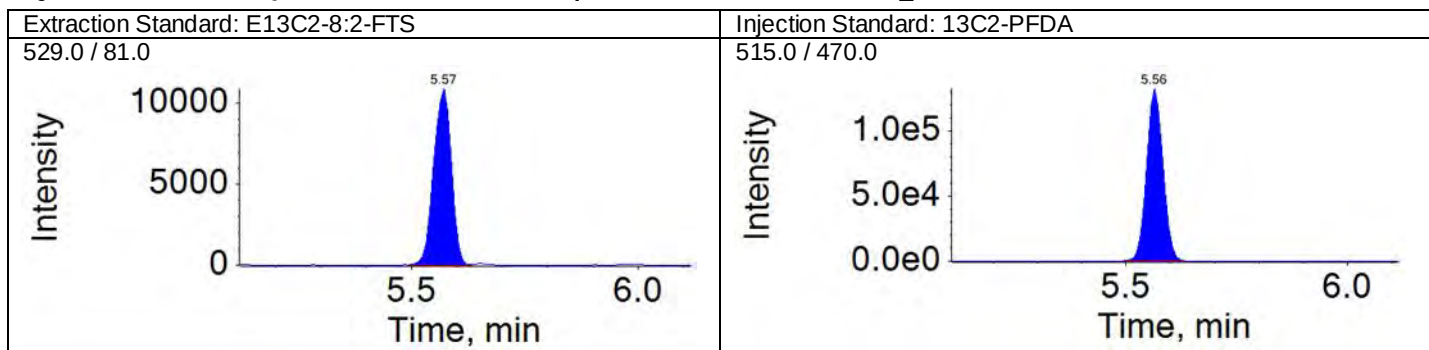
By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



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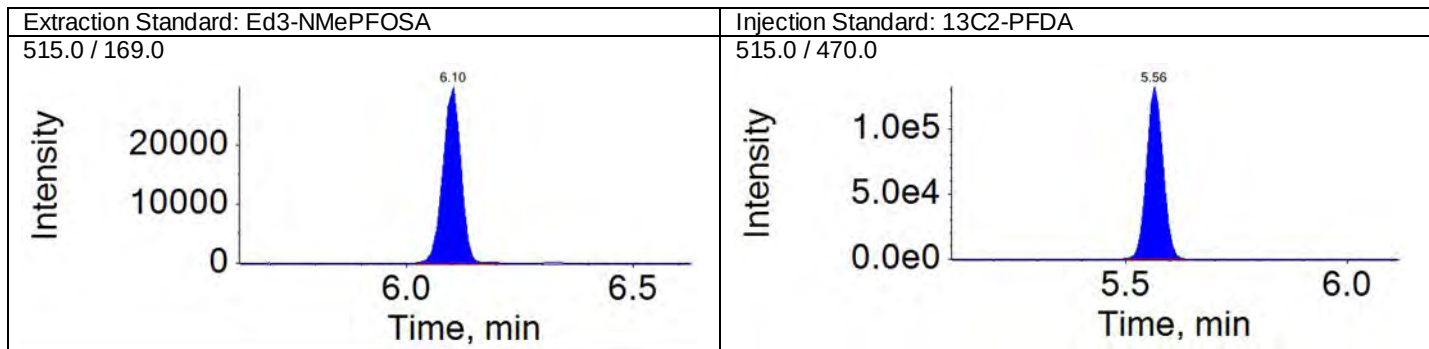
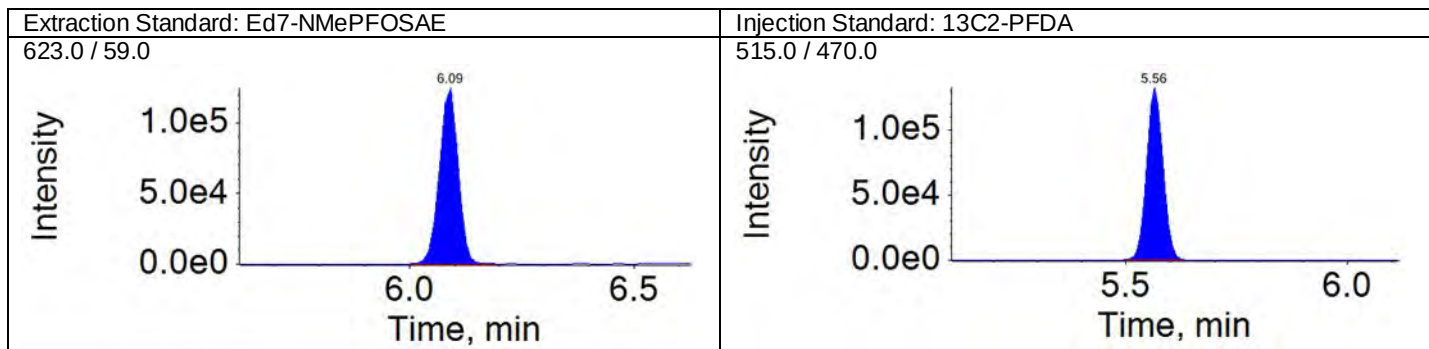
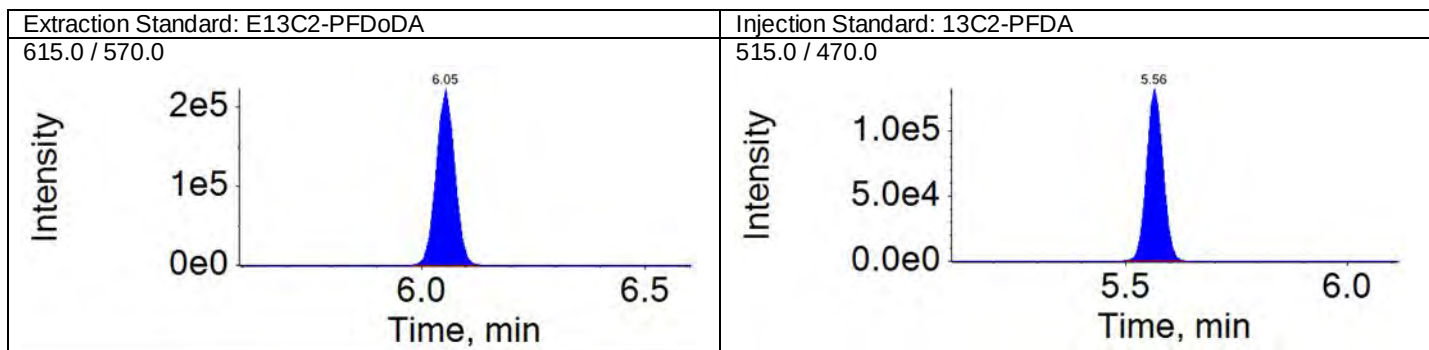
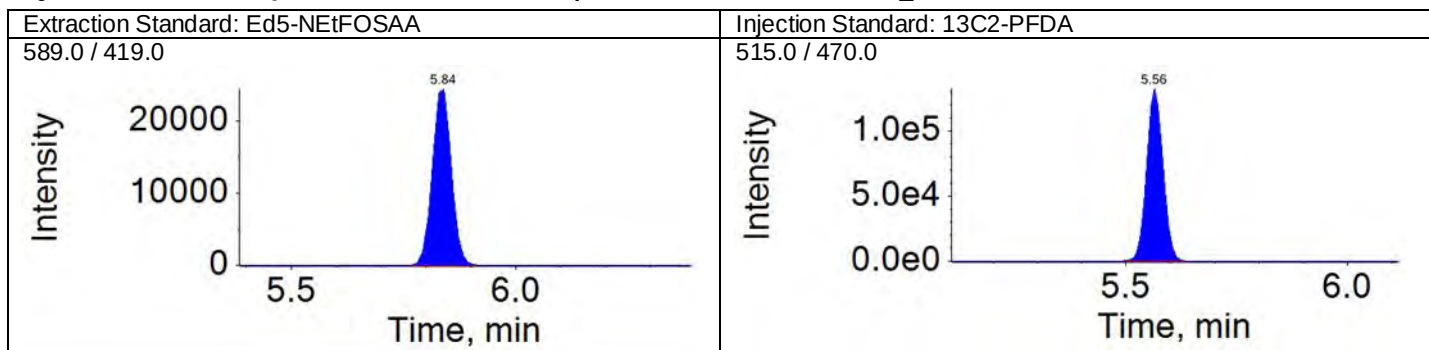
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REVIEWED

By umar at 5:23 pm, 11/9/18

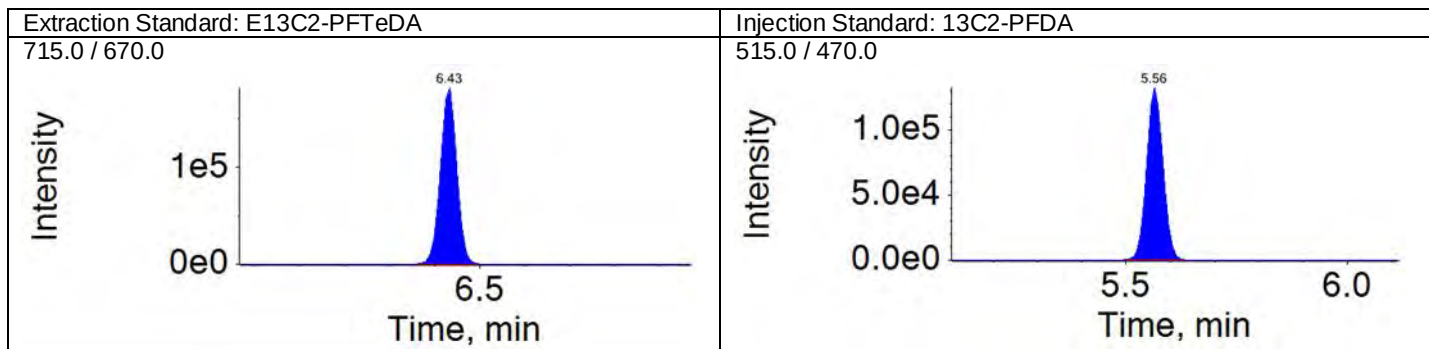
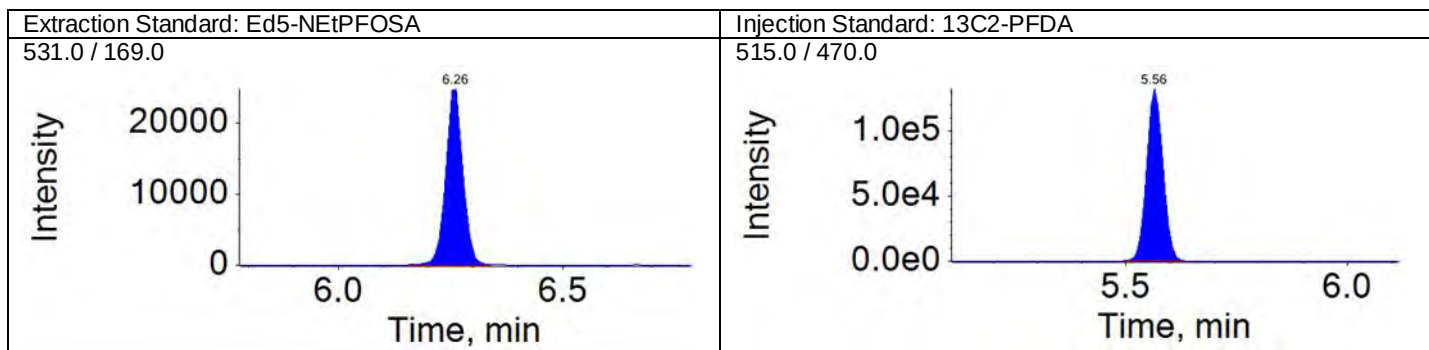
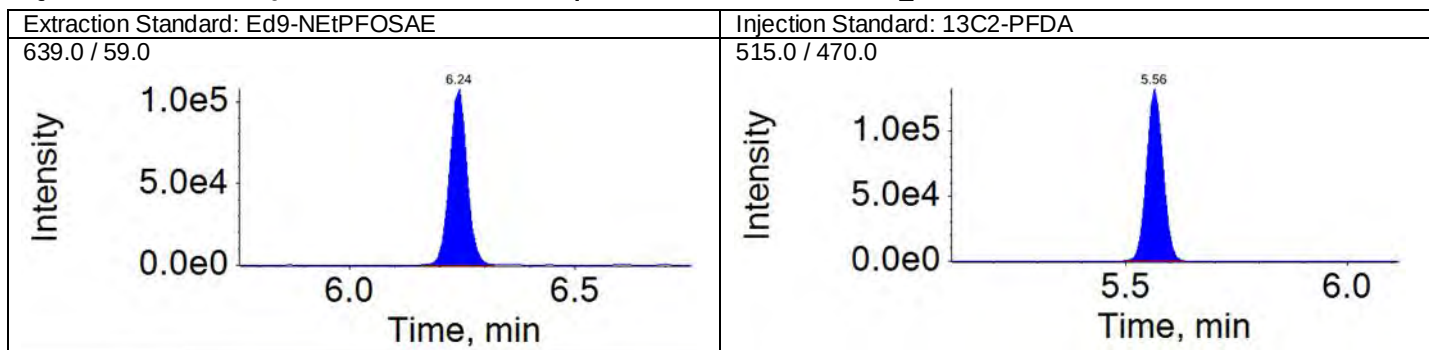
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



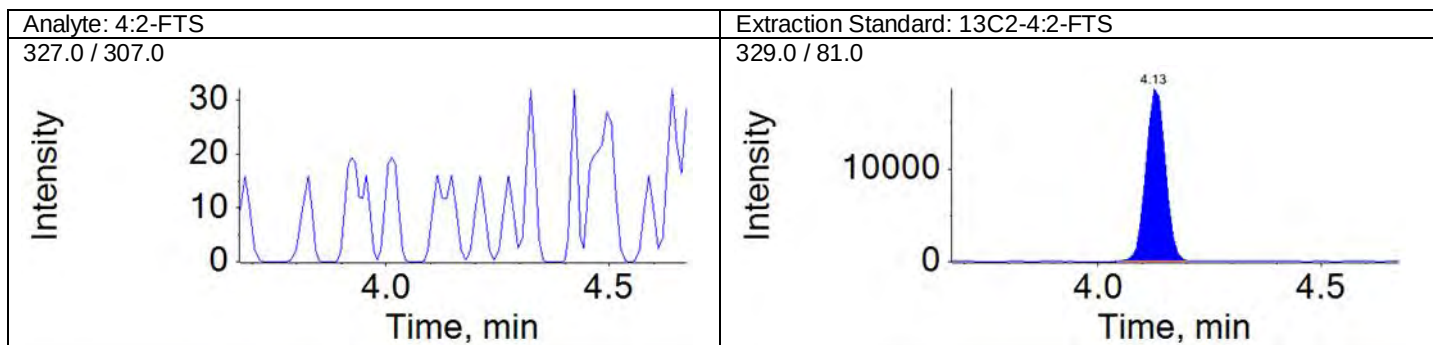
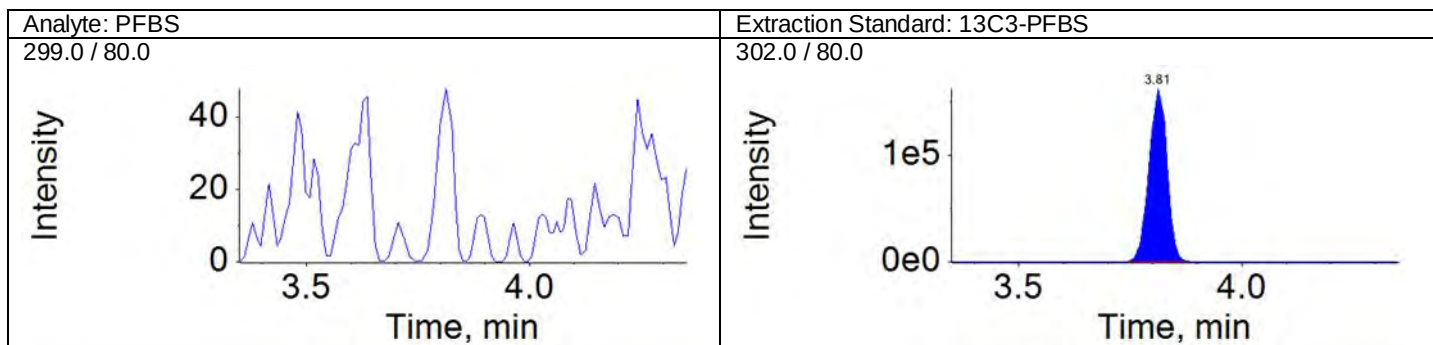
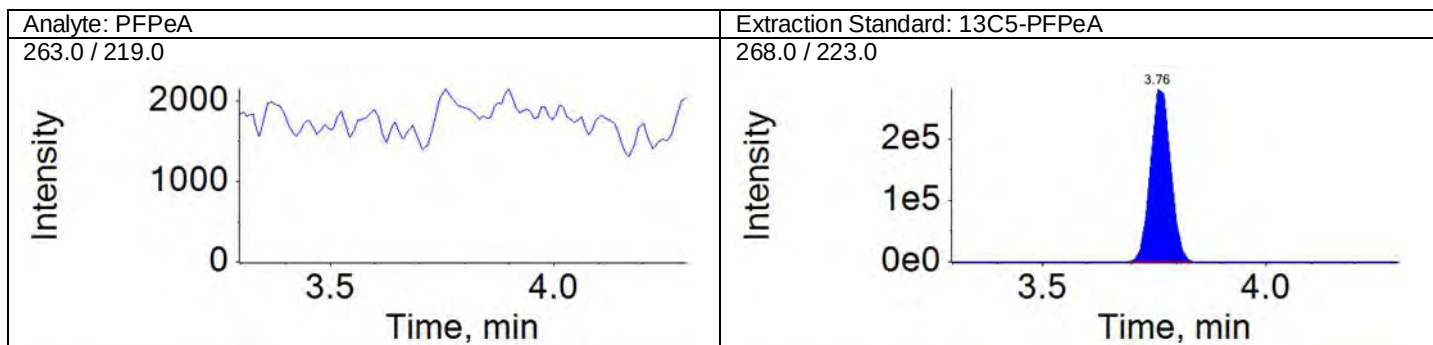
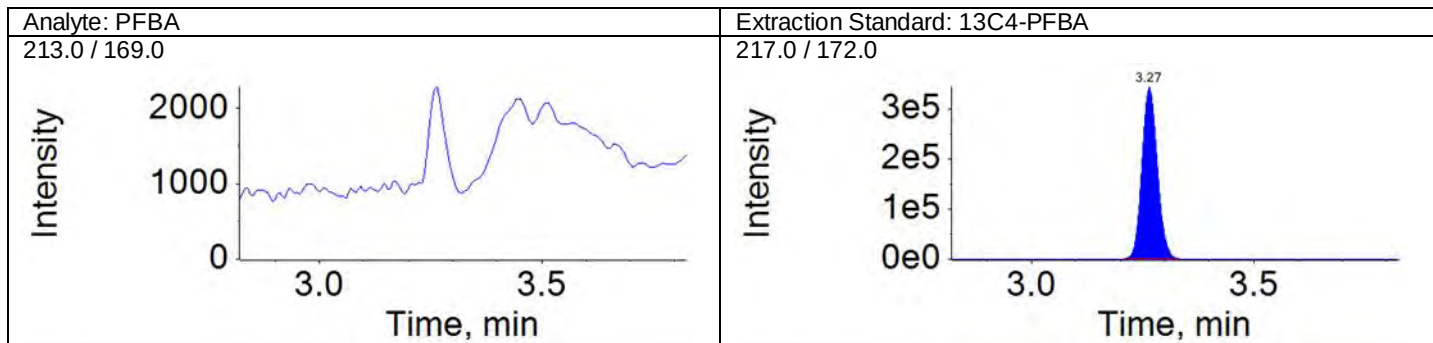
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QMethod Name: MQ4-18AUG13

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Acquisition Method: 18AUG13_3uL.dam



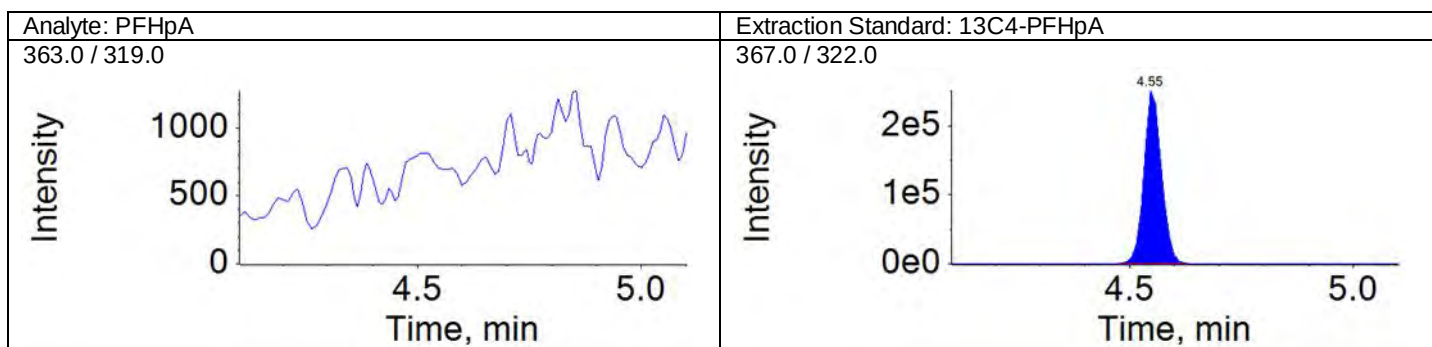
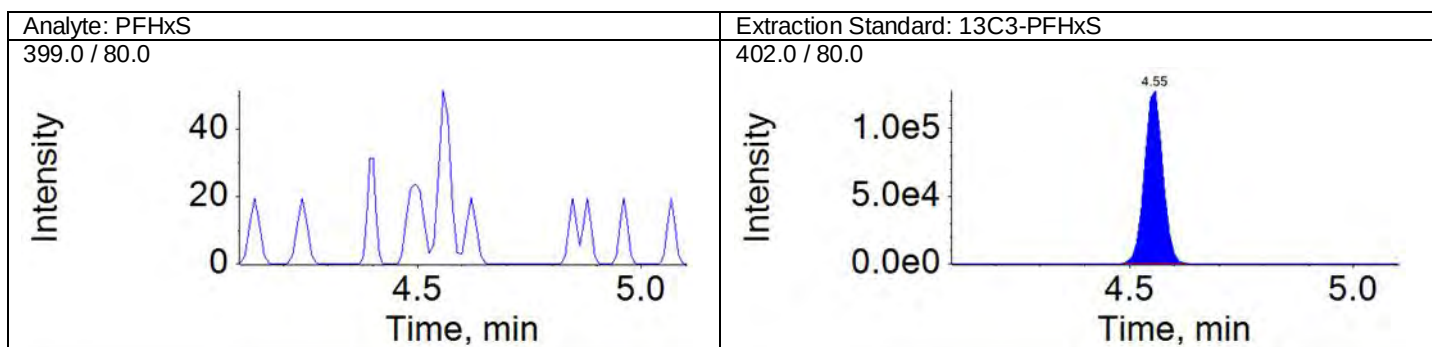
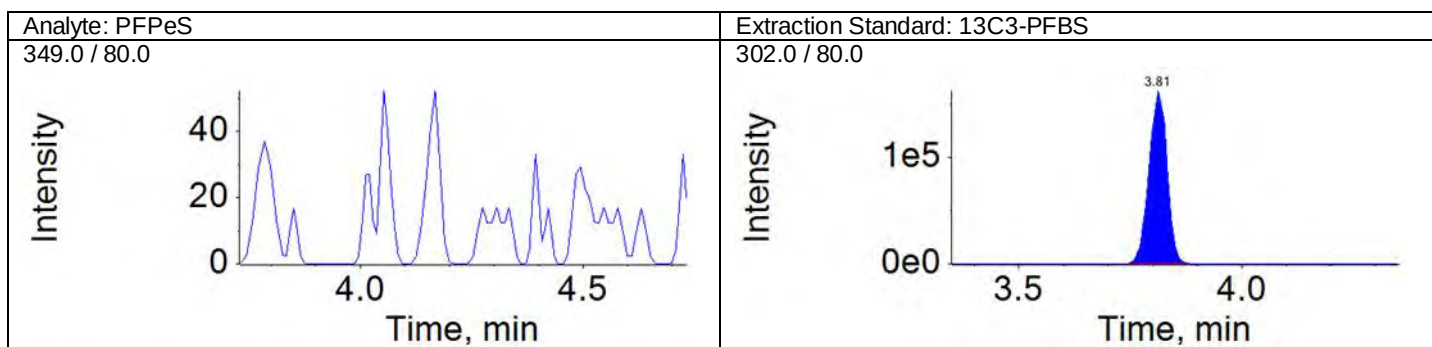
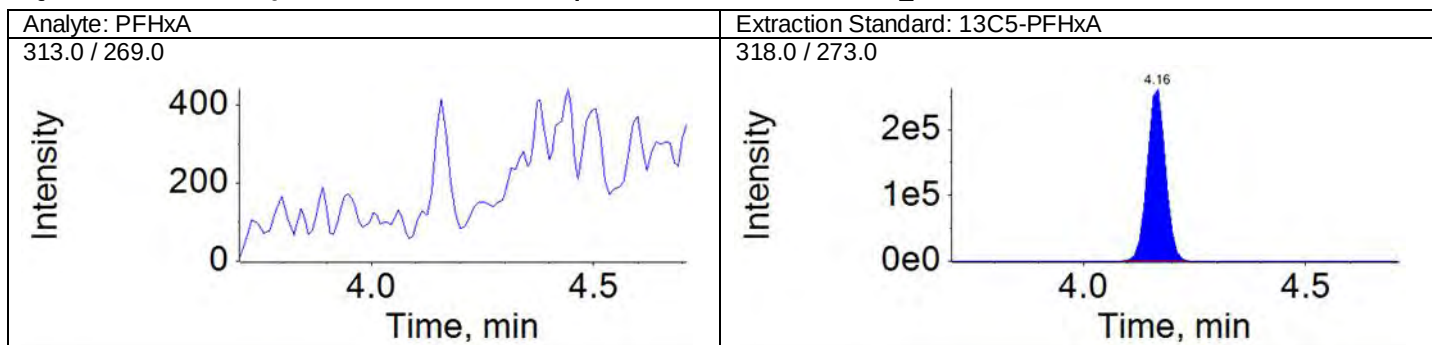
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QMethod Name: MQ4-18AUG13

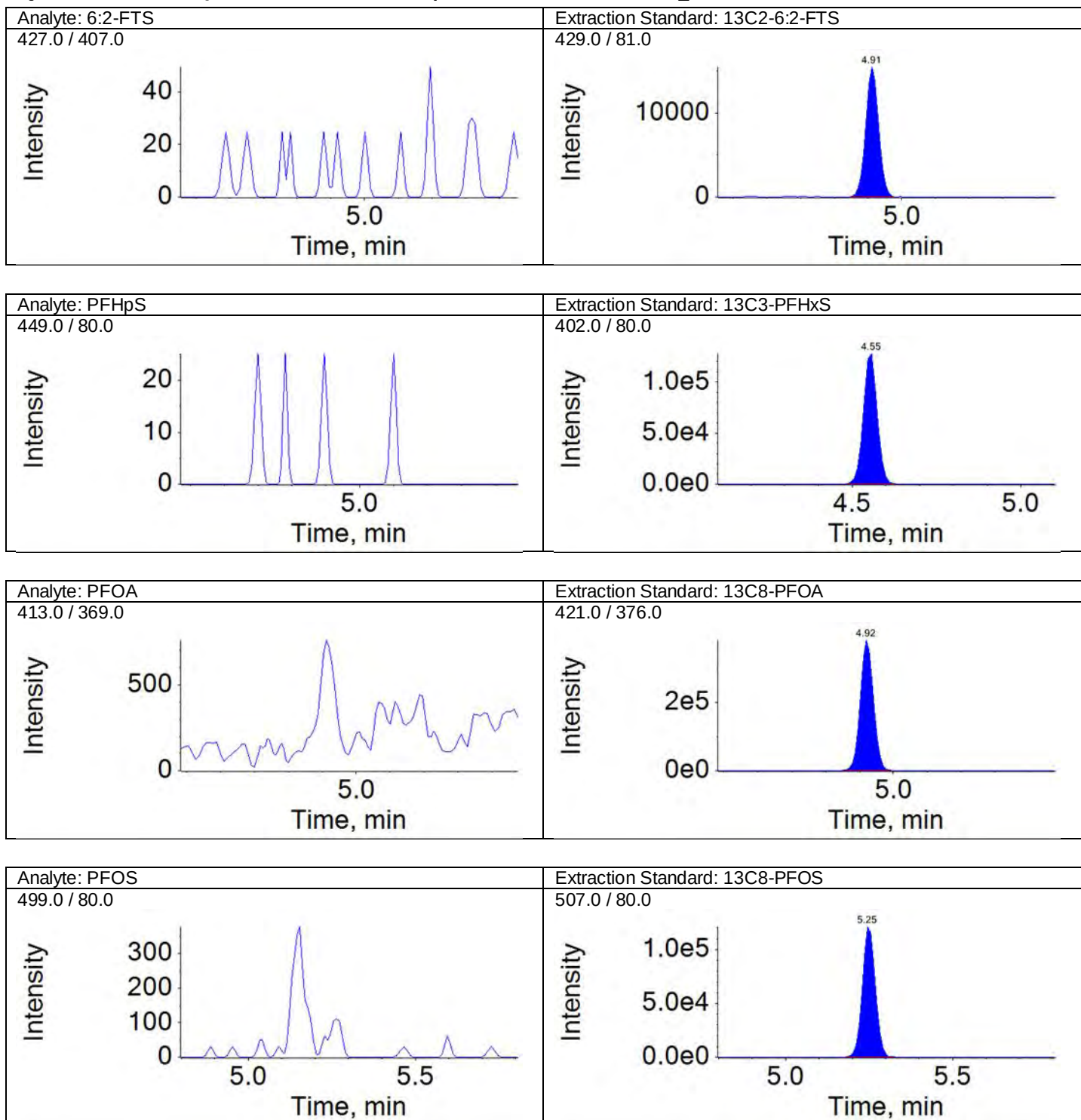
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ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

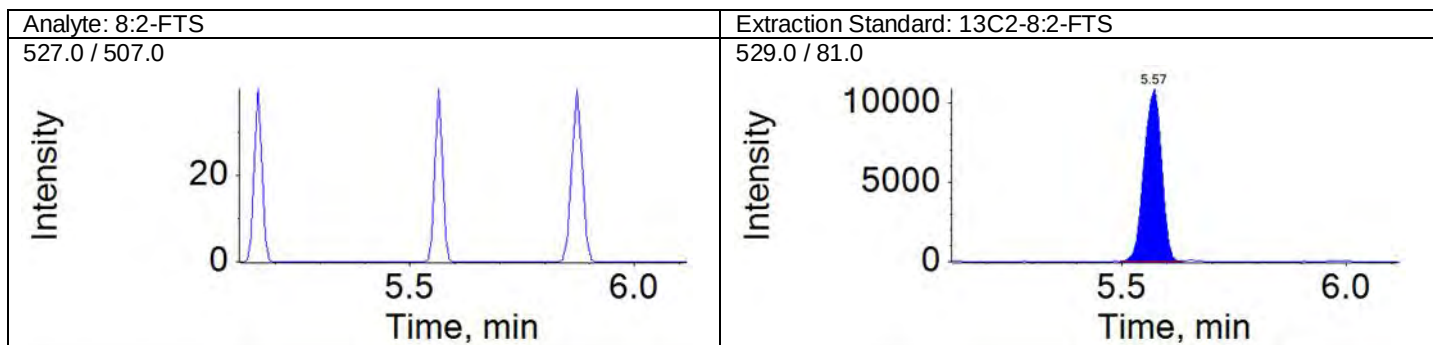
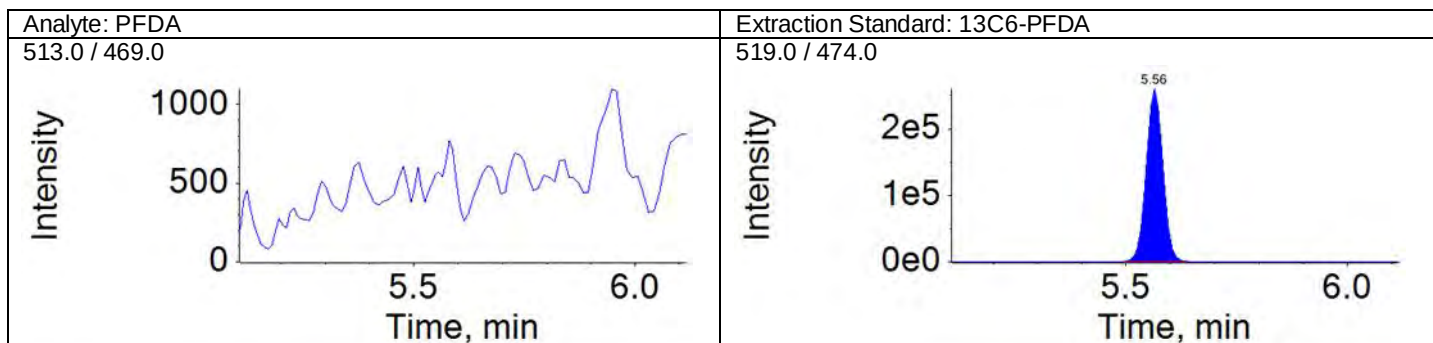
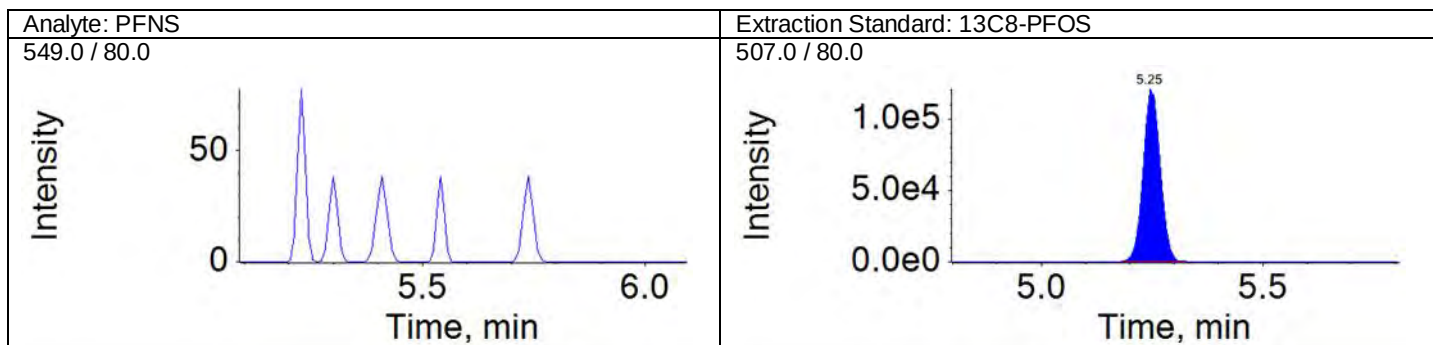
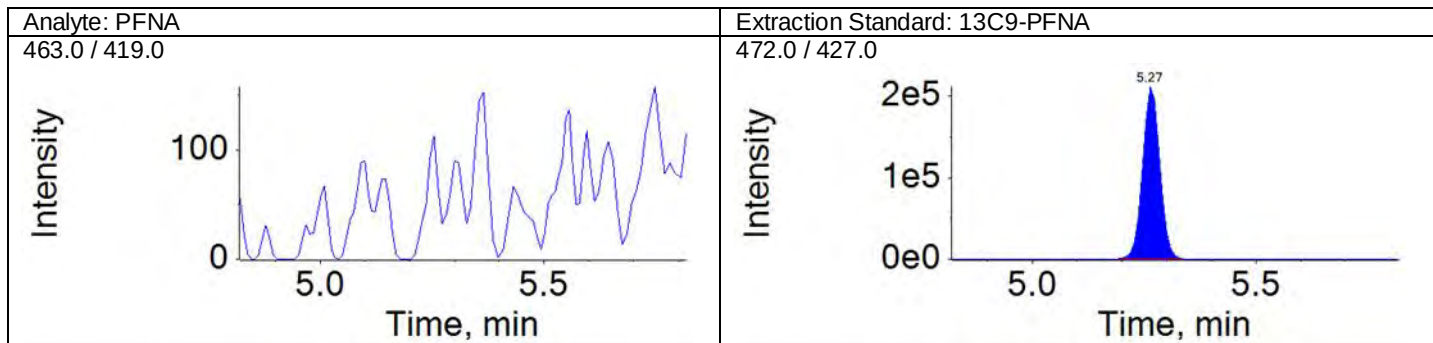
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ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

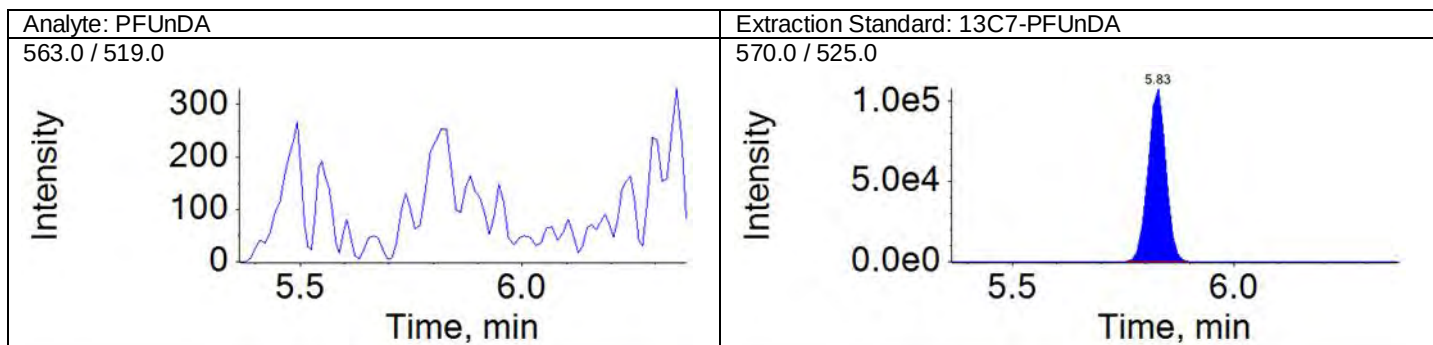
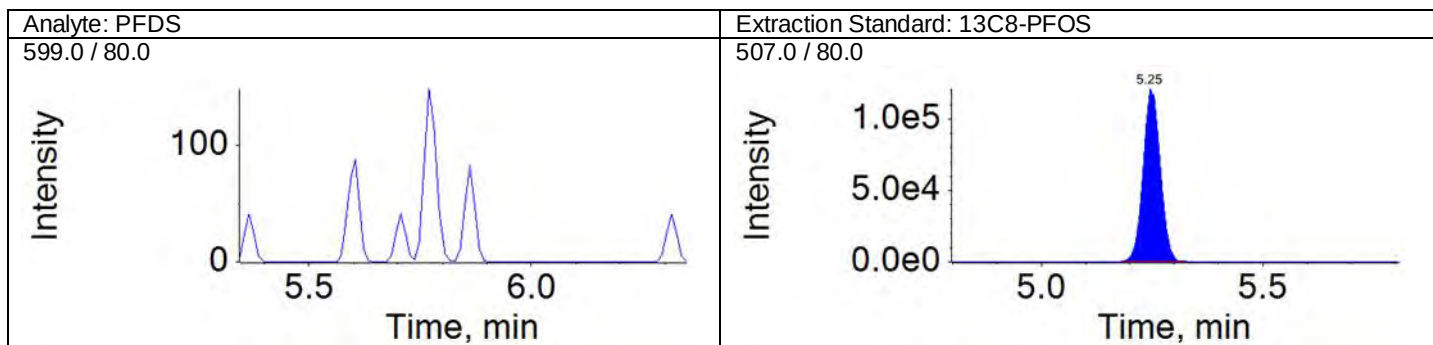
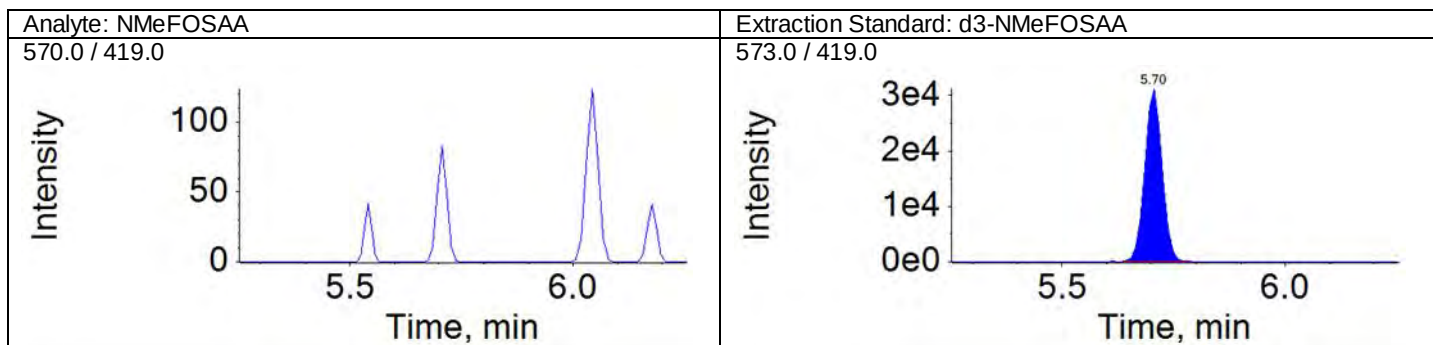
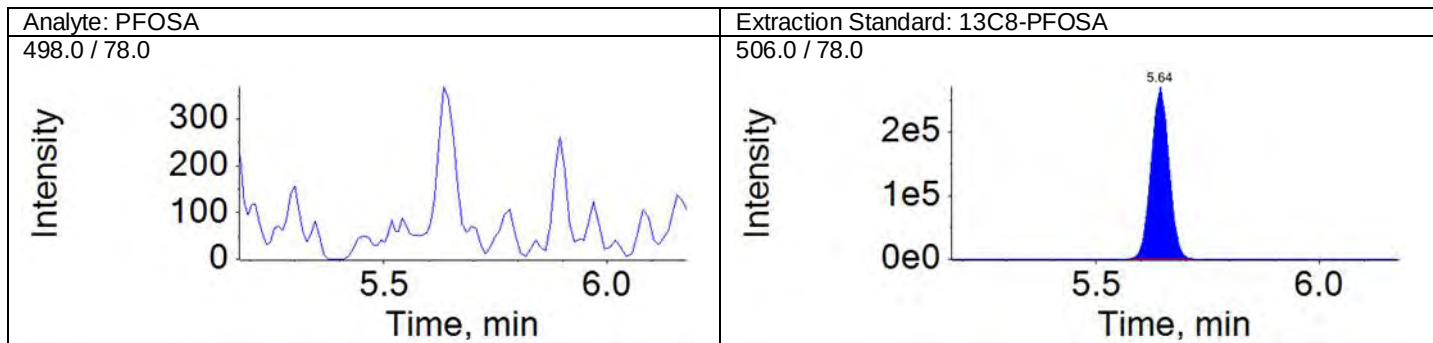
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



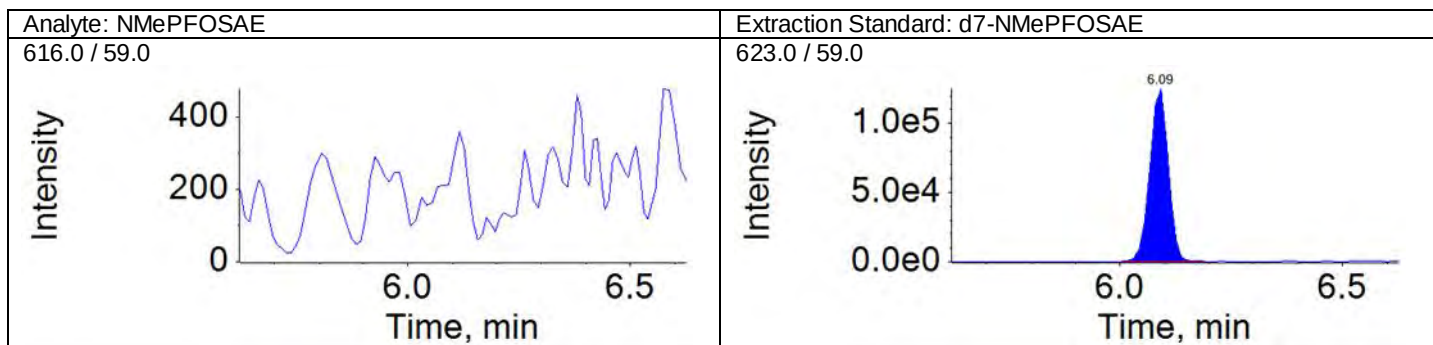
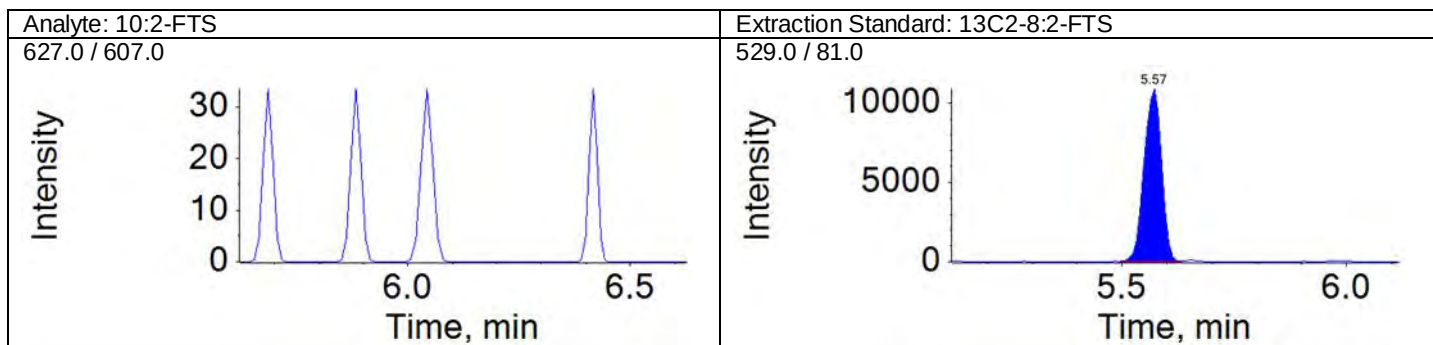
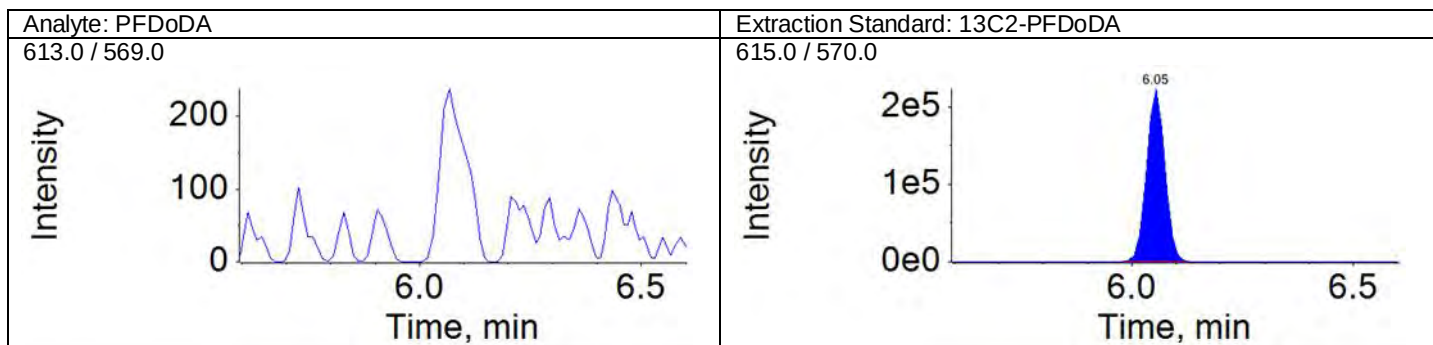
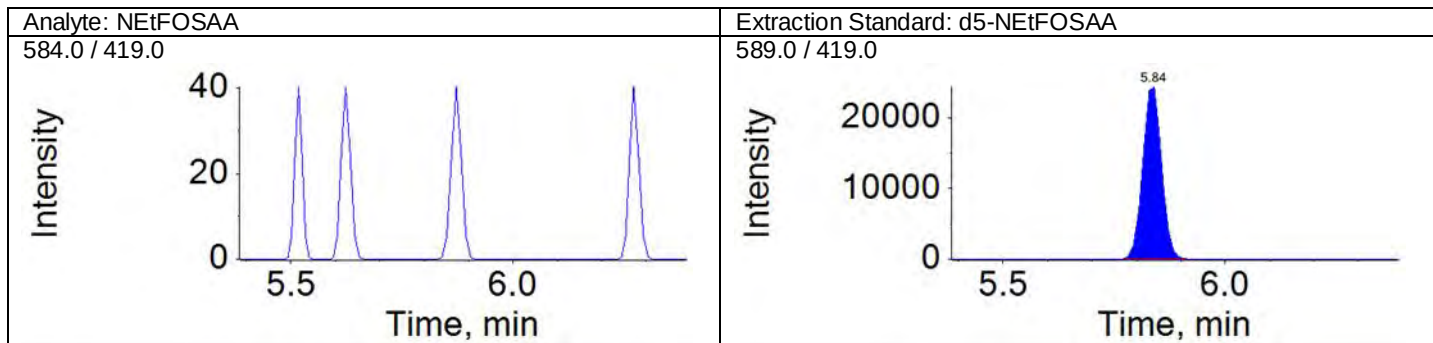
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



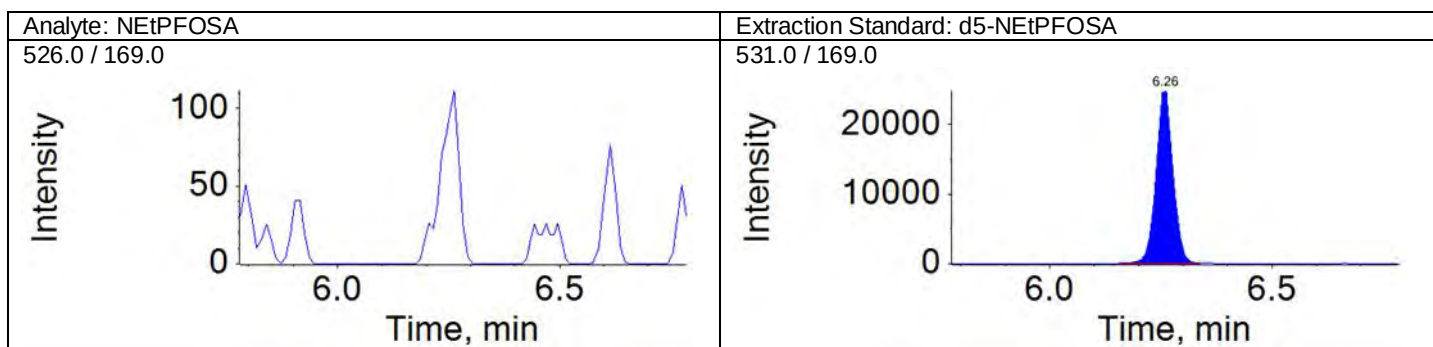
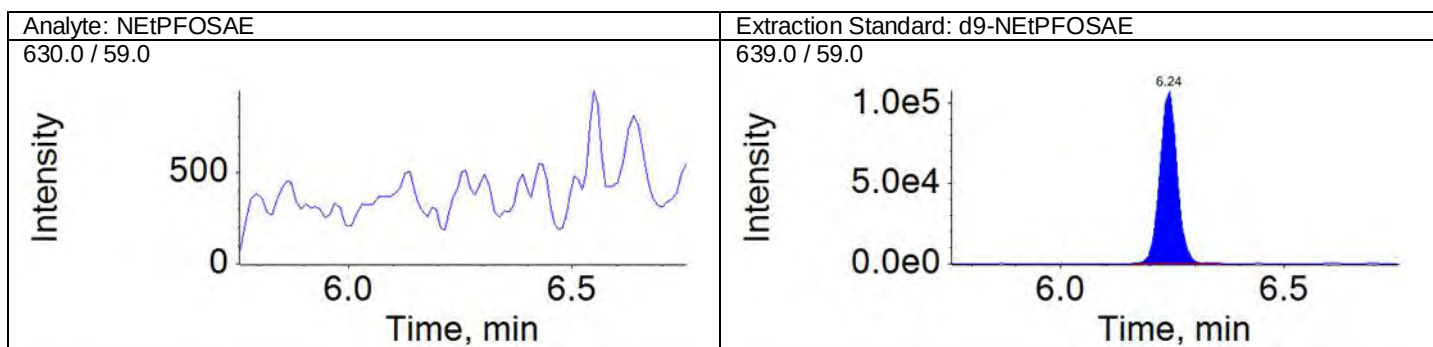
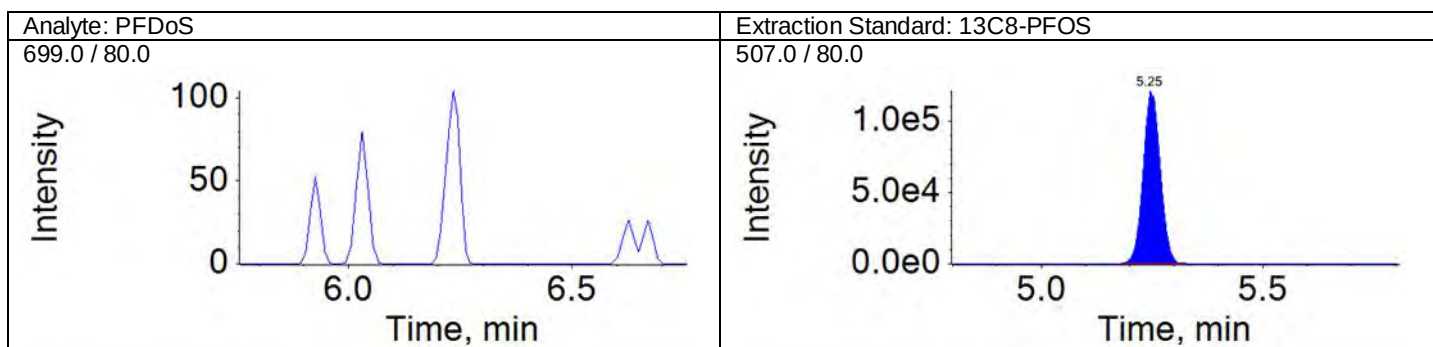
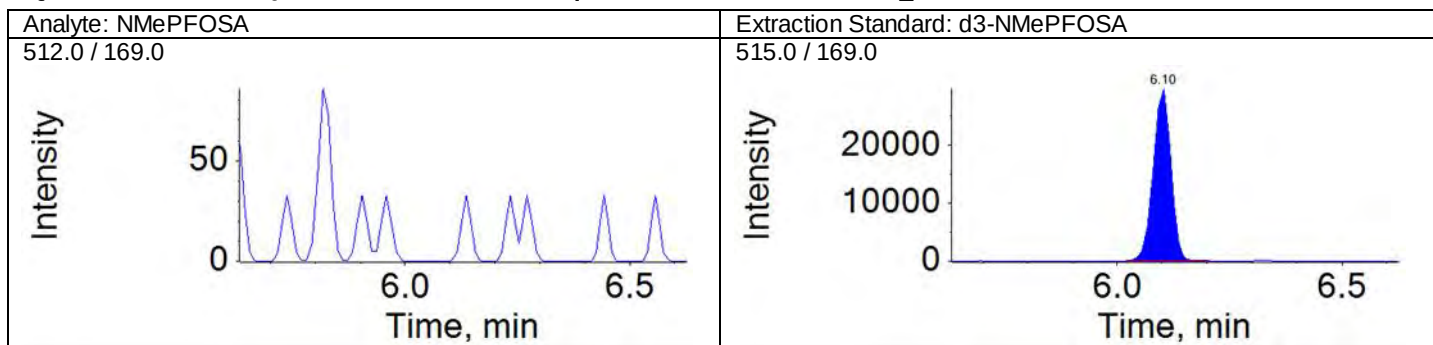
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



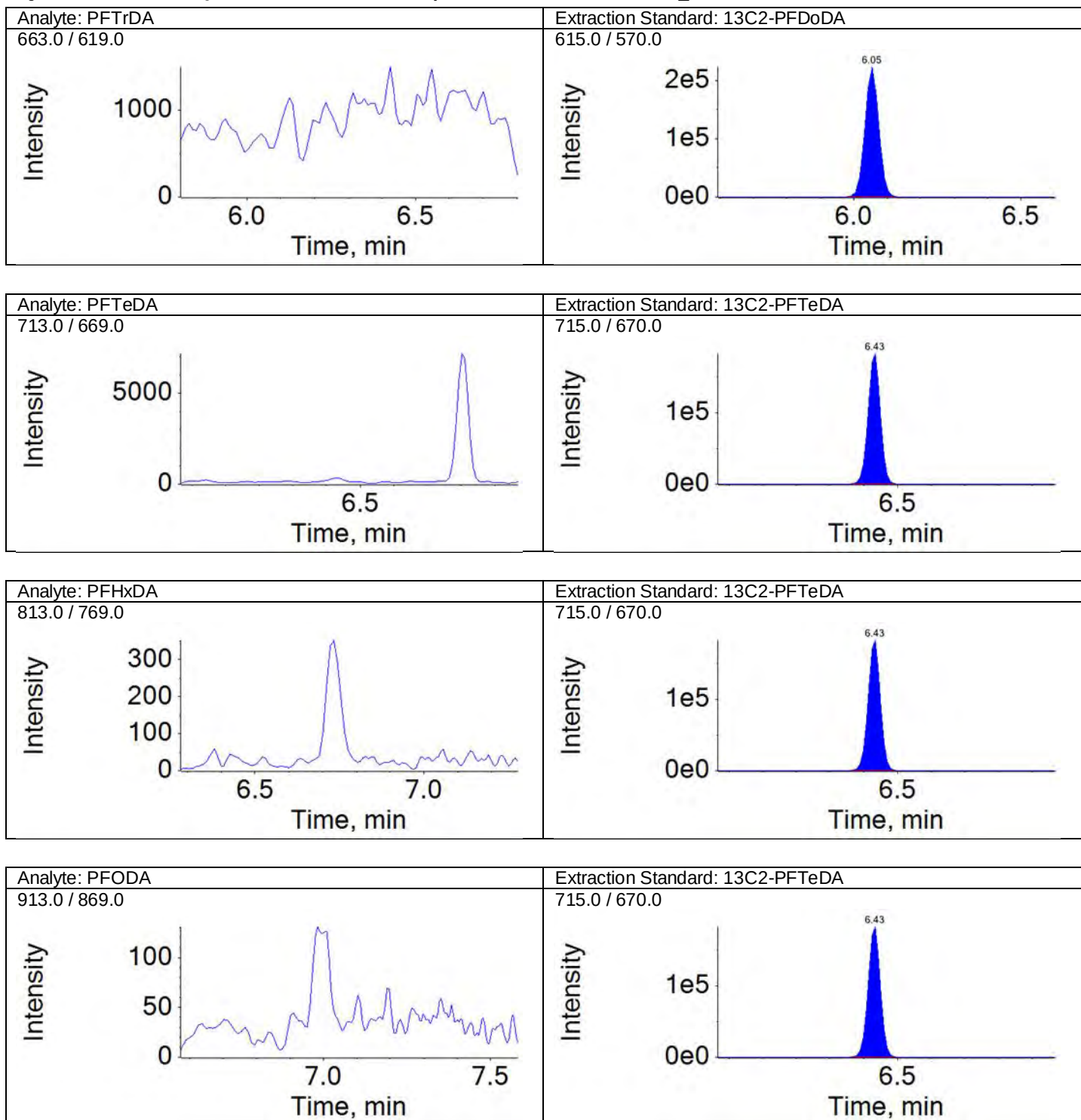
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

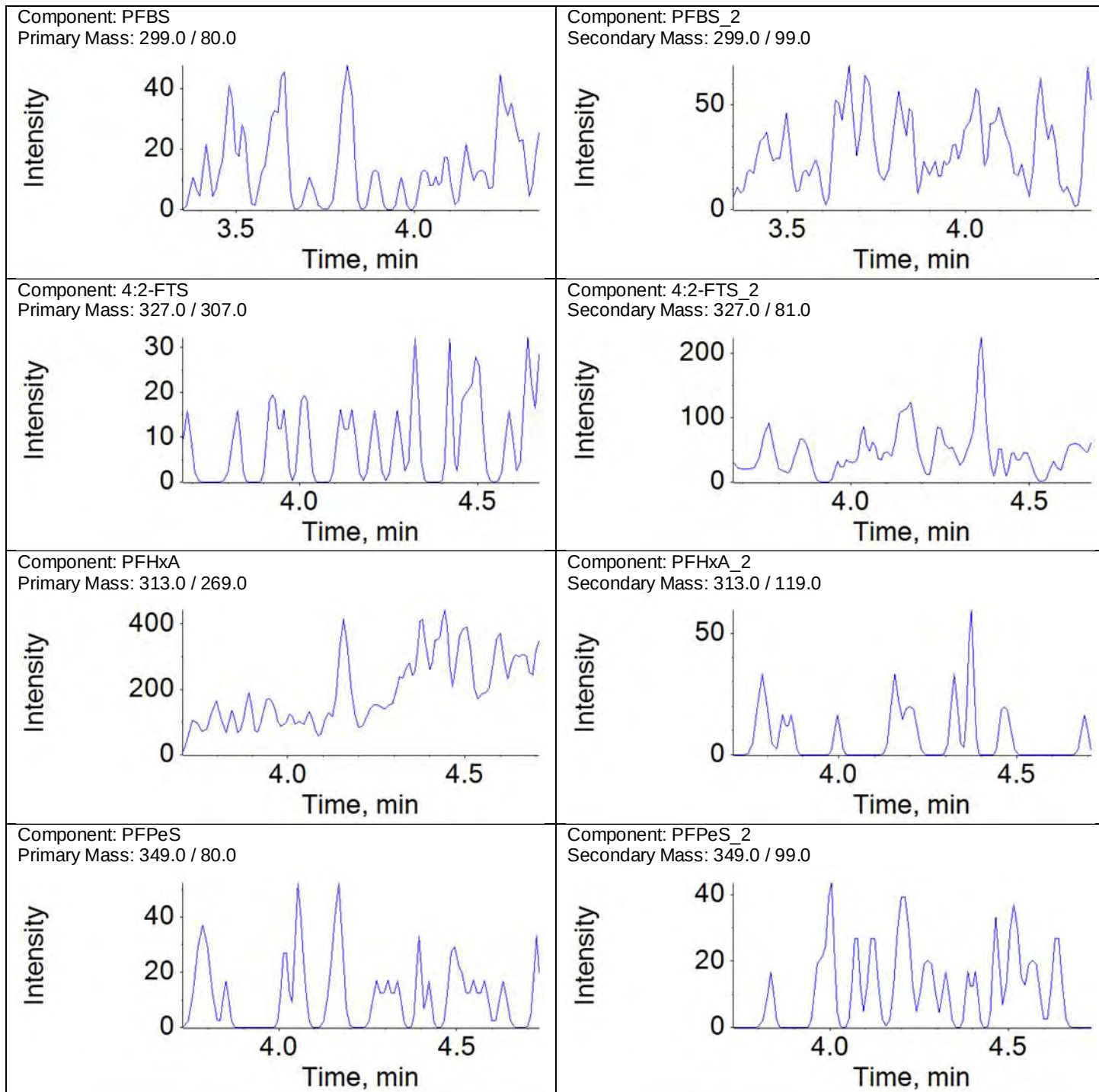
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Acquisition Method: 18AUG13_3uL.dam

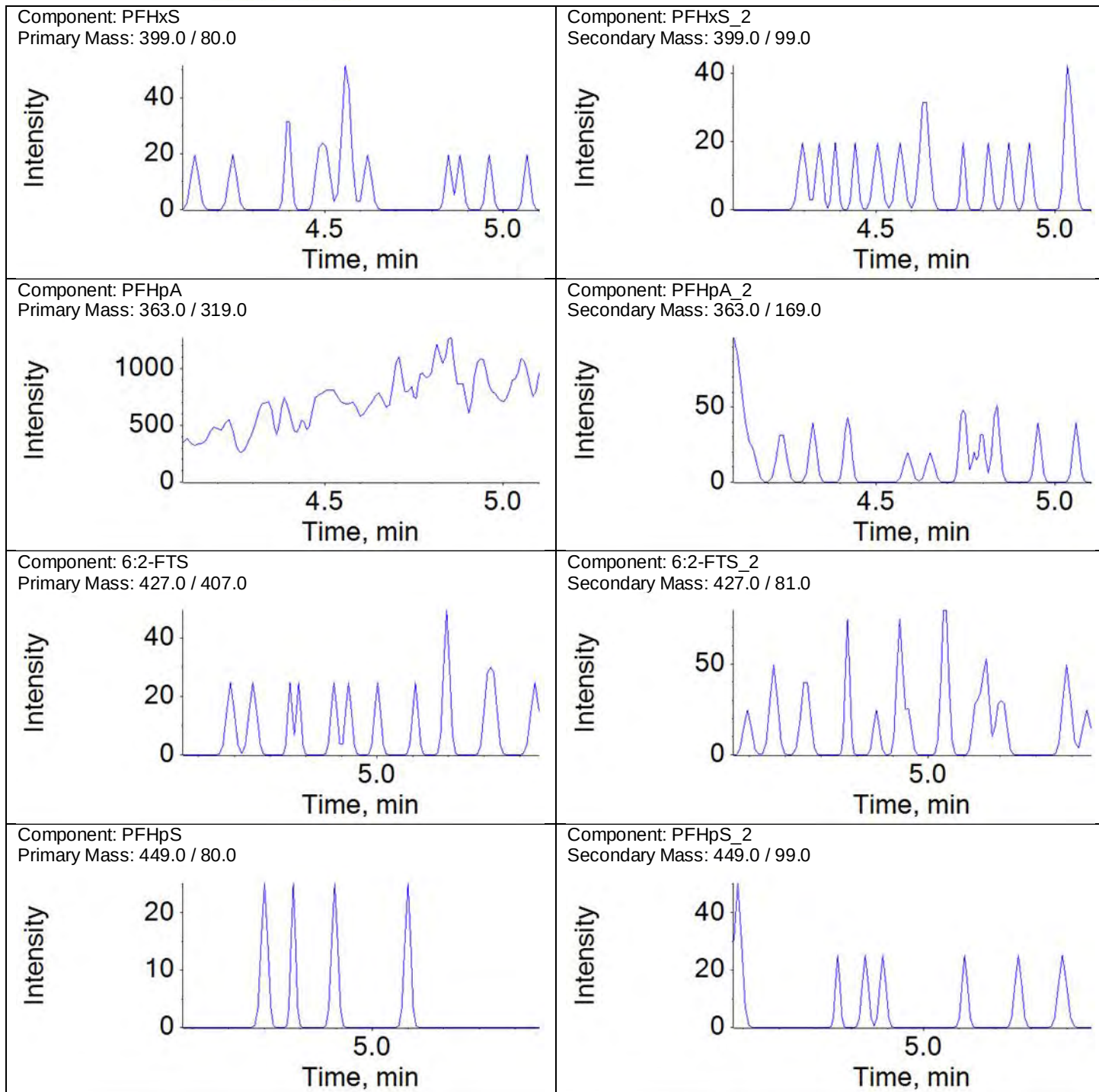


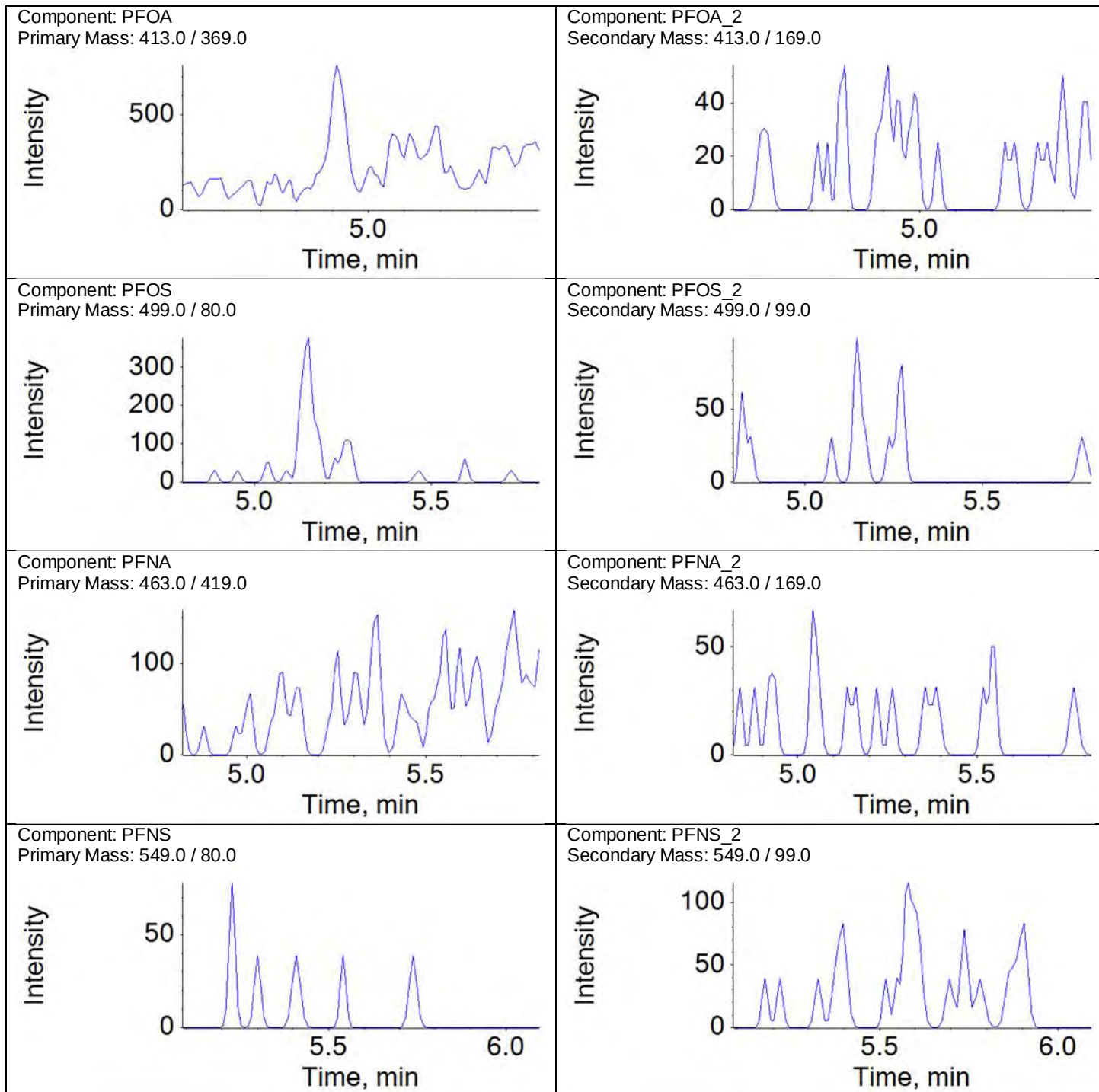
Ion Ratio Report

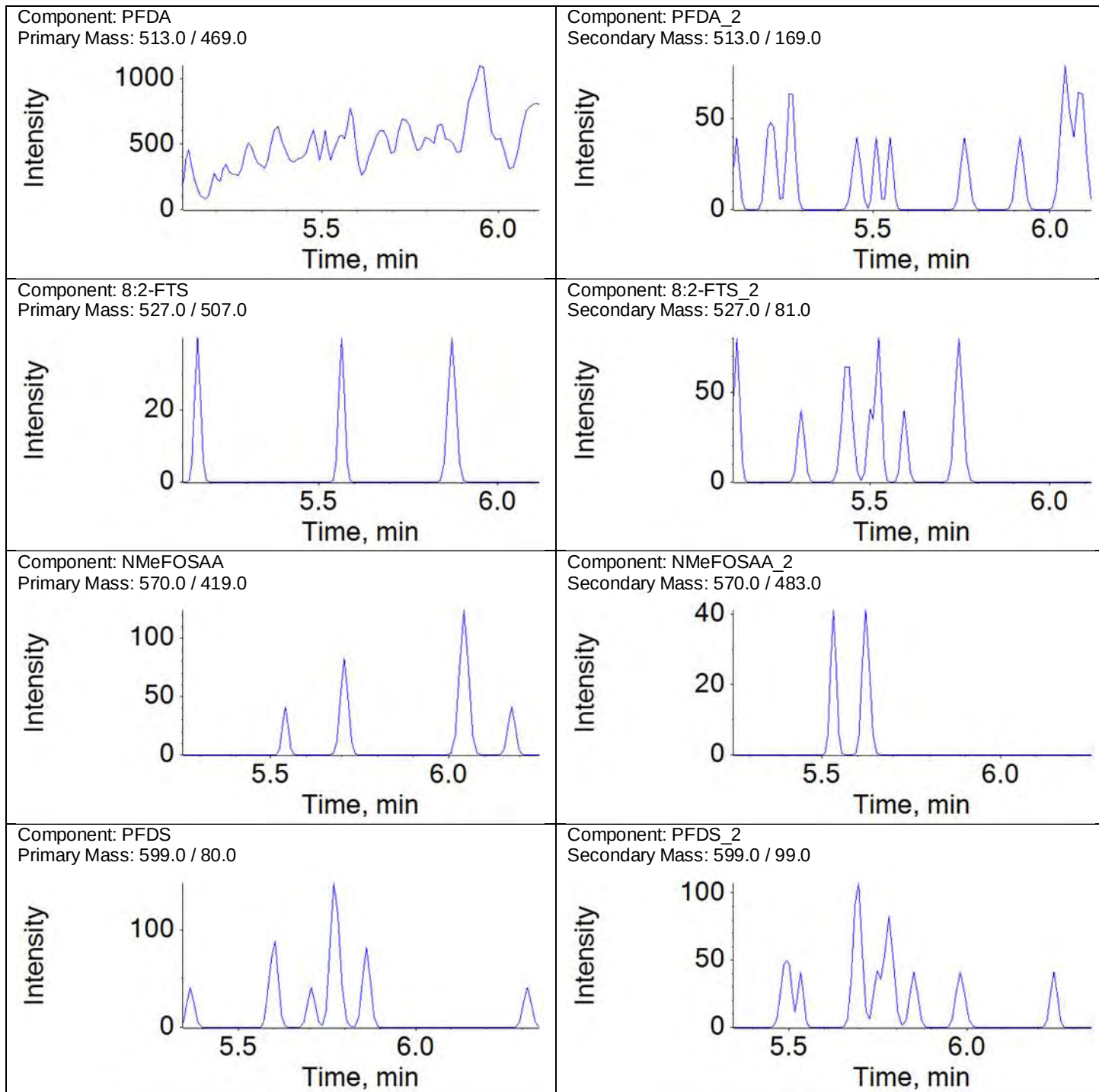
Sample Name: Instrument Blank Instrument Name: LM27631 File Name: 18NOV07DCAL-17.wiff

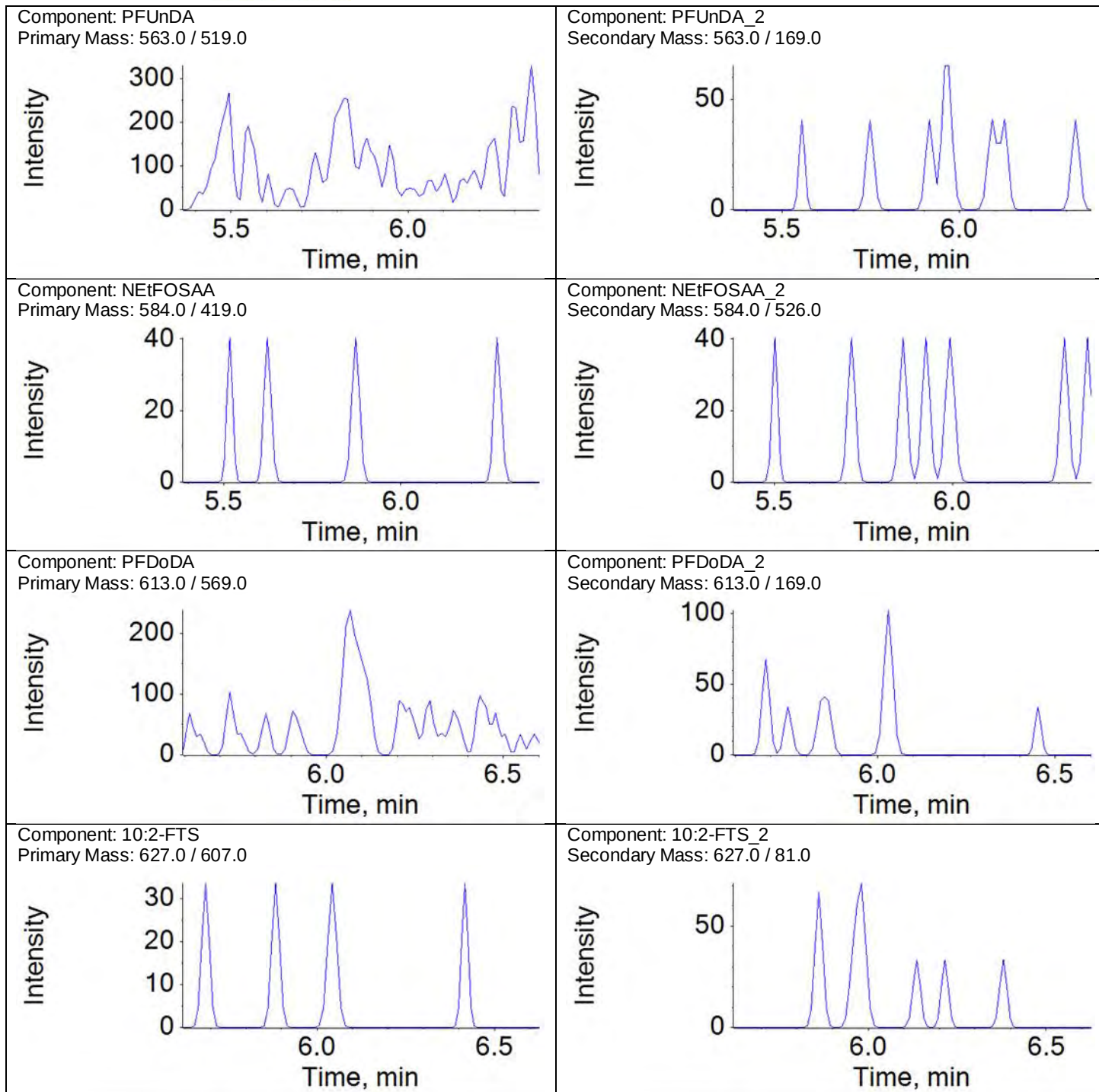
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	1.0000	N/A			
PFBS_2	N/A	N/A	N/A	A	0.3576	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	0.6359	N/A		50	
PFHxA	N/A	N/A	N/A	A	1.0000	N/A			
PFHxA_2	N/A	N/A	N/A	A	0.0115	N/A		50	
PFPeS	N/A	N/A	N/A	A	1.0000	N/A			
PFPeS_2	N/A	N/A	N/A	A	0.5384	N/A		50	
PFHxS	N/A	N/A	N/A	A	1.0000	N/A			
PFHxS_2	N/A	N/A	N/A	A	0.3569	N/A		50	
PFHpA	N/A	N/A	N/A	A	1.0000	N/A			
PFHpA_2	N/A	N/A	N/A	A	0.0577	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	0.6752	N/A		50	
PFHpS	N/A	N/A	N/A	A	1.0000	N/A			
PFHpS_2	N/A	N/A	N/A	A	0.3950	N/A		50	
PFOA	N/A	N/A	N/A	A	1.0000	N/A			
PFOA_2	N/A	N/A	N/A	A	0.0635	N/A		50	
PFOS	N/A	N/A	N/A	A	1.0000	N/A			
PFOS_2	N/A	N/A	N/A	A	0.3494	N/A		50	
PFNA	N/A	N/A	N/A	A	1.0000	N/A			
PFNA_2	N/A	N/A	N/A	A	0.0207	N/A		50	
PFNS	N/A	N/A	N/A	A	1.0000	N/A			
PFNS_2	N/A	N/A	N/A	A	0.4890	N/A		50	
PFDA	N/A	N/A	N/A	A	1.0000	N/A			
PFDA_2	N/A	N/A	N/A	A	0.0057	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	0.6169	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	1.0000	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	0.2206	N/A		50	
PFDS	N/A	N/A	N/A	A	1.0000	N/A			
PFDS_2	N/A	N/A	N/A	A	0.4648	N/A		50	
PFUnDA	N/A	N/A	N/A	A	1.0000	N/A			
PFUnDA_2	N/A	N/A	N/A	A	0.0031	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	1.0000	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	0.6082	N/A		50	
PFDODA	N/A	N/A	N/A	A	1.0000	N/A			
PFDODA_2	N/A	N/A	N/A	A	0.0109	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	0.7082	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	1.0000	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	0.0096	N/A		50	
PFTeDA	N/A	N/A	N/A	A	1.0000	N/A			
PFTeDA_2	N/A	N/A	N/A	A	0.0055	N/A		50	
PFHxDA	N/A	N/A	N/A	A	1.0000	N/A			
PFHxDA_2	N/A	N/A	N/A	A	0.0596	N/A		50	
PFODA	N/A	N/A	N/A	A	1.0000	N/A			
PFODA_2	N/A	N/A	N/A	A	0.0257	N/A		50	

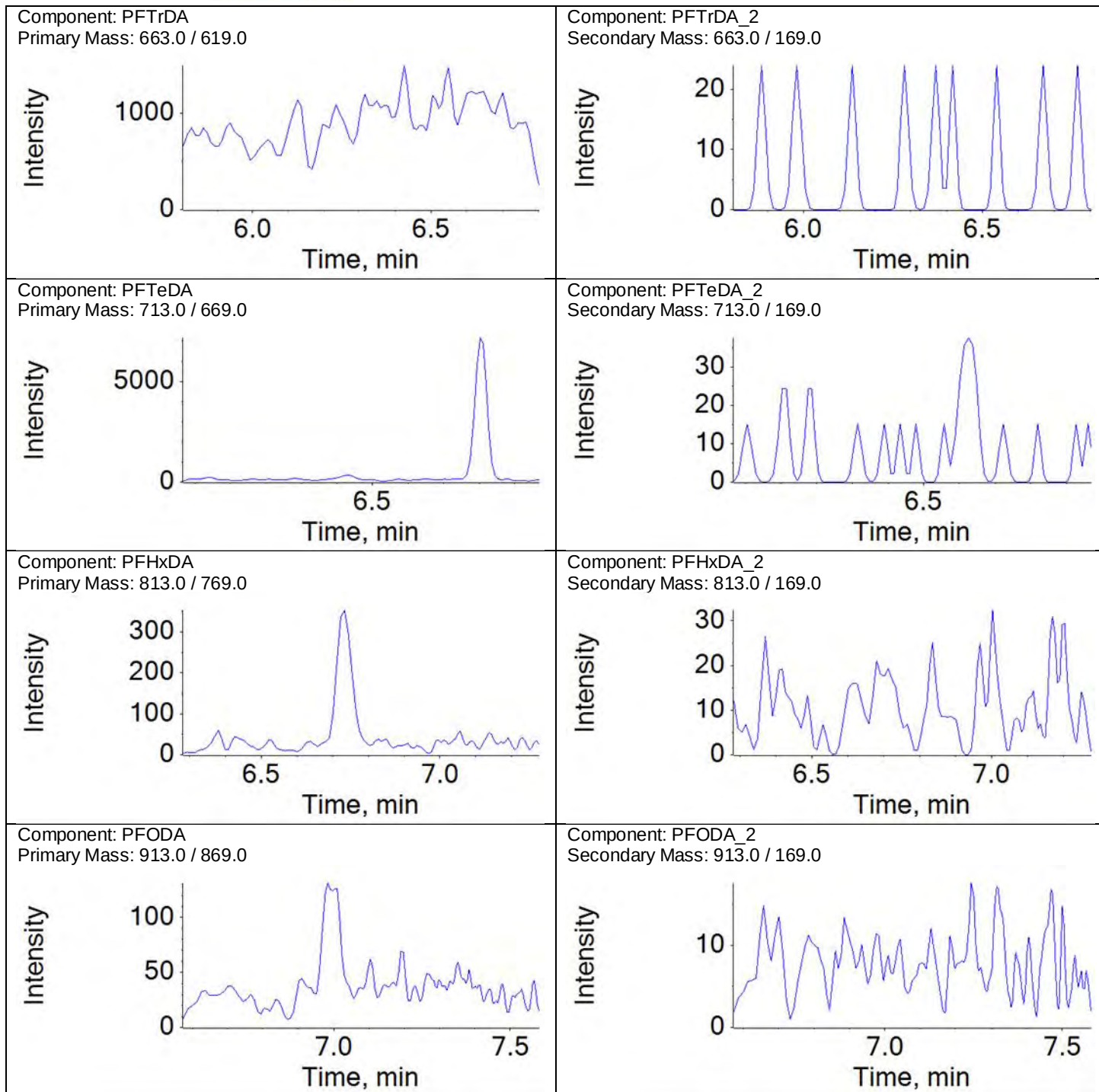












ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	ICV		Data File:	18NOV07DCAL-18.wiff
Sample ID:	ICVMODX1833G		Acquis Date:	2018-11-07T10:51:59
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	10		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV07DCAL
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	N/A		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV07DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	748799.9	730410.6	3	50	
13C2-PFOA	5.0	501855.0	524423.6	-4	50	
13C4-PFOS	4.8	265586.7	274061.7	-3	50	
13C2-PFDA	5.0	309656.0	311442.1	-1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	809267.5	13C3-PFBA	748799.9	1.081	5.000	5.001	100	70-130	
E13C5-PFPeA	881218.2	13C3-PFBA	748799.9	1.177	5.000	5.127	103	70-130	
E13C3-PFBS	459507.5	13C3-PFBA	748799.9	0.614	4.650	4.504	97	70-130	
E13C2-4:2-FTS	53452.0	13C2-PFOA	501855.0	0.107	4.670	4.806	103	70-130	
E13C5-PFHxA	721013.6	13C2-PFOA	501855.0	1.437	5.000	5.285	106	70-130	
E13C3-PFHxS	351166.0	13C2-PFOA	501855.0	0.700	4.730	5.023	106	70-130	
E13C4-PFHpA	564695.4	13C2-PFOA	501855.0	1.125	5.000	5.119	102	70-130	
E13C2-6:2-FTS	37550.1	13C2-PFOA	501855.0	0.075	4.750	4.989	105	70-130	
E13C8-PFOA	985027.1	13C2-PFOA	501855.0	1.963	5.000	5.473	109	70-130	
E13C8-PFOS	289450.1	13C4-PFOS	265586.7	1.090	4.780	4.819	101	70-130	
E13C9-PFNA	531663.0	13C4-PFOS	265586.7	2.002	5.000	5.468	109	70-130	
E13C6-PFDA	669137.1	13C2-PFDA	309656.0	2.161	5.000	5.434	109	70-130	
E13C2-8:2-FTS	27983.4	13C2-PFDA	309656.0	0.090	4.790	4.782	100	70-130	
E13C8-PFOSA	741232.2	13C2-PFDA	309656.0	2.394	5.000	5.223	104	70-130	
Ed3-NMeFOSAA	76665.4	13C2-PFDA	309656.0	0.248	5.000	4.604	92	70-130	
E13C7-PFUnDA	292761.5	13C2-PFDA	309656.0	0.945	5.000	5.454	109	70-130	
Ed5-NEtFOSAA	78938.7	13C2-PFDA	309656.0	0.255	5.000	5.899	118	70-130	
E13C2-PFDODA	580675.1	13C2-PFDA	309656.0	1.875	5.000	5.055	101	70-130	
Ed7-NMePFOSAE	334001.4	13C2-PFDA	309656.0	1.079	5.000	5.016	100	70-130	
Ed3-NMePFOSA	79719.1	13C2-PFDA	309656.0	0.257	5.000	4.713	94	70-130	
Ed9-NEtPFOSAE	293829.7	13C2-PFDA	309656.0	0.949	5.000	5.419	108	70-130	
Ed5-NEtPFOSA	65412.9	13C2-PFDA	309656.0	0.211	5.000	4.891	98	70-130	
E13C2-PFTeDA	427601.6	13C2-PFDA	309656.0	1.381	5.000	4.971	99	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

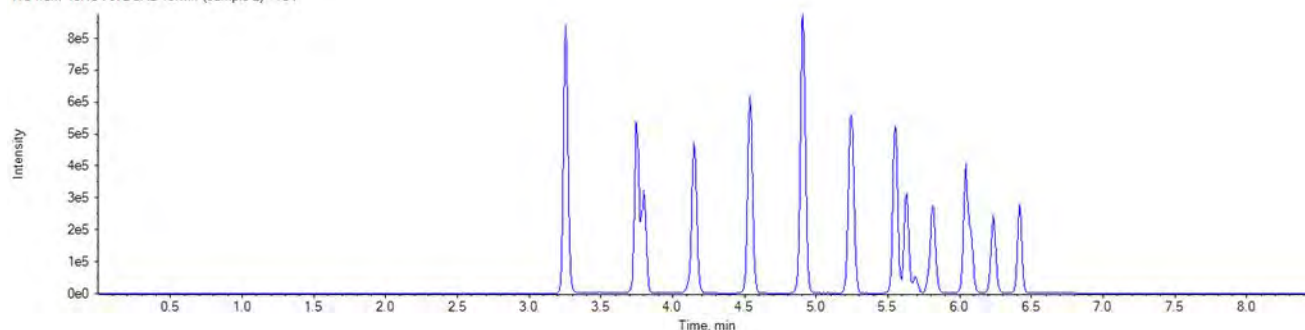
Sample Name: ICV Instrument Name: LM27631 File Name: 18NOV07DCAL-18.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.25	1.000	307777.1		A	13C4-PFBA	3.25	809267.5	0.380	2.226
PFPeA	3.75	1.000	325574.9		A	13C5-PFPeA	3.75	881218.2	0.369	2.196
PFBS	3.80	1.000	159719.5		A	13C3-PFBS	3.80	459507.5	0.348	1.752
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.11	53452.0	N/A	
PFHxA	4.15	1.000	397434.6		A	13C5-PFHxA	4.15	721013.6	0.551	2.364
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.80	459507.5	N/A	
PFHxS	4.54	1.000	126635.3		A	13C3-PFHxS	4.54	351166.0	0.361	1.828
PFHpA	4.54	1.000	390197.1		A	13C4-PFHpA	4.54	564695.4	0.691	2.324
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	37550.1	N/A	
PFHpS	4.90	1.080	126812.1		A	13C3-PFHxS	4.54	351166.0	0.361	1.889
PFOA	4.91	1.000	387215.1		M	13C8-PFOA	4.91	985027.1	0.393	2.213
PFOS	5.23	1.000	114911.8		M	13C8-PFOS	5.23	289450.1	0.397	2.059
PFNA	5.25	1.000	329644.4		A	13C9-PFNA	5.25	531663.0	0.620	2.317
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.23	289450.1	N/A	
PFDA	5.55	1.000	262760.0		A	13C6-PFDA	5.55	669137.1	0.393	2.160
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.55	27983.4	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.63	741232.2	N/A	
NMeFOSAA	5.69	1.000	33916.6		A	d3-NMeFOSAA	5.69	76665.4	0.442	2.276
PFDS	5.79	1.110	65962.5		A	13C8-PFOS	5.23	289450.1	0.228	2.177
PFUnDA	5.81	1.000	225137.5		A	13C7-PFUnDA	5.81	292761.5	0.769	2.205
NEtFOSAA	5.83	1.000	29687.2		A	d5-NEtFOSAA	5.82	78938.7	0.376	1.616
PFDODA	6.04	1.000	232949.2		A	13C2-PFDODA	6.04	580675.1	0.401	2.174
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.55	27983.4	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.08	334001.4	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.09	79719.1	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.23	289450.1	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.23	293829.7	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.25	65412.9	N/A	
PFTDA	6.24	1.030	206908.4		A	13C2-PFDODA	6.04	580675.1	0.356	2.247
PFTeDA	6.42	1.000	157975.3		A	13C2-PFTeDA	6.42	427601.6	0.369	2.169
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	427601.6	N/A	
PFOA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	427601.6	N/A	

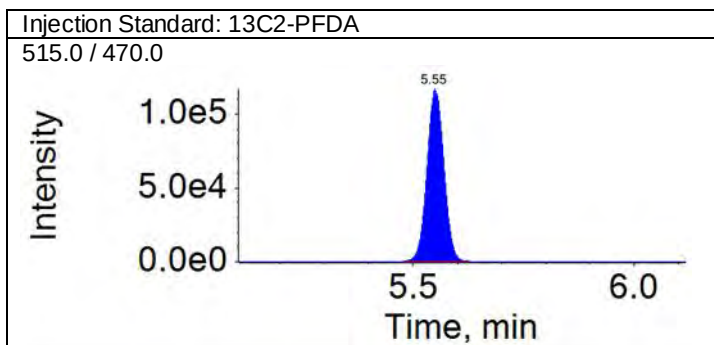
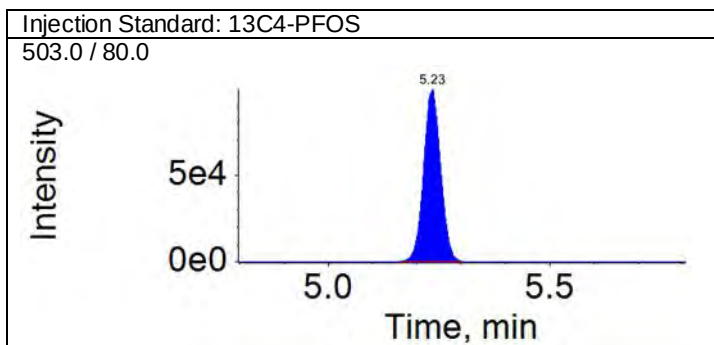
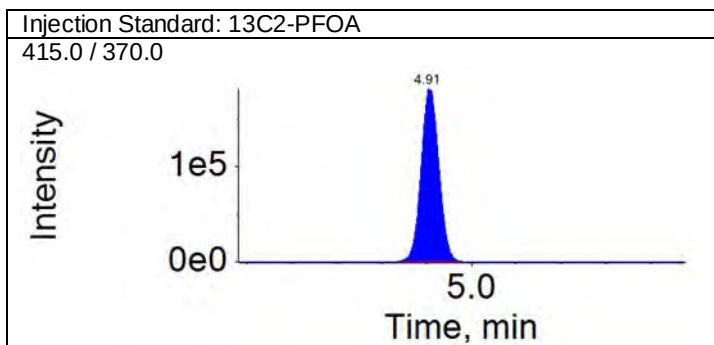
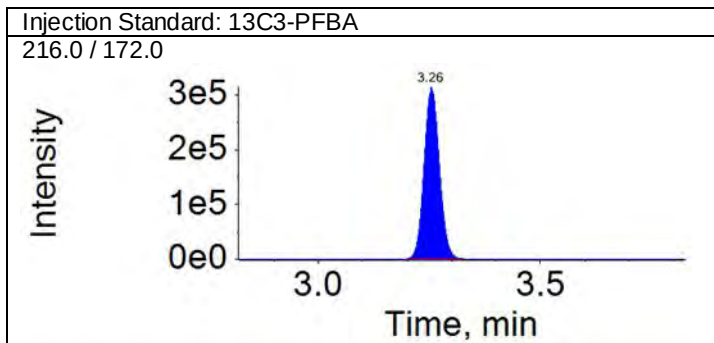
Total Ion Chromatogram

TIC from 18NOV07DCAL-18.wiff (sample 2) - ICV



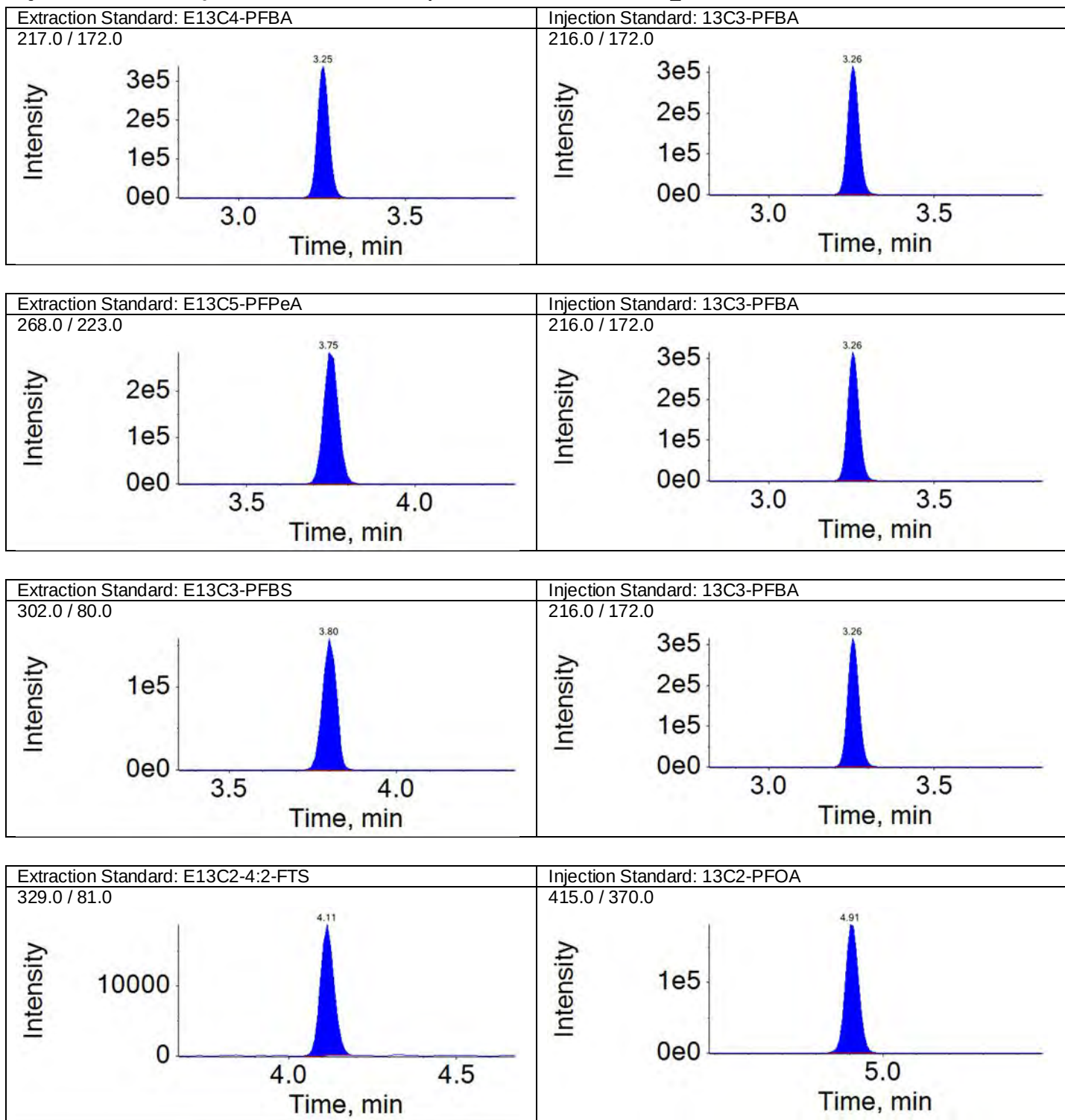
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



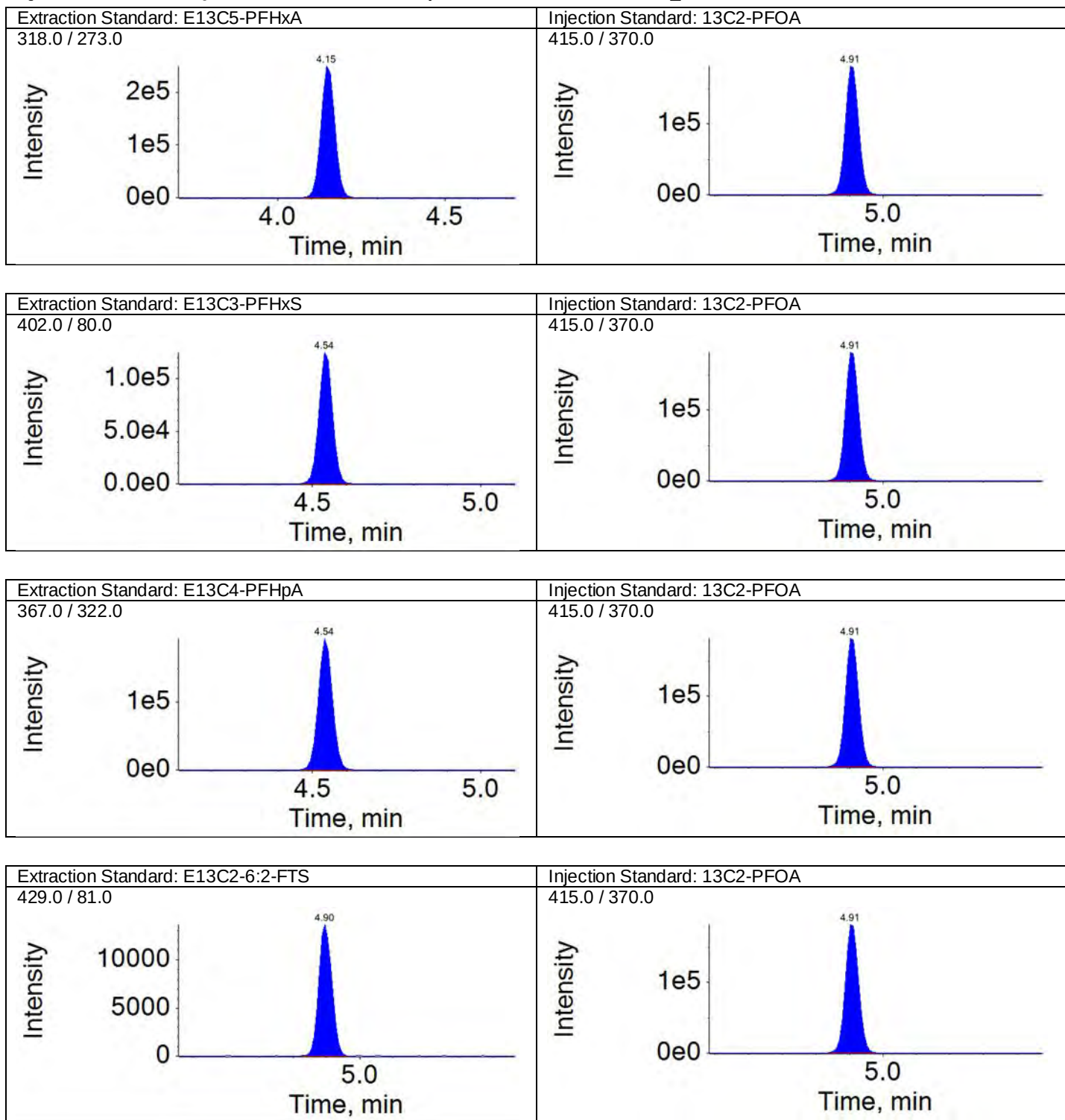
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



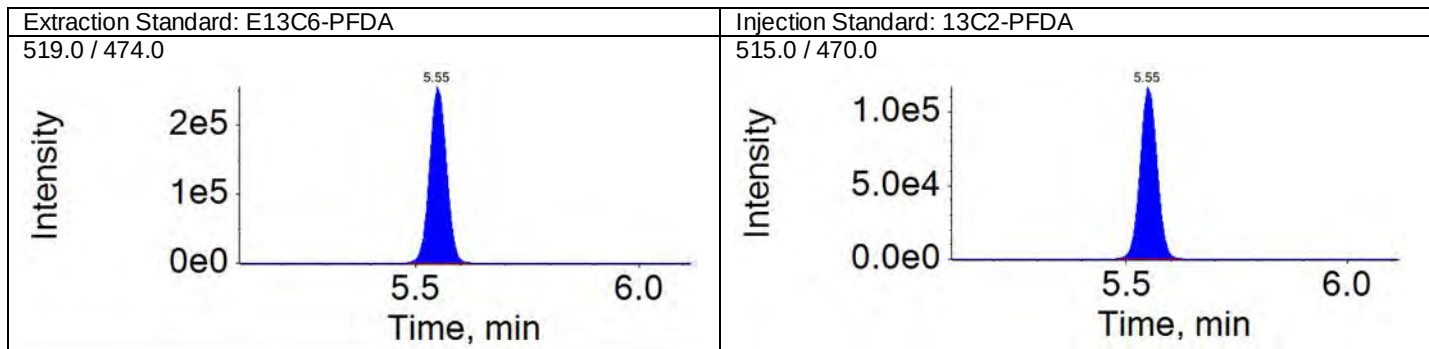
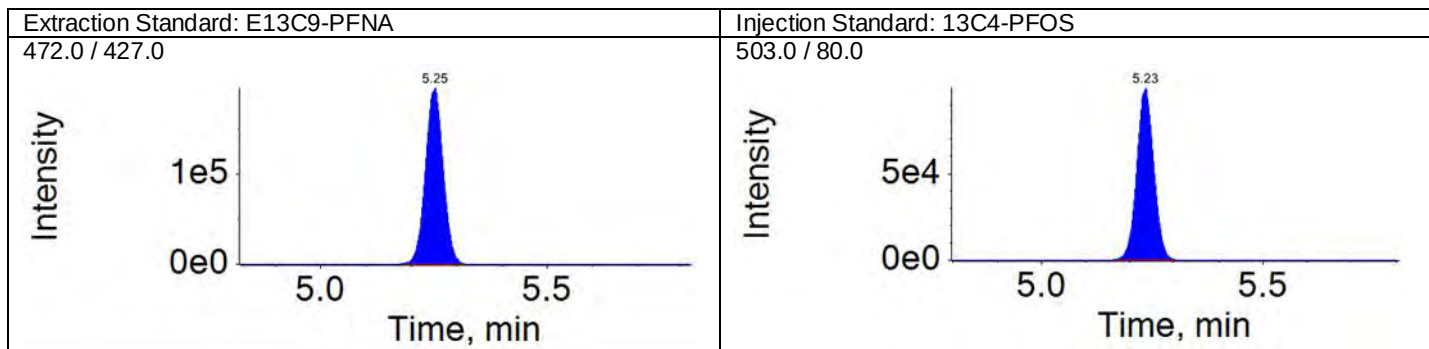
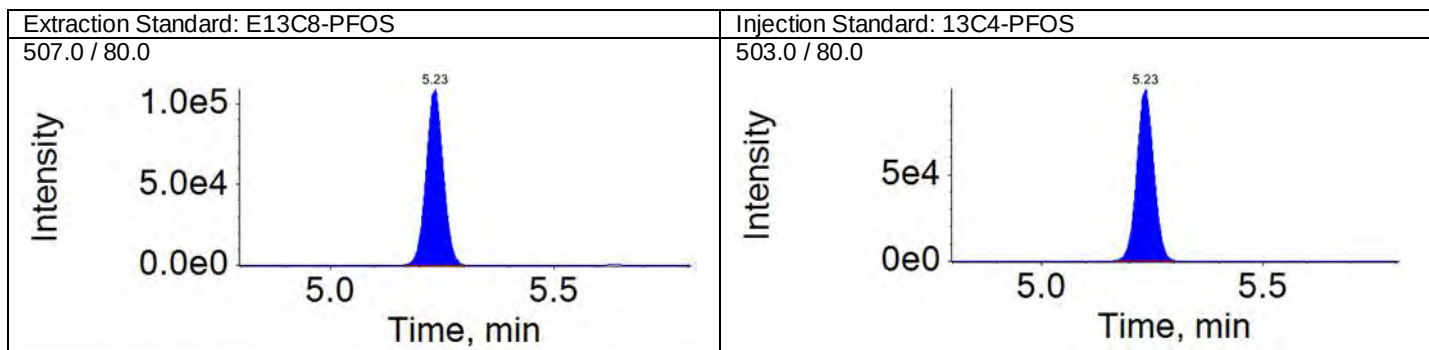
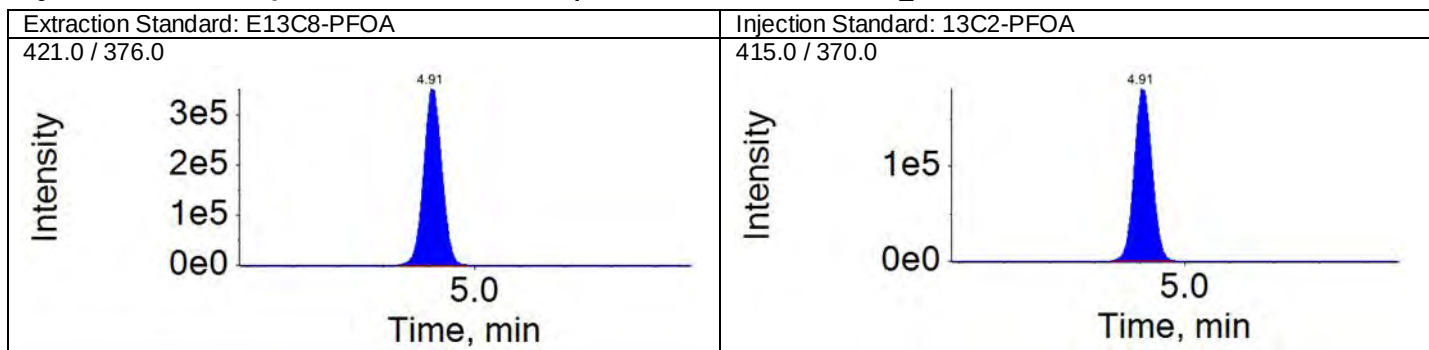
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

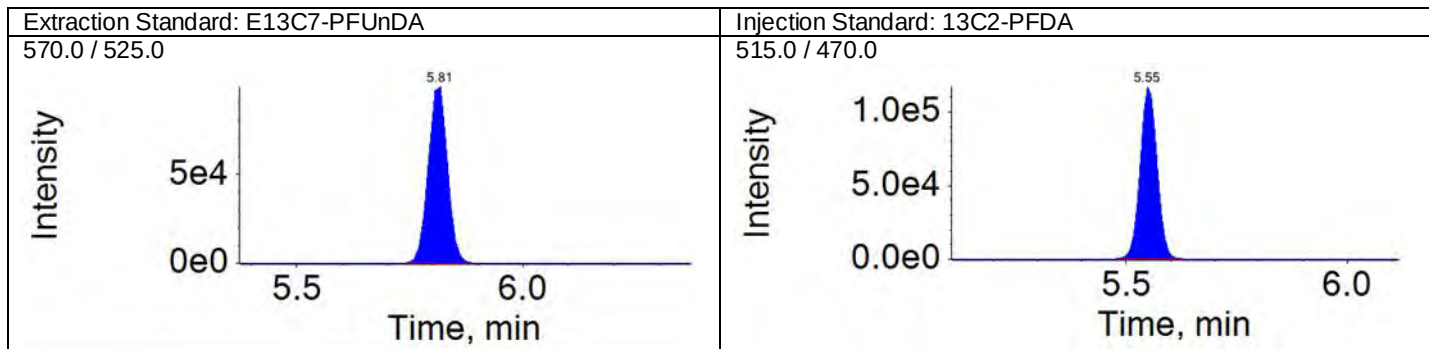
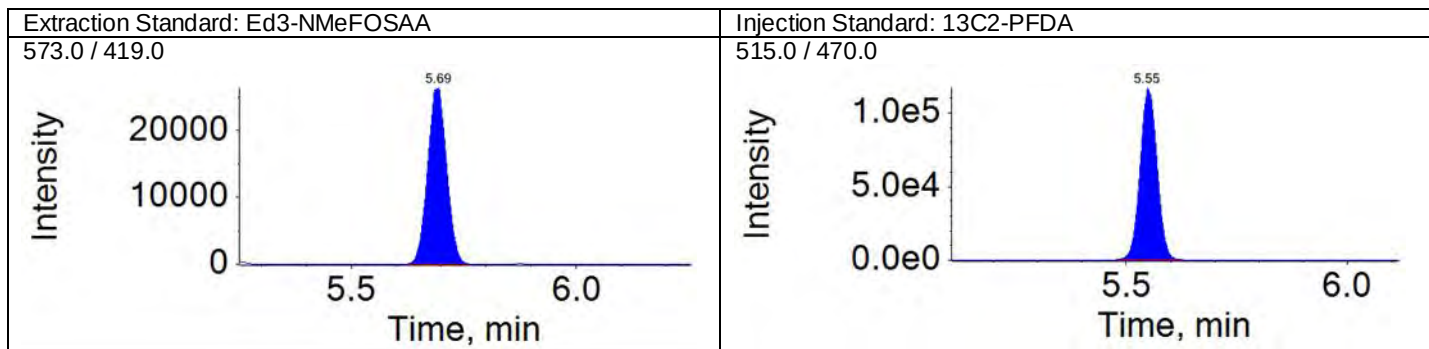
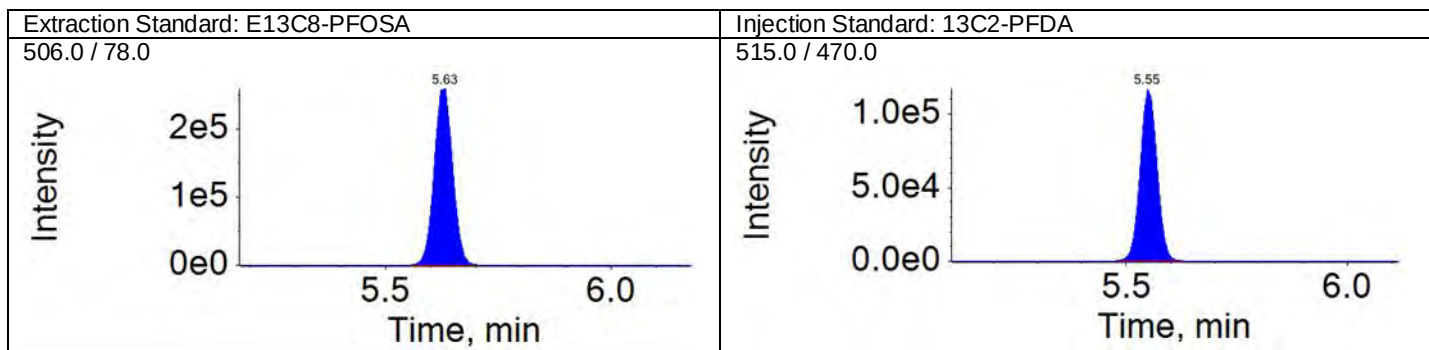
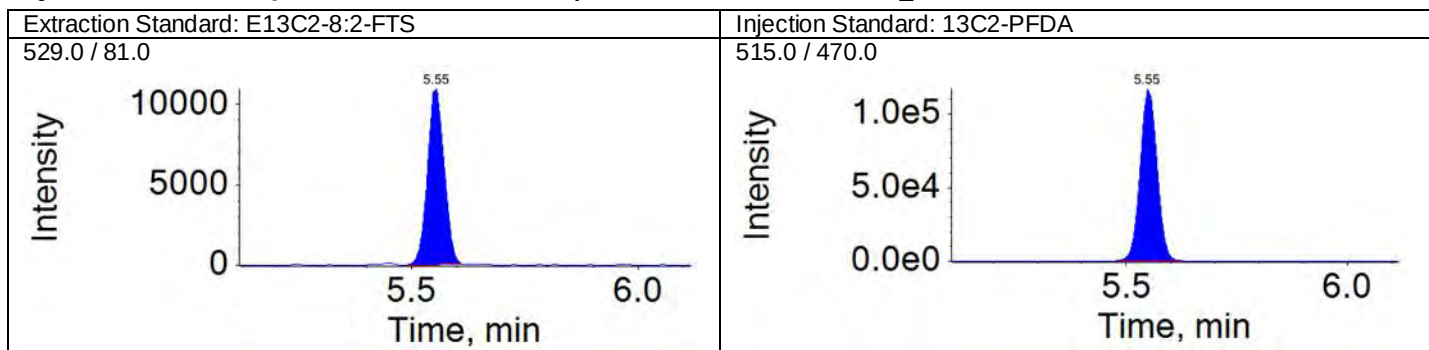
By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

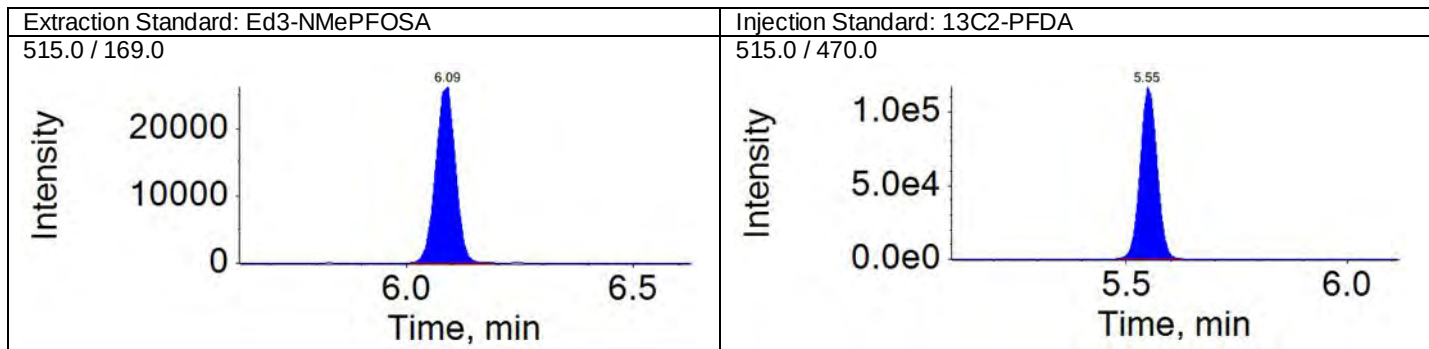
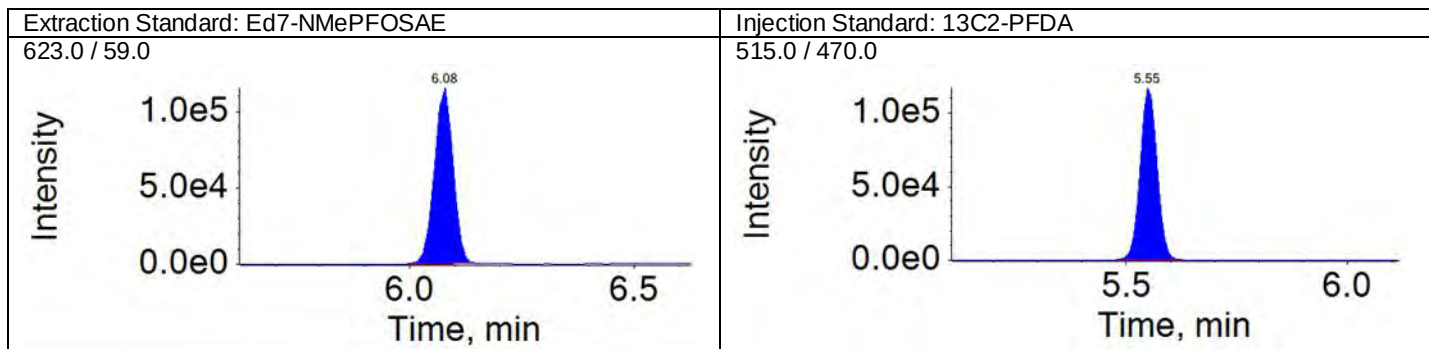
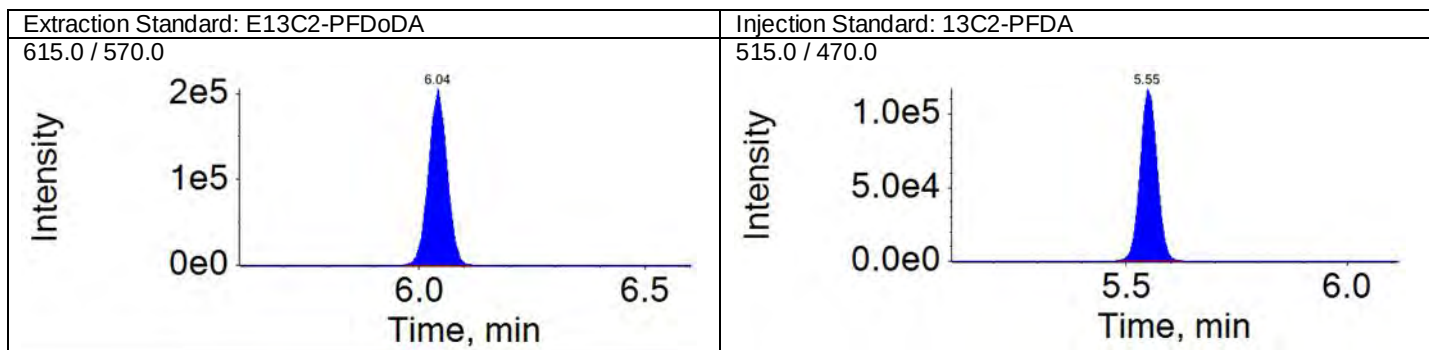
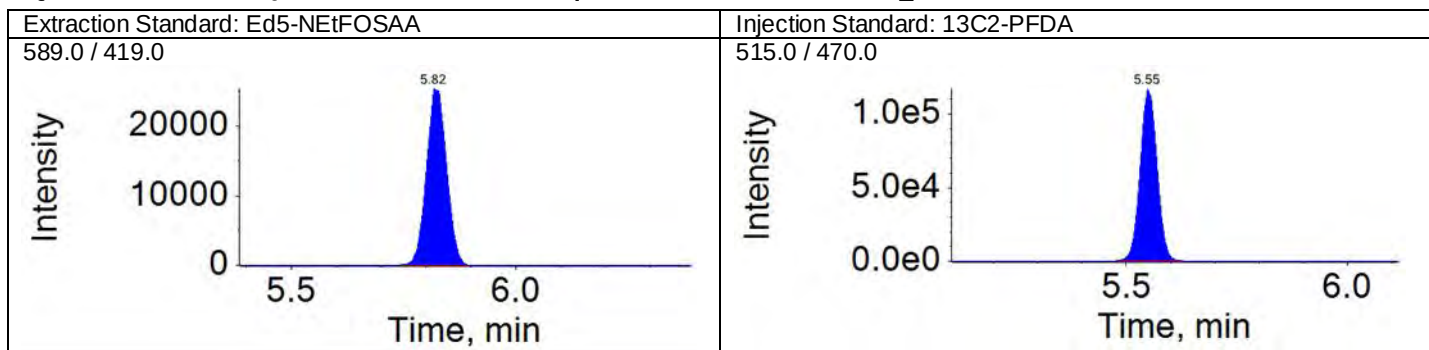
By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

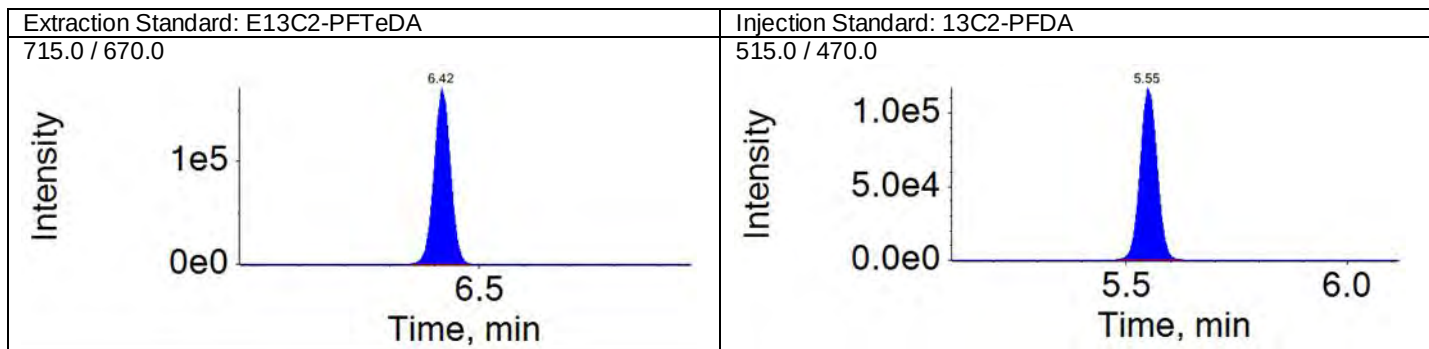
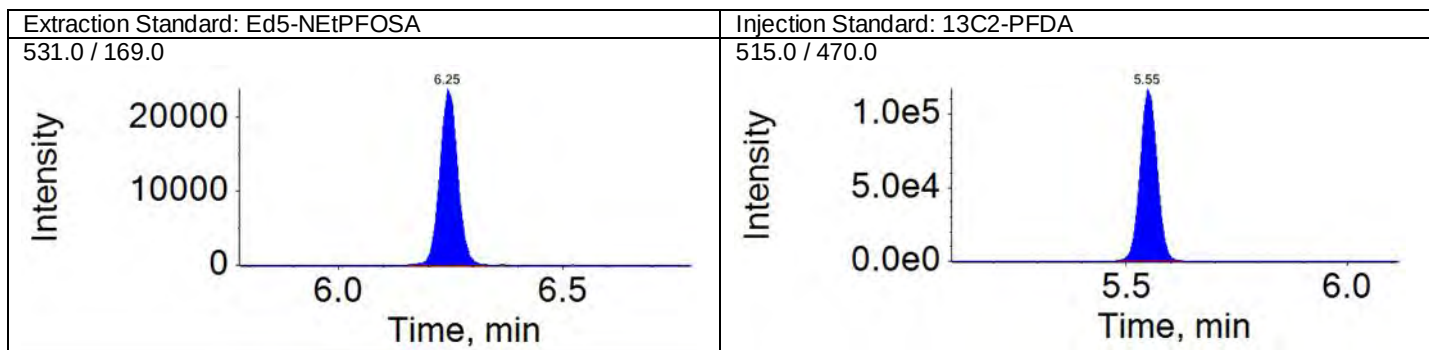
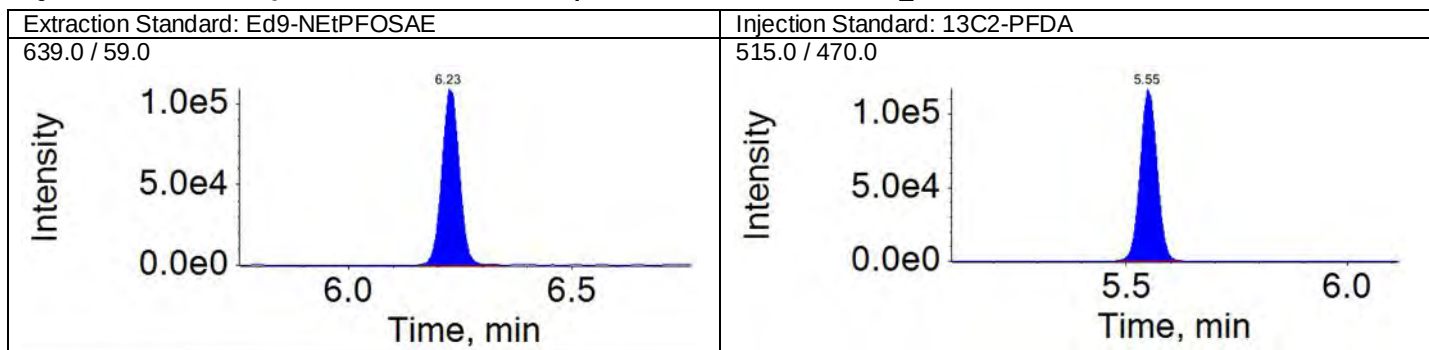
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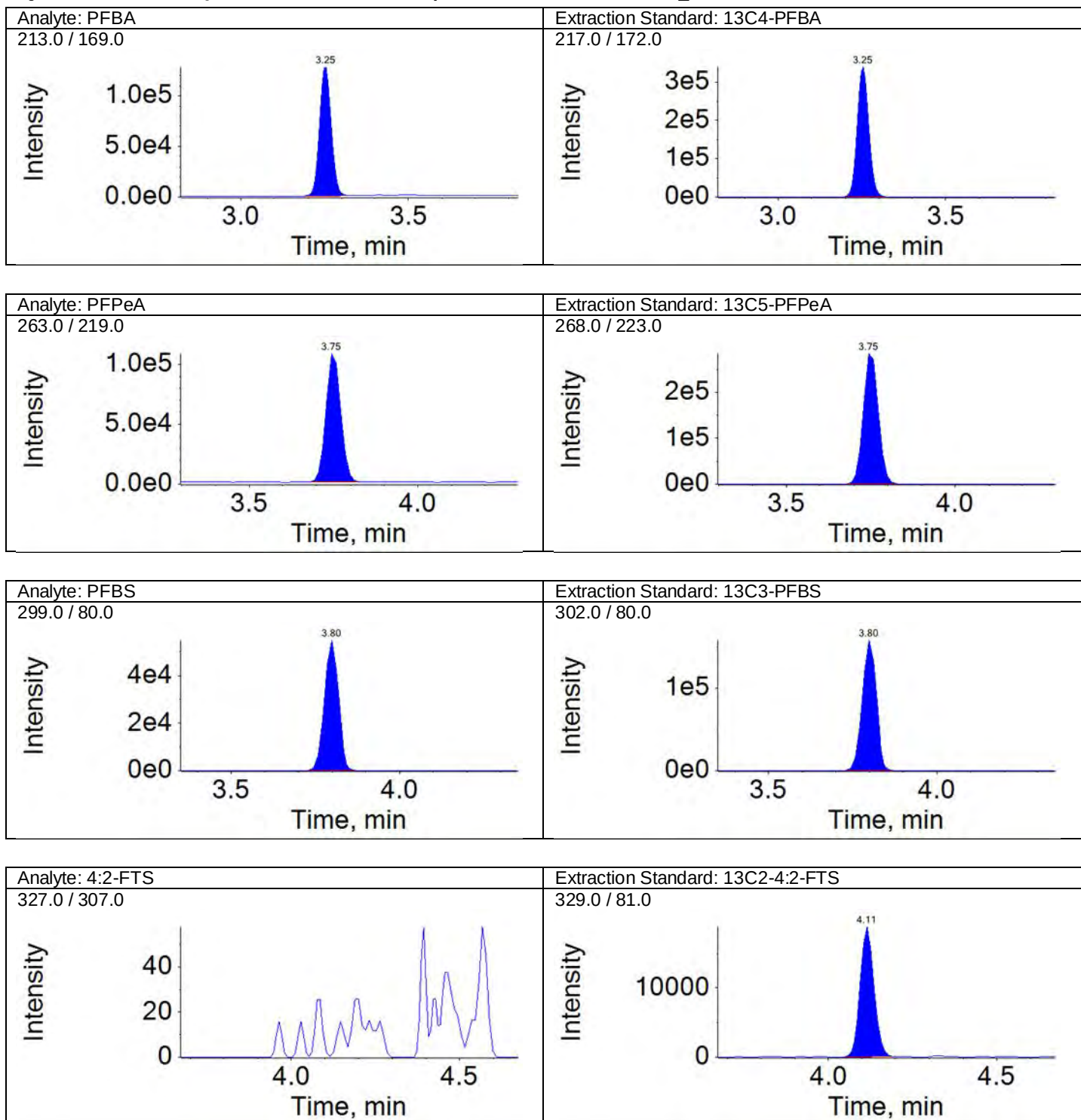
REVIEWED

By umar at 5:23 pm, 11/9/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

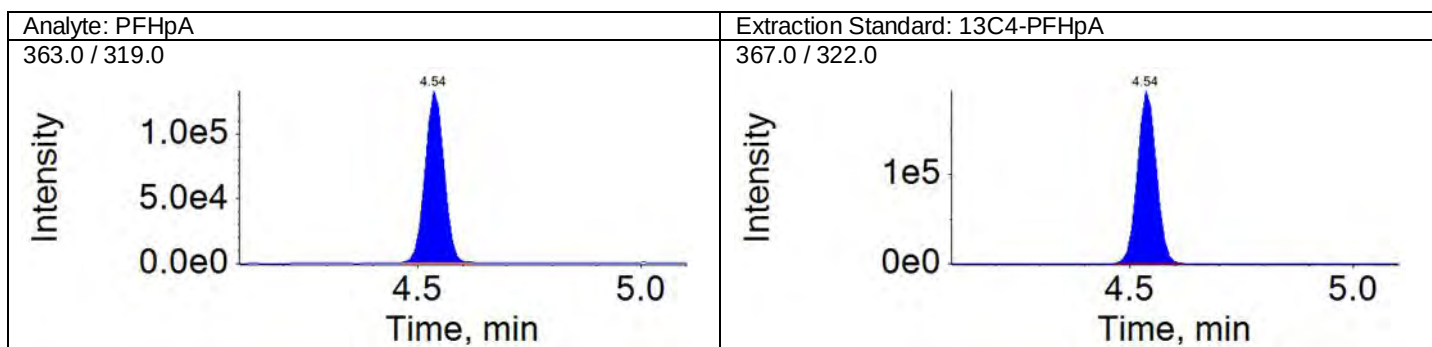
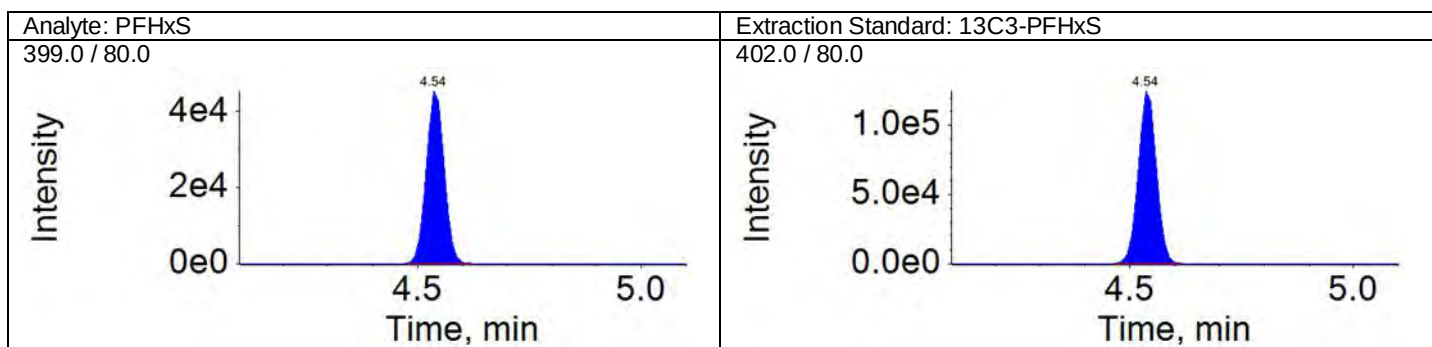
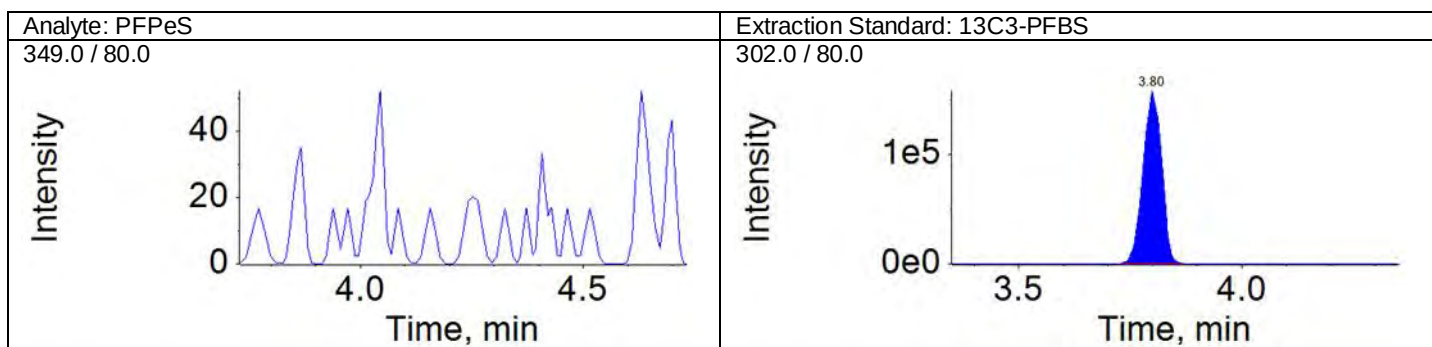
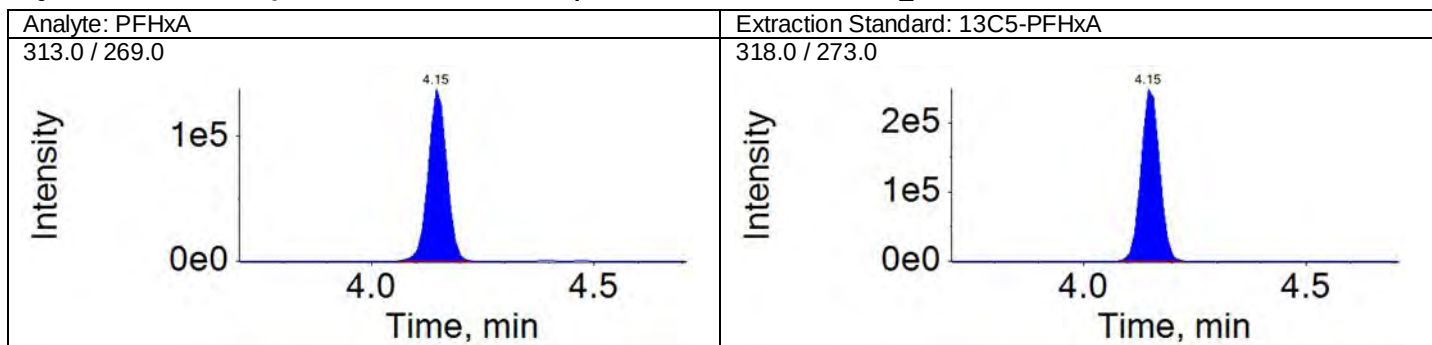
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

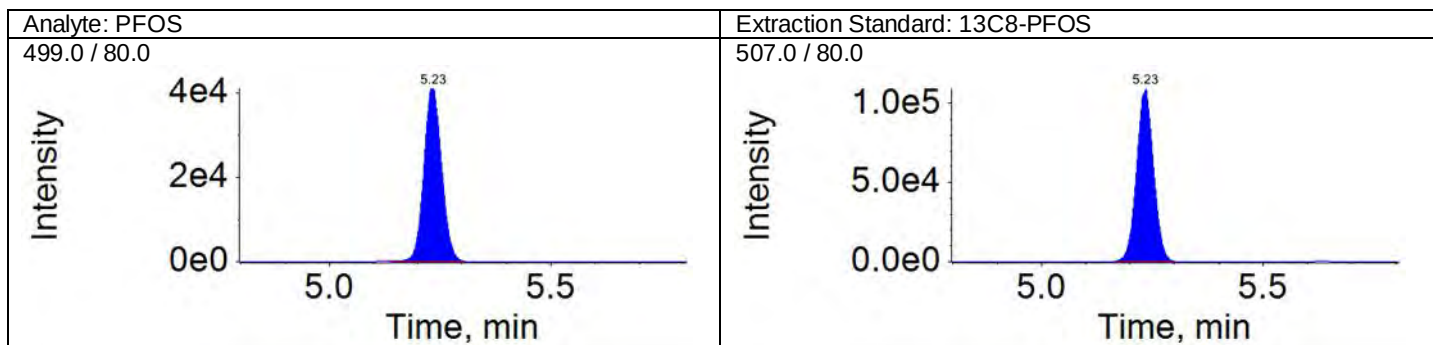
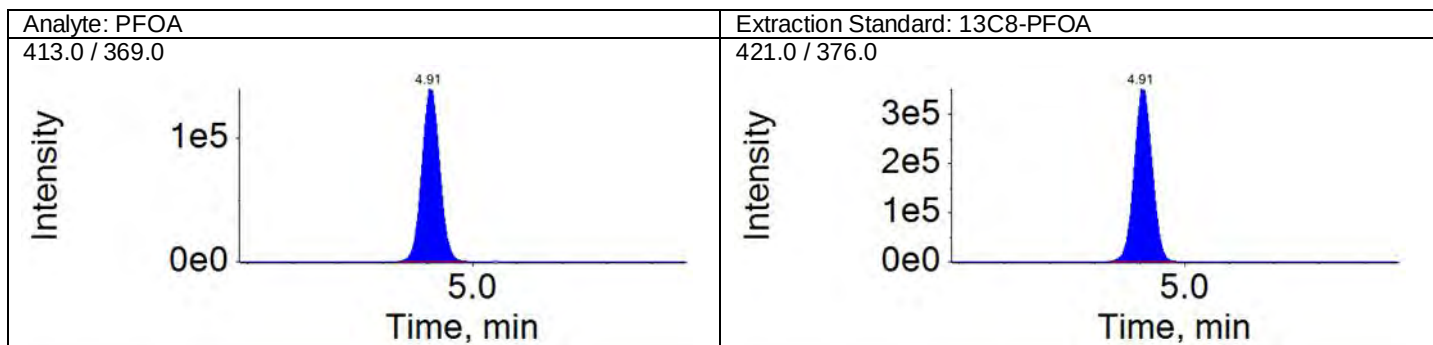
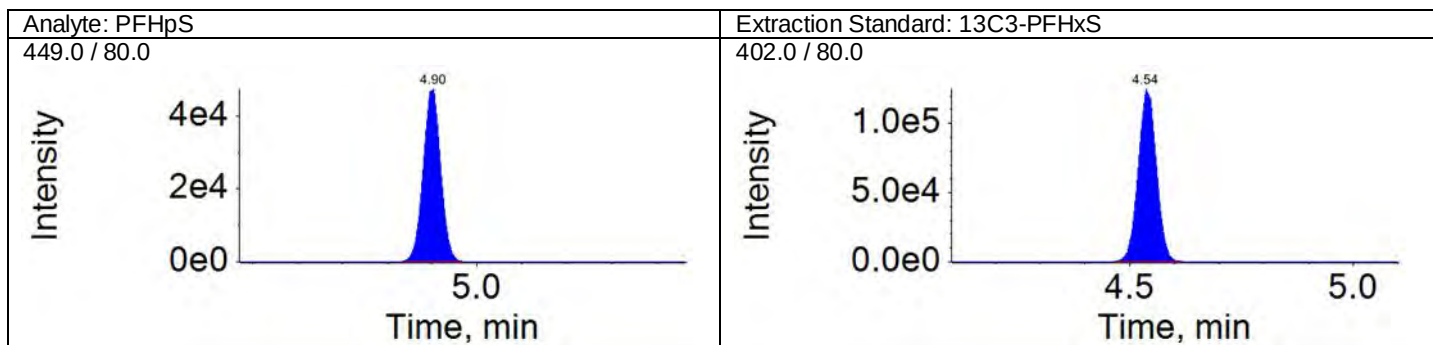
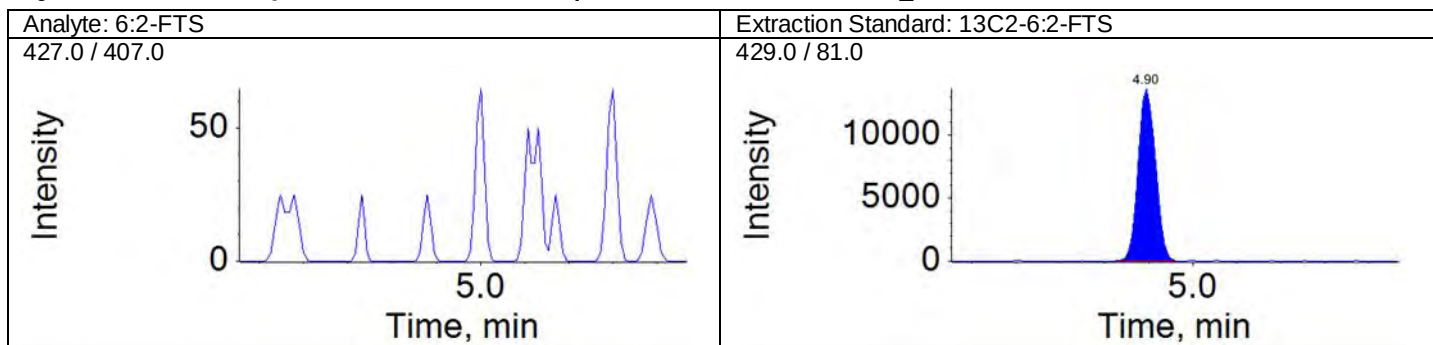
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



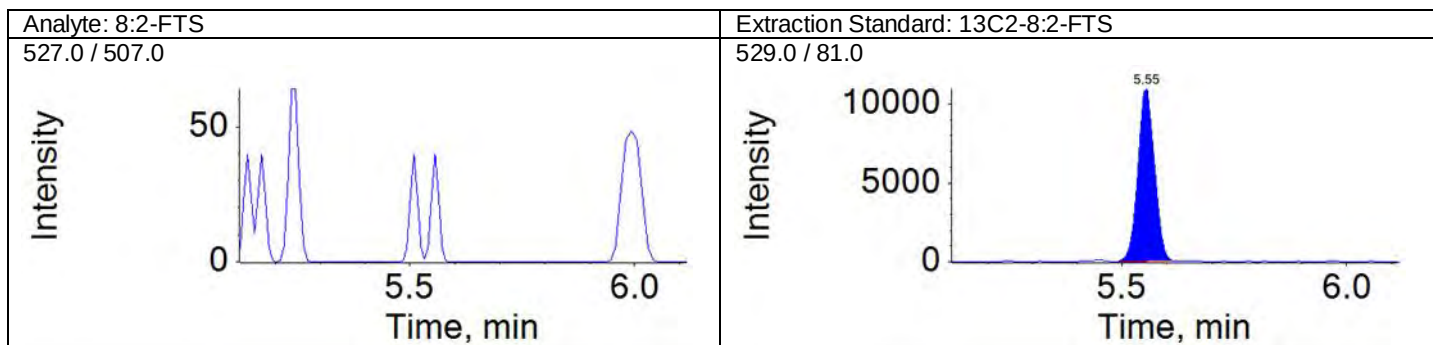
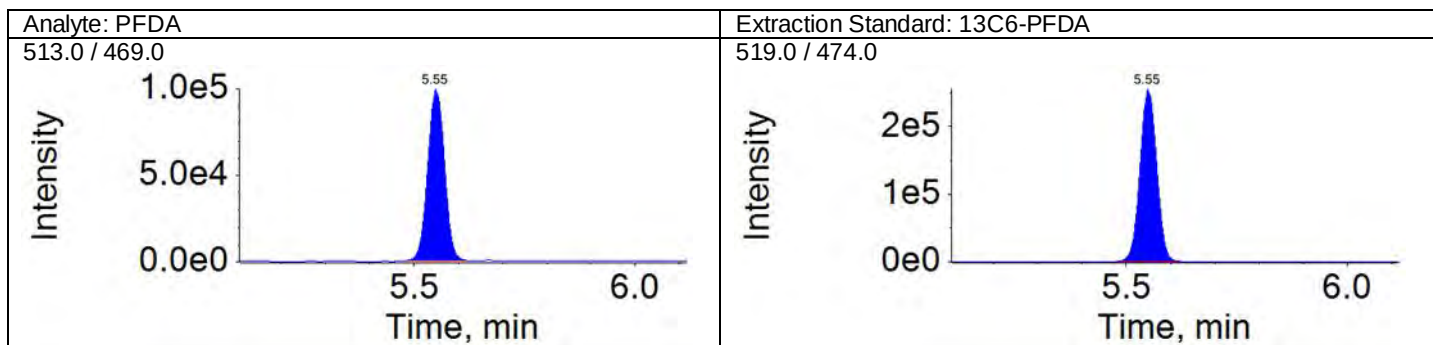
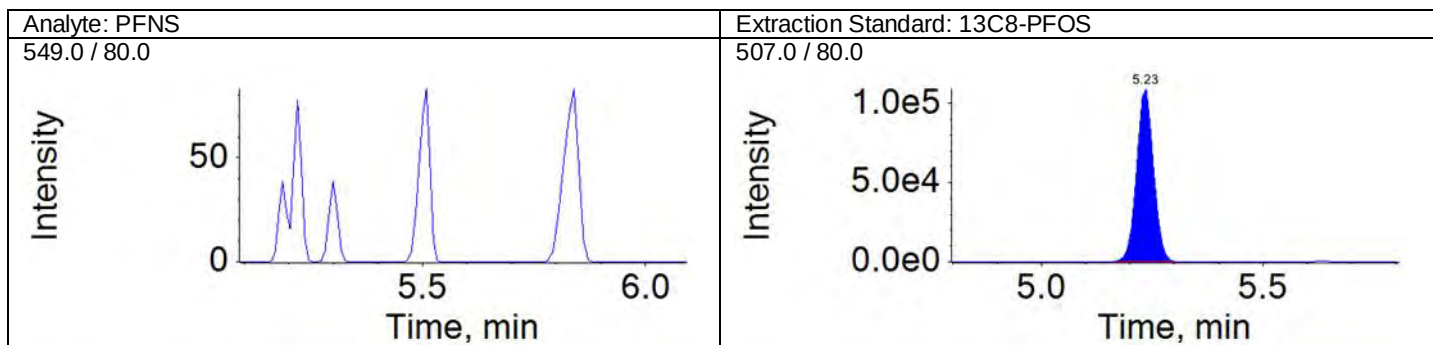
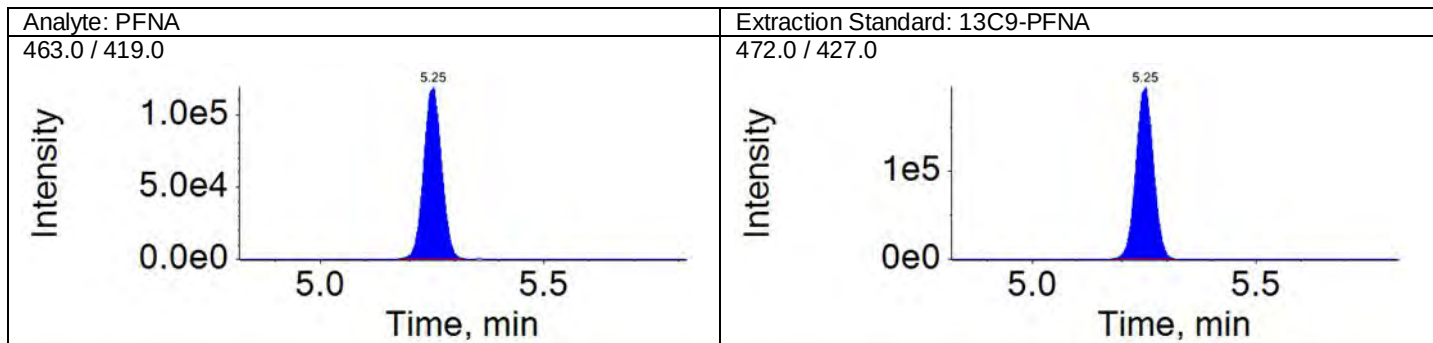
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Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



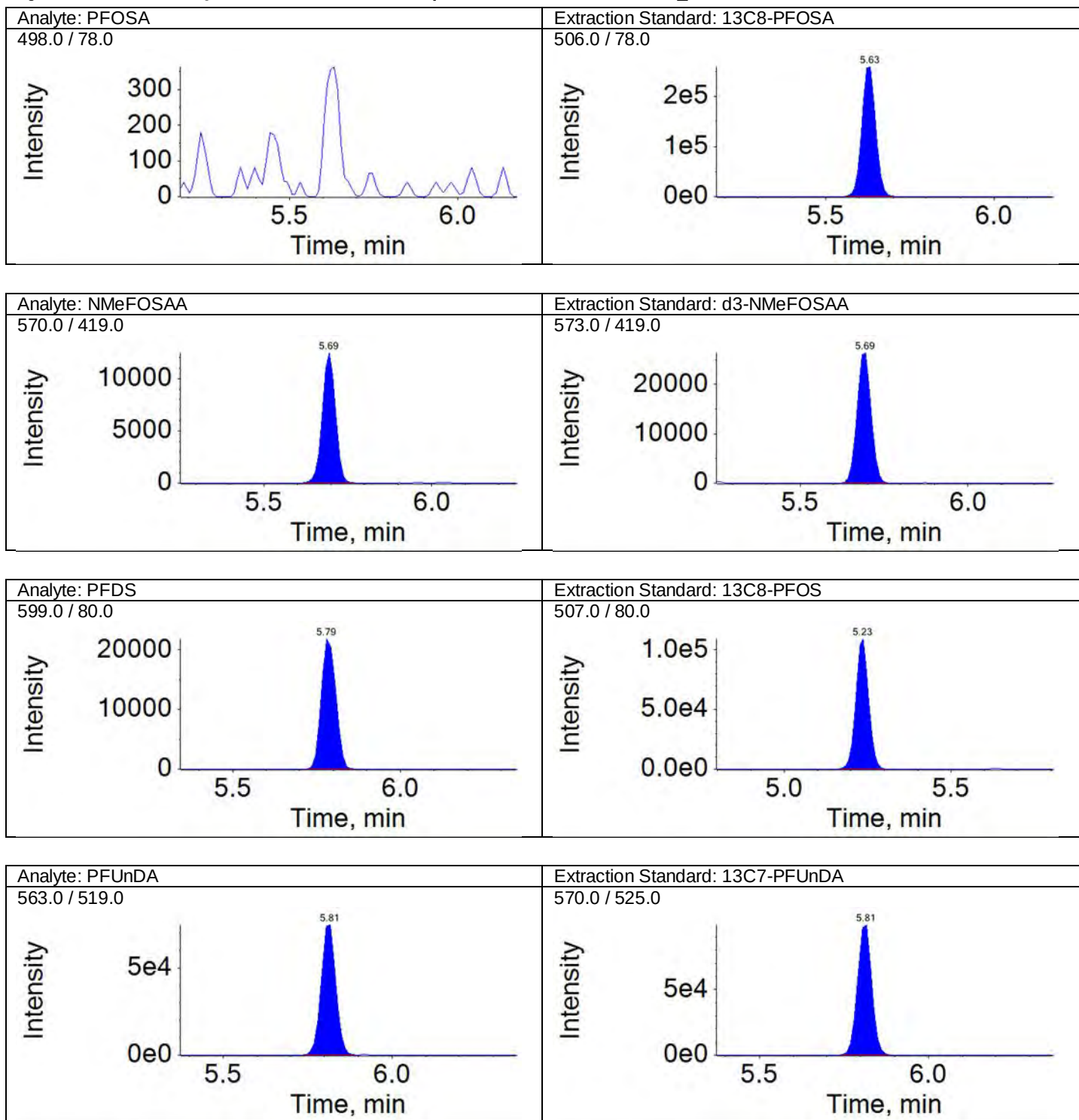
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



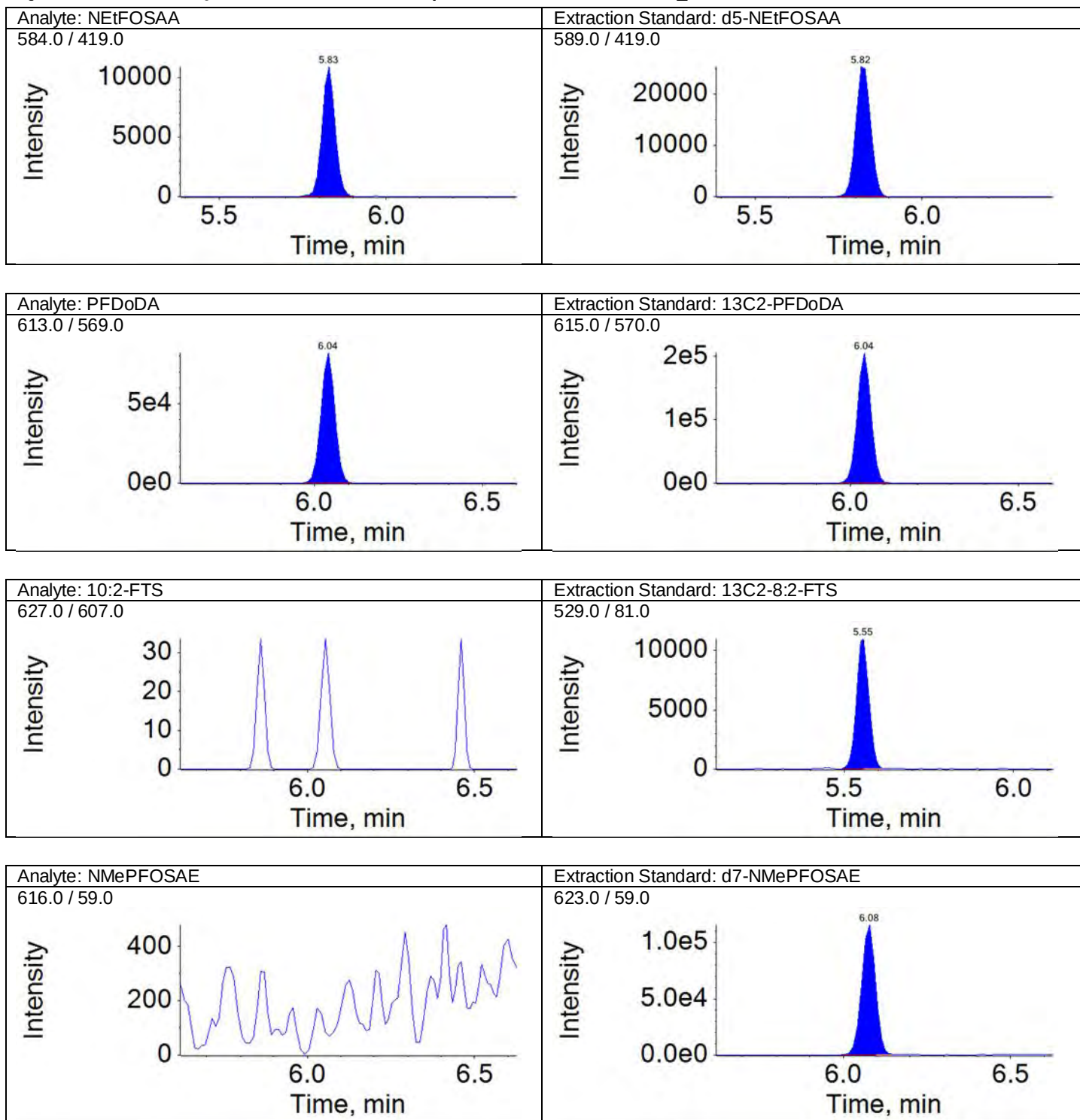
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Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



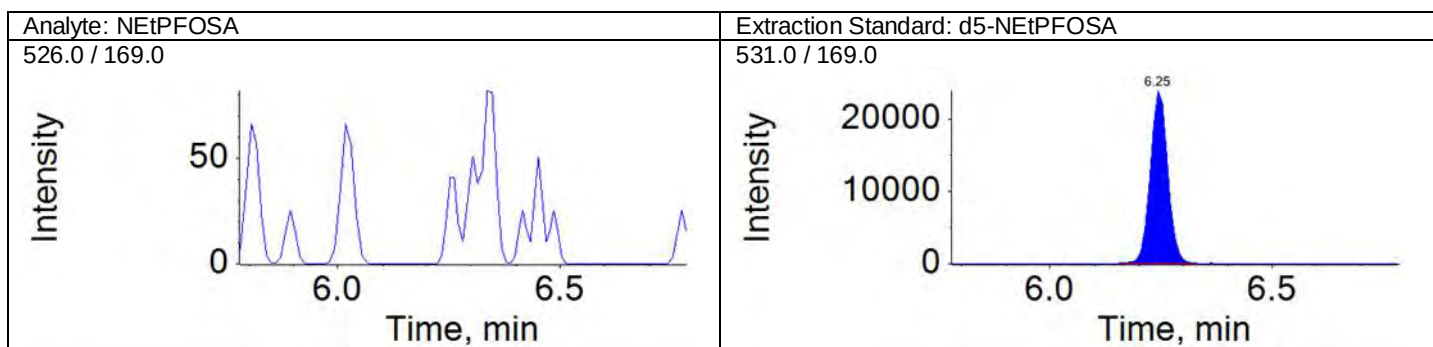
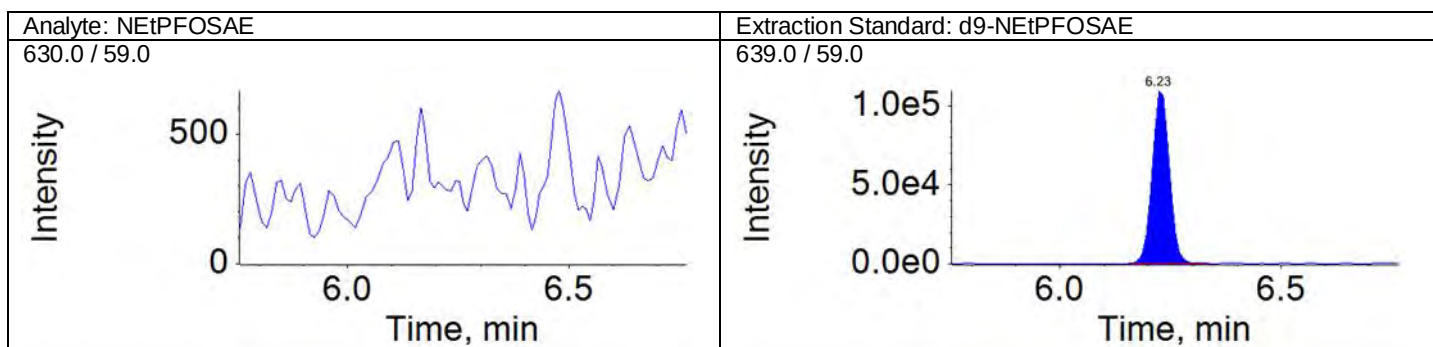
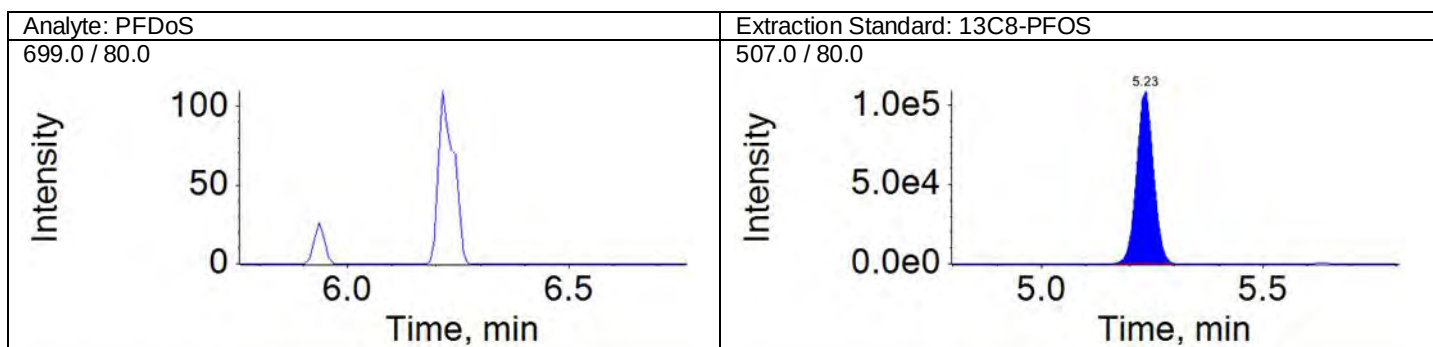
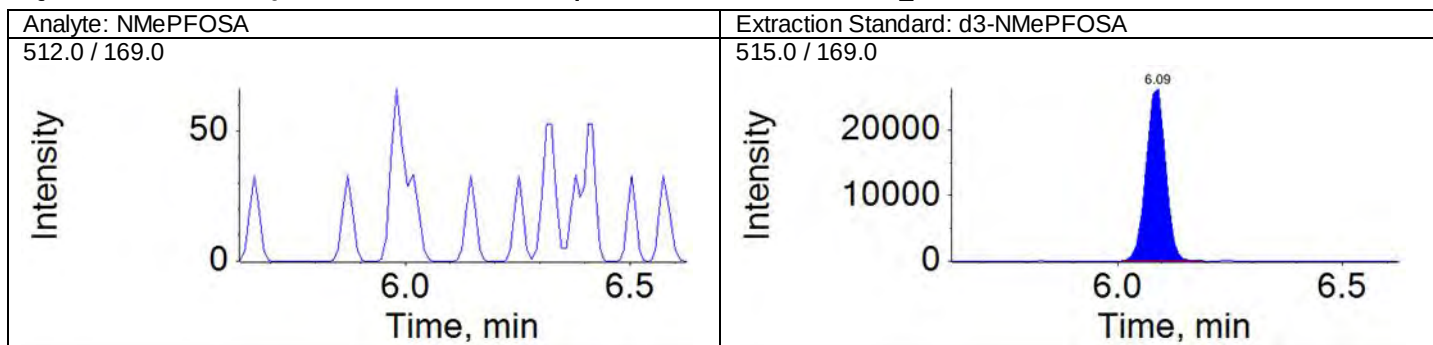
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



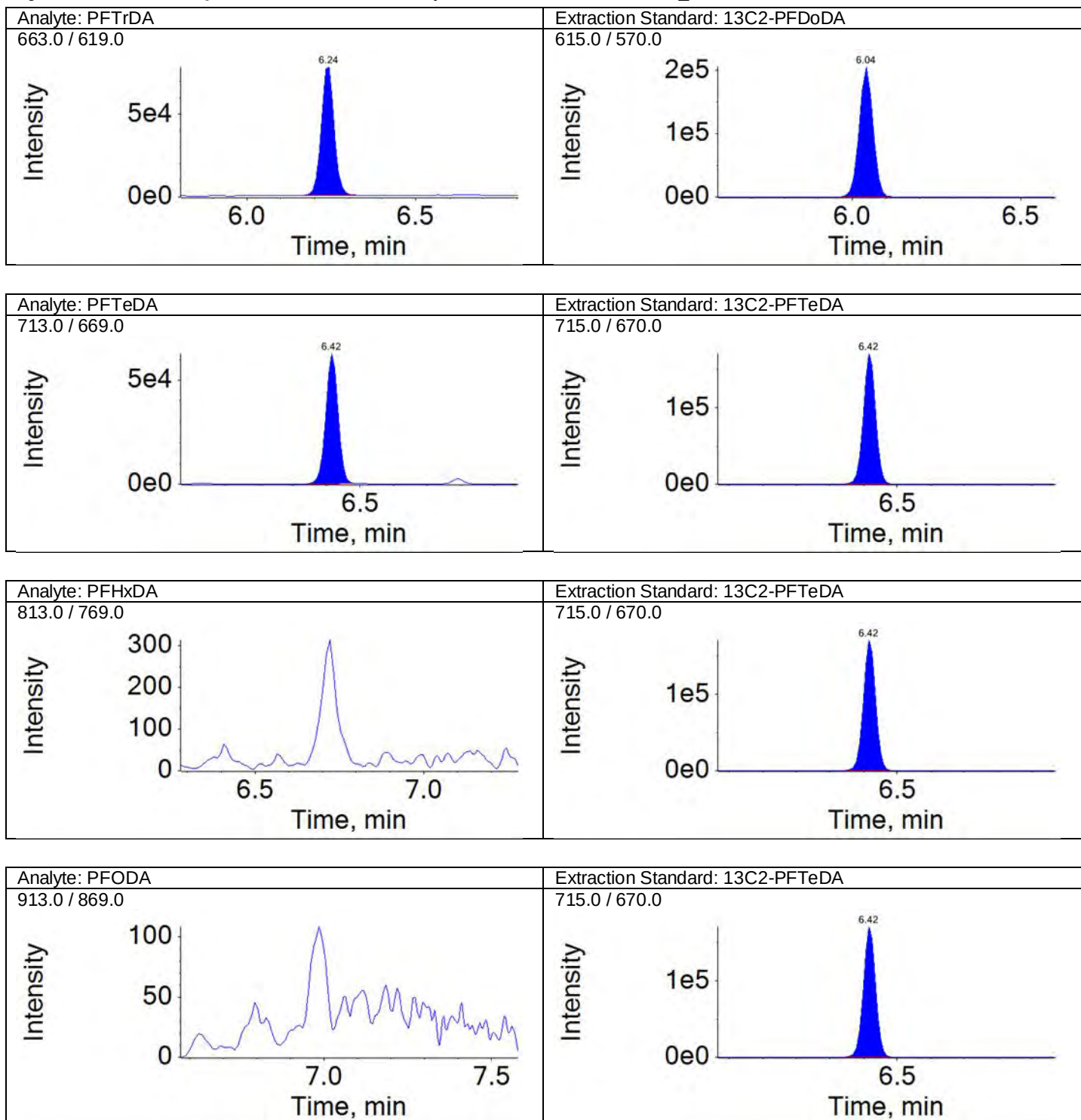
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Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



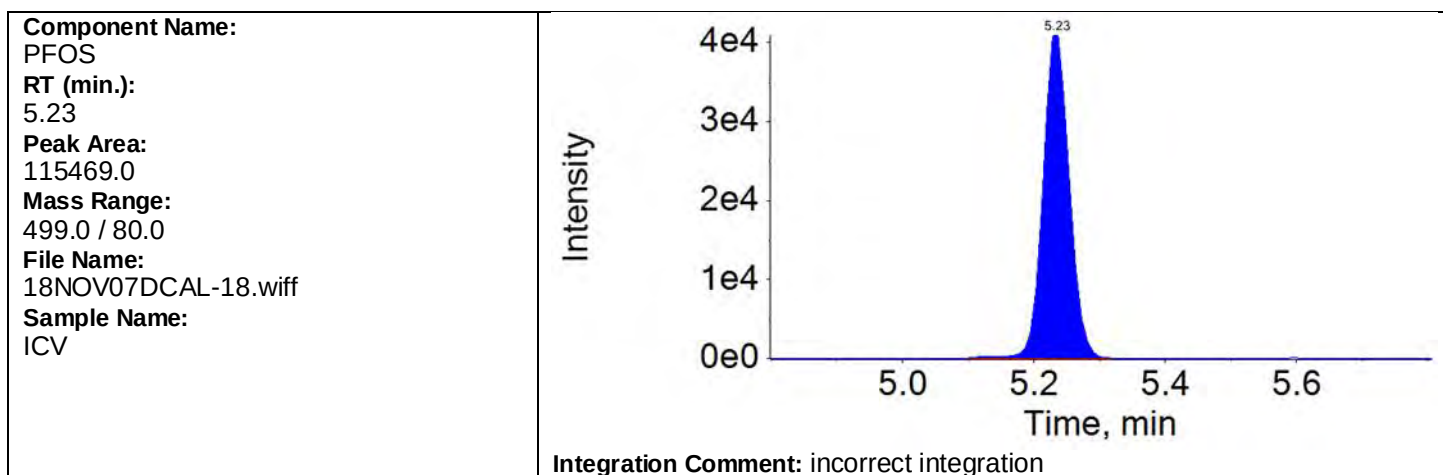
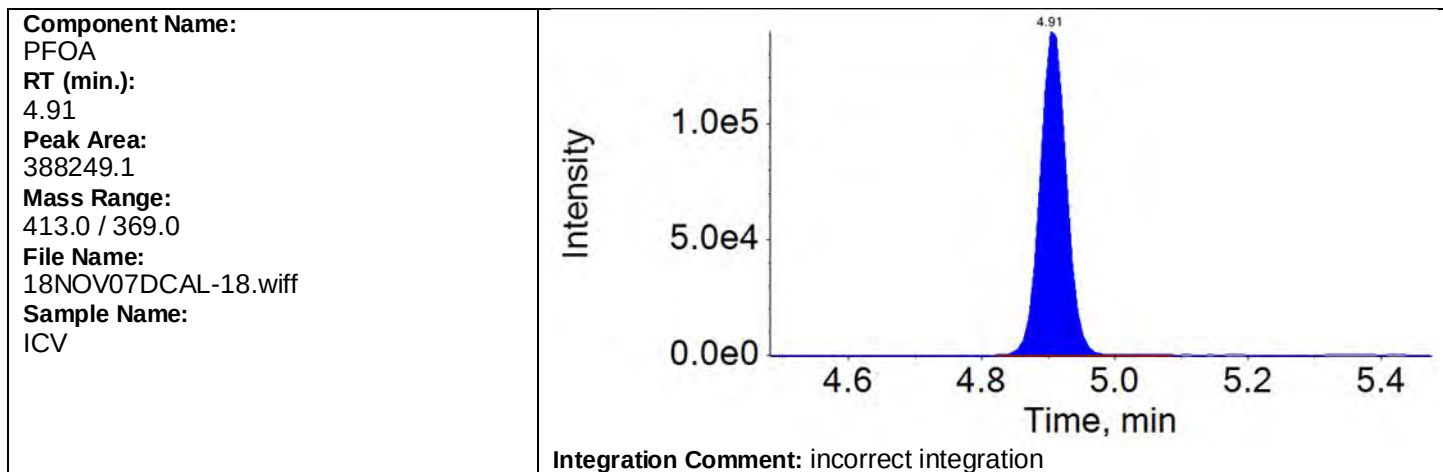
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV07DCAL
Results Table Date: 11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13



Results Table Name: 18NOV07DCAL
Results Table Date: 11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED
By JPT at 2:53 pm, 11/7/18

REVIEWED
By umar at 5:23 pm, 11/9/18

Ion Ratio Report

Sample Name: ICV

Instrument Name: LM27631

File Name: 18NOV07DCAL-18.wiff

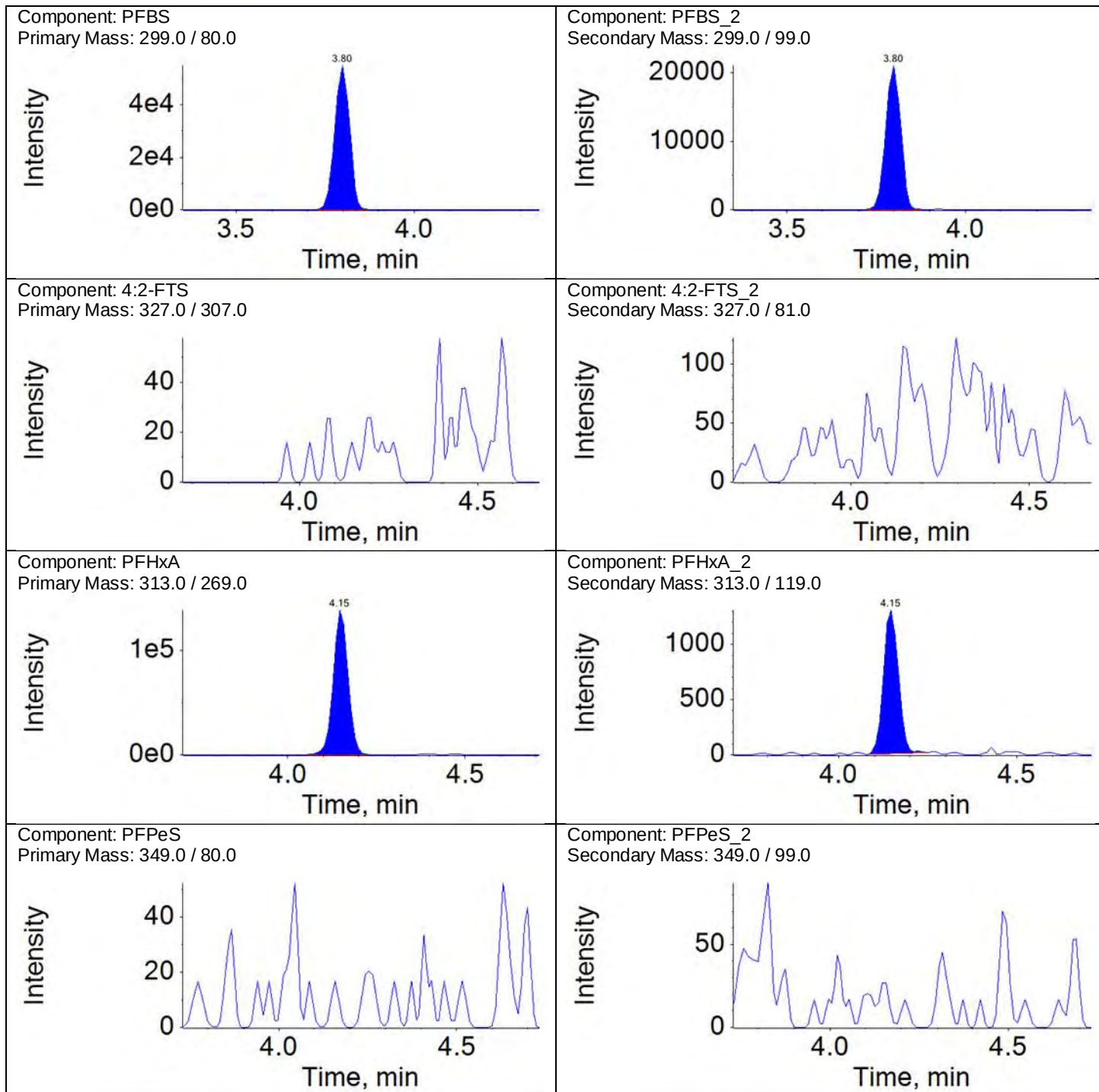
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	159719.5	A	1.0000	1.0000			
PFBS_2	3.80	1.00	61541.1	A	0.3576	0.3853	8	50	
4:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	0.6359	N/A		50	
PFHxA	4.15	1.00	397434.6	A	1.0000	1.0000			
PFHxA_2	4.15	1.00	3792.4	A	0.0115	0.0095	-17	50	
PFPeS	N/A	N/A	N/A	A	1.0000	N/A			
PFPeS_2	N/A	N/A	N/A	A	0.5384	N/A		50	
PFHxS	4.54	1.00	126635.3	A	1.0000	1.0000			
PFHxS_2	4.54	1.00	48242.3	A	0.3569	0.3810	7	50	
PFHpA	4.54	1.00	390197.1	A	1.0000	1.0000			
PFHpA_2	4.54	1.00	18822.2	A	0.0577	0.0482	-16	50	
6:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	0.6752	N/A		50	
PFHpS	4.90	1.08	126812.1	A	1.0000	1.0000			
PFHpS_2	4.90	1.08	51068.7	A	0.3950	0.4027	2	50	
PFOA	4.91	1.00	387215.1	M	1.0000	1.0000			
PFOA_2	4.91	1.00	20820.8	A	0.0635	0.0538	-15	50	
PFOS	5.23	1.00	114911.8	M	1.0000	1.0000			
PFOS_2	5.23	1.00	40072.6	A	0.3494	0.3487	0	50	
PFNA	5.25	1.00	329644.4	A	1.0000	1.0000			
PFNA_2	5.25	1.00	6625.6	A	0.0207	0.0201	-3	50	
PFNS	N/A	N/A	N/A	A	1.0000	N/A			
PFNS_2	N/A	N/A	N/A	A	0.4890	N/A		50	
PFDA	5.55	1.00	262760.0	A	1.0000	1.0000			
PFDA_2	5.55	1.00	2122.6	A	0.0057	0.0081	43	50	
8:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	0.6169	N/A		50	
NMeFOSAA	5.69	1.00	33916.6	A	1.0000	1.0000			
NMeFOSAA_2	N/A	N/A	N/A	A	0.2206	N/A		50	
PFDS	5.79	1.11	65962.5	A	1.0000	1.0000			
PFDS_2	5.78	1.11	33540.9	A	0.4648	0.5085	9	50	
PFUnDA	5.81	1.00	225137.5	A	1.0000	1.0000			
PFUnDA_2	5.82	1.00	557.6	A	0.0031	0.0025	-21	50	
NEtFOSAA	5.83	1.00	29687.2	A	1.0000	1.0000			
NEtFOSAA_2	5.83	1.00	17691.0	A	0.6082	0.5959	-2	50	
PFDODA	6.04	1.00	232949.2	A	1.0000	1.0000			
PFDODA_2	6.04	1.00	3431.7	A	0.0109	0.0147	35	50	
10:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	0.7082	N/A		50	
PFTTrDA	6.24	1.03	206908.4	A	1.0000	1.0000			
PFTTrDA_2	6.24	1.03	2086.3	A	0.0096	0.0101	5	50	
PFTeDA	6.42	1.00	157975.3	A	1.0000	1.0000			
PFTeDA_2	6.41	1.00	879.0	A	0.0055	0.0056	0	50	
PFHxDA	N/A	N/A	N/A	A	1.0000	N/A			
PFHxDA_2	N/A	N/A	N/A	A	0.0596	N/A		50	
PFODA	N/A	N/A	N/A	A	1.0000	N/A			
PFODA_2	N/A	N/A	N/A	A	0.0257	N/A		50	

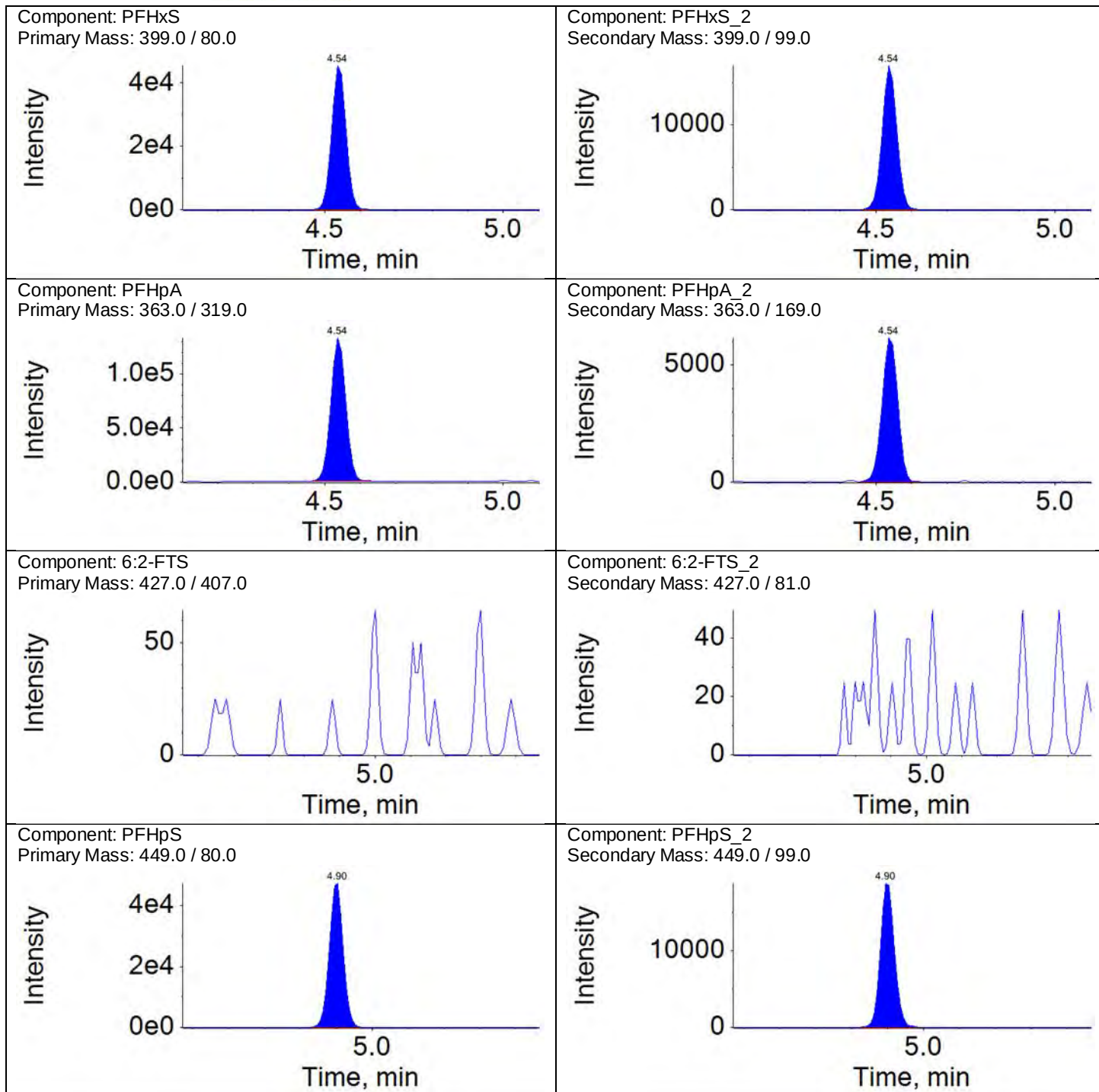
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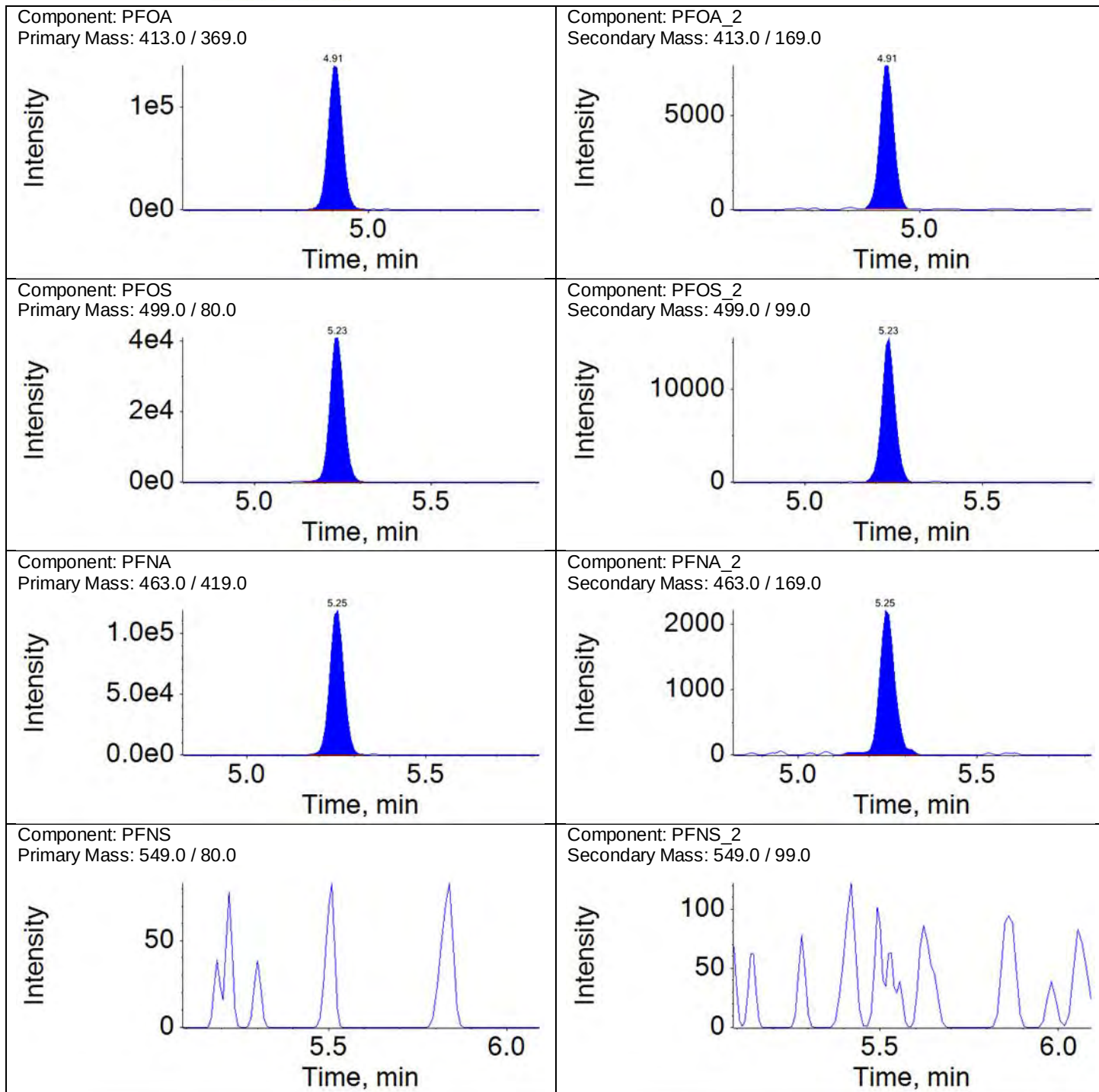
By JPT at 2:53 pm, 11/7/18

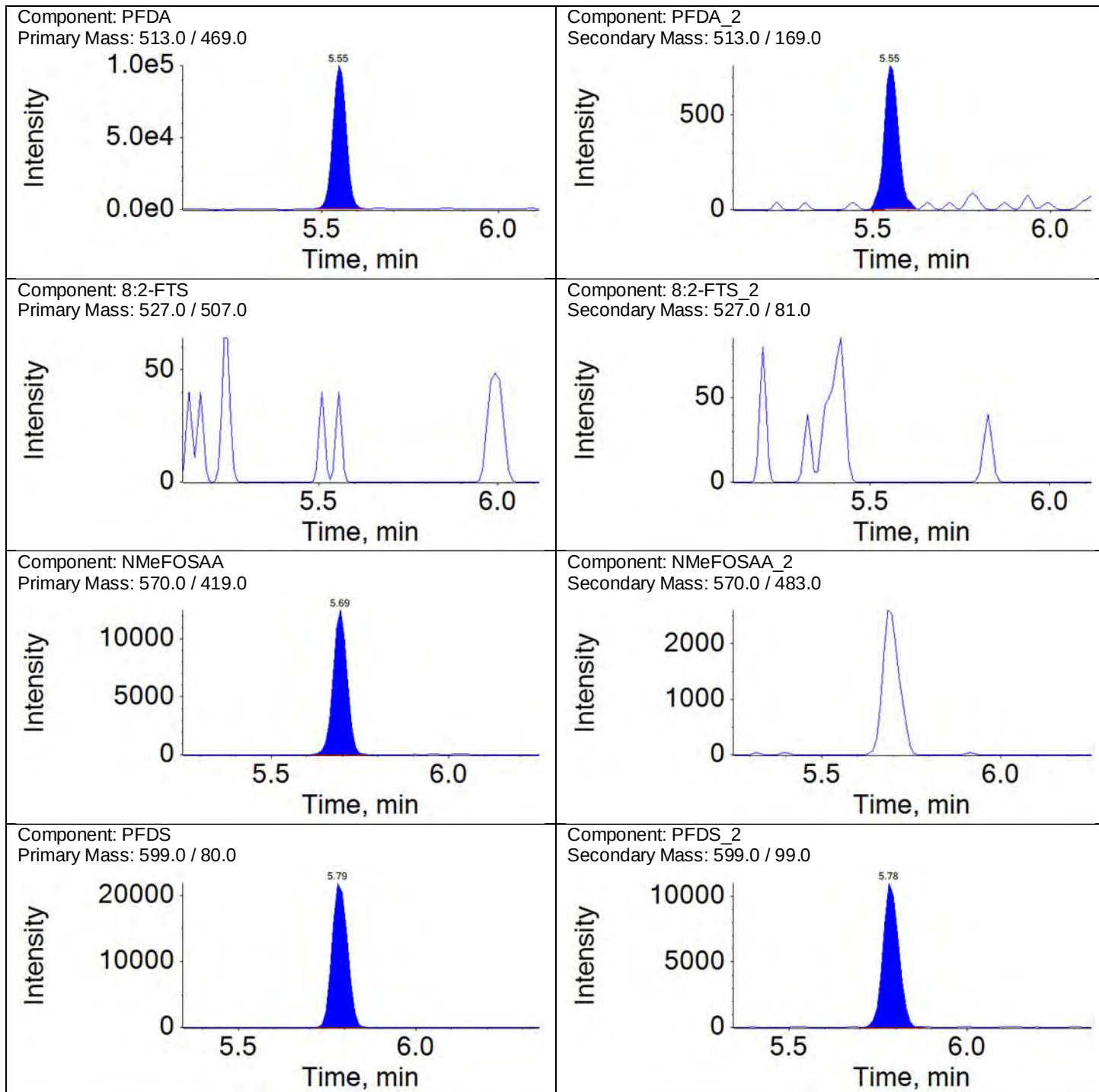
REVIEWED

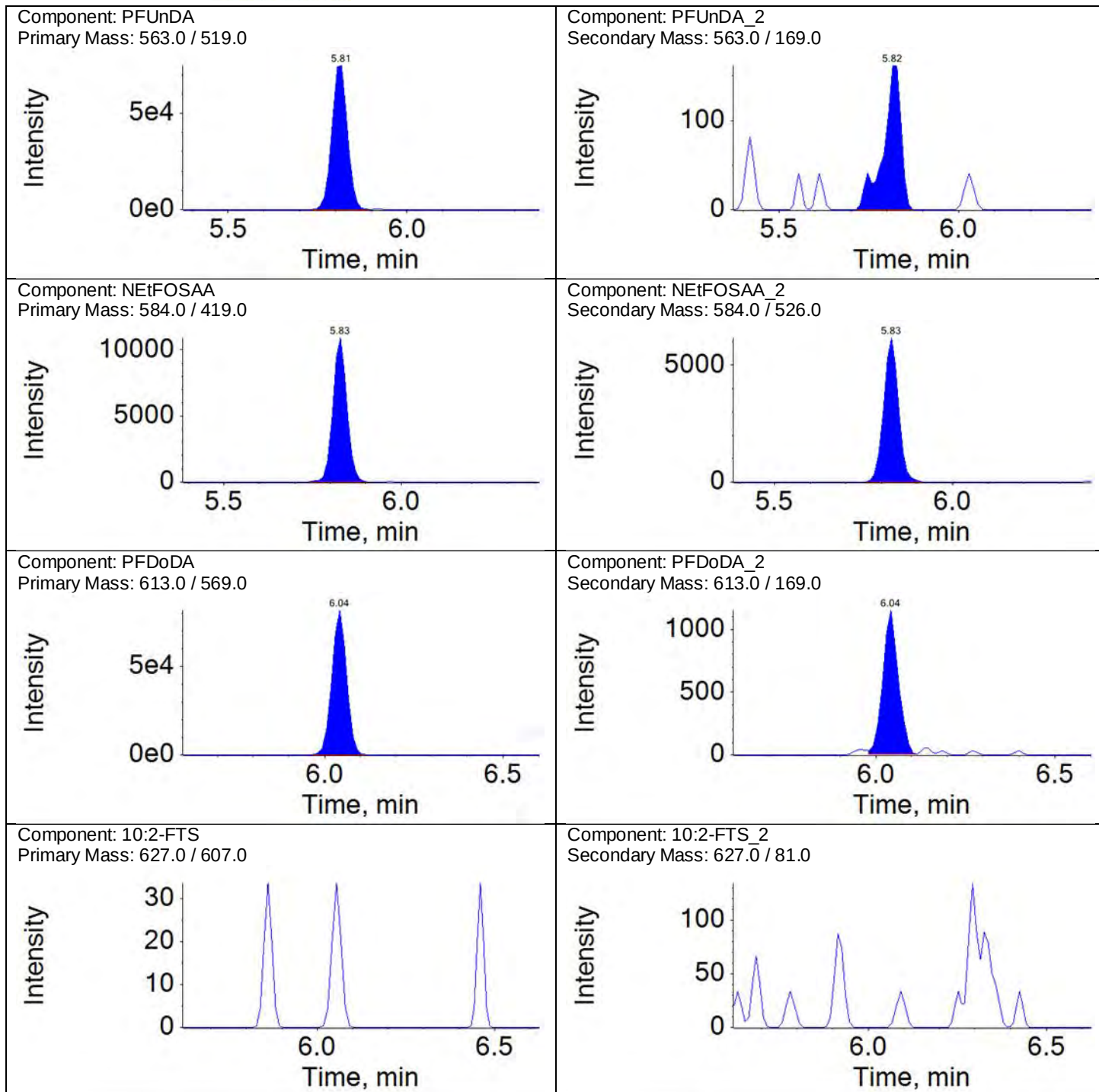
By umar at 5:23 pm, 11/9/18

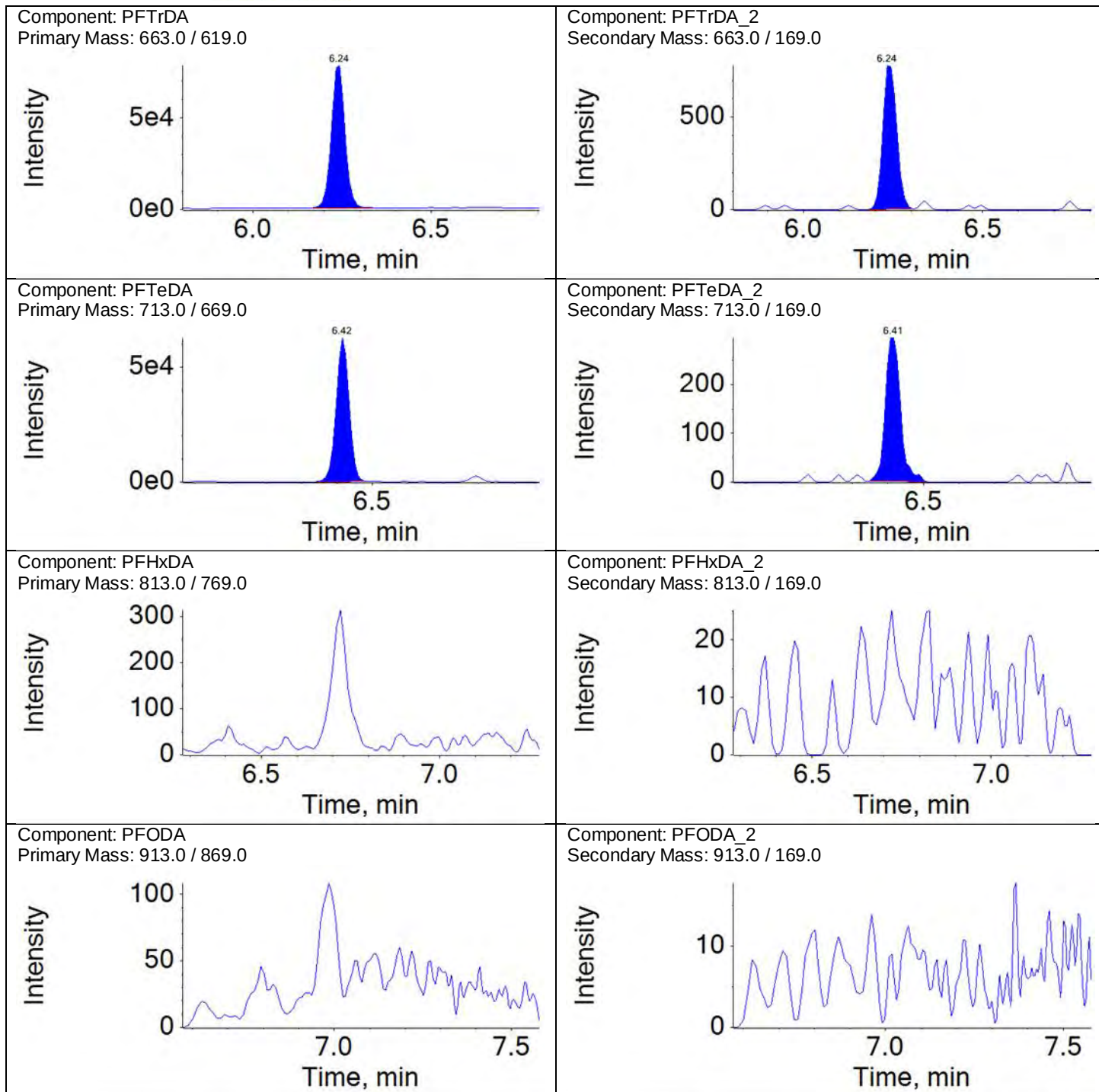












ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	L+B CAL3		Data File:	18NOV07DCAL-19.wiff
Sample ID:	LBM0DX1833D		Acquis Date:	2018-11-07T11:00:59
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	11		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV07DCAL
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	N/A		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV07DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	736211.8	730410.6	1	50	
13C2-PFOA	5.0	529333.9	524423.6	1	50	
13C4-PFOS	4.8	269502.4	274061.7	-2	50	
13C2-PFDA	5.0	314695.8	311442.1	1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	798089.2	13C3-PFBA	736211.8	1.084	5.000	5.017	100	70-130	
E13C5-PFPeA	837606.5	13C3-PFBA	736211.8	1.138	5.000	4.956	99	70-130	
E13C3-PFBS	434778.6	13C3-PFBA	736211.8	0.591	4.650	4.334	93	70-130	
E13C2-4:2-FTS	52170.5	13C2-PFOA	529333.9	0.099	4.670	4.447	95	70-130	
E13C5-PFHxA	698718.6	13C2-PFOA	529333.9	1.320	5.000	4.856	97	70-130	
E13C3-PFHxS	338752.7	13C2-PFOA	529333.9	0.640	4.730	4.594	97	70-130	
E13C4-PFHpA	566540.4	13C2-PFOA	529333.9	1.070	5.000	4.869	97	70-130	
E13C2-6:2-FTS	34551.5	13C2-PFOA	529333.9	0.065	4.750	4.353	92	70-130	
E13C8-PFOA	967968.8	13C2-PFOA	529333.9	1.829	5.000	5.099	102	70-130	
E13C8-PFOS	276433.8	13C4-PFOS	269502.4	1.026	4.780	4.536	95	70-130	
E13C9-PFNA	490916.1	13C4-PFOS	269502.4	1.822	5.000	4.976	100	70-130	
E13C6-PFDA	634835.7	13C2-PFDA	314695.8	2.017	5.000	5.073	101	70-130	
E13C2-8:2-FTS	29224.4	13C2-PFDA	314695.8	0.093	4.790	4.914	103	70-130	
E13C8-PFOSA	714716.6	13C2-PFDA	314695.8	2.271	5.000	4.956	99	70-130	
Ed3-NMeFOSAA	78018.5	13C2-PFDA	314695.8	0.248	5.000	4.610	92	70-130	
E13C7-PFUnDA	277737.7	13C2-PFDA	314695.8	0.883	5.000	5.091	102	70-130	
Ed5-NEtFOSAA	76987.7	13C2-PFDA	314695.8	0.245	5.000	5.661	113	70-130	
E13C2-PFDoDA	545941.2	13C2-PFDA	314695.8	1.735	5.000	4.677	94	70-130	
Ed7-NMePFOSAE	329839.8	13C2-PFDA	314695.8	1.048	5.000	4.874	97	70-130	
Ed3-NMePFOSA	79724.2	13C2-PFDA	314695.8	0.253	5.000	4.638	93	70-130	
Ed9-NEtPFOSAE	275393.6	13C2-PFDA	314695.8	0.875	5.000	4.998	100	70-130	
Ed5-NEtPFOSA	64841.7	13C2-PFDA	314695.8	0.206	5.000	4.771	95	70-130	
E13C2-PFTeDA	416258.4	13C2-PFDA	314695.8	1.323	5.000	4.762	95	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: L+B CAL3

Instrument Name: LM27631

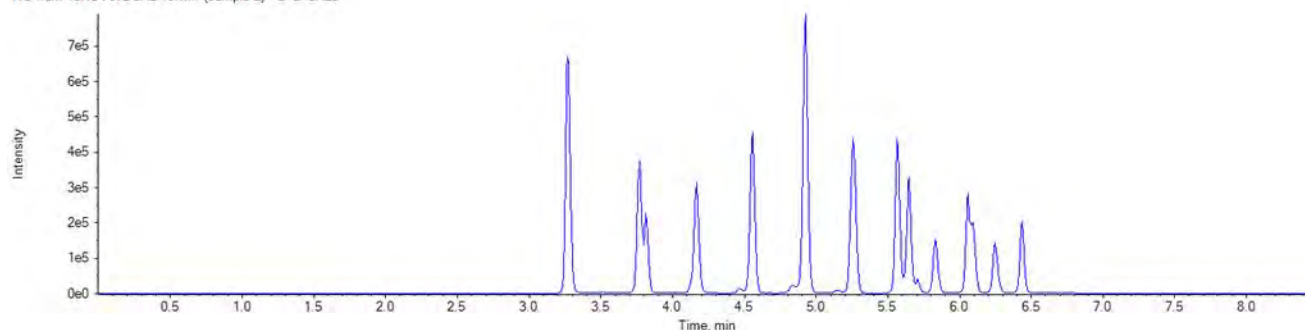
File Name: 18NOV07DCAL-19.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	798089.2	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.77	837606.5	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.82	434778.6	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.13	52170.5	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.17	698718.6	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.82	434778.6	N/A	
PFHxS	4.56	1.000	140012.1		M	13C3-PFHxS	4.56	338752.7	0.413	2.095
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	566540.4	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.91	34551.5	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.56	338752.7	N/A	
PFOA	4.92	1.000	347563.0		M	13C8-PFOA	4.92	967968.8	0.359	2.022
PFOS	5.25	1.000	117649.0		M	13C8-PFOS	5.25	276433.8	0.426	2.207
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.27	490916.1	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.25	276433.8	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.57	634835.7	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	29224.4	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	714716.6	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.71	78018.5	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.25	276433.8	N/A	
PfUnDA	N/A	N/A	N/A		A	13C7-PfUnDA	5.83	277737.7	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	76987.7	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.06	545941.2	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	29224.4	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	329839.8	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.11	79724.2	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.25	276433.8	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.25	275393.7	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	64841.7	N/A	
PFTDA	N/A	N/A	N/A		A	13C2-PFDODA	6.06	545941.2	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.44	416258.4	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.44	416258.4	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.44	416258.4	N/A	

Total Ion Chromatogram

TIC from 18NOV07DCAL-19.wiff (sample 2) - L+B CAL3



APPROVED

By JPT at 2:53 pm, 11/7/18

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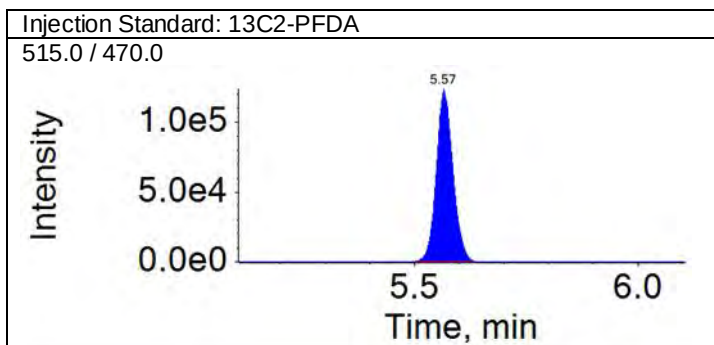
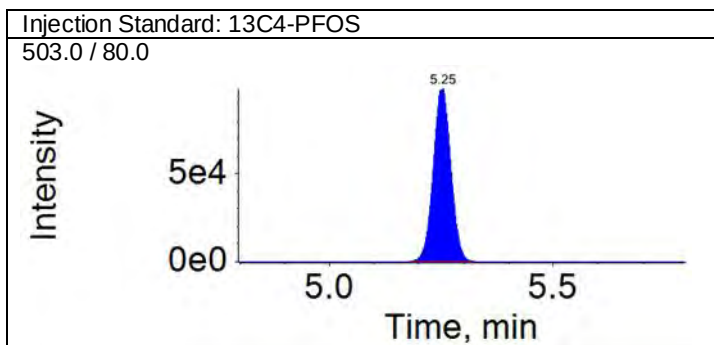
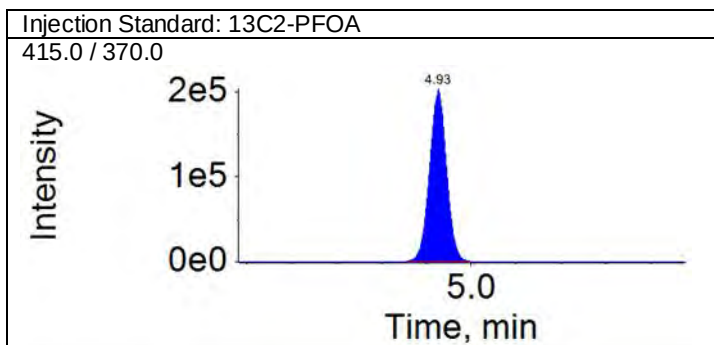
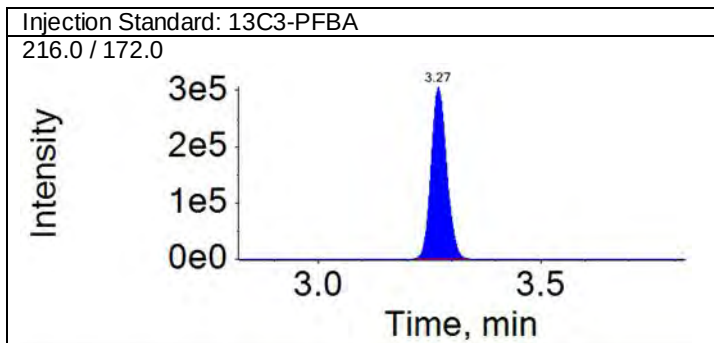
REVIEWED

By umar at 5:23 pm, 11/9/18

Page 2 of 17

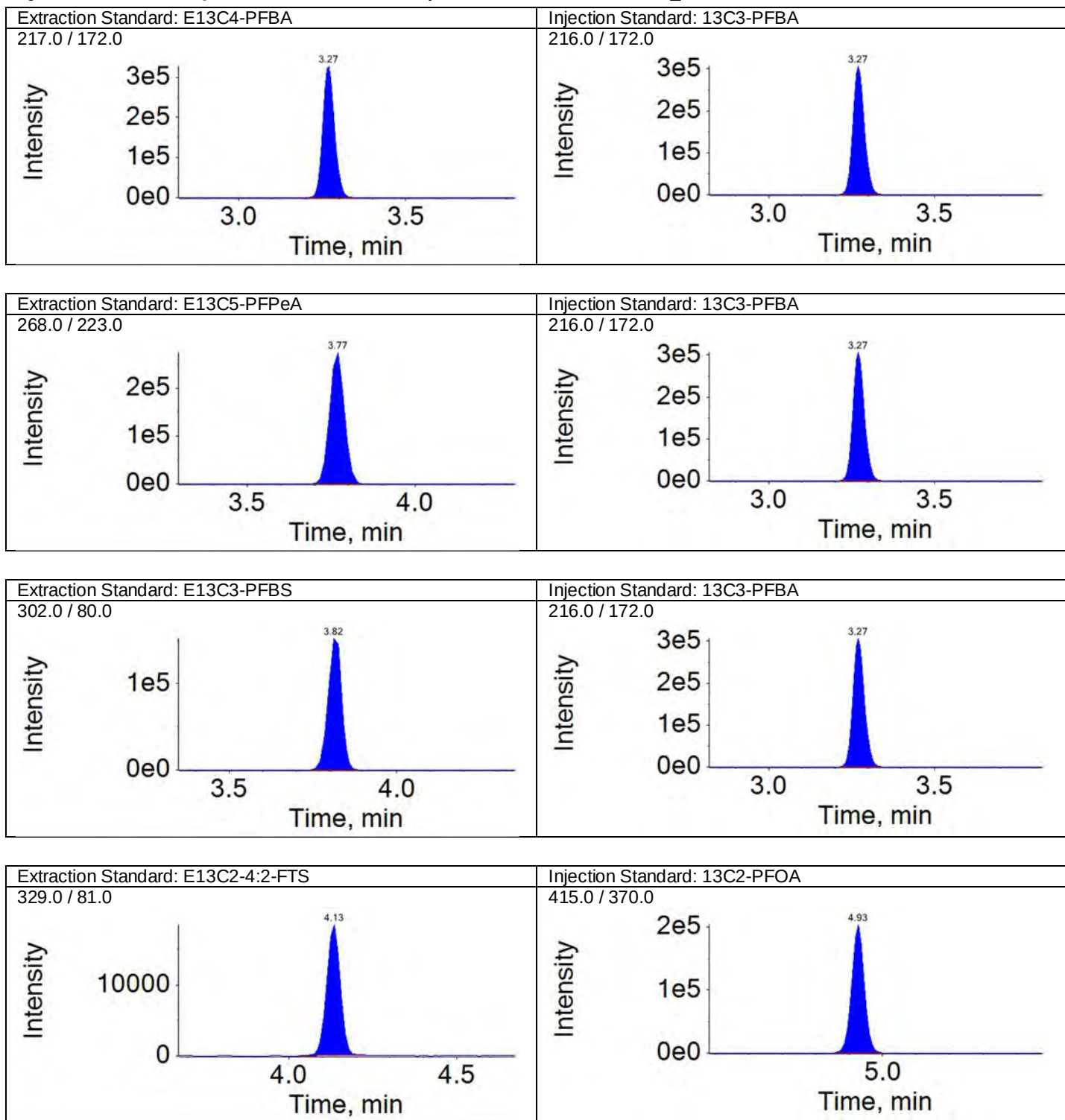
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
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APPROVED

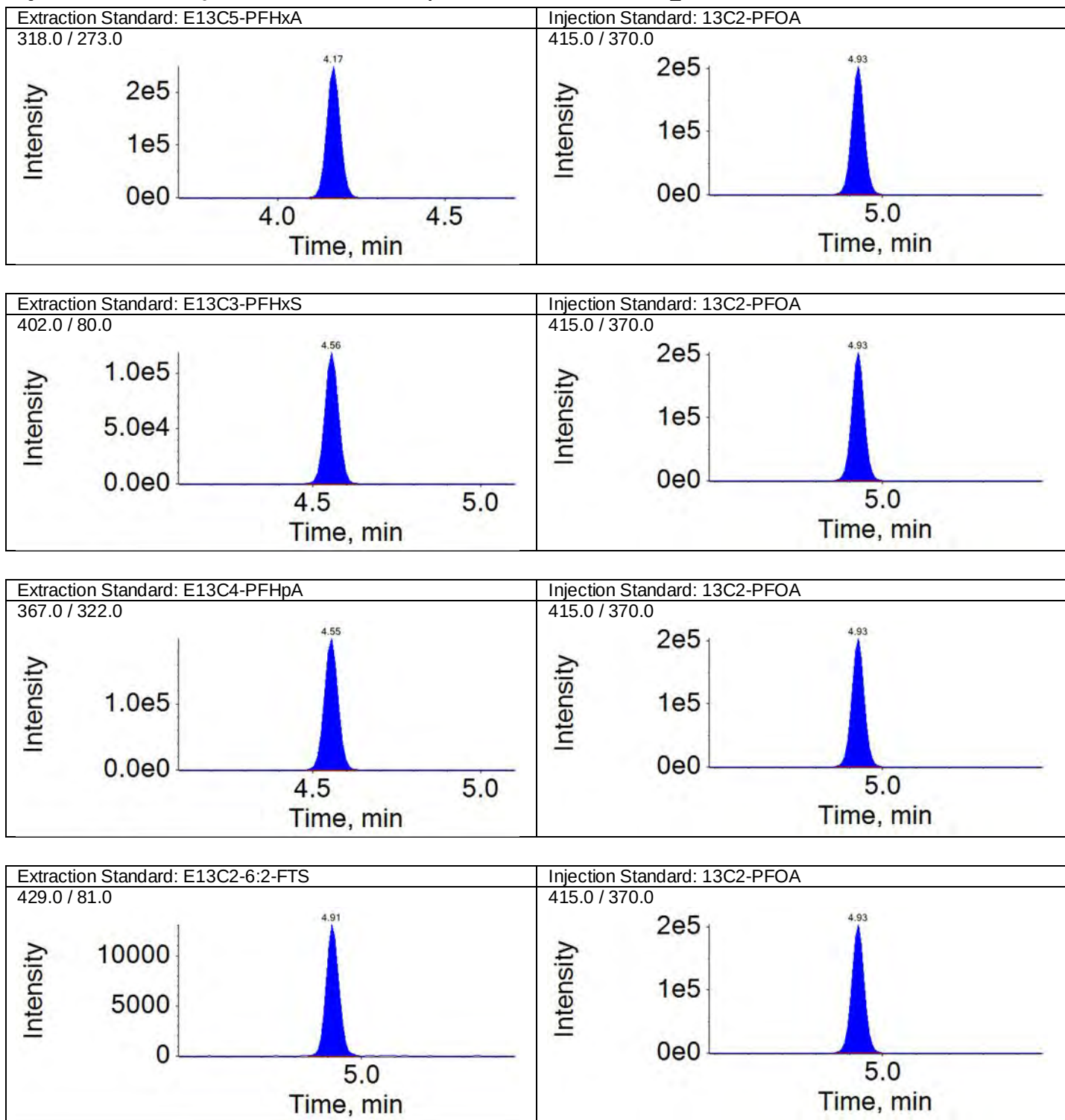
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REVIEWED

By umar at 5:23 pm, 11/9/18

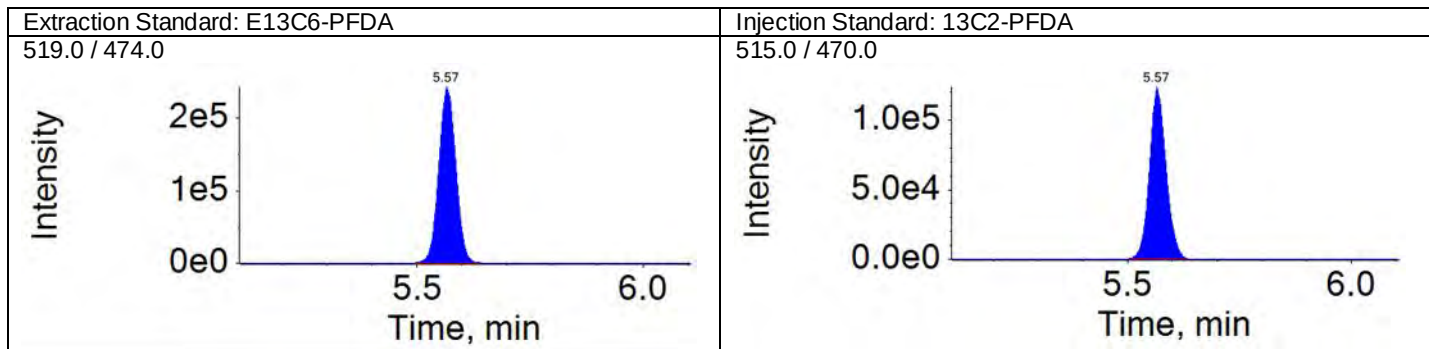
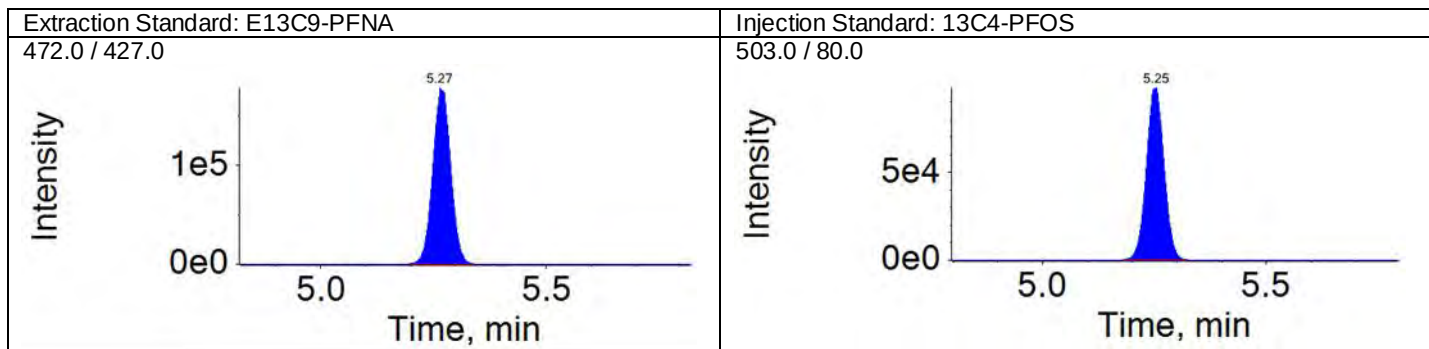
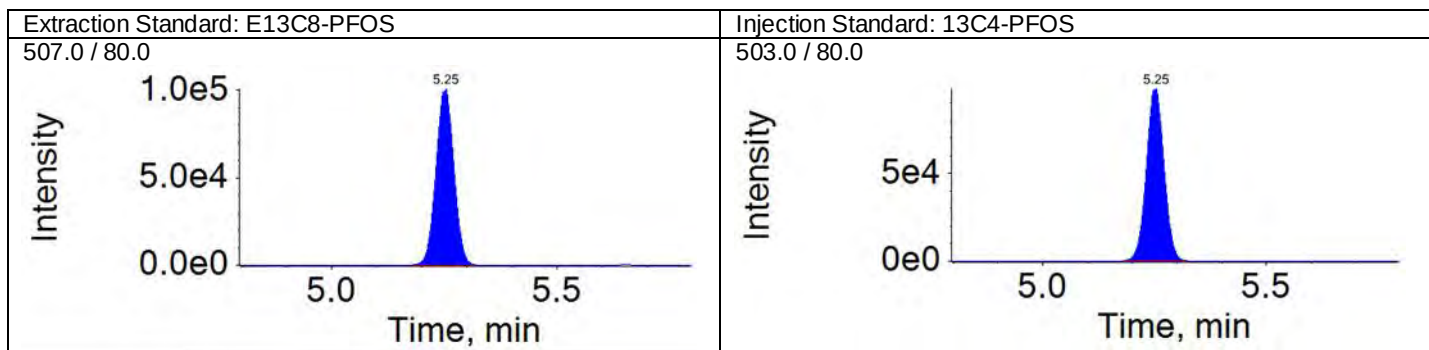
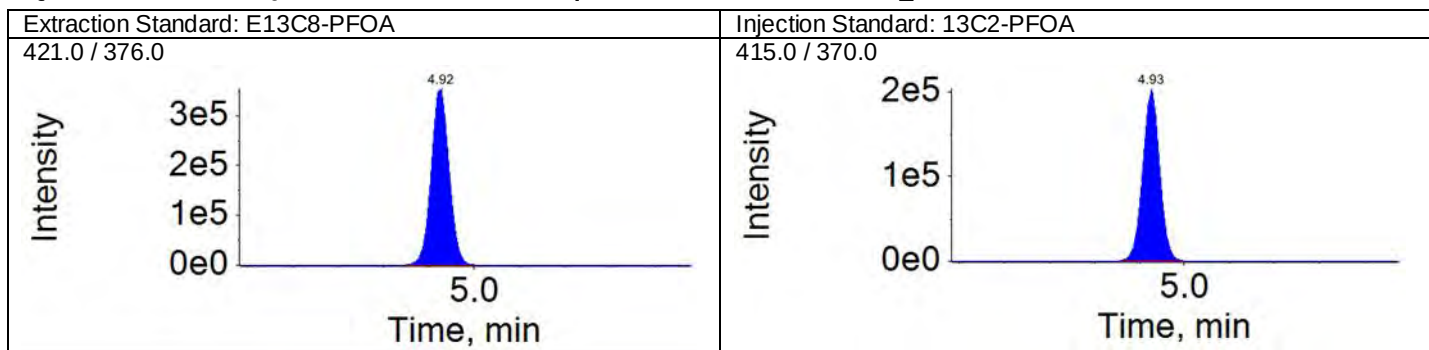
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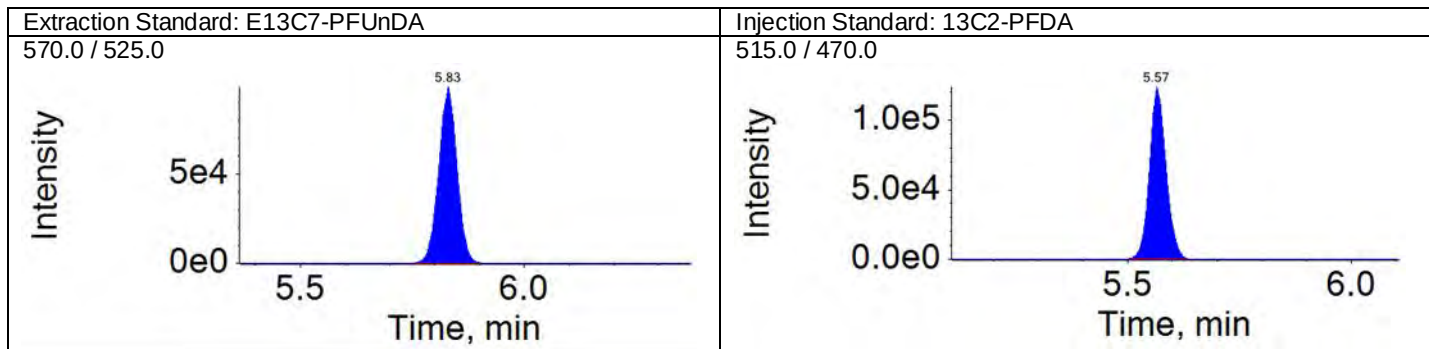
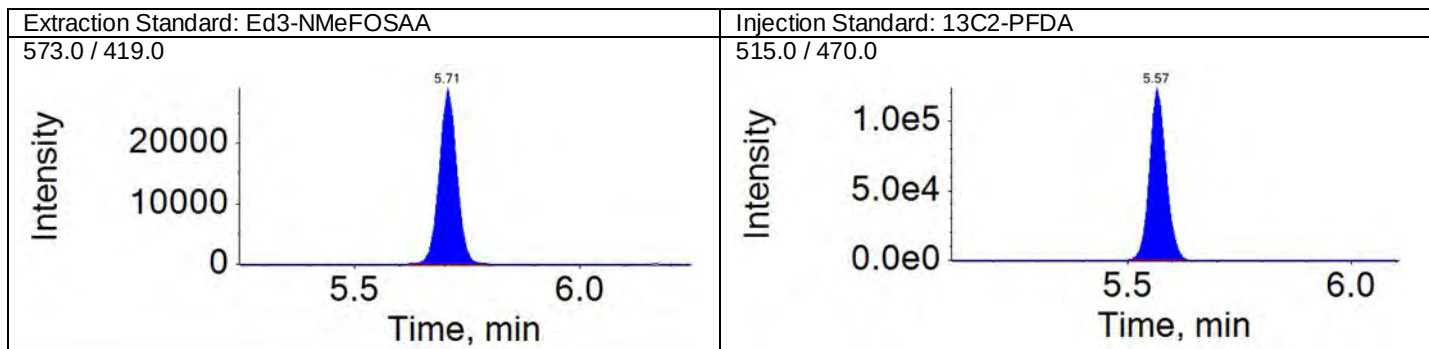
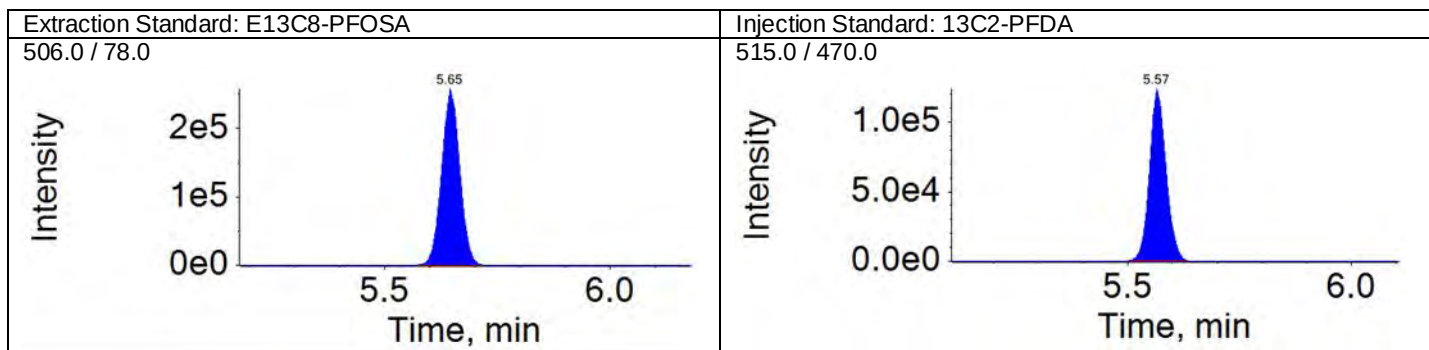
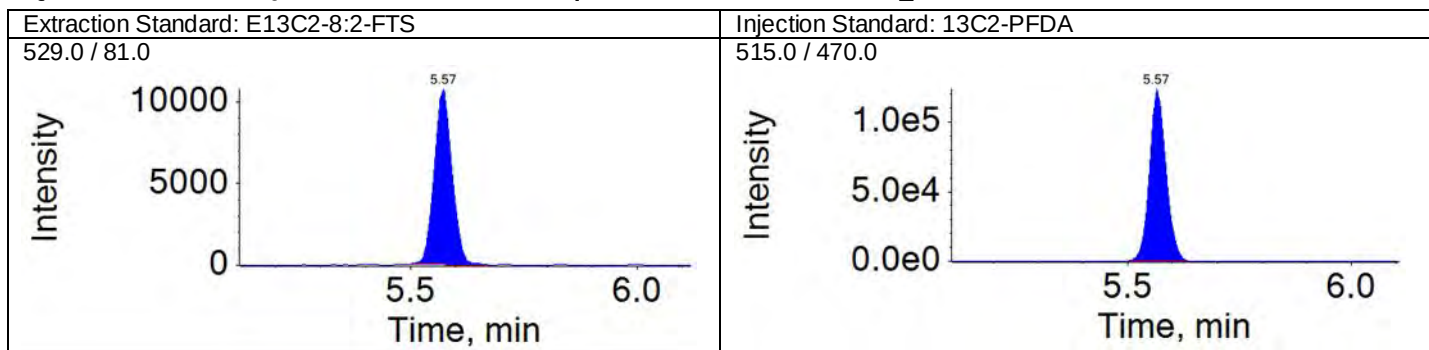
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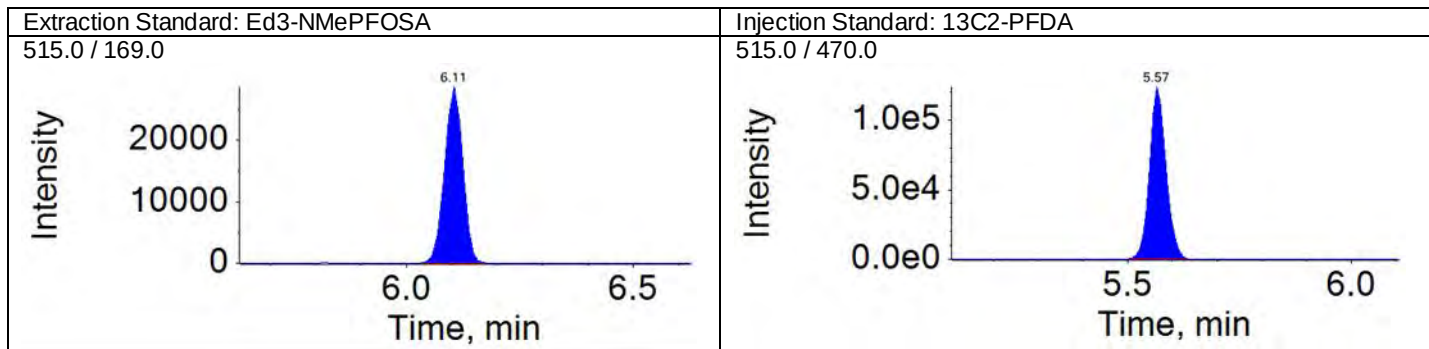
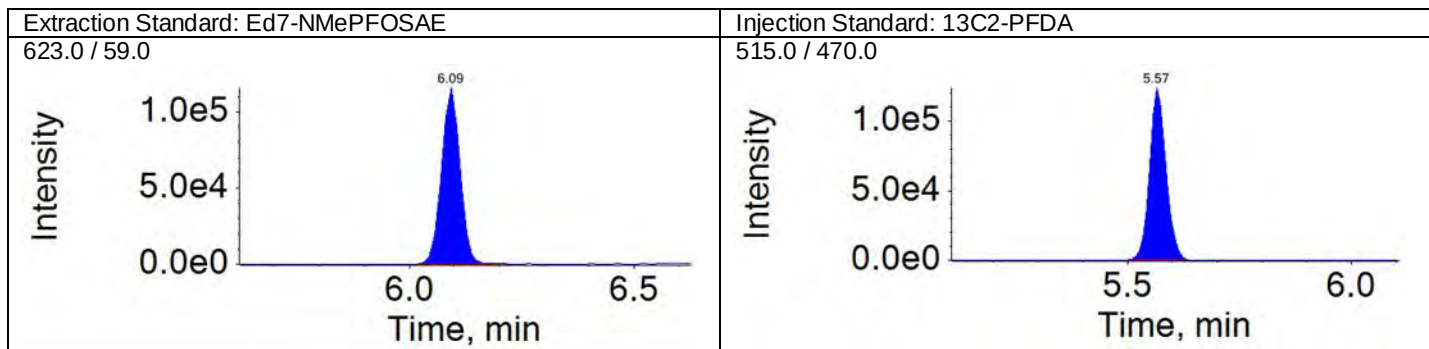
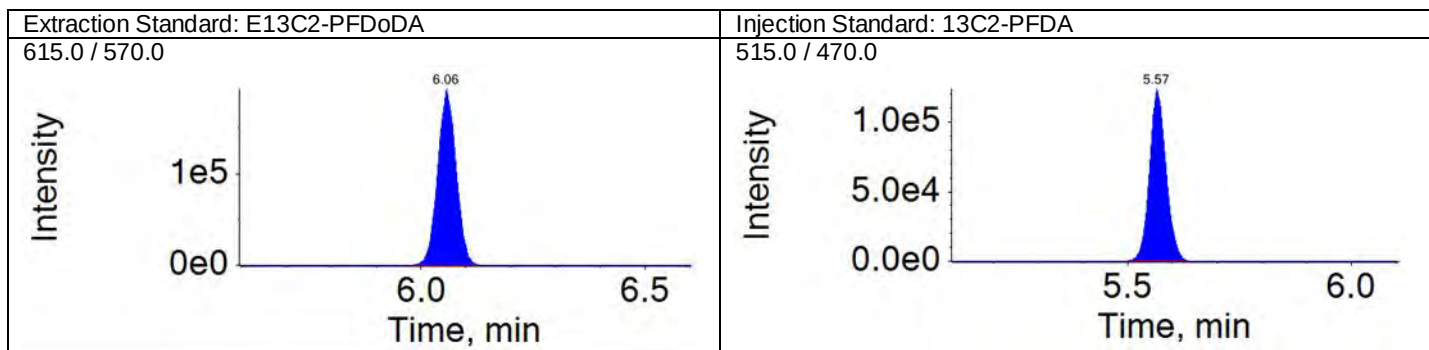
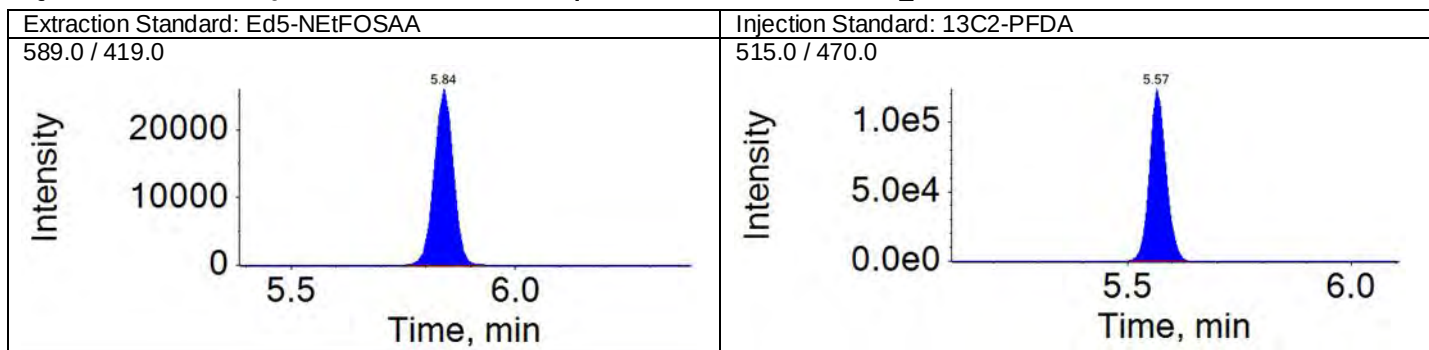
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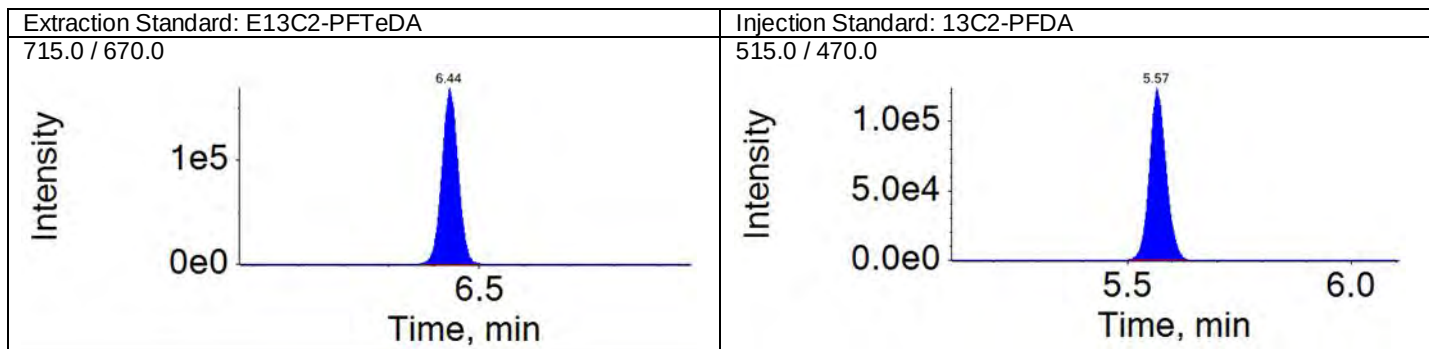
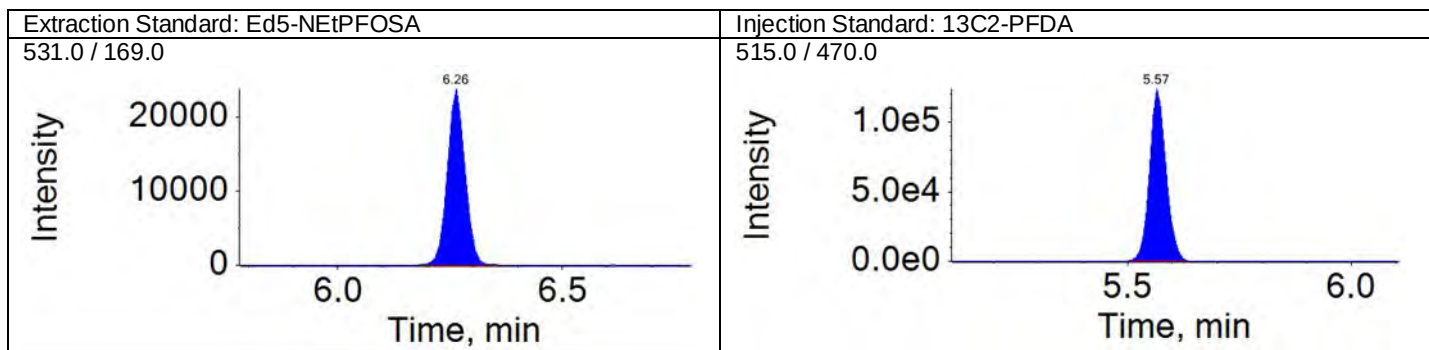
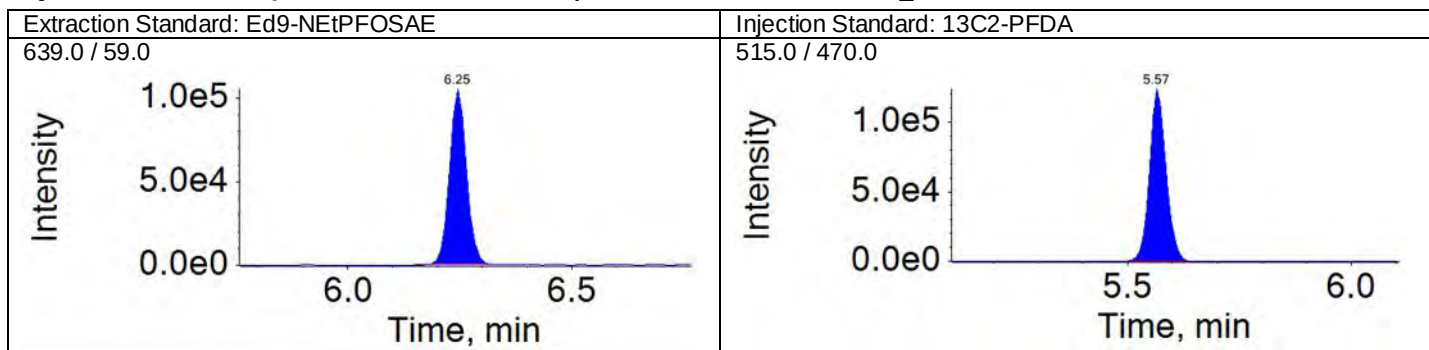
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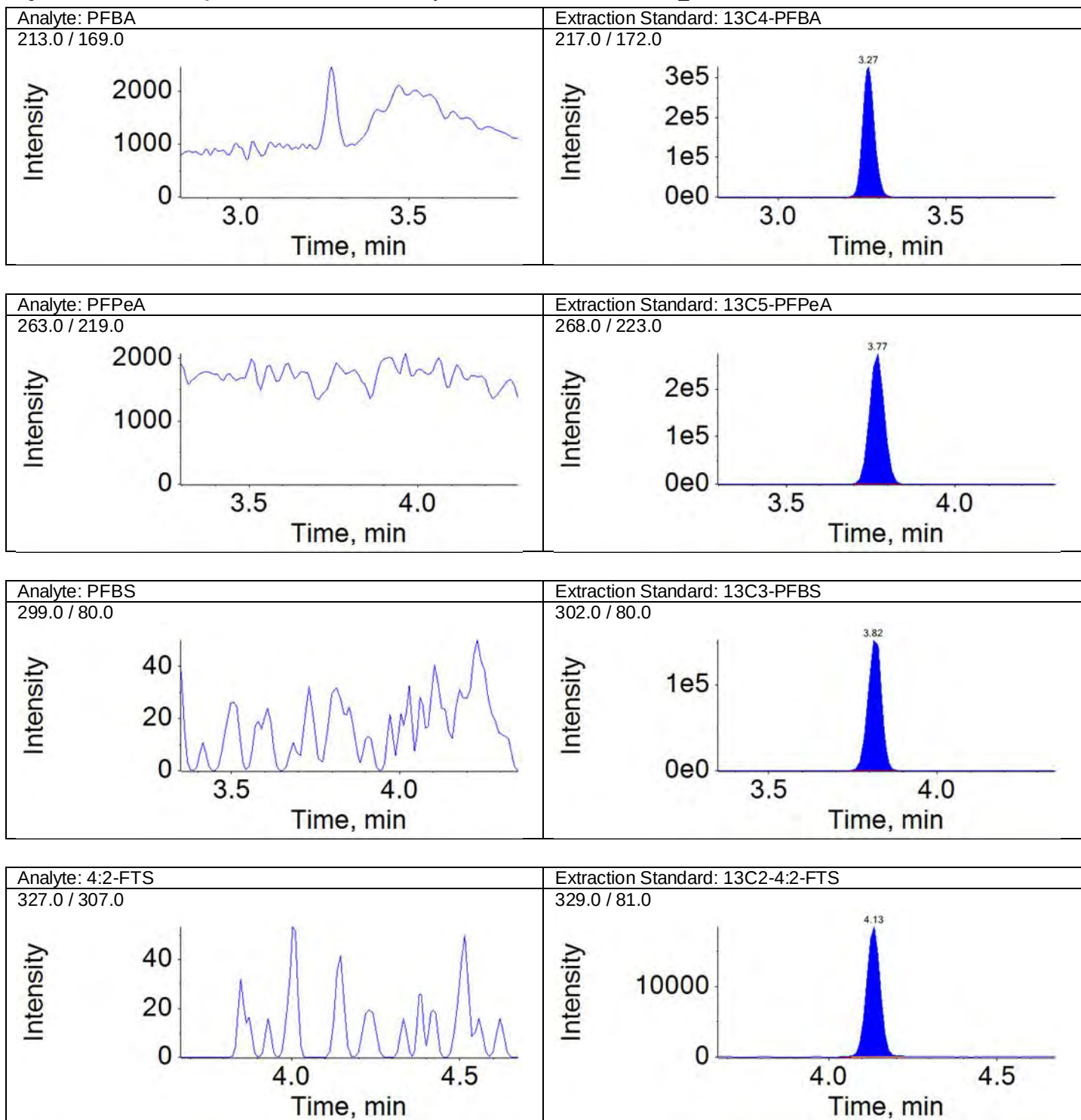
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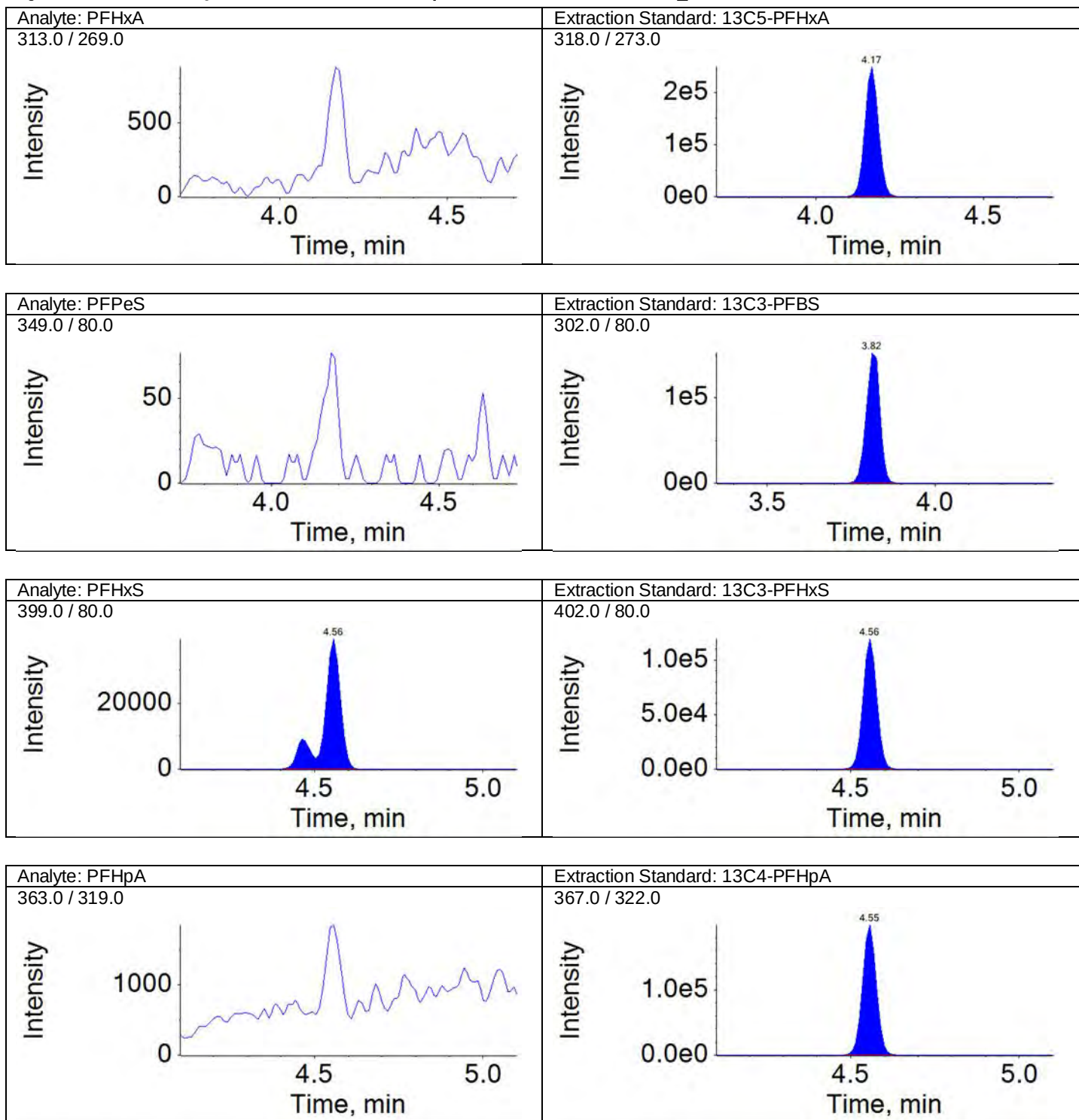
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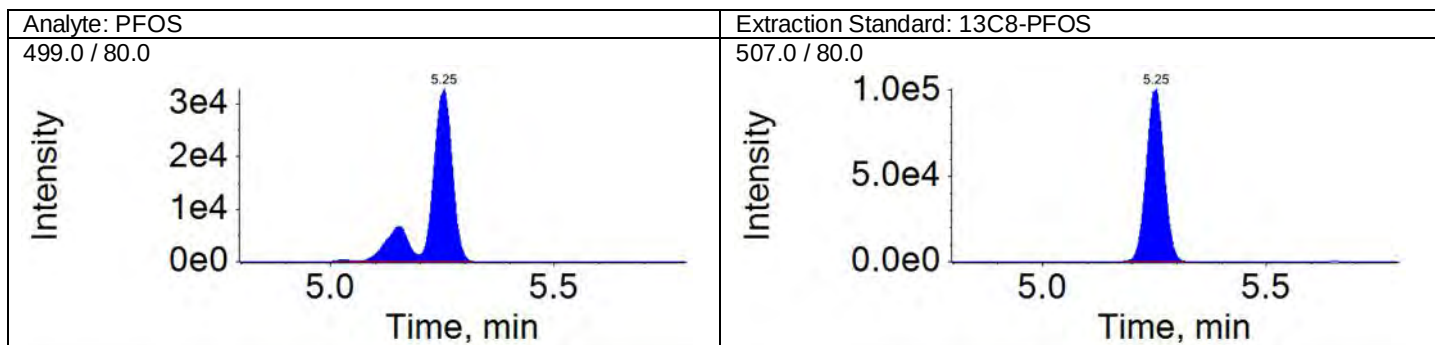
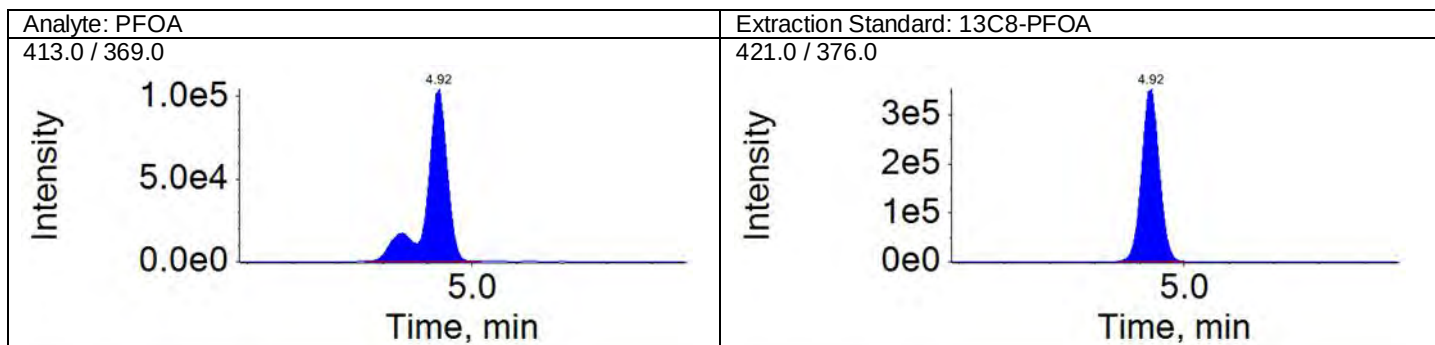
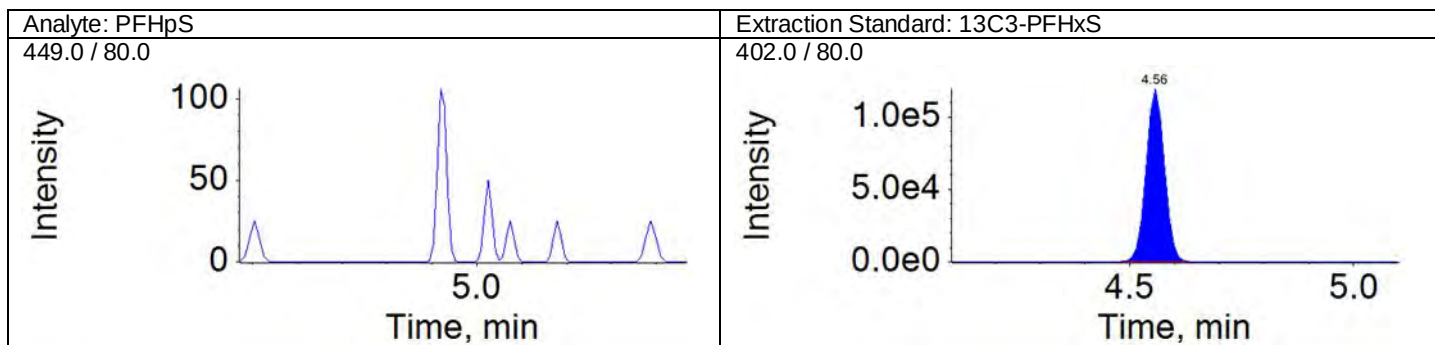
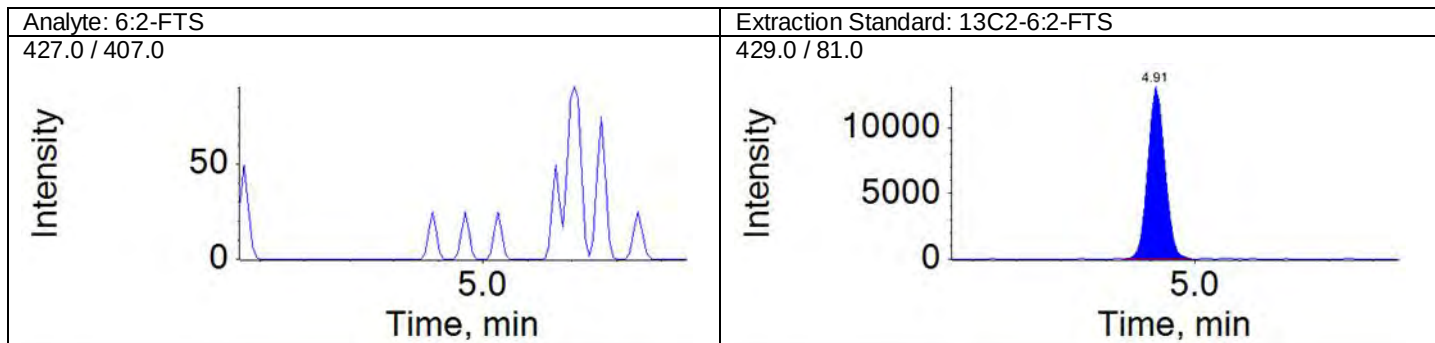
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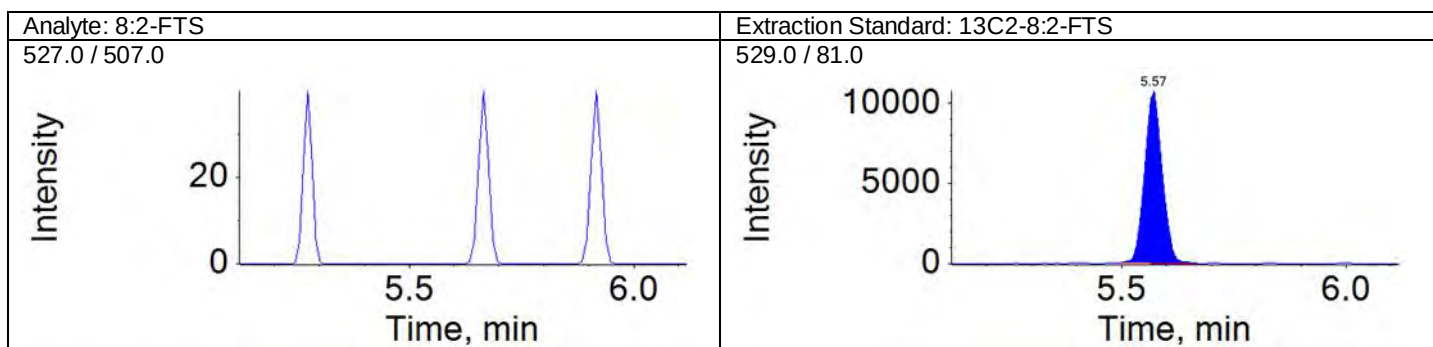
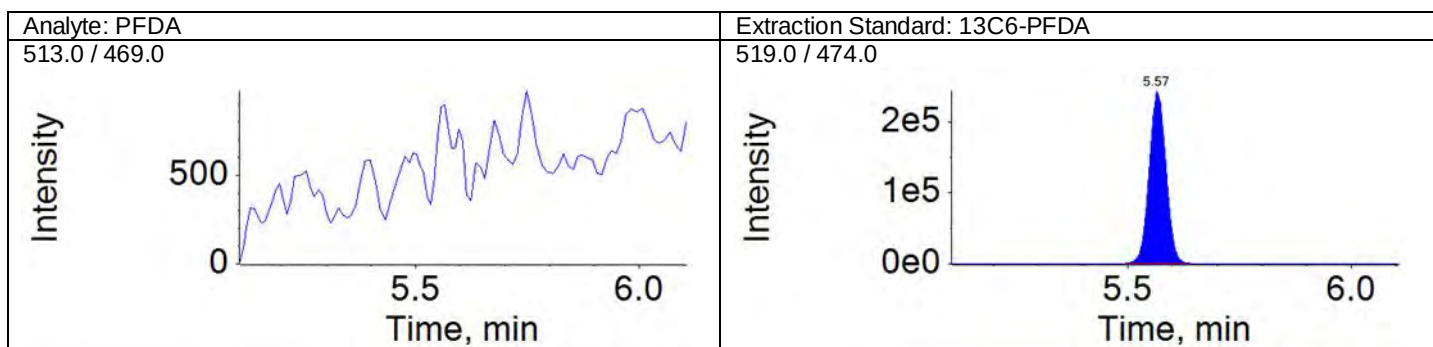
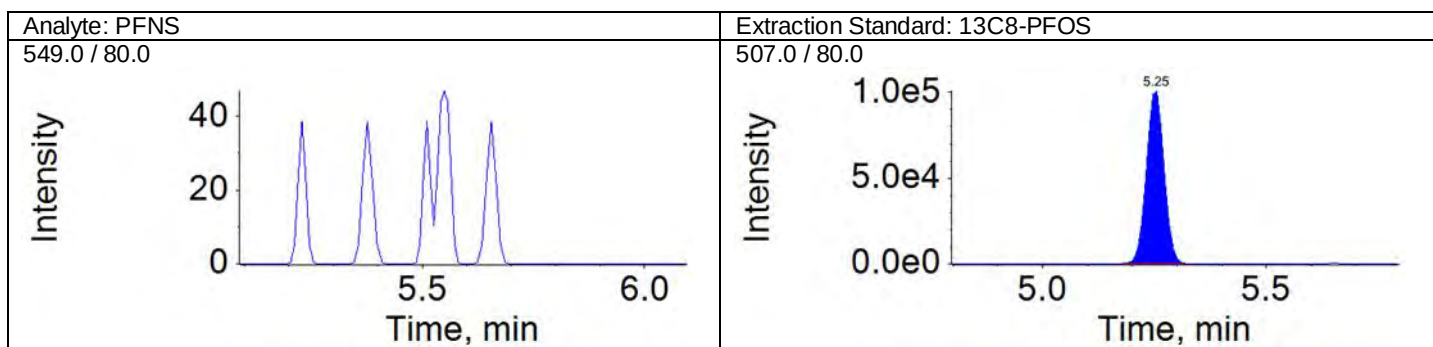
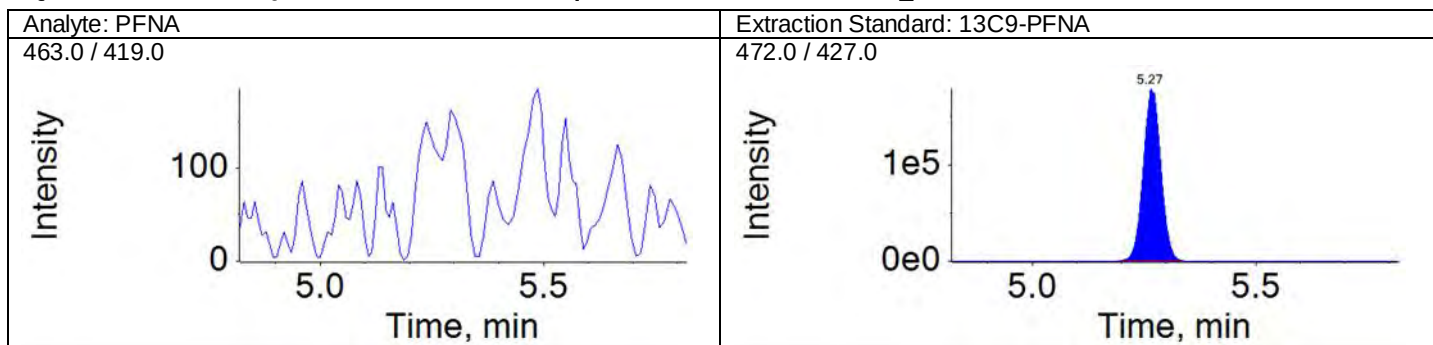
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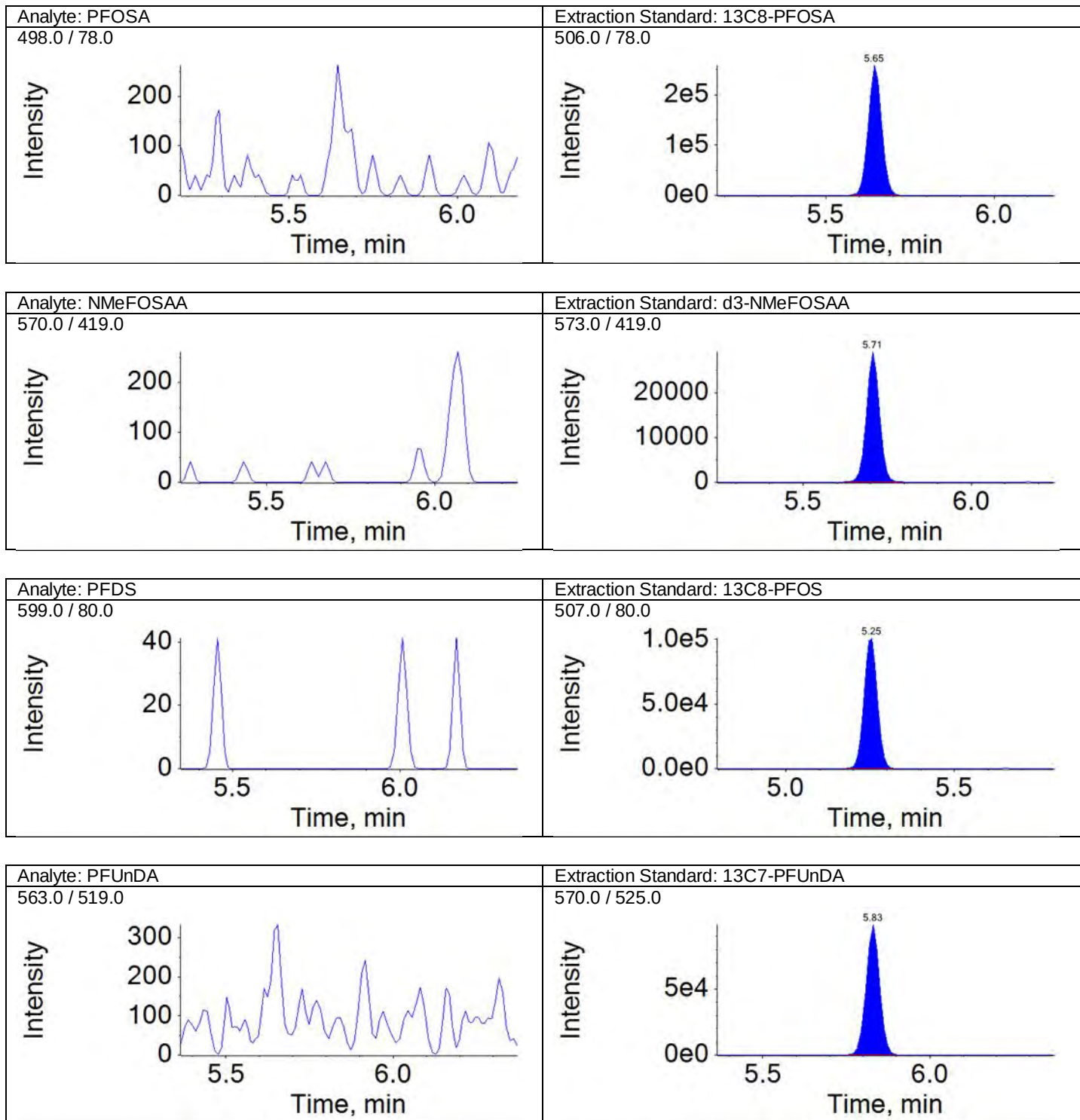
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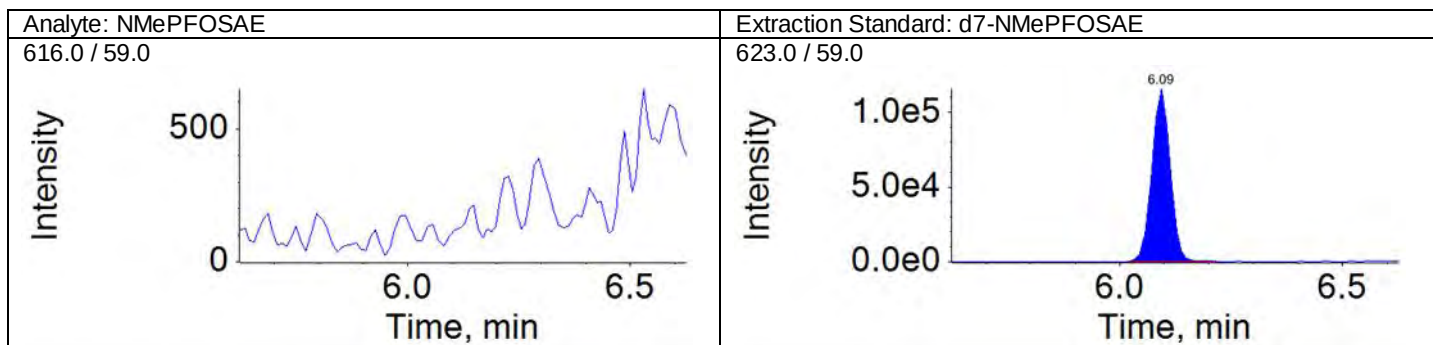
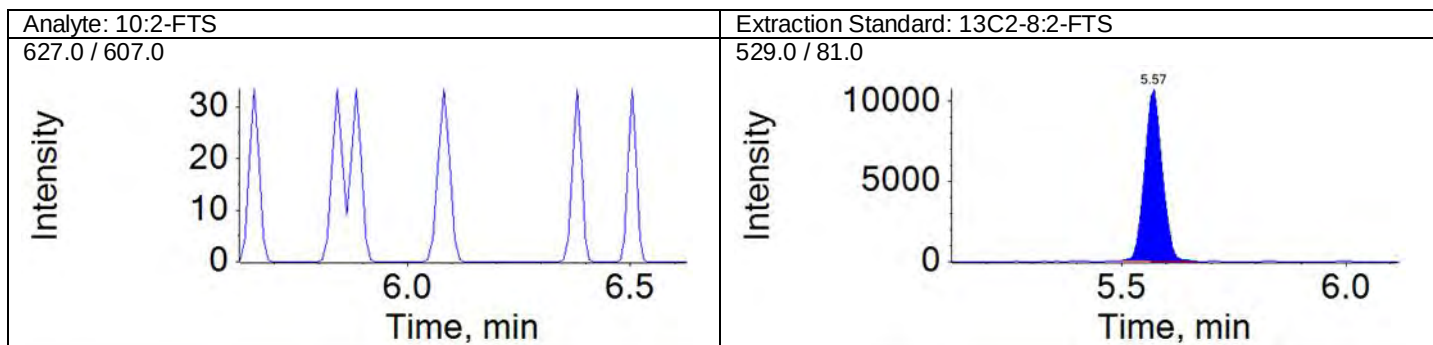
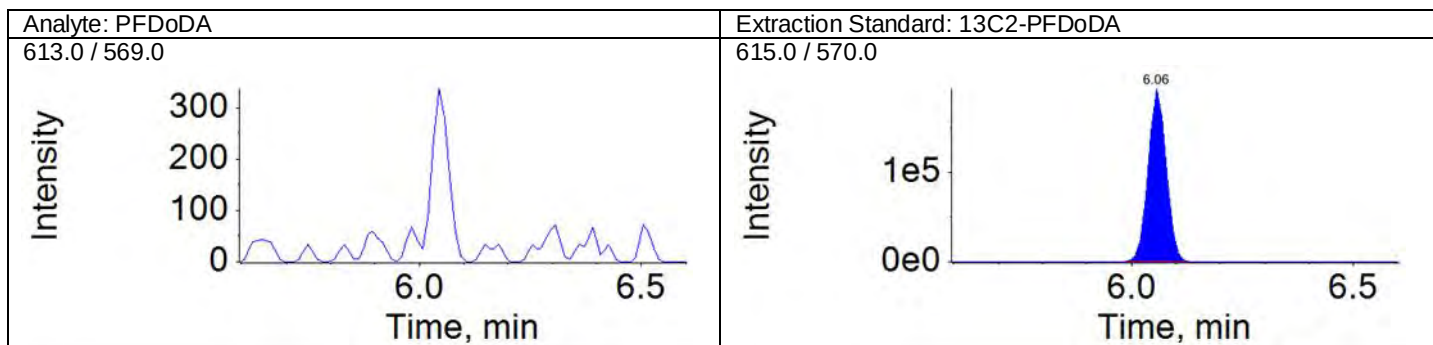
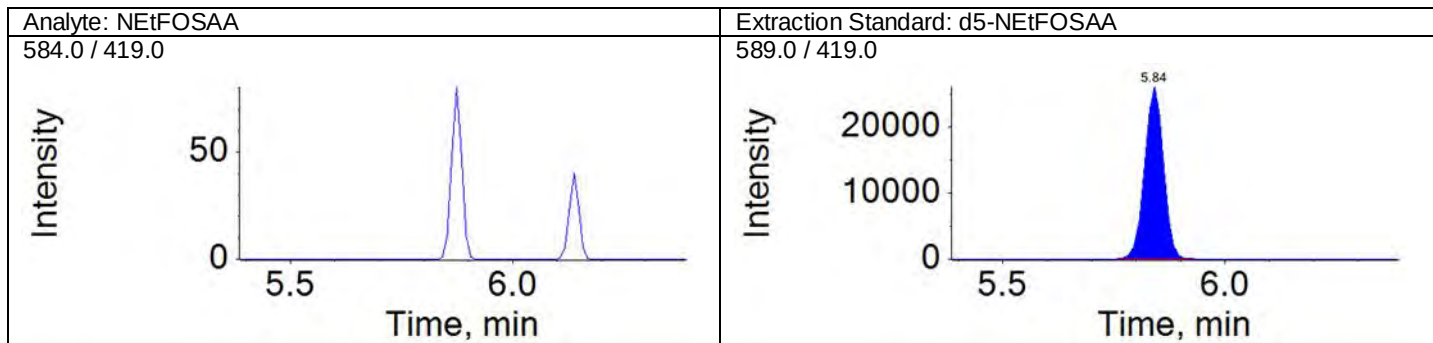
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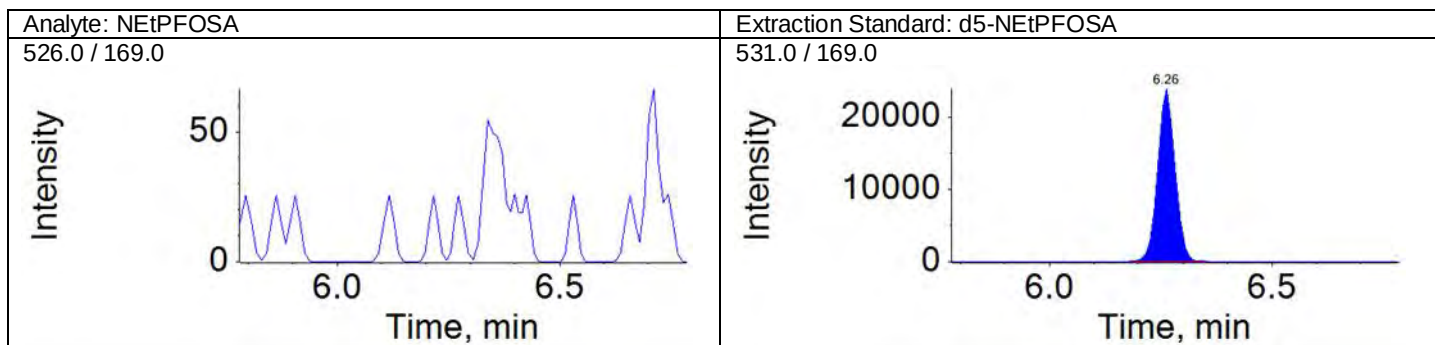
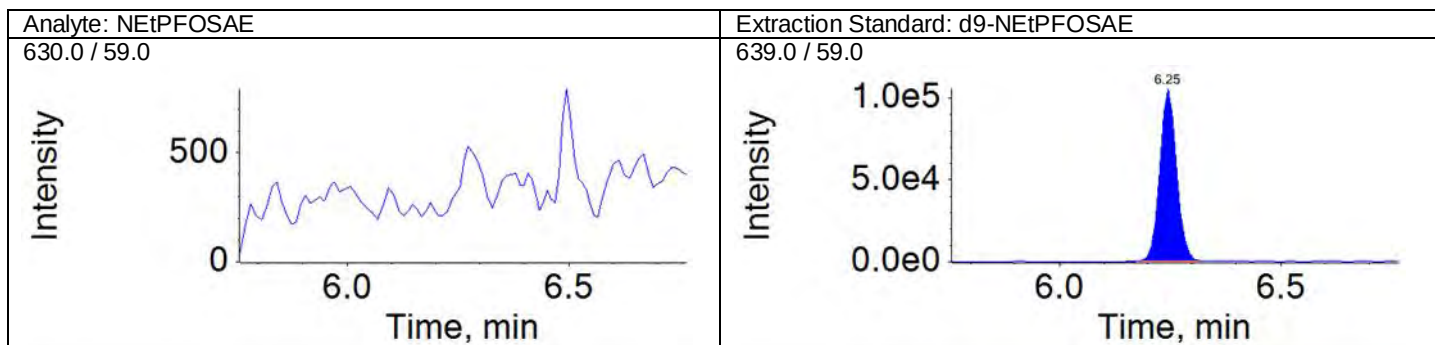
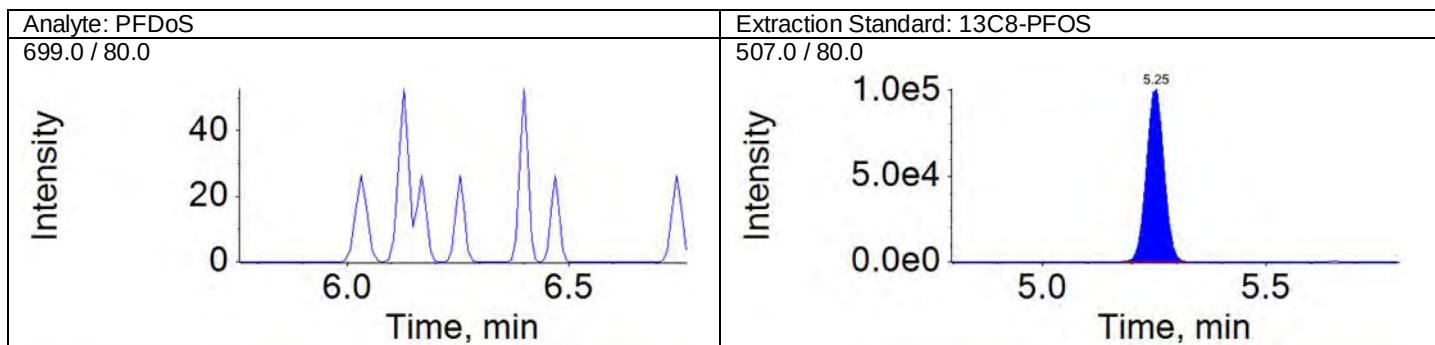
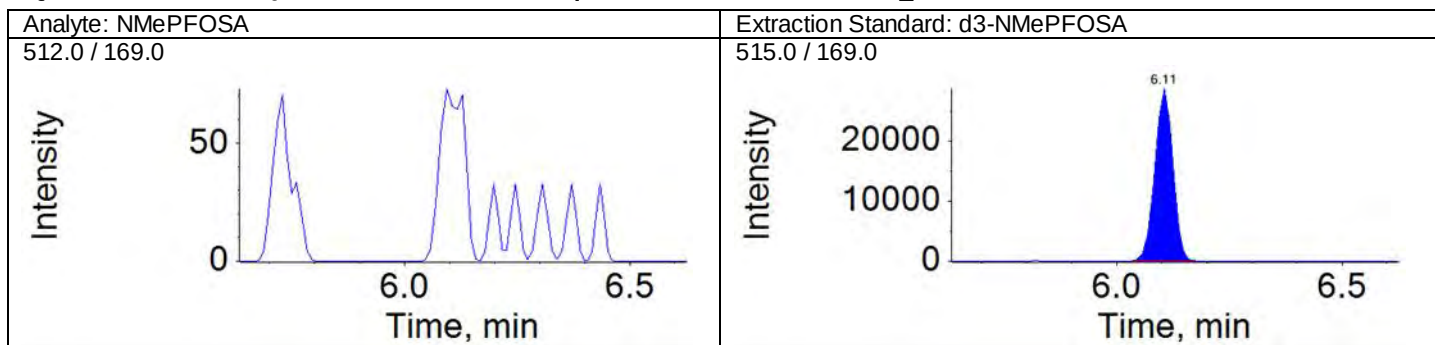
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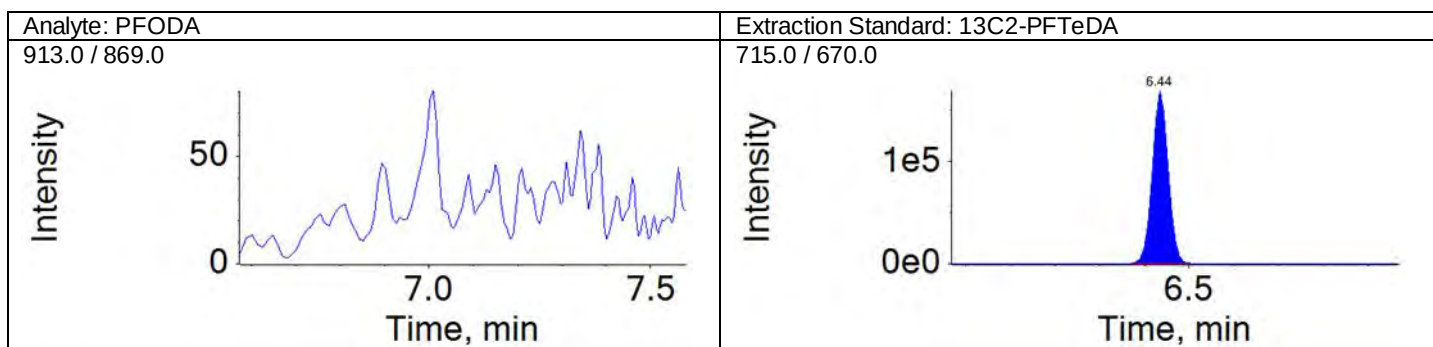
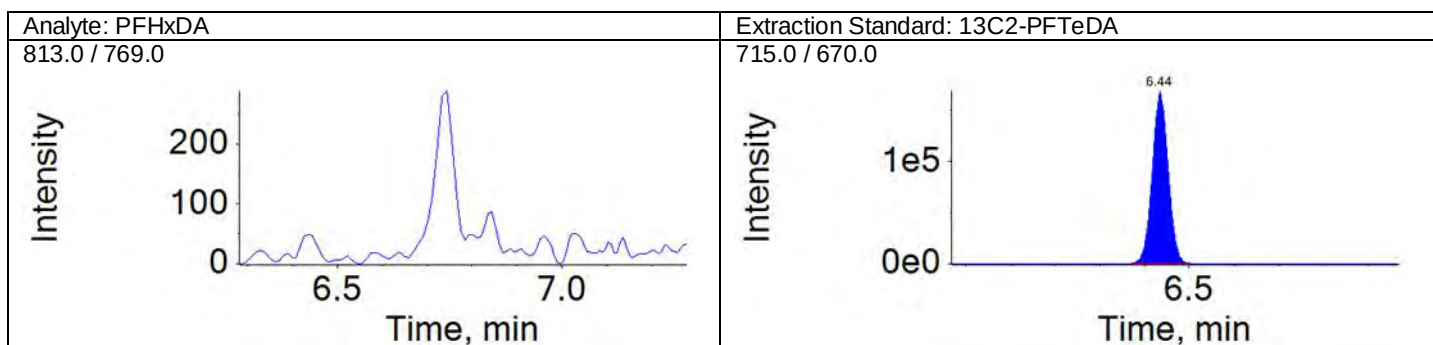
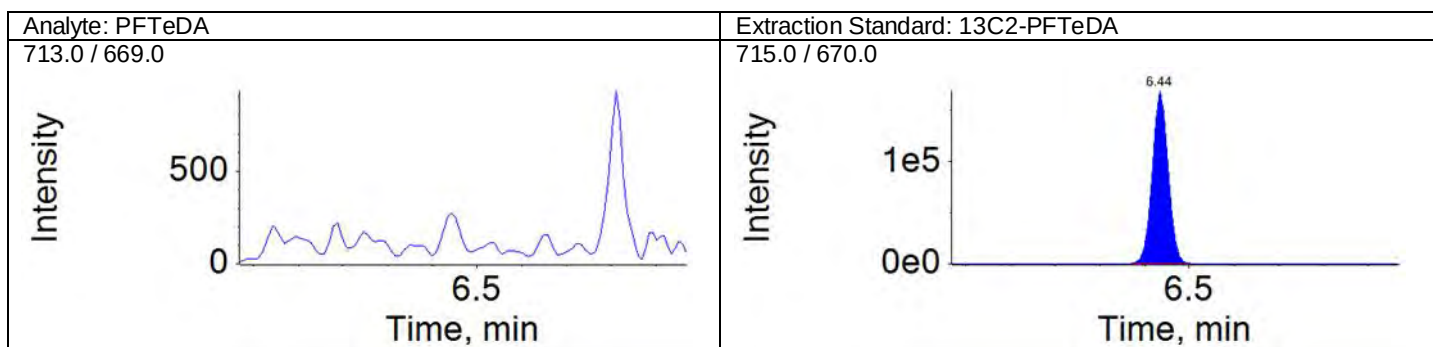
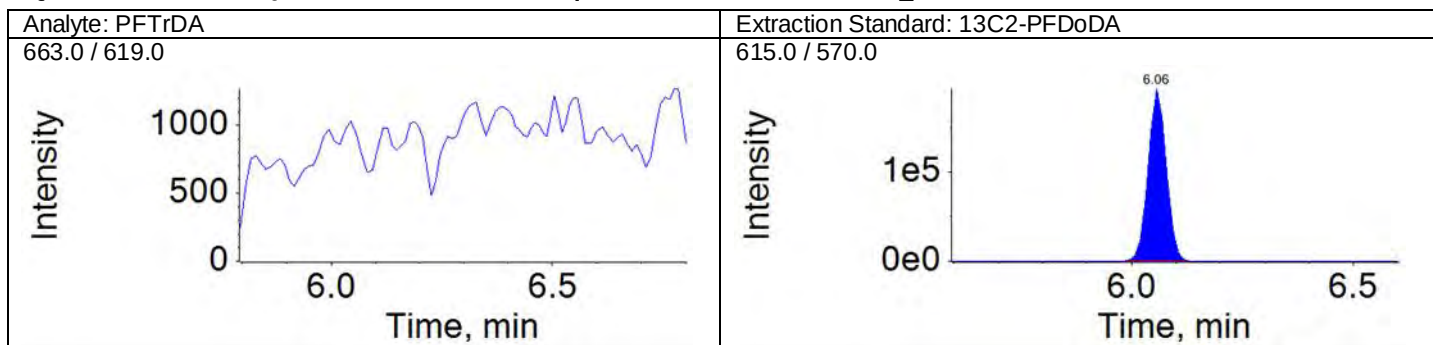
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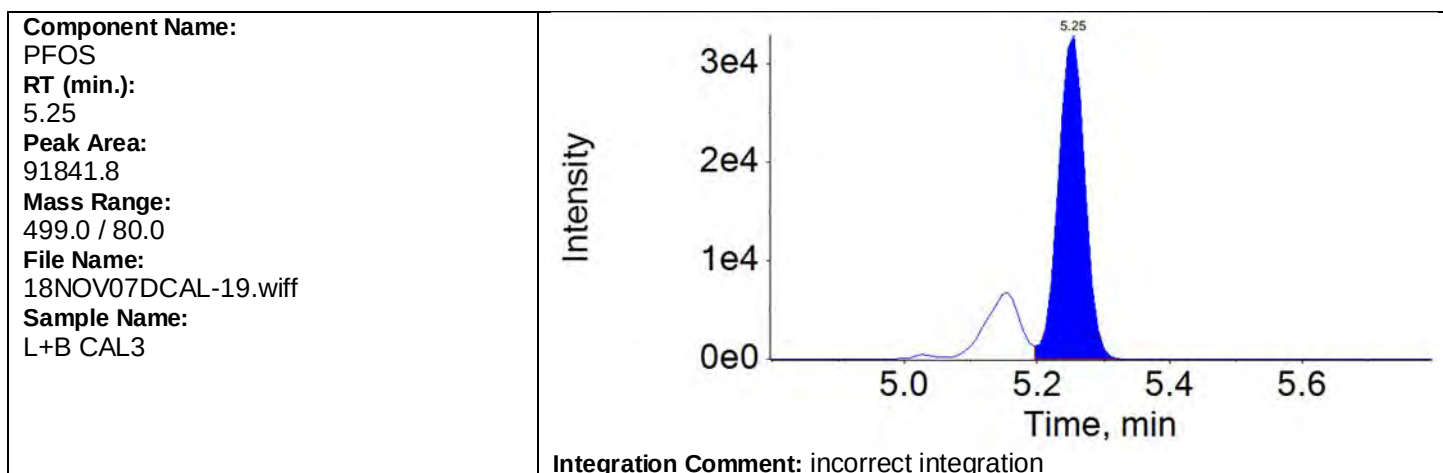
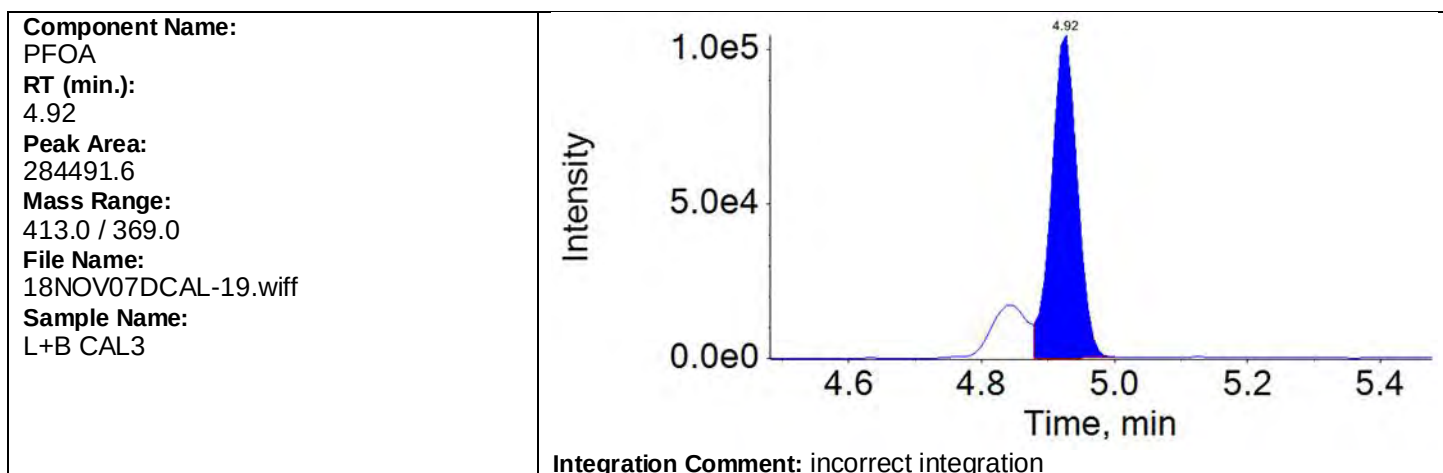
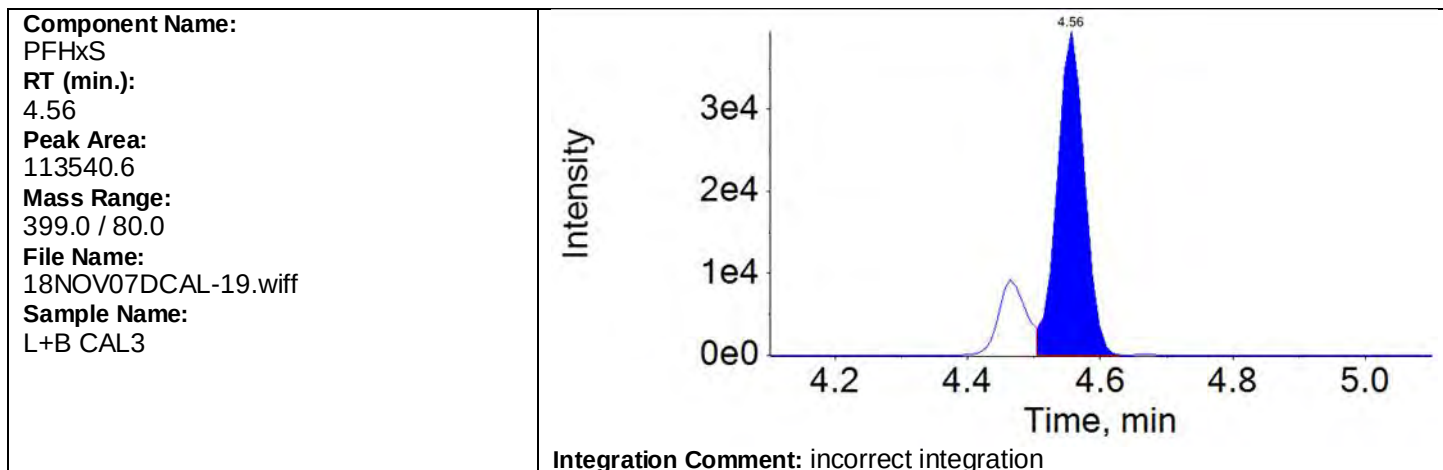
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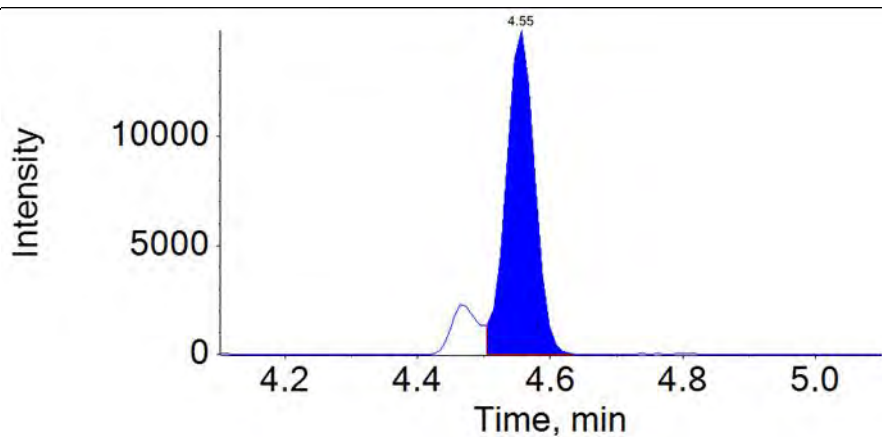
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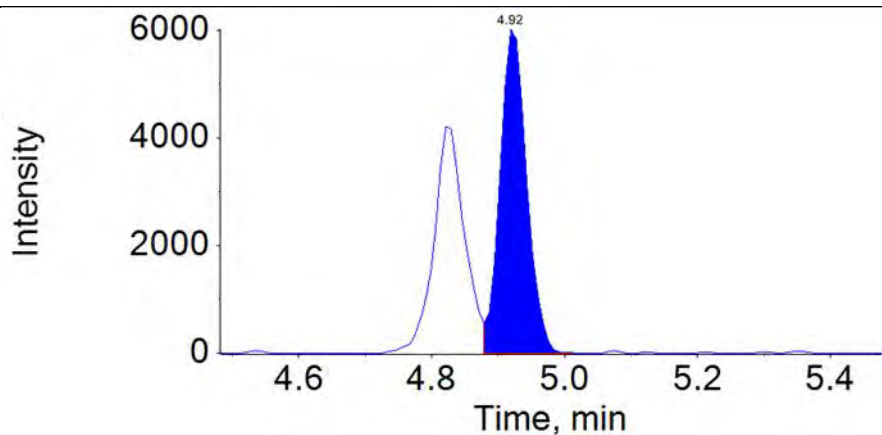
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PFHxS_2
RT (min.):
4.55
Peak Area:
44357.1
Mass Range:
399.0 / 99.0
File Name:
18NOV07DCAL-19.wiff
Sample Name:
L+B CAL3



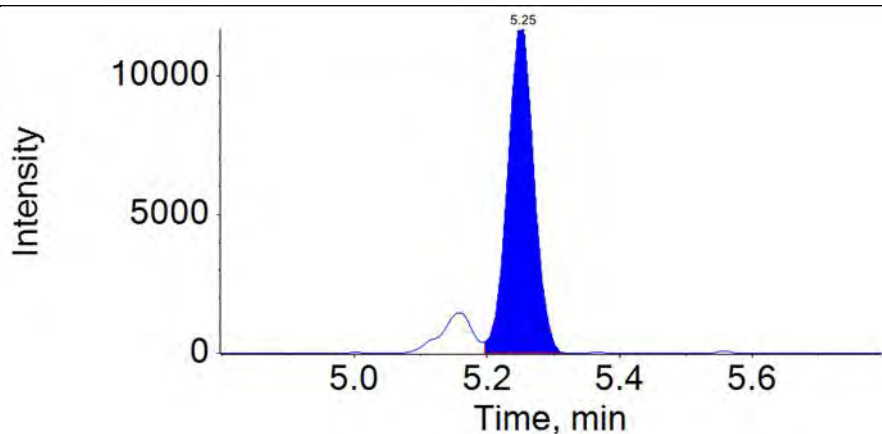
Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.92
Peak Area:
16848.6
Mass Range:
413.0 / 169.0
File Name:
18NOV07DCAL-19.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
32705.6
Mass Range:
499.0 / 99.0
File Name:
18NOV07DCAL-19.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

Results Table Name: 18NOV07DCAL
Results Table Date: 11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED
By JPT at 2:54 pm, 11/7/18

REVIEWED
By umar at 5:24 pm, 11/9/18

Ion Ratio Report

Sample Name: L+B CAL3

Instrument Name: LM27631

File Name: 18NOV07DCAL-19.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	1.0000	N/A			
PFBS_2	N/A	N/A	N/A	A	0.3576	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	0.6359	N/A		50	
PFHxA	N/A	N/A	N/A	A	1.0000	N/A			
PFHxA_2	N/A	N/A	N/A	A	0.0115	N/A		50	
PFPeS	N/A	N/A	N/A	A	1.0000	N/A			
PFPeS_2	N/A	N/A	N/A	A	0.5384	N/A		50	
PFHxS	4.56	1.00	140012.1	M	1.0000	1.0000			
PFHxS_2	4.55	1.00	50830.8	M	0.3569	0.3630	2	50	
PFHpA	N/A	N/A	N/A	A	1.0000	N/A			
PFHpA_2	N/A	N/A	N/A	A	0.0577	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	0.6752	N/A		50	
PFHpS	N/A	N/A	N/A	A	1.0000	N/A			
PFHpS_2	N/A	N/A	N/A	A	0.3950	N/A		50	
PFOA	4.92	1.00	347563.0	M	1.0000	1.0000			
PFOA_2	4.90	0.99	30355.3	M	0.0635	0.0873	38	50	
PFOS	5.25	1.00	117649.0	M	1.0000	1.0000			
PFOS_2	5.25	1.00	37584.5	M	0.3494	0.3195	-9	50	
PFNA	N/A	N/A	N/A	A	1.0000	N/A			
PFNA_2	N/A	N/A	N/A	A	0.0207	N/A		50	
PFNS	N/A	N/A	N/A	A	1.0000	N/A			
PFNS_2	N/A	N/A	N/A	A	0.4890	N/A		50	
PFDA	N/A	N/A	N/A	A	1.0000	N/A			
PFDA_2	N/A	N/A	N/A	A	0.0057	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	0.6169	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	1.0000	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	0.2206	N/A		50	
PFDS	N/A	N/A	N/A	A	1.0000	N/A			
PFDS_2	N/A	N/A	N/A	A	0.4648	N/A		50	
PFUnDA	N/A	N/A	N/A	A	1.0000	N/A			
PFUnDA_2	N/A	N/A	N/A	A	0.0031	N/A		50	
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NEtFOSAA_2	N/A	N/A	N/A	A	0.6082	N/A		50	
PFDODA	N/A	N/A	N/A	A	1.0000	N/A			
PFDODA_2	N/A	N/A	N/A	A	0.0109	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	1.0000	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	0.7082	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	1.0000	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	0.0096	N/A		50	
PFTeDA	N/A	N/A	N/A	A	1.0000	N/A			
PFTeDA_2	N/A	N/A	N/A	A	0.0055	N/A		50	
PFHxDA	N/A	N/A	N/A	A	1.0000	N/A			
PFHxDA_2	N/A	N/A	N/A	A	0.0596	N/A		50	
PFODA	N/A	N/A	N/A	A	1.0000	N/A			
PFODA_2	N/A	N/A	N/A	A	0.0257	N/A		50	

APPROVED

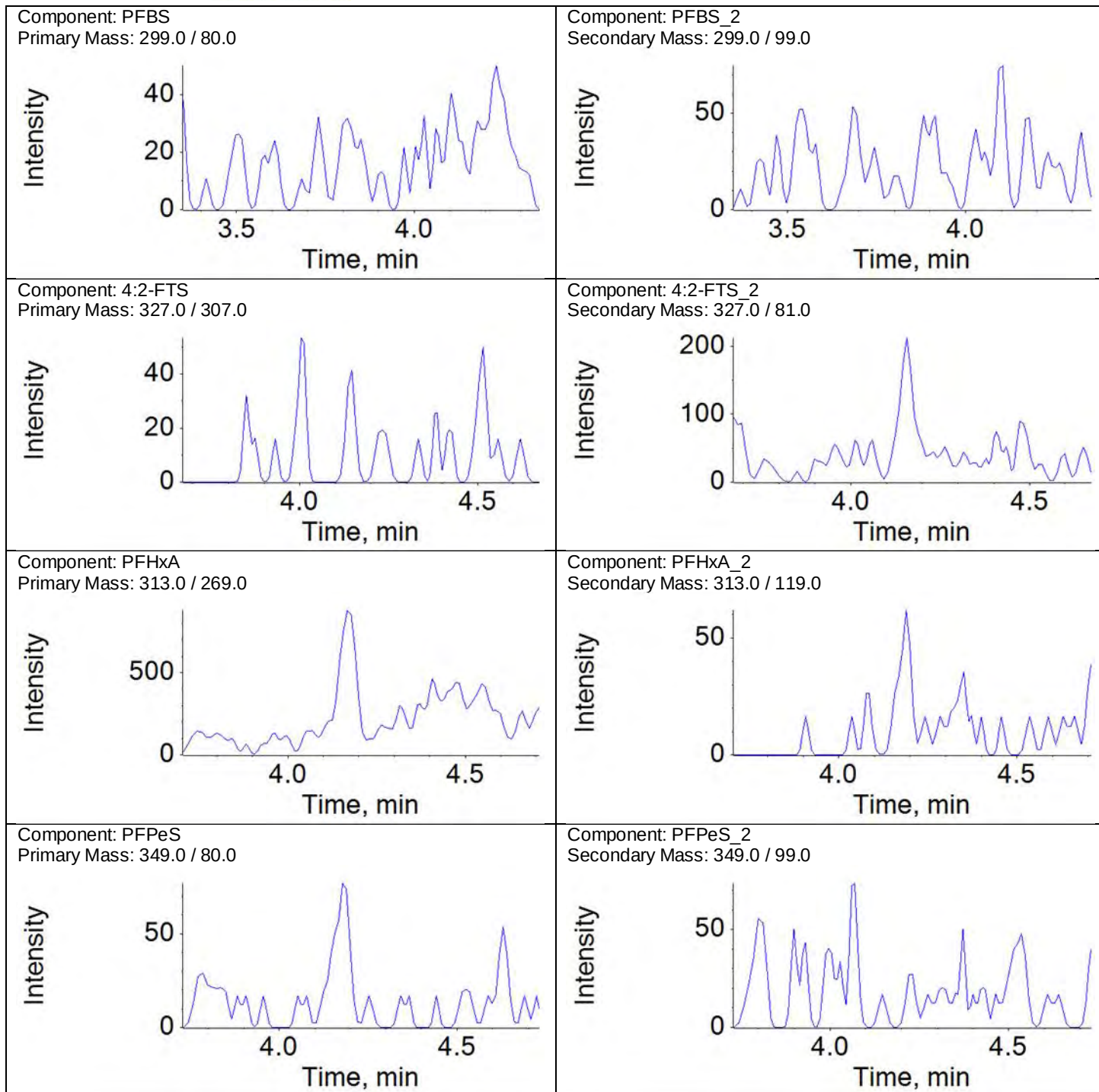
By JPT at 2:54 pm, 11/7/18

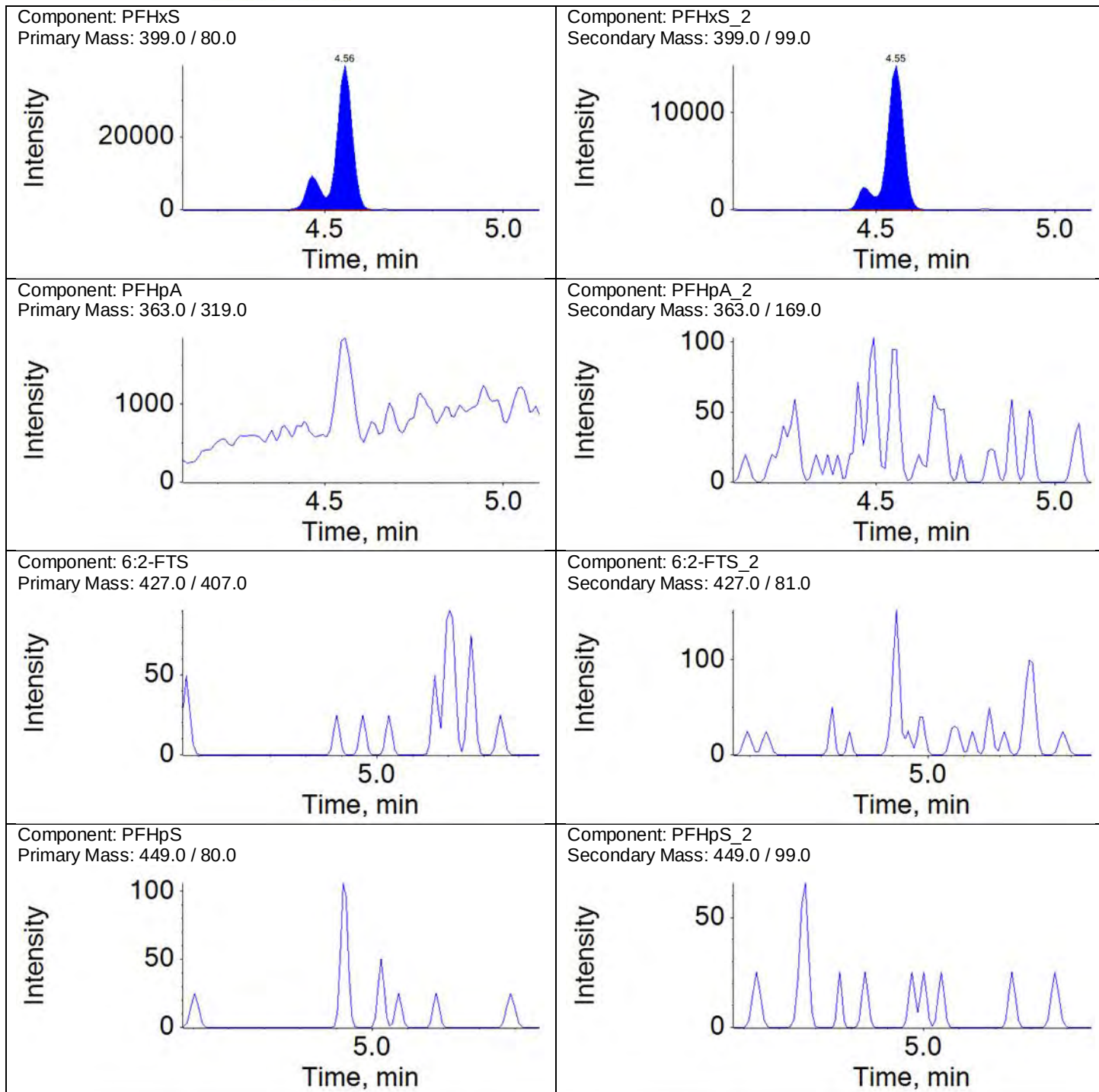
BSI14 Page 591 of 2132

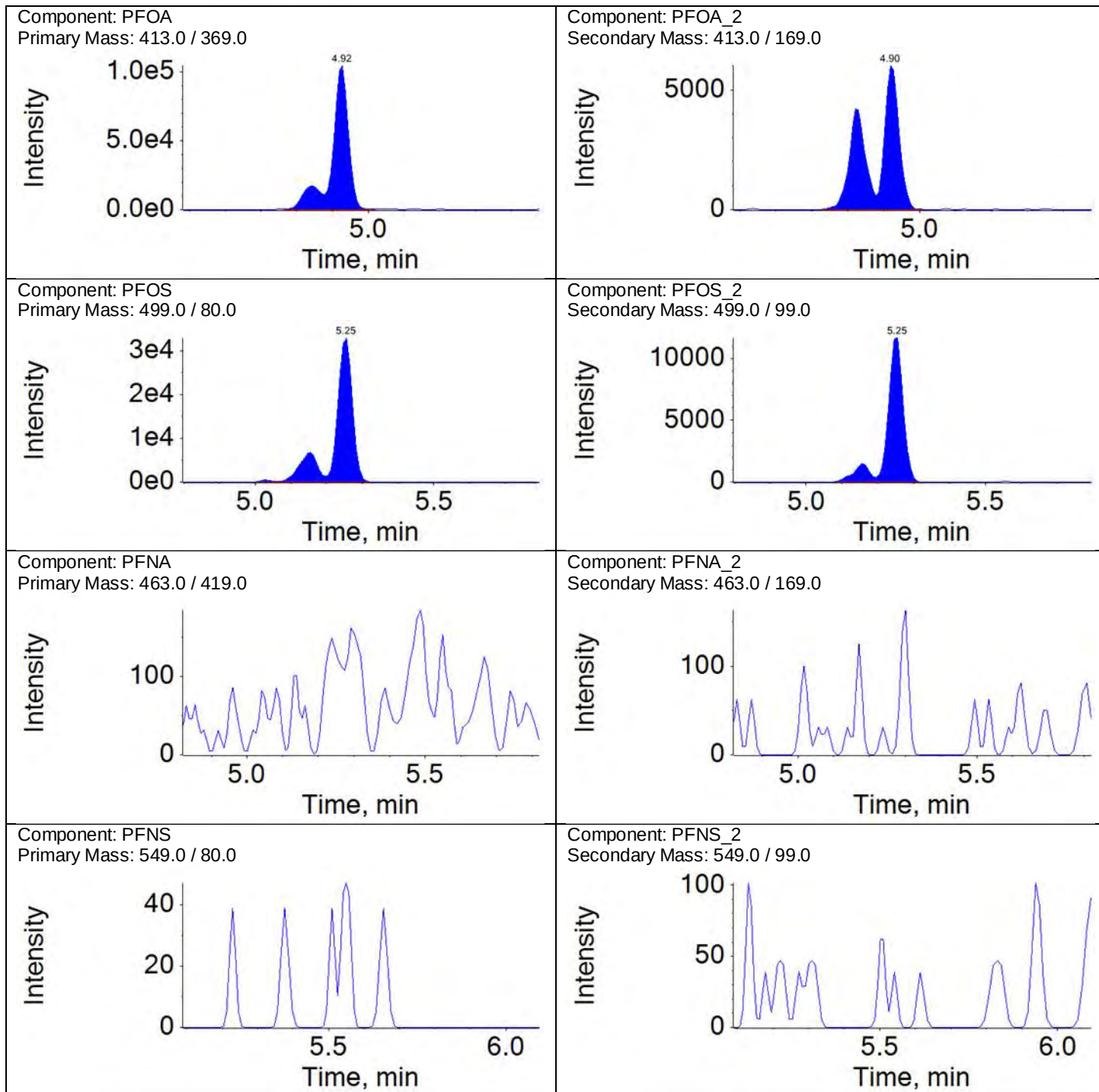
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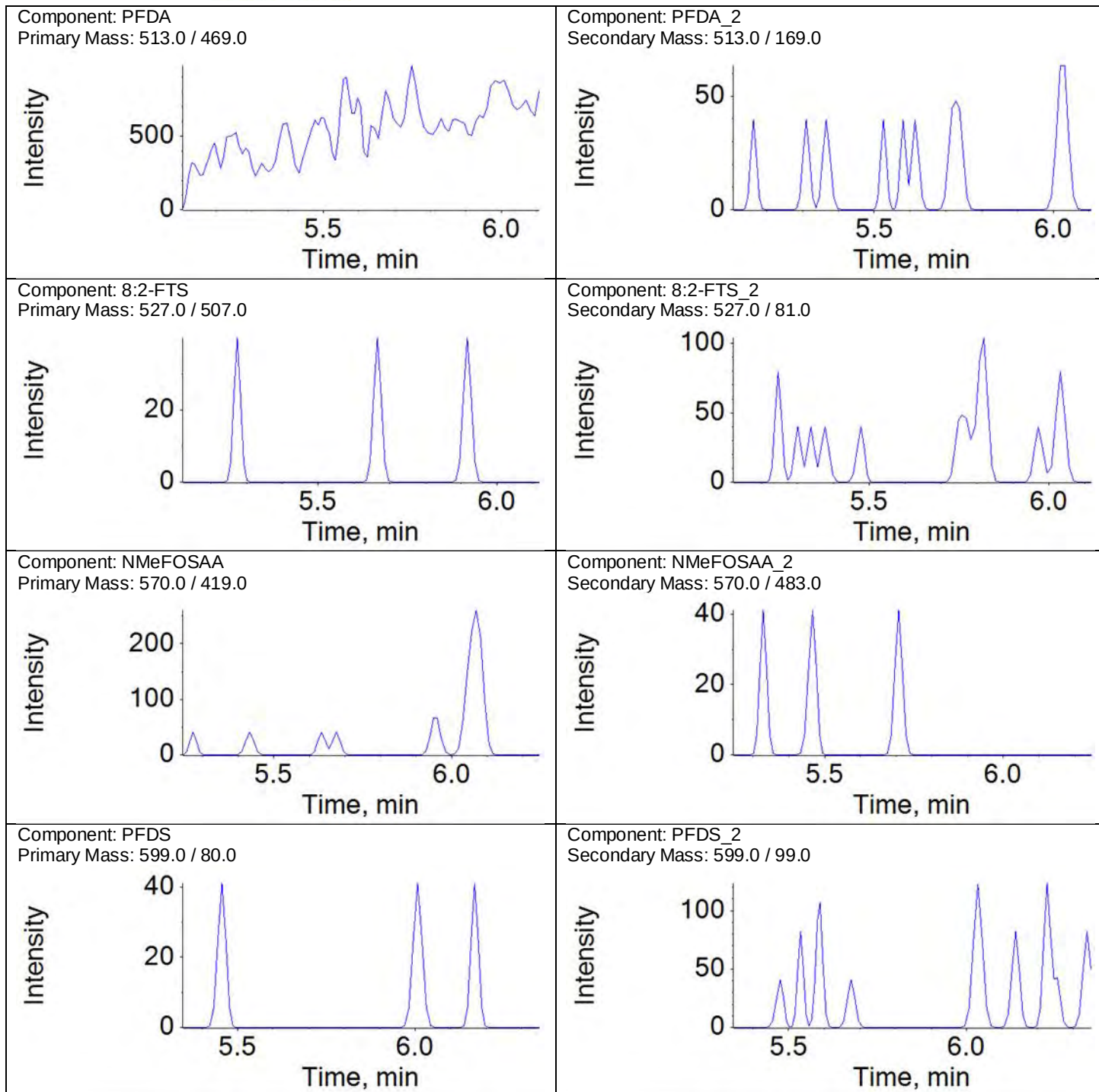
By umar at 5:24 pm, 11/9/18

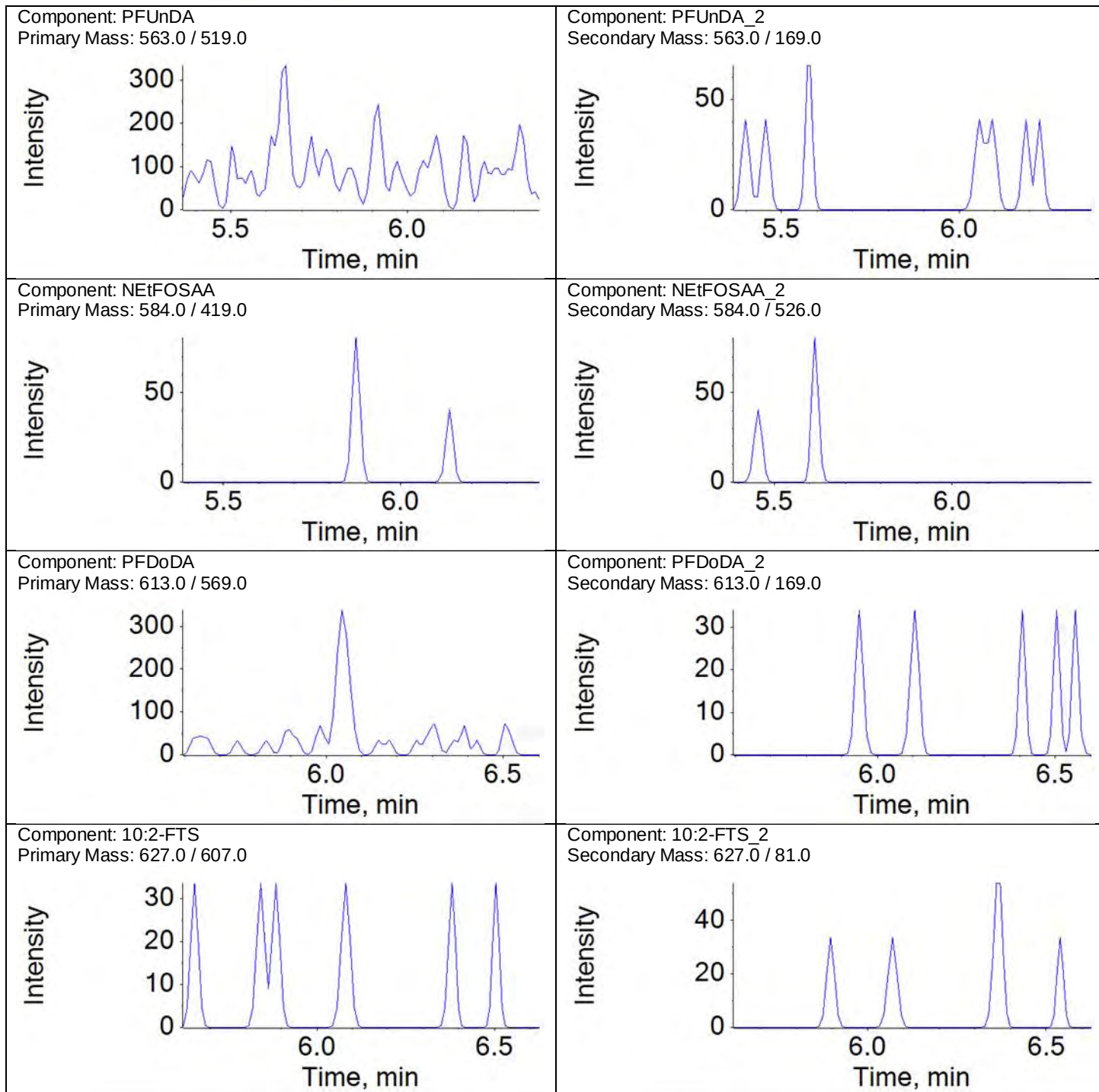
Page 1 of 7

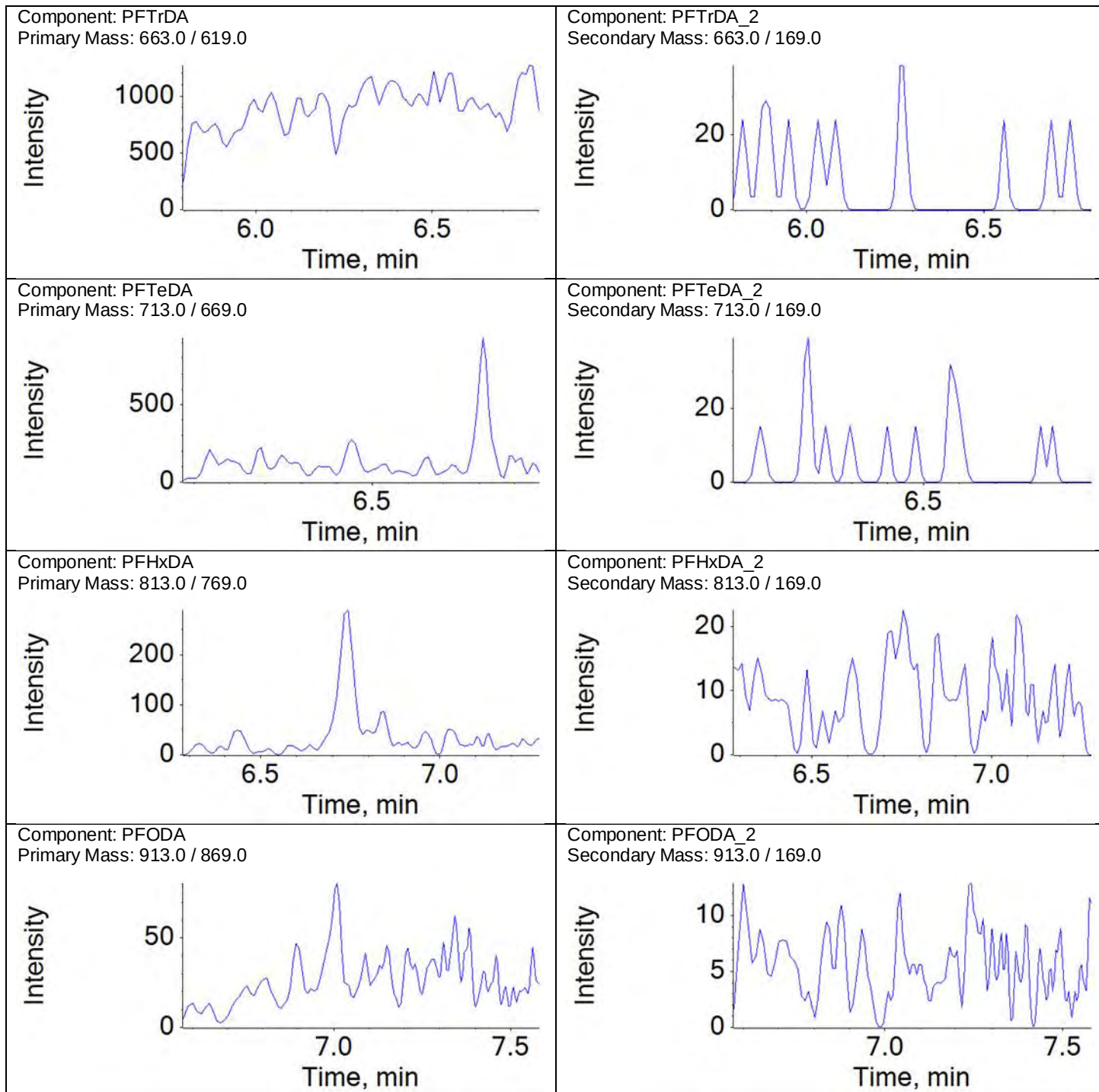










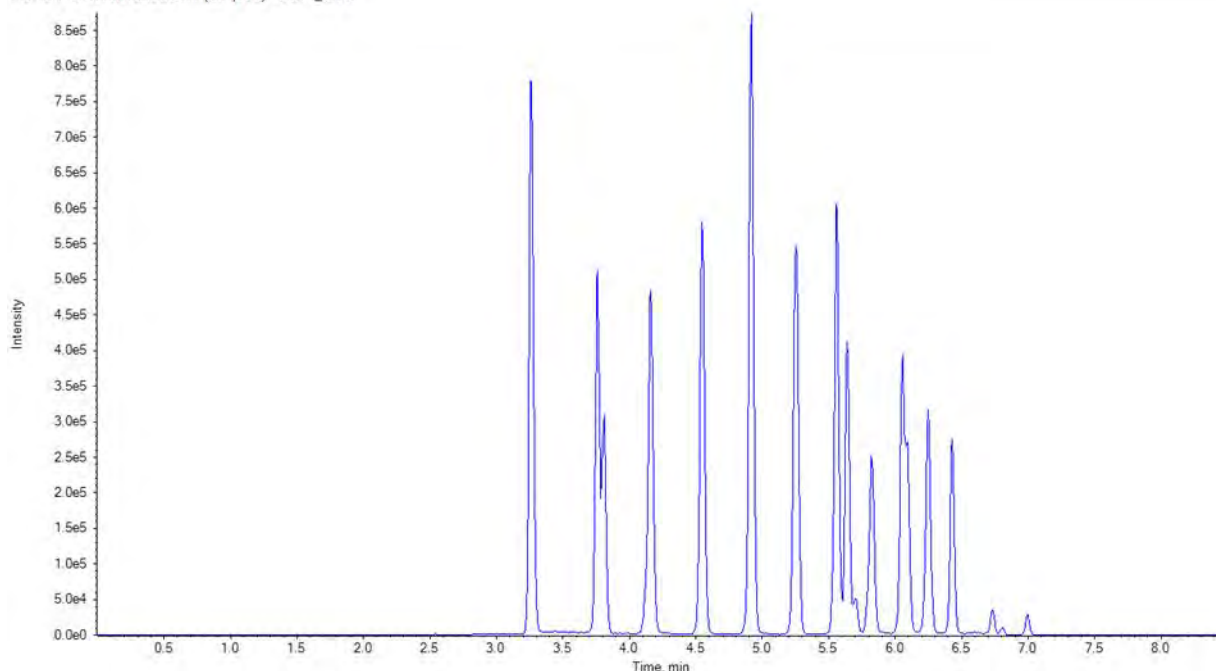


Continuing Calibration Verification

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_CAL3	CALMOD31833F	18NOV07DCAL-20.wiff	2018-11-07T11:09:59

TIC from 18NOV07DCAL-20.wiff (sample 2) - CCV1_CAL3



Injection Standard Area Reference File: 18NOV07DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	721701.6	730410.6	-1	50	
13C2-PFOA	5.0	512566.9	524423.6	-2	50	
13C4-PFOS	4.8	267946.3	274061.7	-2	50	
13C2-PFDA	5.0	316670.3	311442.1	2	50	

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

Continuing Calibration Verification

ICAL Name: 18NOV07DCAL Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
QMethod Name: MQ4-18AUG13 Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_CAL3	CALMOD31833F	18NOV07DCAL-20.wiff	2018-11-07T11:09:59

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	278381.8	10	13C4-PFBA	780482.5	5.0	0.357	3.26	1.000	2.000	2.087	4	30	
PFPeA	286996.9	12	13C5-PFPeA	819317.3	5.0	0.350	3.76	1.000	2.000	2.082	4	30	
PFBS	155917.1	11	13C3-PFBS	430650.1	4.7	0.362	3.81	1.000	1.770	1.825	3	30	
4:2-FTS	41869.1	11	13C2-4:2-FTS	53424.6	4.7	0.784	4.13	1.000	1.980	2.107	6	30	
PFHxA	355844.6	12	13C5-PFHxA	678729.1	5.0	0.524	4.16	1.000	2.000	2.248	12	30	
PFPeS	84840.7	11	13C3-PFPeS	430650.1	4.7	0.197	4.18	1.100	1.880	1.943	3	30	
PFHxS	126167.9	12	13C3-PFHxS	332171.0	4.7	0.380	4.55	1.000	1.890	1.925	2	30	
PFHpA	359438.8	12	13C4-PFHxA	553115.2	5.0	0.650	4.55	1.000	2.000	2.186	9	30	
6:2-FTS	30418.5	11	13C2-6:2-FTS	39617.7	4.8	0.768	4.91	1.000	2.090	1.915	-8	30	
PFHpS	118682.9	11	13C3-PFHxS	332171.0	4.7	0.357	4.91	1.080	1.900	1.869	-2	30	
PFOA	363186.2	11	13C8-PFOA	951797.5	5.0	0.382	4.92	1.000	2.000	2.148	7	30	
PFOS	113455.6	11	13C8-PFOS	281657.2	4.8	0.403	5.24	1.000	1.910	2.089	9	30	
PFNA	284061.5	11	13C9-PFNA	514994.9	5.0	0.552	5.26	1.000	2.000	2.061	3	30	
PFNS	70168.8	10	13C8-PFOS	281657.2	4.8	0.249	5.54	1.060	1.920	1.975	3	30	
PFDA	243089.4	11	13C6-PFDA	643202.5	5.0	0.378	5.56	1.000	2.000	2.079	4	30	
8:2-FTS	25674.2	11	13C2-8:2-FTS	27654.3	4.8	0.928	5.56	1.000	2.110	2.093	-1	30	
PFOSA	272309.7	12	13C8-PFOSA	710116.3	5.0	0.383	5.64	1.000	2.000	2.073	4	30	
NMeFOSAA	27107.5	12	d3-NMeFOSAA	85750.0	5.0	0.316	5.71	1.000	2.000	1.627	-19	30	
PFDS	57911.4	12	13C8-PFOS	281657.2	4.8	0.206	5.80	1.110	1.930	1.964	2	30	
PFUnDA	206684.1	12	13C7-PFUnDA	274326.2	5.0	0.753	5.82	1.000	2.000	2.161	8	30	
NEtFOSAA	29353.4	12	d5-NEtFOSAA	64529.1	5.0	0.455	5.84	1.000	2.000	1.955	-2	30	
PFDODA	220745.0	12	13C2-PFDODA	586710.7	5.0	0.376	6.05	1.000	2.000	2.039	2	30	
10:2-FTS	14526.2	12	13C2-8:2-FTS	27654.3	4.8	0.525	6.07	1.090	2.120	1.636	-23	30	
NMePFOSAE	157888.7	12	d7-NMePFOSAE	328201.0	5.0	0.481	6.10	1.000	2.000	2.156	8	30	
NMePFOSA	30788.7	12	d3-NMePFOSA	80699.5	5.0	0.382	6.10	1.000	2.000	2.136	7	30	
PFDOS	30510.8	11	13C8-PFOS	281657.2	4.8	0.108	6.22	1.190	1.940	2.091	8	30	
NEtPFOSAE	187574.4	11	d9-NEtPFOSAE	274277.4	5.0	0.684	6.25	1.000	2.000	2.192	10	30	
NEtPFOSA	29547.8	12	d5-NEtPFOSA	72708.8	5.0	0.406	6.26	1.000	2.000	1.790	-11	30	
PFTTrDA	191338.9	11	13C2-PFDODA	586710.7	5.0	0.326	6.25	1.030	2.000	2.057	3	30	
PFTeDA	153182.8	11	13C2-PFTeDA	429266.0	5.0	0.357	6.43	1.000	2.000	2.096	5	30	
PFHxDA	71156.3	11	13C2-PFTeDA	429266.0	5.0	0.166	6.73	1.050	2.000	2.058	3	30	
PFOA	60356.7	10	13C2-PFTeDA	429266.0	5.0	0.141	6.99	1.090	2.000	2.014	1	30	

Continuing Calibration Verification

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 2:53 pm, 11/7/18

REVIEWED
By umar at 5:23 pm, 11/9/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV1_CAL3		Data File:	18NOV07DCAL-20.wiff
Sample ID:	CALMOD31833F		Acquis Date:	2018-11-07T11:09:59
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	5		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV07DCAL
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	N/A		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV07DCAL-12

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	721701.6	730410.6	-1	50	
13C2-PFOA	5.0	512566.9	524423.6	-2	50	
13C4-PFOS	4.8	267946.3	274061.7	-2	50	
13C2-PFDA	5.0	316670.3	311442.1	2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	780482.5	13C3-PFBA	721701.6	1.081	5.000	5.005	100	70-130	
E13C5-PFPeA	819317.3	13C3-PFBA	721701.6	1.135	5.000	4.946	99	70-130	
E13C3-PFBS	430650.1	13C3-PFBA	721701.6	0.597	4.650	4.379	94	70-130	
E13C2-4:2-FTS	53424.6	13C2-PFOA	512566.9	0.104	4.670	4.703	101	70-130	
E13C5-PFHxA	678729.1	13C2-PFOA	512566.9	1.324	5.000	4.871	97	70-130	
E13C3-PFHxS	332171.0	13C2-PFOA	512566.9	0.648	4.730	4.652	98	70-130	
E13C4-PFHpA	553115.2	13C2-PFOA	512566.9	1.079	5.000	4.909	98	70-130	
E13C2-6:2-FTS	39617.7	13C2-PFOA	512566.9	0.077	4.750	5.154	109	70-130	
E13C8-PFOA	951797.5	13C2-PFOA	512566.9	1.857	5.000	5.178	104	70-130	
E13C8-PFOS	281657.2	13C4-PFOS	267946.3	1.051	4.780	4.648	97	70-130	
E13C9-PFNA	514994.9	13C4-PFOS	267946.3	1.922	5.000	5.250	105	70-130	
E13C6-PFDA	643202.5	13C2-PFDA	316670.3	2.031	5.000	5.108	102	70-130	
E13C2-8:2-FTS	27654.3	13C2-PFDA	316670.3	0.087	4.790	4.621	96	70-130	
E13C8-PFOSA	710116.3	13C2-PFDA	316670.3	2.242	5.000	4.893	98	70-130	
Ed3-NMeFOSAA	85750.0	13C2-PFDA	316670.3	0.271	5.000	5.036	101	70-130	
E13C7-PFUnDA	274326.2	13C2-PFDA	316670.3	0.866	5.000	4.997	100	70-130	
Ed5-NEtFOSAA	64529.1	13C2-PFDA	316670.3	0.204	5.000	4.716	94	70-130	
E13C2-PFDoDA	586710.7	13C2-PFDA	316670.3	1.853	5.000	4.995	100	70-130	
Ed7-NMePFOSAE	328201.0	13C2-PFDA	316670.3	1.036	5.000	4.820	96	70-130	
Ed3-NMePFOSA	80699.5	13C2-PFDA	316670.3	0.255	5.000	4.665	93	70-130	
Ed9-NEtPFOSAE	274277.4	13C2-PFDA	316670.3	0.866	5.000	4.946	99	70-130	
Ed5-NEtPFOSA	72708.8	13C2-PFDA	316670.3	0.230	5.000	5.316	106	70-130	
E13C2-PFTeDA	429266.0	13C2-PFDA	316670.3	1.356	5.000	4.880	98	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CCV1_CAL3

Instrument Name: LM27631

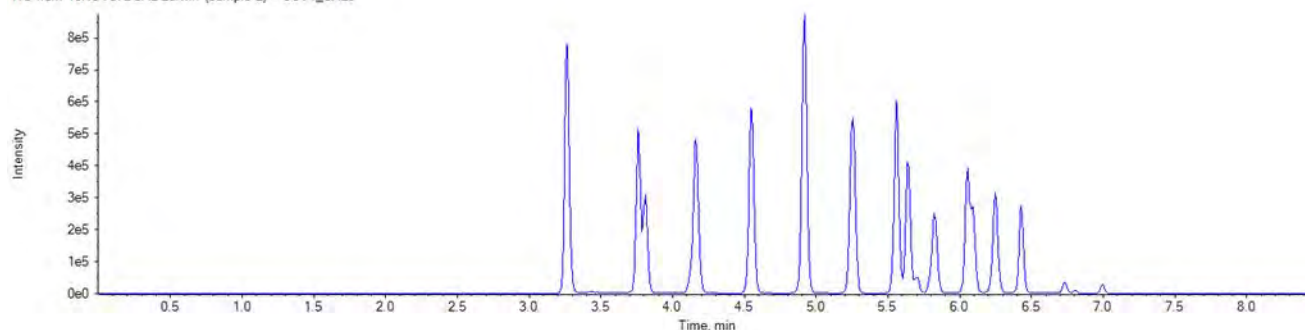
File Name: 18NOV07DCAL-20.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	278381.8		A	13C4-PFBA	3.26	780482.5	0.357	2.087
PFPeA	3.76	1.000	286996.9		A	13C5-PFPeA	3.76	819317.3	0.350	2.082
PFBS	3.81	1.000	155917.1		A	13C3-PFBS	3.81	430650.1	0.362	1.825
4:2-FTS	4.13	1.000	41869.1		A	13C2-4:2-FTS	4.13	53424.6	0.784	2.107
PFHxA	4.16	1.000	355844.6		A	13C5-PFHxA	4.16	678729.1	0.524	2.248
PFPeS	4.18	1.100	84840.7		A	13C3-PFBS	3.81	430650.1	0.197	1.943
PFHxS	4.55	1.000	126167.9		A	13C3-PFHxS	4.55	332171.0	0.380	1.925
PFHpA	4.55	1.000	359438.8		A	13C4-PFHpA	4.55	553115.2	0.650	2.186
6:2-FTS	4.91	1.000	30418.5		A	13C2-6:2-FTS	4.91	39617.7	0.768	1.915
PFHpS	4.91	1.080	118682.9		A	13C3-PFHxS	4.55	332171.0	0.357	1.869
PFOA	4.92	1.000	363186.2		A	13C8-PFOA	4.92	951797.5	0.382	2.148
PFOS	5.24	1.000	113455.6		M	13C8-PFOS	5.24	281657.2	0.403	2.089
PFNA	5.26	1.000	284061.5		A	13C9-PFNA	5.26	514994.9	0.552	2.061
PFNS	5.54	1.060	70168.8		A	13C8-PFOS	5.24	281657.2	0.249	1.975
PFDA	5.56	1.000	243089.4		A	13C6-PFDA	5.56	643202.5	0.378	2.079
8:2-FTS	5.56	1.000	25674.2		A	13C2-8:2-FTS	5.56	27654.3	0.928	2.093
PFOSA	5.64	1.000	272309.7		A	13C8-PFOSA	5.64	710116.3	0.383	2.073
NMeFOSAA	5.71	1.000	27107.5		A	d3-NMeFOSAA	5.70	85750.0	0.316	1.627
PFDS	5.80	1.110	57911.4		A	13C8-PFOS	5.24	281657.2	0.206	1.964
PFUnDA	5.82	1.000	206684.1		A	13C7-PFUnDA	5.82	274326.2	0.753	2.161
NEtFOSAA	5.84	1.000	29353.4		A	d5-NEtFOSAA	5.84	64529.1	0.455	1.955
PFDODA	6.05	1.000	220745.0		A	13C2-PFDODA	6.05	586710.7	0.376	2.039
10:2-FTS	6.07	1.090	14526.2		A	13C2-8:2-FTS	5.56	27654.3	0.525	1.636
NMePFOSAE	6.10	1.000	157888.7		A	d7-NMePFOSAE	6.09	328201.0	0.481	2.156
NMePFOSA	6.10	1.000	30788.7		A	d3-NMePFOSA	6.10	80699.5	0.382	2.136
PFDoS	6.22	1.190	30510.8		A	13C8-PFOS	5.24	281657.2	0.108	2.091
NEtPFOSAE	6.25	1.000	187574.4		A	d9-NEtPFOSAE	6.24	274277.4	0.684	2.192
NEtPFOSA	6.26	1.000	29547.8		A	d5-NEtPFOSA	6.26	72708.8	0.406	1.790
PFTDA	6.25	1.030	191338.9		A	13C2-PFDODA	6.05	586710.7	0.326	2.057
PFTeDA	6.43	1.000	153182.8		A	13C2-PFTeDA	6.43	429266.0	0.357	2.096
PFHxDA	6.73	1.050	71156.3		A	13C2-PFTeDA	6.43	429266.0	0.166	2.058
PFODA	6.99	1.090	60356.7		A	13C2-PFTeDA	6.43	429266.0	0.141	2.014

Total Ion Chromatogram

TIC from 18NOV07DCAL-20.wiff (sample 2) - CCV1_CAL3



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By JPT at 2:53 pm, 11/7/18

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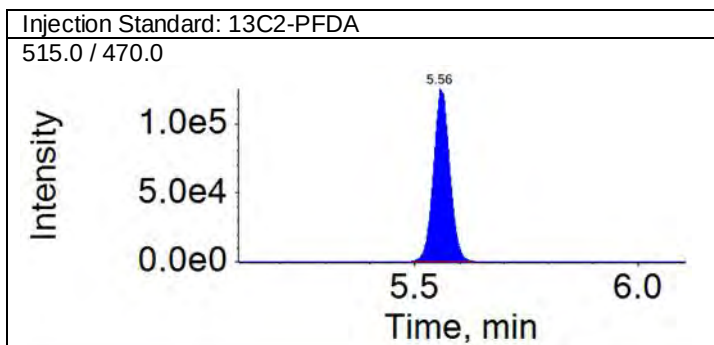
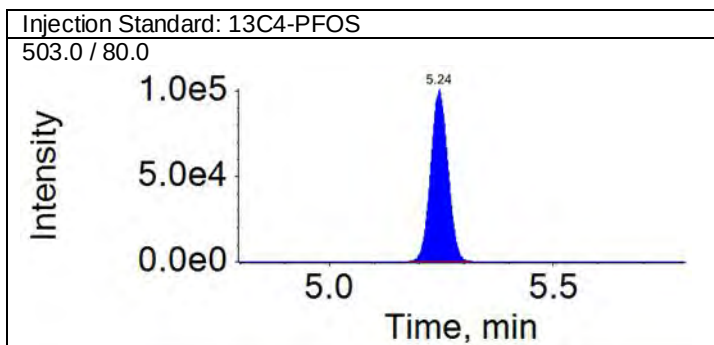
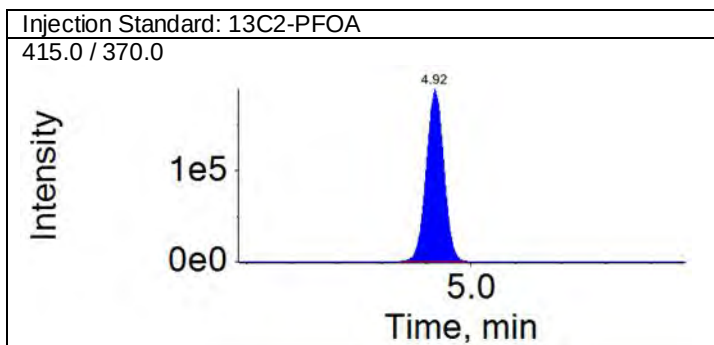
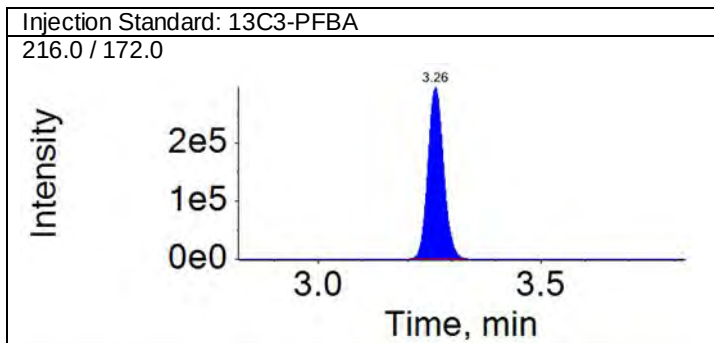
REVIEWED

By umar at 5:23 pm, 11/9/18

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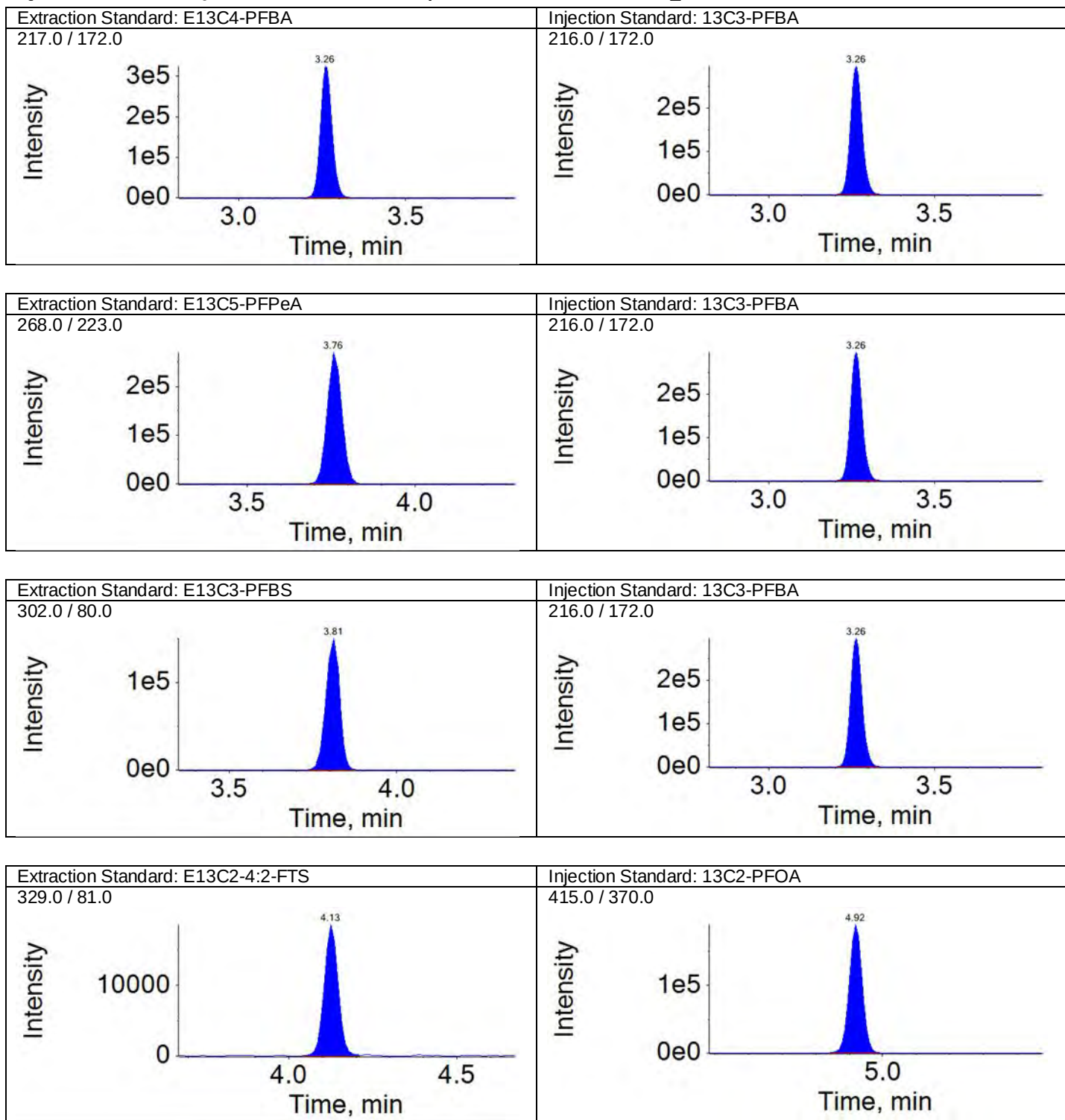
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

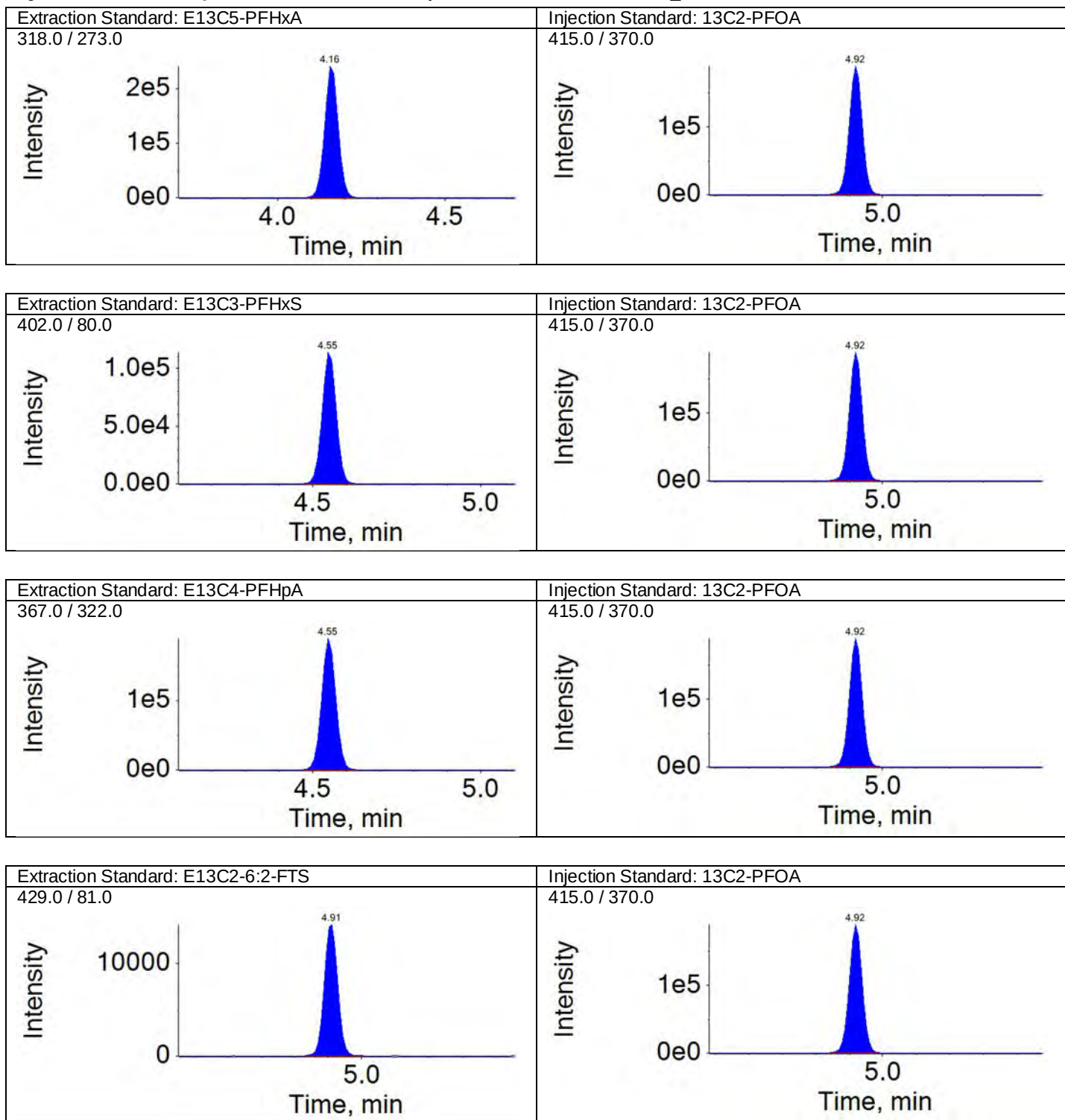
By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

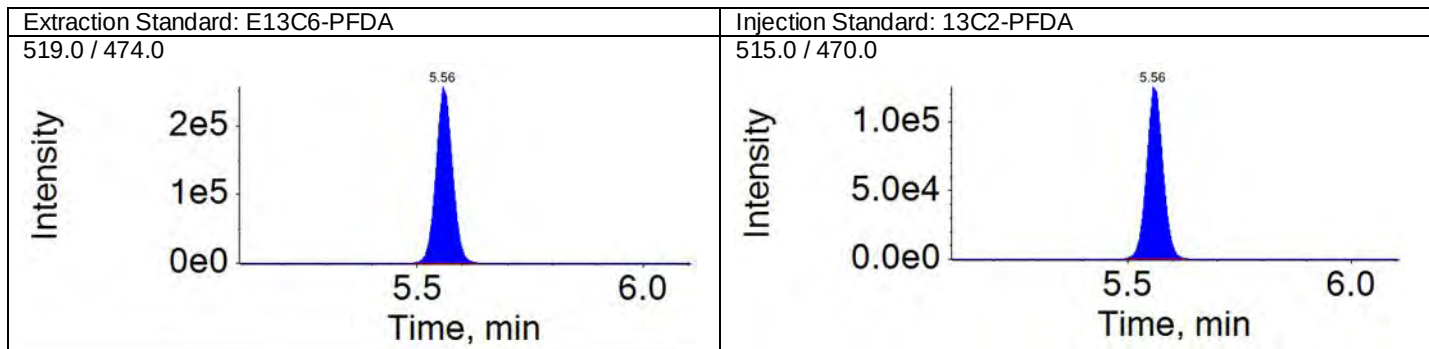
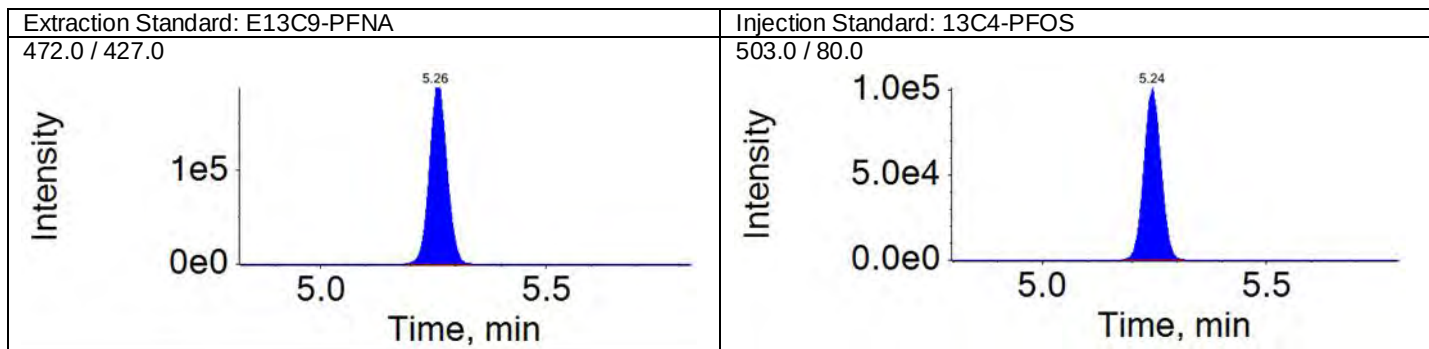
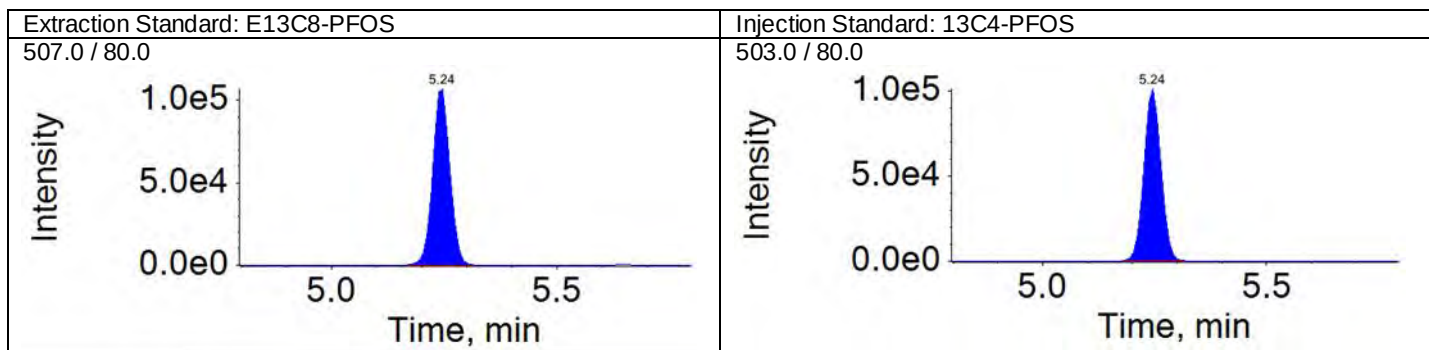
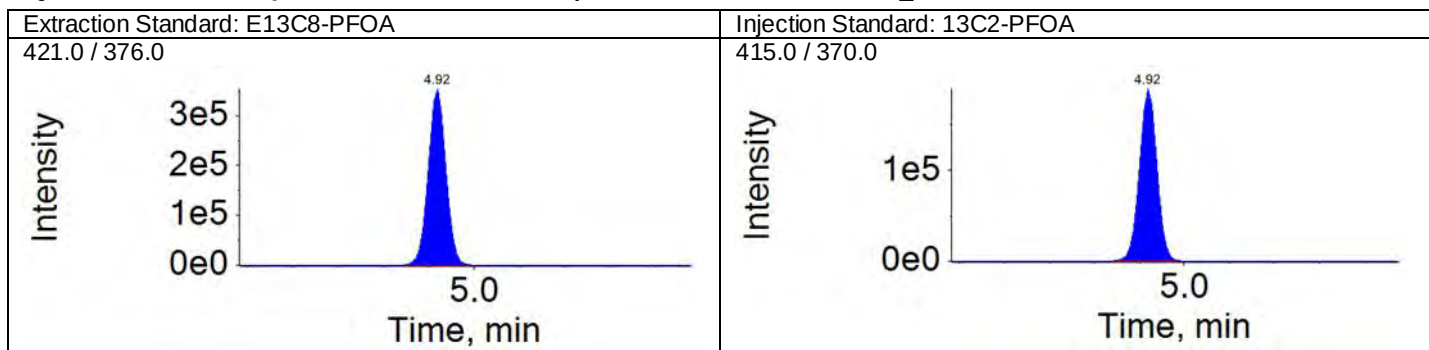
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

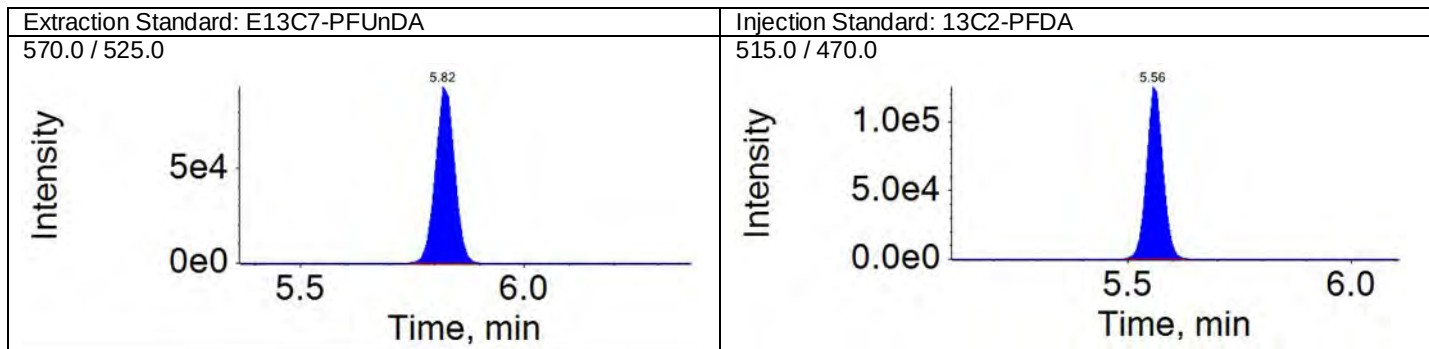
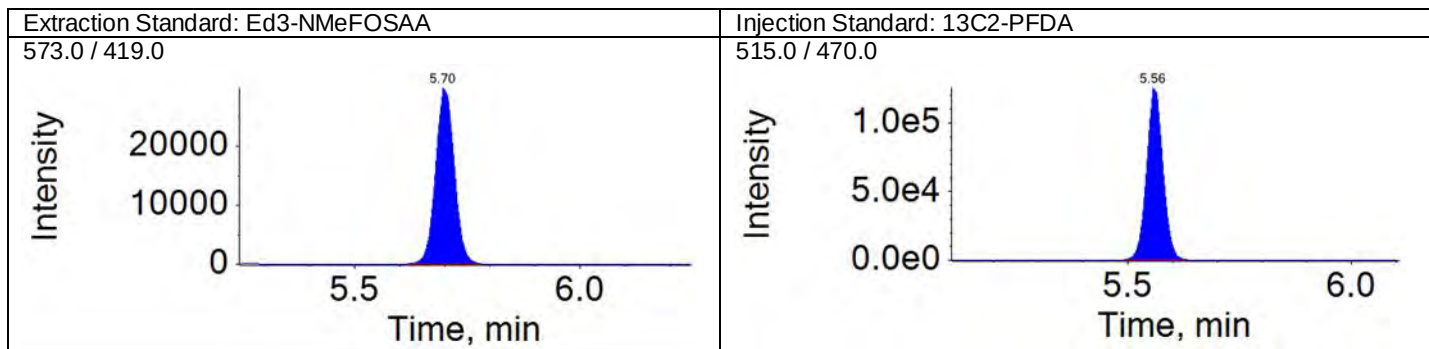
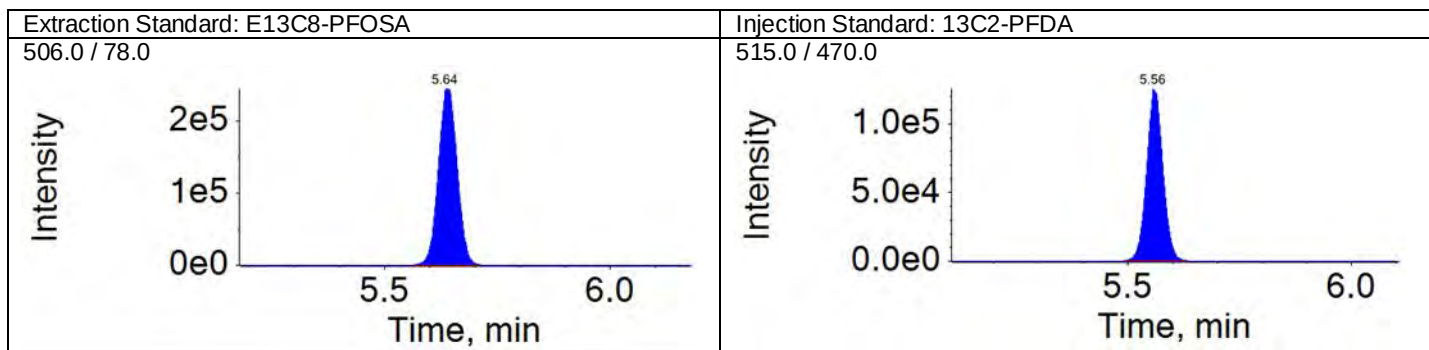
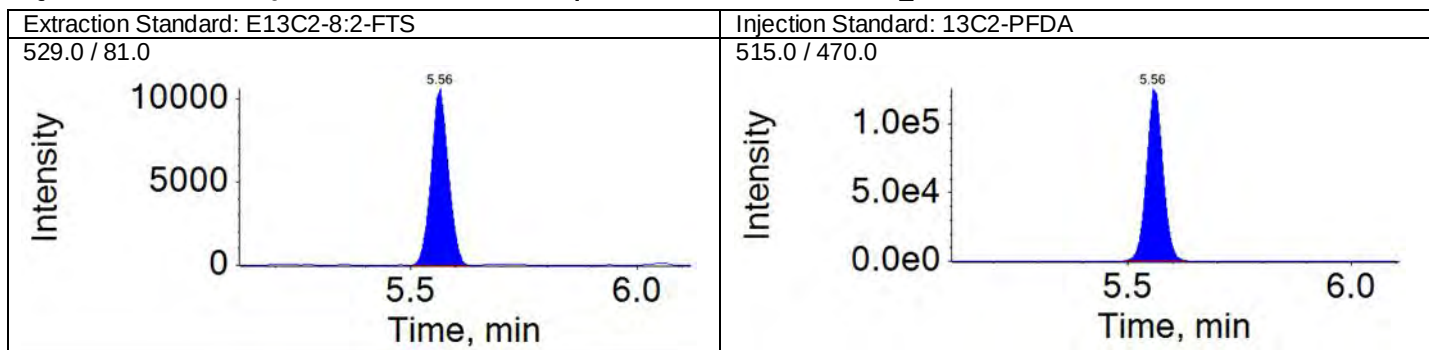
By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

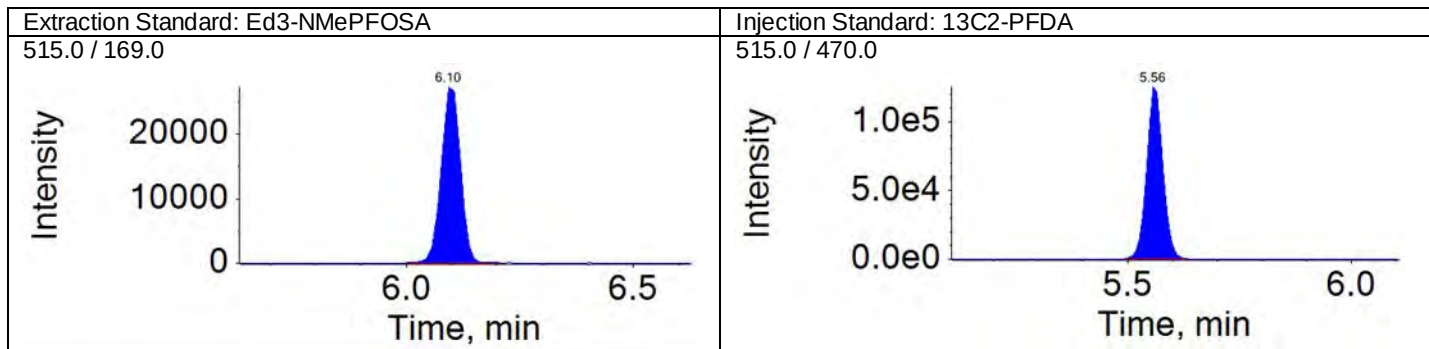
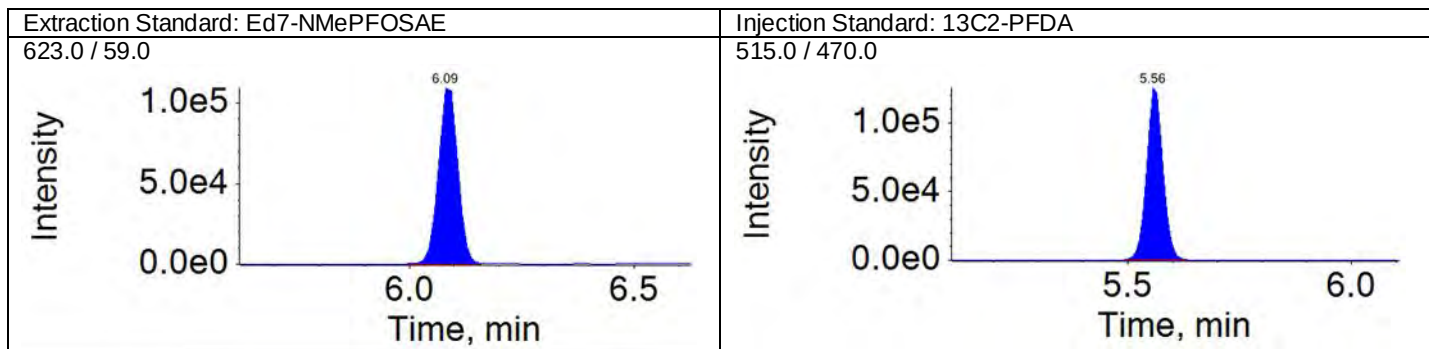
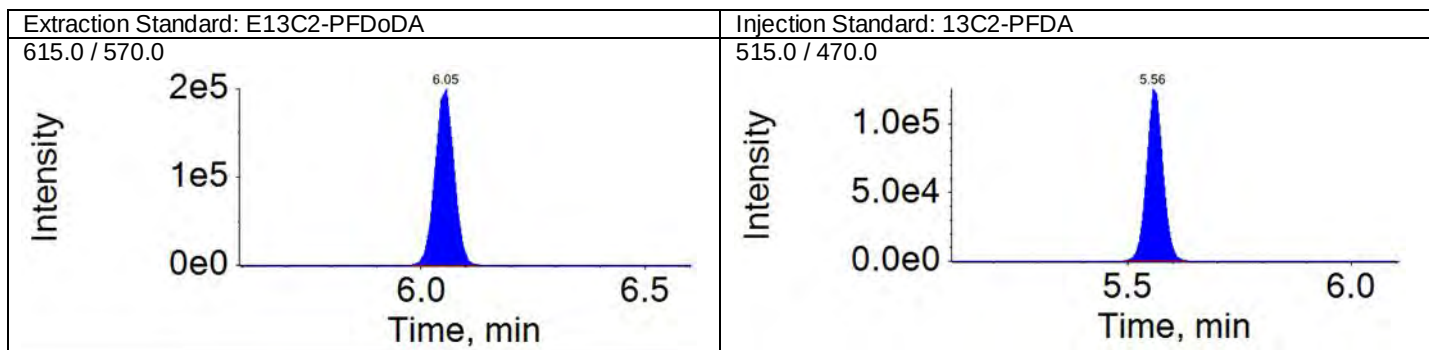
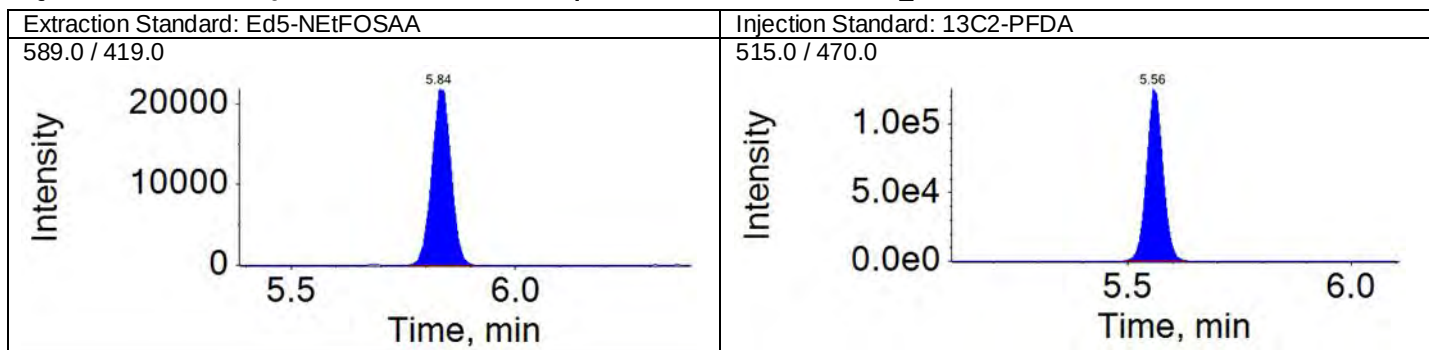
By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

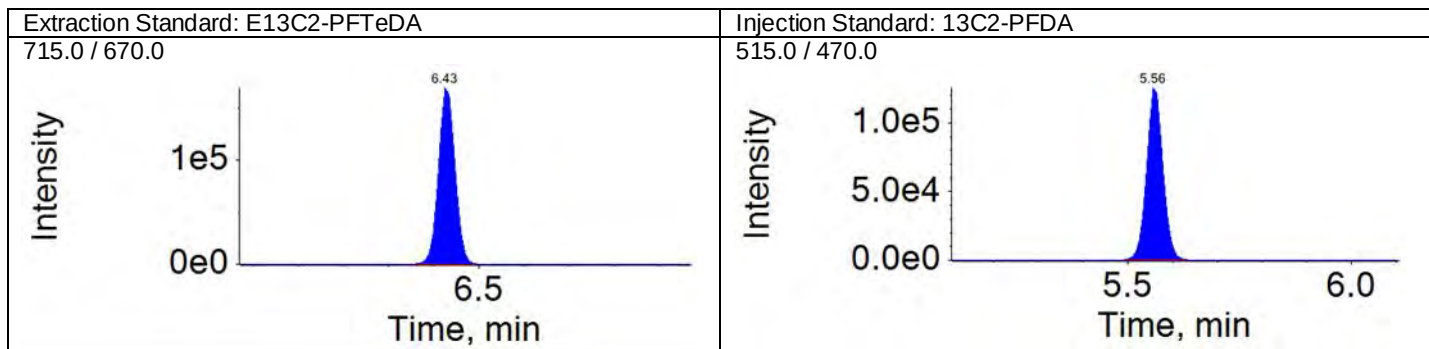
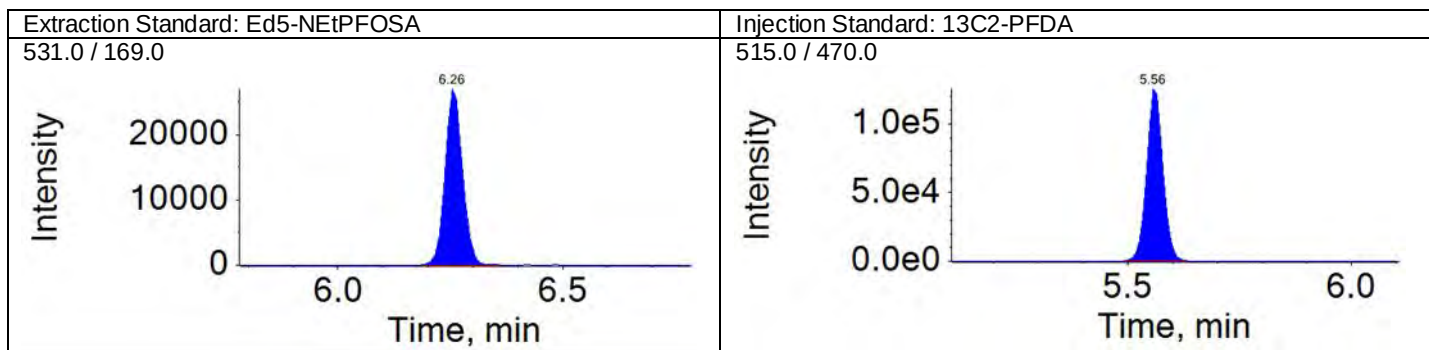
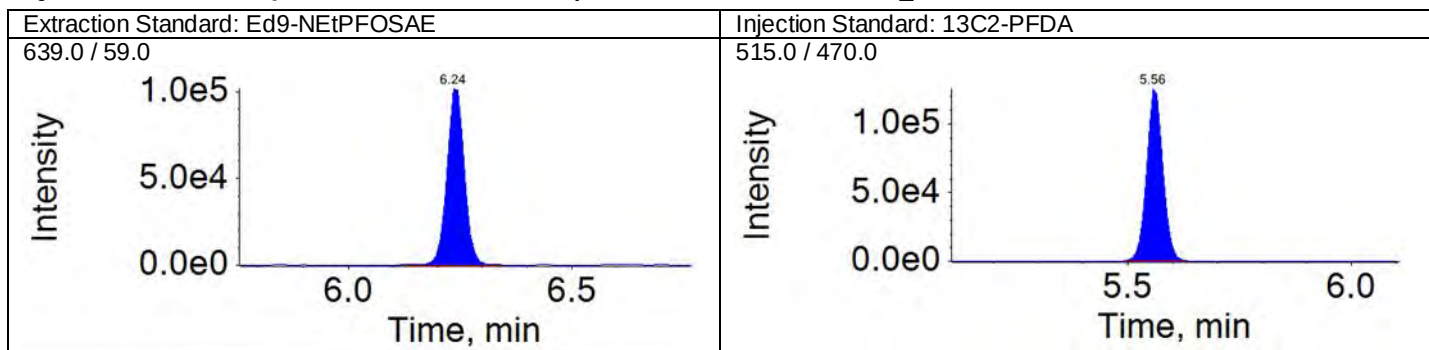
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



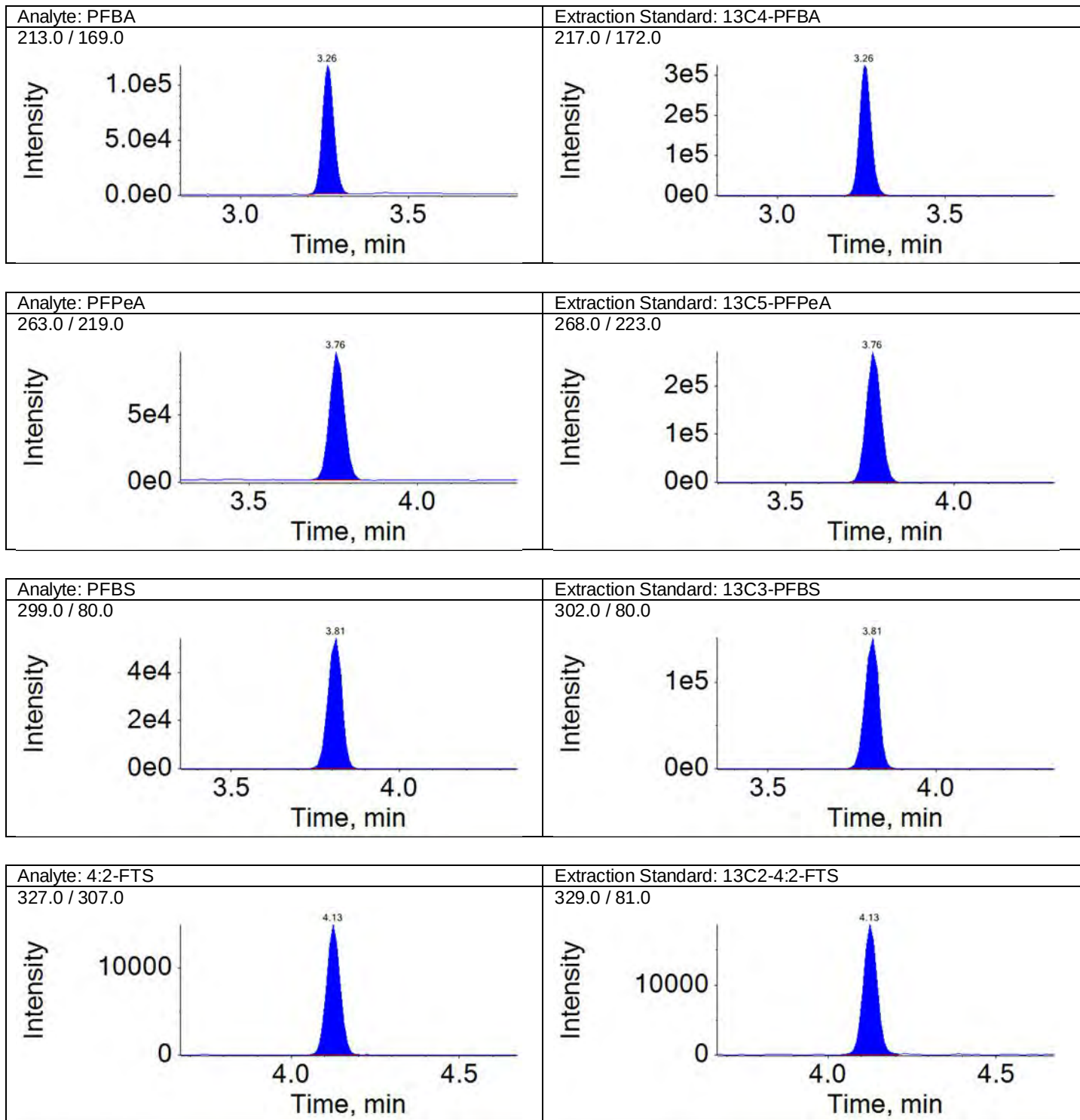
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



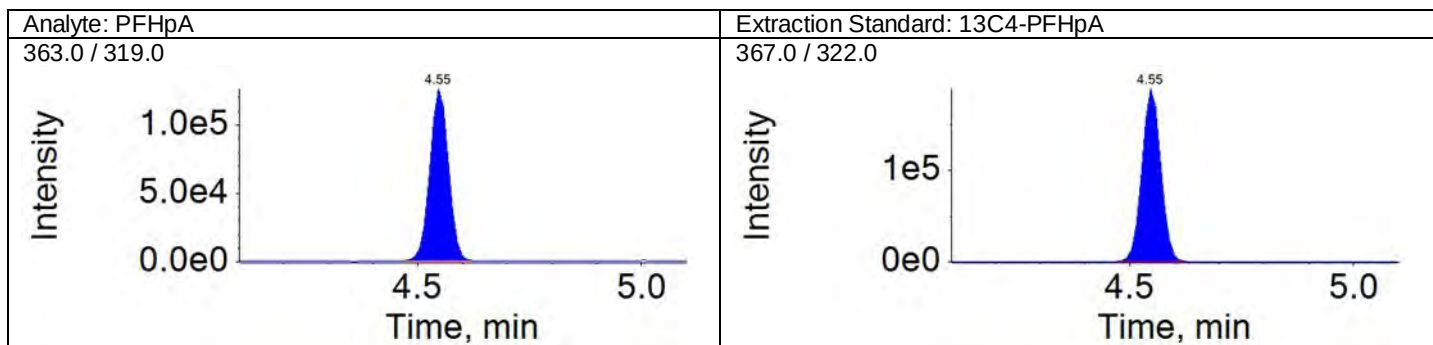
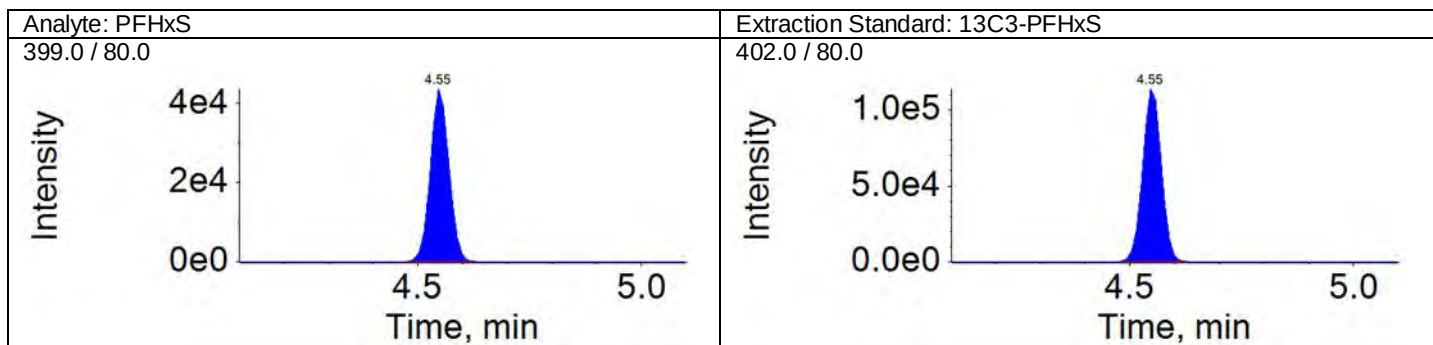
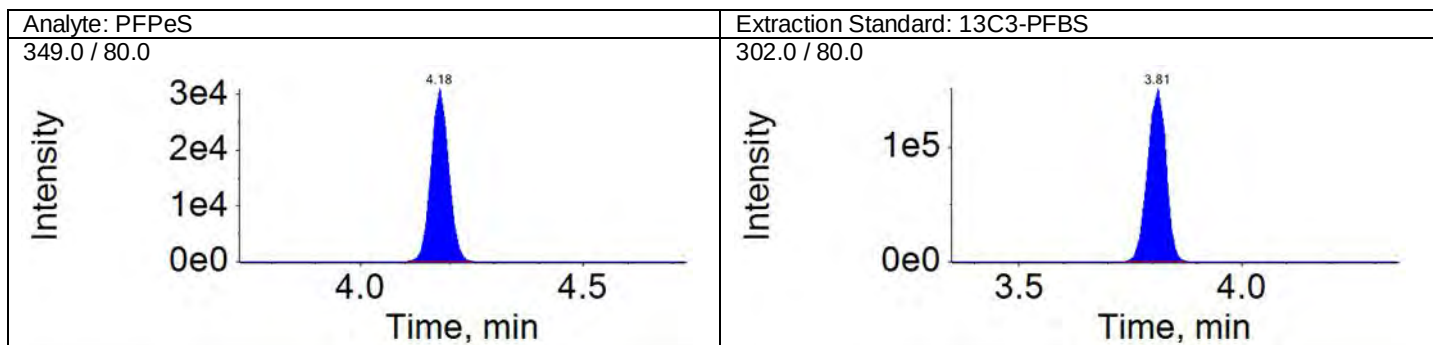
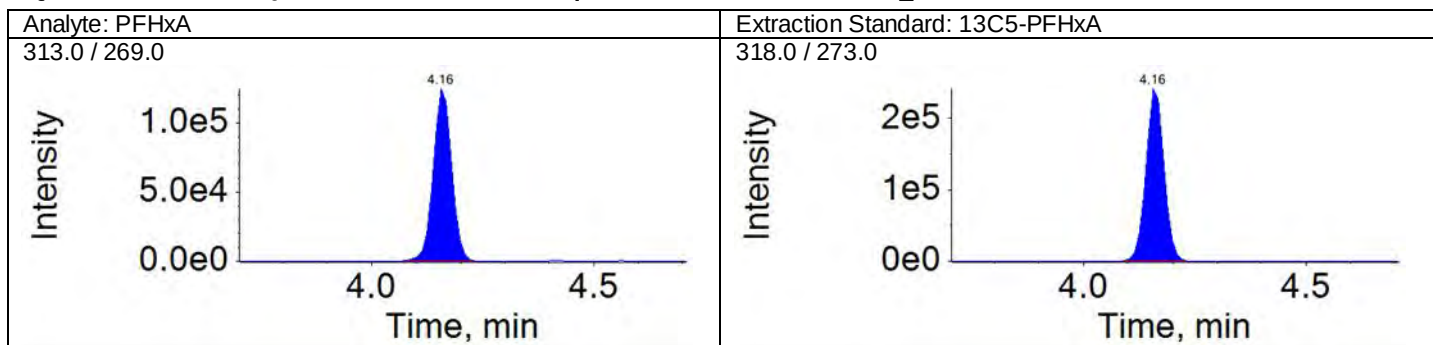
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



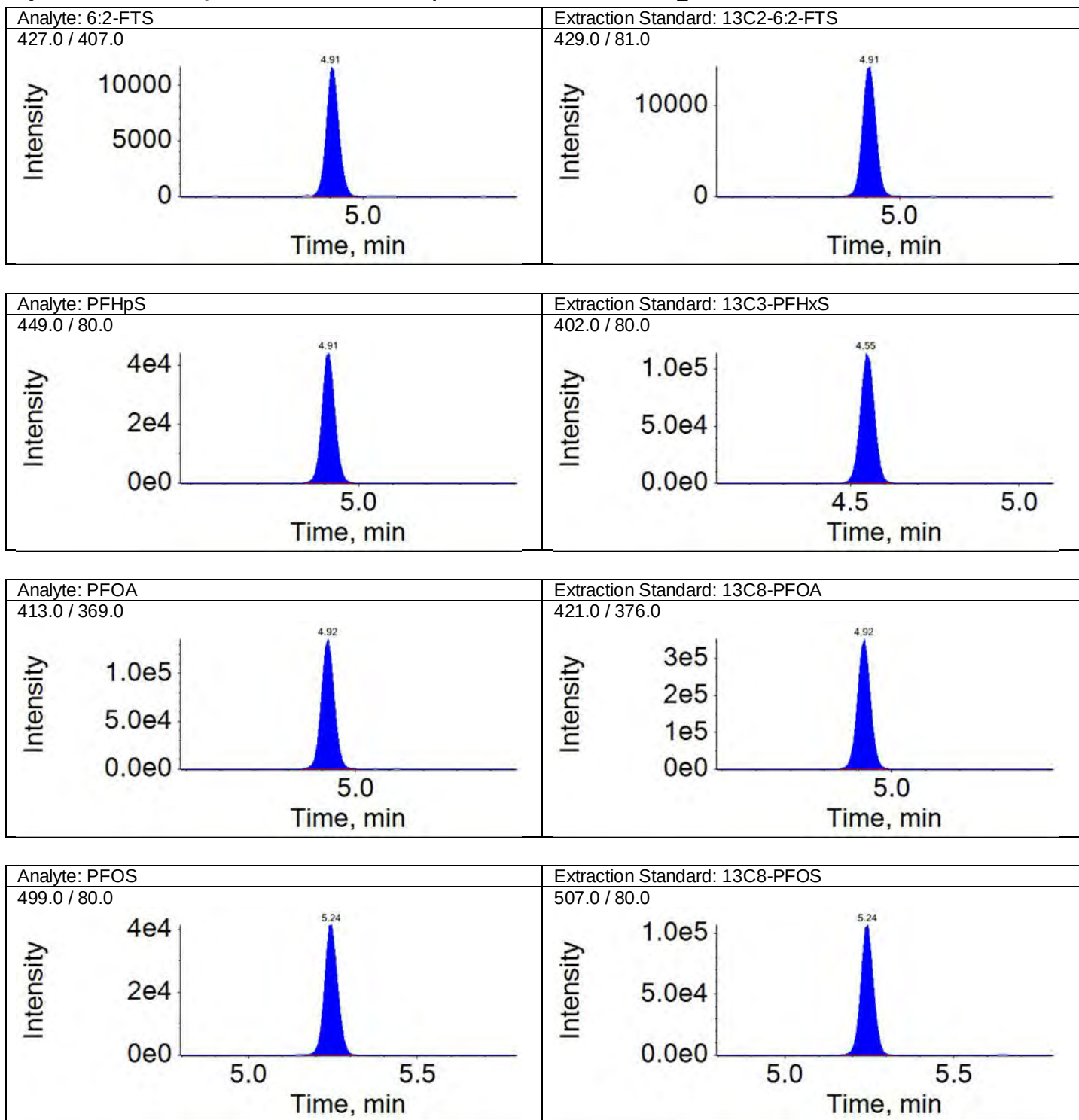
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



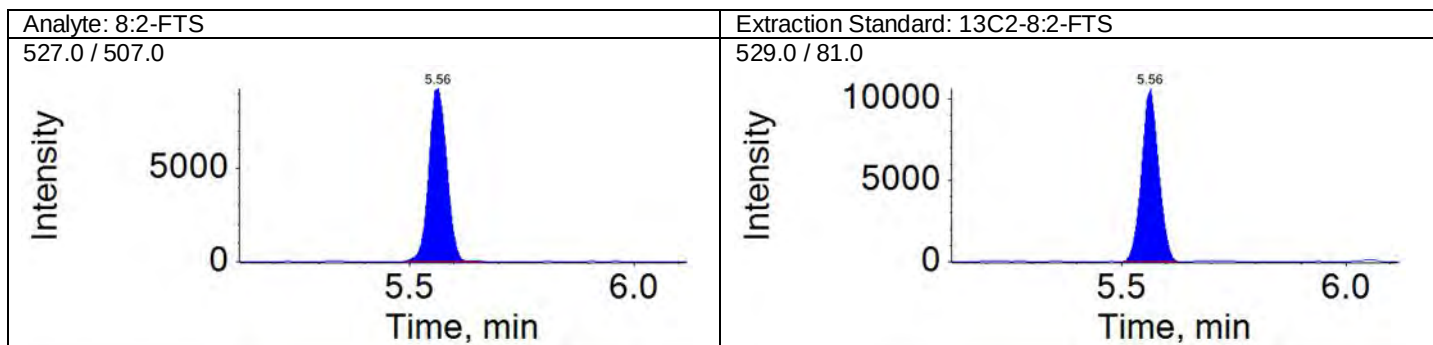
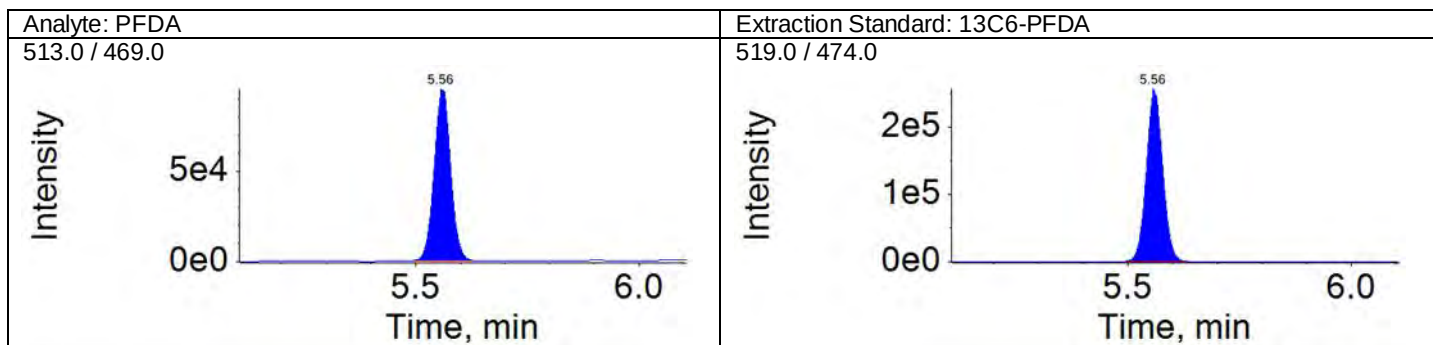
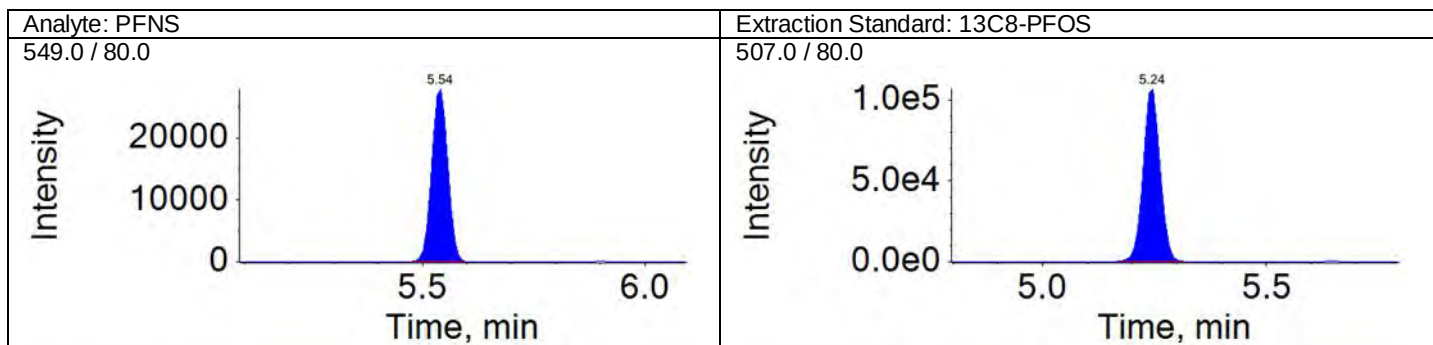
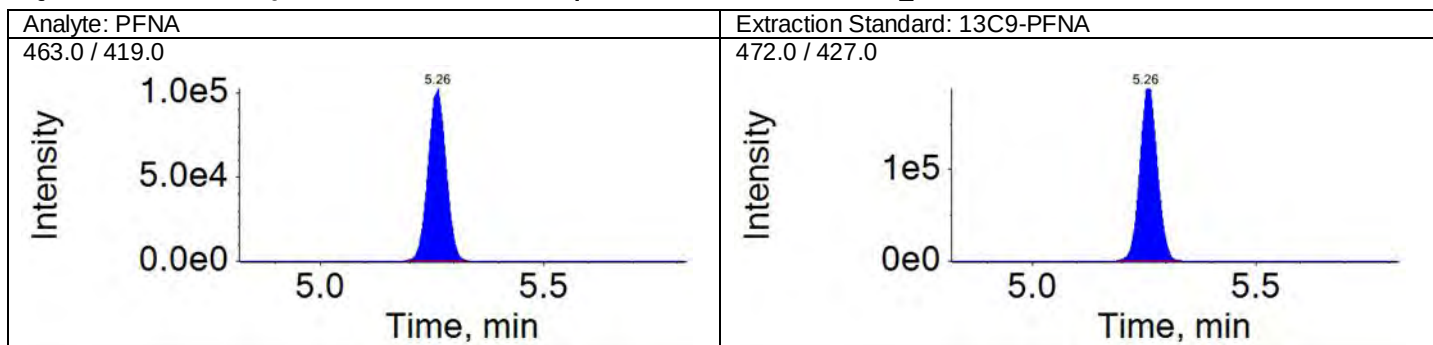
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



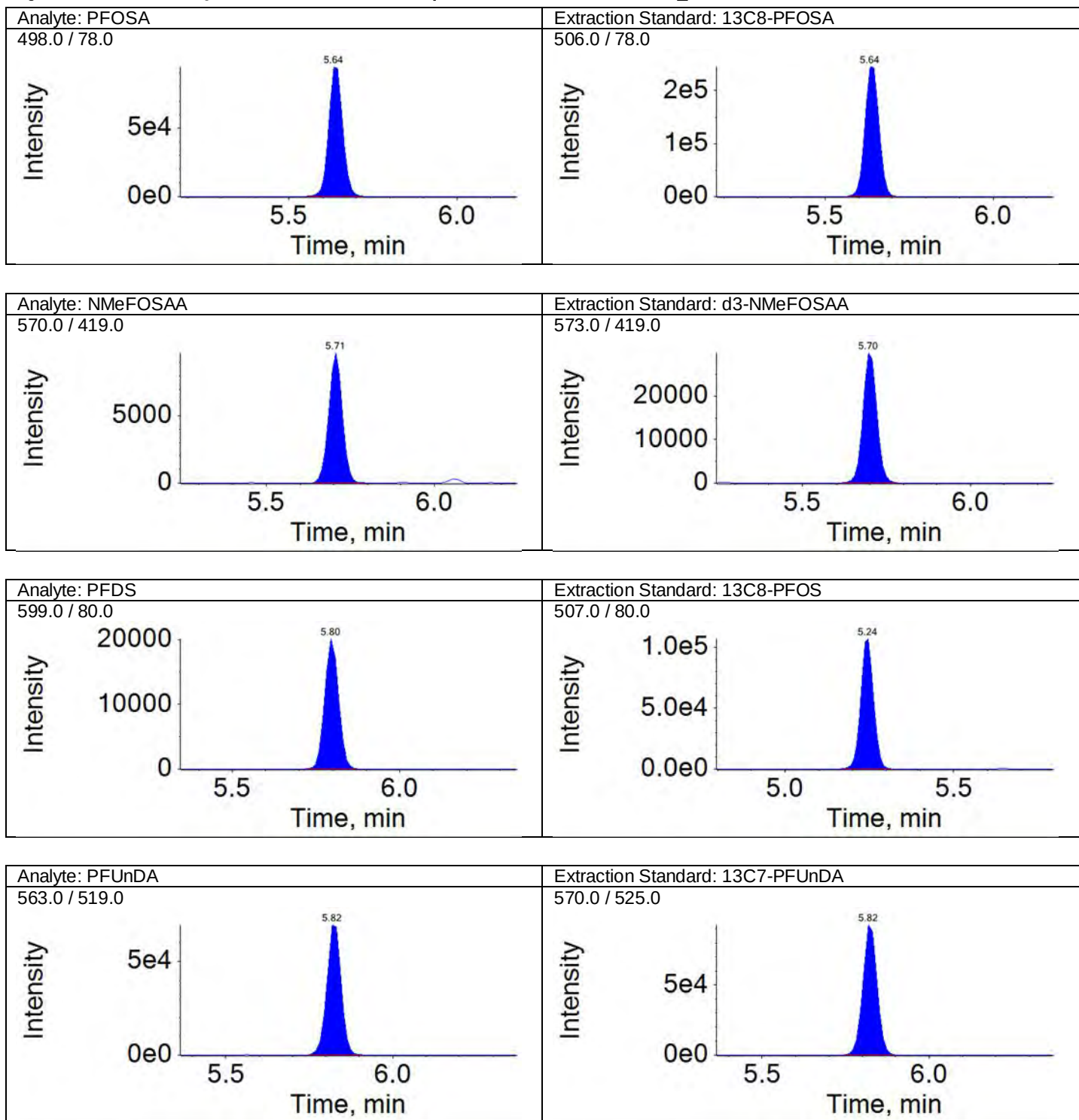
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



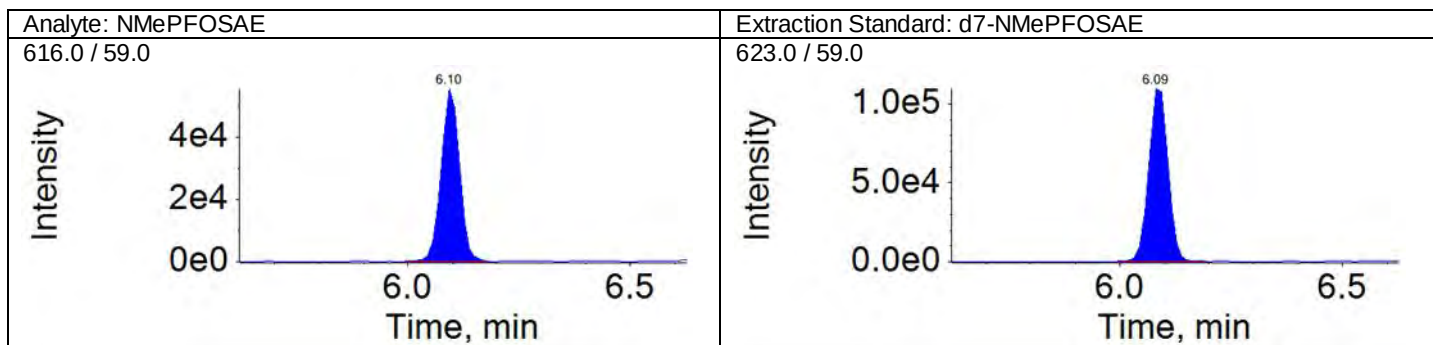
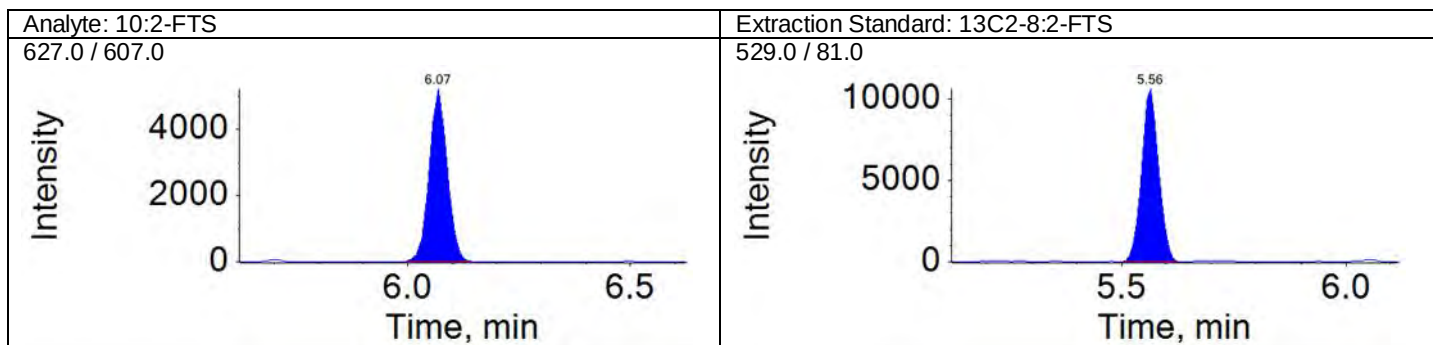
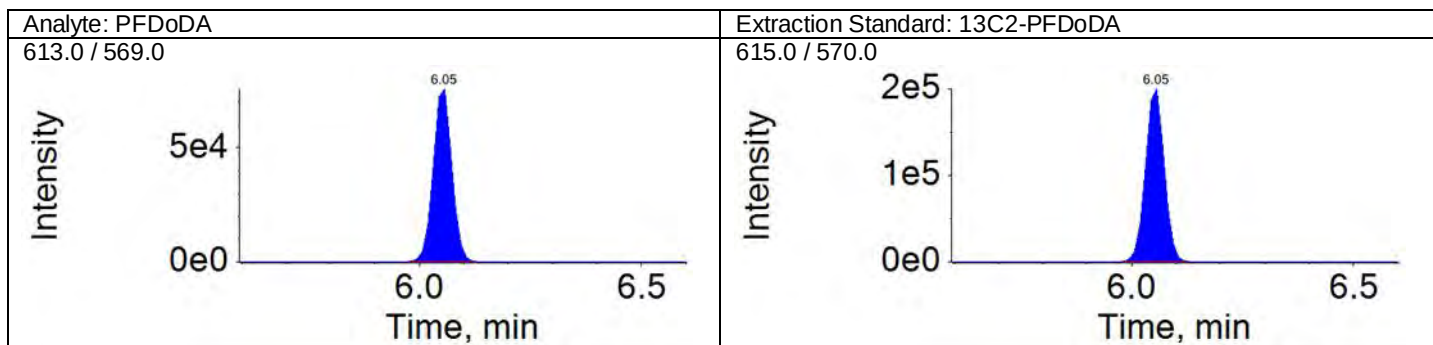
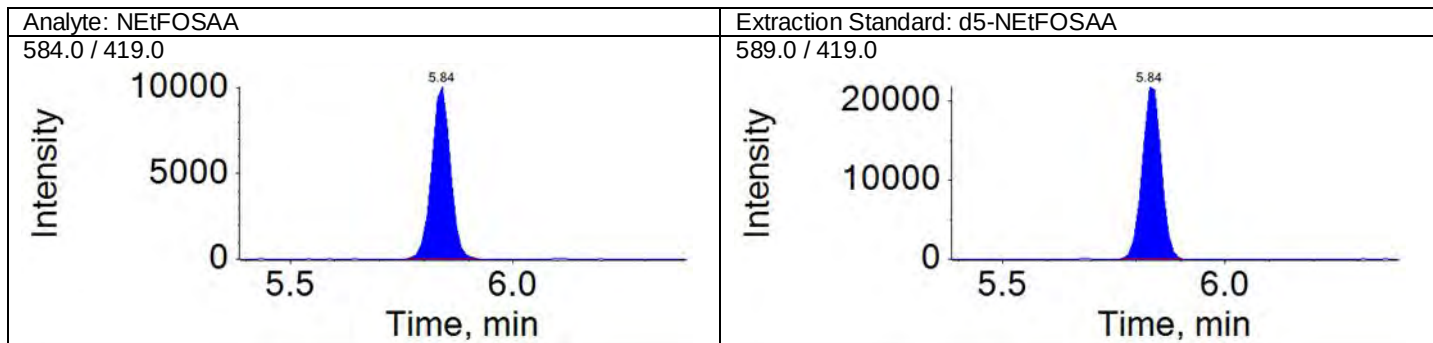
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QMethod Name: MQ4-18AUG13

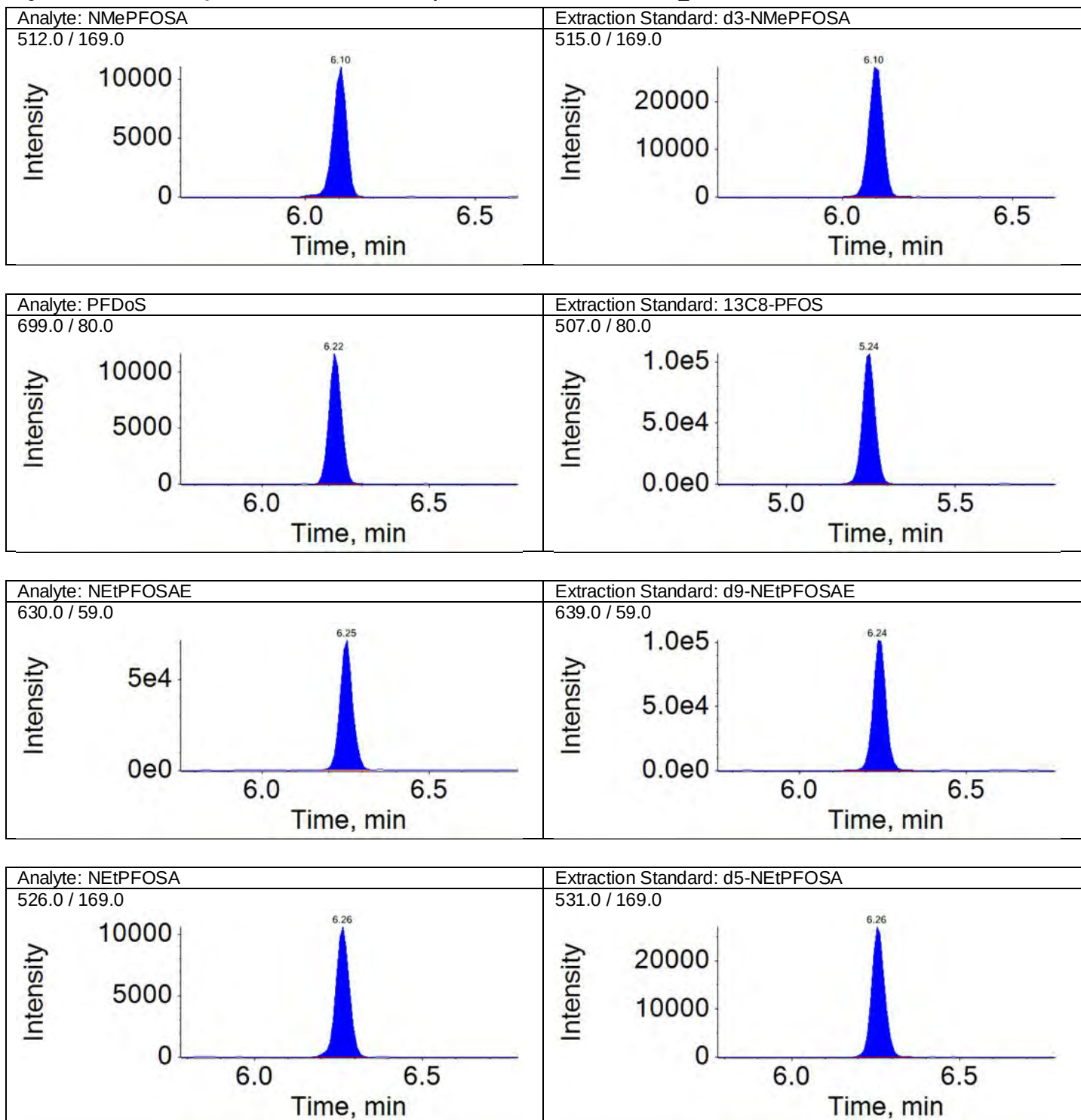
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

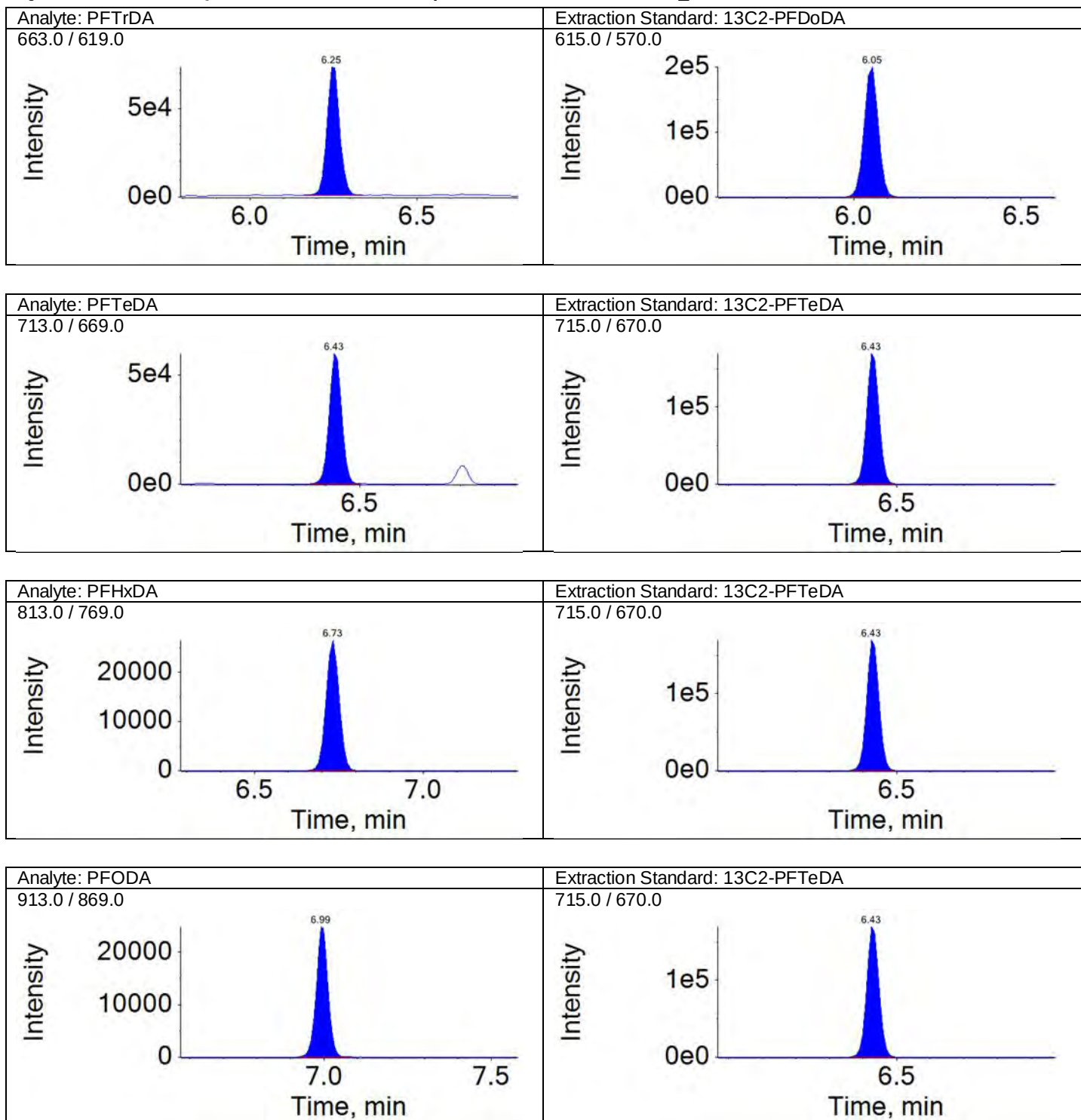
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV07DCAL 11/7/2018 2:18:30 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV07DCAL
Results Table Date: 11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:

PFOS

RT (min.):

5.24

Peak Area:

113697.4

Mass Range:

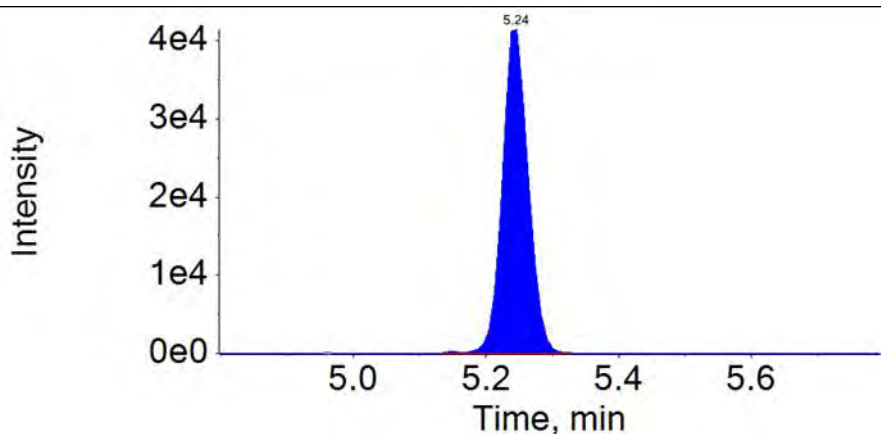
499.0 / 80.0

File Name:

18NOV07DCAL-20.wiff

Sample Name:

CCV1_CAL3



Integration Comment: incorrect integration

APPROVED

By JPT at 2:53 pm, 11/7/18

REVIEWED

By umar at 5:23 pm, 11/9/18

Results Table Name: 18NOV07DCAL
Results Table Date: 11/7/2018 2:18:30 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED
By JPT at 2:53 pm, 11/7/18

REVIEWED
By umar at 5:23 pm, 11/9/18

Ion Ratio Report

Sample Name: CCV1_CAL3

Instrument Name: LM27631

File Name: 18NOV07DCAL-20.wiff

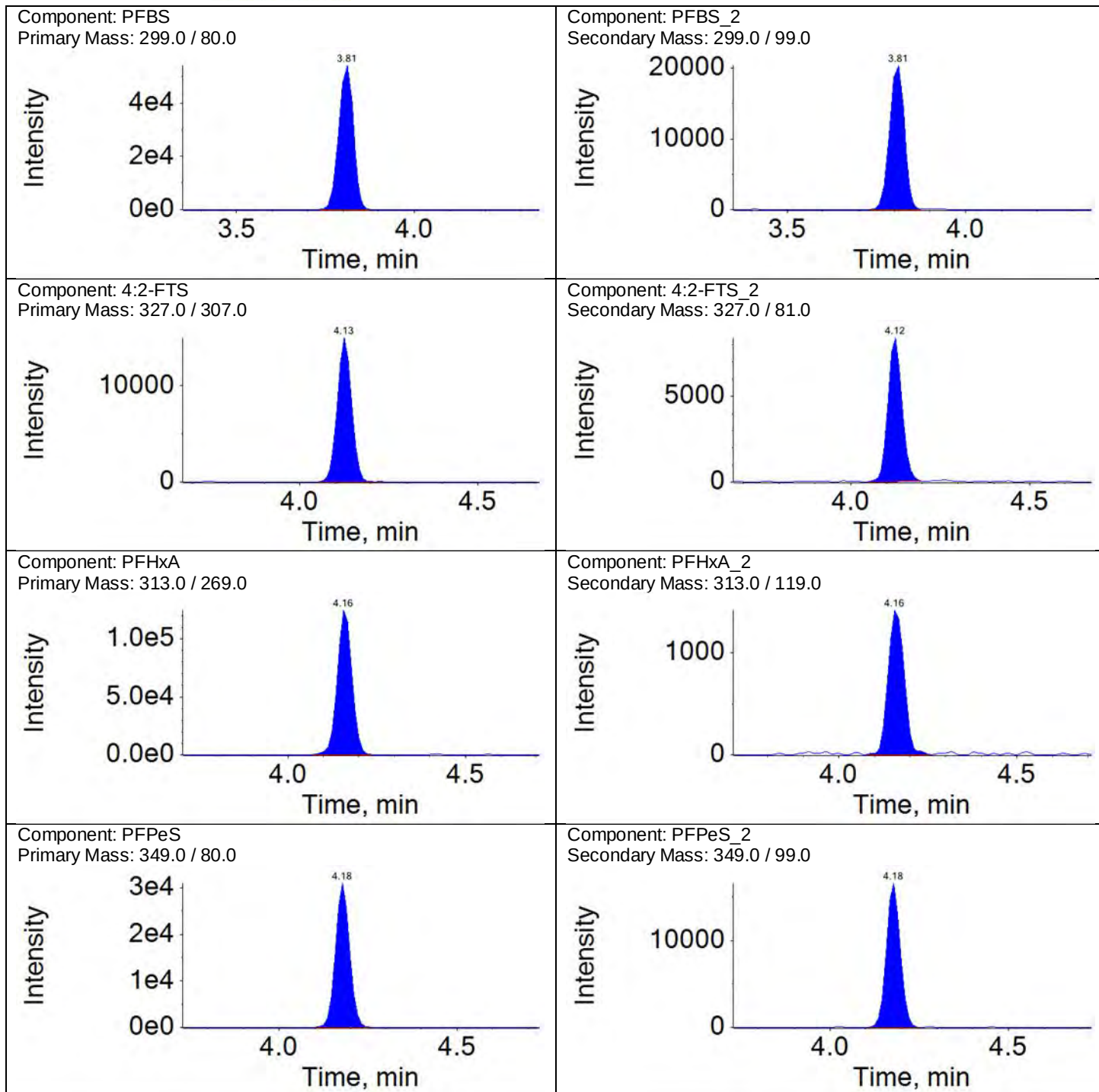
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	155917.1	A	1.0000	1.0000			
PFBS_2	3.81	1.00	59330.4	A	0.3576	0.3805	6	50	
4:2-FTS	4.13	1.00	41869.1	A	1.0000	1.0000			
4:2-FTS_2	4.12	1.00	22969.1	A	0.6359	0.5486	-14	50	
PFHxA	4.16	1.00	355844.6	A	1.0000	1.0000			
PFHxA_2	4.16	1.00	4420.8	A	0.0115	0.0124	8	50	
PFPeS	4.18	1.10	84840.7	A	1.0000	1.0000			
PFPeS_2	4.18	1.10	44612.7	A	0.5384	0.5258	-2	50	
PFHxS	4.55	1.00	126167.9	A	1.0000	1.0000			
PFHxS_2	4.55	1.00	44496.5	A	0.3569	0.3527	-1	50	
PFHpA	4.55	1.00	359438.8	A	1.0000	1.0000			
PFHpA_2	4.55	1.00	17557.5	A	0.0577	0.0488	-15	50	
6:2-FTS	4.91	1.00	30418.5	A	1.0000	1.0000			
6:2-FTS_2	4.91	1.00	19338.5	A	0.6752	0.6357	-6	50	
PFHpS	4.91	1.08	118682.9	A	1.0000	1.0000			
PFHpS_2	4.91	1.08	47884.4	A	0.3950	0.4035	2	50	
PFOA	4.92	1.00	363186.2	A	1.0000	1.0000			
PFOA_2	4.92	1.00	21404.0	A	0.0635	0.0589	-7	50	
PFOS	5.24	1.00	113455.6	M	1.0000	1.0000			
PFOS_2	5.25	1.00	38360.0	A	0.3494	0.3381	-3	50	
PFNA	5.26	1.00	284061.5	A	1.0000	1.0000			
PFNA_2	5.26	1.00	5433.5	A	0.0207	0.0191	-8	50	
PFNS	5.54	1.06	70168.8	A	1.0000	1.0000			
PFNS_2	5.54	1.06	34369.0	A	0.4890	0.4898	0	50	
PFDA	5.56	1.00	243089.4	A	1.0000	1.0000			
PFDA_2	5.56	1.00	1775.1	A	0.0057	0.0073	29	50	
8:2-FTS	5.56	1.00	25674.2	A	1.0000	1.0000			
8:2-FTS_2	5.56	1.00	17540.1	A	0.6169	0.6832	11	50	
NMeFOSAA	5.71	1.00	27107.5	A	1.0000	1.0000			
NMeFOSAA_2	5.71	1.00	6964.7	A	0.2206	0.2569	16	50	
PFDS	5.80	1.11	57911.4	A	1.0000	1.0000			
PFDS_2	5.80	1.11	30519.9	A	0.4648	0.5270	13	50	
PFUnDA	5.82	1.00	206684.1	A	1.0000	1.0000			
PFUnDA_2	5.82	1.00	912.7	A	0.0031	0.0044	40	50	
NEtFOSAA	5.84	1.00	29353.4	A	1.0000	1.0000			
NEtFOSAA_2	5.84	1.00	17948.8	A	0.6082	0.6115	1	50	
PFDODA	6.05	1.00	220745.0	A	1.0000	1.0000			
PFDODA_2	6.05	1.00	3019.9	A	0.0109	0.0137	25	50	
10:2-FTS	6.07	1.09	14526.2	A	1.0000	1.0000			
10:2-FTS_2	6.07	1.09	13571.8	A	0.7082	0.9343	32	50	
PFTTrDA	6.25	1.03	191338.9	A	1.0000	1.0000			
PFTTrDA_2	6.25	1.03	1915.2	A	0.0096	0.0100	4	50	
PFTeDA	6.43	1.00	153182.8	A	1.0000	1.0000			
PFTeDA_2	6.42	1.00	1214.6	A	0.0055	0.0079	43	50	
PFHxDA	6.73	1.05	71156.3	A	1.0000	1.0000			
PFHxDA_2	6.73	1.05	4385.3	A	0.0596	0.0616	3	50	
PFODA	6.99	1.09	60356.7	A	1.0000	1.0000			
PFODA_2	6.99	1.09	1801.4	A	0.0257	0.0298	16	50	

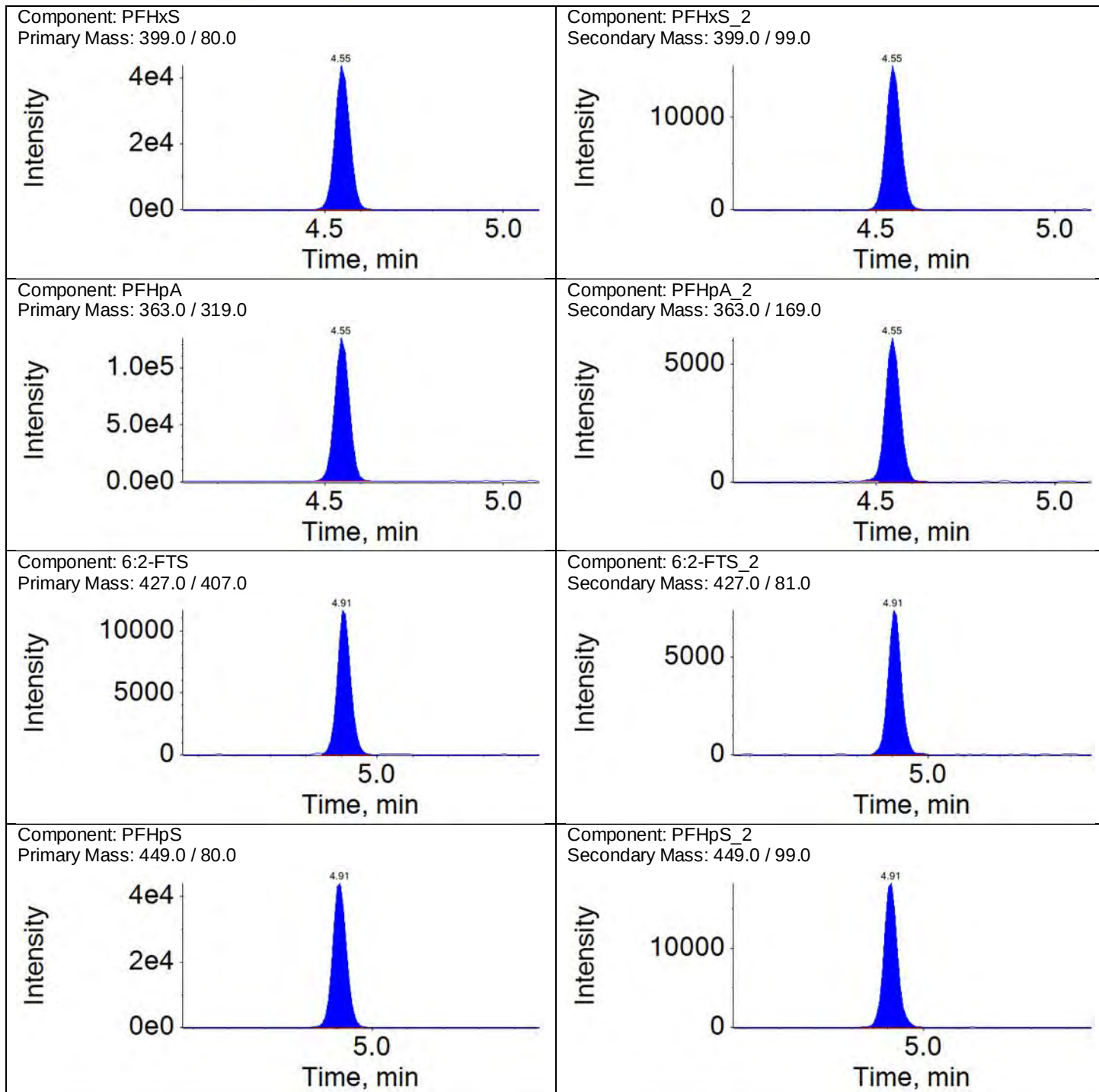
APPROVED

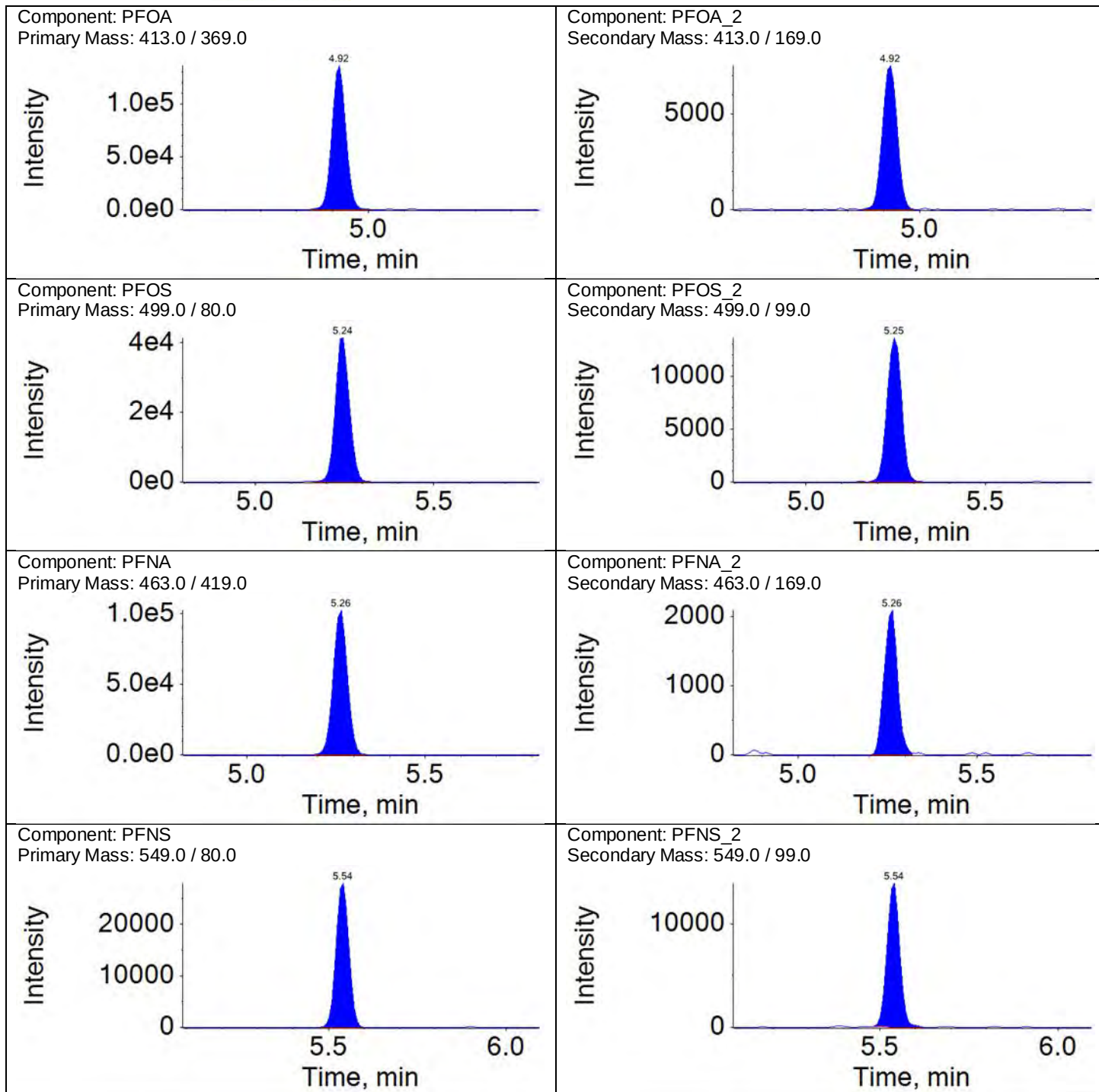
By JPT at 2:53 pm, 11/7/18

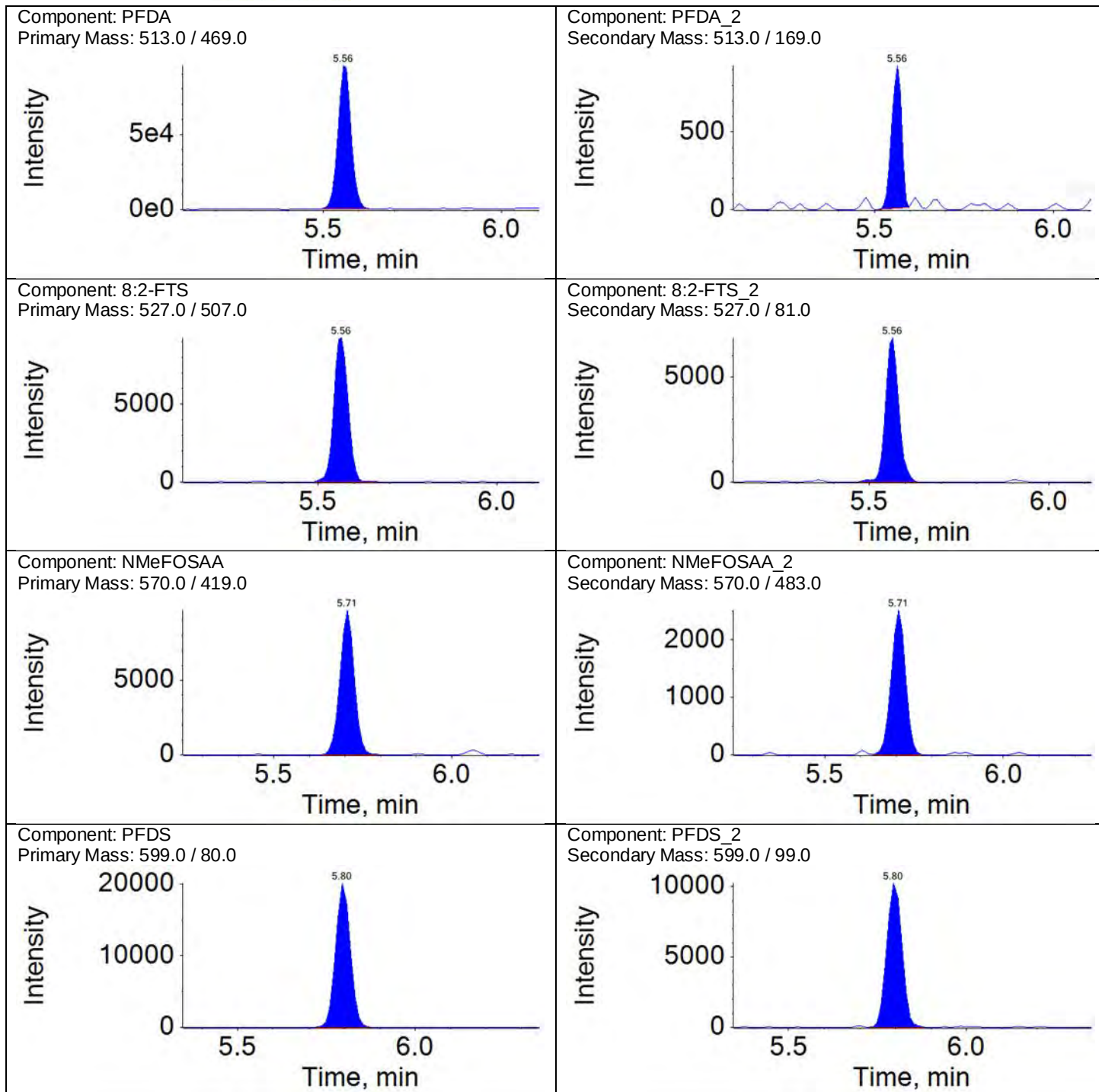
REVIEWED

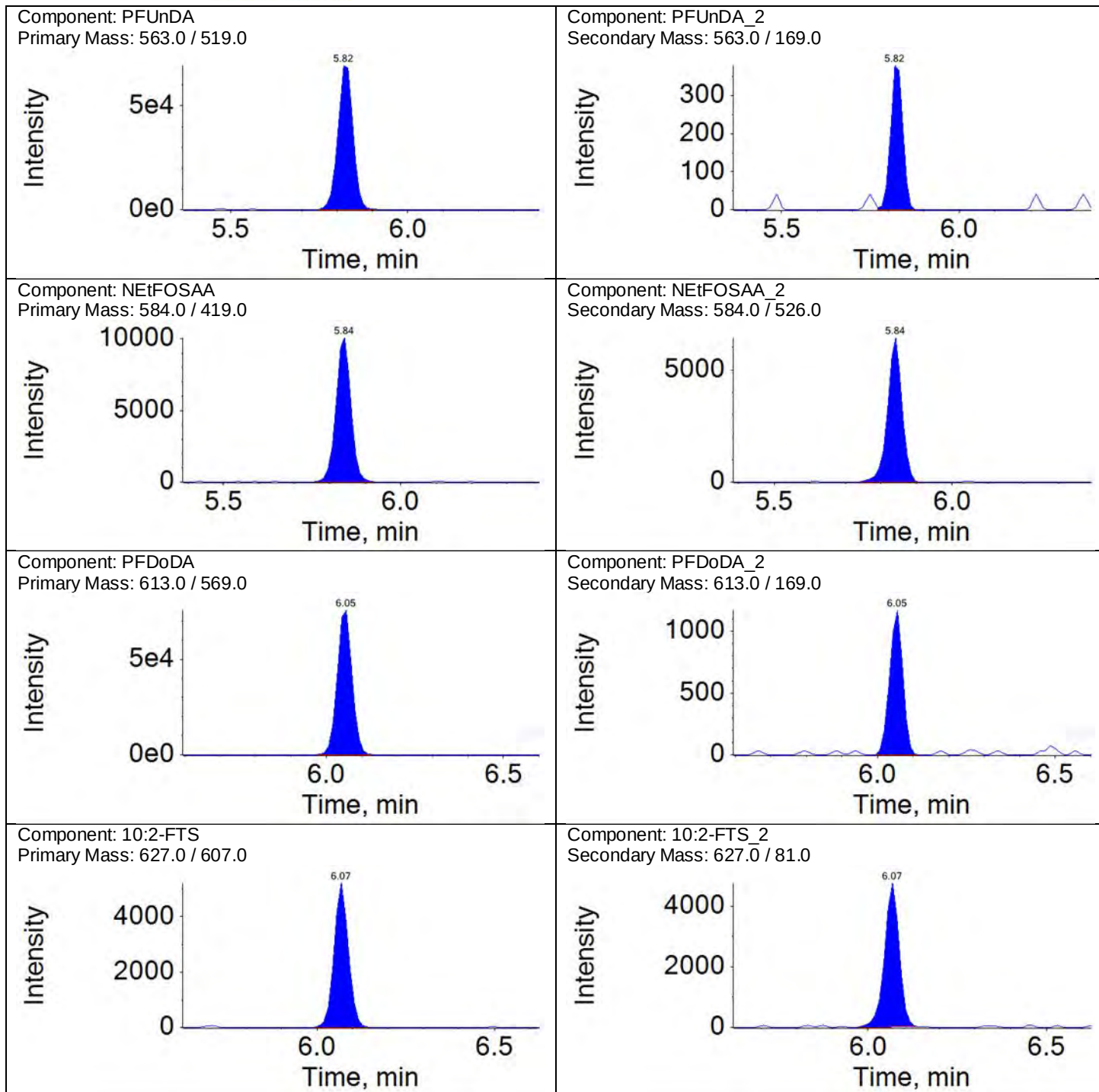
By umar at 5:23 pm, 11/9/18

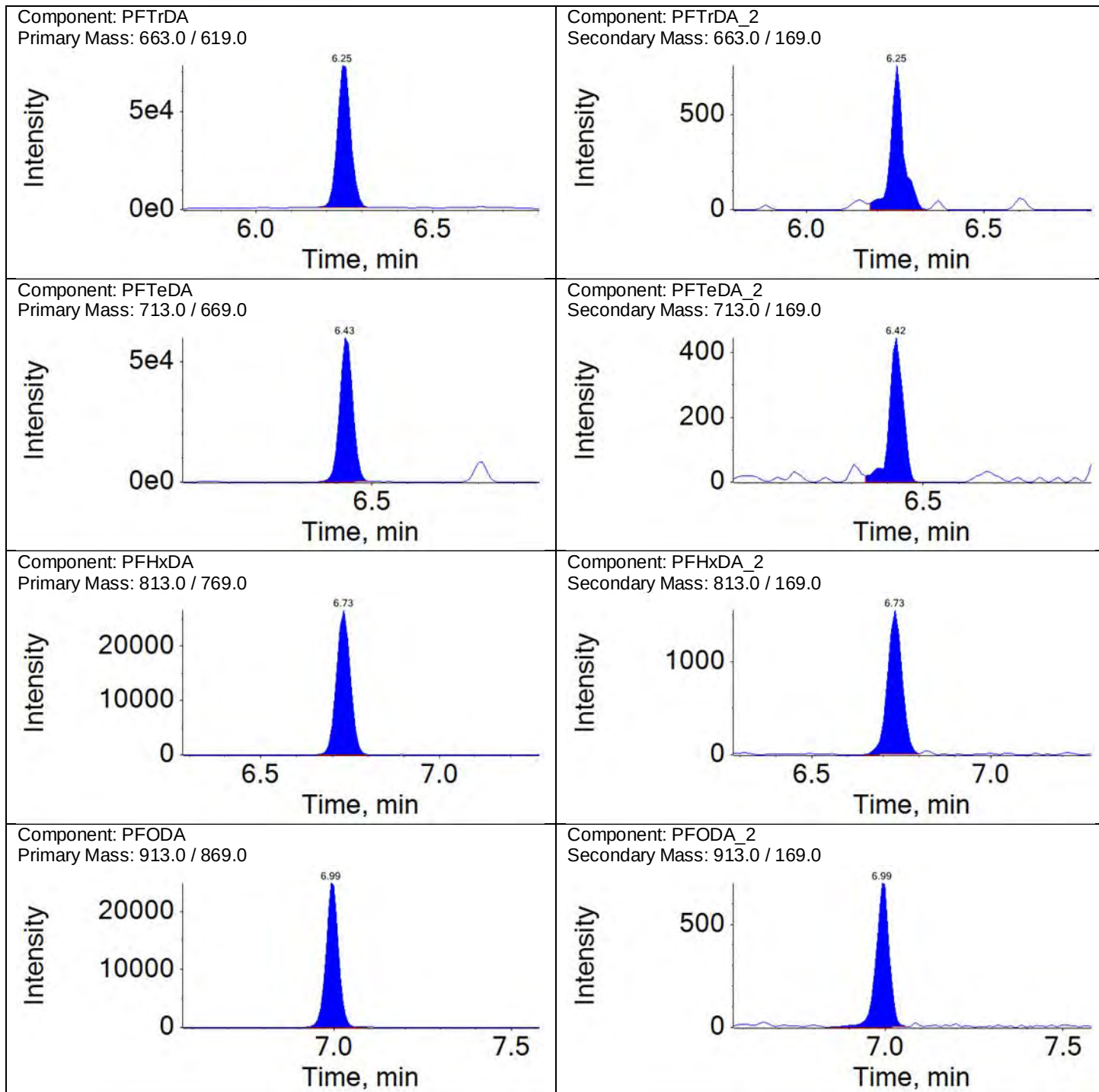






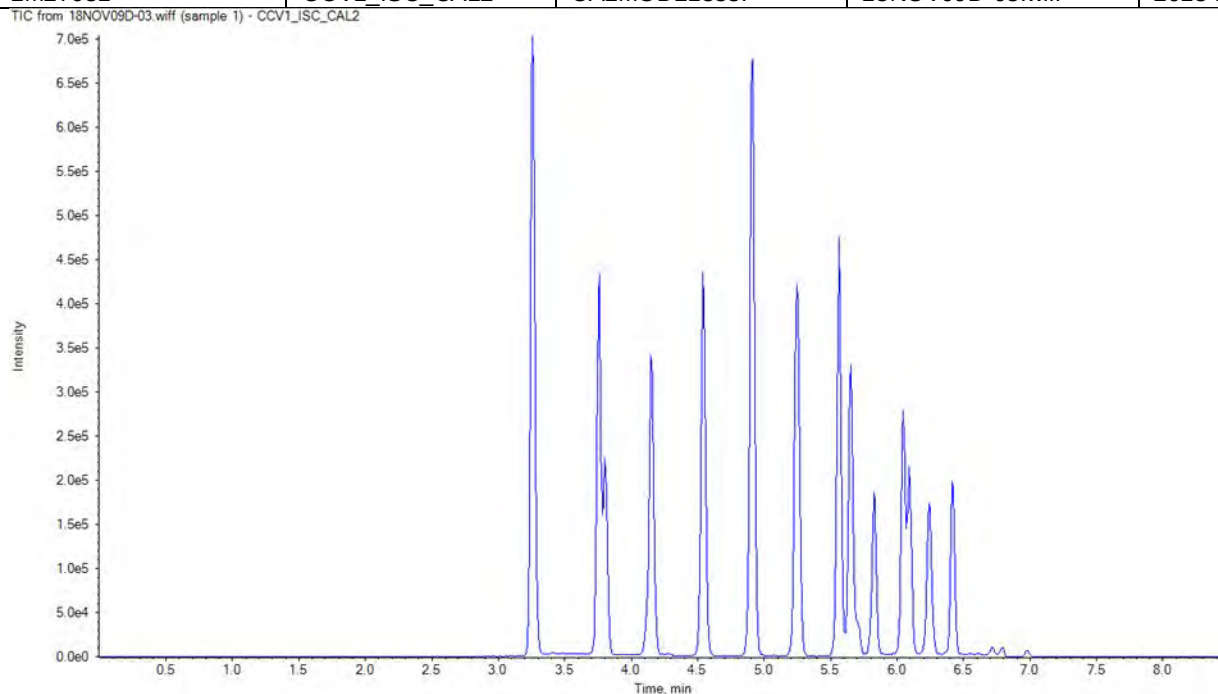






Instrument Sensitivity Check/
Continuing Calibration VerificationICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALMOD21833F	18NOV09D-03.wiff	2018-11-09T04:56:59



Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	725974.7	728839.7	0	50	
13C2-PFOA	5.0	506876.7	491983.1	3	50	
13C4-PFOS	4.8	274910.1	255568.1	8	50	
13C2-PFDA	5.0	307276.7	315407.5	-3	50	

APPROVED

By MCD at 5:19 pm, 11/9/18

REVIEWED

By HMK at 7:21 am, 11/15/18

Instrument Sensitivity Check/ Continuing Calibration Verification

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALMOD21833F	18NOV09D-03.wiff	2018-11-09T04:56:59

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	73764.0	10	13C4-PFBA	800377.3	5.0	0.092	3.26	1.000	0.500	0.539	8	30	
PFPeA	77931.3	12	13C5-PFPeA	839674.3	5.0	0.093	3.76	1.000	0.500	0.552	10	30	
PFBS	38056.3	11	13C3-PFBS	423450.1	4.7	0.090	3.81	1.000	0.440	0.453	3	30	
4:2-FTS	10464.9	11	13C2-4:2-FTS	54500.3	4.7	0.192	4.12	1.000	0.467	0.516	11	30	
PFHxA	90851.7	12	13C5-PFHxA	669530.0	5.0	0.136	4.15	1.000	0.500	0.582	16	30	
PFPeS	19983.2	12	13C3-PFBS	423450.1	4.7	0.047	4.17	1.100	0.469	0.465	-1	30	
PFHxS	30875.8	12	13C3-PFHxS	331033.8	4.7	0.093	4.54	1.000	0.473	0.473	0	30	
PFHpA	88972.9	12	13C4-PFHpA	550877.2	5.0	0.162	4.54	1.000	0.500	0.543	9	30	
6:2-FTS	8270.7	11	13C2-6:2-FTS	38224.4	4.8	0.216	4.90	1.000	0.474	0.540	14	30	
PFHpS	29792.4	11	13C3-PFHxS	331033.8	4.7	0.090	4.90	1.080	0.476	0.471	-1	30	
PFOA	90972.8	11	13C8-PFOA	936961.2	5.0	0.097	4.91	1.000	0.500	0.547	9	30	
PFOS	30918.1	11	13C8-PFOS	292185.4	4.8	0.106	5.24	1.000	0.478	0.549	15	30	
PFNA	67838.6	12	13C9-PFNA	481186.0	5.0	0.141	5.26	1.000	0.500	0.527	5	30	
PFNS	18602.5	11	13C8-PFOS	292185.4	4.8	0.064	5.54	1.060	0.480	0.505	5	30	
PFDA	59070.3	11	13C6-PFDA	595472.3	5.0	0.099	5.56	1.000	0.500	0.546	9	30	
8:2-FTS	5888.6	11	13C2-8:2-FTS	28276.3	4.8	0.208	5.57	1.000	0.479	0.469	-2	30	
PFOSA	72507.1	11	13C8-PFOSA	705892.2	5.0	0.103	5.65	1.000	0.500	0.555	11	30	
NMeFOSAA	7292.3	12	d3-NMeFOSAA	80042.2	5.0	0.091	5.71	1.000	0.500	0.469	-6	30	
PFDS	15015.9	11	13C8-PFOS	292185.4	4.8	0.051	5.80	1.110	0.482	0.491	2	30	
PFUnDA	49727.2	11	13C7-PFUnDA	268743.7	5.0	0.185	5.83	1.000	0.500	0.531	6	30	
NEtFOSAA	8237.3	12	d5-NEtFOSAA	66145.9	5.0	0.125	5.84	1.000	0.500	0.535	7	30	
PFDODA	50985.1	12	13C2-PFDODA	553881.6	5.0	0.092	6.05	1.000	0.500	0.499	0	30	
10:2-FTS	4050.9	13	13C2-8:2-FTS	28276.3	4.8	0.143	6.06	1.090	0.482	0.446	-7	30	
NMePFOSAE	41657.7	12	d7-NMePFOSAE	336547.8	5.0	0.124	6.10	1.000	0.500	0.555	11	30	
NMePFOSA	8675.0	12	d3-NMePFOSA	86754.9	5.0	0.100	6.10	1.000	0.500	0.560	12	30	
PFDoS	8991.3	11	13C8-PFOS	292185.4	4.8	0.031	6.21	1.190	0.484	0.594	23	30	
NEtPFOSAE	46678.1	12	d9-NEtPFOSAE	266431.2	5.0	0.175	6.25	1.000	0.500	0.562	12	30	
NEtPFOSA	6621.6	13	d5-NEtPFOSA	70353.4	5.0	0.094	6.26	1.000	0.500	0.415	-17	30	
PFTTrDA	43214.6	11	13C2-PFDODA	553881.6	5.0	0.078	6.24	1.030	0.500	0.492	-2	30	
PFTeDA	34793.1	10	13C2-PFTeDA	390810.1	5.0	0.089	6.42	1.000	0.500	0.523	5	30	
PFHxDA	16891.1	11	13C2-PFTeDA	390810.1	5.0	0.043	6.72	1.050	0.500	0.537	7	30	
PFOA	15170.8	10	13C2-PFTeDA	390810.1	5.0	0.039	6.98	1.090	0.500	0.556	11	30	

**Instrument Sensitivity Check/
Continuing Calibration Verification**

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV1 ISC CAL2	Data File:	18NOV09D-03.wiff
Sample ID:	CALMOD21833F	Acquis Date:	2018-11-09T04:56:59
Sample Type:	Quality Control	Instrument:	LM27631
Vial Position:	4	Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00	Result Table:	18NOV09DCCV1-4
QMethod File:	MQ4-18AUG13	ICAL Name:	18NOV07DCAL
Batch Number:	N/A	Operator:	MCD7824
Sample Wt.:	1.00000	Dilution Factor:	1.00
Sample Vol.:	1.000	Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV08D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	725974.7	728839.7	0	50	
13C2-PFOA	5.0	506876.7	491983.1	3	50	
13C4-PFOS	4.8	274910.1	255568.1	8	50	
13C2-PFDA	5.0	307276.7	315407.5	-3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	800377.3	13C3-PFBA	725974.7	1.102	5.000	5.102	102	70-130	
E13C5-PFPeA	839674.3	13C3-PFBA	725974.7	1.157	5.000	5.039	101	70-130	
E13C3-PFBS	423450.1	13C3-PFBA	725974.7	0.583	4.650	4.281	92	70-130	
E13C2-4:2-FTS	54500.3	13C2-PFOA	506876.7	0.108	4.670	4.852	104	70-130	
E13C5-PFHxA	669530.0	13C2-PFOA	506876.7	1.321	5.000	4.859	97	70-130	
E13C3-PFHxS	331033.8	13C2-PFOA	506876.7	0.653	4.730	4.688	99	70-130	
E13C4-PFHpA	550877.2	13C2-PFOA	506876.7	1.087	5.000	4.944	99	70-130	
E13C2-6:2-FTS	38224.4	13C2-PFOA	506876.7	0.075	4.750	5.029	106	70-130	
E13C8-PFOA	936961.2	13C2-PFOA	506876.7	1.848	5.000	5.155	103	70-130	
E13C8-PFOS	292185.4	13C4-PFOS	274910.1	1.063	4.780	4.700	98	70-130	
E13C9-PFNA	481186.0	13C4-PFOS	274910.1	1.750	5.000	4.781	96	70-130	
E13C6-PFDA	595472.3	13C2-PFDA	307276.7	1.938	5.000	4.873	97	70-130	
E13C2-8:2-FTS	28276.3	13C2-PFDA	307276.7	0.092	4.790	4.869	102	70-130	
E13C8-PFOSA	705892.2	13C2-PFDA	307276.7	2.297	5.000	5.013	100	70-130	
Ed3-NMeFOSAA	80042.2	13C2-PFDA	307276.7	0.260	5.000	4.844	97	70-130	
E13C7-PFUnDA	268743.7	13C2-PFDA	307276.7	0.875	5.000	5.045	101	70-130	
Ed5-NEtFOSAA	66145.9	13C2-PFDA	307276.7	0.215	5.000	4.982	100	70-130	
E13C2-PFDODA	553881.6	13C2-PFDA	307276.7	1.803	5.000	4.859	97	70-130	
Ed7-NMePFOSAE	336547.8	13C2-PFDA	307276.7	1.095	5.000	5.093	102	70-130	
Ed3-NMePFOSA	86754.9	13C2-PFDA	307276.7	0.282	5.000	5.169	103	70-130	
Ed9-NEtPFOSAE	266431.2	13C2-PFDA	307276.7	0.867	5.000	4.952	99	70-130	
Ed5-NEtPFOSA	70353.4	13C2-PFDA	307276.7	0.229	5.000	5.301	106	70-130	
E13C2-PFTeDA	390810.1	13C2-PFDA	307276.7	1.272	5.000	4.579	92	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam

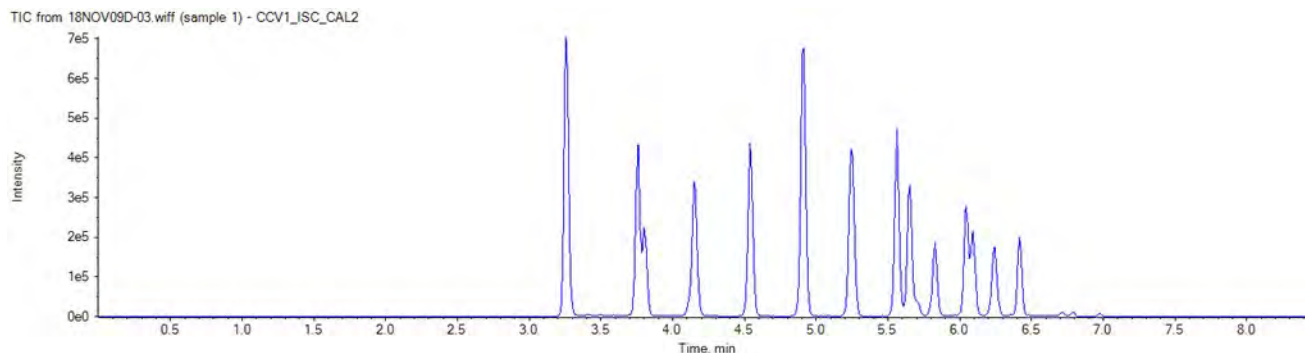
Analyte Quantitation Peak Table

Sample Name: CCV1_ISC_CAL2 Instrument Name: LM27631 File Name: 18NOV09D-03.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	73764.0		A	13C4-PFBA	3.26	800377.3	0.092	0.539
PFPeA	3.76	1.000	77931.3		A	13C5-PFPeA	3.76	839674.3	0.093	0.552
PFBS	3.81	1.000	38056.3		A	13C3-PFBS	3.81	423450.1	0.090	0.453
4:2-FTS	4.12	1.000	10464.9		A	13C2-4:2-FTS	4.12	54500.3	0.192	0.516
PFHxA	4.15	1.000	90851.7		A	13C5-PFHxA	4.15	669530.0	0.136	0.582
PFPeS	4.17	1.100	19983.2		A	13C3-PFBS	3.81	423450.1	0.047	0.465
PFHxS	4.54	1.000	30875.8		A	13C3-PFHxS	4.54	331033.8	0.093	0.473
PFHpA	4.54	1.000	88972.9		A	13C4-PFHpA	4.54	550877.2	0.162	0.543
6:2-FTS	4.90	1.000	8270.7		A	13C2-6:2-FTS	4.90	38224.4	0.216	0.540
PFHpS	4.90	1.080	29792.4		A	13C3-PFHxS	4.54	331033.8	0.090	0.471
PFOA	4.91	1.000	90972.8		A	13C8-PFOA	4.91	936961.2	0.097	0.547
PFOS	5.24	1.000	30918.1		A	13C8-PFOS	5.24	292185.4	0.106	0.549
PFNA	5.26	1.000	67838.6		A	13C9-PFNA	5.26	481186.0	0.141	0.527
PFNS	5.54	1.060	18602.5		A	13C8-PFOS	5.24	292185.4	0.064	0.505
PFDA	5.56	1.000	59070.3		A	13C6-PFDA	5.56	595472.3	0.099	0.546
8:2-FTS	5.57	1.000	5888.6		A	13C2-8:2-FTS	5.57	28276.3	0.208	0.469
PFOSA	5.65	1.000	72507.1		A	13C8-PFOSA	5.65	705892.2	0.103	0.555
NMeFOSAA	5.71	1.000	7292.3		A	d3-NMeFOSAA	5.71	80042.2	0.091	0.469
PFDS	5.80	1.110	15015.9		M	13C8-PFOS	5.24	292185.4	0.051	0.491
PfUnDA	5.83	1.000	49727.2		A	13C7-PfUnDA	5.83	268743.7	0.185	0.531
NEtFOSAA	5.84	1.000	8237.3		M	d5-NEtFOSAA	5.84	66145.9	0.125	0.535
PFDODA	6.05	1.000	50985.1		A	13C2-PFDODA	6.05	553881.6	0.092	0.499
10:2-FTS	6.06	1.090	4050.9		A	13C2-8:2-FTS	5.57	28276.3	0.143	0.446
NMePFOSAE	6.10	1.000	41657.7		A	d7-NMePFOSAE	6.09	336547.8	0.124	0.555
NMePFOSA	6.10	1.000	8675.0		A	d3-NMePFOSA	6.10	86754.9	0.100	0.560
PFDoS	6.21	1.190	8991.3		A	13C8-PFOS	5.24	292185.4	0.031	0.594
NEtPFOSAE	6.25	1.000	46678.1		A	d9-NEtPFOSAE	6.24	266431.2	0.175	0.562
NEtPFOSA	6.26	1.000	6621.6		A	d5-NEtPFOSA	6.26	70353.4	0.094	0.415
PFTDA	6.24	1.030	43214.6		A	13C2-PFDODA	6.05	553881.6	0.078	0.492
PFTeDA	6.42	1.000	34793.1		A	13C2-PFTeDA	6.42	390810.1	0.089	0.523
PFHxDA	6.72	1.050	16891.1		A	13C2-PFTeDA	6.42	390810.1	0.043	0.537
PFODA	6.98	1.090	15170.8		A	13C2-PFTeDA	6.42	390810.1	0.039	0.556

Total Ion Chromatogram



APPROVED

By MCD at 5:19 pm, 11/9/18

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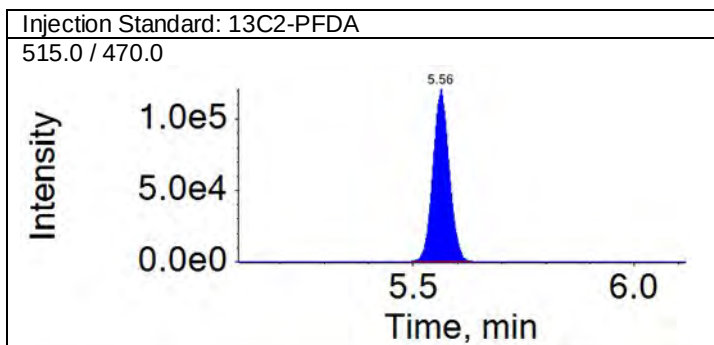
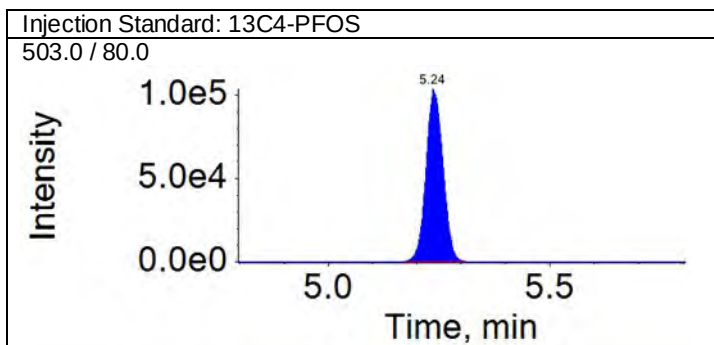
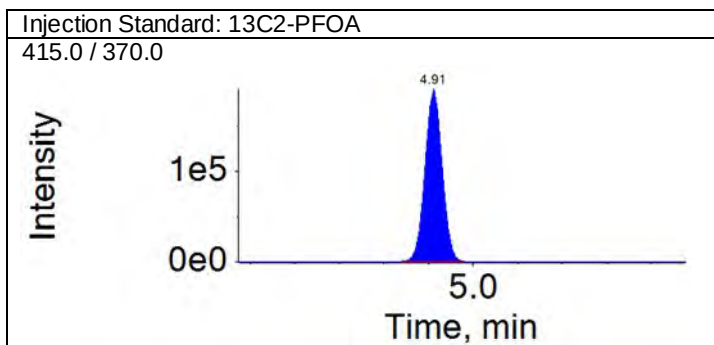
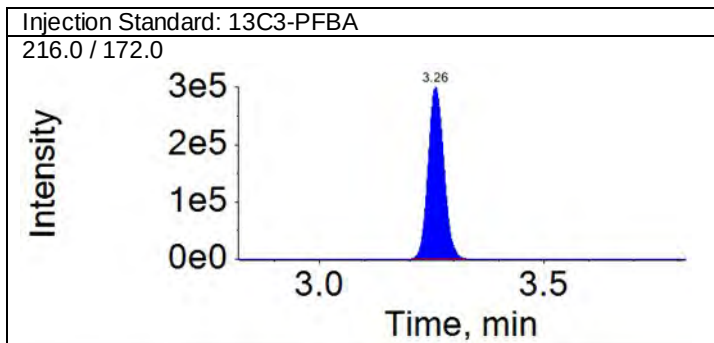
REVIEWED

By HMK at 7:21 am, 11/15/18

Page 2 of 17

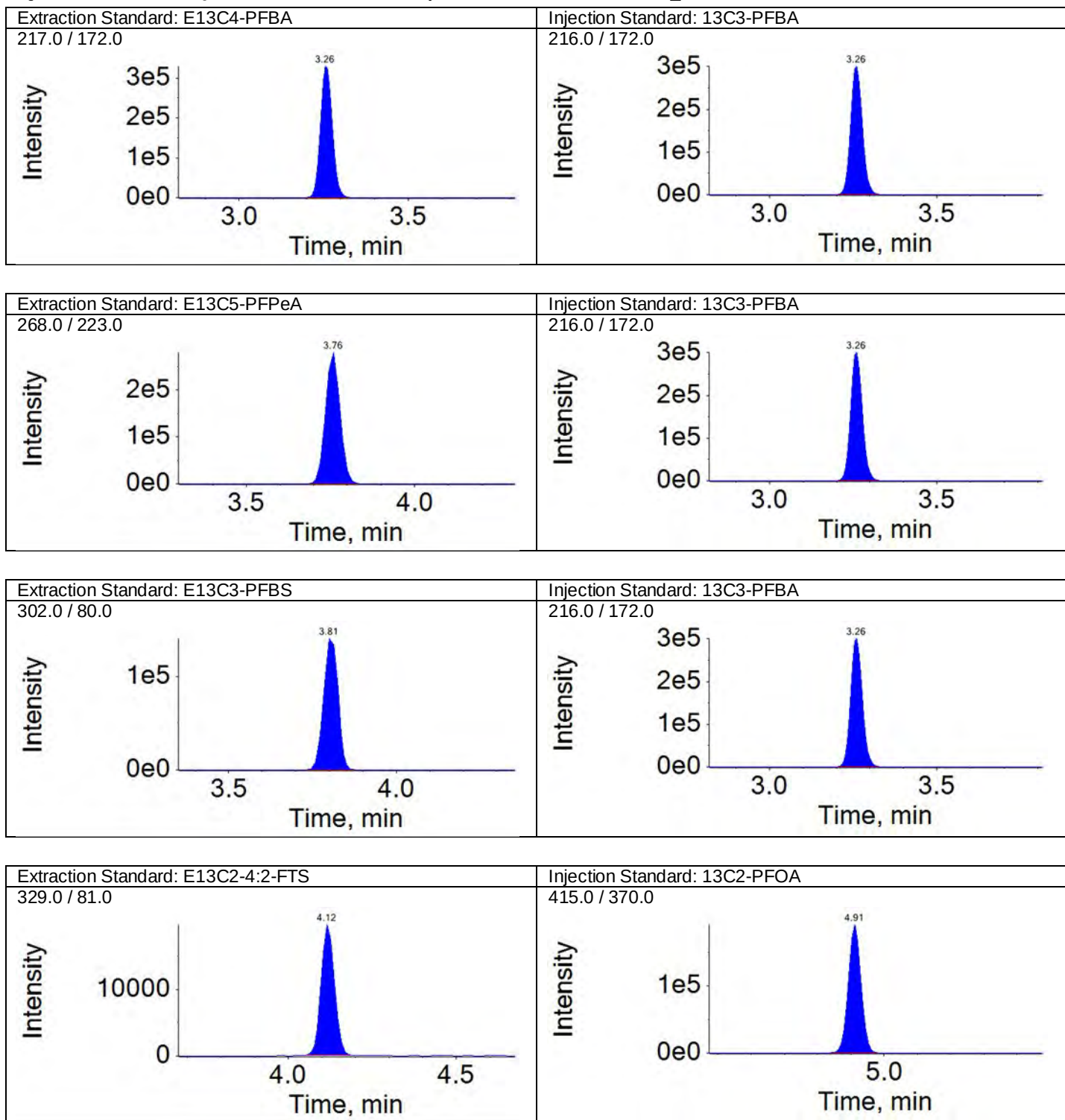
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam



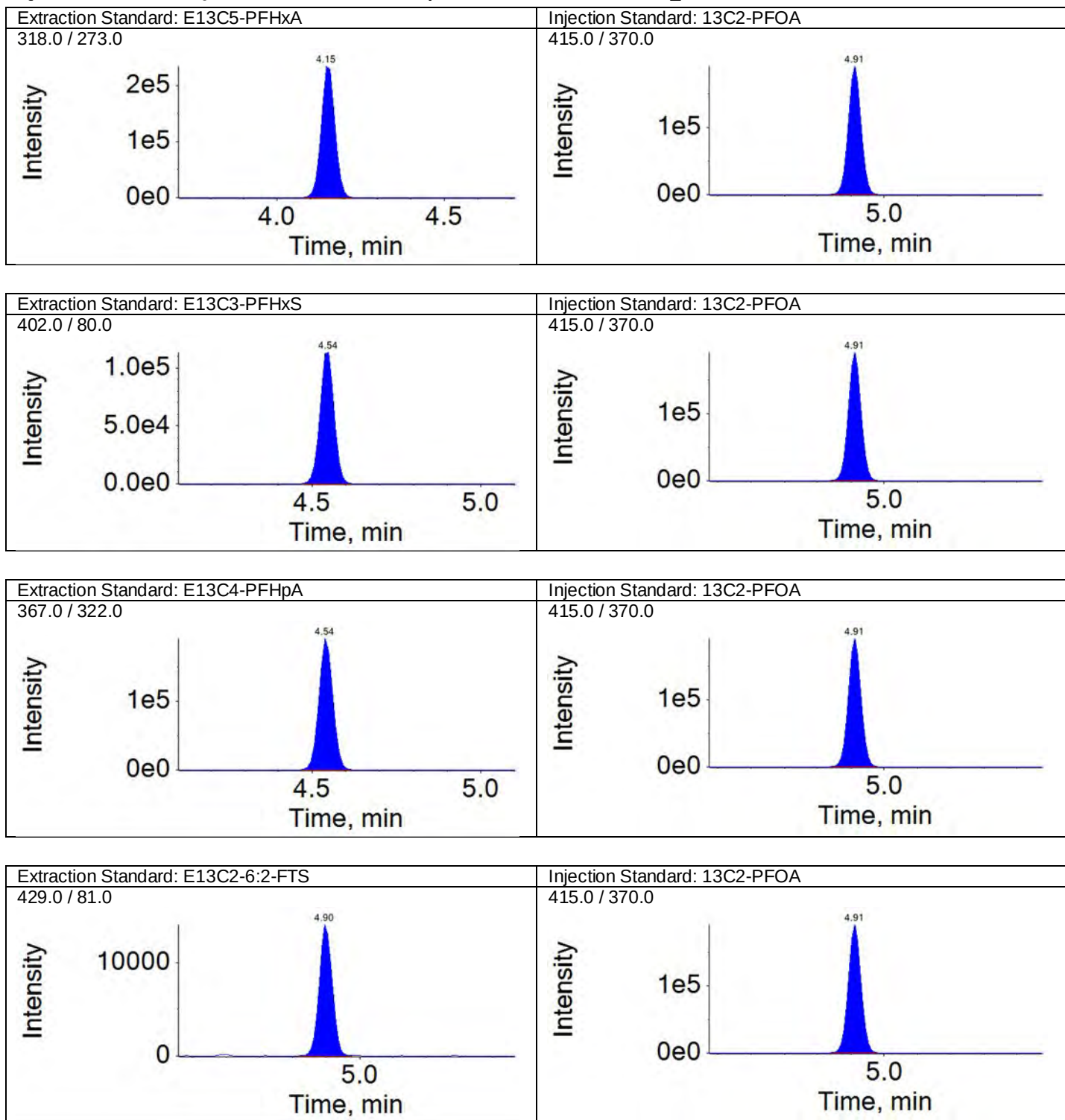
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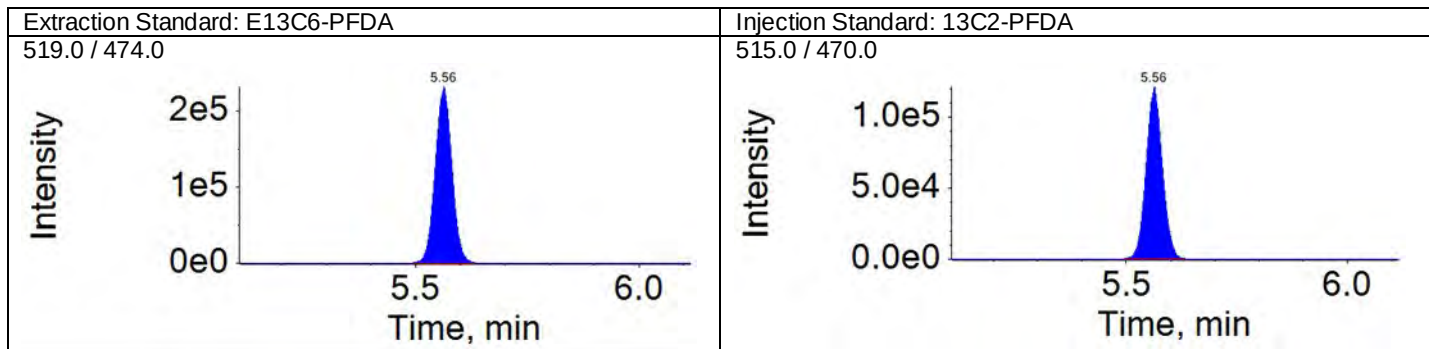
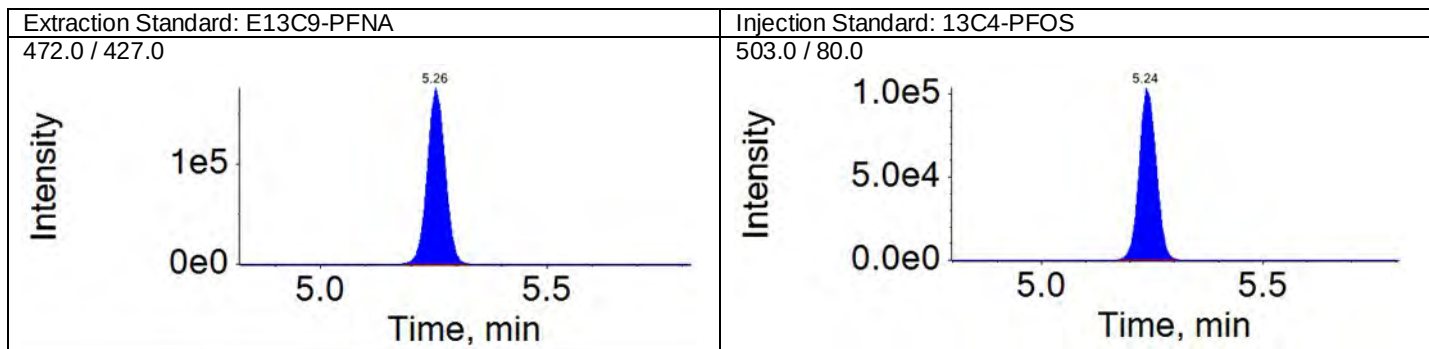
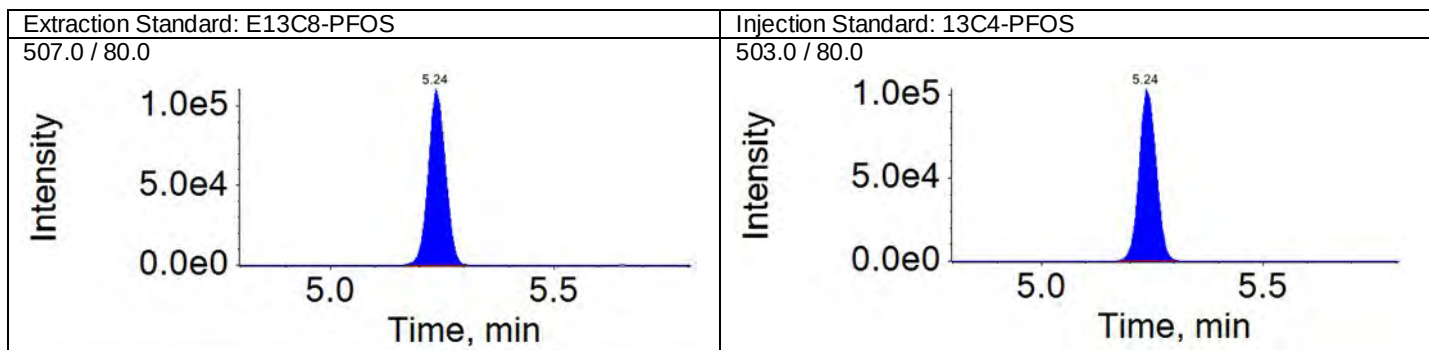
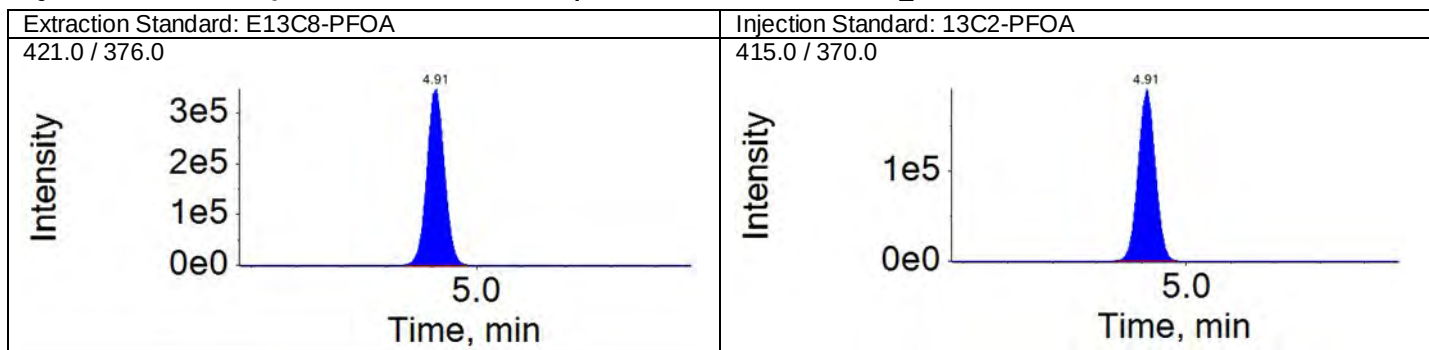
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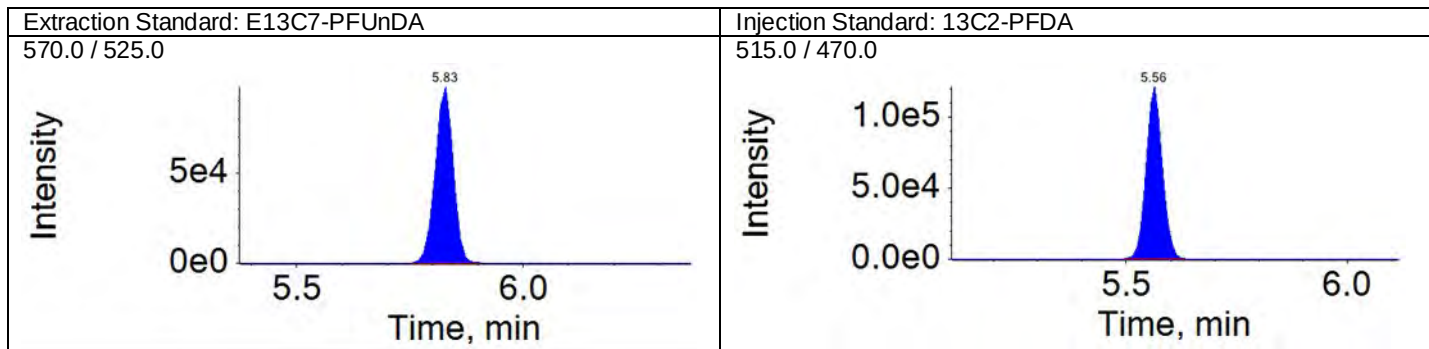
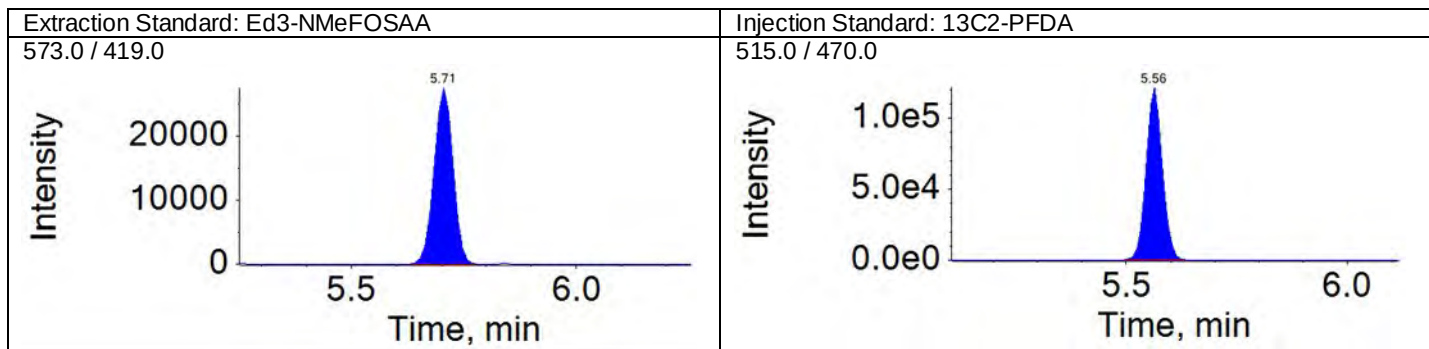
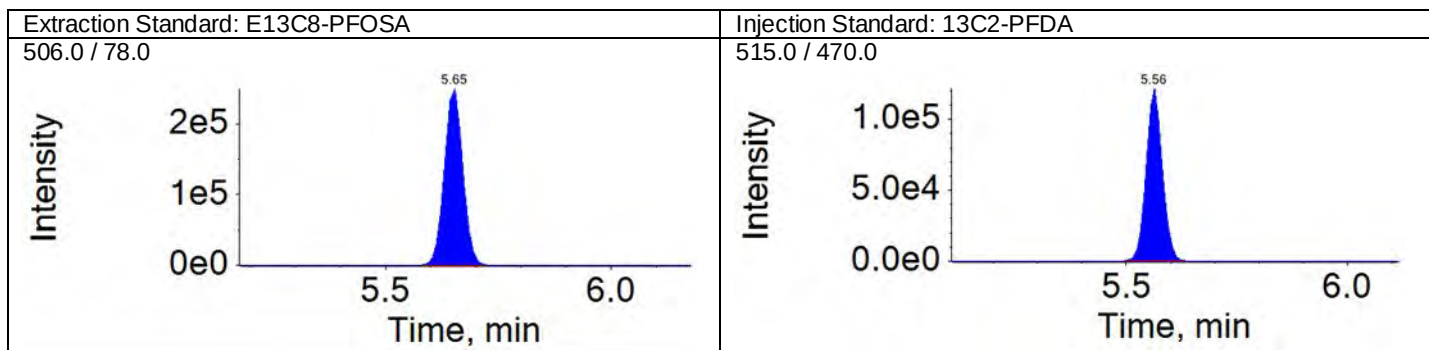
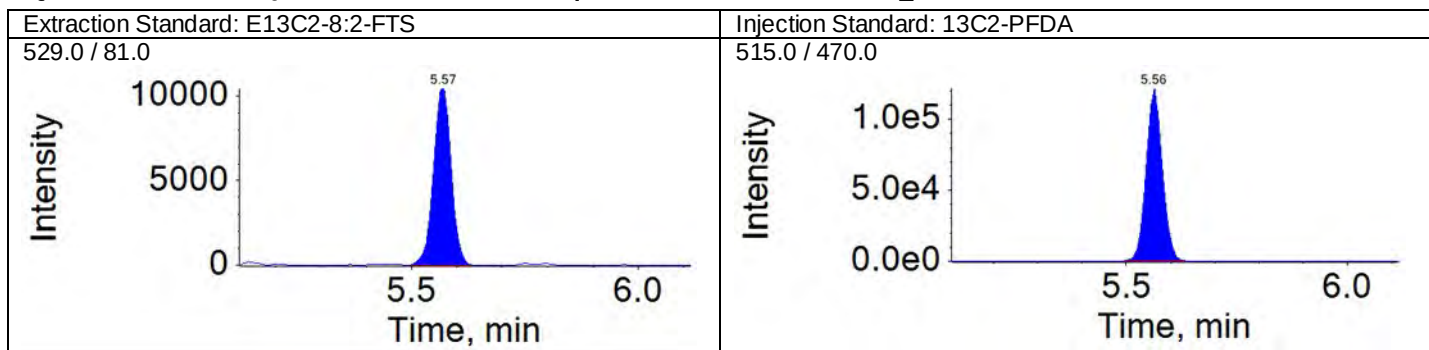
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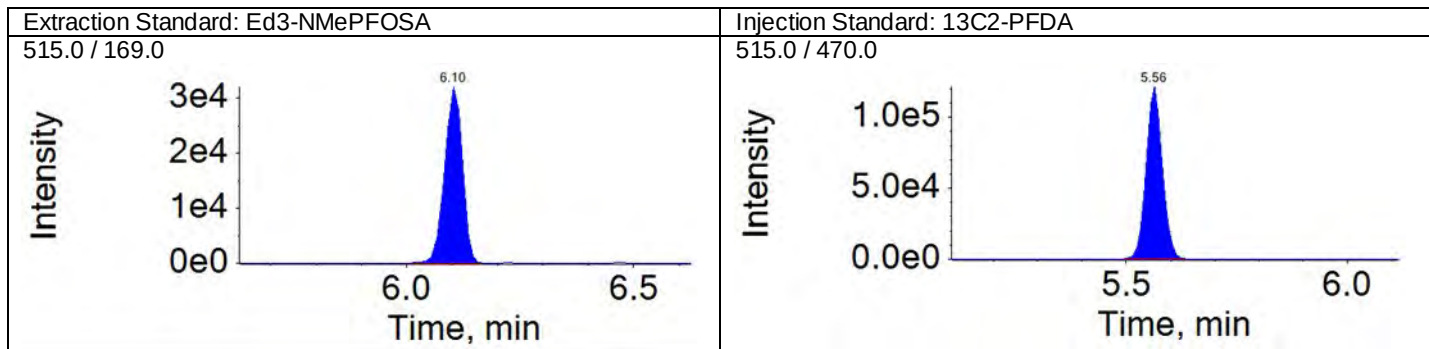
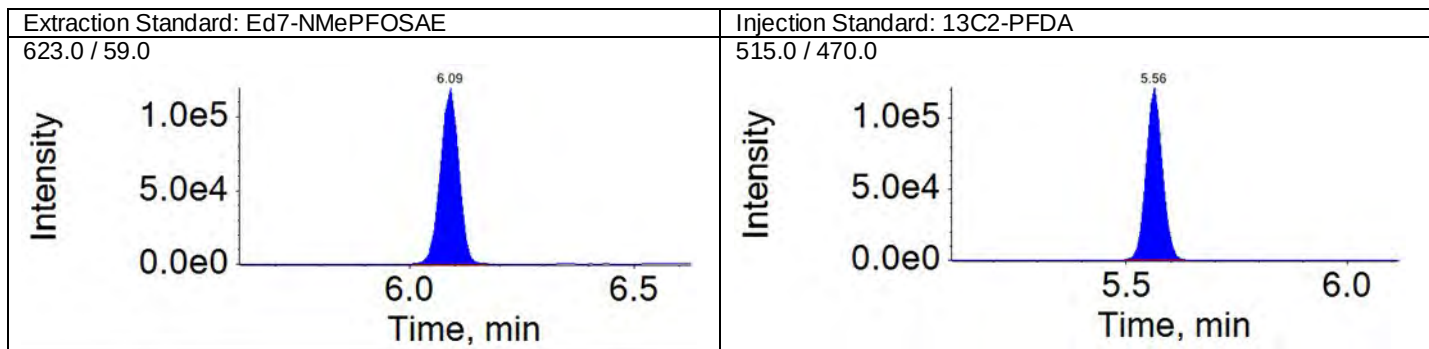
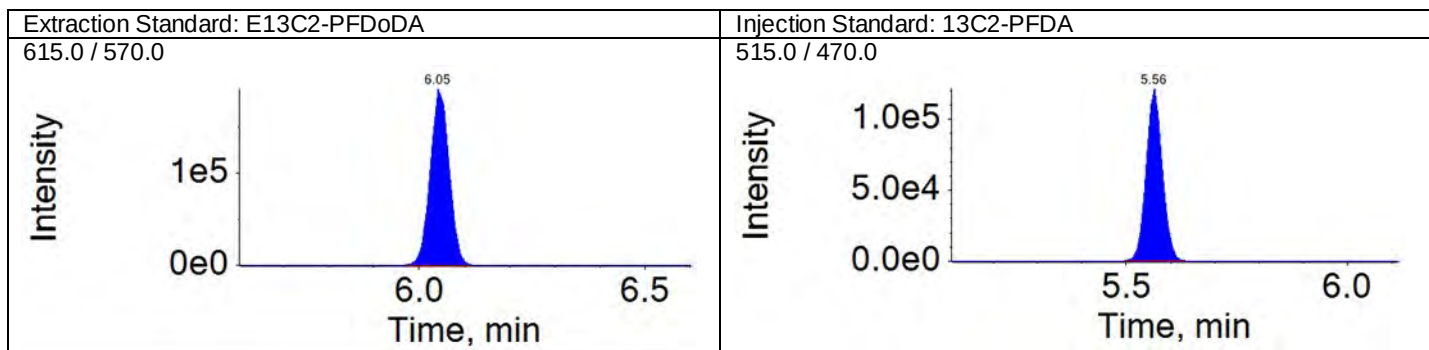
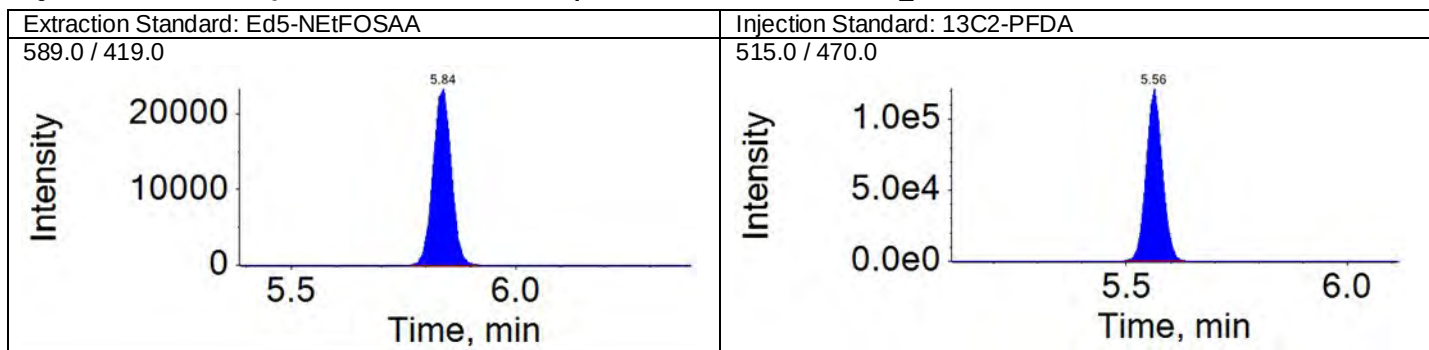
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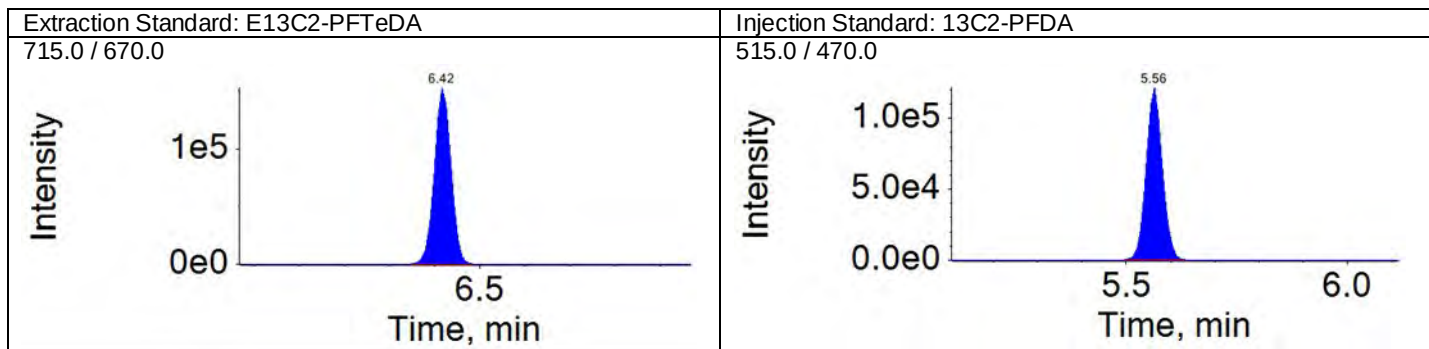
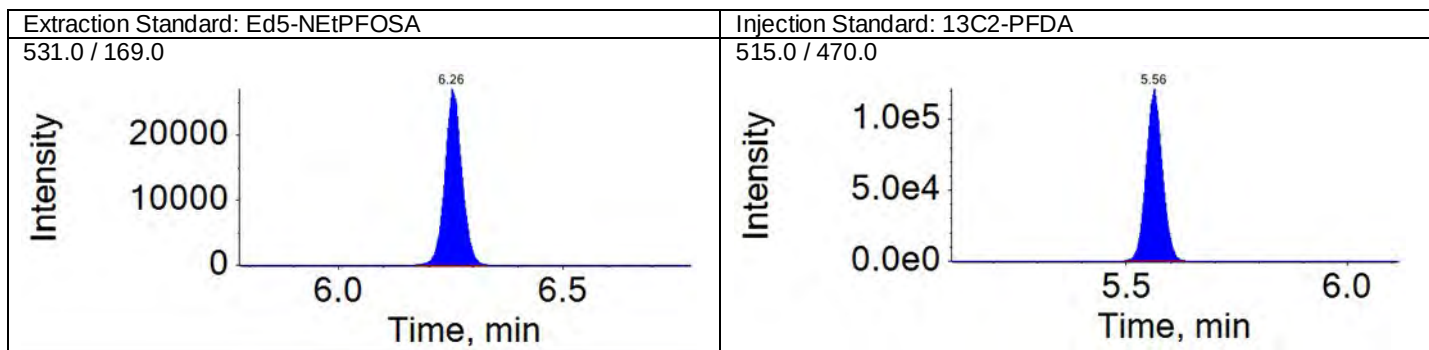
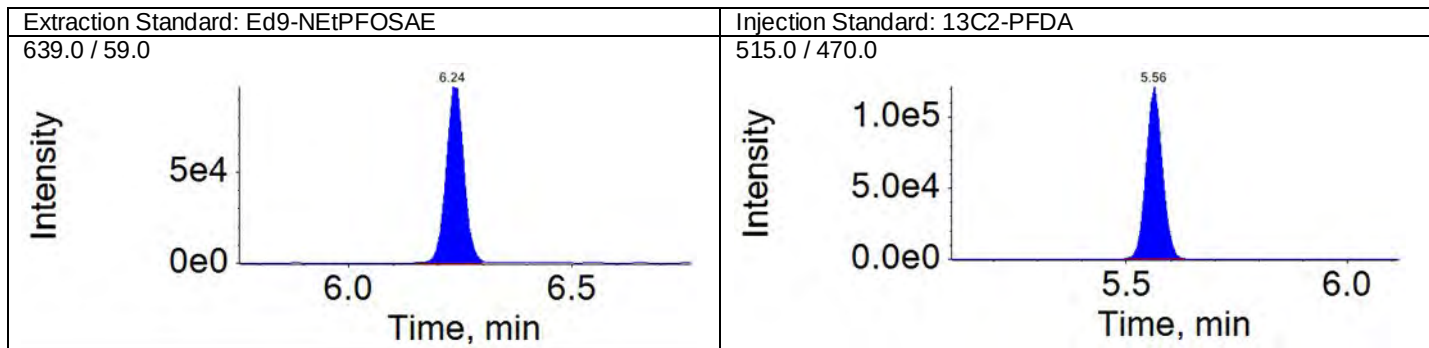
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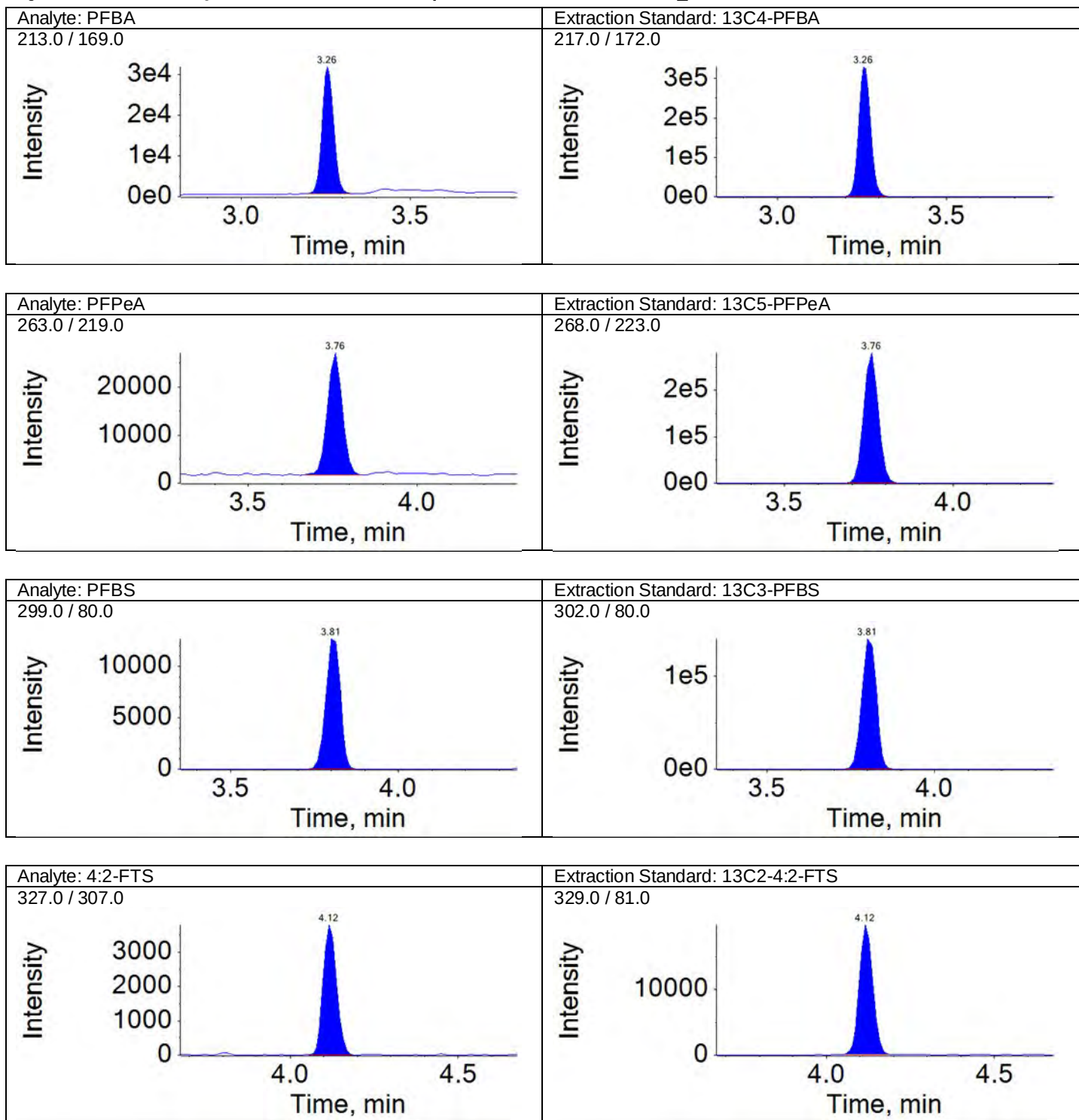
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ICAL Name: 18NOV07DCAL
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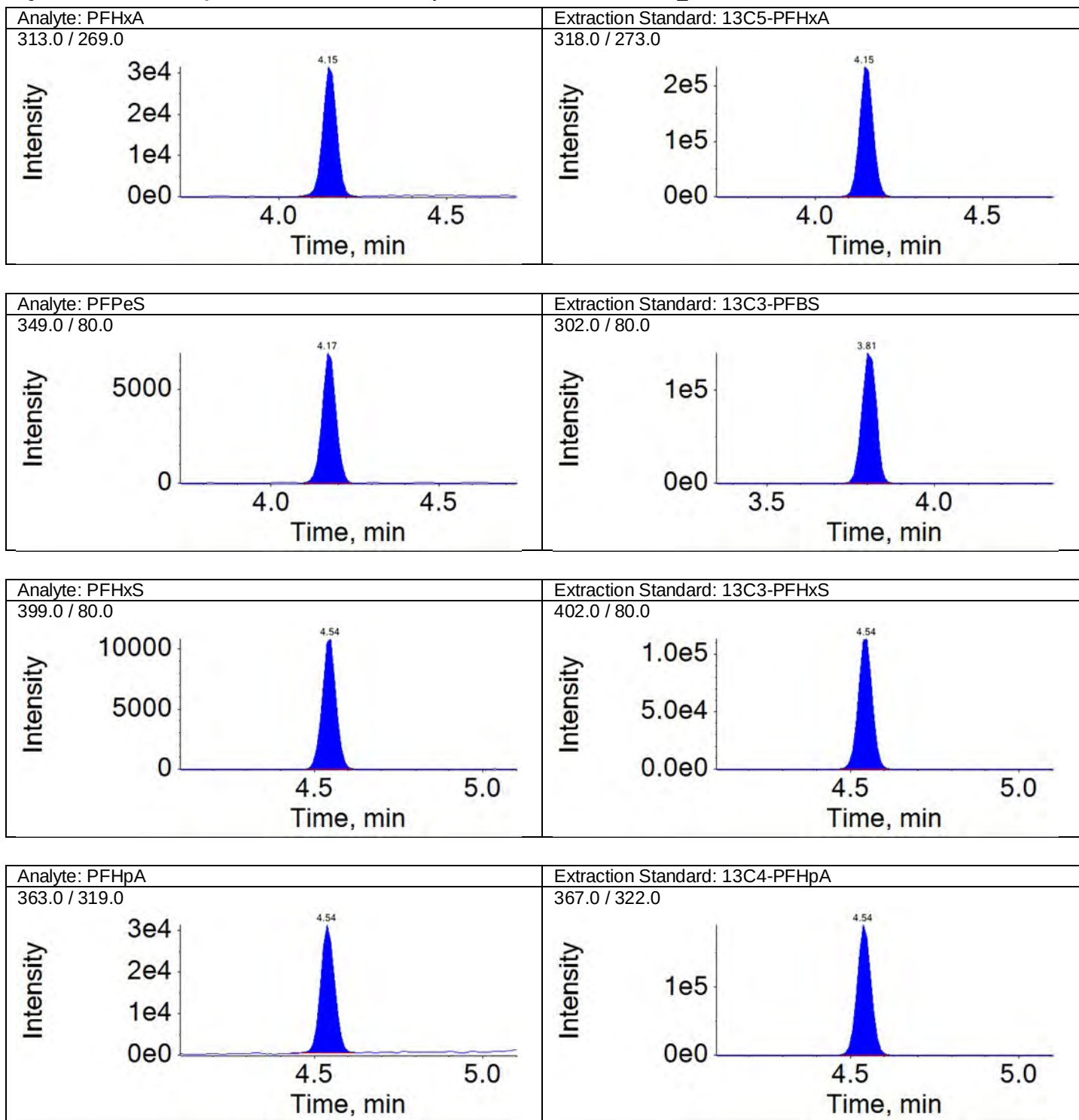
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REVIEWED

By HMK at 7:21 am, 11/15/18

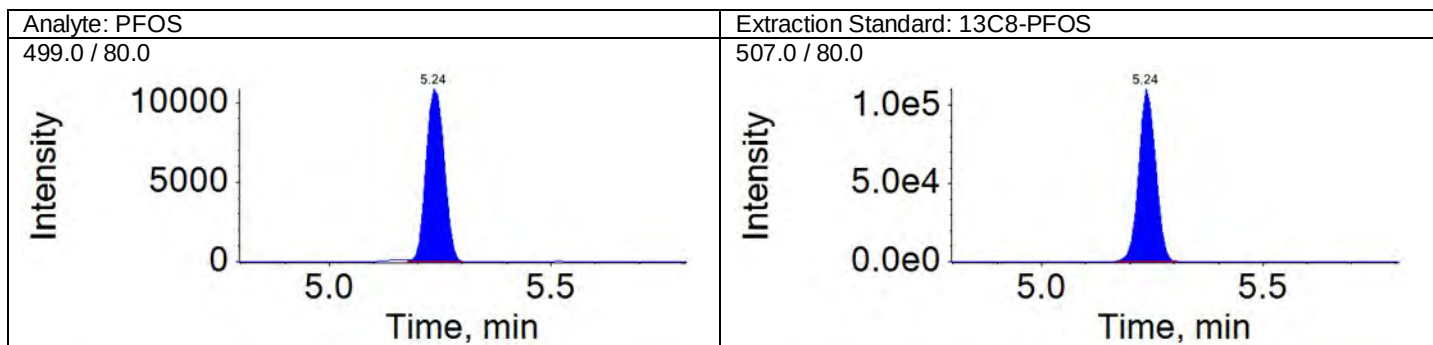
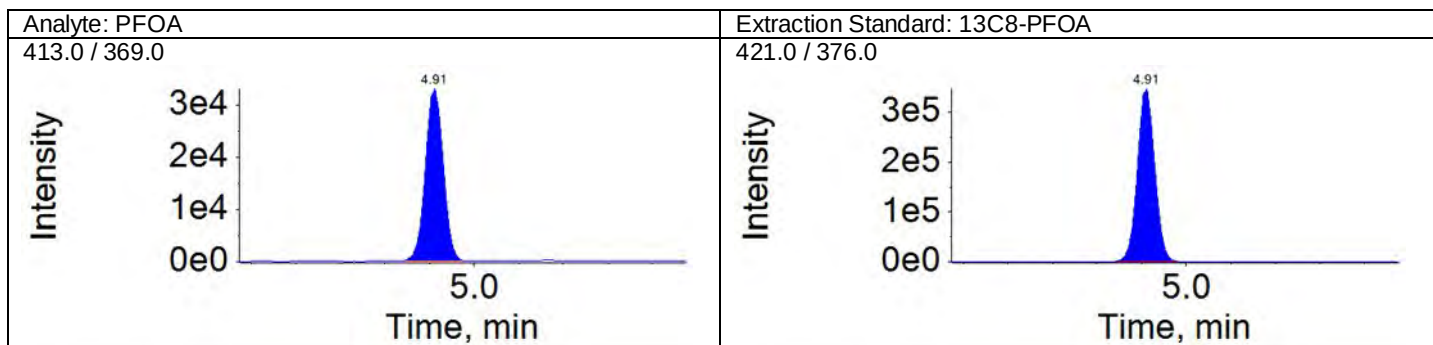
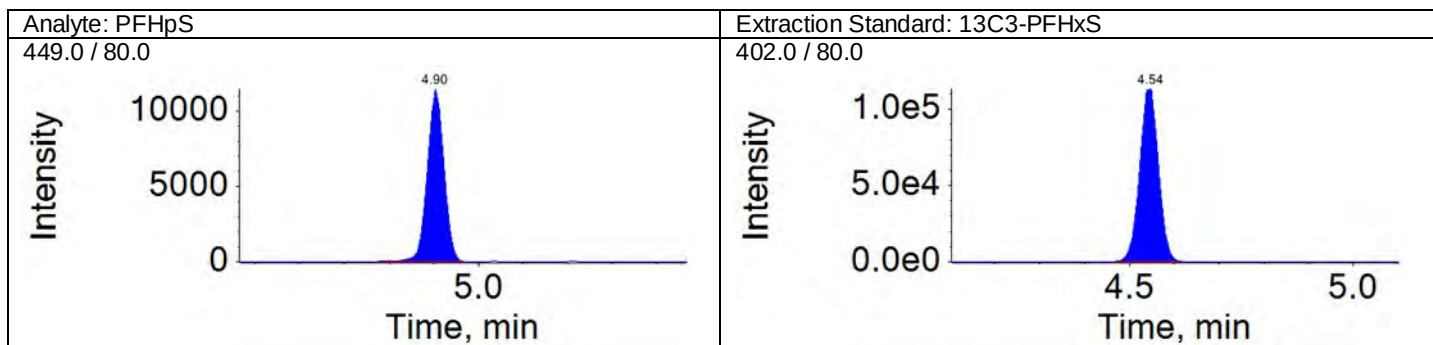
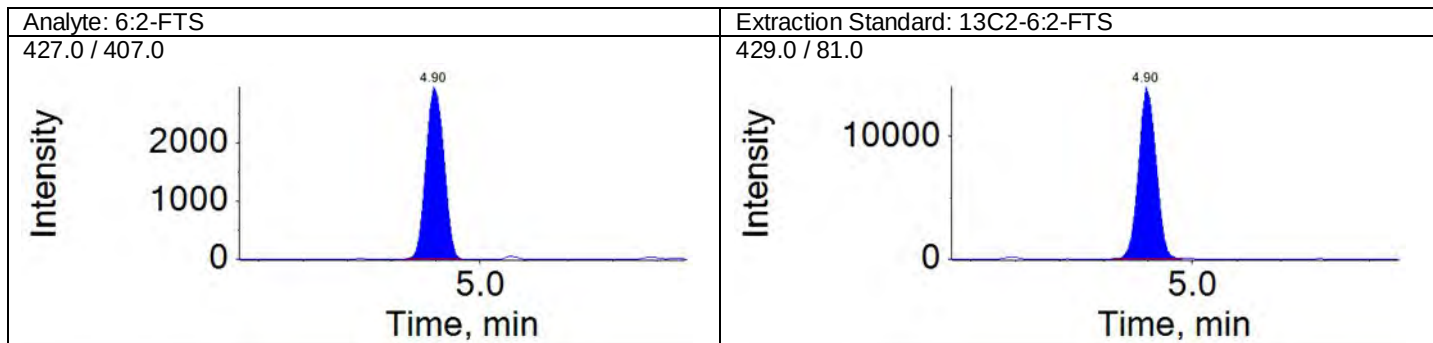
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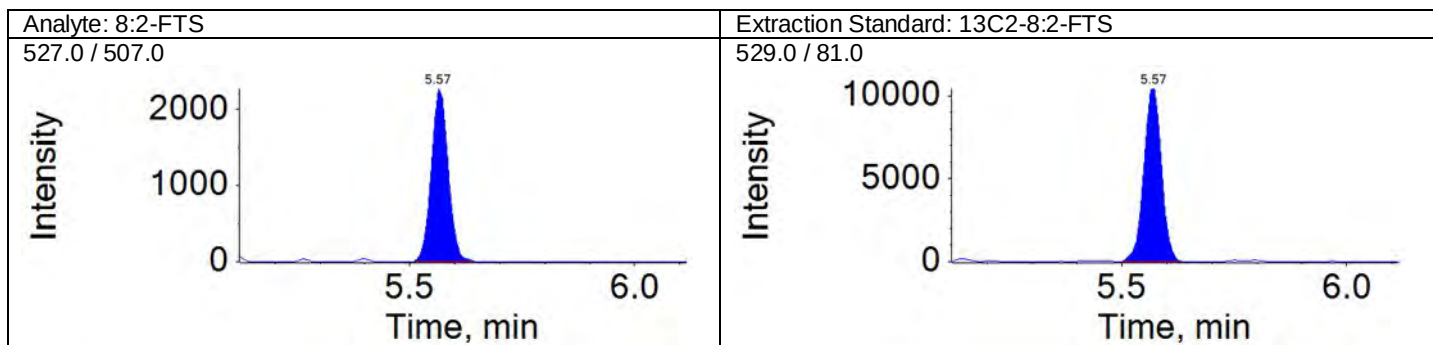
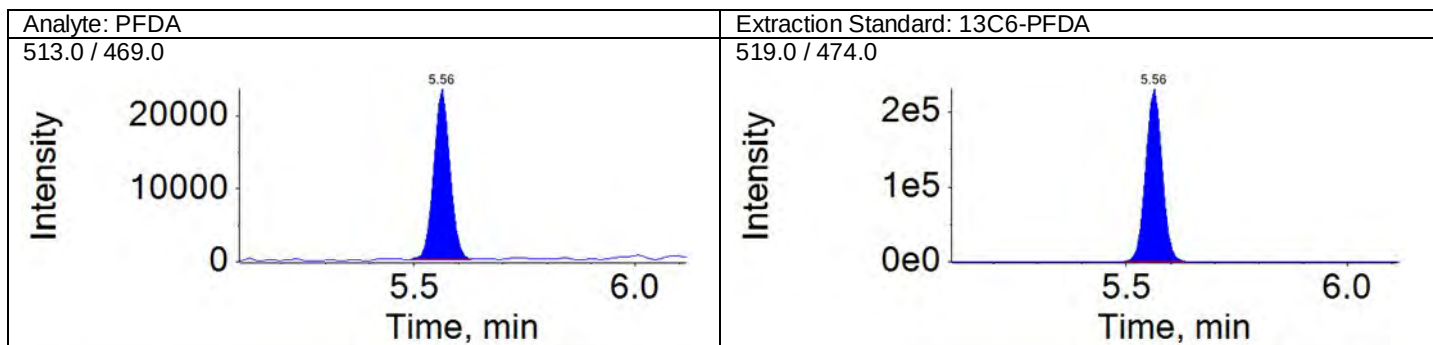
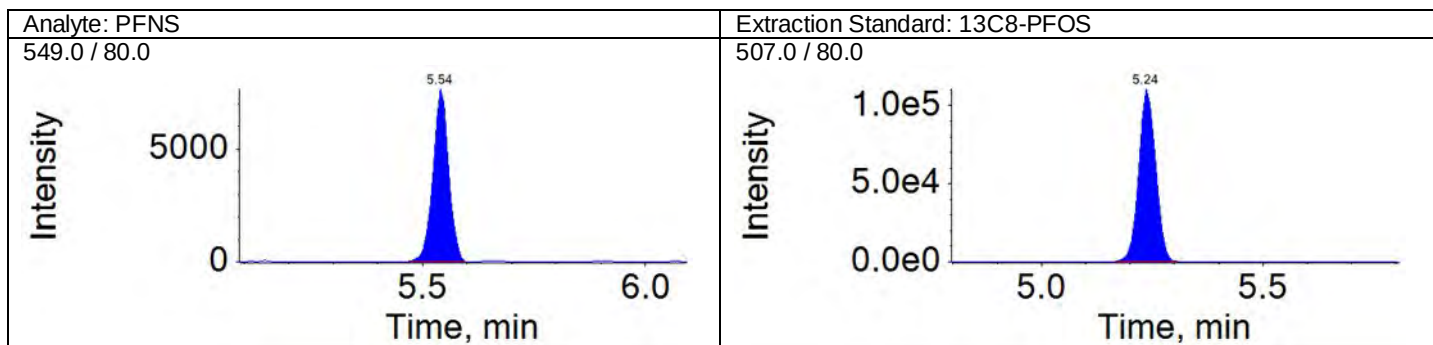
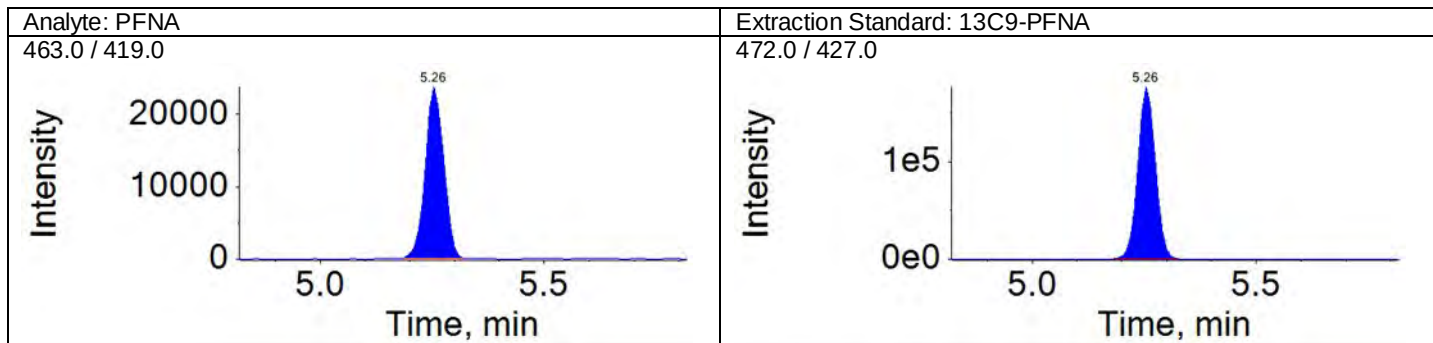
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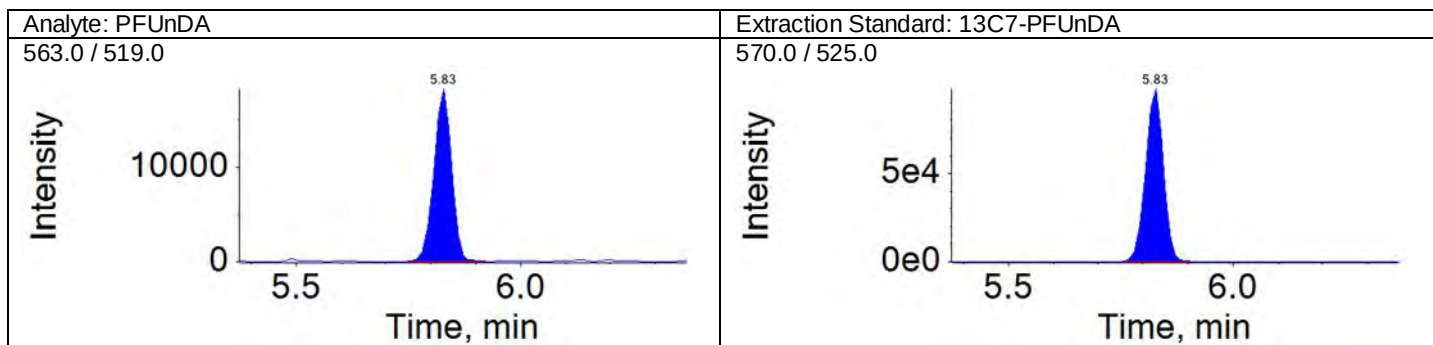
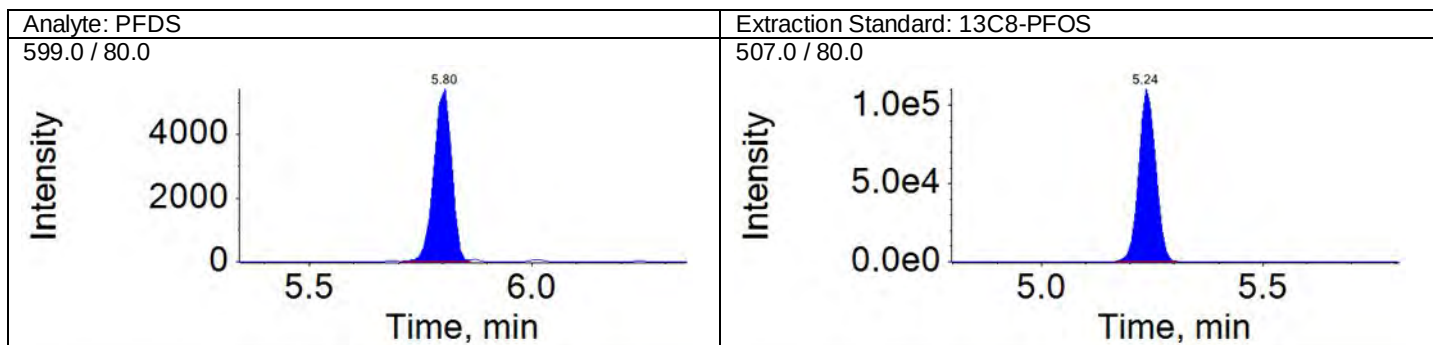
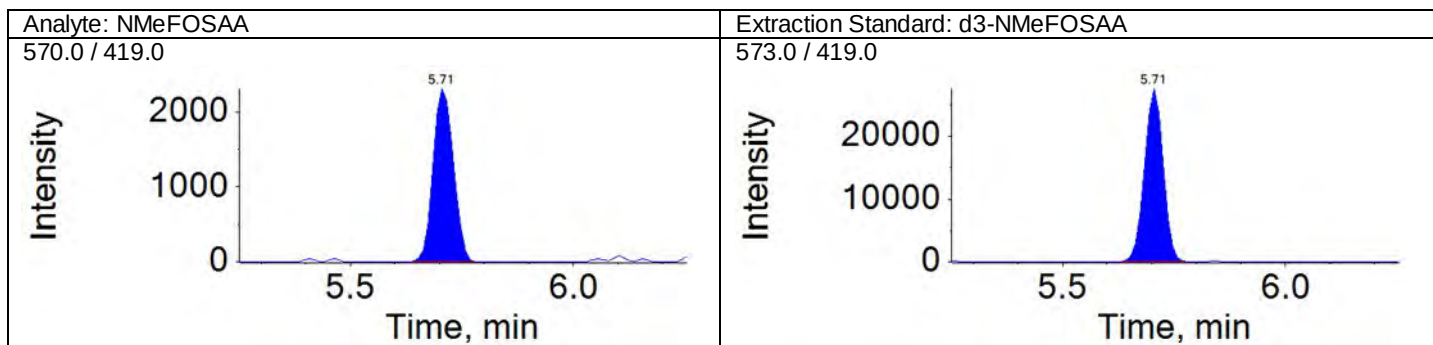
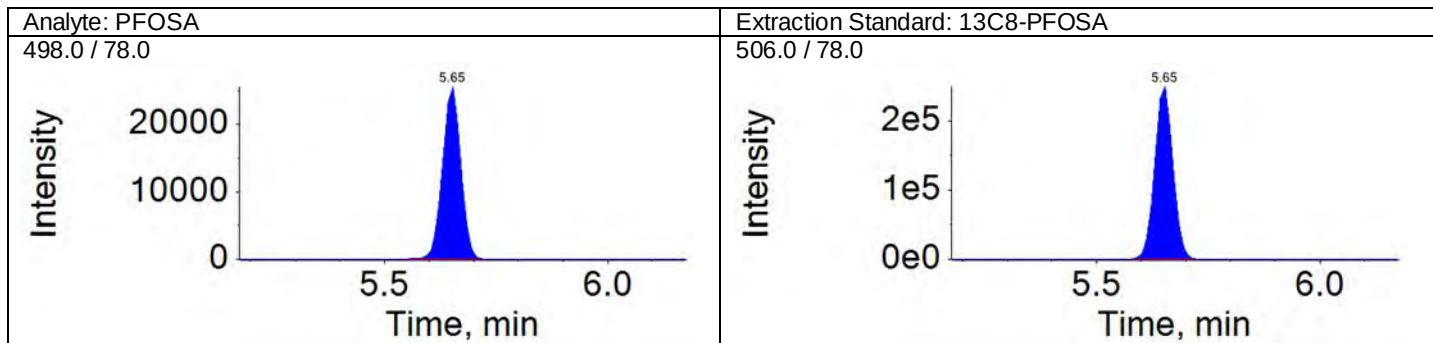
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ICAL Name: 18NOV07DCAL
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APPROVED

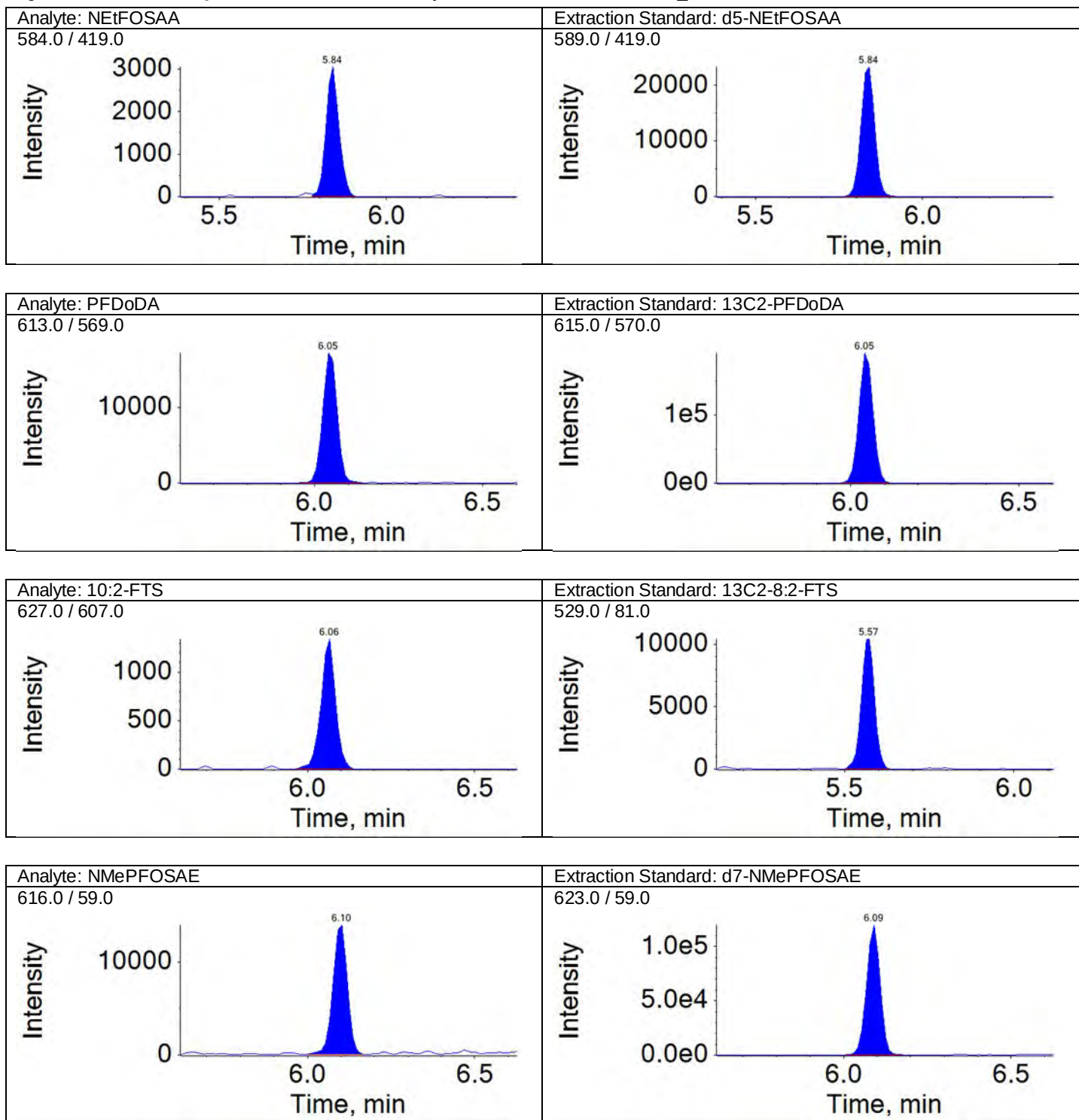
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REVIEWED

By HMK at 7:21 am, 11/15/18

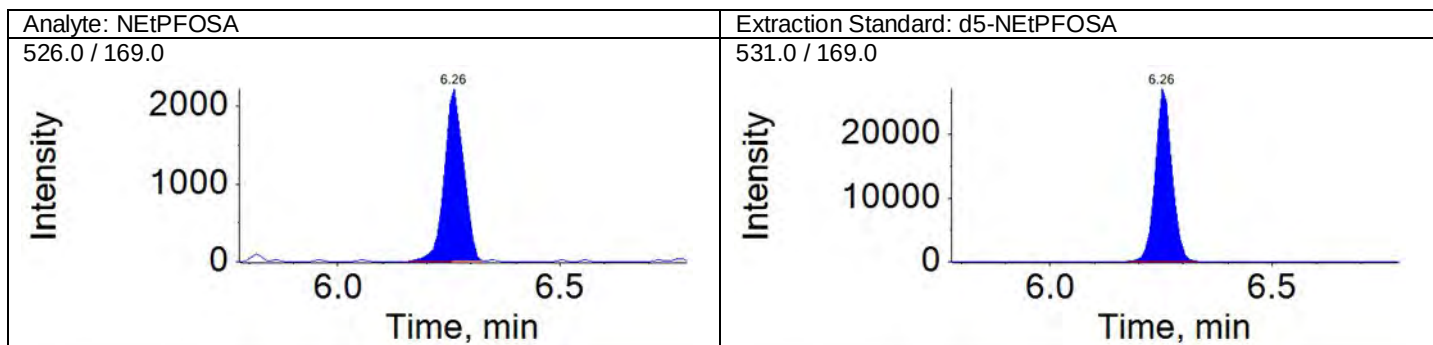
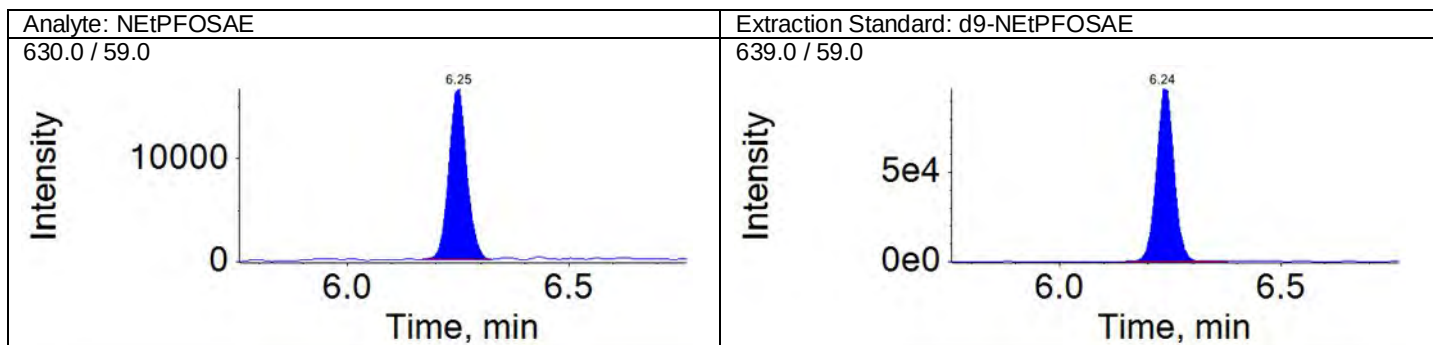
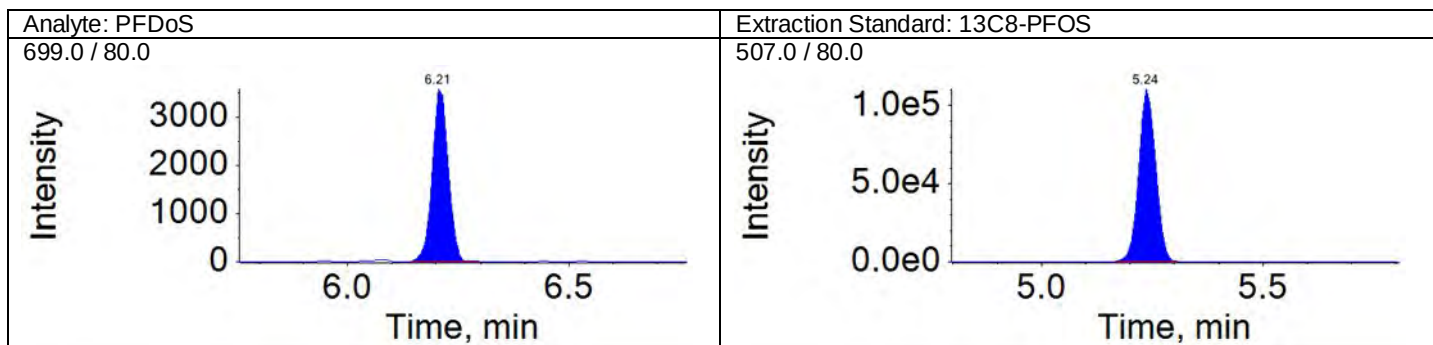
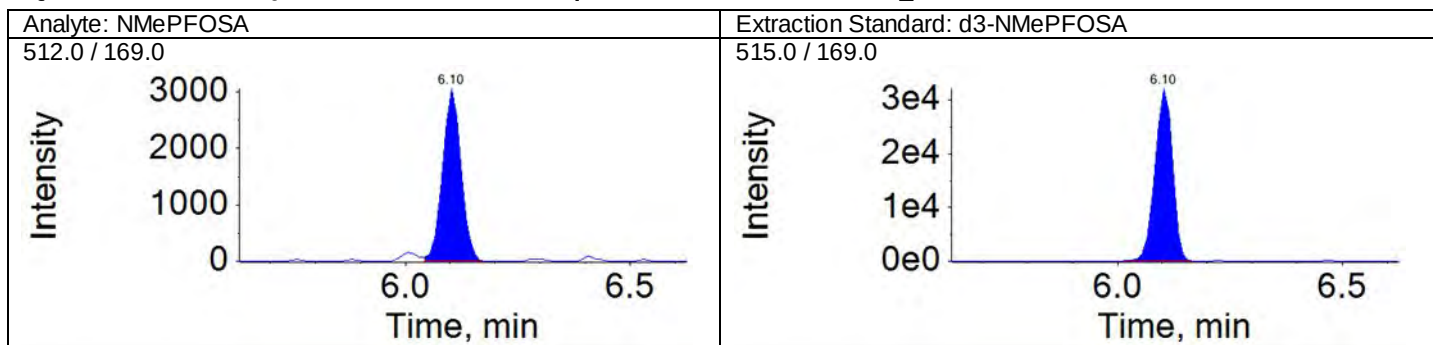
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QMethod Name: MQ4-18AUG13

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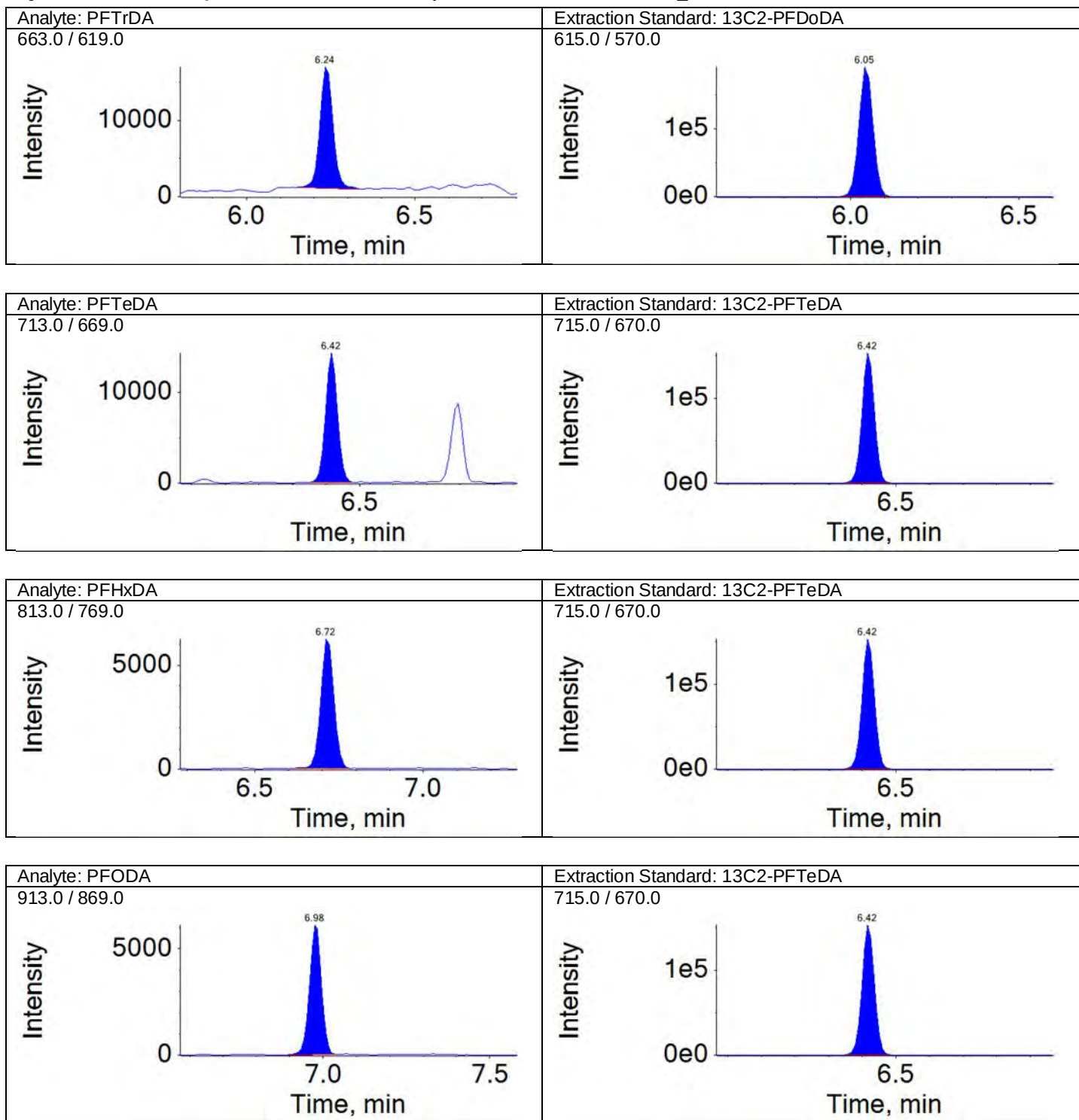
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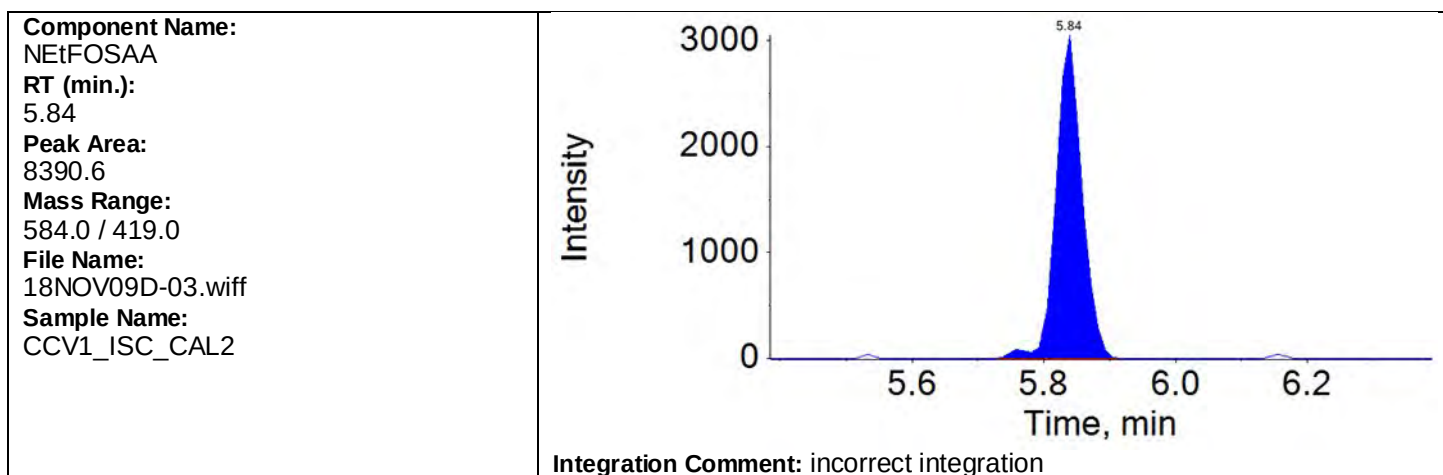
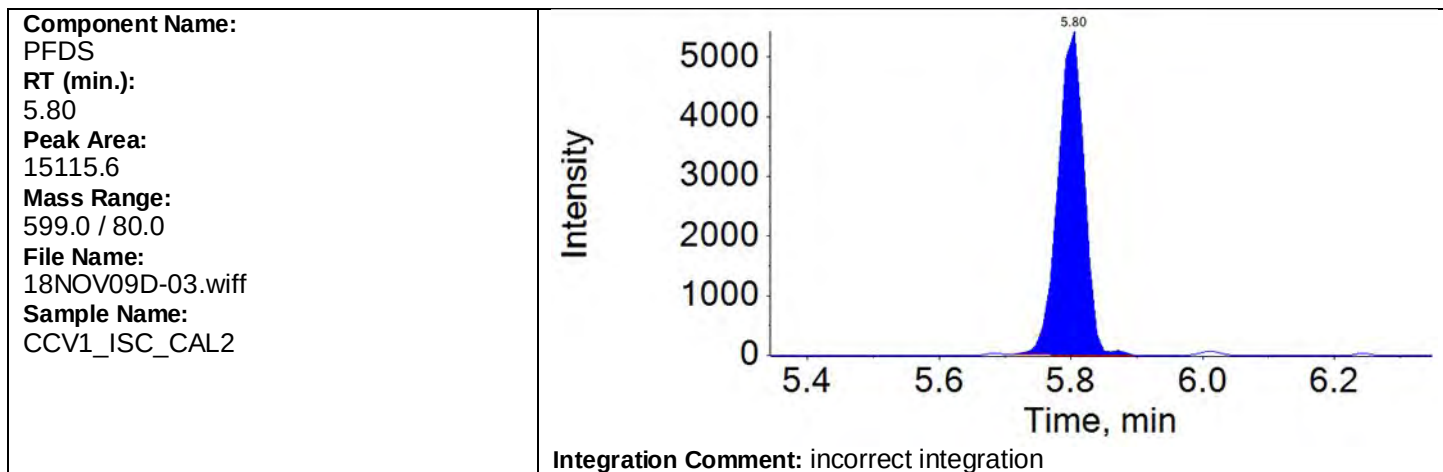
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV09DCCV1-4
Results Table Date: 11/9/2018 5:13:22 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13



Results Table Name: 18NOV09DCCV1-4
Results Table Date: 11/9/2018 5:13:22 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED

By MCD at 5:19 pm, 11/9/18

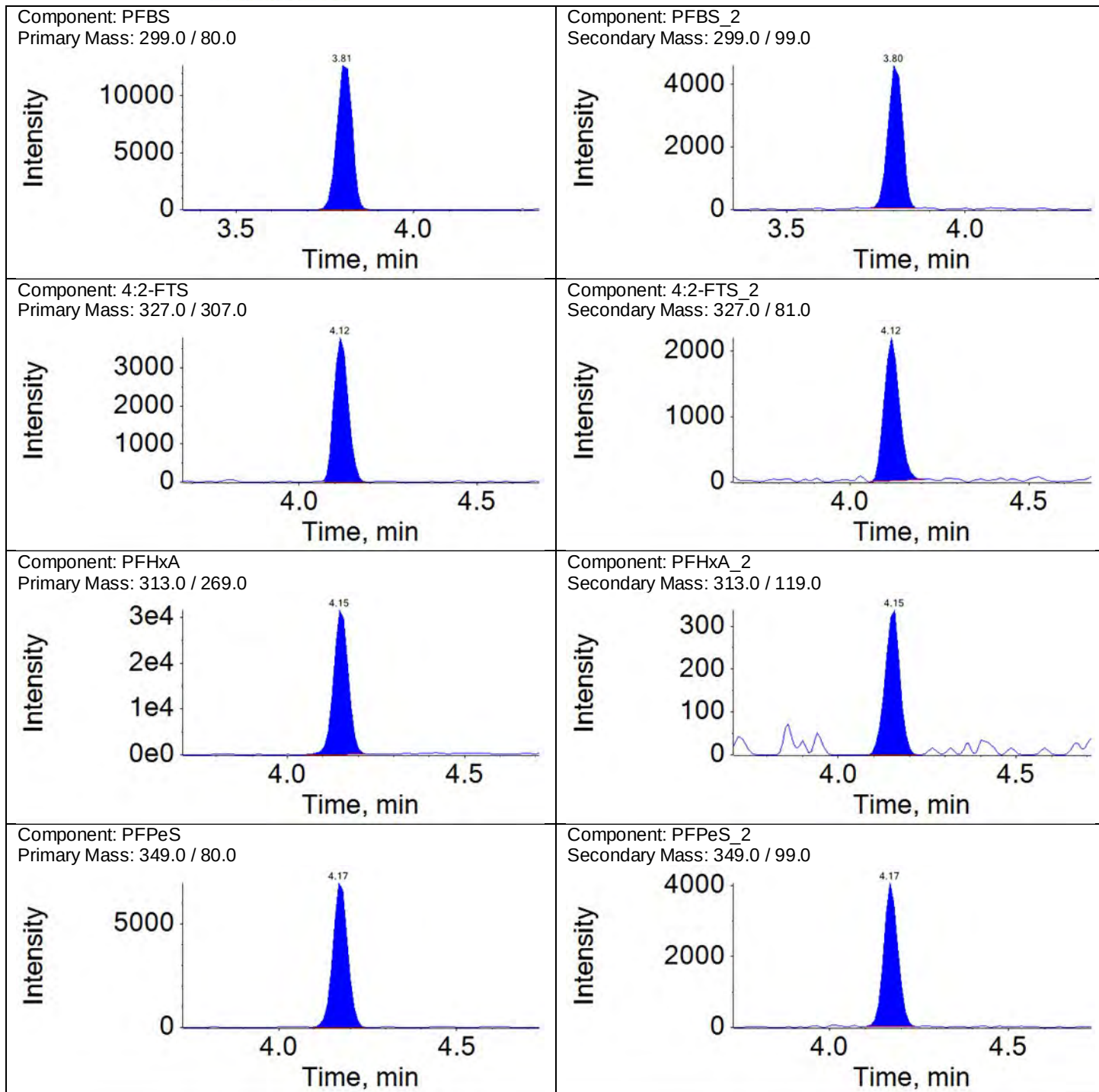
REVIEWED

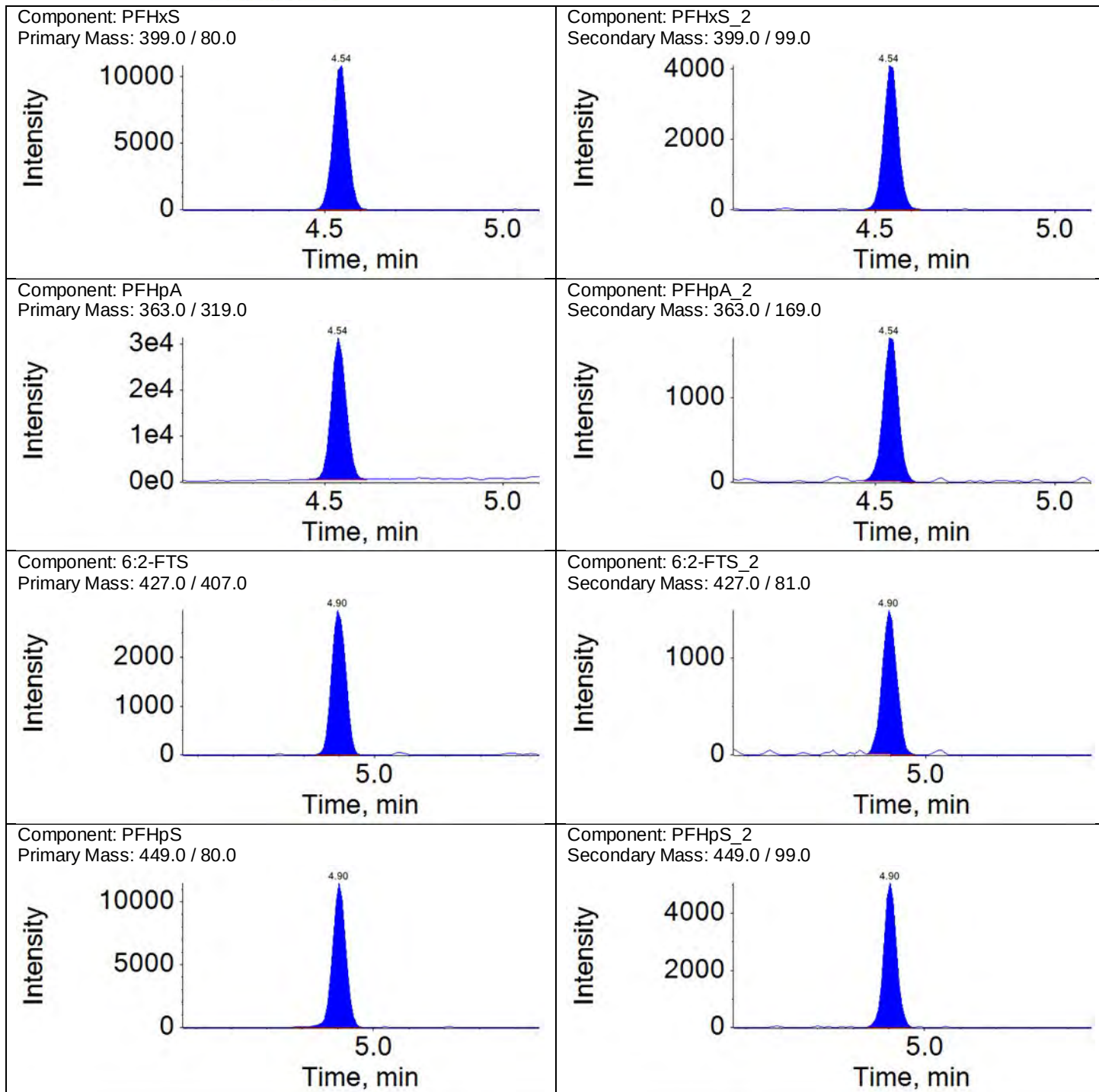
By HMK at 7:21 am, 11/15/18

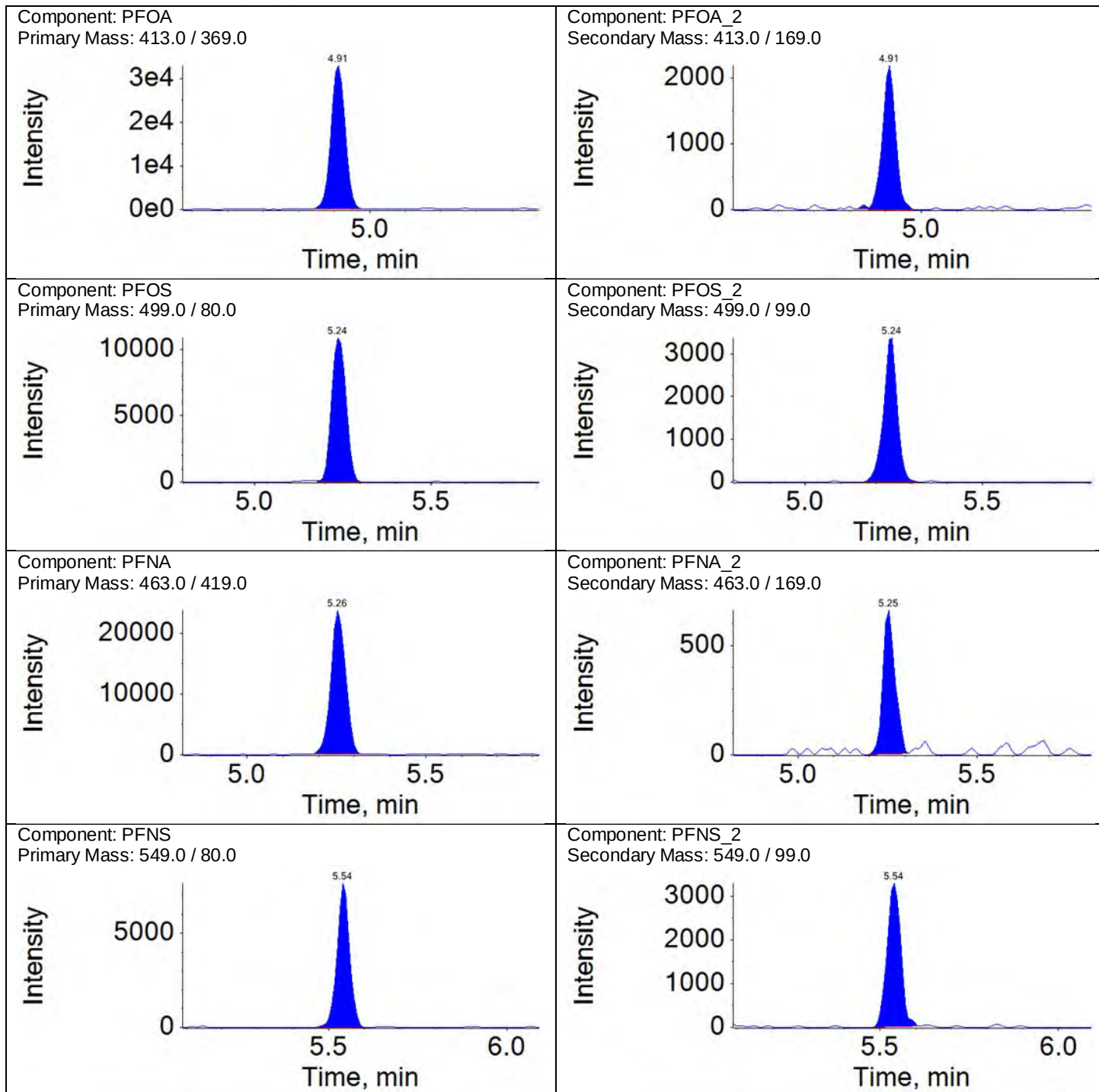
Ion Ratio Report

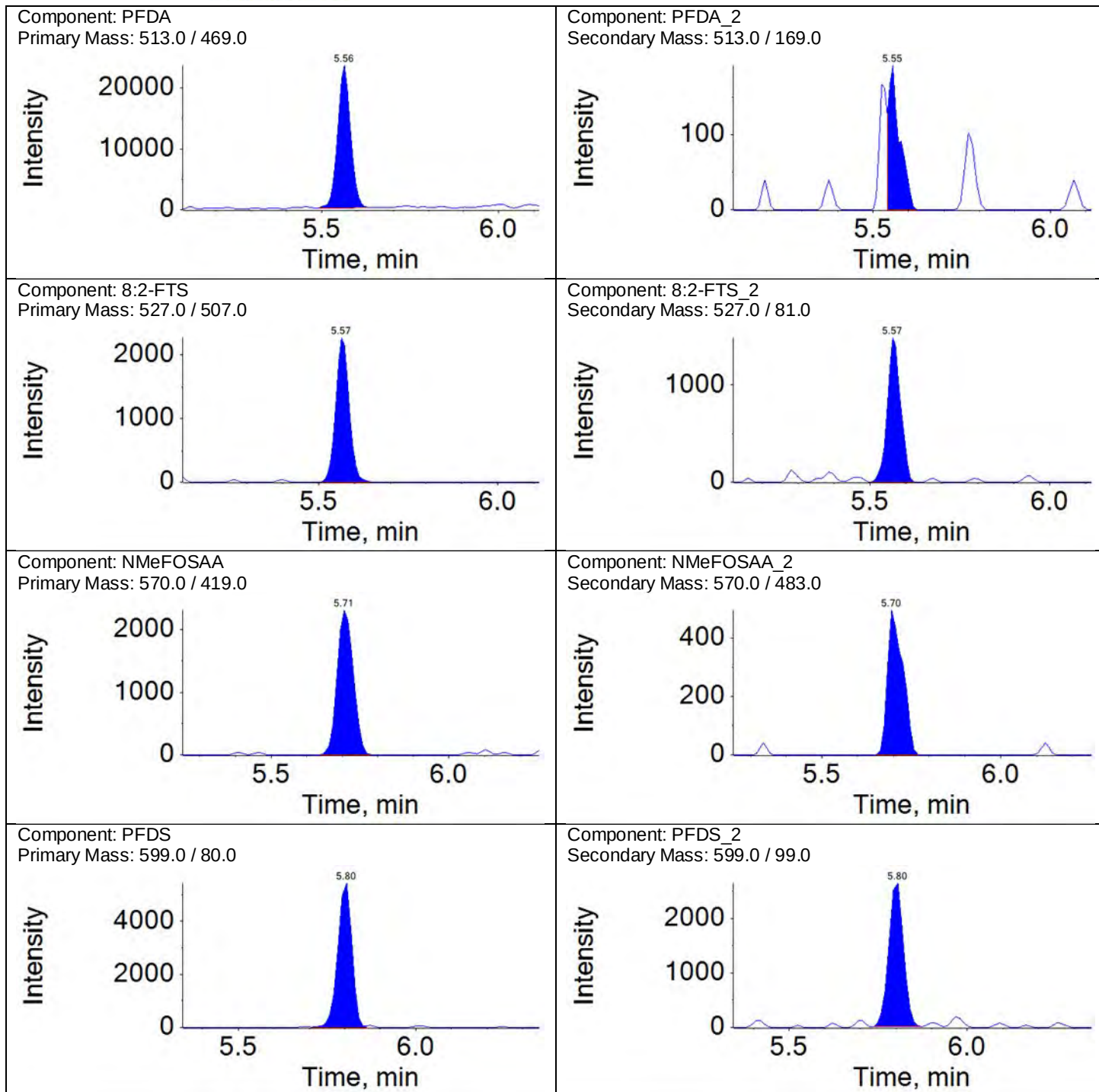
Sample Name: CCV1_ISC_CAL2 Instrument Name: LM27631 File Name: 18NOV09D-03.wiff

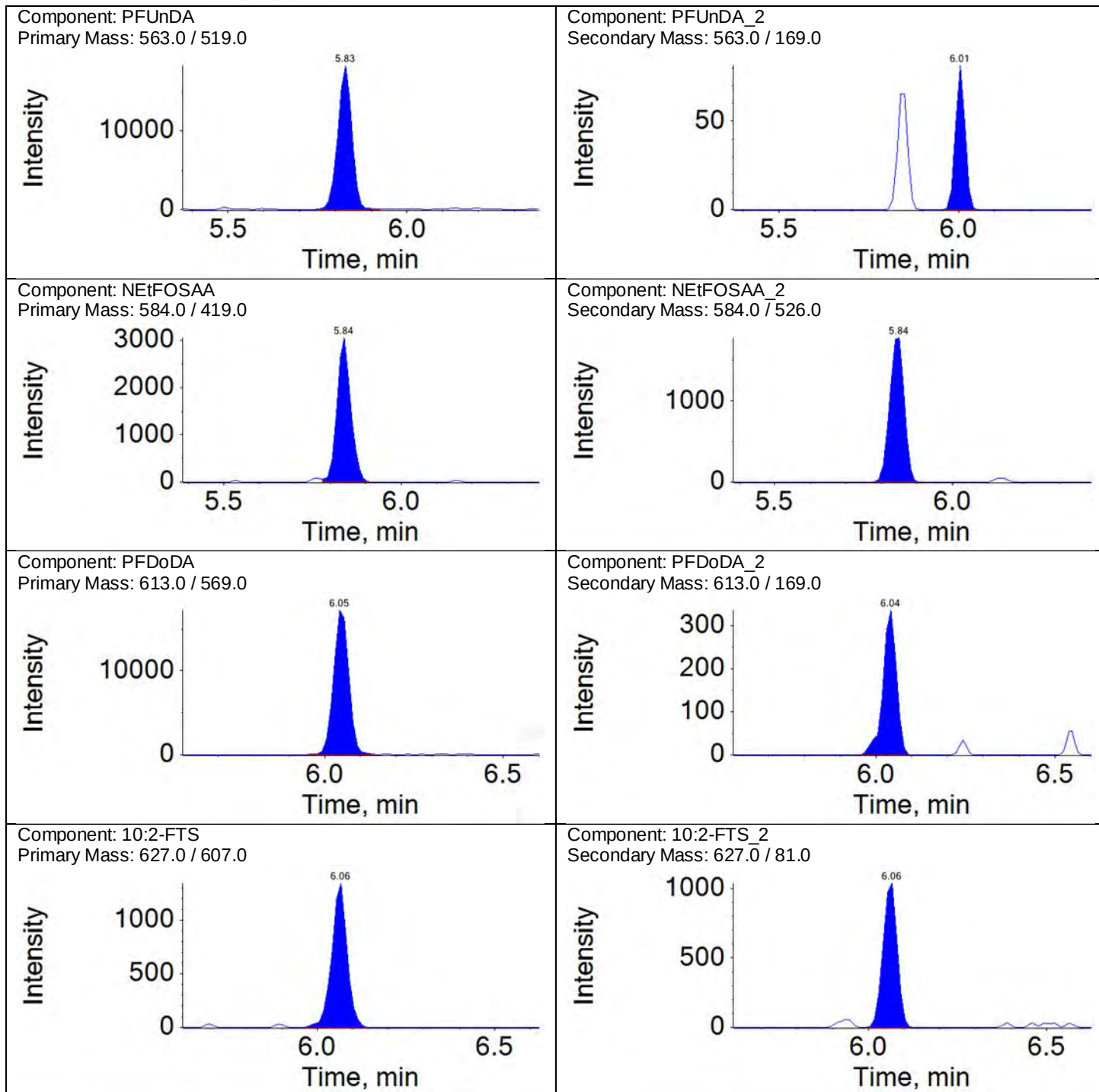
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	38056.3	A	N/A	0.3416			
PFBS_2	3.80	1.00	12999.2	A	N/A	0.3416	-4	50	
4:2-FTS	4.12	1.00	10464.9	A	N/A	0.6139			
4:2-FTS_2	4.12	1.00	6424.2	A	N/A	0.6139	-4	50	
PFHxA	4.15	1.00	90851.7	A	N/A	0.0107			
PFHxA_2	4.15	1.00	973.9	A	N/A	0.0107	-5	50	
PFPeS	4.17	1.10	19983.2	A	N/A	0.5512			
PFPeS_2	4.17	1.10	11014.0	A	N/A	0.5512	2	50	
PFHxS	4.54	1.00	30875.8	A	N/A	0.3786			
PFHxS_2	4.54	1.00	11688.9	A	N/A	0.3786	6	50	
PFHpA	4.54	1.00	88972.9	A	N/A	0.0568			
PFHpA_2	4.54	1.00	5056.5	A	N/A	0.0568	-1	50	
6:2-FTS	4.90	1.00	8270.7	A	N/A	0.5178			
6:2-FTS_2	4.90	1.00	4282.7	A	N/A	0.5178	-24	50	
PFHpS	4.90	1.08	29792.4	A	N/A	0.4193			
PFHpS_2	4.90	1.08	12492.6	A	N/A	0.4193	6	50	
PFOA	4.91	1.00	90972.8	A	N/A	0.0624			
PFOA_2	4.91	1.00	5680.4	A	N/A	0.0624	-2	50	
PFOS	5.24	1.00	30918.1	A	N/A	0.2929			
PFOS_2	5.24	1.00	9056.8	A	N/A	0.2929	-17	50	
PFNA	5.26	1.00	67838.6	A	N/A	0.0232			
PFNA_2	5.25	1.00	1573.8	A	N/A	0.0232	13	50	
PFNS	5.54	1.06	18602.5	A	N/A	0.4748			
PFNS_2	5.54	1.06	8831.6	A	N/A	0.4748	-3	50	
PFDA	5.56	1.00	59070.3	A	N/A	0.0071			
PFDA_2	5.55	1.00	421.8	A	N/A	0.0071	31	50	
8:2-FTS	5.57	1.00	5888.6	A	N/A	0.6440			
8:2-FTS_2	5.57	1.00	3792.2	A	N/A	0.6440	3	50	
NMeFOSAA	5.71	1.00	7292.3	A	N/A	0.2035			
NMeFOSAA_2	5.70	1.00	1483.9	A	N/A	0.2035	-6	50	
PFDS	5.80	1.11	15015.9	M	N/A	0.5101			
PFDS_2	5.80	1.11	7659.0	A	N/A	0.5101	11	50	
PFUnDA	5.83	1.00	49727.2	A	N/A	0.0030			
PFUnDA_2	6.01	1.03	150.6	A	N/A	0.0030	-1	50	
NEtFOSAA	5.84	1.00	8237.3	M	N/A	0.6183			
NEtFOSAA_2	5.84	1.00	5093.5	A	N/A	0.6183	2	50	
PFDODA	6.05	1.00	50985.1	A	N/A	0.0173			
PFDODA_2	6.04	1.00	880.8	A	N/A	0.0173	65	50	OOS
10:2-FTS	6.06	1.09	4050.9	A	N/A	0.7139			
10:2-FTS_2	6.06	1.09	2891.8	A	N/A	0.7139	0	50	
PFTTrDA	6.24	1.03	43214.6	A	N/A	0.0125			
PFTTrDA_2	6.24	1.03	541.7	A	N/A	0.0125	31	50	
PFTeDA	6.42	1.00	34793.1	A	N/A	0.0070			
PFTeDA_2	6.41	1.00	242.9	A	N/A	0.0070	29	50	
PFHxDA	6.72	1.05	16891.1	A	N/A	0.0572			
PFHxDA_2	6.71	1.05	966.5	A	N/A	0.0572	-3	50	
PFODA	6.98	1.09	15170.8	A	N/A	0.0206			
PFODA_2	6.98	1.09	313.0	A	N/A	0.0206	-19	50	

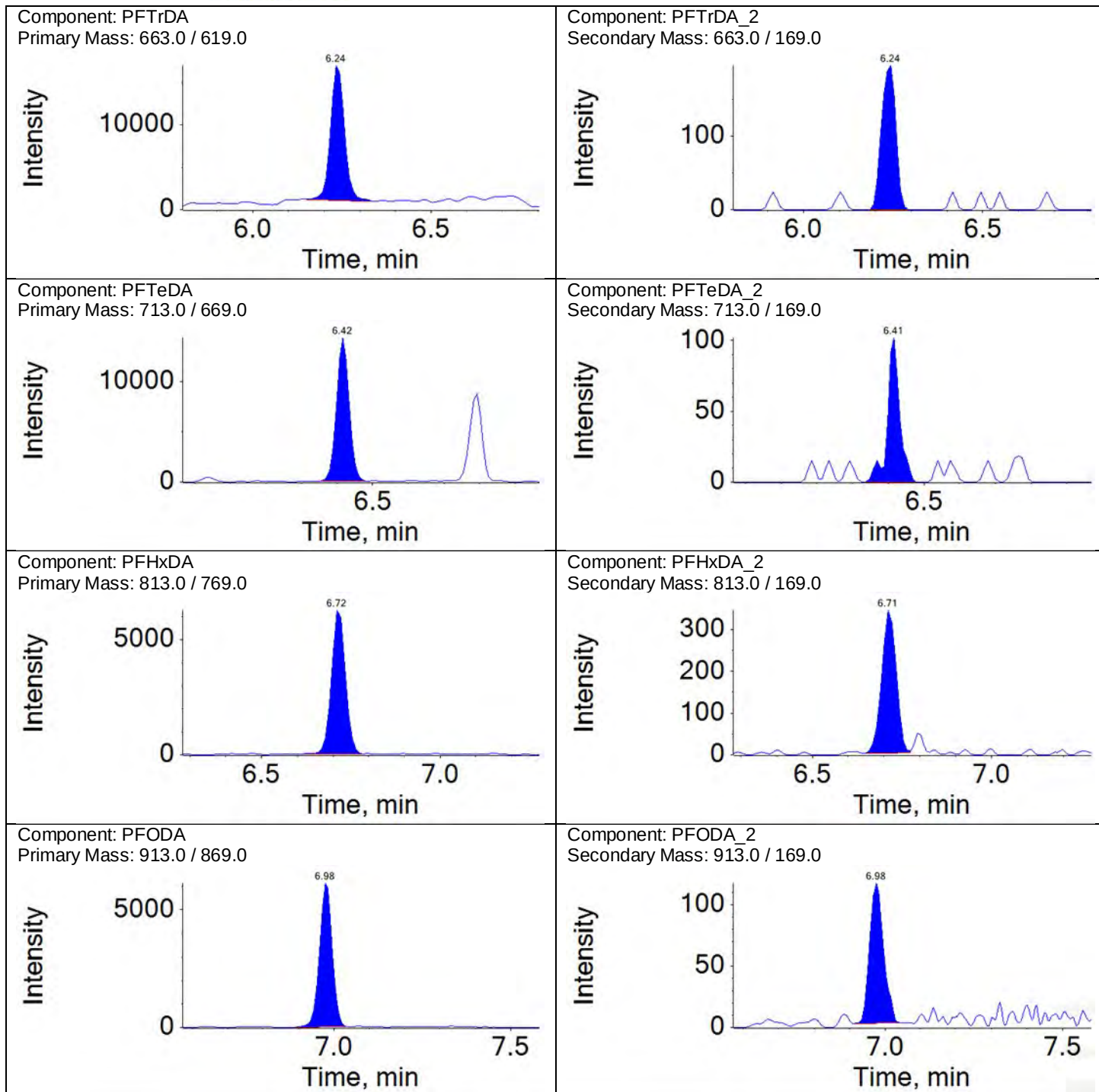












ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	Instrument Blank		Data File:		18NOV09D-04.wiff
Sample ID:	methanol+labels		Acquis Date:		2018-11-09T05:05:59
Sample Type:	Unknown		Instrument:		LM27631
Vial Position:	1		Acquis Method:		18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:		18NOV09DCCV1-4
QMethod File:	MQ4-18AUG13		ICAL Name:		18NOV07DCAL
Batch Number:	N/A		Operator:		MCD7824
Sample Wt.:	1.00000		Dilution Factor:		1.00
Sample Vol.:	1.000		Prep Factor:		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	743259.9	725974.7	2	50	
13C2-PFOA	5.0	542173.4	506876.7	7	50	
13C4-PFOS	4.8	295887.7	274910.1	8	50	
13C2-PFDA	5.0	314166.8	307276.7	2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	832189.3	13C3-PFBA	743259.9	1.120	5.000	5.181	104	70-130	
E13C5-PFPeA	862825.7	13C3-PFBA	743259.9	1.161	5.000	5.057	101	70-130	
E13C3-PFBS	441161.9	13C3-PFBA	743259.9	0.594	4.650	4.356	94	70-130	
E13C2-4:2-FTS	59353.4	13C2-PFOA	542173.4	0.109	4.670	4.940	106	70-130	
E13C5-PFHxA	709747.5	13C2-PFOA	542173.4	1.309	5.000	4.815	96	70-130	
E13C3-PFHxS	362240.4	13C2-PFOA	542173.4	0.668	4.730	4.796	101	70-130	
E13C4-PFHpA	579992.5	13C2-PFOA	542173.4	1.070	5.000	4.866	97	70-130	
E13C2-6:2-FTS	42878.4	13C2-PFOA	542173.4	0.079	4.750	5.274	111	70-130	
E13C8-PFOA	994623.7	13C2-PFOA	542173.4	1.835	5.000	5.116	102	70-130	
E13C8-PFOS	319153.3	13C4-PFOS	295887.7	1.079	4.780	4.770	100	70-130	
E13C9-PFNA	532102.7	13C4-PFOS	295887.7	1.798	5.000	4.912	98	70-130	
E13C6-PFDA	600987.7	13C2-PFDA	314166.8	1.913	5.000	4.811	96	70-130	
E13C2-8:2-FTS	32034.9	13C2-PFDA	314166.8	0.102	4.790	5.396	113	70-130	
E13C8-PFOSA	737435.1	13C2-PFDA	314166.8	2.347	5.000	5.122	102	70-130	
Ed3-NMeFOSAA	82623.8	13C2-PFDA	314166.8	0.263	5.000	4.891	98	70-130	
E13C7-PFUnDA	294757.9	13C2-PFDA	314166.8	0.938	5.000	5.412	108	70-130	
Ed5-NEtFOSAA	67342.5	13C2-PFDA	314166.8	0.214	5.000	4.961	99	70-130	
E13C2-PFDoDA	592309.0	13C2-PFDA	314166.8	1.885	5.000	5.083	102	70-130	
Ed7-NMePFOSAE	351711.5	13C2-PFDA	314166.8	1.120	5.000	5.206	104	70-130	
Ed3-NMePFOSA	82414.6	13C2-PFDA	314166.8	0.262	5.000	4.803	96	70-130	
Ed9-NEtPFOSAE	295665.4	13C2-PFDA	314166.8	0.941	5.000	5.375	107	70-130	
Ed5-NEtPFOSA	63875.0	13C2-PFDA	314166.8	0.203	5.000	4.708	94	70-130	
E13C2-PFTeDA	422273.5	13C2-PFDA	314166.8	1.344	5.000	4.839	97	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

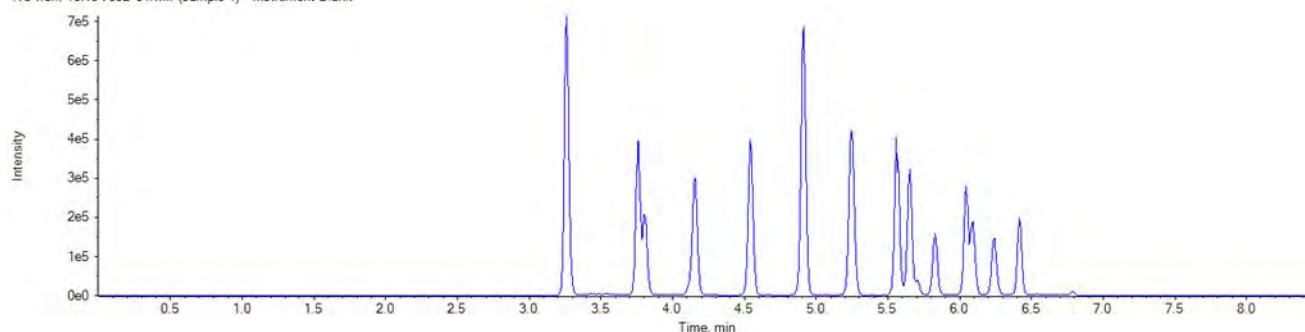
Sample Name: Instrument Blank Instrument Name: LM27631 File Name: 18NOV09D-04.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.26	832189.3	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	862825.7	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	441161.9	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	59353.4	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	709747.5	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	441161.9	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	362240.4	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	579992.5	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	42878.4	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	362240.4	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	994623.7	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	319153.3	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	532102.7	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	319153.3	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	600987.7	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	32034.9	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	737435.1	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	82623.8	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	319153.3	N/A	
PFUnDA	N/A	N/A	N/A		A	13C7-PFUnDA	5.83	294757.9	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	67342.5	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	592309.0	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	32034.9	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	351711.5	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	82414.6	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	319153.3	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	295665.4	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	63875.0	N/A	
PFTDA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	592309.0	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	422273.5	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	422273.5	N/A	
PFOA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	422273.5	N/A	

Total Ion Chromatogram

TIC from 18NOV09D-04.wiff (sample 1) - Instrument Blank



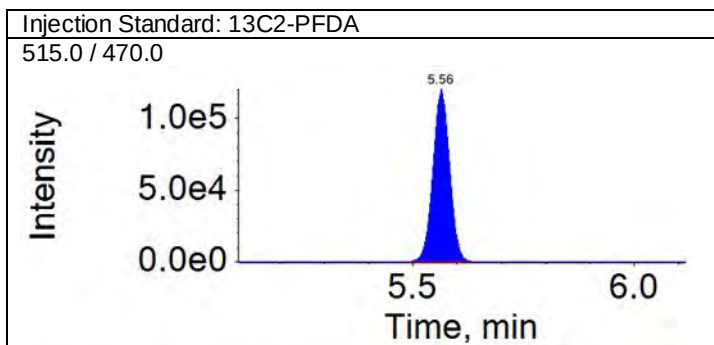
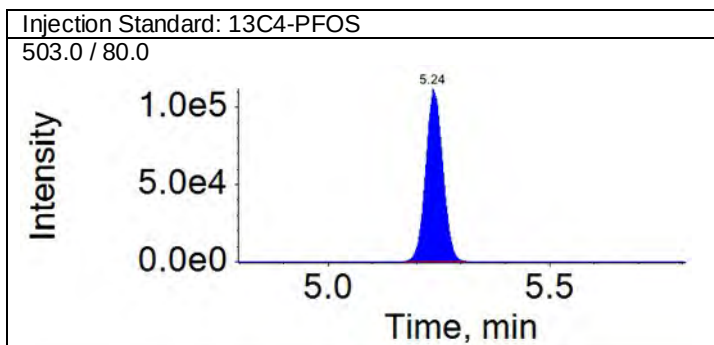
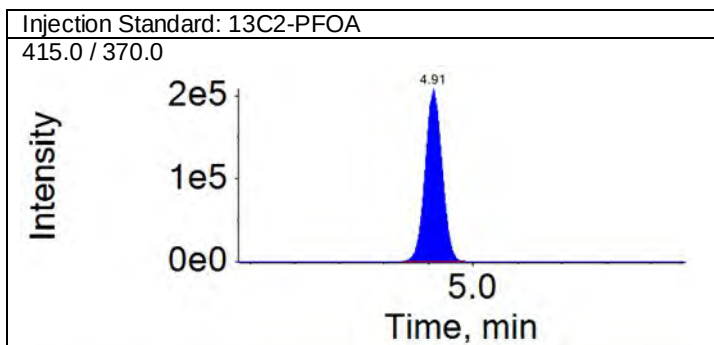
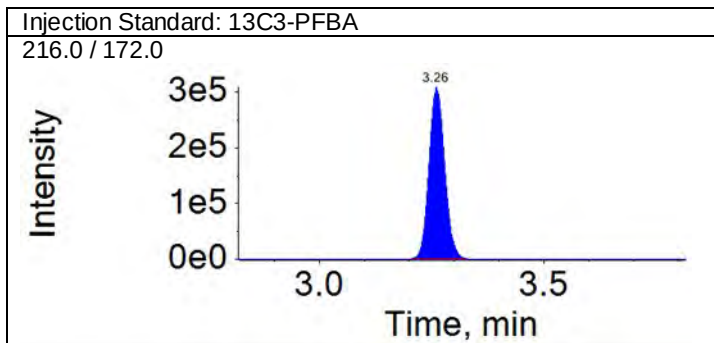
APPROVED
By MCD at 5:19 pm, 11/9/18

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REVIEWED
By HMK at 8:09 am, 11/15/18

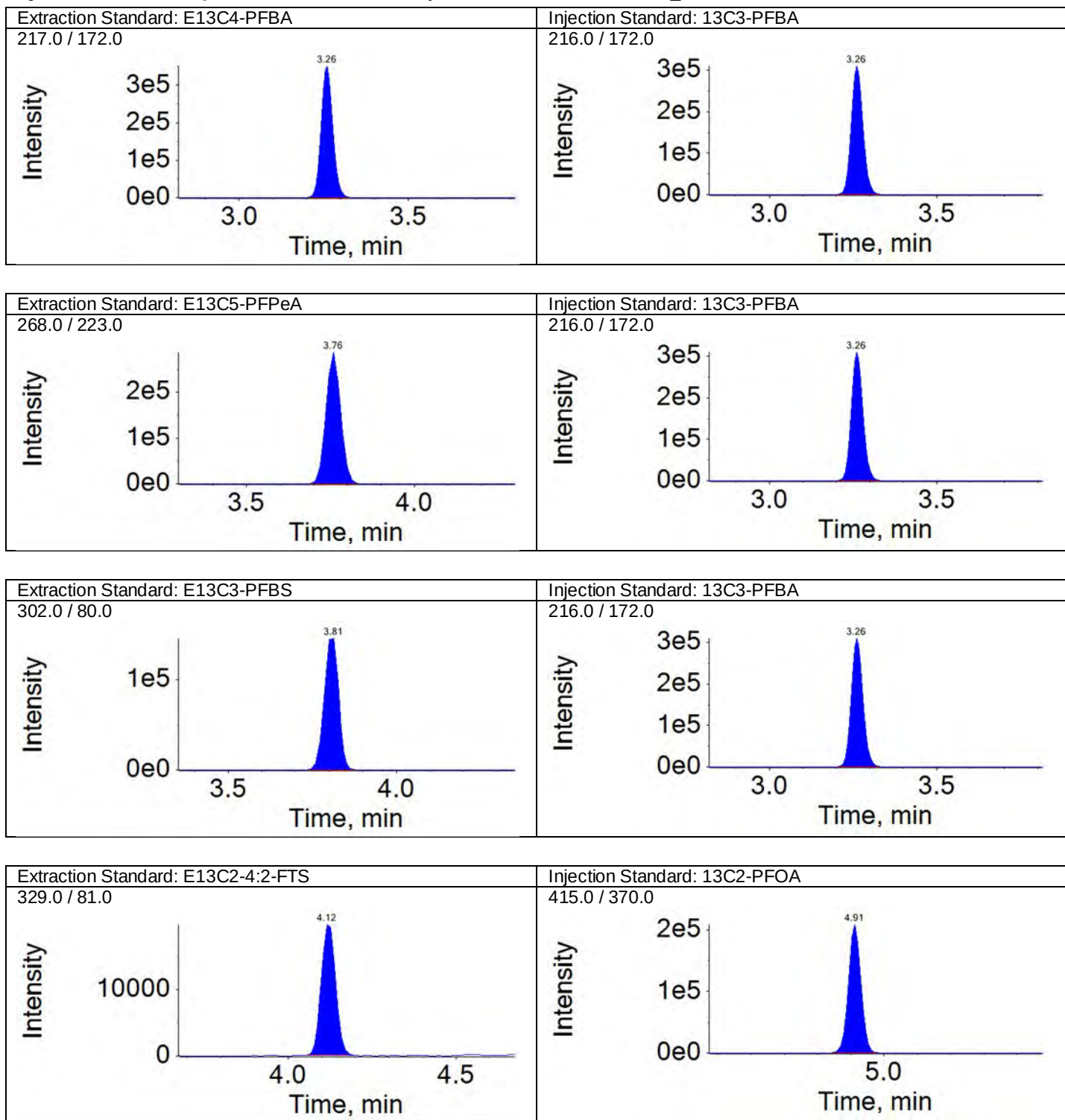
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam



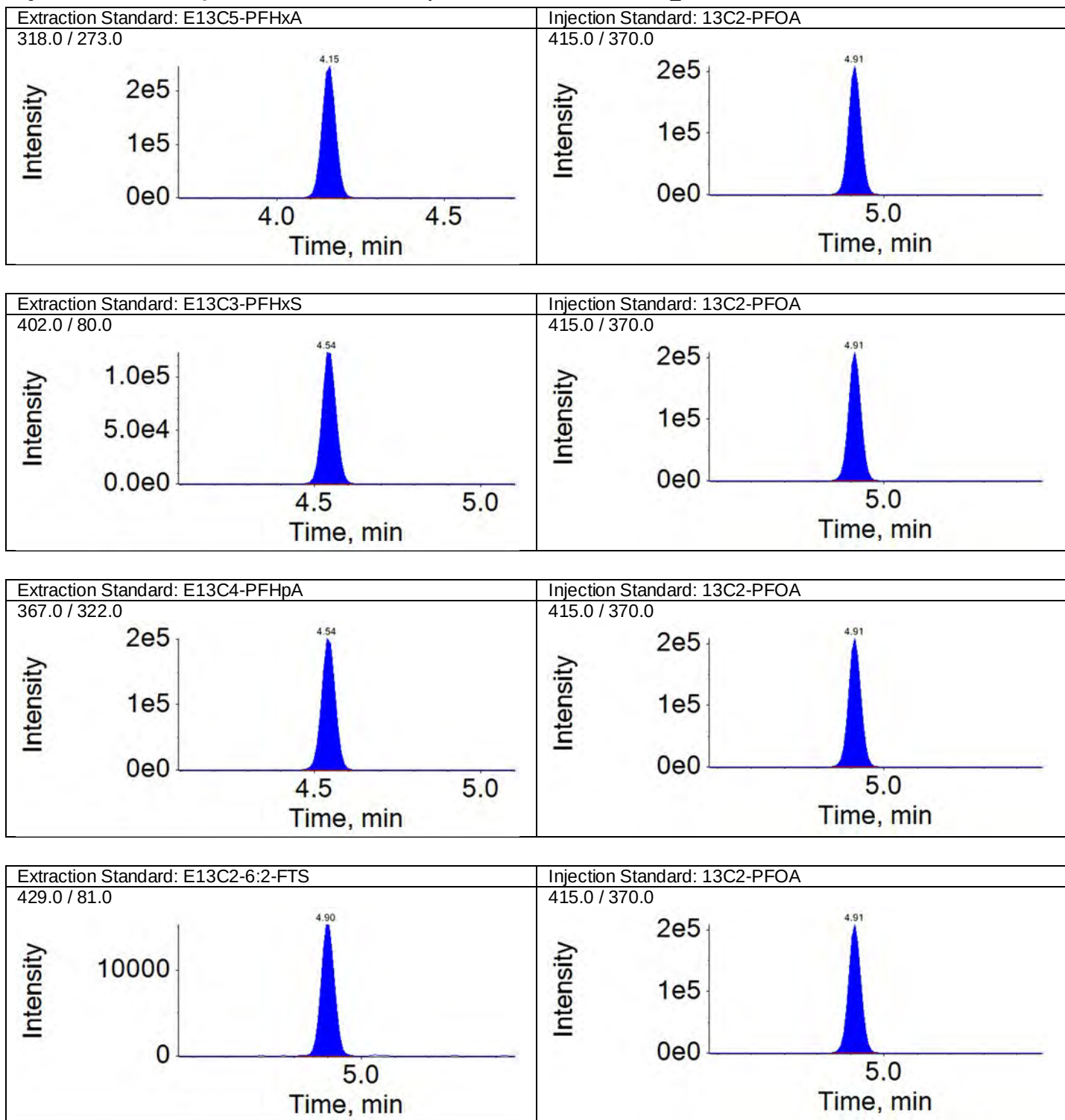
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QMethod Name: MQ4-18AUG13

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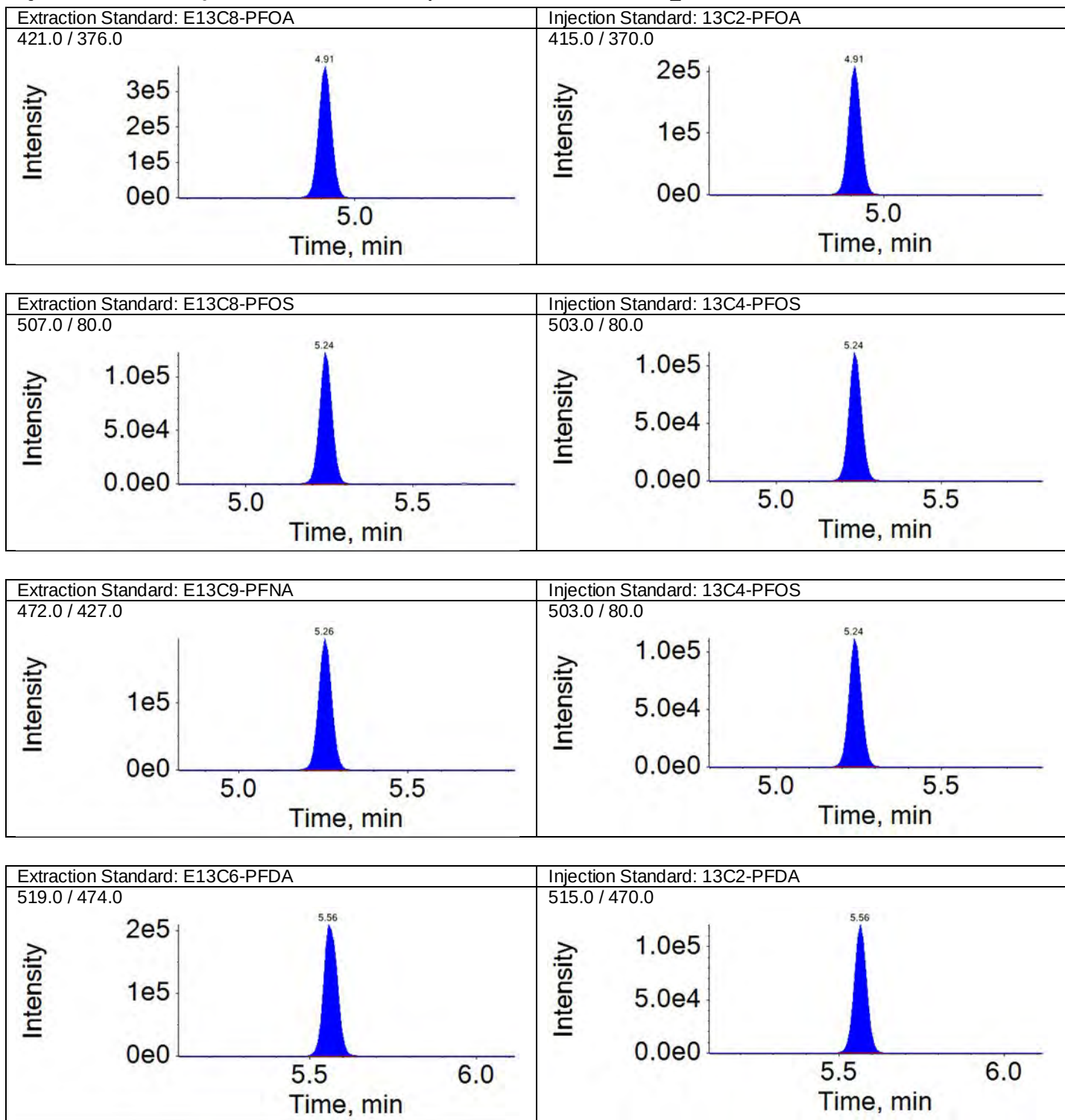
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
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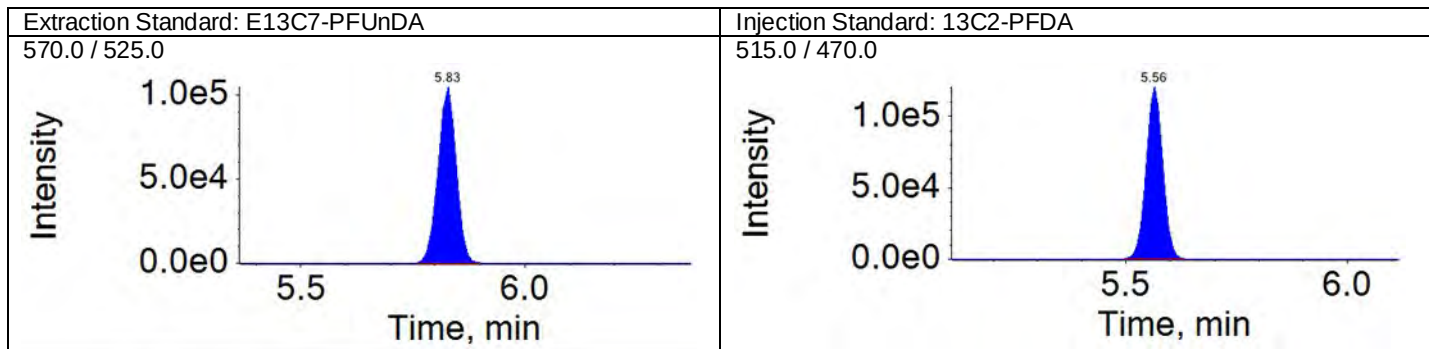
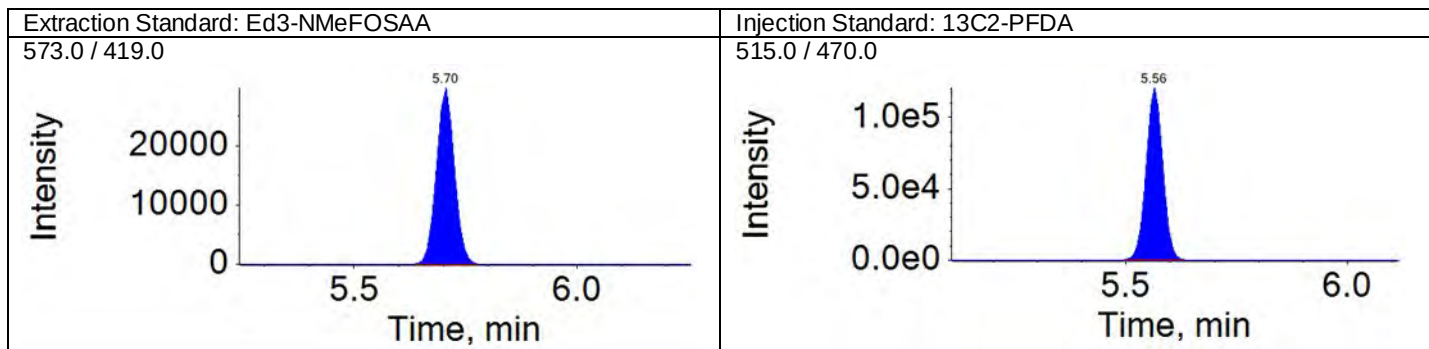
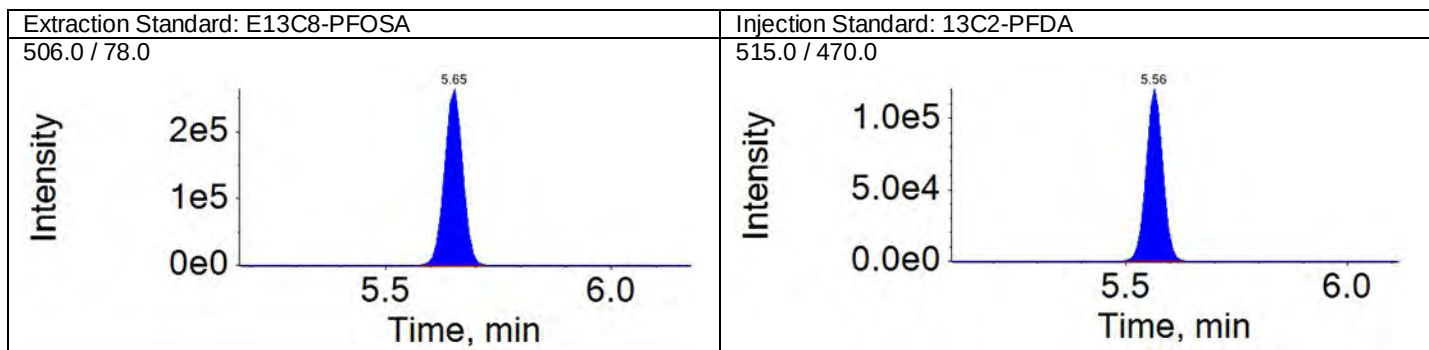
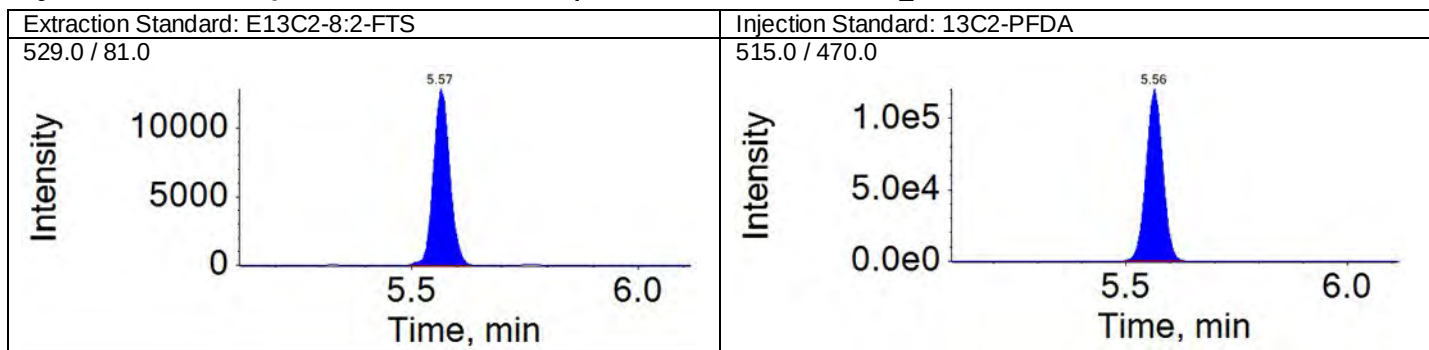
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam



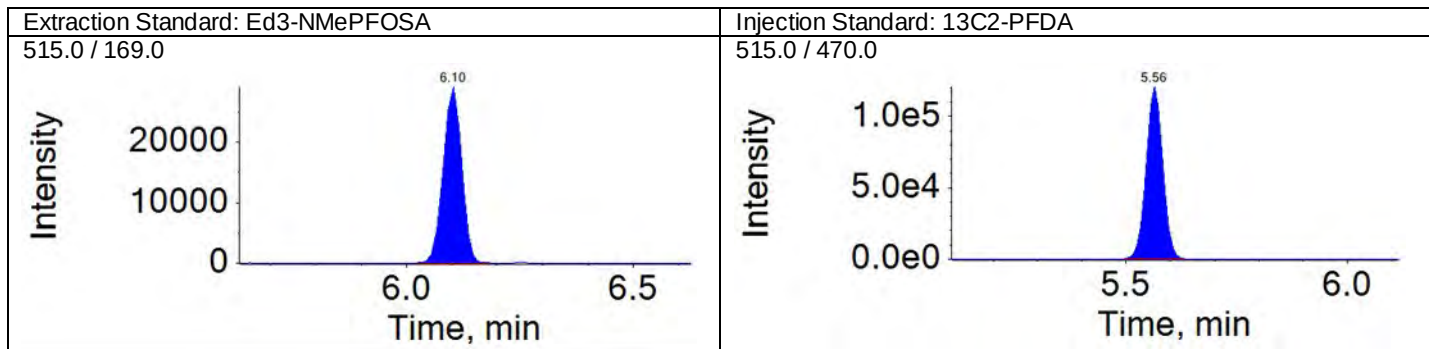
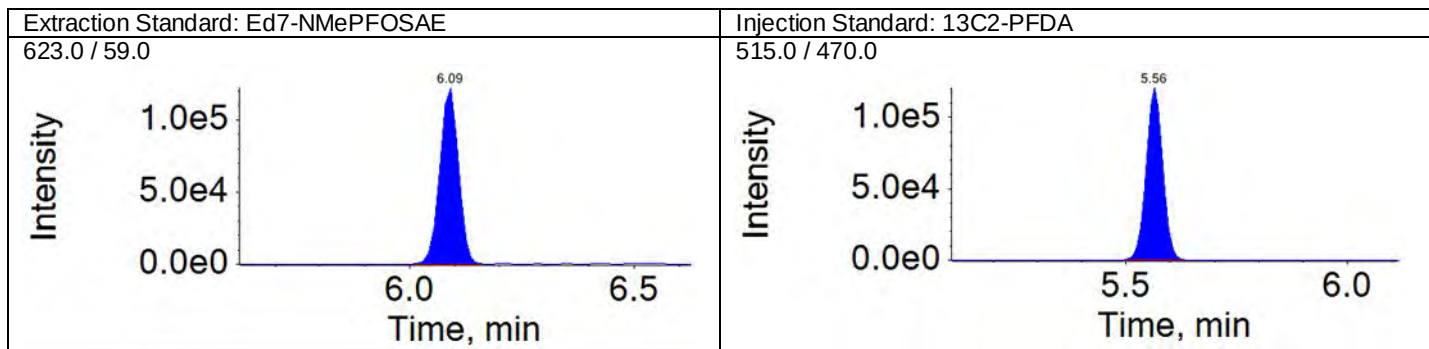
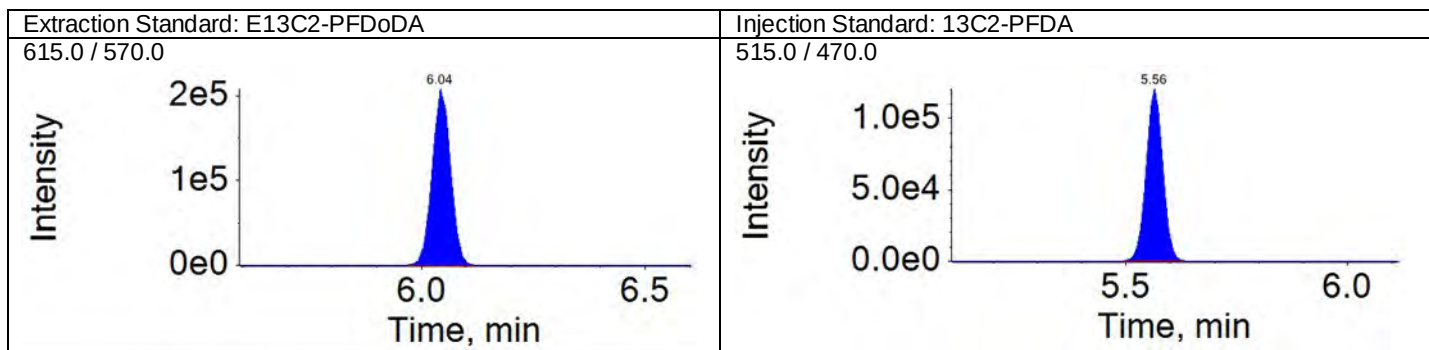
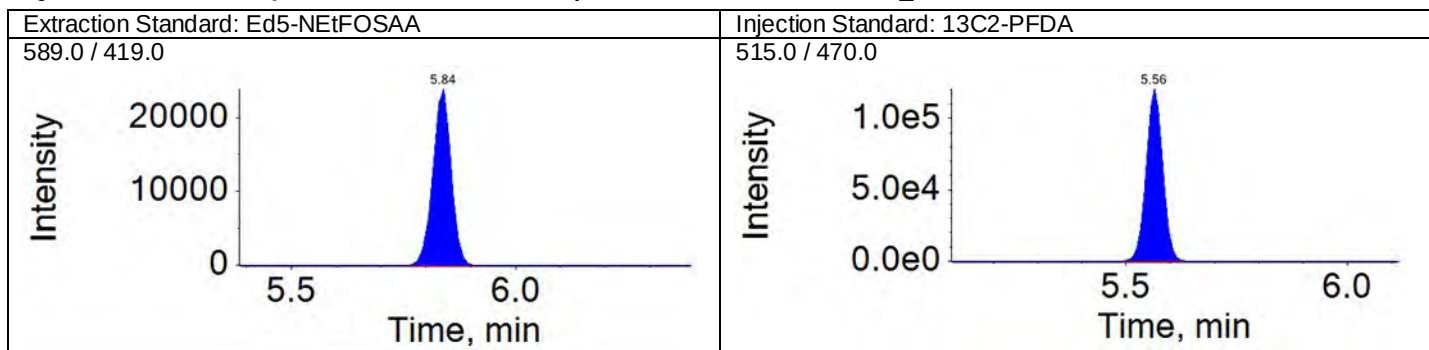
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
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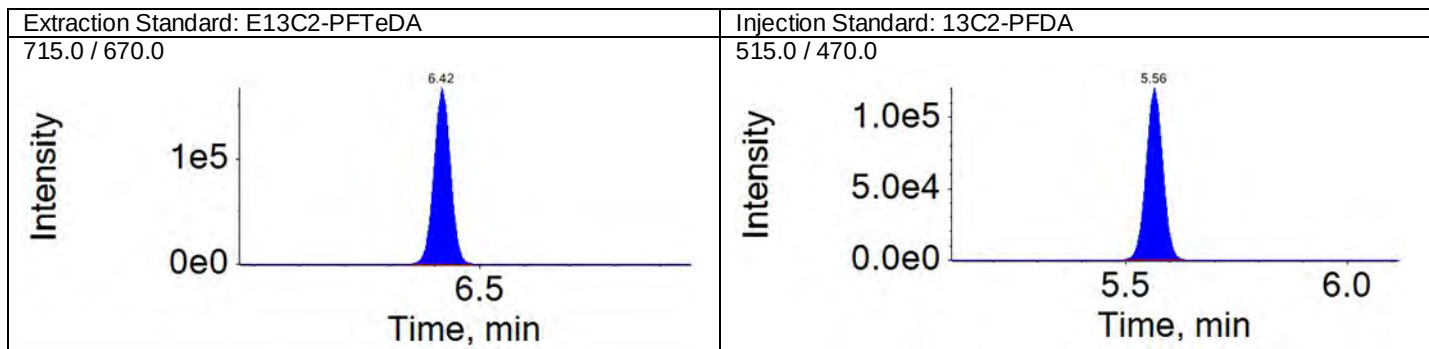
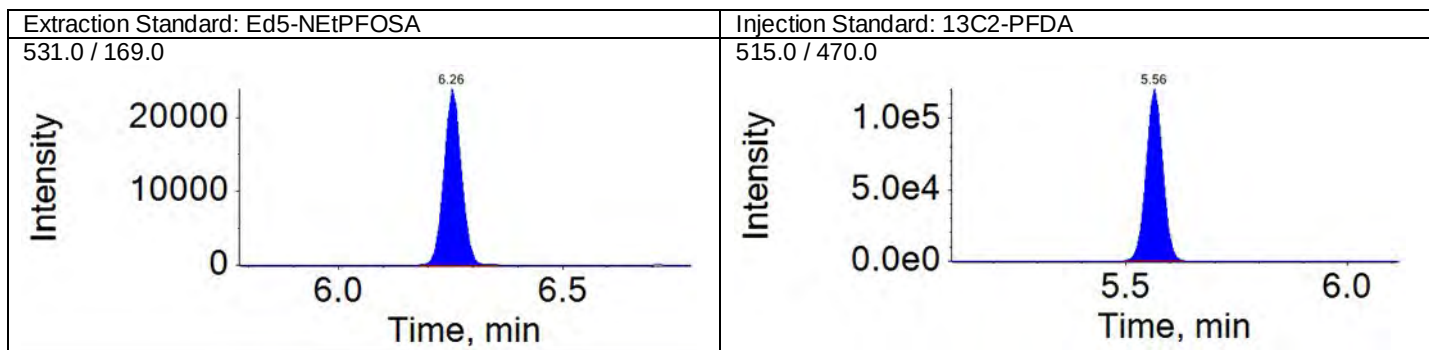
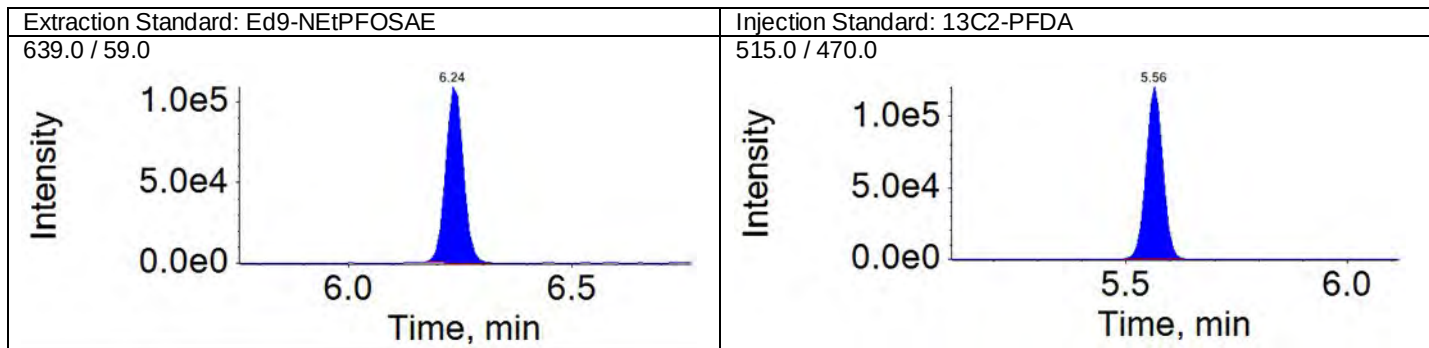
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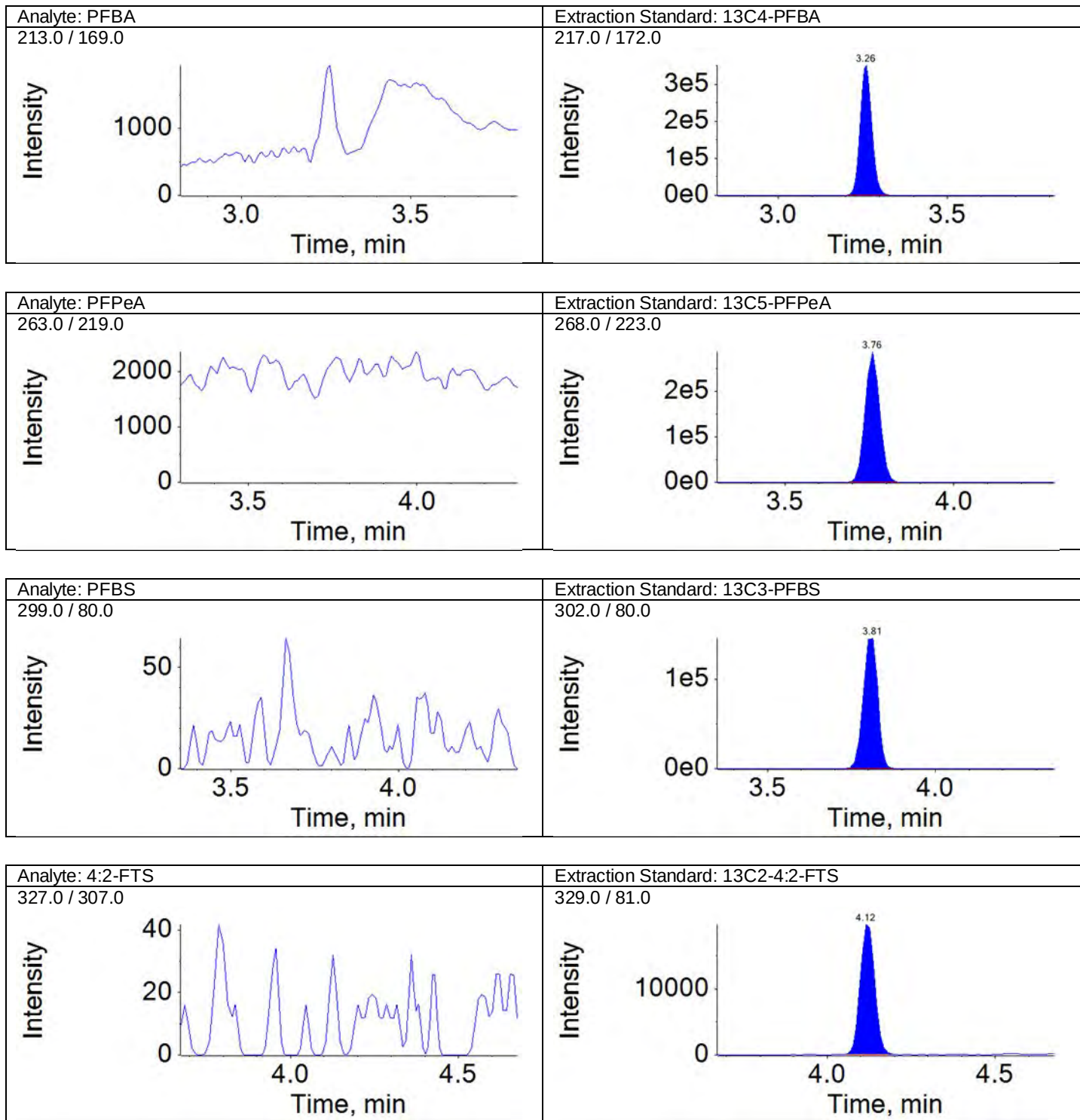
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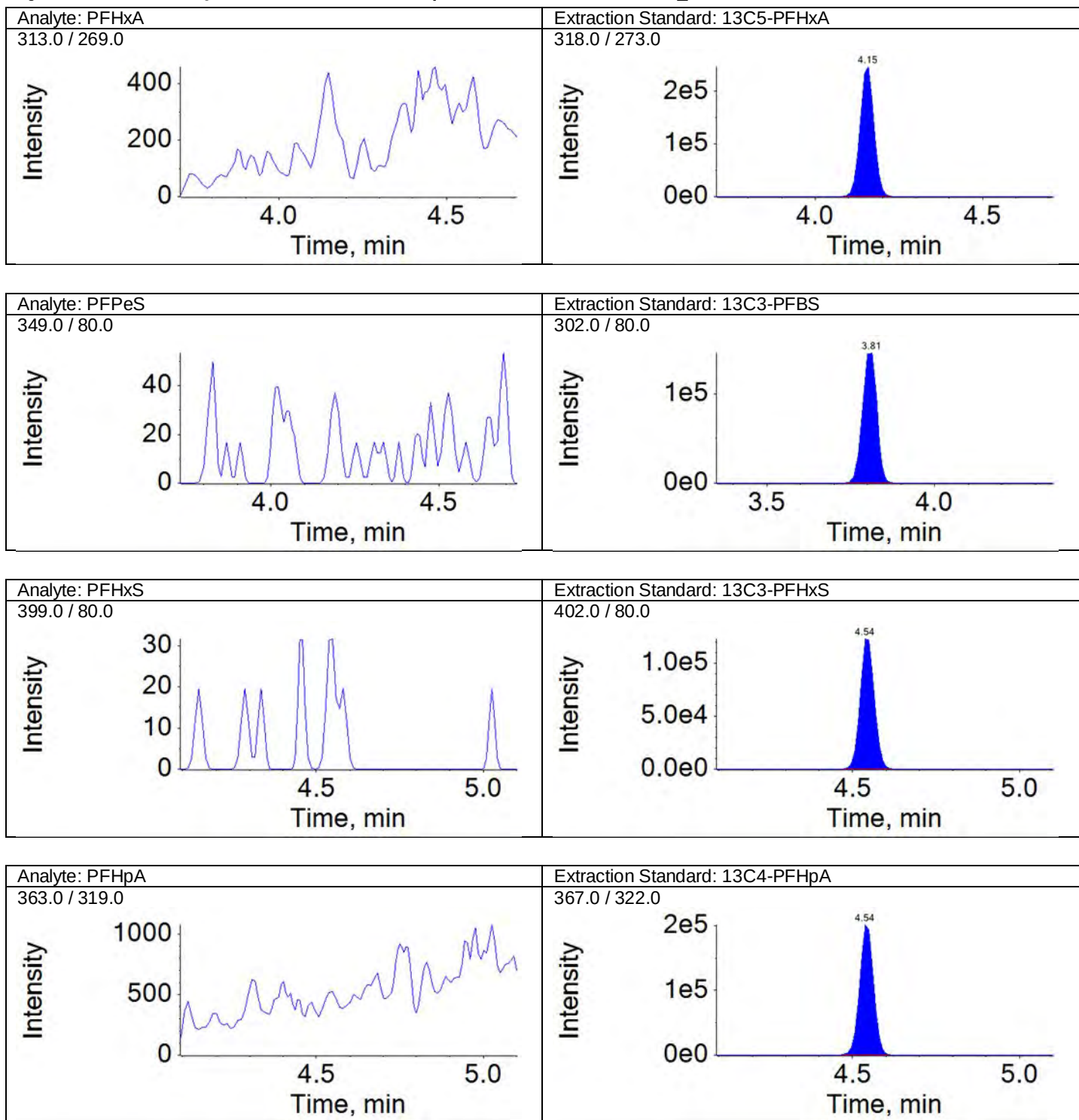
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
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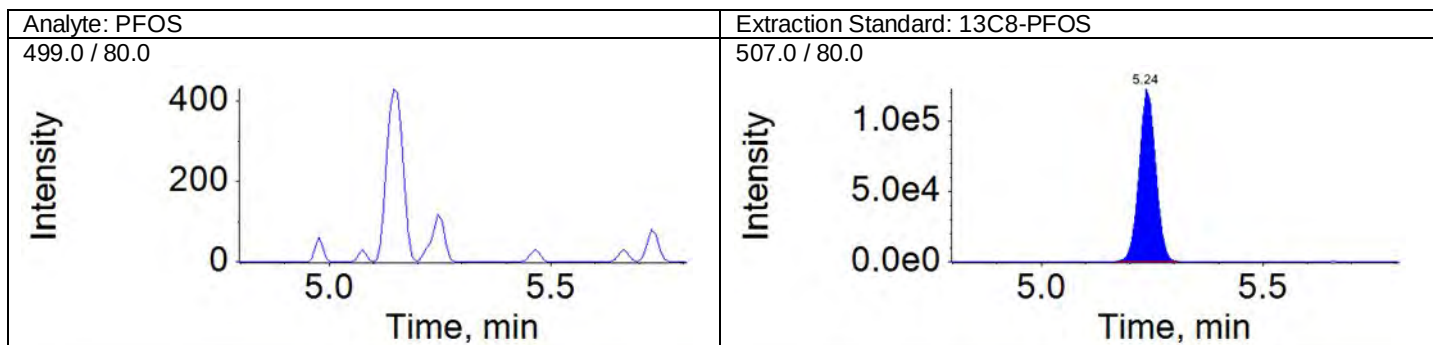
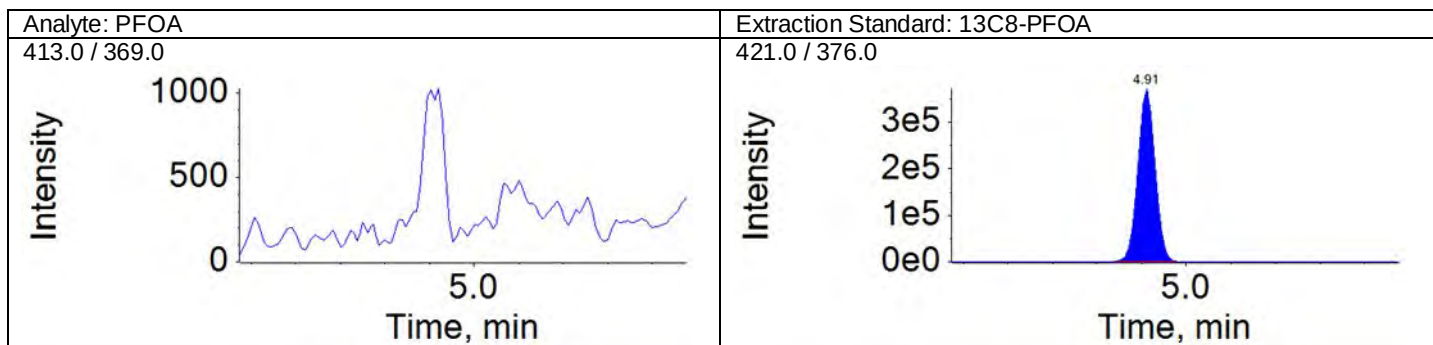
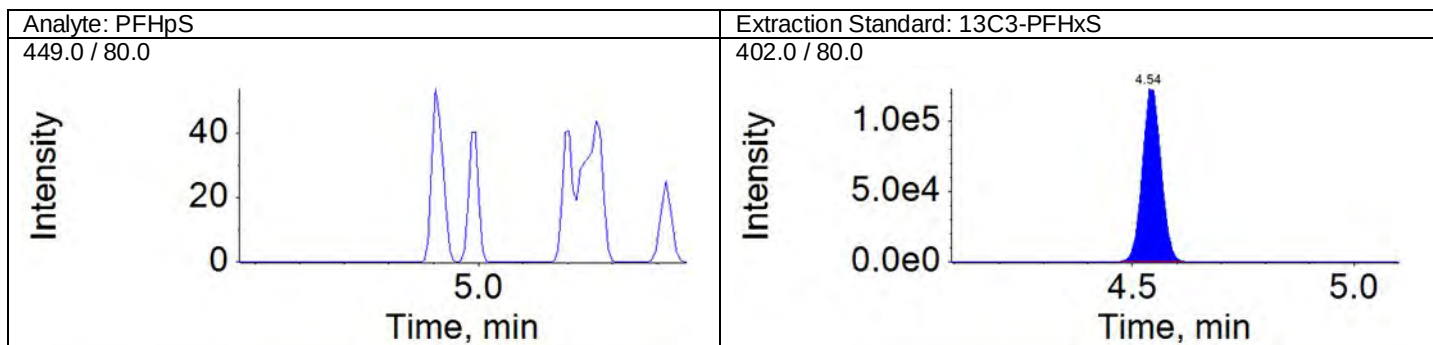
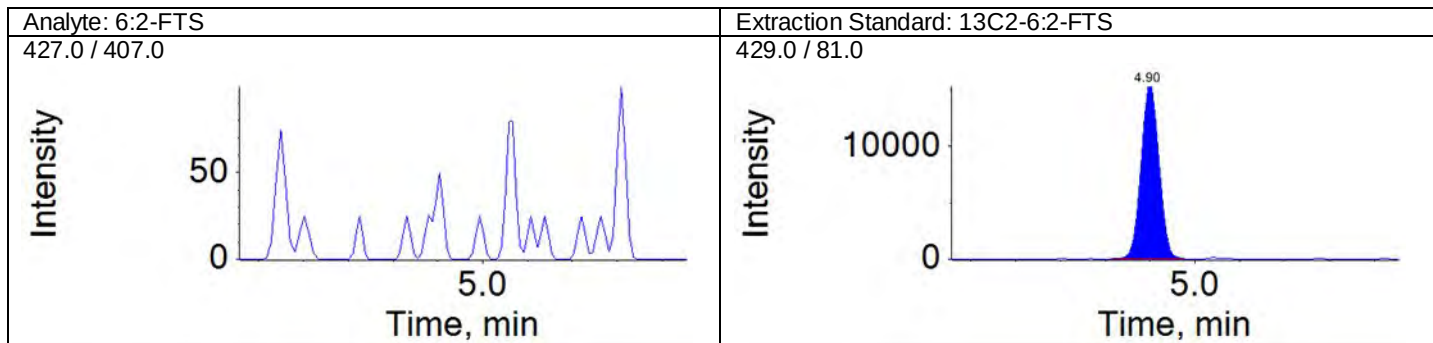
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam



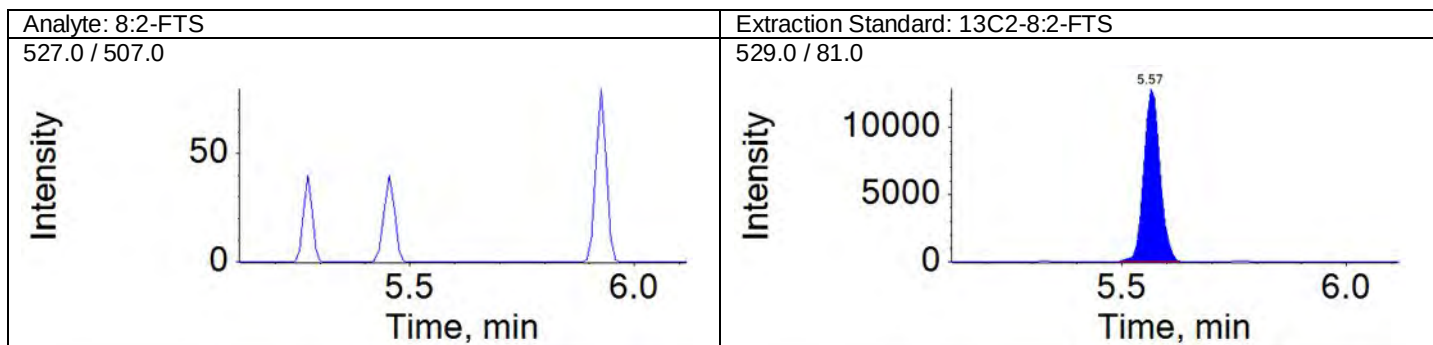
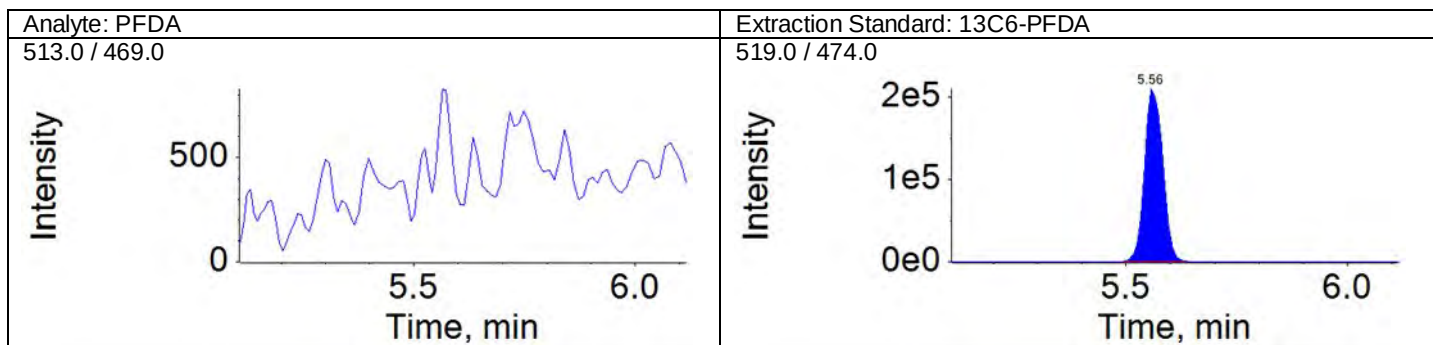
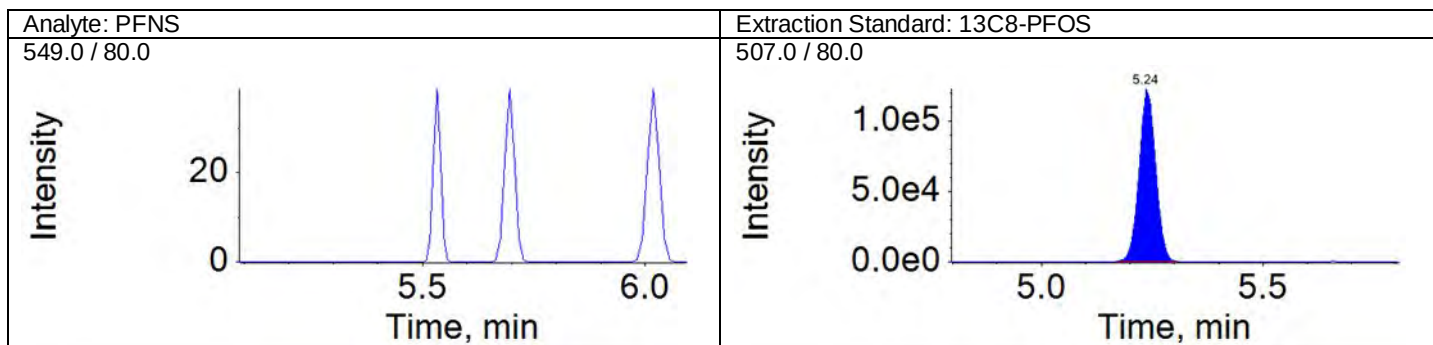
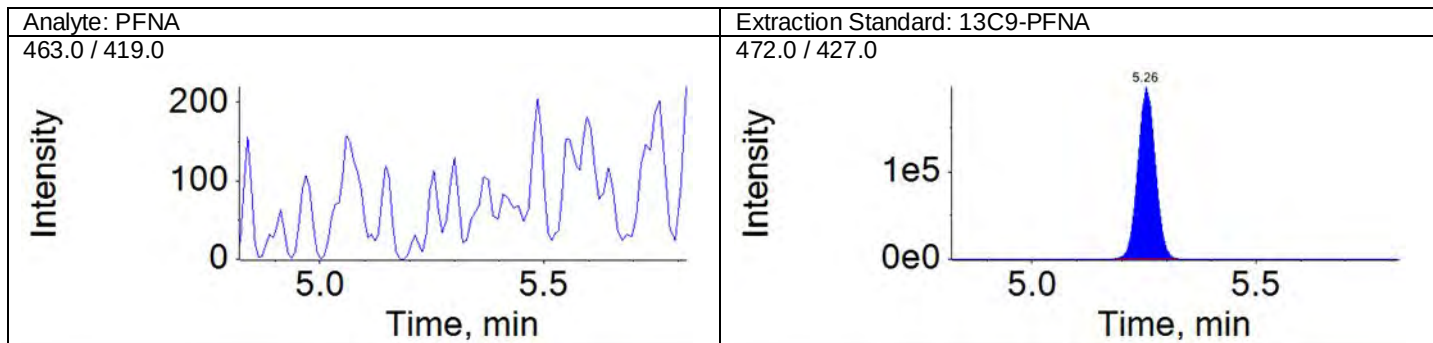
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam



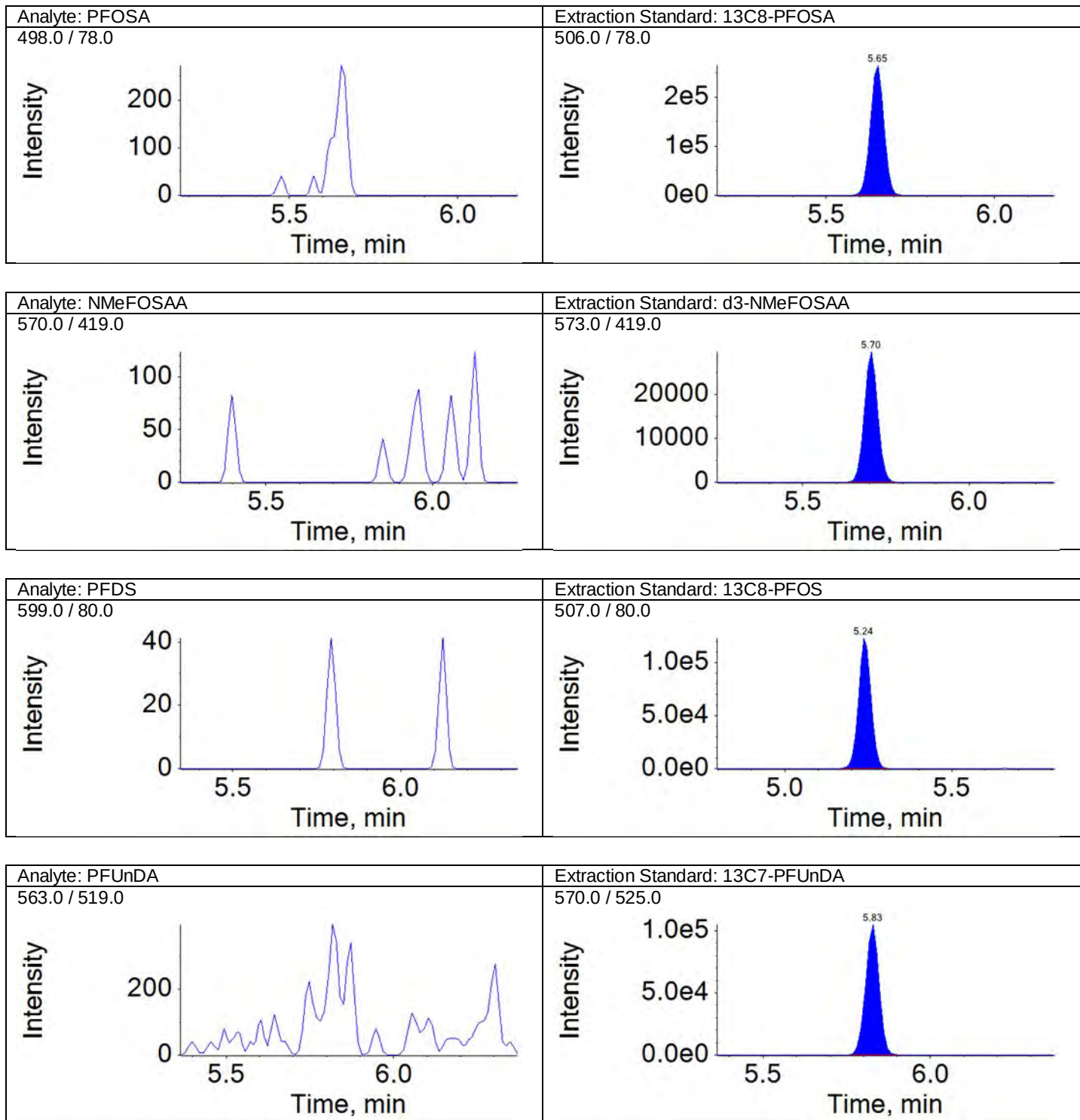
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam



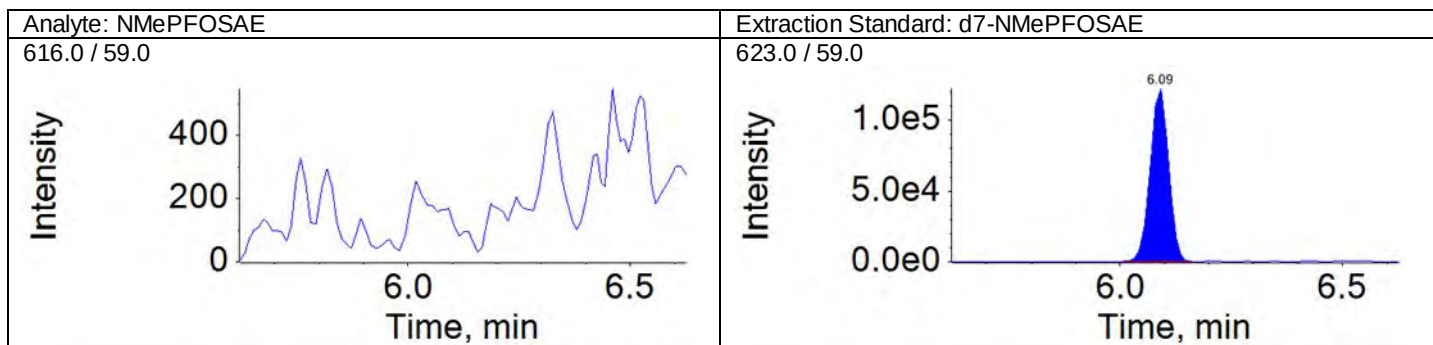
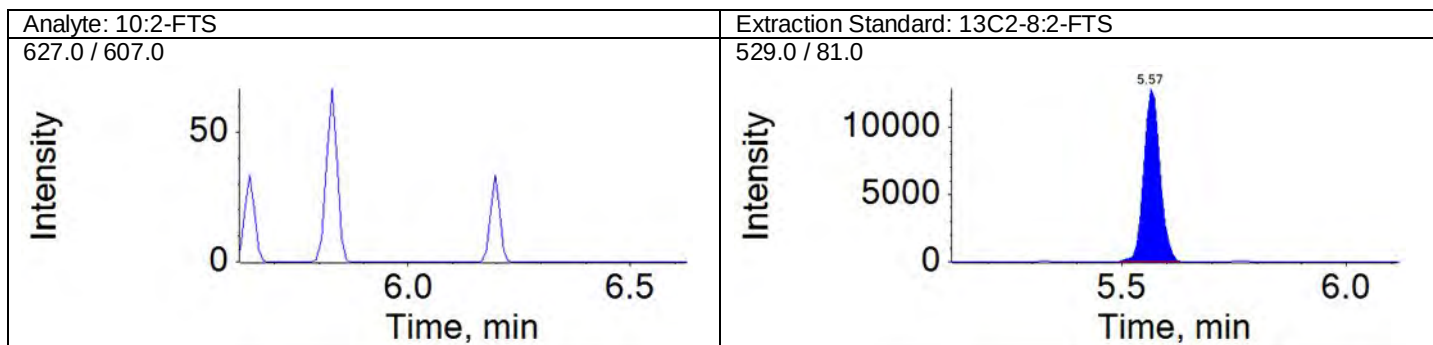
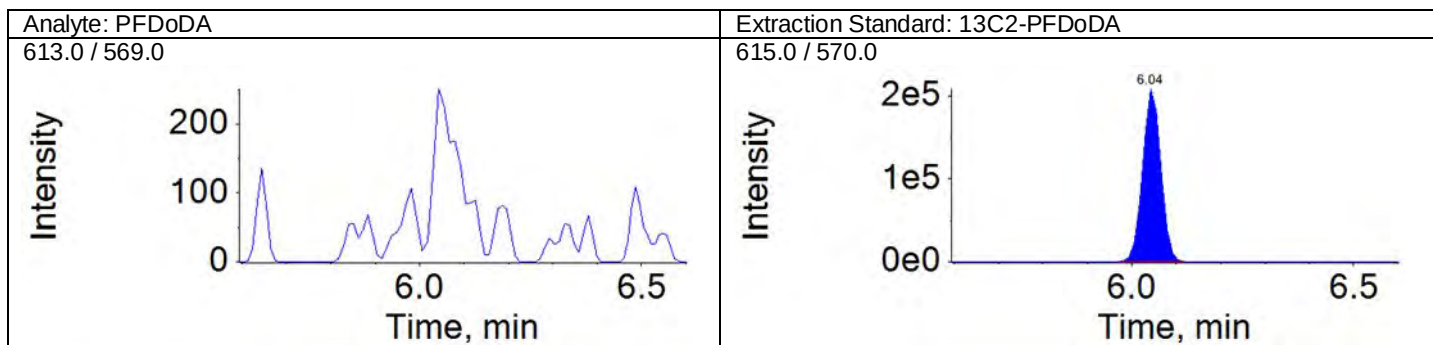
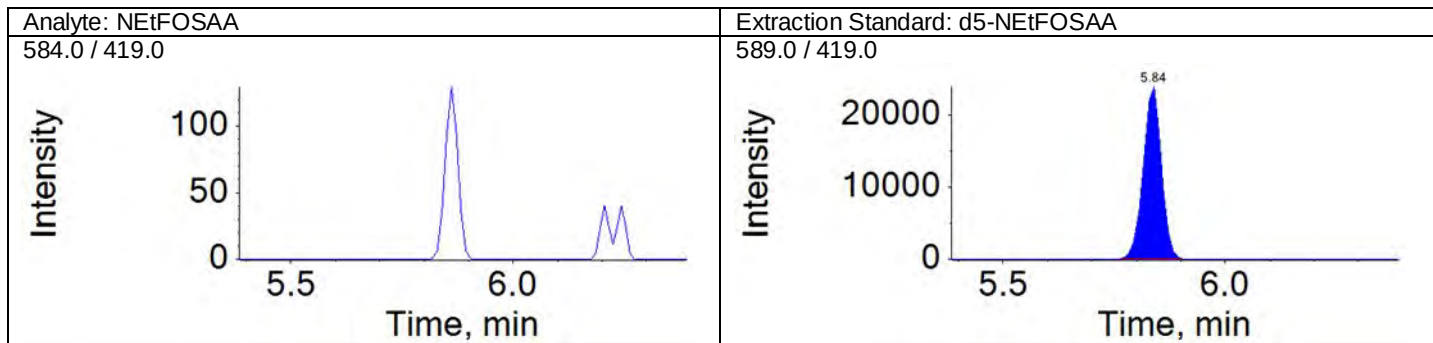
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam



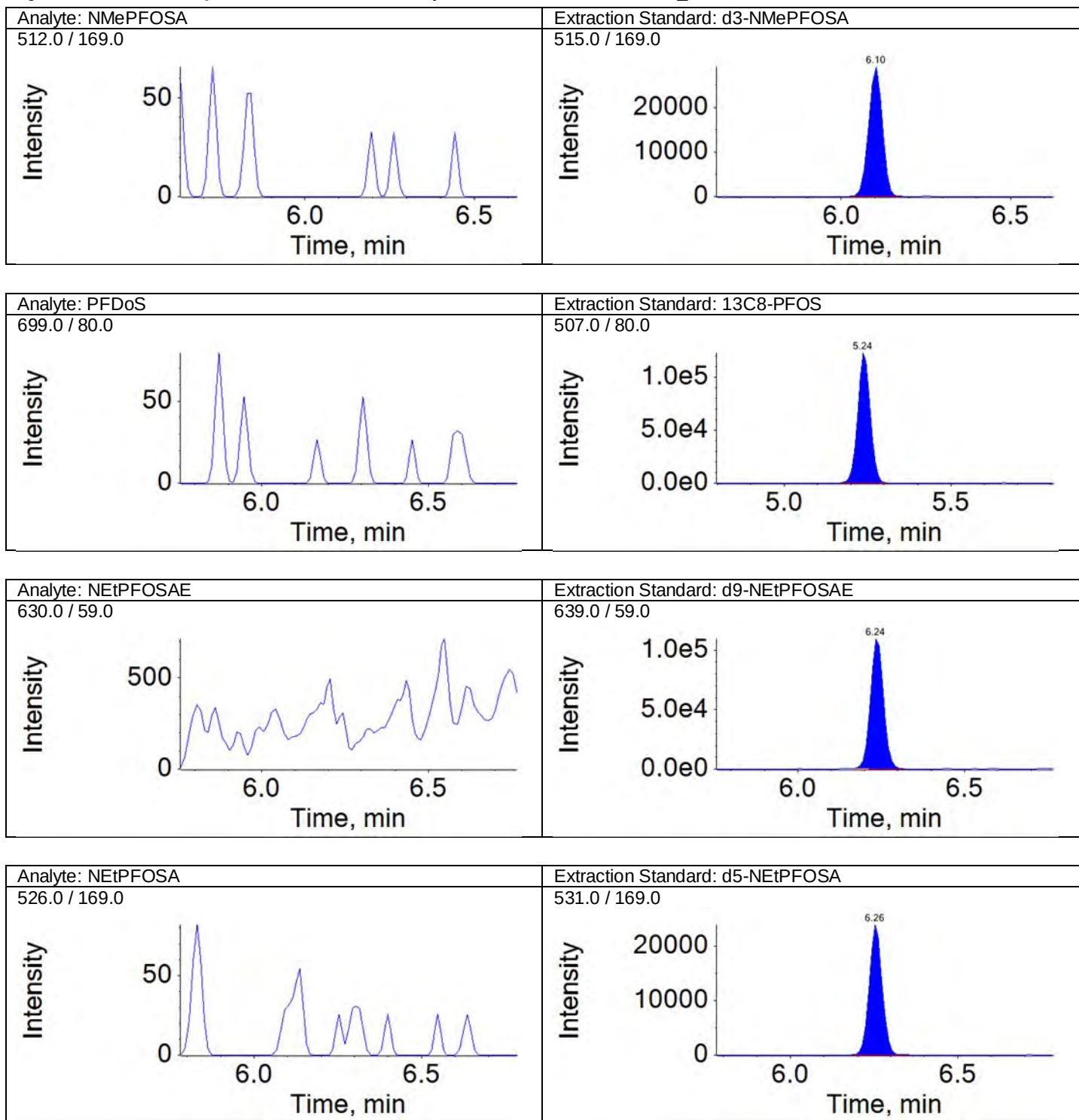
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Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam



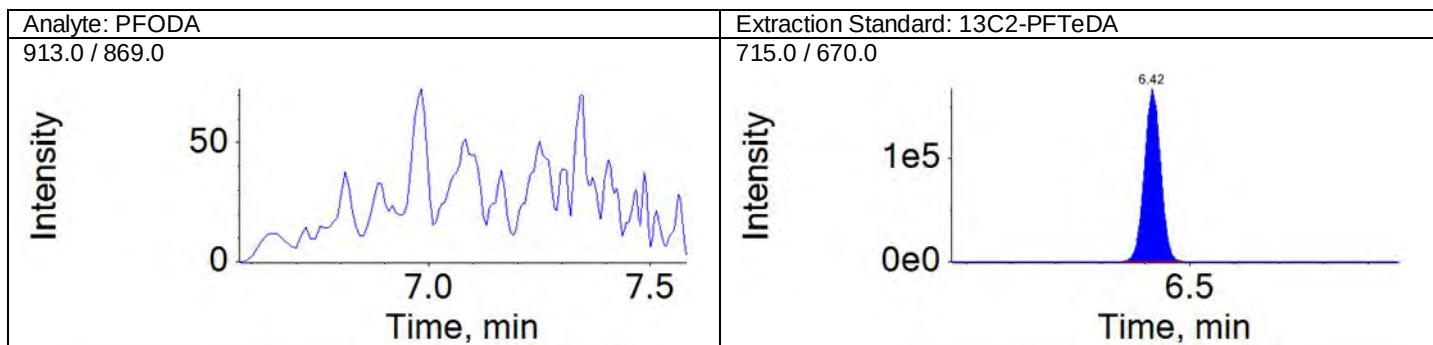
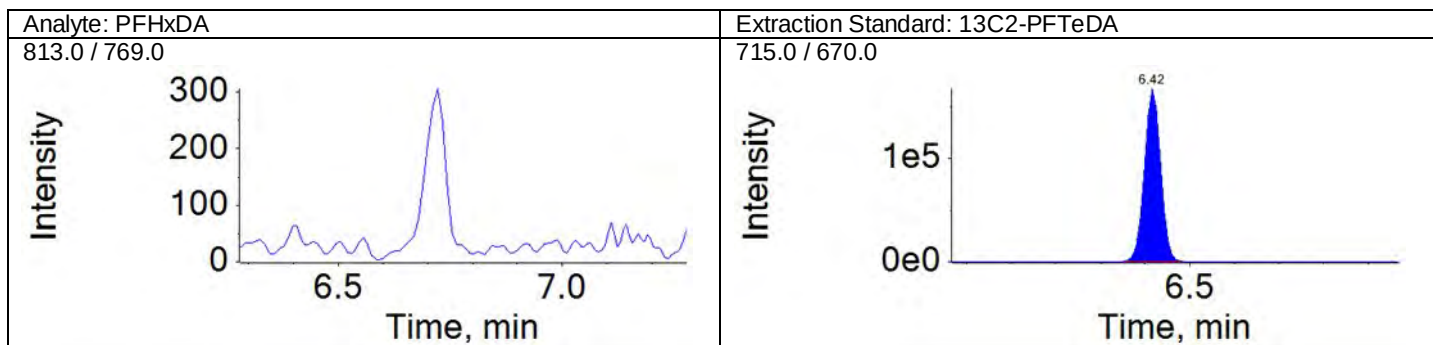
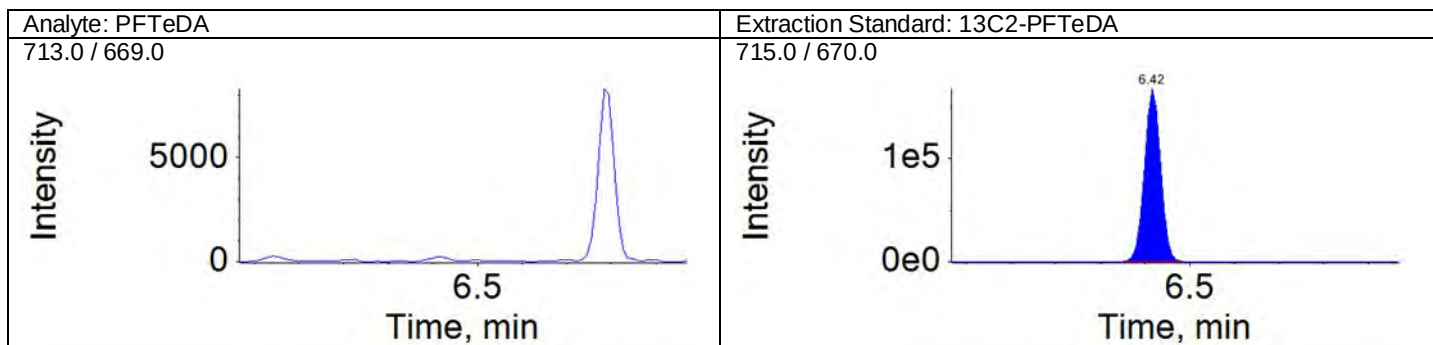
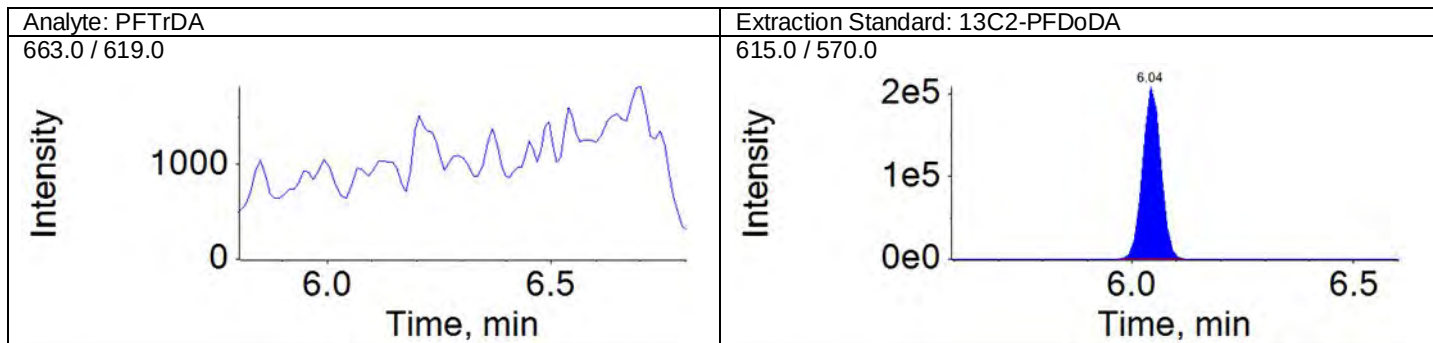
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam



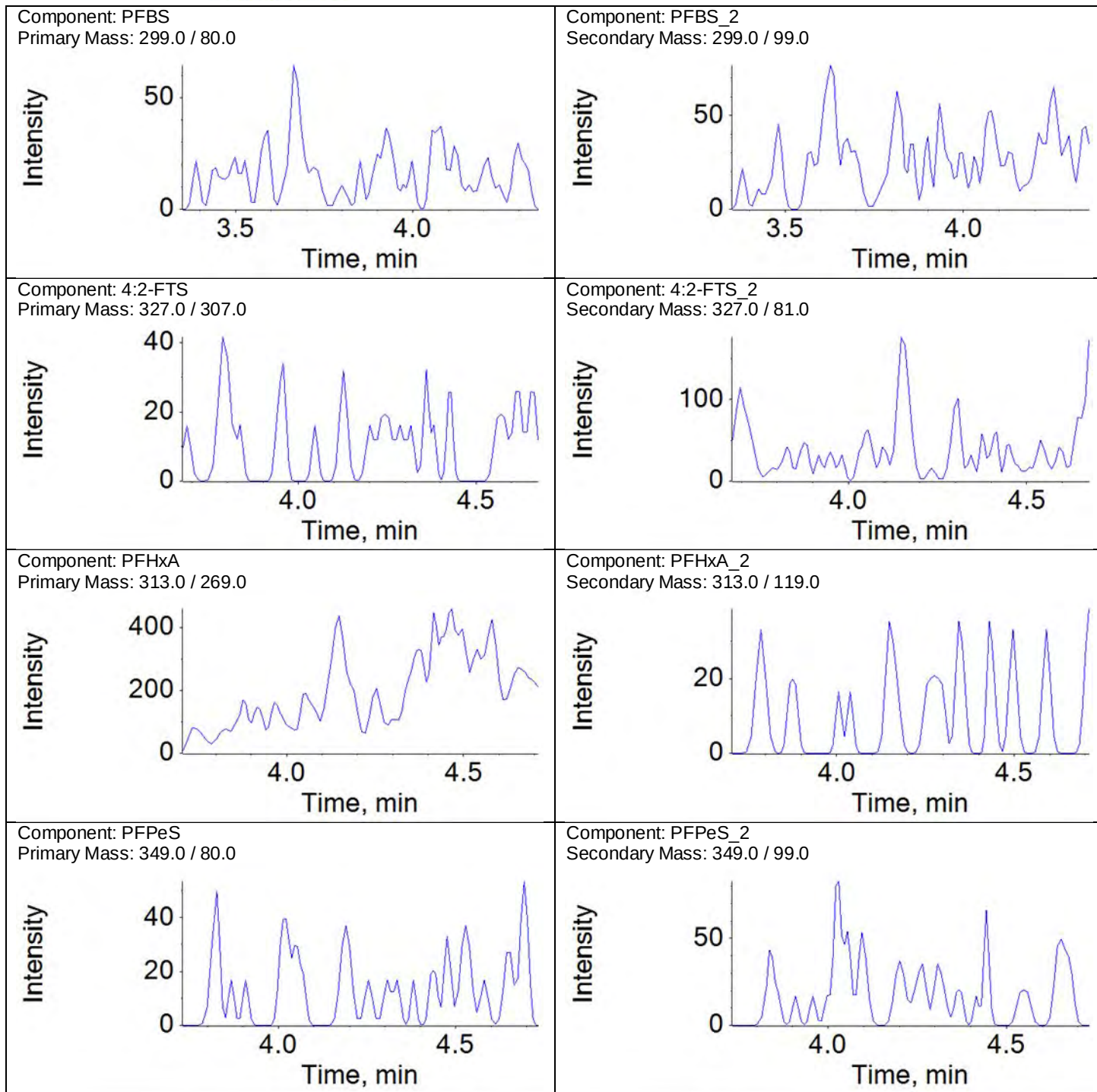
Ion Ratio Report

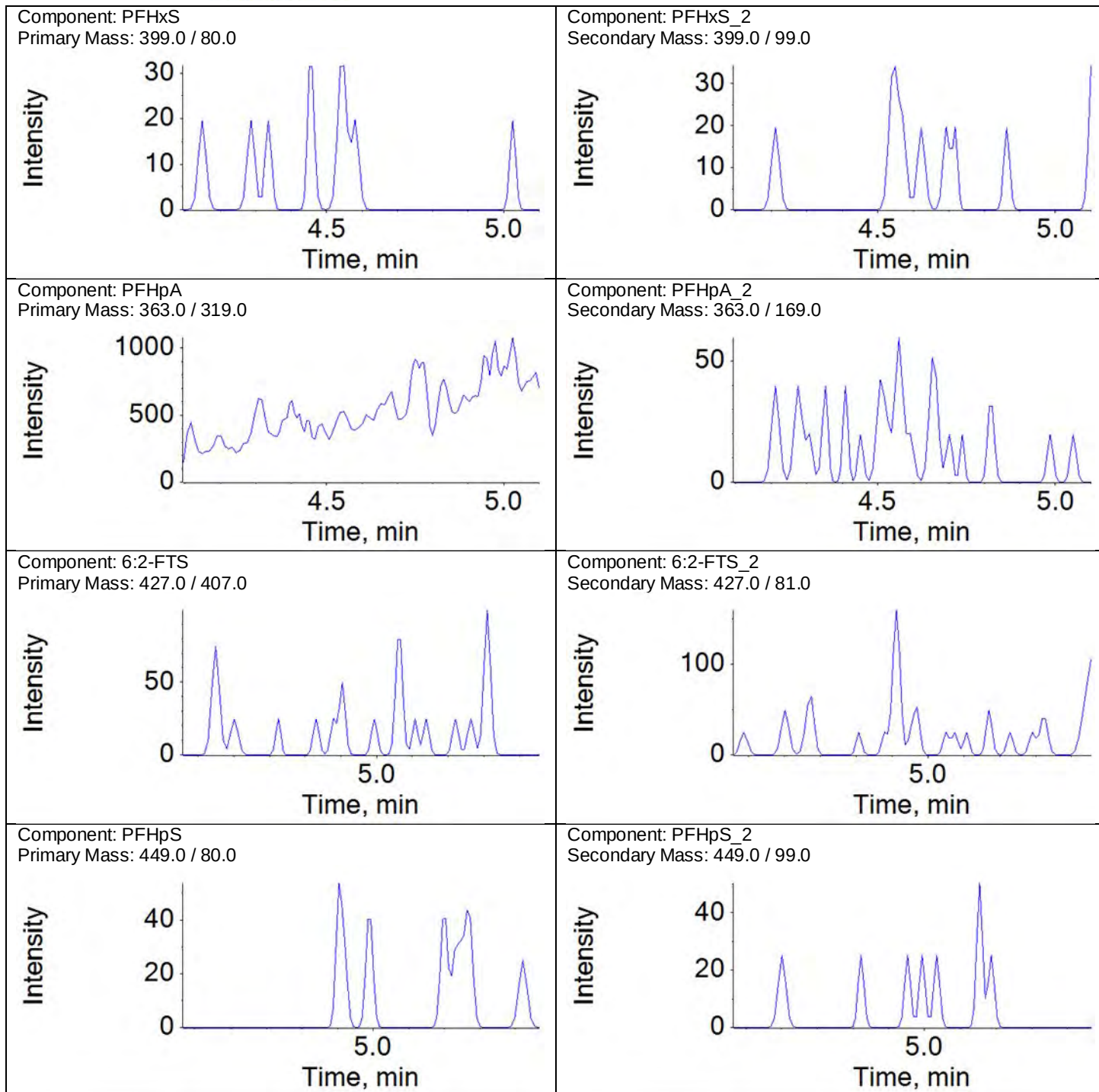
Sample Name: Instrument Blank

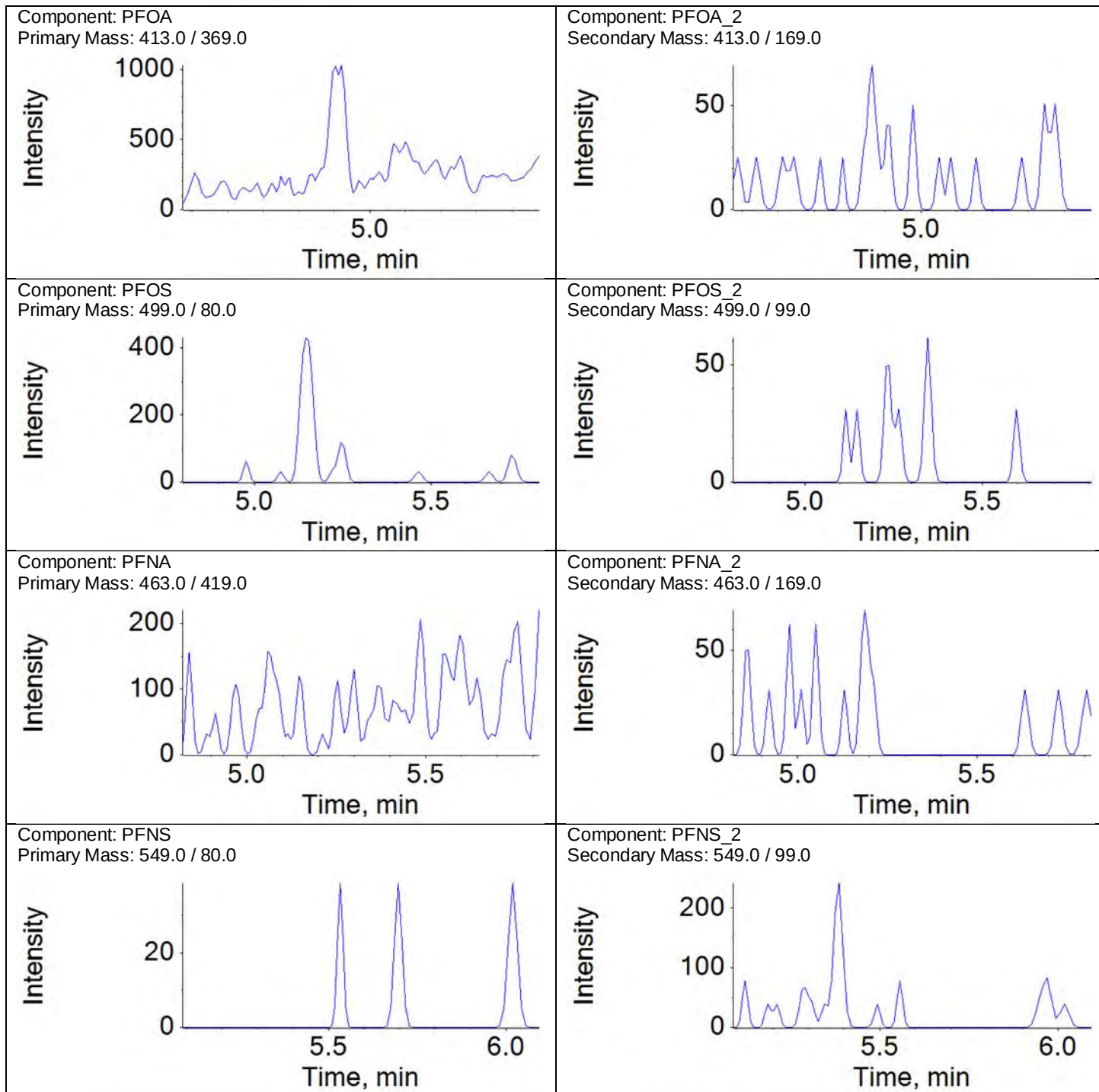
Instrument Name: LM27631

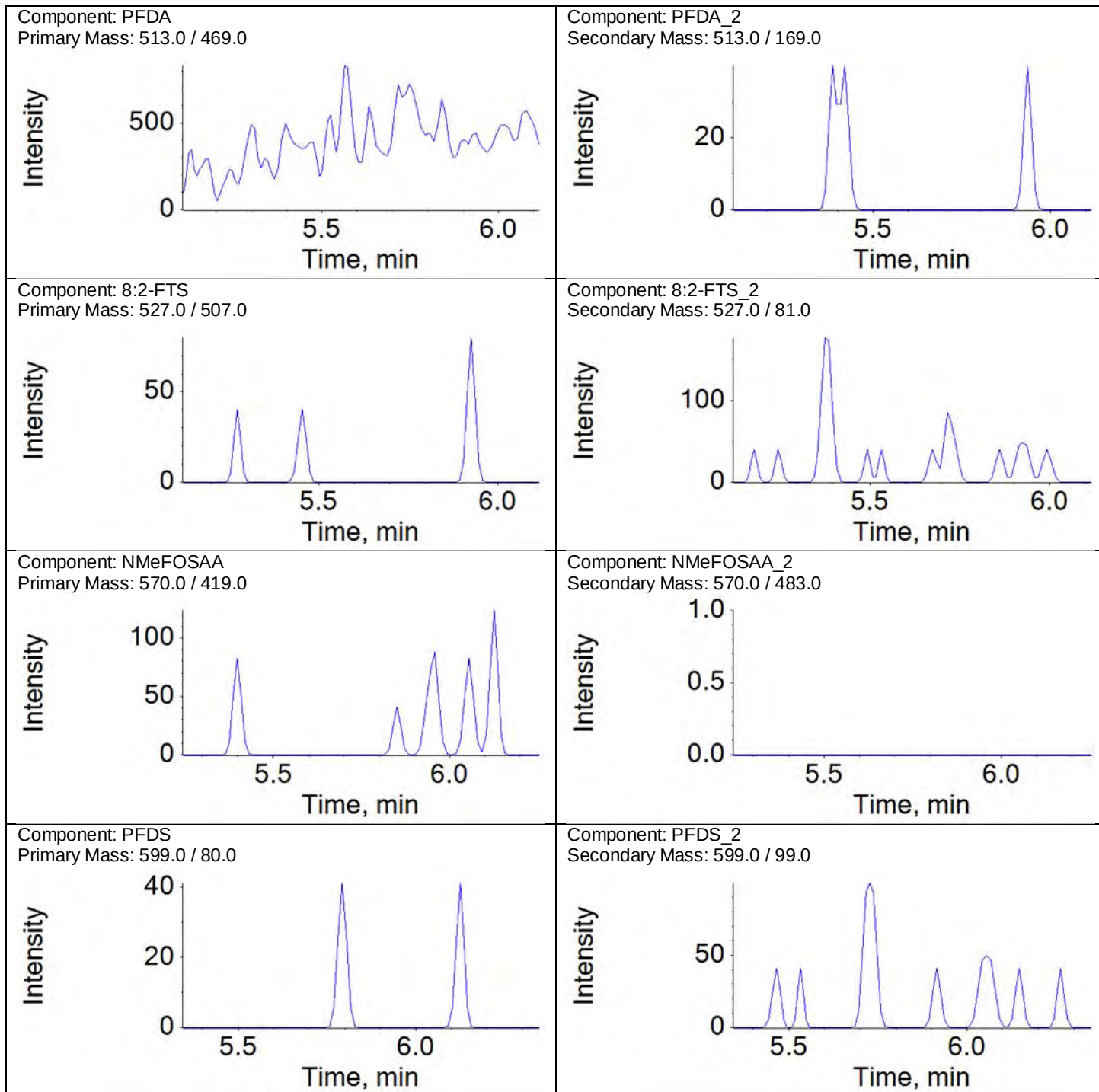
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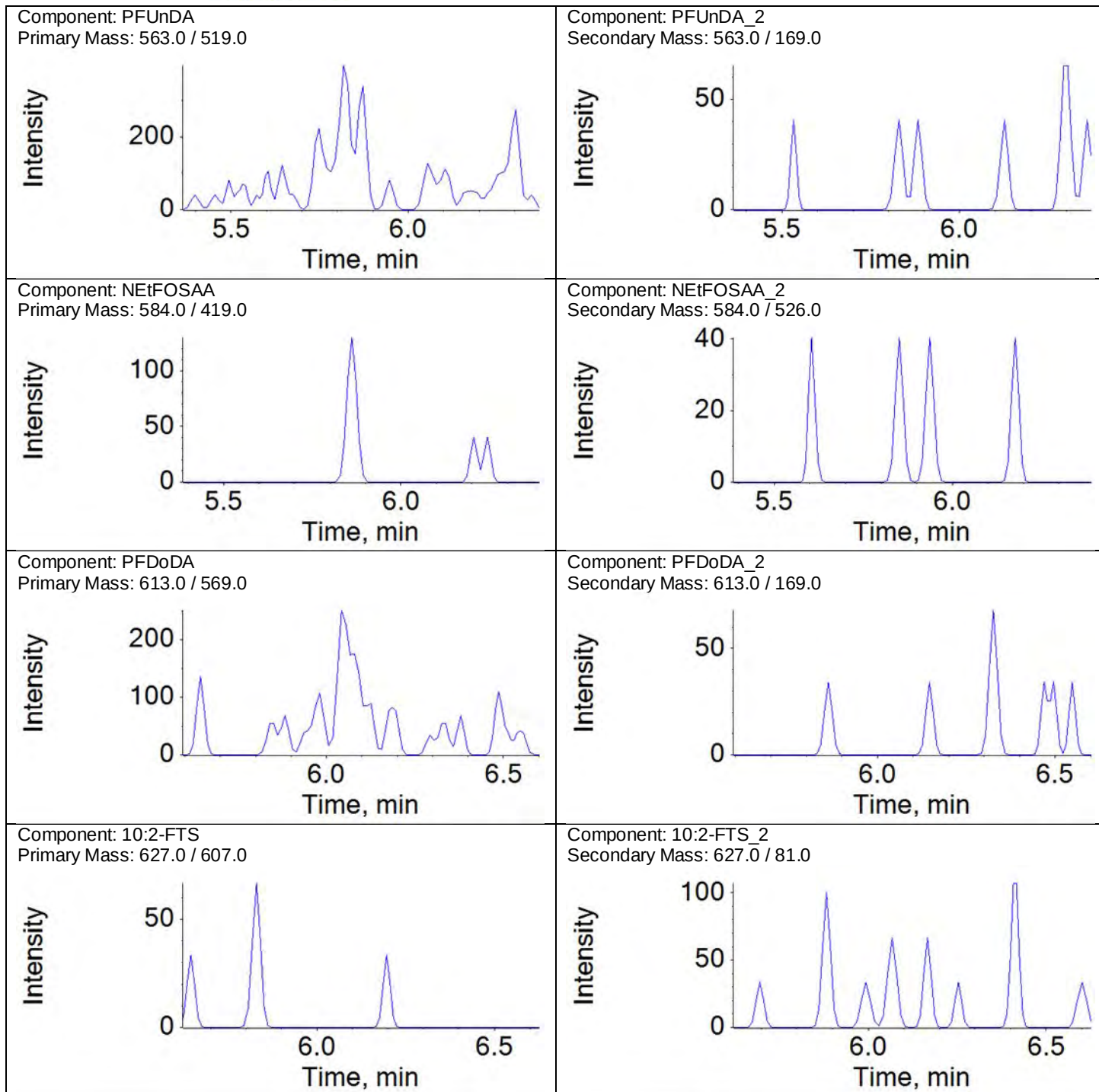
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDODA	N/A	N/A	N/A	A	N/A	N/A			
PFDODA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

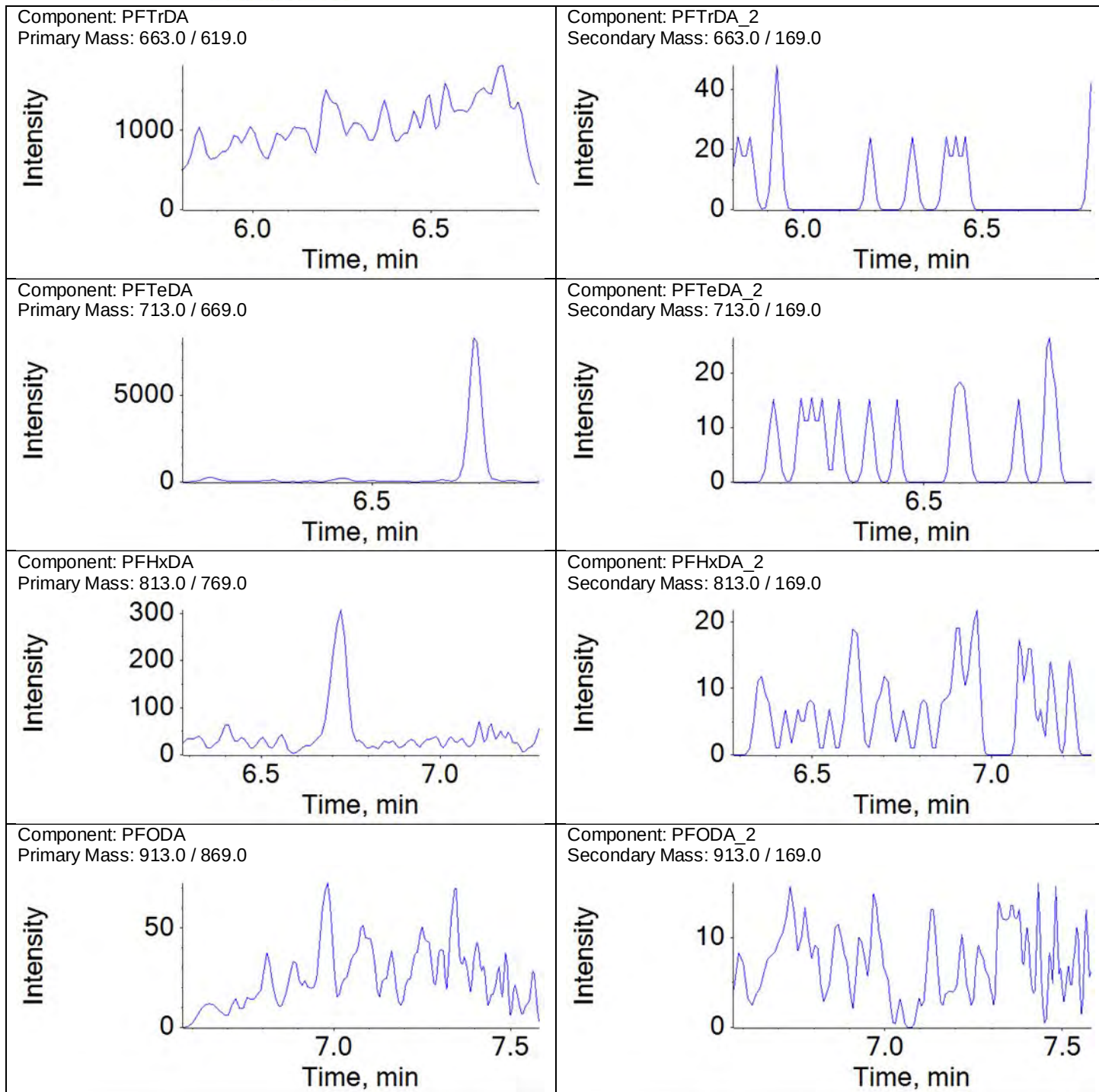








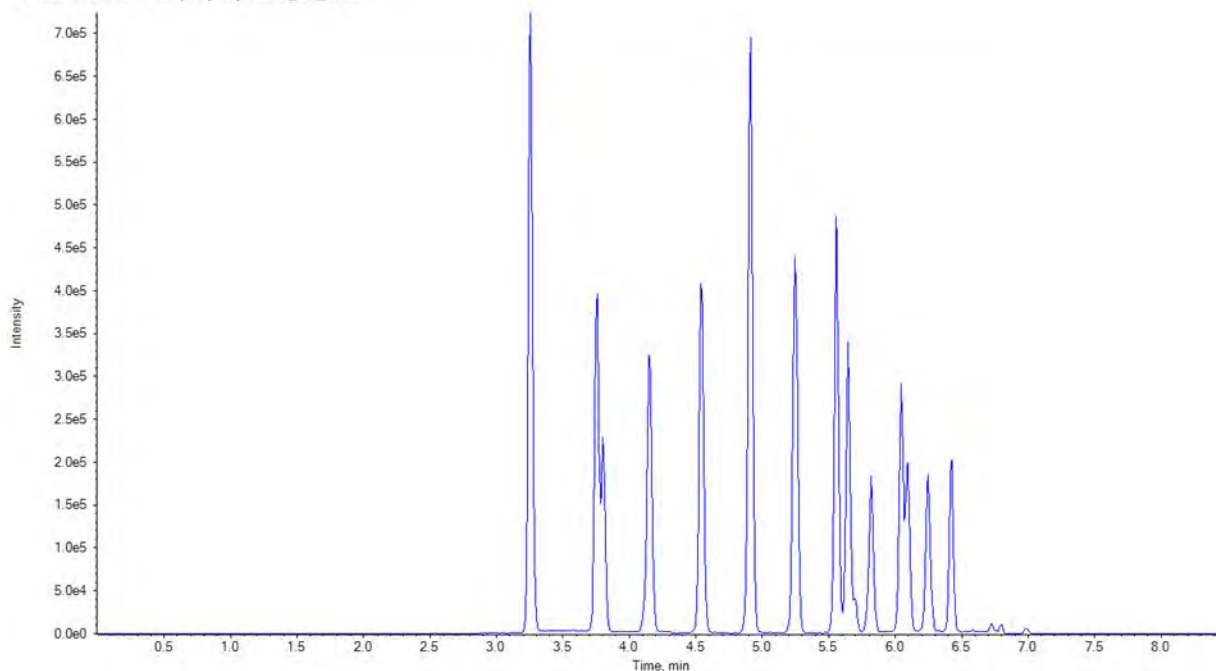




Instrument Sensitivity Check/
Continuing Calibration VerificationICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV4_ISC_CAL2	CALMOD21833F	18NOV09D-34.wiff	2018-11-09T09:36:38

TIC from 18NOV09D-34.wiff (sample 1) - CCV4_ISC_CAL2



Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	722338.2	725974.7	-1	50	
13C2-PFOA	5.0	505653.8	506876.7	0	50	
13C4-PFOS	4.8	277445.9	274910.1	1	50	
13C2-PFDA	5.0	301354.2	307276.7	-2	50	

APPROVED

By MCD at 5:19 pm, 11/9/18

REVIEWED

By HMK at 8:09 am, 11/15/18

Instrument Sensitivity Check/ Continuing Calibration Verification

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV4_ISC_CAL2	CALMOD21833F	18NOV09D-34.wiff	2018-11-09T09:36:38

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	72478.1	10	13C4-PFBA	785551.9	5.0	0.092	3.25	1.000	0.500	0.540	8	30	
PFPeA	78796.3	12	13C5-PFPeA	826711.9	5.0	0.095	3.75	1.000	0.500	0.566	13	30	
PFBS	39721.3	12	13C3-PFBS	410666.1	4.7	0.097	3.80	1.000	0.440	0.488	11	30	
4:2-FTS	8984.6	12	13C2-4:2-FTS	53659.1	4.7	0.167	4.12	1.000	0.467	0.450	-4	30	
PFHxA	87116.8	12	13C5-PFHxA	666715.3	5.0	0.131	4.15	1.000	0.500	0.560	12	30	
PFPeS	20288.7	11	13C3-PFBS	410666.1	4.7	0.049	4.17	1.100	0.469	0.487	4	30	
PFHxS	31024.5	12	13C3-PFHxS	322095.7	4.7	0.096	4.54	1.000	0.473	0.488	3	30	
PFHpA	82394.7	12	13C4-PFHpA	546446.6	5.0	0.151	4.54	1.000	0.500	0.507	1	30	
6:2-FTS	7118.4	11	13C2-6:2-FTS	36995.5	4.8	0.192	4.90	1.000	0.474	0.480	1	30	
PFHpS	29012.2	11	13C3-PFHxS	322095.7	4.7	0.090	4.90	1.080	0.476	0.471	-1	30	
PFOA	90190.7	11	13C8-PFOA	913134.0	5.0	0.099	4.91	1.000	0.500	0.556	11	30	
PFOS	29923.0	11	13C8-PFOS	295310.2	4.8	0.101	5.24	1.000	0.478	0.525	10	30	
PFNA	69237.7	11	13C9-PFNA	474724.8	5.0	0.146	5.26	1.000	0.500	0.545	9	30	
PFNS	18738.1	10	13C8-PFOS	295310.2	4.8	0.063	5.54	1.060	0.480	0.503	5	30	
PFDA	60233.7	10	13C6-PFDA	610756.2	5.0	0.099	5.56	1.000	0.500	0.543	9	30	
8:2-FTS	6893.8	10	13C2-8:2-FTS	29006.2	4.8	0.238	5.56	1.000	0.479	0.536	12	30	
PFOSA	63035.2	11	13C8-PFOSA	669617.4	5.0	0.094	5.65	1.000	0.500	0.509	2	30	
NMeFOSAA	8710.5	11	d3-NMeFOSAA	77861.4	5.0	0.112	5.70	1.000	0.500	0.576	15	30	
PFDS	16973.6	12	13C8-PFOS	295310.2	4.8	0.057	5.79	1.100	0.482	0.549	14	30	
PFUnDA	49049.1	11	13C7-PFUnDA	273082.9	5.0	0.180	5.82	1.000	0.500	0.515	3	30	
NEtFOSAA	7913.7	12	d5-NEtFOSAA	66084.3	5.0	0.120	5.84	1.000	0.500	0.515	3	30	
PFDODA	45390.8	12	13C2-PFDODA	561896.6	5.0	0.081	6.05	1.000	0.500	0.438	-12	30	
10:2-FTS	4557.6	11	13C2-8:2-FTS	29006.2	4.8	0.157	6.06	1.090	0.482	0.489	2	30	
NMePFOSAE	37311.4	12	d7-NMePFOSAE	328505.8	5.0	0.114	6.10	1.000	0.500	0.509	2	30	
NMePFOSA	7517.1	11	d3-NMePFOSA	80061.7	5.0	0.094	6.11	1.000	0.500	0.526	5	30	
PFDoS	7344.6	11	13C8-PFOS	295310.2	4.8	0.025	6.21	1.190	0.484	0.480	-1	30	
NEtPFOSAE	49016.6	11	d9-NEtPFOSAE	275271.9	5.0	0.178	6.26	1.000	0.500	0.571	14	30	
NEtPFOSA	7682.0	11	d5-NEtPFOSA	64200.4	5.0	0.120	6.27	1.000	0.500	0.527	5	30	
PFTTrDA	41389.7	11	13C2-PFDODA	561896.6	5.0	0.074	6.24	1.030	0.500	0.465	-7	30	
PFTeDA	34501.3	10	13C2-PFTeDA	387353.5	5.0	0.089	6.42	1.000	0.500	0.523	5	30	
PFHxDA	17829.3	11	13C2-PFTeDA	387353.5	5.0	0.046	6.72	1.050	0.500	0.571	14	30	
PFOA	14222.9	10	13C2-PFTeDA	387353.5	5.0	0.037	6.99	1.090	0.500	0.526	5	30	

**Instrument Sensitivity Check/
Continuing Calibration Verification**

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:07:16 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 5:19 pm, 11/9/18

REVIEWED
By HMK at 8:09 am, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV4 ISC CAL2	Data File:	18NOV09D-34.wiff
Sample ID:	CALMOD21833F	Acquis Date:	2018-11-09T09:36:38
Sample Type:	Quality Control	Instrument:	LM27631
Vial Position:	4	Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00	Result Table:	18NOV09DCCV1-4
QMethod File:	MQ4-18AUG13	ICAL Name:	18NOV07DCAL
Batch Number:	N/A	Operator:	MCD7824
Sample Wt.:	1.00000	Dilution Factor:	1.00
Sample Vol.:	1.000	Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	722338.2	725974.7	-1	50	
13C2-PFOA	5.0	505653.8	506876.7	0	50	
13C4-PFOS	4.8	277445.9	274910.1	1	50	
13C2-PFDA	5.0	301354.2	307276.7	-2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	785551.9	13C3-PFBA	722338.2	1.088	5.000	5.033	101	70-130	
E13C5-PFPeA	826711.9	13C3-PFBA	722338.2	1.144	5.000	4.986	100	70-130	
E13C3-PFBS	410666.1	13C3-PFBA	722338.2	0.569	4.650	4.172	90	70-130	
E13C2-4:2-FTS	53659.1	13C2-PFOA	505653.8	0.106	4.670	4.788	103	70-130	
E13C5-PFHxA	666715.3	13C2-PFOA	505653.8	1.319	5.000	4.850	97	70-130	
E13C3-PFHxS	322095.7	13C2-PFOA	505653.8	0.637	4.730	4.573	97	70-130	
E13C4-PFHpA	546446.6	13C2-PFOA	505653.8	1.081	5.000	4.916	98	70-130	
E13C2-6:2-FTS	36995.5	13C2-PFOA	505653.8	0.073	4.750	4.879	103	70-130	
E13C8-PFOA	913134.0	13C2-PFOA	505653.8	1.806	5.000	5.036	101	70-130	
E13C8-PFOS	295310.2	13C4-PFOS	277445.9	1.064	4.780	4.707	98	70-130	
E13C9-PFNA	474724.8	13C4-PFOS	277445.9	1.711	5.000	4.674	93	70-130	
E13C6-PFDA	610756.2	13C2-PFDA	301354.2	2.027	5.000	5.097	102	70-130	
E13C2-8:2-FTS	29006.2	13C2-PFDA	301354.2	0.096	4.790	5.093	106	70-130	
E13C8-PFOSA	669617.4	13C2-PFDA	301354.2	2.222	5.000	4.849	97	70-130	
Ed3-NMeFOSAA	77861.4	13C2-PFDA	301354.2	0.258	5.000	4.805	96	70-130	
E13C7-PFUnDA	273082.9	13C2-PFDA	301354.2	0.906	5.000	5.228	105	70-130	
Ed5-NEtFOSAA	66084.3	13C2-PFDA	301354.2	0.219	5.000	5.075	101	70-130	
E13C2-PFDoDA	561896.6	13C2-PFDA	301354.2	1.865	5.000	5.027	101	70-130	
Ed7-NMePFOSAE	328505.8	13C2-PFDA	301354.2	1.090	5.000	5.069	101	70-130	
Ed3-NMePFOSA	80061.7	13C2-PFDA	301354.2	0.266	5.000	4.864	97	70-130	
Ed9-NEtPFOSAE	275271.9	13C2-PFDA	301354.2	0.913	5.000	5.217	104	70-130	
Ed5-NEtPFOSA	64200.4	13C2-PFDA	301354.2	0.213	5.000	4.933	99	70-130	
E13C2-PFTeDA	387353.5	13C2-PFDA	301354.2	1.285	5.000	4.627	93	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

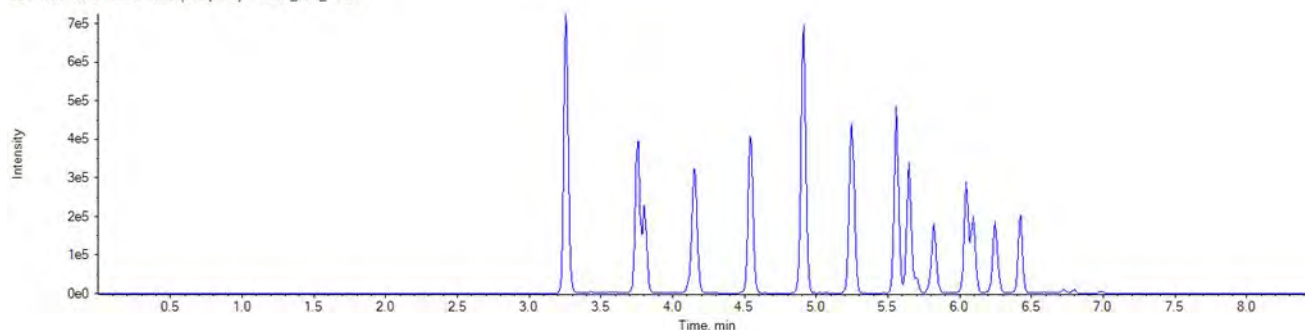
Sample Name: CCV4_ISC_CAL2 Instrument Name: LM27631 File Name: 18NOV09D-34.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.25	1.000	72478.1		A	13C4-PFBA	3.25	785551.9	0.092	0.540
PFPeA	3.75	1.000	78796.3		A	13C5-PFPeA	3.76	826711.9	0.095	0.566
PFBS	3.80	1.000	39721.3		A	13C3-PFBS	3.80	410666.1	0.097	0.488
4:2-FTS	4.12	1.000	8984.6		A	13C2-4:2-FTS	4.12	53659.1	0.167	0.450
PFHxA	4.15	1.000	87116.8		A	13C5-PFHxA	4.15	666715.3	0.131	0.560
PFPeS	4.17	1.100	20288.7		A	13C3-PFBS	3.80	410666.1	0.049	0.487
PFHxS	4.54	1.000	31024.5		A	13C3-PFHxS	4.54	322095.7	0.096	0.488
PFHpA	4.54	1.000	82394.7		A	13C4-PFHpA	4.54	546446.6	0.151	0.507
6:2-FTS	4.90	1.000	7118.4		A	13C2-6:2-FTS	4.90	36995.5	0.192	0.480
PFHpS	4.90	1.080	29012.2		A	13C3-PFHxS	4.54	322095.7	0.090	0.471
PFOA	4.91	1.000	90190.7		M	13C8-PFOA	4.91	913134.0	0.099	0.556
PFOS	5.24	1.000	29923.0		A	13C8-PFOS	5.24	295310.2	0.101	0.525
PFNA	5.26	1.000	69237.7		A	13C9-PFNA	5.26	474724.8	0.146	0.545
PFNS	5.54	1.060	18738.1		M	13C8-PFOS	5.24	295310.2	0.063	0.503
PFDA	5.56	1.000	60233.7		A	13C6-PFDA	5.56	610756.2	0.099	0.543
8:2-FTS	5.56	1.000	6893.8		A	13C2-8:2-FTS	5.56	29006.2	0.238	0.536
PFOSA	5.65	1.000	63035.2		A	13C8-PFOSA	5.65	669617.4	0.094	0.509
NMeFOSAA	5.70	1.000	8710.5		M	d3-NMeFOSAA	5.70	77861.4	0.112	0.576
PFDS	5.79	1.100	16973.6		A	13C8-PFOS	5.24	295310.2	0.057	0.549
PfUnDA	5.82	1.000	49049.1		M	13C7-PfUnDA	5.82	273082.9	0.180	0.515
NEtFOSAA	5.84	1.000	7913.7		A	d5-NEtFOSAA	5.83	66084.3	0.120	0.515
PFDODA	6.05	1.000	45390.8		A	13C2-PFDODA	6.04	561896.6	0.081	0.438
10:2-FTS	6.06	1.090	4557.6		A	13C2-8:2-FTS	5.56	29006.2	0.157	0.489
NMePFOSAE	6.10	1.000	37311.4		A	d7-NMePFOSAE	6.09	328505.8	0.114	0.509
NMePFOSA	6.11	1.000	7517.1		A	d3-NMePFOSA	6.10	80061.7	0.094	0.526
PFDOS	6.21	1.190	7344.6		A	13C8-PFOS	5.24	295310.2	0.025	0.480
NEtPFOSAE	6.26	1.000	49016.6		A	d9-NEtPFOSAE	6.24	275271.9	0.178	0.571
NEtPFOSA	6.27	1.000	7682.0		A	d5-NEtPFOSA	6.26	64200.4	0.120	0.527
PFTDA	6.24	1.030	41389.7		A	13C2-PFDODA	6.04	561896.6	0.074	0.465
PFTeDA	6.42	1.000	34501.3		A	13C2-PFTeDA	6.42	387353.5	0.089	0.523
PFHxDA	6.72	1.050	17829.3		A	13C2-PFTeDA	6.42	387353.5	0.046	0.571
PFODA	6.99	1.090	14222.9		A	13C2-PFTeDA	6.42	387353.5	0.037	0.526

Total Ion Chromatogram

TIC from 18NOV09D-34.wiff (sample 1) - CCV4_ISC_CAL2



APPROVED

By MCD at 5:19 pm, 11/9/18

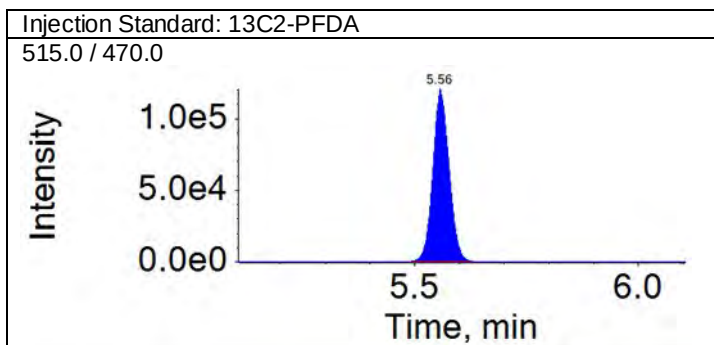
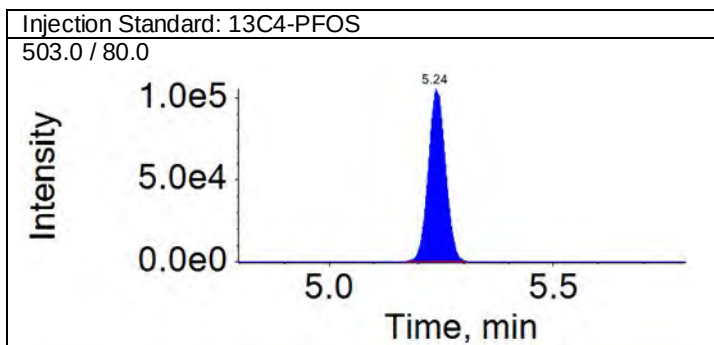
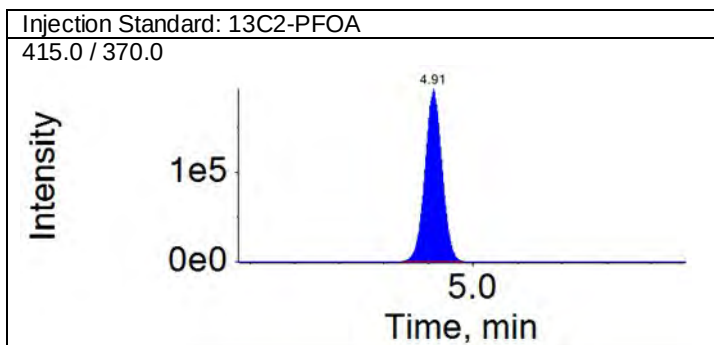
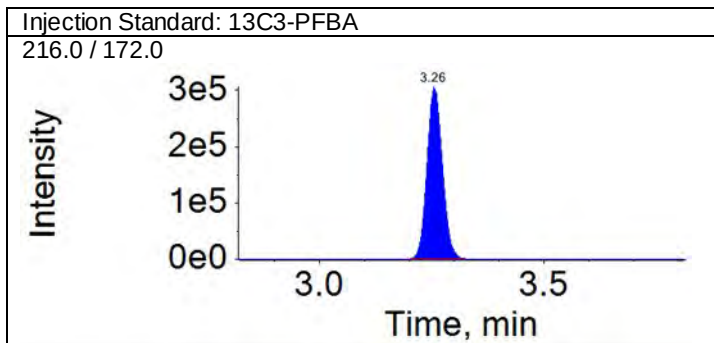
BSI14 Page 684 of 2132

REVIEWED

By HMK at 8:09 am, 11/15/18

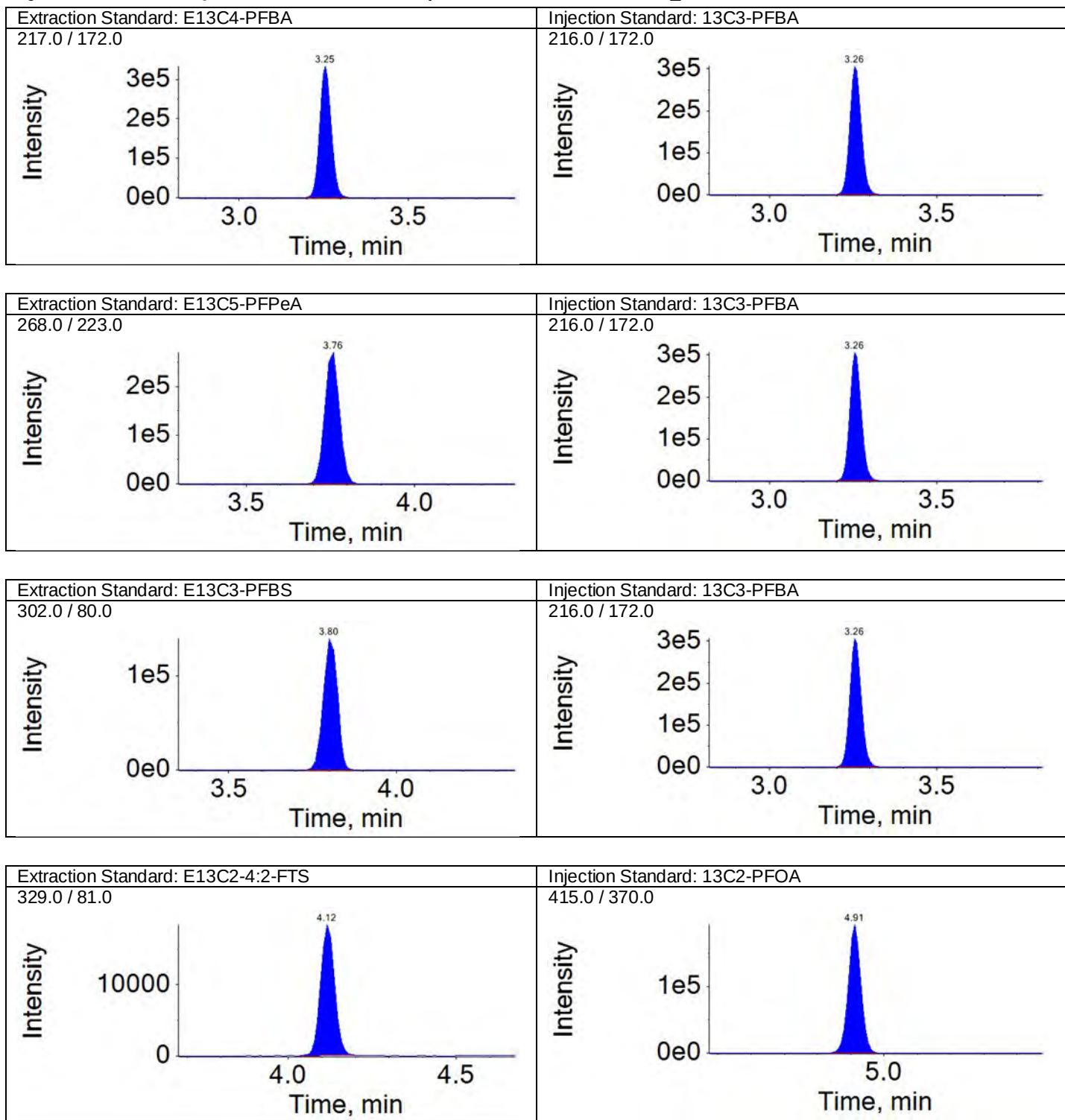
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV1-4 11/9/2018 5:13:22 PM
Acquisition Method: 18AUG13_3uL.dam



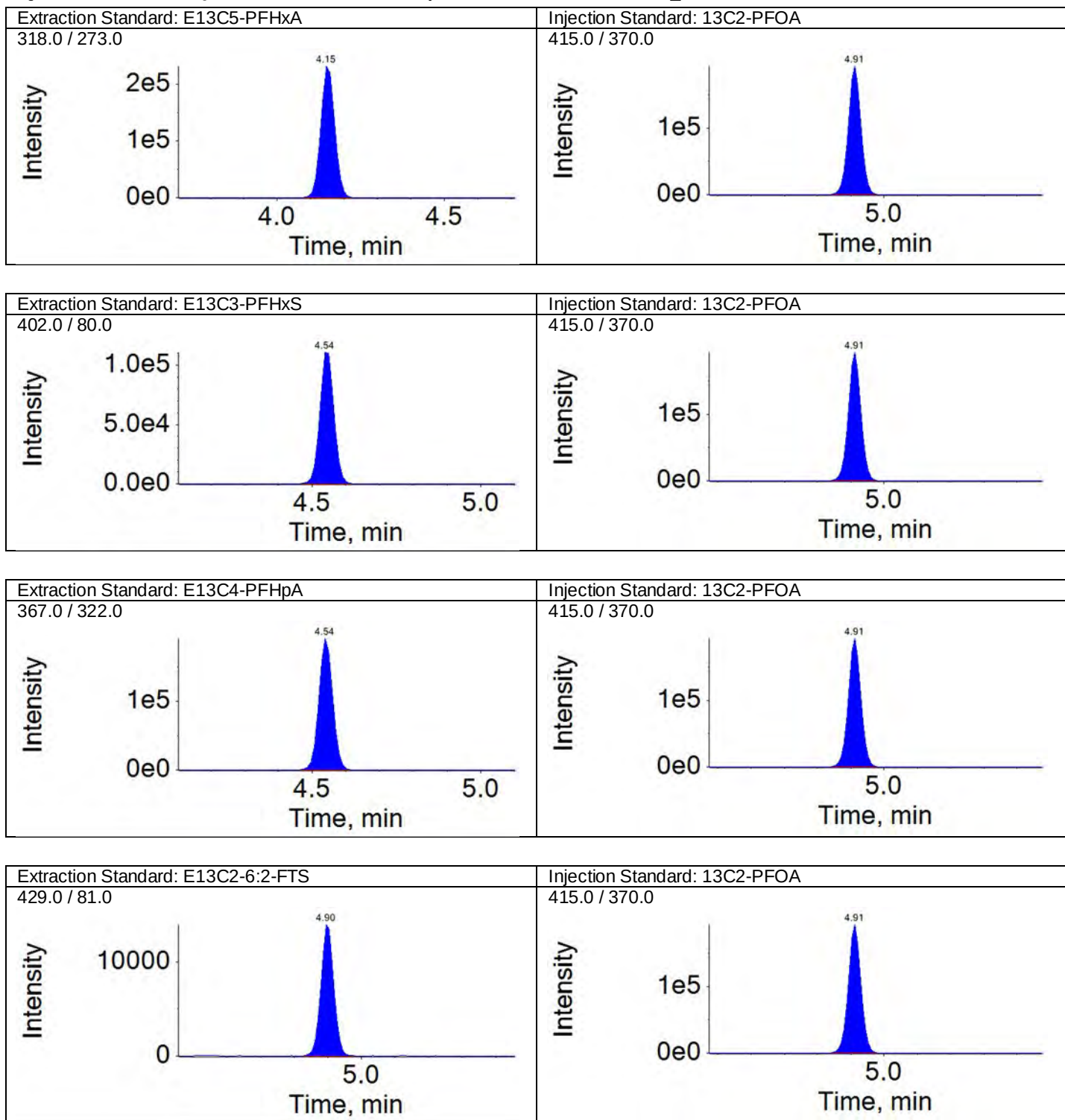
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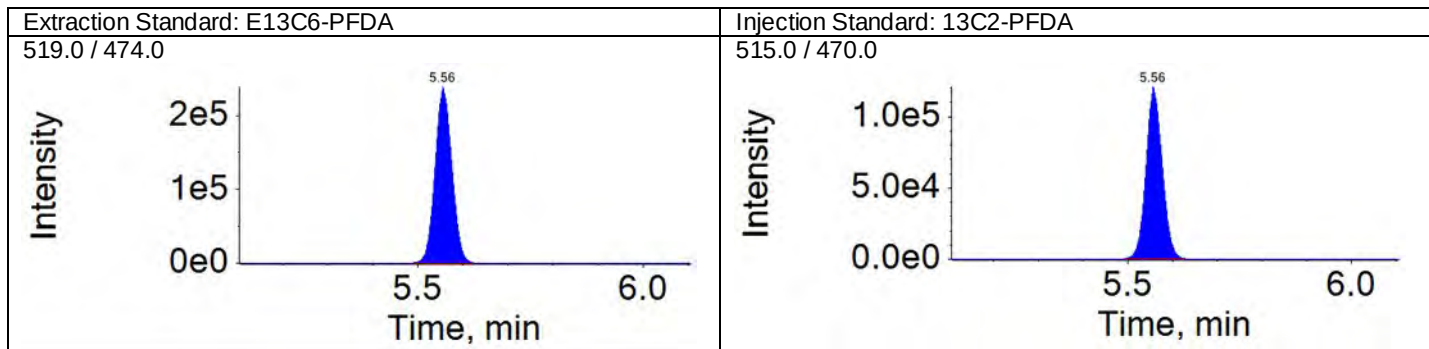
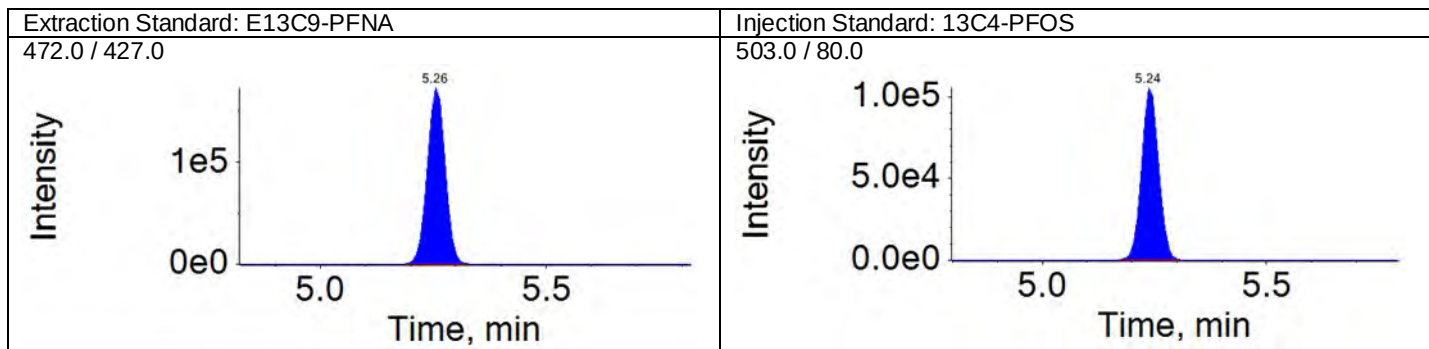
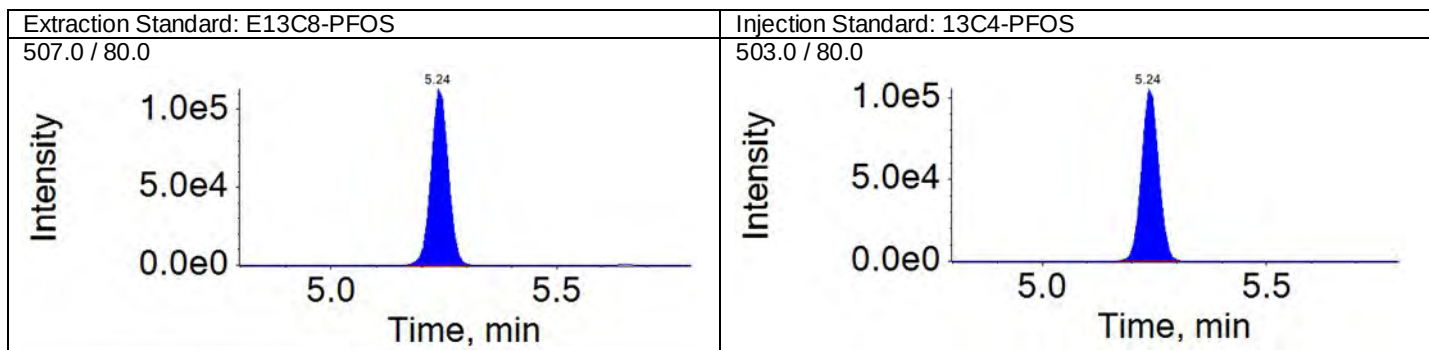
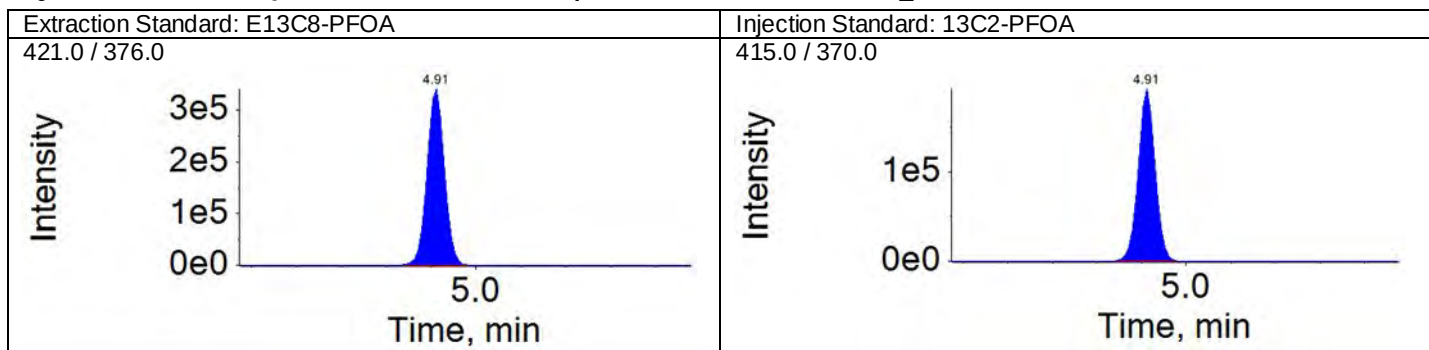
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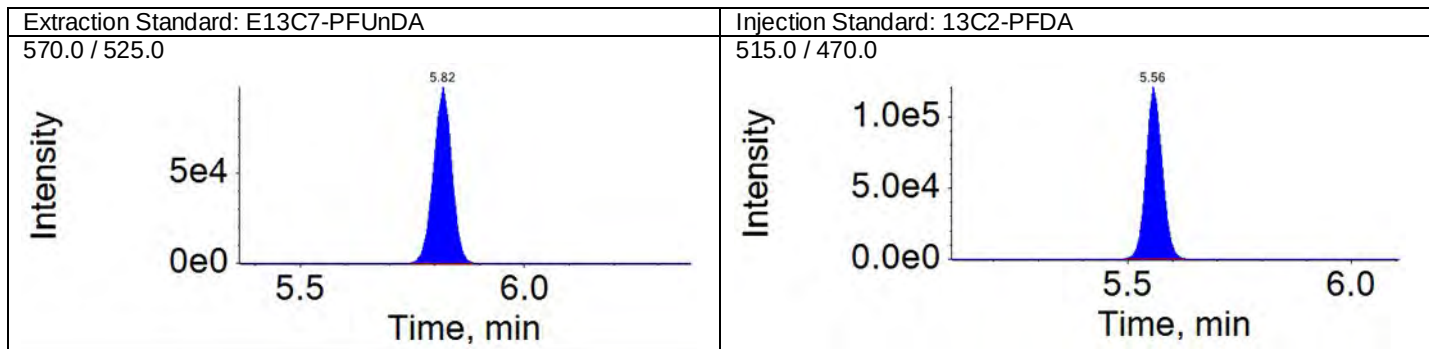
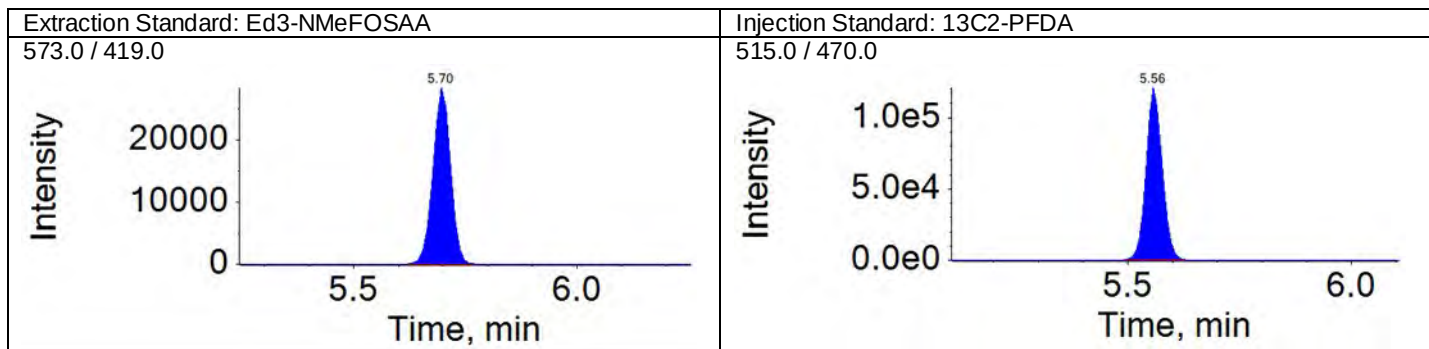
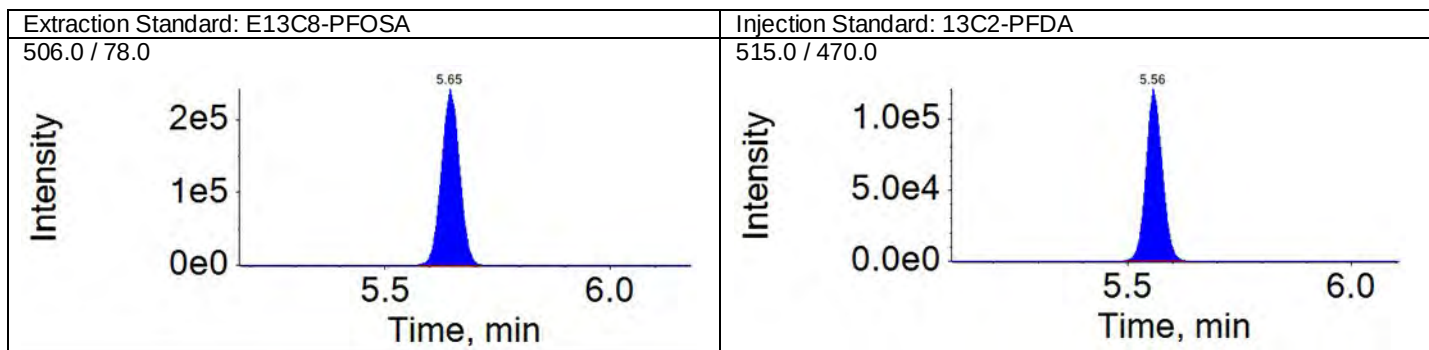
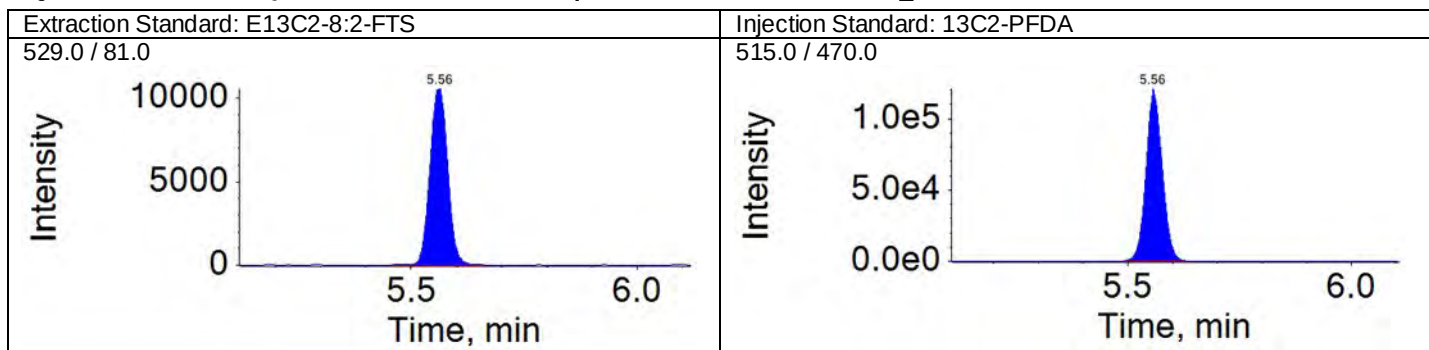
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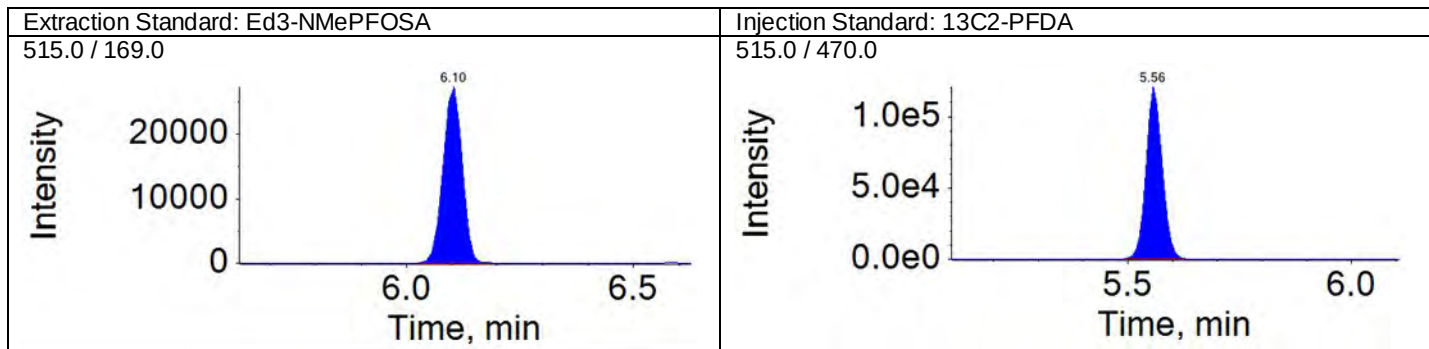
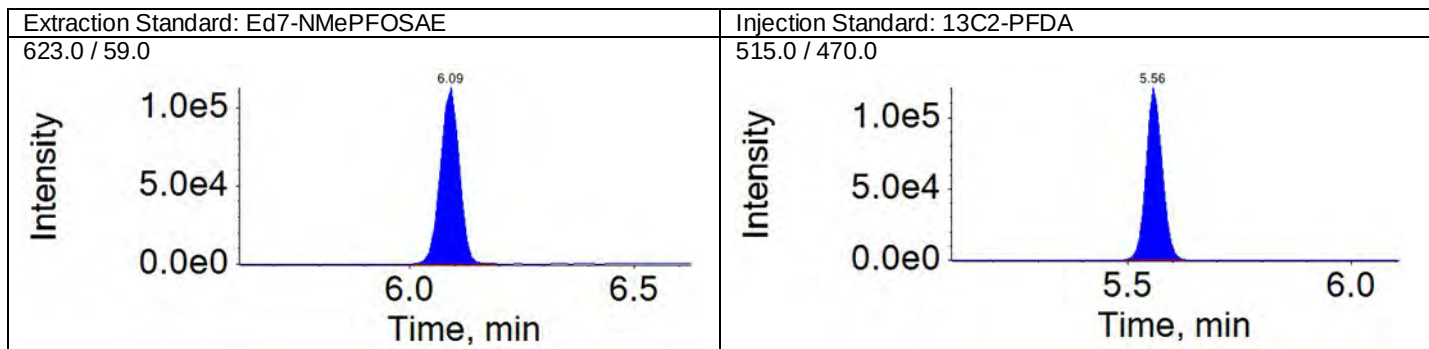
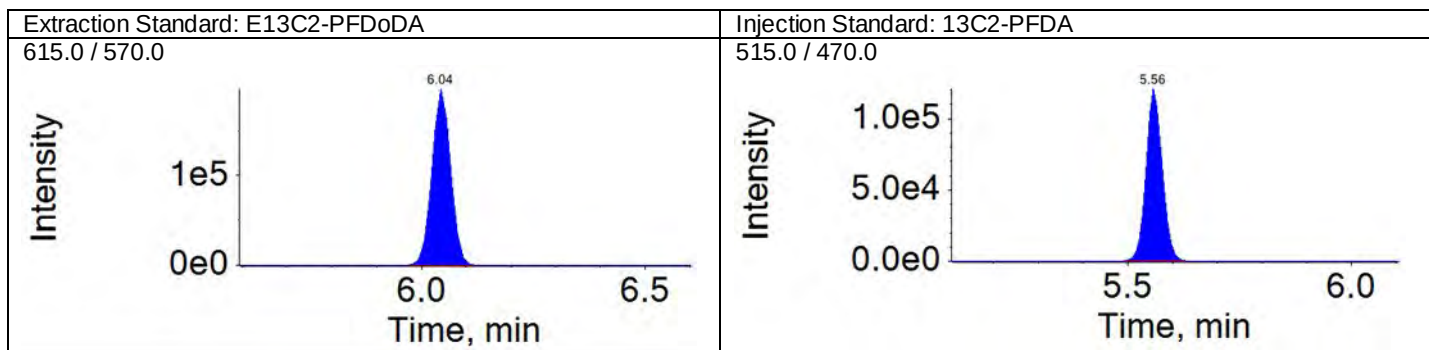
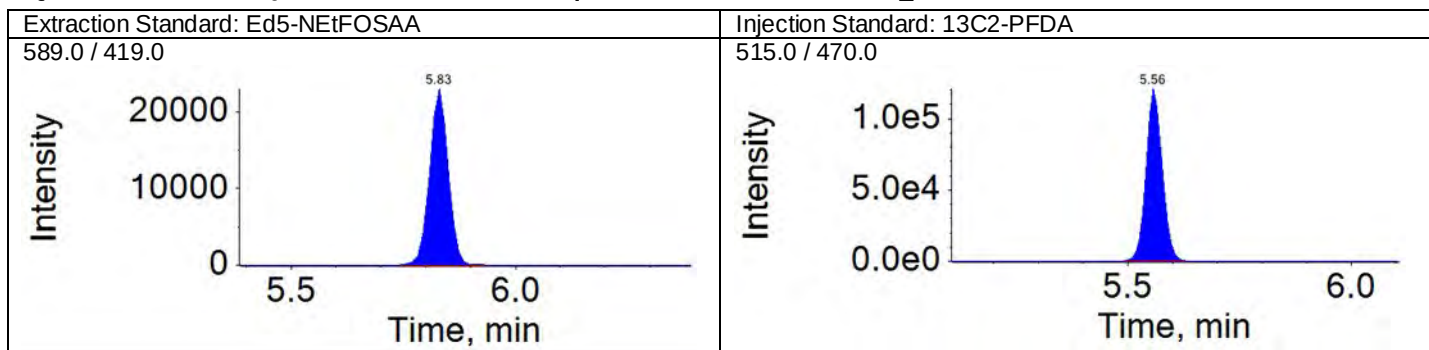
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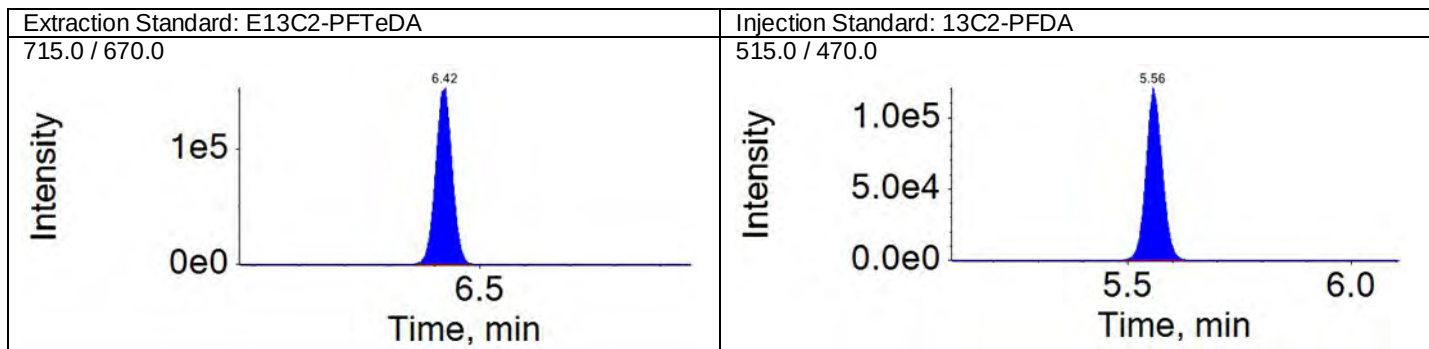
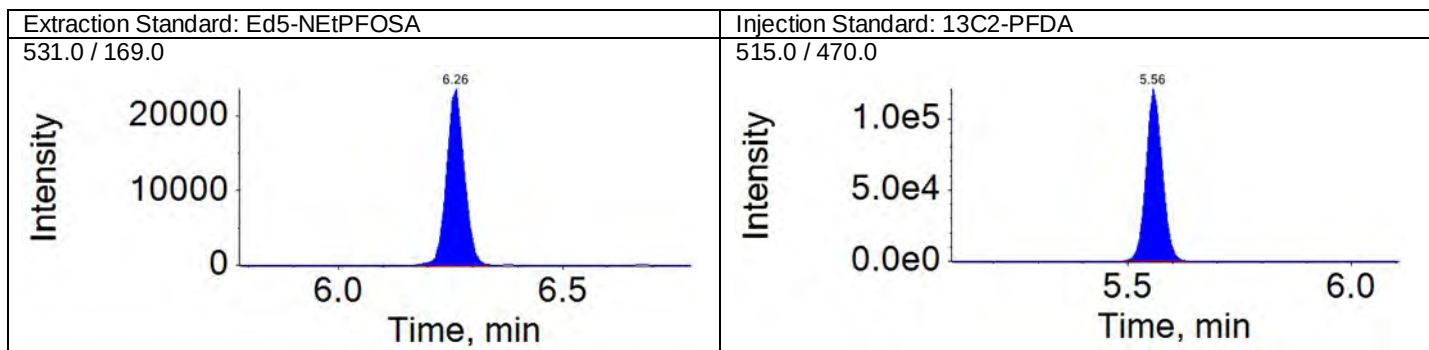
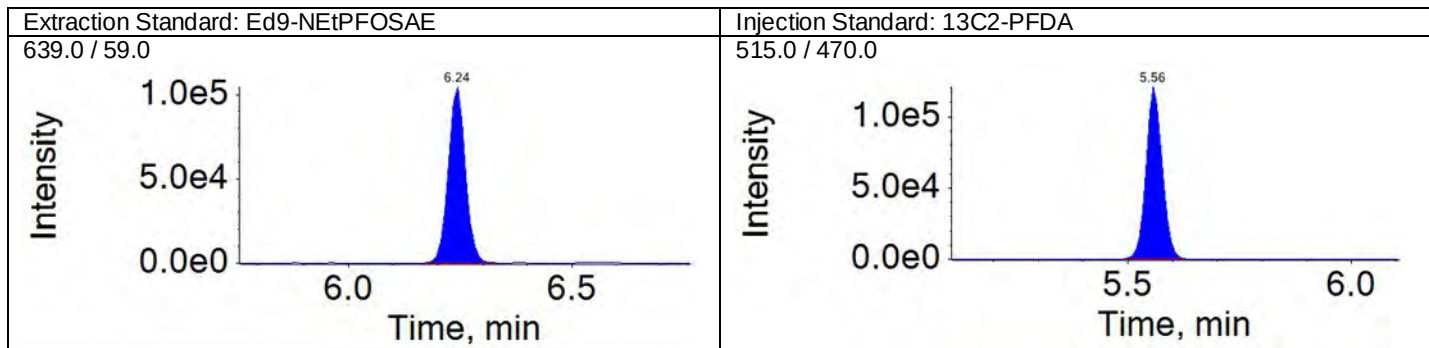
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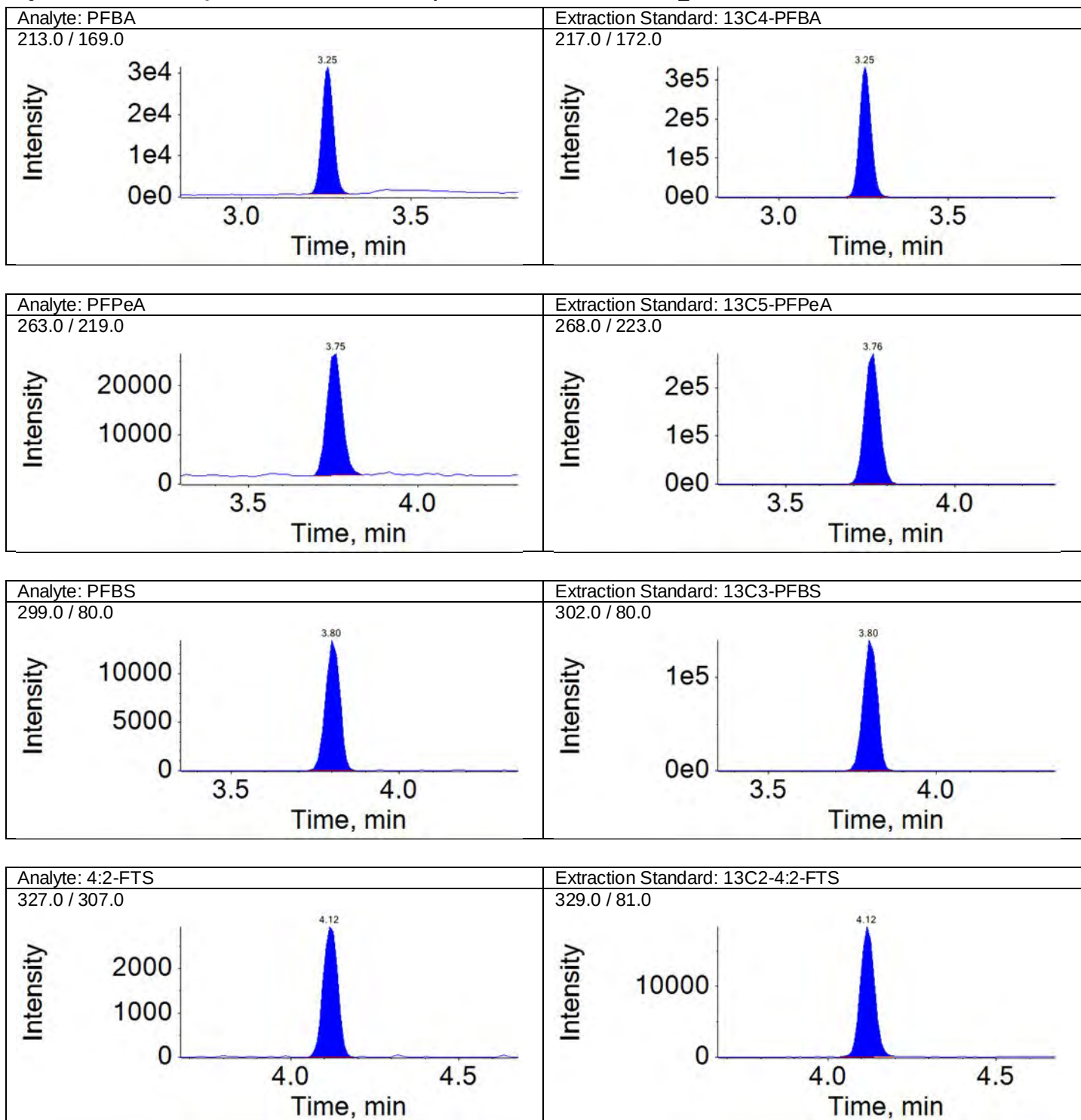
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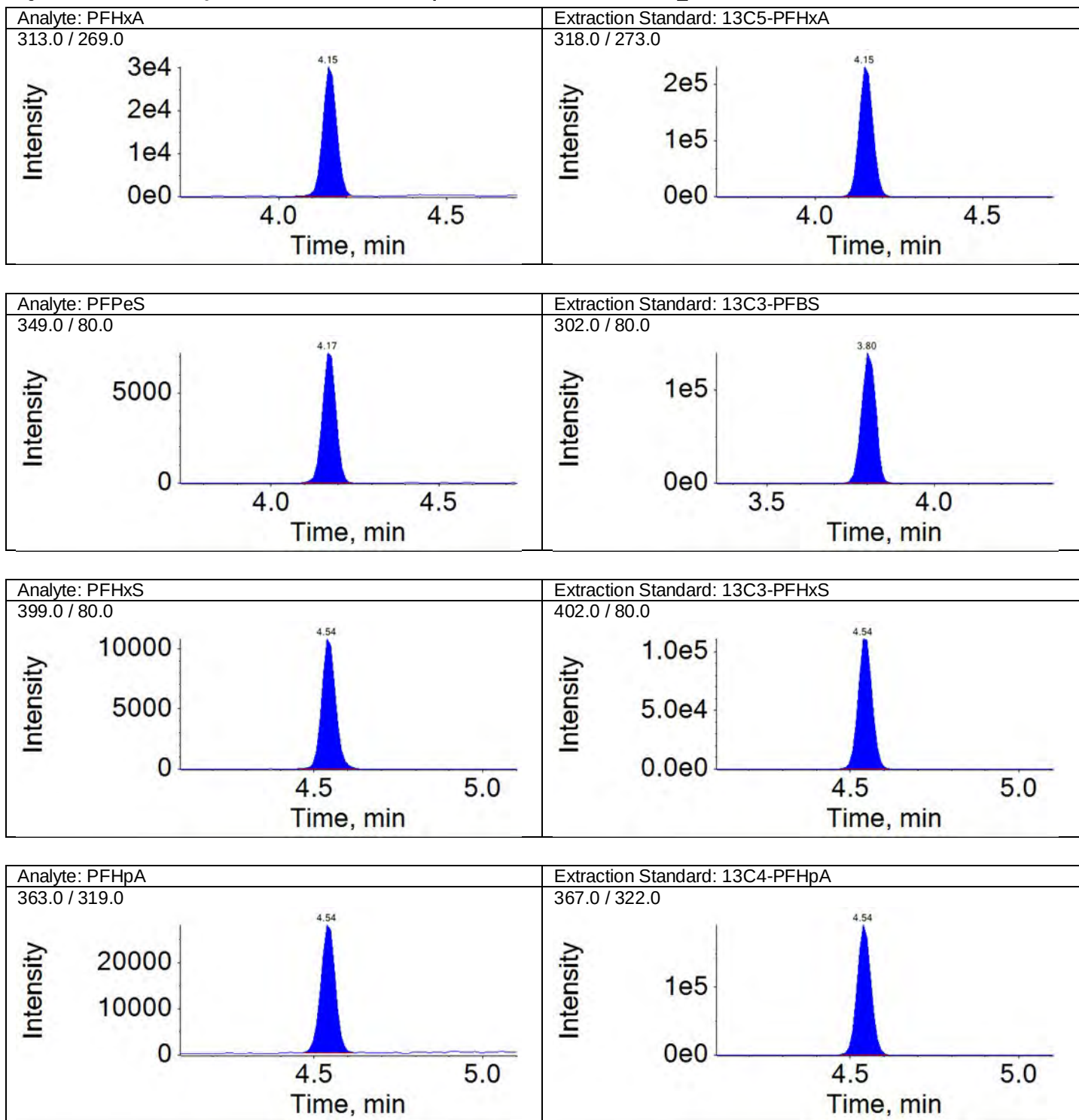
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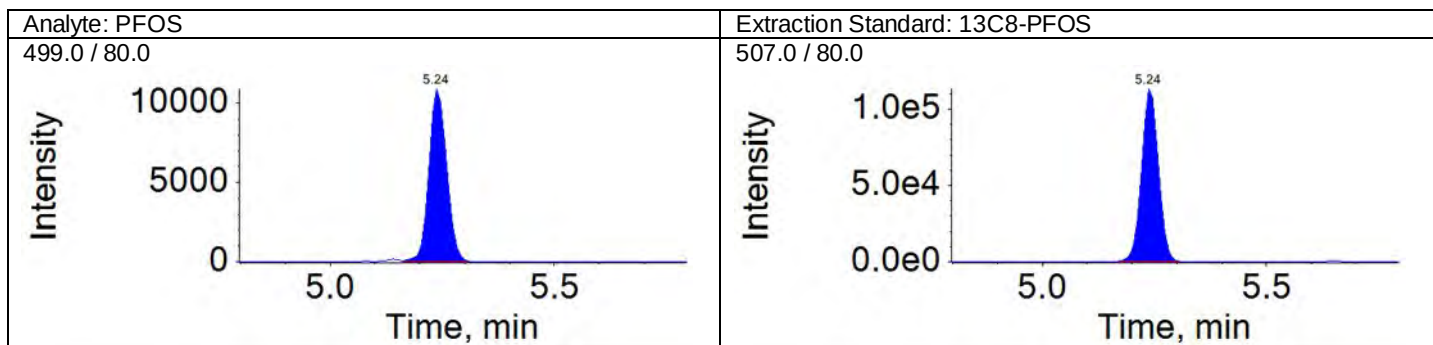
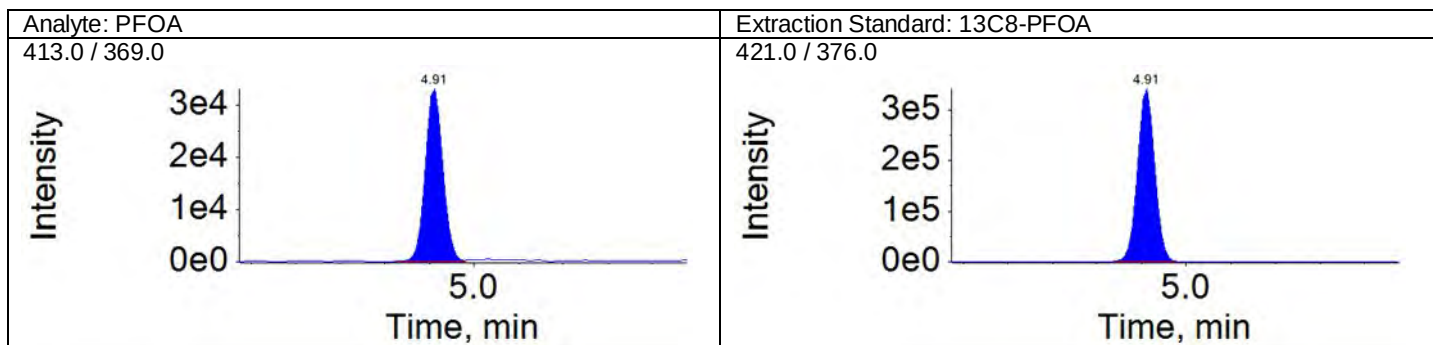
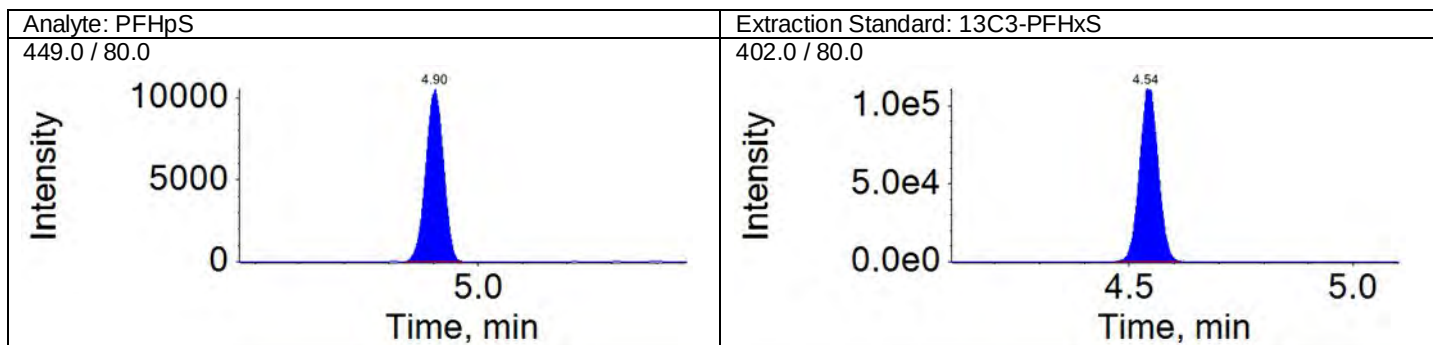
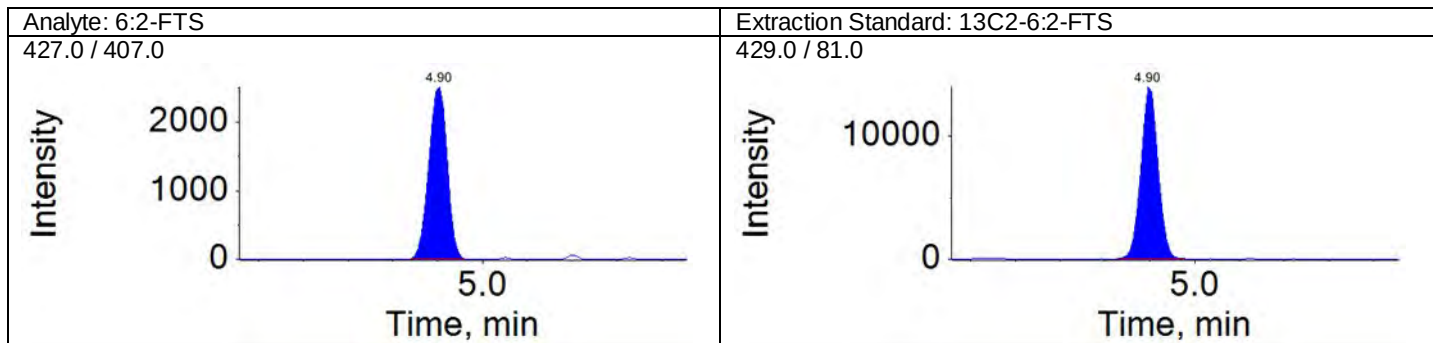
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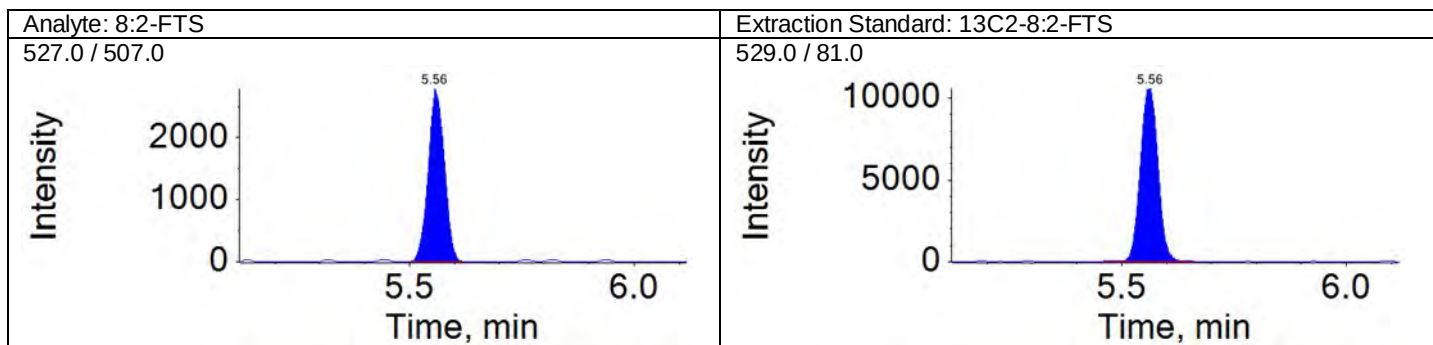
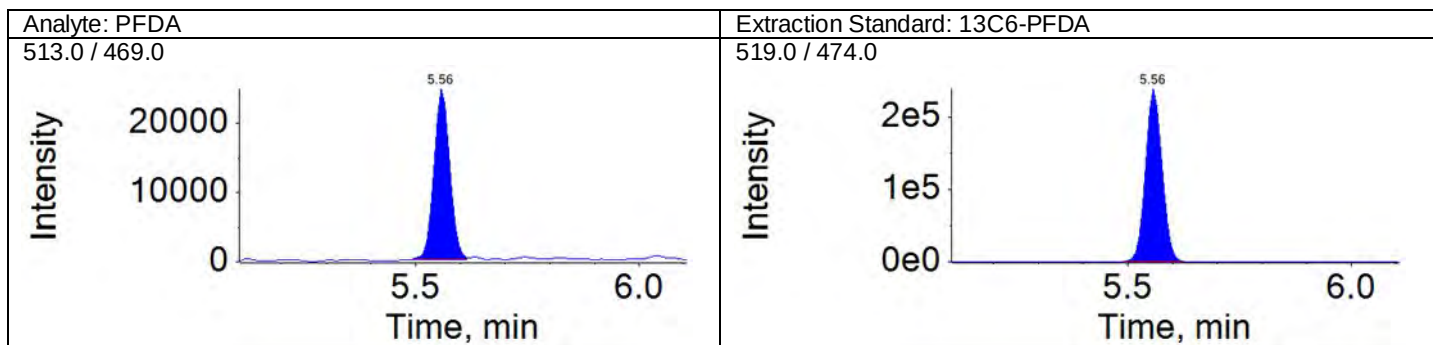
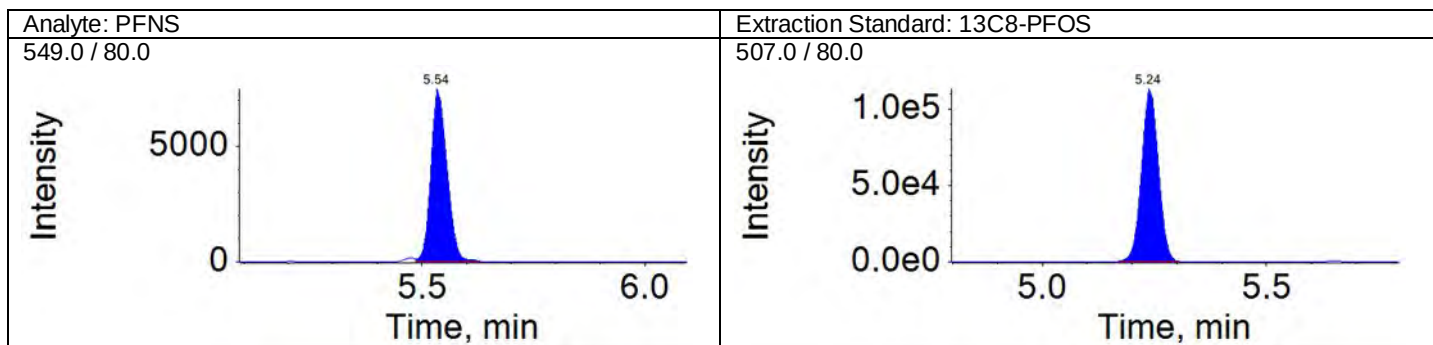
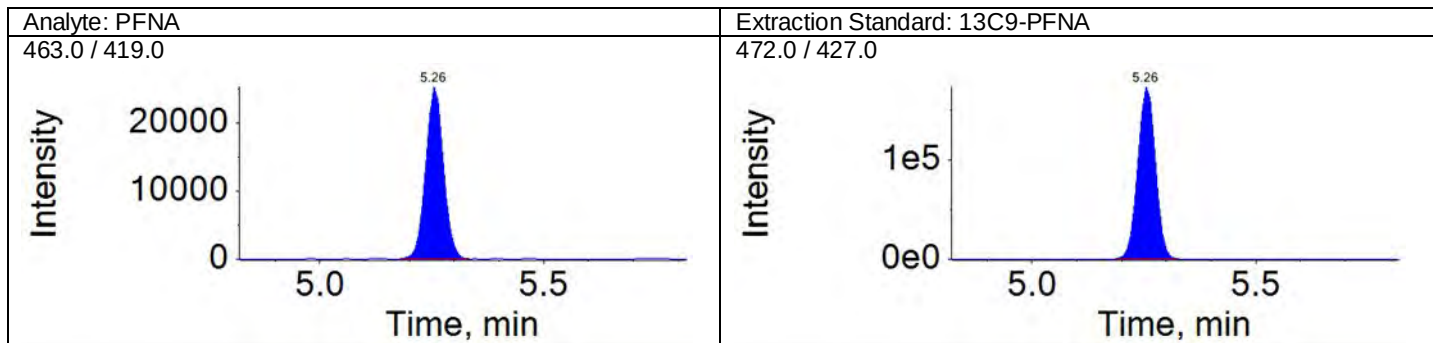
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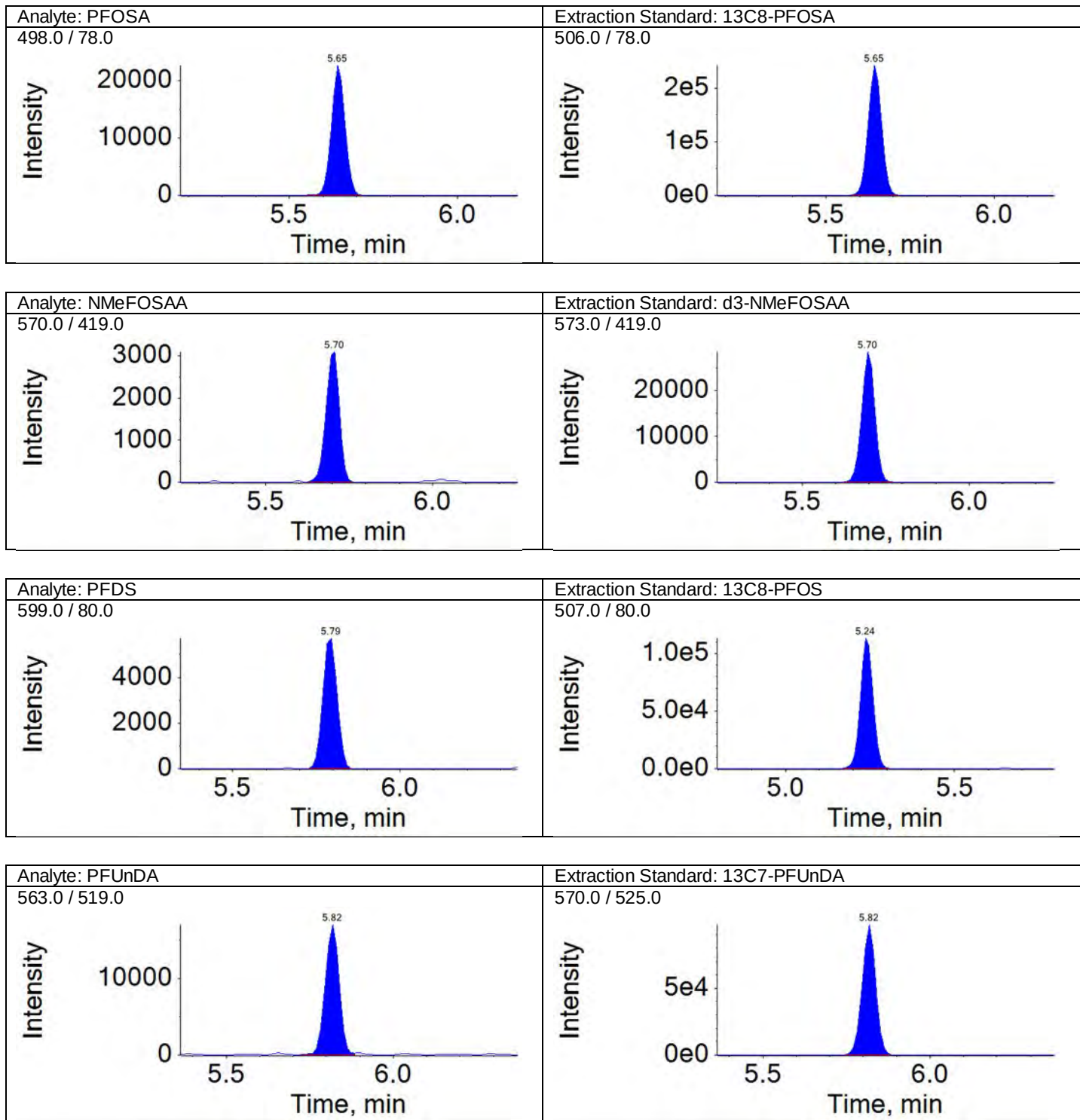
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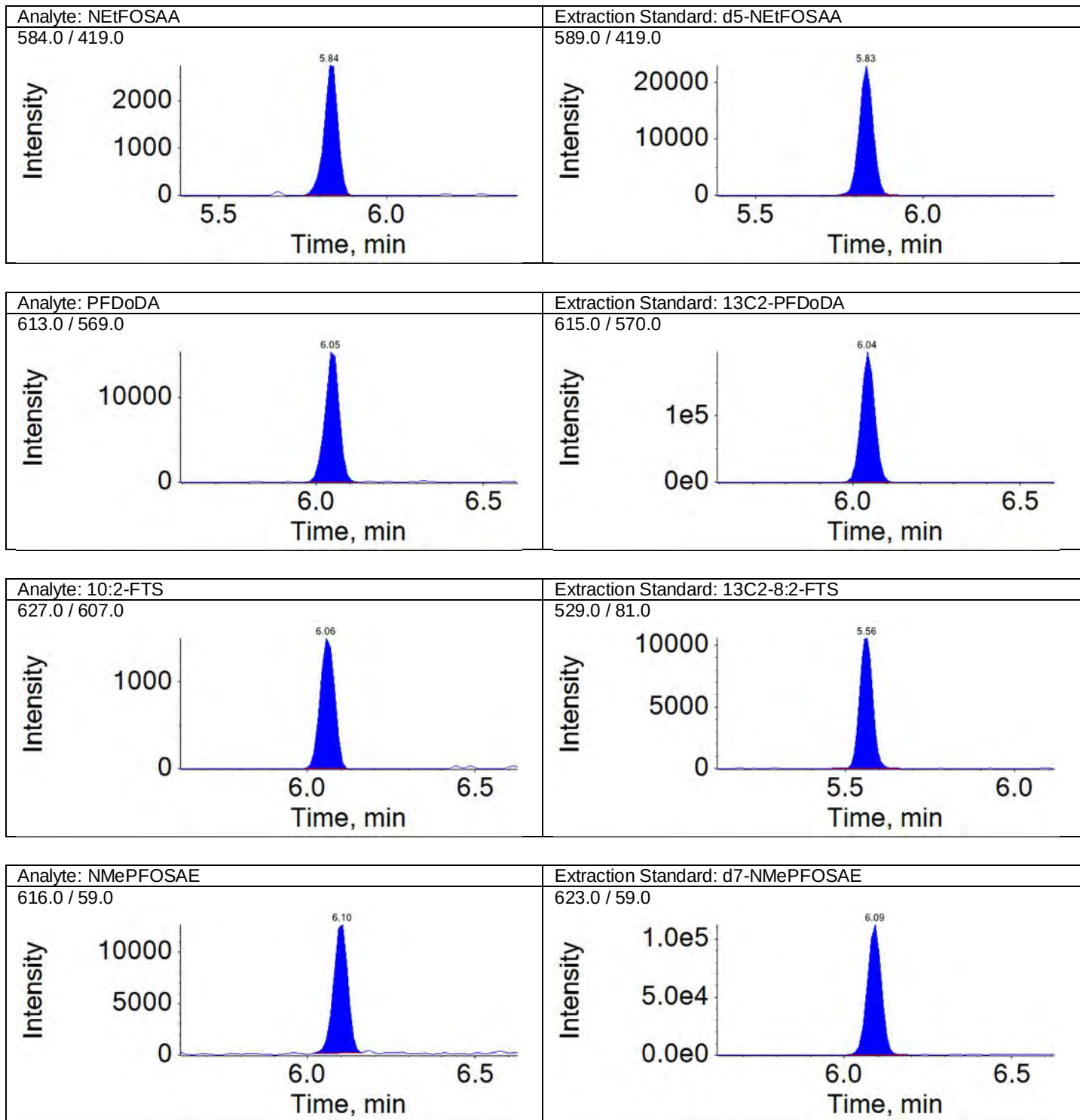
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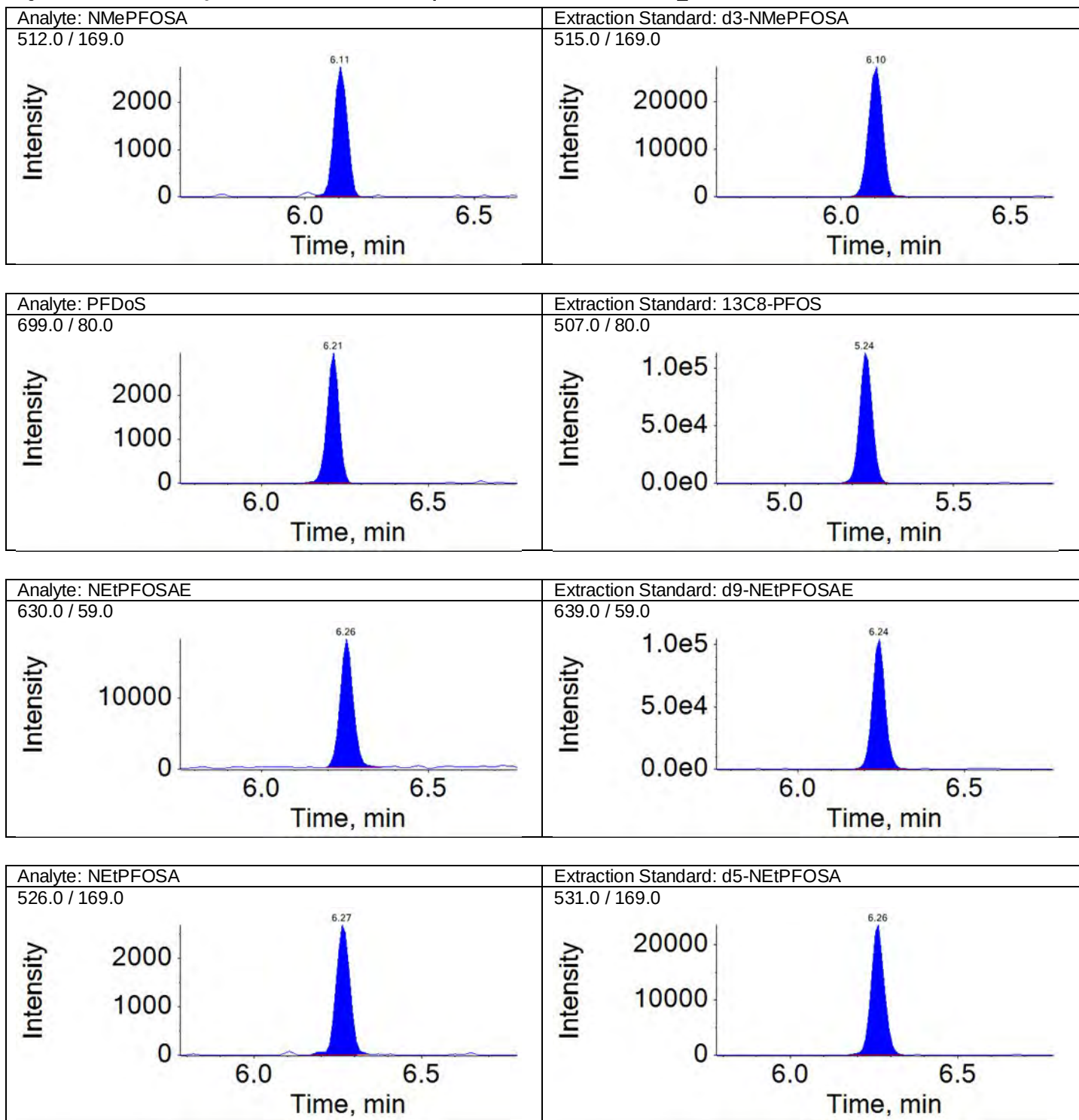
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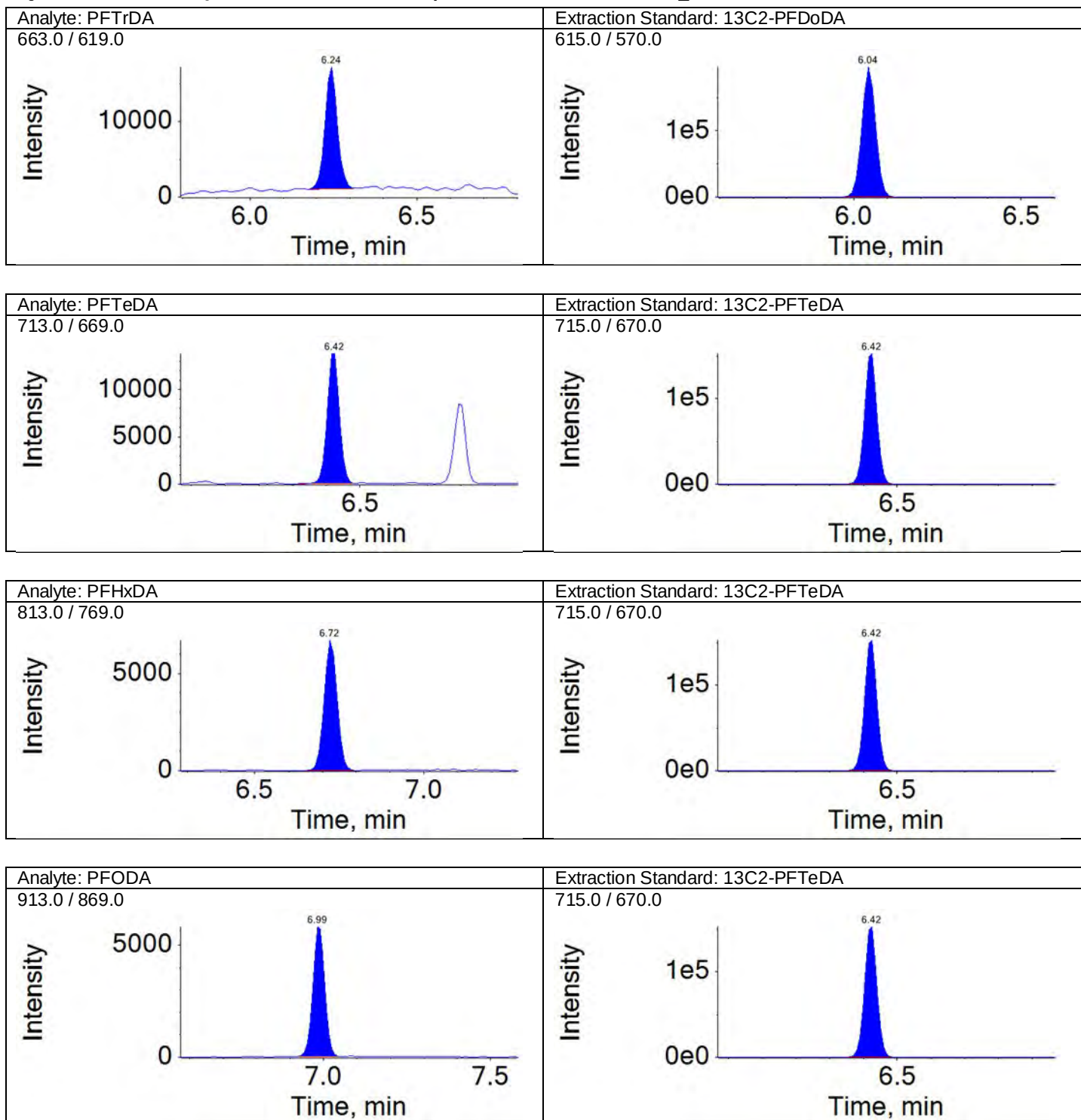
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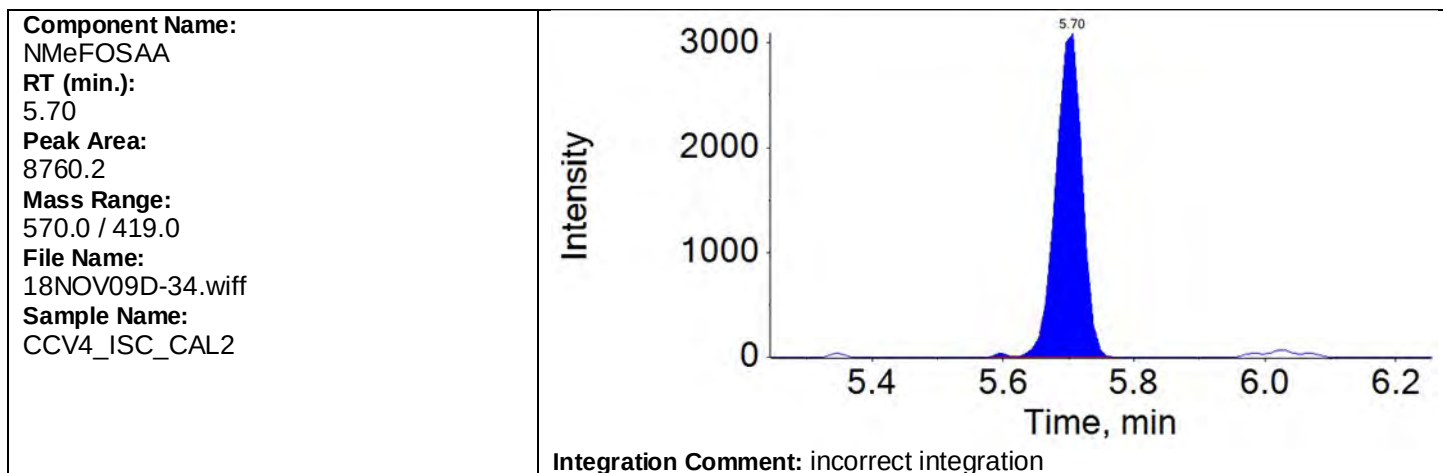
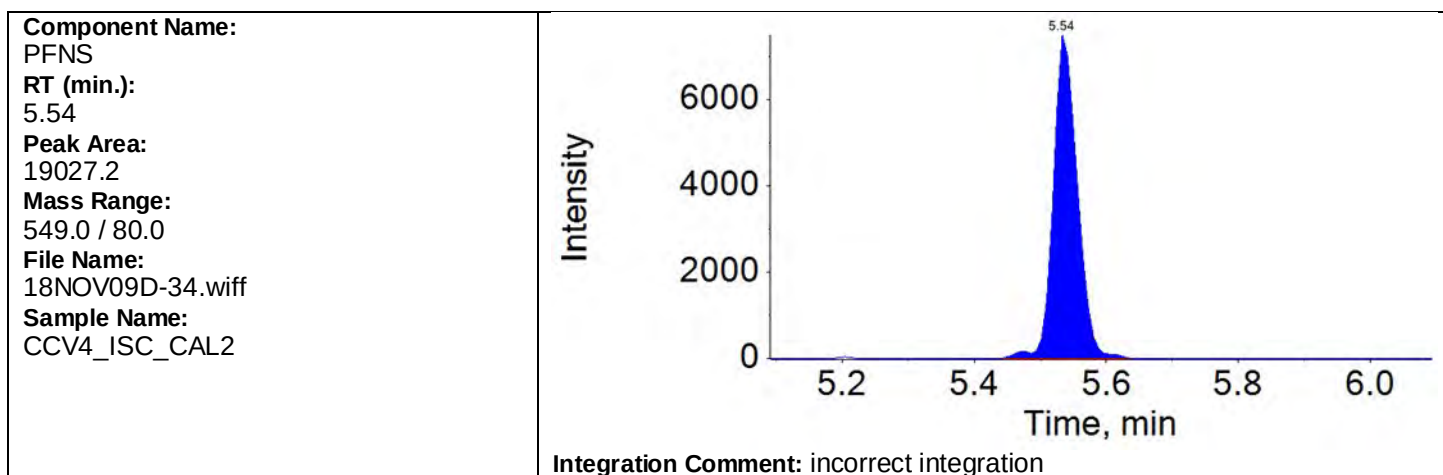
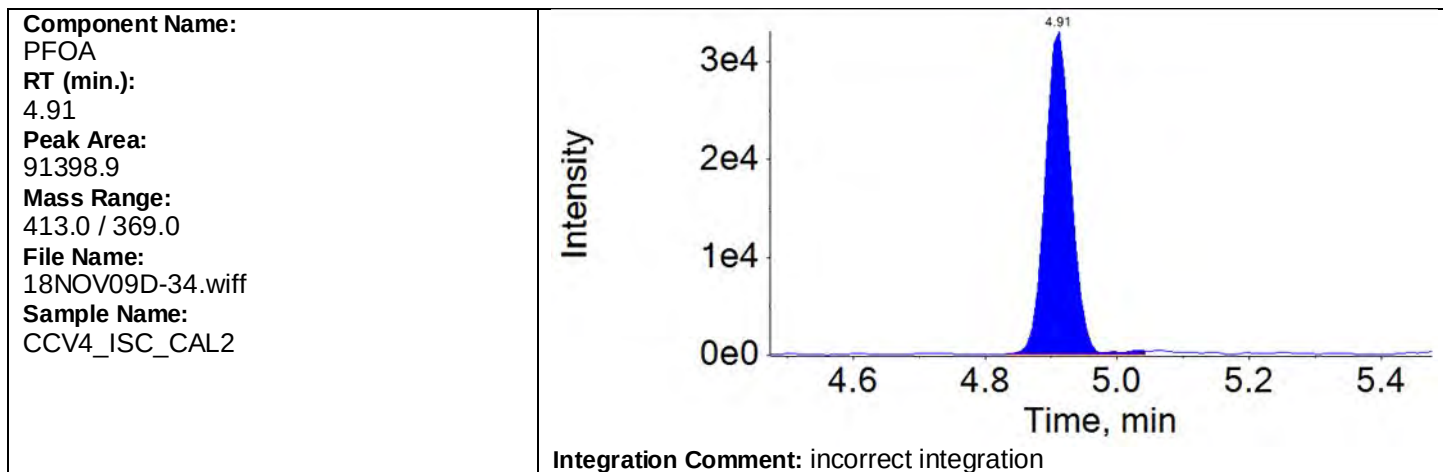
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Results Table Name: 18NOV09DCCV1-4
Results Table Date: 11/9/2018 5:13:22 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13



Results Table Name: 18NOV09DCCV1-4
Results Table Date: 11/9/2018 5:13:22 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

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PfUnDA

RT (min.):

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Peak Area:

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Mass Range:

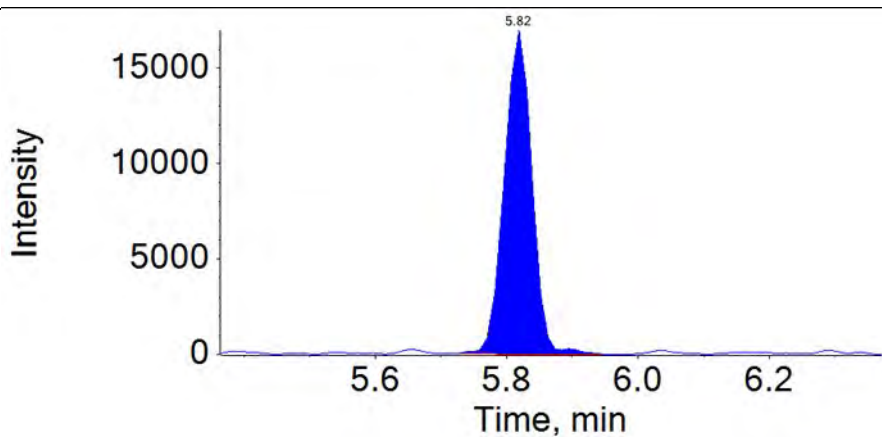
563.0 / 519.0

File Name:

18NOV09D-34.wiff

Sample Name:

CCV4_ISC_CAL2



Integration Comment: incorrect integration

APPROVED

By MCD at 5:19 pm, 11/9/18

REVIEWED

By HMK at 8:09 am, 11/15/18

Results Table Name: 18NOV09DCCV1-4
Results Table Date: 11/9/2018 5:13:22 PM

Acquisition Method: 18AUG13_3uL.dam
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APPROVED

By MCD at 5:19 pm, 11/9/18

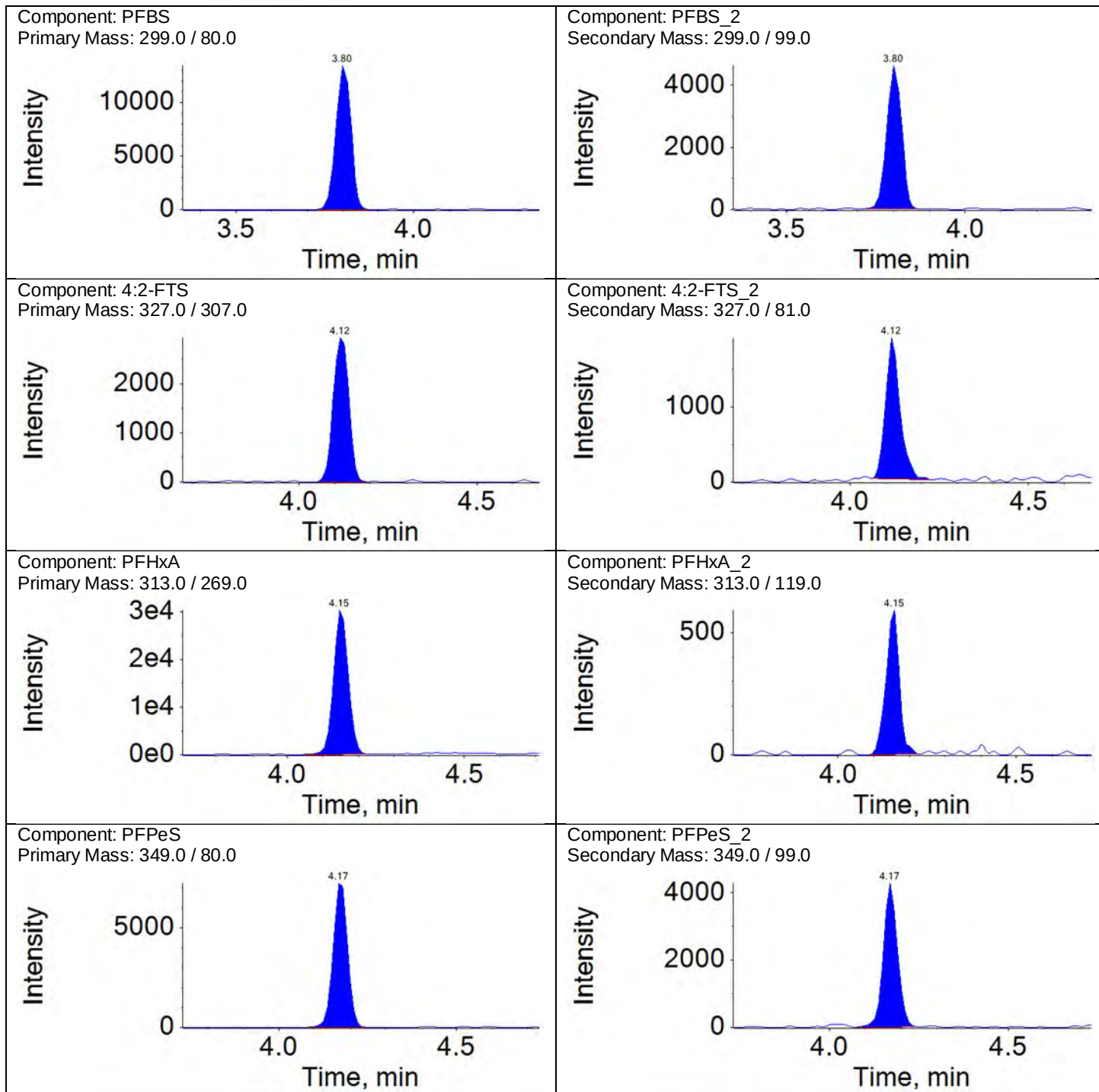
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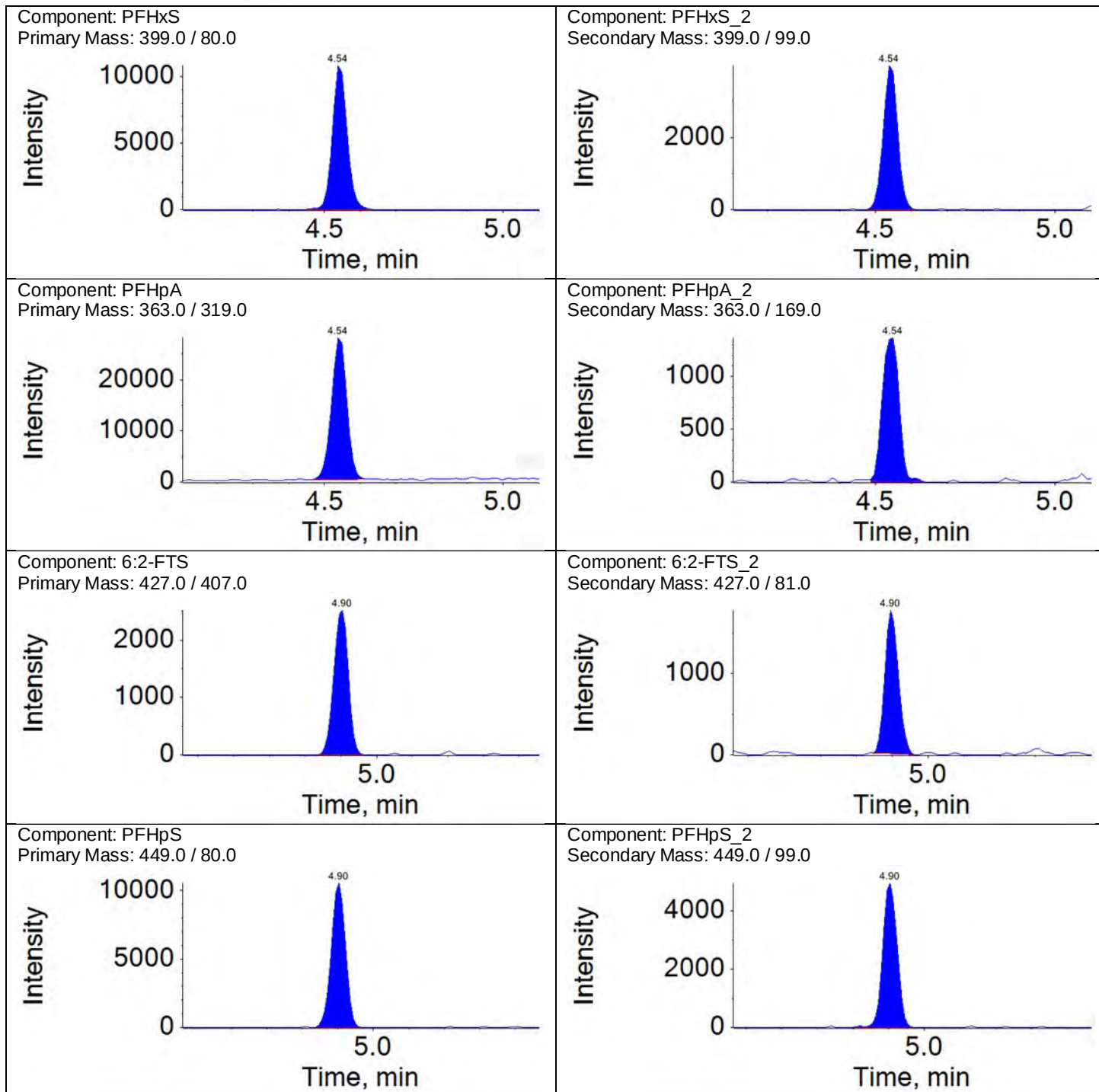
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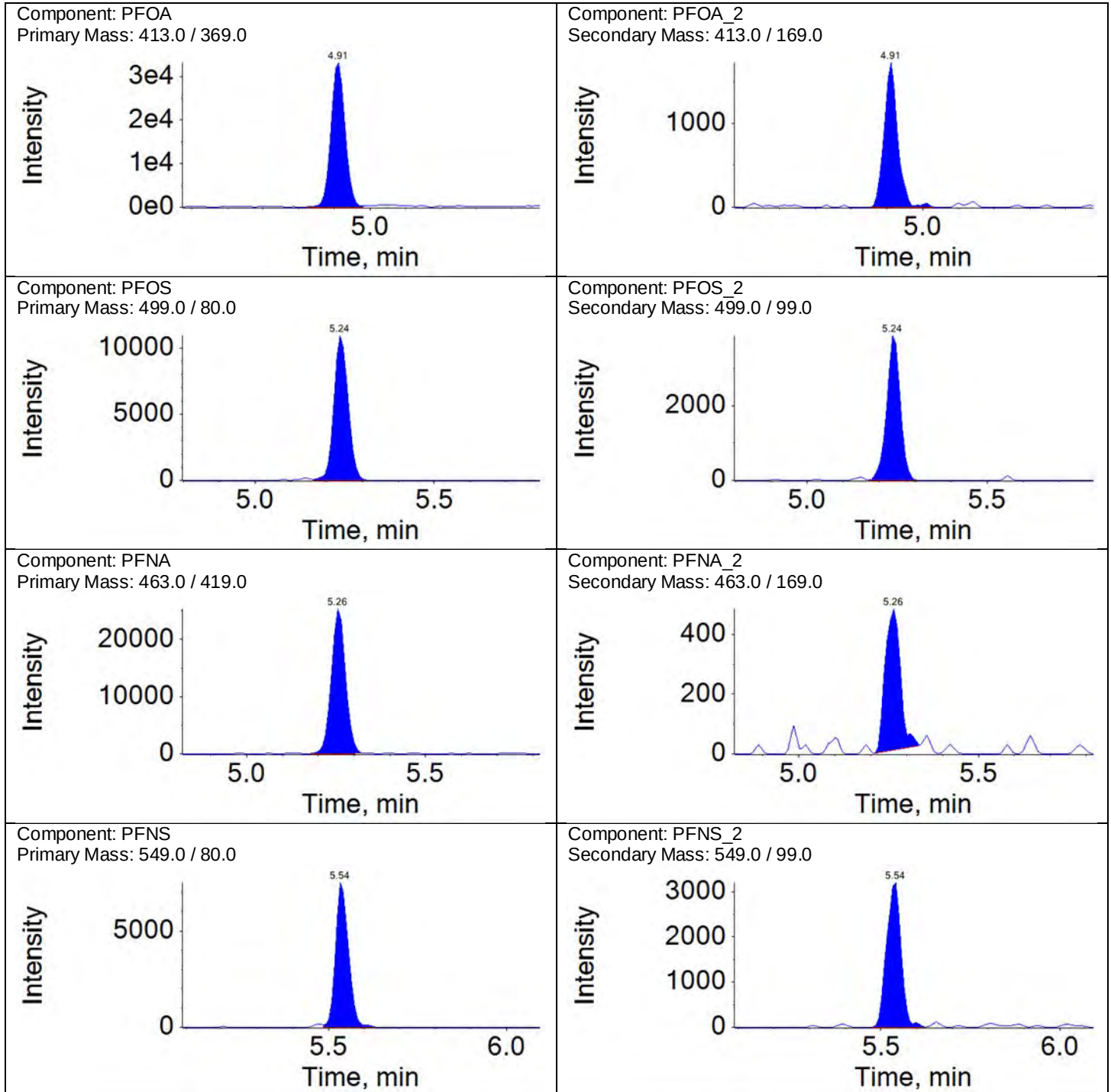
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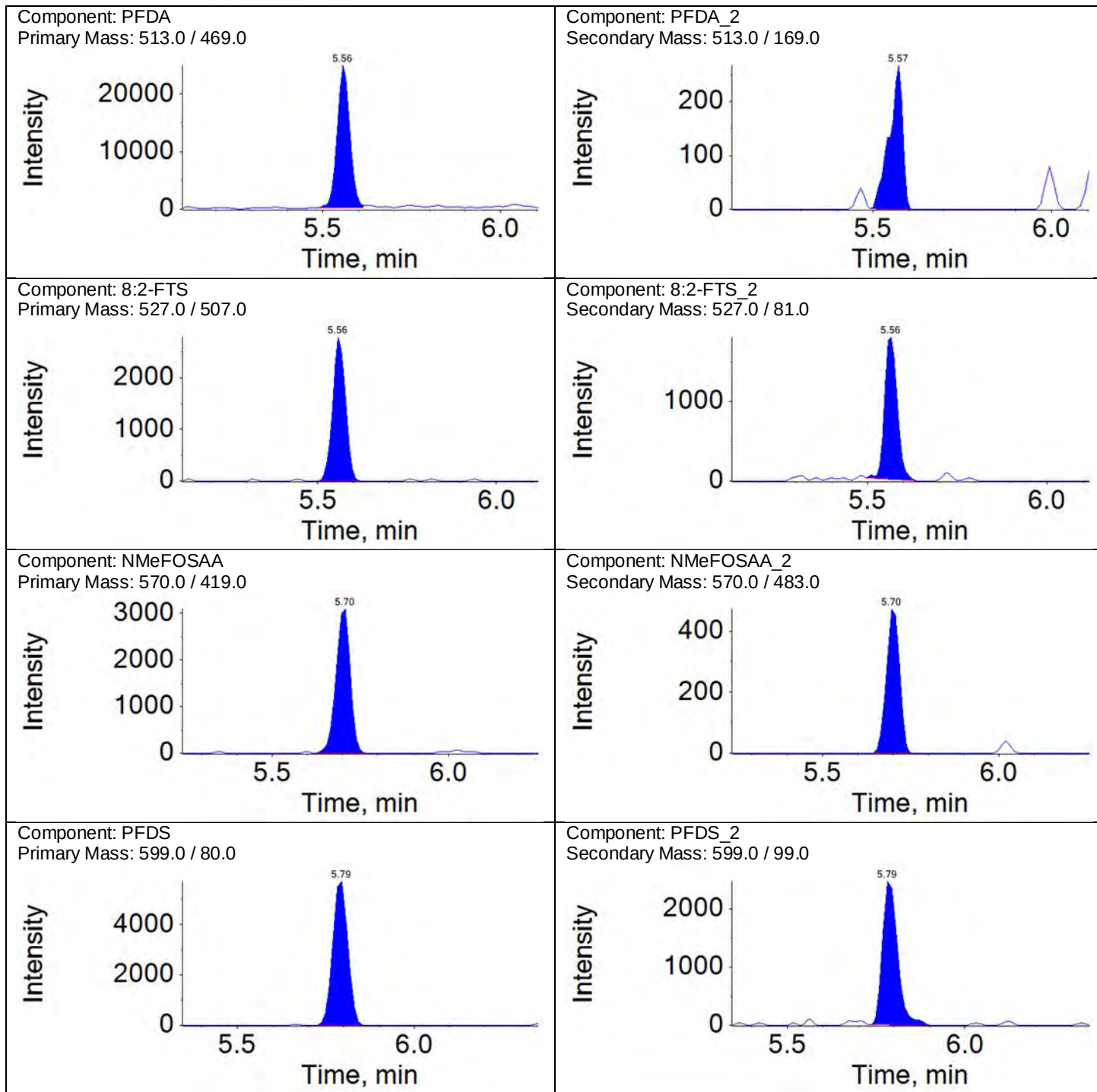
Sample Name: CCV4_ISC_CAL2 Instrument Name: LM27631 File Name: 18NOV09D-34.wiff

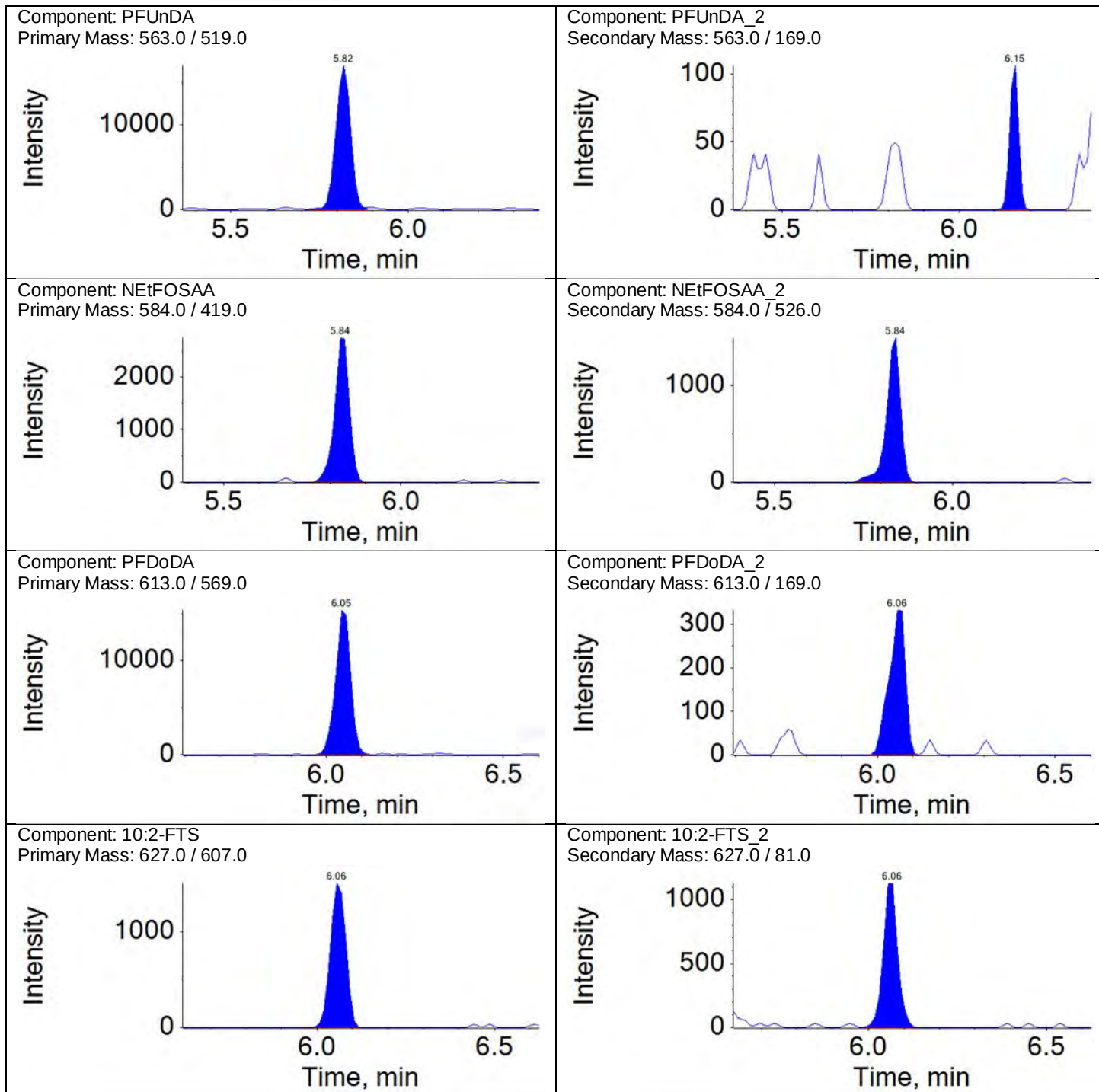
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PFBS_2	3.80	1.00	13359.2	A	N/A	0.3363	-5	50	
4:2-FTS	4.12	1.00	8984.6	A	N/A	0.5910			
4:2-FTS_2	4.12	1.00	5309.5	A	N/A	0.5910	-8	50	
PFHxA	4.15	1.00	87116.8	A	N/A	0.0177			
PFHxA_2	4.15	1.00	1544.1	A	N/A	0.0177	57	50	OOS
PFPeS	4.17	1.10	20288.7	A	N/A	0.5740			
PFPeS_2	4.17	1.10	11646.0	A	N/A	0.5740	6	50	
PFHxS	4.54	1.00	31024.5	A	N/A	0.3608			
PFHxS_2	4.54	1.00	11193.6	A	N/A	0.3608	1	50	
PFHpA	4.54	1.00	82394.7	A	N/A	0.0544			
PFHpA_2	4.54	1.00	4480.6	A	N/A	0.0544	-6	50	
6:2-FTS	4.90	1.00	7118.4	A	N/A	0.6462			
6:2-FTS_2	4.90	1.00	4599.8	A	N/A	0.6462	-5	50	
PFHpS	4.90	1.08	29012.2	A	N/A	0.4761			
PFHpS_2	4.90	1.08	13811.9	A	N/A	0.4761	21	50	
PFOA	4.91	1.00	90190.7	M	N/A	0.0501			
PFOA_2	4.91	1.00	4514.9	A	N/A	0.0501	-22	50	
PFOS	5.24	1.00	29923.0	A	N/A	0.3368			
PFOS_2	5.24	1.00	10078.2	A	N/A	0.3368	-4	50	
PFNA	5.26	1.00	69237.7	A	N/A	0.0202			
PFNA_2	5.26	1.00	1400.6	A	N/A	0.0202	-2	50	
PFNS	5.54	1.06	18738.1	M	N/A	0.4817			
PFNS_2	5.54	1.06	9026.8	A	N/A	0.4817	-1	50	
PFDA	5.56	1.00	60233.7	A	N/A	0.0116			
PFDA_2	5.57	1.00	696.1	A	N/A	0.0116	112	50	OOS
8:2-FTS	5.56	1.00	6893.8	A	N/A	0.6342			
8:2-FTS_2	5.56	1.00	4372.4	A	N/A	0.6342	2	50	
NMeFOSAA	5.70	1.00	8710.5	M	N/A	0.1407			
NMeFOSAA_2	5.70	1.00	1225.6	A	N/A	0.1407	-35	50	
PFDS	5.79	1.10	16973.6	A	N/A	0.4303			
PFDS_2	5.79	1.10	7303.9	A	N/A	0.4303	-6	50	
PFUnDA	5.82	1.00	49049.1	M	N/A	0.0038			
PFUnDA_2	6.15	1.06	184.5	A	N/A	0.0038	23	50	
NEtFOSAA	5.84	1.00	7913.7	A	N/A	0.5108			
NEtFOSAA_2	5.84	1.00	4042.2	A	N/A	0.5108	-16	50	
PFDODA	6.05	1.00	45390.8	A	N/A	0.0235			
PFDODA_2	6.06	1.00	1066.7	A	N/A	0.0235	124	50	OOS
10:2-FTS	6.06	1.09	4557.6	A	N/A	0.7009			
10:2-FTS_2	6.06	1.09	3194.3	A	N/A	0.7009	-2	50	
PFTTrDA	6.24	1.03	41389.7	A	N/A	0.0090			
PFTTrDA_2	6.25	1.03	370.8	A	N/A	0.0090	-6	50	
PFTeDA	6.42	1.00	34501.3	A	N/A	0.0022			
PFTeDA_2	6.41	1.00	75.2	A	N/A	0.0022	-60	50	OOS
PFHxDA	6.72	1.05	17829.3	A	N/A	0.0633			
PFHxDA_2	6.72	1.05	1128.3	A	N/A	0.0633	7	50	
PFODA	6.99	1.09	14222.9	A	N/A	0.0307			
PFODA_2	6.98	1.09	436.8	A	N/A	0.0307	20	50	

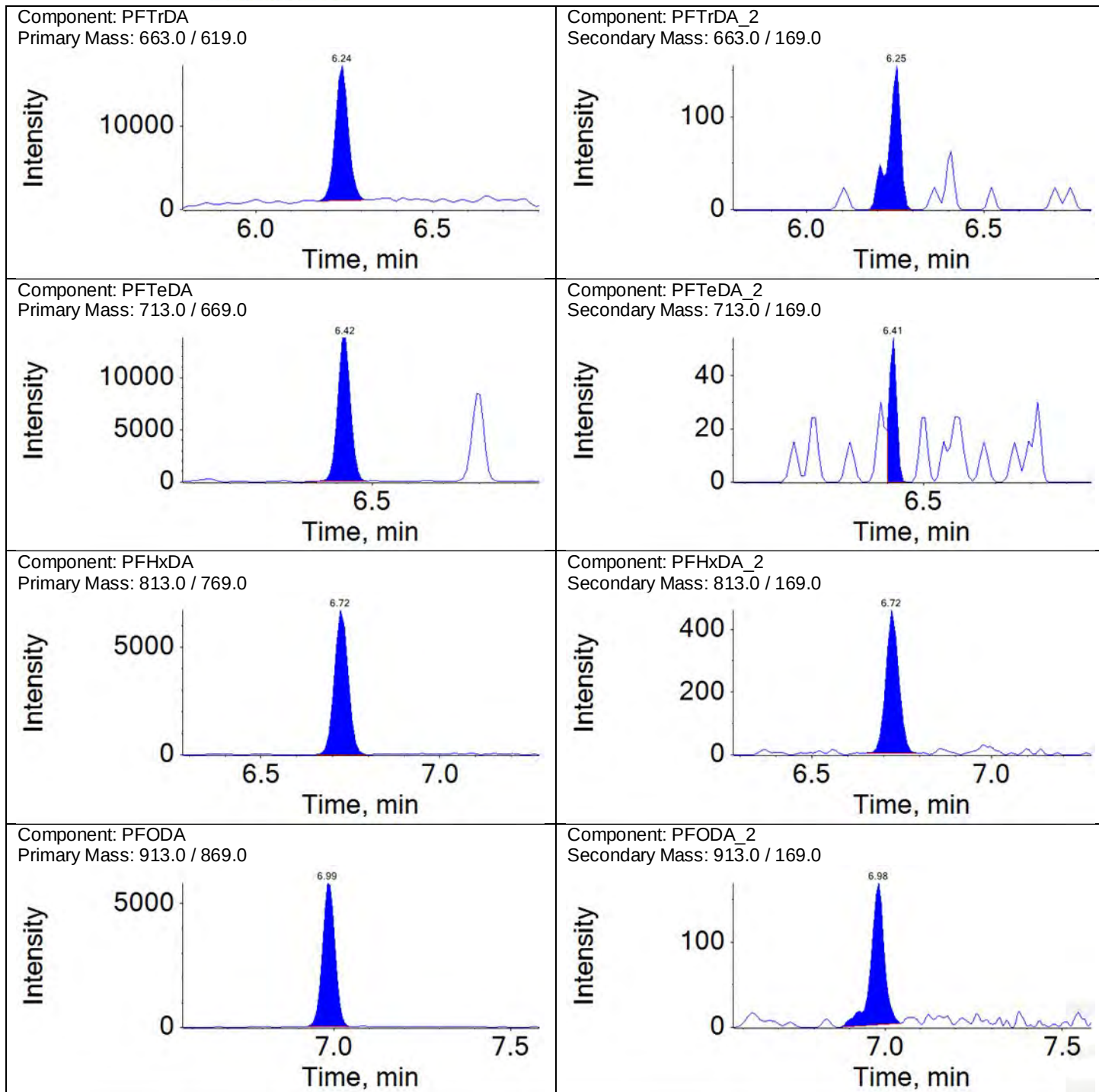










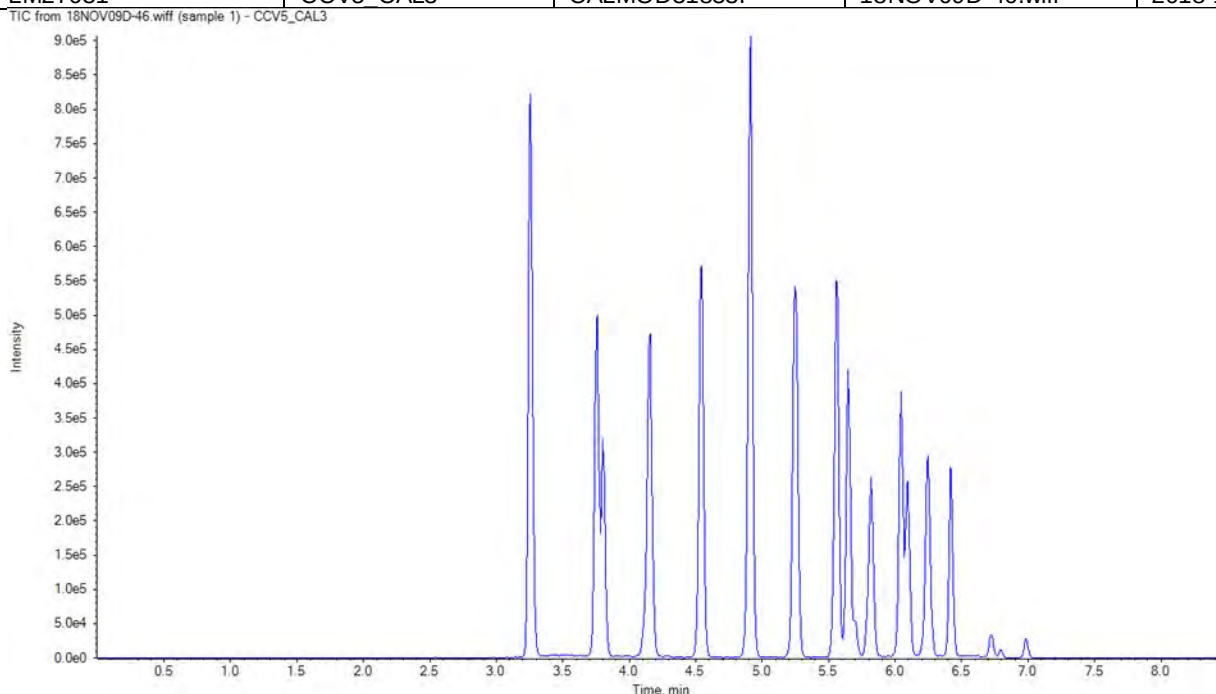


Continuing Calibration Verification

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:20:28 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALMOD31833F	18NOV09D-46.wiff	2018-11-09T11:24:54



Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	731333.3	725974.7	1	50	
13C2-PFOA	5.0	511562.3	506876.7	1	50	
13C4-PFOS	4.8	281089.6	274910.1	2	50	
13C2-PFDA	5.0	305963.5	307276.7	0	50	

Continuing Calibration Verification

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:20:28 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALMOD31833F	18NOV09D-46.wiff	2018-11-09T11:24:54

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	288761.9	10	13C4-PFBA	788373.5	5.0	0.366	3.25	1.000	2.000	2.144	7	30	
PFPeA	287442.1	12	13C5-PFPeA	835518.1	5.0	0.344	3.76	1.000	2.000	2.045	2	30	
PFBS	151175.3	11	13C3-PFBS	427441.3	4.7	0.354	3.80	1.000	1.770	1.783	1	30	
4:2-FTS	40605.7	11	13C2-4:2-FTS	51683.7	4.7	0.786	4.12	1.000	1.868	2.112	13	30	
PFHxA	344619.9	11	13C5-PFHxA	680489.2	5.0	0.506	4.15	1.000	2.000	2.172	9	30	
PFPeS	80090.1	11	13C3-PFBS	427441.3	4.7	0.187	4.17	1.100	1.880	1.848	-2	30	
PFHxS	123217.2	11	13C3-PFHxS	326039.5	4.7	0.378	4.54	1.000	1.890	1.916	1	30	
PFHpA	343889.9	12	13C4-PFHxA	548856.4	5.0	0.627	4.54	1.000	2.000	2.107	5	30	
6:2-FTS	29308.6	11	13C2-6:2-FTS	35423.0	4.8	0.827	4.90	1.000	1.896	2.064	9	30	
PFHpS	117458.5	11	13C3-PFHxS	326039.5	4.7	0.360	4.90	1.080	1.900	1.885	-1	30	
PFOA	345163.5	11	13C8-PFOA	953732.9	5.0	0.362	4.91	1.000	2.000	2.038	2	30	
PFOS	111388.6	11	13C8-PFOS	296104.2	4.8	0.376	5.24	1.000	1.910	1.951	2	30	
PFNA	289641.1	11	13C9-PFNA	501982.0	5.0	0.577	5.26	1.000	2.000	2.156	8	30	
PFNS	67987.4	11	13C8-PFOS	296104.2	4.8	0.230	5.54	1.060	1.920	1.820	-5	30	
PFDA	226543.5	11	13C6-PFDA	613312.0	5.0	0.369	5.56	1.000	2.000	2.032	2	30	
8:2-FTS	23910.4	11	13C2-8:2-FTS	25131.8	4.8	0.951	5.56	1.000	1.916	2.144	12	30	
PFOSA	254035.2	11	13C8-PFOSA	688994.6	5.0	0.369	5.65	1.000	2.000	1.993	0	30	
NMeFOSAA	30328.2	11	d3-NMeFOSAA	78870.0	5.0	0.385	5.70	1.000	2.000	1.979	-1	30	
PFDS	60328.0	11	13C8-PFOS	296104.2	4.8	0.204	5.79	1.110	1.930	1.946	1	30	
PFUnDA	192042.3	11	13C7-PFUnDA	274076.1	5.0	0.701	5.82	1.000	2.000	2.009	0	30	
NEtFOSAA	29630.9	12	d5-NEtFOSAA	63336.3	5.0	0.468	5.83	1.000	2.000	2.011	1	30	
PFDODA	207502.3	12	13C2-PFDODA	590672.1	5.0	0.351	6.04	1.000	2.000	1.904	-5	30	
10:2-FTS	13916.8	12	13C2-8:2-FTS	25131.8	4.8	0.554	6.06	1.090	1.928	1.724	-11	30	
NMePFOSAE	154399.1	12	d7-NMePFOSAE	328995.0	5.0	0.469	6.10	1.000	2.000	2.103	5	30	
NMePFOSA	32175.9	12	d3-NMePFOSA	75141.3	5.0	0.428	6.10	1.000	2.000	2.397	20	30	
PFDOS	29722.1	11	13C8-PFOS	296104.2	4.8	0.100	6.21	1.190	1.940	1.937	0	30	
NEtPFOSAE	178984.3	11	d9-NEtPFOSAE	276176.6	5.0	0.648	6.25	1.000	2.000	2.078	4	30	
NEtPFOSA	28437.9	11	d5-NEtPFOSA	68816.9	5.0	0.413	6.27	1.000	2.000	1.820	-9	30	
PFTTrDA	173247.9	11	13C2-PFDODA	590672.1	5.0	0.293	6.24	1.030	2.000	1.850	-8	30	
PFTeDA	146816.2	10	13C2-PFTeDA	392878.6	5.0	0.374	6.42	1.000	2.000	2.194	10	30	
PFHxDA	68669.3	11	13C2-PFTeDA	392878.6	5.0	0.175	6.72	1.050	2.000	2.170	8	30	
PFOA	59285.8	10	13C2-PFTeDA	392878.6	5.0	0.151	6.98	1.090	2.000	2.162	8	30	

Continuing Calibration Verification

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:20:28 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED

By MCD at 9:29 pm, 11/9/18

REVIEWED

By HMK at 8:09 am, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV5 CAL3		Data File:	18NOV09D-46.wiff
Sample ID:	CALMOD31833F		Acquis Date:	2018-11-09T11:24:54
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	5		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV09DCCV5-10
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	731333.3	725974.7	1	50	
13C2-PFOA	5.0	511562.3	506876.7	1	50	
13C4-PFOS	4.8	281089.6	274910.1	2	50	
13C2-PFDA	5.0	305963.5	307276.7	0	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	788373.5	13C3-PFBA	731333.3	1.078	5.000	4.989	100	70-130	
E13C5-PFPeA	835518.1	13C3-PFBA	731333.3	1.142	5.000	4.977	100	70-130	
E13C3-PFBS	427441.3	13C3-PFBA	731333.3	0.584	4.650	4.289	92	70-130	
E13C2-4:2-FTS	51683.7	13C2-PFOA	511562.3	0.101	4.670	4.559	98	70-130	
E13C5-PFHxA	680489.2	13C2-PFOA	511562.3	1.330	5.000	4.893	98	70-130	
E13C3-PFHxS	326039.5	13C2-PFOA	511562.3	0.637	4.730	4.575	97	70-130	
E13C4-PFHpA	548856.4	13C2-PFOA	511562.3	1.073	5.000	4.881	98	70-130	
E13C2-6:2-FTS	35423.0	13C2-PFOA	511562.3	0.069	4.750	4.618	97	70-130	
E13C8-PFOA	953732.9	13C2-PFOA	511562.3	1.864	5.000	5.199	104	70-130	
E13C8-PFOS	296104.1	13C4-PFOS	281089.6	1.053	4.780	4.658	97	70-130	
E13C9-PFNA	501982.0	13C4-PFOS	281089.6	1.786	5.000	4.878	98	70-130	
E13C6-PFDA	613312.0	13C2-PFDA	305963.5	2.005	5.000	5.041	101	70-130	
E13C2-8:2-FTS	25131.8	13C2-PFDA	305963.5	0.082	4.790	4.346	91	70-130	
E13C8-PFOSA	688994.6	13C2-PFDA	305963.5	2.252	5.000	4.914	98	70-130	
Ed3-NMeFOSAA	78870.0	13C2-PFDA	305963.5	0.258	5.000	4.794	96	70-130	
E13C7-PFUnDA	274076.1	13C2-PFDA	305963.5	0.896	5.000	5.168	103	70-130	
Ed5-NMeFOSAA	63336.3	13C2-PFDA	305963.5	0.207	5.000	4.791	96	70-130	
E13C2-PFDoDA	590672.1	13C2-PFDA	305963.5	1.931	5.000	5.204	104	70-130	
Ed7-NMePFOSAE	328995.0	13C2-PFDA	305963.5	1.075	5.000	5.000	100	70-130	
Ed3-NMePFOSA	75141.3	13C2-PFDA	305963.5	0.246	5.000	4.496	90	70-130	
Ed9-NMePFOSAE	276176.6	13C2-PFDA	305963.5	0.903	5.000	5.155	103	70-130	
Ed5-NMePFOSA	68816.9	13C2-PFDA	305963.5	0.225	5.000	5.208	104	70-130	
E13C2-PFTeDA	392878.6	13C2-PFDA	305963.5	1.284	5.000	4.623	92	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CCV5_CAL3

Instrument Name: LM27631

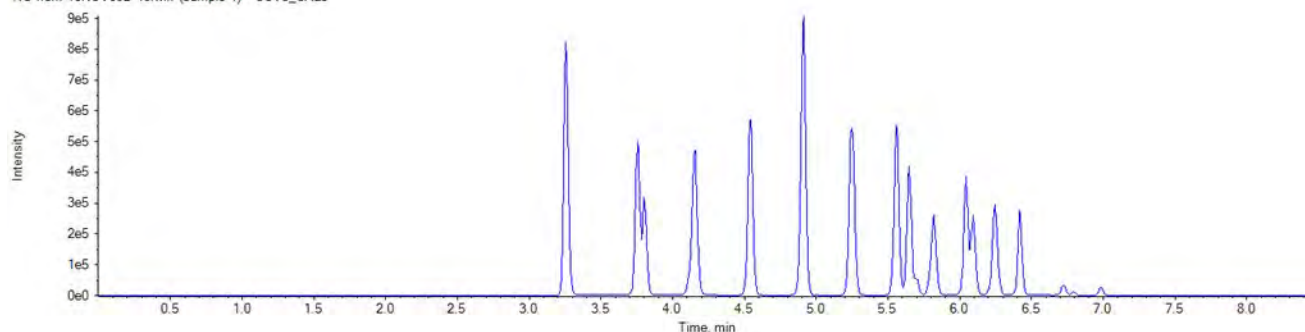
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.25	1.000	288761.9		A	13C4-PFBA	3.26	788373.5	0.366	2.144
PFPeA	3.76	1.000	287442.1		A	13C5-PFPeA	3.76	835518.1	0.344	2.045
PFBS	3.80	1.000	151175.3		A	13C3-PFBS	3.80	427441.3	0.354	1.783
4:2-FTS	4.12	1.000	40605.7		A	13C2-4:2-FTS	4.12	51683.7	0.786	2.112
PFHxA	4.15	1.000	344619.9		A	13C5-PFHxA	4.15	680489.2	0.506	2.172
PFPeS	4.17	1.100	80090.1		A	13C3-PFBS	3.80	427441.3	0.187	1.848
PFHxS	4.54	1.000	123217.2		A	13C3-PFHxS	4.54	326039.5	0.378	1.916
PFHpA	4.54	1.000	343889.9		A	13C4-PFHpA	4.54	548856.4	0.627	2.107
6:2-FTS	4.90	1.000	29308.6		A	13C2-6:2-FTS	4.90	35423.0	0.827	2.064
PFHpS	4.90	1.080	117458.5		A	13C3-PFHxS	4.54	326039.5	0.360	1.885
PFOA	4.91	1.000	345163.5		A	13C8-PFOA	4.91	953732.9	0.362	2.038
PFOS	5.24	1.000	111388.6		M	13C8-PFOS	5.24	296104.2	0.376	1.951
PFNA	5.26	1.000	289641.1		A	13C9-PFNA	5.26	501982.0	0.577	2.156
PFNS	5.54	1.060	67987.4		A	13C8-PFOS	5.24	296104.2	0.230	1.820
PFDA	5.56	1.000	226543.5		A	13C6-PFDA	5.56	613312.0	0.369	2.032
8:2-FTS	5.56	1.000	23910.4		A	13C2-8:2-FTS	5.56	25131.8	0.951	2.144
PFOSA	5.65	1.000	254035.2		A	13C8-PFOSA	5.65	688994.6	0.369	1.993
NMeFOSAA	5.70	1.000	30328.2		A	d3-NMeFOSAA	5.70	78870.0	0.385	1.979
PFDS	5.79	1.110	60328.0		A	13C8-PFOS	5.24	296104.2	0.204	1.946
PFUnDA	5.82	1.000	192042.3		A	13C7-PFUnDA	5.82	274076.1	0.701	2.009
NEtFOSAA	5.83	1.000	29630.9		A	d5-NEtFOSAA	5.83	63336.3	0.468	2.011
PFDODA	6.04	1.000	207502.3		A	13C2-PFDODA	6.04	590672.1	0.351	1.904
10:2-FTS	6.06	1.090	13916.8		A	13C2-8:2-FTS	5.56	25131.8	0.554	1.724
NMePFOSAE	6.10	1.000	154399.1		A	d7-NMePFOSAE	6.09	328995.0	0.469	2.103
NMePFOSA	6.10	1.000	32175.9		A	d3-NMePFOSA	6.10	75141.3	0.428	2.397
PFDoS	6.21	1.190	29722.1		A	13C8-PFOS	5.24	296104.2	0.100	1.937
NEtPFOSAE	6.25	1.000	178984.3		A	d9-NEtPFOSAE	6.24	276176.6	0.648	2.078
NEtPFOSA	6.27	1.000	28437.9		A	d5-NEtPFOSA	6.26	68816.9	0.413	1.820
PFTDA	6.24	1.030	173247.9		A	13C2-PFDODA	6.04	590672.1	0.293	1.850
PFTeDA	6.42	1.000	146816.2		A	13C2-PFTeDA	6.42	392878.6	0.374	2.194
PFHxDA	6.72	1.050	68669.3		A	13C2-PFTeDA	6.42	392878.6	0.175	2.170
PFODA	6.98	1.090	59285.8		A	13C2-PFTeDA	6.42	392878.6	0.151	2.162

Total Ion Chromatogram

TIC from 18NOV09D-46.wiff (sample 1) - CCV5_CAL3



APPROVED

By MCD at 9:29 pm, 11/9/18

BSI14 Page 714 of 2132

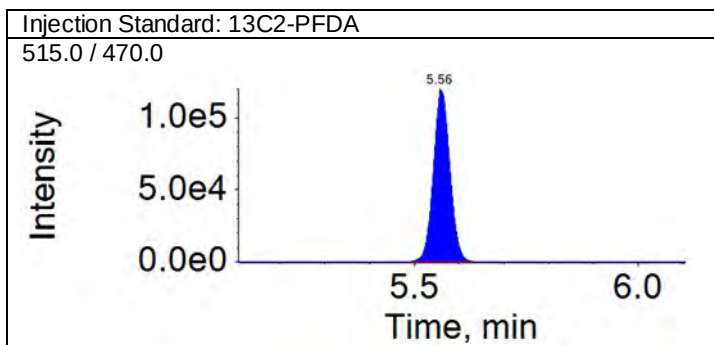
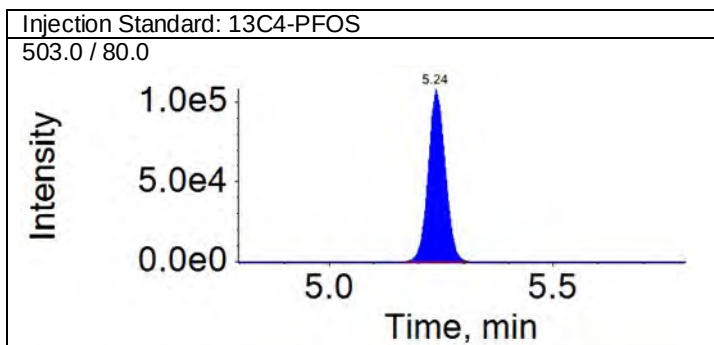
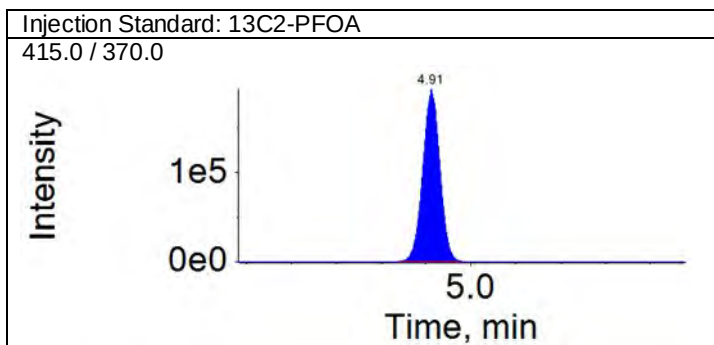
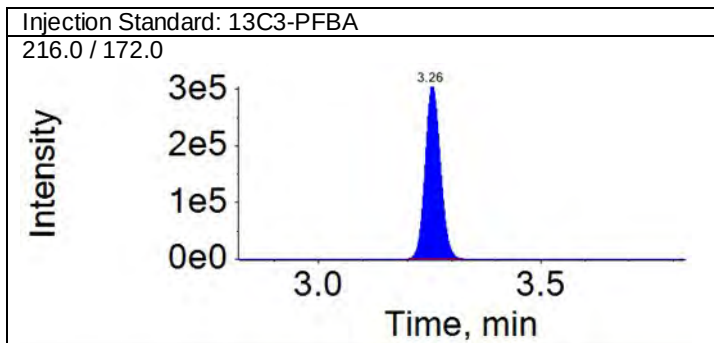
REVIEWED

By HMK at 8:09 am, 11/15/18

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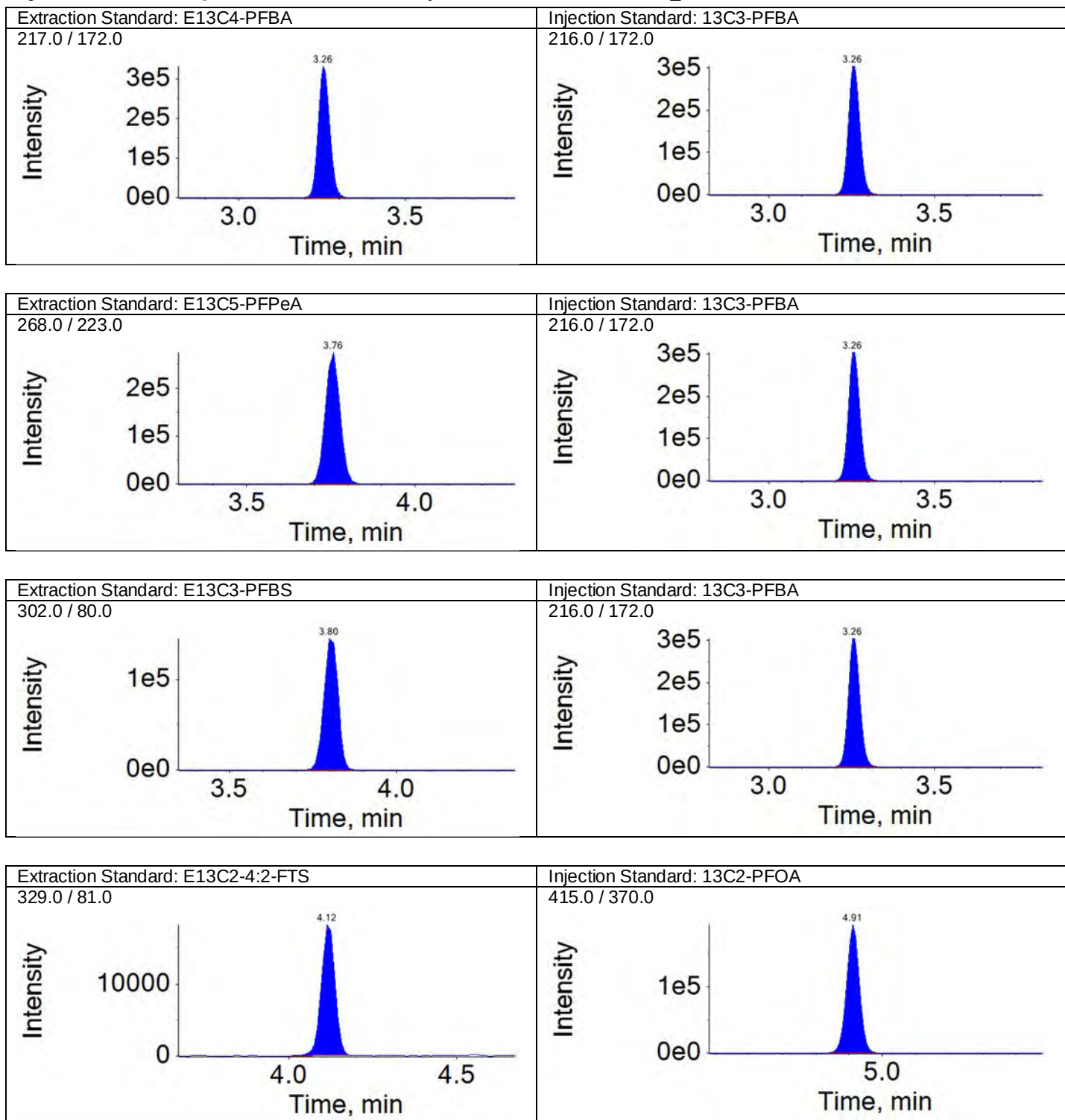
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



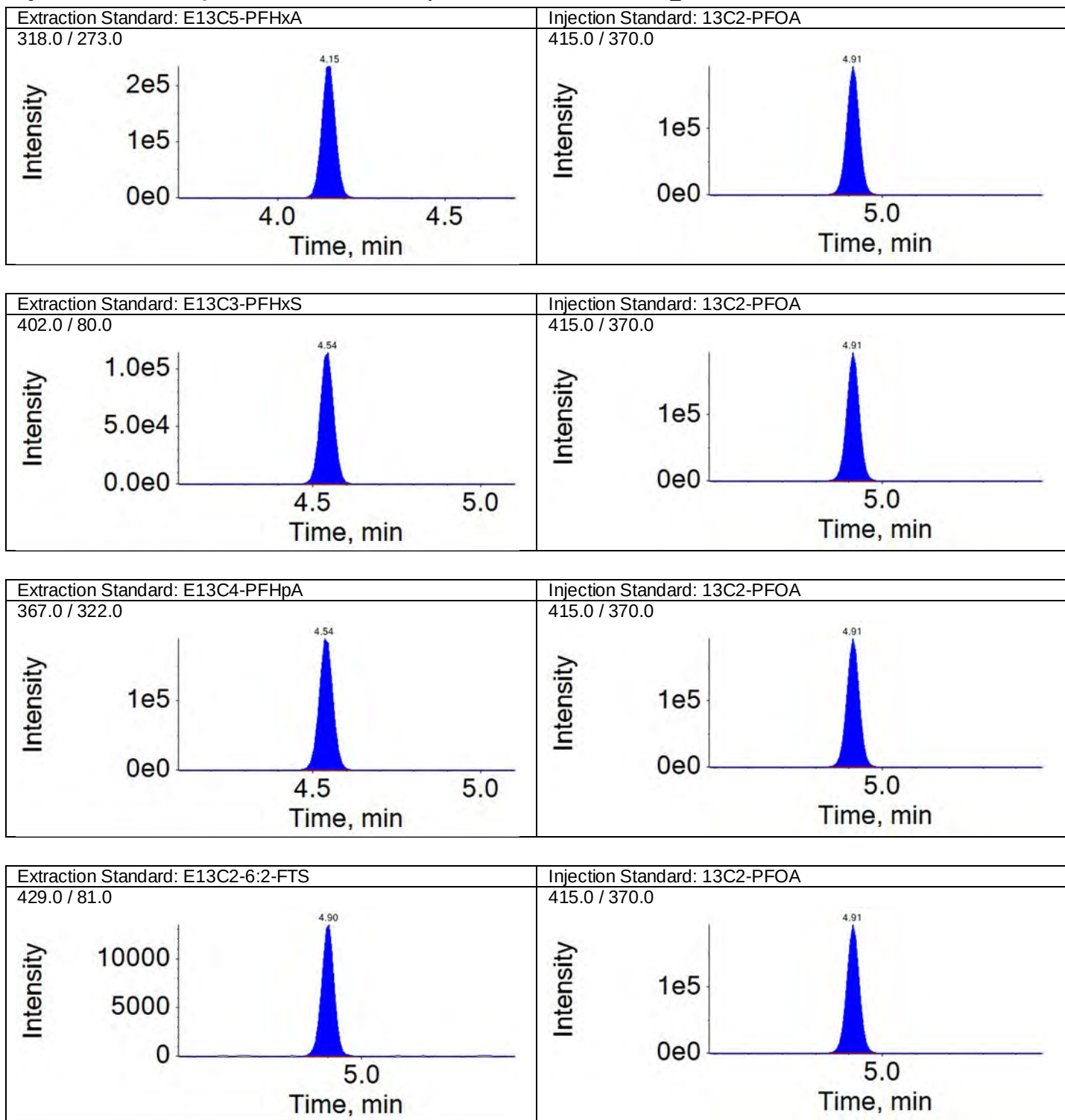
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



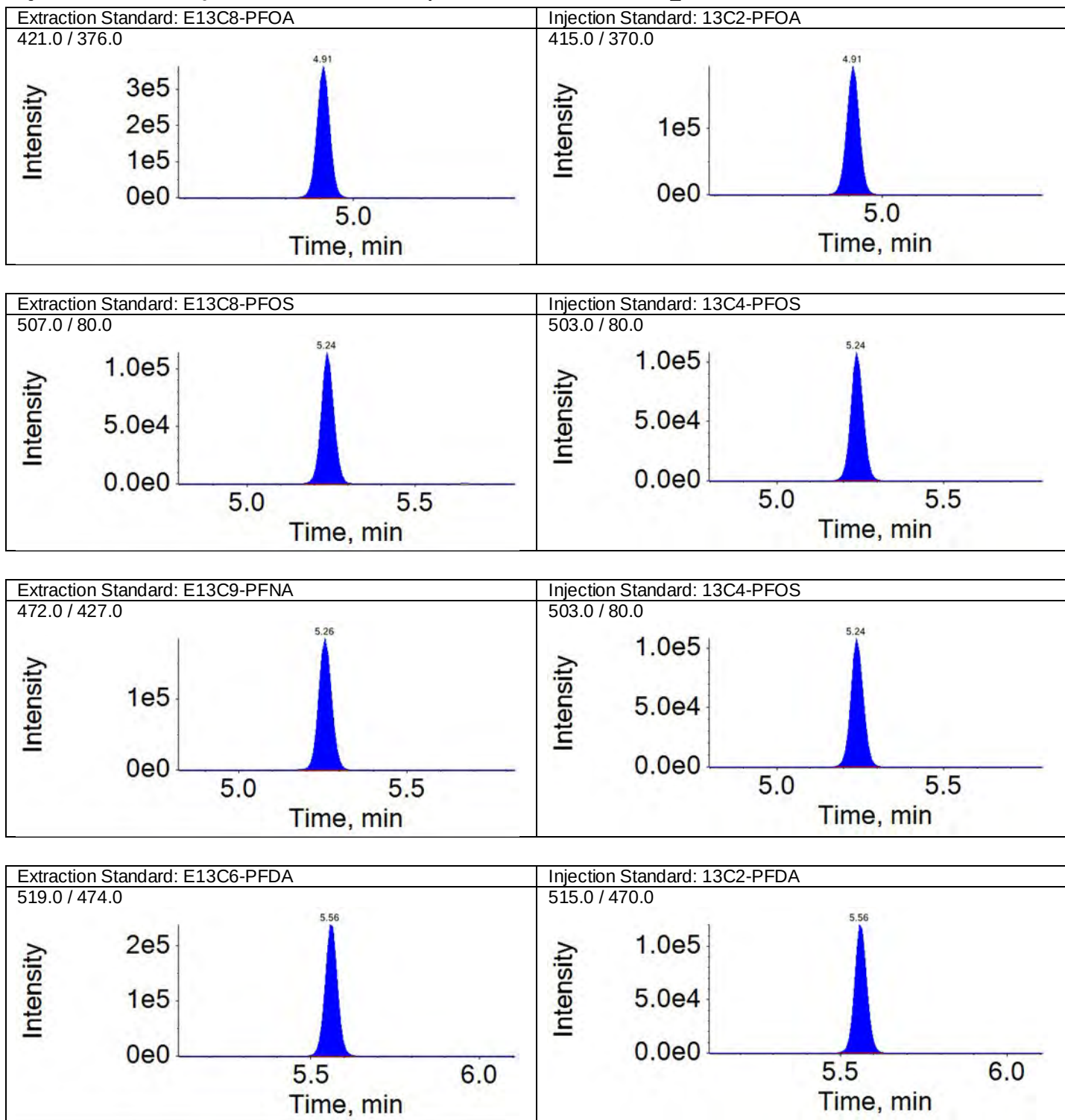
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



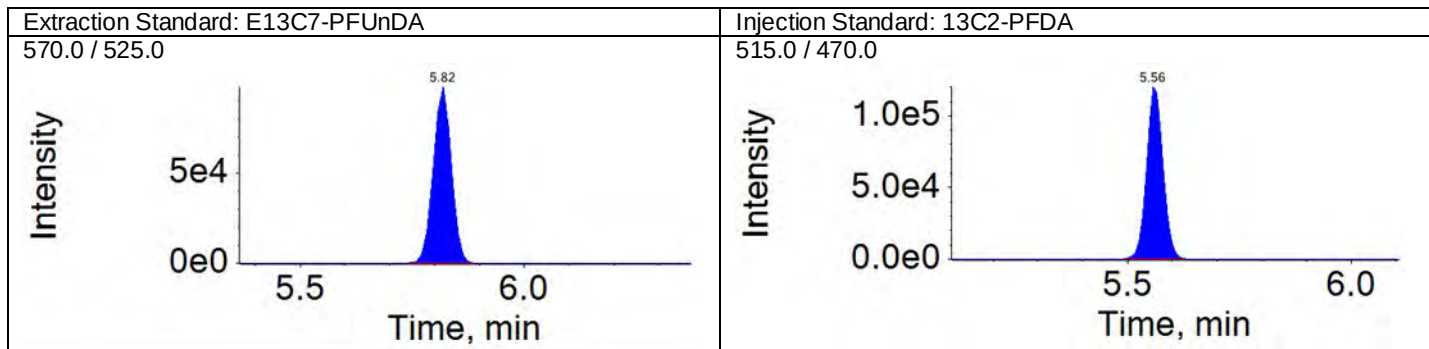
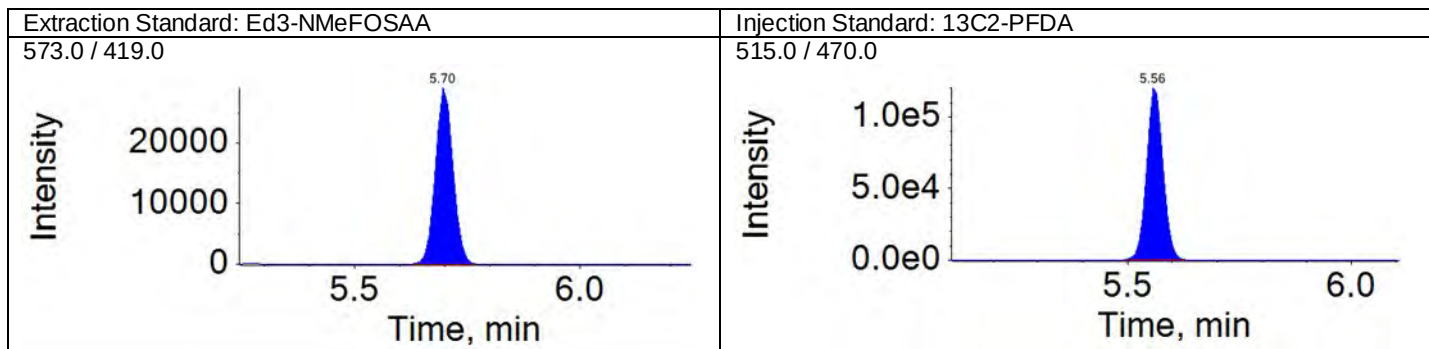
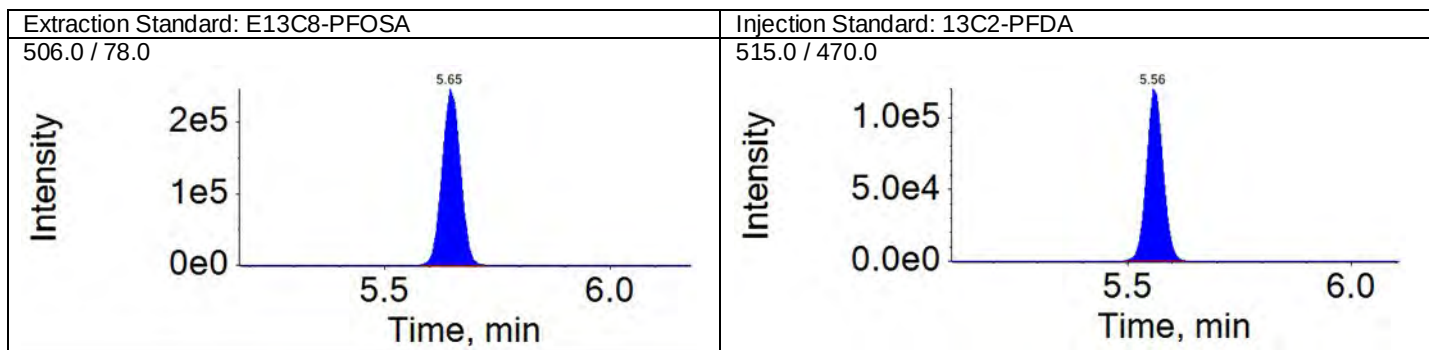
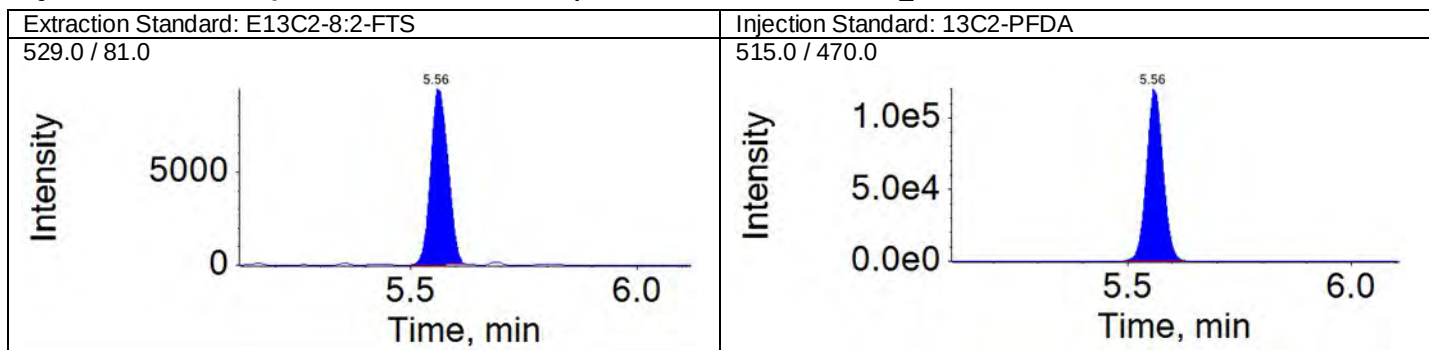
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



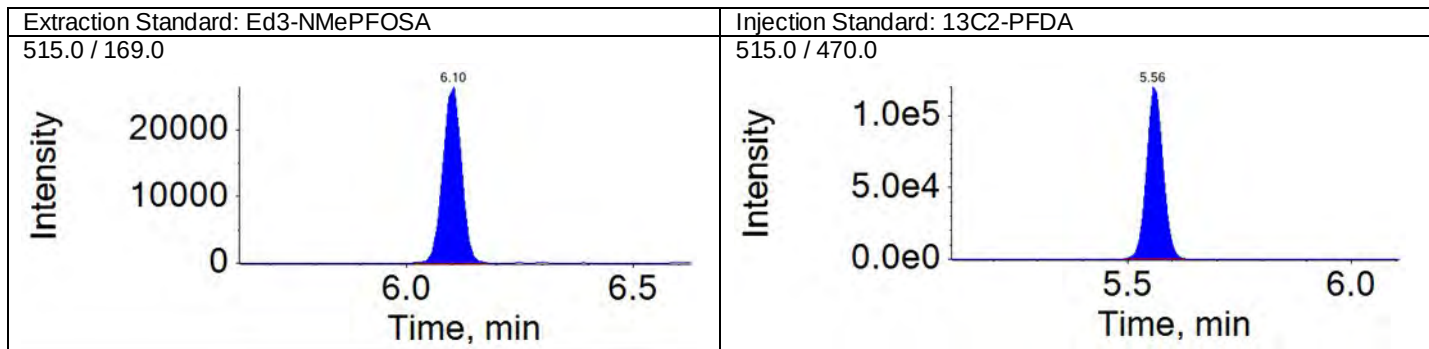
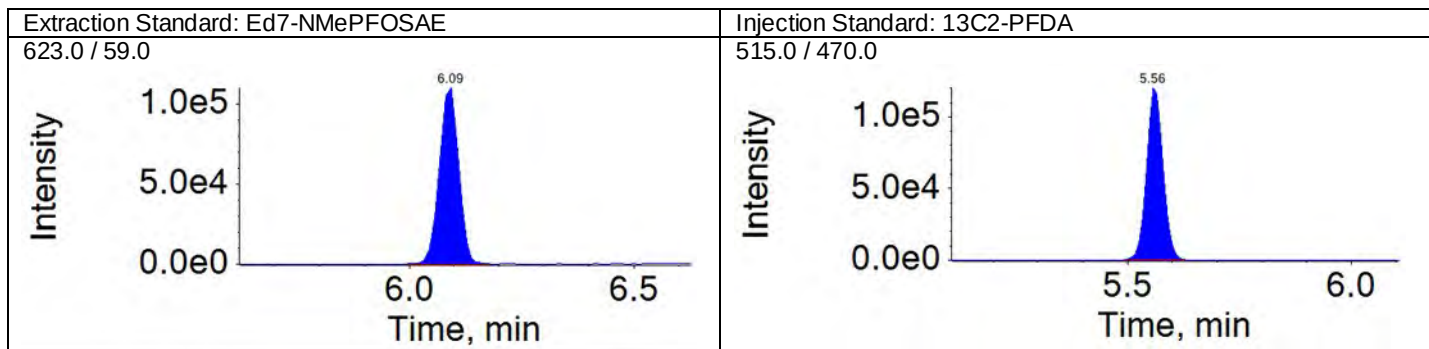
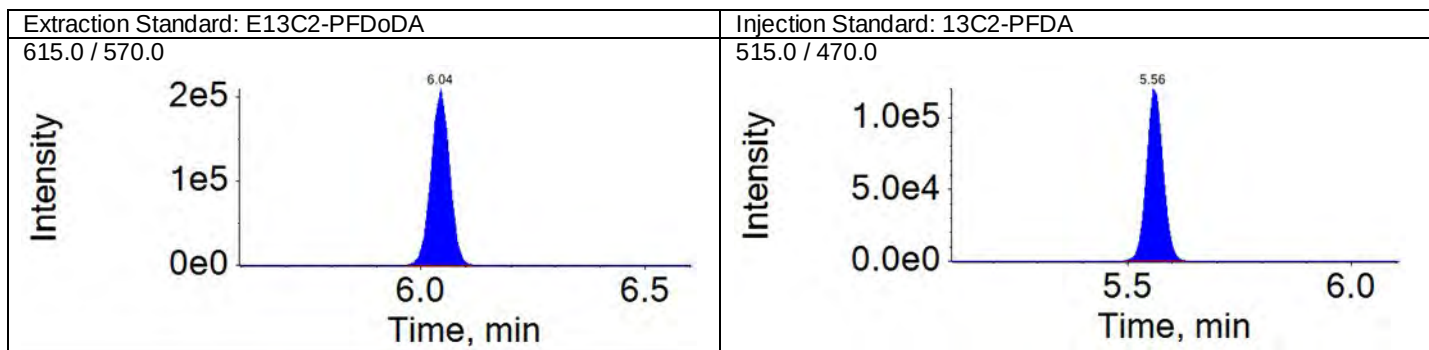
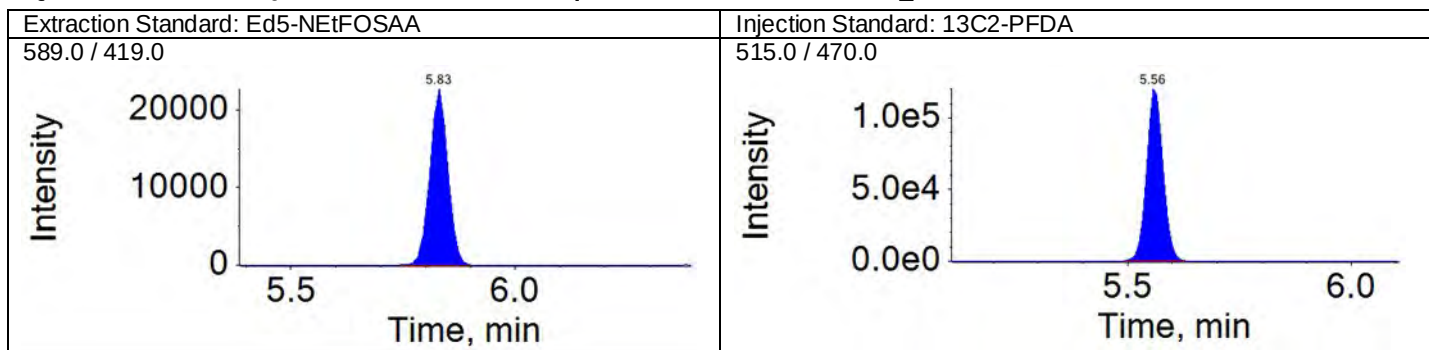
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



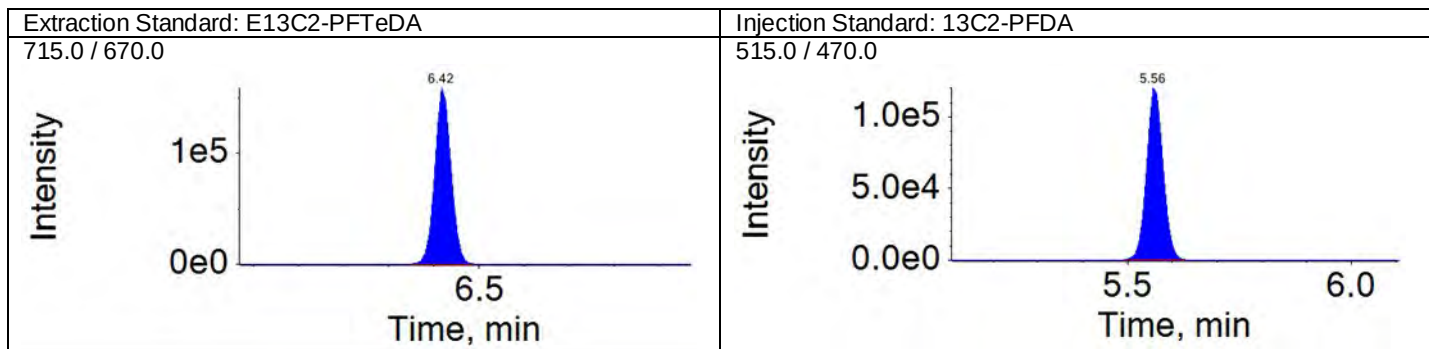
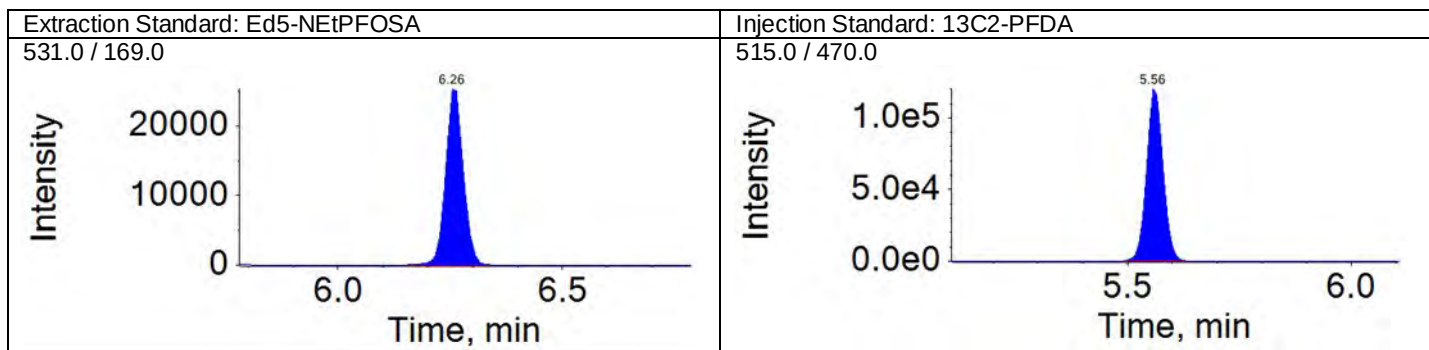
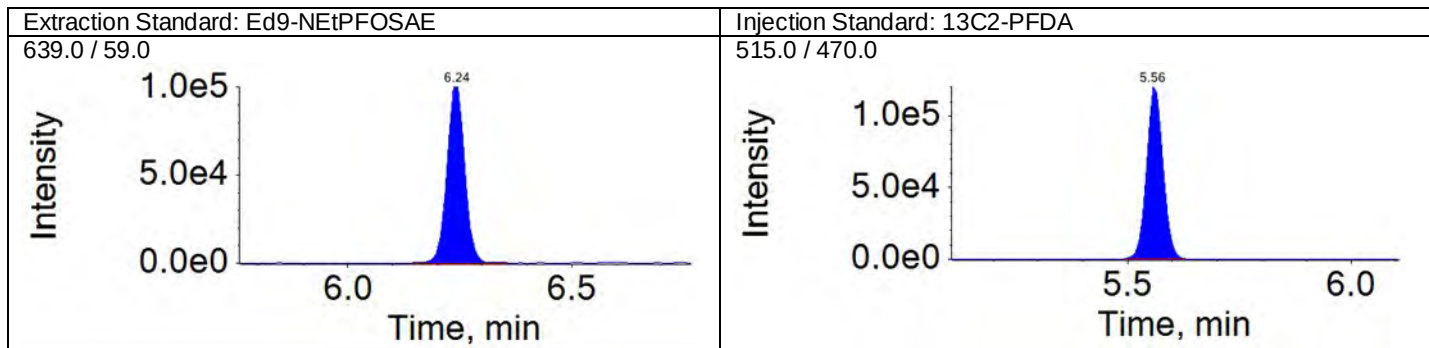
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



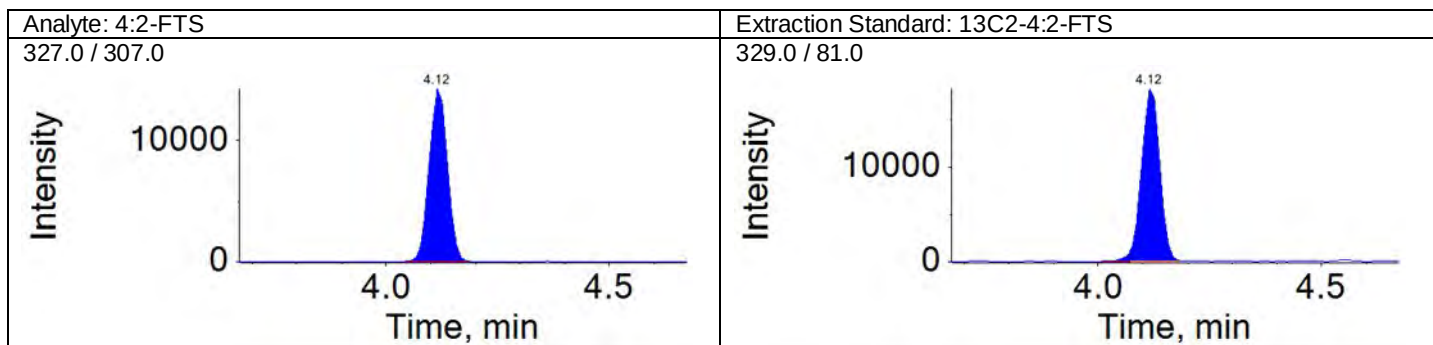
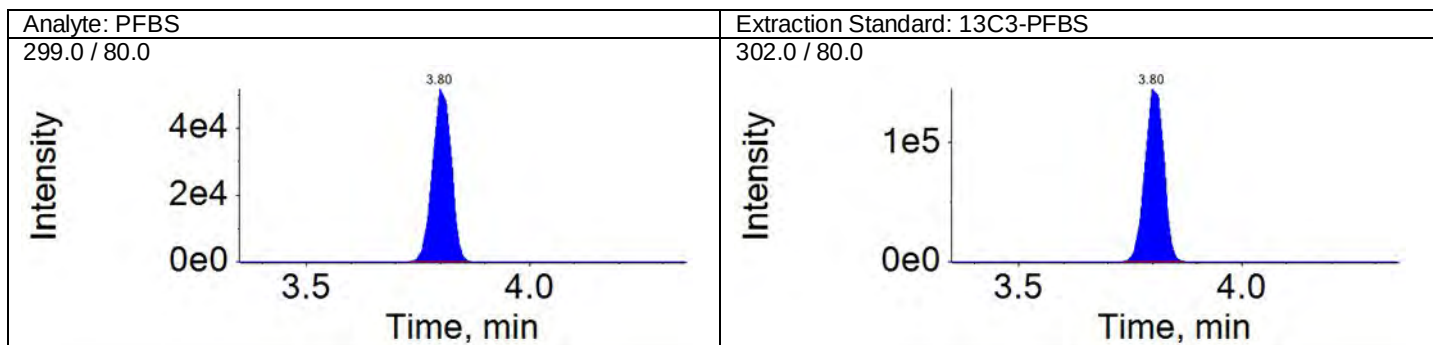
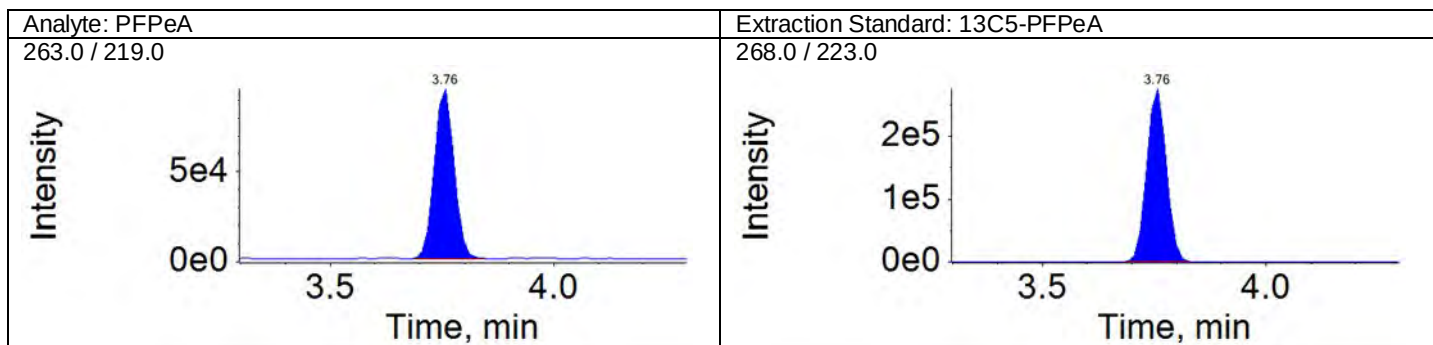
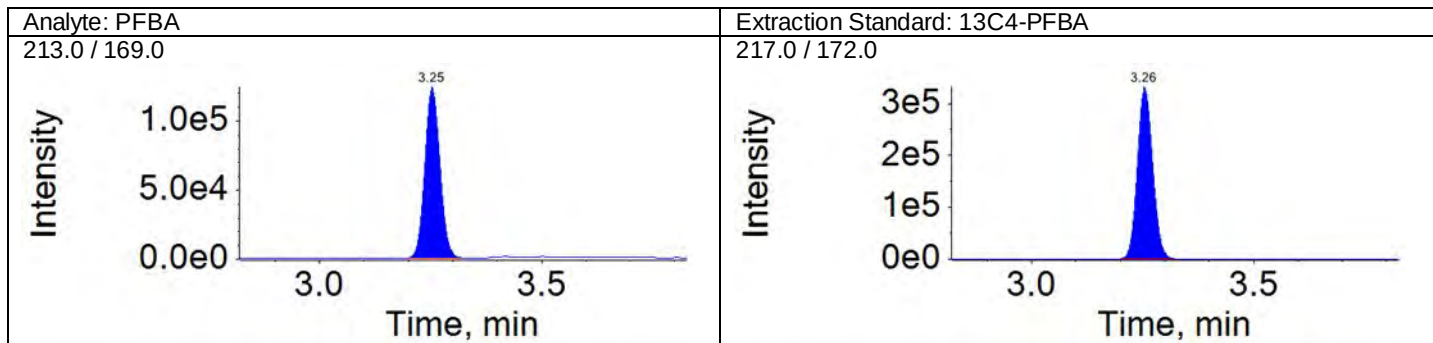
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



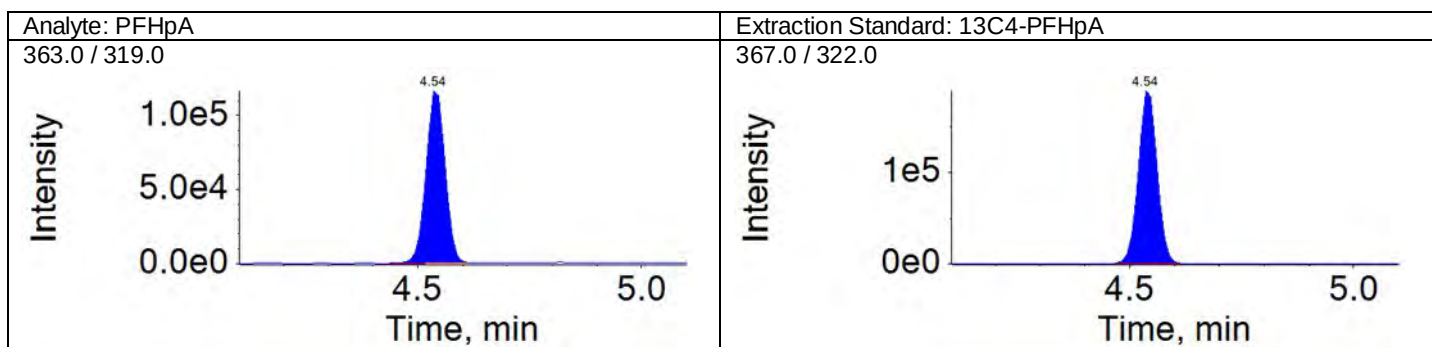
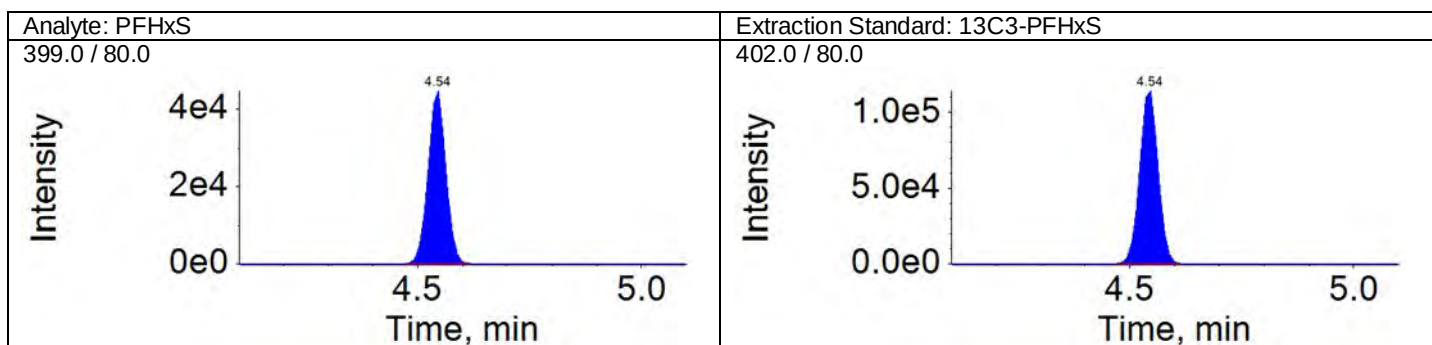
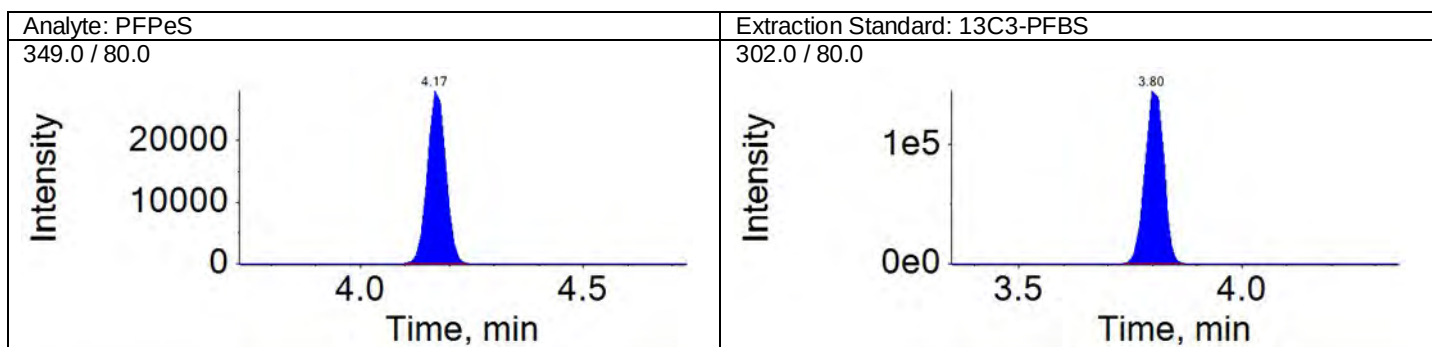
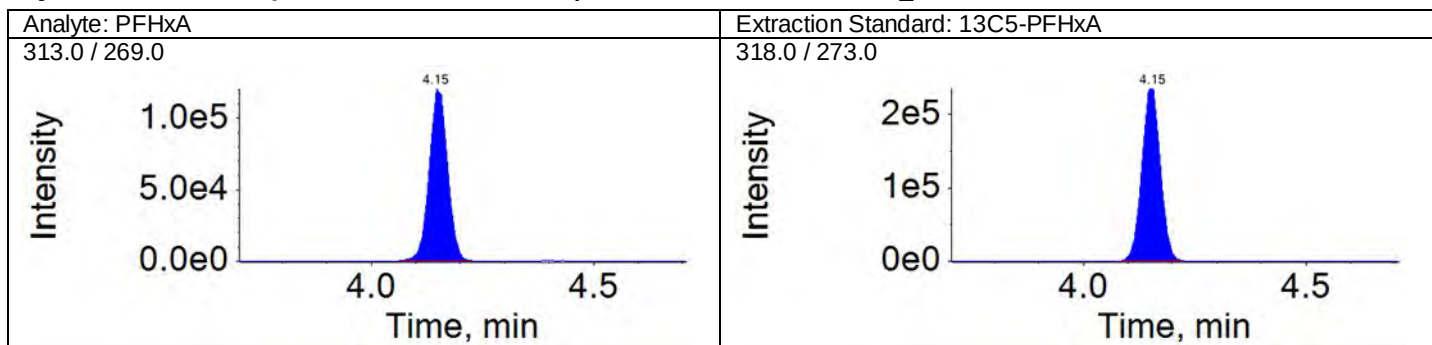
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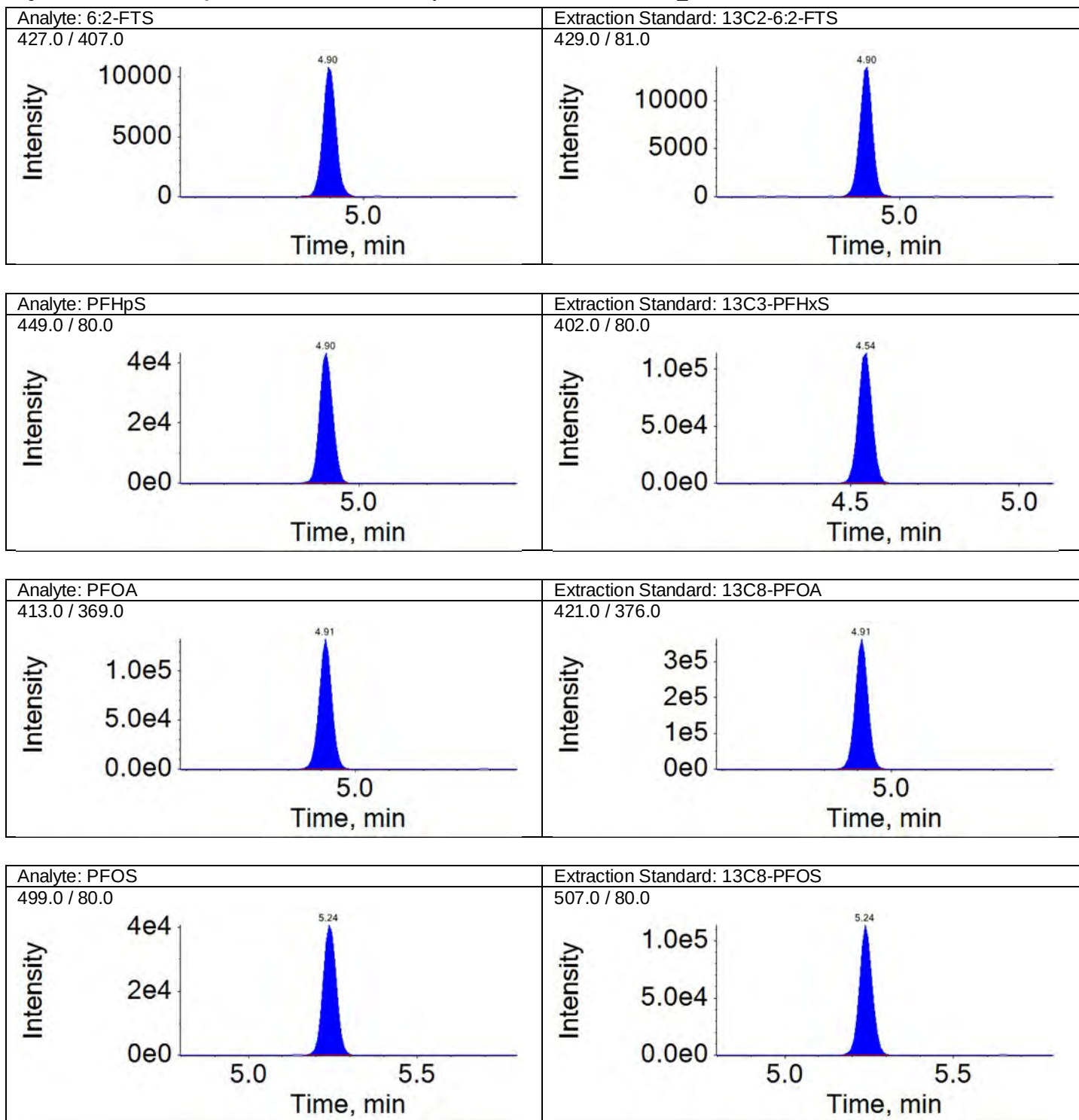
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Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



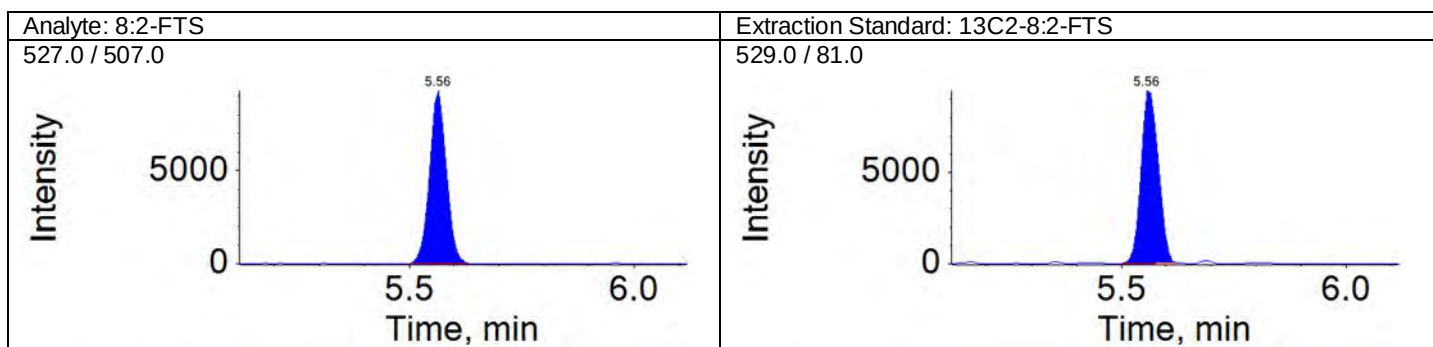
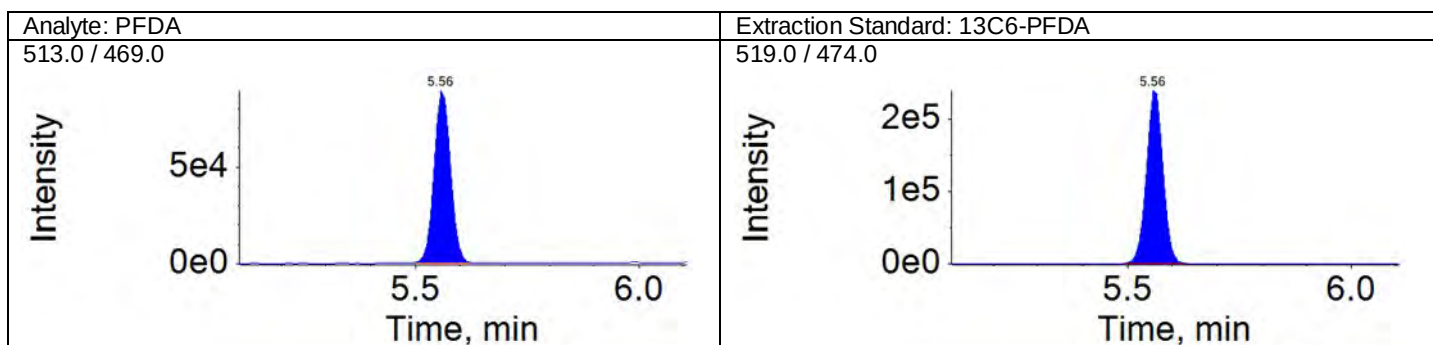
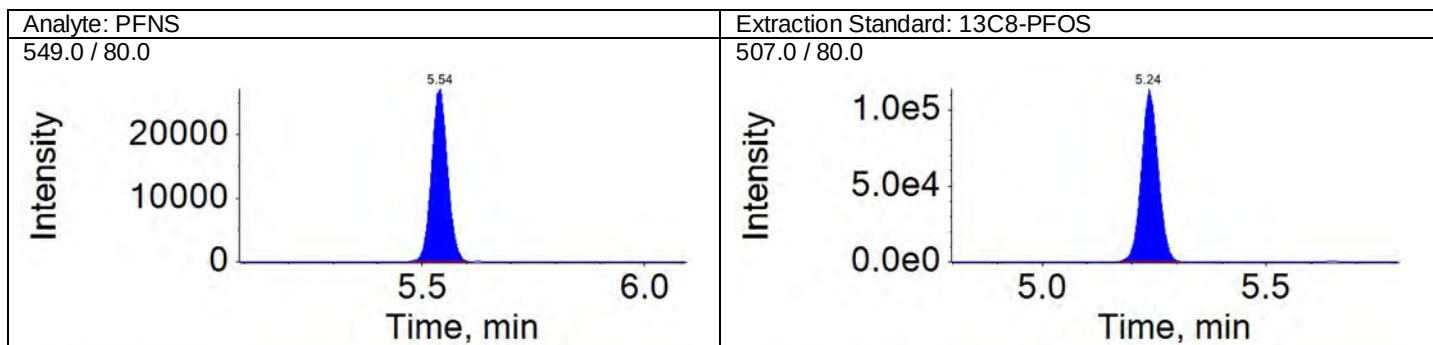
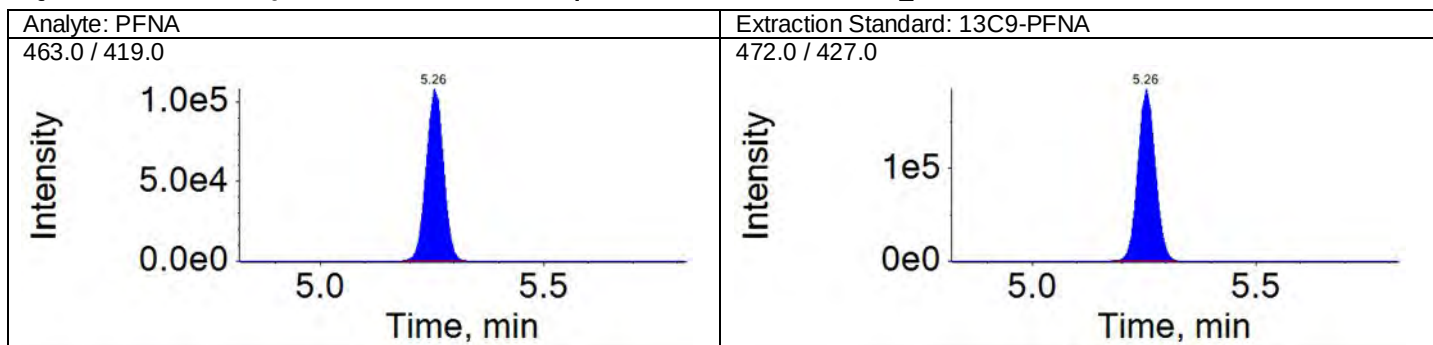
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



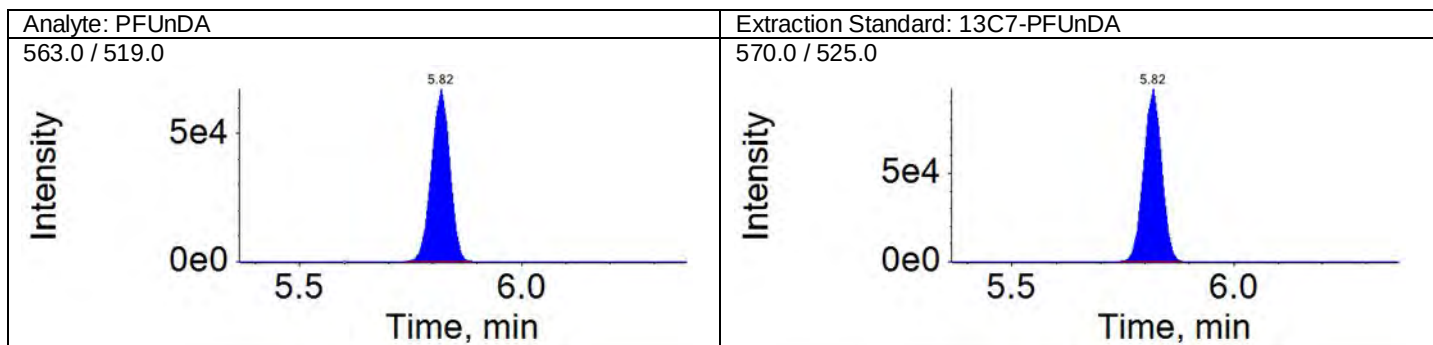
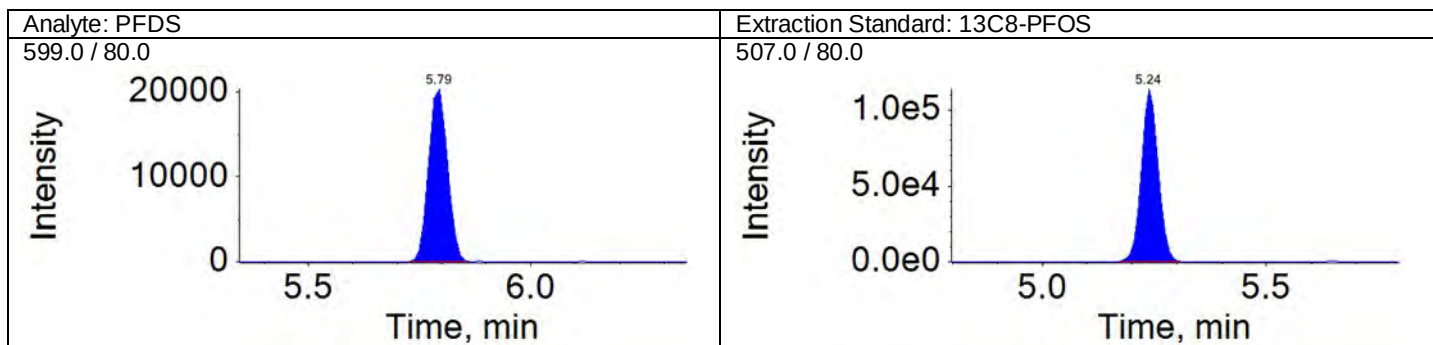
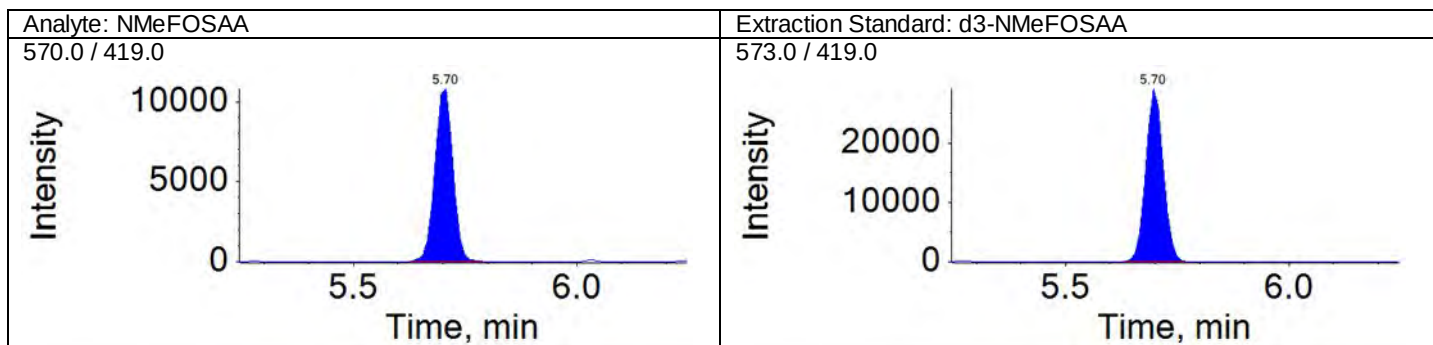
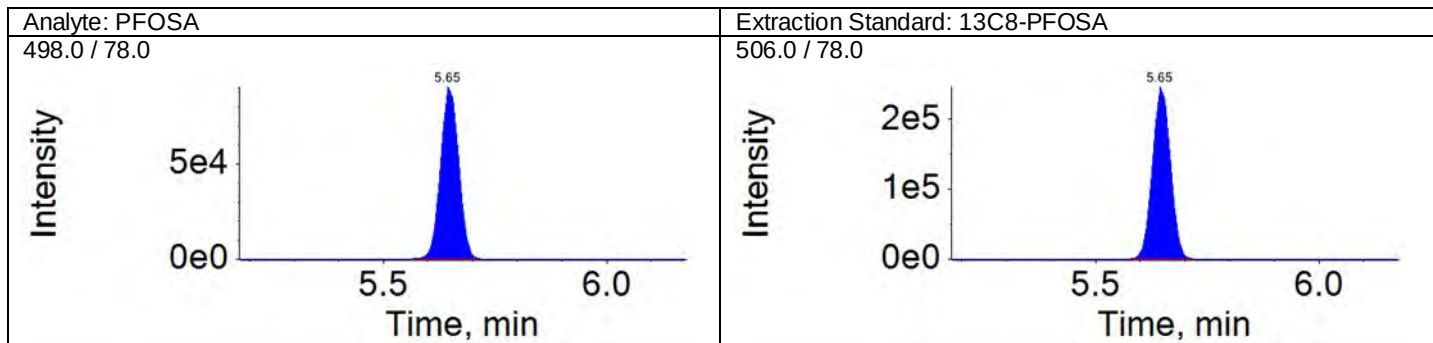
ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



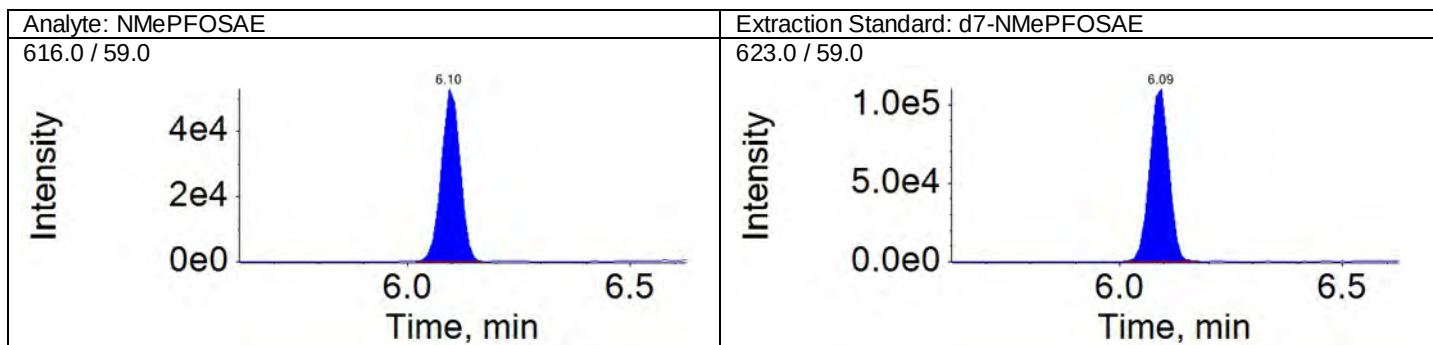
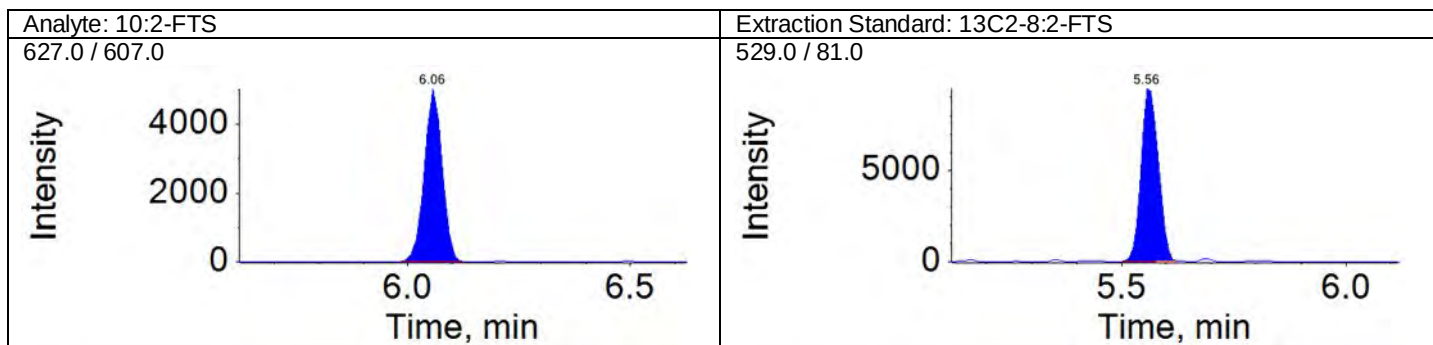
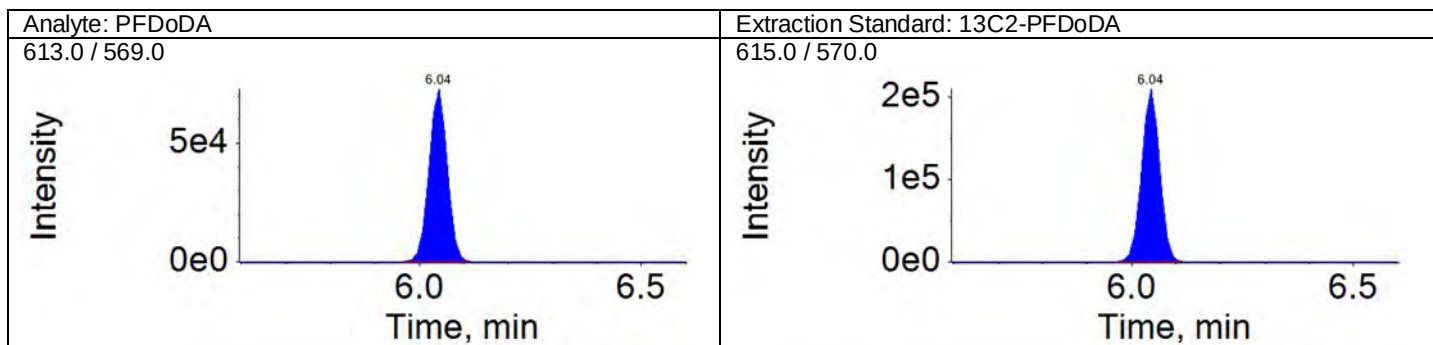
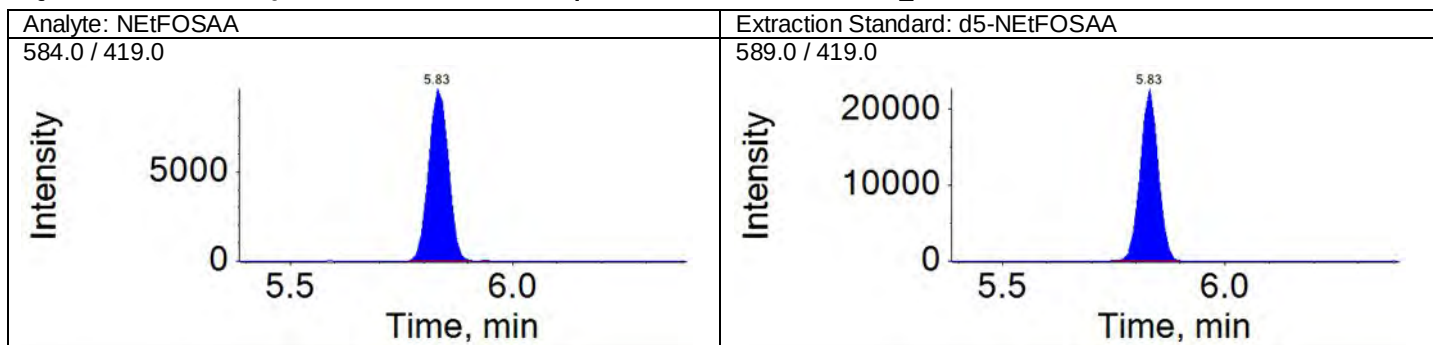
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Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



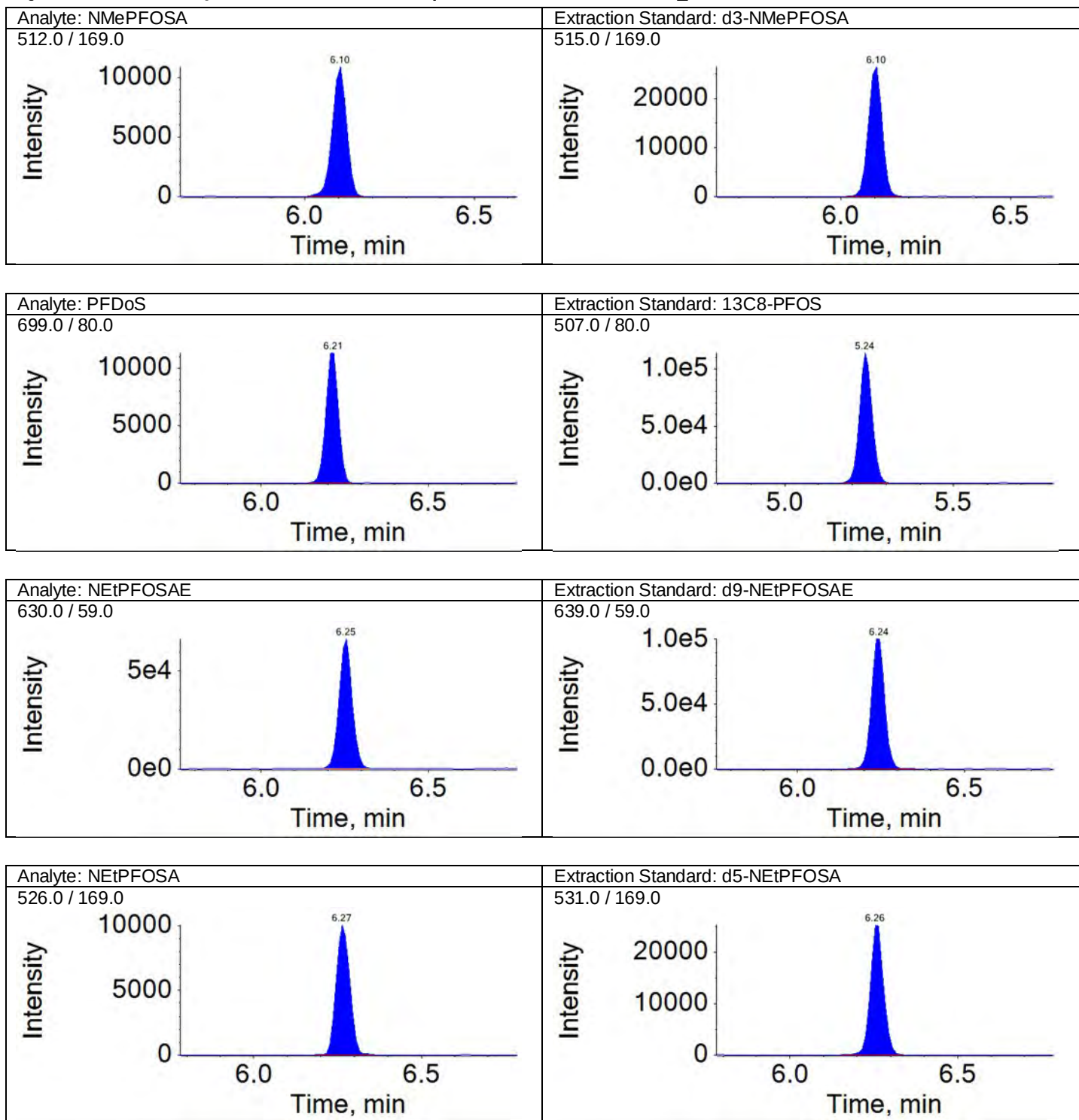
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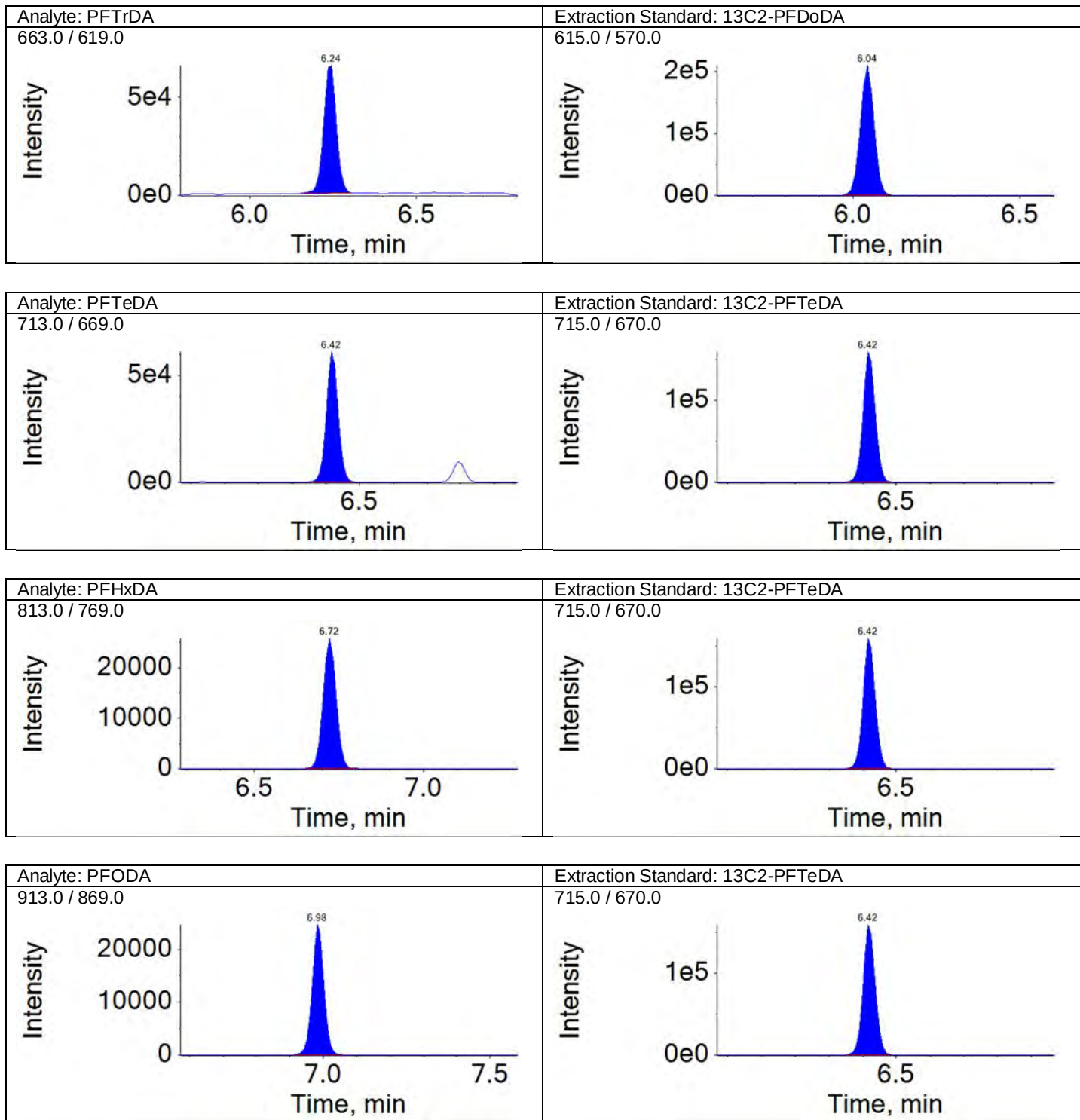
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Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV09DCCV5-10
Results Table Date: 11/9/2018 9:22:25 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:

PFOS

RT (min.):

5.24

Peak Area:

112057.9

Mass Range:

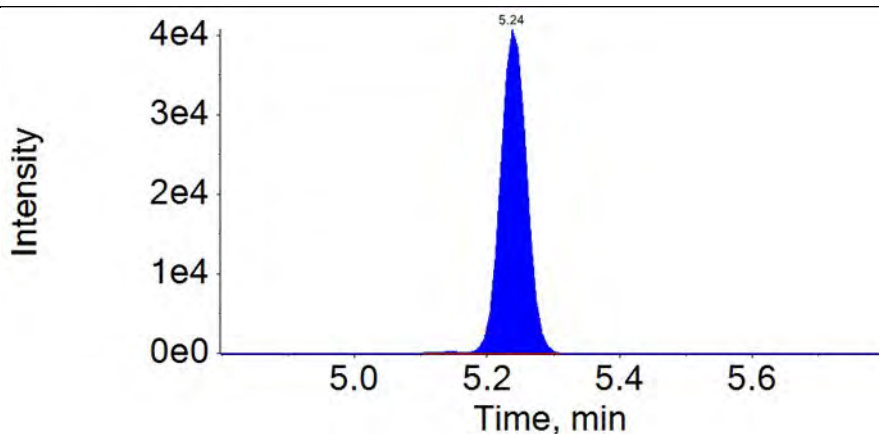
499.0 / 80.0

File Name:

18NOV09D-46.wiff

Sample Name:

CCV5_CAL3



Integration Comment: incorrect integration

APPROVED

By MCD at 9:29 pm, 11/9/18

REVIEWED

By HMK at 8:09 am, 11/15/18

Results Table Name: 18NOV09DCCV5-10
Results Table Date: 11/9/2018 9:22:25 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED

By MCD at 9:29 pm, 11/9/18

REVIEWED

By HMK at 8:09 am, 11/15/18

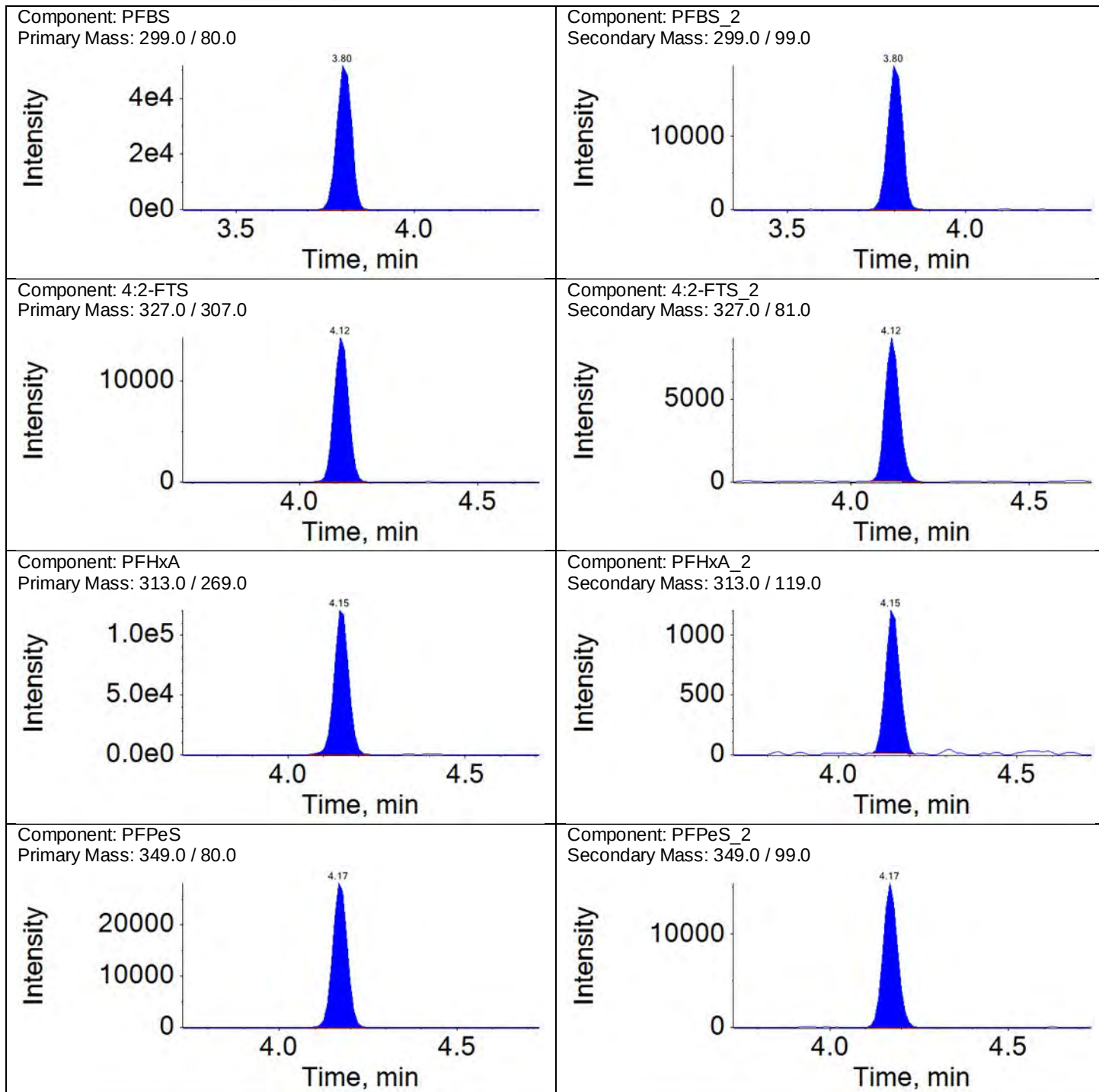
Ion Ratio Report

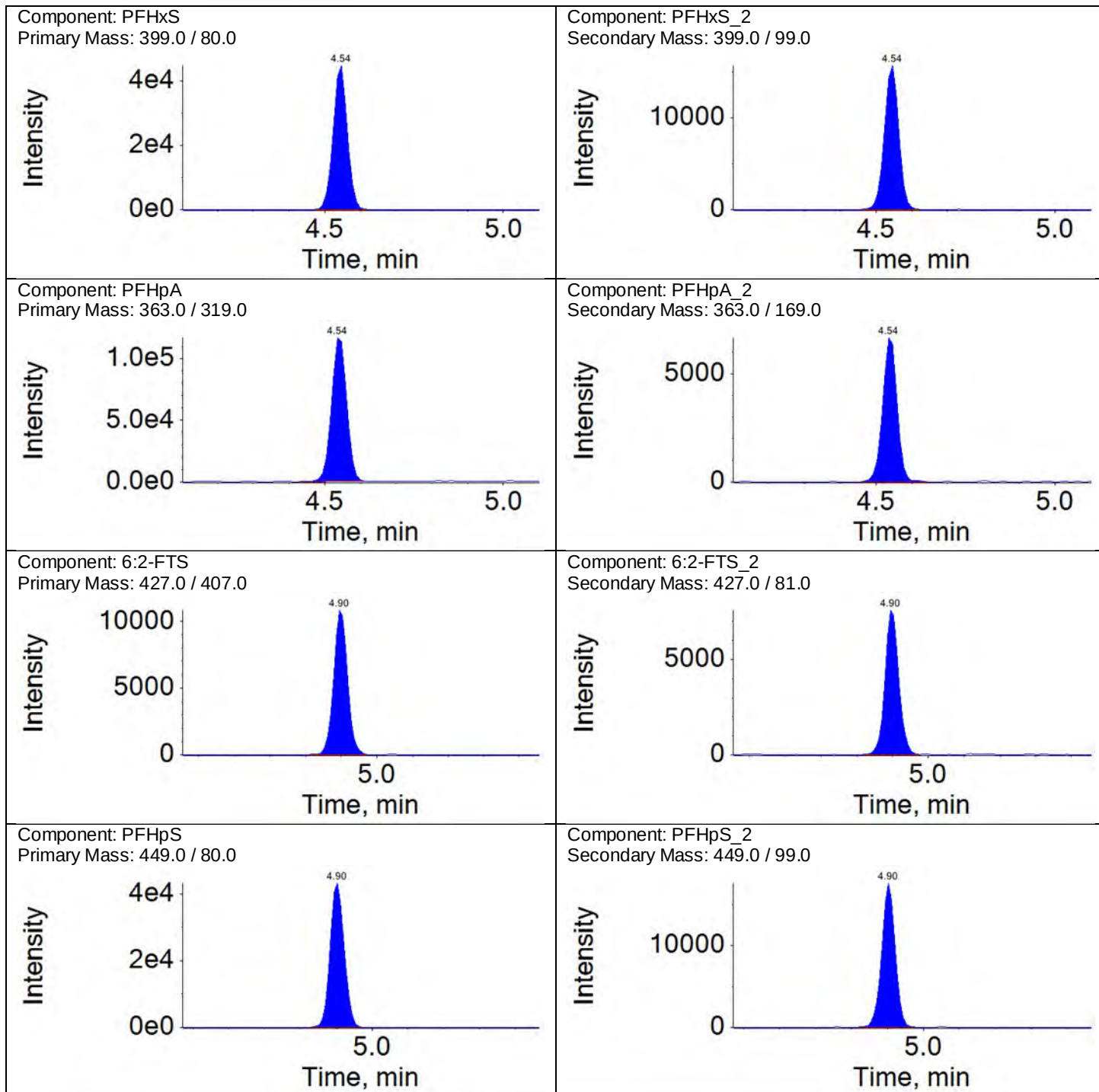
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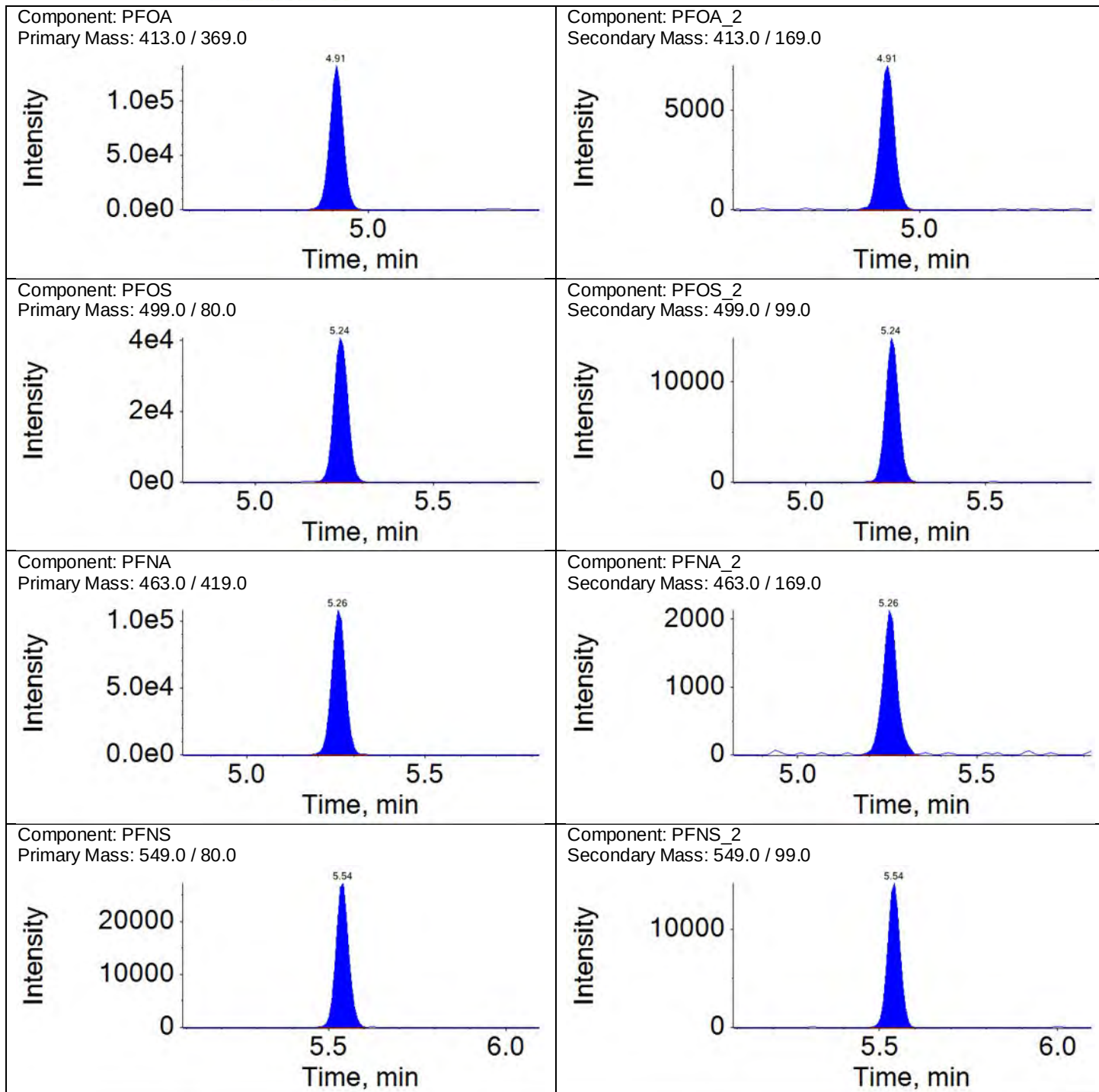
Instrument Name: LM27631

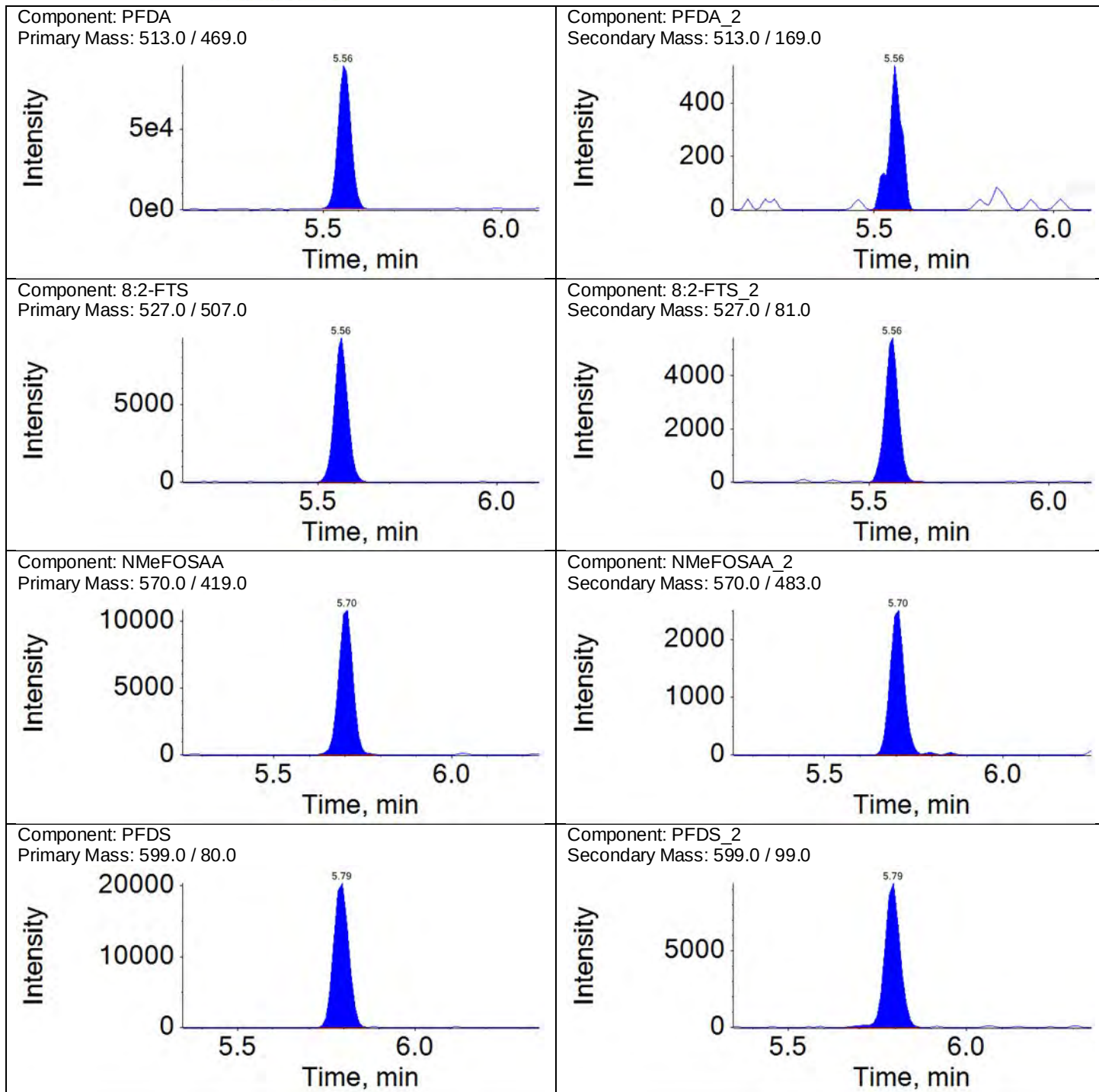
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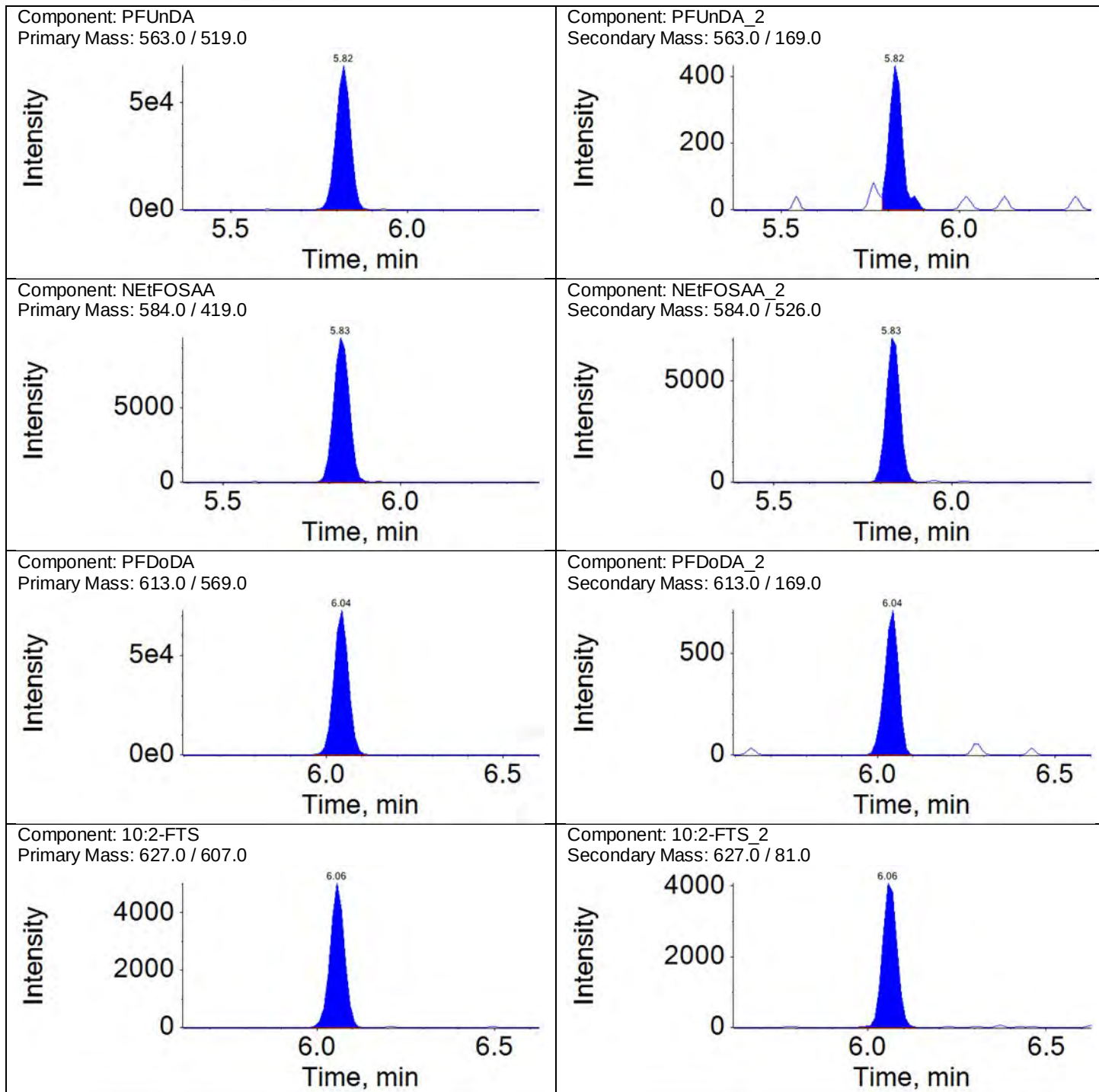
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	151175.3	A	N/A	0.3758			
PFBS_2	3.80	1.00	56805.2	A	N/A	0.3758	6	50	
4:2-FTS	4.12	1.00	40605.7	A	N/A	0.5964			
4:2-FTS_2	4.12	1.00	24217.4	A	N/A	0.5964	-7	50	
PFHxA	4.15	1.00	344619.9	A	N/A	0.0096			
PFHxA_2	4.15	1.00	3319.1	A	N/A	0.0096	-15	50	
PFPeS	4.17	1.10	80090.1	A	N/A	0.5422			
PFPeS_2	4.17	1.10	43428.5	A	N/A	0.5422	0	50	
PFHxS	4.54	1.00	123217.2	A	N/A	0.3560			
PFHxS_2	4.54	1.00	43866.5	A	N/A	0.3560	0	50	
PFHpA	4.54	1.00	343889.9	A	N/A	0.0543			
PFHpA_2	4.54	1.00	18673.3	A	N/A	0.0543	-6	50	
6:2-FTS	4.90	1.00	29308.6	A	N/A	0.6906			
6:2-FTS_2	4.90	1.00	20239.4	A	N/A	0.6906	1	50	
PFHpS	4.90	1.08	117458.5	A	N/A	0.3872			
PFHpS_2	4.90	1.08	45481.8	A	N/A	0.3872	-2	50	
PFOA	4.91	1.00	345163.5	A	N/A	0.0591			
PFOA_2	4.91	1.00	20399.9	A	N/A	0.0591	-7	50	
PFOS	5.24	1.00	111388.6	M	N/A	0.3308			
PFOS_2	5.24	1.00	36849.9	A	N/A	0.3308	-6	50	
PFNA	5.26	1.00	289641.1	A	N/A	0.0206			
PFNA_2	5.26	1.00	5967.6	A	N/A	0.0206	0	50	
PFNS	5.54	1.06	67987.4	A	N/A	0.5213			
PFNS_2	5.54	1.06	35445.1	A	N/A	0.5213	7	50	
PFDA	5.56	1.00	226543.5	A	N/A	0.0060			
PFDA_2	5.56	1.00	1348.6	A	N/A	0.0060	9	50	
8:2-FTS	5.56	1.00	23910.4	A	N/A	0.5875			
8:2-FTS_2	5.56	1.00	14047.6	A	N/A	0.5875	-6	50	
NMeFOSAA	5.70	1.00	30328.2	A	N/A	0.2344			
NMeFOSAA_2	5.70	1.00	7108.2	A	N/A	0.2344	8	50	
PFDS	5.79	1.11	60328.0	A	N/A	0.4645			
PFDS_2	5.79	1.11	28023.7	A	N/A	0.4645	1	50	
PFUnDA	5.82	1.00	192042.3	A	N/A	0.0058			
PFUnDA_2	5.82	1.00	1122.1	A	N/A	0.0058	92	50	OOS
NEtFOSAA	5.83	1.00	29630.9	A	N/A	0.6491			
NEtFOSAA_2	5.83	1.00	19232.1	A	N/A	0.6491	7	50	
PFDODA	6.04	1.00	207502.3	A	N/A	0.0094			
PFDODA_2	6.04	1.00	1950.9	A	N/A	0.0094	-10	50	
10:2-FTS	6.06	1.09	13916.8	A	N/A	0.8309			
10:2-FTS_2	6.06	1.09	11563.9	A	N/A	0.8309	17	50	
PFTTrDA	6.24	1.03	173247.9	A	N/A	0.0115			
PFTTrDA_2	6.24	1.03	1988.5	A	N/A	0.0115	20	50	
PFTeDA	6.42	1.00	146816.2	A	N/A	0.0050			
PFTeDA_2	6.42	1.00	729.7	A	N/A	0.0050	-8	50	
PFHxDA	6.72	1.05	68669.3	A	N/A	0.0635			
PFHxDA_2	6.72	1.05	4357.9	A	N/A	0.0635	7	50	
PFODA	6.98	1.09	59285.8	A	N/A	0.0265			
PFODA_2	6.98	1.09	1570.3	A	N/A	0.0265	3	50	

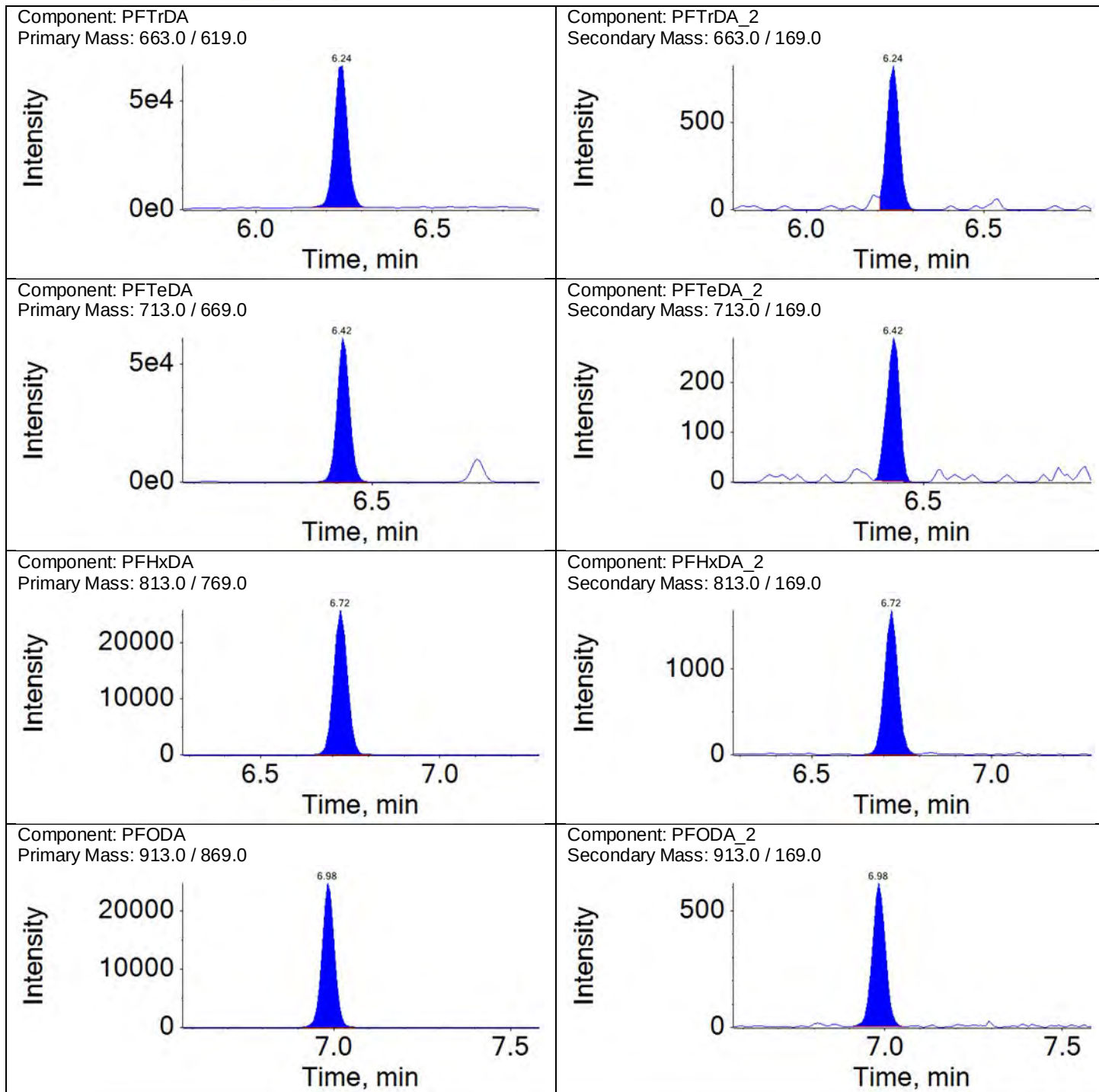










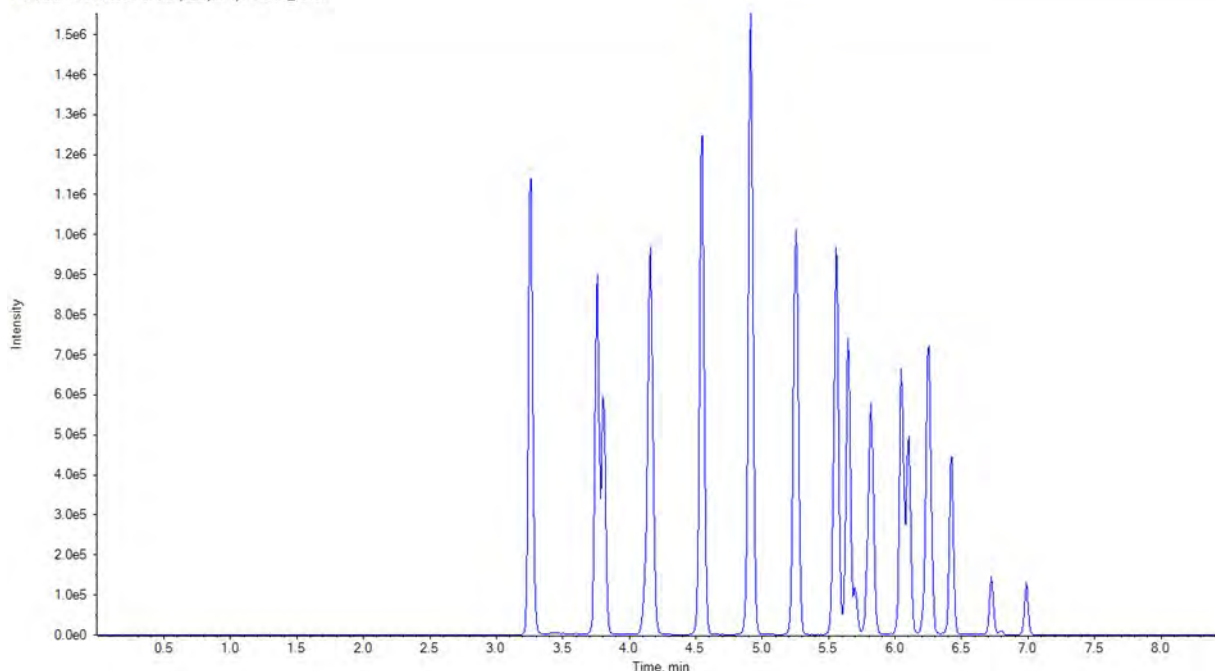


Continuing Calibration Verification

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV09DCCV5-10 11/9/2018 9:20:28 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALMOD41833F	18NOV09D-58.wiff	2018-11-09T13:13:18

TIC from 18NOV09D-58.wiff (sample 1) - CCV6_CAL4



Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	711851.5	725974.7	-2	50	
13C2-PFOA	5.0	487990.0	506876.7	-4	50	
13C4-PFOS	4.8	268339.7	274910.1	-2	50	
13C2-PFDA	5.0	300485.2	307276.7	-2	50	

Continuing Calibration Verification

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:20:28 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALMOD41833F	18NOV09D-58.wiff	2018-11-09T13:13:18

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	1128448.1	10	13C4-PFBA	775941.9	5.0	1.454	3.26	1.000	8.000	8.511	6	30	
PFPeA	1158325.1	12	13C5-PFPeA	813743.5	5.0	1.423	3.76	1.000	8.000	8.459	6	30	
PFBS	618537.7	11	13C3-PFBS	418651.3	4.7	1.477	3.81	1.000	7.080	7.449	5	30	
4:2-FTS	147591.3	11	13C2-4:2-FTS	49993.6	4.7	2.952	4.12	1.000	7.472	7.937	6	30	
PFHxA	1304135.9	12	13C5-PFHxA	663357.8	5.0	1.966	4.16	1.000	8.000	8.431	5	30	
PFPeS	330448.2	11	13C3-PFBS	418651.3	4.7	0.789	4.18	1.100	7.500	7.785	4	30	
PFHxS	481361.1	12	13C3-PFHxS	335299.7	4.7	1.436	4.55	1.000	7.560	7.277	-4	30	
PFHpA	1402000.9	12	13C4-PFHpA	544254.9	5.0	2.576	4.54	1.000	8.000	8.664	8	30	
6:2-FTS	117446.7	11	13C2-6:2-FTS	35193.3	4.8	3.337	4.90	1.000	7.584	8.325	10	30	
PFHpS	485428.9	11	13C3-PFHxS	335299.7	4.7	1.448	4.91	1.080	7.610	7.574	0	30	
PFOA	1375232.8	11	13C8-PFOA	918626.3	5.0	1.497	4.92	1.000	8.000	8.429	5	30	
PFOS	444338.9	11	13C8-PFOS	293881.6	4.8	1.512	5.24	1.000	7.650	7.840	2	30	
PFNA	1109597.3	11	13C9-PFNA	481807.0	5.0	2.303	5.26	1.000	8.000	8.607	8	30	
PFNS	293202.2	10	13C8-PFOS	293881.6	4.8	0.998	5.54	1.060	7.680	7.910	3	30	
PFDA	889730.2	11	13C6-PFDA	601491.8	5.0	1.479	5.56	1.000	8.000	8.138	2	30	
8:2-FTS	92493.2	11	13C2-8:2-FTS	28871.3	4.8	3.204	5.56	1.000	7.664	7.221	-6	30	
PFOSA	1041481.6	11	13C8-PFOSA	668402.5	5.0	1.558	5.65	1.000	8.000	8.423	5	30	
NMeFOSAA	128740.2	11	d3-NMeFOSAA	82371.2	5.0	1.563	5.70	1.000	8.000	8.042	1	30	
PFDS	236970.5	12	13C8-PFOS	293881.6	4.8	0.806	5.79	1.110	7.700	7.703	0	30	
PFUnDA	780262.5	12	13C7-PFUnDA	272828.3	5.0	2.860	5.82	1.000	8.000	8.202	3	30	
NEtFOSAA	118779.9	12	d5-NEtFOSAA	62326.5	5.0	1.906	5.84	1.000	8.000	8.190	2	30	
PFDODA	850770.9	12	13C2-PFDODA	556295.8	5.0	1.529	6.05	1.000	8.000	8.288	4	30	
10:2-FTS	64255.6	12	13C2-8:2-FTS	28871.3	4.8	2.226	6.06	1.090	7.712	6.930	-10	30	
NMePFOSAE	628735.4	11	d7-NMePFOSAE	322031.7	5.0	1.952	6.10	1.000	8.000	8.749	9	30	
NMePFOSA	120293.7	12	d3-NMePFOSA	84087.8	5.0	1.431	6.11	1.000	8.000	8.007	0	30	
PFDOS	115540.3	11	13C8-PFOS	293881.6	4.8	0.393	6.22	1.190	7.740	7.588	-2	30	
NEtPFOSAE	720253.4	11	d9-NEtPFOSAE	270998.9	5.0	2.658	6.26	1.000	8.000	8.520	7	30	
NEtPFOSA	122059.6	11	d5-NEtPFOSA	69807.0	5.0	1.749	6.27	1.000	8.000	7.701	-4	30	
PFTTrDA	710393.0	11	13C2-PFDODA	556295.8	5.0	1.277	6.24	1.030	8.000	8.053	1	30	
PFTeDA	574891.9	11	13C2-PFTeDA	385094.1	5.0	1.493	6.42	1.000	8.000	8.767	10	30	
PFHxDA	282106.4	11	13C2-PFTeDA	385094.1	5.0	0.733	6.72	1.050	8.000	9.094	14	30	
PFOA	252545.4	10	13C2-PFTeDA	385094.1	5.0	0.656	6.99	1.090	8.000	9.395	17	30	

Continuing Calibration Verification

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:20:28 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED

By MCD at 9:29 pm, 11/9/18

REVIEWED

By HMK at 7:21 am, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV6 CAL4		Data File:	18NOV09D-58.wiff
Sample ID:	CALMOD41833F		Acquis Date:	2018-11-09T13:13:18
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	6		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV09DCCV5-10
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	711851.5	725974.7	-2	50	
13C2-PFOA	5.0	487990.0	506876.7	-4	50	
13C4-PFOS	4.8	268339.7	274910.1	-2	50	
13C2-PFDA	5.0	300485.2	307276.7	-2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	775941.9	13C3-PFBA	711851.5	1.090	5.000	5.044	101	70-130	
E13C5-PFPeA	813743.5	13C3-PFBA	711851.5	1.143	5.000	4.980	100	70-130	
E13C3-PFBS	418651.3	13C3-PFBA	711851.5	0.588	4.650	4.316	93	70-130	
E13C2-4:2-FTS	49993.6	13C2-PFOA	487990.0	0.102	4.670	4.623	99	70-130	
E13C5-PFHxA	663357.8	13C2-PFOA	487990.0	1.359	5.000	5.000	100	70-130	
E13C3-PFHxS	335299.7	13C2-PFOA	487990.0	0.687	4.730	4.933	104	70-130	
E13C4-PFHpA	544254.9	13C2-PFOA	487990.0	1.115	5.000	5.074	101	70-130	
E13C2-6:2-FTS	35193.3	13C2-PFOA	487990.0	0.072	4.750	4.809	101	70-130	
E13C8-PFOA	918626.3	13C2-PFOA	487990.0	1.882	5.000	5.250	105	70-130	
E13C8-PFOS	293881.6	13C4-PFOS	268339.7	1.095	4.780	4.843	101	70-130	
E13C9-PFNA	481807.0	13C4-PFOS	268339.7	1.796	5.000	4.905	98	70-130	
E13C6-PFDA	601491.8	13C2-PFDA	300485.2	2.002	5.000	5.034	101	70-130	
E13C2-8:2-FTS	28871.3	13C2-PFDA	300485.2	0.096	4.790	5.084	106	70-130	
E13C8-PFOSA	668402.5	13C2-PFDA	300485.2	2.224	5.000	4.854	97	70-130	
Ed3-NMeFOSAA	82371.2	13C2-PFDA	300485.2	0.274	5.000	5.098	102	70-130	
E13C7-PFUnDA	272828.3	13C2-PFDA	300485.2	0.908	5.000	5.238	105	70-130	
Ed5-NEtFOSAA	62326.5	13C2-PFDA	300485.2	0.207	5.000	4.800	96	70-130	
E13C2-PFDoDA	556295.8	13C2-PFDA	300485.2	1.851	5.000	4.991	100	70-130	
Ed7-NMePFOSAE	322031.7	13C2-PFDA	300485.2	1.072	5.000	4.984	100	70-130	
Ed3-NMePFOSA	84087.8	13C2-PFDA	300485.2	0.280	5.000	5.123	102	70-130	
Ed9-NEtPFOSAE	270998.9	13C2-PFDA	300485.2	0.902	5.000	5.150	103	70-130	
Ed5-NEtPFOSA	69807.0	13C2-PFDA	300485.2	0.232	5.000	5.379	108	70-130	
E13C2-PFTeDA	385094.1	13C2-PFDA	300485.2	1.282	5.000	4.614	92	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CCV6_CAL4

Instrument Name: LM27631

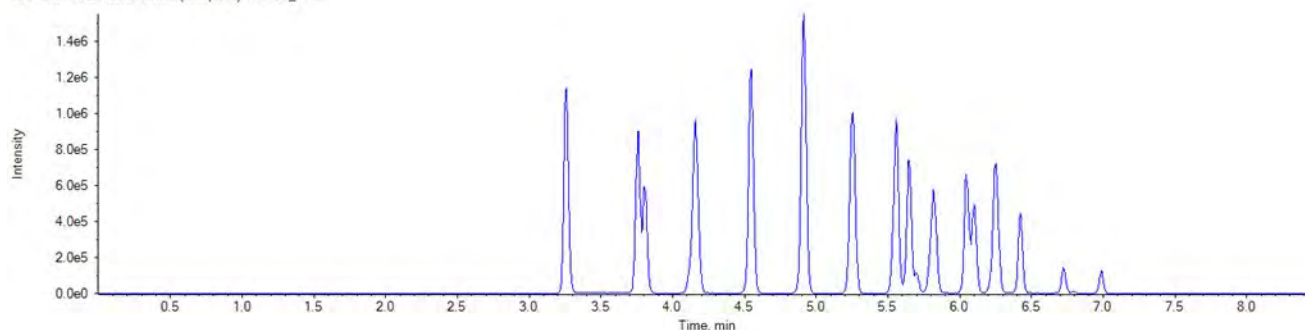
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	1128448.1		A	13C4-PFBA	3.26	775941.9	1.454	8.511
PFPeA	3.76	1.000	1158325.1		A	13C5-PFPeA	3.76	813743.5	1.423	8.459
PFBS	3.81	1.000	618537.7		A	13C3-PFBS	3.81	418651.3	1.477	7.449
4:2-FTS	4.12	1.000	147591.3		A	13C2-4:2-FTS	4.12	49993.6	2.952	7.937
PFHxA	4.16	1.000	1304135.9		A	13C5-PFHxA	4.16	663357.8	1.966	8.431
PFPeS	4.18	1.100	330448.2		A	13C3-PFBS	3.81	418651.3	0.789	7.785
PFHxS	4.55	1.000	481361.1		A	13C3-PFHxS	4.55	335299.7	1.436	7.277
PFHpA	4.54	1.000	1402000.9		A	13C4-PFHpA	4.54	544254.9	2.576	8.664
6:2-FTS	4.90	1.000	117446.7		A	13C2-6:2-FTS	4.90	35193.3	3.337	8.325
PFHpS	4.91	1.080	485428.9		A	13C3-PFHxS	4.55	335299.7	1.448	7.574
PFOA	4.92	1.000	1375232.8		A	13C8-PFOA	4.91	918626.3	1.497	8.429
PFOS	5.24	1.000	444338.9		A	13C8-PFOS	5.24	293881.6	1.512	7.840
PFNA	5.26	1.000	1109597.3		A	13C9-PFNA	5.26	481807.0	2.303	8.607
PFNS	5.54	1.060	293202.2		A	13C8-PFOS	5.24	293881.6	0.998	7.910
PFDA	5.56	1.000	889730.2		A	13C6-PFDA	5.56	601491.8	1.479	8.138
8:2-FTS	5.56	1.000	92493.2		A	13C2-8:2-FTS	5.56	28871.3	3.204	7.221
PFOSA	5.65	1.000	1041481.6		A	13C8-PFOSA	5.65	668402.5	1.558	8.423
NMeFOSAA	5.70	1.000	128740.2		A	d3-NMeFOSAA	5.70	82371.2	1.563	8.042
PFDS	5.79	1.110	236970.5		A	13C8-PFOS	5.24	293881.6	0.806	7.703
PFUnDA	5.82	1.000	780262.5		A	13C7-PFUnDA	5.82	272828.3	2.860	8.202
NEtFOSAA	5.84	1.000	118779.9		A	d5-NEtFOSAA	5.83	62326.5	1.906	8.190
PFDaDA	6.05	1.000	850770.9		A	13C2-PFDaDA	6.05	556295.8	1.529	8.288
10:2-FTS	6.06	1.090	64255.6		A	13C2-8:2-FTS	5.56	28871.3	2.226	6.930
NMePFOSAE	6.10	1.000	628735.4		A	d7-NMePFOSAE	6.09	322031.7	1.952	8.749
NMePFOSA	6.11	1.000	120293.7		A	d3-NMePFOSA	6.11	84087.8	1.431	8.007
PFDaS	6.22	1.190	115540.3		A	13C8-PFOS	5.24	293881.6	0.393	7.588
NEtPFOSAE	6.26	1.000	720253.4		A	d9-NEtPFOSAE	6.25	270998.9	2.658	8.520
NEtPFOSA	6.27	1.000	122059.6		A	d5-NEtPFOSA	6.26	69807.0	1.749	7.701
PFTaDA	6.24	1.030	710393.0		A	13C2-PFDaDA	6.05	556295.8	1.277	8.053
PFTeDA	6.42	1.000	574891.9		A	13C2-PFTeDA	6.42	385094.1	1.493	8.767
PFHxDA	6.72	1.050	282106.4		A	13C2-PFTeDA	6.42	385094.1	0.733	9.094
PFODA	6.99	1.090	252545.4		A	13C2-PFTeDA	6.42	385094.1	0.656	9.395

Total Ion Chromatogram

TIC from 18NOV09D-58.wiff (sample 1) - CCV6_CAL4



APPROVED

By MCD at 9:29 pm, 11/9/18

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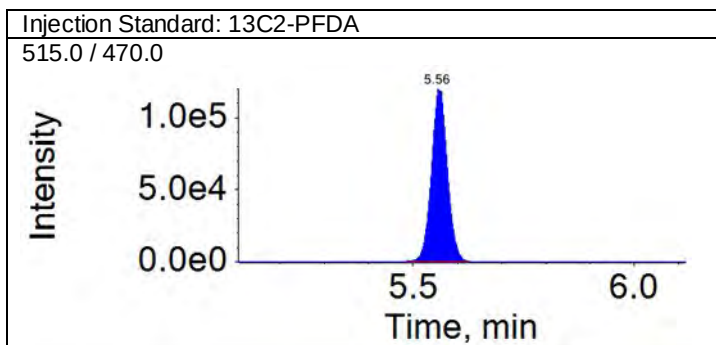
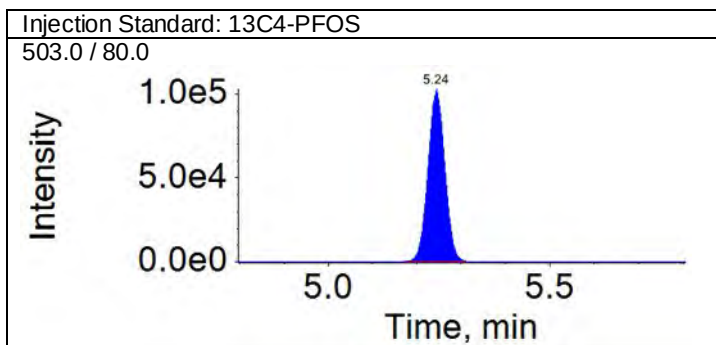
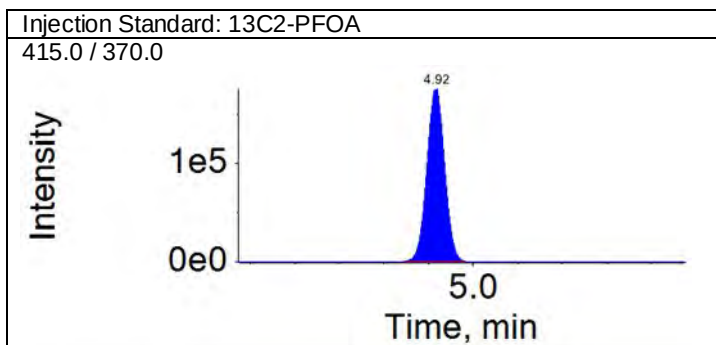
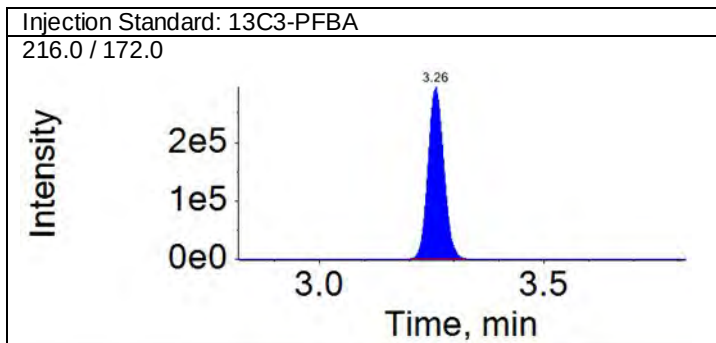
REVIEWED

By HMK at 7:21 am, 11/15/18

Page 2 of 17

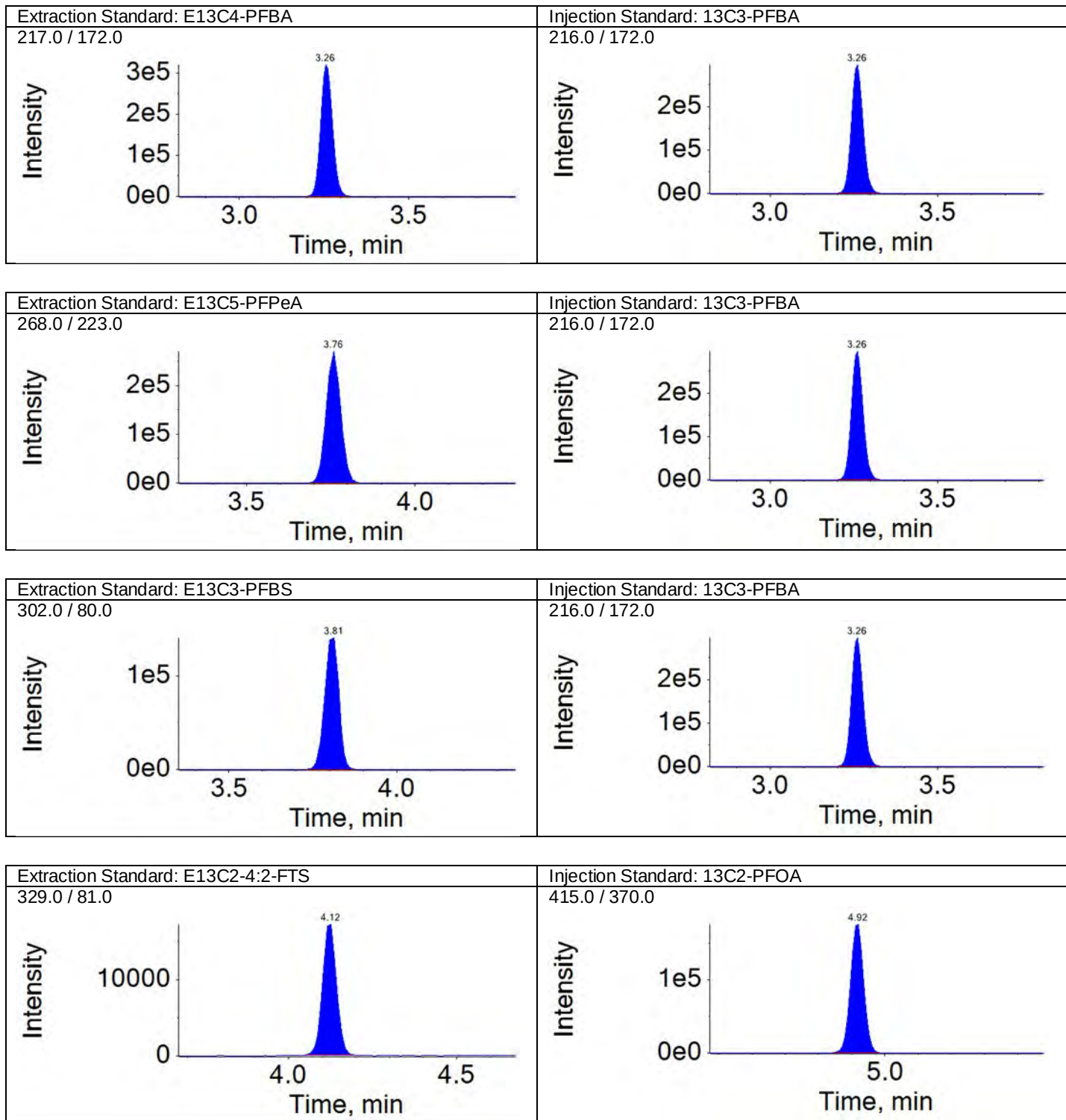
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QMethod Name: MQ4-18AUG13

Result Table: 18NOV09DCCV5-10 11/9/2018 9:22:25 PM
Acquisition Method: 18AUG13_3uL.dam



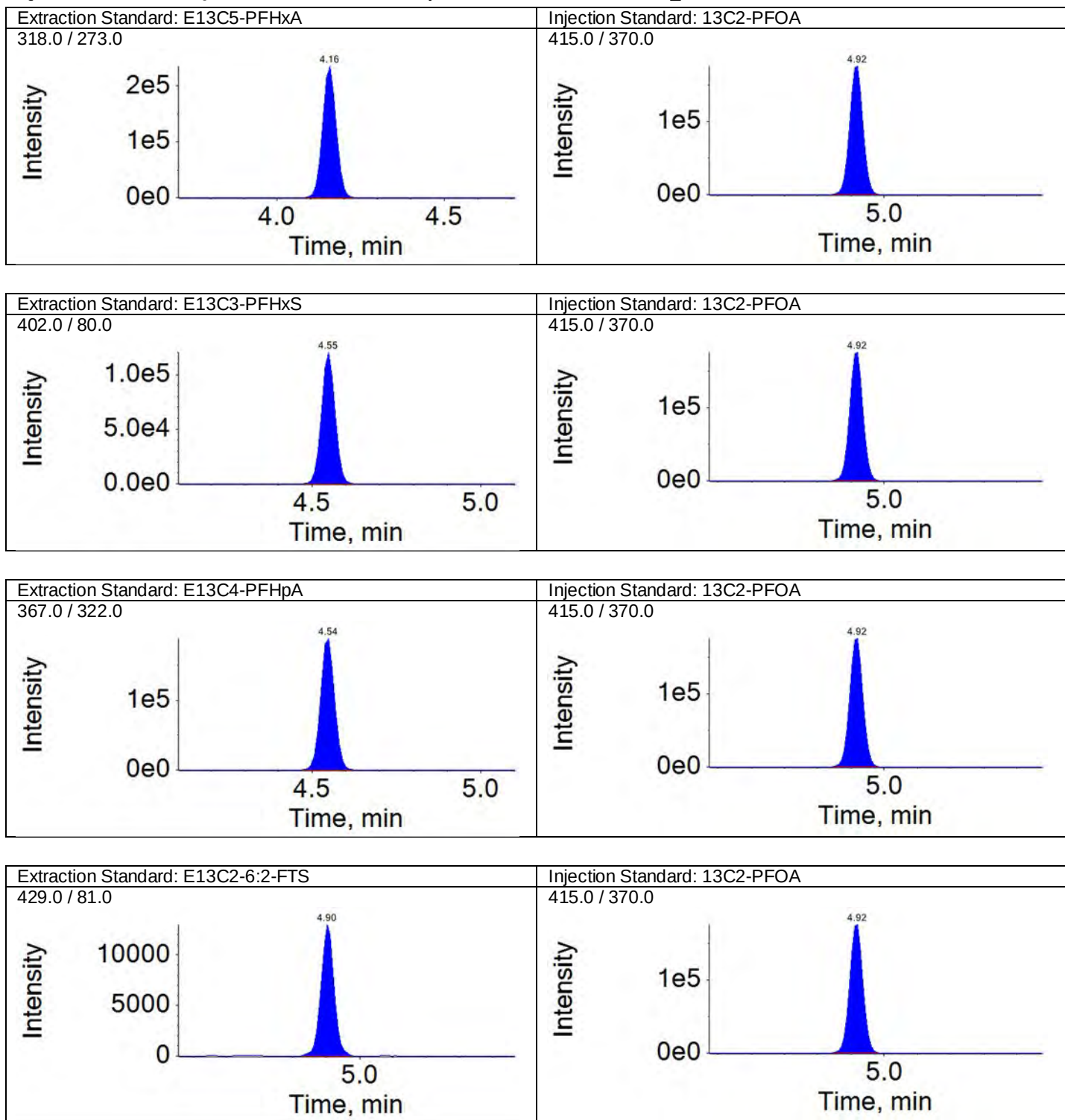
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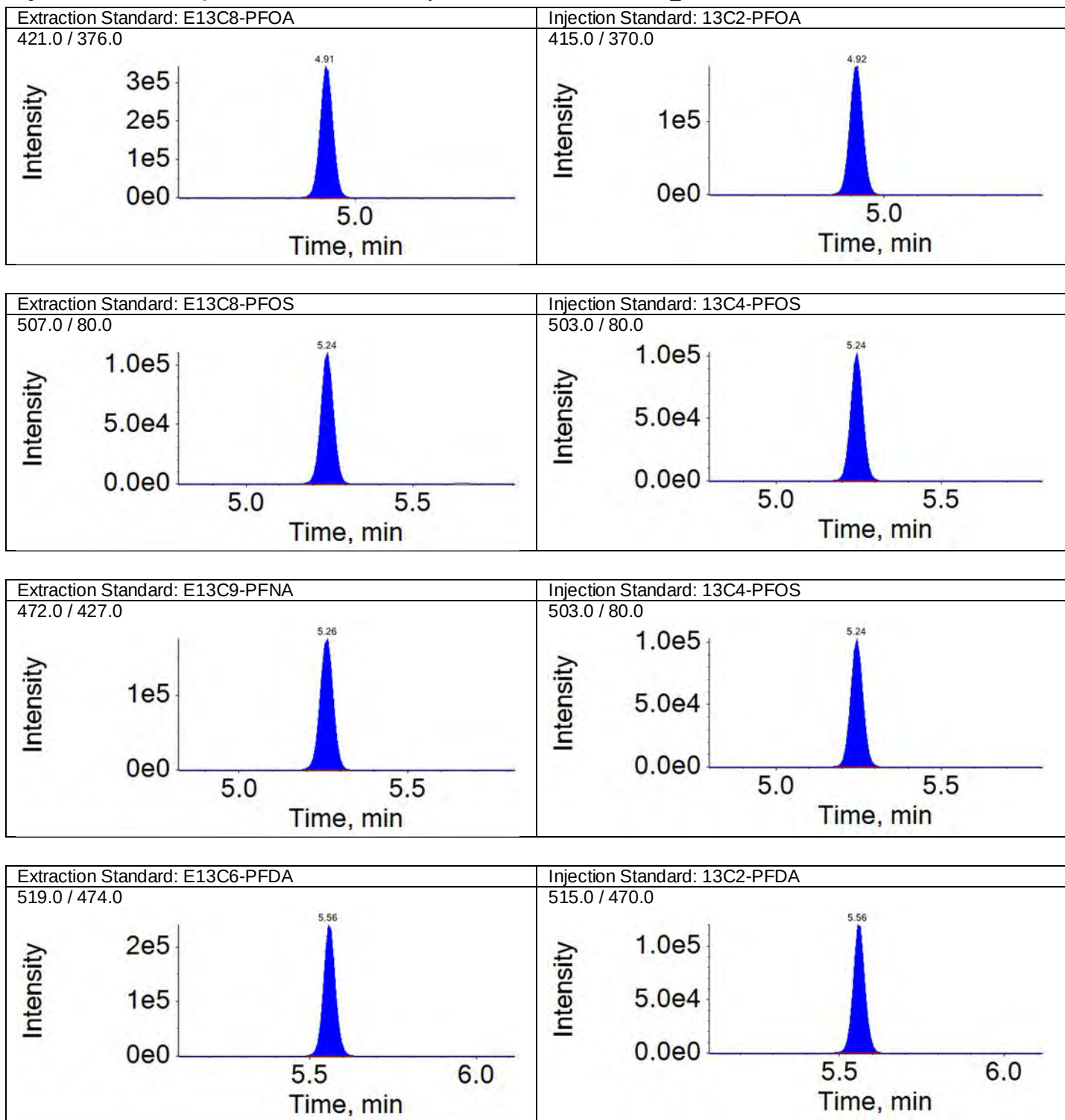
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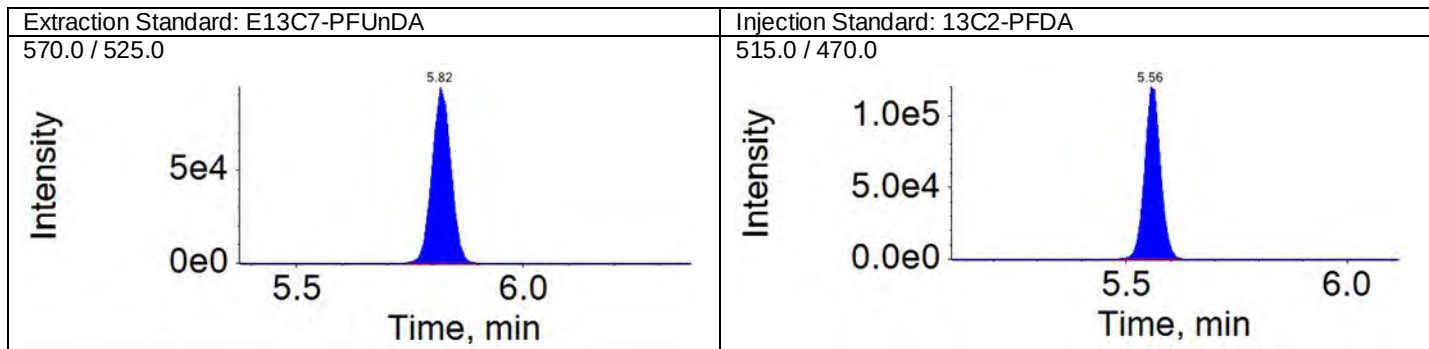
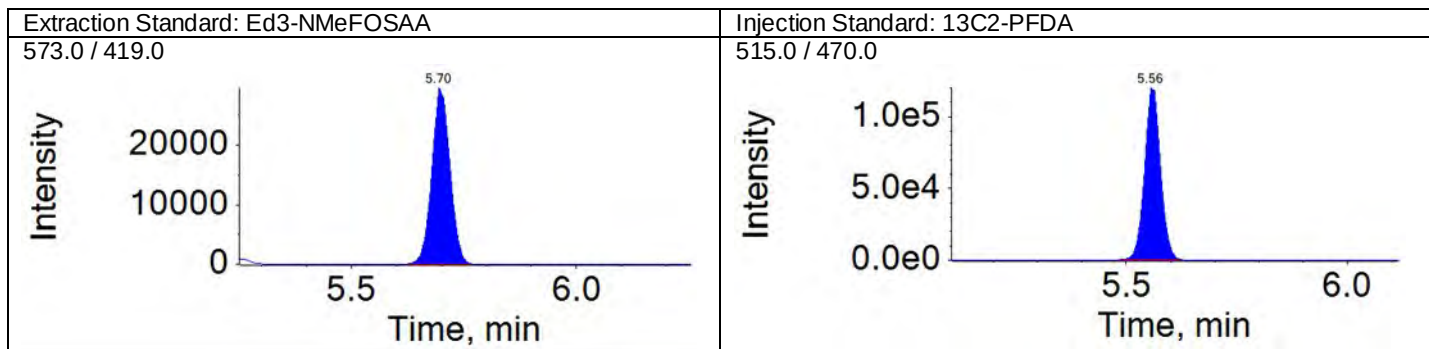
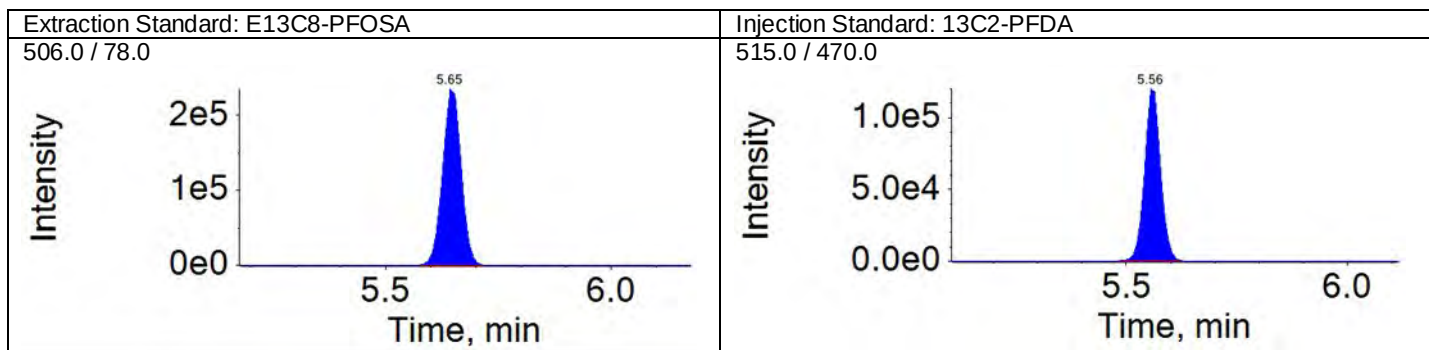
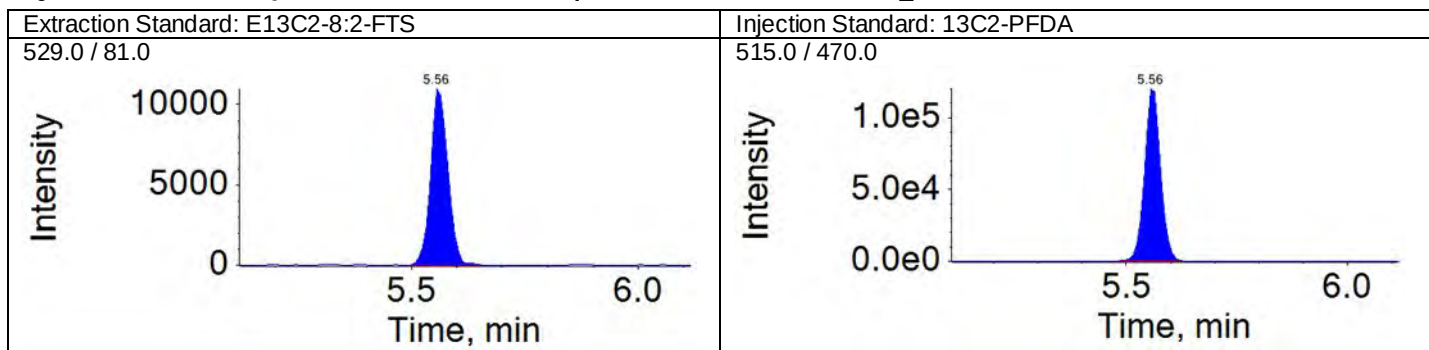
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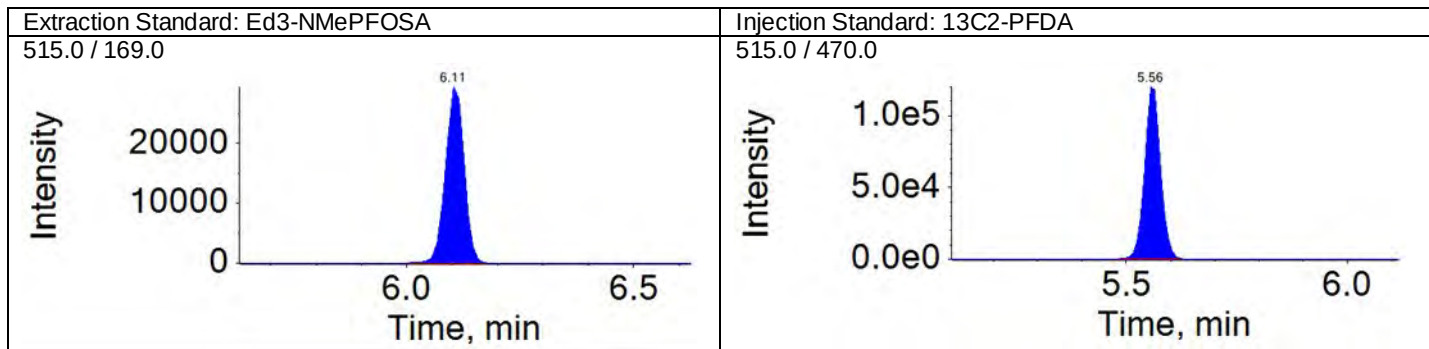
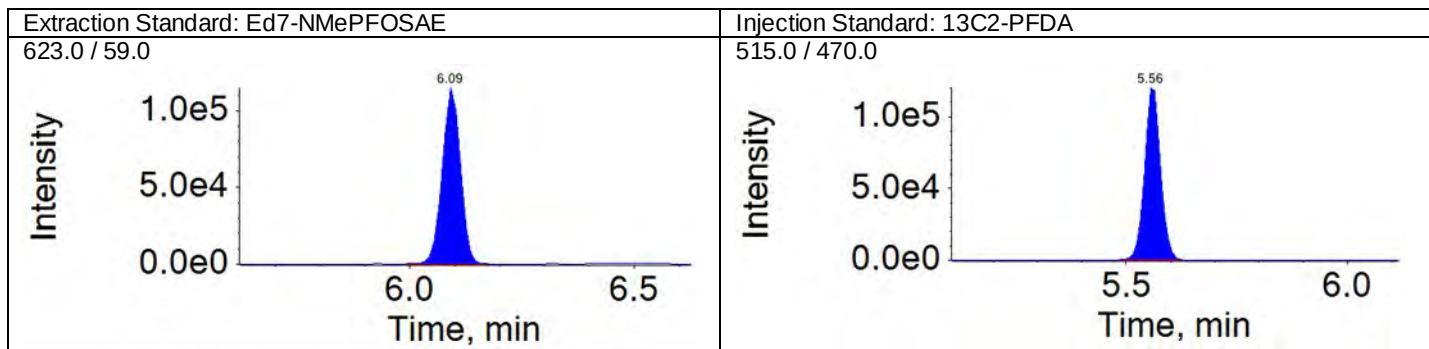
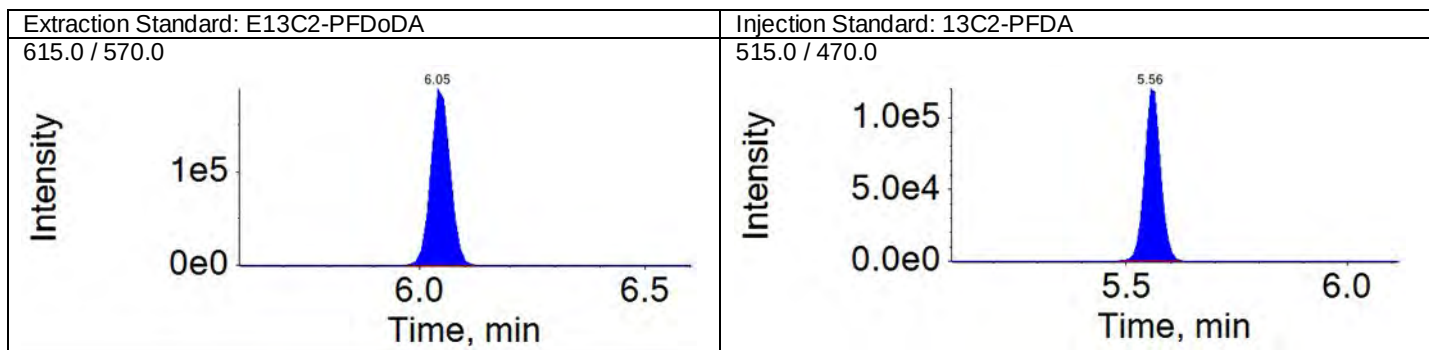
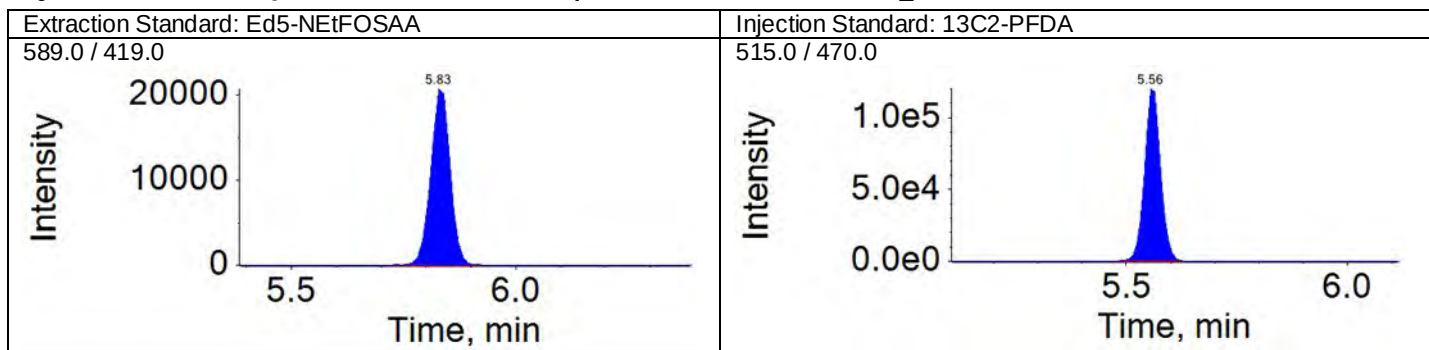
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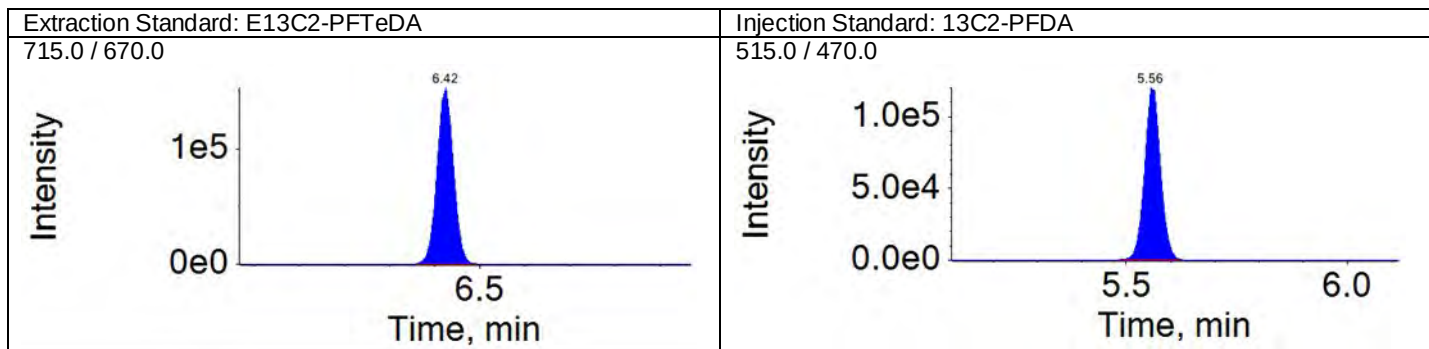
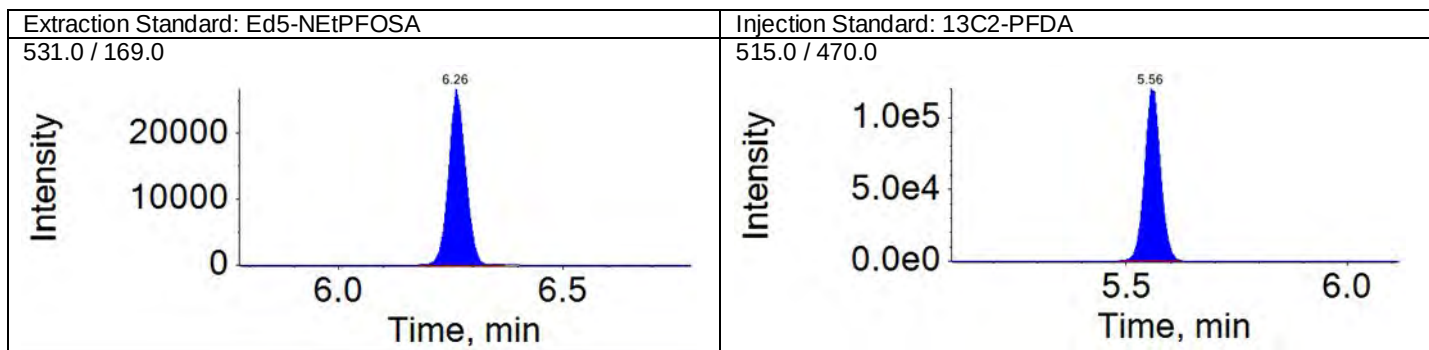
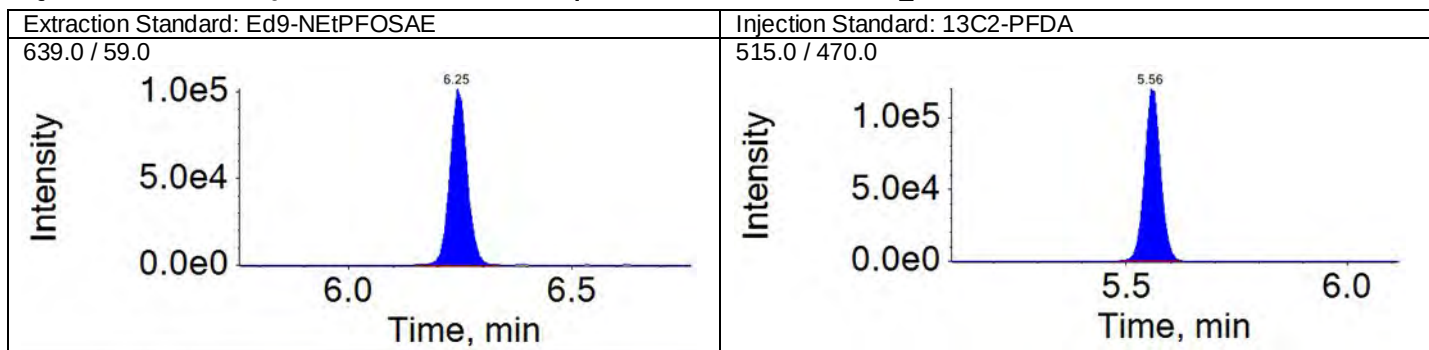
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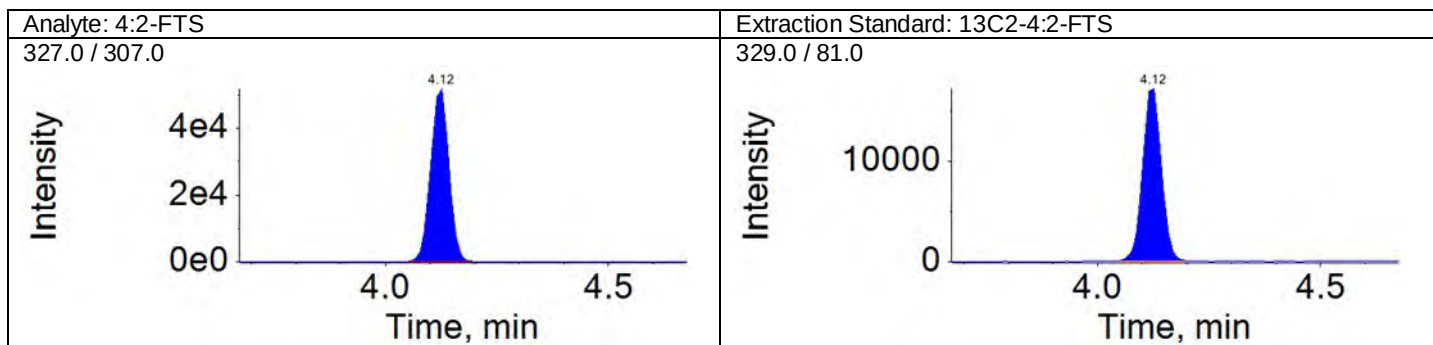
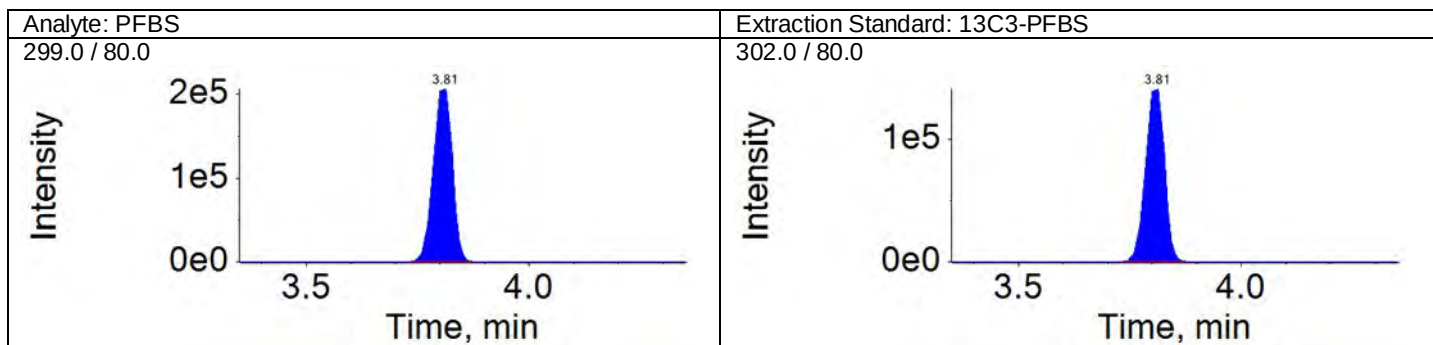
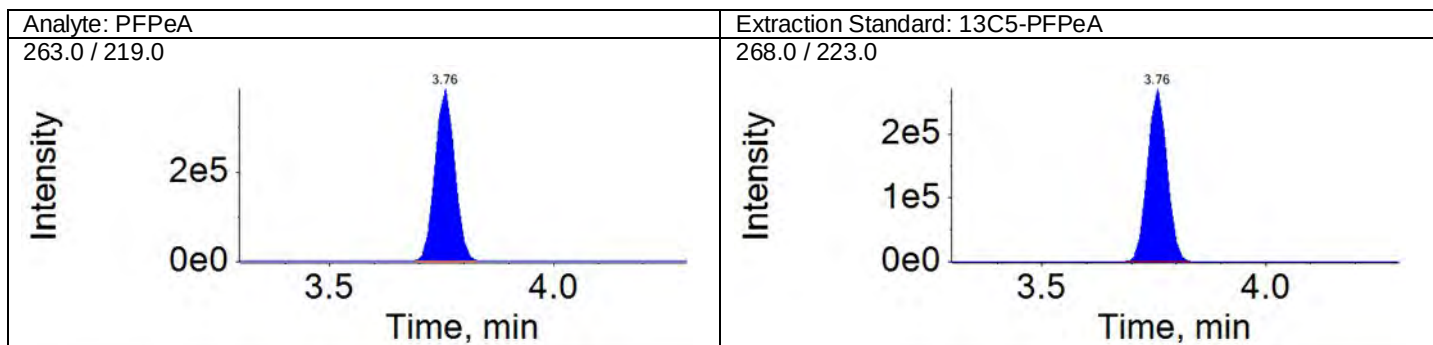
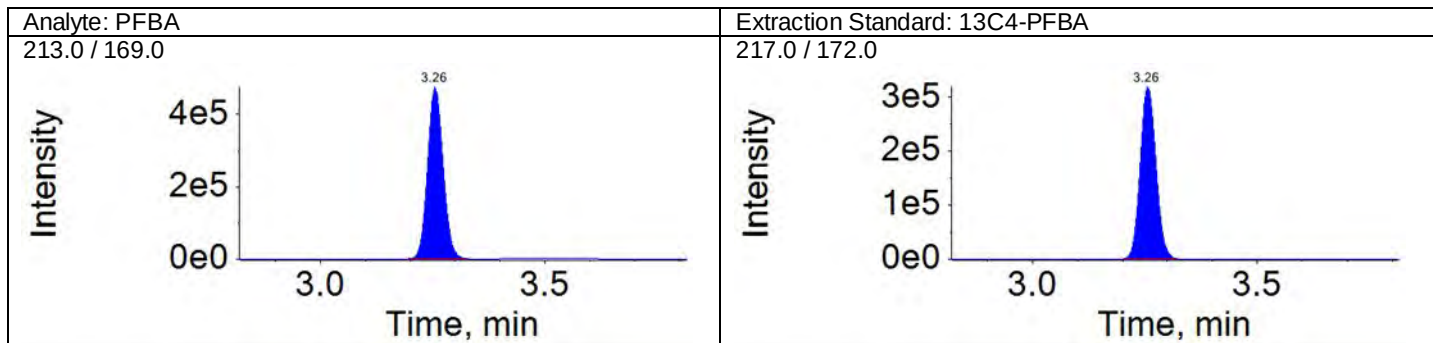
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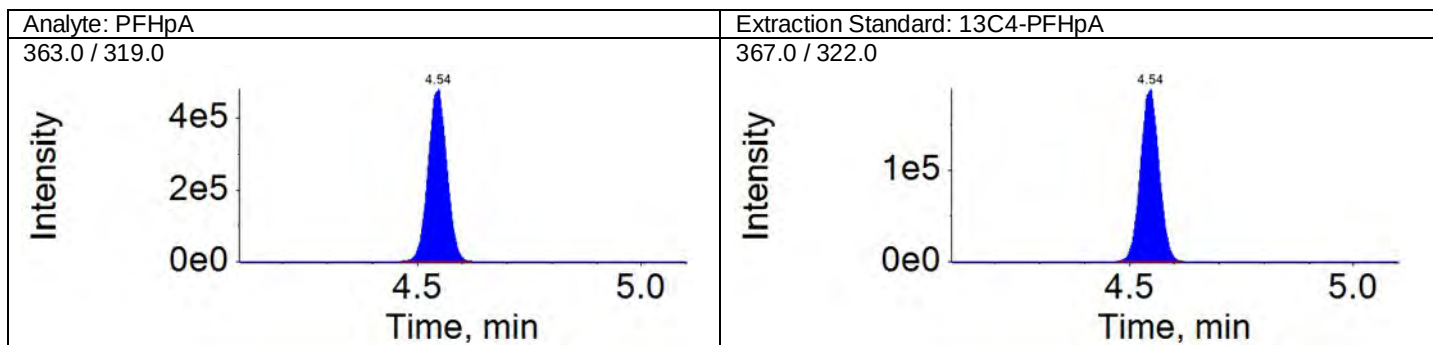
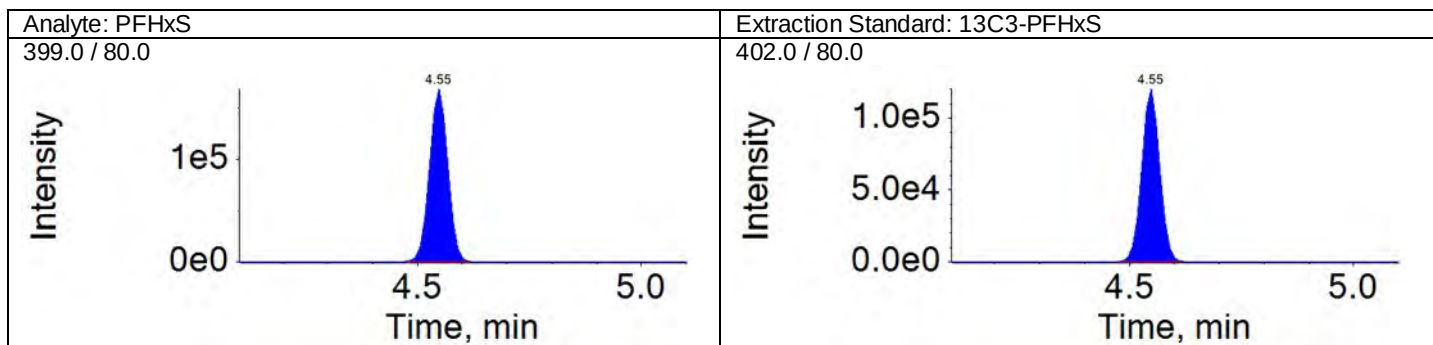
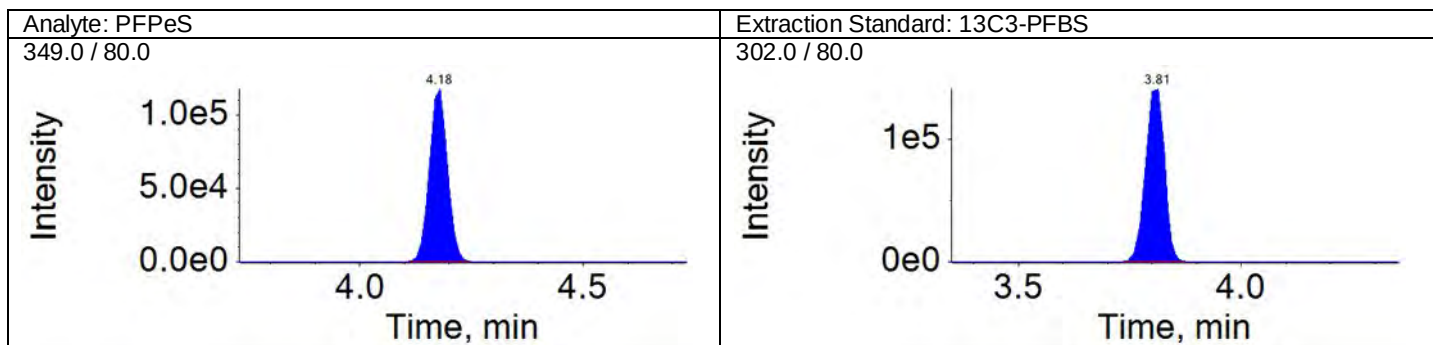
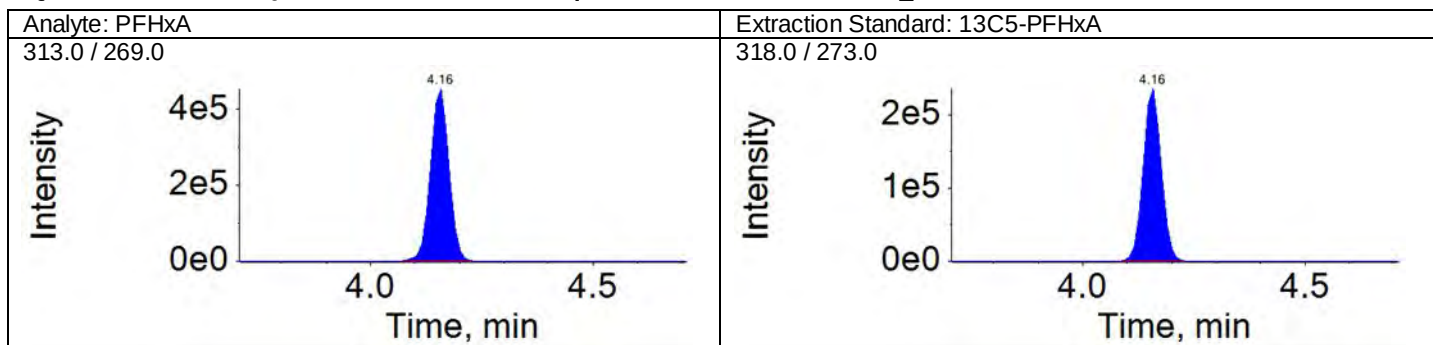
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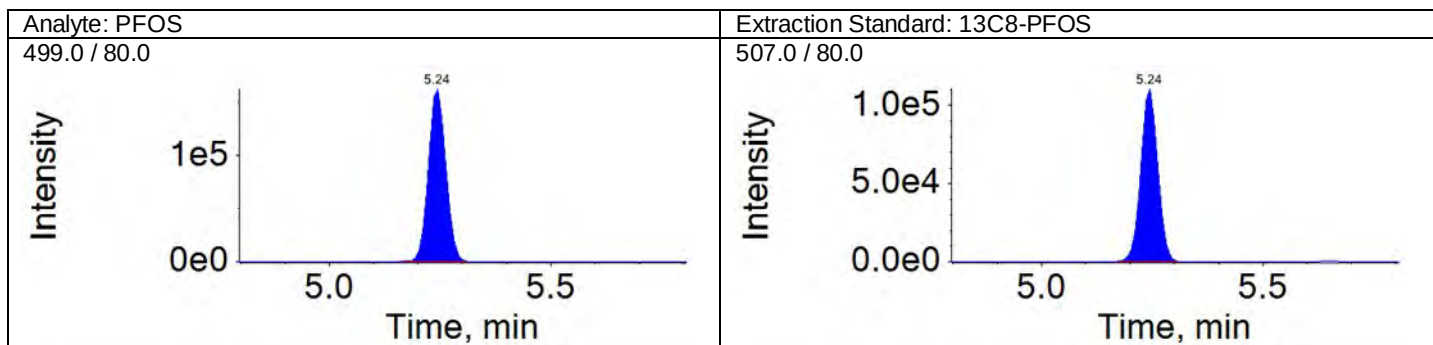
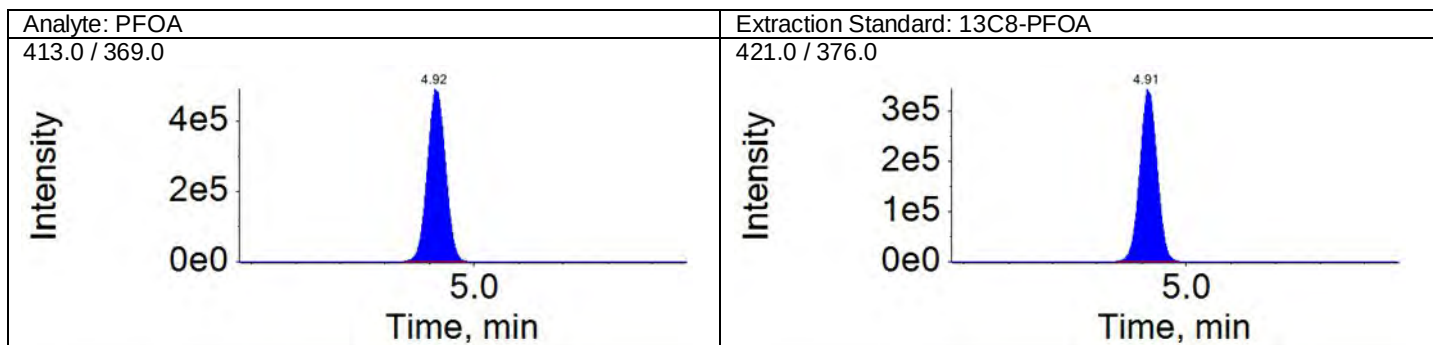
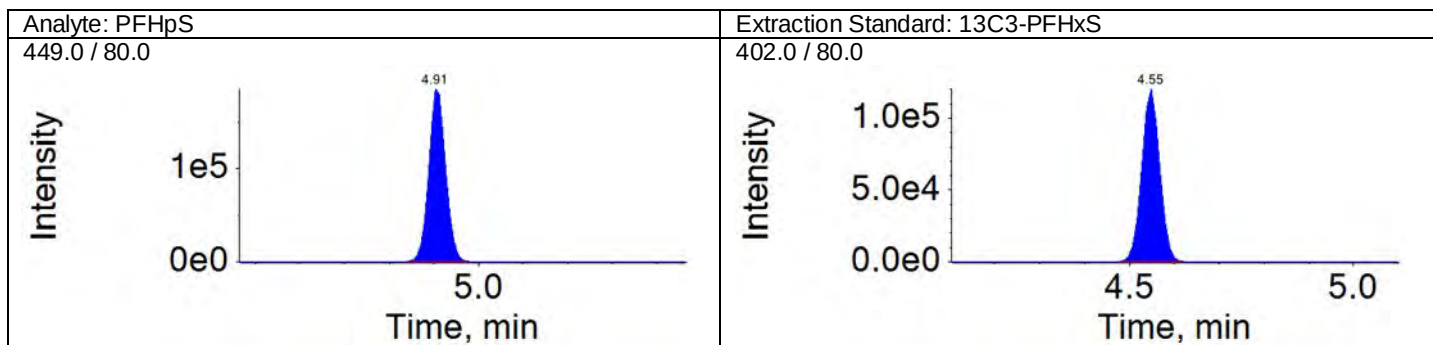
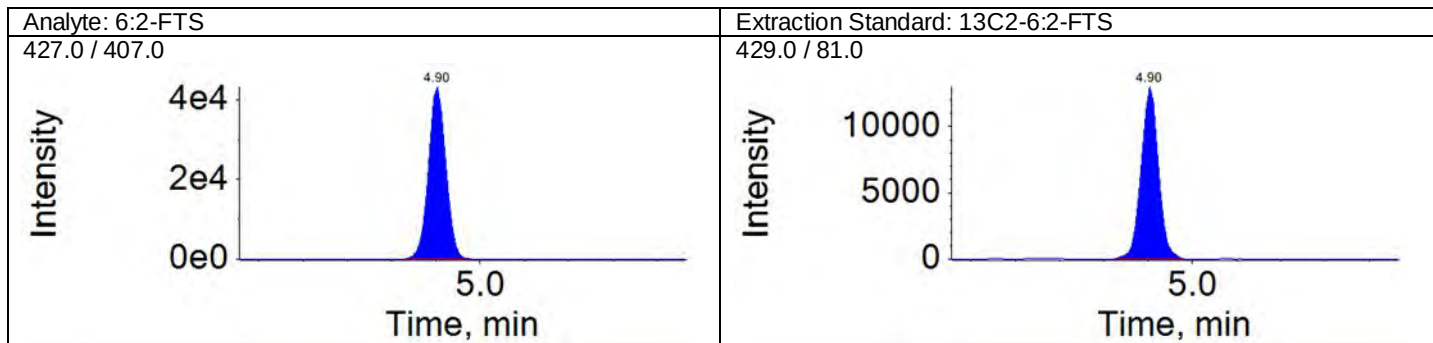
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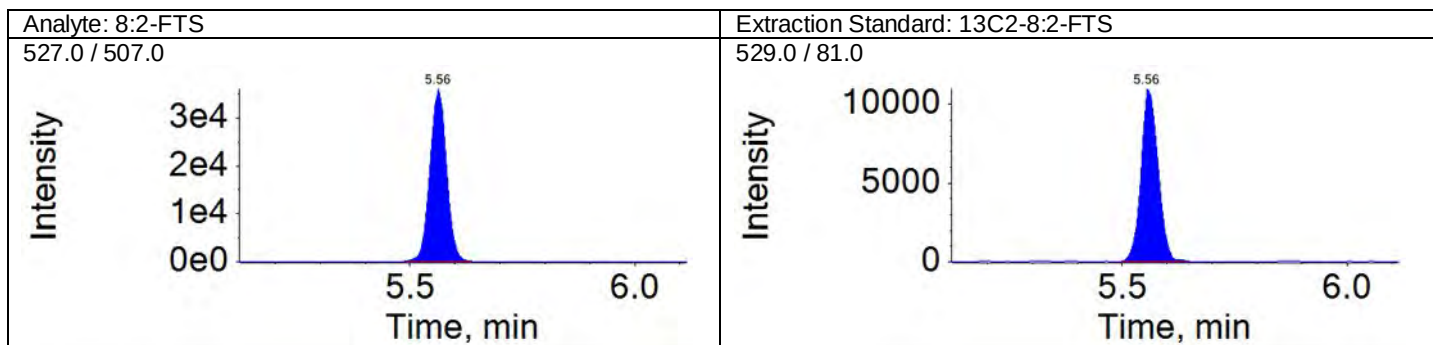
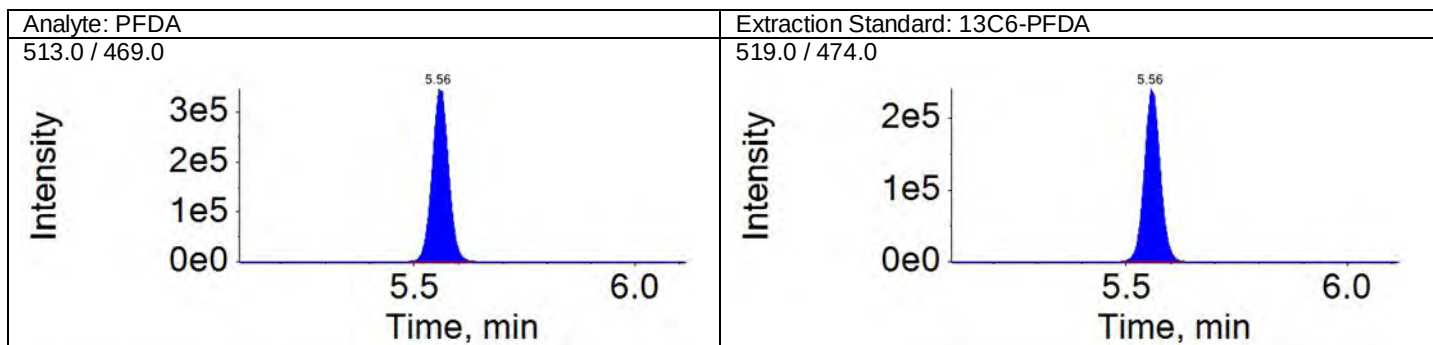
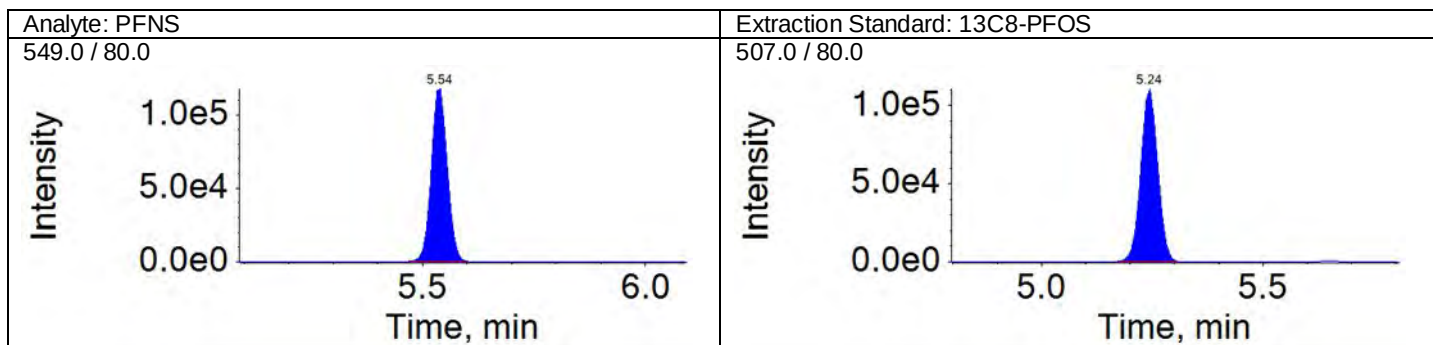
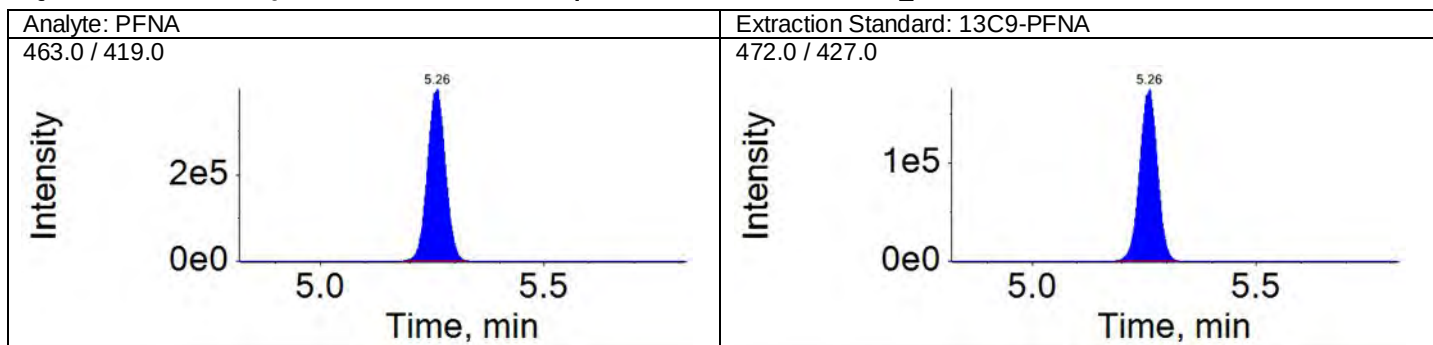
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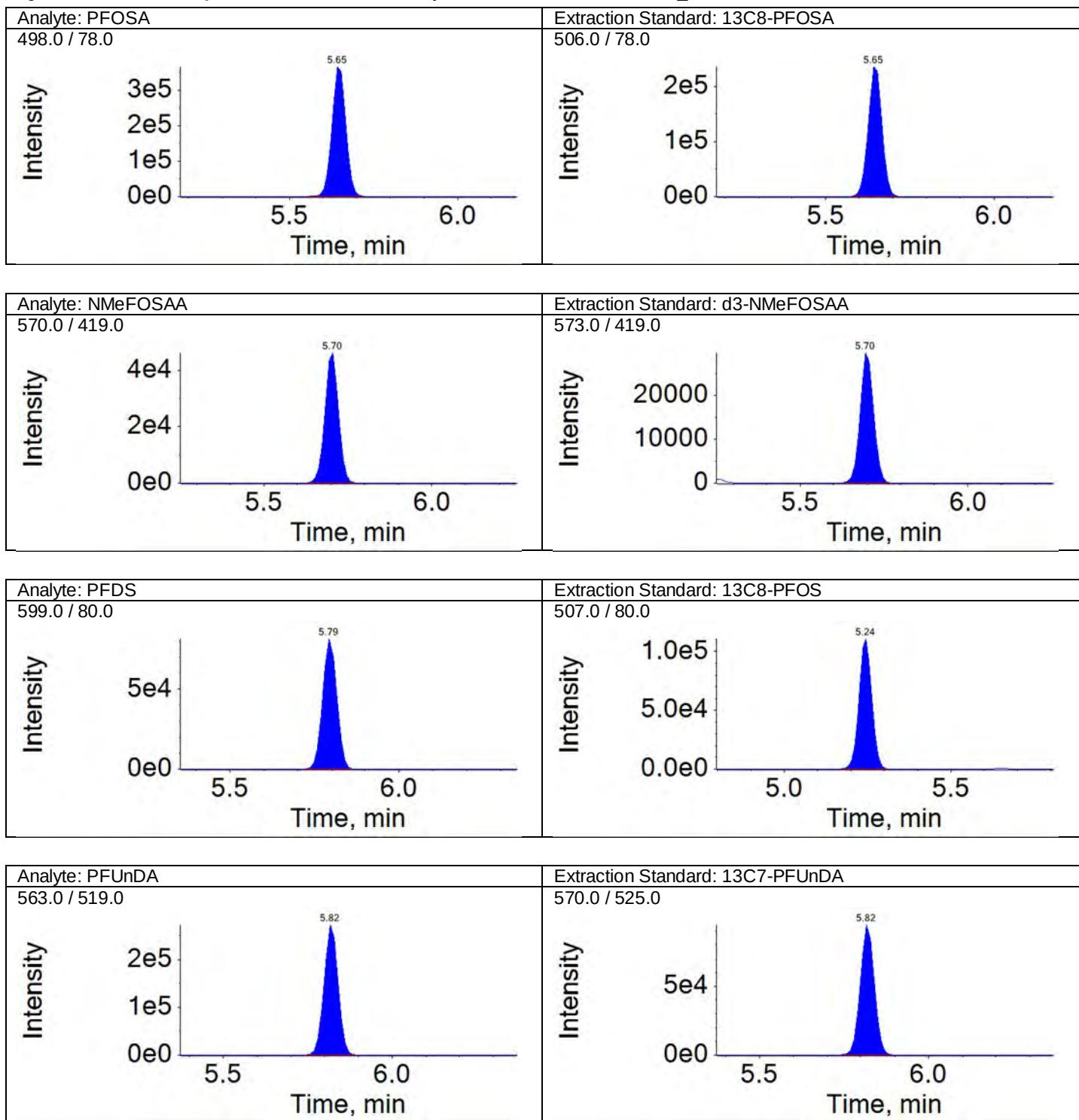
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By HMK at 7:21 am, 11/15/18

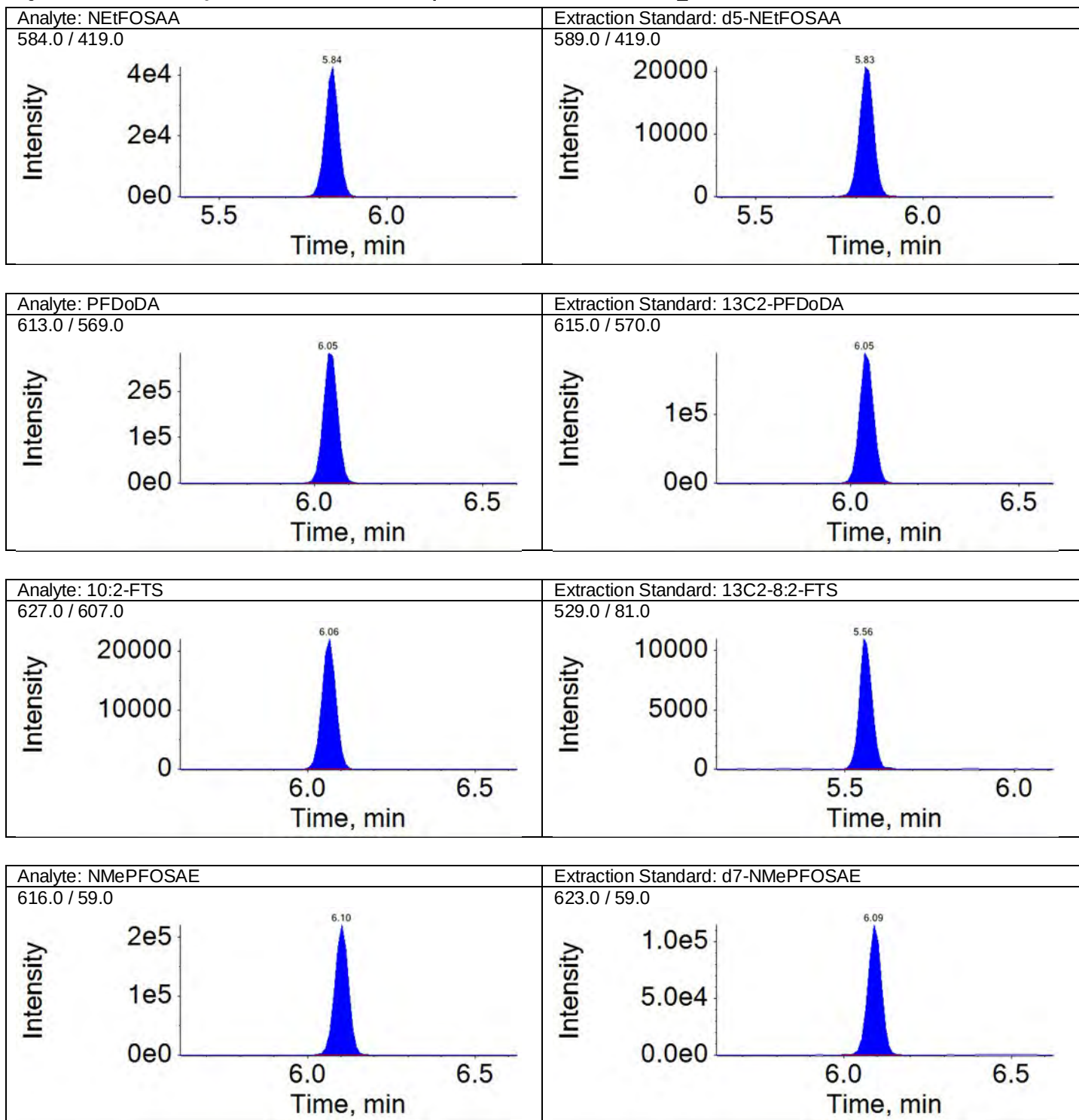
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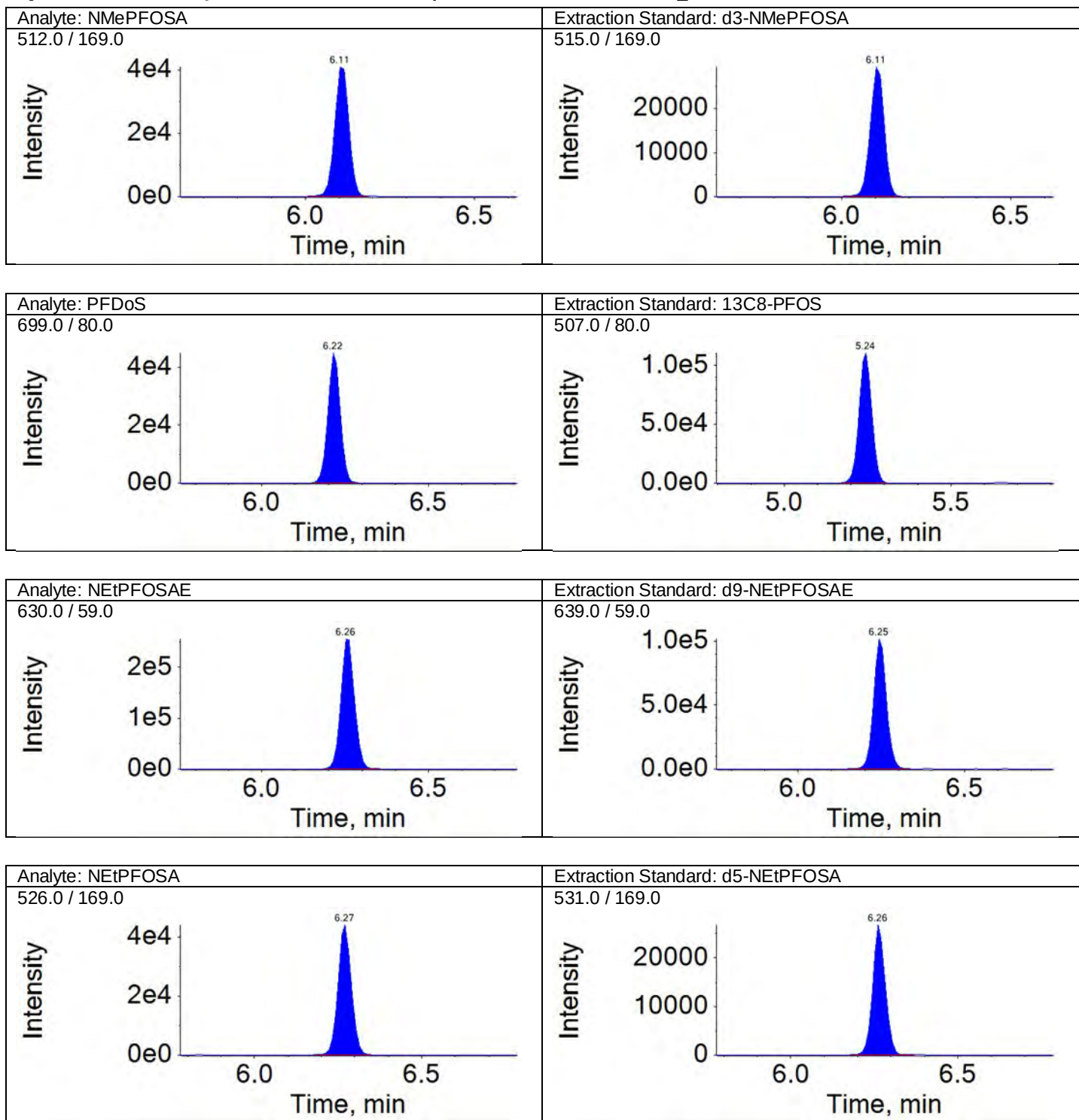
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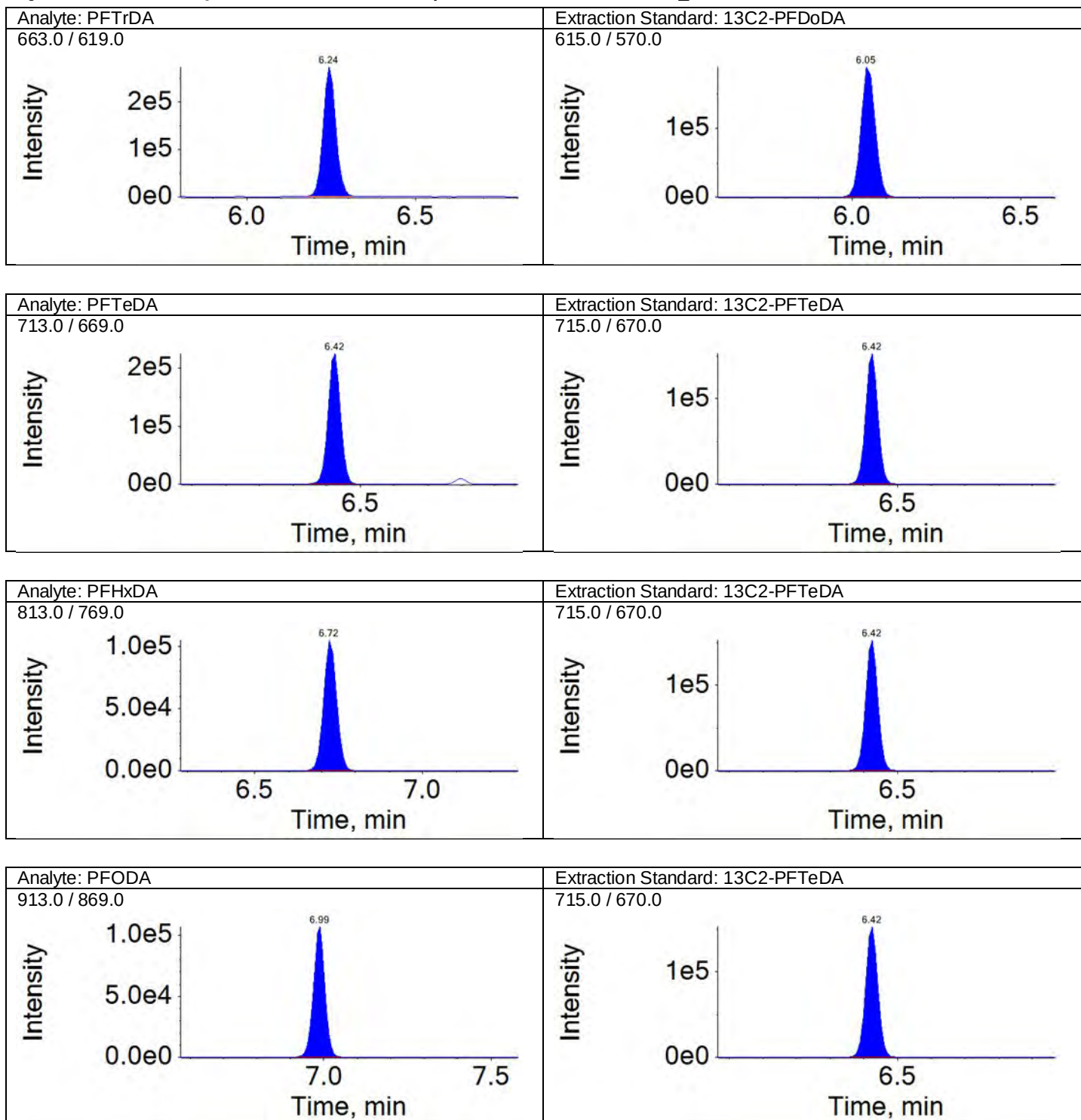
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QMethod Name: MQ4-18AUG13

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ICAL Name: 18NOV07DCAL
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Acquisition Method: 18AUG13_3uL.dam



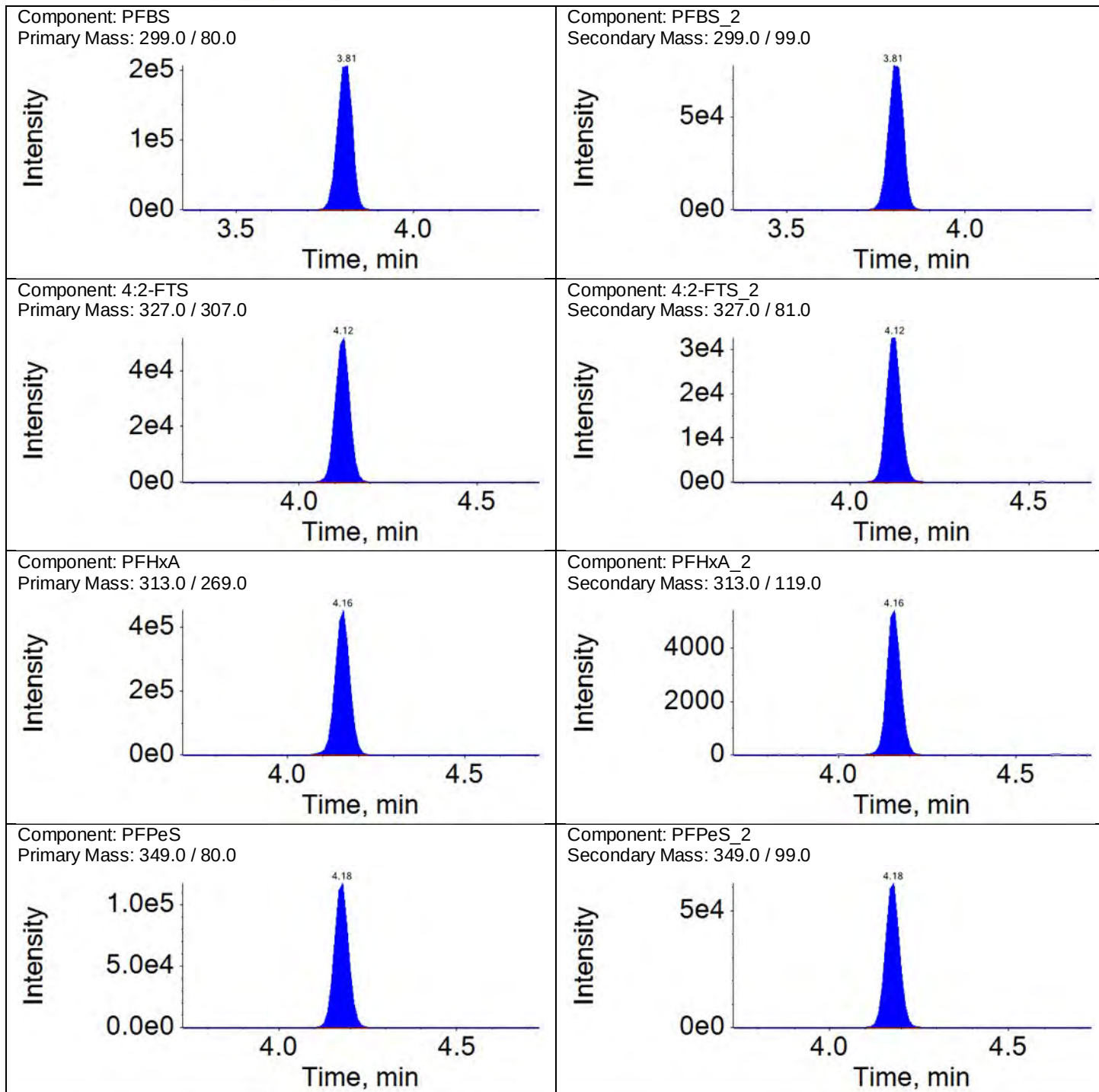
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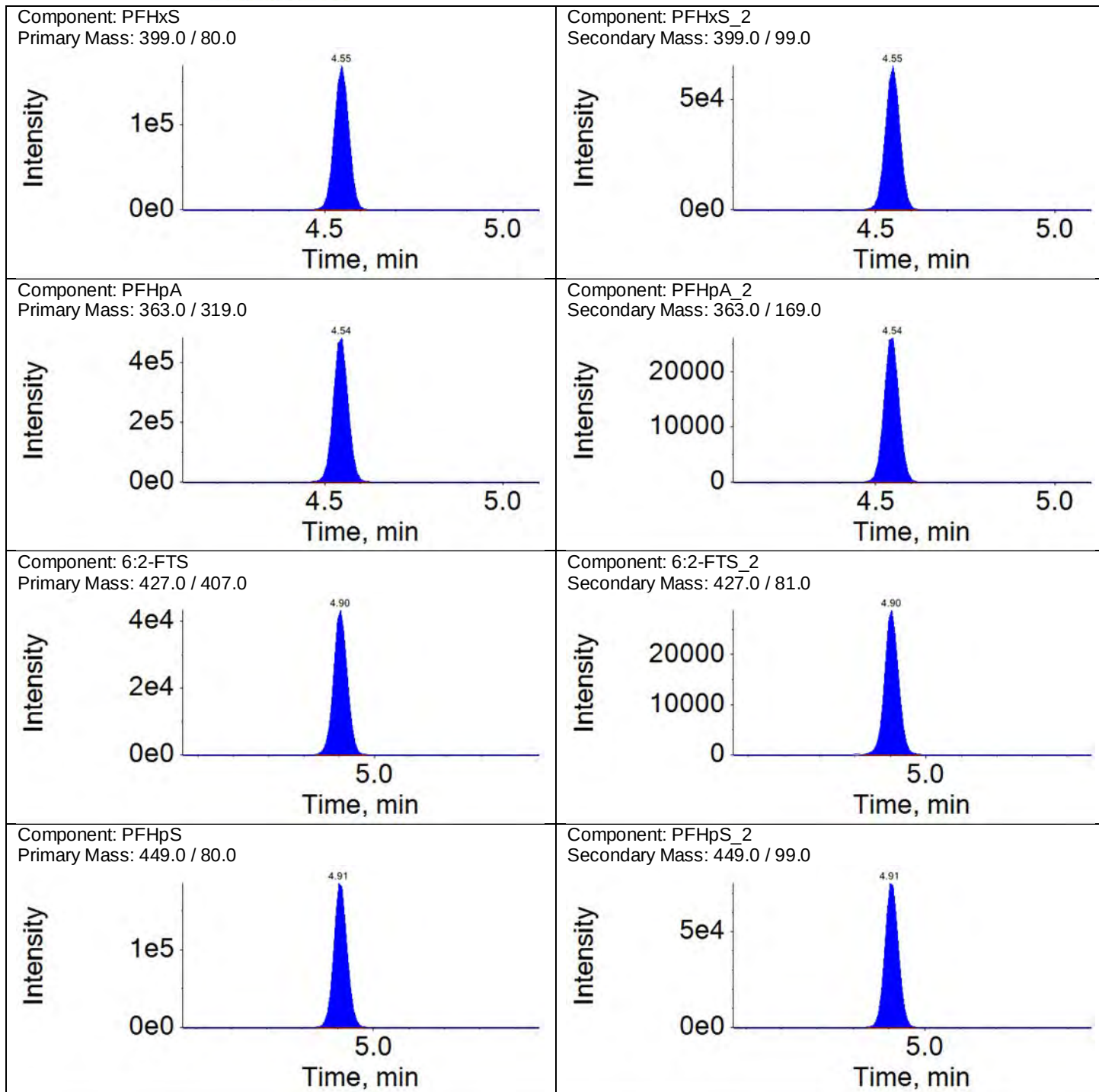
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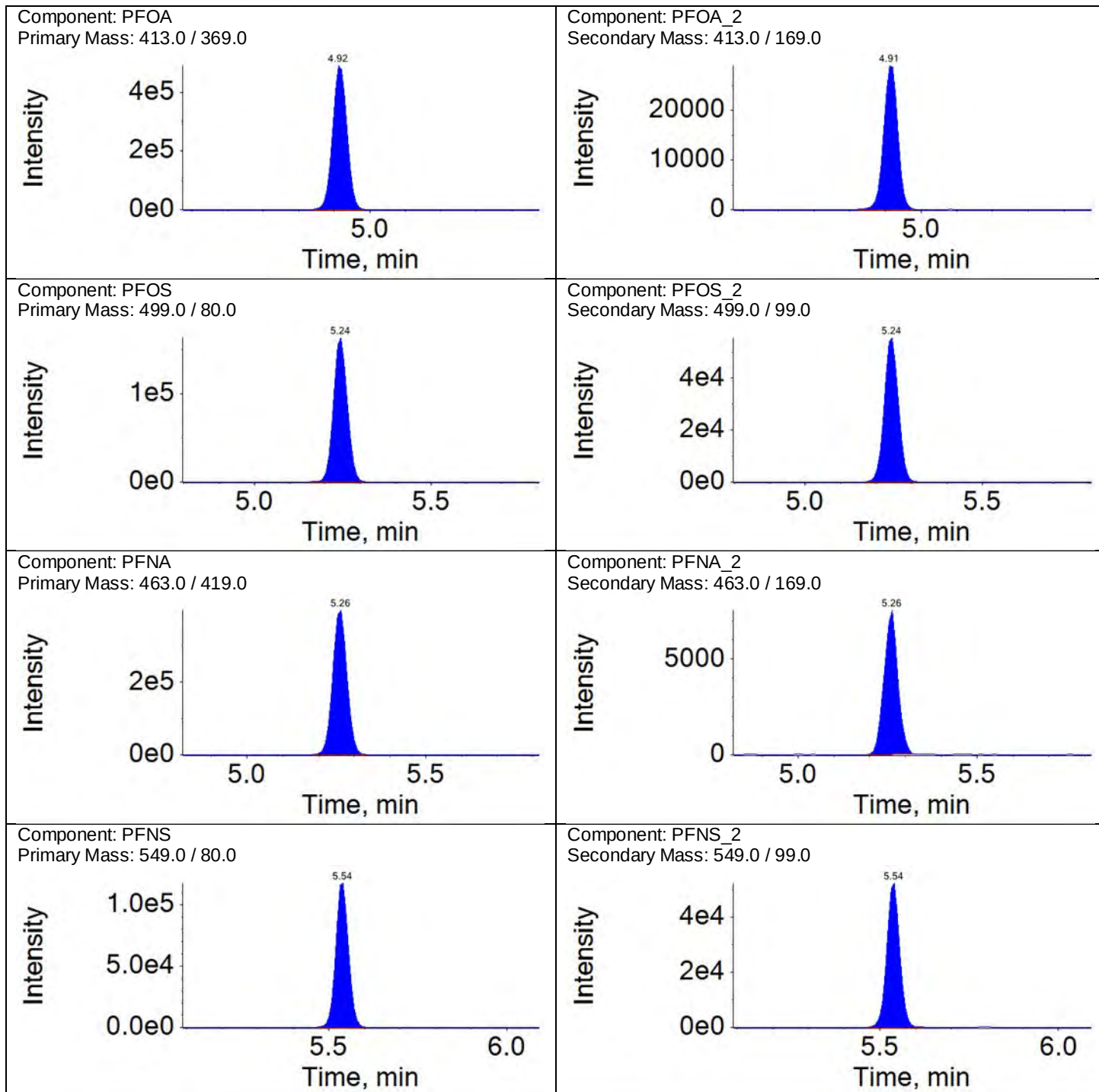
Instrument Name: LM27631

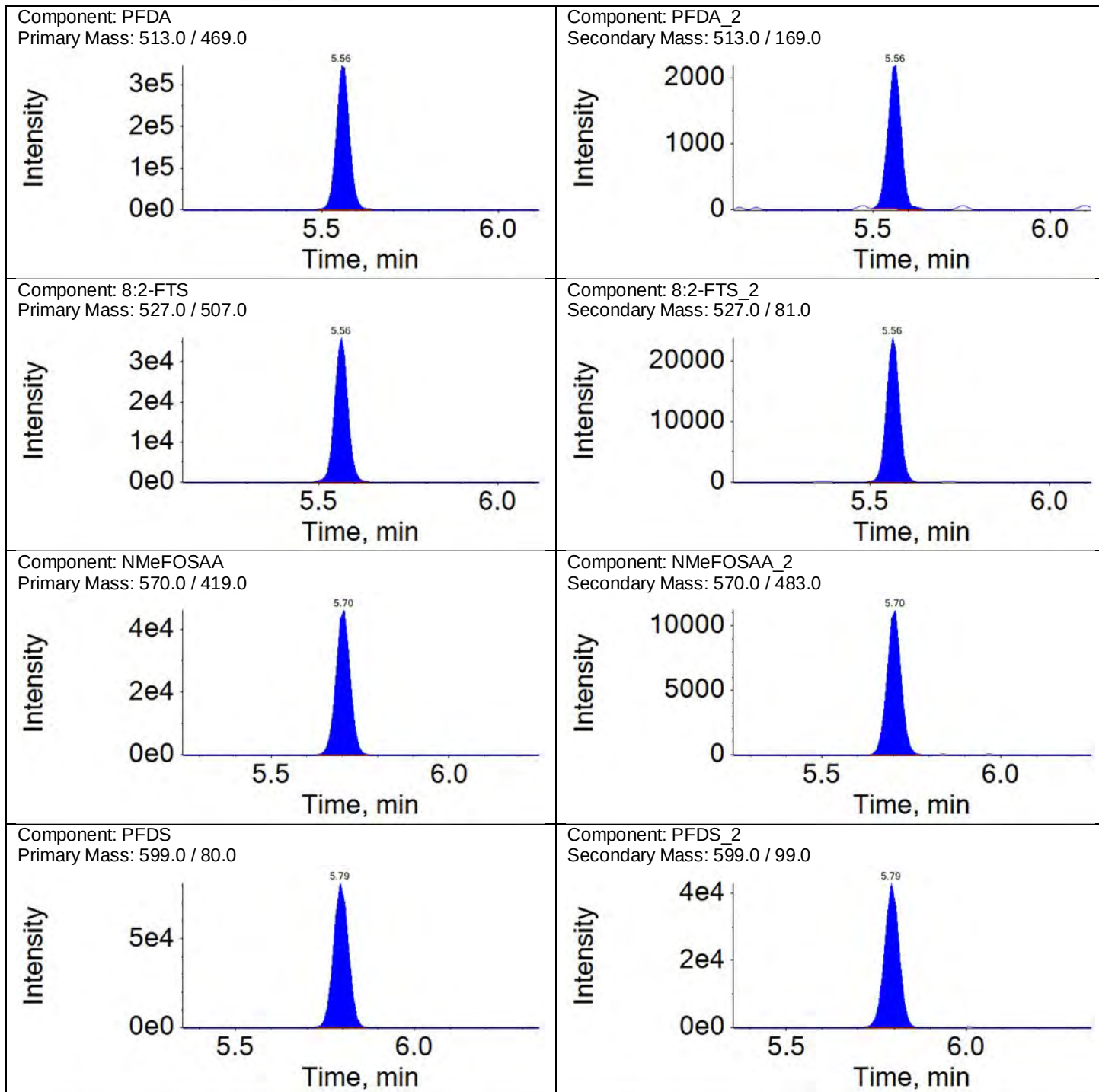
File Name: 18NOV09D-58.wiff

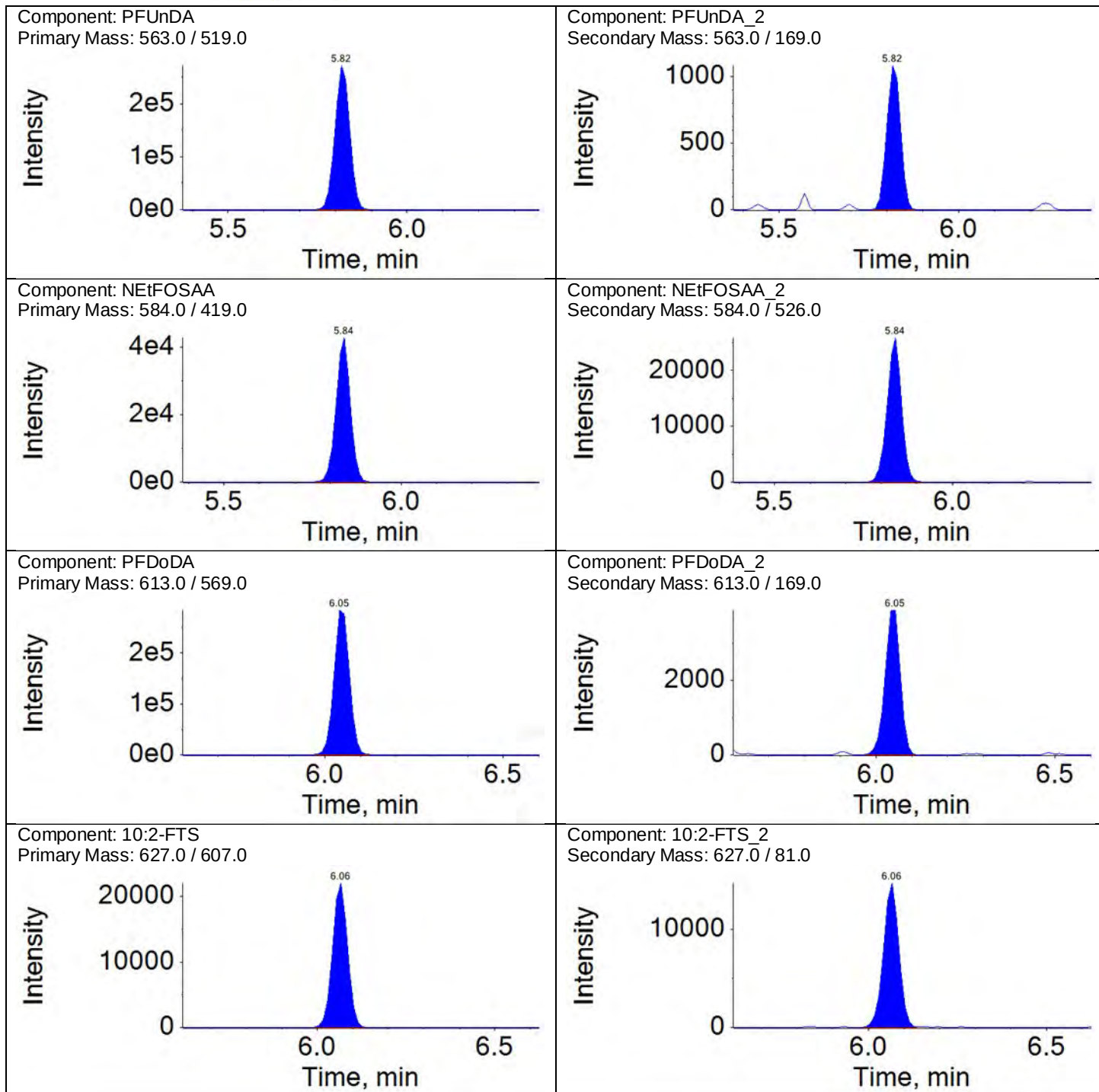
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	618537.7	A	N/A	0.3761			
PFBS_2	3.81	1.00	232662.3	A	N/A	0.3761	6	50	
4:2-FTS	4.12	1.00	147591.3	A	N/A	0.6397			
4:2-FTS_2	4.12	1.00	94412.9	A	N/A	0.6397	0	50	
PFHxA	4.16	1.00	1304135.9	A	N/A	0.0114			
PFHxA_2	4.16	1.00	14822.0	A	N/A	0.0114	1	50	
PFPeS	4.18	1.10	330448.2	A	N/A	0.5227			
PFPeS_2	4.18	1.10	172723.6	A	N/A	0.5227	-4	50	
PFHxS	4.55	1.00	481361.1	A	N/A	0.3828			
PFHxS_2	4.55	1.00	184245.0	A	N/A	0.3828	7	50	
PFHpA	4.54	1.00	1402000.9	A	N/A	0.0549			
PFHpA_2	4.54	1.00	77037.0	A	N/A	0.0549	-5	50	
6:2-FTS	4.90	1.00	117446.7	A	N/A	0.6685			
6:2-FTS_2	4.90	1.00	78515.5	A	N/A	0.6685	-2	50	
PFHpS	4.91	1.08	485428.9	A	N/A	0.4116			
PFHpS_2	4.91	1.08	199805.3	A	N/A	0.4116	4	50	
PFOA	4.92	1.00	1375232.8	A	N/A	0.0580			
PFOA_2	4.91	1.00	79812.1	A	N/A	0.0580	-9	50	
PFOS	5.24	1.00	444338.9	A	N/A	0.3464			
PFOS_2	5.24	1.00	153906.9	A	N/A	0.3464	-2	50	
PFNA	5.26	1.00	1109597.3	A	N/A	0.0181			
PFNA_2	5.26	1.00	20063.4	A	N/A	0.0181	-12	50	
PFNS	5.54	1.06	293202.2	A	N/A	0.4474			
PFNS_2	5.54	1.06	131166.0	A	N/A	0.4474	-8	50	
PFDA	5.56	1.00	889730.2	A	N/A	0.0065			
PFDA_2	5.56	1.00	5786.2	A	N/A	0.0065	19	50	
8:2-FTS	5.56	1.00	92493.2	A	N/A	0.6450			
8:2-FTS_2	5.56	1.00	59662.0	A	N/A	0.6450	4	50	
NMeFOSAA	5.70	1.00	128740.2	A	N/A	0.2405			
NMeFOSAA_2	5.70	1.00	30960.1	A	N/A	0.2405	11	50	
PFDS	5.79	1.11	236970.5	A	N/A	0.5106			
PFDS_2	5.79	1.11	120992.2	A	N/A	0.5106	11	50	
PFUnDA	5.82	1.00	780262.5	A	N/A	0.0037			
PFUnDA_2	5.82	1.00	2890.1	A	N/A	0.0037	21	50	
NEtFOSAA	5.84	1.00	118779.9	A	N/A	0.6081			
NEtFOSAA_2	5.84	1.00	72227.3	A	N/A	0.6081	0	50	
PFDODA	6.05	1.00	850770.9	A	N/A	0.0135			
PFDODA_2	6.05	1.00	11514.2	A	N/A	0.0135	29	50	
10:2-FTS	6.06	1.09	64255.6	A	N/A	0.6830			
10:2-FTS_2	6.06	1.09	43888.6	A	N/A	0.6830	-4	50	
PFTTrDA	6.24	1.03	710393.0	A	N/A	0.0109			
PFTTrDA_2	6.24	1.03	7731.0	A	N/A	0.0109	14	50	
PFTeDA	6.42	1.00	574891.9	A	N/A	0.0061			
PFTeDA_2	6.42	1.00	3495.6	A	N/A	0.0061	13	50	
PFHxDA	6.72	1.05	282106.4	A	N/A	0.0620			
PFHxDA_2	6.72	1.05	17479.3	A	N/A	0.0620	5	50	
PFODA	6.99	1.09	252545.4	A	N/A	0.0250			
PFODA_2	6.98	1.09	6323.9	A	N/A	0.0250	-2	50	

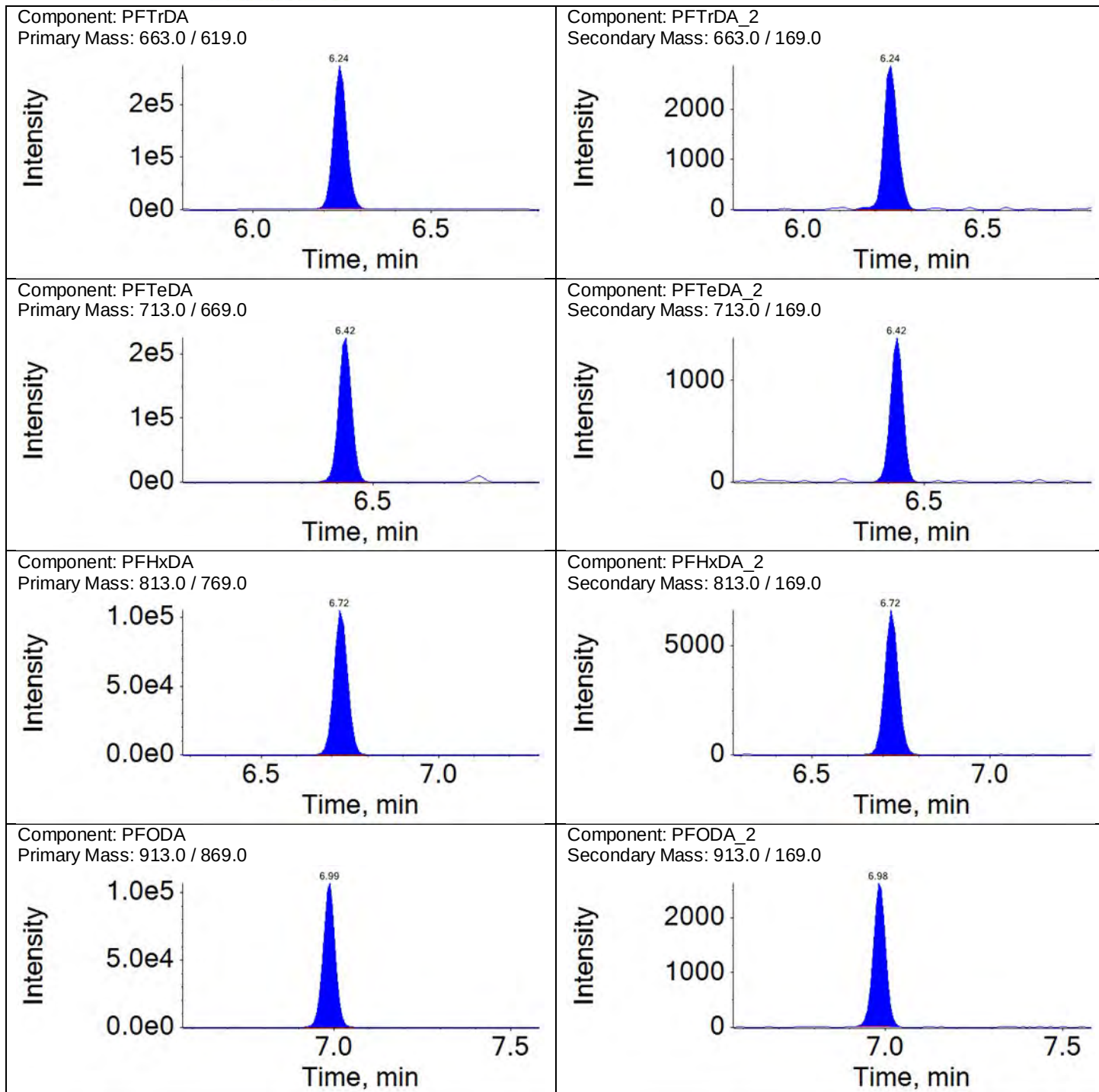












DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

Sample File Name	Acquisition Date	Sample ID	Sample Name
18NOV12DCAL-42.wiff	11/12/2018 3:05:54 PM	CALBRN11833C	CAL1
18NOV12DCAL-43.wiff	11/12/2018 3:15:03 PM	CALBRN21833C	CAL2
18NOV12DCAL-44.wiff	11/12/2018 3:24:03 PM	CALBRN31833B	CAL3
18NOV12DCAL-45.wiff	11/12/2018 3:33:03 PM	CALBRN41833B	CAL4
18NOV12DCAL-46.wiff	11/12/2018 3:42:06 PM	CALBRN51833B	CAL5
18NOV12DCAL-47.wiff	11/12/2018 3:51:06 PM	CALBRN61833B	CAL6
18NOV12DCAL-48.wiff	11/12/2018 4:00:06 PM	CALBRN71833B	CAL7

CAL3 Injection Standard Areas

Sample Name	Injection Std Name	Injection Std Area
CAL3	13C3-PFBA	659926.2
CAL3	13C2-PFOA	450219.7
CAL3	13C4-PFOS	249205.8
CAL3	13C2-PFDA	278743.9

DOD Initial Calibration Verification

Instrument ID: LM27631 ICAI Name: 18NOV12DCAL QMethod Name: 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM Acquisition Method: 18AUG13_3uL.dam

Response Factor Table

Analyte Name	CAL 1	CAL 2	CAL 3	CAL 4	CAL 5	CAL 6	CAL 7	%RSD	Limit	OOS	r ²	OOS
PFBA	1.059	0.868	1.034	0.919	0.966	0.910	0.882	7	20		0.999	
PFPeA	1.058	0.952	1.052	0.939	0.906	0.876	0.839	8	20		0.999	
PFBS	1.061	0.938	1.061	0.954	1.001	0.997	0.964	5	20		1.000	
4:2-FTS	1.764	1.591	1.797	1.672	1.662	1.782	1.703	4	20		0.999	
PFHxA	1.470	1.241	1.361	1.233	1.255	1.160	N/A	8	20		0.998	
PFPeS	0.534	0.400	0.499	0.479	0.471	0.484	0.478	8	20		1.000	
PFHpA	1.776	1.486	1.766	1.619	1.555	1.461	N/A	8	20		0.998	
PFHxS	1.019	0.838	1.029	0.984	0.957	0.972	0.980	6	20		1.000	
6:2-FTS	1.892	1.888	2.214	2.112	2.098	1.876	N/A	7	20		0.996	
PFHpS	1.007	0.773	0.988	0.856	0.922	0.911	0.890	8	20		1.000	
PFOA	1.136	0.940	1.059	0.960	1.022	0.956	0.904	7	20		0.998	
PFOS	1.194	1.024	1.112	1.084	1.110	1.087	1.093	4	20		1.000	
PFNA	1.545	1.489	1.658	1.424	1.542	1.407	1.336	7	20		0.997	
PFNS	0.602	0.621	0.674	0.628	0.676	0.673	0.695	5	20		0.999	
PFDA	1.122	0.883	1.037	0.962	0.987	0.919	N/A	8	20		0.999	
8:2-FTS	2.201	1.873	2.243	1.857	2.127	2.051	N/A	7	20		0.998	
PFOSA	1.113	0.931	1.074	0.954	1.047	1.024	N/A	6	20		0.999	
NMeFOSAA	0.663	0.620	0.877	0.890	0.865	0.893	0.886	13	20		1.000	
PFDS	0.521	0.496	0.511	0.520	0.537	0.515	0.533	2	20		1.000	
PFUnDA	2.280	1.757	2.026	2.069	1.918	1.881	N/A	8	20		0.999	
NEtFOSAA	0.709	1.011	1.153	0.906	0.931	0.963	N/A	14	20		0.998	
PFDODA	1.015	0.935	1.079	0.963	1.034	0.961	N/A	5	20		0.999	
10:2-FTS	1.703	1.561	1.573	1.278	1.573	1.511	1.383	9	20		0.997	
NMePFOSAE	1.287	1.110	1.331	1.179	1.255	1.278	1.152	6	20		0.997	
NMePFOSA	0.758	0.950	0.975	1.020	1.096	0.983	N/A	11	20		0.998	
PFDoS	0.306	0.272	0.264	0.272	0.266	0.278	0.272	5	20		1.000	
NEtPFOSAE	1.873	1.487	1.717	1.622	1.623	1.516	N/A	8	20		0.999	
NEtPFOSA	1.129	1.156	1.156	1.125	1.166	1.070	1.078	3	20		0.999	
PFTTrDA	0.925	0.751	0.839	0.808	0.827	0.774	N/A	7	20		0.999	
PFTeDA	0.996	0.851	0.994	0.911	0.934	0.892	0.880	6	20		0.999	
PFHxDA	0.486	0.402	0.442	0.409	0.413	0.435	0.414	6	20		0.999	
PFODA	0.367	0.316	0.367	0.349	0.358	0.360	0.359	5	20		1.000	

DOD Initial Calibration Verification

Instrument ID: LM27631

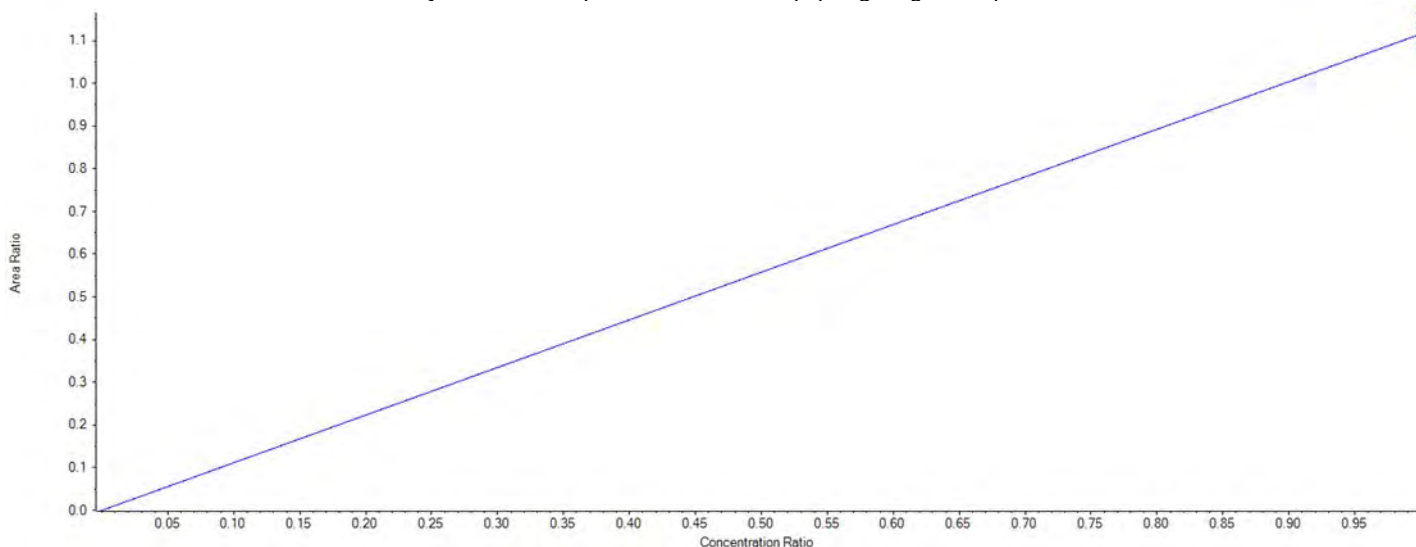
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C4-PFBA

 $y = 1.11523 x$ (std. dev. = 0.03058) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C4-PFBA Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	763334.3	676527.501	True	5.00	1.128	3.27	1.000	5.000	5.059	1	30	
CAL2	771445.8	662396.701	True	5.00	1.165	3.27	1.000	5.000	5.221	4	30	
CAL3	733360.2	659926.183	True	5.00	1.111	3.27	1.000	5.000	4.982	0	30	
CAL4	726396.0	671568.052	True	5.00	1.082	3.26	1.000	5.000	4.849	-3	30	
CAL5	698871.9	641789.507	True	5.00	1.089	3.26	1.000	5.000	4.882	-2	30	
CAL6	633648.4	555817.856	True	5.00	1.140	3.27	1.000	5.000	5.111	2	30	
CAL7	557392.8	510525.814	True	5.00	1.092	3.25	1.000	5.000	4.895	-2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

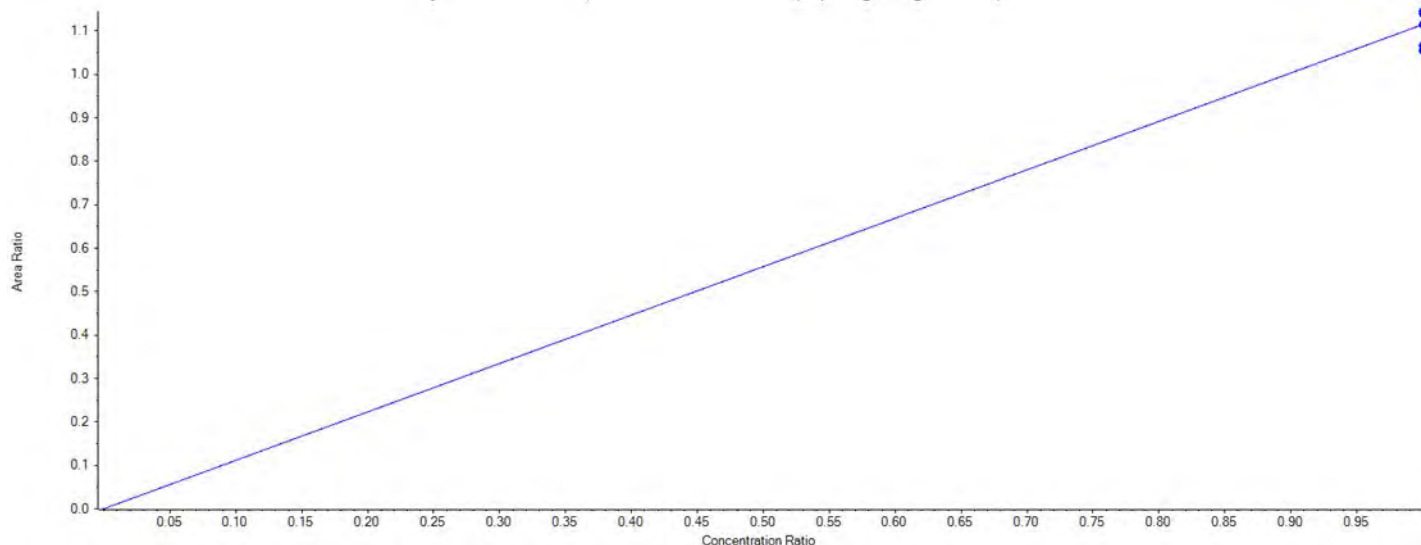
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C5-PFPeA

 $y = 1.11477 x$ (std. dev. = 0.03868) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C5-PFPeA Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	771179.4	676527.501	True	5.00	1.140	3.76	1.150	5.000	5.113	2	30	
CAL2	738194.7	662396.701	True	5.00	1.114	3.77	1.150	5.000	4.998	0	30	
CAL3	695805.7	659926.183	True	5.00	1.054	3.77	1.150	5.000	4.729	-5	30	
CAL4	716206.9	671568.052	True	5.00	1.066	3.76	1.150	5.000	4.783	-4	30	
CAL5	734598.3	641789.507	True	5.00	1.145	3.76	1.150	5.000	5.134	3	30	
CAL6	635977.8	555817.856	True	5.00	1.144	3.76	1.150	5.000	5.132	3	30	
CAL7	581688.7	510525.814	True	5.00	1.139	3.75	1.150	5.000	5.110	2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

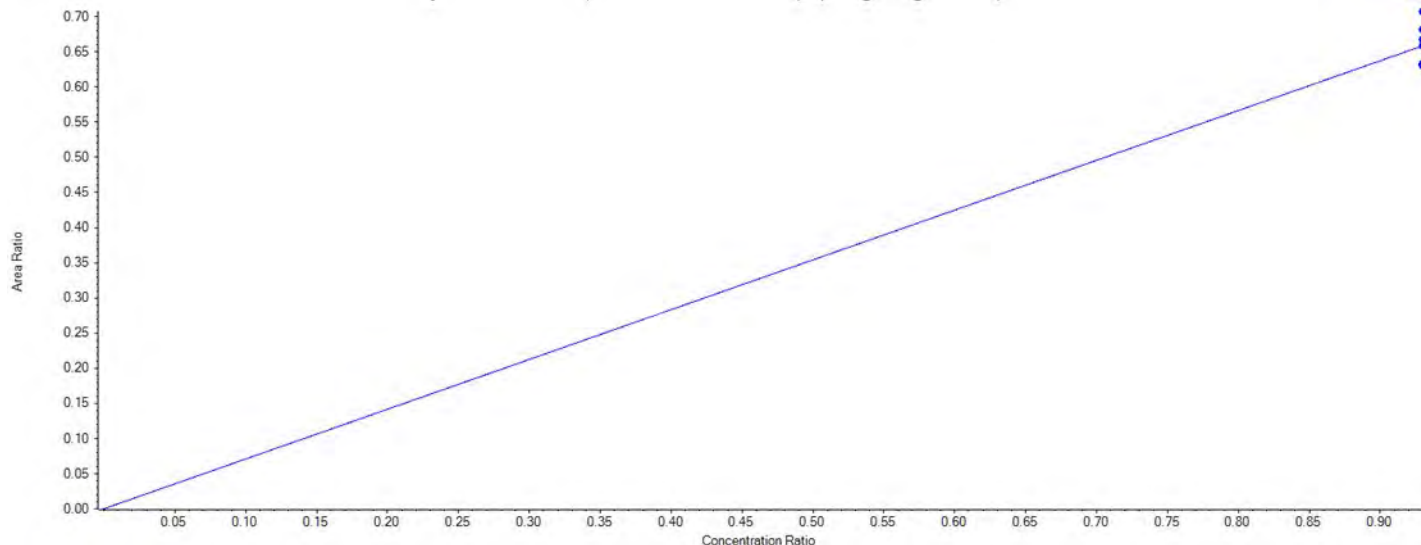
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C3-PFBS

 $y = 0.70830 x$ (std. dev. = 0.03132) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C3-PFBS Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	445963.4	676527.501	True	5.00	0.659	3.81	1.170	4.650	4.653	0	30	
CAL2	418860.7	662396.701	True	5.00	0.632	3.82	1.170	4.650	4.464	-4	30	
CAL3	416352.7	659926.183	True	5.00	0.631	3.82	1.170	4.650	4.454	-4	30	
CAL4	425015.7	671568.052	True	5.00	0.633	3.81	1.170	4.650	4.468	-4	30	
CAL5	428050.6	641789.507	True	5.00	0.667	3.81	1.170	4.650	4.708	1	30	
CAL6	378676.8	555817.856	True	5.00	0.681	3.81	1.170	4.650	4.809	3	30	
CAL7	361166.0	510525.814	True	5.00	0.707	3.80	1.170	4.650	4.994	7	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

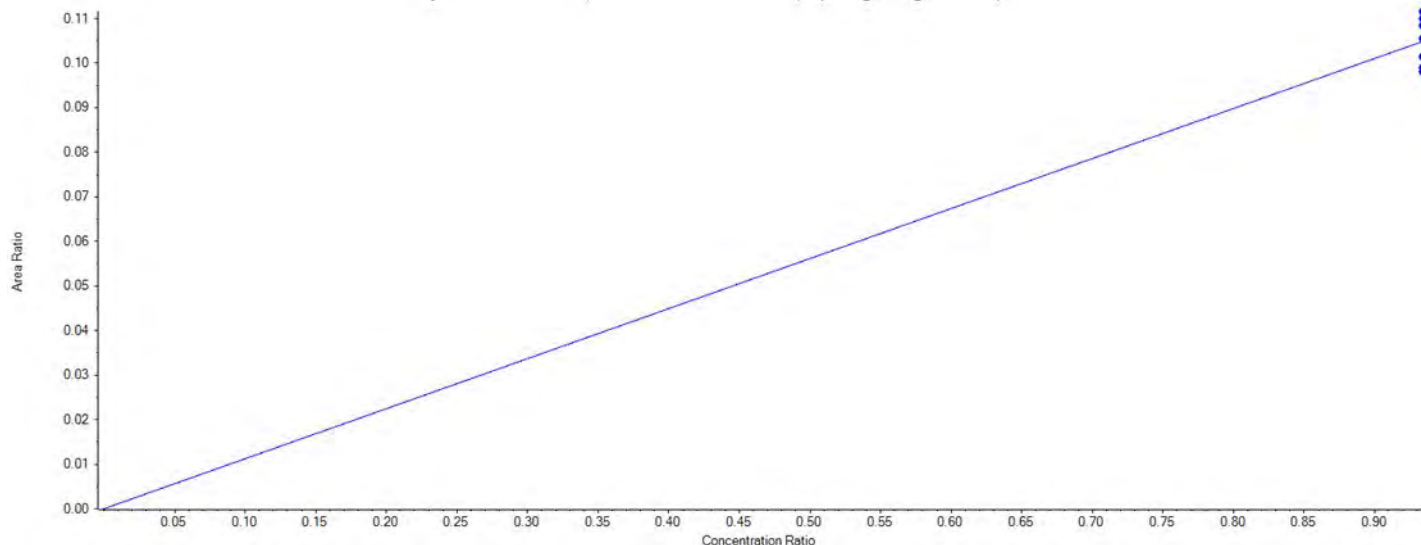
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-4:2-FTS

 $y = 0.11226 x$ (std. dev. = 0.00584) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-4:2-FTS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	51494.6	474834.926	True	5.00	0.108	4.13	0.840	4.670	4.830	3	30	
CAL2	46141.8	454466.719	True	5.00	0.102	4.13	0.840	4.670	4.522	-3	30	
CAL3	47514.8	450219.683	True	5.00	0.106	4.13	0.840	4.670	4.700	1	30	
CAL4	47246.4	477519.675	True	5.00	0.099	4.13	0.840	4.670	4.407	-6	30	
CAL5	51791.9	464284.617	True	5.00	0.112	4.12	0.840	4.670	4.968	6	30	
CAL6	41422.2	422900.470	True	5.00	0.098	4.13	0.840	4.670	4.362	-7	30	
CAL7	40505.1	368158.252	True	5.00	0.110	4.11	0.840	4.670	4.900	5	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

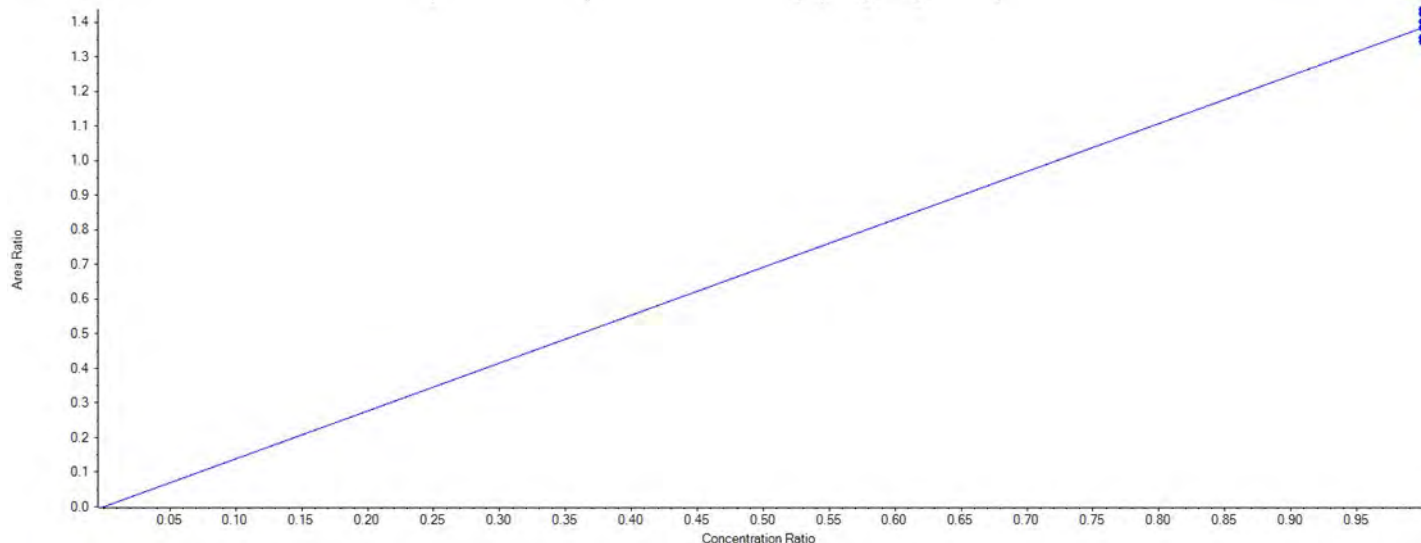
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C5-PFHxA

 $y = 1.38415 \times (\text{std. dev.} = 0.03876)$ (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C5-PFHxA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	664975.9	474834.926	True	5.00	1.400	4.16	0.850	5.000	5.059	1	30	
CAL2	648170.1	454466.719	True	5.00	1.426	4.17	0.850	5.000	5.152	3	30	
CAL3	646783.5	450219.683	True	5.00	1.437	4.17	0.850	5.000	5.189	4	30	
CAL4	641195.8	477519.675	True	5.00	1.343	4.16	0.850	5.000	4.851	-3	30	
CAL5	628952.8	464284.617	True	5.00	1.355	4.15	0.850	5.000	4.894	-2	30	
CAL6	568205.8	422900.470	True	5.00	1.344	4.16	0.850	5.000	4.854	-3	30	
CAL7	509807.9	368158.252	True	5.00	1.385	4.15	0.840	5.000	5.002	0	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

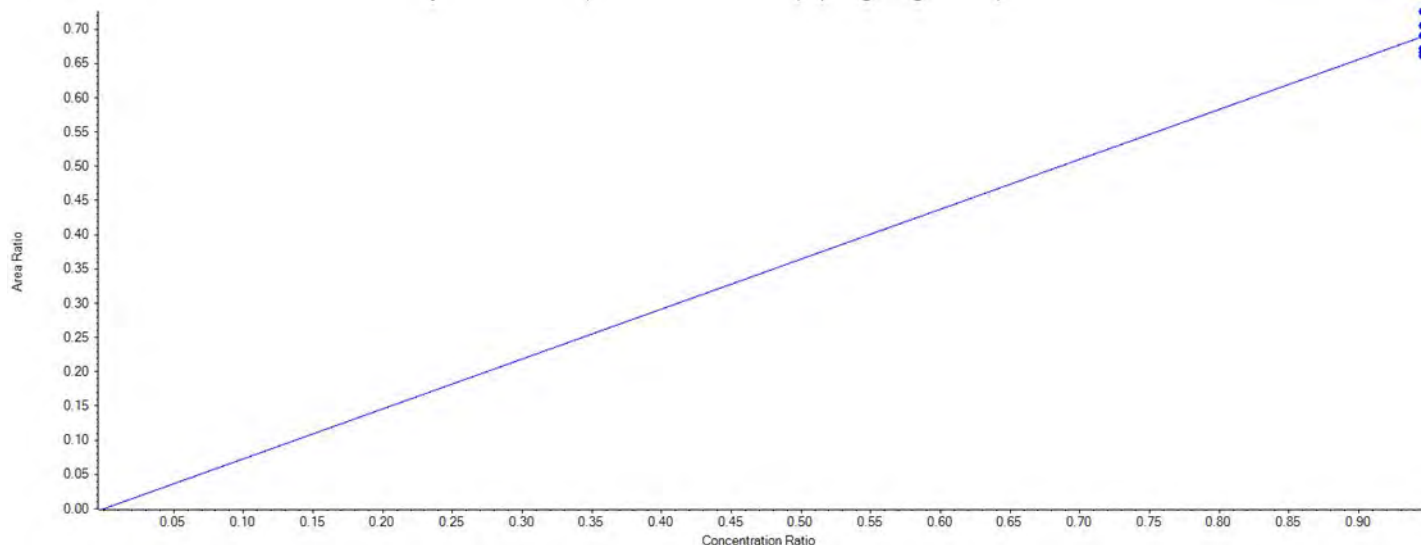
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C3-PFHxS

 $y = 0.72866 x$ (std. dev. = 0.02531) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C3-PFHxS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	327944.5	474834.926	True	5.00	0.691	4.55	0.930	4.730	4.739	0	30	
CAL2	320400.4	454466.719	True	5.00	0.705	4.56	0.930	4.730	4.838	2	30	
CAL3	317243.2	450219.683	True	5.00	0.705	4.56	0.930	4.730	4.835	2	30	
CAL4	315722.6	477519.675	True	5.00	0.661	4.55	0.930	4.730	4.537	-4	30	
CAL5	309304.5	464284.617	True	5.00	0.666	4.54	0.920	4.730	4.571	-3	30	
CAL6	284116.5	422900.470	True	5.00	0.672	4.55	0.920	4.730	4.610	-3	30	
CAL7	267182.8	368158.252	True	5.00	0.726	4.54	0.920	4.730	4.980	5	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

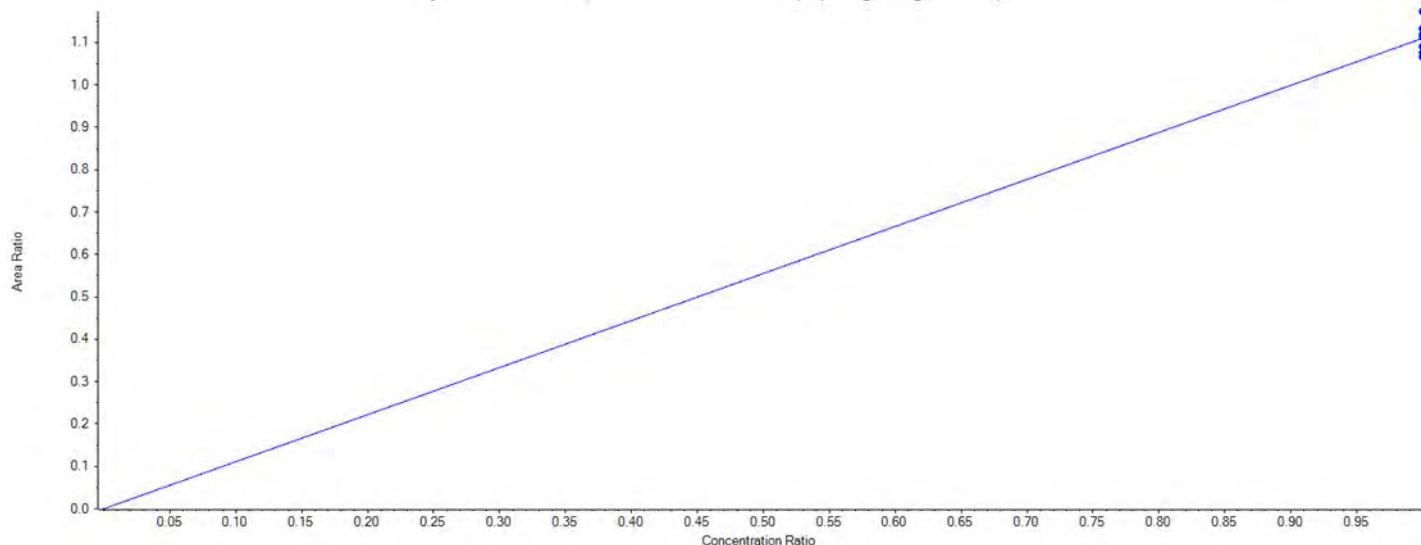
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C4-PFHpA

 $y = 1.10984 x$ (std. dev. = 0.03656) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C4-PFHpA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	528473.5	474834.926	True	5.00	1.113	4.55	0.920	5.000	5.014	0	30	
CAL2	532987.5	454466.719	True	5.00	1.173	4.55	0.920	5.000	5.284	6	30	
CAL3	503681.0	450219.683	True	5.00	1.119	4.55	0.920	5.000	5.040	1	30	
CAL4	509151.8	477519.675	True	5.00	1.066	4.55	0.920	5.000	4.804	-4	30	
CAL5	525802.0	464284.617	True	5.00	1.132	4.54	0.920	5.000	5.102	2	30	
CAL6	455005.8	422900.470	True	5.00	1.076	4.55	0.920	5.000	4.847	-3	30	
CAL7	401203.9	368158.252	True	5.00	1.090	4.54	0.920	5.000	4.910	-2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

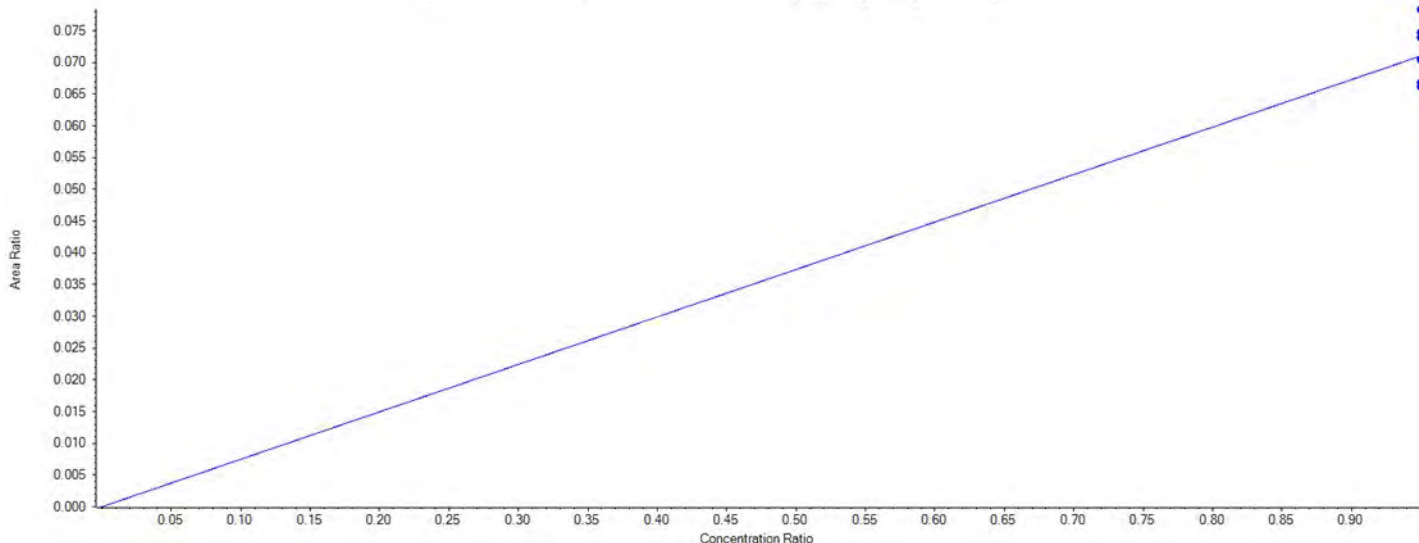
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-6:2-FTS

 $y = 0.07473 x$ (std. dev. = 0.00497) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-6:2-FTS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	35455.2	474834.926	True	5.00	0.075	4.91	1.000	4.750	4.996	5	30	
CAL2	35585.7	454466.719	True	5.00	0.078	4.91	1.000	4.750	5.239	10	30	
CAL3	31706.4	450219.683	True	5.00	0.070	4.91	1.000	4.750	4.712	-1	30	
CAL4	31883.3	477519.675	True	5.00	0.067	4.91	1.000	4.750	4.467	-6	30	
CAL5	31012.0	464284.617	True	5.00	0.067	4.90	1.000	4.750	4.469	-6	30	
CAL6	27988.5	422900.470	True	5.00	0.066	4.91	1.000	4.750	4.428	-7	30	
CAL7	27180.2	368158.252	True	5.00	0.074	4.89	1.000	4.750	4.939	4	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

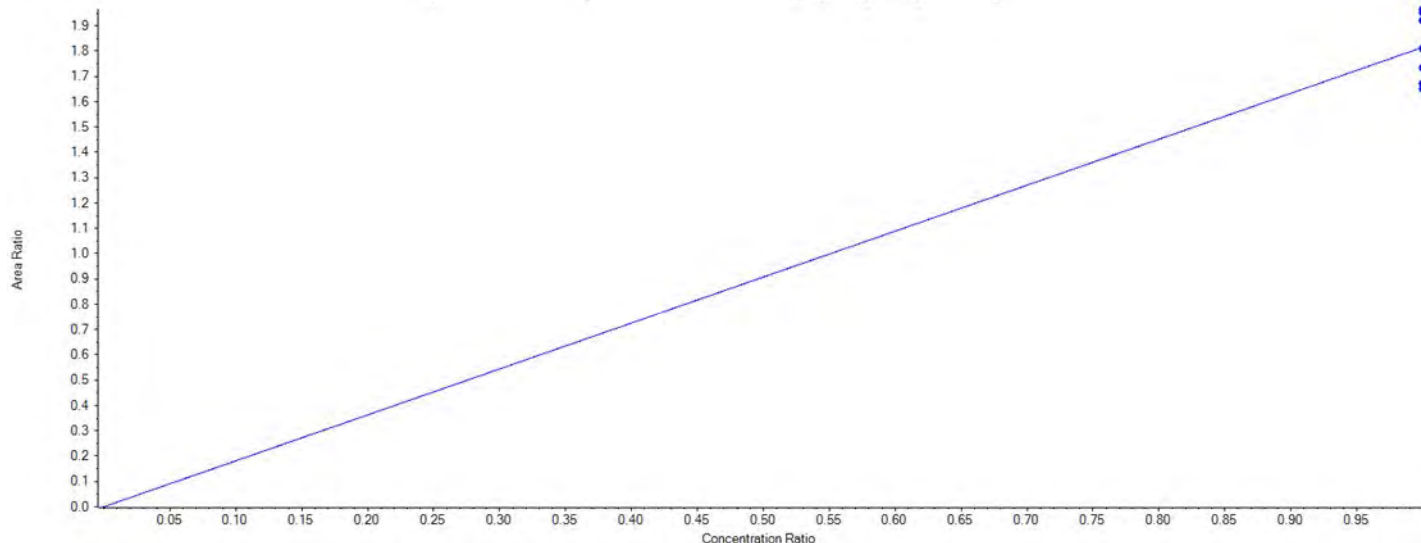
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C8-PFOA

 $y = 1.81479x$ (std. dev. = 0.13316) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C8-PFOA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	912537.7	474834.926	True	5.00	1.922	4.92	1.000	5.000	5.295	6	30	
CAL2	892584.2	454466.719	True	5.00	1.964	4.92	1.000	5.000	5.411	8	30	
CAL3	878868.5	450219.683	True	5.00	1.952	4.93	1.000	5.000	5.378	8	30	
CAL4	863597.3	477519.675	True	5.00	1.809	4.92	1.000	5.000	4.983	0	30	
CAL5	805288.7	464284.617	True	5.00	1.734	4.91	1.000	5.000	4.779	-4	30	
CAL6	707130.3	422900.470	True	5.00	1.672	4.92	1.000	5.000	4.607	-8	30	
CAL7	607669.5	368158.252	True	5.00	1.651	4.91	1.000	5.000	4.548	-9	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

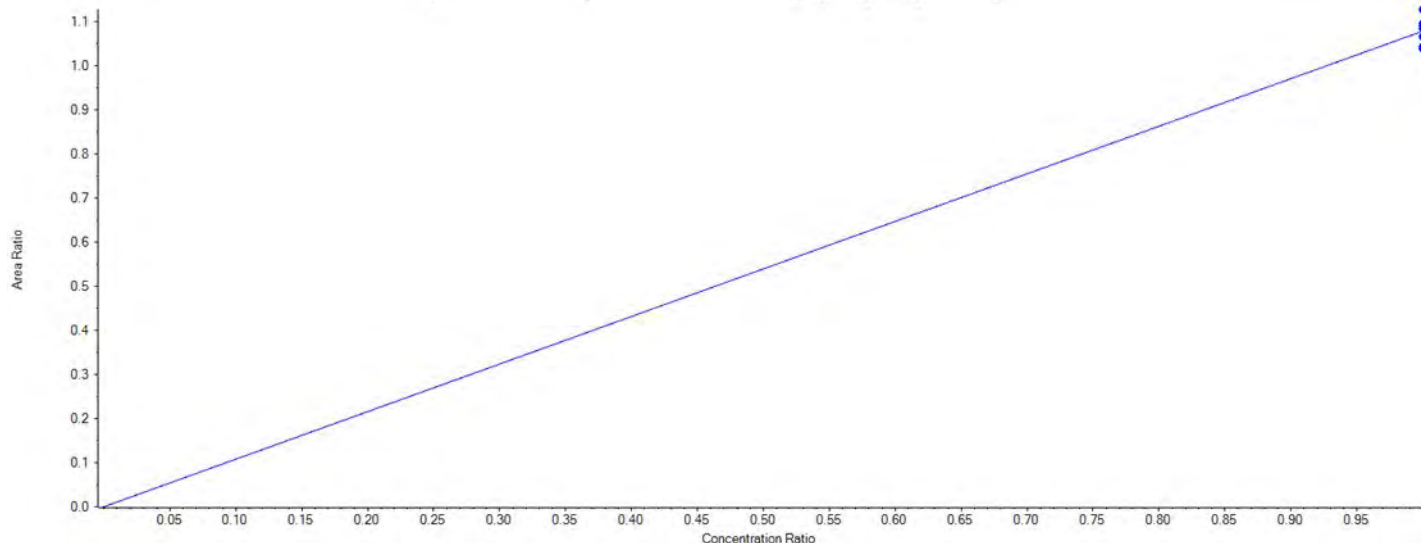
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C8-PFOS

 $y = 1.07880 x$ (std. dev. = 0.03134) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C8-PFOS Area	13C4-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	283127.4	265368.985	True	4.78	1.067	5.25	1.000	4.780	4.727	-1	30	
CAL2	271778.8	250483.817	True	4.78	1.085	5.25	1.000	4.780	4.808	1	30	
CAL3	281035.5	249205.780	True	4.78	1.128	5.25	1.000	4.780	4.997	5	30	
CAL4	267380.8	256143.287	True	4.78	1.044	5.25	1.000	4.780	4.625	-3	30	
CAL5	267157.6	243589.874	True	4.78	1.097	5.24	1.000	4.780	4.860	2	30	
CAL6	253129.2	231712.116	True	4.78	1.092	5.25	1.000	4.780	4.840	1	30	
CAL7	242617.5	233532.695	True	4.78	1.039	5.24	1.000	4.780	4.603	-4	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

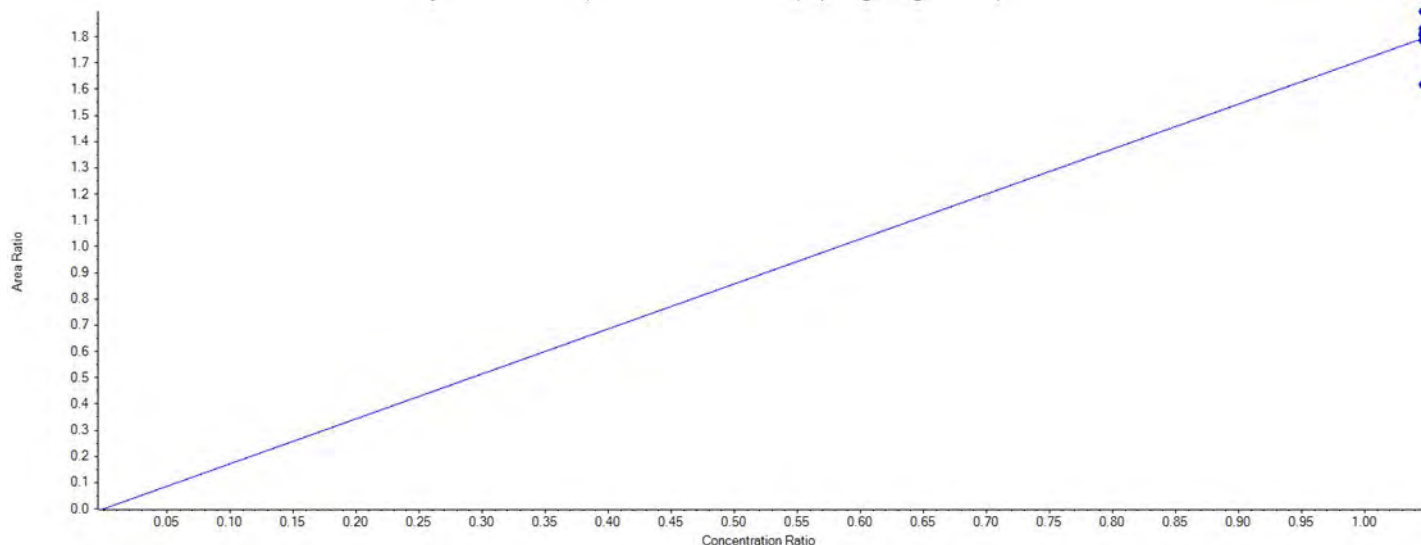
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C9-PFNA

 $y = 1.71440 x$ (std. dev. = 0.08194) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C9-PFNA Area	13C4-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	479931.4	265368.985	True	4.78	1.809	5.26	1.000	5.000	5.042	1	30	
CAL2	451850.1	250483.817	True	4.78	1.804	5.27	1.000	5.000	5.030	1	30	
CAL3	455948.9	249205.780	True	4.78	1.830	5.27	1.000	5.000	5.101	2	30	
CAL4	485570.4	256143.287	True	4.78	1.896	5.26	1.000	5.000	5.285	6	30	
CAL5	441776.8	243589.874	True	4.78	1.814	5.26	1.000	5.000	5.057	1	30	
CAL6	413811.3	231712.116	True	4.78	1.786	5.27	1.000	5.000	4.979	0	30	
CAL7	377369.8	233532.695	True	4.78	1.616	5.25	1.000	5.000	4.505	-10	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

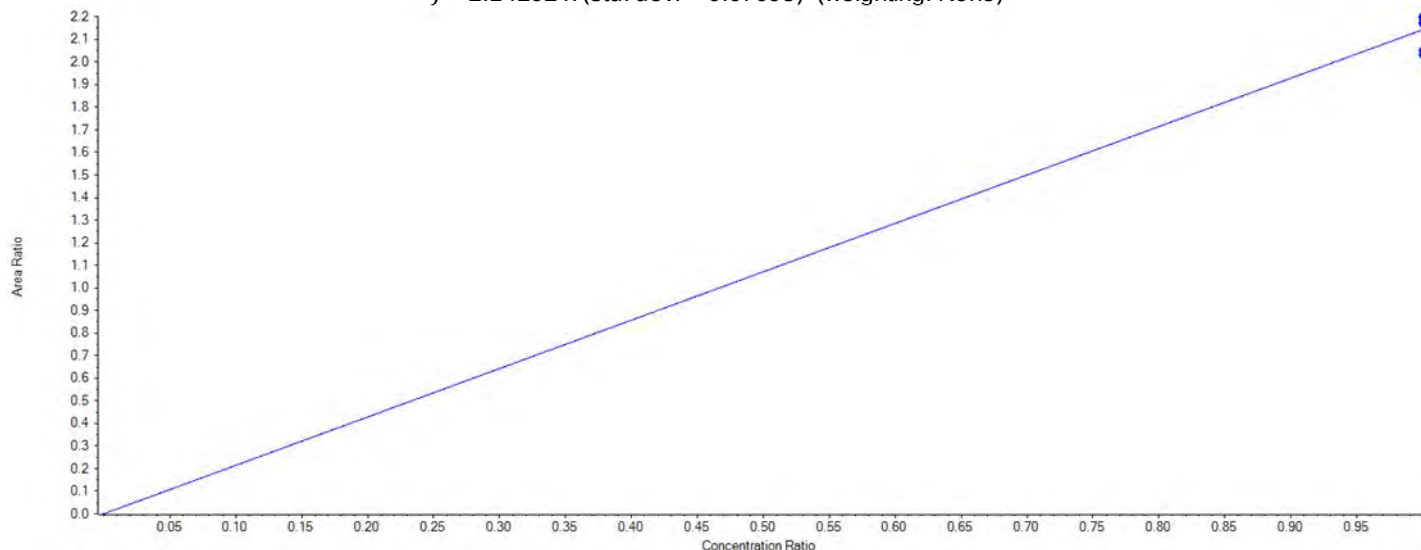
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C6-PFDA

 $y = 2.14262 x$ (std. dev. = 0.07095) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C6-PFDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	612577.4	281654.747	True	5.00	2.175	5.57	1.000	5.000	5.075	2	30	
CAL2	601859.8	277324.192	True	5.00	2.170	5.57	1.000	5.000	5.064	1	30	
CAL3	612680.8	278743.894	True	5.00	2.198	5.57	1.000	5.000	5.129	3	30	
CAL4	612056.5	301327.179	True	5.00	2.031	5.56	1.000	5.000	4.740	-5	30	
CAL5	585231.2	269315.722	True	5.00	2.173	5.56	1.000	5.000	5.071	1	30	
CAL6	522613.8	237446.928	True	5.00	2.201	5.57	1.000	5.000	5.136	3	30	
CAL7	479333.1	233825.066	True	5.00	2.050	5.55	1.000	5.000	4.784	-4	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

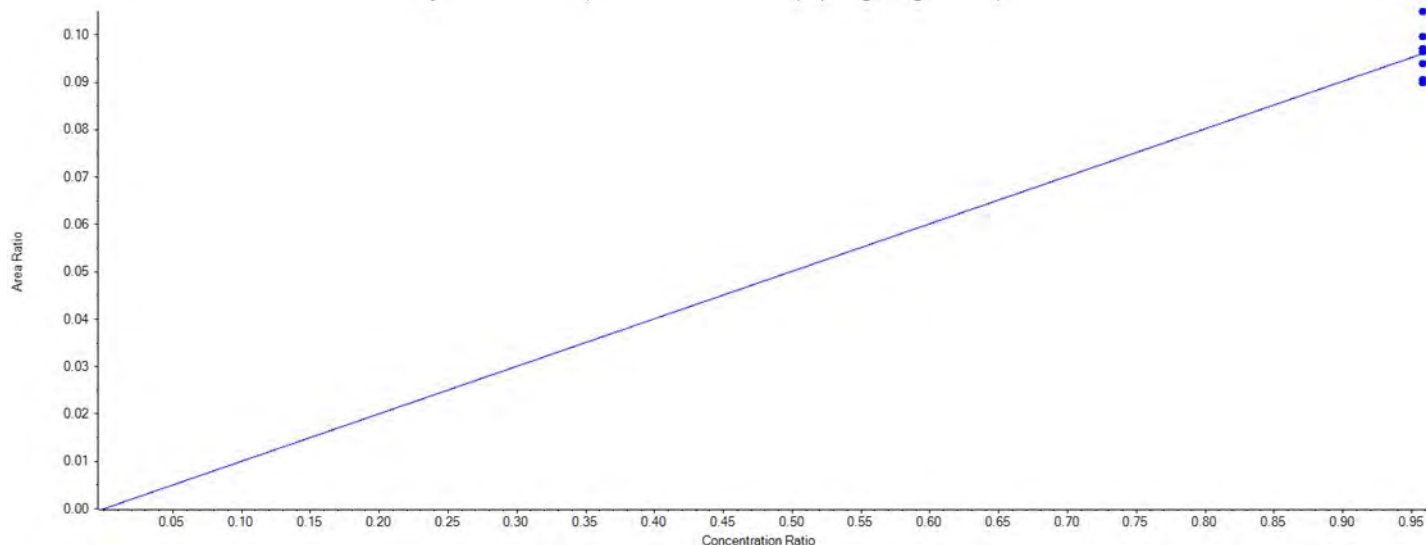
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-8:2-FTS

 $y = 0.10026 x$ (std. dev. = 0.00552) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-8:2-FTS Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	26445.5	281654.747	True	5.00	0.094	5.57	1.000	4.790	4.683	-2	30	
CAL2	27639.2	277324.192	True	5.00	0.100	5.57	1.000	4.790	4.970	4	30	
CAL3	29249.8	278743.894	True	5.00	0.105	5.57	1.000	4.790	5.233	9	30	
CAL4	27253.5	301327.179	True	5.00	0.090	5.57	1.000	4.790	4.511	-6	30	
CAL5	24192.1	269315.722	True	5.00	0.090	5.56	1.000	4.790	4.480	-6	30	
CAL6	22899.0	237446.928	True	5.00	0.096	5.57	1.000	4.790	4.810	0	30	
CAL7	22711.0	233825.066	True	5.00	0.097	5.56	1.000	4.790	4.844	1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

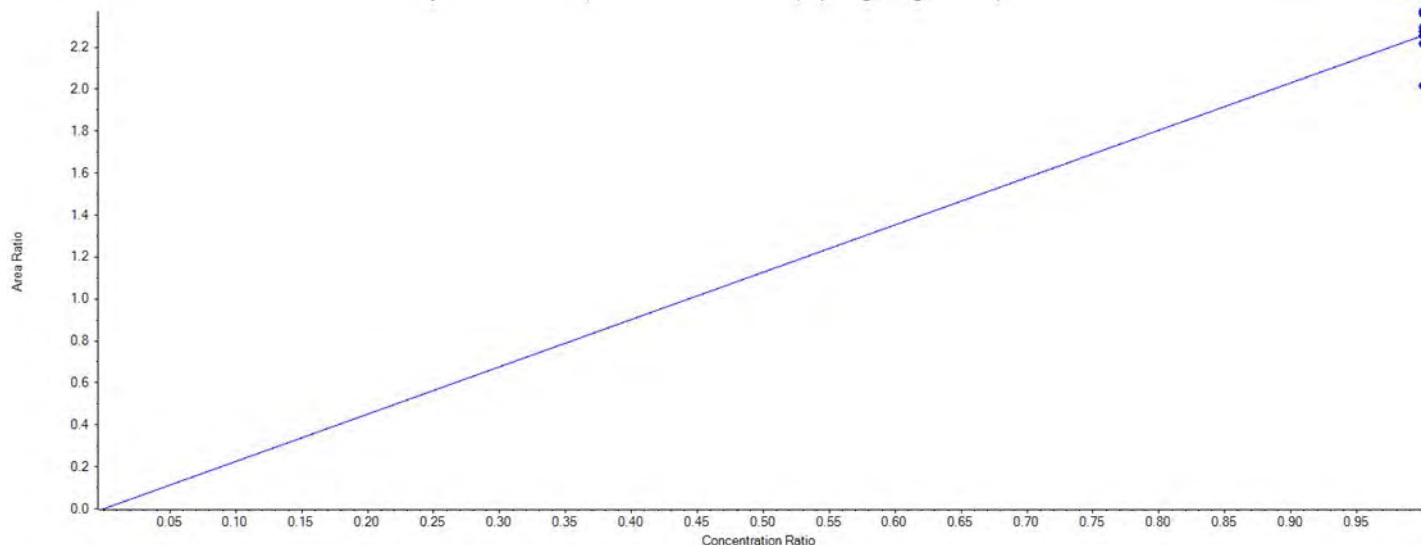
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C8-PFOSA

 $y = 2.25533 \times (\text{std. dev.} = 0.11852) \text{ (weighting: None)}$ 

Extraction Standard Calibration Verification

Sample Name	E13C8-PFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	664489.9	281654.747	True	5.00	2.359	5.65	1.010	5.000	5.230	5	30	
CAL2	636543.1	277324.192	True	5.00	2.295	5.65	1.010	5.000	5.089	2	30	
CAL3	629109.9	278743.894	True	5.00	2.257	5.65	1.010	5.000	5.004	0	30	
CAL4	607762.0	301327.179	True	5.00	2.017	5.64	1.010	5.000	4.472	-11	30	
CAL5	596544.1	269315.722	True	5.00	2.215	5.64	1.010	5.000	4.911	-2	30	
CAL6	539992.5	237446.928	True	5.00	2.274	5.65	1.010	5.000	5.042	1	30	
CAL7	554092.6	233825.066	True	5.00	2.370	5.63	1.010	5.000	5.254	5	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

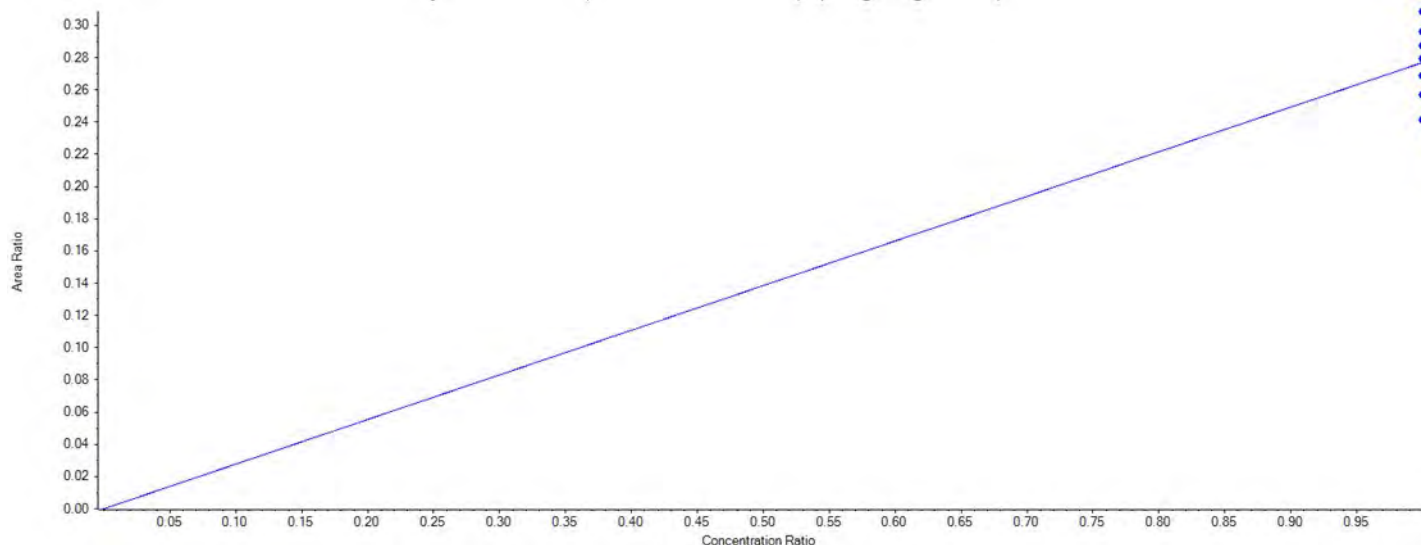
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

Ed3-NMeFOSAA

 $y = 0.27700 x$ (std. dev. = 0.02309) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed3-NMeFOSAA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	86914.5	281654.747	True	5.00	0.309	5.70	1.020	5.000	5.570	11	30	
CAL2	77388.6	277324.192	True	5.00	0.279	5.71	1.020	5.000	5.037	1	30	
CAL3	71670.3	278743.894	True	5.00	0.257	5.71	1.030	5.000	4.641	-7	30	
CAL4	72788.0	301327.179	True	5.00	0.242	5.70	1.020	5.000	4.360	-13	30	
CAL5	72424.5	269315.722	True	5.00	0.269	5.70	1.020	5.000	4.854	-3	30	
CAL6	70320.3	237446.928	True	5.00	0.296	5.71	1.020	5.000	5.346	7	30	
CAL7	67250.5	233825.066	True	5.00	0.288	5.69	1.020	5.000	5.192	4	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

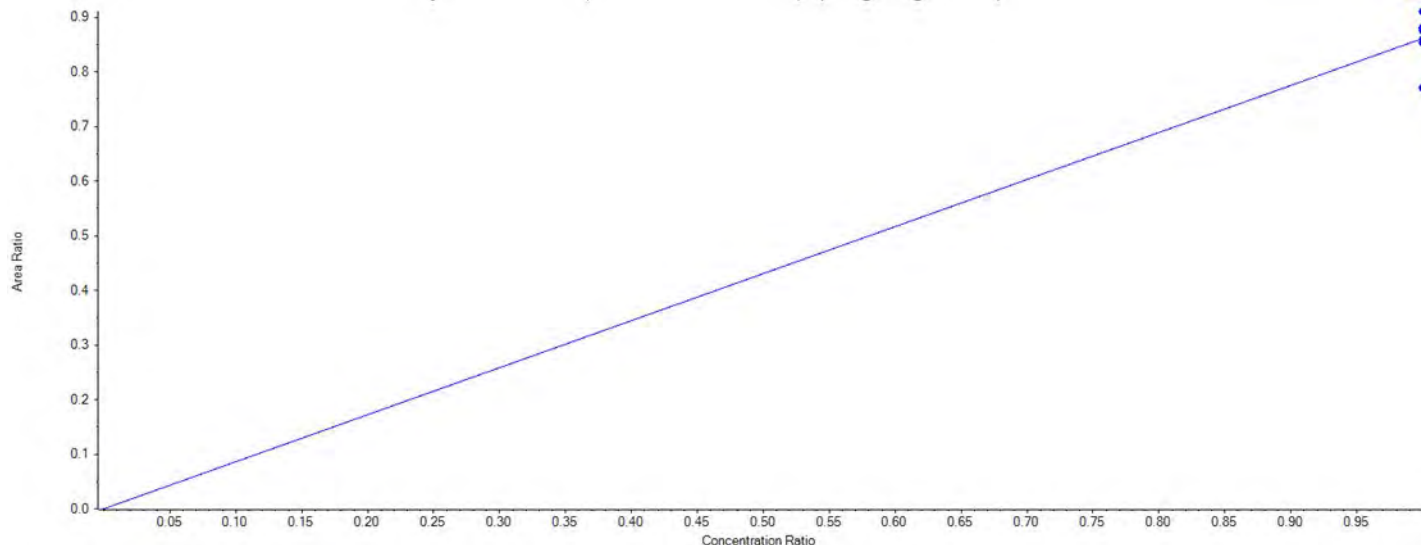
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C7-PFUnDA

 $y = 0.86119x$ (std. dev. = 0.04416) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C7-PFUnDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	256402.0	281654.747	True	5.00	0.910	5.83	1.050	5.000	5.285	6	30	
CAL2	242881.7	277324.192	True	5.00	0.876	5.83	1.050	5.000	5.085	2	30	
CAL3	245605.3	278743.894	True	5.00	0.881	5.83	1.050	5.000	5.116	2	30	
CAL4	232014.1	301327.179	True	5.00	0.770	5.82	1.050	5.000	4.470	-11	30	
CAL5	231187.9	269315.722	True	5.00	0.858	5.82	1.050	5.000	4.984	0	30	
CAL6	208574.1	237446.928	True	5.00	0.878	5.83	1.050	5.000	5.100	2	30	
CAL7	199746.8	233825.066	True	5.00	0.854	5.81	1.050	5.000	4.960	-1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

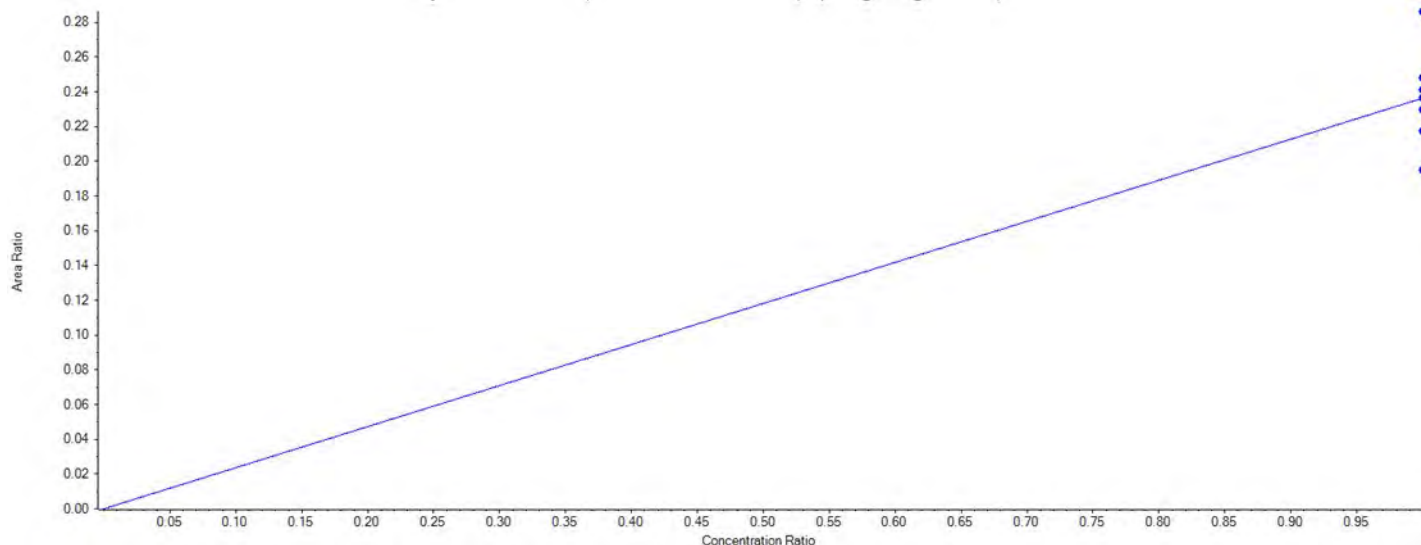
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

Ed5-NEtFOSAA

 $y = 0.23634 x$ (std. dev. = 0.02816) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed5-NEtFOSAA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	80597.2	281654.747	True	5.00	0.286	5.84	1.050	5.000	6.054	21	30	
CAL2	63686.9	277324.192	True	5.00	0.230	5.84	1.050	5.000	4.859	-3	30	
CAL3	54383.9	278743.894	True	5.00	0.195	5.84	1.050	5.000	4.128	-17	30	
CAL4	65478.0	301327.179	True	5.00	0.217	5.83	1.050	5.000	4.597	-8	30	
CAL5	63701.7	269315.722	True	5.00	0.237	5.83	1.050	5.000	5.004	0	30	
CAL6	57308.1	237446.928	True	5.00	0.241	5.84	1.050	5.000	5.106	2	30	
CAL7	58049.5	233825.066	True	5.00	0.248	5.82	1.050	5.000	5.252	5	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

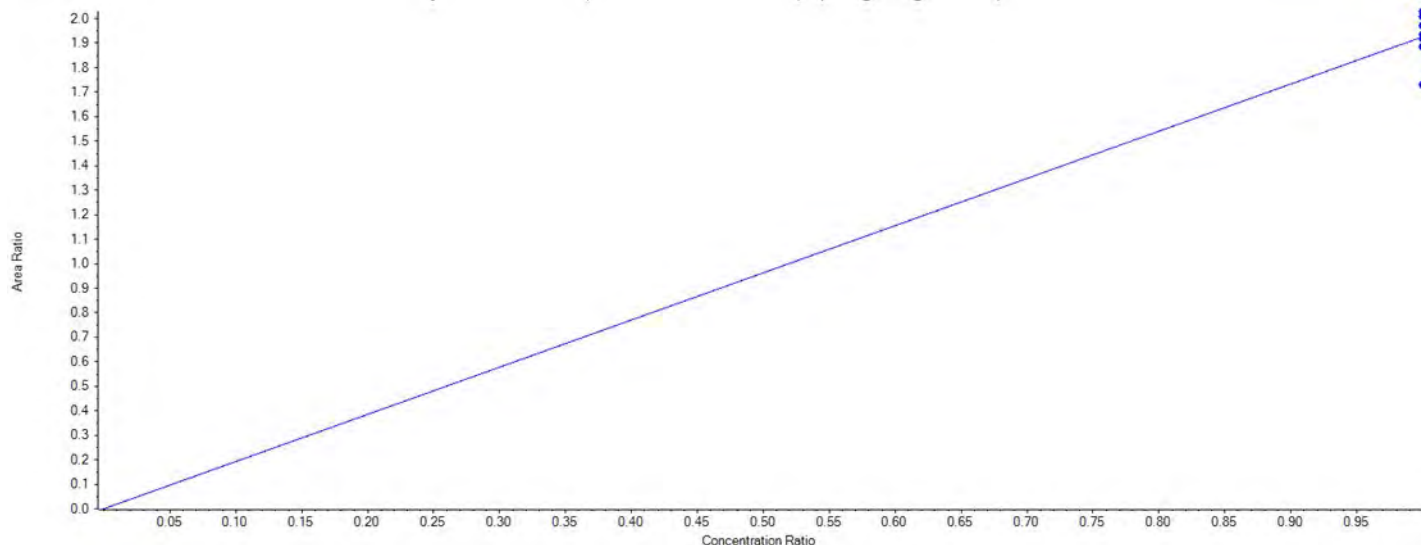
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-PFDoDA

 $y = 1.92577 x$ (std. dev. = 0.09966) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-PFDoDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	545413.2	281654.747	True	5.00	1.936	6.05	1.090	5.000	5.028	1	30	
CAL2	532175.3	277324.192	True	5.00	1.919	6.06	1.090	5.000	4.982	0	30	
CAL3	549542.3	278743.894	True	5.00	1.971	6.06	1.090	5.000	5.119	2	30	
CAL4	521514.1	301327.179	True	5.00	1.731	6.05	1.090	5.000	4.494	-10	30	
CAL5	507556.8	269315.722	True	5.00	1.885	6.04	1.090	5.000	4.893	-2	30	
CAL6	477105.5	237446.928	True	5.00	2.009	6.06	1.090	5.000	5.217	4	30	
CAL7	474393.8	233825.066	True	5.00	2.029	6.04	1.090	5.000	5.268	5	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

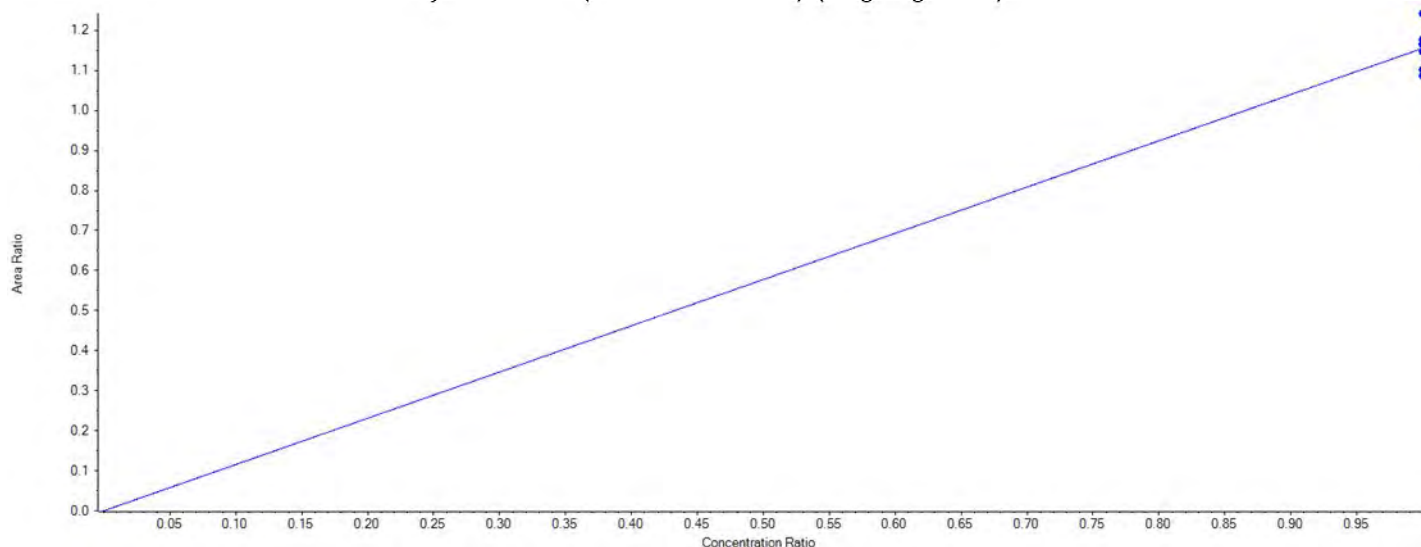
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

Ed7-NMePFOSAE

 $y = 1.15541 x$ (std. dev. = 0.05092) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed7-NMePFOSA E Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	349854.5	281654.747	True	5.00	1.242	6.09	1.090	5.000	5.375	8	30	
CAL2	323456.5	277324.192	True	5.00	1.166	6.09	1.090	5.000	5.047	1	30	
CAL3	307355.4	278743.894	True	5.00	1.103	6.09	1.090	5.000	4.772	-5	30	
CAL4	327796.4	301327.179	True	5.00	1.088	6.09	1.090	5.000	4.708	-6	30	
CAL5	316777.8	269315.722	True	5.00	1.176	6.08	1.090	5.000	5.090	2	30	
CAL6	272639.0	237446.928	True	5.00	1.148	6.09	1.090	5.000	4.969	-1	30	
CAL7	272283.1	233825.066	True	5.00	1.164	6.08	1.090	5.000	5.039	1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

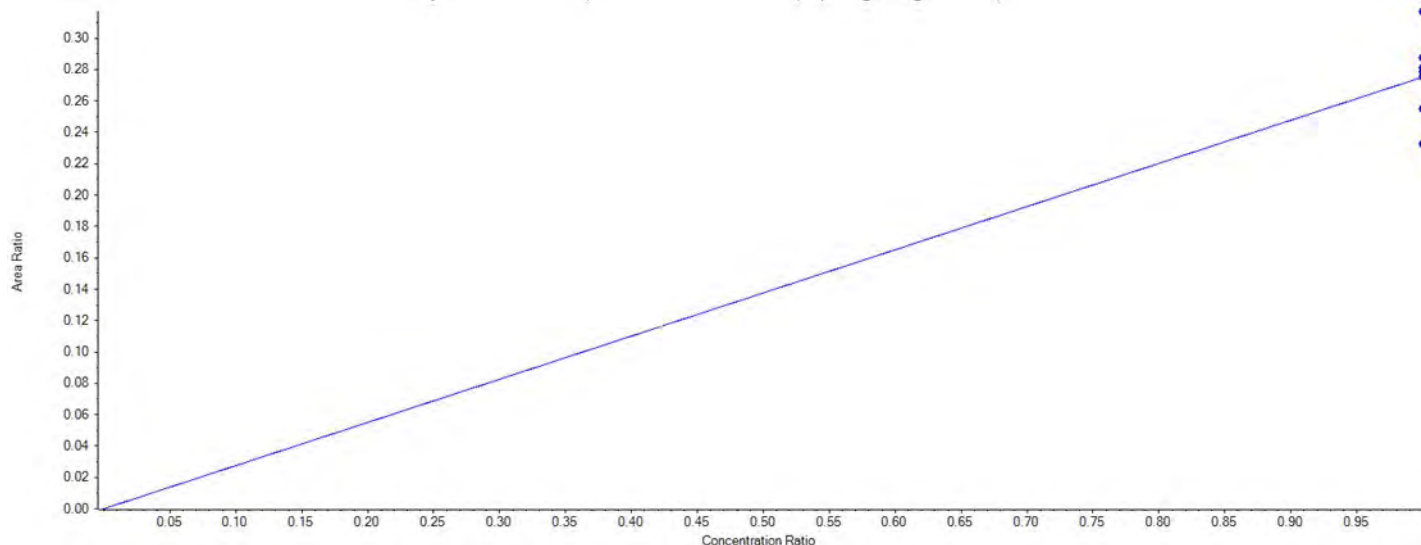
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

Ed3-NMePFOSA

 $y = 0.27520 x$ (std. dev. = 0.02631) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed3-NMePFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	78396.5	281654.747	True	5.00	0.278	6.10	1.100	5.000	5.057	1	30	
CAL2	77893.2	277324.192	True	5.00	0.281	6.11	1.100	5.000	5.103	2	30	
CAL3	76782.9	278743.894	True	5.00	0.275	6.11	1.100	5.000	5.005	0	30	
CAL4	70122.5	301327.179	True	5.00	0.233	6.10	1.100	5.000	4.228	-15	30	
CAL5	68615.7	269315.722	True	5.00	0.255	6.09	1.100	5.000	4.629	-7	30	
CAL6	68215.9	237446.928	True	5.00	0.287	6.11	1.100	5.000	5.220	4	30	
CAL7	74110.3	233825.066	True	5.00	0.317	6.09	1.100	5.000	5.758	15	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

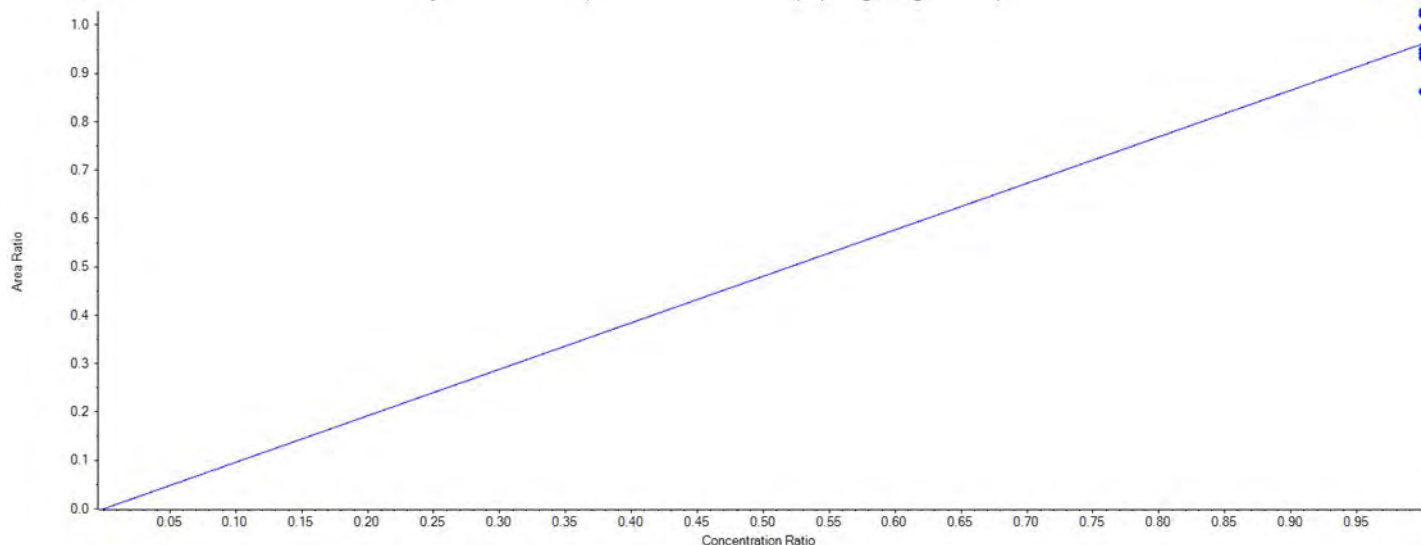
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

Ed9-NEtPFOSAE

 $y = 0.96134 x$ (std. dev. = 0.05866) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed9-NEtPFOSAE Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	280311.6	281654.747	True	5.00	0.995	6.24	1.120	5.000	5.176	4	30	
CAL2	261195.6	277324.192	True	5.00	0.942	6.25	1.120	5.000	4.899	-2	30	
CAL3	259792.3	278743.894	True	5.00	0.932	6.25	1.120	5.000	4.847	-3	30	
CAL4	259467.4	301327.179	True	5.00	0.861	6.24	1.120	5.000	4.479	-10	30	
CAL5	255767.7	269315.722	True	5.00	0.950	6.23	1.120	5.000	4.939	-1	30	
CAL6	242587.5	237446.928	True	5.00	1.022	6.25	1.120	5.000	5.314	6	30	
CAL7	240346.5	233825.066	True	5.00	1.028	6.23	1.120	5.000	5.346	7	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

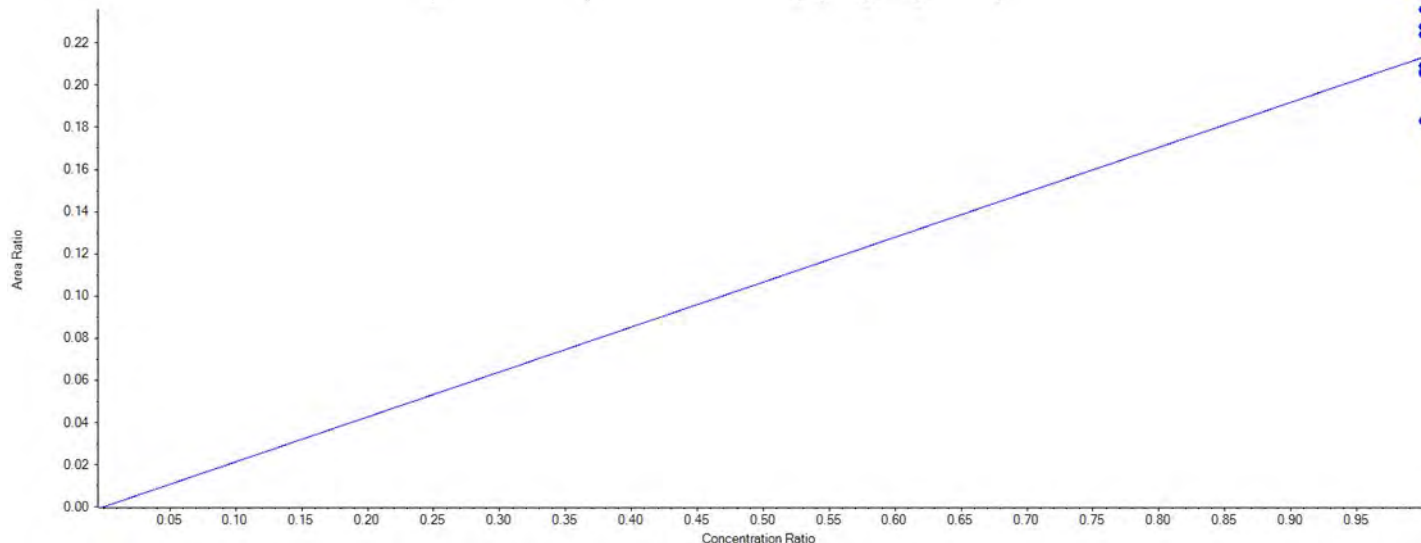
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

Ed5-NetPFOSA

 $y = 0.21315 x$ (std. dev. = 0.01765) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed5-NetPFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	63047.1	281654.747	True	5.00	0.224	6.26	1.130	5.000	5.251	5	30	
CAL2	58073.5	277324.192	True	5.00	0.209	6.27	1.130	5.000	4.912	-2	30	
CAL3	57485.9	278743.894	True	5.00	0.206	6.27	1.130	5.000	4.838	-3	30	
CAL4	55177.3	301327.179	True	5.00	0.183	6.26	1.130	5.000	4.296	-14	30	
CAL5	55378.4	269315.722	True	5.00	0.206	6.25	1.130	5.000	4.824	-4	30	
CAL6	56004.0	237446.928	True	5.00	0.236	6.27	1.130	5.000	5.533	11	30	
CAL7	53297.8	233825.066	True	5.00	0.228	6.25	1.130	5.000	5.347	7	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

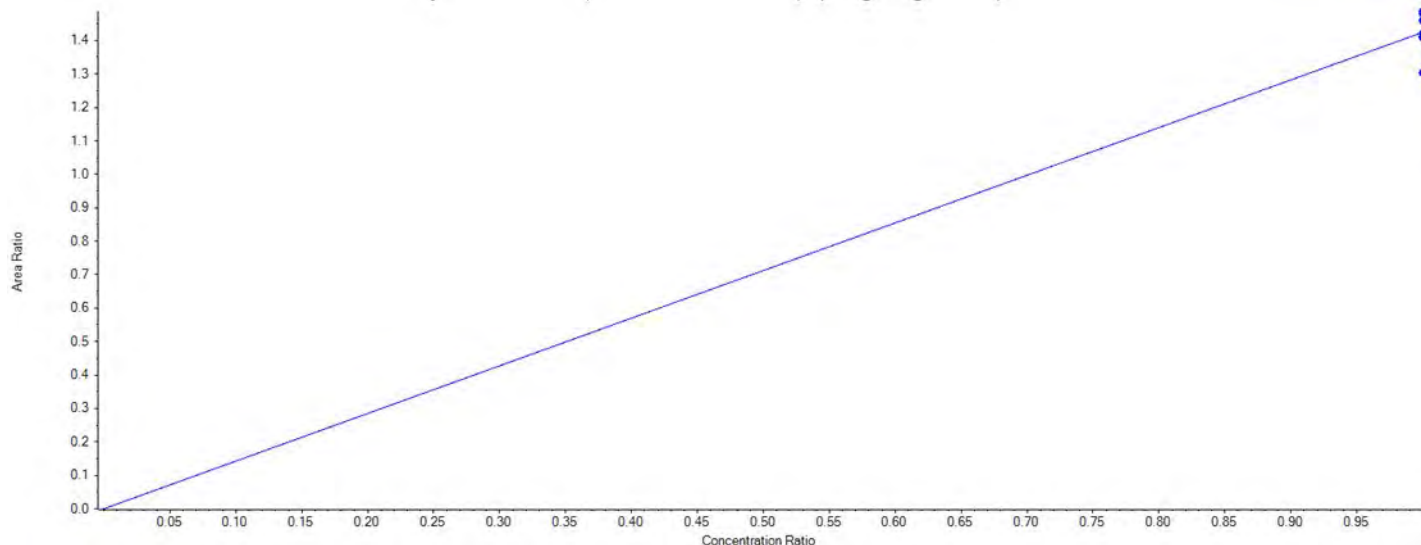
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-PFTeDA

 $y = 1.42422 x$ (std. dev. = 0.06255) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-PFTeDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	410633.0	281654.747	True	5.00	1.458	6.43	1.160	5.000	5.118	2	30	
CAL2	394146.2	277324.192	True	5.00	1.421	6.43	1.160	5.000	4.990	0	30	
CAL3	393544.9	278743.894	True	5.00	1.412	6.43	1.160	5.000	4.957	-1	30	
CAL4	392356.6	301327.179	True	5.00	1.302	6.43	1.160	5.000	4.571	-9	30	
CAL5	379571.6	269315.722	True	5.00	1.409	6.42	1.160	5.000	4.948	-1	30	
CAL6	352892.2	237446.928	True	5.00	1.486	6.43	1.160	5.000	5.218	4	30	
CAL7	346256.6	233825.066	True	5.00	1.481	6.42	1.160	5.000	5.199	4	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

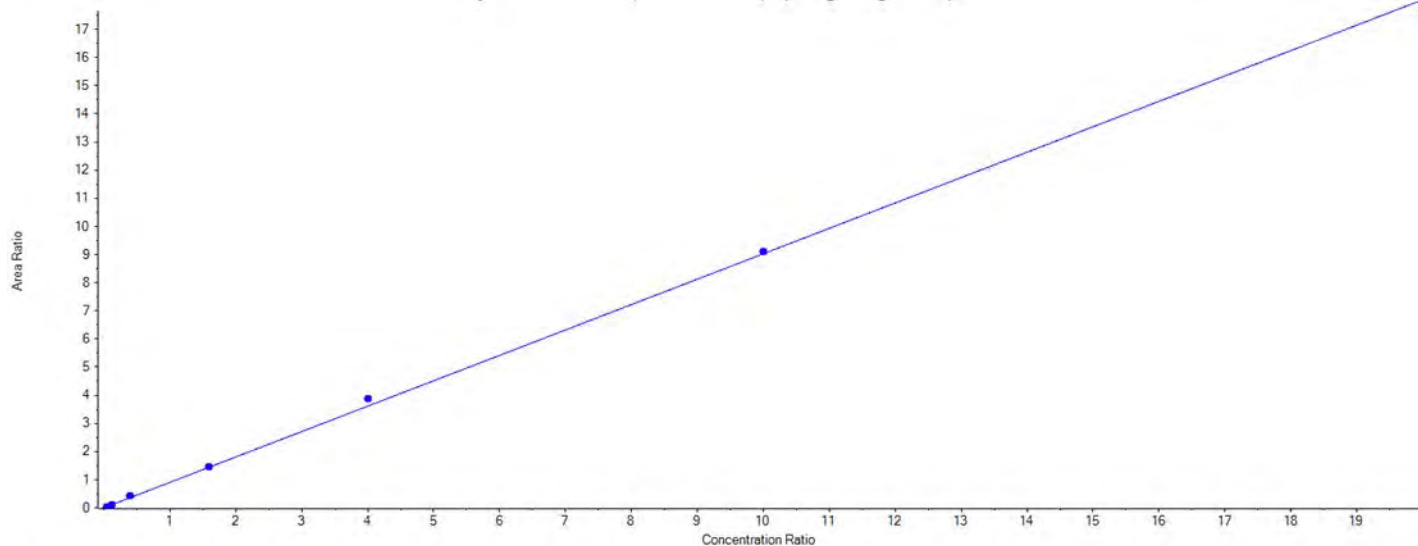
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFBA

 $y = 0.90257 x$ ($r = 0.99946$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	PFBA Area	S/N	13C4-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	32322.9	189.9	763334.268	True	5.00	0.042	3.27	1.000	0.200	0.235	17	30	
CAL2	80396.2	328.7	771445.801	True	5.00	0.104	3.27	1.000	0.600	0.577	-4	30	
CAL3	303228.7	603.0	733360.151	True	5.00	0.413	3.27	1.000	2.000	2.291	15	30	
CAL4	1068414.9	996.7	726395.964	True	5.00	1.471	3.26	1.000	8.000	8.148	2	30	
CAL5	2700090.8	1579.9	698871.915	True	5.00	3.863	3.26	1.000	20.000	21.403	7	30	
CAL6	5765353.4	2132.7	633648.378	True	5.00	9.099	3.26	1.000	50.000	50.404	1	30	
CAL7	9834601.7	2326.7	557392.782	True	5.00	17.644	3.25	1.000	100.000	97.743	-2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

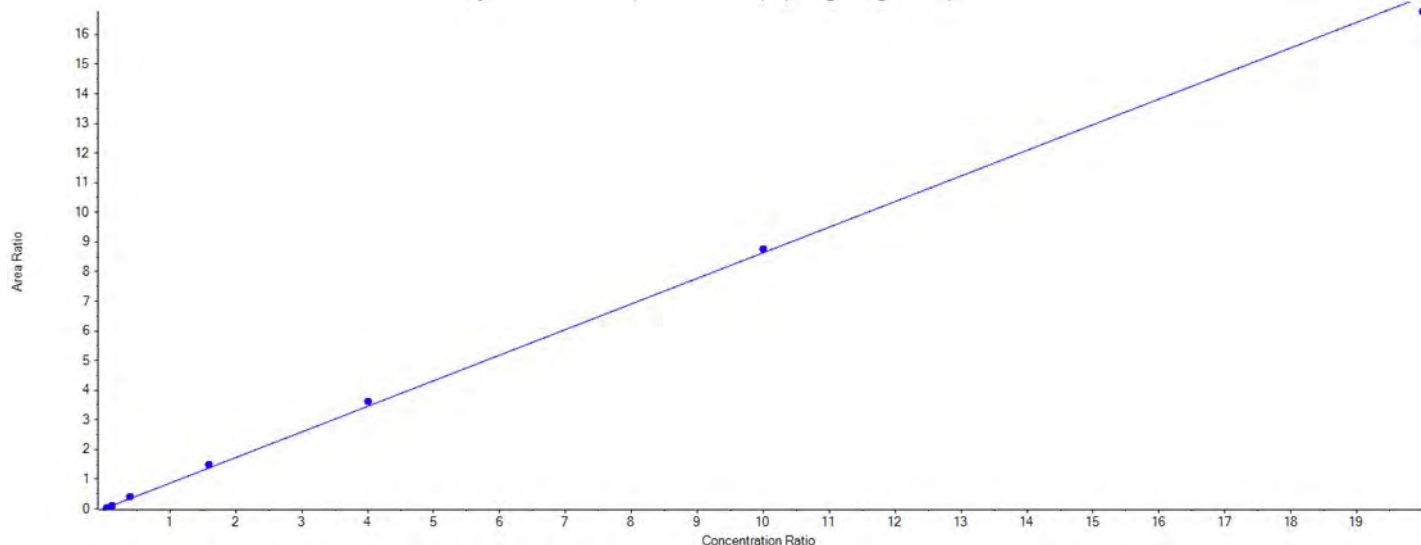
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFPeA

$$y = 0.86373 x \text{ (} r = 0.99928 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFPeA Area	S/N	13C5-PFPeA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	32633.1	78.7	771179.392	True	5.00	0.042	3.77	1.000	0.200	0.245	22	30	
CAL2	84319.4	153.0	738194.743	True	5.00	0.114	3.77	1.000	0.600	0.661	10	30	
CAL3	292715.8	240.6	695805.672	True	5.00	0.421	3.77	1.000	2.000	2.435	22	30	
CAL4	1075643.5	403.4	716206.931	True	5.00	1.502	3.76	1.000	8.000	8.694	9	30	
CAL5	2660895.4	642.6	734598.250	True	5.00	3.622	3.76	1.000	20.000	20.969	5	30	
CAL6	5570221.7	1016.0	635977.788	True	5.00	8.759	3.77	1.000	50.000	50.702	1	30	
CAL7	9756431.5	1095.7	581688.659	True	5.00	16.773	3.75	1.000	100.000	97.094	-3	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

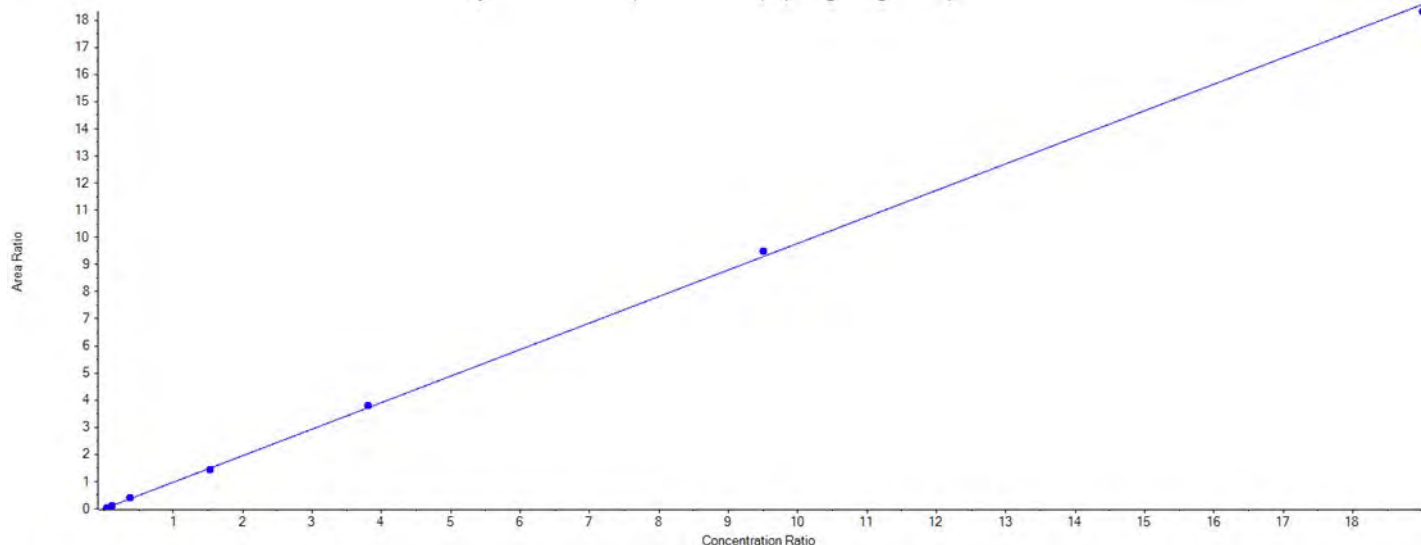
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFBS

$$y = 0.97755 x \text{ (} r = 0.99980 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFBS Area	S/N	¹³ C3-PFBS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	18010.0	456.9	445963.431	True	4.65	0.040	3.81	1.000	0.177	0.192	9	30	
CAL2	44885.2	959.4	418860.683	True	4.65	0.107	3.82	1.000	0.531	0.510	-4	30	
CAL3	168144.6	1287.7	416352.746	True	4.65	0.404	3.82	1.000	1.770	1.921	9	30	
CAL4	617045.6	2604.2	425015.723	True	4.65	1.452	3.81	1.000	7.080	6.906	-2	30	
CAL5	1630613.5	4013.6	428050.642	True	4.65	3.809	3.80	1.000	17.700	18.121	2	30	
CAL6	3588084.1	4714.2	378676.812	True	4.65	9.475	3.81	1.000	44.200	45.072	2	30	
CAL7	6615935.3	4086.7	361166.004	True	4.65	18.318	3.80	1.000	88.400	87.136	-1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

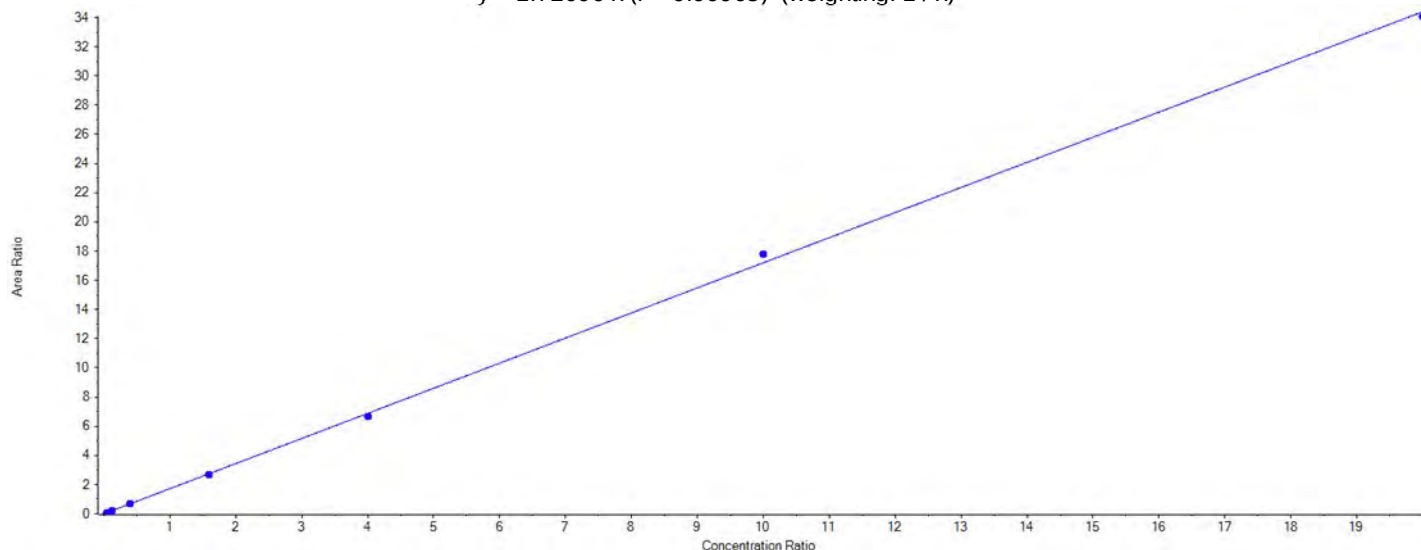
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

4:2-FTS

$$y = 1.72006 x \text{ (} r = 0.99968 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	4:2-FTS Area	S/N	13C2-4:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3636.4	188.8	51494.566	True	4.67	0.071	4.13	1.000	0.187	0.192	3	30	
CAL2	8804.0	391.1	46141.763	True	4.67	0.191	4.13	1.000	0.560	0.518	-7	30	
CAL3	34188.5	932.2	47514.792	True	4.67	0.720	4.13	1.000	1.870	1.954	4	30	
CAL4	126396.5	2063.7	47246.369	True	4.67	2.675	4.13	1.000	7.470	7.263	-3	30	
CAL5	344695.9	2546.9	51791.866	True	4.67	6.655	4.12	1.000	18.700	18.070	-3	30	
CAL6	738293.9	3115.2	41422.166	True	4.67	17.824	4.13	1.000	46.700	48.392	4	30	
CAL7	1379983.9	3342.5	40505.086	True	4.67	34.069	4.11	1.000	93.400	92.499	-1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

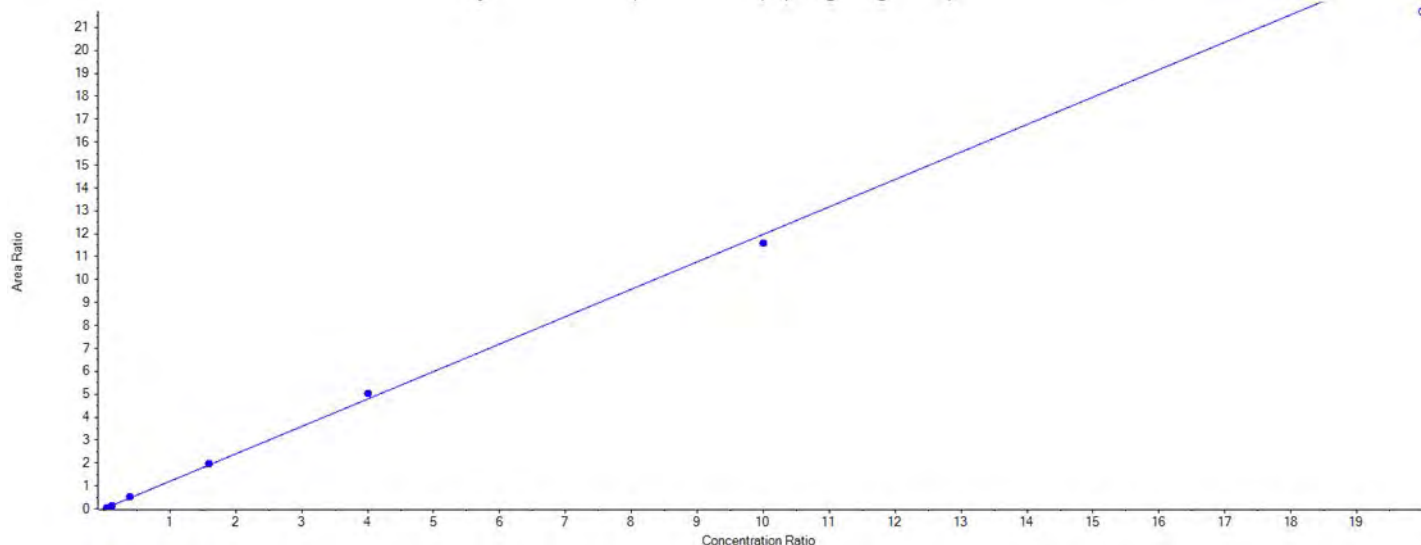
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFHxA

 $y = 1.19750 x$ ($r = 0.99920$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	PFHxA Area	S/N	13C5-PFHxA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	39108.2	254.9	664975.876	True	5.00	0.059	4.16	1.000	0.200	0.246	23	30	
CAL2	96559.3	367.8	648170.061	True	5.00	0.149	4.16	1.000	0.600	0.622	4	30	
CAL3	352013.5	713.4	646783.501	True	5.00	0.544	4.17	1.000	2.000	2.272	14	30	
CAL4	1265231.1	1181.4	641195.847	True	5.00	1.973	4.16	1.000	8.000	8.239	3	30	
CAL5	3158486.4	1640.8	628952.790	True	5.00	5.022	4.15	1.000	20.000	20.968	5	30	
CAL6	6593779.0	2095.1	568205.817	True	5.00	11.605	4.16	1.000	50.000	48.453	-3	30	
CAL7	11059420.3	2611.8	509807.950	False	5.00	21.693	4.15	1.000	100.000	90.577	-9	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

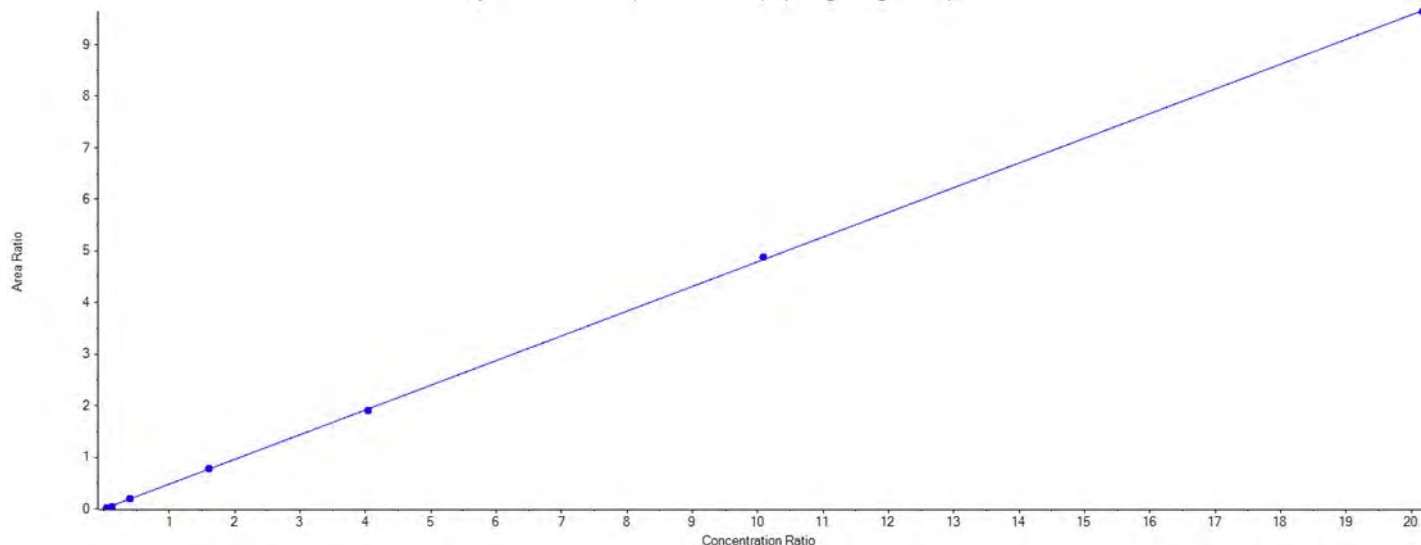
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFPeS

$$y = 0.47896 x \text{ (} r = 0.99991 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFPeS Area	S/N	13C3-PFBS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	9620.1	321.5	445963.431	True	4.65	0.022	4.18	1.100	0.188	0.209	11	30	
CAL2	20295.0	611.8	418860.683	True	4.65	0.048	4.19	1.100	0.563	0.470	-16	30	
CAL3	84071.2	1175.2	416352.746	True	4.65	0.202	4.19	1.100	1.880	1.960	4	30	
CAL4	328681.7	3455.2	425015.723	True	4.65	0.773	4.18	1.100	7.500	7.508	0	30	
CAL5	815928.2	2443.7	428050.642	True	4.65	1.906	4.17	1.100	18.800	18.506	-2	30	
CAL6	1847826.8	3263.9	378676.812	True	4.65	4.880	4.18	1.100	46.900	47.375	1	30	
CAL7	3482095.9	4201.9	361166.004	True	4.65	9.641	4.17	1.100	93.800	93.602	0	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

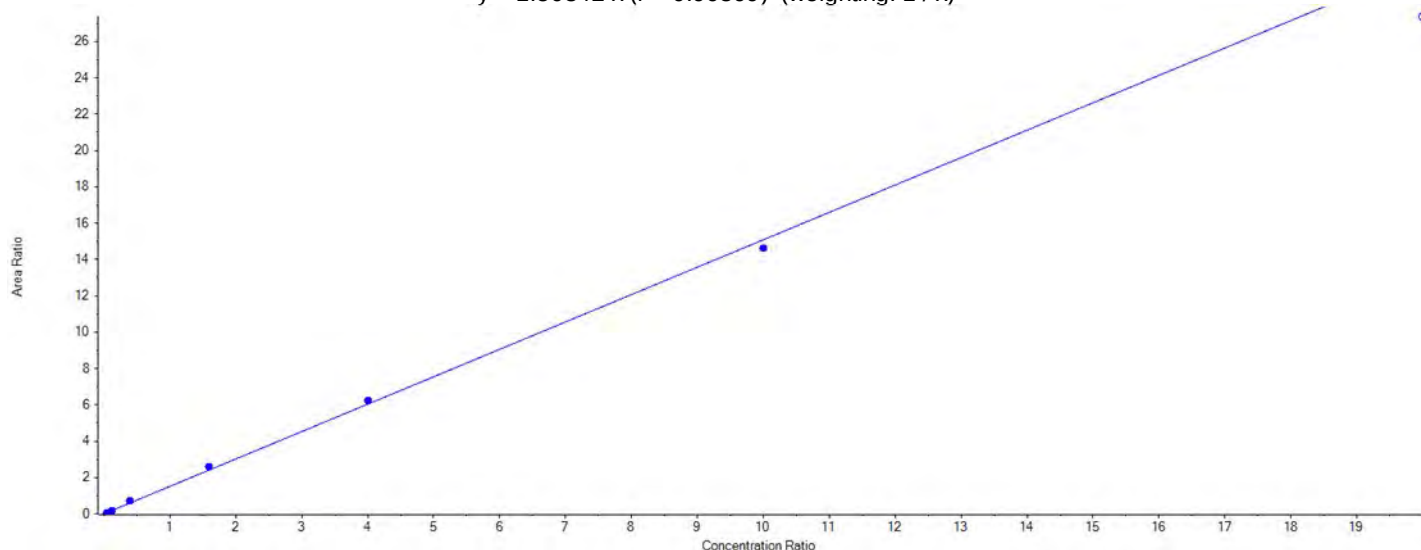
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFHpA

 $y = 1.50842 x$ ($r = 0.99899$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	PFHpA Area	S/N	¹³ C4-PFHpA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	37545.4	111.6	528473.493	True	5.00	0.071	4.55	1.000	0.200	0.235	18	30	
CAL2	95048.3	255.2	532987.486	True	5.00	0.178	4.55	1.000	0.600	0.591	-1	30	
CAL3	355834.2	621.3	503681.029	True	5.00	0.706	4.56	1.000	2.000	2.342	17	30	
CAL4	1318774.5	846.6	509151.776	True	5.00	2.590	4.55	1.000	8.000	8.586	7	30	
CAL5	3269561.0	1266.8	525802.046	True	5.00	6.218	4.54	1.000	20.000	20.612	3	30	
CAL6	6648455.3	1607.4	455005.812	True	5.00	14.612	4.55	1.000	50.000	48.434	-3	30	
CAL7	10981922.8	1824.2	401203.881	False	5.00	27.372	4.54	1.000	100.000	90.732	-9	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

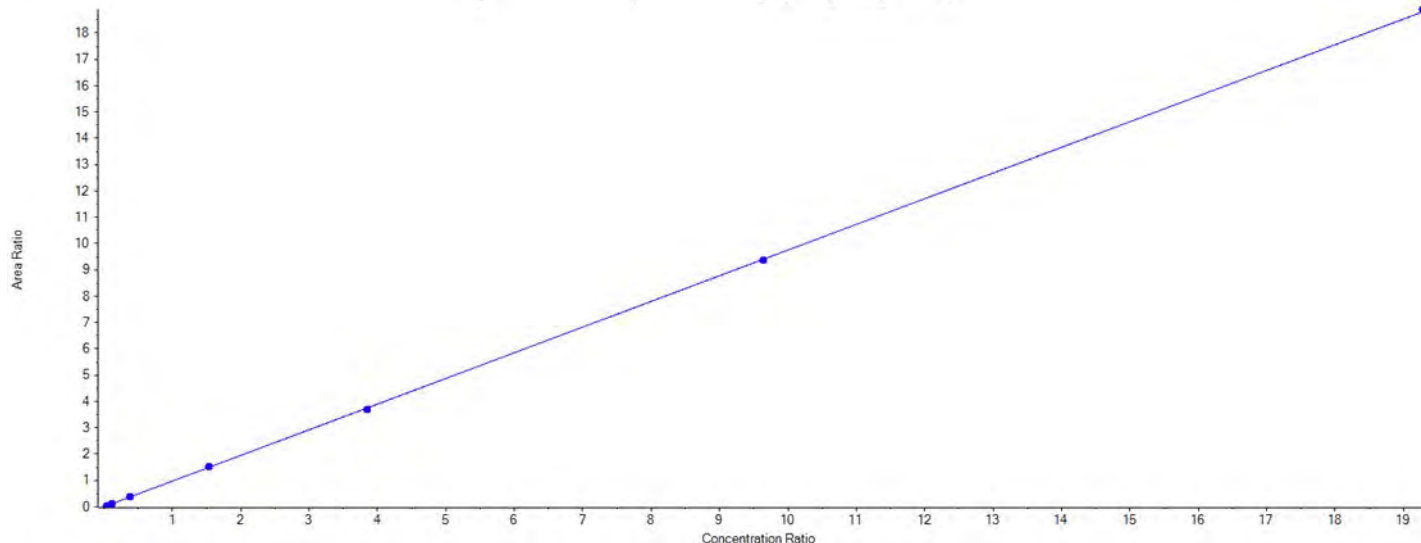
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFHxS

$$y = 0.97552 x \text{ (} r = 0.99992 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

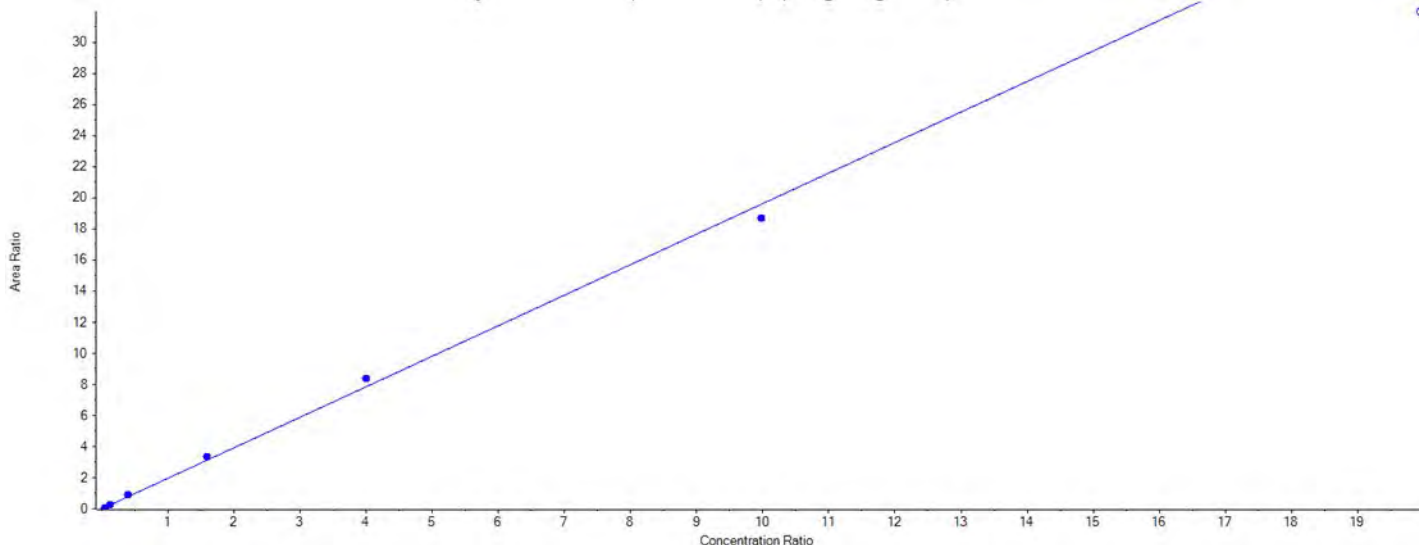
Sample Name	PFHxS Area	S/N	¹³ C3-PFHxS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	12858.1	420.7	327944.533	True	4.73	0.039	4.55	1.000	0.182	0.190	4	30	
CAL2	31064.7	21916.1	320400.366	True	4.73	0.097	4.56	1.000	0.547	0.470	-14	30	
CAL3	125622.0	1397.4	317243.200	True	4.73	0.396	4.56	1.000	1.820	1.920	5	30	
CAL4	479291.0	1690.0	315722.635	True	4.73	1.518	4.55	1.000	7.300	7.361	1	30	
CAL5	1138604.3	1511.8	309304.485	True	4.73	3.681	4.54	1.000	18.200	17.849	-2	30	
CAL6	2662852.0	1747.2	284116.506	True	4.73	9.372	4.55	1.000	45.600	45.444	0	30	
CAL7	5048349.8	1449.1	267182.785	True	4.73	18.895	4.54	1.000	91.200	91.615	0	30	

DOD Initial Calibration Verification

Instrument ID: LM27631 ICAL Name: 18NOV12DCAL QMethod Name: 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM Acquisition Method: 18AUG13_3uL.dam

6:2-FTS

$$y = 1.96291 x (r = 0.99822) \text{ (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	6:2-FTS Area	S/N	13C2-6:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2683.1	289.4	35455.215	True	4.75	0.076	4.90	1.000	0.190	0.183	-4	30	
CAL2	8048.4	680.8	35585.691	True	4.75	0.226	4.91	1.000	0.569	0.547	-4	30	
CAL3	28084.9	4492.0	31706.424	True	4.75	0.886	4.91	1.000	1.900	2.143	13	30	
CAL4	107470.6	1876.3	31883.281	True	4.75	3.371	4.91	1.000	7.580	8.157	8	30	
CAL5	260254.3	2335.4	31012.005	True	4.75	8.392	4.90	1.000	19.000	20.308	7	30	
CAL6	523949.5	2243.2	27988.493	True	4.75	18.720	4.91	1.000	47.400	45.301	-4	30	
CAL7	869227.2	3021.8	27180.238	False	4.75	31.980	4.89	1.000	94.800	77.388	-18	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

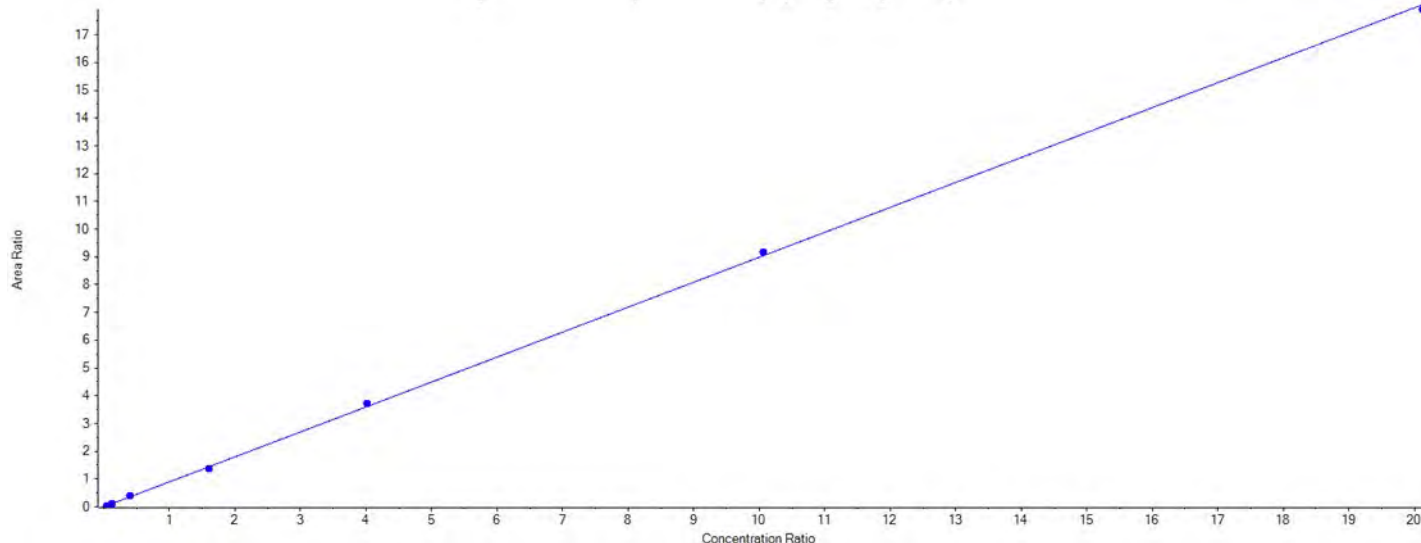
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFHpS

$$y = 0.89855x \text{ (} r = 0.99976 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFHpS Area	S/N	¹³ C ₃ -PFHxS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	13262.8	924.7	327944.533	True	4.73	0.040	4.91	1.080	0.190	0.213	12	30	
CAL2	29902.3	1651.5	320400.366	True	4.73	0.093	4.92	1.080	0.571	0.491	-14	30	
CAL3	125907.9	2910.0	317243.200	True	4.73	0.397	4.92	1.080	1.900	2.089	10	30	
CAL4	434949.2	2606.3	315722.635	True	4.73	1.378	4.91	1.080	7.610	7.252	-5	30	
CAL5	1145559.8	3668.3	309304.485	True	4.73	3.704	4.90	1.080	19.000	19.496	3	30	
CAL6	2604868.6	3378.5	284116.506	True	4.73	9.168	4.91	1.080	47.600	48.262	1	30	
CAL7	4784682.8	2777.4	267182.785	True	4.73	17.908	4.90	1.080	95.200	94.267	-1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

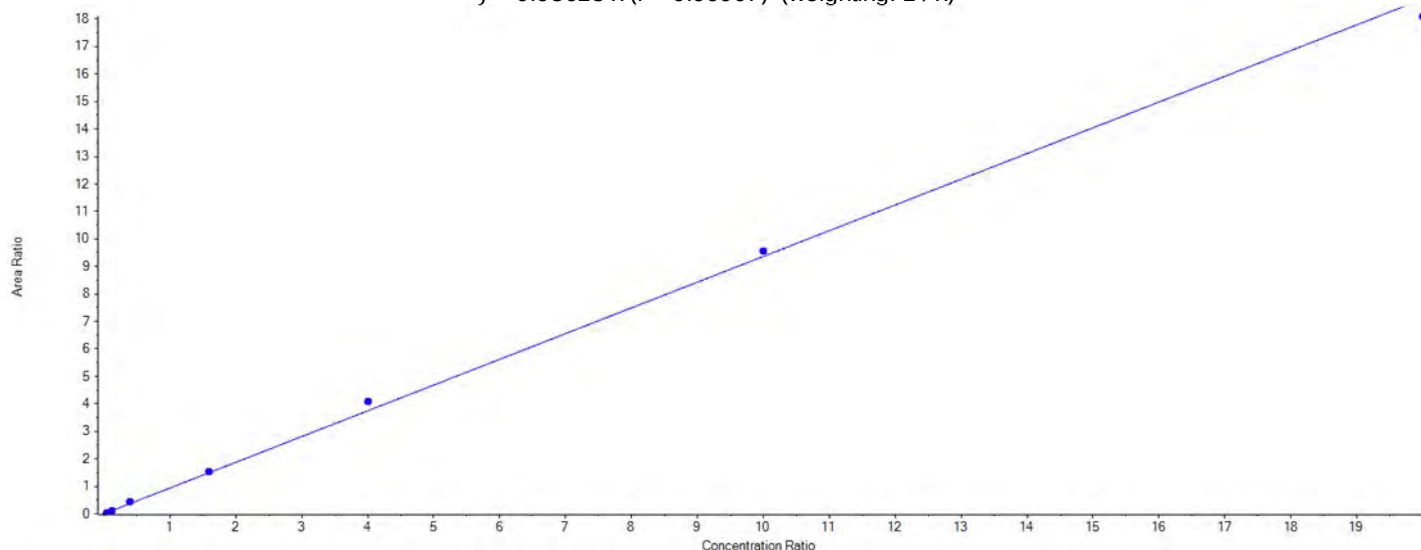
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFOA

$$y = 0.93618x \text{ (} r = 0.99907 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFOA Area	S/N	13C8-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	41468.0	187.1	912537.715	True	5.00	0.045	4.92	1.000	0.200	0.243	21	30	
CAL2	100710.5	331.7	892584.211	True	5.00	0.113	4.93	1.000	0.600	0.603	0	30	
CAL3	372258.9	744.4	878868.476	True	5.00	0.424	4.93	1.000	2.000	2.262	13	30	
CAL4	1327086.1	1187.5	863597.255	True	5.00	1.537	4.92	1.000	8.000	8.207	3	30	
CAL5	3291549.4	1816.2	805288.723	True	5.00	4.087	4.91	1.000	20.000	21.830	9	30	
CAL6	6758642.8	2708.4	707130.314	True	5.00	9.558	4.92	1.000	50.000	51.047	2	30	
CAL7	10991740.1	2902.7	607669.526	True	5.00	18.088	4.91	1.000	100.000	96.608	-3	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

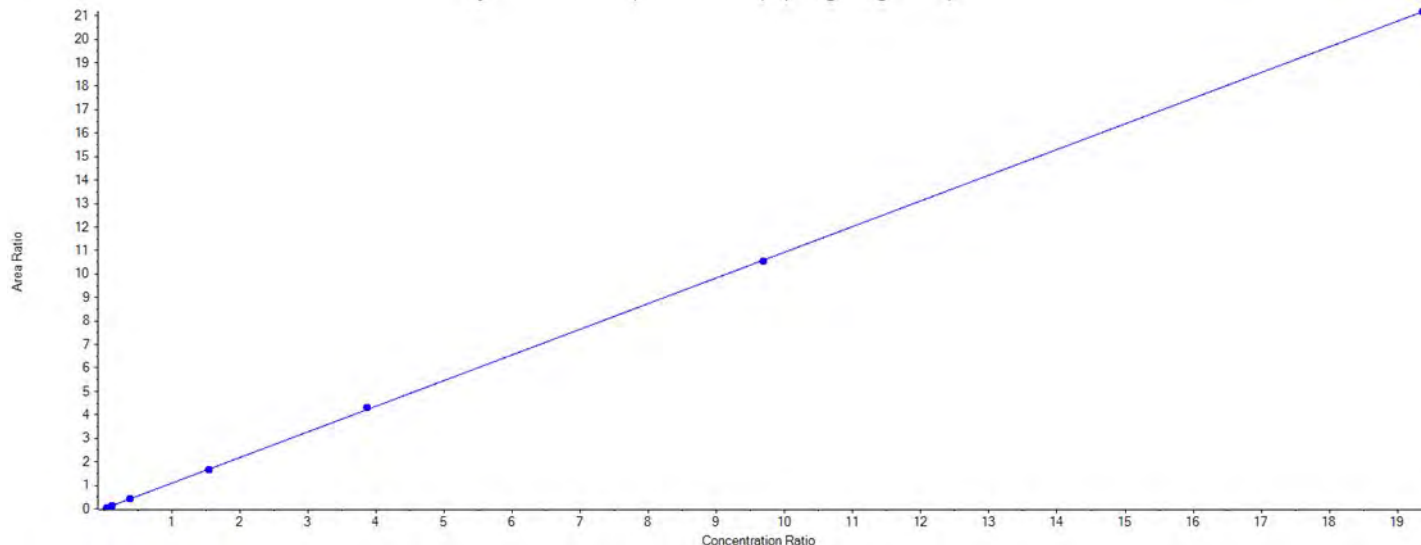
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFOS

$$y = 1.09305x \text{ (} r = 0.99997 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFOS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	13088.5	581.9	283127.433	True	4.78	0.046	5.25	1.000	0.185	0.202	9	30	
CAL2	32301.0	342.7	271778.843	True	4.78	0.119	5.25	1.000	0.555	0.520	-6	30	
CAL3	120897.4	739.8	281035.504	True	4.78	0.430	5.25	1.000	1.850	1.881	2	30	
CAL4	448833.8	1353.6	267380.807	True	4.78	1.679	5.25	1.000	7.400	7.341	-1	30	
CAL5	1147826.8	1190.7	267157.611	True	4.78	4.296	5.24	1.000	18.500	18.789	2	30	
CAL6	2664957.2	1191.1	253129.162	True	4.78	10.528	5.25	1.000	46.300	46.040	-1	30	
CAL7	5138367.0	1123.0	242617.529	True	4.78	21.179	5.24	1.000	92.600	92.617	0	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

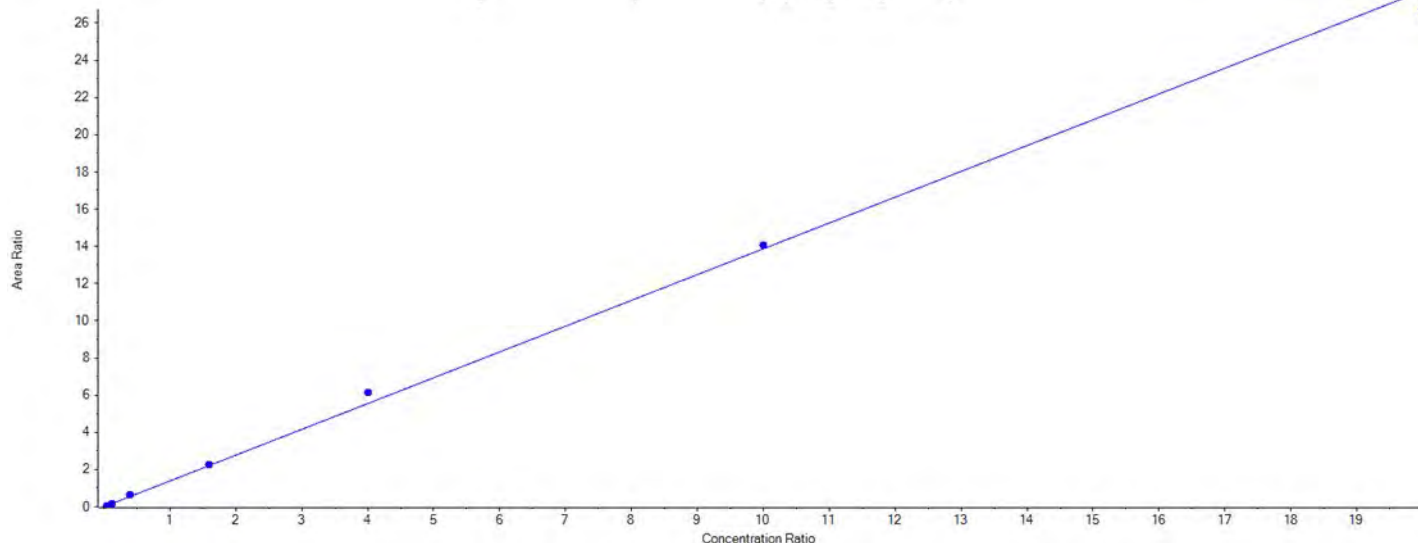
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFNA

$$y = 1.38660 x \text{ (r = 0.99871) (weighting: 1 / x)}$$



Component Calibration Verification

Sample Name	PFNA Area	S/N	13C9-PFNA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	29660.1	270.7	479931.430	True	5.00	0.062	5.26	1.000	0.200	0.223	11	30	
CAL2	80724.2	537.0	451850.144	True	5.00	0.179	5.27	1.000	0.600	0.644	7	30	
CAL3	302323.8	1252.4	455948.853	True	5.00	0.663	5.27	1.000	2.000	2.391	20	30	
CAL4	1106664.2	1697.5	485570.409	True	5.00	2.279	5.26	1.000	8.000	8.218	3	30	
CAL5	2725089.7	2530.1	441776.750	True	5.00	6.168	5.26	1.000	20.000	22.243	11	30	
CAL6	5820576.6	3024.4	413811.345	True	5.00	14.066	5.27	1.000	50.000	50.720	1	30	
CAL7	10084288.3	3917.9	377369.763	True	5.00	26.723	5.25	1.000	100.000	96.360	-4	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

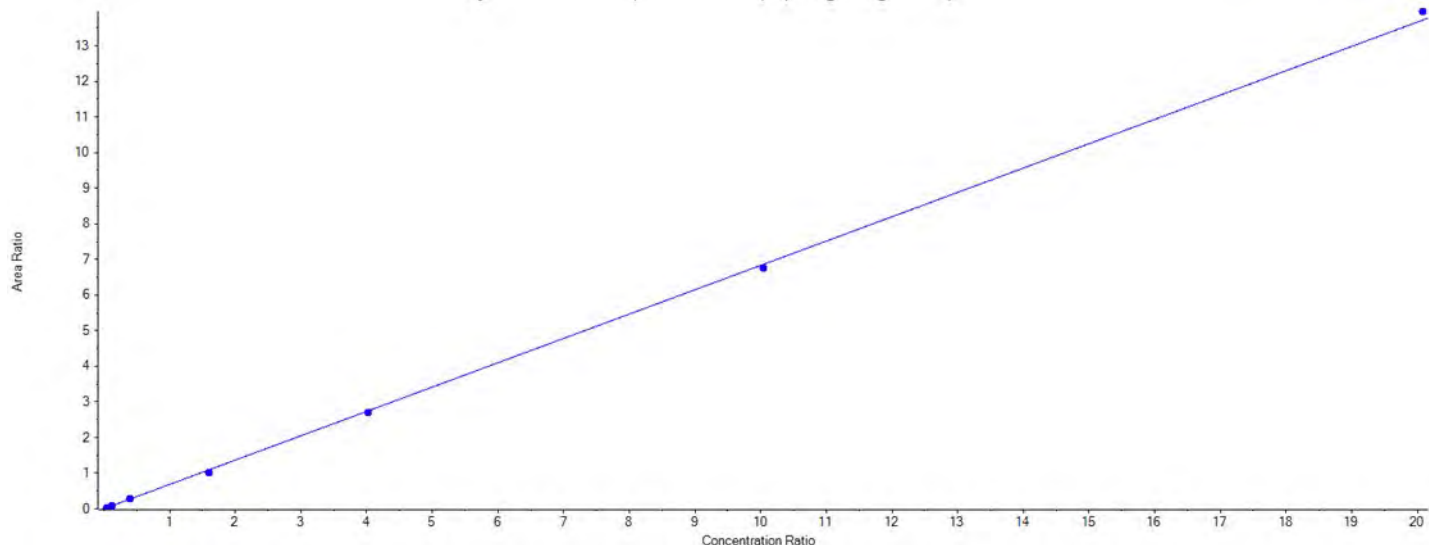
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFNS

 $y = 0.68322 x$ ($r = 0.99974$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	PFNS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6846.6	64175.9	283127.433	True	4.78	0.024	5.54	1.060	0.192	0.169	-12	30	
CAL2	20326.1	1643.1	271778.843	True	4.78	0.075	5.55	1.060	0.576	0.523	-9	30	
CAL3	76049.0	306613.9	281035.504	True	4.78	0.271	5.55	1.060	1.920	1.893	-1	30	
CAL4	269712.3	3708.3	267380.807	True	4.78	1.009	5.54	1.060	7.680	7.057	-8	30	
CAL5	725402.0	3853.5	267157.611	True	4.78	2.715	5.53	1.060	19.200	18.997	-1	30	
CAL6	1709959.4	3115.5	253129.162	True	4.78	6.755	5.55	1.060	48.000	47.262	-2	30	
CAL7	3386860.5	3789.1	242617.529	True	4.78	13.960	5.53	1.060	96.000	97.666	2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

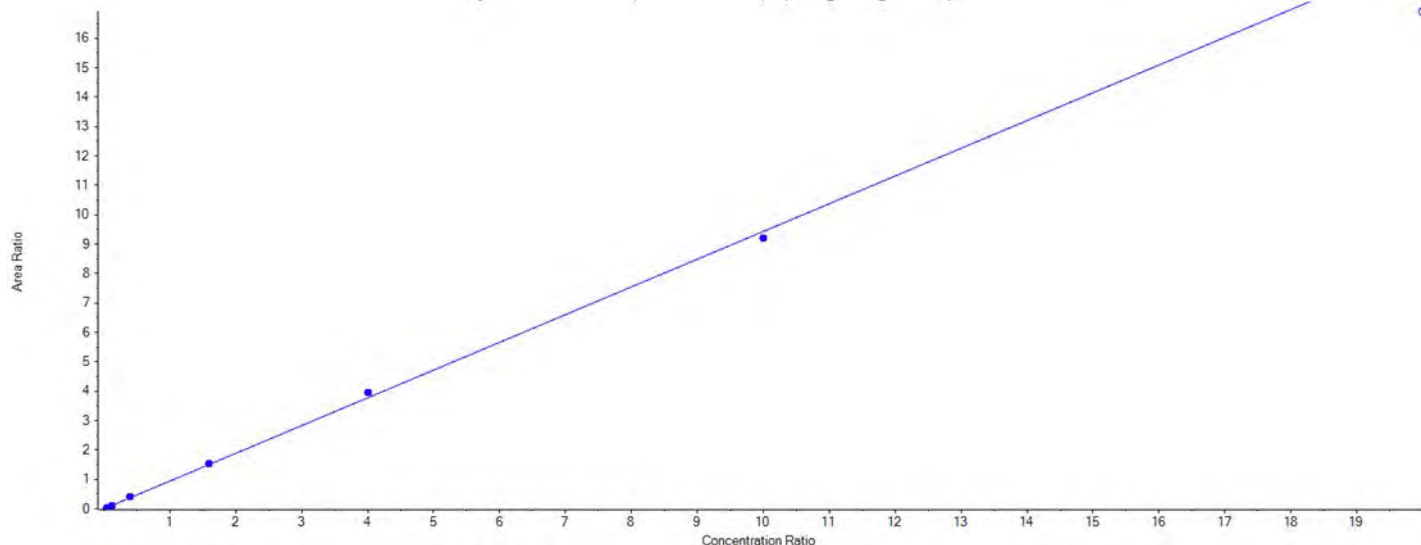
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFDA

$$y = 0.94313x \text{ (} r = 0.99936 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFDA Area	S/N	13C6-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	27488.5	91.3	612577.429	True	5.00	0.045	5.56	1.000	0.200	0.238	19	30	
CAL2	63802.1	156.0	601859.800	True	5.00	0.106	5.57	1.000	0.600	0.562	-6	30	
CAL3	254047.8	380.5	612680.786	True	5.00	0.415	5.57	1.000	2.000	2.198	10	30	
CAL4	941985.3	720.2	612056.466	True	5.00	1.539	5.56	1.000	8.000	8.159	2	30	
CAL5	2309359.5	1113.9	585231.231	True	5.00	3.946	5.56	1.000	20.000	20.920	5	30	
CAL6	4802967.8	1415.3	522613.810	True	5.00	9.190	5.57	1.000	50.000	48.722	-3	30	
CAL7	8104726.6	2024.7	479333.064	False	5.00	16.908	5.55	1.000	100.000	89.640	-10	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

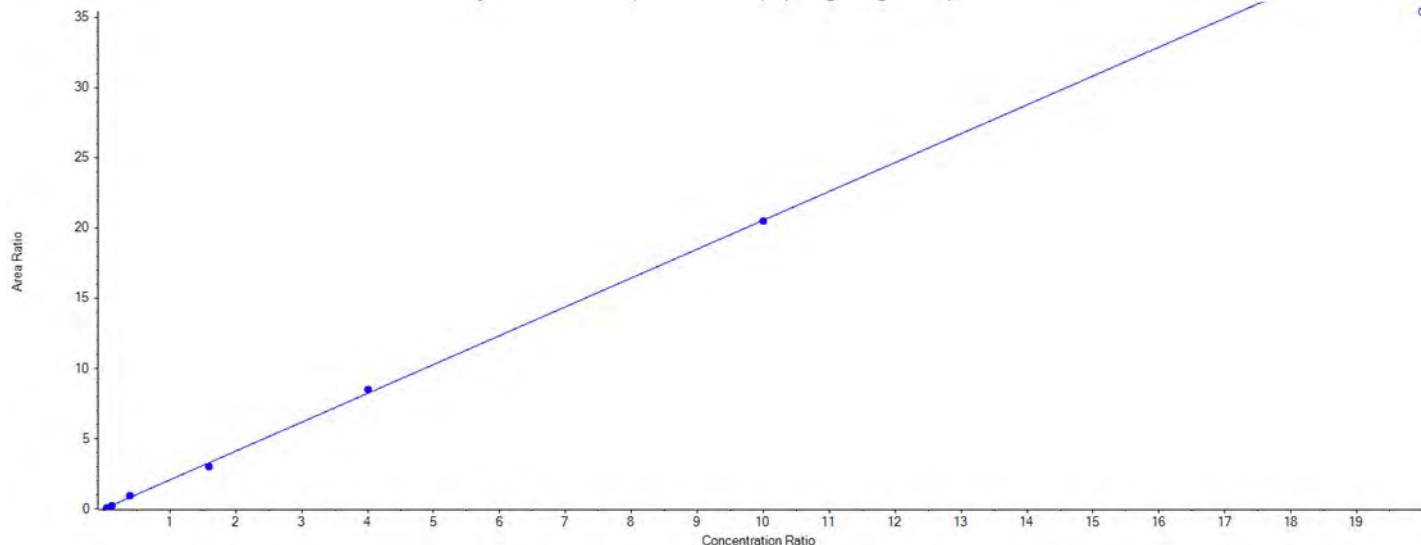
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

8:2-FTS

$$y = 2.05449x \text{ (} r = 0.99920 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	8:2-FTS Area	S/N	13C2-8:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2333.1	294799.1	26445.481	True	4.79	0.088	5.57	1.000	0.192	0.206	7	30	
CAL2	6214.2	6270.0	27639.188	True	4.79	0.225	5.57	1.000	0.575	0.524	-9	30	
CAL3	26295.1	17693.1	29249.839	True	4.79	0.899	5.57	1.000	1.920	2.096	9	30	
CAL4	80922.6	6228.9	27253.461	True	4.79	2.969	5.57	1.000	7.660	6.923	-10	30	
CAL5	206213.1	2630.2	24192.138	True	4.79	8.524	5.56	1.000	19.200	19.873	4	30	
CAL6	469719.6	3836.0	22899.000	True	4.79	20.513	5.57	1.000	47.900	47.825	0	30	
CAL7	804019.5	2307.7	22710.952	False	4.79	35.402	5.56	1.000	95.800	82.540	-14	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

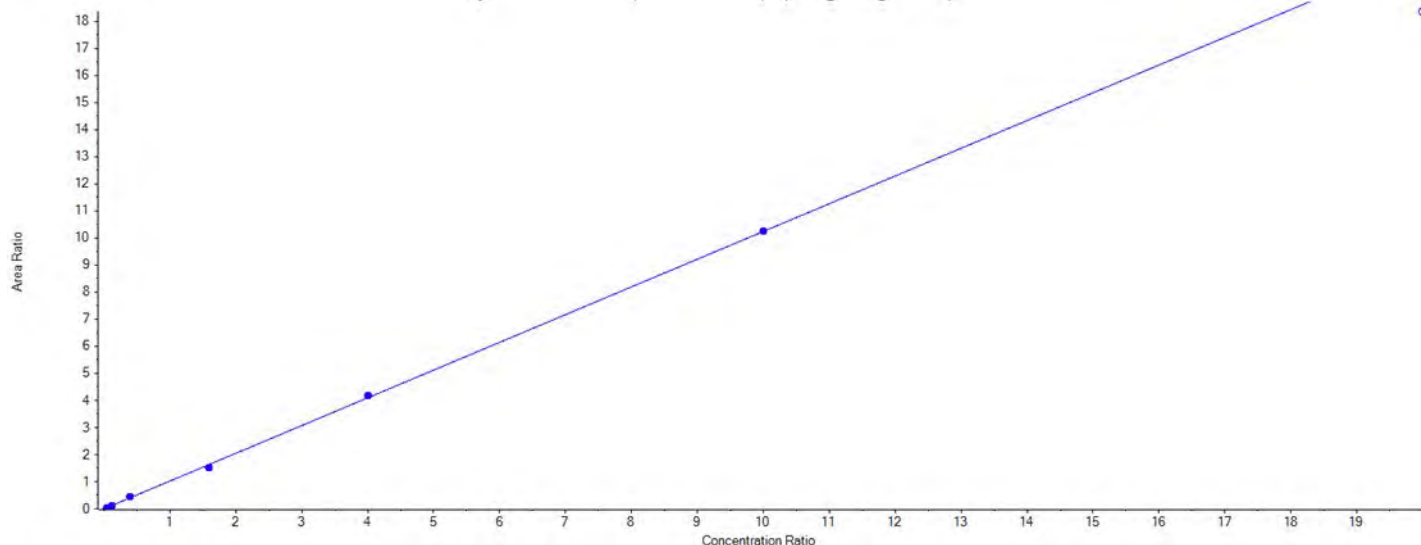
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFOSA

 $y = 1.02368x$ ($r = 0.99961$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	PFOSA Area	S/N	13C8-PFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	29582.8	441.0	664489.930	True	5.00	0.045	5.64	1.000	0.200	0.217	9	30	
CAL2	71087.0	726.6	636543.149	True	5.00	0.112	5.65	1.000	0.600	0.545	-9	30	
CAL3	270175.4	1379.9	629109.871	True	5.00	0.429	5.65	1.000	2.000	2.098	5	30	
CAL4	927660.4	2034.5	607762.027	True	5.00	1.526	5.64	1.000	8.000	7.455	-7	30	
CAL5	2498877.9	2082.0	596544.134	True	5.00	4.189	5.64	1.000	20.000	20.460	2	30	
CAL6	5530440.6	2331.7	539992.495	True	5.00	10.242	5.65	1.000	50.000	50.024	0	30	
CAL7	10169176.9	2455.7	554092.642	False	5.00	18.353	5.63	1.000	100.000	89.642	-10	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

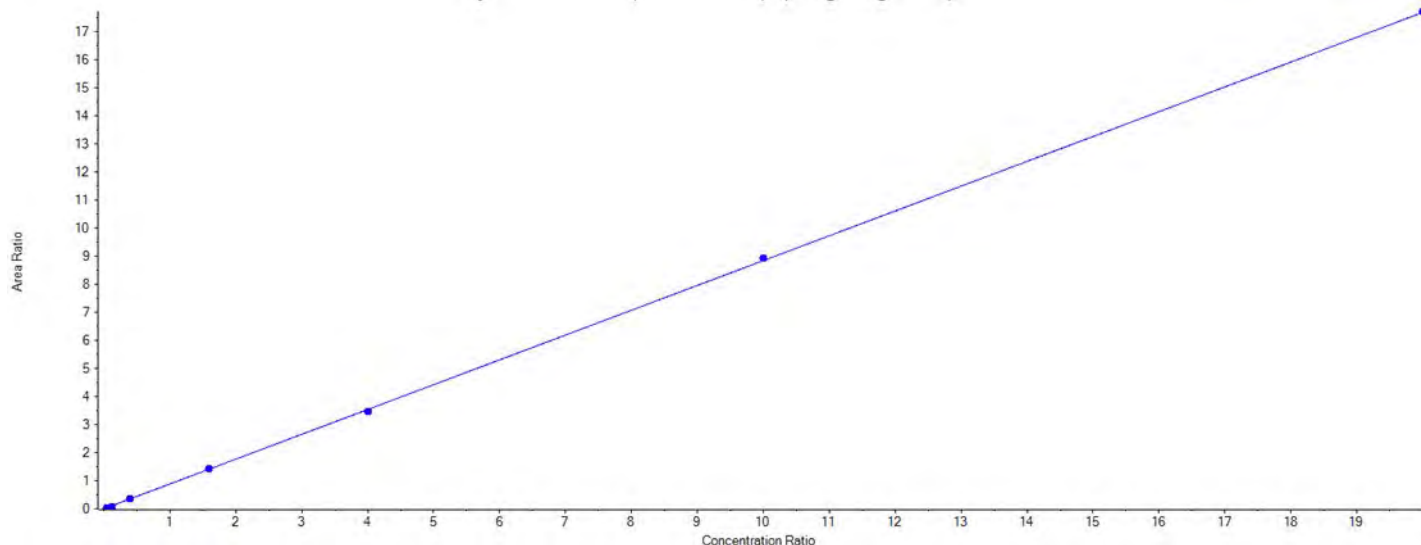
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

NMeFOSAA

$$y = 0.88469x \text{ (} r = 0.99990 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	NMeFOSAA Area	S/N	d3-NMeFOSAA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2306.4	597.4	86914.510	True	5.00	0.027	5.71	1.000	0.200	0.150	-25	30	
CAL2	5759.6	226.1	77388.613	True	5.00	0.074	5.71	1.000	0.600	0.421	-30	30	
CAL3	25147.6	632.7	71670.262	True	5.00	0.351	5.71	1.000	2.000	1.983	-1	30	
CAL4	103649.1	37382.5	72788.025	True	5.00	1.424	5.70	1.000	8.000	8.048	1	30	
CAL5	250711.5	2299.0	72424.490	True	5.00	3.462	5.70	1.000	20.000	19.564	-2	30	
CAL6	627854.4	1632.7	70320.259	True	5.00	8.928	5.71	1.000	50.000	50.461	1	30	
CAL7	1191981.7	2314.0	67250.454	True	5.00	17.725	5.69	1.000	100.000	100.173	0	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

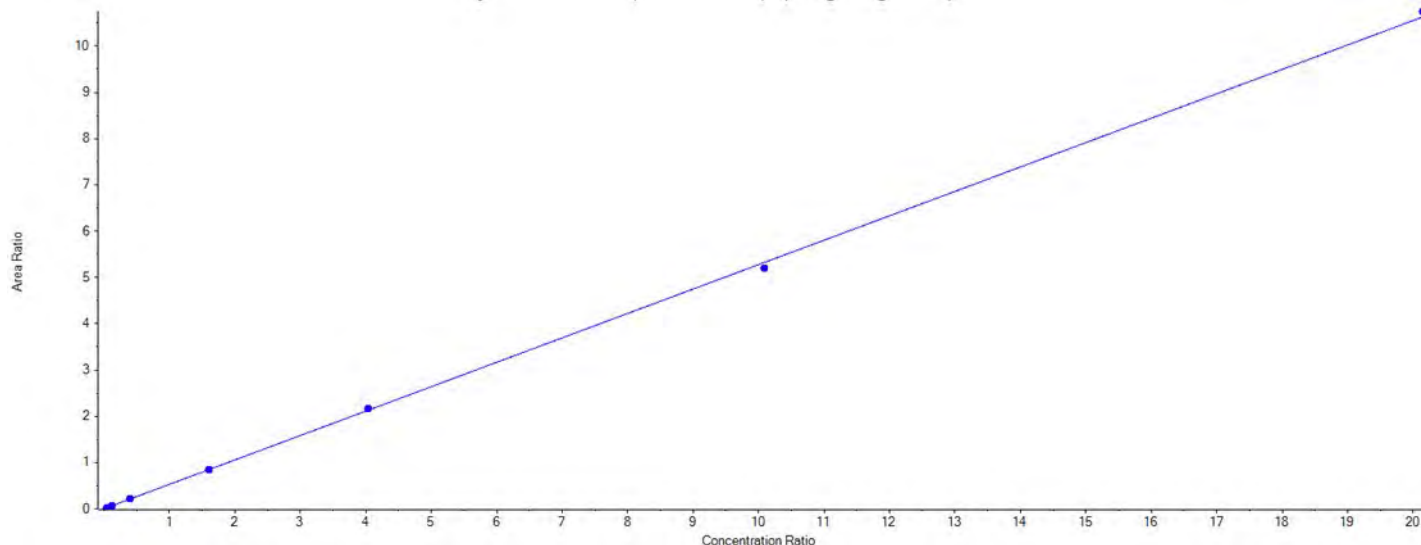
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFDS

$$y = 0.52754 x \text{ (} r = 0.99985 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFDS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	5952.2	1142.3	283127.433	True	4.78	0.021	5.80	1.100	0.193	0.190	-1	30	
CAL2	16291.9	12424.6	271778.843	True	4.78	0.060	5.80	1.100	0.578	0.543	-6	30	
CAL3	57966.9	3930335.8	281035.504	True	4.78	0.206	5.80	1.110	1.930	1.869	-3	30	
CAL4	224031.2	2859776.1	267380.807	True	4.78	0.838	5.80	1.110	7.700	7.592	-1	30	
CAL5	578877.5	2392.5	267157.611	True	4.78	2.167	5.79	1.100	19.300	19.633	2	30	
CAL6	1313570.3	3303.1	253129.162	True	4.78	5.189	5.80	1.100	48.200	47.020	-2	30	
CAL7	2606720.7	3557.3	242617.529	True	4.78	10.744	5.79	1.110	96.300	97.353	1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

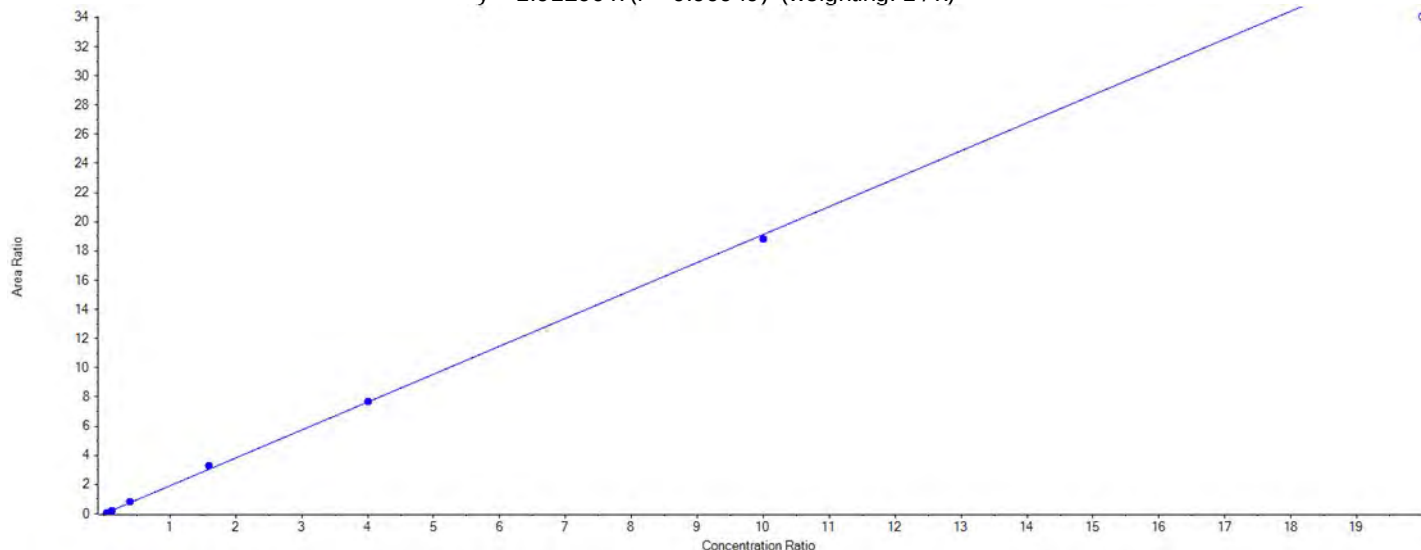
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFUnDA

 $y = 1.91260 x$ ($r = 0.99949$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	PFUnDA Area	S/N	13C7-PFUnDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	23379.5	206.2	256401.964	True	5.00	0.091	5.82	1.000	0.200	0.238	19	30	
CAL2	51206.8	285.0	242881.749	True	5.00	0.211	5.83	1.000	0.600	0.551	-8	30	
CAL3	199061.8	846.0	245605.298	True	5.00	0.810	5.83	1.000	2.000	2.119	6	30	
CAL4	768010.8	1510.9	232014.103	True	5.00	3.310	5.82	1.000	8.000	8.654	8	30	
CAL5	1773582.6	2061.6	231187.889	True	5.00	7.672	5.82	1.000	20.000	20.055	0	30	
CAL6	3923979.2	2695.3	208574.106	True	5.00	18.813	5.83	1.000	50.000	49.183	-2	30	
CAL7	6802701.2	3209.1	199746.834	False	5.00	34.057	5.81	1.000	100.000	89.032	-11	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

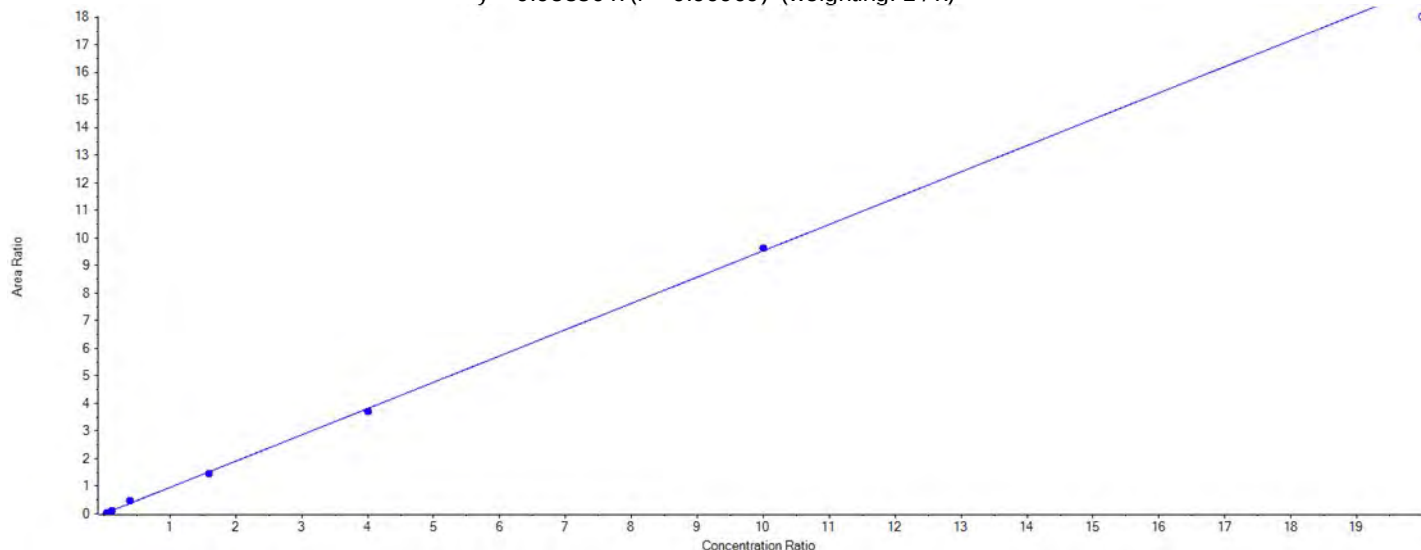
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

NEtFOSAA

 $y = 0.95380 x$ ($r = 0.99909$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	NEtFOSAA Area	S/N	d5-NEtFOSAA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2284.9	20256.7	80597.244	True	5.00	0.028	5.85	1.000	0.200	0.149	-26	30	
CAL2	7727.1	209.6	63686.933	True	5.00	0.121	5.85	1.000	0.600	0.636	6	30	
CAL3	25089.0	97.0	54383.911	True	5.00	0.461	5.84	1.000	2.000	2.418	21	30	
CAL4	94877.8	20462.7	65477.959	True	5.00	1.449	5.84	1.000	8.000	7.596	-5	30	
CAL5	237197.2	1311.0	63701.688	True	5.00	3.724	5.83	1.000	20.000	19.520	-2	30	
CAL6	551865.7	1762.3	57308.081	True	5.00	9.630	5.84	1.000	50.000	50.481	1	30	
CAL7	1046636.1	1311.5	58049.489	False	5.00	18.030	5.83	1.000	100.000	94.517	-5	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

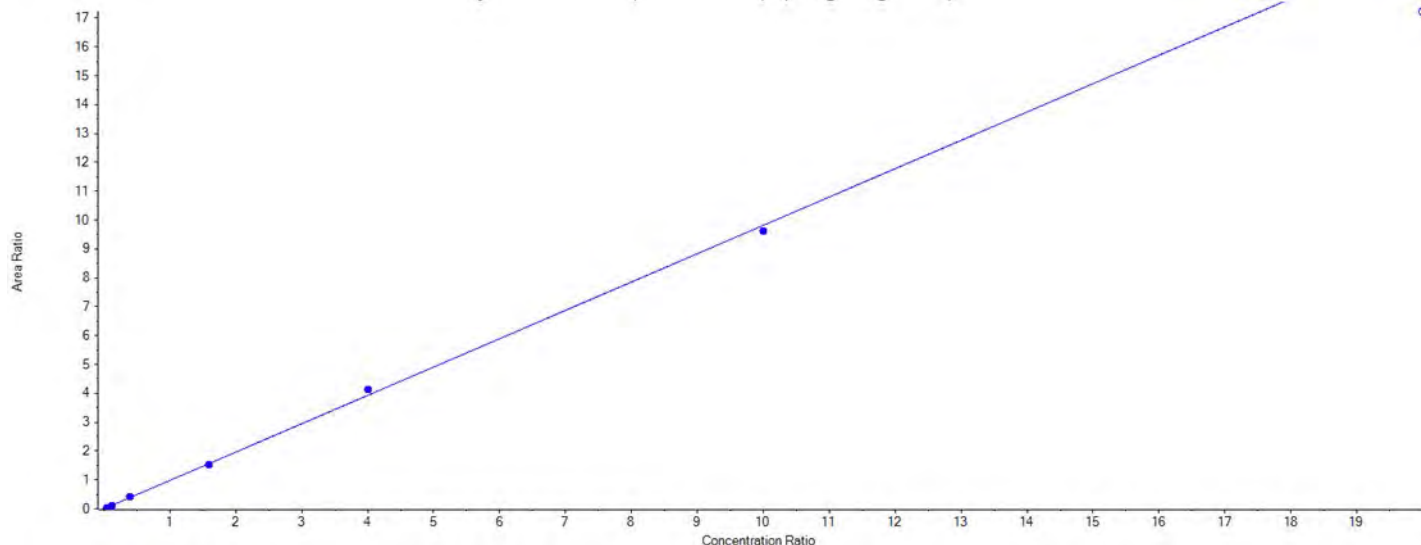
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFDODA

$$y = 0.98190x \text{ (} r = 0.99932 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFDODA Area	S/N	¹³ C ₂ -PFDODA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	22143.6	430.3	545413.193	True	5.00	0.041	6.05	1.000	0.200	0.207	3	30	
CAL2	59695.2	467.4	532175.345	True	5.00	0.112	6.06	1.000	0.600	0.571	-5	30	
CAL3	237252.6	1192.0	549542.276	True	5.00	0.432	6.06	1.000	2.000	2.198	10	30	
CAL4	803646.8	1372.0	521514.091	True	5.00	1.541	6.05	1.000	8.000	7.847	-2	30	
CAL5	2099385.0	2645.1	507556.819	True	5.00	4.136	6.04	1.000	20.000	21.062	5	30	
CAL6	4582985.5	2623.0	477105.492	True	5.00	9.606	6.06	1.000	50.000	48.914	-2	30	
CAL7	8171355.3	3494.7	474393.787	False	5.00	17.225	6.04	1.000	100.000	87.711	-12	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

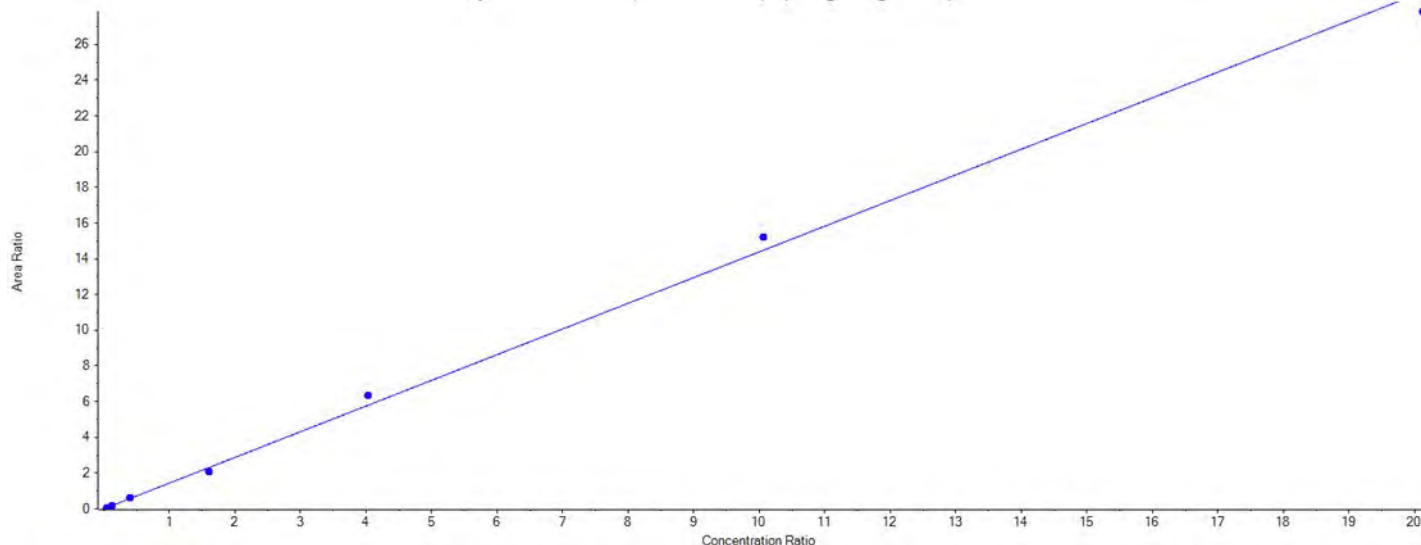
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

10:2-FTS

 $y = 1.43807 x$ ($r = 0.99838$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	10:2-FTS Area	S/N	13C2-8:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	1814.2	3265.8	26445.481	True	4.79	0.069	6.07	1.090	0.193	0.229	18	30	
CAL2	5206.5	6837.3	27639.188	True	4.79	0.188	6.08	1.090	0.578	0.627	9	30	
CAL3	18541.7	12580.7	29249.839	True	4.79	0.634	6.07	1.090	1.930	2.111	9	30	
CAL4	56040.8	5520.1	27253.461	True	4.79	2.056	6.07	1.090	7.710	6.849	-11	30	
CAL5	153343.6	2460.5	24192.138	True	4.79	6.339	6.06	1.090	19.300	21.113	9	30	
CAL6	348263.2	3159.4	22899.000	True	4.79	15.209	6.07	1.090	48.200	50.658	5	30	
CAL7	632223.7	3215.8	22710.952	True	4.79	27.838	6.06	1.090	96.400	92.724	-4	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

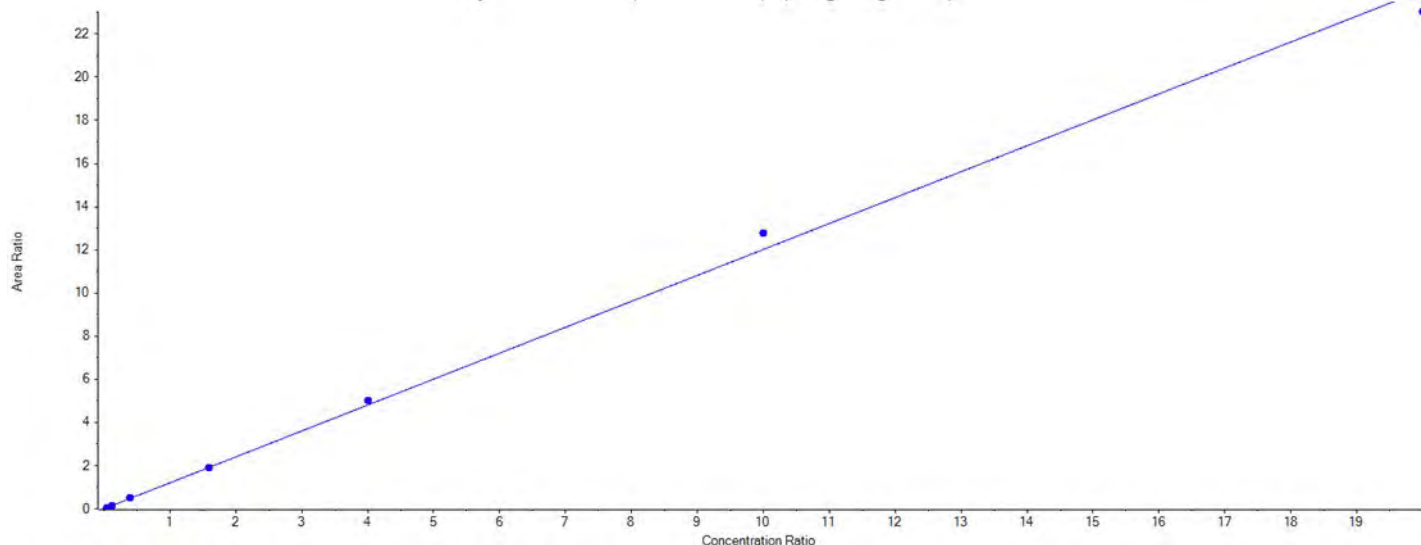
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

NMePFOSAE

$$y = 1.20138x \text{ (} r = 0.99873 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	NMePFOSAE Area	S/N	d7-NMePFOSAE Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	18013.9	109.4	349854.469	True	5.00	0.051	6.10	1.000	0.200	0.214	7	30	
CAL2	43085.1	193.1	323456.508	True	5.00	0.133	6.10	1.000	0.600	0.554	-8	30	
CAL3	163668.7	409.2	307355.434	True	5.00	0.533	6.10	1.000	2.000	2.216	11	30	
CAL4	618314.4	740.2	327796.394	True	5.00	1.886	6.10	1.000	8.000	7.850	-2	30	
CAL5	1590507.1	975.1	316777.819	True	5.00	5.021	6.09	1.000	20.000	20.896	4	30	
CAL6	3484588.8	1388.9	272638.968	True	5.00	12.781	6.10	1.000	50.000	53.193	6	30	
CAL7	6272486.3	1388.0	272283.142	True	5.00	23.037	6.09	1.000	100.000	95.876	-4	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

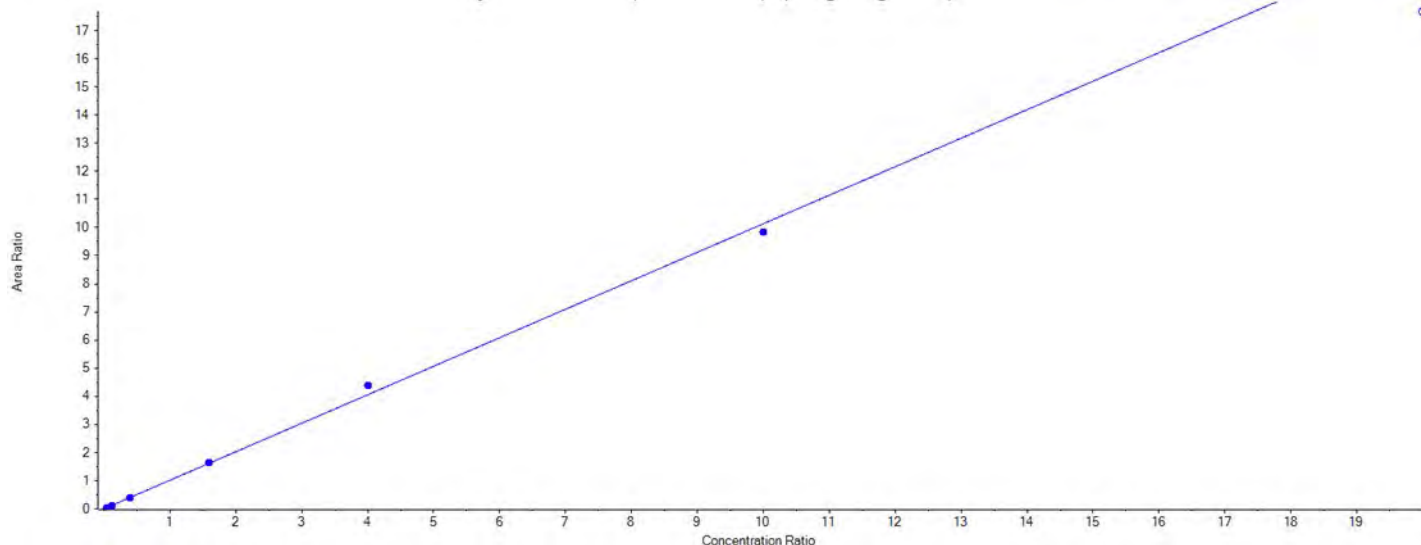
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

NMePFOSA

 $y = 1.01352 x$ ($r = 0.99879$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	NMePFOSA Area	S/N	d3-NMePFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2376.3	153.9	78396.495	True	5.00	0.030	6.11	1.000	0.200	0.150	-25	30	
CAL2	8877.7	472.1	77893.238	True	5.00	0.114	6.11	1.000	0.600	0.562	-6	30	
CAL3	29934.3	447.4	76782.886	True	5.00	0.390	6.11	1.000	2.000	1.923	-4	30	
CAL4	114415.9	890.1	70122.473	True	5.00	1.632	6.10	1.000	8.000	8.049	1	30	
CAL5	300855.7	937.9	68615.664	True	5.00	4.385	6.10	1.000	20.000	21.631	8	30	
CAL6	670429.6	1054.0	68215.937	True	5.00	9.828	6.11	1.000	50.000	48.485	-3	30	
CAL7	1310162.9	1043.5	74110.295	False	5.00	17.679	6.09	1.000	100.000	87.214	-13	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

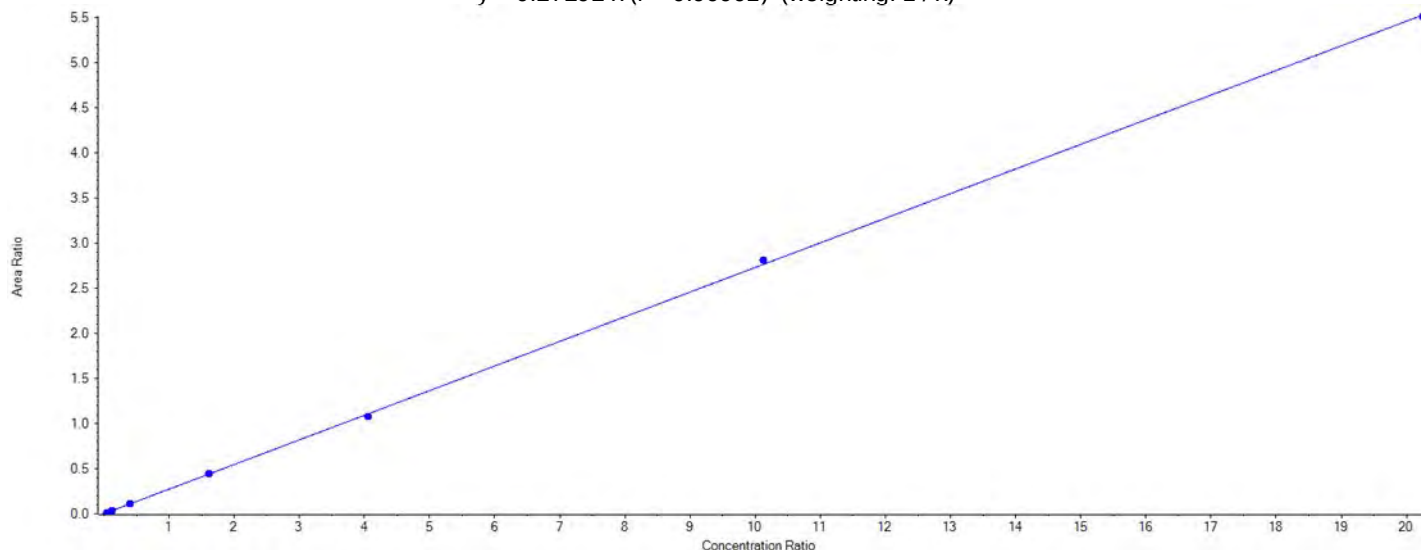
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFDoS

$$y = 0.27292 x \text{ (} r = 0.99991 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFDoS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3520.9	58335.2	283127.433	True	4.78	0.012	6.22	1.190	0.194	0.218	12	30	
CAL2	8992.5	12149.3	271778.843	True	4.78	0.033	6.22	1.190	0.581	0.580	0	30	
CAL3	30098.3	137145.7	281035.504	True	4.78	0.107	6.23	1.190	1.940	1.876	-3	30	
CAL4	117663.3	1376.2	267380.807	True	4.78	0.440	6.22	1.190	7.740	7.707	0	30	
CAL5	288905.1	1660.8	267157.611	True	4.78	1.081	6.21	1.190	19.400	18.940	-2	30	
CAL6	711567.5	2275.7	253129.162	True	4.78	2.811	6.23	1.190	48.400	49.234	2	30	
CAL7	1336765.3	3028.7	242617.529	True	4.78	5.510	6.21	1.190	96.800	96.500	0	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

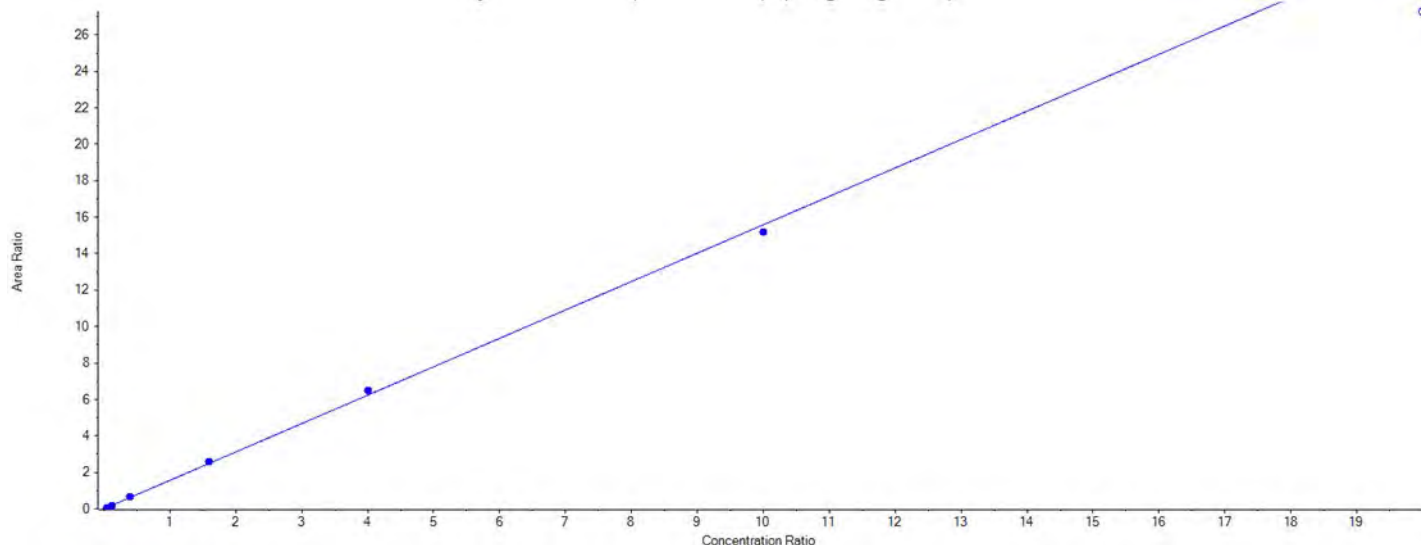
ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

NEtPFOSAE

 $y = 1.55847 x$ ($r = 0.99933$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	NEtPFOSAE Area	S/N	d9-NEtPFOSAE Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	21005.9	119.5	280311.617	True	5.00	0.075	6.26	1.000	0.200	0.240	20	30	
CAL2	46623.3	205.6	261195.607	True	5.00	0.178	6.26	1.000	0.600	0.573	-5	30	
CAL3	178457.8	320.7	259792.277	True	5.00	0.687	6.26	1.000	2.000	2.204	10	30	
CAL4	673196.1	592.1	259467.367	True	5.00	2.595	6.25	1.000	8.000	8.324	4	30	
CAL5	1660562.6	810.5	255767.749	True	5.00	6.492	6.25	1.000	20.000	20.830	4	30	
CAL6	3677006.6	1204.8	242587.535	True	5.00	15.157	6.26	1.000	50.000	48.629	-3	30	
CAL7	6557402.5	1093.9	240346.474	False	5.00	27.283	6.25	1.000	100.000	87.532	-12	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

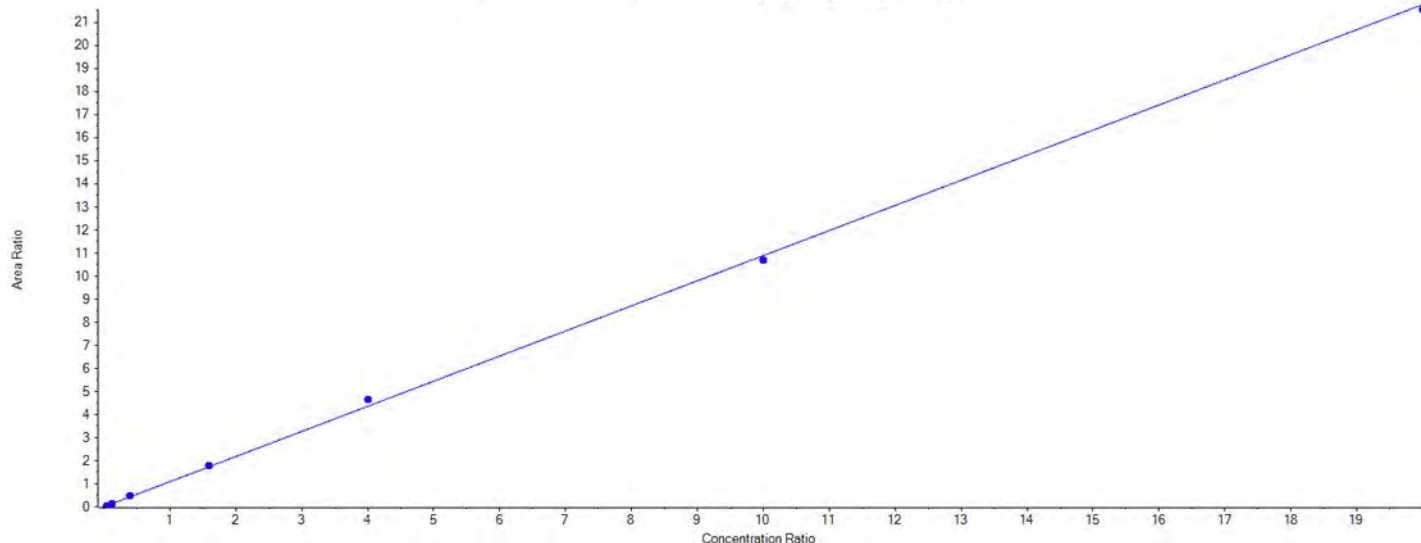
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

NEtPFOSA

$$y = 1.08874 x \text{ (} r = 0.99961 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	NEtPFOSA Area	S/N	d5-NEtPFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	2846.2	154.5	63047.063	True	5.00	0.045	6.27	1.000	0.200	0.207	4	30	
CAL2	8053.7	439.3	58073.450	True	5.00	0.139	6.27	1.000	0.600	0.637	6	30	
CAL3	26590.2	407.4	57485.886	True	5.00	0.463	6.27	1.000	2.000	2.124	6	30	
CAL4	99354.1	862.8	55177.273	True	5.00	1.801	6.27	1.000	8.000	8.269	3	30	
CAL5	258300.3	1044.0	55378.447	True	5.00	4.664	6.26	1.000	20.000	21.421	7	30	
CAL6	599280.4	865.2	56004.042	True	5.00	10.701	6.27	1.000	50.000	49.142	-2	30	
CAL7	1148933.0	1266.7	53297.846	True	5.00	21.557	6.26	1.000	100.000	98.999	-1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

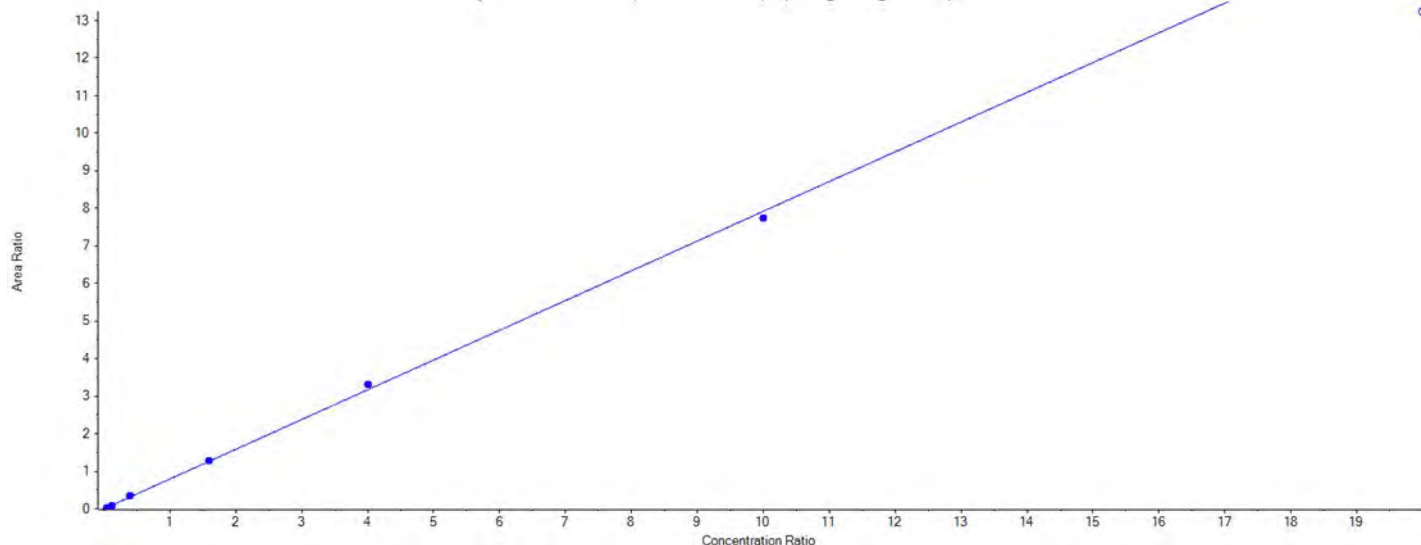
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFTrDA

$$y = 0.79219x \text{ (} r = 0.99949 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFTrDA Area	S/N	¹³ C2-PFDoDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	20185.1	68.6	545413.193	True	5.00	0.037	6.25	1.030	0.200	0.234	17	30	
CAL2	47991.3	109.2	532175.345	True	5.00	0.090	6.26	1.030	0.600	0.569	-5	30	
CAL3	184322.9	257.3	549542.276	True	5.00	0.335	6.26	1.030	2.000	2.117	6	30	
CAL4	674140.3	350.0	521514.091	True	5.00	1.293	6.25	1.030	8.000	8.159	2	30	
CAL5	1679407.2	589.3	507556.819	True	5.00	3.309	6.24	1.030	20.000	20.884	4	30	
CAL6	3691733.8	935.9	477105.492	True	5.00	7.738	6.26	1.030	50.000	48.838	-2	30	
CAL7	6281239.0	1061.9	474393.787	False	5.00	13.241	6.24	1.030	100.000	83.569	-16	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

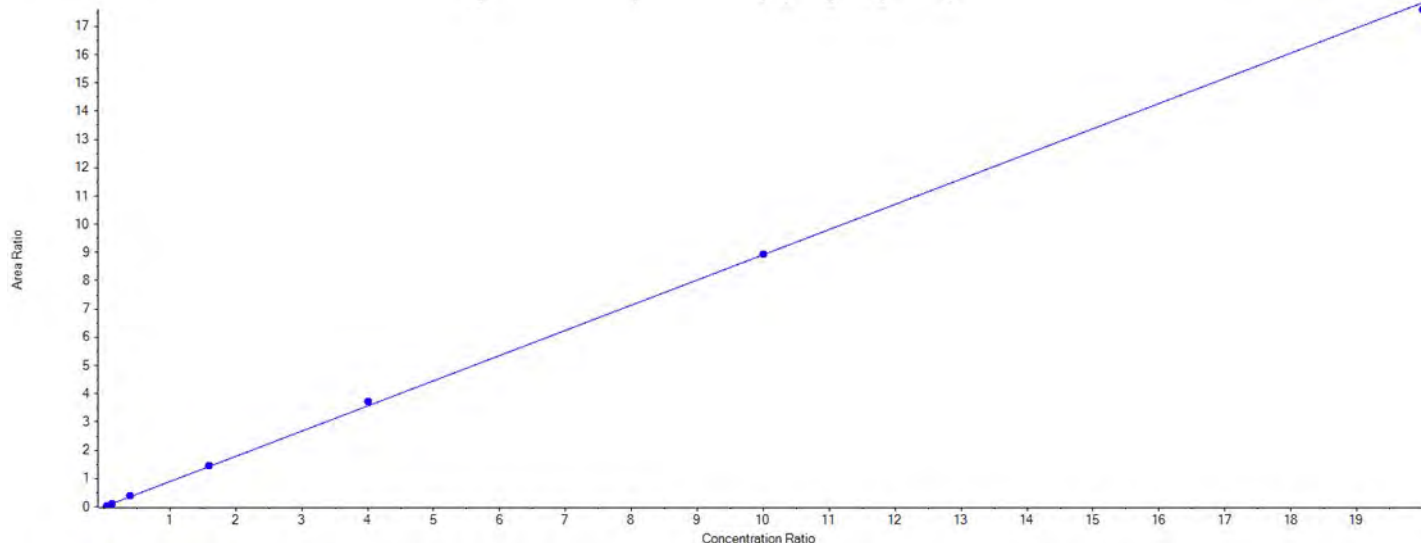
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFTeDA

$$y = 0.89197 x \text{ (r = 0.99974) (weighting: 1 / x)}$$



Component Calibration Verification

Sample Name	PFTeDA Area	S/N	¹³ C ₂ -PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	16357.5	210.0	410633.036	True	5.00	0.040	6.43	1.000	0.200	0.223	12	30	
CAL2	40236.5	281.3	394146.239	True	5.00	0.102	6.43	1.000	0.600	0.572	-5	30	
CAL3	156439.9	700.6	393544.938	True	5.00	0.398	6.43	1.000	2.000	2.228	11	30	
CAL4	571926.7	1105.3	392356.634	True	5.00	1.458	6.43	1.000	8.000	8.171	2	30	
CAL5	1418276.7	1705.5	379571.560	True	5.00	3.737	6.42	1.000	20.000	20.945	5	30	
CAL6	3149020.2	2109.2	352892.214	True	5.00	8.923	6.43	1.000	50.000	50.021	0	30	
CAL7	6092875.7	2023.1	346256.589	True	5.00	17.596	6.42	1.000	100.000	98.638	-1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

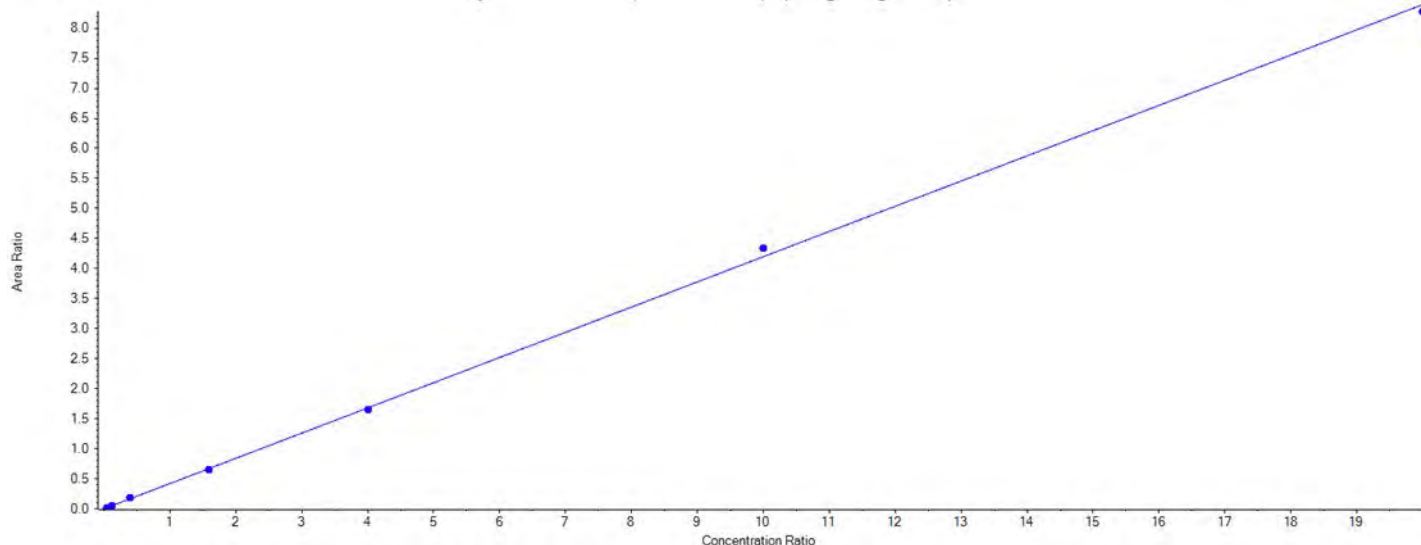
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFHxDA

$$y = 0.41968 x \text{ (r = 0.99971) (weighting: 1 / x)}$$



Component Calibration Verification

Sample Name	PFHxDA Area	S/N	¹³ C ₂ -PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	7976.0	221.5	410633.036	True	5.00	0.019	6.73	1.050	0.200	0.231	16	30	
CAL2	19006.4	621.9	394146.239	True	5.00	0.048	6.74	1.050	0.600	0.575	-4	30	
CAL3	69655.1	986.8	393544.938	True	5.00	0.177	6.74	1.050	2.000	2.109	5	30	
CAL4	256654.3	1362.8	392356.634	True	5.00	0.654	6.73	1.050	8.000	7.793	-3	30	
CAL5	627350.7	1919.3	379571.560	True	5.00	1.653	6.72	1.050	20.000	19.691	-2	30	
CAL6	1533920.2	4020.8	352892.214	True	5.00	4.347	6.74	1.050	50.000	51.786	4	30	
CAL7	2866097.3	3342.9	346256.589	True	5.00	8.277	6.72	1.050	100.000	98.615	-1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

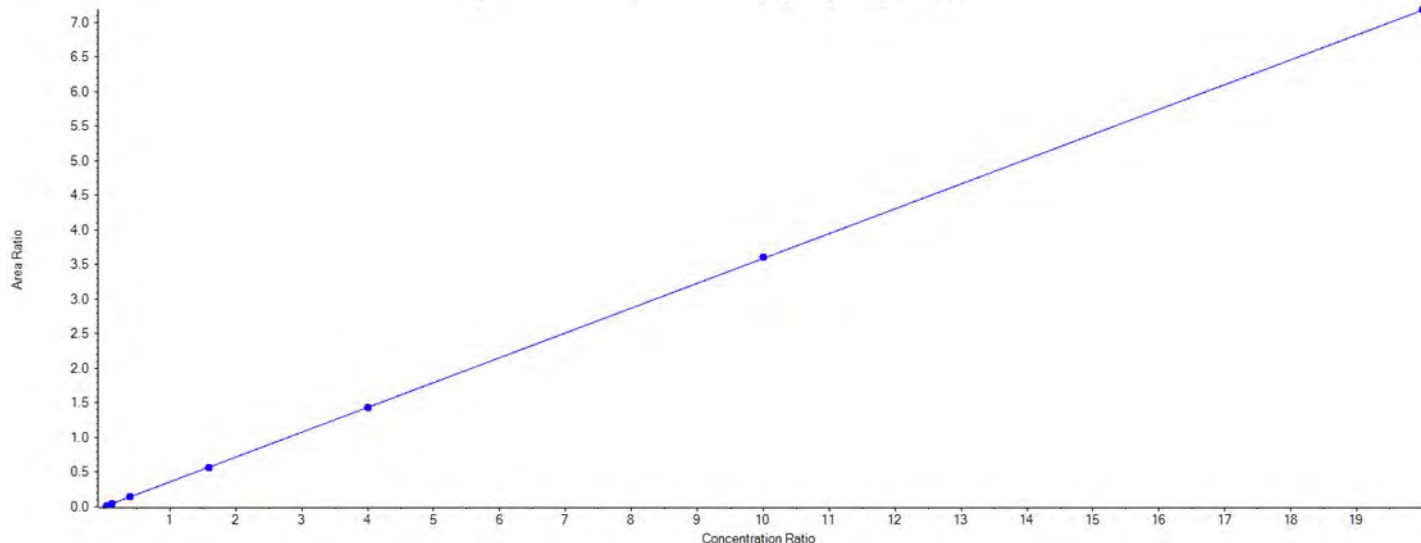
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFODA

$$y = 0.35901 x \text{ (} r = 0.99996 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFODA Area	S/N	¹³ C ₂ -PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6020.3	470.6	410633.036	True	5.00	0.015	7.00	1.090	0.200	0.204	2	30	
CAL2	14955.6	635.0	394146.239	True	5.00	0.038	7.00	1.090	0.600	0.528	-12	30	
CAL3	57796.0	1304.8	393544.938	True	5.00	0.147	7.00	1.090	2.000	2.045	2	30	
CAL4	219359.6	2291.9	392356.634	True	5.00	0.559	6.99	1.090	8.000	7.786	-3	30	
CAL5	544296.5	2946.8	379571.560	True	5.00	1.434	6.98	1.090	20.000	19.971	0	30	
CAL6	1270897.6	3196.4	352892.214	True	5.00	3.601	7.00	1.090	50.000	50.157	0	30	
CAL7	2488863.6	3668.3	346256.589	True	5.00	7.188	6.98	1.090	100.000	100.107	0	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

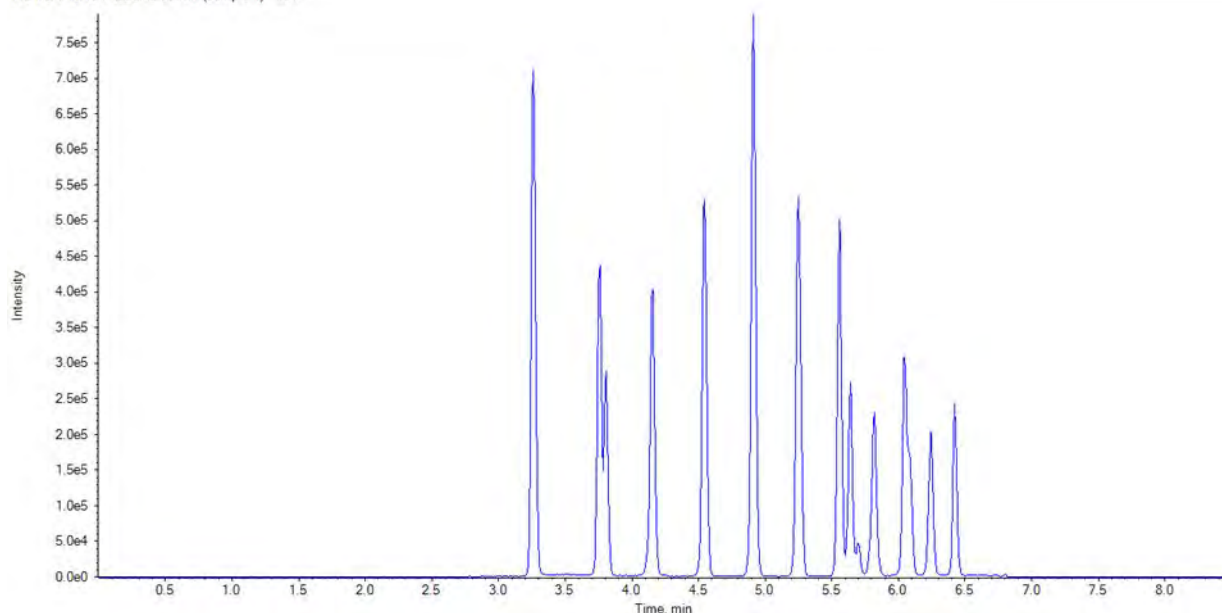
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

Sample Name	Sample ID:	Sample File:	Acquisition Date:
ICV	ICVMODX1833G	18NOV12DCAL-50.wiff	11/12/2018 4:18:11 PM

TIC from 18NOV12DCAL-50.wiff (sample 1) - ICV



Injection Standard Name	Inj Std Conc	Injection Std Peak Area	CAL3 Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.000	655209.3	659926.2	-0.7	50	
13C2-PFOA	5.000	452726.2	450219.7	0.6	50	
13C4-PFOS	4.780	253010.3	249205.8	1.5	50	
13C2-PFDA	5.000	277002.7	278743.9	-0.6	50	

DOD Initial Calibration Verification

Instrument ID: LM27631 ICAL Name: 18NOV12DCAL QMethod Name: 18AUG20QM
Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM Acquisition Method: 18AUG13_3uL.dam

APPROVED

By MCD at 3:23 pm, 1/10/19

REVIEWED

By ucmr at 3:21 pm, 1/25/19

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

Sample Name	Sample ID:	Sample File:	Acquisition Date:
ICV	ICVMODX1833G	18NOV12DCAL-50.wiff	11/12/2018 4:18:11 PM

Analyte Name	Analyte Area	Ext Std Name	Ext Std Area	Ext Std Con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	270820.6	13C4-PFBA	715834.413	5.00	0.378	3.26	1.00	2.000	2.096	5	30	
PFPeA	265646.8	13C5-PFPeA	699482.188	5.00	0.380	3.76	1.00	2.000	2.198	10	30	
PFBS	150059.6	13C3-PFBS	394903.376	4.65	0.380	3.80	1.00	1.769	1.808	2	30	
4:2-FTS	N/A	13C2-4:2-FTS	47297.290	4.67	N/A	N/A	N/A	0.000	N/A		30	
PFHxA	328694.3	13C5-PFHxA	613579.433	5.00	0.536	4.15	1.00	2.000	2.237	12	30	
PFPeS	N/A	13C3-PFBS	394903.376	4.65	N/A	N/A	N/A	0.000	N/A		30	
PFHpA	316975.3	13C4-PFHpA	485394.910	5.00	0.653	4.54	1.00	2.000	2.165	8	30	
PFHxS	115564.2	13C3-PFHxS	304897.777	4.73	0.379	4.55	1.00	1.890	1.838	-3	30	
6:2-FTS	N/A	13C2-6:2-FTS	31532.780	4.75	N/A	N/A	N/A	0.000	N/A		30	
PFHpS	118318.7	13C3-PFHxS	304897.777	4.73	0.388	4.91	1.08	1.900	2.043	8	30	
PFOA	332094.4	13C8-PFOA	843573.278	5.00	0.394	4.91	1.00	2.000	2.103	5	30	
PFOS	100952.5	13C8-PFOS	266211.354	4.78	0.379	5.24	1.00	1.910	1.658	-13	30	
PFNA	271240.4	13C9-PFNA	458821.538	5.00	0.591	5.26	1.00	2.000	2.132	7	30	
PFNS	N/A	13C8-PFOS	266211.354	4.78	N/A	N/A	N/A	0.000	N/A		30	
PFDA	224279.7	13C6-PFDA	590290.290	5.00	0.380	5.56	1.00	2.000	2.014	1	30	
8:2-FTS	N/A	13C2-8:2-FTS	22188.868	4.79	N/A	N/A	N/A	0.000	N/A		30	
PFOSA	N/A	13C8-PFOSA	587080.139	5.00	N/A	N/A	N/A	0.000	N/A		30	
NMeFOSAA	30591.9	d3-NMeFOSAA	70133.206	5.00	0.436	5.70	1.00	2.000	2.465	23	30	
PFDS	52860.9	13C8-PFOS	266211.354	4.78	0.199	5.79	1.11	1.930	1.799	-7	30	
PFUnDA	183511.3	13C7-PFUnDA	228363.909	5.00	0.804	5.82	1.00	2.000	2.101	5	30	
NEtFOSAA	26149.3	d5-NEtFOSAA	59551.262	5.00	0.439	5.83	1.00	2.000	2.302	15	30	
PFDODA	185295.0	13C2-PFDODA	495858.058	5.00	0.374	6.05	1.00	2.000	1.903	-5	30	
10:2-FTS	N/A	13C2-8:2-FTS	22188.868	4.79	N/A	N/A	N/A	0.000	N/A		30	
NMePFOSAE	N/A	d7-NMePFOSAE	299185.381	5.00	N/A	N/A	N/A	0.000	N/A		30	
NMePFOSA	N/A	d3-NMePFOSA	75186.885	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFDOS	N/A	13C8-PFOS	266211.354	4.78	N/A	N/A	N/A	0.000	N/A		30	
NEtPFOSAE	N/A	d9-NEtPFOSAE	255149.770	5.00	N/A	N/A	N/A	0.000	N/A		30	
NEtPFOSA	N/A	d5-NEtPFOSA	53596.168	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFTDA	165153.1	13C2-PFDODA	495858.058	5.00	0.333	6.25	1.03	2.000	2.102	5	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV12DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam

PFTeDA	135651.0	13C2-PFTeDA	365300.21 6	5.00	0.371	6.42	1.00	2.000	2.082	4	30	
PFHxDA	N/A	13C2-PFTeDA	365300.21 6	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFODA	N/A	13C2-PFTeDA	365300.21 6	5.00	N/A	N/A	N/A	0.000	N/A		30	

APPROVED

By MCD at 3:23 pm, 1/10/19

REVIEWED

By ucmr at 3:21 pm, 1/25/19

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL1		Data File:	18NOV12DCAL-42.wiff
Sample ID:	CALBRN11833C		Acquis Date:	2018-11-12T15:05:54
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	3		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV12DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	676527.5	659926.2	3	50	
13C2-PFOA	5.0	474834.9	450219.7	5	50	
13C4-PFOS	4.8	265369.0	249205.8	6	50	
13C2-PFDA	5.0	281654.8	278743.9	1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	763334.3	13C3-PFBA	676527.5	1.128	5.000	5.059	101	70-130	
E13C5-PFPeA	771179.4	13C3-PFBA	676527.5	1.140	5.000	5.113	102	70-130	
E13C3-PFBS	445963.4	13C3-PFBA	676527.5	0.659	4.650	4.653	100	70-130	
E13C2-4:2-FTS	51494.6	13C2-PFOA	474834.9	0.108	4.670	4.830	103	70-130	
E13C5-PFHxA	664975.9	13C2-PFOA	474834.9	1.400	5.000	5.059	101	70-130	
E13C3-PFHxS	327944.5	13C2-PFOA	474834.9	0.691	4.730	4.739	100	70-130	
E13C4-PFHpA	528473.5	13C2-PFOA	474834.9	1.113	5.000	5.014	100	70-130	
E13C2-6:2-FTS	35455.2	13C2-PFOA	474834.9	0.075	4.750	4.996	105	70-130	
E13C8-PFOA	912537.7	13C2-PFOA	474834.9	1.922	5.000	5.295	106	70-130	
E13C8-PFOS	283127.4	13C4-PFOS	265369.0	1.067	4.780	4.727	99	70-130	
E13C9-PFNA	479931.4	13C4-PFOS	265369.0	1.809	5.000	5.042	101	70-130	
E13C6-PFDA	612577.4	13C2-PFDA	281654.8	2.175	5.000	5.075	102	70-130	
E13C2-8:2-FTS	26445.5	13C2-PFDA	281654.8	0.094	4.790	4.683	98	70-130	
E13C8-PFOSA	664489.9	13C2-PFDA	281654.8	2.359	5.000	5.230	105	70-130	
Ed3-NMeFOSAA	86914.5	13C2-PFDA	281654.8	0.309	5.000	5.570	111	70-130	
E13C7-PFUnDA	256402.0	13C2-PFDA	281654.8	0.910	5.000	5.285	106	70-130	
Ed5-NEtFOSAA	80597.2	13C2-PFDA	281654.8	0.286	5.000	6.054	121	70-130	
E13C2-PFDoDA	545413.2	13C2-PFDA	281654.8	1.936	5.000	5.028	101	70-130	
Ed7-NMePFOSAE	349854.5	13C2-PFDA	281654.8	1.242	5.000	5.375	108	70-130	
Ed3-NMePFOSA	78396.5	13C2-PFDA	281654.8	0.278	5.000	5.057	101	70-130	
Ed9-NEtPFOSAE	280311.6	13C2-PFDA	281654.8	0.995	5.000	5.176	104	70-130	
Ed5-NEtPFOSA	63047.1	13C2-PFDA	281654.8	0.224	5.000	5.251	105	70-130	
E13C2-PFTeDA	410633.0	13C2-PFDA	281654.8	1.458	5.000	5.118	102	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL1

Instrument Name: LM27631

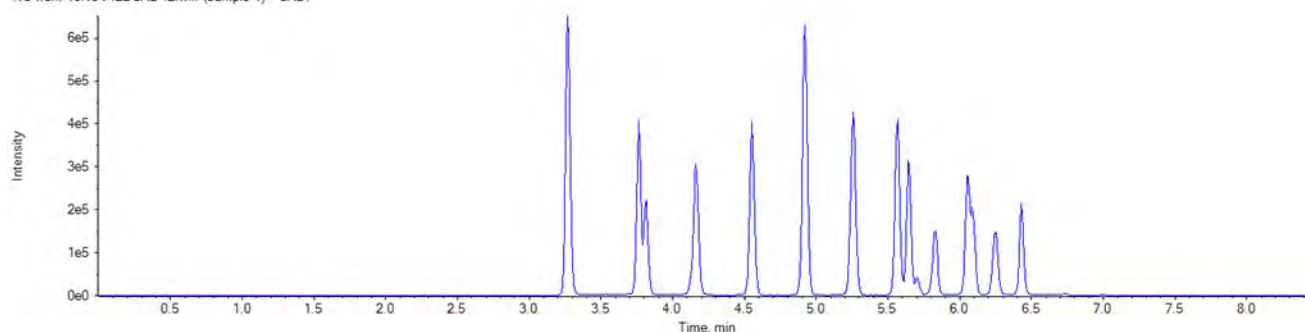
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	32322.9		A	13C4-PFBA	3.27	763334.3	0.042	0.235
PFPeA	3.77	1.000	32633.1		M	13C5-PFPeA	3.76	771179.4	0.042	0.245
PFBS	3.81	1.000	18010.0		A	13C3-PFBS	3.81	445963.4	0.040	0.192
4:2-FTS	4.13	1.000	3636.4		A	13C2-4:2-FTS	4.13	51494.6	0.071	0.192
PFHxA	4.16	1.000	39108.2		A	13C5-PFHxA	4.16	664975.9	0.059	0.246
PFPeS	4.18	1.100	9620.1		A	13C3-PFBS	3.81	445963.4	0.022	0.209
PFHpA	4.55	1.000	37545.4		A	13C4-PFHpA	4.55	528473.5	0.071	0.235
PFHxS	4.55	1.000	12858.1		M	13C3-PFHxS	4.55	327944.5	0.039	0.190
6:2-FTS	4.90	1.000	2683.1		M	13C2-6:2-FTS	4.91	35455.2	0.076	0.183
PFHpS	4.91	1.080	13262.8		A	13C3-PFHxS	4.55	327944.5	0.040	0.213
PFOA	4.92	1.000	41468.0		A	13C8-PFOA	4.92	912537.7	0.045	0.243
PFOS	5.25	1.000	13088.5		M	13C8-PFOS	5.25	283127.4	0.046	0.202
PFNA	5.26	1.000	29660.1		A	13C9-PFNA	5.26	479931.4	0.062	0.223
PFNS	5.54	1.060	6846.6		A	13C8-PFOS	5.25	283127.4	0.024	0.169
PFDA	5.56	1.000	27488.6		A	13C6-PFDA	5.57	612577.4	0.045	0.238
8:2-FTS	5.57	1.000	2333.1		A	13C2-8:2-FTS	5.57	26445.5	0.088	0.206
PFOSA	5.64	1.000	29582.8		A	13C8-PFOSA	5.65	664489.9	0.045	0.217
NMeFOSAA	5.71	1.000	2306.4		A	d3-NMeFOSAA	5.70	86914.5	0.027	0.150
PFDS	5.80	1.100	5952.2		A	13C8-PFOS	5.25	283127.4	0.021	0.190
PfUnDA	5.82	1.000	23379.5		A	13C7-PfUnDA	5.83	256402.0	0.091	0.238
NEtFOSAA	5.85	1.000	2284.9		A	d5-NEtFOSAA	5.84	80597.2	0.028	0.149
PFDODA	6.05	1.000	22143.6		A	13C2-PFDODA	6.05	545413.2	0.041	0.207
10:2-FTS	6.07	1.090	1814.2		A	13C2-8:2-FTS	5.57	26445.5	0.069	0.229
NMePFOSAE	6.10	1.000	18013.9		A	d7-NMePFOSAE	6.09	349854.5	0.051	0.214
NMePFOSA	6.11	1.000	2376.3		A	d3-NMePFOSA	6.10	78396.5	0.030	0.150
PFDoS	6.22	1.190	3520.9		A	13C8-PFOS	5.25	283127.4	0.012	0.218
NEtPFOSAE	6.26	1.000	21005.9		A	d9-NEtPFOSAE	6.24	280311.6	0.075	0.240
NEtPFOSA	6.27	1.000	2846.2		M	d5-NEtPFOSA	6.26	63047.1	0.045	0.207
PFTrDA	6.25	1.030	20185.1		M	13C2-PFDODA	6.05	545413.2	0.037	0.234
PFTeDA	6.43	1.000	16357.5		A	13C2-PFTeDA	6.43	410633.0	0.040	0.223
PFHxDA	6.73	1.050	7976.0		M	13C2-PFTeDA	6.43	410633.0	0.019	0.231
PFODA	7.00	1.090	6020.3		A	13C2-PFTeDA	6.43	410633.0	0.015	0.204

Total Ion Chromatogram

TIC from 18NOV12DCAL-42.wiff (sample 1) - CAL1



APPROVED

By MCD at 6:33 pm, 11/12/18

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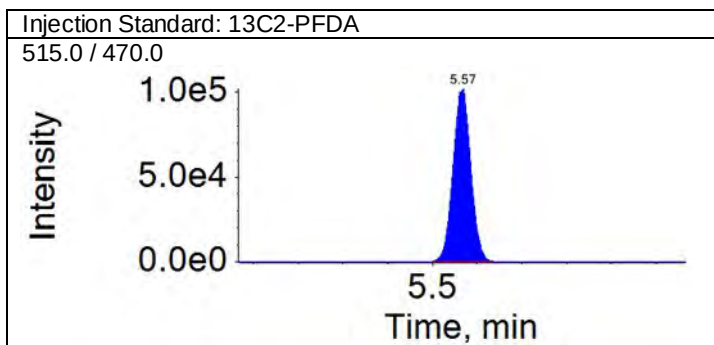
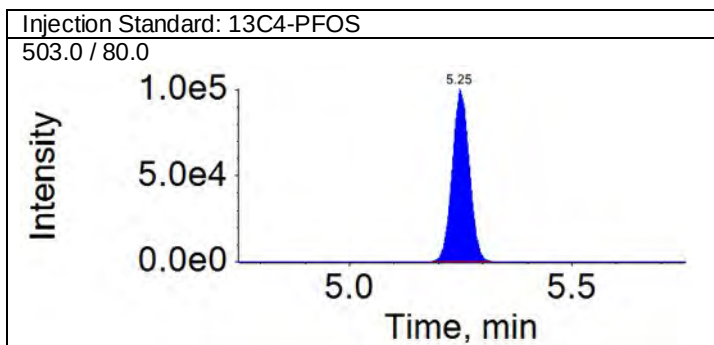
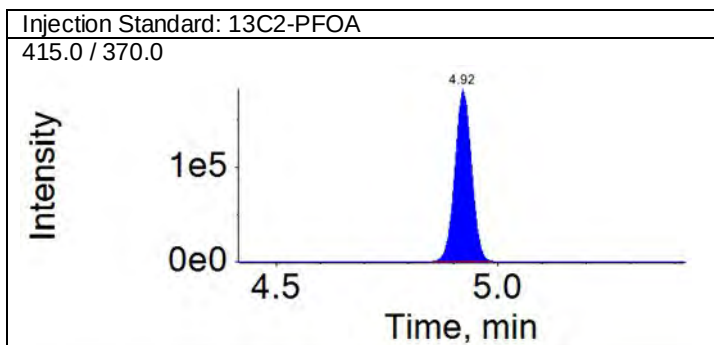
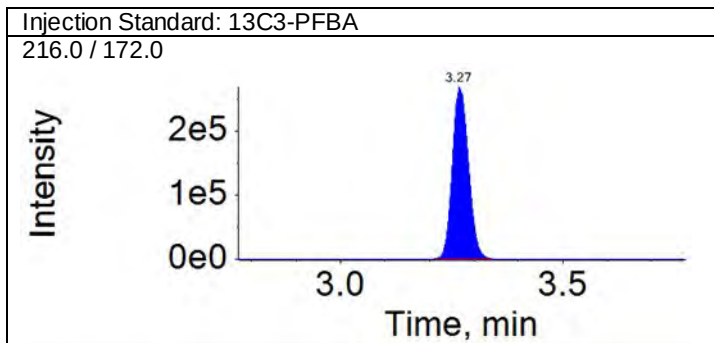
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By HMK at 10:53 am, 11/13/18

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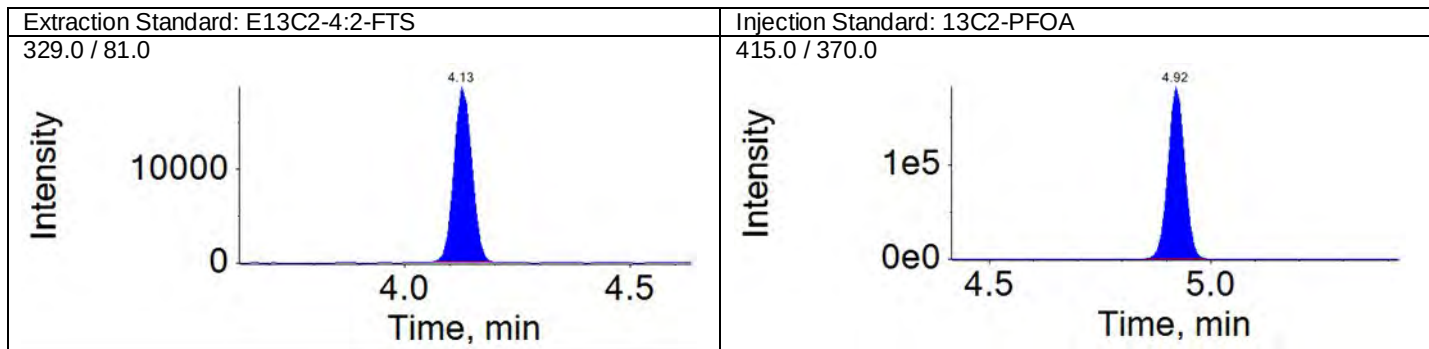
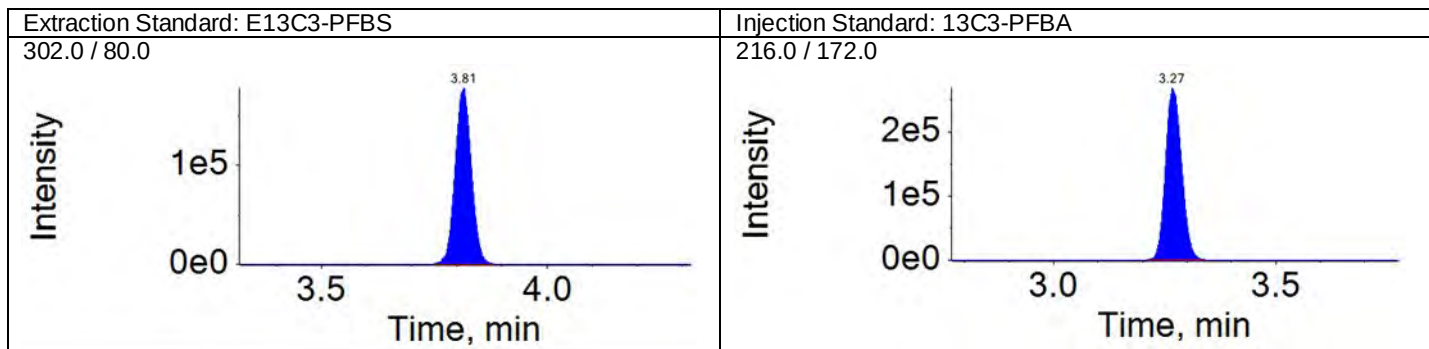
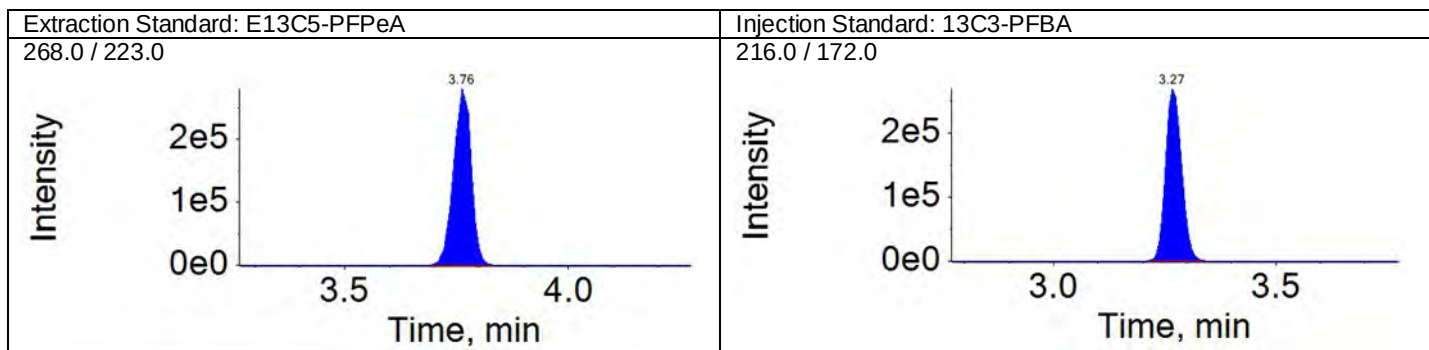
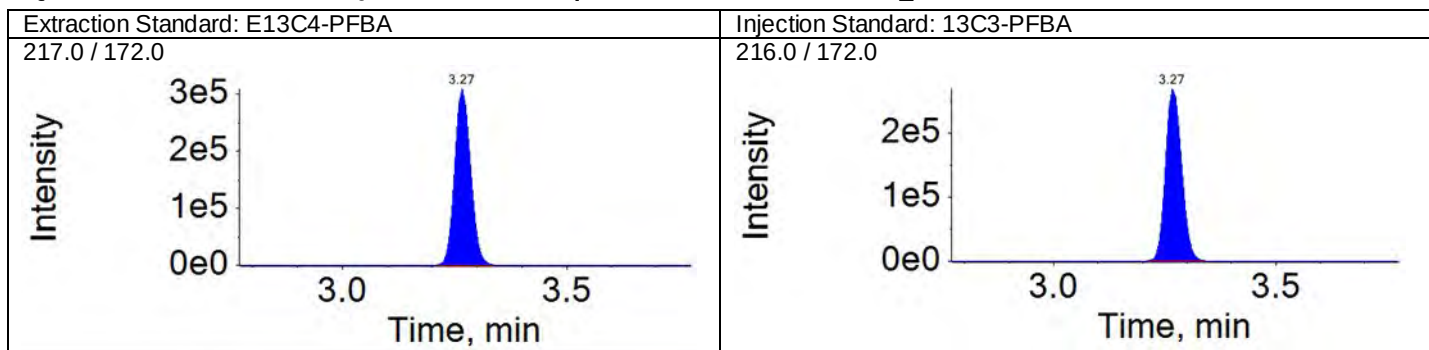
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Acquisition Method: 18AUG13_3uL.dam



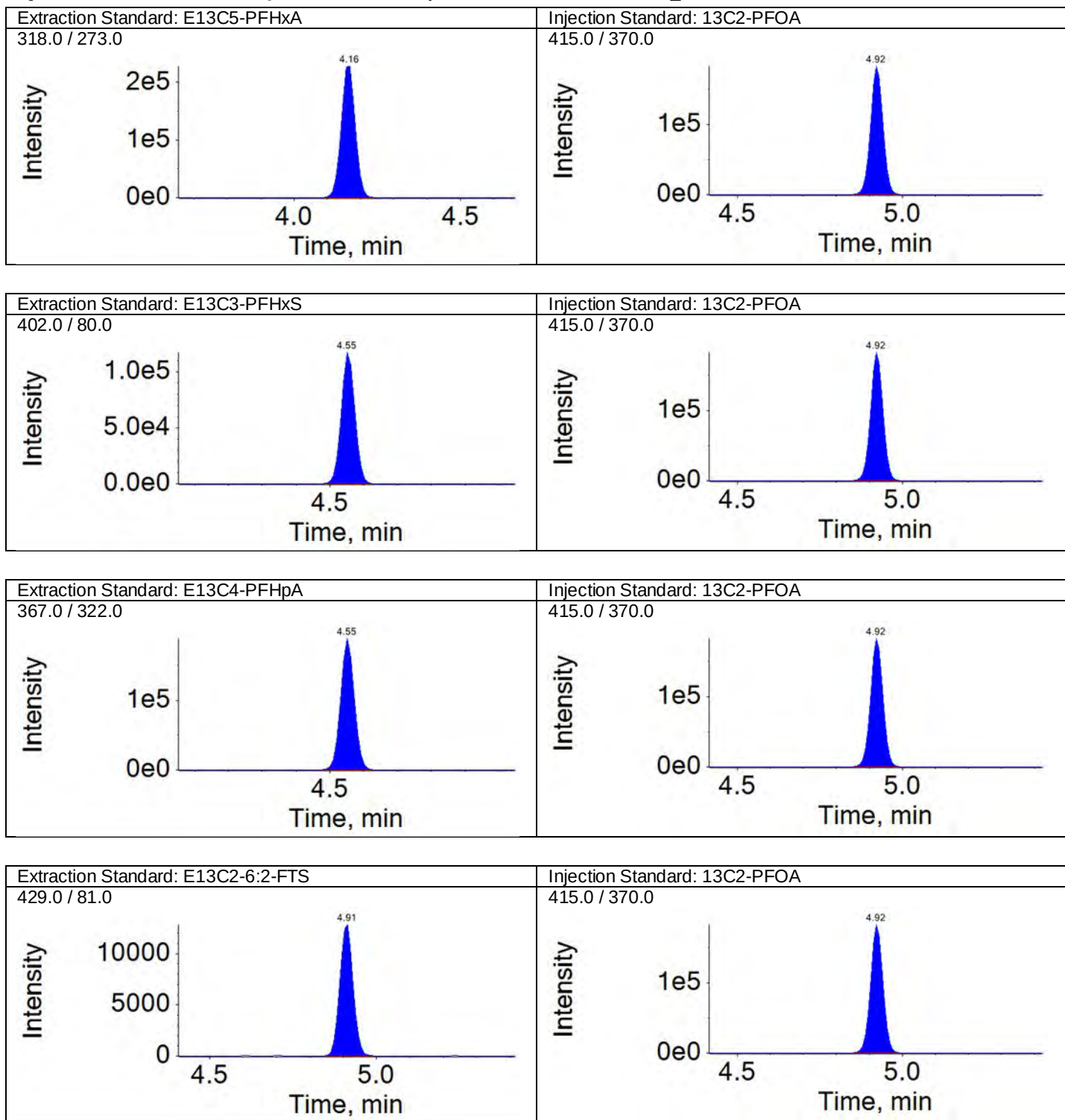
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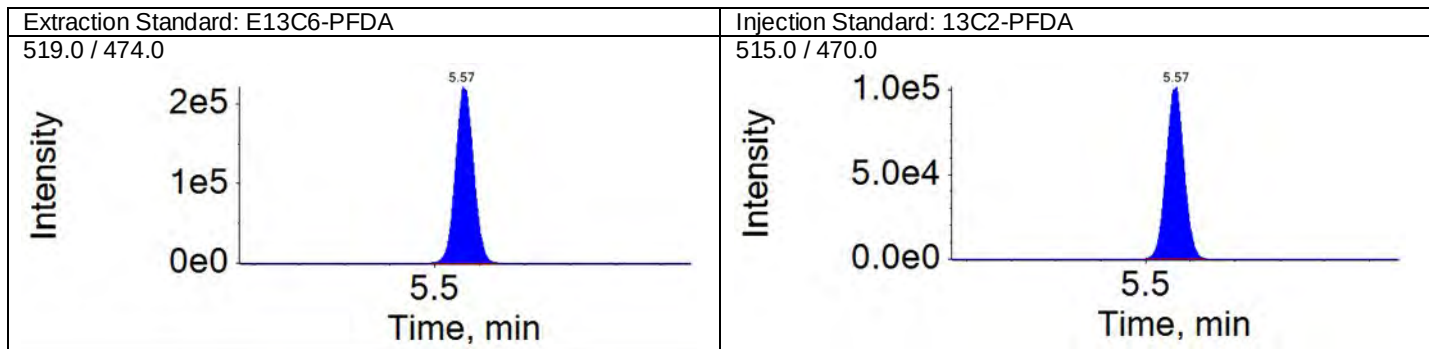
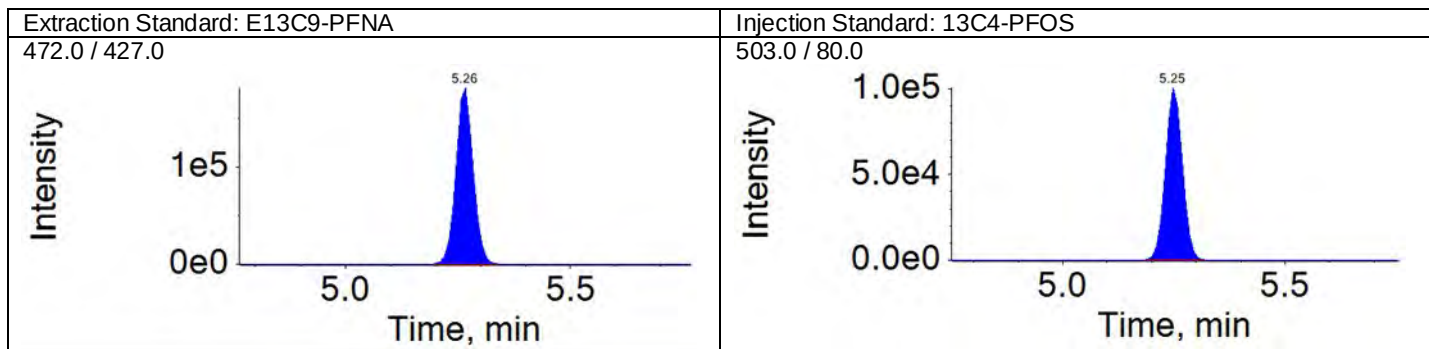
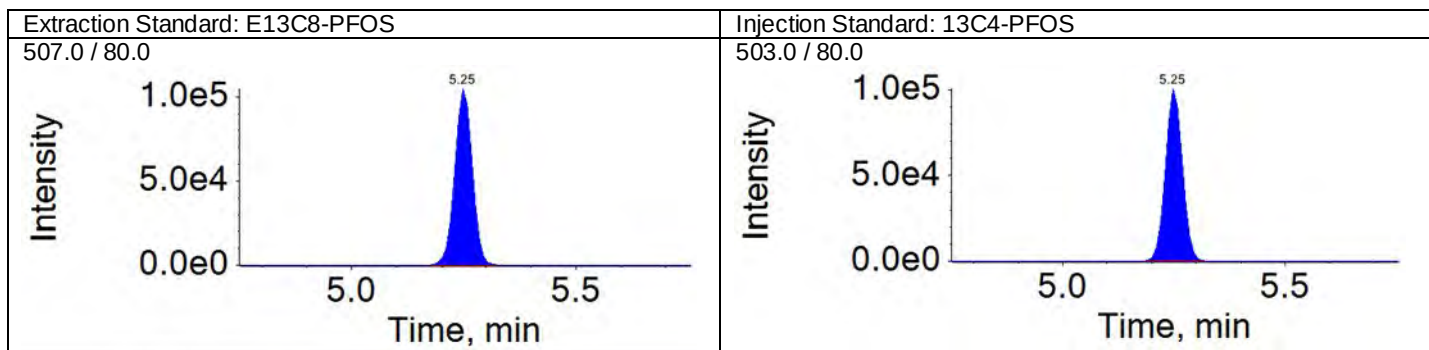
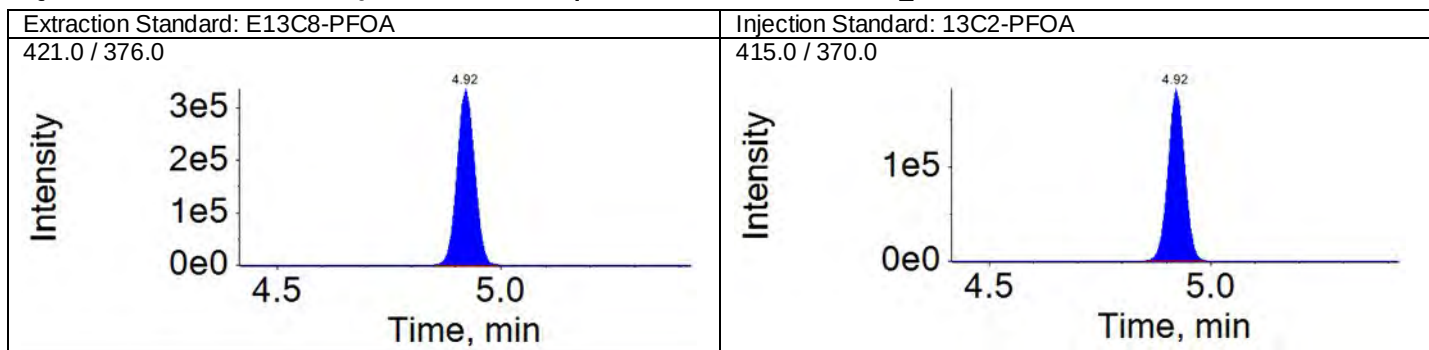
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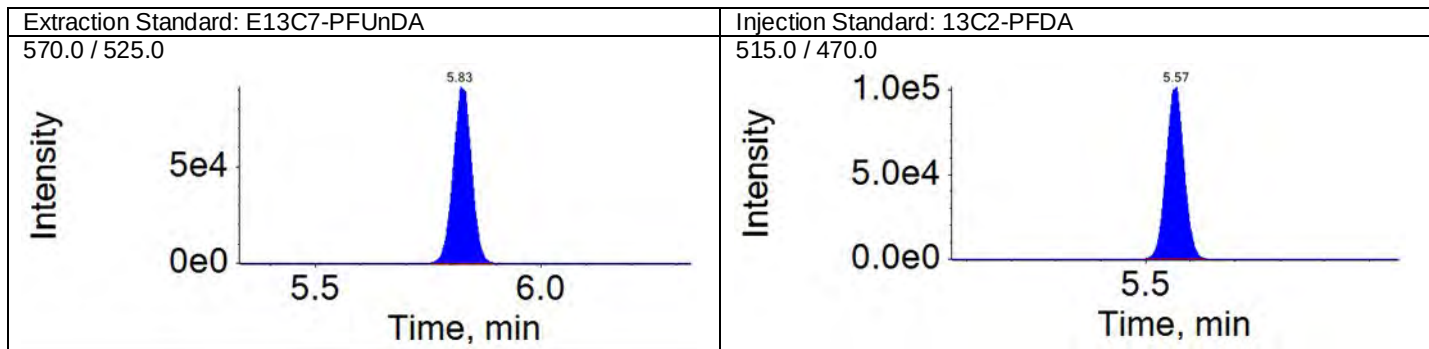
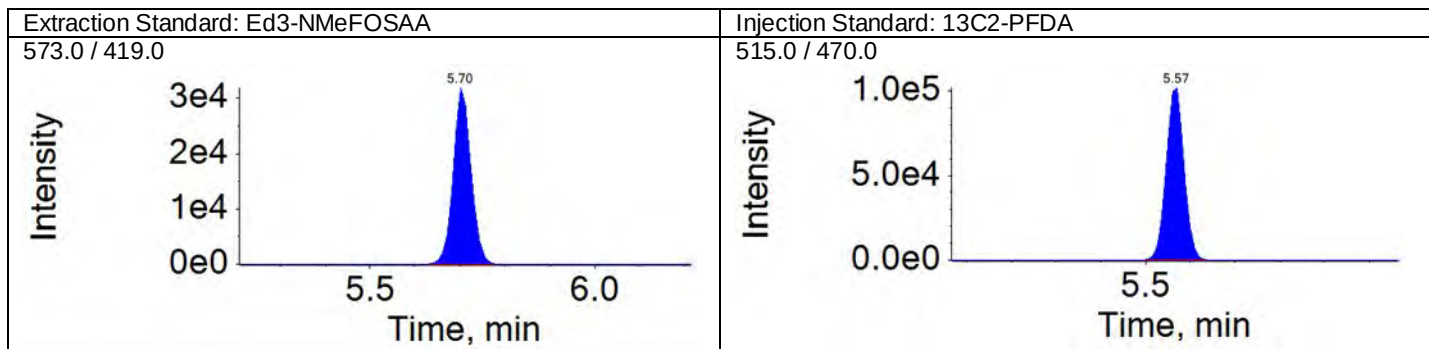
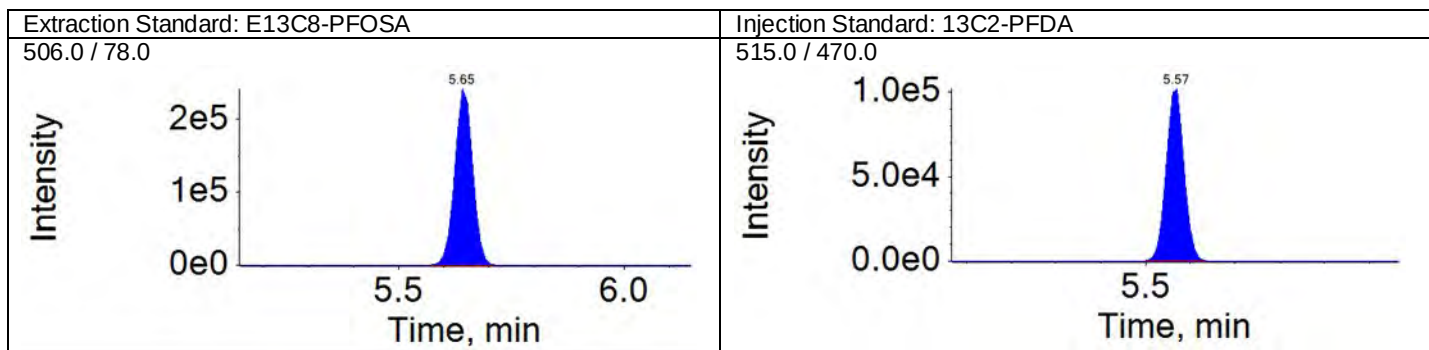
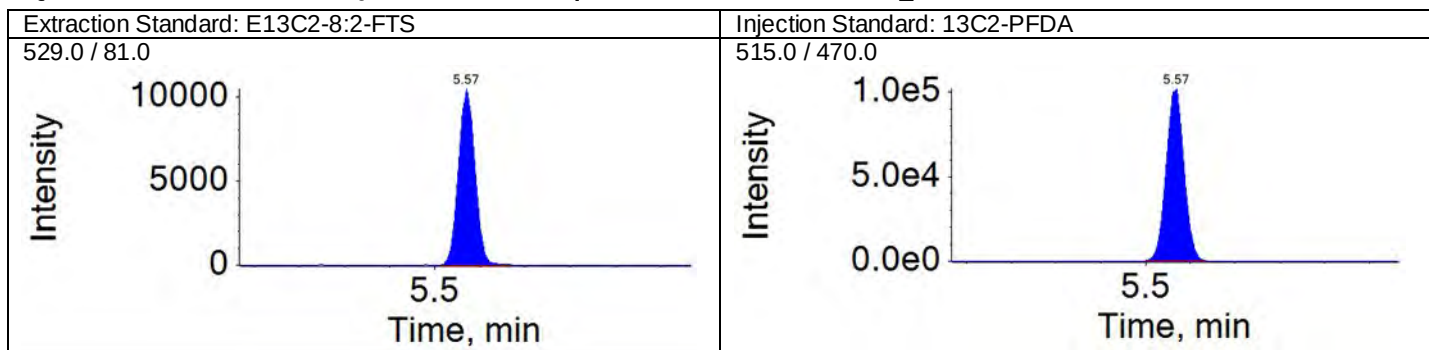
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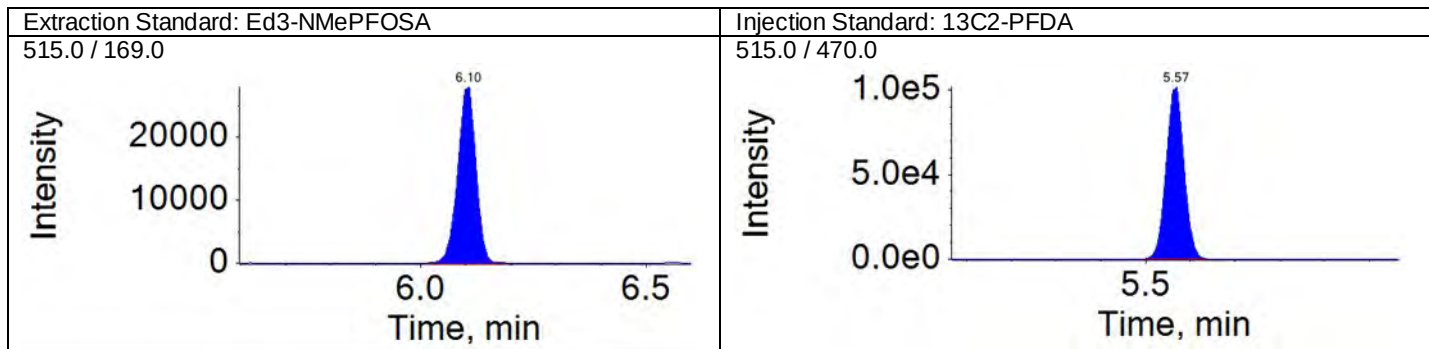
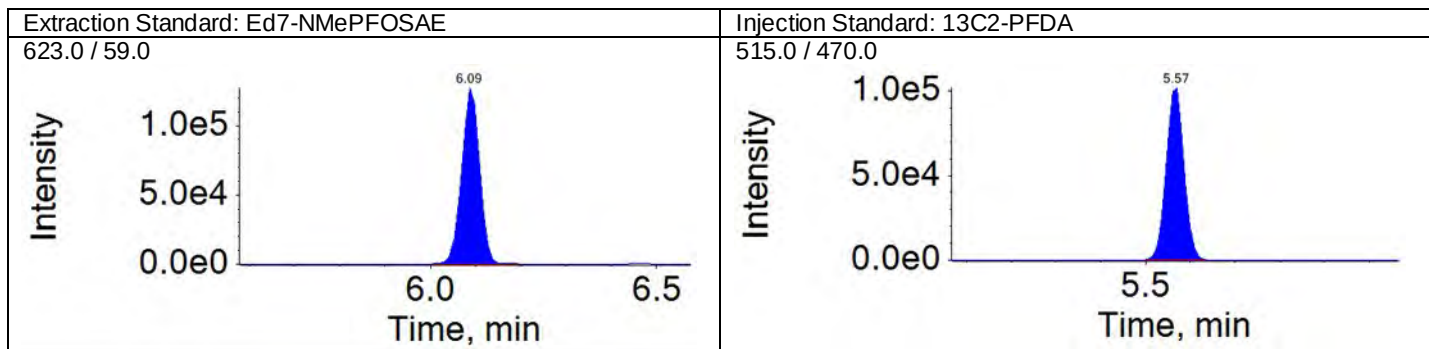
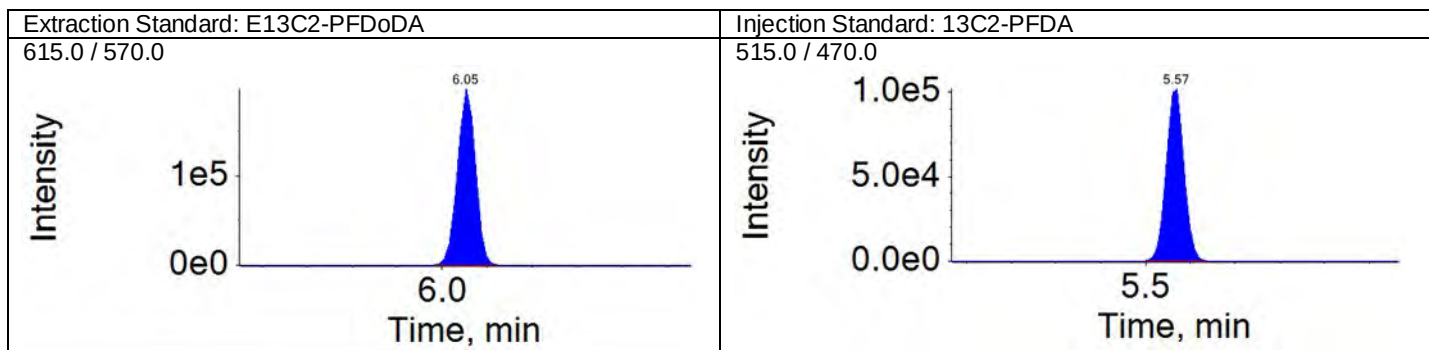
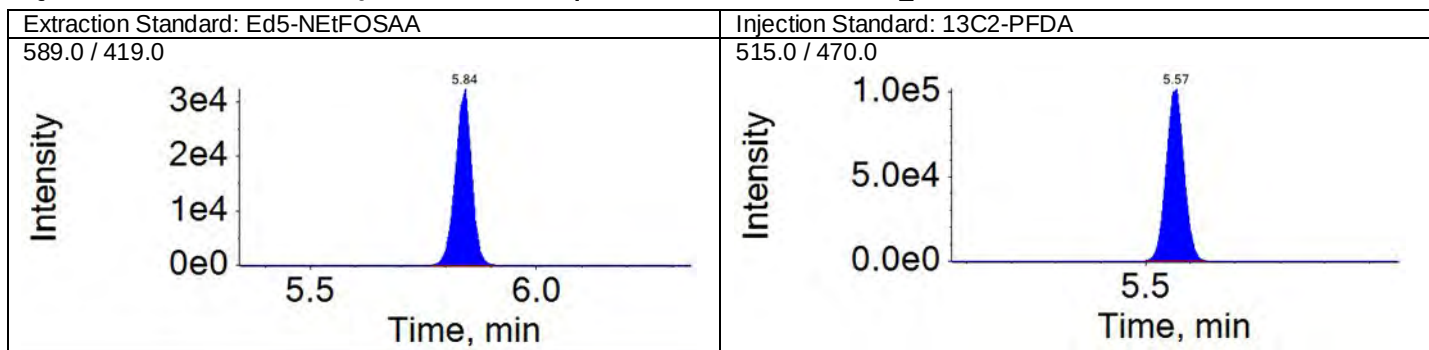
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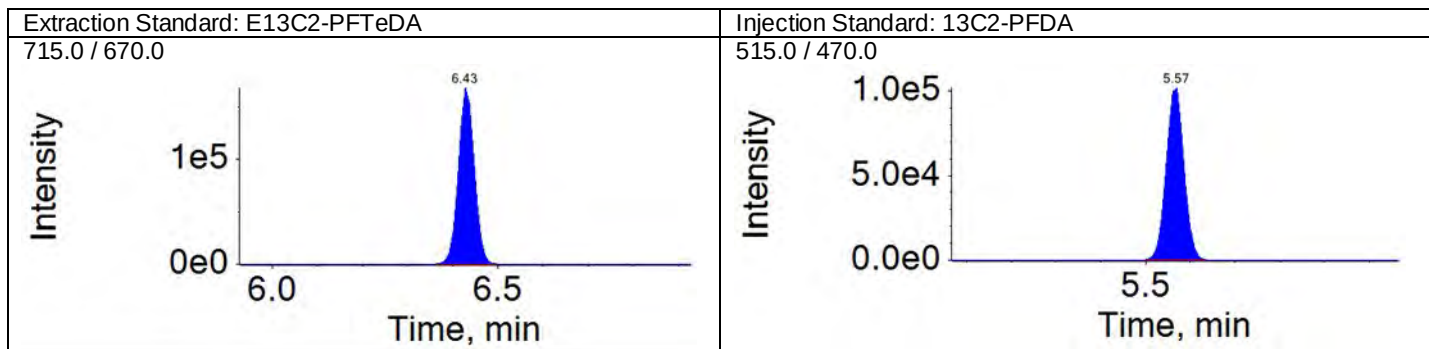
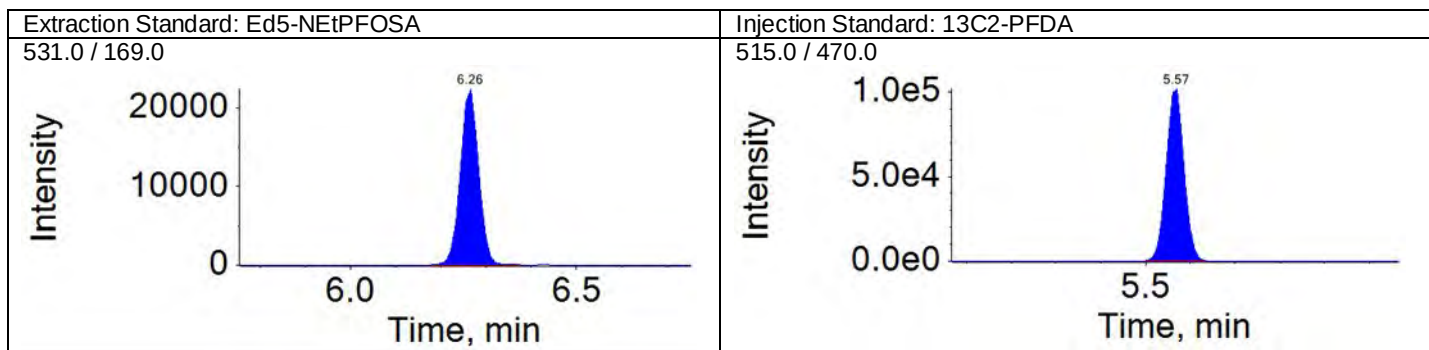
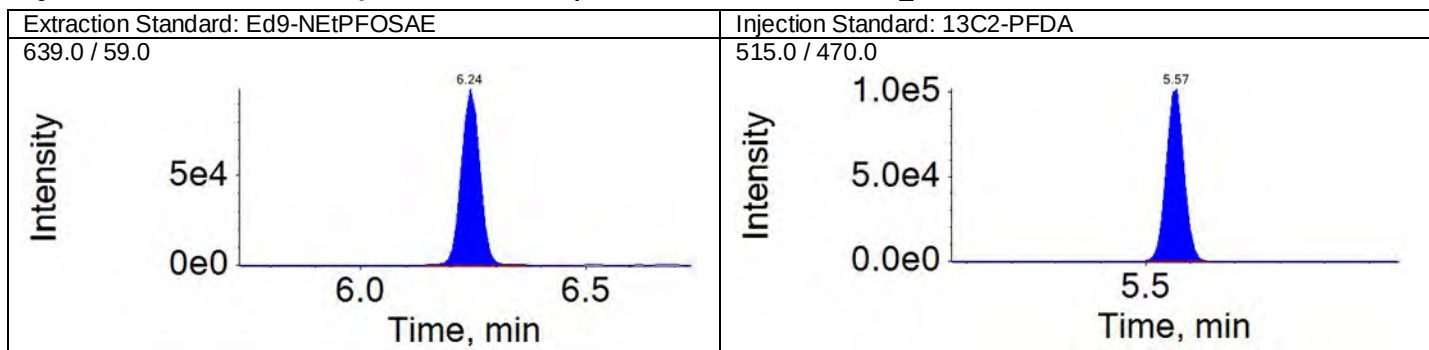
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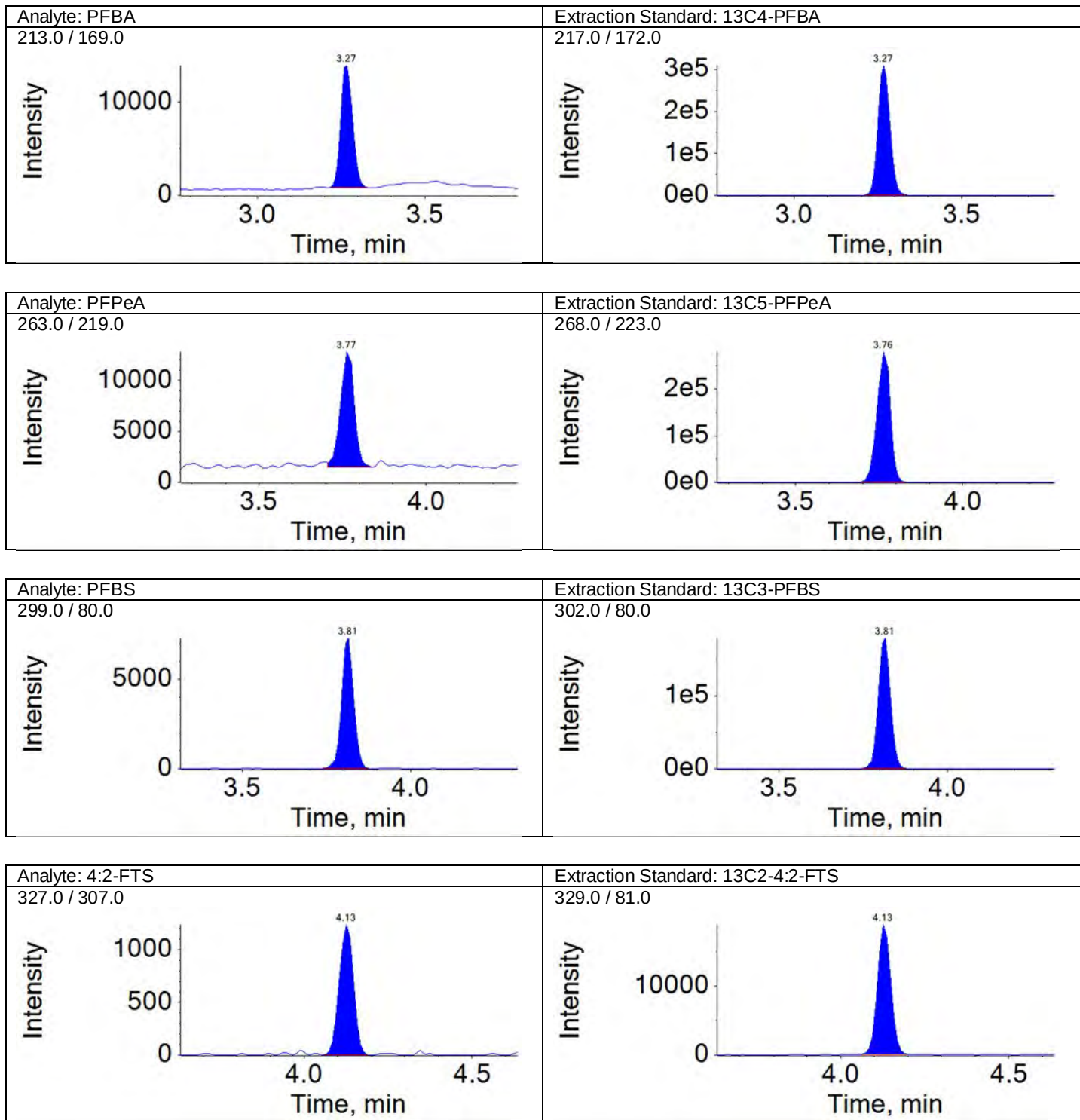
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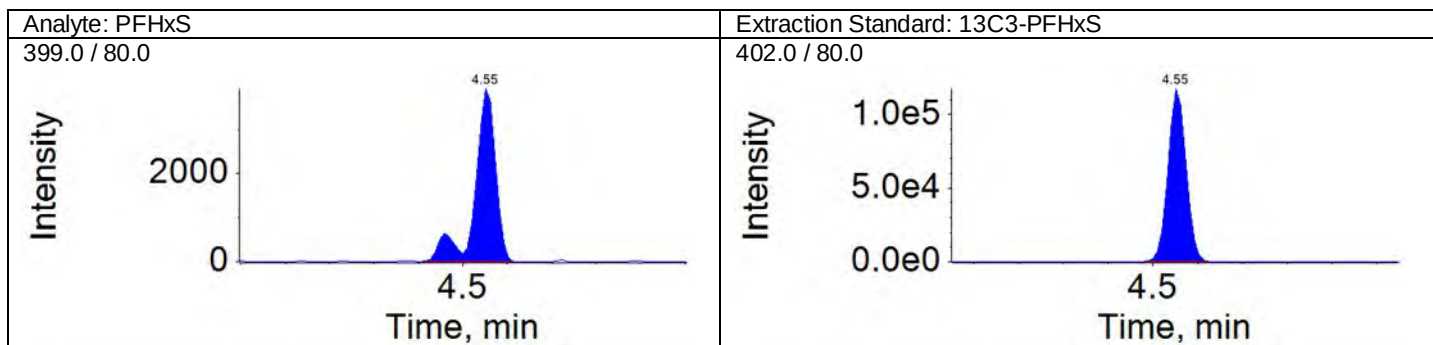
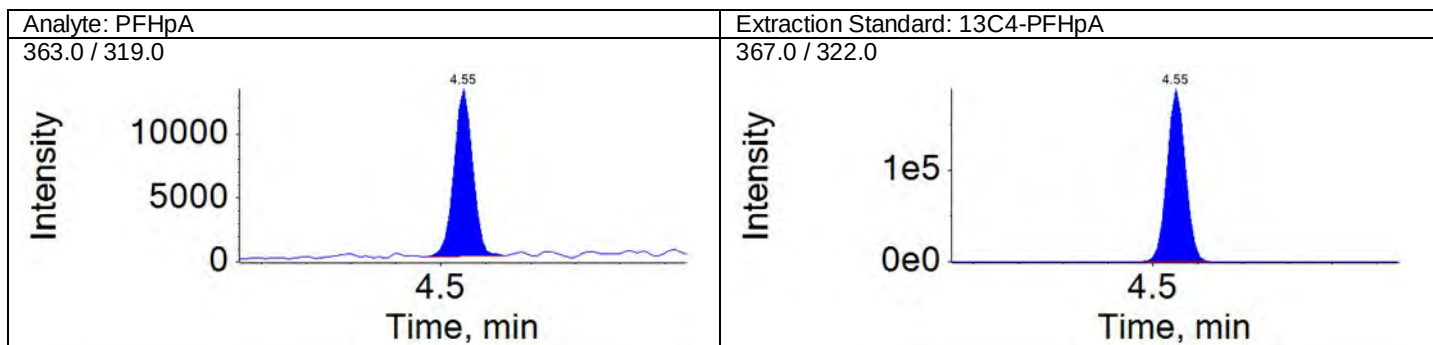
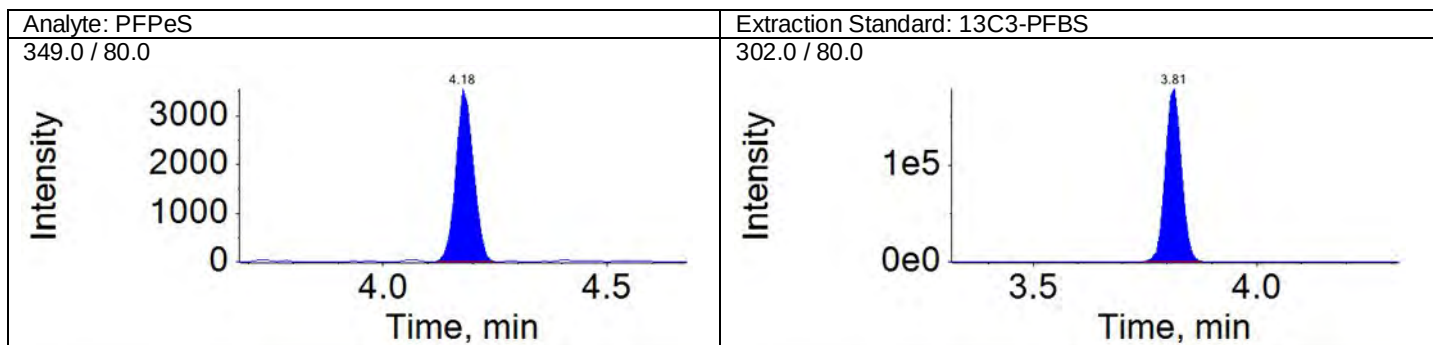
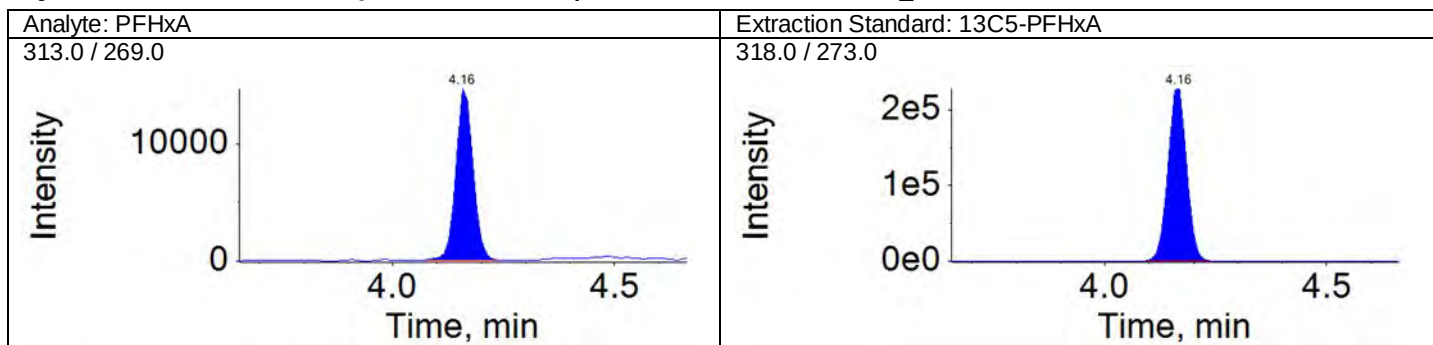
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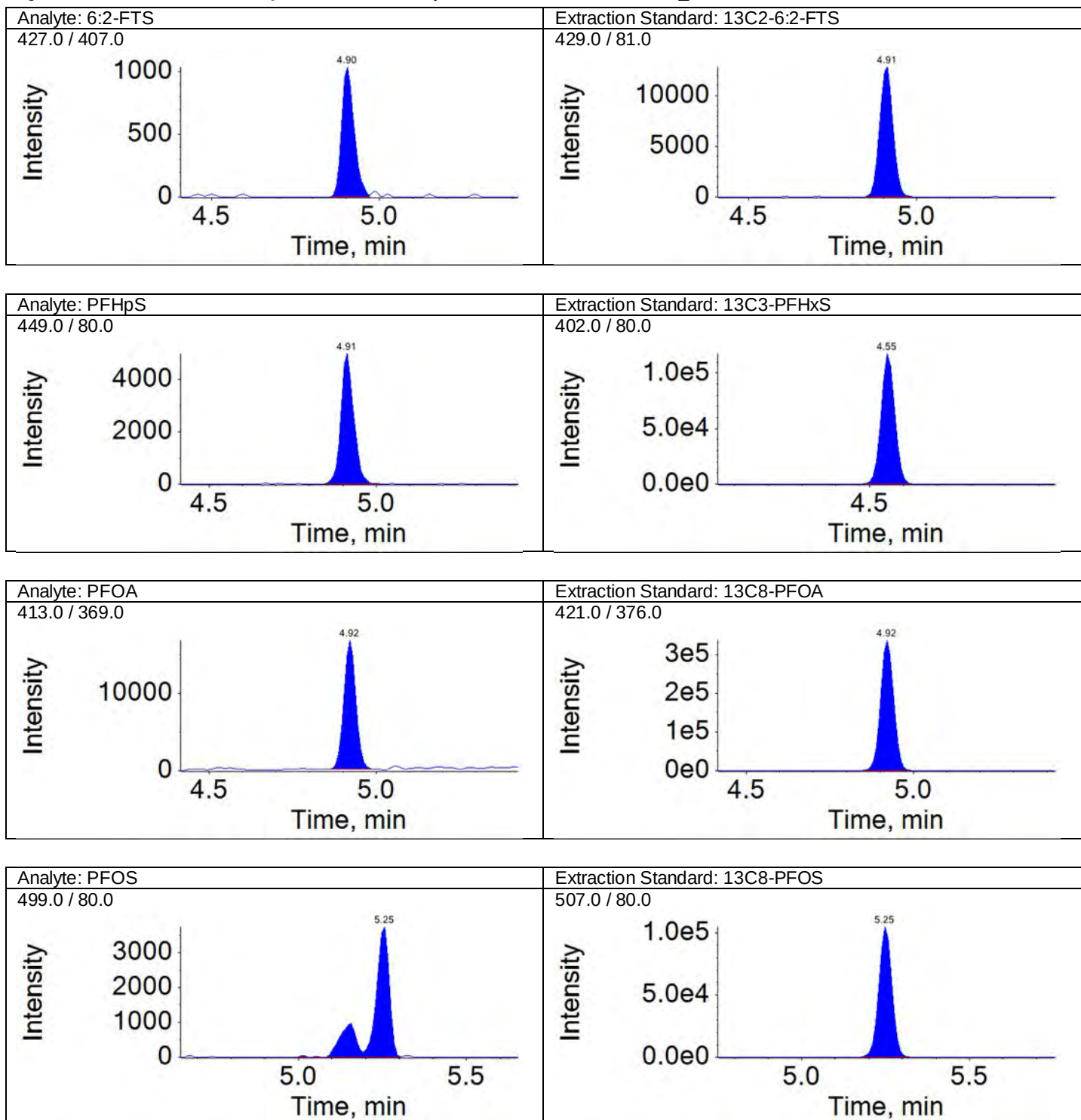
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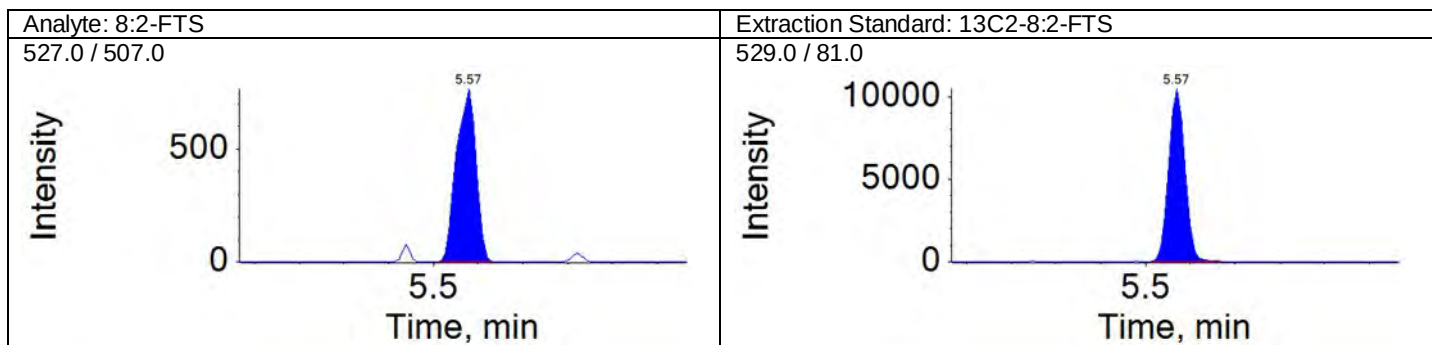
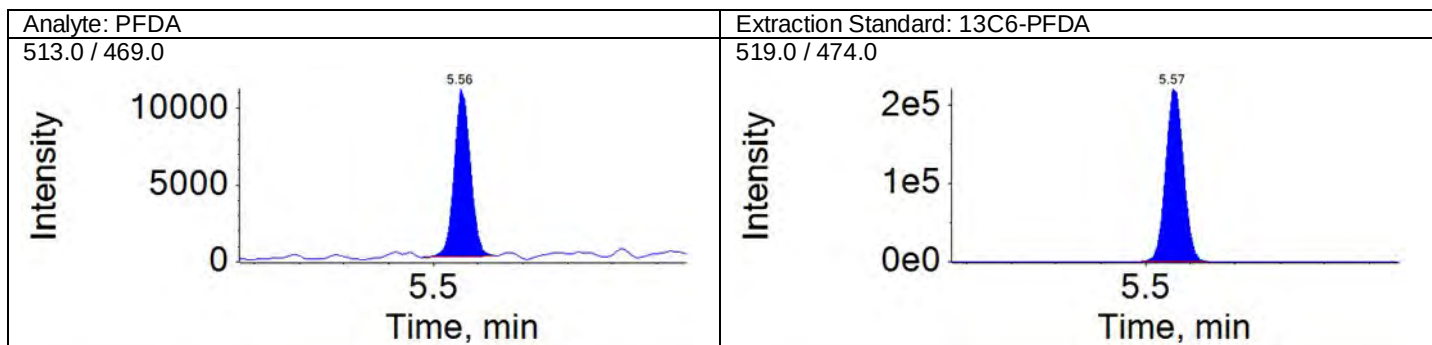
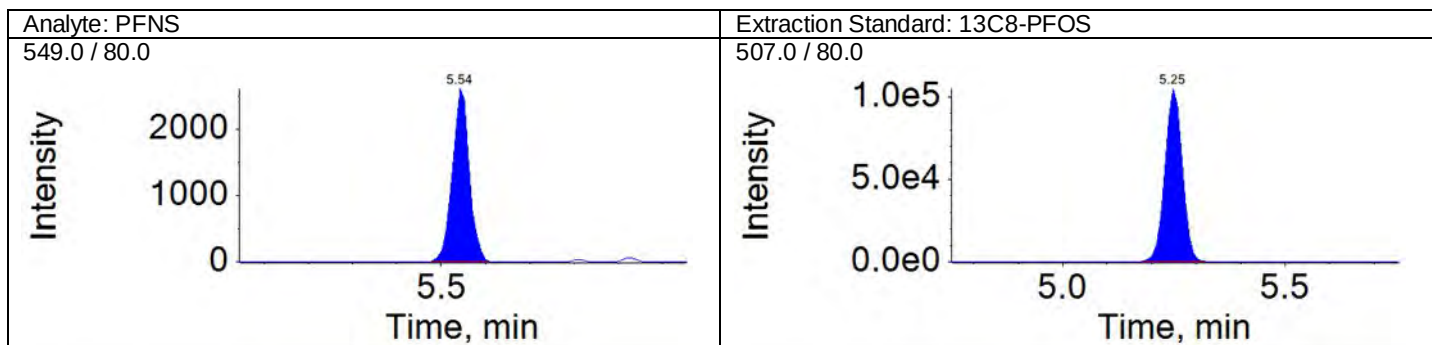
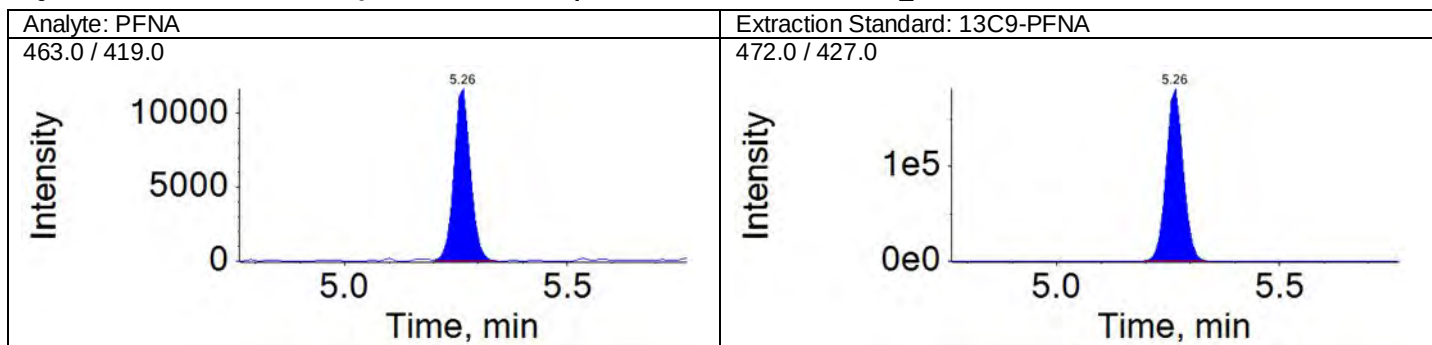
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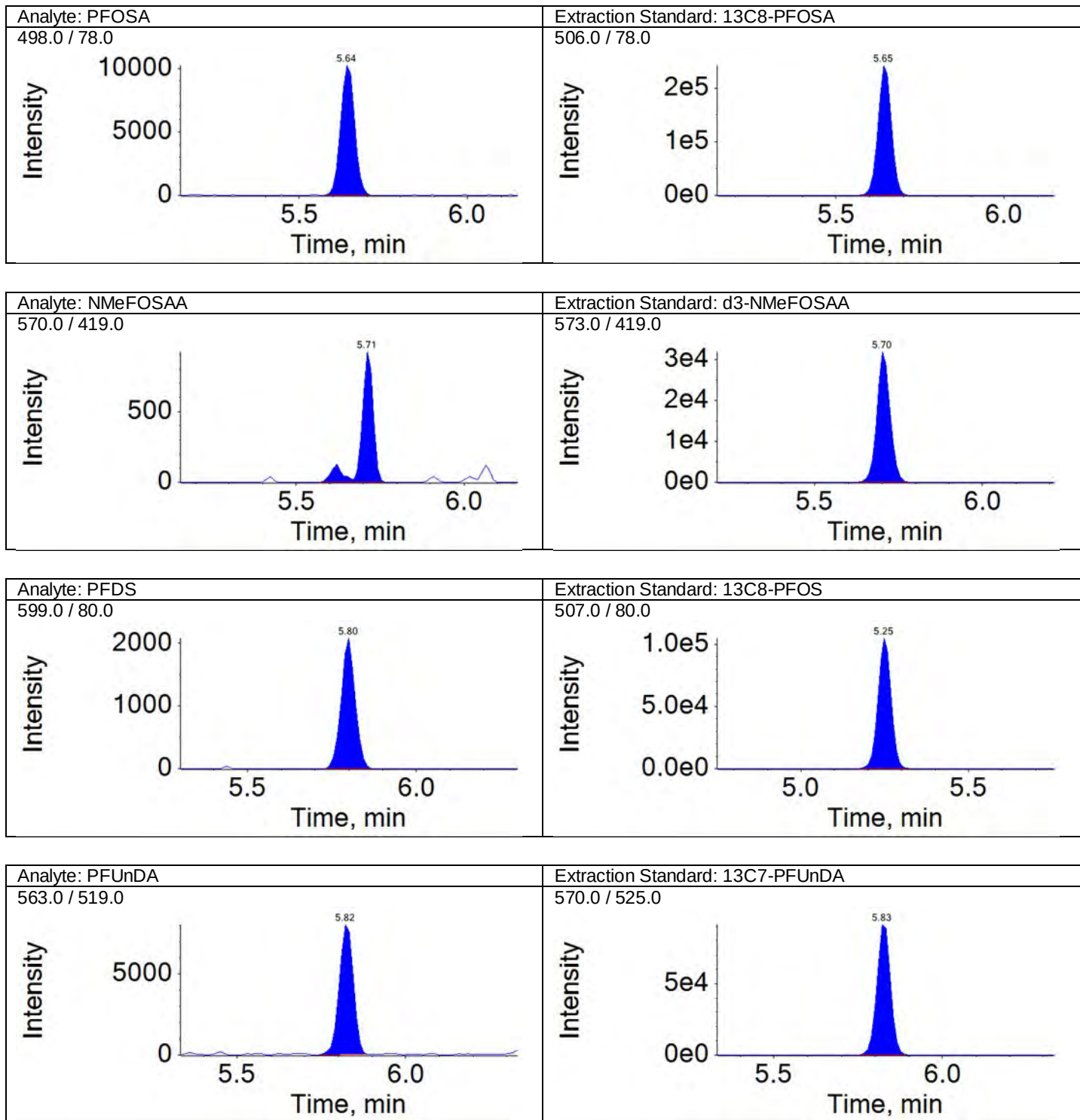
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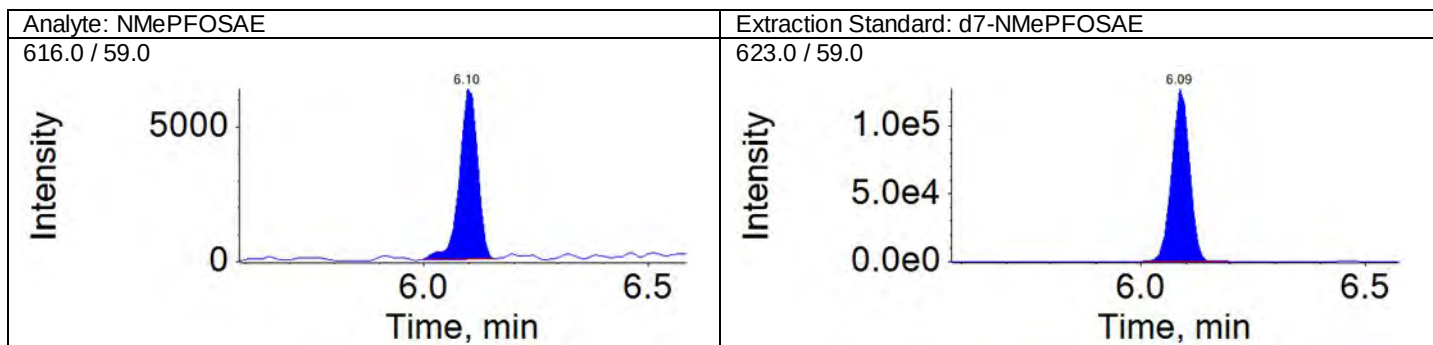
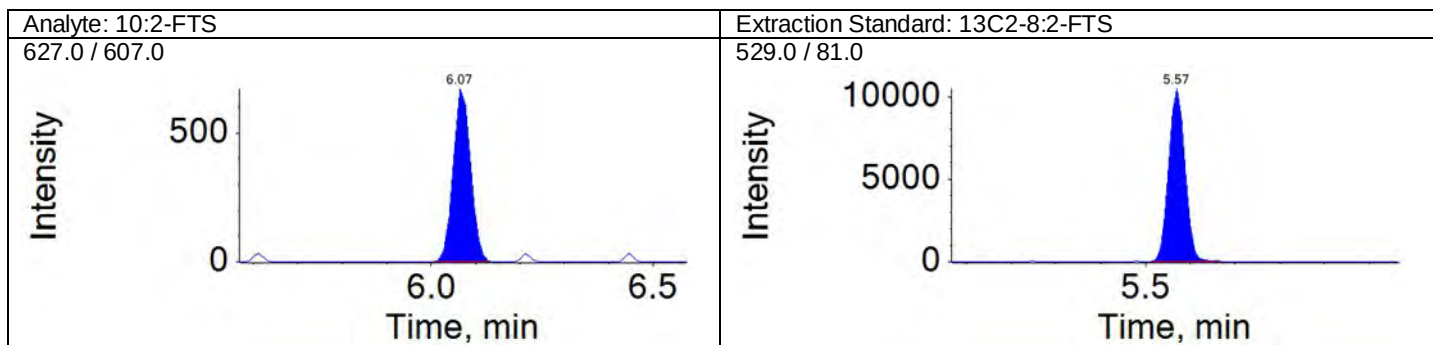
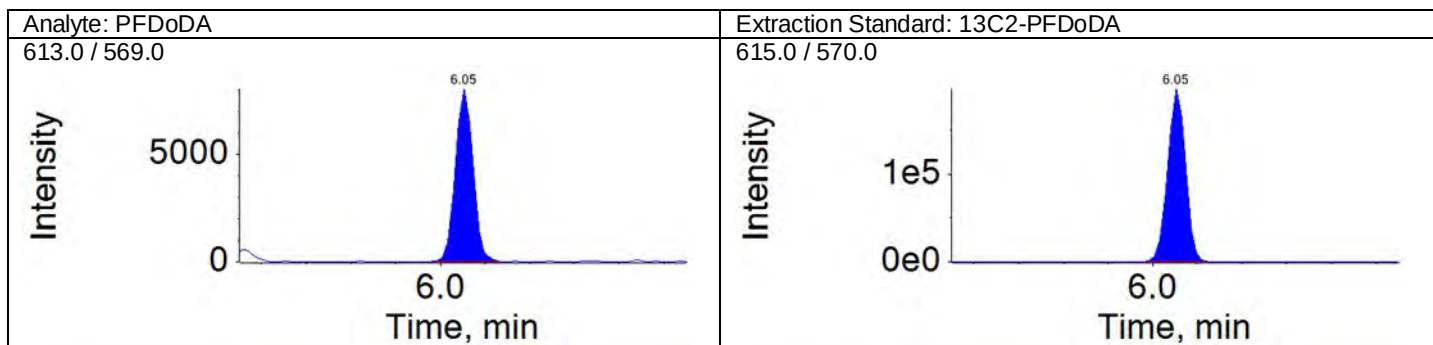
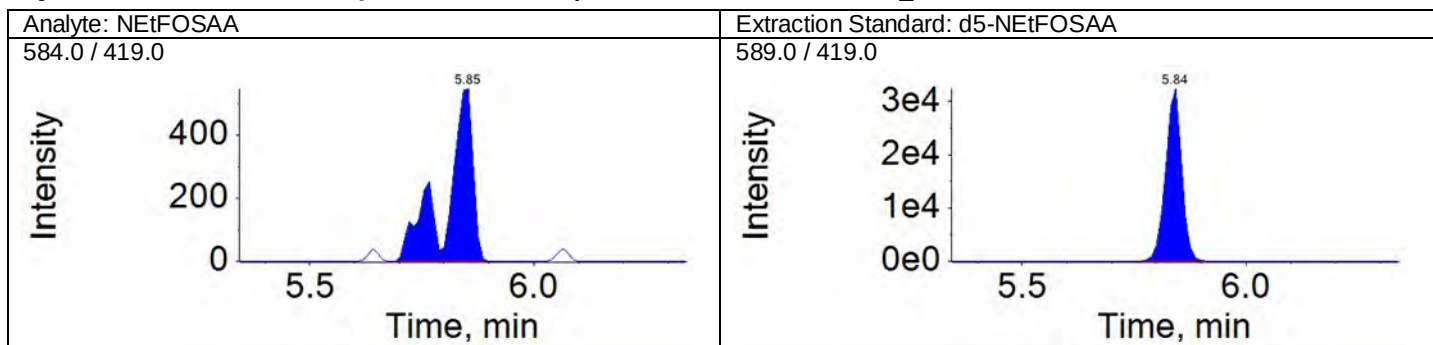
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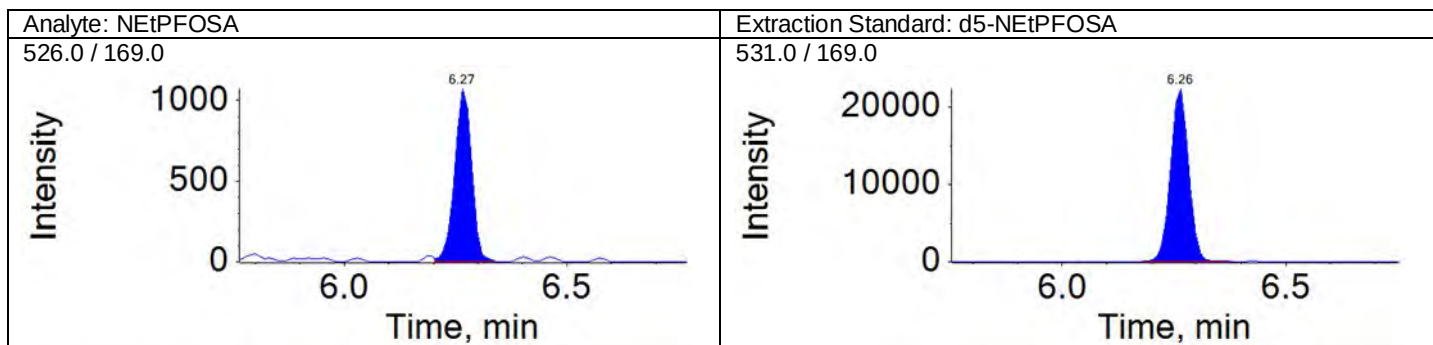
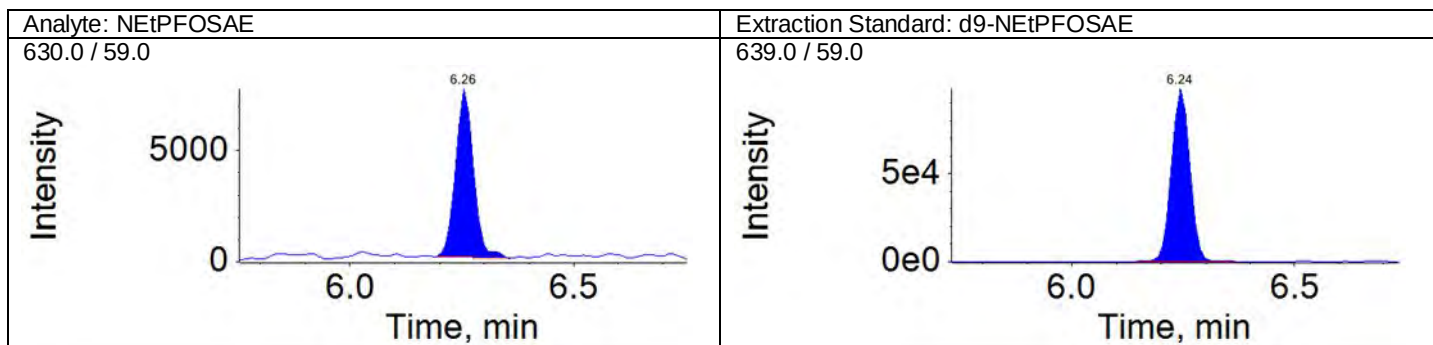
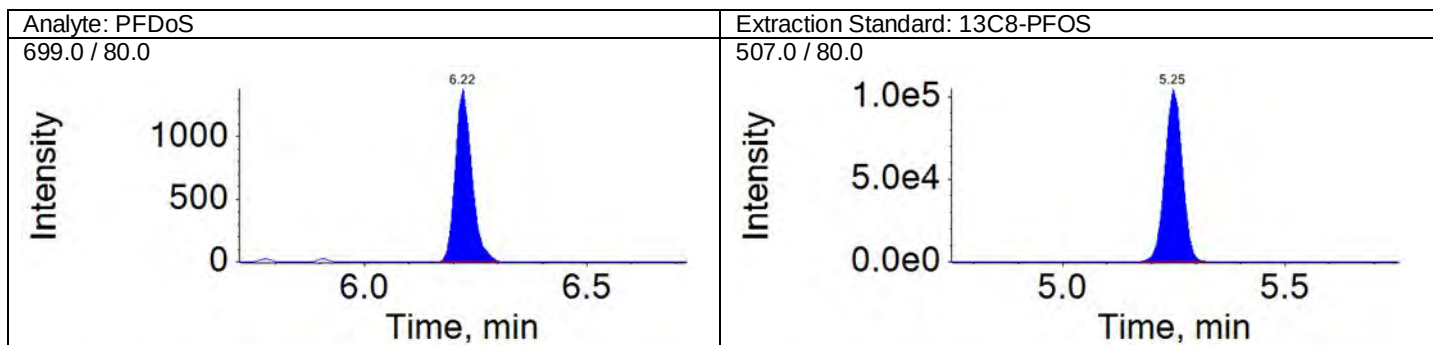
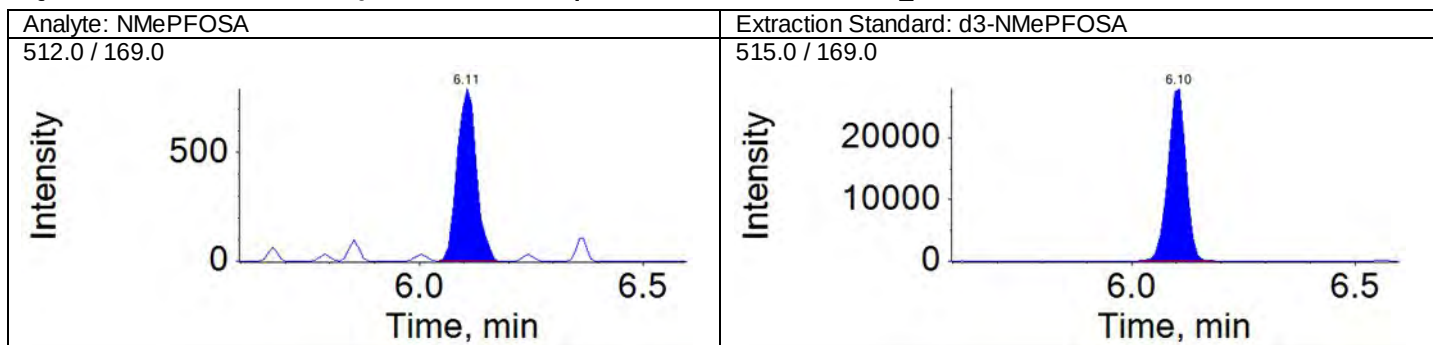
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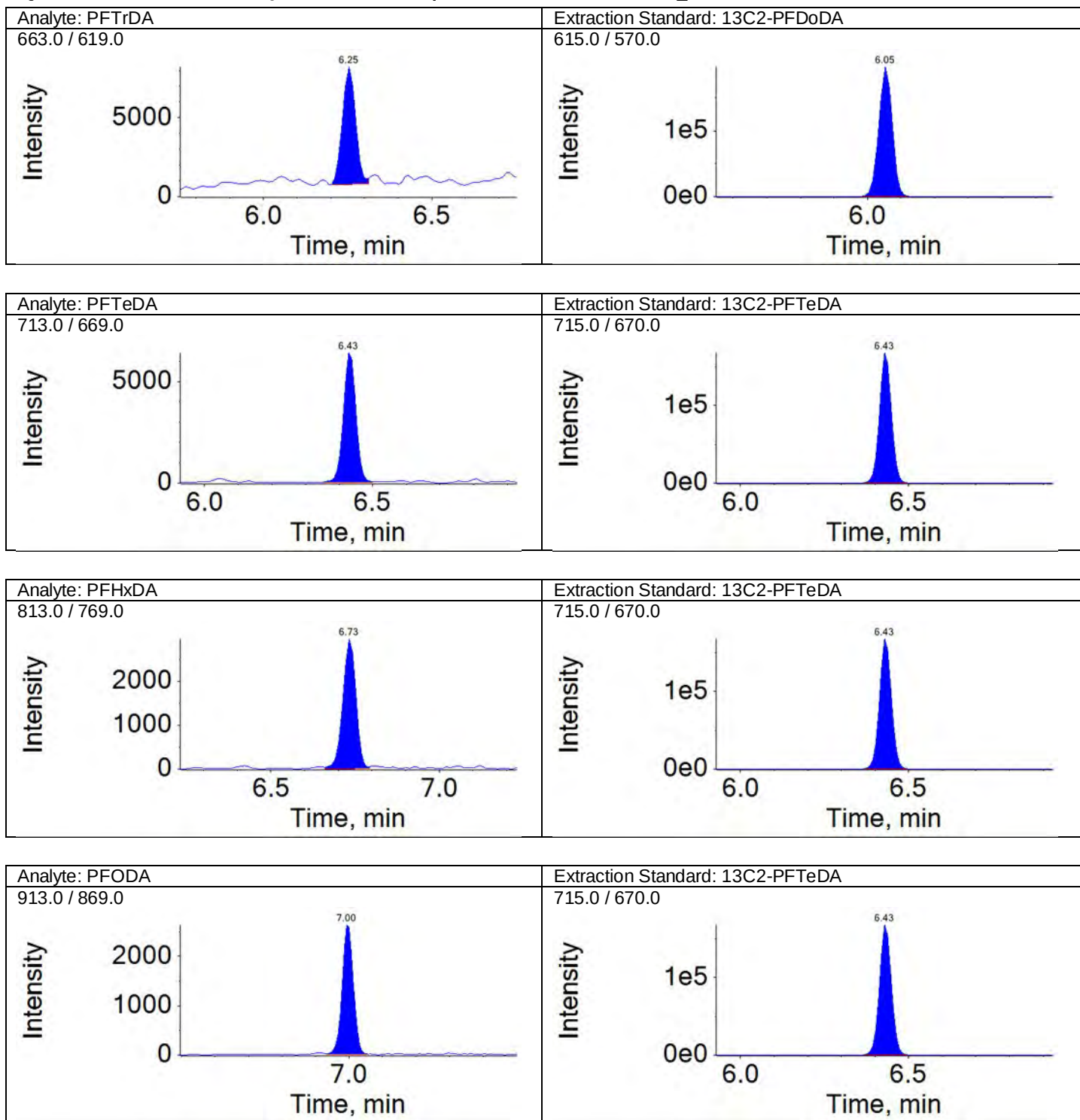
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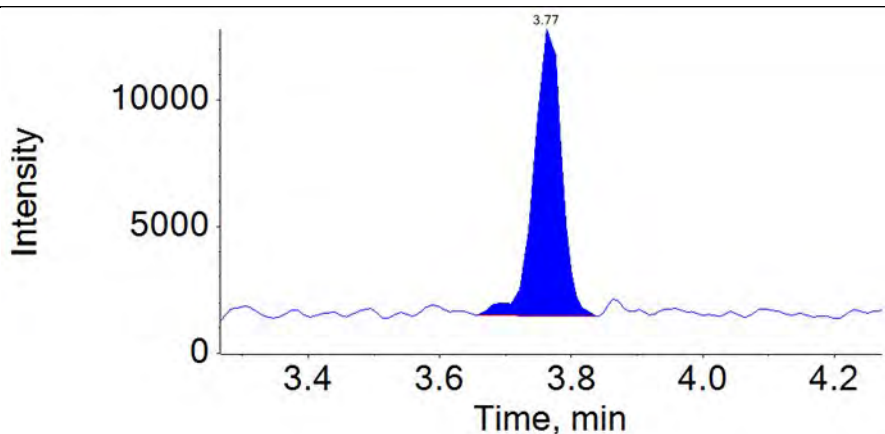
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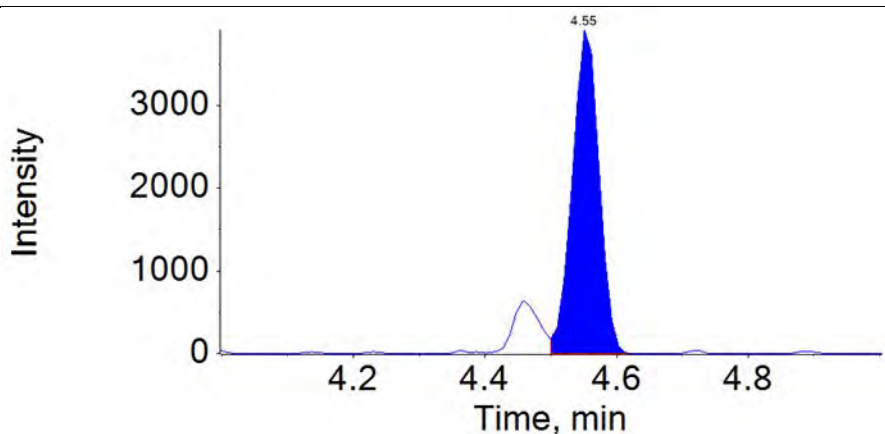
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QMethod File: 18AUG20QM

Component Name:
PFPeA
RT (min.):
3.77
Peak Area:
33474.86
Mass Range:
263.0 / 219.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1



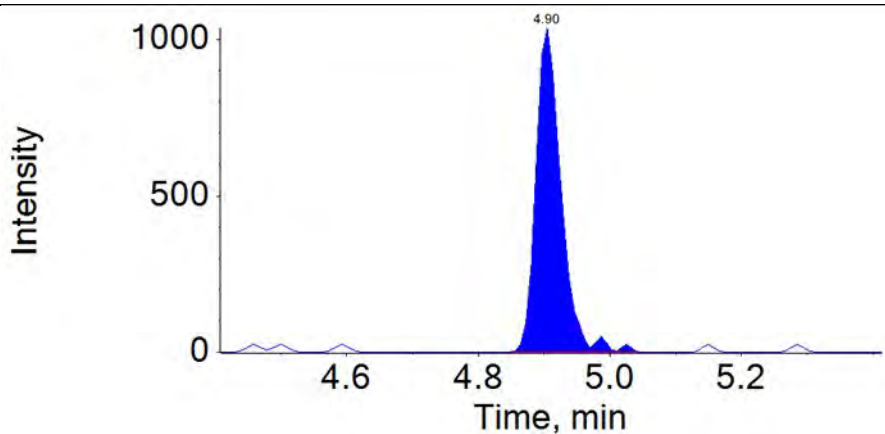
Integration Comment: incorrect integration

Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
11101.81
Mass Range:
399.0 / 80.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

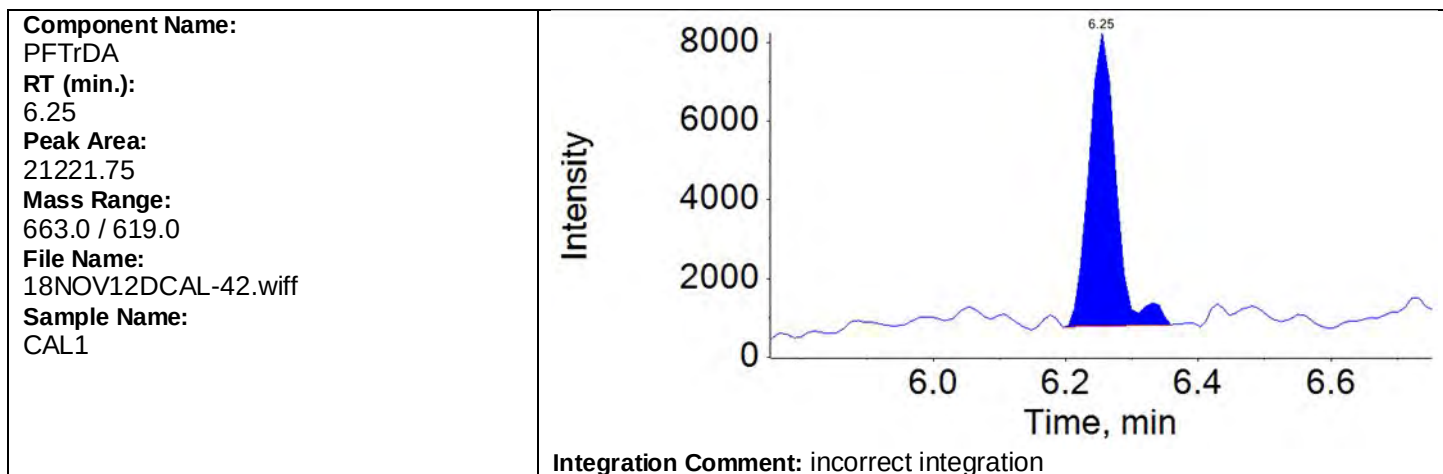
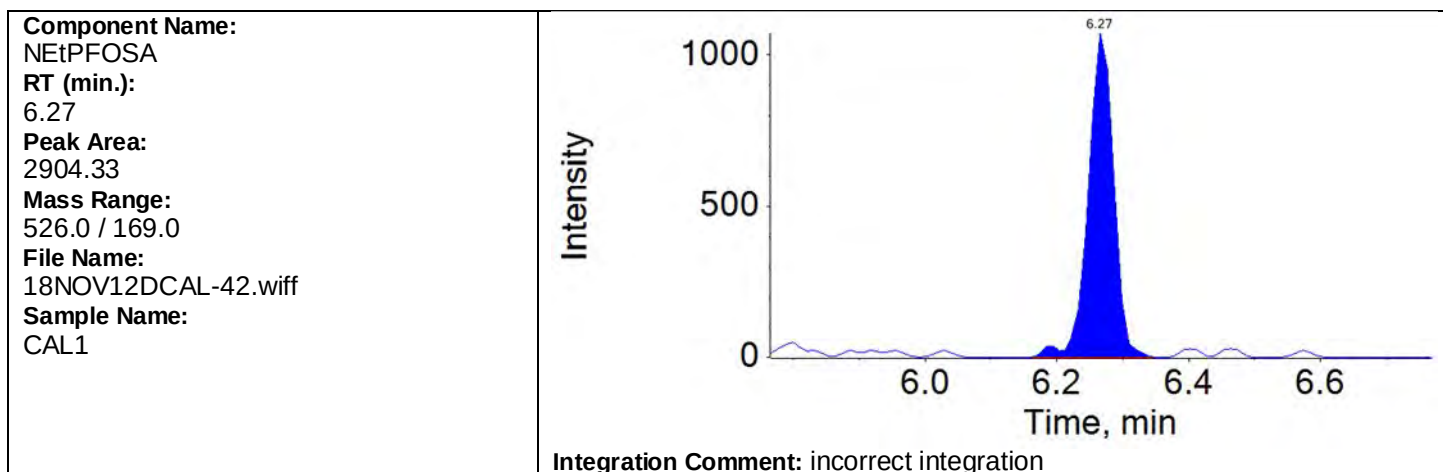
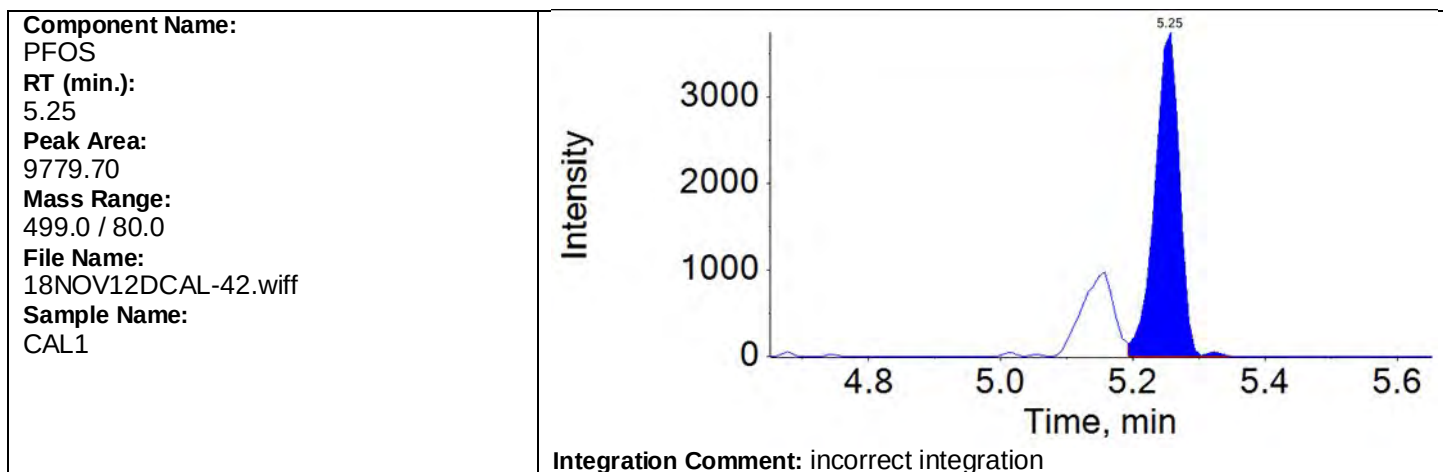
Component Name:
6:2-FTS
RT (min.):
4.90
Peak Area:
2772.78
Mass Range:
427.0 / 407.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

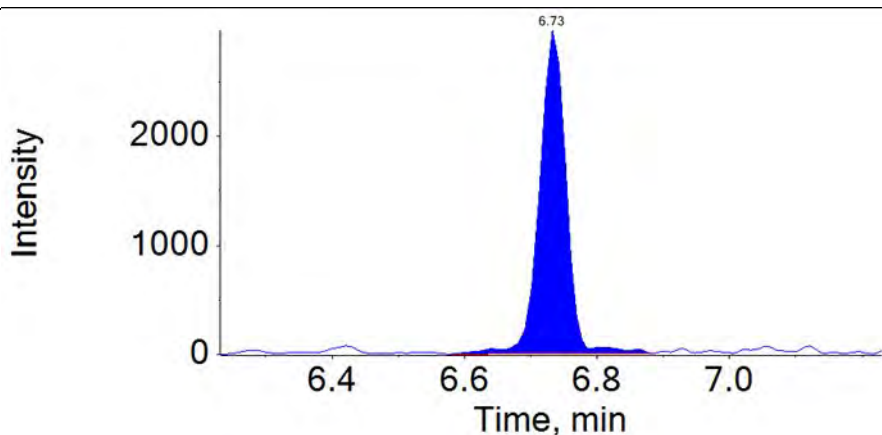
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

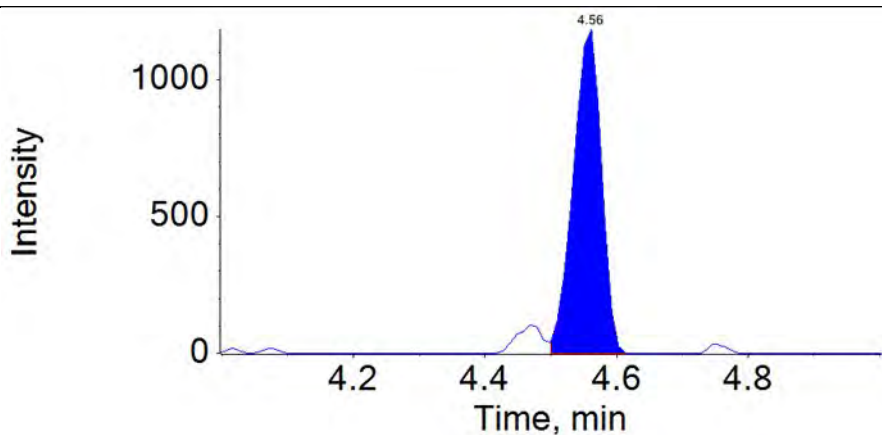
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxDA
RT (min.):
6.73
Peak Area:
8304.86
Mass Range:
813.0 / 769.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1



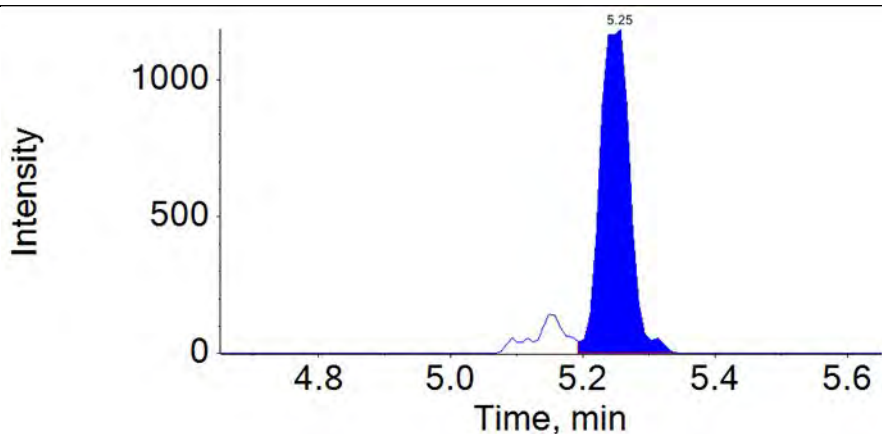
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
3529.38
Mass Range:
399.0 / 99.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
3773.94
Mass Range:
499.0 / 99.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1

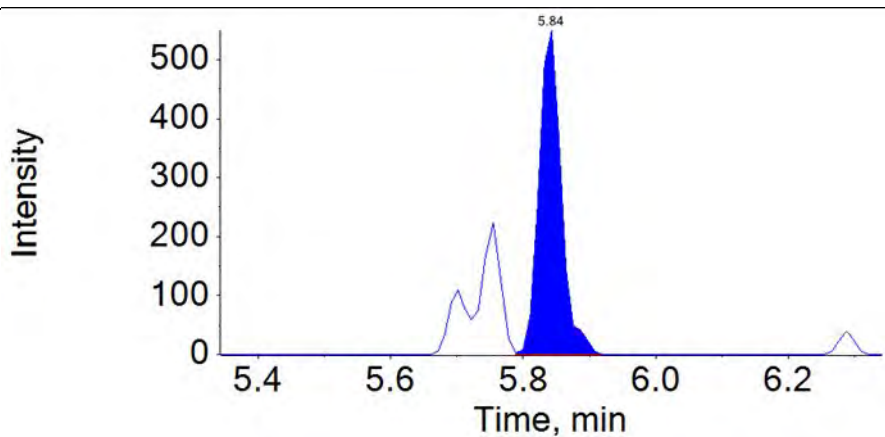


Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

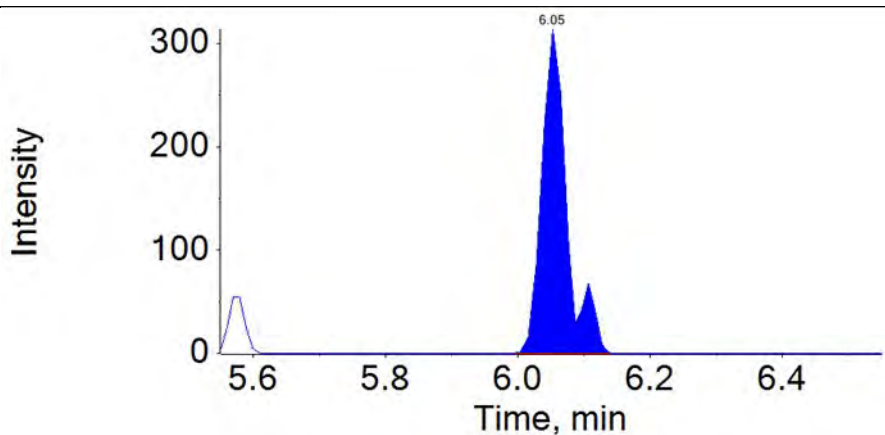
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
1295.22
Mass Range:
584.0 / 526.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1



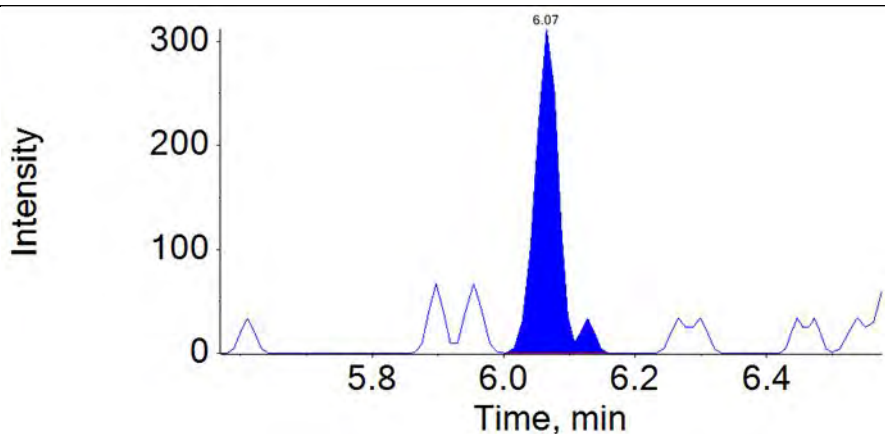
Integration Comment: incorrect integration

Component Name:
PFDoDA_2
RT (min.):
6.05
Peak Area:
835.89
Mass Range:
613.0 / 169.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
10:2 FTS_2
RT (min.):
6.07
Peak Area:
801.59
Mass Range:
627.0 / 81.0
File Name:
18NOV12DCAL-42.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 6:33 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

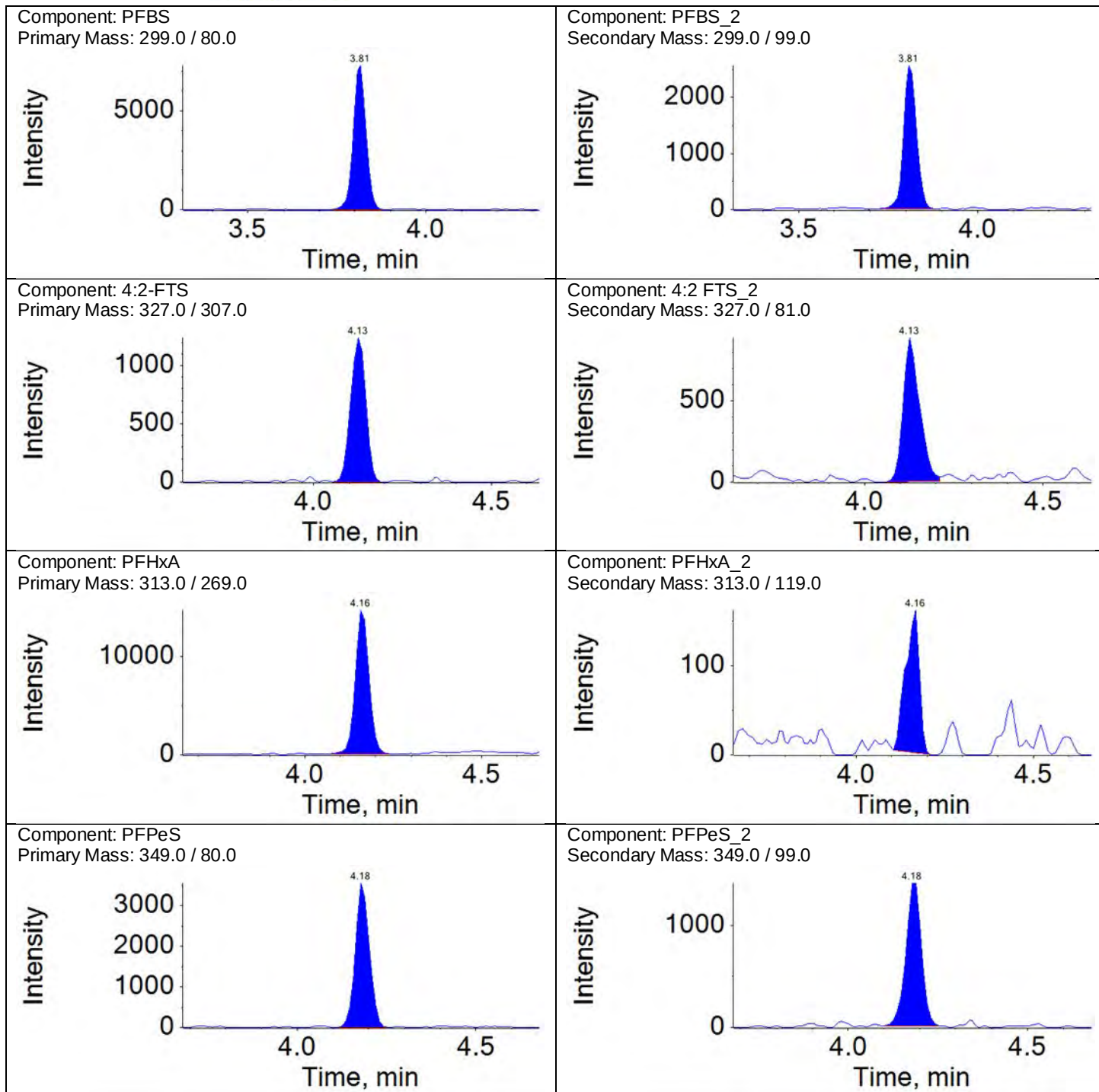
Ion Ratio Report

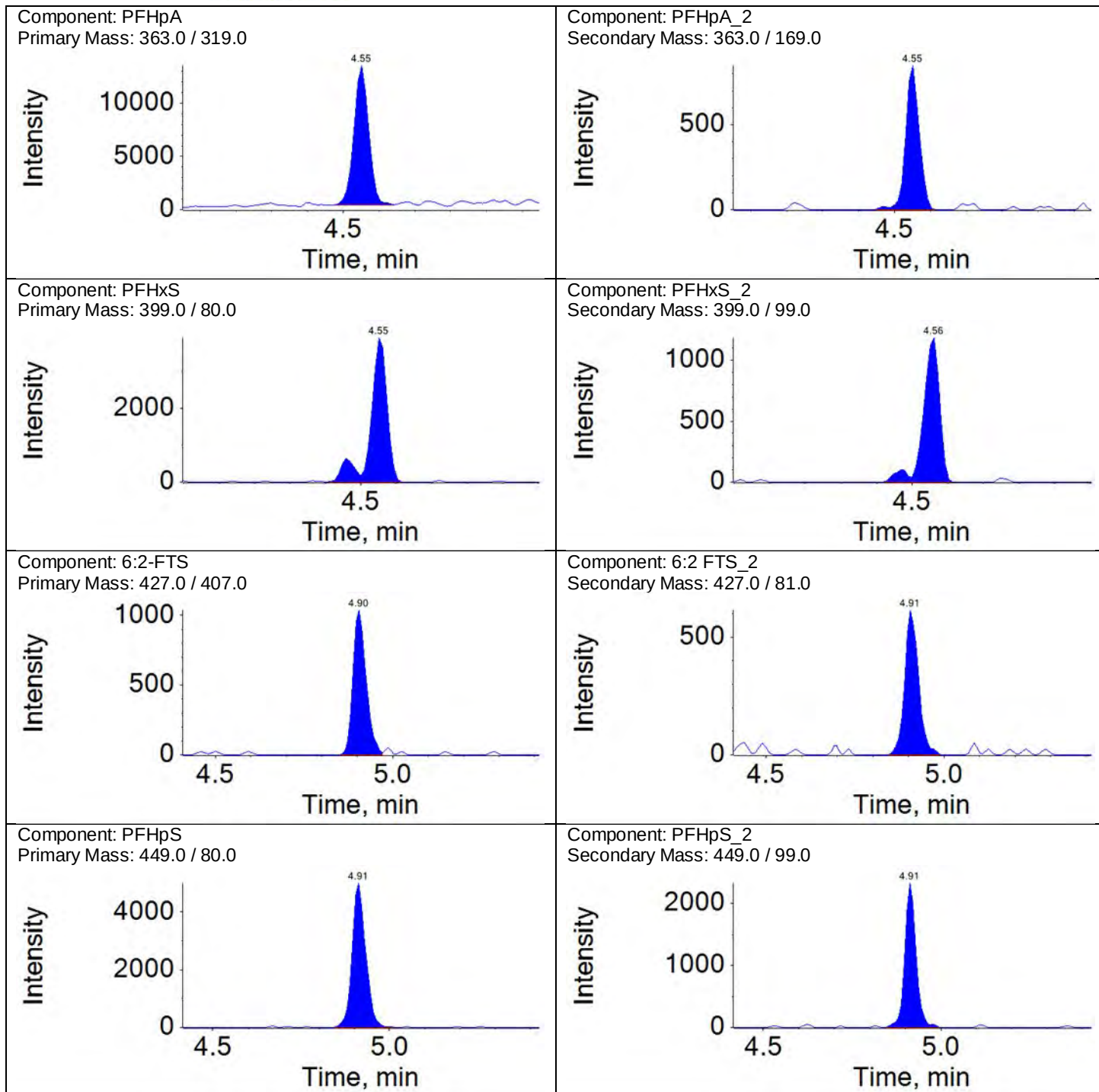
Sample Name: CAL1

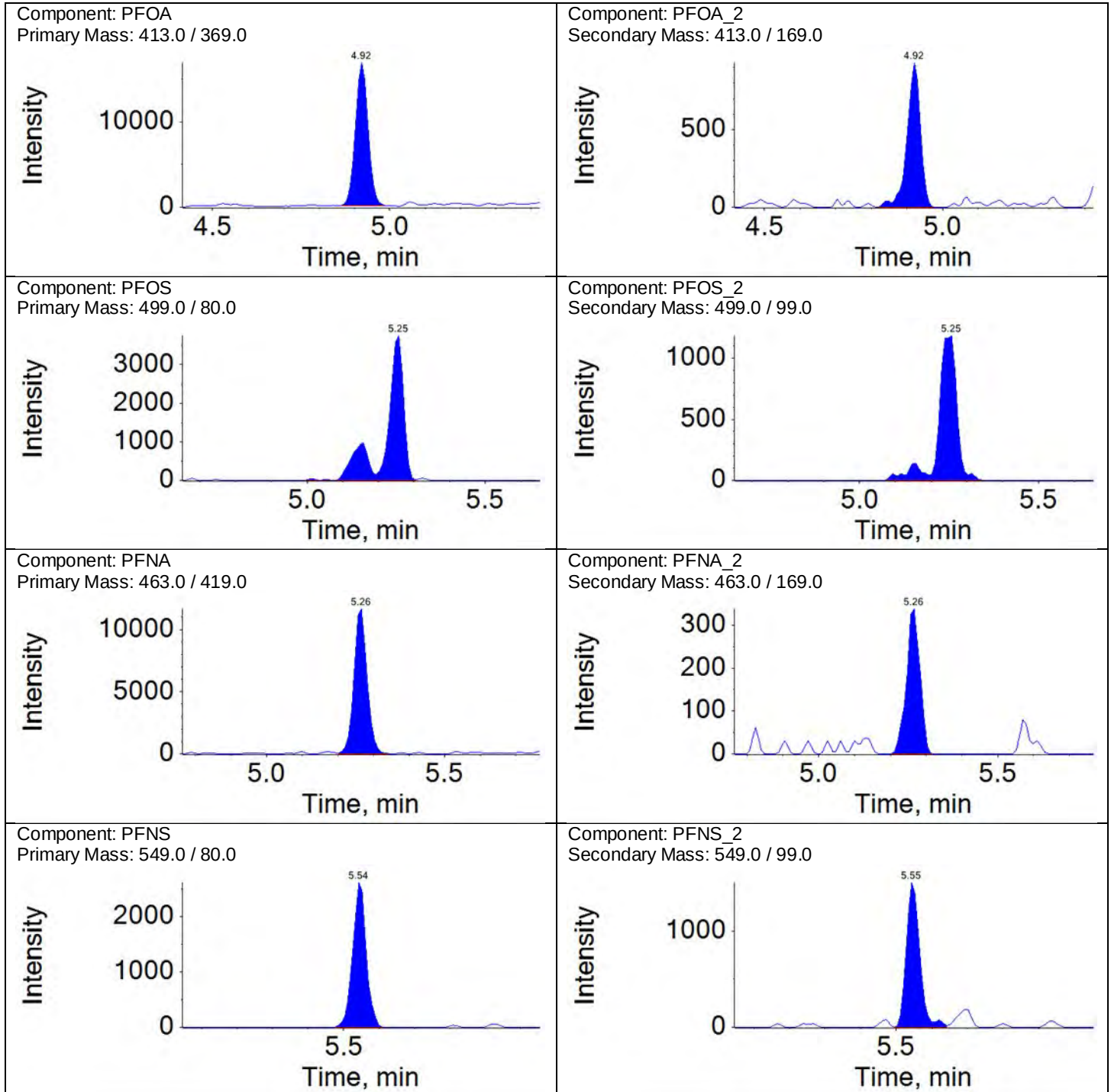
Instrument Name: LM27631

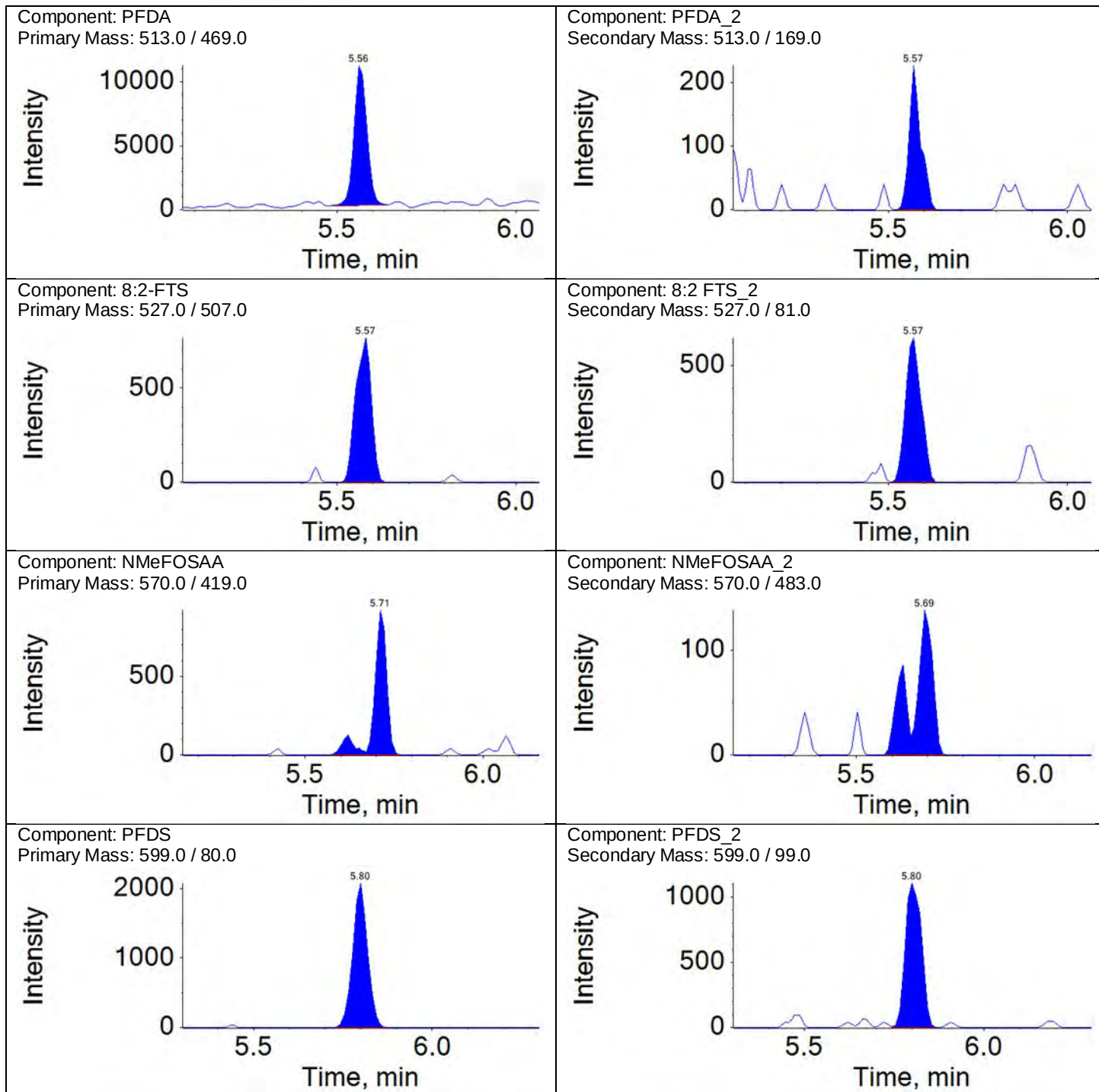
File Name: 18NOV12DCAL-42.wiff

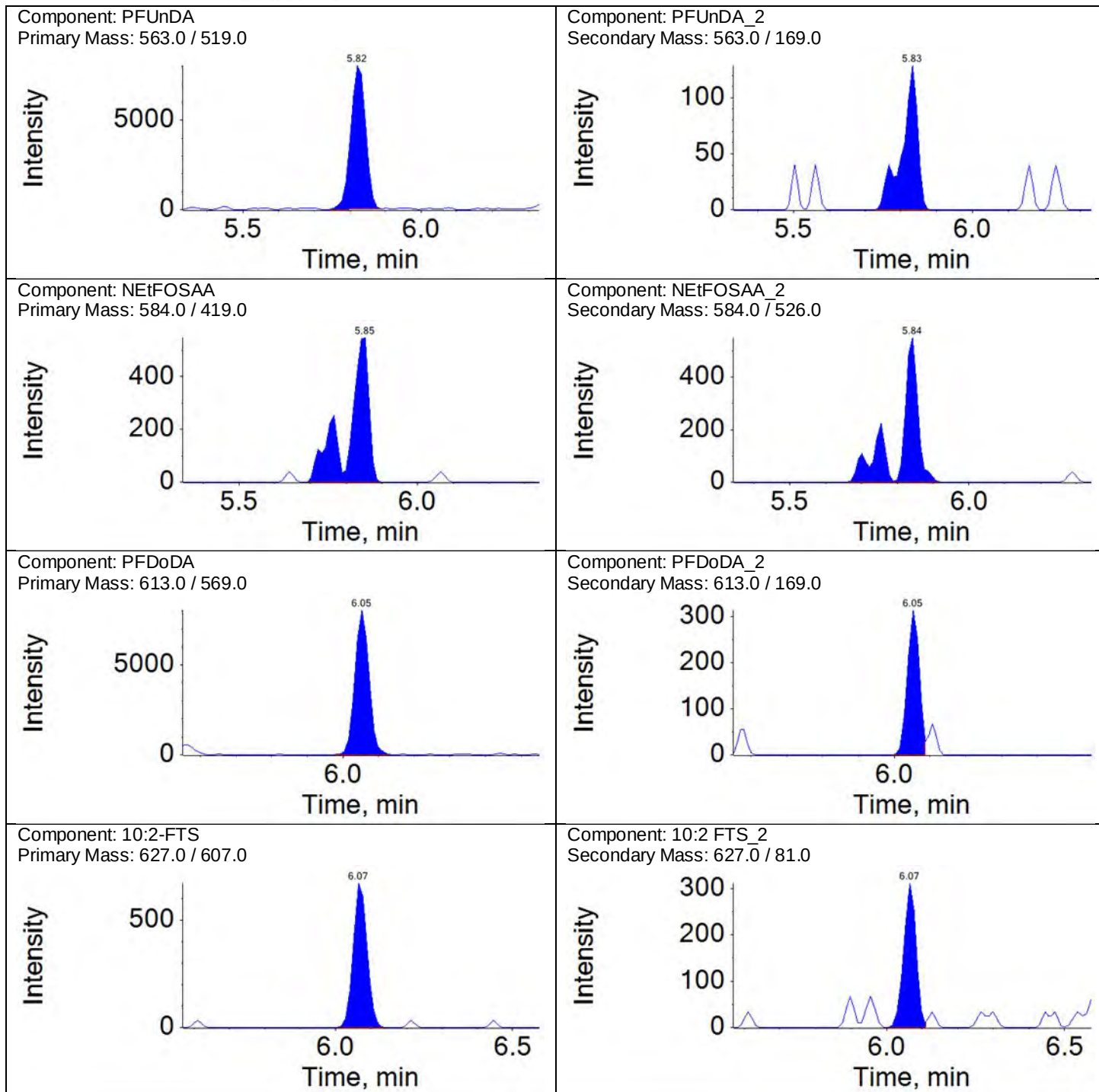
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	18010.03	A	0.3619	0.3587			
PFBS_2	3.81	1.00	6459.67	A	0.3619	0.3587	-1	50	
4:2-FTS	4.13	1.00	3636.36	A	0.6730	0.7769			
4:2 FTS_2	4.13	1.00	2825.20	A	0.6730	0.7769		#NA!	
PFHxA	4.16	1.00	39108.19	A	0.0117	0.0110			
PFHxA_2	4.16	1.00	431.19	A	0.0117	0.0110	-5	50	
PFPeS	4.18	1.10	9620.09	A	0.5191	0.4377			
PFPeS_2	4.18	1.10	4210.95	A	0.5191	0.4377	-16	50	
PFHpA	4.55	1.00	37545.37	A	0.0563	0.0594			
PFHpA_2	4.55	1.00	2229.00	A	0.0563	0.0594	5	50	
PFHxS	4.55	1.00	12858.11	M	0.3428	0.2967			
PFHxS_2	4.56	1.00	3815.05	M	0.3428	0.2967	-13	50	
6:2-FTS	4.90	1.00	2683.12	M	0.6604	0.6208			
6:2 FTS_2	4.91	1.00	1665.70	A	0.6604	0.6208		#NA!	
PFHpS	4.91	1.08	13262.78	A	0.4066	0.3857			
PFHpS_2	4.91	1.08	5115.91	A	0.4066	0.3857	-5	50	
PFOA	4.92	1.00	41467.99	A	0.0562	0.0587			
PFOA_2	4.92	1.00	2433.19	A	0.0562	0.0587	4	50	
PFOS	5.25	1.00	13088.49	M	0.2968	0.3248			
PFOS_2	5.25	1.00	4250.80	M	0.2968	0.3248	9	50	
PFNA	5.26	1.00	29660.05	A	0.0229	0.0300			
PFNA_2	5.26	1.00	890.58	A	0.0229	0.0300	31	50	
PFNS	5.54	1.06	6846.55	A	0.4828	0.5747			
PFNS_2	5.55	1.06	3934.96	A	0.4828	0.5747	19	50	
PFDA	5.56	1.00	27488.55	A	0.0081	0.0185			
PFDA_2	5.57	1.00	509.91	A	0.0081	0.0185	130	50	OOS
8:2-FTS	5.57	1.00	2333.06	A	0.6814	0.8052			
8:2 FTS_2	5.57	1.00	1878.62	A	0.6814	0.8052		#NA!	
NMeFOSAA	5.71	1.00	2306.38	A	0.2569	0.2416			
NMeFOSAA_2	5.69	1.00	557.21	A	0.2569	0.2416	-6	50	
PFDS	5.80	1.10	5952.23	A	0.5144	0.5857			
PFDS_2	5.80	1.11	3486.36	A	0.5144	0.5857	14	50	
PFUnDA	5.82	1.00	23379.53	A	0.0058	0.0168			
PFUnDA_2	5.83	1.00	393.36	A	0.0058	0.0168	189	50	OOS
NEtFOSAA	5.85	1.00	2284.89	A	0.7253	0.8510			
NEtFOSAA_2	5.84	1.00	1944.53	M	0.7253	0.8510	17	50	
PFDODA	6.05	1.00	22143.56	A	0.0157	0.0329			
PFDODA_2	6.05	1.00	728.93	M	0.0157	0.0329	110	50	OOS
10:2-FTS	6.07	1.09	1814.19	A	0.6356	0.4140			
10:2 FTS_2	6.07	1.09	751.03	M	0.6356	0.4140		#NA!	
PFTTrDA	6.25	1.03	20185.08	M	0.0086	0.0098			
PFTTrDA_2	6.24	1.03	198.77	A	0.0086	0.0098	15	50	
PFTeDA	6.43	1.00	16357.53	A	0.0062	0.0036			
PFTeDA_2	6.46	1.01	58.89	A	0.0062	0.0036	-42	50	
PFHxDA	6.73	1.05	7976.02	M	0.0683	0.0708			
PFHxDA_2	6.73	1.05	564.53	A	0.0683	0.0708	4	50	
PFODA	7.00	1.09	6020.31	A	0.0277	0.0307			
PFODA_2	6.99	1.09	185.07	A	0.0277	0.0307	11	50	

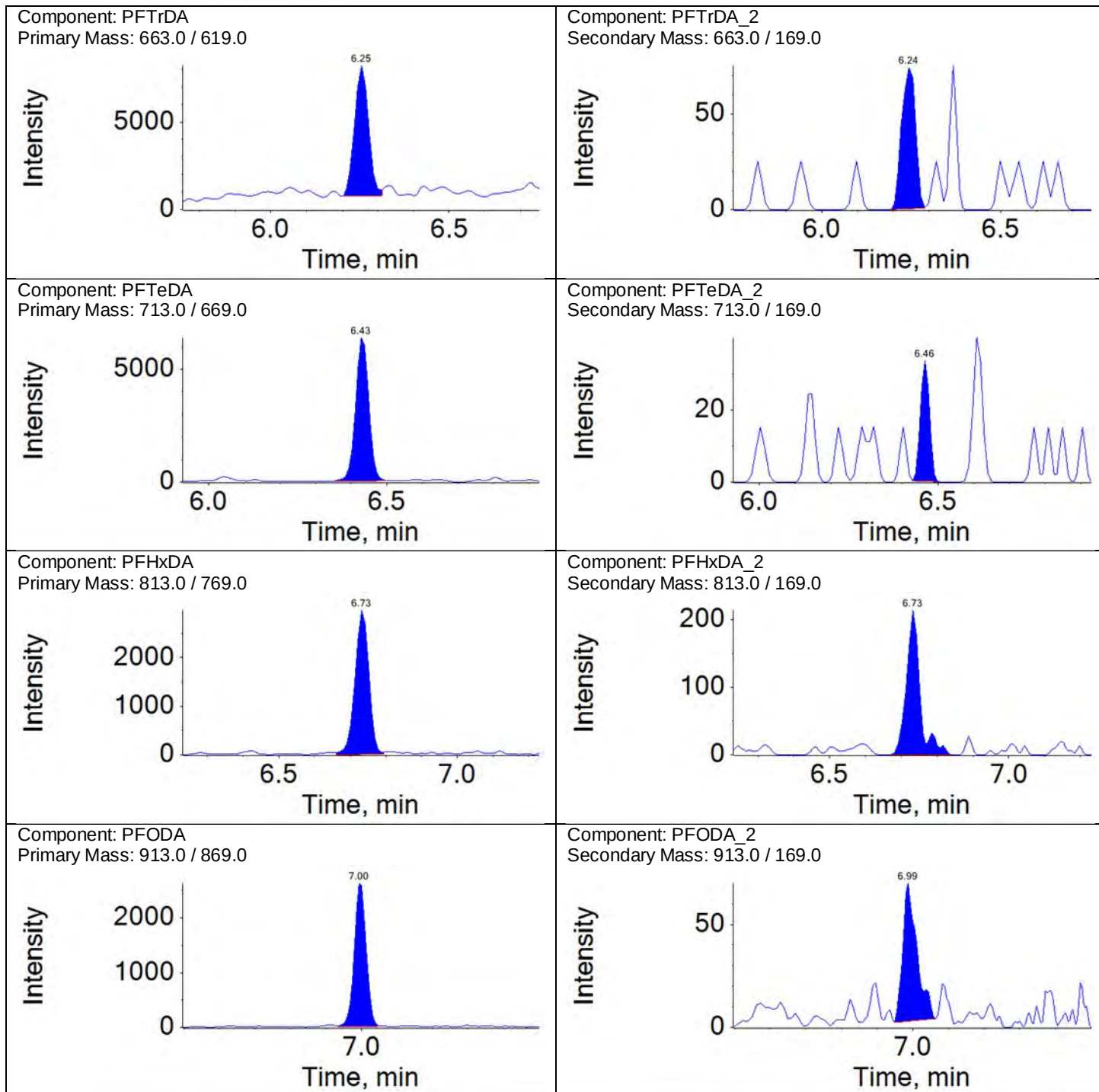












ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL2		Data File:	18NOV12DCAL-43.wiff
Sample ID:	CALBRN21833C		Acquis Date:	2018-11-12T15:15:03
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	4		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV12DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	662396.7	659926.2	0	50	
13C2-PFOA	5.0	454466.7	450219.7	1	50	
13C4-PFOS	4.8	250483.8	249205.8	1	50	
13C2-PFDA	5.0	277324.2	278743.9	-1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	771445.8	13C3-PFBA	662396.7	1.165	5.000	5.221	104	70-130	
E13C5-PFPeA	738194.7	13C3-PFBA	662396.7	1.114	5.000	4.998	100	70-130	
E13C3-PFBS	418860.7	13C3-PFBA	662396.7	0.632	4.650	4.464	96	70-130	
E13C2-4:2-FTS	46141.8	13C2-PFOA	454466.7	0.102	4.670	4.522	97	70-130	
E13C5-PFHxA	648170.1	13C2-PFOA	454466.7	1.426	5.000	5.152	103	70-130	
E13C3-PFHxS	320400.4	13C2-PFOA	454466.7	0.705	4.730	4.838	102	70-130	
E13C4-PFHpA	532987.5	13C2-PFOA	454466.7	1.173	5.000	5.284	106	70-130	
E13C2-6:2-FTS	35585.7	13C2-PFOA	454466.7	0.078	4.750	5.239	110	70-130	
E13C8-PFOA	892584.2	13C2-PFOA	454466.7	1.964	5.000	5.411	108	70-130	
E13C8-PFOS	271778.8	13C4-PFOS	250483.8	1.085	4.780	4.808	101	70-130	
E13C9-PFNA	451850.1	13C4-PFOS	250483.8	1.804	5.000	5.030	101	70-130	
E13C6-PFDA	601859.8	13C2-PFDA	277324.2	2.170	5.000	5.064	101	70-130	
E13C2-8:2-FTS	27639.2	13C2-PFDA	277324.2	0.100	4.790	4.970	104	70-130	
E13C8-PFOSA	636543.2	13C2-PFDA	277324.2	2.295	5.000	5.089	102	70-130	
Ed3-NMeFOSAA	77388.6	13C2-PFDA	277324.2	0.279	5.000	5.037	101	70-130	
E13C7-PFUnDA	242881.8	13C2-PFDA	277324.2	0.876	5.000	5.085	102	70-130	
Ed5-NEtFOSAA	63686.9	13C2-PFDA	277324.2	0.230	5.000	4.859	97	70-130	
E13C2-PFDoDA	532175.4	13C2-PFDA	277324.2	1.919	5.000	4.982	100	70-130	
Ed7-NMePFOSAE	323456.5	13C2-PFDA	277324.2	1.166	5.000	5.047	101	70-130	
Ed3-NMePFOSA	77893.2	13C2-PFDA	277324.2	0.281	5.000	5.103	102	70-130	
Ed9-NEtPFOSAE	261195.6	13C2-PFDA	277324.2	0.942	5.000	4.899	98	70-130	
Ed5-NEtPFOSA	58073.5	13C2-PFDA	277324.2	0.209	5.000	4.912	98	70-130	
E13C2-PFTeDA	394146.2	13C2-PFDA	277324.2	1.421	5.000	4.990	100	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL2

Instrument Name: LM27631

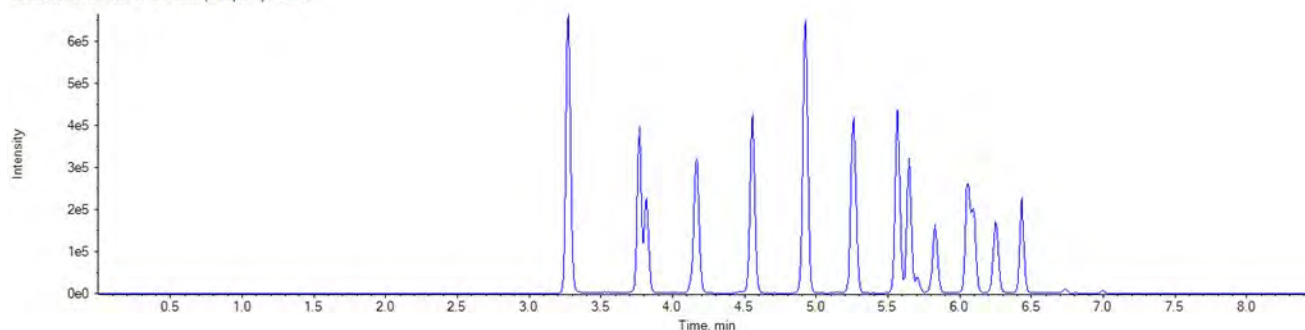
File Name: 18NOV12DCAL-43.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	80396.2		A	13C4-PFBA	3.27	771445.8	0.104	0.577
PFPeA	3.77	1.000	84319.4		A	13C5-PFPeA	3.77	738194.7	0.114	0.661
PFBS	3.82	1.000	44885.2		A	13C3-PFBS	3.82	418860.7	0.107	0.510
4:2-FTS	4.13	1.000	8804.0		A	13C2-4:2-FTS	4.13	46141.8	0.191	0.518
PFHxA	4.16	1.000	96559.3		A	13C5-PFHxA	4.17	648170.1	0.149	0.622
PFPeS	4.19	1.100	20295.0		A	13C3-PFBS	3.82	418860.7	0.048	0.470
PFHpA	4.55	1.000	95048.3		M	13C4-PFHpA	4.55	532987.5	0.178	0.591
PFHxS	4.56	1.000	31064.7		M	13C3-PFHxS	4.56	320400.4	0.097	0.470
6:2-FTS	4.91	1.000	8048.4		A	13C2-6:2-FTS	4.91	35585.7	0.226	0.547
PFHpS	4.92	1.080	29902.3		A	13C3-PFHxS	4.56	320400.4	0.093	0.491
PFOA	4.93	1.000	100710.5		A	13C8-PFOA	4.92	892584.2	0.113	0.603
PFOS	5.25	1.000	32301.0		M	13C8-PFOS	5.25	271778.8	0.119	0.520
PFNA	5.27	1.000	80724.2		A	13C9-PFNA	5.27	451850.1	0.179	0.644
PFNS	5.55	1.060	20326.1		A	13C8-PFOS	5.25	271778.8	0.075	0.523
PFDA	5.57	1.000	63802.1		M	13C6-PFDA	5.57	601859.8	0.106	0.562
8:2-FTS	5.57	1.000	6214.2		A	13C2-8:2-FTS	5.57	27639.2	0.225	0.524
PFOSA	5.65	1.000	71087.0		A	13C8-PFOSA	5.65	636543.2	0.112	0.545
NMeFOSAA	5.71	1.000	5759.6		A	d3-NMeFOSAA	5.71	77388.6	0.074	0.421
PFDS	5.80	1.100	16291.9		A	13C8-PFOS	5.25	271778.8	0.060	0.543
PfUnDA	5.83	1.000	51206.8		A	13C7-PfUnDA	5.83	242881.8	0.211	0.551
NEtFOSAA	5.85	1.000	7727.1		M	d5-NEtFOSAA	5.84	63686.9	0.121	0.636
PFDODA	6.06	1.000	59695.3		A	13C2-PFDODA	6.06	532175.4	0.112	0.571
10:2-FTS	6.08	1.090	5206.5		A	13C2-8:2-FTS	5.57	27639.2	0.188	0.627
NMePFOSAE	6.10	1.000	43085.1		A	d7-NMePFOSAE	6.09	323456.5	0.133	0.554
NMePFOSA	6.11	1.000	8877.7		A	d3-NMePFOSA	6.11	77893.2	0.114	0.562
PFDoS	6.22	1.190	8992.5		M	13C8-PFOS	5.25	271778.8	0.033	0.580
NEtPFOSAE	6.26	1.000	46623.3		M	d9-NEtPFOSAE	6.25	261195.6	0.178	0.573
NEtPFOSA	6.27	1.000	8053.7		M	d5-NEtPFOSA	6.27	58073.5	0.139	0.637
PFTrDA	6.26	1.030	47991.3		A	13C2-PFDODA	6.06	532175.4	0.090	0.569
PFTeDA	6.43	1.000	40236.5		A	13C2-PFTeDA	6.43	394146.2	0.102	0.572
PFHxDA	6.74	1.050	19006.4		A	13C2-PFTeDA	6.43	394146.2	0.048	0.575
PFODA	7.00	1.090	14955.6		A	13C2-PFTeDA	6.43	394146.2	0.038	0.528

Total Ion Chromatogram

TIC from 18NOV12DCAL-43.wiff (sample 1) - CAL2



APPROVED

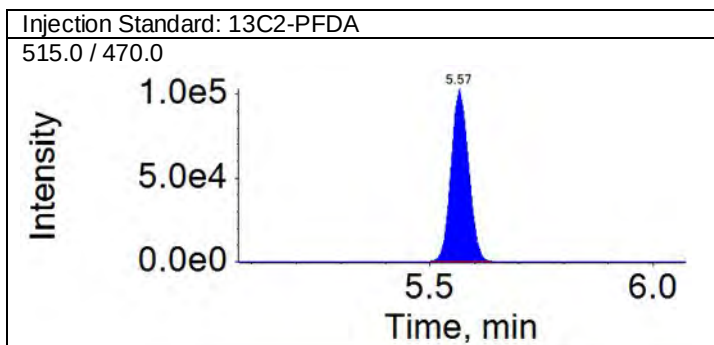
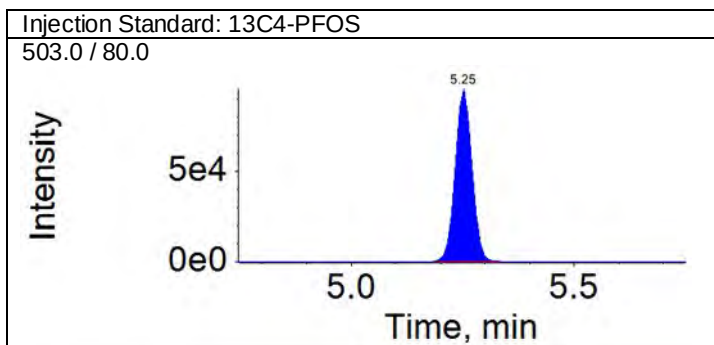
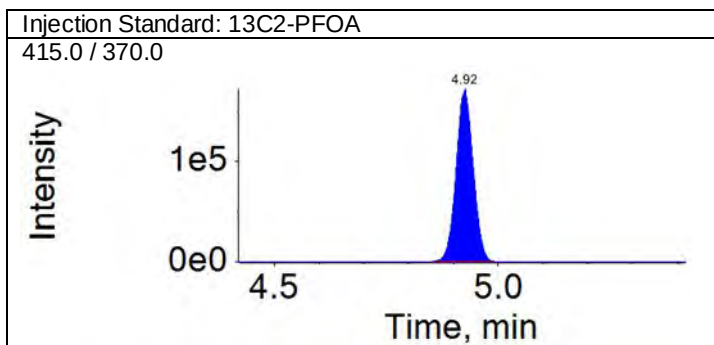
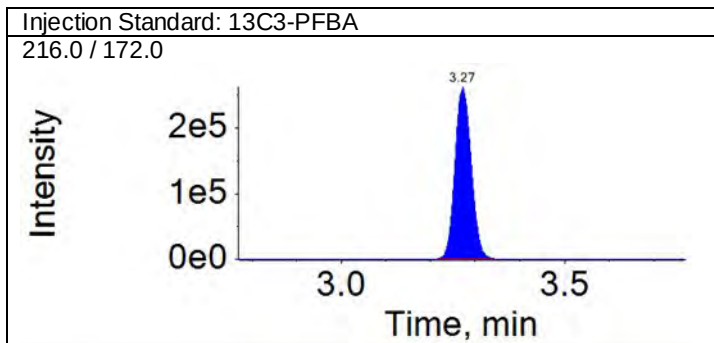
By MCD at 6:33 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

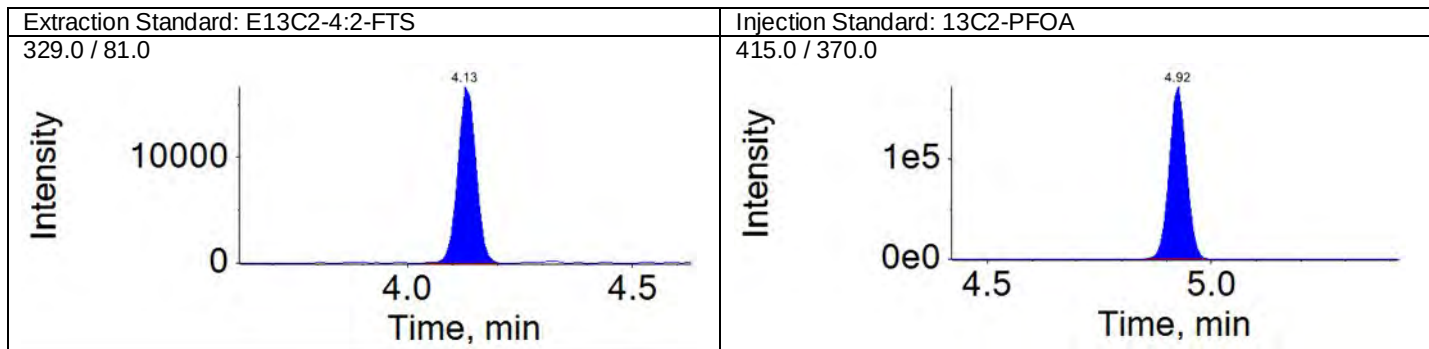
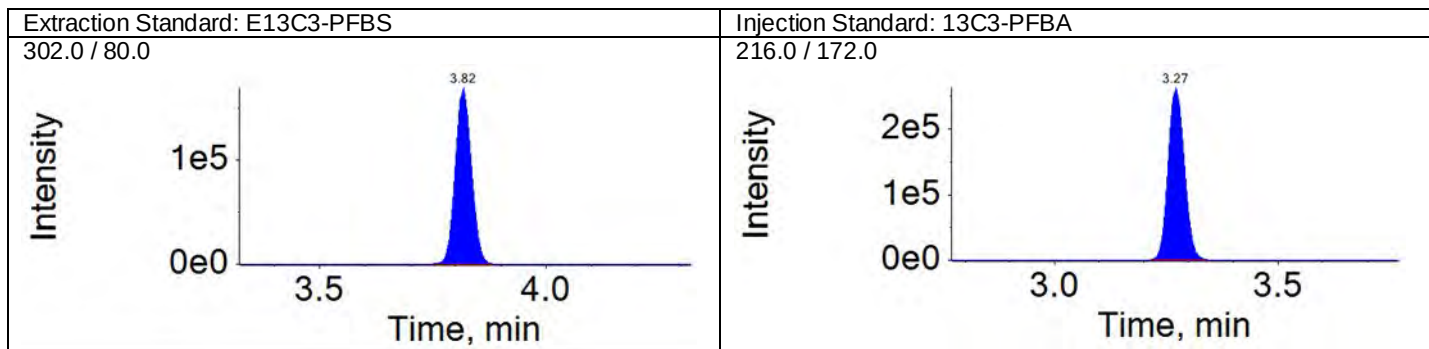
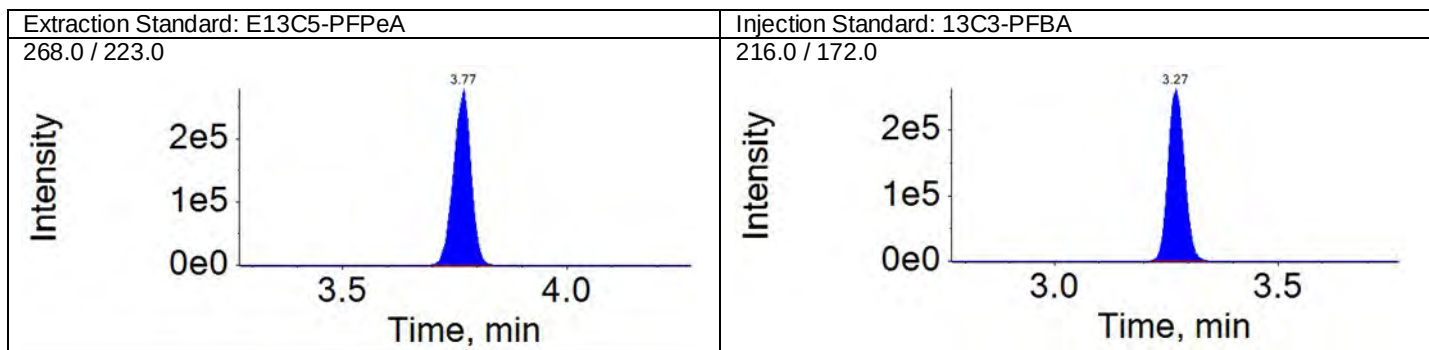
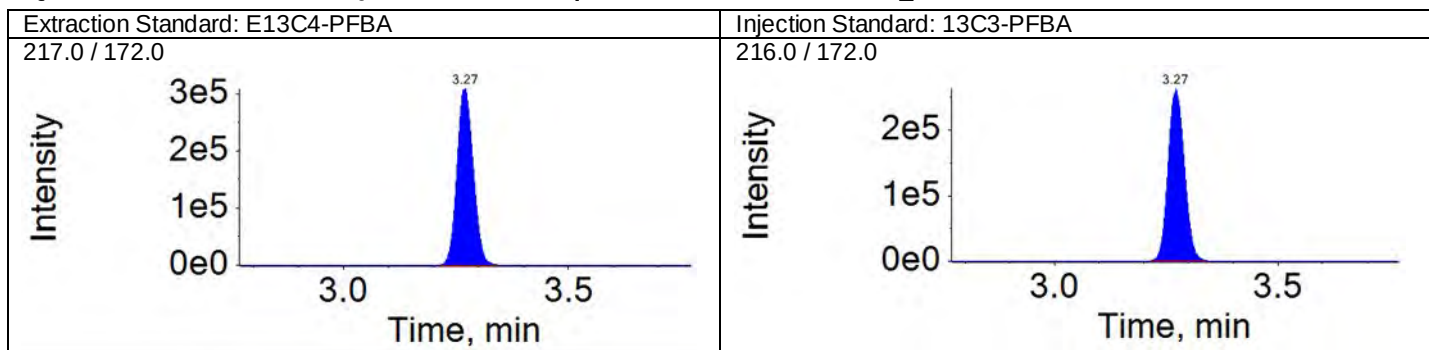
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



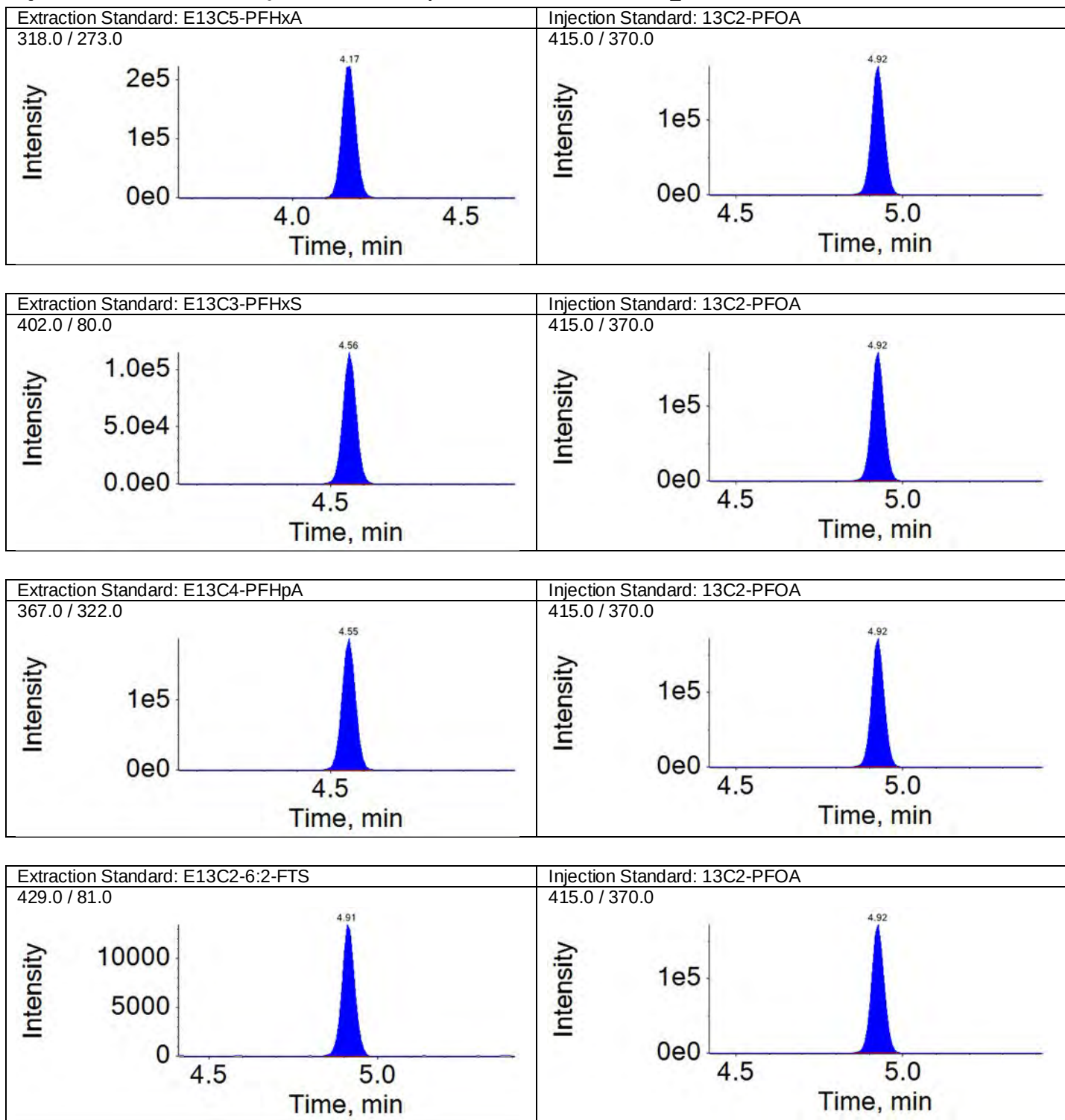
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



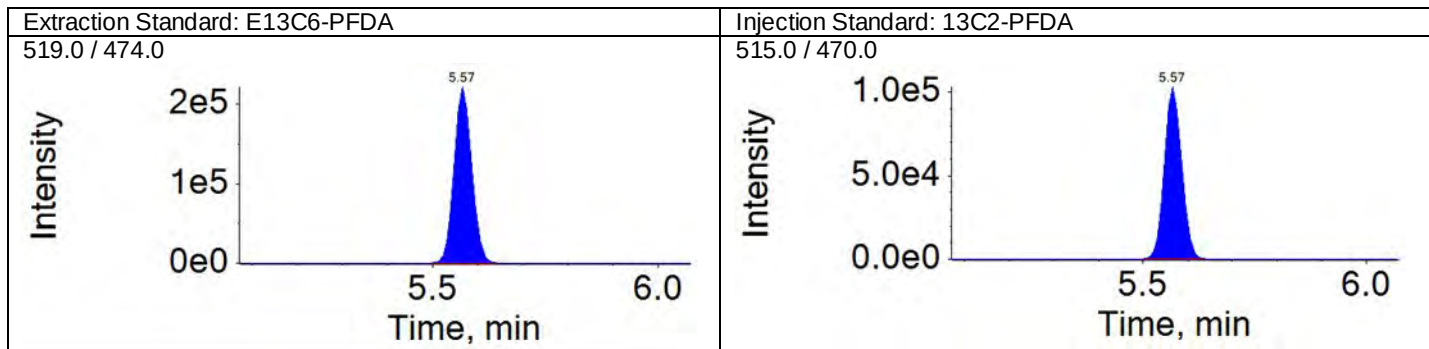
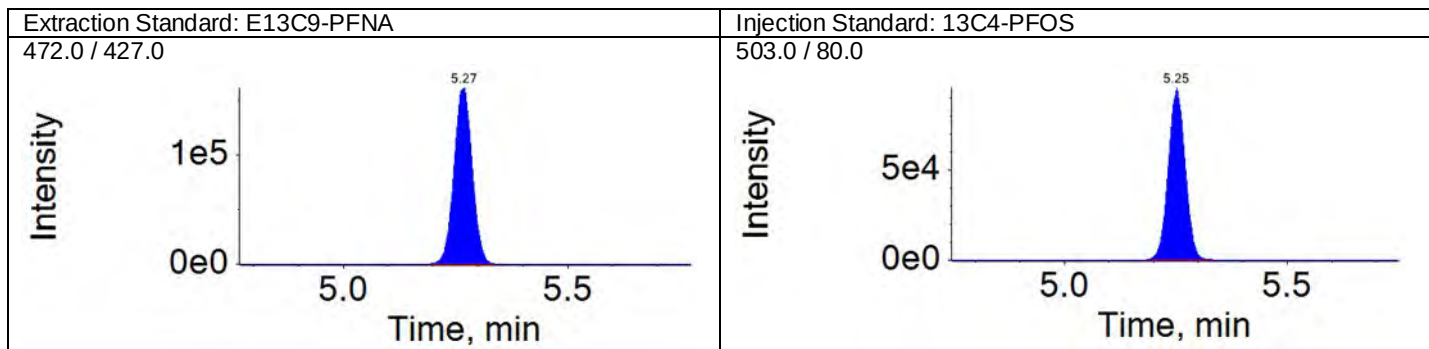
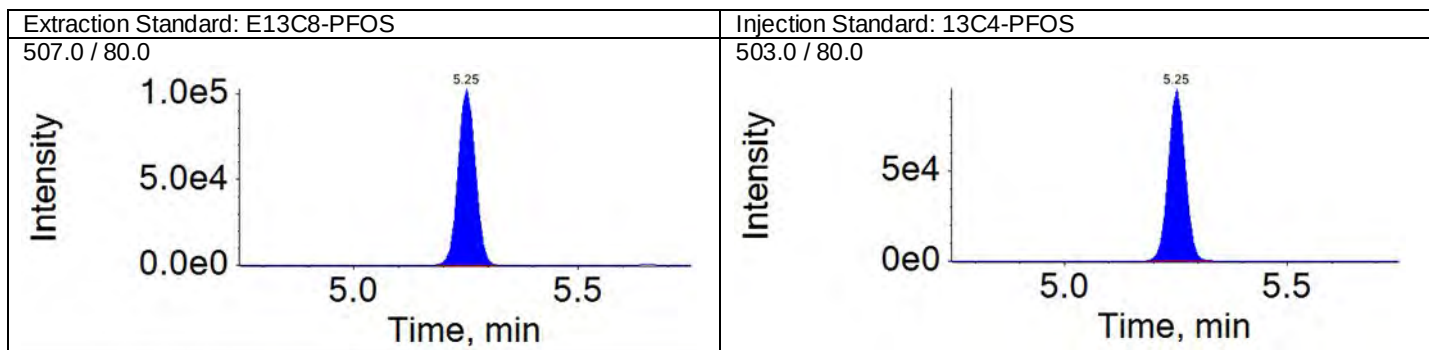
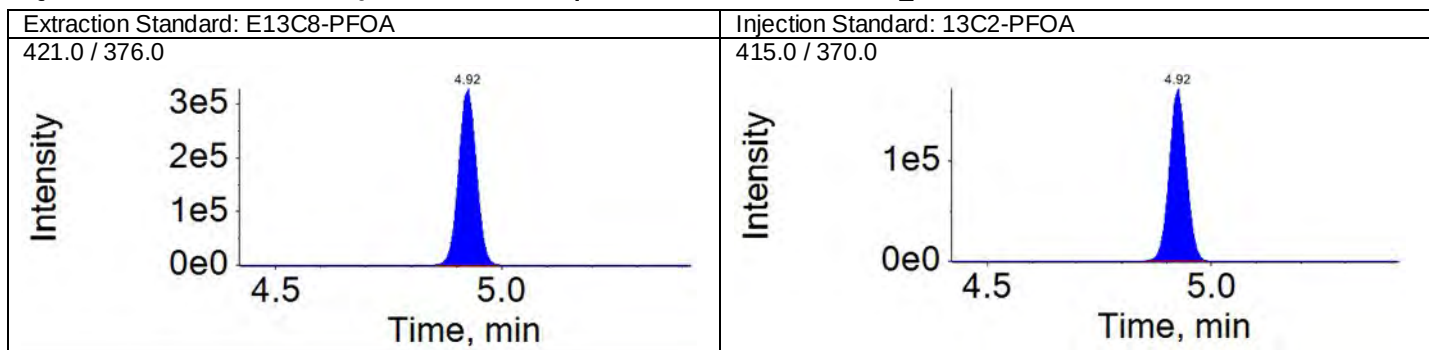
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



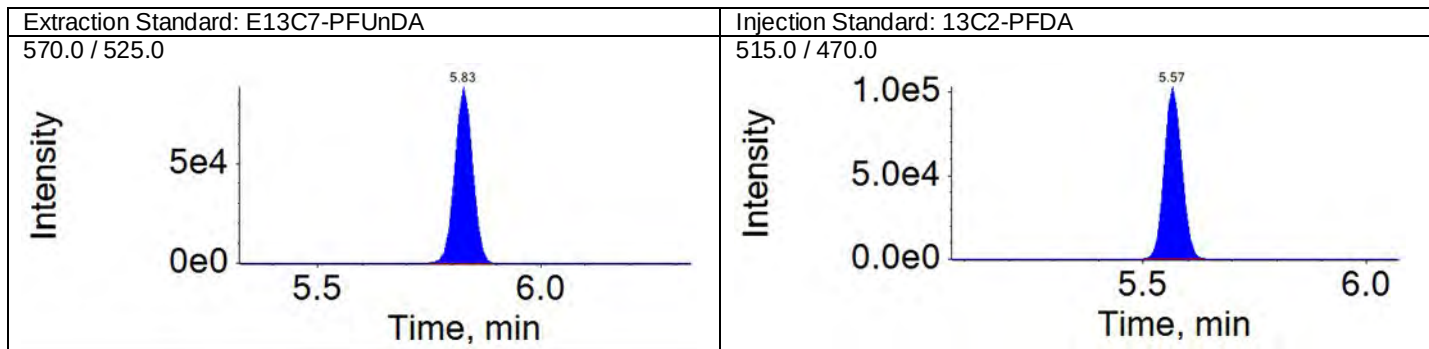
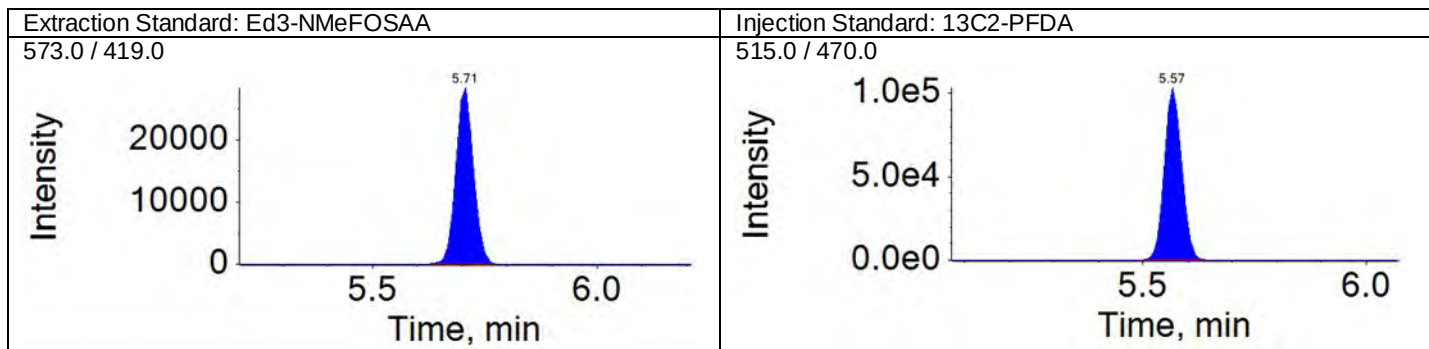
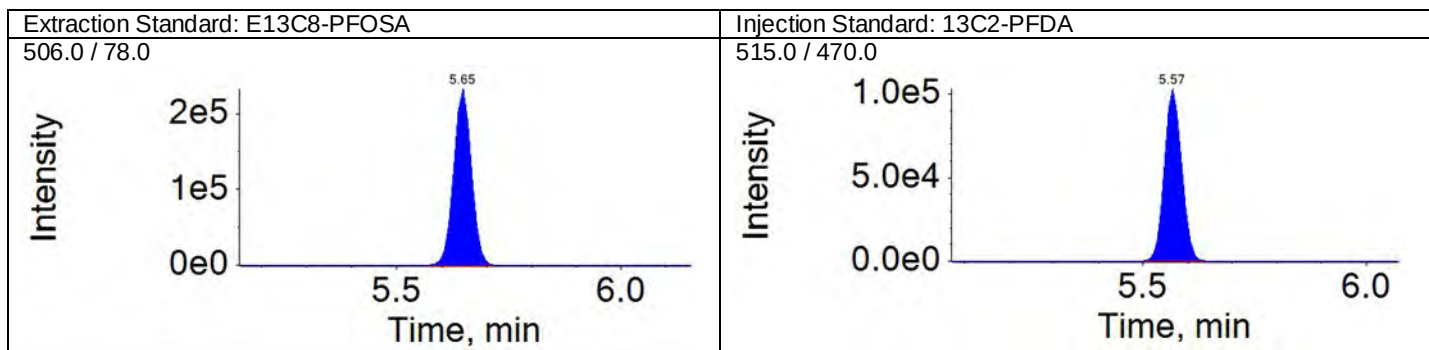
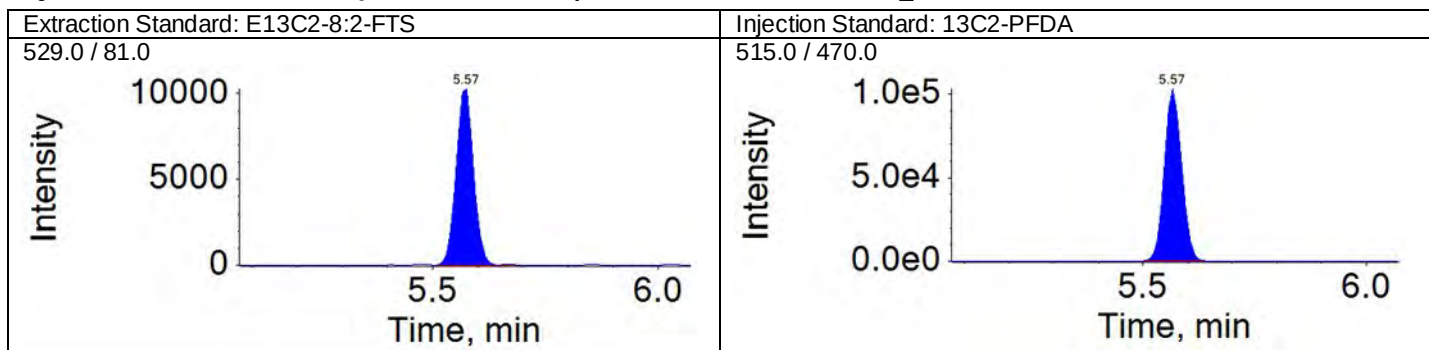
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



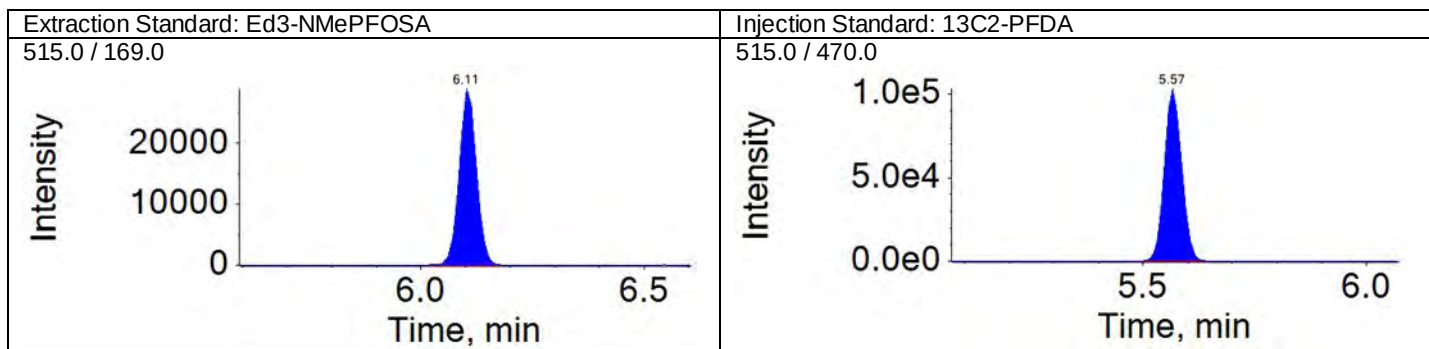
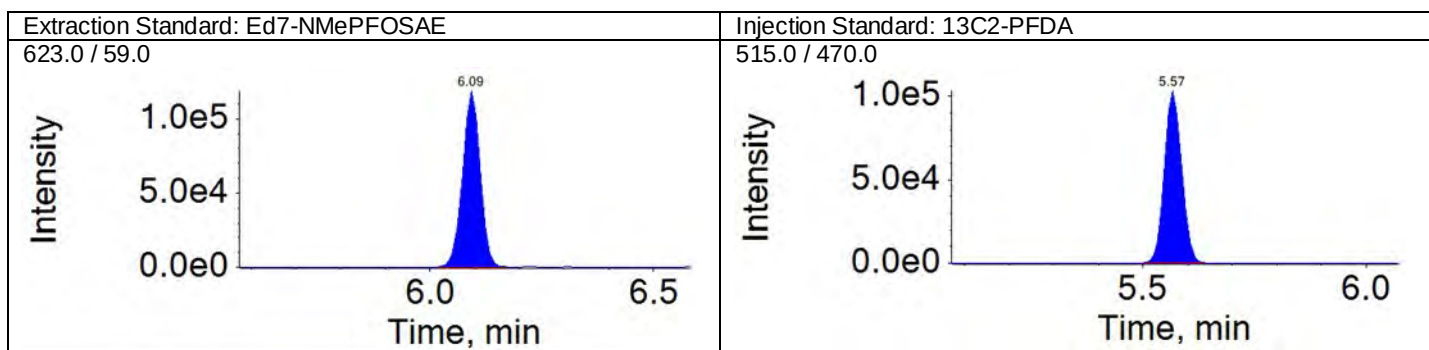
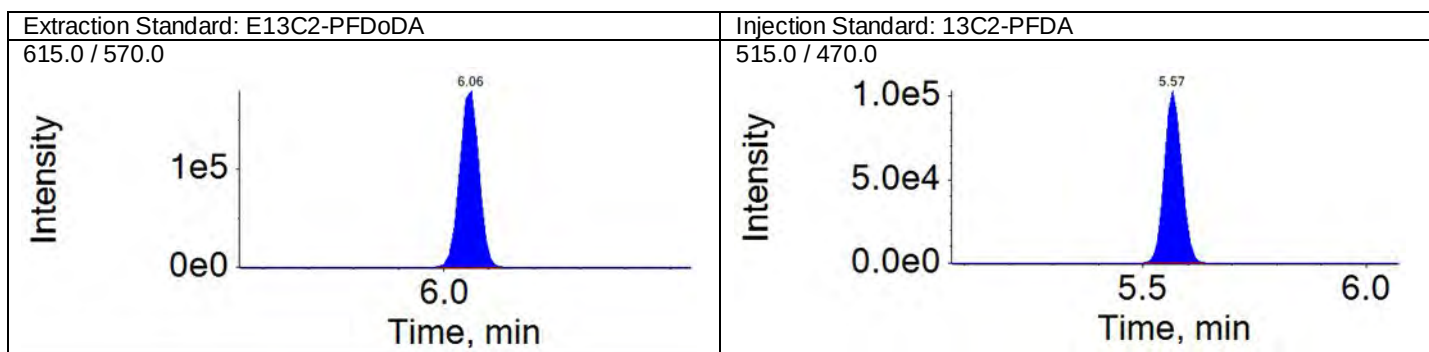
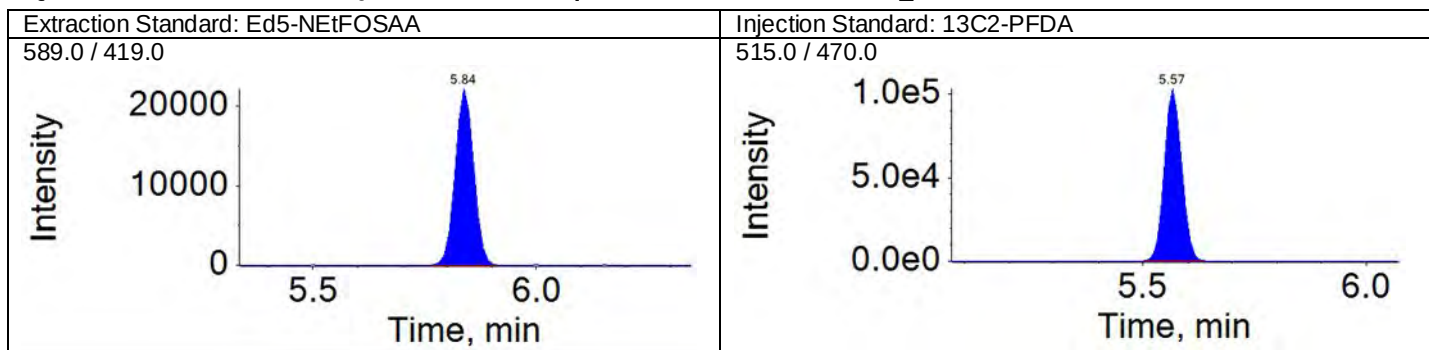
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



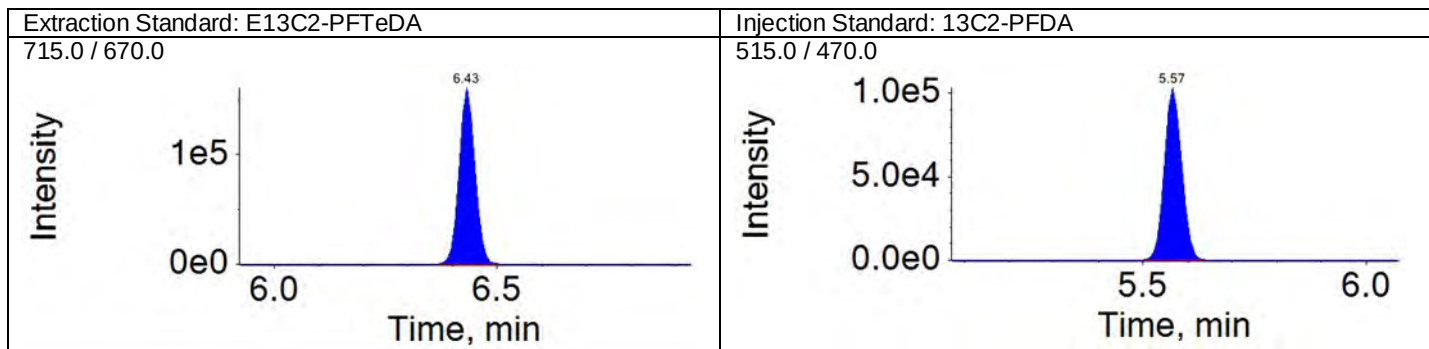
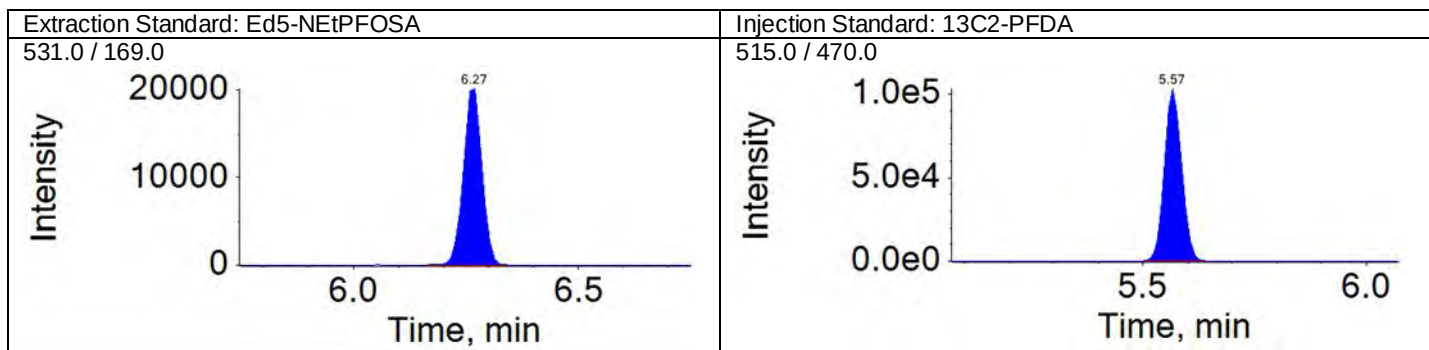
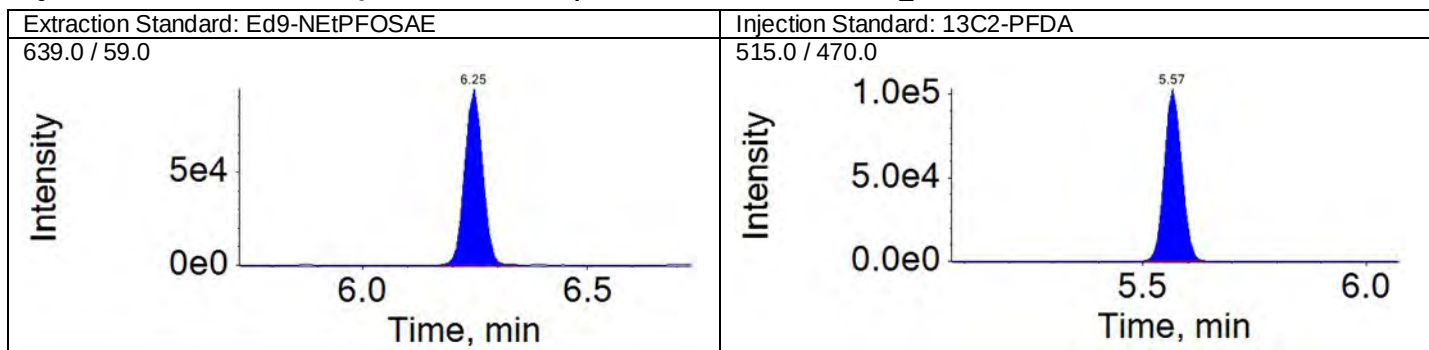
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



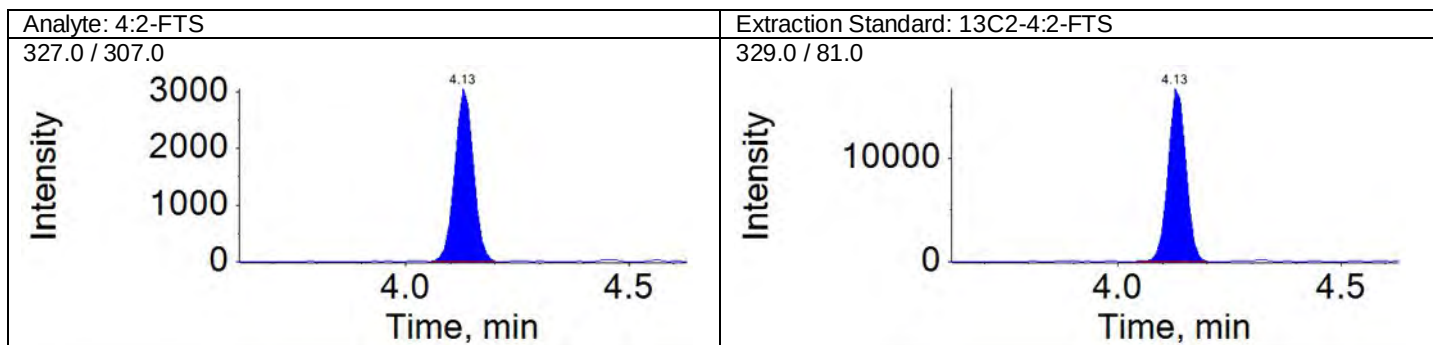
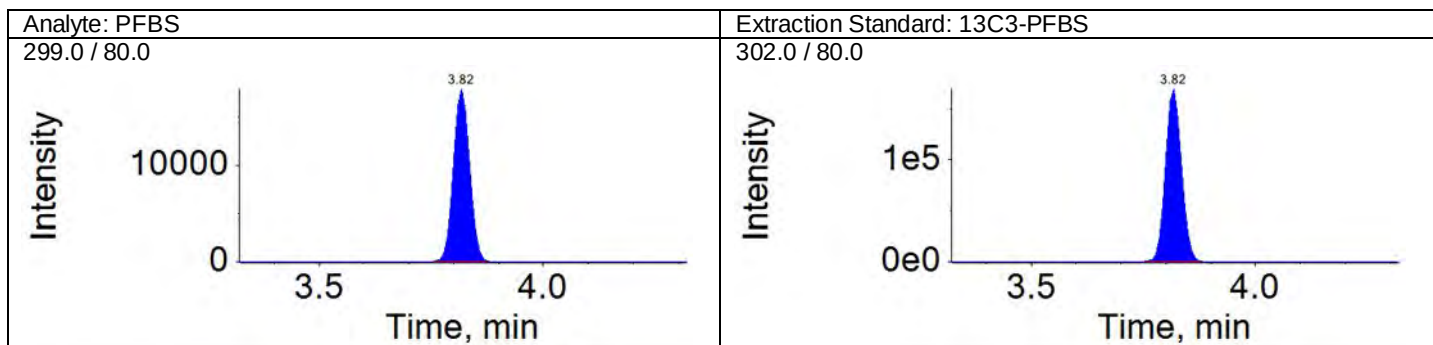
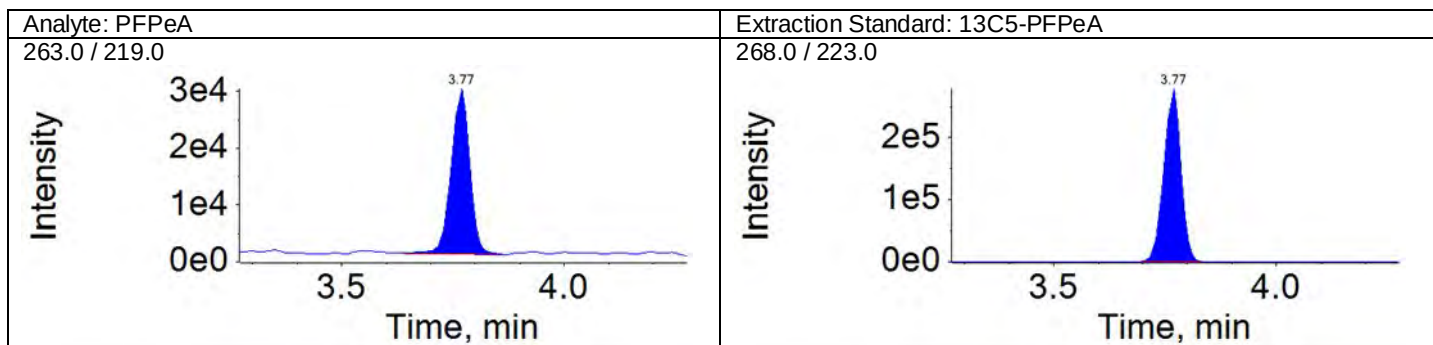
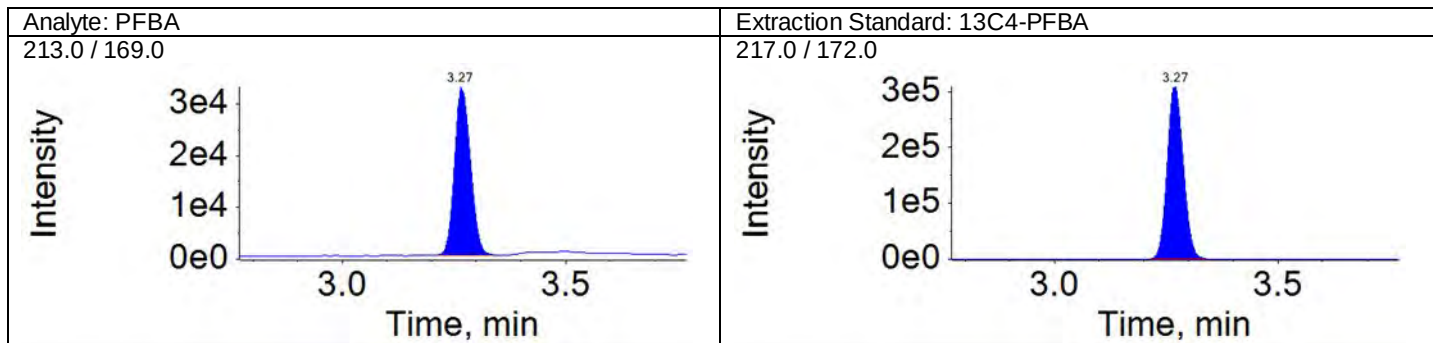
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



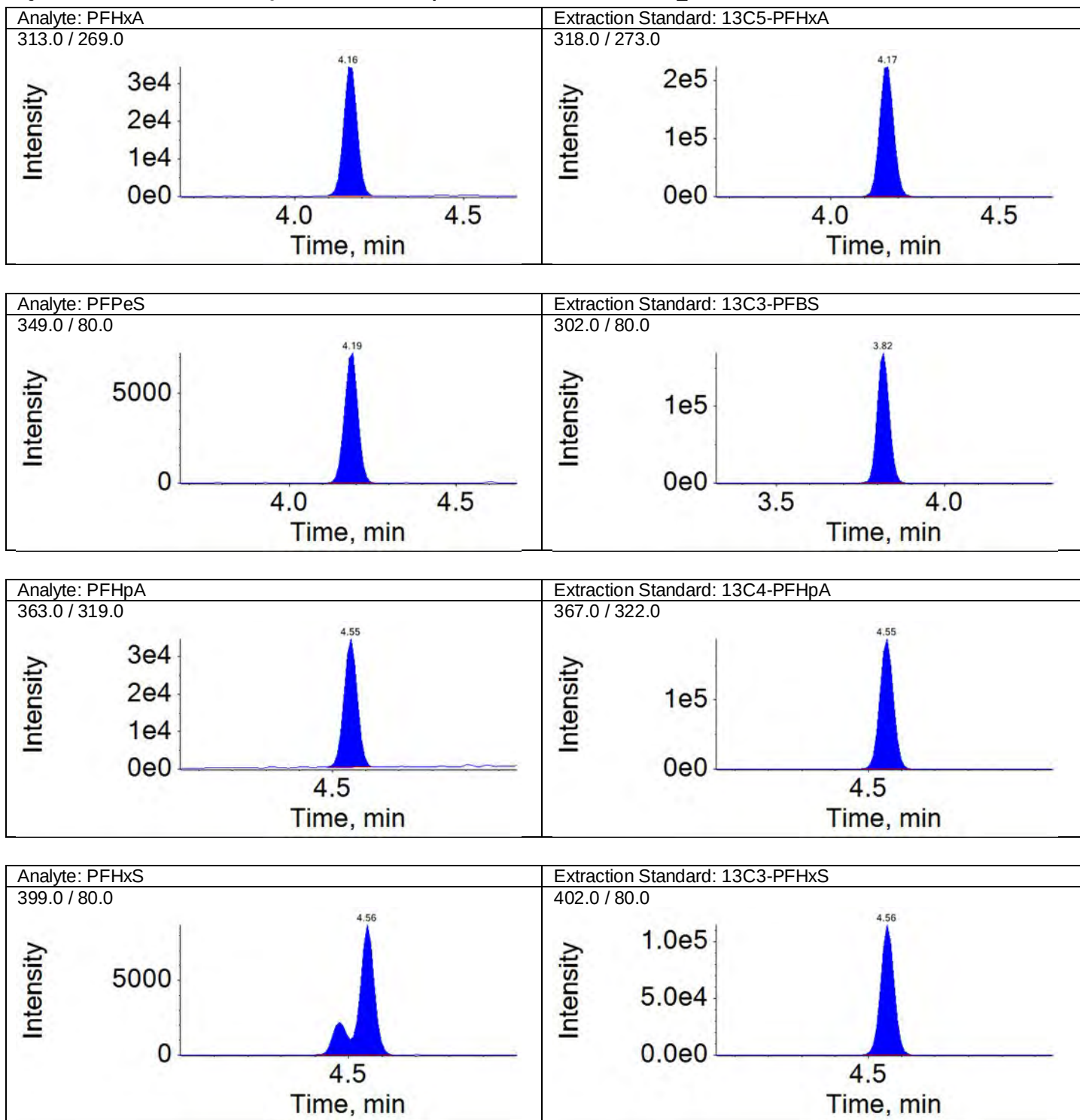
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



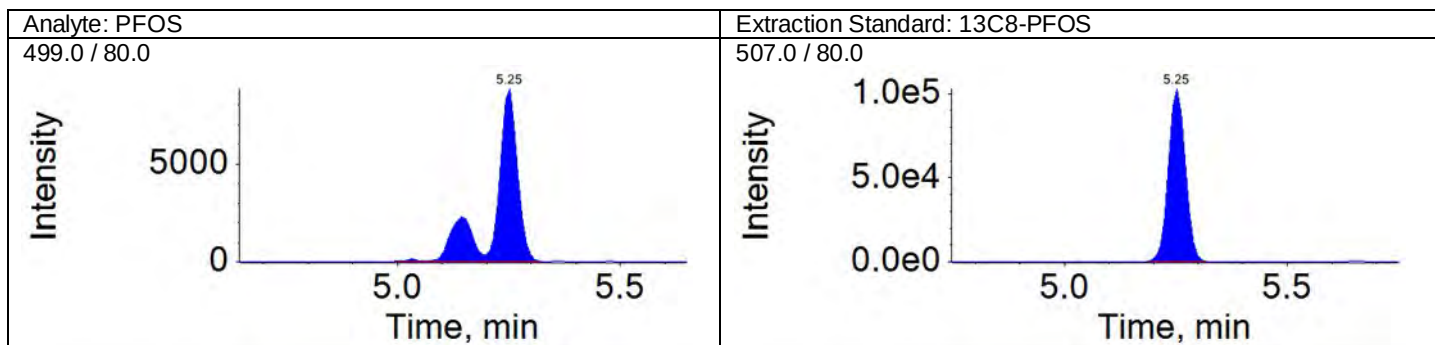
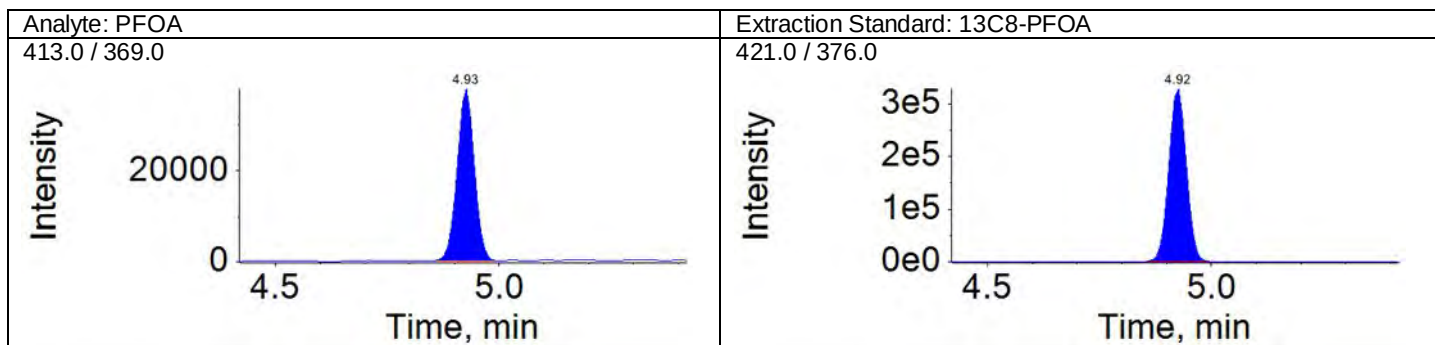
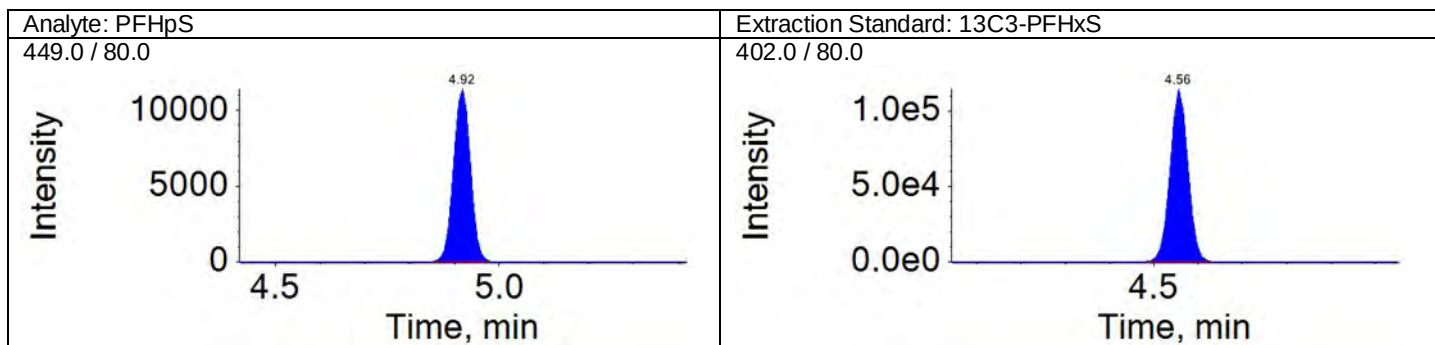
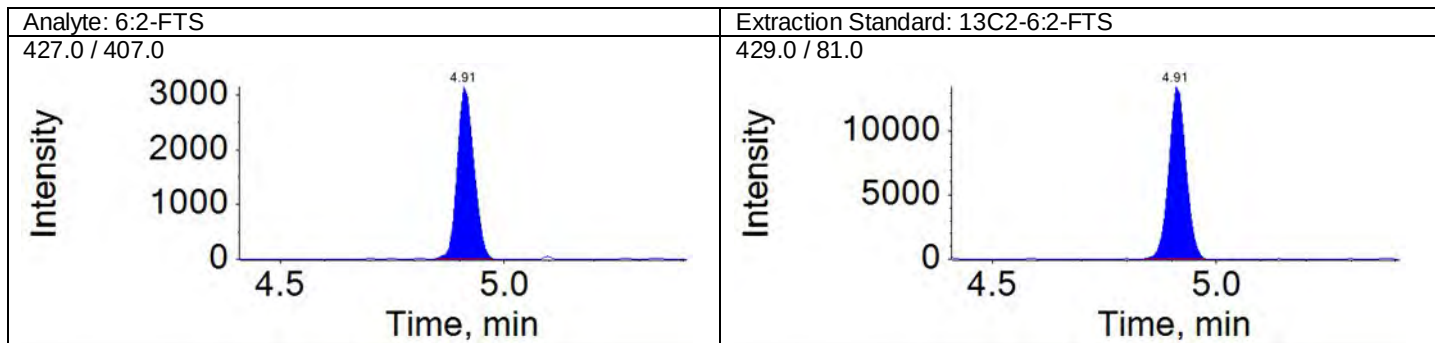
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



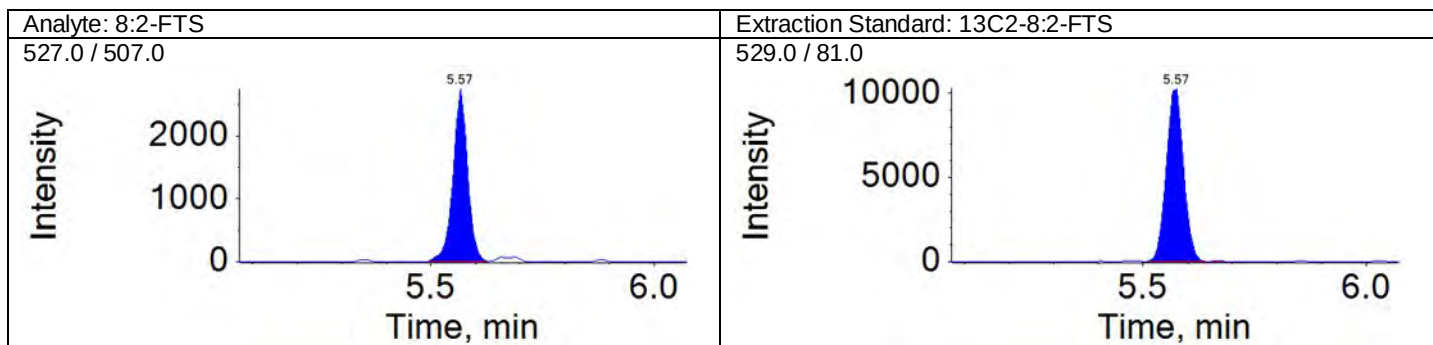
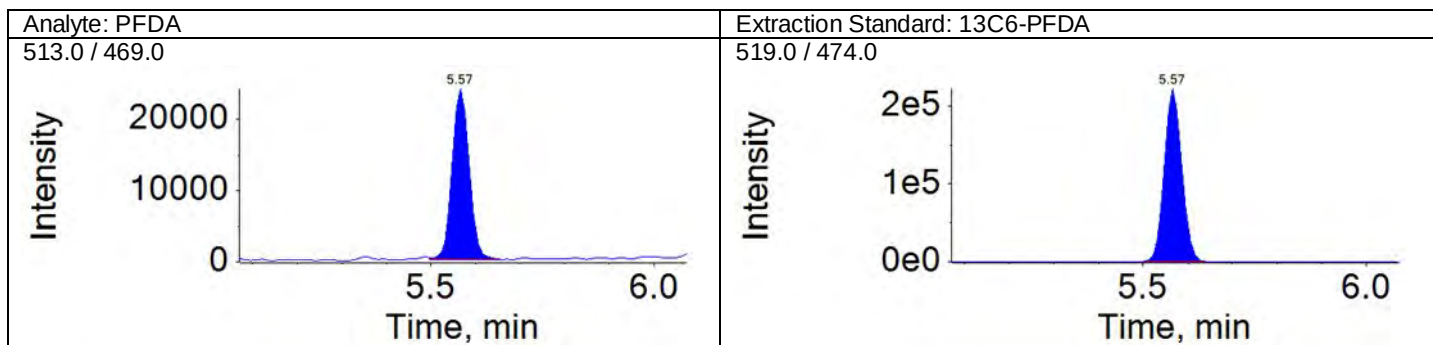
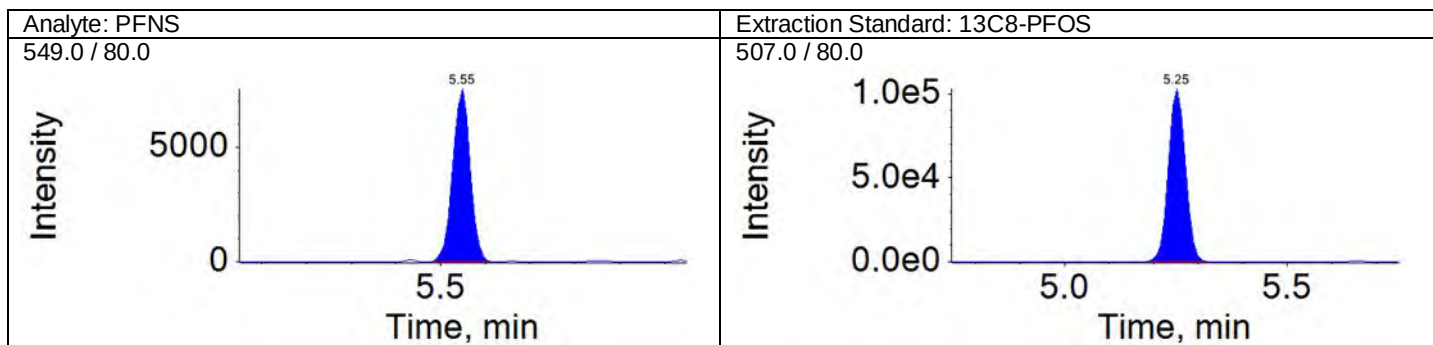
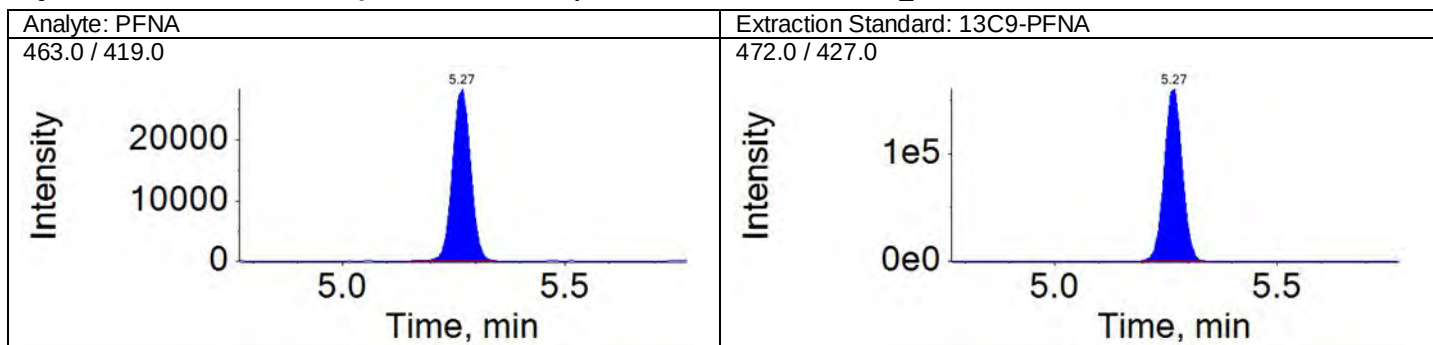
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

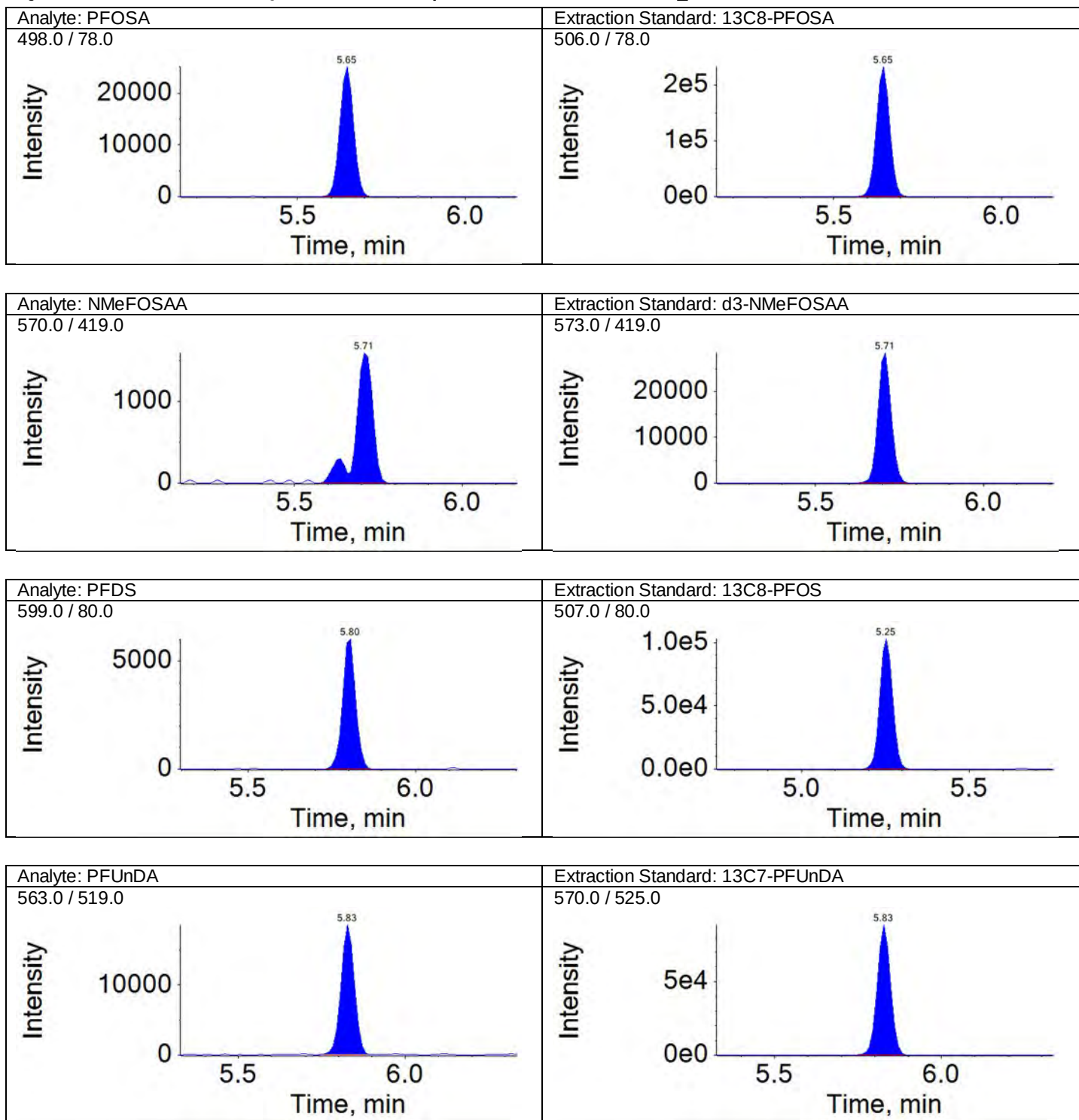
By MCD at 6:33 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

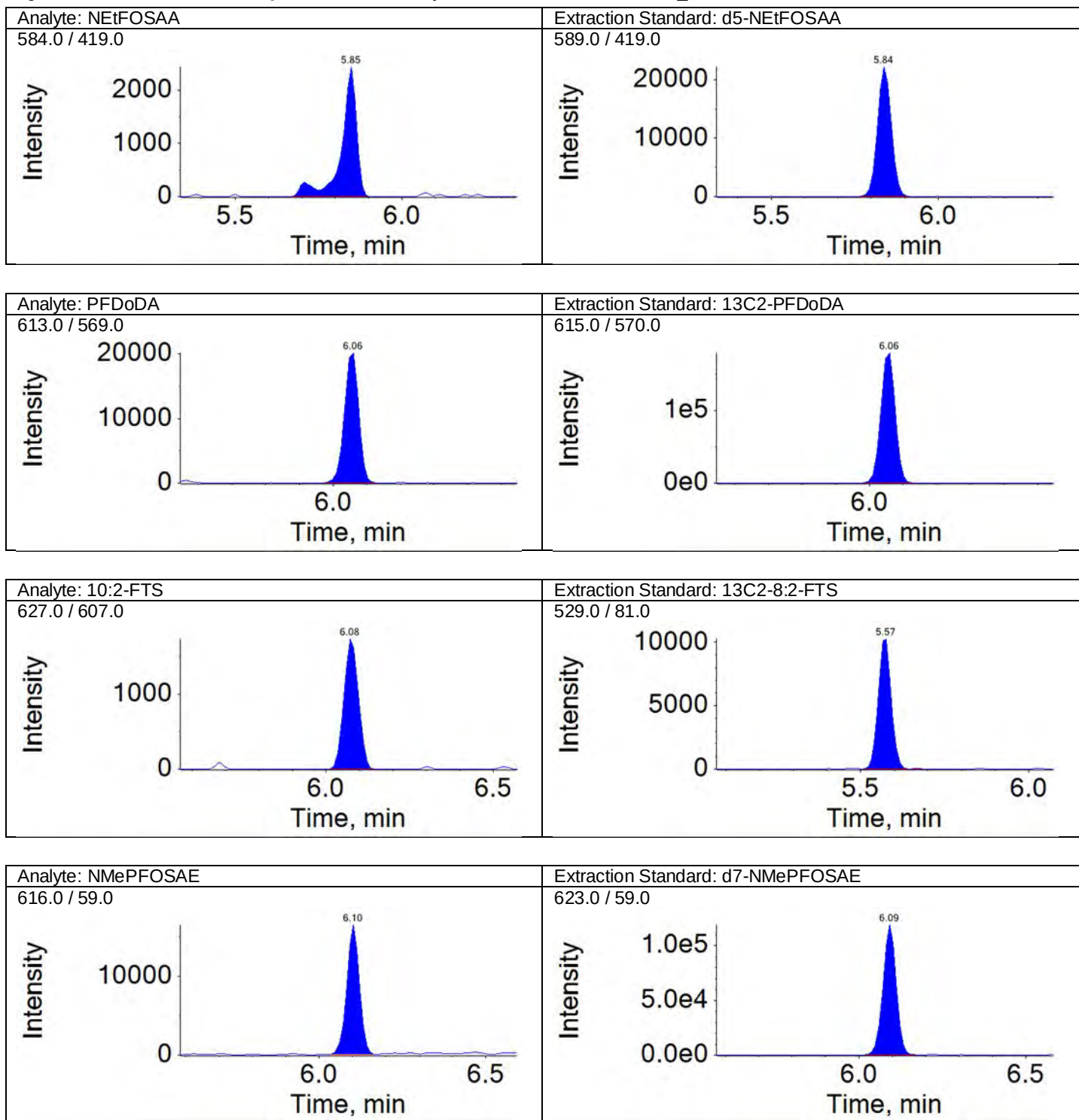
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Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



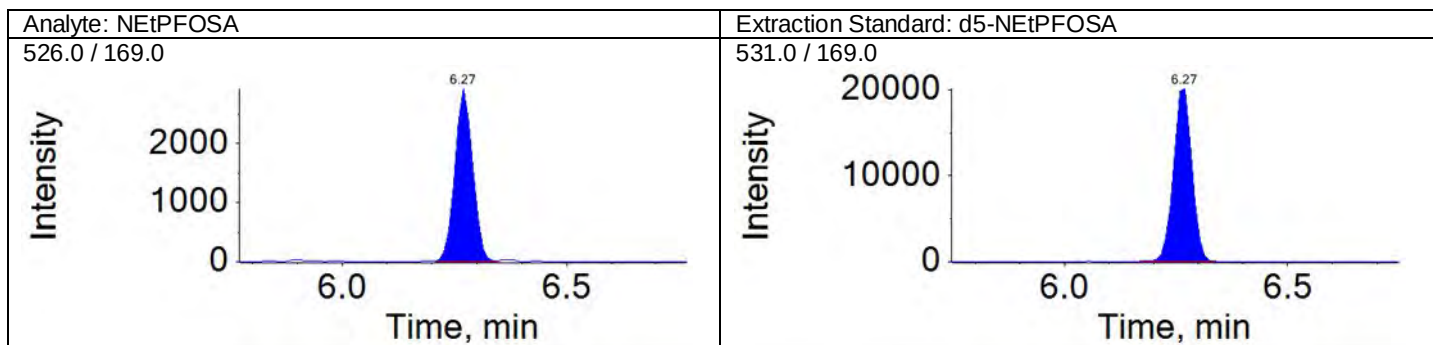
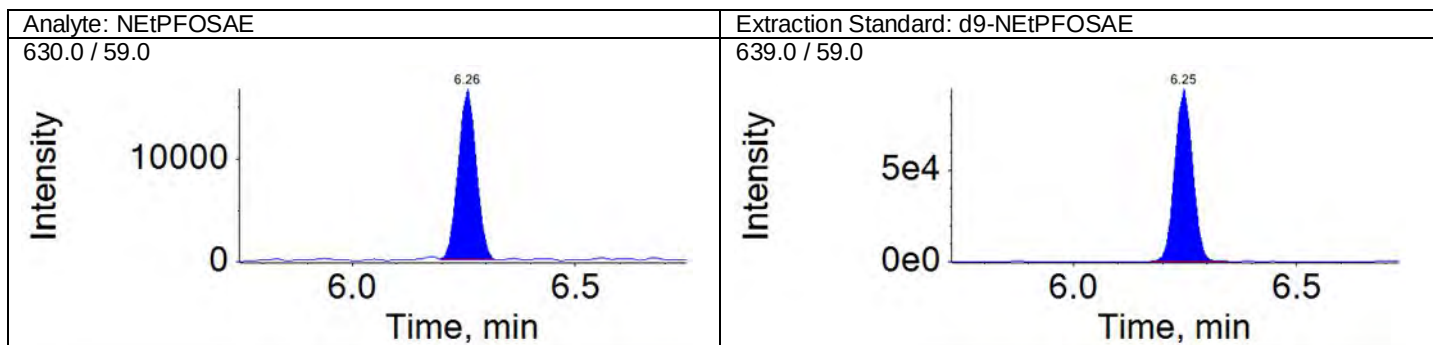
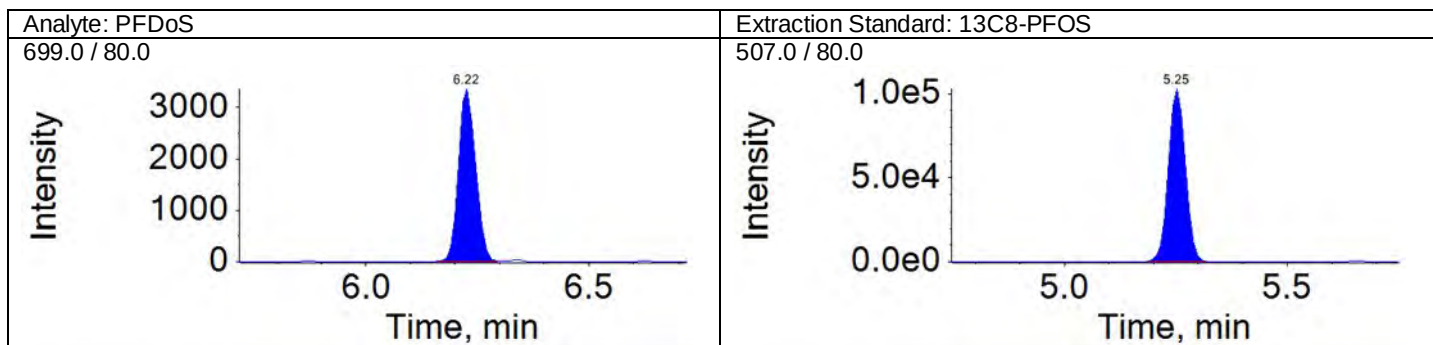
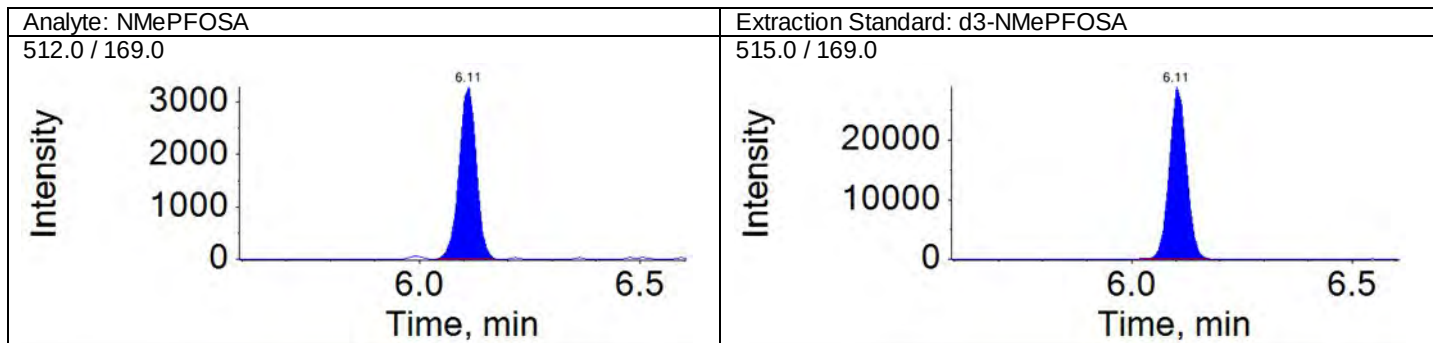
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Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
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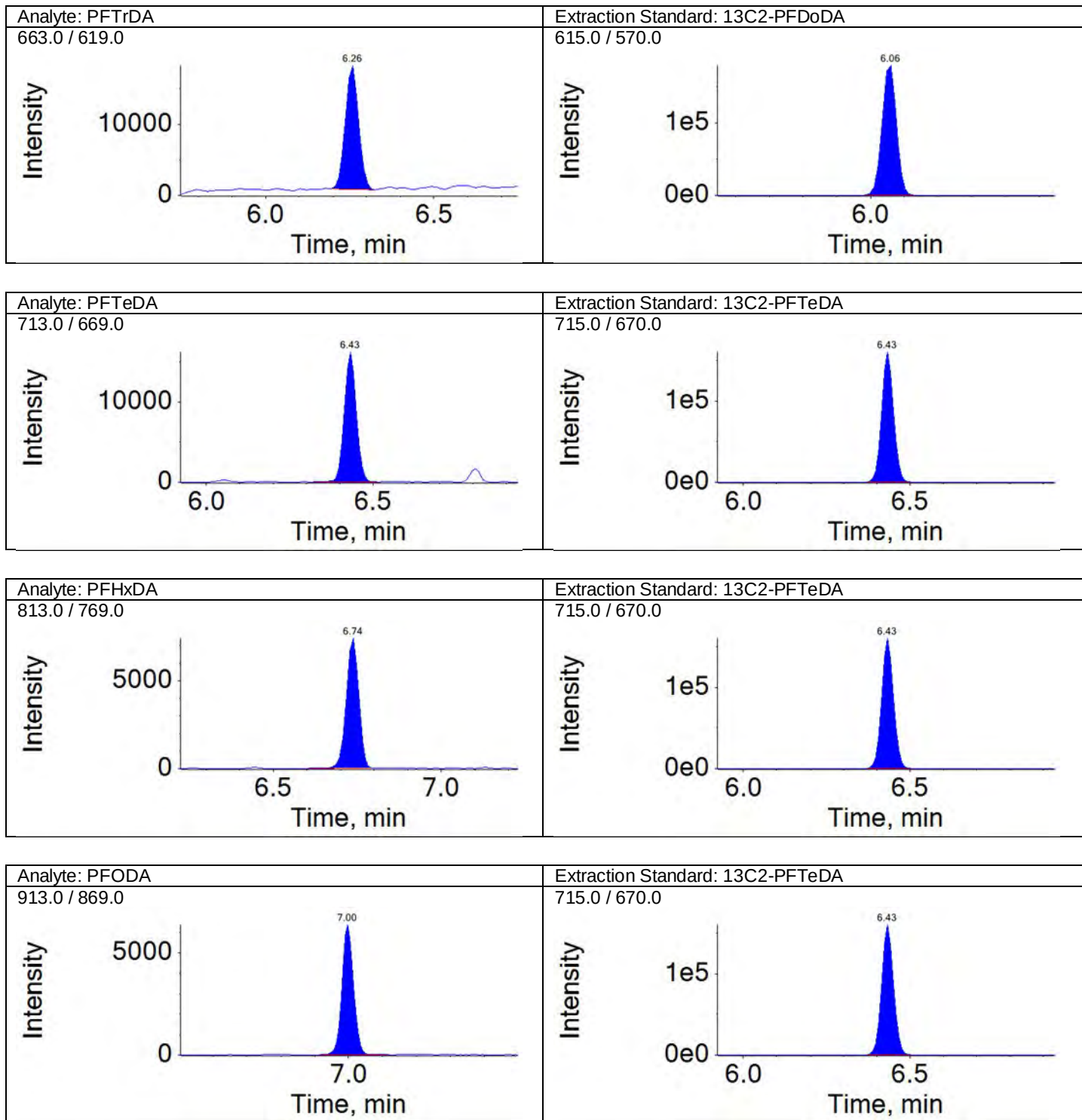
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ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

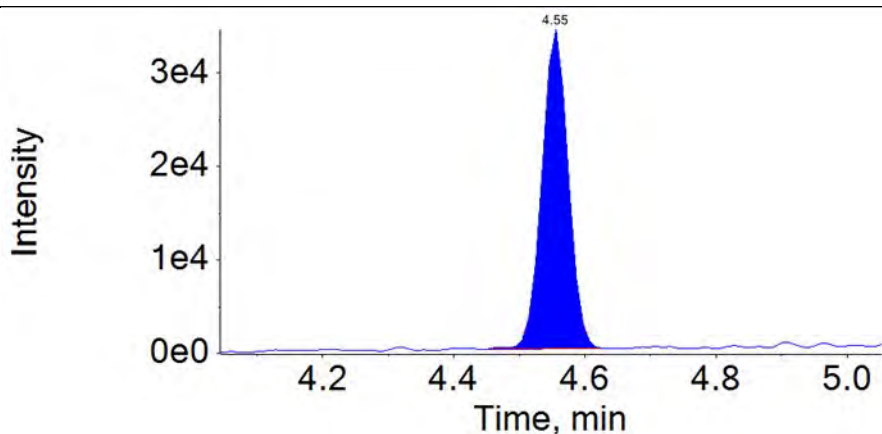
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Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

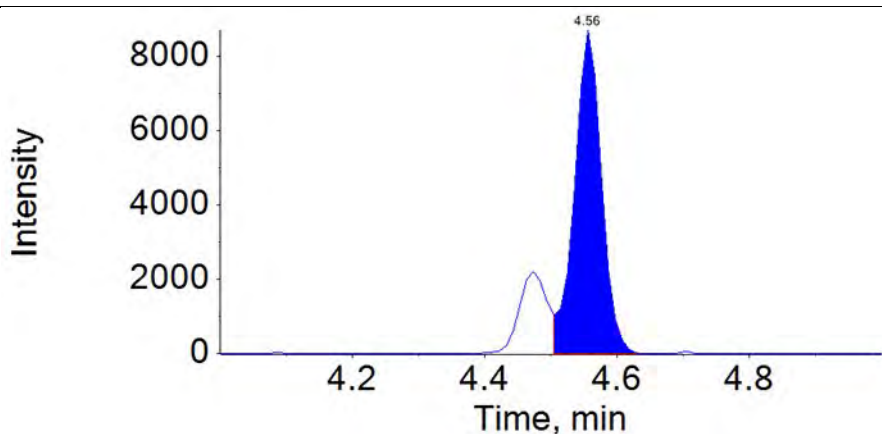
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHpA
RT (min.):
4.55
Peak Area:
95434.80
Mass Range:
363.0 / 319.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



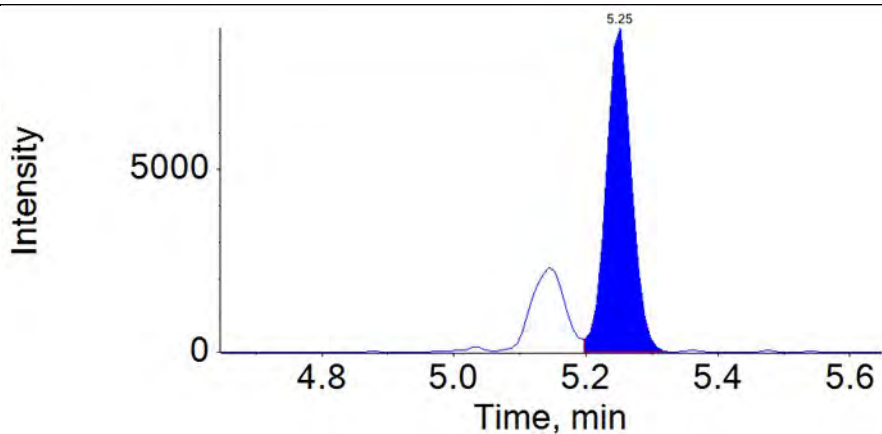
Integration Comment: incorrect integration

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
24710.47
Mass Range:
399.0 / 80.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
23625.90
Mass Range:
499.0 / 80.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2

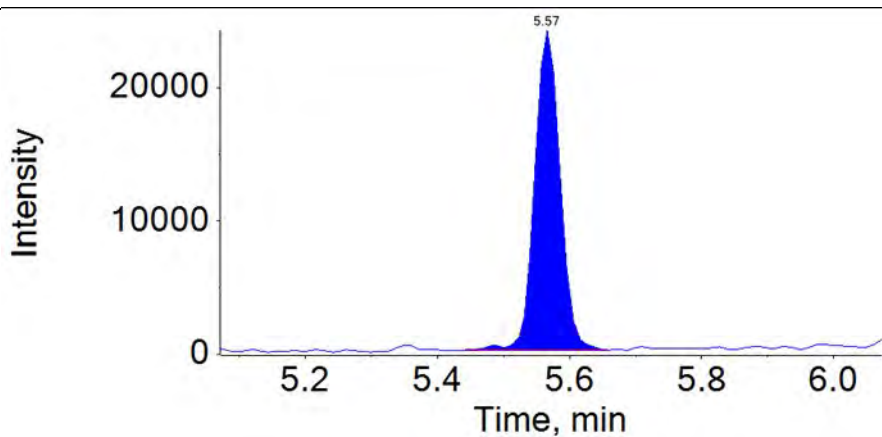


Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

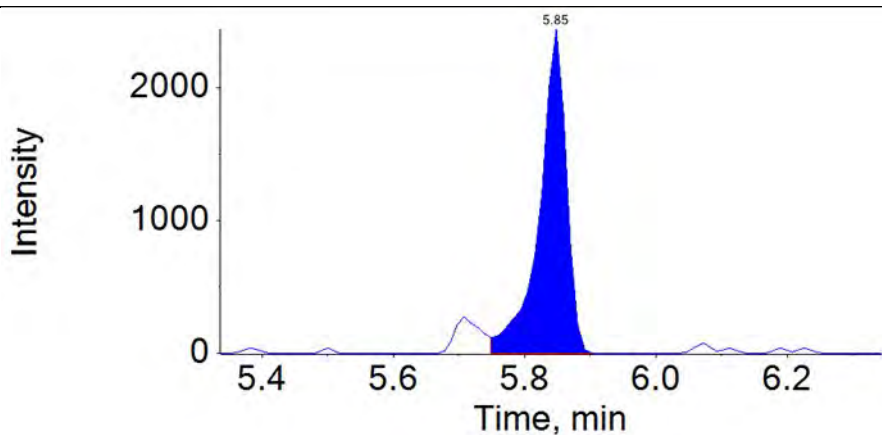
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDA
RT (min.):
5.57
Peak Area:
64555.75
Mass Range:
513.0 / 469.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



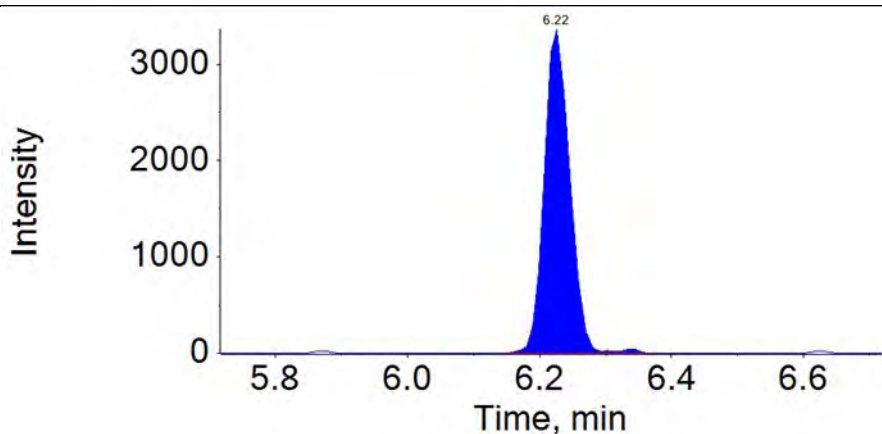
Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.85
Peak Area:
6972.11
Mass Range:
584.0 / 419.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Component Name:
PFDoS
RT (min.):
6.22
Peak Area:
9104.97
Mass Range:
699.0 / 80.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2

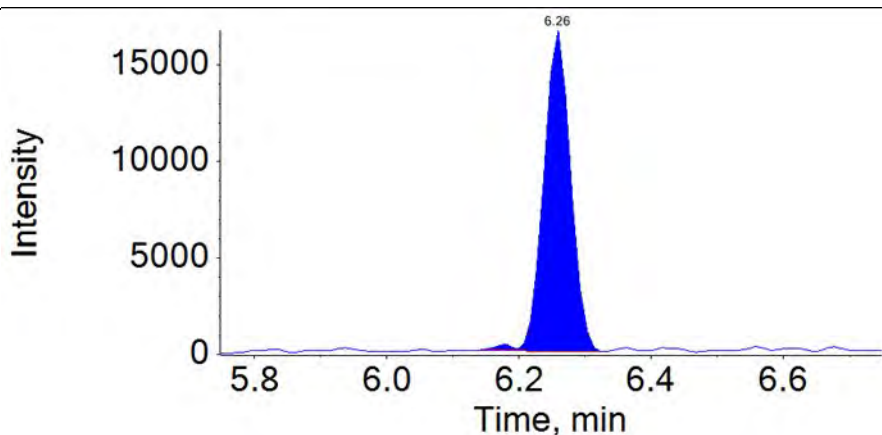


Integration Comment: incorrect integration

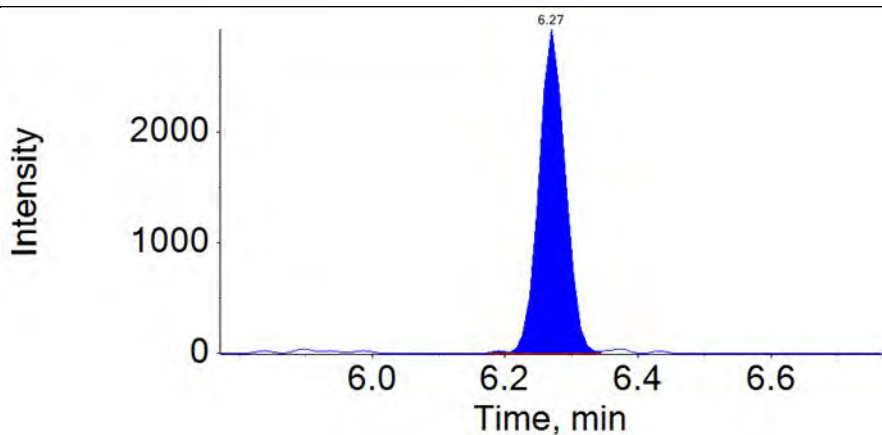
Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

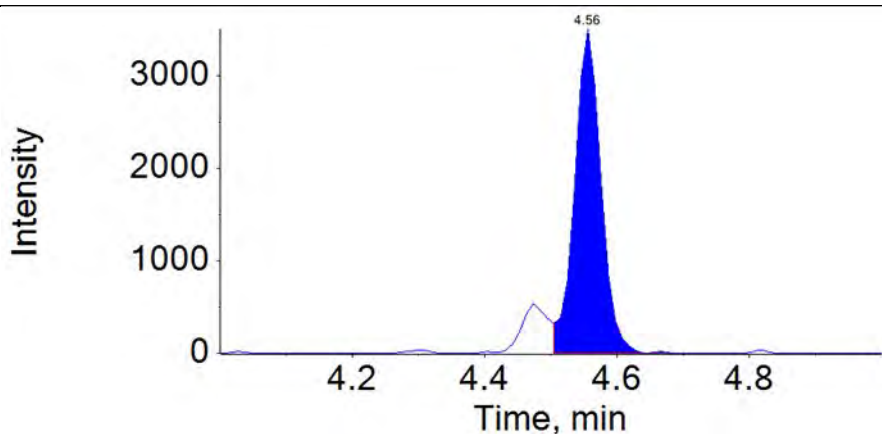
Component Name:
NEtPFOSAE
RT (min.):
6.26
Peak Area:
47267.14
Mass Range:
630.0 / 59.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



Component Name:
NEtPFOSA
RT (min.):
6.27
Peak Area:
8081.41
Mass Range:
526.0 / 169.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2

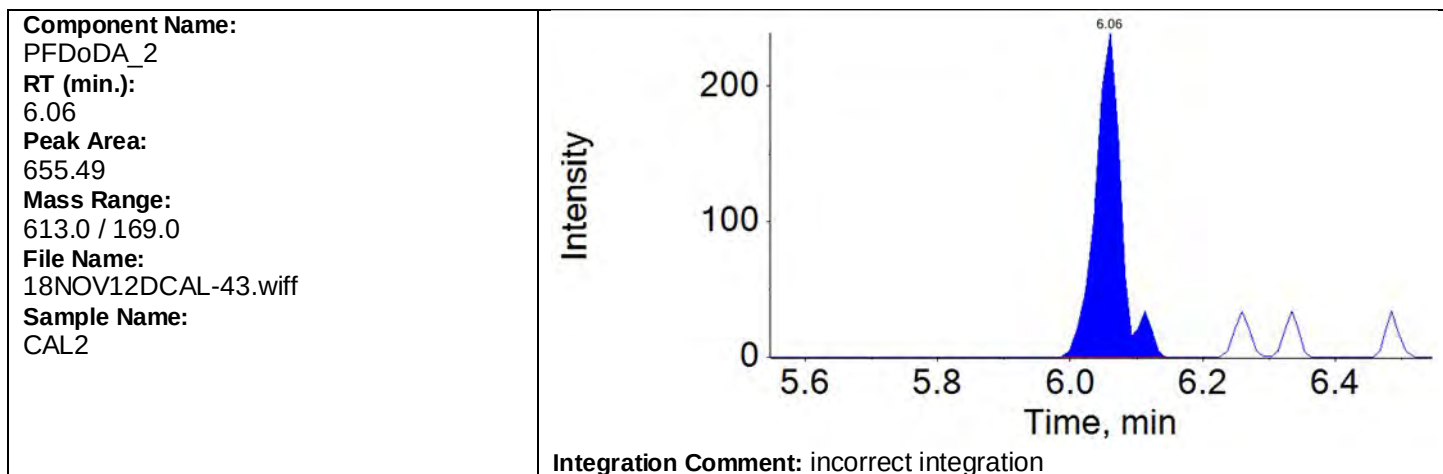
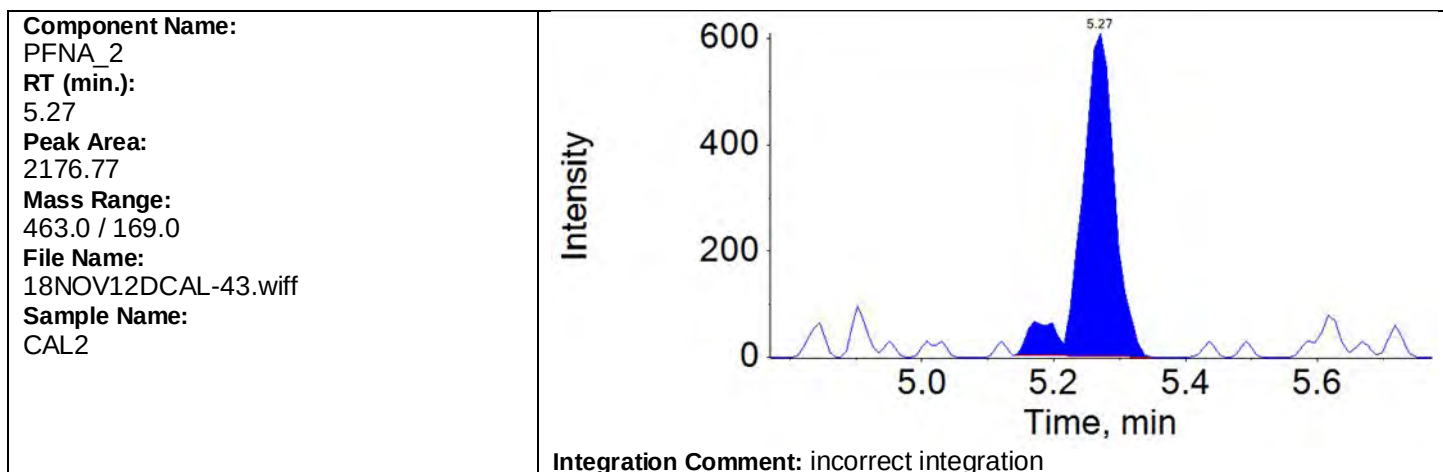
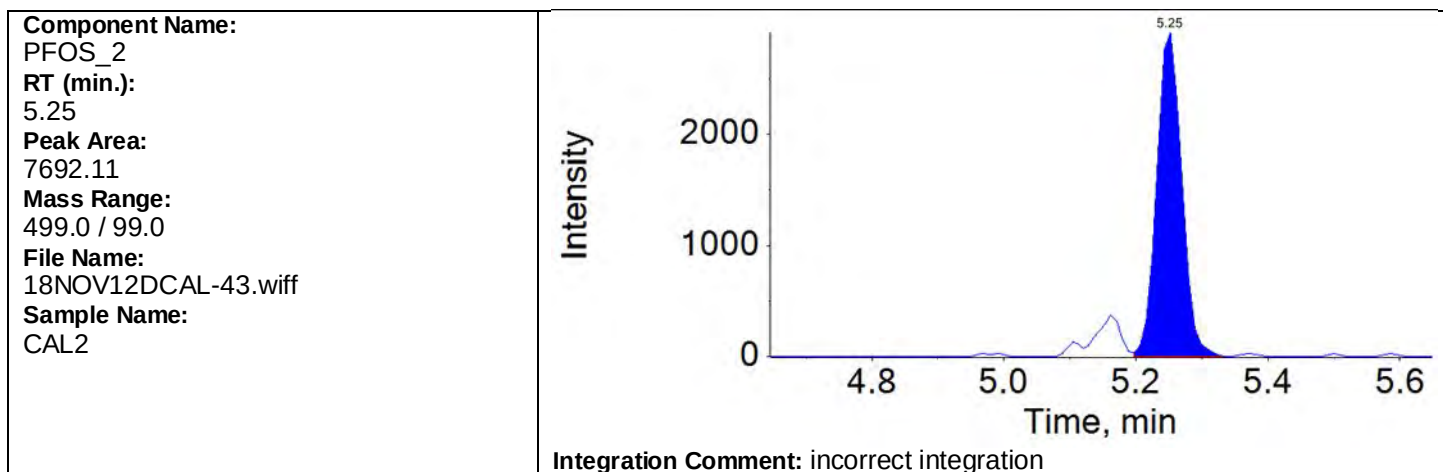


Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
9734.65
Mass Range:
399.0 / 99.0
File Name:
18NOV12DCAL-43.wiff
Sample Name:
CAL2



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 6:33 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

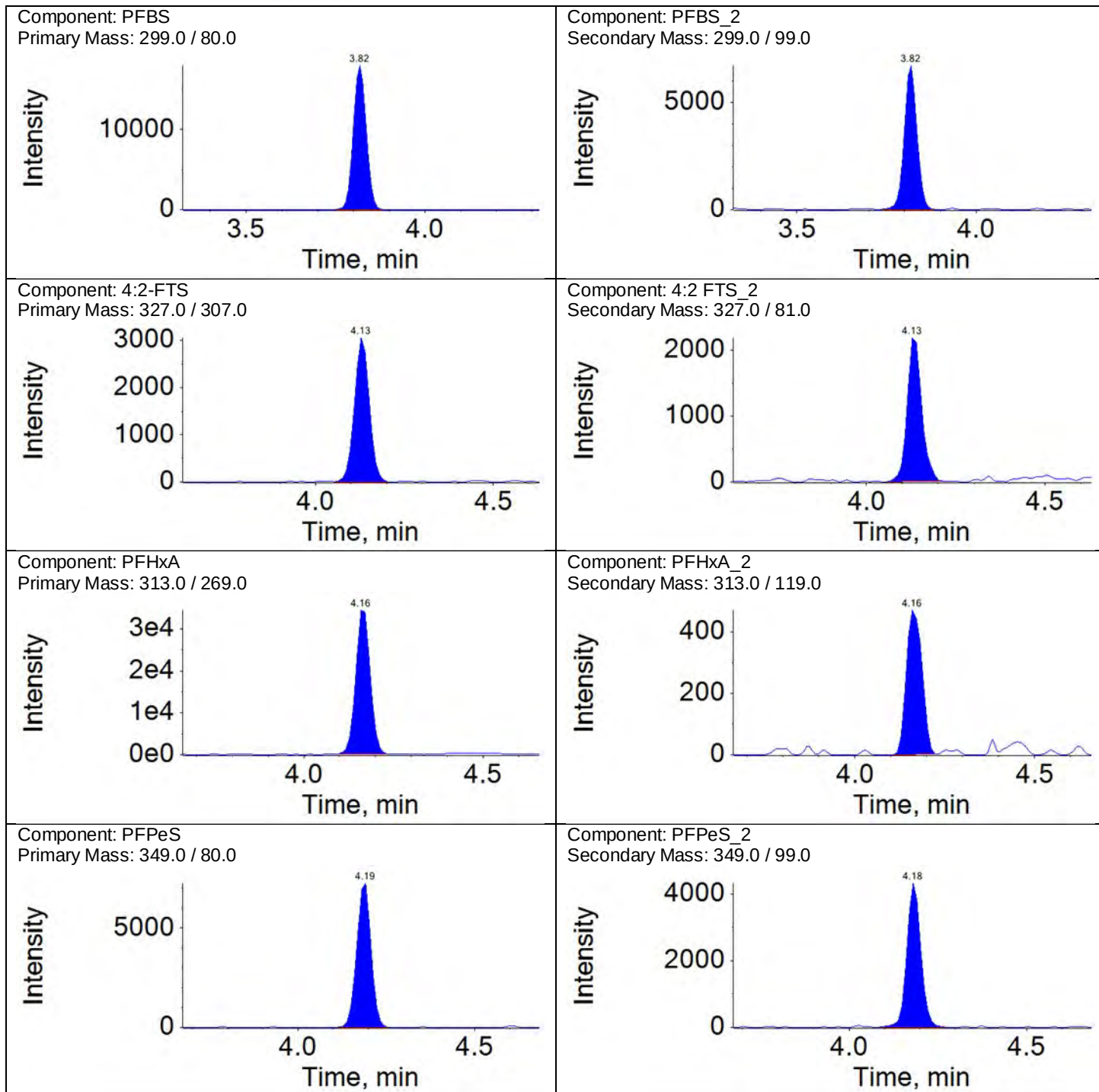
Ion Ratio Report

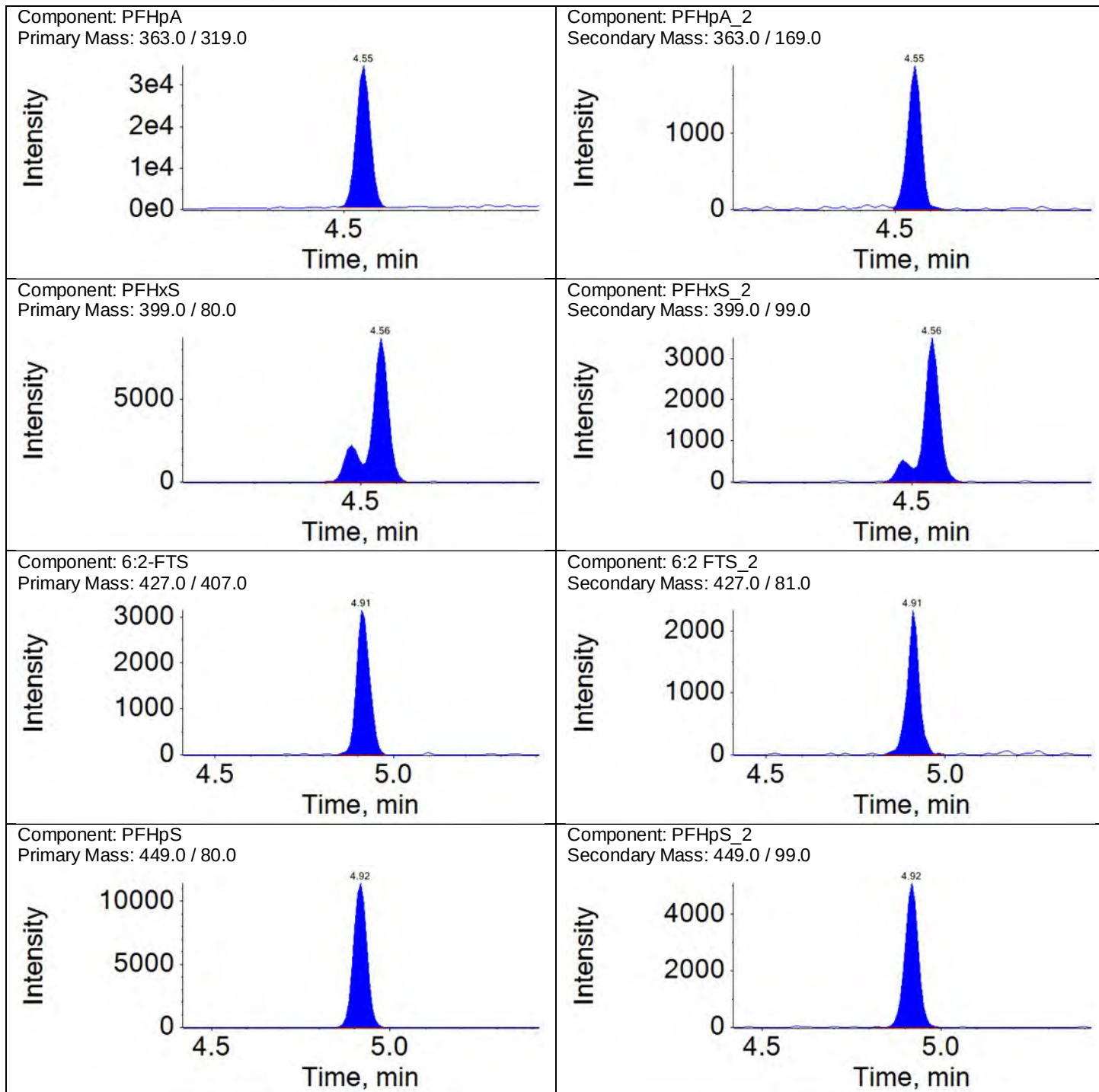
Sample Name: CAL2

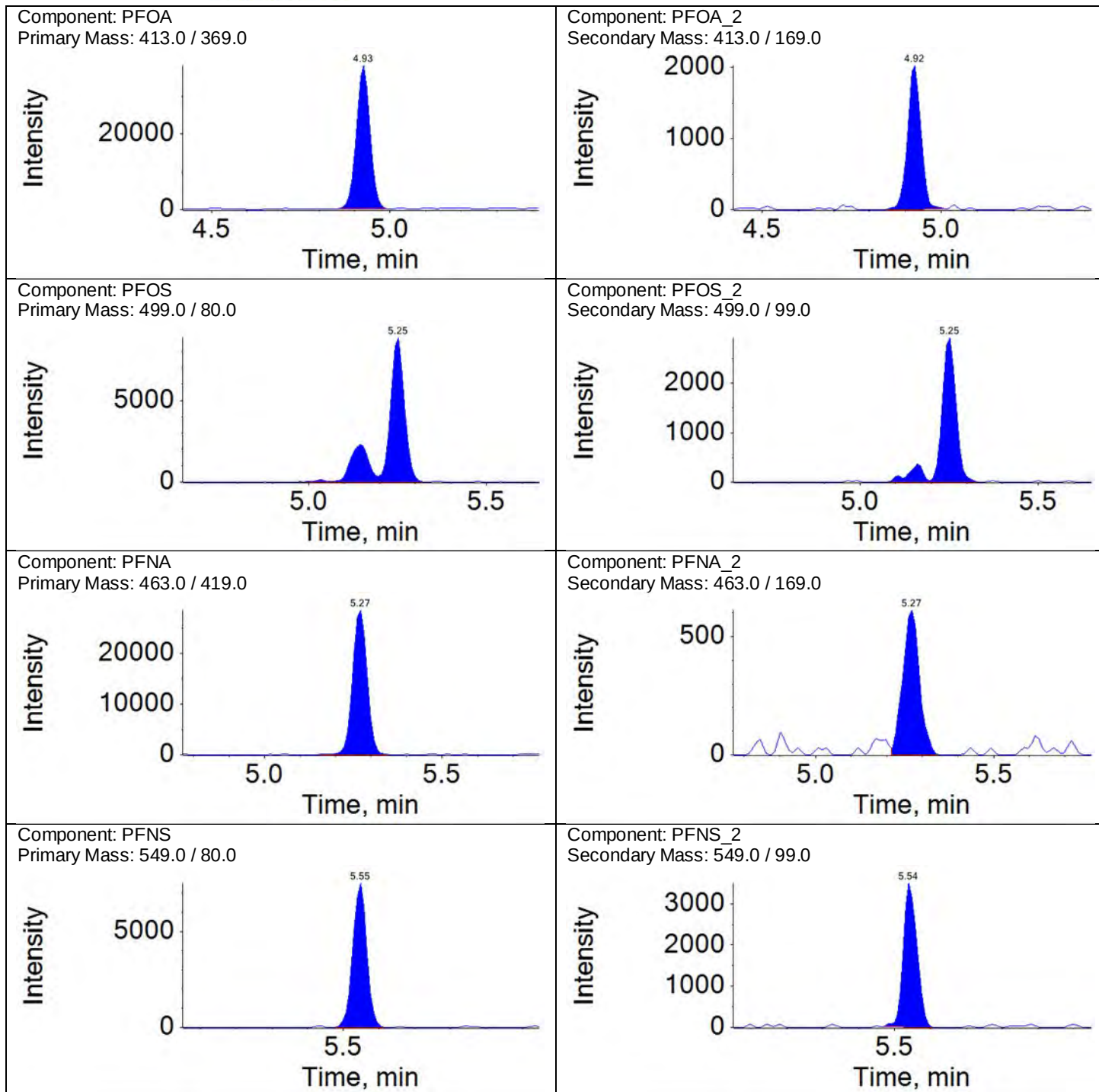
Instrument Name: LM27631

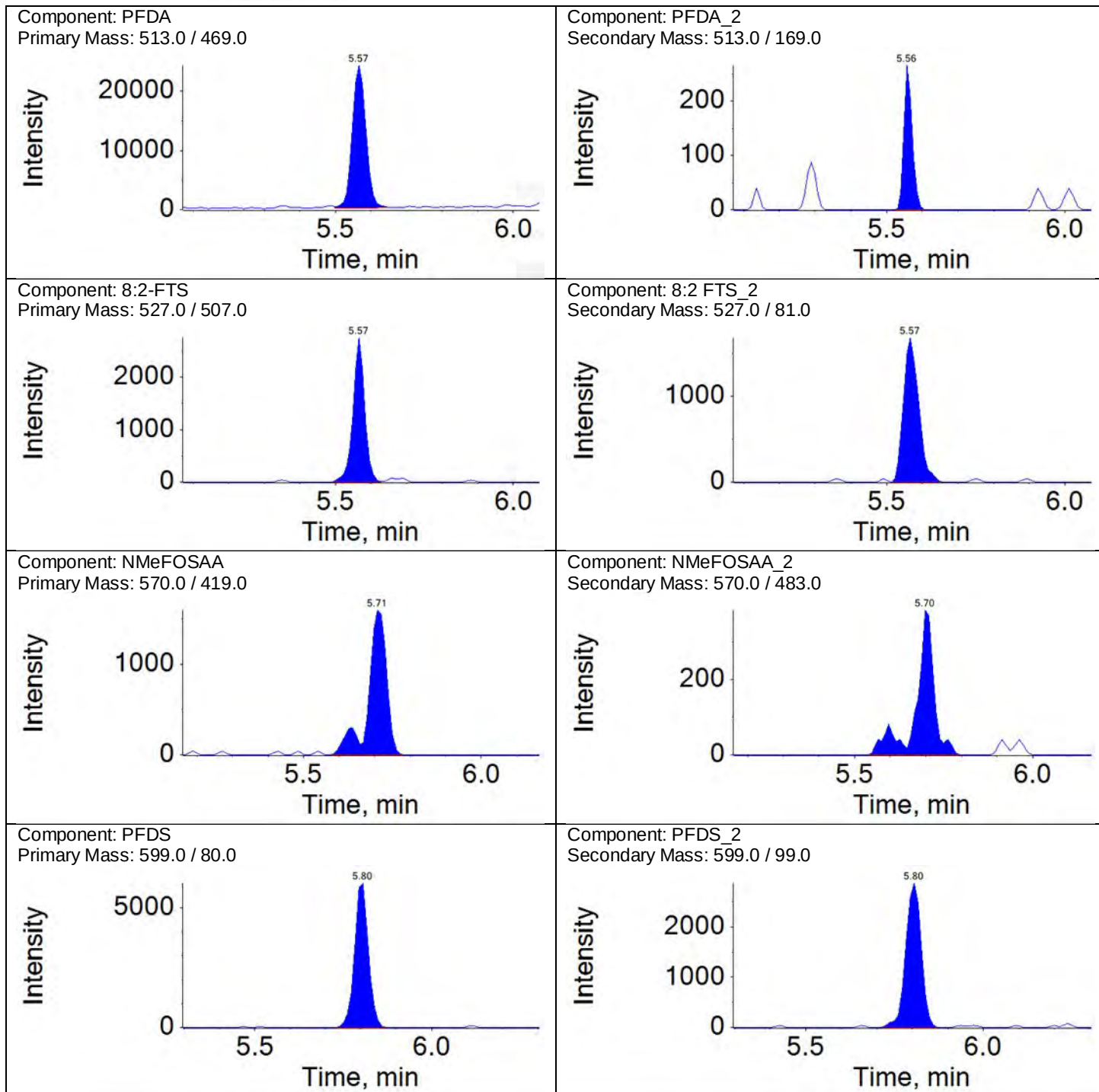
File Name: 18NOV12DCAL-43.wiff

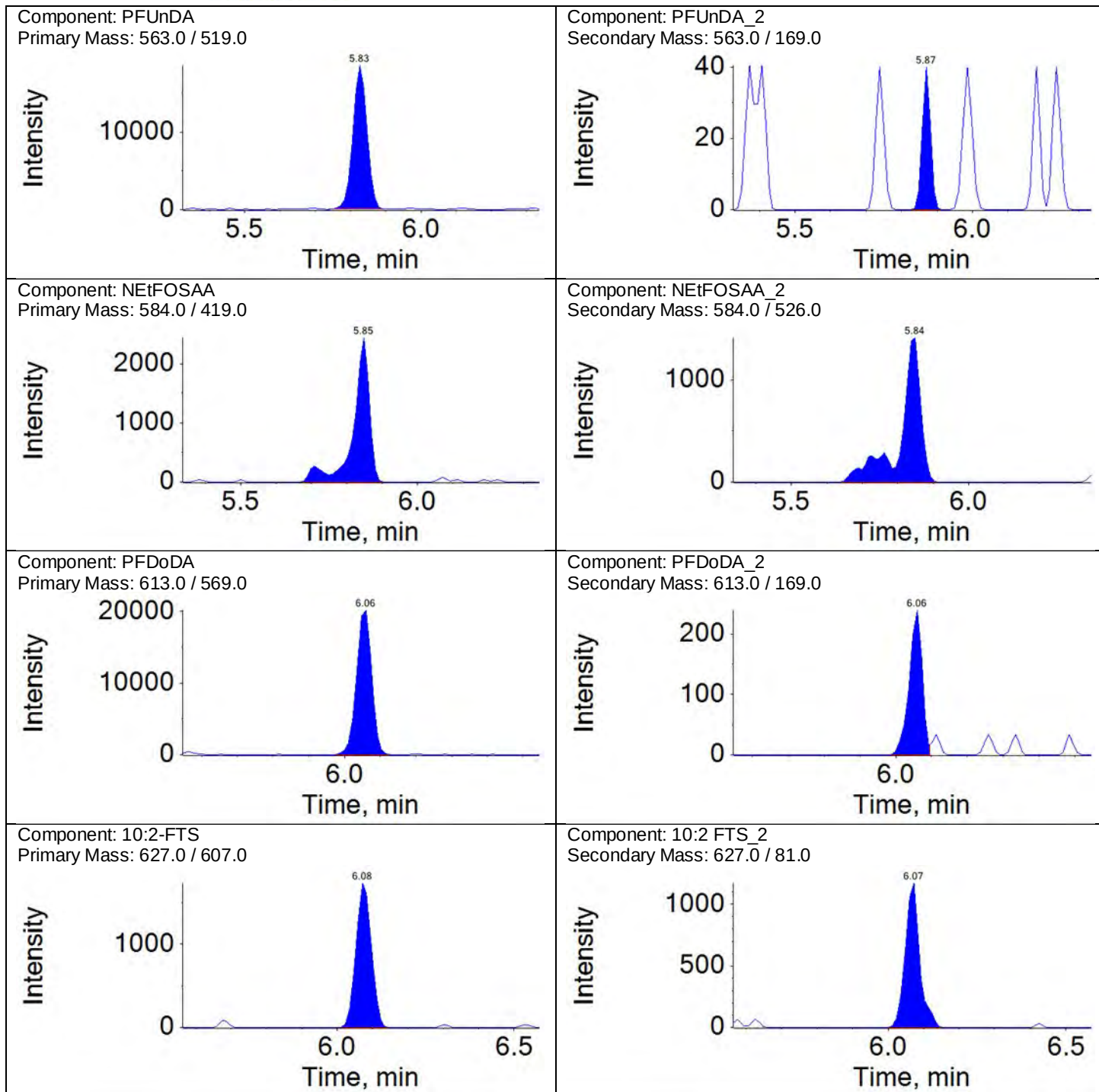
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	44885.16	A	0.3619	0.3622			
PFBS_2	3.82	1.00	16259.22	A	0.3619	0.3622	0	50	
4:2-FTS	4.13	1.00	8803.96	A	0.6730	0.7006			
4:2 FTS_2	4.13	1.00	6168.18	A	0.6730	0.7006		#NA!	
PFHxA	4.16	1.00	96559.34	A	0.0117	0.0147			
PFHxA_2	4.16	1.00	1416.25	A	0.0117	0.0147	26	50	
PFPeS	4.19	1.10	20295.04	A	0.5191	0.5794			
PFPeS_2	4.18	1.10	11758.90	A	0.5191	0.5794	12	50	
PFHpA	4.55	1.00	95048.34	M	0.0563	0.0529			
PFHpA_2	4.55	1.00	5032.31	A	0.0563	0.0529	-6	50	
PFHxS	4.56	1.00	31064.73	M	0.3428	0.3595			
PFHxS_2	4.56	1.00	11169.02	M	0.3428	0.3595	5	50	
6:2-FTS	4.91	1.00	8048.37	A	0.6604	0.6742			
6:2 FTS_2	4.91	1.00	5425.84	A	0.6604	0.6742		#NA!	
PFHpS	4.92	1.08	29902.32	A	0.4066	0.4437			
PFHpS_2	4.92	1.08	13266.19	A	0.4066	0.4437	9	50	
PFOA	4.93	1.00	100710.53	A	0.0562	0.0523			
PFOA_2	4.92	1.00	5264.55	A	0.0562	0.0523	-7	50	
PFOS	5.25	1.00	32300.98	M	0.2968	0.2722			
PFOS_2	5.25	1.00	8793.88	M	0.2968	0.2722	-8	50	
PFNA	5.27	1.00	80724.19	A	0.0229	0.0248			
PFNA_2	5.27	1.00	1999.67	M	0.0229	0.0248	8	50	
PFNS	5.55	1.06	20326.14	A	0.4828	0.4548			
PFNS_2	5.54	1.06	9243.39	A	0.4828	0.4548	-6	50	
PFDA	5.57	1.00	63802.06	M	0.0081	0.0067			
PFDA_2	5.56	1.00	427.00	A	0.0081	0.0067	-17	50	
8:2-FTS	5.57	1.00	6214.24	A	0.6814	0.7964			
8:2 FTS_2	5.57	1.00	4949.26	A	0.6814	0.7964		#NA!	
NMeFOSAA	5.71	1.00	5759.59	A	0.2569	0.2344			
NMeFOSAA_2	5.70	1.00	1350.22	A	0.2569	0.2344	-9	50	
PFDS	5.80	1.10	16291.91	A	0.5144	0.5360			
PFDS_2	5.80	1.11	8732.52	A	0.5144	0.5360	4	50	
PFUnDA	5.83	1.00	51206.76	A	0.0058	0.0013			
PFUnDA_2	5.87	1.01	64.88	A	0.0058	0.0013	-78	50	OOS
NEtFOSAA	5.85	1.00	7727.12	M	0.7253	0.7329			
NEtFOSAA_2	5.84	1.00	5663.34	A	0.7253	0.7329	1	50	
PFDODA	6.06	1.00	59695.25	A	0.0157	0.0101			
PFDODA_2	6.06	1.00	604.13	M	0.0157	0.0101	-35	50	
10:2-FTS	6.08	1.09	5206.47	A	0.6356	0.6377			
10:2 FTS_2	6.07	1.09	3320.12	A	0.6356	0.6377		#NA!	
PFTTrDA	6.26	1.03	47991.31	A	0.0086	0.0047			
PFTTrDA_2	6.26	1.03	226.86	A	0.0086	0.0047	-45	50	
PFTeDA	6.43	1.00	40236.53	A	0.0062	0.0078			
PFTeDA_2	6.43	1.00	314.50	A	0.0062	0.0078	25	50	
PFHxDA	6.74	1.05	19006.44	A	0.0683	0.0747			
PFHxDA_2	6.73	1.05	1419.64	A	0.0683	0.0747	9	50	
PFODA	7.00	1.09	14955.56	A	0.0277	0.0314			
PFODA_2	7.00	1.09	469.81	A	0.0277	0.0314	13	50	

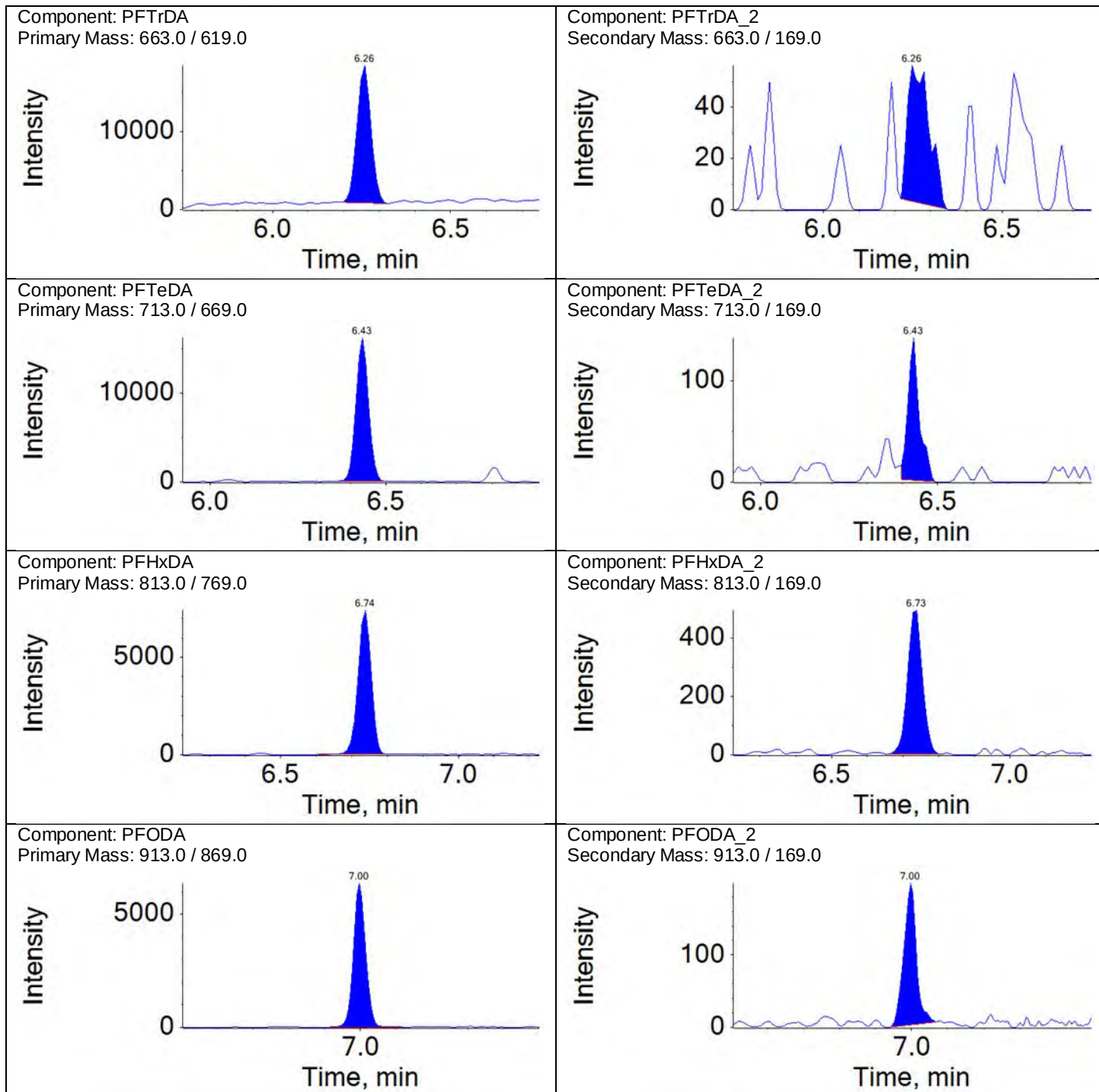












ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL3		Data File:	18NOV12DCAL-44.wiff
Sample ID:	CALBRN31833B		Acquis Date:	2018-11-12T15:24:03
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	5		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV12DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	659926.2	659926.2	0	50	
13C2-PFOA	5.0	450219.7	450219.7	0	50	
13C4-PFOS	4.8	249205.8	249205.8	0	50	
13C2-PFDA	5.0	278743.9	278743.9	0	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	733360.2	13C3-PFBA	659926.2	1.111	5.000	4.982	100	70-130	
E13C5-PFPeA	695805.7	13C3-PFBA	659926.2	1.054	5.000	4.729	95	70-130	
E13C3-PFBS	416352.8	13C3-PFBA	659926.2	0.631	4.650	4.454	96	70-130	
E13C2-4:2-FTS	47514.8	13C2-PFOA	450219.7	0.106	4.670	4.700	101	70-130	
E13C5-PFHxA	646783.5	13C2-PFOA	450219.7	1.437	5.000	5.189	104	70-130	
E13C3-PFHxS	317243.2	13C2-PFOA	450219.7	0.705	4.730	4.835	102	70-130	
E13C4-PFHpA	503681.0	13C2-PFOA	450219.7	1.119	5.000	5.040	101	70-130	
E13C2-6:2-FTS	31706.4	13C2-PFOA	450219.7	0.070	4.750	4.712	99	70-130	
E13C8-PFOA	878868.5	13C2-PFOA	450219.7	1.952	5.000	5.378	108	70-130	
E13C8-PFOS	281035.5	13C4-PFOS	249205.8	1.128	4.780	4.997	105	70-130	
E13C9-PFNA	455948.9	13C4-PFOS	249205.8	1.830	5.000	5.101	102	70-130	
E13C6-PFDA	612680.8	13C2-PFDA	278743.9	2.198	5.000	5.129	103	70-130	
E13C2-8:2-FTS	29249.8	13C2-PFDA	278743.9	0.105	4.790	5.233	109	70-130	
E13C8-PFOSA	629109.9	13C2-PFDA	278743.9	2.257	5.000	5.004	100	70-130	
Ed3-NMeFOSAA	71670.3	13C2-PFDA	278743.9	0.257	5.000	4.641	93	70-130	
E13C7-PFUnDA	245605.3	13C2-PFDA	278743.9	0.881	5.000	5.116	102	70-130	
Ed5-NEtFOSAA	54383.9	13C2-PFDA	278743.9	0.195	5.000	4.128	83	70-130	
E13C2-PFDoDA	549542.3	13C2-PFDA	278743.9	1.971	5.000	5.119	102	70-130	
Ed7-NMePFOSAE	307355.4	13C2-PFDA	278743.9	1.103	5.000	4.772	95	70-130	
Ed3-NMePFOSA	76782.9	13C2-PFDA	278743.9	0.275	5.000	5.005	100	70-130	
Ed9-NEtPFOSAE	259792.3	13C2-PFDA	278743.9	0.932	5.000	4.847	97	70-130	
Ed5-NEtPFOSA	57485.9	13C2-PFDA	278743.9	0.206	5.000	4.838	97	70-130	
E13C2-PFTeDA	393544.9	13C2-PFDA	278743.9	1.412	5.000	4.957	99	70-130	

APPROVED

By MCD at 6:33 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL3

Instrument Name: LM27631

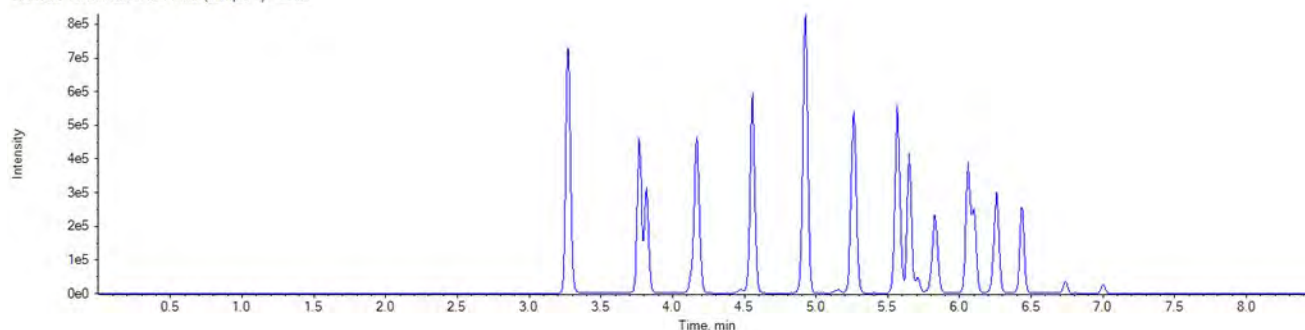
File Name: 18NOV12DCAL-44.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	303228.7		A	13C4-PFBA	3.27	733360.2	0.413	2.291
PFPeA	3.77	1.000	292715.8		A	13C5-PFPeA	3.77	695805.7	0.421	2.435
PFBS	3.82	1.000	168144.6		A	13C3-PFBS	3.82	416352.8	0.404	1.921
4:2-FTS	4.13	1.000	34188.5		A	13C2-4:2-FTS	4.13	47514.8	0.720	1.954
PFHxA	4.17	1.000	352013.5		A	13C5-PFHxA	4.17	646783.5	0.544	2.272
PFPeS	4.19	1.100	84071.2		A	13C3-PFBS	3.82	416352.8	0.202	1.960
PFHpA	4.56	1.000	355834.2		A	13C4-PFHpA	4.55	503681.0	0.706	2.342
PFHxS	4.56	1.000	125622.0		M	13C3-PFHxS	4.56	317243.2	0.396	1.920
6:2-FTS	4.91	1.000	28084.9		A	13C2-6:2-FTS	4.91	31706.4	0.886	2.143
PFHpS	4.92	1.080	125907.9		A	13C3-PFHxS	4.56	317243.2	0.397	2.089
PFOA	4.93	1.000	372258.9		A	13C8-PFOA	4.93	878868.5	0.424	2.262
PFOS	5.25	1.000	120897.5		M	13C8-PFOS	5.25	281035.5	0.430	1.881
PFNA	5.27	1.000	302323.8		A	13C9-PFNA	5.27	455948.9	0.663	2.391
PFNS	5.55	1.060	76049.0		A	13C8-PFOS	5.25	281035.5	0.271	1.893
PFDA	5.57	1.000	254047.8		M	13C6-PFDA	5.57	612680.8	0.415	2.198
8:2-FTS	5.57	1.000	26295.1		A	13C2-8:2-FTS	5.57	29249.8	0.899	2.096
PFOSA	5.65	1.000	270175.5		A	13C8-PFOSA	5.65	629109.9	0.429	2.098
NMeFOSAA	5.71	1.000	25147.7		A	d3-NMeFOSAA	5.71	71670.3	0.351	1.983
PFDS	5.80	1.110	57966.9		A	13C8-PFOS	5.25	281035.5	0.206	1.869
PFUnDA	5.83	1.000	199061.8		A	13C7-PFUnDA	5.83	245605.3	0.810	2.119
NEtFOSAA	5.84	1.000	25089.0		A	d5-NEtFOSAA	5.84	54383.9	0.461	2.418
PFDODA	6.06	1.000	237252.6		A	13C2-PFDODA	6.06	549542.3	0.432	2.198
10:2-FTS	6.07	1.090	18541.7		A	13C2-8:2-FTS	5.57	29249.8	0.634	2.111
NMePFOSAE	6.10	1.000	163668.7		A	d7-NMePFOSAE	6.09	307355.4	0.533	2.216
NMePFOSA	6.11	1.000	29934.3		A	d3-NMePFOSA	6.11	76782.9	0.390	1.923
PFDoS	6.23	1.190	30098.3		A	13C8-PFOS	5.25	281035.5	0.107	1.876
NEtPFOSAE	6.26	1.000	178457.9		A	d9-NEtPFOSAE	6.25	259792.3	0.687	2.204
NEtPFOSA	6.27	1.000	26590.2		M	d5-NEtPFOSA	6.27	57485.9	0.463	2.124
PFTDA	6.26	1.030	184322.9		A	13C2-PFDODA	6.06	549542.3	0.335	2.117
PFTeDA	6.43	1.000	156439.9		A	13C2-PFTeDA	6.43	393544.9	0.398	2.228
PFHxDA	6.74	1.050	69655.1		A	13C2-PFTeDA	6.43	393544.9	0.177	2.109
PFODA	7.00	1.090	57796.0		A	13C2-PFTeDA	6.43	393544.9	0.147	2.045

Total Ion Chromatogram

TIC from 18NOV12DCAL-44.wiff (sample 1) - CAL3



APPROVED

By MCD at 6:33 pm, 11/12/18

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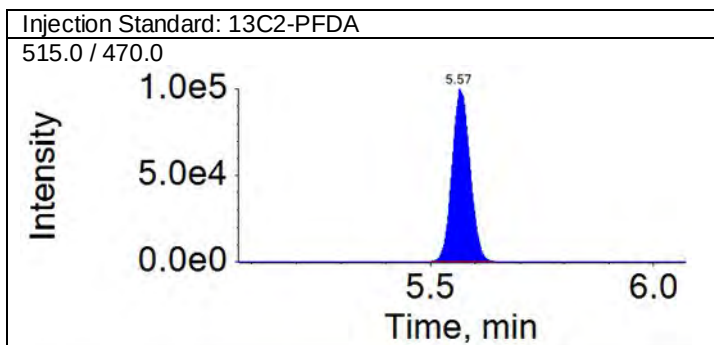
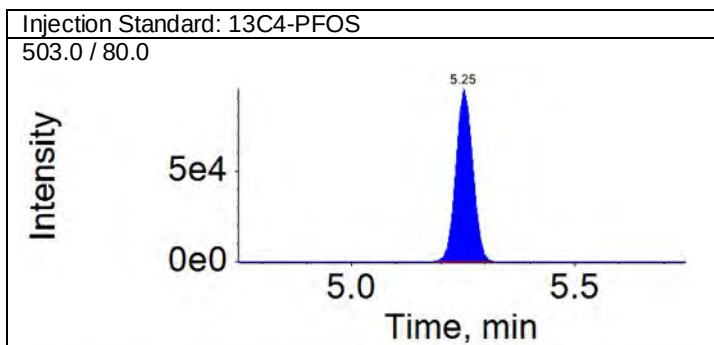
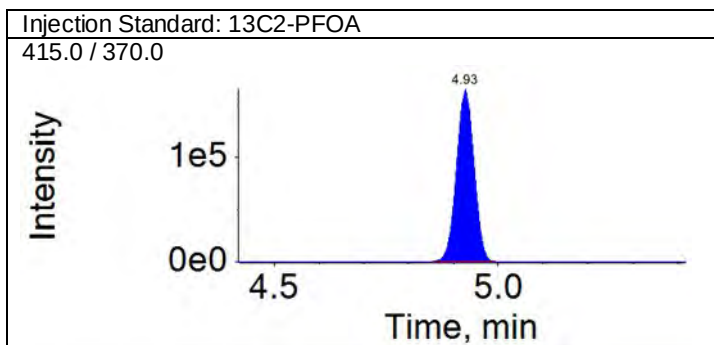
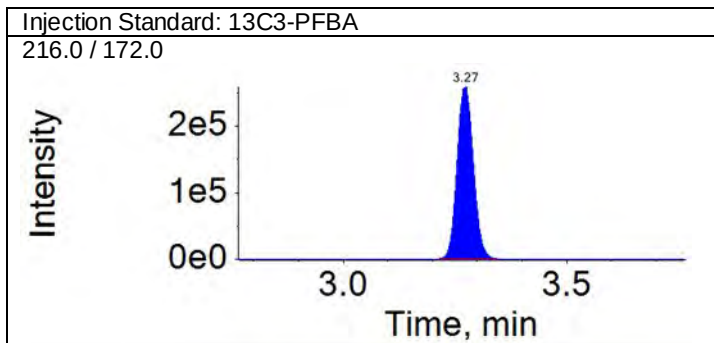
REVIEWED

By HMK at 10:53 am, 11/13/18

Page 2 of 17

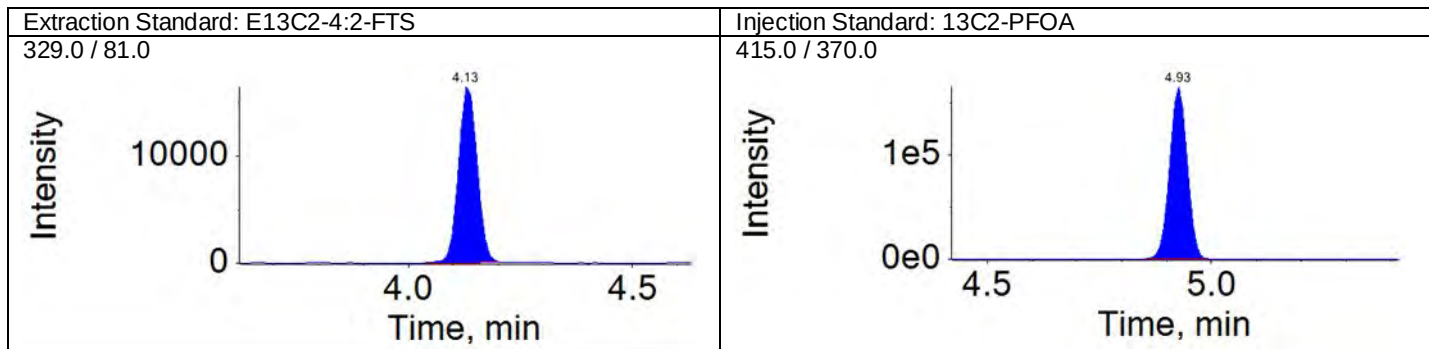
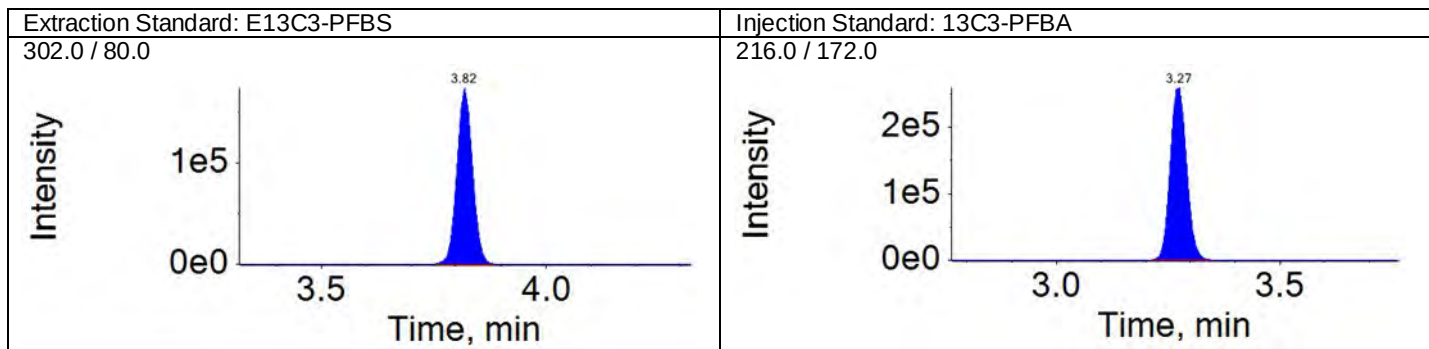
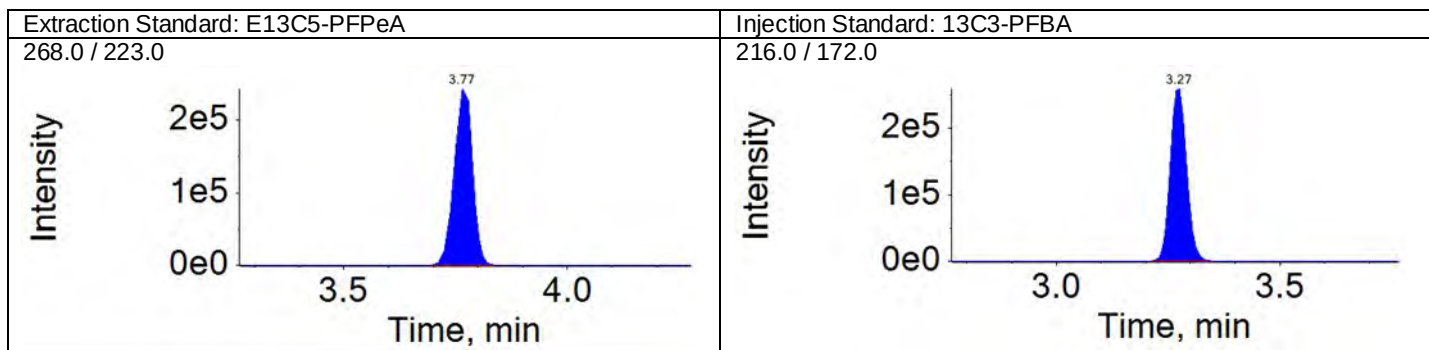
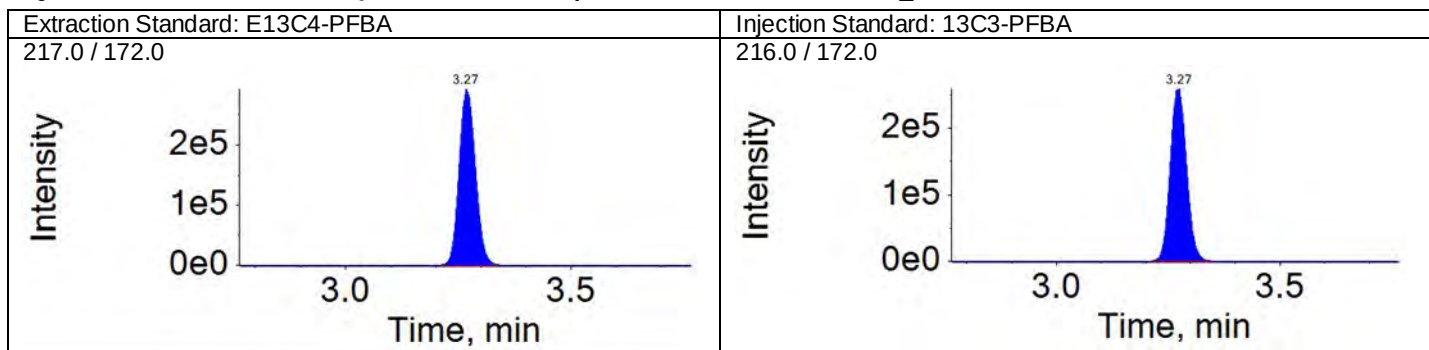
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



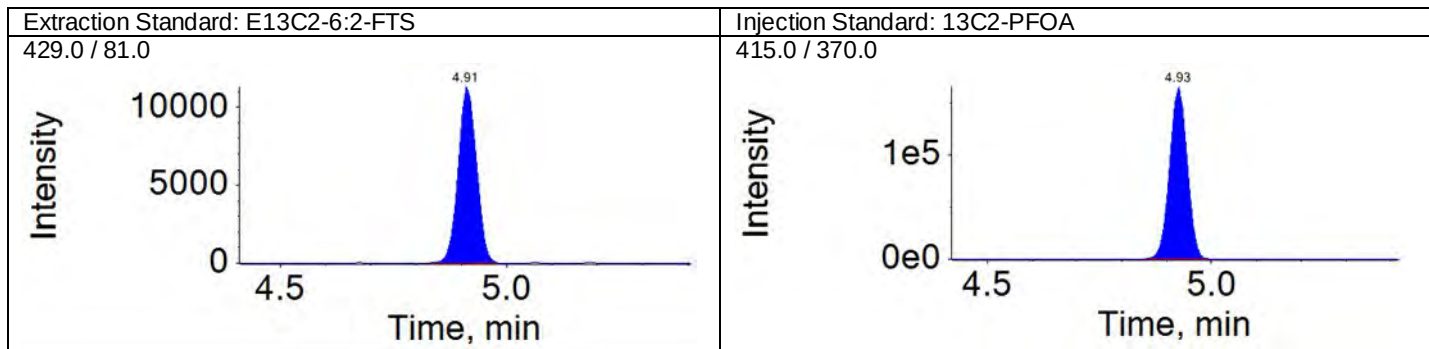
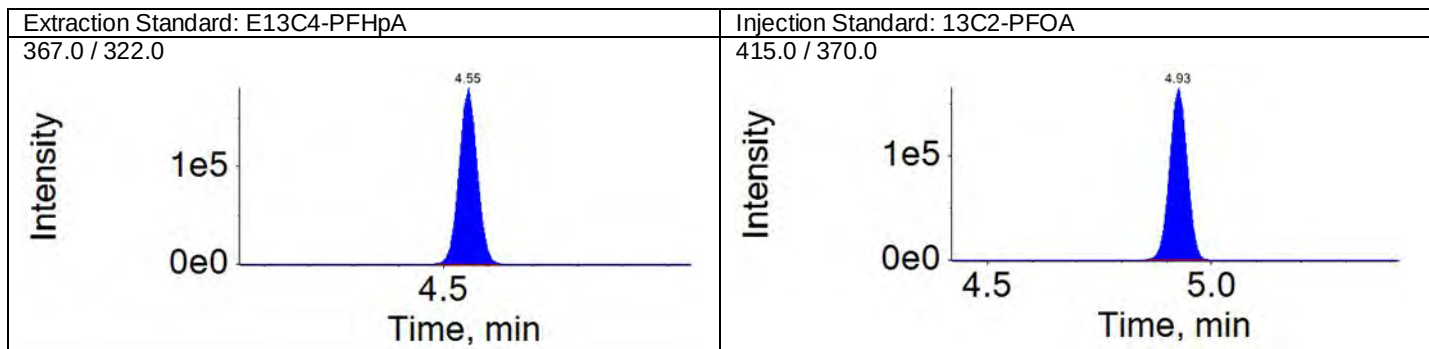
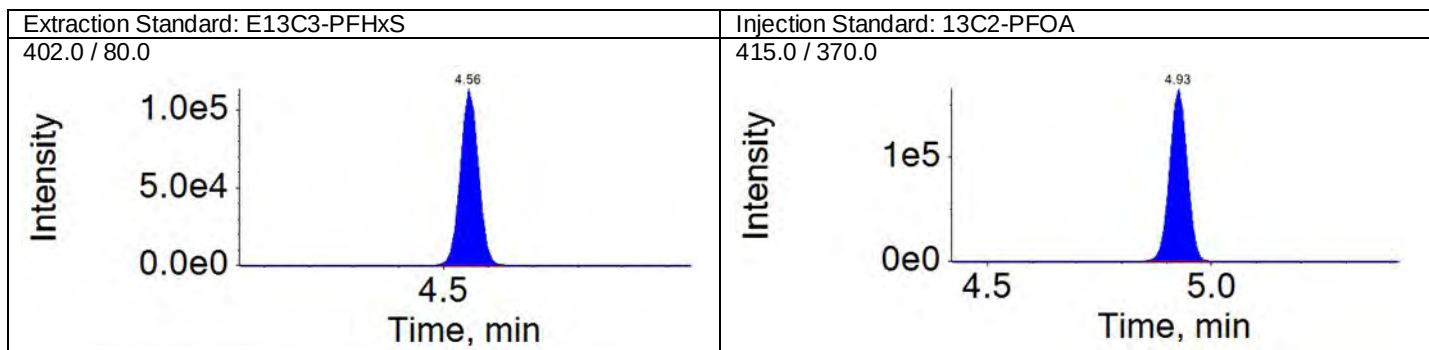
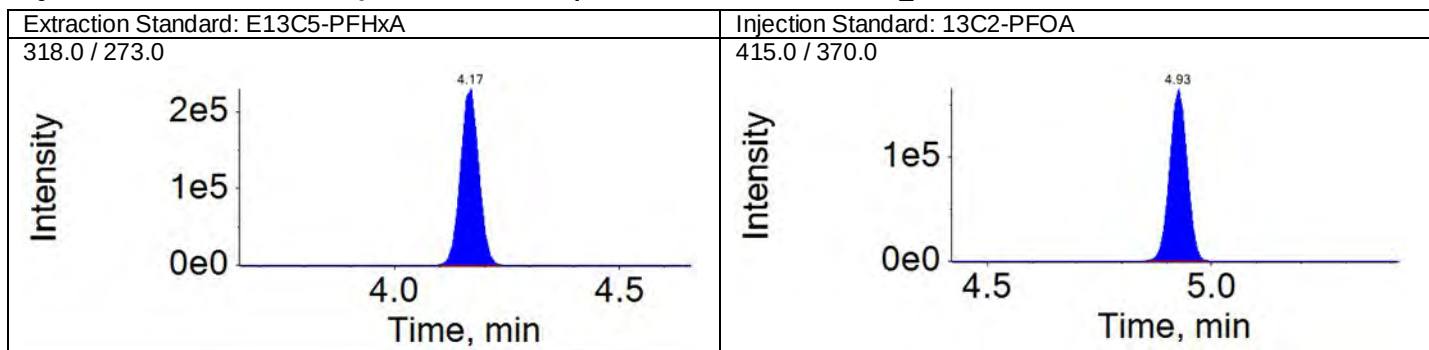
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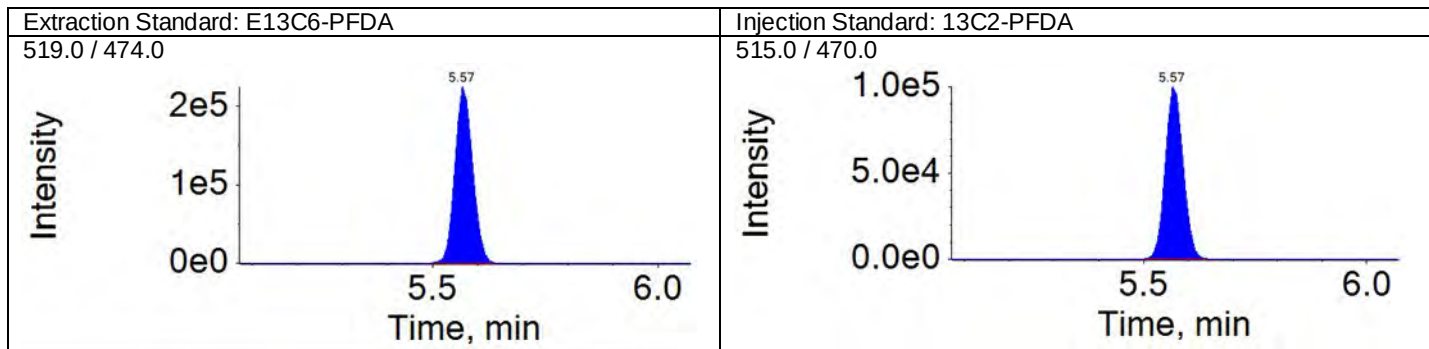
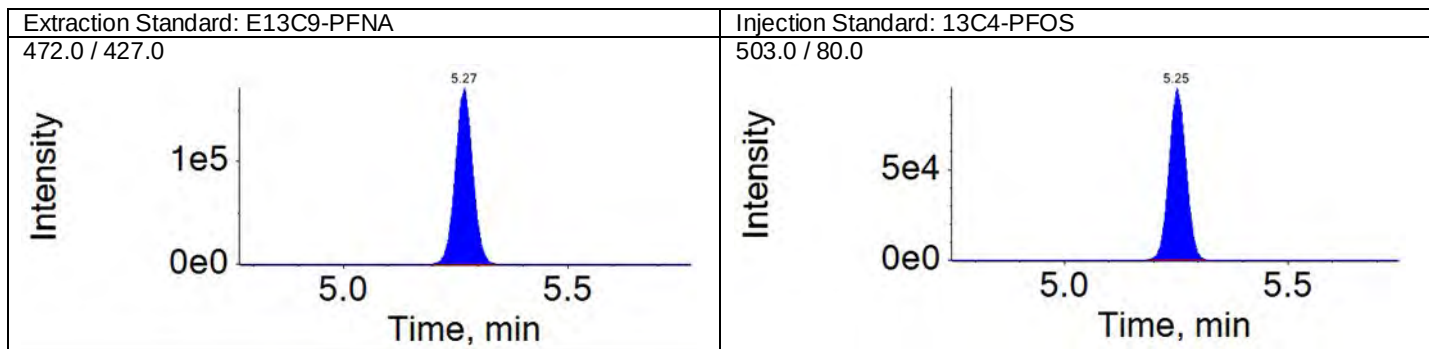
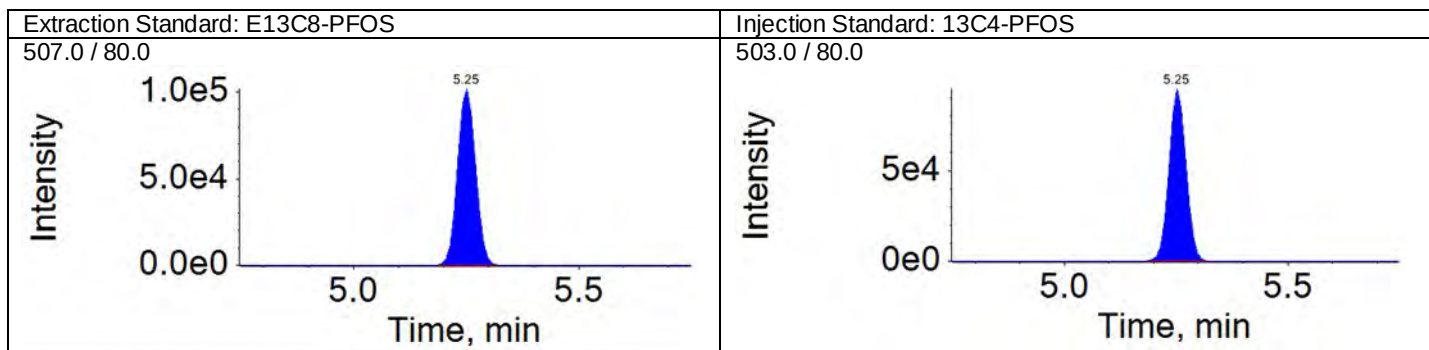
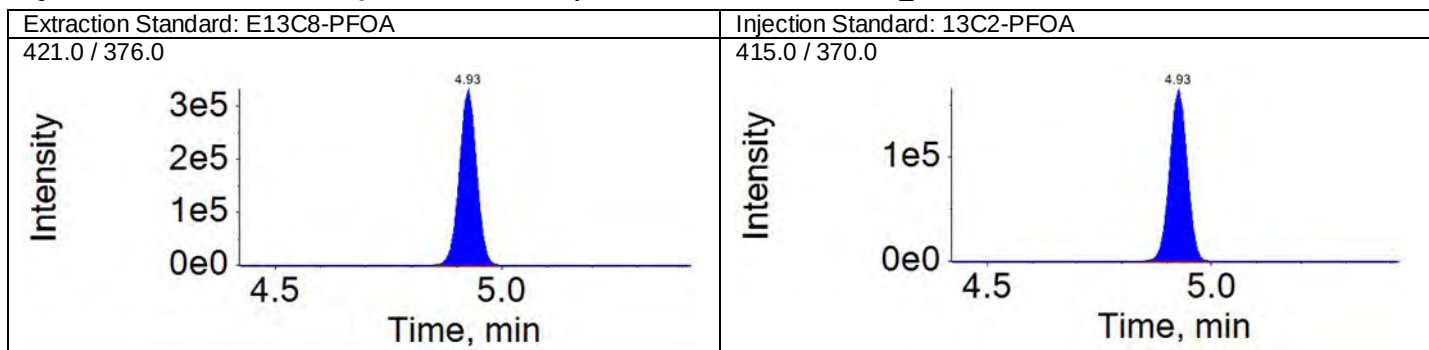
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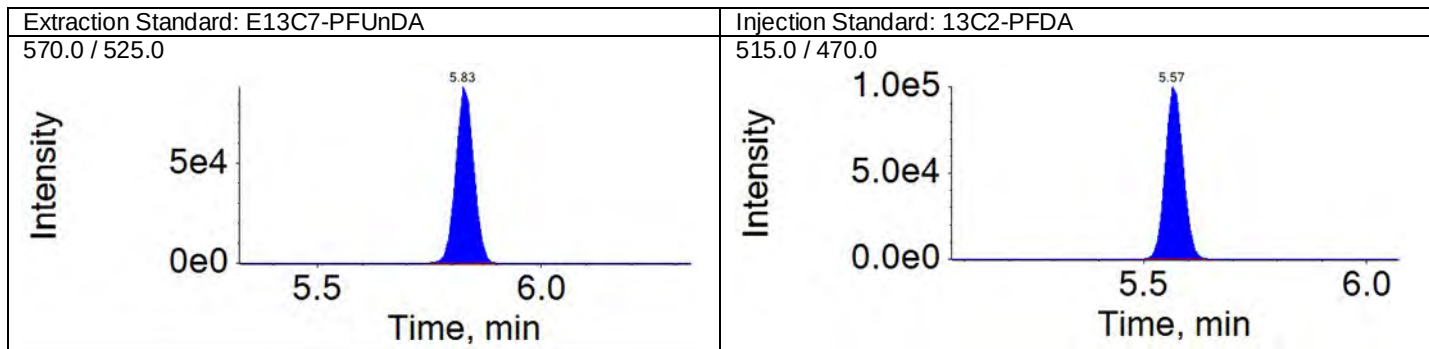
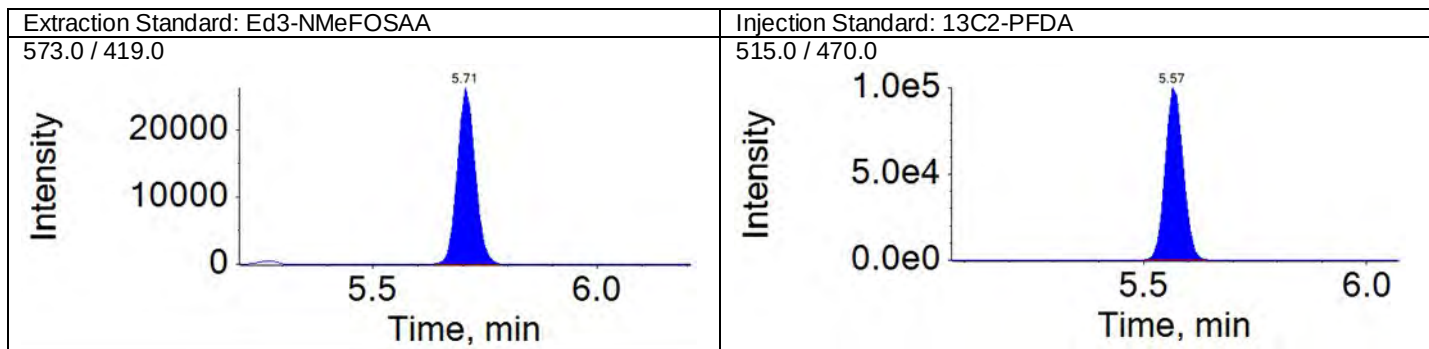
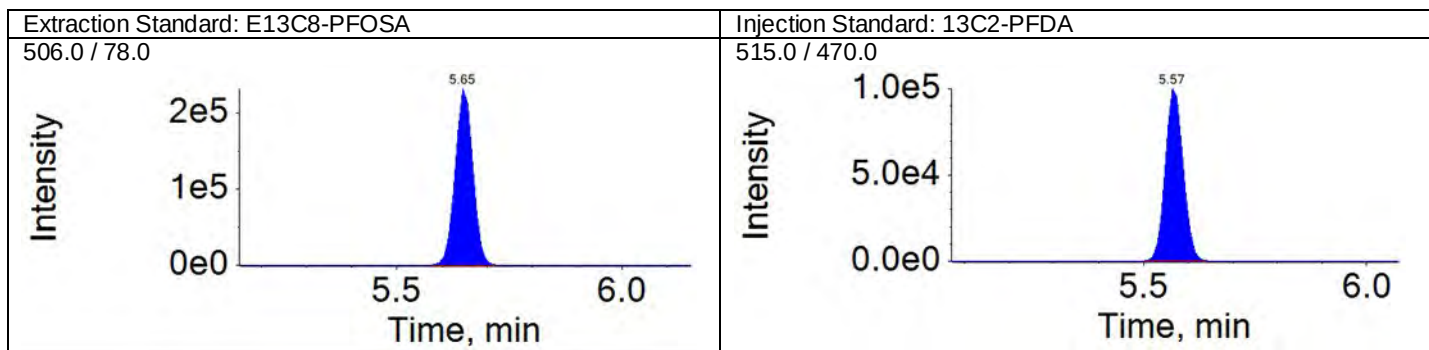
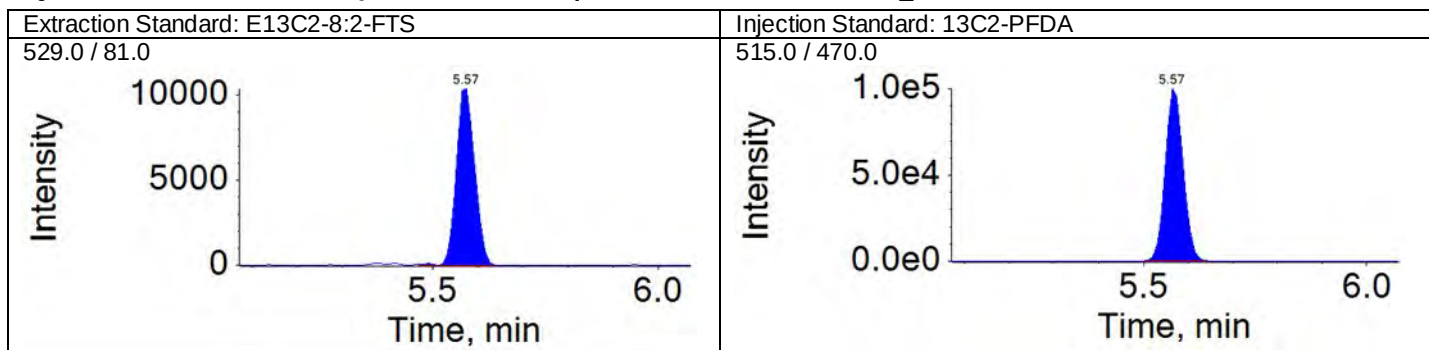
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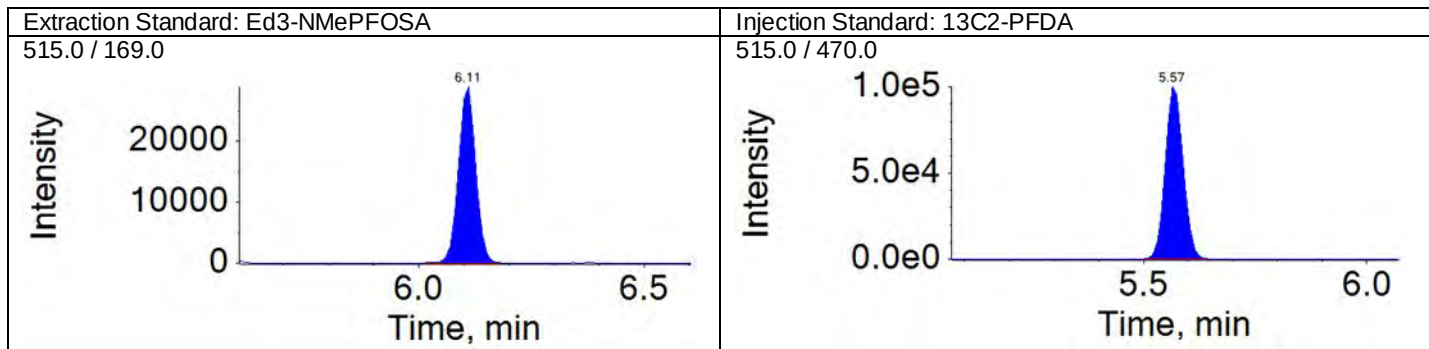
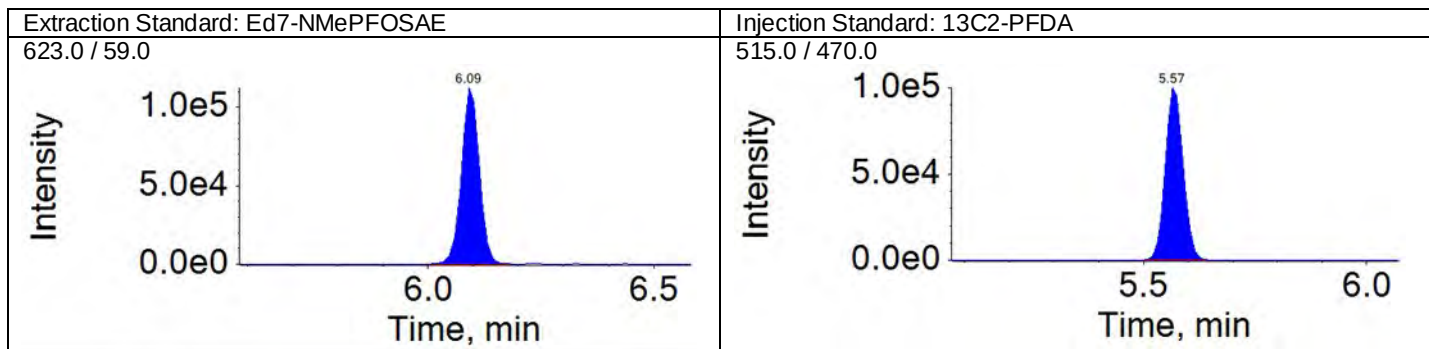
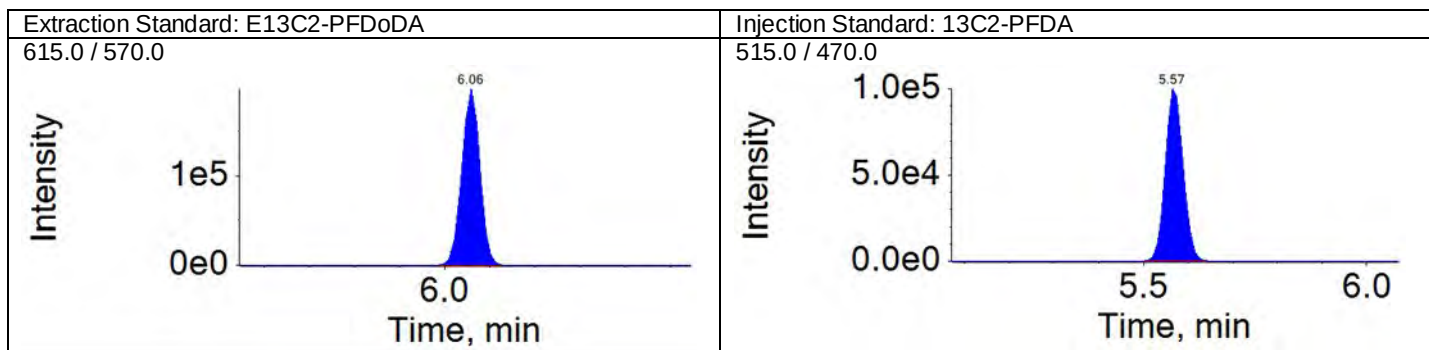
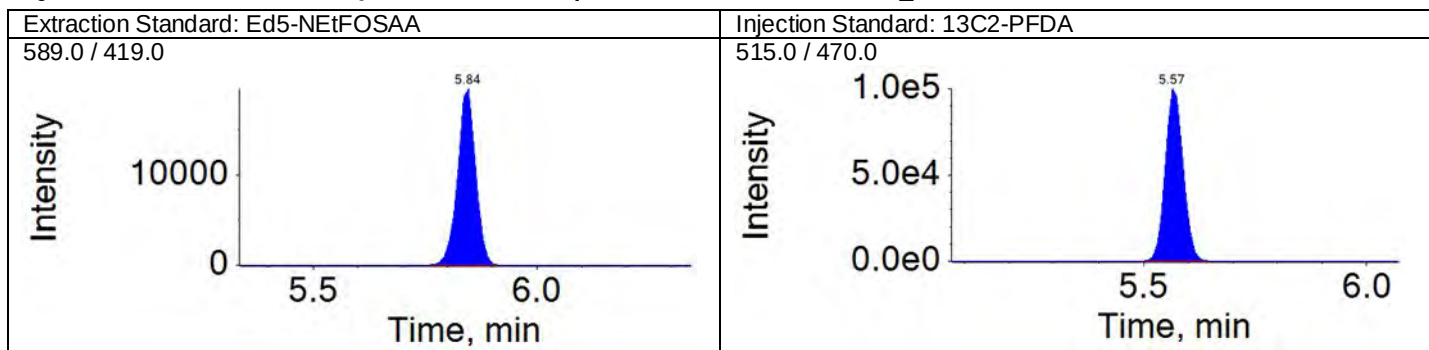
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Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
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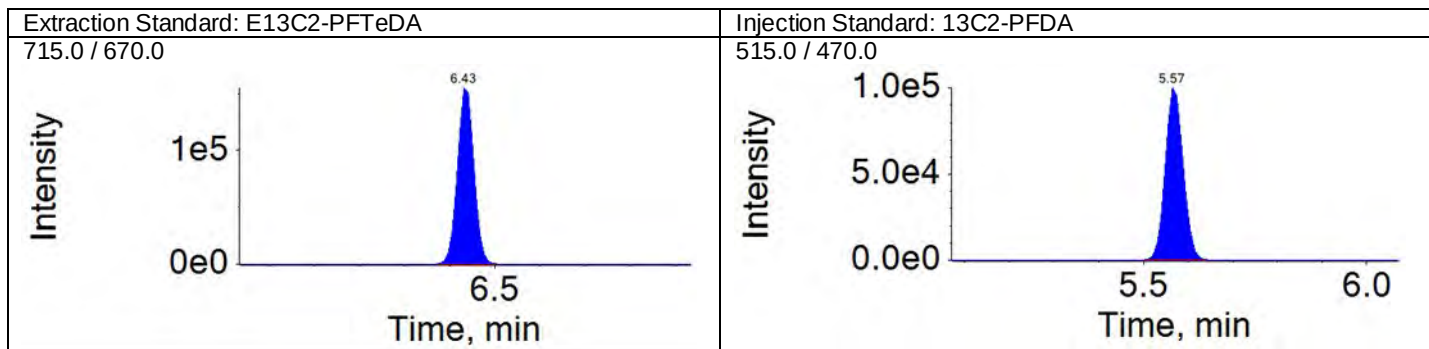
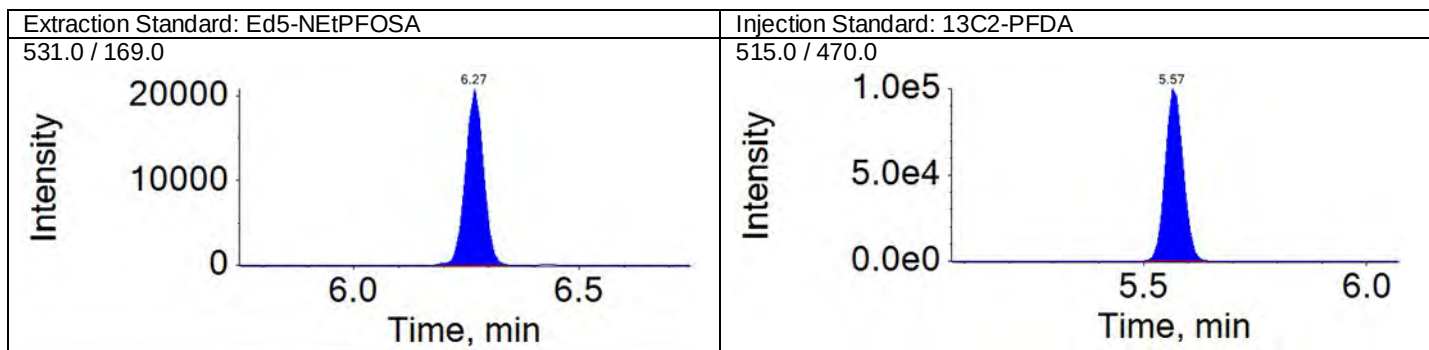
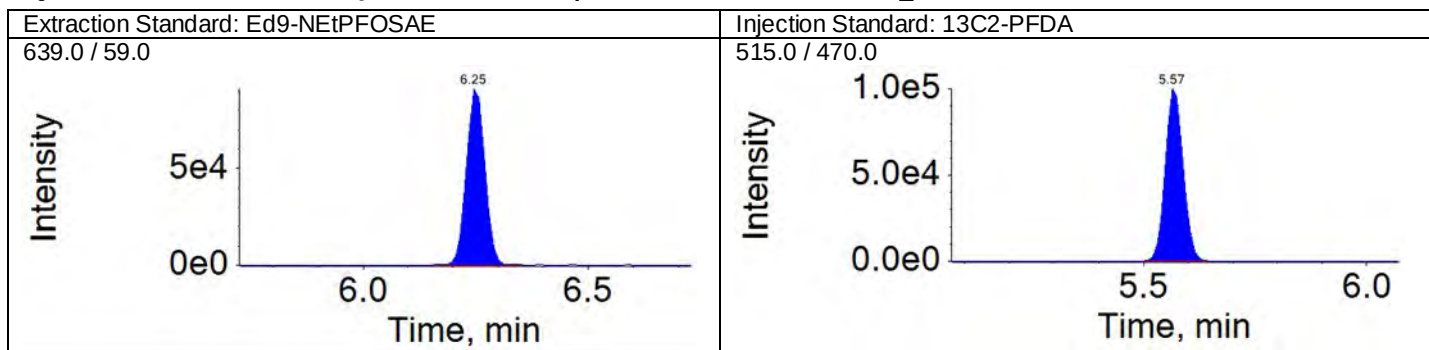
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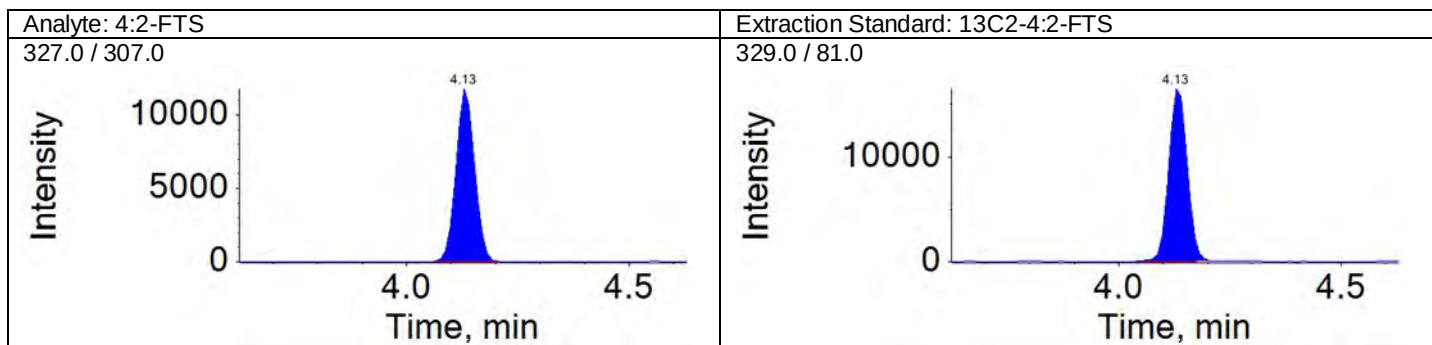
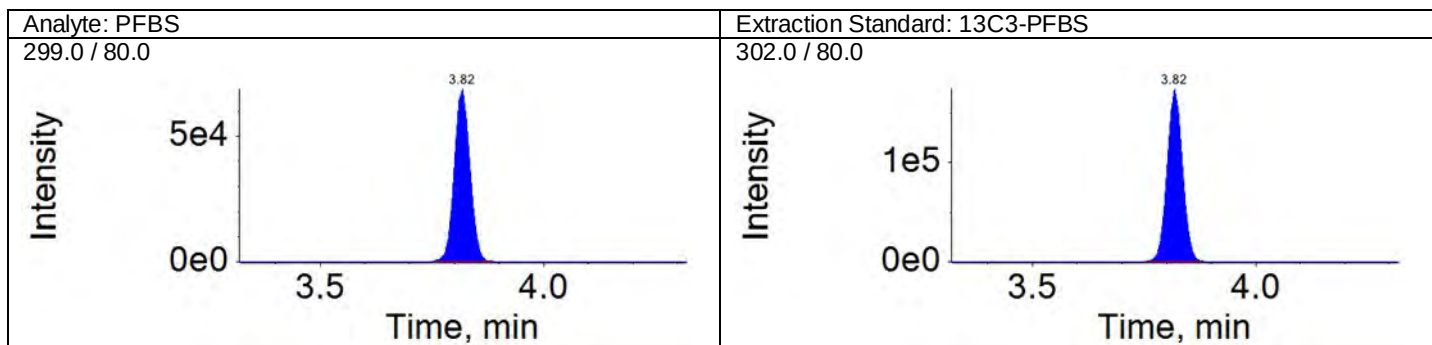
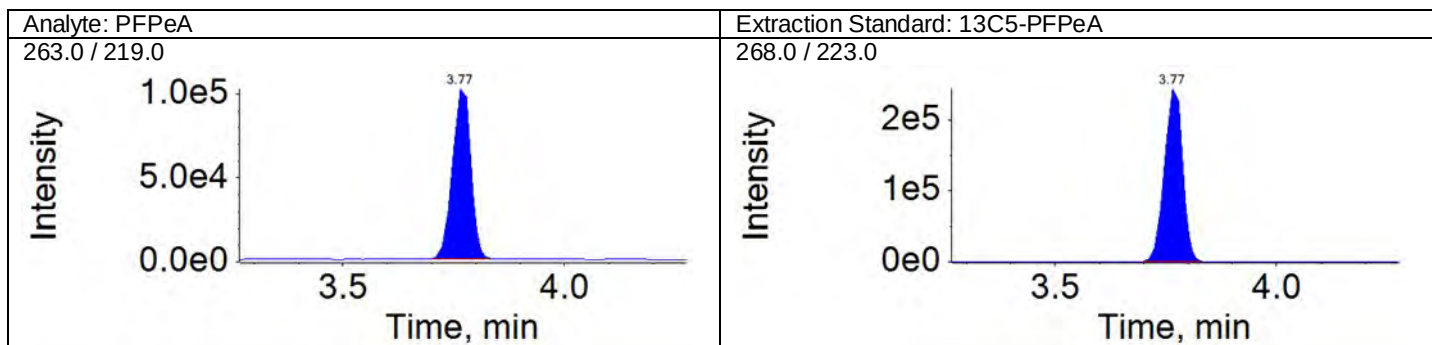
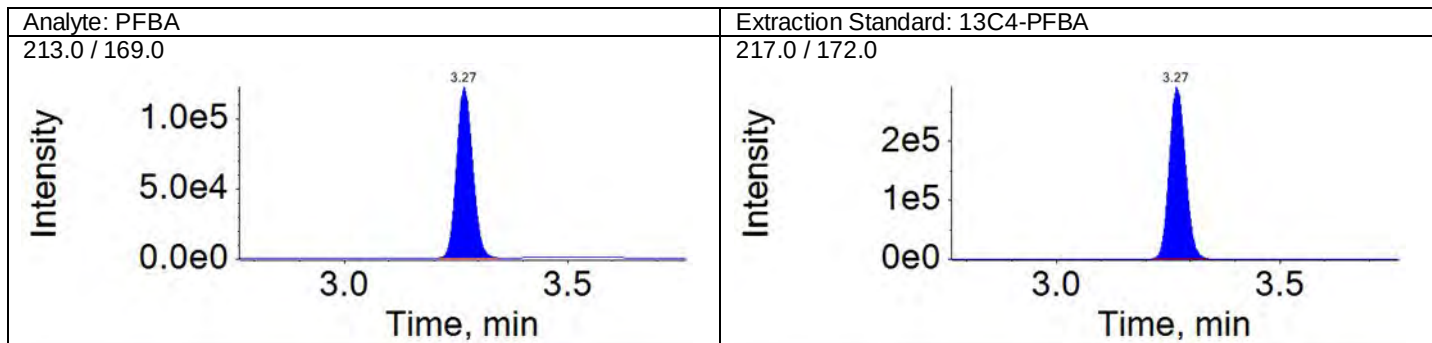
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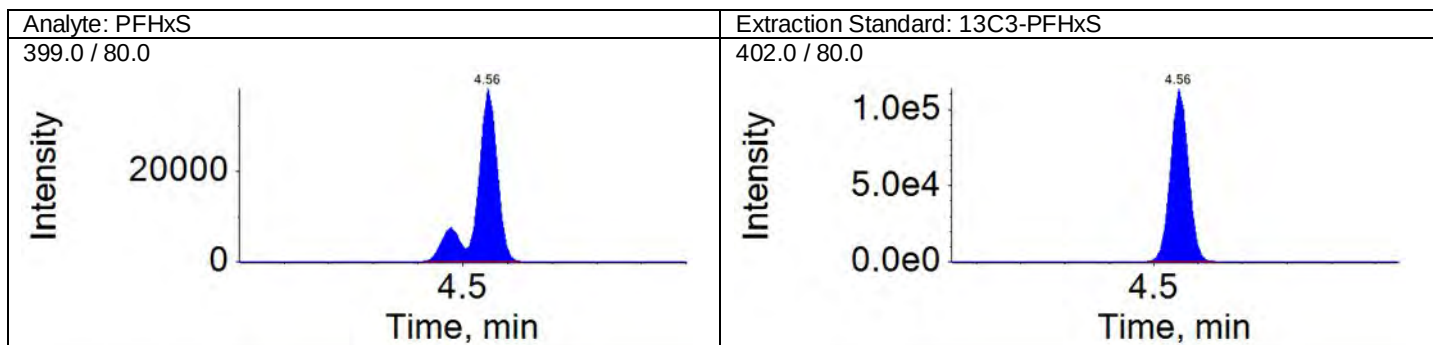
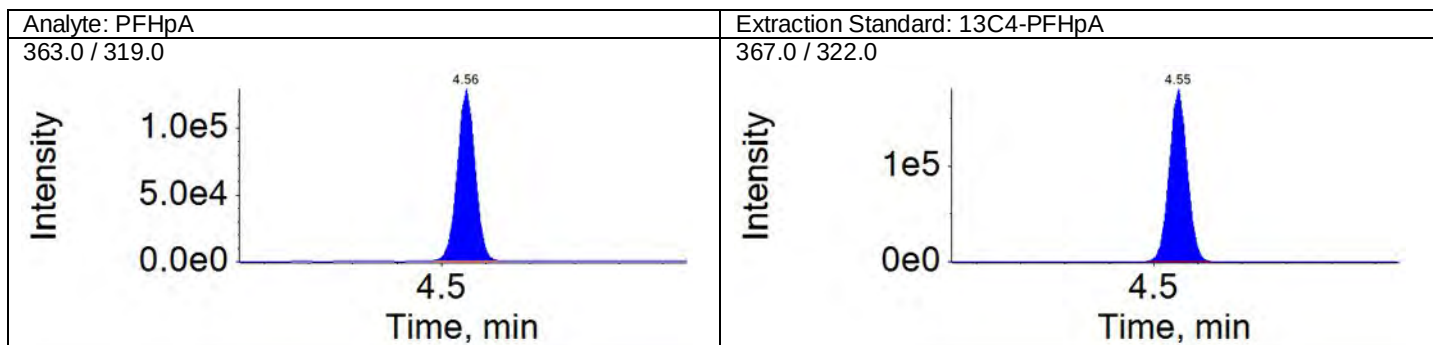
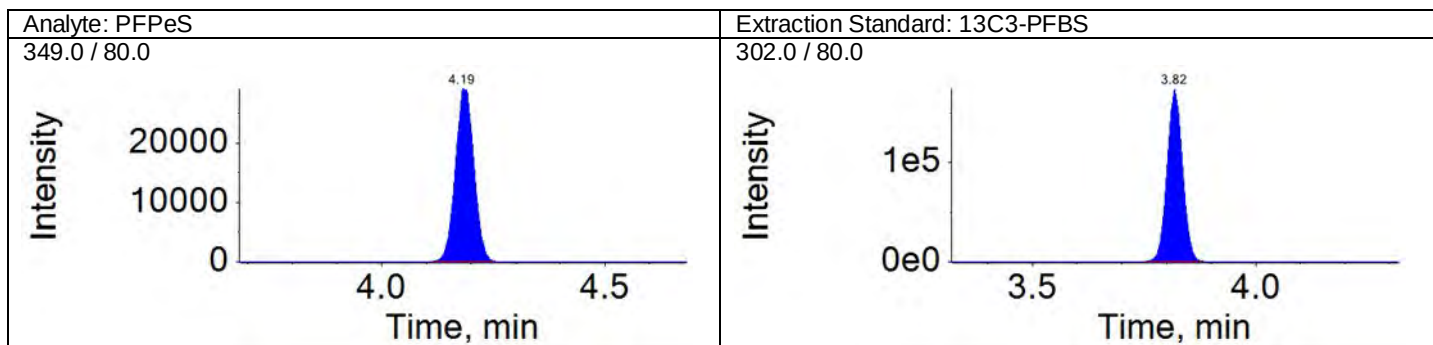
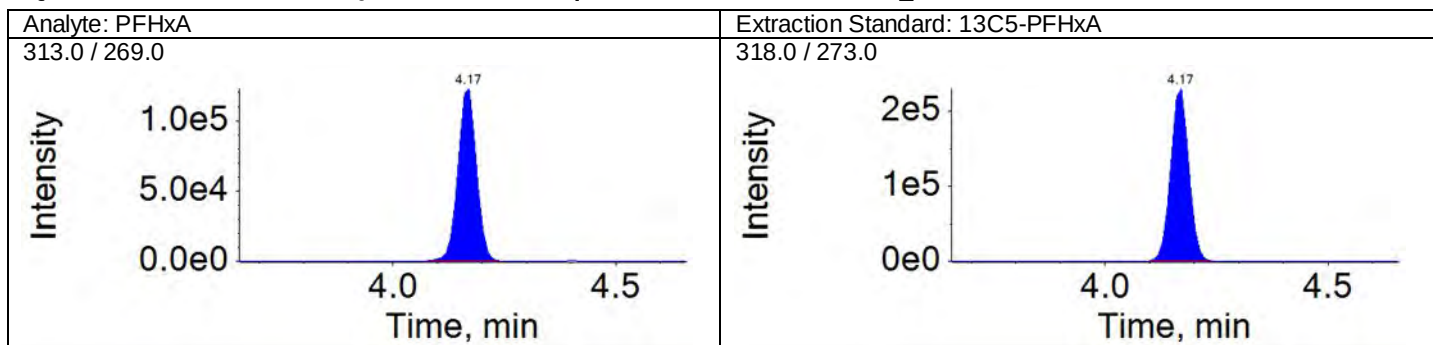
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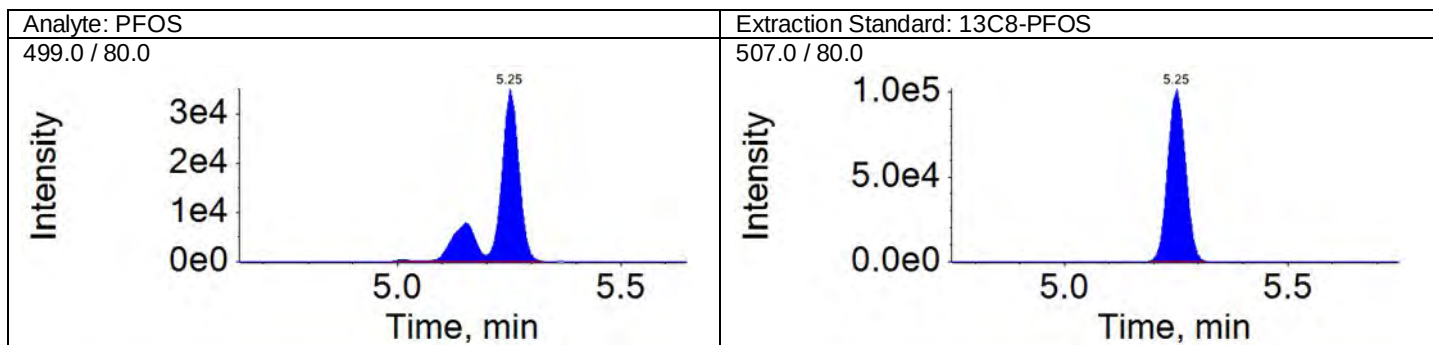
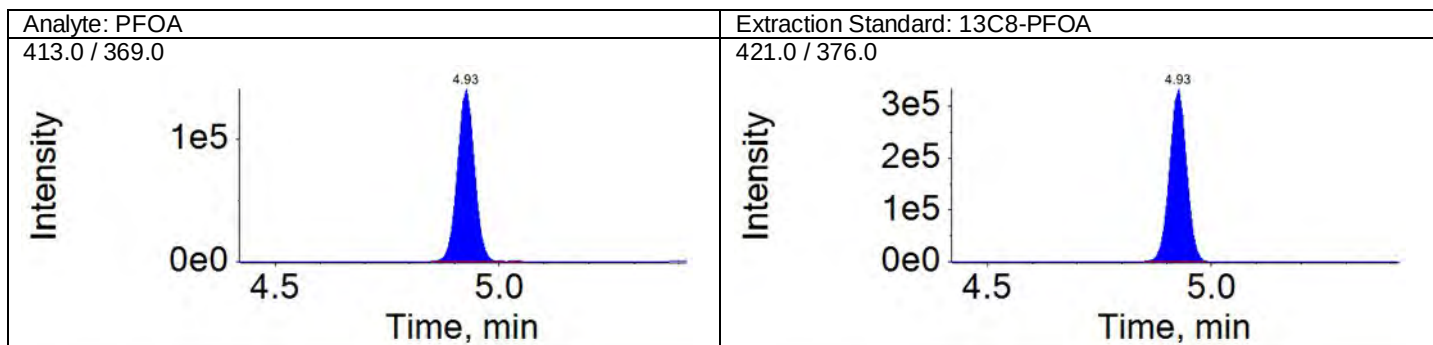
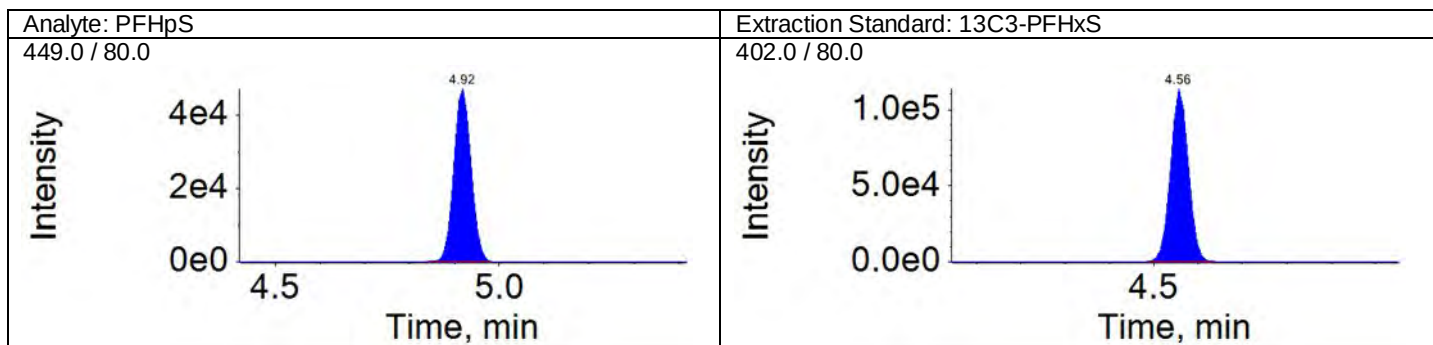
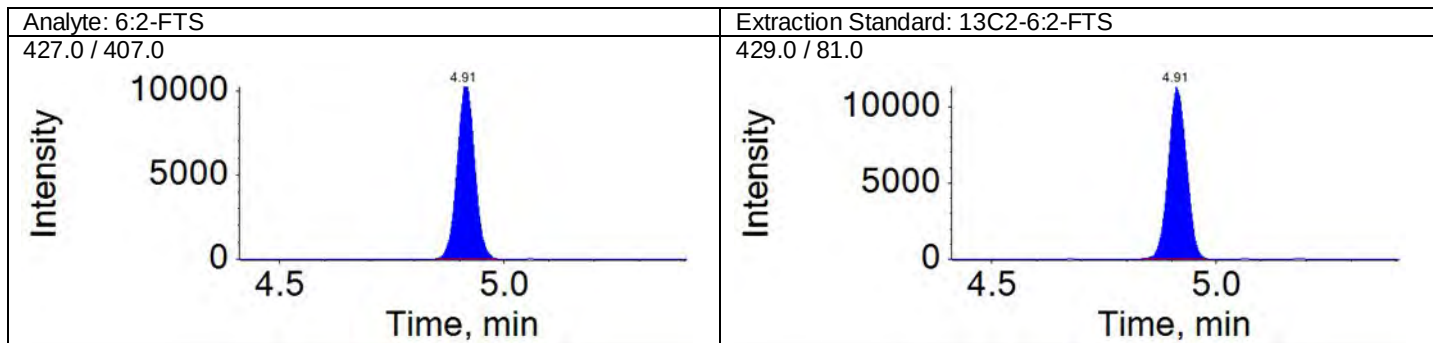
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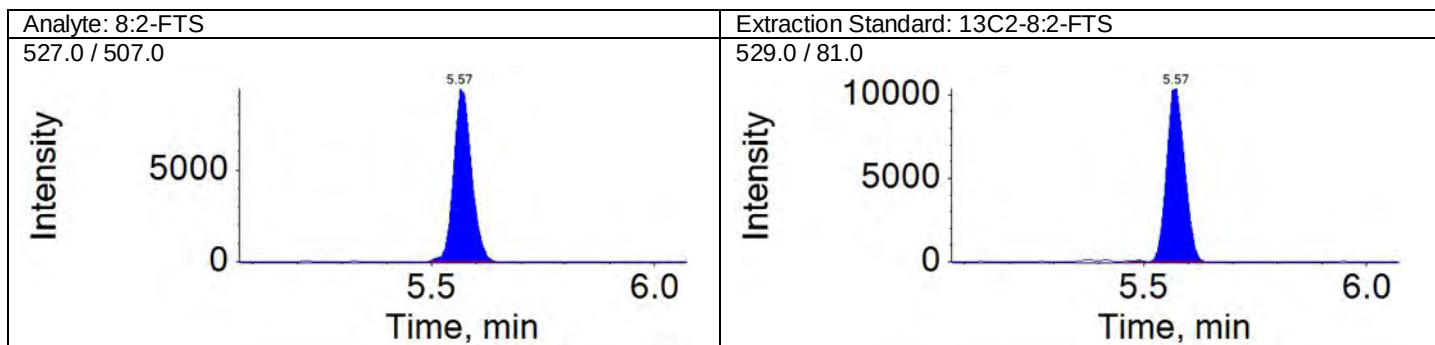
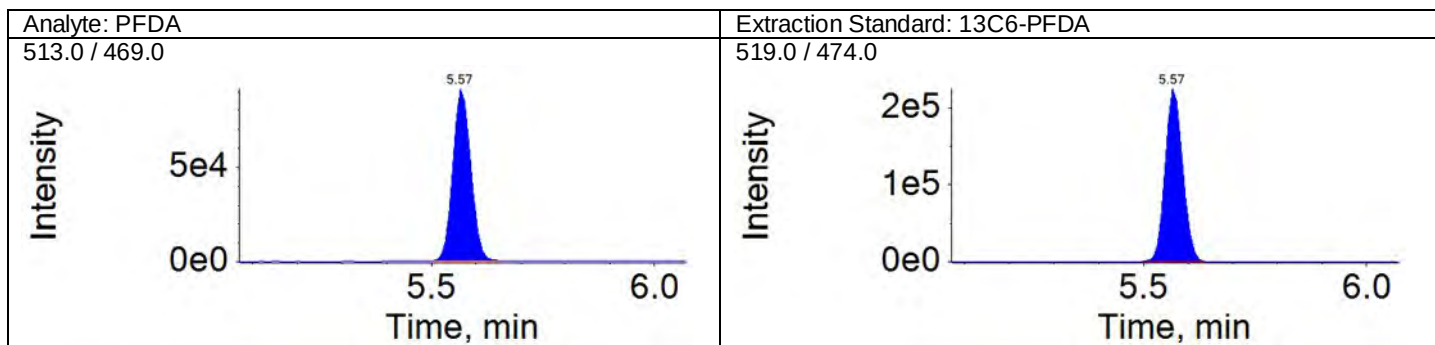
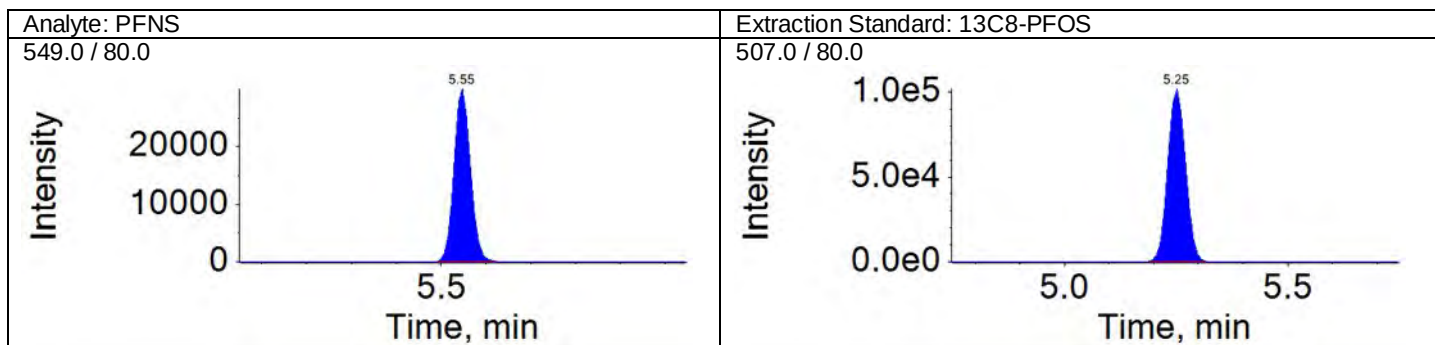
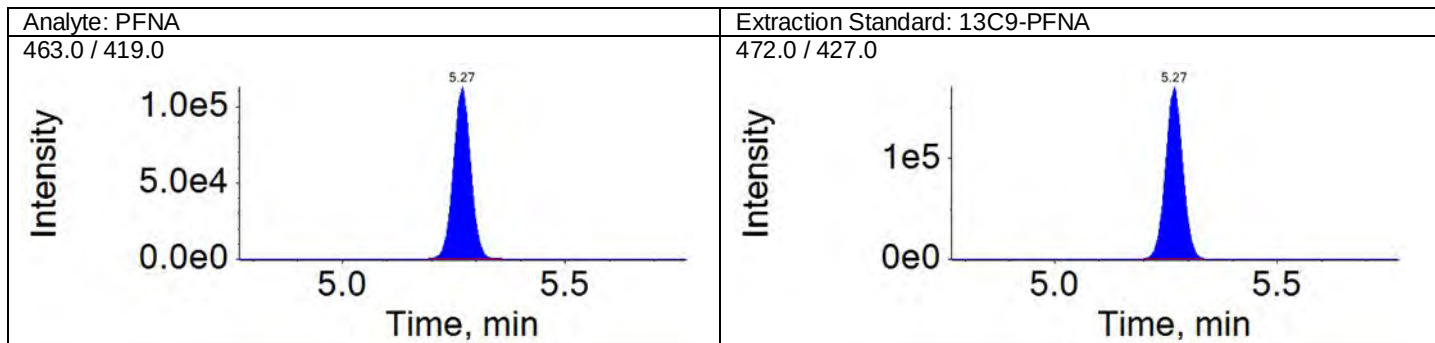
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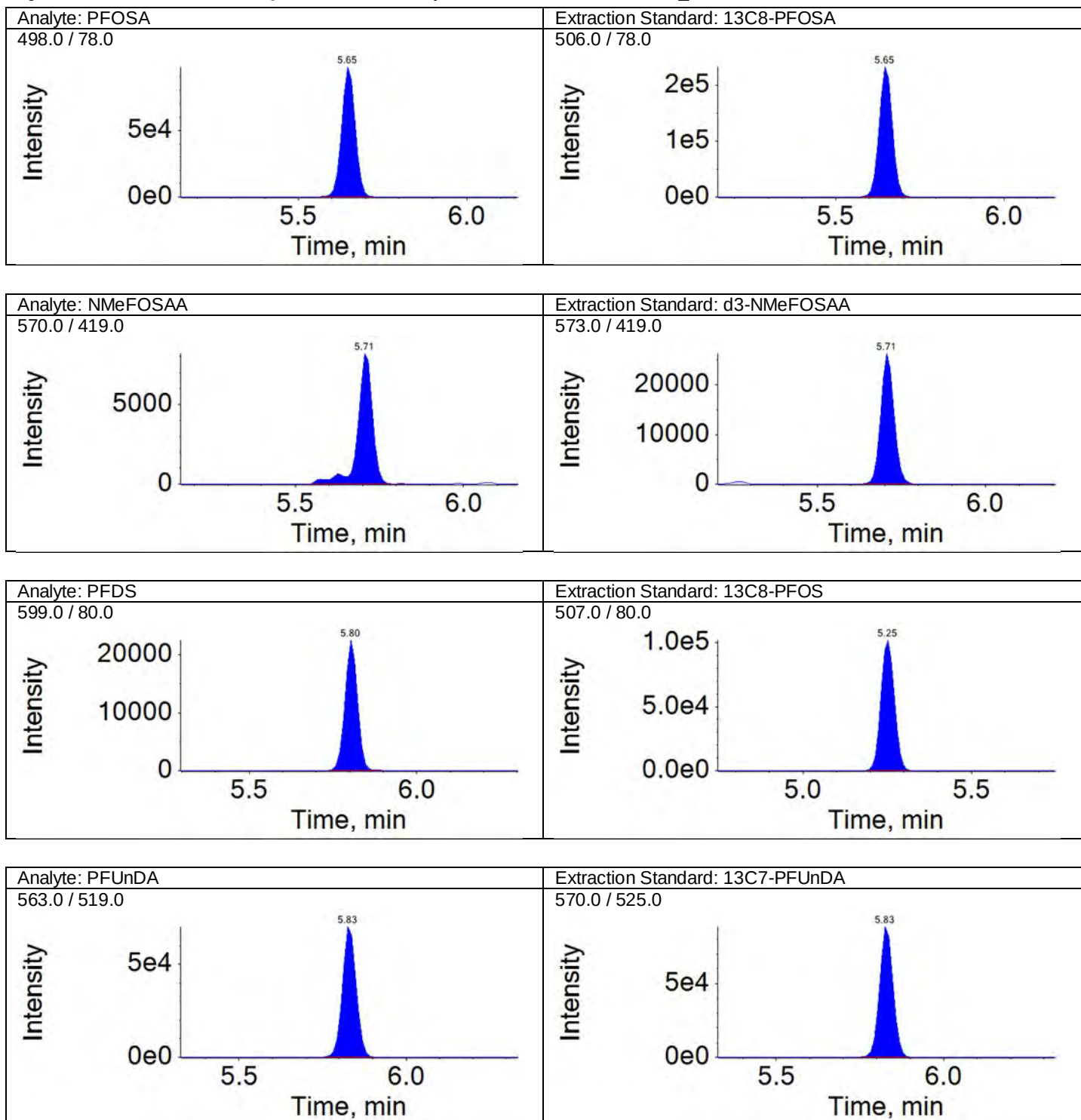
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



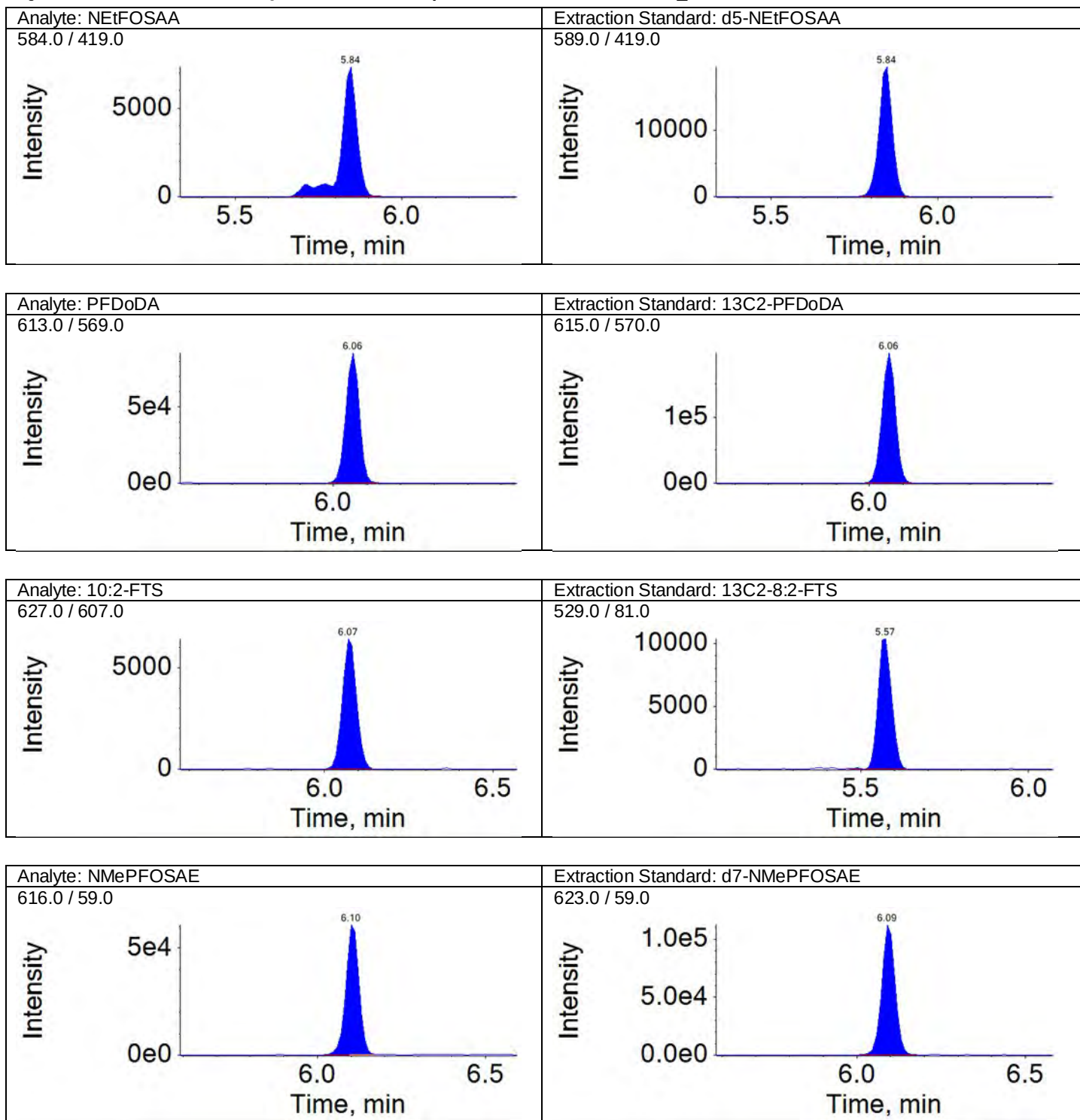
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



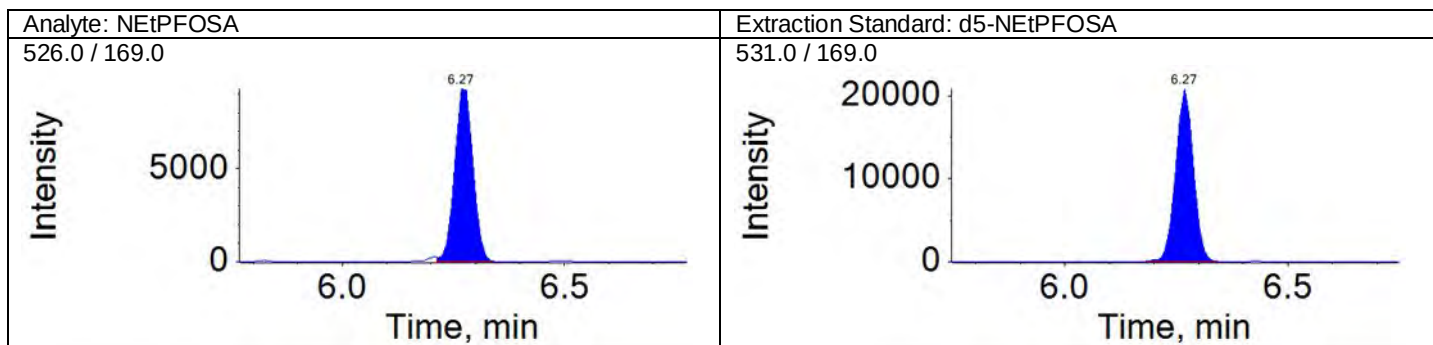
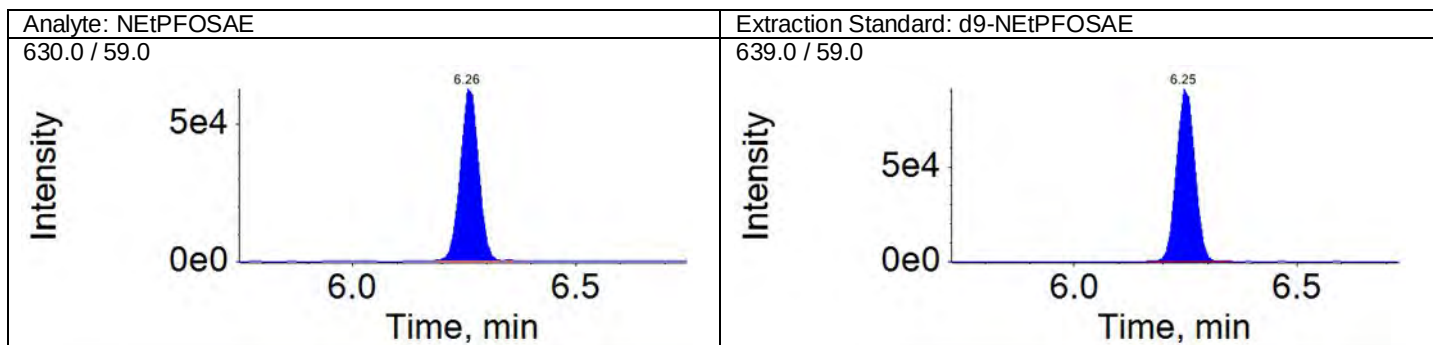
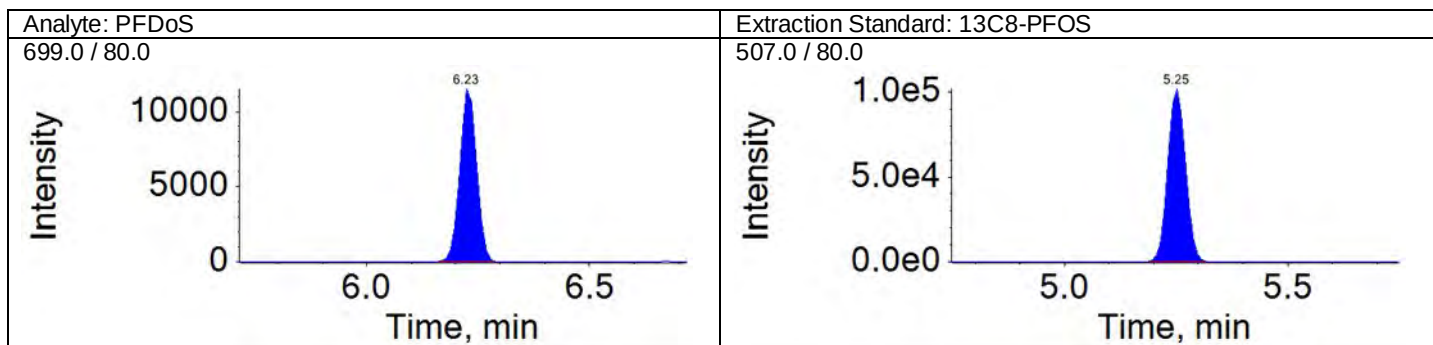
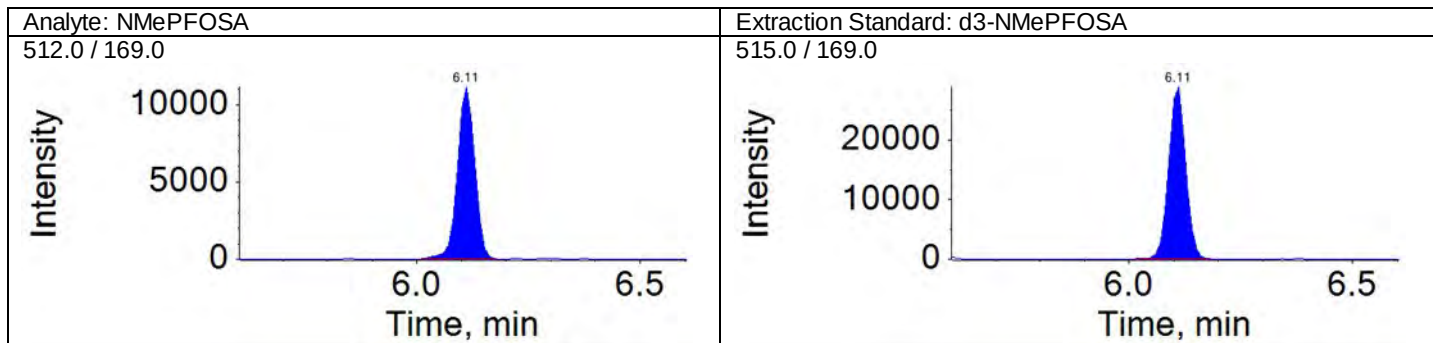
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



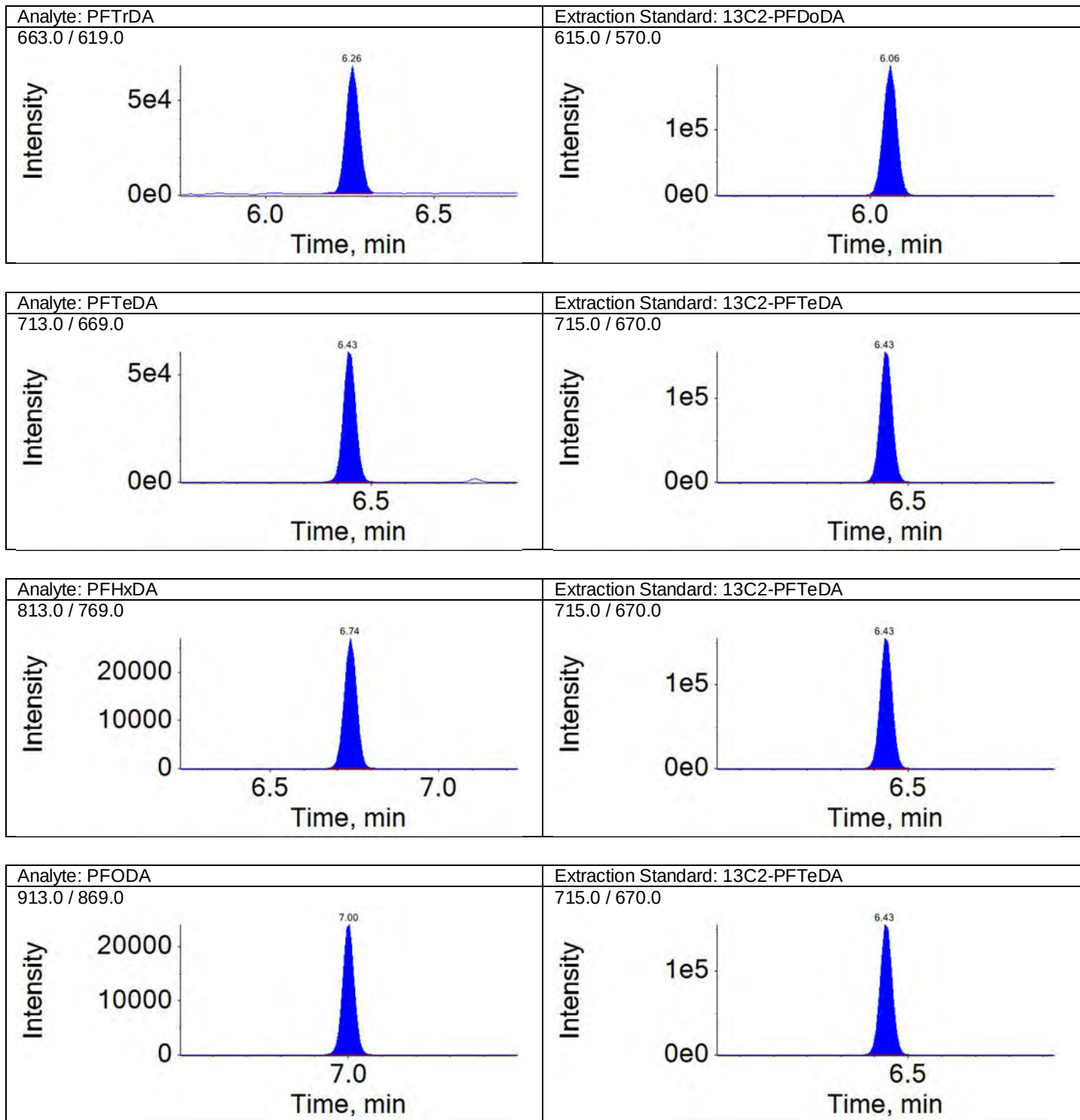
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:

PFHxS

RT (min.):

4.56

Peak Area:

103825.76

Mass Range:

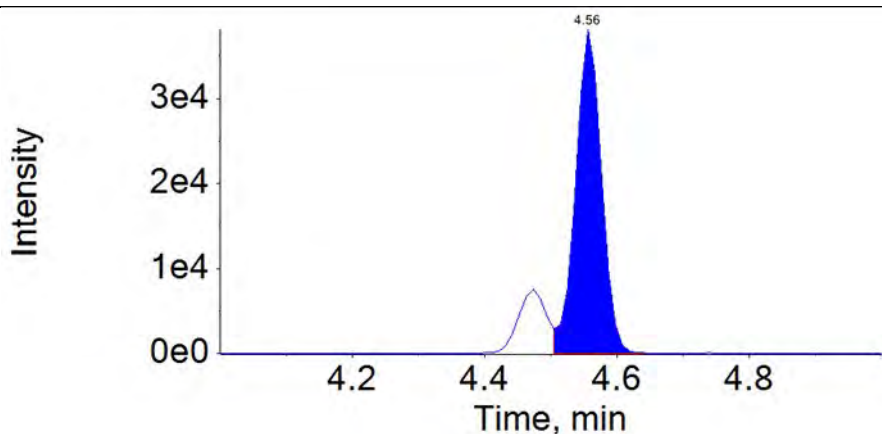
399.0 / 80.0

File Name:

18NOV12DCAL-44.wiff

Sample Name:

CAL3



Integration Comment: incorrect integration

Component Name:

PFOS

RT (min.):

5.25

Peak Area:

90727.07

Mass Range:

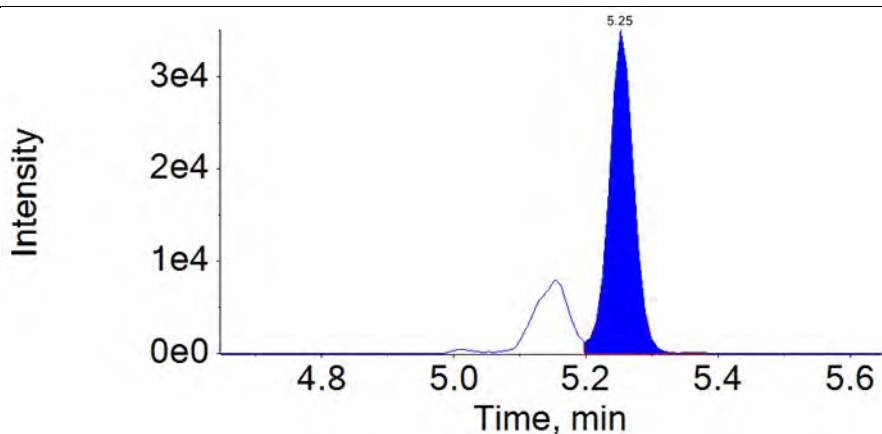
499.0 / 80.0

File Name:

18NOV12DCAL-44.wiff

Sample Name:

CAL3



Integration Comment: incorrect integration

Component Name:

PFDA

RT (min.):

5.57

Peak Area:

254529.84

Mass Range:

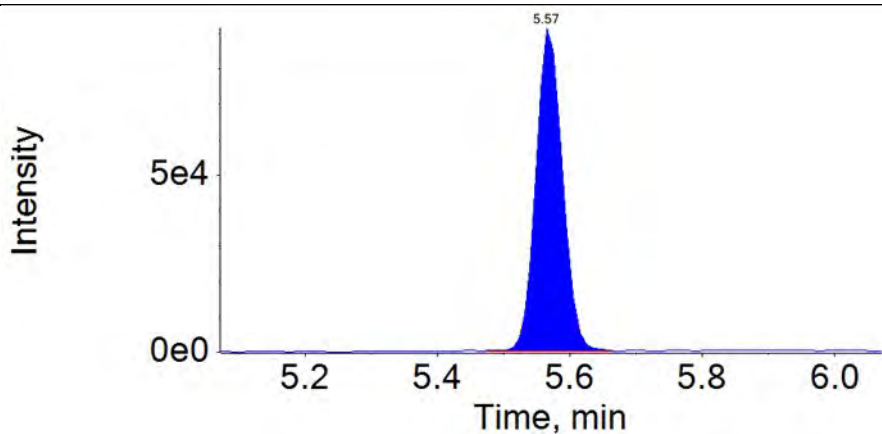
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File Name:

18NOV12DCAL-44.wiff

Sample Name:

CAL3

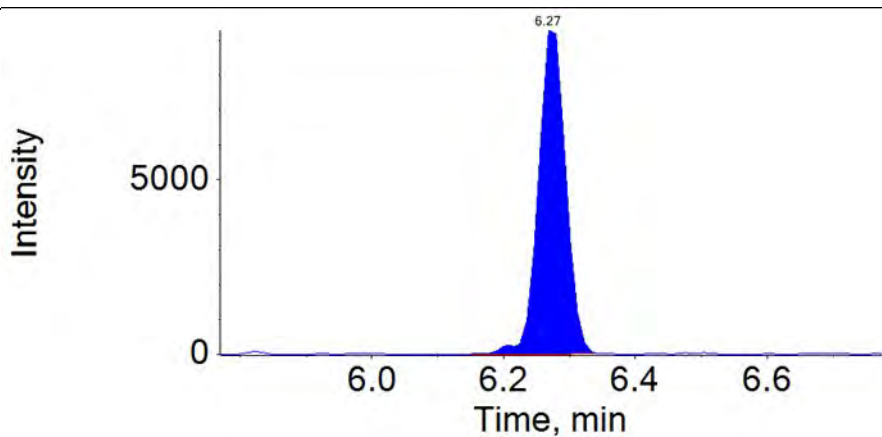


Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

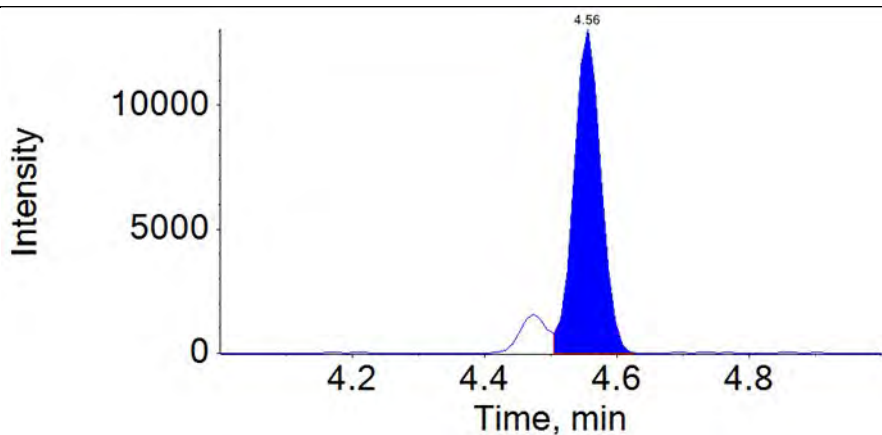
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NETPFOSA
RT (min.):
6.27
Peak Area:
26985.34
Mass Range:
526.0 / 169.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



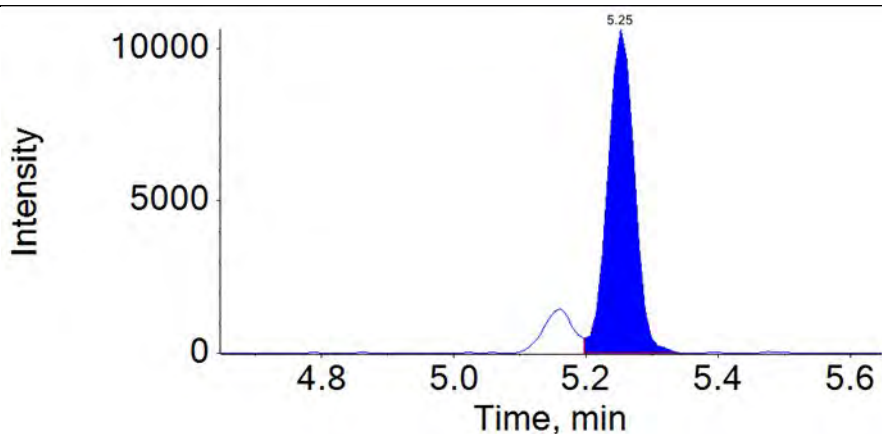
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
37027.02
Mass Range:
399.0 / 99.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
29768.90
Mass Range:
499.0 / 99.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3

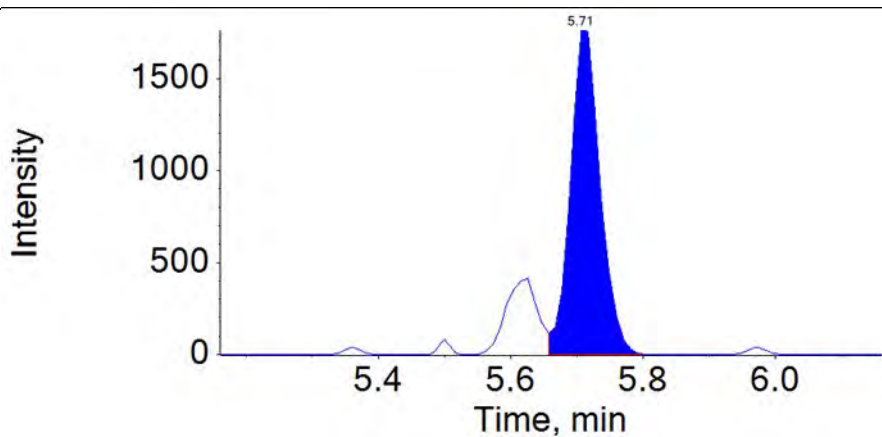


Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

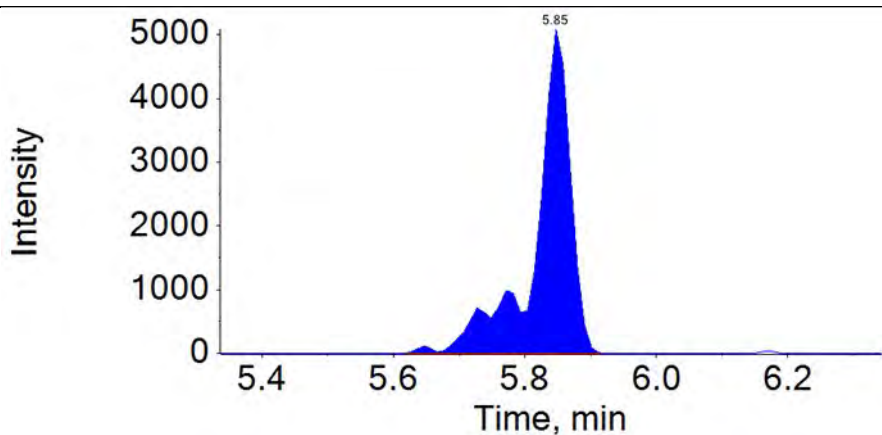
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
5548.71
Mass Range:
570.0 / 483.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



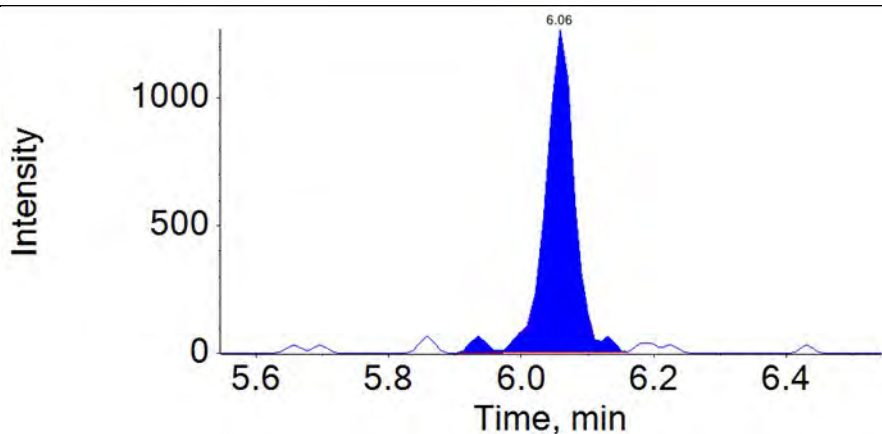
Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.85
Peak Area:
19243.29
Mass Range:
584.0 / 526.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
PFDoDA_2
RT (min.):
6.06
Peak Area:
3956.45
Mass Range:
613.0 / 169.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3

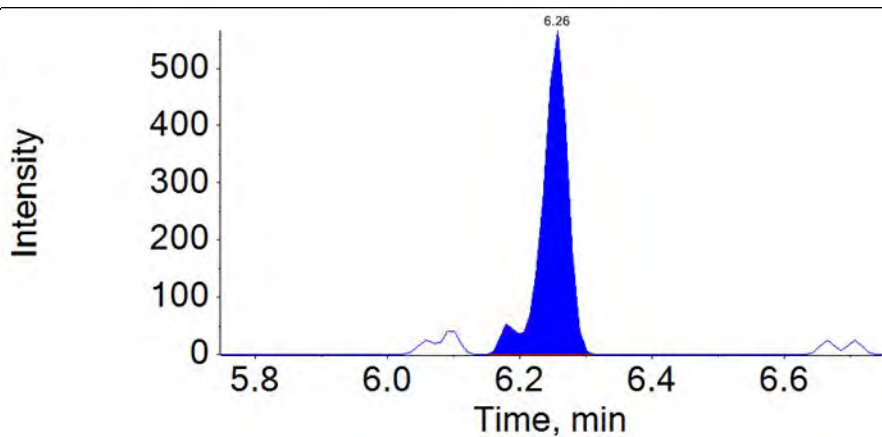


Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTTrDA_2
RT (min.):
6.26
Peak Area:
1527.41
Mass Range:
663.0 / 169.0
File Name:
18NOV12DCAL-44.wiff
Sample Name:
CAL3



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 6:33 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

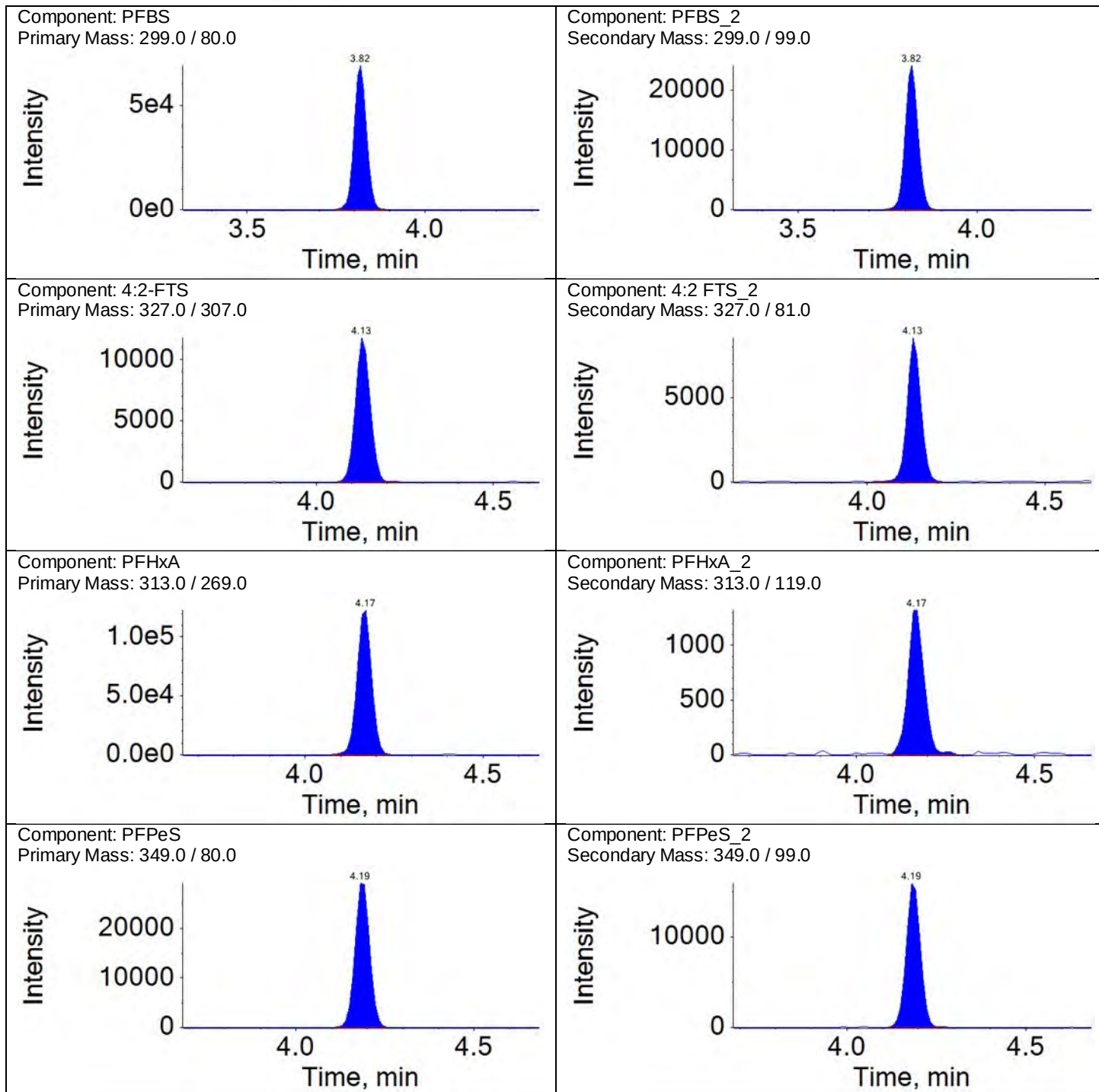
Ion Ratio Report

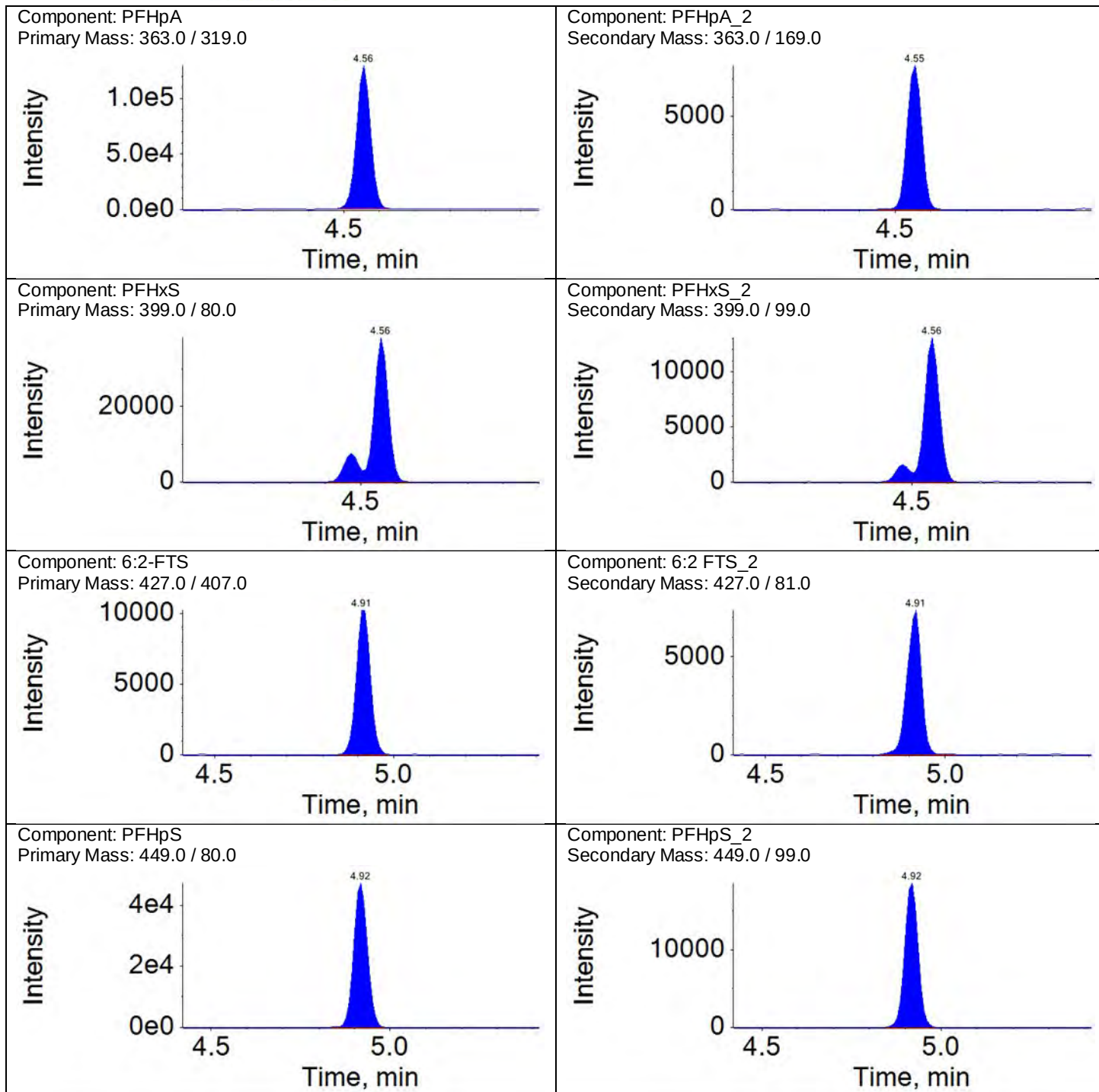
Sample Name: CAL3

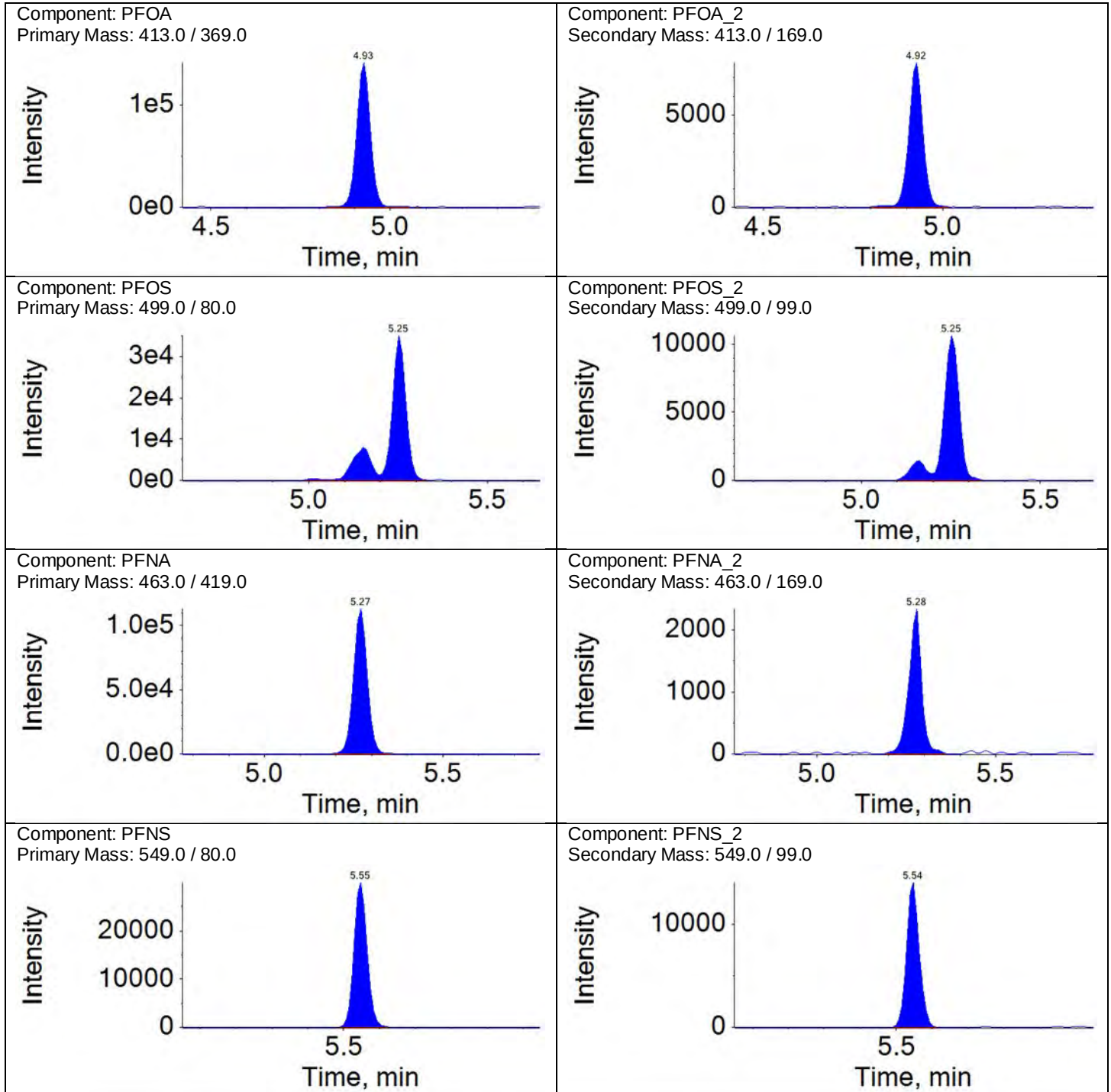
Instrument Name: LM27631

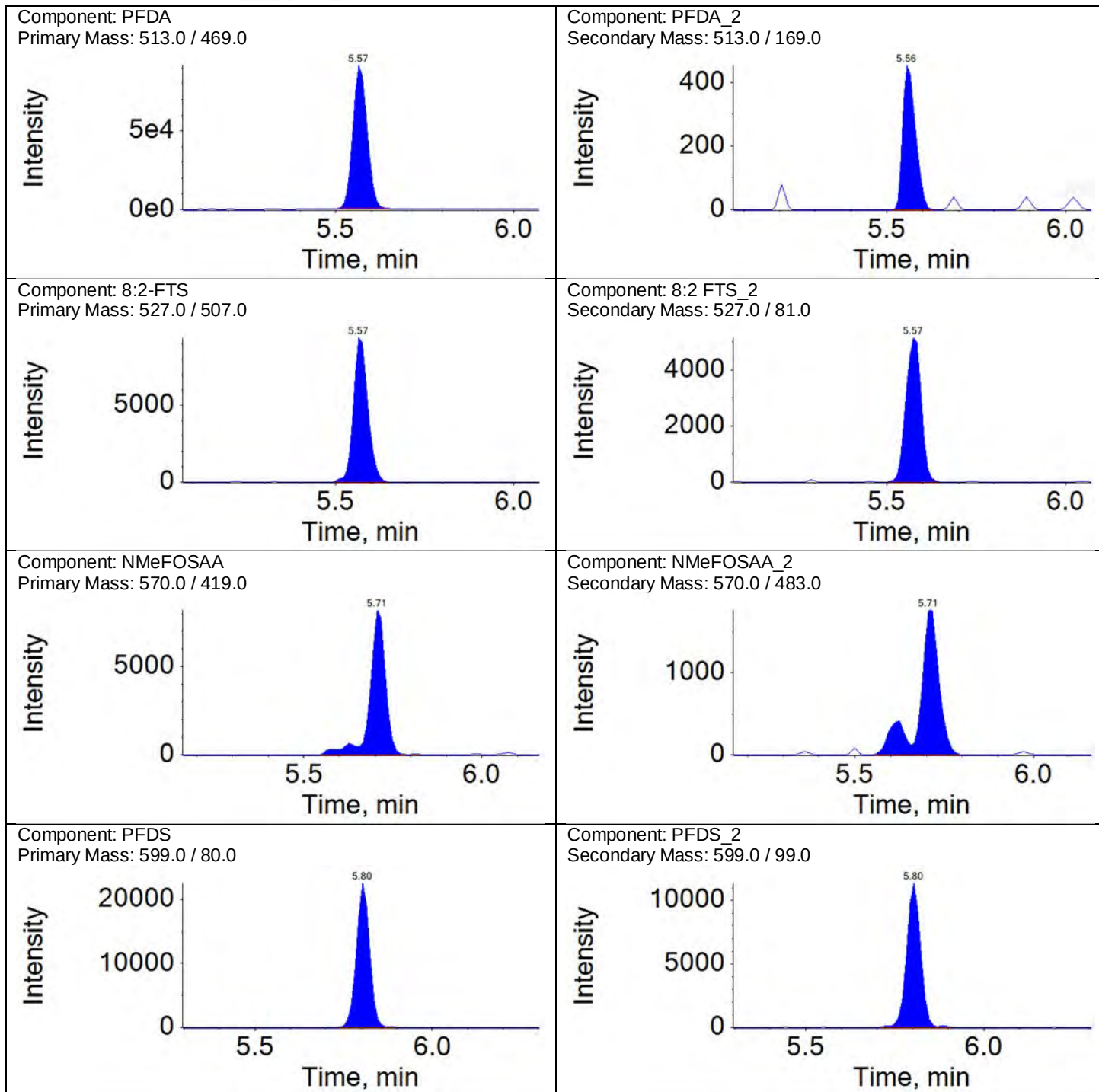
File Name: 18NOV12DCAL-44.wiff

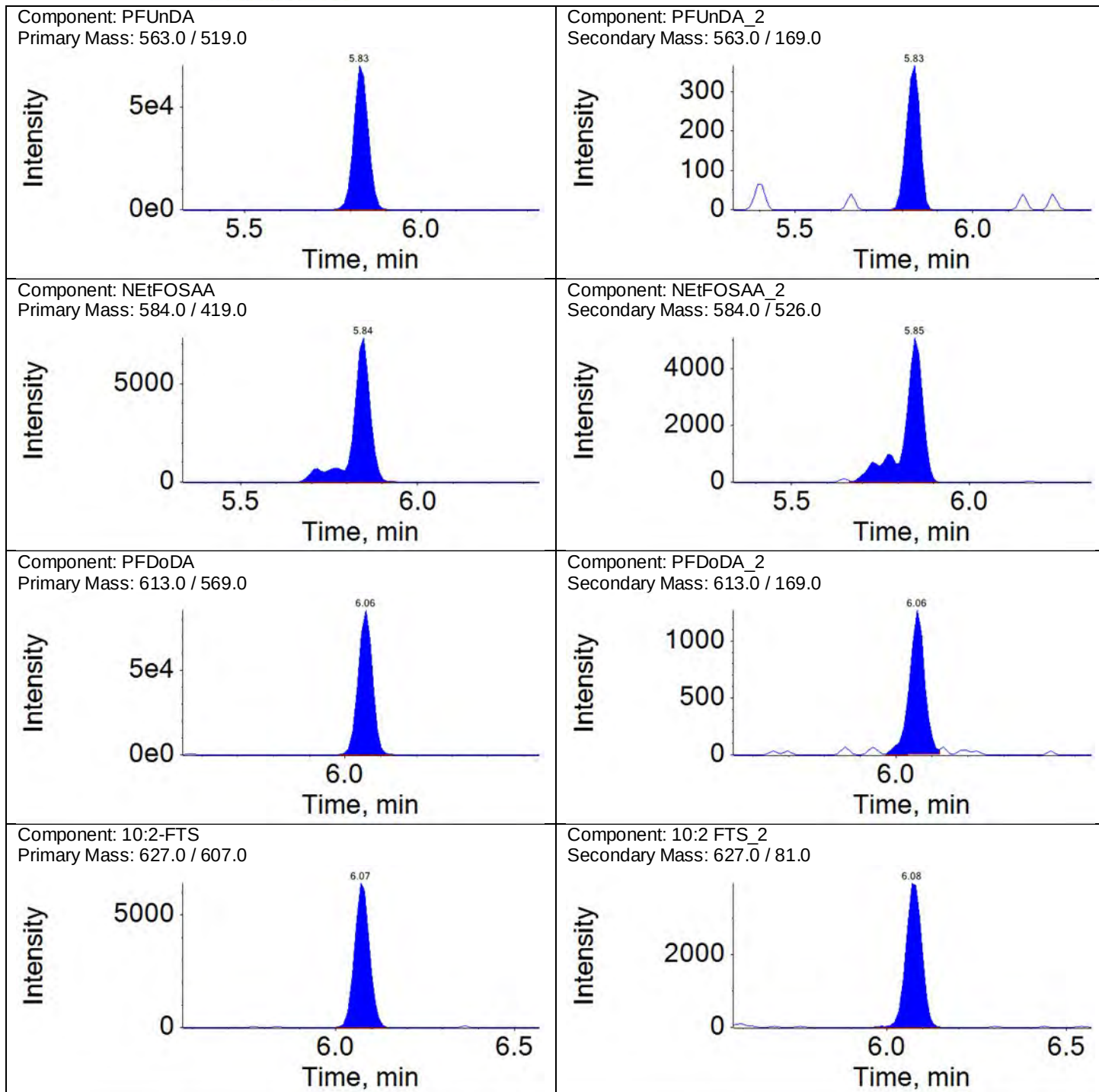
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	168144.64	A	0.3619	0.3569			
PFBS_2	3.82	1.00	60008.36	A	0.3619	0.3569	-1	50	
4:2-FTS	4.13	1.00	34188.48	A	0.6730	0.6730			
4:2 FTS_2	4.13	1.00	23007.23	A	0.6730	0.6730		#NA!	
PFHxA	4.17	1.00	352013.45	A	0.0117	0.0120			
PFHxA_2	4.17	1.00	4207.12	A	0.0117	0.0120	3	50	
PFPeS	4.19	1.10	84071.24	A	0.5191	0.5304			
PFPeS_2	4.19	1.10	44592.70	A	0.5191	0.5304	2	50	
PFHpA	4.56	1.00	355834.18	A	0.0563	0.0619			
PFHpA_2	4.55	1.00	22030.36	A	0.0563	0.0619	10	50	
PFHxS	4.56	1.00	125622.02	M	0.3428	0.3304			
PFHxS_2	4.56	1.00	41506.57	M	0.3428	0.3304	-4	50	
6:2-FTS	4.91	1.00	28084.91	A	0.6604	0.7337			
6:2 FTS_2	4.91	1.00	20606.67	A	0.6604	0.7337		#NA!	
PFHpS	4.92	1.08	125907.86	A	0.4066	0.3838			
PFHpS_2	4.92	1.08	48327.03	A	0.4066	0.3838	-6	50	
PFOA	4.93	1.00	372258.90	A	0.0562	0.0567			
PFOA_2	4.92	1.00	21118.14	A	0.0562	0.0567	1	50	
PFOS	5.25	1.00	120897.45	M	0.2968	0.2842			
PFOS_2	5.25	1.00	34361.90	M	0.2968	0.2842	-4	50	
PFNA	5.27	1.00	302323.82	A	0.0229	0.0192			
PFNA_2	5.28	1.00	5790.58	A	0.0229	0.0192	-16	50	
PFNS	5.55	1.06	76049.00	A	0.4828	0.4502			
PFNS_2	5.54	1.06	34233.54	A	0.4828	0.4502	-7	50	
PFDA	5.57	1.00	254047.79	M	0.0081	0.0044			
PFDA_2	5.56	1.00	1125.96	A	0.0081	0.0044	-45	50	
8:2-FTS	5.57	1.00	26295.08	A	0.6814	0.5850			
8:2 FTS_2	5.57	1.00	15383.41	A	0.6814	0.5850		#NA!	
NMeFOSAA	5.71	1.00	25147.65	A	0.2569	0.2754			
NMeFOSAA_2	5.71	1.00	6926.51	M	0.2569	0.2754	7	50	
PFDS	5.80	1.11	57966.88	A	0.5144	0.5358			
PFDS_2	5.80	1.11	31061.10	A	0.5144	0.5358	4	50	
PFUnDA	5.83	1.00	199061.83	A	0.0058	0.0049			
PFUnDA_2	5.83	1.00	975.19	A	0.0058	0.0049	-16	50	
NEtFOSAA	5.84	1.00	25089.02	A	0.7253	0.7602			
NEtFOSAA_2	5.85	1.00	19071.96	M	0.7253	0.7602	5	50	
PFDODA	6.06	1.00	237252.63	A	0.0157	0.0159			
PFDODA_2	6.06	1.00	3761.16	M	0.0157	0.0159	1	50	
10:2-FTS	6.07	1.09	18541.69	A	0.6356	0.6613			
10:2 FTS_2	6.08	1.09	12260.75	A	0.6356	0.6613		#NA!	
PFTTrDA	6.26	1.03	184322.87	A	0.0086	0.0079			
PFTTrDA_2	6.26	1.03	1447.70	M	0.0086	0.0079	-8	50	
PFTeDA	6.43	1.00	156439.94	A	0.0062	0.0065			
PFTeDA_2	6.44	1.00	1023.07	A	0.0062	0.0065	5	50	
PFHxDA	6.74	1.05	69655.07	A	0.0683	0.0690			
PFHxDA_2	6.74	1.05	4808.92	A	0.0683	0.0690	1	50	
PFODA	7.00	1.09	57795.96	A	0.0277	0.0253			
PFODA_2	7.00	1.09	1464.82	A	0.0277	0.0253	-9	50	

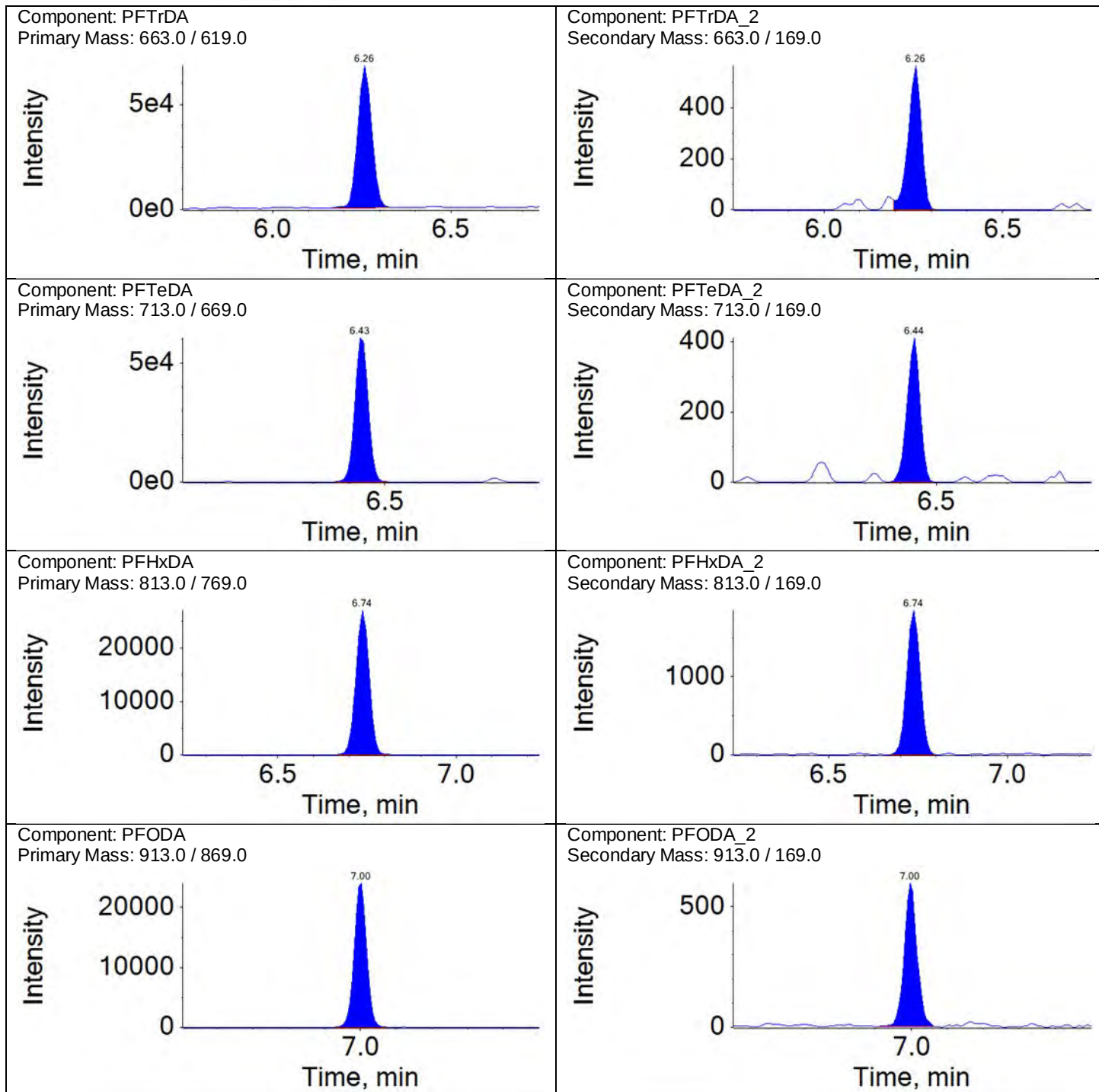












ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL4		Data File:	18NOV12DCAL-45.wiff
Sample ID:	CALBRN41833B		Acquis Date:	2018-11-12T15:33:03
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	6		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV12DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	671568.1	659926.2	2	50	
13C2-PFOA	5.0	477519.7	450219.7	6	50	
13C4-PFOS	4.8	256143.3	249205.8	3	50	
13C2-PFDA	5.0	301327.2	278743.9	8	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	726396.0	13C3-PFBA	671568.1	1.082	5.000	4.849	97	70-130	
E13C5-PFPeA	716206.9	13C3-PFBA	671568.1	1.066	5.000	4.783	96	70-130	
E13C3-PFBS	425015.7	13C3-PFBA	671568.1	0.633	4.650	4.468	96	70-130	
E13C2-4:2-FTS	47246.4	13C2-PFOA	477519.7	0.099	4.670	4.407	94	70-130	
E13C5-PFHxA	641195.9	13C2-PFOA	477519.7	1.343	5.000	4.851	97	70-130	
E13C3-PFHxS	315722.6	13C2-PFOA	477519.7	0.661	4.730	4.537	96	70-130	
E13C4-PFHpA	509151.8	13C2-PFOA	477519.7	1.066	5.000	4.804	96	70-130	
E13C2-6:2-FTS	31883.3	13C2-PFOA	477519.7	0.067	4.750	4.467	94	70-130	
E13C8-PFOA	863597.3	13C2-PFOA	477519.7	1.809	5.000	4.983	100	70-130	
E13C8-PFOS	267380.8	13C4-PFOS	256143.3	1.044	4.780	4.625	97	70-130	
E13C9-PFNA	485570.4	13C4-PFOS	256143.3	1.896	5.000	5.285	106	70-130	
E13C6-PFDA	612056.5	13C2-PFDA	301327.2	2.031	5.000	4.740	95	70-130	
E13C2-8:2-FTS	27253.5	13C2-PFDA	301327.2	0.090	4.790	4.511	94	70-130	
E13C8-PFOSA	607762.0	13C2-PFDA	301327.2	2.017	5.000	4.472	89	70-130	
Ed3-NMeFOSAA	72788.0	13C2-PFDA	301327.2	0.242	5.000	4.360	87	70-130	
E13C7-PFUnDA	232014.1	13C2-PFDA	301327.2	0.770	5.000	4.470	89	70-130	
Ed5-NEtFOSAA	65478.0	13C2-PFDA	301327.2	0.217	5.000	4.597	92	70-130	
E13C2-PFDODA	521514.1	13C2-PFDA	301327.2	1.731	5.000	4.494	90	70-130	
Ed7-NMePFOSAE	327796.4	13C2-PFDA	301327.2	1.088	5.000	4.708	94	70-130	
Ed3-NMePFOSA	70122.5	13C2-PFDA	301327.2	0.233	5.000	4.228	85	70-130	
Ed9-NEtPFOSAE	259467.4	13C2-PFDA	301327.2	0.861	5.000	4.479	90	70-130	
Ed5-NEtPFOSA	55177.3	13C2-PFDA	301327.2	0.183	5.000	4.296	86	70-130	
E13C2-PFTeDA	392356.6	13C2-PFDA	301327.2	1.302	5.000	4.571	91	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL4

Instrument Name: LM27631

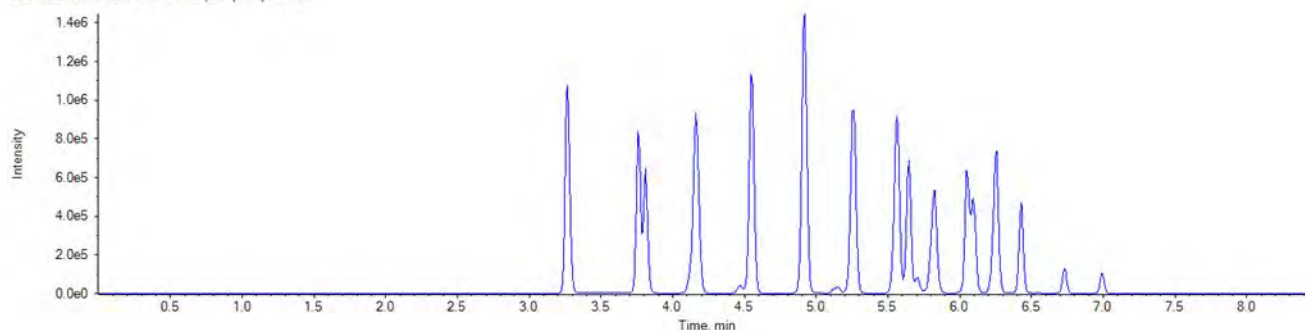
File Name: 18NOV12DCAL-45.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	1068414.9		A	13C4-PFBA	3.26	726396.0	1.471	8.148
PFPeA	3.76	1.000	1075643.5		A	13C5-PFPeA	3.76	716206.9	1.502	8.694
PFBS	3.81	1.000	617045.6		A	13C3-PFBS	3.81	425015.7	1.452	6.906
4:2-FTS	4.13	1.000	126396.5		A	13C2-4:2-FTS	4.13	47246.4	2.675	7.263
PFHxA	4.16	1.000	1265231.1		A	13C5-PFHxA	4.16	641195.9	1.973	8.239
PFPeS	4.18	1.100	328681.7		A	13C3-PFBS	3.81	425015.7	0.773	7.508
PFHpA	4.55	1.000	1318774.5		A	13C4-PFHpA	4.55	509151.8	2.590	8.586
PFHxS	4.55	1.000	479291.0		M	13C3-PFHxS	4.55	315722.6	1.518	7.361
6:2-FTS	4.91	1.000	107470.6		A	13C2-6:2-FTS	4.91	31883.3	3.371	8.157
PFHpS	4.91	1.080	434949.2		A	13C3-PFHxS	4.55	315722.6	1.378	7.252
PFOA	4.92	1.000	1327086.1		A	13C8-PFOA	4.92	863597.3	1.537	8.207
PFOS	5.25	1.000	448833.8		M	13C8-PFOS	5.25	267380.8	1.679	7.341
PFNA	5.26	1.000	1106664.2		A	13C9-PFNA	5.26	485570.4	2.279	8.218
PFNS	5.54	1.060	269712.3		A	13C8-PFOS	5.25	267380.8	1.009	7.057
PFDA	5.56	1.000	941985.3		M	13C6-PFDA	5.56	612056.5	1.539	8.159
8:2-FTS	5.57	1.000	80922.6		A	13C2-8:2-FTS	5.57	27253.5	2.969	6.923
PFOSA	5.64	1.000	927660.5		A	13C8-PFOSA	5.64	607762.0	1.526	7.455
NMeFOSAA	5.70	1.000	103649.1		A	d3-NMeFOSAA	5.70	72788.0	1.424	8.048
PFDS	5.80	1.110	224031.2		A	13C8-PFOS	5.25	267380.8	0.838	7.592
PFUnDA	5.82	1.000	768010.8		A	13C7-PFUnDA	5.82	232014.1	3.310	8.654
NEtFOSAA	5.84	1.000	94877.8		A	d5-NEtFOSAA	5.83	65478.0	1.449	7.596
PFDaDA	6.05	1.000	803646.8		A	13C2-PFDaDA	6.05	521514.1	1.541	7.847
10:2-FTS	6.07	1.090	56040.8		A	13C2-8:2-FTS	5.57	27253.5	2.056	6.849
NMePFOSAE	6.10	1.000	618314.4		M	d7-NMePFOSAE	6.09	327796.4	1.886	7.850
NMePFOSA	6.10	1.000	114415.9		M	d3-NMePFOSA	6.10	70122.5	1.632	8.049
PFDaS	6.22	1.190	117663.3		A	13C8-PFOS	5.25	267380.8	0.440	7.707
NEtPFOSAE	6.25	1.000	673196.1		A	d9-NEtPFOSAE	6.24	259467.4	2.595	8.324
NEtPFOSA	6.27	1.000	99354.1		M	d5-NEtPFOSA	6.26	55177.3	1.801	8.269
PFTaDA	6.25	1.030	674140.3		A	13C2-PFDaDA	6.05	521514.1	1.293	8.159
PFTeDA	6.43	1.000	571926.7		A	13C2-PFTeDA	6.43	392356.6	1.458	8.171
PFHxDA	6.73	1.050	256654.3		A	13C2-PFTeDA	6.43	392356.6	0.654	7.793
PFODA	6.99	1.090	219359.6		A	13C2-PFTeDA	6.43	392356.6	0.559	7.786

Total Ion Chromatogram

TIC from 18NOV12DCAL-45.wiff (sample 1) - CAL4



APPROVED

By MCD at 6:33 pm, 11/12/18

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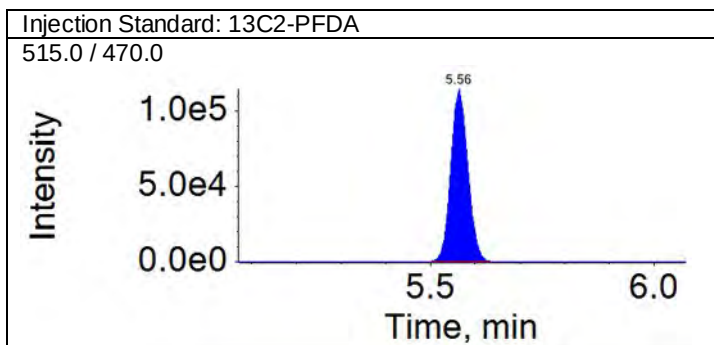
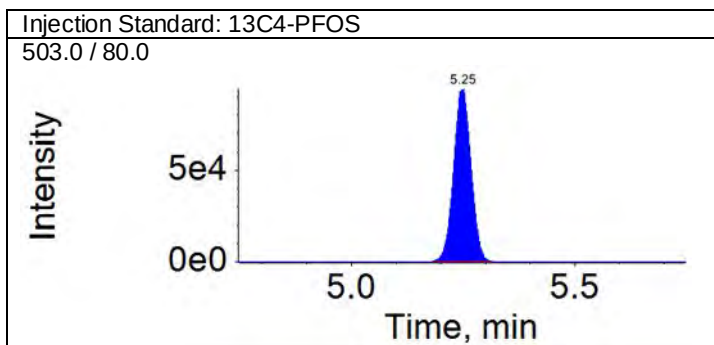
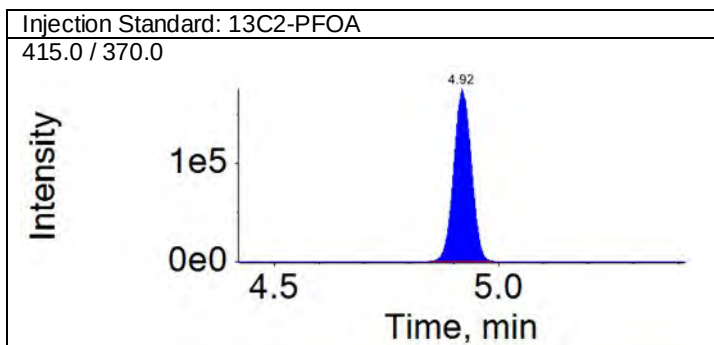
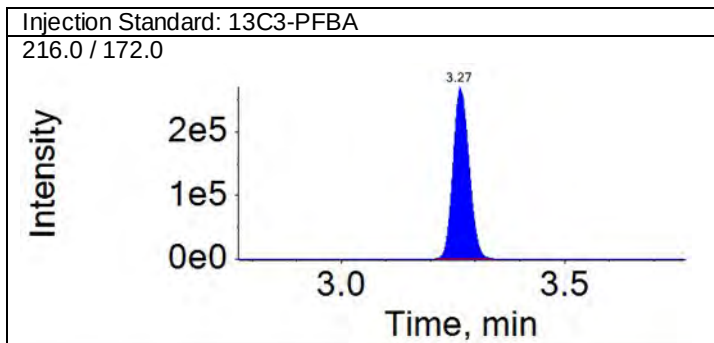
REVIEWED

By HMK at 10:53 am, 11/13/18

Page 2 of 17

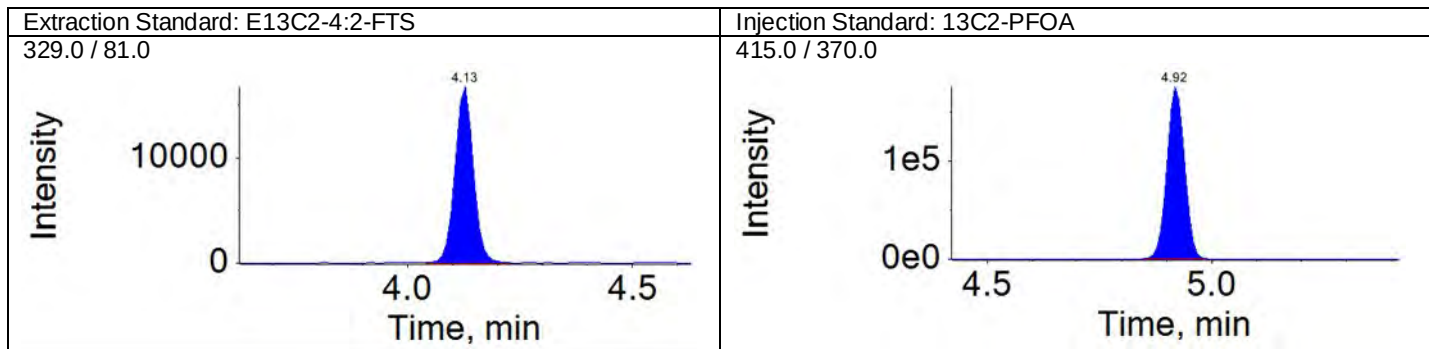
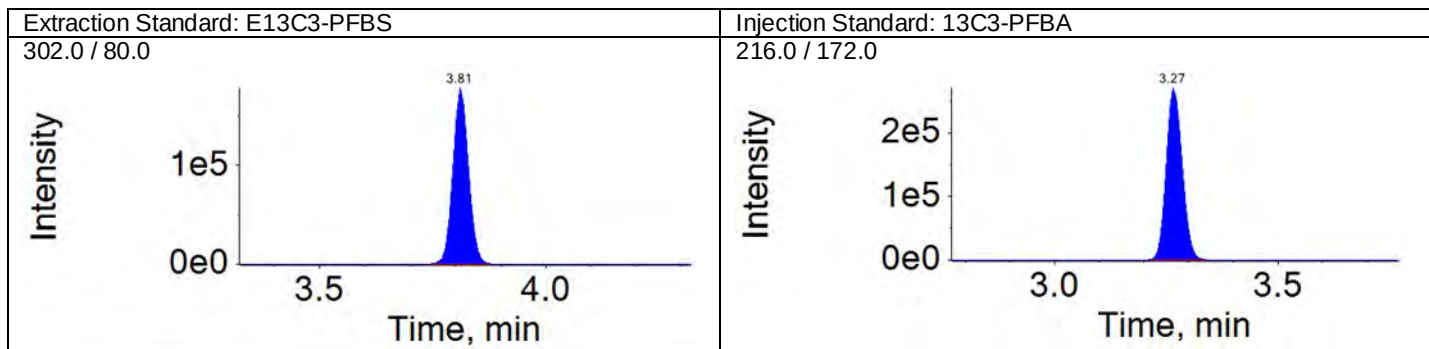
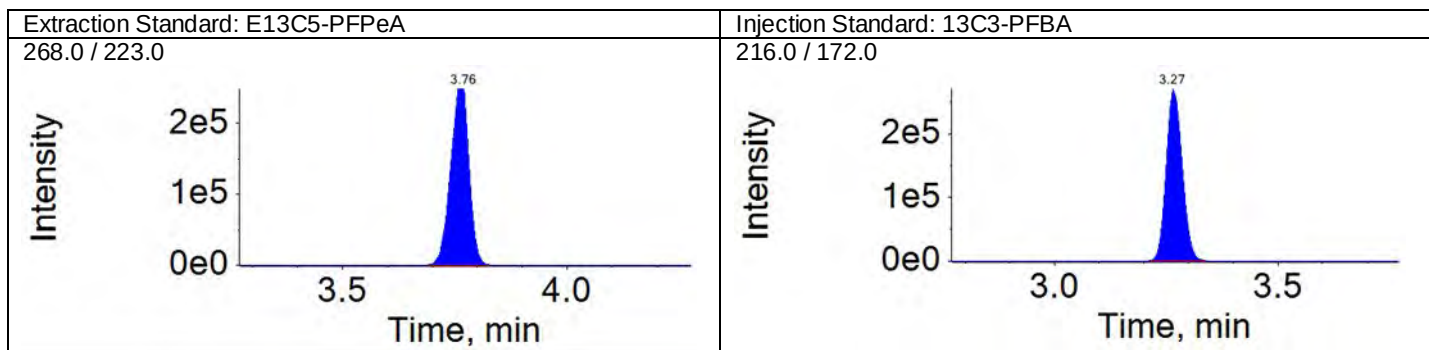
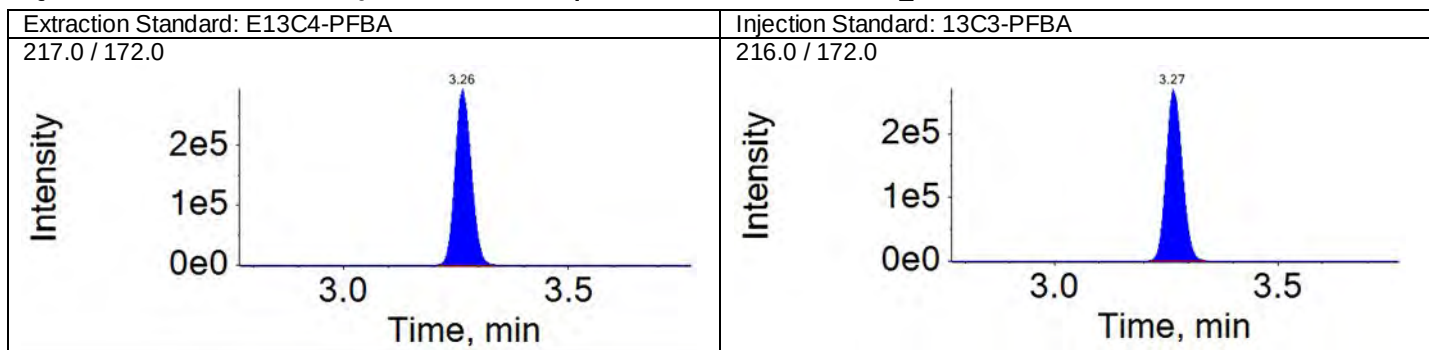
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



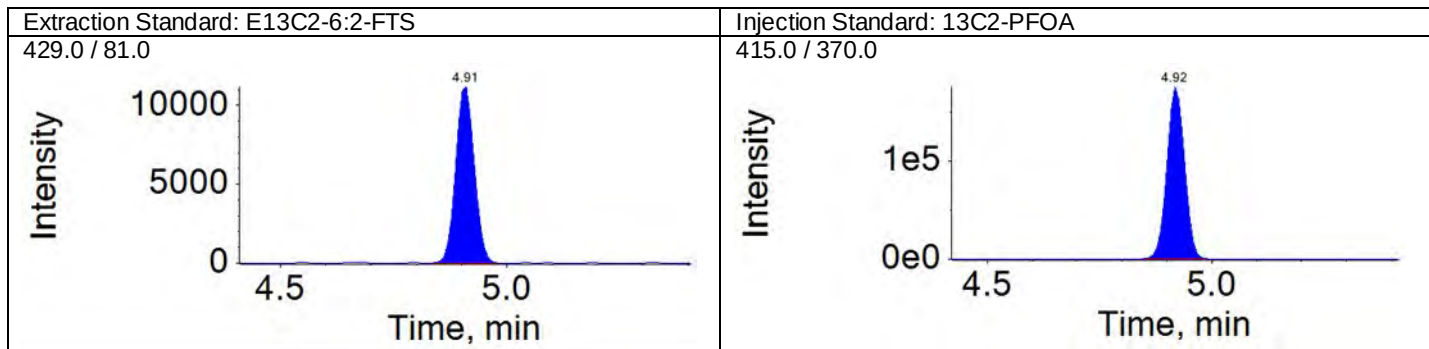
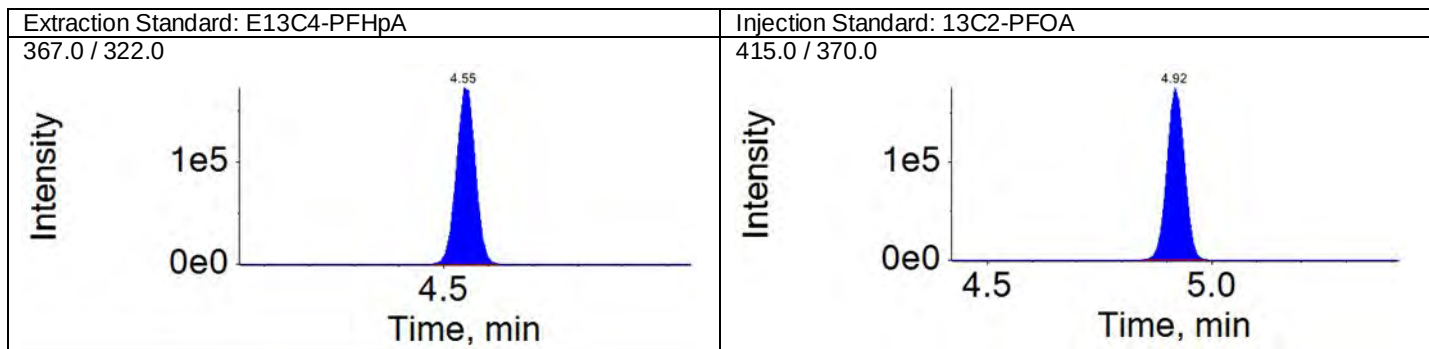
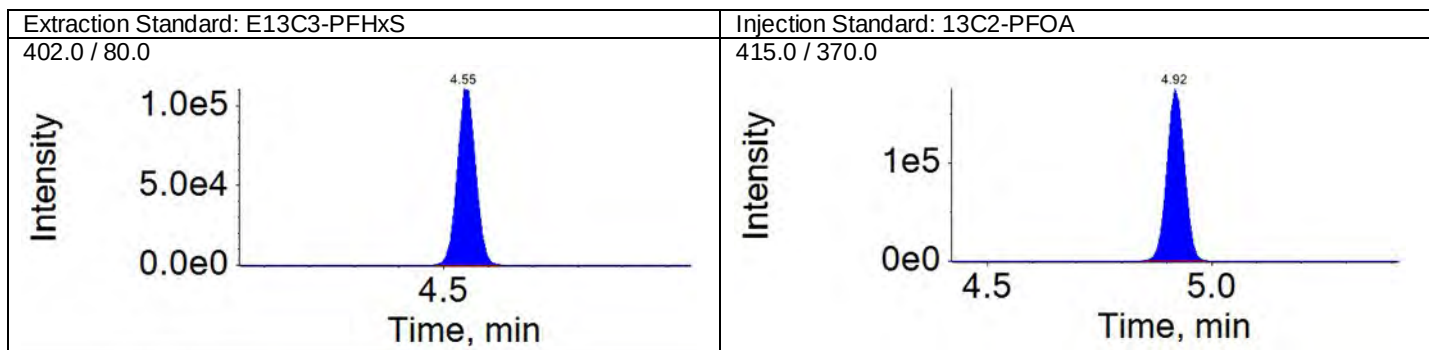
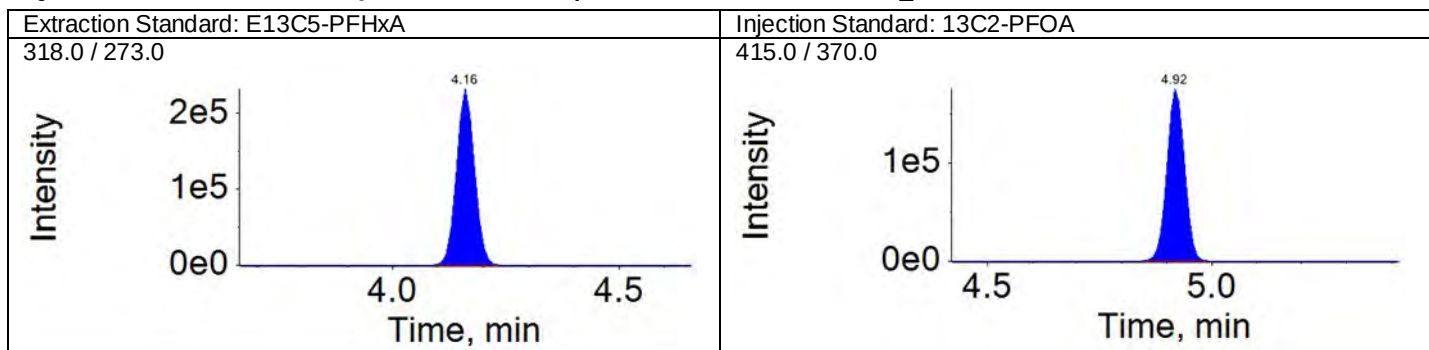
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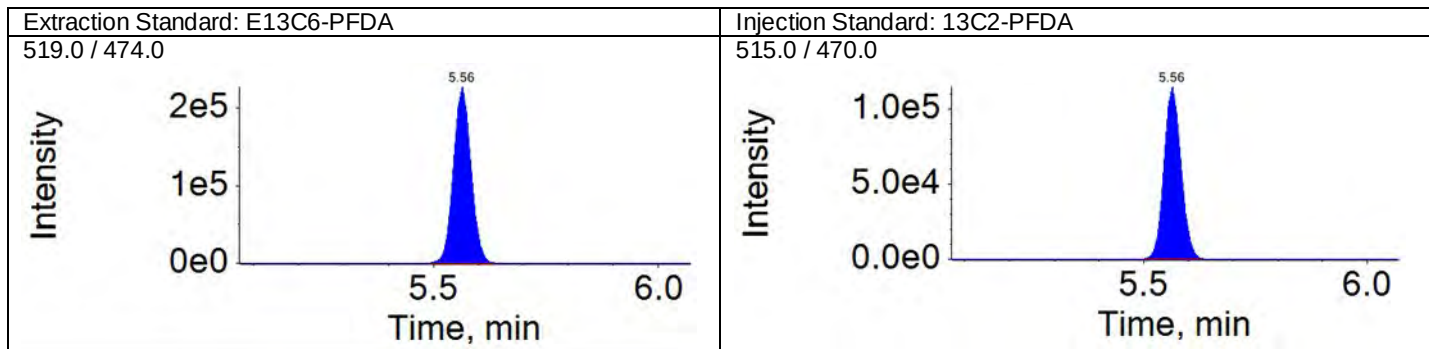
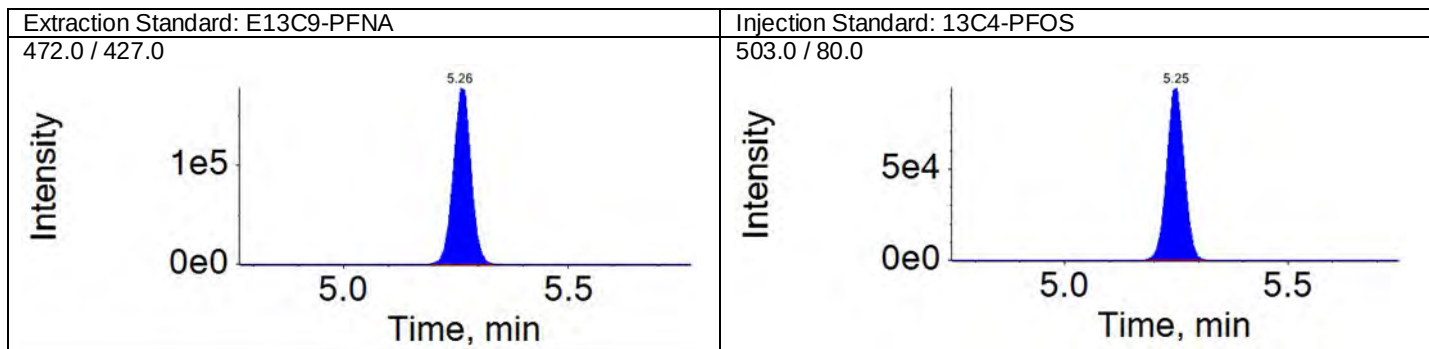
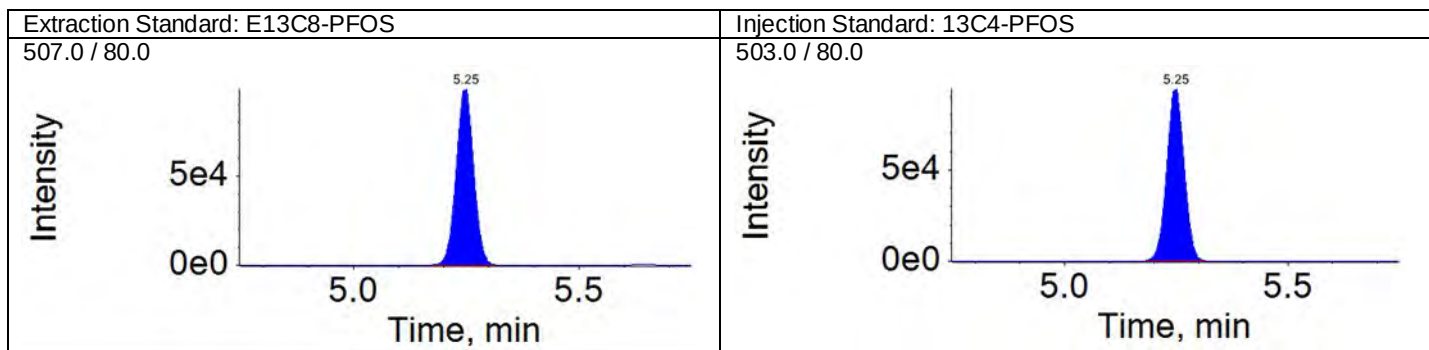
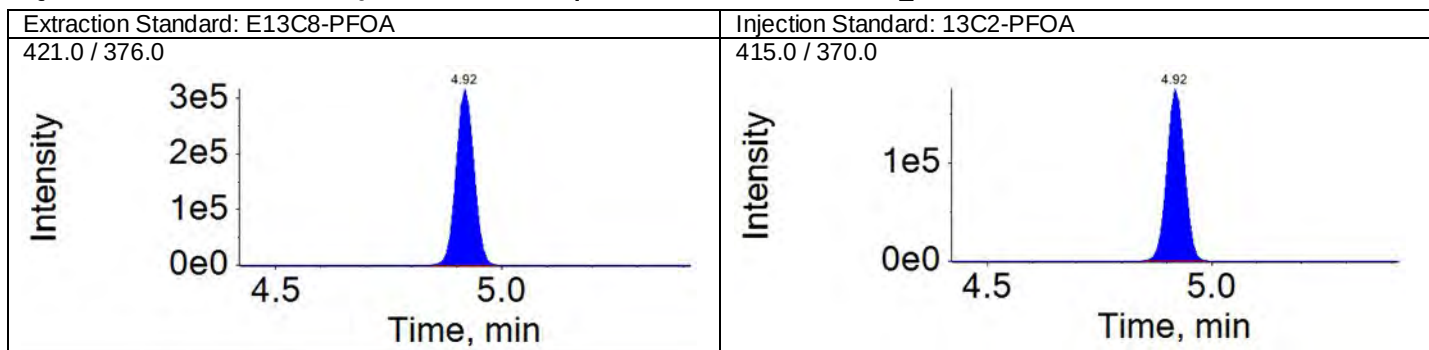
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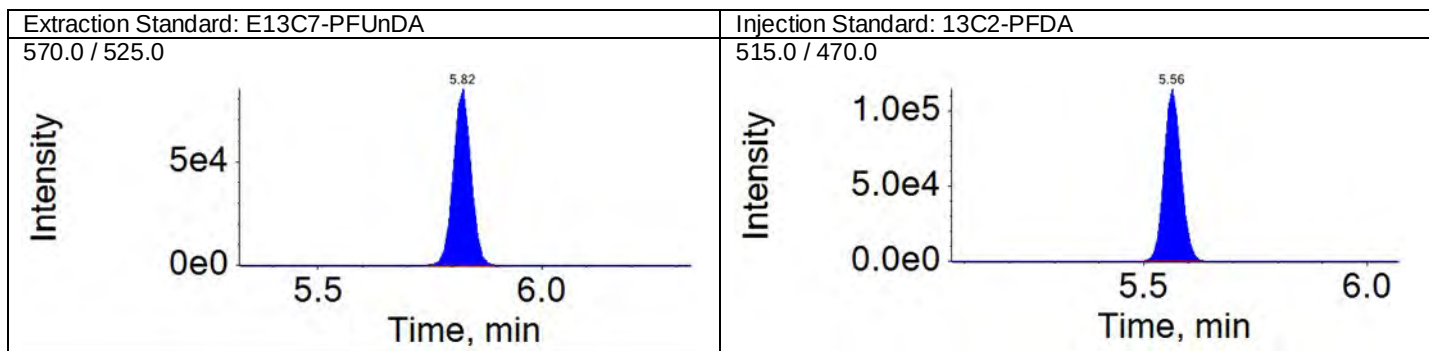
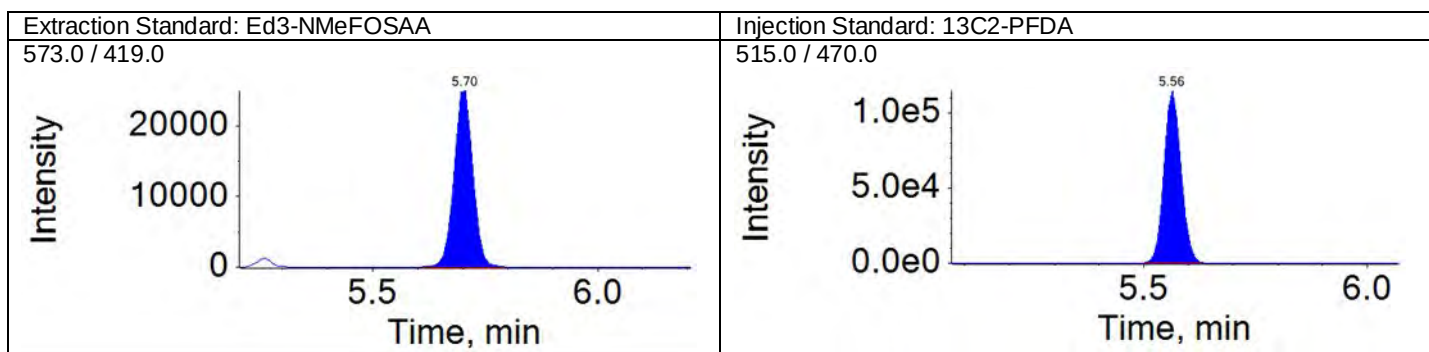
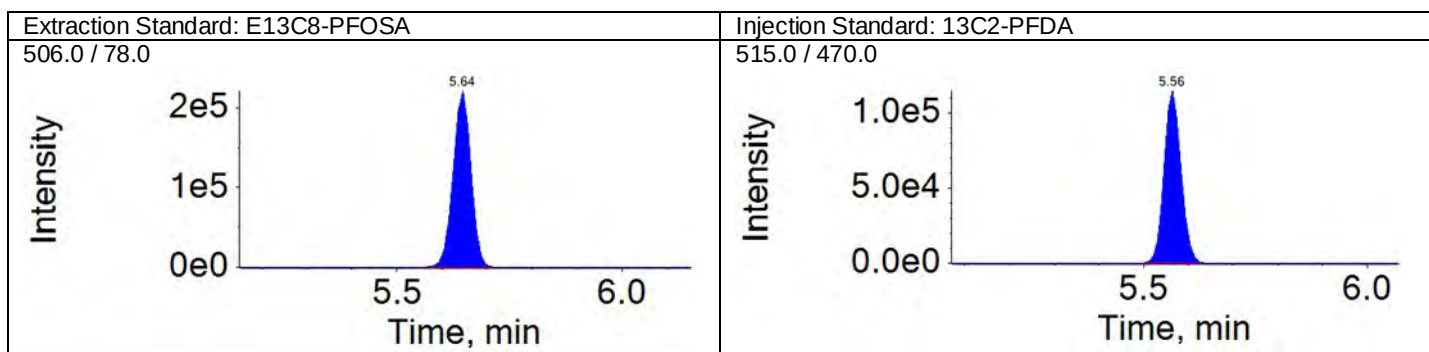
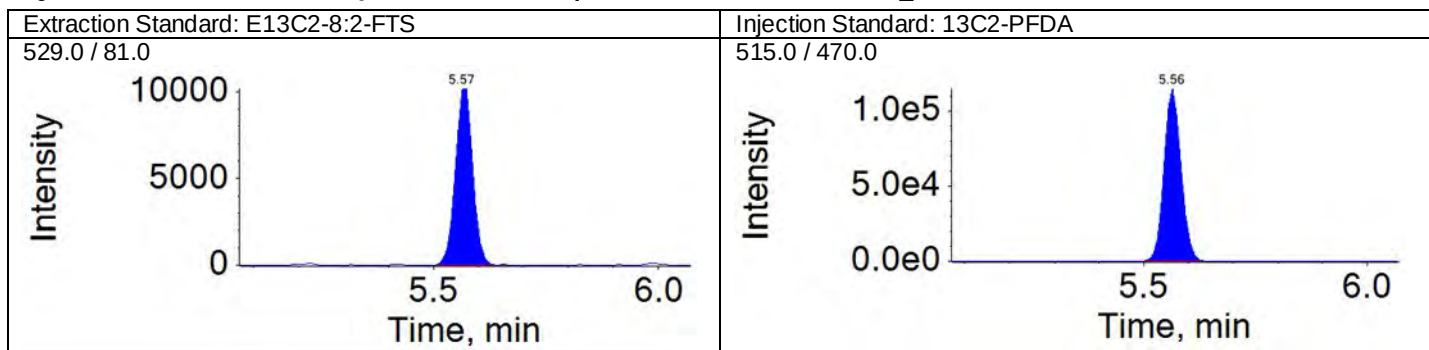
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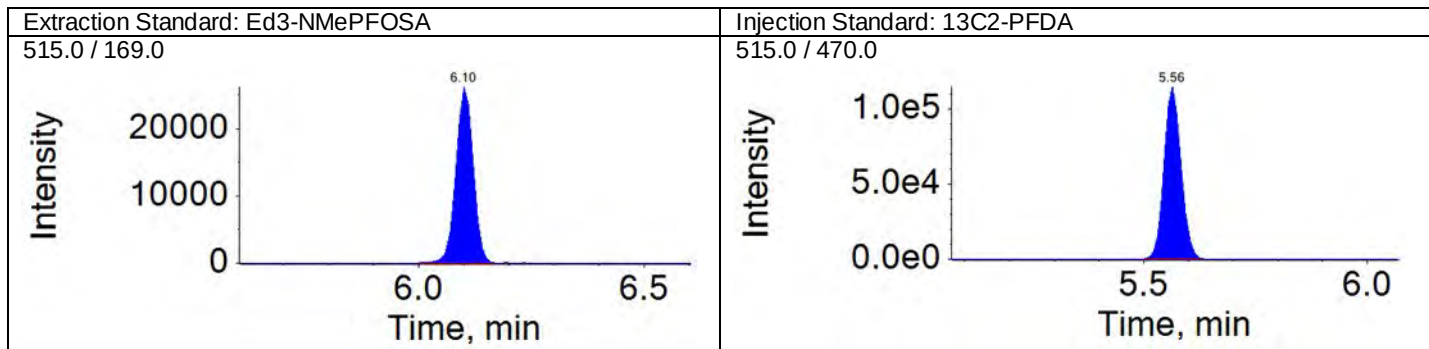
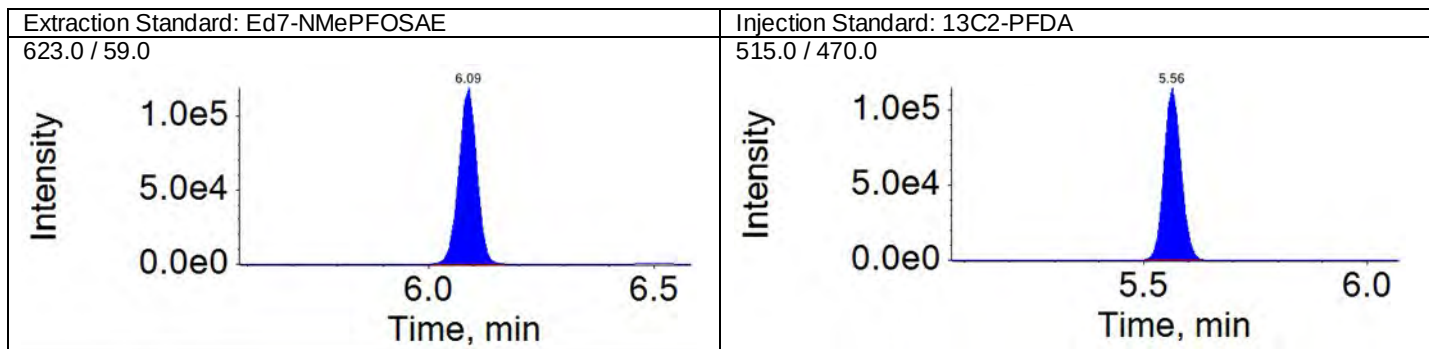
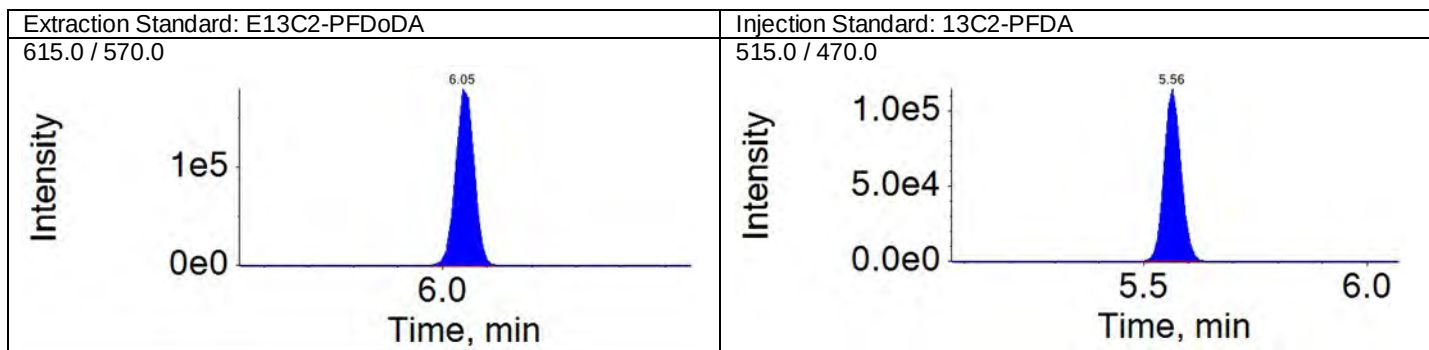
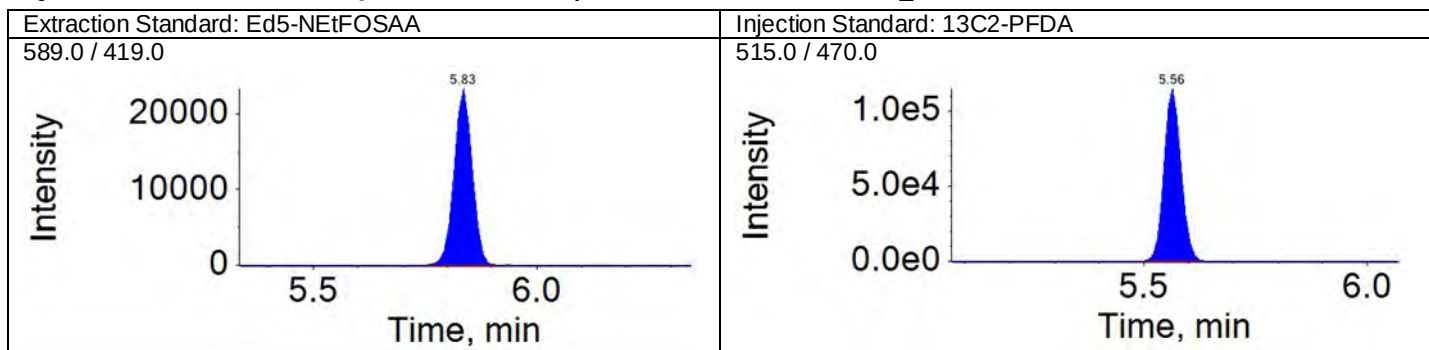
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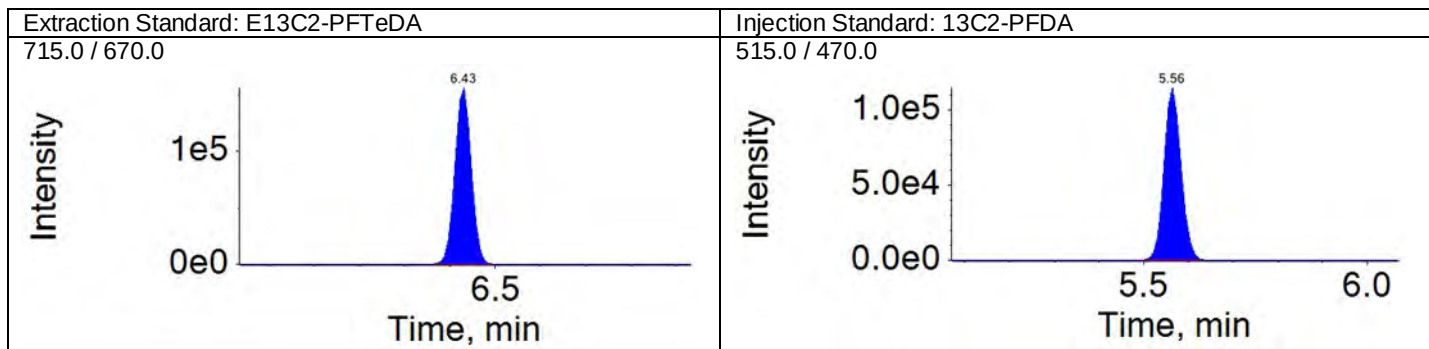
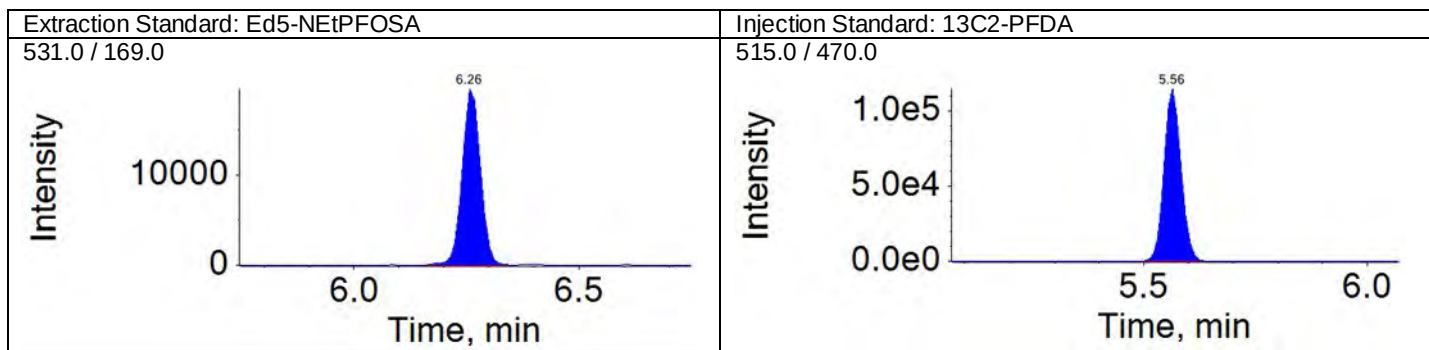
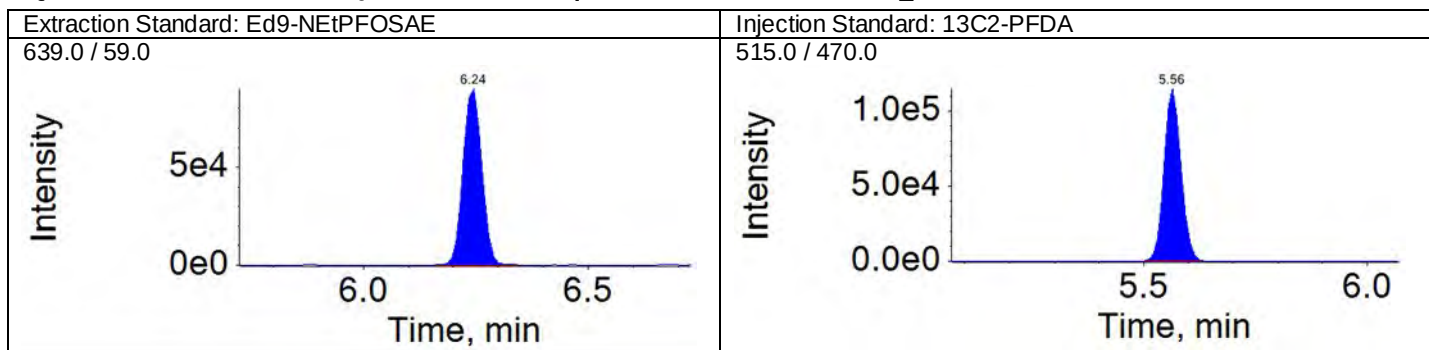
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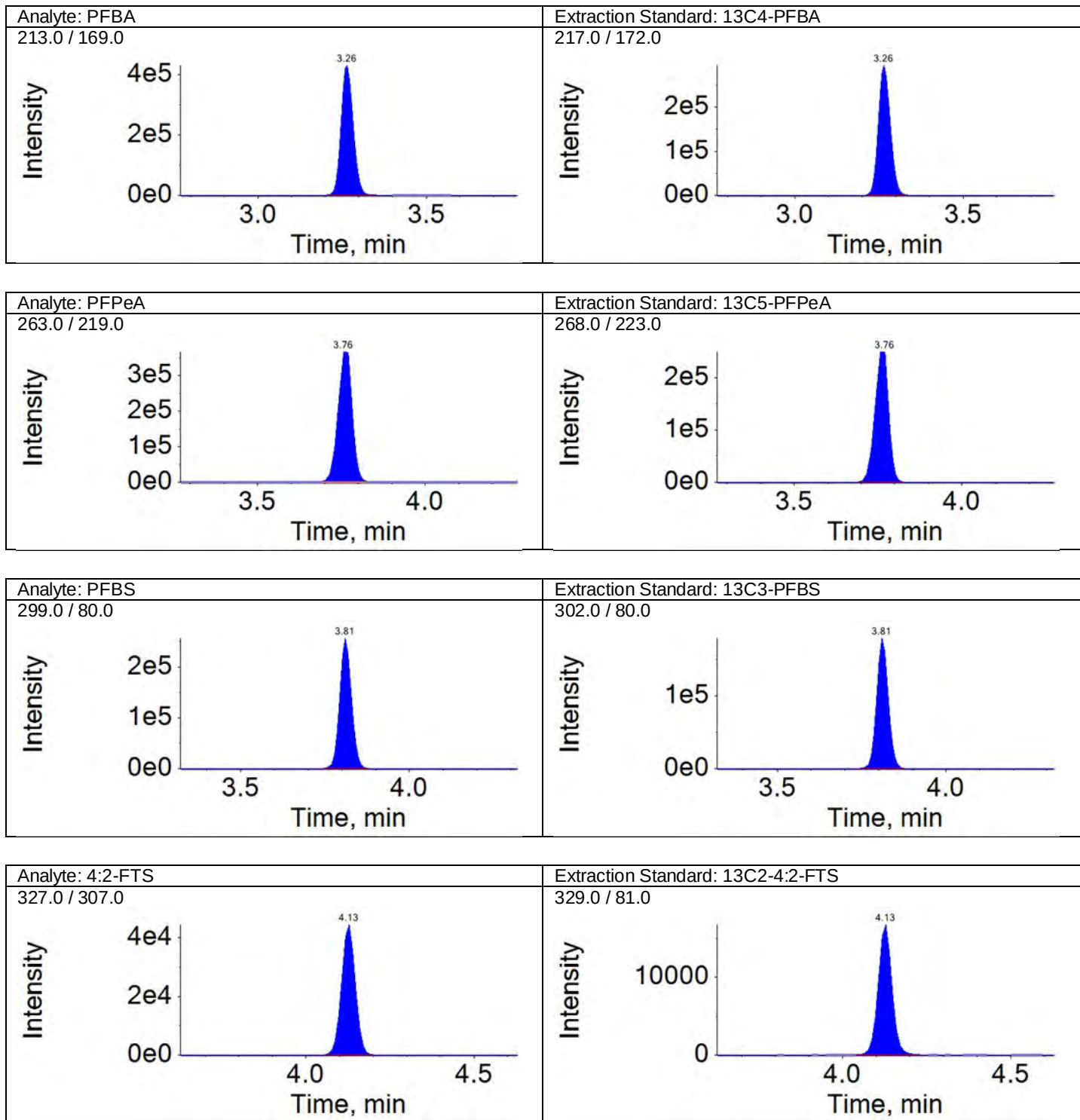
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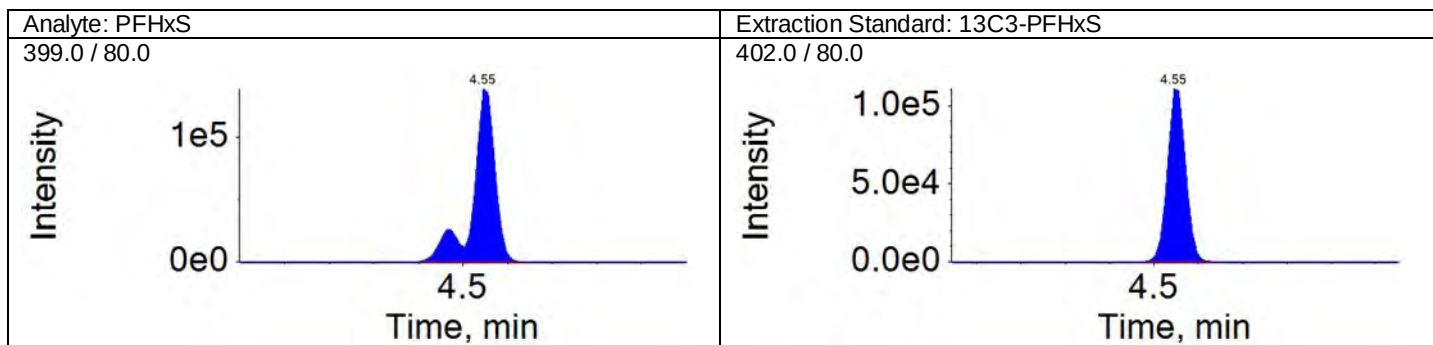
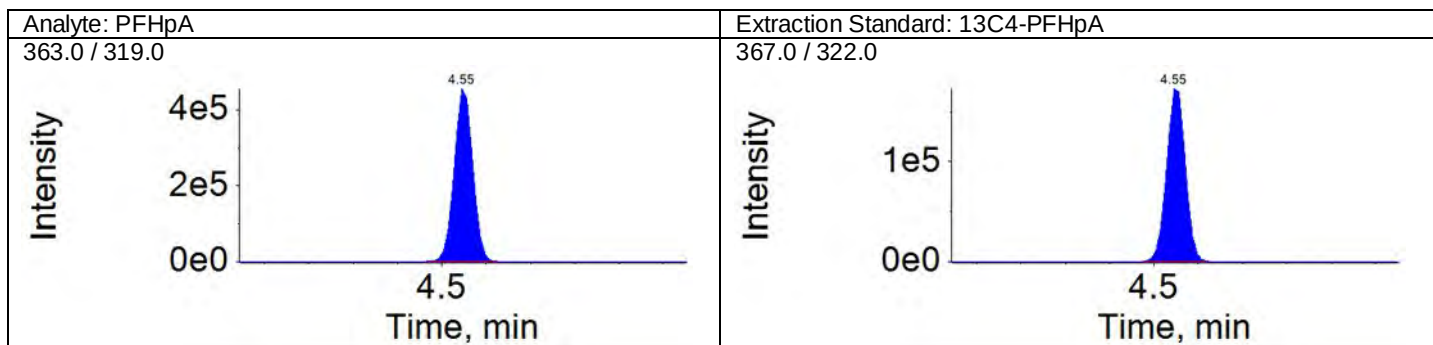
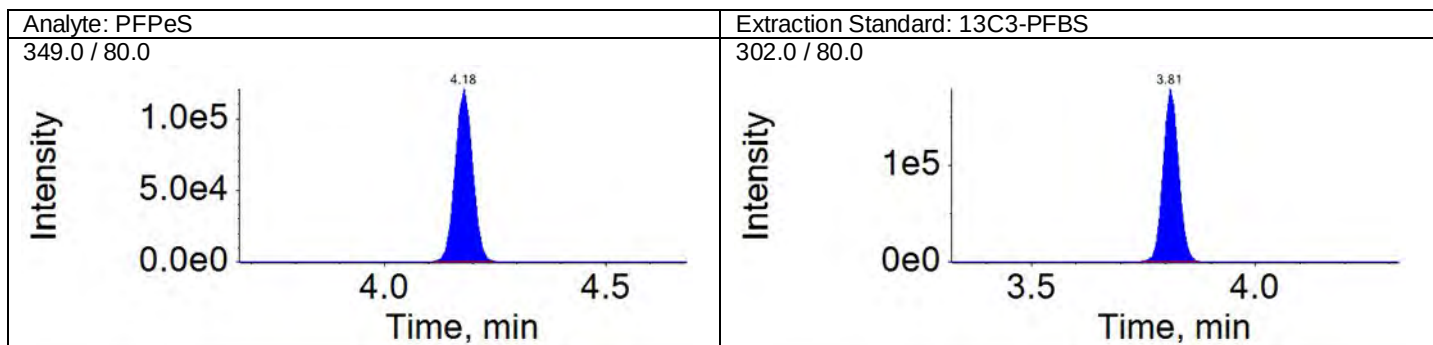
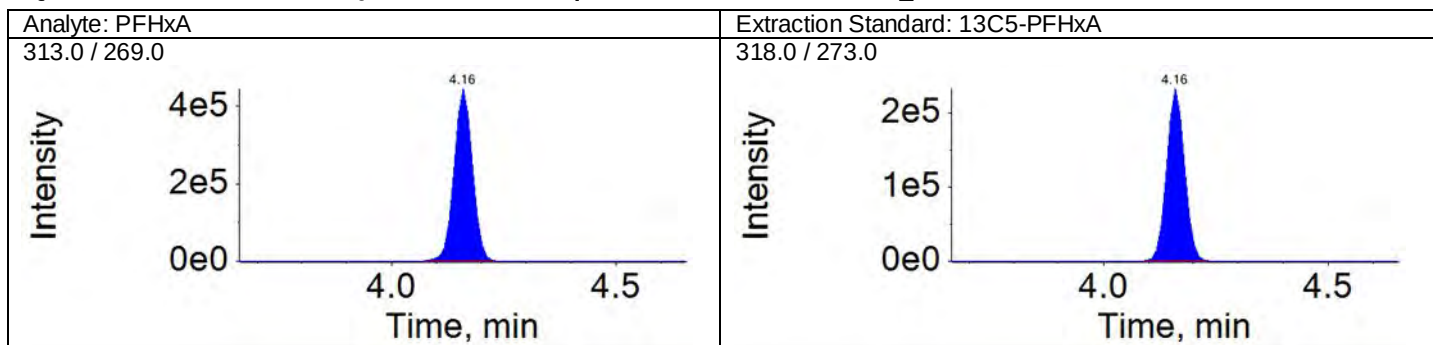
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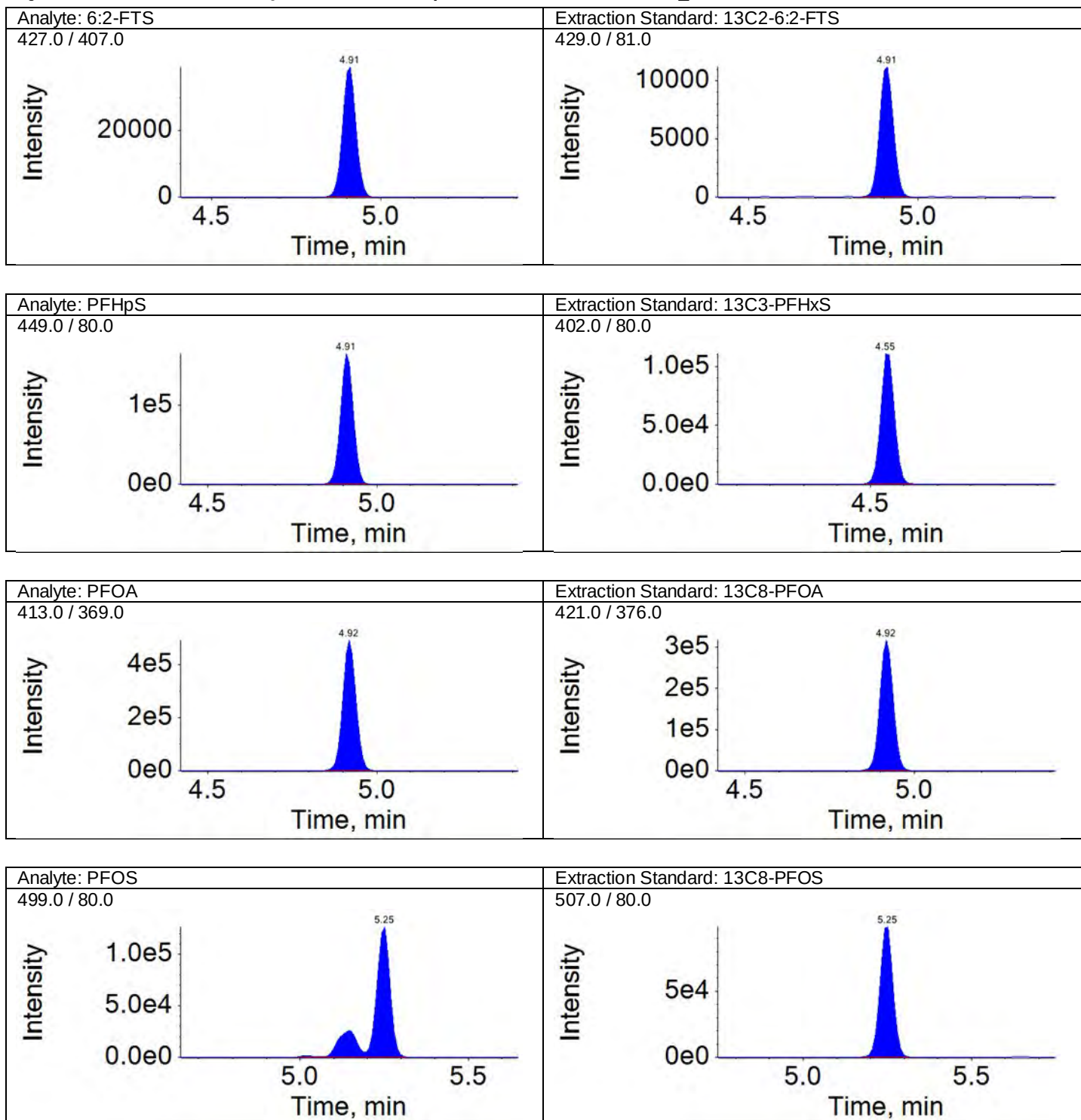
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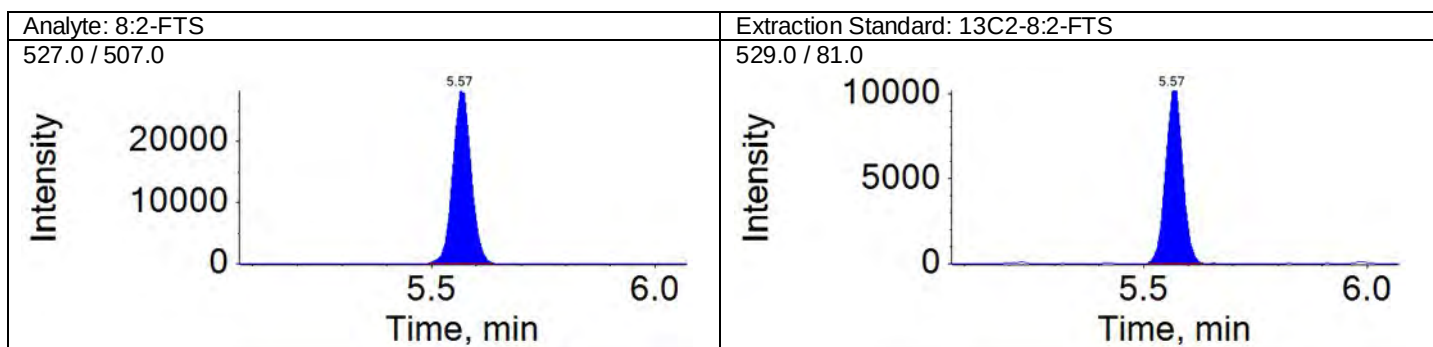
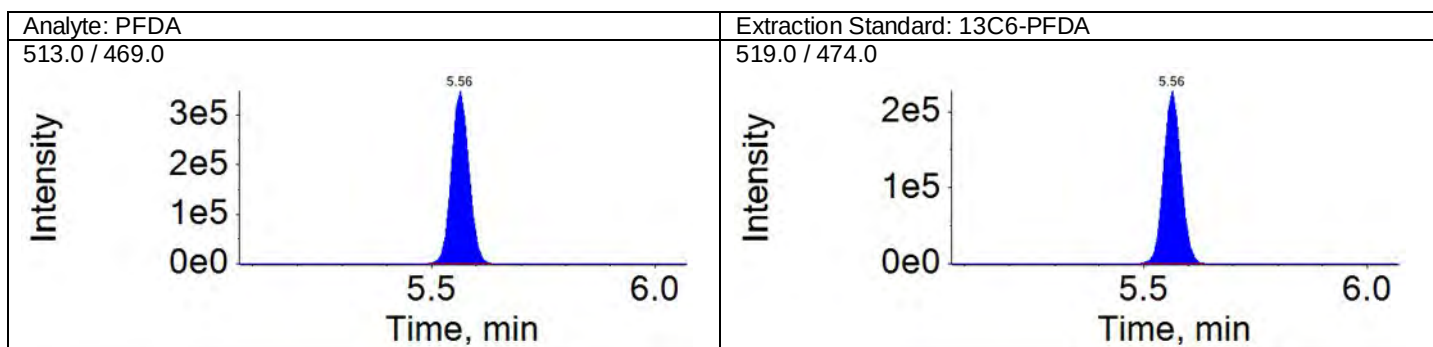
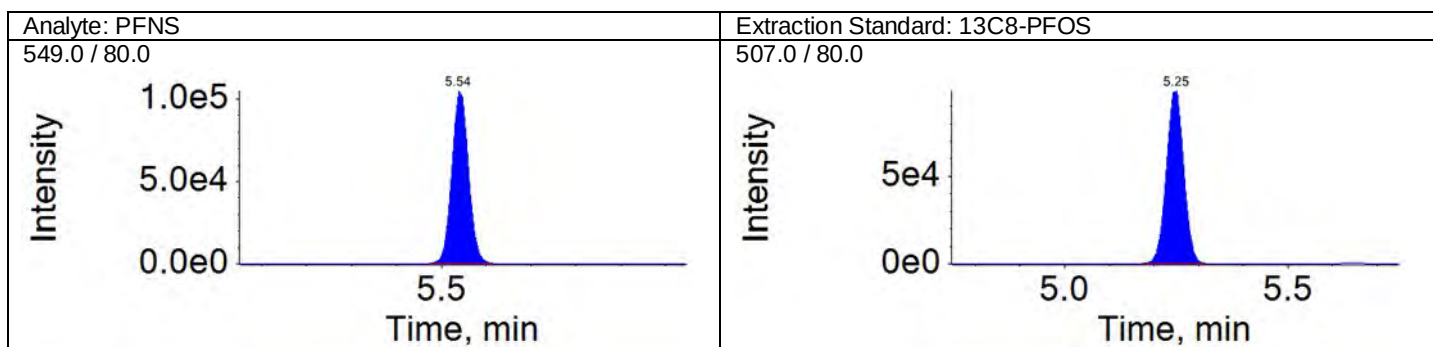
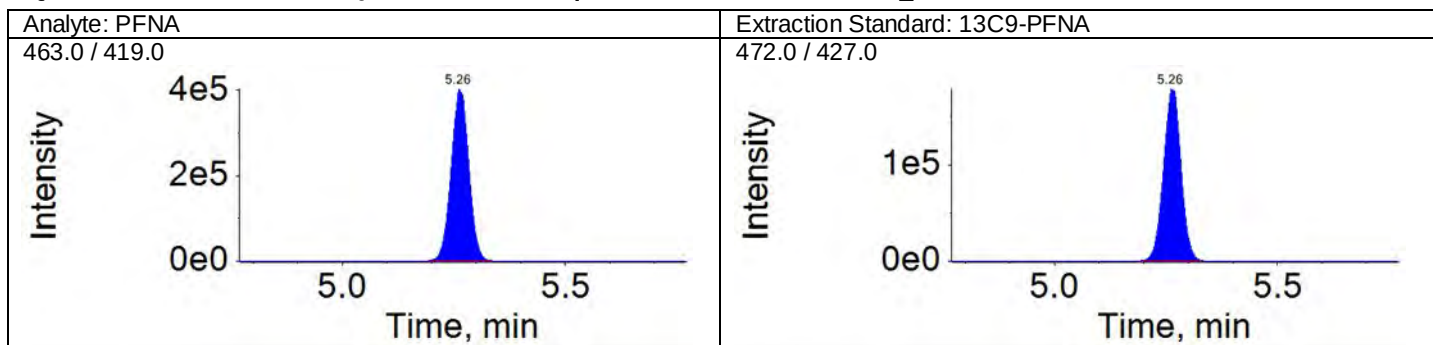
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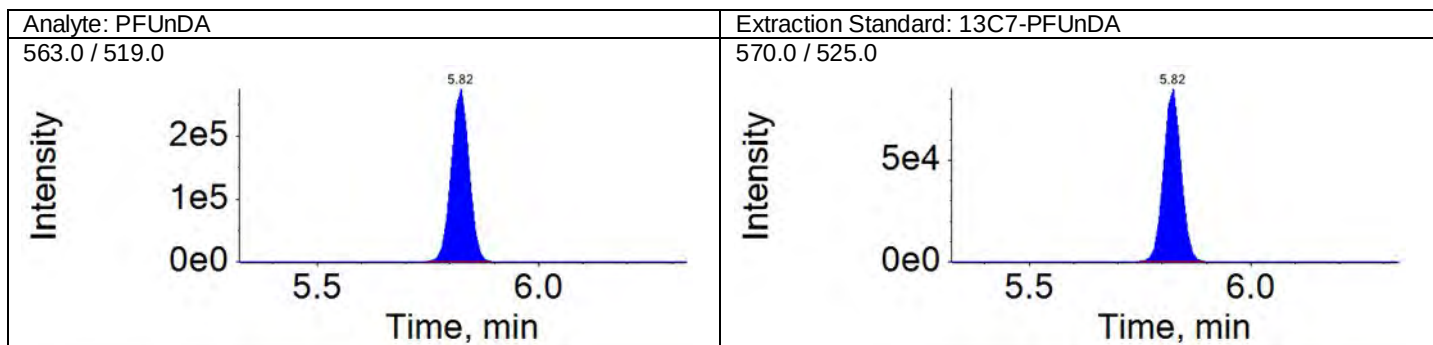
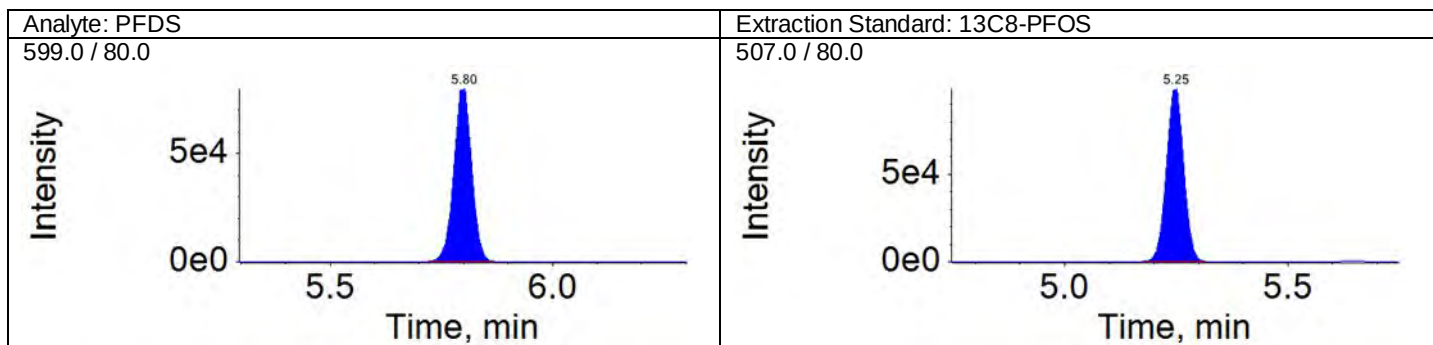
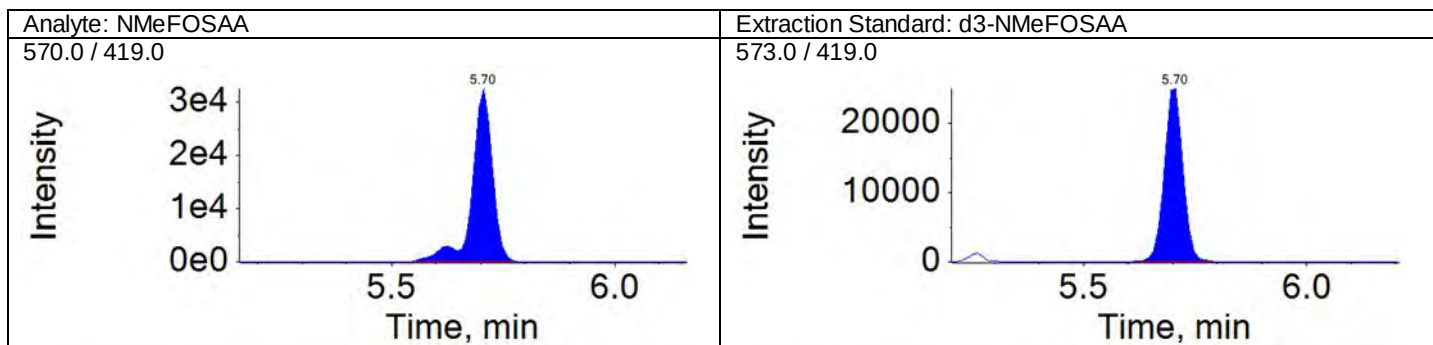
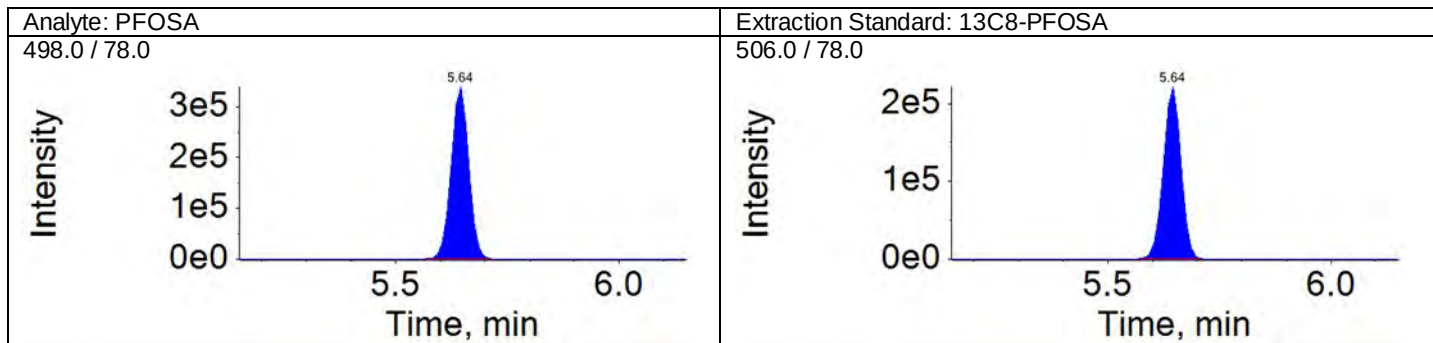
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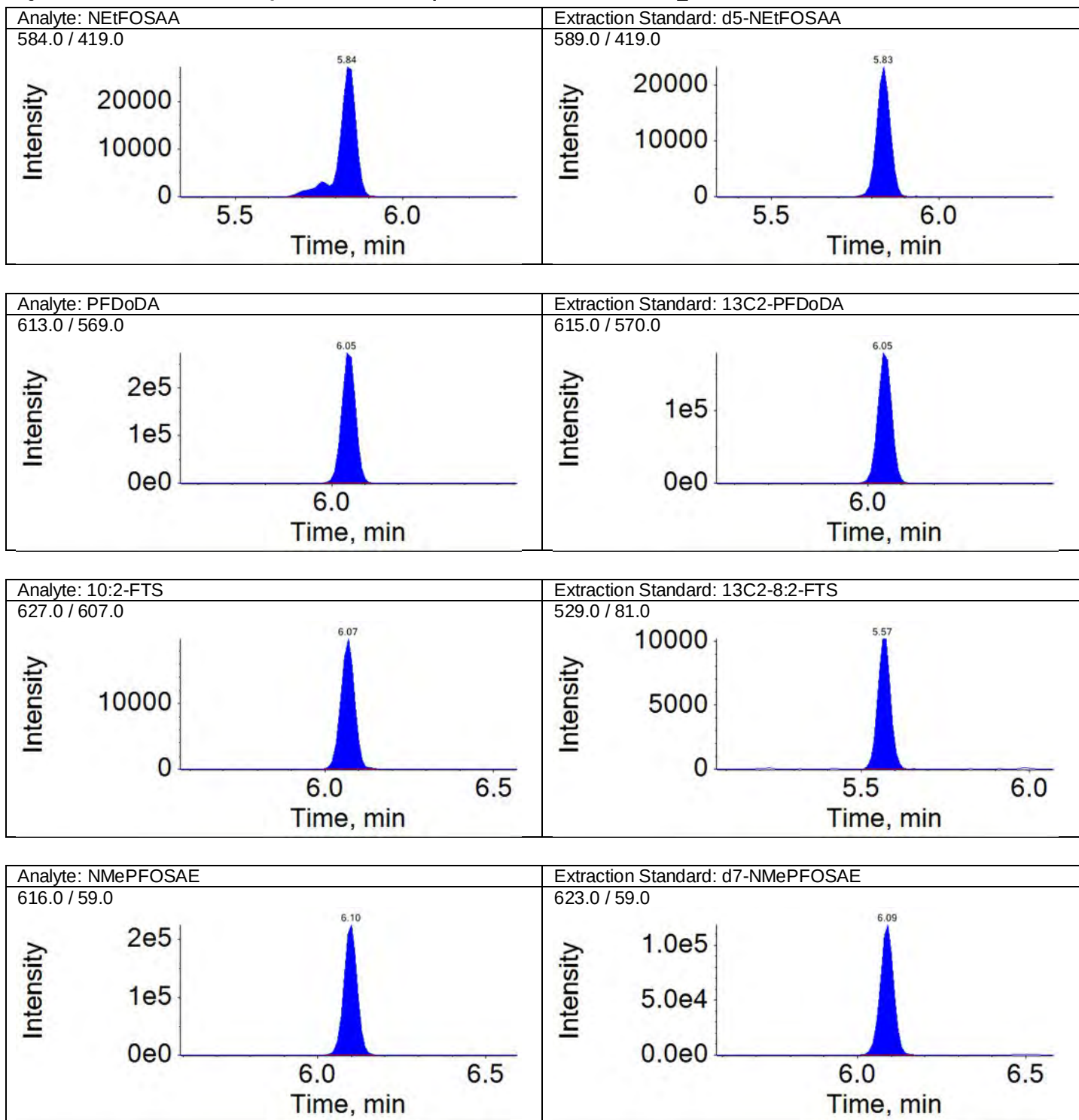
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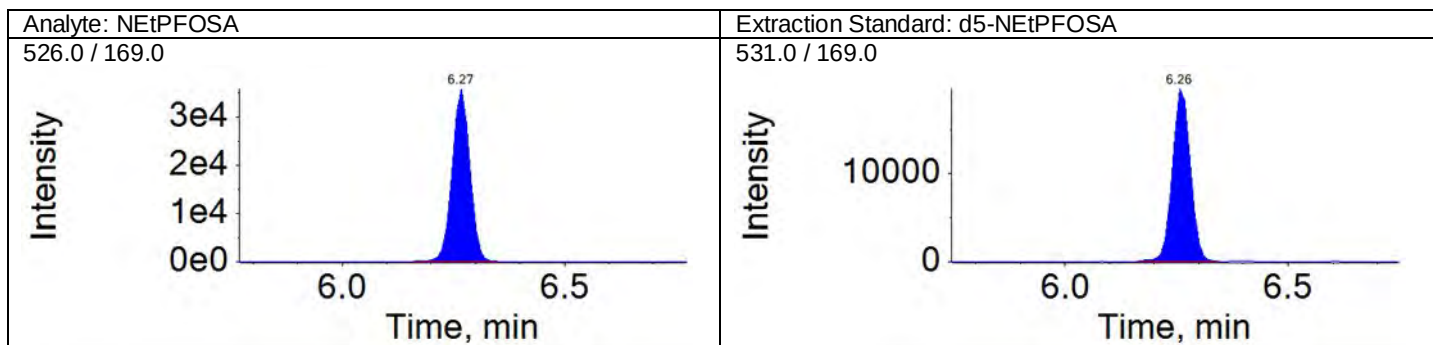
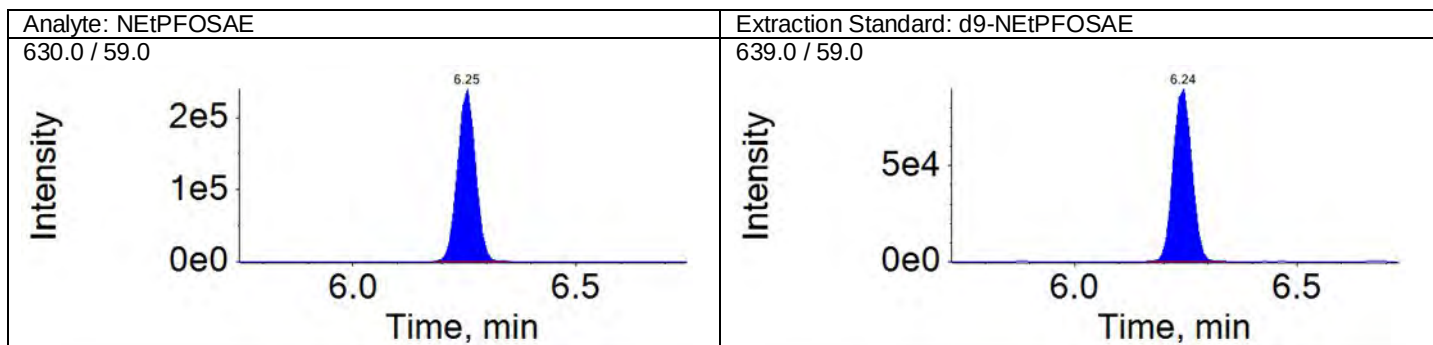
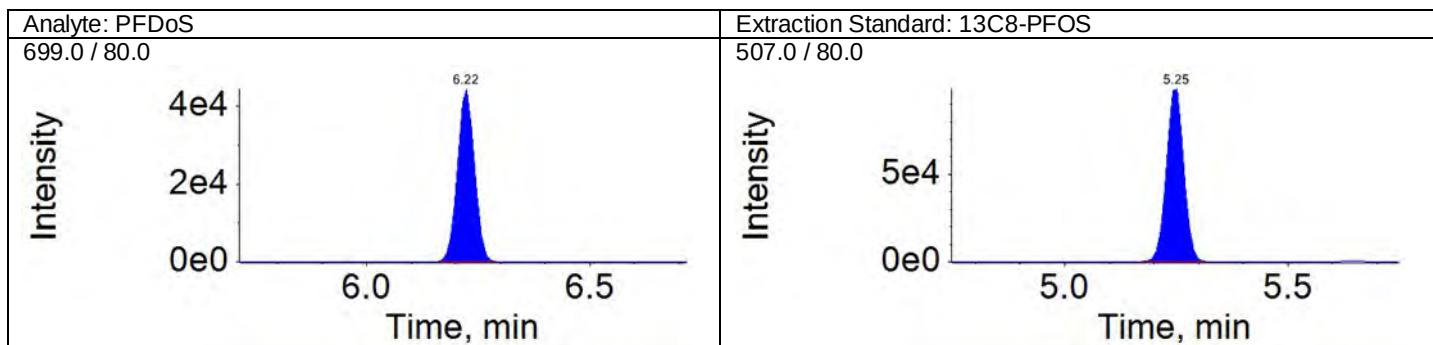
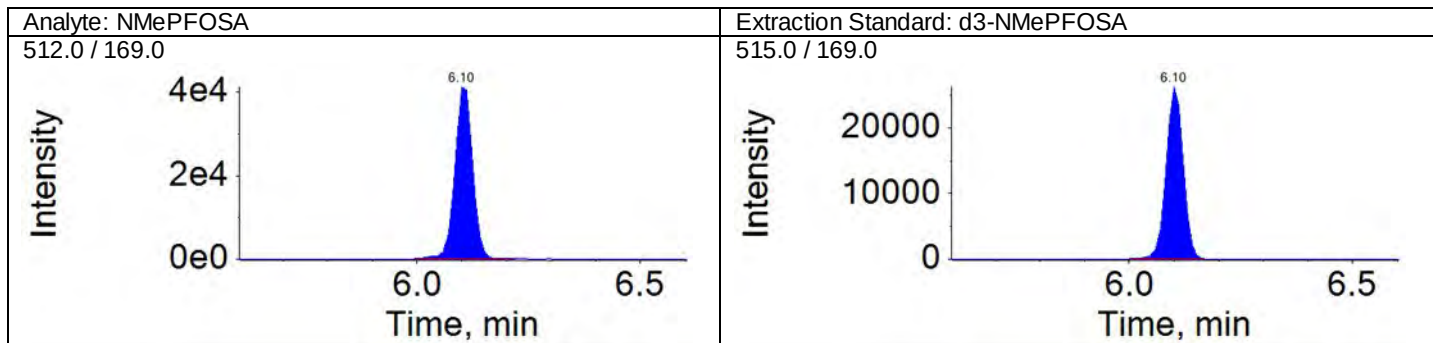
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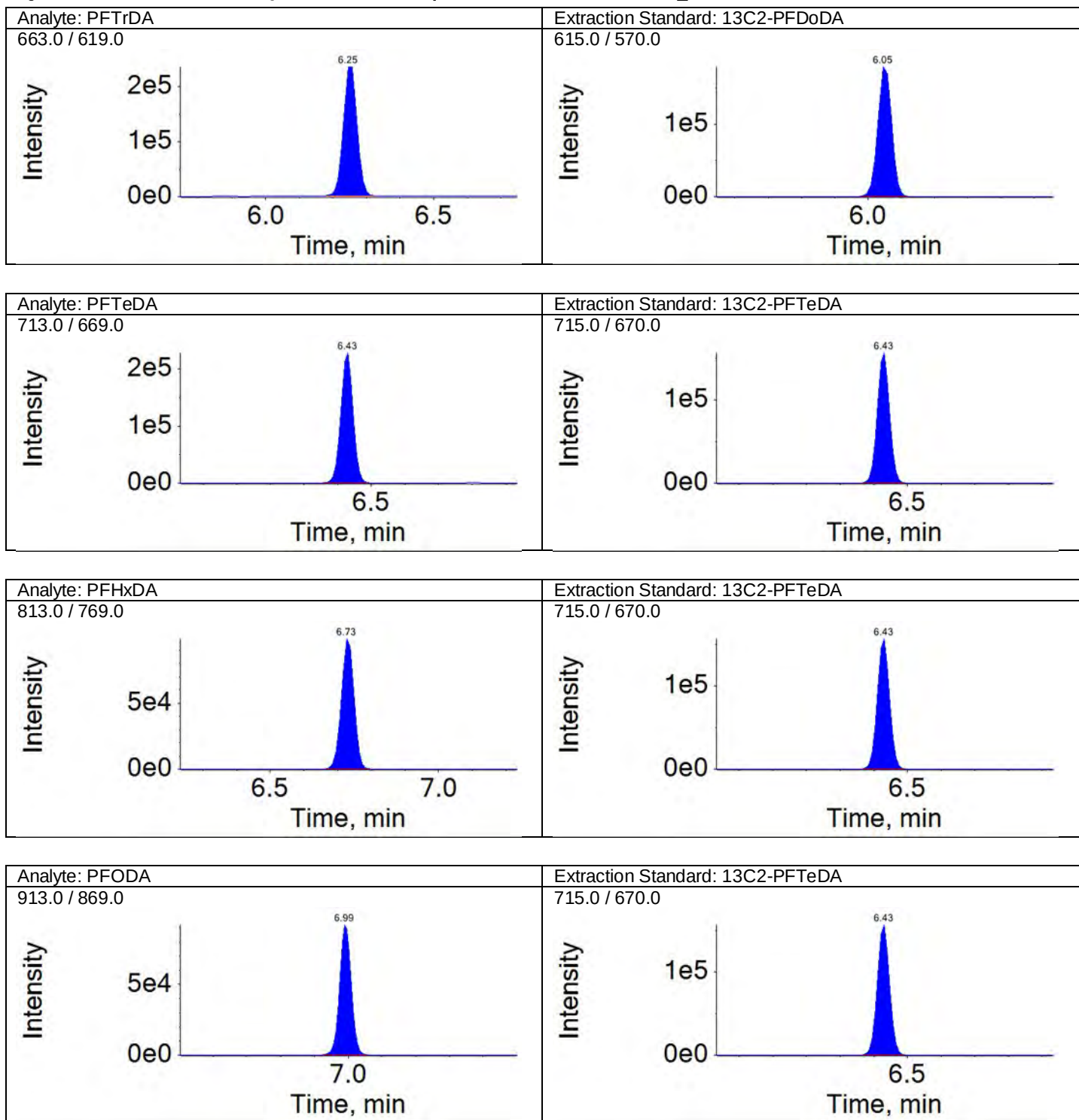
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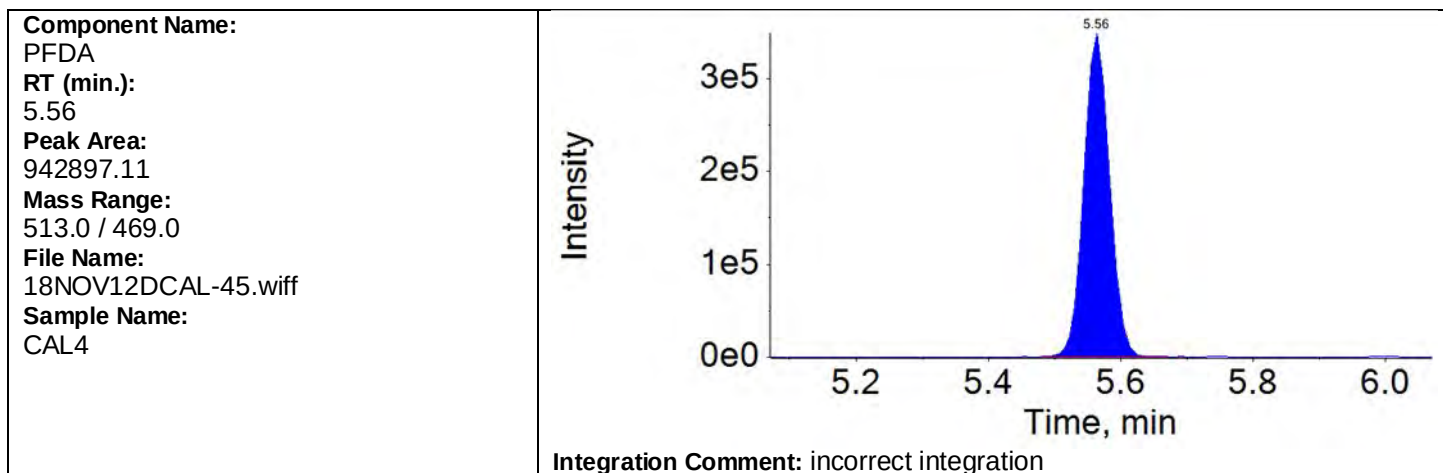
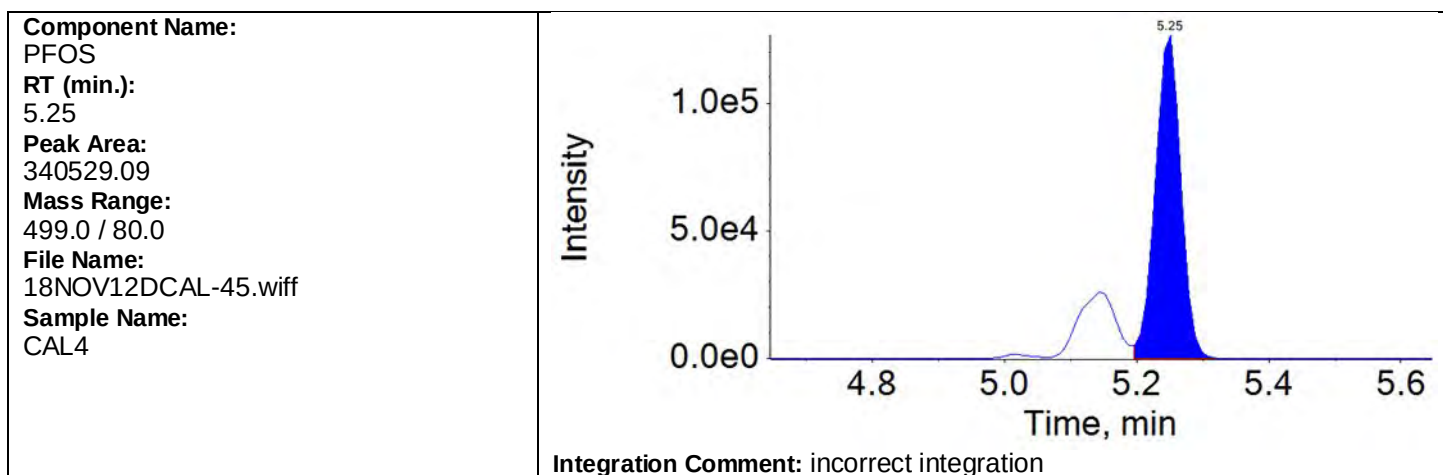
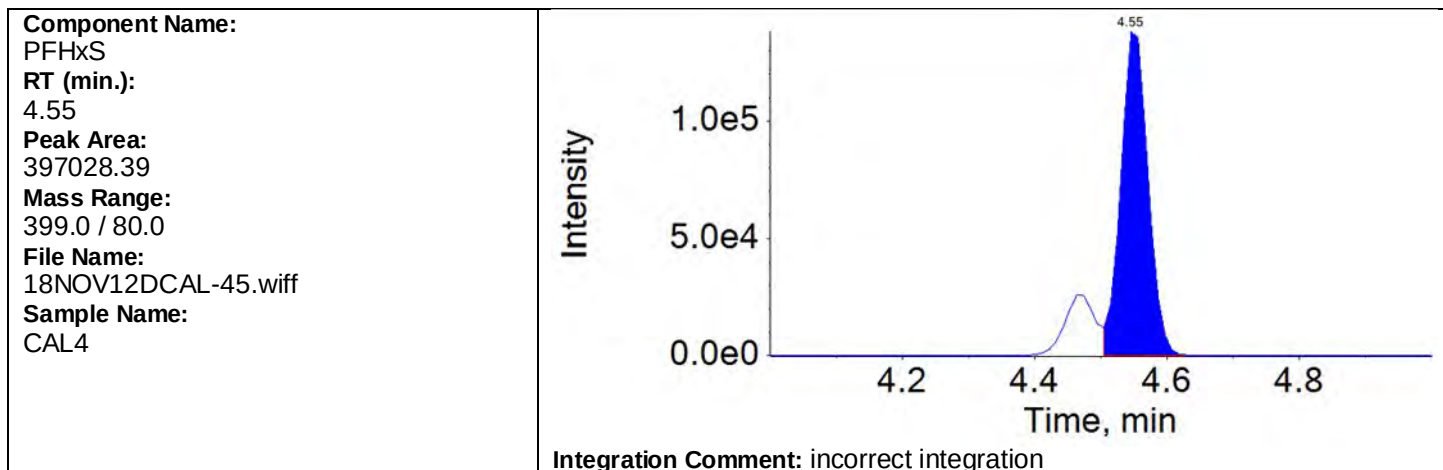
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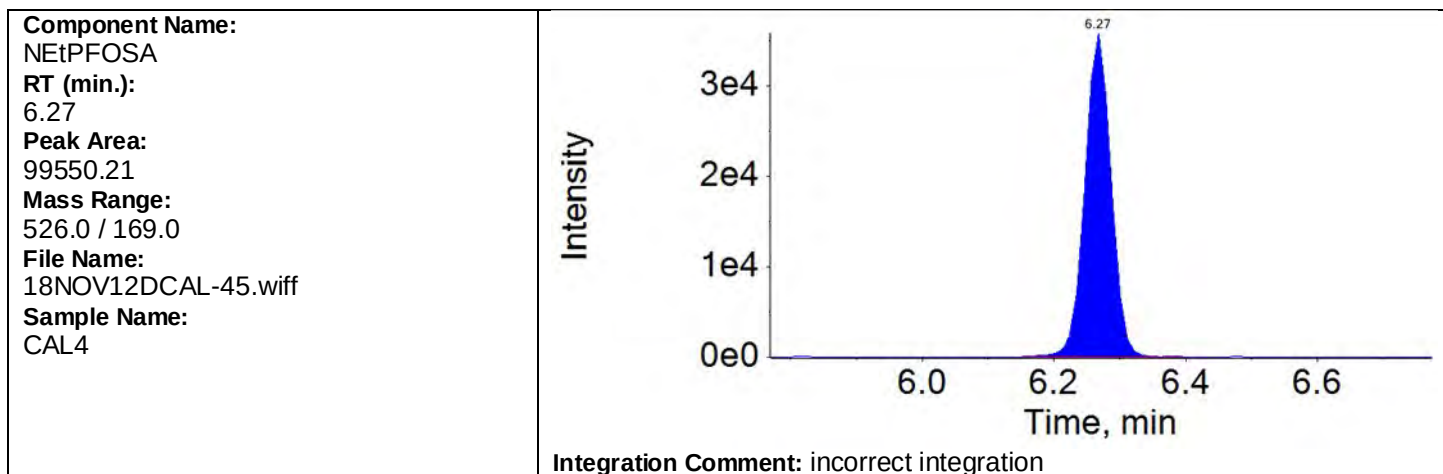
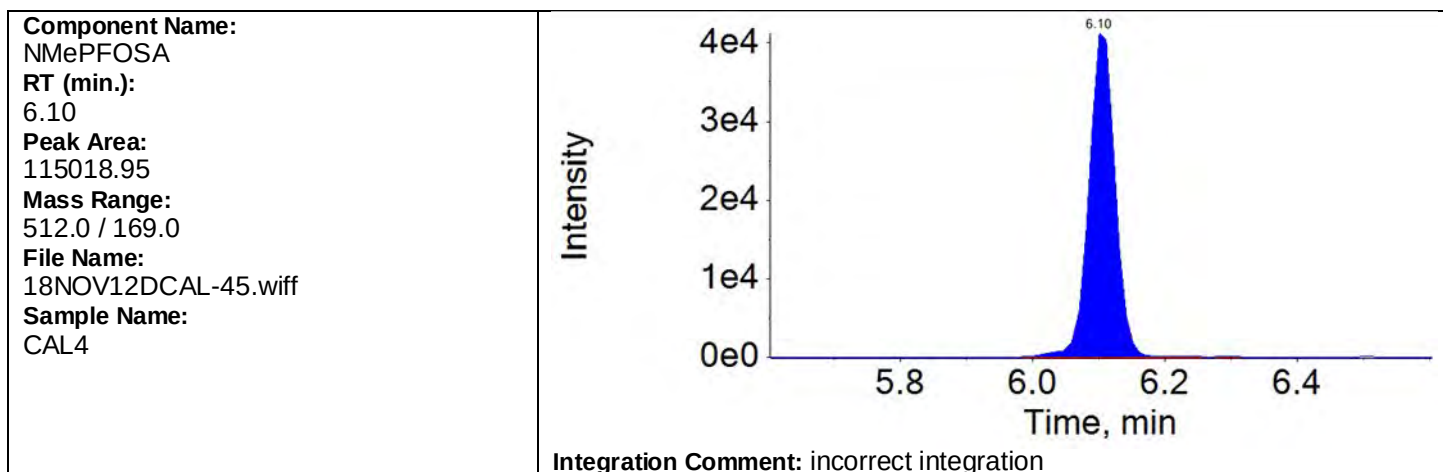
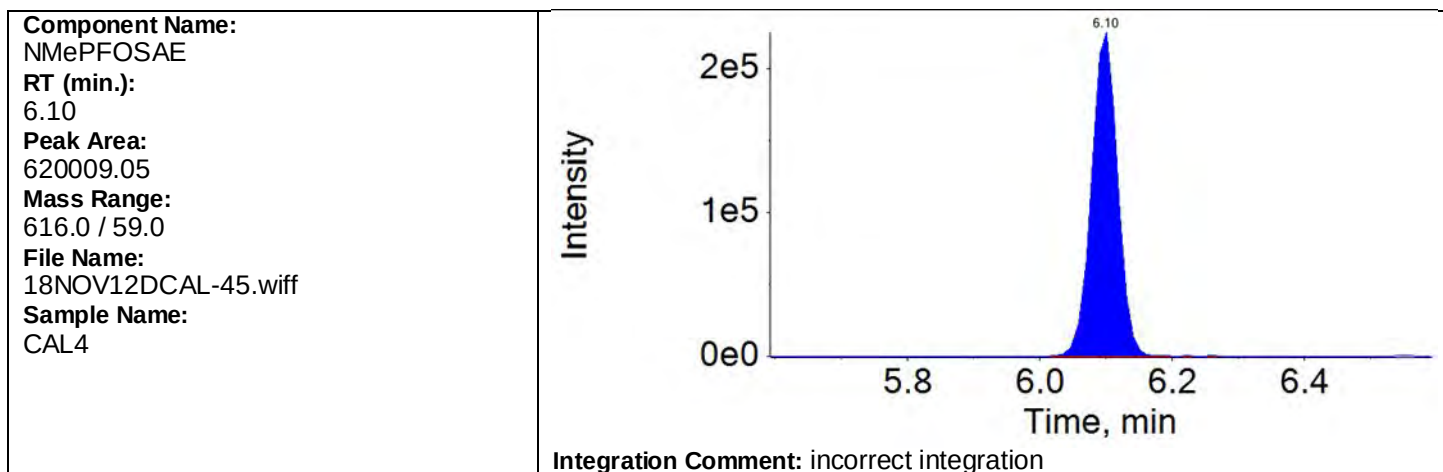
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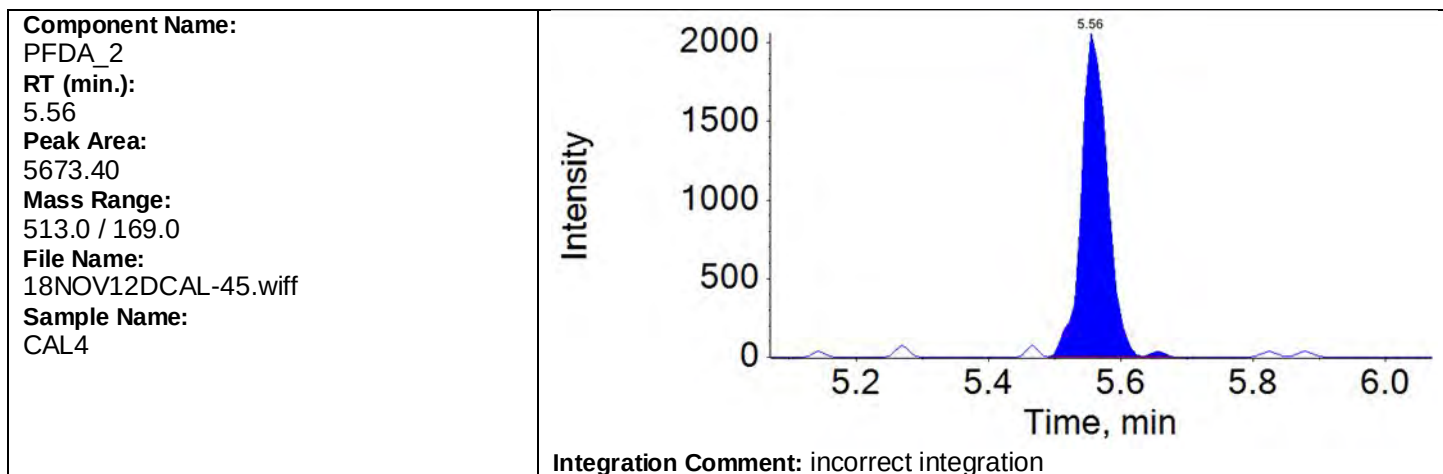
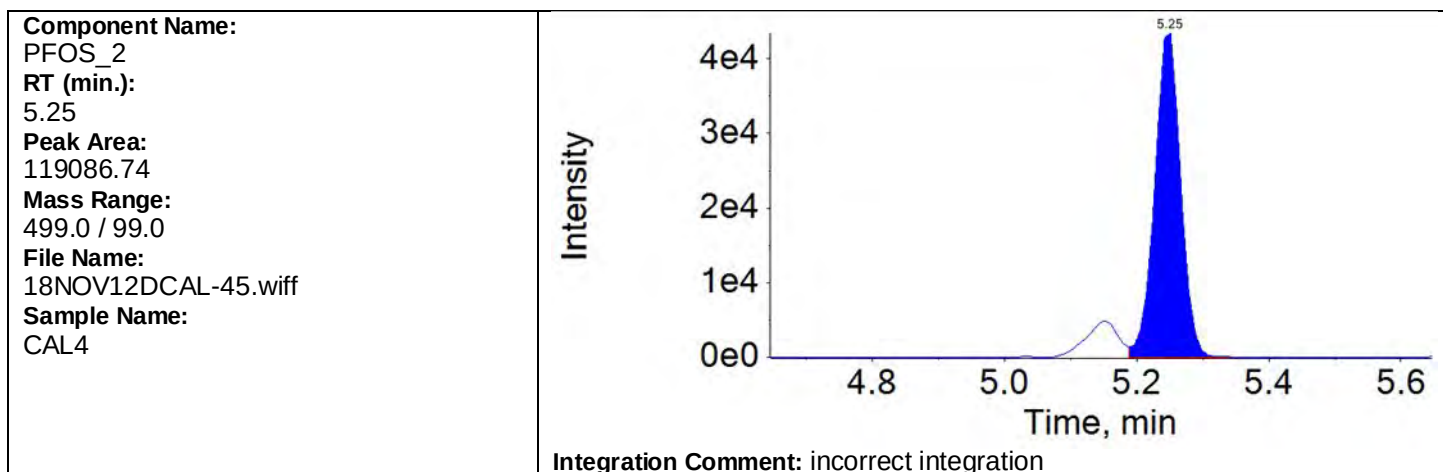
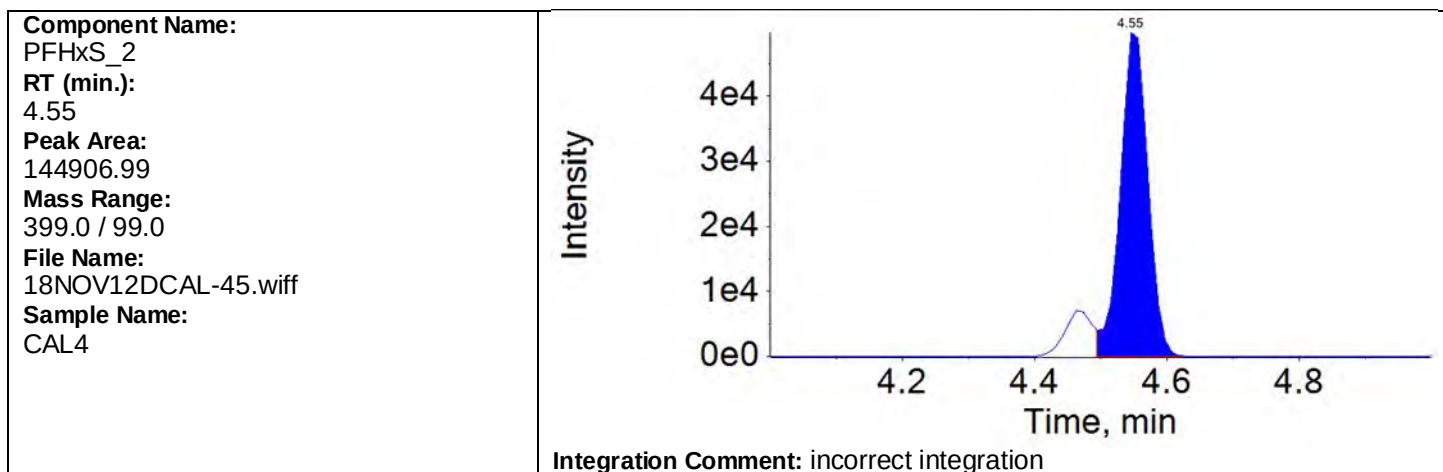
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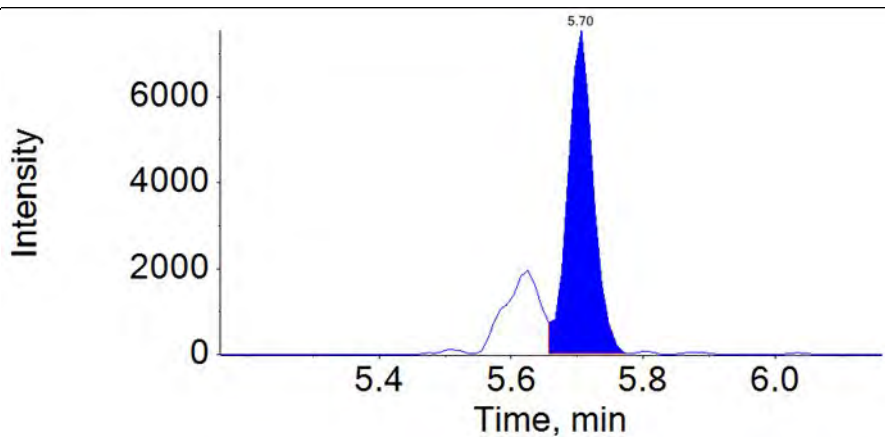
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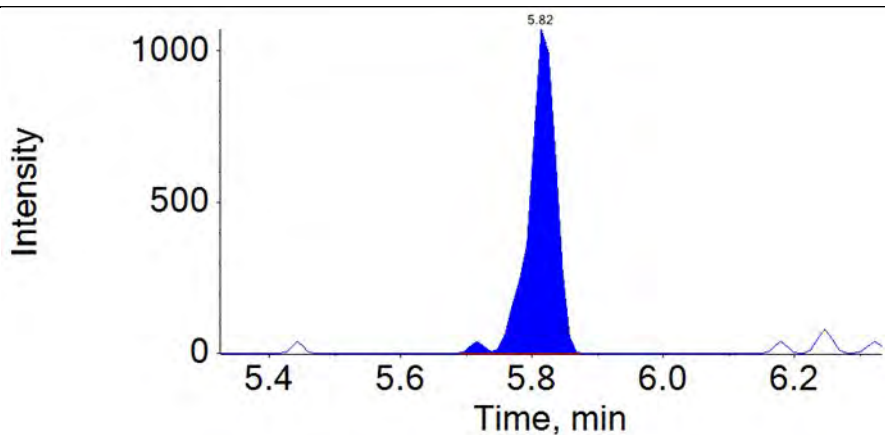
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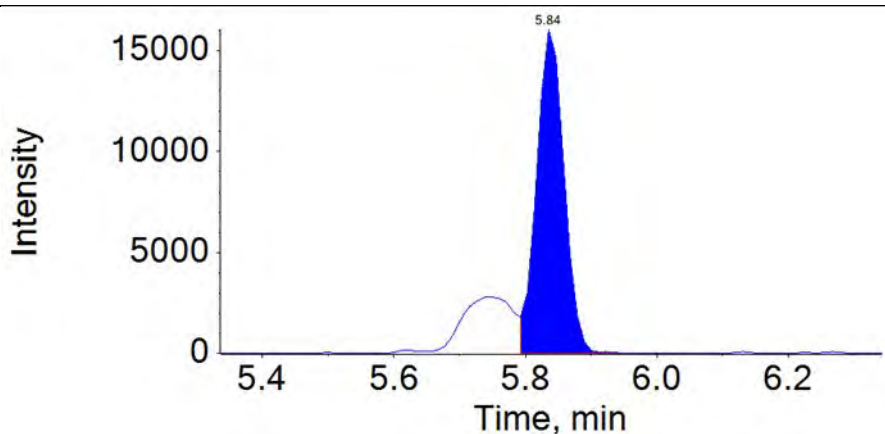
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Peak Area:
20115.54
Mass Range:
570.0 / 483.0
File Name:
18NOV12DCAL-45.wiff
Sample Name:
CAL4



Component Name:
PUnDA_2
RT (min.):
5.82
Peak Area:
3055.95
Mass Range:
563.0 / 169.0
File Name:
18NOV12DCAL-45.wiff
Sample Name:
CAL4



Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
46742.13
Mass Range:
584.0 / 526.0
File Name:
18NOV12DCAL-45.wiff
Sample Name:
CAL4



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 6:33 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

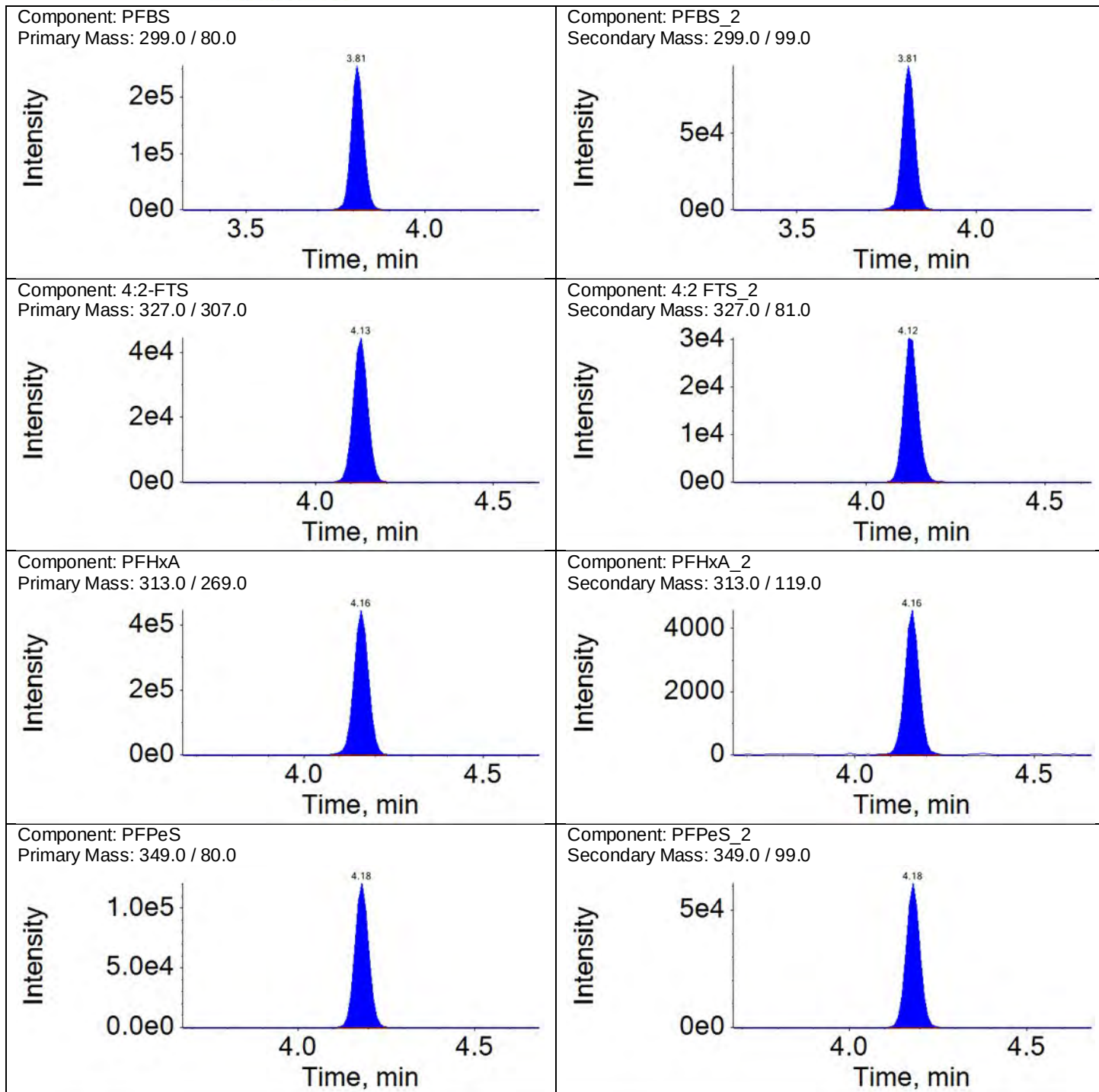
Ion Ratio Report

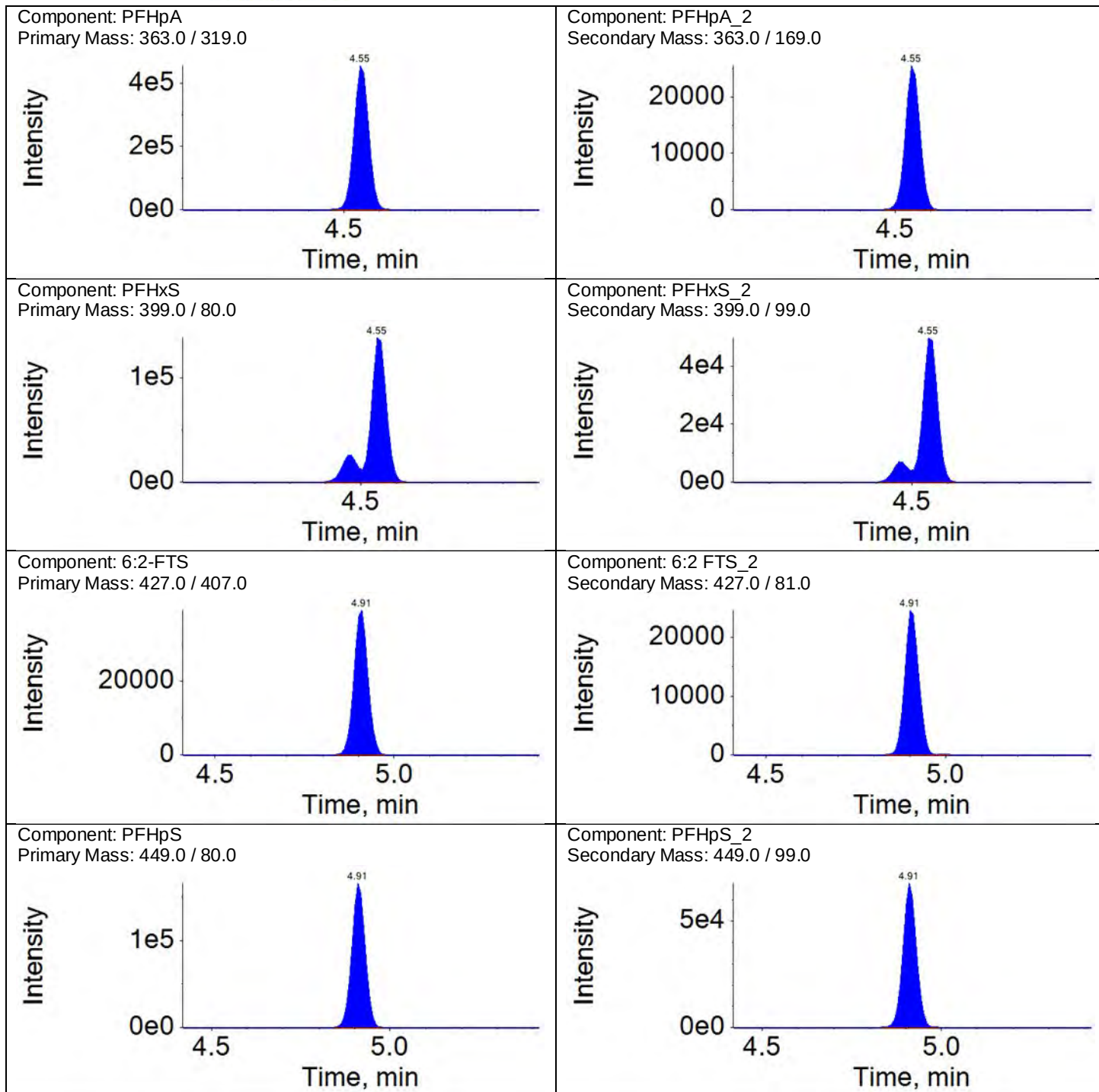
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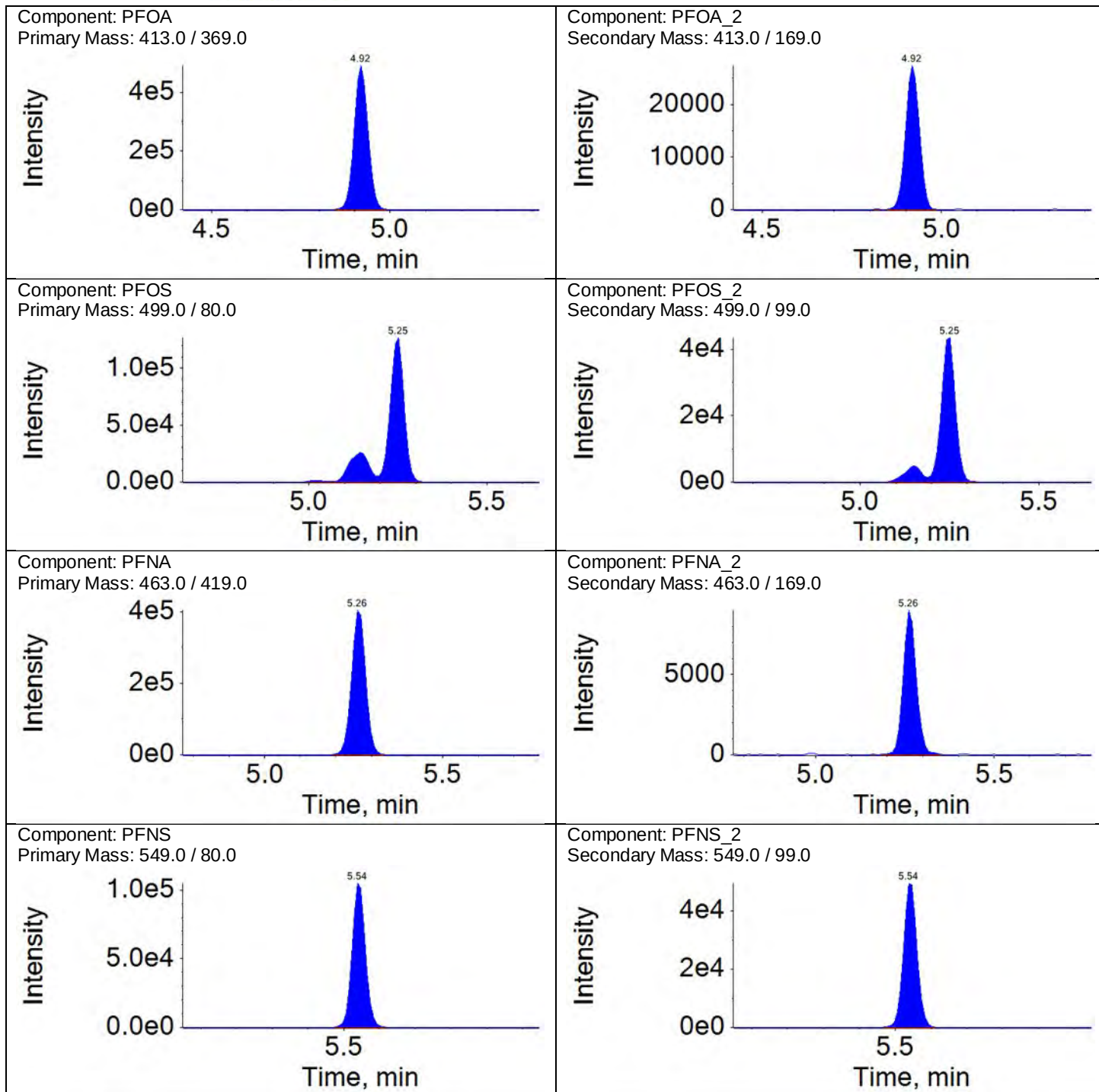
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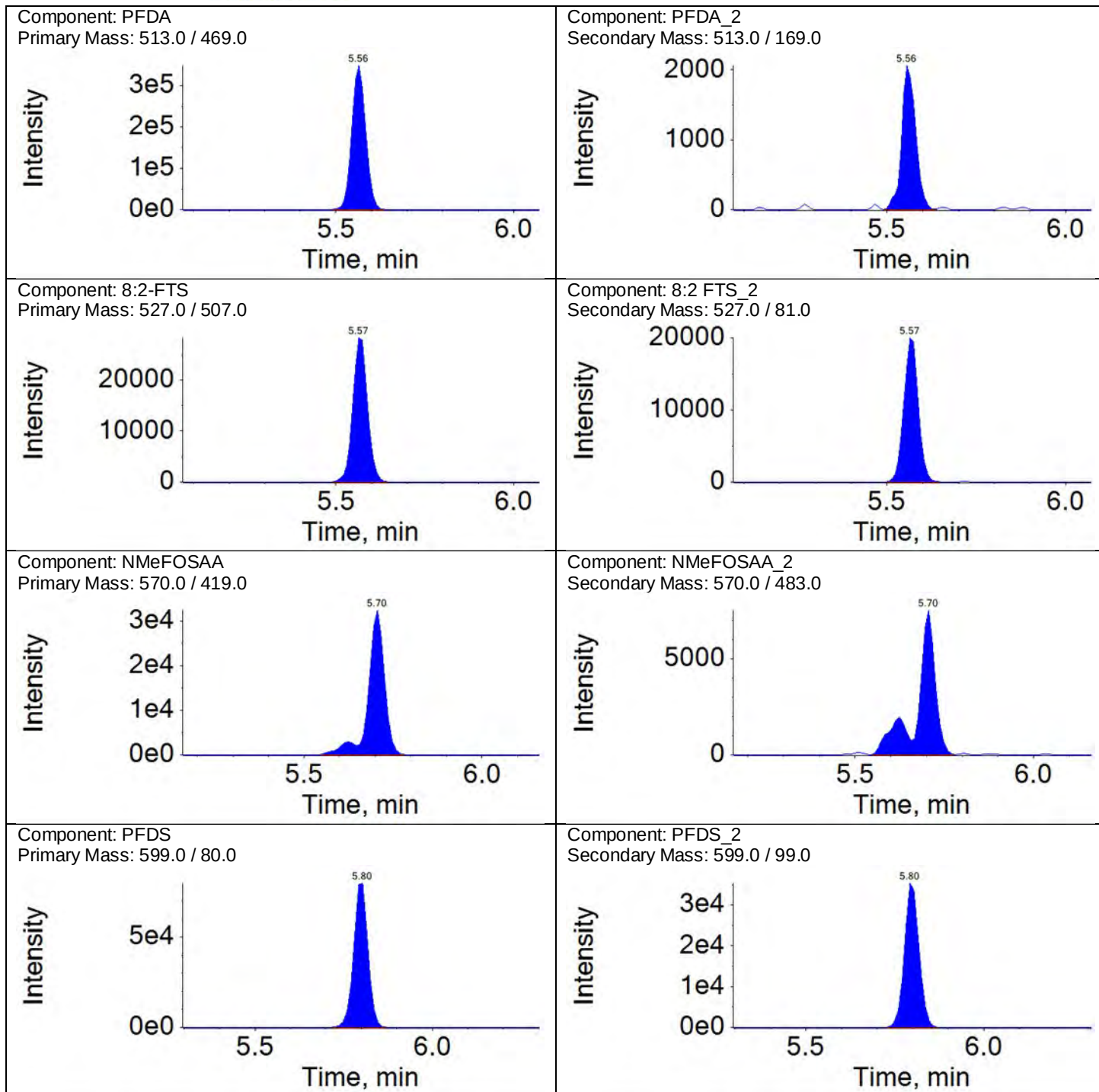
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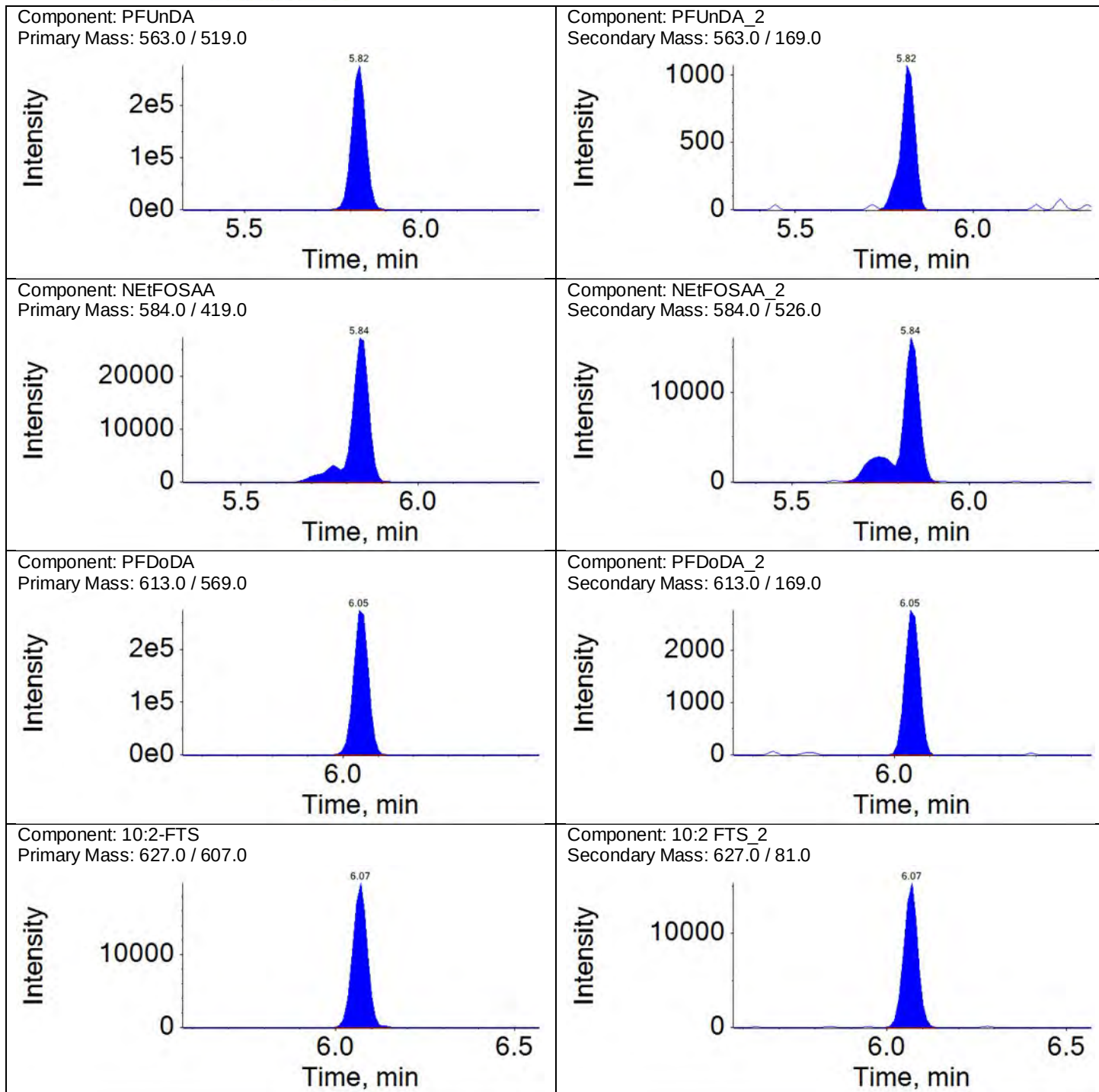
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PFBS_2	3.81	1.00	228894.51	A	0.3619	0.3710	3	50	
4:2-FTS	4.13	1.00	126396.51	A	0.6730	0.6813			
4:2 FTS_2	4.12	1.00	86110.06	A	0.6730	0.6813		#NA!	
PFHxA	4.16	1.00	1265231.12	A	0.0117	0.0101			
PFHxA_2	4.16	1.00	12793.78	A	0.0117	0.0101	-13	50	
PFPeS	4.18	1.10	328681.66	A	0.5191	0.5078			
PFPeS_2	4.18	1.10	166890.99	A	0.5191	0.5078	-2	50	
PFHpA	4.55	1.00	1318774.50	A	0.0563	0.0555			
PFHpA_2	4.55	1.00	73135.24	A	0.0563	0.0555	-2	50	
PFHxS	4.55	1.00	479290.97	M	0.3428	0.3441			
PFHxS_2	4.55	1.00	164902.13	M	0.3428	0.3441	0	50	
6:2-FTS	4.91	1.00	107470.62	A	0.6604	0.6264			
6:2 FTS_2	4.91	1.00	67319.96	A	0.6604	0.6264		#NA!	
PFHpS	4.91	1.08	434949.18	A	0.4066	0.4089			
PFHpS_2	4.91	1.08	177851.23	A	0.4066	0.4089	1	50	
PFOA	4.92	1.00	1327086.09	A	0.0562	0.0557			
PFOA_2	4.92	1.00	73867.47	A	0.0562	0.0557	-1	50	
PFOS	5.25	1.00	448833.83	M	0.2968	0.3022			
PFOS_2	5.25	1.00	135652.81	M	0.2968	0.3022	2	50	
PFNA	5.26	1.00	1106664.23	A	0.0229	0.0210			
PFNA_2	5.26	1.00	23205.90	A	0.0229	0.0210	-8	50	
PFNS	5.54	1.06	269712.27	A	0.4828	0.4818			
PFNS_2	5.54	1.06	129941.05	A	0.4828	0.4818	0	50	
PFDA	5.56	1.00	941985.31	M	0.0081	0.0060			
PFDA_2	5.56	1.00	5626.45	M	0.0081	0.0060	-26	50	
8:2-FTS	5.57	1.00	80922.57	A	0.6814	0.6947			
8:2 FTS_2	5.57	1.00	56219.65	A	0.6814	0.6947		#NA!	
NMeFOSAA	5.70	1.00	103649.07	A	0.2569	0.2651			
NMeFOSAA_2	5.70	1.00	27472.86	M	0.2569	0.2651	3	50	
PFDS	5.80	1.11	224031.22	A	0.5144	0.4482			
PFDS_2	5.80	1.10	100404.30	A	0.5144	0.4482	-13	50	
PFUnDA	5.82	1.00	768010.80	A	0.0058	0.0039			
PFUnDA_2	5.82	1.00	2997.45	M	0.0058	0.0039	-33	50	
NEtFOSAA	5.84	1.00	94877.84	A	0.7253	0.6488			
NEtFOSAA_2	5.84	1.00	61554.78	M	0.7253	0.6488	-11	50	
PFDODA	6.05	1.00	803646.84	A	0.0157	0.0099			
PFDODA_2	6.05	1.00	7981.38	A	0.0157	0.0099	-37	50	
10:2-FTS	6.07	1.09	56040.80	A	0.6356	0.7371			
10:2 FTS_2	6.07	1.09	41308.18	A	0.6356	0.7371		#NA!	
PFTTrDA	6.25	1.03	674140.32	A	0.0086	0.0101			
PFTTrDA_2	6.25	1.03	6830.51	A	0.0086	0.0101	18	50	
PFTeDA	6.43	1.00	571926.74	A	0.0062	0.0068			
PFTeDA_2	6.43	1.00	3881.08	A	0.0062	0.0068	9	50	
PFHxDA	6.73	1.05	256654.28	A	0.0683	0.0616			
PFHxDA_2	6.73	1.05	15804.20	A	0.0683	0.0616	-10	50	
PFODA	6.99	1.09	219359.64	A	0.0277	0.0258			
PFODA_2	6.99	1.09	5669.48	A	0.0277	0.0258	-7	50	

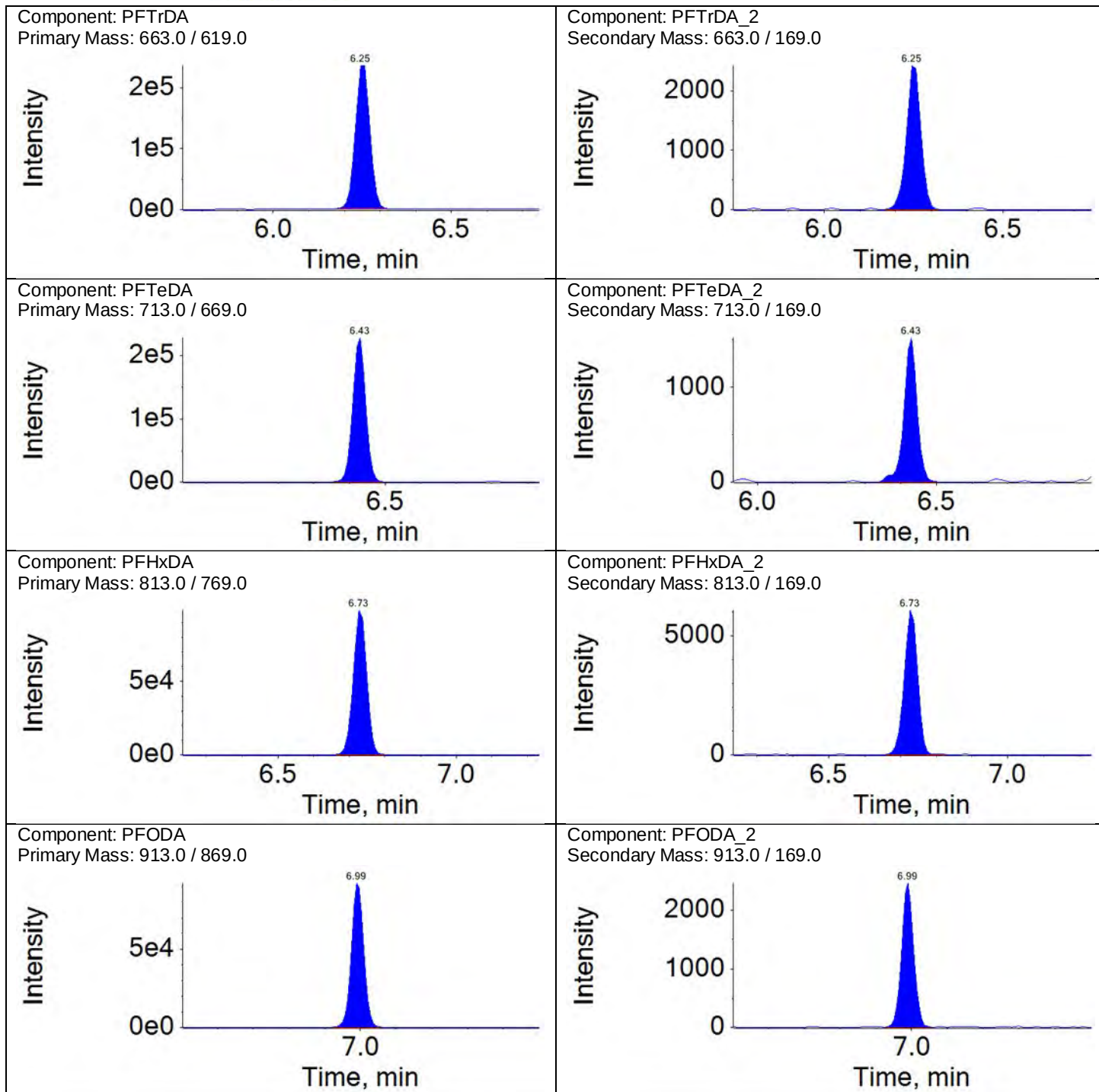












ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL5		Data File:	18NOV12DCAL-46.wiff
Sample ID:	CALBRN51833B		Acquis Date:	2018-11-12T15:42:06
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	7		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV12DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	641789.5	659926.2	-3	50	
13C2-PFOA	5.0	464284.6	450219.7	3	50	
13C4-PFOS	4.8	243589.9	249205.8	-2	50	
13C2-PFDA	5.0	269315.7	278743.9	-3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	698871.9	13C3-PFBA	641789.5	1.089	5.000	4.882	98	70-130	
E13C5-PFPeA	734598.3	13C3-PFBA	641789.5	1.145	5.000	5.134	103	70-130	
E13C3-PFBS	428050.6	13C3-PFBA	641789.5	0.667	4.650	4.708	101	70-130	
E13C2-4:2-FTS	51791.9	13C2-PFOA	464284.6	0.112	4.670	4.968	106	70-130	
E13C5-PFHxA	628952.8	13C2-PFOA	464284.6	1.355	5.000	4.894	98	70-130	
E13C3-PFHxS	309304.5	13C2-PFOA	464284.6	0.666	4.730	4.571	97	70-130	
E13C4-PFHpA	525802.1	13C2-PFOA	464284.6	1.132	5.000	5.102	102	70-130	
E13C2-6:2-FTS	31012.0	13C2-PFOA	464284.6	0.067	4.750	4.469	94	70-130	
E13C8-PFOA	805288.7	13C2-PFOA	464284.6	1.734	5.000	4.779	96	70-130	
E13C8-PFOS	267157.6	13C4-PFOS	243589.9	1.097	4.780	4.860	102	70-130	
E13C9-PFNA	441776.8	13C4-PFOS	243589.9	1.814	5.000	5.057	101	70-130	
E13C6-PFDA	585231.2	13C2-PFDA	269315.7	2.173	5.000	5.071	101	70-130	
E13C2-8:2-FTS	24192.1	13C2-PFDA	269315.7	0.090	4.790	4.480	94	70-130	
E13C8-PFOSA	596544.1	13C2-PFDA	269315.7	2.215	5.000	4.911	98	70-130	
Ed3-NMeFOSAA	72424.5	13C2-PFDA	269315.7	0.269	5.000	4.854	97	70-130	
E13C7-PFUnDA	231187.9	13C2-PFDA	269315.7	0.858	5.000	4.984	100	70-130	
Ed5-NEtFOSAA	63701.7	13C2-PFDA	269315.7	0.237	5.000	5.004	100	70-130	
E13C2-PFDoDA	507556.8	13C2-PFDA	269315.7	1.885	5.000	4.893	98	70-130	
Ed7-NMePFOSAE	316777.8	13C2-PFDA	269315.7	1.176	5.000	5.090	102	70-130	
Ed3-NMePFOSA	68615.7	13C2-PFDA	269315.7	0.255	5.000	4.629	93	70-130	
Ed9-NEtPFOSAE	255767.8	13C2-PFDA	269315.7	0.950	5.000	4.939	99	70-130	
Ed5-NEtPFOSA	55378.5	13C2-PFDA	269315.7	0.206	5.000	4.824	96	70-130	
E13C2-PFTeDA	379571.6	13C2-PFDA	269315.7	1.409	5.000	4.948	99	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL5

Instrument Name: LM27631

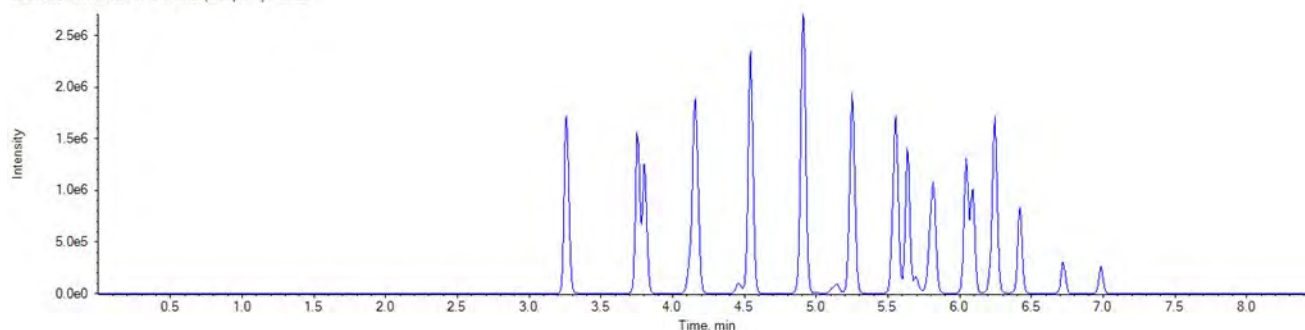
File Name: 18NOV12DCAL-46.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	2700090.8		A	13C4-PFBA	3.26	698871.9	3.863	21.403
PFPeA	3.76	1.000	2660895.4		A	13C5-PFPeA	3.76	734598.3	3.622	20.969
PFBS	3.80	1.000	1630613.5		A	13C3-PFBS	3.81	428050.6	3.809	18.121
4:2-FTS	4.12	1.000	344695.9		A	13C2-4:2-FTS	4.12	51791.9	6.655	18.070
PFHxA	4.15	1.000	3158486.4		A	13C5-PFHxA	4.15	628952.8	5.022	20.968
PFPeS	4.17	1.100	815928.2		A	13C3-PFBS	3.81	428050.6	1.906	18.506
PFHpA	4.54	1.000	3269561.0		A	13C4-PFHpA	4.54	525802.1	6.218	20.612
PFHxS	4.54	1.000	1138604.3		M	13C3-PFHxS	4.54	309304.5	3.681	17.849
6:2-FTS	4.90	1.000	260254.3		A	13C2-6:2-FTS	4.90	31012.0	8.392	20.308
PFHpS	4.90	1.080	1145559.8		A	13C3-PFHxS	4.54	309304.5	3.704	19.496
PFOA	4.91	1.000	3291549.4		A	13C8-PFOA	4.91	805288.7	4.087	21.830
PFOS	5.24	1.000	1147826.8		M	13C8-PFOS	5.24	267157.6	4.296	18.789
PFNA	5.26	1.000	2725089.7		A	13C9-PFNA	5.26	441776.8	6.168	22.243
PFNS	5.53	1.060	725402.0		A	13C8-PFOS	5.24	267157.6	2.715	18.997
PFDA	5.56	1.000	2309359.5		A	13C6-PFDA	5.56	585231.2	3.946	20.920
8:2-FTS	5.56	1.000	206213.1		A	13C2-8:2-FTS	5.56	24192.1	8.524	19.873
PFOSA	5.64	1.000	2498877.9		A	13C8-PFOSA	5.64	596544.1	4.189	20.460
NMeFOSAA	5.70	1.000	250711.5		A	d3-NMeFOSAA	5.70	72424.5	3.462	19.564
PFDS	5.79	1.100	578877.5		A	13C8-PFOS	5.24	267157.6	2.167	19.633
PFUnDA	5.82	1.000	1773582.6		A	13C7-PFUnDA	5.82	231187.9	7.672	20.055
NEtFOSAA	5.83	1.000	237197.2		A	d5-NEtFOSAA	5.83	63701.7	3.724	19.520
PFDODA	6.04	1.000	2099385.0		A	13C2-PFDODA	6.04	507556.8	4.136	21.062
10:2-FTS	6.06	1.090	153343.6		A	13C2-8:2-FTS	5.56	24192.1	6.339	21.113
NMePFOSAE	6.09	1.000	1590507.1		M	d7-NMePFOSAE	6.08	316777.8	5.021	20.896
NMePFOSA	6.10	1.000	300855.7		A	d3-NMePFOSA	6.09	68615.7	4.385	21.631
PFDOS	6.21	1.190	288905.1		A	13C8-PFOS	5.24	267157.6	1.081	18.940
NEtPFOSAE	6.25	1.000	1660562.6		M	d9-NEtPFOSAE	6.23	255767.8	6.492	20.830
NEtPFOSA	6.26	1.000	258300.3		A	d5-NEtPFOSA	6.25	55378.5	4.664	21.421
PFTDA	6.24	1.030	1679407.2		A	13C2-PFDODA	6.04	507556.8	3.309	20.884
PFTeDA	6.42	1.000	1418276.7		A	13C2-PFTeDA	6.42	379571.6	3.737	20.945
PFHxDA	6.72	1.050	627350.7		A	13C2-PFTeDA	6.42	379571.6	1.653	19.691
PFODA	6.98	1.090	544296.5		A	13C2-PFTeDA	6.42	379571.6	1.434	19.971

Total Ion Chromatogram

TIC from 18NOV12DCAL-46.wiff (sample 1) - CAL5



APPROVED

By MCD at 6:33 pm, 11/12/18

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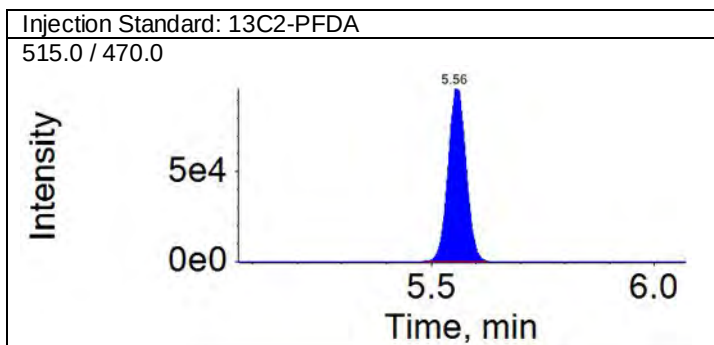
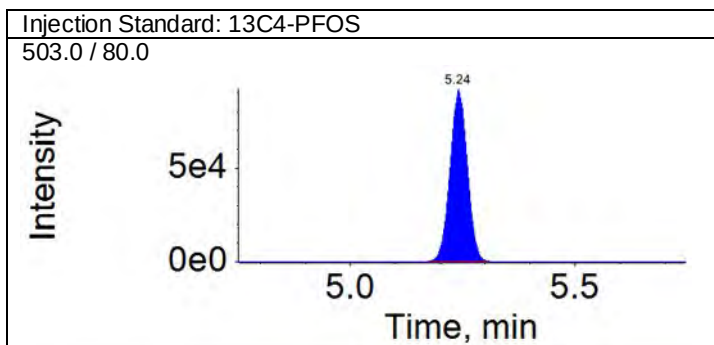
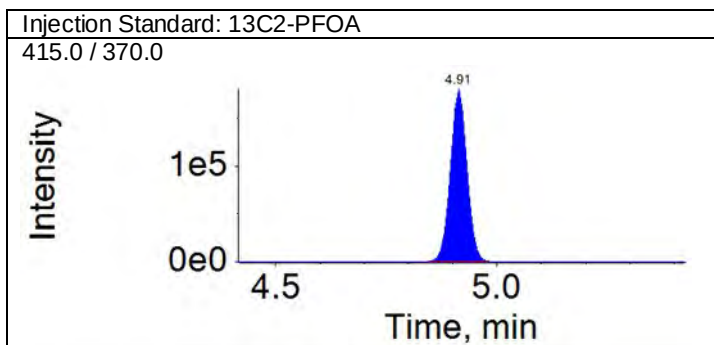
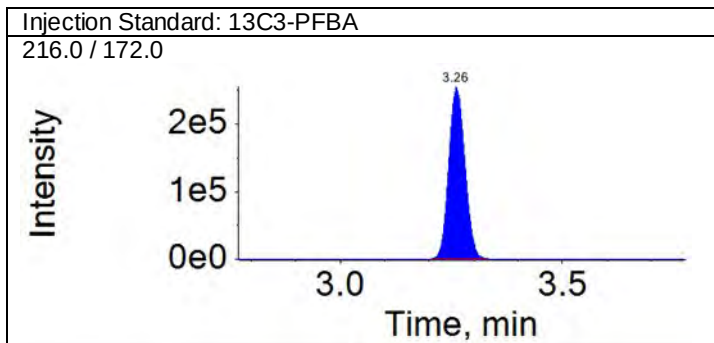
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By HMK at 10:53 am, 11/13/18

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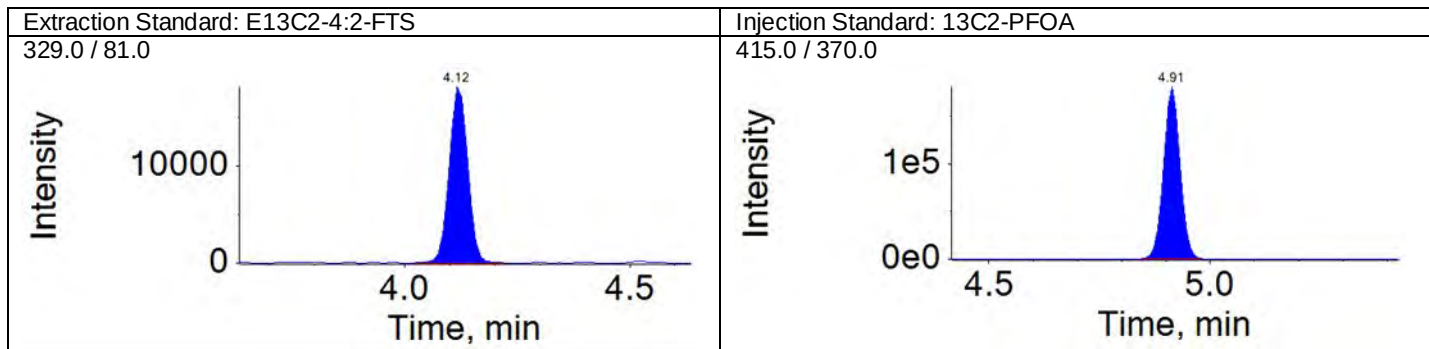
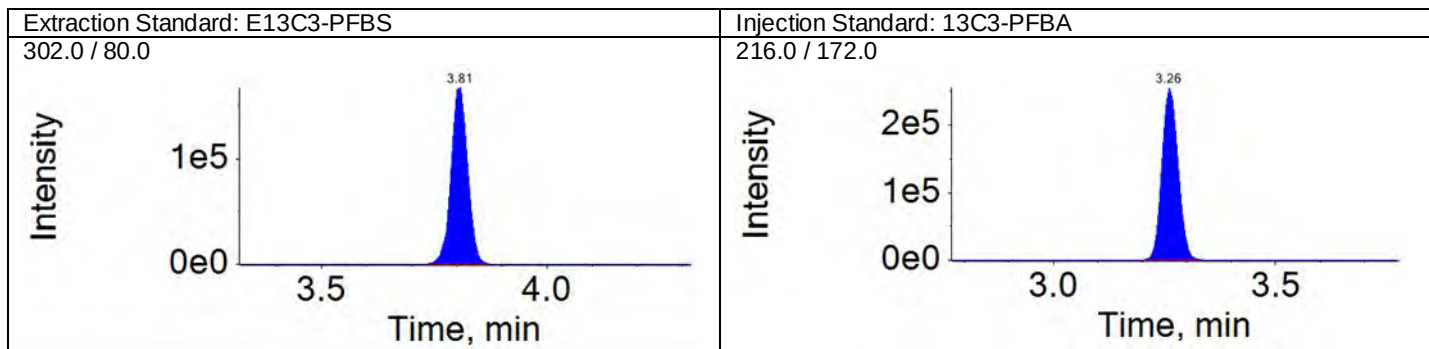
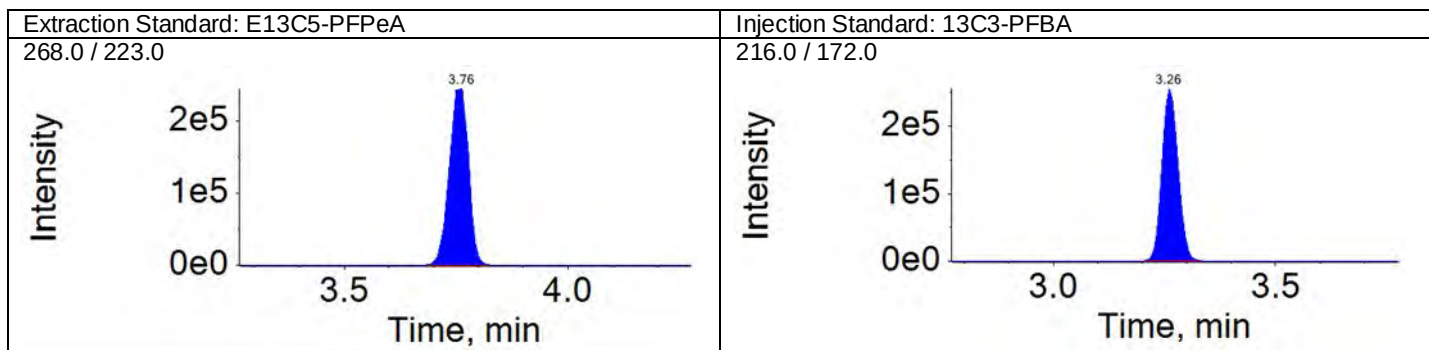
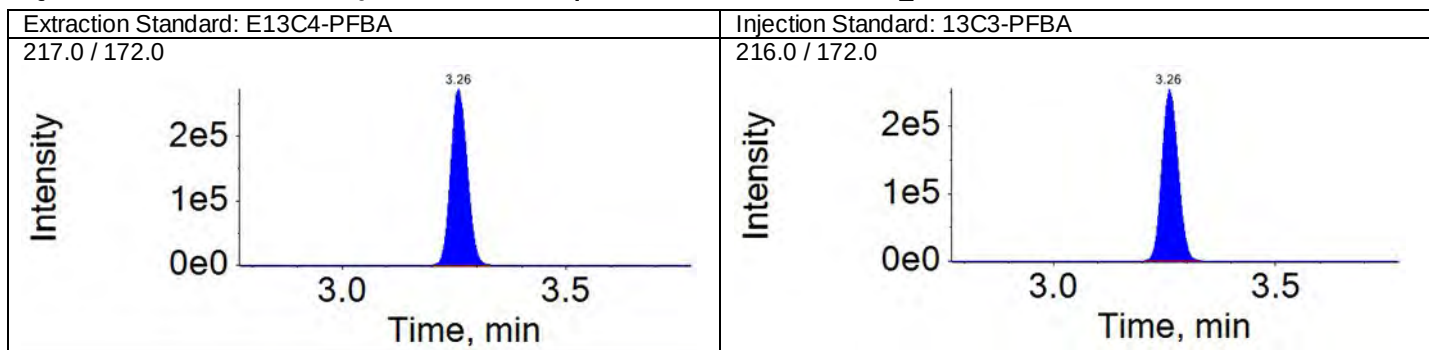
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



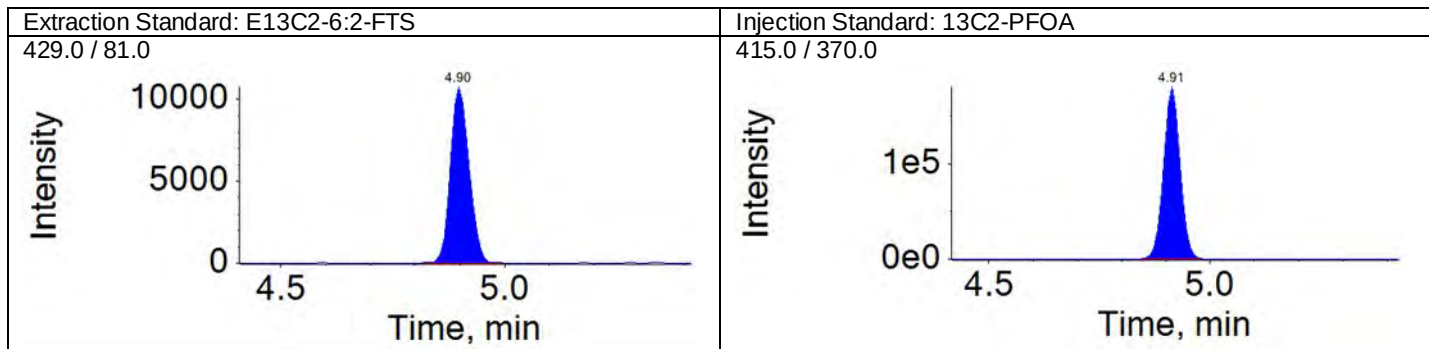
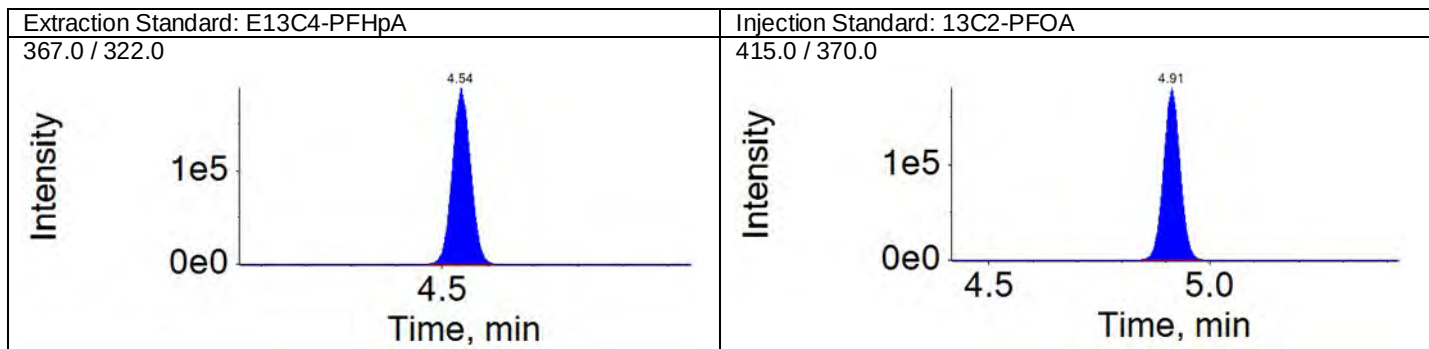
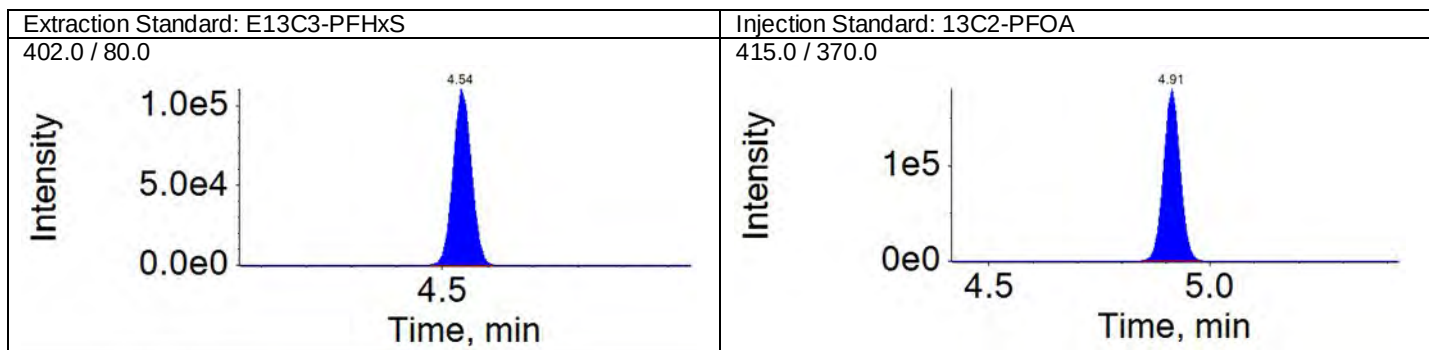
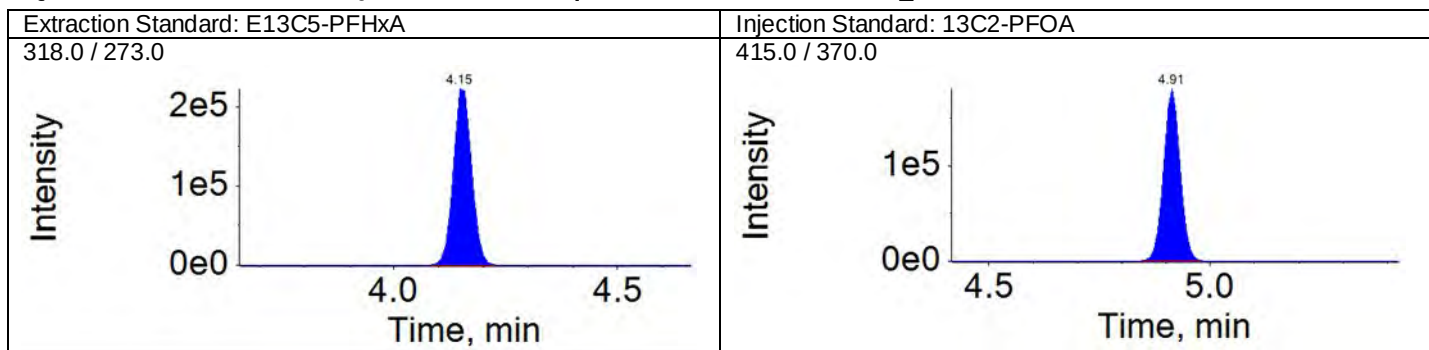
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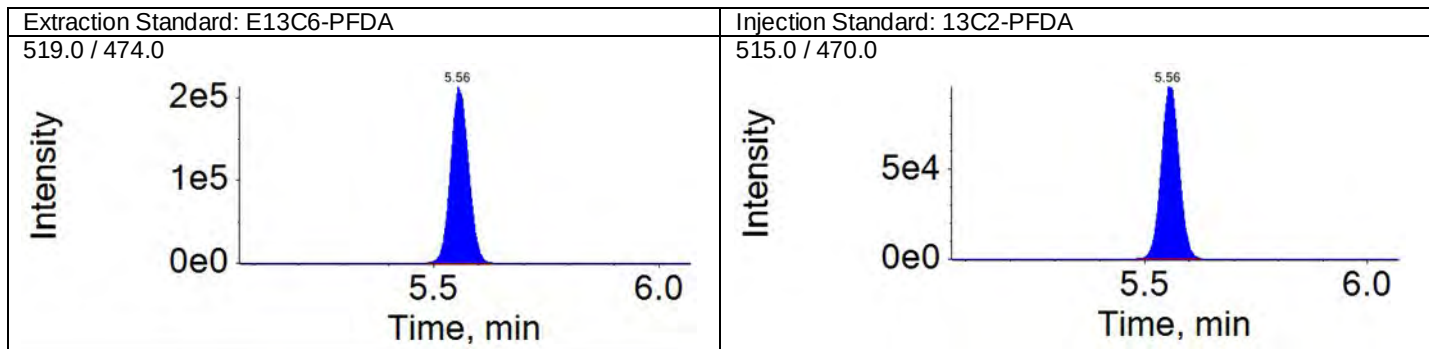
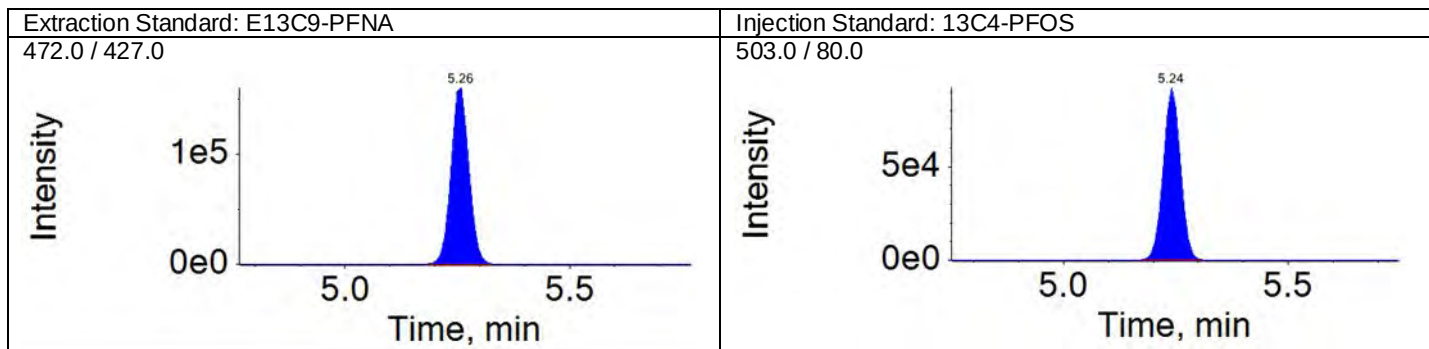
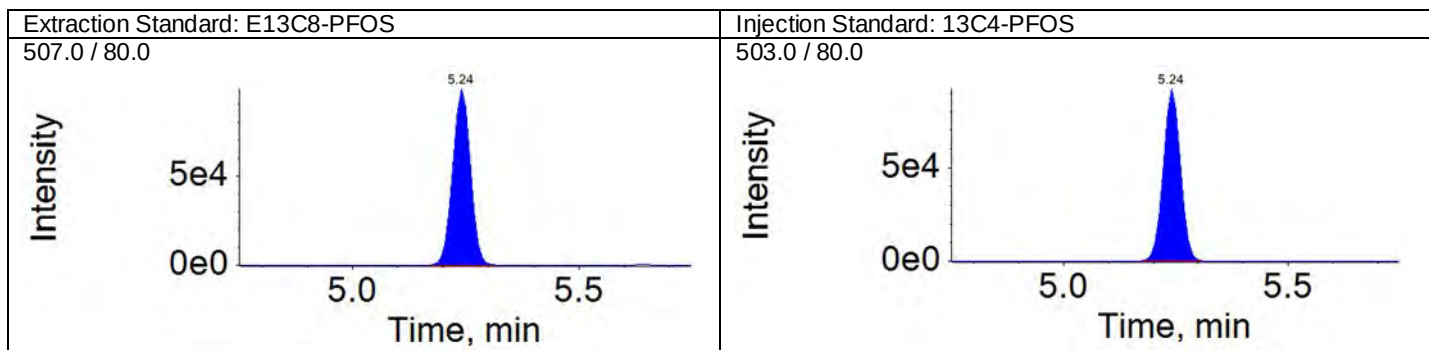
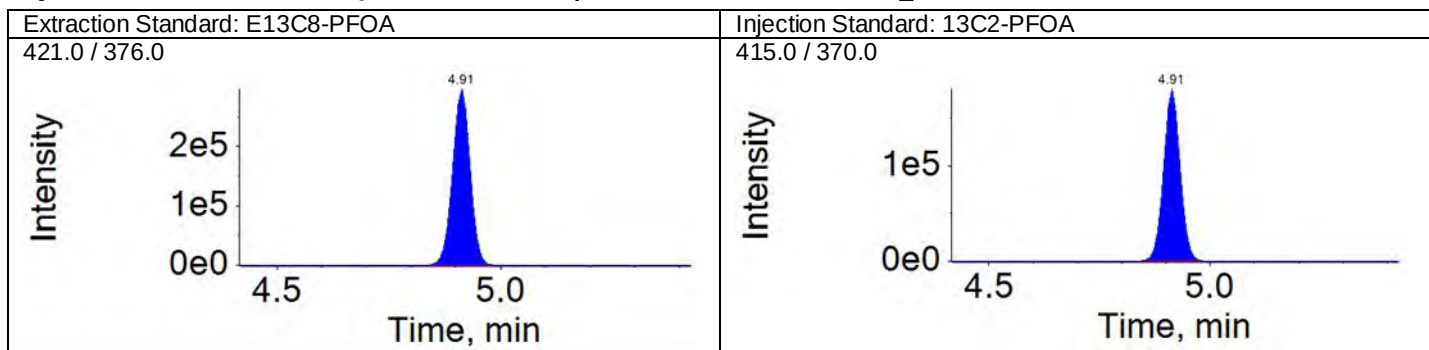
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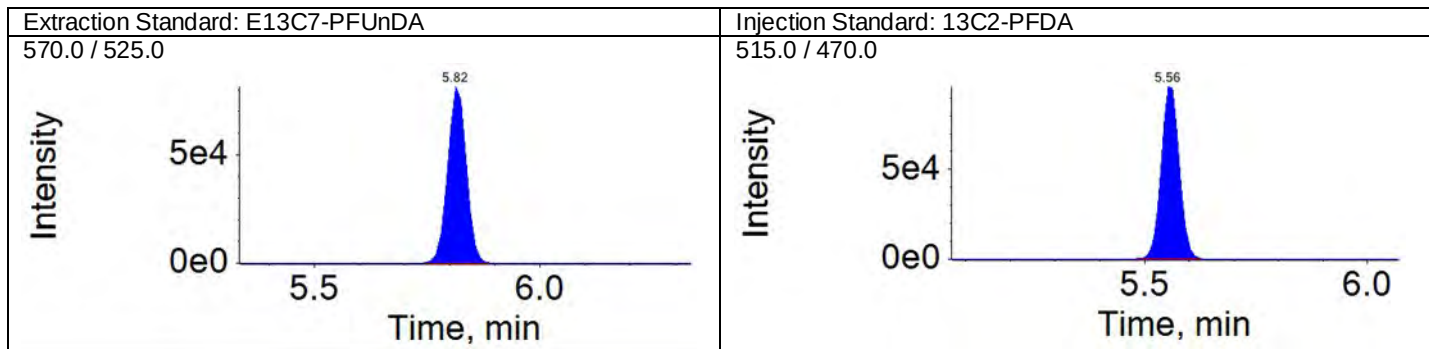
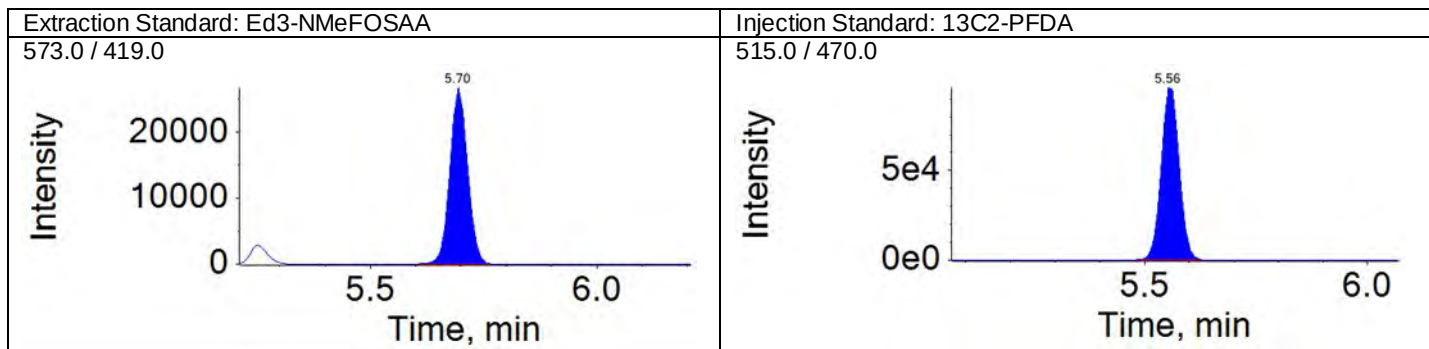
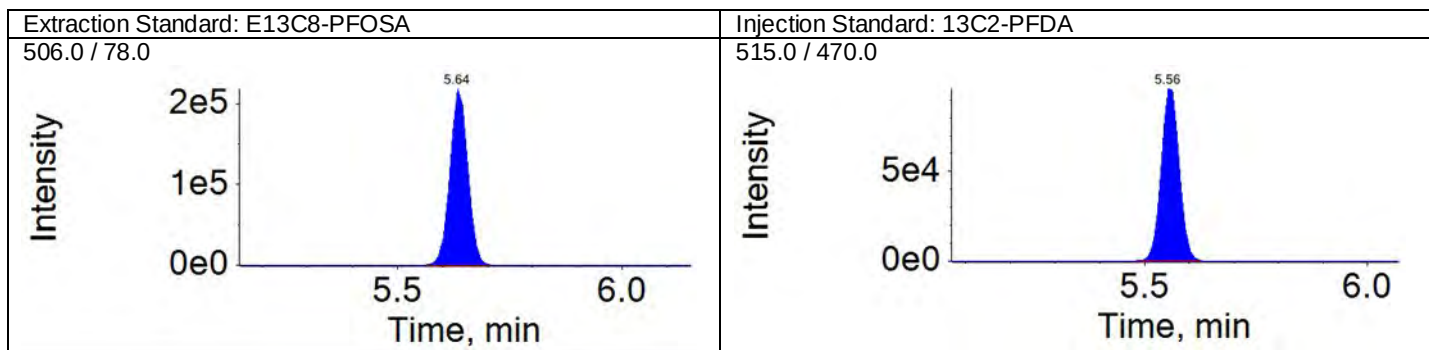
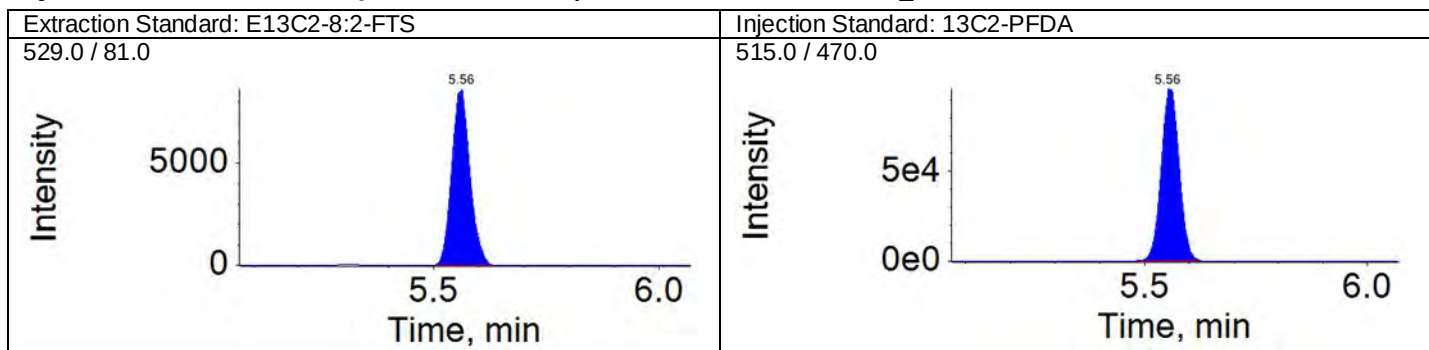
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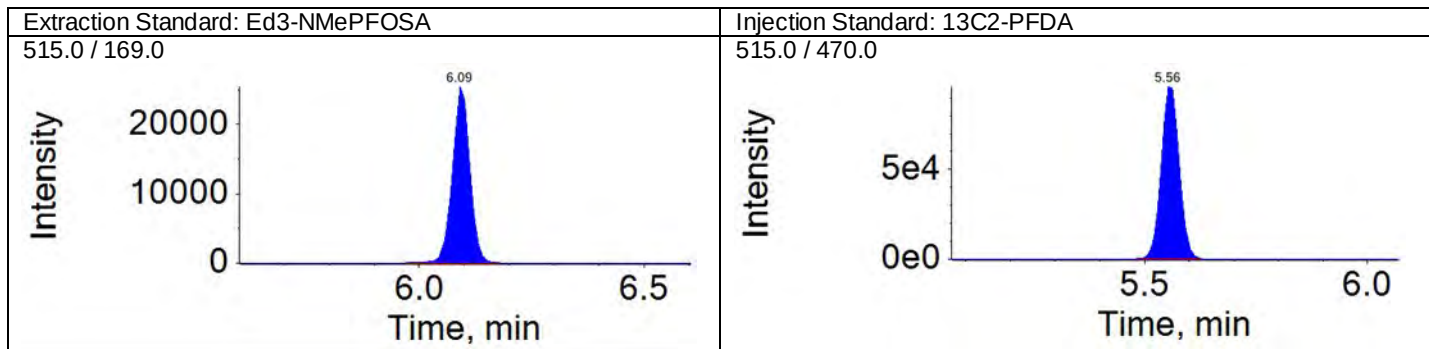
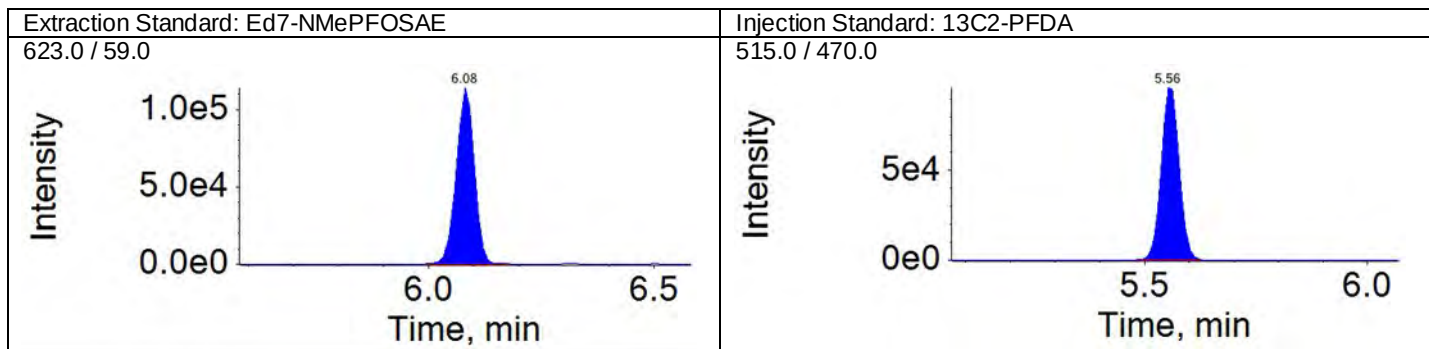
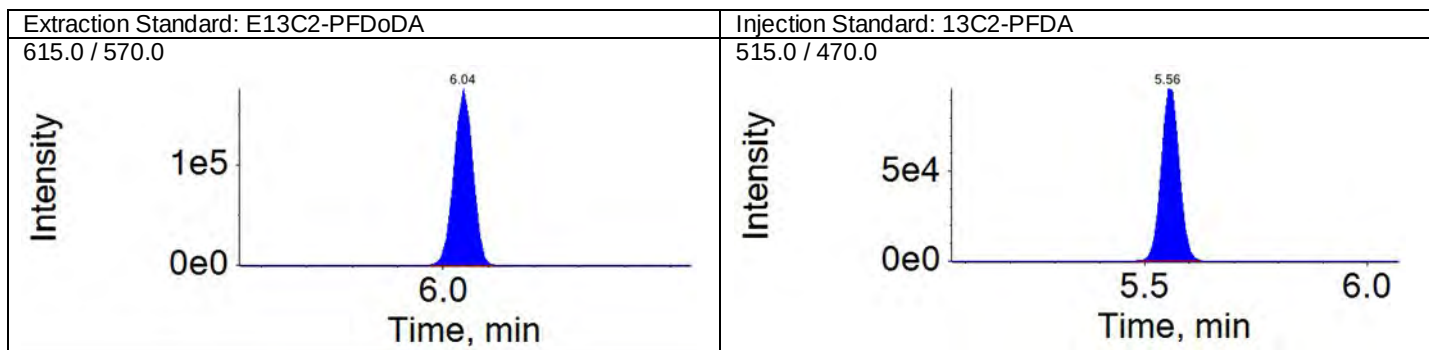
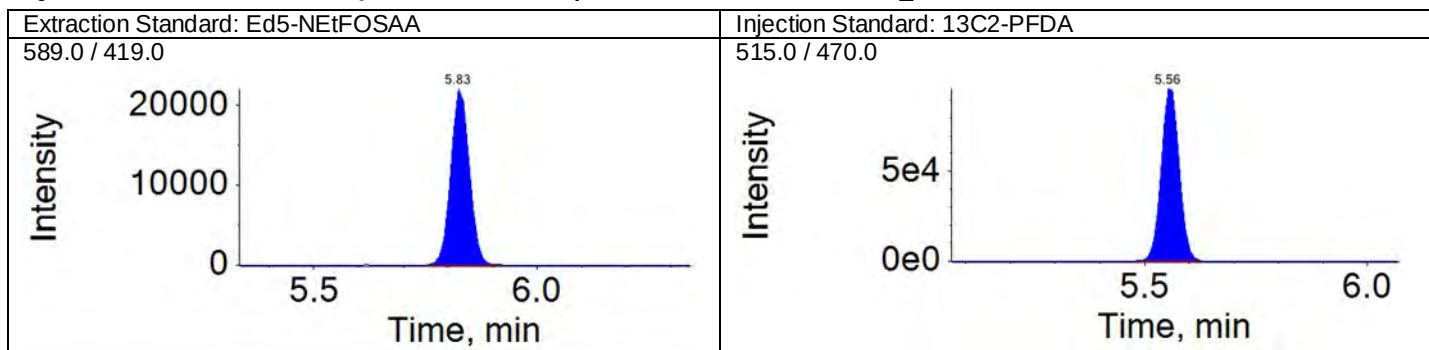
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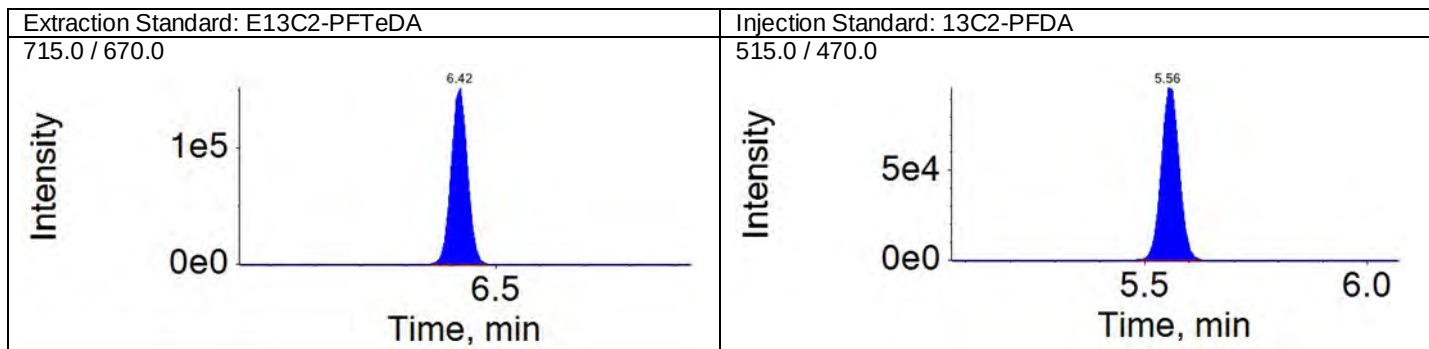
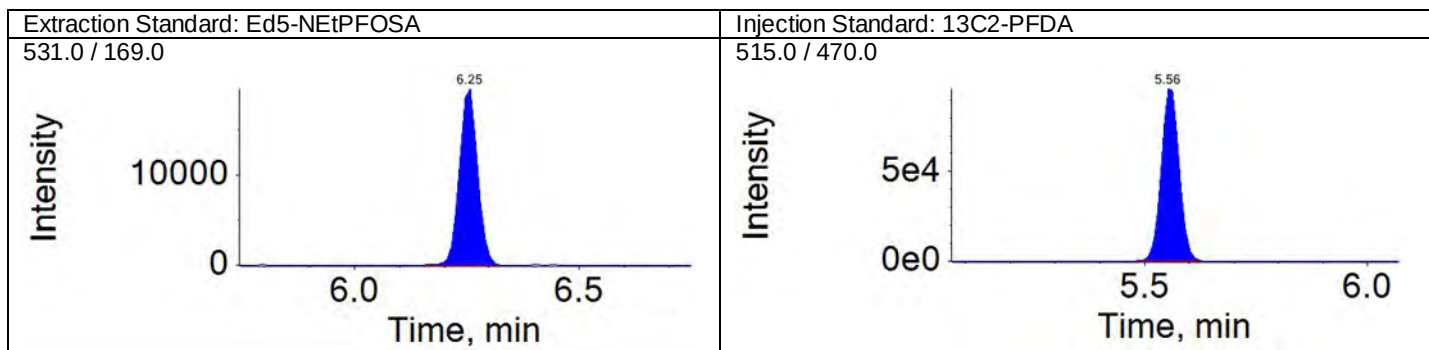
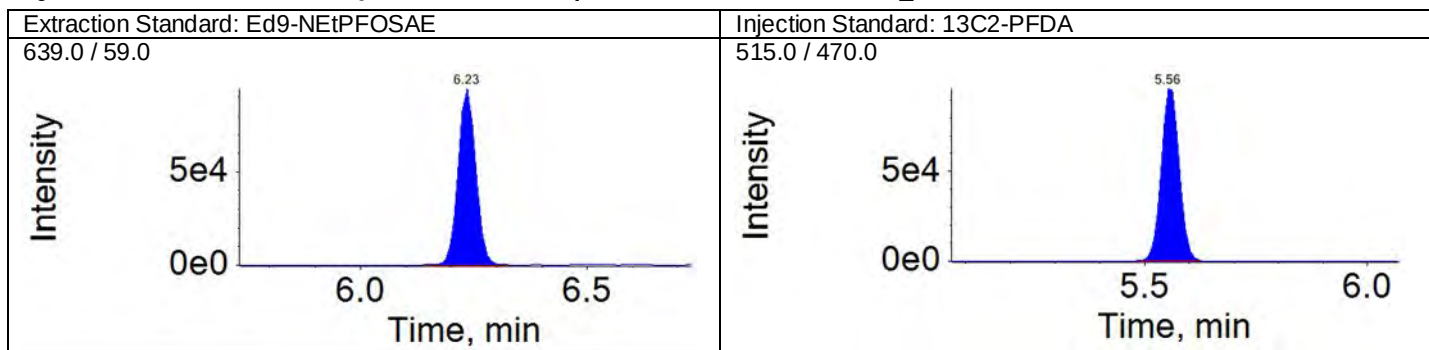
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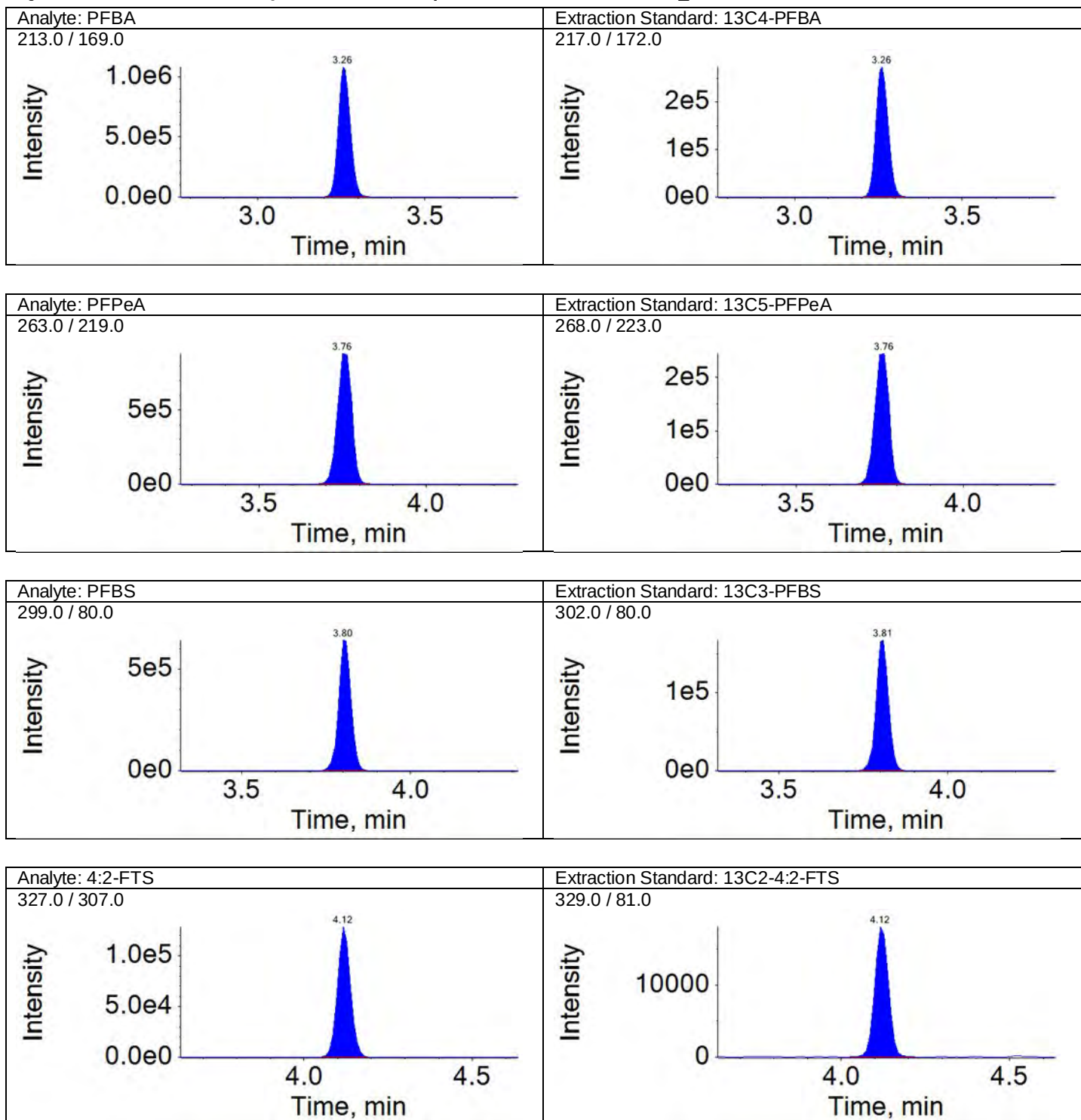
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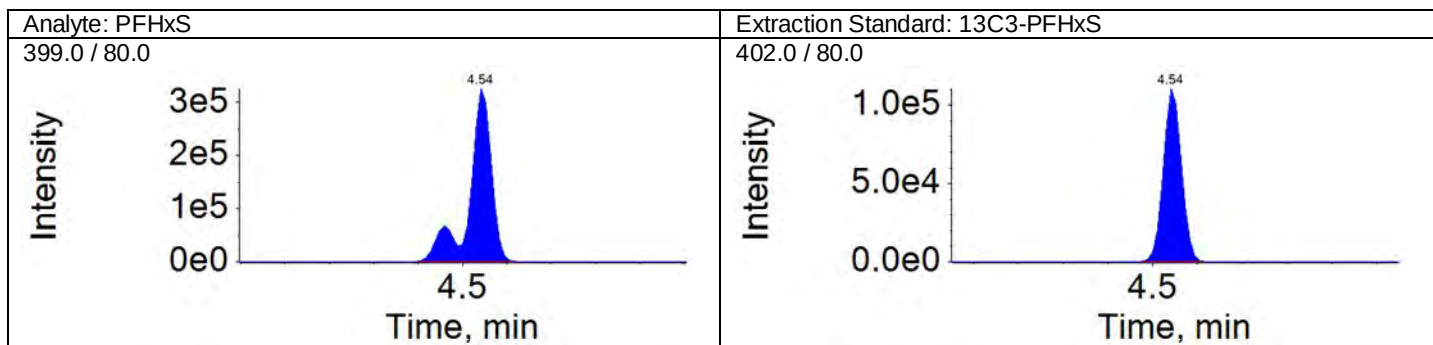
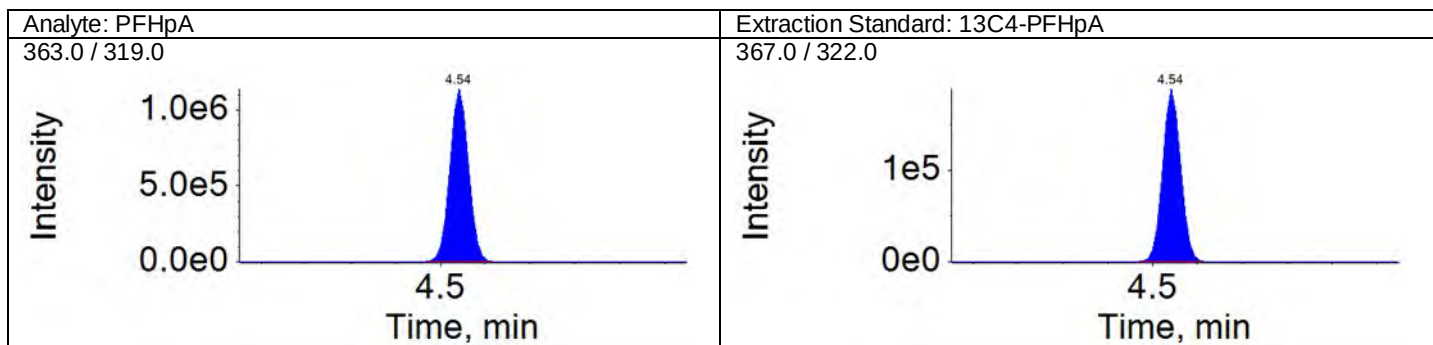
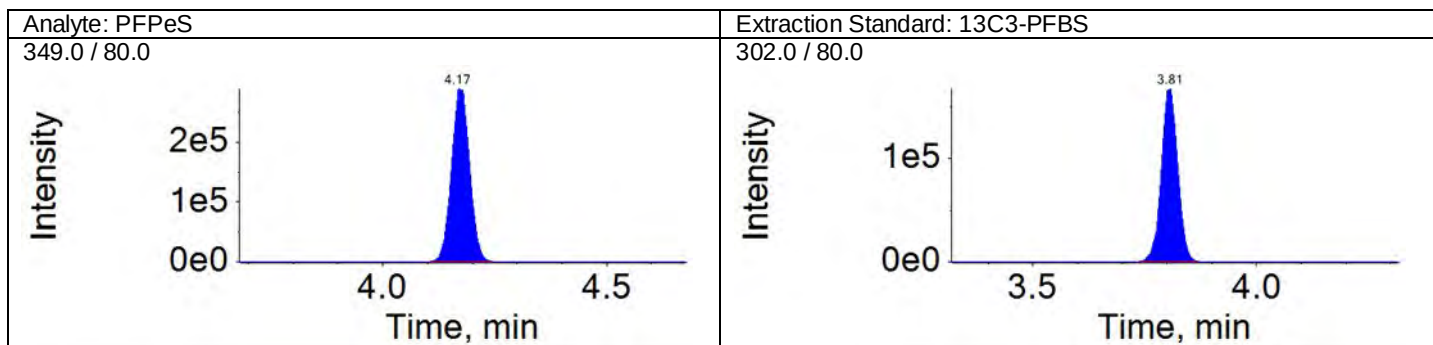
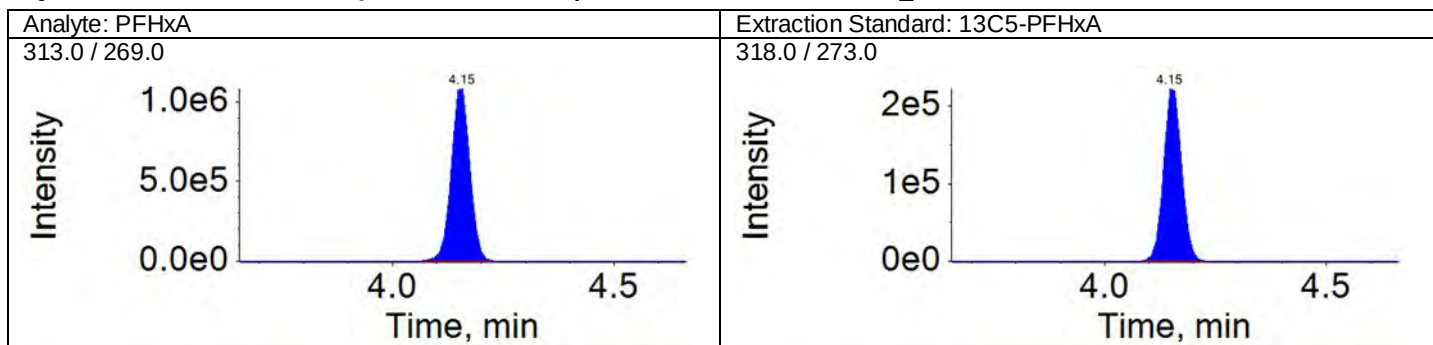
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Acquisition Method: 18AUG13_3uL.dam



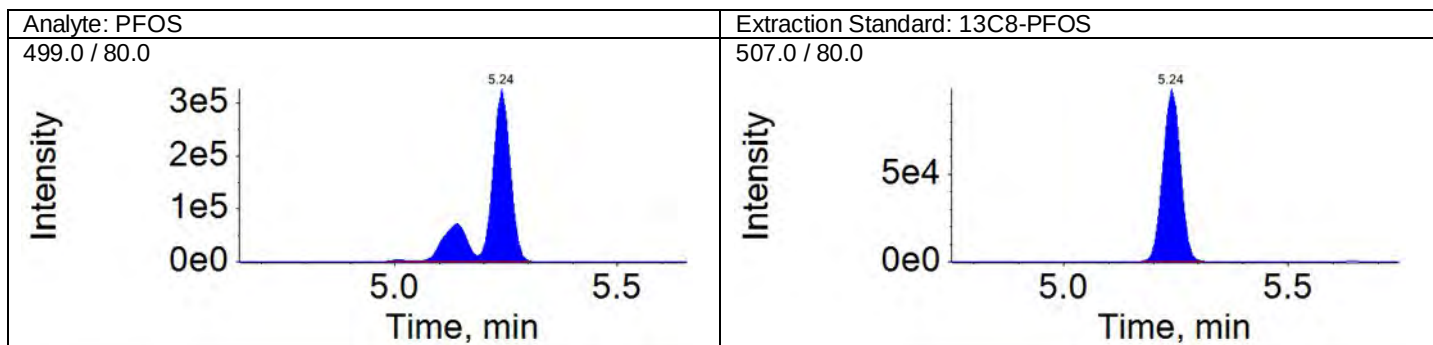
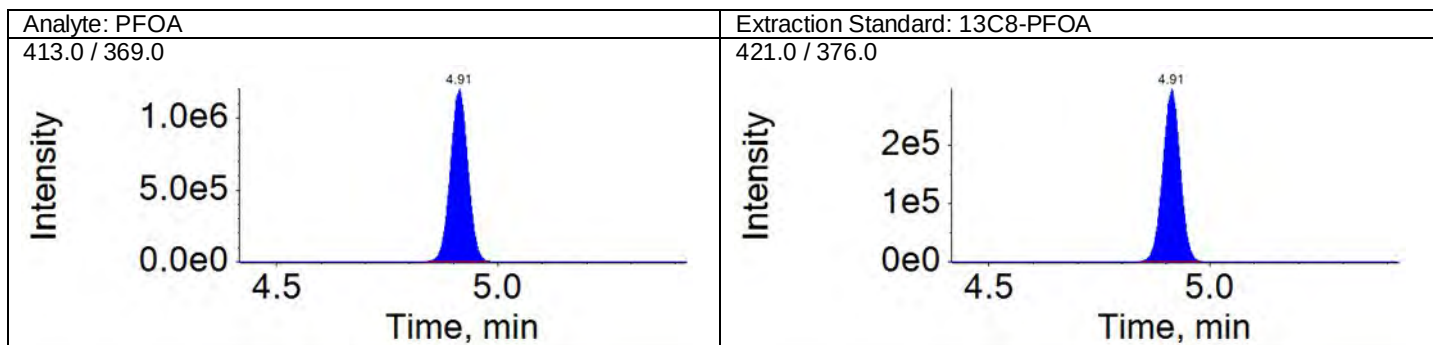
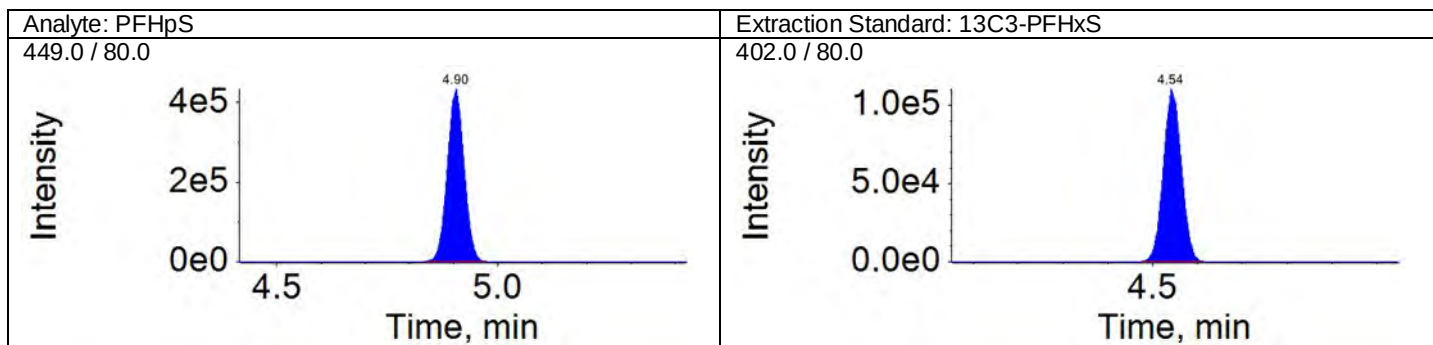
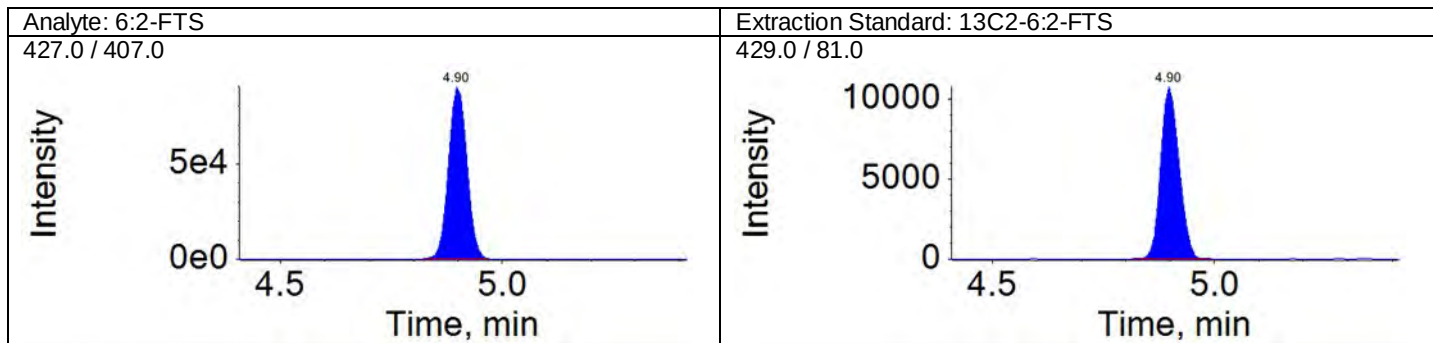
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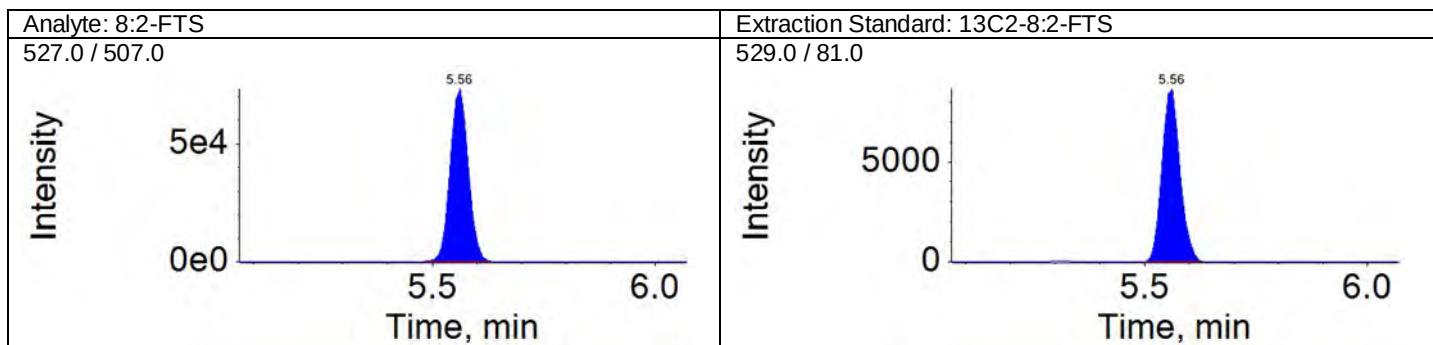
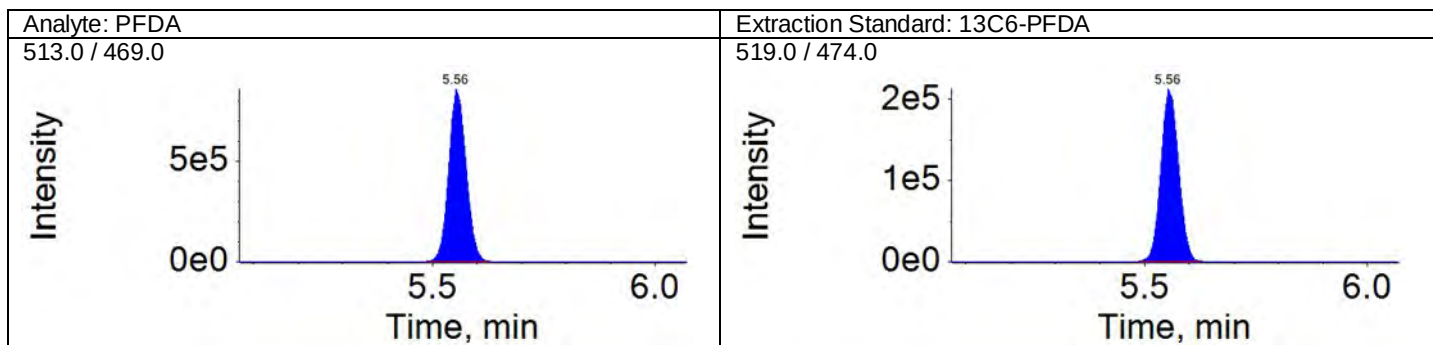
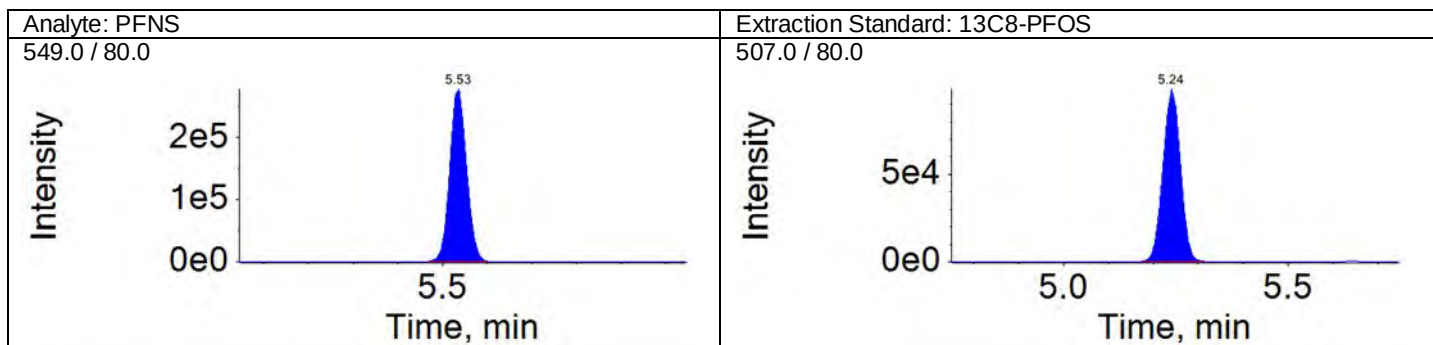
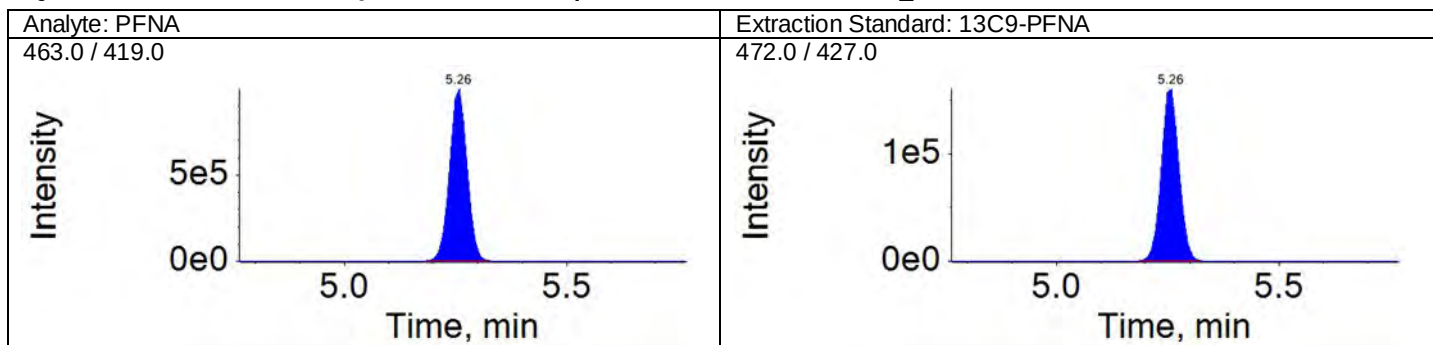
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



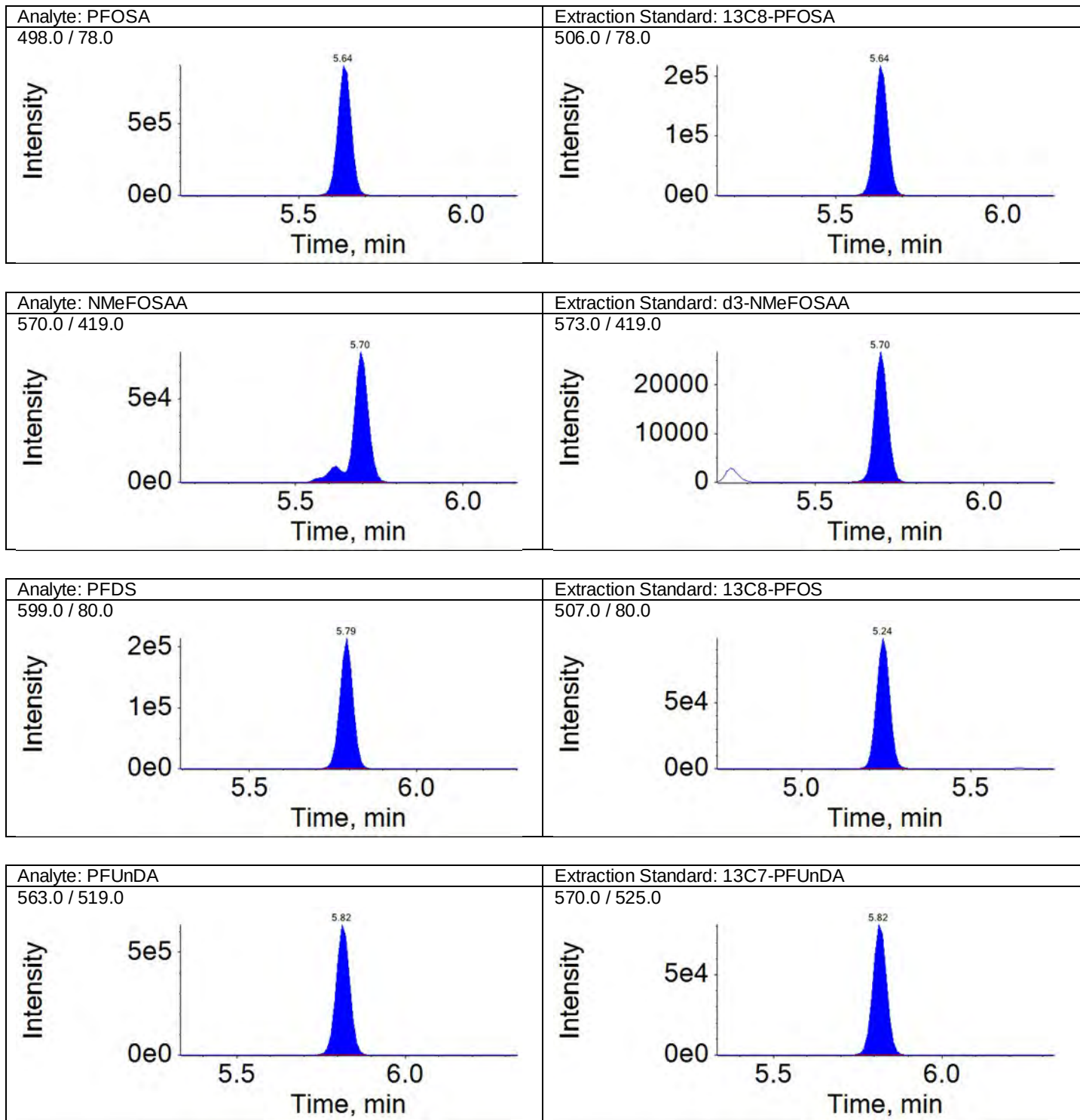
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Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
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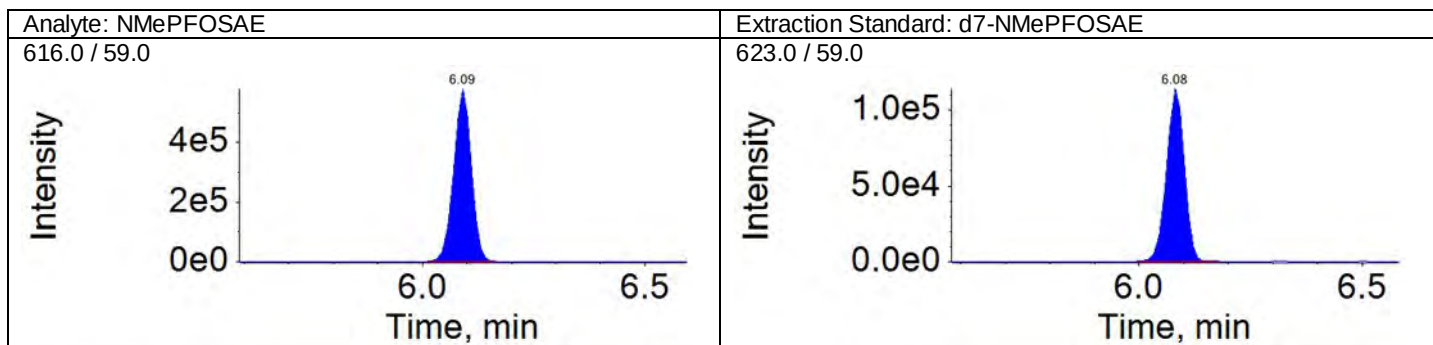
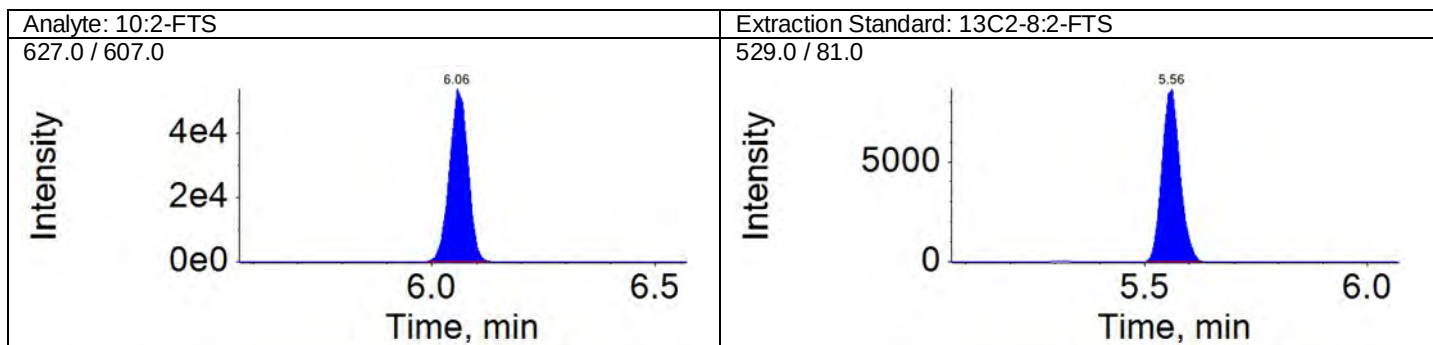
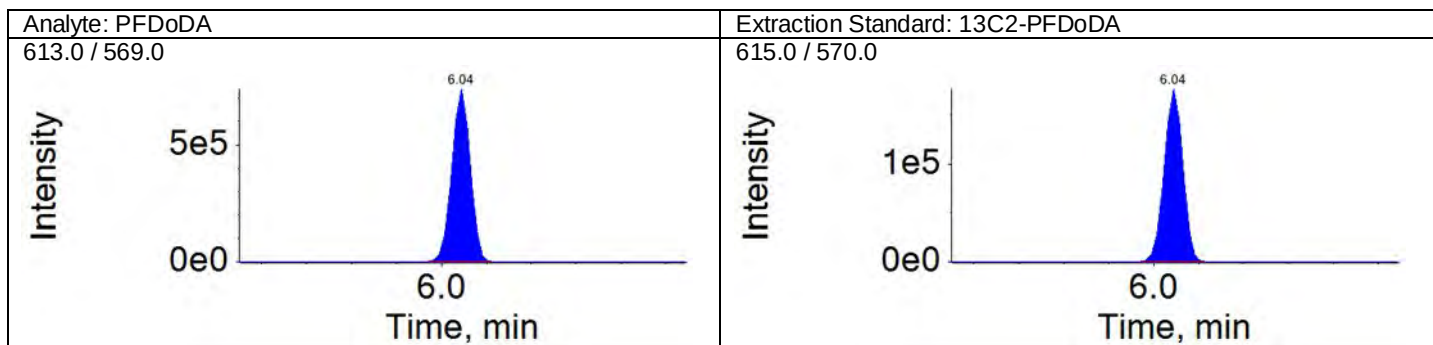
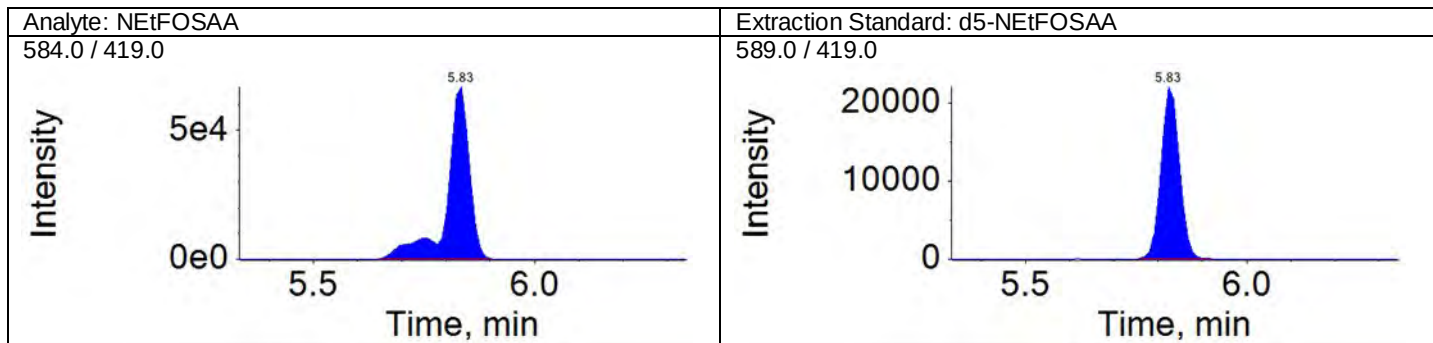
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



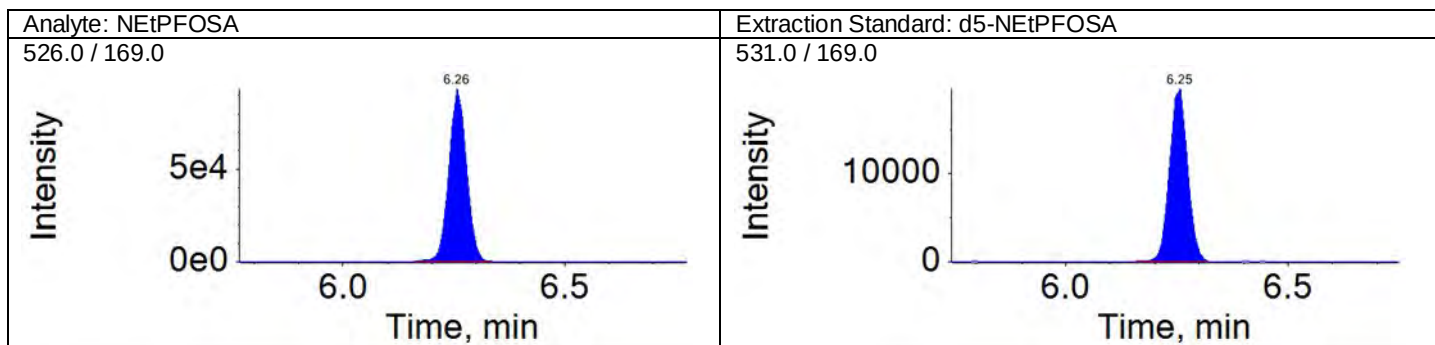
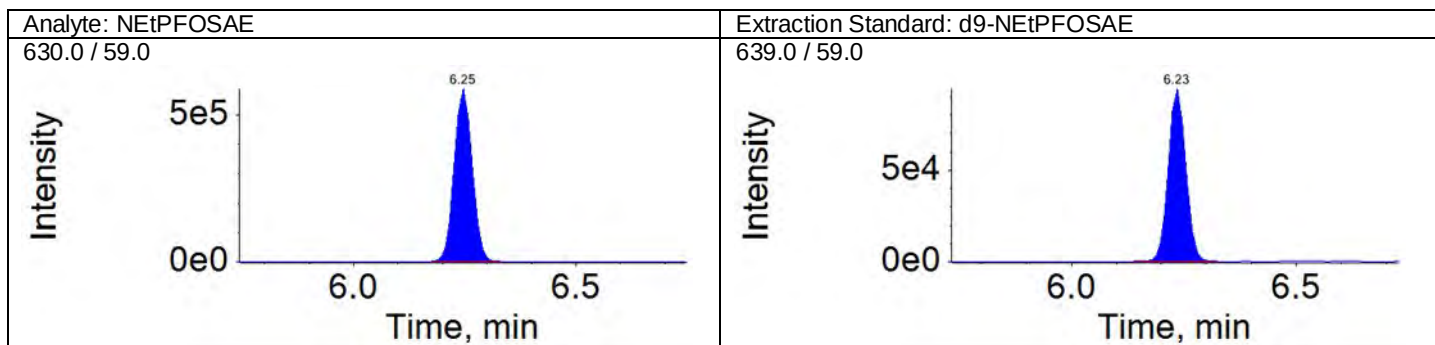
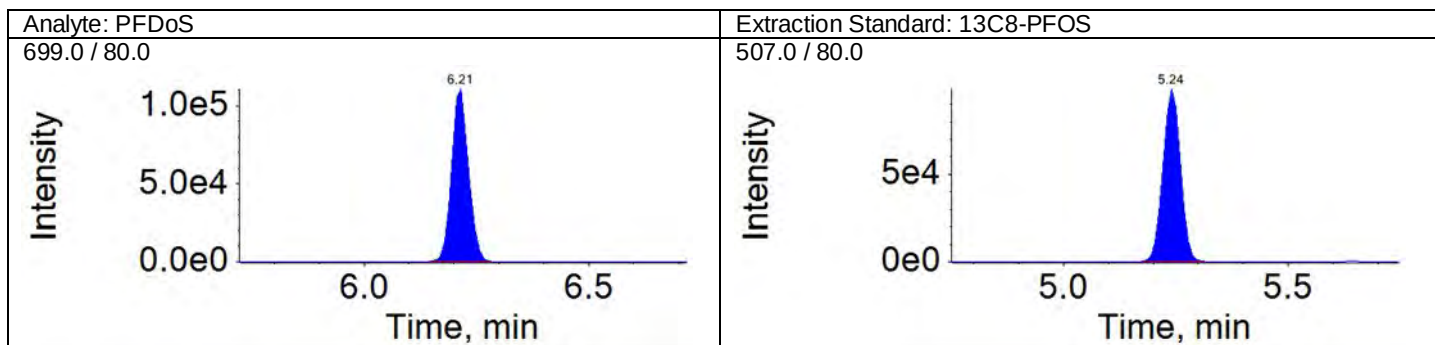
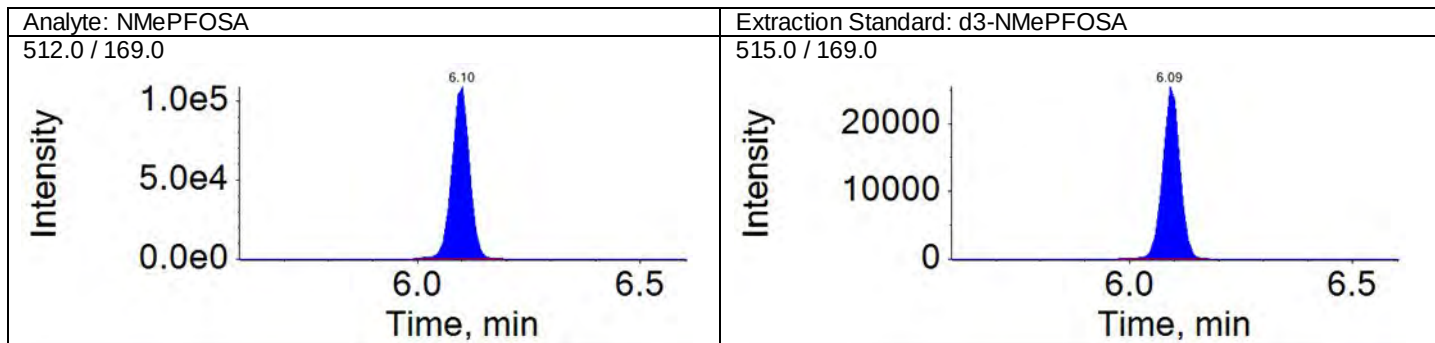
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



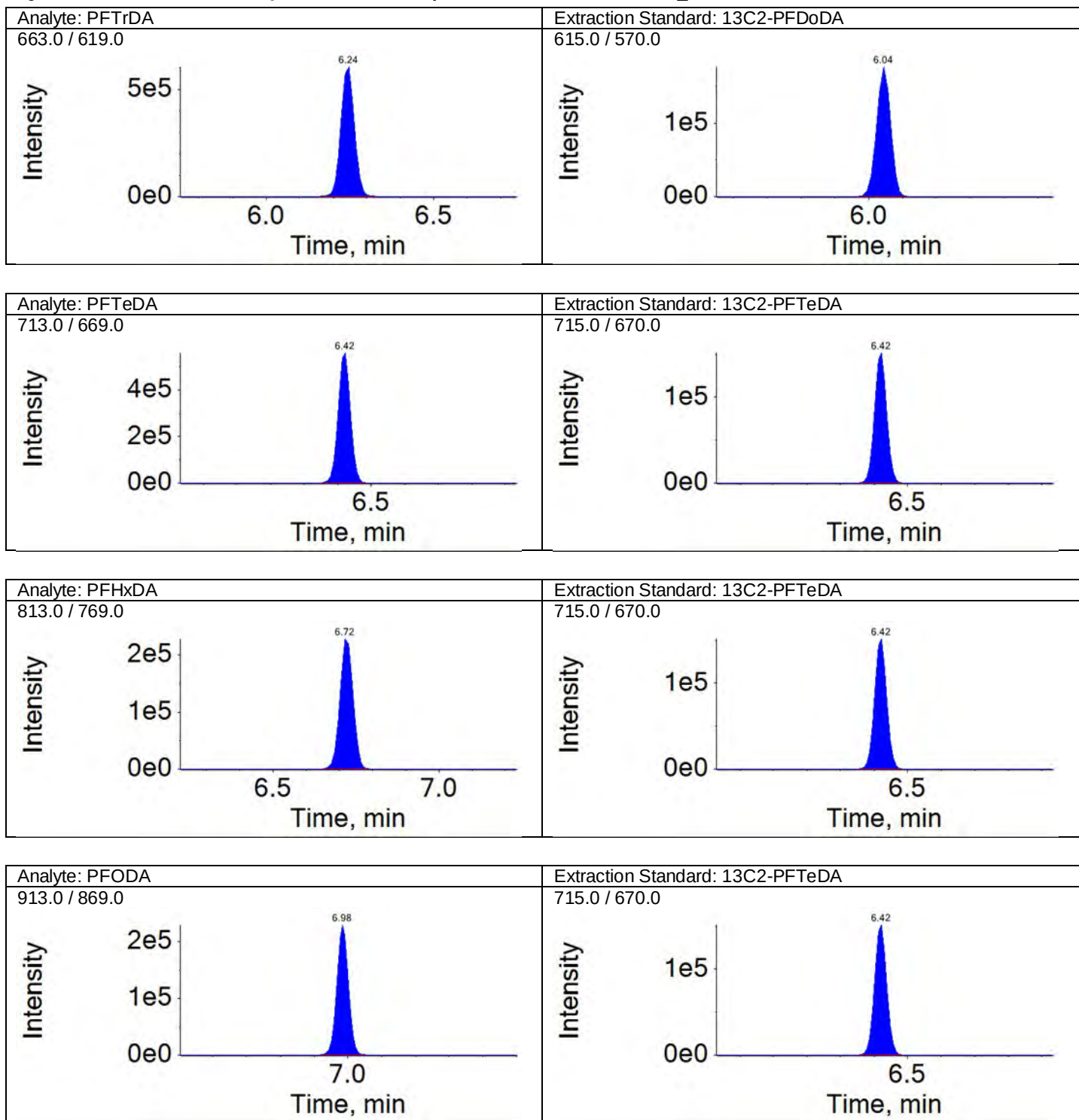
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:

PFHxS

RT (min.):

4.54

Peak Area:

943687.14

Mass Range:

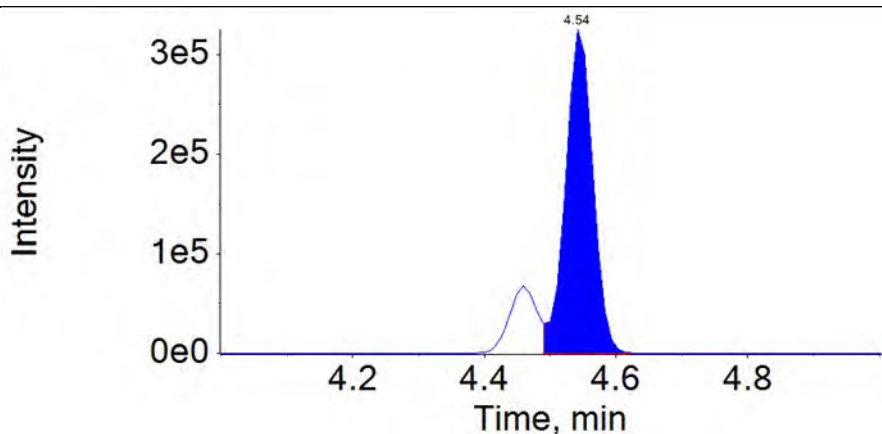
399.0 / 80.0

File Name:

18NOV12DCAL-46.wiff

Sample Name:

CAL5



Integration Comment: incorrect integration

Component Name:

PFOS

RT (min.):

5.24

Peak Area:

860586.56

Mass Range:

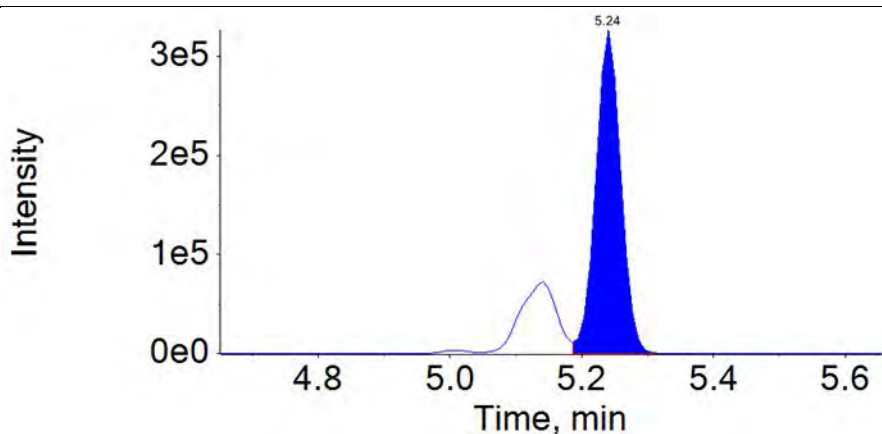
499.0 / 80.0

File Name:

18NOV12DCAL-46.wiff

Sample Name:

CAL5



Integration Comment: incorrect integration

Component Name:

NMePFOSAE

RT (min.):

6.09

Peak Area:

1591493.63

Mass Range:

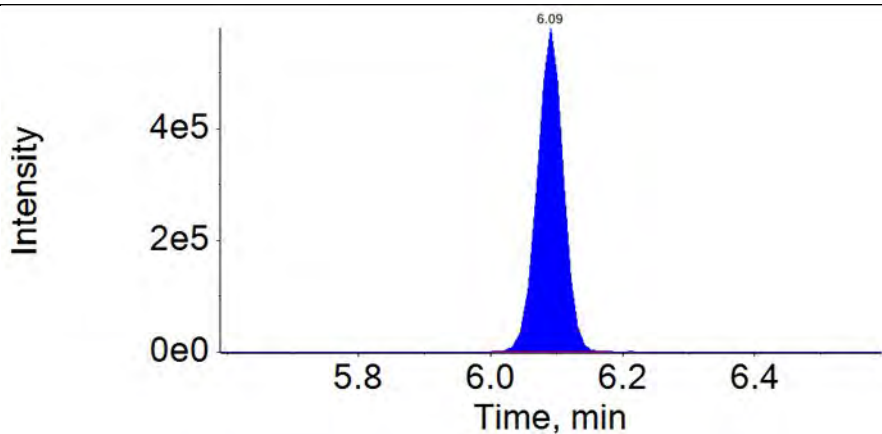
616.0 / 59.0

File Name:

18NOV12DCAL-46.wiff

Sample Name:

CAL5

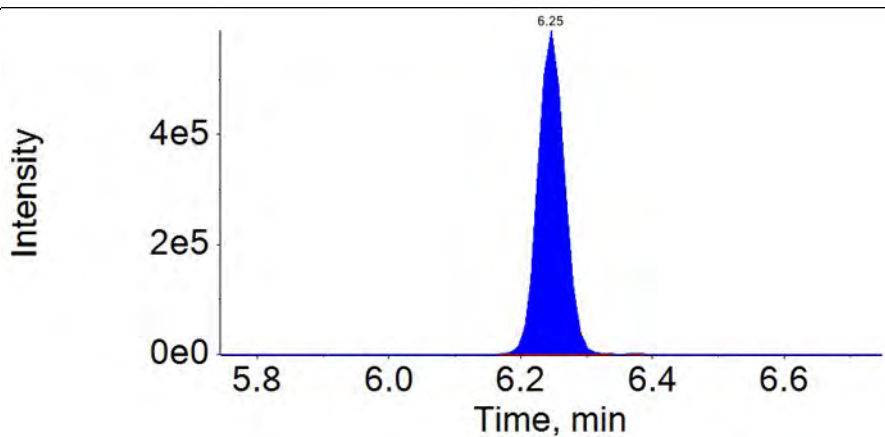


Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

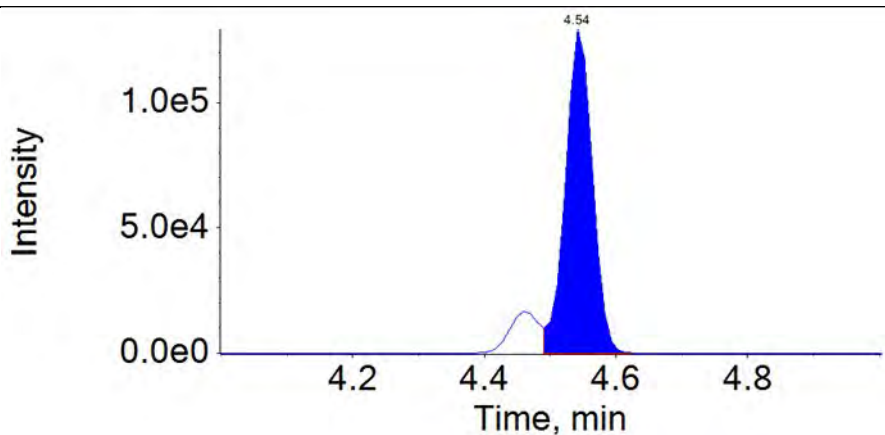
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NETPFOSAE
RT (min.):
6.25
Peak Area:
1662069.44
Mass Range:
630.0 / 59.0
File Name:
18NOV12DCAL-46.wiff
Sample Name:
CAL5



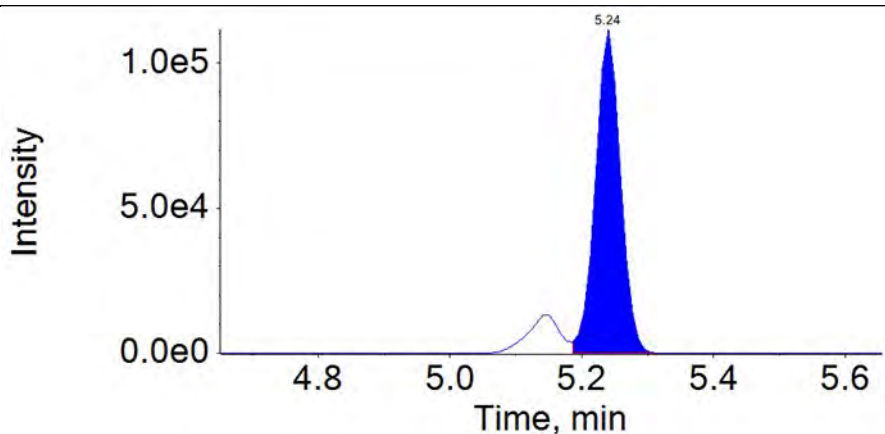
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
369522.57
Mass Range:
399.0 / 99.0
File Name:
18NOV12DCAL-46.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
295251.82
Mass Range:
499.0 / 99.0
File Name:
18NOV12DCAL-46.wiff
Sample Name:
CAL5

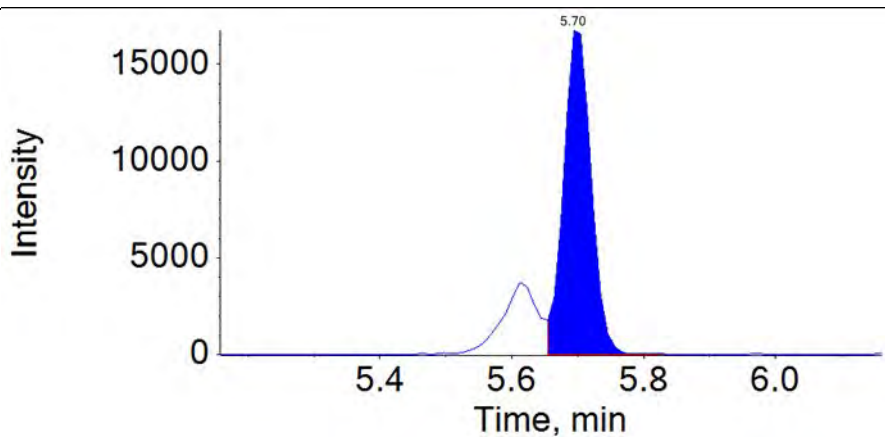


Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

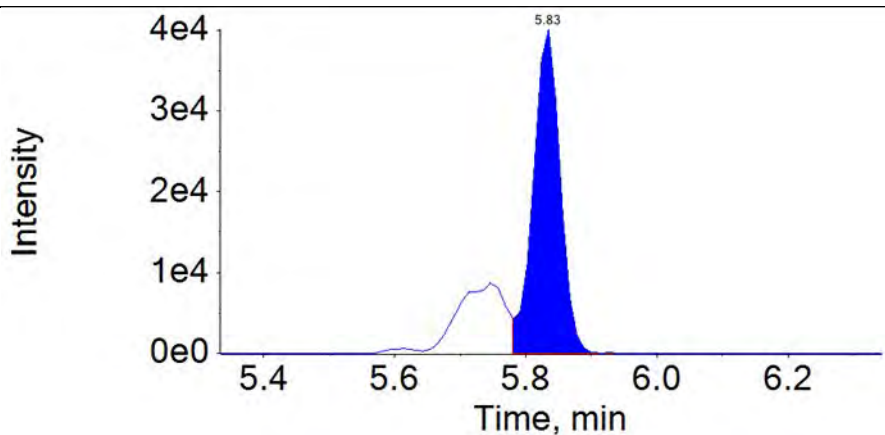
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
48911.60
Mass Range:
570.0 / 483.0
File Name:
18NOV12DCAL-46.wiff
Sample Name:
CAL5



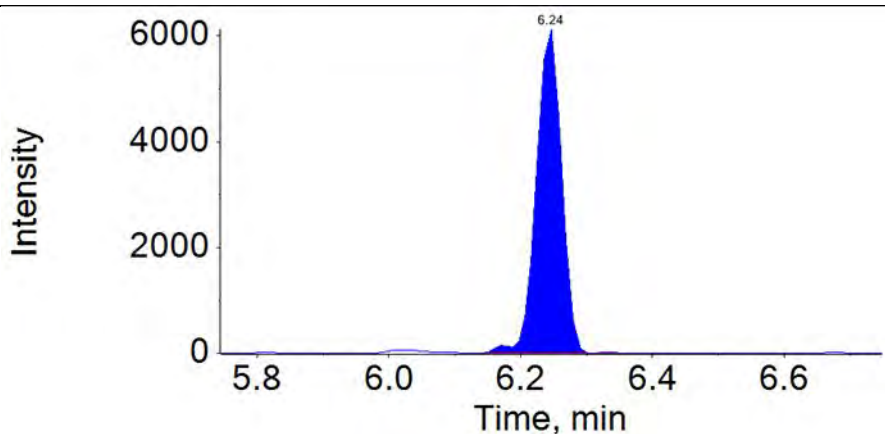
Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
114677.93
Mass Range:
584.0 / 526.0
File Name:
18NOV12DCAL-46.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

Component Name:
PFTTrDA_2
RT (min.):
6.24
Peak Area:
16434.79
Mass Range:
663.0 / 169.0
File Name:
18NOV12DCAL-46.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 6:33 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

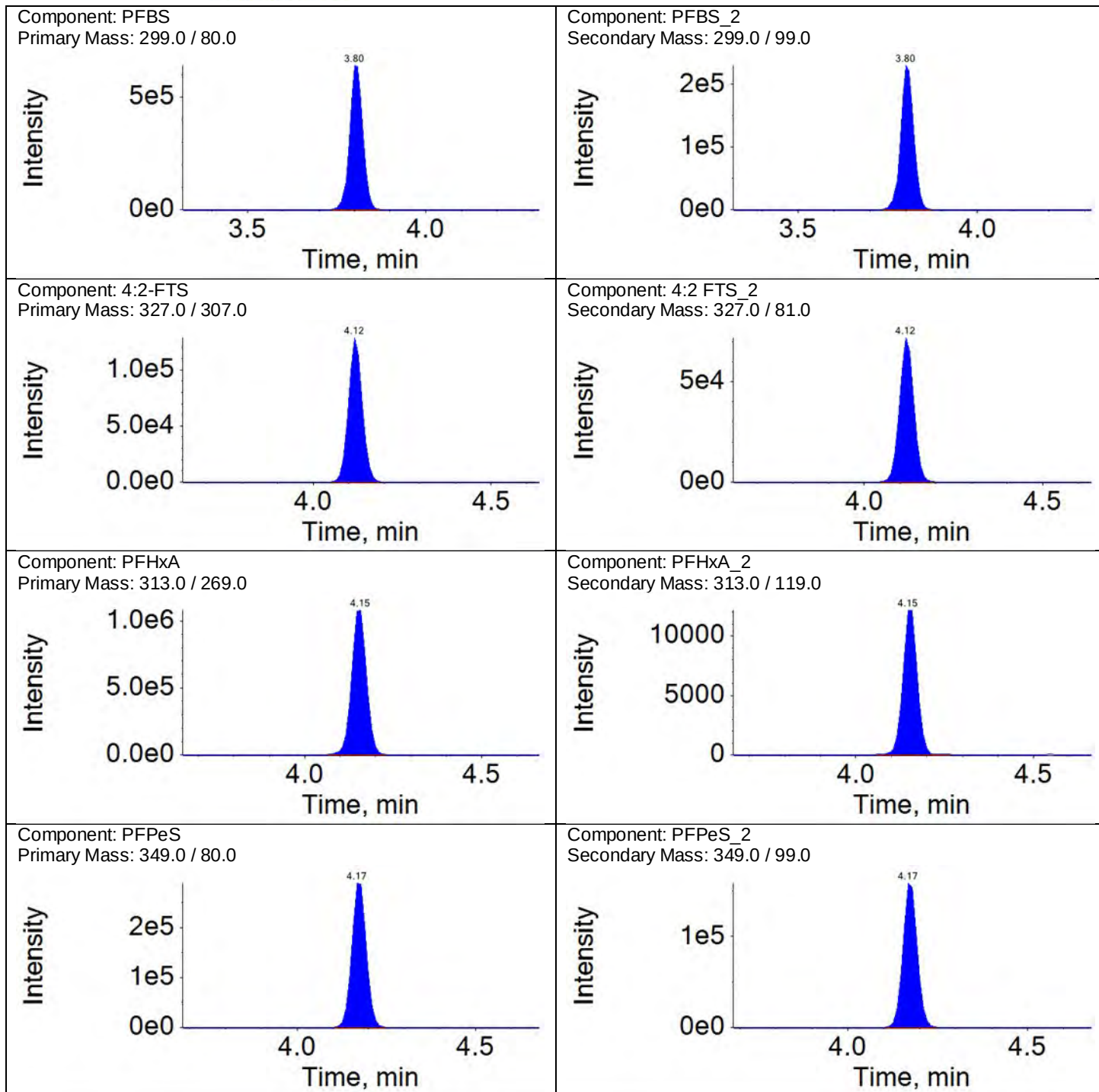
Ion Ratio Report

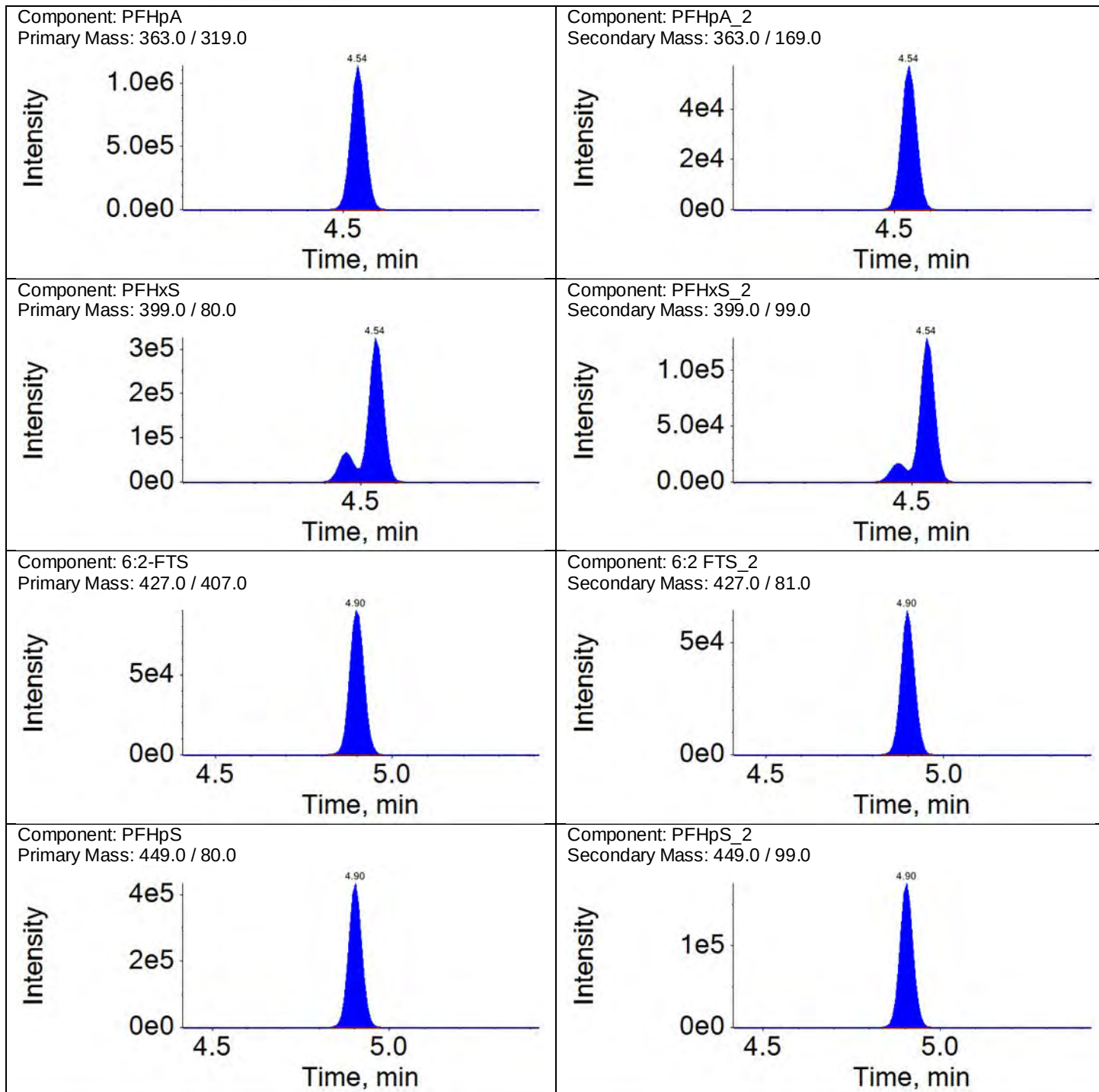
Sample Name: CAL5

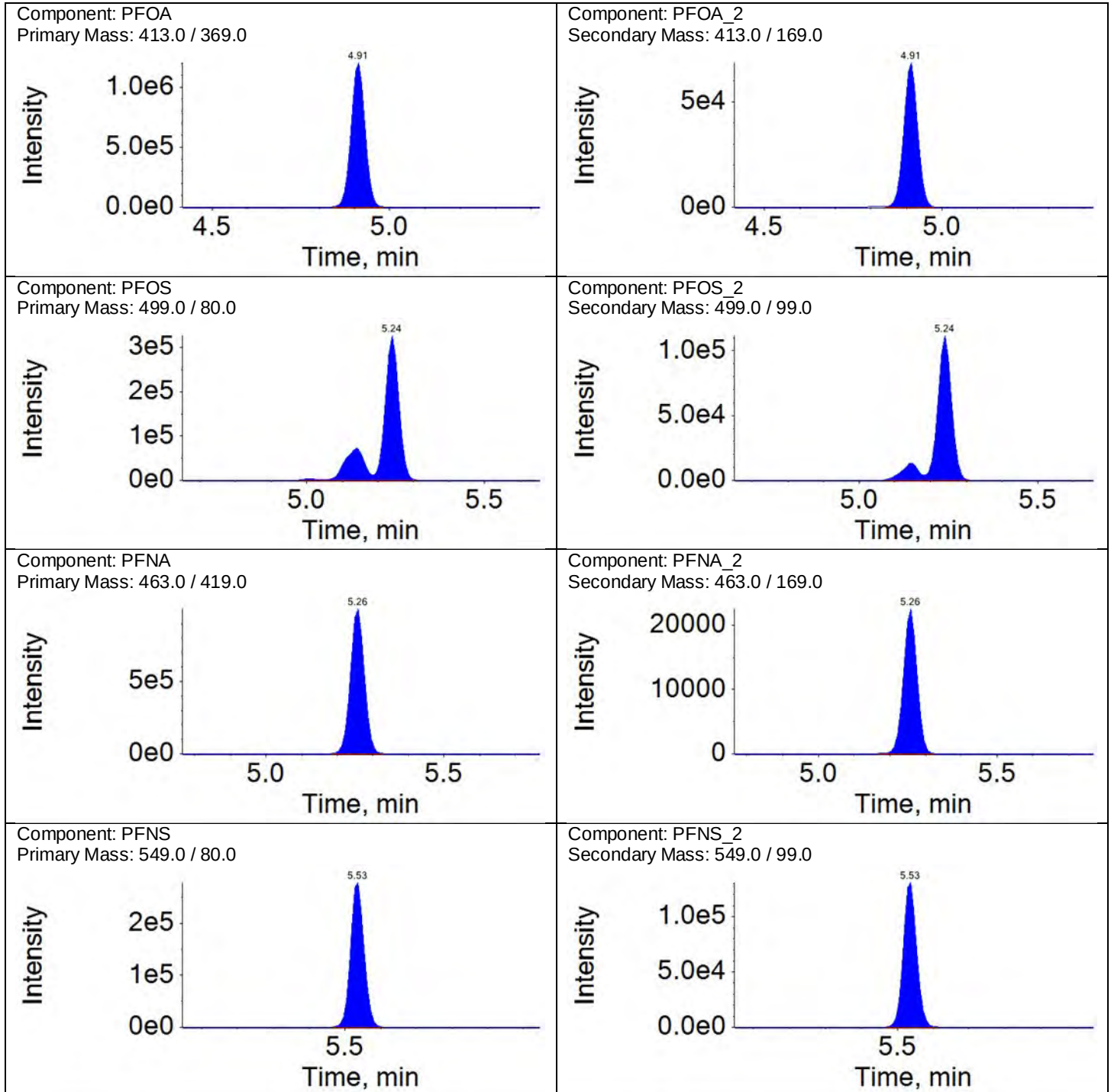
Instrument Name: LM27631

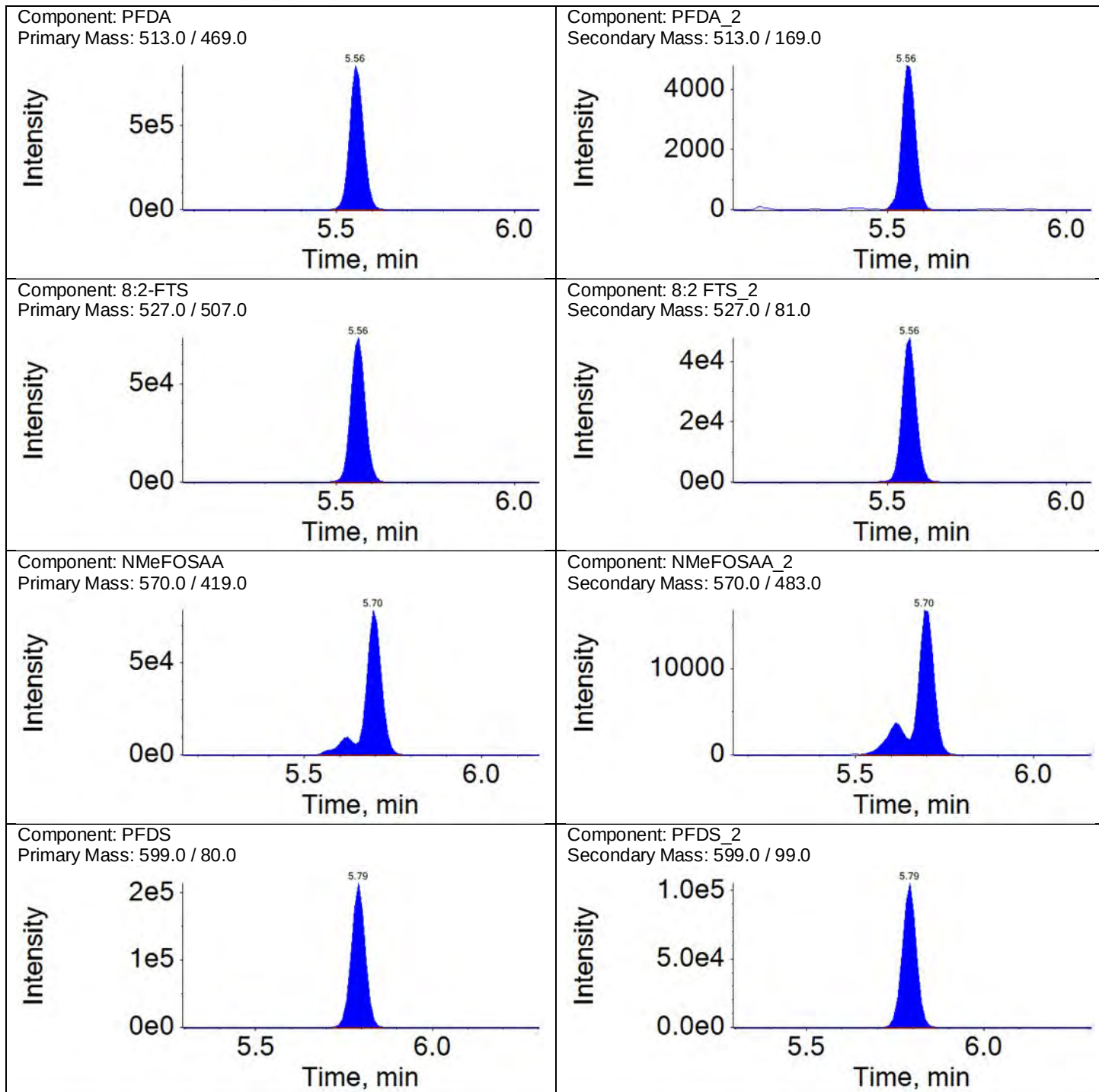
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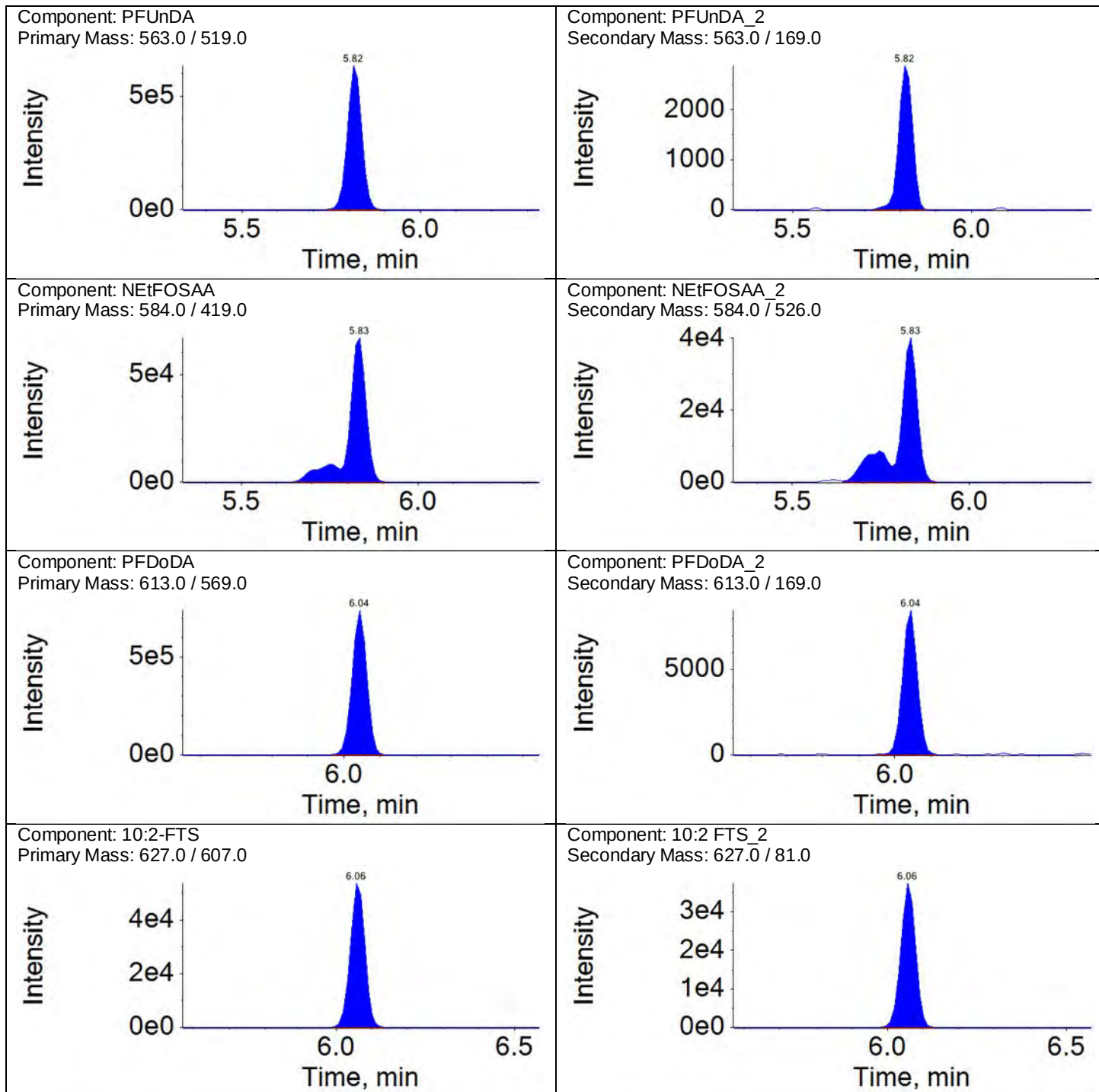
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	1630613.49	A	0.3619	0.3539			
PFBS_2	3.80	1.00	577021.23	A	0.3619	0.3539	-2	50	
4:2-FTS	4.12	1.00	344695.89	A	0.6730	0.5792			
4:2 FTS_2	4.12	1.00	199643.08	A	0.6730	0.5792		#NA!	
PFHxA	4.15	1.00	3158486.41	A	0.0117	0.0109			
PFHxA_2	4.15	1.00	34335.08	A	0.0117	0.0109	-7	50	
PFPeS	4.17	1.10	815928.18	A	0.5191	0.5405			
PFPeS_2	4.17	1.10	440987.79	A	0.5191	0.5405	4	50	
PFHpA	4.54	1.00	3269561.01	A	0.0563	0.0518			
PFHpA_2	4.54	1.00	169510.99	A	0.0563	0.0518	-8	50	
PFHxS	4.54	1.00	1138604.25	M	0.3428	0.3697			
PFHxS_2	4.54	1.00	420898.36	M	0.3428	0.3697	8	50	
6:2-FTS	4.90	1.00	260254.34	A	0.6604	0.6706			
6:2 FTS_2	4.90	1.00	174514.29	A	0.6604	0.6706		#NA!	
PFHpS	4.90	1.08	1145559.80	A	0.4066	0.4043			
PFHpS_2	4.90	1.08	463097.70	A	0.4066	0.4043	-1	50	
PFOA	4.91	1.00	3291549.40	A	0.0562	0.0563			
PFOA_2	4.91	1.00	185238.19	A	0.0562	0.0563	0	50	
PFOS	5.24	1.00	1147826.77	M	0.2968	0.2969			
PFOS_2	5.24	1.00	340771.88	M	0.2968	0.2969	0	50	
PFNA	5.26	1.00	2725089.71	A	0.0229	0.0218			
PFNA_2	5.26	1.00	59324.51	A	0.0229	0.0218	-5	50	
PFNS	5.53	1.06	725402.00	A	0.4828	0.4661			
PFNS_2	5.53	1.06	338109.67	A	0.4828	0.4661	-3	50	
PFDA	5.56	1.00	2309359.54	A	0.0081	0.0056			
PFDA_2	5.56	1.00	12923.91	A	0.0081	0.0056	-31	50	
8:2-FTS	5.56	1.00	206213.12	A	0.6814	0.6384			
8:2 FTS_2	5.56	1.00	131655.86	A	0.6814	0.6384		#NA!	
NMeFOSAA	5.70	1.00	250711.49	A	0.2569	0.2507			
NMeFOSAA_2	5.70	1.00	62849.33	M	0.2569	0.2507	-2	50	
PFDS	5.79	1.10	578877.50	A	0.5144	0.4977			
PFDS_2	5.79	1.10	288112.49	A	0.5144	0.4977	-3	50	
PFUnDA	5.82	1.00	1773582.60	A	0.0058	0.0044			
PFUnDA_2	5.82	1.00	7755.59	A	0.0058	0.0044	-25	50	
NEtFOSAA	5.83	1.00	237197.18	A	0.7253	0.6651			
NEtFOSAA_2	5.83	1.00	157758.05	M	0.7253	0.6651	-8	50	
PFDODA	6.04	1.00	2099385.04	A	0.0157	0.0116			
PFDODA_2	6.04	1.00	24326.91	A	0.0157	0.0116	-26	50	
10:2-FTS	6.06	1.09	153343.55	A	0.6356	0.6979			
10:2 FTS_2	6.06	1.09	107018.53	A	0.6356	0.6979		#NA!	
PFTTrDA	6.24	1.03	1679407.24	A	0.0086	0.0096			
PFTTrDA_2	6.24	1.03	16152.60	M	0.0086	0.0096	12	50	
PFTeDA	6.42	1.00	1418276.72	A	0.0062	0.0062			
PFTeDA_2	6.42	1.00	8850.65	A	0.0062	0.0062	0	50	
PFHxDA	6.72	1.05	627350.68	A	0.0683	0.0680			
PFHxDA_2	6.72	1.05	42651.35	A	0.0683	0.0680	0	50	
PFODA	6.98	1.09	544296.46	A	0.0277	0.0265			
PFODA_2	6.98	1.09	14445.27	A	0.0277	0.0265	-4	50	

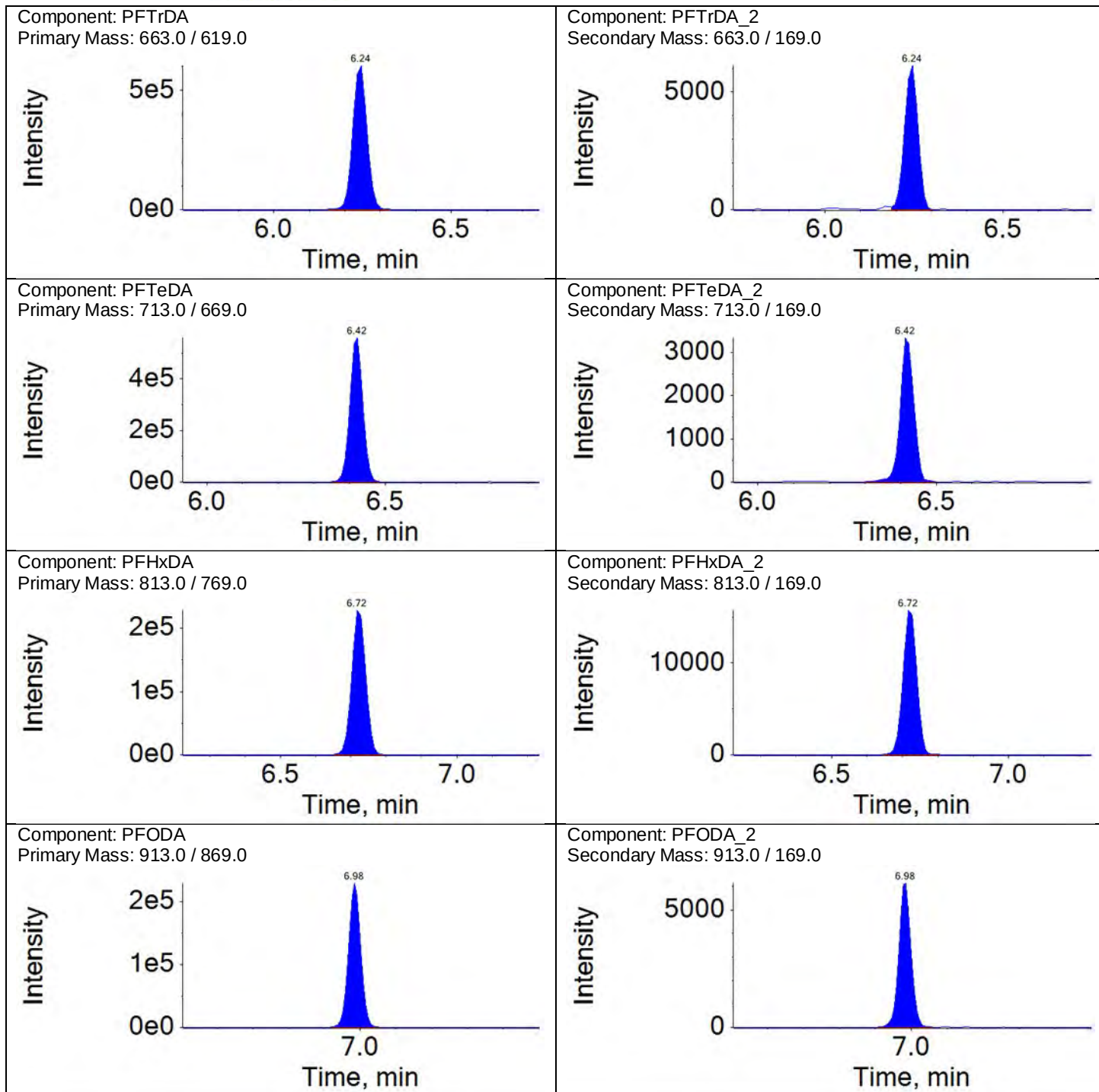












ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL6		Data File:	18NOV12DCAL-47.wiff
Sample ID:	CALBRN61833B		Acquis Date:	2018-11-12T15:51:06
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	8		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV12DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	555817.9	659926.2	-16	50	
13C2-PFOA	5.0	422900.5	450219.7	-6	50	
13C4-PFOS	4.8	231712.1	249205.8	-7	50	
13C2-PFDA	5.0	237446.9	278743.9	-15	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	633648.4	13C3-PFBA	555817.9	1.140	5.000	5.111	102	70-130	
E13C5-PFPeA	635977.8	13C3-PFBA	555817.9	1.144	5.000	5.132	103	70-130	
E13C3-PFBS	378676.8	13C3-PFBA	555817.9	0.681	4.650	4.809	103	70-130	
E13C2-4:2-FTS	41422.2	13C2-PFOA	422900.5	0.098	4.670	4.362	93	70-130	
E13C5-PFHxA	568205.8	13C2-PFOA	422900.5	1.344	5.000	4.854	97	70-130	
E13C3-PFHxS	284116.5	13C2-PFOA	422900.5	0.672	4.730	4.610	97	70-130	
E13C4-PFHpA	455005.8	13C2-PFOA	422900.5	1.076	5.000	4.847	97	70-130	
E13C2-6:2-FTS	27988.5	13C2-PFOA	422900.5	0.066	4.750	4.428	93	70-130	
E13C8-PFOA	707130.3	13C2-PFOA	422900.5	1.672	5.000	4.607	92	70-130	
E13C8-PFOS	253129.2	13C4-PFOS	231712.1	1.092	4.780	4.840	101	70-130	
E13C9-PFNA	413811.4	13C4-PFOS	231712.1	1.786	5.000	4.979	100	70-130	
E13C6-PFDA	522613.8	13C2-PFDA	237446.9	2.201	5.000	5.136	103	70-130	
E13C2-8:2-FTS	22899.0	13C2-PFDA	237446.9	0.096	4.790	4.810	100	70-130	
E13C8-PFOSA	539992.5	13C2-PFDA	237446.9	2.274	5.000	5.042	101	70-130	
Ed3-NMeFOSAA	70320.3	13C2-PFDA	237446.9	0.296	5.000	5.346	107	70-130	
E13C7-PFUnDA	208574.1	13C2-PFDA	237446.9	0.878	5.000	5.100	102	70-130	
Ed5-NEtFOSAA	57308.1	13C2-PFDA	237446.9	0.241	5.000	5.106	102	70-130	
E13C2-PFDoDA	477105.5	13C2-PFDA	237446.9	2.009	5.000	5.217	104	70-130	
Ed7-NMePFOSAE	272639.0	13C2-PFDA	237446.9	1.148	5.000	4.969	99	70-130	
Ed3-NMePFOSA	68215.9	13C2-PFDA	237446.9	0.287	5.000	5.220	104	70-130	
Ed9-NEtPFOSAE	242587.5	13C2-PFDA	237446.9	1.022	5.000	5.314	106	70-130	
Ed5-NEtPFOSA	56004.0	13C2-PFDA	237446.9	0.236	5.000	5.533	111	70-130	
E13C2-PFTeDA	352892.2	13C2-PFDA	237446.9	1.486	5.000	5.218	104	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL6

Instrument Name: LM27631

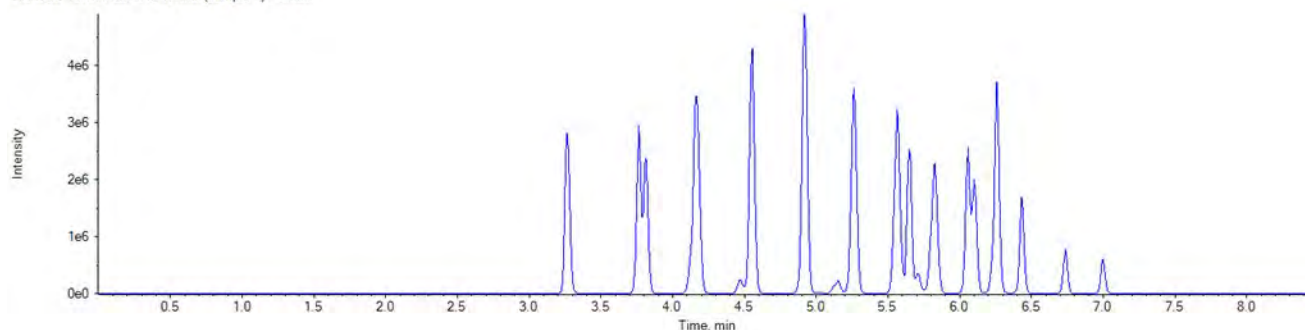
File Name: 18NOV12DCAL-47.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	5765353.4		A	13C4-PFBA	3.27	633648.4	9.099	50.404
PFPeA	3.77	1.000	5570221.7		A	13C5-PFPeA	3.76	635977.8	8.759	50.702
PFBS	3.81	1.000	3588084.2		A	13C3-PFBS	3.81	378676.8	9.475	45.072
4:2-FTS	4.13	1.000	738294.0		A	13C2-4:2-FTS	4.13	41422.2	17.824	48.392
PFHxA	4.16	1.000	6593779.0		A	13C5-PFHxA	4.16	568205.8	11.605	48.453
PFPeS	4.18	1.100	1847826.8		A	13C3-PFBS	3.81	378676.8	4.880	47.375
PFHpA	4.55	1.000	6648455.3		A	13C4-PFHpA	4.55	455005.8	14.612	48.434
PFHxS	4.55	1.000	2662852.0		M	13C3-PFHxS	4.55	284116.5	9.372	45.444
6:2-FTS	4.91	1.000	523949.5		A	13C2-6:2-FTS	4.91	27988.5	18.720	45.301
PFHpS	4.91	1.080	2604868.6		A	13C3-PFHxS	4.55	284116.5	9.168	48.262
PFOA	4.92	1.000	6758642.8		A	13C8-PFOA	4.92	707130.3	9.558	51.047
PFOS	5.25	1.000	2664957.2		M	13C8-PFOS	5.25	253129.2	10.528	46.040
PFNA	5.27	1.000	5820576.6		A	13C9-PFNA	5.27	413811.4	14.066	50.720
PFNS	5.55	1.060	1709959.5		A	13C8-PFOS	5.25	253129.2	6.755	47.262
PFDA	5.57	1.000	4802967.8		A	13C6-PFDA	5.57	522613.8	9.190	48.722
8:2-FTS	5.57	1.000	469719.6		A	13C2-8:2-FTS	5.57	22899.0	20.513	47.825
PFOSA	5.65	1.000	5530440.6		A	13C8-PFOSA	5.65	539992.5	10.242	50.024
NMeFOSAA	5.71	1.000	627854.4		M	d3-NMeFOSAA	5.71	70320.3	8.928	50.461
PFDS	5.80	1.100	1313570.3		A	13C8-PFOS	5.25	253129.2	5.189	47.020
PfUnDA	5.83	1.000	3923979.2		A	13C7-PfUnDA	5.83	208574.1	18.813	49.183
NEtFOSAA	5.84	1.000	551865.7		A	d5-NEtFOSAA	5.84	57308.1	9.630	50.481
PFDaDA	6.06	1.000	4582985.5		A	13C2-PFDaDA	6.06	477105.5	9.606	48.914
10:2-FTS	6.07	1.090	348263.2		A	13C2-8:2-FTS	5.57	22899.0	15.209	50.658
NMePFOSAE	6.10	1.000	3484588.8		A	d7-NMePFOSAE	6.09	272639.0	12.781	53.193
NMePFOSA	6.11	1.000	670429.6		A	d3-NMePFOSA	6.11	68215.9	9.828	48.485
PFDaS	6.23	1.190	711567.5		A	13C8-PFOS	5.25	253129.2	2.811	49.234
NEtPFOSAE	6.26	1.000	3677006.6		A	d9-NEtPFOSAE	6.25	242587.5	15.157	48.629
NEtPFOSA	6.27	1.000	599280.4		A	d5-NEtPFOSA	6.27	56004.0	10.701	49.142
PFTaDA	6.26	1.030	3691733.8		A	13C2-PFDaDA	6.06	477105.5	7.738	48.838
PFTeDA	6.43	1.000	3149020.2		A	13C2-PFTeDA	6.43	352892.2	8.923	50.021
PFHxDA	6.74	1.050	1533920.2		A	13C2-PFTeDA	6.43	352892.2	4.347	51.786
PFODA	7.00	1.090	1270897.6		A	13C2-PFTeDA	6.43	352892.2	3.601	50.157

Total Ion Chromatogram

TIC from 18NOV12DCAL-47.wiff (sample 1) - CAL6



APPROVED

By MCD at 6:33 pm, 11/12/18

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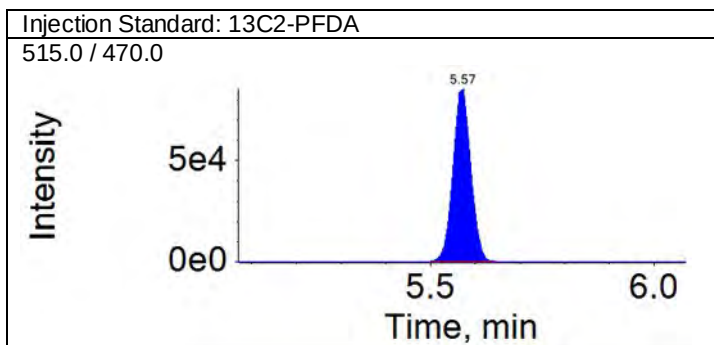
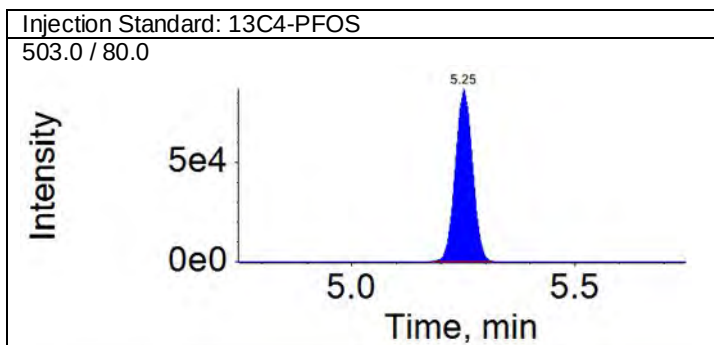
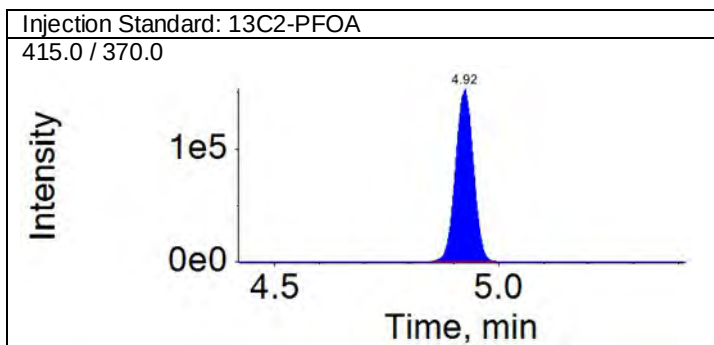
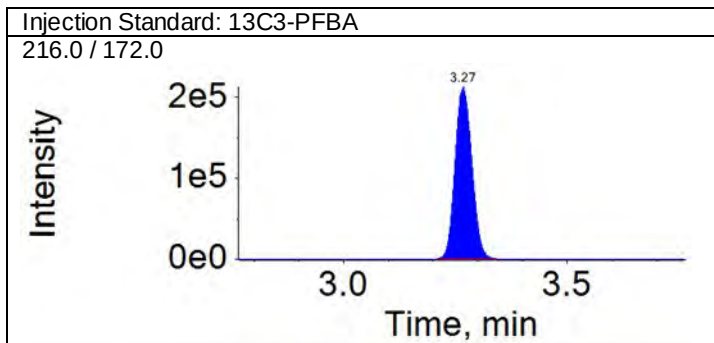
REVIEWED

By HMK at 10:53 am, 11/13/18

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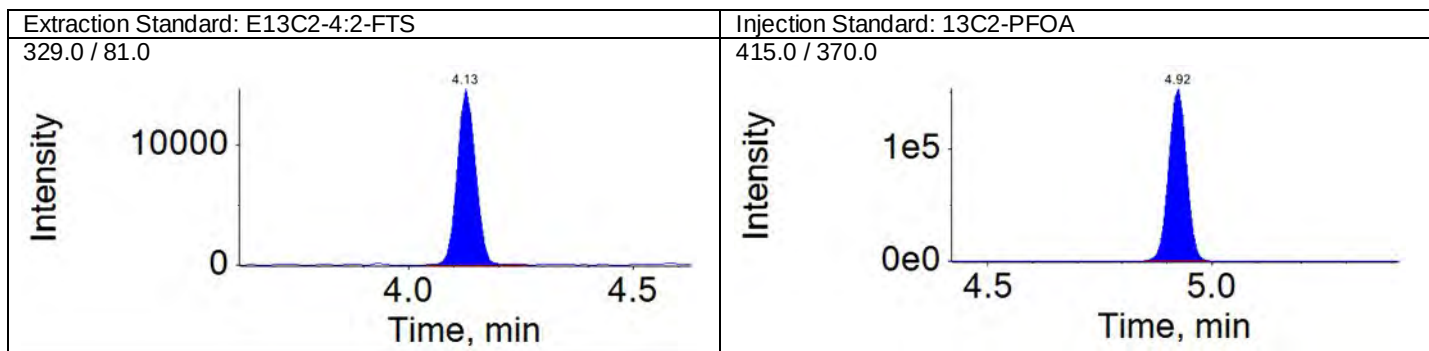
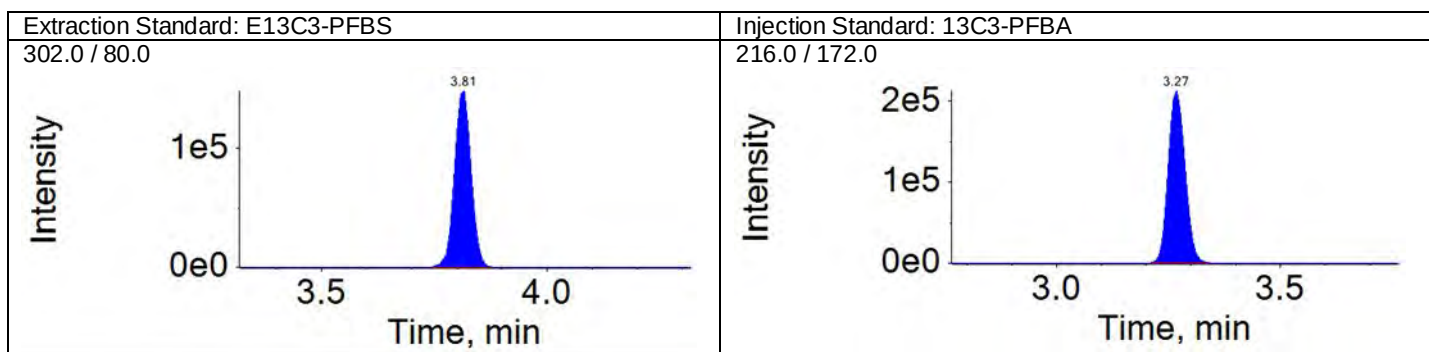
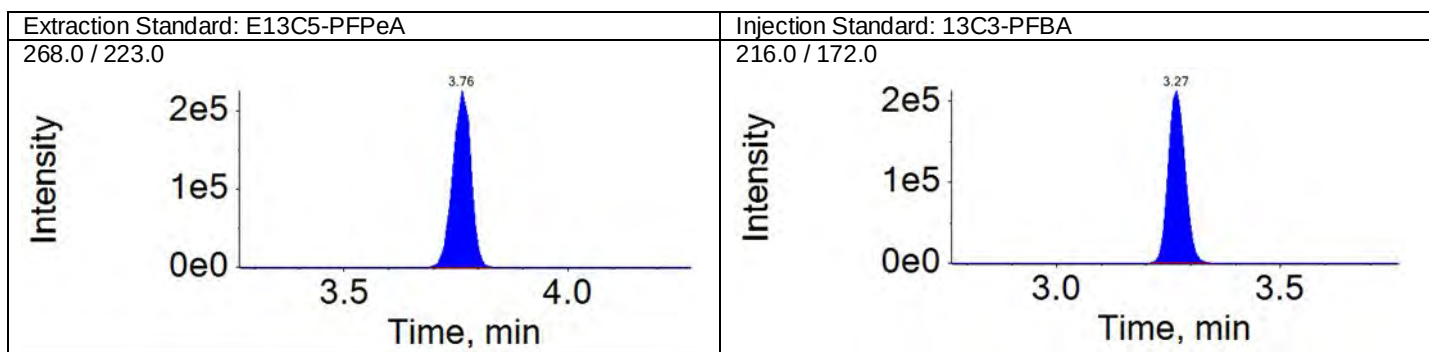
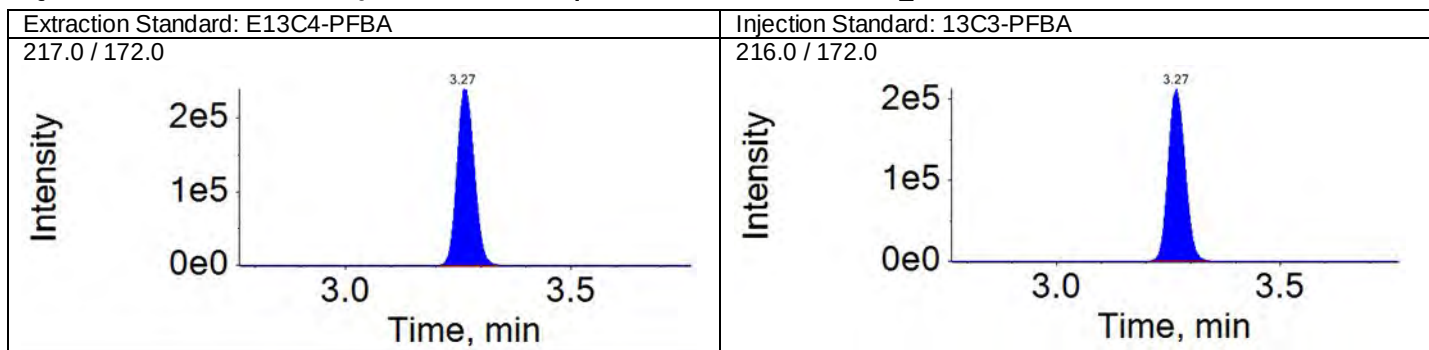
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



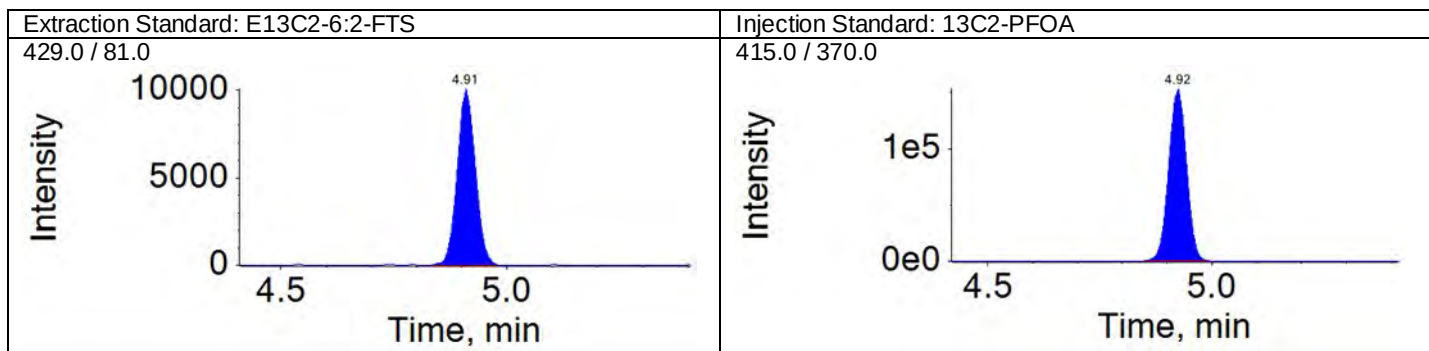
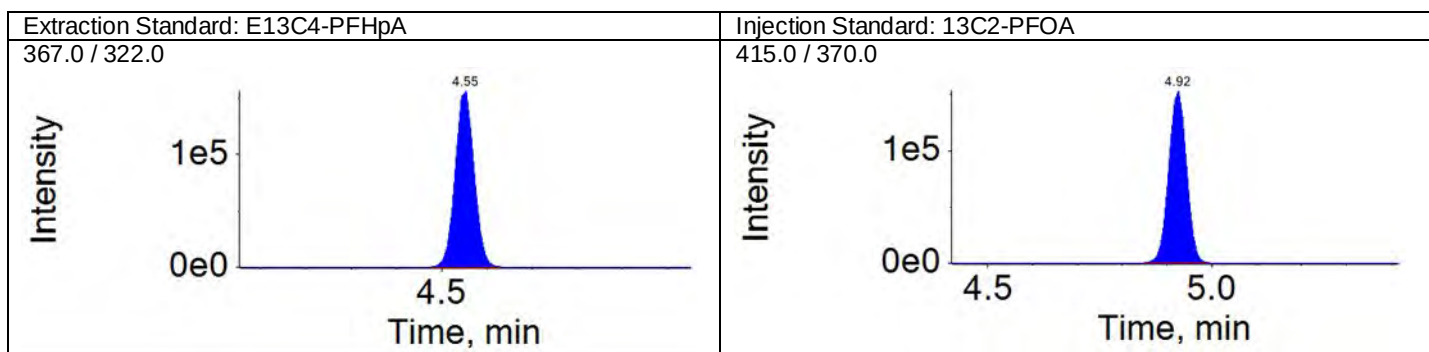
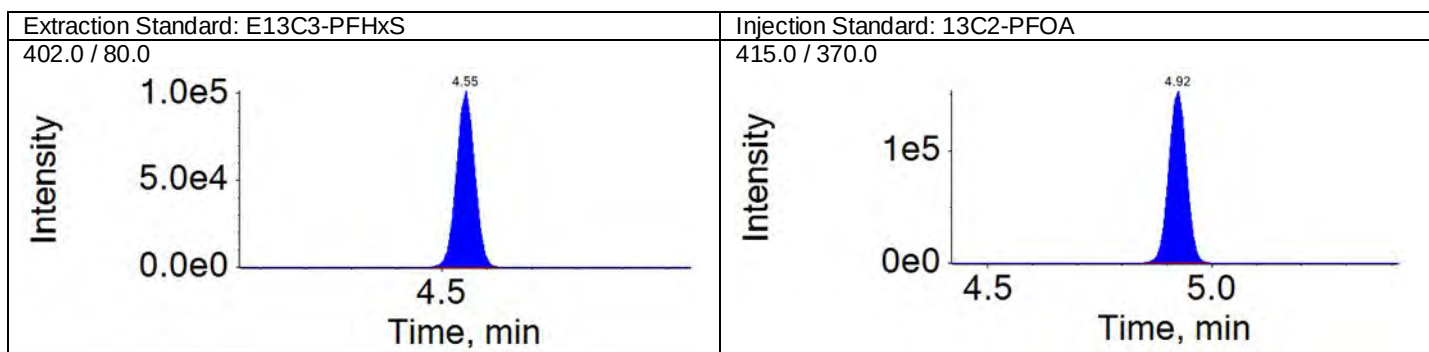
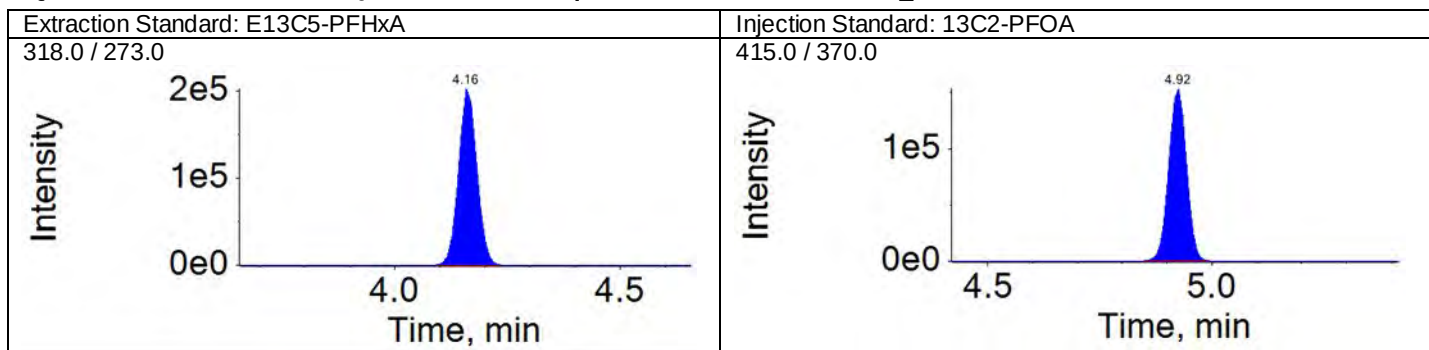
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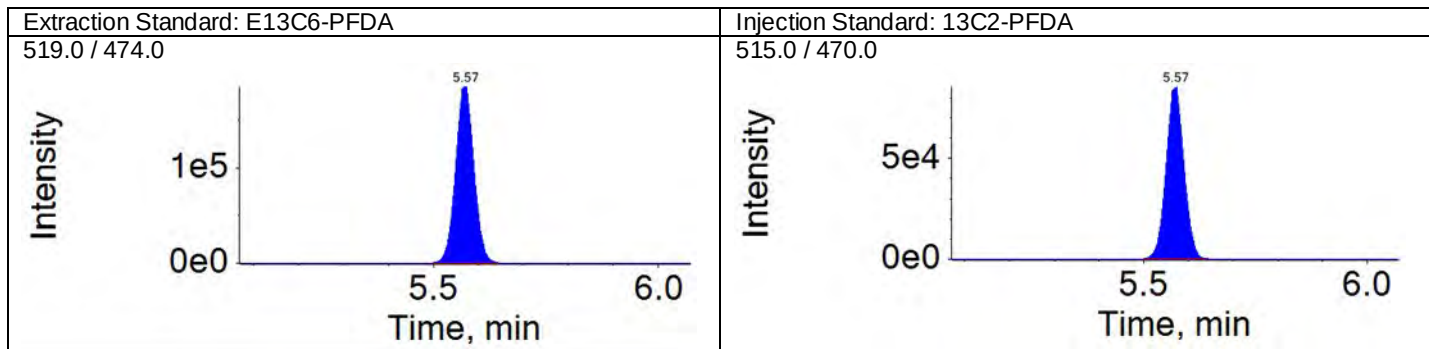
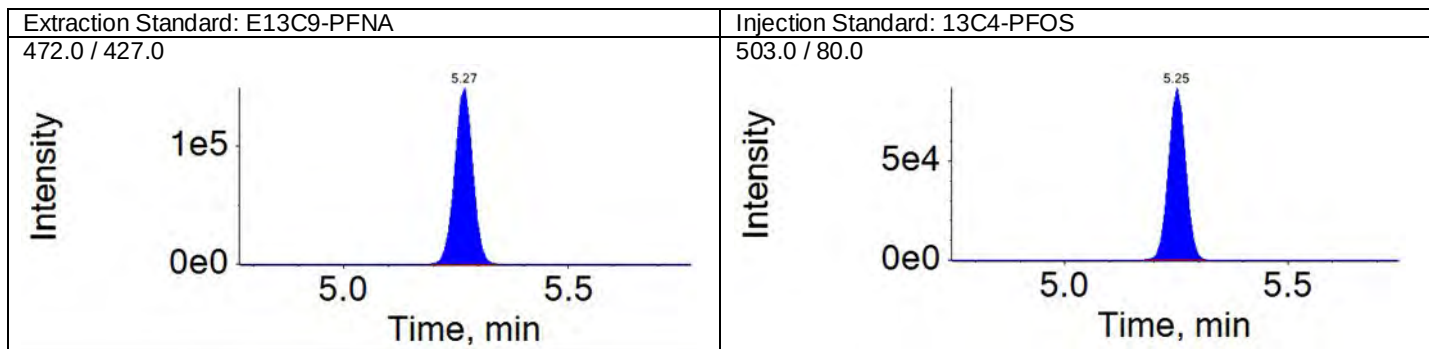
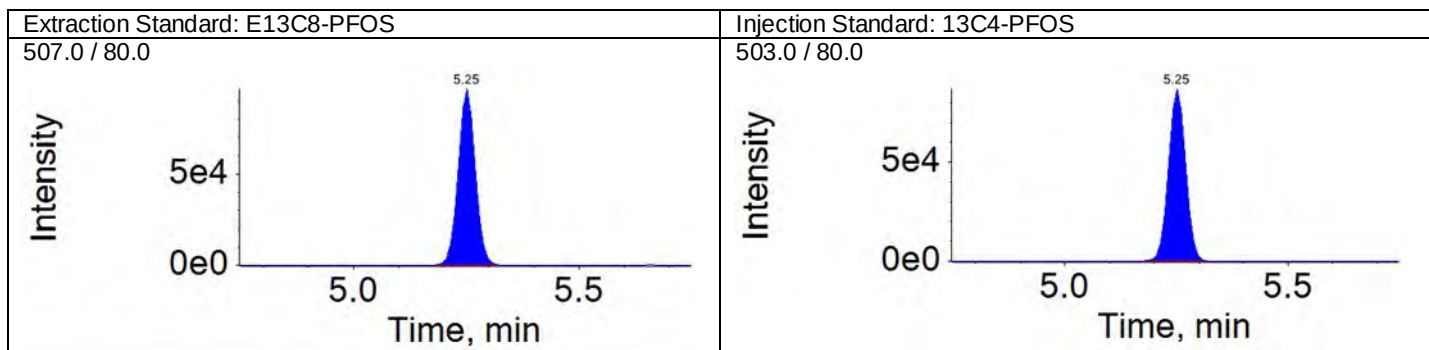
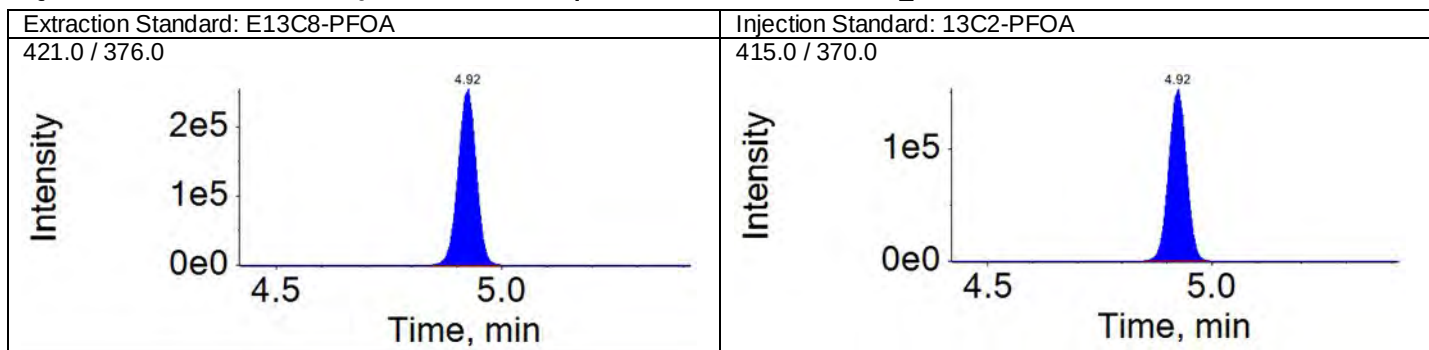
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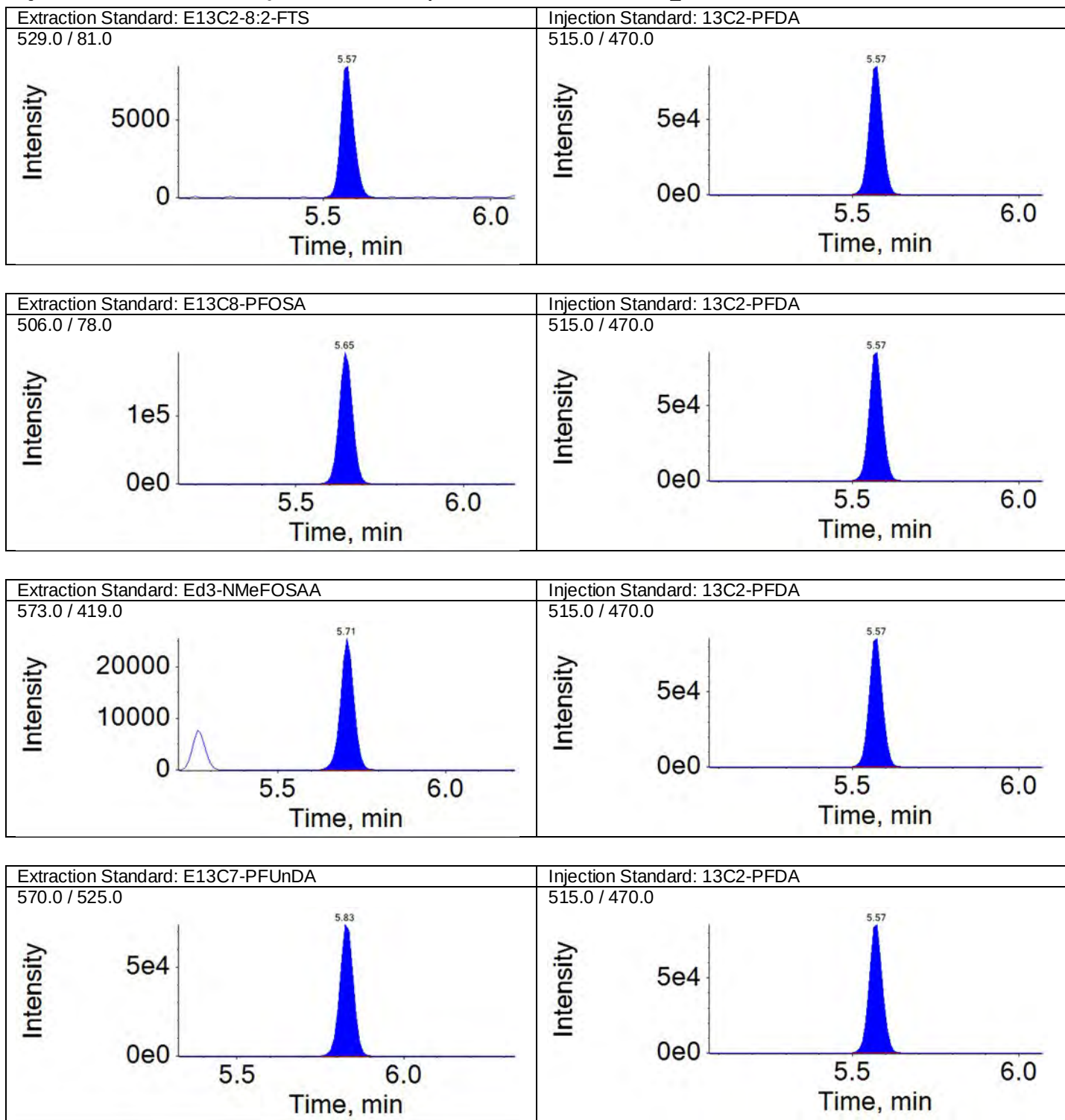
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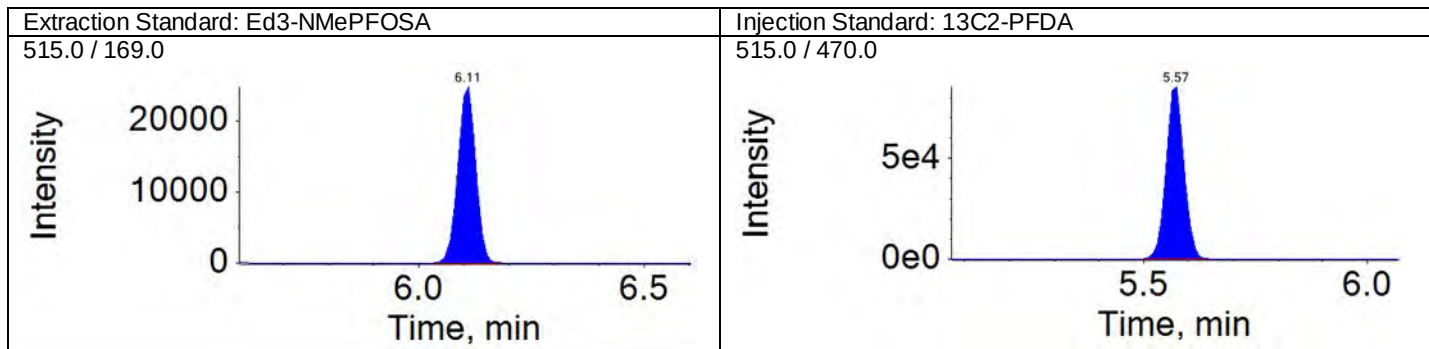
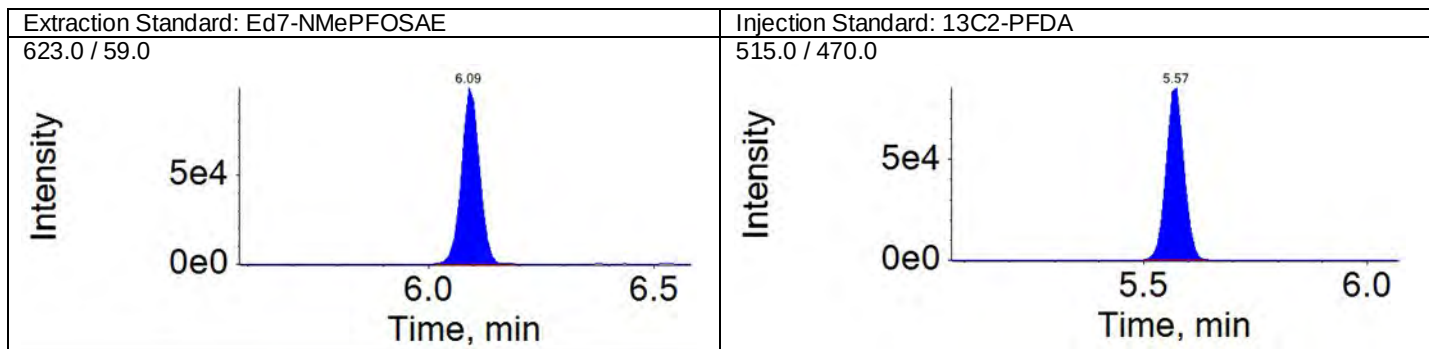
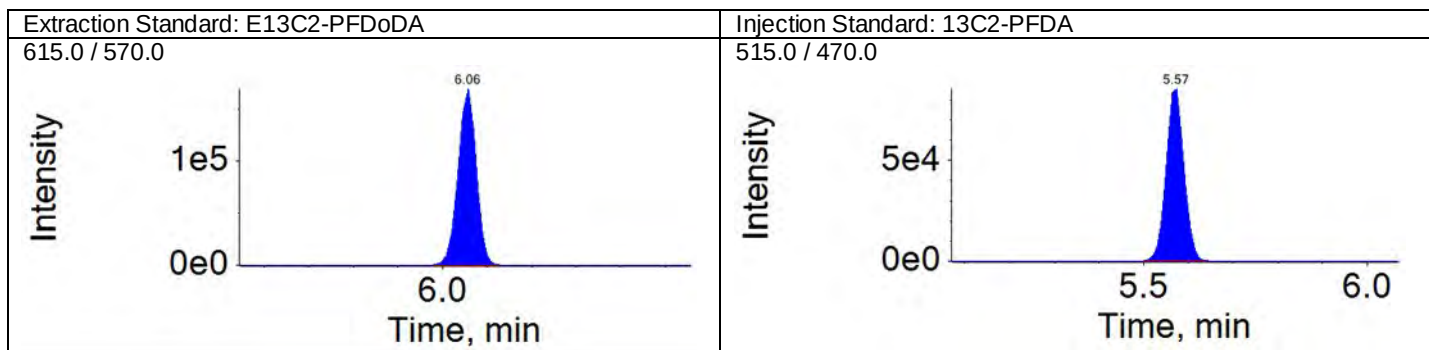
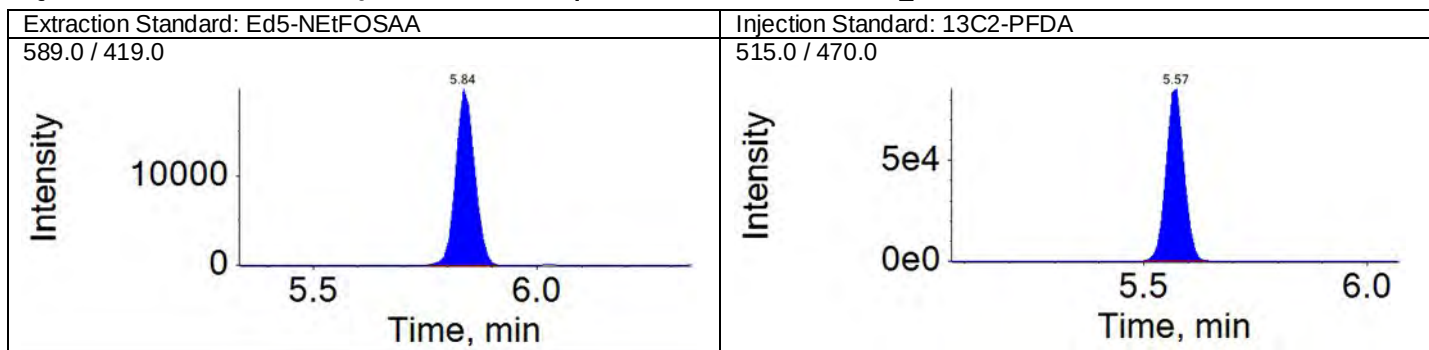
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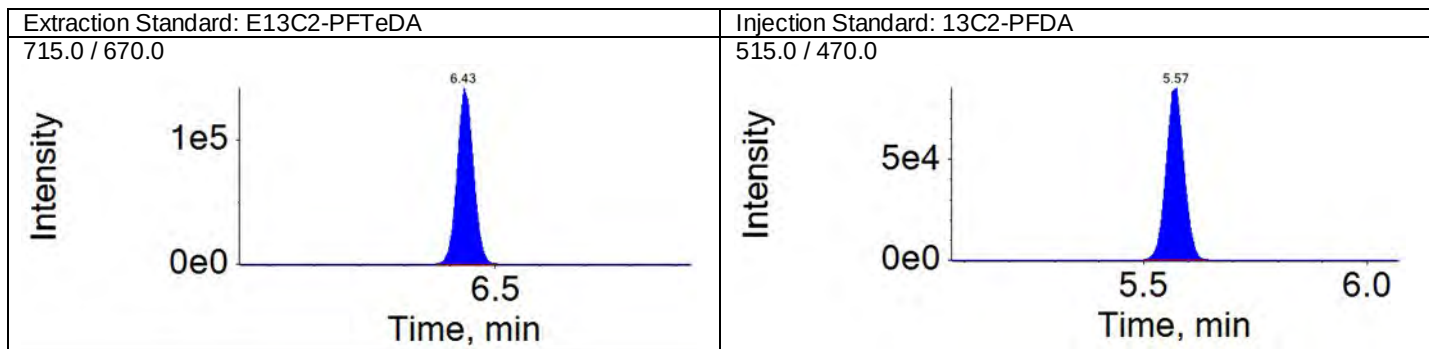
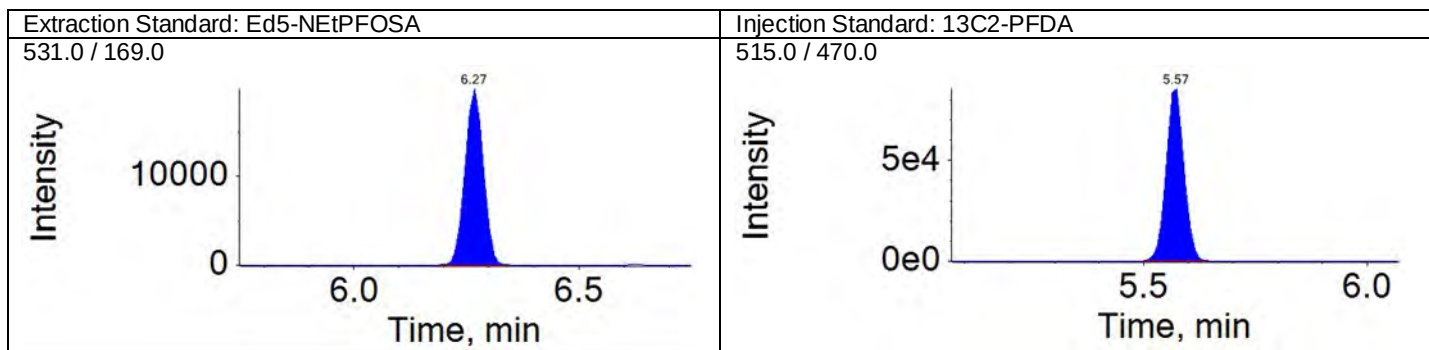
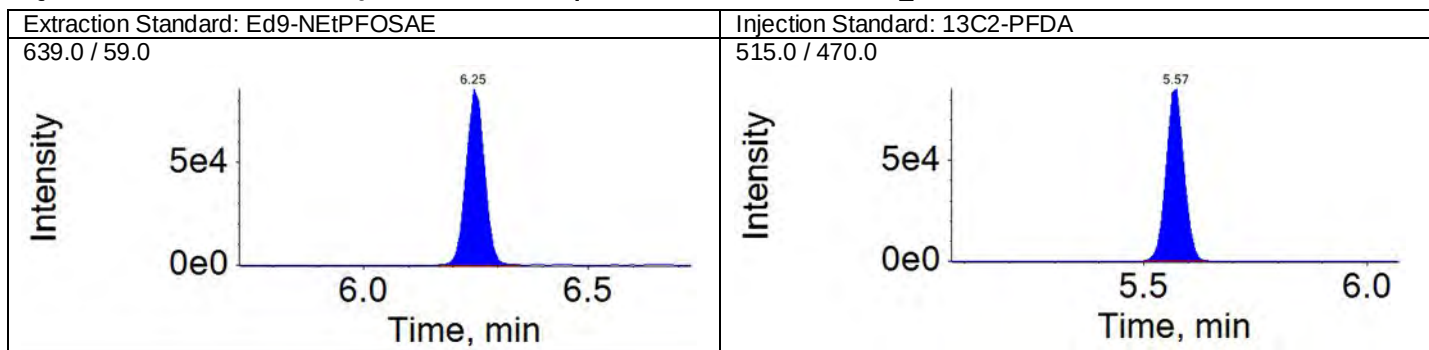
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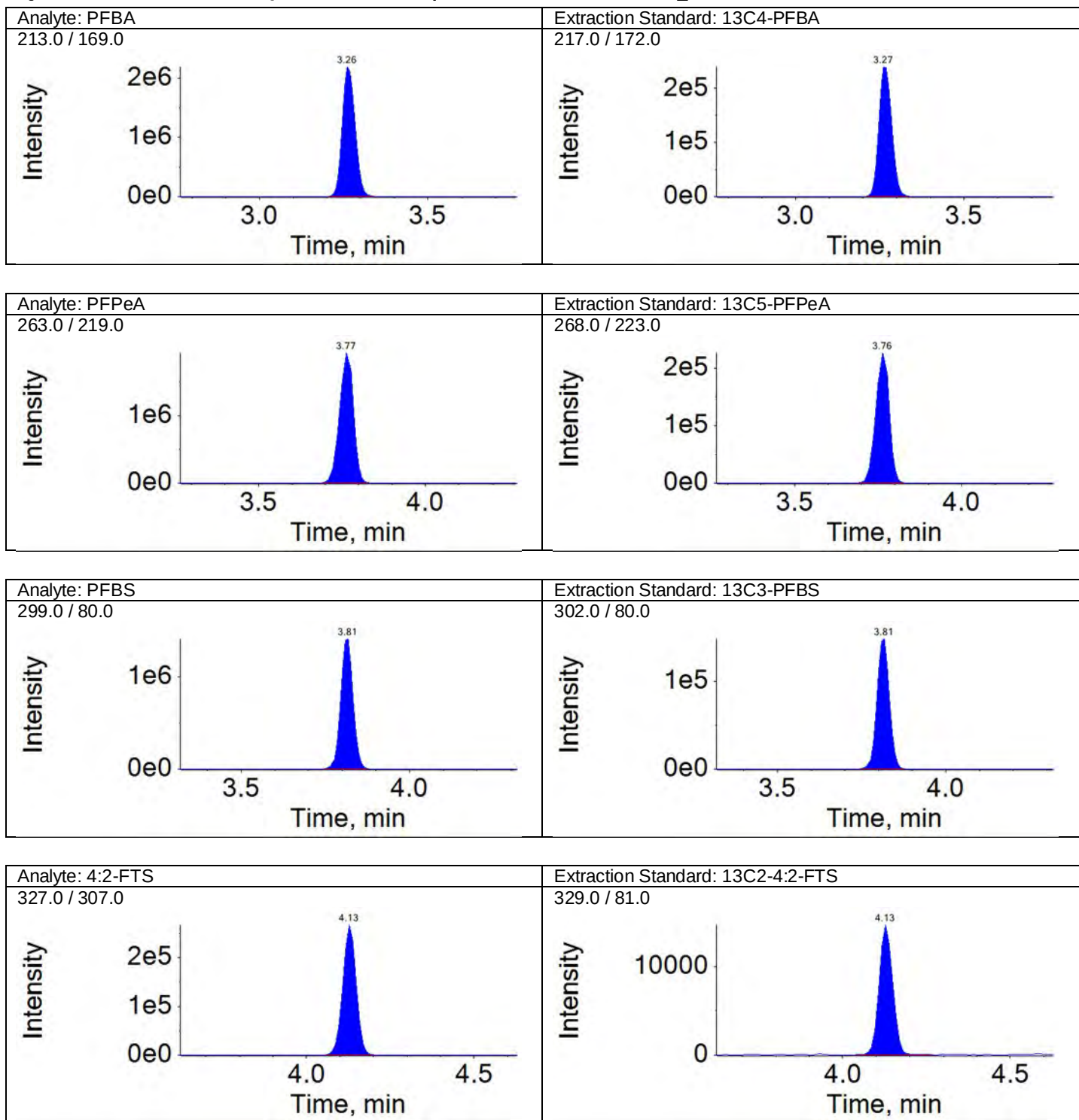
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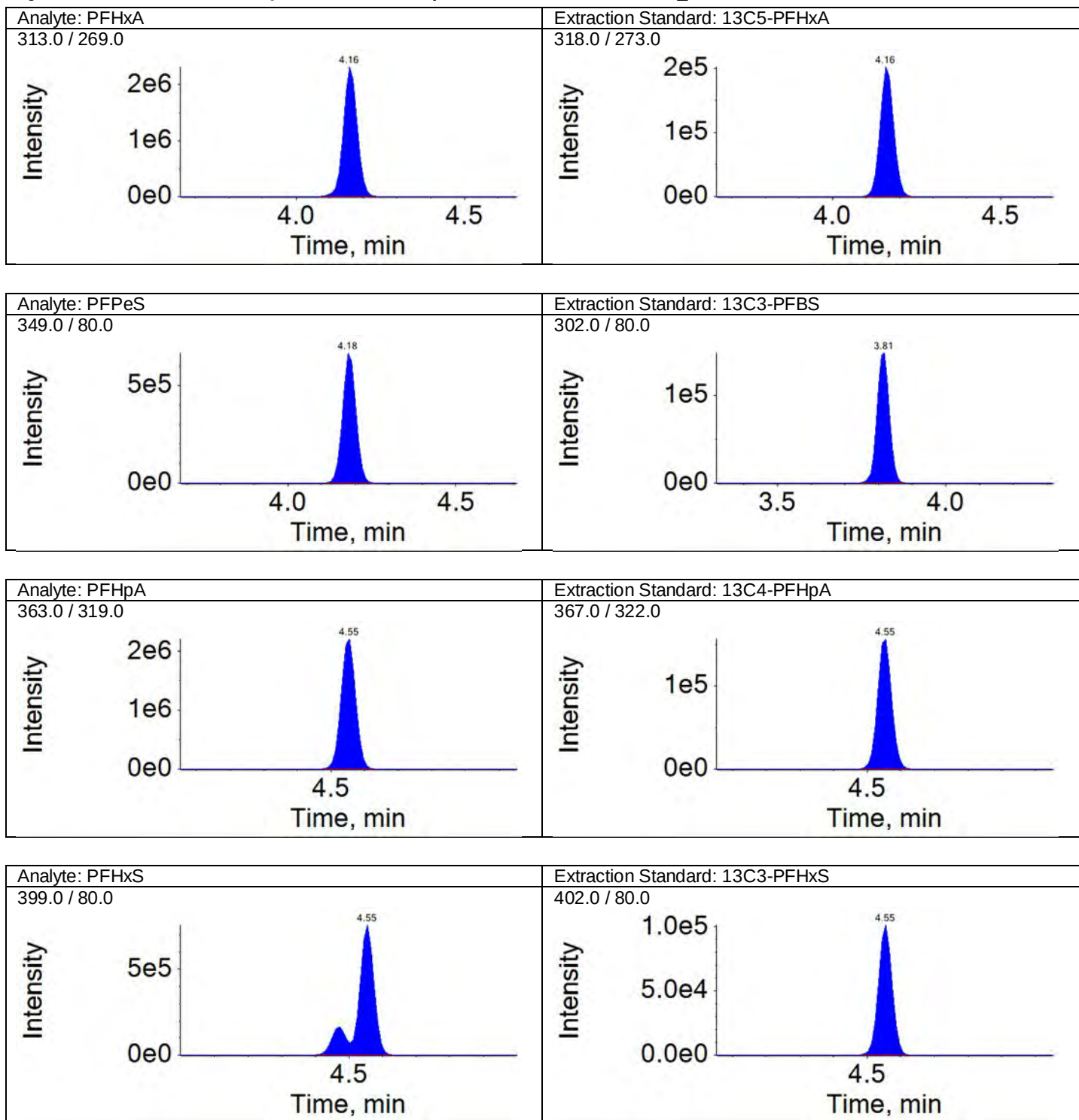
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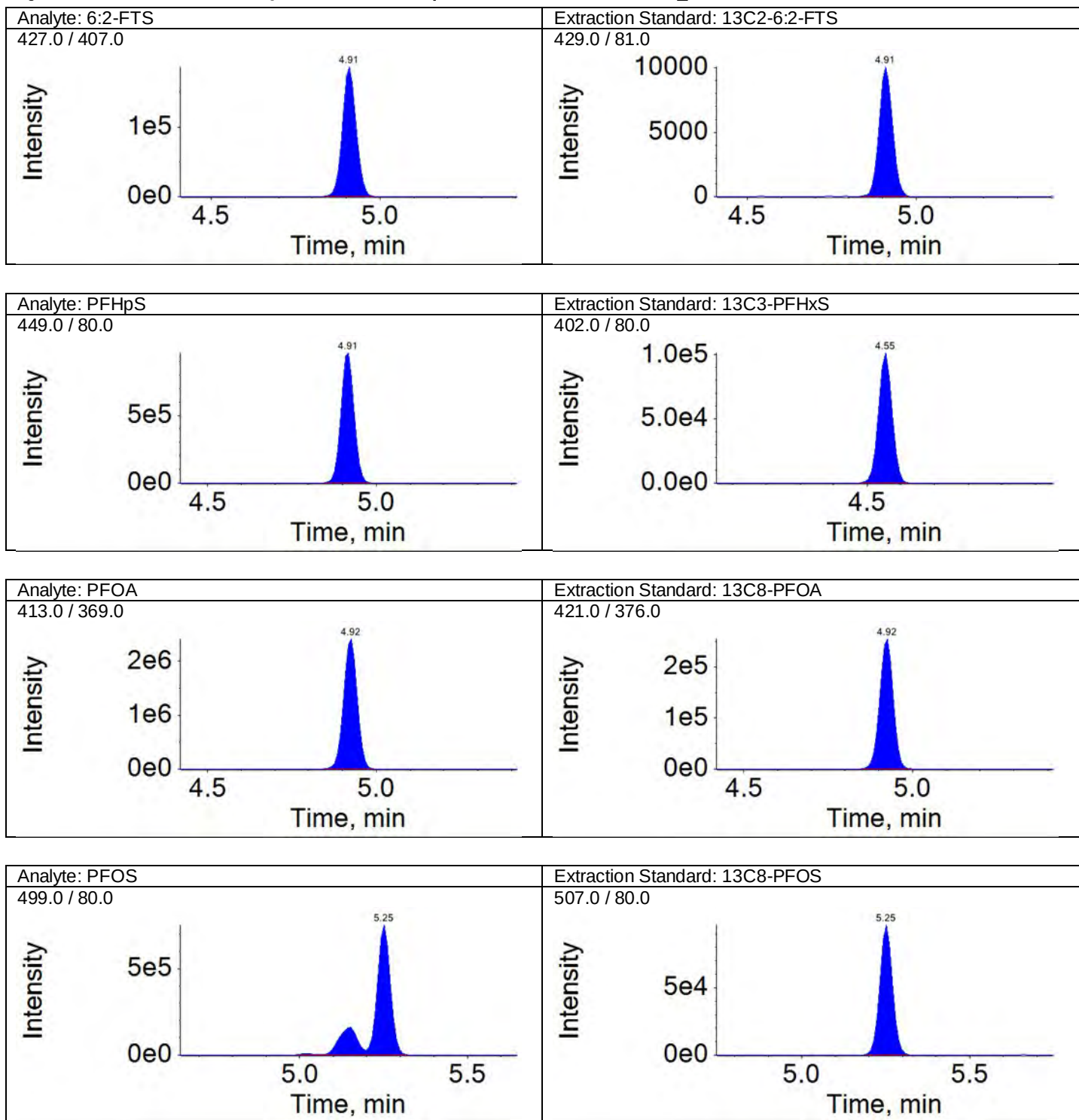
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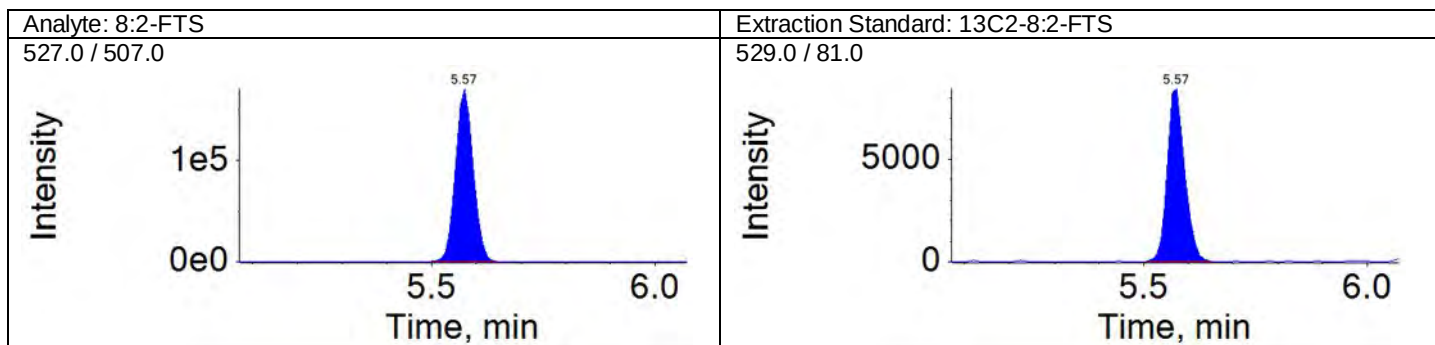
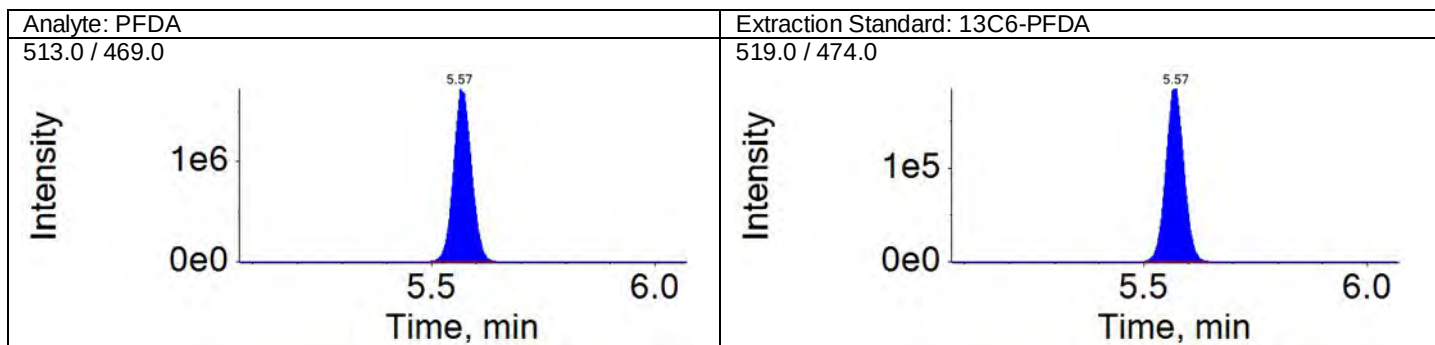
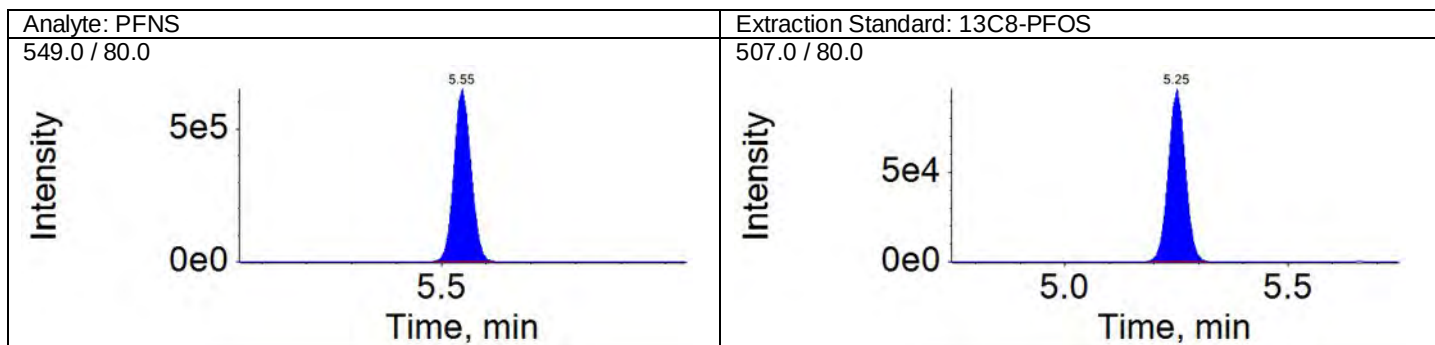
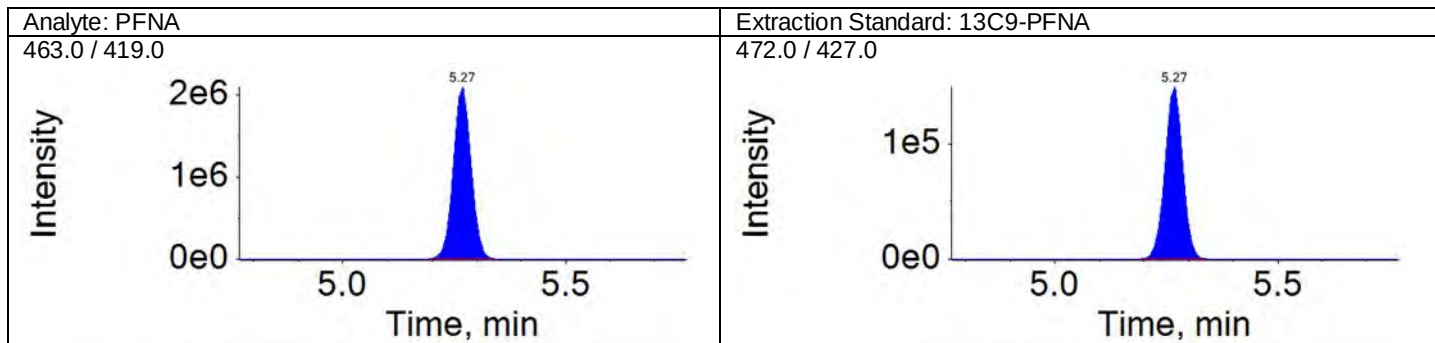
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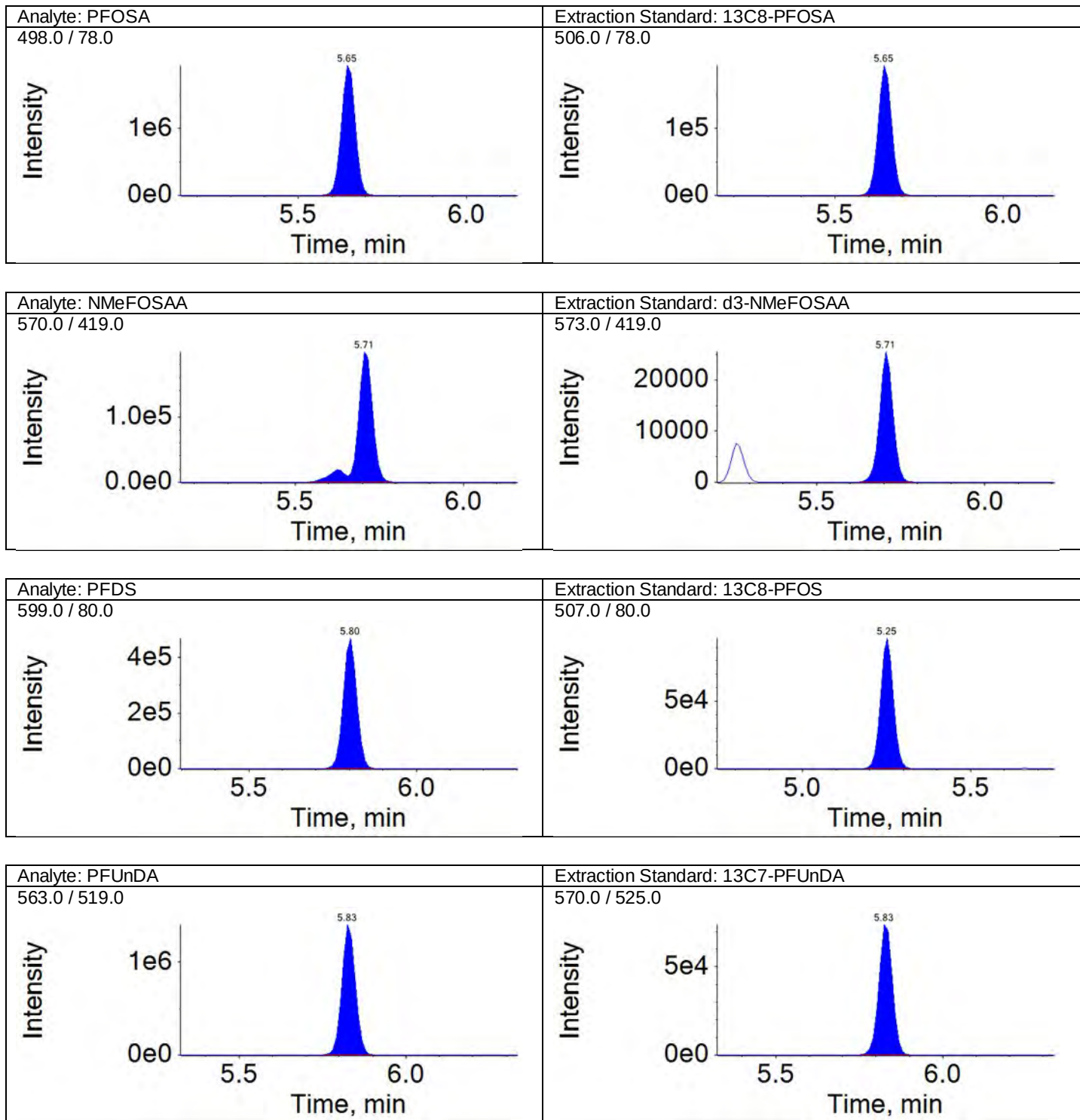
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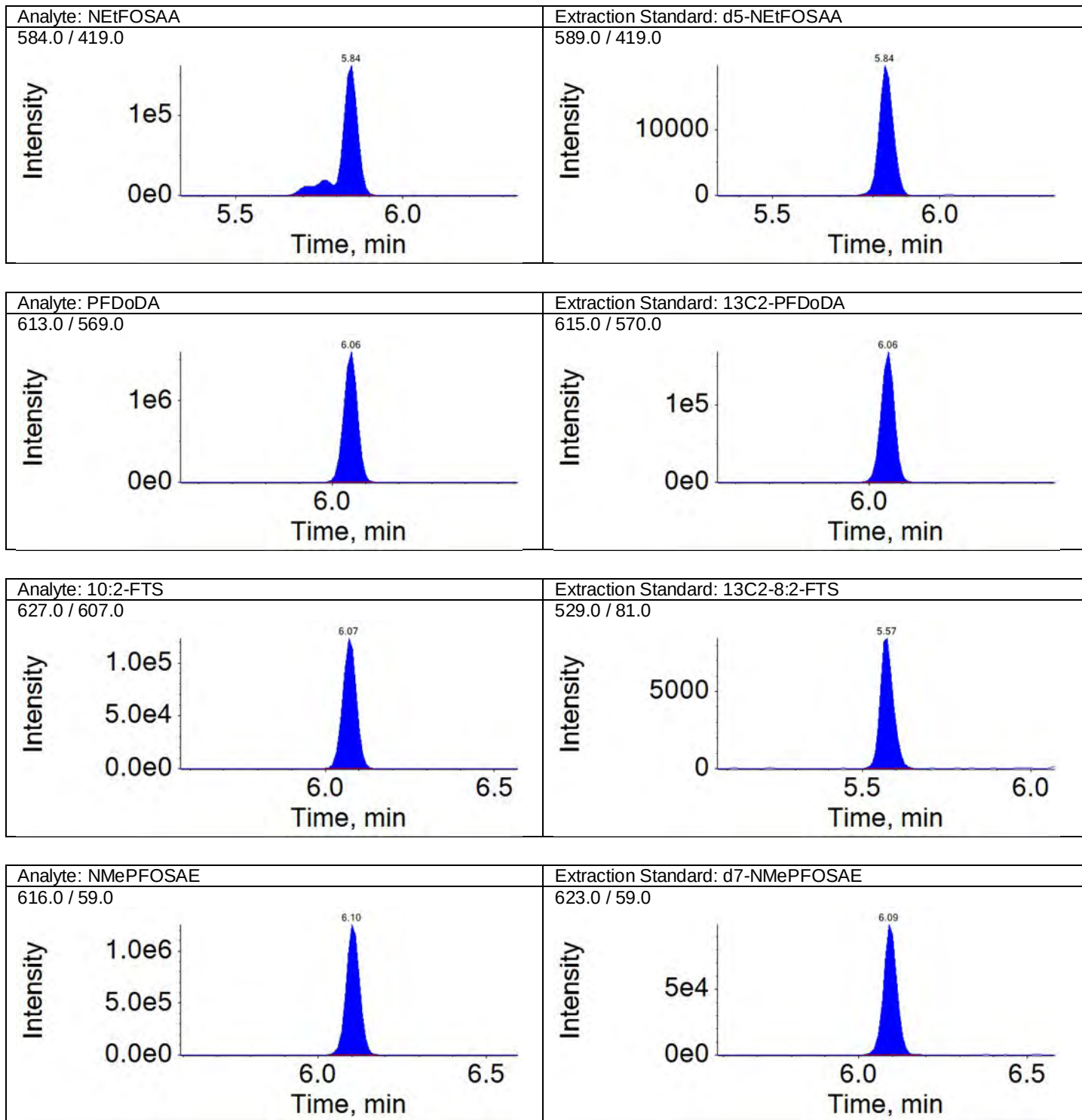
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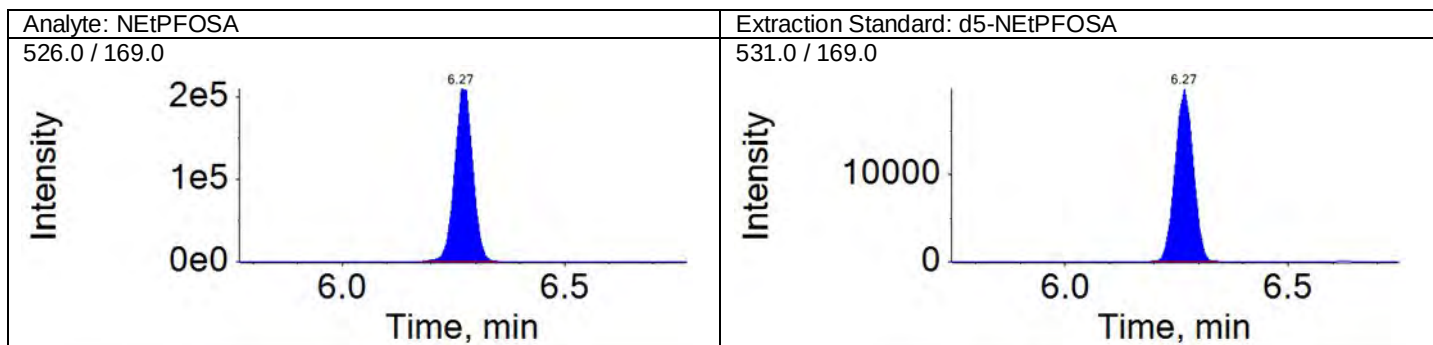
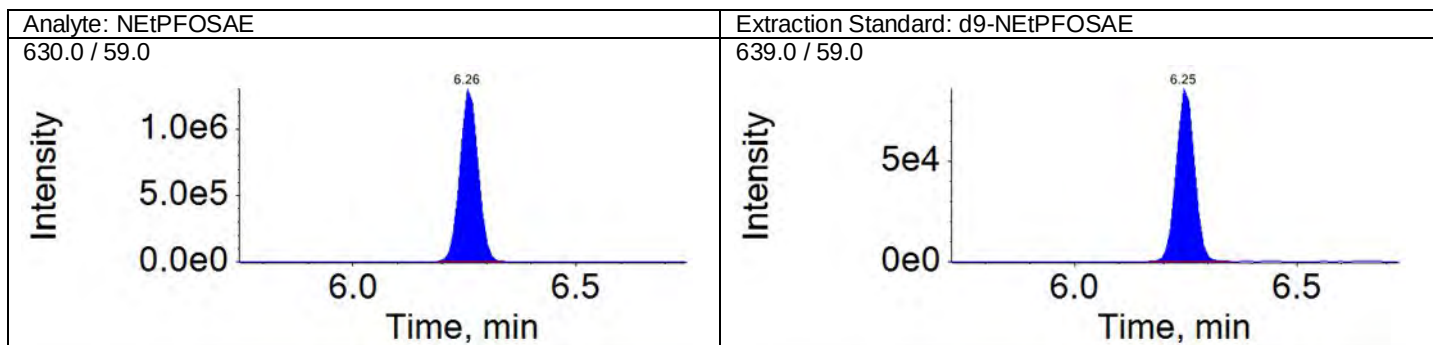
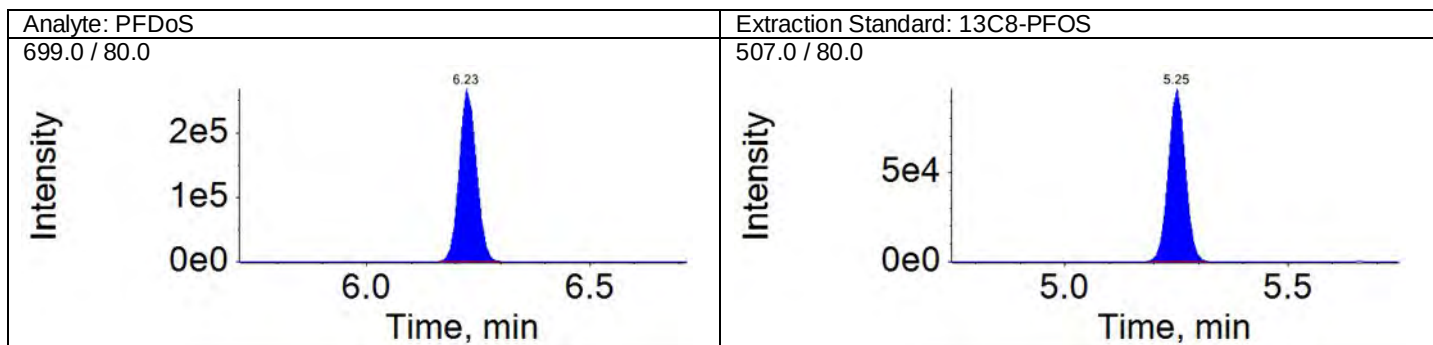
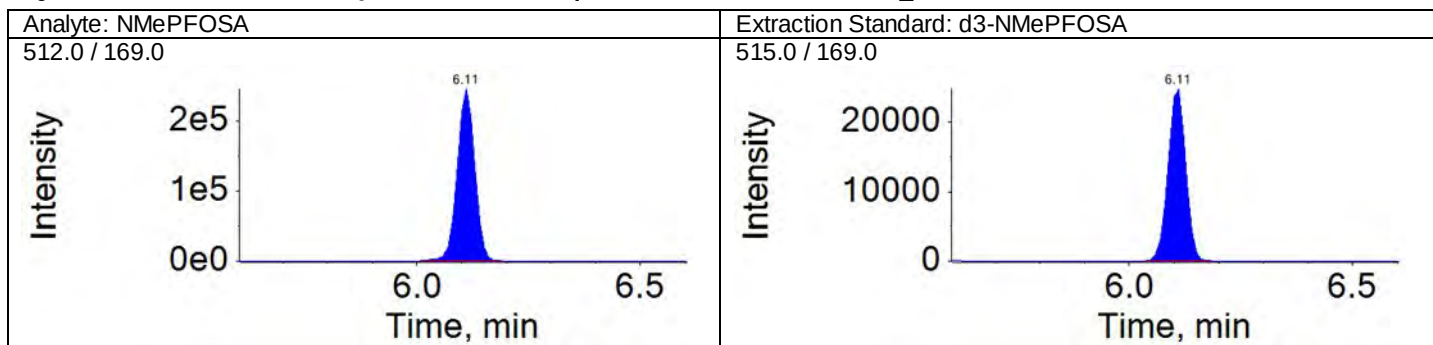
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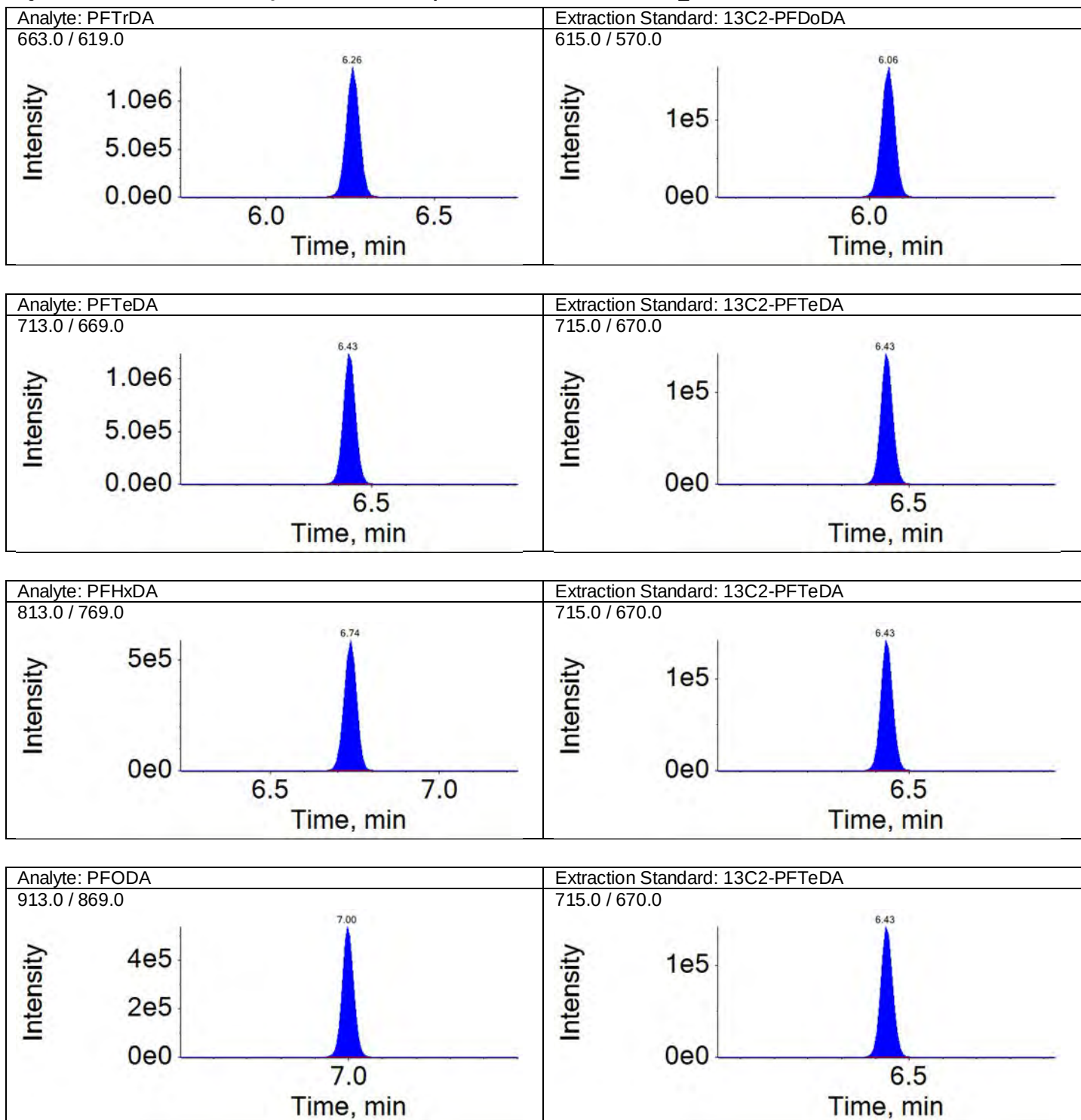
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ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:

PFHxS

RT (min.):

4.55

Peak Area:

2168276.79

Mass Range:

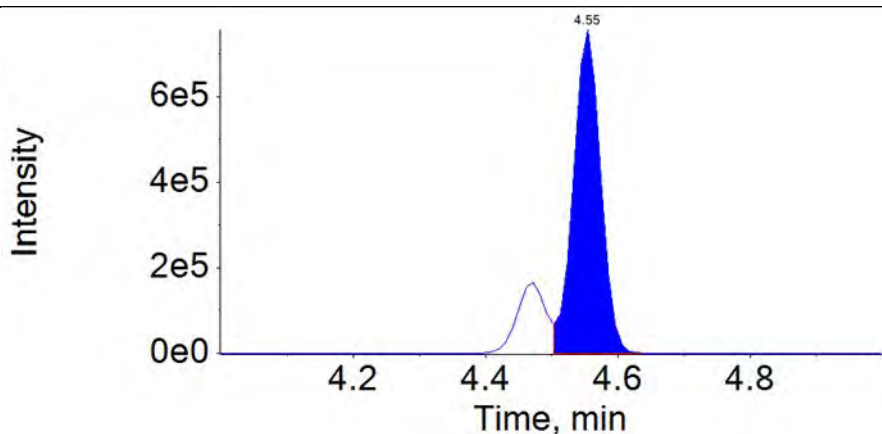
399.0 / 80.0

File Name:

18NOV12DCAL-47.wiff

Sample Name:

CAL6

**Component Name:**

PFOS

RT (min.):

5.25

Peak Area:

2015391.27

Mass Range:

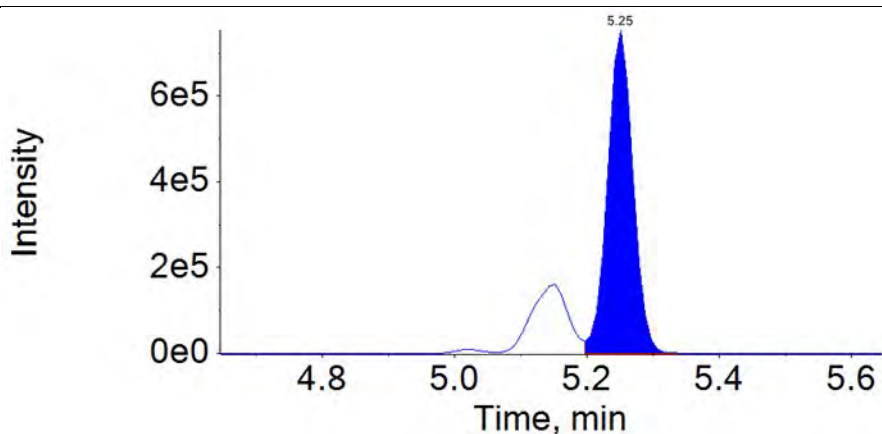
499.0 / 80.0

File Name:

18NOV12DCAL-47.wiff

Sample Name:

CAL6

**Component Name:**

NMeFOSAA

RT (min.):

5.71

Peak Area:

561930.92

Mass Range:

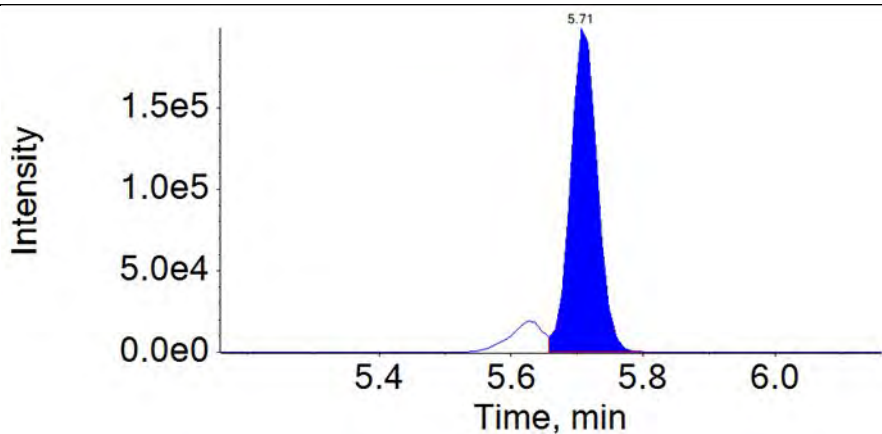
570.0 / 419.0

File Name:

18NOV12DCAL-47.wiff

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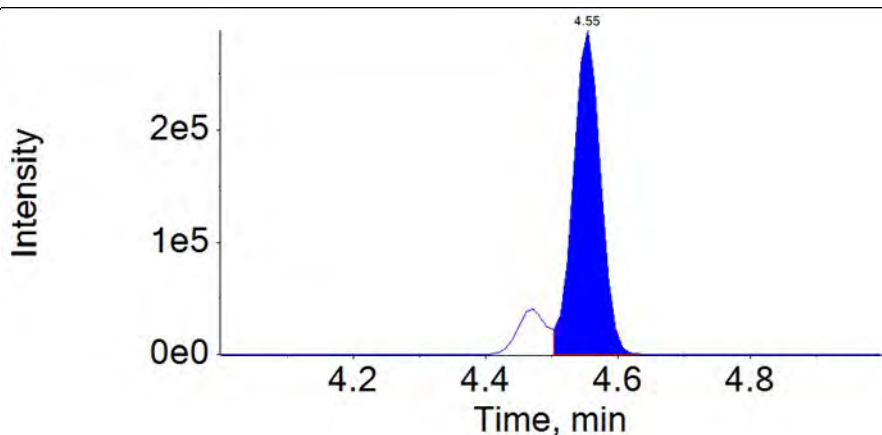
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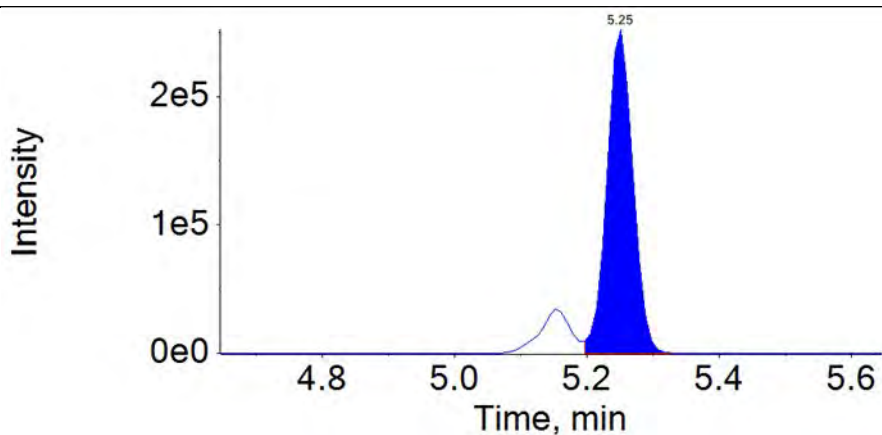
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Acquisition Method: 18AUG13_3uL.dam
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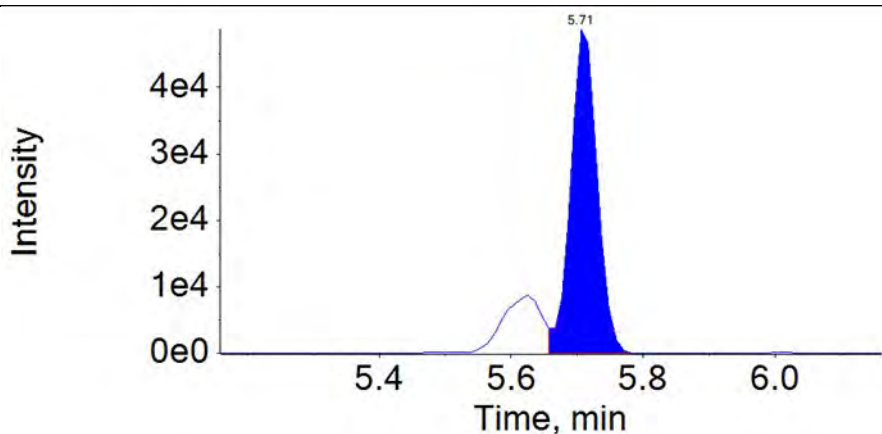
Component Name:
PFHxS_2
RT (min.):
4.55
Peak Area:
827831.34
Mass Range:
399.0 / 99.0
File Name:
18NOV12DCAL-47.wiff
Sample Name:
CAL6



Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
689553.42
Mass Range:
499.0 / 99.0
File Name:
18NOV12DCAL-47.wiff
Sample Name:
CAL6



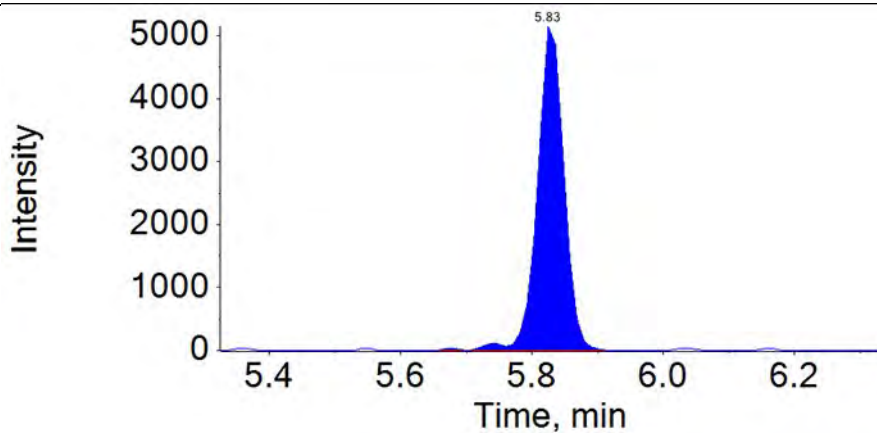
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NMeFOSAA_2
RT (min.):
5.71
Peak Area:
136171.13
Mass Range:
570.0 / 483.0
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Sample Name:
CAL6



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

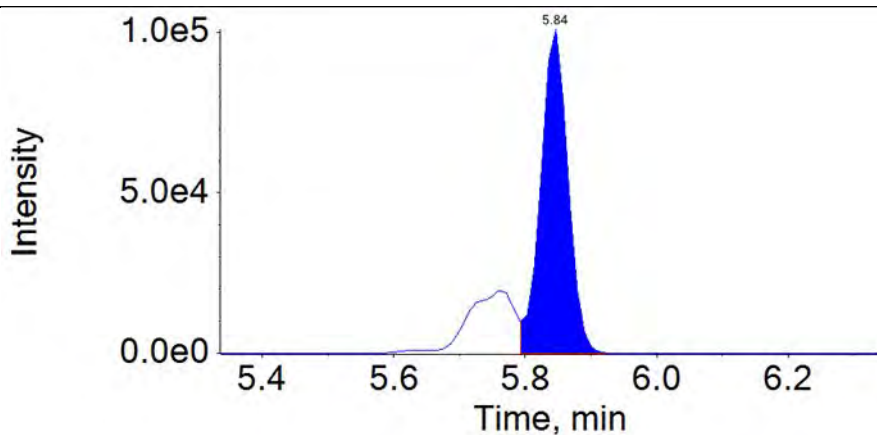
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QMethod File: 18AUG20QM

Component Name:
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RT (min.):
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Peak Area:
14552.55
Mass Range:
563.0 / 169.0
File Name:
18NOV12DCAL-47.wiff
Sample Name:
CAL6



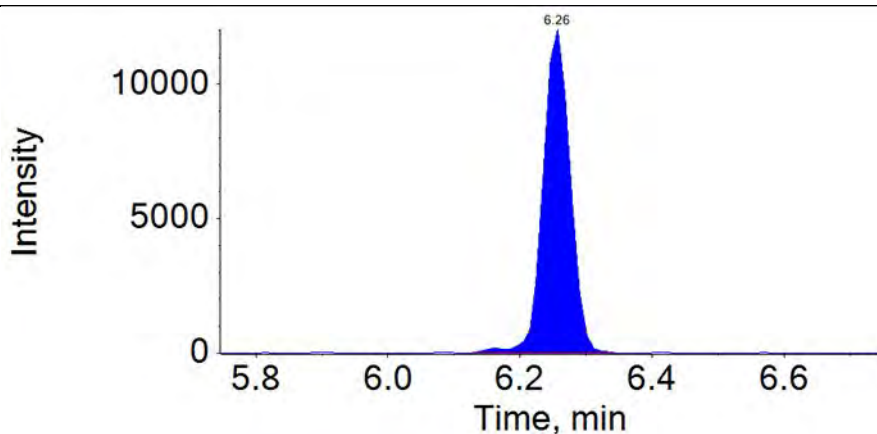
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Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
290918.50
Mass Range:
584.0 / 526.0
File Name:
18NOV12DCAL-47.wiff
Sample Name:
CAL6



Integration Comment: incorrect integration

Component Name:
PFTrDA_2
RT (min.):
6.26
Peak Area:
34575.92
Mass Range:
663.0 / 169.0
File Name:
18NOV12DCAL-47.wiff
Sample Name:
CAL6



Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 6:33 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

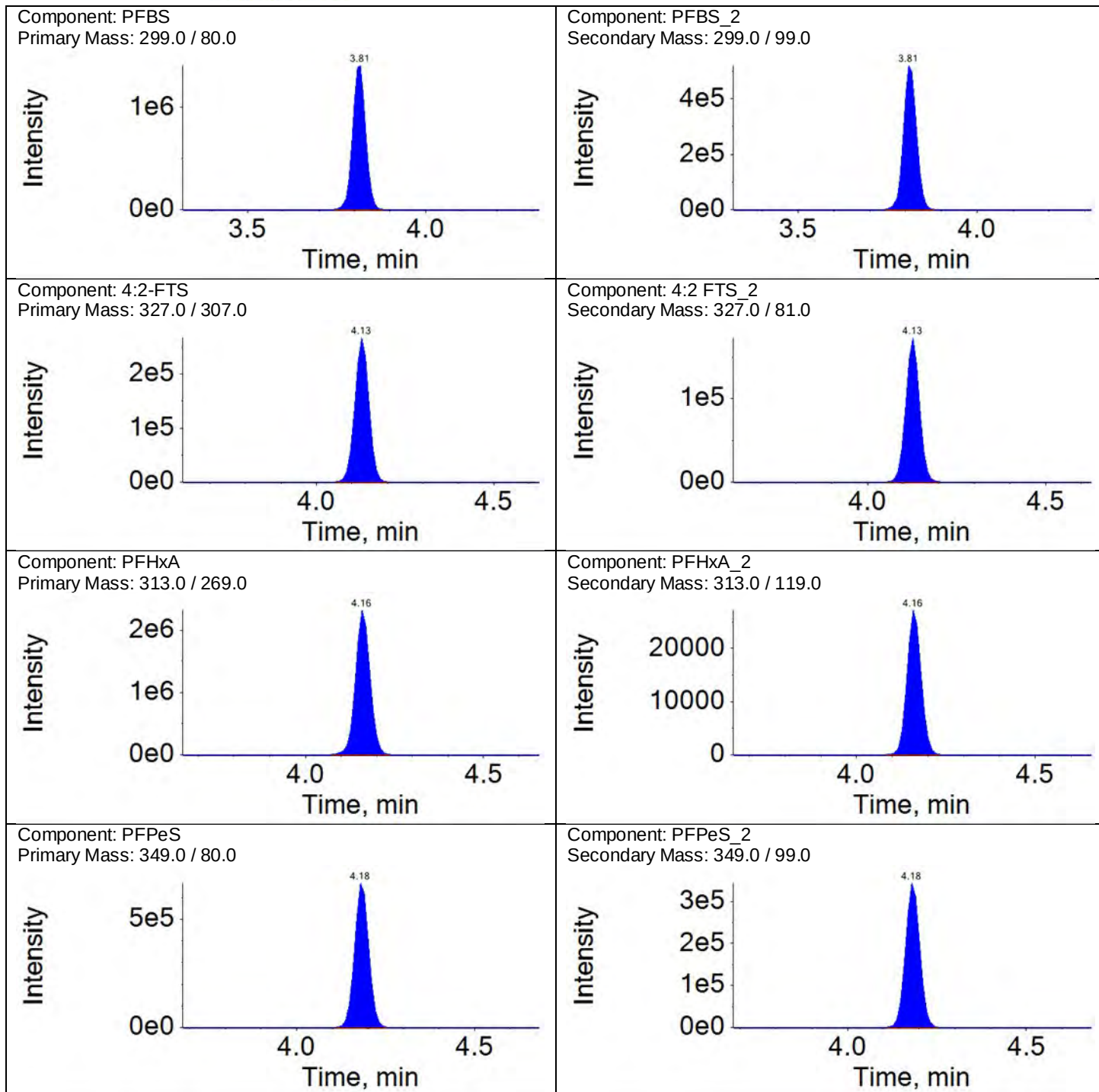
Ion Ratio Report

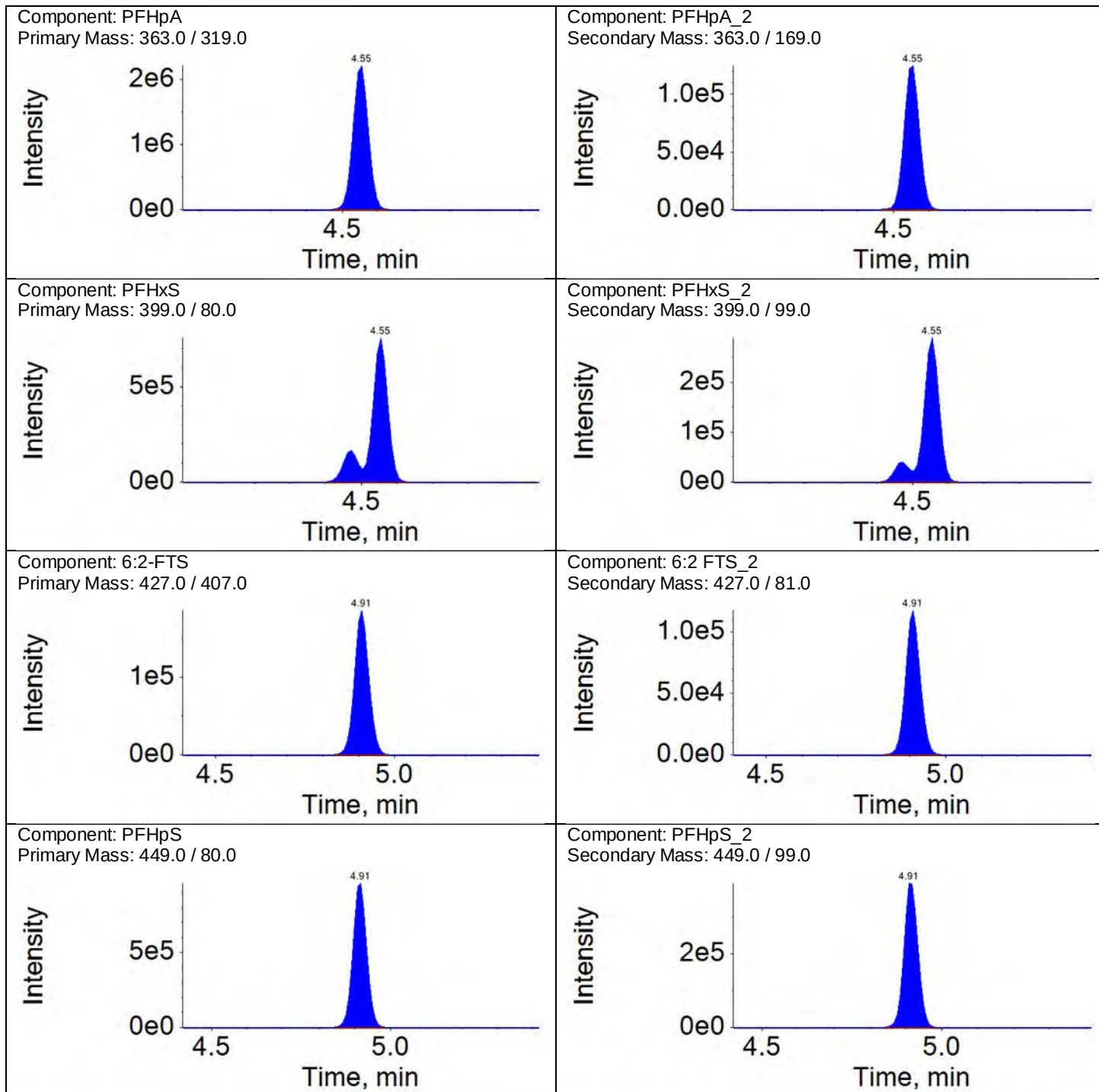
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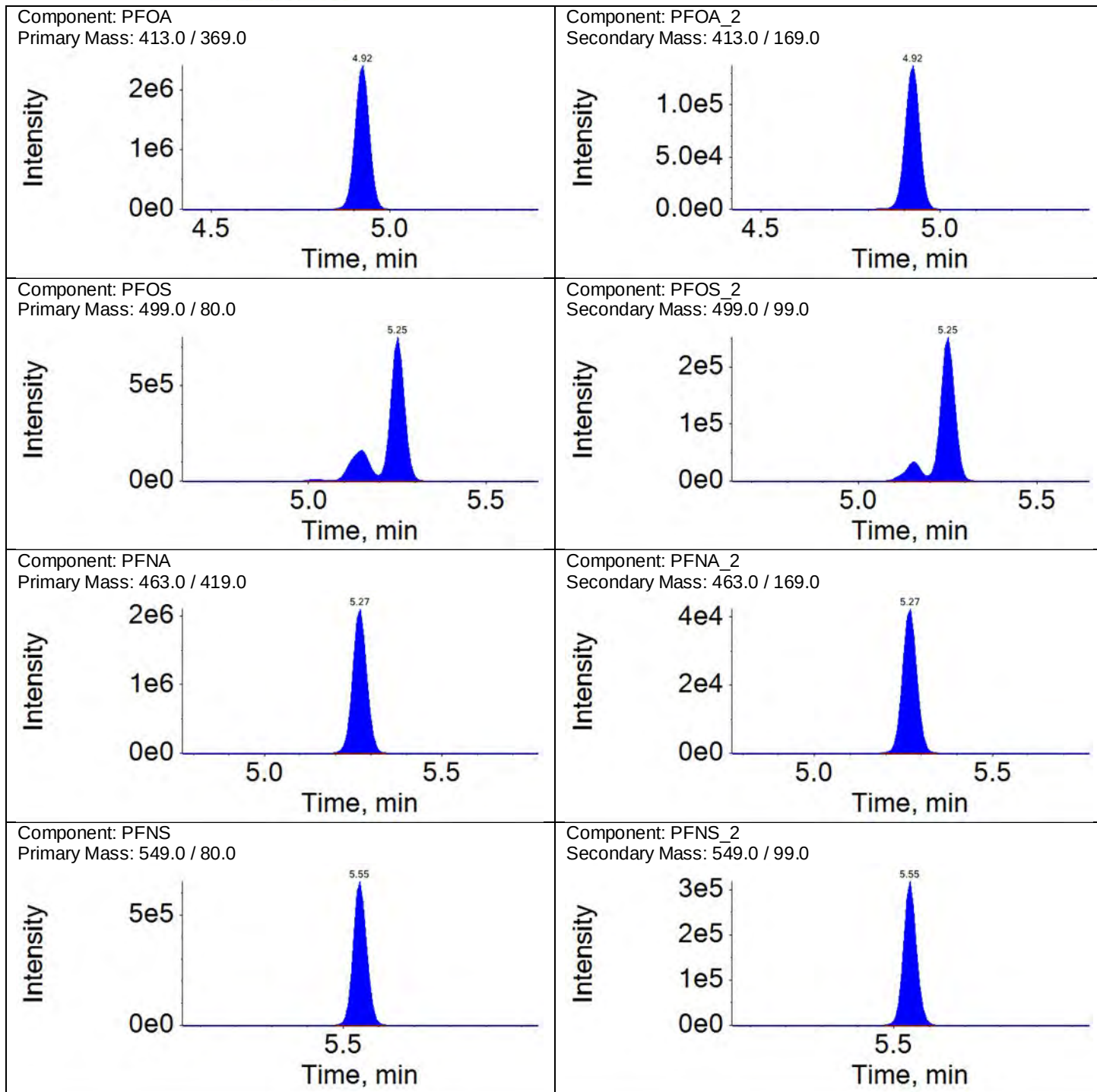
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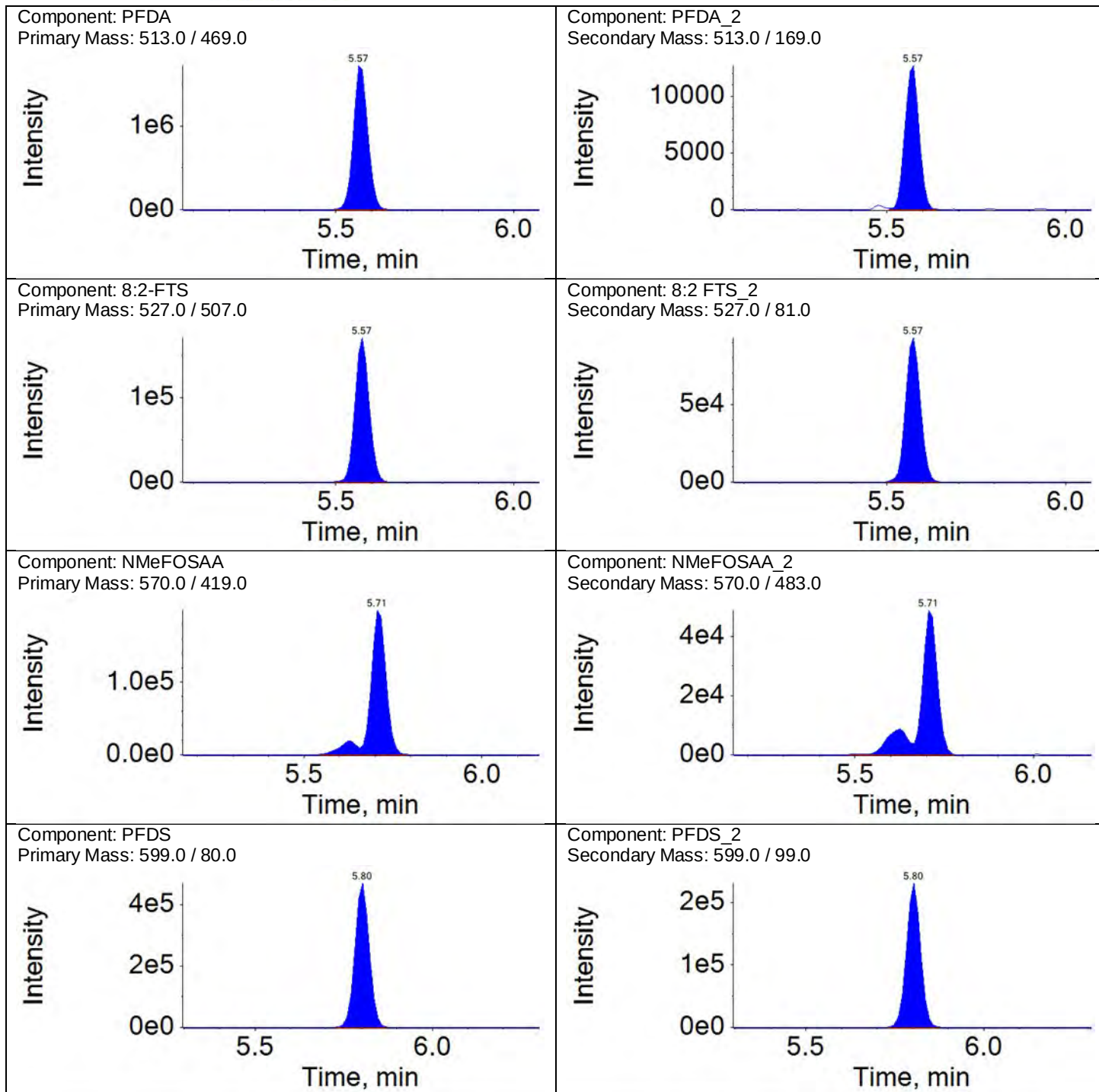
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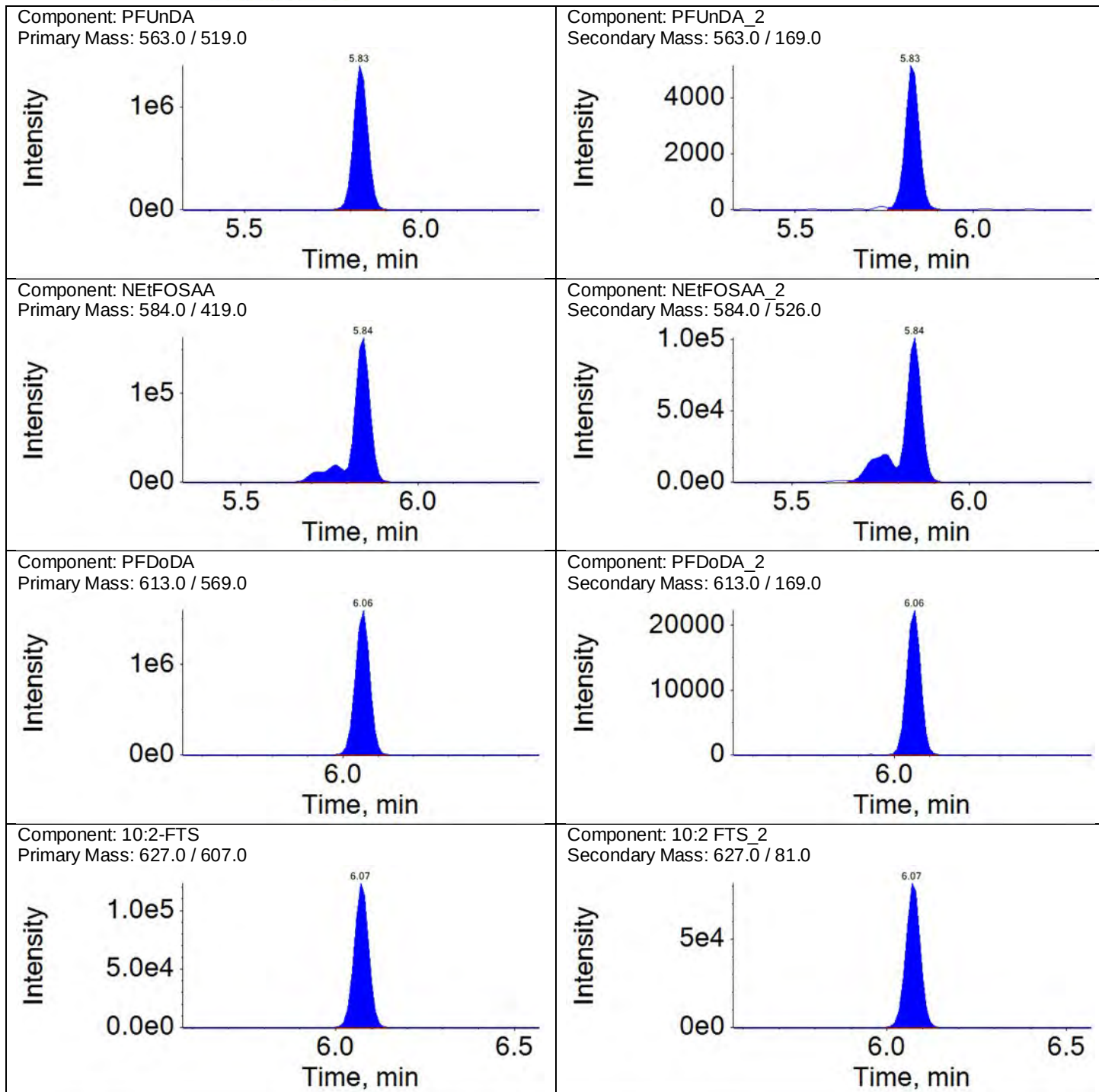
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PFBS_2	3.81	1.00	1323155.38	A	0.3619	0.3688	2	50	
4:2-FTS	4.13	1.00	738293.95	A	0.6730	0.6272			
4:2 FTS_2	4.13	1.00	463074.71	A	0.6730	0.6272		#NA!	
PFHxA	4.16	1.00	6593778.96	A	0.0117	0.0113			
PFHxA_2	4.16	1.00	74578.79	A	0.0117	0.0113	-3	50	
PFPeS	4.18	1.10	1847826.78	A	0.5191	0.5187			
PFPeS_2	4.18	1.10	958558.40	A	0.5191	0.5187	0	50	
PFHpA	4.55	1.00	6648455.32	A	0.0563	0.0564			
PFHpA_2	4.55	1.00	375071.53	A	0.0563	0.0564	0	50	
PFHxS	4.55	1.00	2662852.00	M	0.3428	0.3565			
PFHxS_2	4.55	1.00	949378.20	M	0.3428	0.3565	4	50	
6:2-FTS	4.91	1.00	523949.46	A	0.6604	0.6368			
6:2 FTS_2	4.91	1.00	333633.12	A	0.6604	0.6368		#NA!	
PFHpS	4.91	1.08	2604868.63	A	0.4066	0.4130			
PFHpS_2	4.91	1.08	1075742.12	A	0.4066	0.4130	2	50	
PFOA	4.92	1.00	6758642.79	A	0.0562	0.0574			
PFOA_2	4.92	1.00	387863.69	A	0.0562	0.0574	2	50	
PFOS	5.25	1.00	2664957.22	M	0.2968	0.3006			
PFOS_2	5.25	1.00	801195.47	M	0.2968	0.3006	1	50	
PFNA	5.27	1.00	5820576.59	A	0.0229	0.0205			
PFNA_2	5.27	1.00	119436.95	A	0.0229	0.0205	-10	50	
PFNS	5.55	1.06	1709959.45	A	0.4828	0.4693			
PFNS_2	5.55	1.06	802535.42	A	0.4828	0.4693	-3	50	
PFDA	5.57	1.00	4802967.81	A	0.0081	0.0072			
PFDA_2	5.57	1.00	34768.56	A	0.0081	0.0072	-10	50	
8:2-FTS	5.57	1.00	469719.63	A	0.6814	0.5683			
8:2 FTS_2	5.57	1.00	266934.57	A	0.6814	0.5683		#NA!	
NMeFOSAA	5.71	1.00	627854.43	M	0.2569	0.2739			
NMeFOSAA_2	5.71	1.00	171981.91	M	0.2569	0.2739	7	50	
PFDS	5.80	1.10	1313570.32	A	0.5144	0.4832			
PFDS_2	5.80	1.11	634717.73	A	0.5144	0.4832	-6	50	
PFUnDA	5.83	1.00	3923979.21	A	0.0058	0.0036			
PFUnDA_2	5.83	1.00	14257.68	M	0.0058	0.0036	-38	50	
NEtFOSAA	5.84	1.00	551865.73	A	0.7253	0.6936			
NEtFOSAA_2	5.84	1.00	382778.11	M	0.7253	0.6936	-4	50	
PFDODA	6.06	1.00	4582985.49	A	0.0157	0.0136			
PFDODA_2	6.06	1.00	62235.50	A	0.0157	0.0136	-13	50	
10:2-FTS	6.07	1.09	348263.21	A	0.6356	0.6654			
10:2 FTS_2	6.07	1.09	231731.38	A	0.6356	0.6654		#NA!	
PFTTrDA	6.26	1.03	3691733.76	A	0.0086	0.0093			
PFTTrDA_2	6.26	1.03	34255.33	M	0.0086	0.0093	8	50	
PFTeDA	6.43	1.00	3149020.22	A	0.0062	0.0065			
PFTeDA_2	6.43	1.00	20486.74	A	0.0062	0.0065	4	50	
PFHxDA	6.74	1.05	1533920.21	A	0.0683	0.0655			
PFHxDA_2	6.73	1.05	100532.17	A	0.0683	0.0655	-4	50	
PFODA	7.00	1.09	1270897.62	A	0.0277	0.0264			
PFODA_2	7.00	1.09	33518.79	A	0.0277	0.0264	-5	50	

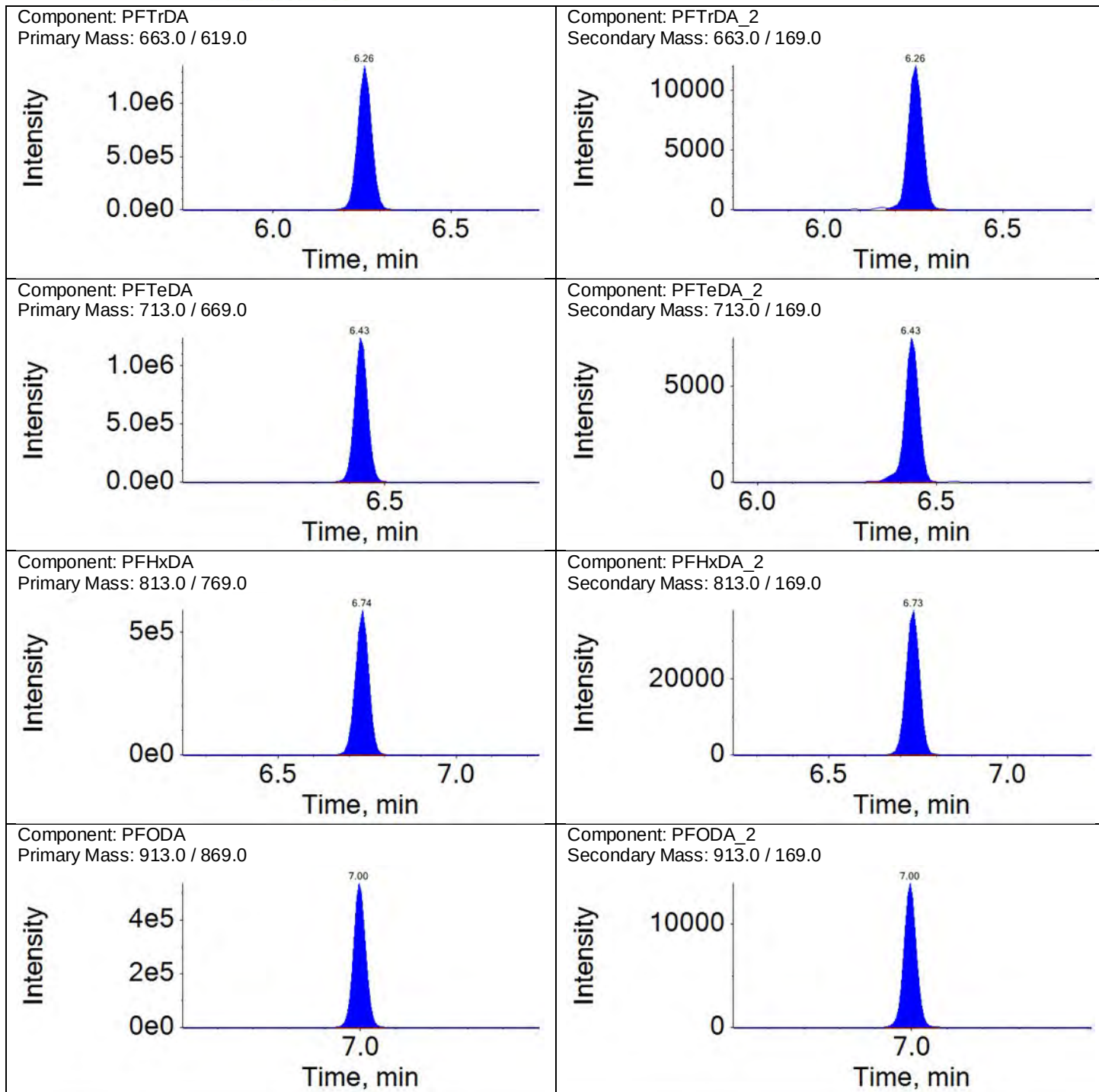












ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL7		Data File:	18NOV12DCAL-48.wiff
Sample ID:	CALBRN71833B		Acquis Date:	2018-11-12T16:00:06
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	9		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV12DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	510525.8	659926.2	-23	50	
13C2-PFOA	5.0	368158.3	450219.7	-18	50	
13C4-PFOS	4.8	233532.7	249205.8	-6	50	
13C2-PFDA	5.0	233825.1	278743.9	-16	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	557392.8	13C3-PFBA	510525.8	1.092	5.000	4.895	98	70-130	
E13C5-PFPeA	581688.7	13C3-PFBA	510525.8	1.139	5.000	5.110	102	70-130	
E13C3-PFBS	361166.0	13C3-PFBA	510525.8	0.707	4.650	4.994	107	70-130	
E13C2-4:2-FTS	40505.1	13C2-PFOA	368158.3	0.110	4.670	4.900	105	70-130	
E13C5-PFHxA	509808.0	13C2-PFOA	368158.3	1.385	5.000	5.002	100	70-130	
E13C3-PFHxS	267182.8	13C2-PFOA	368158.3	0.726	4.730	4.980	105	70-130	
E13C4-PFHpA	401203.9	13C2-PFOA	368158.3	1.090	5.000	4.910	98	70-130	
E13C2-6:2-FTS	27180.2	13C2-PFOA	368158.3	0.074	4.750	4.939	104	70-130	
E13C8-PFOA	607669.5	13C2-PFOA	368158.3	1.651	5.000	4.548	91	70-130	
E13C8-PFOS	242617.5	13C4-PFOS	233532.7	1.039	4.780	4.603	96	70-130	
E13C9-PFNA	377369.8	13C4-PFOS	233532.7	1.616	5.000	4.505	90	70-130	
E13C6-PFDA	479333.1	13C2-PFDA	233825.1	2.050	5.000	4.784	96	70-130	
E13C2-8:2-FTS	22711.0	13C2-PFDA	233825.1	0.097	4.790	4.844	101	70-130	
E13C8-PFOSA	554092.6	13C2-PFDA	233825.1	2.370	5.000	5.254	105	70-130	
Ed3-NMeFOSAA	67250.5	13C2-PFDA	233825.1	0.288	5.000	5.192	104	70-130	
E13C7-PFUnDA	199746.8	13C2-PFDA	233825.1	0.854	5.000	4.960	99	70-130	
Ed5-NEtFOSAA	58049.5	13C2-PFDA	233825.1	0.248	5.000	5.252	105	70-130	
E13C2-PFDoDA	474393.8	13C2-PFDA	233825.1	2.029	5.000	5.268	105	70-130	
Ed7-NMePFOSAE	272283.1	13C2-PFDA	233825.1	1.164	5.000	5.039	101	70-130	
Ed3-NMePFOSA	74110.3	13C2-PFDA	233825.1	0.317	5.000	5.758	115	70-130	
Ed9-NEtPFOSAE	240346.5	13C2-PFDA	233825.1	1.028	5.000	5.346	107	70-130	
Ed5-NEtPFOSA	53297.9	13C2-PFDA	233825.1	0.228	5.000	5.347	107	70-130	
E13C2-PFTeDA	346256.6	13C2-PFDA	233825.1	1.481	5.000	5.199	104	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL7

Instrument Name: LM27631

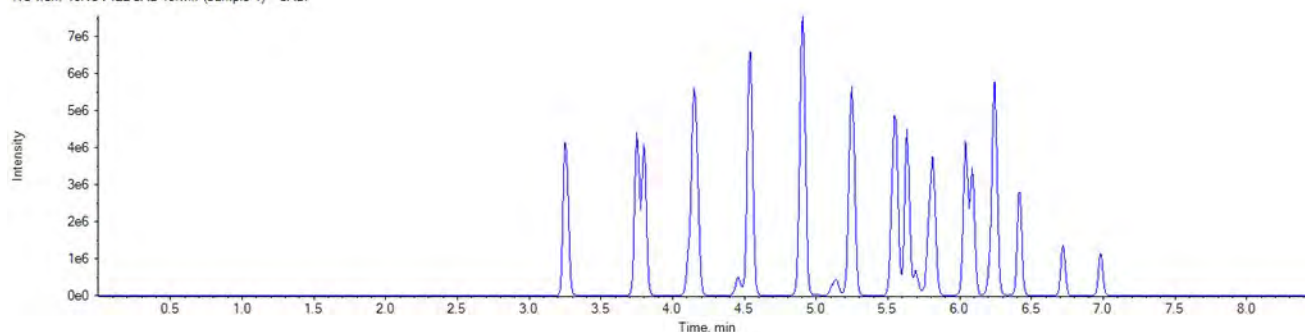
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.25	1.000	9834601.7		A	13C4-PFBA	3.25	557392.8	17.644	97.743
PFPeA	3.75	1.000	9756431.5		A	13C5-PFPeA	3.75	581688.7	16.773	97.094
PFBS	3.80	1.000	6615935.3		A	13C3-PFBS	3.80	361166.0	18.318	87.136
4:2-FTS	4.11	1.000	1379983.9		A	13C2-4:2-FTS	4.11	40505.1	34.069	92.499
PFHxA	4.15	1.000	11059420.3		A	13C5-PFHxA	4.15	509808.0	21.693	90.577
PFPeS	4.17	1.100	3482095.9		A	13C3-PFBS	3.80	361166.0	9.641	93.602
PFHpA	4.54	1.000	10981922.8		A	13C4-PFHpA	4.54	401203.9	27.372	90.732
PFHxS	4.54	1.000	5048349.8		M	13C3-PFHxS	4.54	267182.8	18.895	91.615
6:2-FTS	4.89	1.000	869227.2		A	13C2-6:2-FTS	4.89	27180.2	31.980	77.388
PFHpS	4.90	1.080	4784682.8		A	13C3-PFHxS	4.54	267182.8	17.908	94.267
PFOA	4.91	1.000	10991740.1		A	13C8-PFOA	4.91	607669.5	18.088	96.608
PFOS	5.24	1.000	5138367.0		M	13C8-PFOS	5.24	242617.5	21.179	92.617
PFNA	5.25	1.000	10084288.3		A	13C9-PFNA	5.25	377369.8	26.723	96.360
PFNS	5.53	1.060	3386860.5		A	13C8-PFOS	5.24	242617.5	13.960	97.666
PFDA	5.55	1.000	8104726.6		A	13C6-PFDA	5.55	479333.1	16.908	89.640
8:2-FTS	5.56	1.000	804019.5		A	13C2-8:2-FTS	5.56	22711.0	35.402	82.540
PFOSA	5.63	1.000	10169176.9		A	13C8-PFOSA	5.63	554092.6	18.353	89.642
NMeFOSAA	5.69	1.000	1191981.7		M	d3-NMeFOSAA	5.69	67250.5	17.725	100.173
PFDS	5.79	1.110	2606720.7		A	13C8-PFOS	5.24	242617.5	10.744	97.353
PfUnDA	5.81	1.000	6802701.2		A	13C7-PfUnDA	5.81	199746.8	34.057	89.032
NEtFOSAA	5.83	1.000	1046636.1		M	d5-NEtFOSAA	5.82	58049.5	18.030	94.517
PFDODA	6.04	1.000	8171355.4		A	13C2-PFDODA	6.04	474393.8	17.225	87.711
10:2-FTS	6.06	1.090	632223.7		A	13C2-8:2-FTS	5.56	22711.0	27.838	92.724
NMePFOSAE	6.09	1.000	6272486.3		A	d7-NMePFOSAE	6.08	272283.1	23.037	95.876
NMePFOSA	6.09	1.000	1310162.9		A	d3-NMePFOSA	6.09	74110.3	17.679	87.214
PFDOS	6.21	1.190	1336765.3		A	13C8-PFOS	5.24	242617.5	5.510	96.500
NEtPFOSAE	6.25	1.000	6557402.5		A	d9-NEtPFOSAE	6.23	240346.5	27.283	87.532
NEtPFOSA	6.26	1.000	1148933.0		A	d5-NEtPFOSA	6.25	53297.9	21.557	98.999
PFTDA	6.24	1.030	6281239.0		A	13C2-PFDODA	6.04	474393.8	13.241	83.569
PFTeDA	6.42	1.000	6092875.7		A	13C2-PFTeDA	6.42	346256.6	17.596	98.638
PFHxDA	6.72	1.050	2866097.3		A	13C2-PFTeDA	6.42	346256.6	8.277	98.615
PFODA	6.98	1.090	2488863.6		A	13C2-PFTeDA	6.42	346256.6	7.188	100.107

Total Ion Chromatogram

TIC from 18NOV12DCAL-48.wiff (sample 1) - CAL7



APPROVED

By MCD at 6:33 pm, 11/12/18

BSI14 Page 1000 of 2132

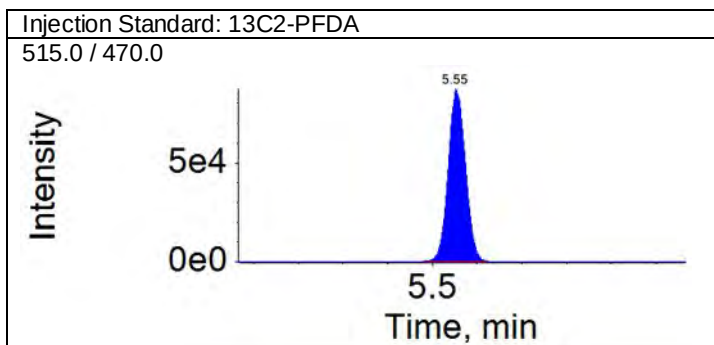
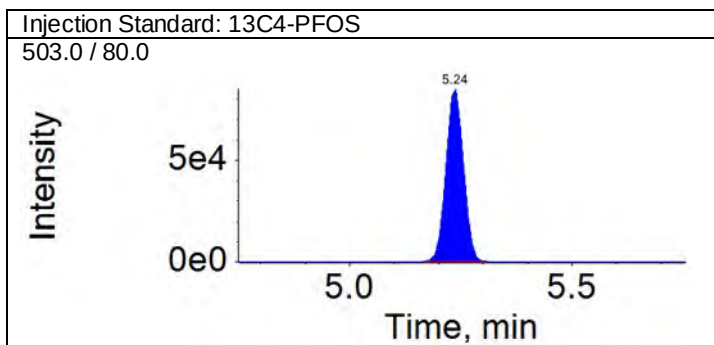
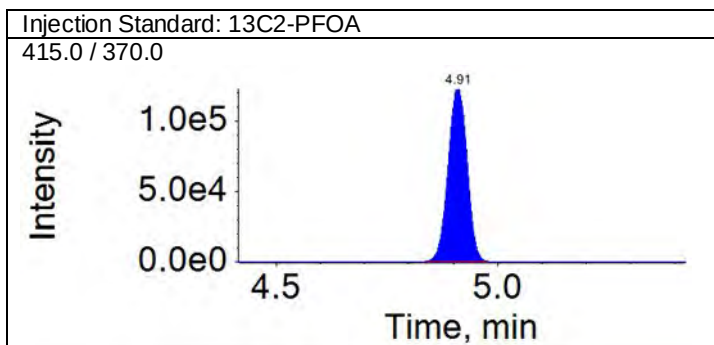
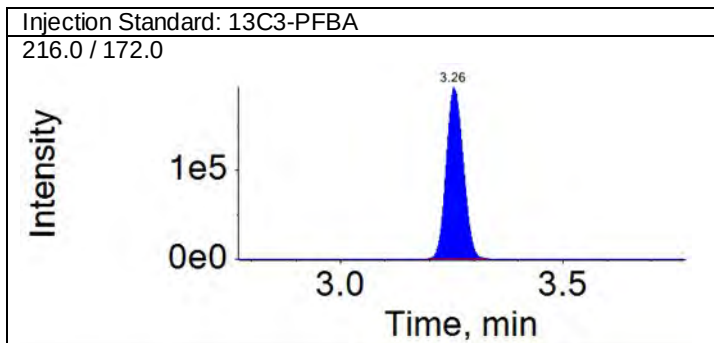
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By HMK at 10:53 am, 11/13/18

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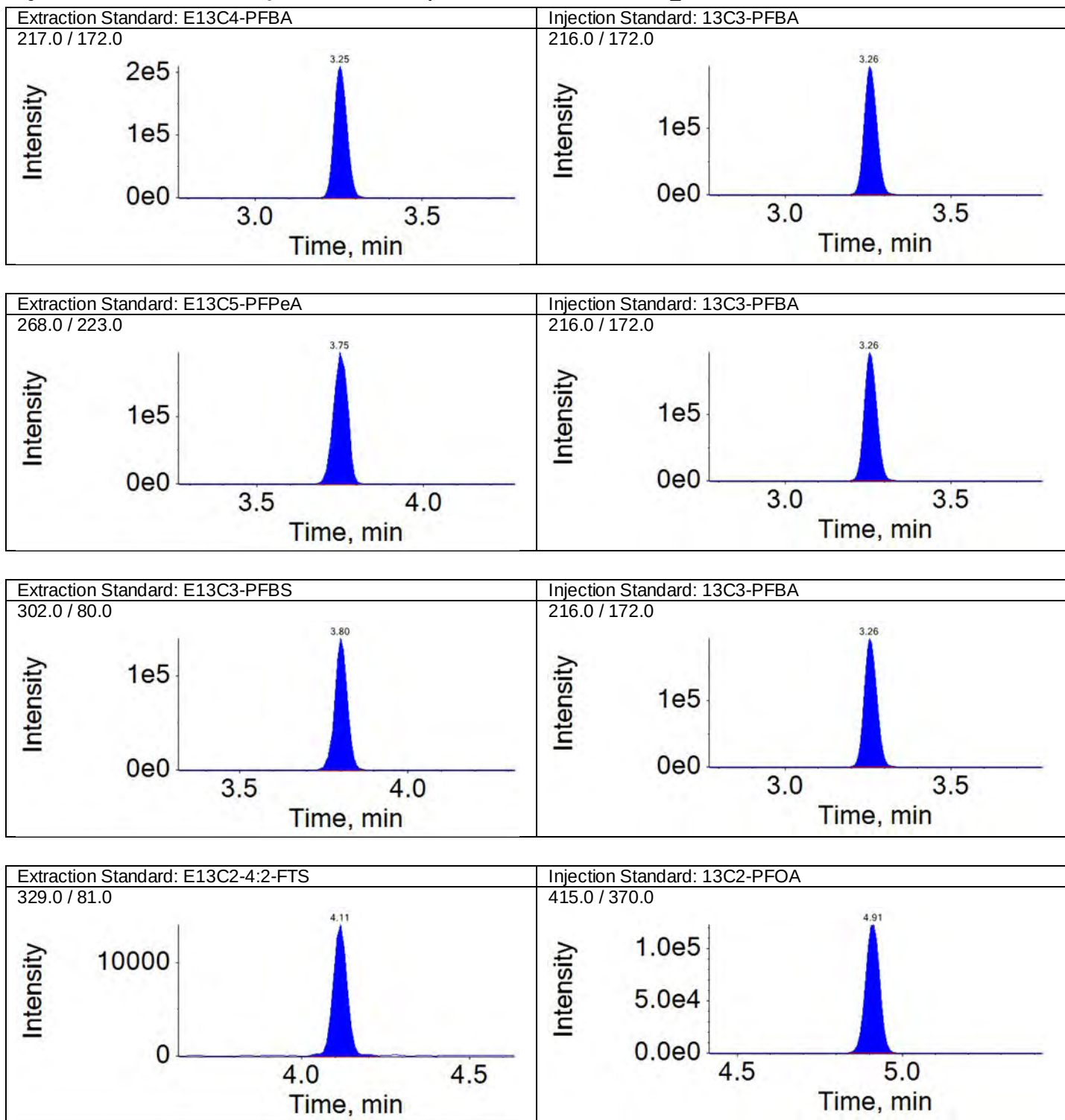
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



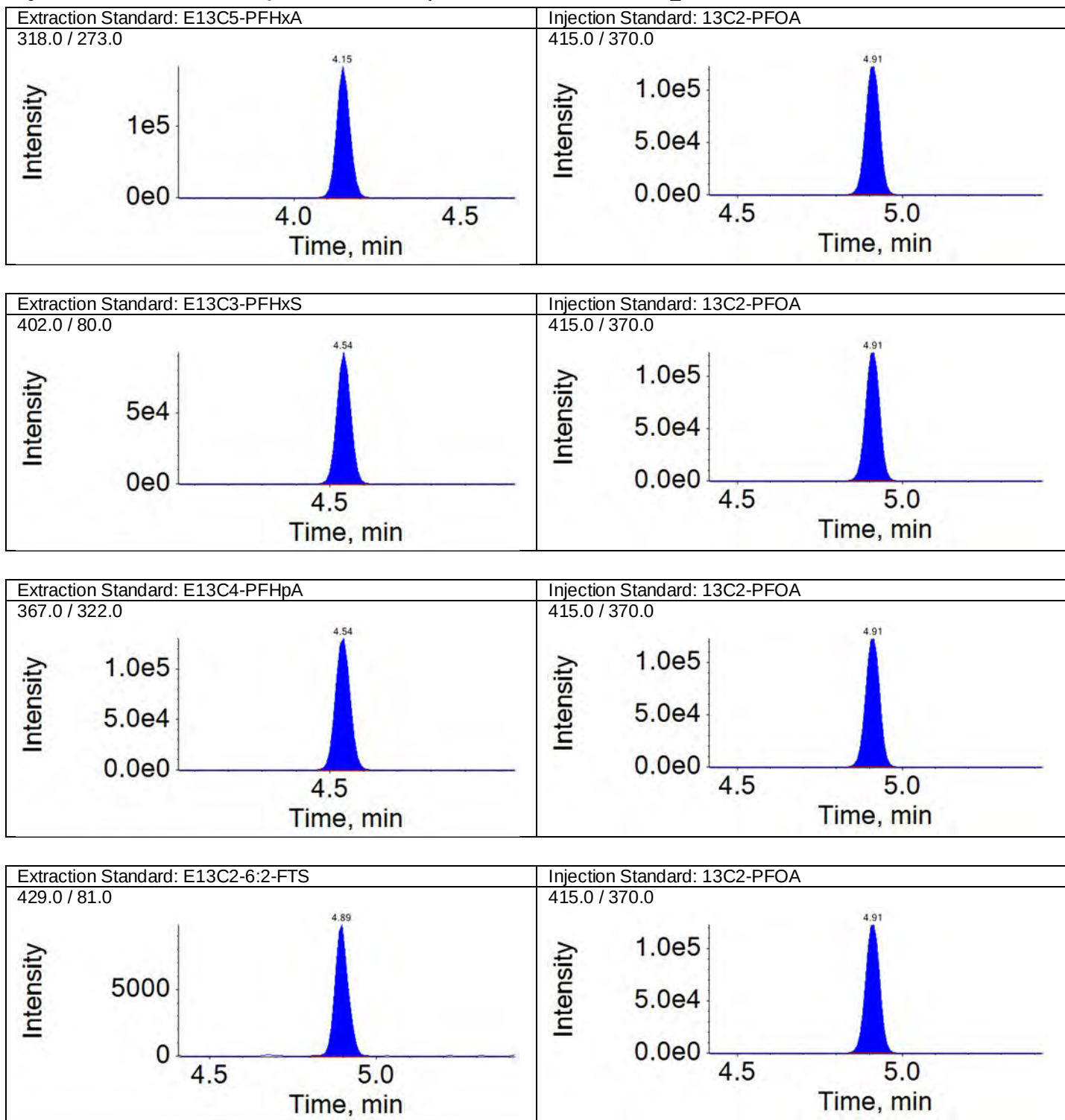
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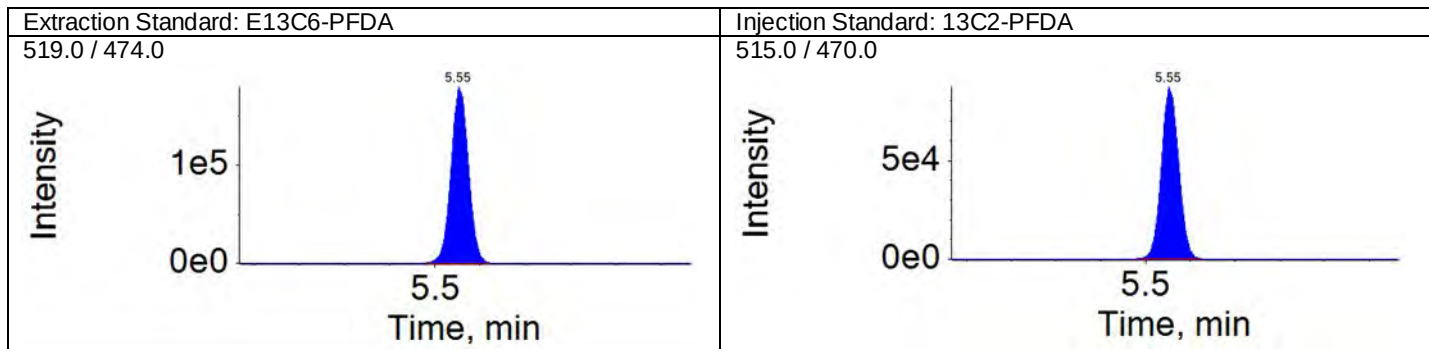
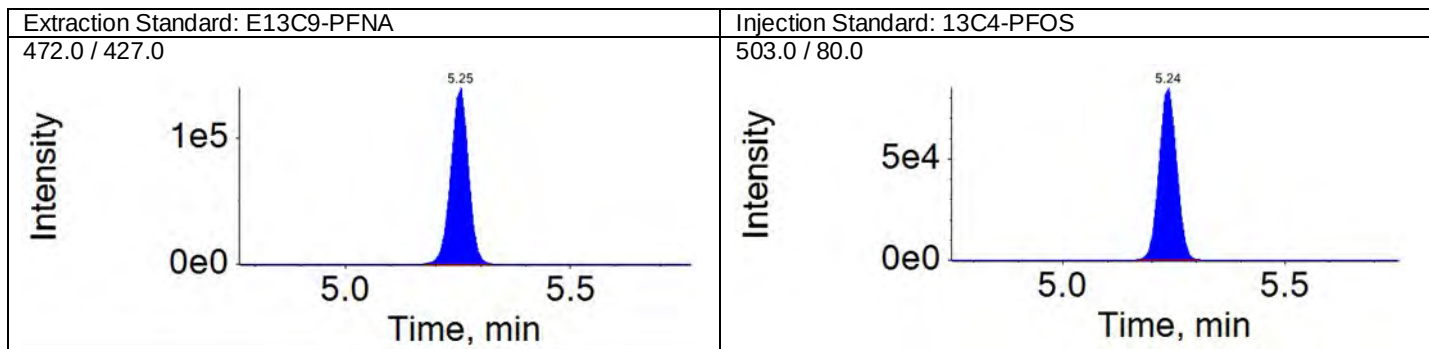
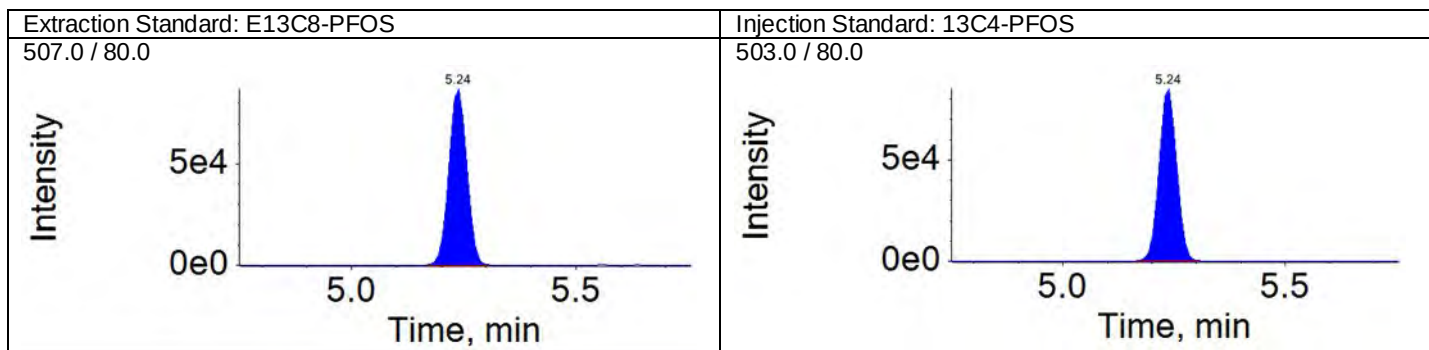
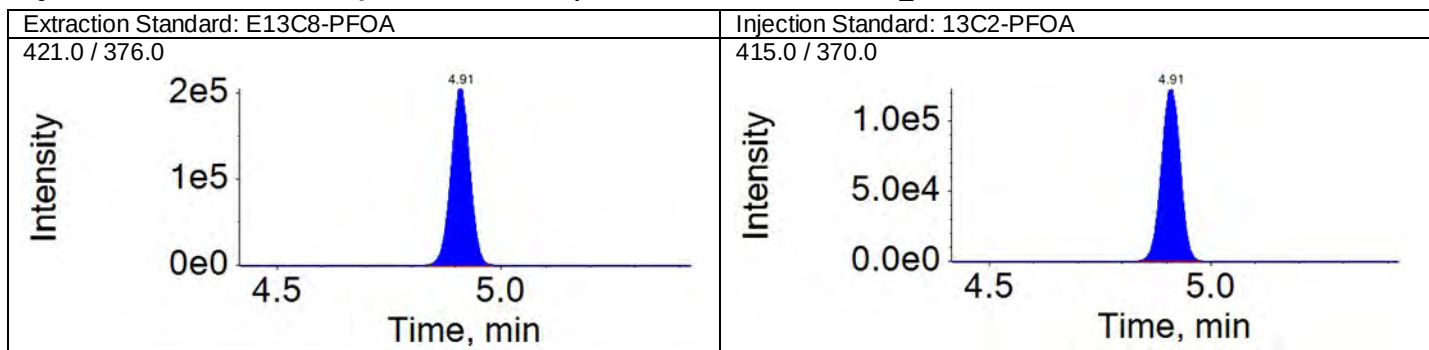
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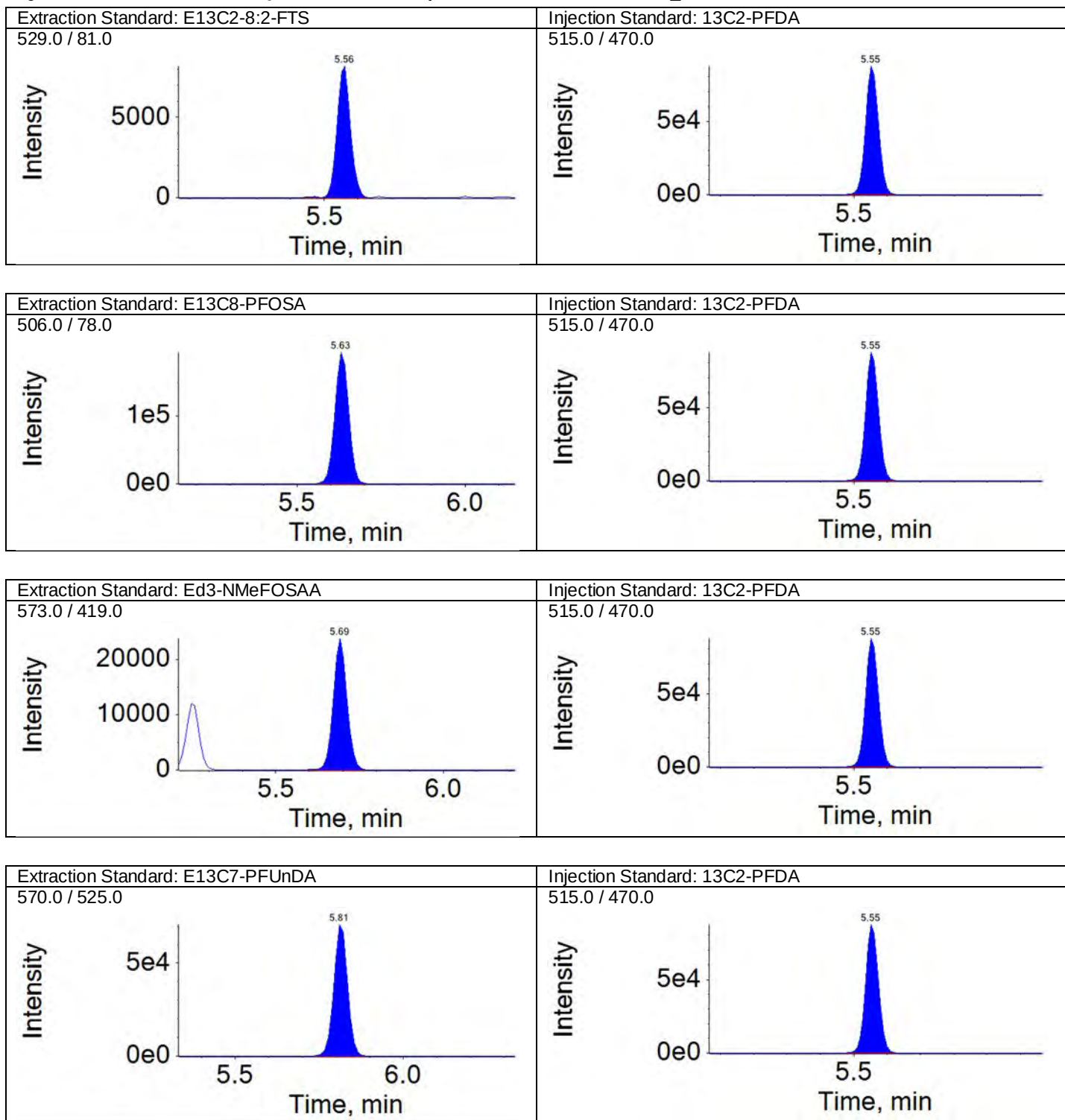
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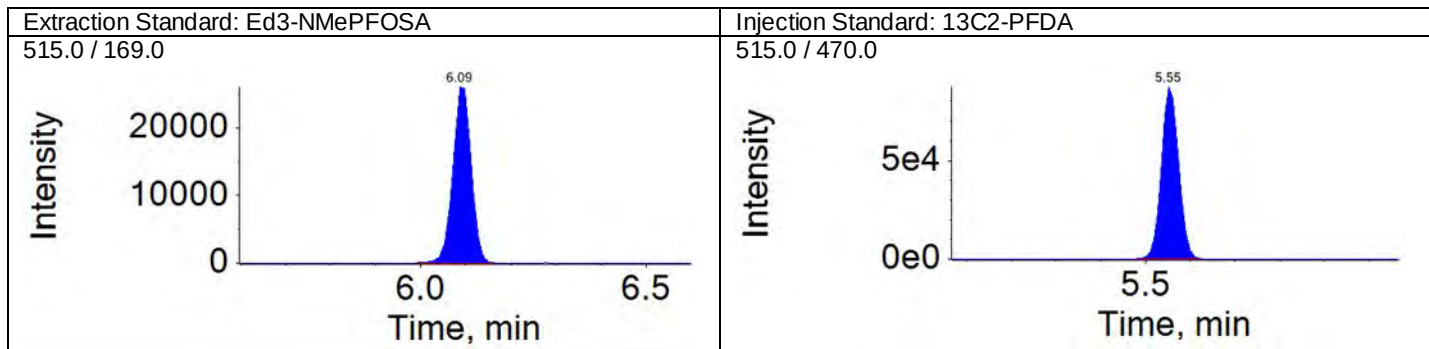
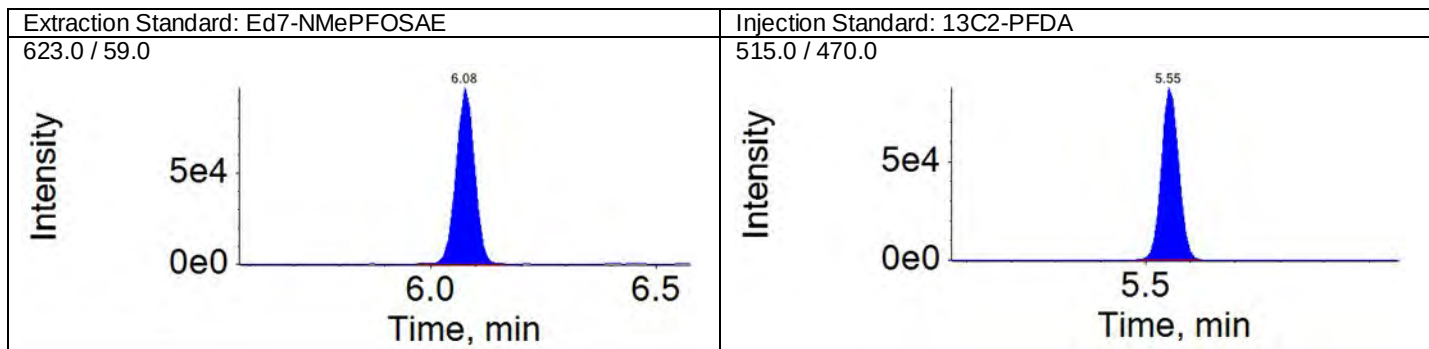
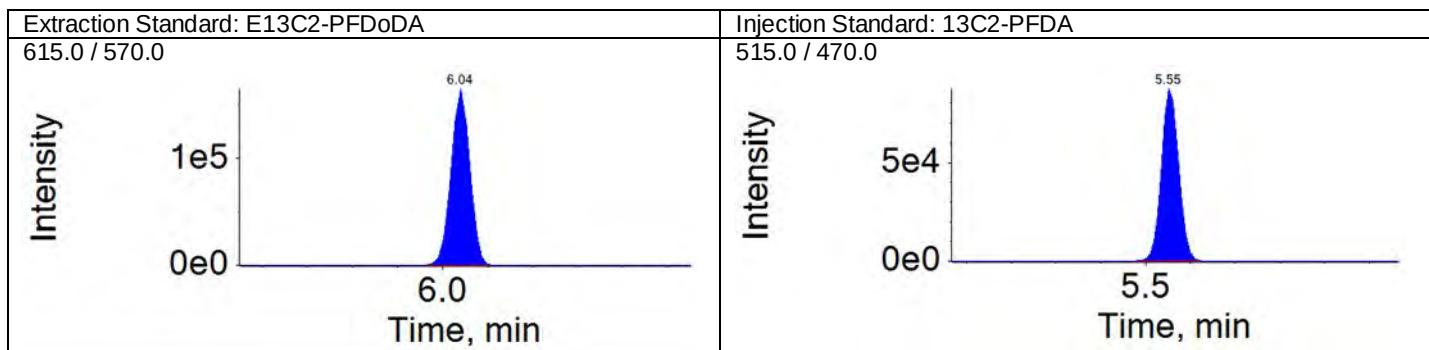
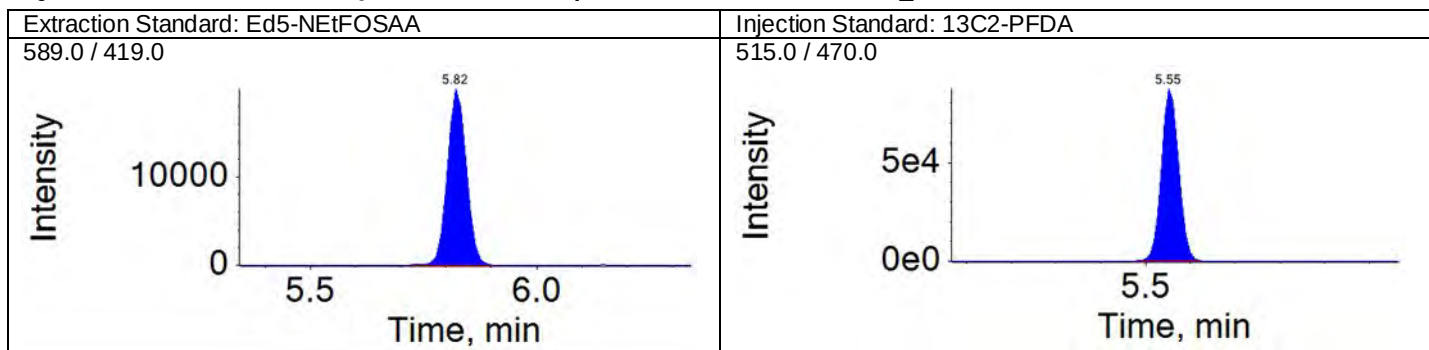
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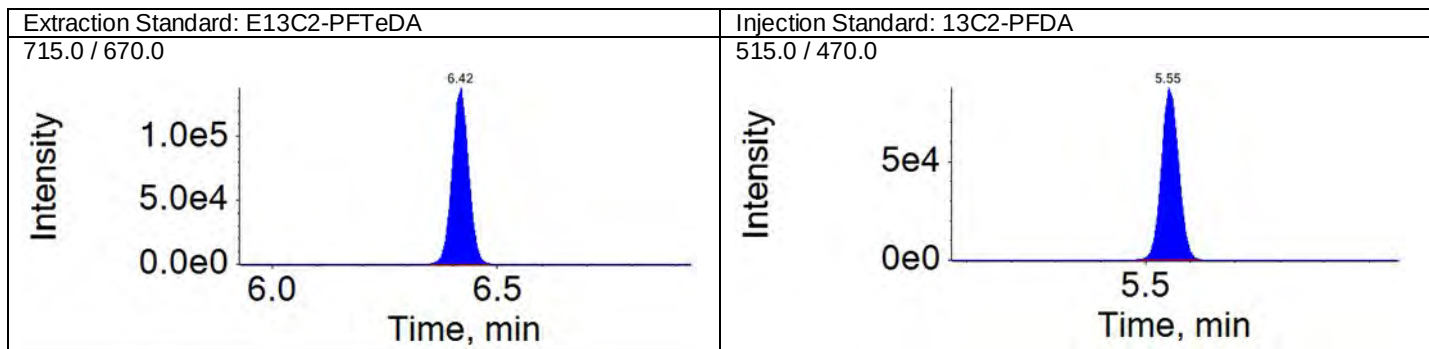
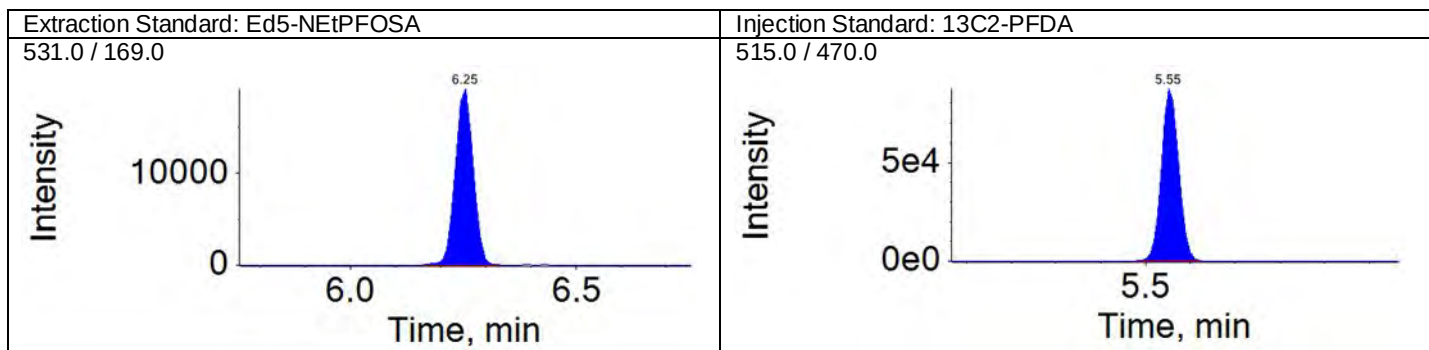
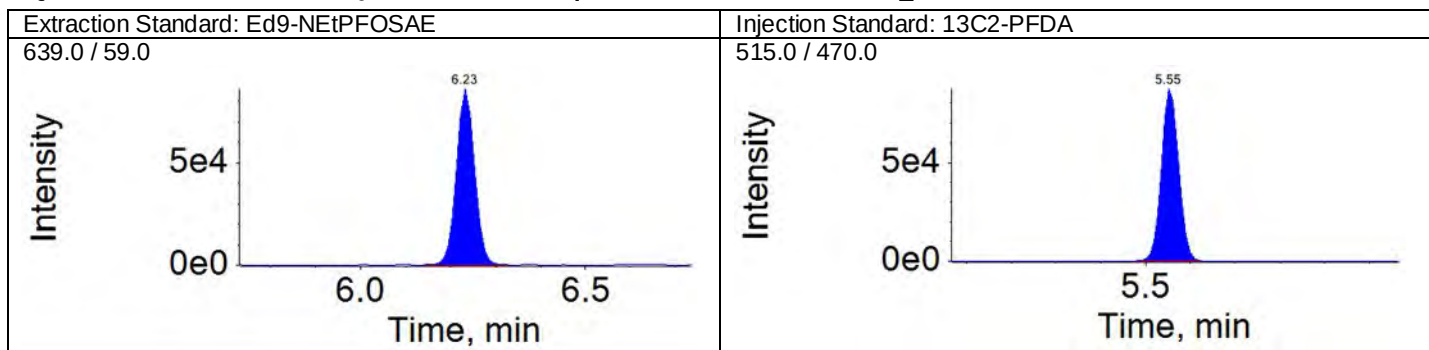
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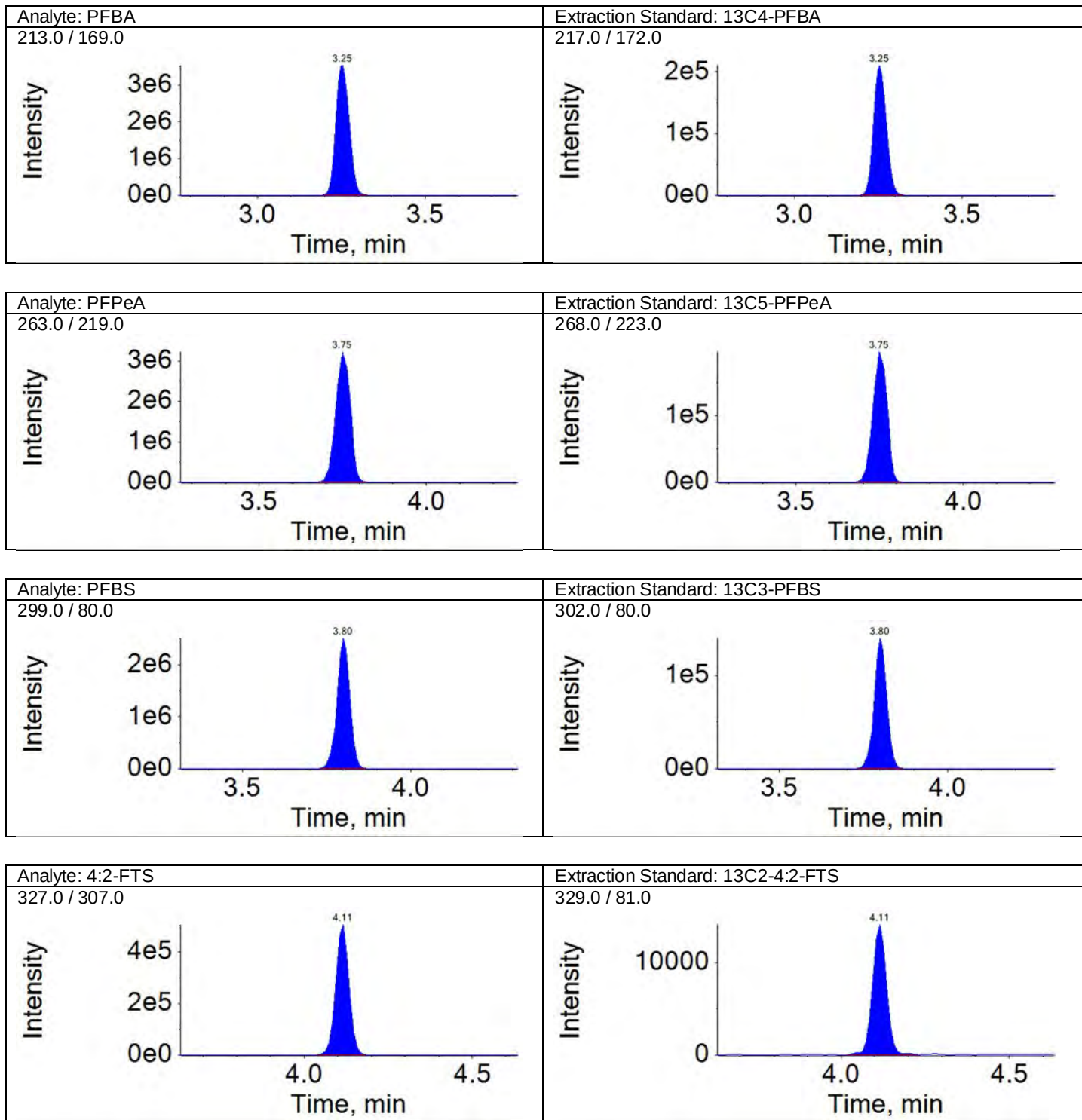
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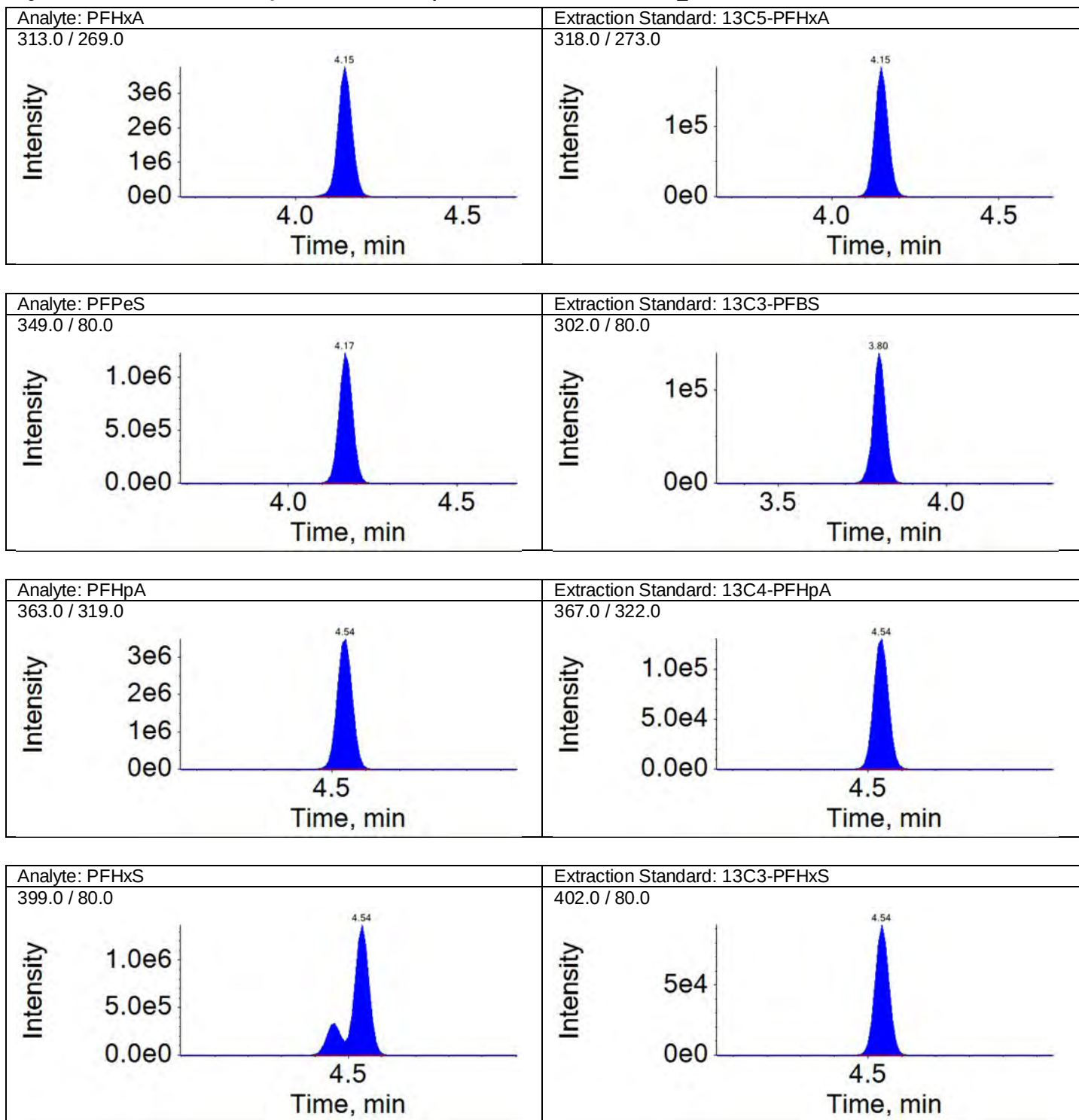
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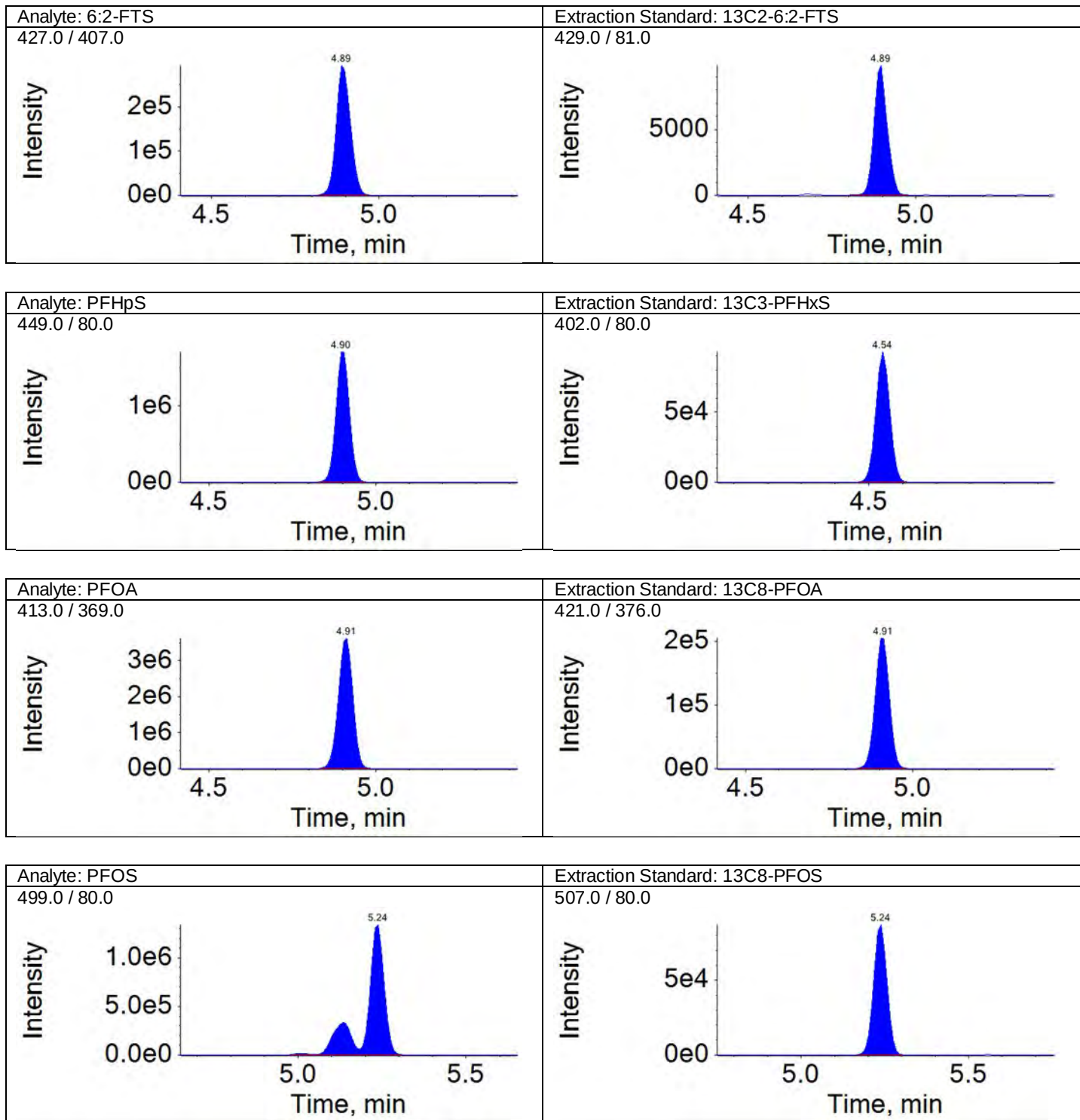
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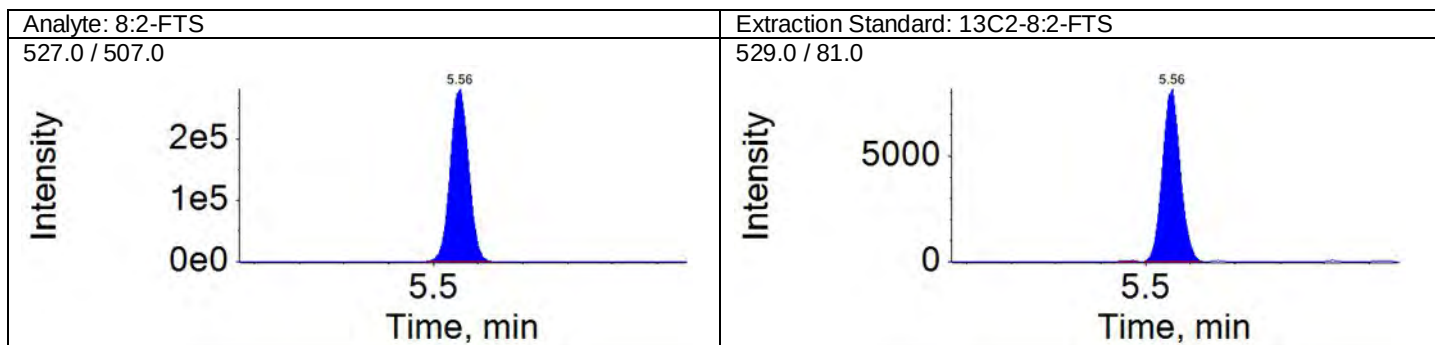
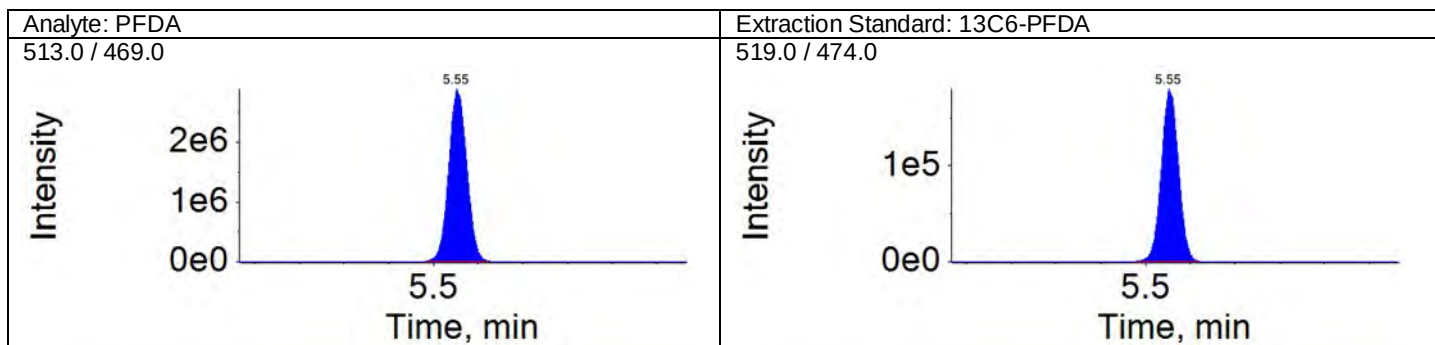
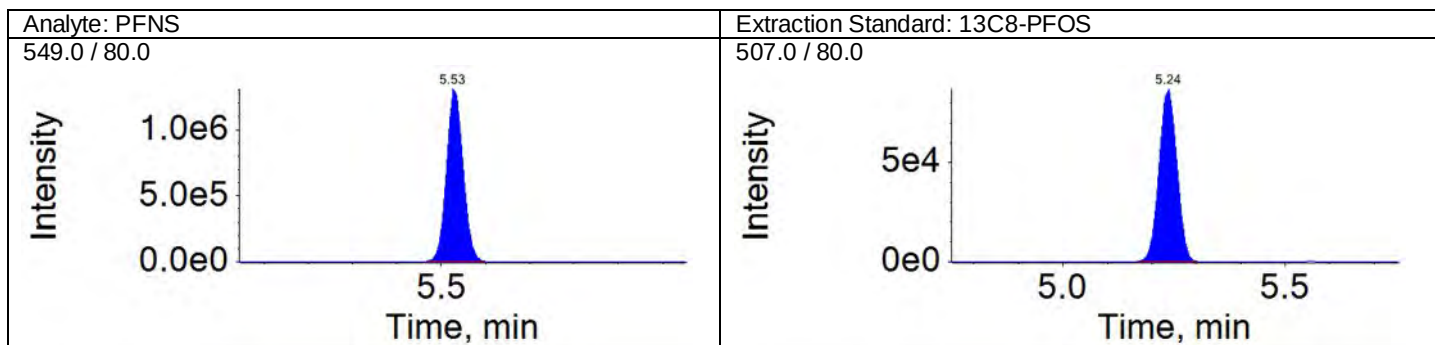
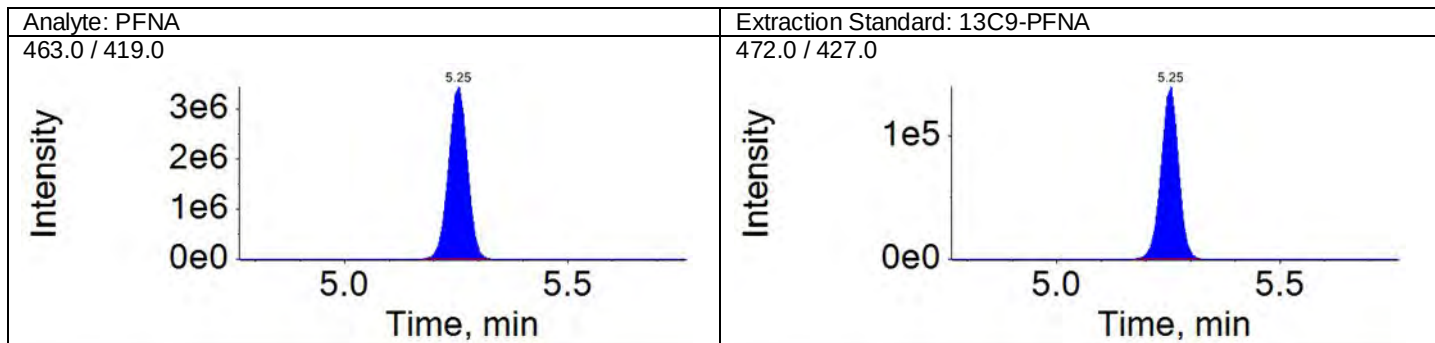
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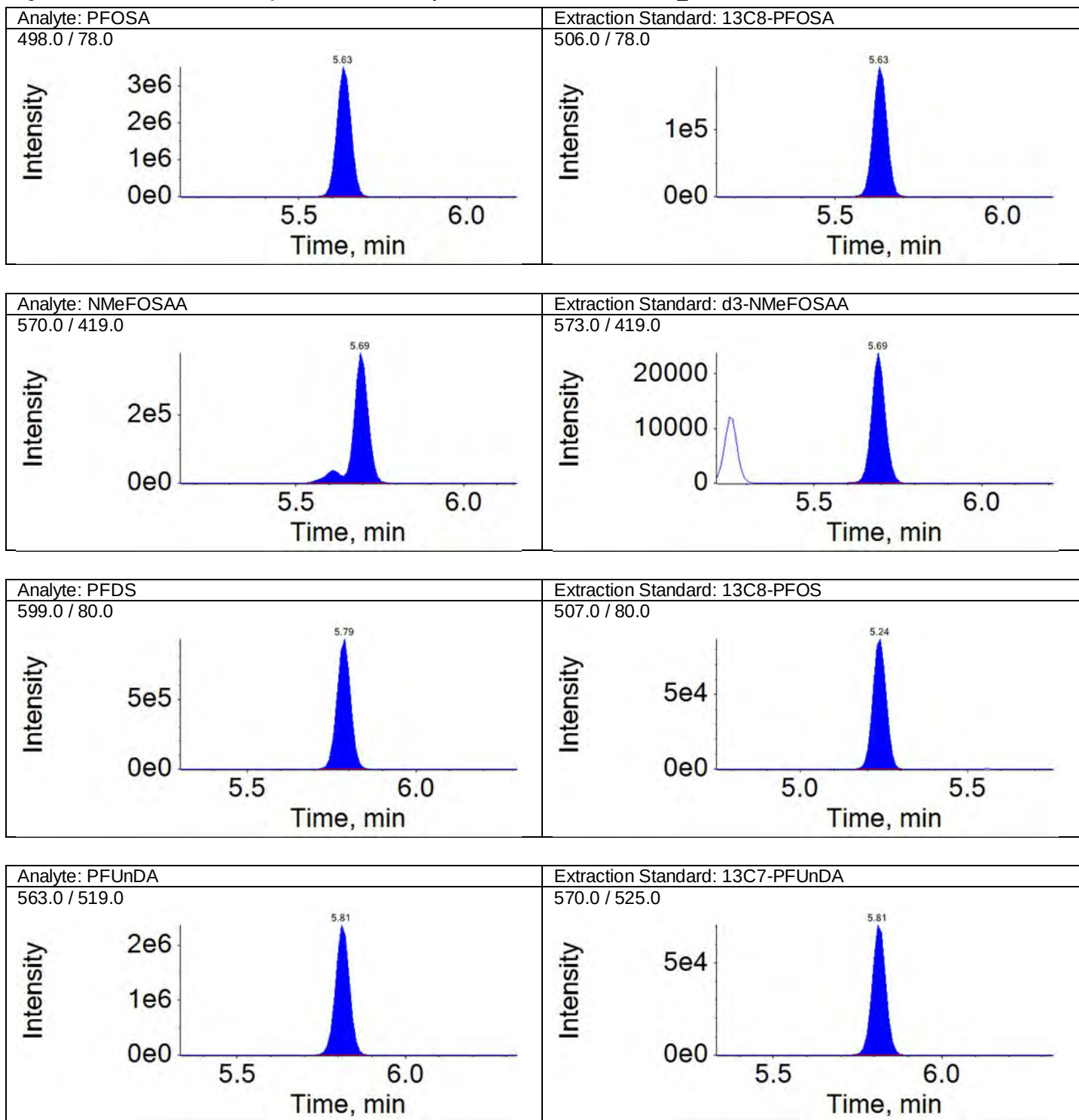
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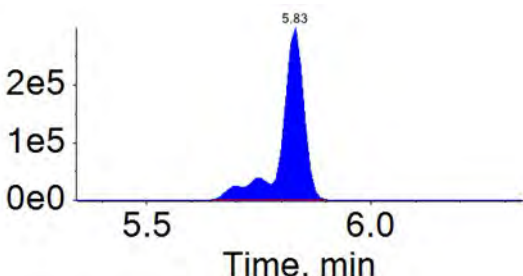
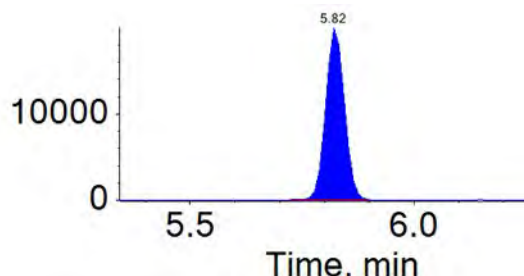
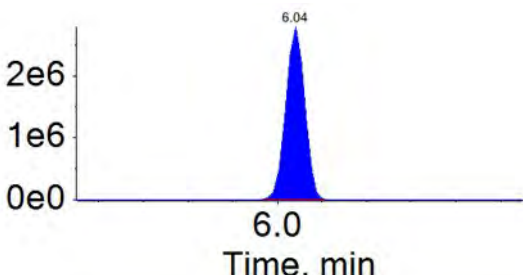
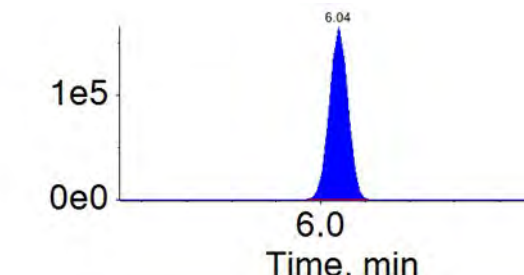
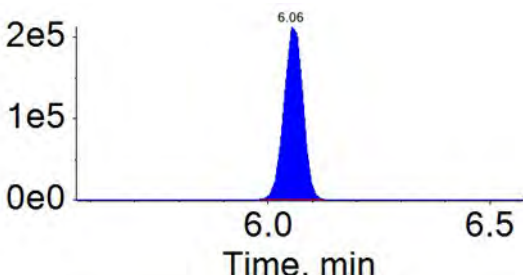
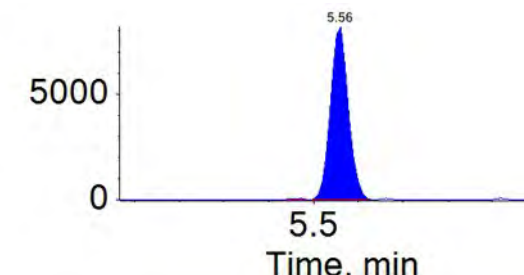
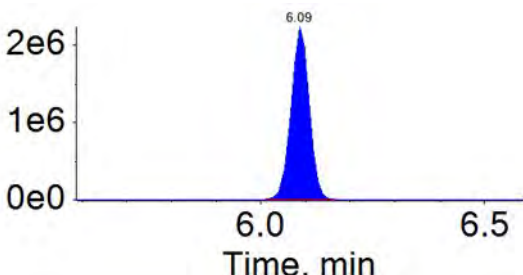
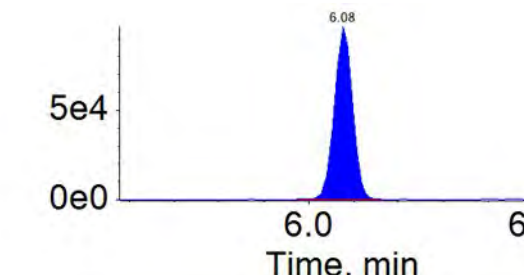
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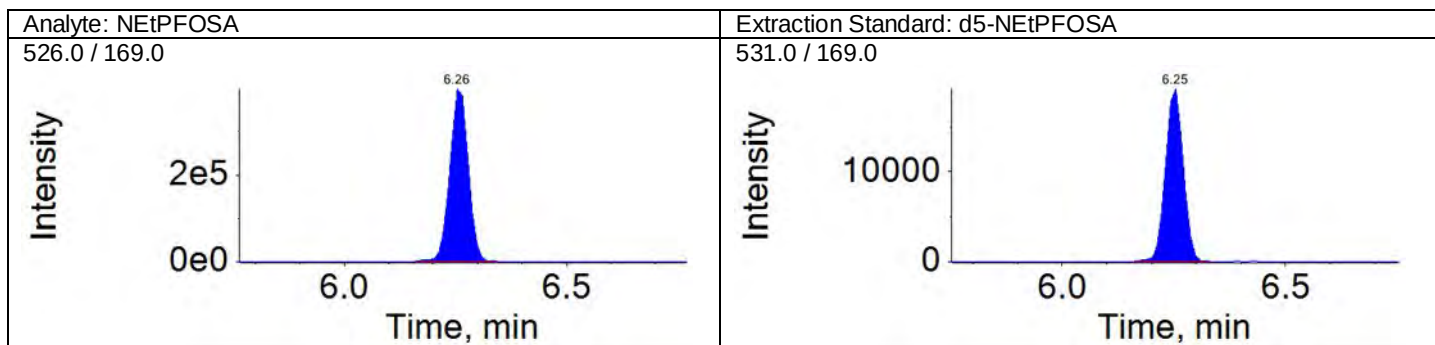
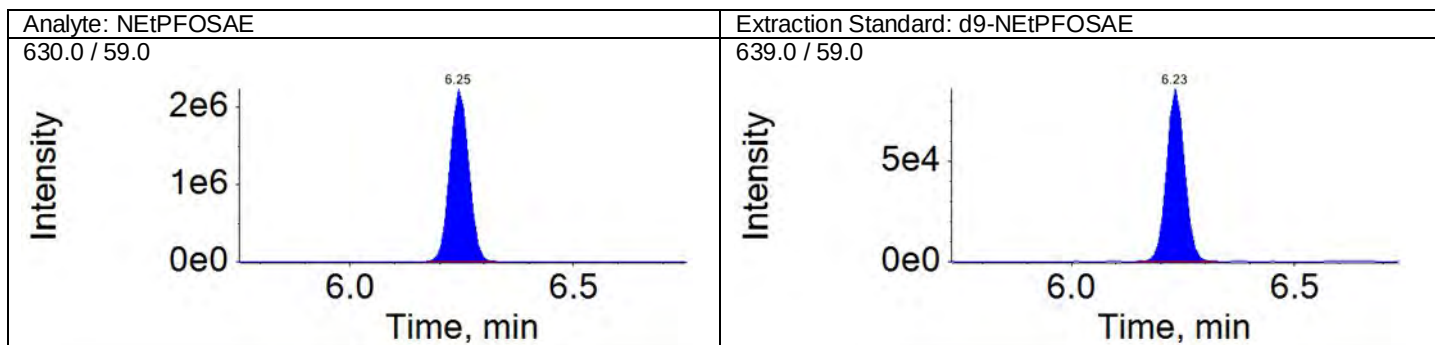
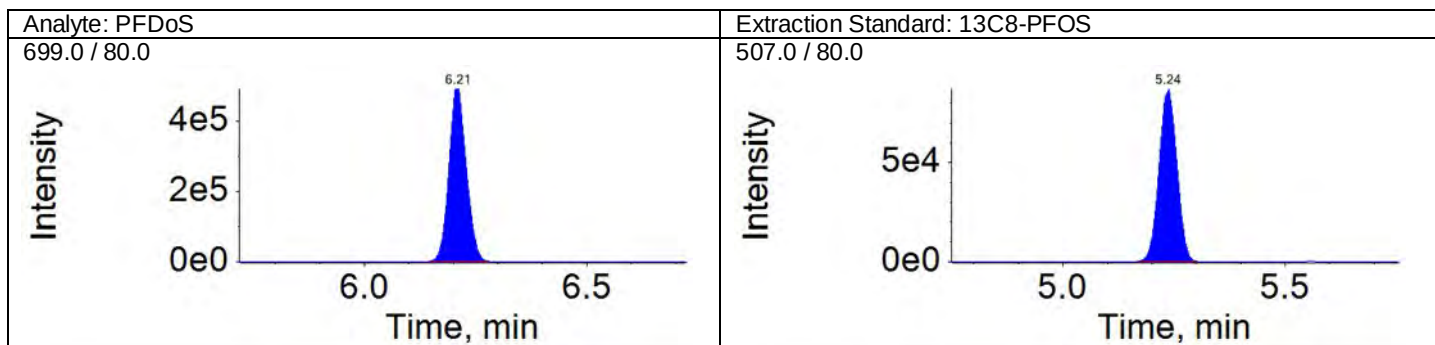
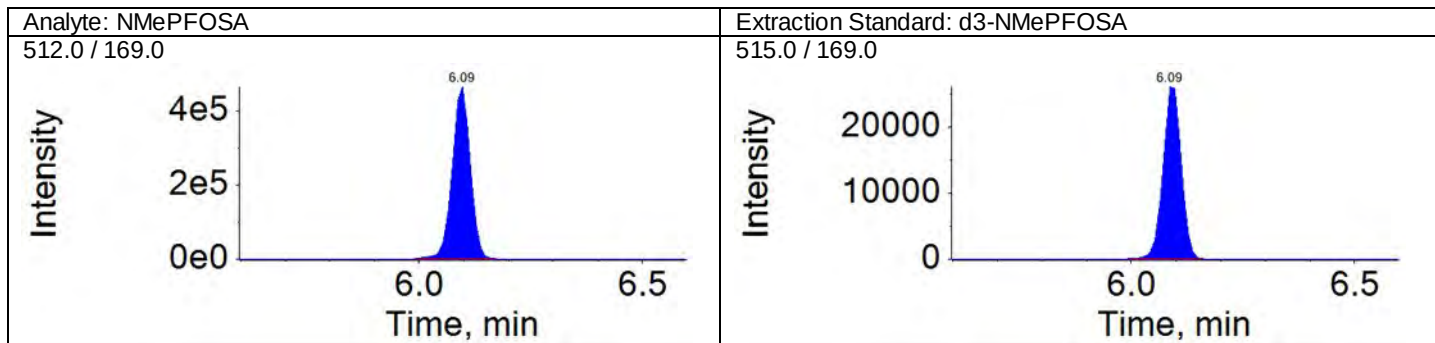
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte: NEtFOSAA 584.0 / 419.0 	Extraction Standard: d5-NEtFOSAA 589.0 / 419.0 
Analyte: PFDoDA 613.0 / 569.0 	Extraction Standard: 13C2-PFDoDA 615.0 / 570.0 
Analyte: 10:2-FTS 627.0 / 607.0 	Extraction Standard: 13C2-8:2-FTS 529.0 / 81.0 
Analyte: NMePFOSAE 616.0 / 59.0 	Extraction Standard: d7-NMePFOSAE 623.0 / 59.0 

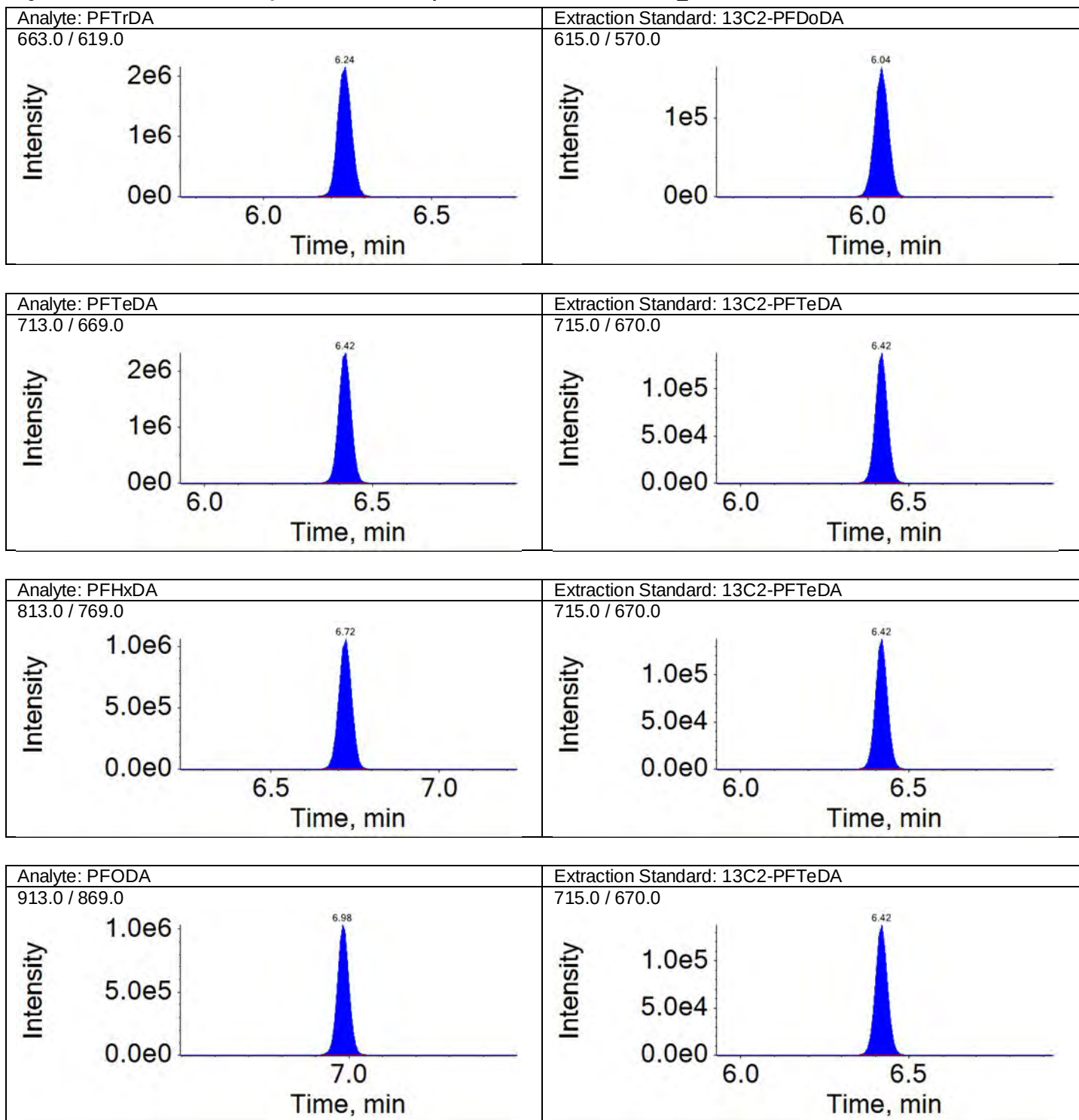
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



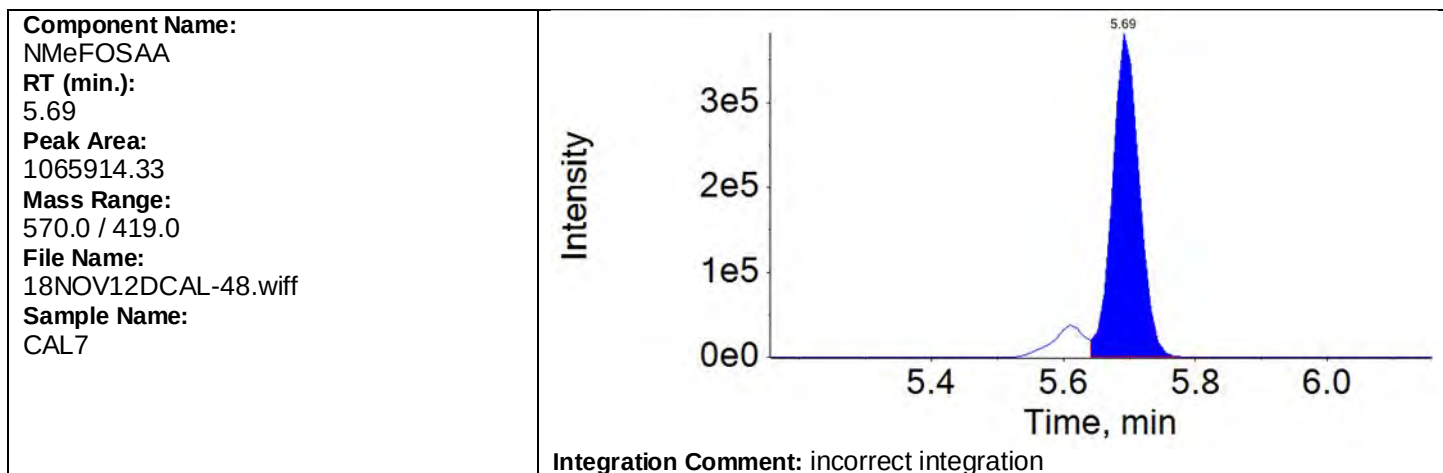
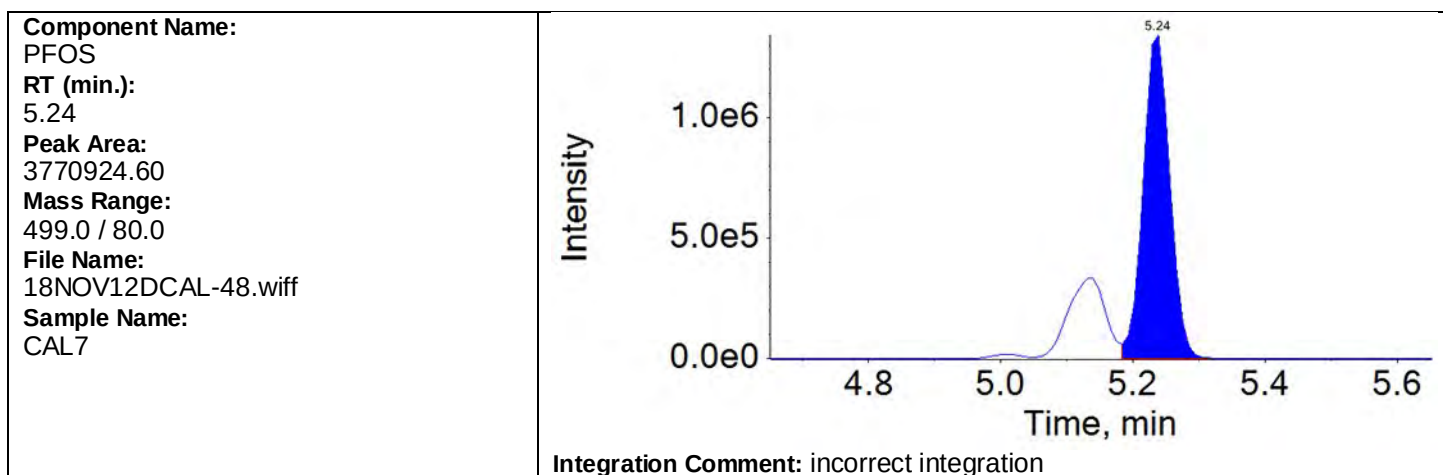
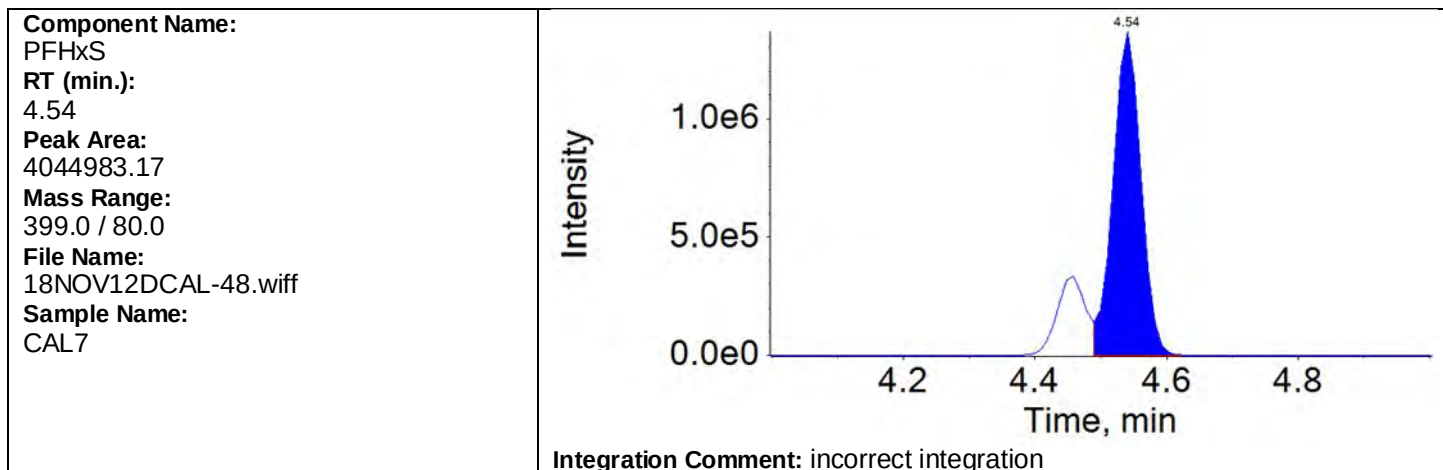
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

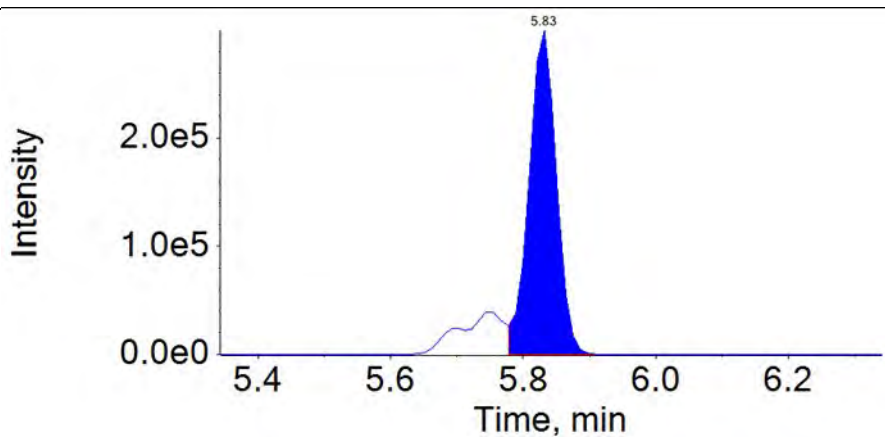
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QMethod File: 18AUG20QM



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

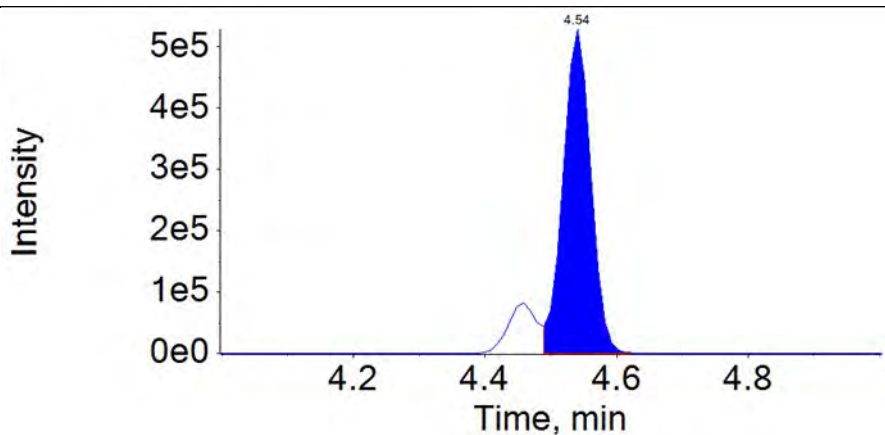
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NETFOSAA
RT (min.):
5.83
Peak Area:
862135.47
Mass Range:
584.0 / 419.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7



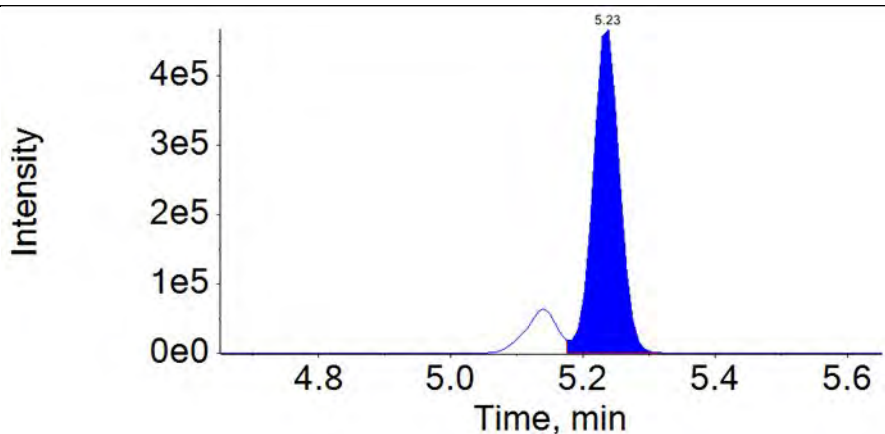
Integration Comment: incorrect integration

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
1552233.65
Mass Range:
399.0 / 99.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.23
Peak Area:
1316284.93
Mass Range:
499.0 / 99.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7

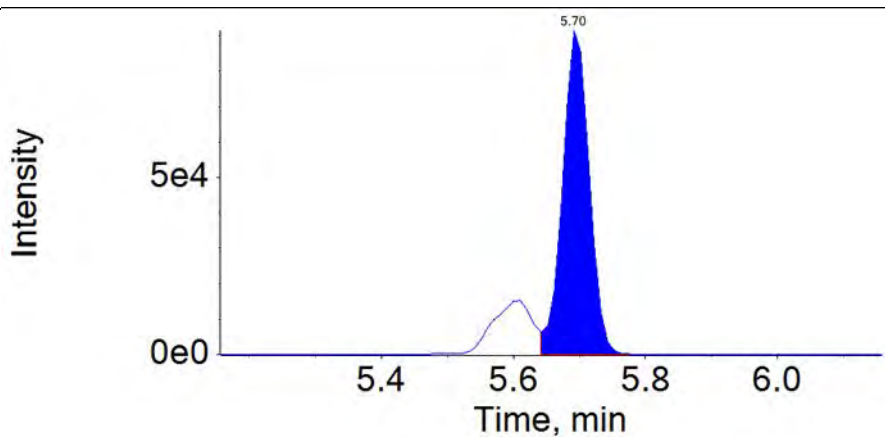


Integration Comment: incorrect integration

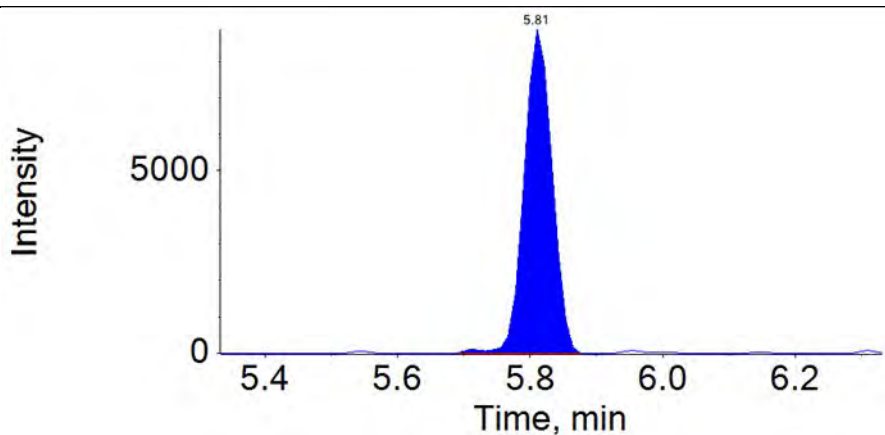
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Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

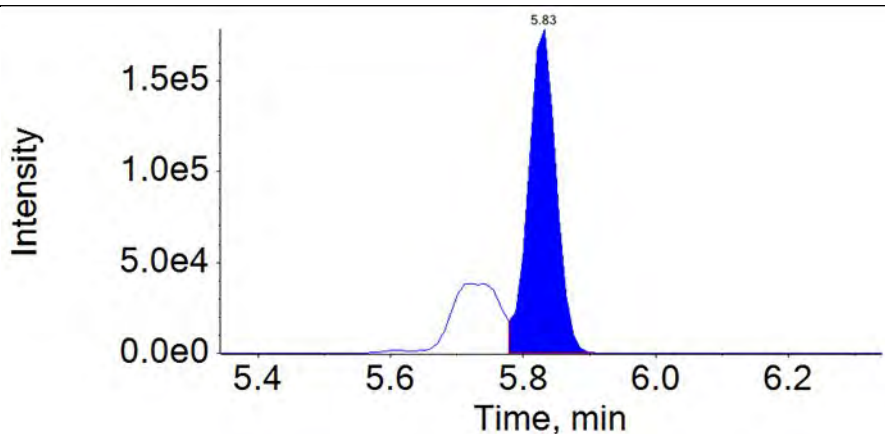
Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
256419.22
Mass Range:
570.0 / 483.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7



Component Name:
PUnDA_2
RT (min.):
5.81
Peak Area:
26121.92
Mass Range:
563.0 / 169.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7



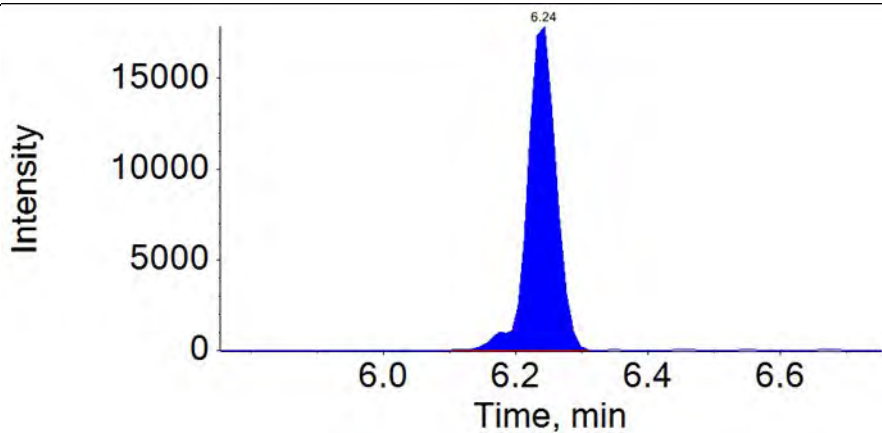
Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
517079.85
Mass Range:
584.0 / 526.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTTrDA_2
RT (min.):
6.24
Peak Area:
53950.01
Mass Range:
663.0 / 169.0
File Name:
18NOV12DCAL-48.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

APPROVED

By MCD at 6:33 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 6:33 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

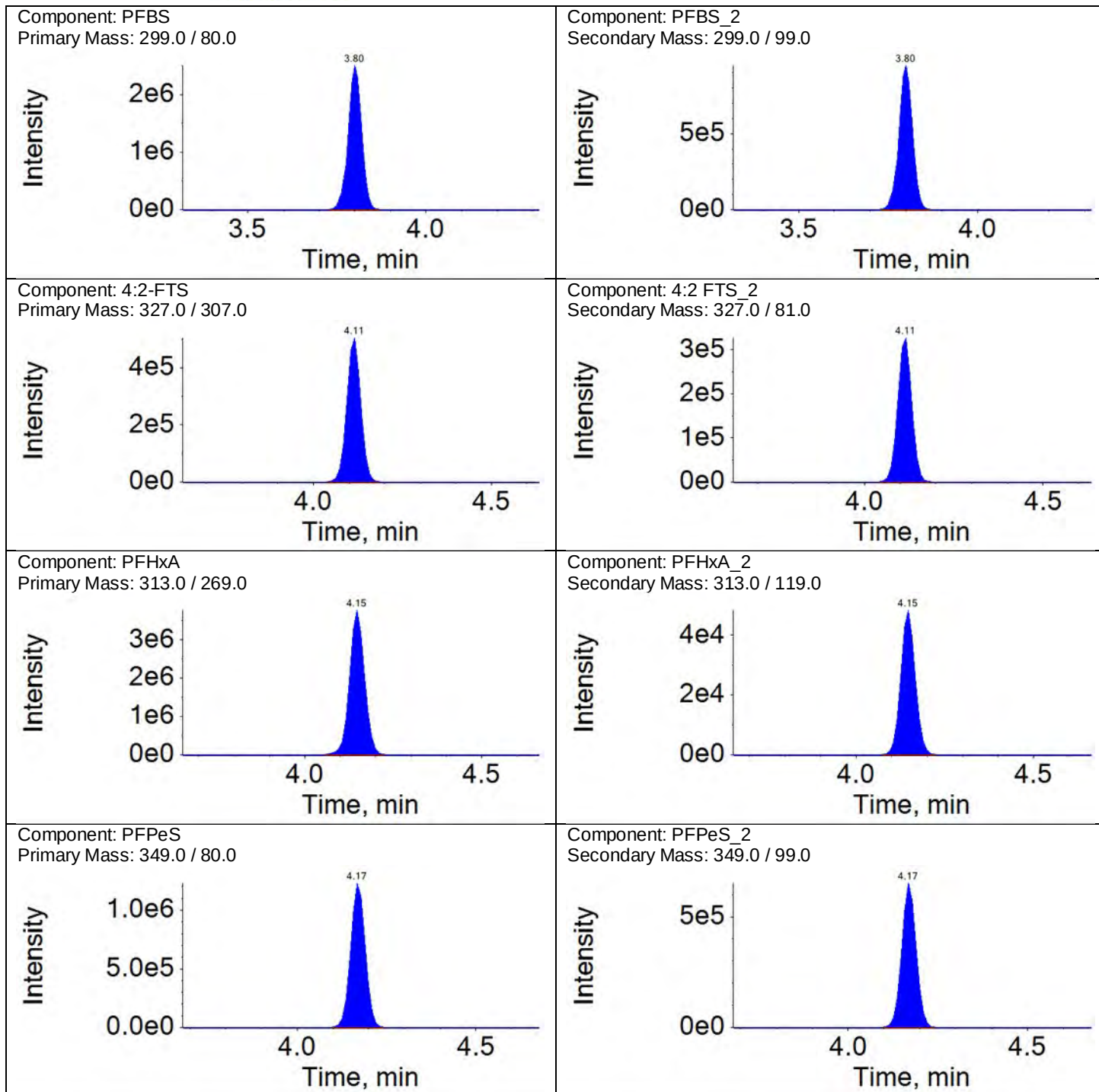
Ion Ratio Report

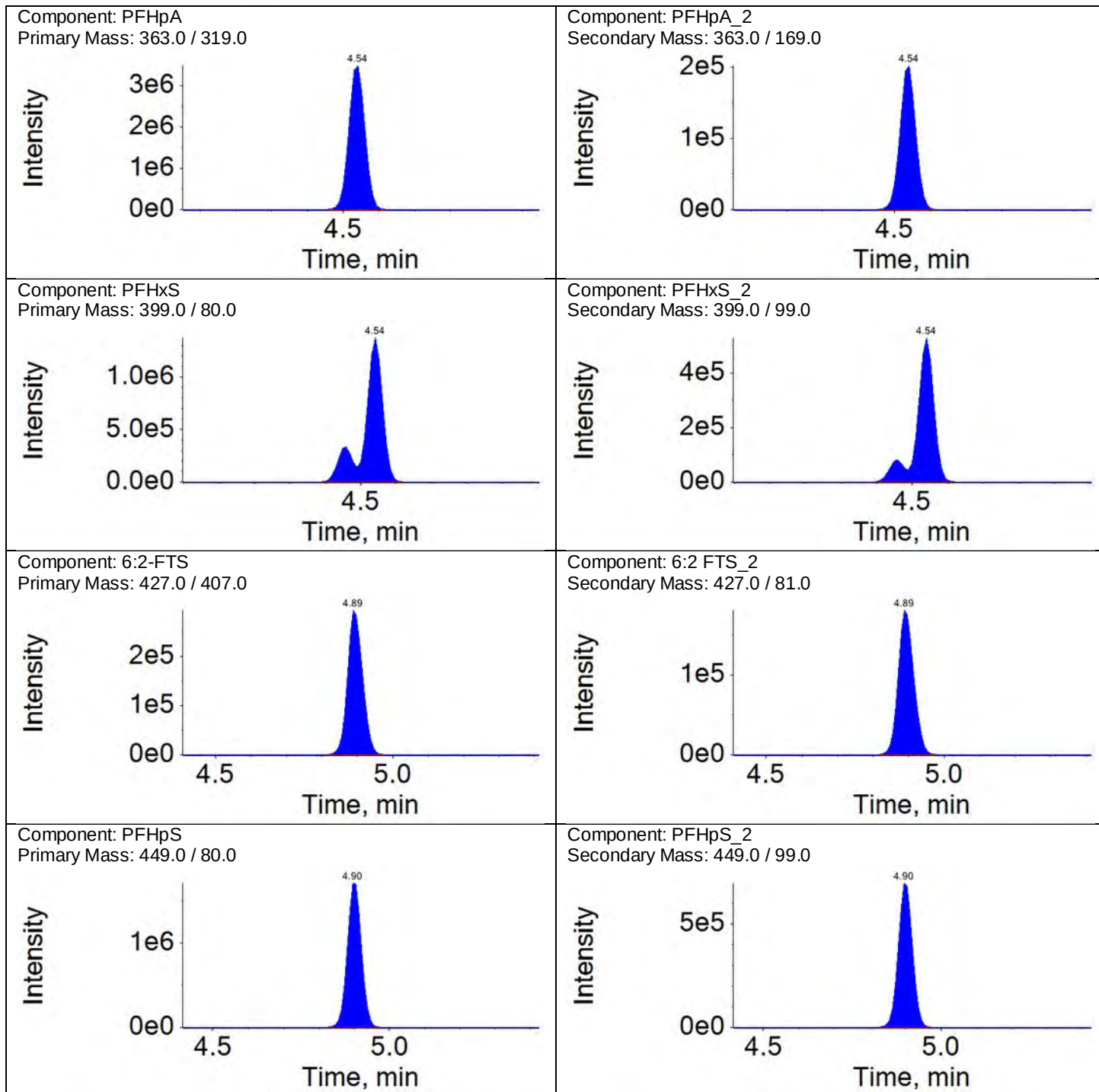
Sample Name: CAL7

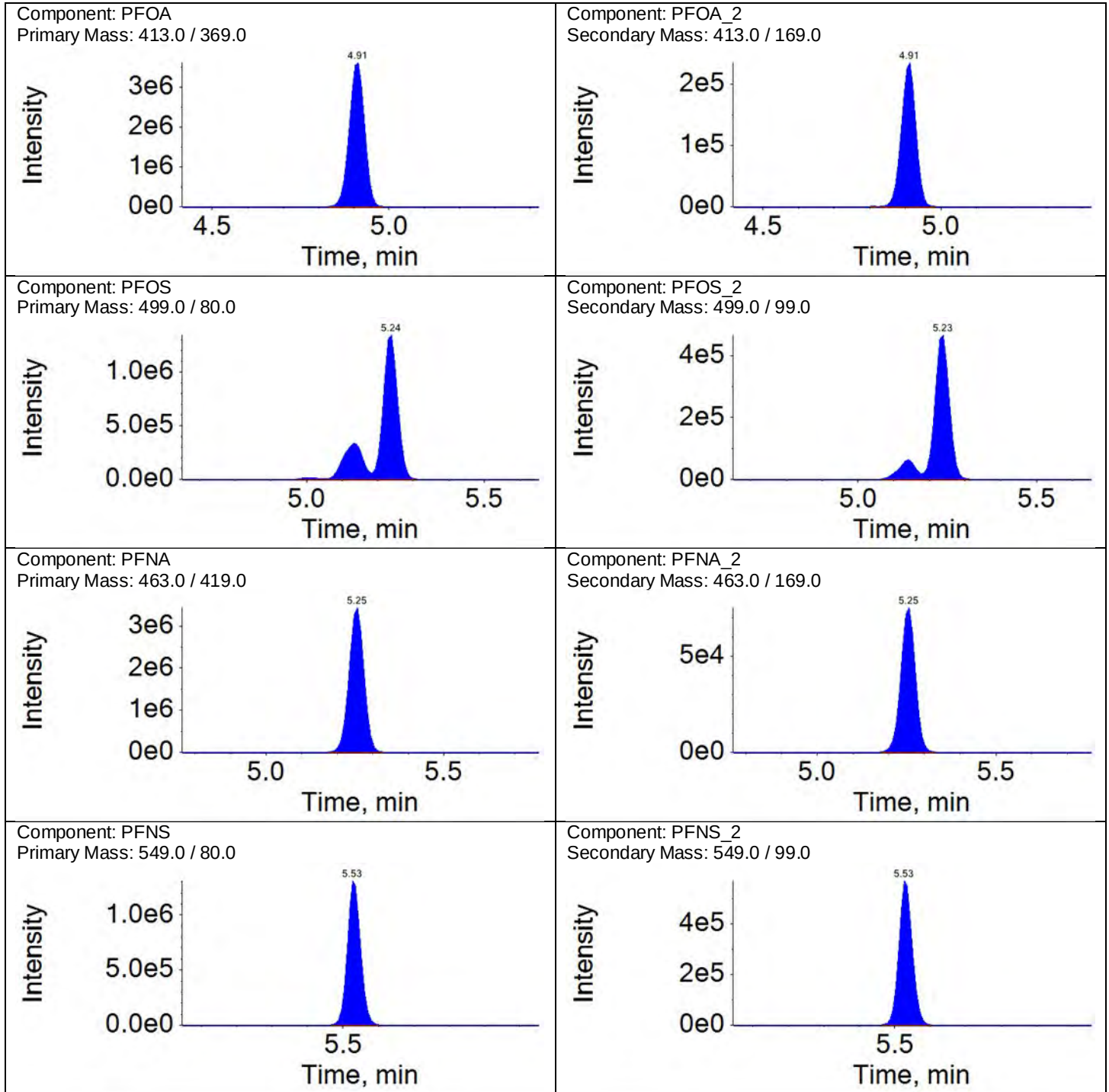
Instrument Name: LM27631

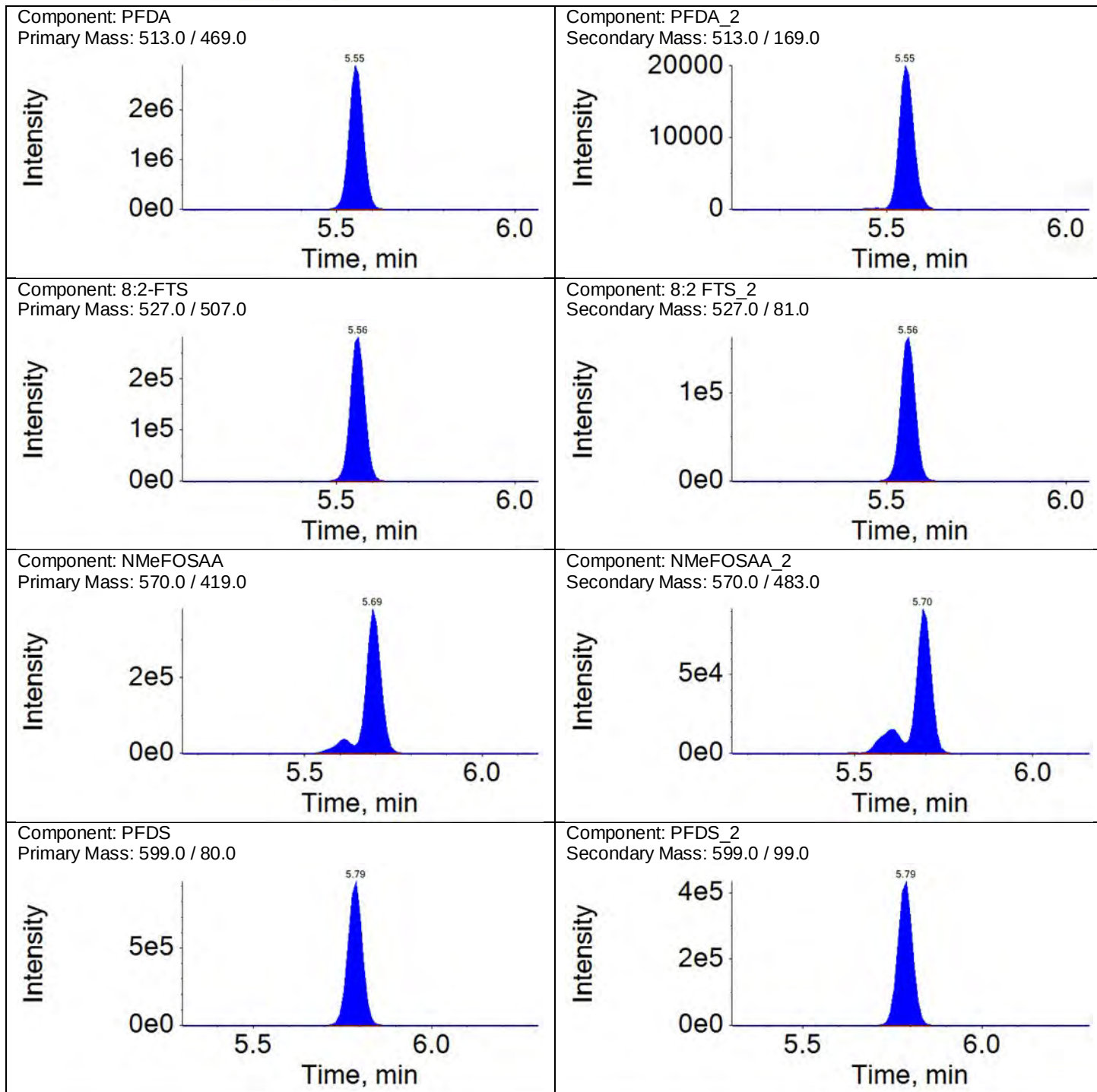
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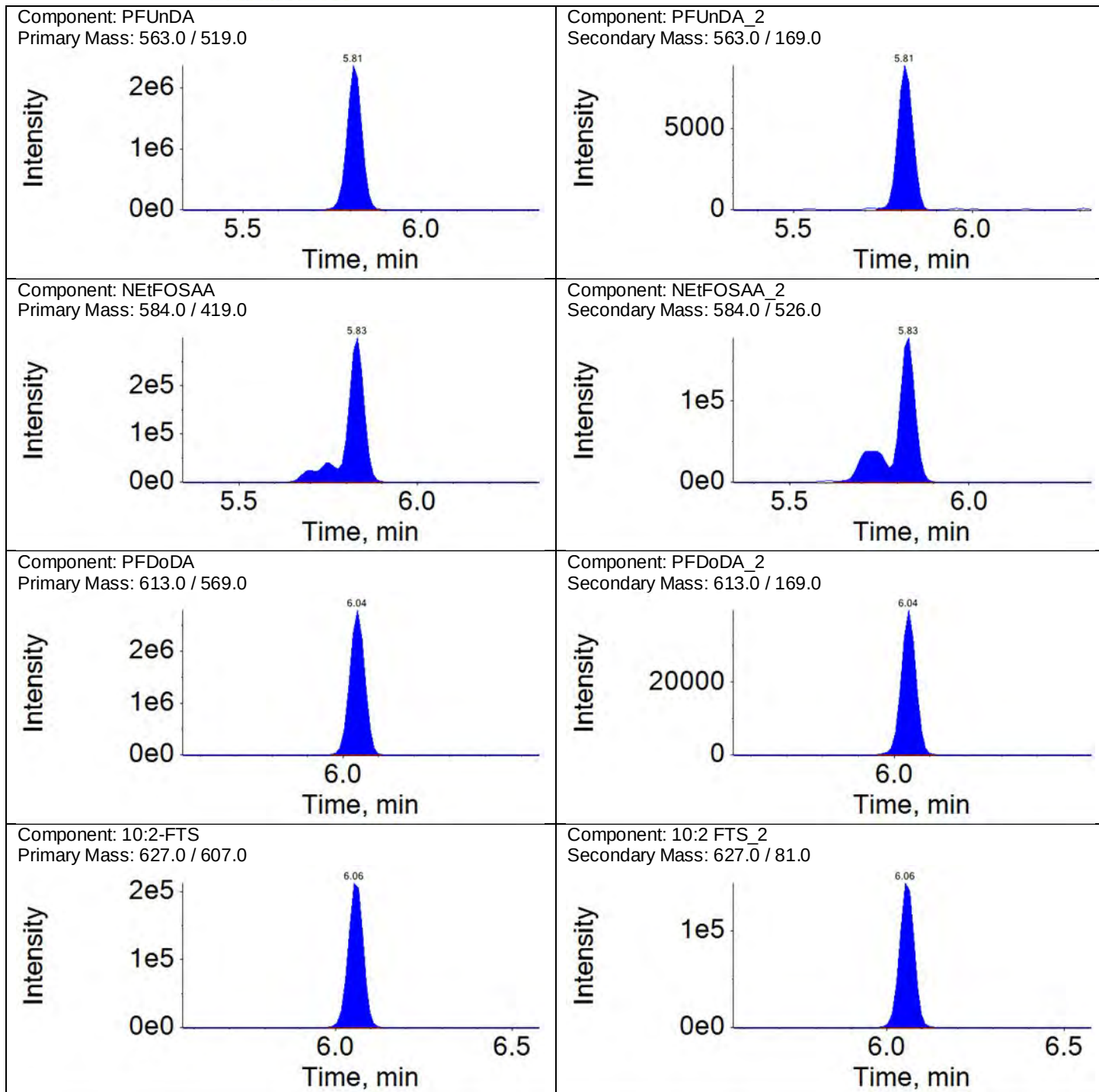
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	6615935.34	A	0.3619	0.3803			
PFBS_2	3.80	1.00	2515947.77	A	0.3619	0.3803	5	50	
4:2-FTS	4.11	1.00	1379983.90	A	0.6730	0.6491			
4:2 FTS_2	4.11	1.00	895801.93	A	0.6730	0.6491		#NA!	
PFHxA	4.15	1.00	11059420.28	A	0.0117	0.0124			
PFHxA_2	4.15	1.00	136818.87	A	0.0117	0.0124	6	50	
PFPeS	4.17	1.10	3482095.87	A	0.5191	0.5217			
PFPeS_2	4.17	1.10	1816709.54	A	0.5191	0.5217	1	50	
PFHpA	4.54	1.00	10981922.82	A	0.0563	0.0563			
PFHpA_2	4.54	1.00	618128.71	A	0.0563	0.0563	0	50	
PFHxS	4.54	1.00	5048349.82	M	0.3428	0.3562			
PFHxS_2	4.54	1.00	1798400.55	M	0.3428	0.3562	4	50	
6:2-FTS	4.89	1.00	869227.19	A	0.6604	0.6365			
6:2 FTS_2	4.89	1.00	553300.52	A	0.6604	0.6365		#NA!	
PFHpS	4.90	1.08	4784682.82	A	0.4066	0.4068			
PFHpS_2	4.90	1.08	1946425.33	A	0.4066	0.4068	0	50	
PFOA	4.91	1.00	10991740.12	A	0.0562	0.0611			
PFOA_2	4.91	1.00	671295.39	A	0.0562	0.0611	9	50	
PFOS	5.24	1.00	5138366.95	M	0.2968	0.2975			
PFOS_2	5.23	1.00	1528751.71	M	0.2968	0.2975	0	50	
PFNA	5.25	1.00	10084288.28	A	0.0229	0.0213			
PFNA_2	5.25	1.00	214560.66	A	0.0229	0.0213	-7	50	
PFNS	5.53	1.06	3386860.46	A	0.4828	0.4408			
PFNS_2	5.53	1.06	1492987.09	A	0.4828	0.4408	-9	50	
PFDA	5.55	1.00	8104726.61	A	0.0081	0.0071			
PFDA_2	5.55	1.00	57305.88	A	0.0081	0.0071	-12	50	
8:2-FTS	5.56	1.00	804019.53	A	0.6814	0.5854			
8:2 FTS_2	5.56	1.00	470706.51	A	0.6814	0.5854		#NA!	
NMeFOSAA	5.69	1.00	1191981.70	M	0.2569	0.2688			
NMeFOSAA_2	5.70	1.00	320371.24	M	0.2569	0.2688	5	50	
PFDS	5.79	1.11	2606720.69	A	0.5144	0.4749			
PFDS_2	5.79	1.10	1238034.03	A	0.5144	0.4749	-8	50	
PFUnDA	5.81	1.00	6802701.21	A	0.0058	0.0038			
PFUnDA_2	5.81	1.00	25933.20	M	0.0058	0.0038	-34	50	
NEtFOSAA	5.83	1.00	1046636.11	M	0.7253	0.6803			
NEtFOSAA_2	5.83	1.00	711980.18	M	0.7253	0.6803	-6	50	
PFDODA	6.04	1.00	8171355.35	A	0.0157	0.0138			
PFDODA_2	6.04	1.00	113144.85	A	0.0157	0.0138	-12	50	
10:2-FTS	6.06	1.09	632223.71	A	0.6356	0.6817			
10:2 FTS_2	6.06	1.09	431003.27	A	0.6356	0.6817		#NA!	
PFTTrDA	6.24	1.03	6281239.03	A	0.0086	0.0083			
PFTTrDA_2	6.24	1.03	52325.72	M	0.0086	0.0083	-3	50	
PFTeDA	6.42	1.00	6092875.66	A	0.0062	0.0060			
PFTeDA_2	6.42	1.00	36395.60	A	0.0062	0.0060	-4	50	
PFHxDA	6.72	1.05	2866097.32	A	0.0683	0.0642			
PFHxDA_2	6.72	1.05	183981.95	A	0.0683	0.0642	-6	50	
PFODA	6.98	1.09	2488863.64	A	0.0277	0.0267			
PFODA_2	6.98	1.09	66332.27	A	0.0277	0.0267	-4	50	

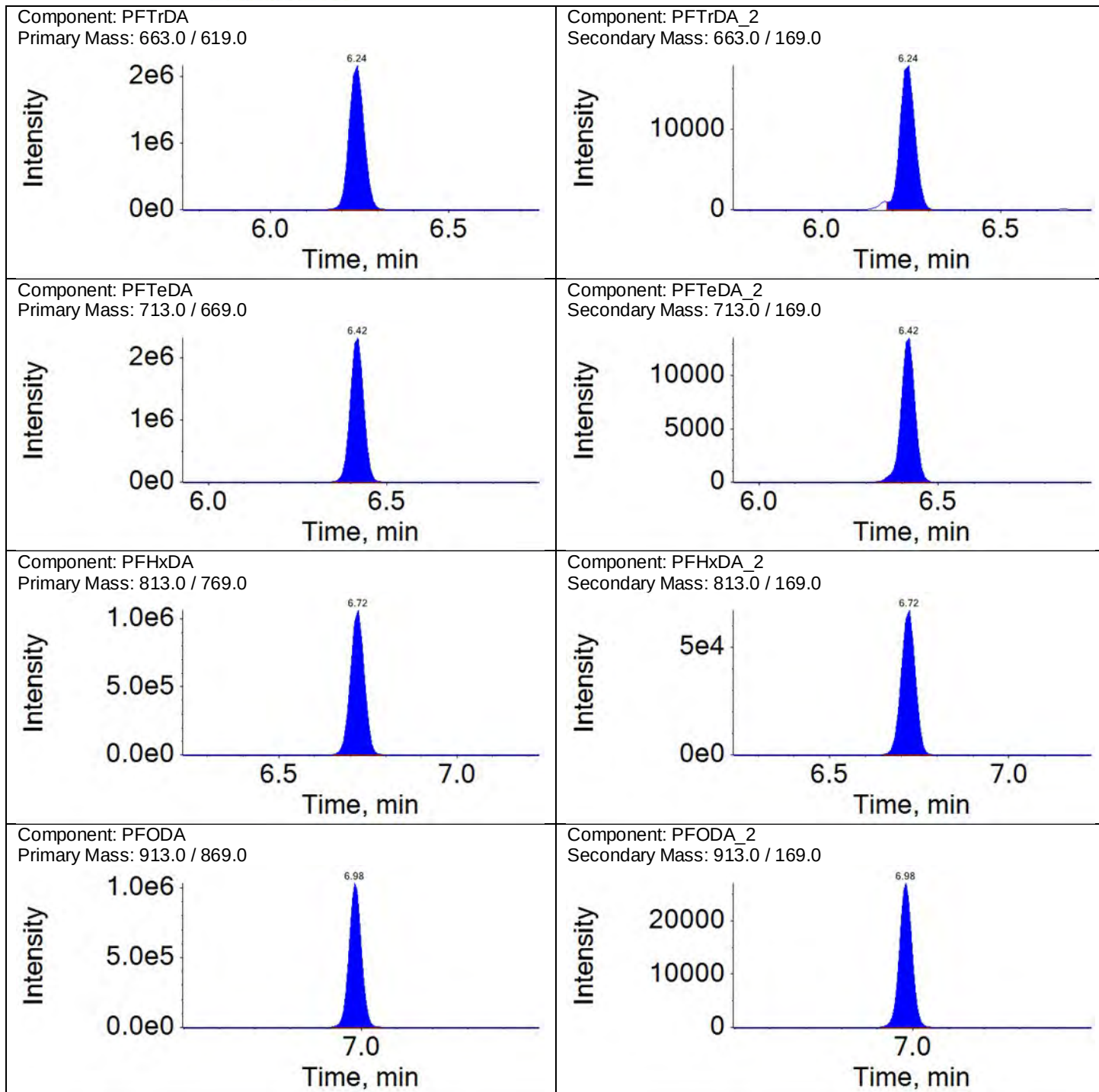












ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	MDL		Data File:	18NOV12DCAL-41.wiff
Sample ID:	MDLMDX1833F		Acquis Date:	2018-11-12T14:56:51
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	2		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV12DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	633265.0	659926.2	-4	50	
13C2-PFOA	5.0	422926.0	450219.7	-6	50	
13C4-PFOS	4.8	238608.2	249205.8	-4	50	
13C2-PFDA	5.0	268362.6	278743.9	-4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	710466.9	13C3-PFBA	633265.0	1.122	5.000	5.030	101	70-130	
E13C5-PFPeA	681259.0	13C3-PFBA	633265.0	1.076	5.000	4.825	97	70-130	
E13C3-PFBS	393264.2	13C3-PFBA	633265.0	0.621	4.650	4.384	94	70-130	
E13C2-4:2-FTS	44526.6	13C2-PFOA	422926.0	0.105	4.670	4.689	100	70-130	
E13C5-PFHxA	637812.0	13C2-PFOA	422926.0	1.508	5.000	5.448	109	70-130	
E13C3-PFHxS	301527.6	13C2-PFOA	422926.0	0.713	4.730	4.892	103	70-130	
E13C4-PFHpA	476944.8	13C2-PFOA	422926.0	1.128	5.000	5.081	102	70-130	
E13C2-6:2-FTS	30514.4	13C2-PFOA	422926.0	0.072	4.750	4.827	102	70-130	
E13C8-PFOA	779343.3	13C2-PFOA	422926.0	1.843	5.000	5.077	102	70-130	
E13C8-PFOS	248479.3	13C4-PFOS	238608.2	1.041	4.780	4.614	97	70-130	
E13C9-PFNA	435787.7	13C4-PFOS	238608.2	1.826	5.000	5.092	102	70-130	
E13C6-PFDA	583105.1	13C2-PFDA	268362.6	2.173	5.000	5.070	101	70-130	
E13C2-8:2-FTS	24193.5	13C2-PFDA	268362.6	0.090	4.790	4.496	94	70-130	
E13C8-PFOSA	559143.9	13C2-PFDA	268362.6	2.084	5.000	4.619	92	70-130	
Ed3-NMeFOSAA	63421.6	13C2-PFDA	268362.6	0.236	5.000	4.266	85	70-130	
E13C7-PFUnDA	227858.5	13C2-PFDA	268362.6	0.849	5.000	4.930	99	70-130	
Ed5-NEtFOSAA	57840.8	13C2-PFDA	268362.6	0.216	5.000	4.560	91	70-130	
E13C2-PFDoDA	487146.2	13C2-PFDA	268362.6	1.815	5.000	4.713	94	70-130	
Ed7-NMePFOSAE	286690.6	13C2-PFDA	268362.6	1.068	5.000	4.623	92	70-130	
Ed3-NMePFOSA	71517.2	13C2-PFDA	268362.6	0.266	5.000	4.842	97	70-130	
Ed9-NEtPFOSAE	252037.2	13C2-PFDA	268362.6	0.939	5.000	4.885	98	70-130	
Ed5-NEtPFOSA	54637.9	13C2-PFDA	268362.6	0.204	5.000	4.776	96	70-130	
E13C2-PFTeDA	362820.8	13C2-PFDA	268362.6	1.352	5.000	4.746	95	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

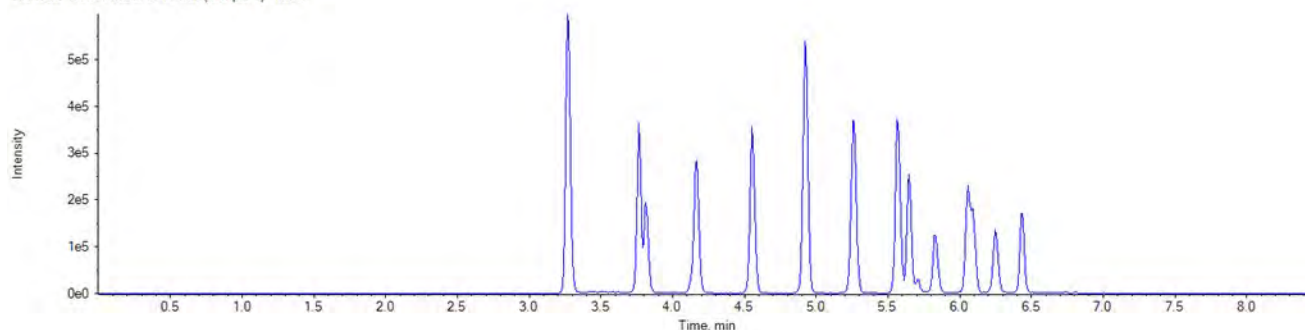
Sample Name: MDL Instrument Name: LM27631 File Name: 18NOV12DCAL-41.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	22532.9		A	13C4-PFBA	3.27	710466.9	0.032	0.176
PFPeA	3.77	1.000	20193.5		M	13C5-PFPeA	3.77	681259.0	0.030	0.172
PFBS	3.81	1.000	9248.3		A	13C3-PFBS	3.81	393264.2	0.024	0.112
4:2-FTS	4.13	1.000	1329.9		A	13C2-4:2-FTS	4.13	44526.6	0.030	0.081
PFHxA	4.17	1.000	21601.6		A	13C5-PFHxA	4.17	637812.0	0.034	0.141
PFPeS	4.19	1.100	4484.8		A	13C3-PFBS	3.81	393264.2	0.011	0.111
PFHpA	4.56	1.000	22043.5		A	13C4-PFHpA	4.55	476944.8	0.046	0.153
PFHxS	4.56	1.000	8143.5		M	13C3-PFHxS	4.56	301527.6	0.027	0.131
6:2-FTS	4.91	1.000	1176.2		M	13C2-6:2-FTS	4.91	30514.4	0.039	0.093
PFHpS	4.92	1.080	7117.5		A	13C3-PFHxS	4.56	301527.6	0.024	0.124
PFOA	4.93	1.000	18045.0		A	13C8-PFOA	4.93	779343.3	0.023	0.124
PFOS	5.25	1.000	6416.9		A	13C8-PFOS	5.25	248479.3	0.026	0.113
PFNA	5.27	1.000	18065.1		M	13C9-PFNA	5.27	435787.7	0.041	0.149
PFNS	5.54	1.060	3661.2		A	13C8-PFOS	5.25	248479.3	0.015	0.103
PFDA	5.57	1.000	17350.5		A	13C6-PFDA	5.57	583105.1	0.030	0.158
8:2-FTS	5.57	1.000	1475.2		A	13C2-8:2-FTS	5.57	24193.5	0.061	0.142
PFOSA	5.64	1.000	10288.3		A	13C8-PFOSA	5.65	559143.9	0.018	0.090
NMeFOSAA	5.72	1.000	1372.4		A	d3-NMeFOSAA	5.71	63421.6	0.022	0.122
PFDS	5.80	1.100	2648.8		A	13C8-PFOS	5.25	248479.3	0.011	0.097
PFUnDA	5.83	1.000	12215.3		M	13C7-PFUnDA	5.83	227858.5	0.054	0.140
NEtFOSAA	5.84	1.000	1937.8		A	d5-NEtFOSAA	5.84	57840.8	0.034	0.176
PFDODA	6.06	1.000	14033.1		A	13C2-PFDODA	6.06	487146.2	0.029	0.147
10:2-FTS	6.06	1.090	352.6		M	13C2-8:2-FTS	5.57	24193.5	0.015	0.049
NMePFOSAE	6.10	1.000	9218.1		A	d7-NMePFOSAE	6.09	286690.6	0.032	0.134
NMePFOSA	6.11	1.000	1339.8		A	d3-NMePFOSA	6.11	71517.2	0.019	0.092
PFDoS	6.22	1.180	1425.7		A	13C8-PFOS	5.25	248479.3	0.006	0.100
NEtPFOSAE	6.26	1.000	10510.3		A	d9-NEtPFOSAE	6.25	252037.2	0.042	0.134
NEtPFOSA	6.28	1.000	1191.3		M	d5-NEtPFOSA	6.27	54637.9	0.022	0.100
PFTeDA	6.26	1.030	7825.5		M	13C2-PFDODA	6.06	487146.2	0.016	0.101
PFTeDA	6.43	1.000	8938.5		A	13C2-PFTeDA	6.43	362820.8	0.025	0.138
PFHxDA	6.74	1.050	3934.2		A	13C2-PFTeDA	6.43	362820.8	0.011	0.129
PFODA	7.00	1.090	2726.4		A	13C2-PFTeDA	6.43	362820.8	0.008	0.105

Total Ion Chromatogram

TIC from 18NOV12DCAL-41.wiff (sample 1) - MDL



APPROVED

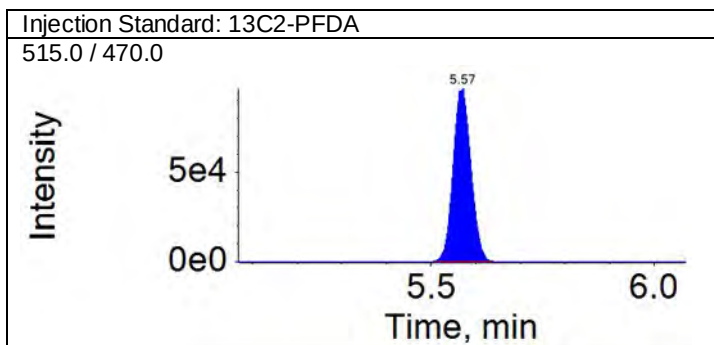
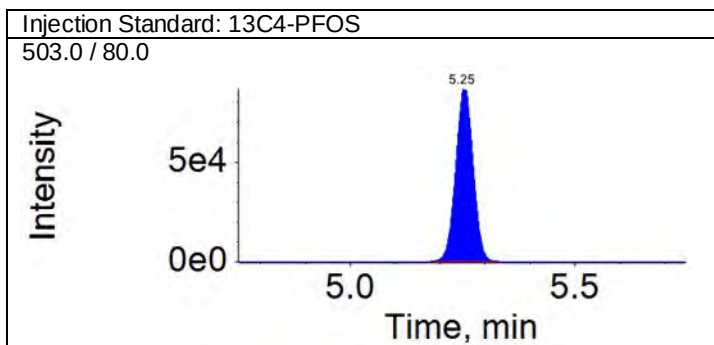
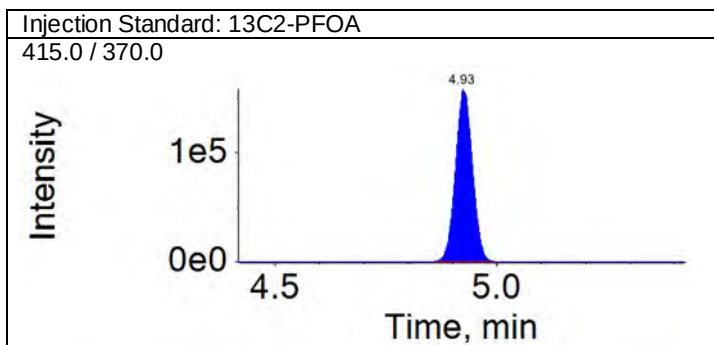
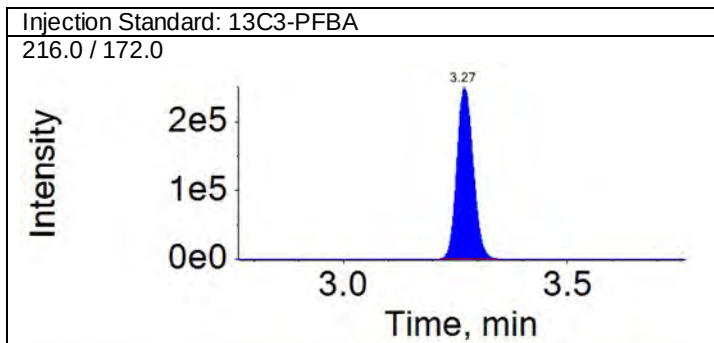
By MCD at 6:34 pm, 11/12/18

REVIEWED

By HMK at 10:54 am, 11/13/18

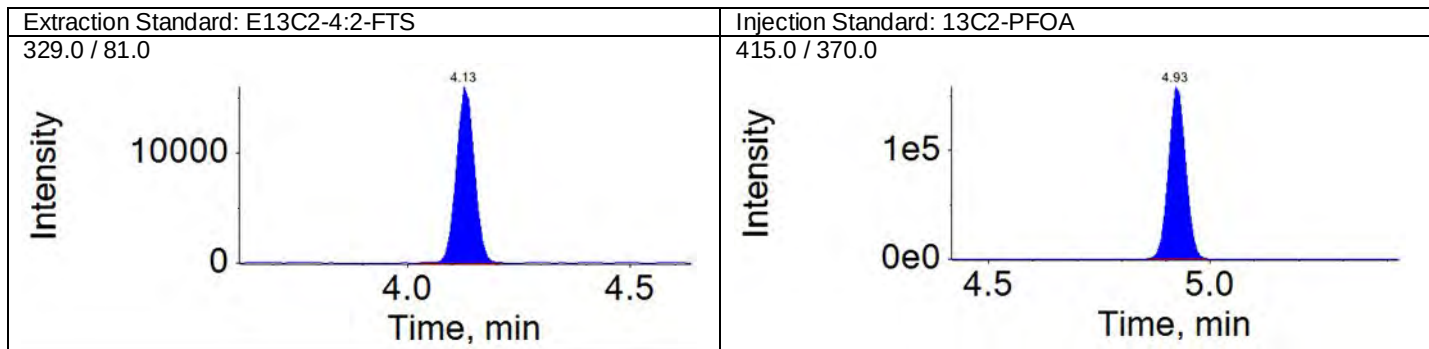
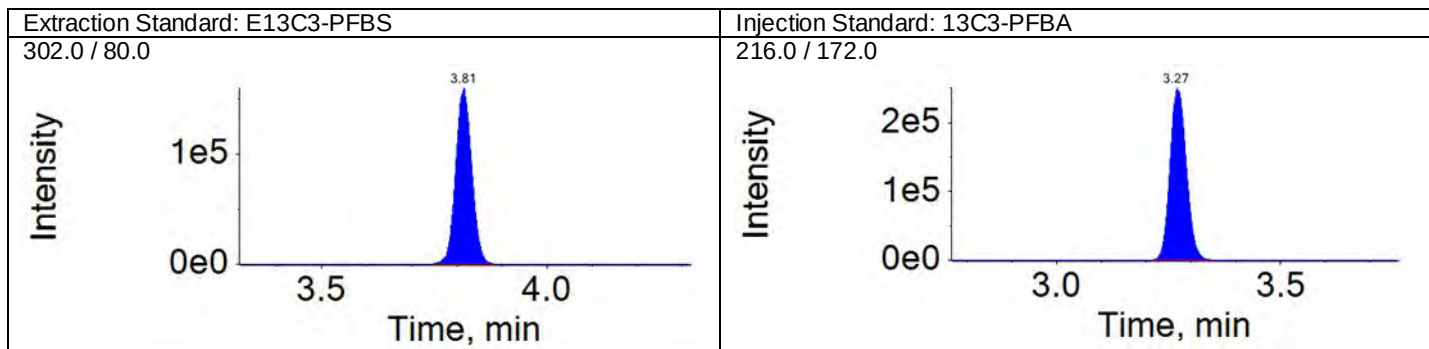
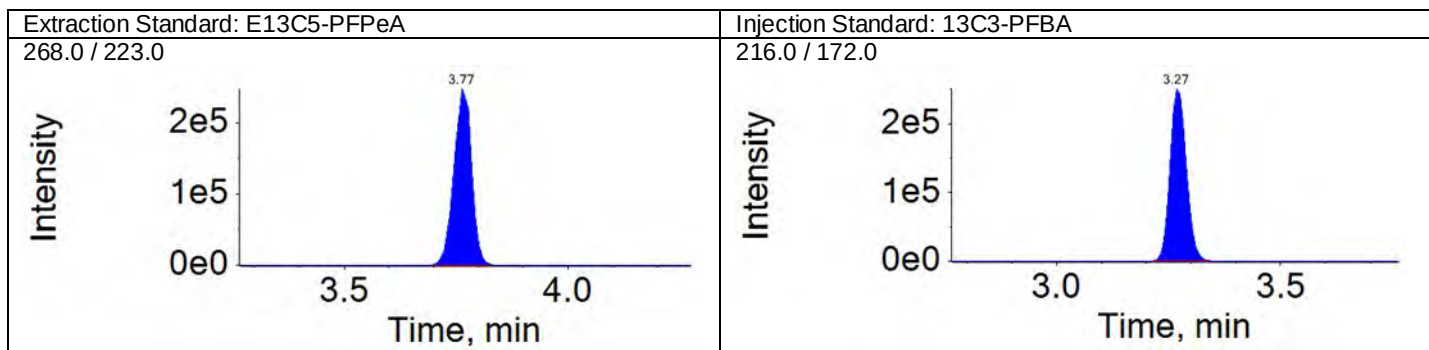
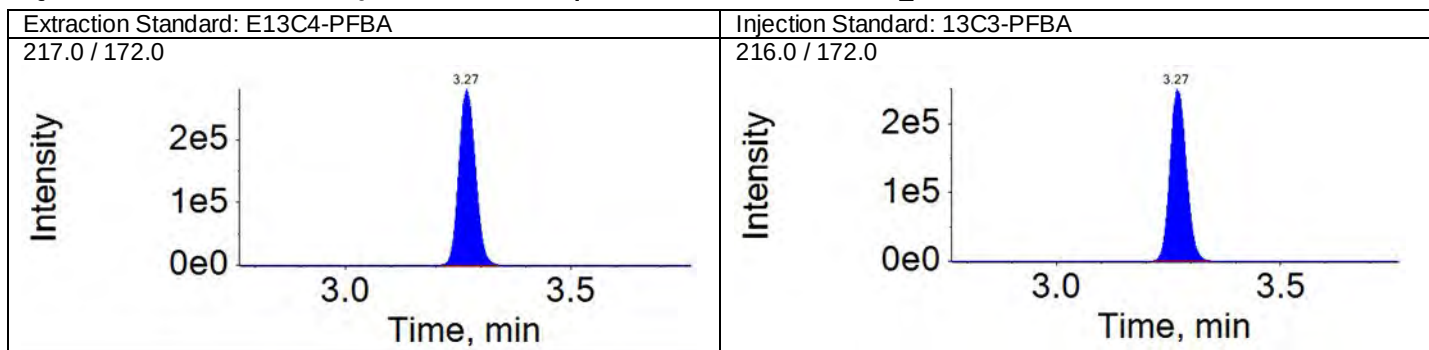
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



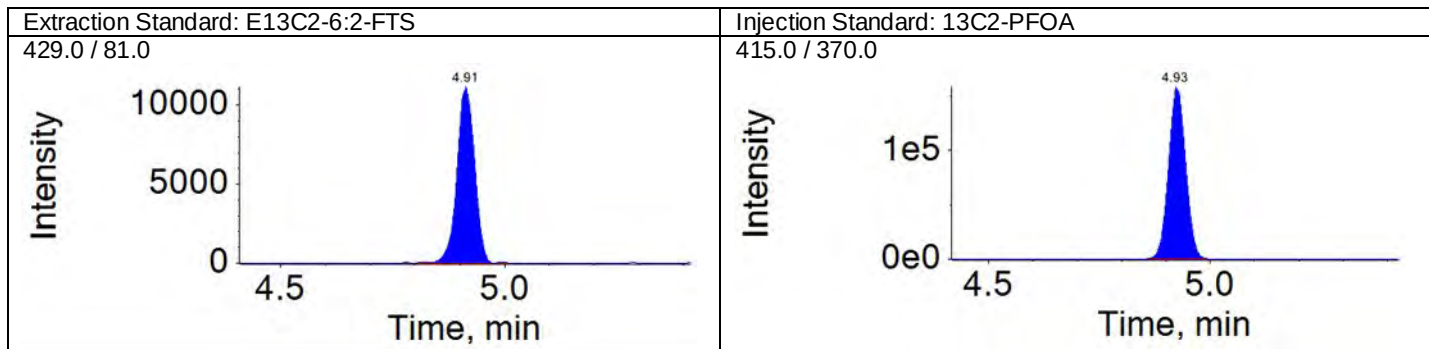
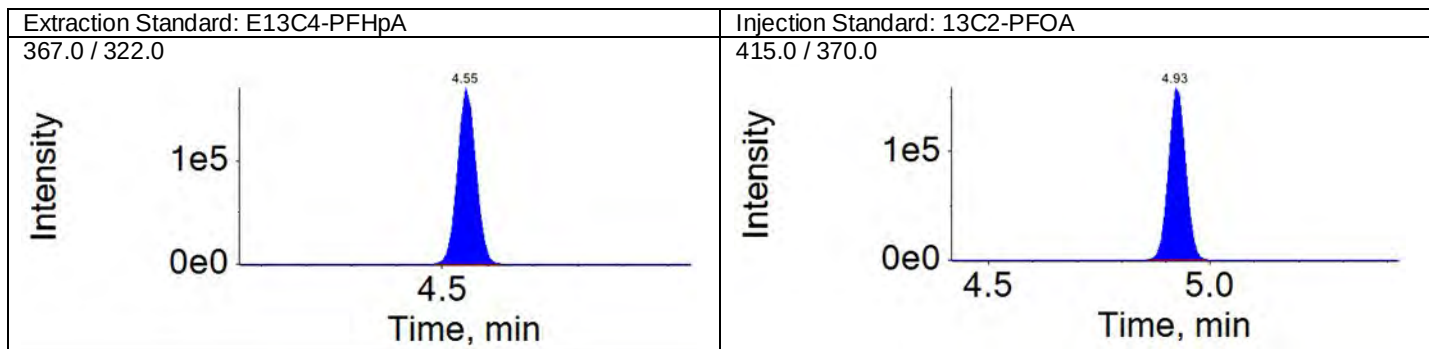
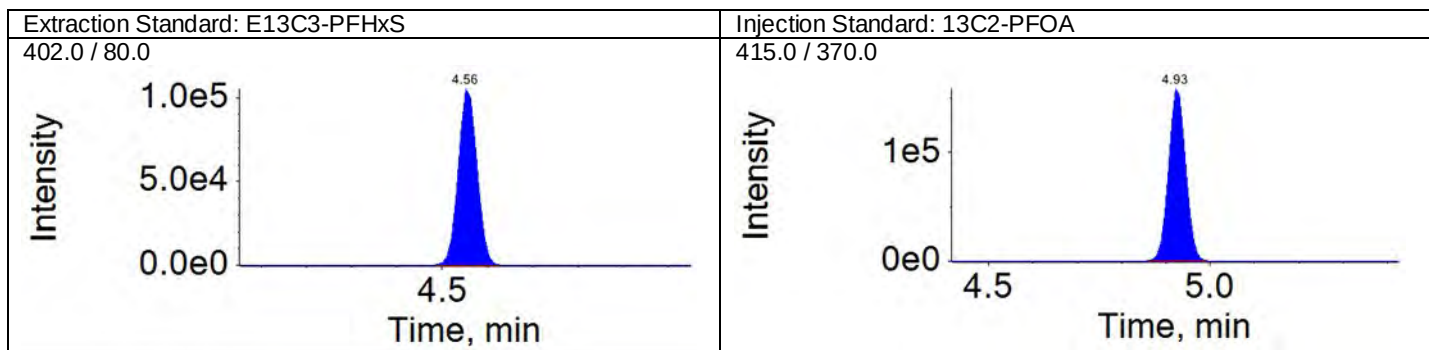
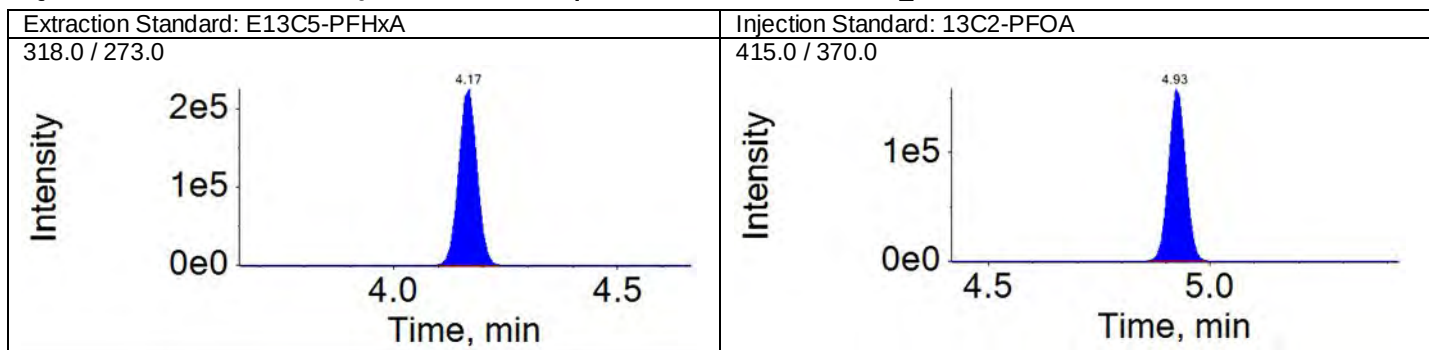
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



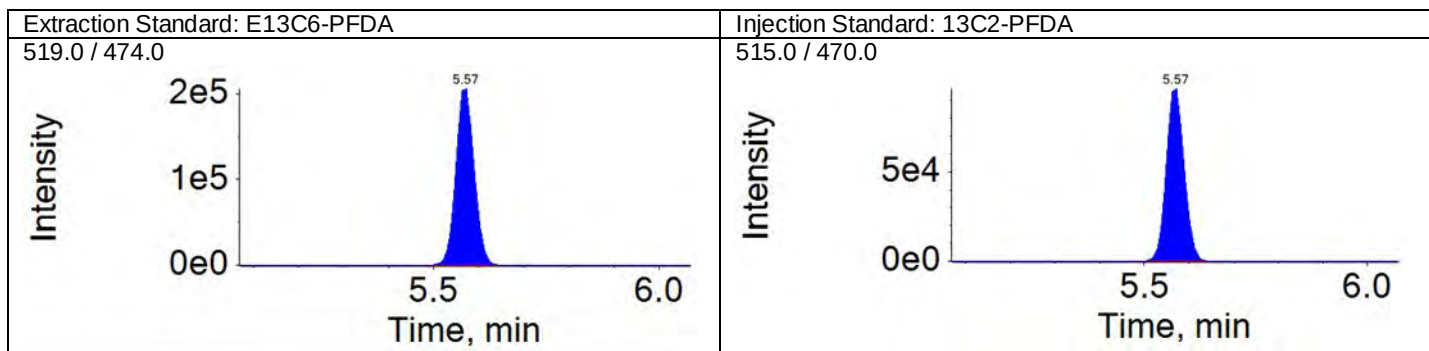
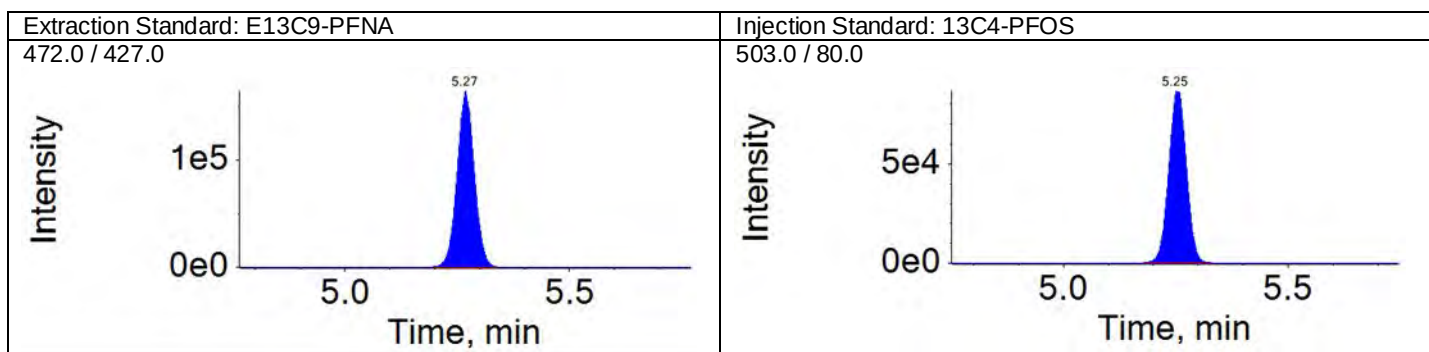
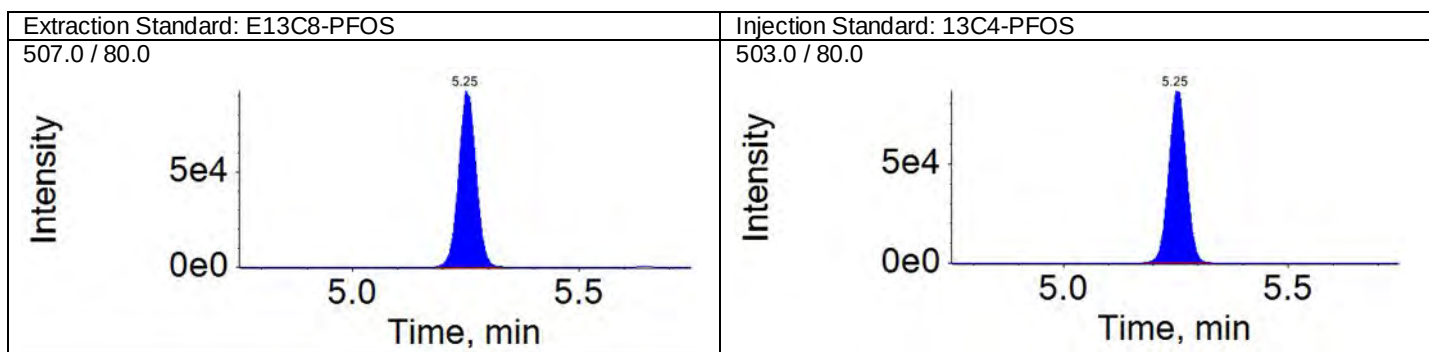
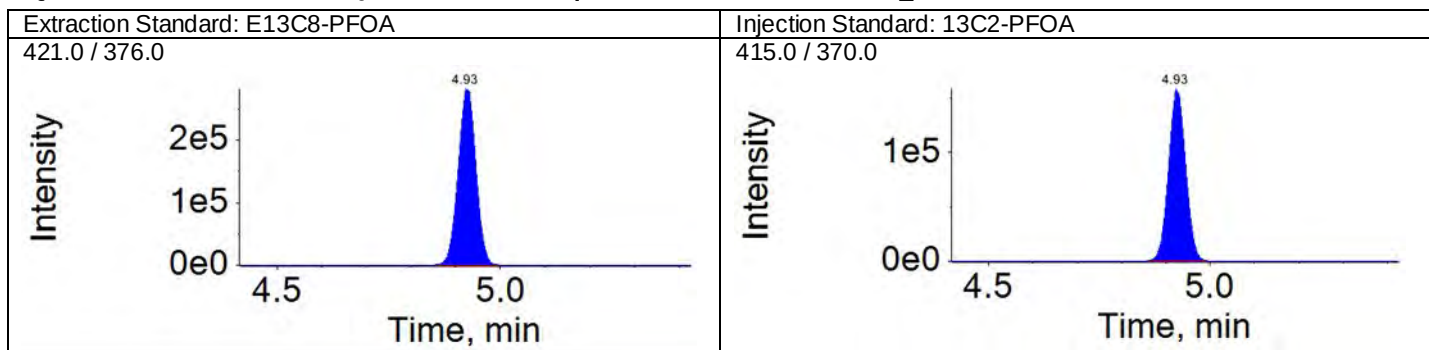
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



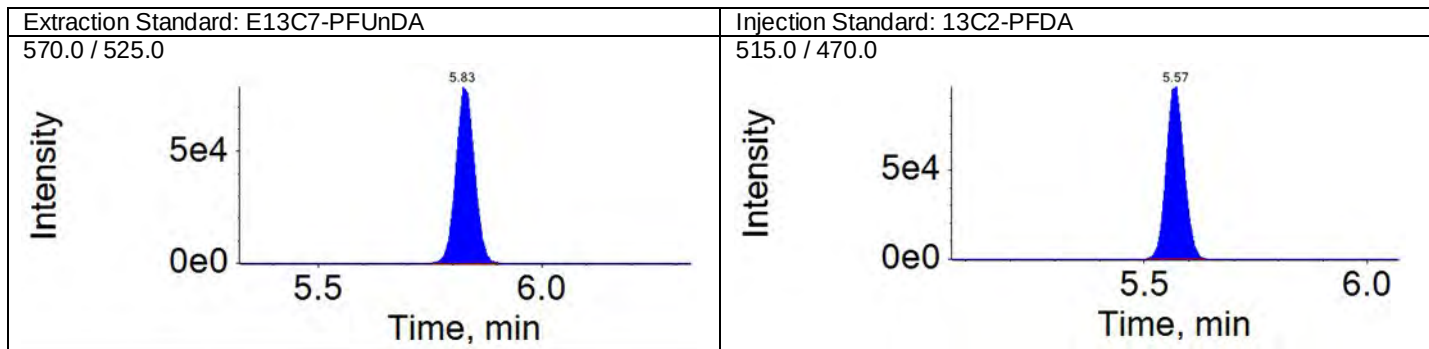
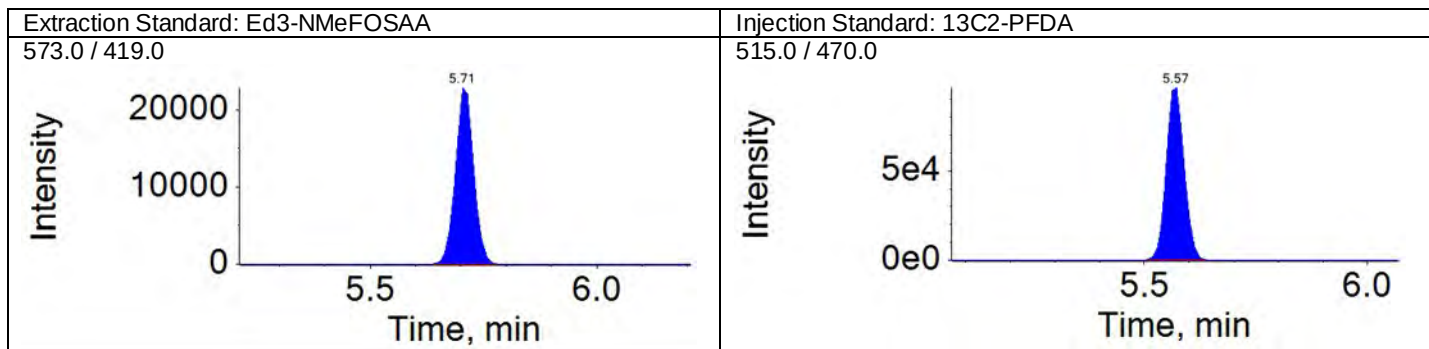
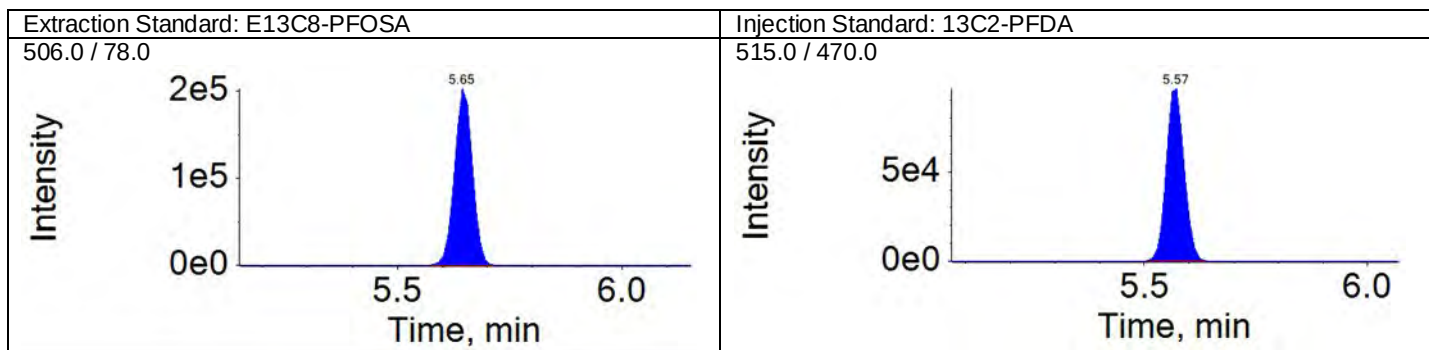
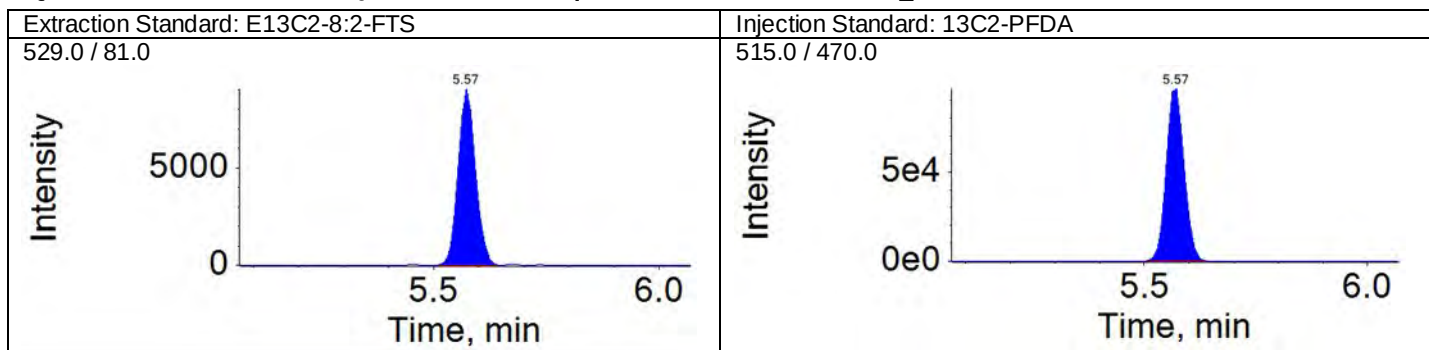
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



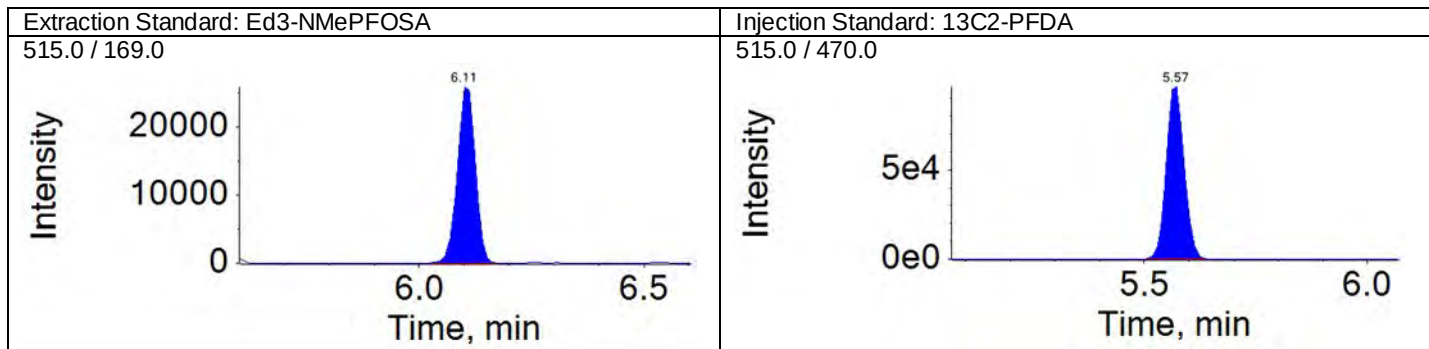
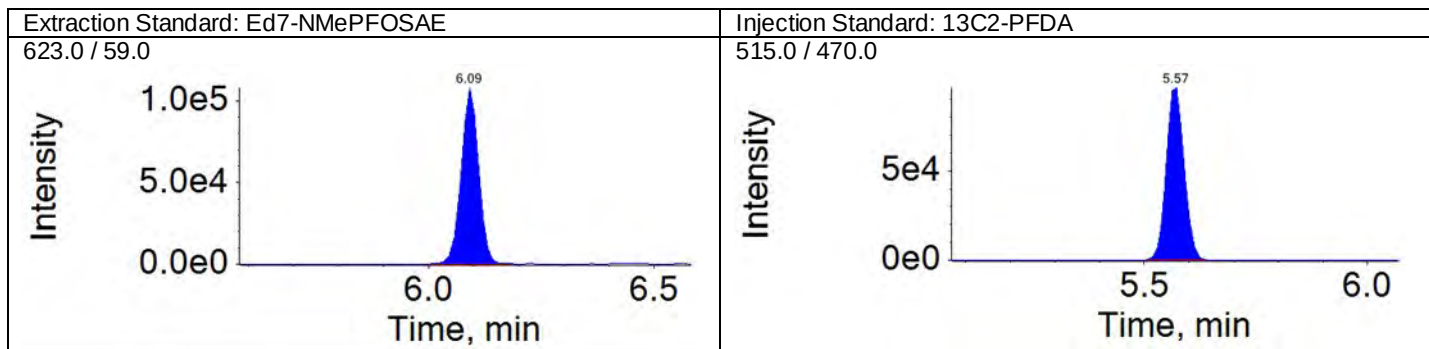
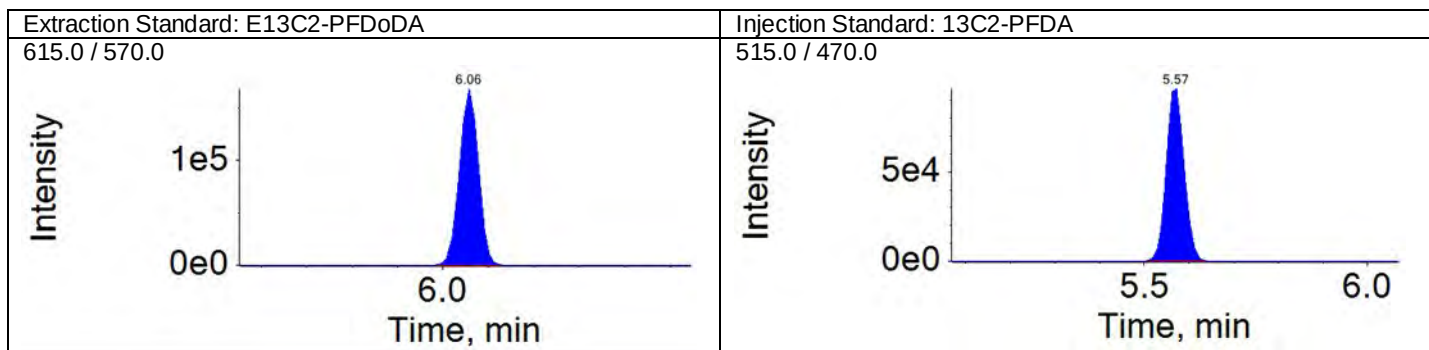
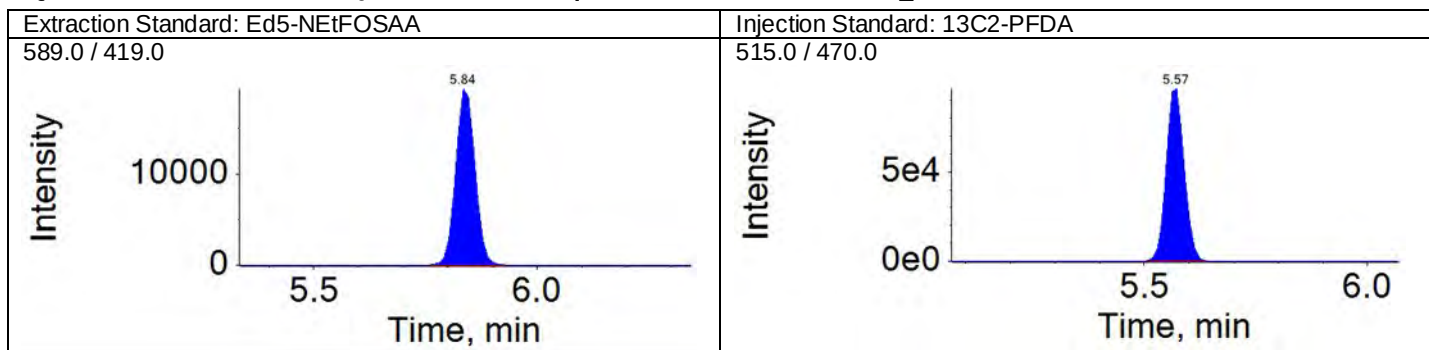
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



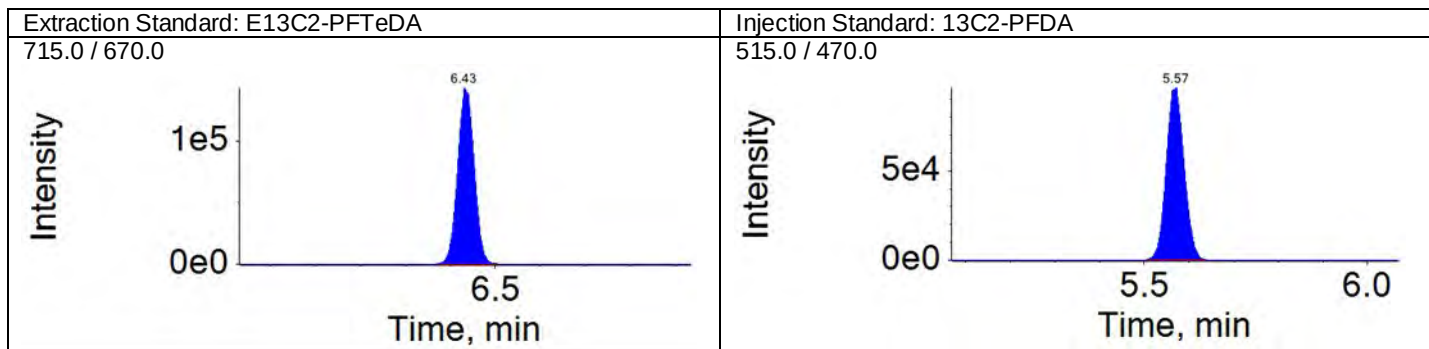
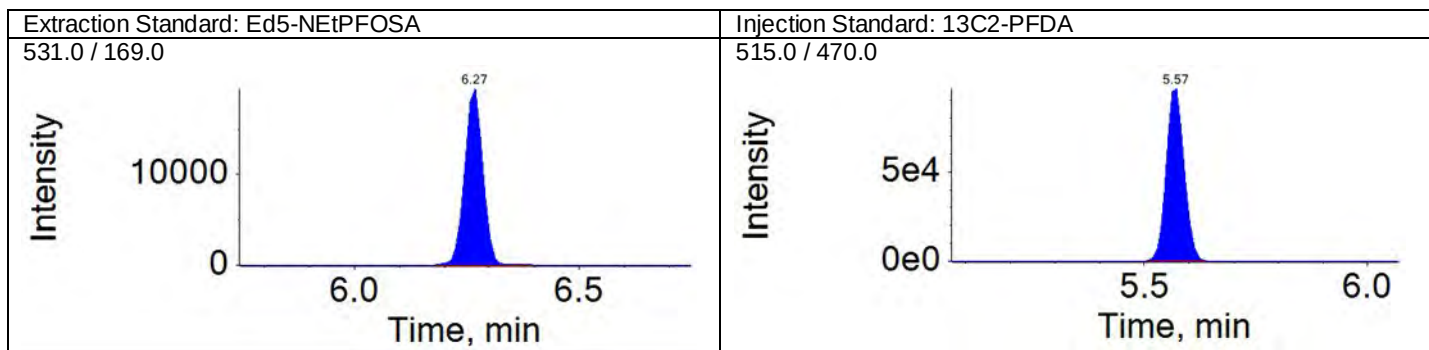
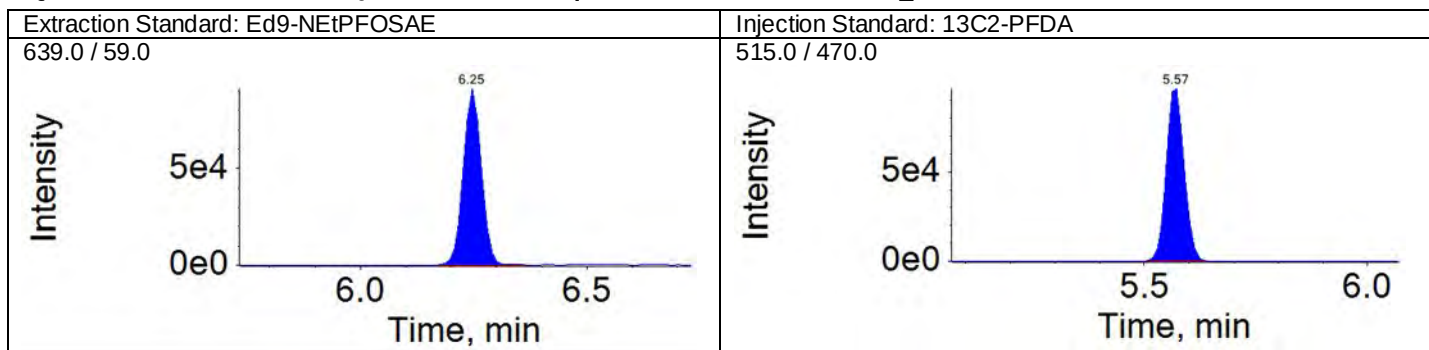
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



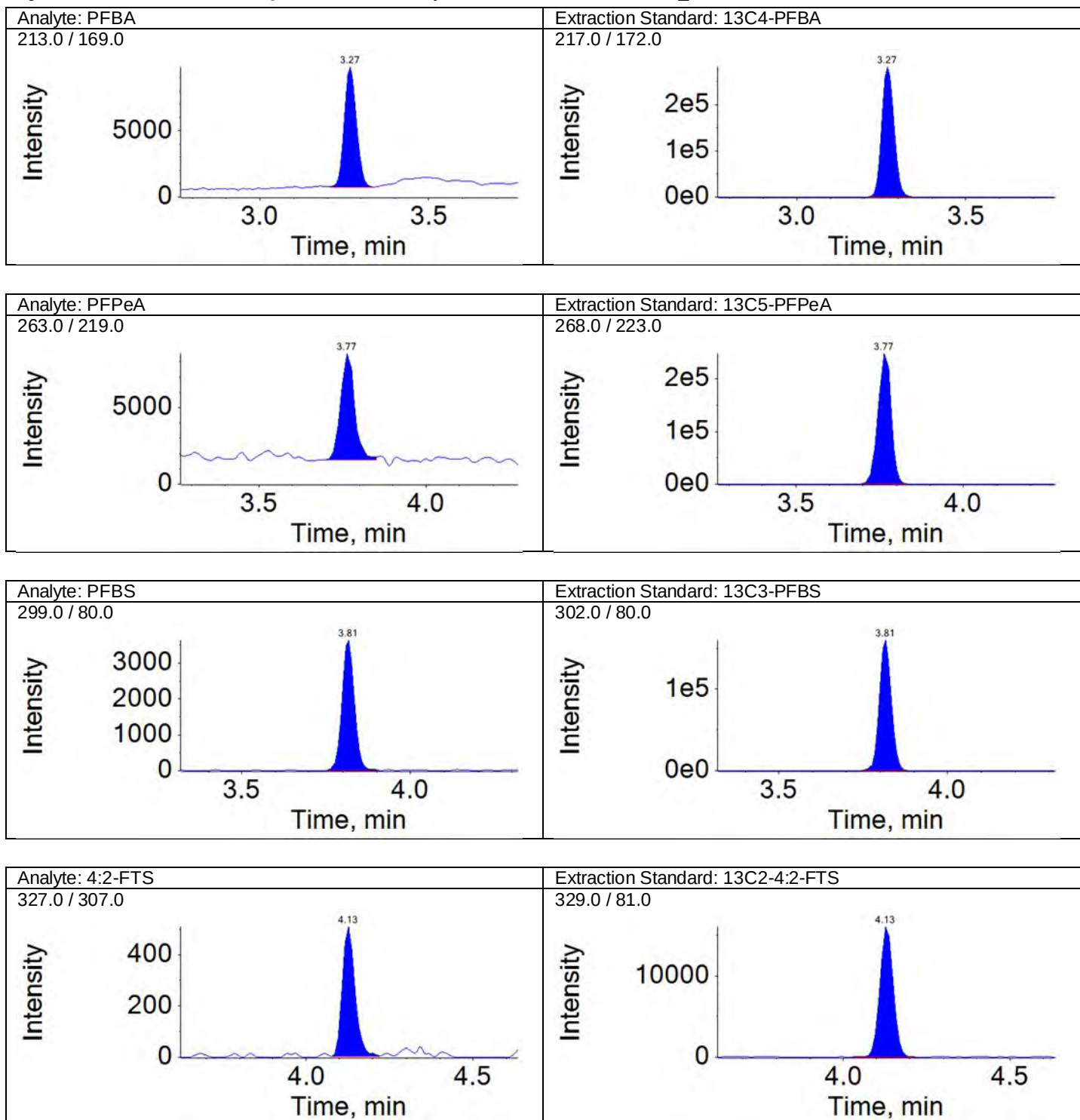
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



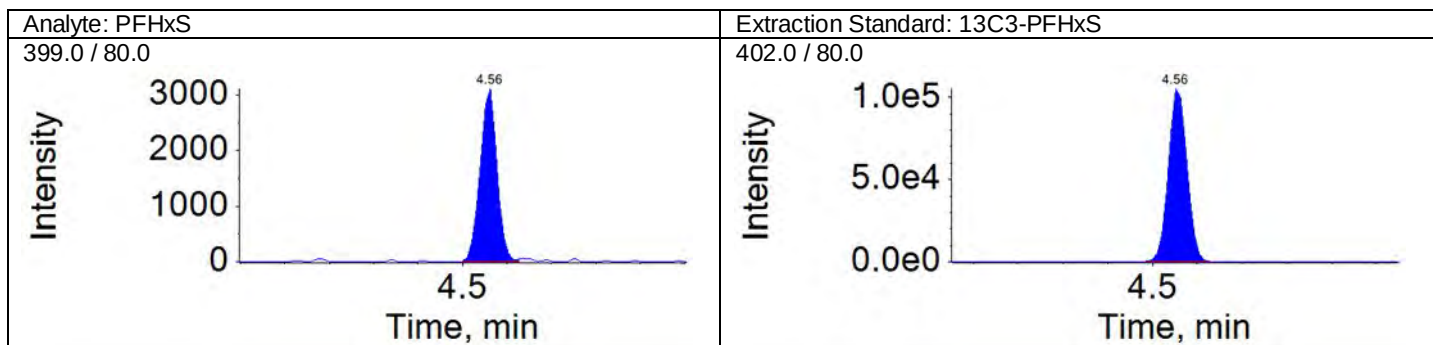
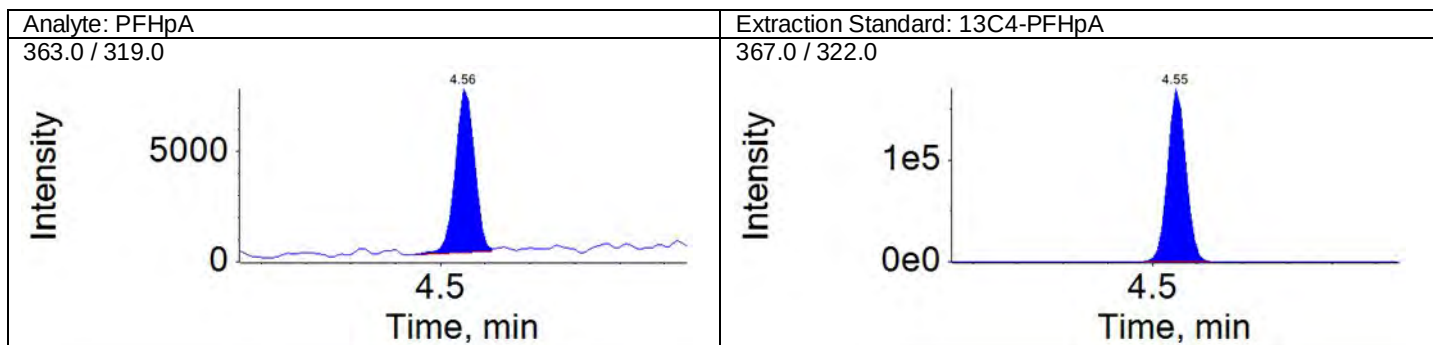
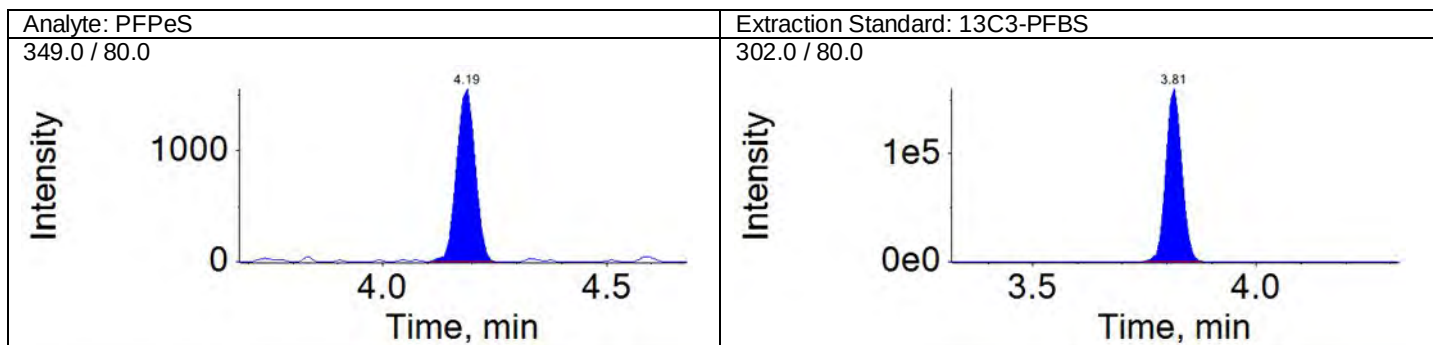
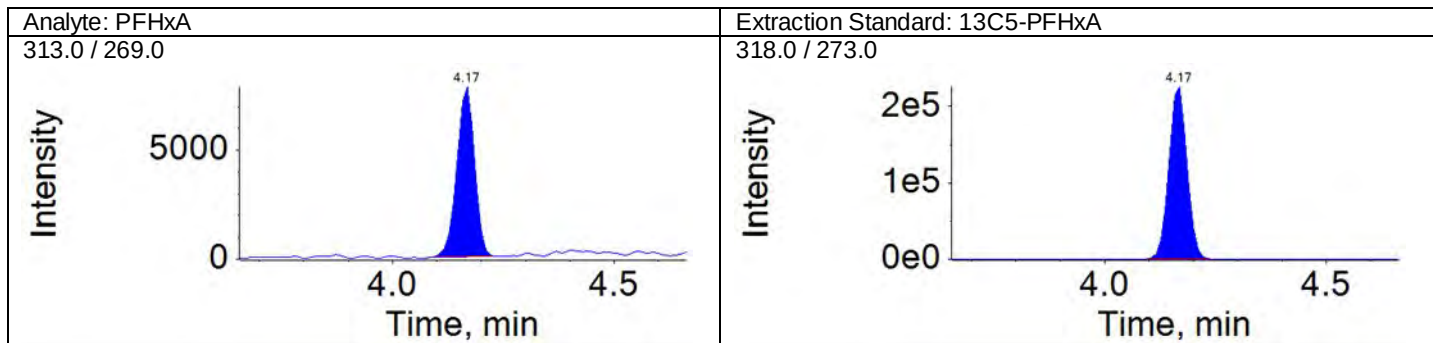
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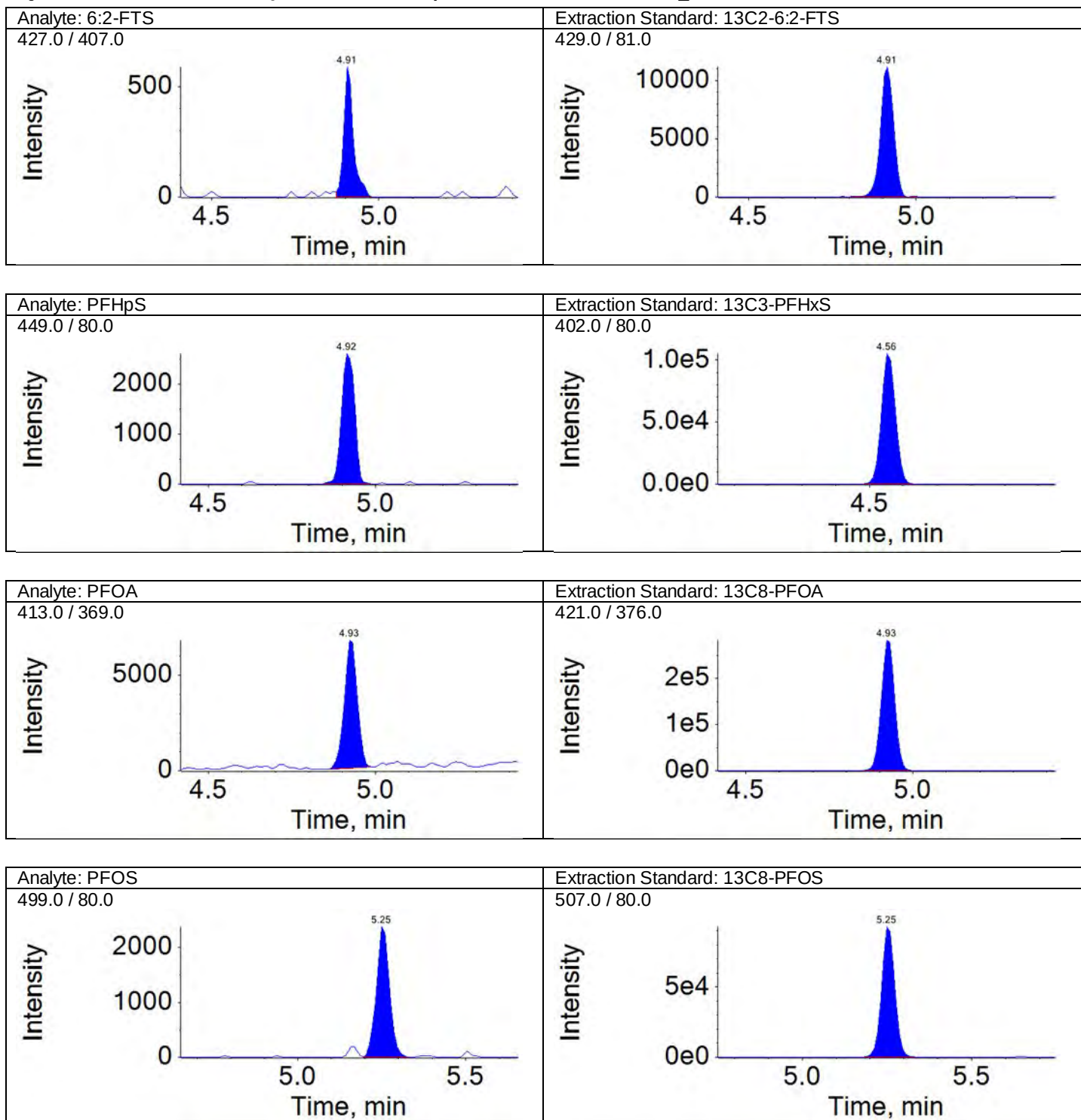
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



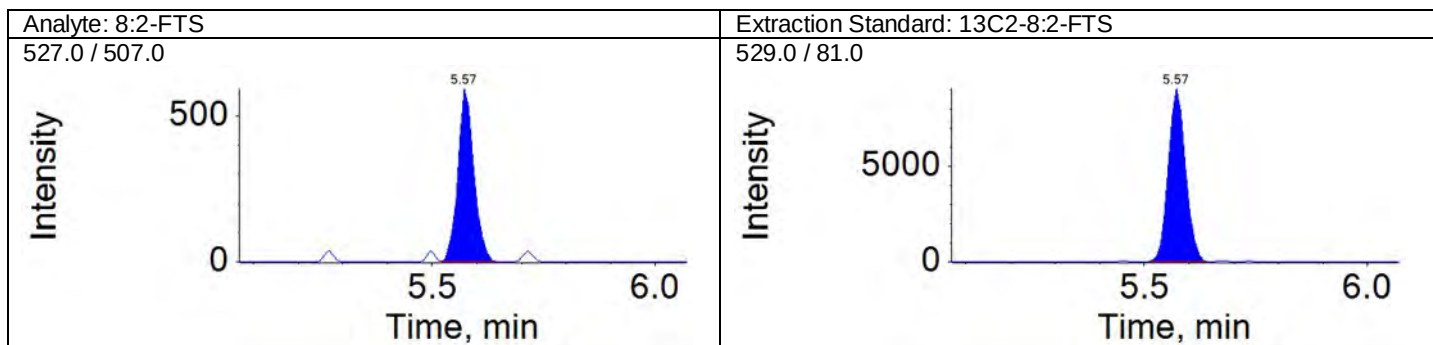
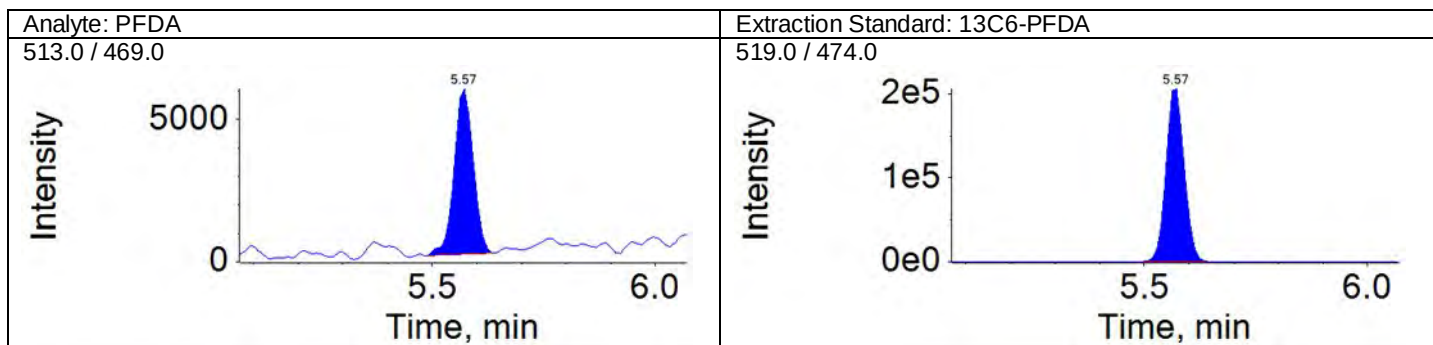
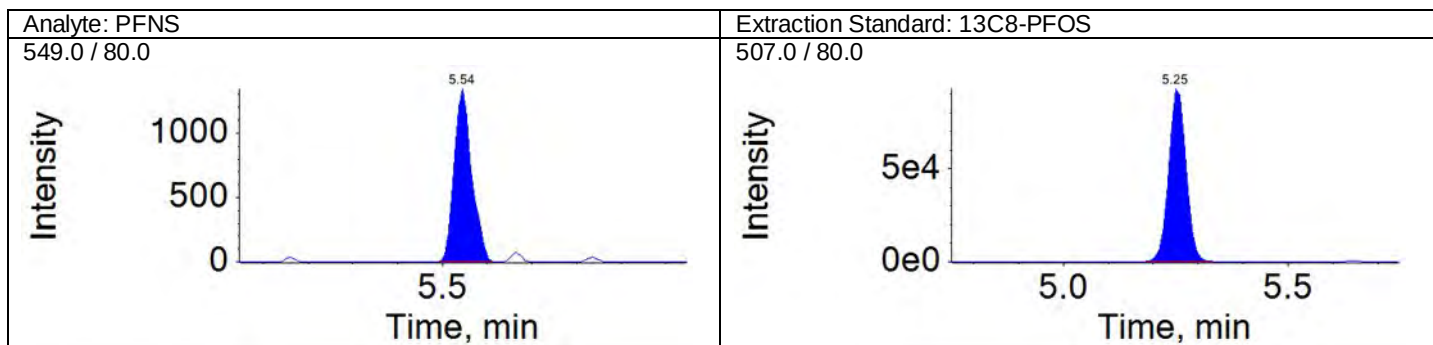
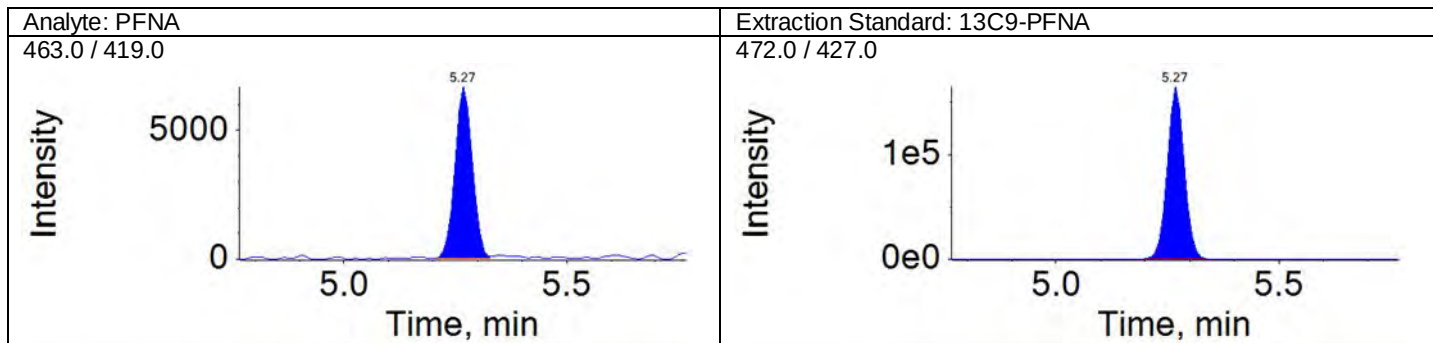
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Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
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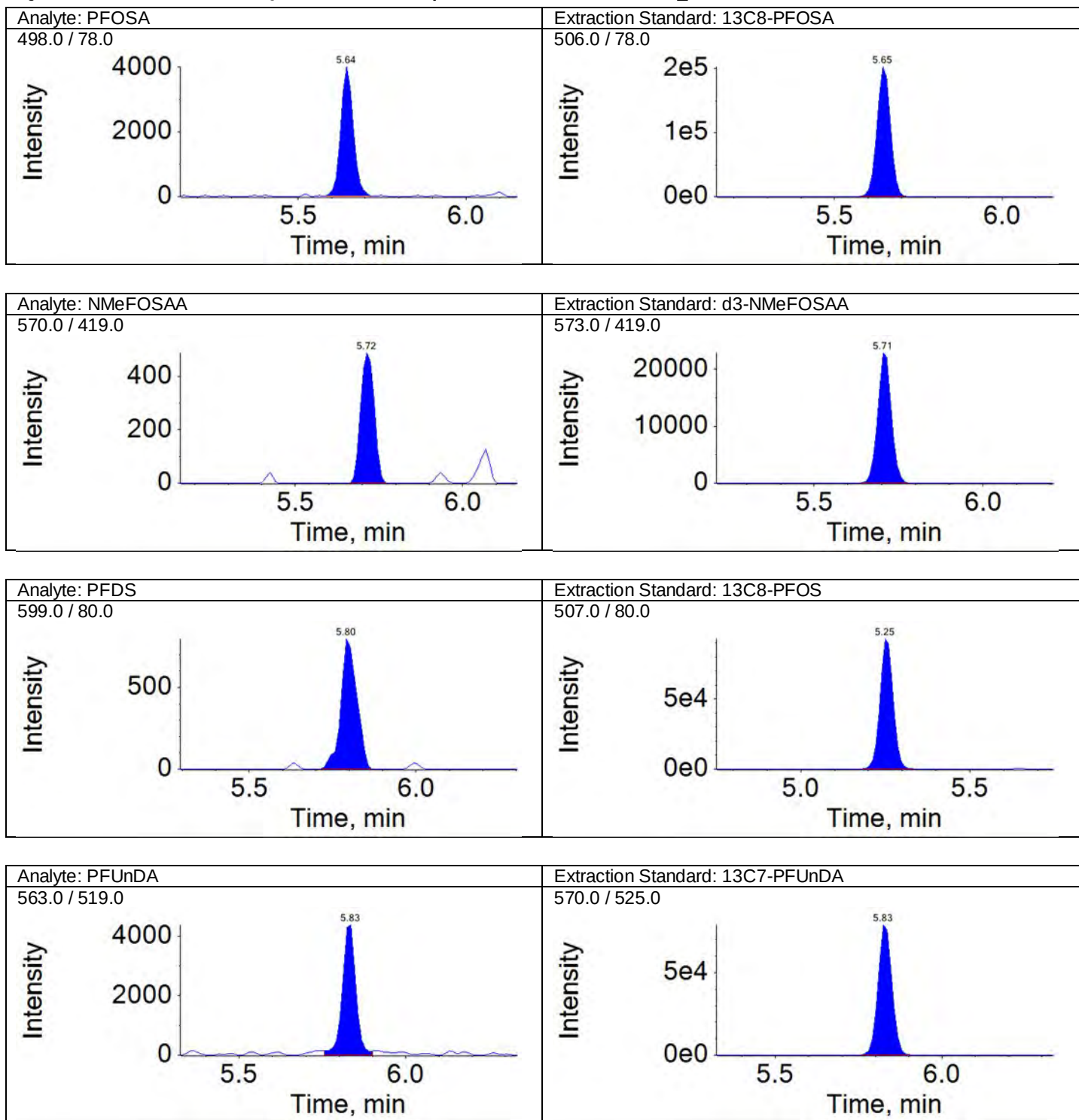
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
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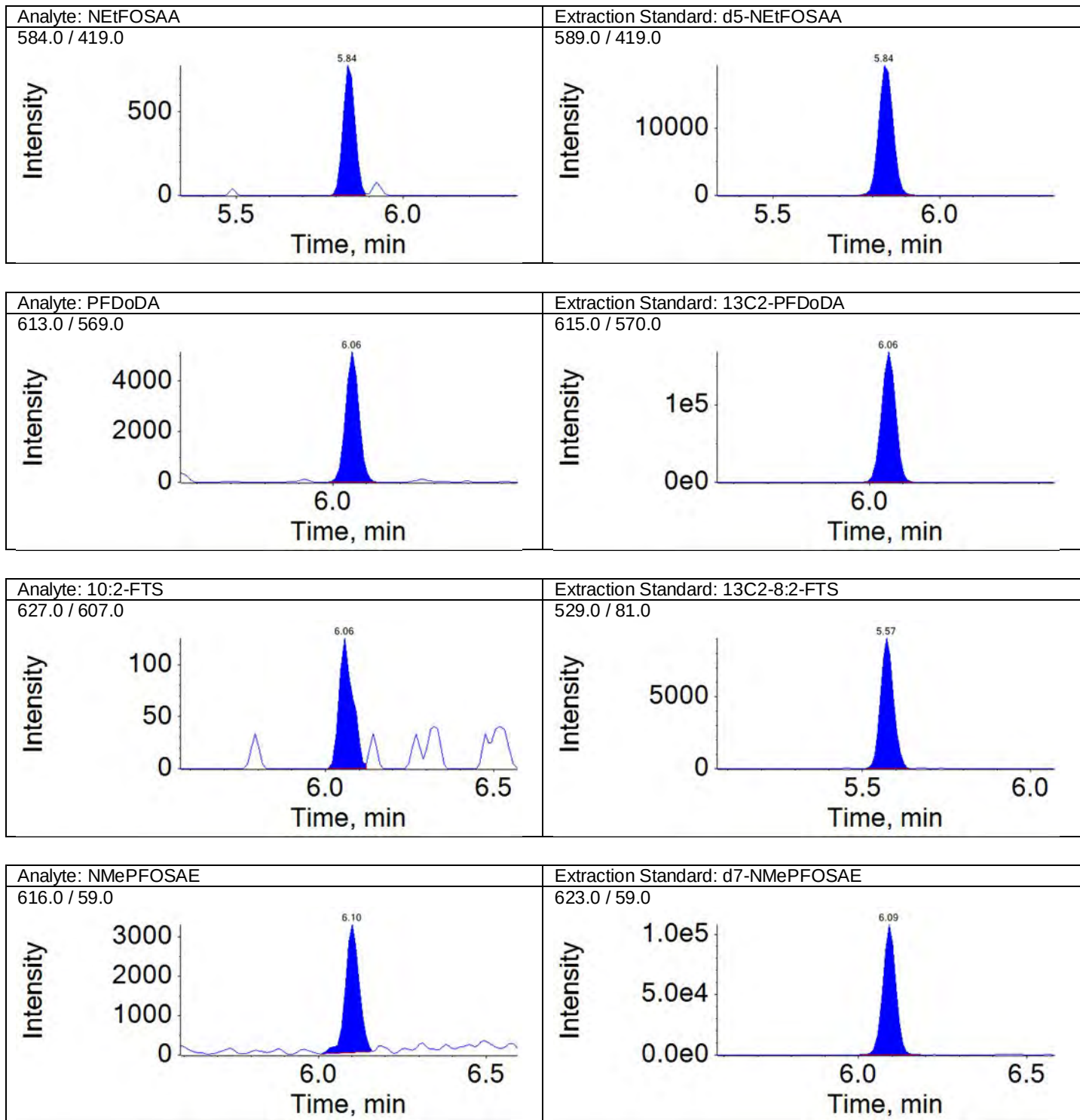
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Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
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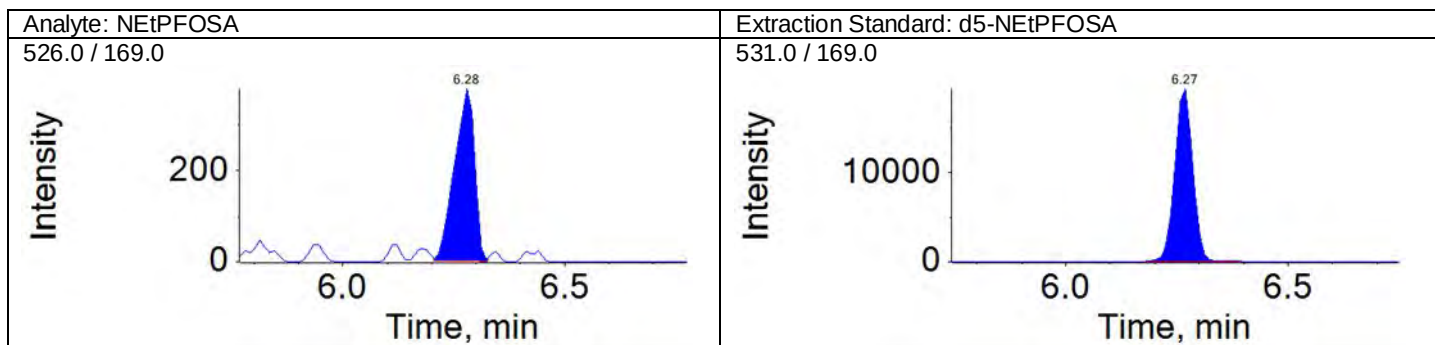
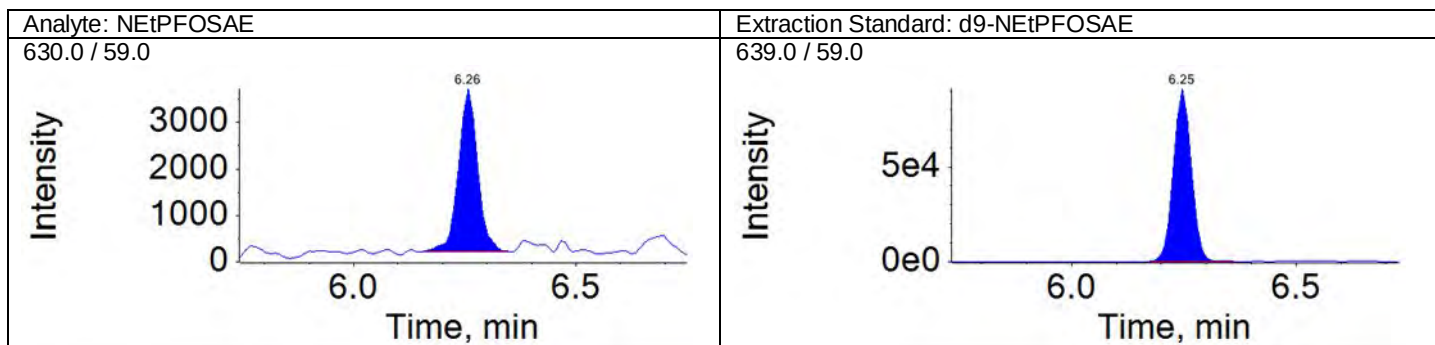
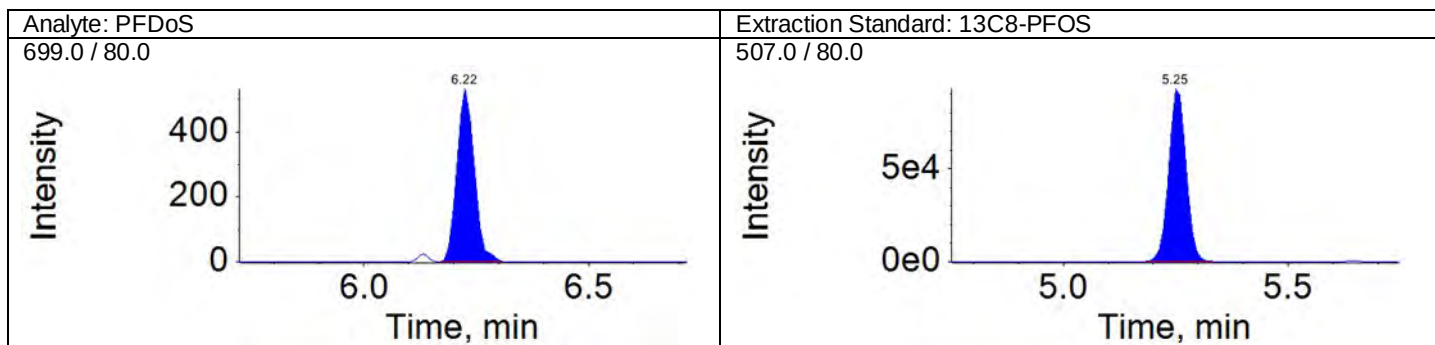
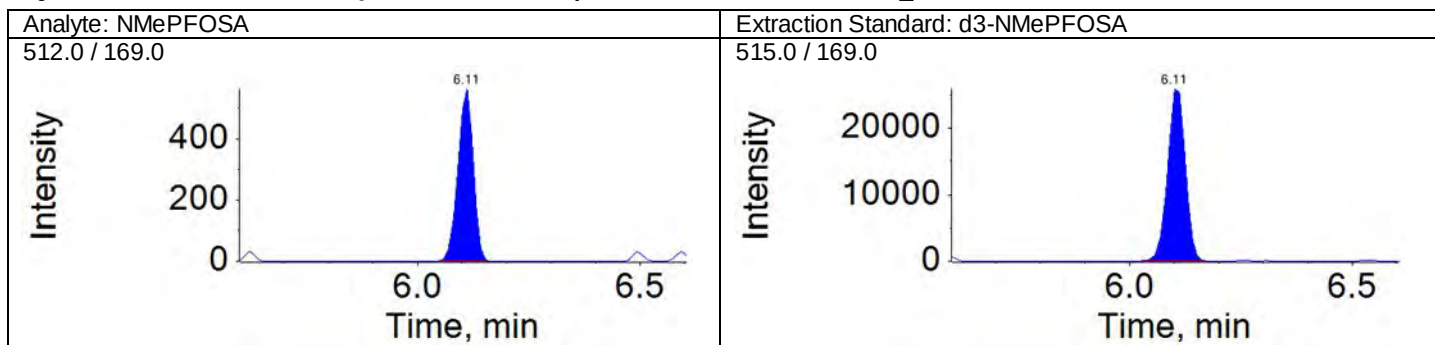
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Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



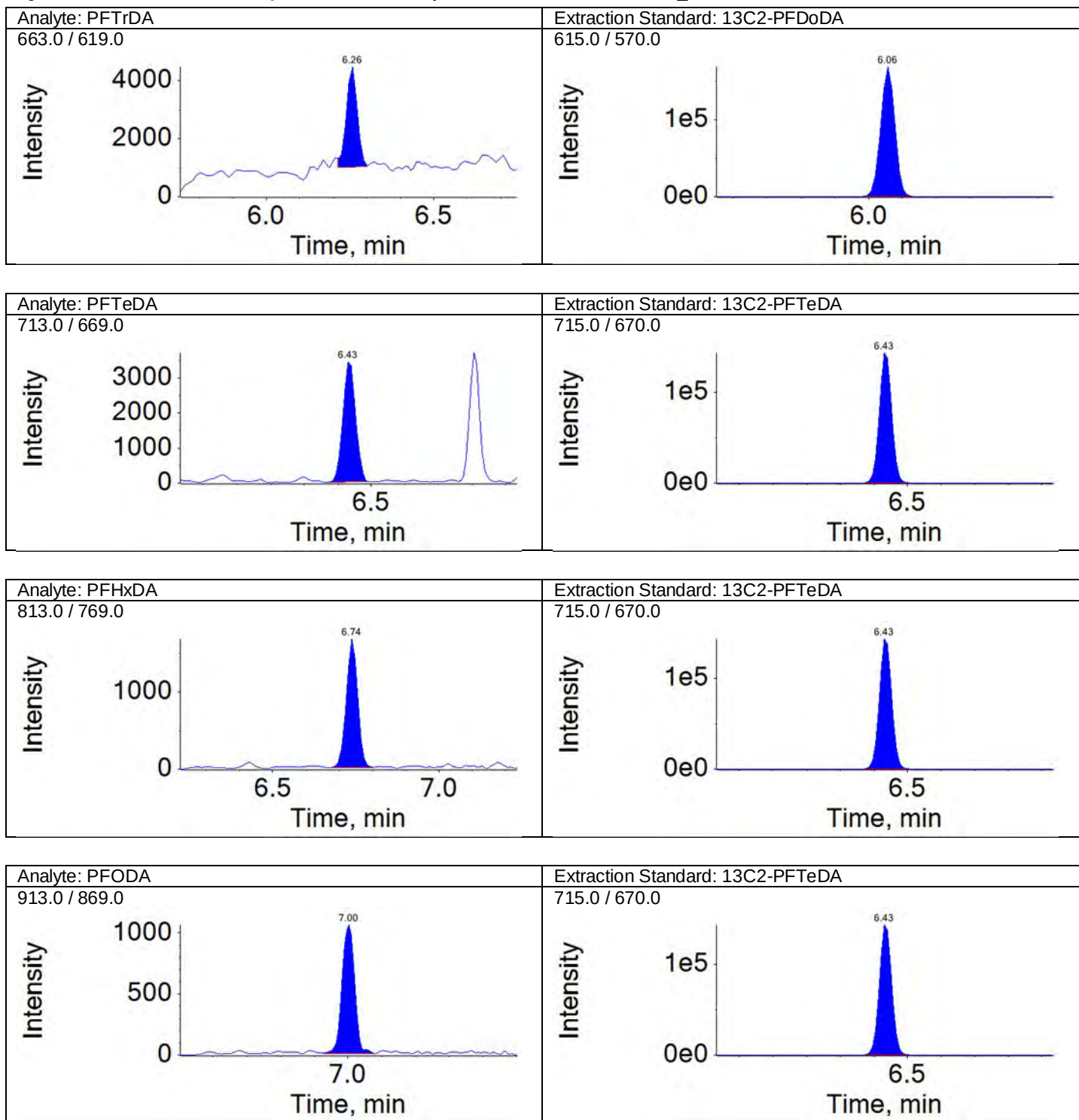
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

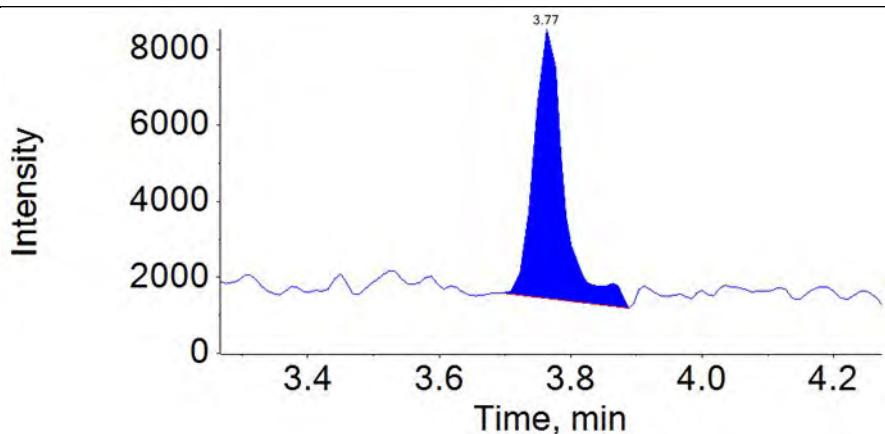
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Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

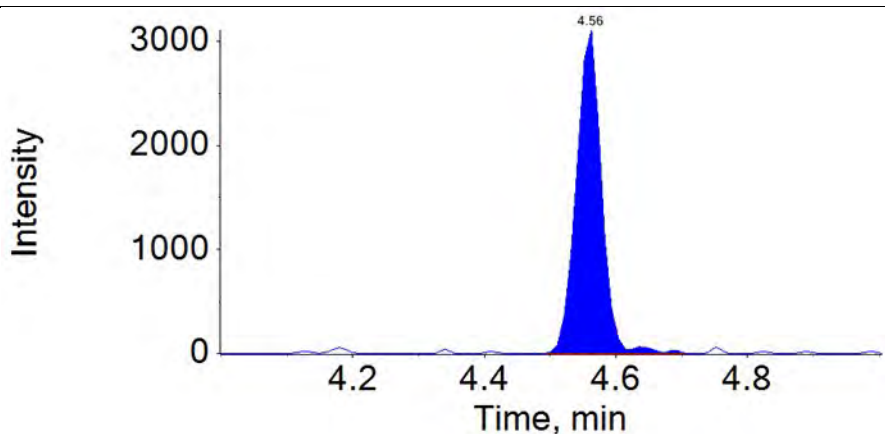
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFPeA
RT (min.):
3.77
Peak Area:
22570.74
Mass Range:
263.0 / 219.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



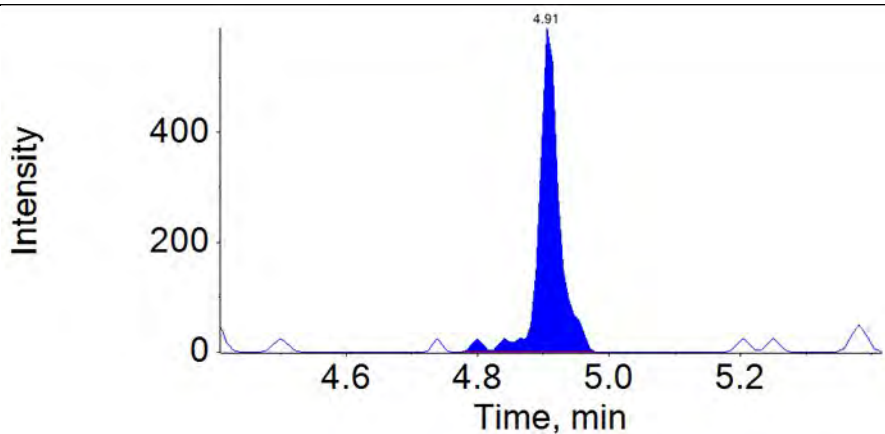
Integration Comment: incorrect integration

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
8305.21
Mass Range:
399.0 / 80.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Component Name:
6:2-FTS
RT (min.):
4.91
Peak Area:
1264.35
Mass Range:
427.0 / 407.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL

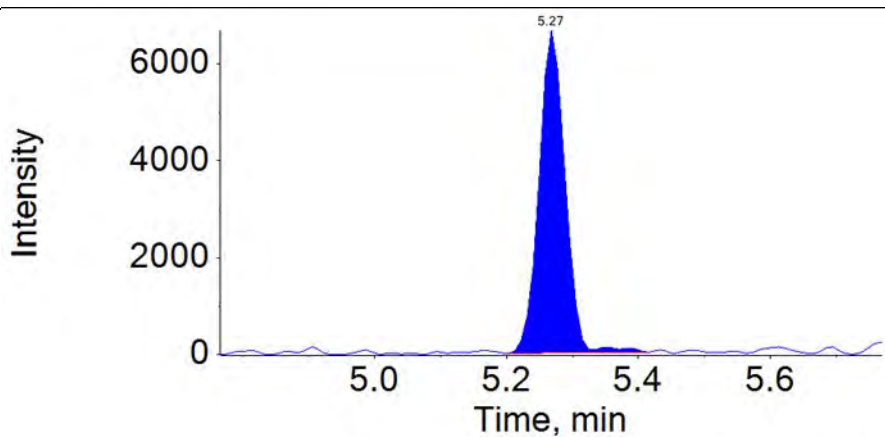


Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

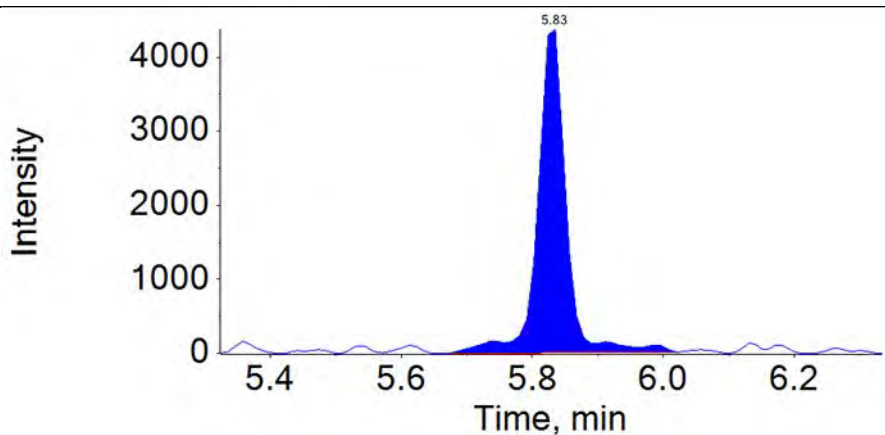
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFNA
RT (min.):
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Peak Area:
18397.36
Mass Range:
463.0 / 419.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



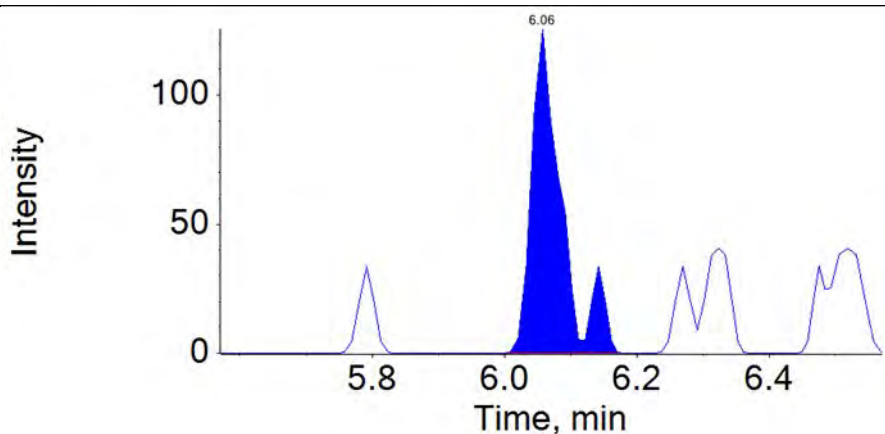
Integration Comment: incorrect integration

Component Name:
PFUnDA
RT (min.):
5.83
Peak Area:
13277.76
Mass Range:
563.0 / 519.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

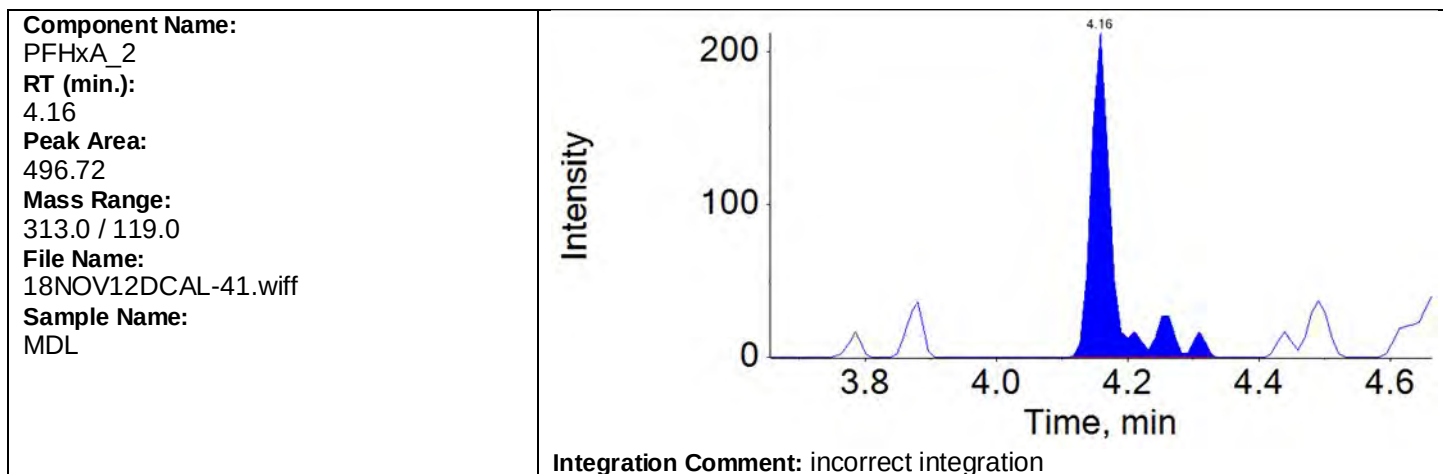
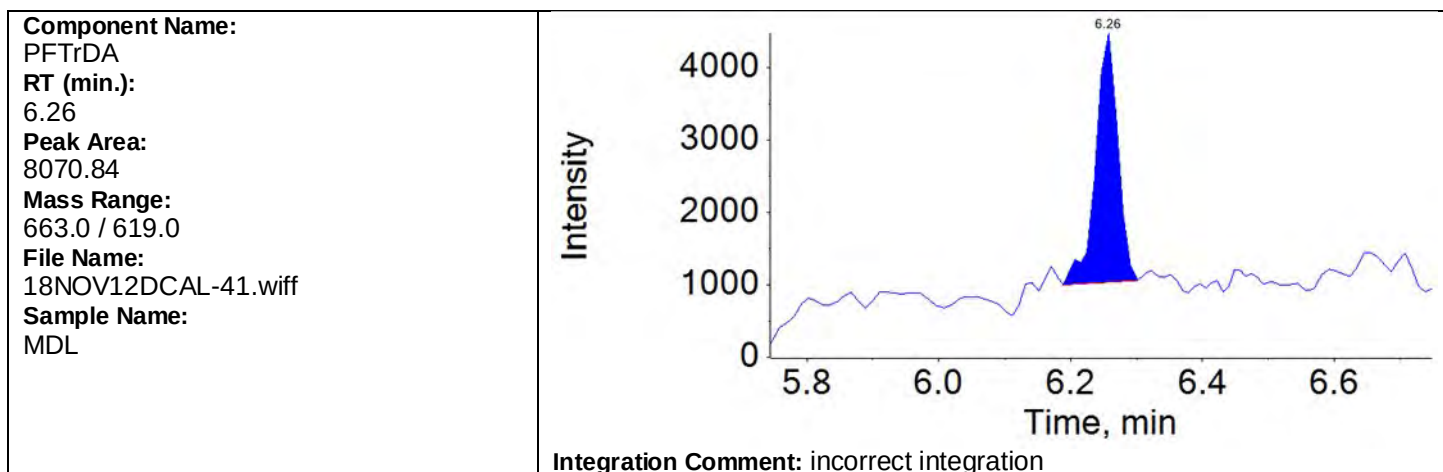
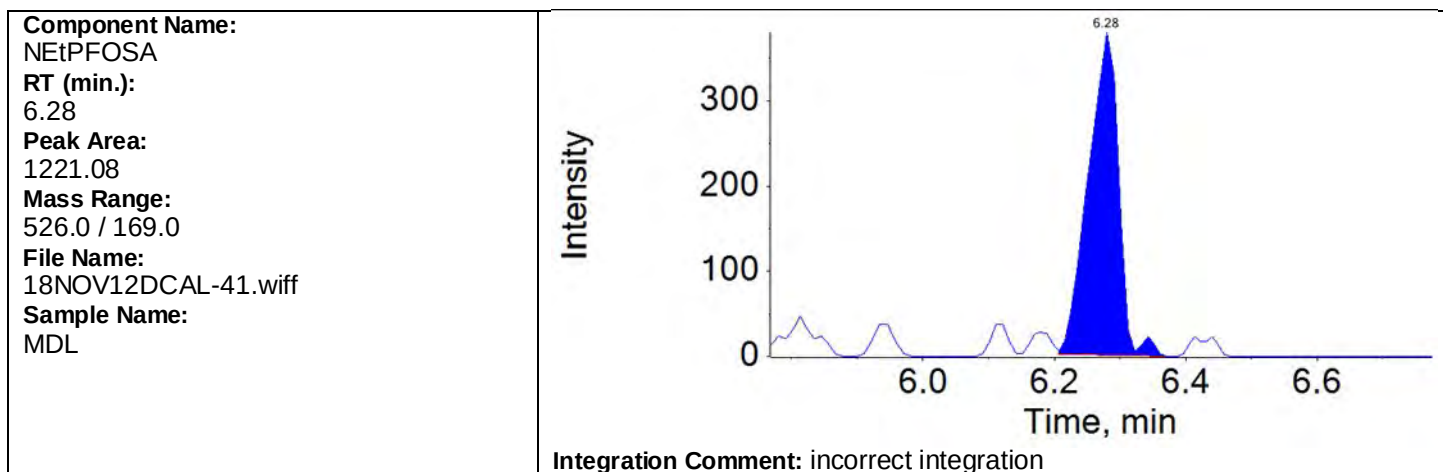
Component Name:
10:2-FTS
RT (min.):
6.06
Peak Area:
401.71
Mass Range:
627.0 / 607.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

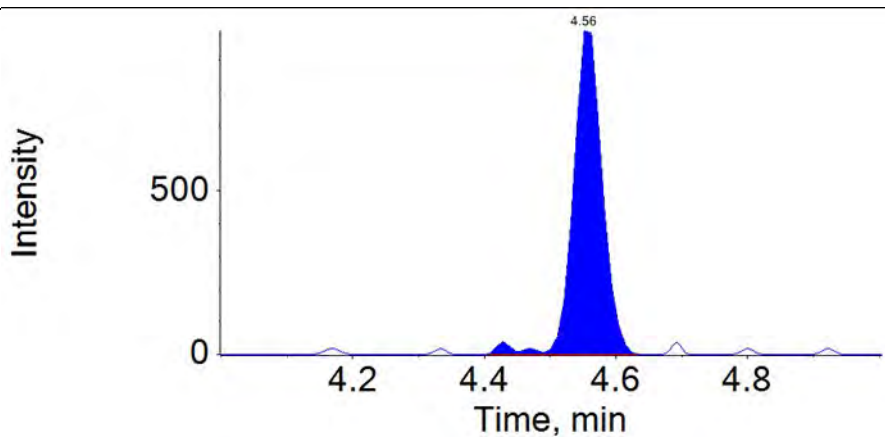
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

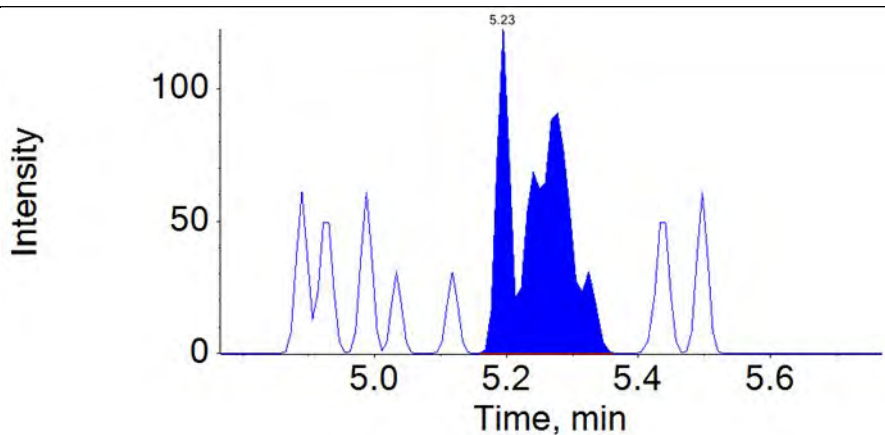
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
3074.31
Mass Range:
399.0 / 99.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



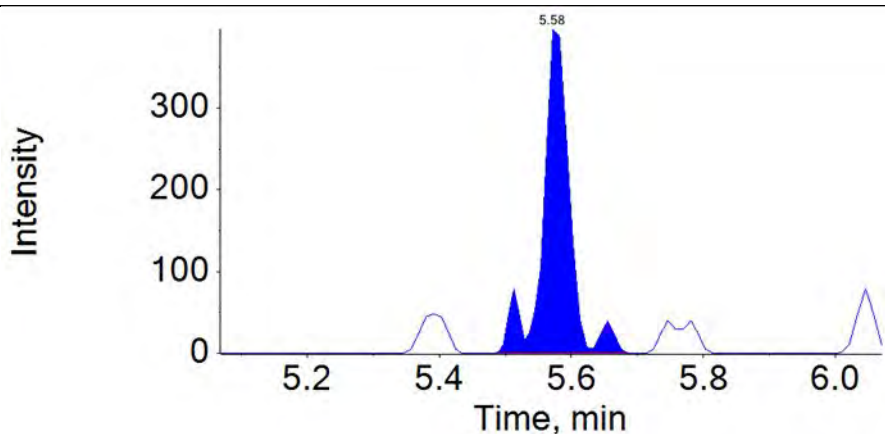
Integration Comment: incorrect integration

Component Name:
PFNA_2
RT (min.):
5.23
Peak Area:
553.54
Mass Range:
463.0 / 169.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

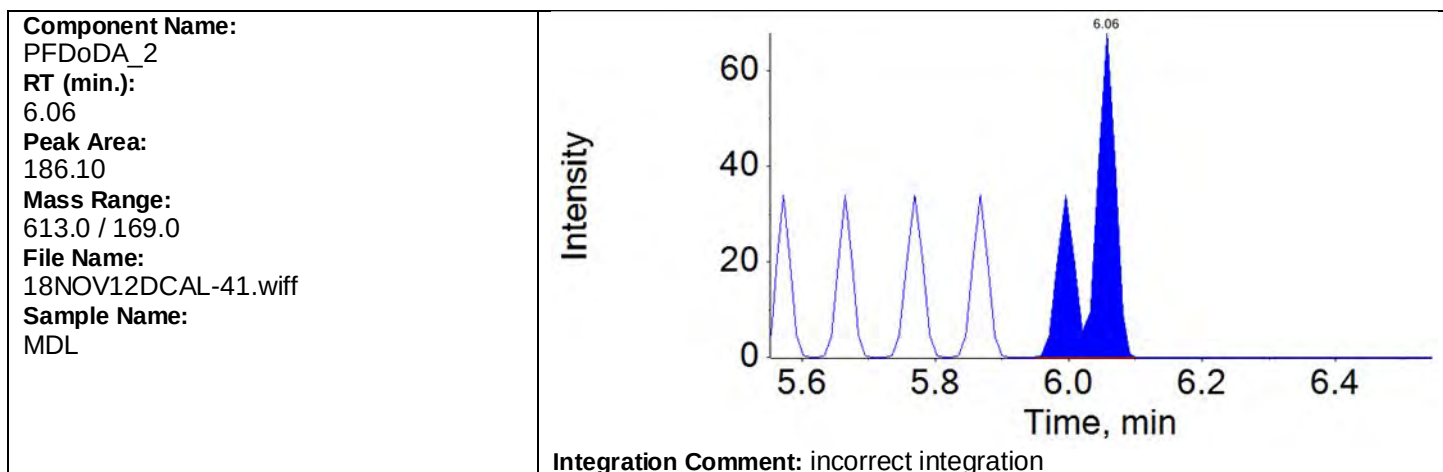
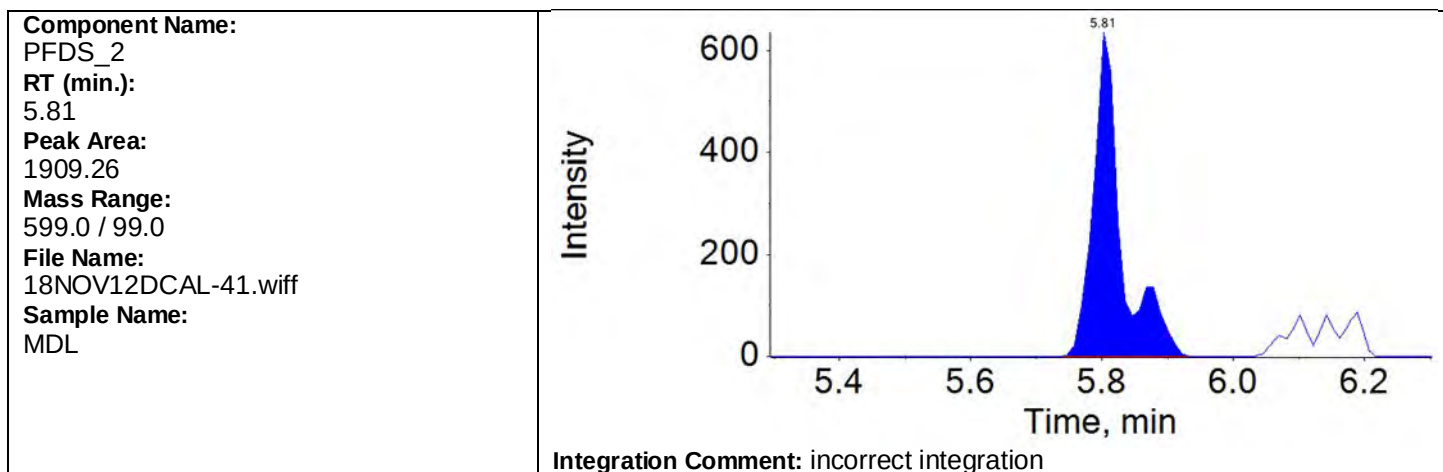
Component Name:
8:2 FTS_2
RT (min.):
5.58
Peak Area:
1126.66
Mass Range:
527.0 / 81.0
File Name:
18NOV12DCAL-41.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 6:34 pm, 11/12/18

REVIEWED

By HMK at 10:54 am, 11/13/18

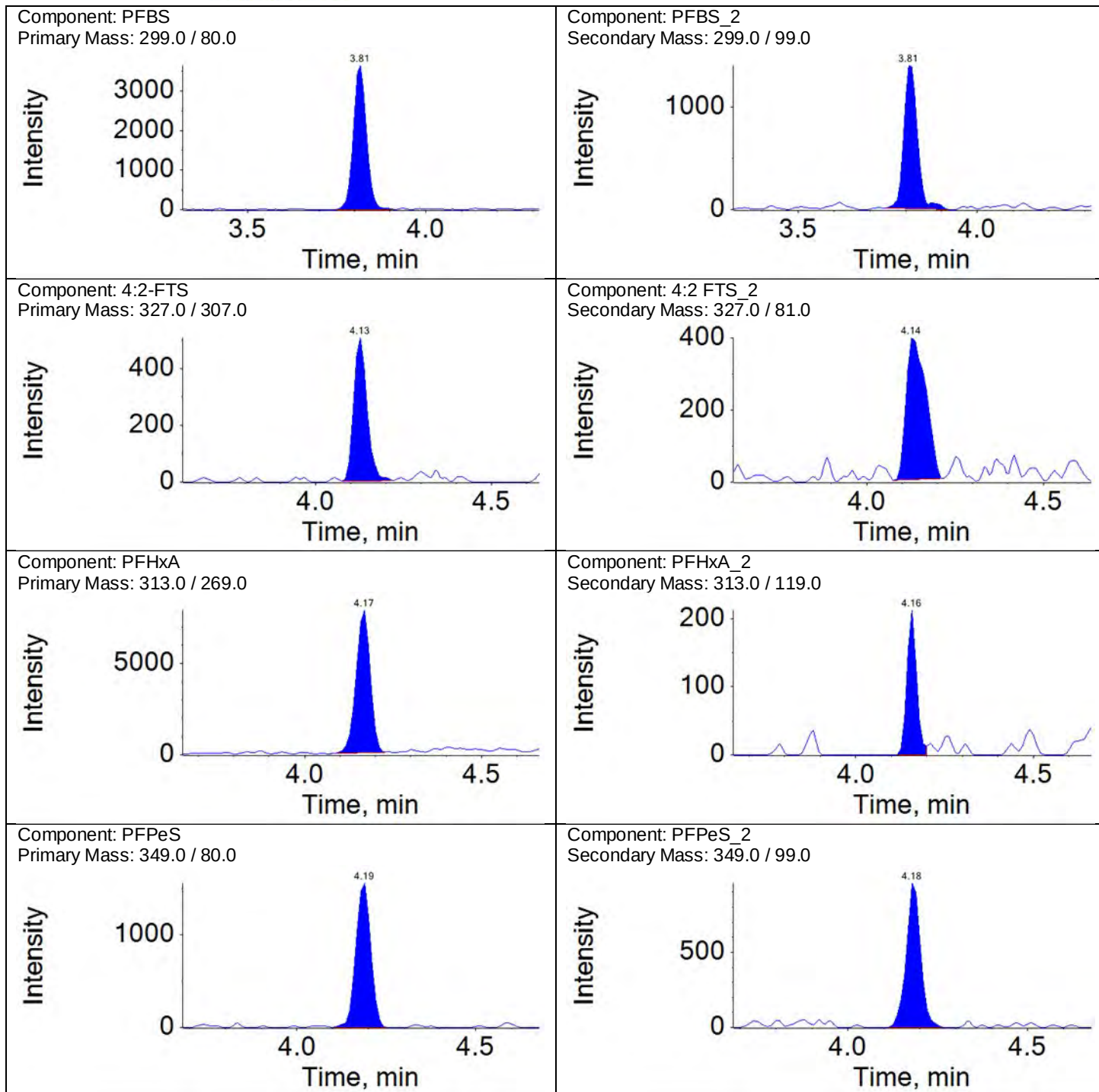
Ion Ratio Report

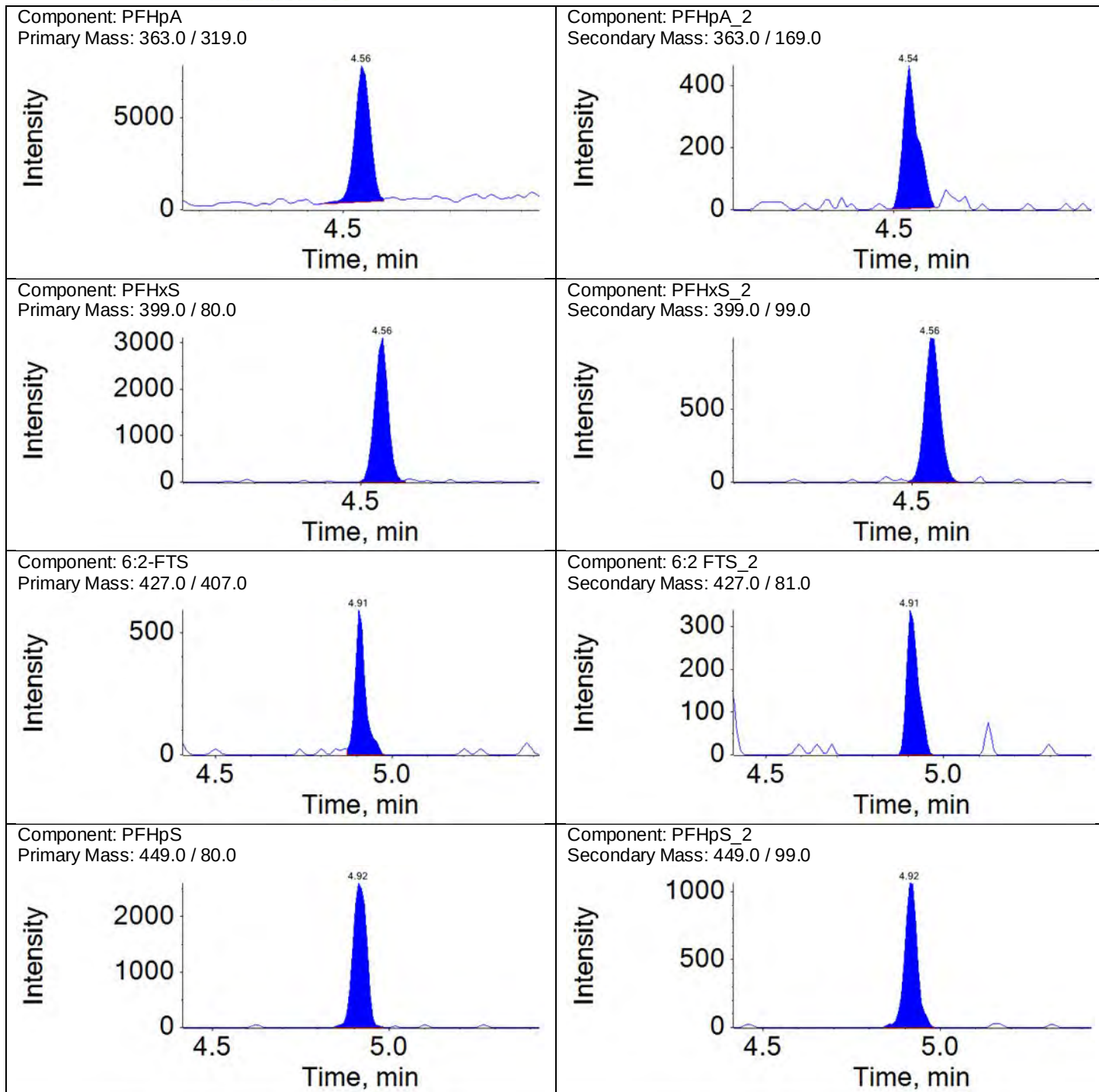
Sample Name: MDL

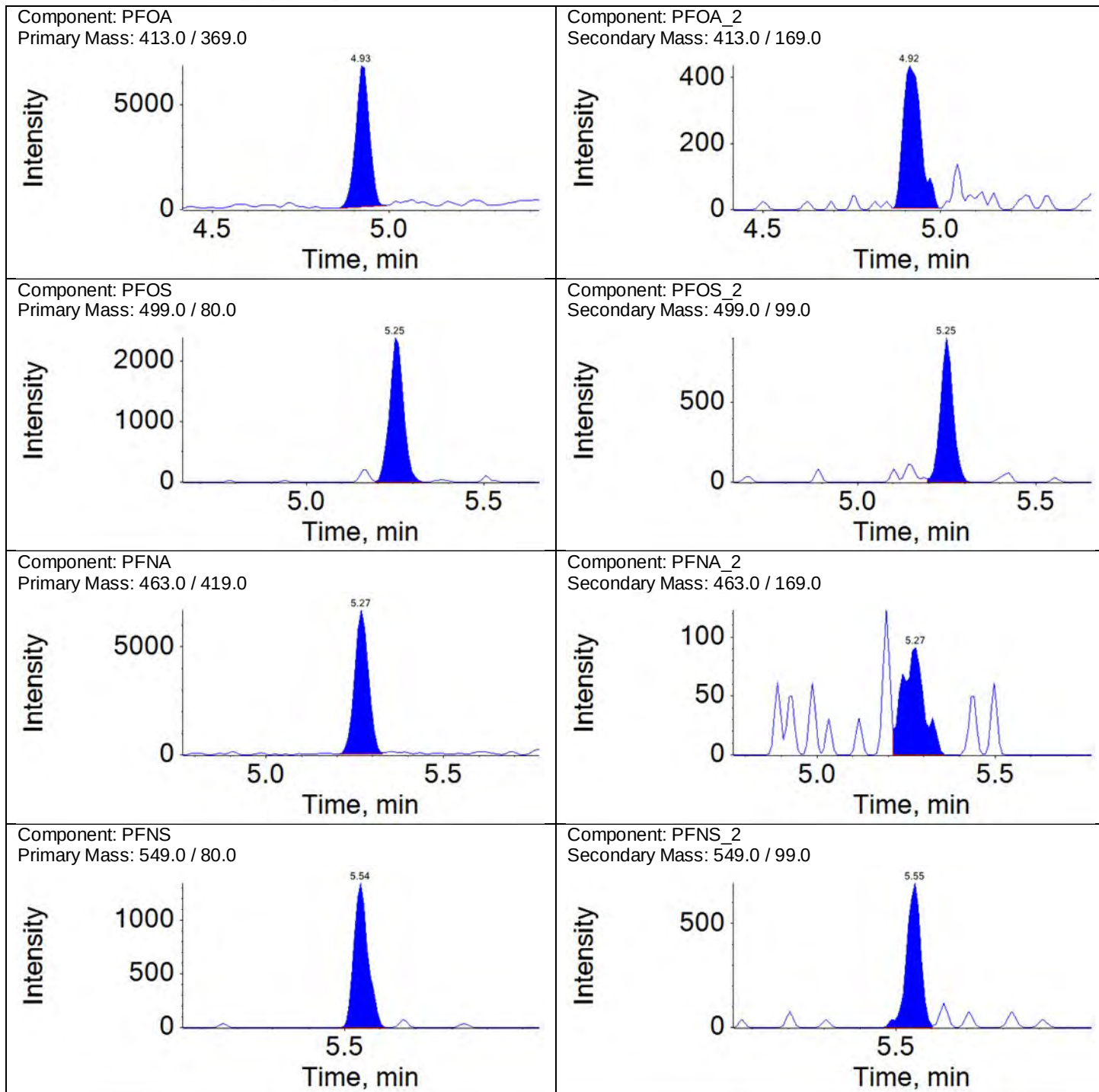
Instrument Name: LM27631

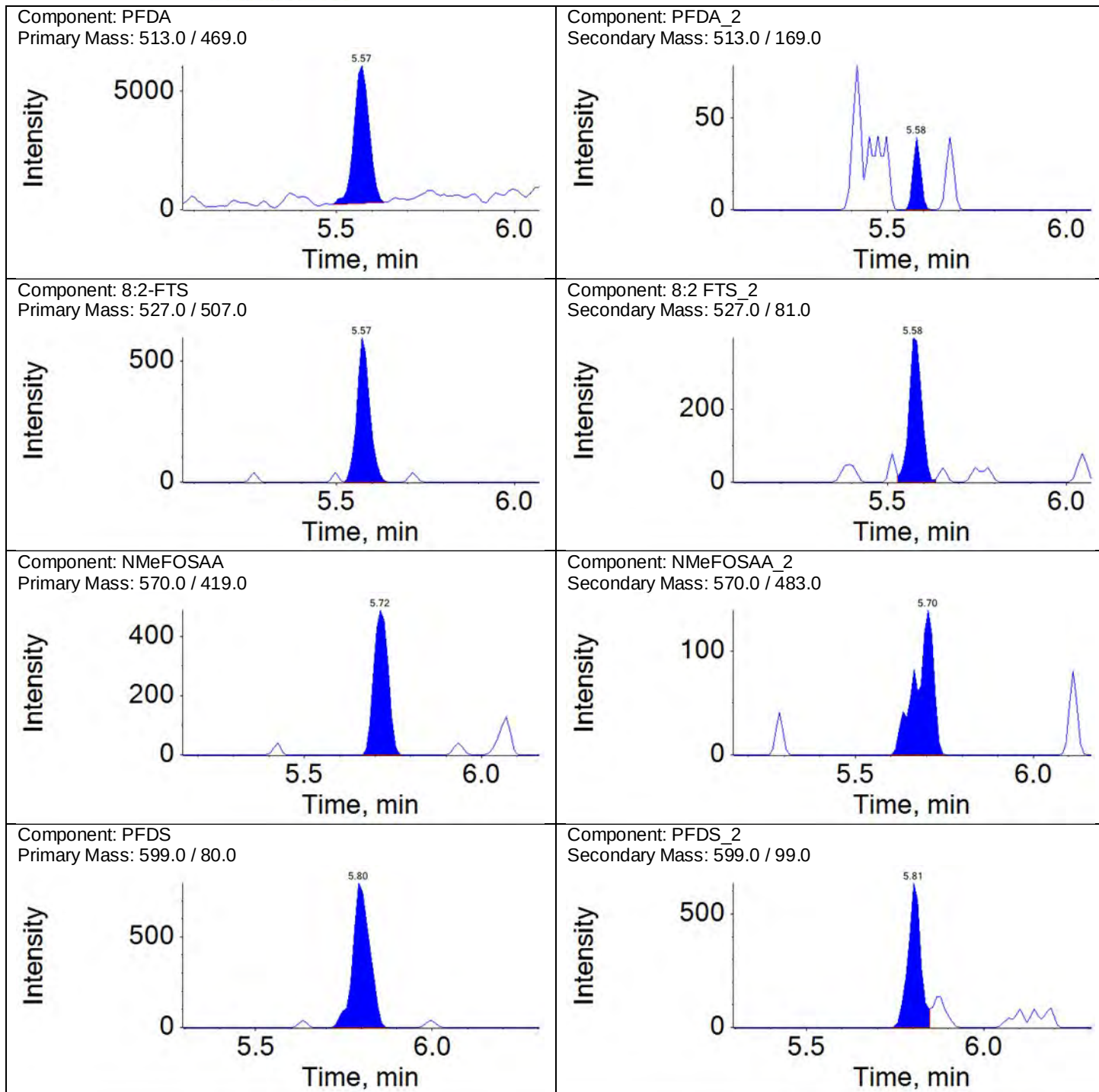
File Name: 18NOV12DCAL-41.wiff

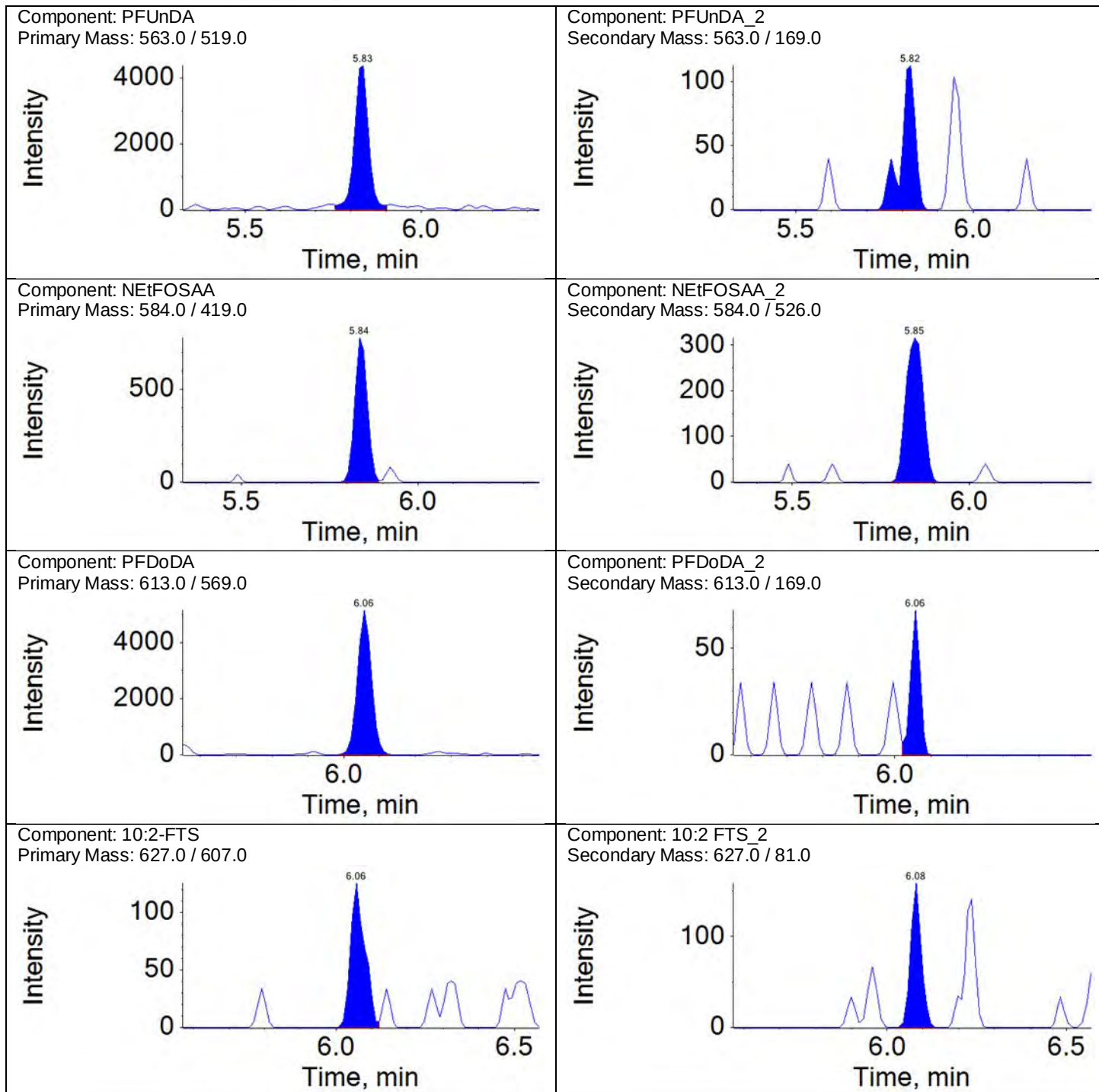
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	9248.27	A	0.3619	0.4009			
PFBS_2	3.81	1.00	3707.95	A	0.3619	0.4009	11	50	
4:2-FTS	4.13	1.00	1329.90	A	0.6730	1.1531			
4:2 FTS_2	4.14	1.00	1533.53	A	0.6730	1.1531		#NA!	
PFHxA	4.17	1.00	21601.58	A	0.0117	0.0185			
PFHxA_2	4.16	1.00	400.56	M	0.0117	0.0185	59	50	OOS
PFPeS	4.19	1.10	4484.75	A	0.5191	0.5939			
PFPeS_2	4.18	1.10	2663.62	A	0.5191	0.5939	14	50	
PFHpA	4.56	1.00	22043.51	A	0.0563	0.0598			
PFHpA_2	4.54	1.00	1317.81	A	0.0563	0.0598	6	50	
PFHxS	4.56	1.00	8143.51	M	0.3428	0.3665			
PFHxS_2	4.56	1.00	2984.60	M	0.3428	0.3665	7	50	
6:2-FTS	4.91	1.00	1176.17	M	0.6604	0.6555			
6:2 FTS_2	4.91	1.00	771.04	A	0.6604	0.6555		#NA!	
PFHpS	4.92	1.08	7117.47	A	0.4066	0.3729			
PFHpS_2	4.92	1.08	2653.97	A	0.4066	0.3729	-8	50	
PFOA	4.93	1.00	18045.03	A	0.0562	0.0847			
PFOA_2	4.92	1.00	1528.65	A	0.0562	0.0847	51	50	OOS
PFOS	5.25	1.00	6416.89	A	0.2968	0.3439			
PFOS_2	5.25	1.00	2206.80	A	0.2968	0.3439	16	50	
PFNA	5.27	1.00	18065.11	M	0.0229	0.0217			
PFNA_2	5.27	1.00	391.14	M	0.0229	0.0217	-5	50	
PFNS	5.54	1.06	3661.22	A	0.4828	0.5154			
PFNS_2	5.55	1.06	1886.87	A	0.4828	0.5154	7	50	
PFDA	5.57	1.00	17350.54	A	0.0081	0.0034			
PFDA_2	5.58	1.00	58.57	A	0.0081	0.0034	-58	50	OOS
8:2-FTS	5.57	1.00	1475.16	A	0.6814	0.6626			
8:2 FTS_2	5.58	1.00	977.44	M	0.6814	0.6626		#NA!	
NMeFOSAA	5.72	1.00	1372.38	A	0.2569	0.3580			
NMeFOSAA_2	5.70	1.00	491.32	A	0.2569	0.3580	39	50	
PFDS	5.80	1.10	2648.79	A	0.5144	0.5845			
PFDS_2	5.81	1.10	1548.24	M	0.5144	0.5845	14	50	
PFUnDA	5.83	1.00	12215.29	M	0.0058	0.0269			
PFUnDA_2	5.82	1.00	328.37	A	0.0058	0.0269	362	50	OOS
NEtFOSAA	5.84	1.00	1937.77	A	0.7253	0.5676			
NEtFOSAA_2	5.85	1.00	1099.93	A	0.7253	0.5676	-22	50	
PFDODA	6.06	1.00	14033.14	A	0.0157	0.0089			
PFDODA_2	6.06	1.00	124.75	M	0.0157	0.0089	-43	50	
10:2-FTS	6.06	1.09	352.60	M	0.6356	0.9381			
10:2 FTS_2	6.08	1.09	330.78	A	0.6356	0.9381		#NA!	
PFTTrDA	6.26	1.03	7825.51	M	0.0086	0.0105			
PFTTrDA_2	6.26	1.03	82.38	A	0.0086	0.0105	23	50	
PFTeDA	6.43	1.00	8938.53	A	0.0062	0.0089			
PFTeDA_2	6.43	1.00	79.25	A	0.0062	0.0089	42	50	
PFHxDA	6.74	1.05	3934.22	A	0.0683	0.0745			
PFHxDA_2	6.74	1.05	292.96	A	0.0683	0.0745	9	50	
PFODA	7.00	1.09	2726.36	A	0.0277	0.0224			
PFODA_2	6.99	1.09	61.09	A	0.0277	0.0224	-19	50	

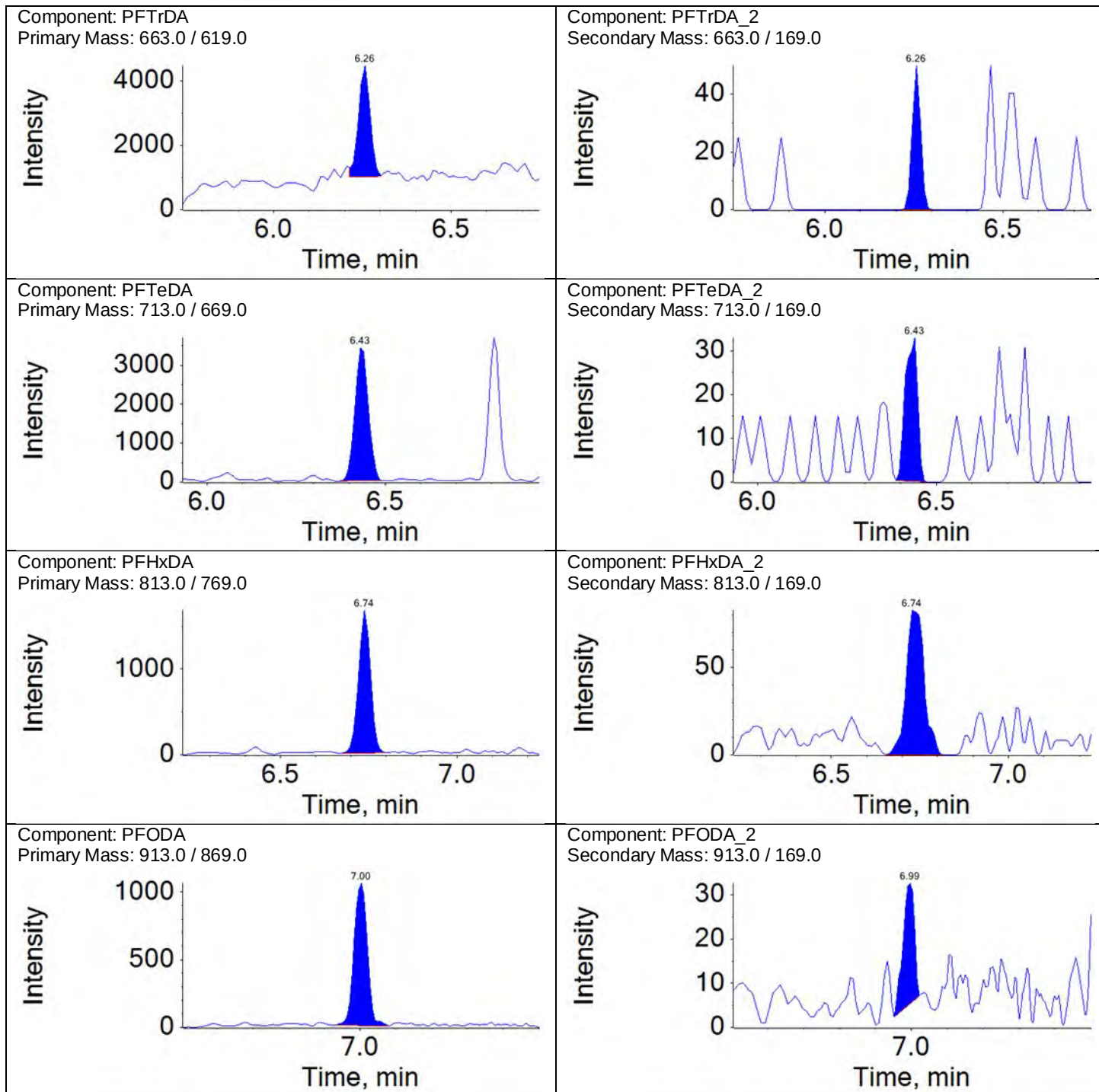












ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	INBLK	Data File:	18NOV12DCAL-49.wiff
Sample ID:	methanol	Acquis Date:	11/12/2018 4:09:09 PM
Sample Type:	Unknown	Instrument:	LM27631
Vial Position:	1	Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00	Result Table:	18NOV12DCAL
QMethod File:	18AUG20QM	ICAL Name:	18NOV12DCAL
Batch Number:	N/A	Operator:	JPT12262
Sample Wt.:	1.00000	Dilution Factor:	1.00
Sample Vol.:	1.000	Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	705408.6	659926.2	7	50	
13C2-PFOA	5.0	484266.1	450219.7	8	50	
13C4-PFOS	4.8	261290.0	249205.8	5	50	
13C2-PFDA	5.0	303665.7	278743.9	9	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	778730.1	13C3-PFBA	705408.6	1.104	5.000	4.949	99	70-130	
E13C5-PFPeA	758823.9	13C3-PFBA	705408.6	1.076	5.000	4.825	96	70-130	
E13C3-PFBS	456635.4	13C3-PFBA	705408.6	0.647	4.650	4.570	98	70-130	
E13C2-4:2-FTS	57620.0	13C2-PFOA	484266.1	0.119	4.670	5.299	113	70-130	
E13C5-PFHxA	665797.6	13C2-PFOA	484266.1	1.375	5.000	4.966	99	70-130	
E13C3-PFHxS	372925.2	13C2-PFOA	484266.1	0.770	4.730	5.284	112	70-130	
E13C4-PFHpA	547261.8	13C2-PFOA	484266.1	1.130	5.000	5.091	102	70-130	
E13C2-6:2-FTS	39087.0	13C2-PFOA	484266.1	0.081	4.750	5.400	114	70-130	
E13C8-PFOA	901909.5	13C2-PFOA	484266.1	1.862	5.000	5.131	103	70-130	
E13C8-PFOS	289703.0	13C4-PFOS	261290.0	1.109	4.780	4.913	103	70-130	
E13C9-PFNA	509013.2	13C4-PFOS	261290.0	1.948	5.000	5.432	109	70-130	
E13C6-PFDA	643925.8	13C2-PFDA	303665.7	2.121	5.000	4.948	99	70-130	
E13C2-8:2-FTS	27339.0	13C2-PFDA	303665.7	0.090	4.790	4.490	94	70-130	
E13C8-PFOSA	681332.9	13C2-PFDA	303665.7	2.244	5.000	4.974	99	70-130	
Ed3-NMeFOSAA	73694.3	13C2-PFDA	303665.7	0.243	5.000	4.381	88	70-130	
E13C7-PFUnDA	265353.1	13C2-PFDA	303665.7	0.874	5.000	5.073	101	70-130	
Ed5-NEtFOSAA	59646.1	13C2-PFDA	303665.7	0.196	5.000	4.156	83	70-130	
E13C2-PFDODA	576780.7	13C2-PFDA	303665.7	1.899	5.000	4.932	99	70-130	
Ed7-NMePFOSAE	354624.2	13C2-PFDA	303665.7	1.168	5.000	5.054	101	70-130	
Ed3-NMePFOSA	79601.3	13C2-PFDA	303665.7	0.262	5.000	4.763	95	70-130	
Ed9-NEtPFOSAE	287722.3	13C2-PFDA	303665.7	0.947	5.000	4.928	99	70-130	
Ed5-NEtPFOSA	59772.3	13C2-PFDA	303665.7	0.197	5.000	4.617	92	70-130	
E13C2-PFTeDA	418729.7	13C2-PFDA	303665.7	1.379	5.000	4.841	97	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

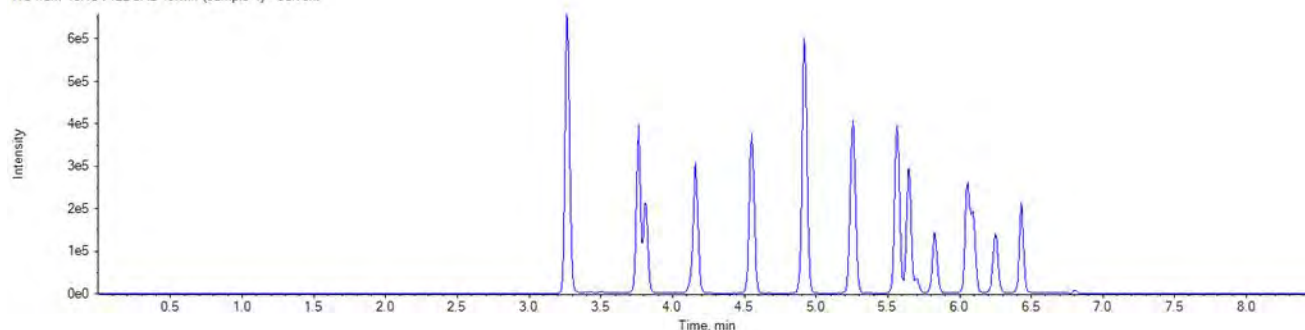
Sample Name: INBLK Instrument Name: LM27631 File Name: 18NOV12DCAL-49.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.26	778730.1	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	758823.9	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	456635.4	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.13	57620.0	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	665797.6	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	456635.4	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	547261.8	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	372925.2	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.91	39087.0	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	372925.2	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	901909.5	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.25	289703.0	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	509013.2	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.25	289703.0	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	643925.8	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	27339.0	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	681332.9	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	73694.3	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.25	289703.0	N/A	
PfUnDA	N/A	N/A	N/A		A	13C7-PfUnDA	5.83	265353.1	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	59646.1	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	576780.7	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	27339.0	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	354624.2	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	79601.3	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.25	289703.0	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.25	287722.3	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	59772.3	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	576780.7	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	418729.7	N/A	
PFHxDA	6.73	1.050	2221.7		A	13C2-PFTeDA	6.43	418729.7	0.005	0.063
PFOA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	418729.7	N/A	

Total Ion Chromatogram

TIC from 18NOV12DCAL-49.wiff (sample 1) - solvent



APPROVED

By JPT at 8:42 am, 11/20/18

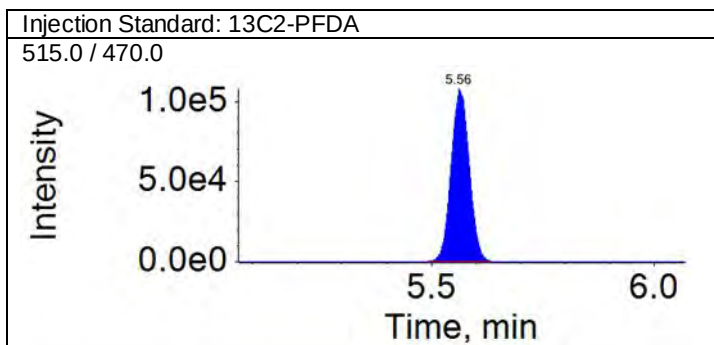
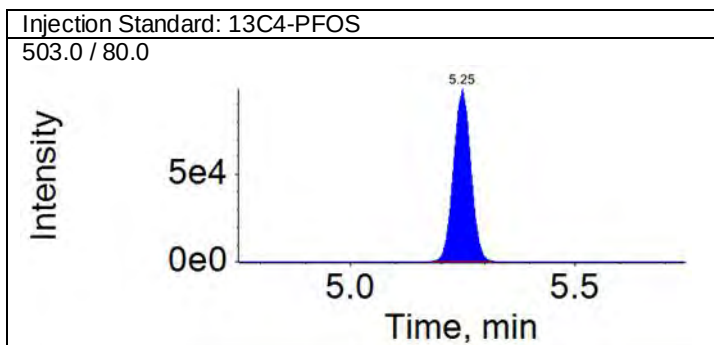
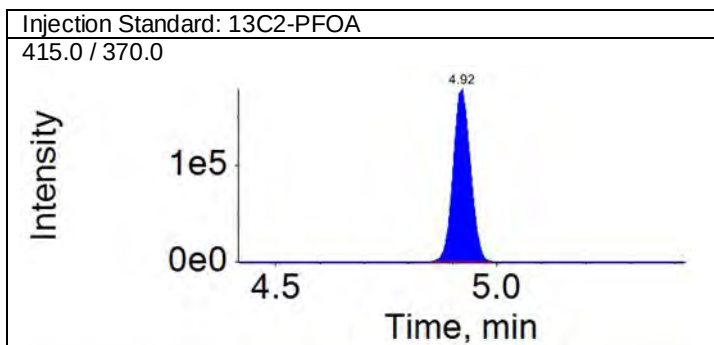
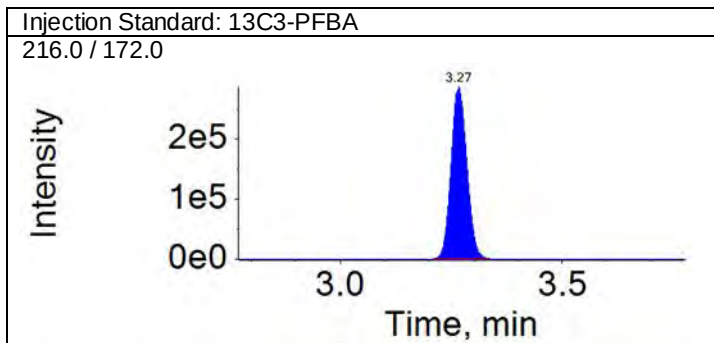
BSI14 Page 1059 of 2132

REVIEWED

By HMK at 8:47 am, 11/20/18

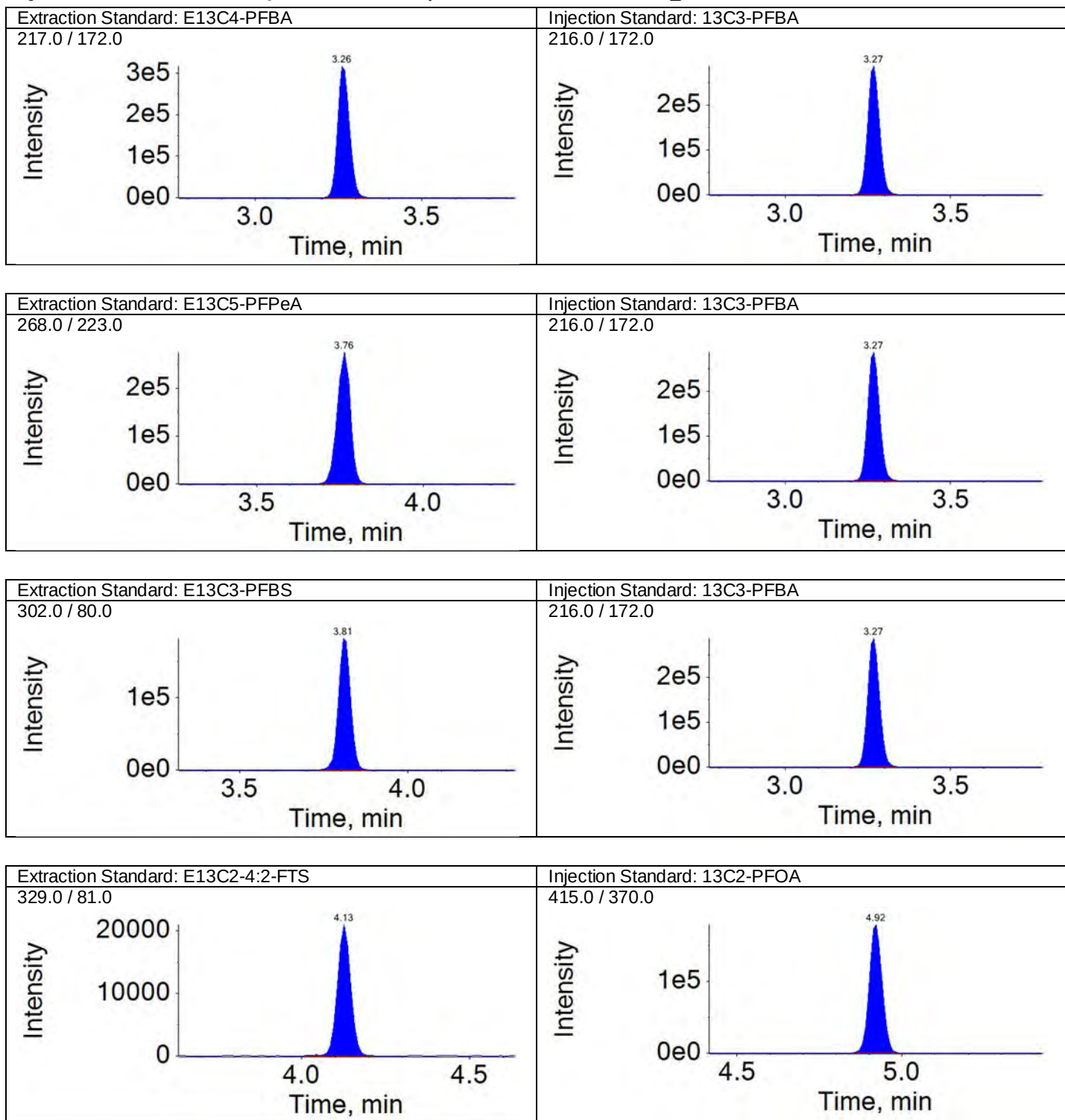
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam



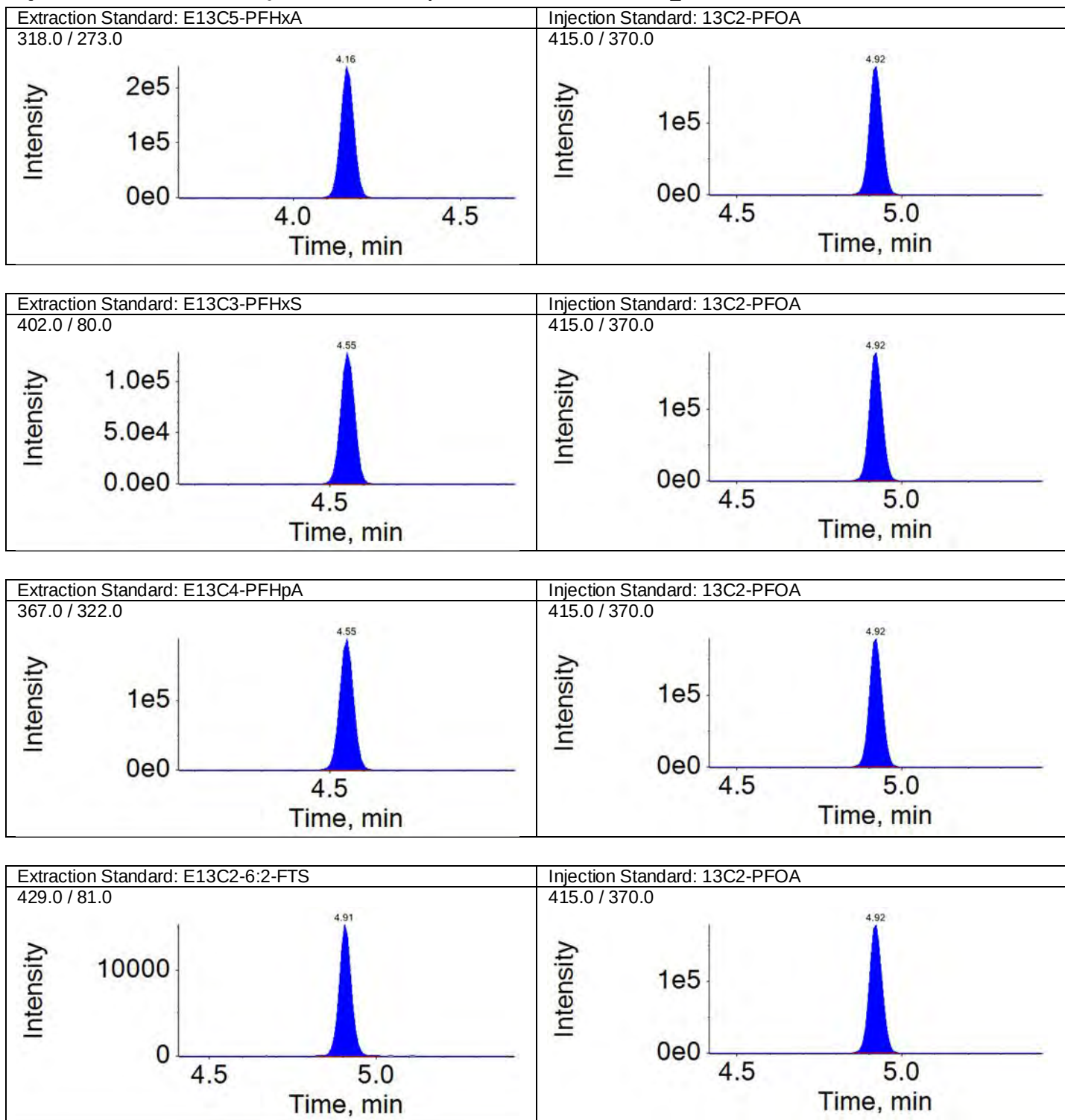
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
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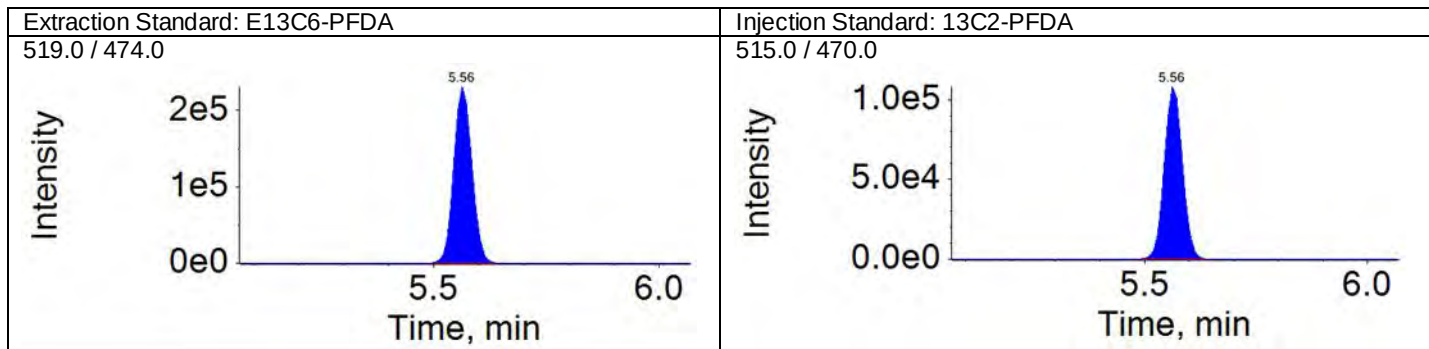
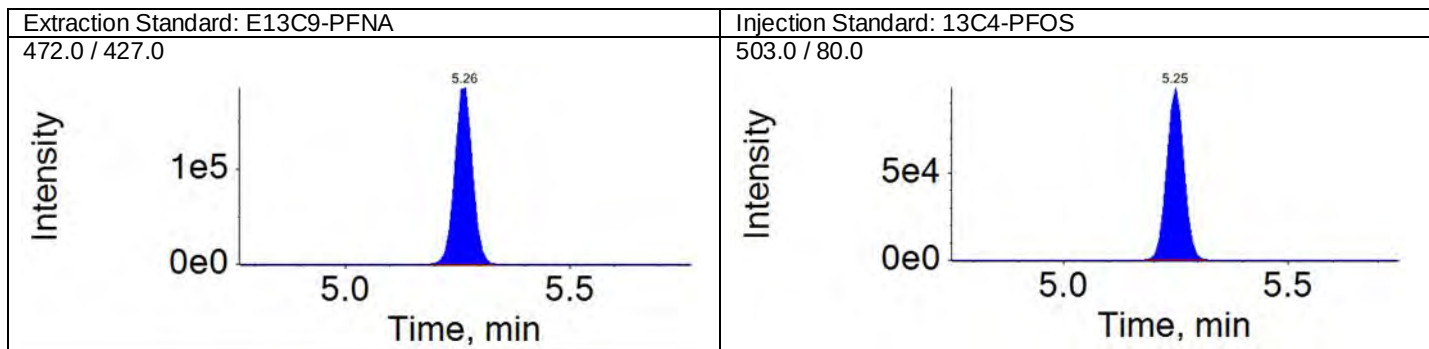
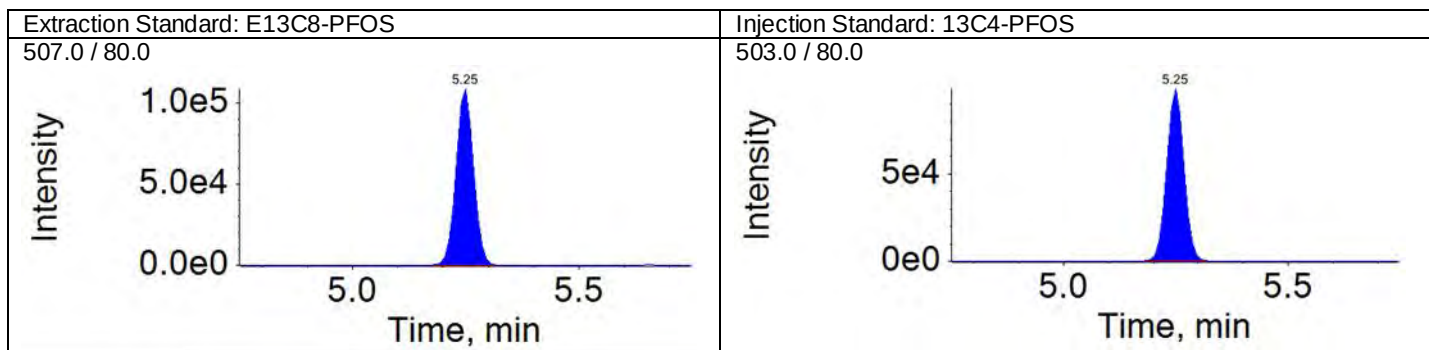
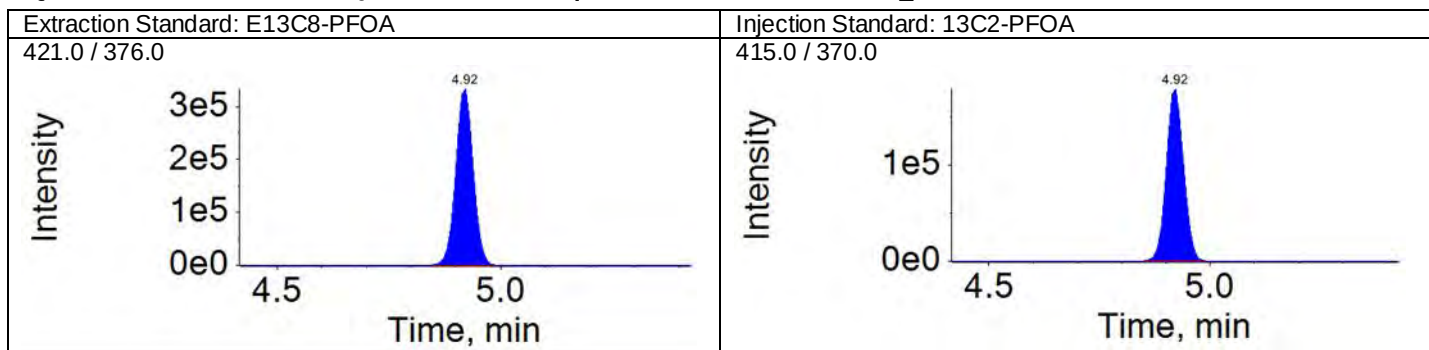
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Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam



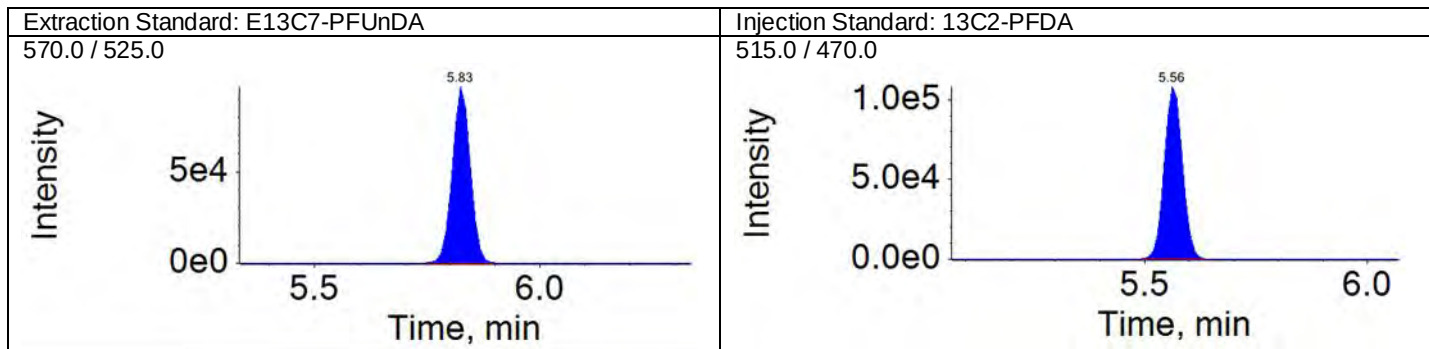
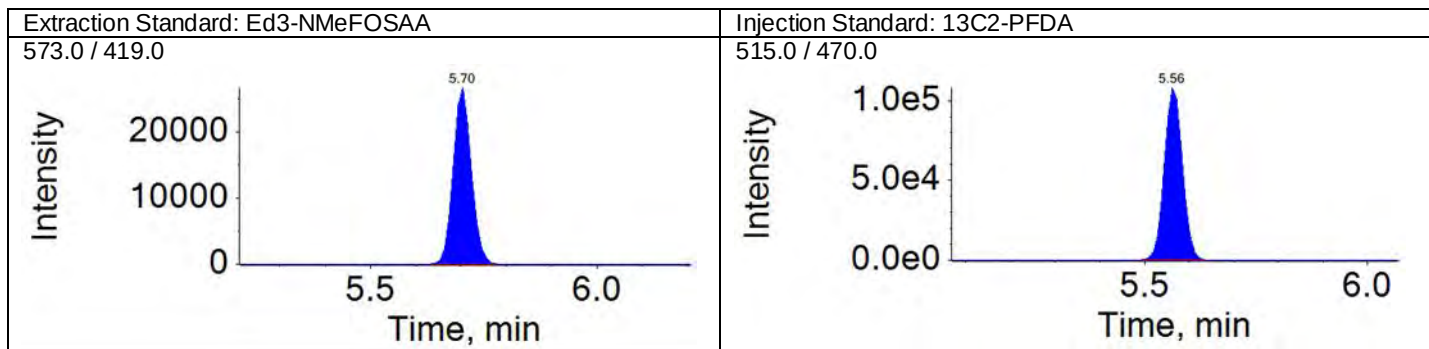
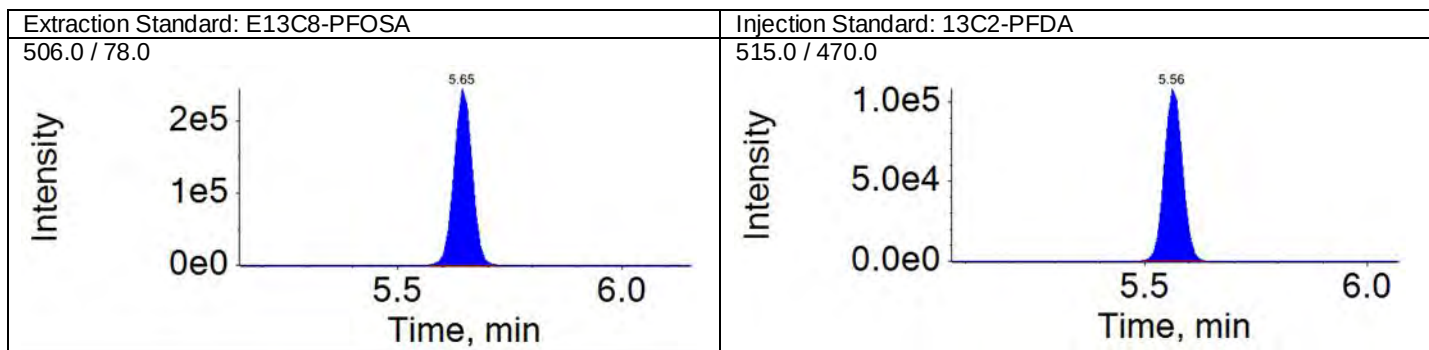
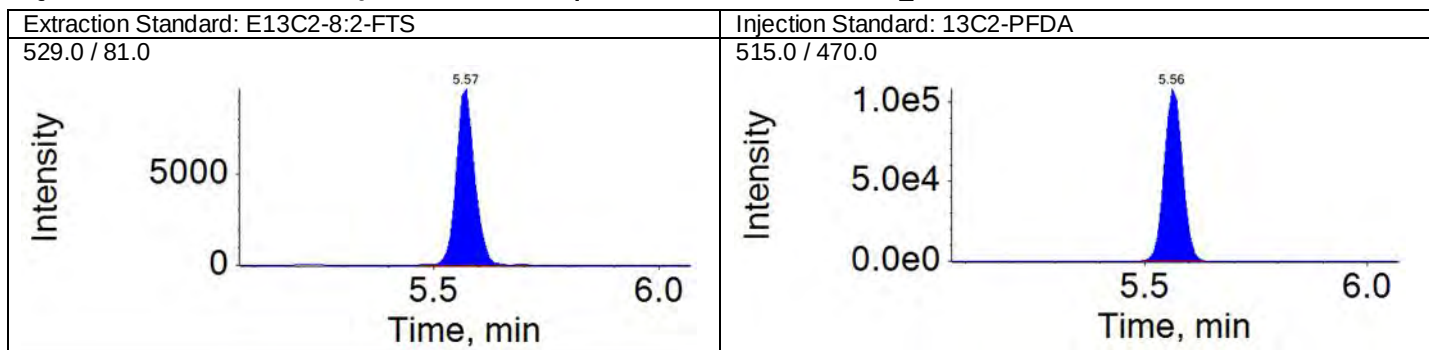
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Acquisition Method: 18AUG13_3uL.dam



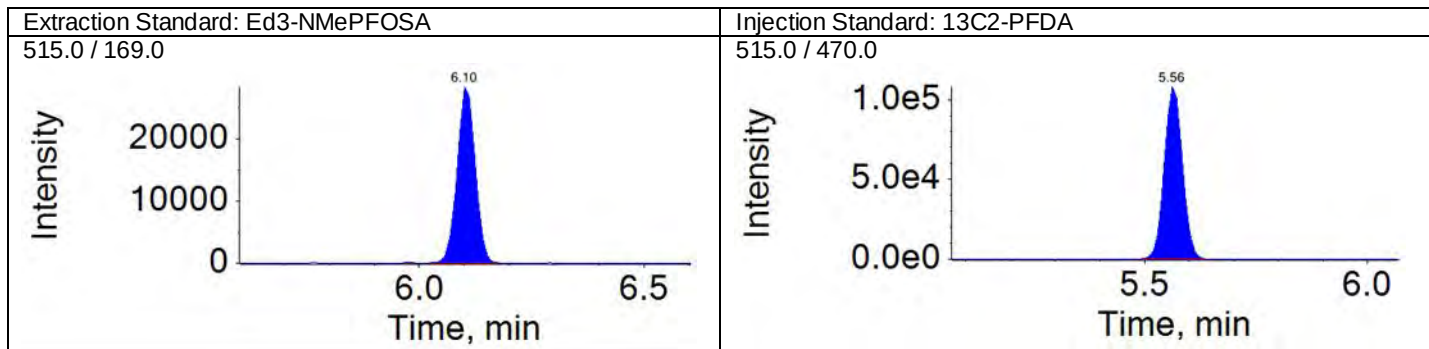
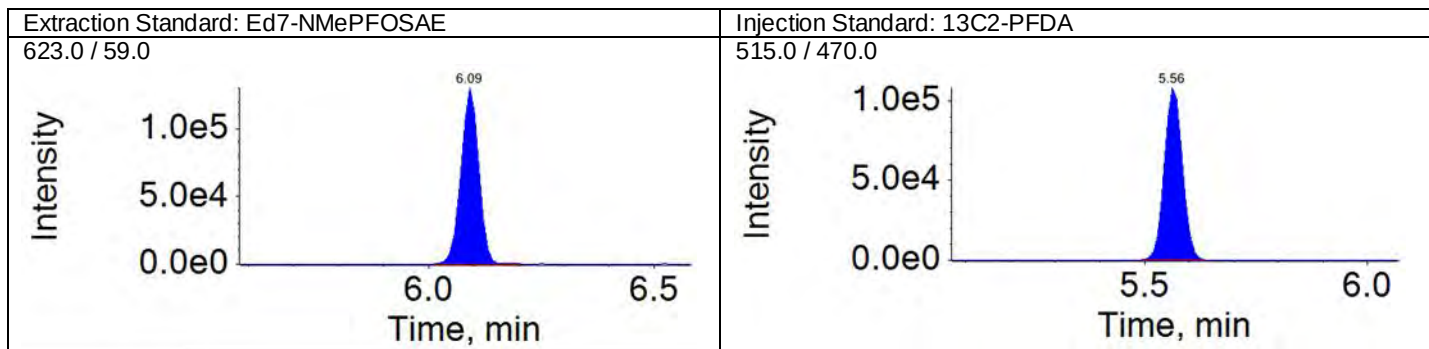
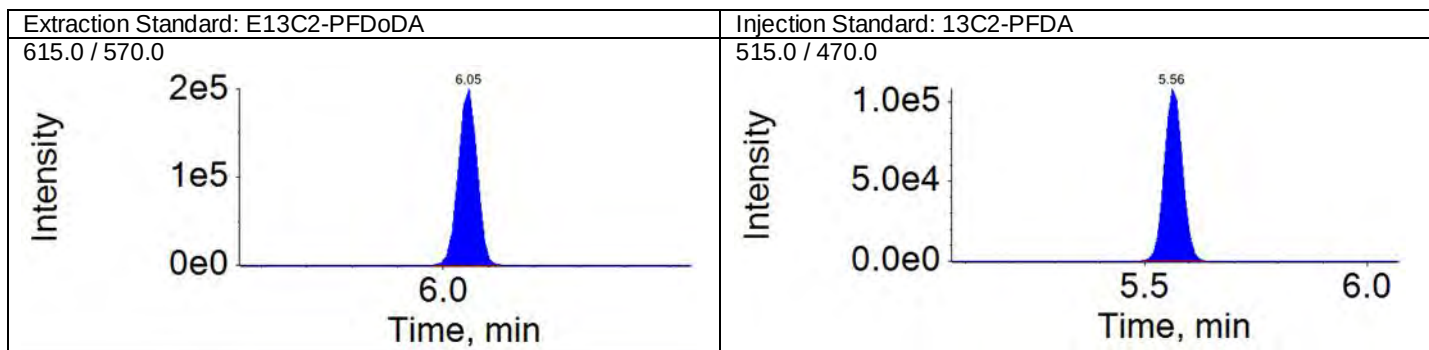
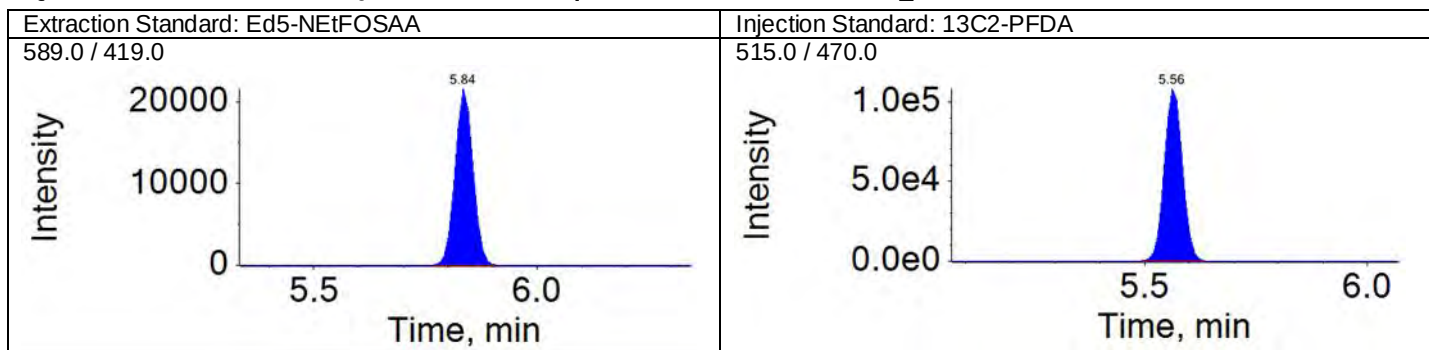
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Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
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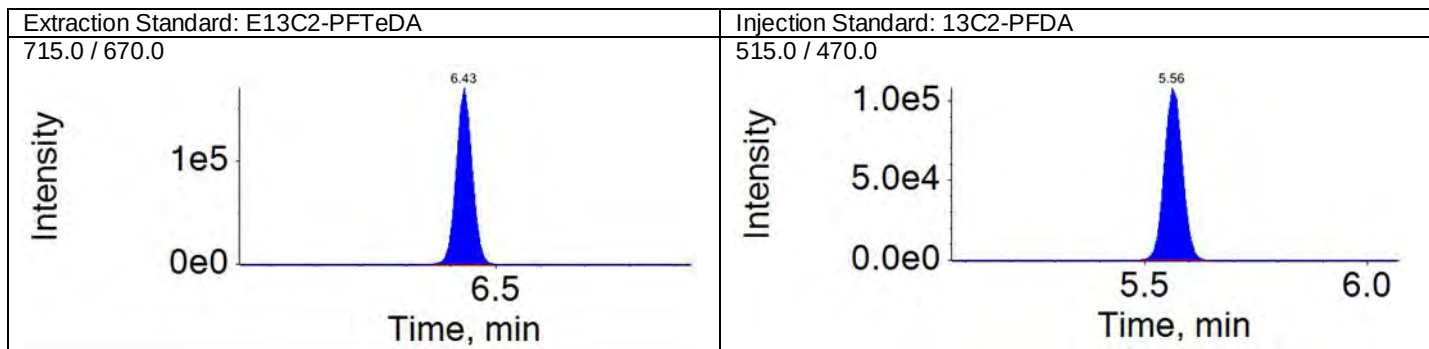
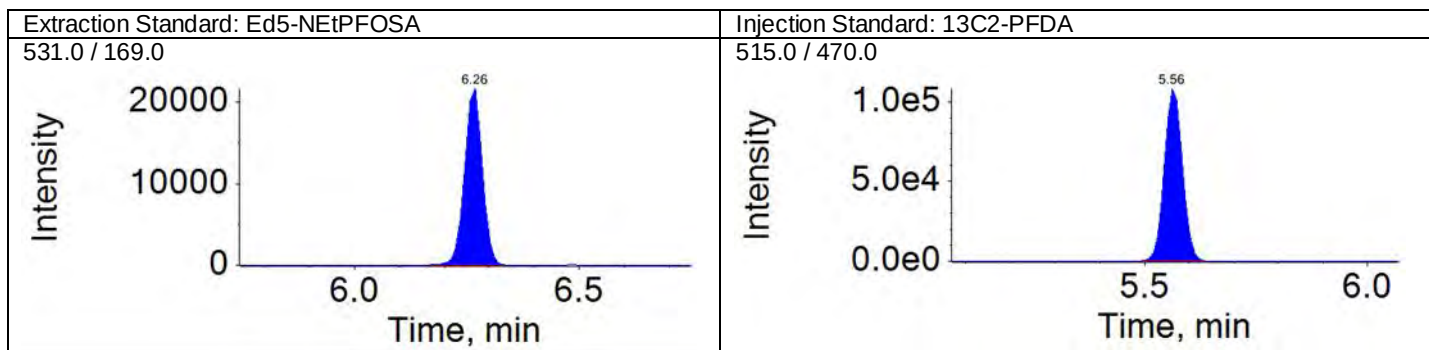
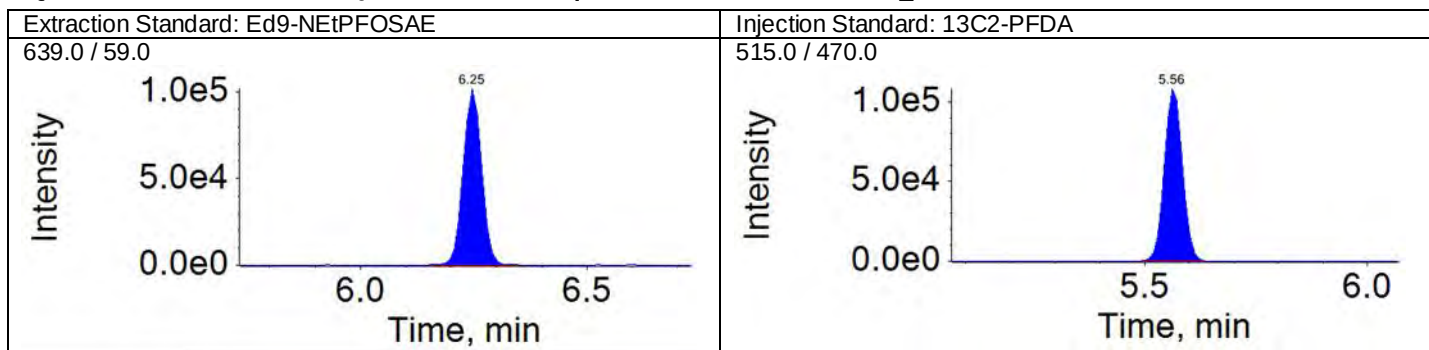
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Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam



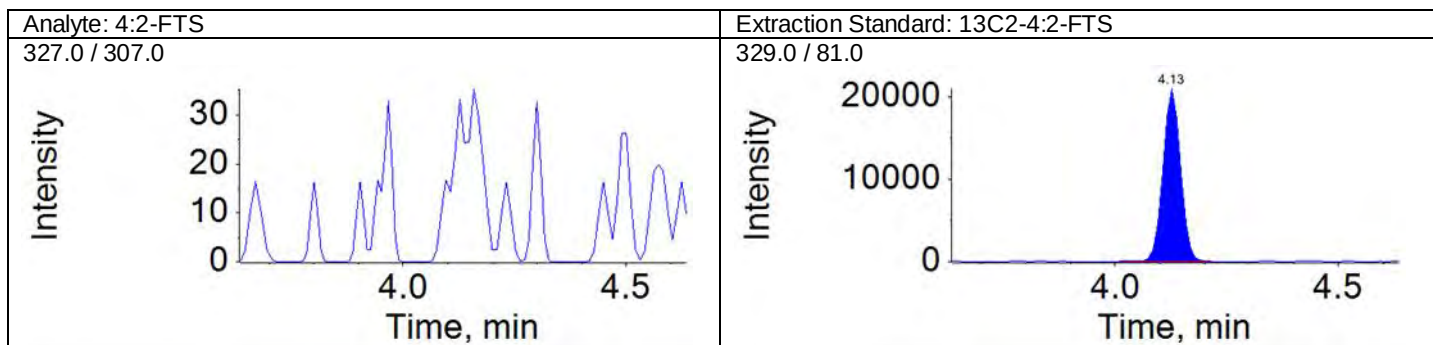
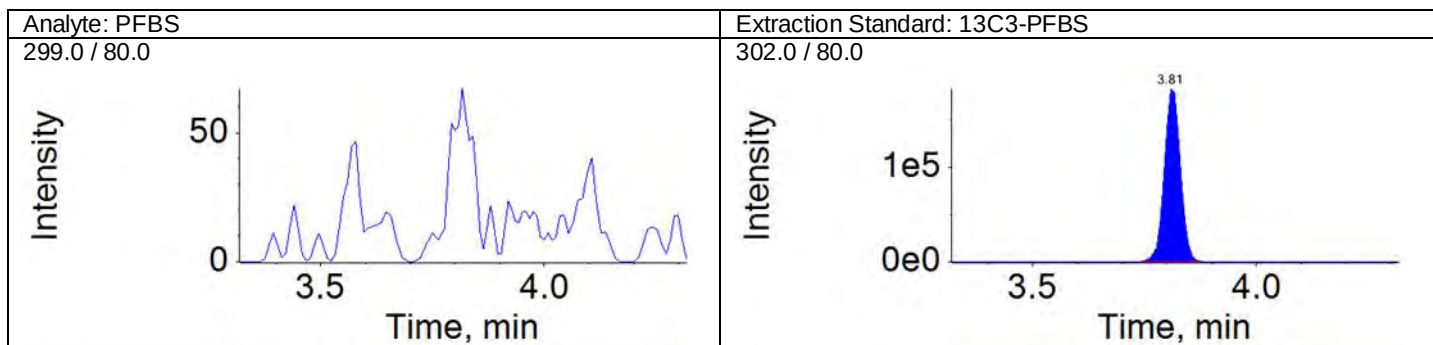
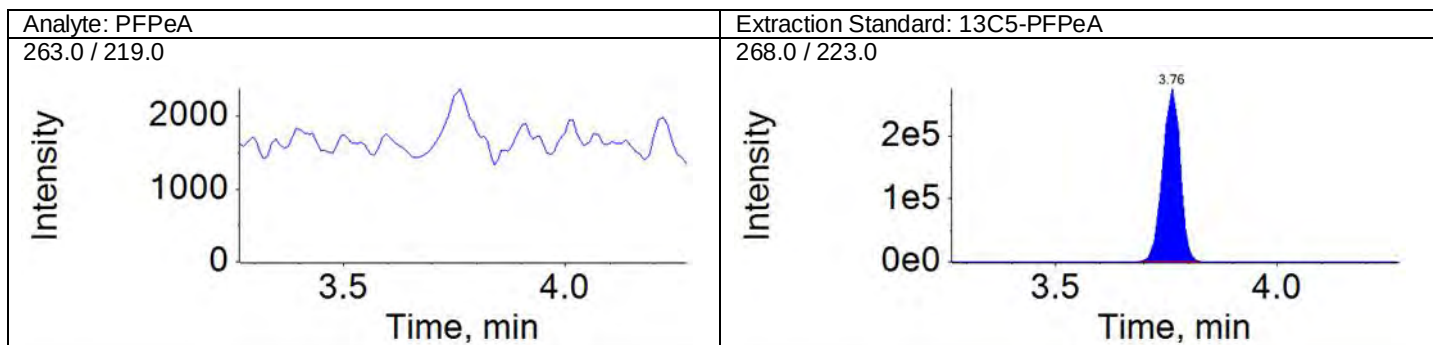
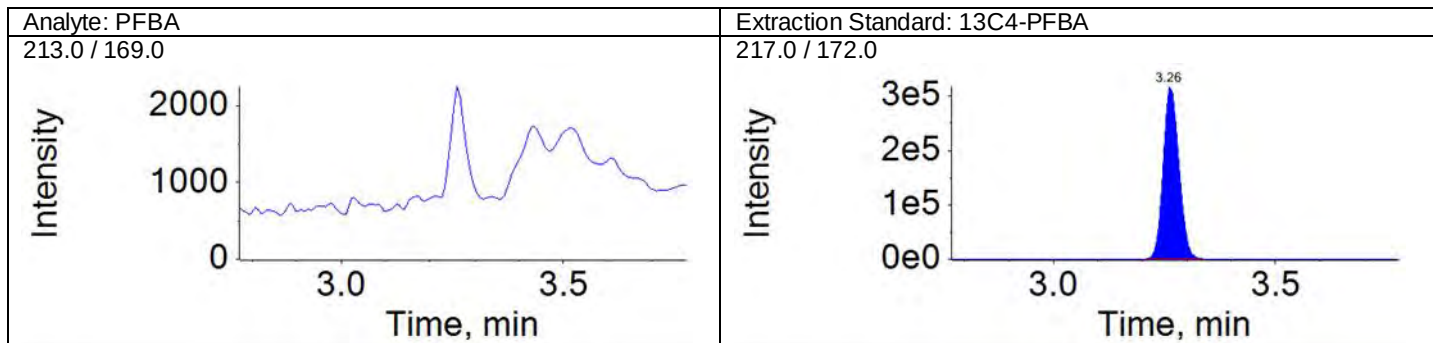
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam



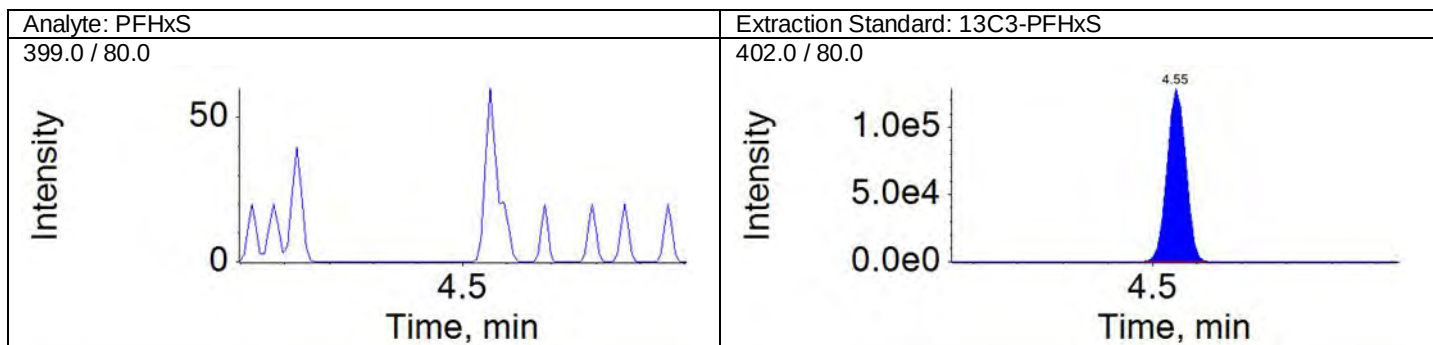
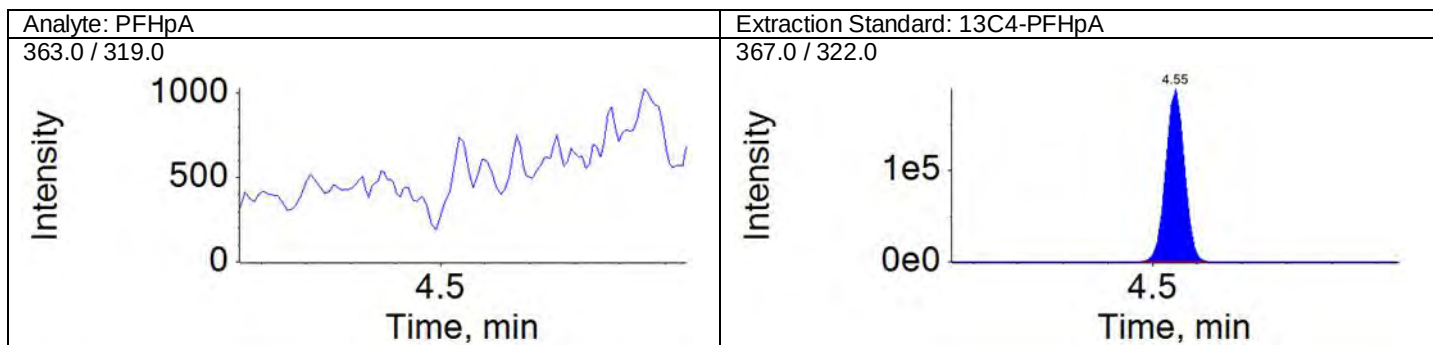
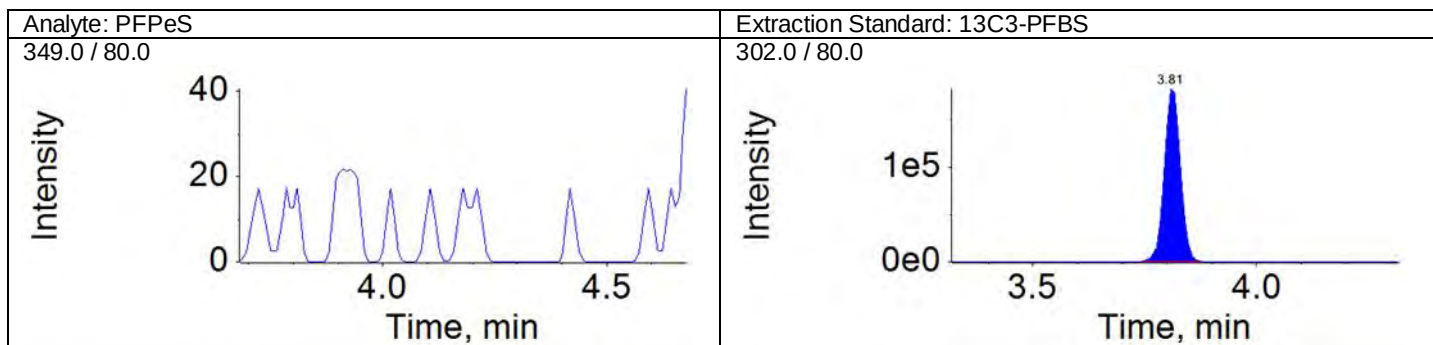
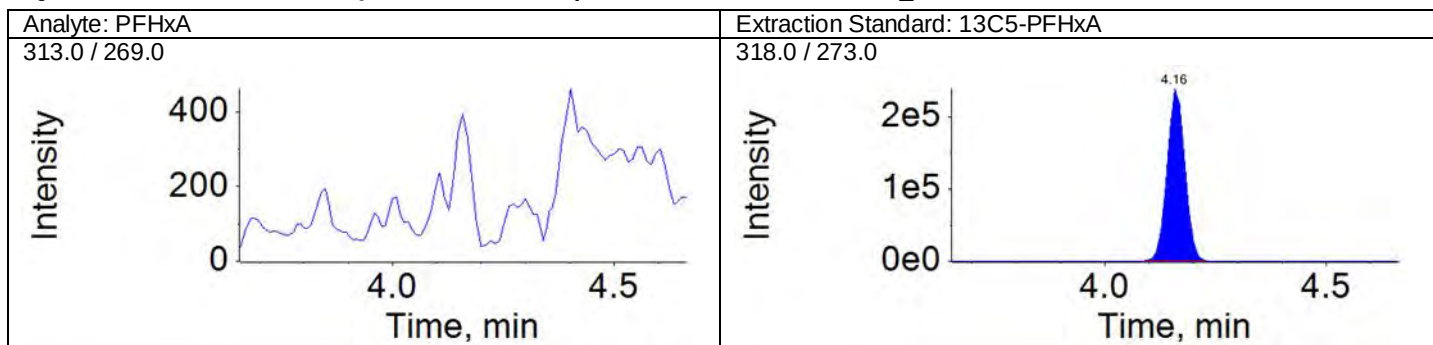
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Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam



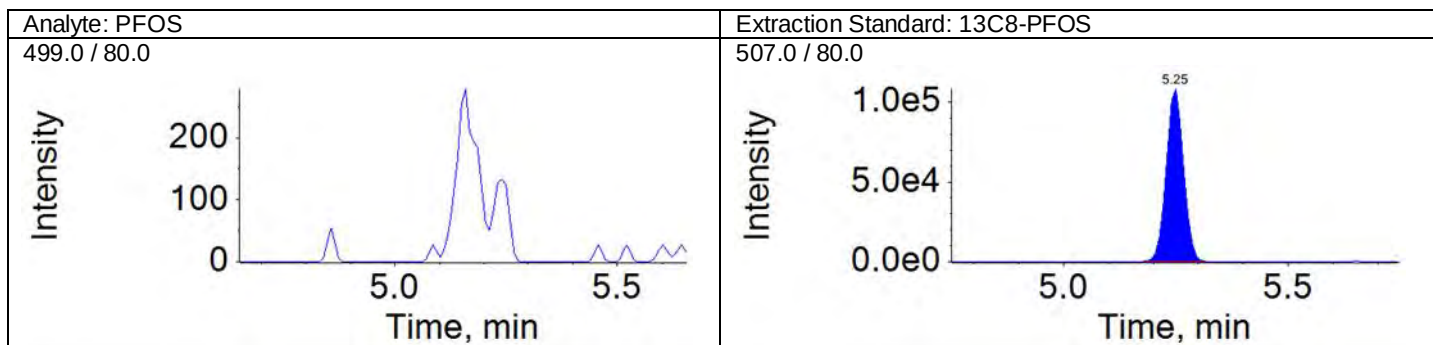
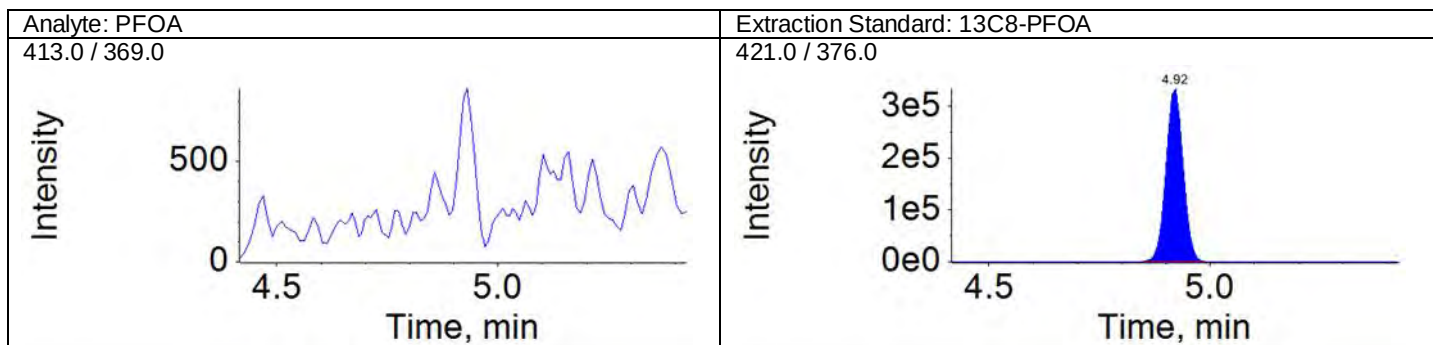
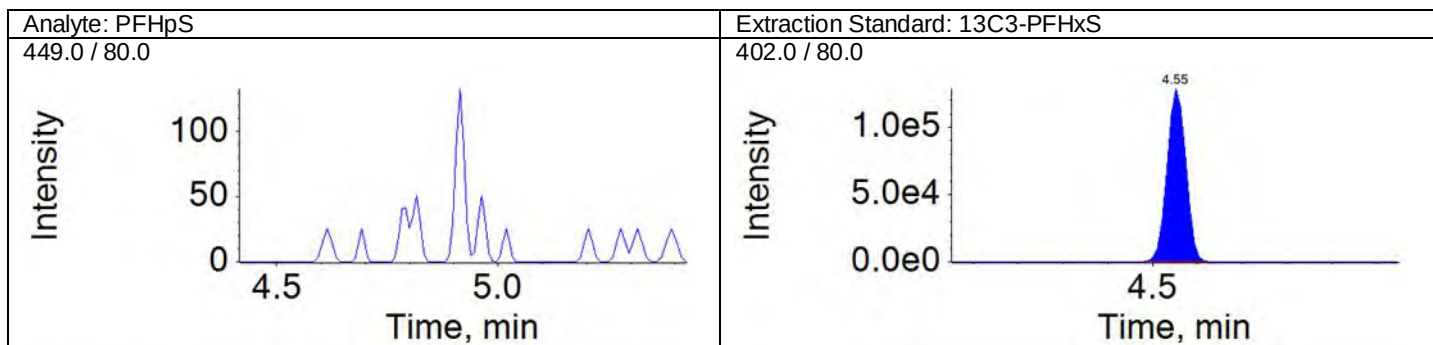
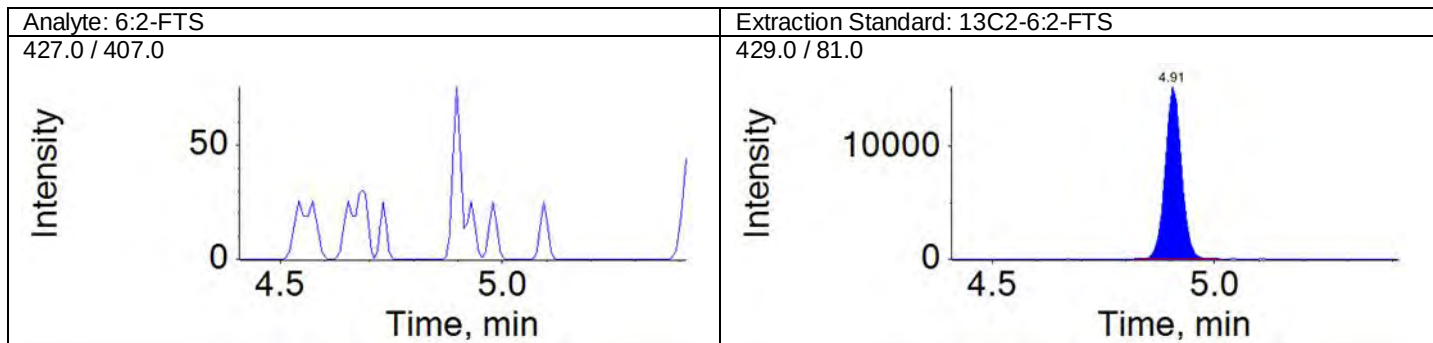
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam



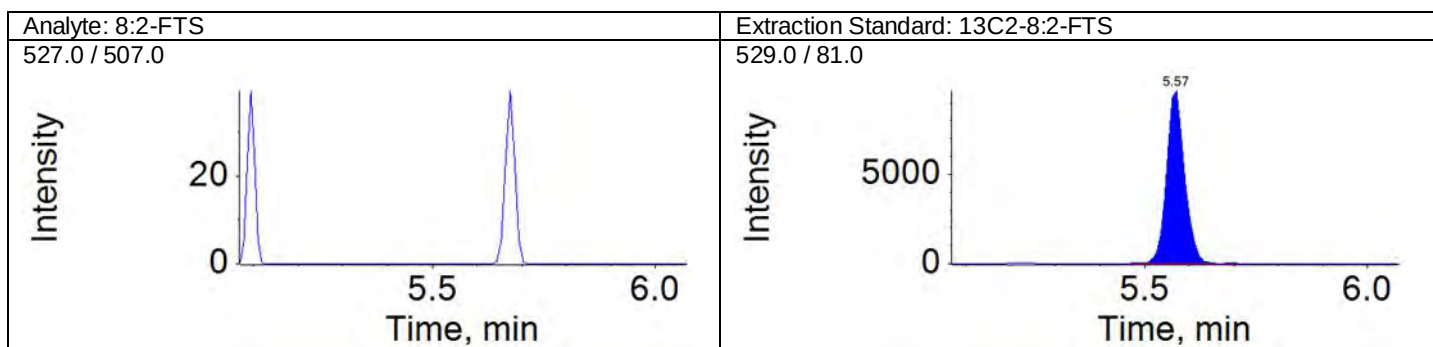
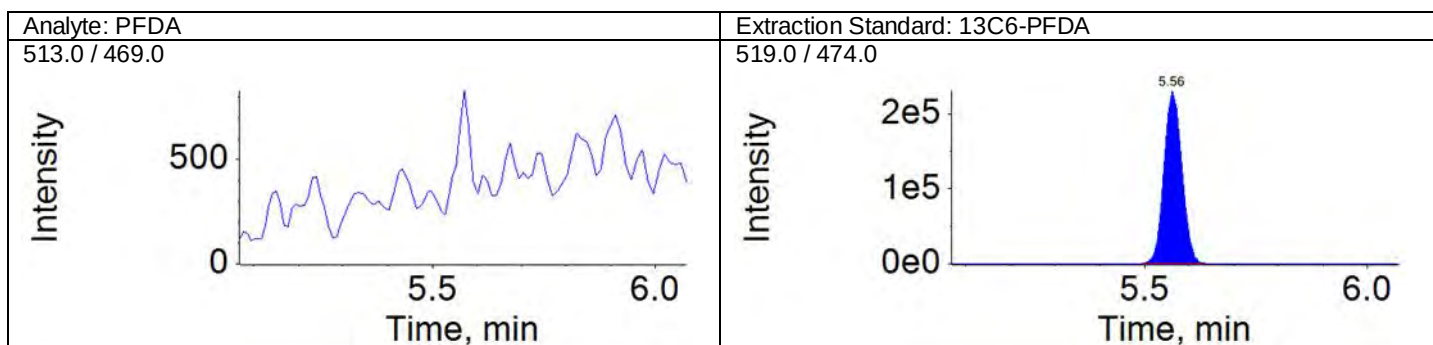
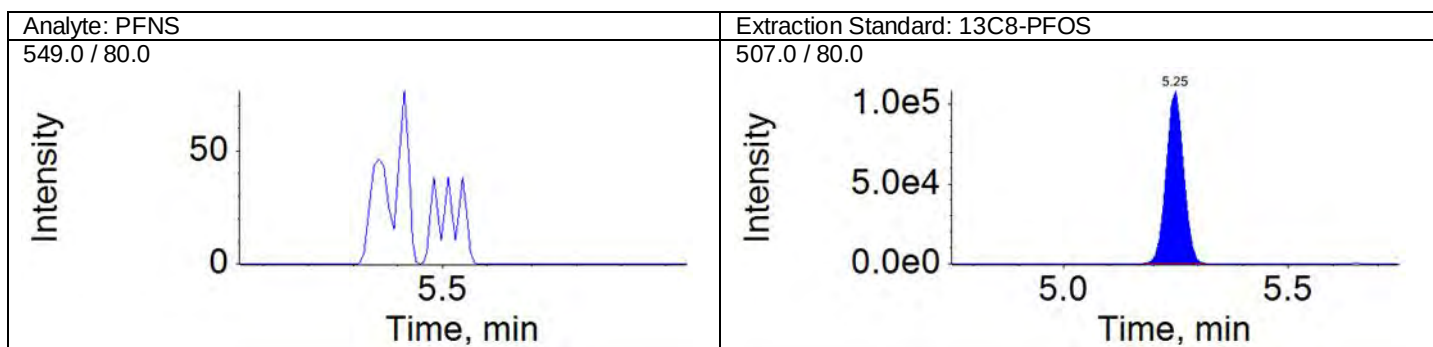
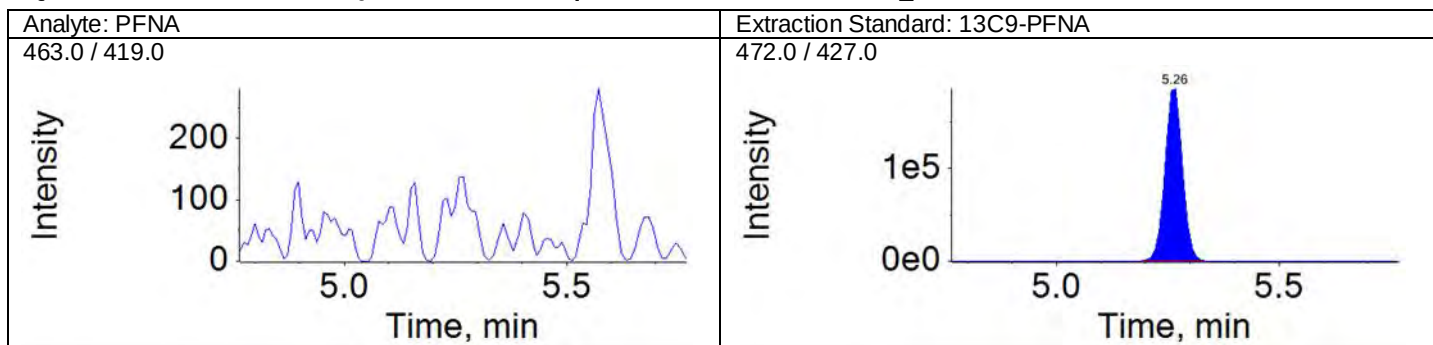
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam



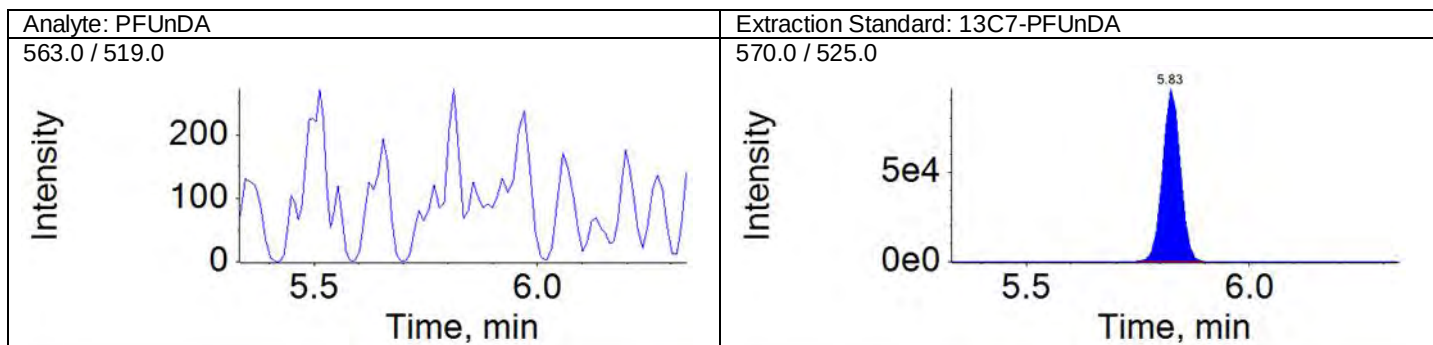
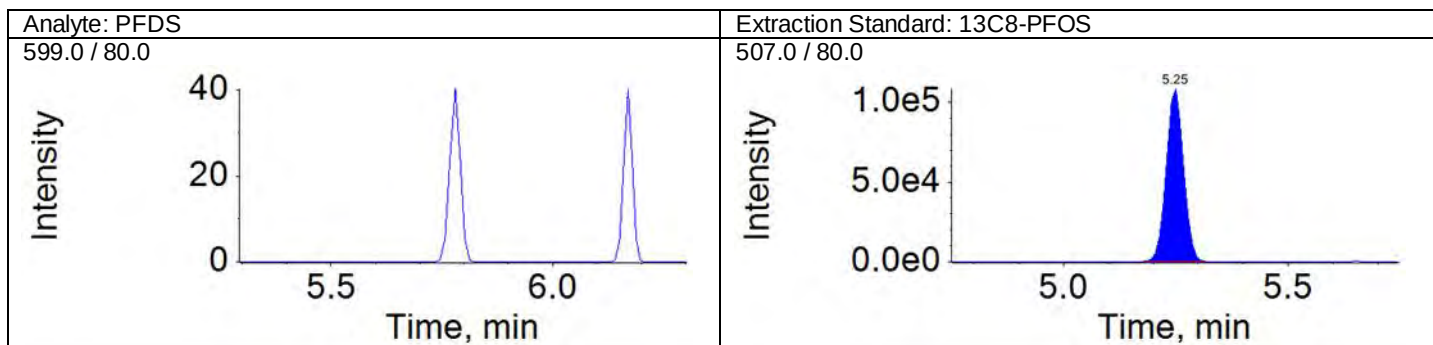
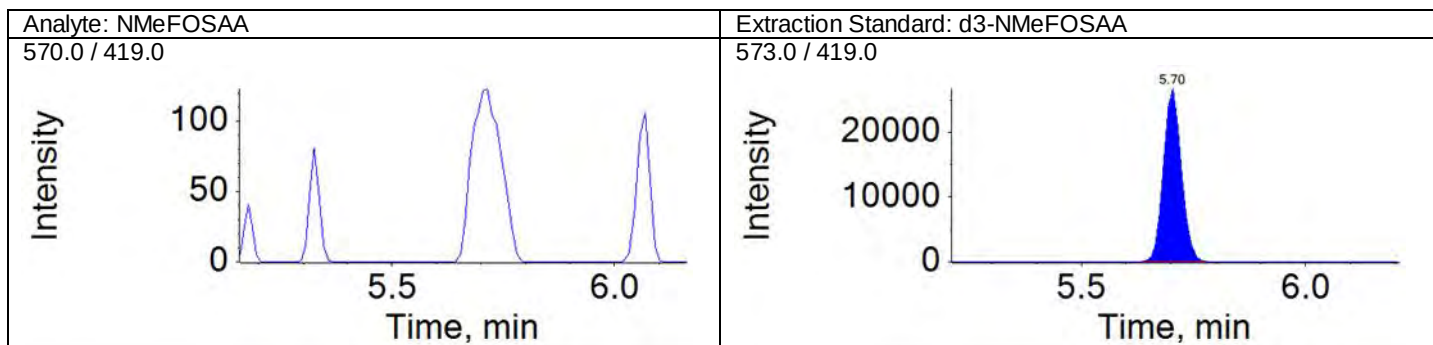
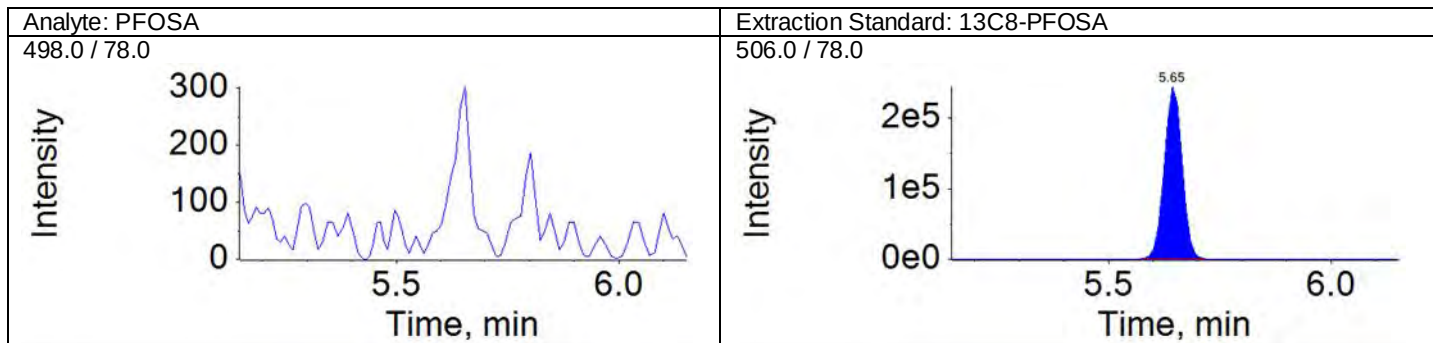
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam



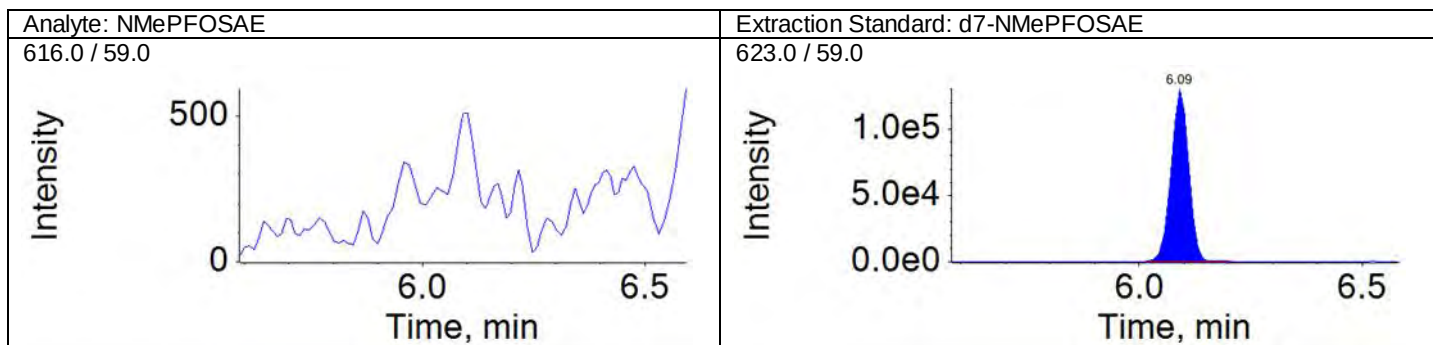
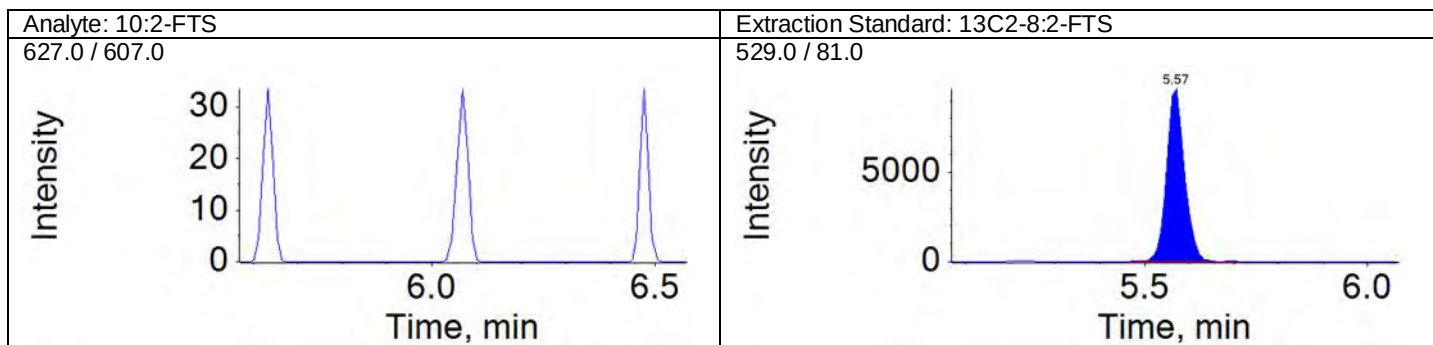
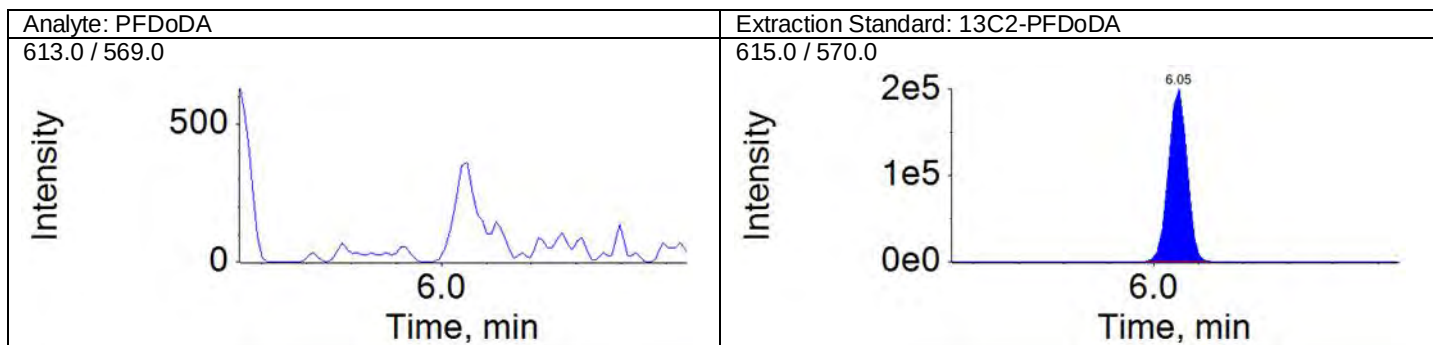
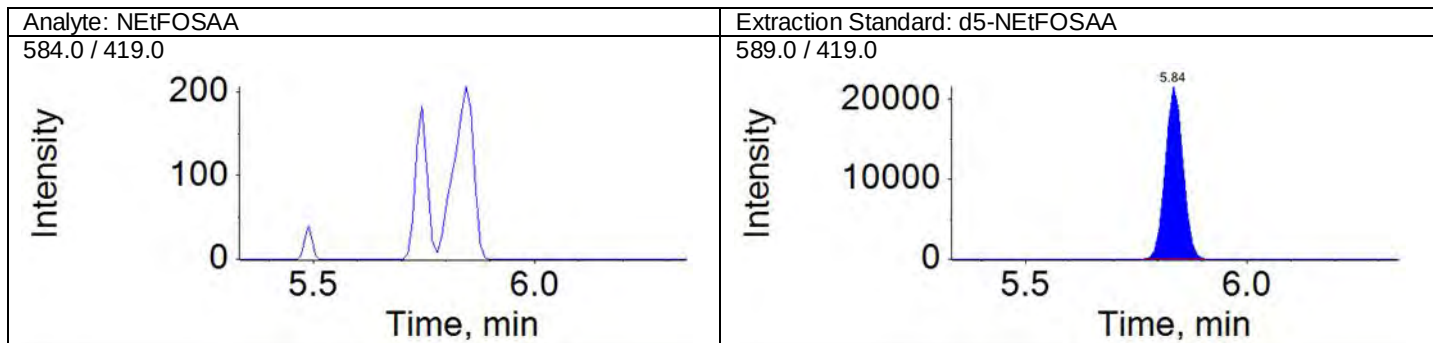
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam



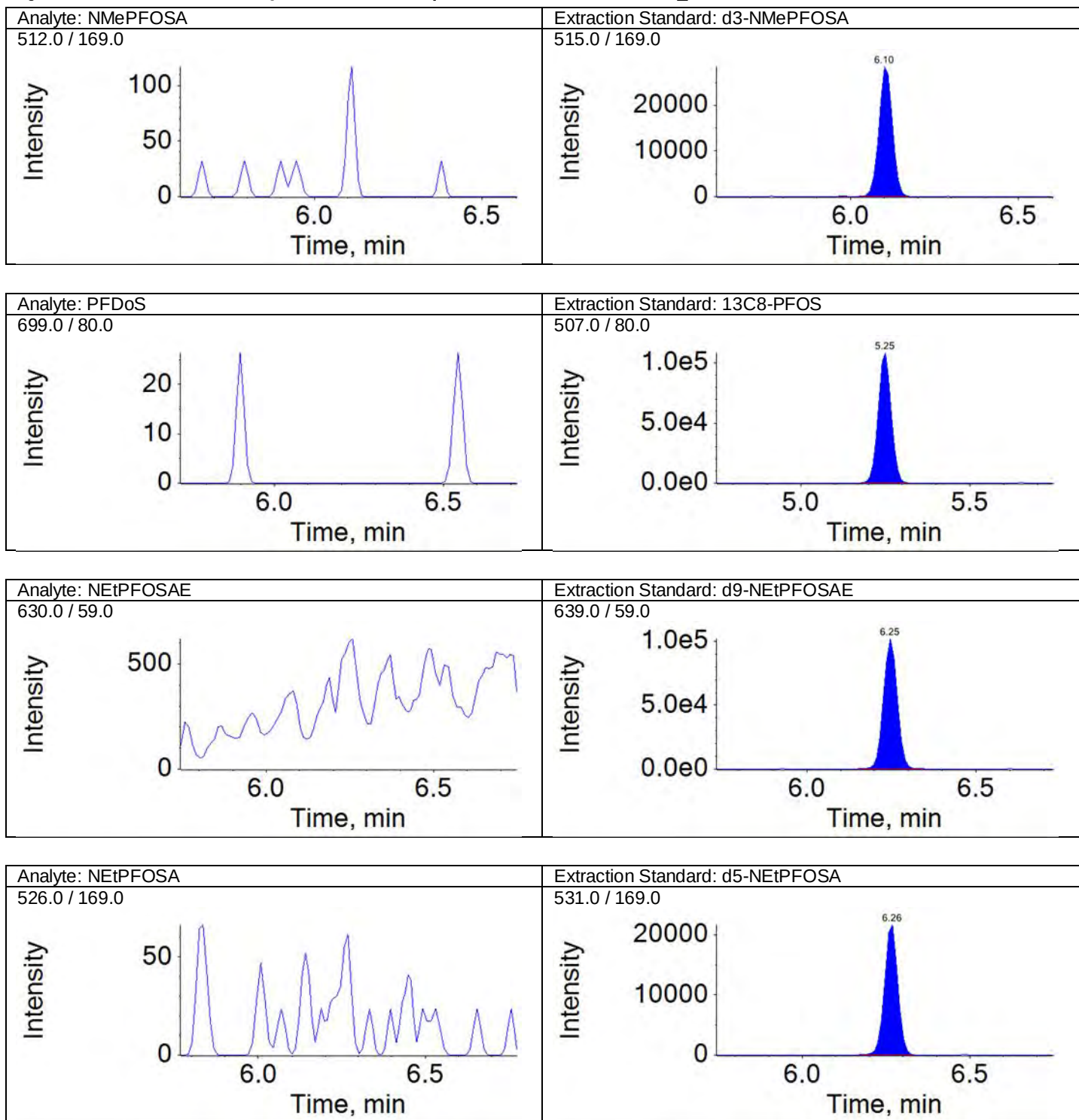
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam



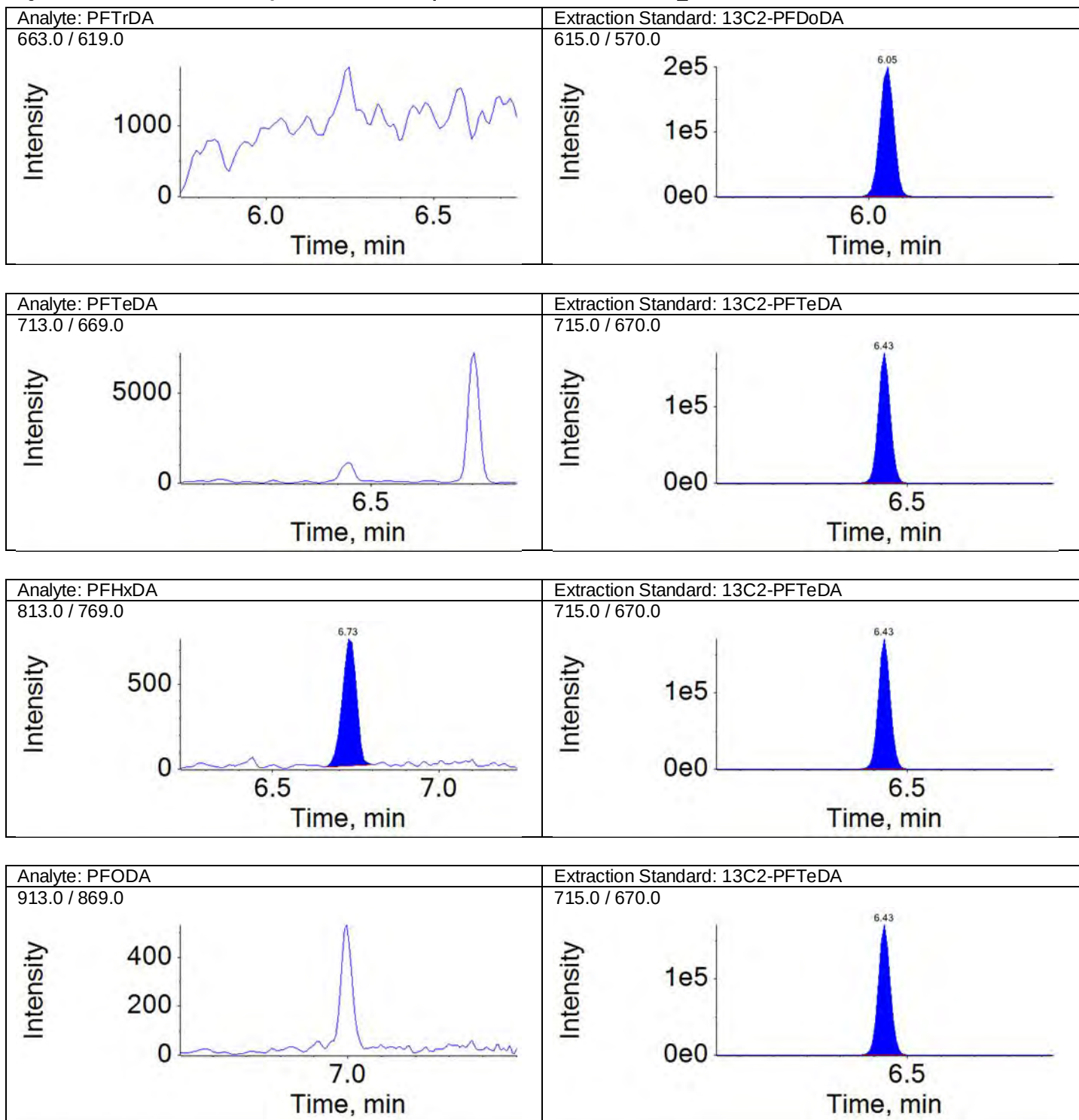
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/20/2018 8:36:28 AM
Acquisition Method: 18AUG13_3uL.dam



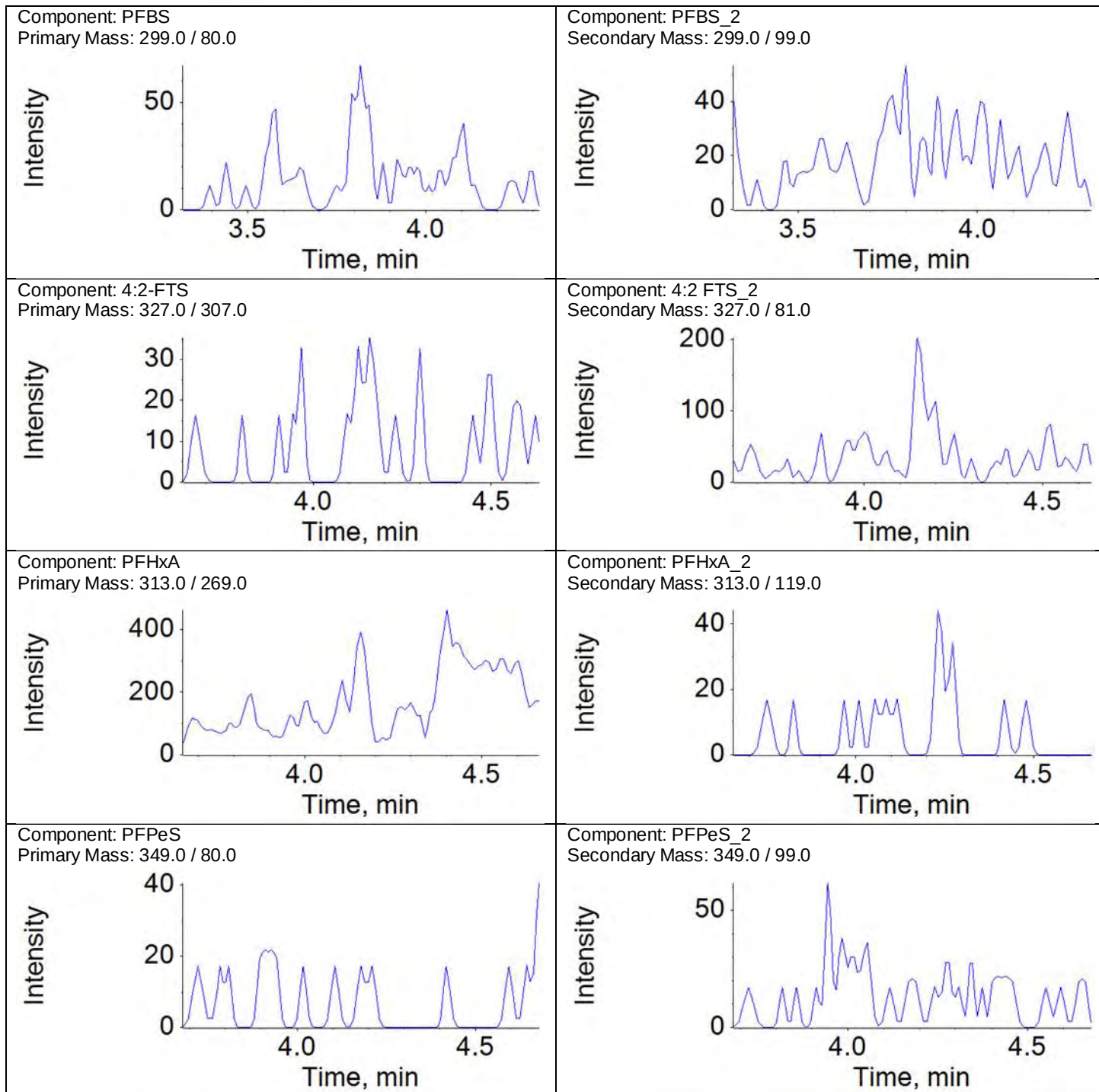
Ion Ratio Report

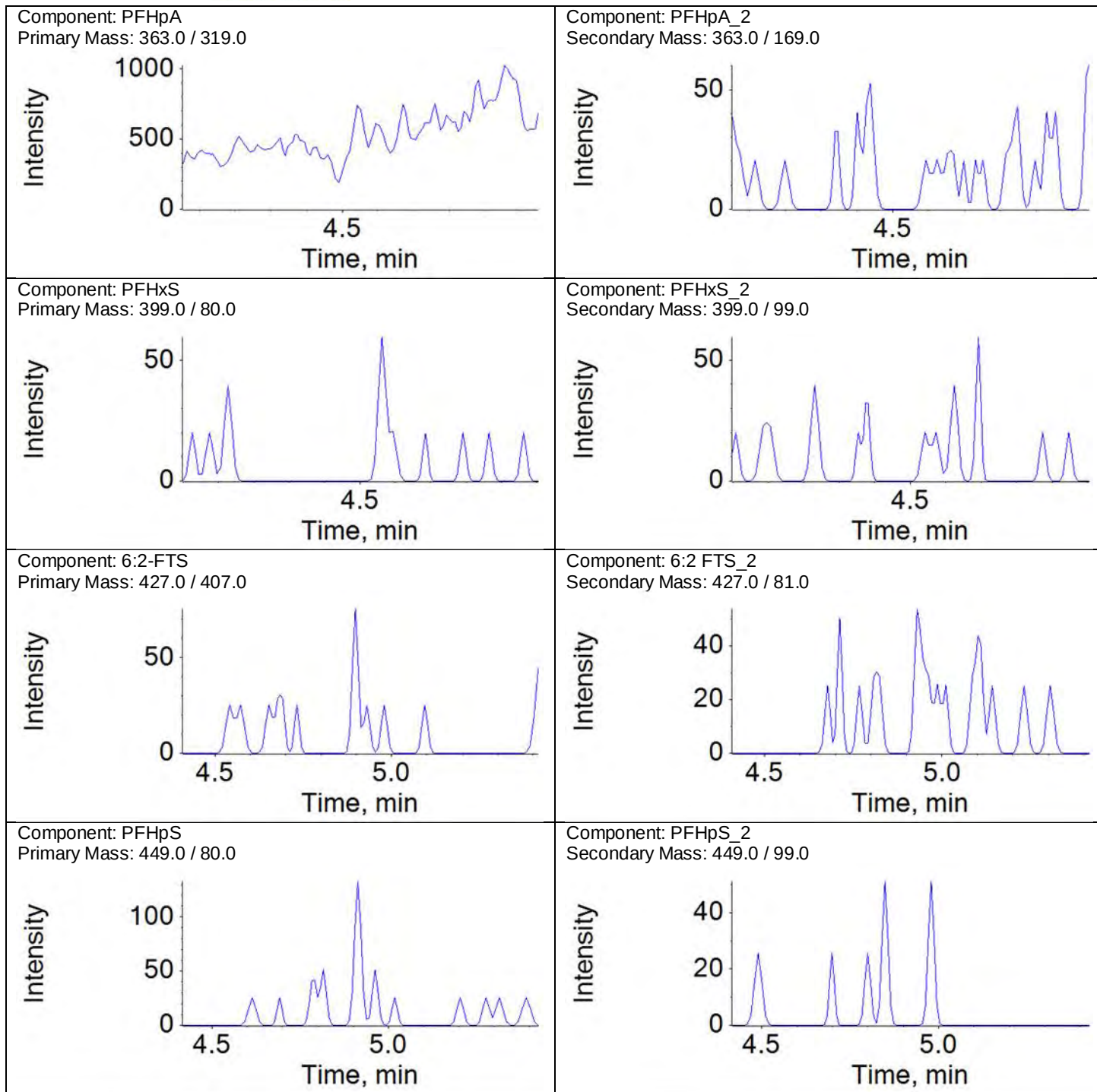
Sample Name: INBLK

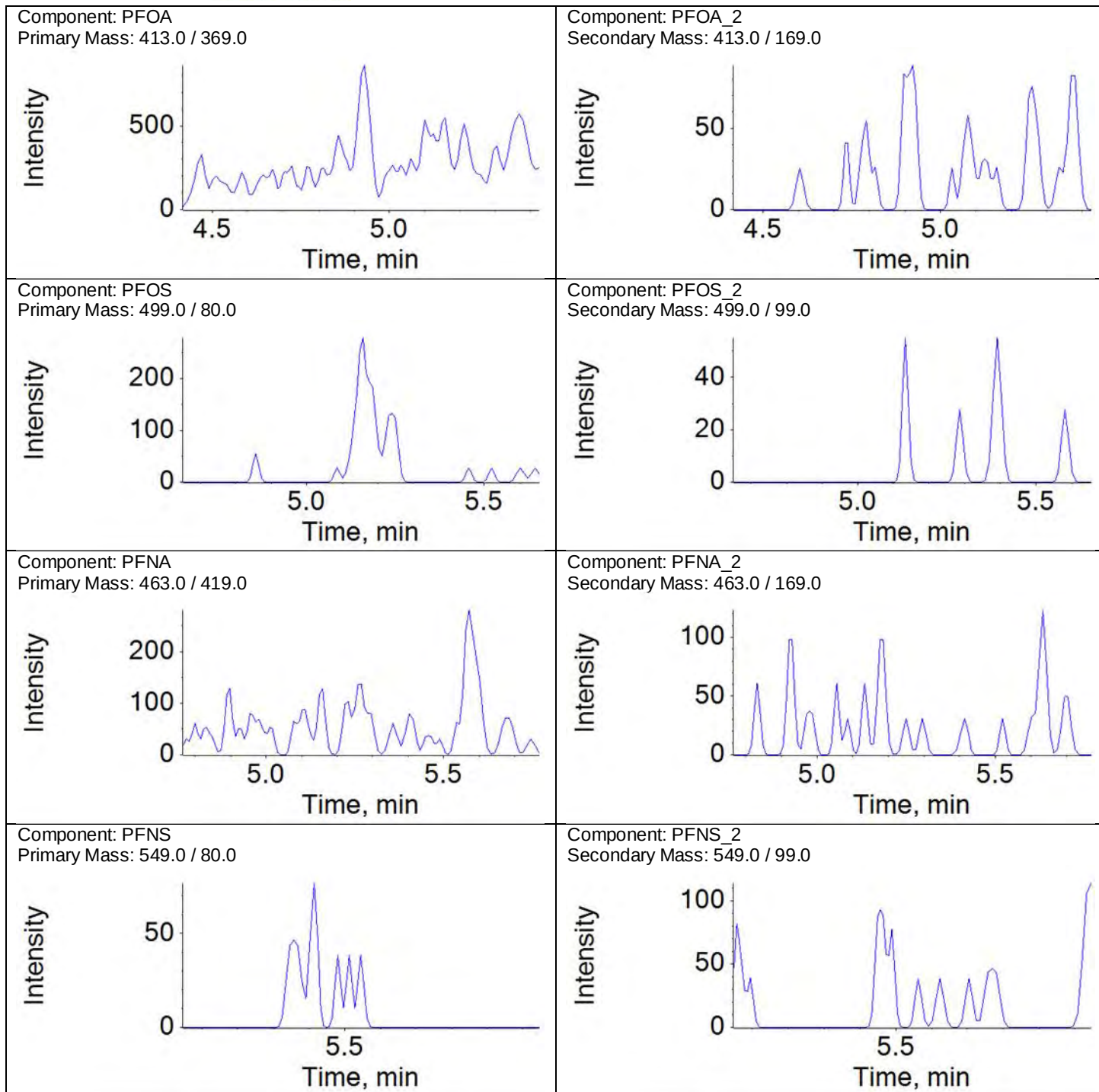
Instrument Name: LM27631

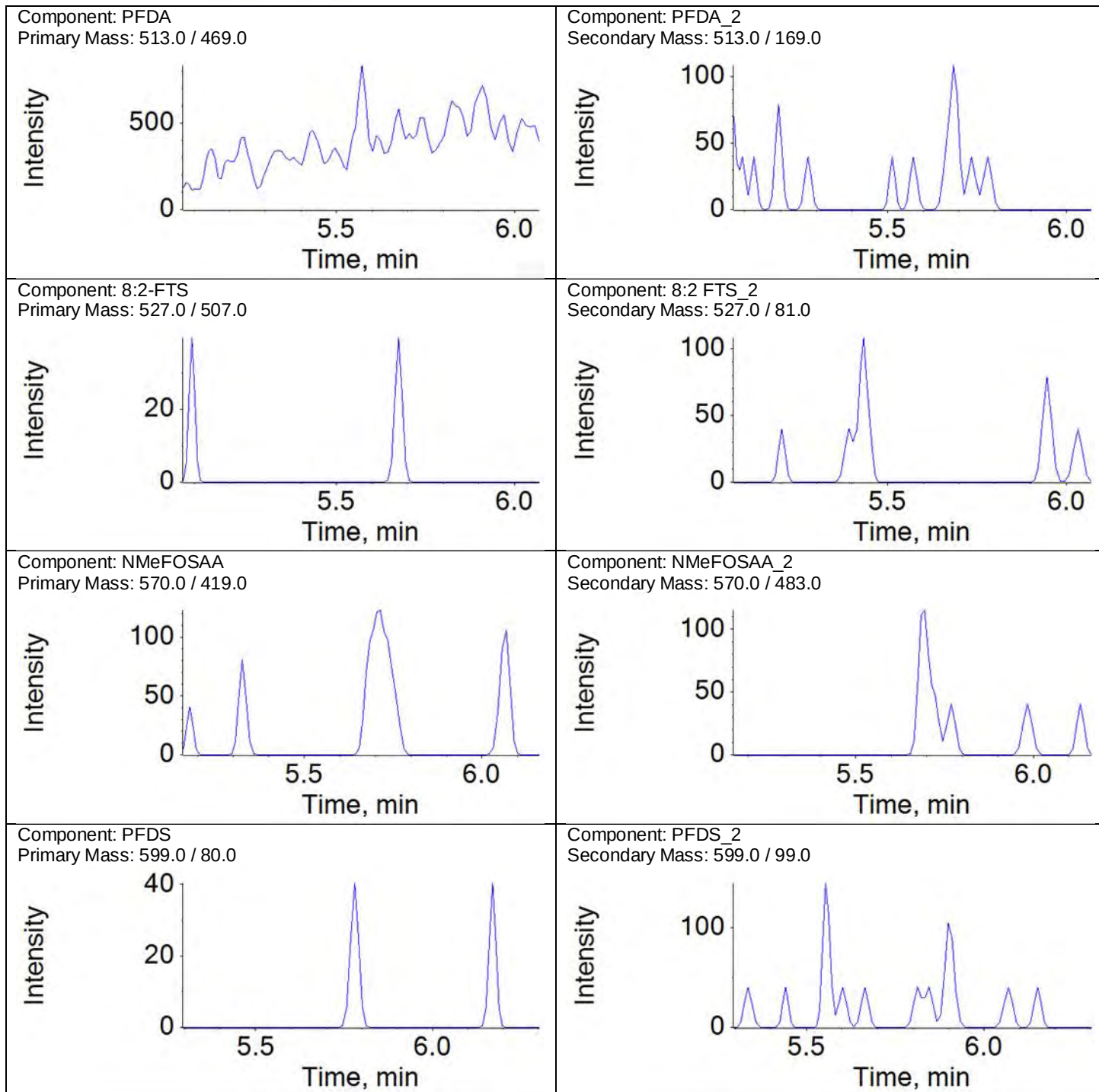
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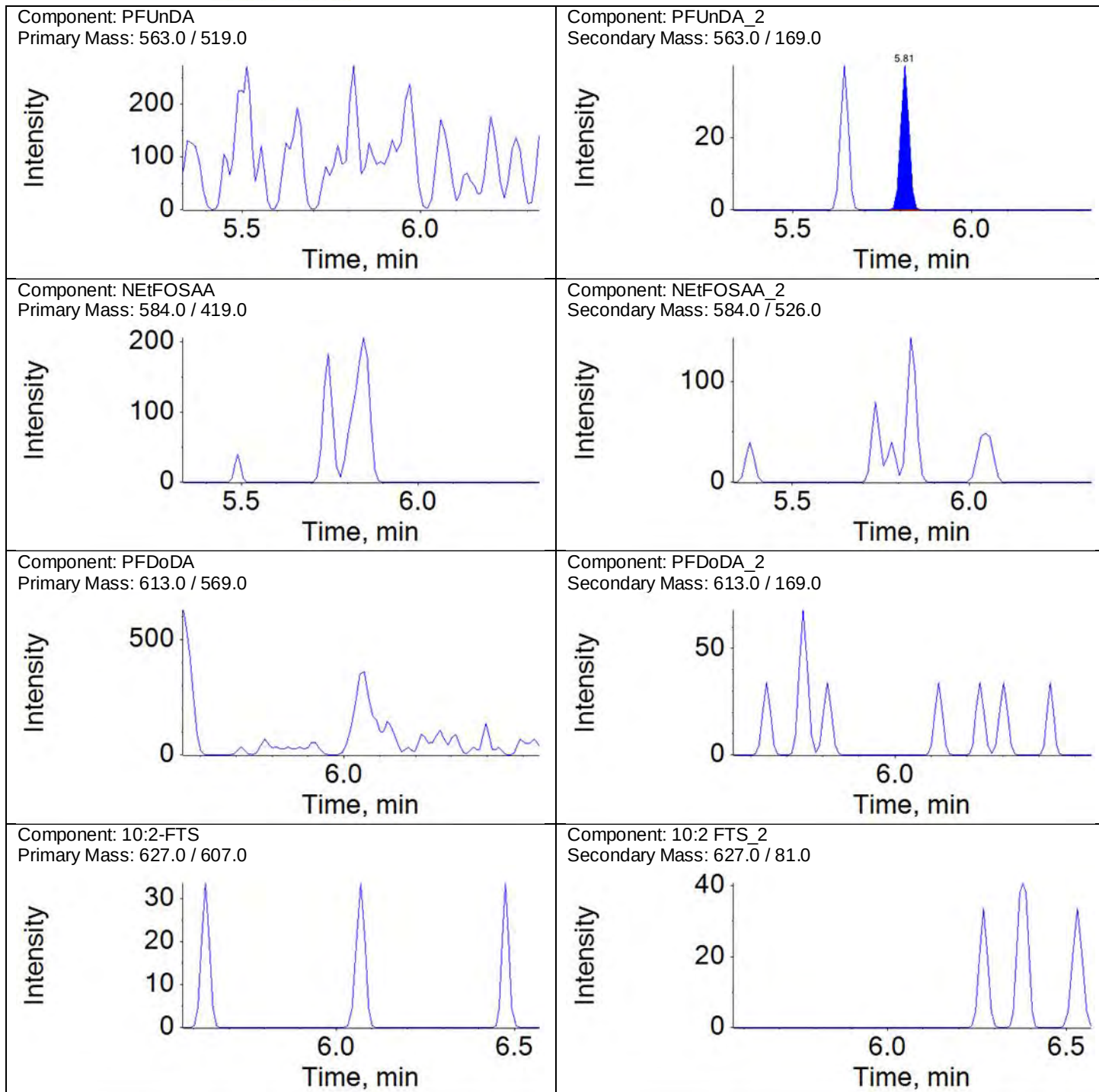
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PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	5.81	1.00	64.89	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDODA	N/A	N/A	N/A	A	N/A	N/A			
PFDODA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	6.73	1.05	2221.67	A	N/A	1.0000			
PFHxDA_2	6.74	1.05	133.29	A	N/A	0.0600	-11	50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

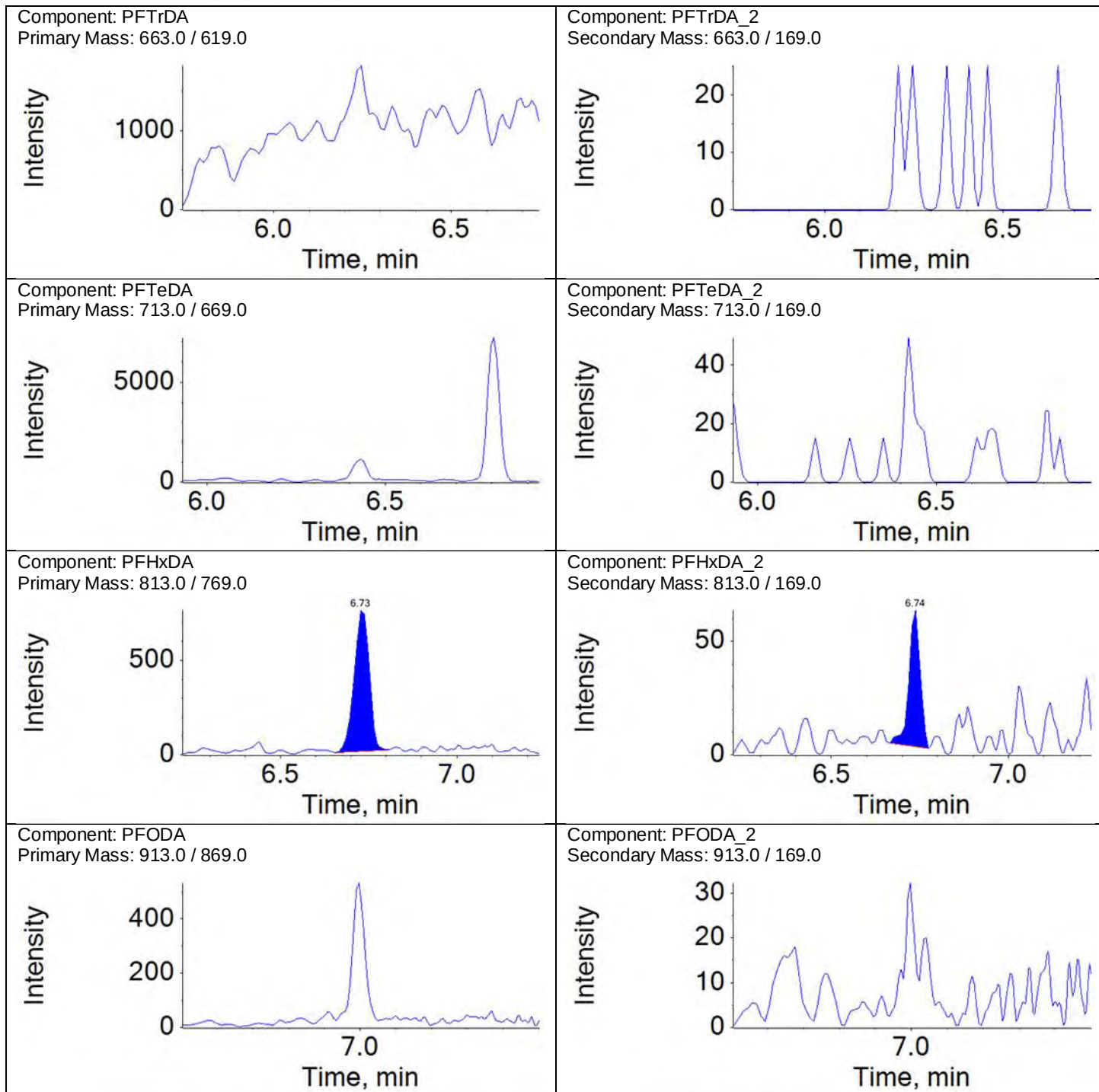












ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	ICV		Data File:	18NOV12DCAL-50.wiff
Sample ID:	ICVMODX1833G		Acquis Date:	2018-11-12T16:18:11
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	10		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV12DCAL_Updated
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	655209.3	659926.2	-1	50	
13C2-PFOA	5.0	452726.2	450219.7	1	50	
13C4-PFOS	4.8	253010.3	249205.8	2	50	
13C2-PFDA	5.0	277002.7	278743.9	-1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	715834.4	13C3-PFBA	655209.3	1.093	5.000	4.898	98	70-130	
E13C5-PFPeA	699482.2	13C3-PFBA	655209.3	1.068	5.000	4.788	96	70-130	
E13C3-PFBS	394903.4	13C3-PFBA	655209.3	0.603	4.650	4.255	91	70-130	
E13C2-4:2-FTS	47297.3	13C2-PFOA	452726.2	0.104	4.670	4.653	100	70-130	
E13C5-PFHxA	613579.4	13C2-PFOA	452726.2	1.355	5.000	4.896	98	70-130	
E13C3-PFHxS	304897.8	13C2-PFOA	452726.2	0.673	4.730	4.621	98	70-130	
E13C4-PFHpA	485394.9	13C2-PFOA	452726.2	1.072	5.000	4.830	97	70-130	
E13C2-6:2-FTS	31532.8	13C2-PFOA	452726.2	0.070	4.750	4.660	98	70-130	
E13C8-PFOA	843573.3	13C2-PFOA	452726.2	1.863	5.000	5.134	103	70-130	
E13C8-PFOS	266211.4	13C4-PFOS	253010.3	1.052	4.780	4.662	98	70-130	
E13C9-PFNA	458821.5	13C4-PFOS	253010.3	1.813	5.000	5.056	101	70-130	
E13C6-PFDA	590290.3	13C2-PFDA	277002.7	2.131	5.000	4.973	99	70-130	
E13C2-8:2-FTS	22188.9	13C2-PFDA	277002.7	0.080	4.790	3.995	83	70-130	
E13C8-PFOSA	587080.1	13C2-PFDA	277002.7	2.119	5.000	4.699	94	70-130	
Ed3-NMeFOSAA	70133.2	13C2-PFDA	277002.7	0.253	5.000	4.570	91	70-130	
E13C7-PFUnDA	228363.9	13C2-PFDA	277002.7	0.824	5.000	4.786	96	70-130	
Ed5-NEtFOSAA	59551.3	13C2-PFDA	277002.7	0.215	5.000	4.548	91	70-130	
E13C2-PFDODA	495858.1	13C2-PFDA	277002.7	1.790	5.000	4.648	93	70-130	
Ed7-NMePFOSAE	299185.4	13C2-PFDA	277002.7	1.080	5.000	4.674	93	70-130	
Ed3-NMePFOSA	75186.9	13C2-PFDA	277002.7	0.271	5.000	4.931	99	70-130	
Ed9-NEtPFOSAE	255149.8	13C2-PFDA	277002.7	0.921	5.000	4.791	96	70-130	
Ed5-NEtPFOSA	53596.2	13C2-PFDA	277002.7	0.193	5.000	4.539	91	70-130	
E13C2-PFTeDA	365300.2	13C2-PFDA	277002.7	1.319	5.000	4.630	93	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

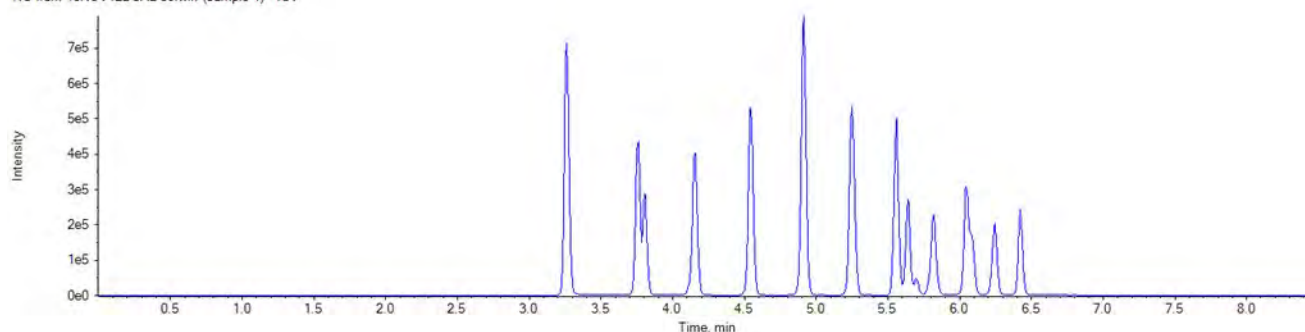
Sample Name: ICV Instrument Name: LM27631 File Name: 18NOV12DCAL-50.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	270820.6		A	13C4-PFBA	3.26	715834.4	0.378	2.096
PFPeA	3.76	1.000	265646.8		A	13C5-PFPeA	3.76	699482.2	0.380	2.198
PFBS	3.80	1.000	150059.6		A	13C3-PFBS	3.81	394903.4	0.380	1.808
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	47297.3	N/A	
PFHxA	4.15	1.000	328694.3		A	13C5-PFHxA	4.15	613579.4	0.536	2.237
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	394903.4	N/A	
PFHpA	4.54	1.000	316975.3		A	13C4-PFHpA	4.54	485394.9	0.653	2.165
PFHxS	4.55	1.000	115564.2		A	13C3-PFHxS	4.55	304897.8	0.379	1.838
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	31532.8	N/A	
PFHpS	4.91	1.080	118318.7		A	13C3-PFHxS	4.55	304897.8	0.388	2.043
PFOA	4.91	1.000	332094.4		A	13C8-PFOA	4.91	843573.3	0.394	2.103
PFOS	5.24	1.000	100952.5		M	13C8-PFOS	5.24	266211.4	0.379	1.658
PFNA	5.26	1.000	271240.4		A	13C9-PFNA	5.26	458821.5	0.591	2.132
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	266211.4	N/A	
PFDA	5.56	1.000	224279.7		A	13C6-PFDA	5.56	590290.3	0.380	2.014
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	22188.9	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.64	587080.1	N/A	
NMeFOSAA	5.70	1.000	30591.9		A	d3-NMeFOSAA	5.70	70133.2	0.436	2.465
PFDS	5.79	1.110	52860.9		M	13C8-PFOS	5.24	266211.4	0.199	1.799
PFUnDA	5.82	1.000	183511.3		A	13C7-PFUnDA	5.82	228363.9	0.804	2.101
NEtFOSAA	5.83	1.000	26149.3		A	d5-NEtFOSAA	5.83	59551.3	0.439	2.302
PFDODA	6.05	1.000	185295.0		A	13C2-PFDODA	6.05	495858.1	0.374	1.903
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	22188.9	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.08	299185.4	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	75186.9	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	266211.4	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	255149.8	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	53596.2	N/A	
PFTeDA	6.25	1.030	165153.1		A	13C2-PFDODA	6.05	495858.1	0.333	2.102
PFTeDA	6.42	1.000	135651.0		A	13C2-PFTeDA	6.42	365300.2	0.371	2.082
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	365300.2	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	365300.2	N/A	

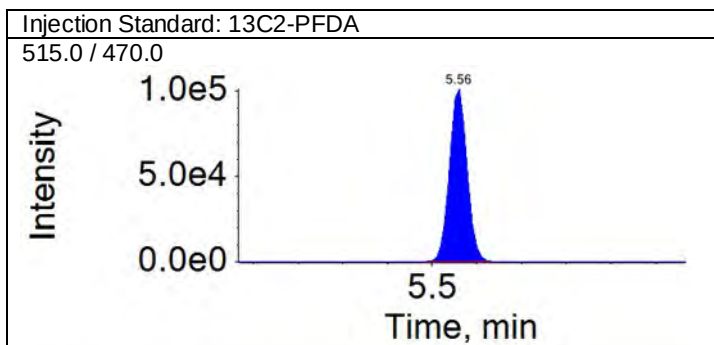
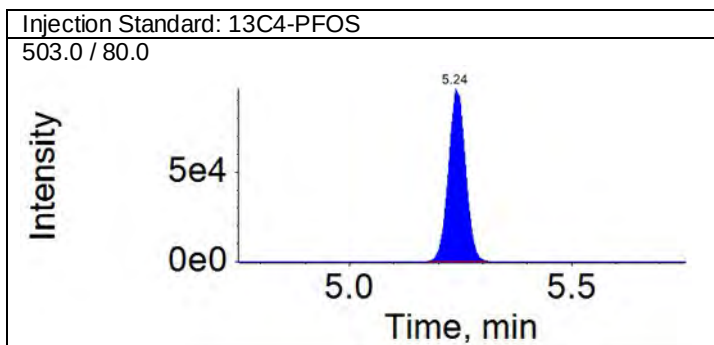
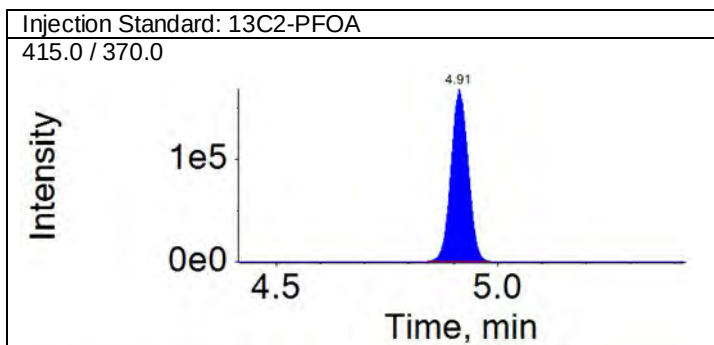
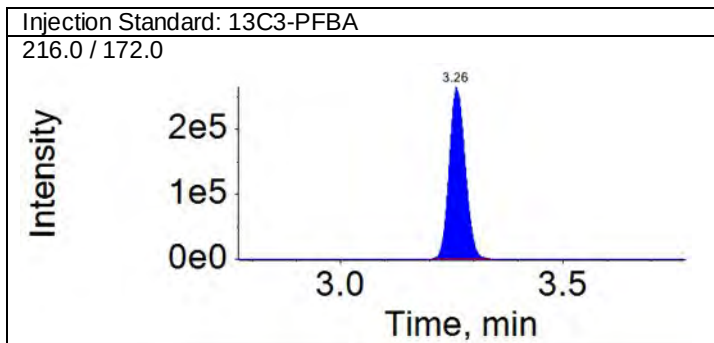
Total Ion Chromatogram

TIC from 18NOV12DCAL-50.wiff (sample 1) - ICV



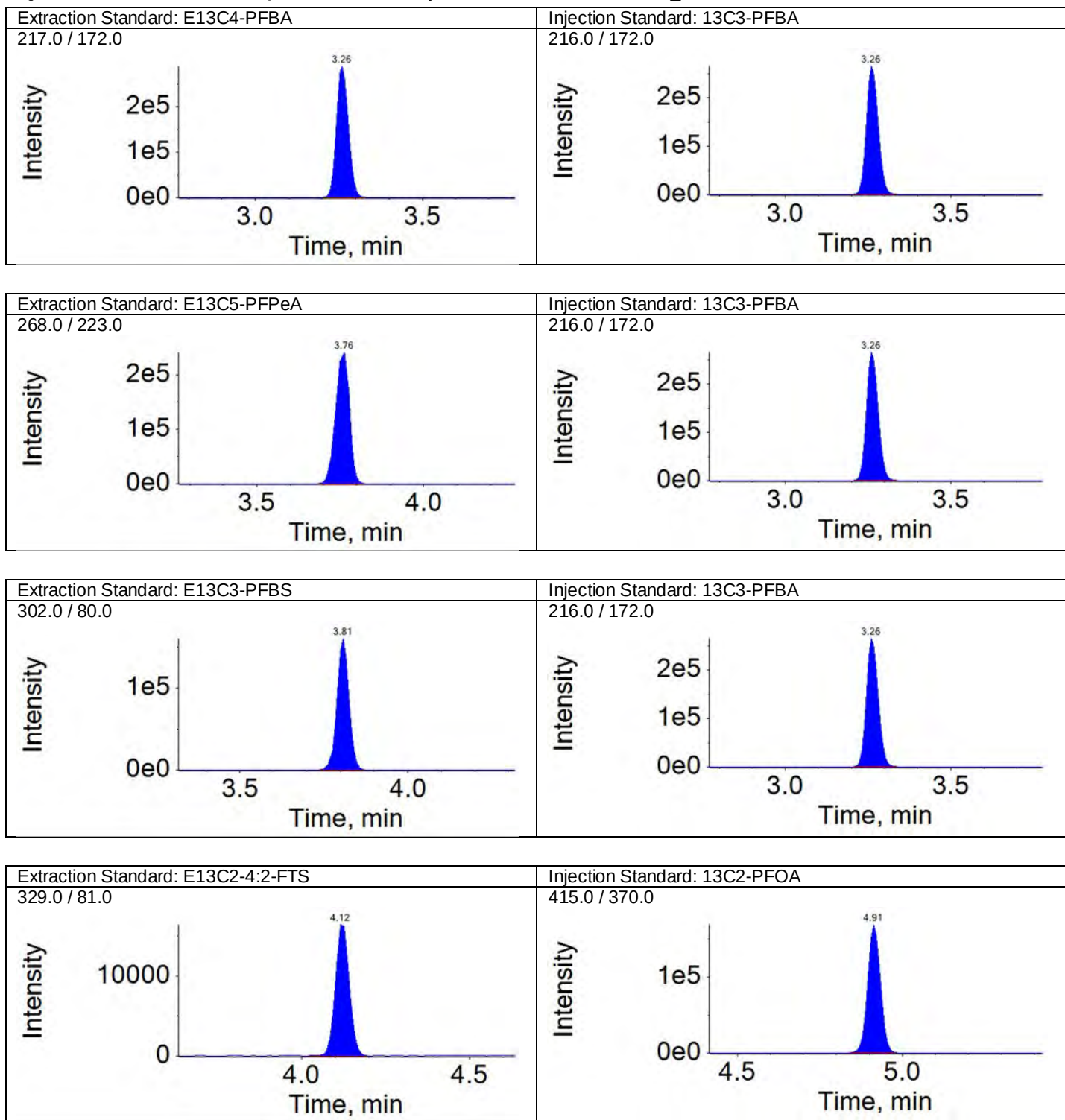
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam



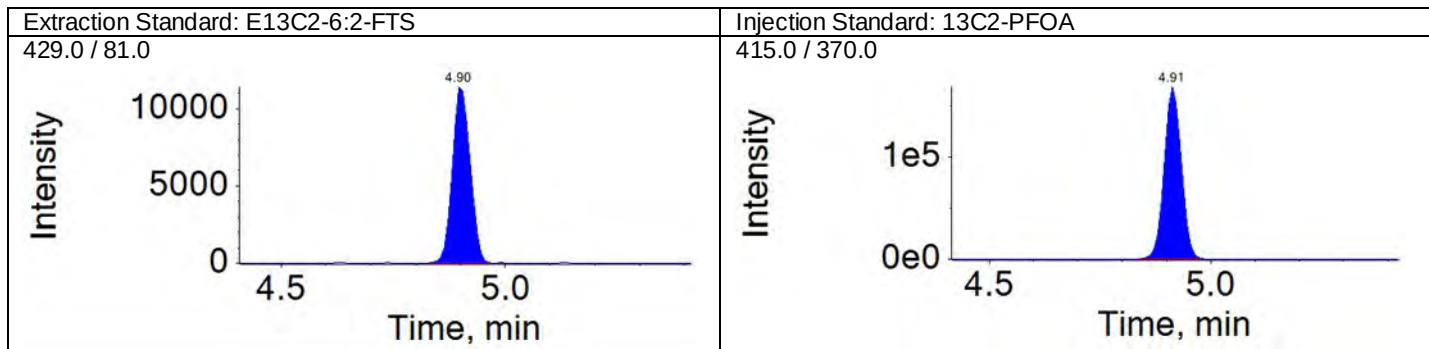
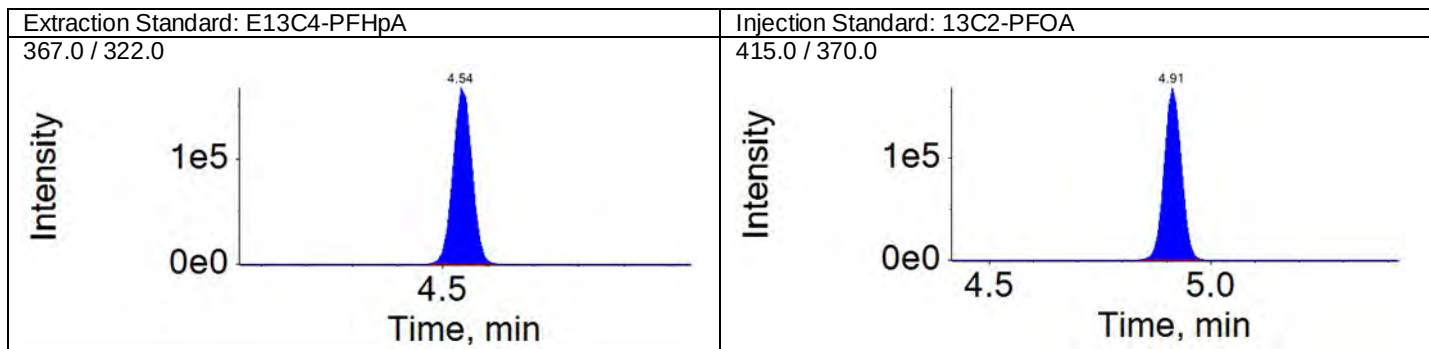
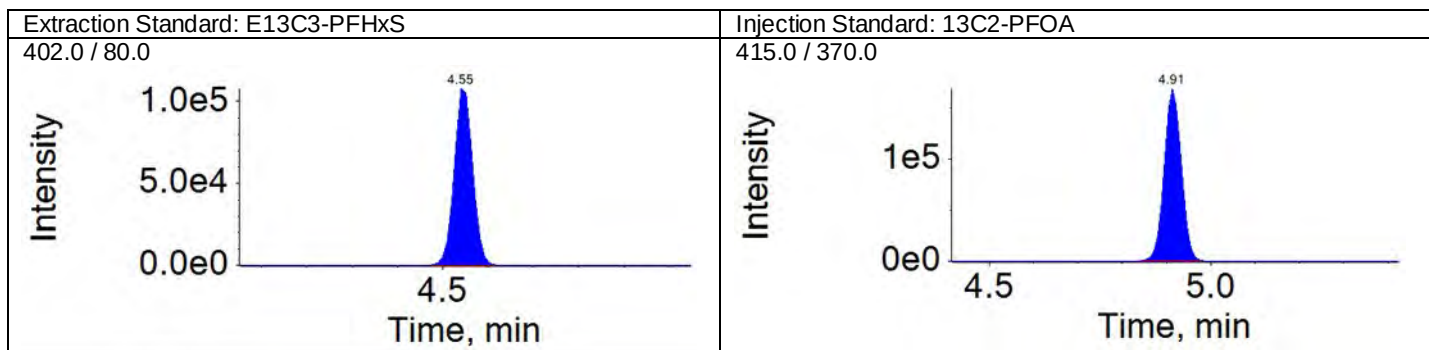
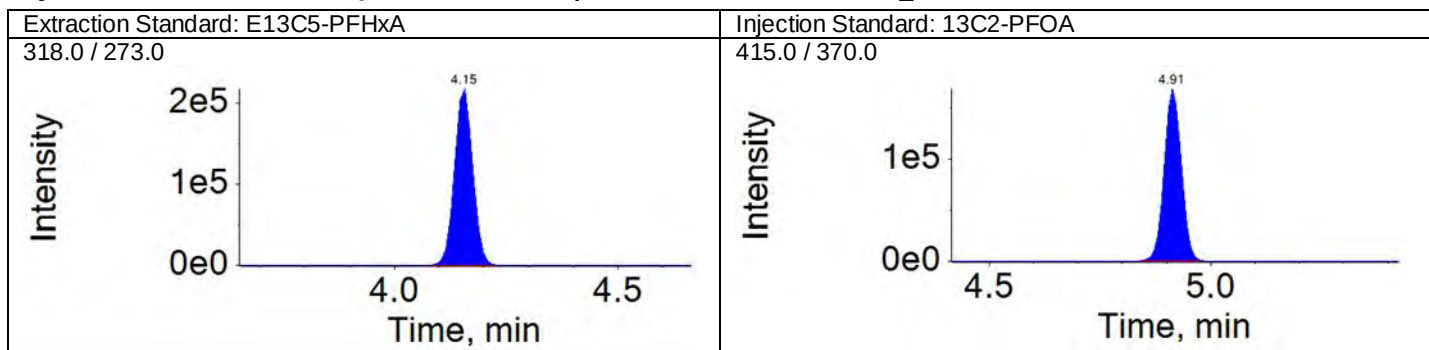
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam



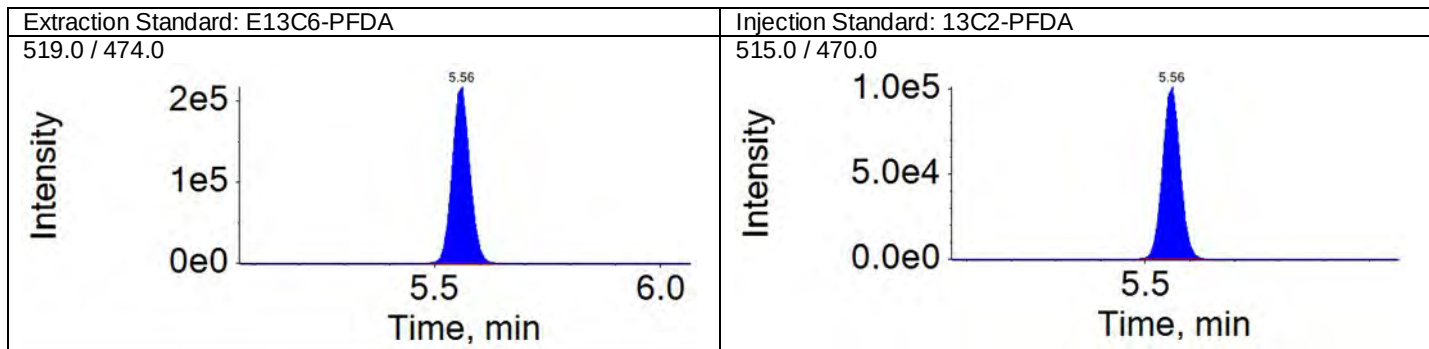
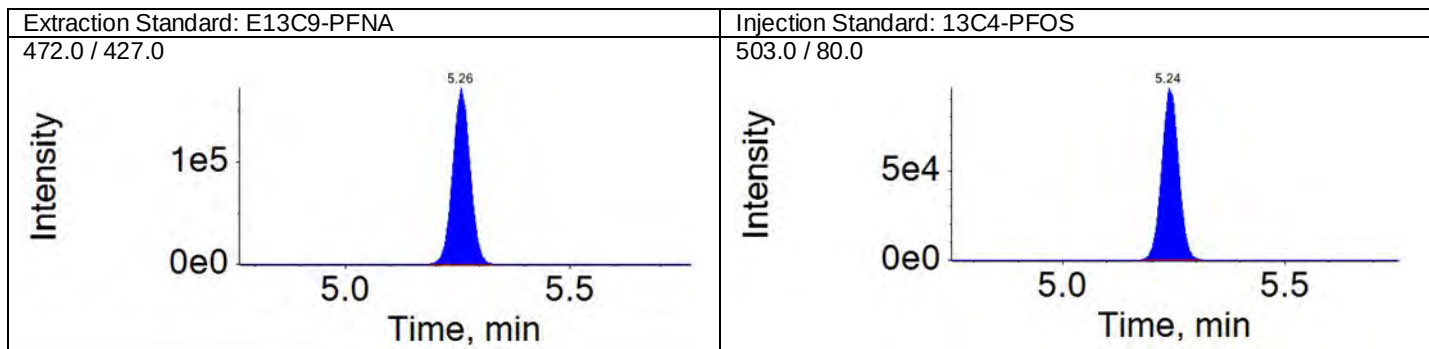
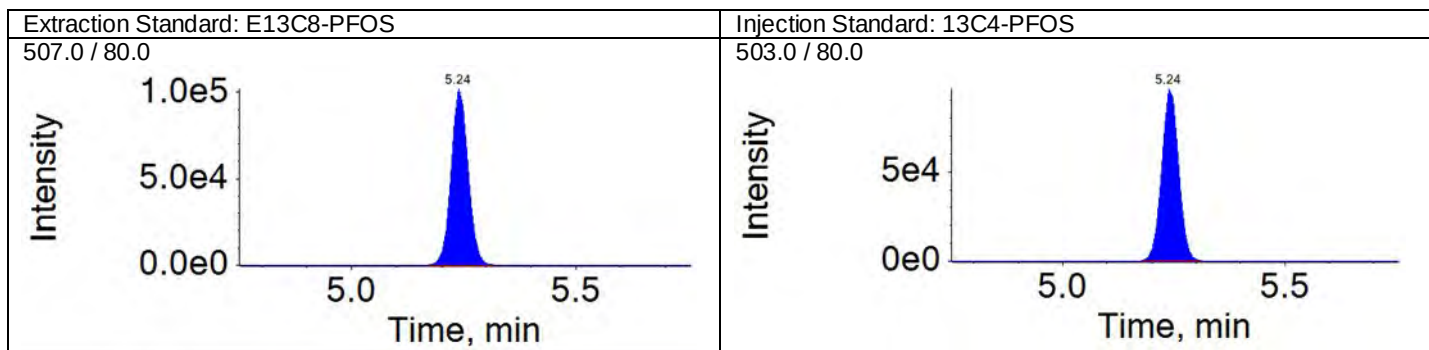
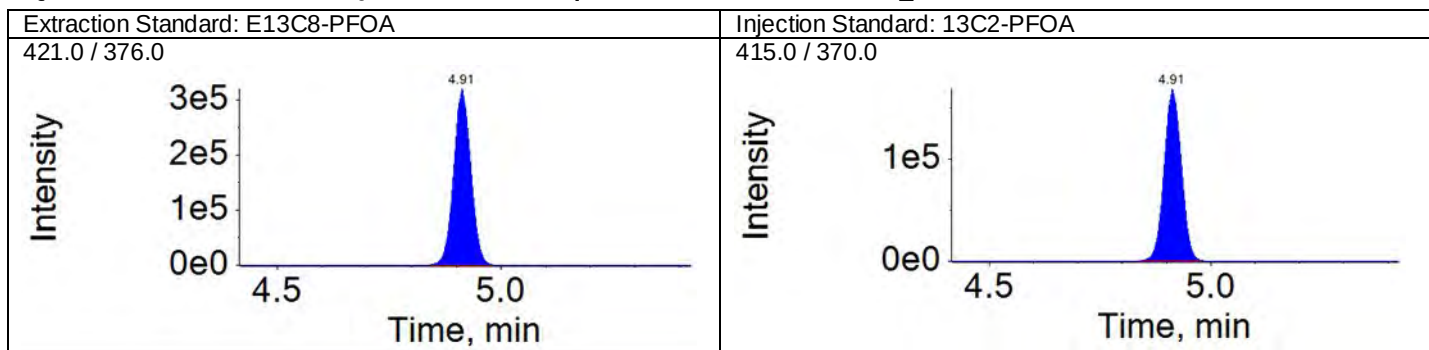
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam



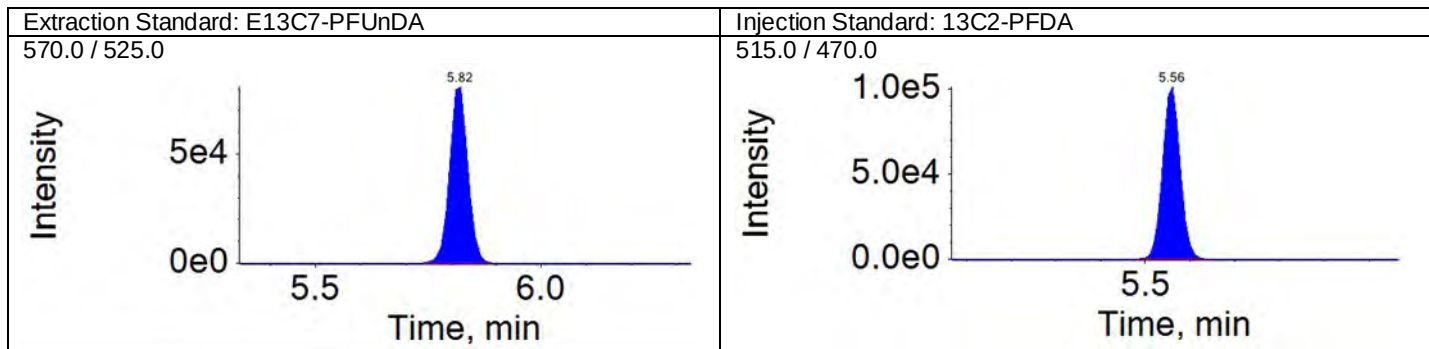
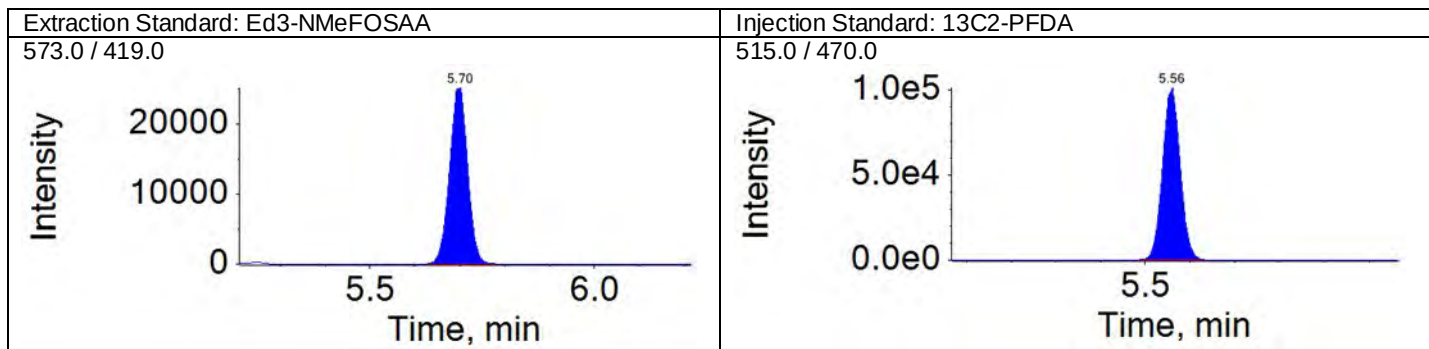
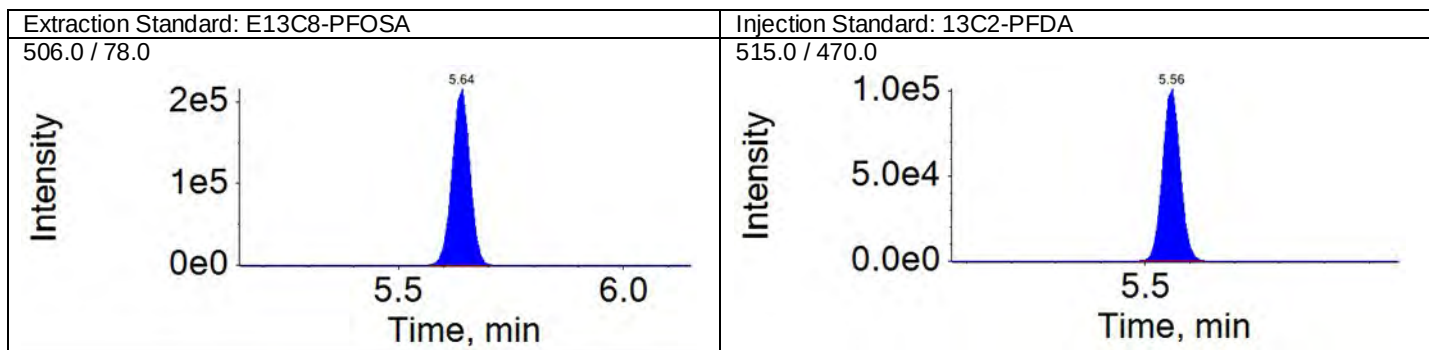
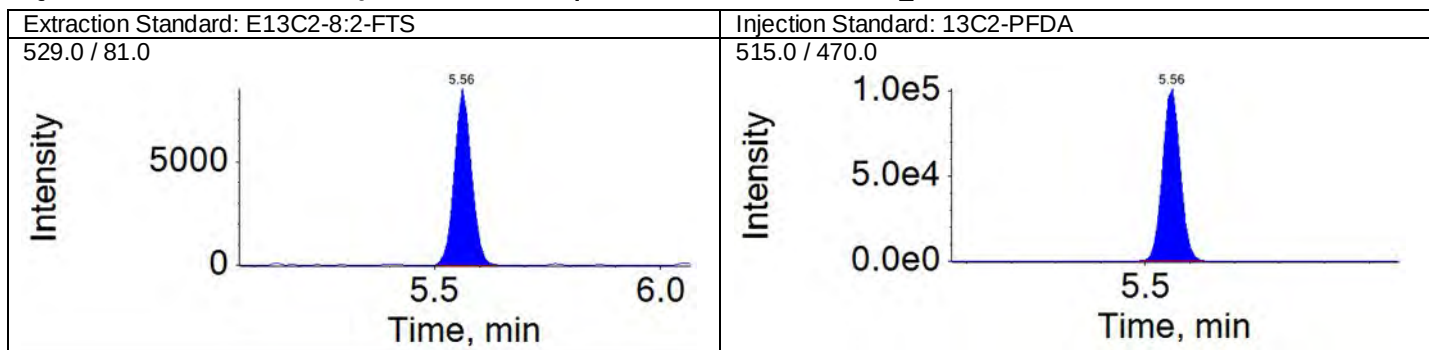
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam



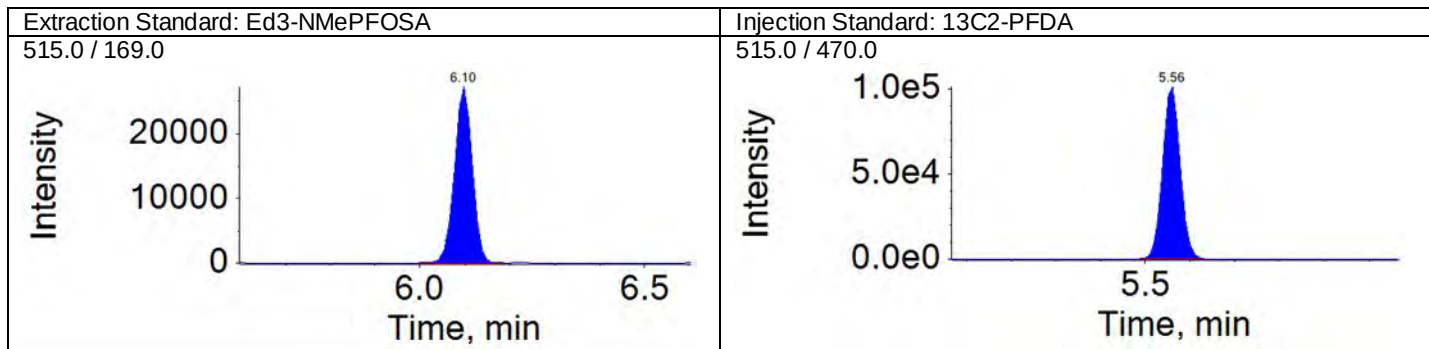
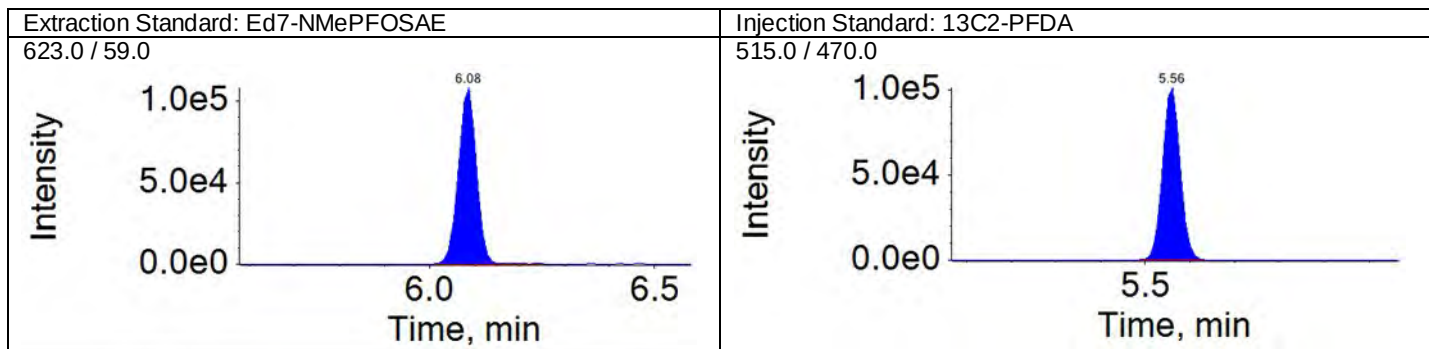
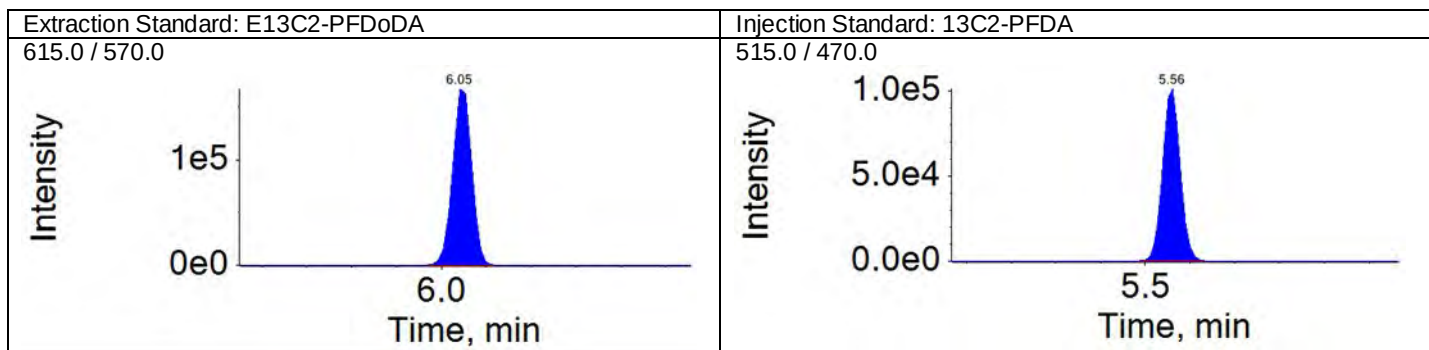
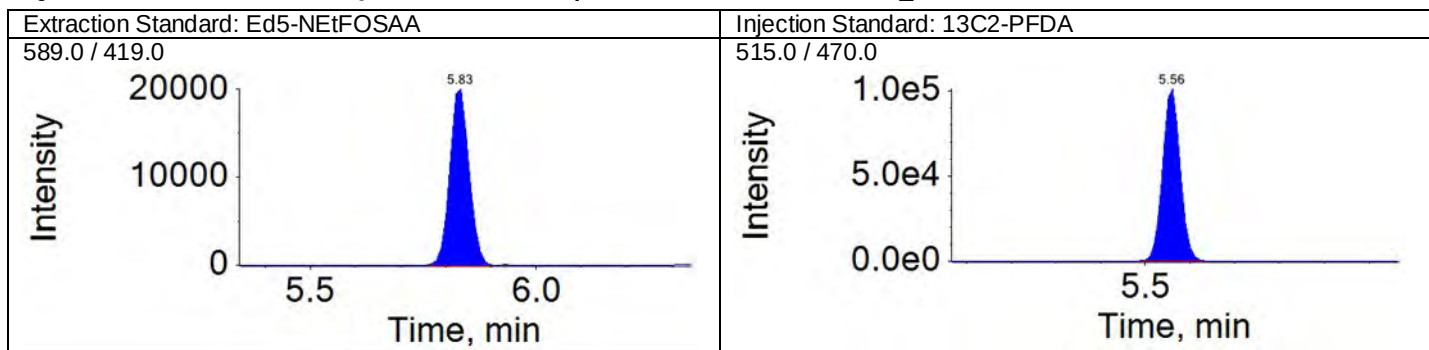
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam



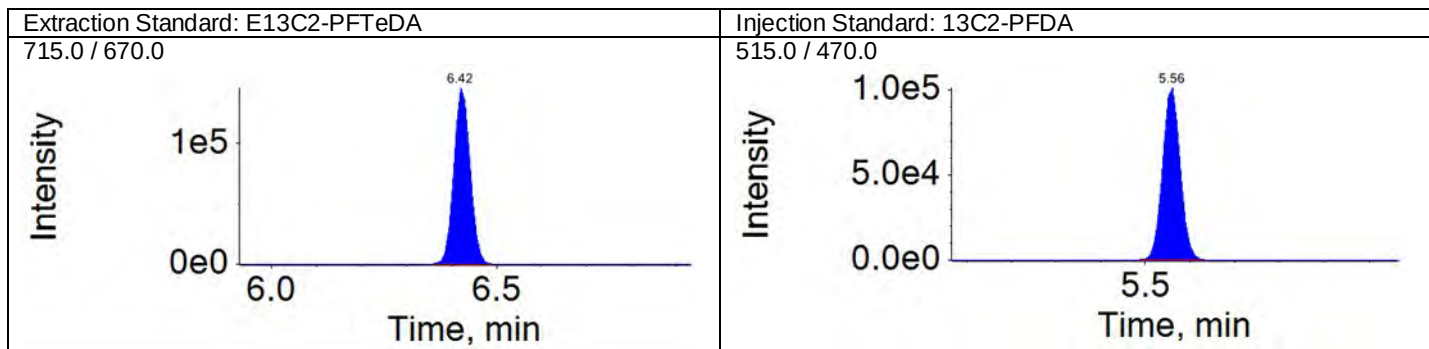
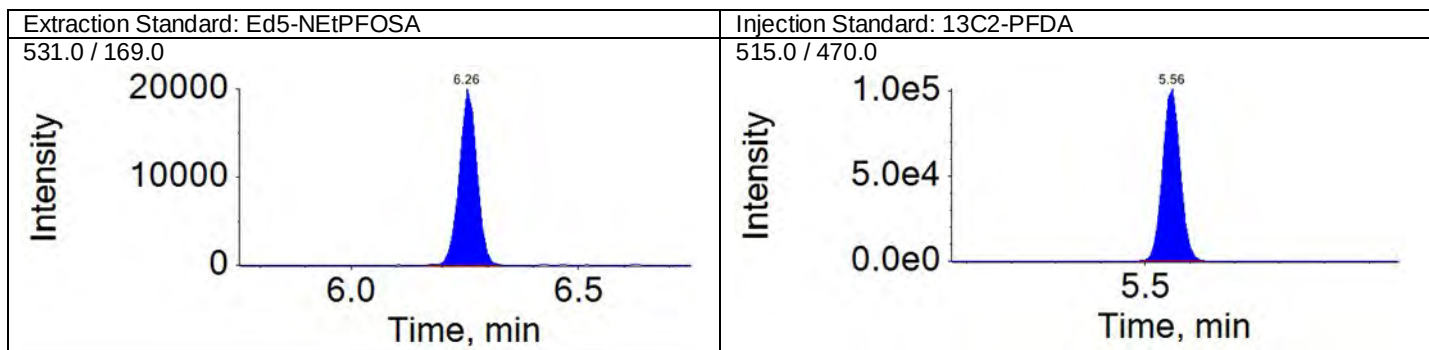
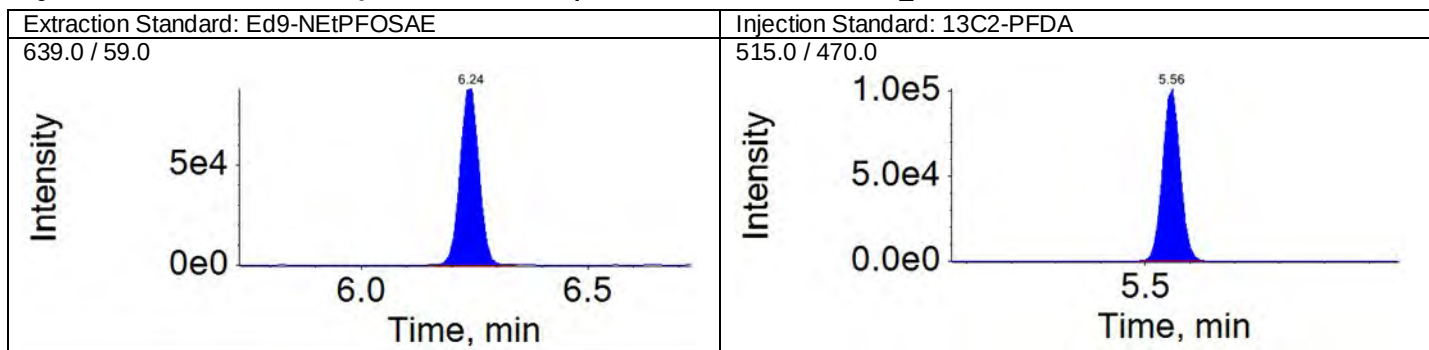
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Acquisition Method: 18AUG13_3uL.dam



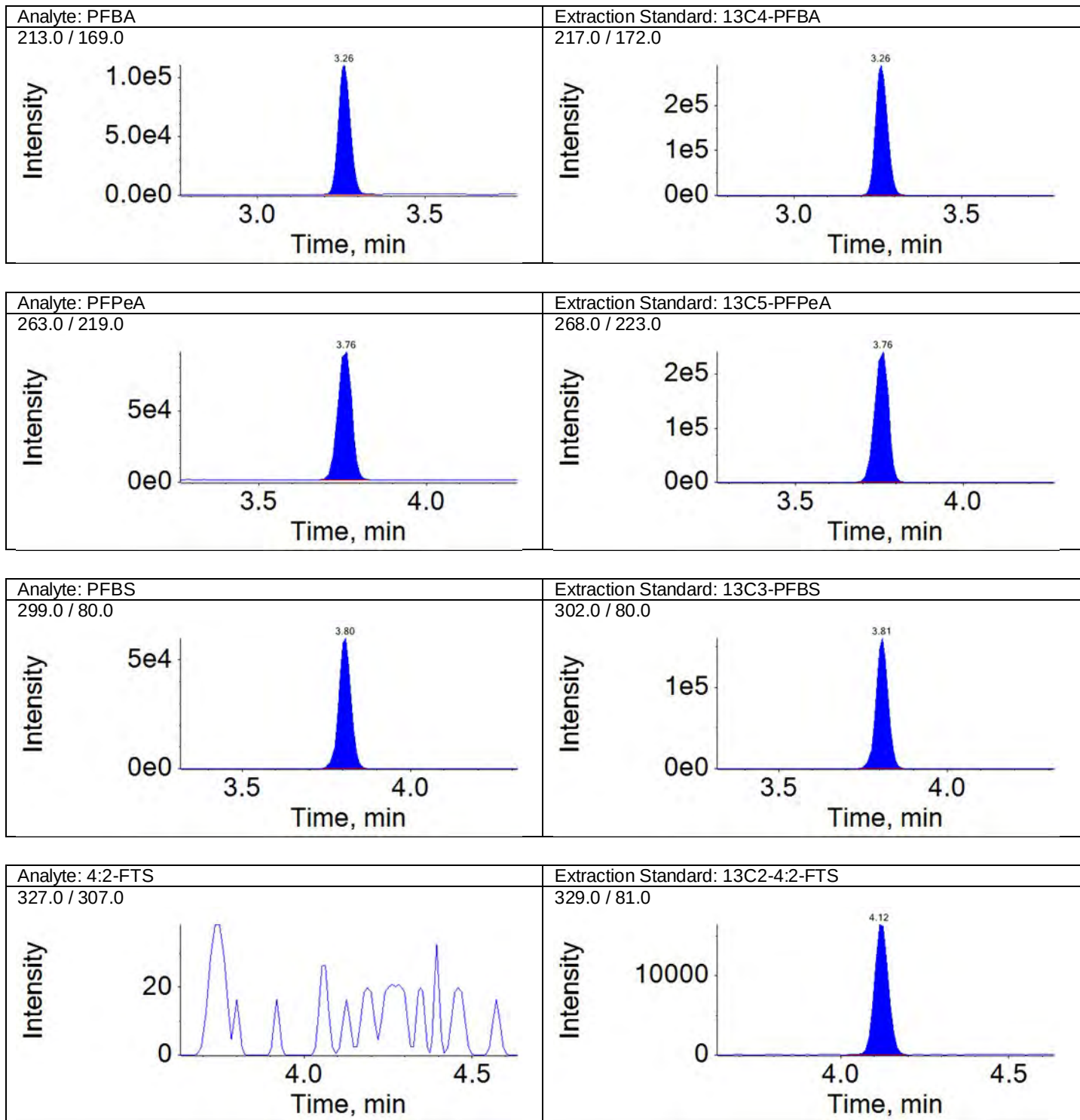
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Acquisition Method: 18AUG13_3uL.dam



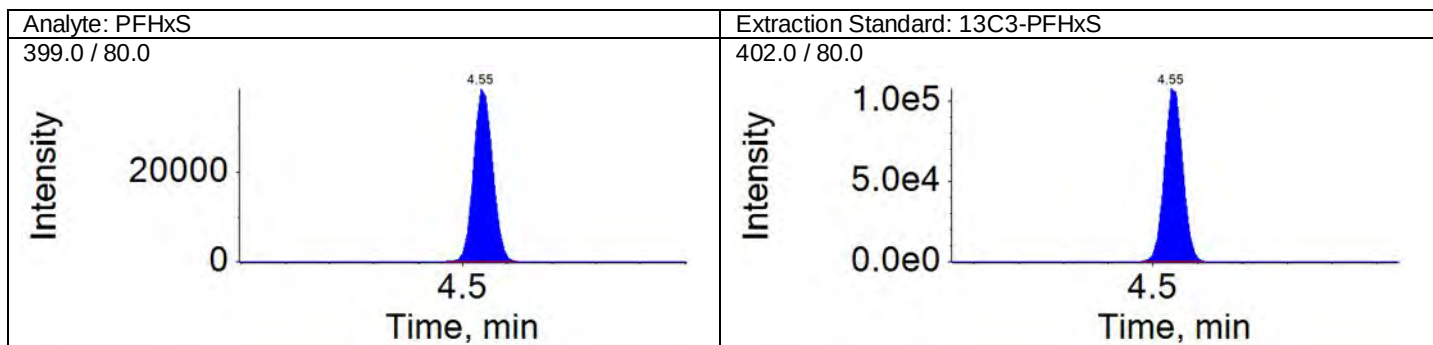
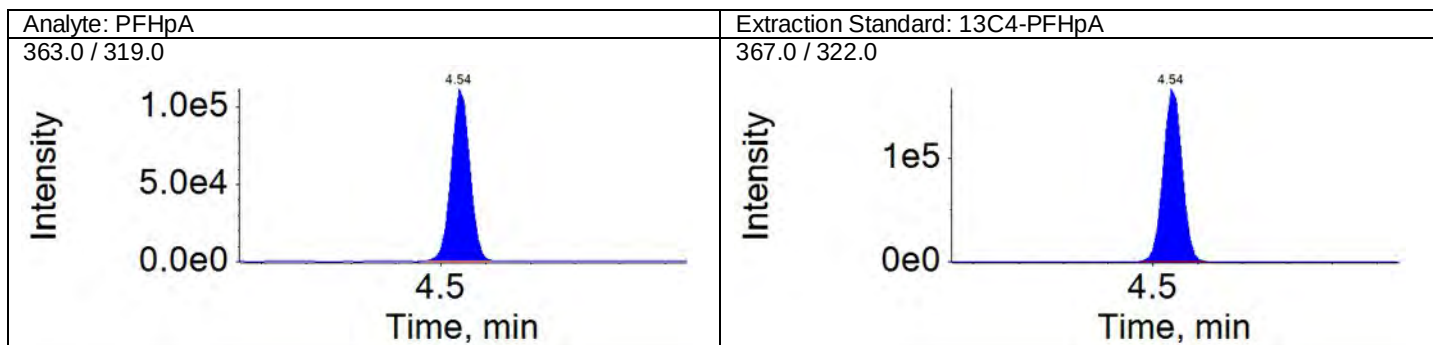
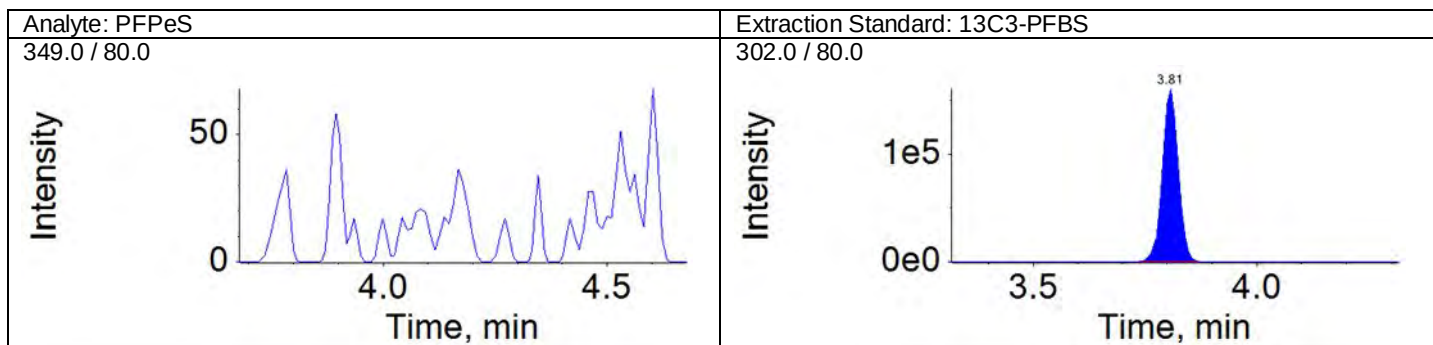
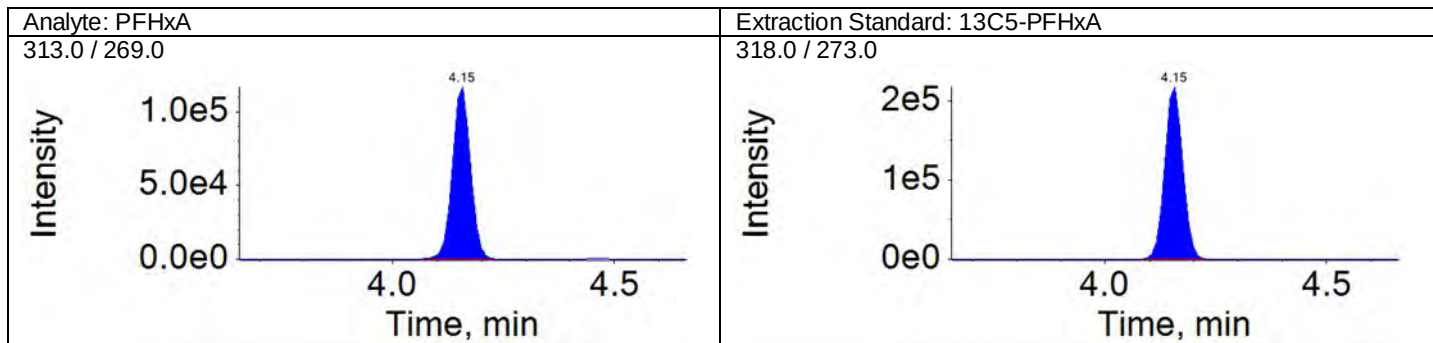
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Result Table: 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam



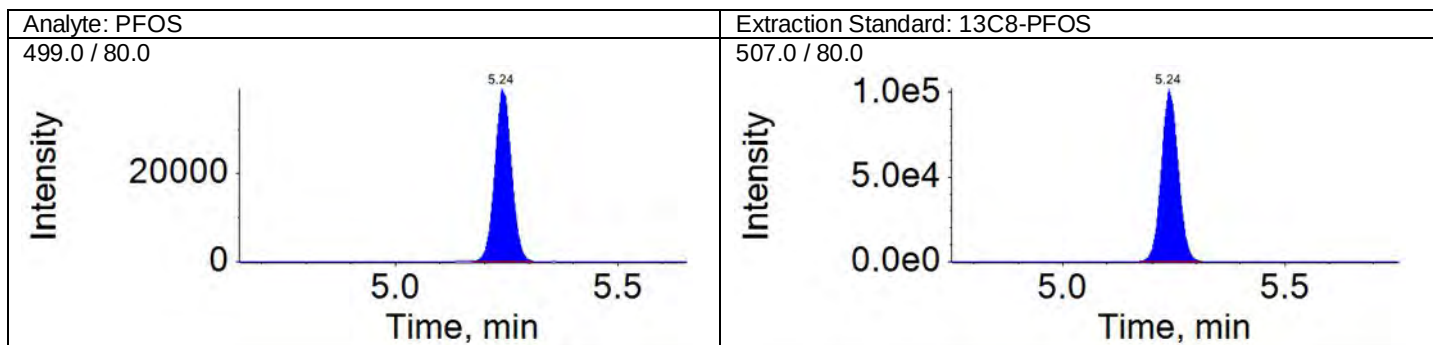
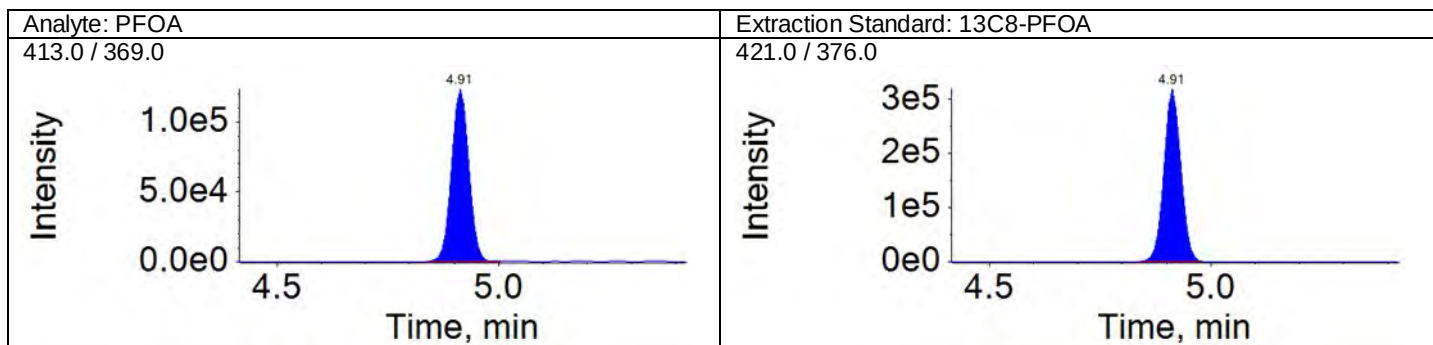
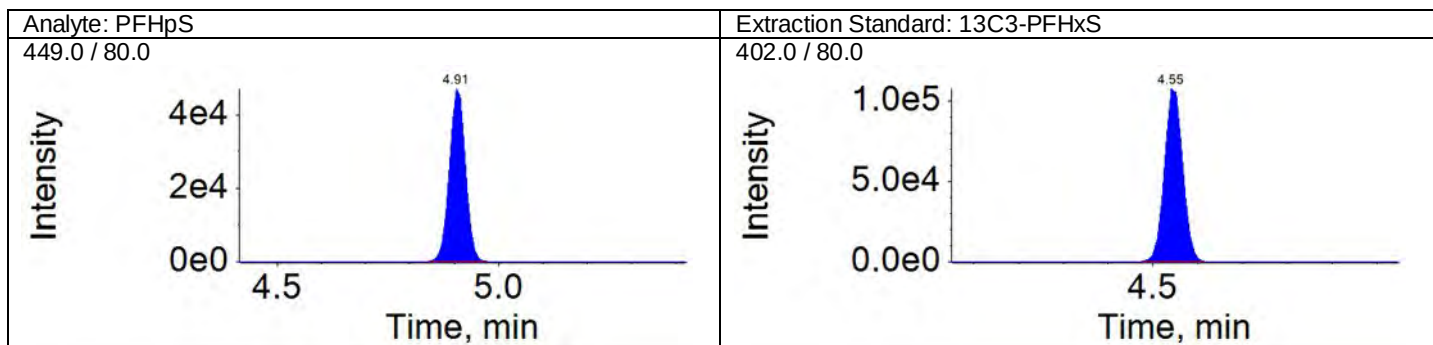
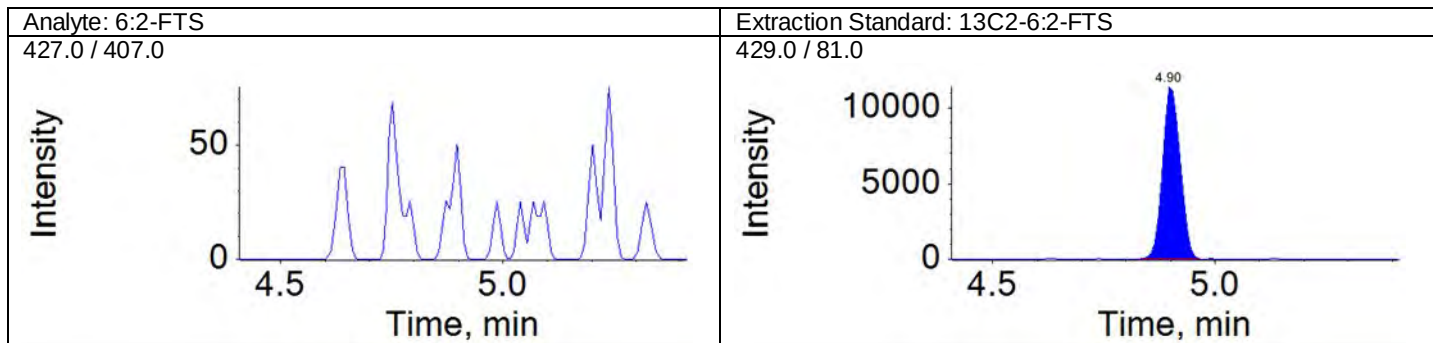
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Result Table: 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam



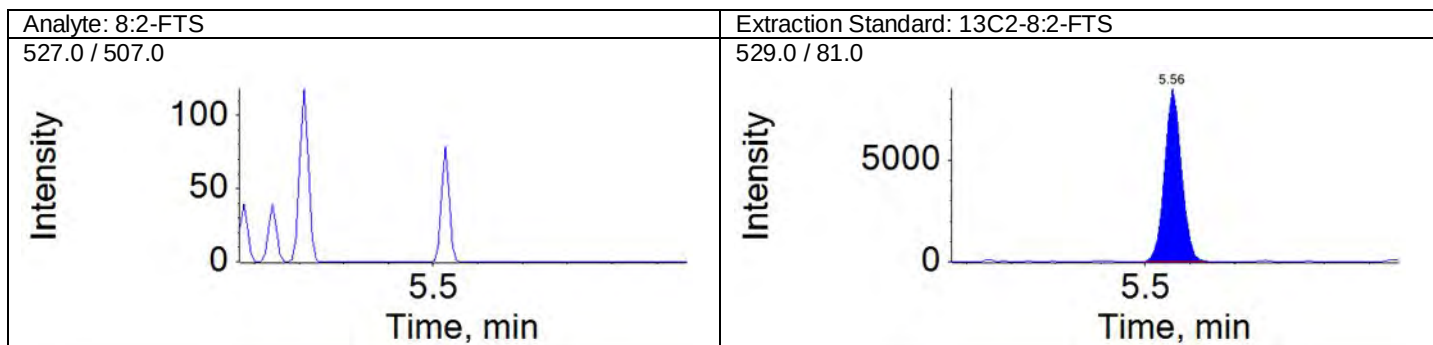
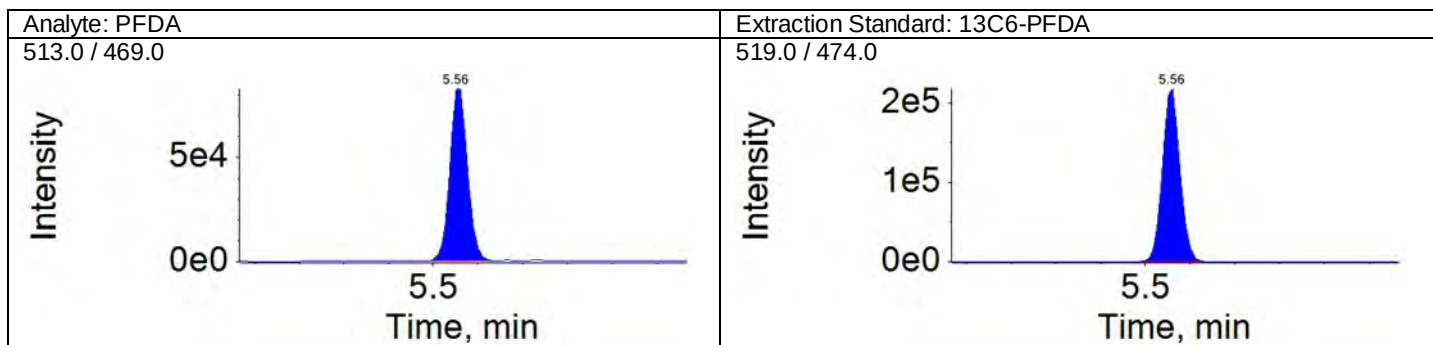
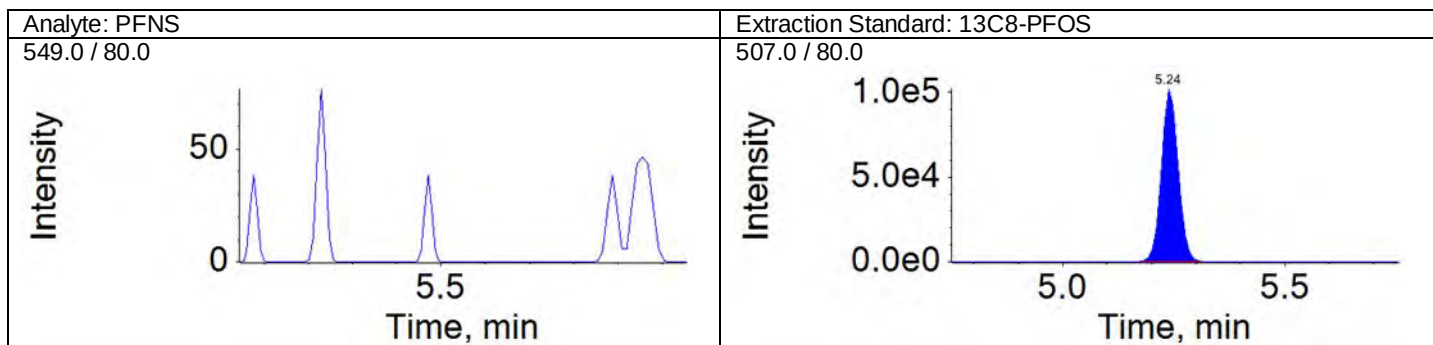
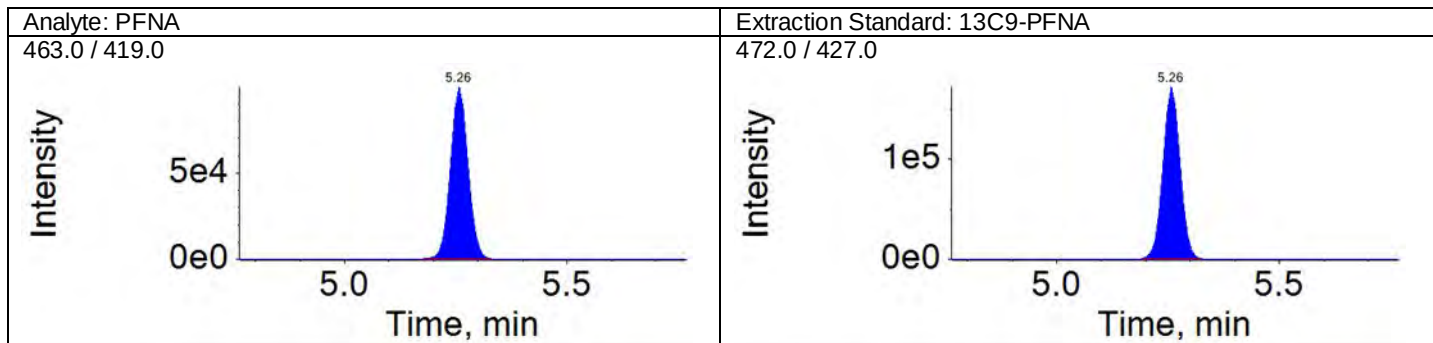
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam



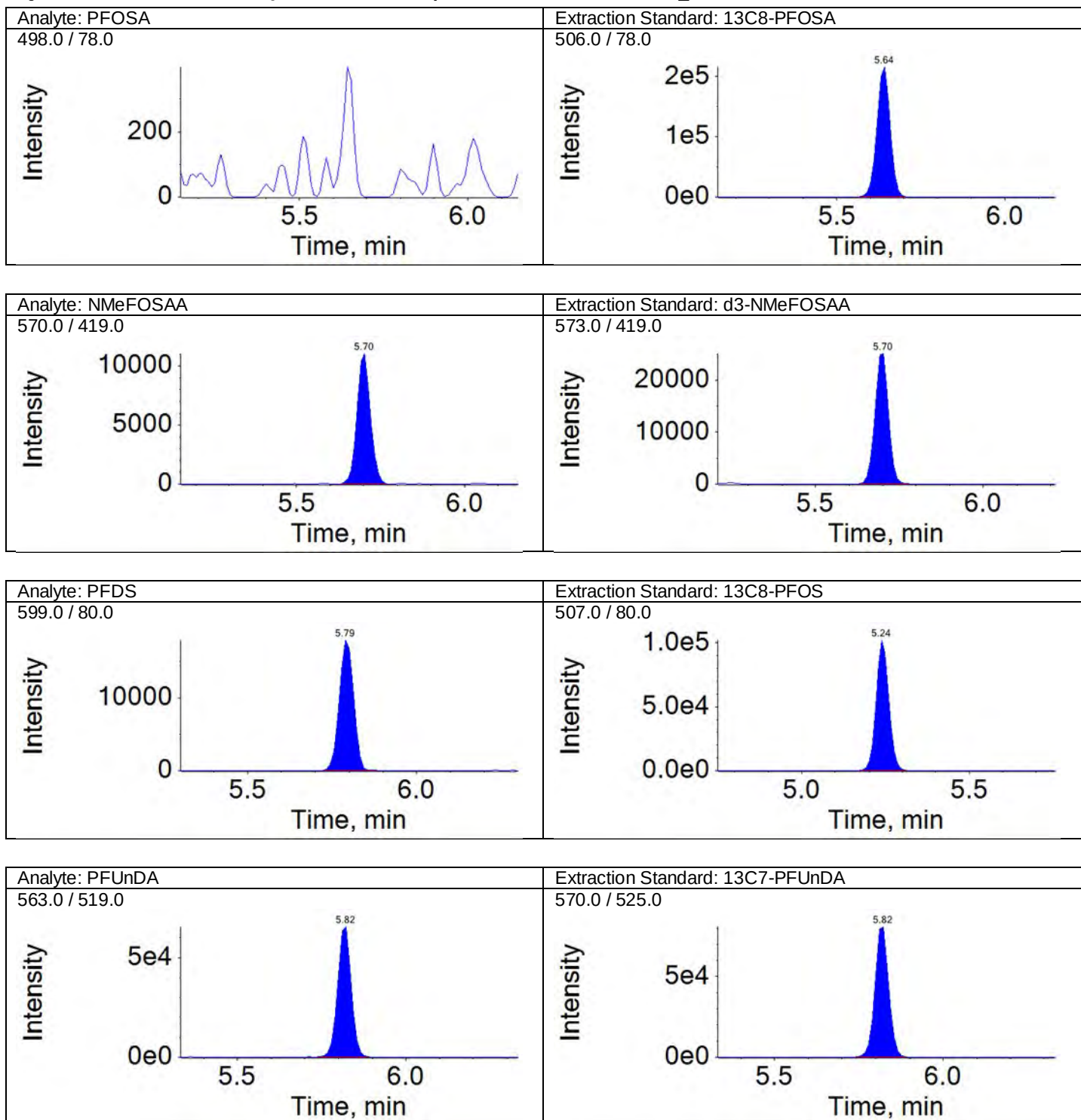
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Acquisition Method: 18AUG13_3uL.dam



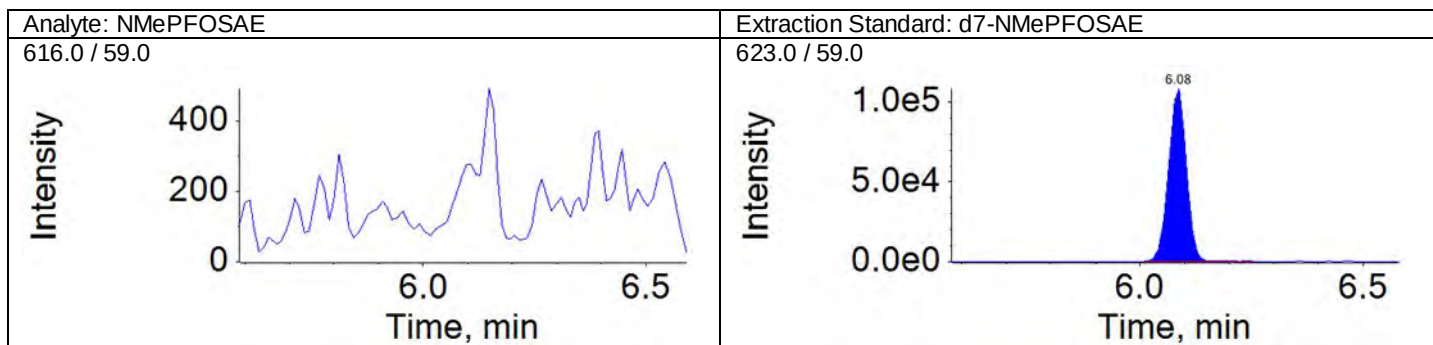
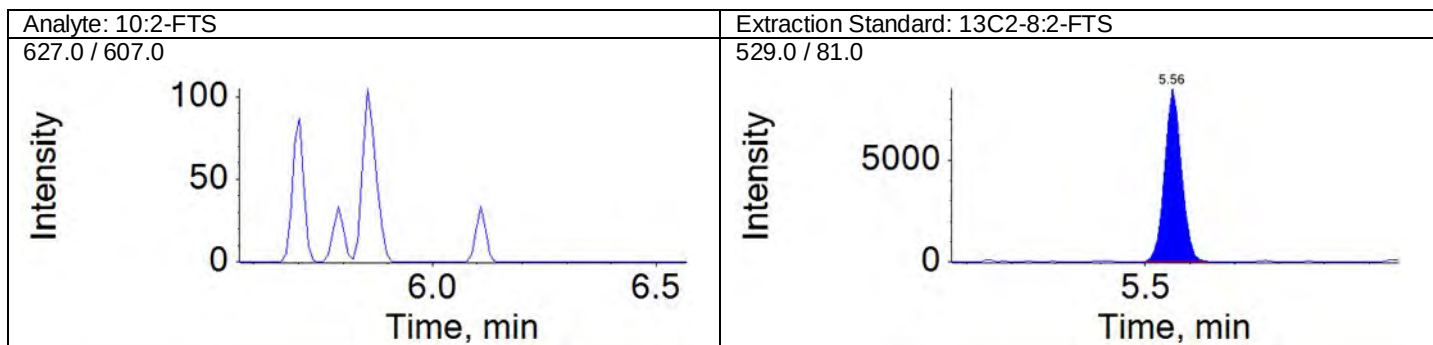
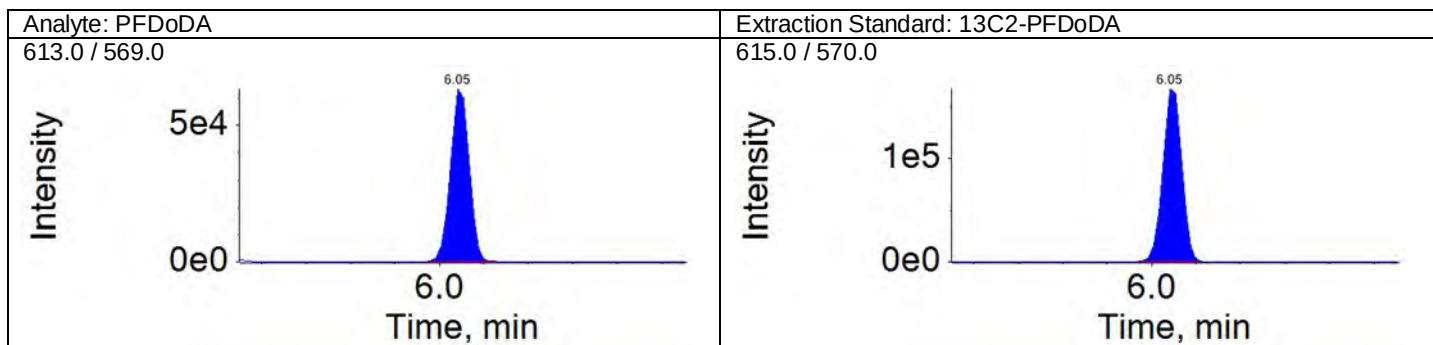
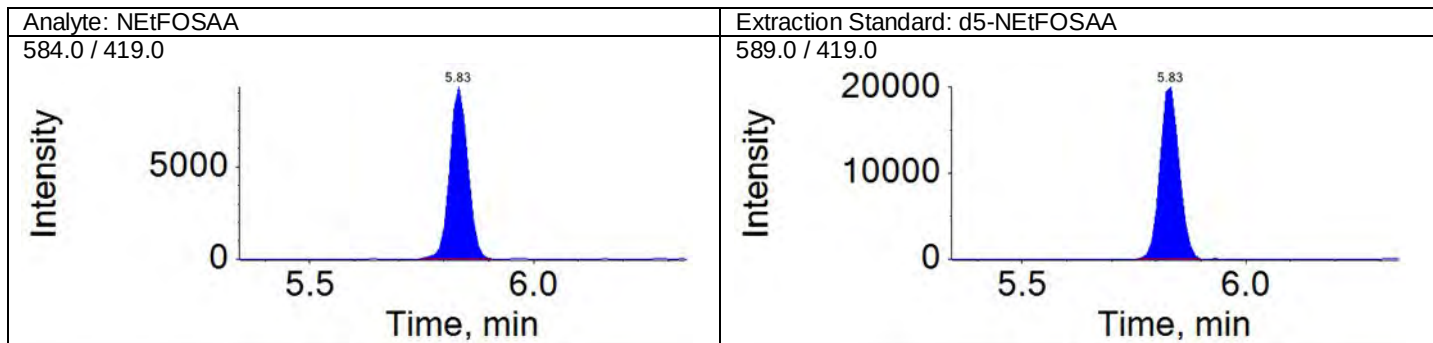
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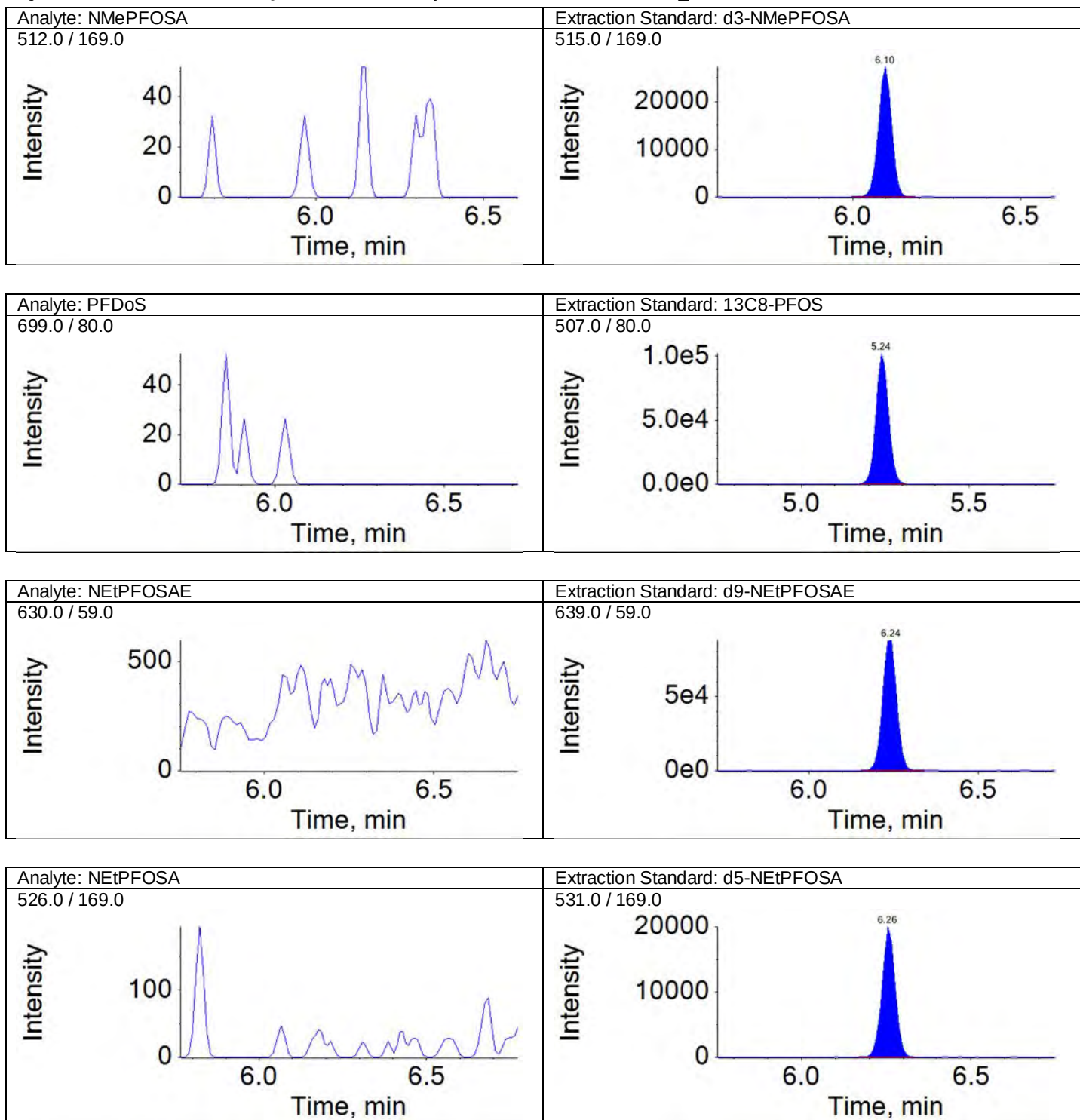
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Acquisition Method: 18AUG13_3uL.dam



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QMethod Name: 18AUG20QM

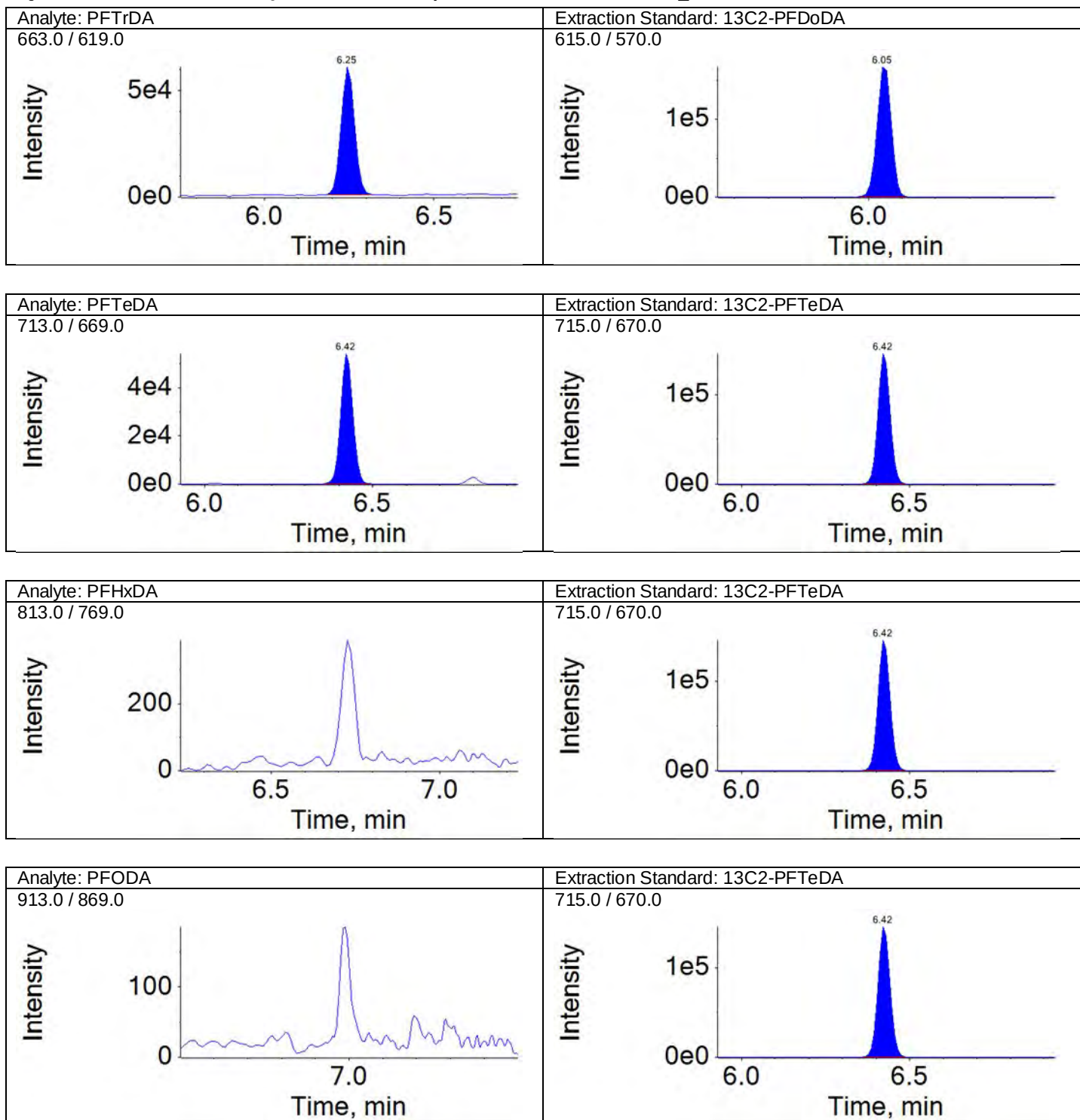
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam

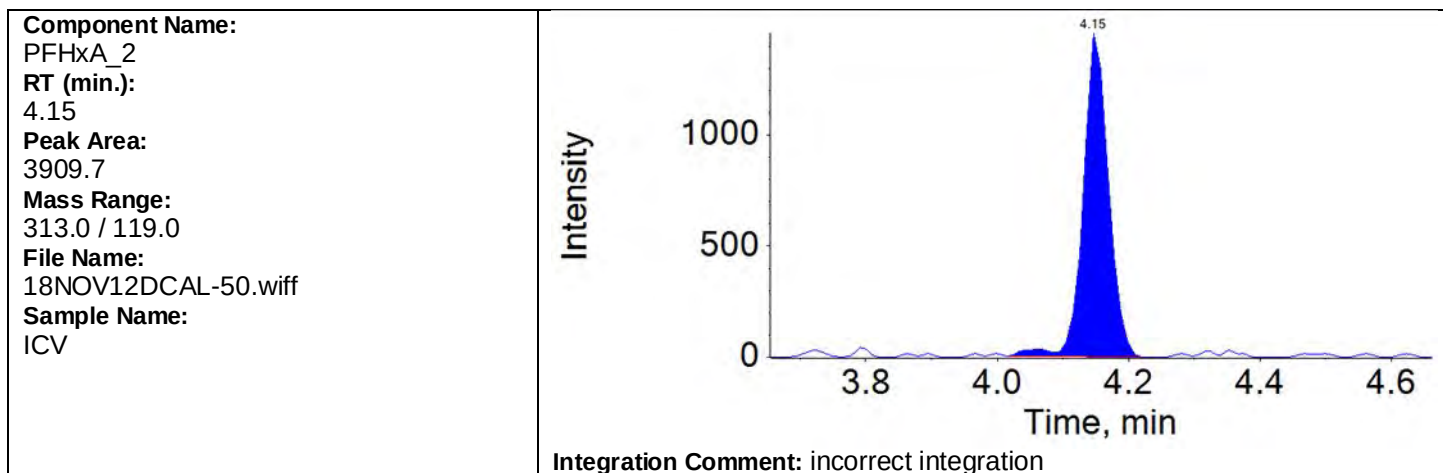
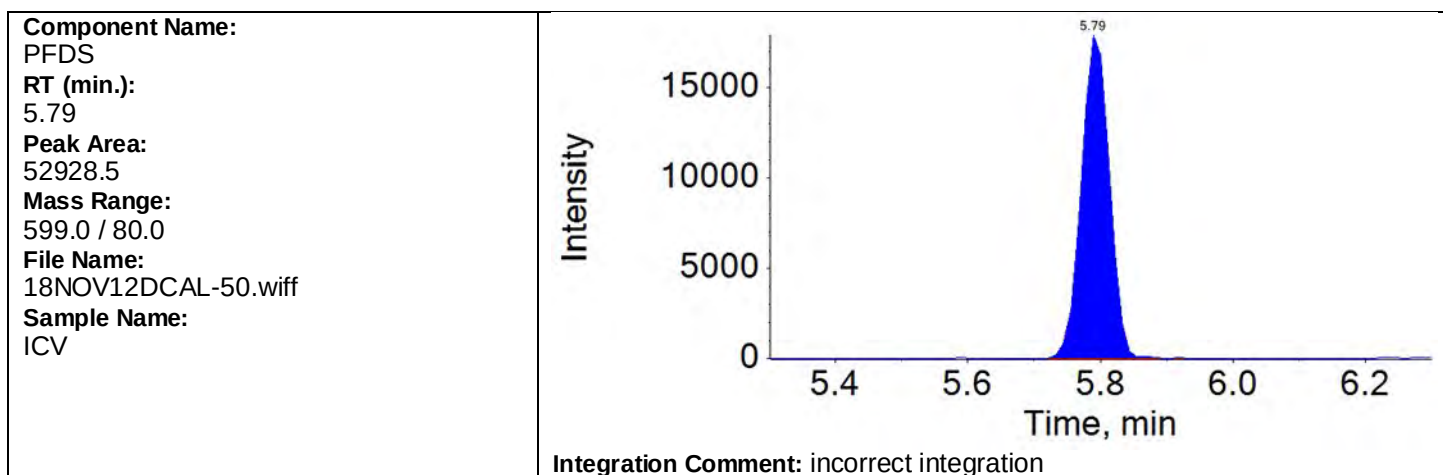
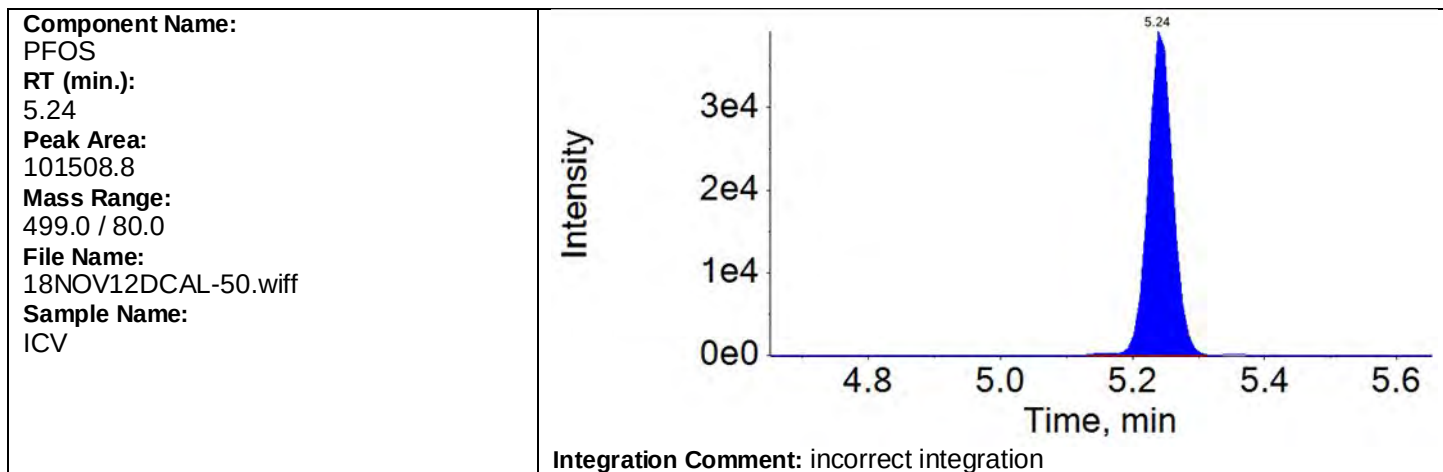
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL_Updated 1/10/2019 3:19:00 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV12DCAL_Updated
Results Table Date: 1/10/2019 3:19:00 PM

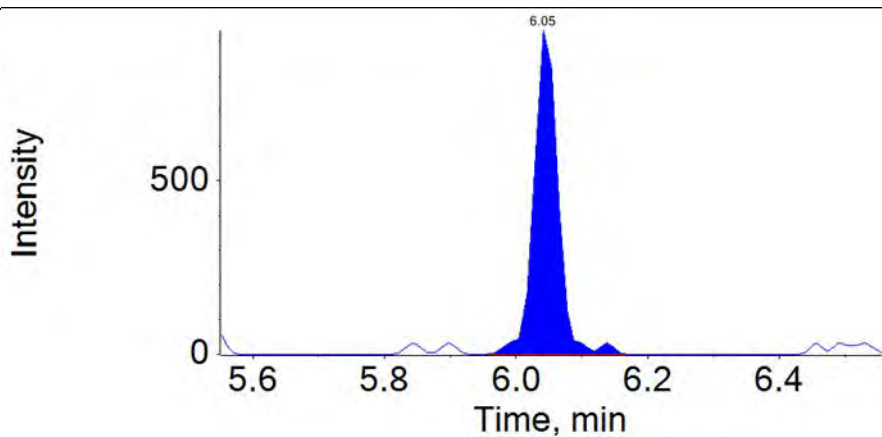
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QMethod File: 18AUG20QM



Results Table Name: 18NOV12DCAL_Updated
Results Table Date: 1/10/2019 3:19:00 PM

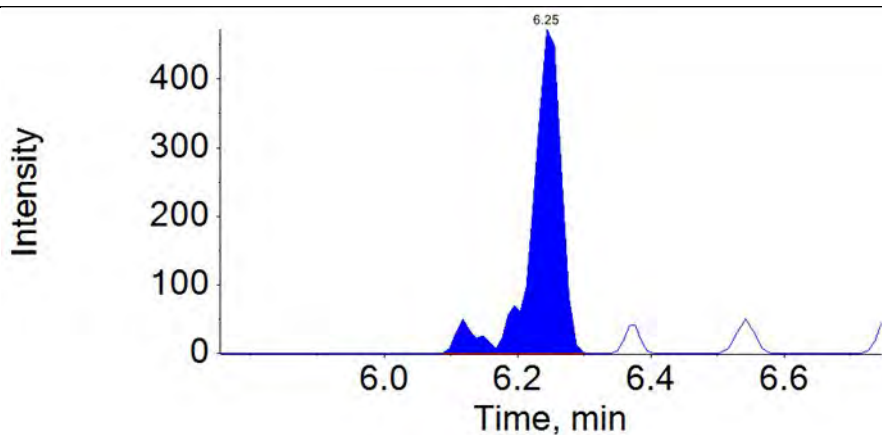
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDoDA_2
RT (min.):
6.05
Peak Area:
2399.9
Mass Range:
613.0 / 169.0
File Name:
18NOV12DCAL-50.wiff
Sample Name:
ICV



Integration Comment: incorrect integration

Component Name:
PFTrDA_2
RT (min.):
6.25
Peak Area:
1468.6
Mass Range:
663.0 / 169.0
File Name:
18NOV12DCAL-50.wiff
Sample Name:
ICV



Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL_Updated
Results Table Date: 1/10/2019 3:19:00 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 3:23 pm, 1/10/19

REVIEWED

By ucmr at 3:21 pm, 1/25/19

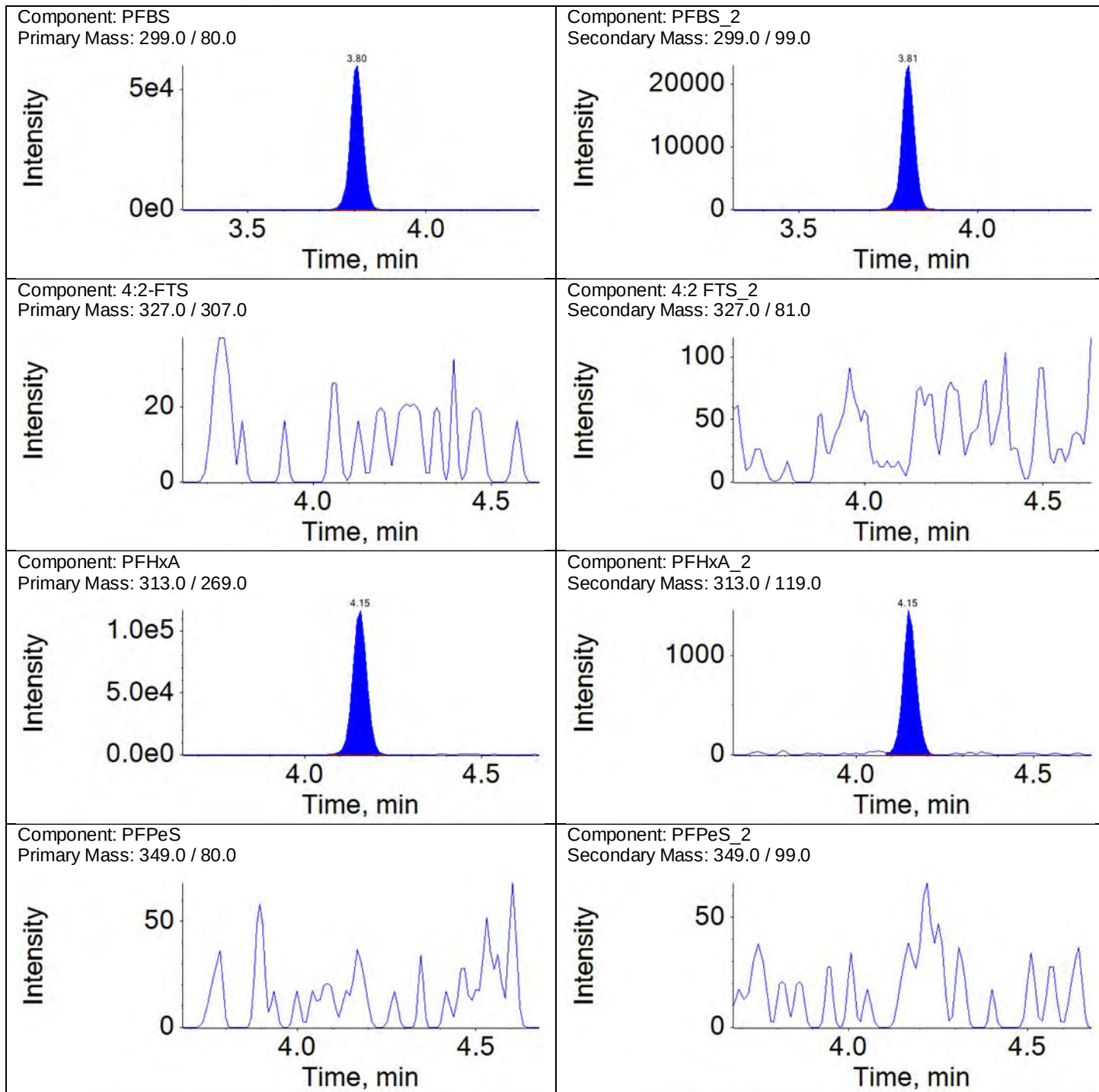
Ion Ratio Report

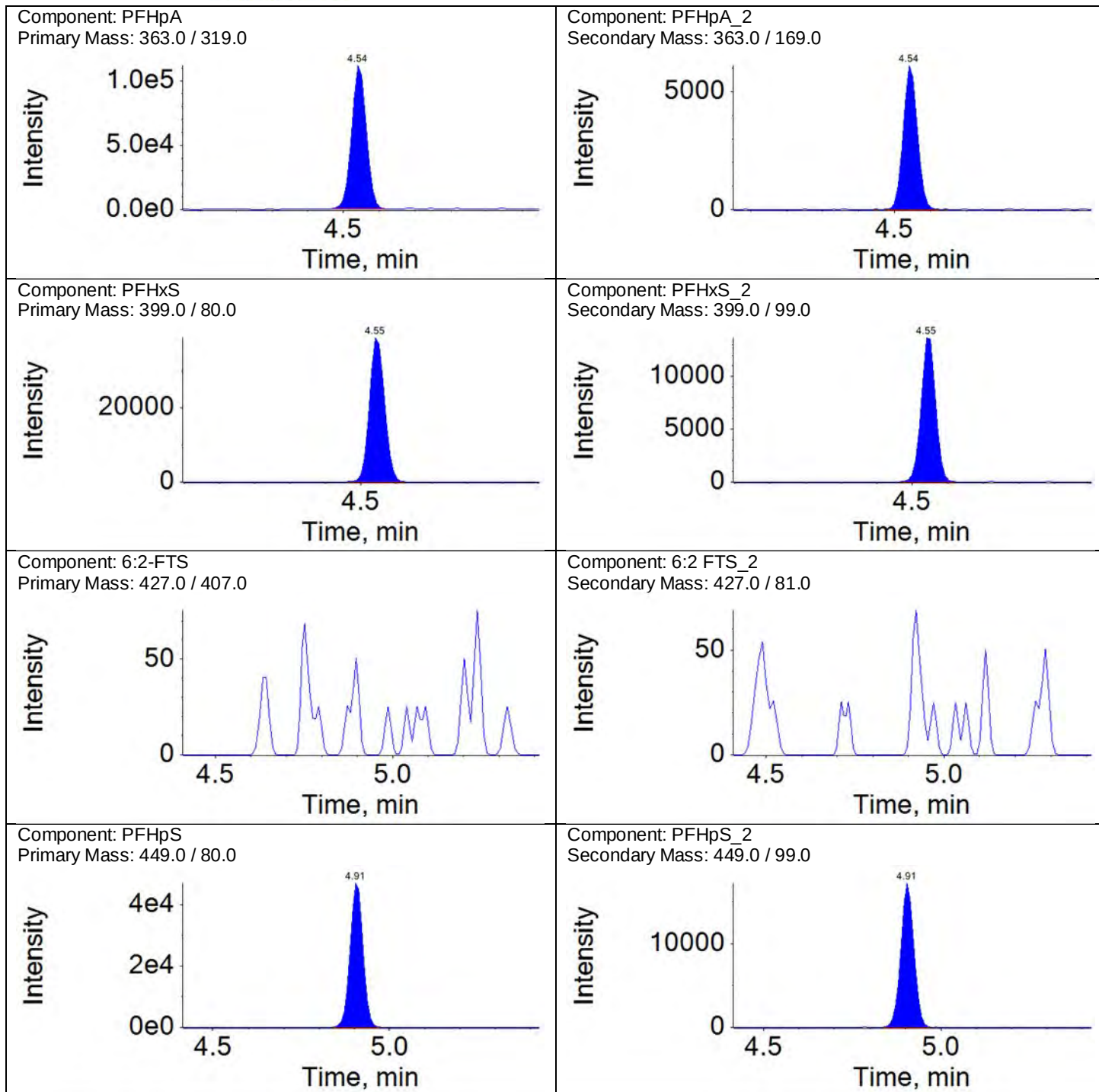
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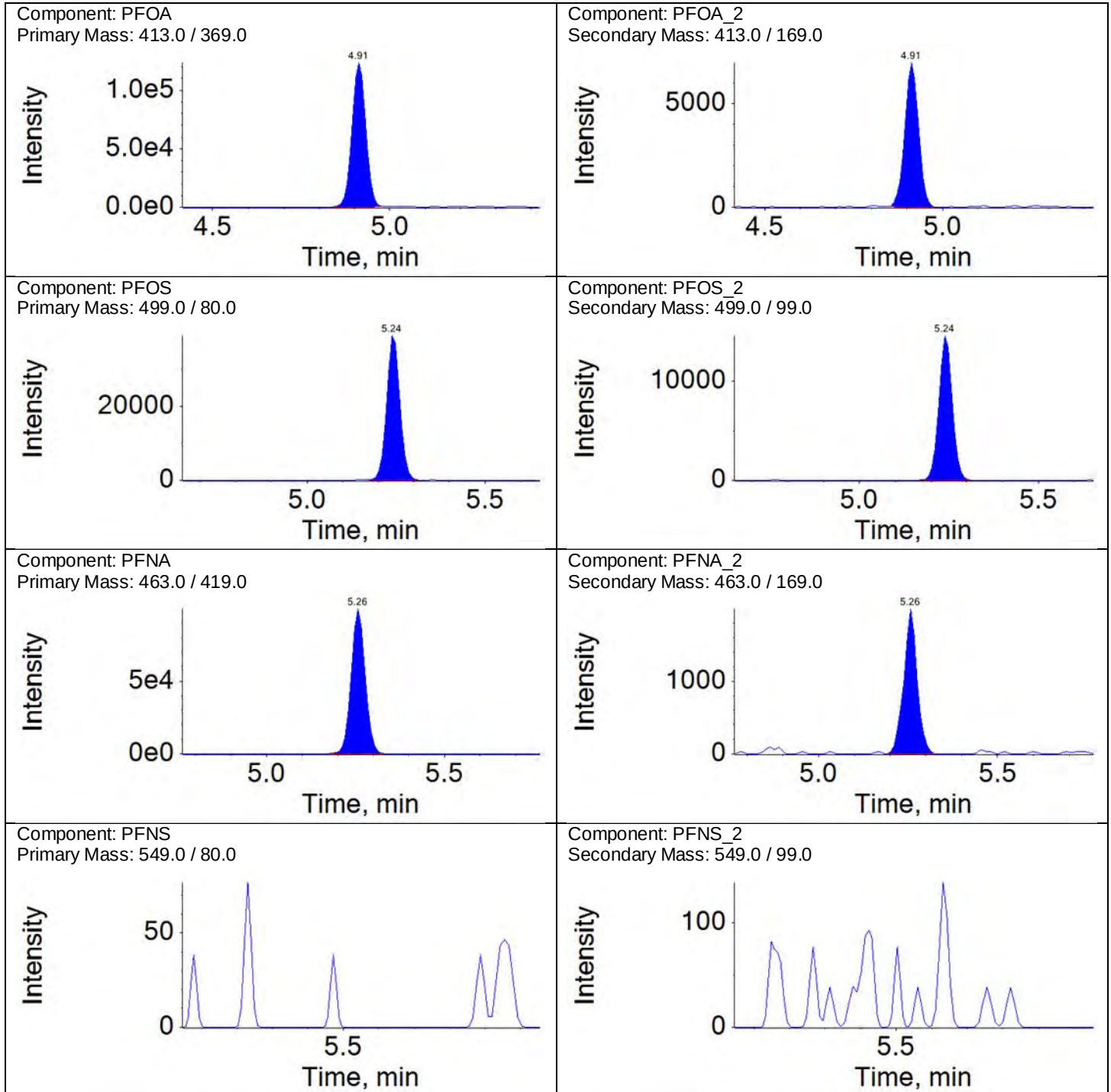
Instrument Name: LM27631

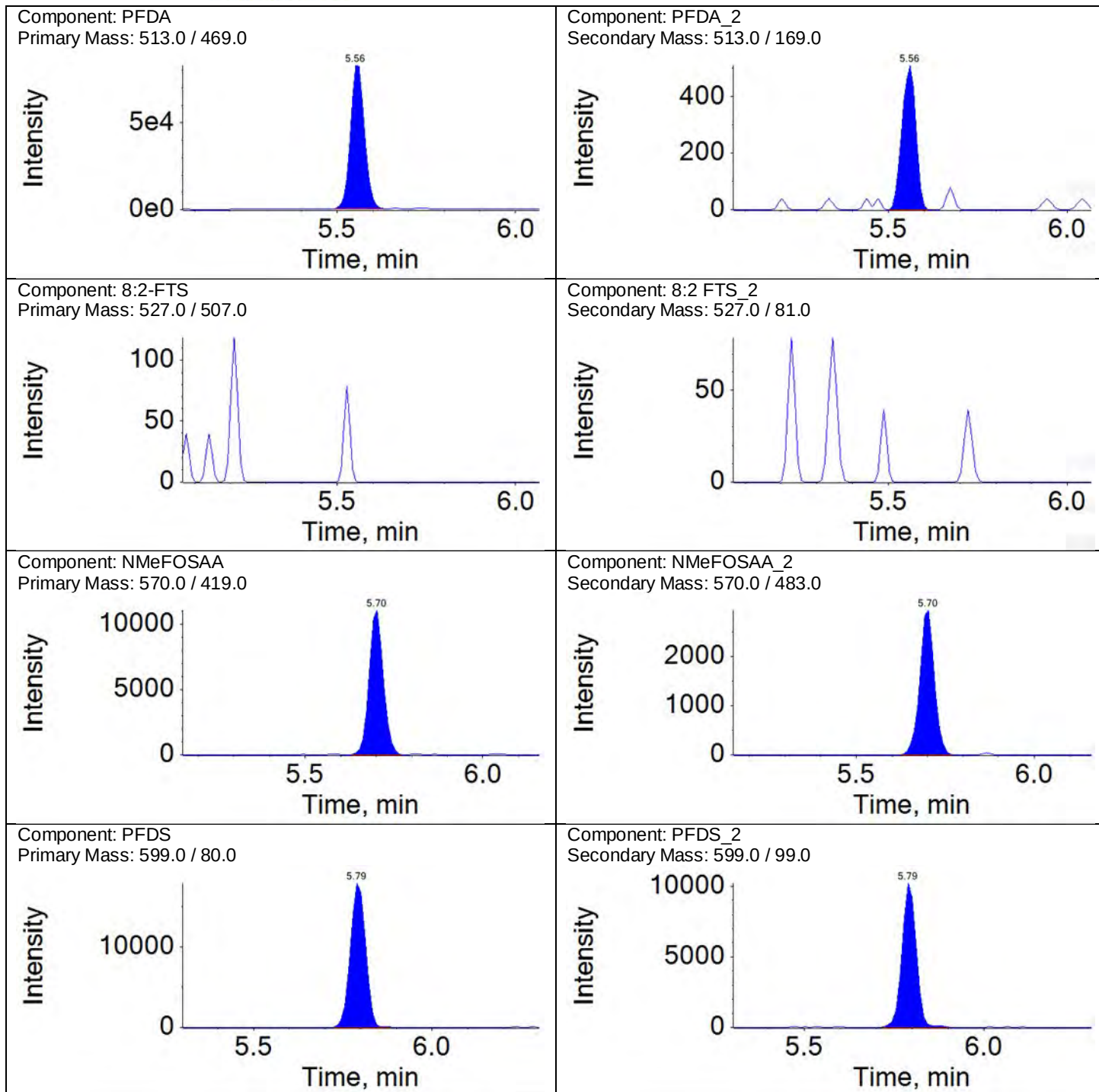
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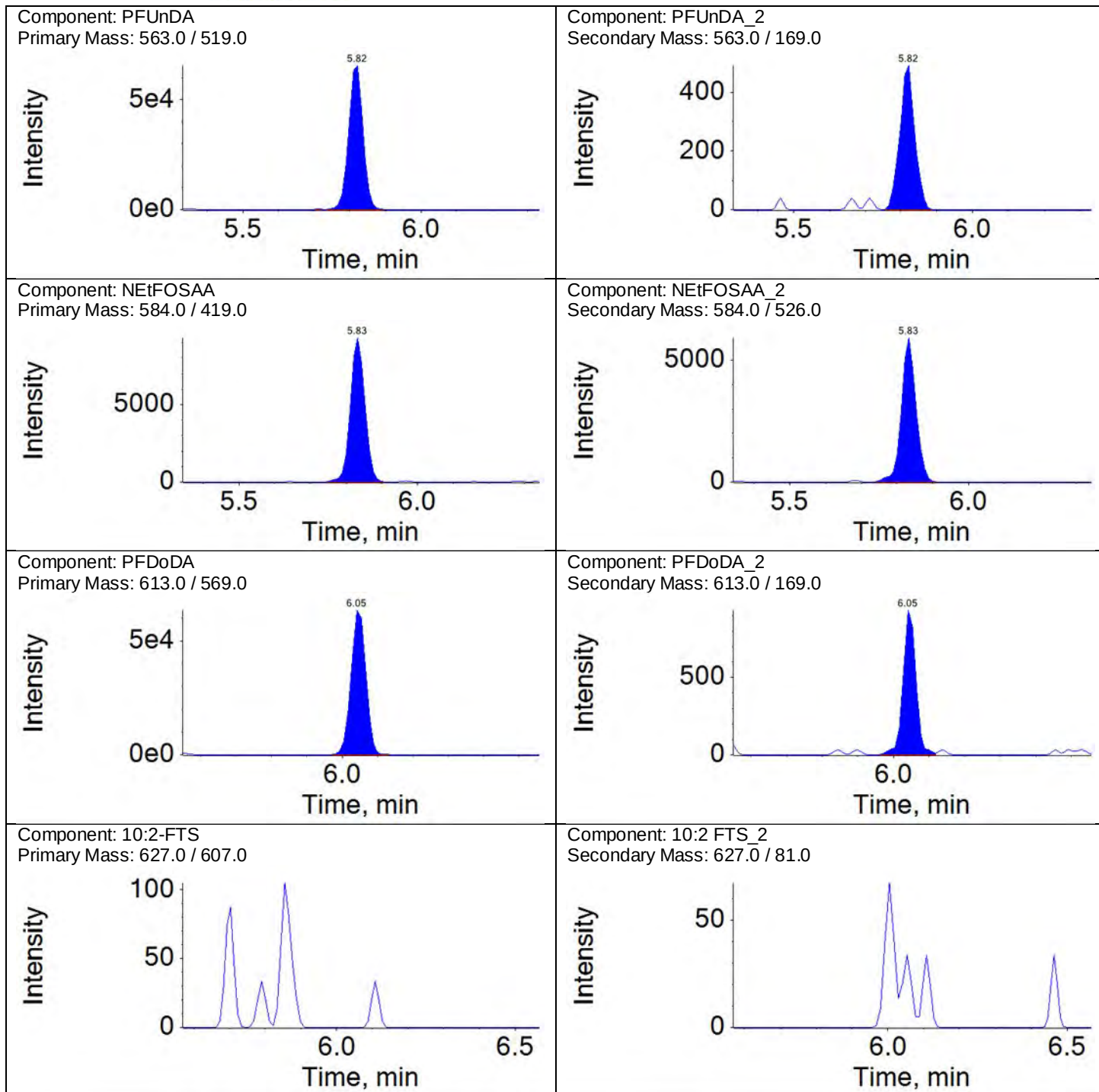
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	150059.6	A	N/A	0.3773			
PFBS_2	3.81	1.00	56617.7	A	N/A	0.3773	4	50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHxA	4.15	1.00	328694.3	A	N/A	0.0117			
PFHxA_2	4.15	1.00	3829.7	M	N/A	0.0117	0	50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	4.54	1.00	316975.3	A	N/A	0.0530			
PFHpA_2	4.54	1.00	16790.6	A	N/A	0.0530	-6	50	
PFHxS	4.55	1.00	115564.2	A	N/A	0.3340			
PFHxS_2	4.55	1.00	38596.8	A	N/A	0.3340	-3	50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHpS	4.91	1.08	118318.7	A	N/A	0.3735			
PFHpS_2	4.91	1.08	44193.2	A	N/A	0.3735	-8	50	
PFOA	4.91	1.00	332094.4	A	N/A	0.0559			
PFOA_2	4.91	1.00	18574.5	A	N/A	0.0559	0	50	
PFOS	5.24	1.00	100952.5	M	N/A	0.3741			
PFOS_2	5.24	1.00	37762.8	A	N/A	0.3741	26	50	
PFNA	5.26	1.00	271240.4	A	N/A	0.0190			
PFNA_2	5.26	1.00	5150.4	A	N/A	0.0190	-17	50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	5.56	1.00	224279.7	A	N/A	0.0061			
PFDA_2	5.56	1.00	1372.7	A	N/A	0.0061	-24	50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
NMeFOSAA	5.70	1.00	30591.9	A	N/A	0.2719			
NMeFOSAA_2	5.70	1.00	8316.9	A	N/A	0.2719	6	50	
PFDS	5.79	1.11	52860.9	M	N/A	0.5291			
PFDS_2	5.79	1.11	27969.6	A	N/A	0.5291	3	50	
PFUnDA	5.82	1.00	183511.3	A	N/A	0.0078			
PFUnDA_2	5.82	1.00	1432.4	A	N/A	0.0078	34	50	
NEtFOSAA	5.83	1.00	26149.3	A	N/A	0.6365			
NEtFOSAA_2	5.83	1.00	16644.9	A	N/A	0.6365	-12	50	
PFDODA	6.05	1.00	185295.0	A	N/A	0.0127			
PFDODA_2	6.05	1.00	2349.0	M	N/A	0.0127	-19	50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFTTrDA	6.25	1.03	165153.1	A	N/A	0.0082			
PFTTrDA_2	6.25	1.03	1357.0	M	N/A	0.0082	-4	50	
PFTeDA	6.42	1.00	135651.0	A	N/A	0.0054			
PFTeDA_2	6.42	1.00	727.0	A	N/A	0.0054	-14	50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
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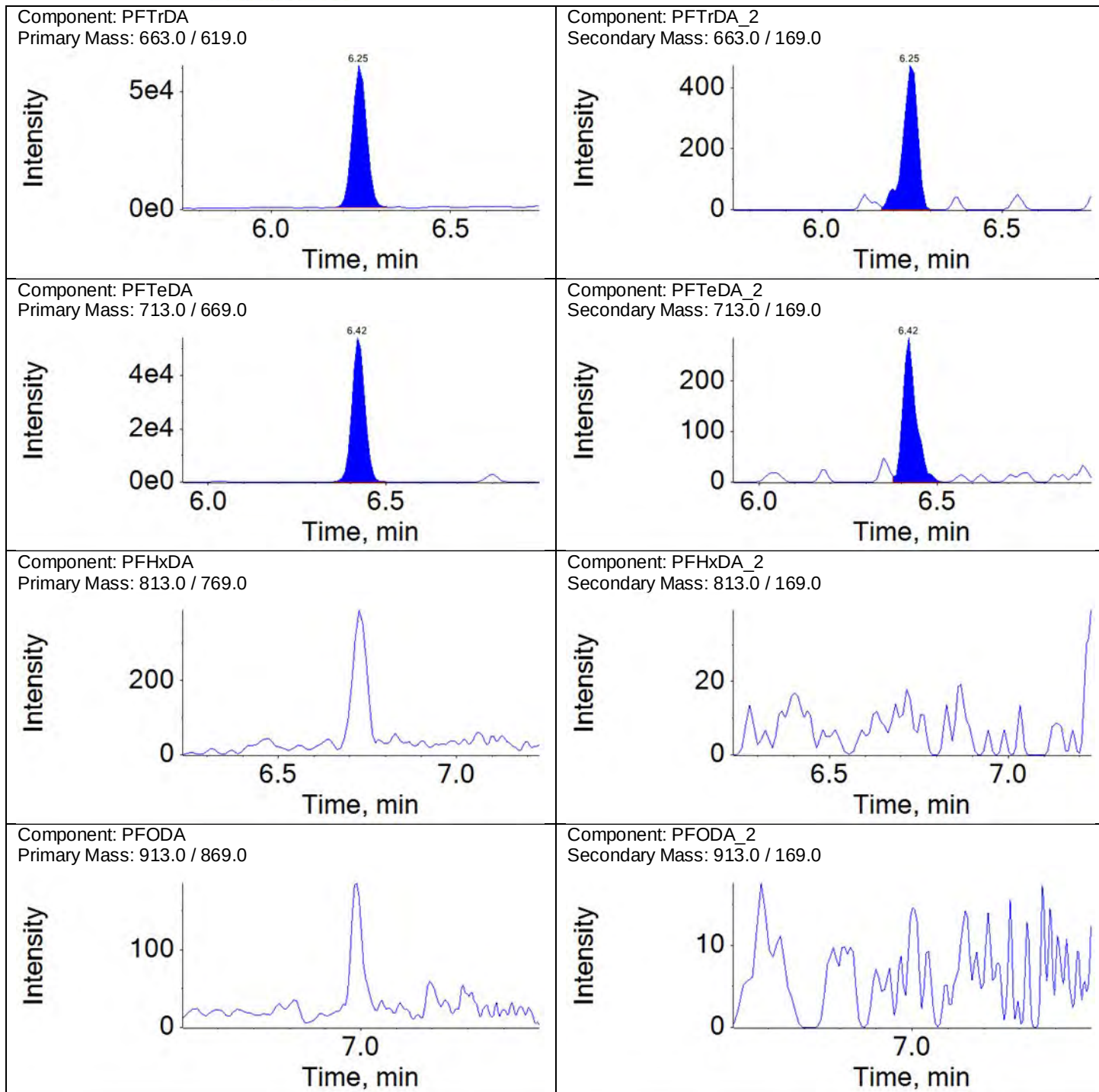












ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	L+B CAL3		Data File:	18NOV12DCAL-51.wiff
Sample ID:	LBMODX1833D		Acquis Date:	2018-11-12T16:27:15
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	11		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV12DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	682528.6	659926.2	3	50	
13C2-PFOA	5.0	446810.2	450219.7	-1	50	
13C4-PFOS	4.8	256014.8	249205.8	3	50	
13C2-PFDA	5.0	295115.2	278743.9	6	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	735331.8	13C3-PFBA	682528.6	1.077	5.000	4.830	97	70-130	
E13C5-PFPeA	714738.5	13C3-PFBA	682528.6	1.047	5.000	4.697	94	70-130	
E13C3-PFBS	418749.4	13C3-PFBA	682528.6	0.614	4.650	4.331	93	70-130	
E13C2-4:2-FTS	45470.2	13C2-PFOA	446810.2	0.102	4.670	4.532	97	70-130	
E13C5-PFHxA	624943.7	13C2-PFOA	446810.2	1.399	5.000	5.052	101	70-130	
E13C3-PFHxS	318599.1	13C2-PFOA	446810.2	0.713	4.730	4.893	103	70-130	
E13C4-PFHpA	492218.6	13C2-PFOA	446810.2	1.102	5.000	4.963	99	70-130	
E13C2-6:2-FTS	35757.3	13C2-PFOA	446810.2	0.080	4.750	5.354	113	70-130	
E13C8-PFOA	860795.2	13C2-PFOA	446810.2	1.927	5.000	5.308	106	70-130	
E13C8-PFOS	257626.7	13C4-PFOS	256014.8	1.006	4.780	4.459	93	70-130	
E13C9-PFNA	443649.2	13C4-PFOS	256014.8	1.733	5.000	4.832	97	70-130	
E13C6-PFDA	588492.8	13C2-PFDA	295115.2	1.994	5.000	4.653	93	70-130	
E13C2-8:2-FTS	26035.6	13C2-PFDA	295115.2	0.088	4.790	4.400	92	70-130	
E13C8-PFOSA	615348.9	13C2-PFDA	295115.2	2.085	5.000	4.623	92	70-130	
Ed3-NMeFOSAA	69196.9	13C2-PFDA	295115.2	0.234	5.000	4.232	85	70-130	
E13C7-PFUnDA	249433.8	13C2-PFDA	295115.2	0.845	5.000	4.907	98	70-130	
Ed5-NEtFOSAA	70399.3	13C2-PFDA	295115.2	0.239	5.000	5.047	101	70-130	
E13C2-PFDoDA	502206.8	13C2-PFDA	295115.2	1.702	5.000	4.418	88	70-130	
Ed7-NMePFOSAE	314874.3	13C2-PFDA	295115.2	1.067	5.000	4.617	92	70-130	
Ed3-NMePFOSA	80287.6	13C2-PFDA	295115.2	0.272	5.000	4.943	99	70-130	
Ed9-NEtPFOSAE	265747.6	13C2-PFDA	295115.2	0.900	5.000	4.683	94	70-130	
Ed5-NEtPFOSA	56128.1	13C2-PFDA	295115.2	0.190	5.000	4.462	89	70-130	
E13C2-PFTeDA	379002.1	13C2-PFDA	295115.2	1.284	5.000	4.509	90	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

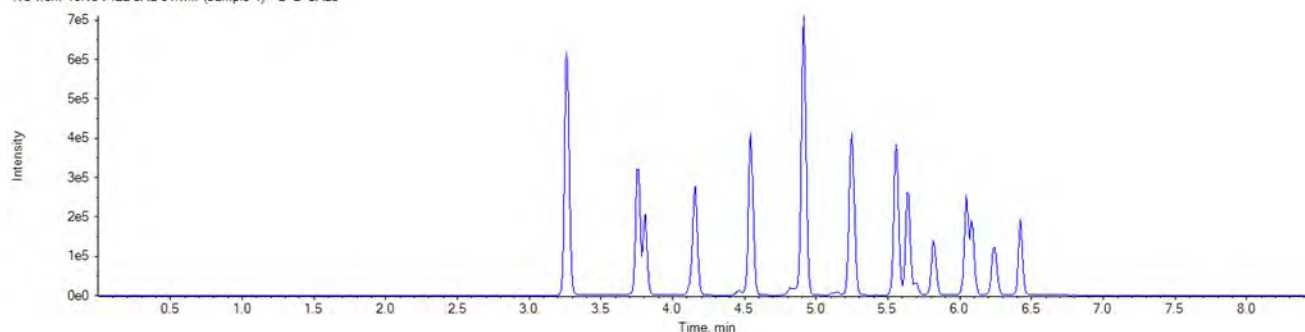
Sample Name: L+B CAL3 Instrument Name: LM27631 File Name: 18NOV12DCAL-51.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.26	735331.8	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	714738.5	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	418749.4	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	45470.2	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	624943.7	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	418749.4	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	492218.6	N/A	
PFHxS	4.55	1.000	122359.8		M	13C3-PFHxS	4.55	318599.1	0.384	1.862
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	35757.3	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	318599.1	N/A	
PFOA	4.91	1.000	312625.4		M	13C8-PFOA	4.91	860795.2	0.363	1.940
PFOS	5.24	1.000	105809.8		M	13C8-PFOS	5.24	257626.7	0.411	1.796
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	443649.2	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257626.7	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	588492.8	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	26035.6	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.64	615348.9	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	69196.9	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257626.7	N/A	
PfUnDA	N/A	N/A	N/A		A	13C7-PfUnDA	5.82	249433.8	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	70399.3	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	502206.8	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	26035.6	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.08	314874.3	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	80287.6	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	257626.7	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	265747.6	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	56128.1	N/A	
PFTDA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	502206.8	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	379002.1	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	379002.1	N/A	
PFOA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	379002.1	N/A	

Total Ion Chromatogram

TIC from 18NOV12DCAL-51.wiff (sample 1) - L+B CAL3



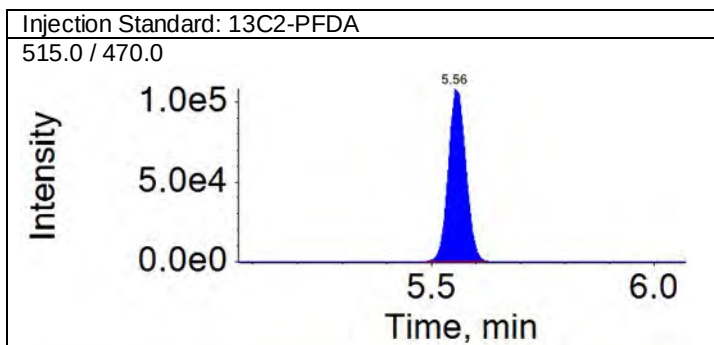
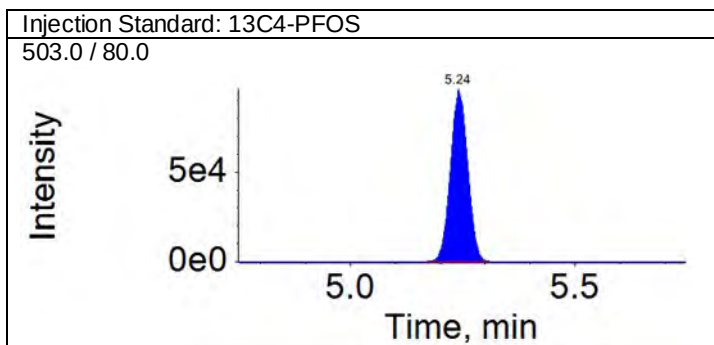
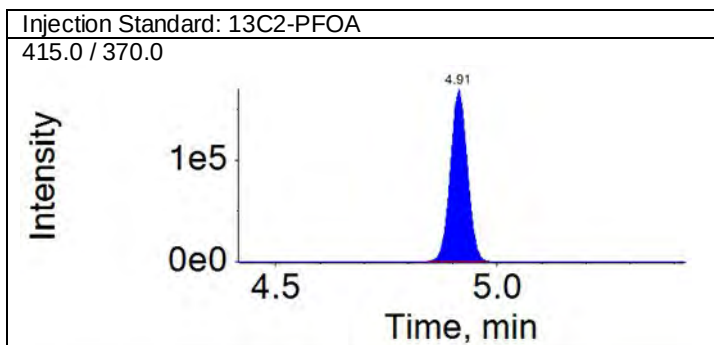
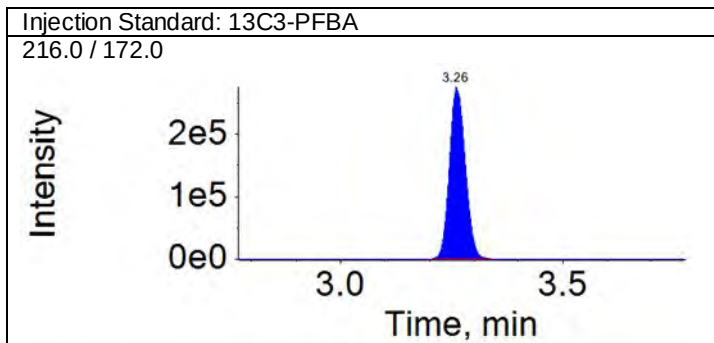
APPROVED
By MCD at 6:34 pm, 11/12/18

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REVIEWED
By HMK at 10:53 am, 11/13/18

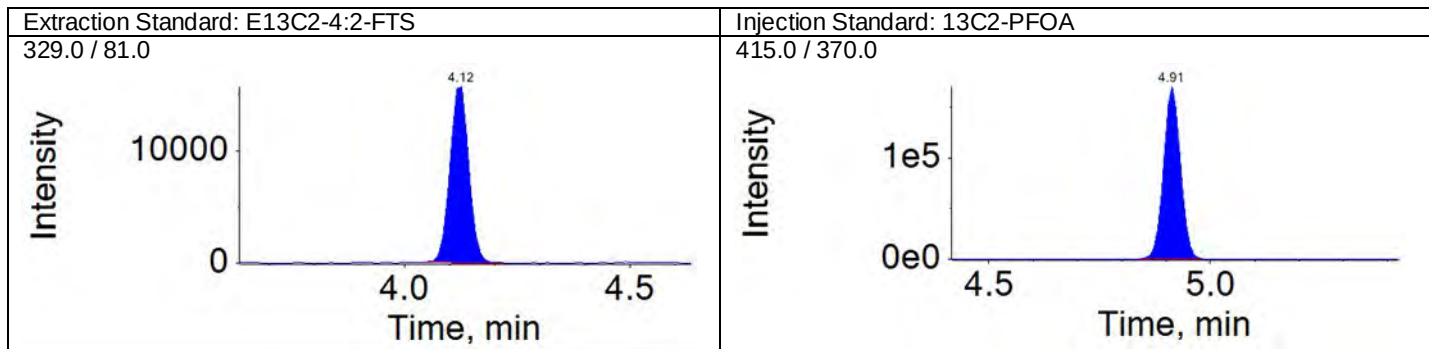
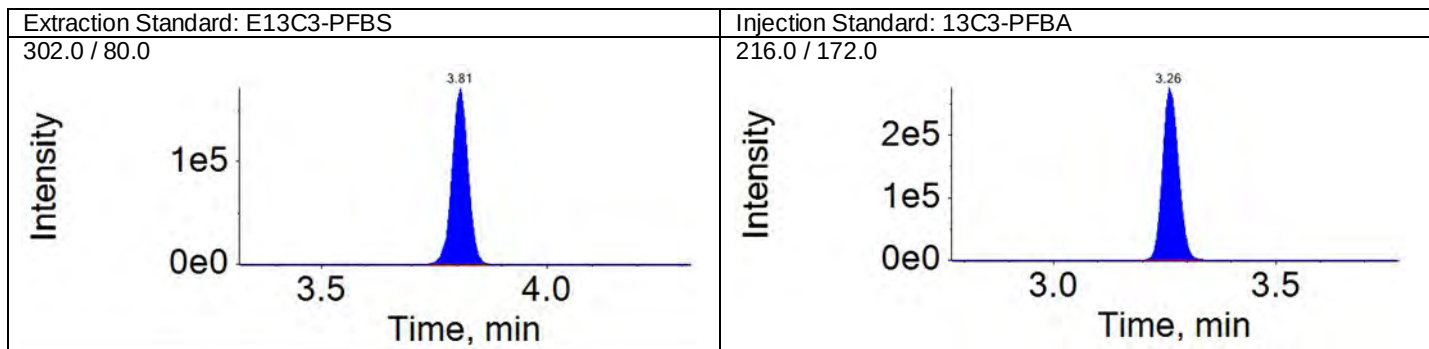
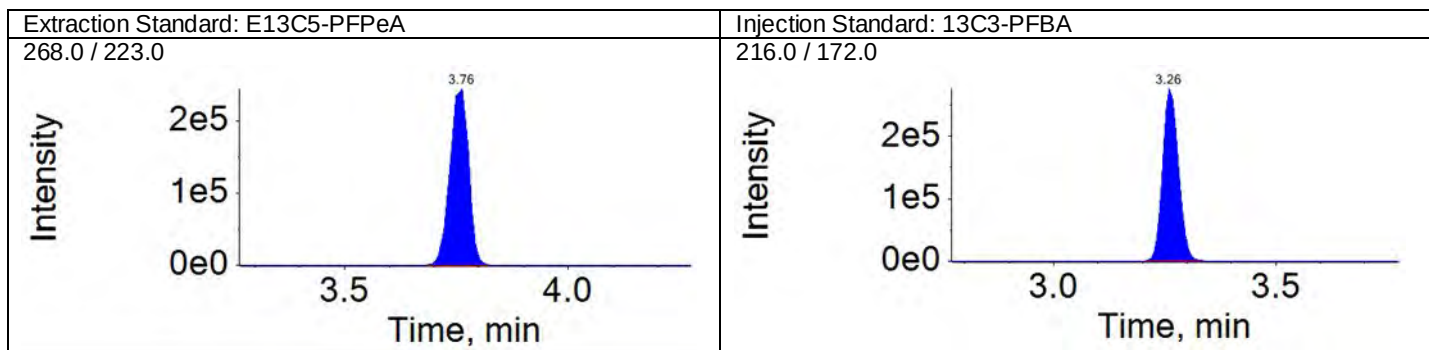
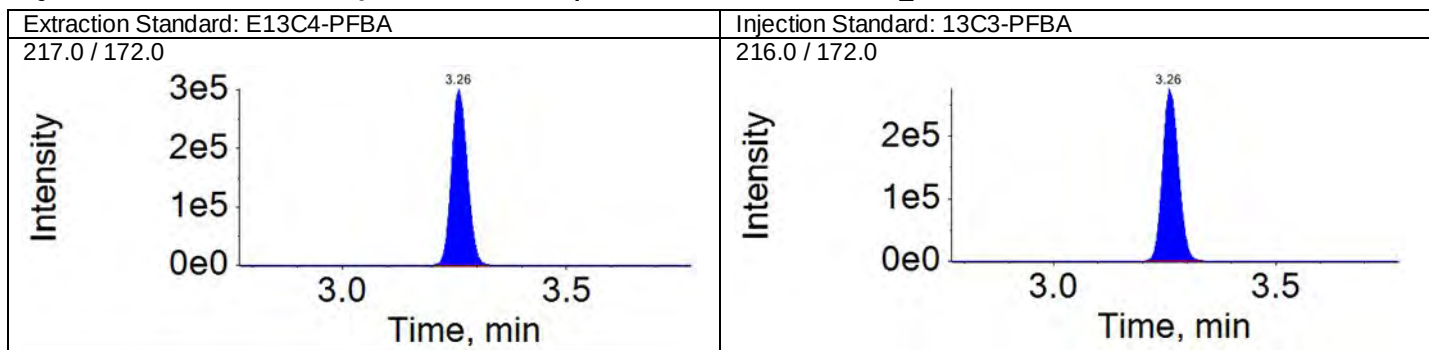
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



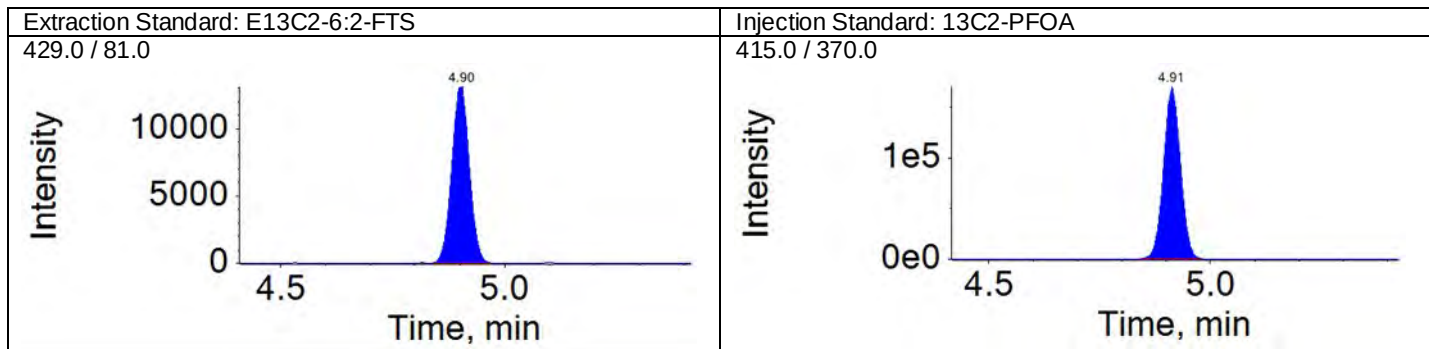
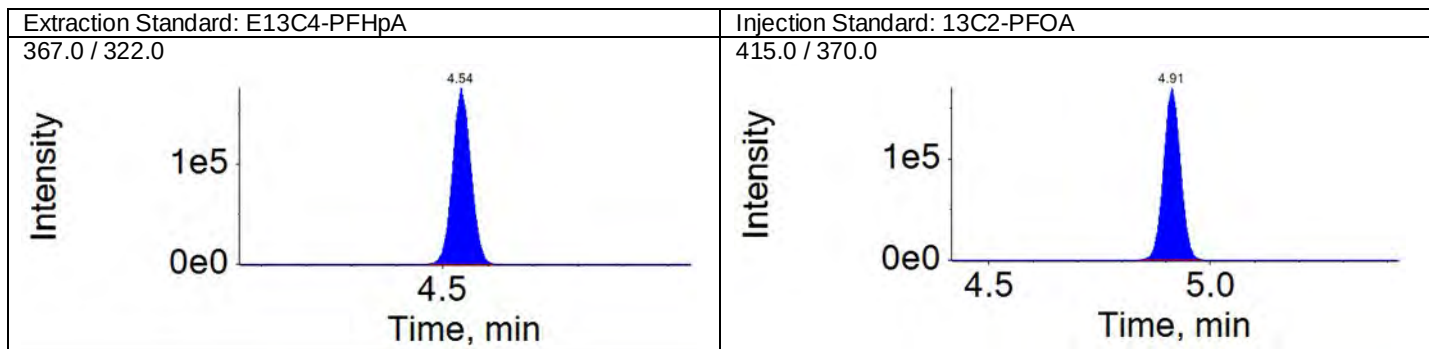
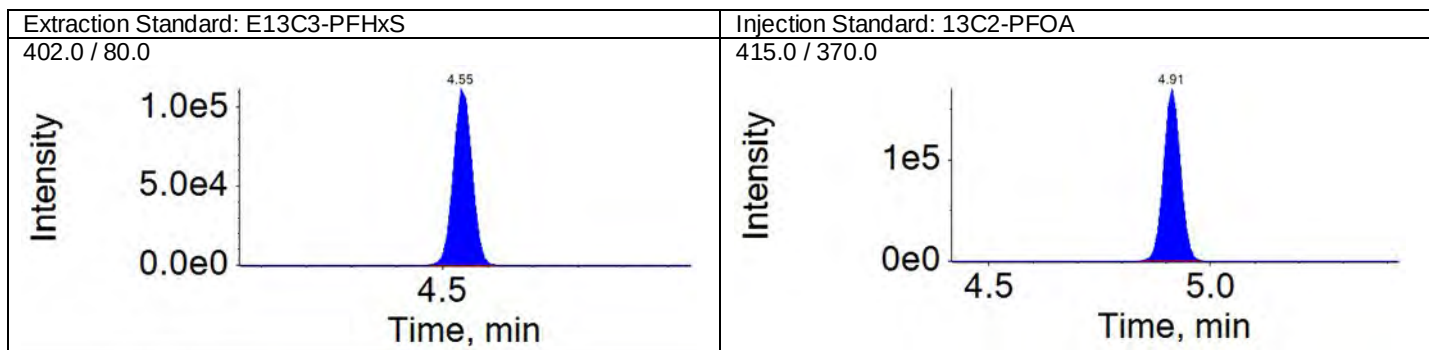
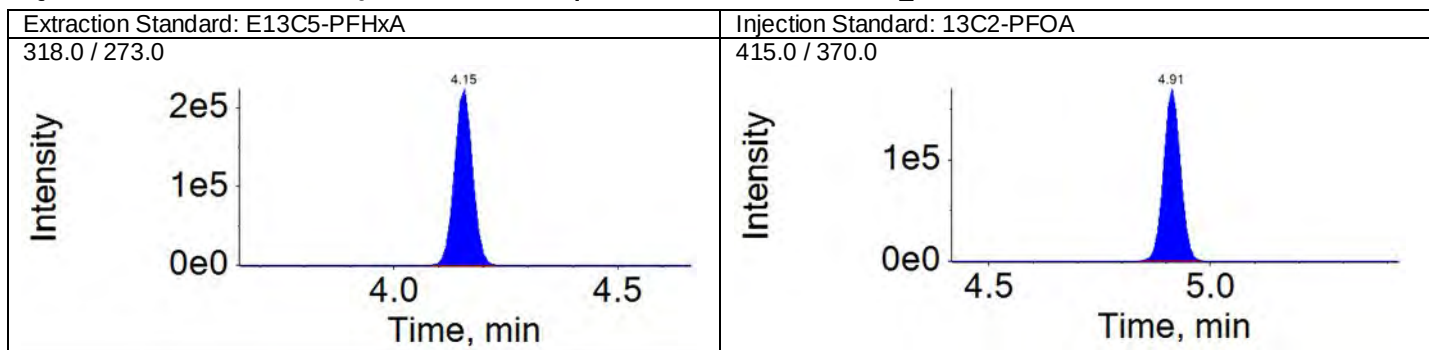
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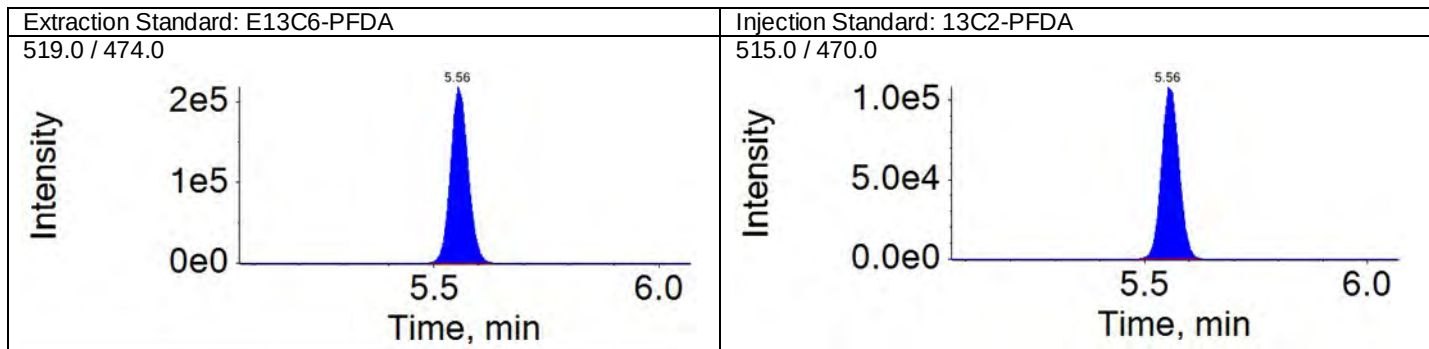
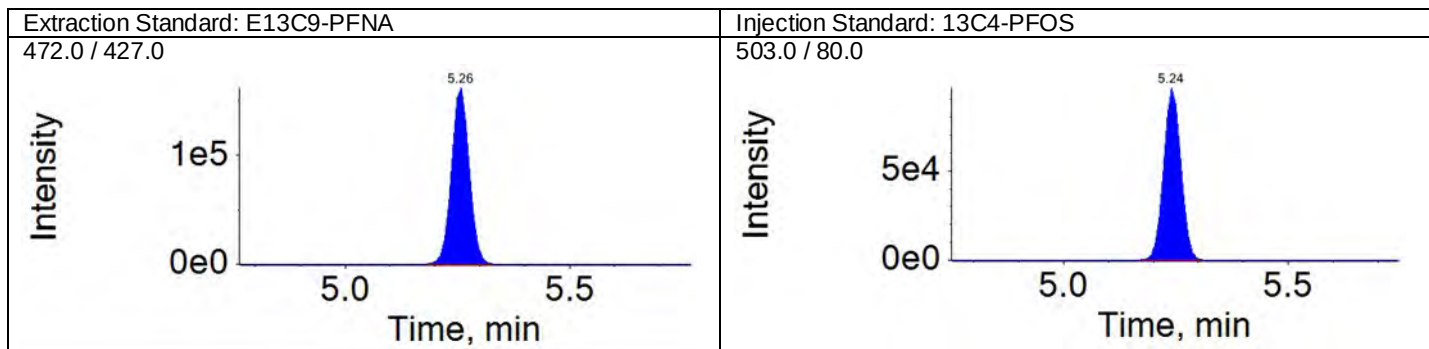
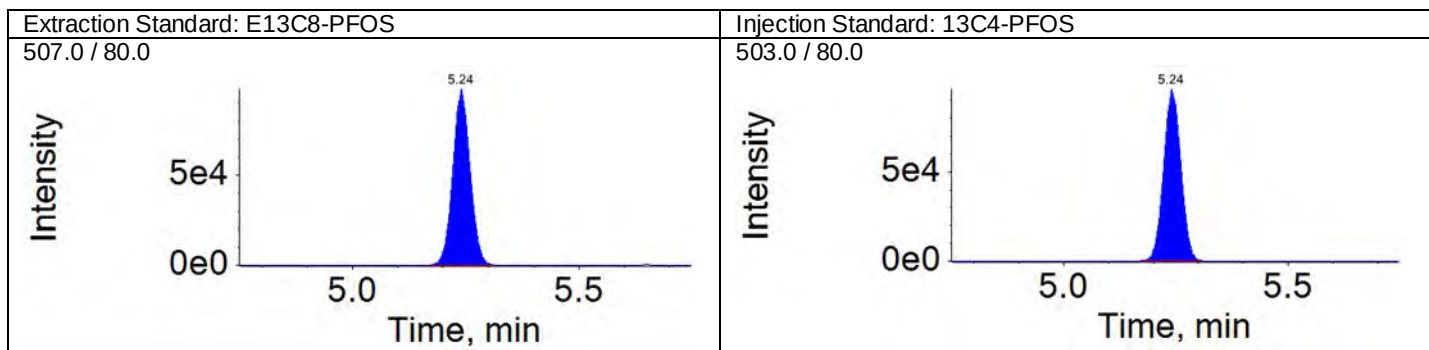
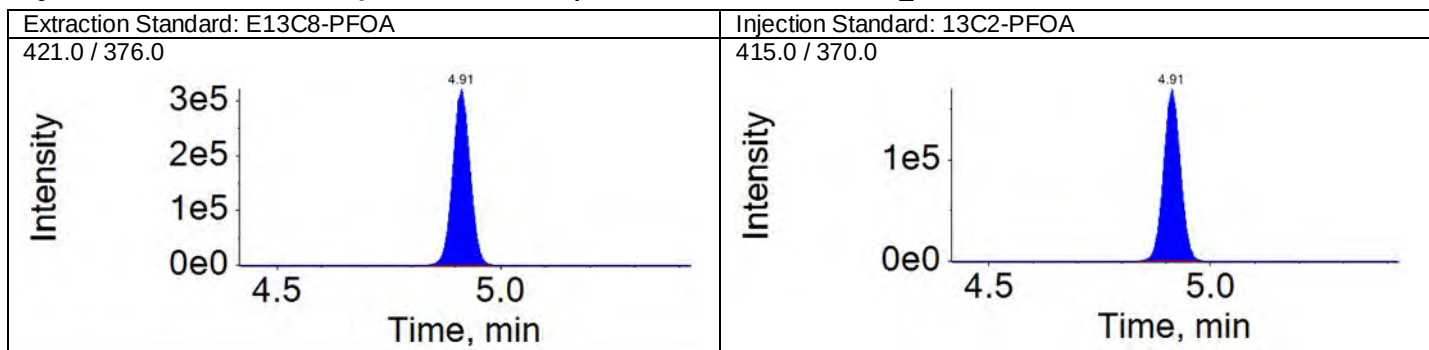
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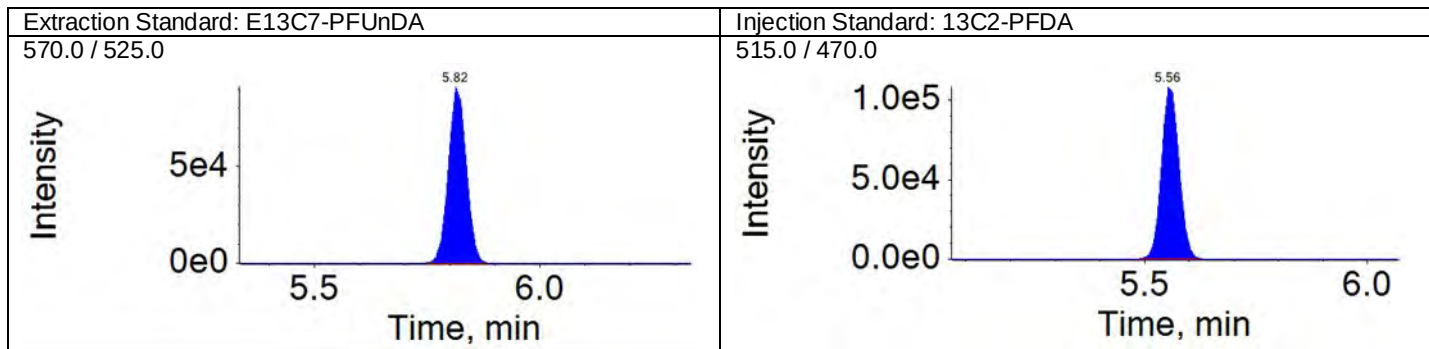
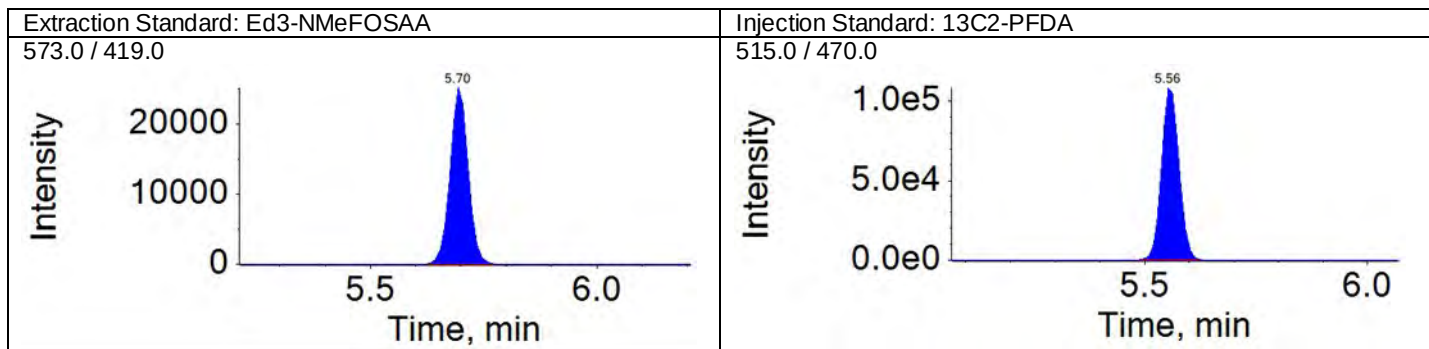
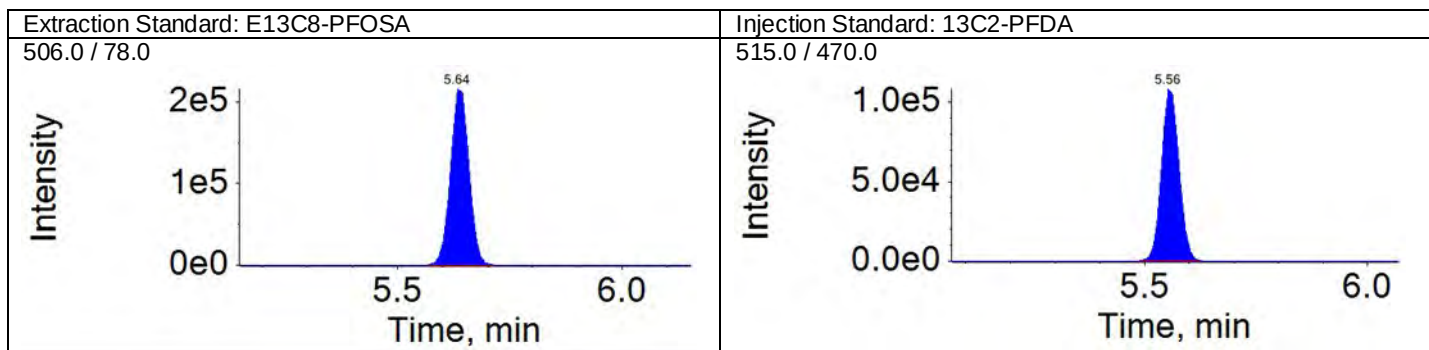
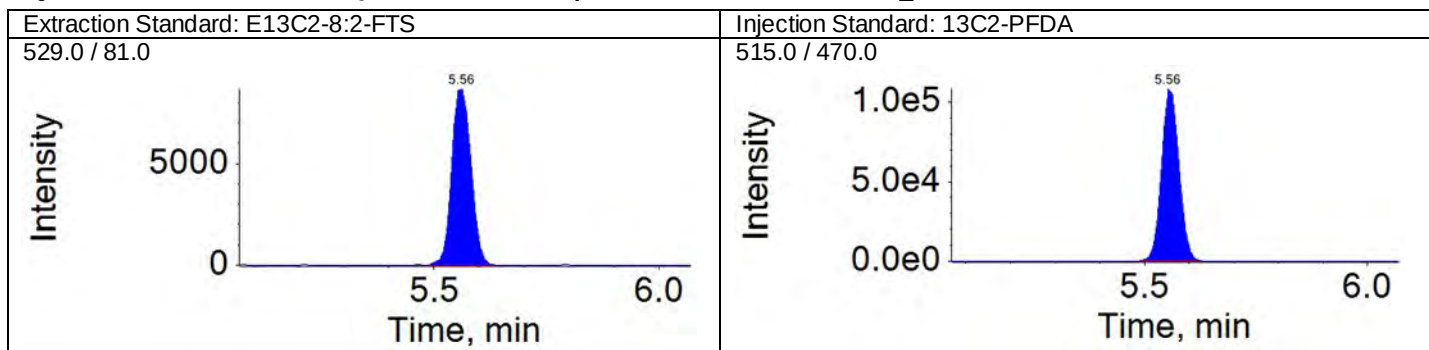
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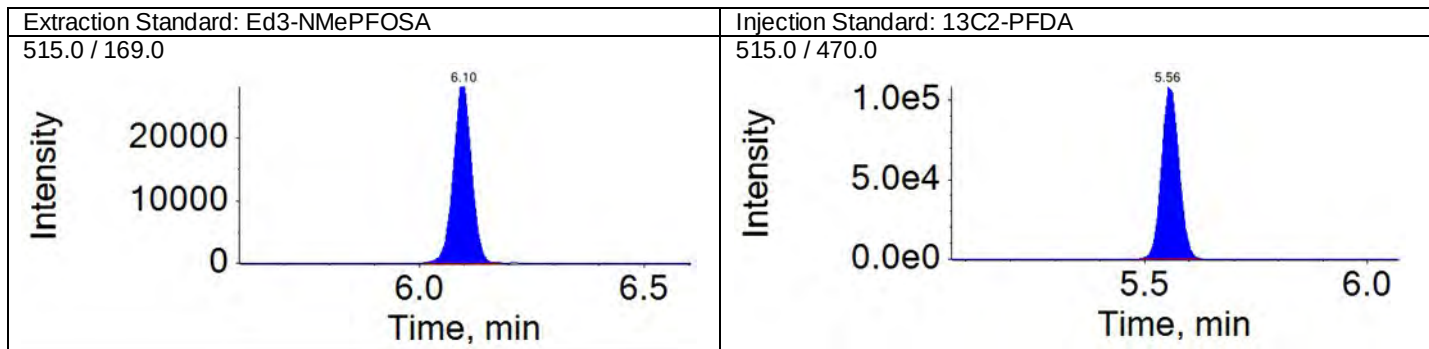
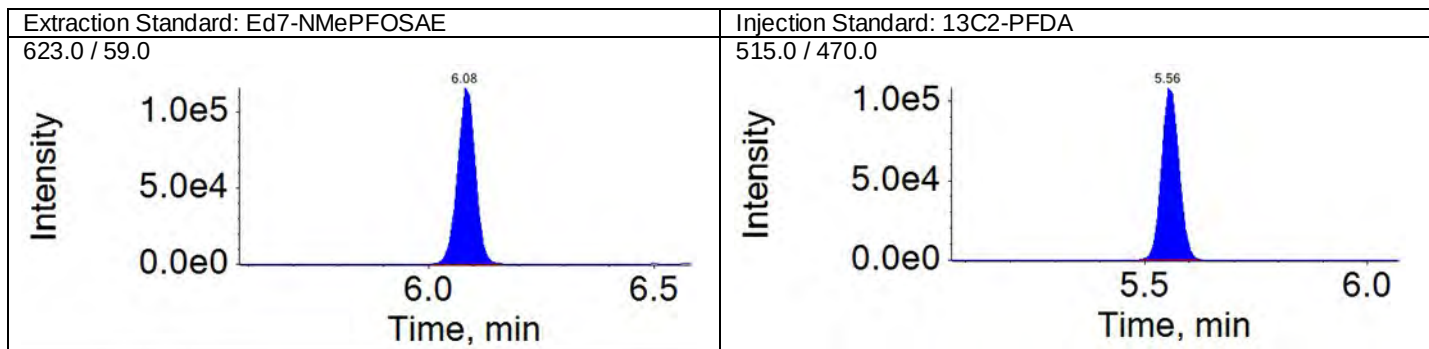
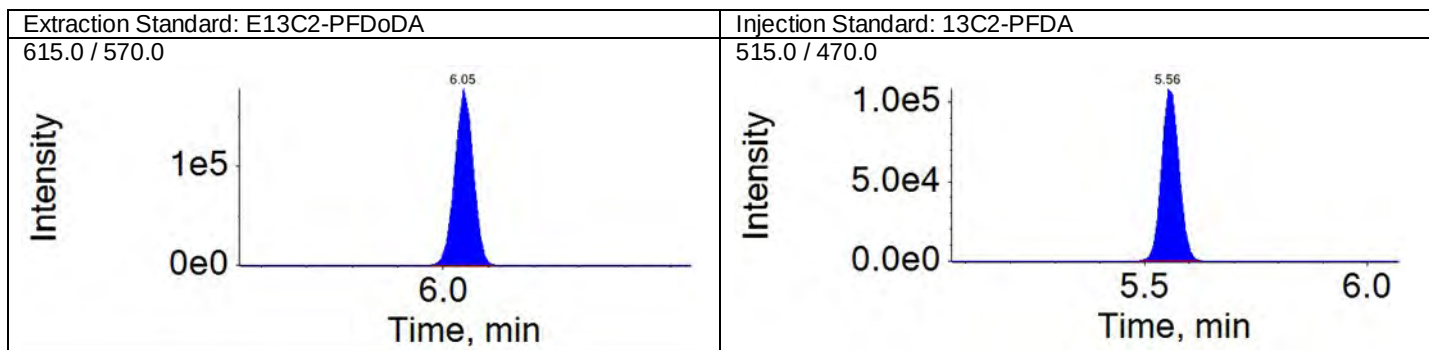
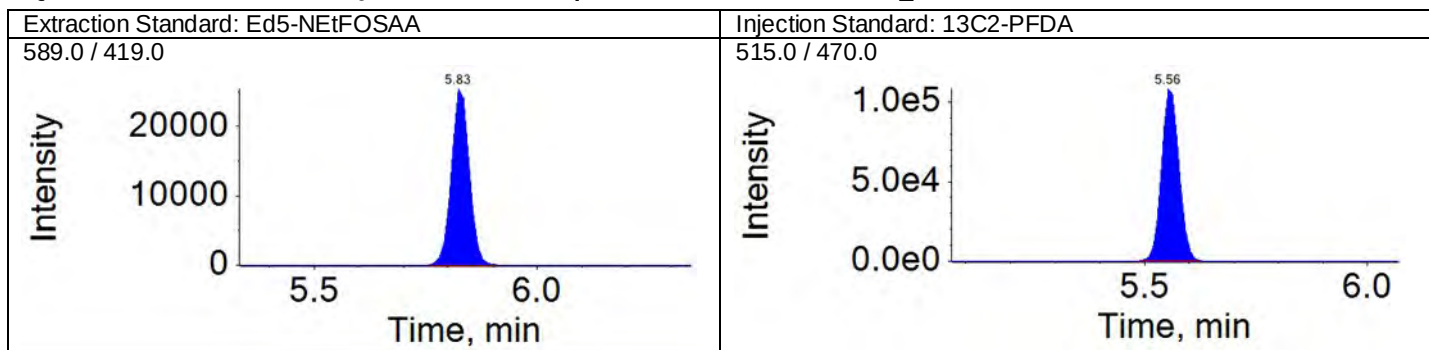
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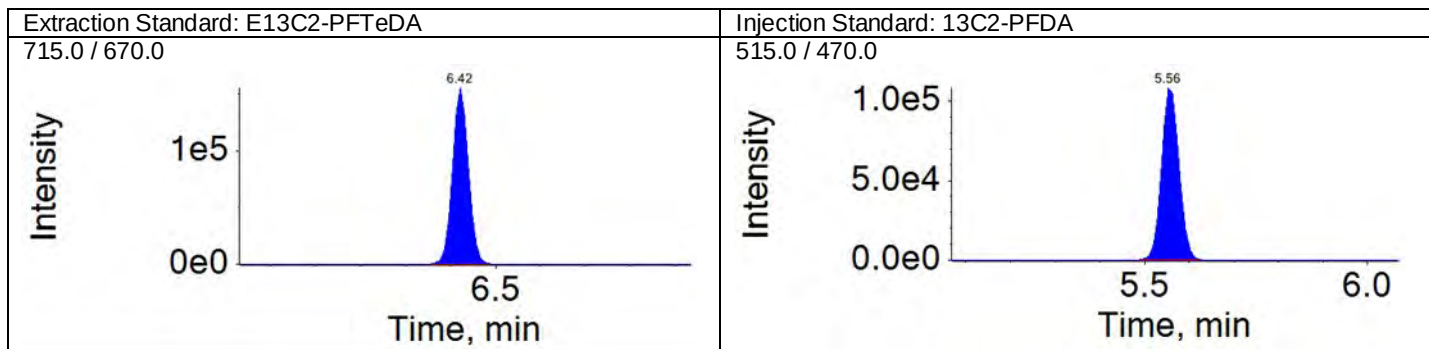
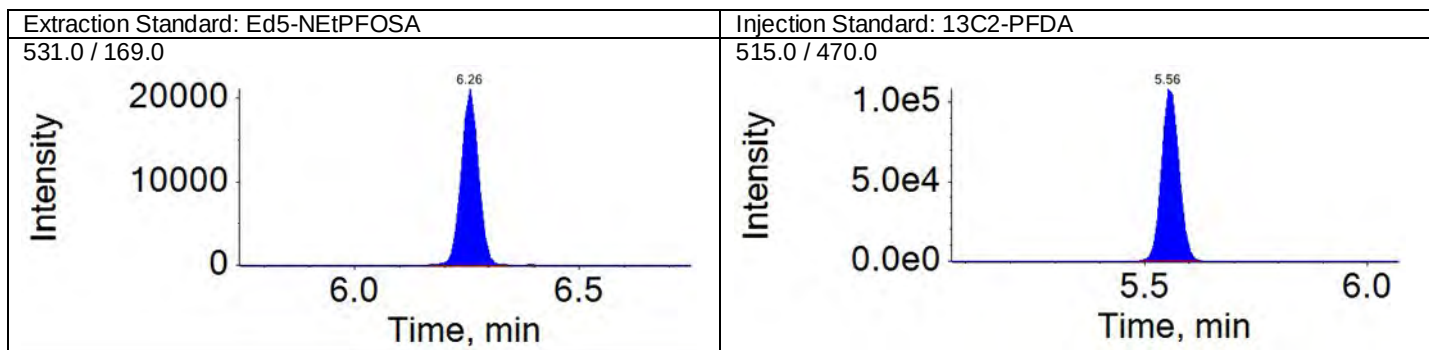
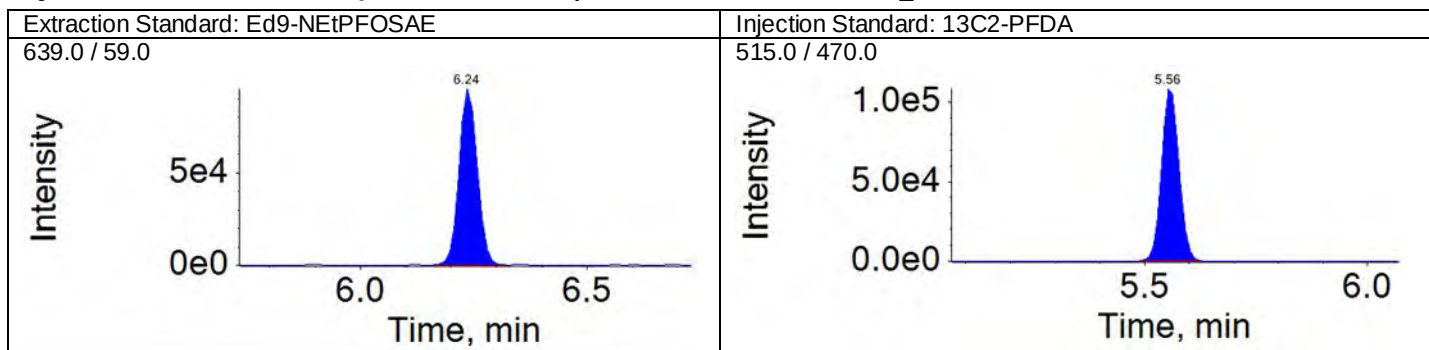
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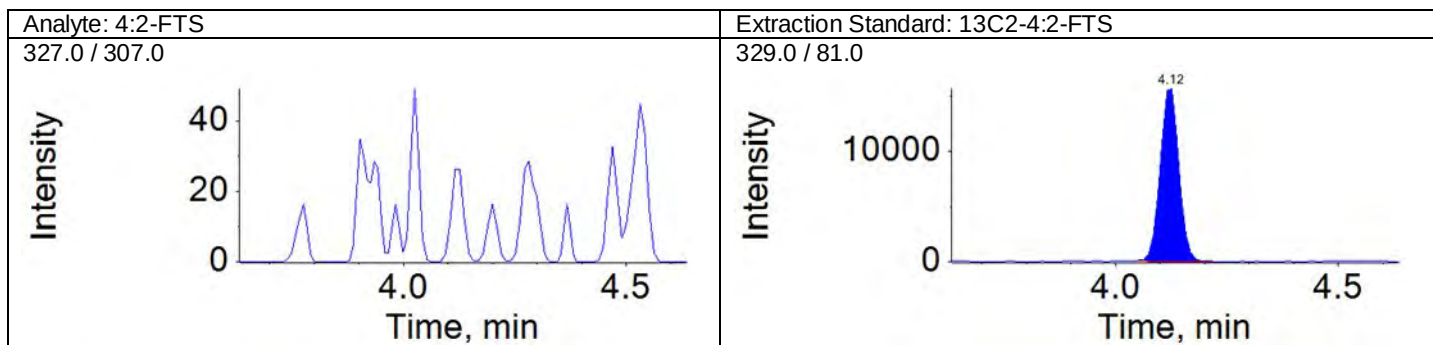
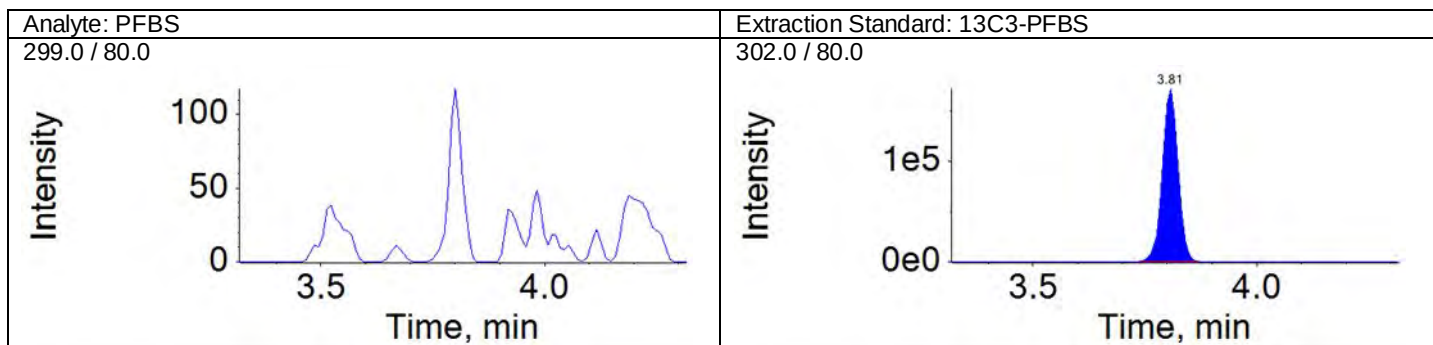
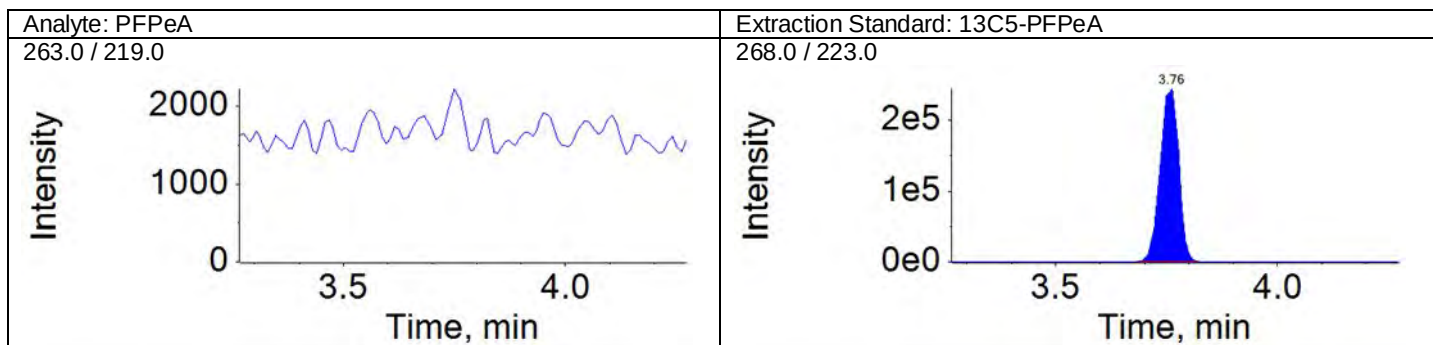
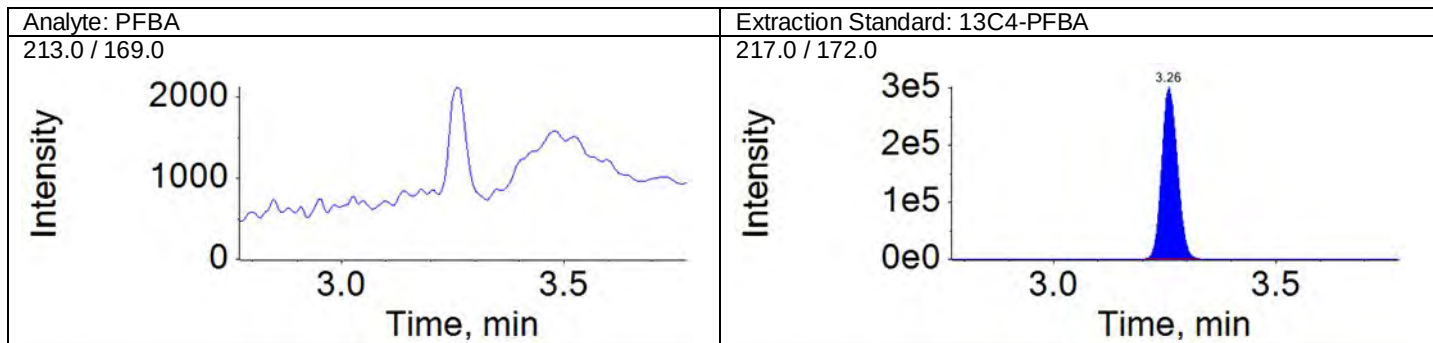
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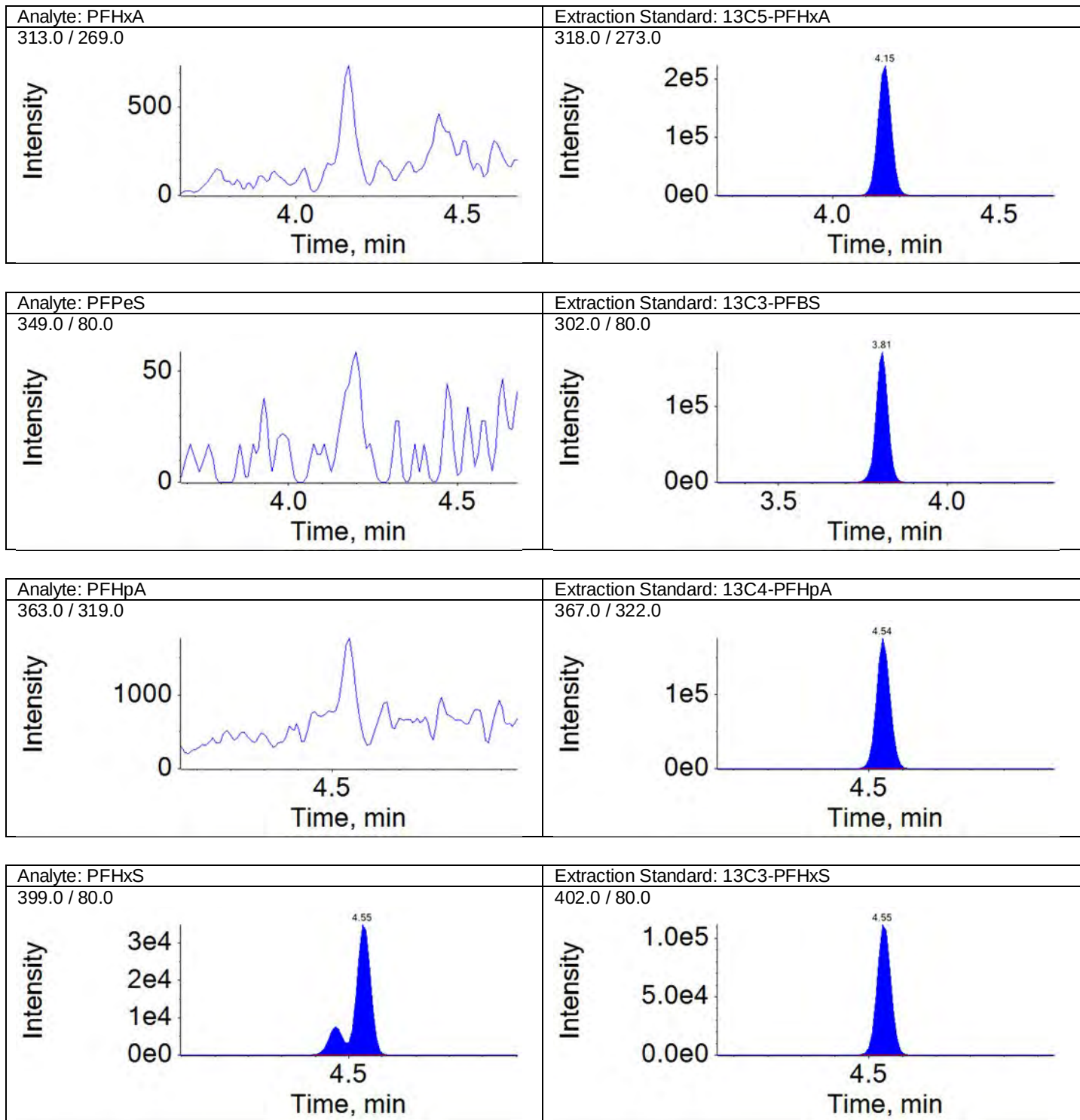
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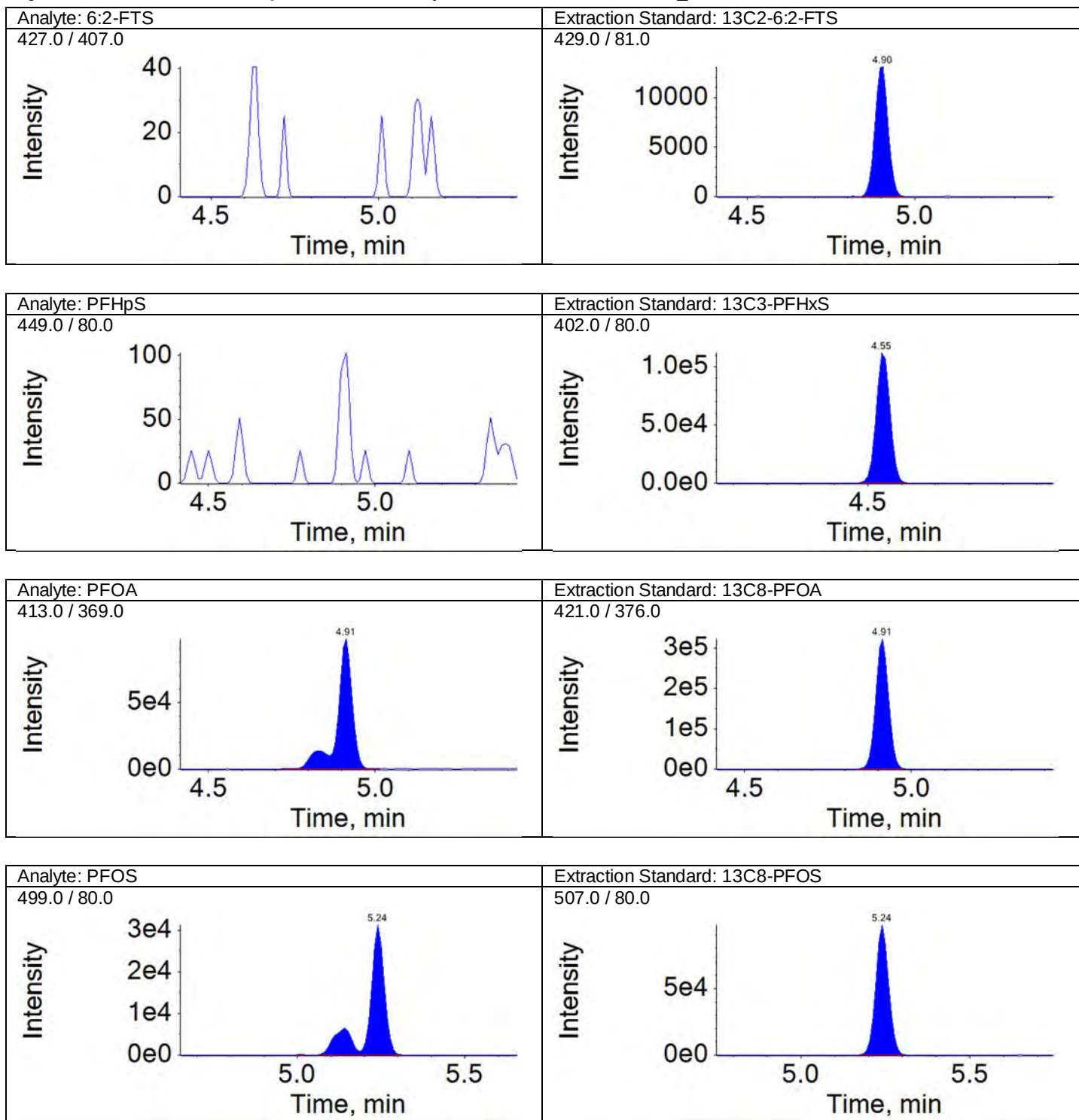
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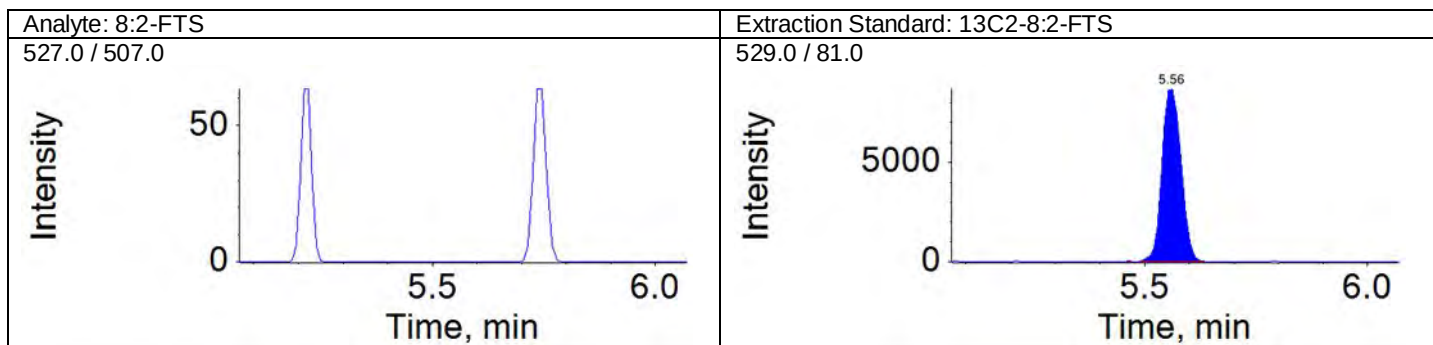
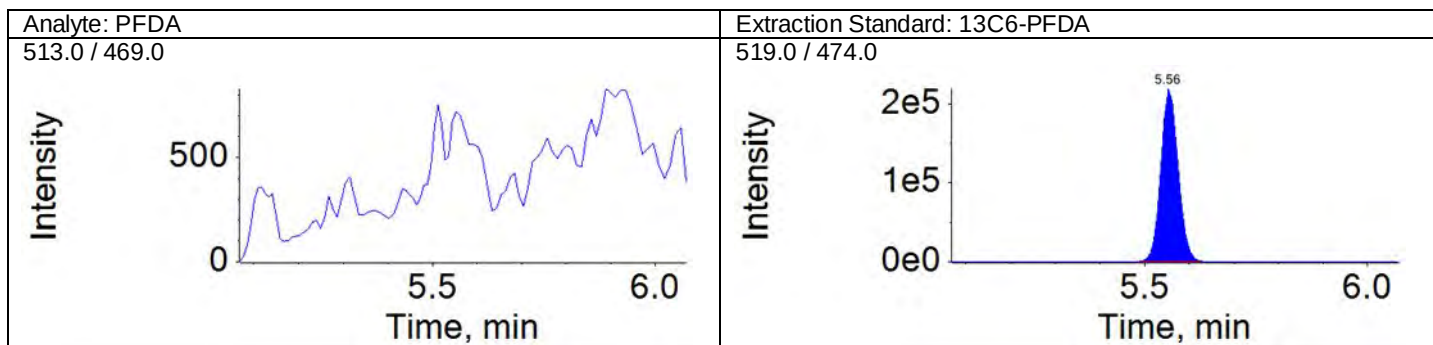
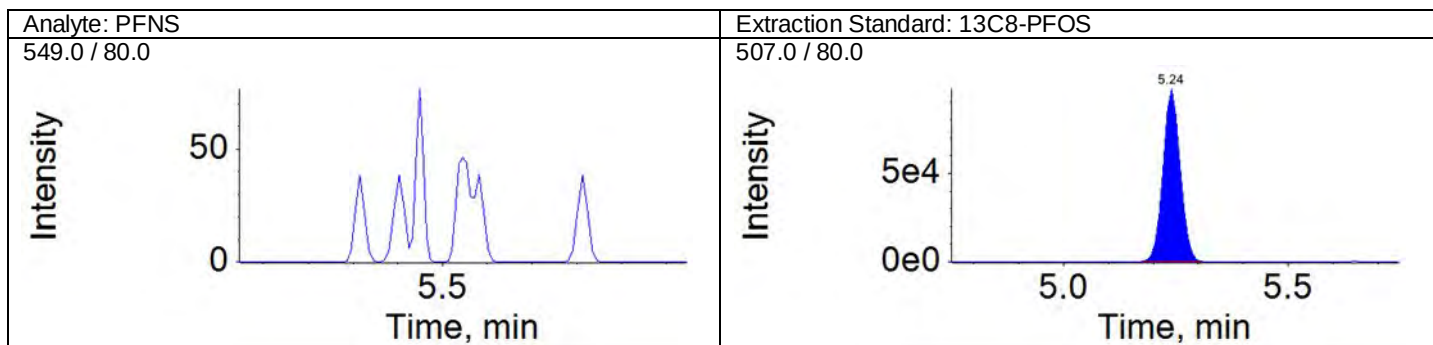
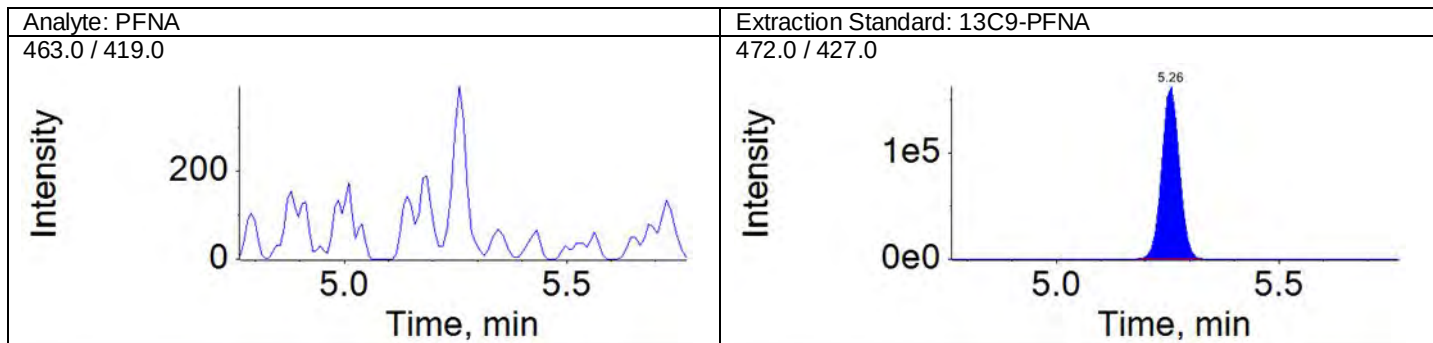
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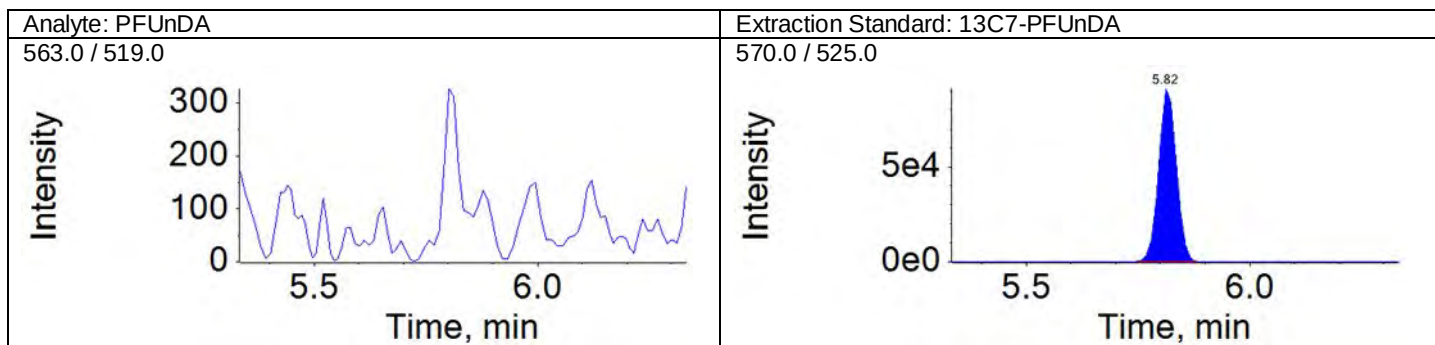
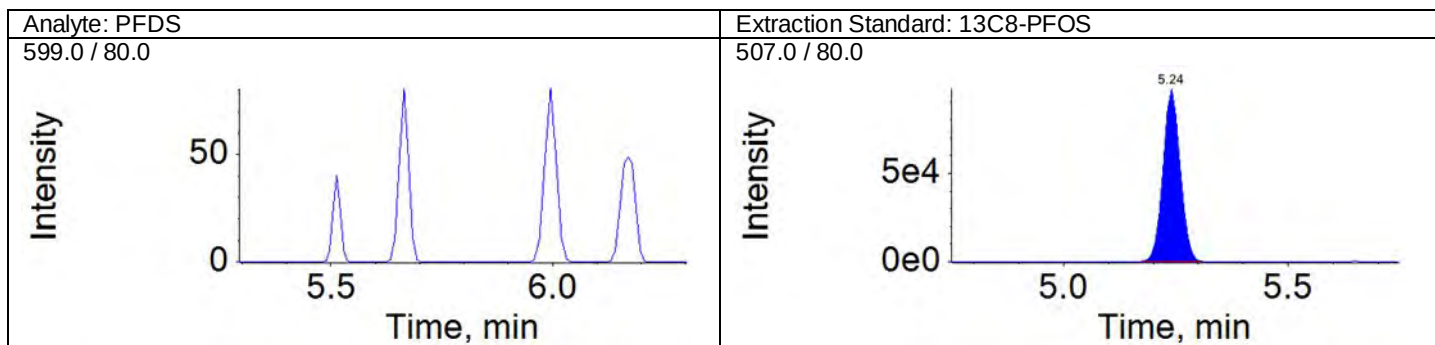
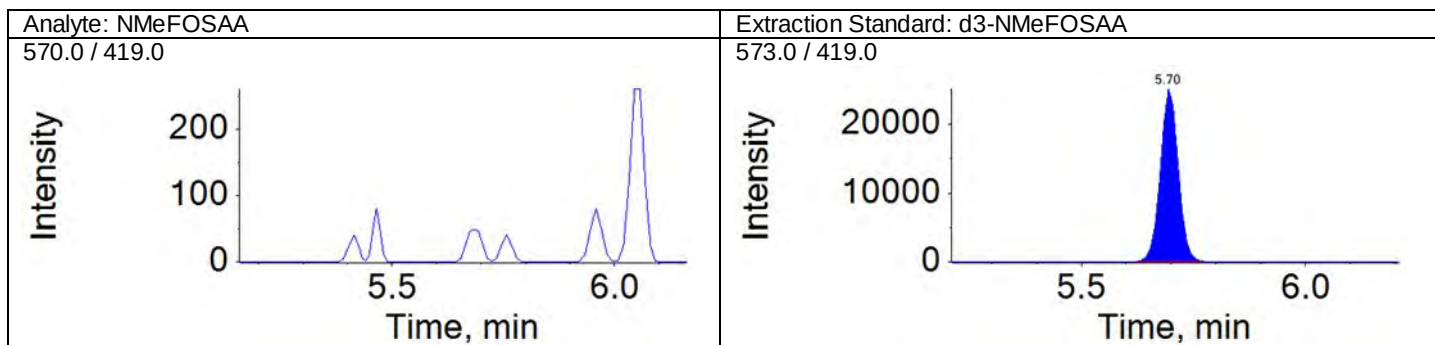
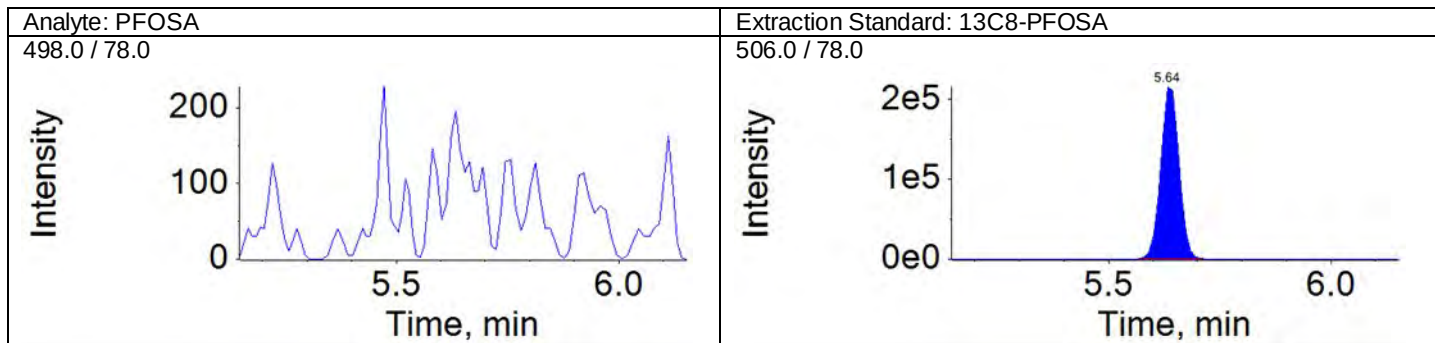
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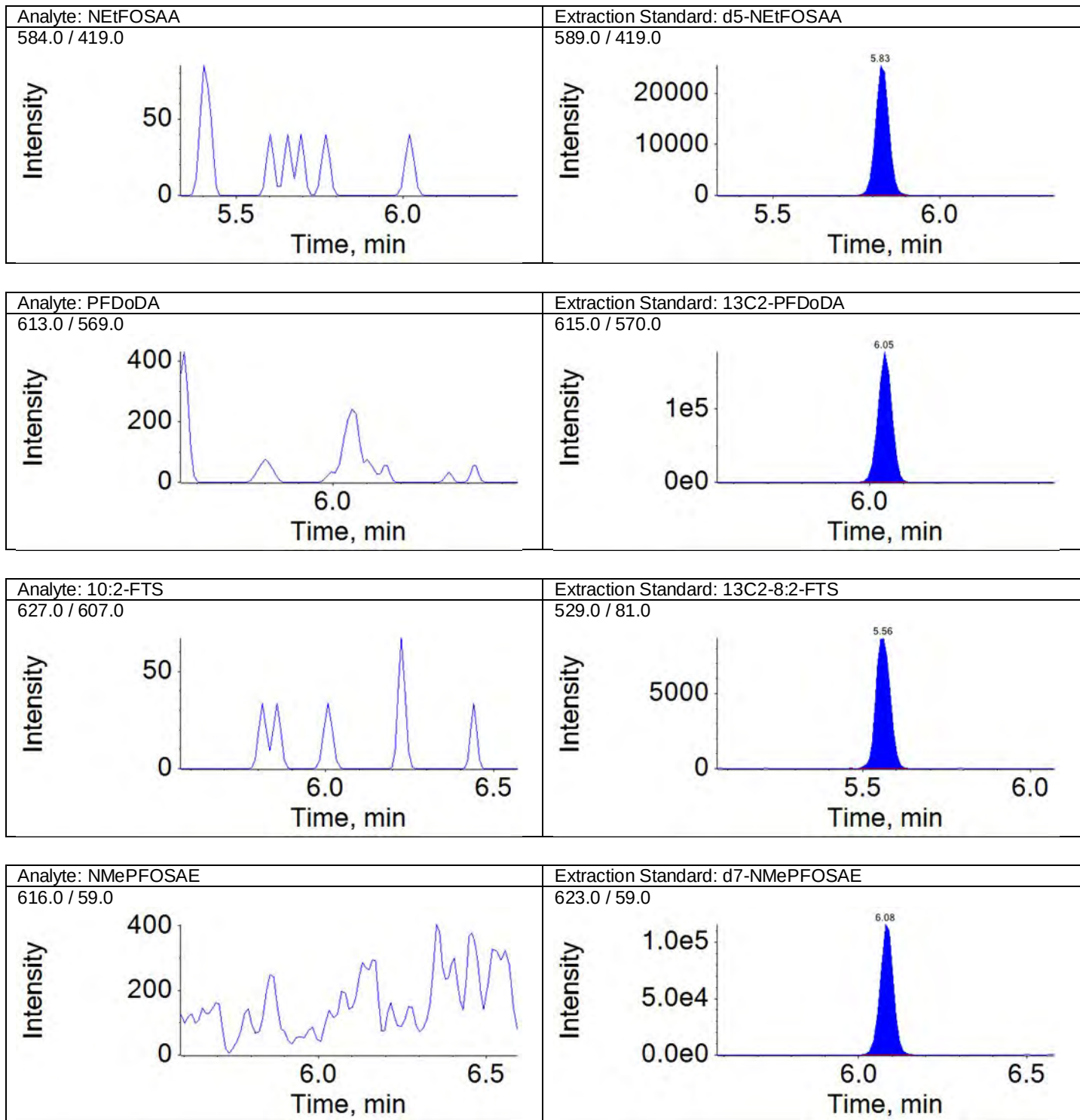
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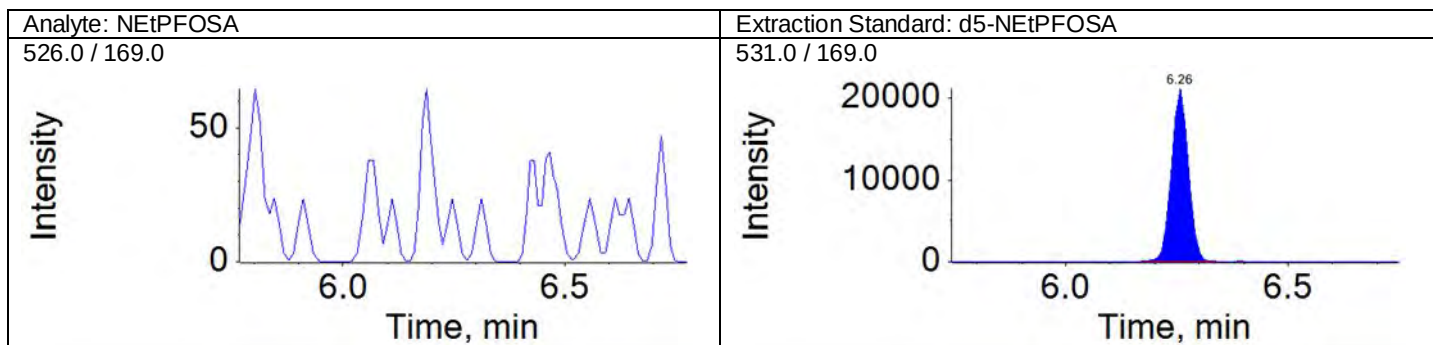
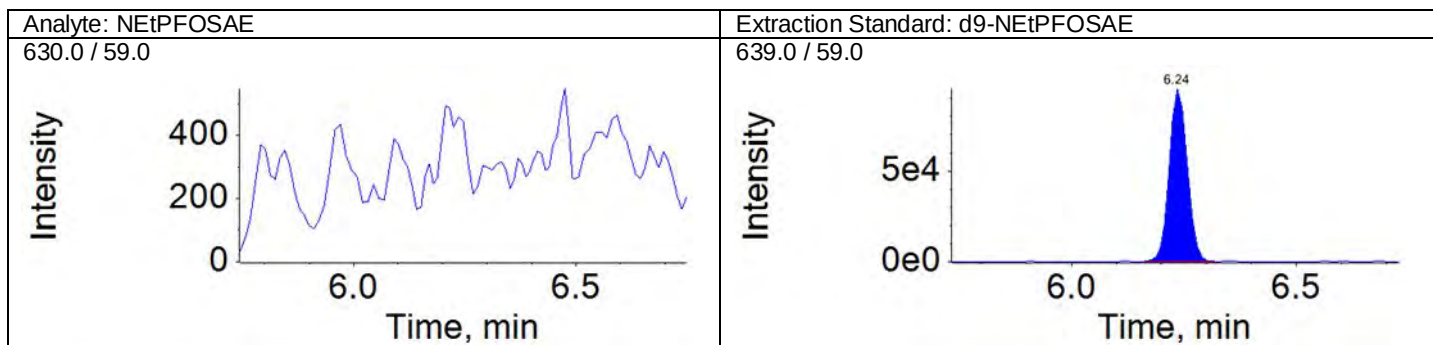
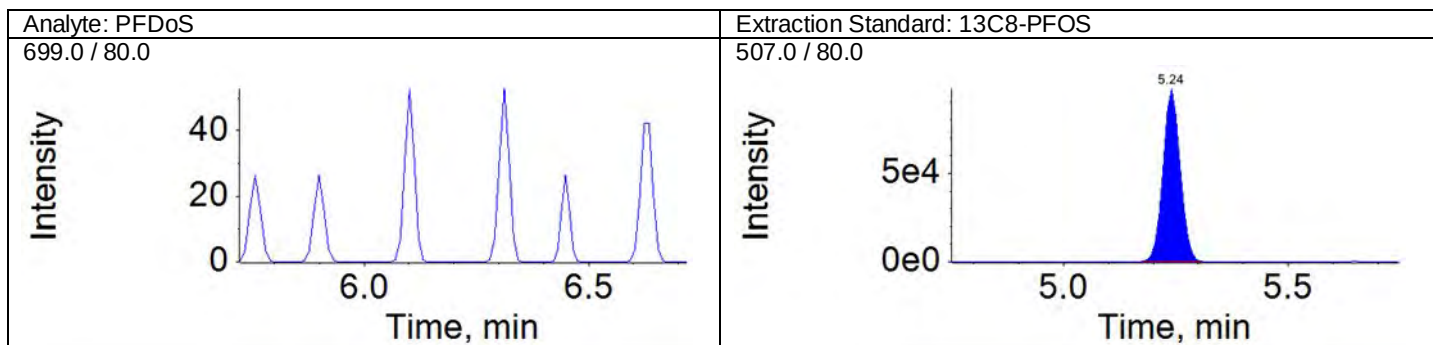
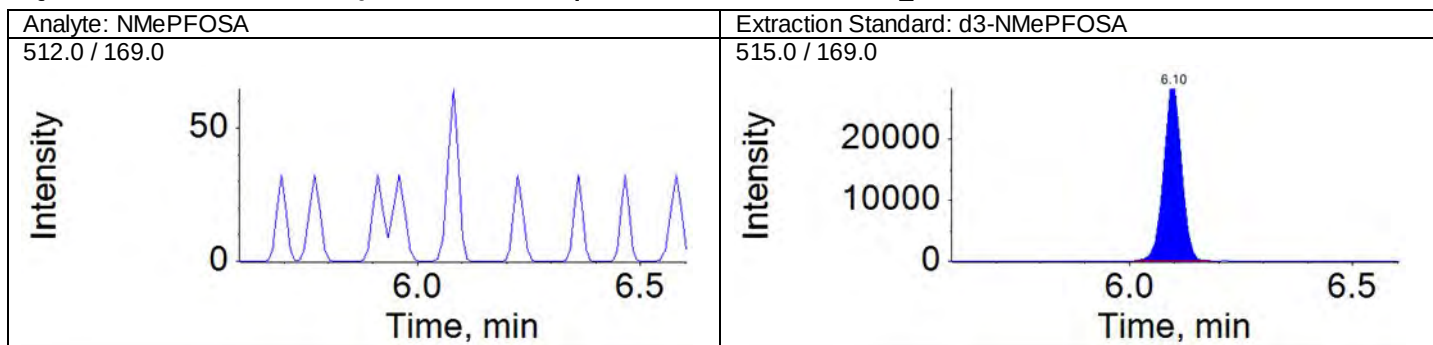
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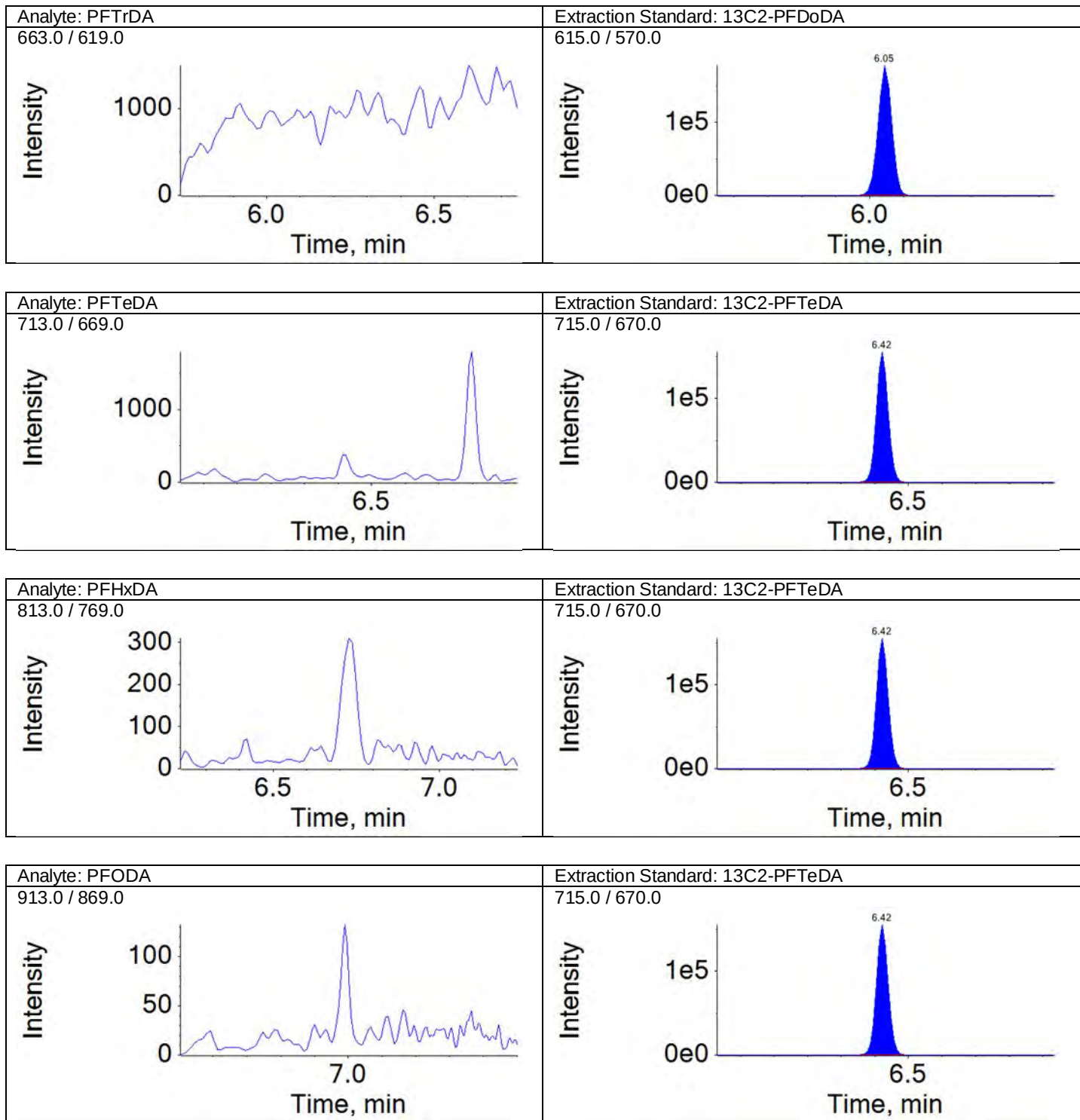
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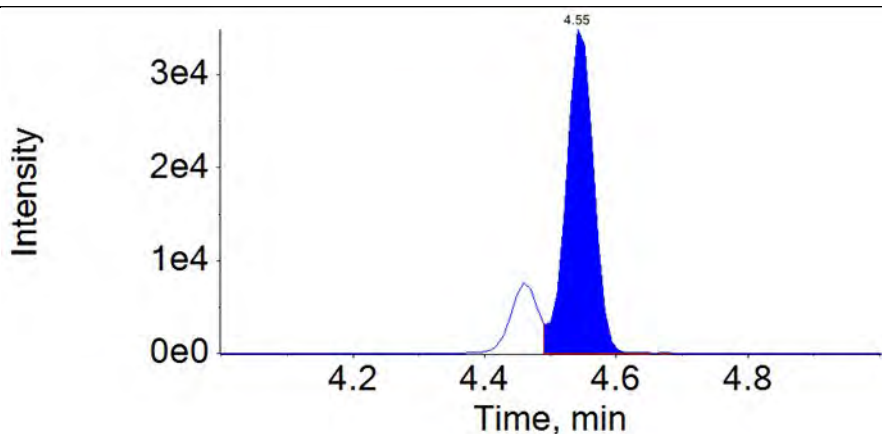
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Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

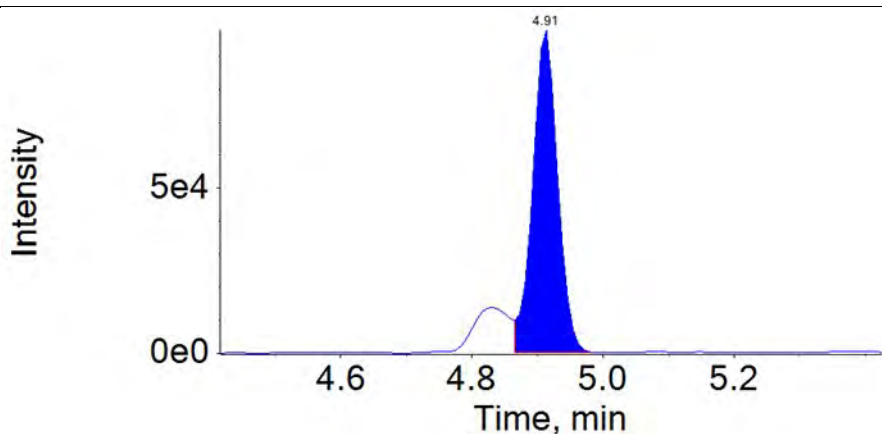
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Component Name:
PFHxS
RT (min.):
4.55
Peak Area:
101341.11
Mass Range:
399.0 / 80.0
File Name:
18NOV12DCAL-51.wiff
Sample Name:
L+B CAL3



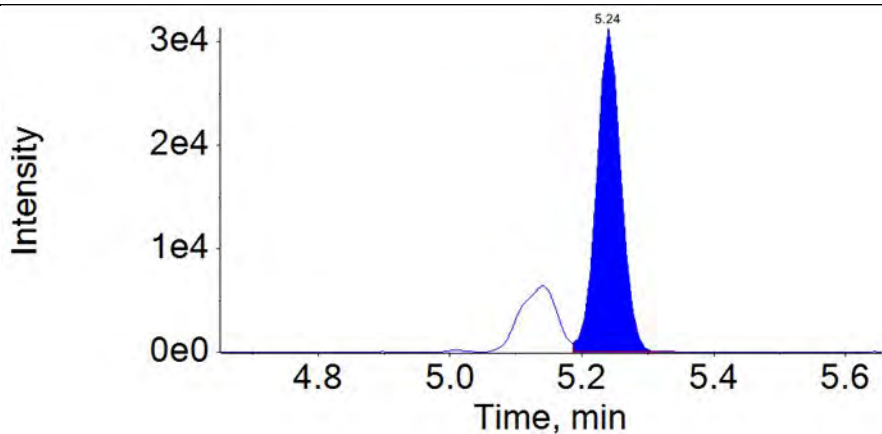
Integration Comment: incorrect integration

Component Name:
PFOA
RT (min.):
4.91
Peak Area:
258567.11
Mass Range:
413.0 / 369.0
File Name:
18NOV12DCAL-51.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
80546.10
Mass Range:
499.0 / 80.0
File Name:
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Sample Name:
L+B CAL3

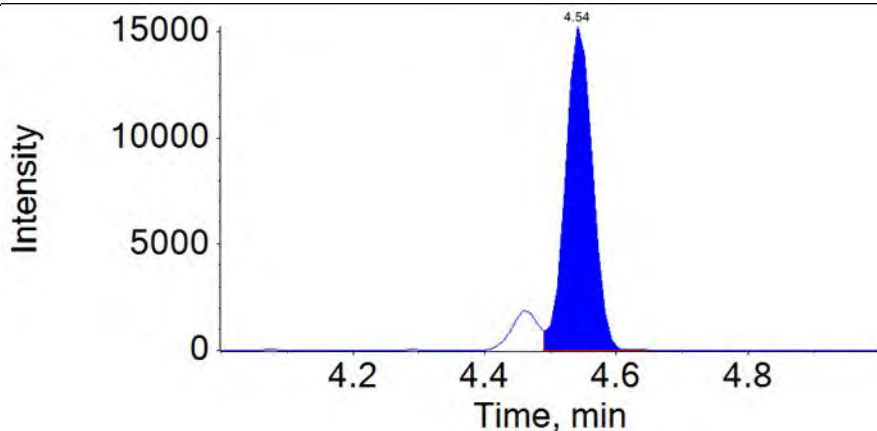


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Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

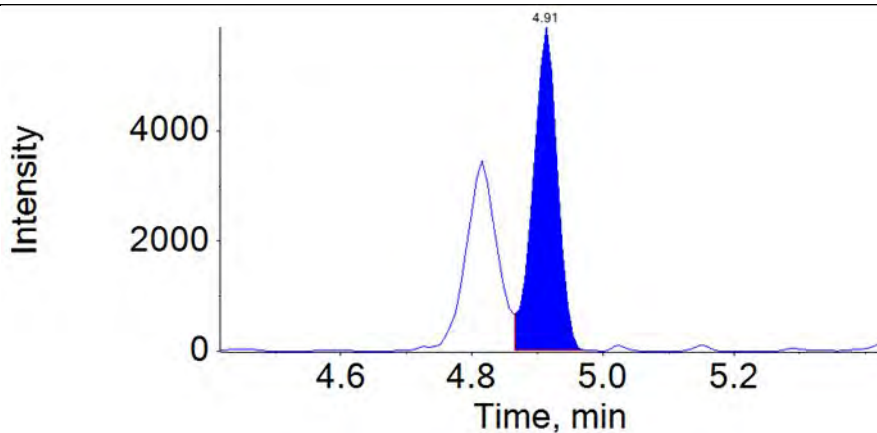
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QMethod File: 18AUG20QM

Component Name:
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RT (min.):
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Peak Area:
43554.75
Mass Range:
399.0 / 99.0
File Name:
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Sample Name:
L+B CAL3



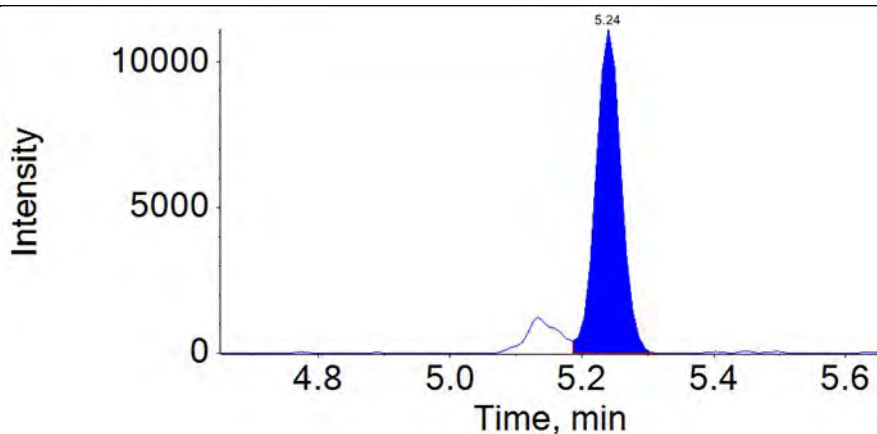
Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.91
Peak Area:
15059.21
Mass Range:
413.0 / 169.0
File Name:
18NOV12DCAL-51.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
29829.42
Mass Range:
499.0 / 99.0
File Name:
18NOV12DCAL-51.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 6:34 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

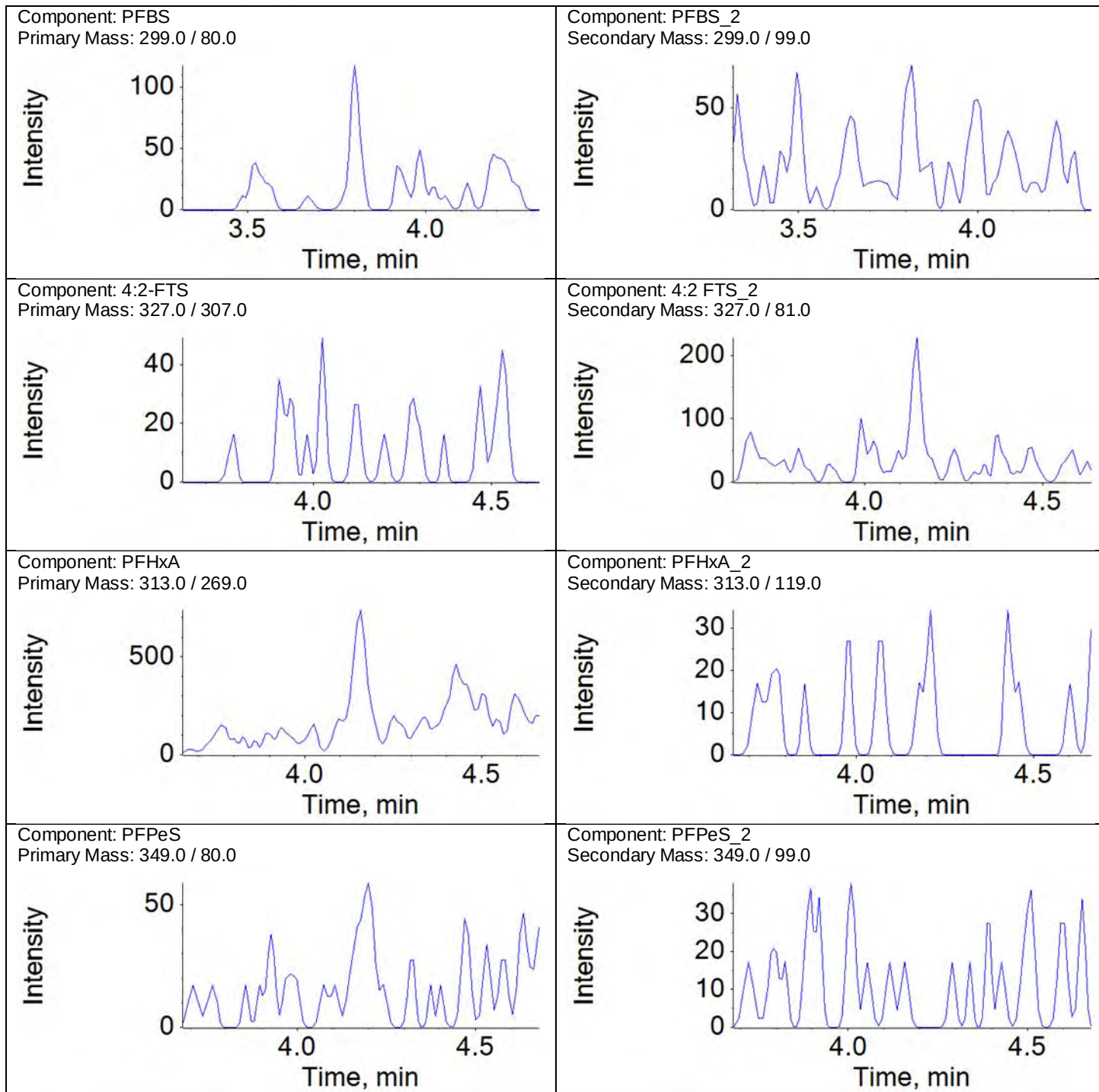
Ion Ratio Report

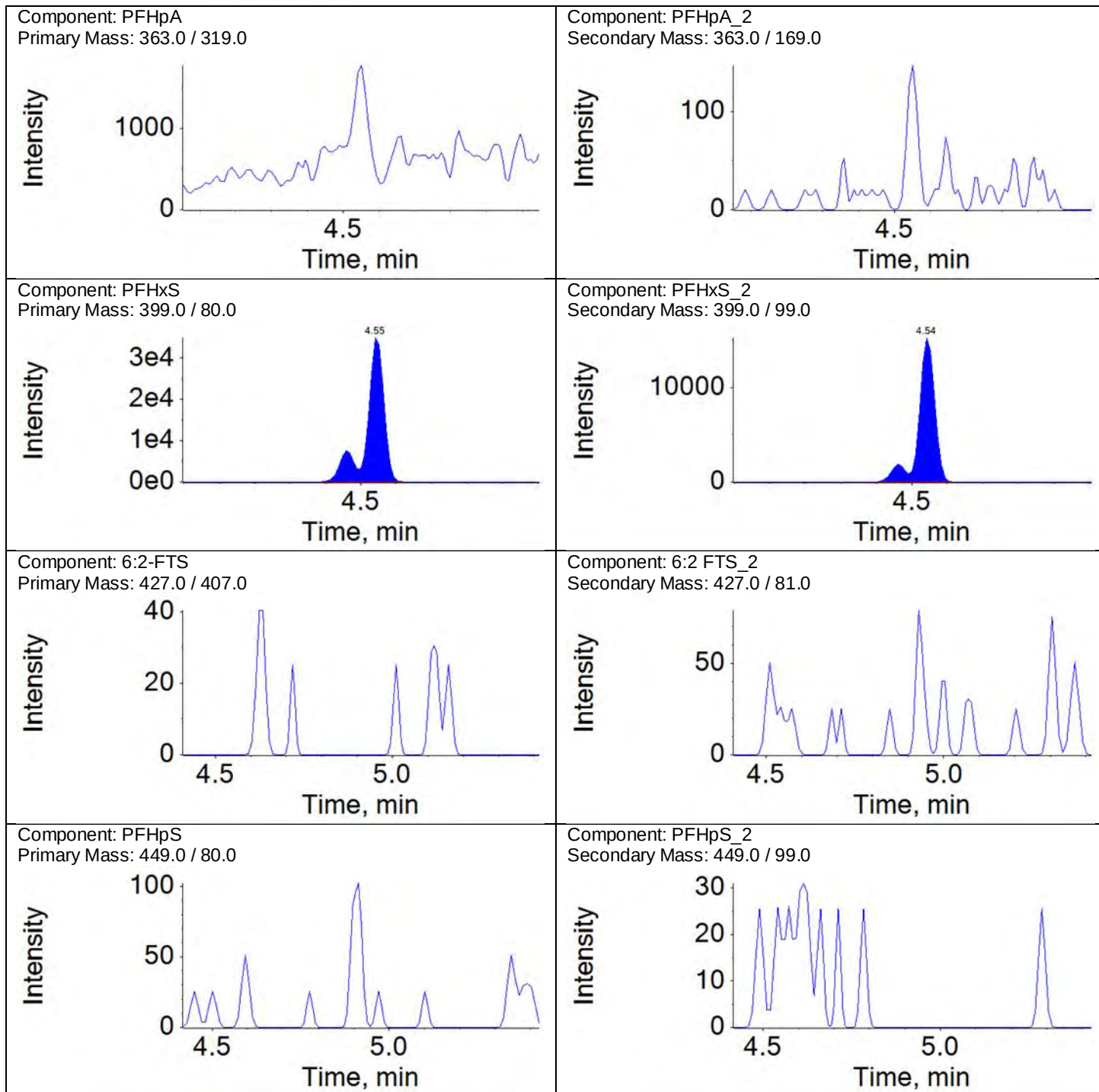
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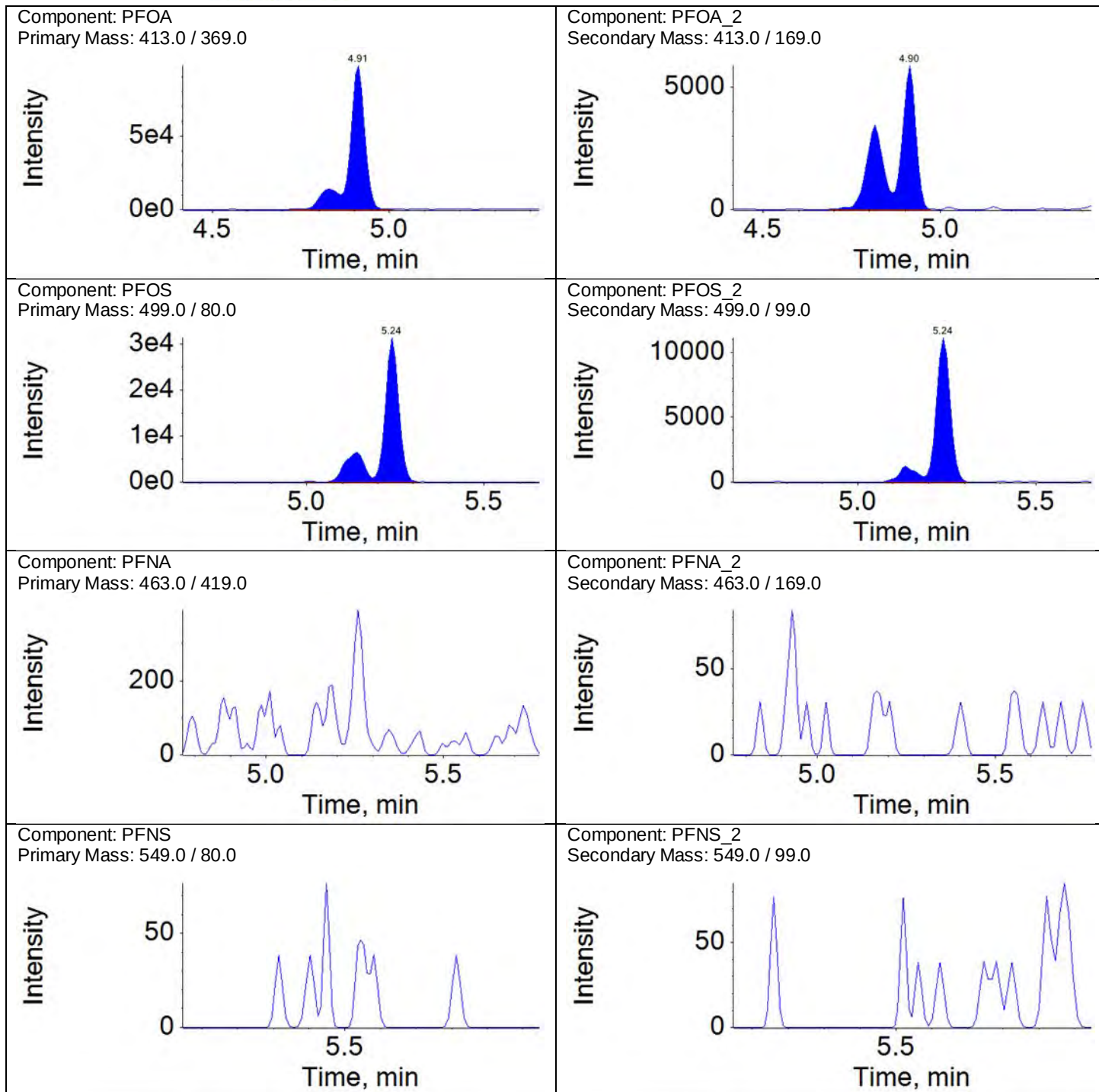
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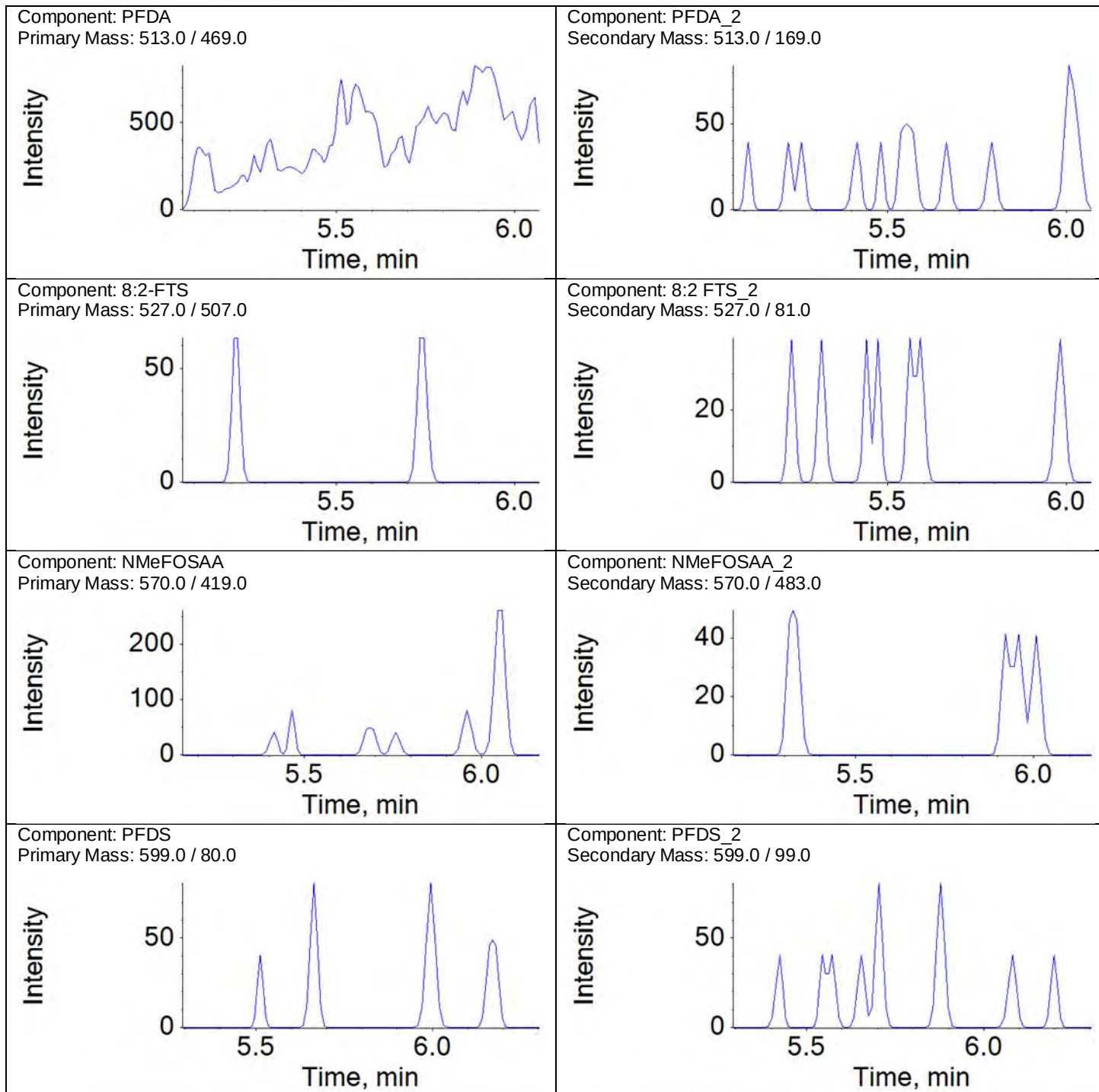
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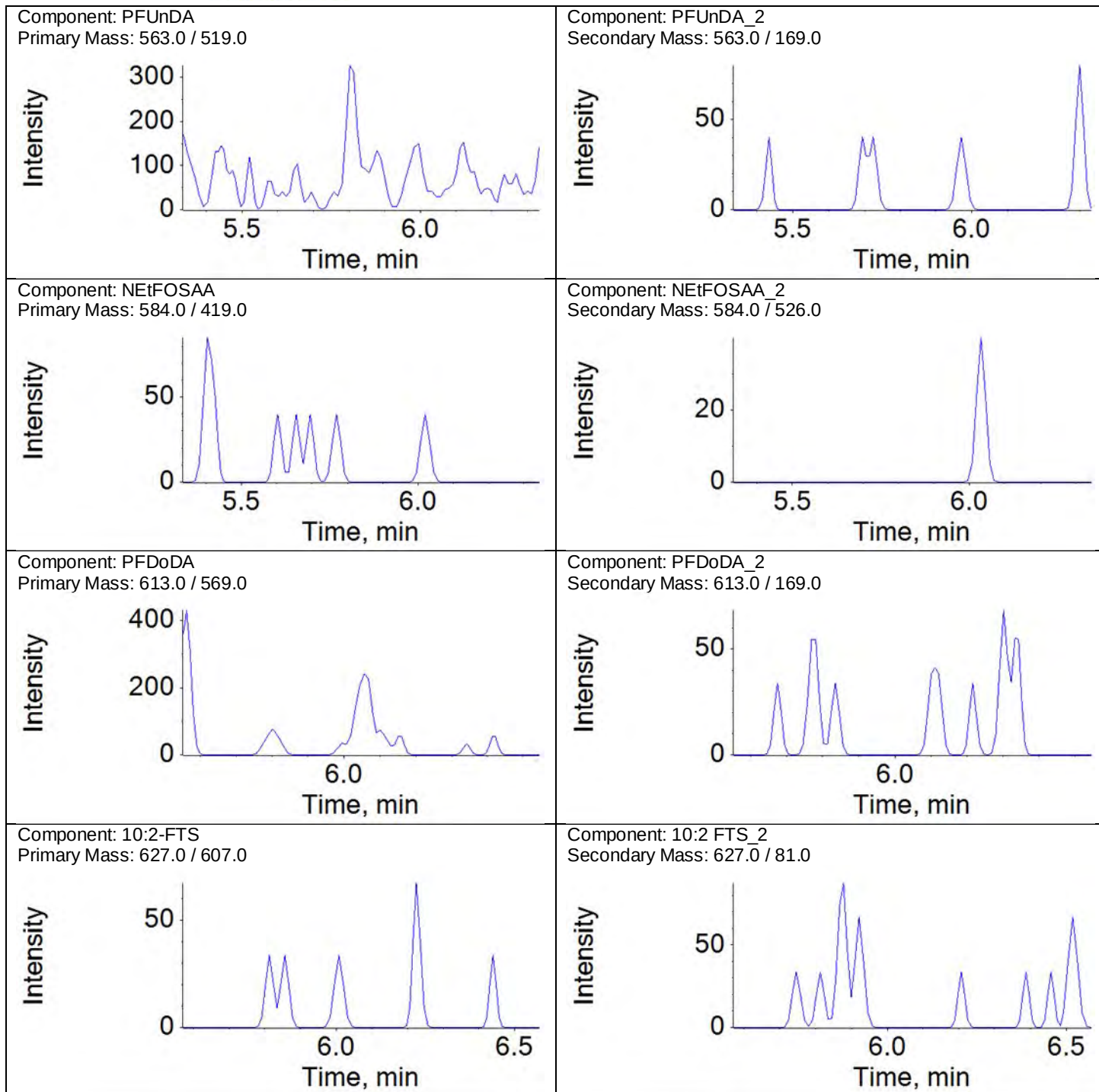
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PFBS_2	N/A	N/A	N/A	A	0.3619	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	0.6730	N/A			
4:2 FTS_2	N/A	N/A	N/A	A	0.6730	N/A		#NA!	
PFHxA	N/A	N/A	N/A	A	0.0117	N/A			
PFHxA_2	N/A	N/A	N/A	A	0.0117	N/A		50	
PFPeS	N/A	N/A	N/A	A	0.5191	N/A			
PFPeS_2	N/A	N/A	N/A	A	0.5191	N/A		50	
PFHpA	N/A	N/A	N/A	A	0.0563	N/A			
PFHpA_2	N/A	N/A	N/A	A	0.0563	N/A		50	
PFHxS	4.55	1.00	122359.84	M	0.3428	0.3979			
PFHxS_2	4.54	1.00	48686.07	M	0.3428	0.3979	16	50	
6:2-FTS	N/A	N/A	N/A	A	0.6604	N/A			
6:2 FTS_2	N/A	N/A	N/A	A	0.6604	N/A		#NA!	
PFHpS	N/A	N/A	N/A	A	0.4066	N/A			
PFHpS_2	N/A	N/A	N/A	A	0.4066	N/A		50	
PFOA	4.91	1.00	312625.40	M	0.0562	0.0855			
PFOA_2	4.90	1.00	26736.79	M	0.0562	0.0855	52	50	OOS
PFOS	5.24	1.00	105809.81	M	0.2968	0.3212			
PFOS_2	5.24	1.00	33989.74	M	0.2968	0.3212	8	50	
PFNA	N/A	N/A	N/A	A	0.0229	N/A			
PFNA_2	N/A	N/A	N/A	A	0.0229	N/A		50	
PFNS	N/A	N/A	N/A	A	0.4828	N/A			
PFNS_2	N/A	N/A	N/A	A	0.4828	N/A		50	
PFDA	N/A	N/A	N/A	A	0.0081	N/A			
PFDA_2	N/A	N/A	N/A	A	0.0081	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	0.6814	N/A			
8:2 FTS_2	N/A	N/A	N/A	A	0.6814	N/A		#NA!	
NMeFOSAA	N/A	N/A	N/A	A	0.2569	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	0.2569	N/A		50	
PFDS	N/A	N/A	N/A	A	0.5144	N/A			
PFDS_2	N/A	N/A	N/A	A	0.5144	N/A		50	
PFUnDA	N/A	N/A	N/A	A	0.0058	N/A			
PFUnDA_2	N/A	N/A	N/A	A	0.0058	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	0.7253	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	0.7253	N/A		50	
PFDODA	N/A	N/A	N/A	A	0.0157	N/A			
PFDODA_2	N/A	N/A	N/A	A	0.0157	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	0.6356	N/A			
10:2 FTS_2	N/A	N/A	N/A	A	0.6356	N/A		#NA!	
PFTTrDA	N/A	N/A	N/A	A	0.0086	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	0.0086	N/A		50	
PFTeDA	N/A	N/A	N/A	A	0.0062	N/A			
PFTeDA_2	N/A	N/A	N/A	A	0.0062	N/A		50	
PFHxDA	N/A	N/A	N/A	A	0.0683	N/A			
PFHxDA_2	N/A	N/A	N/A	A	0.0683	N/A		50	
PFODA	N/A	N/A	N/A	A	0.0277	N/A			
PFODA_2	N/A	N/A	N/A	A	0.0277	N/A		50	

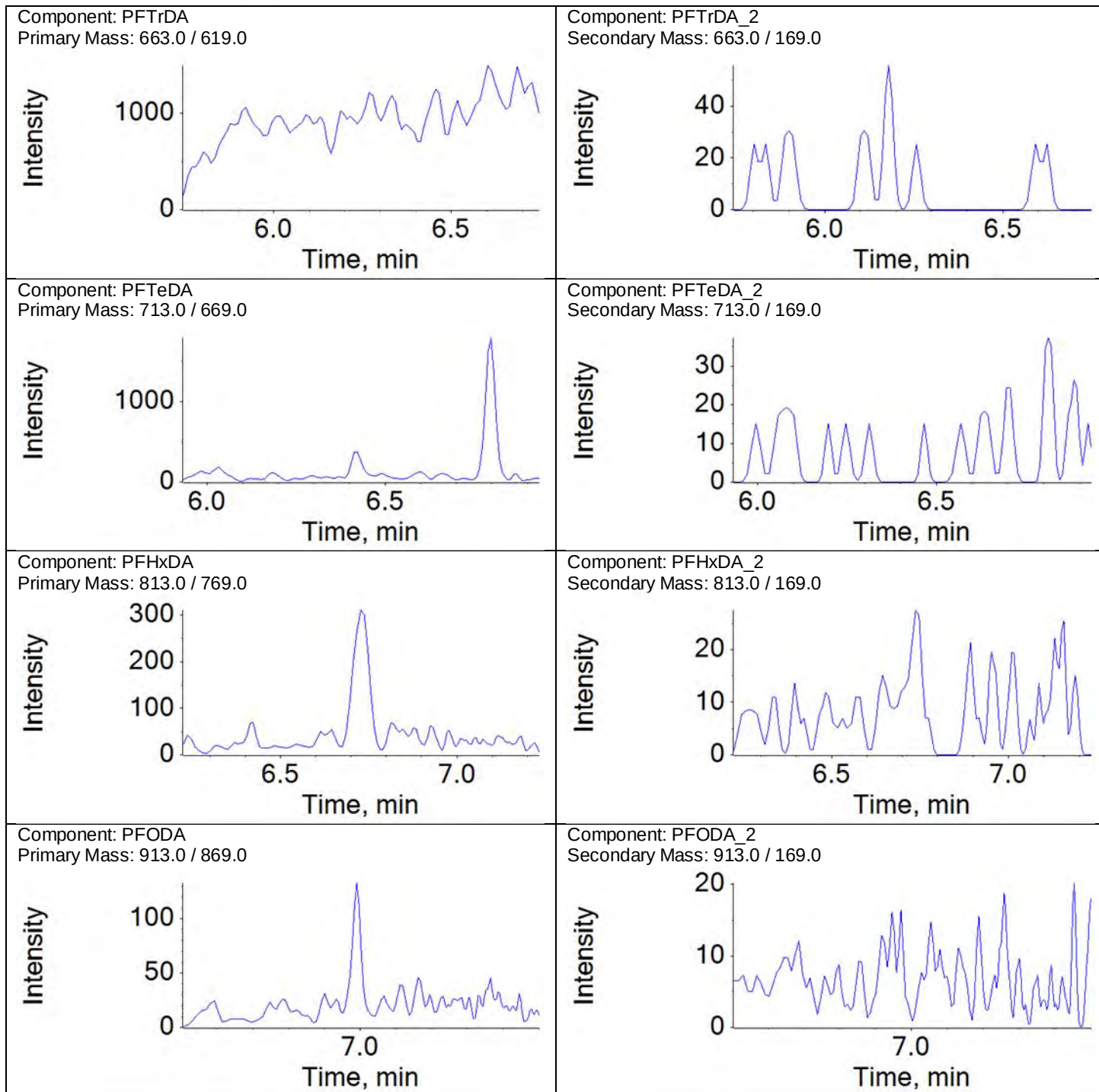










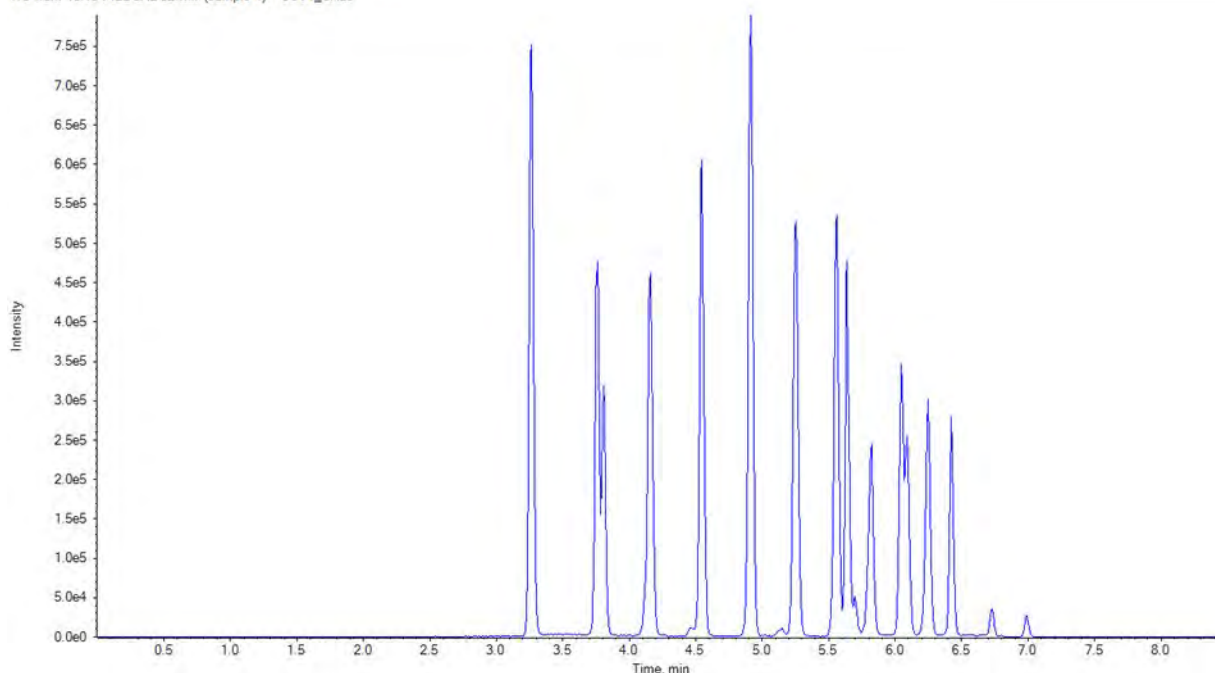


Continuing Calibration Verification

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_CAL3	CALBRN31833B	18NOV12DCAL-52.wiff	2018-11-12T16:36:17

TIC from 18NOV12DCAL-52.wiff (sample 1) - CCV1_CAL3



Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	664284.7	659926.2	1	50	
13C2-PFOA	5.0	438739.4	450219.7	-3	50	
13C4-PFOS	4.8	248122.9	249205.8	0	50	
13C2-PFDA	5.0	280671.6	278743.9	1	50	

Continuing Calibration Verification

ICAL Name: 18NOV12DCAL Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
QMethod Name: 18AUG20QM Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_CAL3	CALBRN31833B	18NOV12DCAL-52.wiff	2018-11-12T16:36:17

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	303662.2	10	13C4-PFBA	735275.5	5.0	0.413	3.26	1.000	2.000	2.288	14	30	
PFPeA	301109.0	11	13C5-PFPeA	741612.6	5.0	0.406	3.76	1.000	2.000	2.350	18	30	
PFBS	166889.6	10	13C3-PFBS	428368.4	4.7	0.390	3.81	1.000	1.770	1.853	5	30	
4:2-FTS	33008.9	12	13C2-4:2-FTS	45542.8	4.7	0.725	4.12	1.000	1.870	1.968	5	30	
PFHxA	362326.0	12	13C5-PFHxA	638944.4	5.0	0.567	4.16	1.000	2.000	2.368	18	30	
PFPeS	87834.9	11	13C3-PFBS	428368.4	4.7	0.205	4.18	1.100	1.880	1.991	6	30	
PFHpA	361271.6	11	13C4-PFHpA	513535.0	5.0	0.703	4.54	1.000	2.000	2.332	17	30	
PFHxS	128396.1	18	13C3-PFHxS	315408.2	4.7	0.407	4.55	1.000	1.820	1.974	8	30	
6:2-FTS	30500.7	11	13C2-6:2-FTS	31026.1	4.8	0.983	4.90	1.000	1.900	2.379	25	30	
PFHpS	122801.7	11	13C3-PFHxS	315408.2	4.7	0.389	4.91	1.080	1.900	2.050	8	30	
PFOA	370358.7	11	13C8-PFOA	845332.9	5.0	0.438	4.91	1.000	2.000	2.340	17	30	
PFOS	122332.0	21	13C8-PFOS	260810.5	4.8	0.469	5.24	1.000	1.850	2.051	11	30	
PFNA	292557.2	11	13C9-PFNA	468762.7	5.0	0.624	5.26	1.000	2.000	2.250	13	30	
PFNS	76021.2	11	13C8-PFOS	260810.5	4.8	0.291	5.54	1.060	1.920	2.039	6	30	
PFDA	253956.7	11	13C6-PFDA	610394.1	5.0	0.416	5.56	1.000	2.000	2.206	10	30	
8:2-FTS	22335.5	11	13C2-8:2-FTS	28002.9	4.8	0.798	5.56	1.000	1.920	1.860	-3	30	
PFOSA	236734.8	12	13C8-PFOSA	697263.3	5.0	0.340	5.64	1.000	2.000	1.658	-17	30	
NMeFOSAA	28733.4	18	d3-NMeFOSAA	73784.5	5.0	0.389	5.70	1.000	2.000	2.201	10	30	
PFDS	62507.8	11	13C8-PFOS	260810.5	4.8	0.240	5.79	1.110	1.930	2.172	13	30	
PFUnDA	199322.4	12	13C7-PFUnDA	244775.8	5.0	0.814	5.82	1.000	2.000	2.129	6	30	
NEtFOSAA	24531.9	20	d5-NEtFOSAA	70158.9	5.0	0.350	5.83	1.000	2.000	1.833	-8	30	
PFDODA	228792.9	12	13C2-PFDODA	497113.0	5.0	0.460	6.05	1.000	2.000	2.344	17	30	
10:2-FTS	14411.1	11	13C2-8:2-FTS	28002.9	4.8	0.515	6.06	1.090	1.930	1.714	-11	30	
NMePFOSAE	172466.5	11	d7-NMePFOSAE	300873.2	5.0	0.573	6.09	1.000	2.000	2.386	19	30	
NMePFOSA	31464.1	12	d3-NMePFOSA	75068.4	5.0	0.419	6.10	1.000	2.000	2.068	3	30	
PFDOS	33762.2	11	13C8-PFOS	260810.5	4.8	0.129	6.22	1.190	1.940	2.267	17	30	
NEtPFOSAE	180928.5	11	d9-NEtPFOSAE	250299.2	5.0	0.723	6.25	1.000	2.000	2.319	16	30	
NEtPFOSA	26529.3	11	d5-NEtPFOSA	59631.6	5.0	0.445	6.26	1.000	2.000	2.043	2	30	
PFTTrDA	185154.6	11	13C2-PFDODA	497113.0	5.0	0.372	6.25	1.030	2.000	2.351	18	30	
PFTeDA	159904.6	10	13C2-PFTeDA	379642.6	5.0	0.421	6.42	1.000	2.000	2.361	18	30	
PFHxDA	68393.8	11	13C2-PFTeDA	379642.6	5.0	0.180	6.73	1.050	2.000	2.146	7	30	
PFOA	58092.4	10	13C2-PFTeDA	379642.6	5.0	0.153	6.99	1.090	2.000	2.131	7	30	

Continuing Calibration Verification

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED

By MCD at 6:34 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV1_CAL3		Data File:	18NOV12DCAL-52.wiff
Sample ID:	CALBRN31833B		Acquis Date:	2018-11-12T16:36:17
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	5		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV12DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV12DCAL-44

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	664284.7	659926.2	1	50	
13C2-PFOA	5.0	438739.4	450219.7	-3	50	
13C4-PFOS	4.8	248122.9	249205.8	0	50	
13C2-PFDA	5.0	280671.6	278743.9	1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	735275.5	13C3-PFBA	664284.7	1.107	5.000	4.962	99	70-130	
E13C5-PFPeA	741612.6	13C3-PFBA	664284.7	1.116	5.000	5.007	100	70-130	
E13C3-PFBS	428368.4	13C3-PFBA	664284.7	0.645	4.650	4.552	98	70-130	
E13C2-4:2-FTS	45542.8	13C2-PFOA	438739.4	0.104	4.670	4.623	99	70-130	
E13C5-PFHxA	638944.4	13C2-PFOA	438739.4	1.456	5.000	5.261	105	70-130	
E13C3-PFHxS	315408.2	13C2-PFOA	438739.4	0.719	4.730	4.933	104	70-130	
E13C4-PFHpA	513535.0	13C2-PFOA	438739.4	1.170	5.000	5.273	105	70-130	
E13C2-6:2-FTS	31026.1	13C2-PFOA	438739.4	0.071	4.750	4.731	100	70-130	
E13C8-PFOA	845332.9	13C2-PFOA	438739.4	1.927	5.000	5.308	106	70-130	
E13C8-PFOS	260810.5	13C4-PFOS	248122.9	1.051	4.780	4.657	97	70-130	
E13C9-PFNA	468762.7	13C4-PFOS	248122.9	1.889	5.000	5.267	105	70-130	
E13C6-PFDA	610394.1	13C2-PFDA	280671.6	2.175	5.000	5.075	102	70-130	
E13C2-8:2-FTS	28002.9	13C2-PFDA	280671.6	0.100	4.790	4.976	104	70-130	
E13C8-PFOSA	697263.3	13C2-PFDA	280671.6	2.484	5.000	5.508	110	70-130	
Ed3-NMeFOSAA	73784.5	13C2-PFDA	280671.6	0.263	5.000	4.745	95	70-130	
E13C7-PFUnDA	244775.8	13C2-PFDA	280671.6	0.872	5.000	5.063	101	70-130	
Ed5-NEtFOSAA	70158.9	13C2-PFDA	280671.6	0.250	5.000	5.288	106	70-130	
E13C2-PFDODA	497113.0	13C2-PFDA	280671.6	1.771	5.000	4.599	92	70-130	
Ed7-NMePFOSAE	300873.2	13C2-PFDA	280671.6	1.072	5.000	4.639	93	70-130	
Ed3-NMePFOSA	75068.4	13C2-PFDA	280671.6	0.267	5.000	4.859	97	70-130	
Ed9-NEtPFOSAE	250299.2	13C2-PFDA	280671.6	0.892	5.000	4.638	93	70-130	
Ed5-NEtPFOSA	59631.6	13C2-PFDA	280671.6	0.212	5.000	4.984	100	70-130	
E13C2-PFTeDA	379642.6	13C2-PFDA	280671.6	1.353	5.000	4.749	95	70-130	

APPROVED

By MCD at 6:34 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CCV1_CAL3

Instrument Name: LM27631

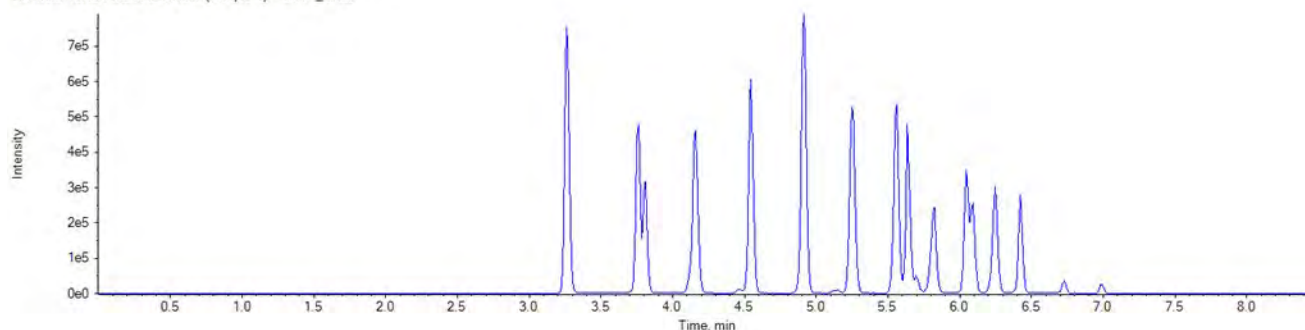
File Name: 18NOV12DCAL-52.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	303662.2		A	13C4-PFBA	3.26	735275.5	0.413	2.288
PFPeA	3.76	1.000	301109.0		A	13C5-PFPeA	3.76	741612.6	0.406	2.350
PFBS	3.81	1.000	166889.6		A	13C3-PFBS	3.81	428368.4	0.390	1.853
4:2-FTS	4.12	1.000	33008.9		A	13C2-4:2-FTS	4.12	45542.8	0.725	1.968
PFHxA	4.16	1.000	362326.0		A	13C5-PFHxA	4.16	638944.4	0.567	2.368
PFPeS	4.18	1.100	87834.9		A	13C3-PFBS	3.81	428368.4	0.205	1.991
PFHpA	4.54	1.000	361271.6		A	13C4-PFHpA	4.54	513535.0	0.703	2.332
PFHxS	4.55	1.000	128396.1		M	13C3-PFHxS	4.55	315408.2	0.407	1.974
6:2-FTS	4.90	1.000	30500.7		A	13C2-6:2-FTS	4.90	31026.1	0.983	2.379
PFHpS	4.91	1.080	122801.7		A	13C3-PFHxS	4.55	315408.2	0.389	2.050
PFOA	4.91	1.000	370358.7		A	13C8-PFOA	4.91	845332.9	0.438	2.340
PFOS	5.24	1.000	122332.0		M	13C8-PFOS	5.24	260810.5	0.469	2.051
PFNA	5.26	1.000	292557.2		A	13C9-PFNA	5.26	468762.7	0.624	2.250
PFNS	5.54	1.060	76021.2		A	13C8-PFOS	5.24	260810.5	0.291	2.039
PFDA	5.56	1.000	253956.7		A	13C6-PFDA	5.56	610394.1	0.416	2.206
8:2-FTS	5.56	1.000	22335.5		A	13C2-8:2-FTS	5.56	28002.9	0.798	1.860
PFOSA	5.64	1.000	236734.8		A	13C8-PFOSA	5.64	697263.3	0.340	1.658
NMeFOSAA	5.70	1.000	28733.4		A	d3-NMeFOSAA	5.70	73784.5	0.389	2.201
PFDS	5.79	1.110	62507.8		A	13C8-PFOS	5.24	260810.5	0.240	2.172
PfUnDA	5.82	1.000	199322.4		A	13C7-PfUnDA	5.82	244775.8	0.814	2.129
NEtFOSAA	5.83	1.000	24531.9		A	d5-NEtFOSAA	5.83	70158.9	0.350	1.833
PFDODA	6.05	1.000	228792.9		A	13C2-PFDODA	6.05	497113.0	0.460	2.344
10:2-FTS	6.06	1.090	14411.1		A	13C2-8:2-FTS	5.56	28002.9	0.515	1.714
NMePFOSAE	6.09	1.000	172466.5		A	d7-NMePFOSAE	6.09	300873.2	0.573	2.386
NMePFOSA	6.10	1.000	31464.1		A	d3-NMePFOSA	6.10	75068.4	0.419	2.068
PFDoS	6.22	1.190	33762.2		A	13C8-PFOS	5.24	260810.5	0.129	2.267
NEtPFOSAE	6.25	1.000	180928.5		A	d9-NEtPFOSAE	6.24	250299.2	0.723	2.319
NEtPFOSA	6.26	1.000	26529.3		A	d5-NEtPFOSA	6.26	59631.6	0.445	2.043
PFTDA	6.25	1.030	185154.6		A	13C2-PFDODA	6.05	497113.0	0.372	2.351
PFTeDA	6.42	1.000	159904.6		A	13C2-PFTeDA	6.42	379642.6	0.421	2.361
PFHxDA	6.73	1.050	68393.8		A	13C2-PFTeDA	6.42	379642.6	0.180	2.146
PFODA	6.99	1.090	58092.4		A	13C2-PFTeDA	6.42	379642.6	0.153	2.131

Total Ion Chromatogram

TIC from 18NOV12DCAL-52.wiff (sample 1) - CCV1_CAL3



APPROVED

By MCD at 6:34 pm, 11/12/18

BSI14 Page 1140 of 2132

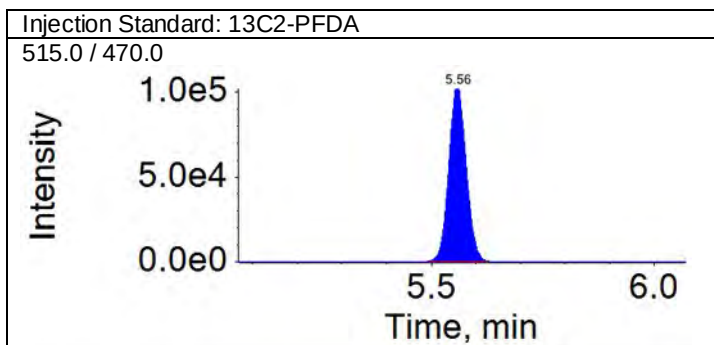
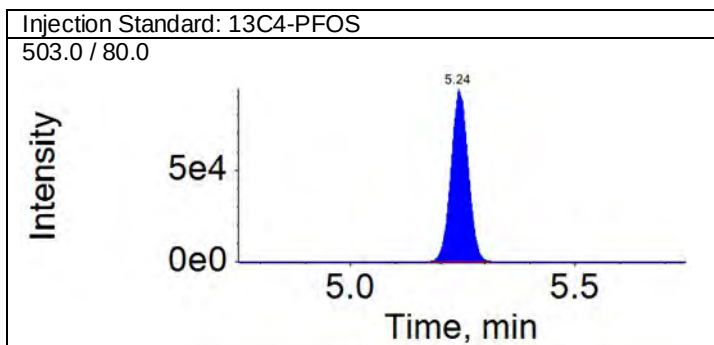
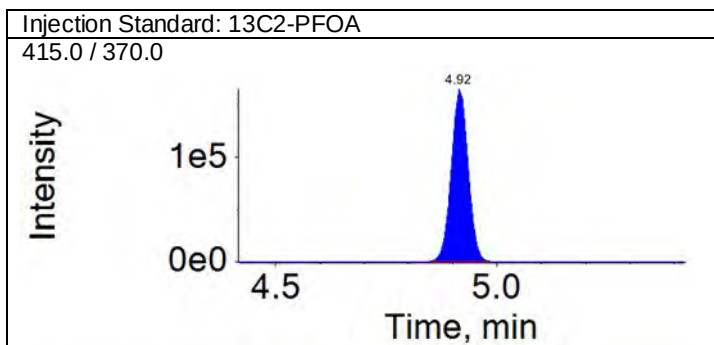
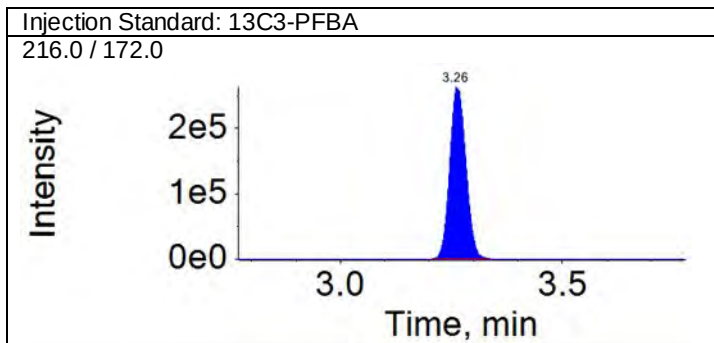
REVIEWED

By HMK at 10:53 am, 11/13/18

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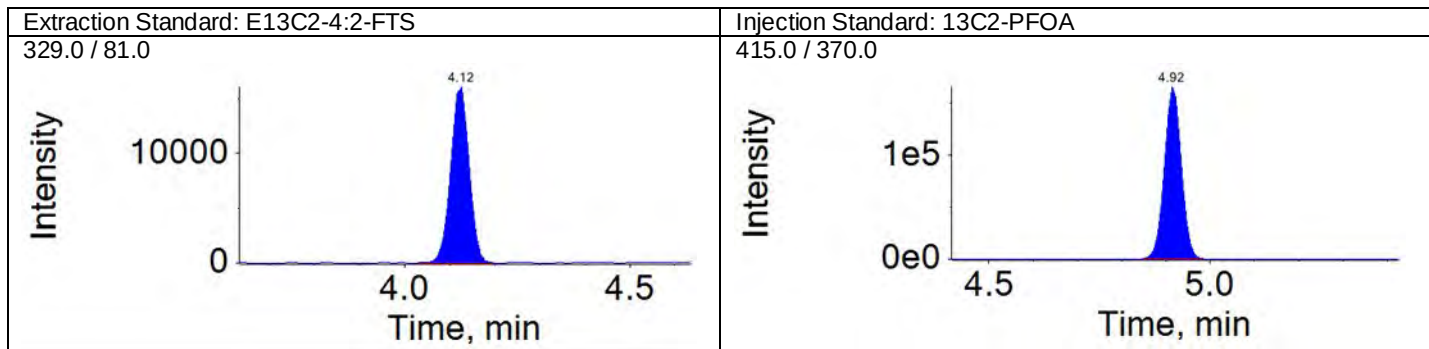
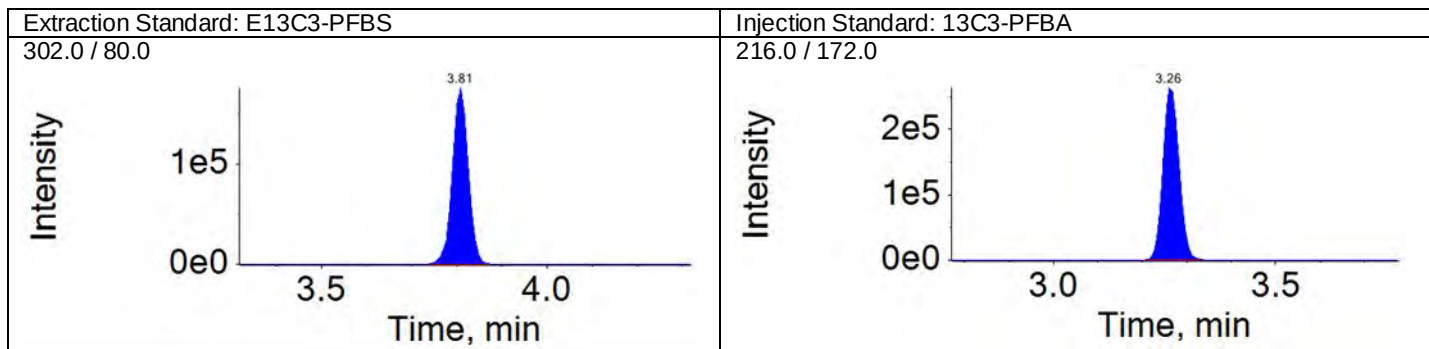
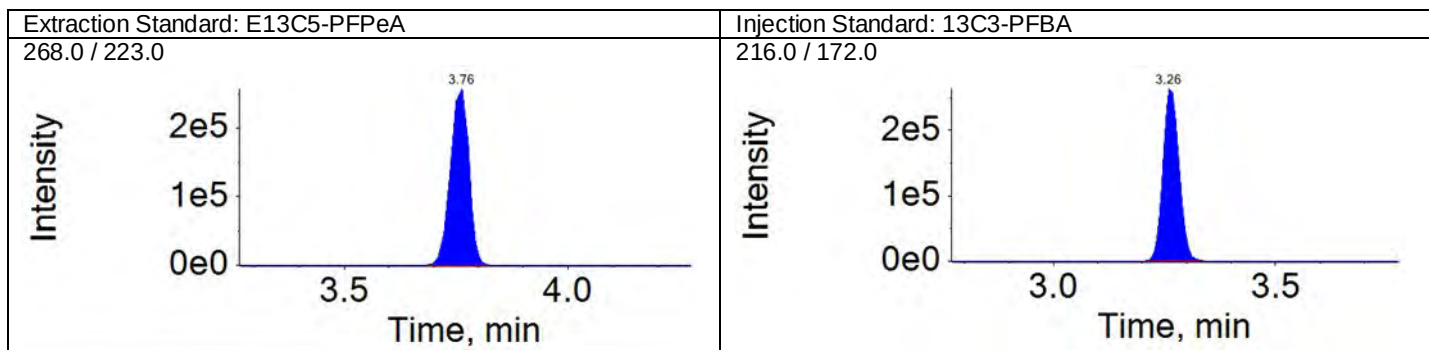
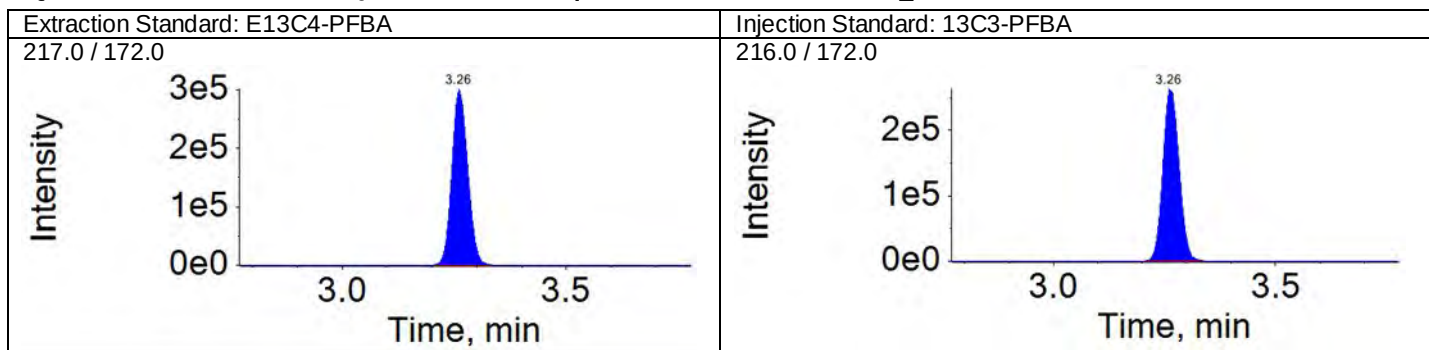
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



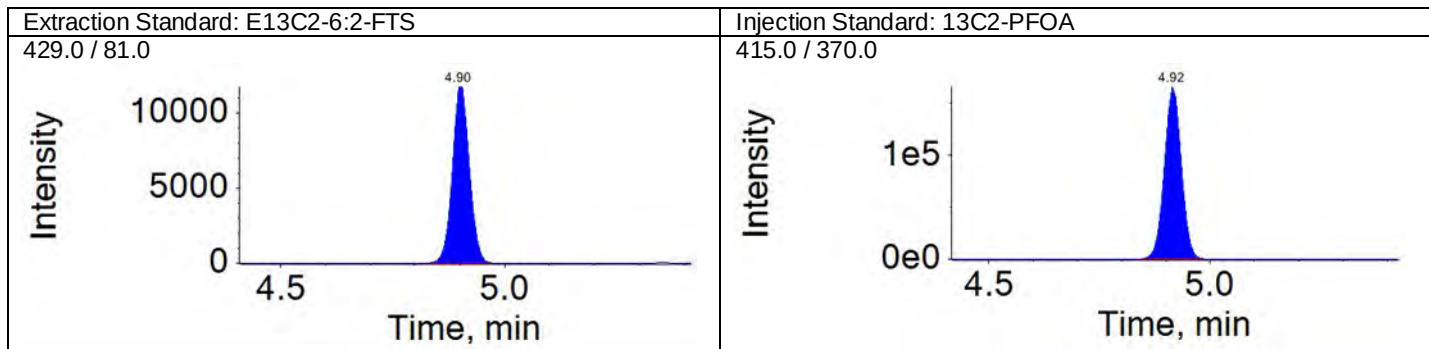
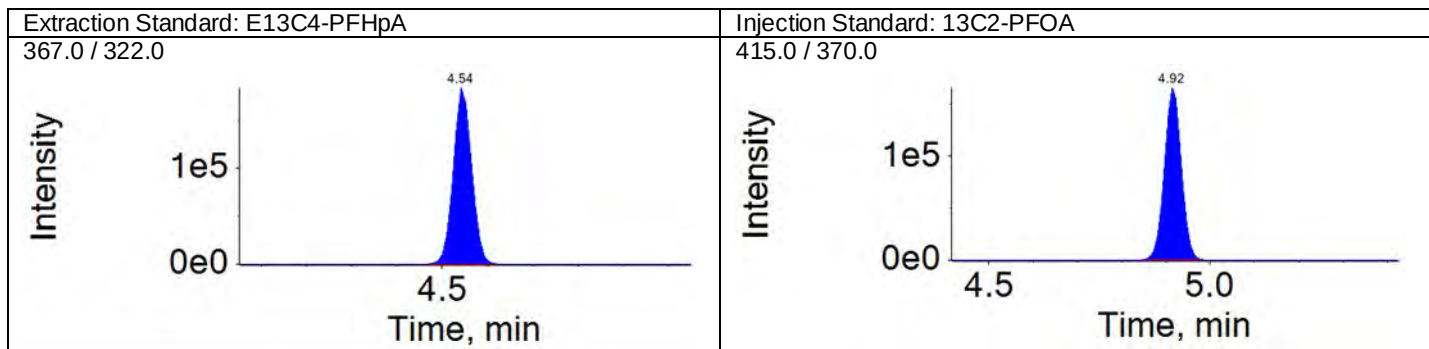
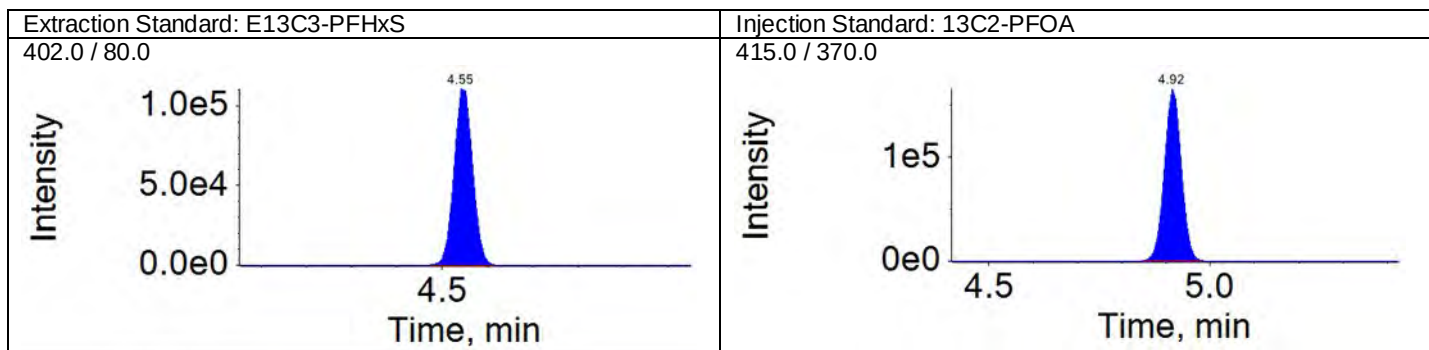
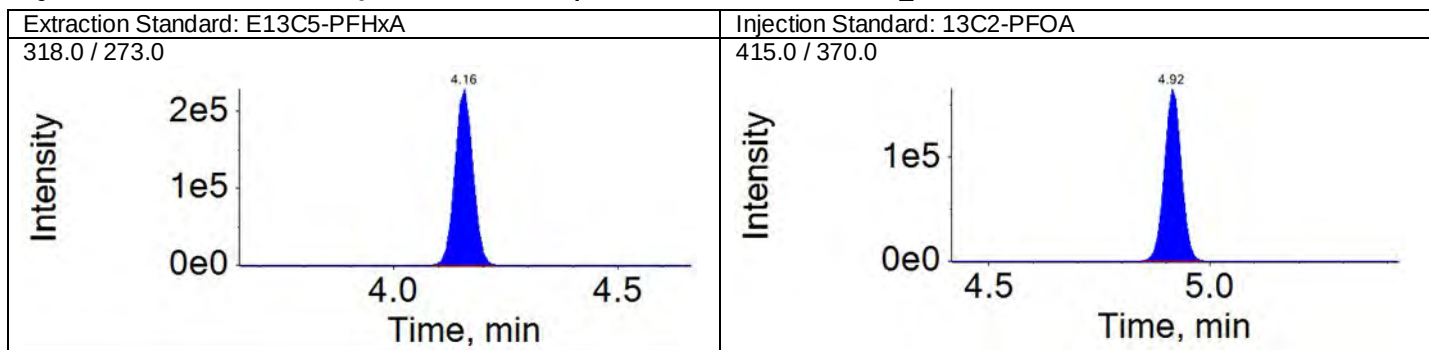
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



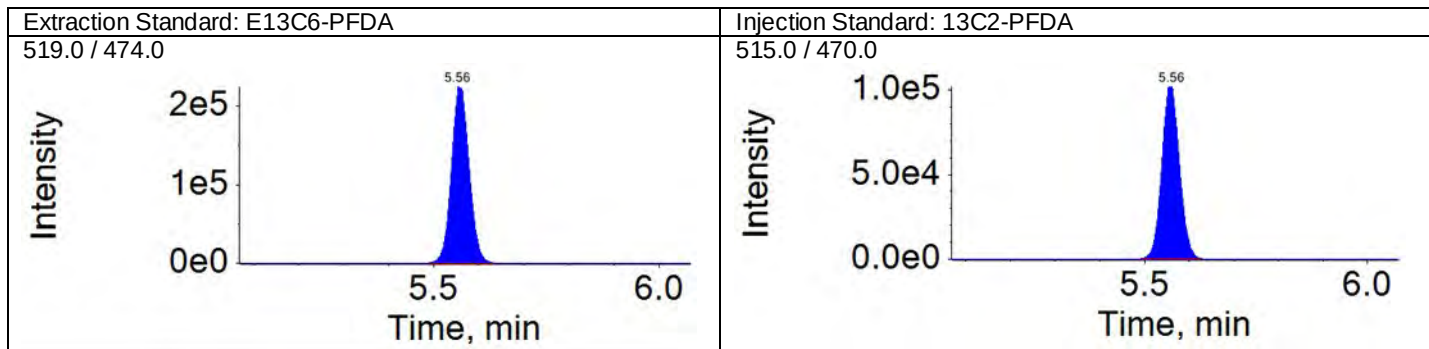
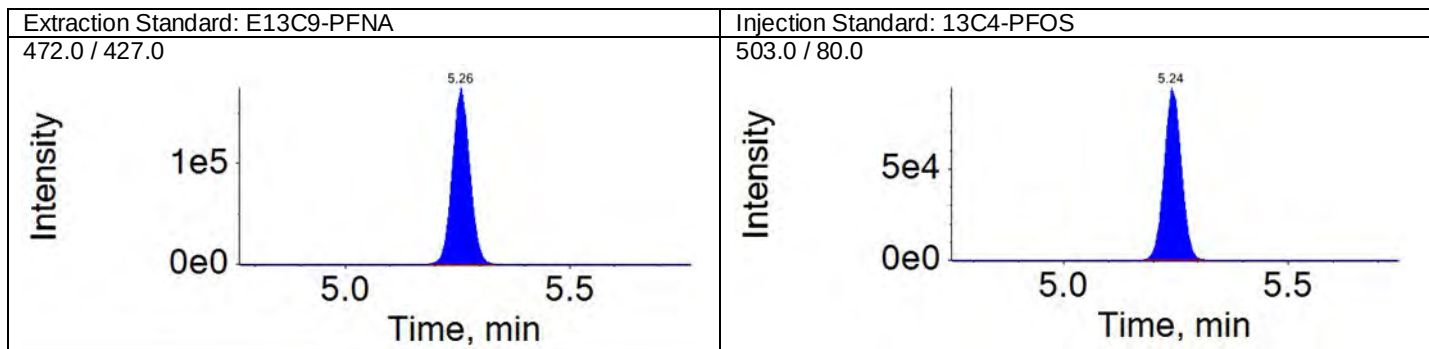
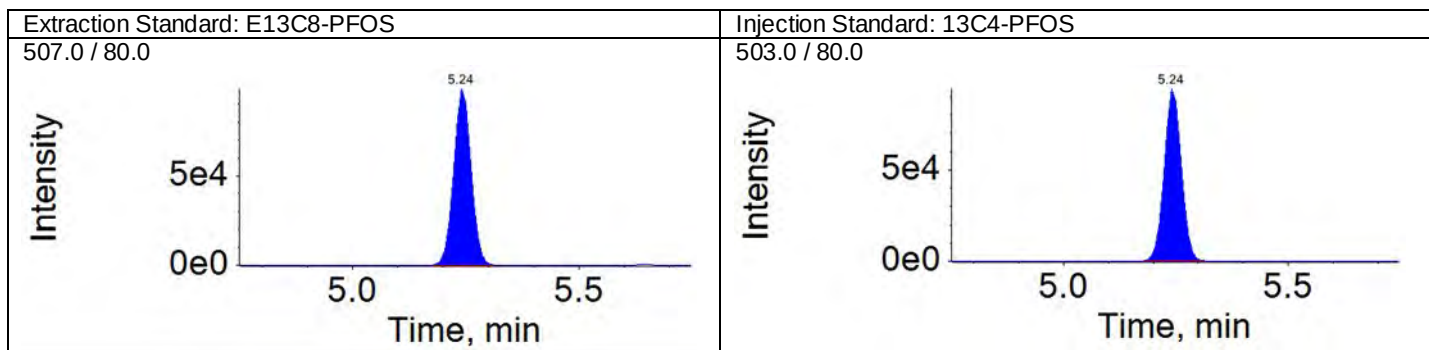
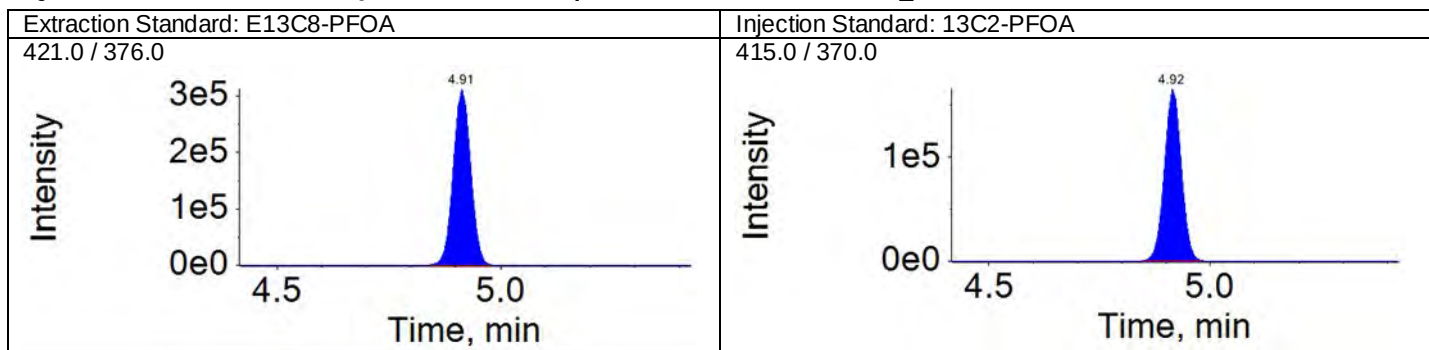
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



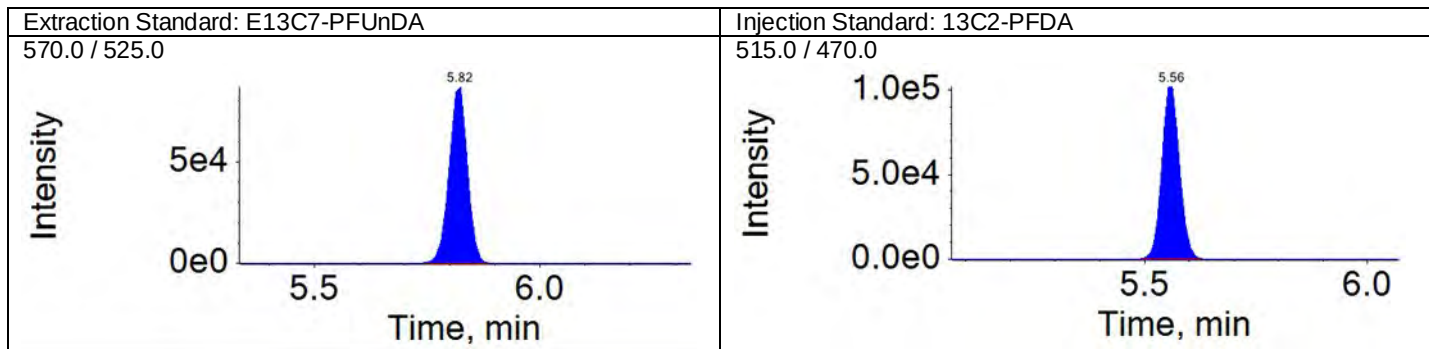
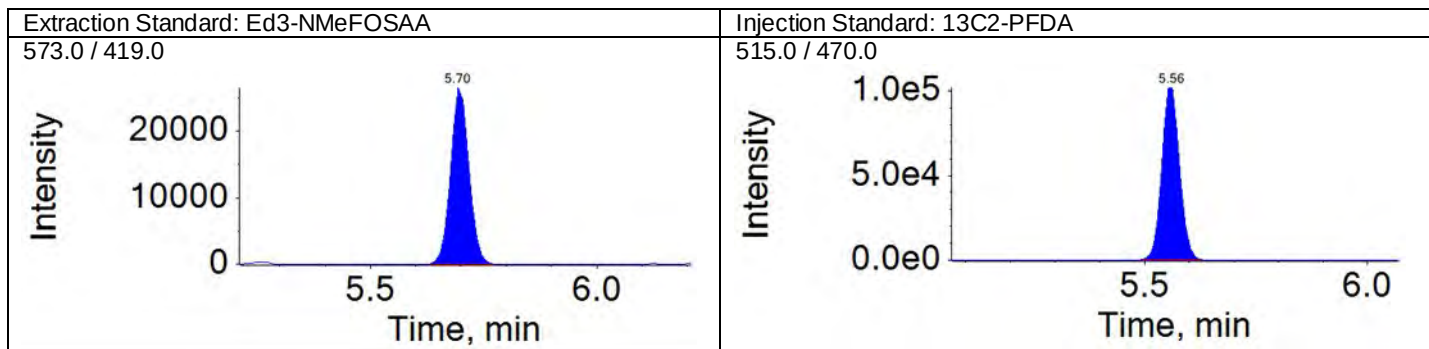
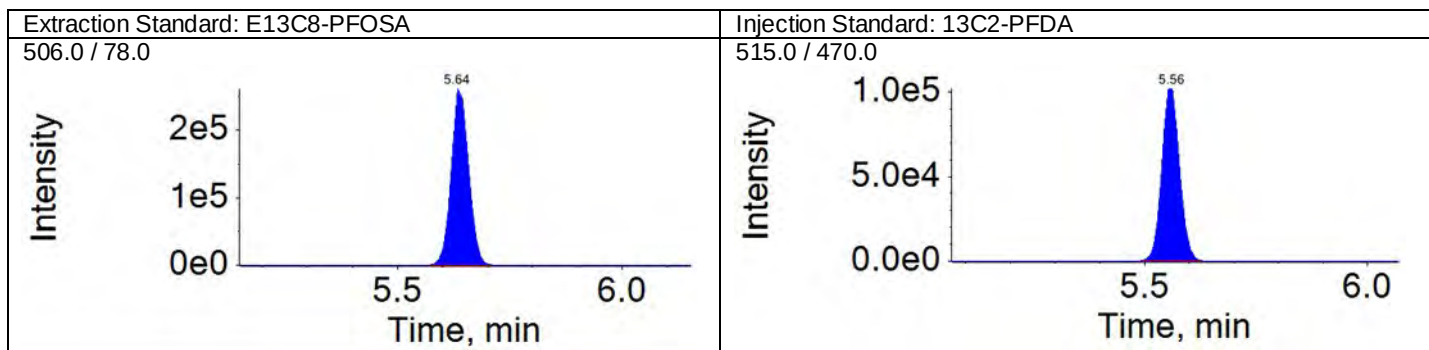
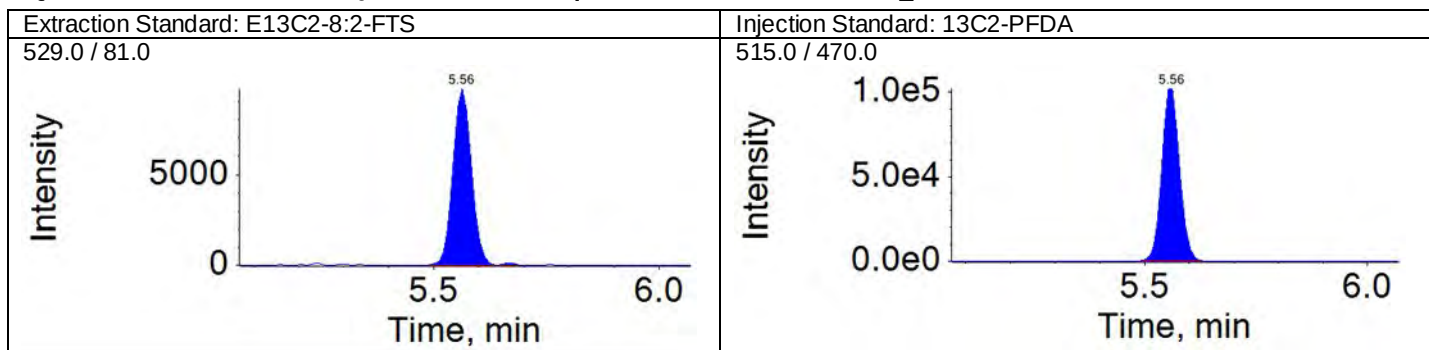
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



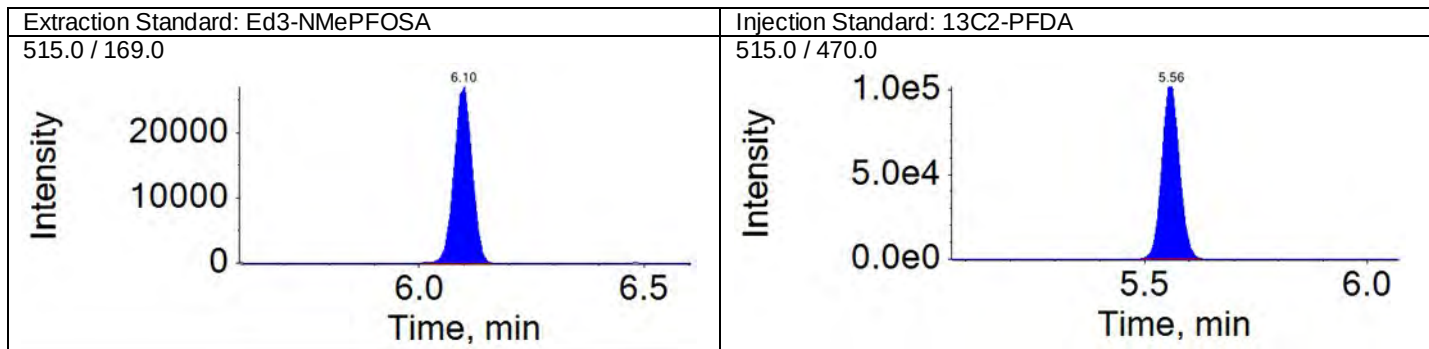
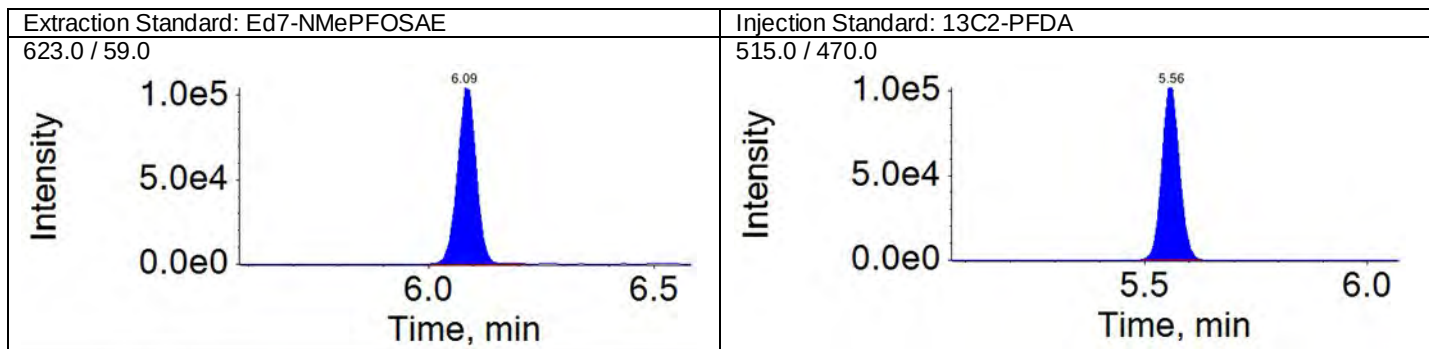
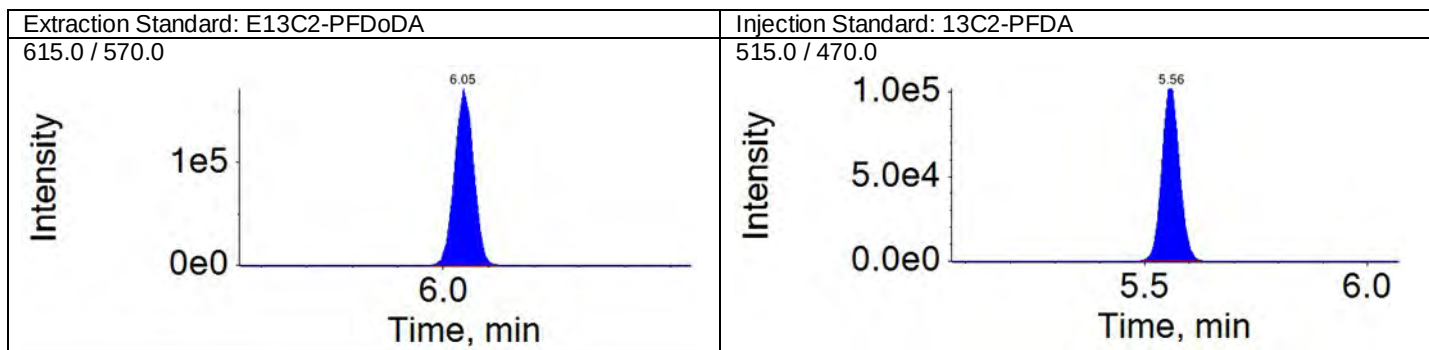
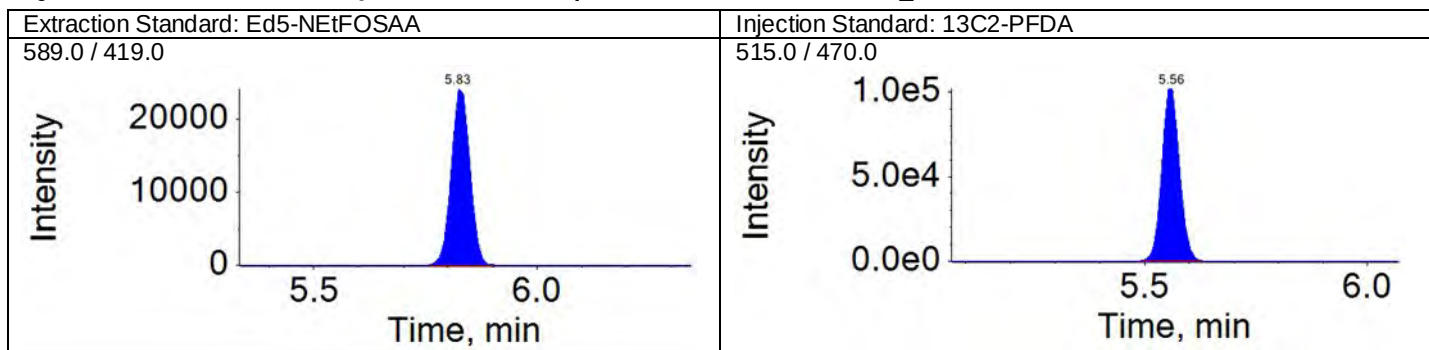
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



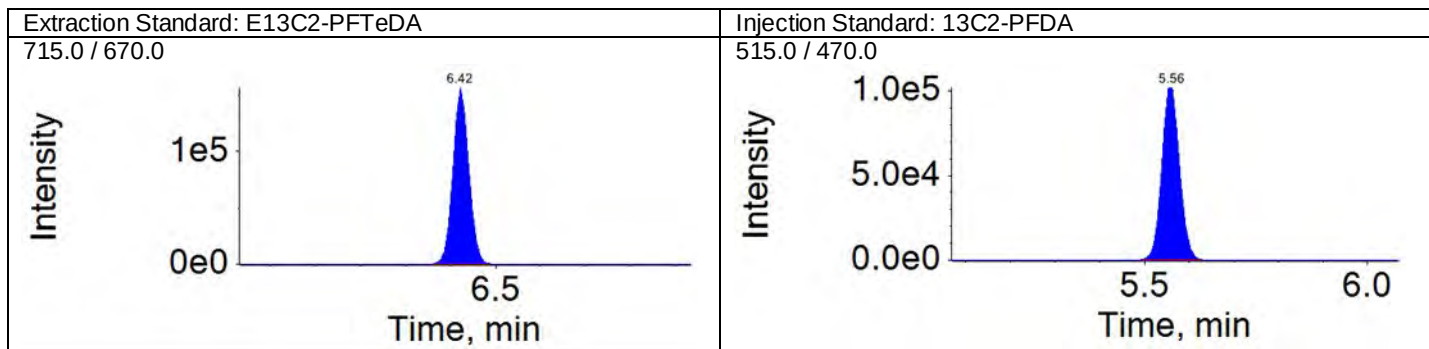
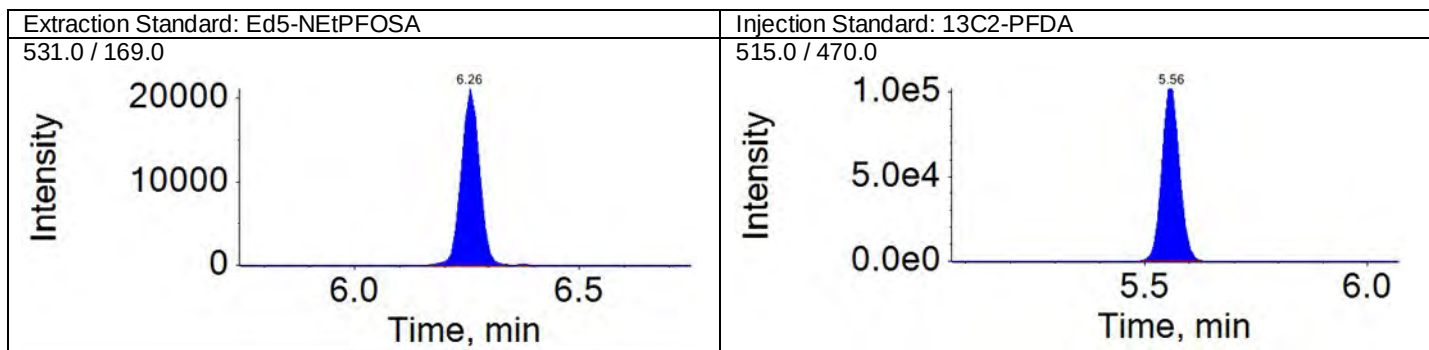
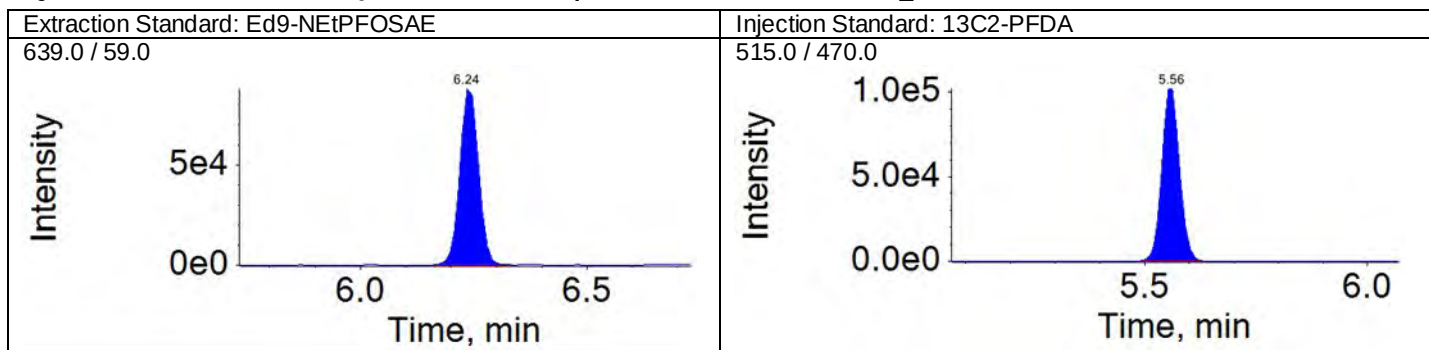
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



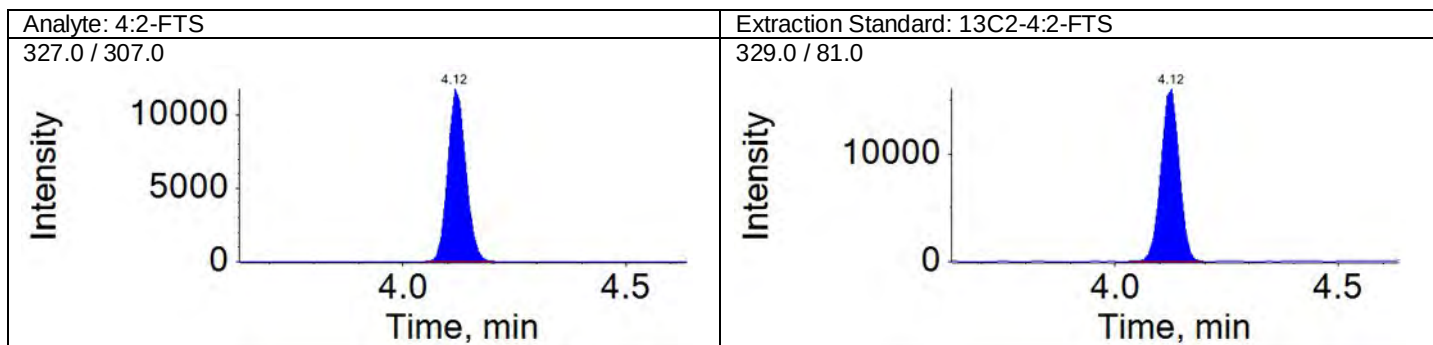
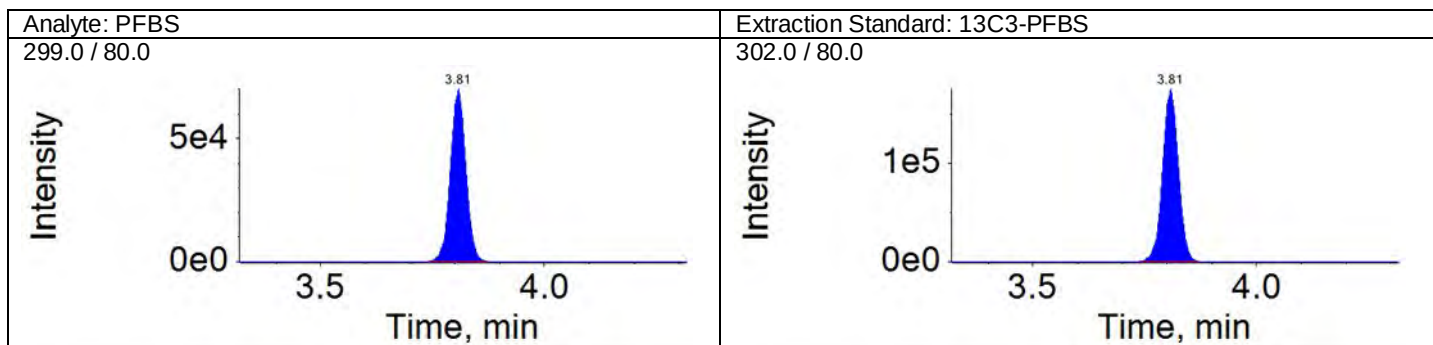
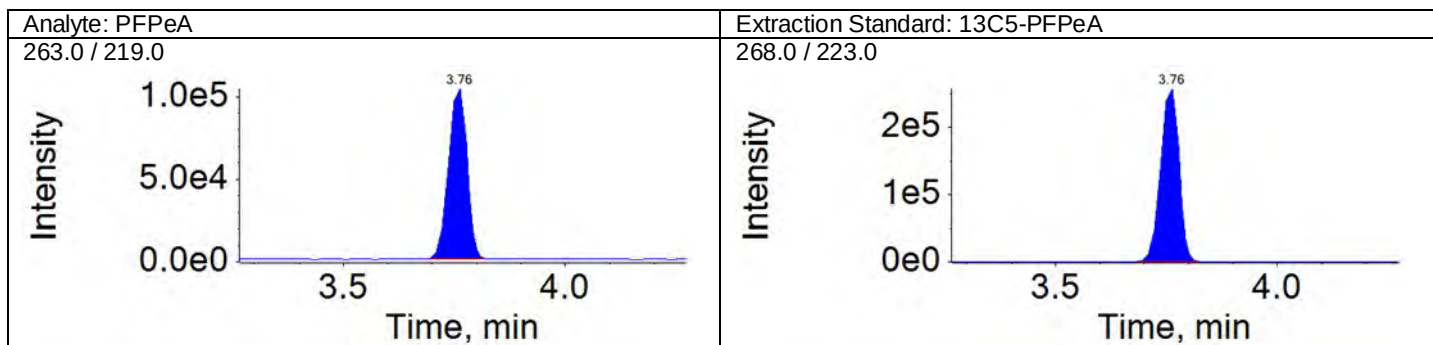
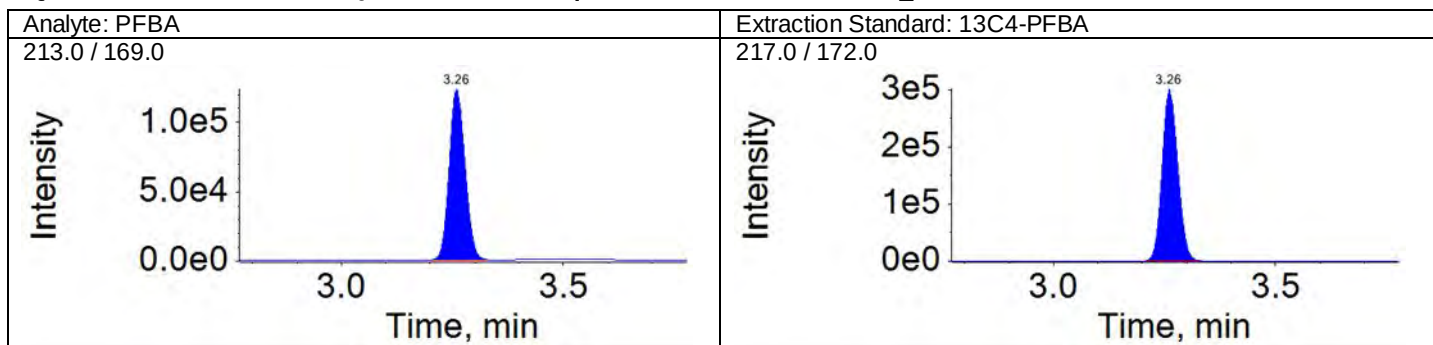
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



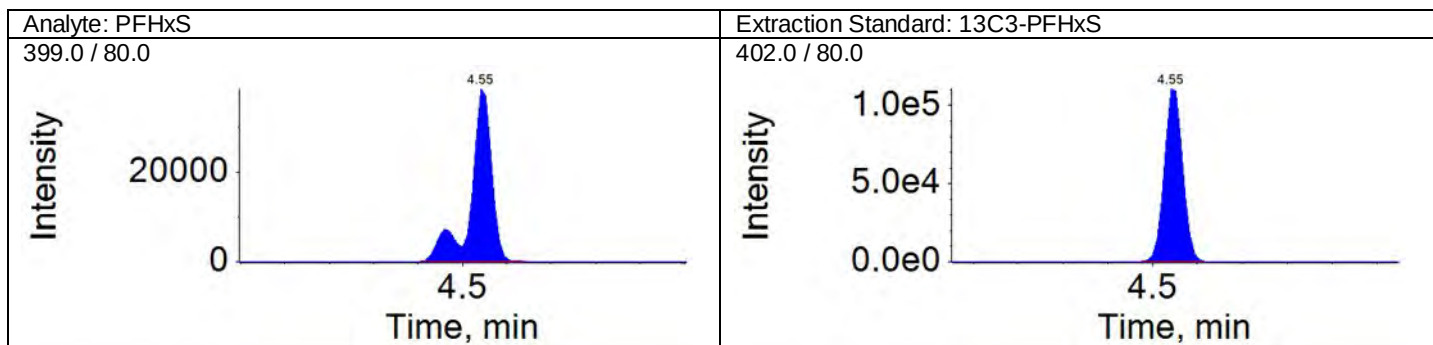
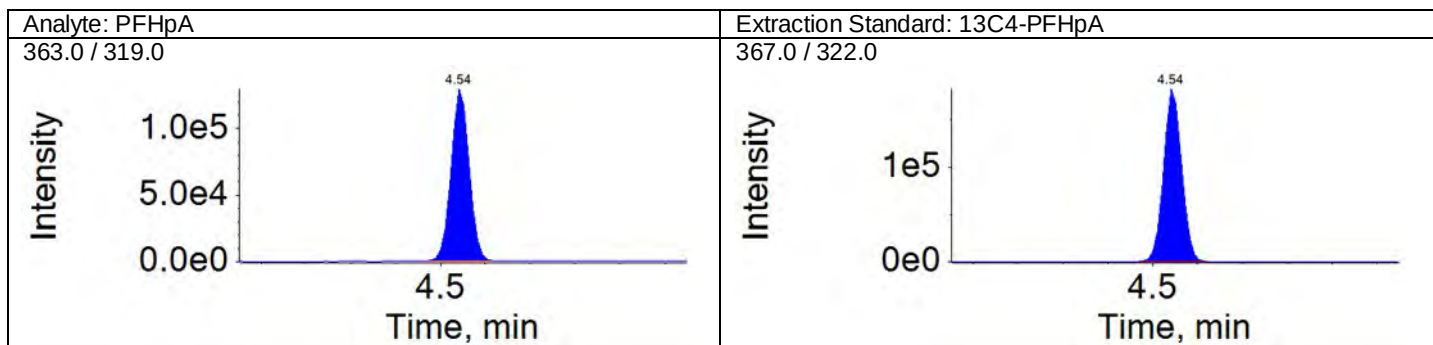
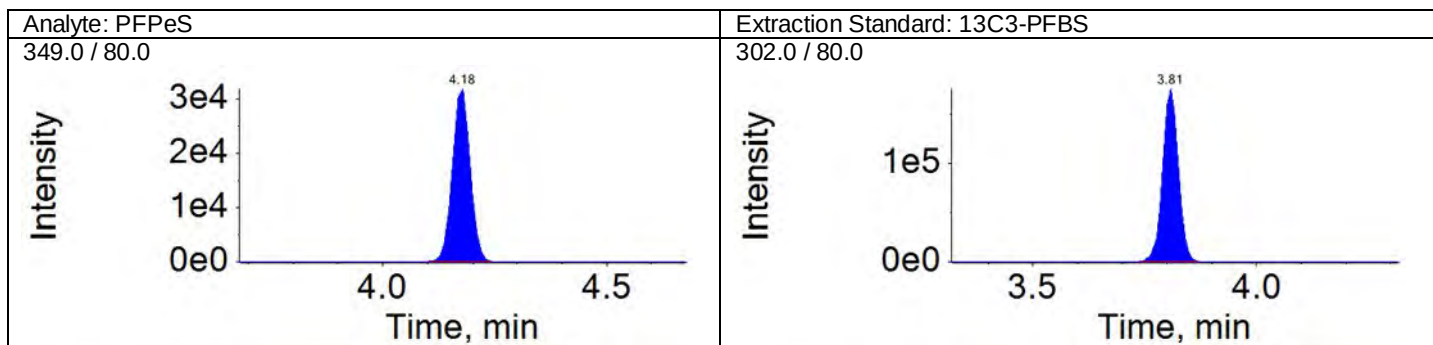
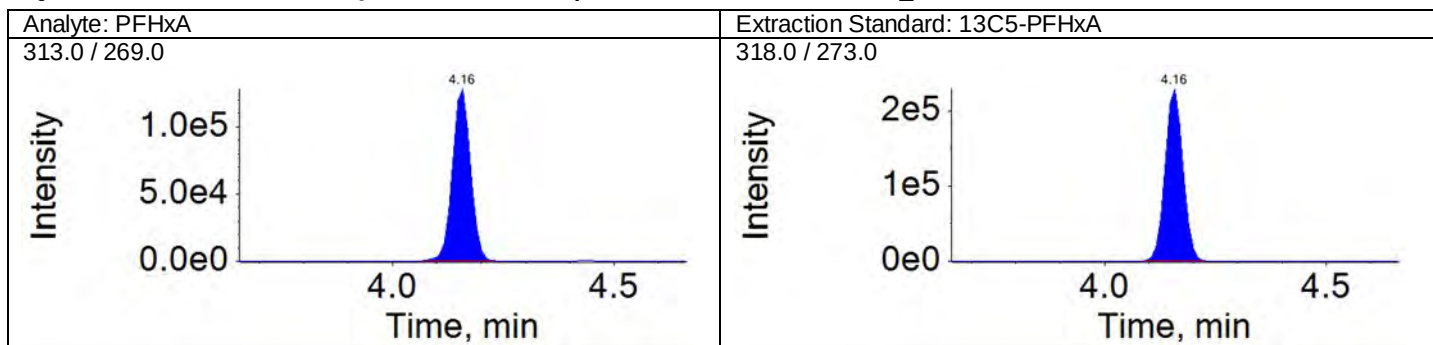
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



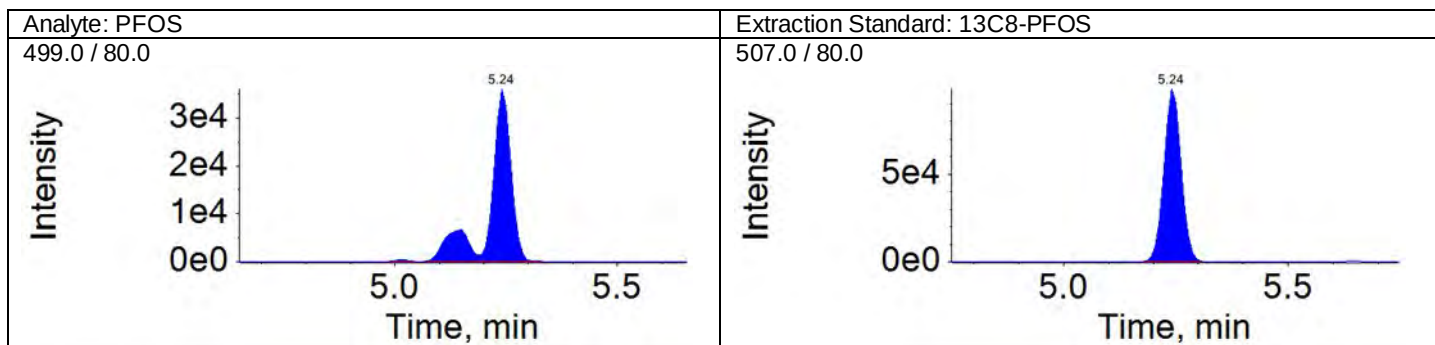
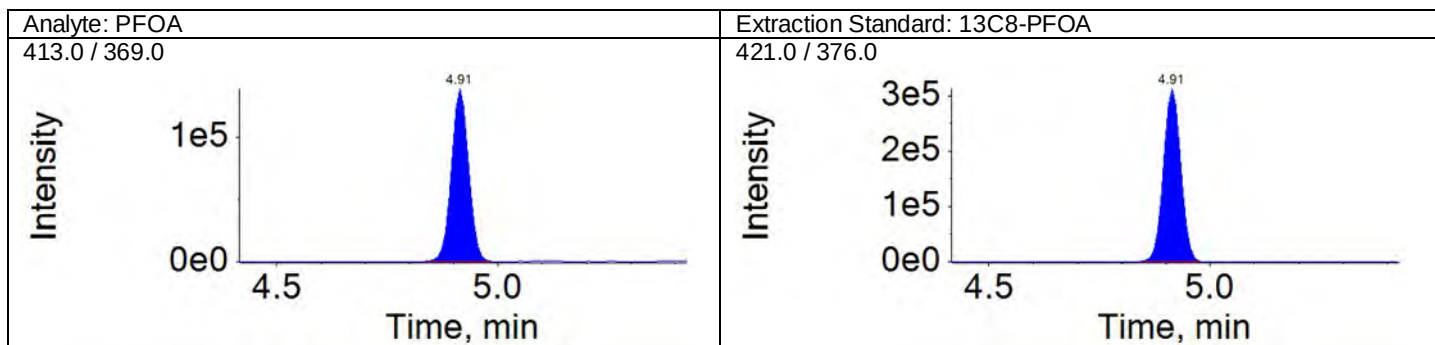
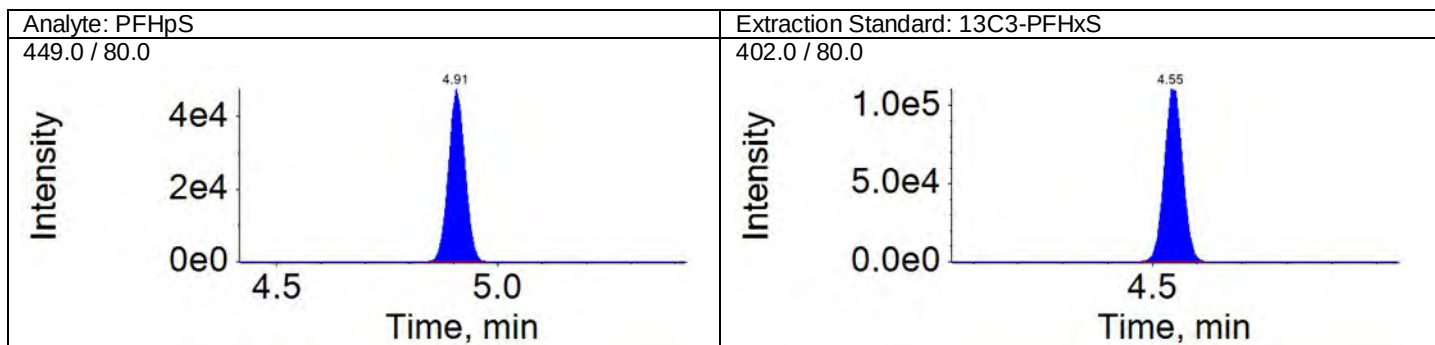
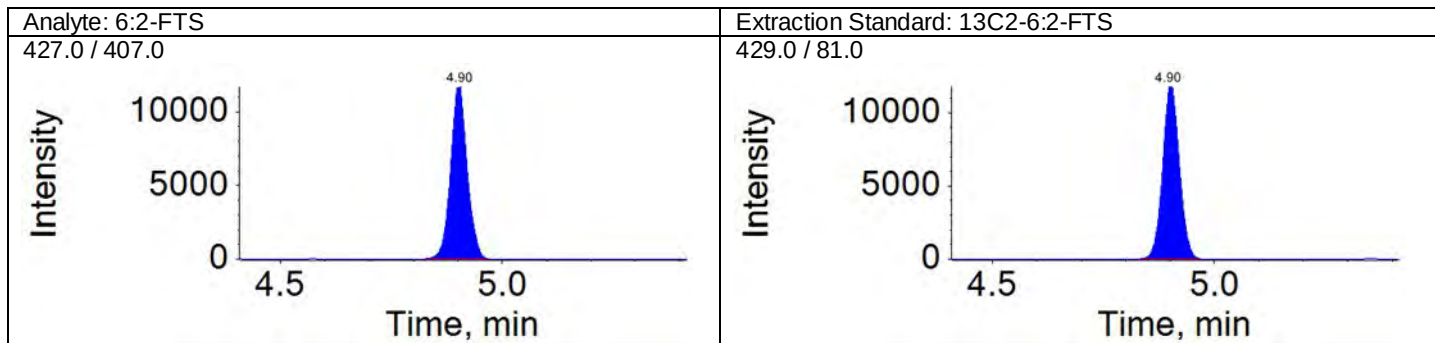
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
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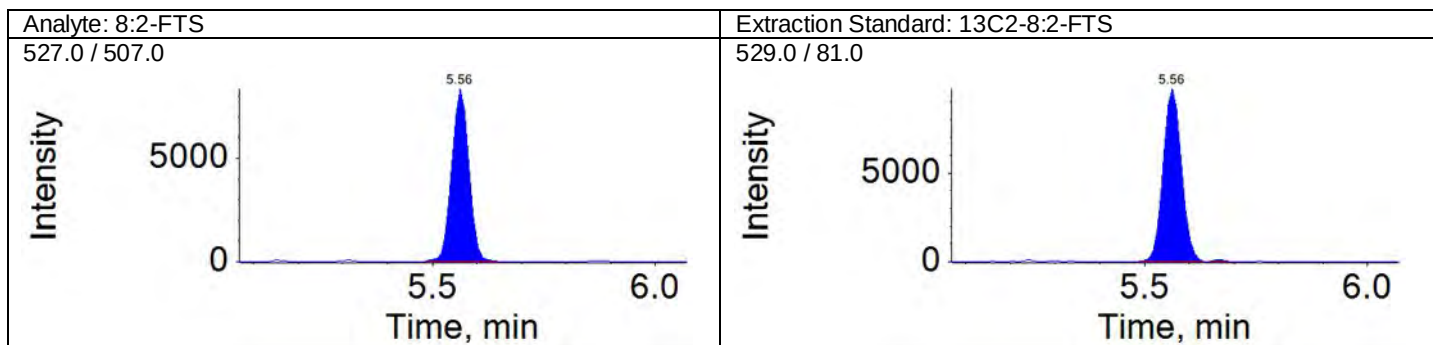
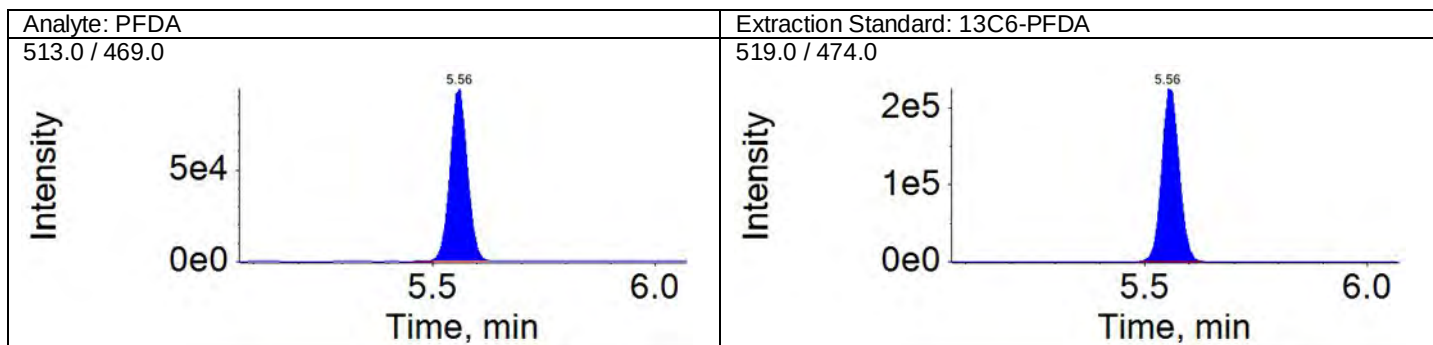
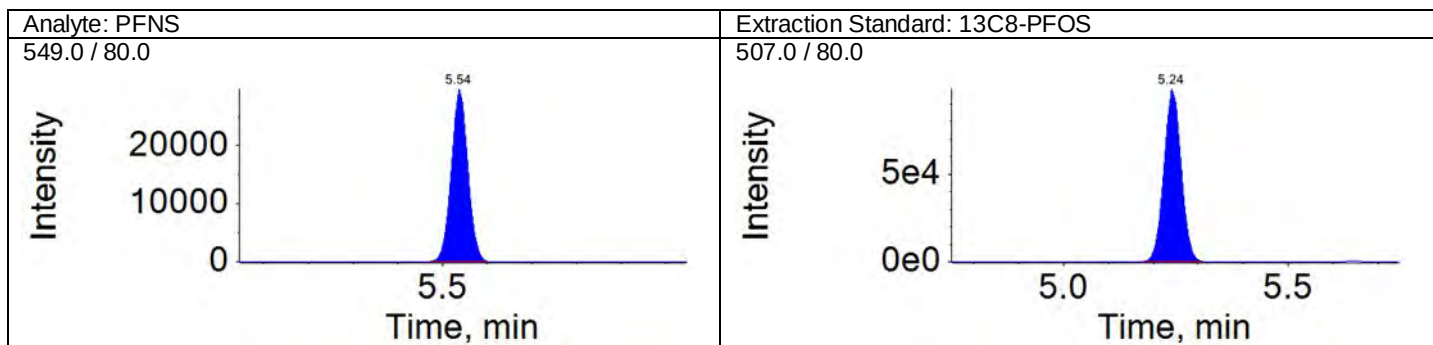
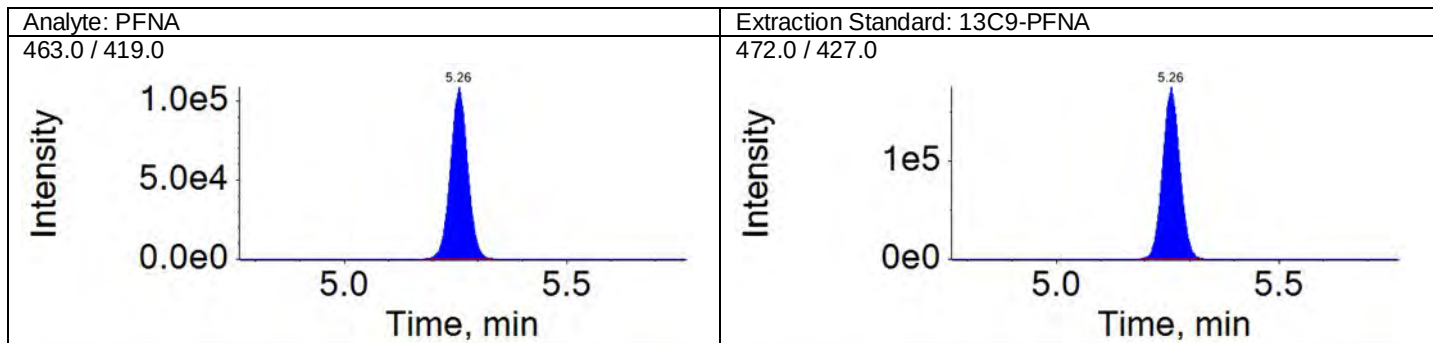
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Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



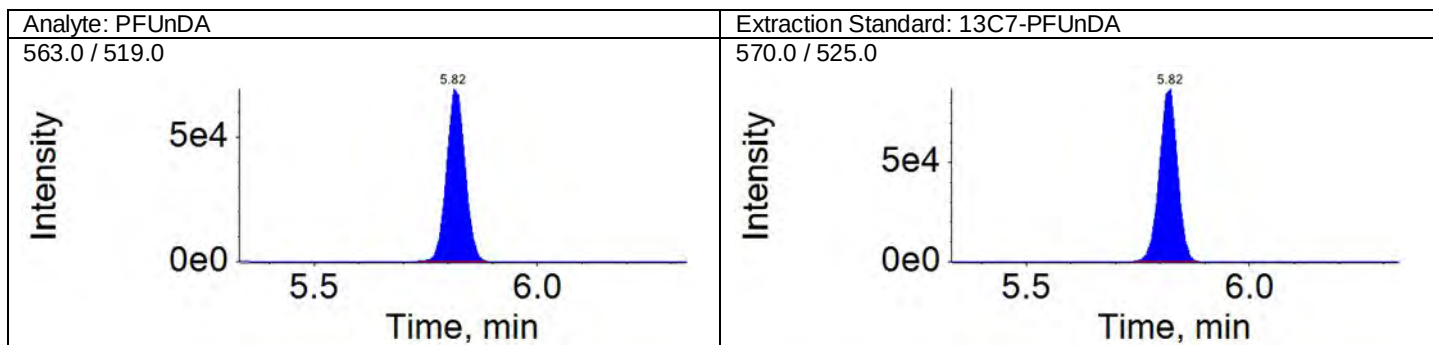
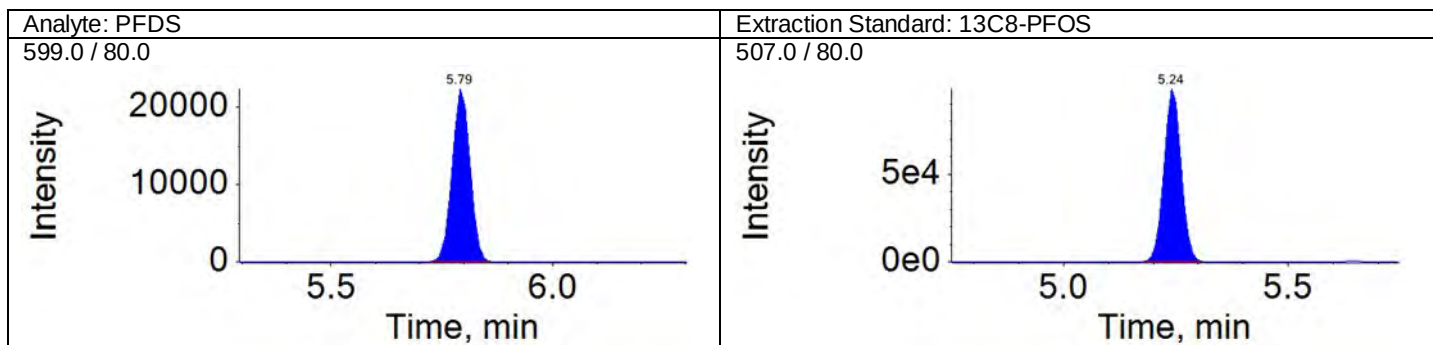
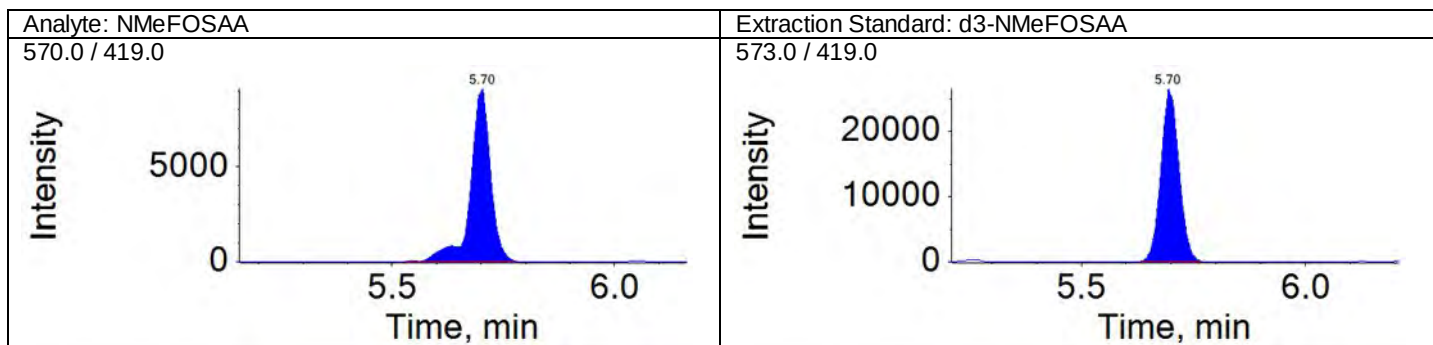
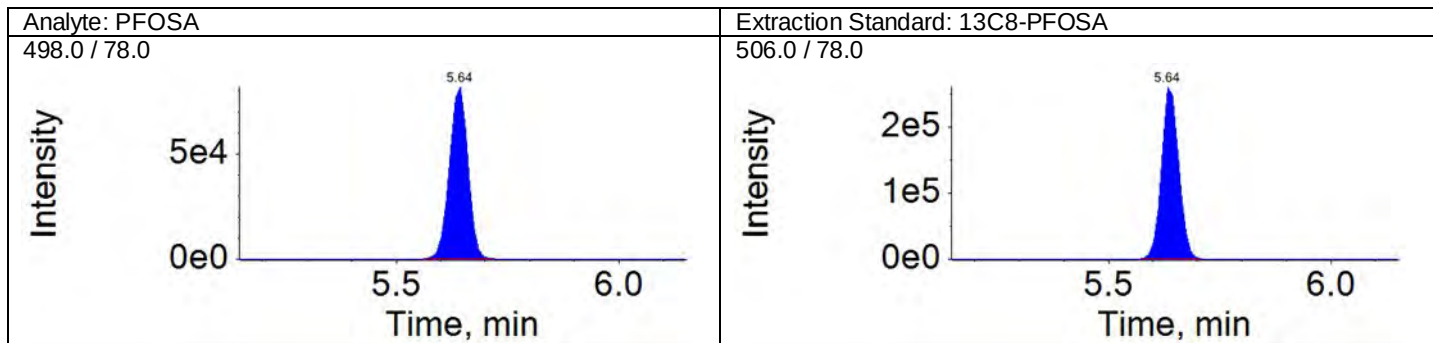
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



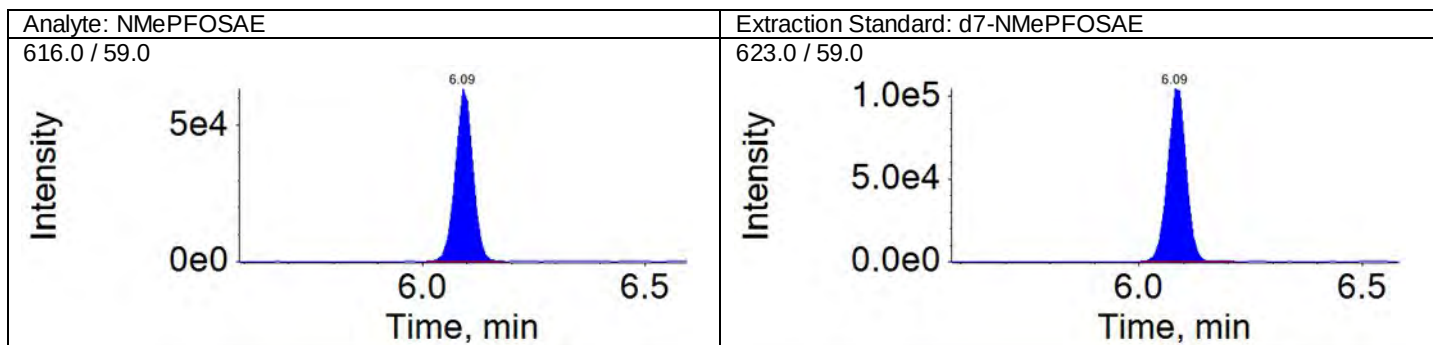
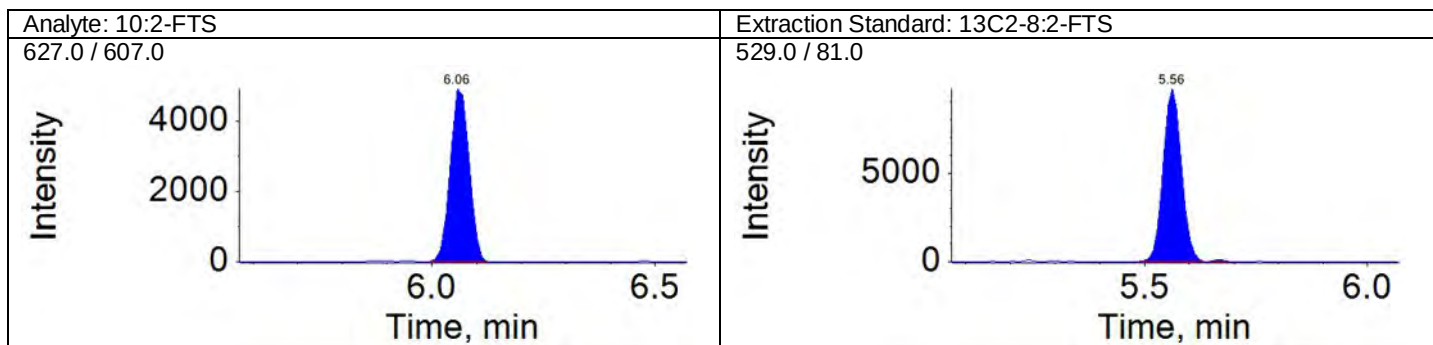
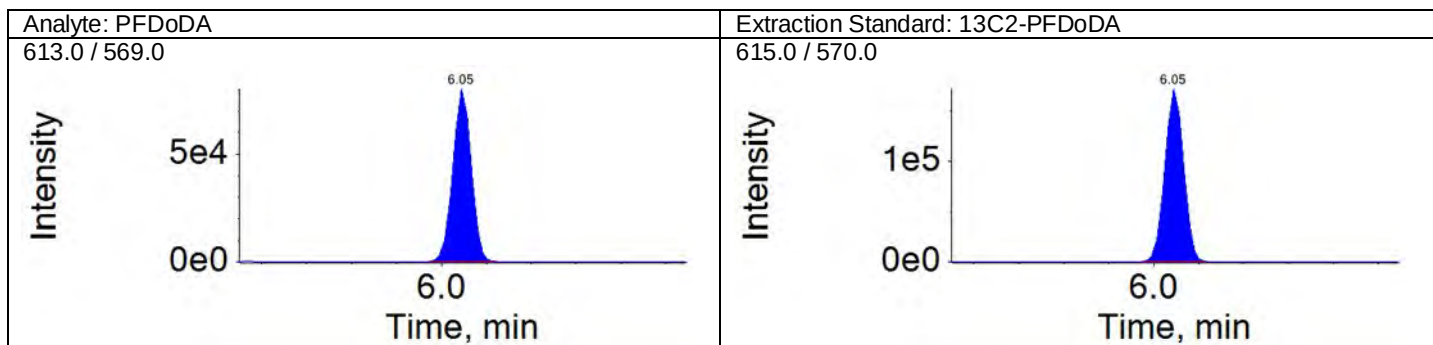
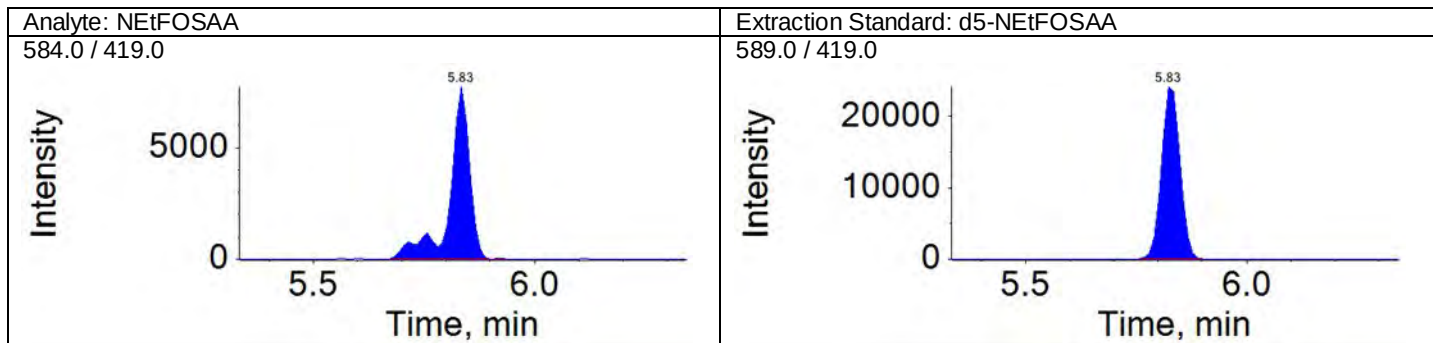
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QMethod Name: 18AUG20QM

Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



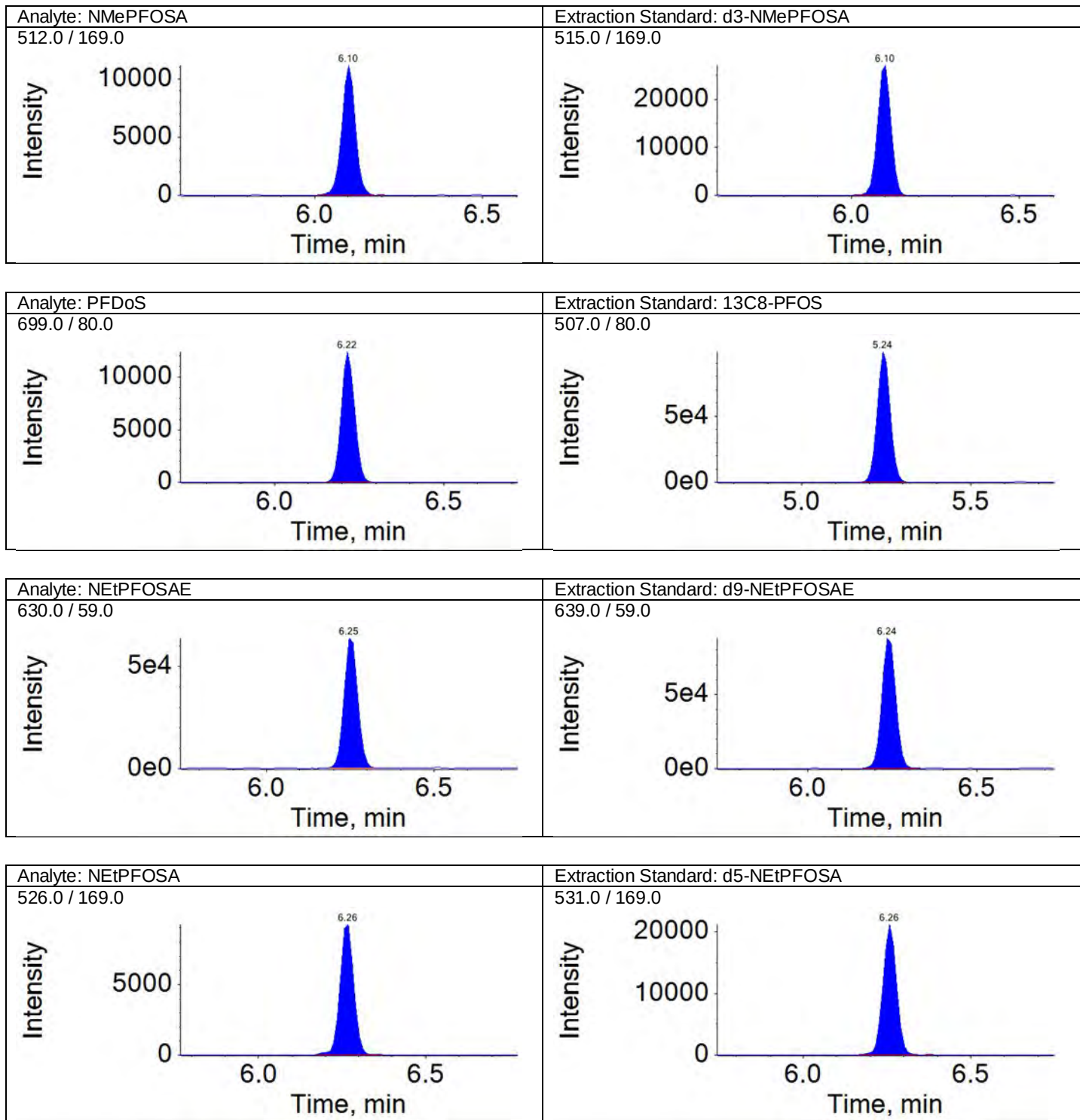
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Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



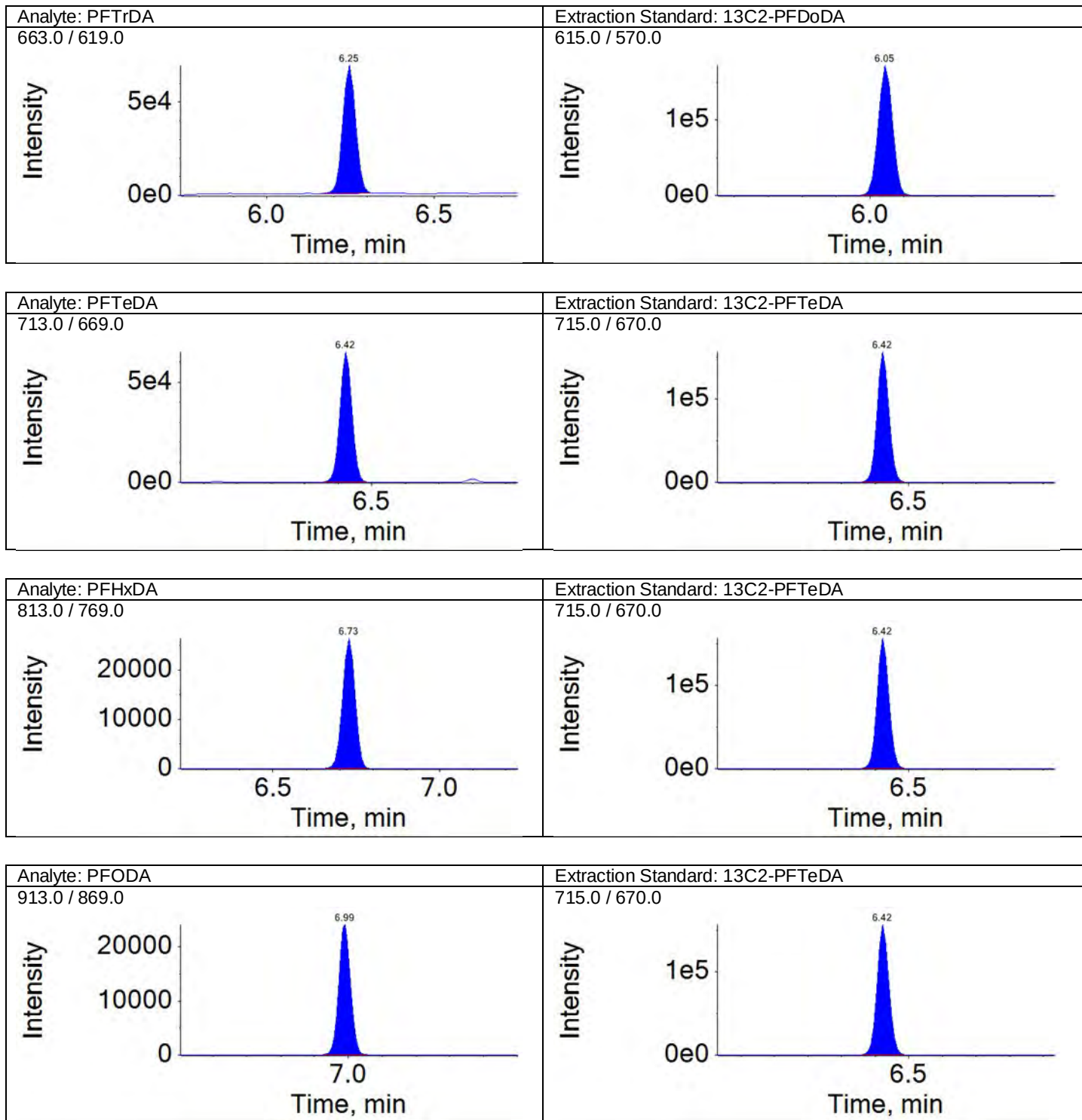
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Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
Acquisition Method: 18AUG13_3uL.dam



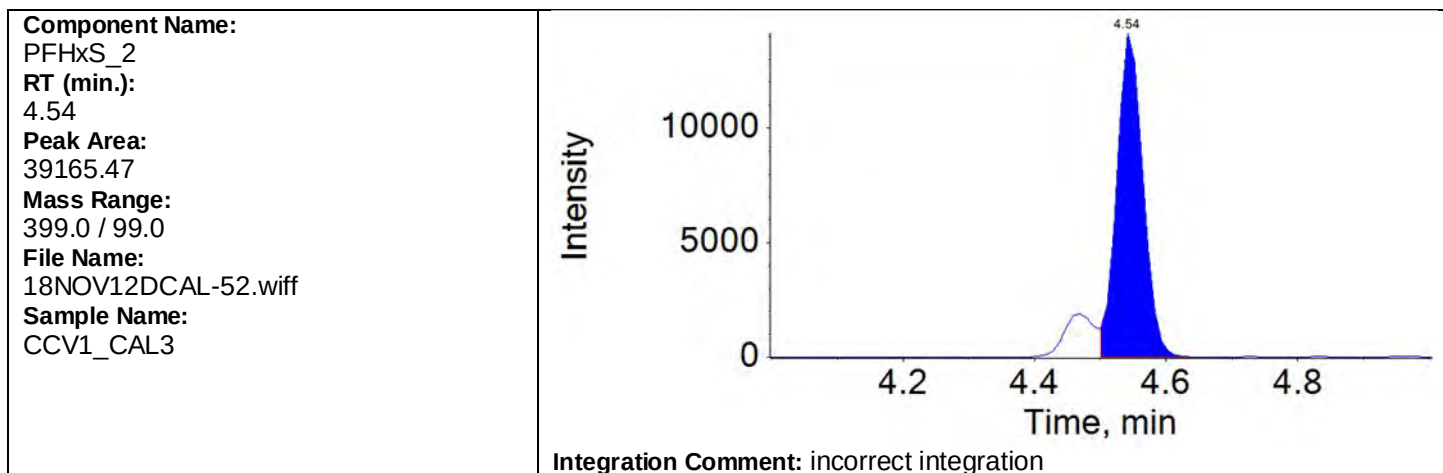
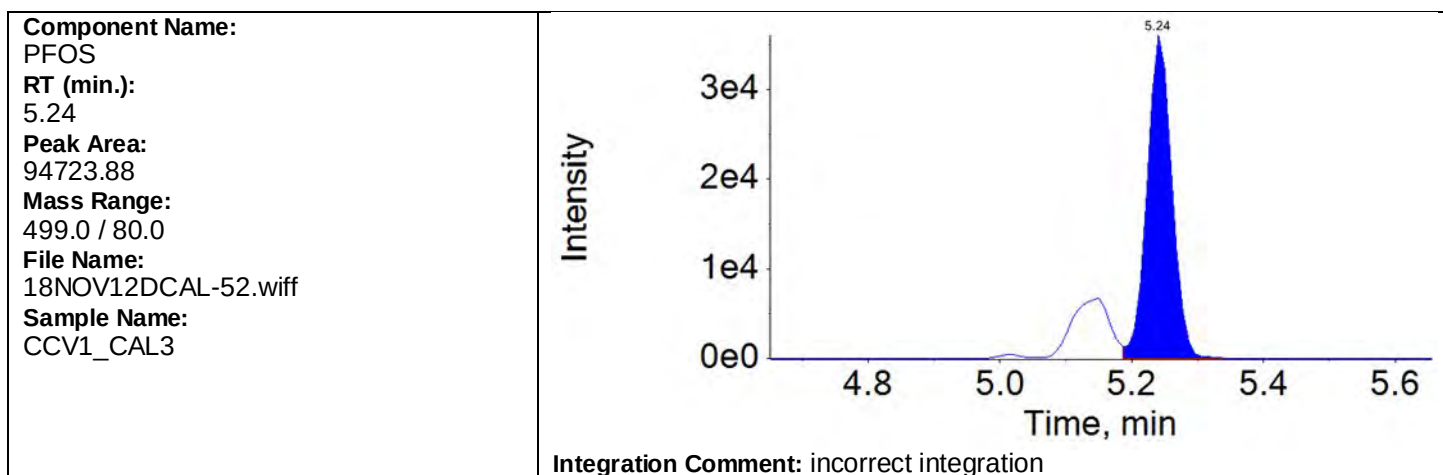
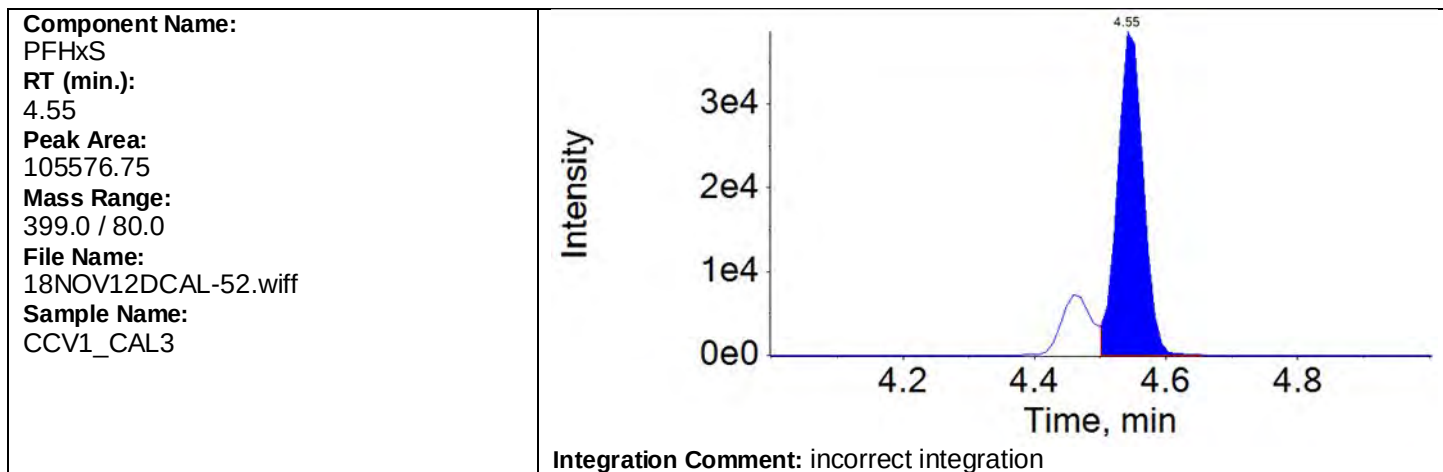
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Result Table: 18NOV12DCAL 11/12/2018 6:14:07 PM
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Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

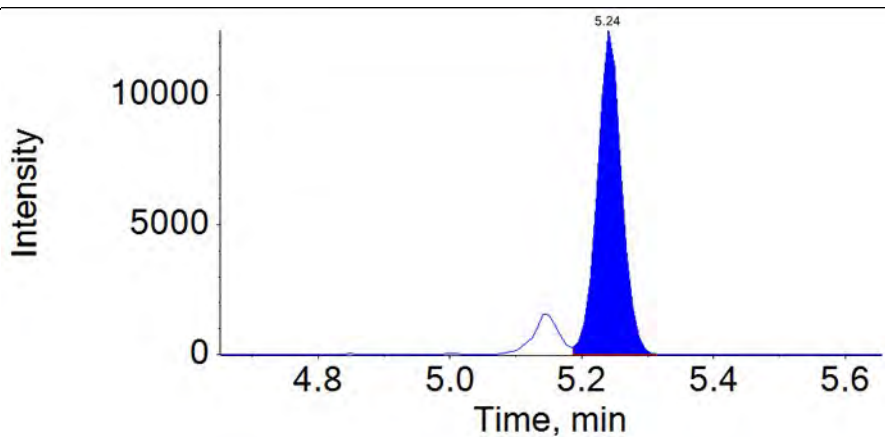
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Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

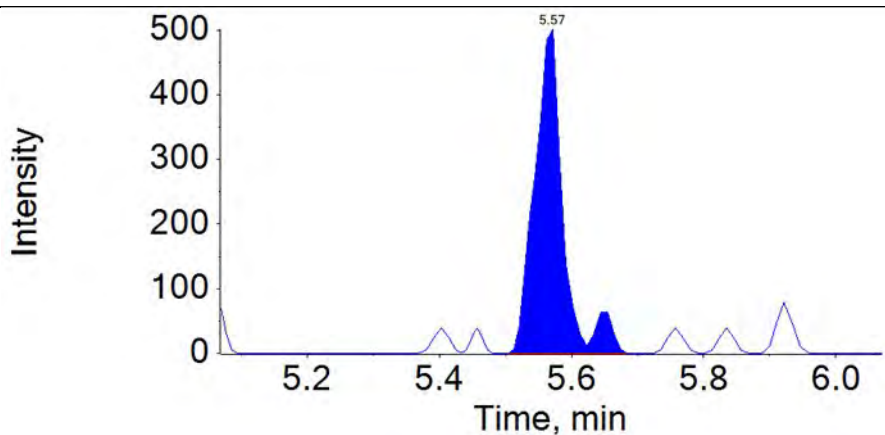
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
32024.51
Mass Range:
499.0 / 99.0
File Name:
18NOV12DCAL-52.wiff
Sample Name:
CCV1_CAL3



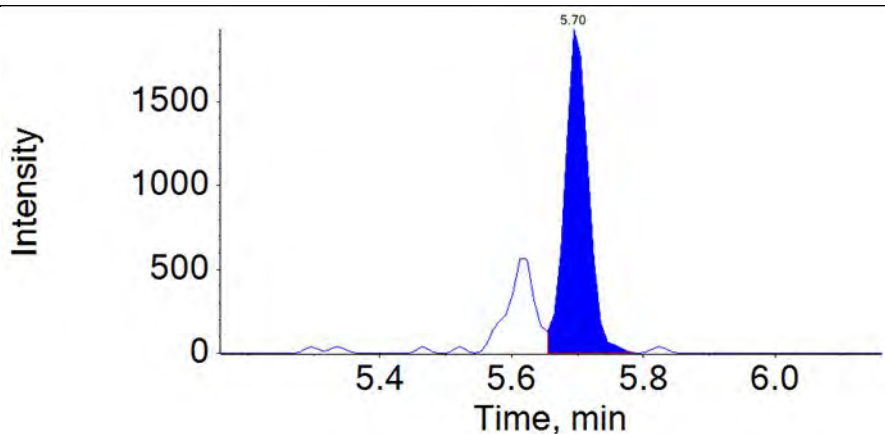
Integration Comment: incorrect integration

Component Name:
PFDA_2
RT (min.):
5.57
Peak Area:
1525.22
Mass Range:
513.0 / 169.0
File Name:
18NOV12DCAL-52.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
4786.64
Mass Range:
570.0 / 483.0
File Name:
18NOV12DCAL-52.wiff
Sample Name:
CCV1_CAL3

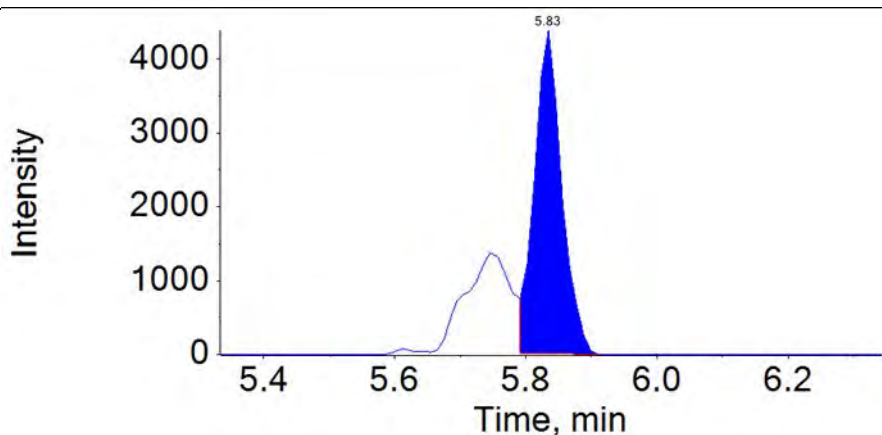


Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

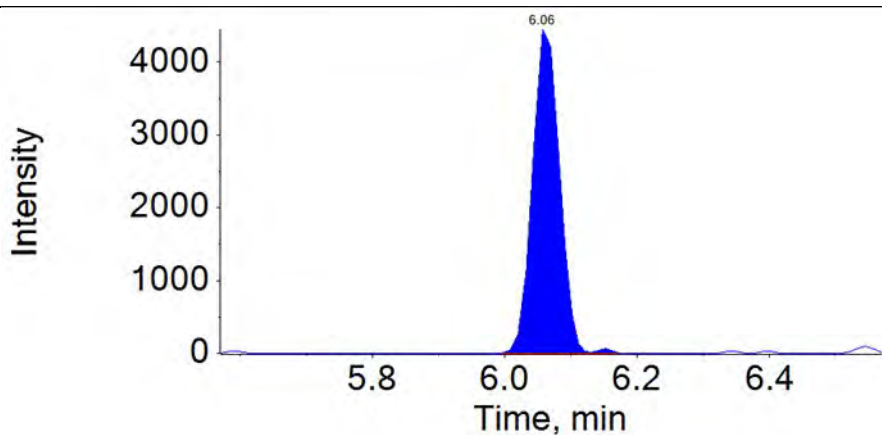
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
12735.31
Mass Range:
584.0 / 526.0
File Name:
18NOV12DCAL-52.wiff
Sample Name:
CCV1_CAL3



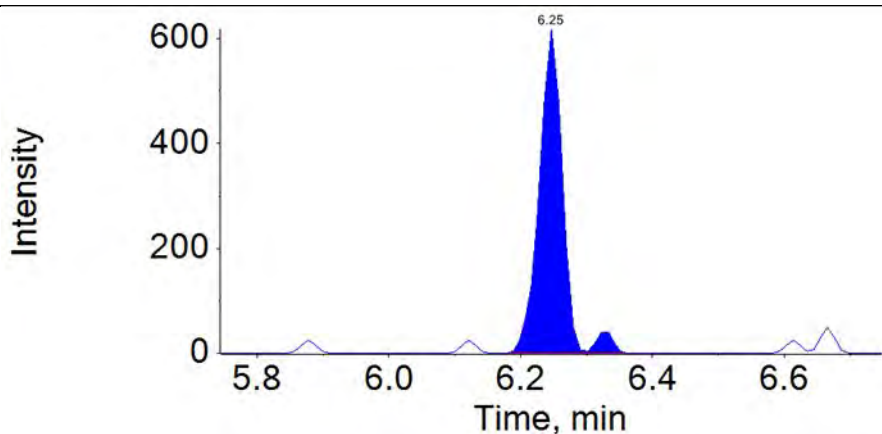
Integration Comment: incorrect integration

Component Name:
10:2 FTS_2
RT (min.):
6.06
Peak Area:
12750.49
Mass Range:
627.0 / 81.0
File Name:
18NOV12DCAL-52.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
PFTTrDA_2
RT (min.):
6.25
Peak Area:
1561.97
Mass Range:
663.0 / 169.0
File Name:
18NOV12DCAL-52.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Results Table Name: 18NOV12DCAL
Results Table Date: 11/12/2018 6:23:42 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 6:34 pm, 11/12/18

REVIEWED

By HMK at 10:53 am, 11/13/18

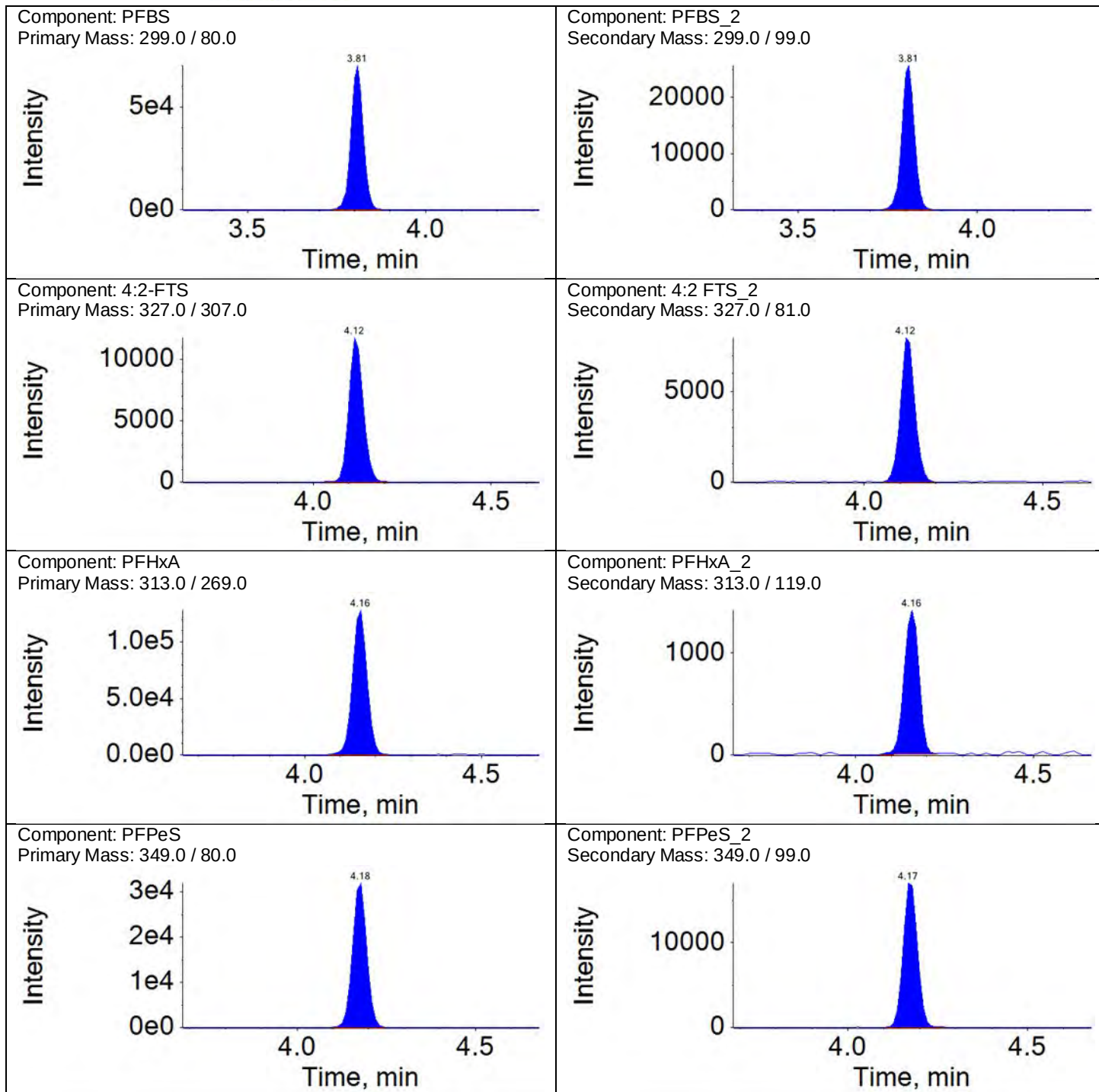
Ion Ratio Report

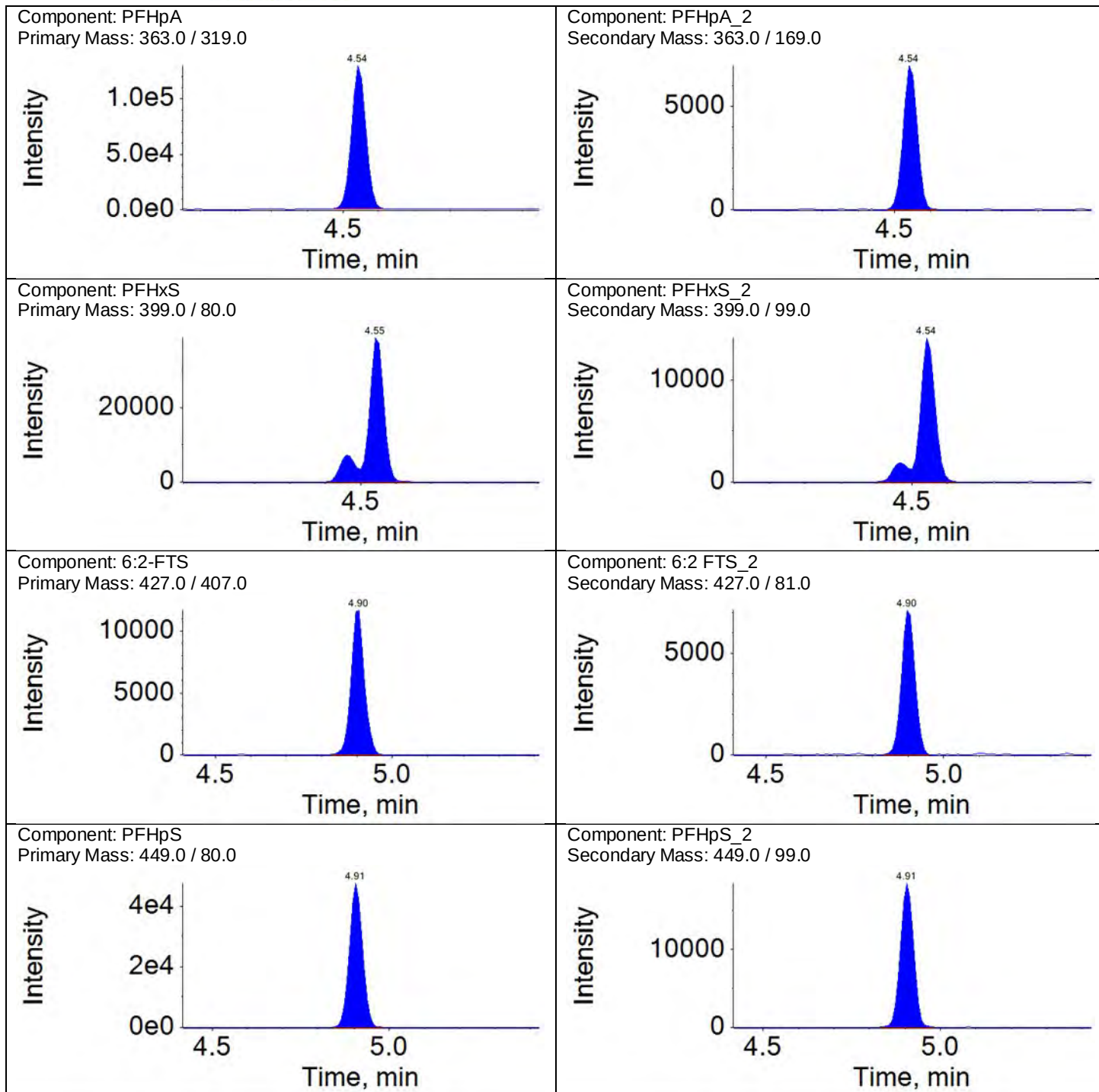
Sample Name: CCV1_CAL3

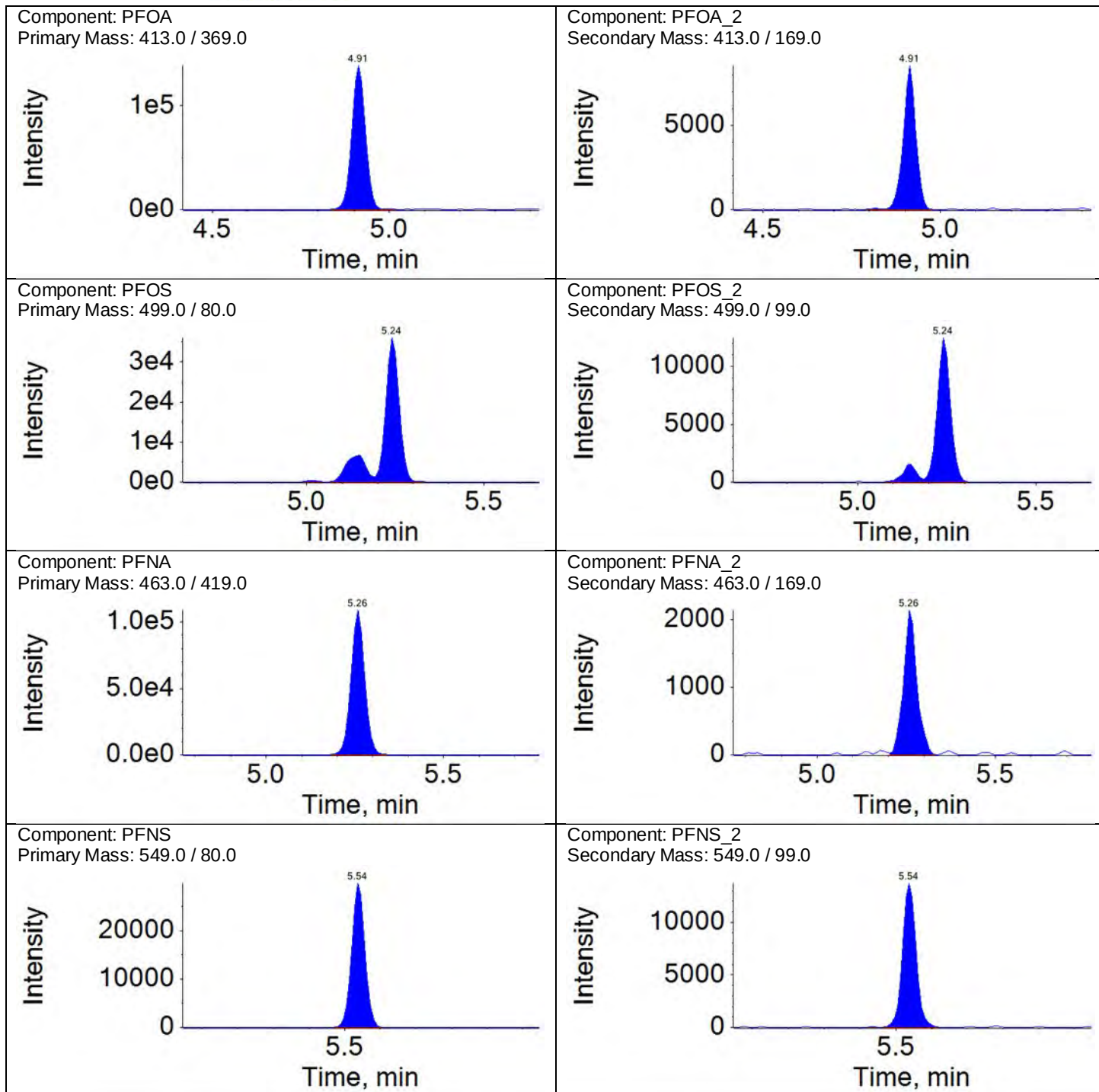
Instrument Name: LM27631

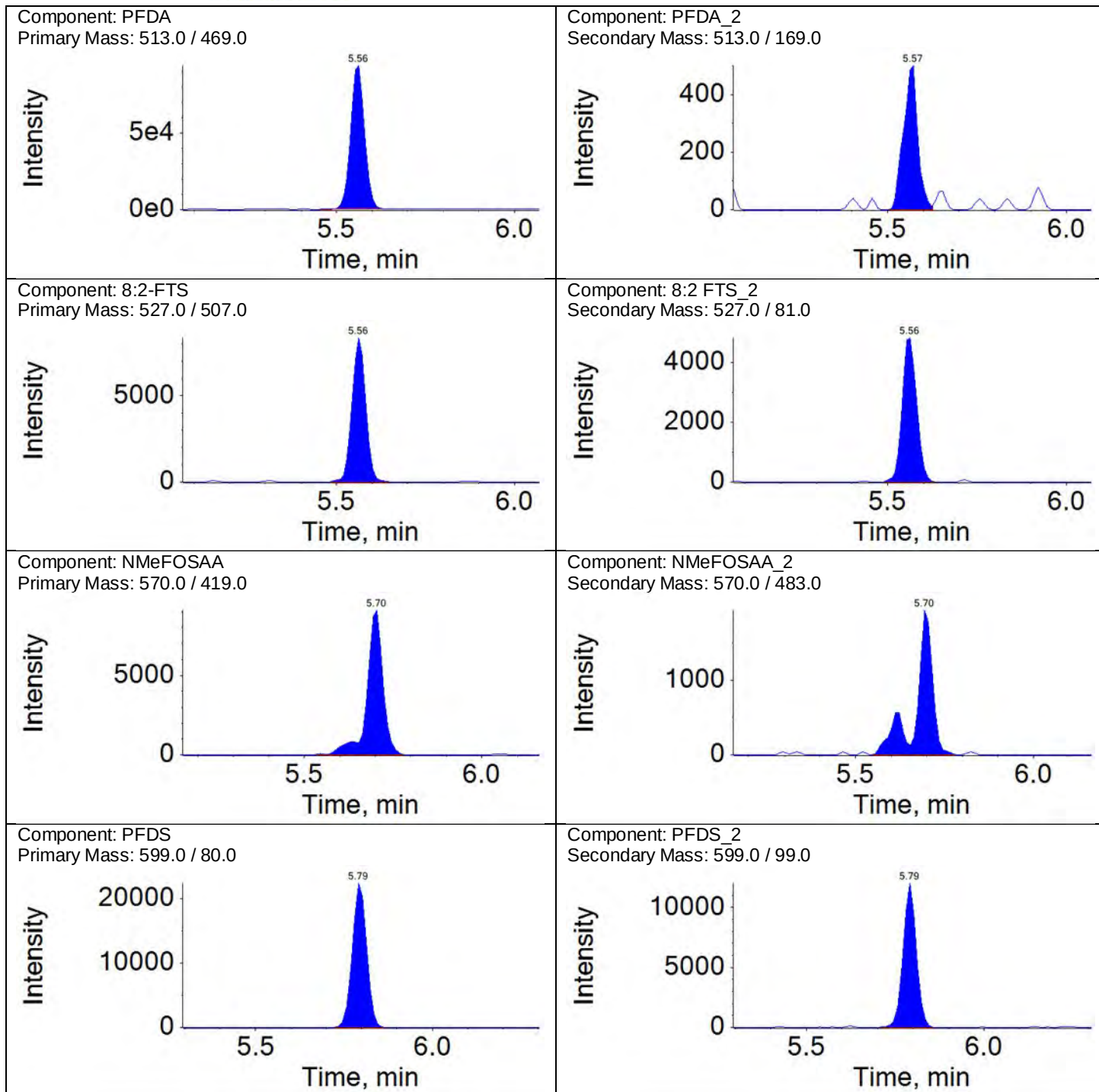
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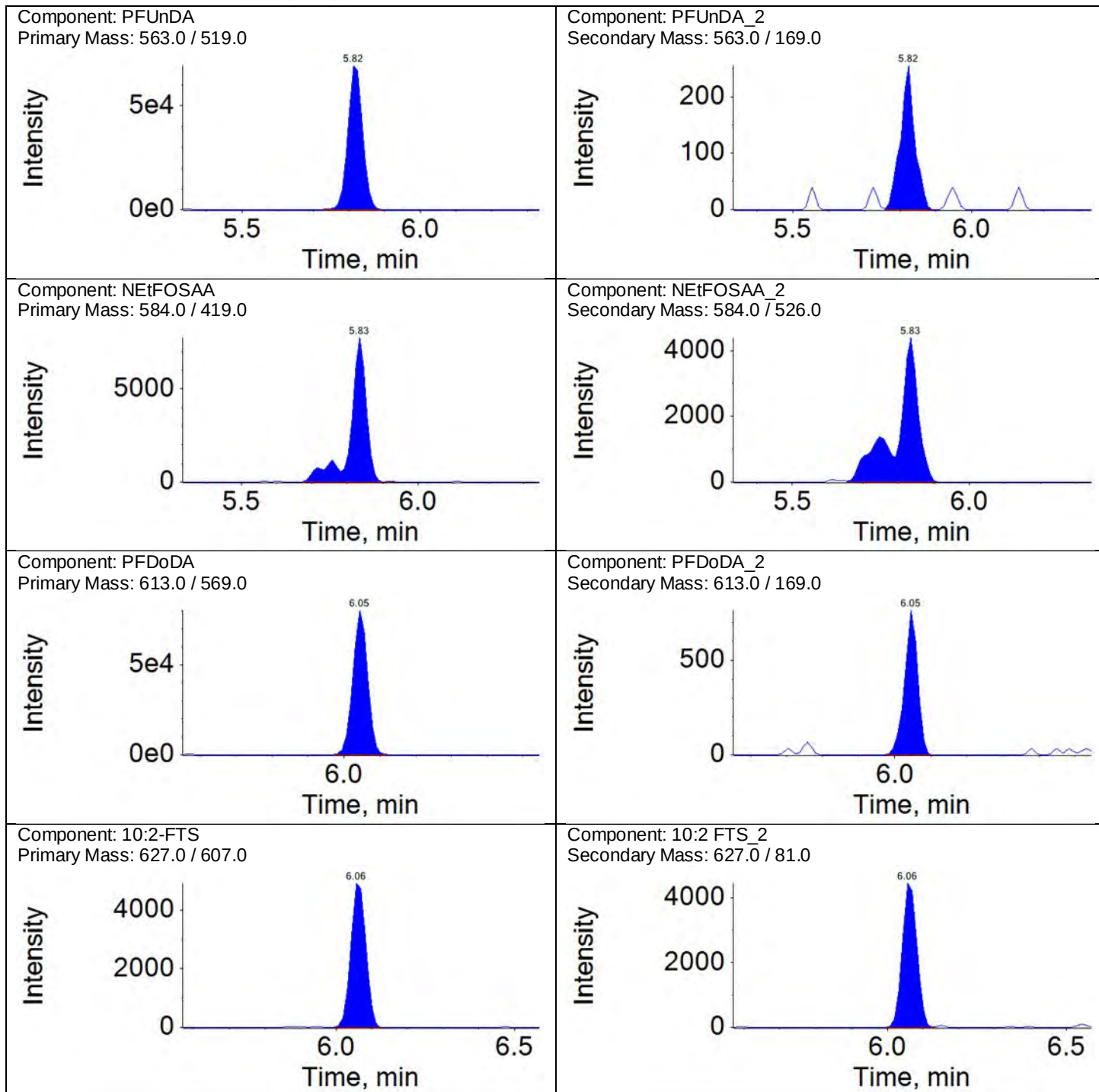
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	166889.60	A	0.3619	0.3759			
PFBS_2	3.81	1.00	62739.70	A	0.3619	0.3759	4	50	
4:2-FTS	4.12	1.00	33008.94	A	0.6730	0.6769			
4:2 FTS_2	4.12	1.00	22342.63	A	0.6730	0.6769		#NA!	
PFHxA	4.16	1.00	362325.97	A	0.0117	0.0114			
PFHxA_2	4.16	1.00	4119.87	A	0.0117	0.0114	-2	50	
PFPeS	4.18	1.10	87834.91	A	0.5191	0.5380			
PFPeS_2	4.17	1.10	47259.43	A	0.5191	0.5380	4	50	
PFHpA	4.54	1.00	361271.55	A	0.0563	0.0528			
PFHpA_2	4.54	1.00	19075.67	A	0.0563	0.0528	-6	50	
PFHxS	4.55	1.00	128396.13	M	0.3428	0.3526			
PFHxS_2	4.54	1.00	45266.10	M	0.3428	0.3526	3	50	
6:2-FTS	4.90	1.00	30500.72	A	0.6604	0.6139			
6:2 FTS_2	4.90	1.00	18723.69	A	0.6604	0.6139		#NA!	
PFHpS	4.91	1.08	122801.74	A	0.4066	0.3898			
PFHpS_2	4.91	1.08	47867.04	A	0.4066	0.3898	-4	50	
PFOA	4.91	1.00	370358.65	A	0.0562	0.0572			
PFOA_2	4.91	1.00	21182.05	A	0.0562	0.0572	2	50	
PFOS	5.24	1.00	122332.00	M	0.2968	0.2965			
PFOS_2	5.24	1.00	36275.78	M	0.2968	0.2965	0	50	
PFNA	5.26	1.00	292557.20	A	0.0229	0.0191			
PFNA_2	5.26	1.00	5601.50	A	0.0229	0.0191	-16	50	
PFNS	5.54	1.06	76021.24	A	0.4828	0.4752			
PFNS_2	5.54	1.06	36125.34	A	0.4828	0.4752	-2	50	
PFDA	5.56	1.00	253956.70	A	0.0081	0.0055			
PFDA_2	5.57	1.00	1404.60	M	0.0081	0.0055	-32	50	
8:2-FTS	5.56	1.00	22335.45	A	0.6814	0.6085			
8:2 FTS_2	5.56	1.00	13590.39	A	0.6814	0.6085		#NA!	
NMeFOSAA	5.70	1.00	28733.42	A	0.2569	0.2248			
NMeFOSAA_2	5.70	1.00	6459.32	M	0.2569	0.2248	-12	50	
PFDS	5.79	1.11	62507.84	A	0.5144	0.4958			
PFDS_2	5.79	1.10	30989.83	A	0.5144	0.4958	-4	50	
PFUnDA	5.82	1.00	199322.38	A	0.0058	0.0036			
PFUnDA_2	5.82	1.00	716.12	A	0.0058	0.0036	-38	50	
NEtFOSAA	5.83	1.00	24531.93	A	0.7253	0.7928			
NEtFOSAA_2	5.83	1.00	19448.32	M	0.7253	0.7928	9	50	
PFDODA	6.05	1.00	228792.93	A	0.0157	0.0084			
PFDODA_2	6.05	1.00	1930.67	A	0.0157	0.0084	-46	50	
10:2-FTS	6.06	1.09	14411.12	A	0.6356	0.8781			
10:2 FTS_2	6.06	1.09	12654.02	M	0.6356	0.8781		#NA!	
PFTTrDA	6.25	1.03	185154.57	A	0.0086	0.0080			
PFTTrDA_2	6.25	1.03	1486.41	M	0.0086	0.0080	-6	50	
PFTeDA	6.42	1.00	159904.63	A	0.0062	0.0061			
PFTeDA_2	6.42	1.00	982.46	A	0.0062	0.0061	-2	50	
PFHxDA	6.73	1.05	68393.80	A	0.0683	0.0584			
PFHxDA_2	6.73	1.05	3992.51	A	0.0683	0.0584	-14	50	
PFODA	6.99	1.09	58092.41	A	0.0277	0.0262			
PFODA_2	6.99	1.09	1524.27	A	0.0277	0.0262	-5	50	

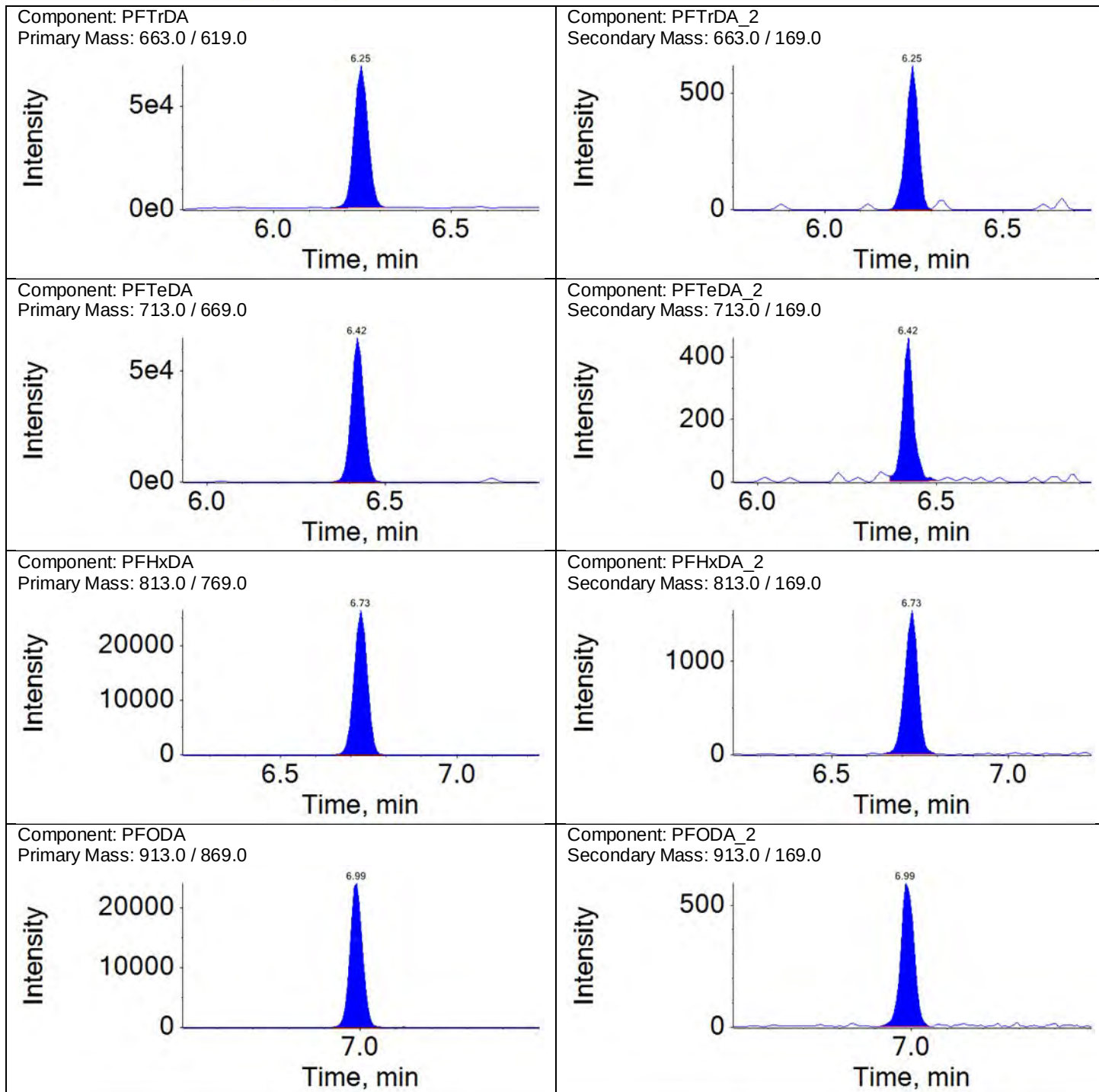












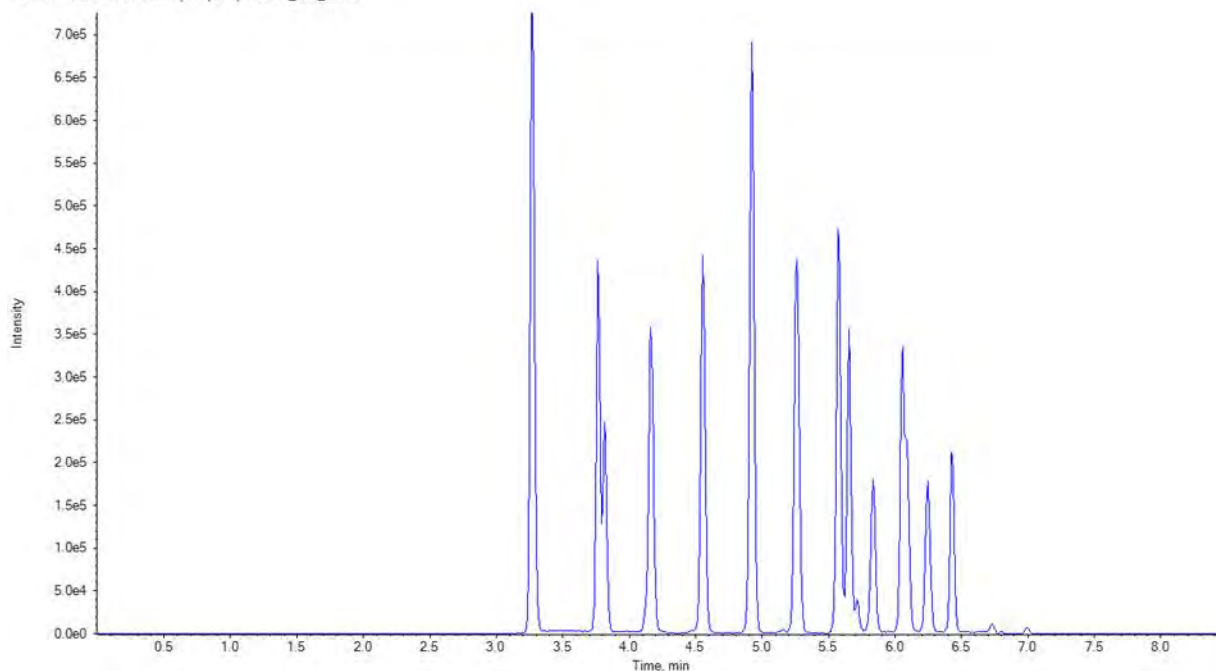
Instrument Sensitivity Check/
Continuing Calibration Verification

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18NOV15D-05.wiff	2018-11-15T12:39:12

TIC from 18NOV15D-05.wiff (sample 1) - CCV1_ISC_CAL2



Injection Standard Area Reference File: 18NOV14D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	732179.1	700694.9	4	50	
13C2-PFOA	5.0	479663.2	493563.9	-3	50	
13C4-PFOS	4.8	269685.3	254050.4	6	50	
13C2-PFDA	5.0	302309.9	286010.1	6	50	

APPROVED

By JPT at 8:56 am, 11/16/18

REVIEWED

By HMK at 7:38 am, 11/19/18

Instrument Sensitivity Check/ Continuing Calibration Verification

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18NOV15D-05.wiff	2018-11-15T12:39:12

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	89981.7	10	13C4-PFBA	834116.1	5.0	0.108	3.27	1.000	0.600	0.598	0	30	
PFPeA	82459.6	12	13C5-PFPeA	794670.3	5.0	0.104	3.77	1.000	0.600	0.601	0	30	
PFBS	43949.1	10	13C3-PFBS	438912.8	4.7	0.100	3.82	1.000	0.531	0.476	-10	30	
4:2-FTS	10004.2	11	13C2-4:2-FTS	52105.6	4.7	0.192	4.13	1.000	0.560	0.521	-7	30	
PFHxA	100146.0	12	13C5-PFHxA	721373.5	5.0	0.139	4.16	1.000	0.600	0.580	-3	30	
PFPeS	23408.3	11	13C3-PFBS	438912.8	4.7	0.053	4.18	1.100	0.563	0.518	-8	30	
PFHpA	102557.6	12	13C4-PFHpA	550528.1	5.0	0.186	4.55	1.000	0.600	0.618	3	30	
PFHxS	33173.1	18	13C3-PFHxS	348032.6	4.7	0.095	4.56	1.000	0.547	0.462	-16	30	
6:2-FTS	8730.1	11	13C2-6:2-FTS	35792.4	4.8	0.244	4.91	1.000	0.569	0.590	4	30	
PFHpS	34554.4	11	13C3-PFHxS	348032.6	4.7	0.099	4.91	1.080	0.571	0.523	-8	30	
PFOA	101483.1	11	13C8-PFOA	933319.5	5.0	0.109	4.92	1.000	0.600	0.581	-3	30	
PFOS	33155.1	22	13C8-PFOS	308307.9	4.8	0.108	5.25	1.000	0.555	0.470	-15	30	
PFNA	82368.1	12	13C9-PFNA	495918.4	5.0	0.166	5.27	1.000	0.600	0.599	0	30	
PFNS	22643.7	11	13C8-PFOS	308307.9	4.8	0.073	5.55	1.060	0.576	0.514	-11	30	
PFDA	72511.4	12	13C6-PFDA	659112.5	5.0	0.110	5.57	1.000	0.600	0.583	-3	30	
8:2-FTS	5899.7	11	13C2-8:2-FTS	27837.3	4.8	0.212	5.58	1.000	0.575	0.494	-14	30	
PFOSA	79551.3	11	13C8-PFOSA	674851.4	5.0	0.118	5.65	1.000	0.600	0.576	-4	30	
NMeFOSAA	8526.2	18	d3-NMeFOSAA	76975.2	5.0	0.111	5.72	1.000	0.600	0.626	4	30	
PFDS	16839.4	11	13C8-PFOS	308307.9	4.8	0.055	5.81	1.110	0.578	0.495	-14	30	
PFUnDA	58763.0	12	13C7-PFUnDA	275106.7	5.0	0.214	5.83	1.000	0.600	0.558	-7	30	
NEtFOSAA	6799.8	21	d5-NEtFOSAA	72633.4	5.0	0.094	5.84	1.000	0.600	0.491	-18	30	
PFDODA	69810.9	12	13C2-PFDODA	609426.5	5.0	0.115	6.05	1.000	0.600	0.583	-3	30	
10:2-FTS	4486.1	12	13C2-8:2-FTS	27837.3	4.8	0.161	6.07	1.090	0.578	0.537	-7	30	
NMePFOSAE	47071.2	12	d7-NMePFOSAE	336103.9	5.0	0.140	6.10	1.000	0.600	0.583	-3	30	
NMePFOSA	9187.2	11	d3-NMePFOSA	80686.5	5.0	0.114	6.10	1.000	0.600	0.562	-6	30	
PFDoS	7550.7	11	13C8-PFOS	308307.9	4.8	0.024	6.22	1.180	0.581	0.429	-26	30	
NEtPFOSAE	51565.0	11	d9-NEtPFOSAE	267032.8	5.0	0.193	6.25	1.000	0.600	0.620	3	30	
NEtPFOSA	8085.5	11	d5-NEtPFOSA	61678.7	5.0	0.131	6.26	1.000	0.600	0.602	0	30	
PFTDA	54960.7	12	13C2-PFDODA	609426.5	5.0	0.090	6.25	1.030	0.600	0.569	-5	30	
PFTeDA	41384.0	11	13C2-PFTeDA	419854.5	5.0	0.099	6.43	1.000	0.600	0.553	-8	30	
PFHxDA	19352.2	11	13C2-PFTeDA	419854.5	5.0	0.046	6.73	1.050	0.600	0.549	-8	30	
PFOA	15579.3	10	13C2-PFTeDA	419854.5	5.0	0.037	6.99	1.090	0.600	0.517	-14	30	

**Instrument Sensitivity Check/
Continuing Calibration Verification**

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 8:56 am, 11/16/18

REVIEWED
By HMK at 7:38 am, 11/19/18

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV1 ISC CAL2	Data File:	18NOV15D-05.wiff
Sample ID:	CALBRN21833C	Acquis Date:	2018-11-15T12:39:12
Sample Type:	Quality Control	Instrument:	LM27631
Vial Position:	4	Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00	Result Table:	18NOV15DCCV1-4
QMethod File:	18AUG20QM	ICAL Name:	18NOV12DCAL
Batch Number:	N/A	Operator:	JPT12262
Sample Wt.:	1.00000	Dilution Factor:	1.00
Sample Vol.:	1.000	Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV14D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	732179.1	700694.9	4	50	
13C2-PFOA	5.0	479663.2	493563.9	-3	50	
13C4-PFOS	4.8	269685.3	254050.4	6	50	
13C2-PFDA	5.0	302309.9	286010.1	6	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	834116.1	13C3-PFBA	732179.1	1.139	5.000	5.108	102	70-130	
E13C5-PFPeA	794670.3	13C3-PFBA	732179.1	1.085	5.000	4.868	97	70-130	
E13C3-PFBS	438912.8	13C3-PFBA	732179.1	0.599	4.650	4.232	91	70-130	
E13C2-4:2-FTS	52105.6	13C2-PFOA	479663.2	0.109	4.670	4.838	104	70-130	
E13C5-PFHxA	721373.5	13C2-PFOA	479663.2	1.504	5.000	5.433	109	70-130	
E13C3-PFHxS	348032.6	13C2-PFOA	479663.2	0.726	4.730	4.979	105	70-130	
E13C4-PFHpA	550528.1	13C2-PFOA	479663.2	1.148	5.000	5.171	103	70-130	
E13C2-6:2-FTS	35792.4	13C2-PFOA	479663.2	0.075	4.750	4.992	105	70-130	
E13C8-PFOA	933319.5	13C2-PFOA	479663.2	1.946	5.000	5.361	107	70-130	
E13C8-PFOS	308307.9	13C4-PFOS	269685.3	1.143	4.780	5.065	106	70-130	
E13C9-PFNA	495918.4	13C4-PFOS	269685.3	1.839	5.000	5.127	103	70-130	
E13C6-PFDA	659112.5	13C2-PFDA	302309.9	2.180	5.000	5.088	102	70-130	
E13C2-8:2-FTS	27837.3	13C2-PFDA	302309.9	0.092	4.790	4.592	96	70-130	
E13C8-PFOSA	674851.4	13C2-PFDA	302309.9	2.232	5.000	4.949	99	70-130	
Ed3-NMeFOSAA	76975.2	13C2-PFDA	302309.9	0.255	5.000	4.596	92	70-130	
E13C7-PFUnDA	275106.7	13C2-PFDA	302309.9	0.910	5.000	5.283	106	70-130	
Ed5-NEtFOSAA	72633.4	13C2-PFDA	302309.9	0.240	5.000	5.083	102	70-130	
E13C2-PFDODA	609426.5	13C2-PFDA	302309.9	2.016	5.000	5.234	105	70-130	
Ed7-NMePFOSAE	336103.9	13C2-PFDA	302309.9	1.112	5.000	4.811	96	70-130	
Ed3-NMePFOSA	80686.5	13C2-PFDA	302309.9	0.267	5.000	4.849	97	70-130	
Ed9-NEtPFOSAE	267032.7	13C2-PFDA	302309.9	0.883	5.000	4.594	92	70-130	
Ed5-NEtPFOSA	61678.7	13C2-PFDA	302309.9	0.204	5.000	4.786	96	70-130	
E13C2-PFTeDA	419854.5	13C2-PFDA	302309.9	1.389	5.000	4.876	98	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CCV1_ISC_CAL2

Instrument Name: LM27631

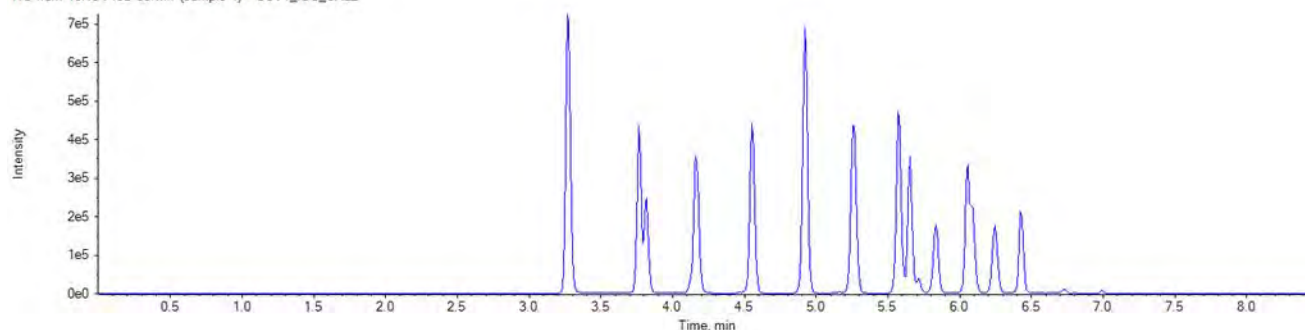
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	89981.7		A	13C4-PFBA	3.27	834116.1	0.108	0.598
PFPeA	3.77	1.000	82459.6		A	13C5-PFPeA	3.77	794670.3	0.104	0.601
PFBS	3.82	1.000	43949.1		A	13C3-PFBS	3.82	438912.8	0.100	0.476
4:2-FTS	4.13	1.000	10004.2		M	13C2-4:2-FTS	4.13	52105.6	0.192	0.521
PFHxA	4.16	1.000	100146.0		A	13C5-PFHxA	4.16	721373.5	0.139	0.580
PFPeS	4.18	1.100	23408.3		A	13C3-PFBS	3.82	438912.8	0.053	0.518
PFHpA	4.55	1.000	102557.6		A	13C4-PFHpA	4.55	550528.1	0.186	0.618
PFHxS	4.56	1.000	33173.1		M	13C3-PFHxS	4.56	348032.6	0.095	0.462
6:2-FTS	4.91	1.000	8730.1		A	13C2-6:2-FTS	4.91	35792.4	0.244	0.590
PFHpS	4.91	1.080	34554.4		A	13C3-PFHxS	4.56	348032.6	0.099	0.523
PFOA	4.92	1.000	101483.1		A	13C8-PFOA	4.92	933319.5	0.109	0.581
PFOS	5.25	1.000	33155.1		M	13C8-PFOS	5.25	308307.9	0.108	0.470
PFNA	5.27	1.000	82368.1		A	13C9-PFNA	5.27	495918.4	0.166	0.599
PFNS	5.55	1.060	22643.7		A	13C8-PFOS	5.25	308307.9	0.073	0.514
PFDA	5.57	1.000	72511.4		A	13C6-PFDA	5.57	659112.5	0.110	0.583
8:2-FTS	5.58	1.000	5899.7		M	13C2-8:2-FTS	5.58	27837.3	0.212	0.494
PFOSA	5.65	1.000	79551.3		A	13C8-PFOSA	5.65	674851.4	0.118	0.576
NMeFOSAA	5.72	1.000	8526.2		M	d3-NMeFOSAA	5.71	76975.2	0.111	0.626
PFDS	5.81	1.110	16839.4		A	13C8-PFOS	5.25	308307.9	0.055	0.495
PfUnDA	5.83	1.000	58763.0		A	13C7-PfUnDA	5.83	275106.7	0.214	0.558
NEtFOSAA	5.84	1.000	6799.8		M	d5-NEtFOSAA	5.84	72633.4	0.094	0.491
PFDaDA	6.05	1.000	69810.9		A	13C2-PFDaDA	6.05	609426.5	0.115	0.583
10:2-FTS	6.07	1.090	4486.1		A	13C2-8:2-FTS	5.58	27837.3	0.161	0.537
NMePFOSAE	6.10	1.000	47071.2		A	d7-NMePFOSAE	6.09	336103.9	0.140	0.583
NMePFOSA	6.10	1.000	9187.2		A	d3-NMePFOSA	6.10	80686.5	0.114	0.562
PFDaS	6.22	1.180	7550.7		M	13C8-PFOS	5.25	308307.9	0.024	0.429
NEtPFOSAE	6.25	1.000	51565.0		M	d9-NEtPFOSAE	6.24	267032.8	0.193	0.620
NEtPFOSA	6.26	1.000	8085.5		A	d5-NEtPFOSA	6.26	61678.7	0.131	0.602
PFTaDA	6.25	1.030	54960.7		M	13C2-PFDaDA	6.05	609426.5	0.090	0.569
PFTeDA	6.43	1.000	41384.0		M	13C2-PFTeDA	6.43	419854.5	0.099	0.553
PFHxDA	6.73	1.050	19352.2		A	13C2-PFTeDA	6.43	419854.5	0.046	0.549
PFODA	6.99	1.090	15579.3		A	13C2-PFTeDA	6.43	419854.5	0.037	0.517

Total Ion Chromatogram

TIC from 18NOV15D-05.wiff (sample 1) - CCV1_ISC_CAL2



APPROVED

By JPT at 8:56 am, 11/16/18

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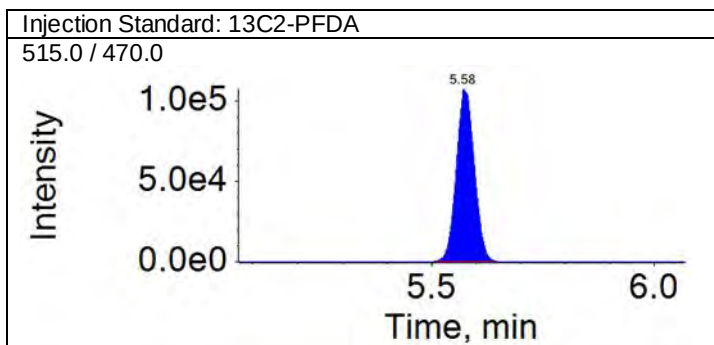
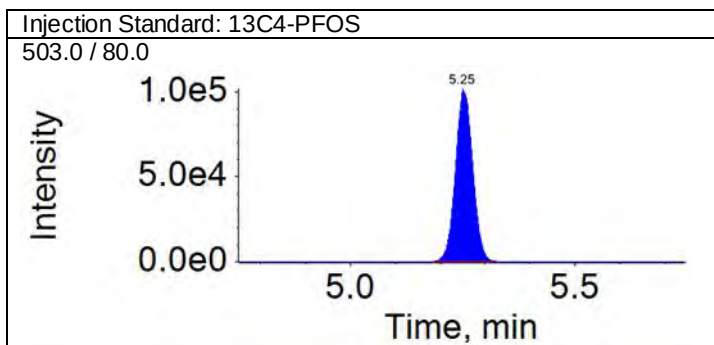
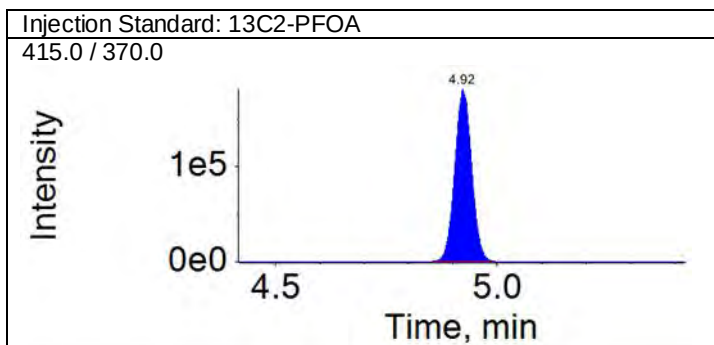
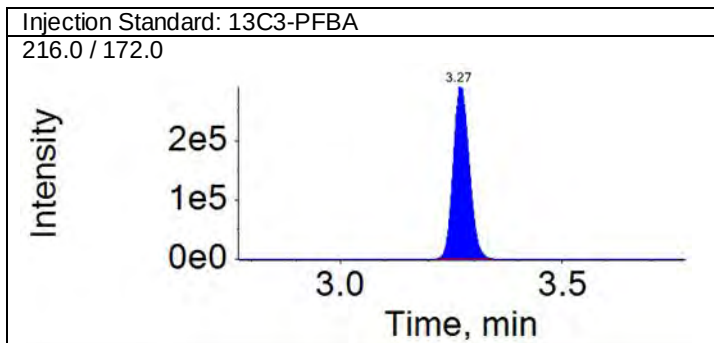
REVIEWED

By HMK at 7:38 am, 11/19/18

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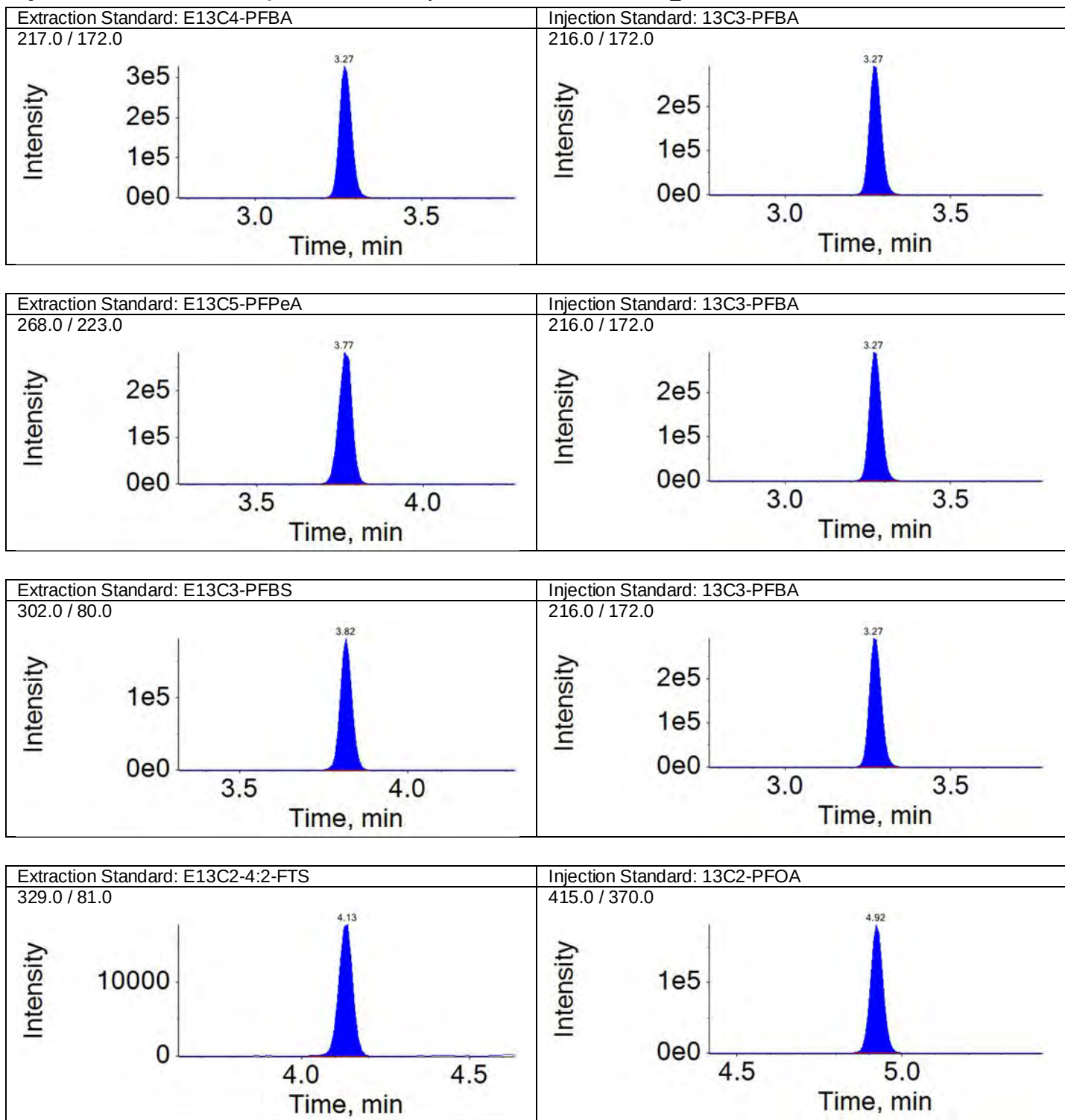
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



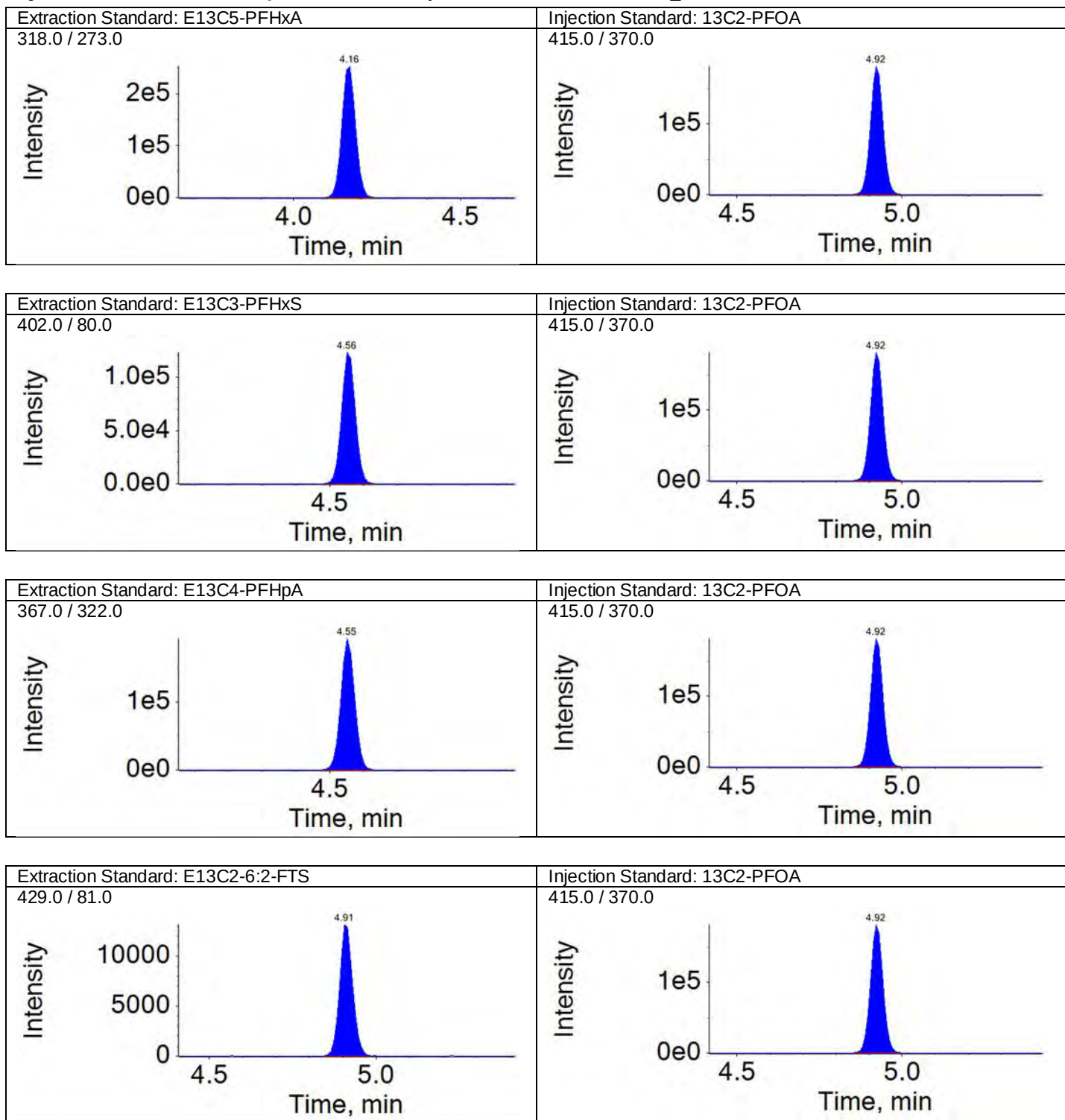
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



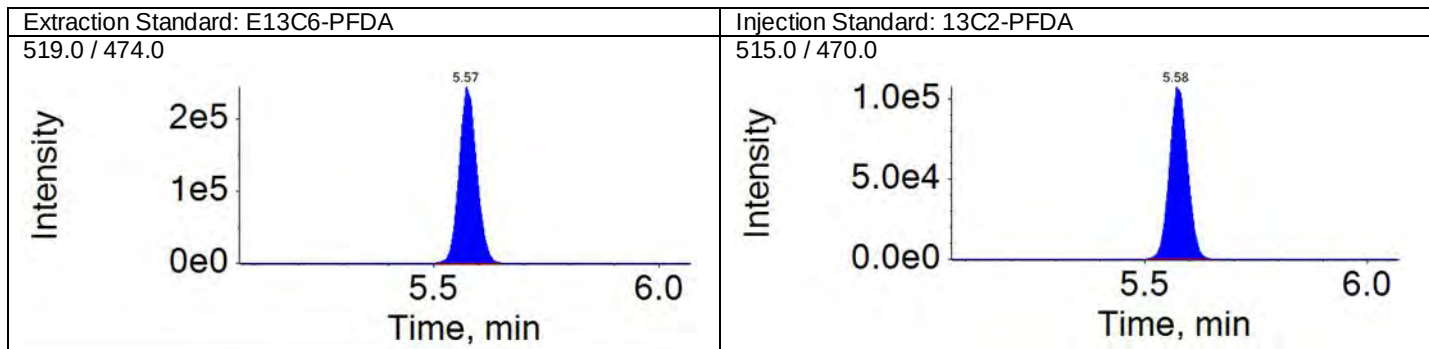
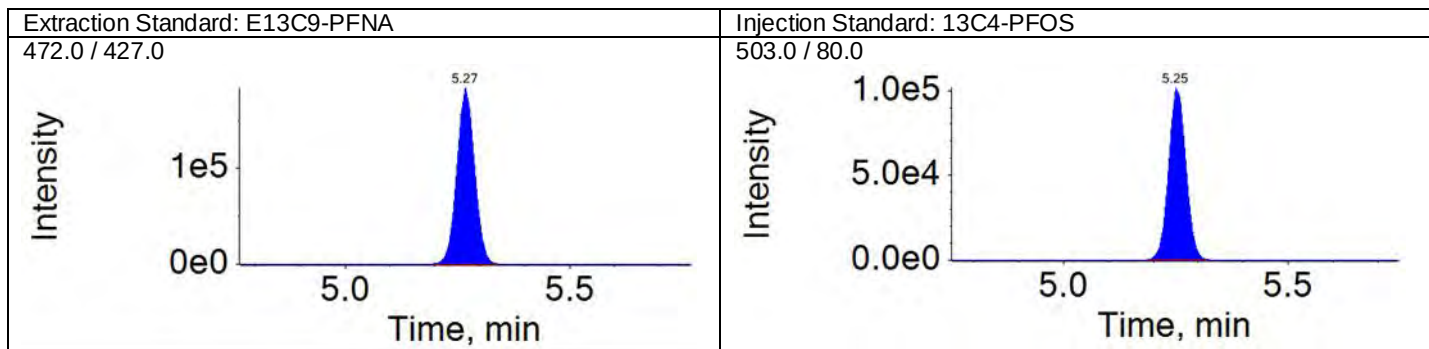
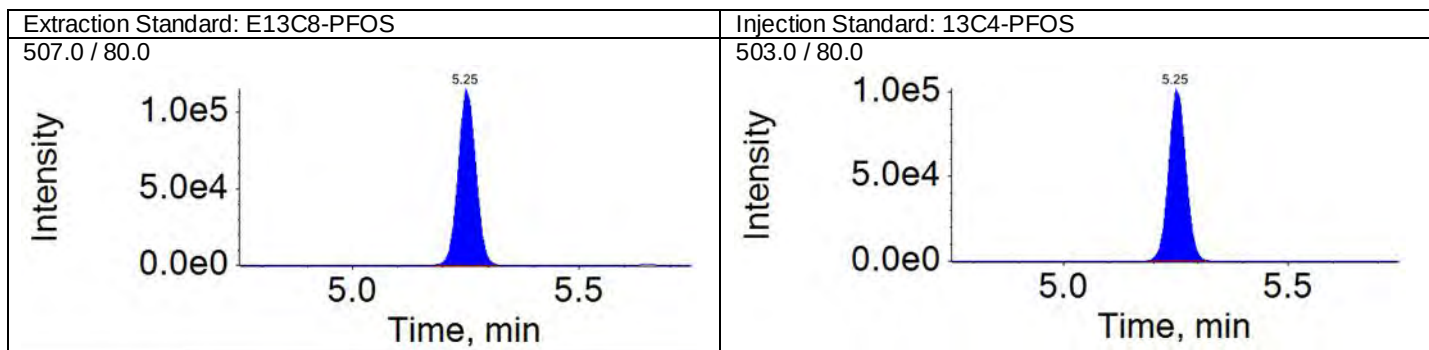
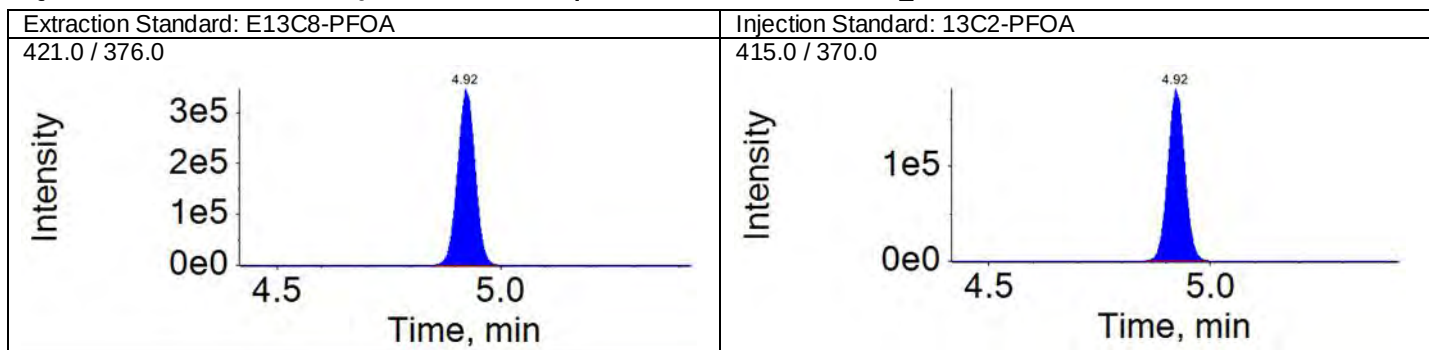
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



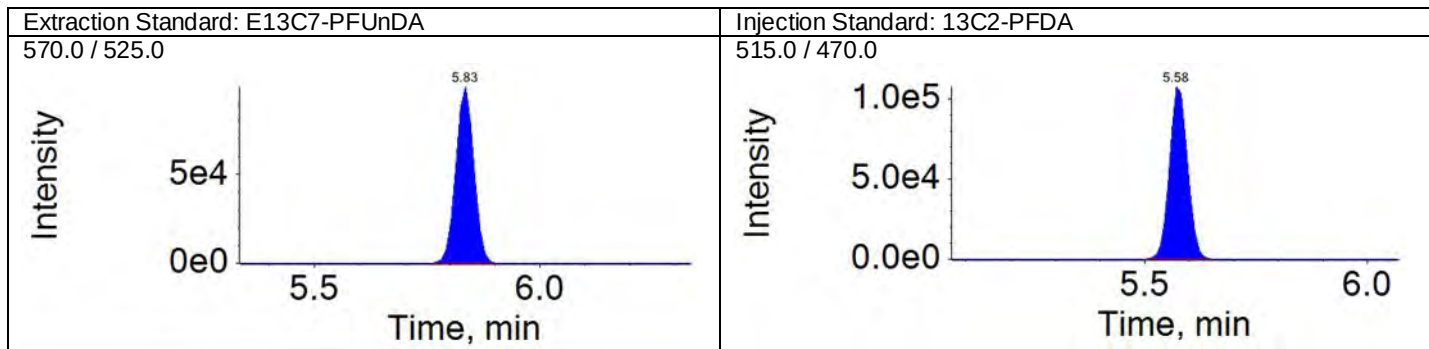
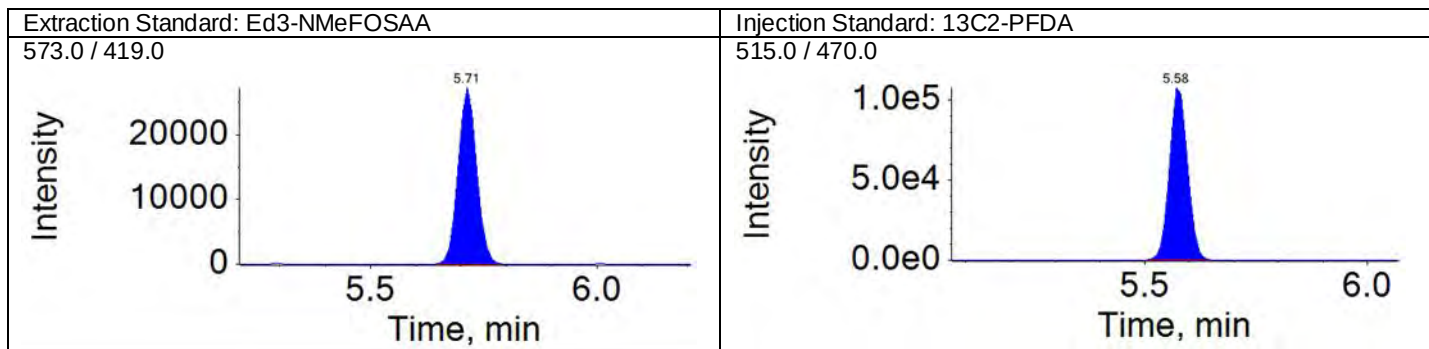
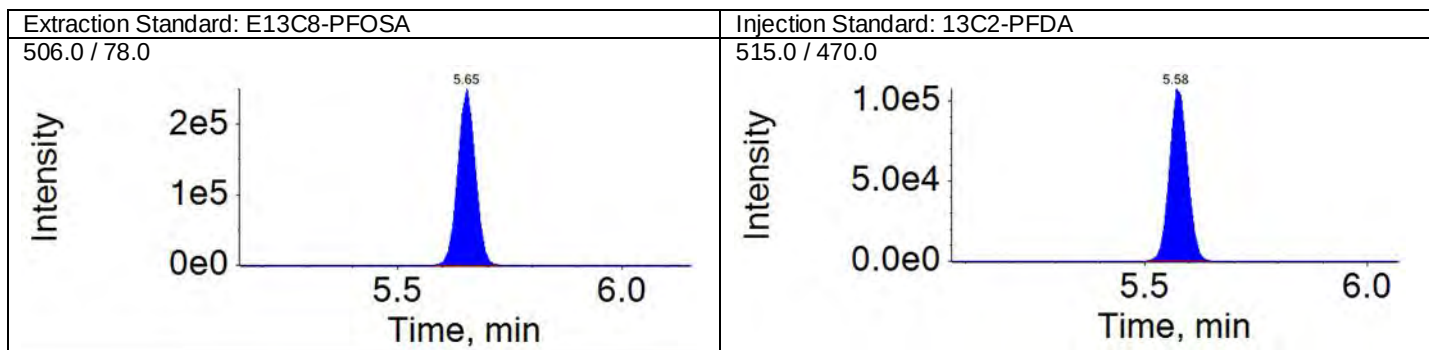
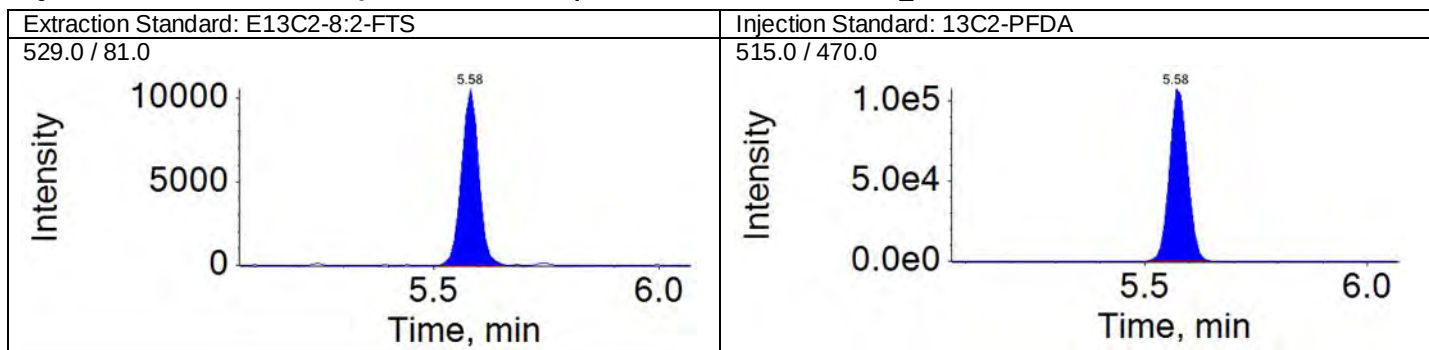
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



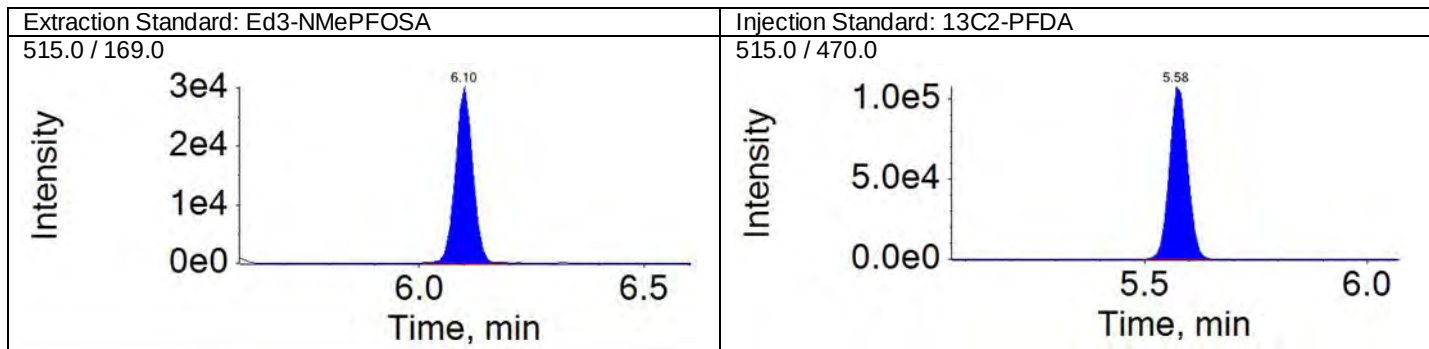
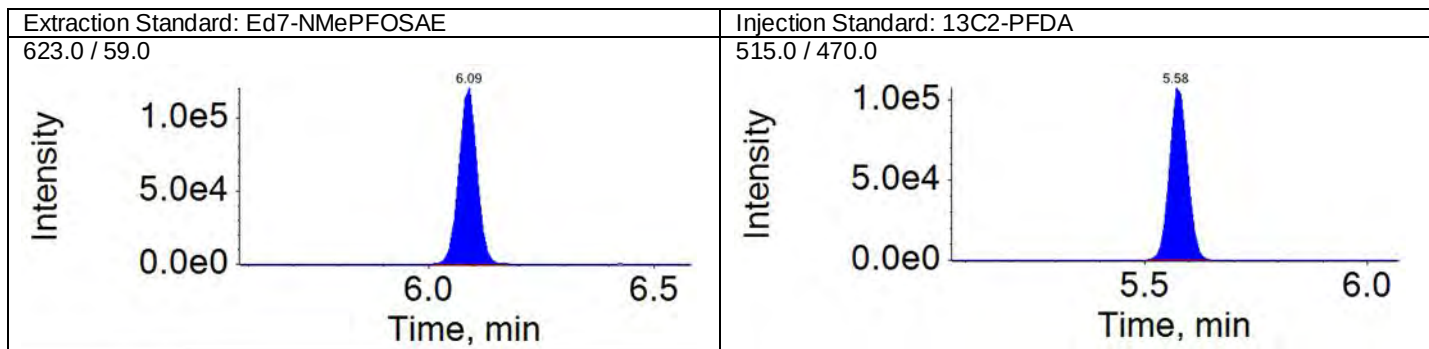
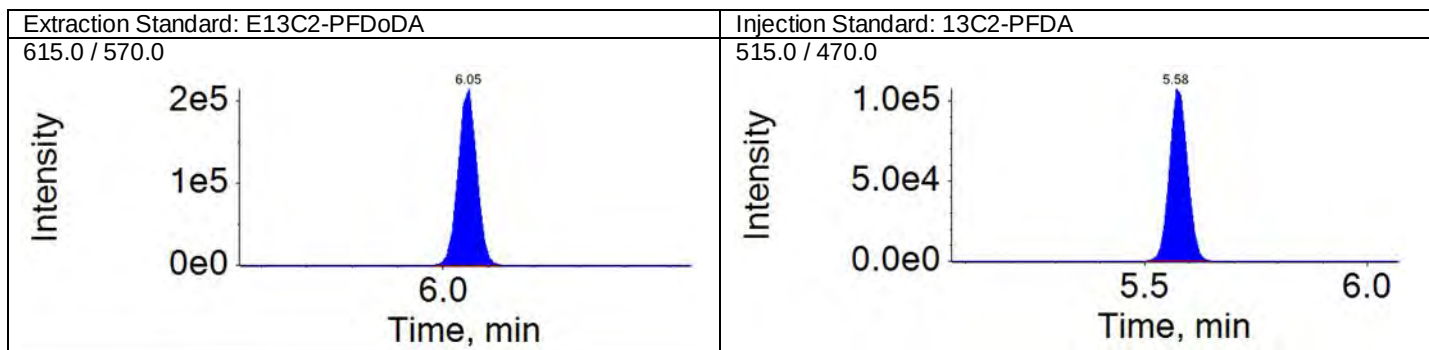
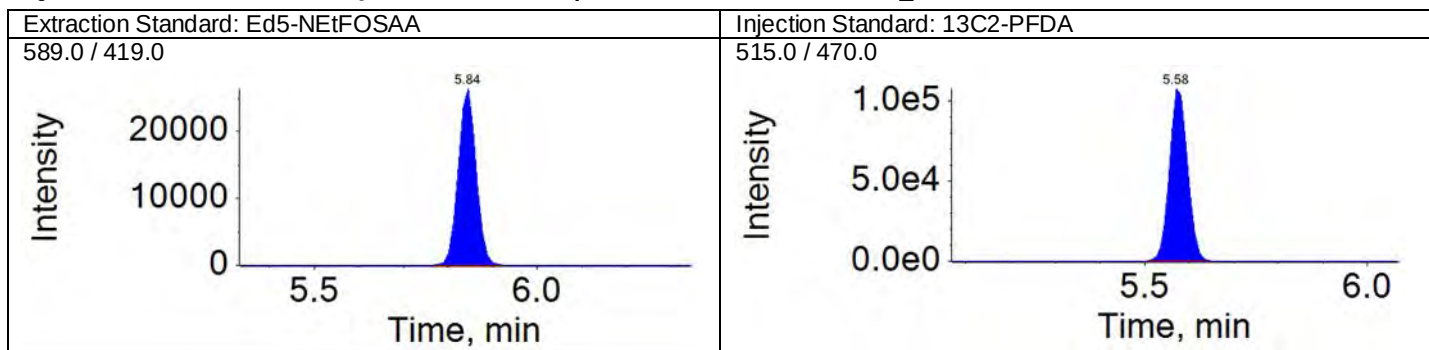
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



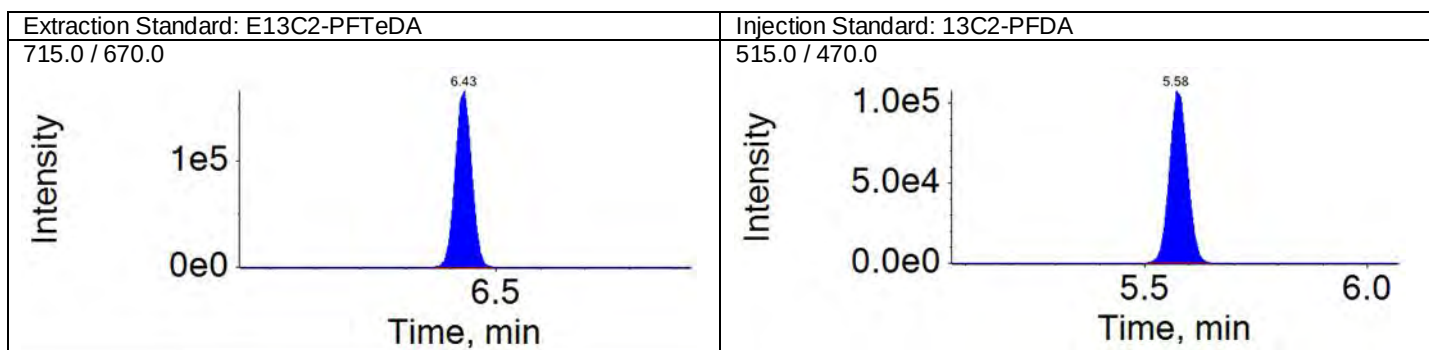
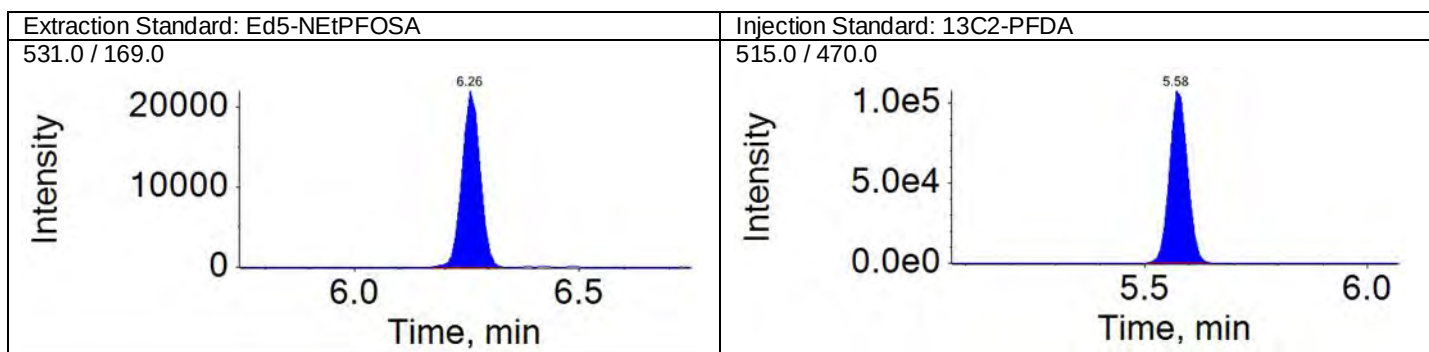
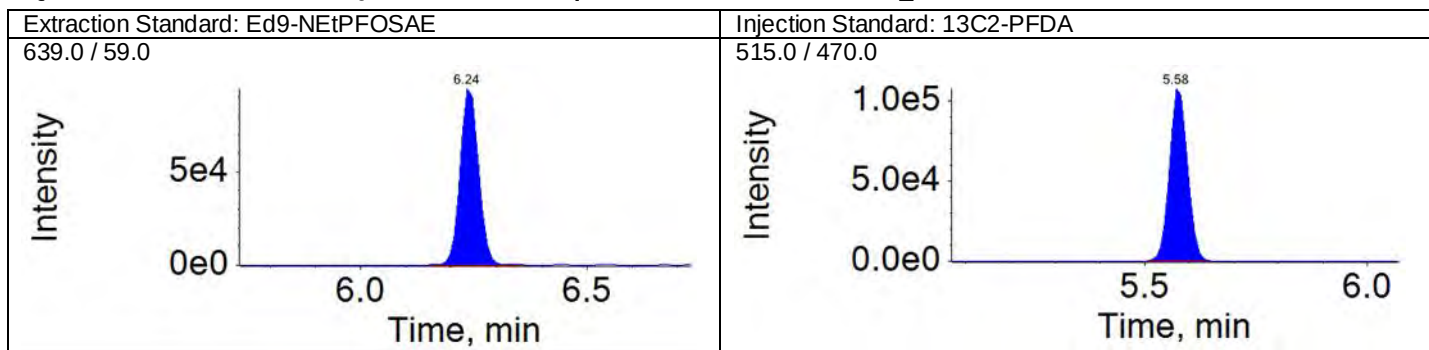
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



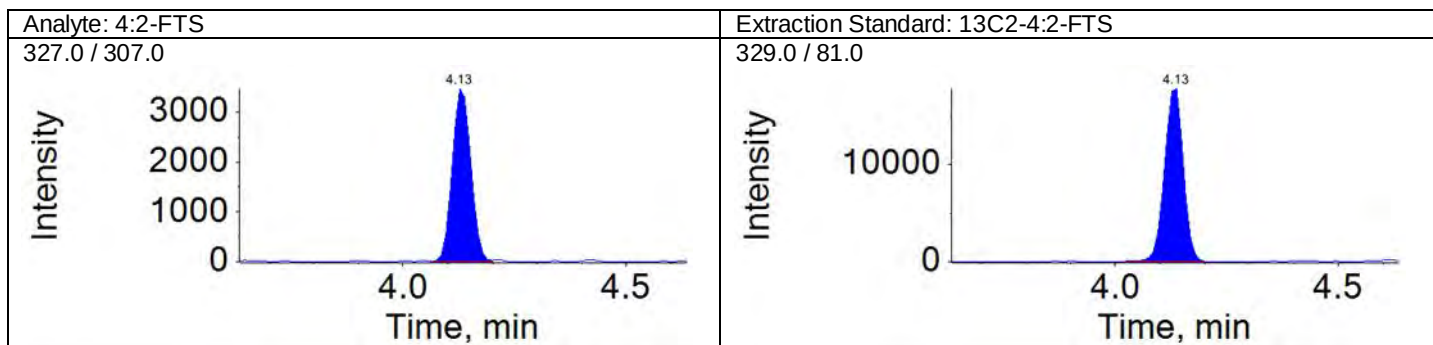
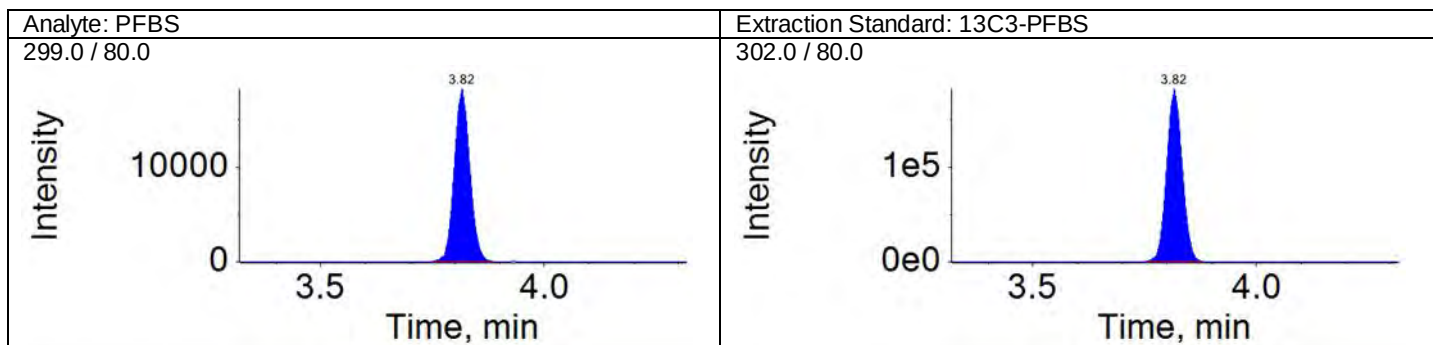
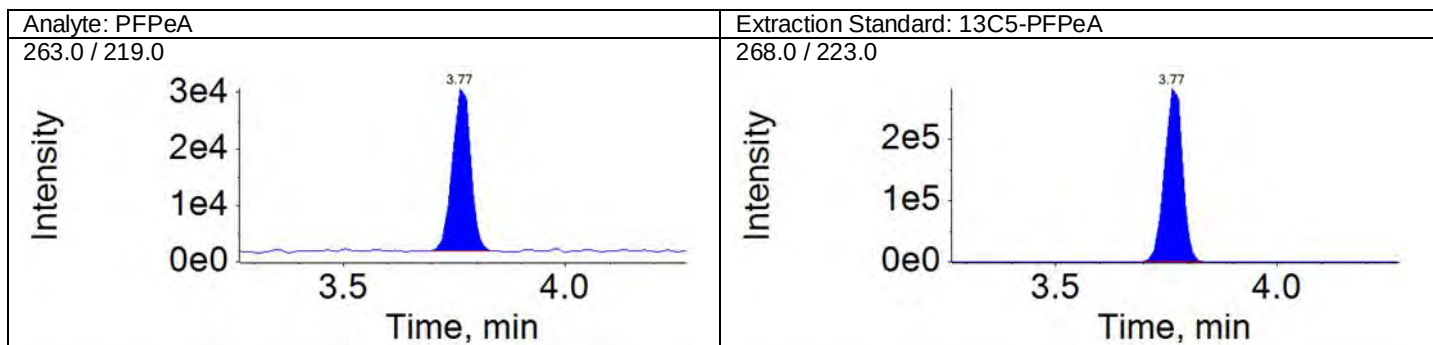
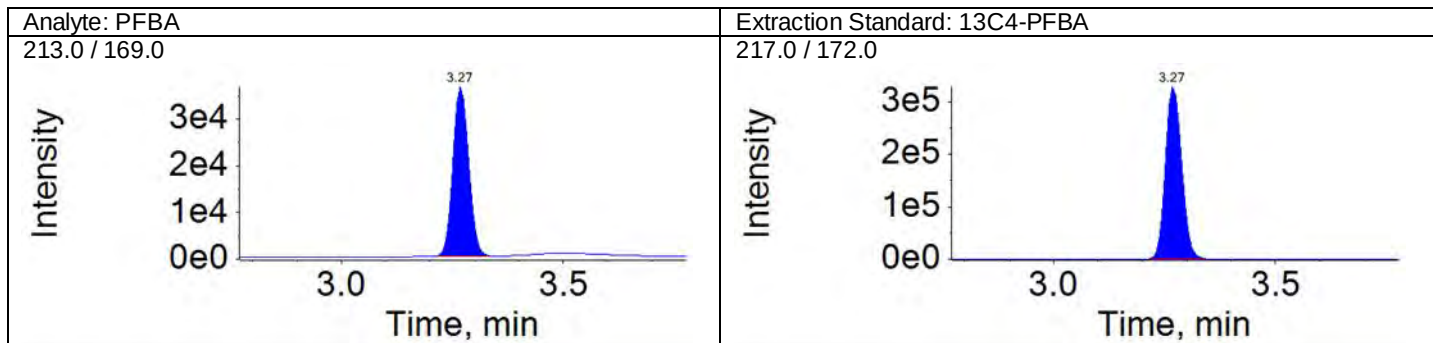
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



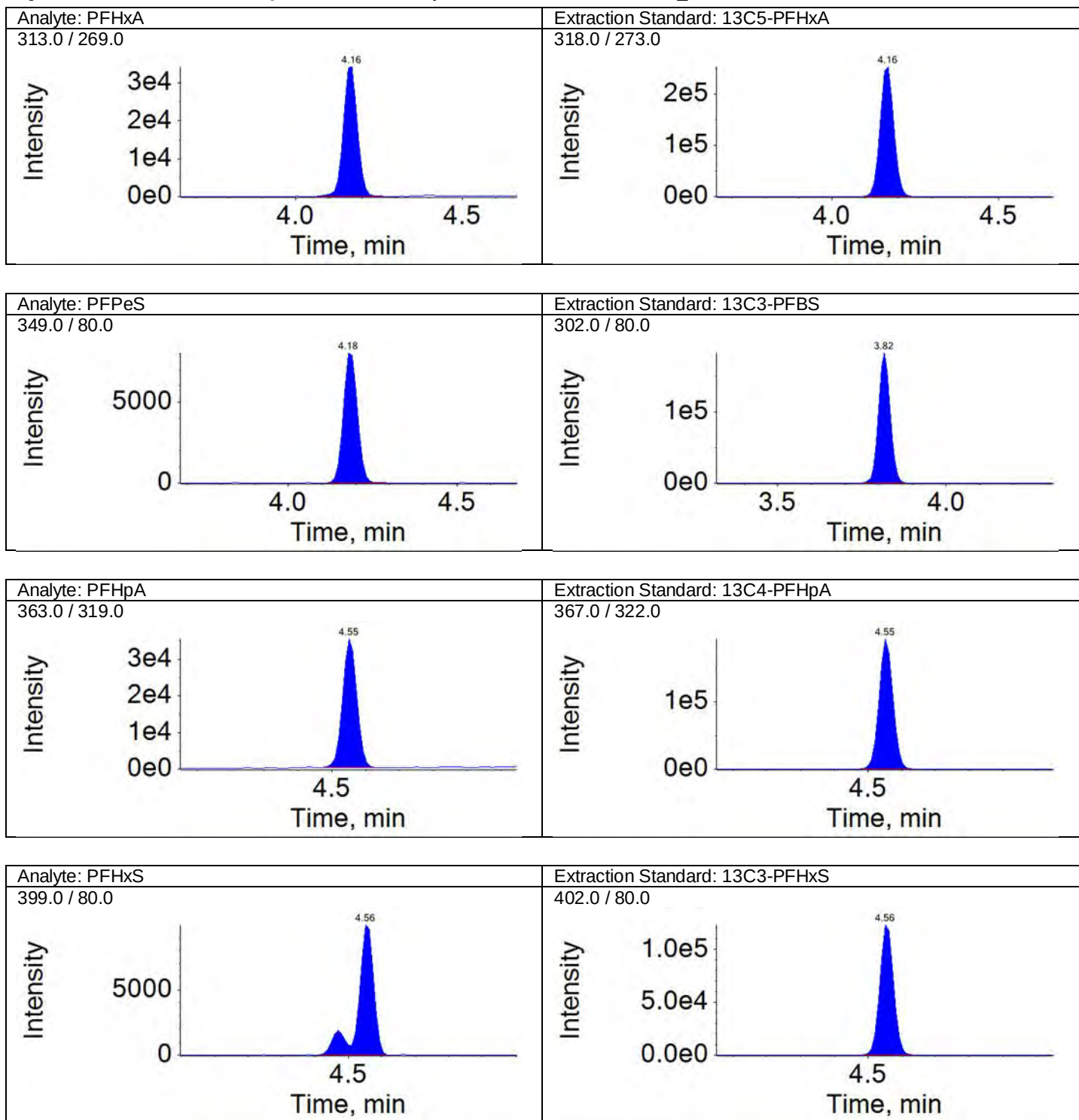
ICAL Name: 18NOV12DCAL
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Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



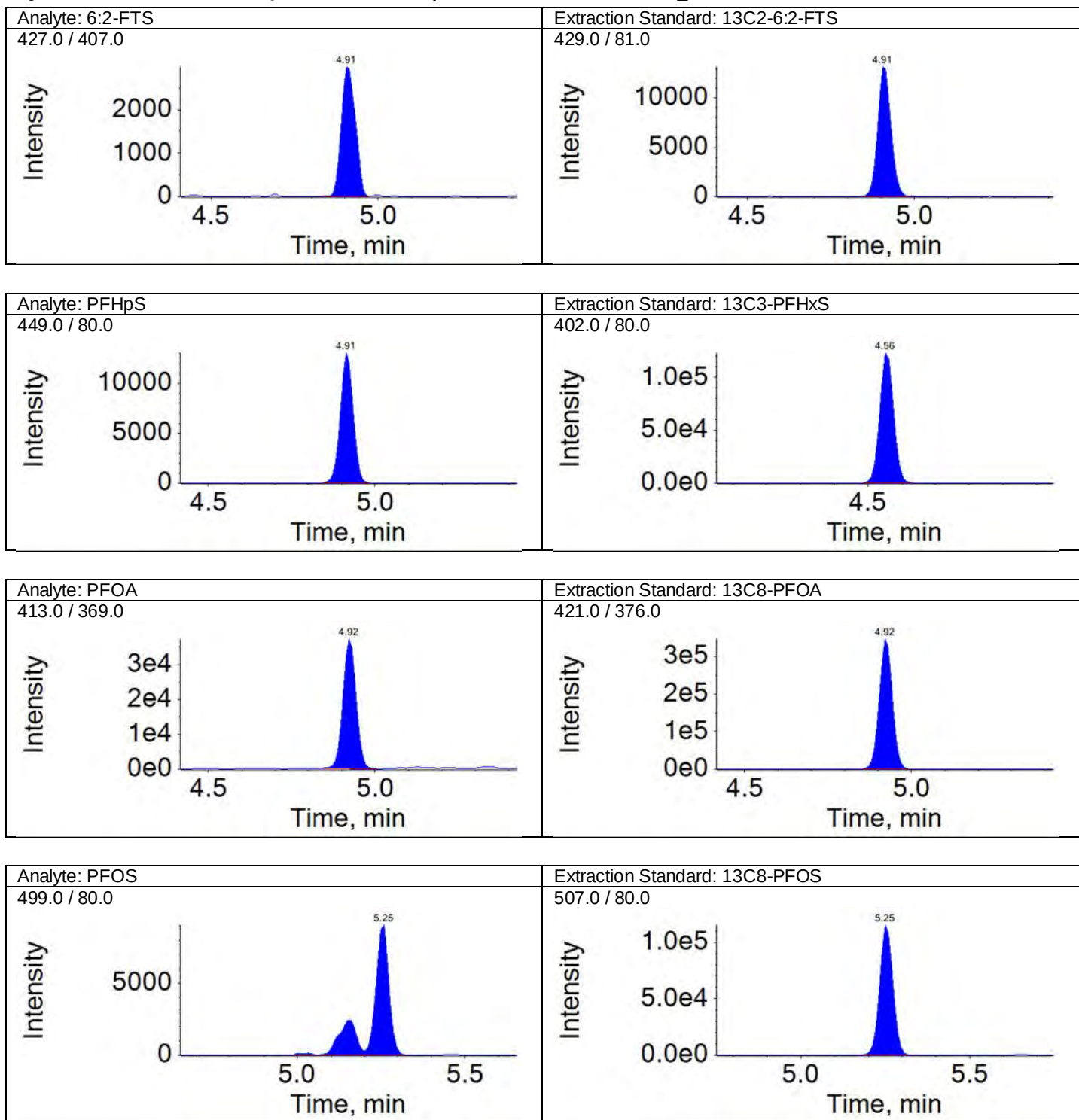
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Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



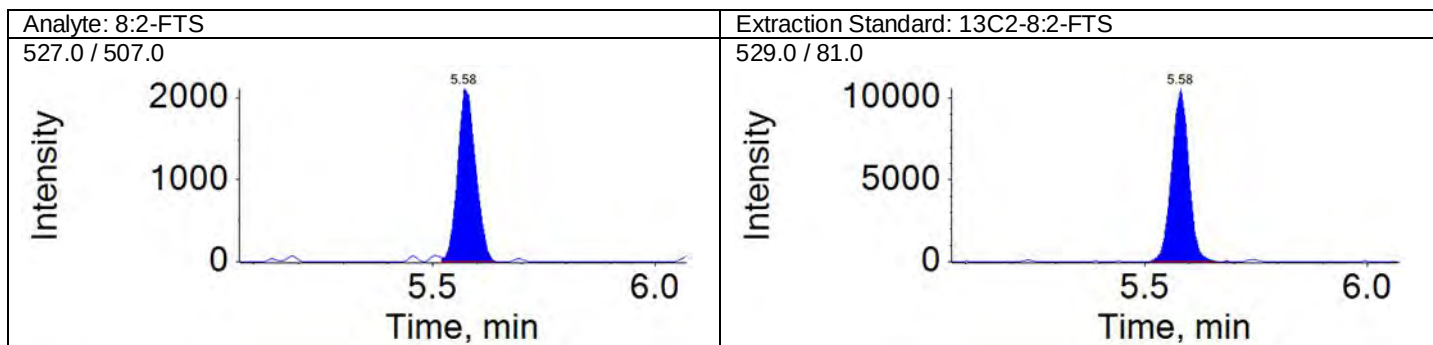
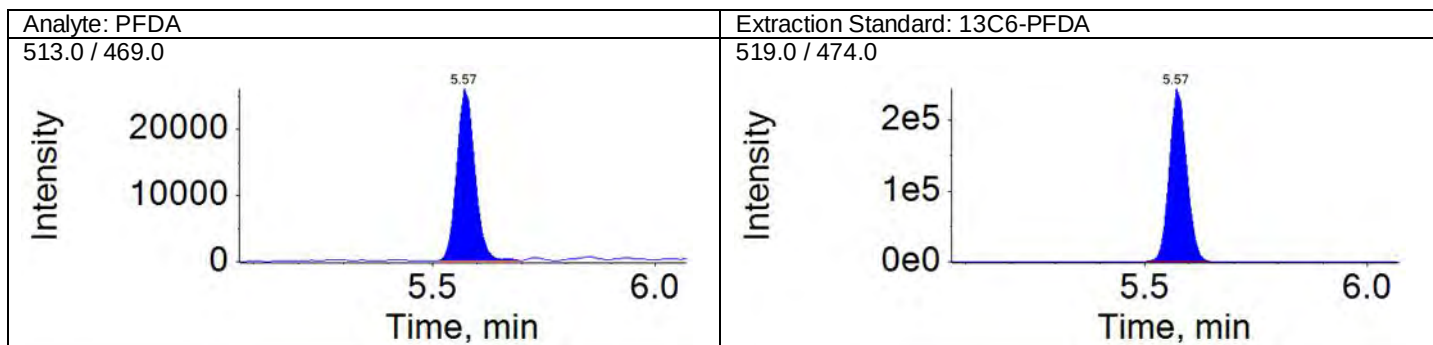
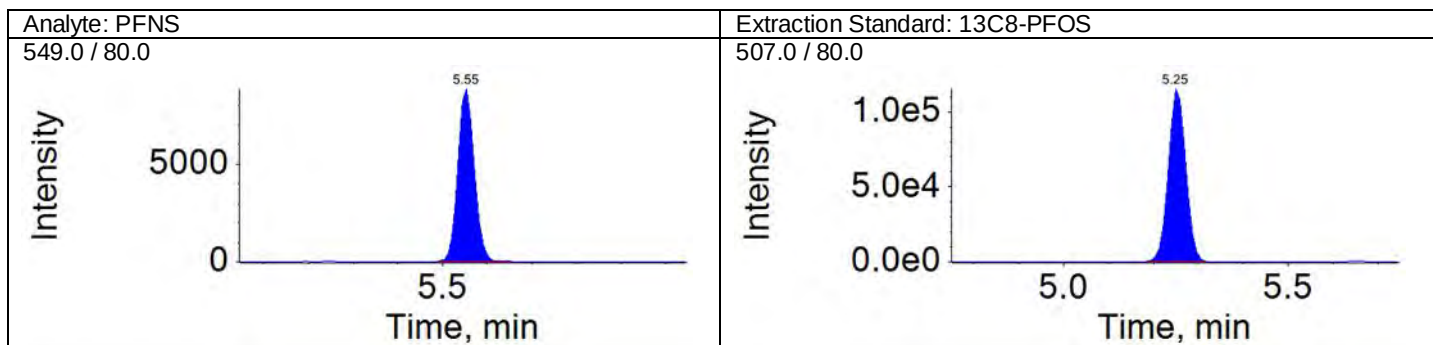
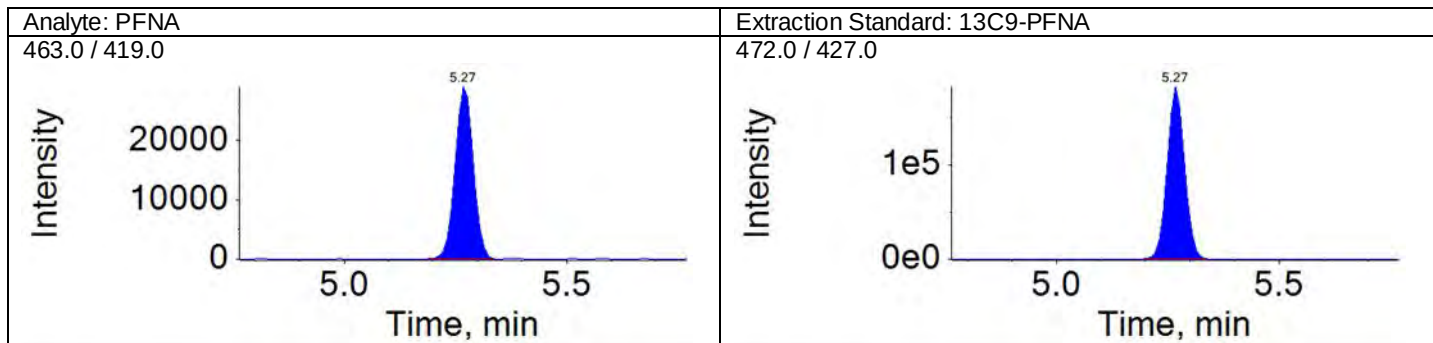
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



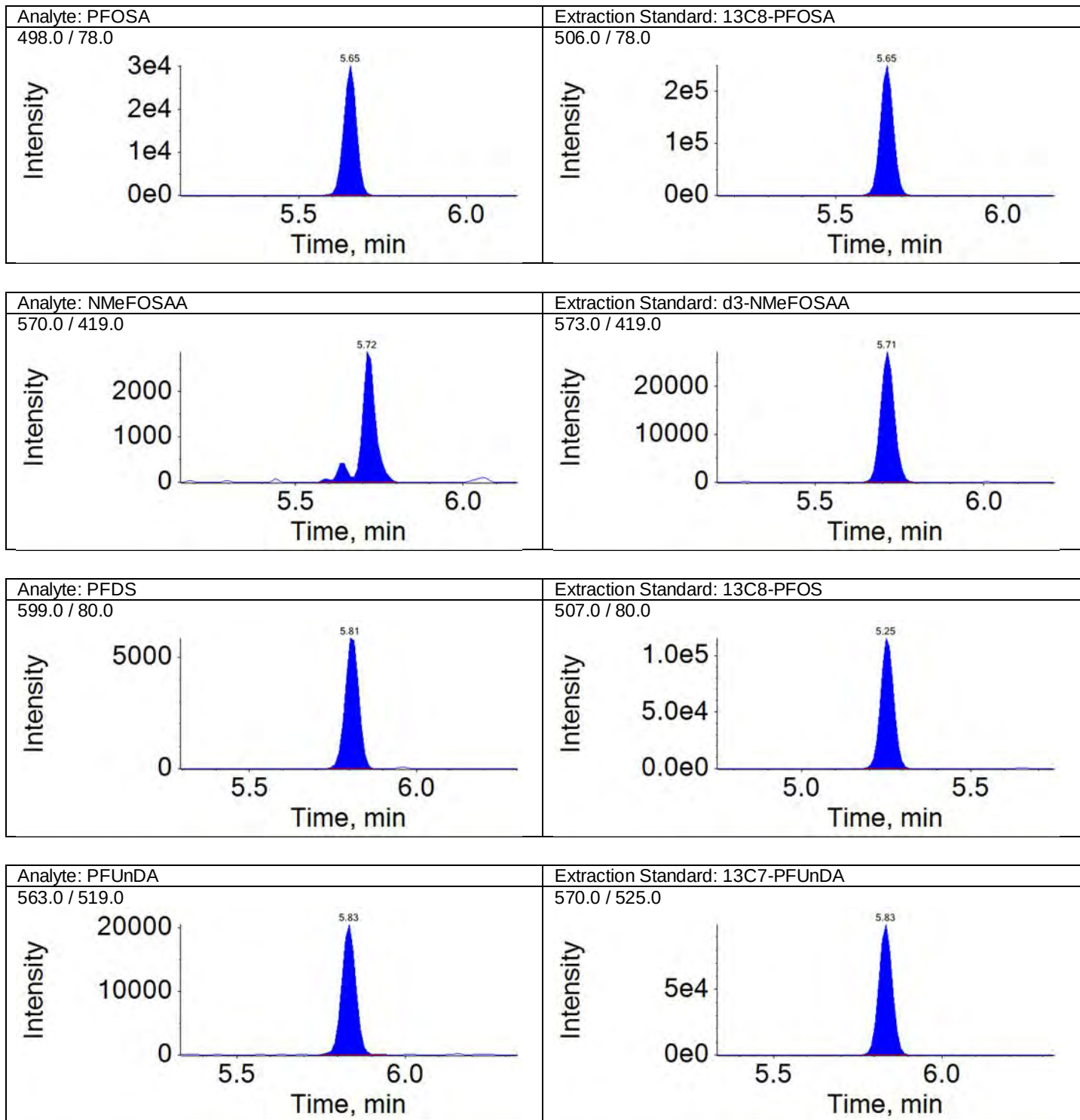
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Acquisition Method: 18AUG13_3uL.dam



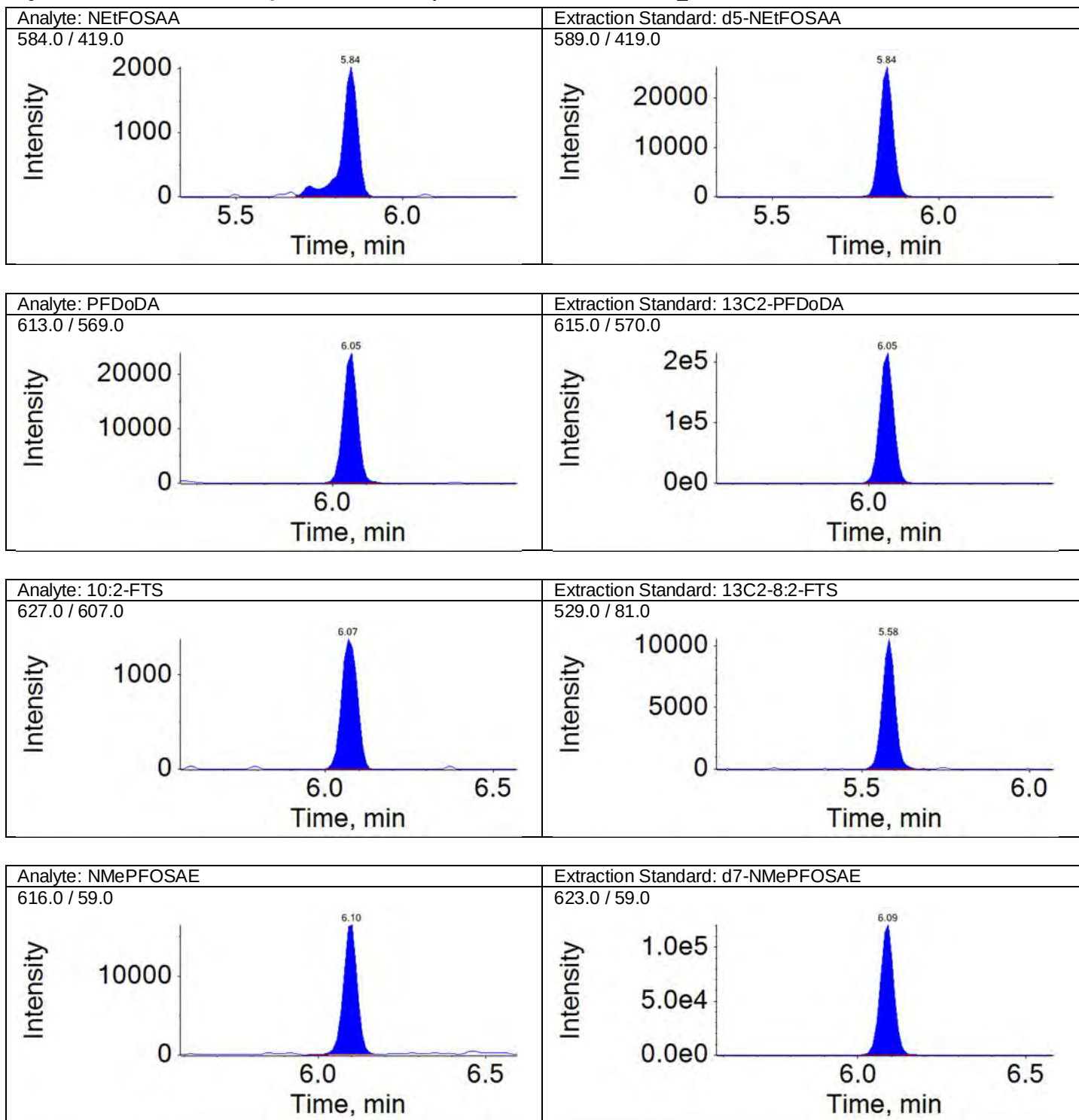
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Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



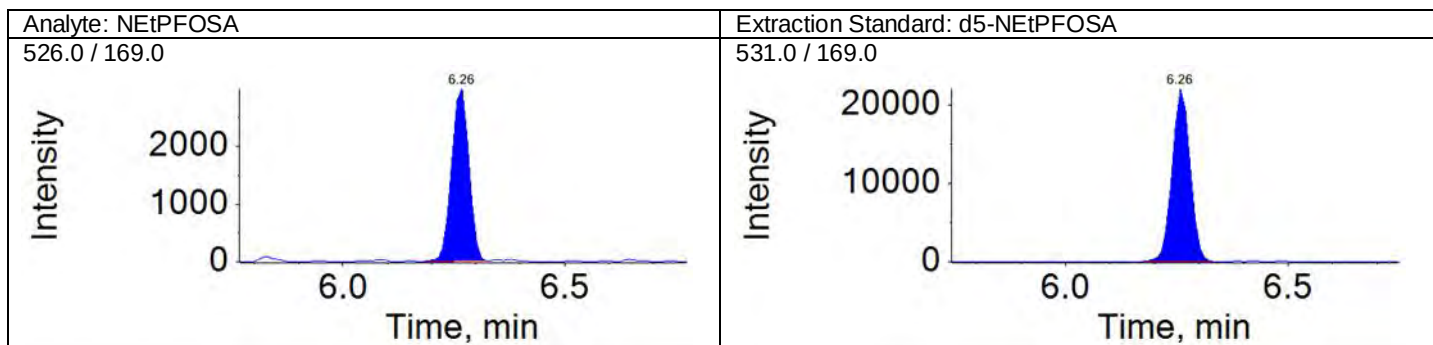
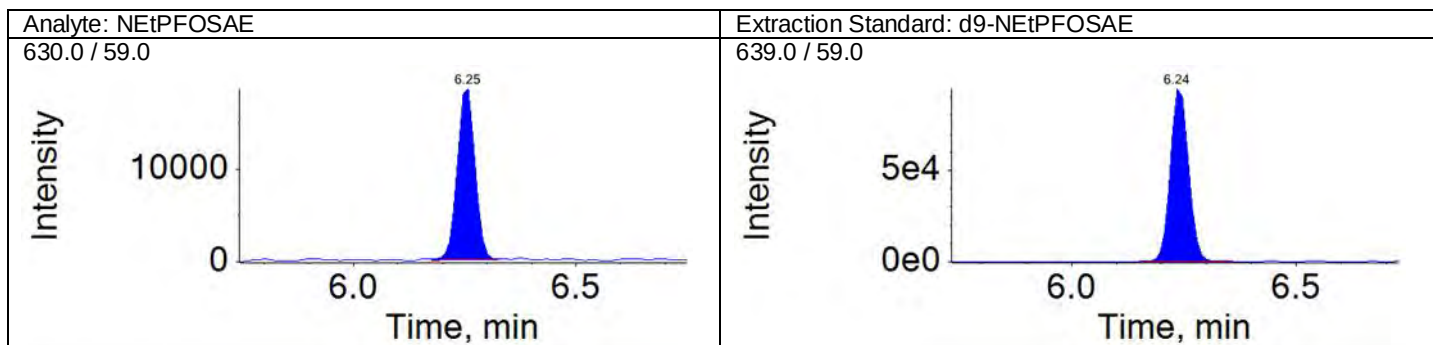
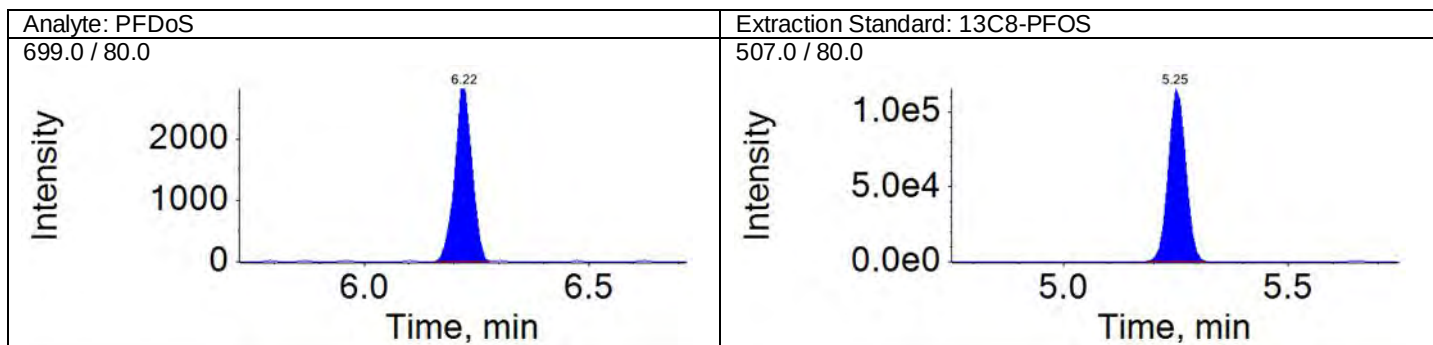
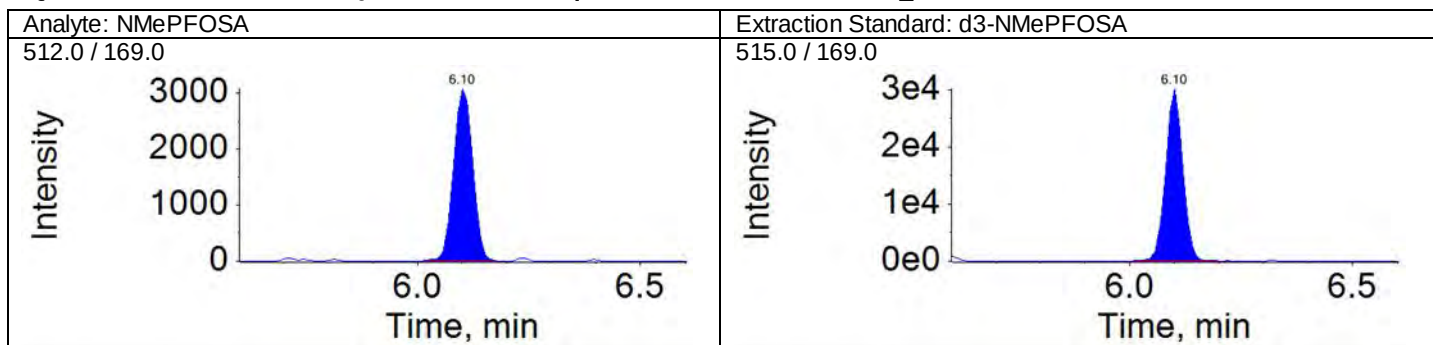
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



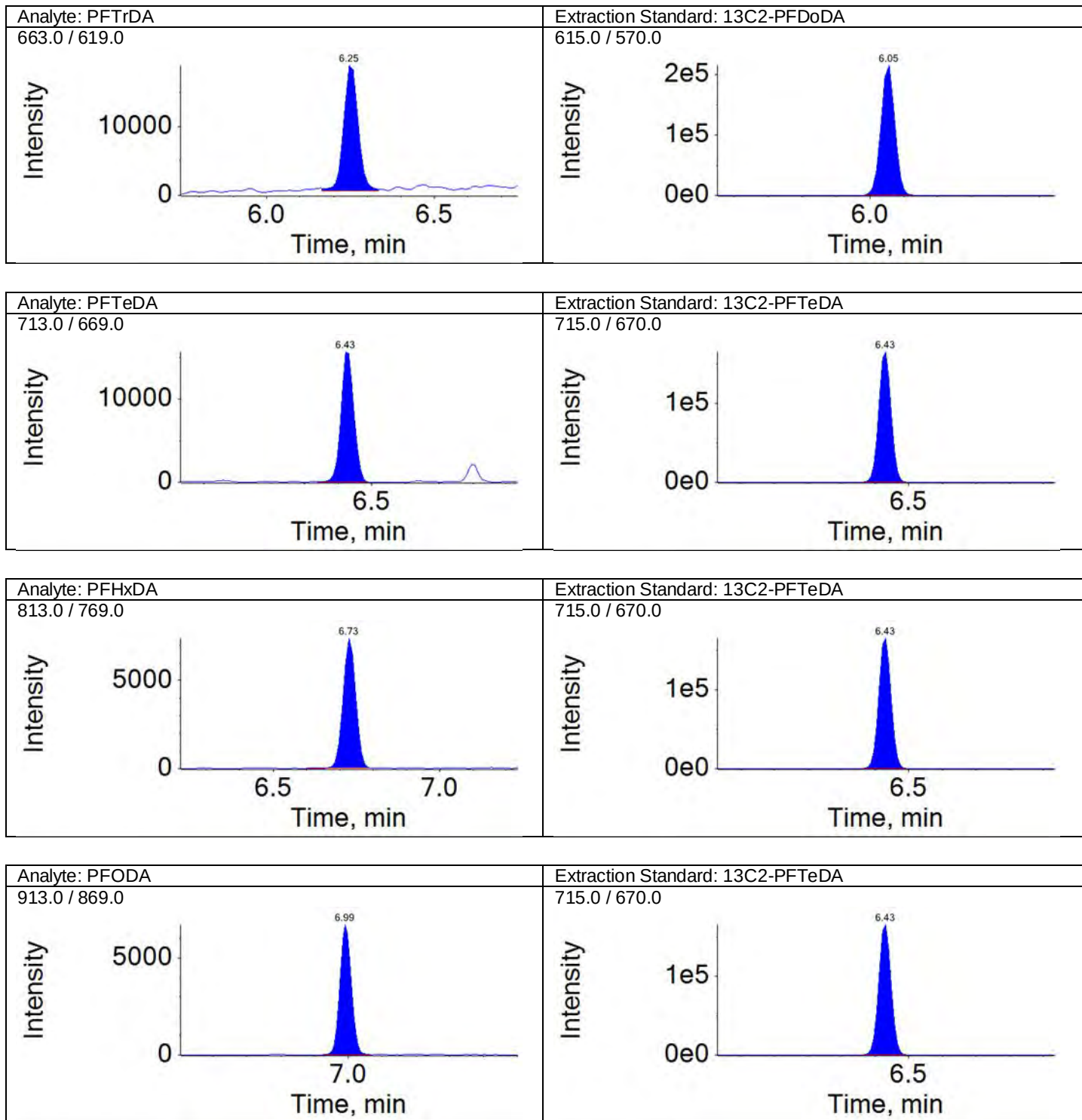
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

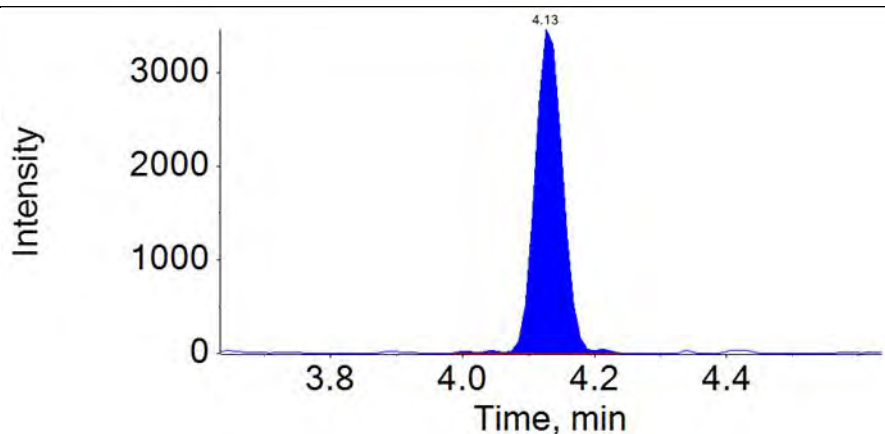
Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV15DCCV1-4
Results Table Date: 11/16/2018 8:47:00 AM

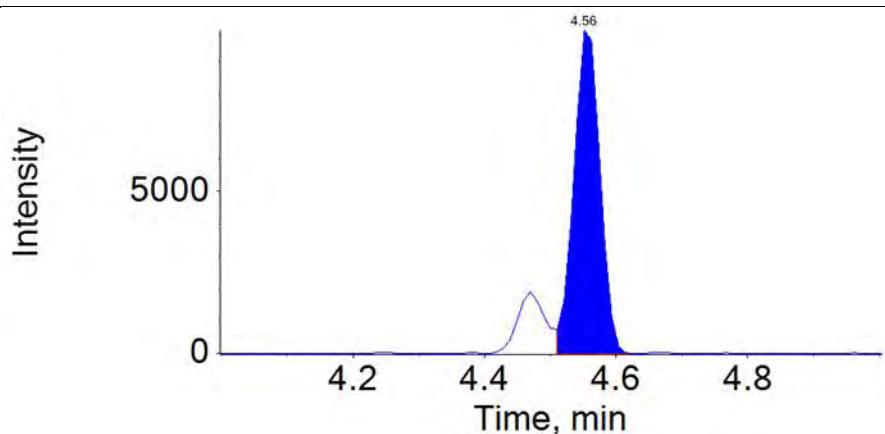
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
4:2-FTS
RT (min.):
4.13
Peak Area:
10165.0
Mass Range:
327.0 / 307.0
File Name:
18NOV15D-05.wiff
Sample Name:
CCV1_ISC_CAL2



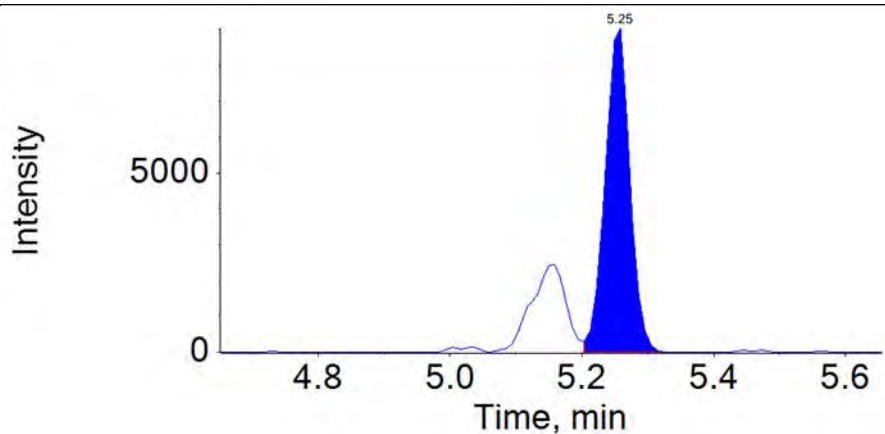
Integration Comment: incorrect integration

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
27581.5
Mass Range:
399.0 / 80.0
File Name:
18NOV15D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
23710.7
Mass Range:
499.0 / 80.0
File Name:
18NOV15D-05.wiff
Sample Name:
CCV1_ISC_CAL2

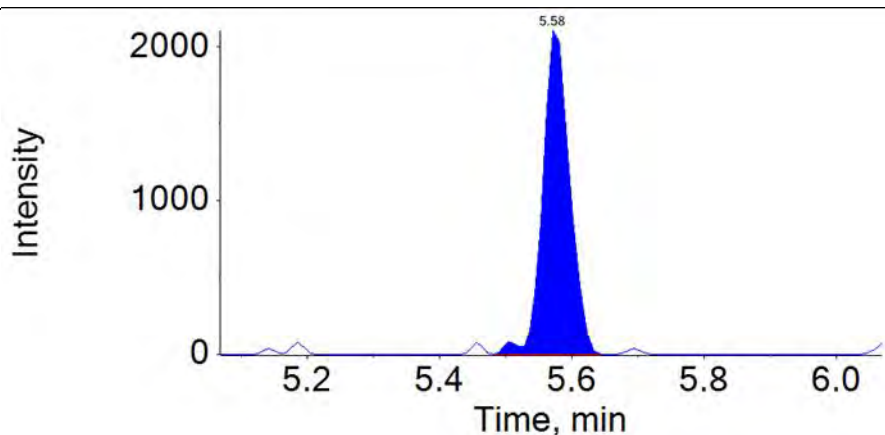


Integration Comment: incorrect integration

Results Table Name: 18NOV15DCCV1-4
Results Table Date: 11/16/2018 8:47:00 AM

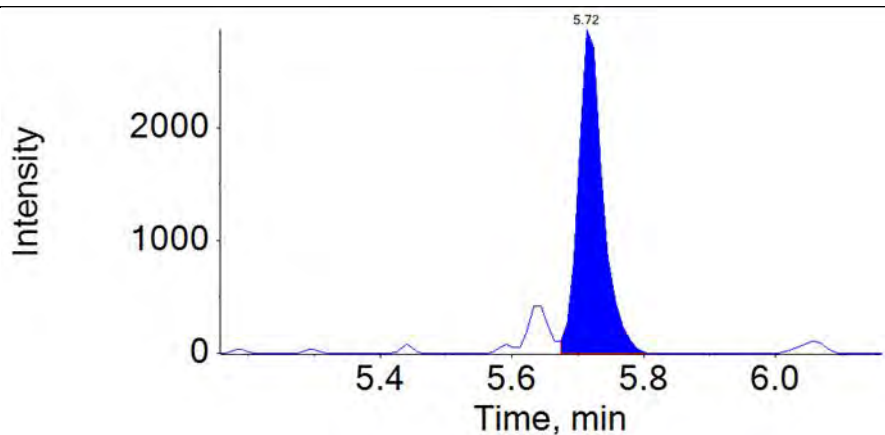
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
8:2-FTS
RT (min.):
5.58
Peak Area:
6017.4
Mass Range:
527.0 / 507.0
File Name:
18NOV15D-05.wiff
Sample Name:
CCV1_ISC_CAL2



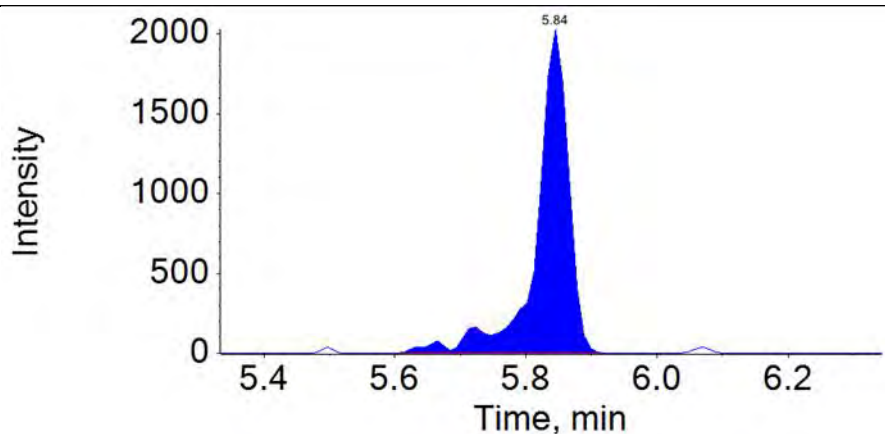
Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.72
Peak Area:
7464.3
Mass Range:
570.0 / 419.0
File Name:
18NOV15D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
NEtFOSAA
RT (min.):
5.84
Peak Area:
6975.1
Mass Range:
584.0 / 419.0
File Name:
18NOV15D-05.wiff
Sample Name:
CCV1_ISC_CAL2

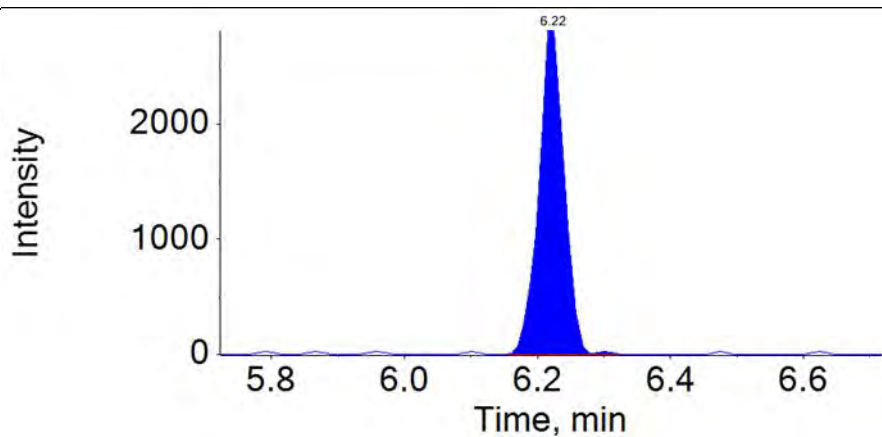


Integration Comment: incorrect integration

Results Table Name: 18NOV15DCCV1-4
Results Table Date: 11/16/2018 8:47:00 AM

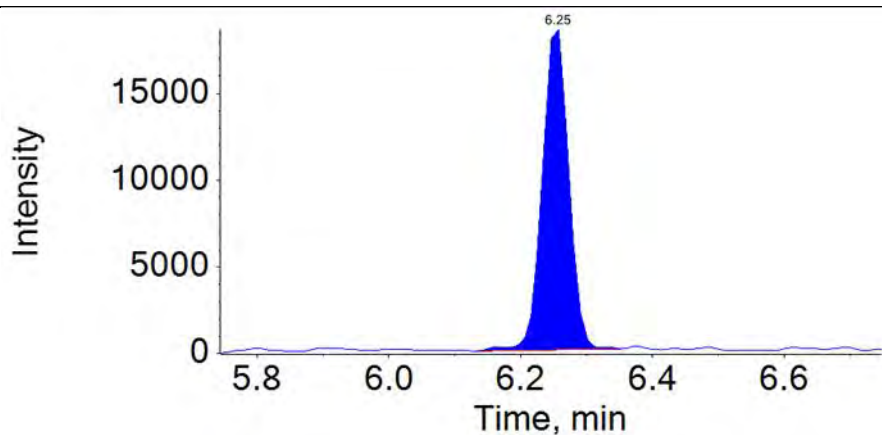
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDoS
RT (min.):
6.22
Peak Area:
7594.2
Mass Range:
699.0 / 80.0
File Name:
18NOV15D-05.wiff
Sample Name:
CCV1_ISC_CAL2



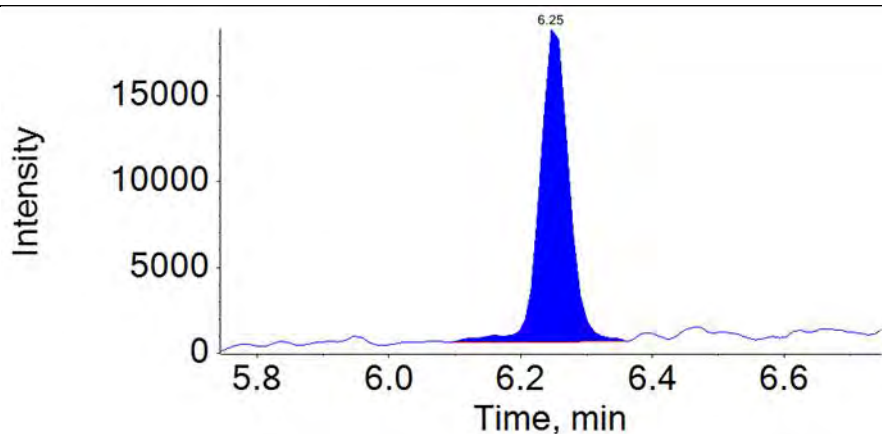
Integration Comment: incorrect integration

Component Name:
NEtPFOSAE
RT (min.):
6.25
Peak Area:
51963.9
Mass Range:
630.0 / 59.0
File Name:
18NOV15D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
PFTrDA
RT (min.):
6.25
Peak Area:
56262.0
Mass Range:
663.0 / 619.0
File Name:
18NOV15D-05.wiff
Sample Name:
CCV1_ISC_CAL2

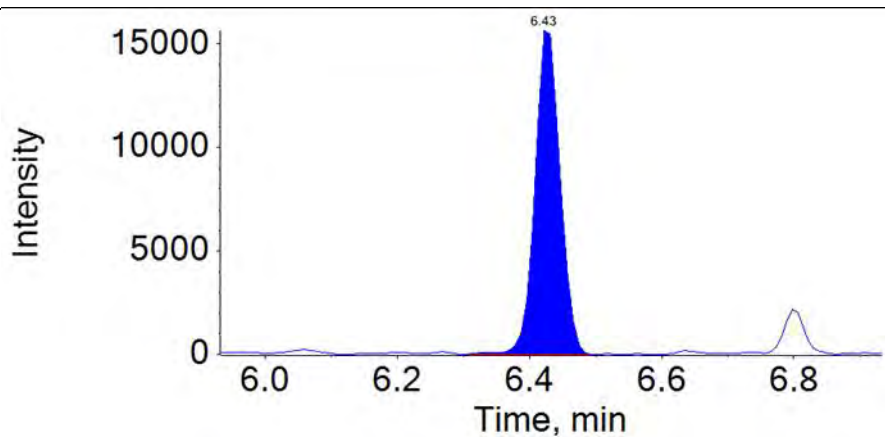


Integration Comment: incorrect integration

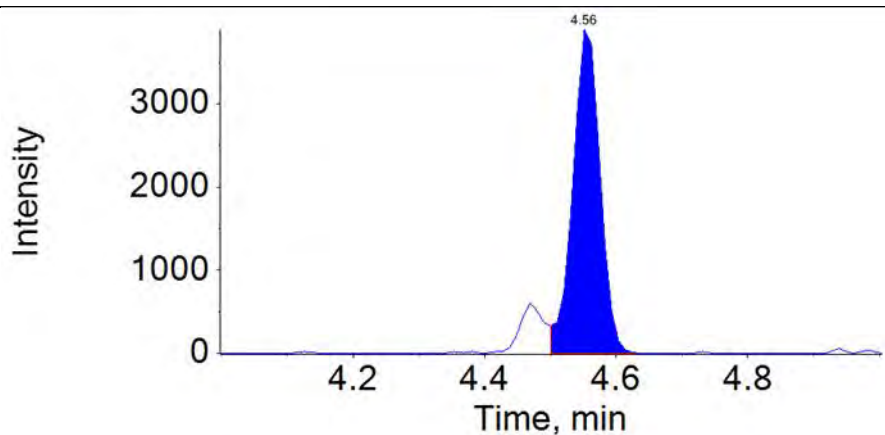
Results Table Name: 18NOV15DCCV1-4
Results Table Date: 11/16/2018 8:47:00 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

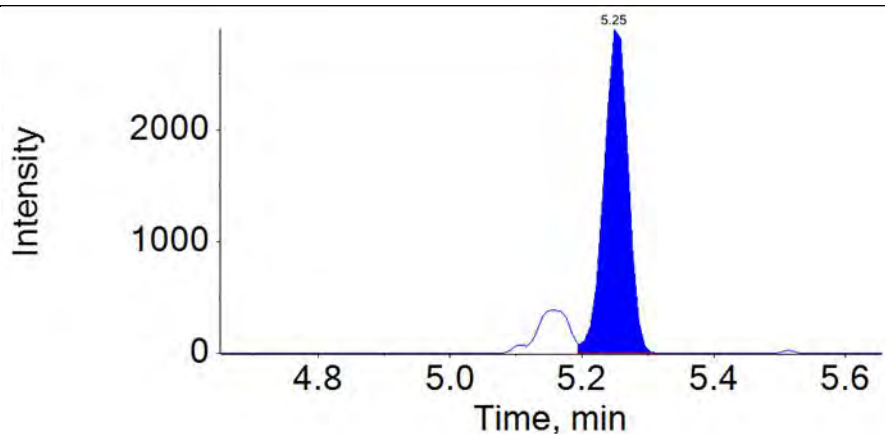
Component Name:
PFTeDA
RT (min.):
6.43
Peak Area:
41424.1
Mass Range:
713.0 / 669.0
File Name:
18NOV15D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
11251.5
Mass Range:
399.0 / 99.0
File Name:
18NOV15D-05.wiff
Sample Name:
CCV1_ISC_CAL2



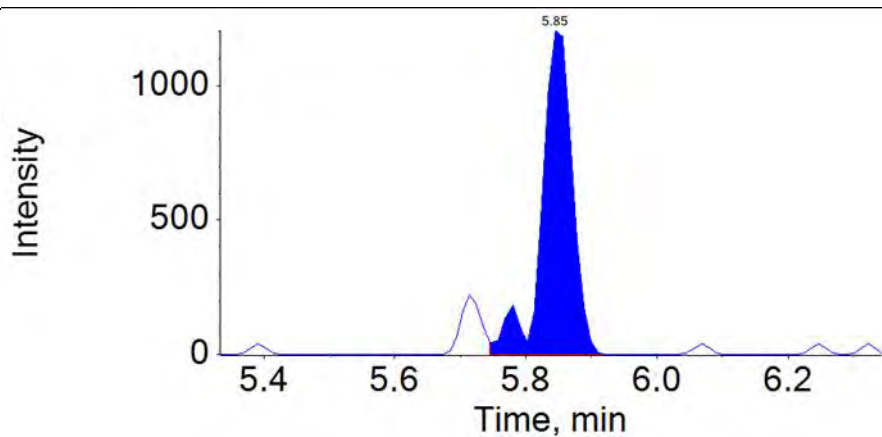
Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
7439.1
Mass Range:
499.0 / 99.0
File Name:
18NOV15D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Results Table Name: 18NOV15DCCV1-4
Results Table Date: 11/16/2018 8:47:00 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.85
Peak Area:
3974.9
Mass Range:
584.0 / 526.0
File Name:
18NOV15D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Results Table Name: 18NOV15DCCV1-4
Results Table Date: 11/16/2018 8:47:00 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By JPT at 8:56 am, 11/16/18

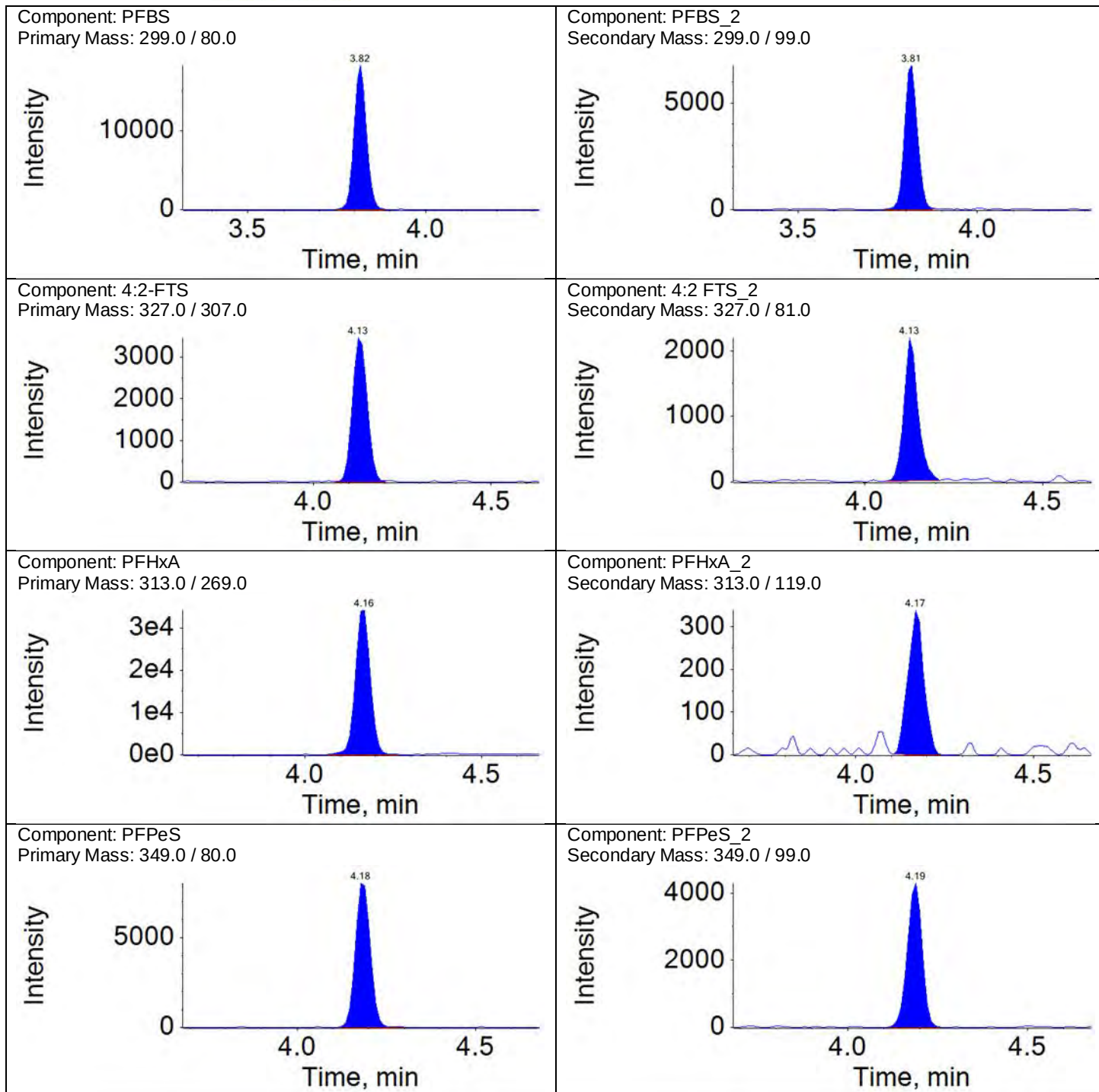
REVIEWED
By HMK at 7:38 am, 11/19/18

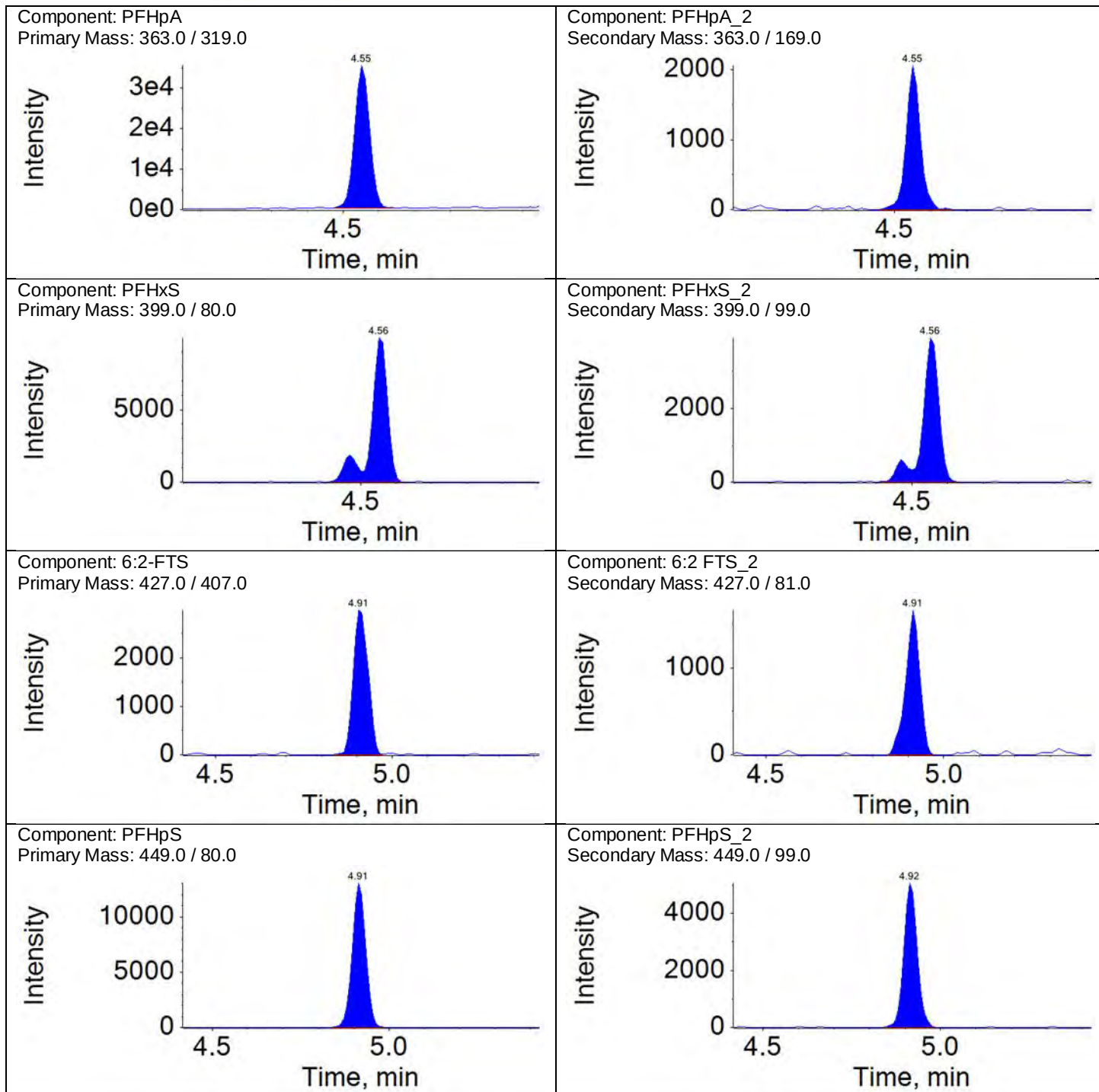
Ion Ratio Report

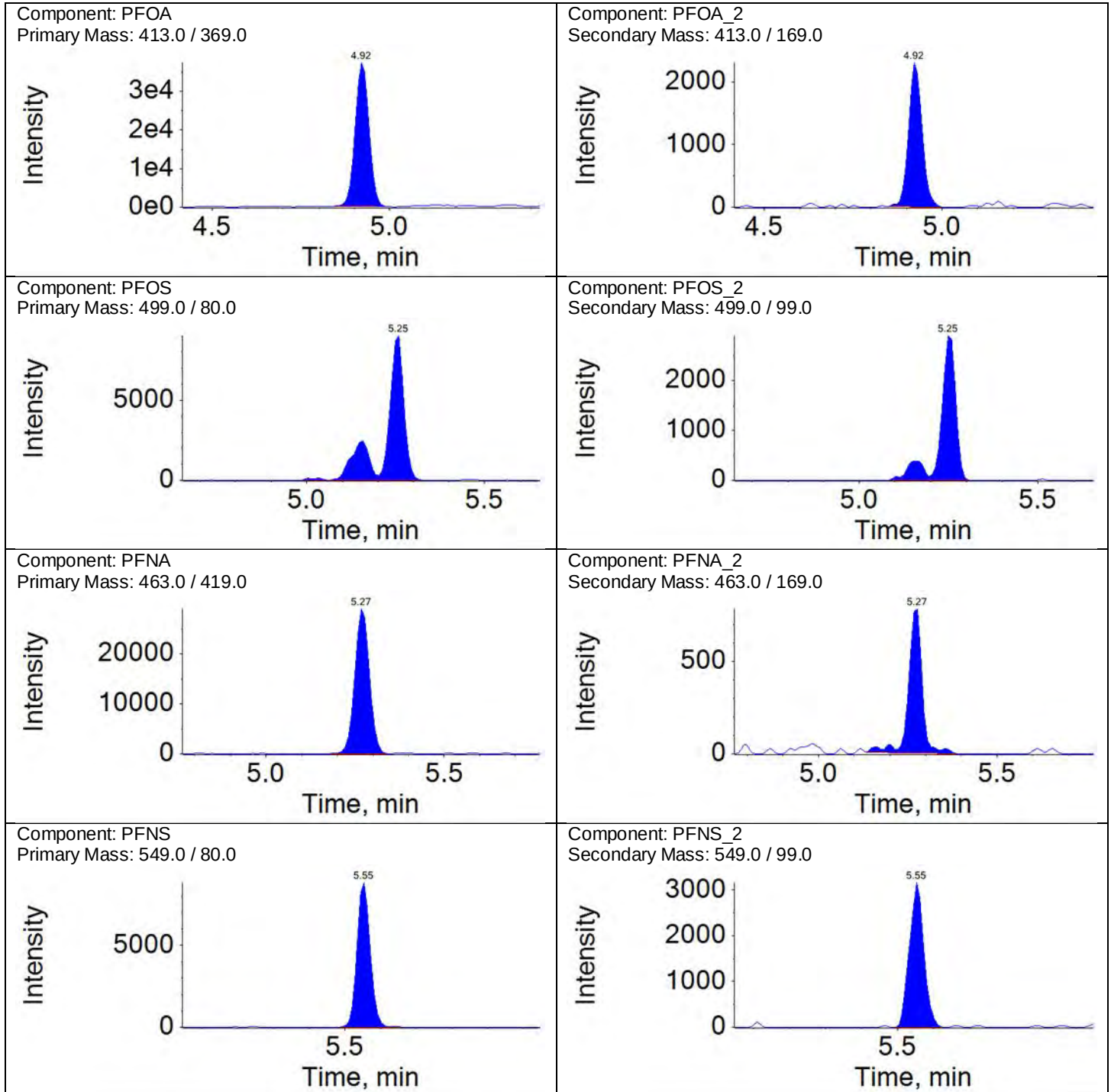
Sample Name: CCV1_ISC_CAL2 Instrument Name: LM27631

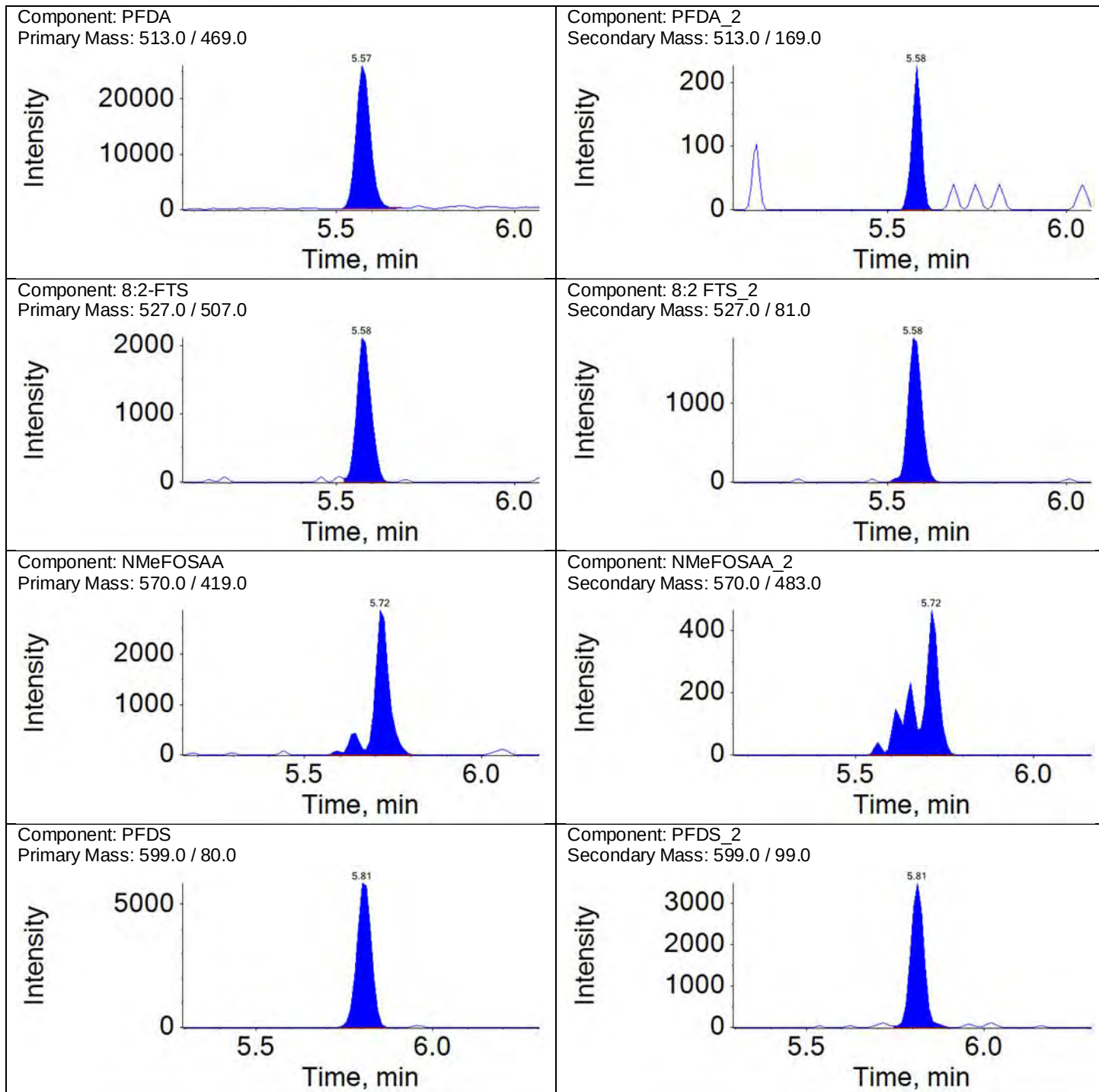
File Name: 18NOV15D-05.wiff

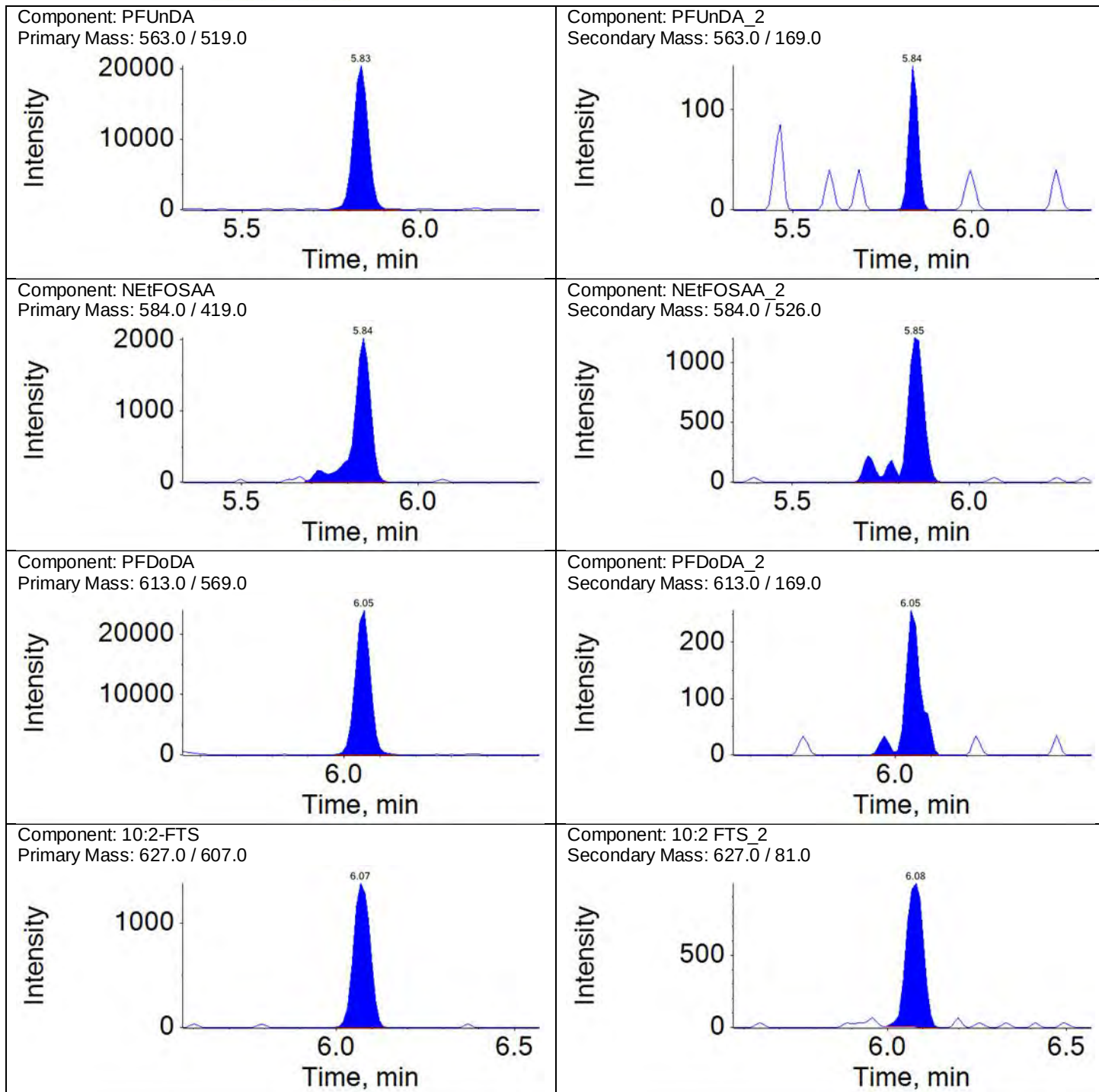
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	43949.1	A	N/A	1.0000			
PFBS_2	3.81	1.00	16763.3	A	N/A	0.3814	5	50	
4:2-FTS	4.13	1.00	10004.2	M	N/A	1.0000			
4:2 FTS_2	4.13	1.00	5937.7	A	N/A	0.5935		#NA!	
PFHxA	4.16	1.00	100146.0	A	N/A	1.0000			
PFHxA_2	4.17	1.00	1051.1	A	N/A	0.0105	-11	50	
PFPeS	4.18	1.10	23408.3	A	N/A	1.0000			
PFPeS_2	4.19	1.10	12242.3	A	N/A	0.5230	1	50	
PFHpA	4.55	1.00	102557.6	A	N/A	1.0000			
PFHpA_2	4.55	1.00	5680.1	A	N/A	0.0554	-2	50	
PFHxS	4.56	1.00	33173.1	M	N/A	1.0000			
PFHxS_2	4.56	1.00	12761.3	M	N/A	0.3847	12	50	
6:2-FTS	4.91	1.00	8730.1	A	N/A	1.0000			
6:2 FTS_2	4.91	1.00	4596.8	A	N/A	0.5265		#NA!	
PFHpS	4.91	1.08	34554.4	A	N/A	1.0000			
PFHpS_2	4.92	1.08	13298.6	A	N/A	0.3849	-5	50	
PFOA	4.92	1.00	101483.1	A	N/A	1.0000			
PFOA_2	4.92	1.00	6066.4	A	N/A	0.0598	5	50	
PFOS	5.25	1.00	33155.1	M	N/A	1.0000			
PFOS_2	5.25	1.00	8776.7	M	N/A	0.2647	-11	50	
PFNA	5.27	1.00	82368.1	A	N/A	1.0000			
PFNA_2	5.27	1.00	2107.4	A	N/A	0.0256	13	50	
PFNS	5.55	1.06	22643.7	A	N/A	1.0000			
PFNS_2	5.55	1.06	8812.1	A	N/A	0.3892	-18	50	
PFDA	5.57	1.00	72511.4	A	N/A	1.0000			
PFDA_2	5.58	1.00	406.5	A	N/A	0.0056	-29	50	
8:2-FTS	5.58	1.00	5899.7	M	N/A	1.0000			
8:2 FTS_2	5.58	1.00	4890.0	A	N/A	0.8289		#NA!	
NMeFOSAA	5.72	1.00	8526.2	M	N/A	1.0000			
NMeFOSAA_2	5.72	1.00	1811.6	A	N/A	0.2125	-18	50	
PFDS	5.81	1.11	16839.4	A	N/A	1.0000			
PFDS_2	5.81	1.11	8965.0	A	N/A	0.5324	5	50	
PFUnDA	5.83	1.00	58763.0	A	N/A	1.0000			
PFUnDA_2	5.84	1.00	259.6	A	N/A	0.0044	-20	50	
NEtFOSAA	5.84	1.00	6799.8	M	N/A	1.0000			
NEtFOSAA_2	5.85	1.00	4445.0	M	N/A	0.6537	-9	50	
PFDODA	6.05	1.00	69810.9	A	N/A	1.0000			
PFDODA_2	6.05	1.00	789.4	A	N/A	0.0113	-27	50	
10:2-FTS	6.07	1.09	4486.1	A	N/A	1.0000			
10:2 FTS_2	6.08	1.09	3329.2	A	N/A	0.7421		#NA!	
PFTTrDA	6.25	1.03	54960.7	M	N/A	1.0000			
PFTTrDA_2	6.25	1.03	610.1	A	N/A	0.0111	30	50	
PFTeDA	6.43	1.00	41384.0	M	N/A	1.0000			
PFTeDA_2	6.42	1.00	242.3	A	N/A	0.0059	-6	50	
PFHxDA	6.73	1.05	19352.2	A	N/A	1.0000			
PFHxDA_2	6.73	1.05	1411.7	A	N/A	0.0729	8	50	
PFODA	6.99	1.09	15579.3	A	N/A	1.0000			
PFODA_2	6.99	1.09	436.2	A	N/A	0.0280	2	50	

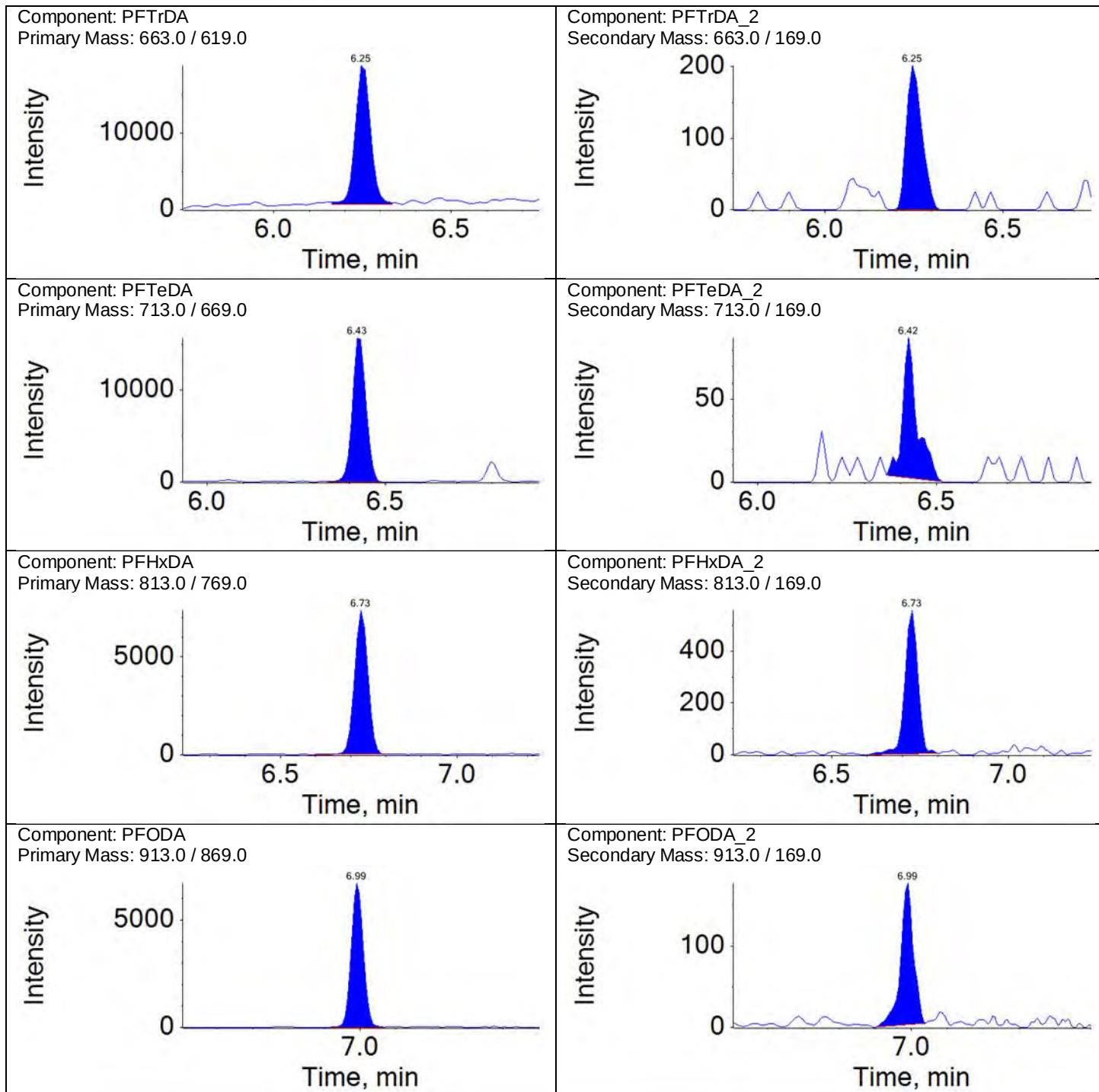












ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	INBLK	Data File:	18NOV15D-06.wiff
Sample ID:	methanol + labels	Acquis Date:	2018-11-15T12:48:12
Sample Type:	Unknown	Instrument:	LM27631
Vial Position:	1	Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00	Result Table:	18NOV15DCCV1-4
QMethod File:	18AUG20QM	ICAL Name:	18NOV12DCAL
Batch Number:	N/A	Operator:	JPT12262
Sample Wt.:	1.00000	Dilution Factor:	1.00
Sample Vol.:	1.000	Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV15D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	752690.7	732179.1	3	50	
13C2-PFOA	5.0	524540.4	479663.2	9	50	
13C4-PFOS	4.8	277209.8	269685.3	3	50	
13C2-PFDA	5.0	320842.0	302309.9	6	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	846144.3	13C3-PFBA	752690.7	1.124	5.000	5.040	101	70-130	
E13C5-PFPeA	794384.0	13C3-PFBA	752690.7	1.055	5.000	4.734	95	70-130	
E13C3-PFBS	498508.5	13C3-PFBA	752690.7	0.662	4.650	4.675	101	70-130	
E13C2-4:2-FTS	54878.9	13C2-PFOA	524540.4	0.105	4.670	4.660	100	70-130	
E13C5-PFHxA	710258.0	13C2-PFOA	524540.4	1.354	5.000	4.891	98	70-130	
E13C3-PFHxS	363590.9	13C2-PFOA	524540.4	0.693	4.730	4.756	101	70-130	
E13C4-PFHpA	564796.4	13C2-PFOA	524540.4	1.077	5.000	4.851	97	70-130	
E13C2-6:2-FTS	40761.5	13C2-PFOA	524540.4	0.078	4.750	5.199	109	70-130	
E13C8-PFOA	982107.7	13C2-PFOA	524540.4	1.872	5.000	5.158	103	70-130	
E13C8-PFOS	296151.8	13C4-PFOS	277209.8	1.068	4.780	4.734	99	70-130	
E13C9-PFNA	505858.8	13C4-PFOS	277209.8	1.825	5.000	5.088	102	70-130	
E13C6-PFDA	706781.0	13C2-PFDA	320842.0	2.203	5.000	5.141	103	70-130	
E13C2-8:2-FTS	29281.7	13C2-PFDA	320842.0	0.091	4.790	4.552	95	70-130	
E13C8-PFOSA	717711.5	13C2-PFDA	320842.0	2.237	5.000	4.959	99	70-130	
Ed3-NMeFOSAA	82084.3	13C2-PFDA	320842.0	0.256	5.000	4.618	92	70-130	
E13C7-PFUnDA	288799.8	13C2-PFDA	320842.0	0.900	5.000	5.226	105	70-130	
Ed5-NEtFOSAA	67339.9	13C2-PFDA	320842.0	0.210	5.000	4.440	89	70-130	
E13C2-PFDoDA	596655.3	13C2-PFDA	320842.0	1.860	5.000	4.828	97	70-130	
Ed7-NMePFOSAE	360623.2	13C2-PFDA	320842.0	1.124	5.000	4.864	97	70-130	
Ed3-NMePFOSA	79780.5	13C2-PFDA	320842.0	0.249	5.000	4.518	90	70-130	
Ed9-NEtPFOSAE	293338.6	13C2-PFDA	320842.0	0.914	5.000	4.755	95	70-130	
Ed5-NEtPFOSA	63584.6	13C2-PFDA	320842.0	0.198	5.000	4.649	93	70-130	
E13C2-PFTeDA	458603.0	13C2-PFDA	320842.0	1.429	5.000	5.018	100	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: INBLK

Instrument Name: LM27631

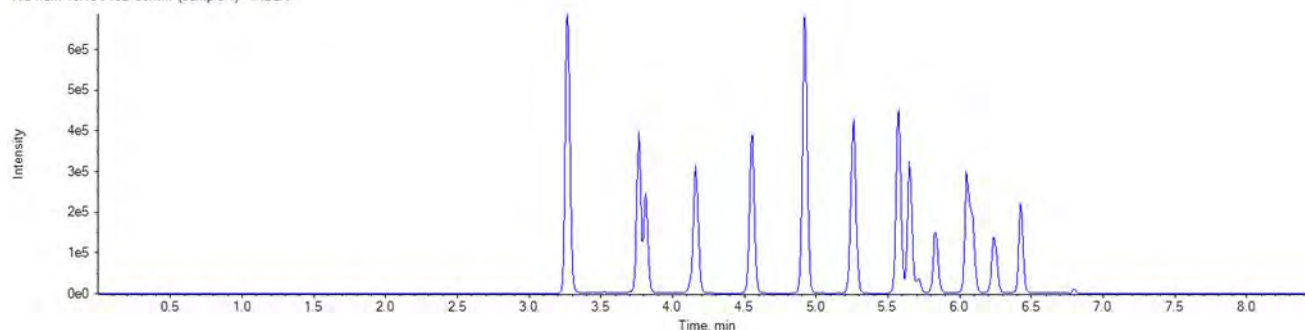
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	846144.3	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	794384.0	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	498508.5	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.13	54878.9	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	710258.0	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	498508.5	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	564796.4	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	363590.9	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.91	40761.5	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	363590.9	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	982107.7	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.25	296151.8	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.27	505858.8	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.25	296151.8	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.57	706781.0	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.58	29281.7	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	717711.5	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.71	82084.3	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.25	296151.8	N/A	
PfUnDA	N/A	N/A	N/A		A	13C7-PfUnDA	5.83	288799.8	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	67339.9	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	596655.3	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.58	29281.7	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	360623.2	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	79780.5	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.25	296151.8	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	293338.6	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	63584.6	N/A	
PFTDA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	596655.3	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	458603.0	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	458603.0	N/A	
PFOA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	458603.0	N/A	

Total Ion Chromatogram

TIC from 18NOV15D-06.wiff (sample 1) - INBLK



APPROVED

By JPT at 8:56 am, 11/16/18

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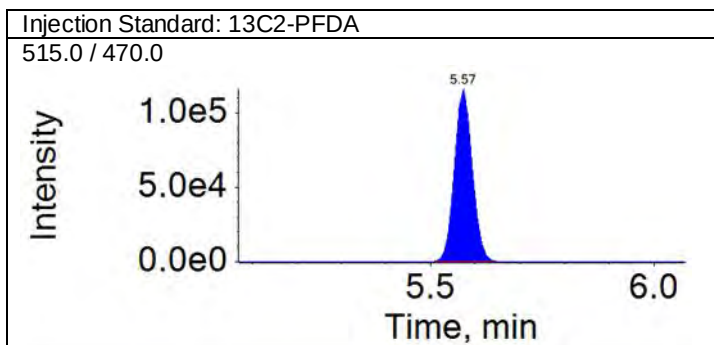
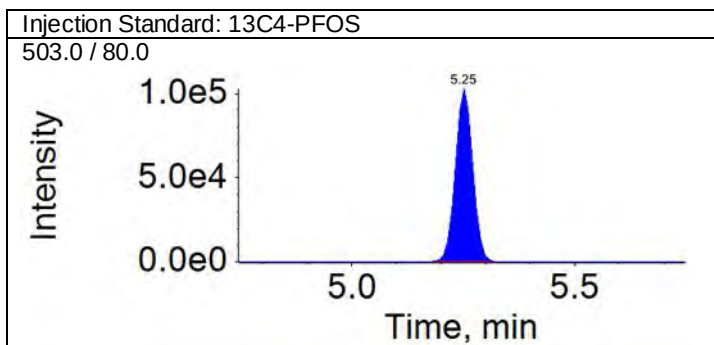
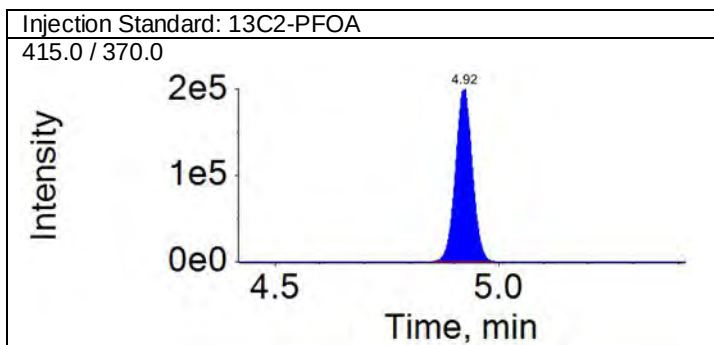
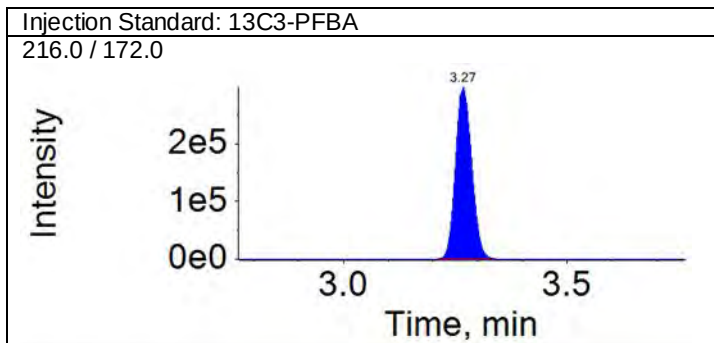
REVIEWED

By HMK at 7:38 am, 11/19/18

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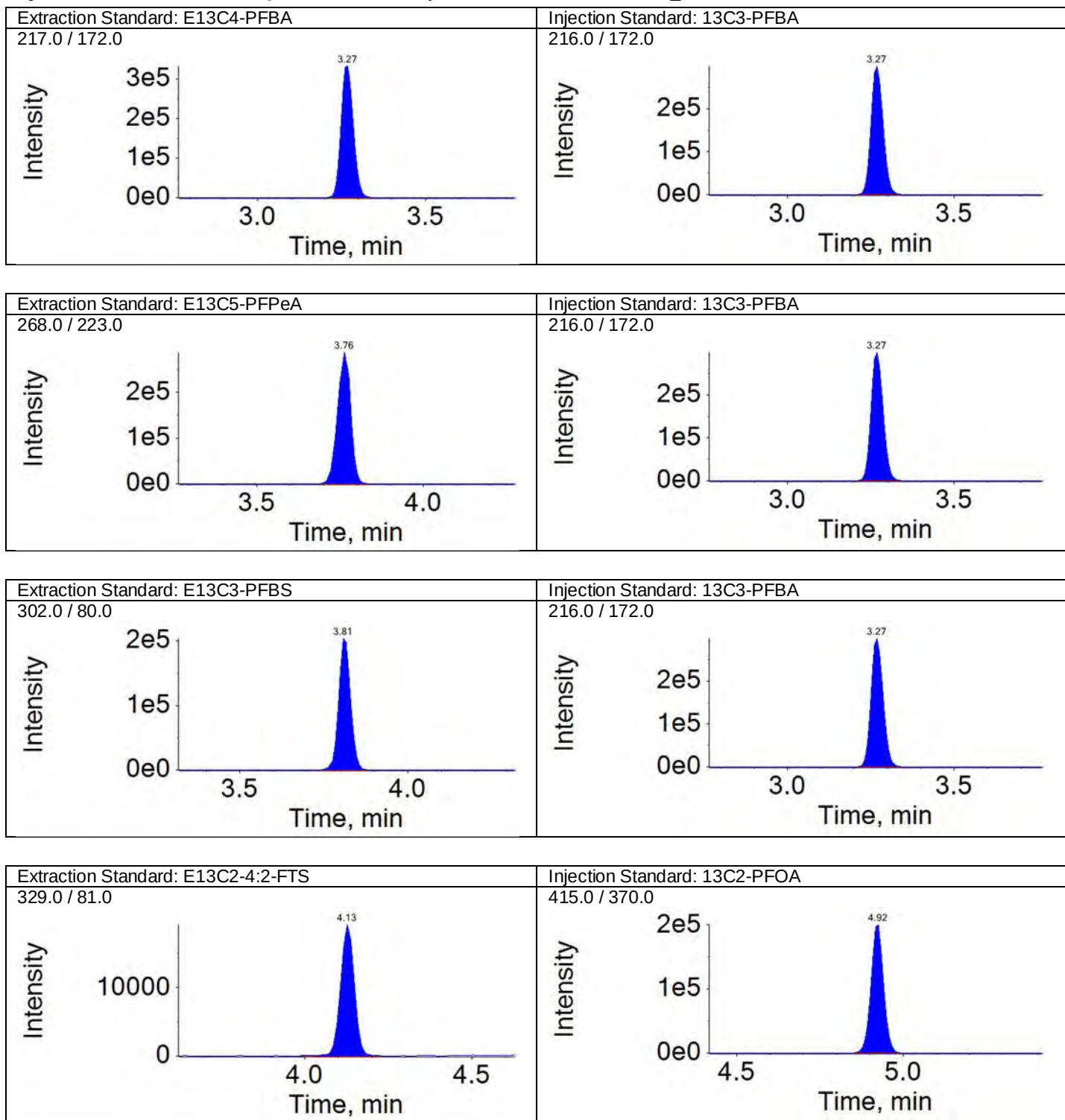
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



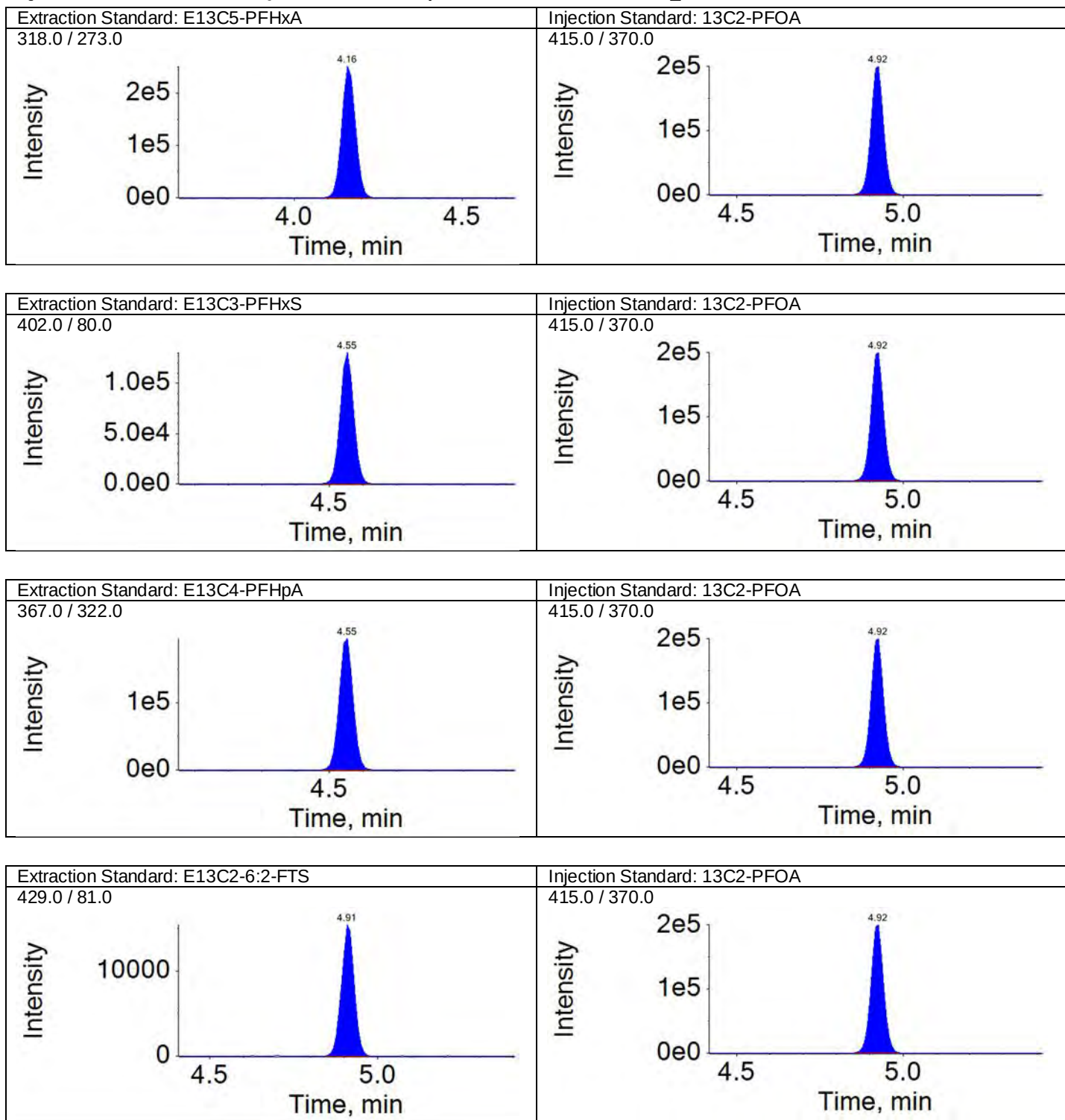
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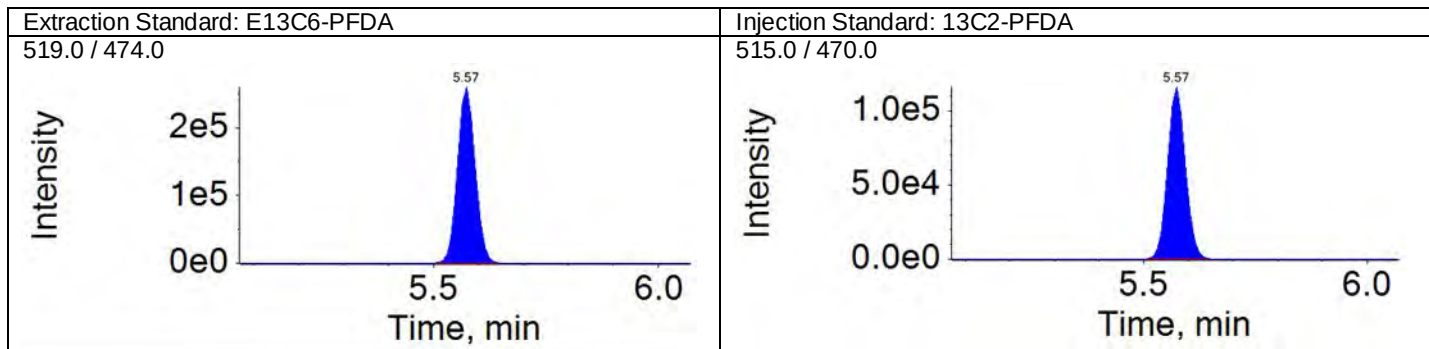
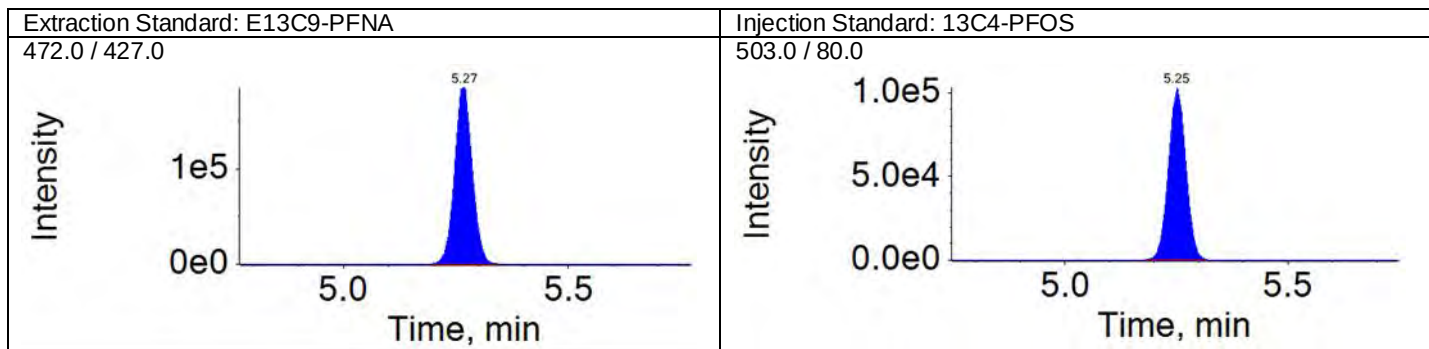
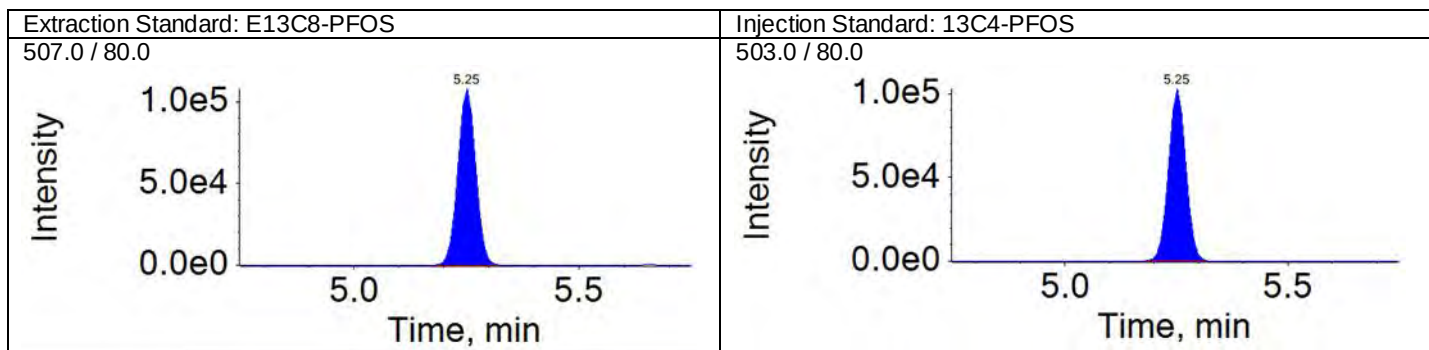
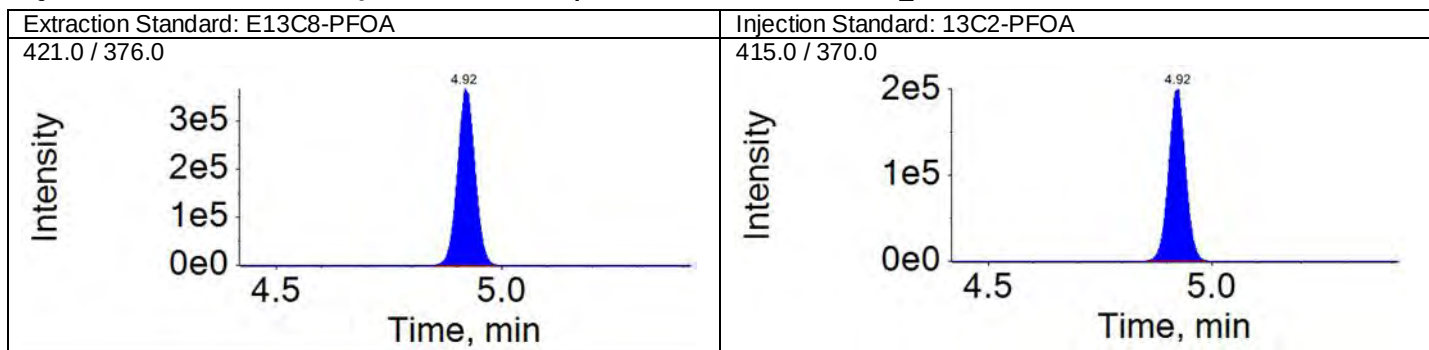
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
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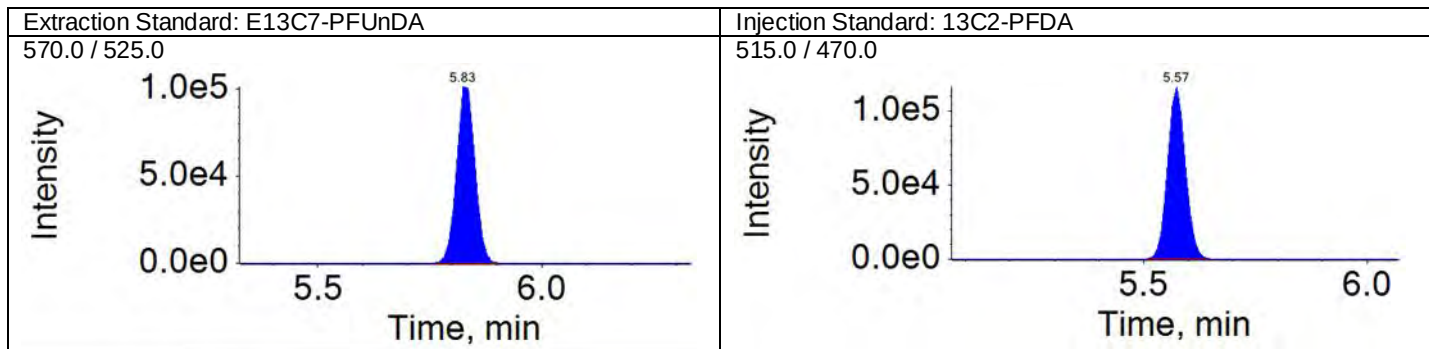
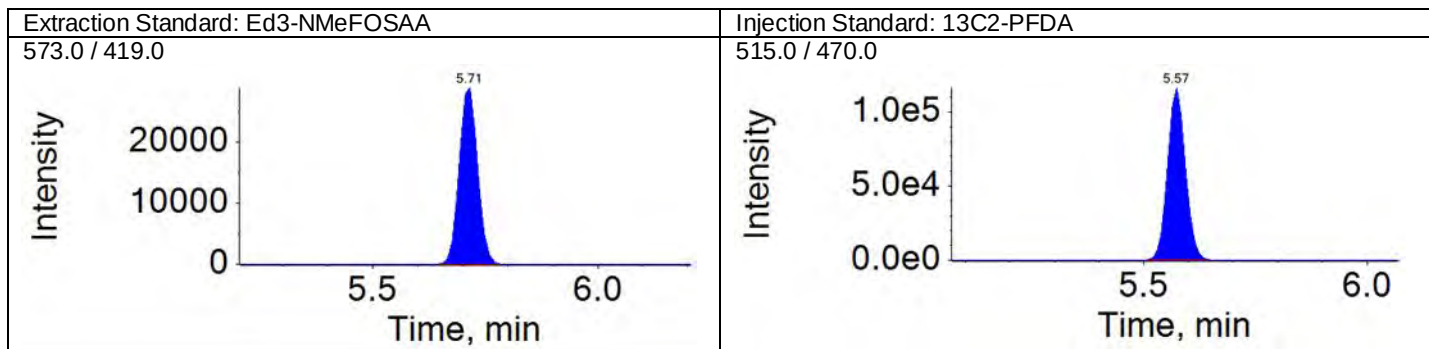
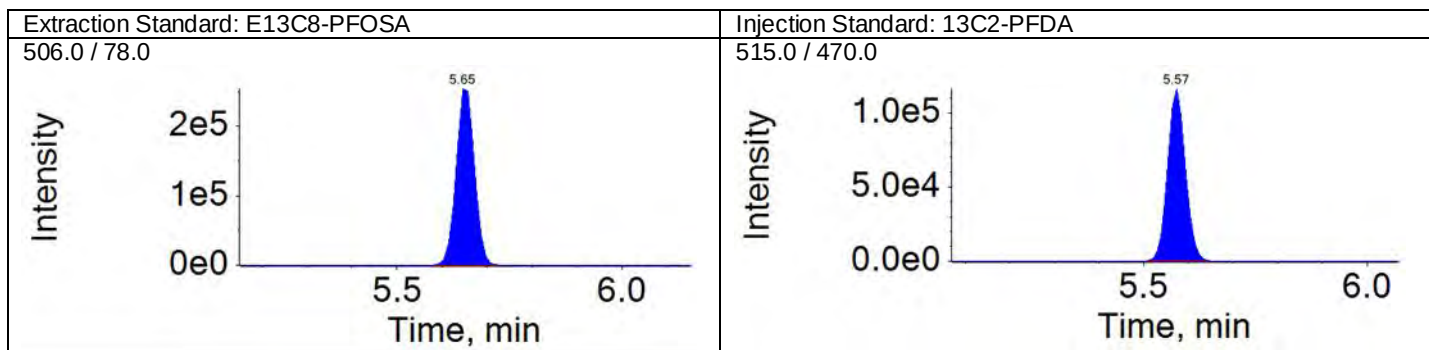
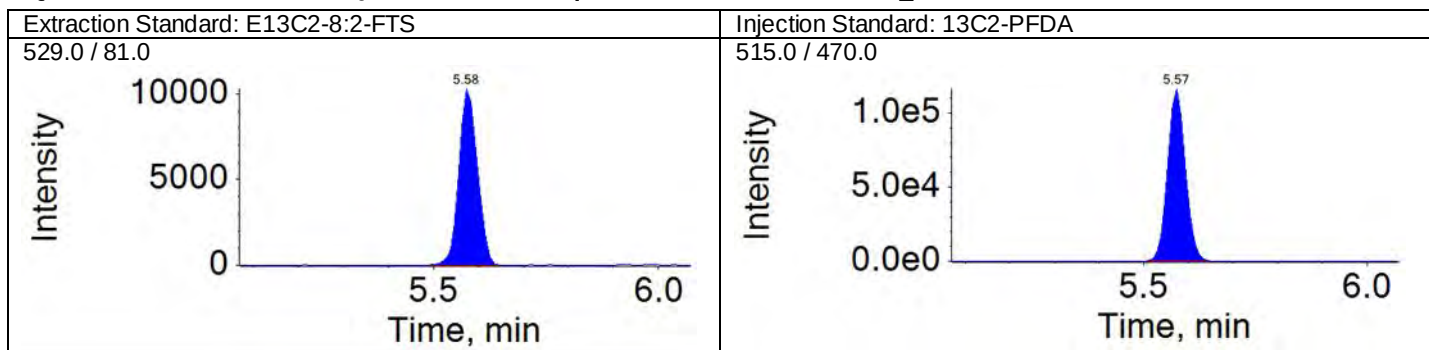
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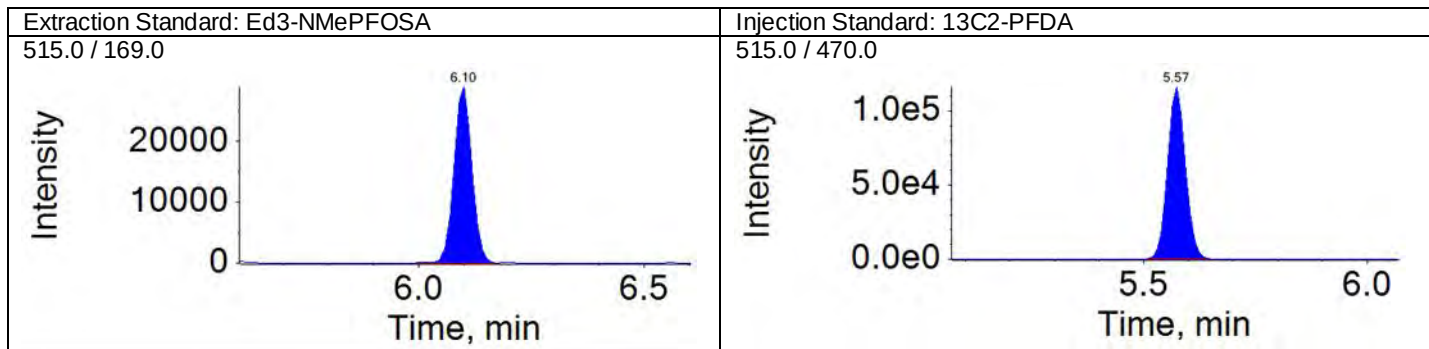
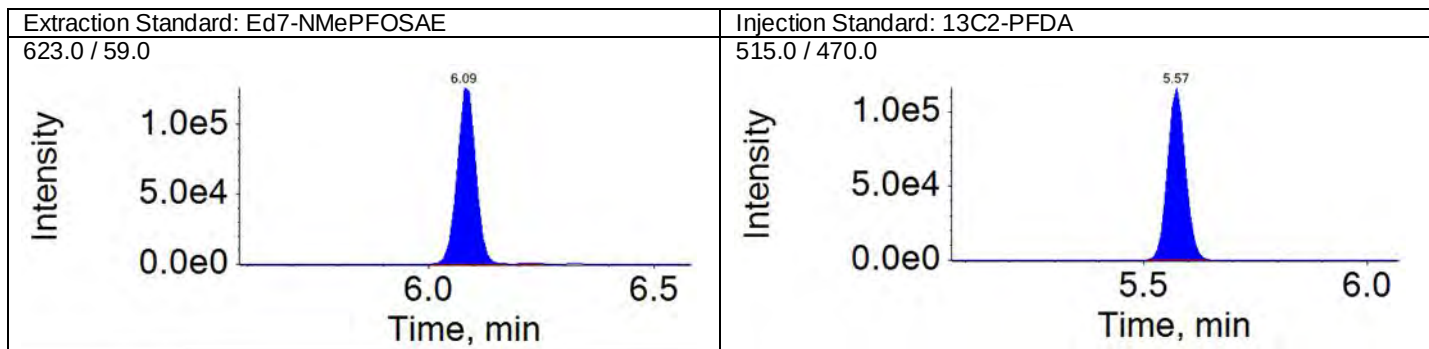
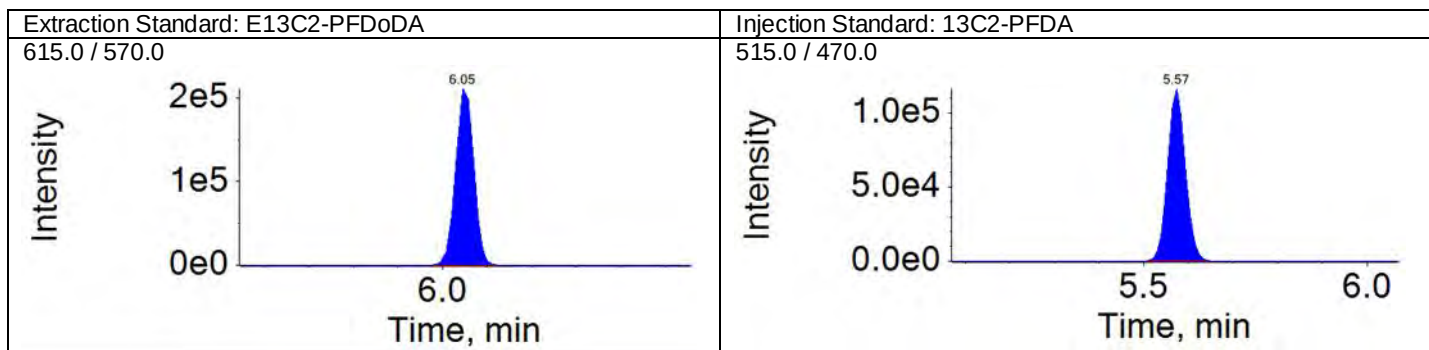
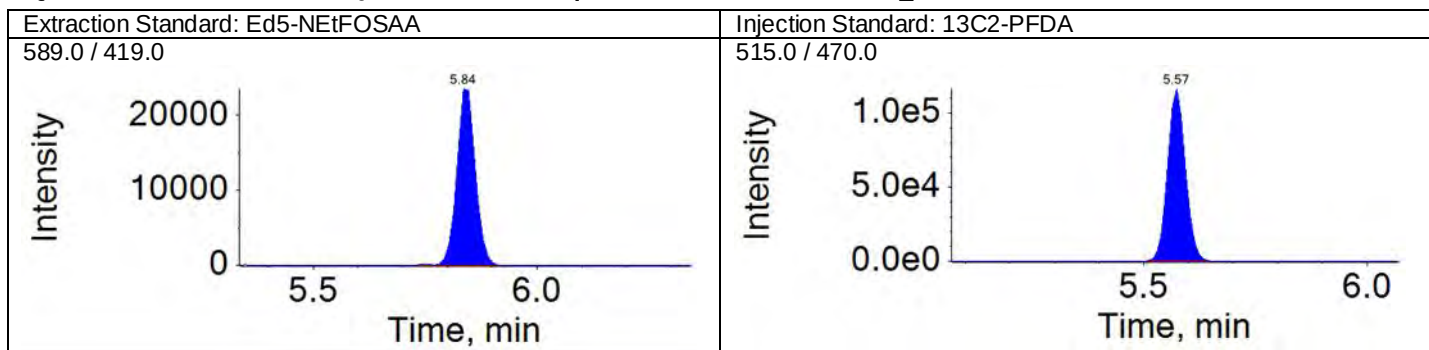
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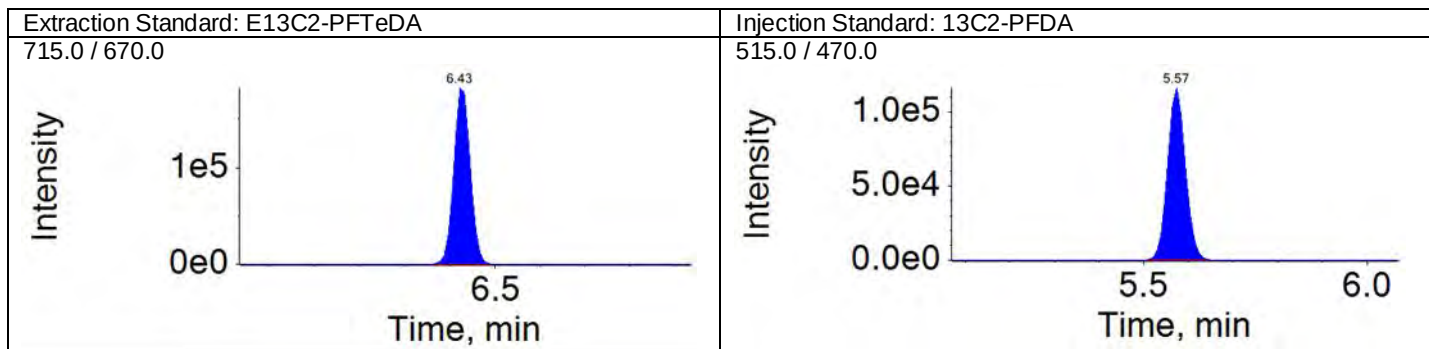
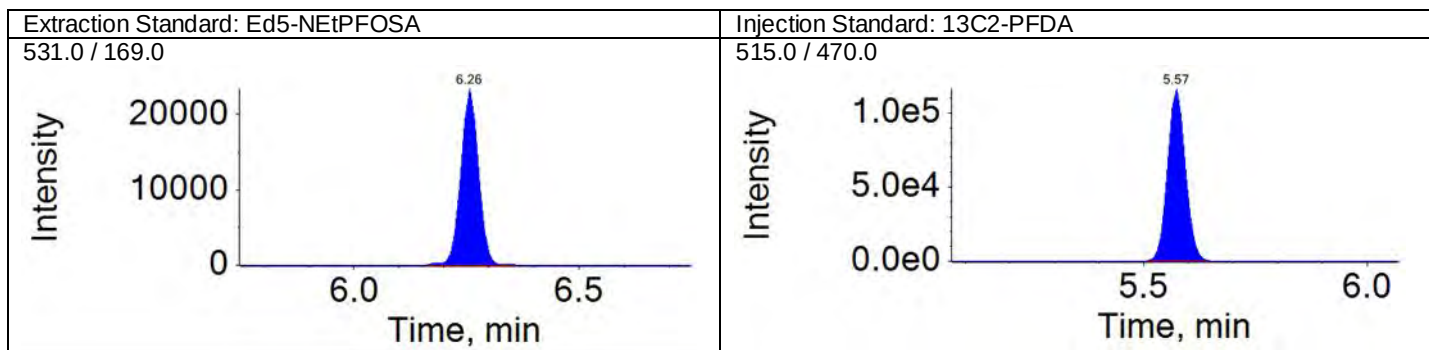
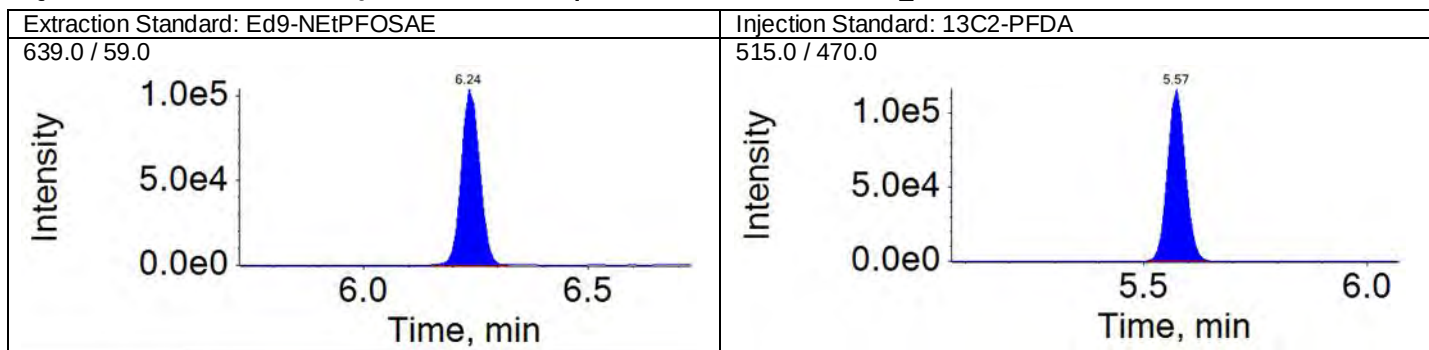
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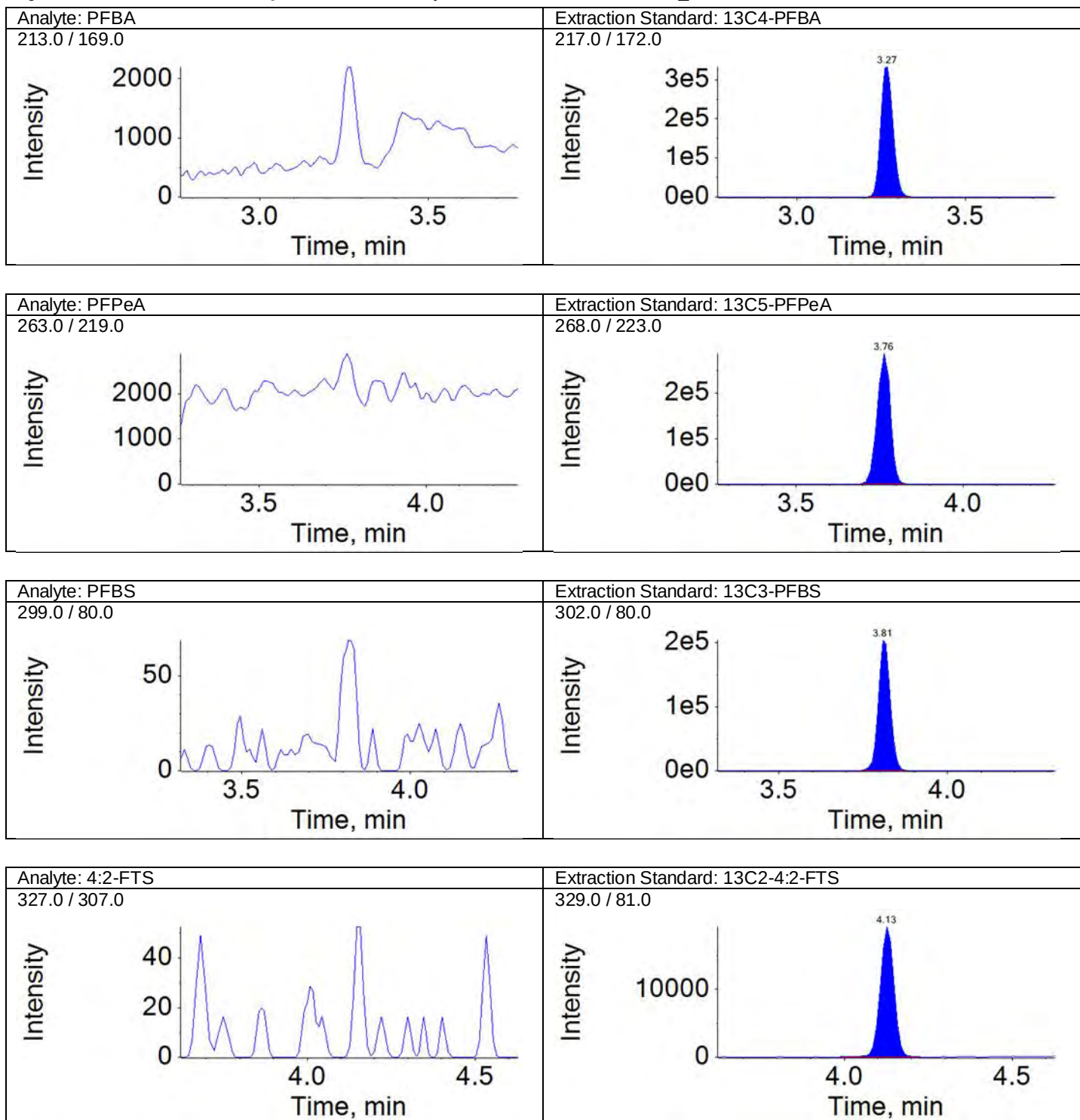
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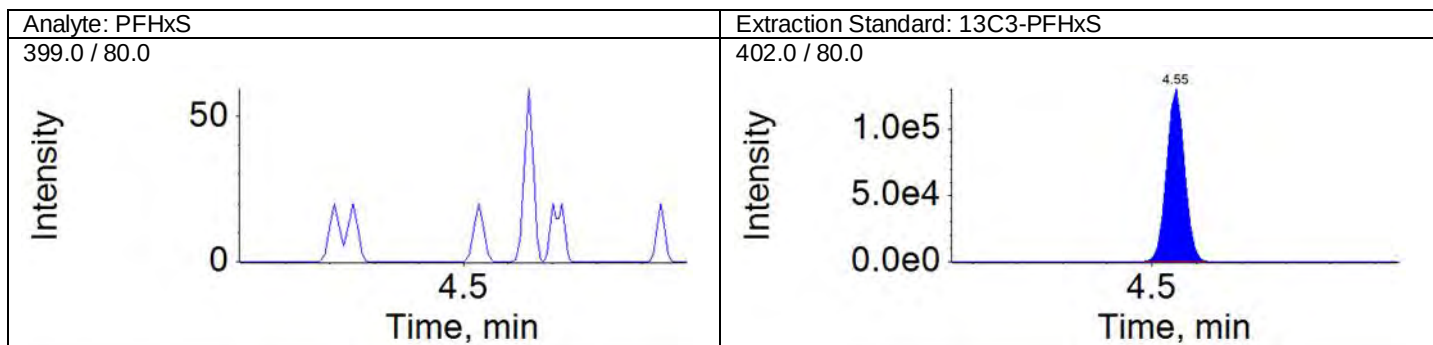
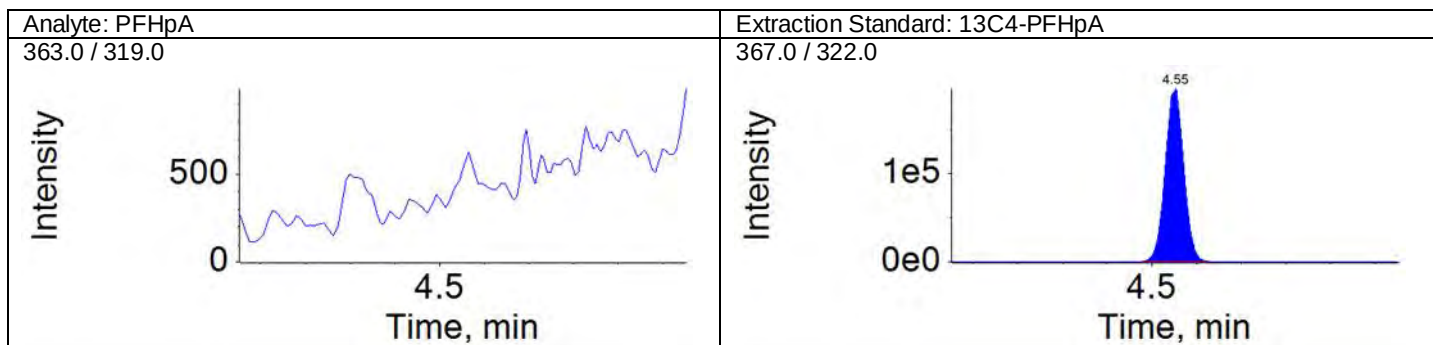
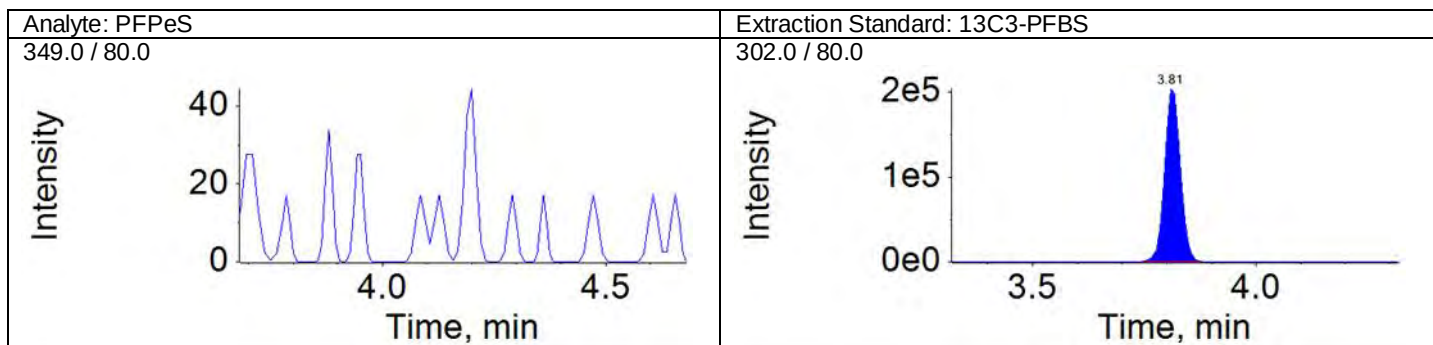
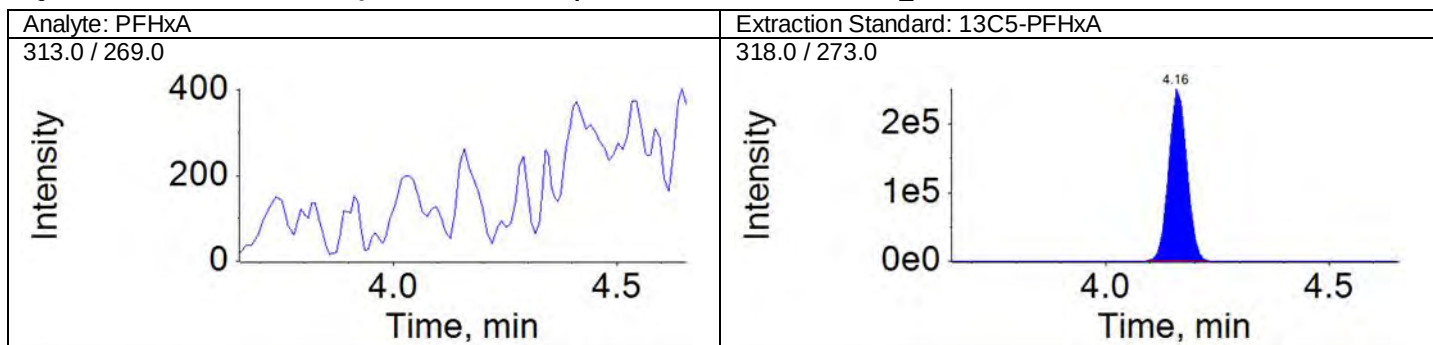
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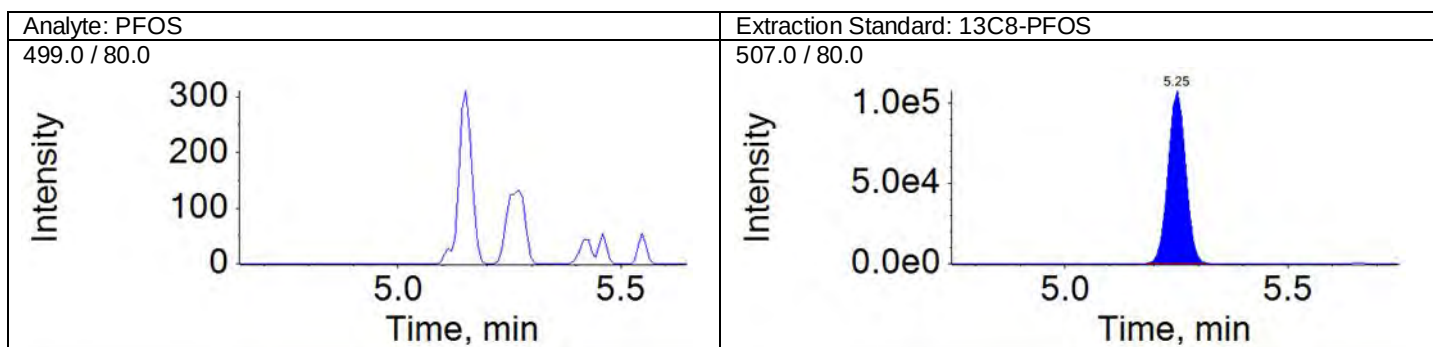
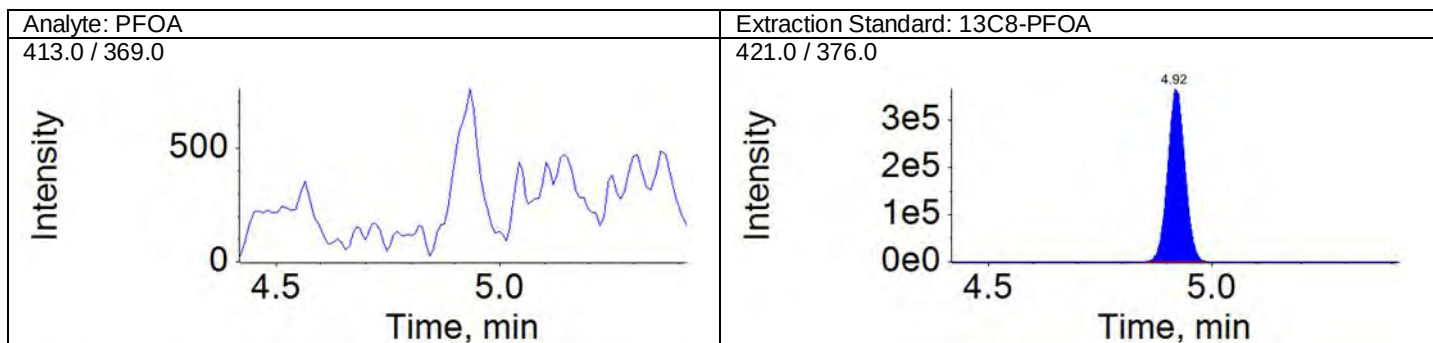
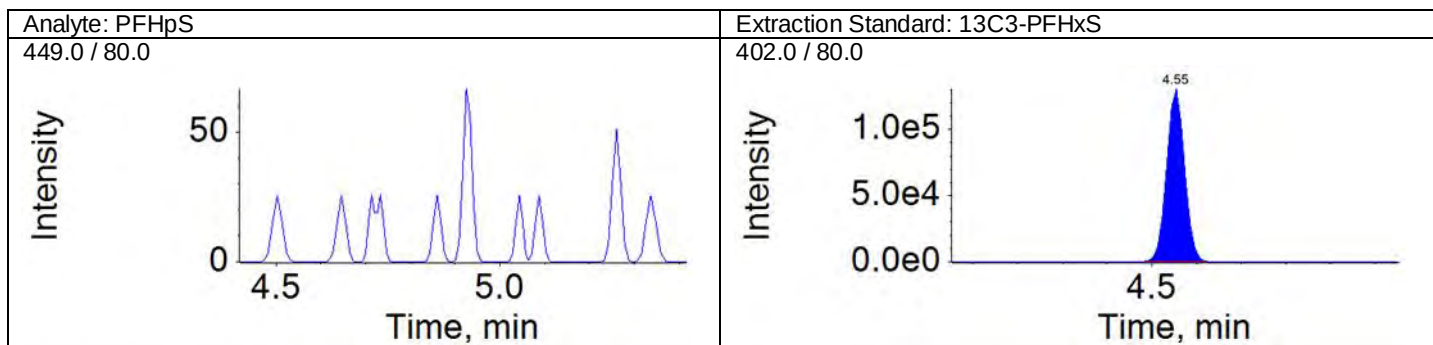
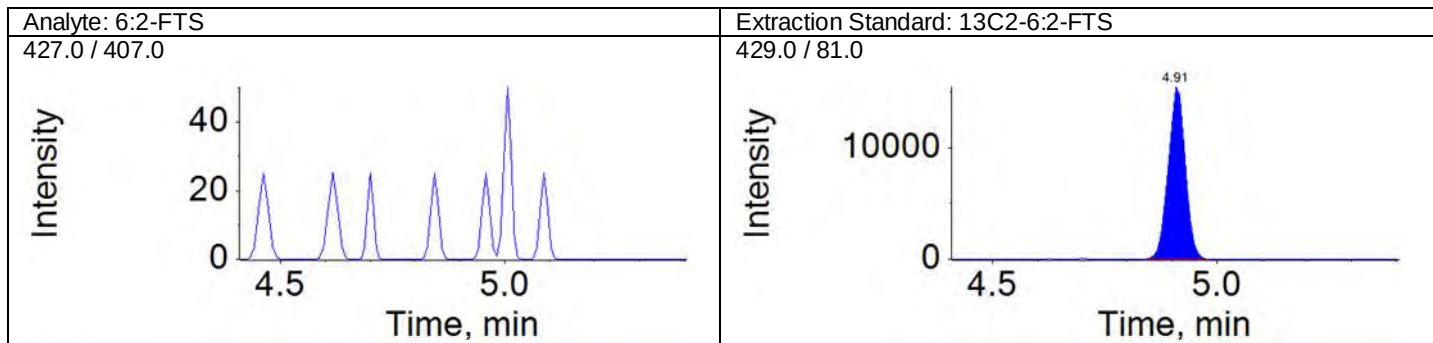
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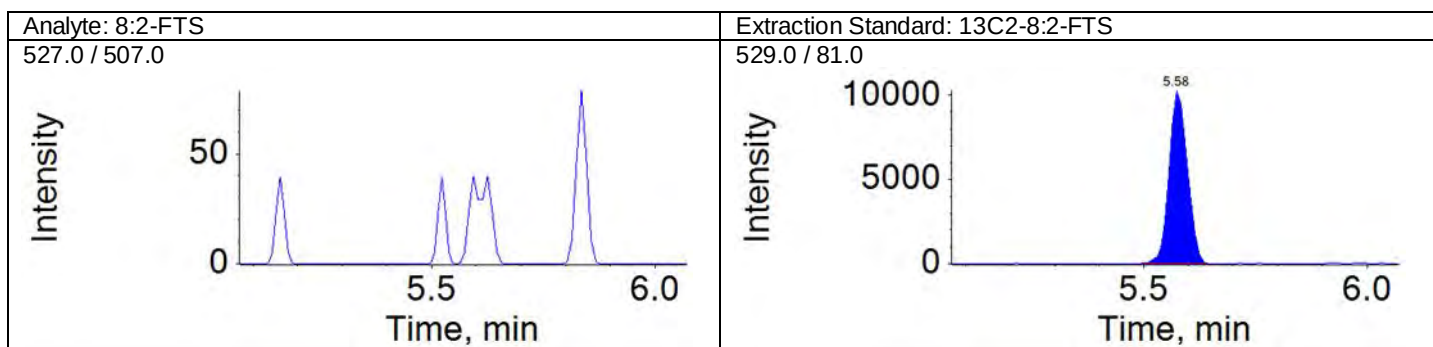
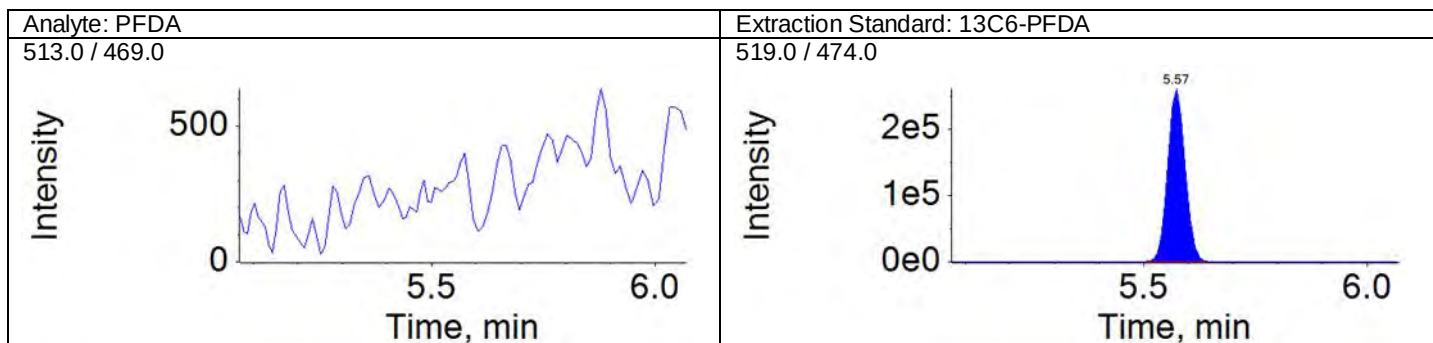
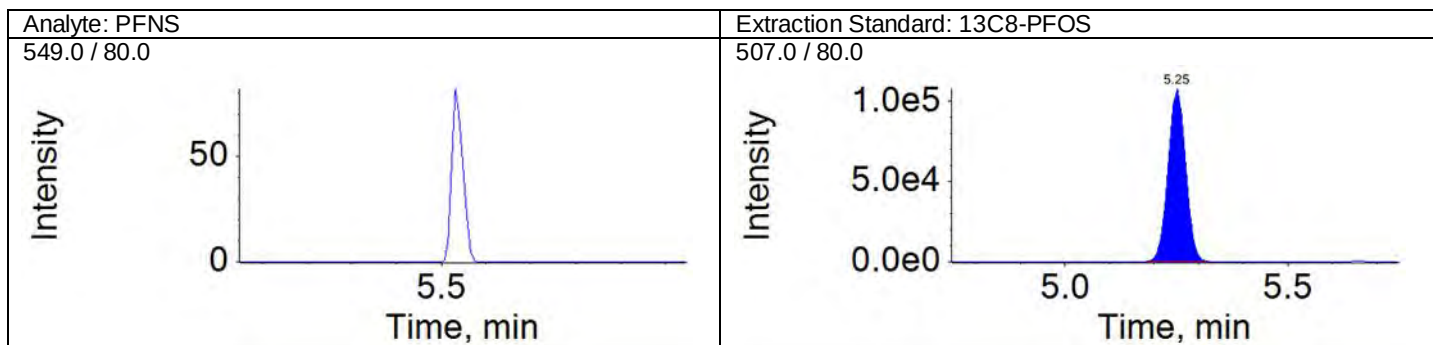
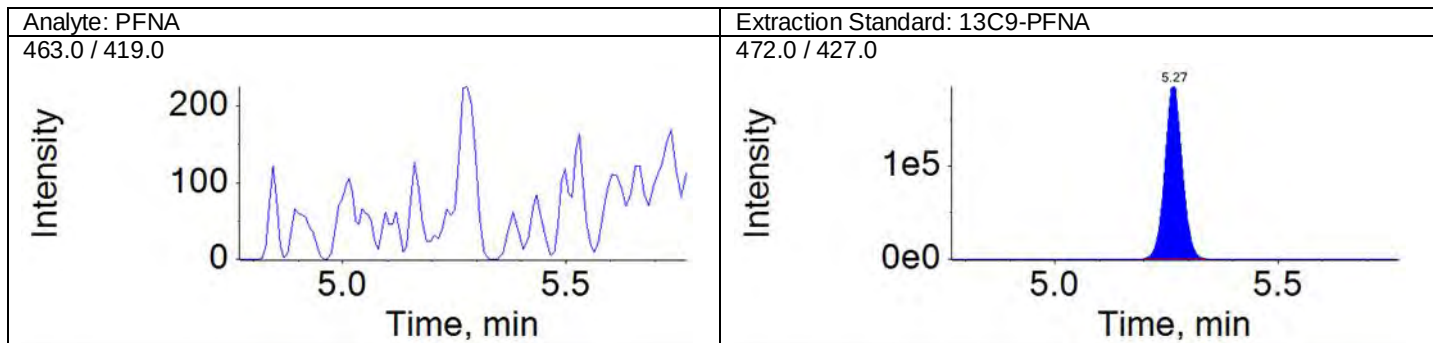
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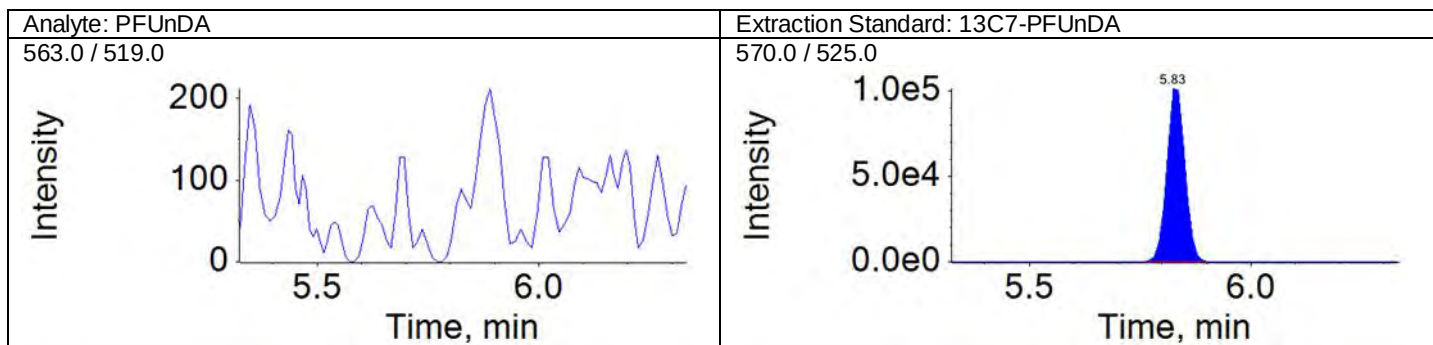
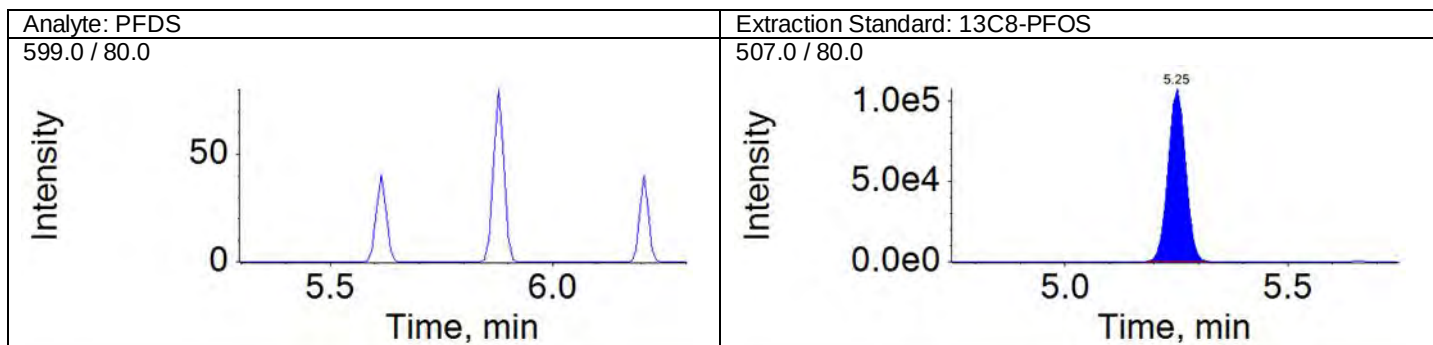
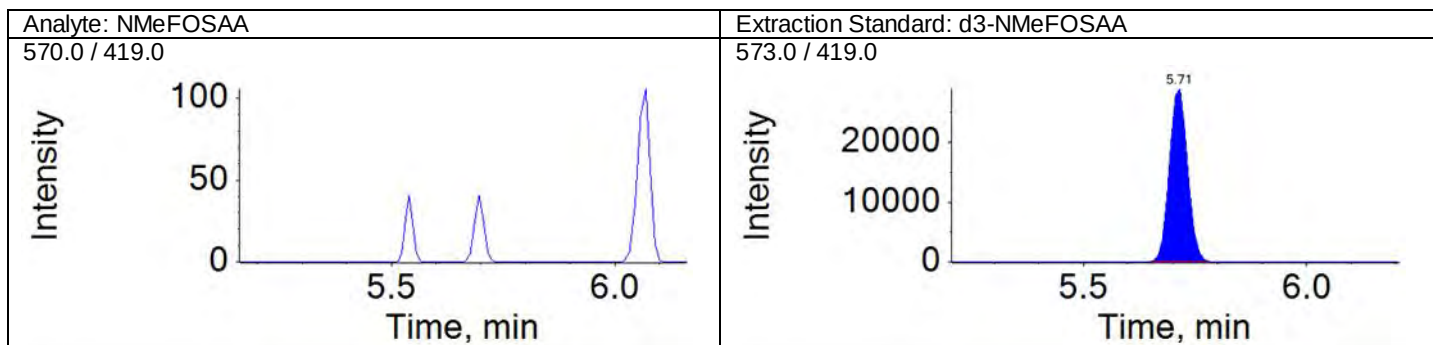
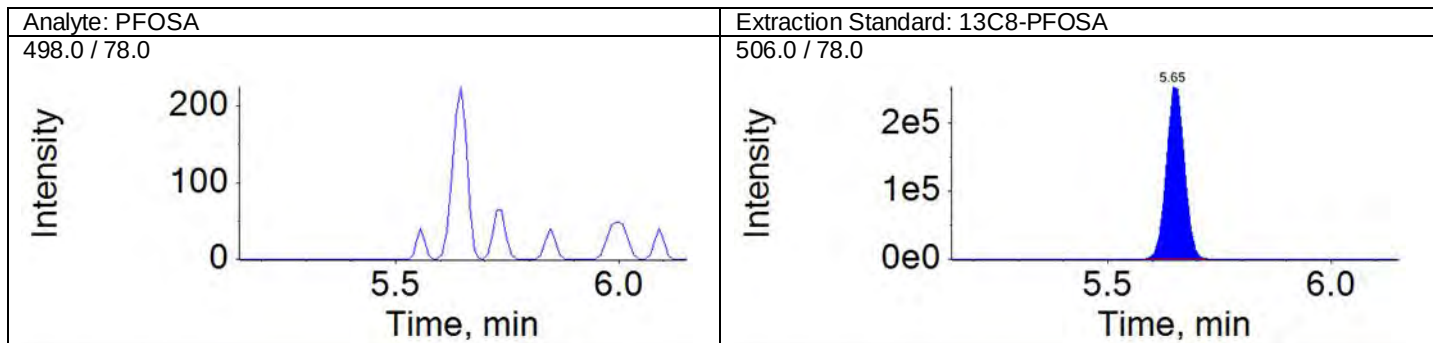
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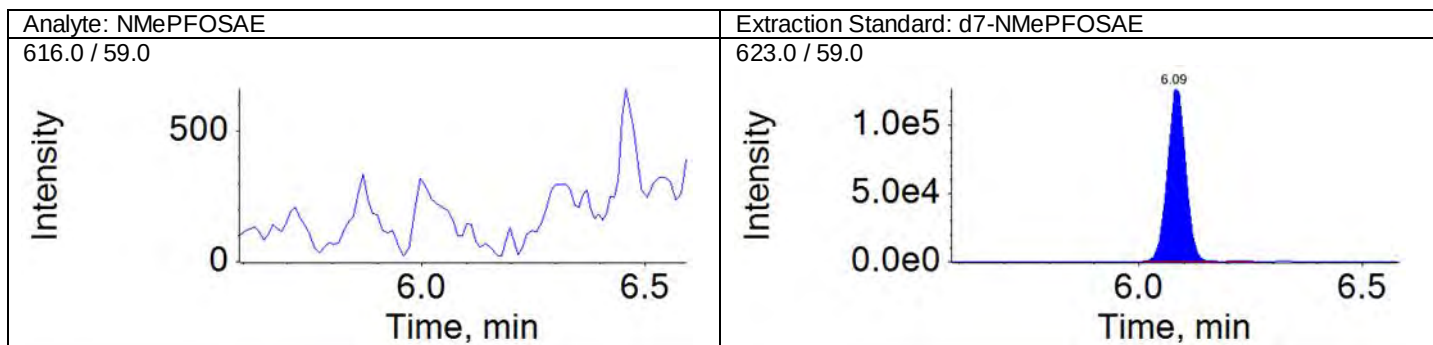
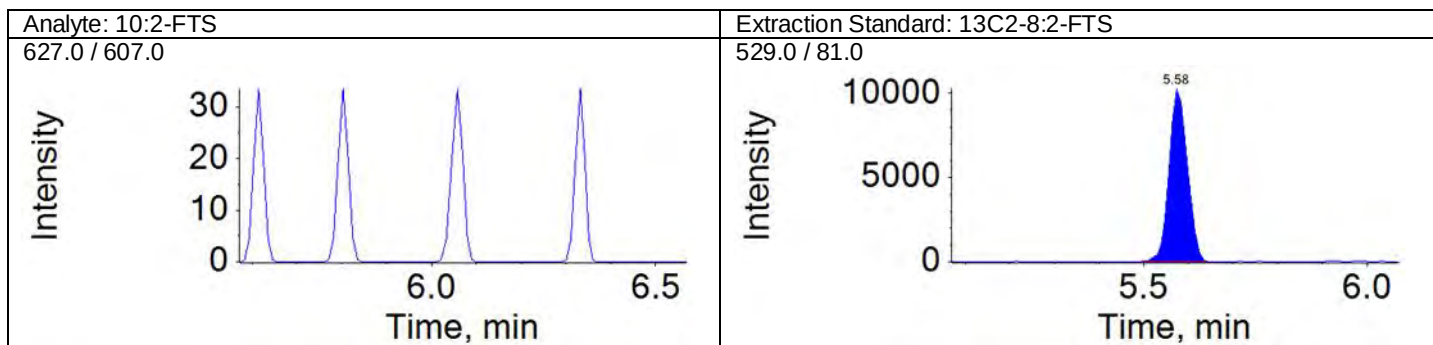
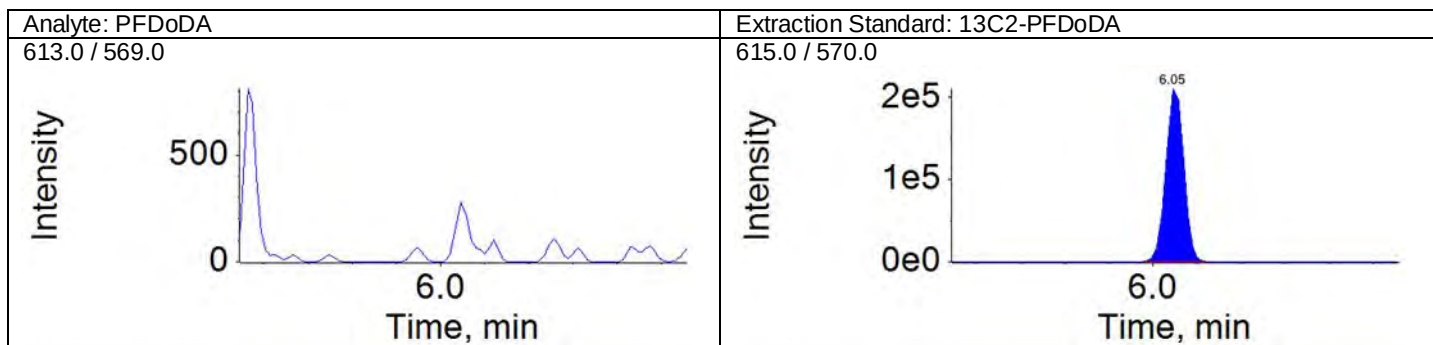
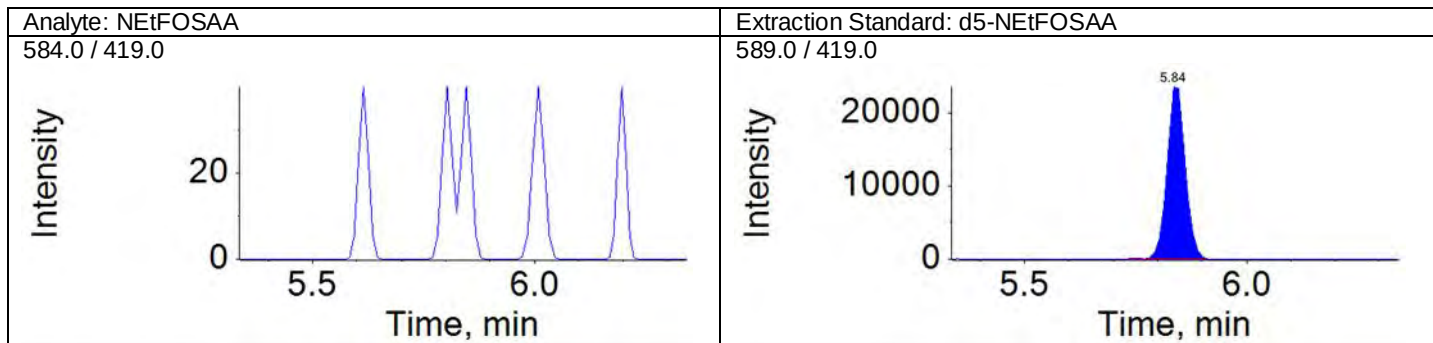
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Acquisition Method: 18AUG13_3uL.dam



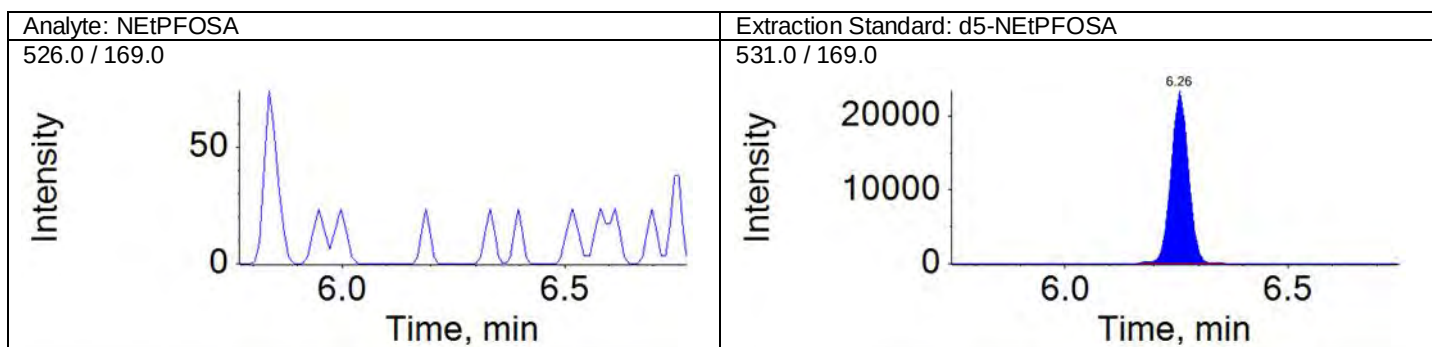
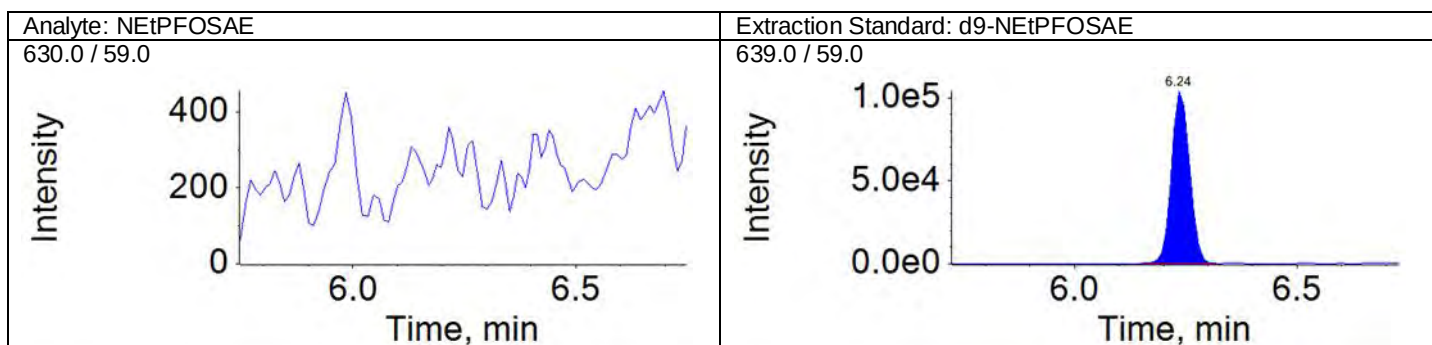
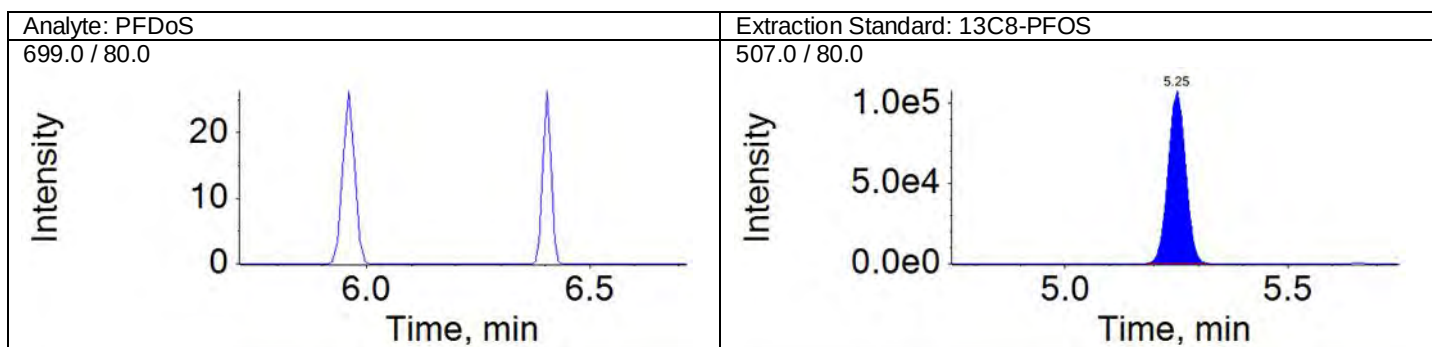
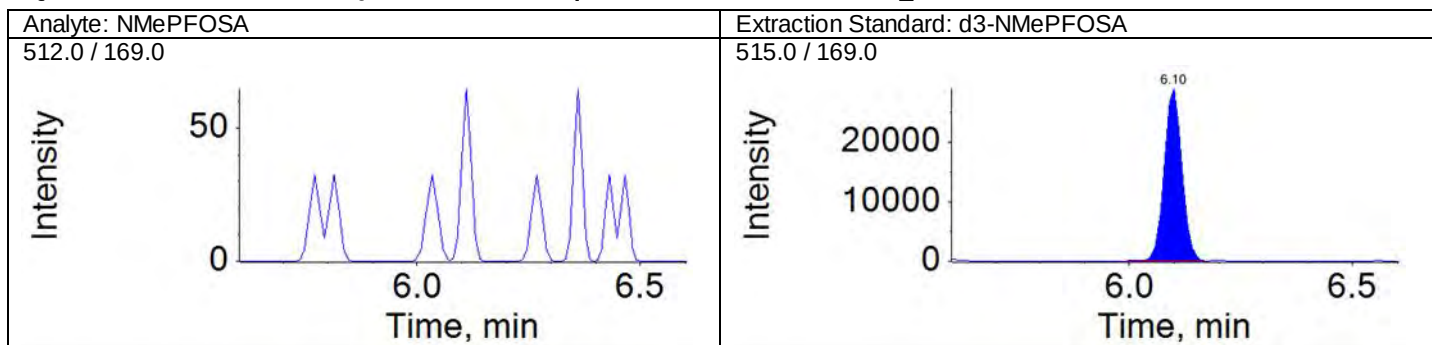
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Acquisition Method: 18AUG13_3uL.dam



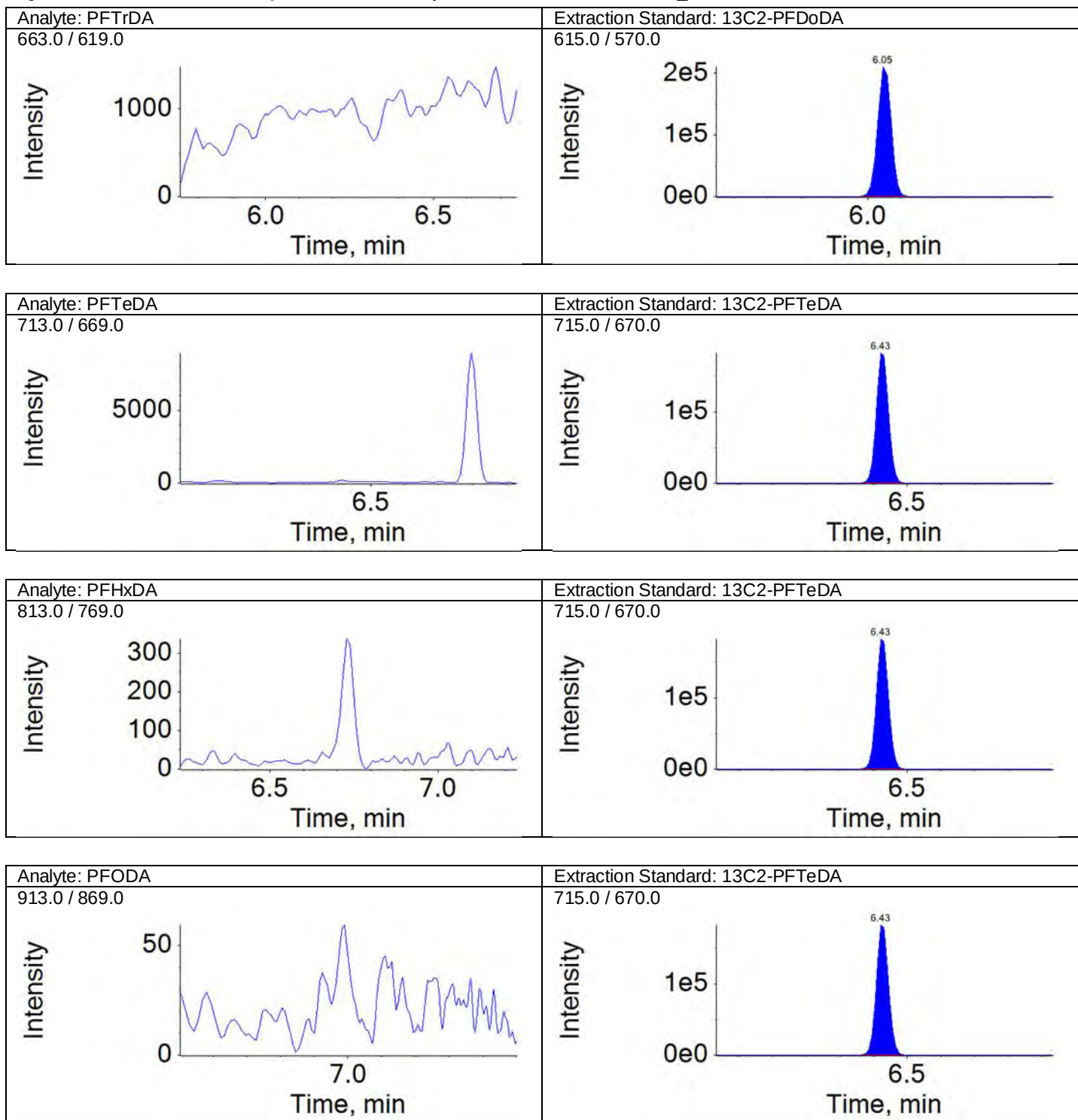
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



Ion Ratio Report

Sample Name: INBLK

Instrument Name: LM27631

File Name: 18NOV15D-06.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDODA	N/A	N/A	N/A	A	N/A	N/A			
PFDODA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

APPROVED

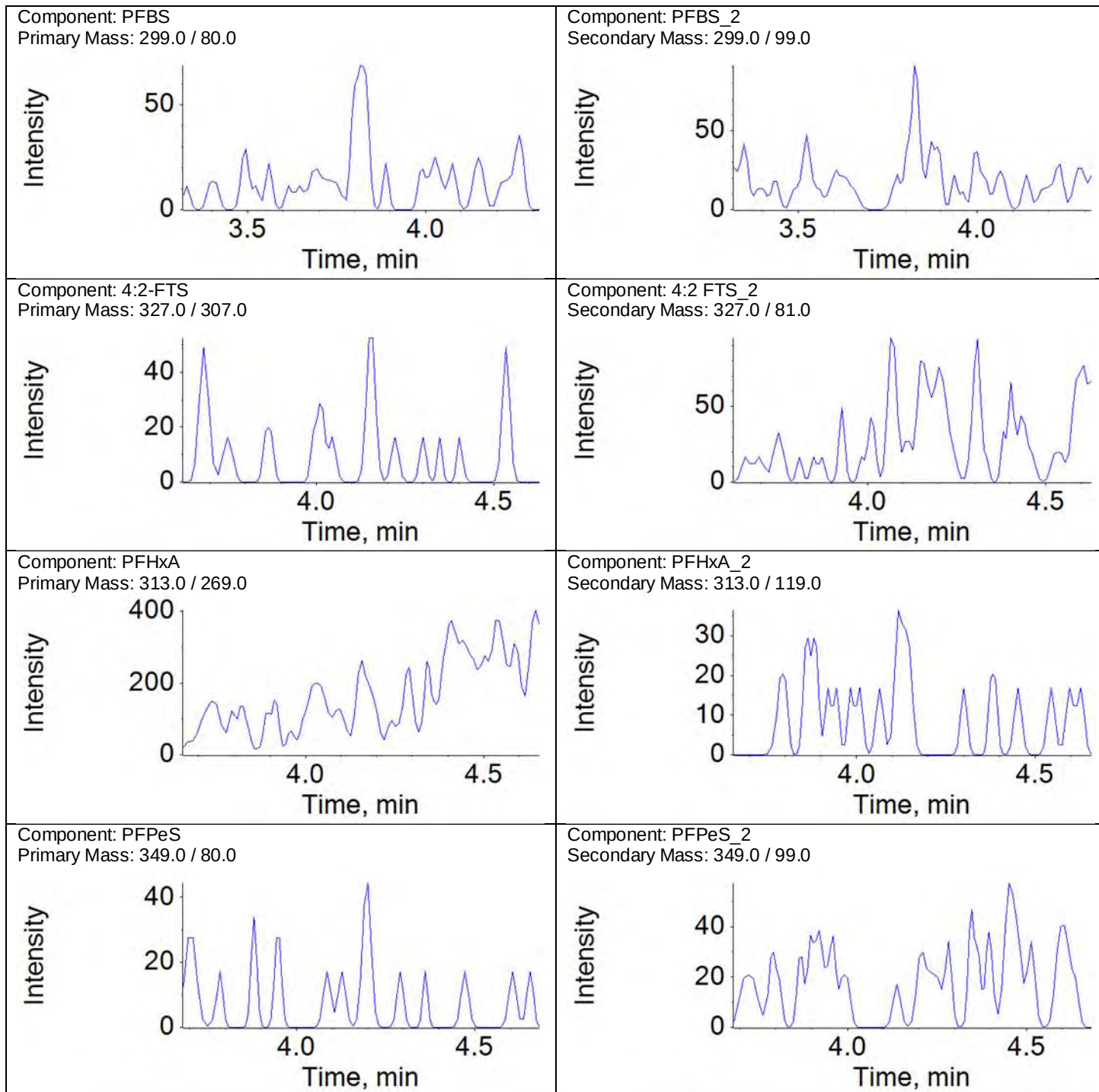
By JPT at 8:56 am, 11/16/18

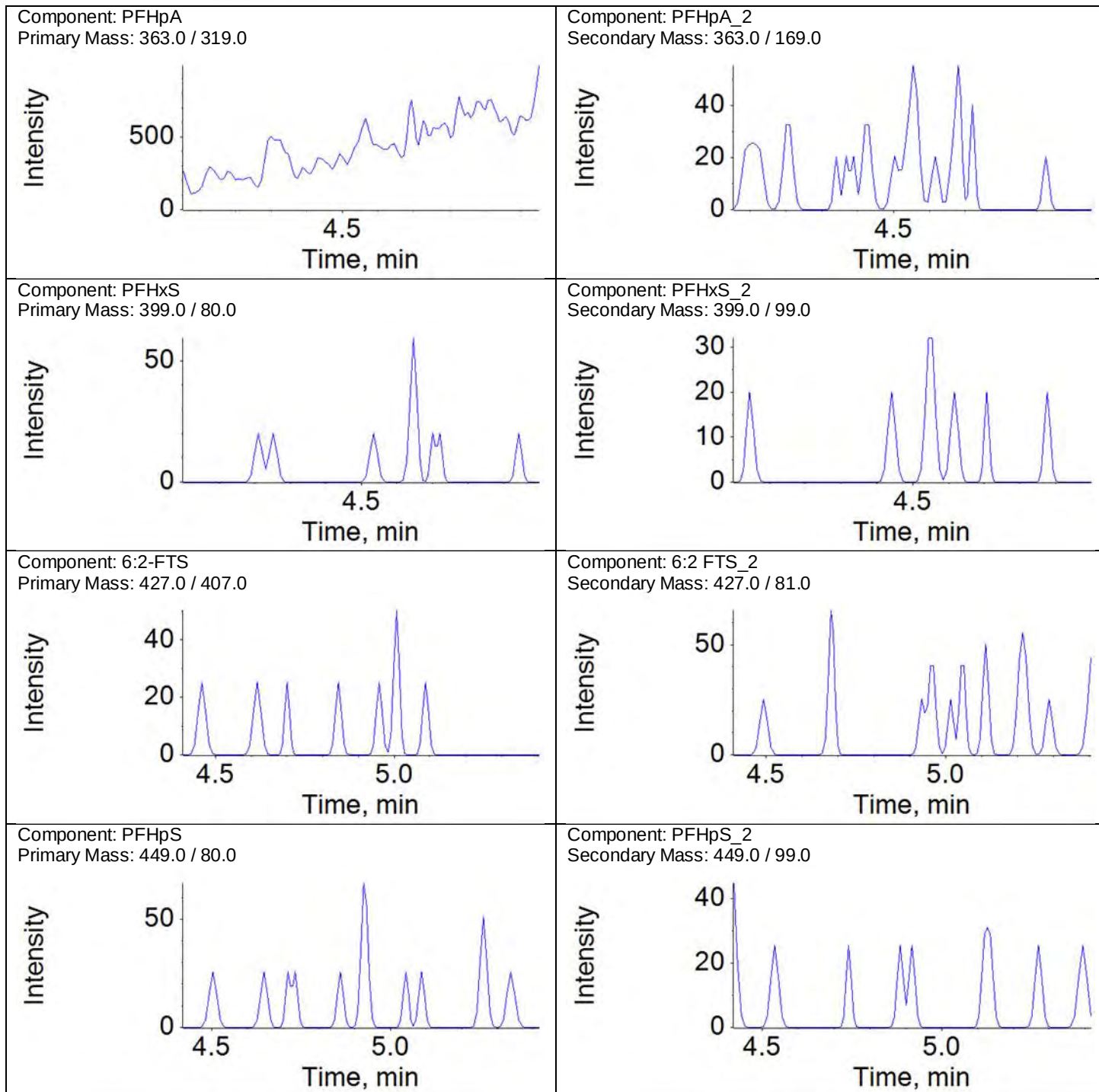
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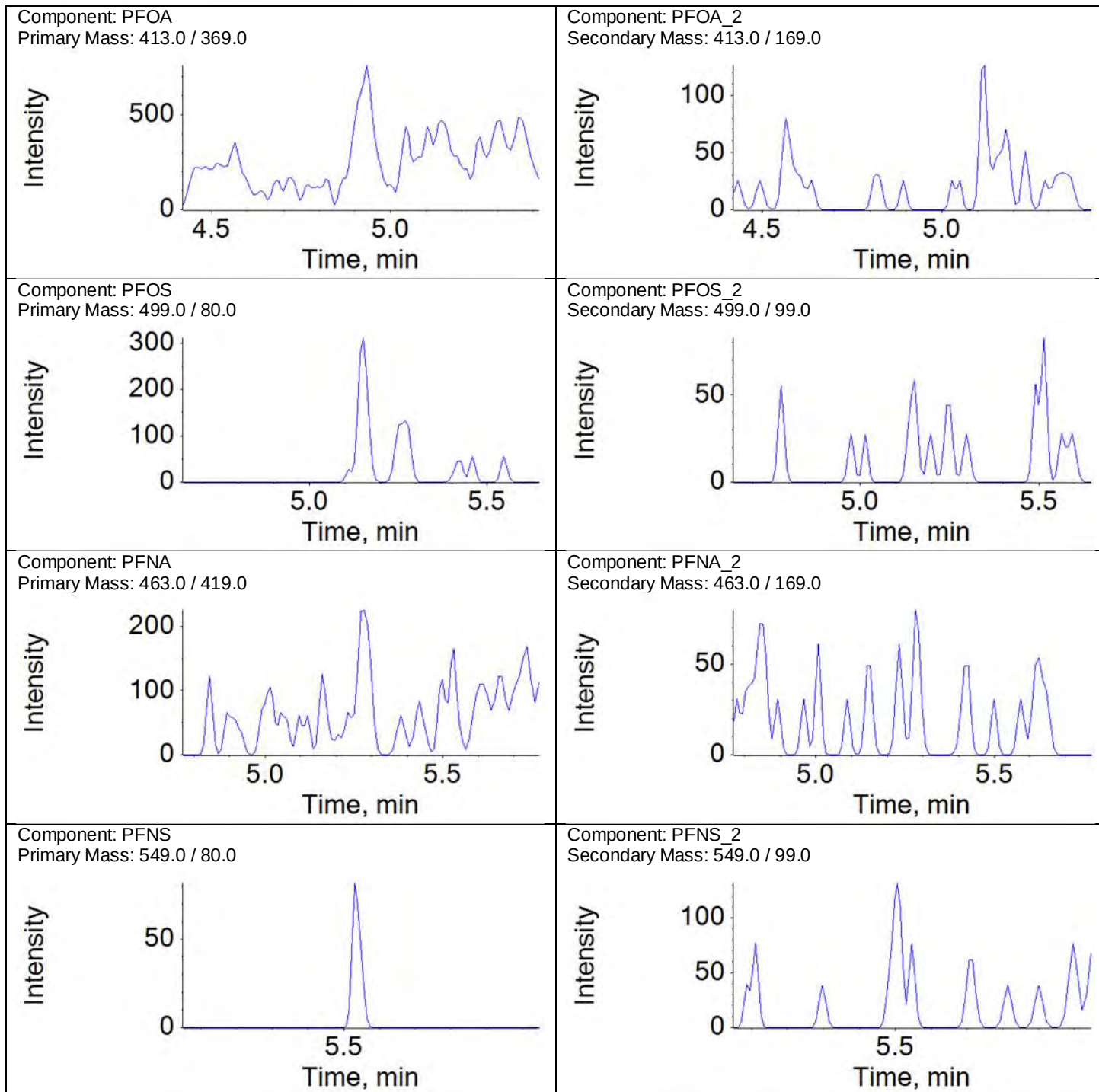
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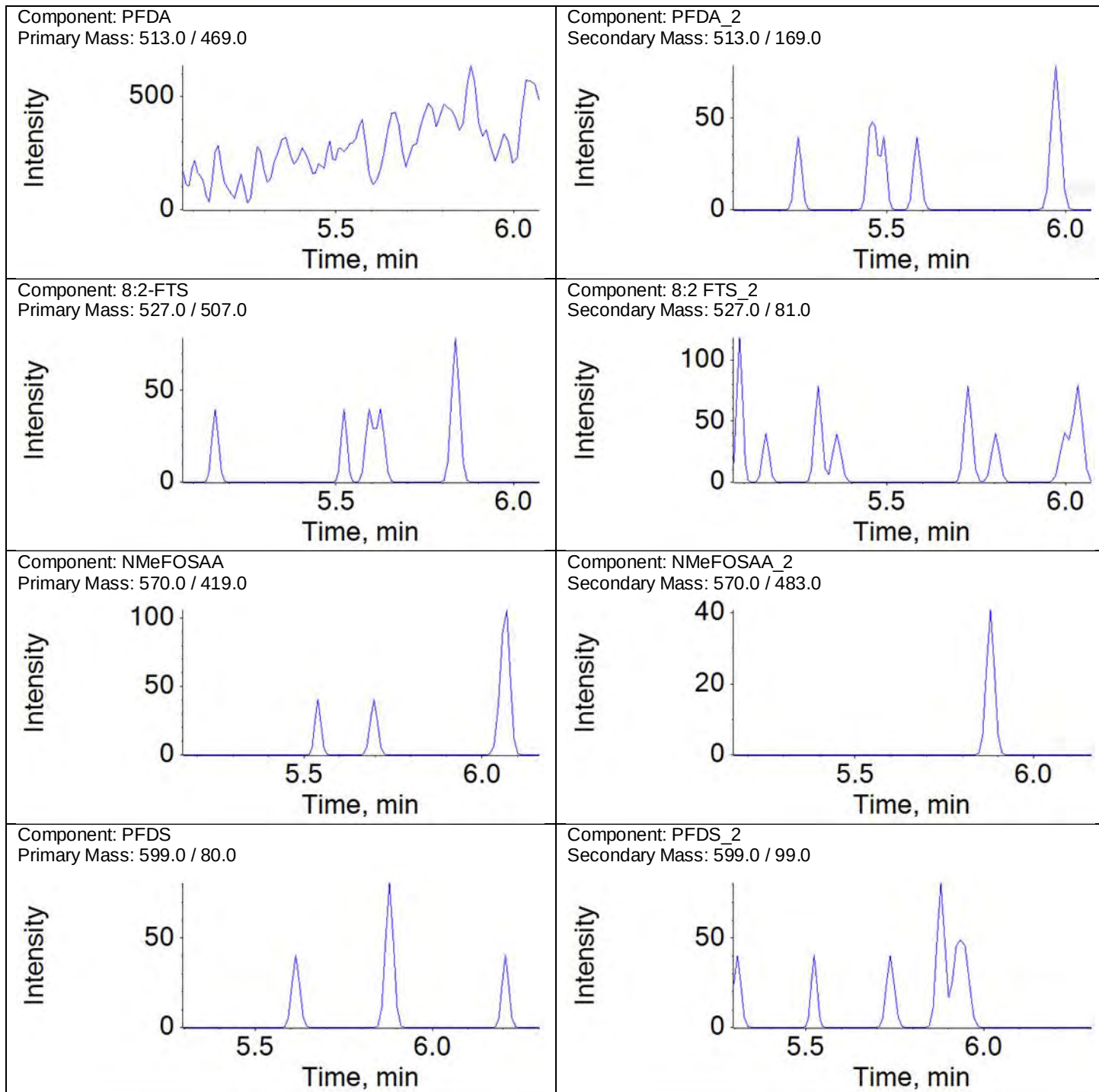
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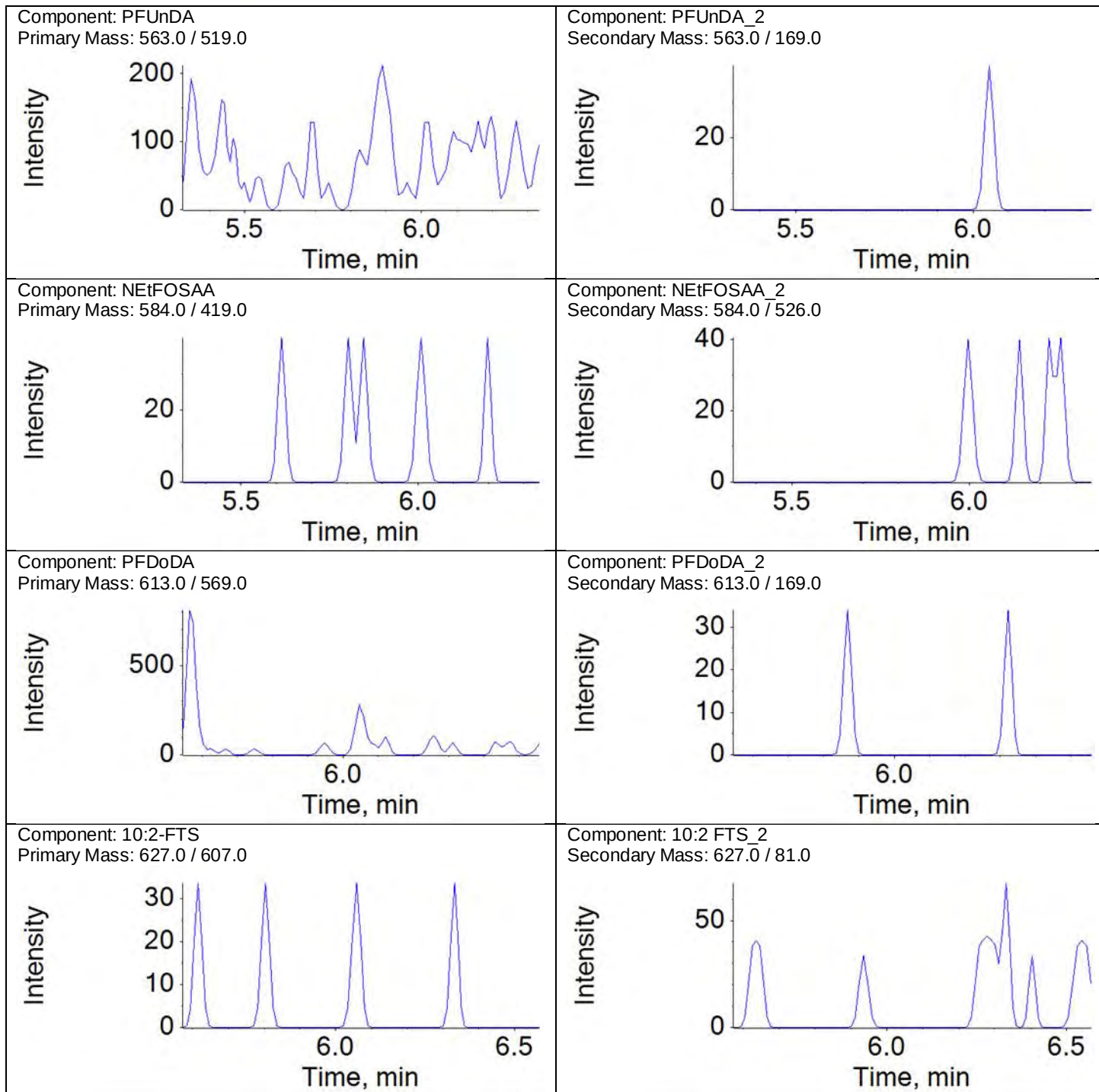
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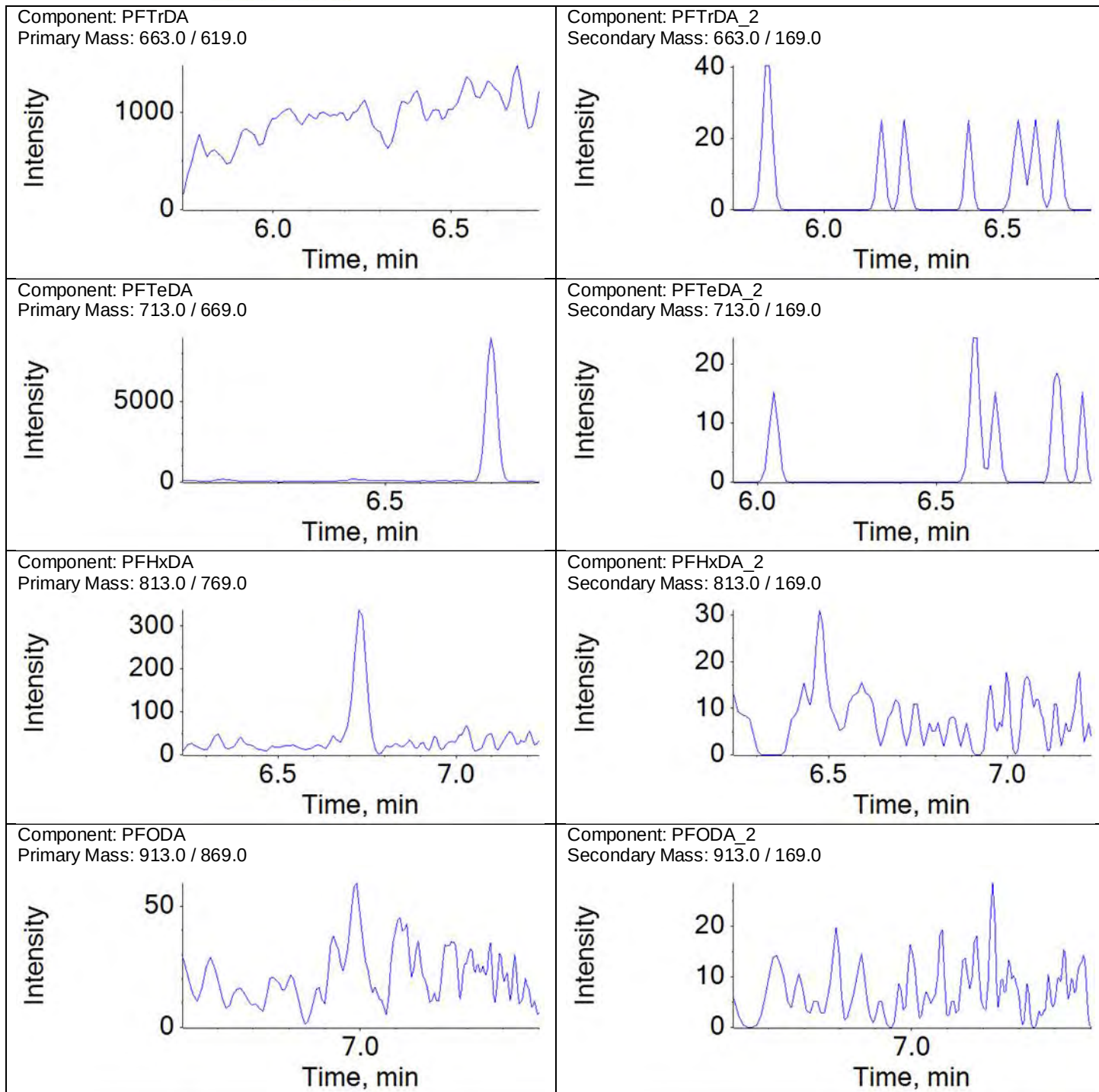










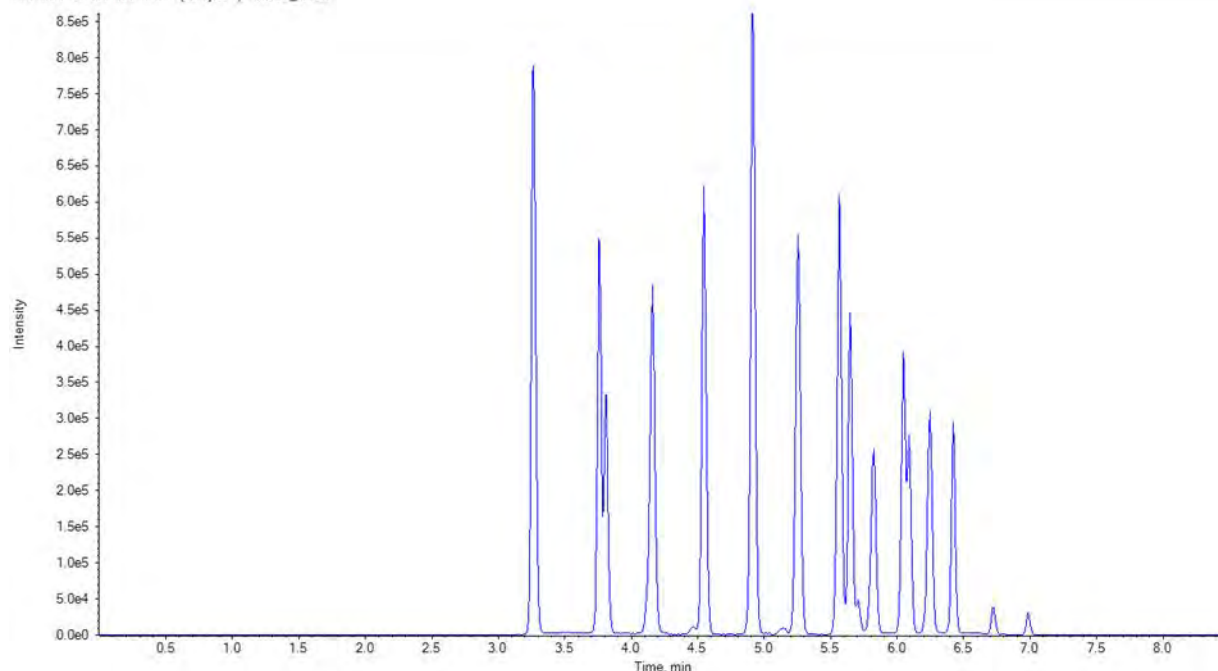


Continuing Calibration Verification

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV2_CAL3	CALBRN31833B	18NOV15D-17.wiff	2018-11-15T14:27:27

TIC from 18NOV15D-17.wiff (sample 1) - CCV2_CAL3



Injection Standard Area Reference File: 18NOV15D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	708681.5	732179.1	-3	50	
13C2-PFOA	5.0	483368.6	479663.2	1	50	
13C4-PFOS	4.8	262609.5	269685.3	-3	50	
13C2-PFDA	5.0	300649.2	302309.9	-1	50	

APPROVED

By JPT at 8:56 am, 11/16/18

REVIEWED

By HMK at 7:38 am, 11/19/18

Continuing Calibration Verification

ICAL Name: 18NOV12DCAL Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
QMethod Name: 18AUG20QM Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV2_CAL3	CALBRN31833B	18NOV15D-17.wiff	2018-11-15T14:27:27

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	330111.6	10	13C4-PFBA	805100.8	5.0	0.410	3.26	1.000	2.000	2.271	14	30	
PFPeA	311444.5	11	13C5-PFPeA	795910.6	5.0	0.391	3.76	1.000	2.000	2.265	13	30	
PFBS	170752.0	10	13C3-PFBS	440796.1	4.7	0.387	3.81	1.000	1.770	1.843	4	30	
4:2-FTS	38005.5	11	13C2-4:2-FTS	53277.3	4.7	0.713	4.12	1.000	1.870	1.937	4	30	
PFHxA	331266.2	12	13C5-PFHxA	698560.7	5.0	0.474	4.16	1.000	2.000	1.980	-1	30	
PFPeS	92420.6	11	13C3-PFPeS	440796.1	4.7	0.210	4.18	1.100	1.880	2.036	8	30	
PFHpA	392775.4	11	13C4-PFHpA	536513.8	5.0	0.732	4.55	1.000	2.000	2.427	21	30	
PFHxS	127507.7	19	13C3-PFHxS	318911.8	4.7	0.400	4.55	1.000	1.820	1.939	7	30	
6:2-FTS	30390.4	11	13C2-6:2-FTS	35048.1	4.8	0.867	4.90	1.000	1.900	2.098	10	30	
PFHpS	127618.9	11	13C3-PFHxS	318911.8	4.7	0.400	4.91	1.080	1.900	2.107	11	30	
PFOA	378071.7	11	13C8-PFOA	919301.7	5.0	0.411	4.92	1.000	2.000	2.196	10	30	
PFOS	125131.3	22	13C8-PFOS	276362.5	4.8	0.453	5.25	1.000	1.850	1.980	7	30	
PFNA	313870.7	11	13C9-PFNA	486368.3	5.0	0.645	5.26	1.000	2.000	2.327	16	30	
PFNS	82338.4	11	13C8-PFOS	276362.5	4.8	0.298	5.54	1.060	1.920	2.084	9	30	
PFDA	253223.2	11	13C6-PFDA	664128.1	5.0	0.381	5.57	1.000	2.000	2.021	1	30	
8:2-FTS	24874.7	11	13C2-8:2-FTS	25867.9	4.8	0.962	5.57	1.000	1.920	2.242	17	30	
PFOSA	287731.8	11	13C8-PFOSA	691277.8	5.0	0.416	5.65	1.000	2.000	2.033	2	30	
NMeFOSAA	28588.3	18	d3-NMeFOSAA	69878.3	5.0	0.409	5.71	1.000	2.000	2.312	16	30	
PFDS	61289.2	11	13C8-PFOS	276362.5	4.8	0.222	5.80	1.110	1.930	2.009	4	30	
PFUnDA	212907.1	11	13C7-PFUnDA	276387.0	5.0	0.770	5.82	1.000	2.000	2.014	1	30	
NEtFOSAA	26369.1	22	d5-NEtFOSAA	67326.9	5.0	0.392	5.84	1.000	2.000	2.053	3	30	
PFDODA	239087.4	11	13C2-PFDODA	544644.0	5.0	0.439	6.05	1.000	2.000	2.235	12	30	
10:2-FTS	18636.1	11	13C2-8:2-FTS	25867.9	4.8	0.720	6.06	1.090	1.930	2.400	24	30	
NMePFOSAE	179582.3	11	d7-NMePFOSAE	325506.1	5.0	0.552	6.09	1.000	2.000	2.296	15	30	
NMePFOSA	32647.0	12	d3-NMePFOSA	77095.3	5.0	0.423	6.10	1.000	2.000	2.089	4	30	
PFDOS	31258.0	11	13C8-PFOS	276362.5	4.8	0.113	6.21	1.180	1.940	1.981	2	30	
NEtPFOSAE	186894.4	11	d9-NEtPFOSAE	275243.8	5.0	0.679	6.25	1.000	2.000	2.178	9	30	
NEtPFOSA	28095.6	11	d5-NEtPFOSA	63071.4	5.0	0.445	6.26	1.000	2.000	2.046	2	30	
PFTTrDA	196890.1	11	13C2-PFDODA	544644.0	5.0	0.362	6.25	1.030	2.000	2.282	14	30	
PFTeDA	170072.7	10	13C2-PFTeDA	423538.7	5.0	0.402	6.42	1.000	2.000	2.251	13	30	
PFHxDA	74302.7	11	13C2-PFTeDA	423538.7	5.0	0.175	6.72	1.050	2.000	2.090	5	30	
PFOA	61703.9	10	13C2-PFTeDA	423538.7	5.0	0.146	6.99	1.090	2.000	2.029	1	30	

Continuing Calibration Verification

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 8:56 am, 11/16/18

REVIEWED
By HMK at 7:38 am, 11/19/18

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV2_CAL3		Data File:	18NOV15D-17.wiff
Sample ID:	CALBRN31833B		Acquis Date:	2018-11-15T14:27:27
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	5		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV15DCCV1-4
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	N/A		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV15D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	708681.5	732179.1	-3	50	
13C2-PFOA	5.0	483368.6	479663.2	1	50	
13C4-PFOS	4.8	262609.5	269685.3	-3	50	
13C2-PFDA	5.0	300649.2	302309.9	-1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	805100.8	13C3-PFBA	708681.5	1.136	5.000	5.093	102	70-130	
E13C5-PFPeA	795910.6	13C3-PFBA	708681.5	1.123	5.000	5.037	101	70-130	
E13C3-PFBS	440796.1	13C3-PFBA	708681.5	0.622	4.650	4.391	94	70-130	
E13C2-4:2-FTS	53277.3	13C2-PFOA	483368.6	0.110	4.670	4.909	105	70-130	
E13C5-PFHxA	698560.7	13C2-PFOA	483368.6	1.445	5.000	5.221	104	70-130	
E13C3-PFHxS	318911.8	13C2-PFOA	483368.6	0.660	4.730	4.527	96	70-130	
E13C4-PFHpA	536513.8	13C2-PFOA	483368.6	1.110	5.000	5.000	100	70-130	
E13C2-6:2-FTS	35048.1	13C2-PFOA	483368.6	0.073	4.750	4.851	102	70-130	
E13C8-PFOA	919301.7	13C2-PFOA	483368.6	1.902	5.000	5.240	105	70-130	
E13C8-PFOS	276362.5	13C4-PFOS	262609.5	1.052	4.780	4.663	98	70-130	
E13C9-PFNA	486368.3	13C4-PFOS	262609.5	1.852	5.000	5.164	103	70-130	
E13C6-PFDA	664128.1	13C2-PFDA	300649.2	2.209	5.000	5.155	103	70-130	
E13C2-8:2-FTS	25867.9	13C2-PFDA	300649.2	0.086	4.790	4.291	90	70-130	
E13C8-PFOSA	691277.8	13C2-PFDA	300649.2	2.299	5.000	5.097	102	70-130	
Ed3-NMeFOSAA	69878.3	13C2-PFDA	300649.2	0.232	5.000	4.195	84	70-130	
E13C7-PFUnDA	276387.0	13C2-PFDA	300649.2	0.919	5.000	5.337	107	70-130	
Ed5-NEtFOSAA	67326.9	13C2-PFDA	300649.2	0.224	5.000	4.738	95	70-130	
E13C2-PFDoDA	544644.0	13C2-PFDA	300649.2	1.812	5.000	4.703	94	70-130	
Ed7-NMePFOSAE	325506.1	13C2-PFDA	300649.2	1.083	5.000	4.685	94	70-130	
Ed3-NMePFOSA	77095.3	13C2-PFDA	300649.2	0.256	5.000	4.659	93	70-130	
Ed9-NEtPFOSAE	275243.8	13C2-PFDA	300649.2	0.915	5.000	4.762	95	70-130	
Ed5-NEtPFOSA	63071.3	13C2-PFDA	300649.2	0.210	5.000	4.921	98	70-130	
E13C2-PFTeDA	423538.7	13C2-PFDA	300649.2	1.409	5.000	4.946	99	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CCV2_CAL3

Instrument Name: LM27631

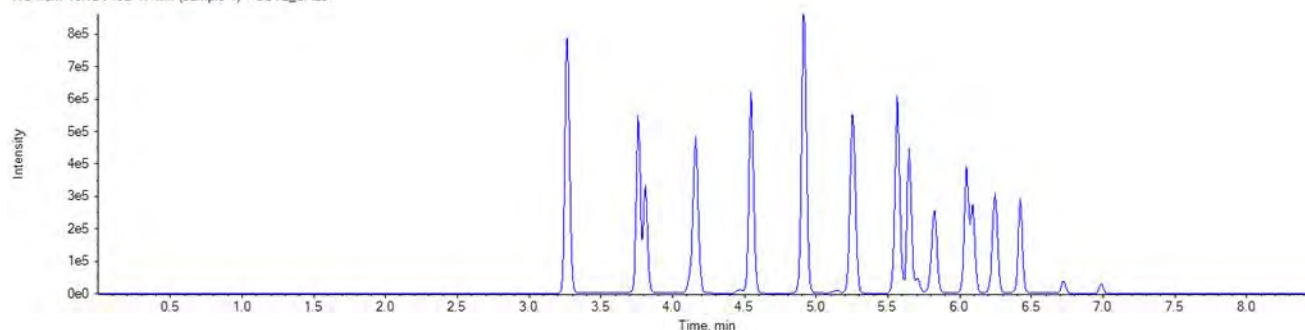
File Name: 18NOV15D-17.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	330111.6		A	13C4-PFBA	3.26	805100.8	0.410	2.271
PFPeA	3.76	1.000	311444.5		A	13C5-PFPeA	3.76	795910.6	0.391	2.265
PFBS	3.81	1.000	170752.0		A	13C3-PFBS	3.81	440796.1	0.387	1.843
4:2-FTS	4.12	1.000	38005.5		A	13C2-4:2-FTS	4.12	53277.3	0.713	1.937
PFHxA	4.16	1.000	331266.2		A	13C5-PFHxA	4.16	698560.7	0.474	1.980
PFPeS	4.18	1.100	92420.6		A	13C3-PFBS	3.81	440796.1	0.210	2.036
PFHpA	4.55	1.000	392775.4		A	13C4-PFHpA	4.55	536513.8	0.732	2.427
PFHxS	4.55	1.000	127507.7		M	13C3-PFHxS	4.55	318911.8	0.400	1.939
6:2-FTS	4.90	1.000	30390.4		A	13C2-6:2-FTS	4.90	35048.1	0.867	2.098
PFHpS	4.91	1.080	127618.9		A	13C3-PFHxS	4.55	318911.8	0.400	2.107
PFOA	4.92	1.000	378071.7		A	13C8-PFOA	4.92	919301.7	0.411	2.196
PFOS	5.25	1.000	125131.3		M	13C8-PFOS	5.25	276362.5	0.453	1.980
PFNA	5.26	1.000	313870.7		A	13C9-PFNA	5.26	486368.3	0.645	2.327
PFNS	5.54	1.060	82338.4		A	13C8-PFOS	5.25	276362.5	0.298	2.084
PFDA	5.57	1.000	253223.2		A	13C6-PFDA	5.57	664128.1	0.381	2.021
8:2-FTS	5.57	1.000	24874.7		A	13C2-8:2-FTS	5.57	25867.9	0.962	2.242
PFOSA	5.65	1.000	287731.8		A	13C8-PFOSA	5.65	691277.8	0.416	2.033
NMeFOSAA	5.71	1.000	28588.3		A	d3-NMeFOSAA	5.70	69878.3	0.409	2.312
PFDS	5.80	1.110	61289.2		A	13C8-PFOS	5.25	276362.5	0.222	2.009
PfUnDA	5.82	1.000	212907.1		A	13C7-PfUnDA	5.82	276387.0	0.770	2.014
NEtFOSAA	5.84	1.000	26369.1		M	d5-NEtFOSAA	5.83	67326.9	0.392	2.053
PFDaDA	6.05	1.000	239087.4		A	13C2-PFDaDA	6.05	544644.0	0.439	2.235
10:2-FTS	6.06	1.090	18636.1		A	13C2-8:2-FTS	5.57	25867.9	0.720	2.400
NMePFOSAE	6.09	1.000	179582.3		A	d7-NMePFOSAE	6.09	325506.1	0.552	2.296
NMePFOSA	6.10	1.000	32647.0		A	d3-NMePFOSA	6.10	77095.3	0.423	2.089
PFDaS	6.21	1.180	31258.0		A	13C8-PFOS	5.25	276362.5	0.113	1.981
NEtPFOSAE	6.25	1.000	186894.4		A	d9-NEtPFOSAE	6.24	275243.8	0.679	2.178
NEtPFOSA	6.26	1.000	28095.6		A	d5-NEtPFOSA	6.26	63071.4	0.445	2.046
PFTaDA	6.25	1.030	196890.1		A	13C2-PFDaDA	6.05	544644.0	0.362	2.282
PFTeDA	6.42	1.000	170072.7		A	13C2-PFTeDA	6.42	423538.7	0.402	2.251
PFHxDA	6.72	1.050	74302.7		A	13C2-PFTeDA	6.42	423538.7	0.175	2.090
PFODA	6.99	1.090	61703.9		A	13C2-PFTeDA	6.42	423538.7	0.146	2.029

Total Ion Chromatogram

TIC from 18NOV15D-17.wiff (sample 1) - CCV2_CAL3



APPROVED

By JPT at 8:56 am, 11/16/18

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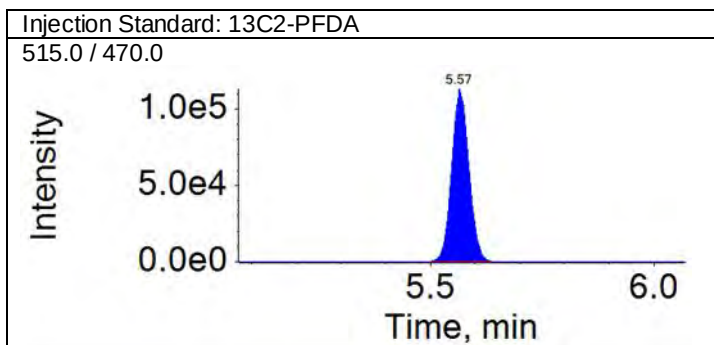
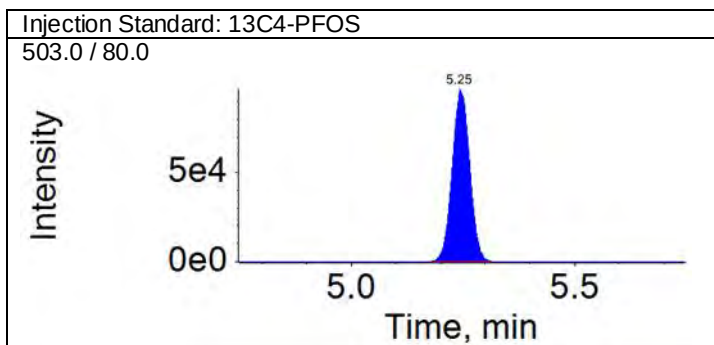
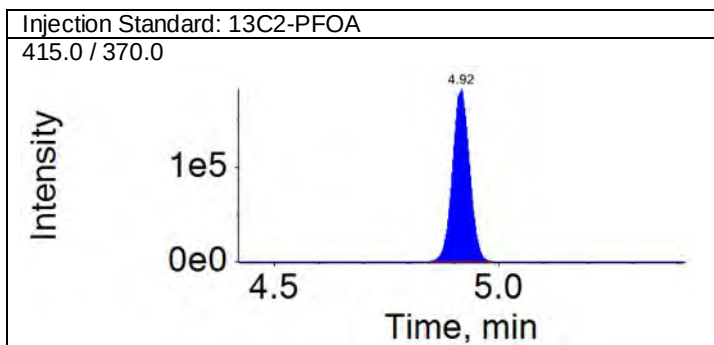
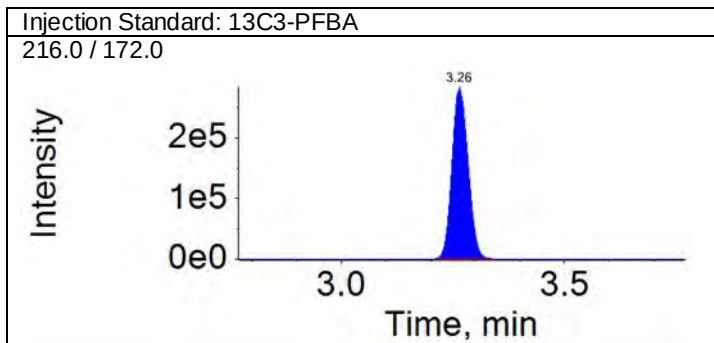
REVIEWED

By HMK at 7:38 am, 11/19/18

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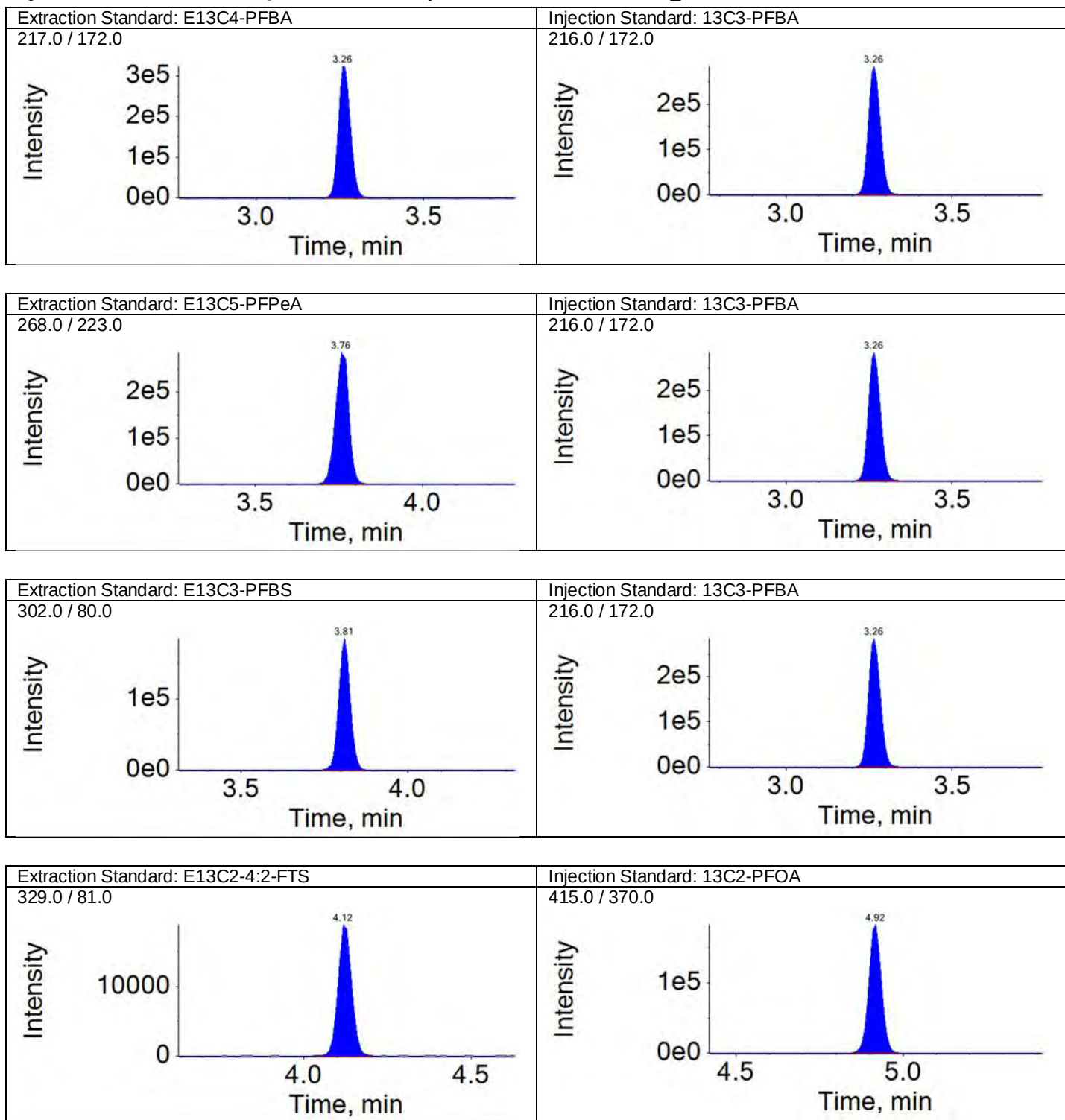
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



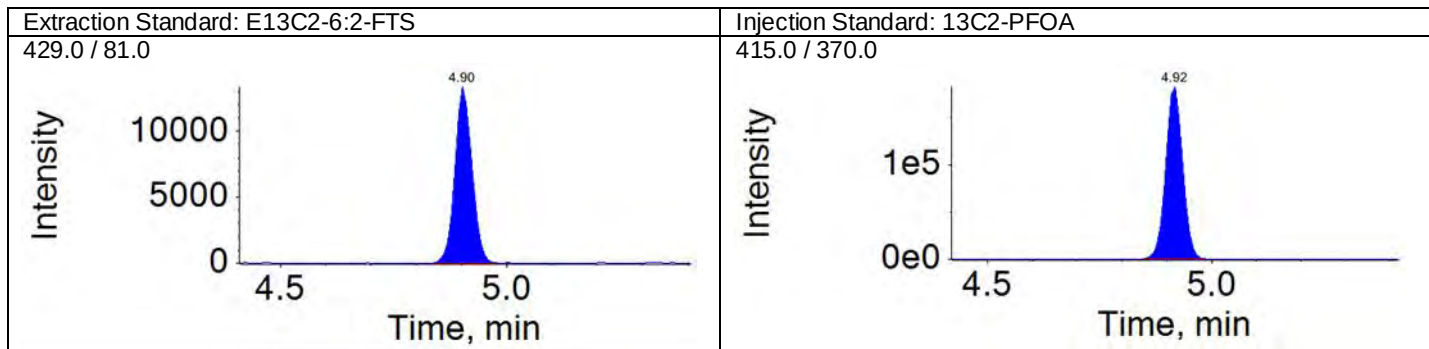
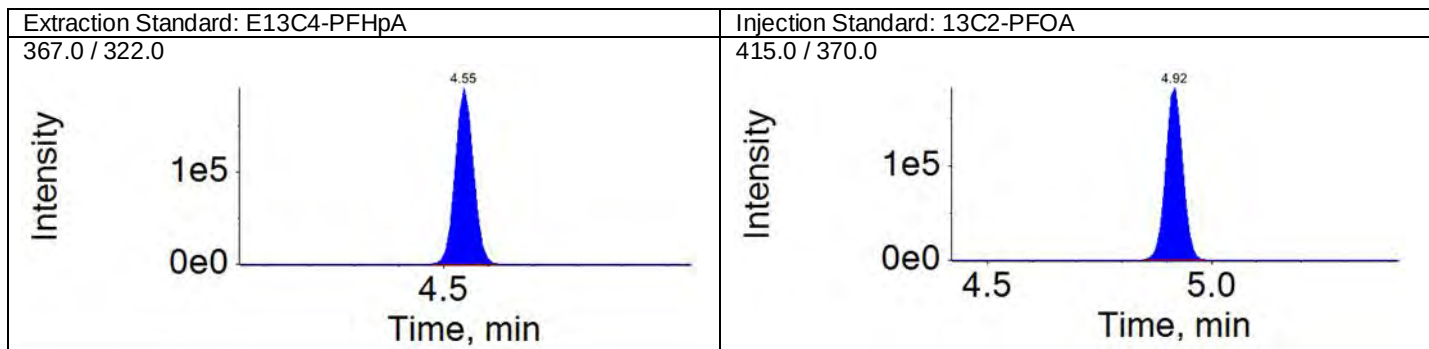
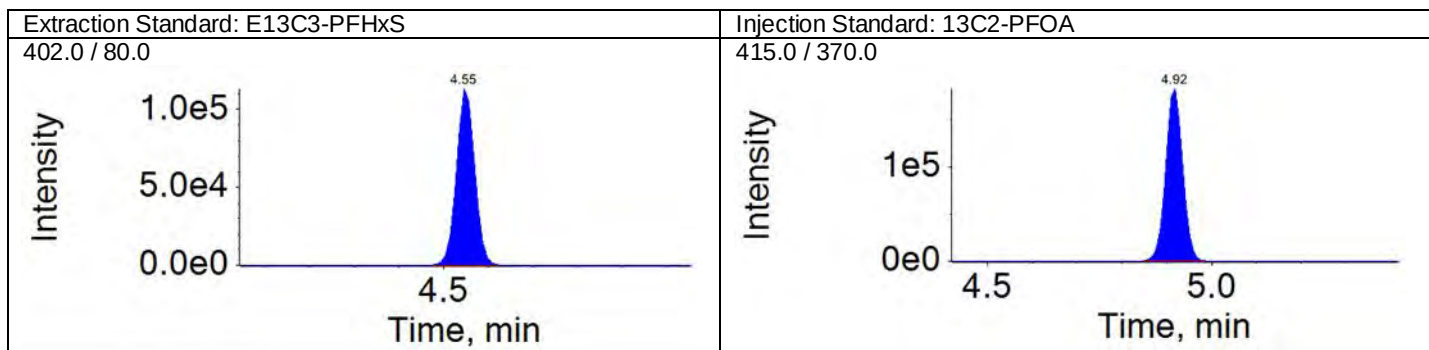
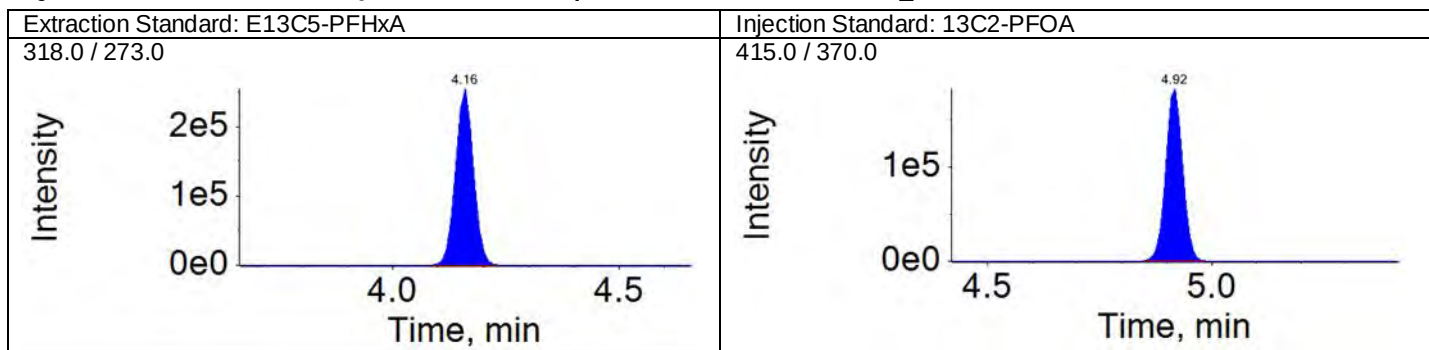
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



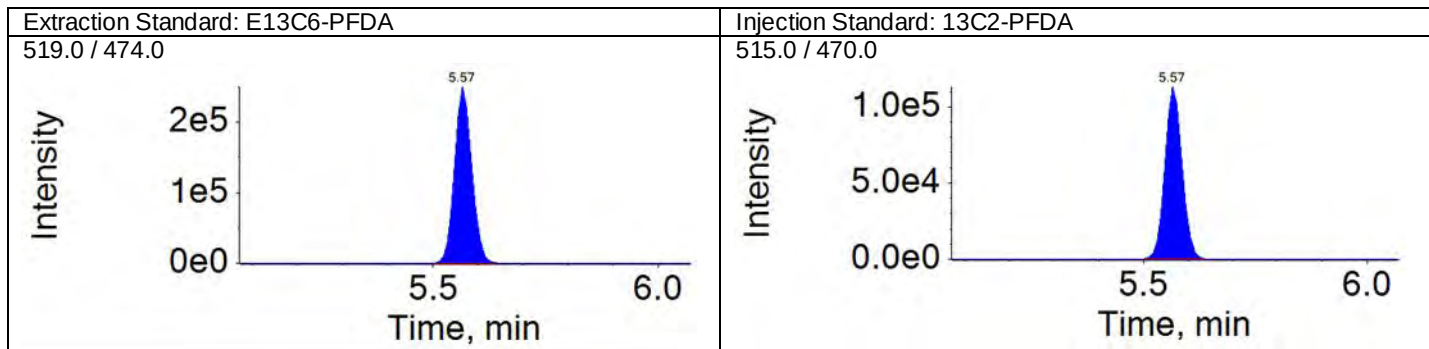
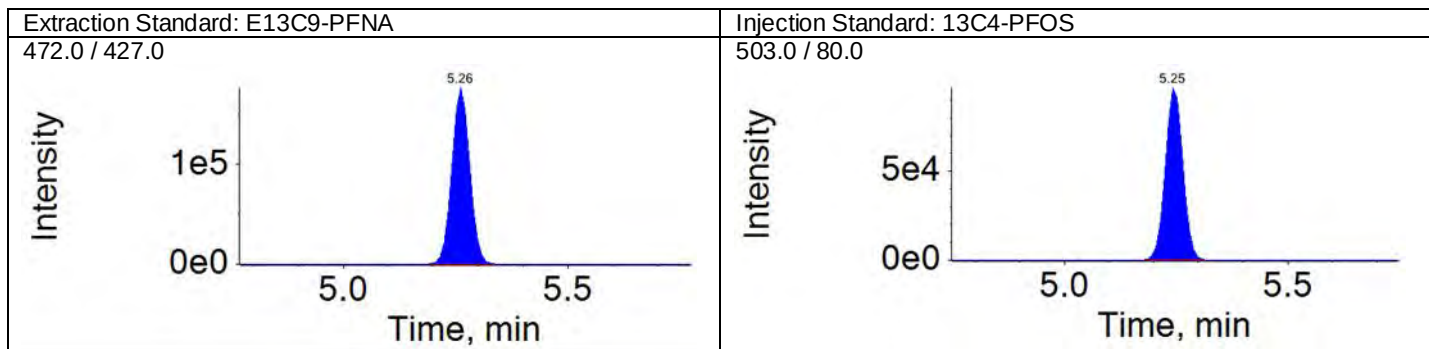
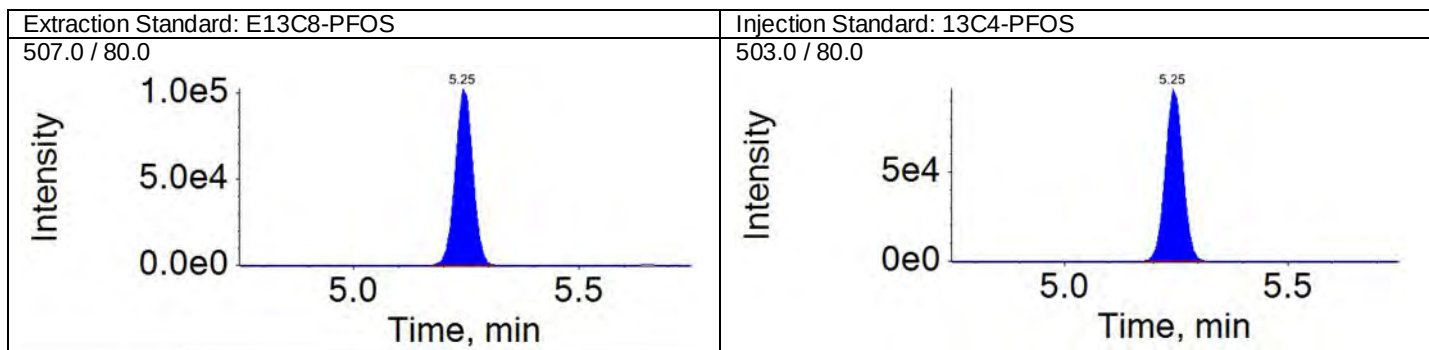
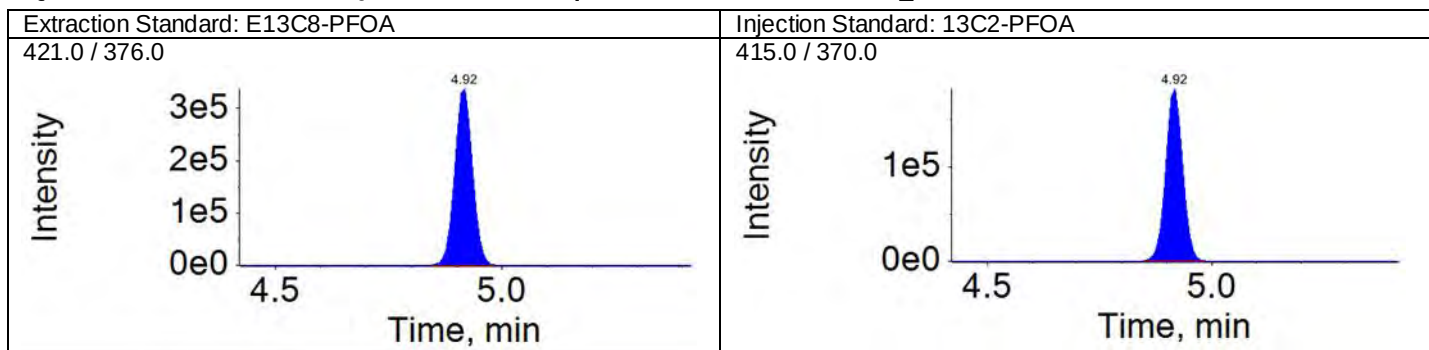
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



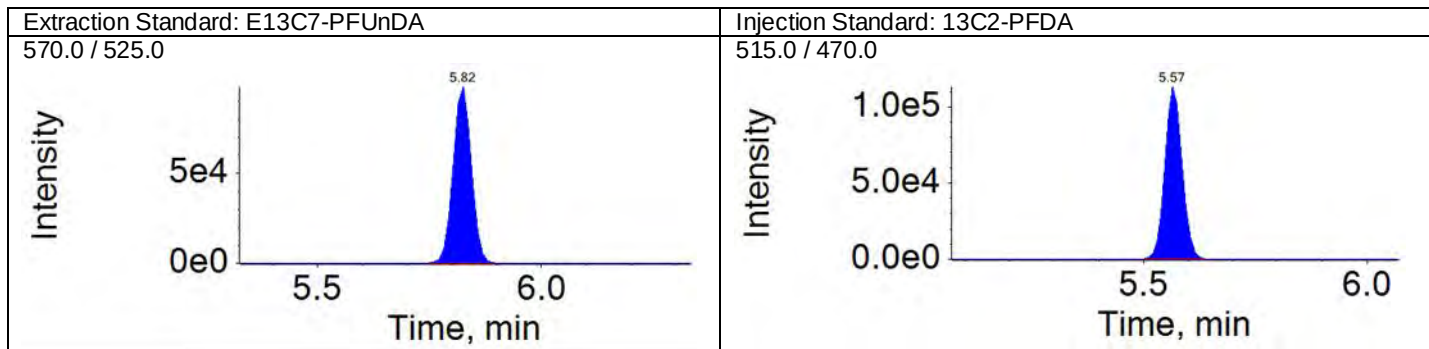
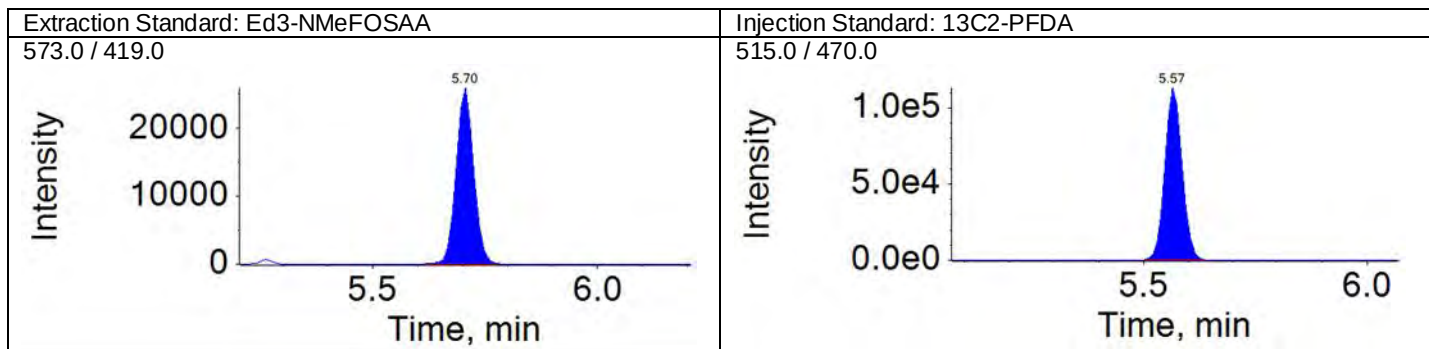
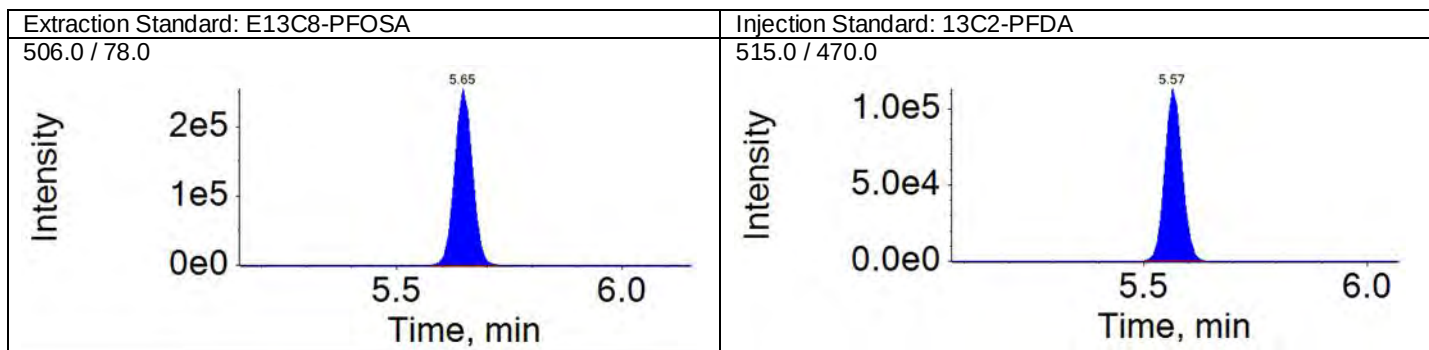
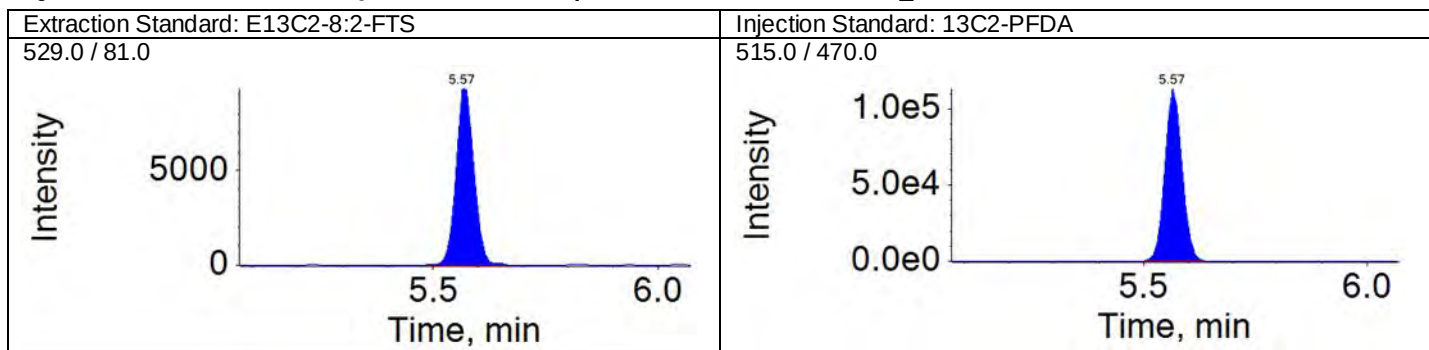
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



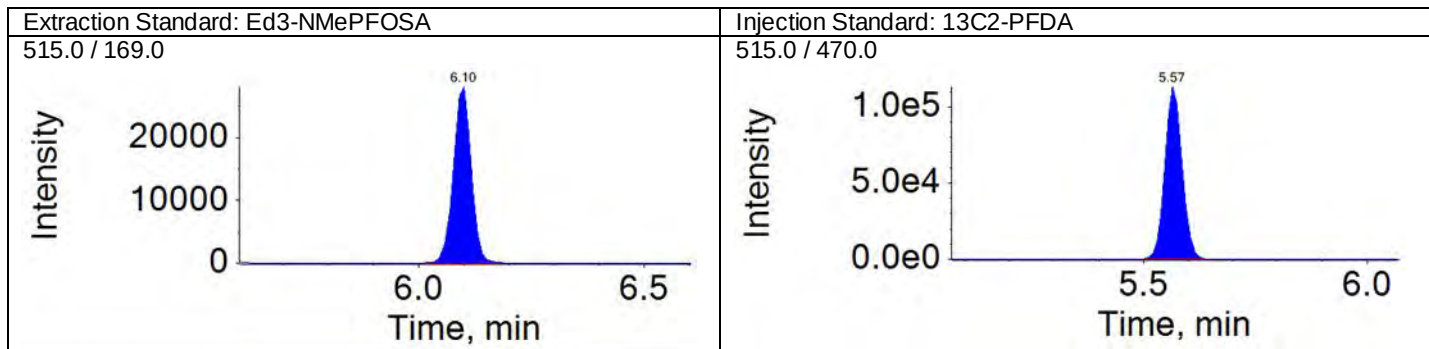
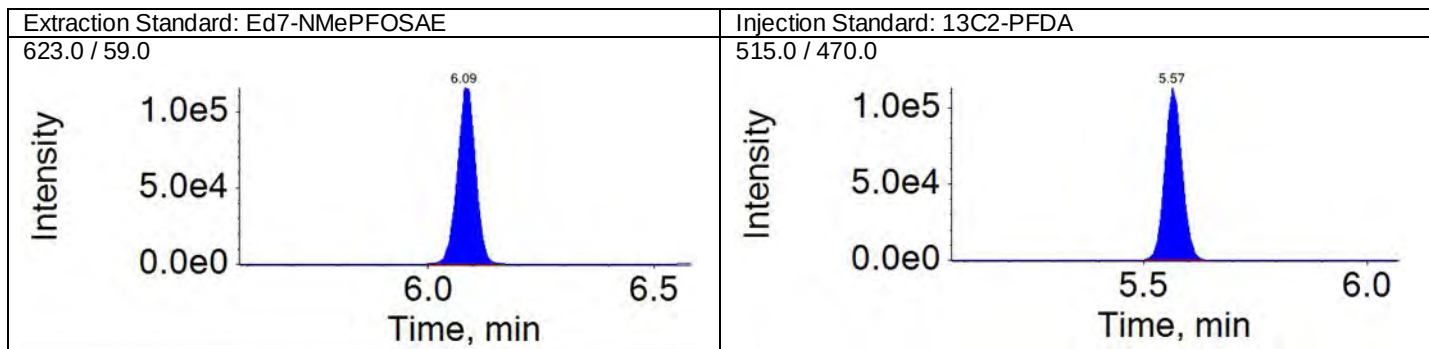
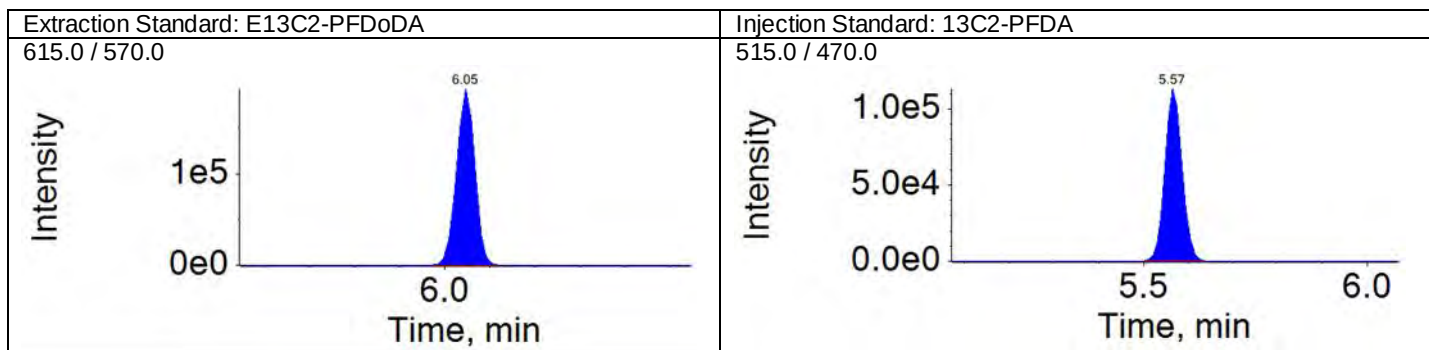
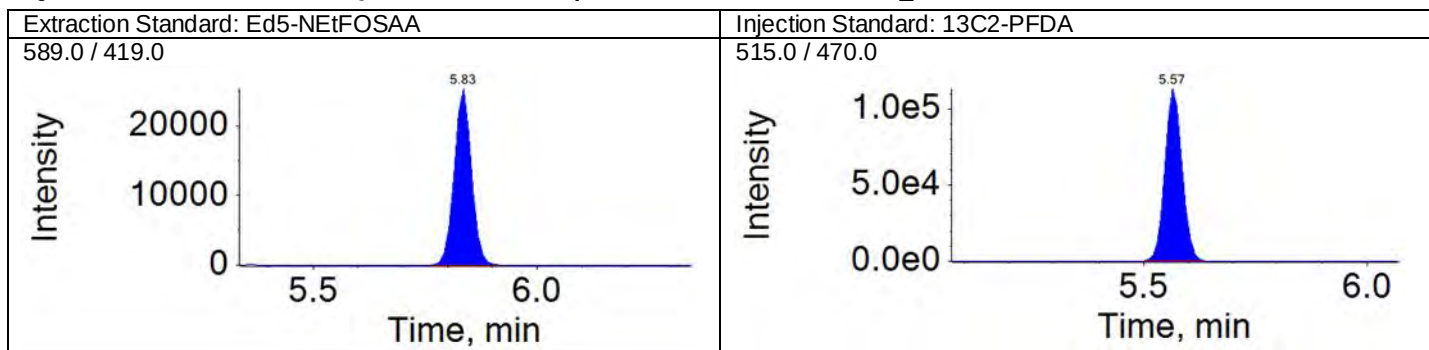
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



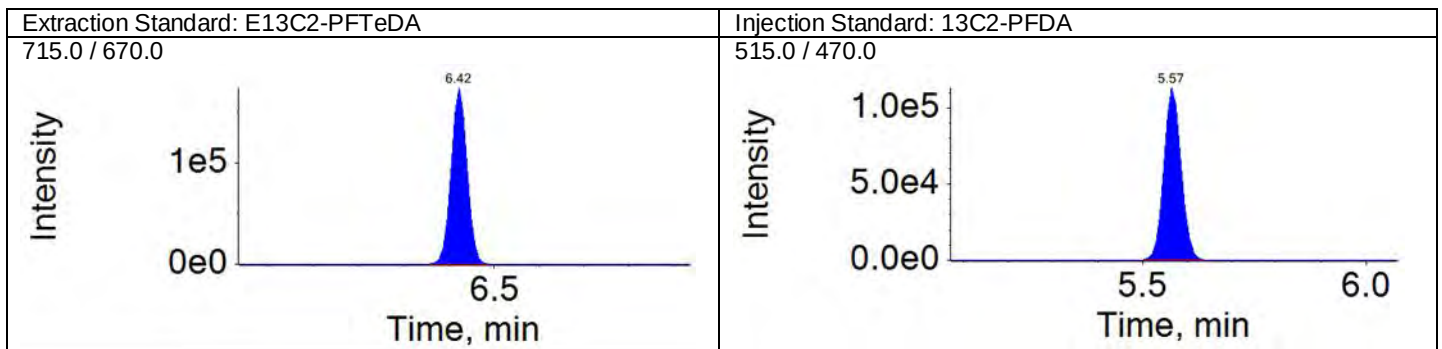
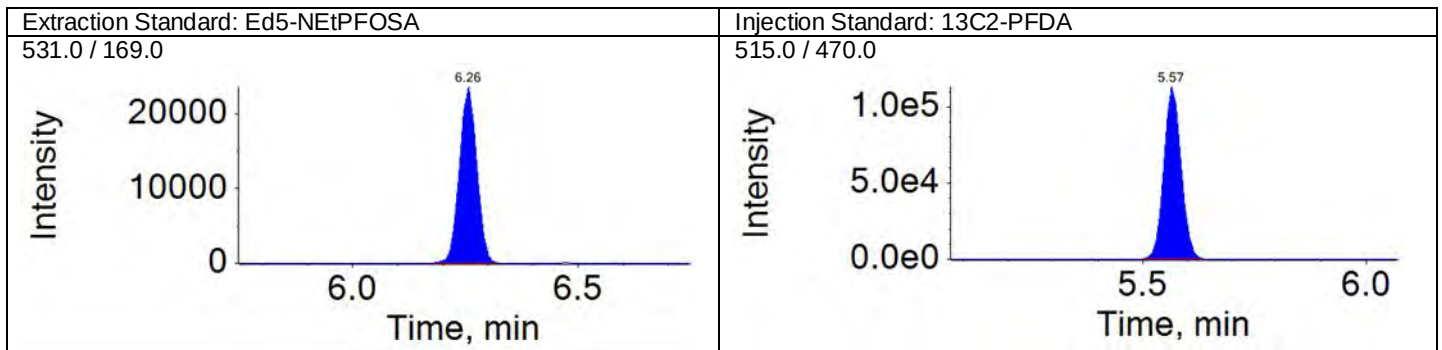
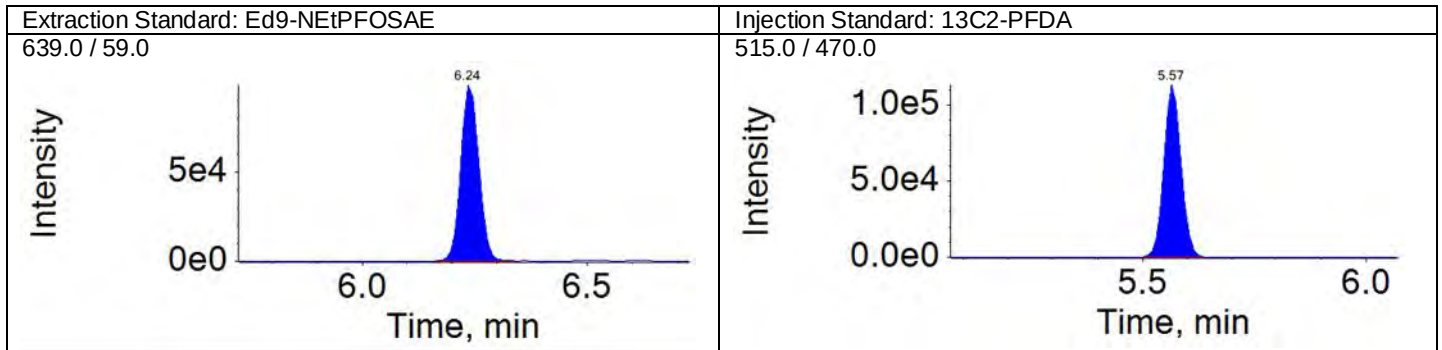
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



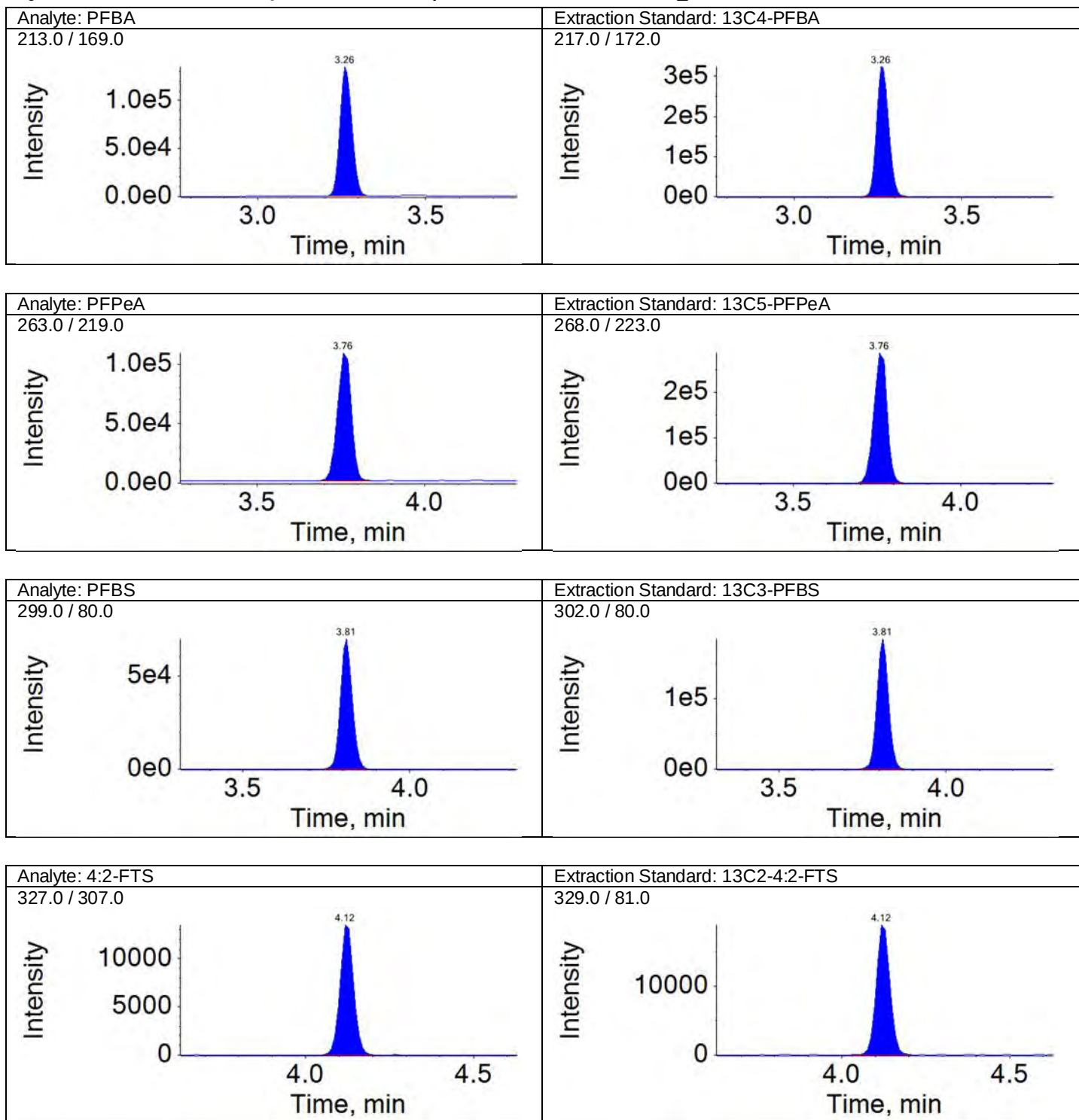
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



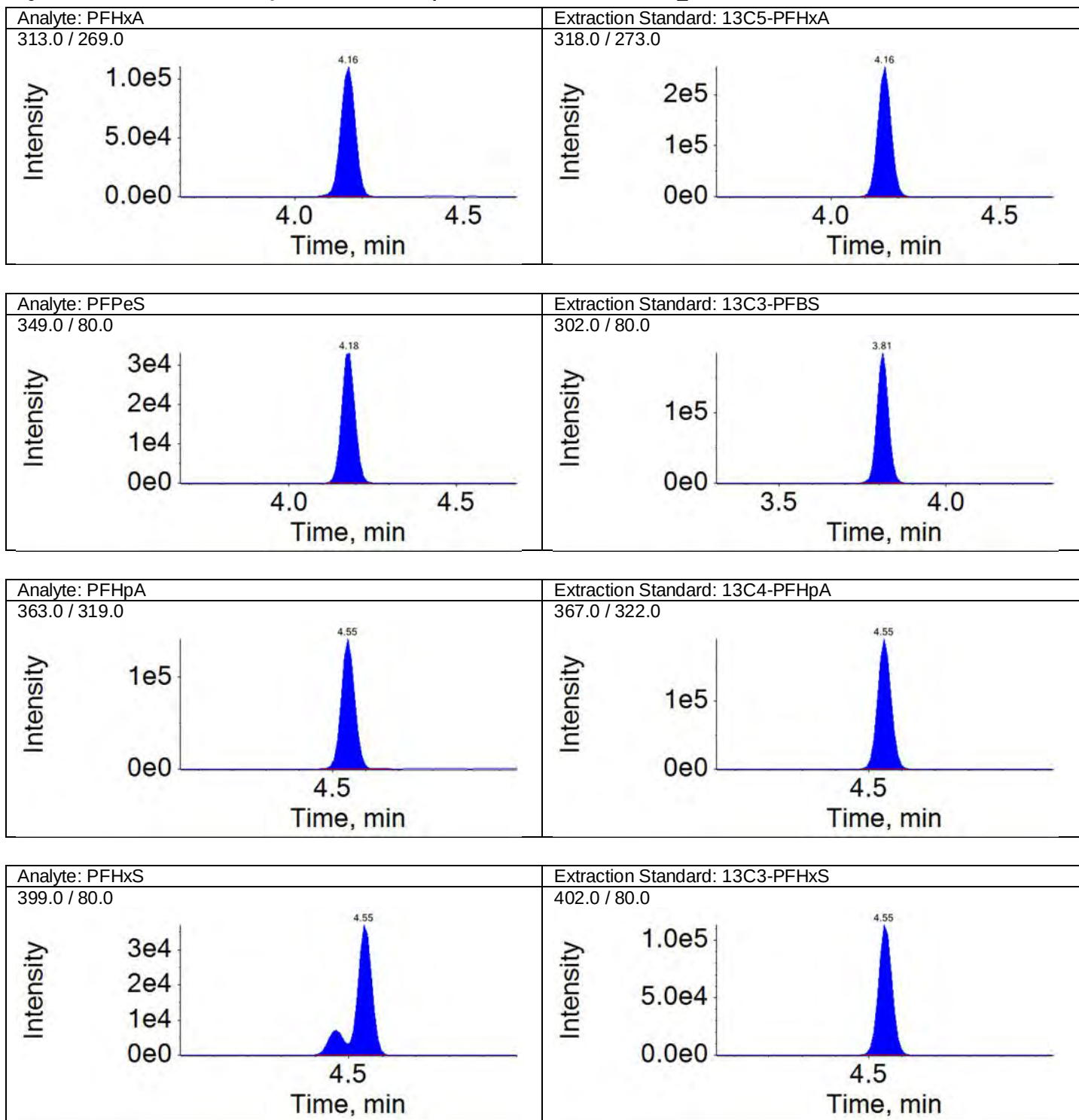
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



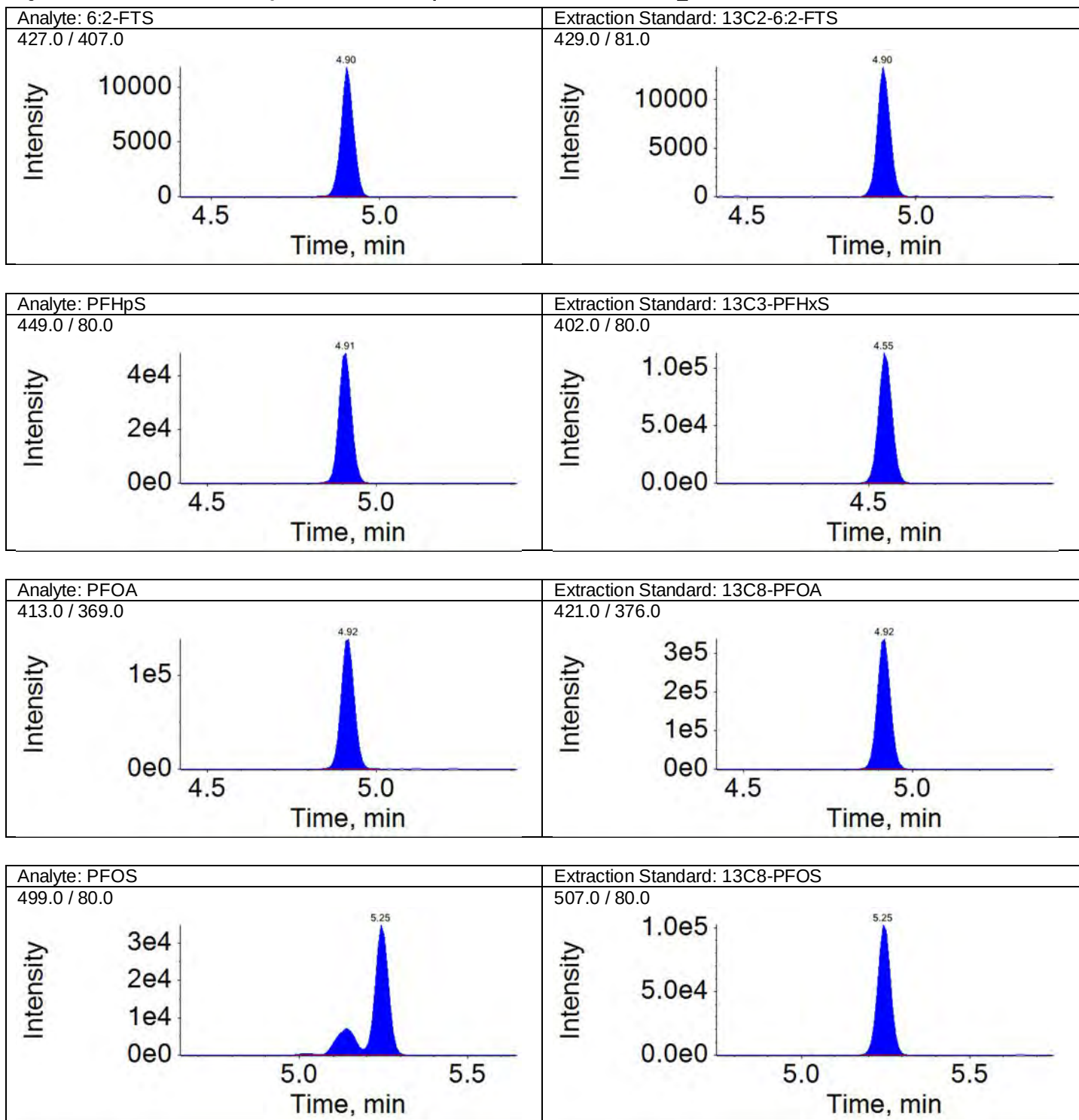
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



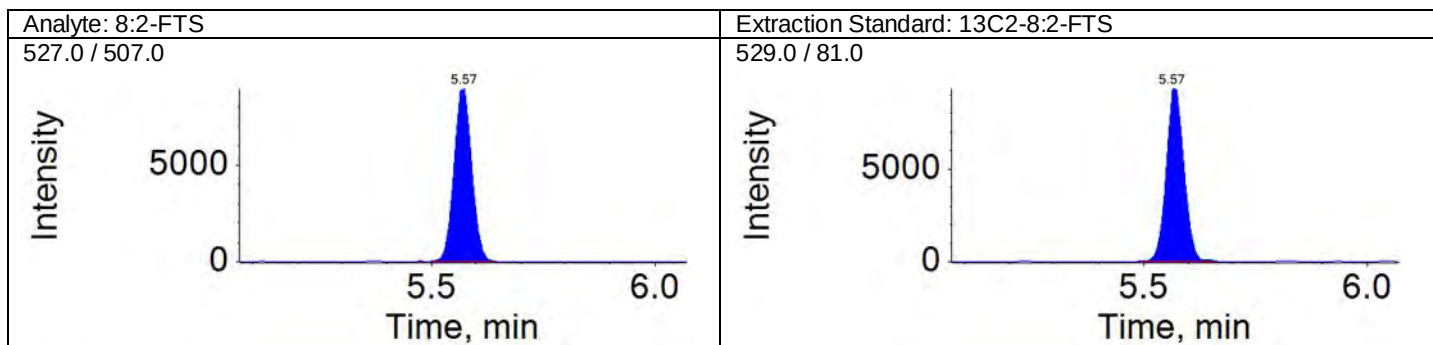
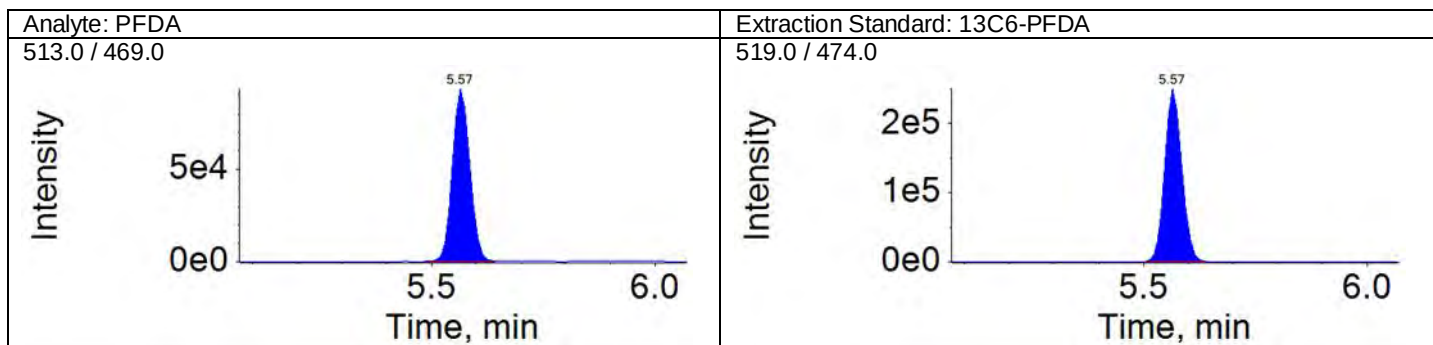
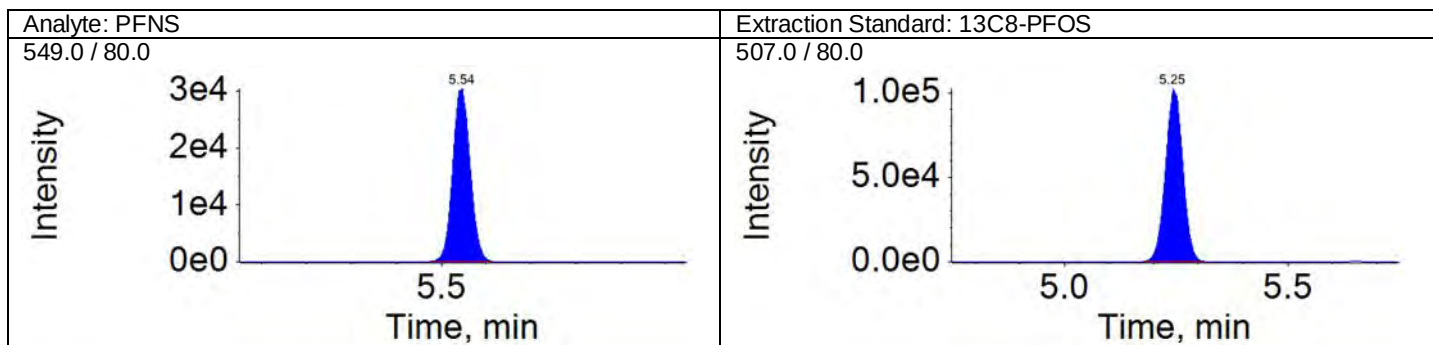
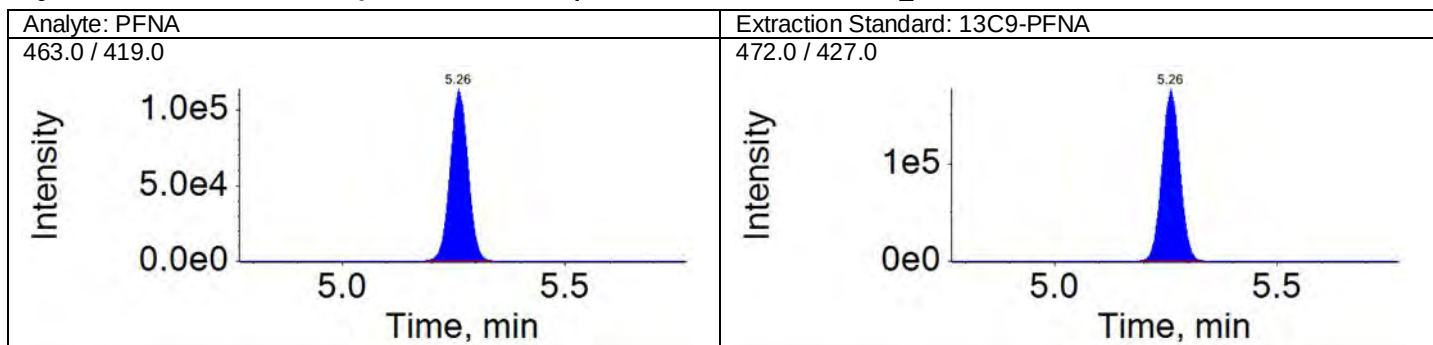
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



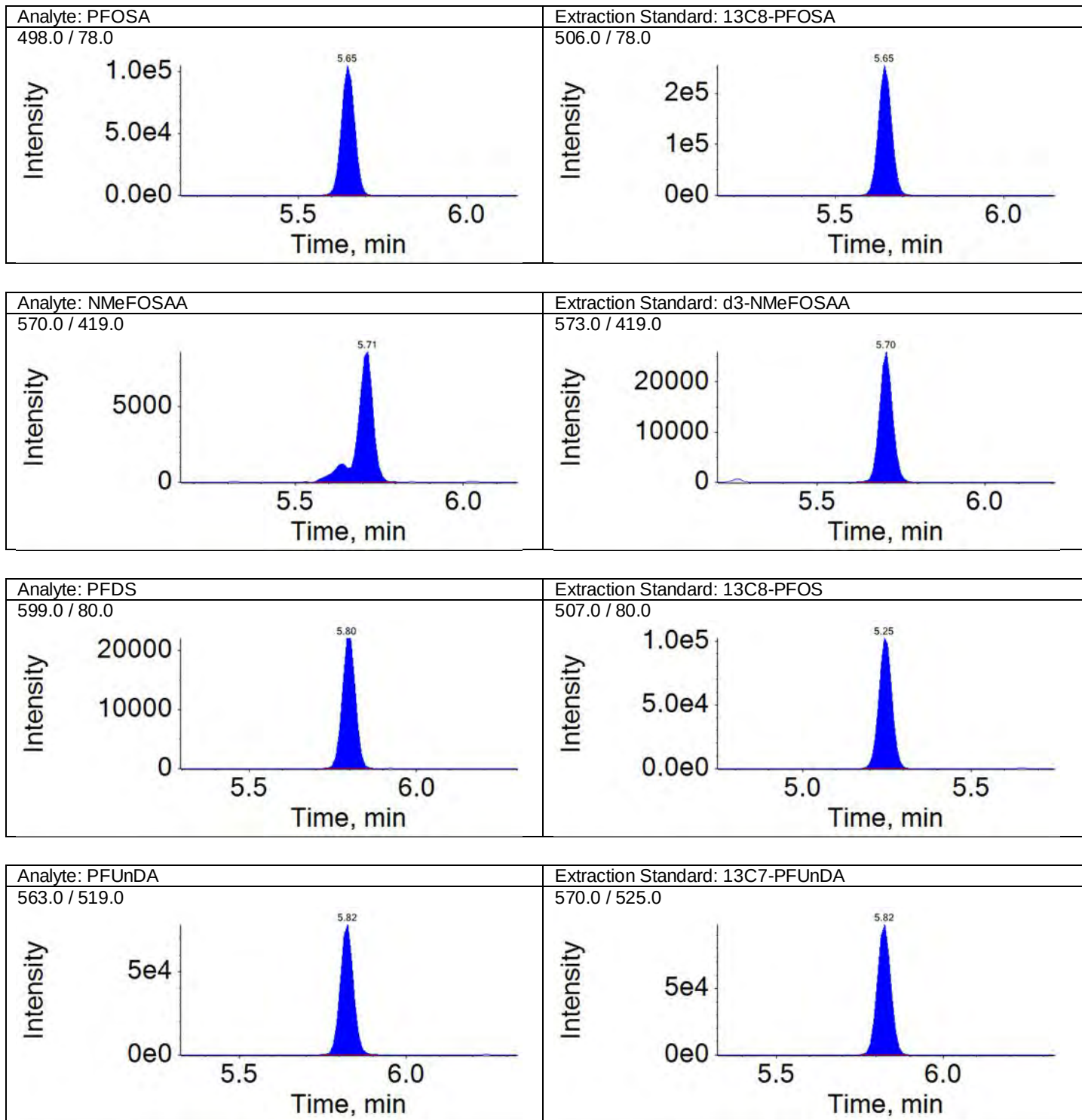
ICAL Name: 18NOV12DCAL
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Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



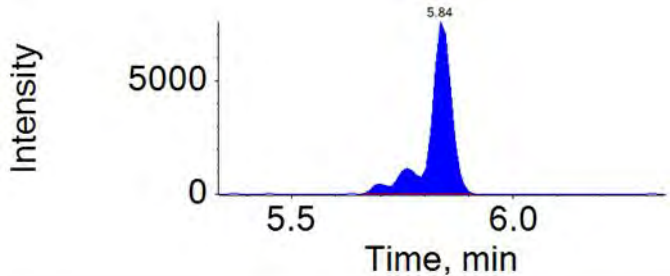
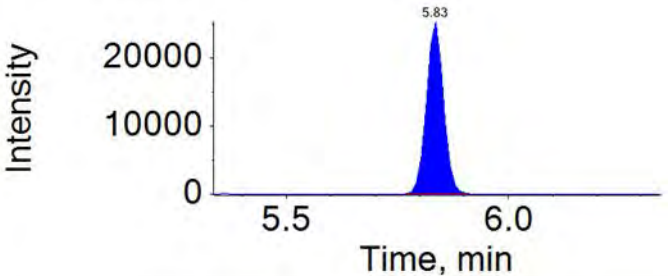
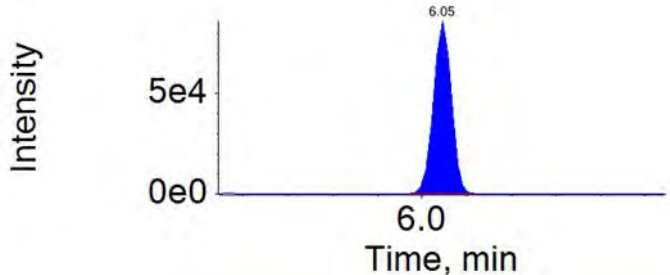
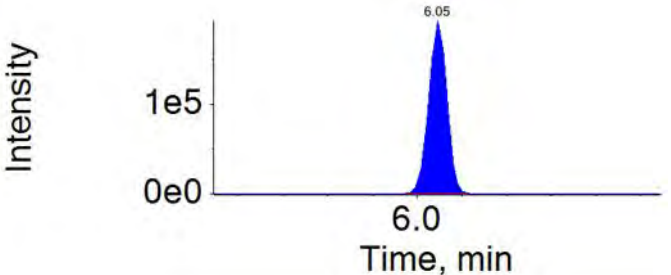
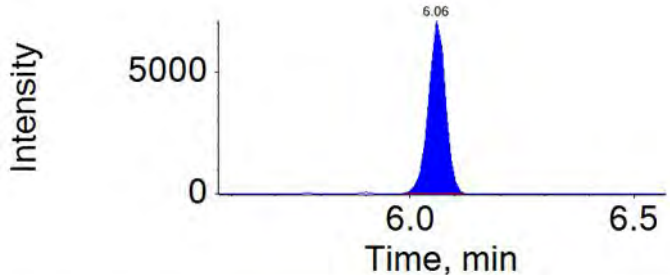
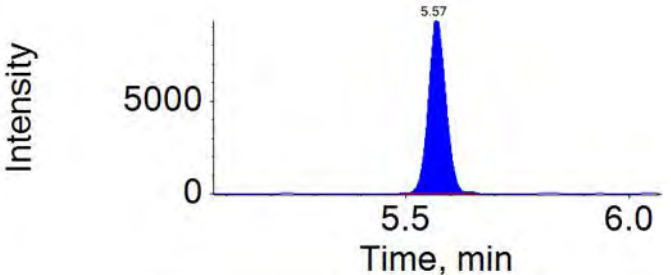
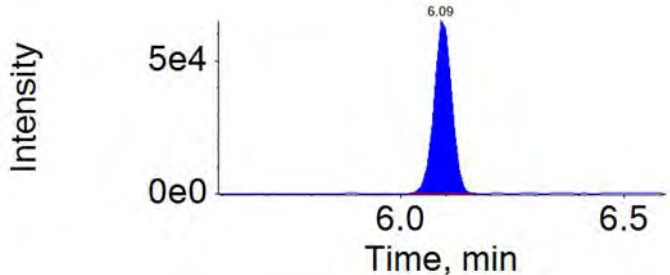
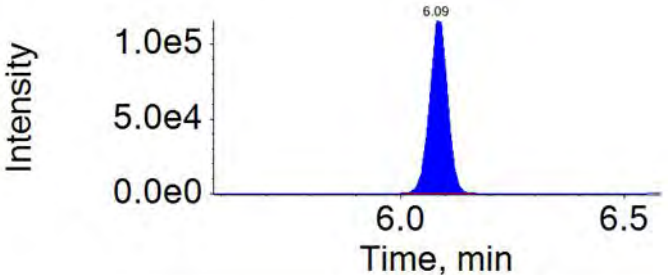
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



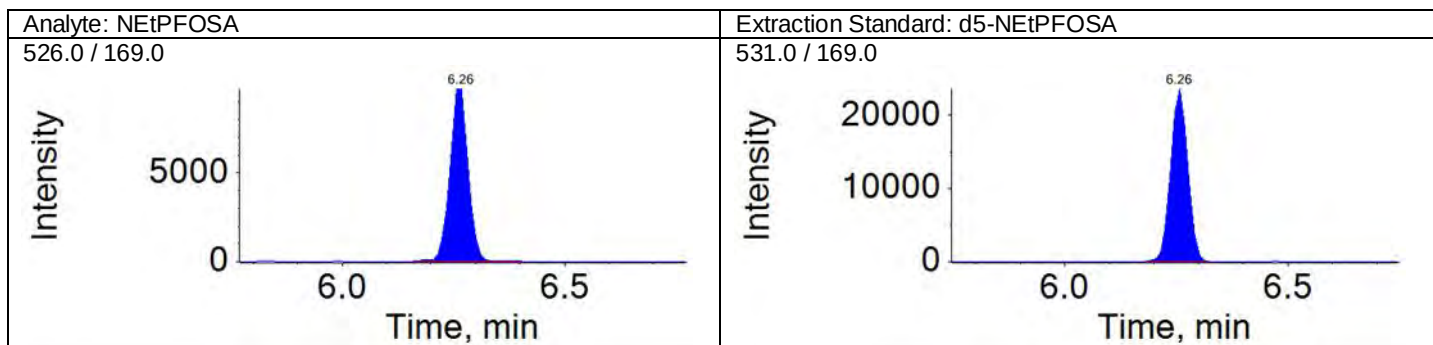
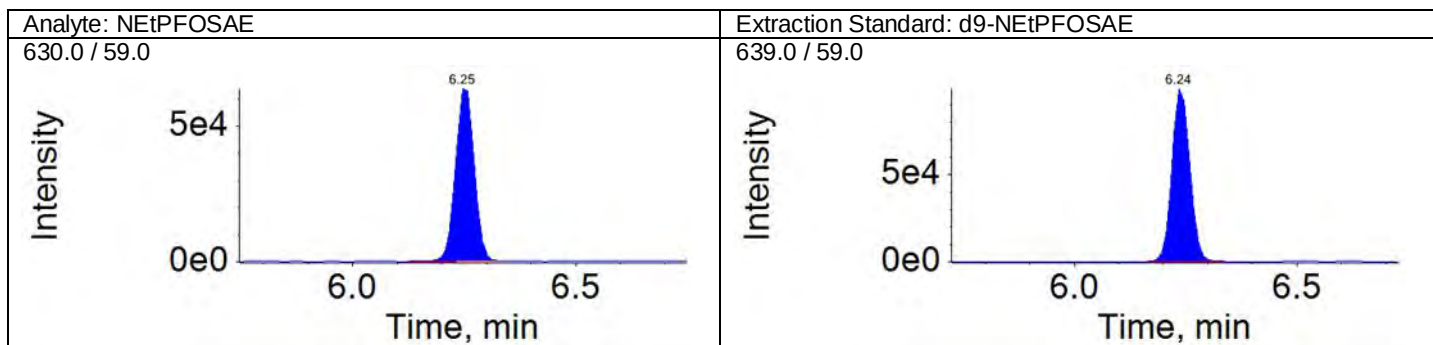
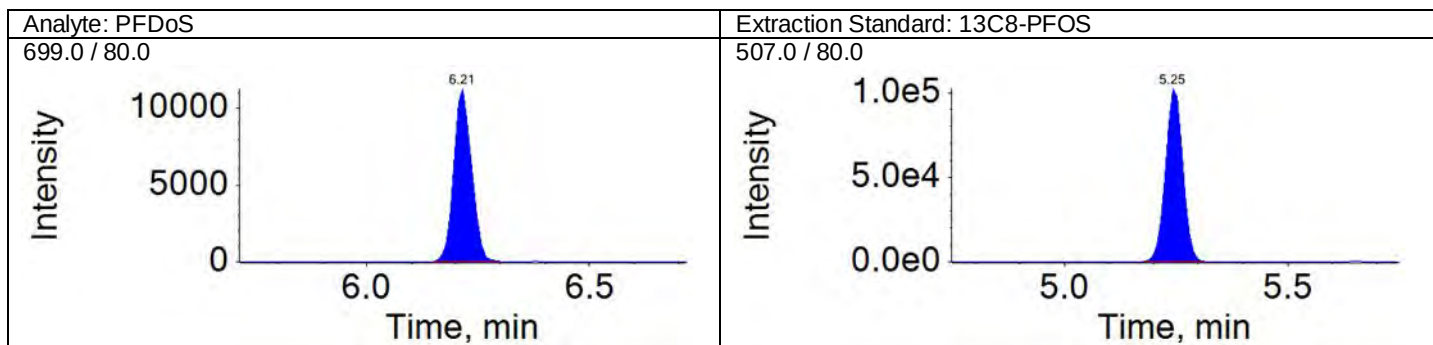
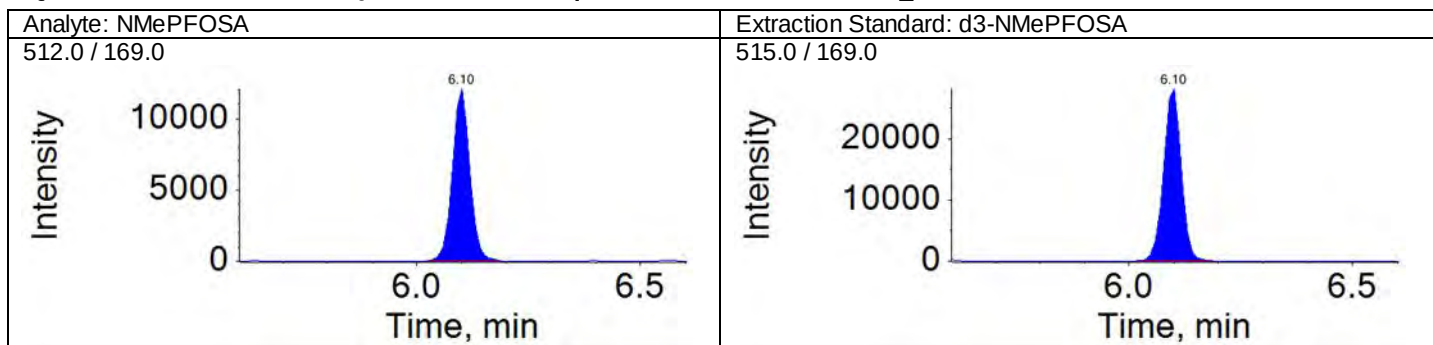
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

Analyte: NEtFOSAA 584.0 / 419.0 	Extraction Standard: d5-NEtFOSAA 589.0 / 419.0 
Analyte: PFDoDA 613.0 / 569.0 	Extraction Standard: 13C2-PFDoDA 615.0 / 570.0 
Analyte: 10:2-FTS 627.0 / 607.0 	Extraction Standard: 13C2-8:2-FTS 529.0 / 81.0 
Analyte: NMePFOSAE 616.0 / 59.0 	Extraction Standard: d7-NMePFOSAE 623.0 / 59.0 

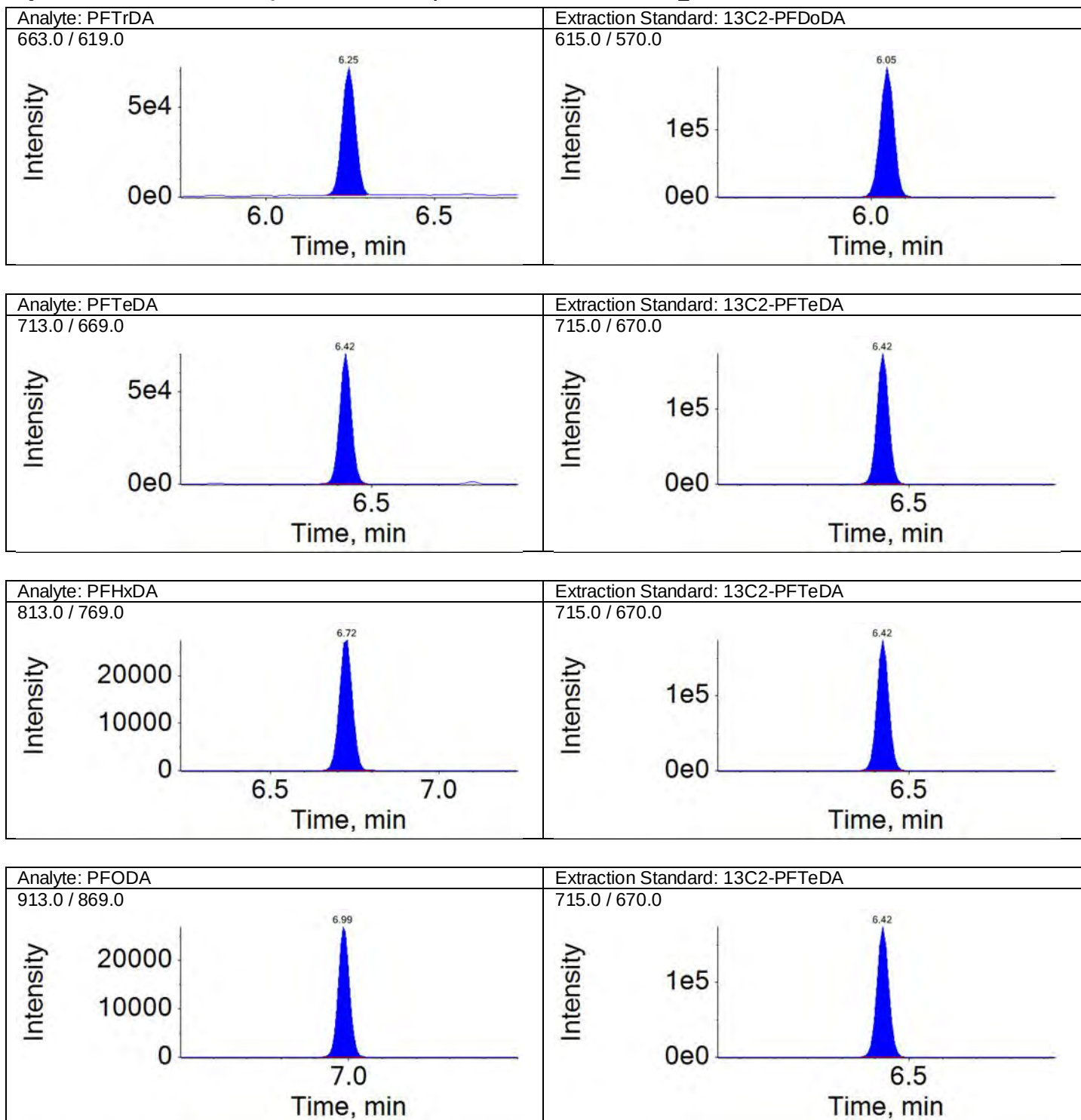
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV15DCCV1-4
Results Table Date: 11/16/2018 8:47:00 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:

PFHxS

RT (min.):

4.55

Peak Area:

105613.5

Mass Range:

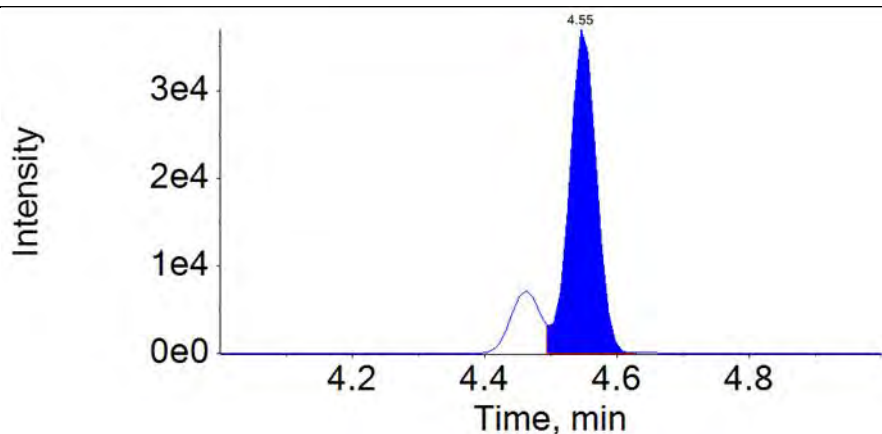
399.0 / 80.0

File Name:

18NOV15D-17.wiff

Sample Name:

CCV2_CAL3

**Component Name:**

PFOS

RT (min.):

5.25

Peak Area:

95008.8

Mass Range:

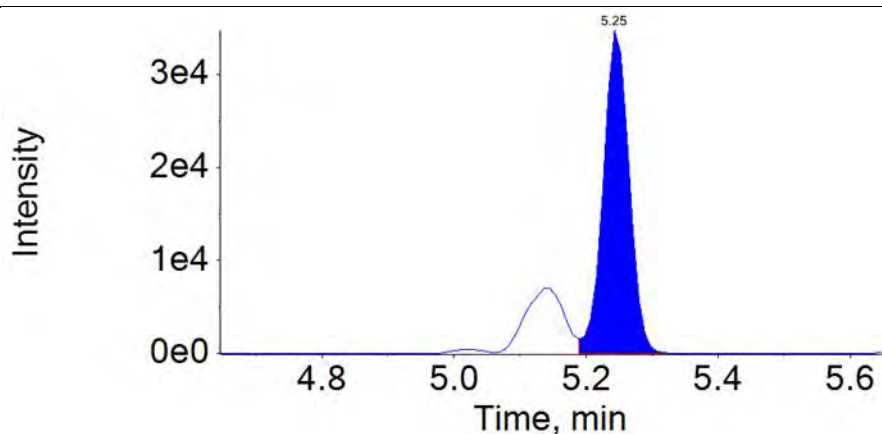
499.0 / 80.0

File Name:

18NOV15D-17.wiff

Sample Name:

CCV2_CAL3

**Component Name:**

NEtFOSAA

RT (min.):

5.84

Peak Area:

21660.4

Mass Range:

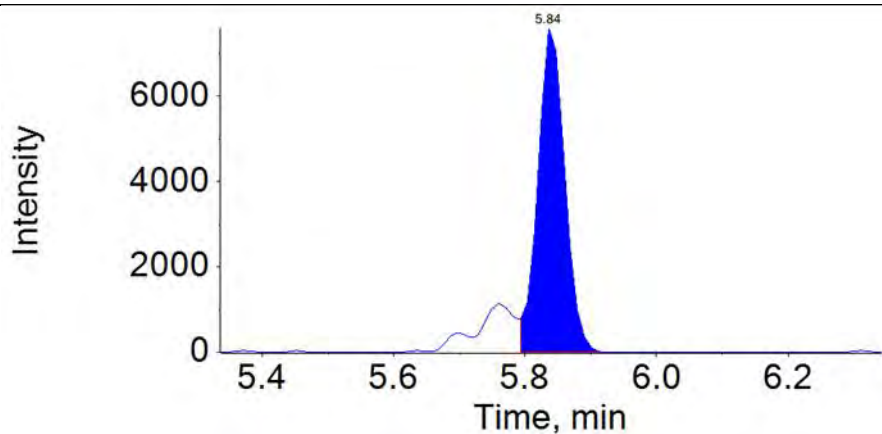
584.0 / 419.0

File Name:

18NOV15D-17.wiff

Sample Name:

CCV2_CAL3



Results Table Name: 18NOV15DCCV1-4
Results Table Date: 11/16/2018 8:47:00 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:

PFOS_2

RT (min.):

5.25

Peak Area:

32951.7

Mass Range:

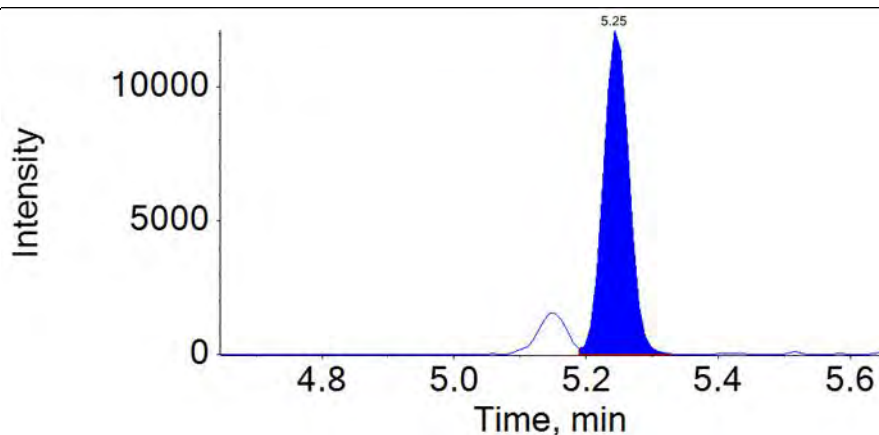
499.0 / 99.0

File Name:

18NOV15D-17.wiff

Sample Name:

CCV2_CAL3



Integration Comment: incorrect integration

Component Name:

NMeFOSAA_2

RT (min.):

5.71

Peak Area:

6100.5

Mass Range:

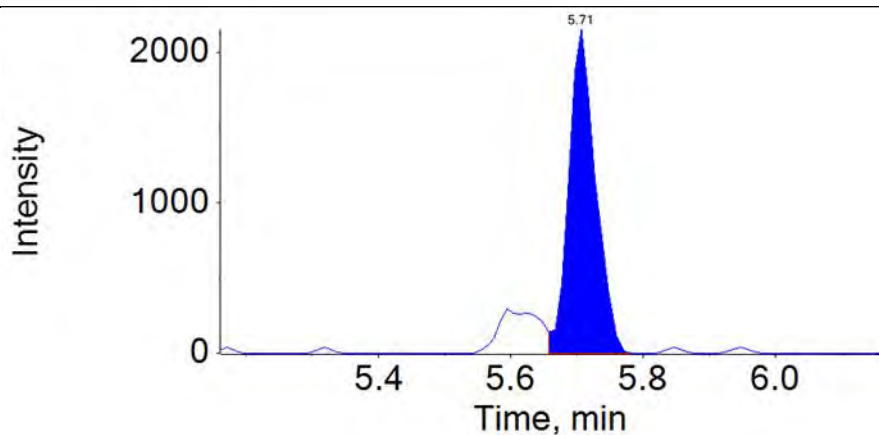
570.0 / 483.0

File Name:

18NOV15D-17.wiff

Sample Name:

CCV2_CAL3



Integration Comment: incorrect integration

Component Name:

NEtFOSAA_2

RT (min.):

5.84

Peak Area:

12155.7

Mass Range:

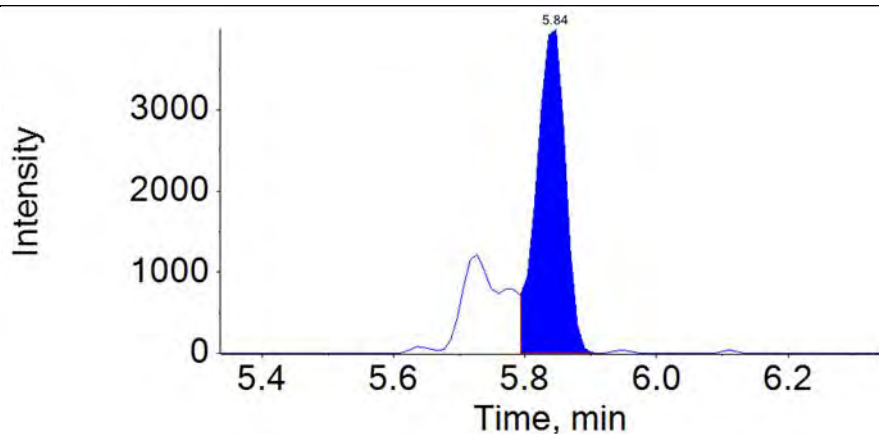
584.0 / 526.0

File Name:

18NOV15D-17.wiff

Sample Name:

CCV2_CAL3



Integration Comment: incorrect integration

Results Table Name: 18NOV15DCCV1-4
Results Table Date: 11/16/2018 8:47:00 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By JPT at 8:56 am, 11/16/18

REVIEWED
By HMK at 7:38 am, 11/19/18

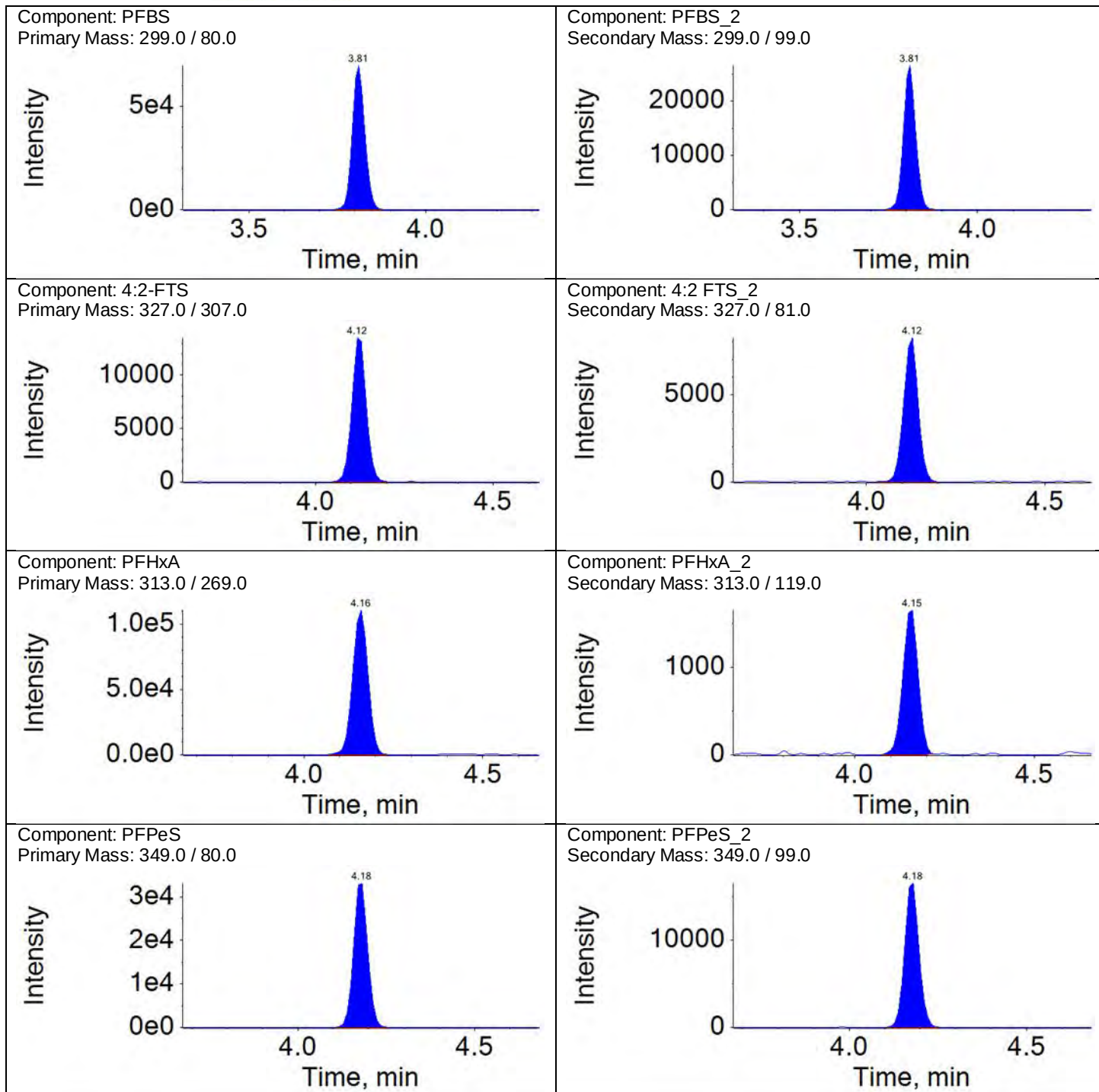
Ion Ratio Report

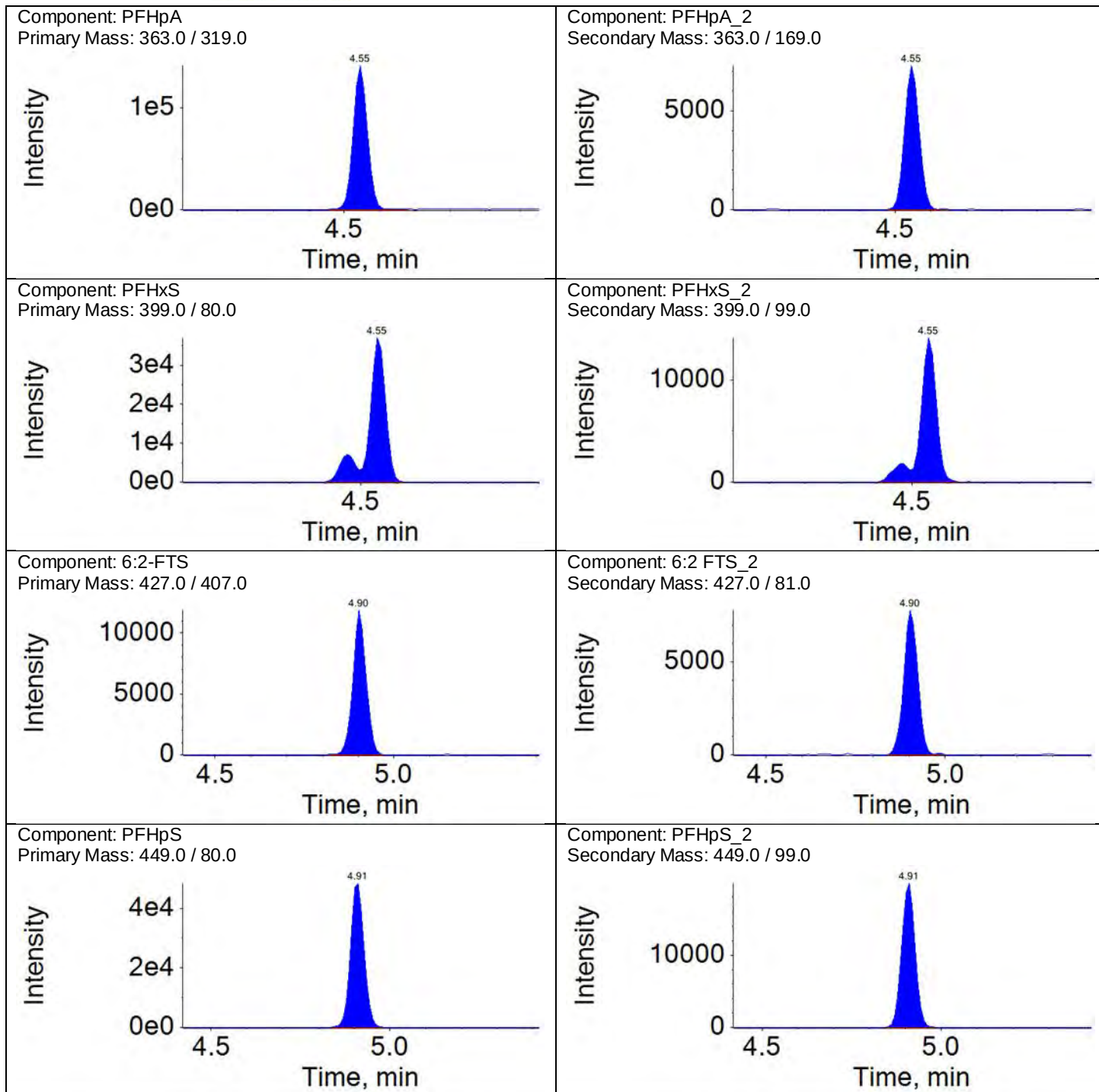
Sample Name: CCV2_CAL3

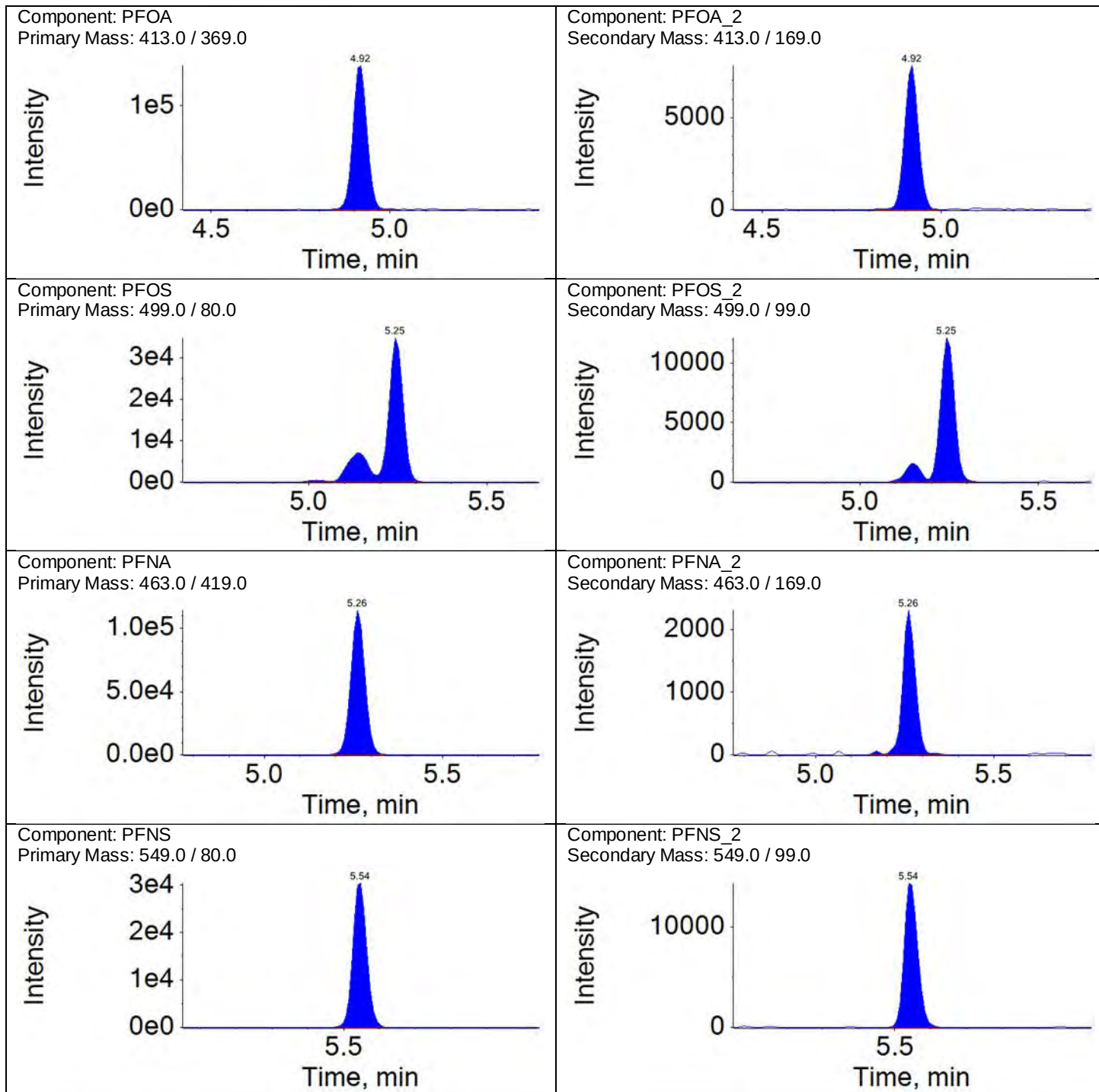
Instrument Name: LM27631

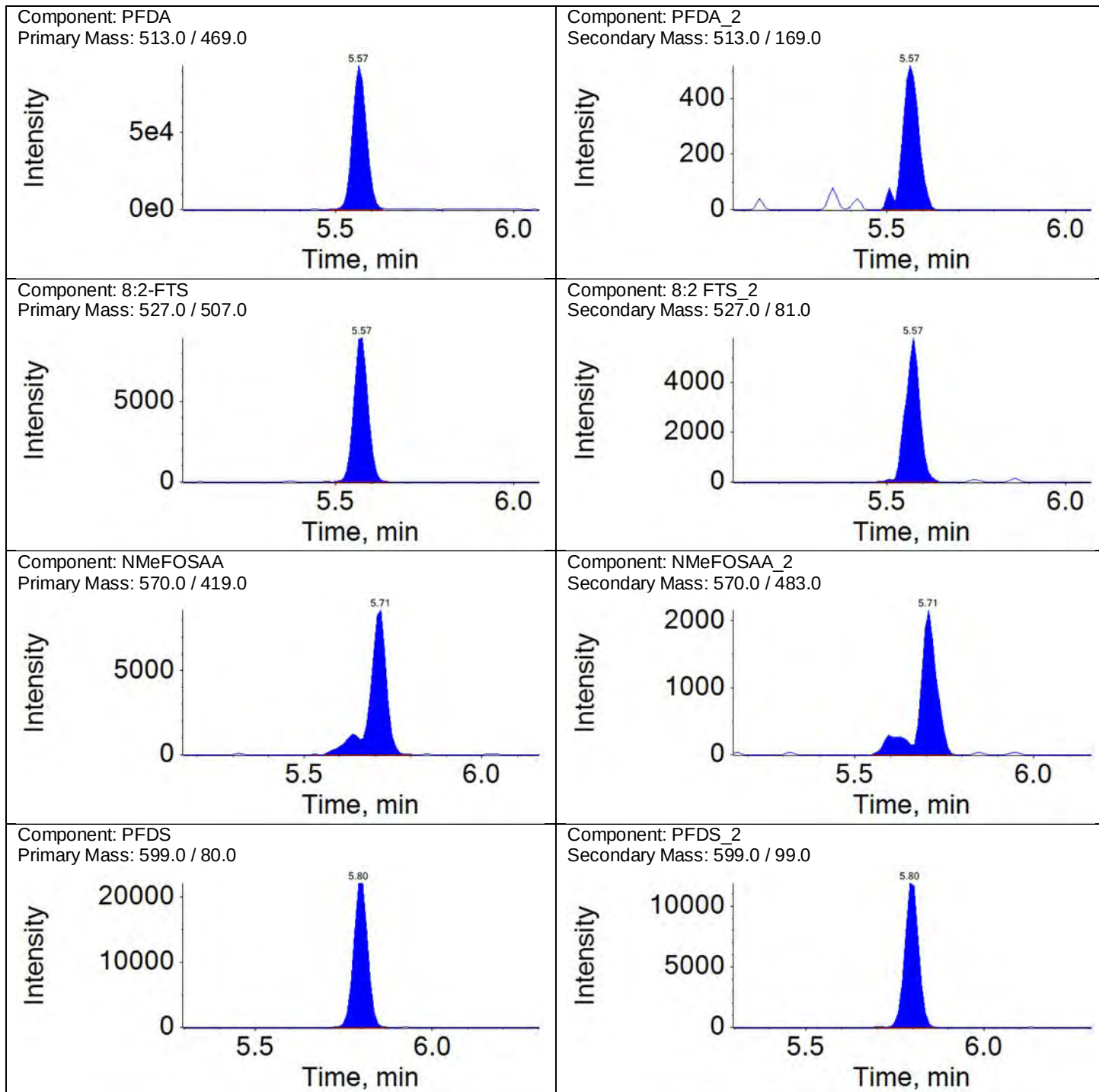
File Name: 18NOV15D-17.wiff

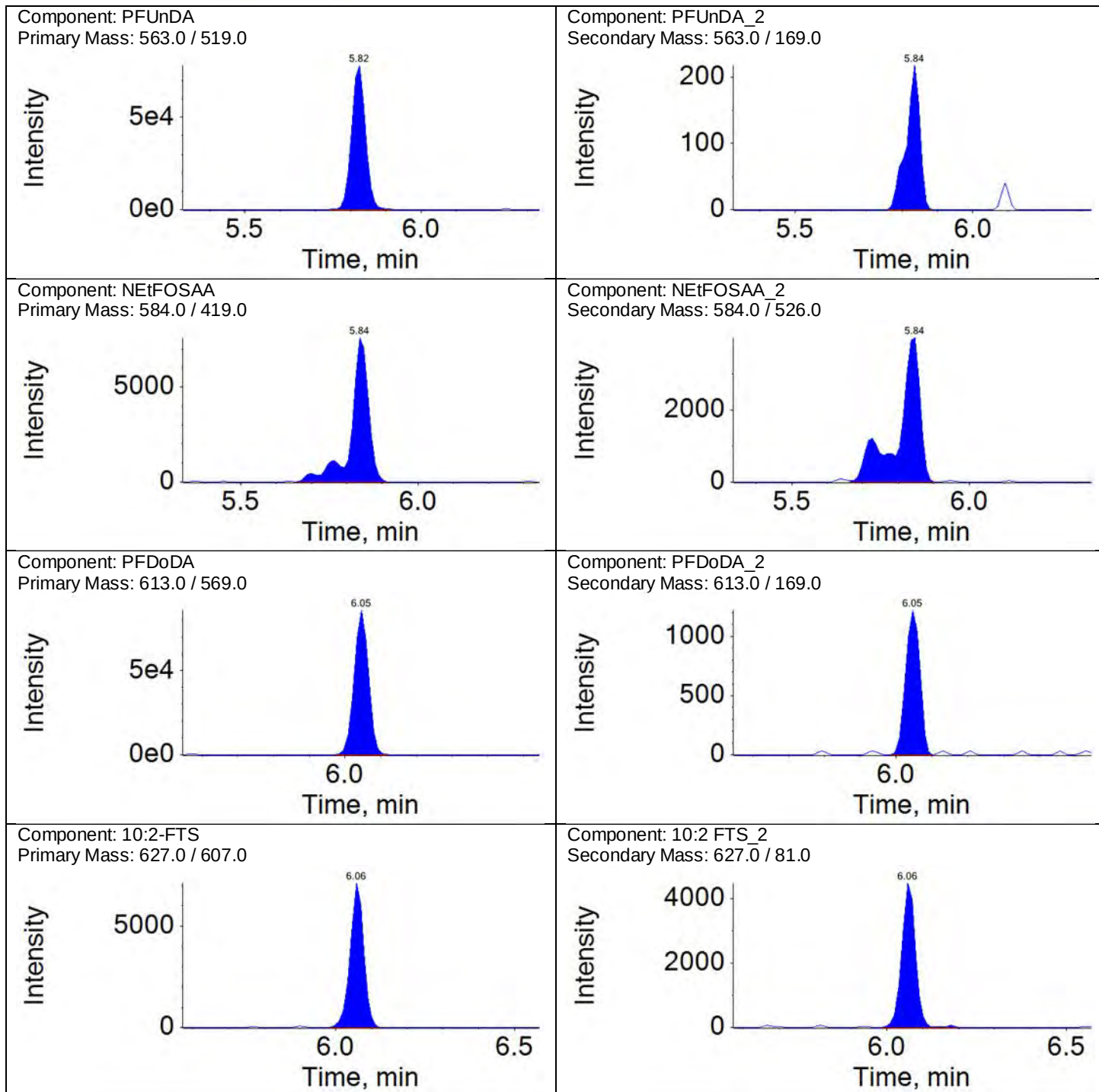
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	170752.0	A	N/A	1.0000			
PFBS_2	3.81	1.00	63379.7	A	N/A	0.3712	2	50	
4:2-FTS	4.12	1.00	38005.5	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	23298.9	A	N/A	0.6130		#NA!	
PFHxA	4.16	1.00	331266.2	A	N/A	1.0000			
PFHxA_2	4.15	1.00	4913.1	A	N/A	0.0148	26	50	
PFPeS	4.18	1.10	92420.6	A	N/A	1.0000			
PFPeS_2	4.18	1.10	46455.5	A	N/A	0.5027	-3	50	
PFHpA	4.55	1.00	392775.4	A	N/A	1.0000			
PFHpA_2	4.55	1.00	20837.8	A	N/A	0.0531	-6	50	
PFHxS	4.55	1.00	127507.7	M	N/A	1.0000			
PFHxS_2	4.55	1.00	46126.5	A	N/A	0.3618	5	50	
6:2-FTS	4.90	1.00	30390.4	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	21288.3	A	N/A	0.7005		#NA!	
PFHpS	4.91	1.08	127618.9	A	N/A	1.0000			
PFHpS_2	4.91	1.08	52060.7	A	N/A	0.4079	0	50	
PFOA	4.92	1.00	378071.7	A	N/A	1.0000			
PFOA_2	4.92	1.00	20981.9	A	N/A	0.0555	-2	50	
PFOS	5.25	1.00	125131.3	M	N/A	1.0000			
PFOS_2	5.25	1.00	37718.5	M	N/A	0.3014	2	50	
PFNA	5.26	1.00	313870.7	A	N/A	1.0000			
PFNA_2	5.26	1.00	5766.9	A	N/A	0.0184	-19	50	
PFNS	5.54	1.06	82338.4	A	N/A	1.0000			
PFNS_2	5.54	1.06	37960.6	A	N/A	0.4610	-3	50	
PFDA	5.57	1.00	253223.2	A	N/A	1.0000			
PFDA_2	5.57	1.00	1673.2	A	N/A	0.0066	-17	50	
8:2-FTS	5.57	1.00	24874.7	A	N/A	1.0000			
8:2 FTS_2	5.57	1.00	16031.9	A	N/A	0.6445		#NA!	
NMeFOSAA	5.71	1.00	28588.3	A	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	7354.6	M	N/A	0.2573	-1	50	
PFDS	5.80	1.11	61289.2	A	N/A	1.0000			
PFDS_2	5.80	1.11	32420.8	A	N/A	0.5290	4	50	
PFUnDA	5.82	1.00	212907.1	A	N/A	1.0000			
PFUnDA_2	5.84	1.00	584.2	A	N/A	0.0027	-50	50	
NEtFOSAA	5.84	1.00	26369.1	M	N/A	1.0000			
NEtFOSAA_2	5.84	1.00	17495.0	M	N/A	0.6635	-8	50	
PFDODA	6.05	1.00	239087.4	A	N/A	1.0000			
PFDODA_2	6.05	1.00	3379.4	A	N/A	0.0141	-8	50	
10:2-FTS	6.06	1.09	18636.1	A	N/A	1.0000			
10:2 FTS_2	6.06	1.09	11927.4	A	N/A	0.6400		#NA!	
PFTTrDA	6.25	1.03	196890.1	A	N/A	1.0000			
PFTTrDA_2	6.25	1.03	2351.7	A	N/A	0.0119	40	50	
PFTeDA	6.42	1.00	170072.7	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	1048.5	A	N/A	0.0062	-1	50	
PFHxDA	6.72	1.05	74302.7	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	4851.2	A	N/A	0.0653	-4	50	
PFODA	6.99	1.09	61703.9	A	N/A	1.0000			
PFODA_2	6.98	1.09	1412.0	A	N/A	0.0229	-17	50	

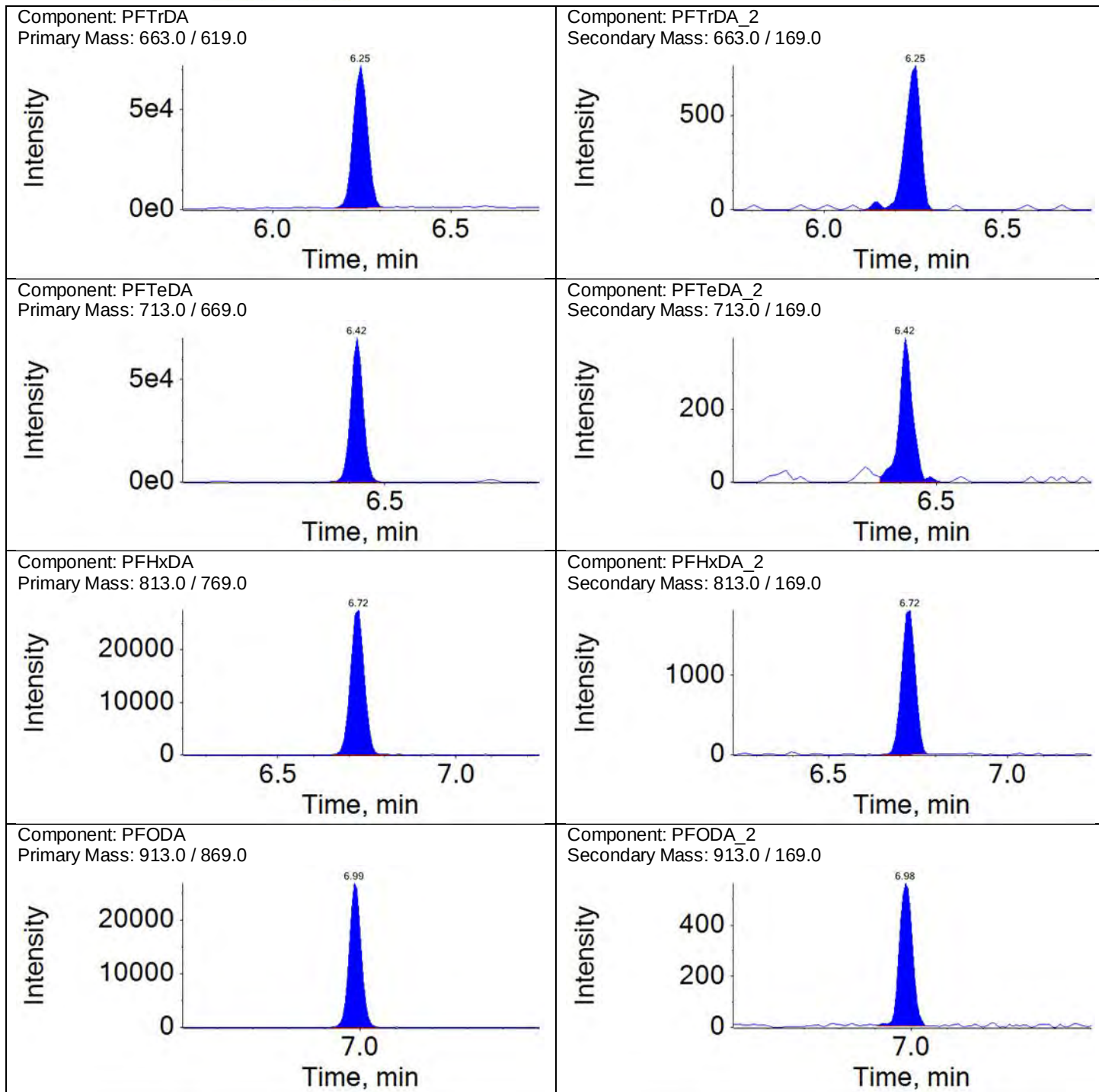










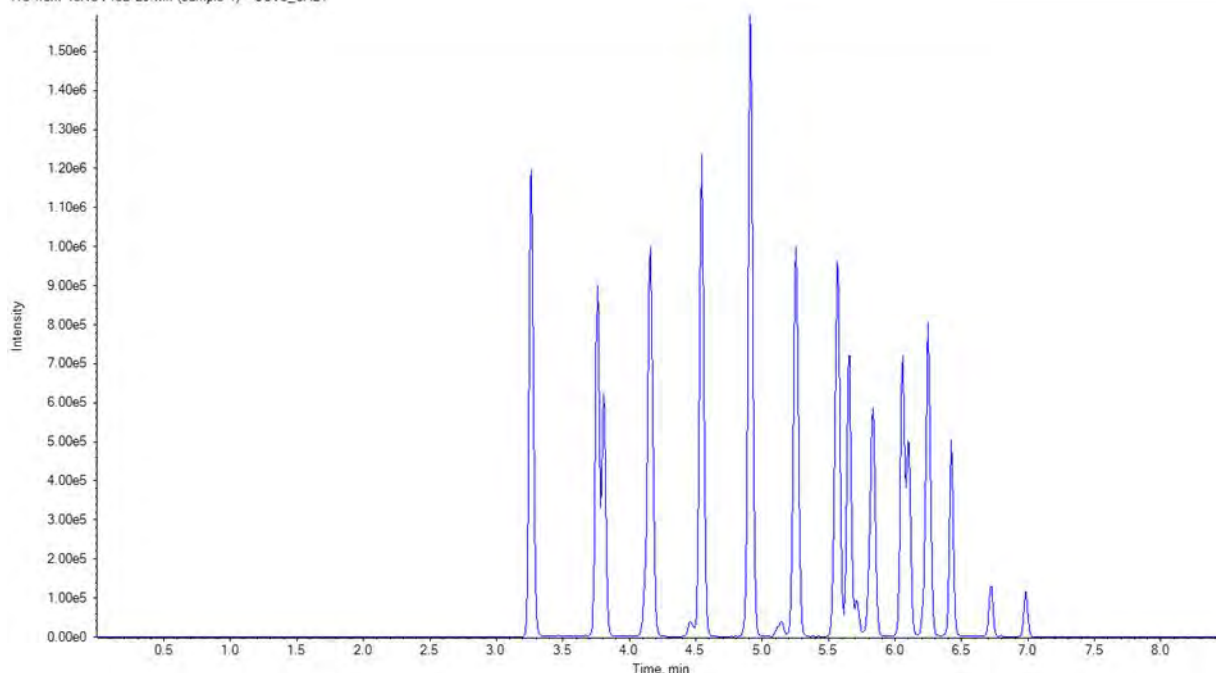


Continuing Calibration Verification

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV3_CAL4	CALBRN41833B	18NOV15D-29.wiff	2018-11-15T16:15:35

TIC from 18NOV15D-29.wiff (sample 1) - CCV3_CAL4



Injection Standard Area Reference File: 18NOV15D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	731273.5	732179.1	0	50	
13C2-PFOA	5.0	509361.7	479663.2	6	50	
13C4-PFOS	4.8	280144.9	269685.3	4	50	
13C2-PFDA	5.0	308820.8	302309.9	2	50	

Continuing Calibration Verification

ICAL Name: 18NOV12DCAL Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
QMethod Name: 18AUG20QM Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV3_CAL4	CALBRN41833B	18NOV15D-29.wiff	2018-11-15T16:15:35

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	1175309.6	10	13C4-PFBA	803371.9	5.0	1.463	3.26	1.000	8.000	8.104	1	30	
PFPeA	1136977.1	11	13C5-PFPeA	795295.4	5.0	1.430	3.76	1.000	8.000	8.276	3	30	
PFBS	639117.9	11	13C3-PFBS	436366.7	4.7	1.465	3.81	1.000	7.080	6.967	-2	30	
4:2-FTS	136748.3	11	13C2-4:2-FTS	51826.2	4.7	2.639	4.12	1.000	7.470	7.164	-4	30	
PfHxA	1378660.6	12	13C5-PfHxA	680063.6	5.0	2.027	4.16	1.000	8.000	8.464	6	30	
PFPeS	333118.9	11	13C3-PFBS	436366.7	4.7	0.763	4.18	1.100	7.500	7.411	-1	30	
PFHpA	1386373.1	12	13C4-PFHpA	549471.2	5.0	2.523	4.54	1.000	8.000	8.363	5	30	
PfHxS	466246.7	19	13C3-PfHxS	324286.6	4.7	1.438	4.55	1.000	7.300	6.971	-5	30	
6:2-FTS	108795.0	11	13C2-6:2-FTS	35385.8	4.8	3.075	4.90	1.000	7.580	7.440	-2	30	
PFHpS	477473.9	11	13C3-PfHxS	324286.6	4.7	1.472	4.91	1.080	7.610	7.751	2	30	
PFOA	1409760.6	11	13C8-PFOA	915448.8	5.0	1.540	4.91	1.000	8.000	8.225	3	30	
PFOS	469289.4	22	13C8-PFOS	279356.0	4.8	1.680	5.24	1.000	7.400	7.346	-1	30	
PFNA	1119473.7	11	13C9-PFNA	472819.9	5.0	2.368	5.26	1.000	8.000	8.538	7	30	
PFNS	320473.6	11	13C8-PFOS	279356.0	4.8	1.147	5.55	1.060	7.680	8.026	5	30	
PFDA	958718.1	11	13C6-PFDA	643195.4	5.0	1.491	5.57	1.000	8.000	7.902	-1	30	
8:2-FTS	88811.3	12	13C2-8:2-FTS	25861.5	4.8	3.434	5.57	1.000	7.660	8.007	5	30	
PFOSA	1033454.1	12	13C8-PFOSA	644694.0	5.0	1.603	5.65	1.000	8.000	7.830	-2	30	
NMeFOSAA	112844.6	19	d3-NMeFOSAA	76863.2	5.0	1.468	5.71	1.000	8.000	8.297	4	30	
PFDS	237235.2	11	13C8-PFOS	279356.0	4.8	0.849	5.81	1.110	7.700	7.695	0	30	
PFUnDA	810481.8	11	13C7-PFUnDA	275172.0	5.0	2.945	5.83	1.000	8.000	7.700	-4	30	
NEtFOSAA	94950.7	21	d5-NEtFOSAA	77138.6	5.0	1.231	5.85	1.000	8.000	6.453	-19	30	
PFDODA	885673.4	11	13C2-PFDODA	596233.0	5.0	1.485	6.06	1.000	8.000	7.564	-5	30	
10:2-FTS	66917.7	11	13C2-8:2-FTS	25861.5	4.8	2.588	6.07	1.090	7.710	8.619	12	30	
NMePFOSAE	629785.0	11	d7-NMePFOSAE	336230.3	5.0	1.873	6.10	1.000	8.000	7.796	-3	30	
NMePFOSA	117445.7	11	d3-NMePFOSA	78489.4	5.0	1.496	6.11	1.000	8.000	7.382	-8	30	
PFDOS	122142.9	11	13C8-PFOS	279356.0	4.8	0.437	6.21	1.190	7.740	7.658	-1	30	
NEtPFOSAE	699439.6	11	d9-NEtPFOSAE	281116.4	5.0	2.488	6.25	1.000	8.000	7.982	0	30	
NEtPFOSA	104179.3	11	d5-NEtPFOSA	59931.8	5.0	1.738	6.27	1.000	8.000	7.983	0	30	
PFTTrDA	703394.0	11	13C2-PFDODA	596233.0	5.0	1.180	6.24	1.030	8.000	7.446	-7	30	
PFTeDA	595045.7	10	13C2-PFTeDA	414599.5	5.0	1.435	6.42	1.000	8.000	8.045	1	30	
PFHxDA	269235.8	11	13C2-PFTeDA	414599.5	5.0	0.649	6.72	1.050	8.000	7.737	-3	30	
PFOA	235049.1	10	13C2-PFTeDA	414599.5	5.0	0.567	6.98	1.090	8.000	7.896	-1	30	

Continuing Calibration Verification

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 8:56 am, 11/16/18

REVIEWED
By HMK at 7:38 am, 11/19/18

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV3 CAL4	Data File:	18NOV15D-29.wiff
Sample ID:	CALBRN41833B	Acquis Date:	2018-11-15T16:15:35
Sample Type:	Quality Control	Instrument:	LM27631
Vial Position:	6	Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00	Result Table:	18NOV15DCCV1-4
QMethod File:	18AUG20QM	ICAL Name:	18NOV12DCAL
Batch Number:	N/A	Operator:	JPT12262
Sample Wt.:	1.00000	Dilution Factor:	1.00
Sample Vol.:	1.000	Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV15D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	731273.5	732179.1	0	50	
13C2-PFOA	5.0	509361.7	479663.2	6	50	
13C4-PFOS	4.8	280144.9	269685.3	4	50	
13C2-PFDA	5.0	308820.8	302309.9	2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	803371.9	13C3-PFBA	731273.5	1.099	5.000	4.925	99	70-130	
E13C5-PFPeA	795295.4	13C3-PFBA	731273.5	1.088	5.000	4.878	98	70-130	
E13C3-PFBS	436366.7	13C3-PFBA	731273.5	0.597	4.650	4.212	91	70-130	
E13C2-4:2-FTS	51826.2	13C2-PFOA	509361.7	0.102	4.670	4.532	97	70-130	
E13C5-PFHxA	680063.6	13C2-PFOA	509361.7	1.335	5.000	4.823	96	70-130	
E13C3-PFHxS	324286.6	13C2-PFOA	509361.7	0.637	4.730	4.369	92	70-130	
E13C4-PFHpA	549471.2	13C2-PFOA	509361.7	1.079	5.000	4.860	97	70-130	
E13C2-6:2-FTS	35385.8	13C2-PFOA	509361.7	0.069	4.750	4.648	98	70-130	
E13C8-PFOA	915448.8	13C2-PFOA	509361.7	1.797	5.000	4.952	99	70-130	
E13C8-PFOS	279356.0	13C4-PFOS	280144.9	0.997	4.780	4.418	92	70-130	
E13C9-PFNA	472819.9	13C4-PFOS	280144.9	1.688	5.000	4.706	94	70-130	
E13C6-PFDA	643195.4	13C2-PFDA	308820.8	2.083	5.000	4.860	97	70-130	
E13C2-8:2-FTS	25861.5	13C2-PFDA	308820.8	0.084	4.790	4.176	87	70-130	
E13C8-PFOSA	644694.0	13C2-PFDA	308820.8	2.088	5.000	4.628	93	70-130	
Ed3-NMeFOSAA	76863.2	13C2-PFDA	308820.8	0.249	5.000	4.493	90	70-130	
E13C7-PFUnDA	275172.0	13C2-PFDA	308820.8	0.891	5.000	5.173	103	70-130	
Ed5-NEtFOSAA	77138.6	13C2-PFDA	308820.8	0.250	5.000	5.285	106	70-130	
E13C2-PFDoDA	596233.0	13C2-PFDA	308820.8	1.931	5.000	5.013	100	70-130	
Ed7-NMePFOSAE	336230.3	13C2-PFDA	308820.8	1.089	5.000	4.712	94	70-130	
Ed3-NMePFOSA	78489.4	13C2-PFDA	308820.8	0.254	5.000	4.618	92	70-130	
Ed9-NEtPFOSAE	281116.4	13C2-PFDA	308820.8	0.910	5.000	4.734	95	70-130	
Ed5-NEtPFOSA	59931.8	13C2-PFDA	308820.8	0.194	5.000	4.552	91	70-130	
E13C2-PFTeDA	414599.5	13C2-PFDA	308820.8	1.343	5.000	4.713	94	70-130	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CCV3_CAL4

Instrument Name: LM27631

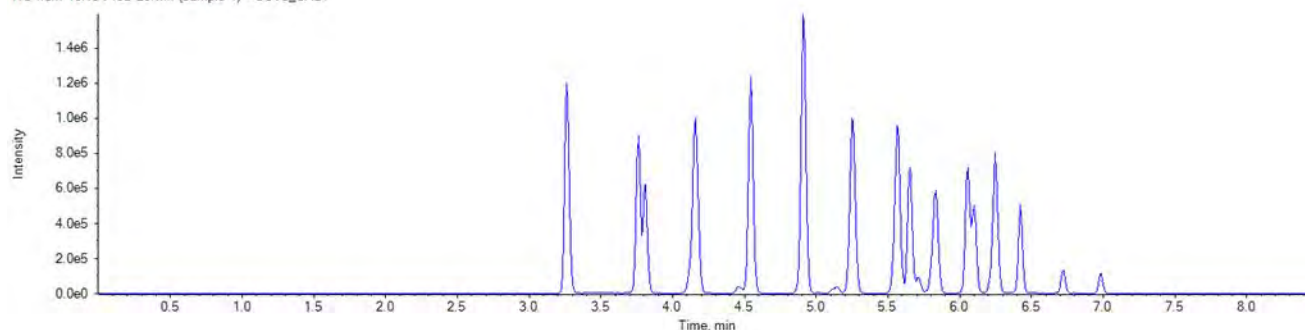
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	1175309.6		A	13C4-PFBA	3.26	803371.9	1.463	8.104
PFPeA	3.76	1.000	1136977.1		A	13C5-PFPeA	3.76	795295.4	1.430	8.276
PFBS	3.81	1.000	639117.9		A	13C3-PFBS	3.81	436366.7	1.465	6.967
4:2-FTS	4.12	1.000	136748.3		A	13C2-4:2-FTS	4.12	51826.2	2.639	7.164
PFHxA	4.16	1.000	1378660.6		A	13C5-PFHxA	4.16	680063.6	2.027	8.464
PFPeS	4.18	1.100	333118.9		A	13C3-PFBS	3.81	436366.7	0.763	7.411
PFHpA	4.54	1.000	1386373.1		A	13C4-PFHpA	4.54	549471.2	2.523	8.363
PFHxS	4.55	1.000	466246.7		M	13C3-PFHxS	4.55	324286.6	1.438	6.971
6:2-FTS	4.90	1.000	108795.0		A	13C2-6:2-FTS	4.90	35385.8	3.075	7.440
PFHpS	4.91	1.080	477473.9		A	13C3-PFHxS	4.55	324286.6	1.472	7.751
PFOA	4.91	1.000	1409760.6		A	13C8-PFOA	4.91	915448.8	1.540	8.225
PFOS	5.24	1.000	469289.4		M	13C8-PFOS	5.24	279356.0	1.680	7.346
PFNA	5.26	1.000	1119473.7		A	13C9-PFNA	5.26	472819.9	2.368	8.538
PFNS	5.55	1.060	320473.6		A	13C8-PFOS	5.24	279356.0	1.147	8.026
PFDA	5.57	1.000	958718.1		A	13C6-PFDA	5.57	643195.4	1.491	7.902
8:2-FTS	5.57	1.000	88811.3		A	13C2-8:2-FTS	5.57	25861.5	3.434	8.007
PFOSA	5.65	1.000	1033454.1		A	13C8-PFOSA	5.65	644694.0	1.603	7.830
NMeFOSAA	5.71	1.000	112844.6		M	d3-NMeFOSAA	5.71	76863.2	1.468	8.297
PFDS	5.81	1.110	237235.2		A	13C8-PFOS	5.24	279356.0	0.849	7.695
PFUnDA	5.83	1.000	810481.8		A	13C7-PFUnDA	5.83	275172.0	2.945	7.700
NEtFOSAA	5.85	1.000	94950.7		A	d5-NEtFOSAA	5.84	77138.6	1.231	6.453
PFDODA	6.06	1.000	885673.4		A	13C2-PFDODA	6.06	596233.0	1.485	7.564
10:2-FTS	6.07	1.090	66917.7		A	13C2-8:2-FTS	5.57	25861.5	2.588	8.619
NMePFOSAE	6.10	1.000	629785.0		A	d7-NMePFOSAE	6.09	336230.3	1.873	7.796
NMePFOSA	6.11	1.000	117445.7		A	d3-NMePFOSA	6.11	78489.4	1.496	7.382
PFDOS	6.21	1.190	122142.9		A	13C8-PFOS	5.24	279356.0	0.437	7.658
NEtPFOSAE	6.25	1.000	699439.6		A	d9-NEtPFOSAE	6.24	281116.4	2.488	7.982
NEtPFOSA	6.27	1.000	104179.3		A	d5-NEtPFOSA	6.26	59931.8	1.738	7.983
PFTDA	6.24	1.030	703394.0		A	13C2-PFDODA	6.06	596233.0	1.180	7.446
PFTeDA	6.42	1.000	595045.7		A	13C2-PFTeDA	6.42	414599.5	1.435	8.045
PFHxDA	6.72	1.050	269235.8		A	13C2-PFTeDA	6.42	414599.5	0.649	7.737
PFODA	6.98	1.090	235049.1		A	13C2-PFTeDA	6.42	414599.5	0.567	7.896

Total Ion Chromatogram

TIC from 18NOV15D-29.wiff (sample 1) - CCV3_CAL4



APPROVED

By JPT at 8:56 am, 11/16/18

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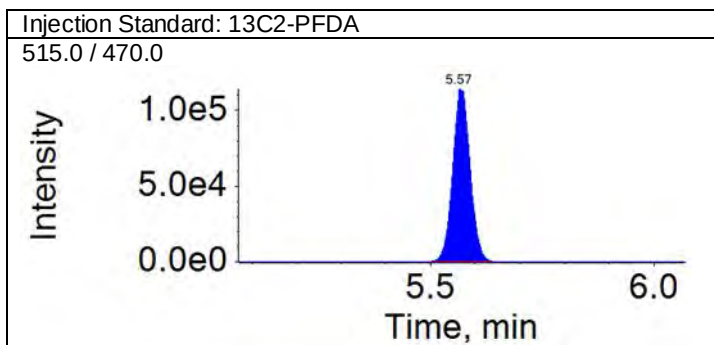
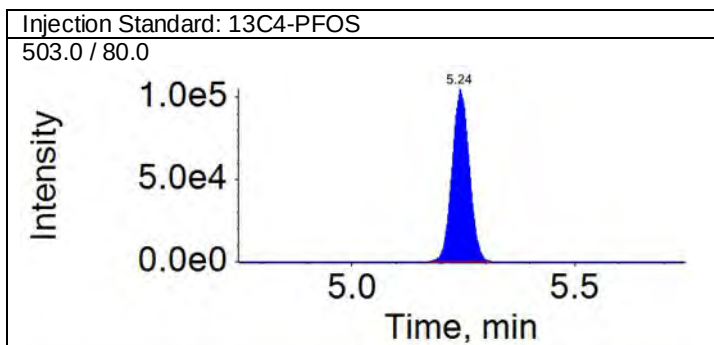
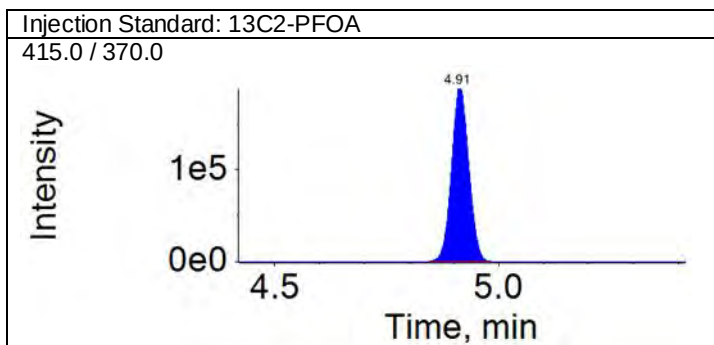
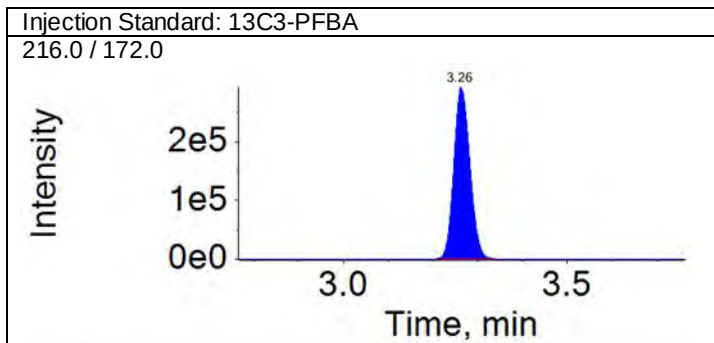
REVIEWED

By HMK at 7:38 am, 11/19/18

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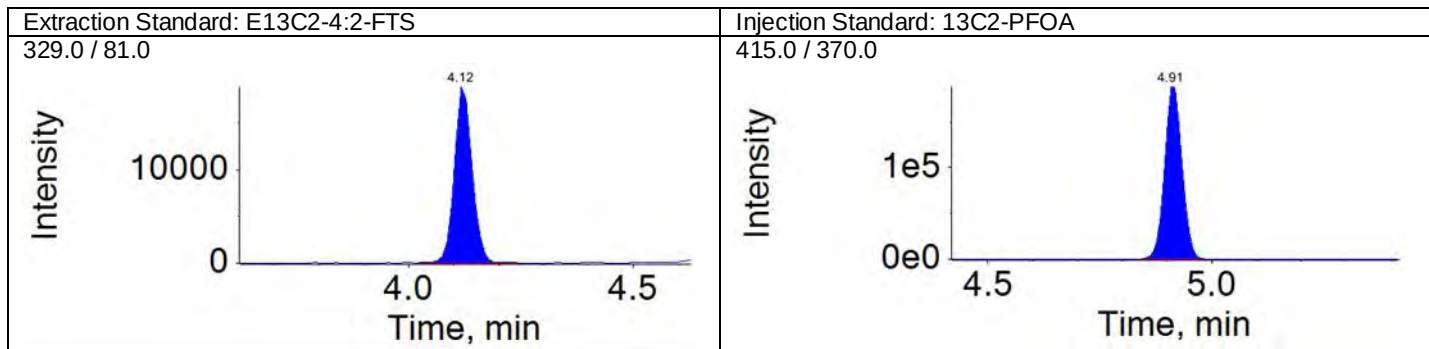
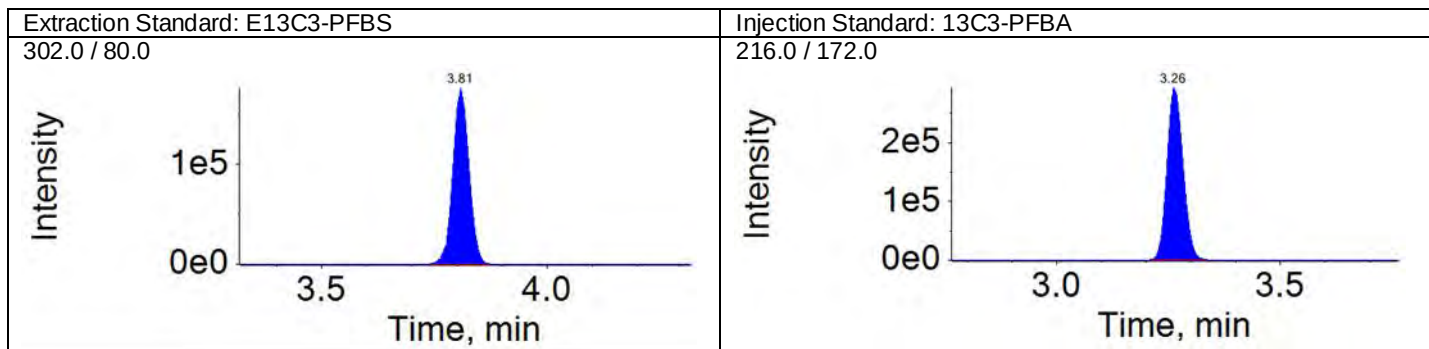
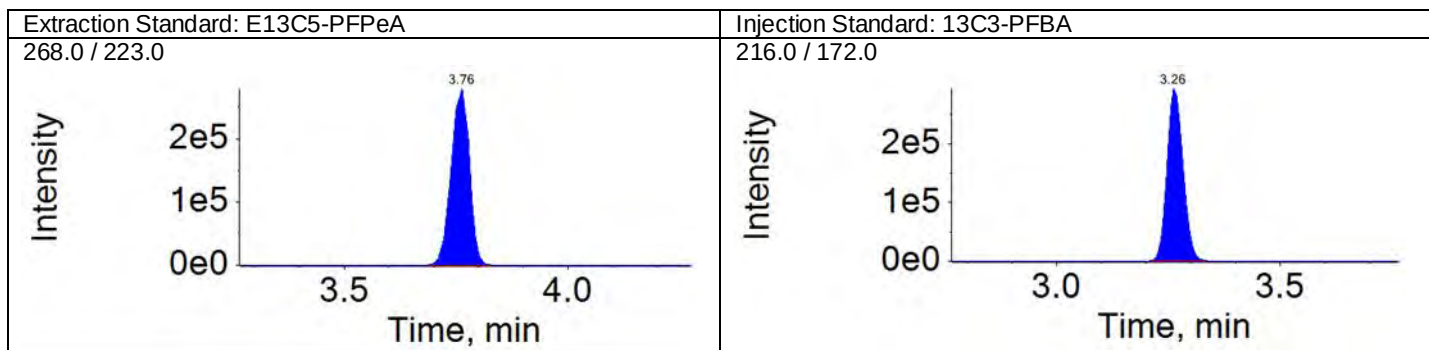
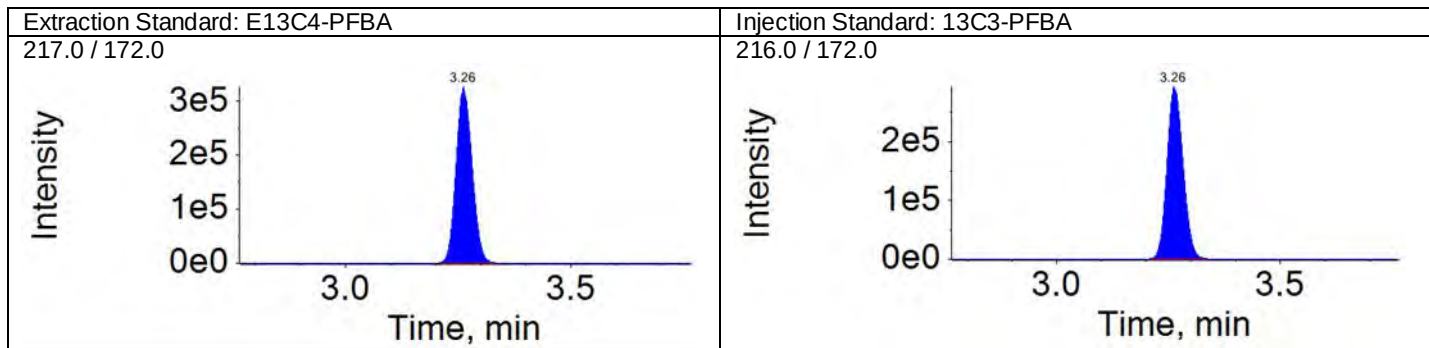
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



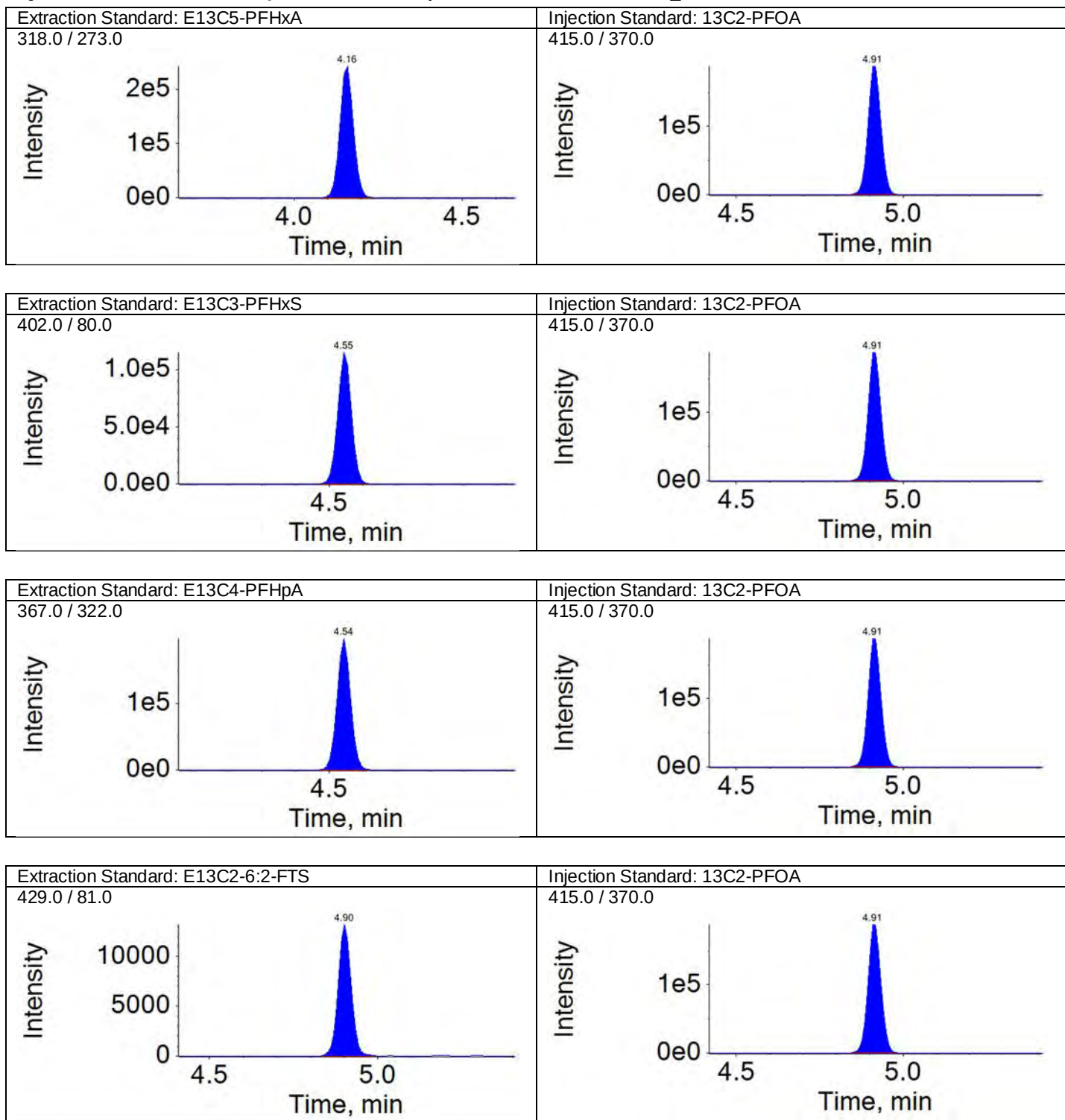
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Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



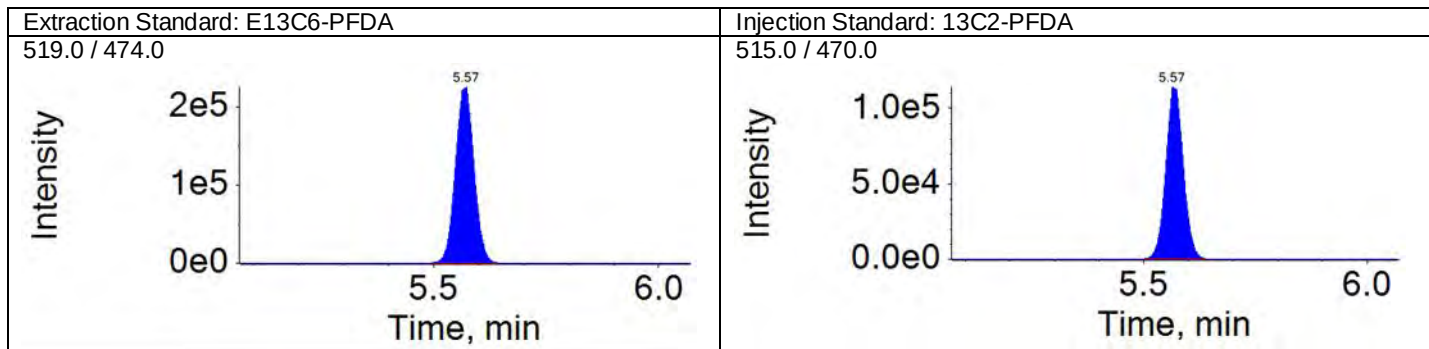
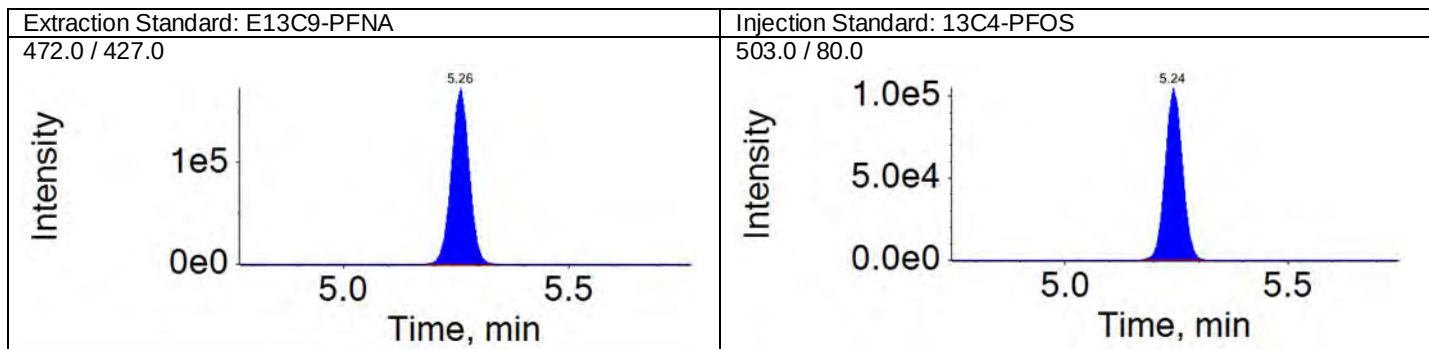
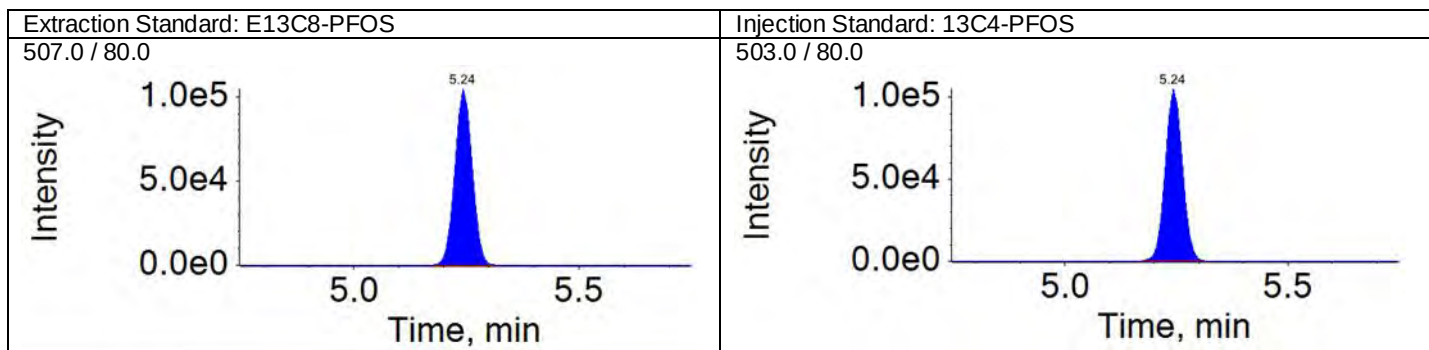
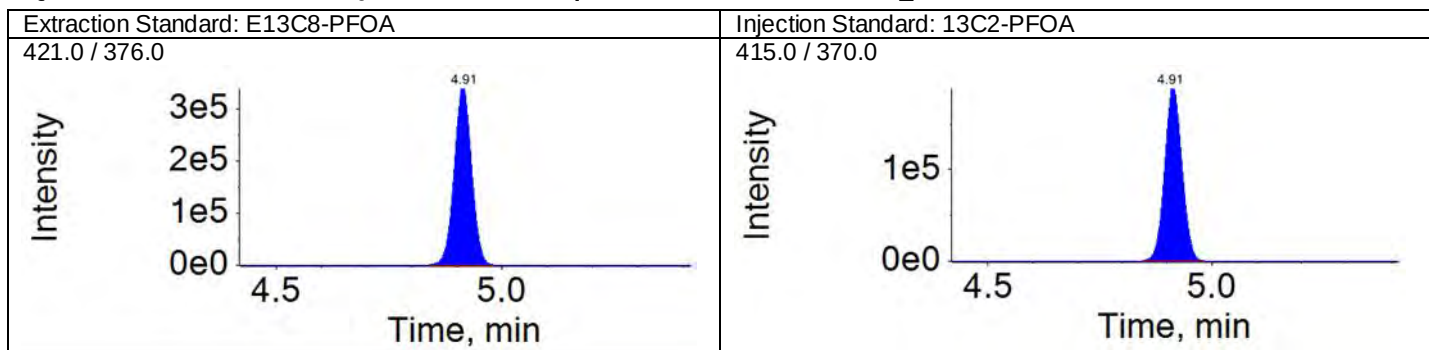
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Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



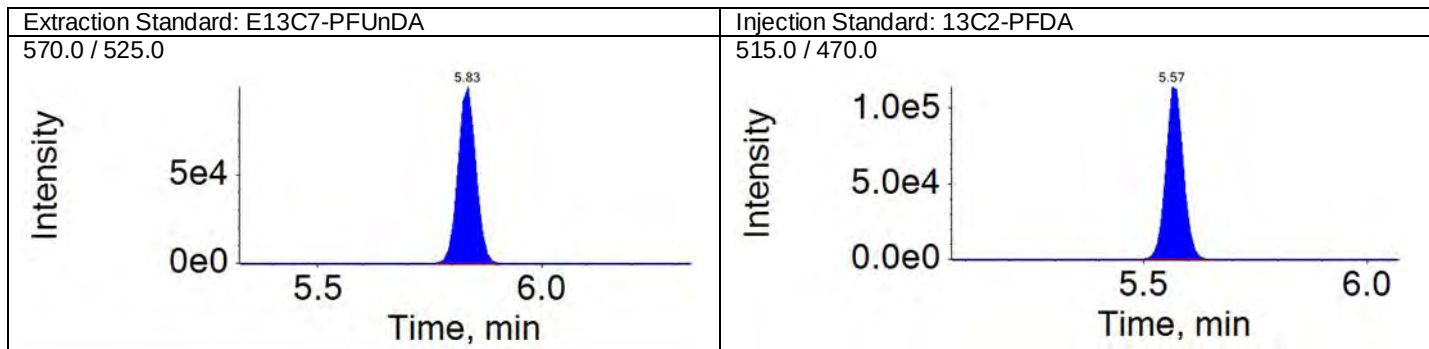
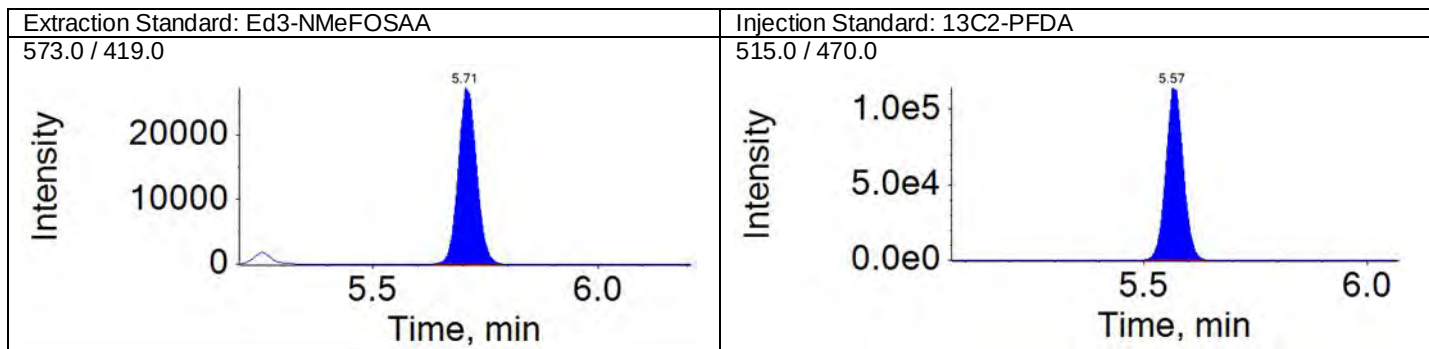
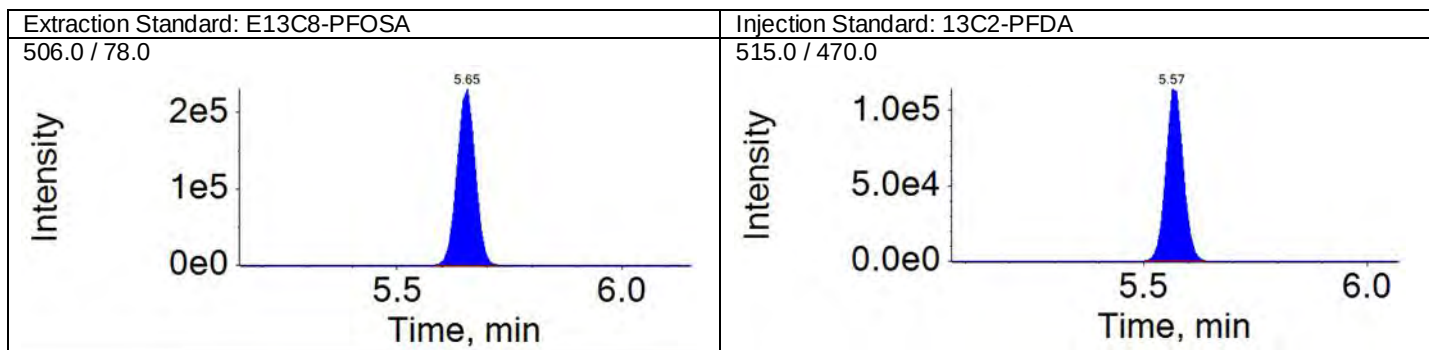
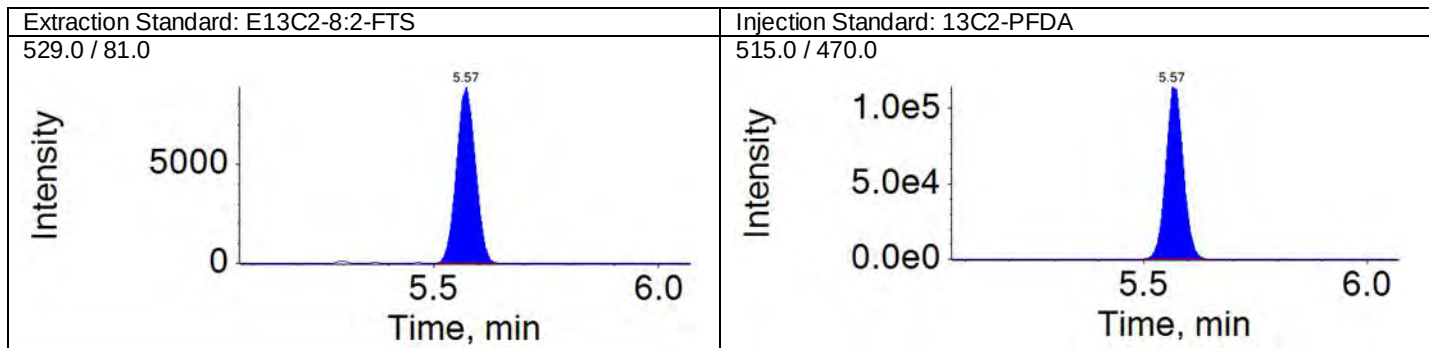
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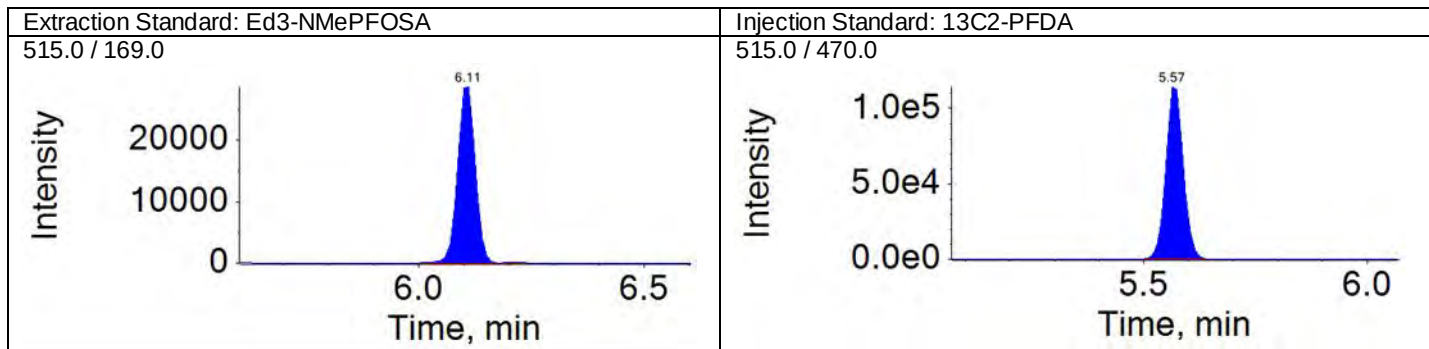
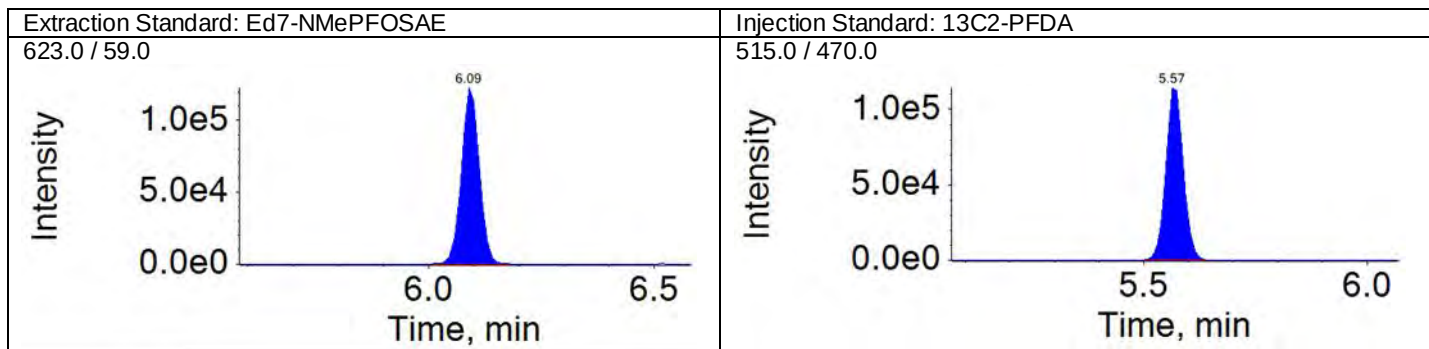
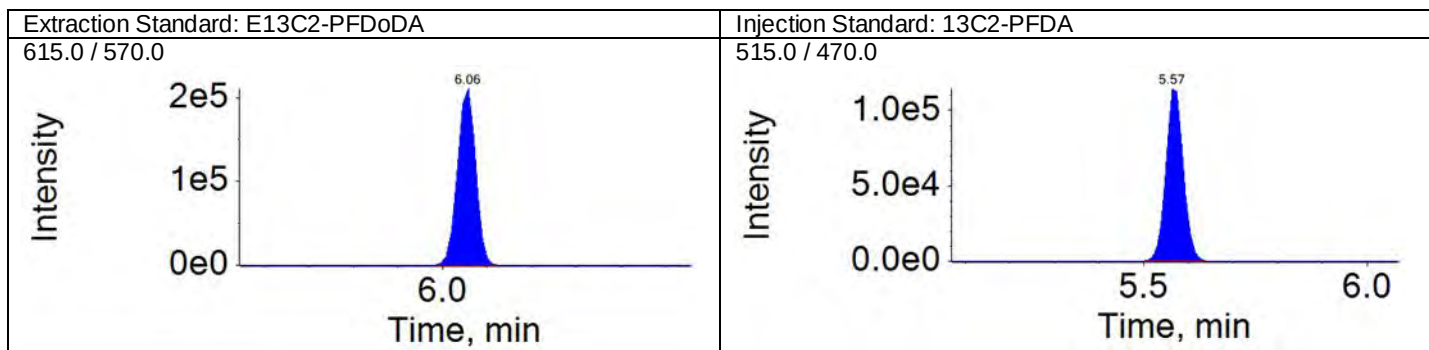
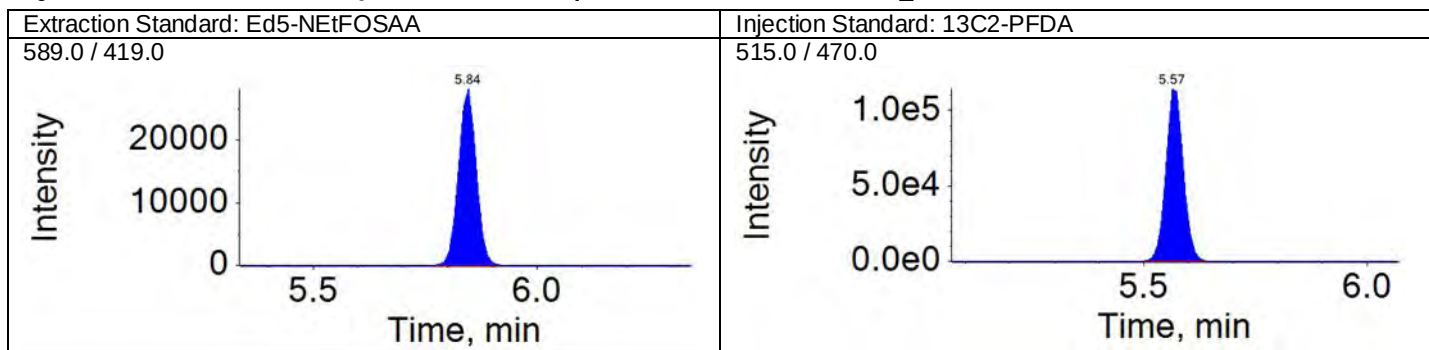
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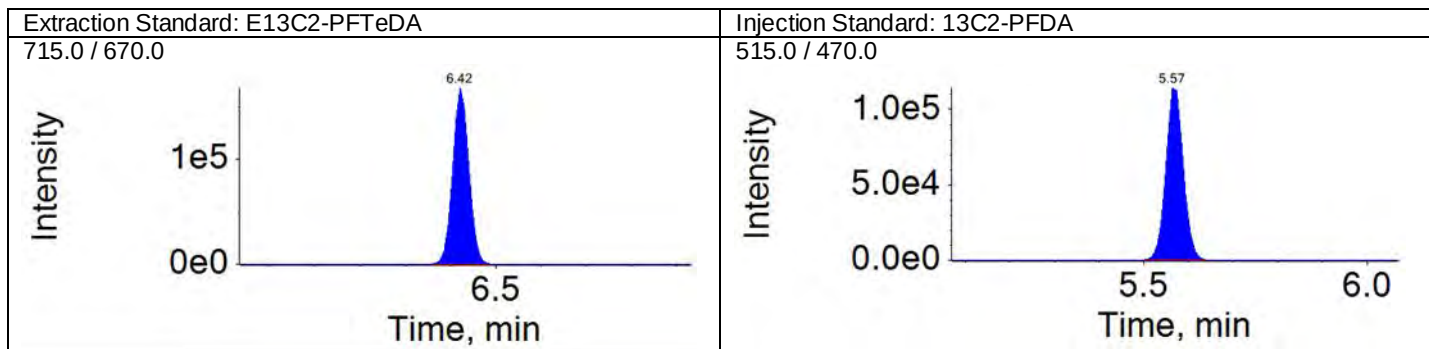
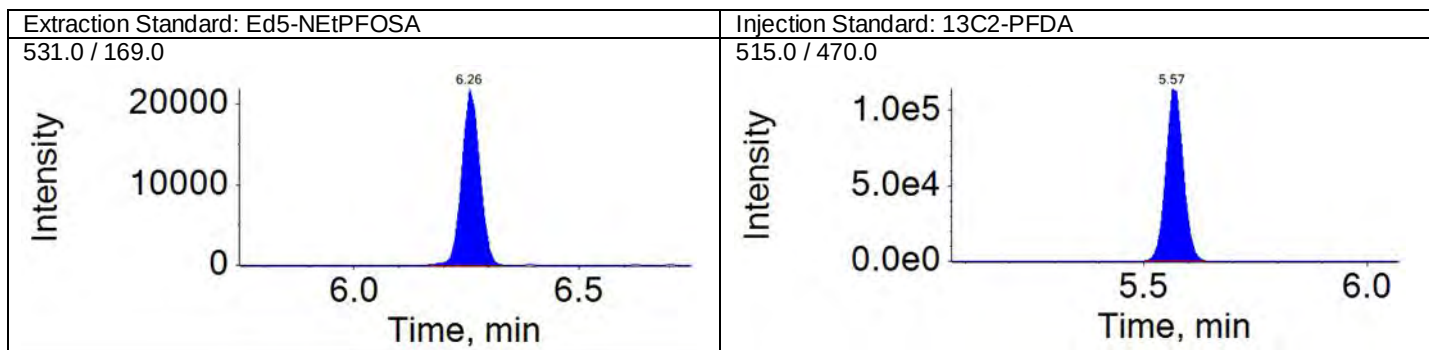
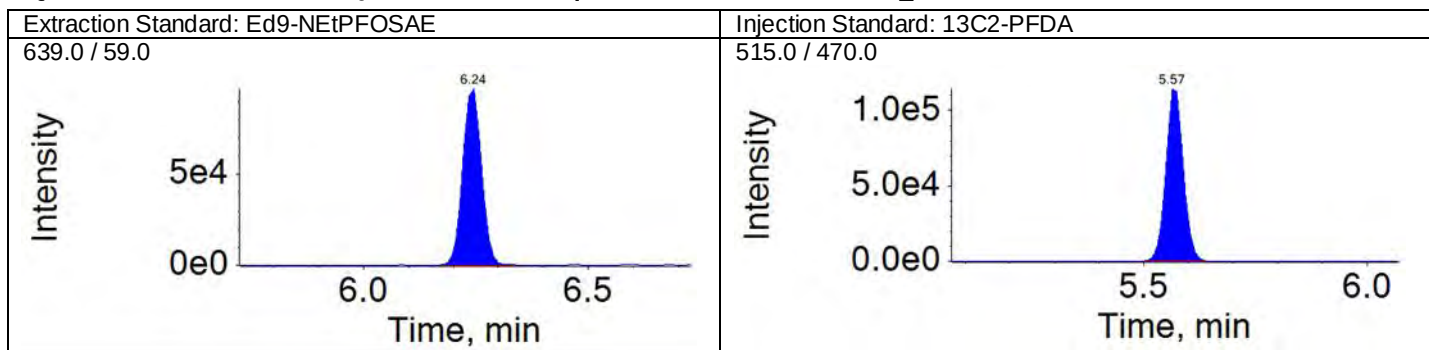
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QMethod Name: 18AUG20QM

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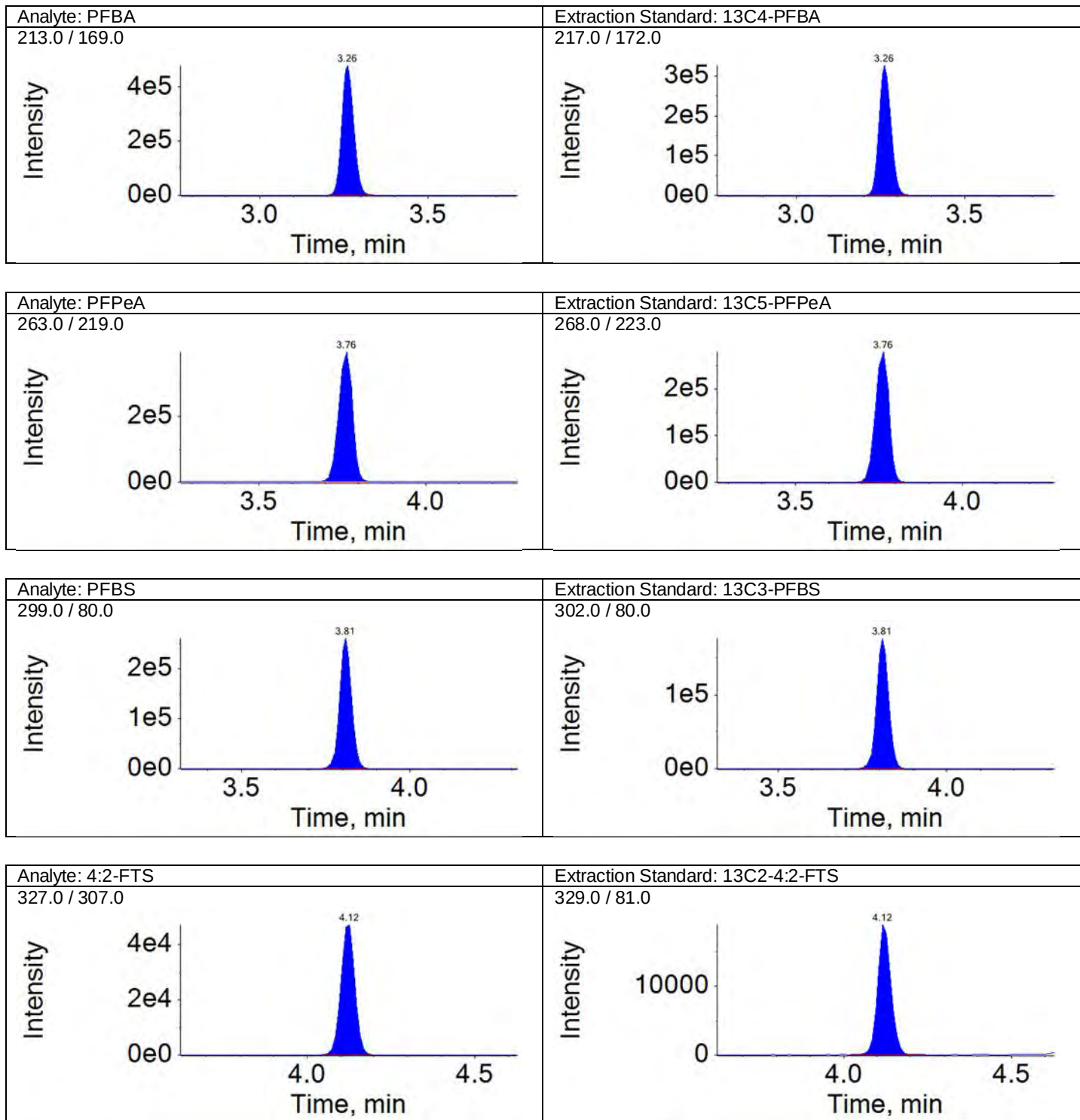
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Acquisition Method: 18AUG13_3uL.dam



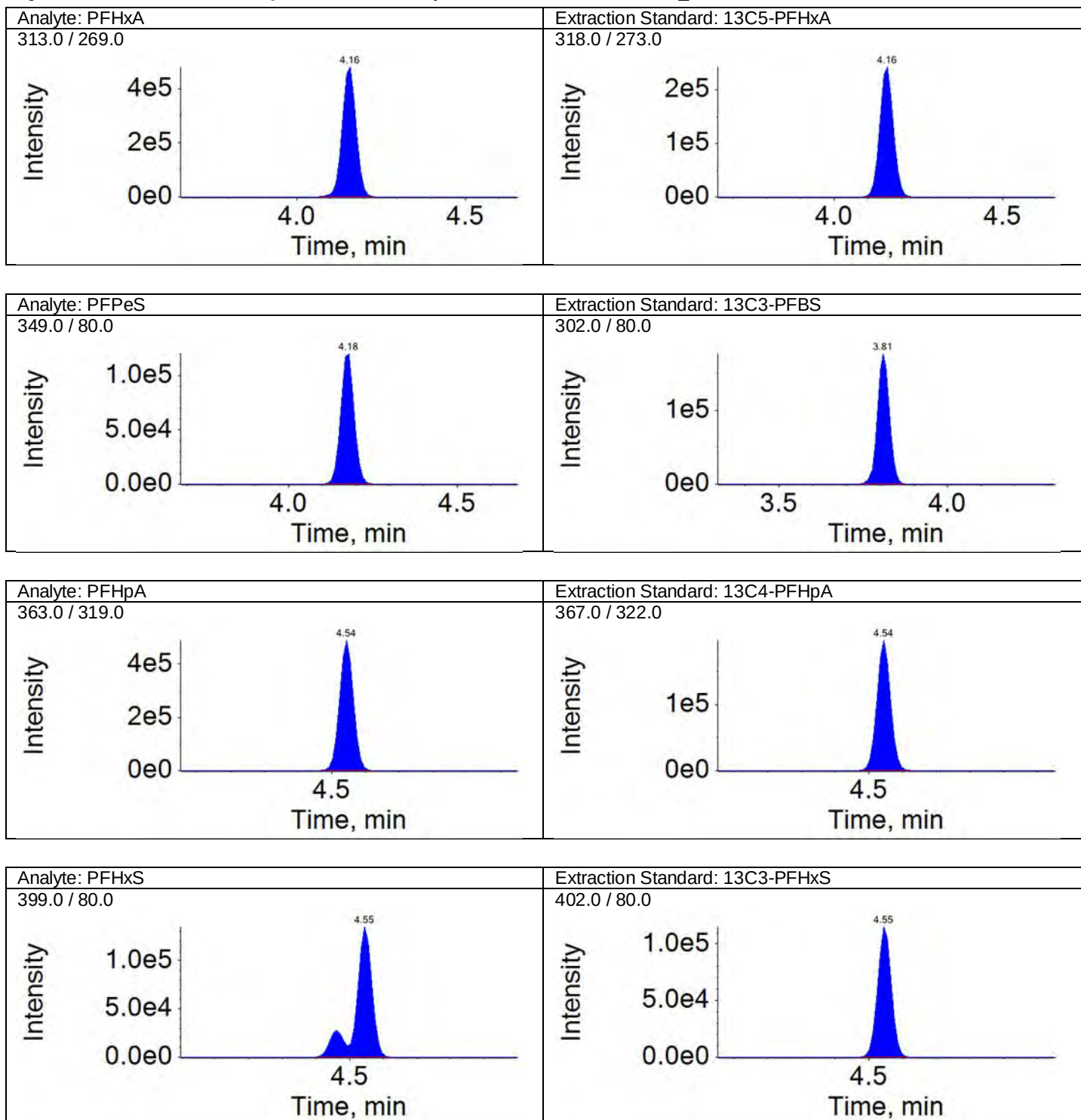
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Acquisition Method: 18AUG13_3uL.dam



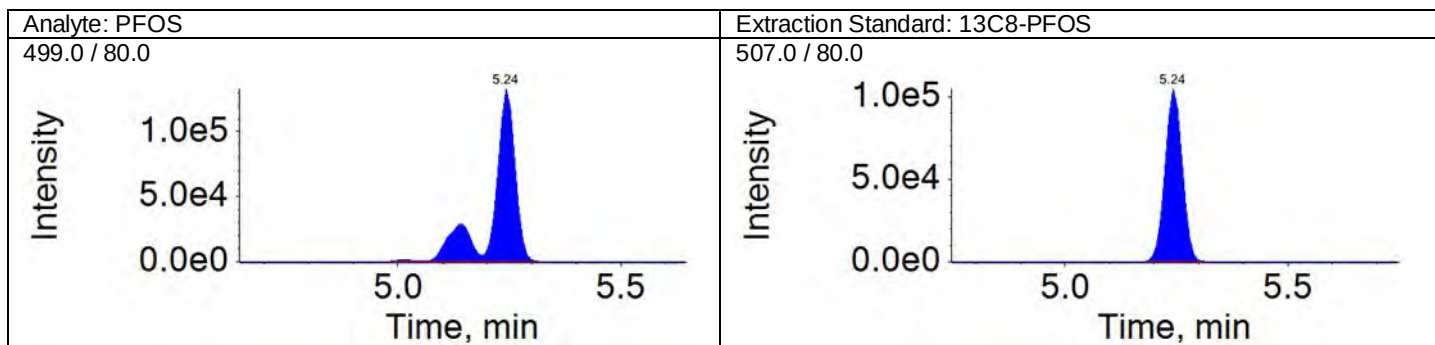
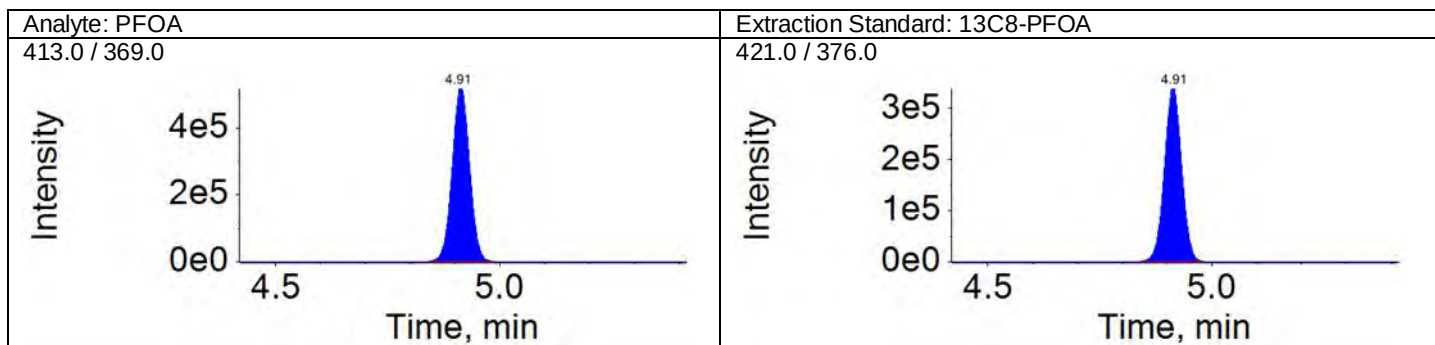
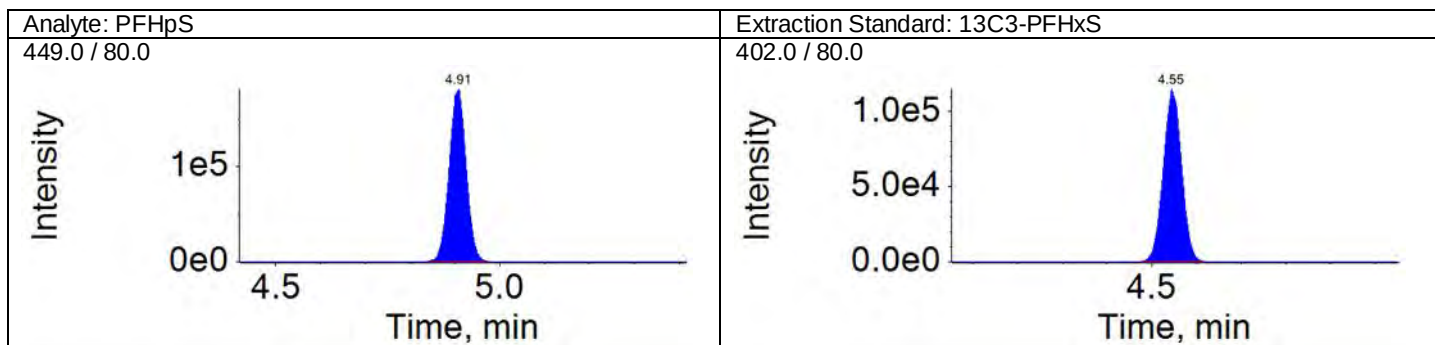
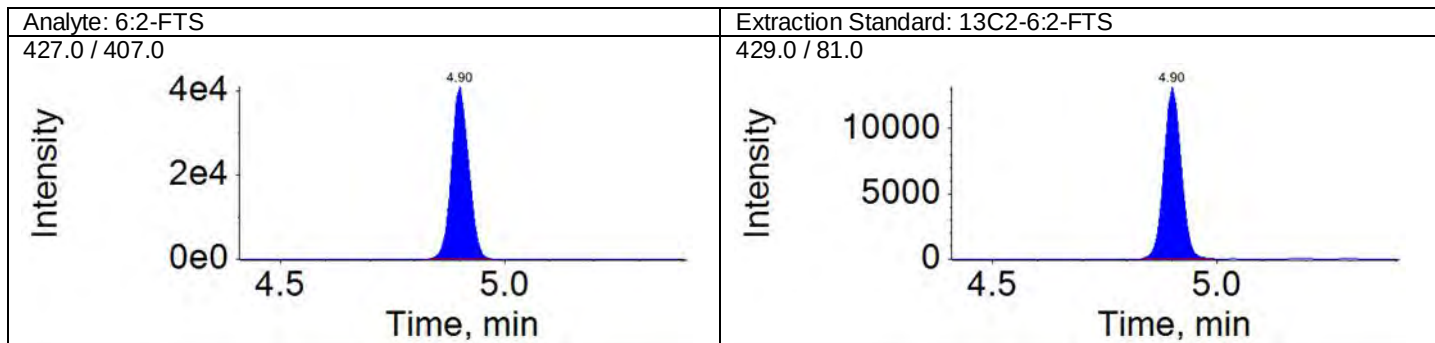
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



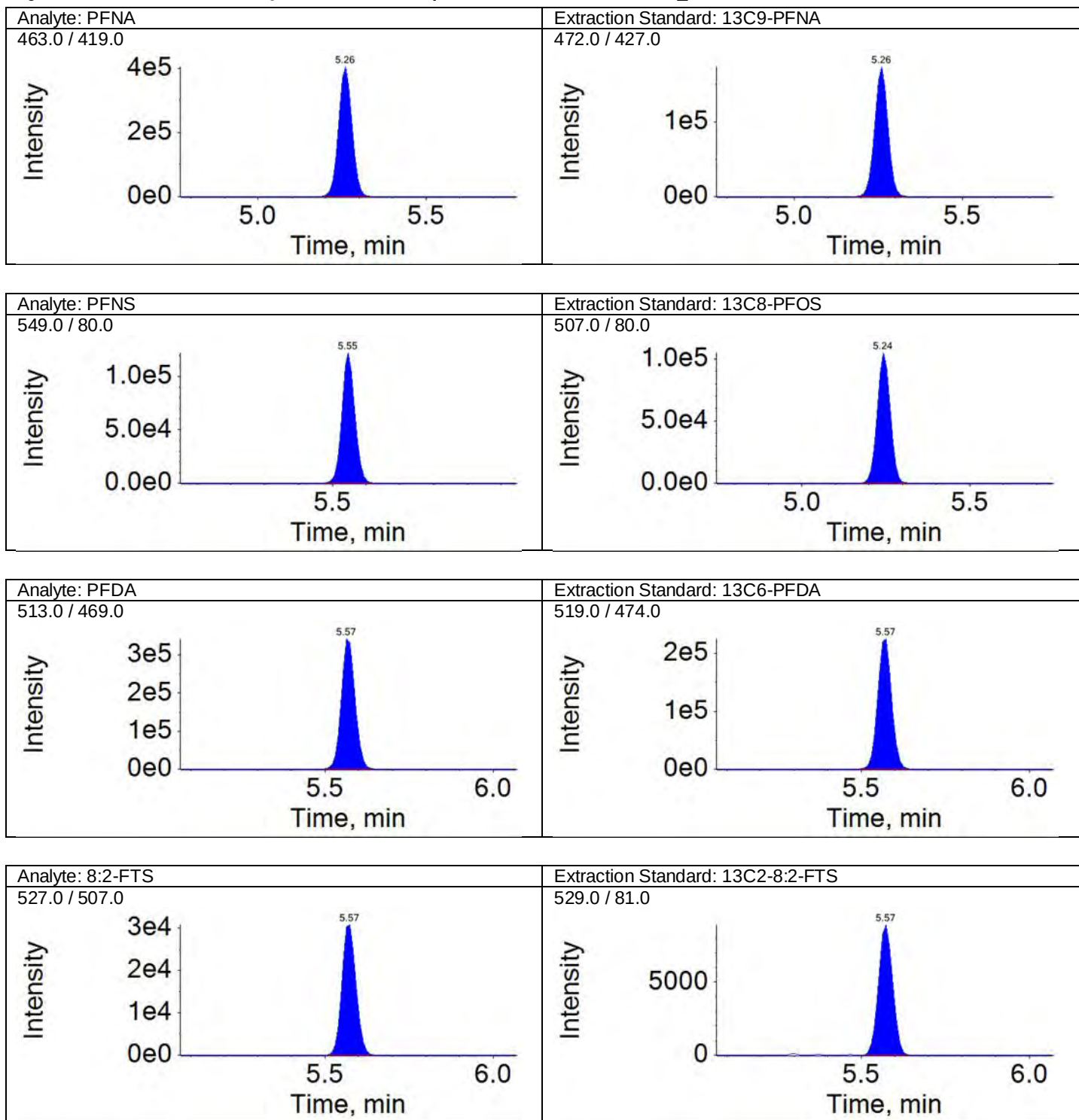
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



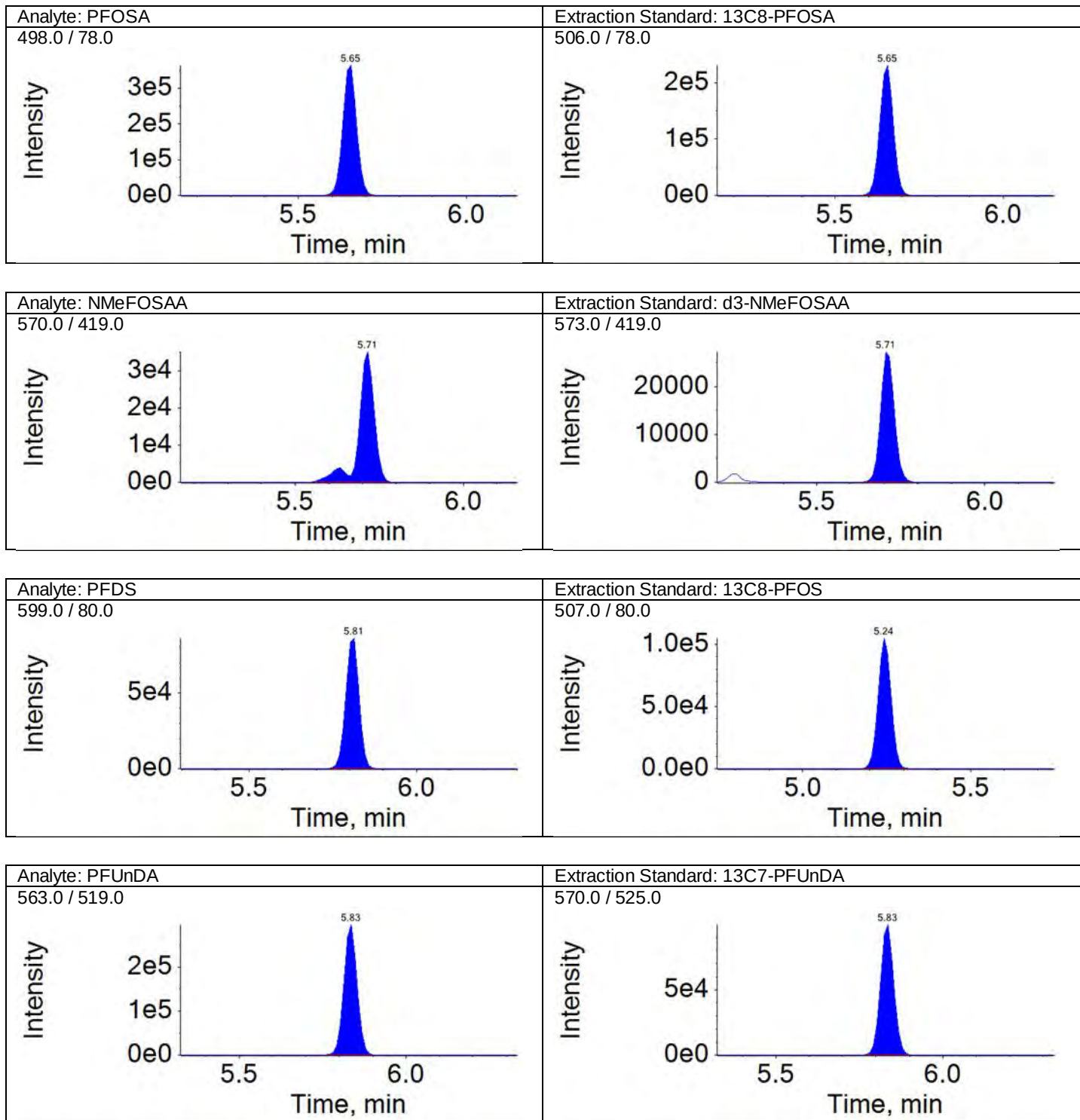
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



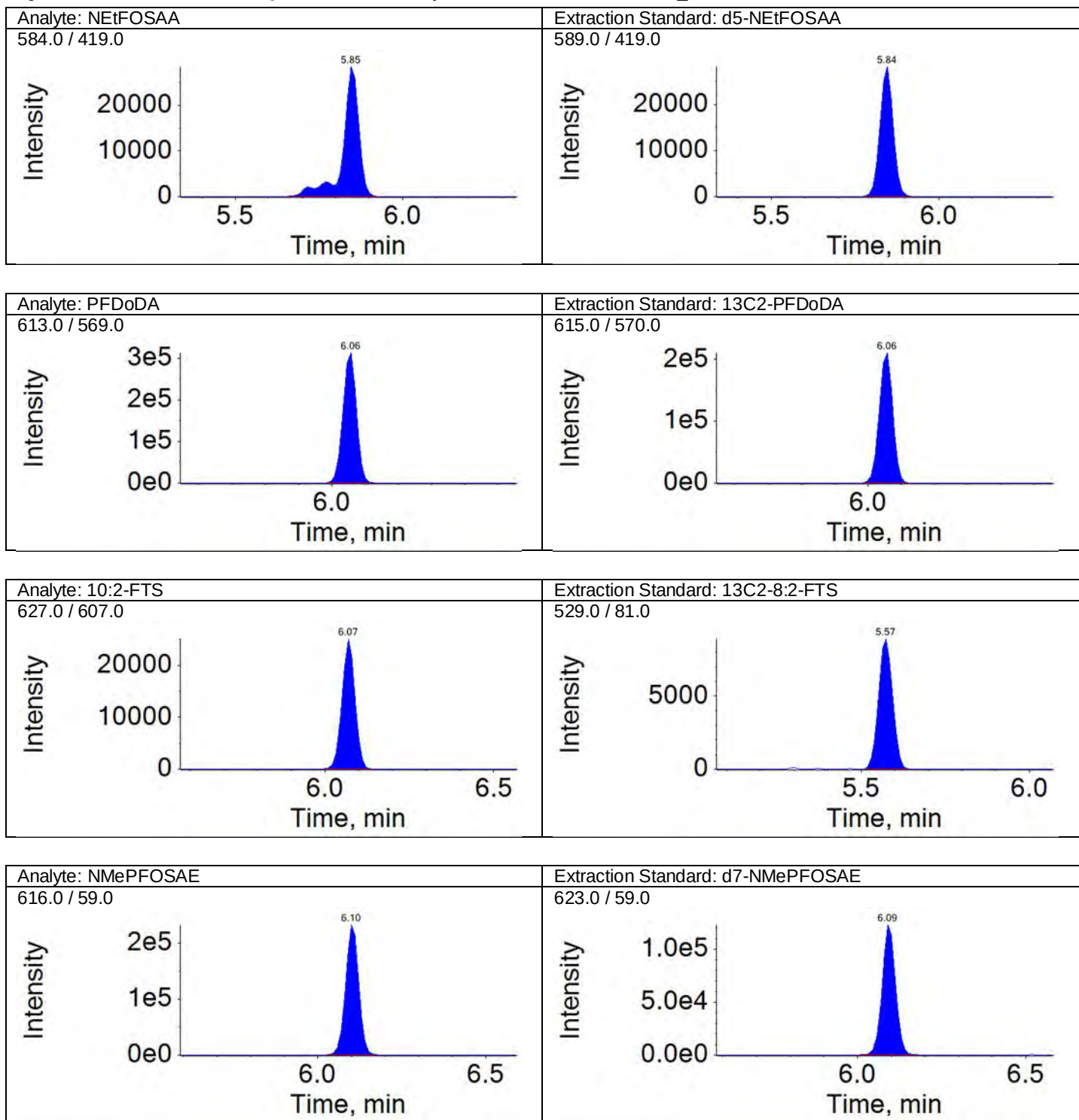
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



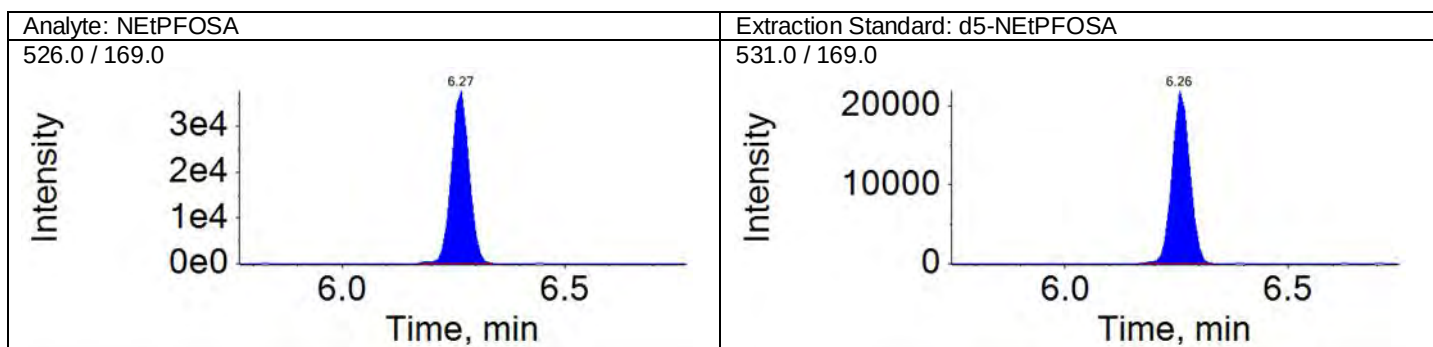
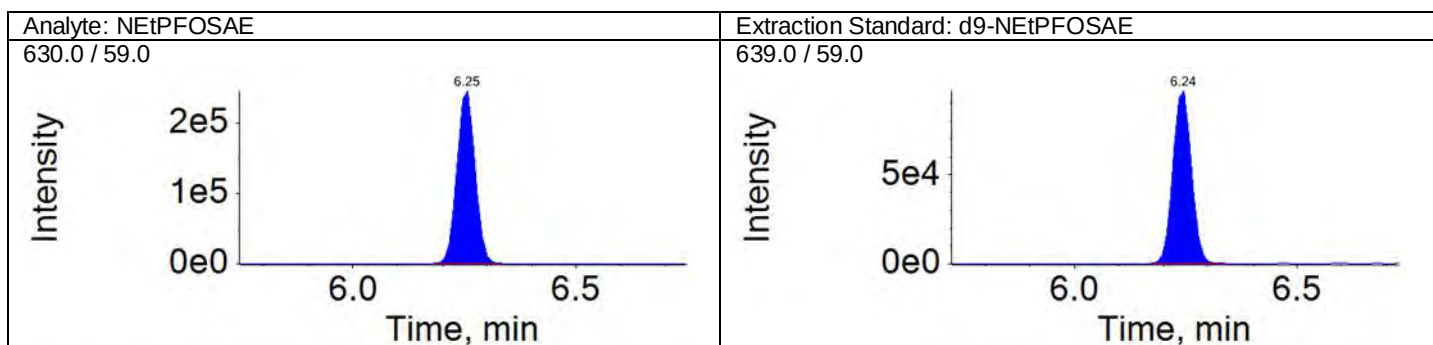
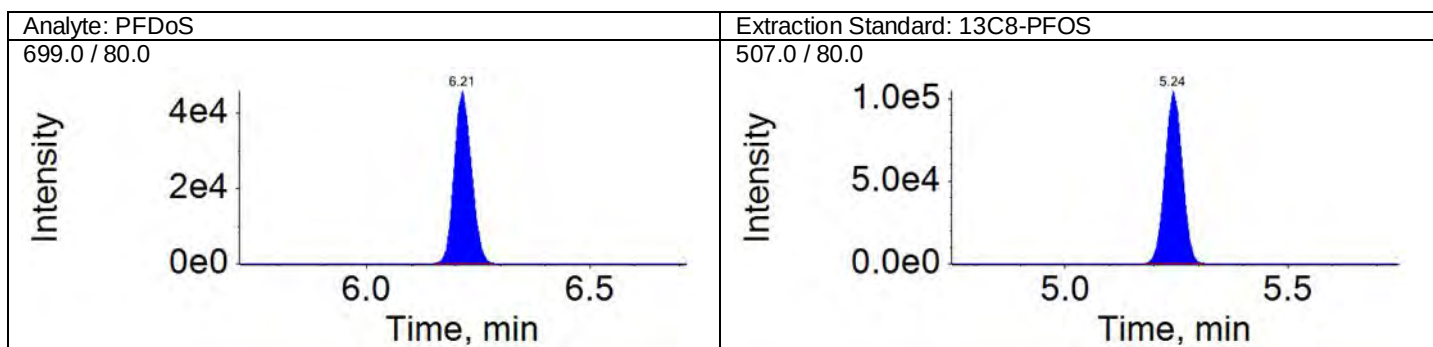
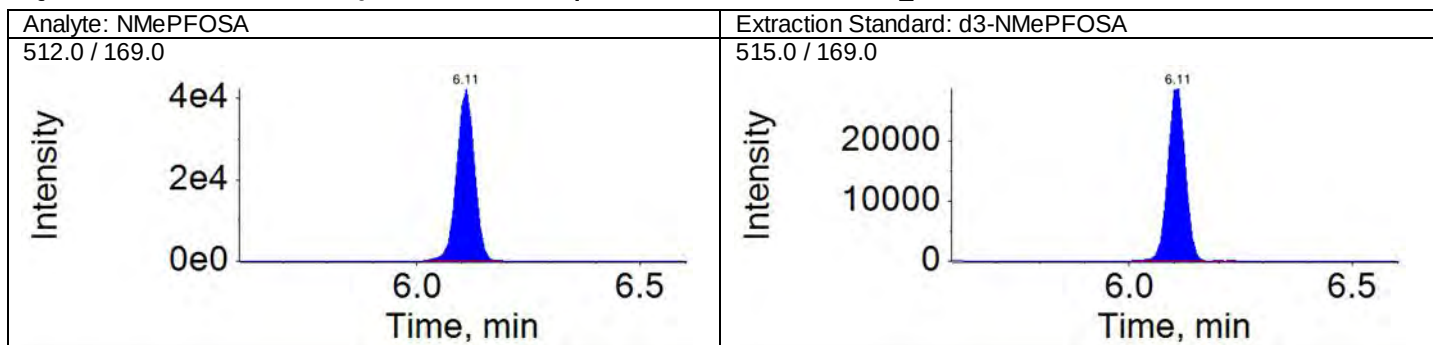
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



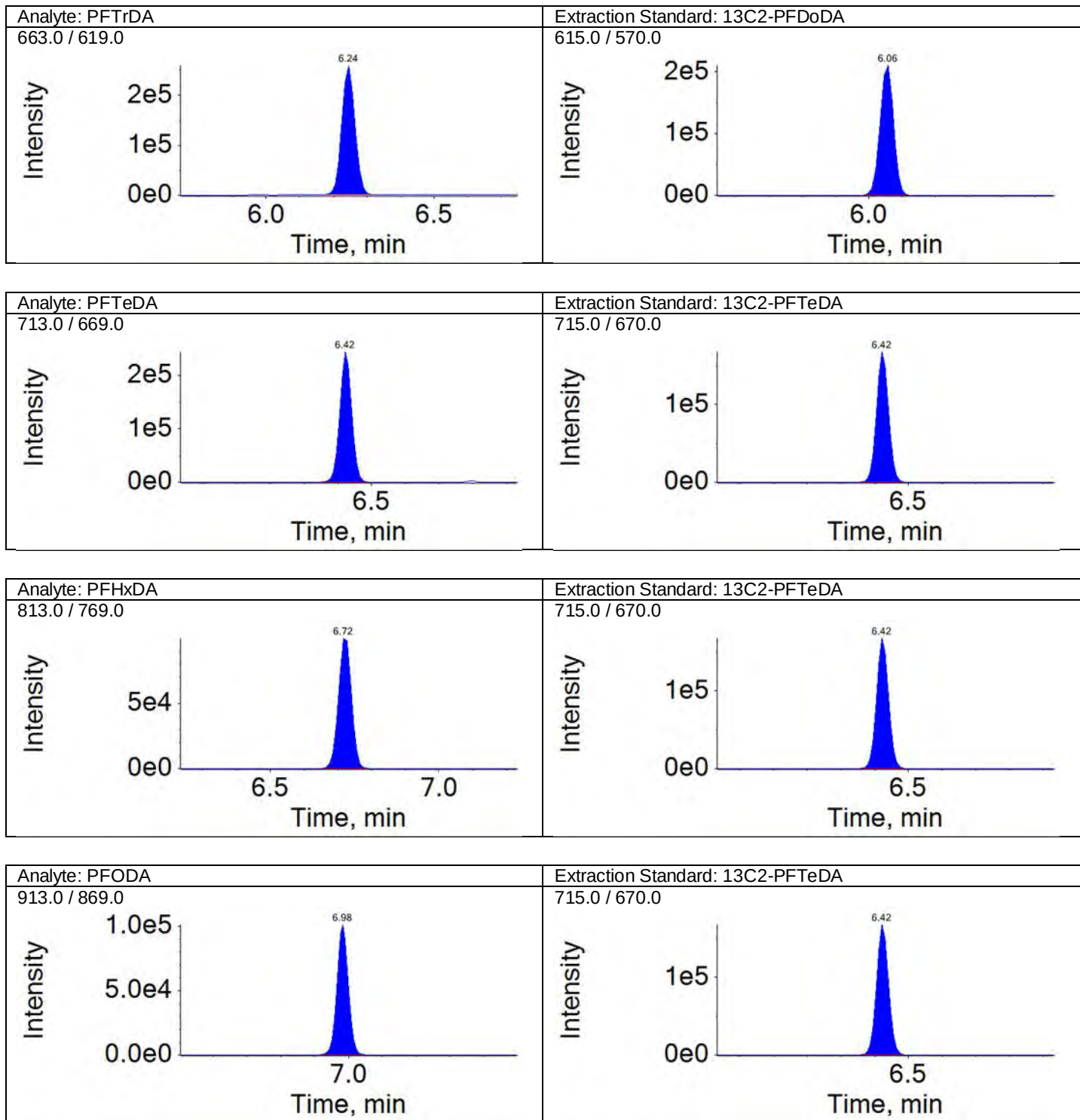
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QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV15DCCV1-4 11/16/2018 8:47:00 AM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV15DCCV1-4
Results Table Date: 11/16/2018 8:47:00 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:

PFHxS

RT (min.):

4.55

Peak Area:

385732.7

Mass Range:

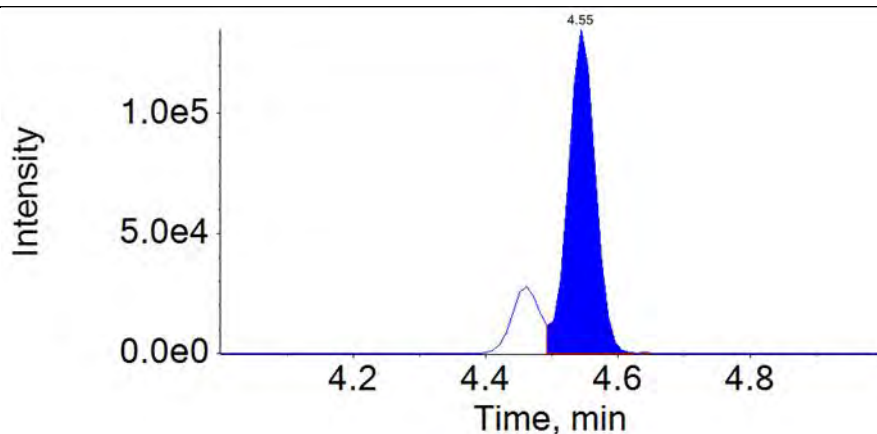
399.0 / 80.0

File Name:

18NOV15D-29.wiff

Sample Name:

CCV3_CAL4

**Component Name:**

PFOS

RT (min.):

5.24

Peak Area:

353094.9

Mass Range:

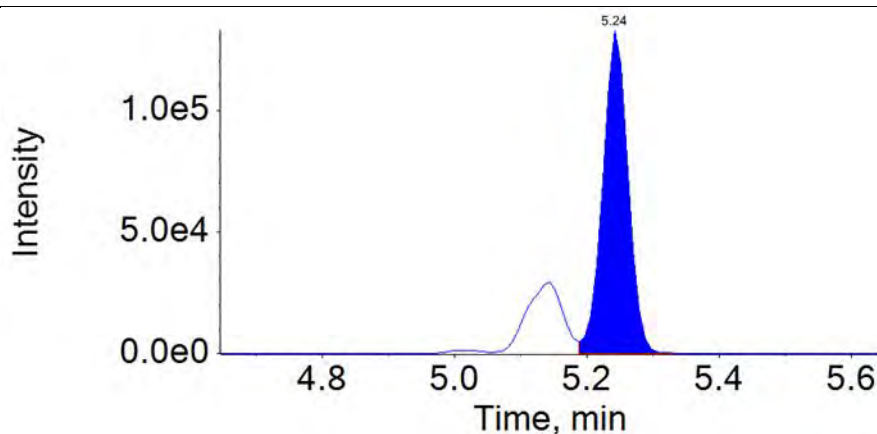
499.0 / 80.0

File Name:

18NOV15D-29.wiff

Sample Name:

CCV3_CAL4

**Component Name:**

NMeFOSAA

RT (min.):

5.71

Peak Area:

98902.4

Mass Range:

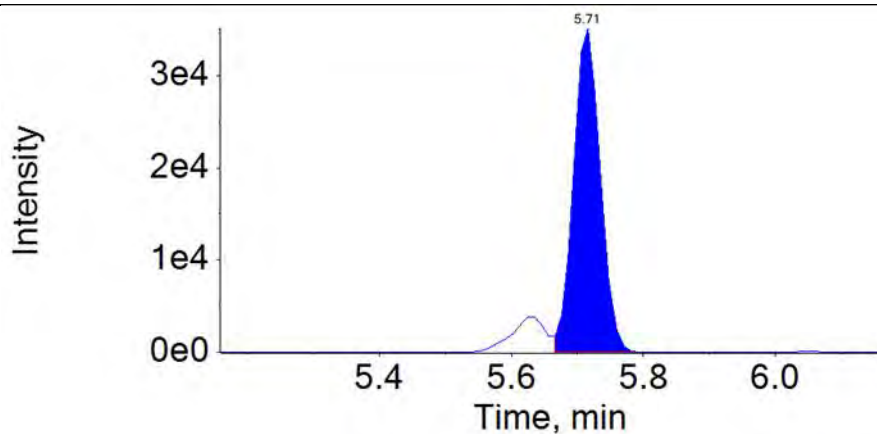
570.0 / 419.0

File Name:

18NOV15D-29.wiff

Sample Name:

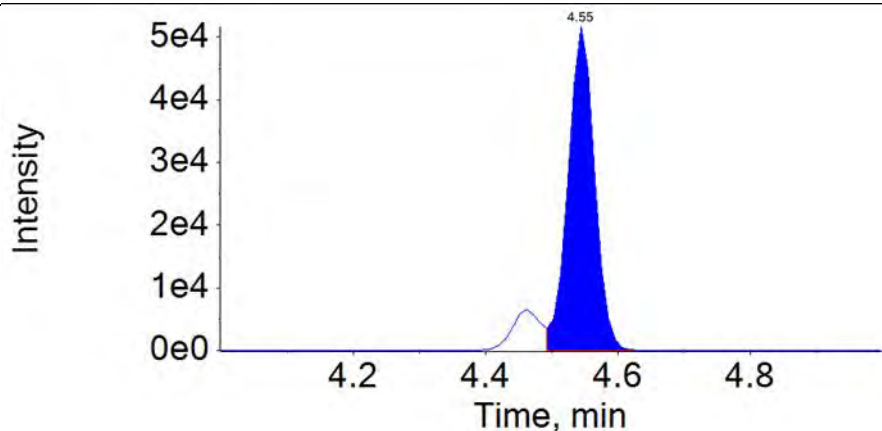
CCV3_CAL4



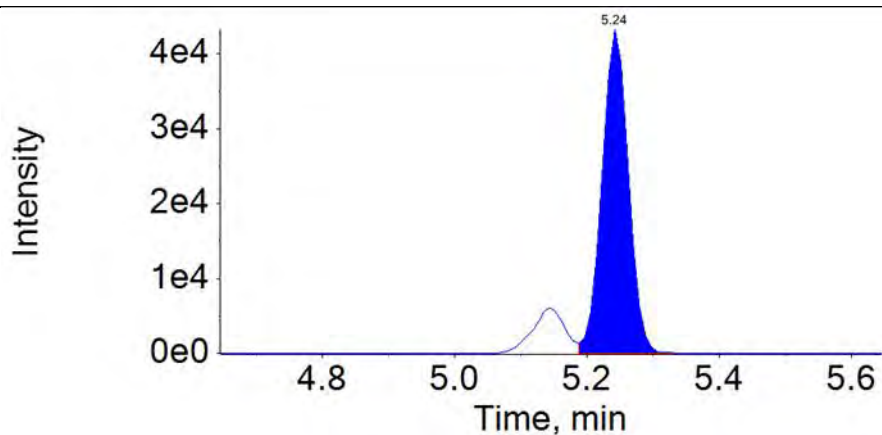
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Results Table Date: 11/16/2018 8:47:00 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

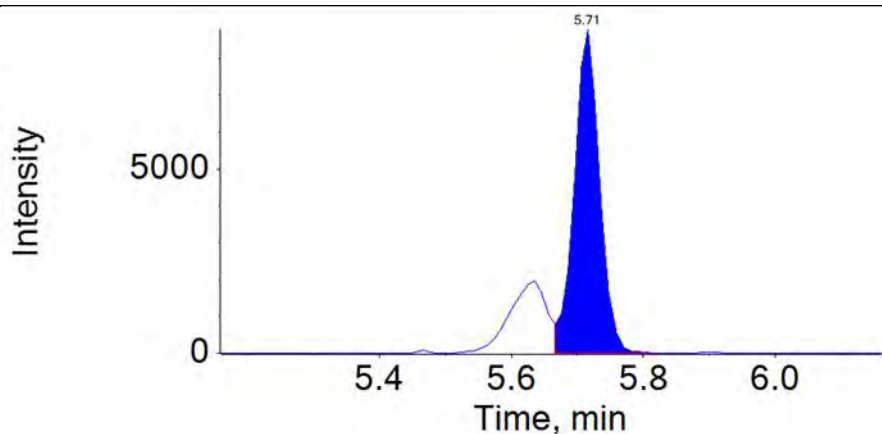
Component Name:
PFHxS_2
RT (min.):
4.55
Peak Area:
144108.3
Mass Range:
399.0 / 99.0
File Name:
18NOV15D-29.wiff
Sample Name:
CCV3_CAL4



Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
119896.3
Mass Range:
499.0 / 99.0
File Name:
18NOV15D-29.wiff
Sample Name:
CCV3_CAL4



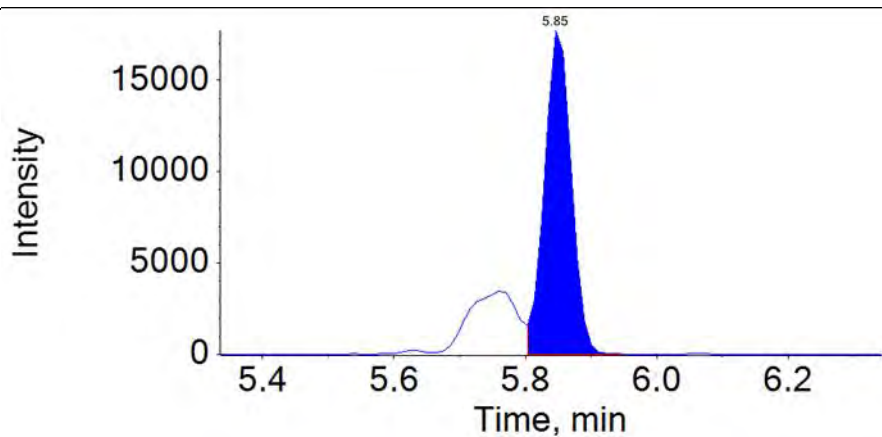
Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
23378.7
Mass Range:
570.0 / 483.0
File Name:
18NOV15D-29.wiff
Sample Name:
CCV3_CAL4



Results Table Name: 18NOV15DCCV1-4
Results Table Date: 11/16/2018 8:47:00 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.85
Peak Area:
50374.0
Mass Range:
584.0 / 526.0
File Name:
18NOV15D-29.wiff
Sample Name:
CCV3_CAL4



Results Table Name: 18NOV15DCCV1-4
Results Table Date: 11/16/2018 8:47:00 AM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By JPT at 8:56 am, 11/16/18

REVIEWED
By HMK at 7:38 am, 11/19/18

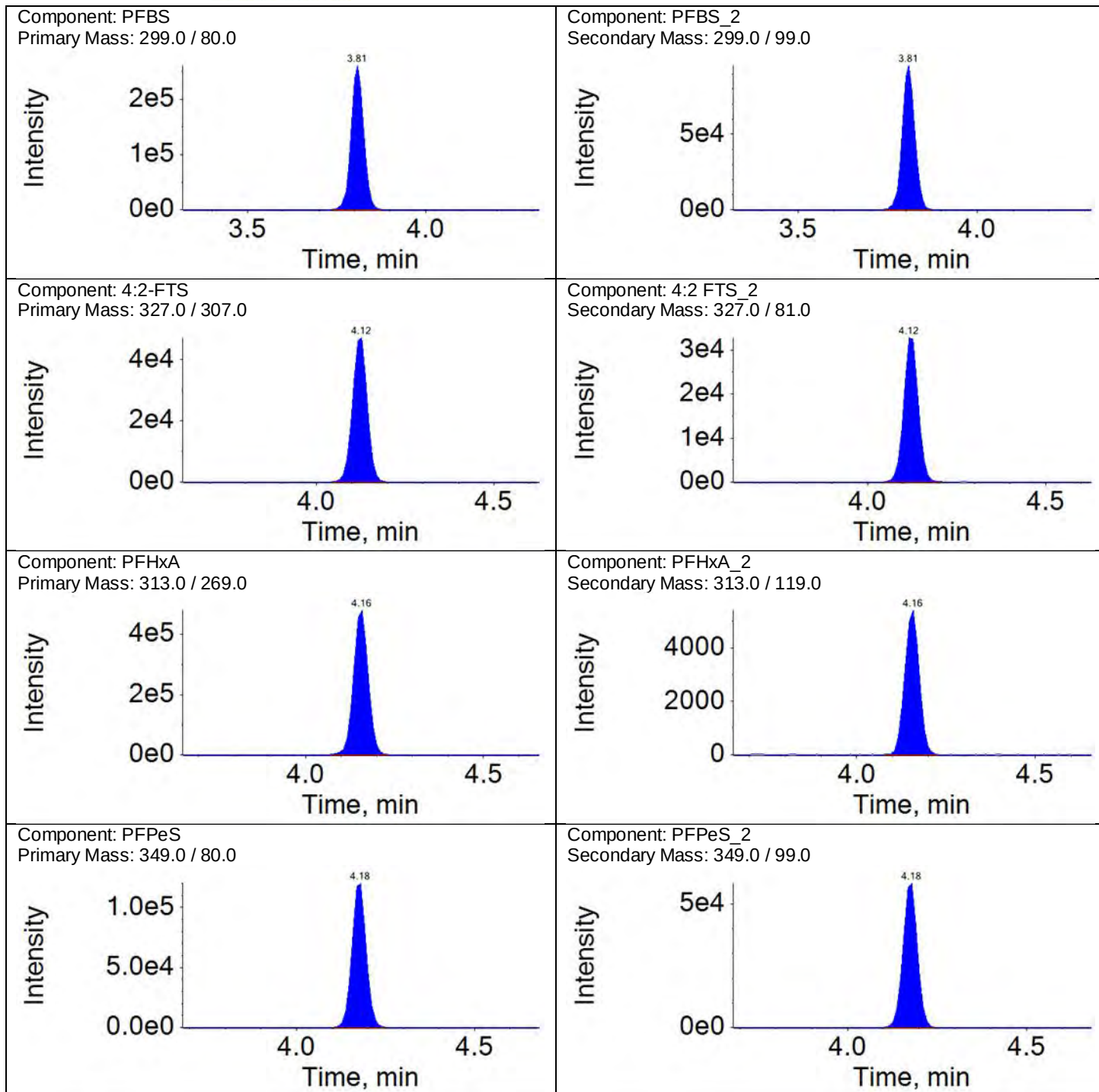
Ion Ratio Report

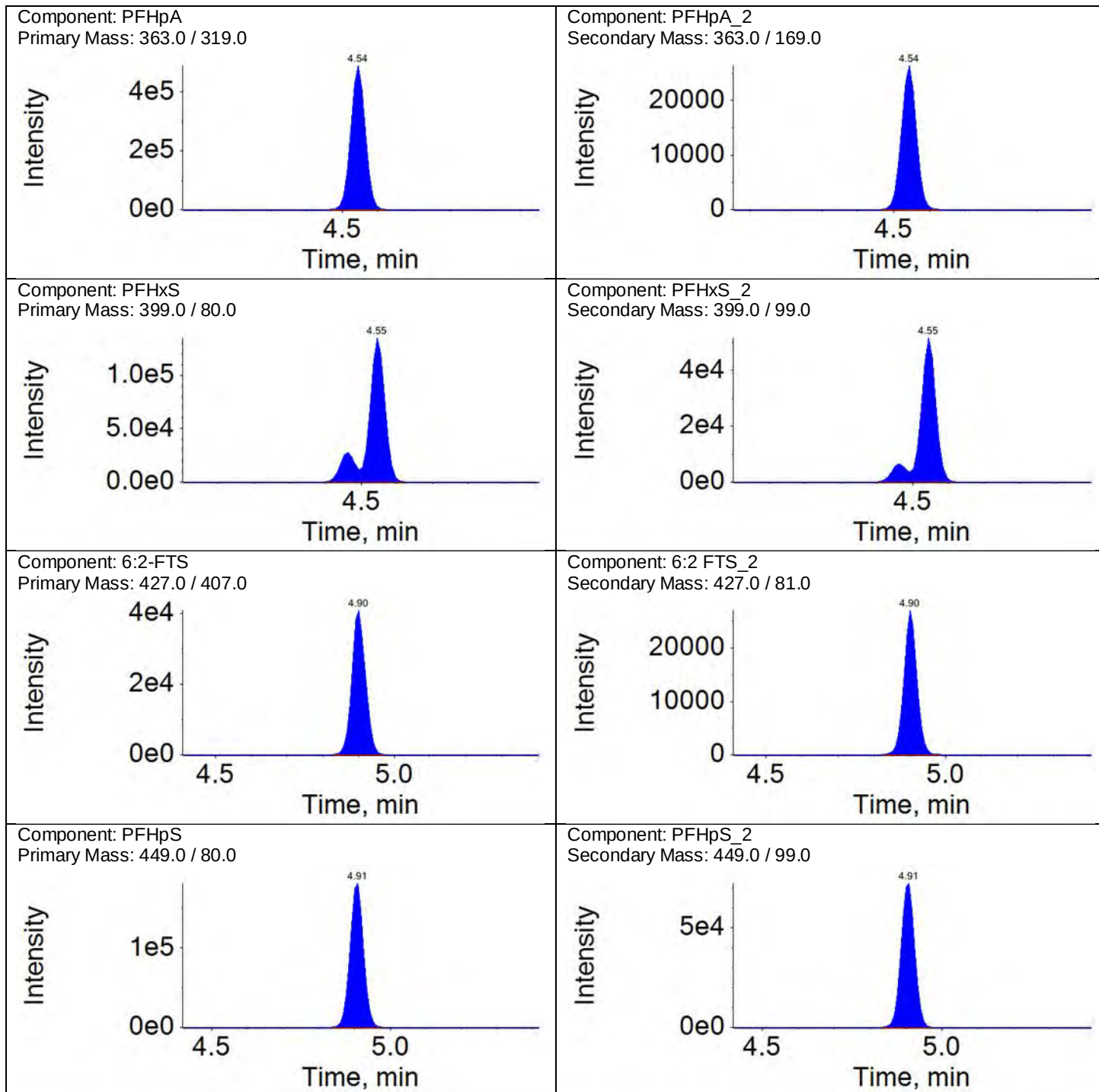
Sample Name: CCV3_CAL4

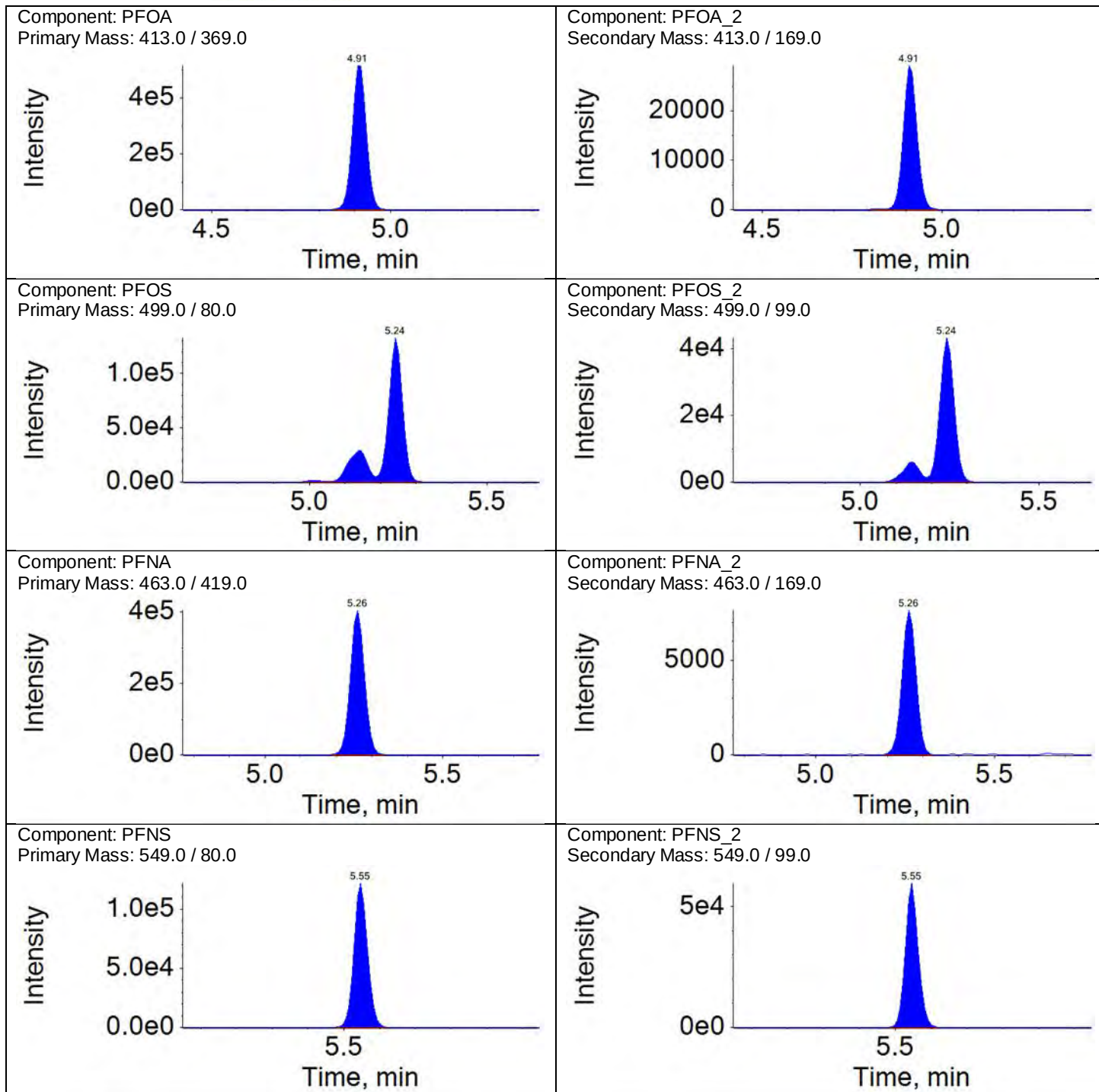
Instrument Name: LM27631

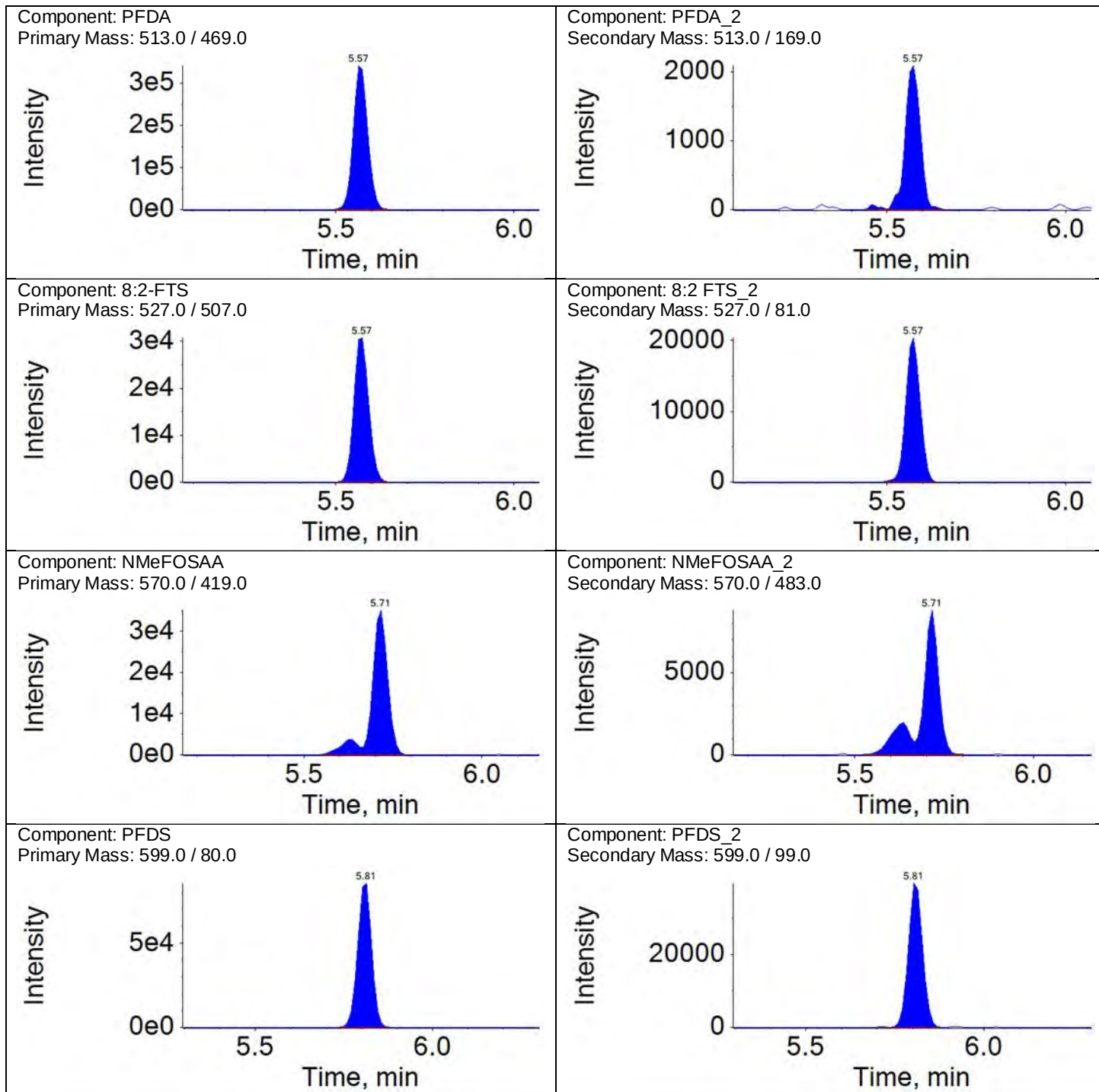
File Name: 18NOV15D-29.wiff

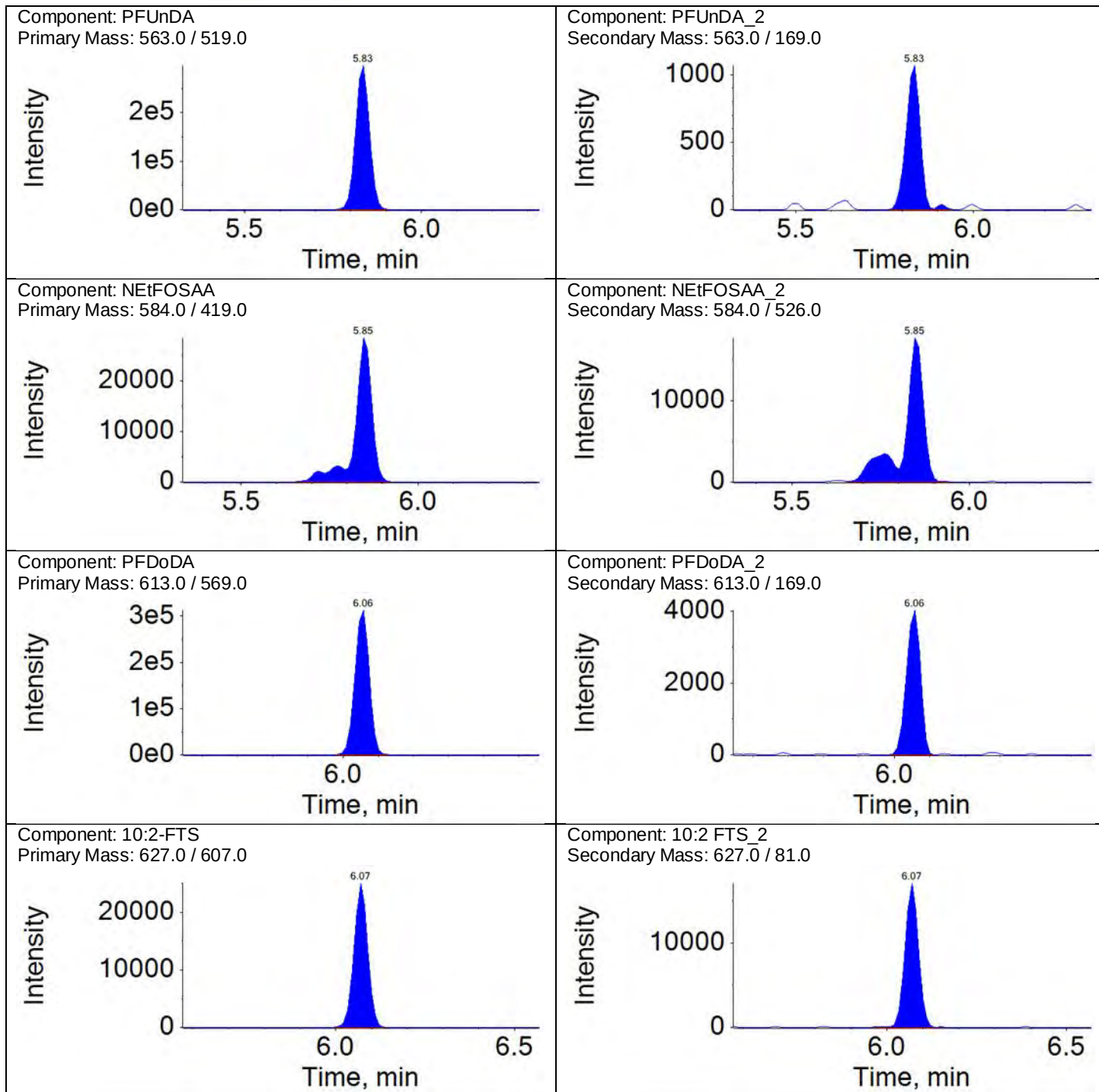
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	639117.9	A	N/A	1.0000			
PFBS_2	3.81	1.00	233610.1	A	N/A	0.3655	0	50	
4:2-FTS	4.12	1.00	136748.3	A	N/A	1.0000			
4:2 FTS_2	4.12	1.00	93506.2	A	N/A	0.6838		#NA!	
PFHxA	4.16	1.00	1378660.6	A	N/A	1.0000			
PFHxA_2	4.16	1.00	15332.0	A	N/A	0.0111	-5	50	
PFPeS	4.18	1.10	333118.9	A	N/A	1.0000			
PFPeS_2	4.18	1.10	163542.8	A	N/A	0.4909	-5	50	
PFHpA	4.54	1.00	1386373.1	A	N/A	1.0000			
PFHpA_2	4.54	1.00	76737.1	A	N/A	0.0554	-2	50	
PFHxS	4.55	1.00	466246.7	M	N/A	1.0000			
PFHxS_2	4.55	1.00	163325.7	M	N/A	0.3503	2	50	
6:2-FTS	4.90	1.00	108795.0	A	N/A	1.0000			
6:2 FTS_2	4.90	1.00	68122.2	A	N/A	0.6262		#NA!	
PFHpS	4.91	1.08	477473.9	A	N/A	1.0000			
PFHpS_2	4.91	1.08	192308.3	A	N/A	0.4028	-1	50	
PFOA	4.91	1.00	1409760.6	A	N/A	1.0000			
PFOA_2	4.91	1.00	77844.3	A	N/A	0.0552	-3	50	
PFOS	5.24	1.00	469289.4	M	N/A	1.0000			
PFOS_2	5.24	1.00	140478.1	M	N/A	0.2993	1	50	
PFNA	5.26	1.00	1119473.7	A	N/A	1.0000			
PFNA_2	5.26	1.00	21011.3	A	N/A	0.0188	-17	50	
PFNS	5.55	1.06	320473.6	A	N/A	1.0000			
PFNS_2	5.55	1.06	148854.2	A	N/A	0.4645	-3	50	
PFDA	5.57	1.00	958718.1	A	N/A	1.0000			
PFDA_2	5.57	1.00	6334.6	A	N/A	0.0066	-17	50	
8:2-FTS	5.57	1.00	88811.3	A	N/A	1.0000			
8:2 FTS_2	5.57	1.00	56959.5	A	N/A	0.6414		#NA!	
NMeFOSAA	5.71	1.00	112844.6	M	N/A	1.0000			
NMeFOSAA_2	5.71	1.00	31016.7	M	N/A	0.2749	6	50	
PFDS	5.81	1.11	237235.2	A	N/A	1.0000			
PFDS_2	5.81	1.11	110713.5	A	N/A	0.4667	-8	50	
PFUnDA	5.83	1.00	810481.8	A	N/A	1.0000			
PFUnDA_2	5.83	1.00	2987.8	A	N/A	0.0037	-33	50	
NEtFOSAA	5.85	1.00	94950.7	A	N/A	1.0000			
NEtFOSAA_2	5.85	1.00	68273.4	M	N/A	0.7190	0	50	
PFDODA	6.06	1.00	885673.4	A	N/A	1.0000			
PFDODA_2	6.06	1.00	11160.2	A	N/A	0.0126	-18	50	
10:2-FTS	6.07	1.09	66917.7	A	N/A	1.0000			
10:2 FTS_2	6.07	1.09	44748.8	A	N/A	0.6687		#NA!	
PFTTrDA	6.24	1.03	703394.0	A	N/A	1.0000			
PFTTrDA_2	6.24	1.03	6378.3	A	N/A	0.0091	6	50	
PFTeDA	6.42	1.00	595045.7	A	N/A	1.0000			
PFTeDA_2	6.42	1.00	3377.0	A	N/A	0.0057	-9	50	
PFHxDA	6.72	1.05	269235.8	A	N/A	1.0000			
PFHxDA_2	6.72	1.05	17212.8	A	N/A	0.0639	-6	50	
PFODA	6.98	1.09	235049.1	A	N/A	1.0000			
PFODA_2	6.98	1.09	5852.2	A	N/A	0.0249	-10	50	

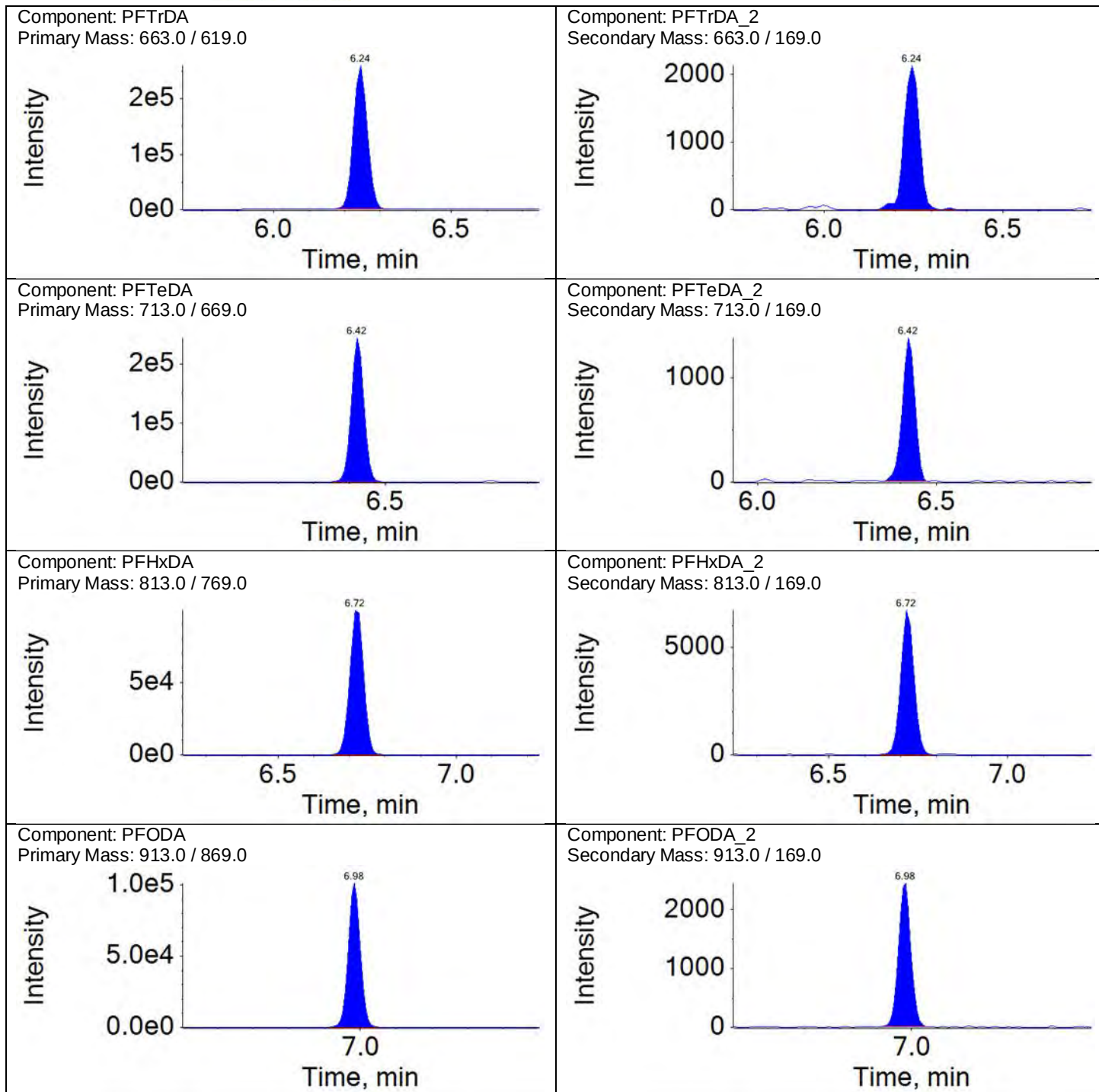












DOD Initial Calibration Verification

Instrument ID: LM27631 ICAL Name: 18NOV28DCAL QMethod Name: 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM Acquisition Method: 18AUG13_3uL.dam

Sample File Name	Acquisition Date	Sample ID	Sample Name
18NOV28DCAL-06.wiff	11/28/2018 1:42:10 PM	CALBRN11833C	CAL1
18NOV28DCAL-07.wiff	11/28/2018 1:51:13 PM	CALBRN21833C	CAL2
18NOV28DCAL-08.wiff	11/28/2018 2:00:13 PM	CALBRN31833B	CAL3
18NOV28DCAL-09.wiff	11/28/2018 2:09:13 PM	CALBRN41833B	CAL4
18NOV28DCAL-10.wiff	11/28/2018 2:18:16 PM	CALBRN51833B	CAL5
18NOV28DCAL-11.wiff	11/28/2018 2:27:16 PM	CALBRN61833B	CAL6
18NOV28DCAL-12.wiff	11/28/2018 2:36:16 PM	CALBRN71833B	CAL7

CAL3 Injection Standard Areas

Sample Name	Injection Std Name	Injection Std Area
CAL3	13C3-PFBA	887248.9
CAL3	13C2-PFOA	498501.6
CAL3	13C4-PFOS	283214.2
CAL3	13C2-PFDA	441790.6

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

Response Factor Table

Analyte Name	CAL 1	CAL 2	CAL 3	CAL 4	CAL 5	CAL 6	CAL 7	%RSD	Limit	OOS	r ²	OOS
PFBA	1.080	0.888	1.015	0.915	0.953	0.891	N/A	7	20		0.999	
PFPeA	1.146	0.858	1.164	0.972	1.027	N/A	N/A	11	20		0.997	
PFBS	1.048	0.856	1.054	0.915	0.956	0.951	0.964	7	20		1.000	
4:2-FTS	1.863	1.681	1.998	1.784	1.847	1.760	1.708	6	20		0.999	
PFHxA	1.451	1.216	1.377	1.252	1.229	N/A	N/A	7	20		0.999	
PFPeS	0.506	0.448	0.528	0.456	0.472	0.446	0.463	6	20		0.999	
PFHpA	1.943	1.531	1.813	1.585	1.614	N/A	N/A	9	20		0.999	
PFHxS	1.004	0.803	1.016	0.911	1.002	0.973	1.040	8	20		0.999	
6:2-FTS	2.165	1.891	2.059	2.052	1.835	1.766	N/A	7	20		0.998	
PFHpS	1.044	0.805	0.986	0.926	0.943	0.954	0.947	7	20		1.000	
PFOA	1.031	0.860	1.063	1.011	0.988	0.950	N/A	7	20		0.999	
PFOS	1.059	0.938	1.163	1.051	1.126	1.119	1.160	7	20		0.999	
PFNA	1.496	1.303	1.470	1.315	1.403	1.256	N/A	6	20		0.997	
PFNS	0.763	0.638	0.735	0.777	0.756	0.755	0.758	6	20		1.000	
PFDA	0.983	0.901	1.042	0.908	0.922	0.863	0.880	6	20		0.999	
8:2-FTS	2.600	2.366	2.661	2.405	2.587	N/A	N/A	5	20		0.999	
PFOSA	1.045	0.925	1.050	0.976	1.003	0.980	N/A	4	20		1.000	
NMeFOSAA	0.755	0.760	0.870	0.777	0.807	0.800	0.770	5	20		0.999	
PFDS	0.533	0.491	0.644	0.594	0.609	0.592	0.608	8	20		1.000	
PFUnDA	1.551	1.312	1.564	1.466	1.465	1.452	1.350	6	20		0.998	
NEtFOSAA	0.994	0.958	1.016	0.921	1.027	1.030	1.034	4	20		1.000	
PFDODA	1.137	0.896	1.115	0.896	0.918	0.904	N/A	11	20		0.999	
10:2-FTS	2.409	2.294	2.697	2.170	2.584	2.172	2.078	9	20		0.994	
NMePFOSAE	1.232	1.162	1.330	1.183	1.252	1.229	1.152	5	20		0.999	
NMePFOSA	0.955	0.904	1.028	0.928	0.970	0.938	0.940	4	20		1.000	
PFDoS	0.310	0.304	0.325	0.333	0.321	0.319	0.343	4	20		0.999	
NEtPFOSAE	1.702	1.382	1.766	1.478	1.516	1.392	1.348	10	20		0.998	
NEtPFOSA	1.208	0.986	1.184	1.112	1.104	1.170	1.090	6	20		0.999	
PFTTrDA	1.034	0.859	1.068	0.881	0.826	0.812	N/A	11	20		0.998	
PFTeDA	0.975	0.858	1.016	0.886	0.921	0.861	N/A	6	20		0.999	
PFHxDA	0.549	0.429	0.516	0.455	0.493	0.431	0.426	10	20		0.997	
PFODA	0.411	0.354	0.413	0.374	0.405	0.373	0.370	6	20		0.999	

DOD Initial Calibration Verification

Instrument ID: LM27631

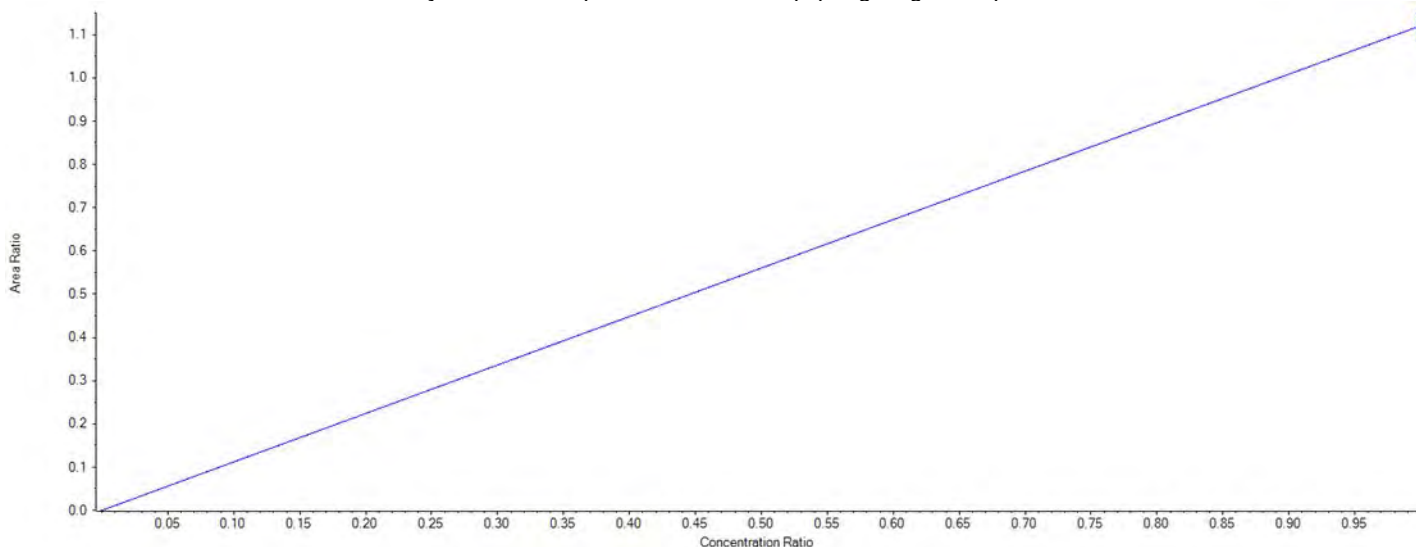
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C4-PFBA

 $y = 1.12068 x$ (std. dev. = 0.01800) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C4-PFBA Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	1018752.8	907350.543	True	5.00	1.123	3.28	1.000	5.000	5.009	0	30	
CAL2	1033122.1	898154.232	True	5.00	1.150	3.27	1.000	5.000	5.132	3	30	
CAL3	993144.1	887248.863	True	5.00	1.119	3.28	1.000	5.000	4.994	0	30	
CAL4	974000.9	892443.927	True	5.00	1.091	3.28	1.000	5.000	4.869	-3	30	
CAL5	951695.0	857159.817	True	5.00	1.110	3.28	1.000	5.000	4.954	-1	30	
CAL6	897566.7	793954.989	True	5.00	1.131	3.27	1.000	5.000	5.044	1	30	
CAL7	803704.8	717475.737	True	5.00	1.120	3.27	1.000	5.000	4.998	0	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

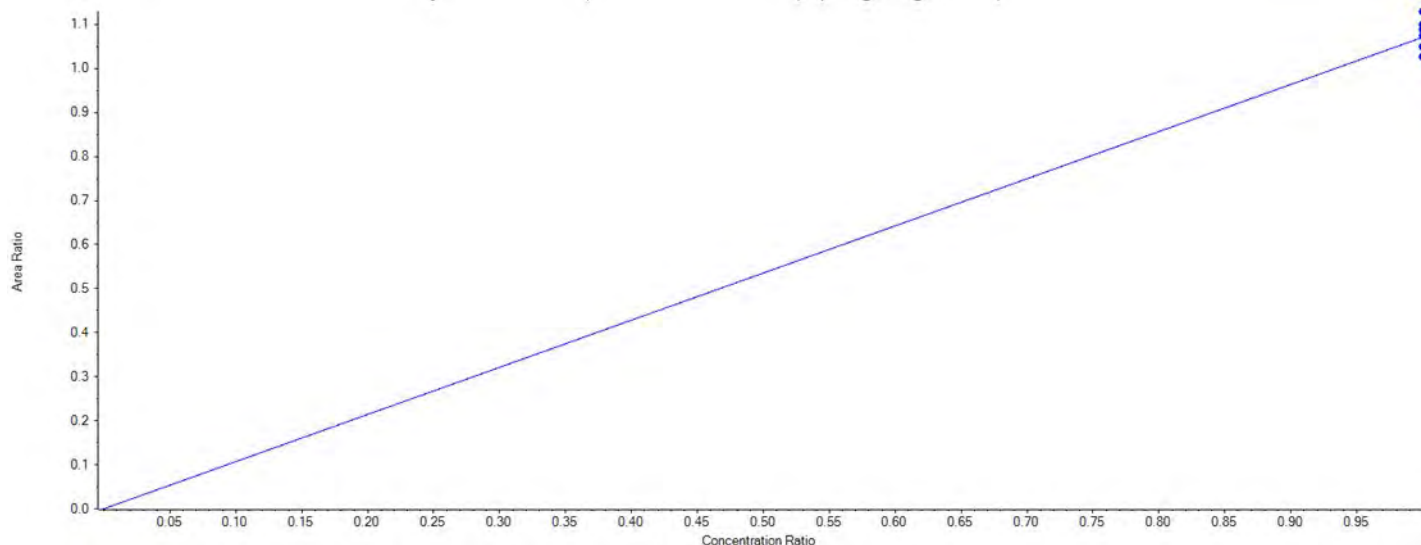
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C5-PFPeA

 $y = 1.07075 x$ (std. dev. = 0.03855) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C5-PFPeA Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	975339.0	907350.543	True	5.00	1.075	3.77	1.150	5.000	5.019	0	30	
CAL2	1014125.0	898154.232	True	5.00	1.129	3.77	1.150	5.000	5.273	5	30	
CAL3	910953.7	887248.863	True	5.00	1.027	3.78	1.150	5.000	4.794	-4	30	
CAL4	915824.6	892443.927	True	5.00	1.026	3.77	1.150	5.000	4.792	-4	30	
CAL5	900153.4	857159.817	True	5.00	1.050	3.78	1.150	5.000	4.904	-2	30	
CAL6	872922.6	793954.989	True	5.00	1.099	3.77	1.150	5.000	5.134	3	30	
CAL7	781113.8	717475.737	True	5.00	1.089	3.77	1.150	5.000	5.084	2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

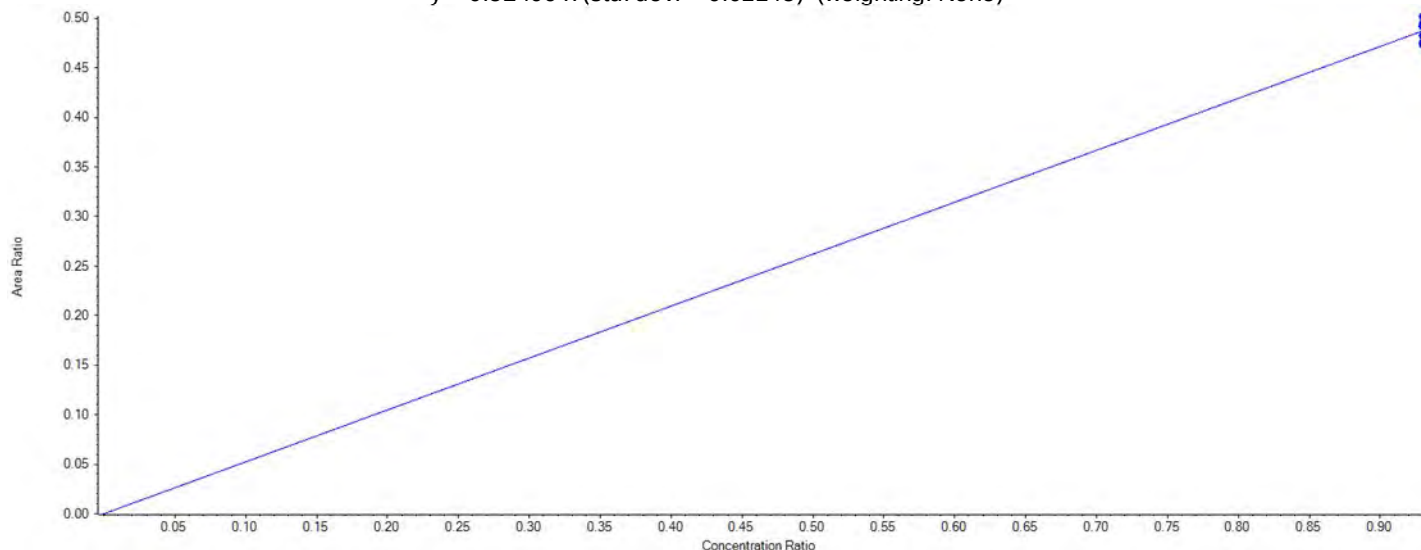
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C3-PFBS

 $y = 0.52409 x$ (std. dev. = 0.01145) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C3-PFBS Area	13C3-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	437838.9	907350.543	True	5.00	0.483	3.82	1.160	4.650	4.604	-1	30	
CAL2	442149.9	898154.232	True	5.00	0.492	3.82	1.160	4.650	4.697	1	30	
CAL3	419929.2	887248.863	True	5.00	0.473	3.82	1.170	4.650	4.515	-3	30	
CAL4	424041.3	892443.927	True	5.00	0.475	3.82	1.160	4.650	4.533	-3	30	
CAL5	424059.2	857159.817	True	5.00	0.495	3.83	1.160	4.650	4.720	2	30	
CAL6	398441.3	793954.989	True	5.00	0.502	3.82	1.160	4.650	4.788	3	30	
CAL7	352994.8	717475.737	True	5.00	0.492	3.82	1.160	4.650	4.694	1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

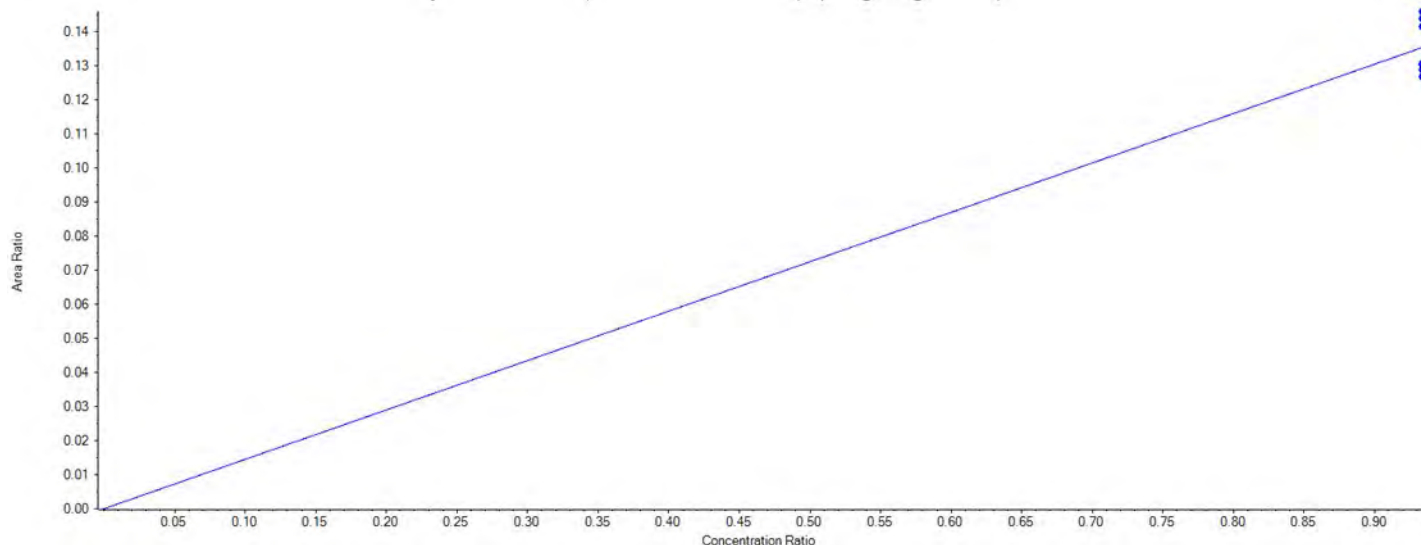
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-4:2-FTS

 $y = 0.14509 \times (\text{std. dev.} = 0.00860)$ (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-4:2-FTS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	75119.1	521822.847	True	5.00	0.144	4.13	0.840	4.670	4.961	6	30	
CAL2	72067.1	493545.206	True	5.00	0.146	4.13	0.840	4.670	5.032	8	30	
CAL3	70629.1	498501.619	True	5.00	0.142	4.14	0.840	4.670	4.883	5	30	
CAL4	67043.7	528506.765	True	5.00	0.127	4.13	0.840	4.670	4.372	-6	30	
CAL5	67423.0	516457.167	True	5.00	0.131	4.14	0.840	4.670	4.499	-4	30	
CAL6	65255.4	499608.504	True	5.00	0.131	4.13	0.840	4.670	4.501	-4	30	
CAL7	62236.8	482796.463	True	5.00	0.129	4.13	0.840	4.670	4.442	-5	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

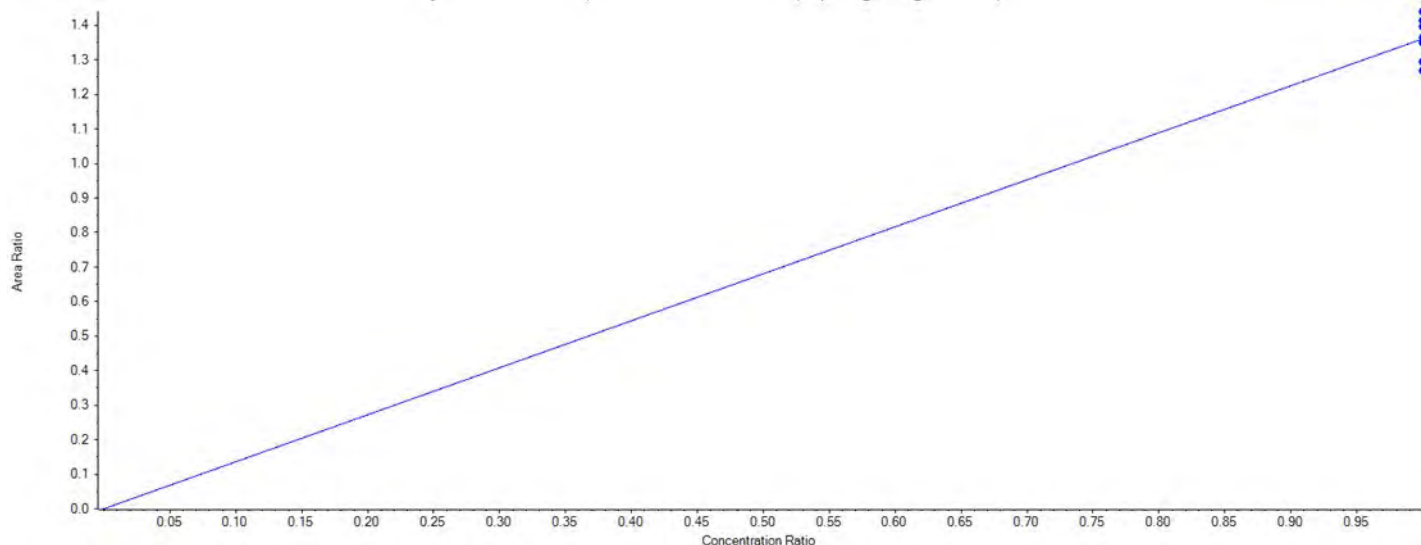
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C5-PFHxA

 $y = 1.36129 \times (\text{std. dev.} = 0.06204)$ (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C5-PFHxA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	728340.5	521822.847	True	5.00	1.396	4.17	0.850	5.000	5.127	3	30	
CAL2	697229.0	493545.206	True	5.00	1.413	4.16	0.850	5.000	5.189	4	30	
CAL3	717900.1	498501.619	True	5.00	1.440	4.17	0.850	5.000	5.290	6	30	
CAL4	670407.7	528506.765	True	5.00	1.268	4.17	0.850	5.000	4.659	-7	30	
CAL5	704953.5	516457.167	True	5.00	1.365	4.17	0.850	5.000	5.014	0	30	
CAL6	675219.8	499608.504	True	5.00	1.351	4.16	0.850	5.000	4.964	-1	30	
CAL7	625449.8	482796.463	True	5.00	1.295	4.16	0.850	5.000	4.758	-5	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

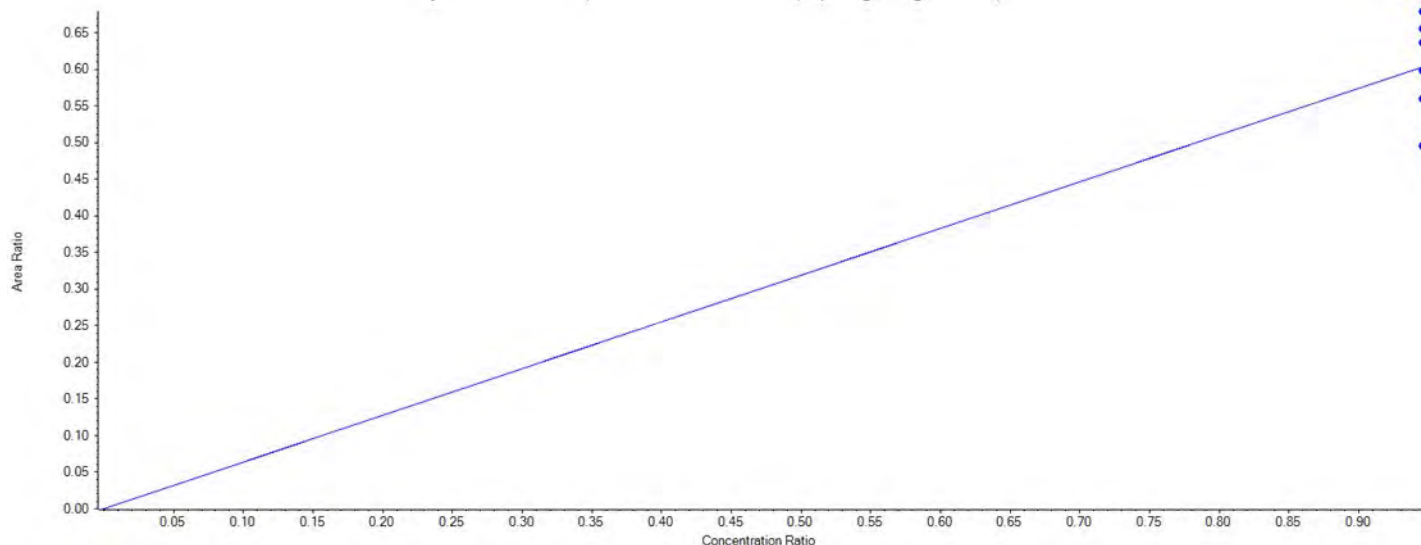
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C3-PFHxS

 $y = 0.63794 x$ (std. dev. = 0.06553) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C3-PFHxS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	331982.9	521822.847	True	5.00	0.636	4.56	0.930	4.730	4.986	5	30	
CAL2	335129.7	493545.206	True	5.00	0.679	4.55	0.930	4.730	5.322	13	30	
CAL3	326982.4	498501.619	True	5.00	0.656	4.56	0.930	4.730	5.141	9	30	
CAL4	316393.3	528506.765	True	5.00	0.599	4.56	0.930	4.730	4.692	-1	30	
CAL5	309184.7	516457.167	True	5.00	0.599	4.56	0.930	4.730	4.692	-1	30	
CAL6	279894.6	499608.504	True	5.00	0.560	4.55	0.930	4.730	4.391	-7	30	
CAL7	239327.4	482796.463	True	5.00	0.496	4.56	0.930	4.730	3.885	-18	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

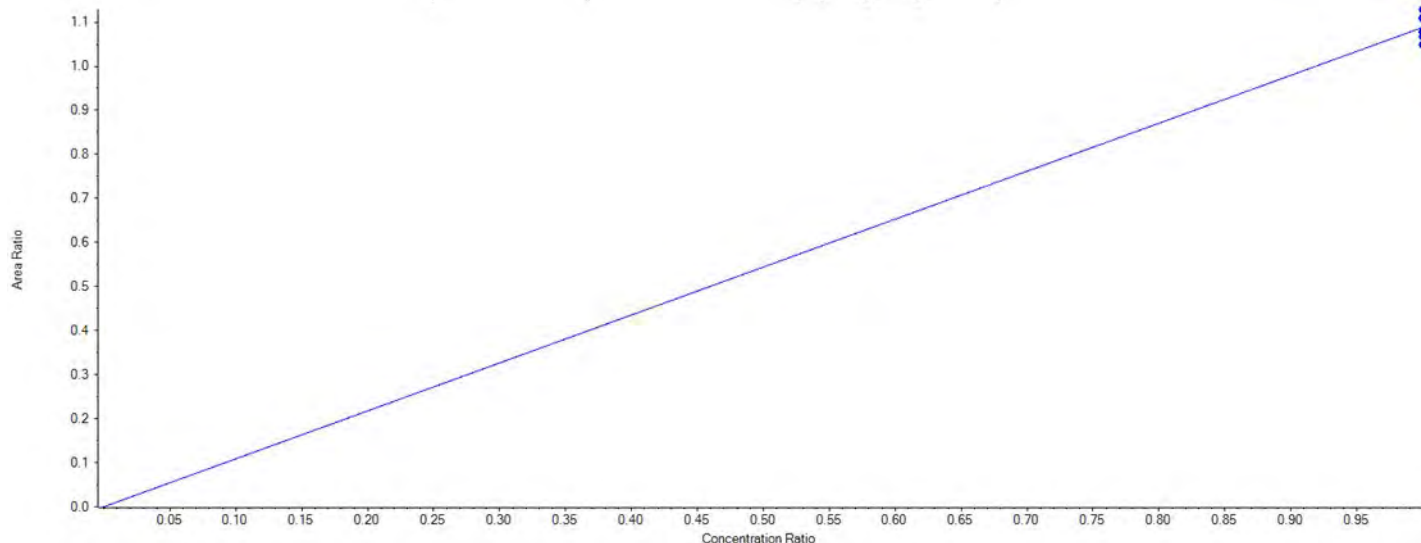
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C4-PFHpA

 $y = 1.08817 \times (\text{std. dev.} = 0.02857)$ (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C4-PFHpA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	547365.1	521822.847	True	5.00	1.049	4.55	0.920	5.000	4.820	-4	30	
CAL2	547372.0	493545.206	True	5.00	1.109	4.55	0.920	5.000	5.096	2	30	
CAL3	535993.3	498501.619	True	5.00	1.075	4.56	0.920	5.000	4.940	-1	30	
CAL4	563673.9	528506.765	True	5.00	1.067	4.55	0.920	5.000	4.901	-2	30	
CAL5	556455.9	516457.167	True	5.00	1.077	4.56	0.920	5.000	4.951	-1	30	
CAL6	555281.5	499608.504	True	5.00	1.111	4.55	0.920	5.000	5.107	2	30	
CAL7	544866.9	482796.463	True	5.00	1.129	4.55	0.920	5.000	5.186	4	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

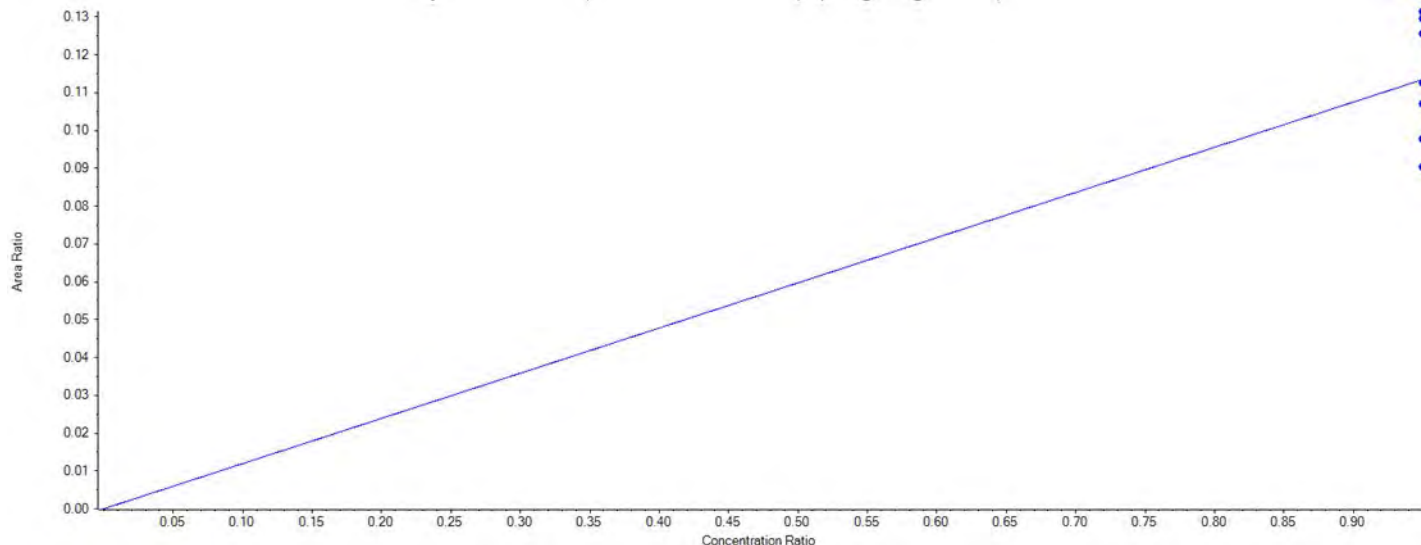
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-6:2-FTS

 $y = 0.11945 x$ (std. dev. = 0.01690) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-6:2-FTS Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	65543.8	521822.847	True	5.00	0.126	4.91	1.000	4.750	5.258	11	30	
CAL2	63922.7	493545.206	True	5.00	0.130	4.91	1.000	4.750	5.422	14	30	
CAL3	65518.3	498501.619	True	5.00	0.131	4.92	1.000	4.750	5.502	16	30	
CAL4	56580.1	528506.765	True	5.00	0.107	4.91	1.000	4.750	4.481	-6	30	
CAL5	58122.8	516457.167	True	5.00	0.113	4.92	1.000	4.750	4.711	-1	30	
CAL6	48807.6	499608.504	True	5.00	0.098	4.91	1.000	4.750	4.089	-14	30	
CAL7	43678.3	482796.463	True	5.00	0.090	4.91	1.000	4.750	3.787	-20	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

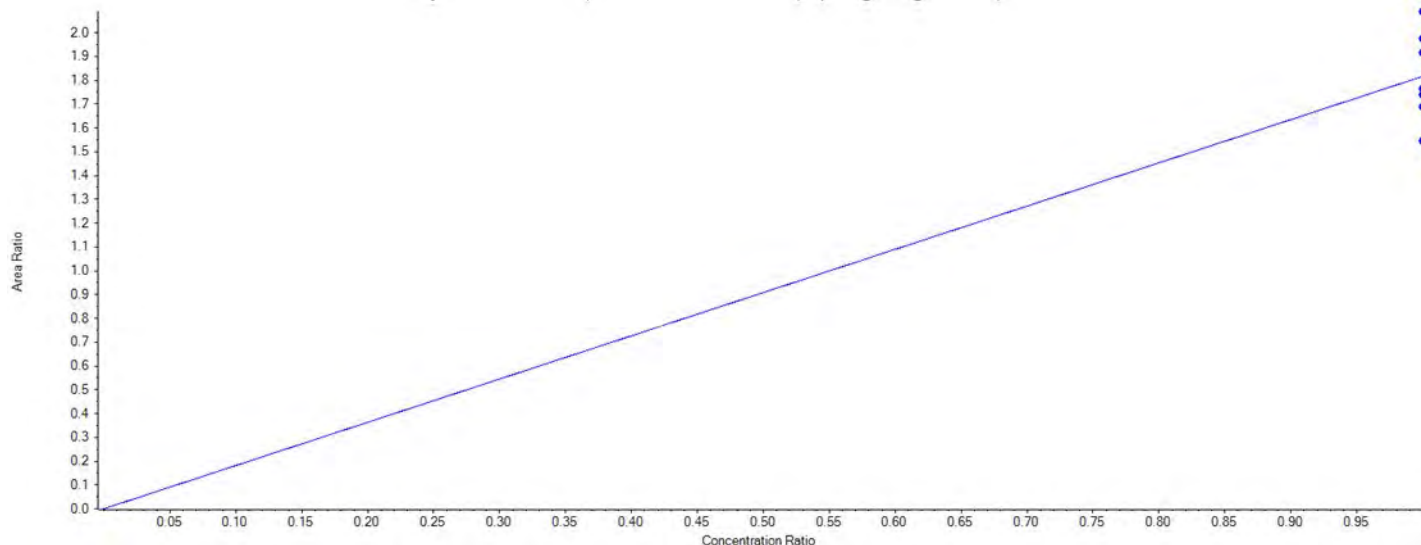
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C8-PFOA

 $y = 1.81654 x$ (std. dev. = 0.18621) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C8-PFOA Area	13C2-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	1030597.9	521822.847	True	5.00	1.975	4.92	1.000	5.000	5.436	9	30	
CAL2	1030866.6	493545.206	True	5.00	2.089	4.92	1.000	5.000	5.749	15	30	
CAL3	954678.0	498501.619	True	5.00	1.915	4.93	1.000	5.000	5.271	5	30	
CAL4	918995.3	528506.765	True	5.00	1.739	4.92	1.000	5.000	4.786	-4	30	
CAL5	911756.1	516457.167	True	5.00	1.765	4.93	1.000	5.000	4.859	-3	30	
CAL6	843522.3	499608.504	True	5.00	1.688	4.92	1.000	5.000	4.647	-7	30	
CAL7	745616.3	482796.463	True	5.00	1.544	4.92	1.000	5.000	4.251	-15	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

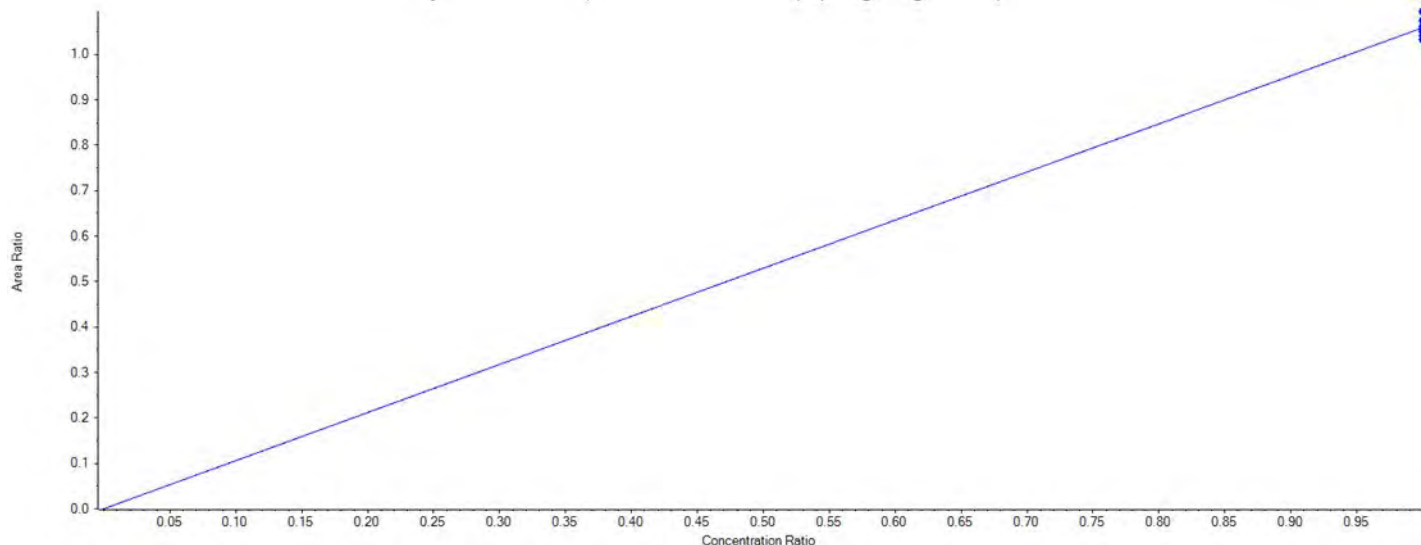
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C8-PFOS

 $y = 1.05888x$ (std. dev. = 0.02078) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C8-PFOS Area	13C4-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	318525.4	296225.157	True	4.78	1.075	5.25	1.000	4.780	4.854	2	30	
CAL2	313894.3	295669.685	True	4.78	1.062	5.25	1.000	4.780	4.792	0	30	
CAL3	309913.7	283214.231	True	4.78	1.094	5.26	1.000	4.780	4.940	3	30	
CAL4	296147.5	281778.555	True	4.78	1.051	5.25	1.000	4.780	4.744	-1	30	
CAL5	299574.5	287732.638	True	4.78	1.041	5.26	1.000	4.780	4.700	-2	30	
CAL6	279204.4	264408.934	True	4.78	1.056	5.25	1.000	4.780	4.767	0	30	
CAL7	250004.2	242045.223	True	4.78	1.033	5.25	1.000	4.780	4.663	-2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

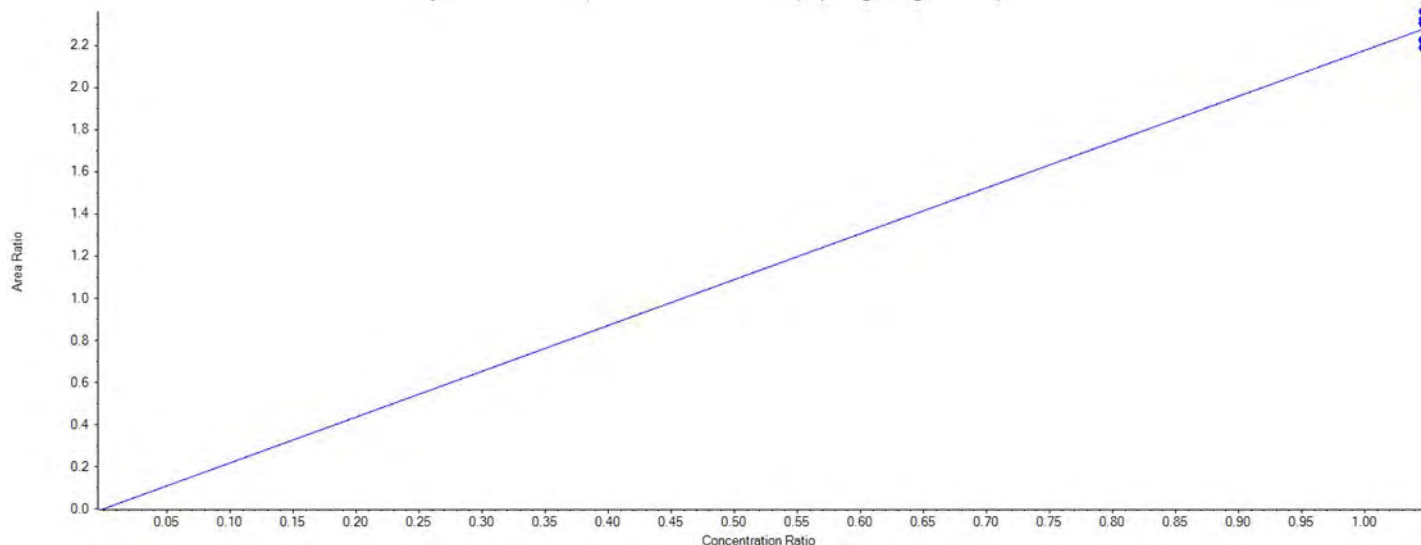
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C9-PFNA

 $y = 2.17630 x$ (std. dev. = 0.05982) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C9-PFNA Area	13C4-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	659714.6	296225.157	True	4.78	2.227	5.27	1.000	5.000	4.892	-2	30	
CAL2	682380.7	295669.685	True	4.78	2.308	5.26	1.000	5.000	5.069	1	30	
CAL3	629954.6	283214.231	True	4.78	2.224	5.27	1.000	5.000	4.885	-2	30	
CAL4	648727.0	281778.555	True	4.78	2.302	5.27	1.000	5.000	5.057	1	30	
CAL5	630201.5	287732.638	True	4.78	2.190	5.27	1.000	5.000	4.811	-4	30	
CAL6	624202.7	264408.934	True	4.78	2.361	5.26	1.000	5.000	5.185	4	30	
CAL7	562206.9	242045.223	True	4.78	2.323	5.27	1.000	5.000	5.102	2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

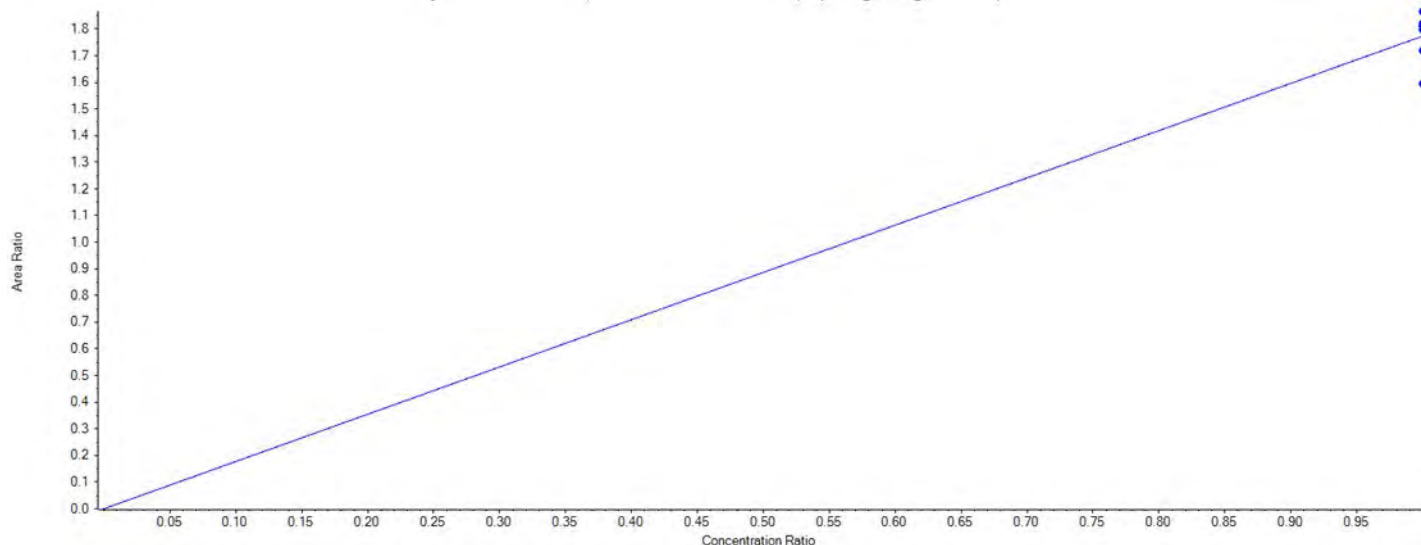
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C6-PFDA

 $y = 1.77338 x$ (std. dev. = 0.09043) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C6-PFDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	855362.9	476146.560	True	5.00	1.796	5.57	1.000	5.000	5.065	1	30	
CAL2	839100.7	460926.236	True	5.00	1.820	5.56	1.000	5.000	5.133	3	30	
CAL3	824072.9	441790.617	True	5.00	1.865	5.57	1.000	5.000	5.259	5	30	
CAL4	841970.5	489439.830	True	5.00	1.720	5.57	1.000	5.000	4.850	-3	30	
CAL5	833462.1	460232.679	True	5.00	1.811	5.57	1.000	5.000	5.106	2	30	
CAL6	758832.8	419913.240	True	5.00	1.807	5.56	1.000	5.000	5.095	2	30	
CAL7	645932.5	405454.995	True	5.00	1.593	5.57	1.000	5.000	4.492	-10	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

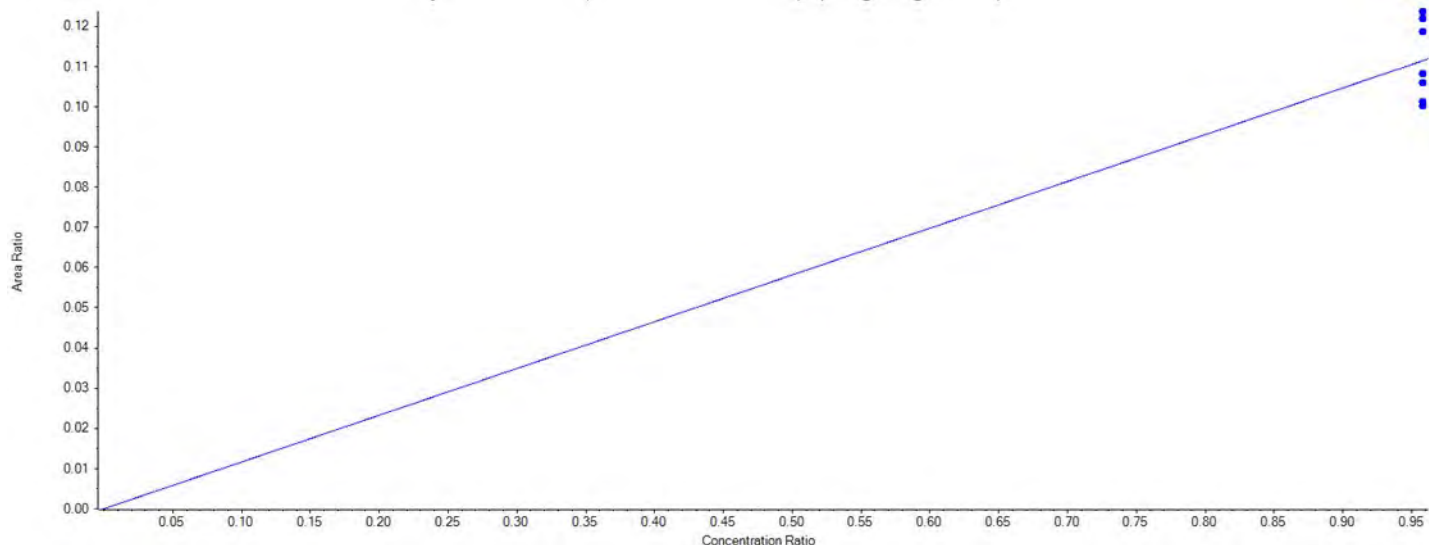
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-8:2-FTS

 $y = 0.11633 x$ (std. dev. = 0.01027) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-8:2-FTS Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	58895.0	476146.560	True	5.00	0.124	5.57	1.000	4.790	5.316	11	30	
CAL2	54757.9	460926.236	True	5.00	0.119	5.57	1.000	4.790	5.106	7	30	
CAL3	53847.1	441790.617	True	5.00	0.122	5.58	1.000	4.790	5.239	9	30	
CAL4	52961.9	489439.830	True	5.00	0.108	5.57	1.000	4.790	4.651	-3	30	
CAL5	46142.4	460232.679	True	5.00	0.100	5.58	1.000	4.790	4.309	-10	30	
CAL6	44487.5	419913.240	True	5.00	0.106	5.57	1.000	4.790	4.553	-5	30	
CAL7	41093.0	405454.995	True	5.00	0.101	5.57	1.000	4.790	4.356	-9	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

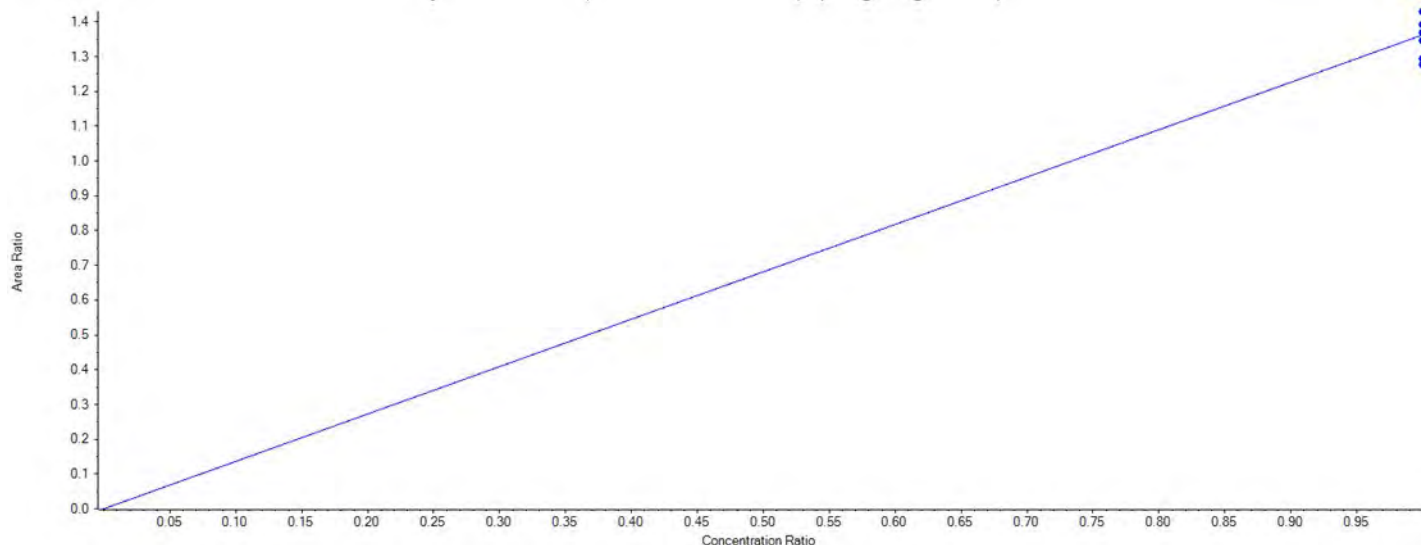
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C8-PFOSA

 $y = 1.36266 x$ (std. dev. = 0.06042) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C8-PFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	662264.7	476146.560	True	5.00	1.391	5.65	1.020	5.000	5.104	2	30	
CAL2	658778.5	460926.236	True	5.00	1.429	5.65	1.020	5.000	5.244	5	30	
CAL3	631627.9	441790.617	True	5.00	1.430	5.66	1.020	5.000	5.246	5	30	
CAL4	625021.8	489439.830	True	5.00	1.277	5.65	1.020	5.000	4.686	-6	30	
CAL5	596189.5	460232.679	True	5.00	1.295	5.66	1.020	5.000	4.753	-5	30	
CAL6	565326.0	419913.240	True	5.00	1.346	5.65	1.020	5.000	4.940	-1	30	
CAL7	555500.5	405454.995	True	5.00	1.370	5.65	1.020	5.000	5.027	1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

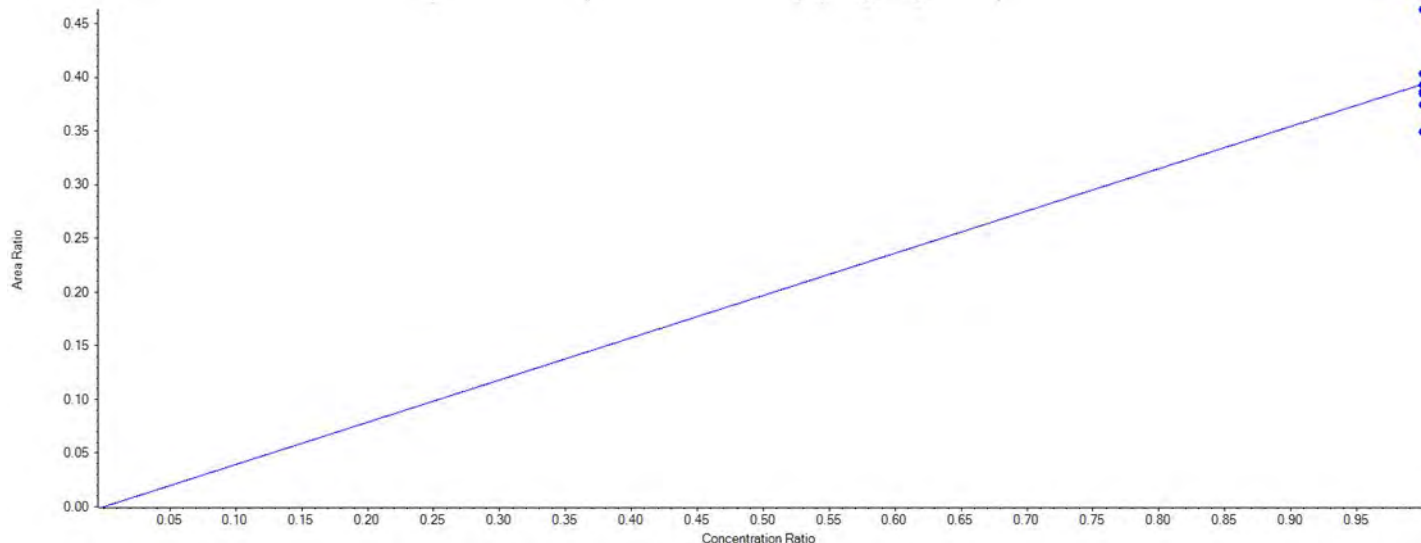
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

Ed3-NMeFOSAA

 $y = 0.39380 x$ (std. dev. = 0.03499) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed3-NMeFOSAA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	220597.3	476146.560	True	5.00	0.463	5.71	1.030	5.000	5.882	18	30	
CAL2	181261.2	460926.236	True	5.00	0.393	5.70	1.020	5.000	4.993	0	30	
CAL3	178338.1	441790.617	True	5.00	0.404	5.71	1.020	5.000	5.125	3	30	
CAL4	171203.9	489439.830	True	5.00	0.350	5.71	1.030	5.000	4.441	-11	30	
CAL5	172574.2	460232.679	True	5.00	0.375	5.71	1.020	5.000	4.761	-5	30	
CAL6	161673.3	419913.240	True	5.00	0.385	5.70	1.030	5.000	4.888	-2	30	
CAL7	156760.8	405454.995	True	5.00	0.387	5.71	1.030	5.000	4.909	-2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

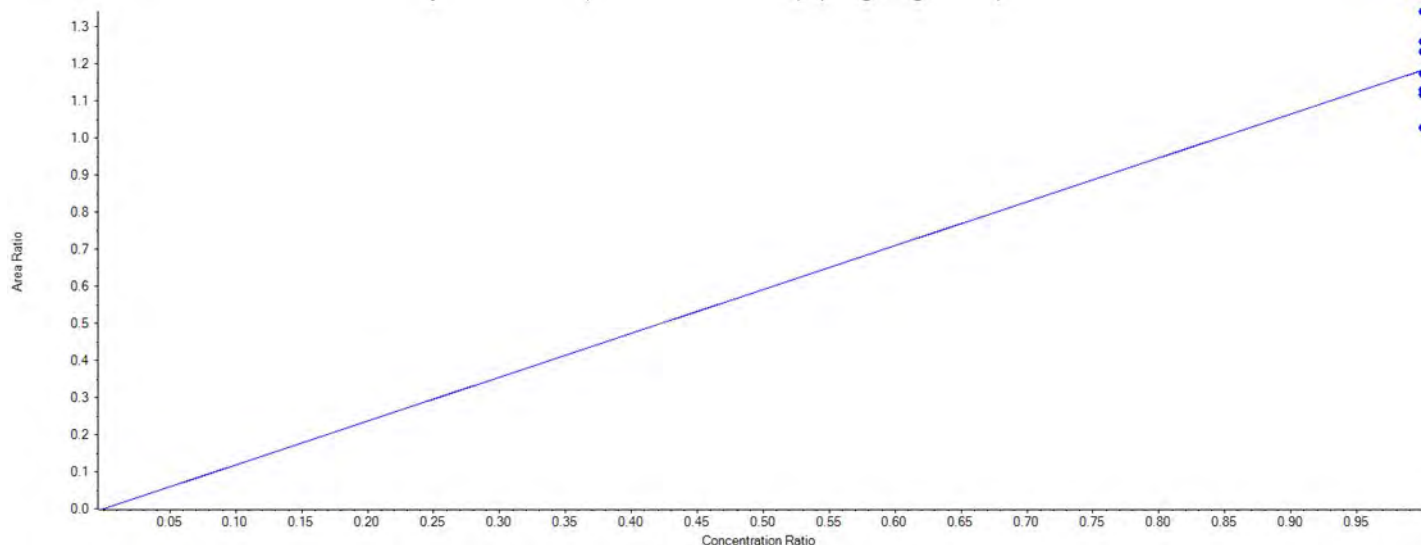
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C7-PFUnDA

 $y = 1.18305 x$ (std. dev. = 0.10419) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C7-PFUnDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	587155.4	476146.560	True	5.00	1.233	5.83	1.050	5.000	5.212	4	30	
CAL2	581207.0	460926.236	True	5.00	1.261	5.82	1.050	5.000	5.329	7	30	
CAL3	592495.7	441790.617	True	5.00	1.341	5.83	1.050	5.000	5.668	13	30	
CAL4	546359.3	489439.830	True	5.00	1.116	5.83	1.050	5.000	4.718	-6	30	
CAL5	539842.9	460232.679	True	5.00	1.173	5.83	1.050	5.000	4.957	-1	30	
CAL6	474122.1	419913.240	True	5.00	1.129	5.82	1.050	5.000	4.772	-5	30	
CAL7	416723.9	405454.995	True	5.00	1.028	5.83	1.050	5.000	4.344	-13	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

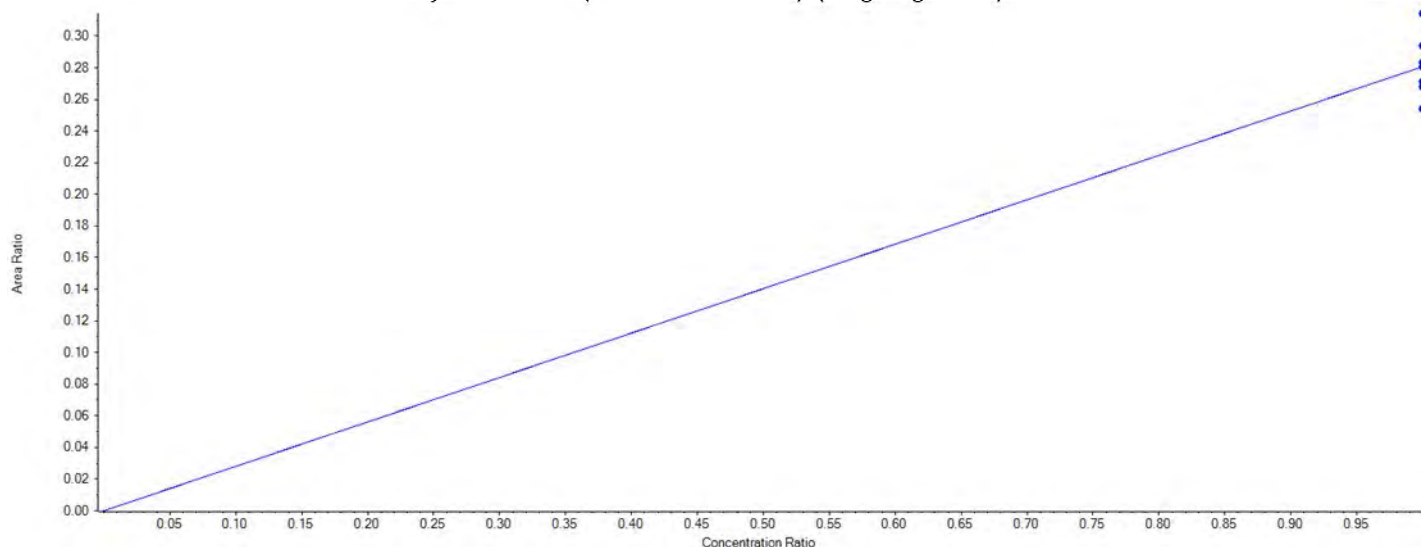
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

Ed5-NEtFOSAA

 $y = 0.28066 x$ (std. dev. = 0.01949) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed5-NEtFOSAA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	127543.5	476146.560	True	5.00	0.268	5.84	1.050	5.000	4.772	-5	30	
CAL2	144803.2	460926.236	True	5.00	0.314	5.83	1.050	5.000	5.597	12	30	
CAL3	129810.7	441790.617	True	5.00	0.294	5.84	1.050	5.000	5.235	5	30	
CAL4	138500.8	489439.830	True	5.00	0.283	5.84	1.050	5.000	5.041	1	30	
CAL5	124785.0	460232.679	True	5.00	0.271	5.85	1.050	5.000	4.830	-3	30	
CAL6	117934.2	419913.240	True	5.00	0.281	5.83	1.050	5.000	5.004	0	30	
CAL7	102891.6	405454.995	True	5.00	0.254	5.84	1.050	5.000	4.521	-10	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

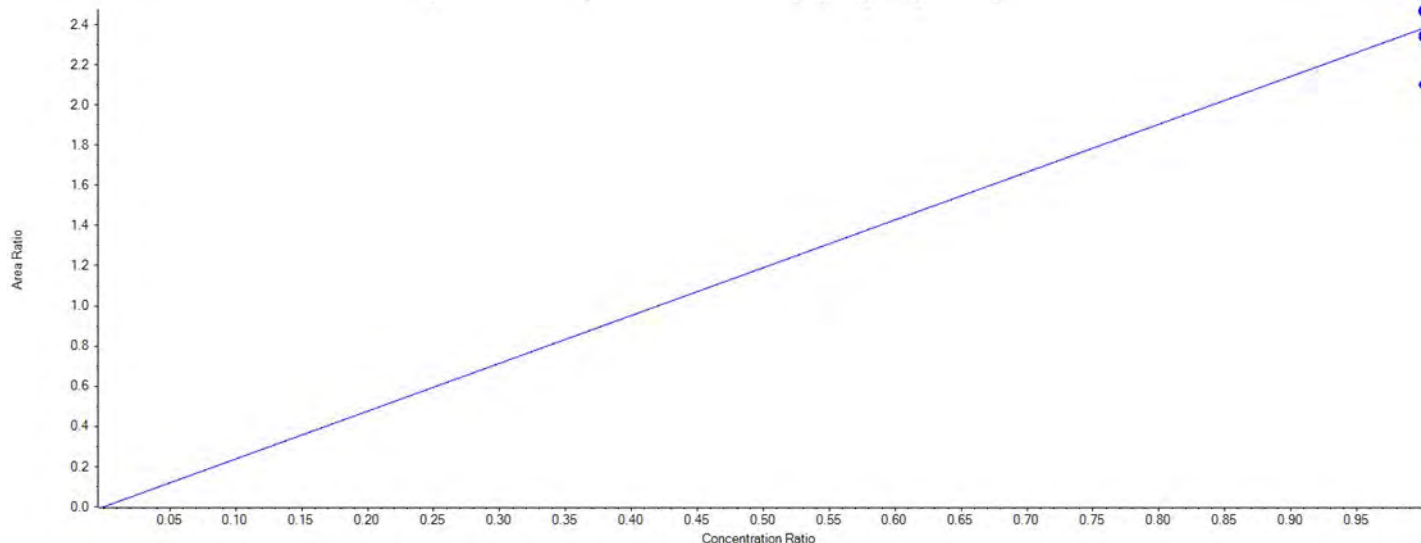
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-PFDoDA

 $y = 2.37975 x$ (std. dev. = 0.13603) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	E13C2-PFDoDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	1173339.1	476146.560	True	5.00	2.464	6.06	1.090	5.000	5.178	4	30	
CAL2	1140522.3	460926.236	True	5.00	2.474	6.05	1.090	5.000	5.199	4	30	
CAL3	1091194.9	441790.617	True	5.00	2.470	6.06	1.090	5.000	5.189	4	30	
CAL4	1150927.4	489439.830	True	5.00	2.352	6.06	1.090	5.000	4.941	-1	30	
CAL5	1133027.9	460232.679	True	5.00	2.462	6.06	1.090	5.000	5.173	3	30	
CAL6	980215.4	419913.240	True	5.00	2.334	6.05	1.090	5.000	4.905	-2	30	
CAL7	852235.6	405454.995	True	5.00	2.102	6.06	1.090	5.000	4.416	-12	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

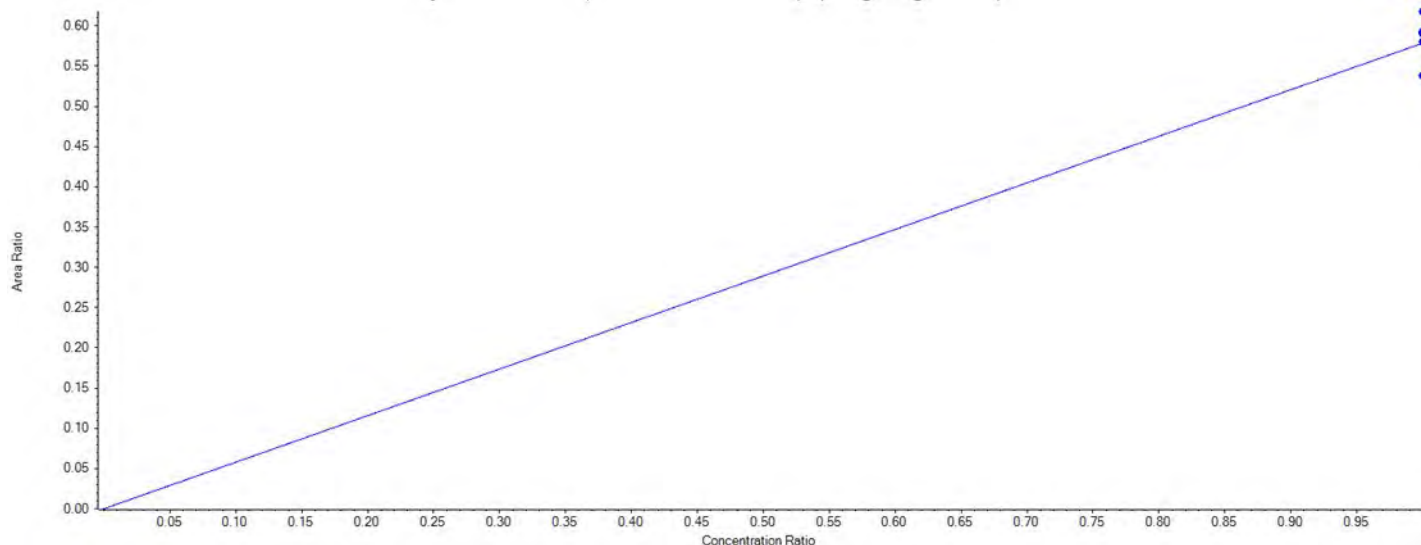
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

Ed7-NMePFOSAE

 $y = 0.57855 x$ (std. dev. = 0.02979) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed7-NMePFOSA E Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	281912.7	476146.560	True	5.00	0.592	6.09	1.090	5.000	5.117	2	30	
CAL2	272071.3	460926.236	True	5.00	0.590	6.09	1.090	5.000	5.101	2	30	
CAL3	256577.3	441790.617	True	5.00	0.581	6.10	1.090	5.000	5.019	0	30	
CAL4	263412.8	489439.830	True	5.00	0.538	6.10	1.090	5.000	4.651	-7	30	
CAL5	247663.8	460232.679	True	5.00	0.538	6.10	1.090	5.000	4.651	-7	30	
CAL6	248871.1	419913.240	True	5.00	0.593	6.09	1.100	5.000	5.122	2	30	
CAL7	250467.6	405454.995	True	5.00	0.618	6.10	1.090	5.000	5.339	7	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

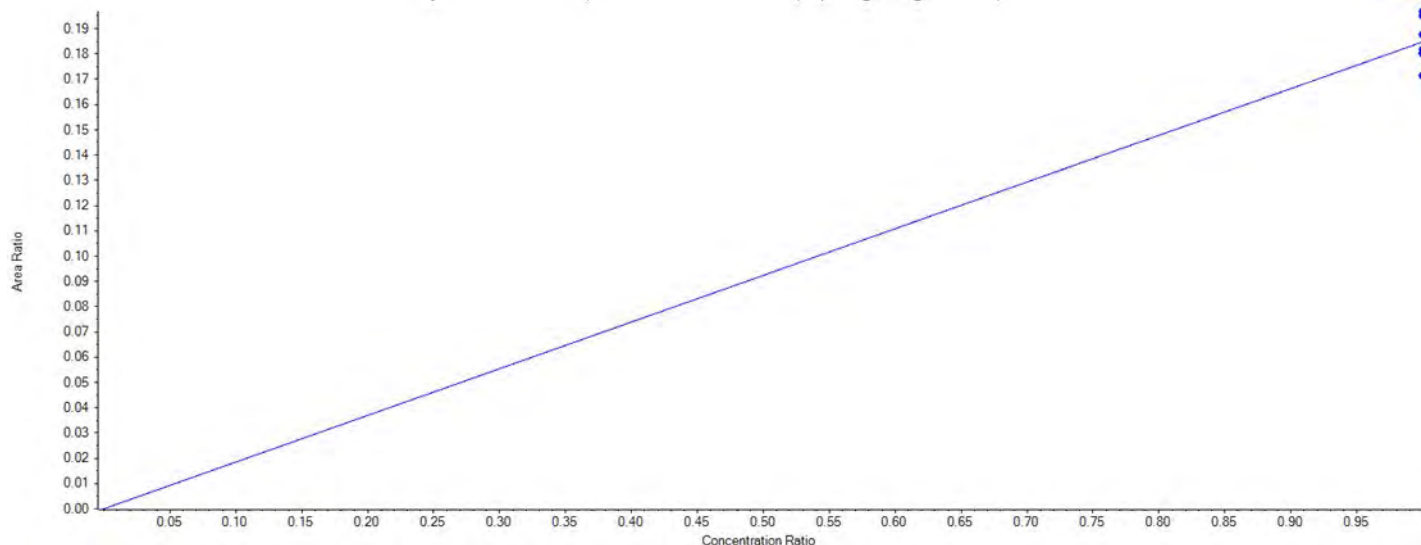
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

Ed3-NMePFOSA

 $y = 0.18475 x$ (std. dev. = 0.00902) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed3-NMePFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	85678.0	476146.560	True	5.00	0.180	6.11	1.100	5.000	4.870	-3	30	
CAL2	86471.7	460926.236	True	5.00	0.188	6.10	1.100	5.000	5.077	2	30	
CAL3	80294.1	441790.617	True	5.00	0.182	6.11	1.100	5.000	4.919	-2	30	
CAL4	83886.6	489439.830	True	5.00	0.171	6.11	1.100	5.000	4.639	-7	30	
CAL5	83129.0	460232.679	True	5.00	0.181	6.11	1.100	5.000	4.888	-2	30	
CAL6	81949.3	419913.240	True	5.00	0.195	6.10	1.100	5.000	5.282	6	30	
CAL7	79780.2	405454.995	True	5.00	0.197	6.11	1.100	5.000	5.325	7	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

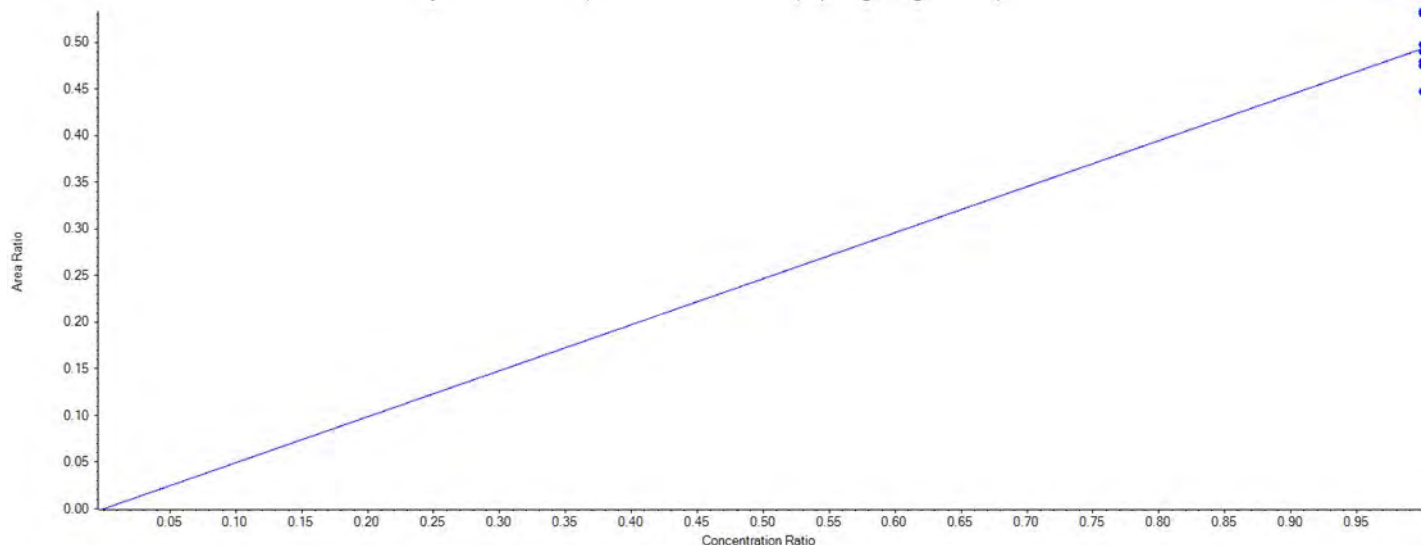
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

Ed9-NEtPFOSAE

 $y = 0.49318 \times (\text{std. dev.} = 0.03079)$ (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed9-NEtPFOSAE Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	226256.0	476146.560	True	5.00	0.475	6.25	1.120	5.000	4.818	-4	30	
CAL2	229050.7	460926.236	True	5.00	0.497	6.24	1.120	5.000	5.038	1	30	
CAL3	216571.5	441790.617	True	5.00	0.490	6.25	1.120	5.000	4.970	-1	30	
CAL4	218635.8	489439.830	True	5.00	0.447	6.25	1.120	5.000	4.529	-9	30	
CAL5	220689.9	460232.679	True	5.00	0.480	6.26	1.120	5.000	4.861	-3	30	
CAL6	222924.1	419913.240	True	5.00	0.531	6.24	1.120	5.000	5.382	8	30	
CAL7	216042.0	405454.995	True	5.00	0.533	6.25	1.120	5.000	5.402	8	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

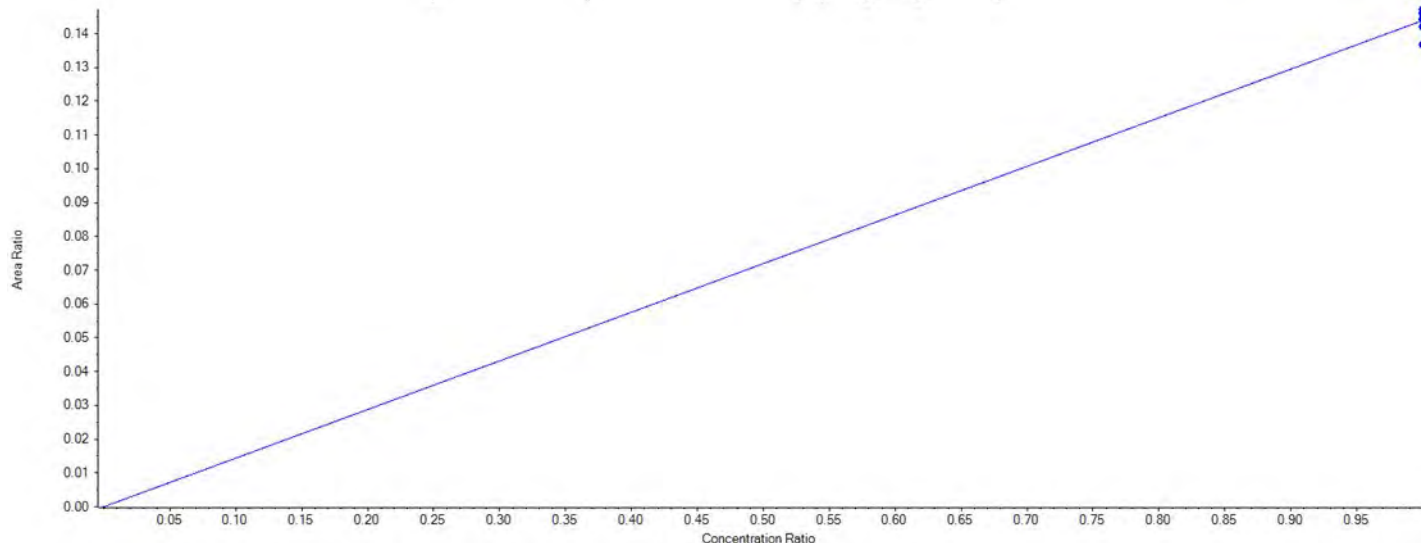
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

Ed5-NetPFOSA

 $y = 0.14390 x$ (std. dev. = 0.00352) (weighting: None)

Extraction Standard Calibration Verification

Sample Name	Ed5-NetPFOSA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	70050.4	476146.560	True	5.00	0.147	6.27	1.130	5.000	5.112	2	30	
CAL2	66646.8	460926.236	True	5.00	0.145	6.26	1.130	5.000	5.024	0	30	
CAL3	64623.7	441790.617	True	5.00	0.146	6.27	1.130	5.000	5.083	2	30	
CAL4	66966.4	489439.830	True	5.00	0.137	6.27	1.130	5.000	4.754	-5	30	
CAL5	66384.6	460232.679	True	5.00	0.144	6.27	1.130	5.000	5.012	0	30	
CAL6	59705.8	419913.240	True	5.00	0.142	6.26	1.130	5.000	4.941	-1	30	
CAL7	59209.1	405454.995	True	5.00	0.146	6.27	1.130	5.000	5.074	1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

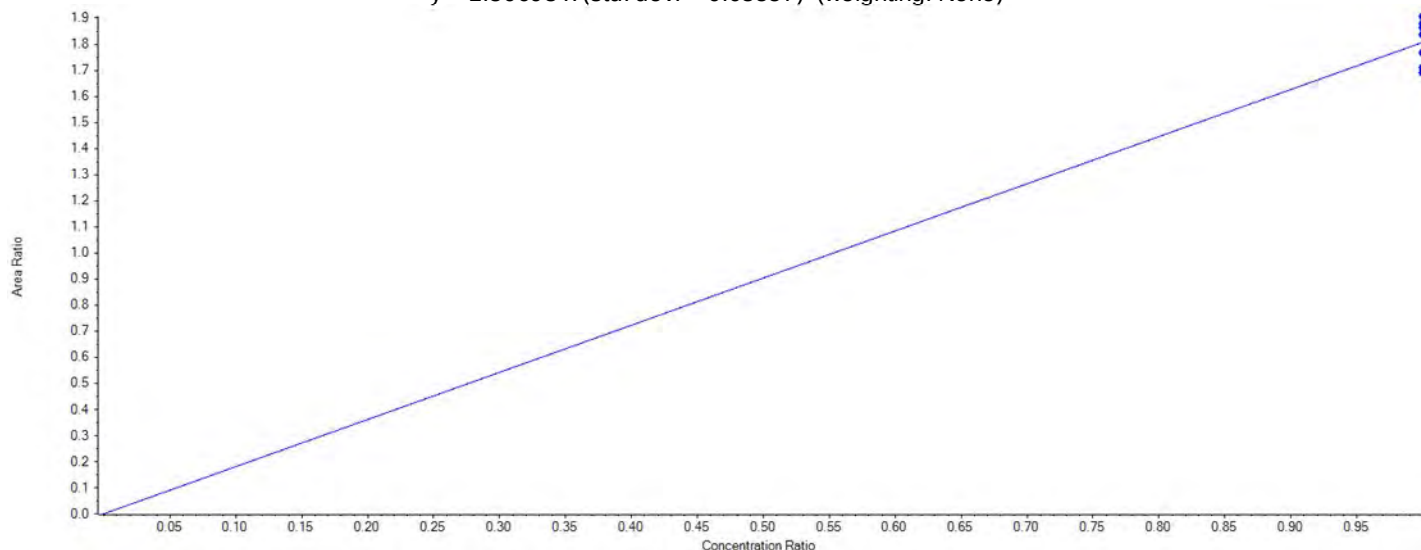
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

E13C2-PFTeDA

 $y = 1.80693 \times (\text{std. dev.} = 0.08557)$ (weighting: None)

Extraction Standard Calibration Verification

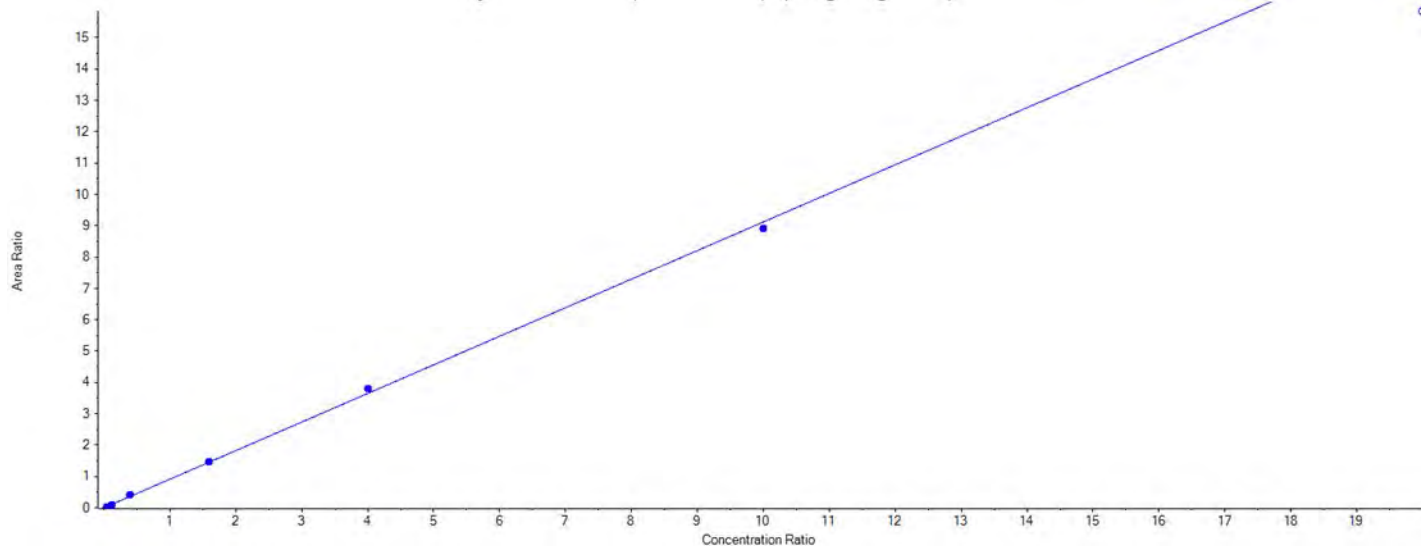
Sample Name	E13C2-PFTeDA Area	13C2-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	873945.6	476146.560	True	5.00	1.835	6.43	1.160	5.000	5.079	2	30	
CAL2	858145.1	460926.236	True	5.00	1.862	6.43	1.150	5.000	5.152	3	30	
CAL3	841931.1	441790.617	True	5.00	1.906	6.43	1.150	5.000	5.273	5	30	
CAL4	826670.0	489439.830	True	5.00	1.689	6.43	1.160	5.000	4.674	-7	30	
CAL5	786107.5	460232.679	True	5.00	1.708	6.44	1.150	5.000	4.726	-5	30	
CAL6	789168.4	419913.240	True	5.00	1.879	6.43	1.160	5.000	5.200	4	30	
CAL7	717297.7	405454.995	True	5.00	1.769	6.43	1.160	5.000	4.895	-2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631 ICAL Name: 18NOV28DCAL QMethod Name: 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM Acquisition Method: 18AUG13_3uL.dam

PFBA

$$y = 0.91210 x \text{ (} r = 0.99943 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFBA Area	S/N	13C4-PFBA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	43996.2	249.7	1018752.836	True	5.00	0.043	3.28	1.000	0.200	0.237	18	30	
CAL2	110036.6	487.6	1033122.100	True	5.00	0.107	3.27	1.000	0.600	0.584	-3	30	
CAL3	403055.8	822.1	993144.063	True	5.00	0.406	3.28	1.000	2.000	2.225	11	30	
CAL4	1425164.4	1298.8	974000.882	True	5.00	1.463	3.28	1.000	8.000	8.021	0	30	
CAL5	3627061.5	1931.2	951694.967	True	5.00	3.811	3.28	1.000	20.000	20.892	4	30	
CAL6	7996964.8	2615.4	897566.729	True	5.00	8.910	3.27	1.000	50.000	48.841	-2	30	
CAL7	12734942.7	3050.8	803704.793	False	5.00	15.845	3.27	1.000	100.000	86.862	-13	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

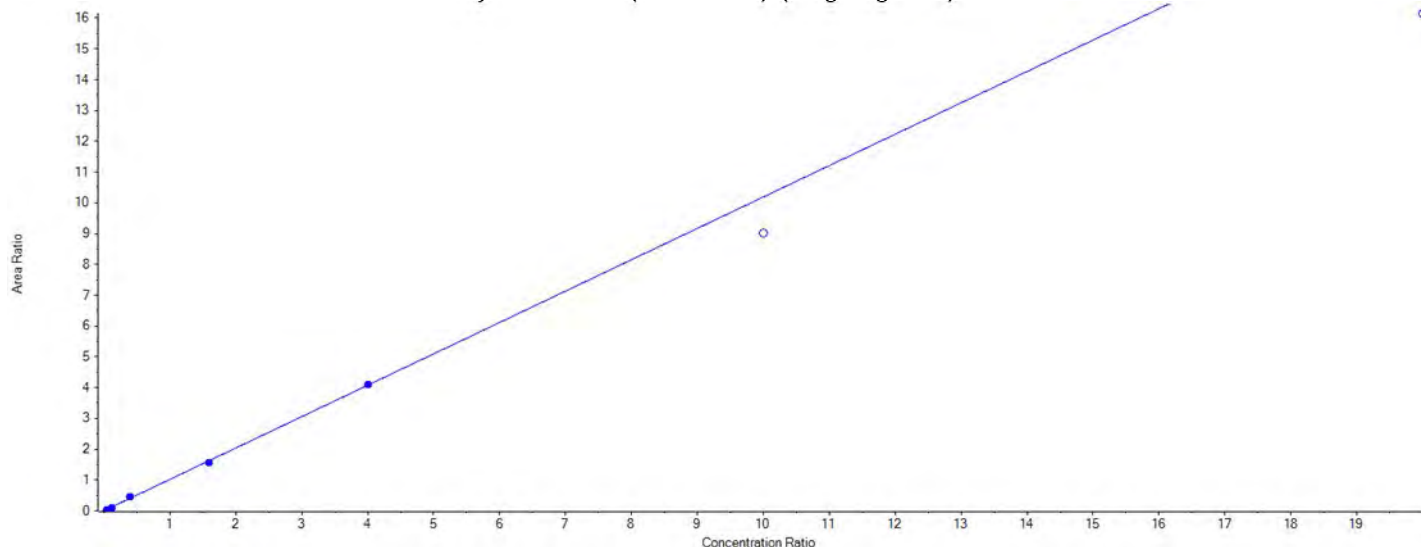
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFPeA

$$y = 1.01901 x \text{ (} r = 0.99862 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFPeA Area	S/N	¹³ C5-PFPeA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	44706.1	168.1	975339.046	True	5.00	0.046	3.77	1.000	0.200	0.225	12	30	
CAL2	104393.1	258.3	1014125.030	True	5.00	0.103	3.77	1.000	0.600	0.505	-16	30	
CAL3	424089.1	470.0	910953.705	True	5.00	0.466	3.78	1.000	2.000	2.284	14	30	
CAL4	1424845.3	869.3	915824.561	True	5.00	1.556	3.77	1.000	8.000	7.634	-5	30	
CAL5	3696889.3	1332.4	900153.389	True	5.00	4.107	3.78	1.000	20.000	20.152	1	30	
CAL6	7873655.4	2197.1	872922.614	False	5.00	9.020	3.77	1.000	50.000	44.258	-11	30	
CAL7	12611040.3	1779.7	781113.823	False	5.00	16.145	3.77	1.000	100.000	79.219	-21	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

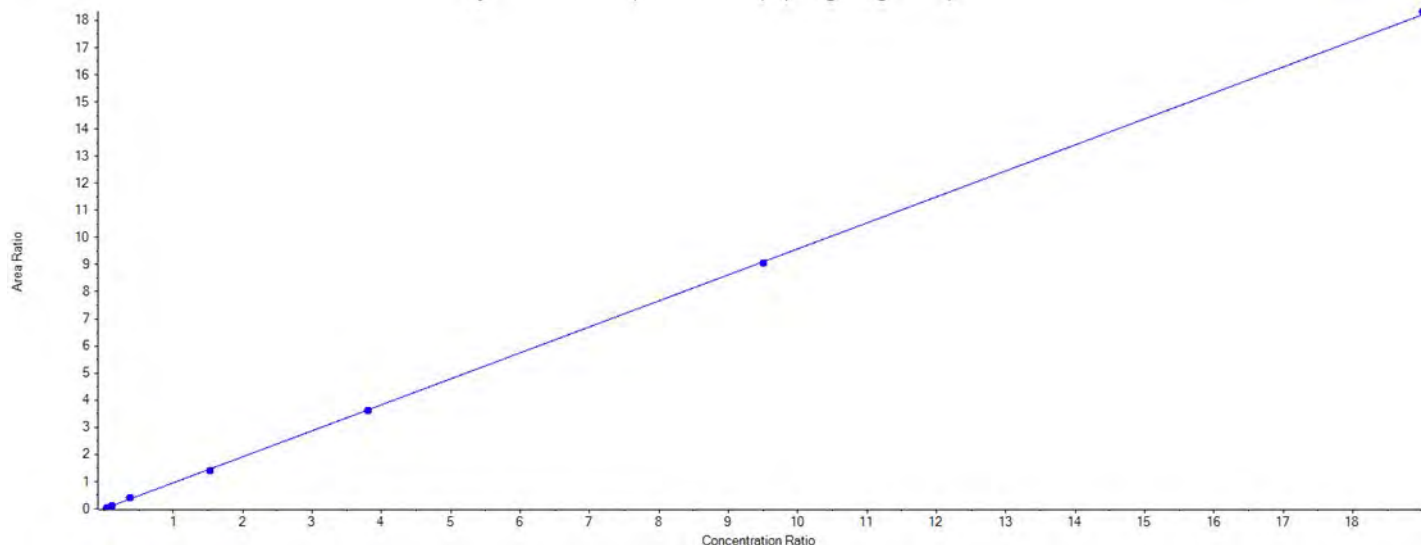
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFBS

$$y = 0.95795 x \text{ (} r = 0.99985 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFBS Area	S/N	13C3-PFBS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	17465.3	759.3	437838.938	True	4.65	0.040	3.82	1.000	0.177	0.194	9	30	
CAL2	43237.4	921.9	442149.949	True	4.65	0.098	3.81	1.000	0.531	0.475	-11	30	
CAL3	168534.1	2117.3	419929.218	True	4.65	0.401	3.82	1.000	1.770	1.948	10	30	
CAL4	590590.2	3233.1	424041.313	True	4.65	1.393	3.82	1.000	7.080	6.761	-5	30	
CAL5	1542881.7	3193.4	424059.219	True	4.65	3.638	3.82	1.000	17.700	17.661	0	30	
CAL6	3600470.8	4364.1	398441.322	True	4.65	9.036	3.82	1.000	44.200	43.864	-1	30	
CAL7	6468971.4	4045.2	352994.776	True	4.65	18.326	3.82	1.000	88.400	88.956	1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

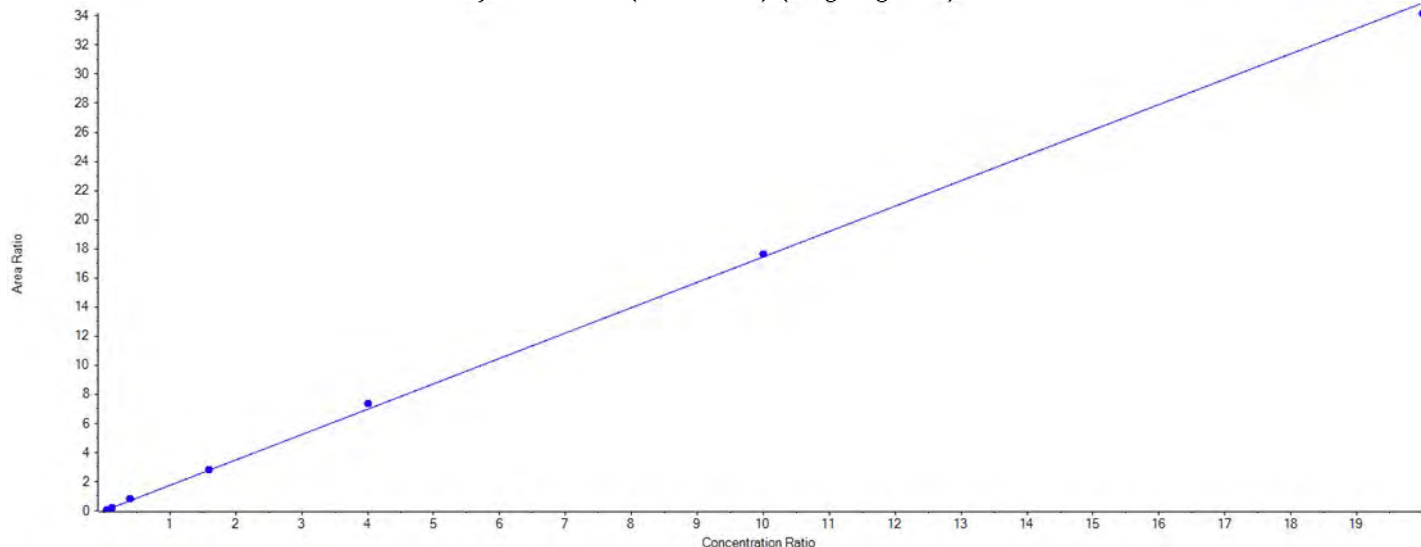
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

4:2-FTS

 $y = 1.74452 x$ ($r = 0.99955$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	4:2-FTS Area	S/N	13C2-4:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	5603.8	2243.2	75119.122	True	4.67	0.075	4.13	1.000	0.187	0.200	7	30	
CAL2	14524.8	4777.1	72067.149	True	4.67	0.202	4.13	1.000	0.560	0.540	-4	30	
CAL3	56502.5	1225.4	70629.114	True	4.67	0.800	4.14	1.000	1.870	2.142	15	30	
CAL4	191344.6	1753.2	67043.698	True	4.67	2.854	4.13	1.000	7.470	7.640	2	30	
CAL5	498650.7	4269.7	67422.965	True	4.67	7.396	4.14	1.000	18.700	19.798	6	30	
CAL6	1148569.2	2995.6	65255.390	True	4.67	17.601	4.13	1.000	46.700	47.117	1	30	
CAL7	2126148.2	3609.5	62236.773	True	4.67	34.162	4.13	1.000	93.400	91.451	-2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

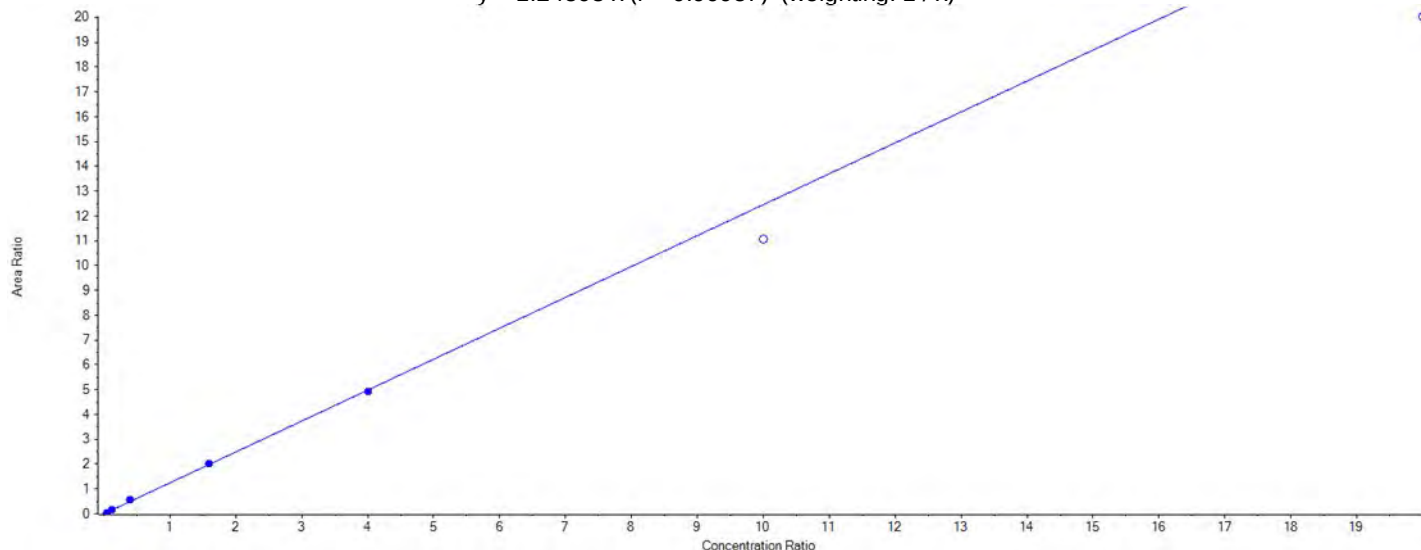
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFHxA

$$y = 1.24563x \text{ (} r = 0.99957 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFHxA Area	S/N	13C5-PFHxA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	42281.8	270.9	728340.451	True	5.00	0.058	4.17	1.000	0.200	0.233	17	30	
CAL2	101713.2	383.4	697229.019	True	5.00	0.146	4.16	1.000	0.600	0.586	-2	30	
CAL3	395421.4	731.7	717900.058	True	5.00	0.551	4.17	1.000	2.000	2.211	11	30	
CAL4	1343216.4	1177.9	670407.711	True	5.00	2.004	4.16	1.000	8.000	8.042	1	30	
CAL5	3464657.3	1836.2	704953.498	True	5.00	4.915	4.17	1.000	20.000	19.728	-1	30	
CAL6	7468739.1	2191.3	675219.804	False	5.00	11.061	4.16	1.000	50.000	44.400	-11	30	
CAL7	12530843.0	2376.6	625449.752	False	5.00	20.035	4.16	1.000	100.000	80.421	-20	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

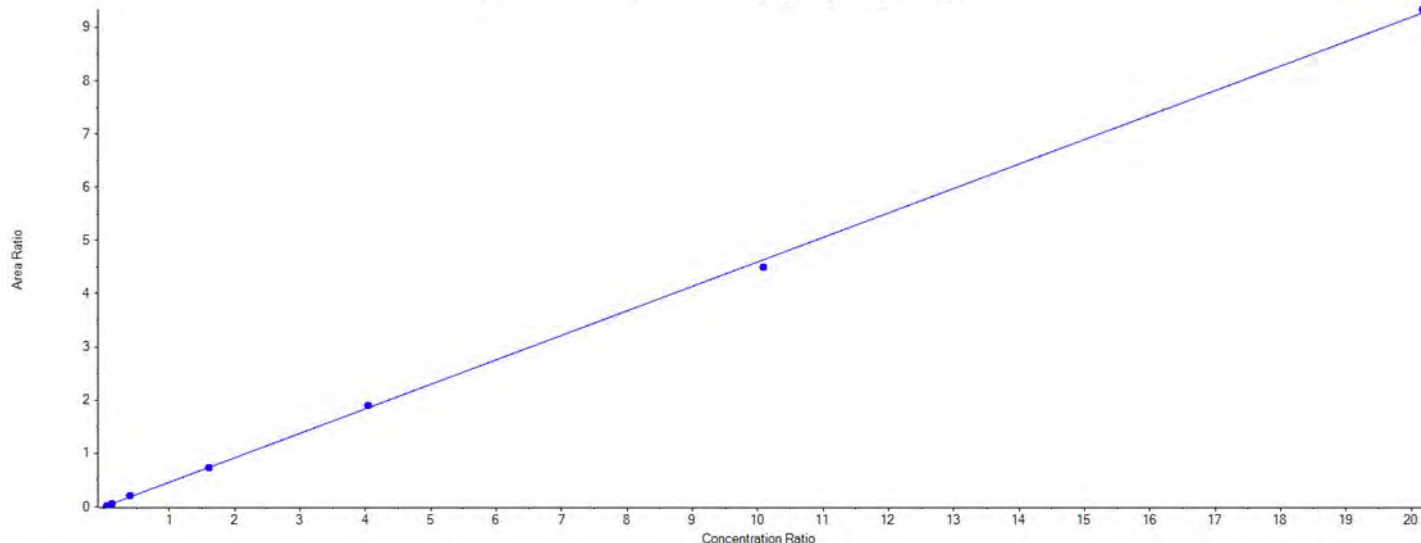
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFPeS

$$y = 0.45971x \text{ (} r = 0.99971 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFPeS Area	S/N	¹³ C3-PFBS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	8956.0	383.7	437838.938	True	4.65	0.020	4.19	1.100	0.188	0.207	10	30	
CAL2	24007.2	778.6	442149.949	True	4.65	0.054	4.18	1.100	0.563	0.549	-2	30	
CAL3	89559.7	2347.5	419929.218	True	4.65	0.213	4.19	1.100	1.880	2.157	15	30	
CAL4	311741.6	2021.0	424041.313	True	4.65	0.735	4.19	1.100	7.500	7.436	-1	30	
CAL5	809728.0	3003.6	424059.219	True	4.65	1.909	4.19	1.100	18.800	19.314	3	30	
CAL6	1793808.0	3890.0	398441.322	True	4.65	4.502	4.18	1.100	46.900	45.538	-3	30	
CAL7	3295381.6	3138.3	352994.776	True	4.65	9.335	4.18	1.100	93.800	94.429	1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

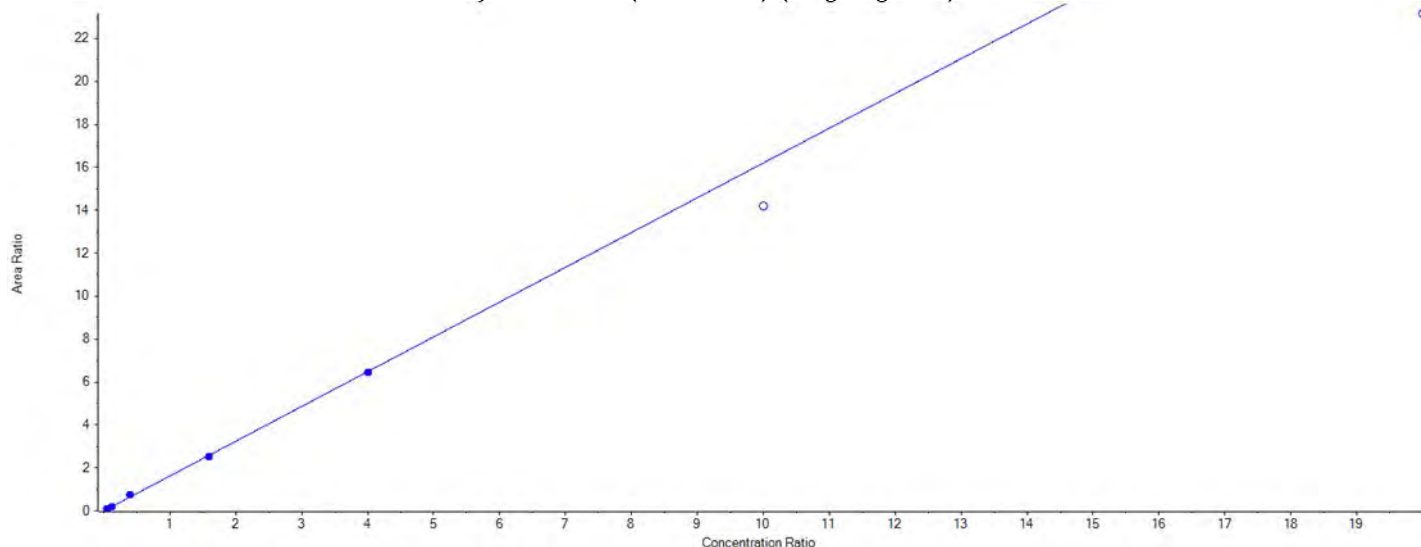
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFHpA

 $y = 1.62011x$ ($r = 0.99939$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	PFHpA Area	S/N	¹³ C4-PFHpA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	42530.6	366.7	547365.130	True	5.00	0.078	4.56	1.000	0.200	0.240	20	30	
CAL2	100593.8	599.3	547371.985	True	5.00	0.184	4.55	1.000	0.600	0.567	-5	30	
CAL3	388626.7	1091.3	535993.324	True	5.00	0.725	4.56	1.000	2.000	2.238	12	30	
CAL4	1429895.3	2152.8	563673.949	True	5.00	2.537	4.55	1.000	8.000	7.829	-2	30	
CAL5	3592806.2	2355.3	556455.908	True	5.00	6.457	4.56	1.000	20.000	19.926	0	30	
CAL6	7873271.2	3361.6	555281.473	False	5.00	14.179	4.55	1.000	50.000	43.759	-12	30	
CAL7	12619701.6	2617.8	544866.925	False	5.00	23.161	4.55	1.000	100.000	71.480	-29	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

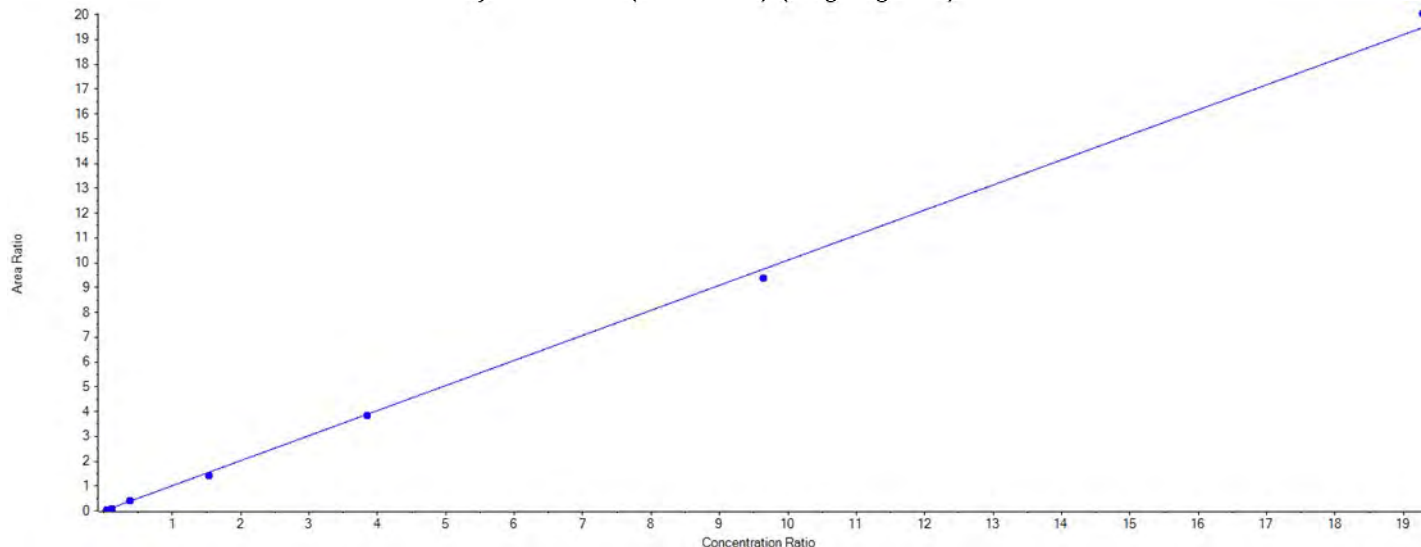
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFHxS

$$y = 1.01020x \text{ (} r = 0.99931 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFHxS Area	S/N	¹³ C3-PFHxS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	12830.8	10643.6	331982.904	True	4.73	0.039	4.56	1.000	0.182	0.181	-1	30	
CAL2	31104.5	1568.4	335129.691	True	4.73	0.093	4.55	1.000	0.547	0.435	-21	30	
CAL3	127889.2	1553.1	326982.370	True	4.73	0.391	4.56	1.000	1.820	1.831	1	30	
CAL4	444626.0	1772.0	316393.280	True	4.73	1.405	4.56	1.000	7.300	6.580	-10	30	
CAL5	1191482.7	2091.1	309184.702	True	4.73	3.854	4.56	1.000	18.200	18.044	-1	30	
CAL6	2625950.9	1900.1	279894.643	True	4.73	9.382	4.55	1.000	45.600	43.929	-4	30	
CAL7	4797026.7	1752.4	239327.412	True	4.73	20.044	4.55	1.000	91.200	93.850	3	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

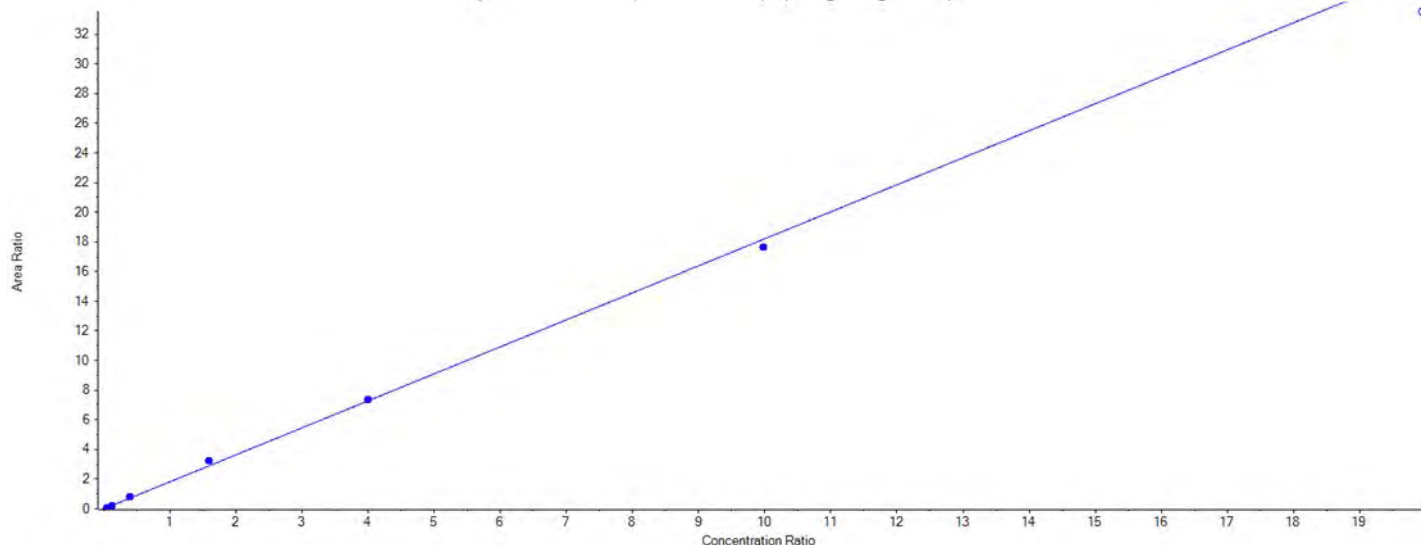
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

6:2-FTS

 $y = 1.82049x$ ($r = 0.99875$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	6:2-FTS Area	S/N	13C2-6:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	5676.7	534.7	65543.766	True	4.75	0.087	4.91	1.000	0.190	0.226	19	30	
CAL2	14479.8	1089.2	63922.654	True	4.75	0.227	4.91	1.000	0.569	0.591	4	30	
CAL3	53951.0	2408.1	65518.288	True	4.75	0.823	4.92	1.000	1.900	2.149	13	30	
CAL4	185311.5	2003.0	56580.079	True	4.75	3.275	4.91	1.000	7.580	8.546	13	30	
CAL5	426727.7	3587.1	58122.789	True	4.75	7.342	4.92	1.000	19.000	19.156	1	30	
CAL6	859948.6	2867.7	48807.560	True	4.75	17.619	4.90	1.000	47.400	45.972	-3	30	
CAL7	1464447.0	3167.3	43678.325	False	4.75	33.528	4.91	1.000	94.800	87.481	-8	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

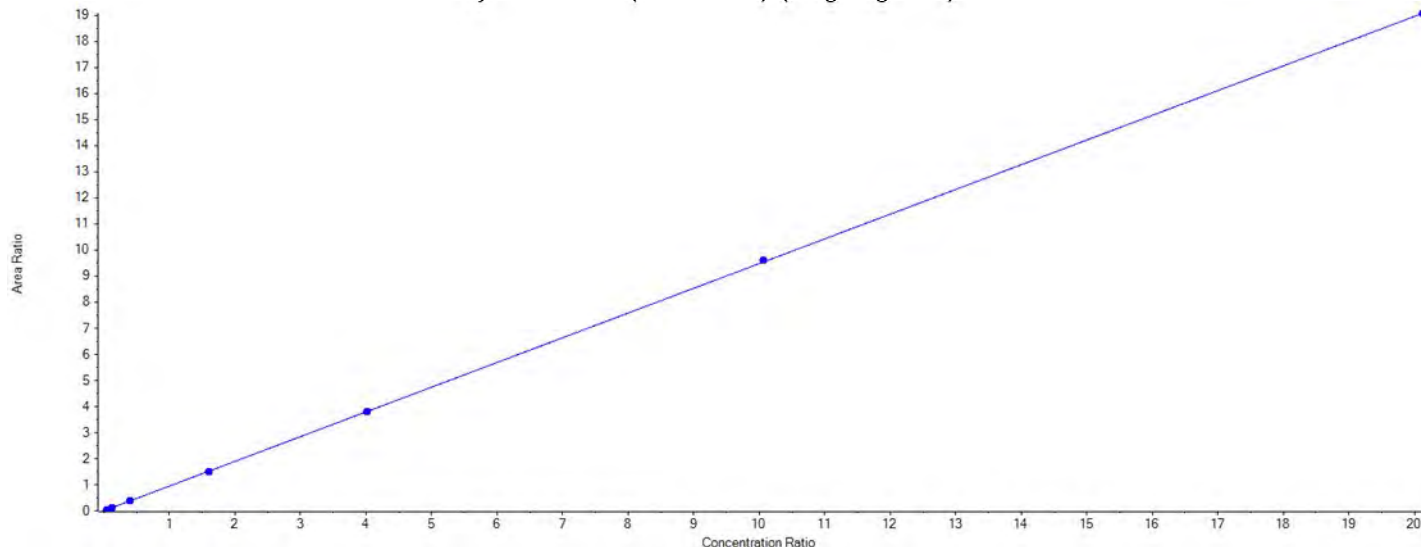
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFHpS

$$y = 0.94774 x \text{ (} r = 0.99993 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFHpS Area	S/N	13C3-PFHxS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	13921.8	19272.6	331982.904	True	4.73	0.042	4.92	1.080	0.190	0.209	10	30	
CAL2	32553.7	4447.1	335129.691	True	4.73	0.097	4.91	1.080	0.571	0.485	-15	30	
CAL3	129450.9	9073.5	326982.370	True	4.73	0.396	4.92	1.080	1.900	1.976	4	30	
CAL4	471580.6	3167.3	316393.280	True	4.73	1.490	4.92	1.080	7.610	7.439	-2	30	
CAL5	1171216.6	2826.6	309184.702	True	4.73	3.788	4.92	1.080	19.000	18.906	0	30	
CAL6	2686833.3	2573.7	279894.643	True	4.73	9.599	4.91	1.080	47.600	47.909	1	30	
CAL7	4562639.6	2438.6	239327.412	True	4.73	19.064	4.91	1.080	95.200	95.147	0	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

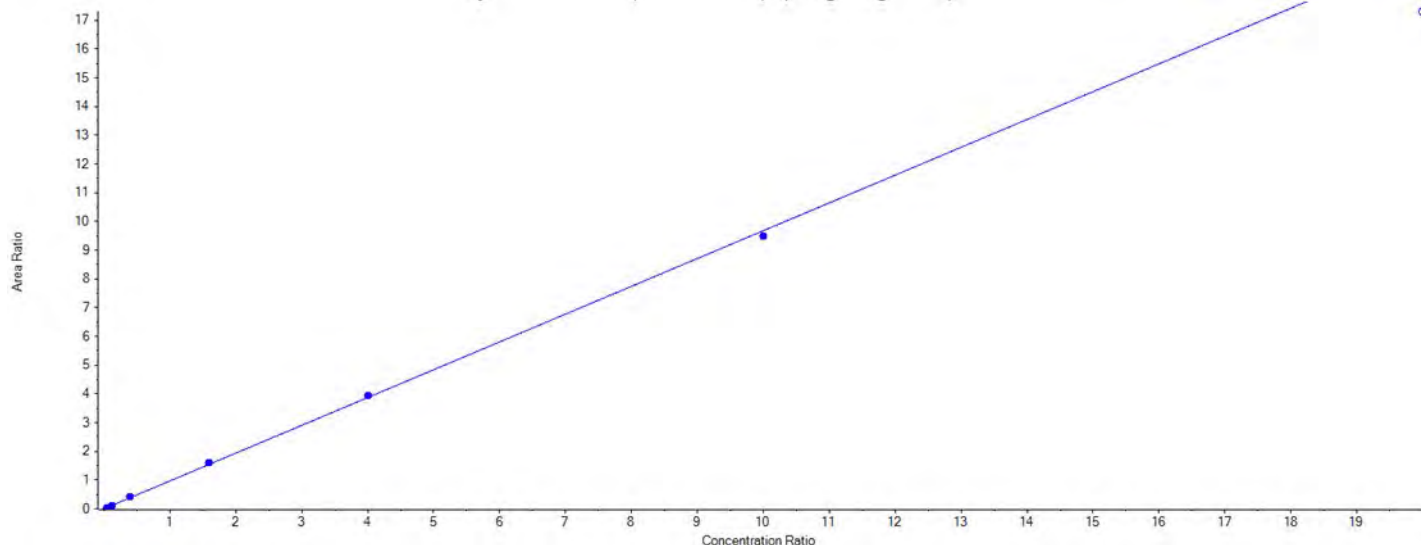
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFOA

$$y = 0.96763 x \text{ (} r = 0.99955 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFOA Area	S/N	13C8-PFOA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	42517.4	185.7	1030597.916	True	5.00	0.041	4.93	1.000	0.200	0.213	7	30	
CAL2	106420.8	337.5	1030866.619	True	5.00	0.103	4.92	1.000	0.600	0.533	-11	30	
CAL3	405879.4	495.1	954677.960	True	5.00	0.425	4.93	1.000	2.000	2.197	10	30	
CAL4	1486960.4	1291.2	918995.325	True	5.00	1.618	4.92	1.000	8.000	8.361	5	30	
CAL5	3601538.3	1584.3	911756.077	True	5.00	3.950	4.93	1.000	20.000	20.411	2	30	
CAL6	8012665.3	1863.3	843522.332	True	5.00	9.499	4.92	1.000	50.000	49.084	-2	30	
CAL7	12900182.7	2063.6	745616.325	False	5.00	17.301	4.92	1.000	100.000	89.401	-11	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

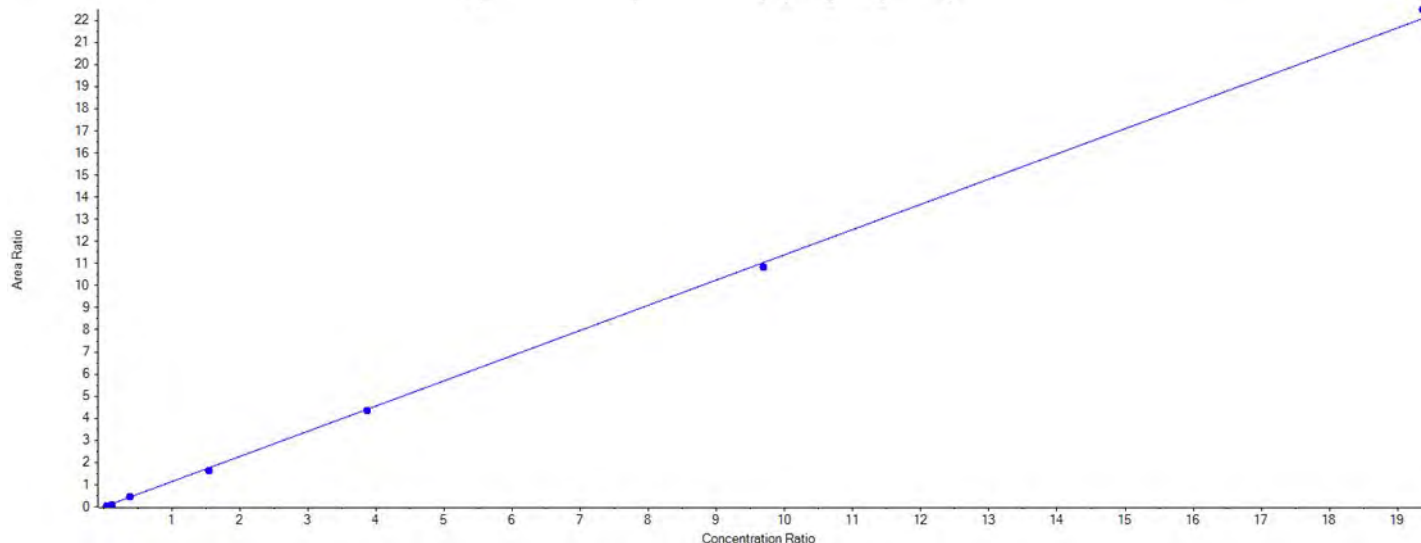
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFOS

$$y = 1.13953 x \text{ (} r = 0.99969 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFOS Area	S/N	¹³ C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	13060.0	1060.4	318525.429	True	4.78	0.041	5.25	1.000	0.185	0.172	-7	30	
CAL2	34203.6	972.6	313894.271	True	4.78	0.109	5.25	1.000	0.555	0.457	-18	30	
CAL3	139506.6	732.7	309913.737	True	4.78	0.450	5.26	1.000	1.850	1.888	2	30	
CAL4	481950.0	1137.9	296147.525	True	4.78	1.627	5.25	1.000	7.400	6.826	-8	30	
CAL5	1305020.5	988.3	299574.476	True	4.78	4.356	5.26	1.000	18.500	18.273	-1	30	
CAL6	3026664.4	1448.1	279204.362	True	4.78	10.840	5.25	1.000	46.300	45.472	-2	30	
CAL7	5620329.0	1278.0	250004.233	True	4.78	22.481	5.25	1.000	92.600	94.301	2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

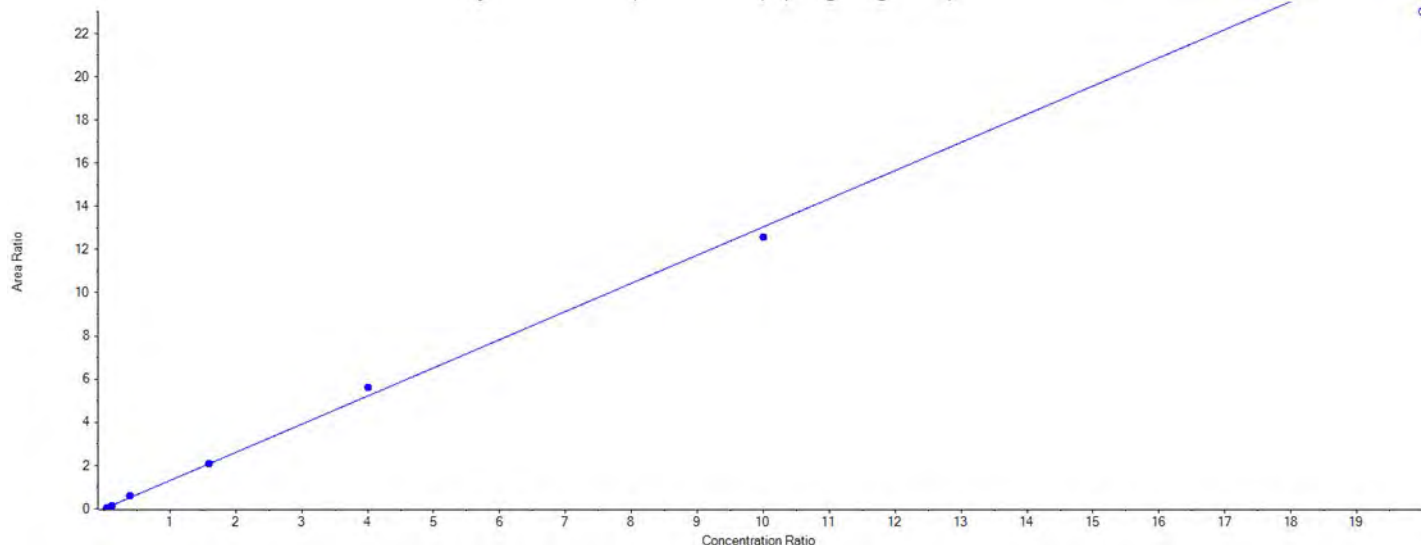
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFNA

$$y = 1.30474 x \text{ (} r = 0.99865 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFNA Area	S/N	13C9-PFNA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	39485.1	336.0	659714.648	True	5.00	0.060	5.27	1.000	0.200	0.229	15	30	
CAL2	106720.9	560.6	682380.696	True	5.00	0.156	5.26	1.000	0.600	0.599	0	30	
CAL3	370292.0	1397.5	629954.590	True	5.00	0.588	5.27	1.000	2.000	2.253	13	30	
CAL4	1365056.4	2099.1	648727.023	True	5.00	2.104	5.27	1.000	8.000	8.064	1	30	
CAL5	3536255.1	3740.5	630201.519	True	5.00	5.611	5.27	1.000	20.000	21.504	8	30	
CAL6	7843086.9	3448.1	624202.702	True	5.00	12.565	5.26	1.000	50.000	48.151	-4	30	
CAL7	12939629.1	3220.8	562206.893	False	5.00	23.016	5.27	1.000	100.000	88.201	-12	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

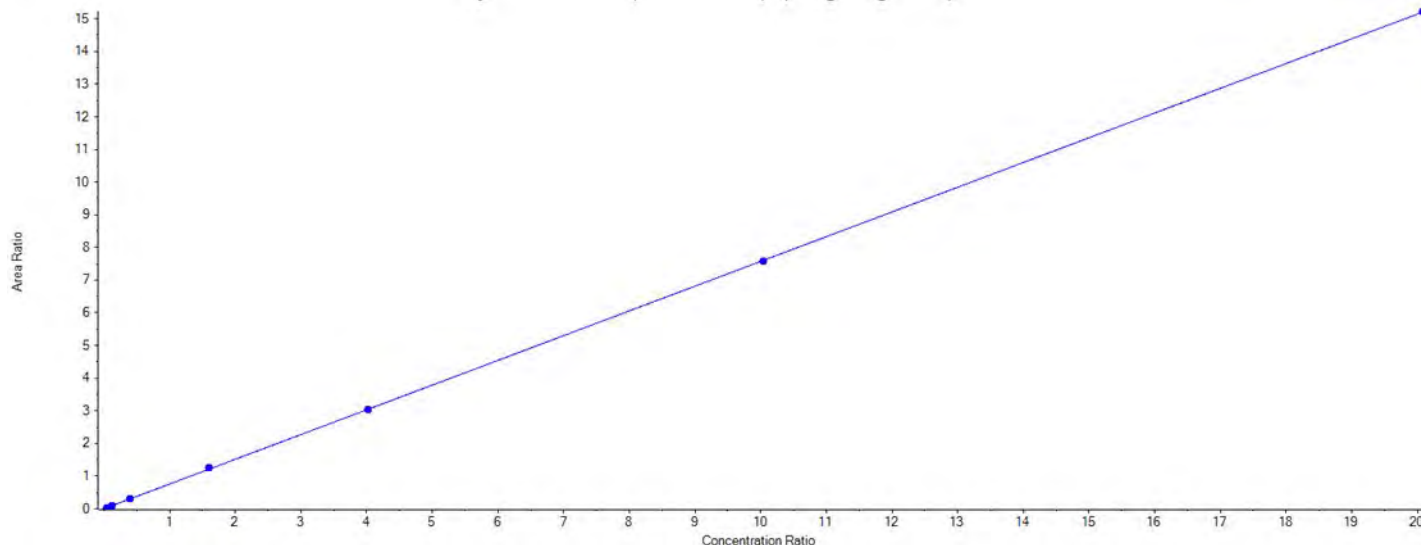
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFNS

$$y = 0.75705 x \text{ (} r = 0.99994 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	PFNS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	9756.6	2226.5	318525.429	True	4.78	0.031	5.55	1.060	0.192	0.193	1	30	
CAL2	24149.9	10822.9	313894.271	True	4.78	0.077	5.54	1.060	0.576	0.486	-16	30	
CAL3	91471.0	43486.9	309913.737	True	4.78	0.295	5.55	1.060	1.920	1.864	-3	30	
CAL4	369833.4	4460.8	296147.525	True	4.78	1.249	5.55	1.060	7.680	7.885	3	30	
CAL5	909879.2	4615.6	299574.476	True	4.78	3.037	5.55	1.060	19.200	19.177	0	30	
CAL6	2116661.5	2721.3	279204.362	True	4.78	7.581	5.54	1.060	48.000	47.867	0	30	
CAL7	3804945.2	2191.8	250004.233	True	4.78	15.220	5.54	1.060	96.000	96.096	0	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

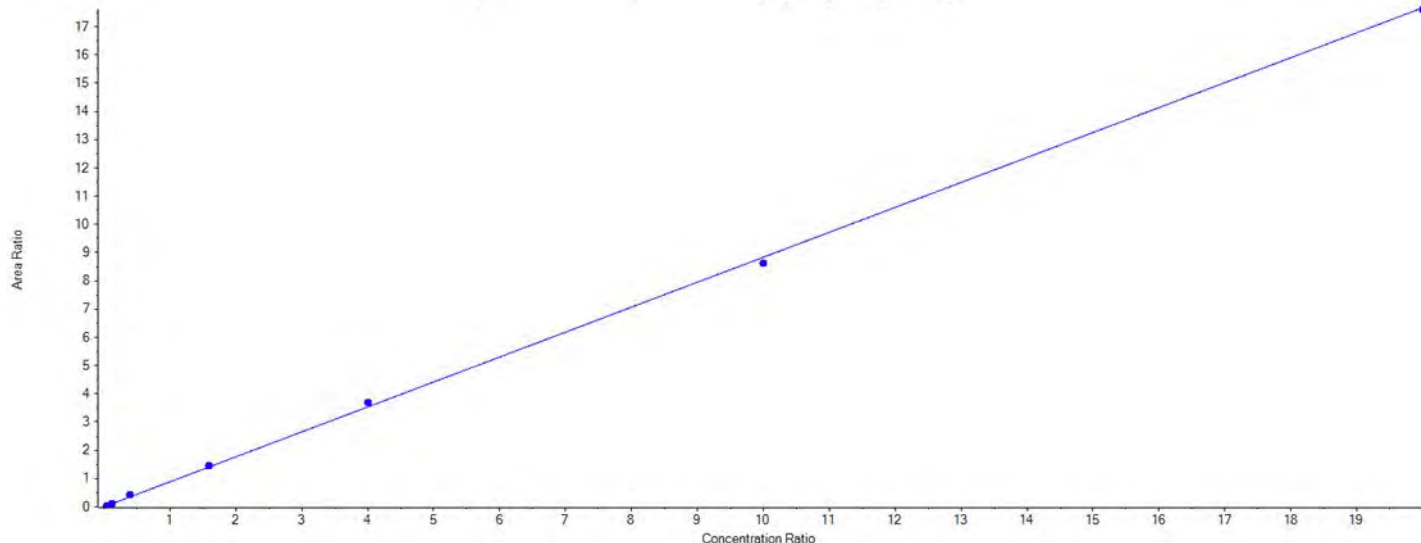
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFDA

$$y = 0.88335x \text{ (} r = 0.99965 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFDA Area	S/N	13C6-PFDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	33621.2	252.1	855362.920	True	5.00	0.039	5.57	1.000	0.200	0.222	11	30	
CAL2	90730.3	547.0	839100.670	True	5.00	0.108	5.57	1.000	0.600	0.612	2	30	
CAL3	343523.0	1010.2	824072.930	True	5.00	0.417	5.57	1.000	2.000	2.360	18	30	
CAL4	1223810.4	1419.5	841970.480	True	5.00	1.454	5.57	1.000	8.000	8.227	3	30	
CAL5	3072749.0	2173.2	833462.150	True	5.00	3.687	5.57	1.000	20.000	20.868	4	30	
CAL6	6551370.5	3228.5	758832.768	True	5.00	8.633	5.56	1.000	50.000	48.868	-2	30	
CAL7	11371047.0	2538.0	645932.474	True	5.00	17.604	5.57	1.000	100.000	99.643	0	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

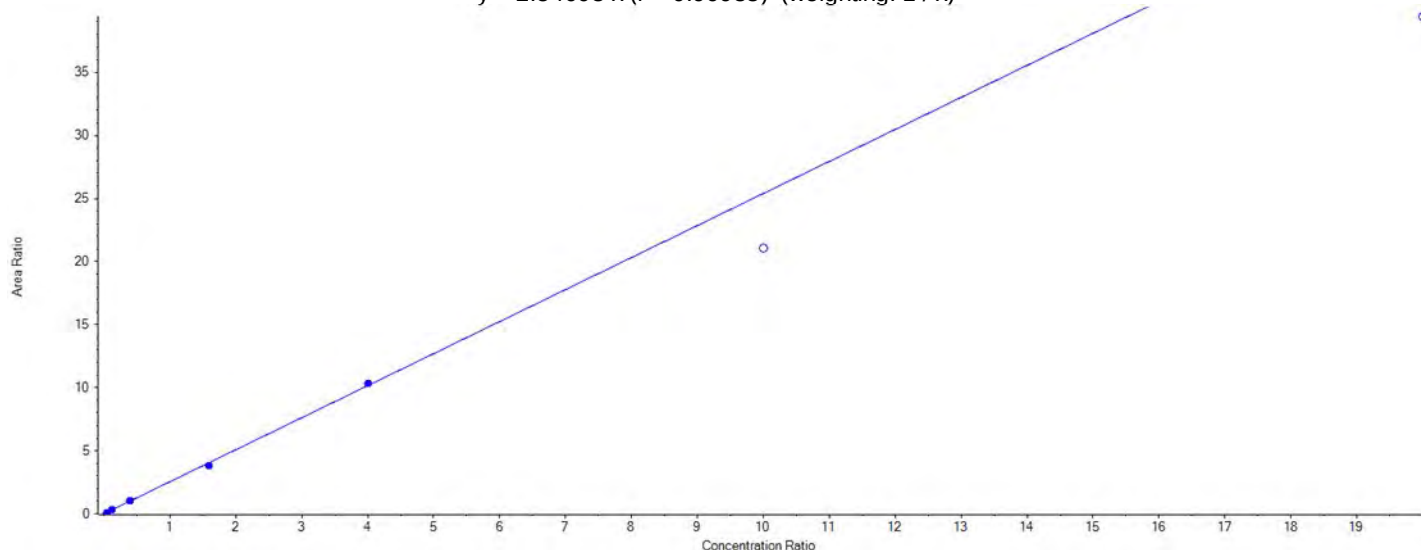
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

8:2-FTS

 $y = 2.54008x$ ($r = 0.99933$) (weighting: $1/x$)

Component Calibration Verification

Sample Name	8:2-FTS Area	S/N	13C2-8:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6138.7	138.9	58895.024	True	4.79	0.104	5.57	1.000	0.192	0.197	2	30	
CAL2	15550.2	278.8	54757.914	True	4.79	0.284	5.57	1.000	0.575	0.536	-7	30	
CAL3	57433.9	686.2	53847.149	True	4.79	1.067	5.57	1.000	1.920	2.011	5	30	
CAL4	203687.7	1309.3	52961.880	True	4.79	3.846	5.57	1.000	7.660	7.253	-5	30	
CAL5	478390.1	1550.6	46142.417	True	4.79	10.368	5.58	1.000	19.200	19.551	2	30	
CAL6	938590.1	1617.4	44487.495	False	4.79	21.098	5.57	1.000	47.900	39.786	-17	30	
CAL7	1620286.0	2884.0	41093.046	False	4.79	39.430	5.57	1.000	95.800	74.355	-22	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

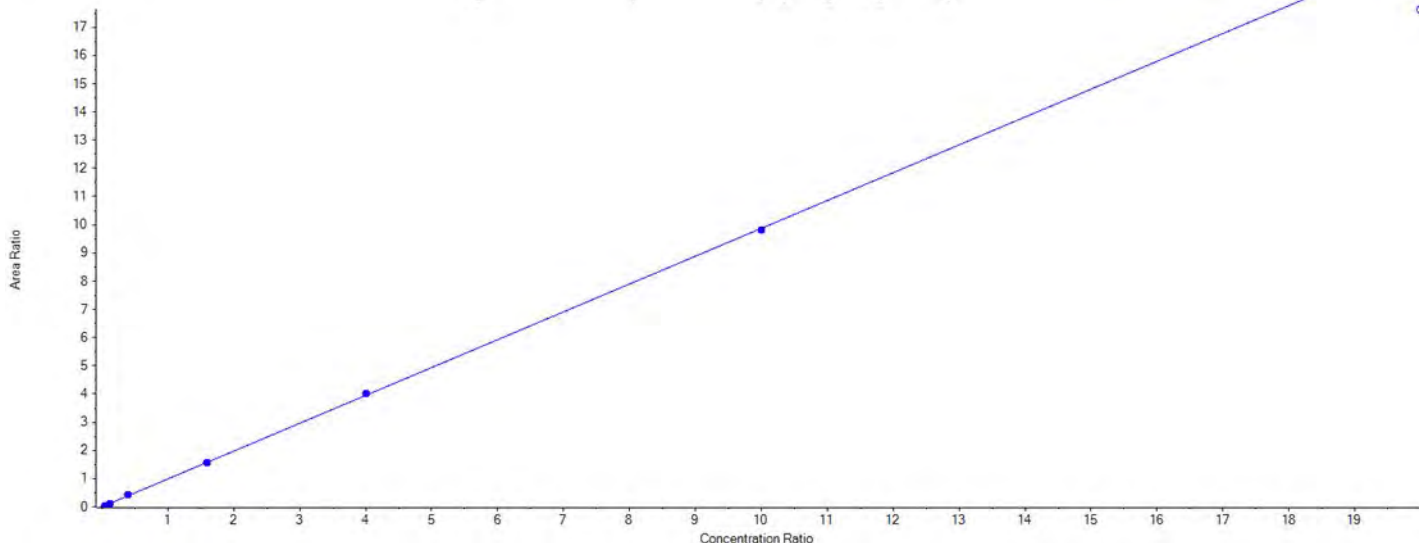
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFOSA

$$y = 0.98704 x \text{ (r = 0.99987) (weighting: 1 / x)}$$



Component Calibration Verification

Sample Name	PFOSA Area	S/N	13C8-PFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	27693.0	14496.4	662264.748	True	5.00	0.042	5.65	1.000	0.200	0.212	6	30	
CAL2	73112.3	749.8	658778.467	True	5.00	0.111	5.65	1.000	0.600	0.562	-6	30	
CAL3	265394.0	1340.3	631627.878	True	5.00	0.420	5.66	1.000	2.000	2.128	6	30	
CAL4	976434.1	2479.8	625021.840	True	5.00	1.562	5.65	1.000	8.000	7.914	-1	30	
CAL5	2392584.6	2838.0	596189.464	True	5.00	4.013	5.66	1.000	20.000	20.329	2	30	
CAL6	5541493.1	2884.6	565326.016	True	5.00	9.802	5.65	1.000	50.000	49.655	-1	30	
CAL7	9792009.5	2446.5	555500.490	False	5.00	17.627	5.65	1.000	100.000	89.294	-11	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

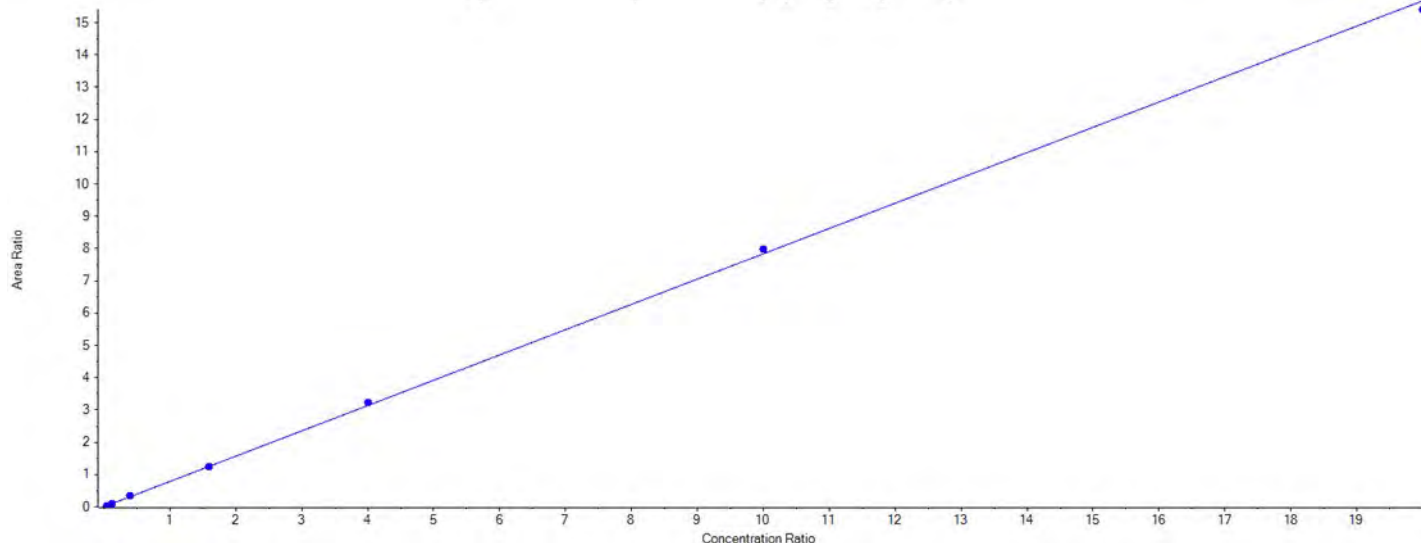
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

NMeFOSAA

$$y = 0.78383 \times (r = 0.99973) \text{ (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	NMeFOSAA Area	S/N	d3-NMeFOSAA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6661.0	153.4	220597.274	True	5.00	0.030	5.71	1.000	0.200	0.193	-4	30	
CAL2	16533.1	308.9	181261.245	True	5.00	0.091	5.70	1.000	0.600	0.582	-3	30	
CAL3	62054.8	533.8	178338.072	True	5.00	0.348	5.71	1.000	2.000	2.220	11	30	
CAL4	212775.3	1656.4	171203.949	True	5.00	1.243	5.71	1.000	8.000	7.928	-1	30	
CAL5	557354.6	1407.3	172574.166	True	5.00	3.230	5.71	1.000	20.000	20.602	3	30	
CAL6	1292829.8	1422.7	161673.270	True	5.00	7.997	5.70	1.000	50.000	51.010	2	30	
CAL7	2414874.8	1441.0	156760.846	True	5.00	15.405	5.71	1.000	100.000	98.267	-2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

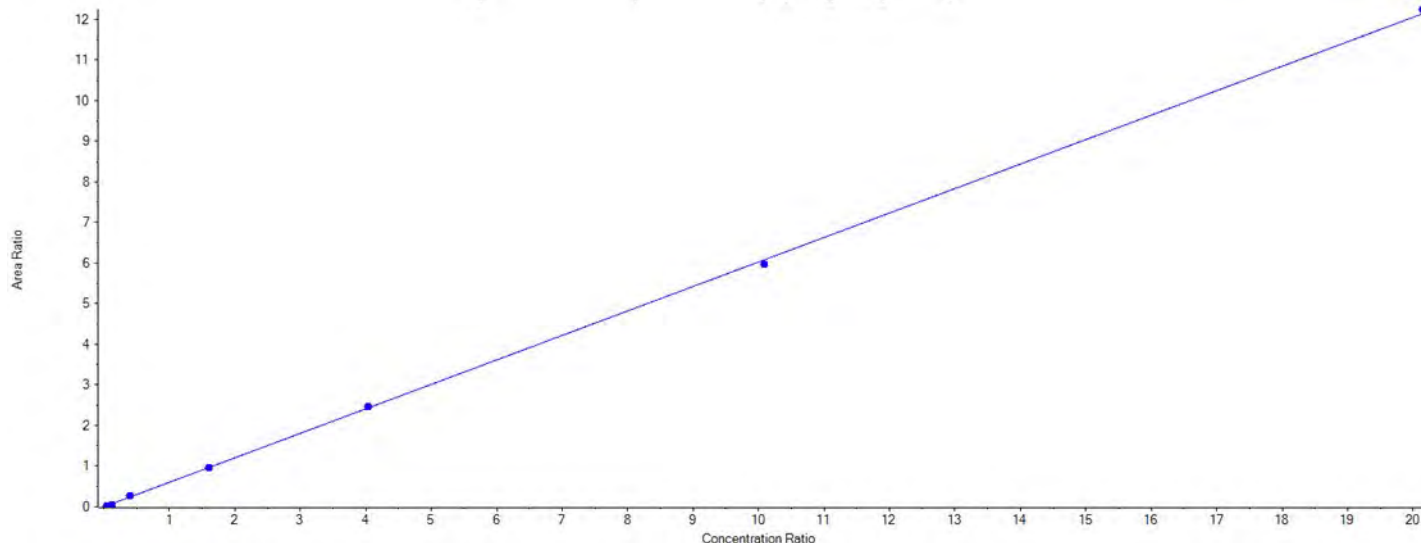
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFDS

$$y = 0.60287x \text{ (} r = 0.99985 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFDS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	6850.7	4223.9	318525.429	True	4.78	0.022	5.81	1.110	0.193	0.171	-12	30	
CAL2	18654.8	1288.4	313894.271	True	4.78	0.059	5.80	1.100	0.578	0.471	-18	30	
CAL3	80537.4	288059.6	309913.737	True	4.78	0.260	5.80	1.100	1.930	2.060	7	30	
CAL4	283198.5	3741.0	296147.525	True	4.78	0.956	5.80	1.100	7.700	7.582	-2	30	
CAL5	737231.9	1757.0	299574.476	True	4.78	2.461	5.81	1.100	19.300	19.512	1	30	
CAL6	1665920.2	2887.4	279204.362	True	4.78	5.967	5.80	1.100	48.200	47.309	-2	30	
CAL7	3061543.5	4095.0	250004.233	True	4.78	12.246	5.80	1.110	96.300	97.096	1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

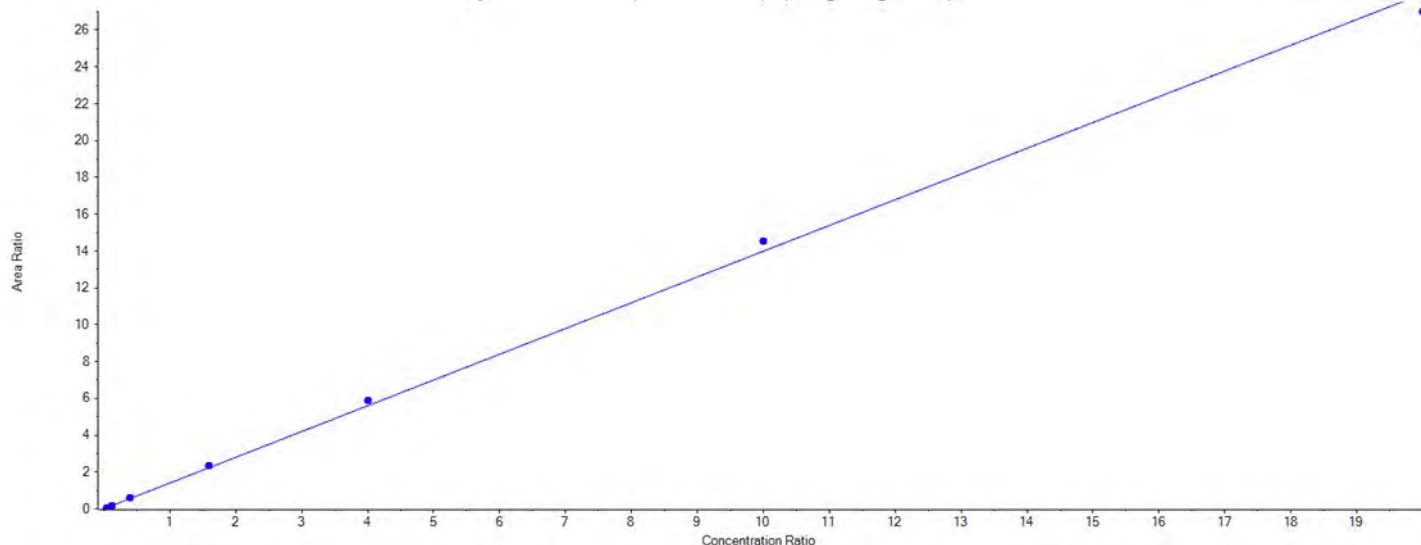
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFUnDA

$$y = 1.39881x \text{ (} r = 0.99920 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFUnDA Area	S/N	13C7-PFUnDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	36428.0	274.5	587155.422	True	5.00	0.062	5.82	1.000	0.200	0.222	11	30	
CAL2	91490.4	441.2	581206.992	True	5.00	0.157	5.82	1.000	0.600	0.563	-6	30	
CAL3	370693.6	883.5	592495.657	True	5.00	0.626	5.83	1.000	2.000	2.236	12	30	
CAL4	1281938.5	1471.5	546359.257	True	5.00	2.346	5.83	1.000	8.000	8.387	5	30	
CAL5	3163283.8	2050.7	539842.914	True	5.00	5.860	5.83	1.000	20.000	20.945	5	30	
CAL6	6885622.6	2756.7	474122.075	True	5.00	14.523	5.82	1.000	50.000	51.912	4	30	
CAL7	11254483.8	2696.8	416723.902	True	5.00	27.007	5.83	1.000	100.000	96.536	-3	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

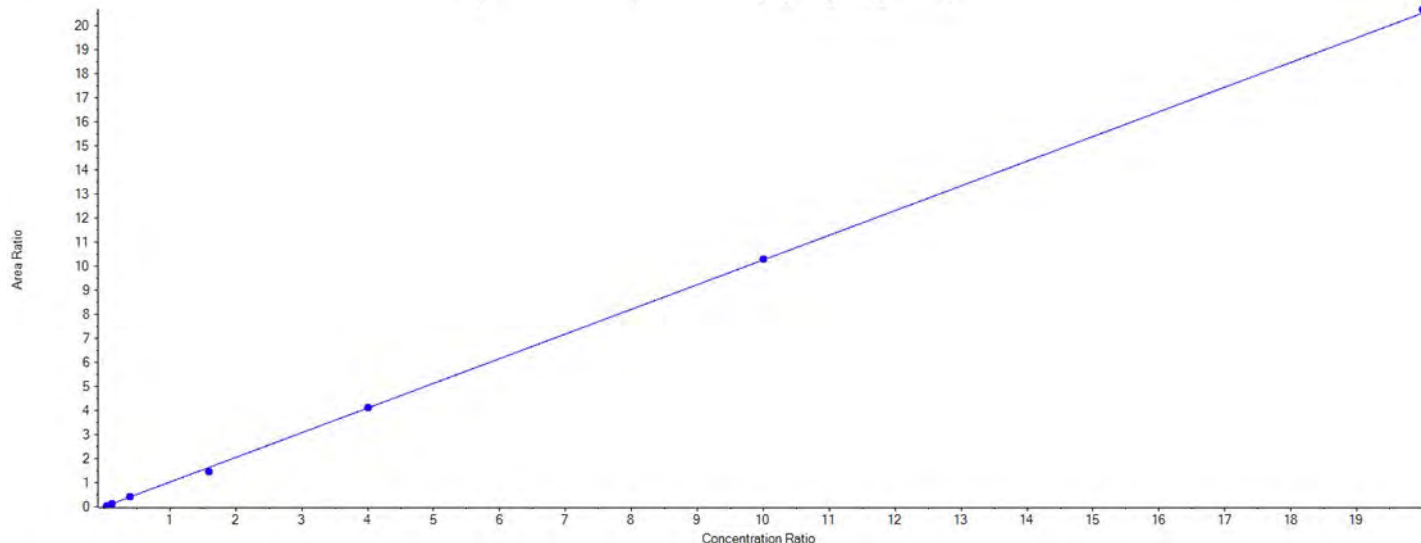
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

NEtFOSAA

$$y = 1.02663x \text{ (} r = 0.99975 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	NEtFOSAA Area	S/N	d5-NEtFOSAA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	5069.2	122.5	127543.478	True	5.00	0.040	5.85	1.000	0.200	0.194	-3	30	
CAL2	16643.3	670.6	144803.235	True	5.00	0.115	5.84	1.000	0.600	0.560	-7	30	
CAL3	52769.5	534.0	129810.704	True	5.00	0.407	5.84	1.000	2.000	1.980	-1	30	
CAL4	204048.6	1145.4	138500.791	True	5.00	1.473	5.84	1.000	8.000	7.175	-10	30	
CAL5	512792.4	1631.6	124785.046	True	5.00	4.109	5.85	1.000	20.000	20.014	0	30	
CAL6	1214766.4	1707.9	117934.241	True	5.00	10.300	5.84	1.000	50.000	50.166	0	30	
CAL7	2127663.4	1866.1	102891.604	True	5.00	20.679	5.85	1.000	100.000	100.712	1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

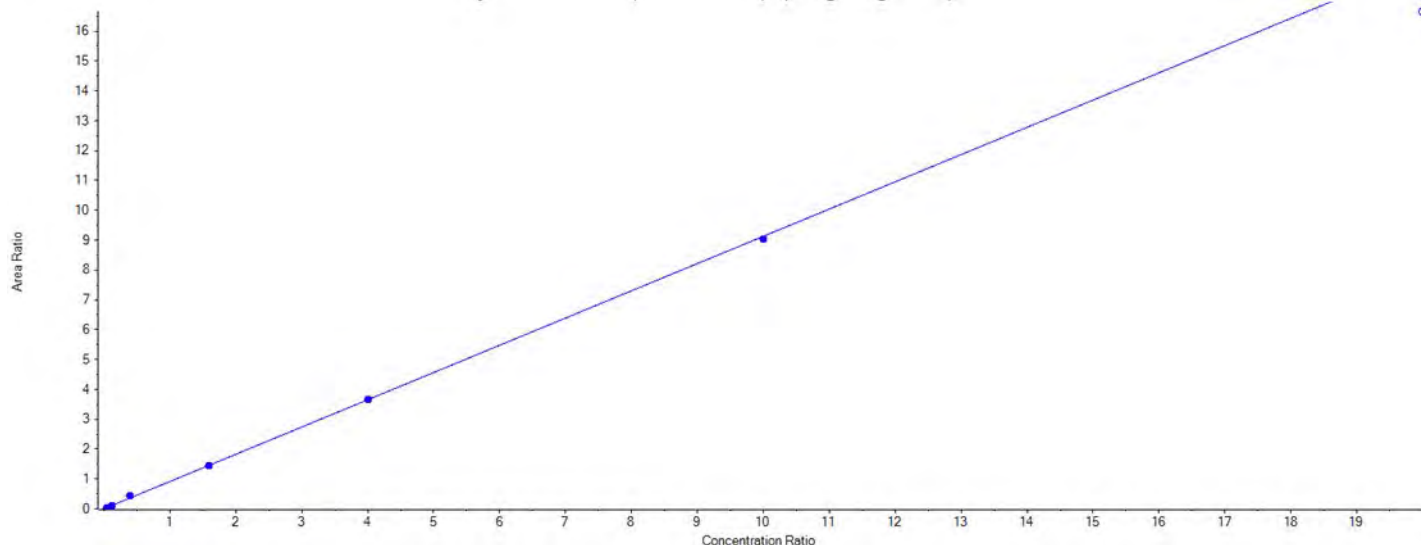
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFDODA

$$y = 0.91279x \text{ (} r = 0.99939 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFDODA Area	S/N	¹³ C2-PFDODA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	53386.6	440.3	1173339.125	True	5.00	0.045	6.06	1.000	0.200	0.249	25	30	
CAL2	122586.0	435.7	1140522.314	True	5.00	0.107	6.05	1.000	0.600	0.589	-2	30	
CAL3	486489.2	1014.9	1091194.874	True	5.00	0.446	6.06	1.000	2.000	2.442	22	30	
CAL4	1650301.1	2076.9	1150927.360	True	5.00	1.434	6.06	1.000	8.000	7.854	-2	30	
CAL5	4161895.9	2283.1	1133027.856	True	5.00	3.673	6.06	1.000	20.000	20.121	1	30	
CAL6	8865844.7	2437.0	980215.411	True	5.00	9.045	6.05	1.000	50.000	49.545	-1	30	
CAL7	14195839.1	2288.5	852235.609	False	5.00	16.657	6.06	1.000	100.000	91.243	-9	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

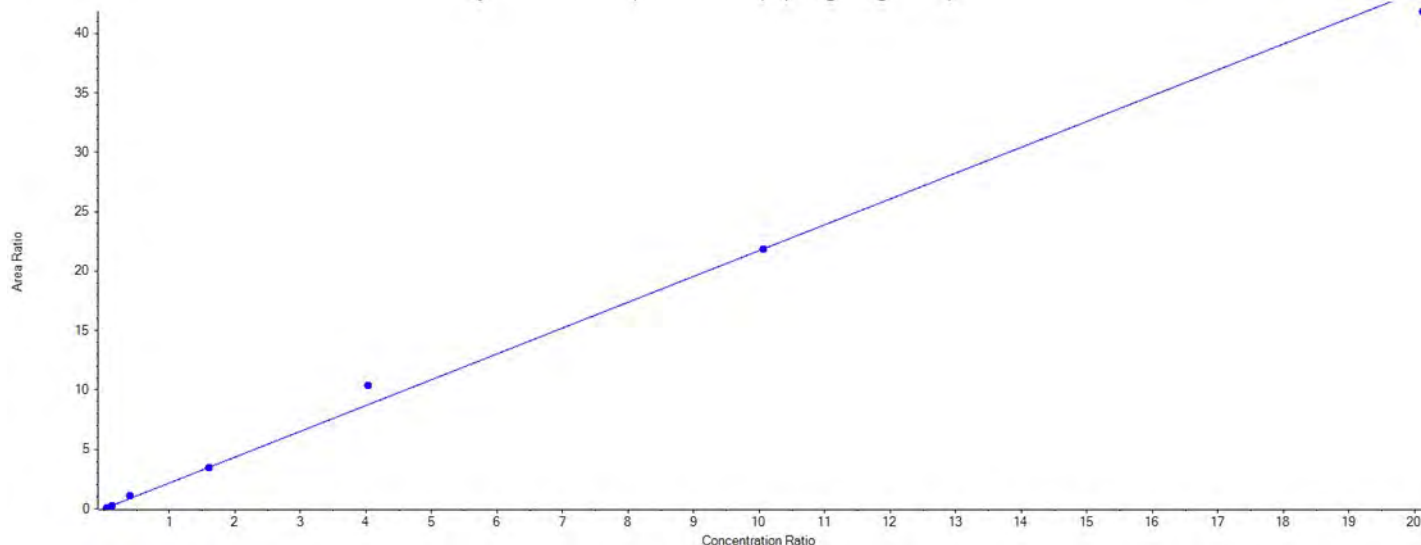
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

10:2-FTS

$$y = 2.17221x \text{ (} r = 0.99717 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	10:2-FTS Area	S/N	13C2-8:2-FTS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	5717.7	1172.1	58895.024	True	4.79	0.097	6.07	1.090	0.193	0.214	11	30	
CAL2	15157.8	2880.5	54757.914	True	4.79	0.277	6.07	1.090	0.578	0.610	6	30	
CAL3	58508.2	2664.2	53847.149	True	4.79	1.087	6.07	1.090	1.930	2.396	24	30	
CAL4	184968.5	809.2	52961.880	True	4.79	3.492	6.08	1.090	7.710	7.701	0	30	
CAL5	480384.1	12789.5	46142.417	True	4.79	10.411	6.08	1.090	19.300	22.957	19	30	
CAL6	972346.8	3139.7	44487.495	True	4.79	21.857	6.07	1.090	48.200	48.197	0	30	
CAL7	1718827.3	2423.5	41093.046	True	4.79	41.828	6.08	1.090	96.400	92.235	-4	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

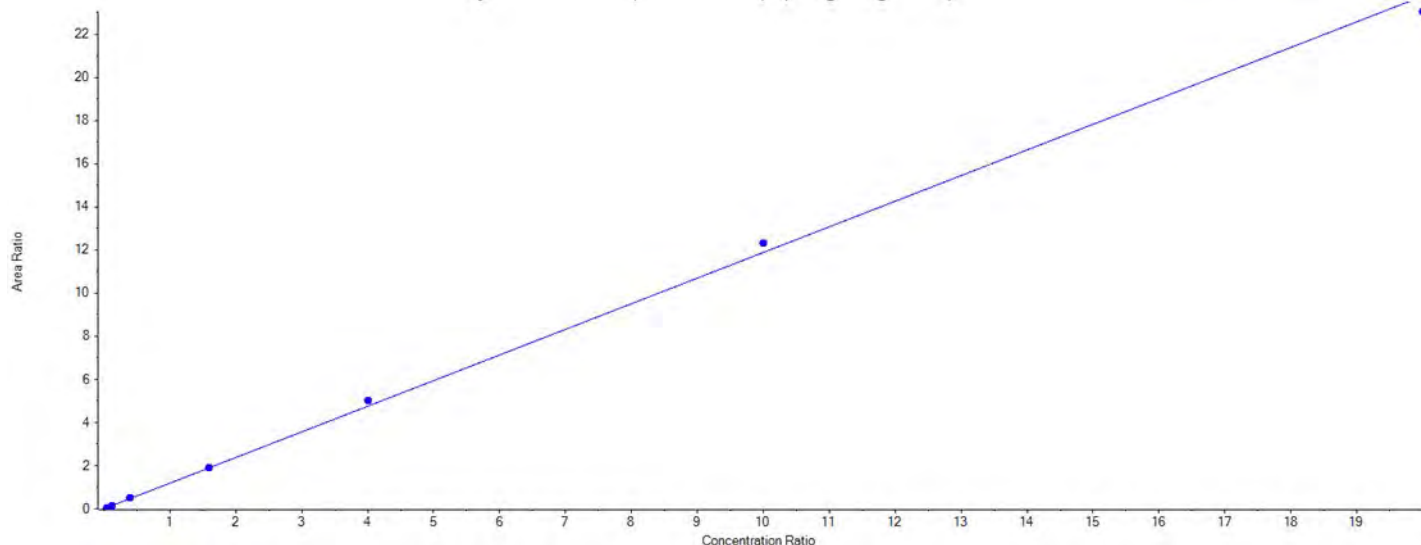
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

NMePFOSAE

$$y = 1.18814 x \text{ (r = 0.99933) (weighting: 1 / x)}$$



Component Calibration Verification

Sample Name	NMePFOSAE Area	S/N	d7-NMePFOSAE Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	13889.2	162.0	281912.738	True	5.00	0.049	6.10	1.000	0.200	0.207	4	30	
CAL2	37932.7	340.7	272071.295	True	5.00	0.139	6.10	1.000	0.600	0.587	-2	30	
CAL3	136518.3	546.2	256577.302	True	5.00	0.532	6.11	1.000	2.000	2.239	12	30	
CAL4	498735.8	911.9	263412.818	True	5.00	1.893	6.11	1.000	8.000	7.968	0	30	
CAL5	1240182.1	1072.1	247663.757	True	5.00	5.008	6.11	1.000	20.000	21.073	5	30	
CAL6	3059430.5	1565.7	248871.057	True	5.00	12.293	6.10	1.000	50.000	51.733	3	30	
CAL7	5772837.2	1358.0	250467.595	True	5.00	23.048	6.11	1.000	100.000	96.993	-3	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

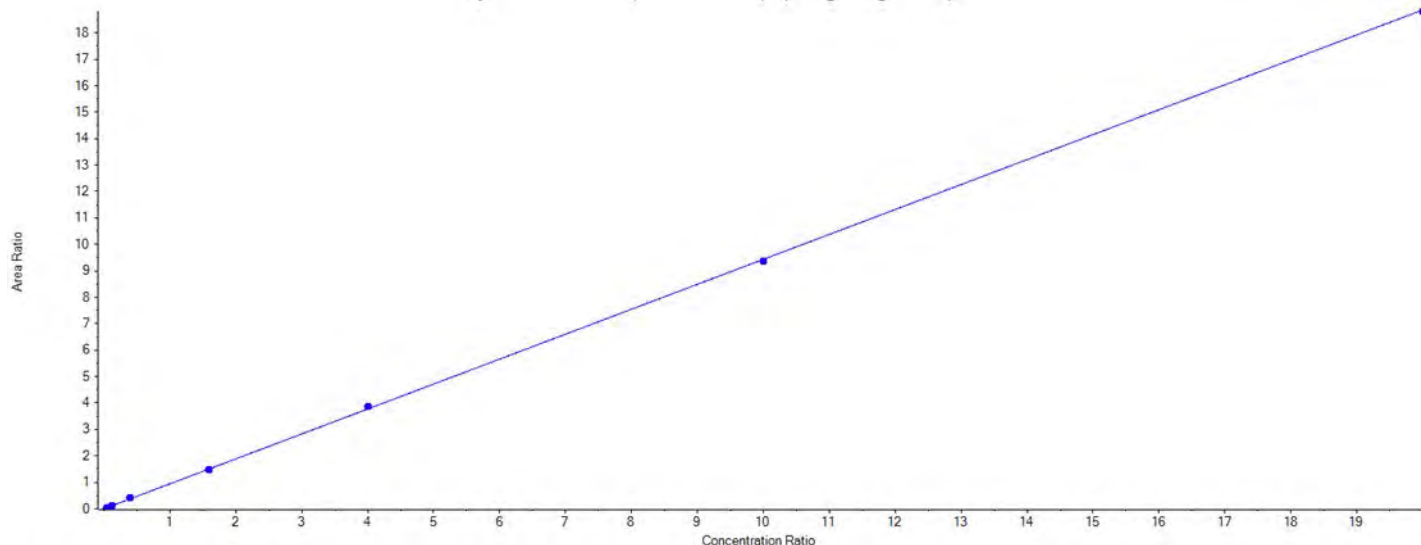
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

NMePFOSA

 $y = 0.94317 x$ ($r = 0.99989$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	NMePFOSA Area	S/N	d3-NMePFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3274.2	928.4	85677.959	True	5.00	0.038	6.11	1.000	0.200	0.203	1	30	
CAL2	9381.3	543.9	86471.674	True	5.00	0.108	6.11	1.000	0.600	0.575	-4	30	
CAL3	33009.7	588.1	80294.101	True	5.00	0.411	6.11	1.000	2.000	2.179	9	30	
CAL4	124582.5	1113.8	83886.643	True	5.00	1.485	6.11	1.000	8.000	7.873	-2	30	
CAL5	322671.1	1106.7	83129.042	True	5.00	3.882	6.12	1.000	20.000	20.577	3	30	
CAL6	768521.6	1393.3	81949.264	True	5.00	9.378	6.11	1.000	50.000	49.716	-1	30	
CAL7	1500056.2	1711.5	79780.244	True	5.00	18.802	6.11	1.000	100.000	99.677	0	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

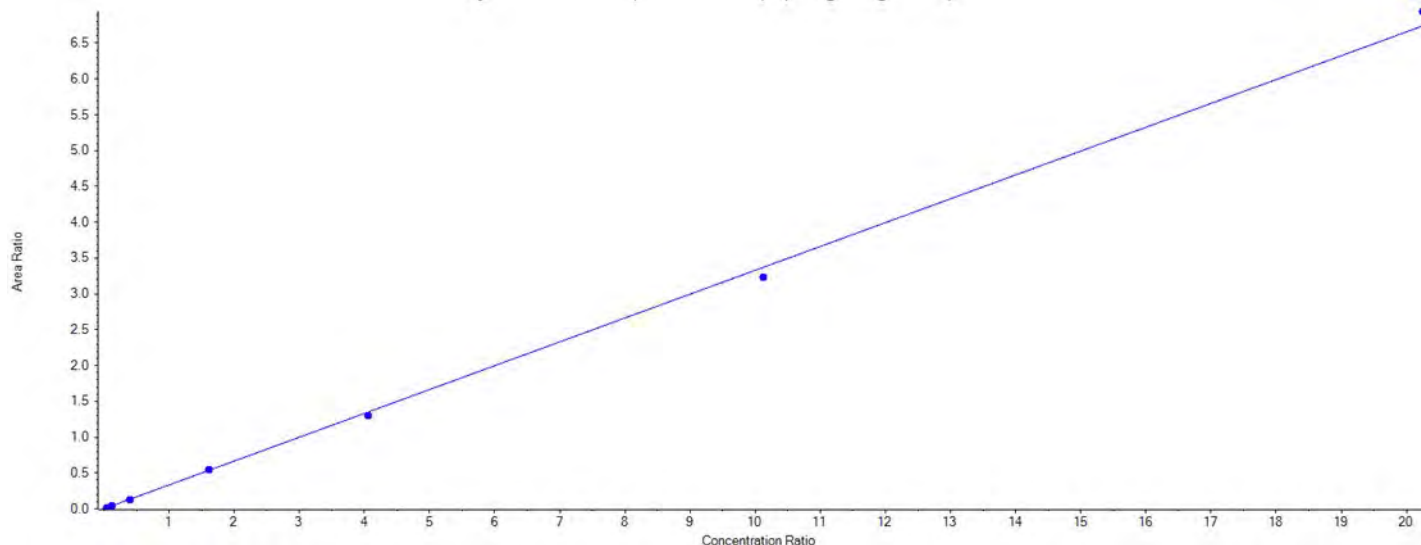
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFDoS

$$y = 0.33284 x \text{ (} r = 0.99942 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFDoS Area	S/N	13C8-PFOS Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	4012.1	80345.8	318525.429	True	4.78	0.013	6.23	1.190	0.194	0.181	-7	30	
CAL2	11606.3	870710.1	313894.271	True	4.78	0.037	6.22	1.190	0.581	0.531	-9	30	
CAL3	40838.1	5802.7	309913.737	True	4.78	0.132	6.23	1.180	1.940	1.892	-2	30	
CAL4	159682.3	51383.7	296147.525	True	4.78	0.539	6.23	1.190	7.740	7.744	0	30	
CAL5	390444.7	2445.2	299574.476	True	4.78	1.303	6.23	1.190	19.400	18.718	-4	30	
CAL6	900508.4	3292.0	279204.362	True	4.78	3.225	6.22	1.190	48.400	46.320	-4	30	
CAL7	1735049.5	2191.9	250004.233	True	4.78	6.940	6.22	1.190	96.800	99.670	3	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

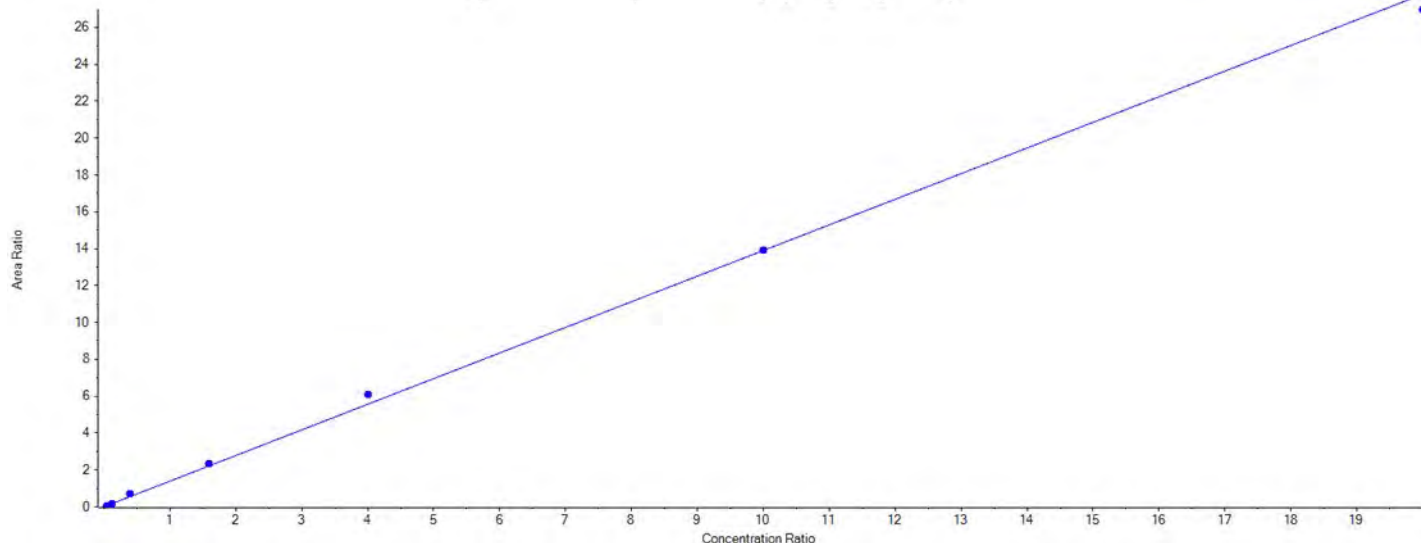
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

NEtPFOSAE

$$y = 1.39002 x \text{ (} r = 0.99888 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	NEtPFOSAE Area	S/N	d9-NEtPFOSAE Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	15402.7	148.0	226256.026	True	5.00	0.068	6.26	1.000	0.200	0.245	22	30	
CAL2	37977.7	267.1	229050.658	True	5.00	0.166	6.26	1.000	0.600	0.596	-1	30	
CAL3	152952.1	535.6	216571.501	True	5.00	0.706	6.26	1.000	2.000	2.540	27	30	
CAL4	516882.1	779.8	218635.780	True	5.00	2.364	6.26	1.000	8.000	8.504	6	30	
CAL5	1338584.5	1109.4	220689.862	True	5.00	6.065	6.27	1.000	20.000	21.818	9	30	
CAL6	3104174.6	1257.6	222924.109	True	5.00	13.925	6.26	1.000	50.000	50.088	0	30	
CAL7	5826370.7	1137.3	216042.000	True	5.00	26.969	6.26	1.000	100.000	97.008	-3	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

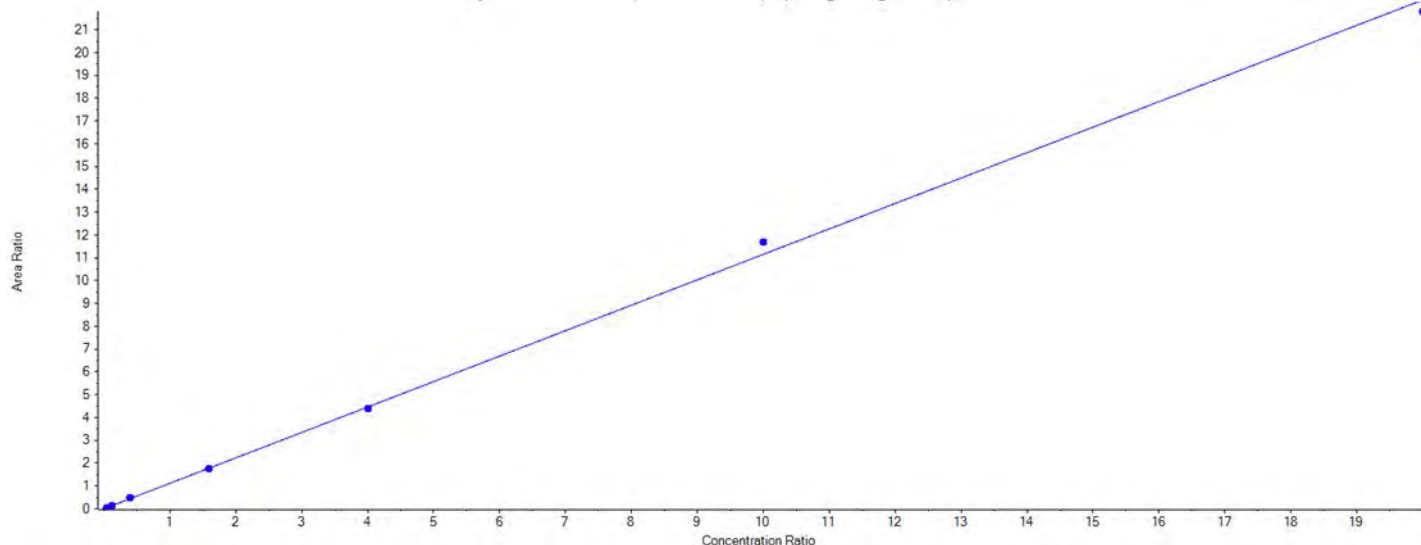
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

NEtPFOSA

$$y = 1.11561 x \text{ (} r = 0.99945 \text{) (weighting: } 1 / x \text{)}$$



Component Calibration Verification

Sample Name	NEtPFOSA Area	S/N	d5-NEtPFOSA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	3384.4	107.2	70050.412	True	5.00	0.048	6.27	1.000	0.200	0.217	8	30	
CAL2	7883.3	201.2	66646.838	True	5.00	0.118	6.27	1.000	0.600	0.530	-12	30	
CAL3	30595.3	507.0	64623.659	True	5.00	0.473	6.27	1.000	2.000	2.122	6	30	
CAL4	119152.1	624.5	66966.371	True	5.00	1.779	6.28	1.000	8.000	7.975	0	30	
CAL5	293215.8	1053.2	66384.647	True	5.00	4.417	6.28	1.000	20.000	19.796	-1	30	
CAL6	698744.6	1184.9	59705.755	True	5.00	11.703	6.27	1.000	50.000	52.452	5	30	
CAL7	1290814.8	1076.0	59209.120	True	5.00	21.801	6.27	1.000	100.000	97.709	-2	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

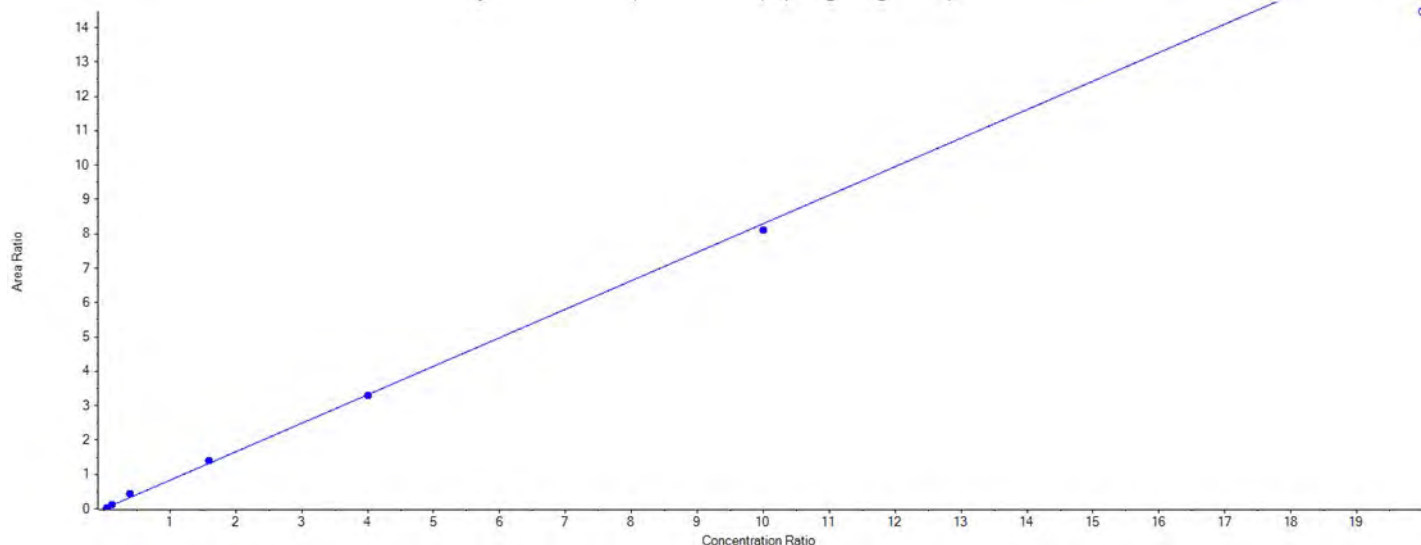
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFTrDA

 $y = 0.82954 x$ ($r = 0.99881$) (weighting: $1 / x$)

Component Calibration Verification

Sample Name	PFTrDA Area	S/N	¹³ C2-PFDoDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	48537.6	415.6	1173339.125	True	5.00	0.041	6.26	1.030	0.200	0.249	25	30	
CAL2	117562.3	613.3	1140522.314	True	5.00	0.103	6.25	1.030	0.600	0.621	4	30	
CAL3	466266.9	1132.7	1091194.874	True	5.00	0.427	6.26	1.030	2.000	2.576	29	30	
CAL4	1622977.7	2016.4	1150927.360	True	5.00	1.410	6.26	1.030	8.000	8.500	6	30	
CAL5	3743763.6	1689.2	1133027.856	True	5.00	3.304	6.26	1.030	20.000	19.916	0	30	
CAL6	7958673.4	2584.3	980215.411	True	5.00	8.119	6.25	1.030	50.000	48.938	-2	30	
CAL7	12329126.1	2217.5	852235.609	False	5.00	14.467	6.26	1.030	100.000	87.197	-13	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

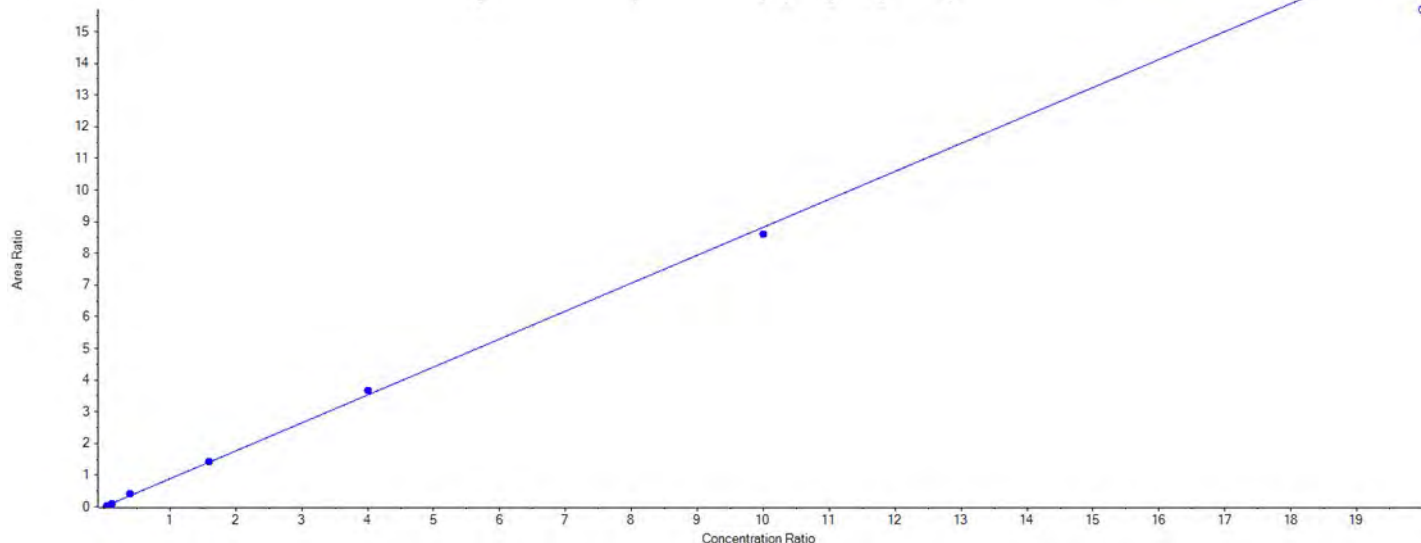
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFTeDA

$$y = 0.88245 x \text{ (r = 0.99928) (weighting: 1 / x)}$$



Component Calibration Verification

Sample Name	PFTeDA Area	S/N	13C2-PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	34099.2	261.8	873945.602	True	5.00	0.039	6.43	1.000	0.200	0.221	11	30	
CAL2	88360.3	524.6	858145.146	True	5.00	0.103	6.43	1.000	0.600	0.583	-3	30	
CAL3	342239.8	919.9	841931.091	True	5.00	0.406	6.43	1.000	2.000	2.303	15	30	
CAL4	1172052.0	1455.1	826669.980	True	5.00	1.418	6.43	1.000	8.000	8.033	0	30	
CAL5	2897106.2	1865.2	786107.475	True	5.00	3.685	6.44	1.000	20.000	20.882	4	30	
CAL6	6793735.3	2537.2	789168.429	True	5.00	8.609	6.43	1.000	50.000	48.777	-2	30	
CAL7	11258874.1	2188.3	717297.714	False	5.00	15.696	6.43	1.000	100.000	88.936	-11	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

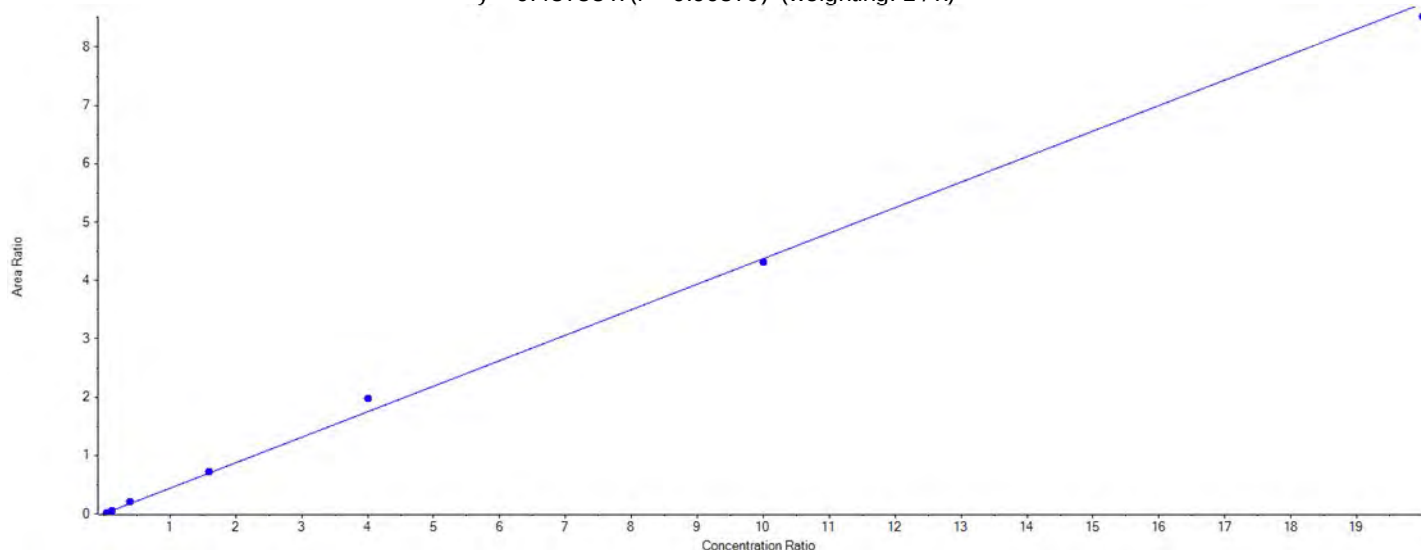
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFHxDA

$$y = 0.43738x \text{ (} r = 0.99870 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFHxDA Area	S/N	¹³ C ₂ -PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	19206.4	679.6	873945.602	True	5.00	0.022	6.74	1.050	0.200	0.251	26	30	
CAL2	44164.6	964.5	858145.146	True	5.00	0.051	6.73	1.050	0.600	0.588	-2	30	
CAL3	173721.0	2652.8	841931.091	True	5.00	0.206	6.74	1.050	2.000	2.359	18	30	
CAL4	601723.8	3198.2	826669.980	True	5.00	0.728	6.74	1.050	8.000	8.321	4	30	
CAL5	1551331.1	2619.4	786107.475	True	5.00	1.973	6.74	1.050	20.000	22.560	13	30	
CAL6	3402004.4	2973.0	789168.429	True	5.00	4.311	6.73	1.050	50.000	49.281	-1	30	
CAL7	6113985.1	2964.4	717297.714	True	5.00	8.524	6.73	1.050	100.000	97.440	-3	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

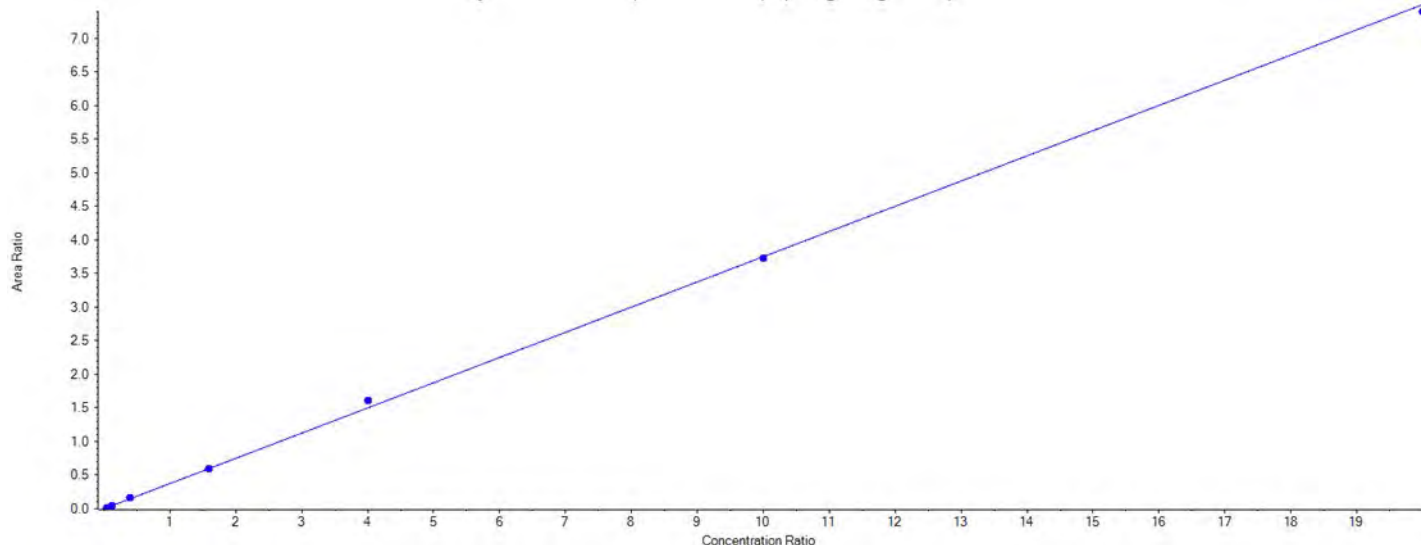
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFODA

$$y = 0.37533 x \text{ (} r = 0.99953 \text{) (weighting: } 1/x \text{)}$$



Component Calibration Verification

Sample Name	PFODA Area	S/N	¹³ C ₂ -PFTeDA Area	Used	ES Conc	Area Ratio	RT (min)	RRT	Spec Amount	Calc Amount	%Diff	%D Limit	%D OOS
CAL1	14378.0	1085.0	873945.602	True	5.00	0.016	7.00	1.090	0.200	0.219	10	30	
CAL2	36421.5	1561.1	858145.146	True	5.00	0.042	6.99	1.090	0.600	0.565	-6	30	
CAL3	139071.5	2402.7	841931.091	True	5.00	0.165	7.00	1.090	2.000	2.201	10	30	
CAL4	494210.7	3411.6	826669.980	True	5.00	0.598	7.00	1.090	8.000	7.964	0	30	
CAL5	1272897.4	4522.2	786107.475	True	5.00	1.619	7.00	1.090	20.000	21.571	8	30	
CAL6	2942000.1	3495.7	789168.429	True	5.00	3.728	6.99	1.090	50.000	49.663	-1	30	
CAL7	5309889.9	3965.5	717297.714	True	5.00	7.403	7.00	1.090	100.000	98.616	-1	30	

DOD Initial Calibration Verification

Instrument ID: LM27631

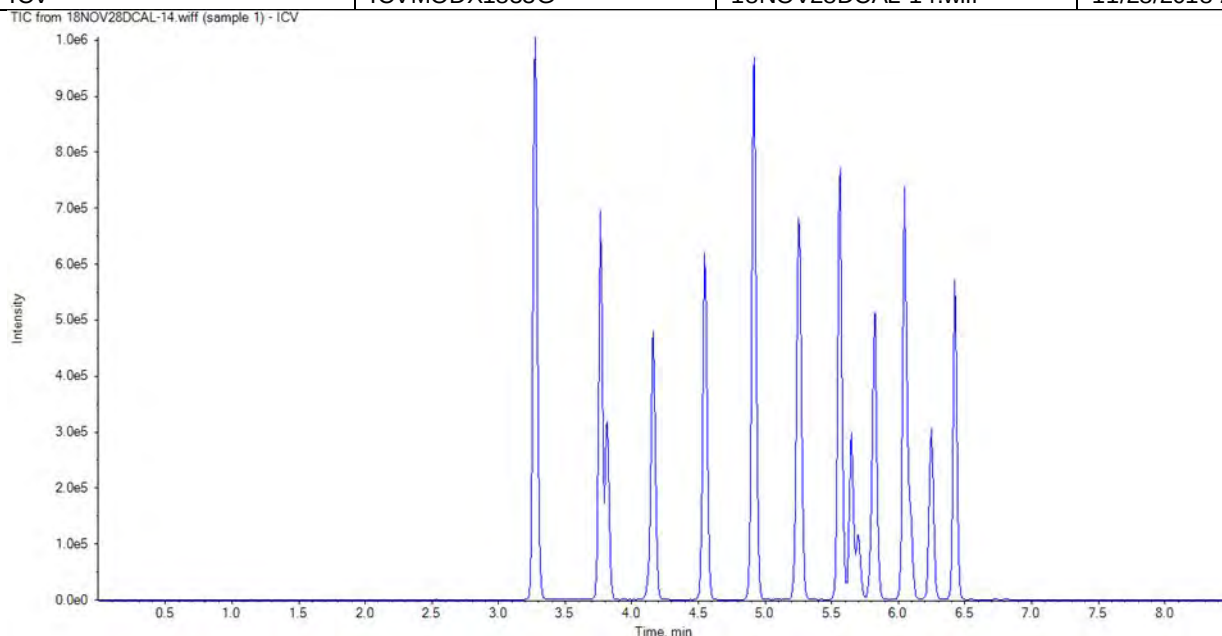
ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

Sample Name	Sample ID:	Sample File:	Acquisition Date:
ICV	ICVMODX1833G	18NOV28DCAL-14.wiff	11/28/2018 2:54:22 PM



Injection Standard Name	Inj Std Conc	Injection Std Peak Area	CAL3 Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.000	909586.4	887248.9	2.5	50	
13C2-PFOA	5.000	531347.1	498501.6	6.6	50	
13C4-PFOS	4.780	296756.3	283214.2	4.8	50	
13C2-PFDA	5.000	468972.3	441790.6	6.2	50	

DOD Initial Calibration Verification

Instrument ID: LM27631 ICAL Name: 18NOV28DCAL QMethod Name: 18AUG20QM
Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM Acquisition Method: 18AUG13_3uL.dam

APPROVED

By MCD at 3:40 pm, 1/10/19

REVIEWED

By UCMR at 7:00 pm, 1/21/19

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

Sample Name	Sample ID:	Sample File:	Acquisition Date:
ICV	ICVMODX1833G	18NOV28DCAL-14.wiff	11/28/2018 2:54:22 PM

Analyte Name	Analyte Area	Ext Std Name	Ext Std Area	Ext Std Con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	387187.0	13C4-PFBA	992615.758	5.00	0.390	3.27	1.00	2.000	2.138	7	30	
PFPeA	377961.6	13C5-PFPeA	975580.855	5.00	0.387	3.77	1.00	2.000	1.901	-5	30	
PFBS	159425.0	13C3-PFBS	446010.999	4.65	0.357	3.81	1.00	1.769	1.735	-2	30	
4:2-FTS	N/A	13C2-4:2-FTS	68184.320	4.67	N/A	N/A	N/A	0.000	N/A		30	
PFHxA	369137.1	13C5-PFHxA	699371.272	5.00	0.528	4.16	1.00	2.000	2.119	6	30	
PFPeS	N/A	13C3-PFBS	446010.999	4.65	N/A	N/A	N/A	0.000	N/A		30	
PFHpA	373590.8	13C4-PFHpA	556403.086	5.00	0.671	4.55	1.00	2.000	2.072	4	30	
PFHxS	125085.3	13C3-PFHxS	317108.955	4.73	0.394	4.55	1.00	1.890	1.847	-2	30	
6:2-FTS	N/A	13C2-6:2-FTS	63350.515	4.75	N/A	N/A	N/A	0.000	N/A		30	
PFHpS	131043.1	13C3-PFHxS	317108.955	4.73	0.413	4.91	1.08	1.900	2.062	9	30	
PFOA	404358.9	13C8-PFOA	1001731.379	5.00	0.404	4.92	1.00	2.000	2.086	4	30	
PFOS	122334.6	13C8-PFOS	316117.130	4.78	0.387	5.25	1.00	1.910	1.623	-15	30	
PFNA	351872.0	13C9-PFNA	647064.116	5.00	0.544	5.26	1.00	2.000	2.084	4	30	
PFNS	N/A	13C8-PFOS	316117.130	4.78	N/A	N/A	N/A	0.000	N/A		30	
PFDA	325191.9	13C6-PFDA	857032.881	5.00	0.379	5.56	1.00	2.000	2.148	7	30	
8:2-FTS	N/A	13C2-8:2-FTS	51912.864	4.79	N/A	N/A	N/A	0.000	N/A		30	
PFOSA	N/A	13C8-PFOSA	637370.645	5.00	N/A	N/A	N/A	0.000	N/A		30	
NMeFOSAA	74168.8	d3-NMeFOSAA	183040.018	5.00	0.405	5.70	1.00	2.000	2.585	29	30	
PFDS	72374.3	13C8-PFOS	316117.130	4.78	0.229	5.79	1.10	1.930	1.815	-6	30	
PFUnDA	354099.8	13C7-PFUnDA	559327.431	5.00	0.633	5.82	1.00	2.000	2.263	13	30	
NEtFOSAA	57367.9	d5-NEtFOSAA	140839.958	5.00	0.407	5.83	1.00	2.000	1.984	-1	30	
PFDODA	427818.9	13C2-PFDODA	1134142.098	5.00	0.377	6.05	1.00	2.000	2.066	3	30	
10:2-FTS	N/A	13C2-8:2-FTS	51912.864	4.79	N/A	N/A	N/A	0.000	N/A		30	
NMePFOSAE	N/A	d7-NMePFOSAE	262732.239	5.00	N/A	N/A	N/A	0.000	N/A		30	
NMePFOSA	N/A	d3-NMePFOSA	81059.543	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFDoS	N/A	13C8-PFOS	316117.130	4.78	N/A	N/A	N/A	0.000	N/A		30	
NEtPFOSAE	N/A	d9-NEtPFOSAE	227167.682	5.00	N/A	N/A	N/A	0.000	N/A		30	
NEtPFOSA	N/A	d5-NEtPFOSA	67297.847	5.00	N/A	N/A	N/A	0.000	N/A		30	

DOD Initial Calibration Verification

Instrument ID: LM27631

ICAL Name: 18NOV28DCAL

QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL_Updated1/10/2019 3:36:50 PM

Acquisition Method: 18AUG13_3uL.dam

PFTTrDA	416758.4	13C2-PFDoDA	1134142.0 98	5.00	0.367	6.25	1.03	2.000	2.215	11	30	
PFTeDA	312632.1	13C2-PFTeDA	820071.66 7	5.00	0.381	6.42	1.00	2.000	2.160	8	30	
PFHxDA	N/A	13C2-PFTeDA	820071.66 7	5.00	N/A	N/A	N/A	0.000	N/A		30	
PFODA	N/A	13C2-PFTeDA	820071.66 7	5.00	N/A	N/A	N/A	0.000	N/A		30	

APPROVED

By MCD at 3:40 pm, 1/10/19

Page 61 of 61
REVIEWED

By UCMR at 7:00 pm, 1/21/19

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL1		Data File:	18NOV28DCAL-06.wiff
Sample ID:	CALBRN11833C		Acquis Date:	2018-11-28T13:42:10
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	3		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV28DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	907350.5	887248.9	2	50	
13C2-PFOA	5.0	521822.9	498501.6	5	50	
13C4-PFOS	4.8	296225.2	283214.2	5	50	
13C2-PFDA	5.0	476146.6	441790.6	8	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1018752.8	13C3-PFBA	907350.5	1.123	5.000	5.009	100	70-130	
E13C5-PFPeA	975339.1	13C3-PFBA	907350.5	1.075	5.000	5.019	100	70-130	
E13C3-PFBS	437838.9	13C3-PFBA	907350.5	0.483	4.650	4.604	99	70-130	
E13C2-4:2-FTS	75119.1	13C2-PFOA	521822.9	0.144	4.670	4.961	106	70-130	
E13C5-PFHxA	728340.5	13C2-PFOA	521822.9	1.396	5.000	5.127	103	70-130	
E13C3-PFHxS	331982.9	13C2-PFOA	521822.9	0.636	4.730	4.986	105	70-130	
E13C4-PFHpA	547365.1	13C2-PFOA	521822.9	1.049	5.000	4.820	96	70-130	
E13C2-6:2-FTS	65543.8	13C2-PFOA	521822.9	0.126	4.750	5.258	111	70-130	
E13C8-PFOA	1030597.9	13C2-PFOA	521822.9	1.975	5.000	5.436	109	70-130	
E13C8-PFOS	318525.4	13C4-PFOS	296225.2	1.075	4.780	4.854	102	70-130	
E13C9-PFNA	659714.7	13C4-PFOS	296225.2	2.227	5.000	4.892	98	70-130	
E13C6-PFDA	855362.9	13C2-PFDA	476146.6	1.796	5.000	5.065	101	70-130	
E13C2-8:2-FTS	58895.0	13C2-PFDA	476146.6	0.124	4.790	5.316	111	70-130	
E13C8-PFOSA	662264.8	13C2-PFDA	476146.6	1.391	5.000	5.104	102	70-130	
Ed3-NMeFOSAA	220597.3	13C2-PFDA	476146.6	0.463	5.000	5.882	118	70-130	
E13C7-PFUnDA	587155.4	13C2-PFDA	476146.6	1.233	5.000	5.212	104	70-130	
Ed5-NEtFOSAA	127543.5	13C2-PFDA	476146.6	0.268	5.000	4.772	95	70-130	
E13C2-PFDoDA	1173339.1	13C2-PFDA	476146.6	2.464	5.000	5.178	104	70-130	
Ed7-NMePFOSAE	281912.7	13C2-PFDA	476146.6	0.592	5.000	5.117	102	70-130	
Ed3-NMePFOSA	85678.0	13C2-PFDA	476146.6	0.180	5.000	4.870	97	70-130	
Ed9-NEtPFOSAE	226256.0	13C2-PFDA	476146.6	0.475	5.000	4.818	96	70-130	
Ed5-NEtPFOSA	70050.4	13C2-PFDA	476146.6	0.147	5.000	5.112	102	70-130	
E13C2-PFTeDA	873945.6	13C2-PFDA	476146.6	1.835	5.000	5.079	102	70-130	

APPROVED

By MCD at 5:00 pm, 11/28/18

REVIEWED

By HMK at 12:21 pm, 11/29/18

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL1

Instrument Name: LM27631

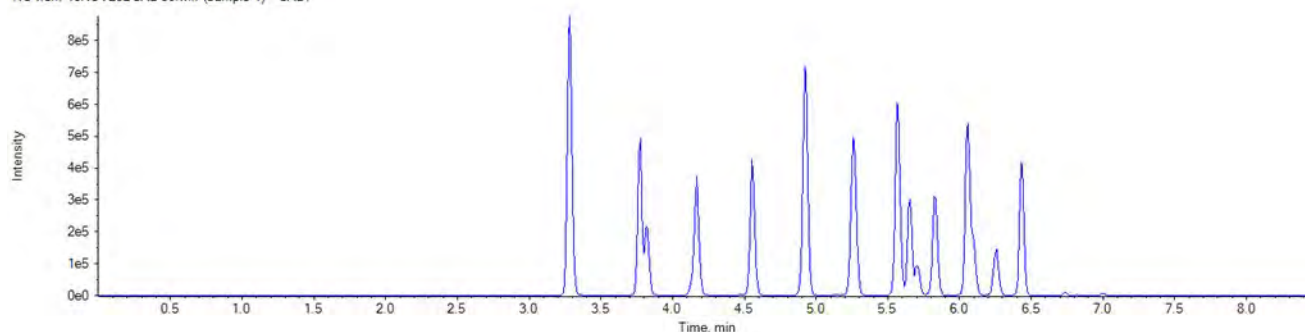
File Name: 18NOV28DCAL-06.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	43996.2		A	13C4-PFBA	3.28	1018752.8	0.043	0.237
PFPeA	3.77	1.000	44706.1		A	13C5-PFPeA	3.77	975339.1	0.046	0.225
PFBS	3.82	1.000	17465.3		A	13C3-PFBS	3.82	437838.9	0.040	0.194
4:2-FTS	4.13	1.000	5603.9		A	13C2-4:2-FTS	4.13	75119.1	0.075	0.200
PFHxA	4.17	1.000	42281.8		A	13C5-PFHxA	4.17	728340.5	0.058	0.233
PFPeS	4.19	1.100	8956.0		A	13C3-PFBS	3.82	437838.9	0.020	0.207
PFHpA	4.56	1.000	42530.6		A	13C4-PFHpA	4.55	547365.1	0.078	0.240
PFHxS	4.56	1.000	12830.8		M	13C3-PFHxS	4.56	331982.9	0.039	0.181
6:2-FTS	4.91	1.000	5676.8		A	13C2-6:2-FTS	4.91	65543.8	0.087	0.226
PFHpS	4.92	1.080	13921.8		A	13C3-PFHxS	4.56	331982.9	0.042	0.209
PFOA	4.93	1.000	42517.4		A	13C8-PFOA	4.92	1030597.9	0.041	0.213
PFOS	5.25	1.000	13060.0		M	13C8-PFOS	5.25	318525.4	0.041	0.172
PFNA	5.27	1.000	39485.1		A	13C9-PFNA	5.27	659714.7	0.060	0.229
PFNS	5.55	1.060	9756.6		A	13C8-PFOS	5.25	318525.4	0.031	0.193
PFDA	5.57	1.000	33621.2		A	13C6-PFDA	5.57	855362.9	0.039	0.222
8:2-FTS	5.57	1.000	6138.7		A	13C2-8:2-FTS	5.57	58895.0	0.104	0.197
PFOSA	5.65	1.000	27693.0		A	13C8-PFOSA	5.65	662264.8	0.042	0.212
NMeFOSAA	5.71	1.000	6661.0		M	d3-NMeFOSAA	5.71	220597.3	0.030	0.193
PFDS	5.81	1.110	6850.7		A	13C8-PFOS	5.25	318525.4	0.022	0.171
PFUnDA	5.82	1.000	36428.0		A	13C7-PFUnDA	5.83	587155.4	0.062	0.222
NEtFOSAA	5.85	1.000	5069.2		M	d5-NEtFOSAA	5.84	127543.5	0.040	0.194
PFDODA	6.06	1.000	53386.6		A	13C2-PFDODA	6.06	1173339.1	0.045	0.249
10:2-FTS	6.07	1.090	5717.7		A	13C2-8:2-FTS	5.57	58895.0	0.097	0.214
NMePFOSAE	6.10	1.000	13889.2		A	d7-NMePFOSAE	6.09	281912.7	0.049	0.207
NMePFOSA	6.11	1.000	3274.2		A	d3-NMePFOSA	6.11	85678.0	0.038	0.203
PFDoS	6.23	1.190	4012.1		A	13C8-PFOS	5.25	318525.4	0.013	0.181
NEtPFOSAE	6.26	1.000	15402.7		A	d9-NEtPFOSAE	6.25	226256.0	0.068	0.245
NEtPFOSA	6.27	1.000	3384.4		A	d5-NEtPFOSA	6.27	70050.4	0.048	0.217
PFTrDA	6.26	1.030	48537.6		A	13C2-PFDODA	6.06	1173339.1	0.041	0.249
PFTeDA	6.43	1.000	34099.2		A	13C2-PFTeDA	6.43	873945.6	0.039	0.221
PFHxDA	6.74	1.050	19206.4		A	13C2-PFTeDA	6.43	873945.6	0.022	0.251
PFODA	7.00	1.090	14378.0		A	13C2-PFTeDA	6.43	873945.6	0.016	0.219

Total Ion Chromatogram

TIC from 18NOV28DCAL-06.wiff (sample 1) - CAL1



APPROVED

By MCD at 5:00 pm, 11/28/18

BSI14 Page 1347 of 2132

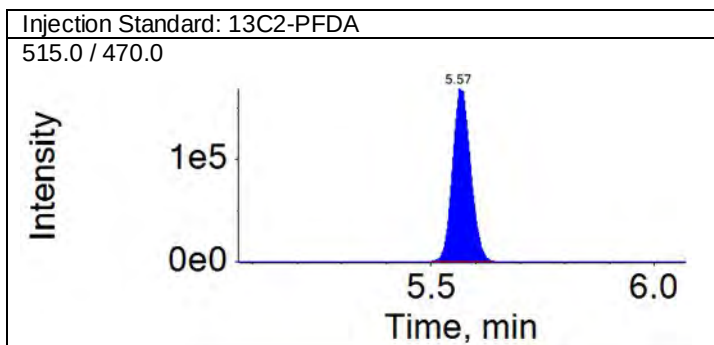
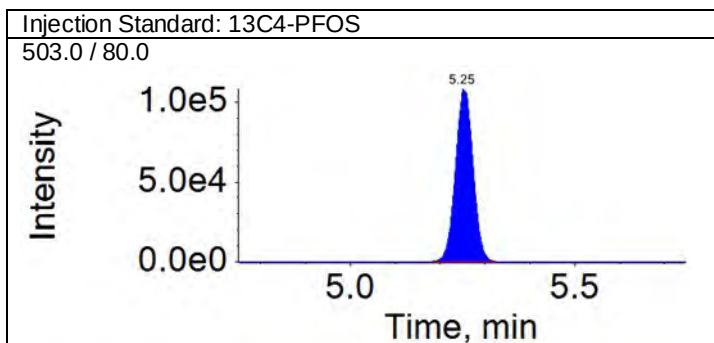
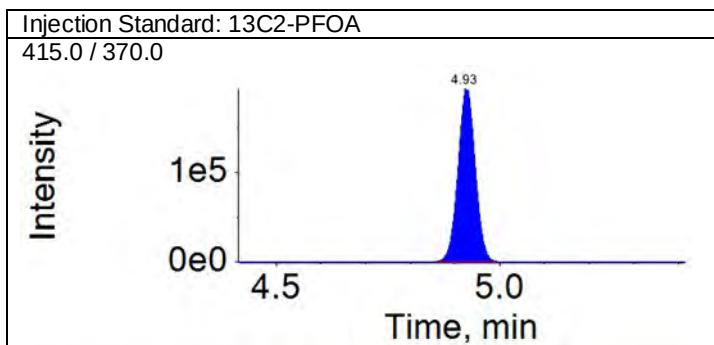
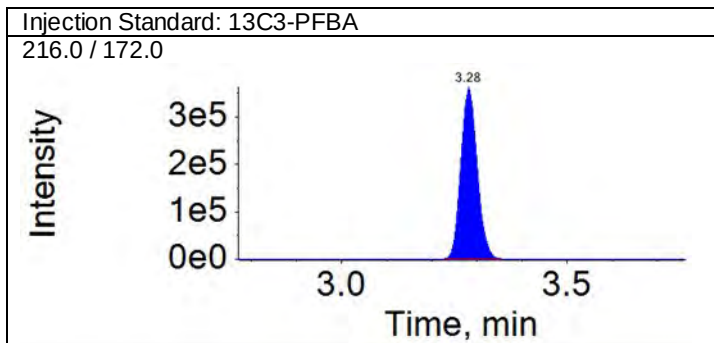
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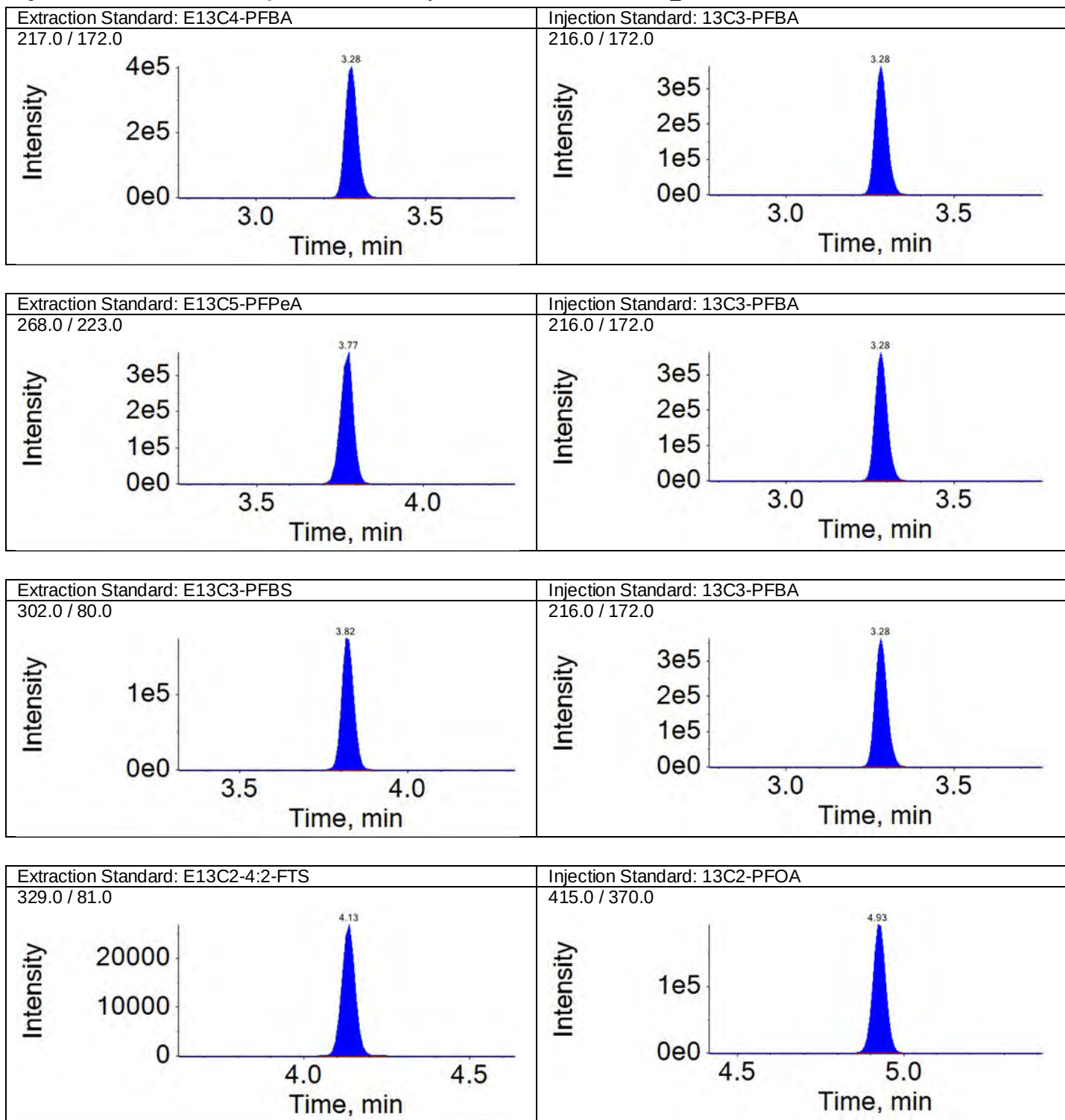
By HMK at 12:21 pm, 11/29/18

Page 2 of 17

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

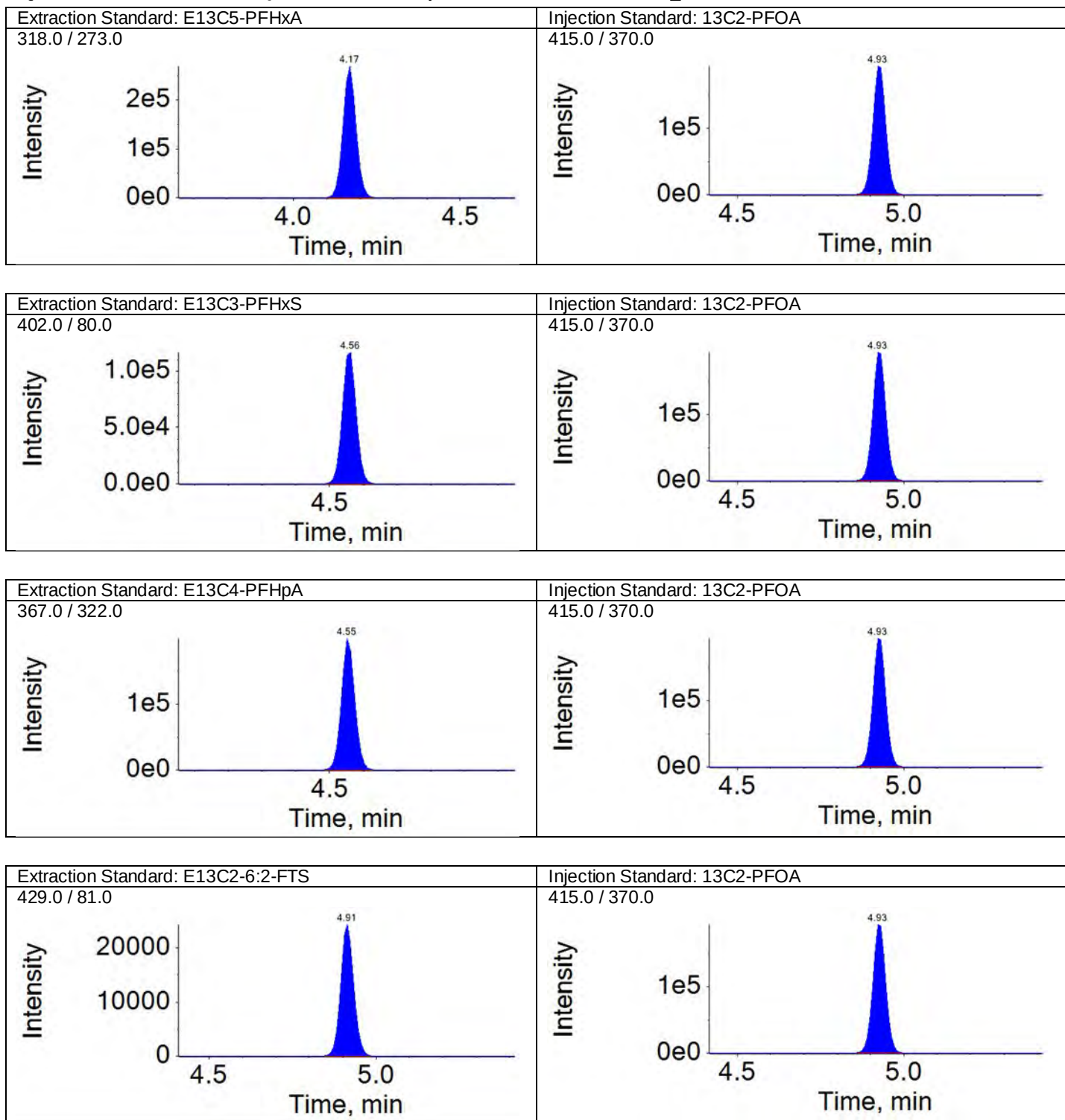
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

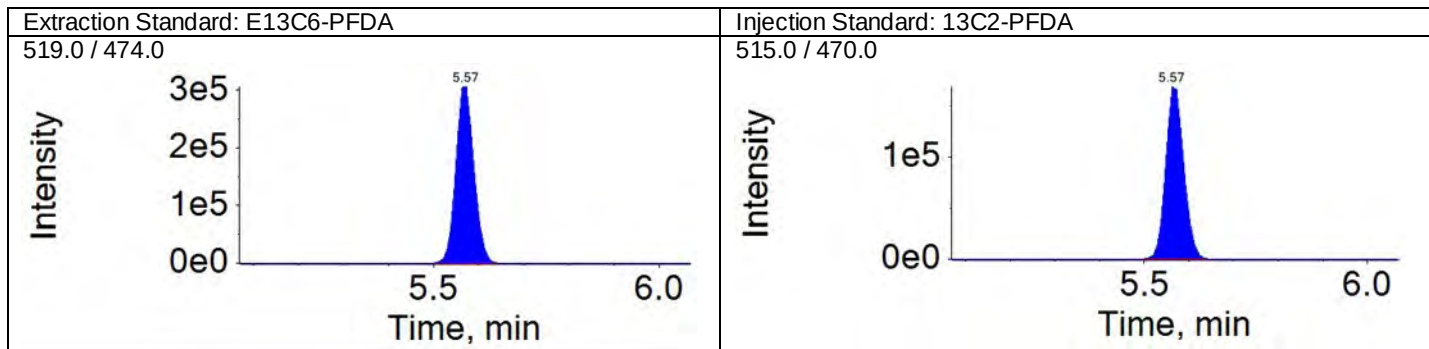
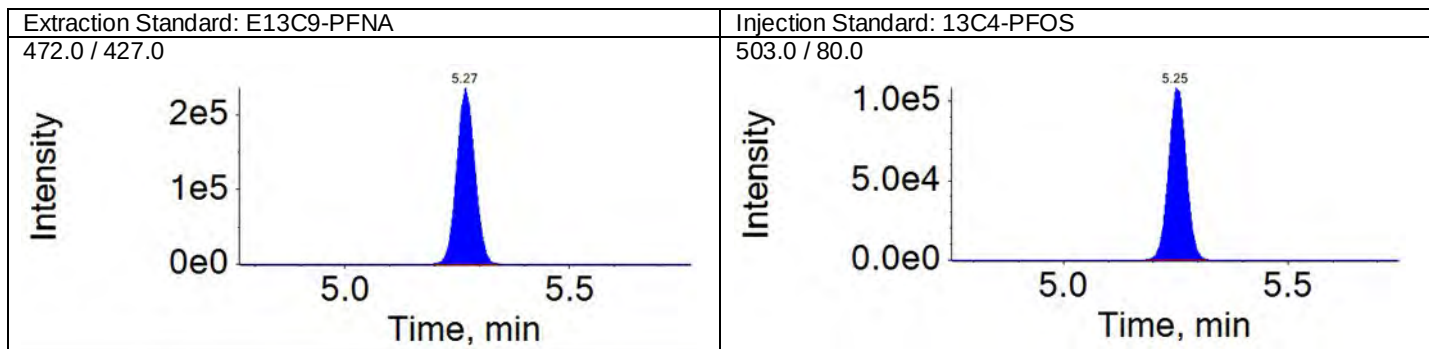
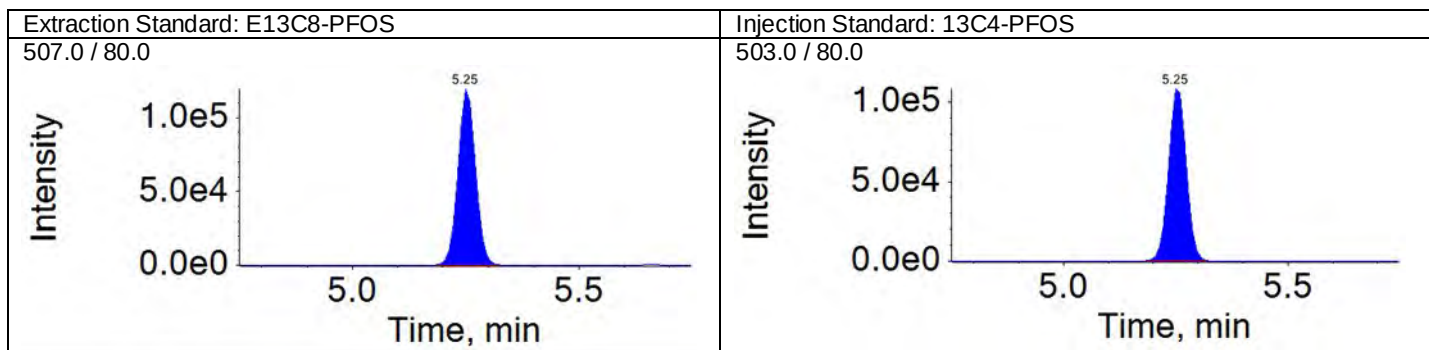
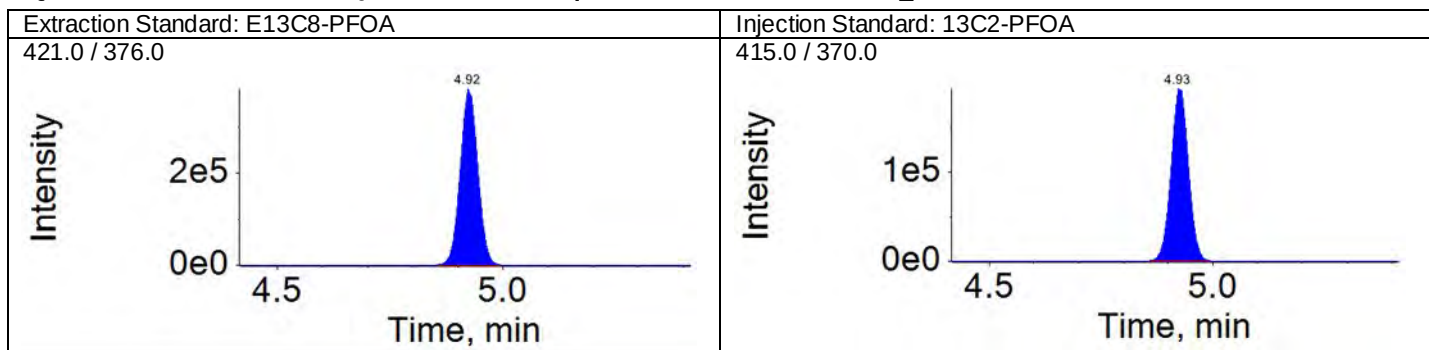
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



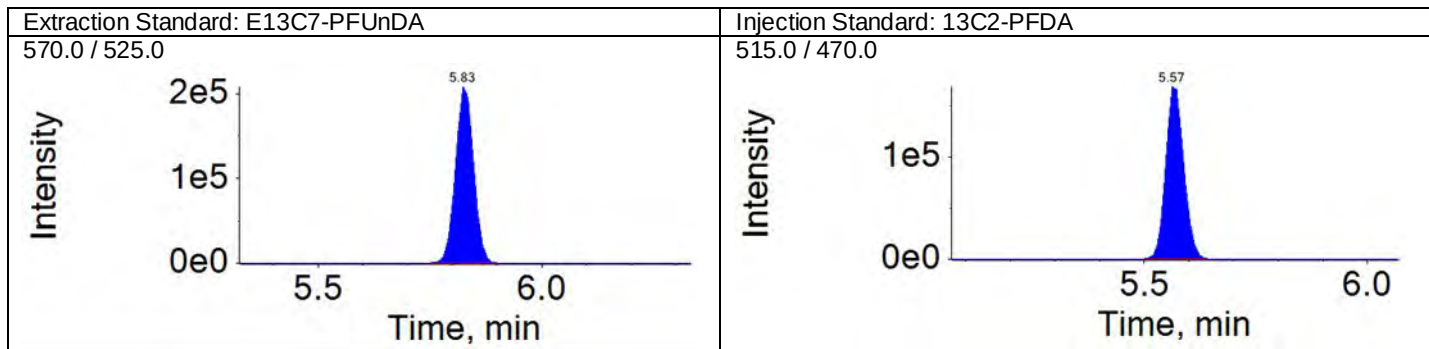
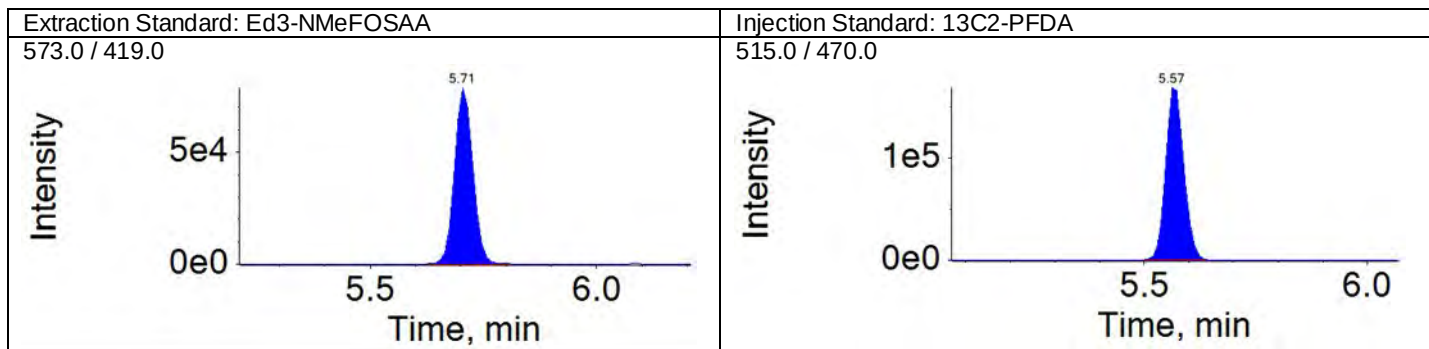
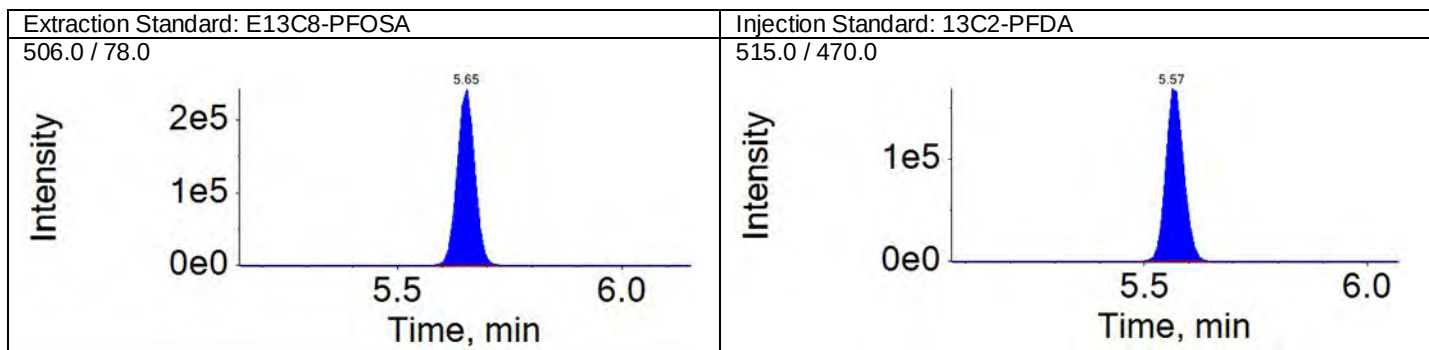
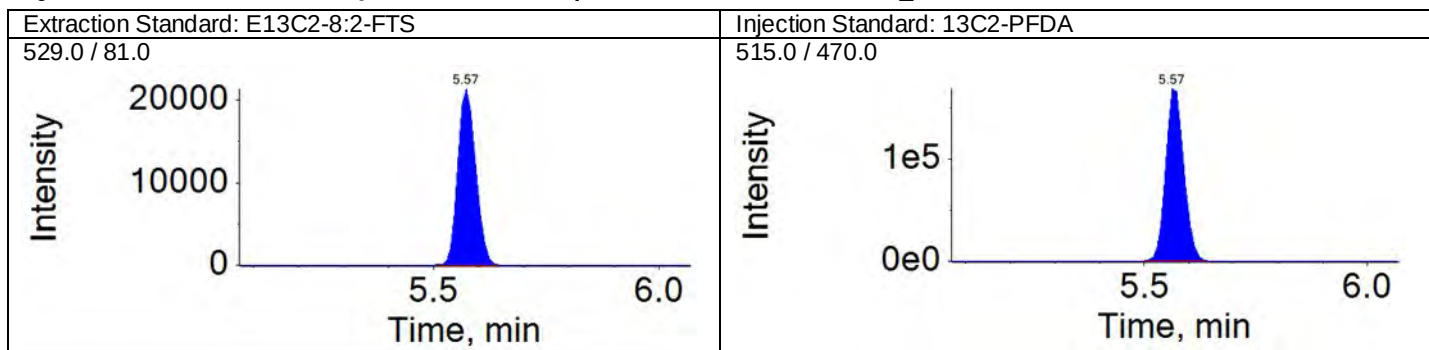
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



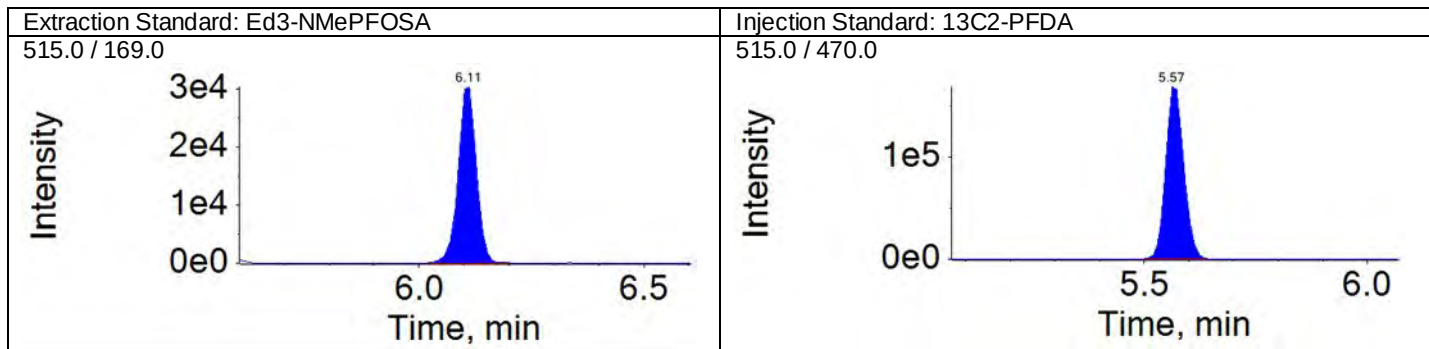
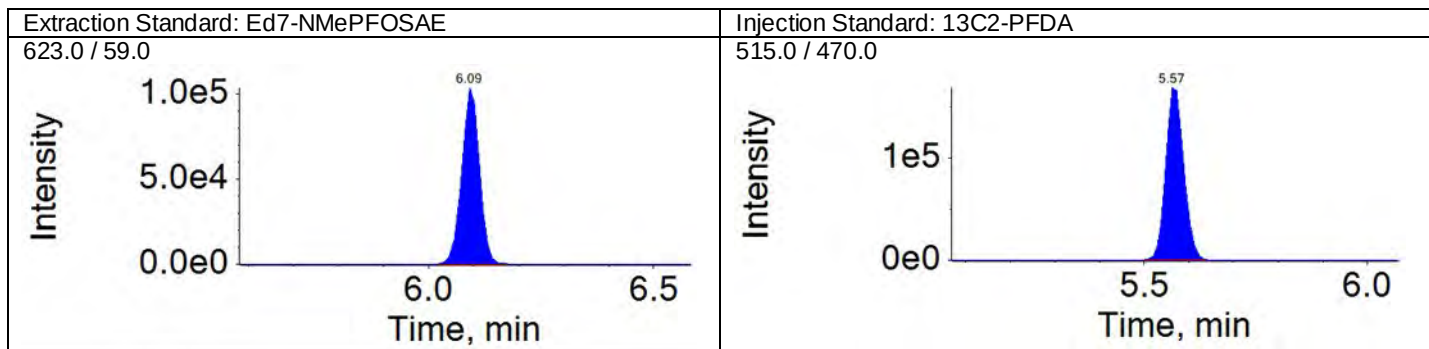
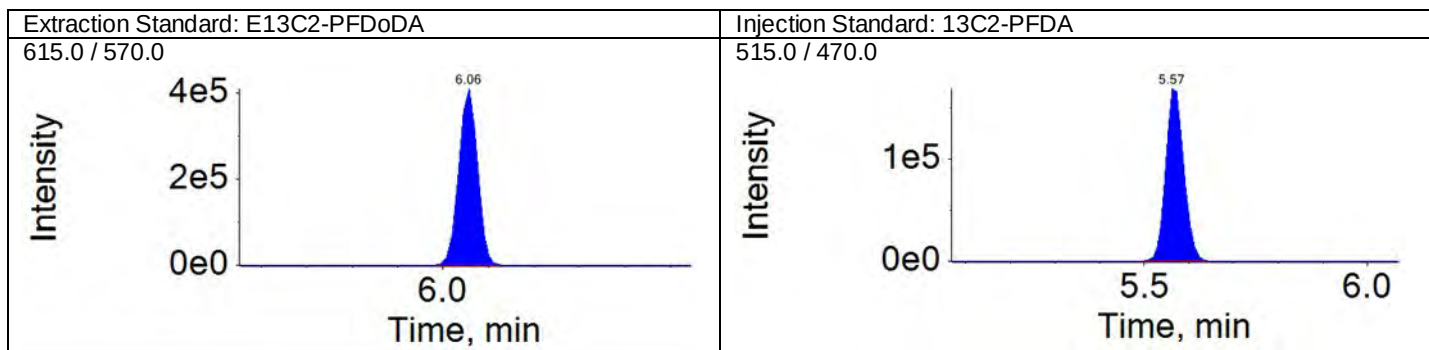
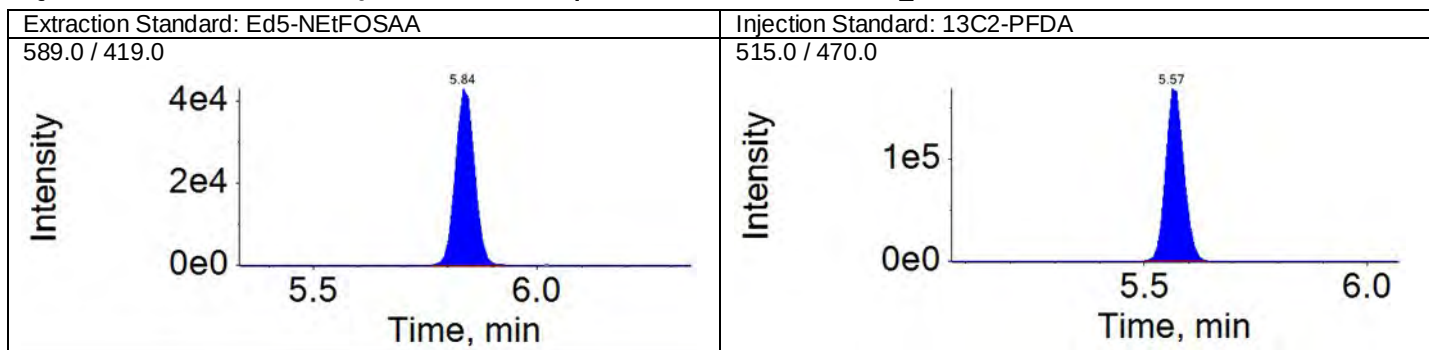
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



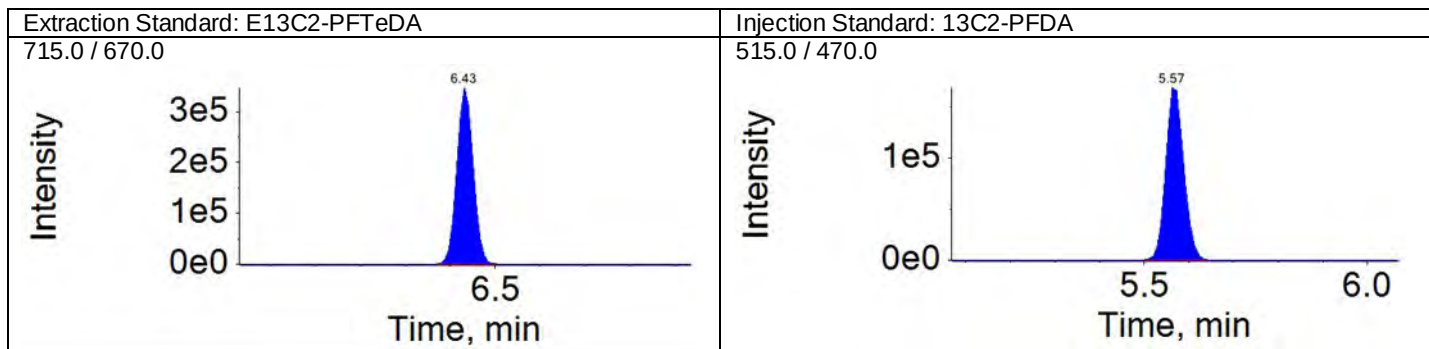
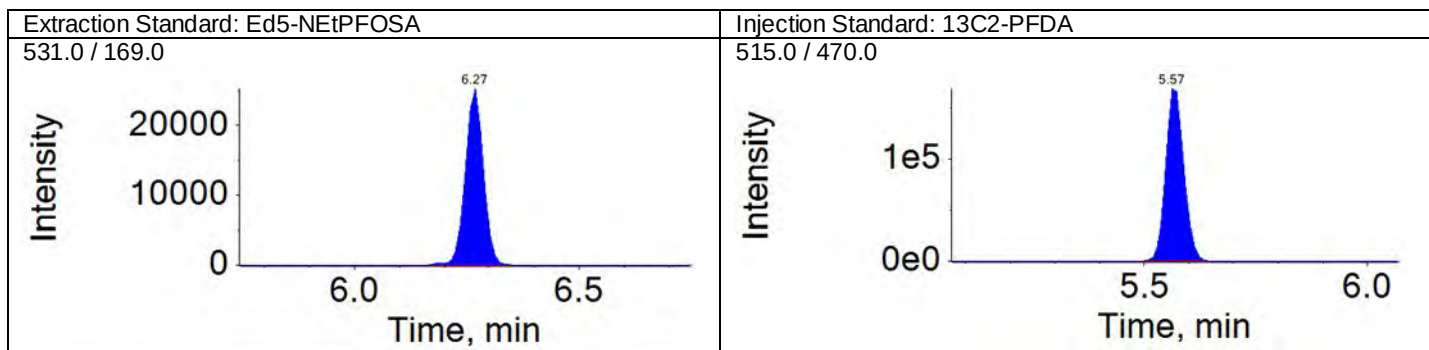
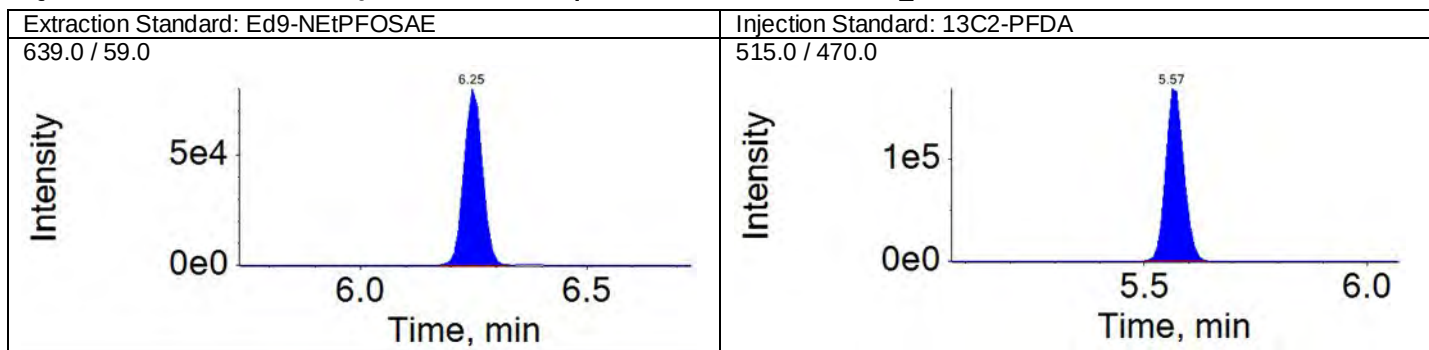
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



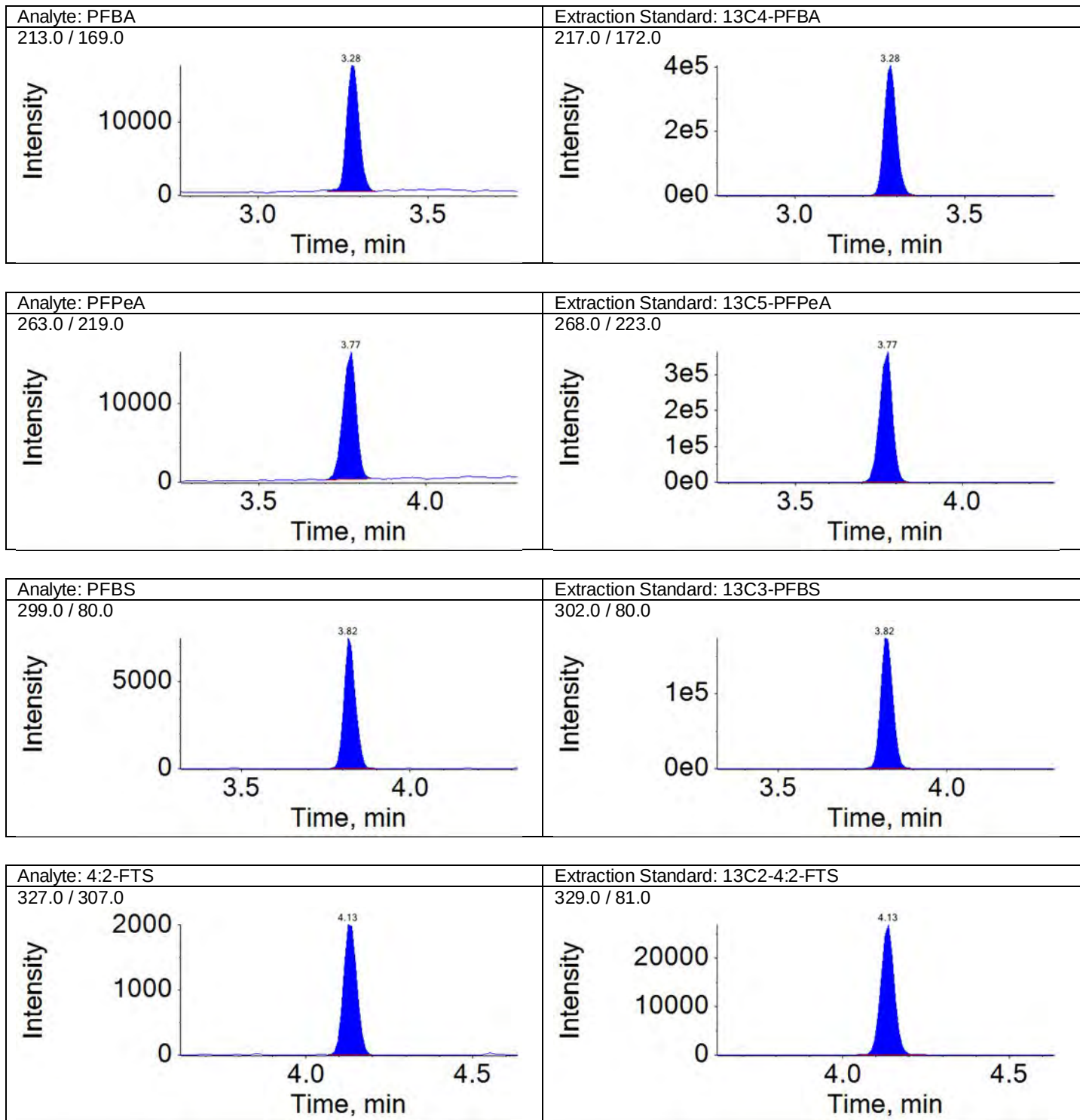
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



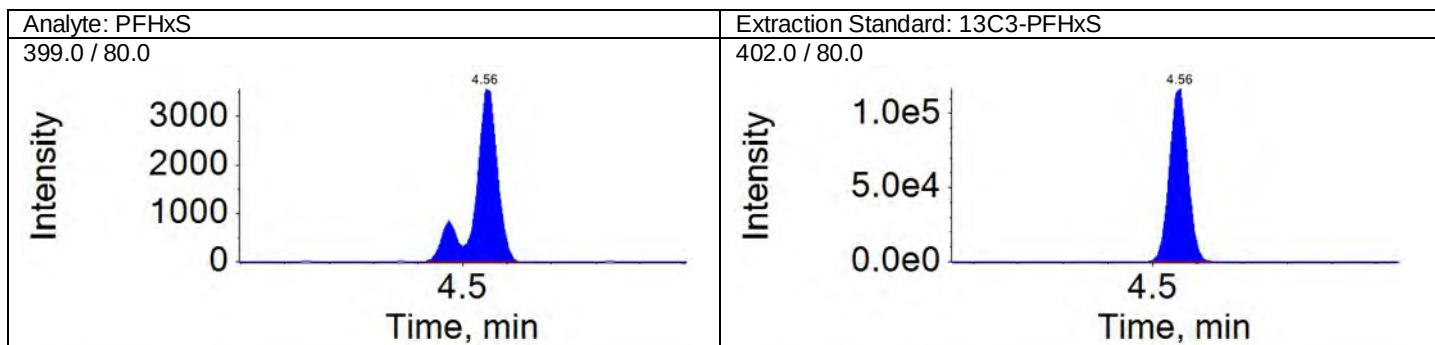
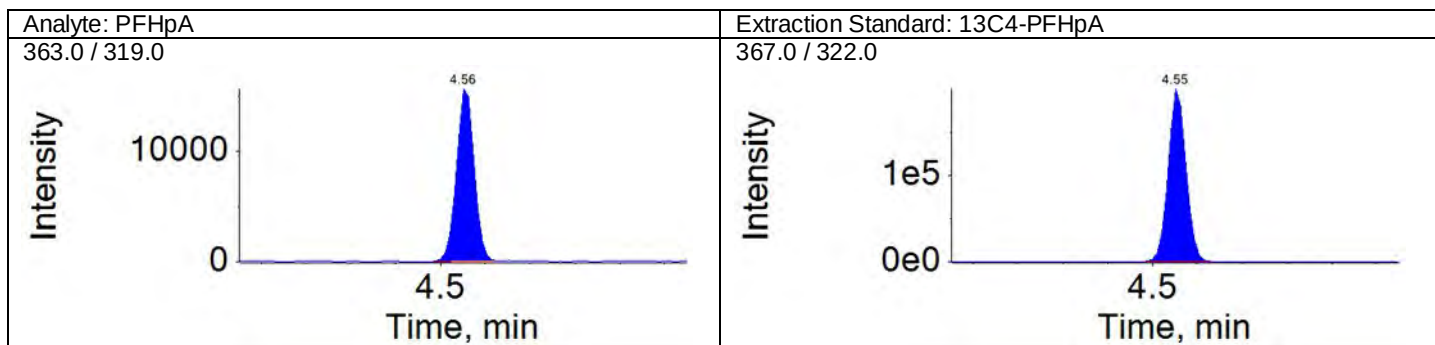
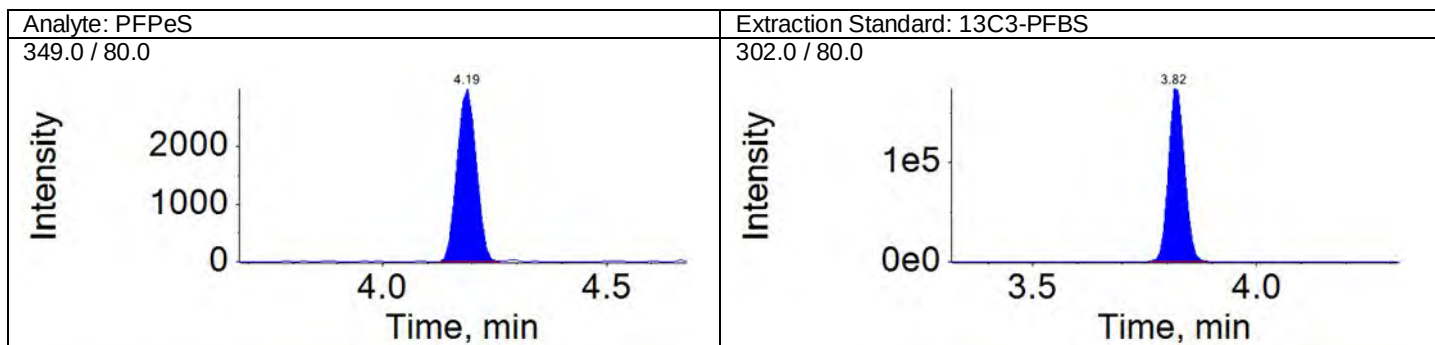
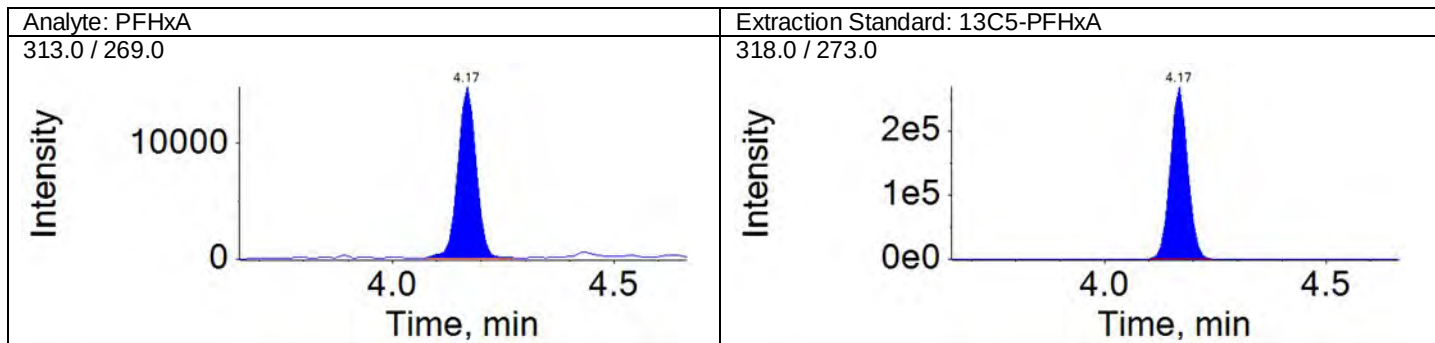
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



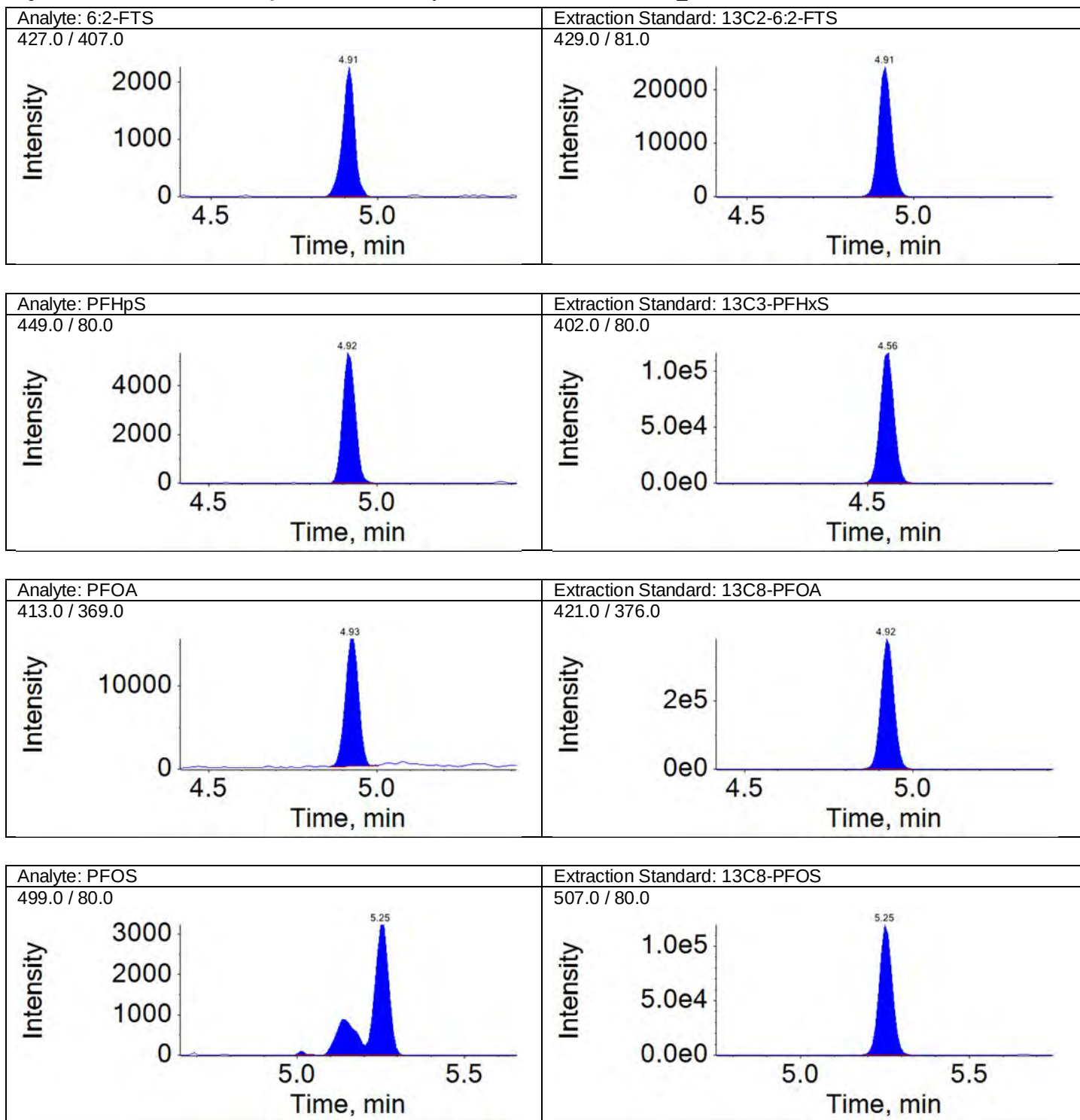
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Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



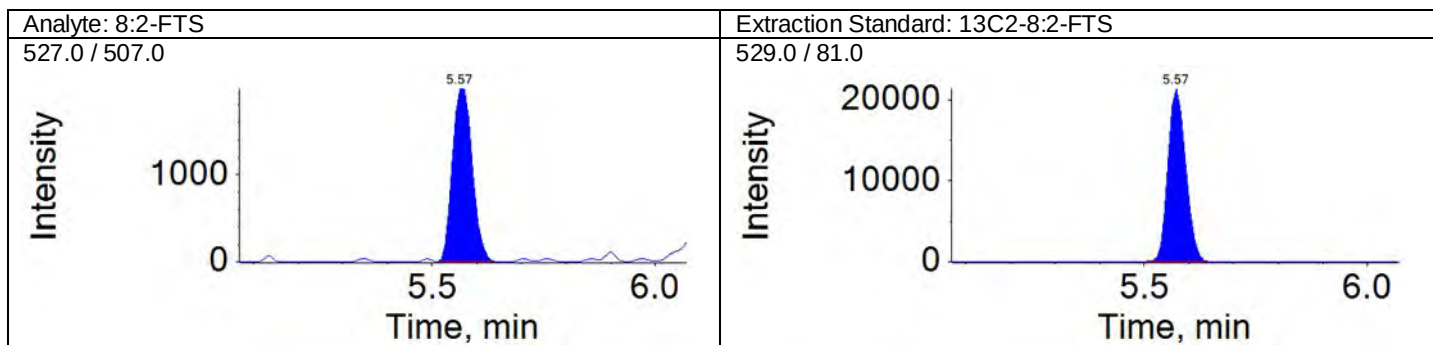
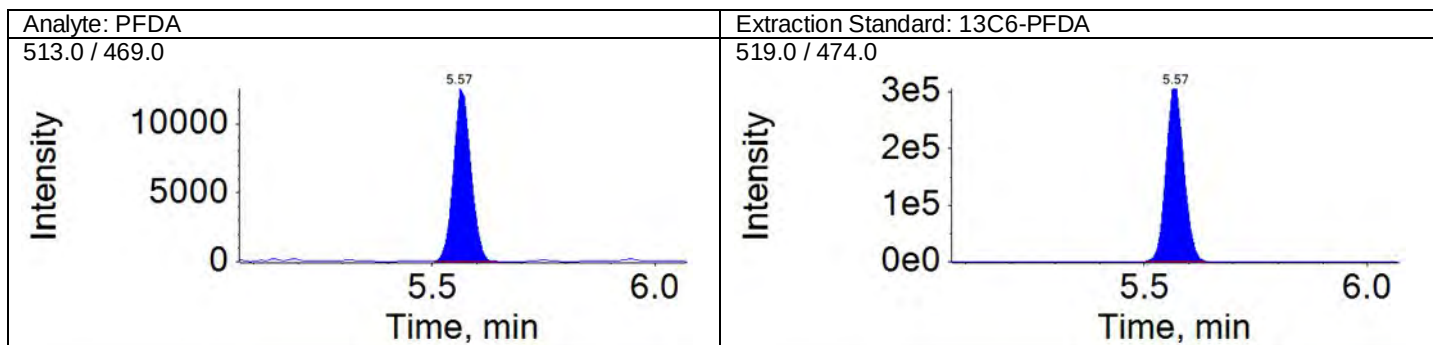
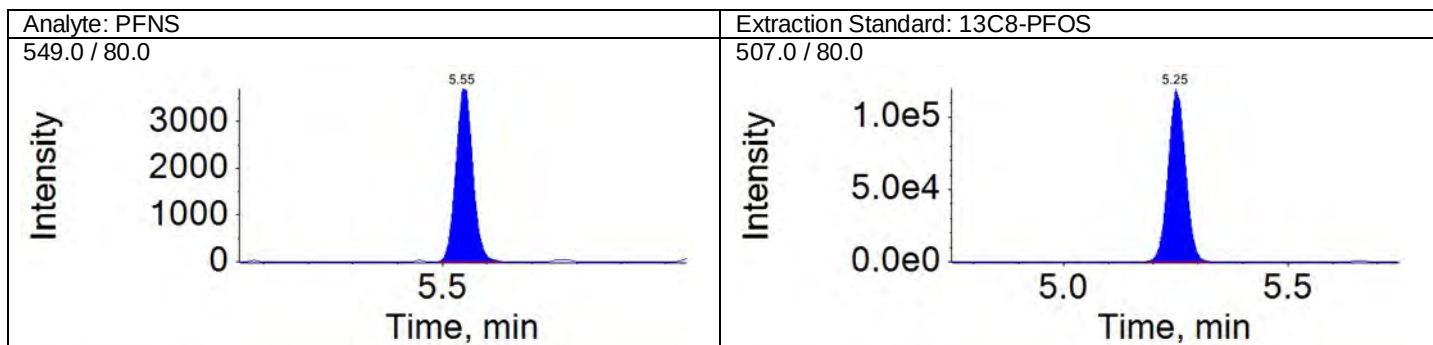
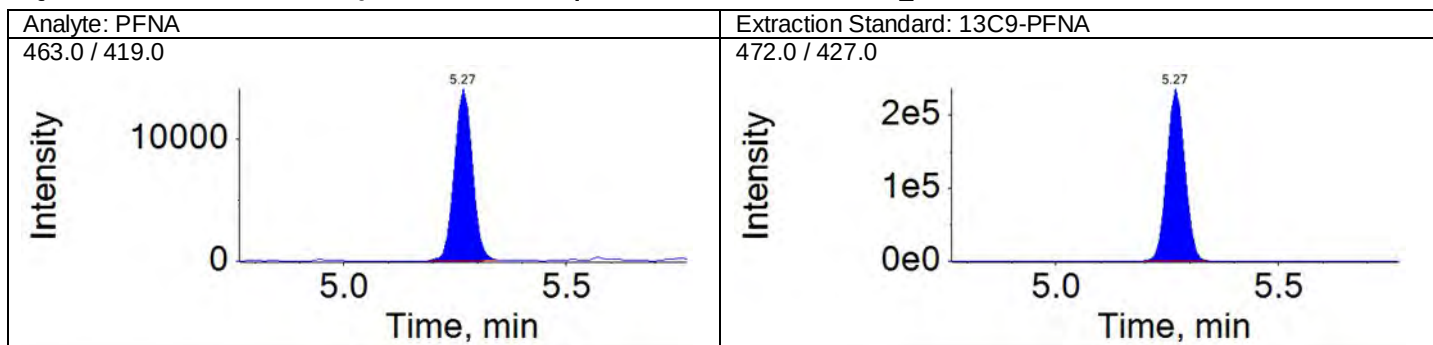
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



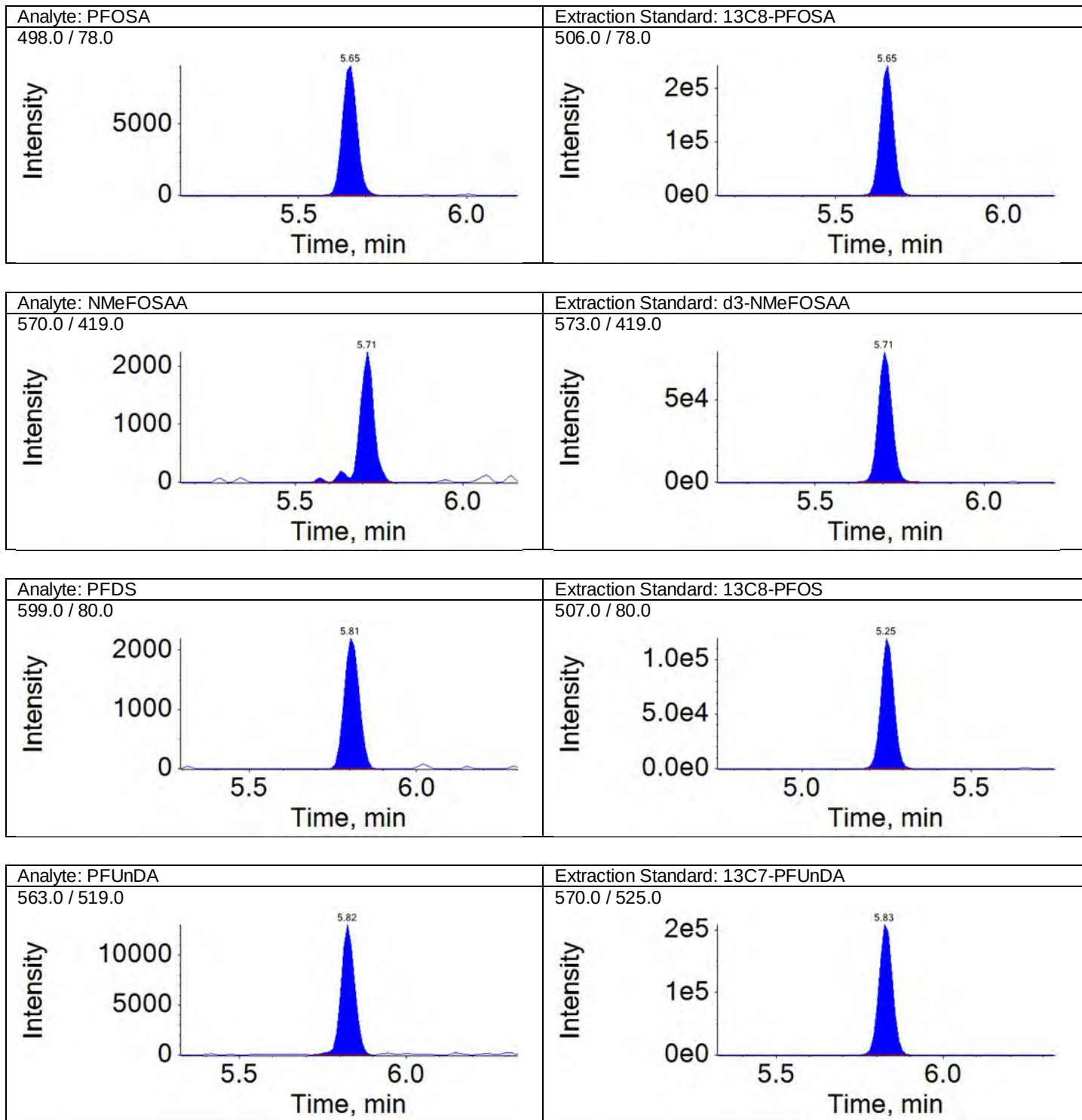
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



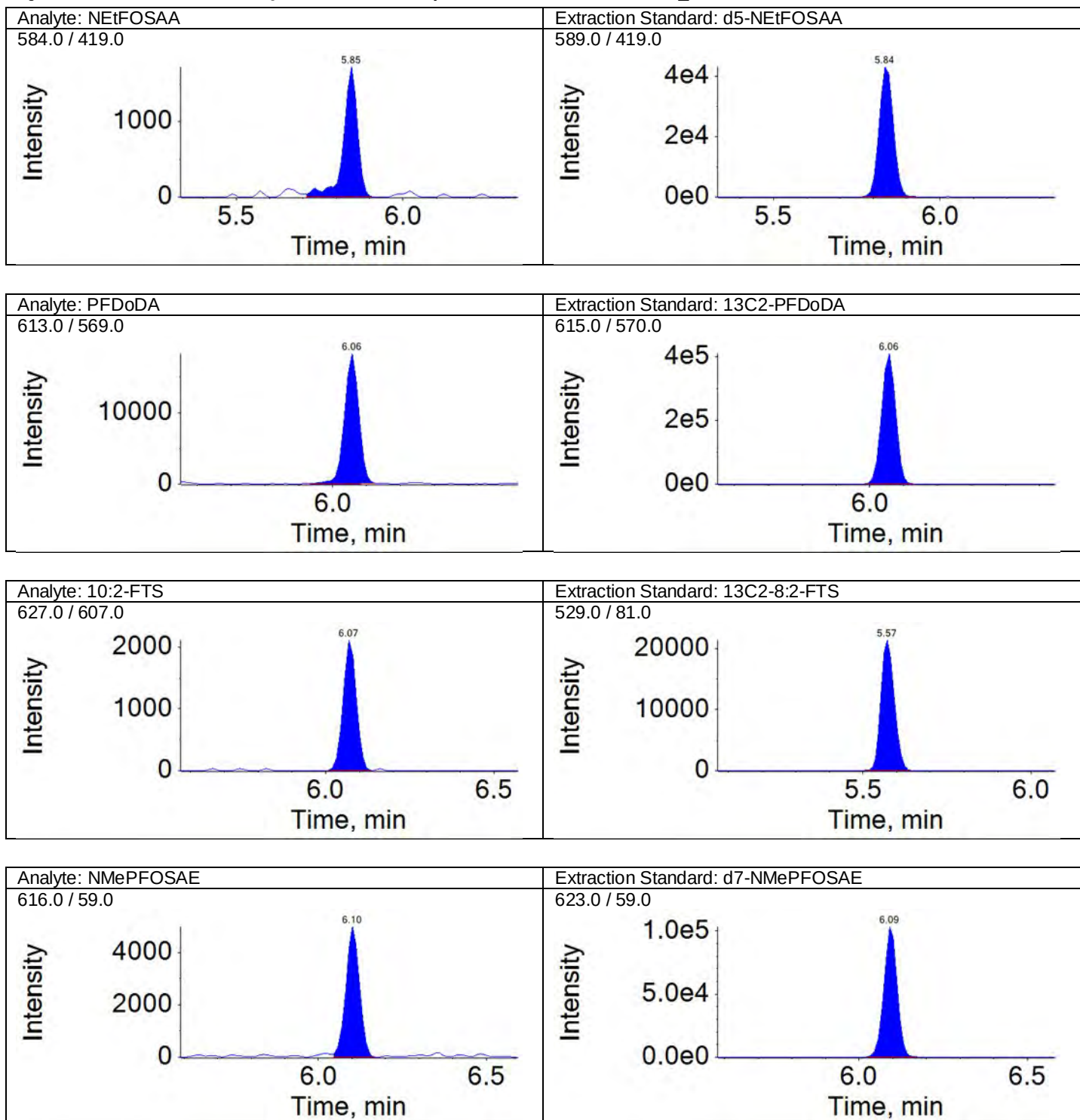
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QMethod Name: 18AUG20QM

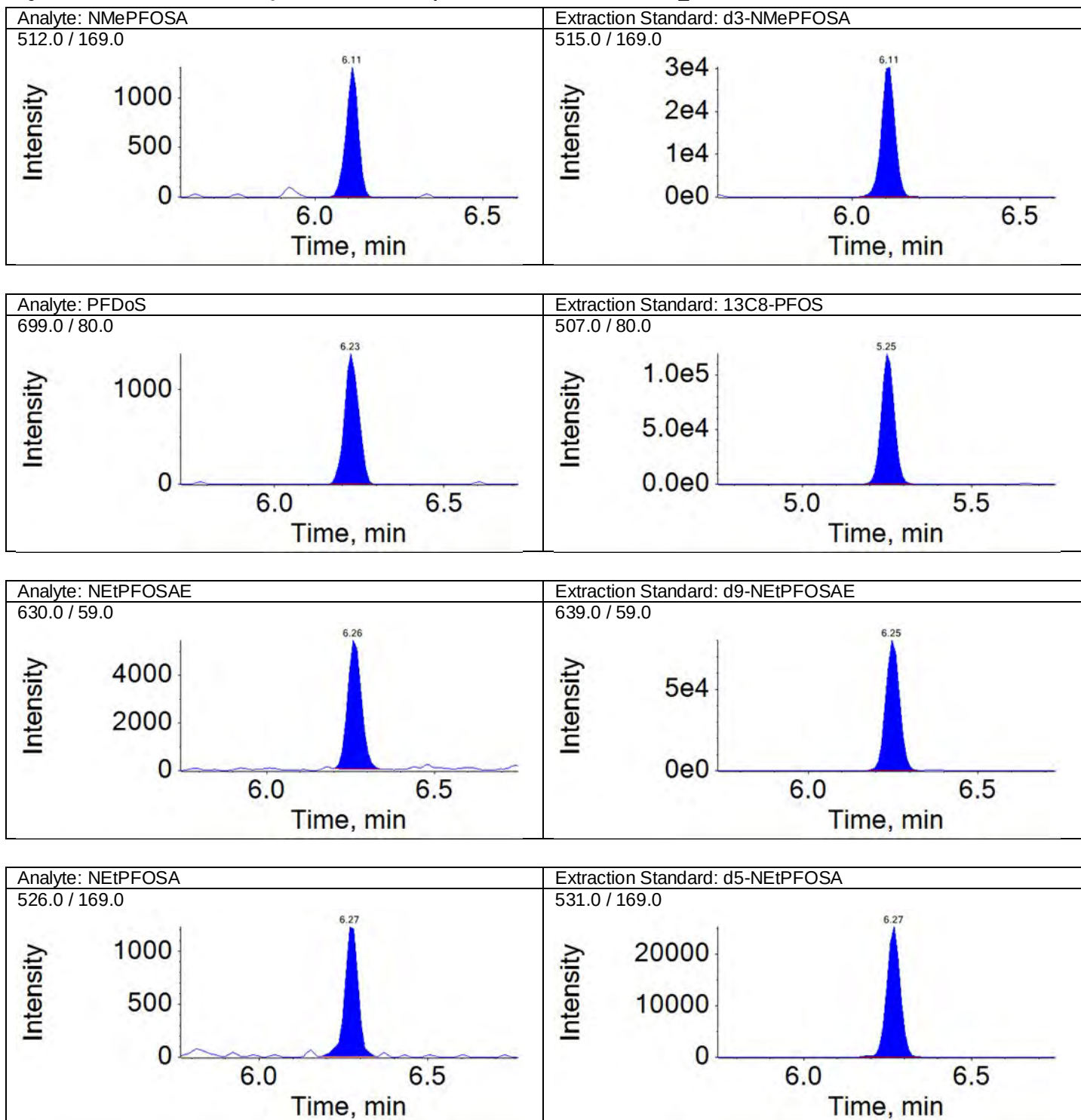
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

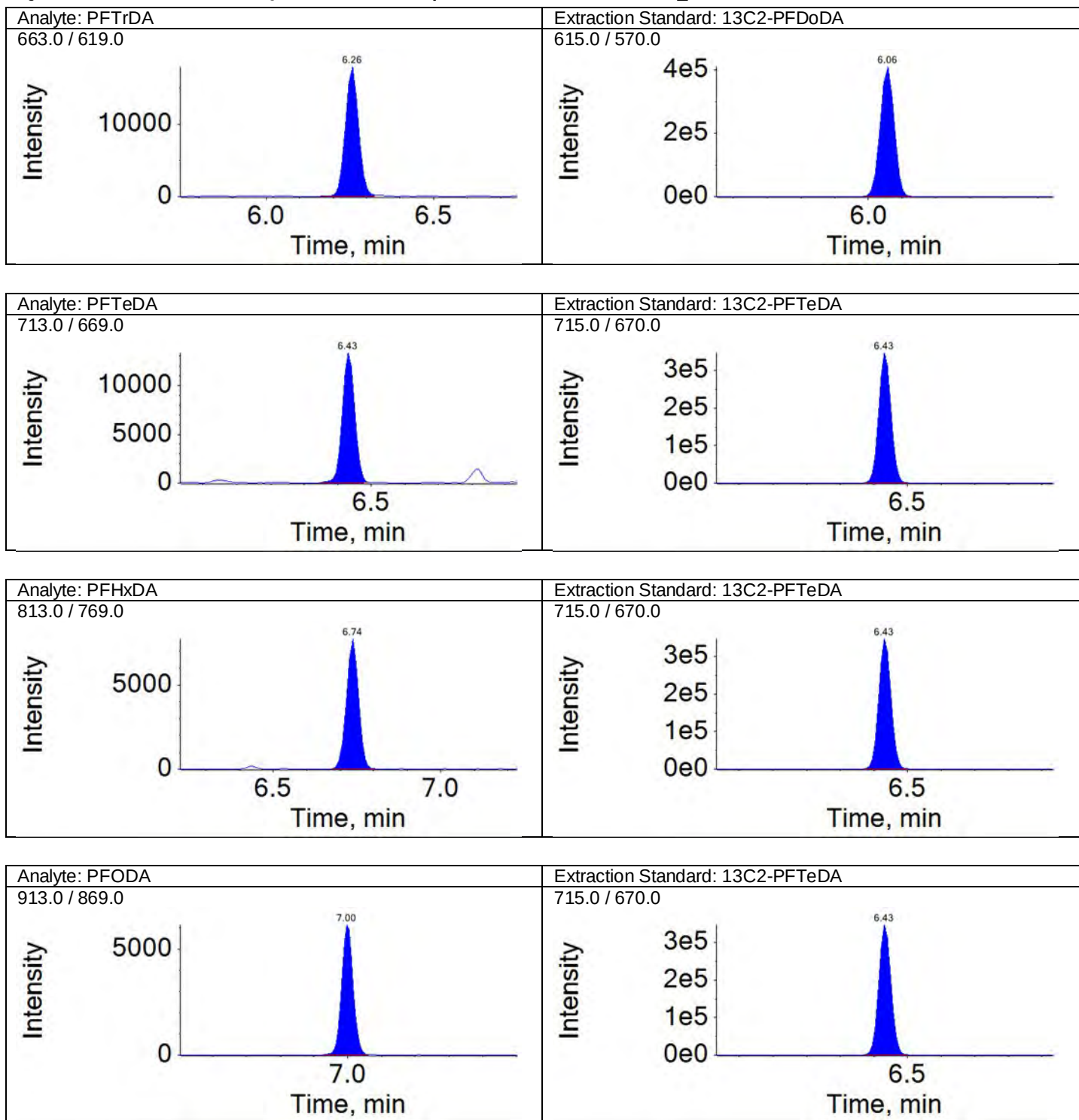
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

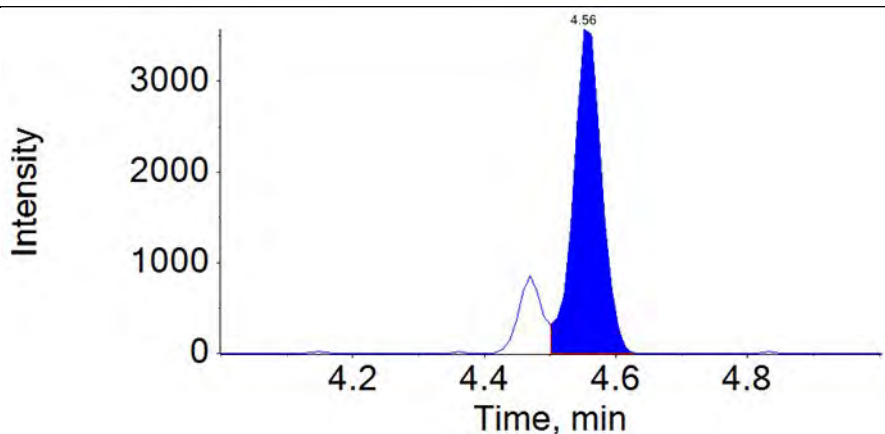
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Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

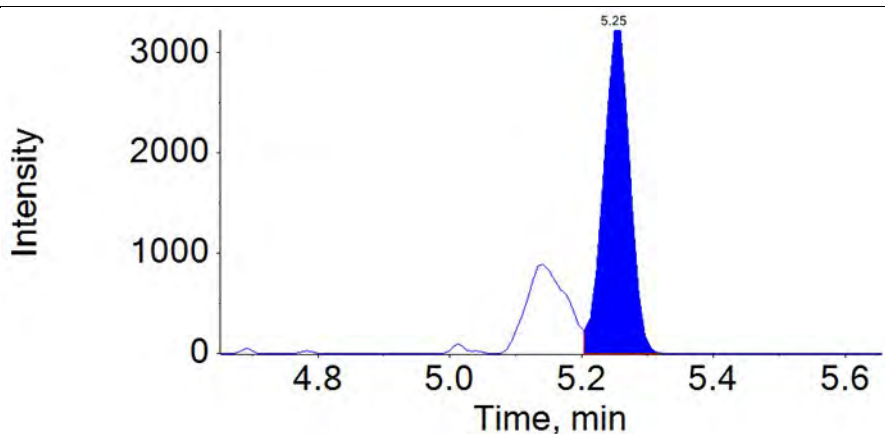
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
10746.52
Mass Range:
399.0 / 80.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



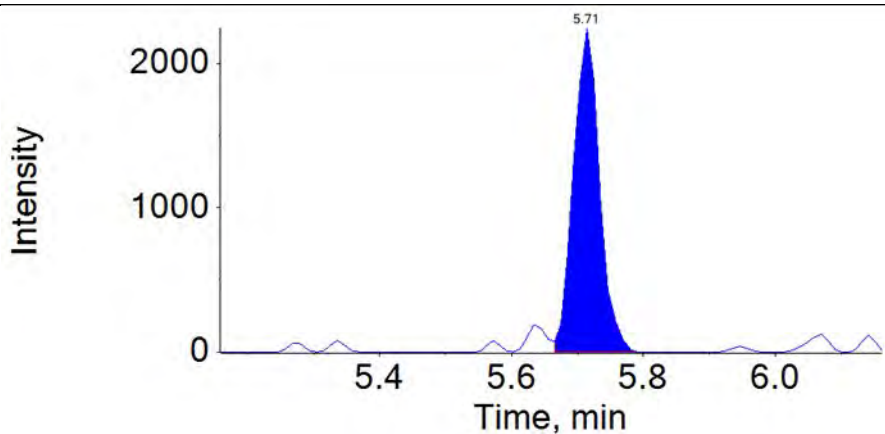
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.25
Peak Area:
9112.28
Mass Range:
499.0 / 80.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
6150.80
Mass Range:
570.0 / 419.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1

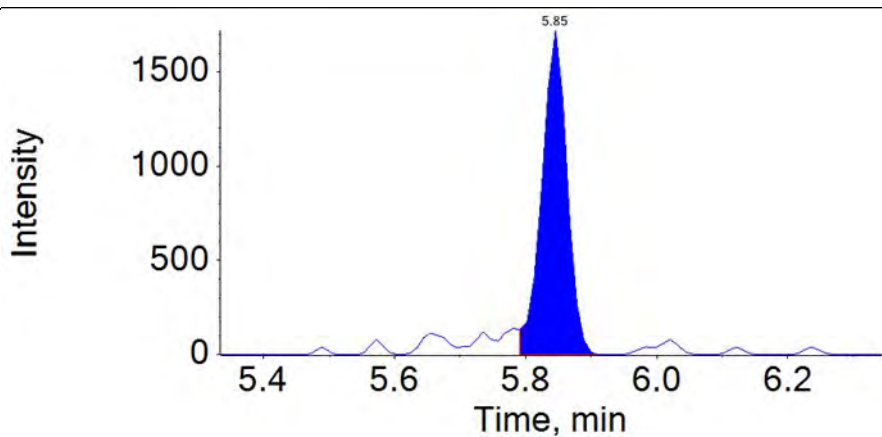


Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

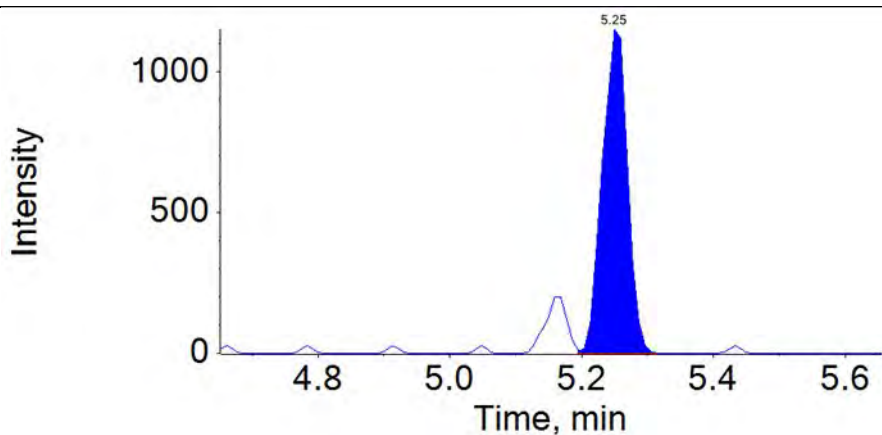
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA
RT (min.):
5.85
Peak Area:
4598.18
Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



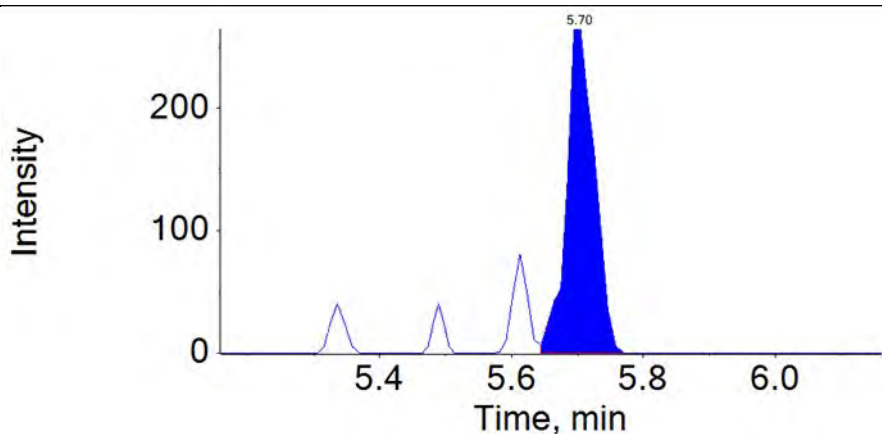
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
3075.05
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
797.95
Mass Range:
570.0 / 483.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1

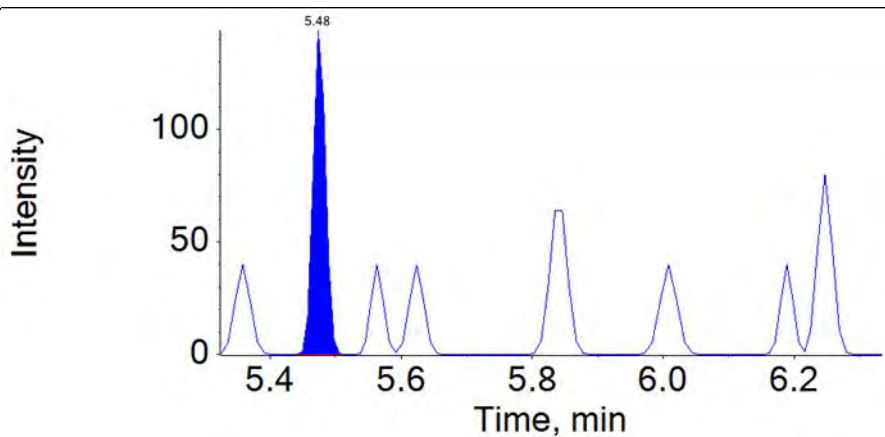


Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

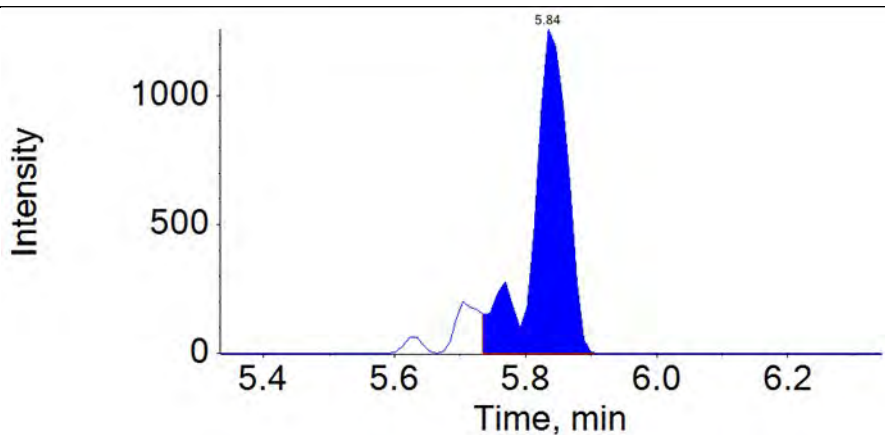
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFUnDA_2
RT (min.):
5.48
Peak Area:
191.73
Mass Range:
563.0 / 169.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



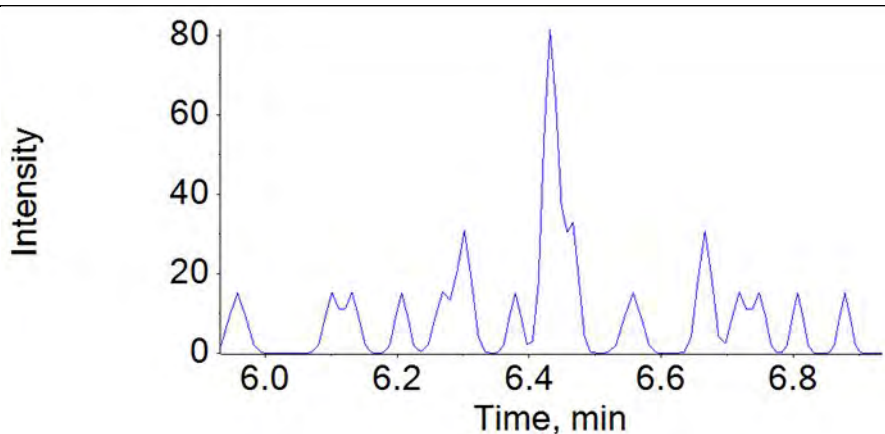
Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
4606.52
Mass Range:
584.0 / 526.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Component Name:
PFTeDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
713.0 / 169.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1

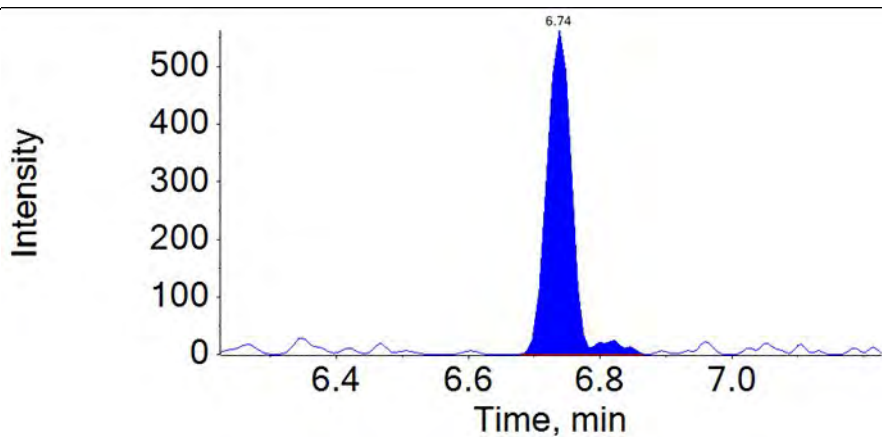


Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxDA_2
RT (min.):
6.74
Peak Area:
1494.10
Mass Range:
813.0 / 169.0
File Name:
18NOV28DCAL-06.wiff
Sample Name:
CAL1



Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 5:00 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

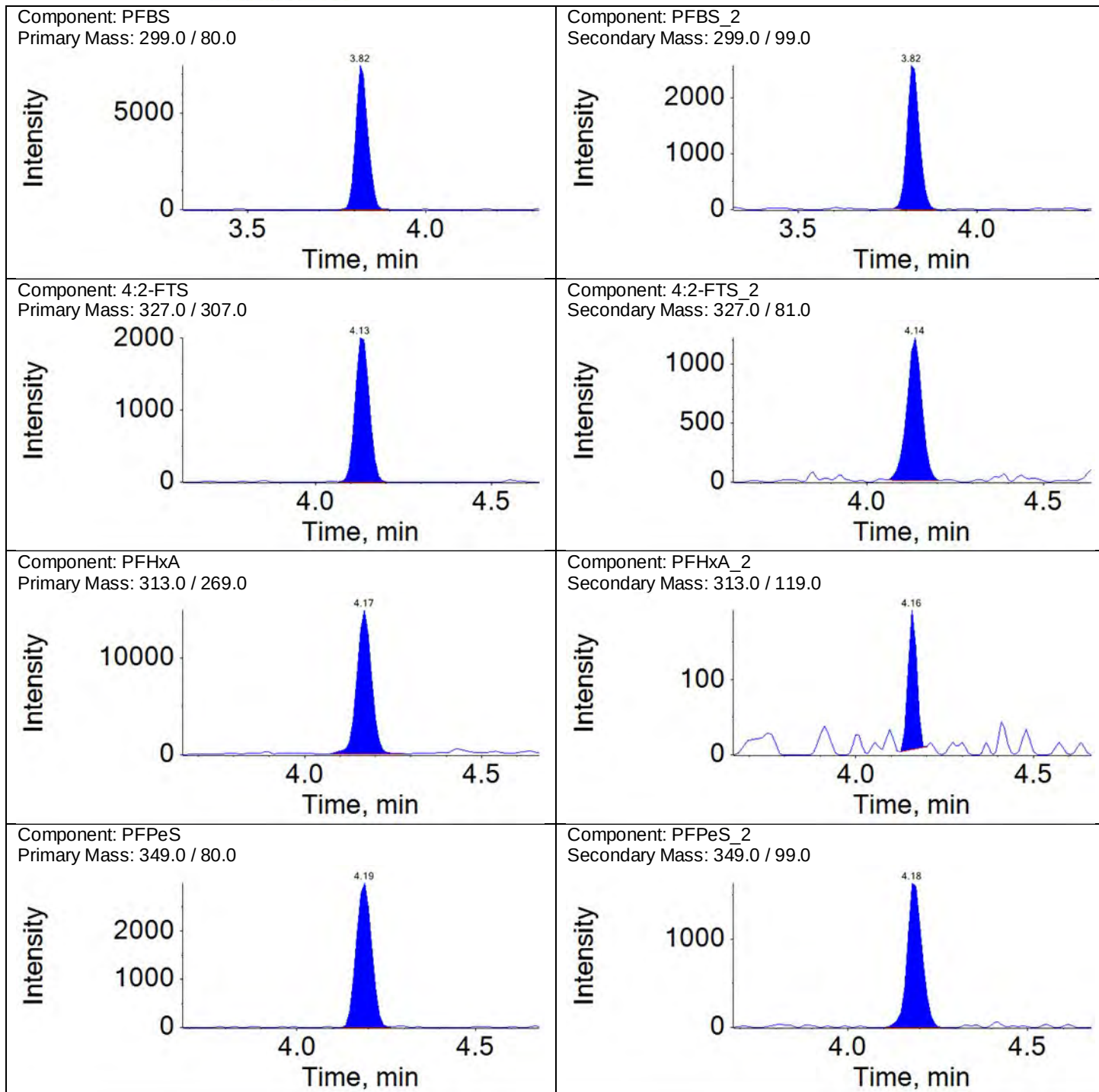
Ion Ratio Report

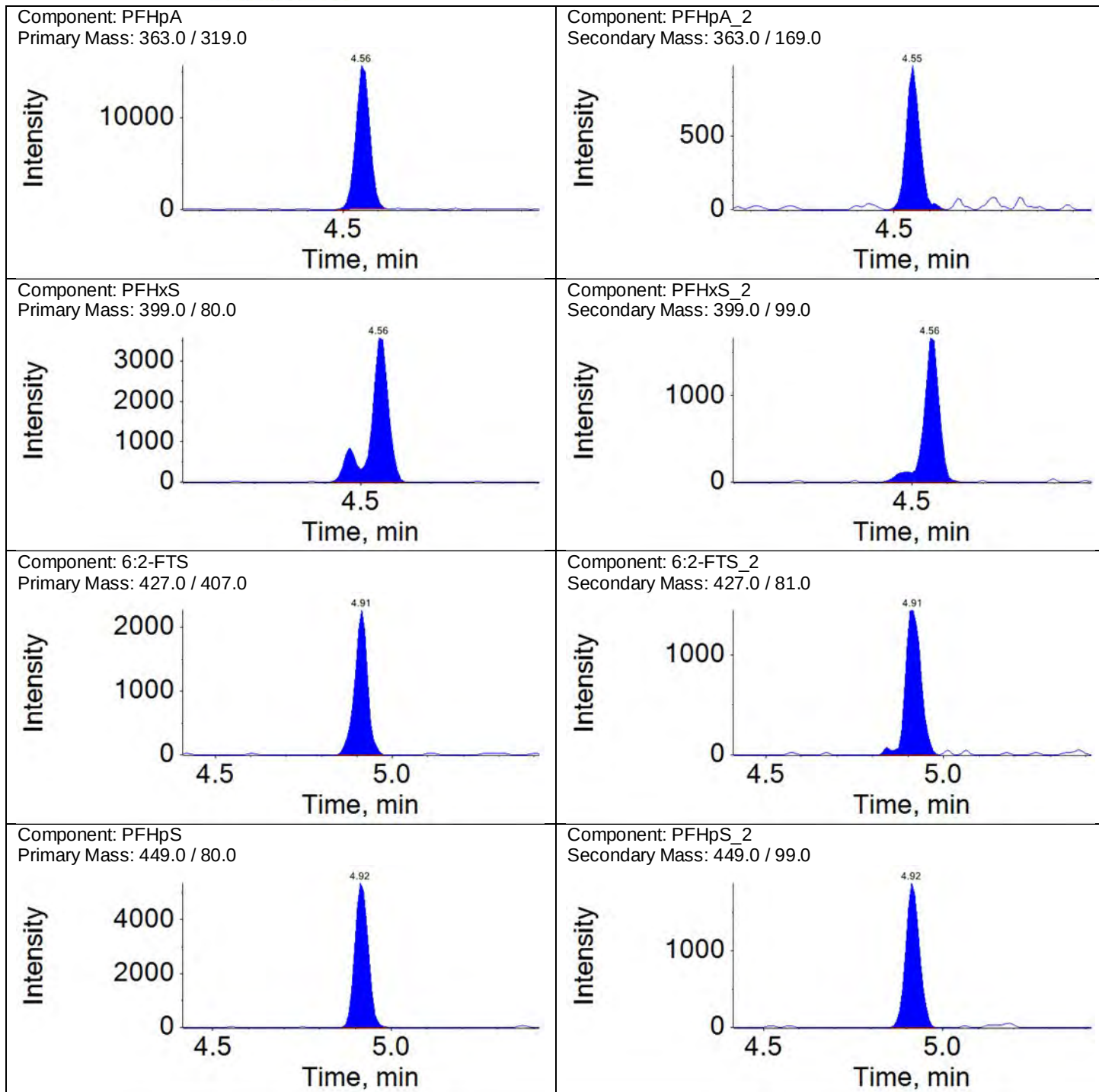
Sample Name: CAL1

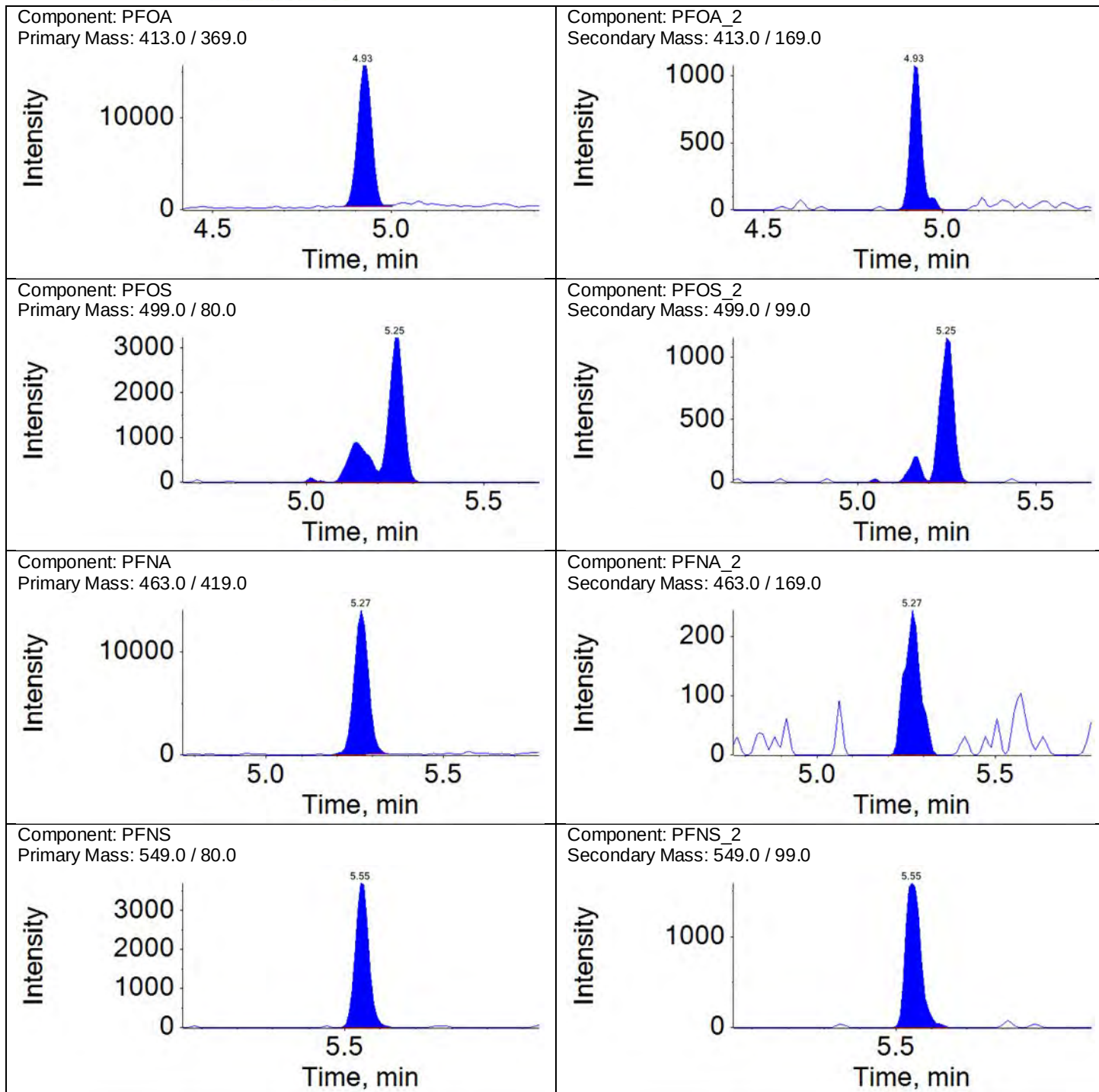
Instrument Name: LM27631

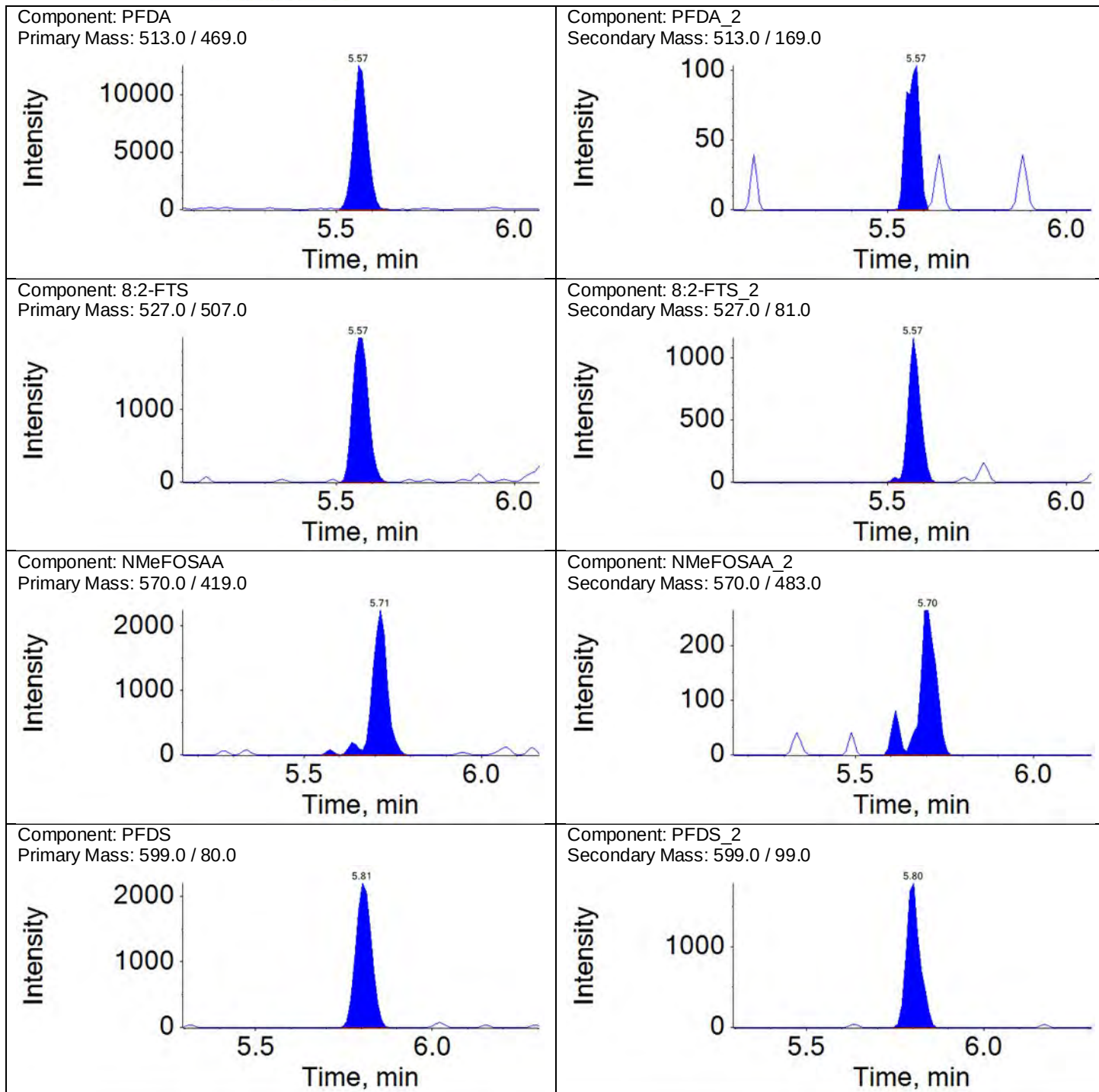
File Name: 18NOV28DCAL-06.wiff

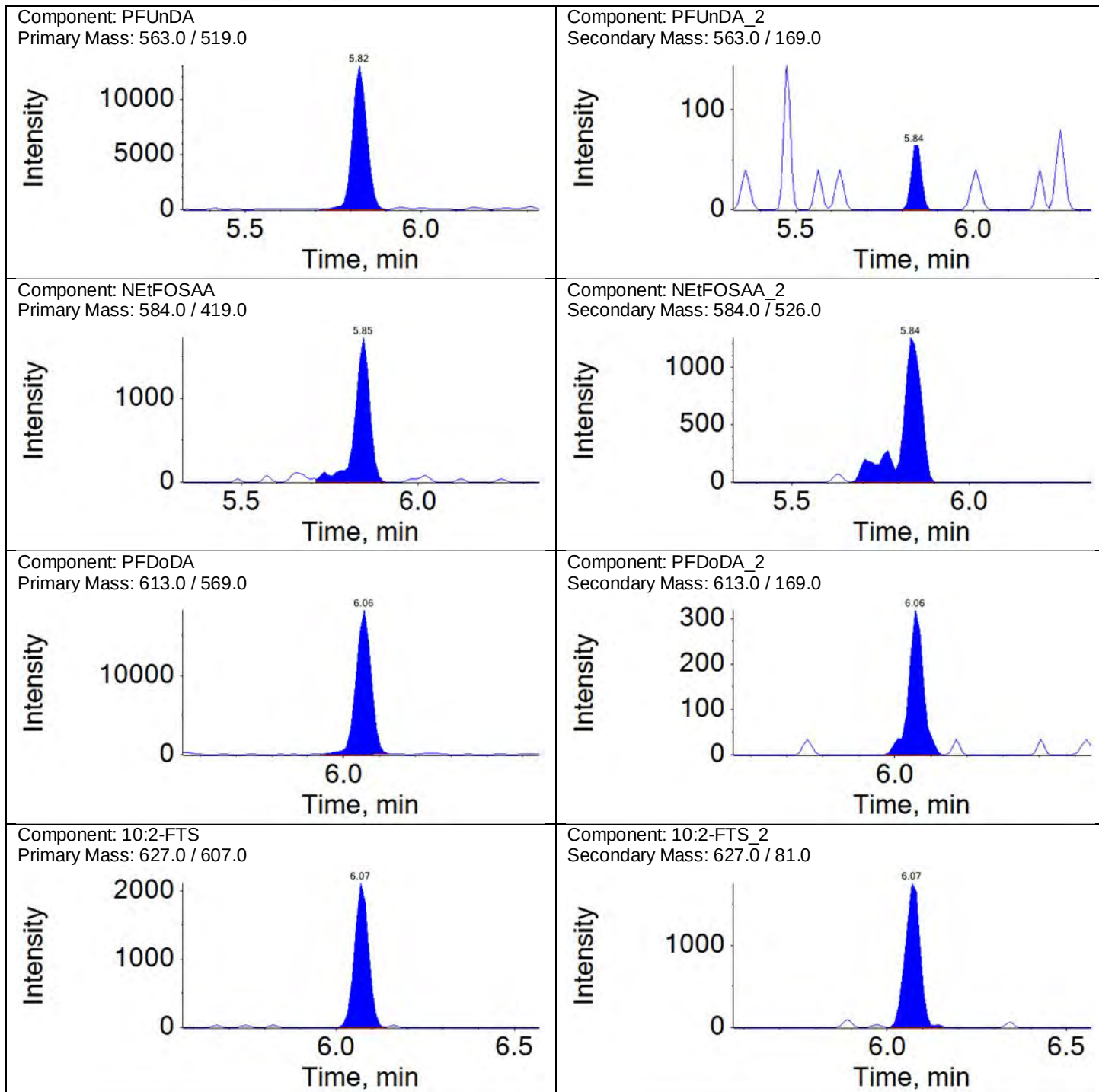
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	17465.33	A	0.3655	0.3500			
PFBS_2	3.82	1.00	6112.35	A	0.3655	0.3500	-4	50	
4:2-FTS	4.13	1.00	5603.85	A	0.6383	0.6370			
4:2-FTS_2	4.14	1.00	3569.81	A	0.6383	0.6370	0	50	
PFHxA	4.17	1.00	42281.82	A	0.0103	0.0074			
PFHxA_2	4.16	1.00	313.30	A	0.0103	0.0074	-28	50	
PFPeS	4.19	1.10	8955.98	A	0.4976	0.5230			
PFPeS_2	4.18	1.10	4684.40	A	0.4976	0.5230	5	50	
PFHpA	4.56	1.00	42530.61	A	0.0557	0.0604			
PFHpA_2	4.55	1.00	2568.03	A	0.0557	0.0604	8	50	
PFHxS	4.56	1.00	12830.81	M	0.3693	0.3957			
PFHxS_2	4.56	1.00	5077.16	A	0.3693	0.3957	7	50	
6:2-FTS	4.91	1.00	5676.75	A	0.6625	0.7816			
6:2-FTS_2	4.91	1.00	4436.90	A	0.6625	0.7816	18	50	
PFHpS	4.92	1.08	13921.77	A	0.3915	0.3588			
PFHpS_2	4.92	1.08	4994.54	A	0.3915	0.3588	-8	50	
PFOA	4.93	1.00	42517.38	A	0.0573	0.0573			
PFOA_2	4.93	1.00	2436.09	A	0.0573	0.0573	0	50	
PFOS	5.25	1.00	13060.03	M	0.2960	0.2736			
PFOS_2	5.25	1.00	3573.10	M	0.2960	0.2736	-8	50	
PFNA	5.27	1.00	39485.10	A	0.0201	0.0194			
PFNA_2	5.27	1.00	766.34	A	0.0201	0.0194	-3	50	
PFNS	5.55	1.06	9756.60	A	0.4794	0.4912			
PFNS_2	5.55	1.06	4792.59	A	0.4794	0.4912	2	50	
PFDA	5.57	1.00	33621.18	A	0.0075	0.0082			
PFDA_2	5.57	1.00	276.74	A	0.0075	0.0082	10	50	
8:2-FTS	5.57	1.00	6138.74	A	0.5380	0.4422			
8:2-FTS_2	5.57	1.00	2714.43	A	0.5380	0.4422	-18	50	
NMeFOSAA	5.71	1.00	6660.95	M	0.2305	0.1393			
NMeFOSAA_2	5.70	1.00	927.90	M	0.2305	0.1393	-40	50	
PFDS	5.81	1.11	6850.74	A	0.5356	0.6929			
PFDS_2	5.80	1.10	4746.55	A	0.5356	0.6929	29	50	
PFUnDA	5.82	1.00	36428.01	A	0.0038	0.0036			
PFUnDA_2	5.84	1.00	129.75	M	0.0038	0.0036	-6	50	
NEtFOSAA	5.85	1.00	5069.19	M	0.7356	1.0075			
NEtFOSAA_2	5.84	1.00	5107.05	M	0.7356	1.0075	37	50	
PFDODA	6.06	1.00	53386.61	A	0.0130	0.0169			
PFDODA_2	6.06	1.00	904.01	A	0.0130	0.0169	30	50	
10:2-FTS	6.07	1.09	5717.74	A	0.6989	0.8898			
10:2-FTS_2	6.07	1.09	5087.40	A	0.6989	0.8898	27	50	
PFTTrDA	6.26	1.03	48537.57	A	0.0090	0.0125			
PFTTrDA_2	6.26	1.03	607.67	A	0.0090	0.0125	39	50	
PFTeDA	6.43	1.00	34099.24	A	0.0056	0.0053			
PFTeDA_2	6.43	1.00	180.96	M	0.0056	0.0053	-5	50	
PFHxDA	6.74	1.05	19206.41	A	0.0646	0.0740			
PFHxDA_2	6.74	1.05	1422.14	M	0.0646	0.0740	15	50	
PFODA	7.00	1.09	14377.98	A	0.0264	0.0304			
PFODA_2	7.00	1.09	436.46	A	0.0264	0.0304	15	50	

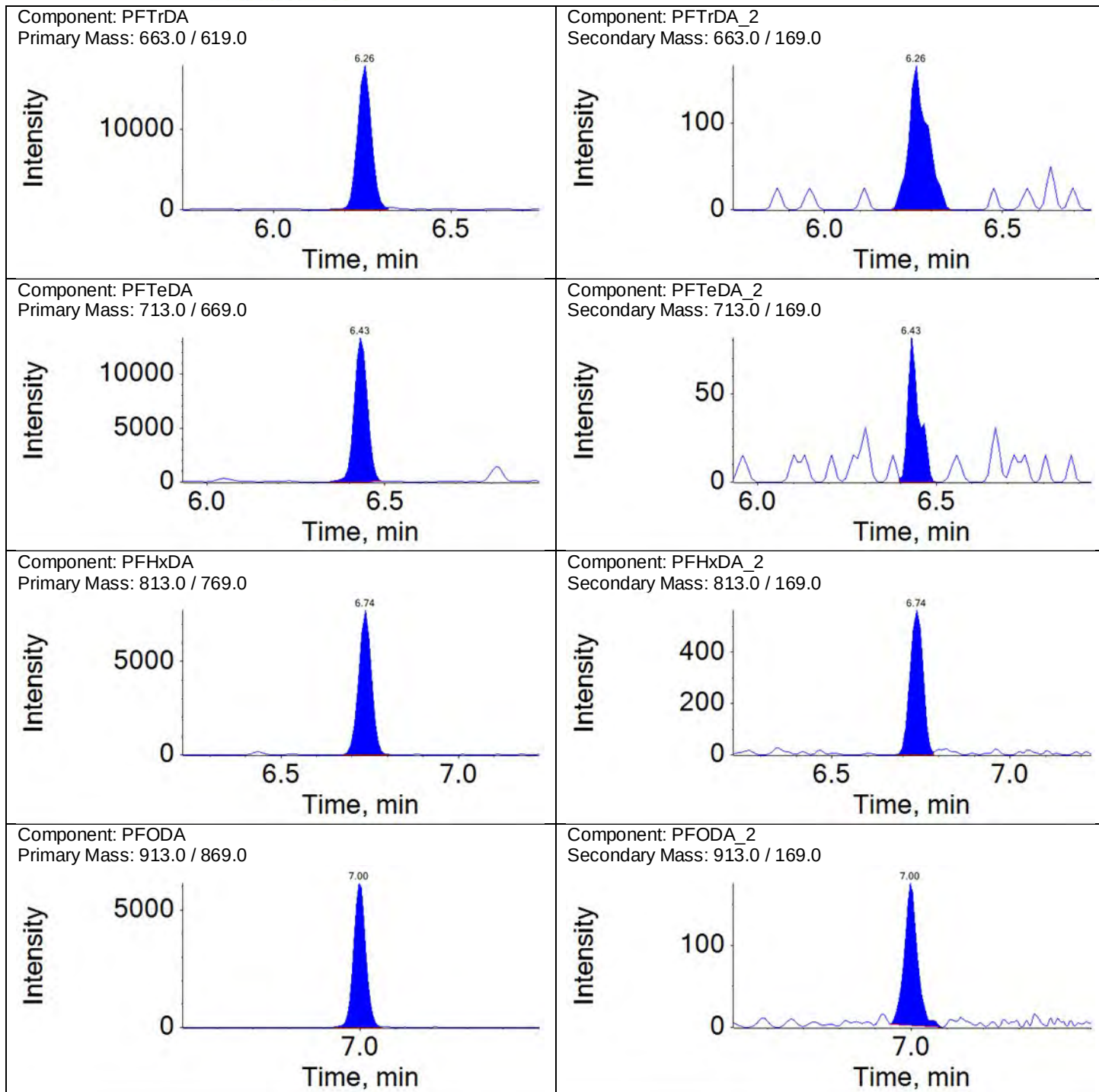












ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL2		Data File:	18NOV28DCAL-07.wiff
Sample ID:	CALBRN21833C		Acquis Date:	2018-11-28T13:51:13
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	4		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV28DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	898154.2	887248.9	1	50	
13C2-PFOA	5.0	493545.2	498501.6	-1	50	
13C4-PFOS	4.8	295669.7	283214.2	4	50	
13C2-PFDA	5.0	460926.2	441790.6	4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1033122.1	13C3-PFBA	898154.2	1.150	5.000	5.132	103	70-130	
E13C5-PFPeA	1014125.0	13C3-PFBA	898154.2	1.129	5.000	5.273	105	70-130	
E13C3-PFBS	442150.0	13C3-PFBA	898154.2	0.492	4.650	4.697	101	70-130	
E13C2-4:2-FTS	72067.2	13C2-PFOA	493545.2	0.146	4.670	5.032	108	70-130	
E13C5-PFHxA	697229.0	13C2-PFOA	493545.2	1.413	5.000	5.189	104	70-130	
E13C3-PFHxS	335129.7	13C2-PFOA	493545.2	0.679	4.730	5.322	113	70-130	
E13C4-PFHpA	547372.0	13C2-PFOA	493545.2	1.109	5.000	5.096	102	70-130	
E13C2-6:2-FTS	63922.7	13C2-PFOA	493545.2	0.130	4.750	5.422	114	70-130	
E13C8-PFOA	1030866.6	13C2-PFOA	493545.2	2.089	5.000	5.749	115	70-130	
E13C8-PFOS	313894.3	13C4-PFOS	295669.7	1.062	4.780	4.792	100	70-130	
E13C9-PFNA	682380.7	13C4-PFOS	295669.7	2.308	5.000	5.069	101	70-130	
E13C6-PFDA	839100.7	13C2-PFDA	460926.2	1.820	5.000	5.133	103	70-130	
E13C2-8:2-FTS	54757.9	13C2-PFDA	460926.2	0.119	4.790	5.106	107	70-130	
E13C8-PFOSA	658778.5	13C2-PFDA	460926.2	1.429	5.000	5.244	105	70-130	
Ed3-NMeFOSAA	181261.3	13C2-PFDA	460926.2	0.393	5.000	4.993	100	70-130	
E13C7-PFUnDA	581207.0	13C2-PFDA	460926.2	1.261	5.000	5.329	107	70-130	
Ed5-NEtFOSAA	144803.2	13C2-PFDA	460926.2	0.314	5.000	5.597	112	70-130	
E13C2-PFDoDA	1140522.3	13C2-PFDA	460926.2	2.474	5.000	5.199	104	70-130	
Ed7-NMePFOSAE	272071.3	13C2-PFDA	460926.2	0.590	5.000	5.101	102	70-130	
Ed3-NMePFOSA	86471.7	13C2-PFDA	460926.2	0.188	5.000	5.077	102	70-130	
Ed9-NEtPFOSAE	229050.7	13C2-PFDA	460926.2	0.497	5.000	5.038	101	70-130	
Ed5-NEtPFOSA	66646.8	13C2-PFDA	460926.2	0.145	5.000	5.024	100	70-130	
E13C2-PFTeDA	858145.2	13C2-PFDA	460926.2	1.862	5.000	5.152	103	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL2

Instrument Name: LM27631

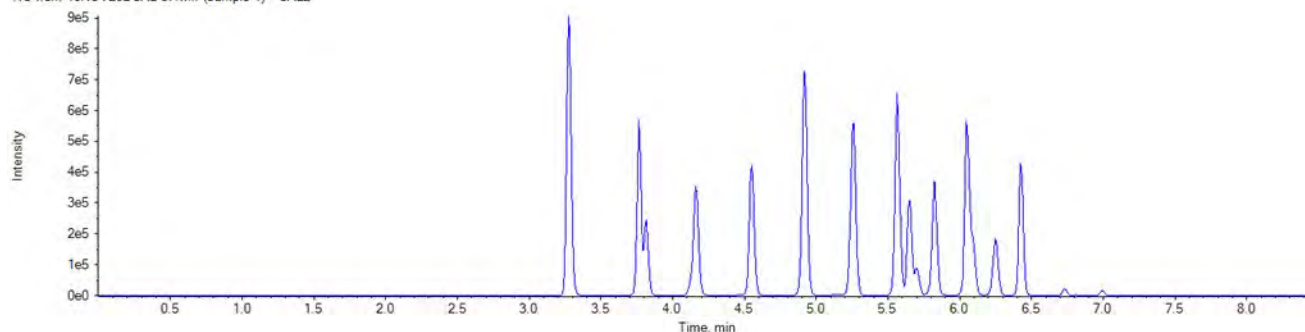
File Name: 18NOV28DCAL-07.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	110036.6		A	13C4-PFBA	3.27	1033122.1	0.107	0.584
PFPeA	3.77	1.000	104393.1		A	13C5-PFPeA	3.77	1014125.0	0.103	0.505
PFBS	3.81	1.000	43237.4		A	13C3-PFBS	3.82	442150.0	0.098	0.475
4:2-FTS	4.13	1.000	14524.8		A	13C2-4:2-FTS	4.13	72067.2	0.202	0.540
PFHxA	4.16	1.000	101713.2		A	13C5-PFHxA	4.16	697229.0	0.146	0.586
PFPeS	4.18	1.100	24007.3		A	13C3-PFBS	3.82	442150.0	0.054	0.549
PFHpA	4.55	1.000	100593.8		A	13C4-PFHpA	4.55	547372.0	0.184	0.567
PFHxS	4.55	1.000	31104.5		M	13C3-PFHxS	4.55	335129.7	0.093	0.435
6:2-FTS	4.91	1.000	14479.8		A	13C2-6:2-FTS	4.91	63922.7	0.227	0.591
PFHpS	4.91	1.080	32553.7		A	13C3-PFHxS	4.55	335129.7	0.097	0.485
PFOA	4.92	1.000	106420.8		A	13C8-PFOA	4.92	1030866.6	0.103	0.533
PFOS	5.25	1.000	34203.6		M	13C8-PFOS	5.25	313894.3	0.109	0.457
PFNA	5.26	1.000	106720.9		A	13C9-PFNA	5.26	682380.7	0.156	0.599
PFNS	5.54	1.060	24149.9		A	13C8-PFOS	5.25	313894.3	0.077	0.486
PFDA	5.57	1.000	90730.3		A	13C6-PFDA	5.56	839100.7	0.108	0.612
8:2-FTS	5.57	1.000	15550.2		A	13C2-8:2-FTS	5.57	54757.9	0.284	0.536
PFOSA	5.65	1.000	73112.3		A	13C8-PFOSA	5.65	658778.5	0.111	0.562
NMeFOSAA	5.70	1.000	16533.1		A	d3-NMeFOSAA	5.70	181261.3	0.091	0.582
PFDS	5.80	1.100	18654.8		A	13C8-PFOS	5.25	313894.3	0.059	0.471
PFUnDA	5.82	1.000	91490.4		A	13C7-PFUnDA	5.82	581207.0	0.157	0.563
NEtFOSAA	5.84	1.000	16643.3		A	d5-NEtFOSAA	5.83	144803.2	0.115	0.560
PFDODA	6.05	1.000	122586.0		A	13C2-PFDODA	6.05	1140522.3	0.107	0.589
10:2-FTS	6.07	1.090	15157.8		A	13C2-8:2-FTS	5.57	54757.9	0.277	0.610
NMePFOSAE	6.10	1.000	37932.7		A	d7-NMePFOSAE	6.09	272071.3	0.139	0.587
NMePFOSA	6.11	1.000	9381.3		A	d3-NMePFOSA	6.10	86471.7	0.108	0.575
PFDoS	6.22	1.190	11606.3		A	13C8-PFOS	5.25	313894.3	0.037	0.531
NEtPFOSAE	6.26	1.000	37977.7		A	d9-NEtPFOSAE	6.24	229050.7	0.166	0.596
NEtPFOSA	6.27	1.000	7883.3		A	d5-NEtPFOSA	6.26	66646.8	0.118	0.530
PFTDA	6.25	1.030	117562.3		A	13C2-PFDODA	6.05	1140522.3	0.103	0.621
PFTeDA	6.43	1.000	88360.3		A	13C2-PFTeDA	6.43	858145.2	0.103	0.583
PFHxDA	6.73	1.050	44164.6		A	13C2-PFTeDA	6.43	858145.2	0.051	0.588
PFODA	6.99	1.090	36421.5		A	13C2-PFTeDA	6.43	858145.2	0.042	0.565

Total Ion Chromatogram

TIC from 18NOV28DCAL-07.wiff (sample 1) - CAL2



APPROVED

By MCD at 5:00 pm, 11/28/18

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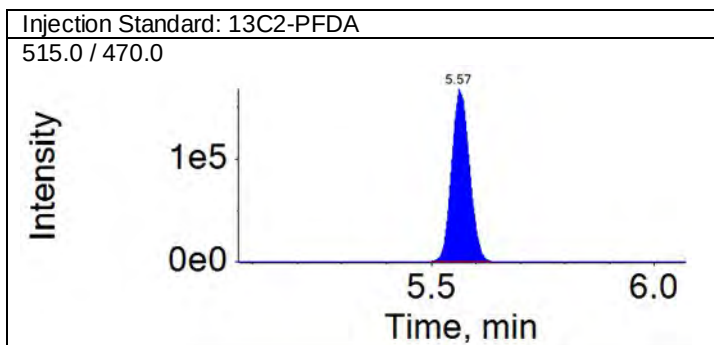
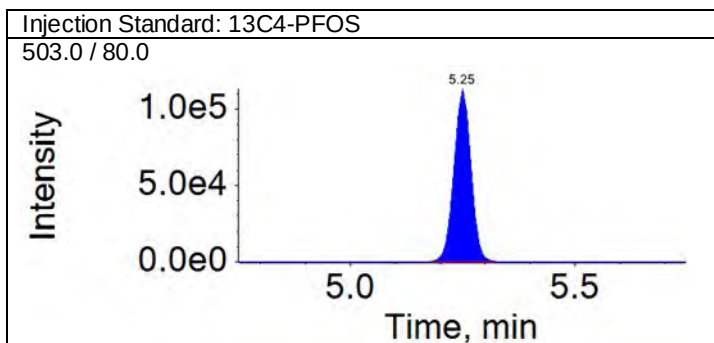
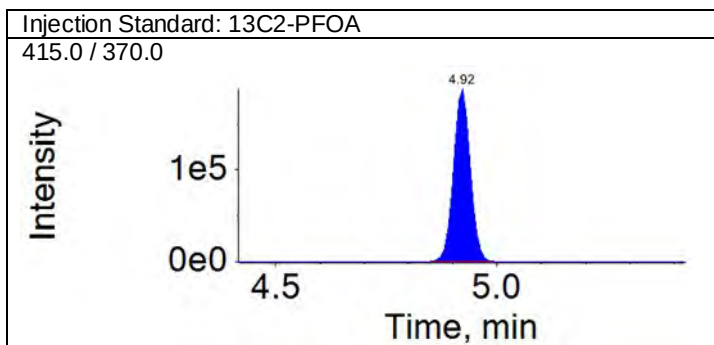
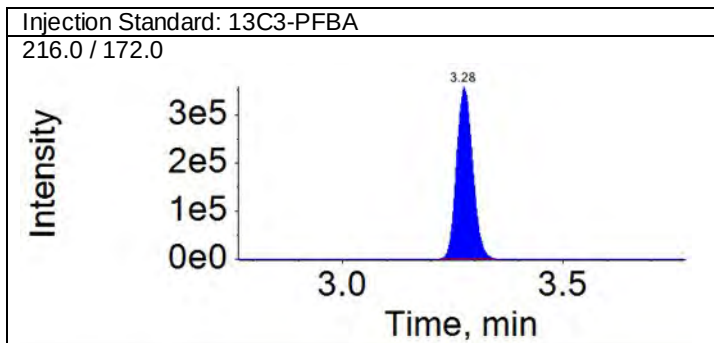
REVIEWED

By HMK at 12:22 pm, 11/29/18

Page 2 of 17

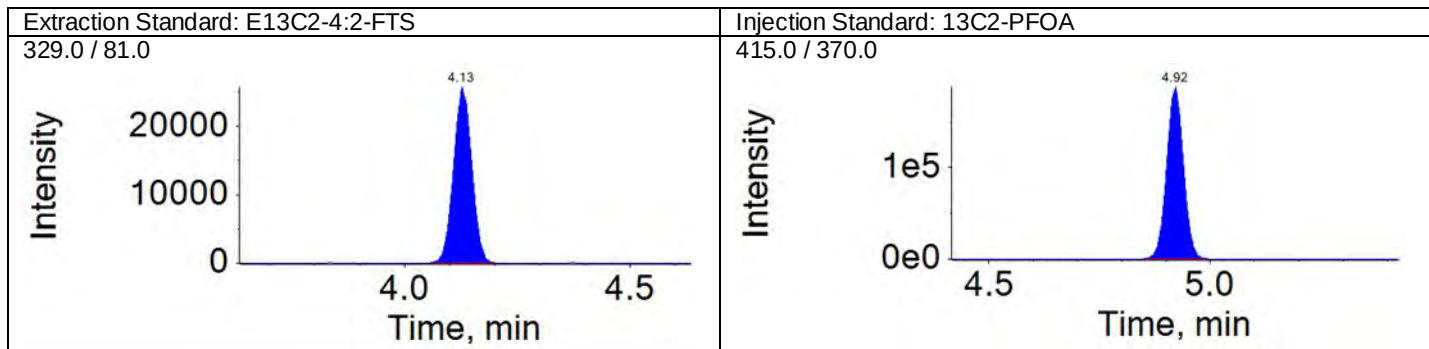
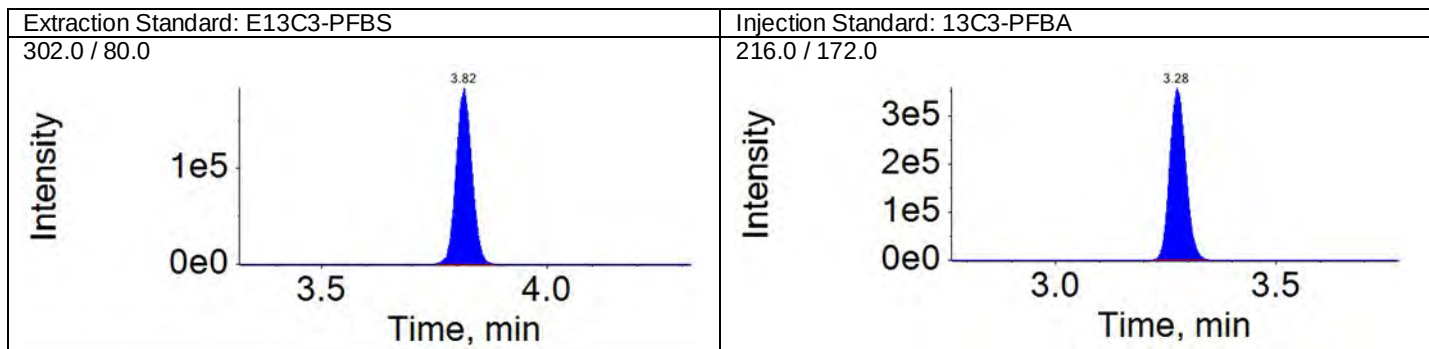
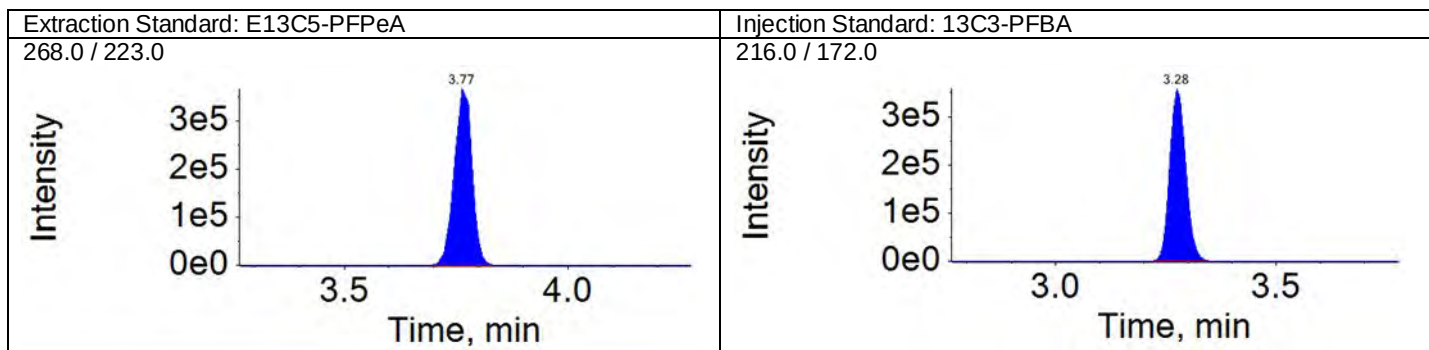
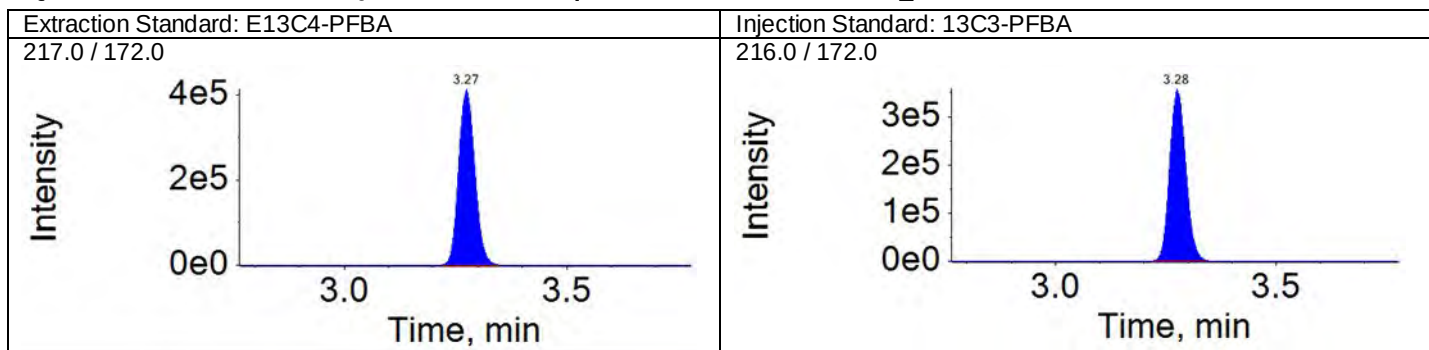
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



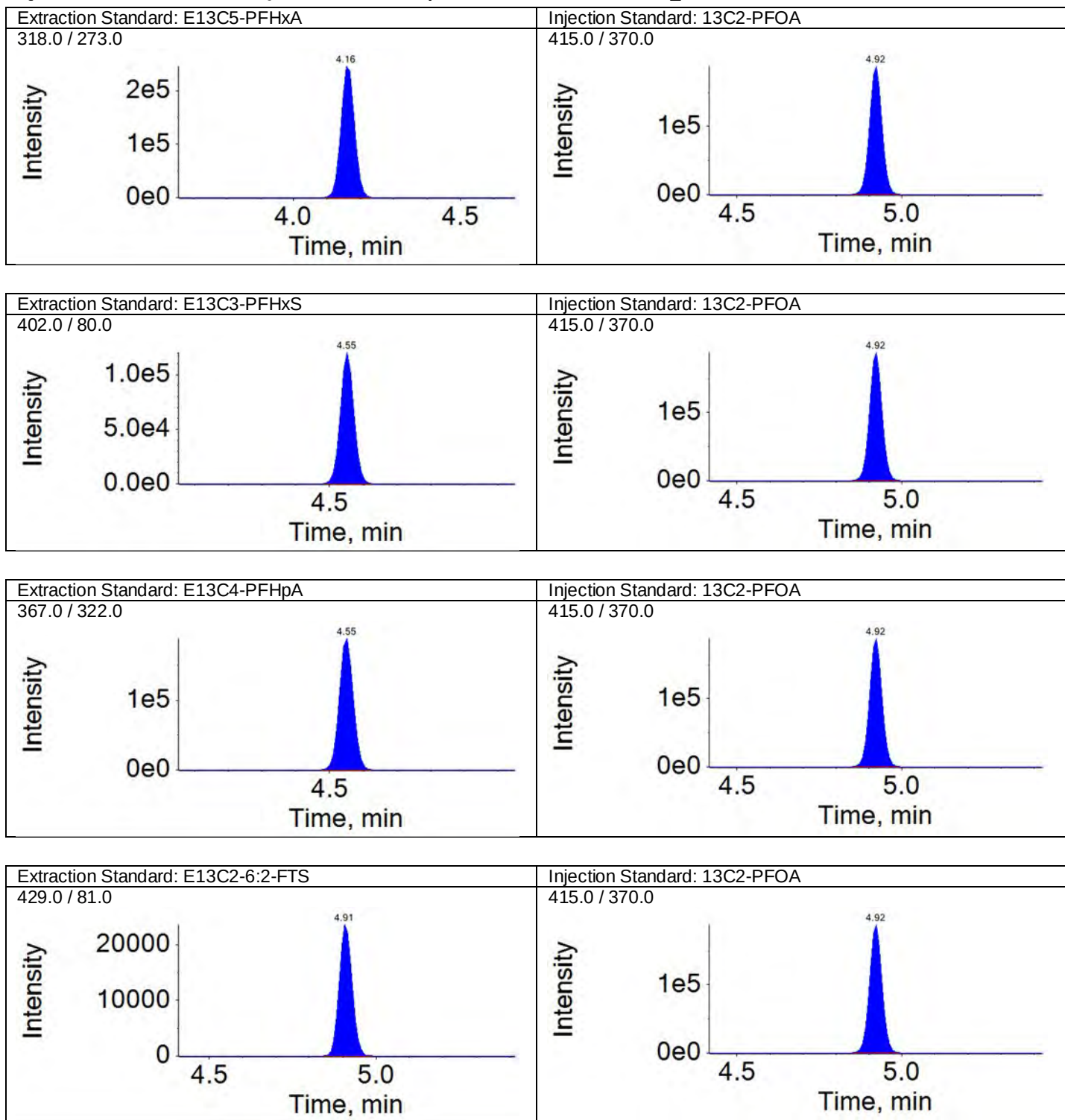
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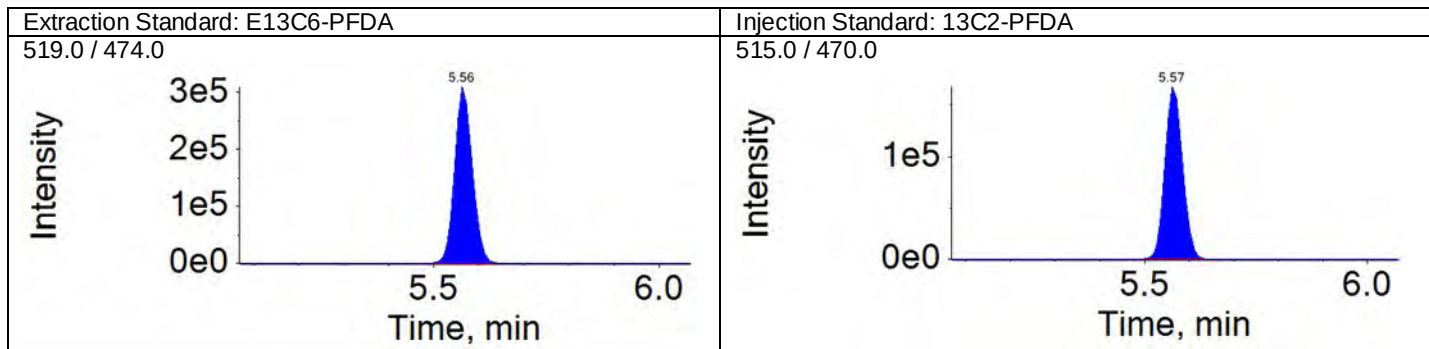
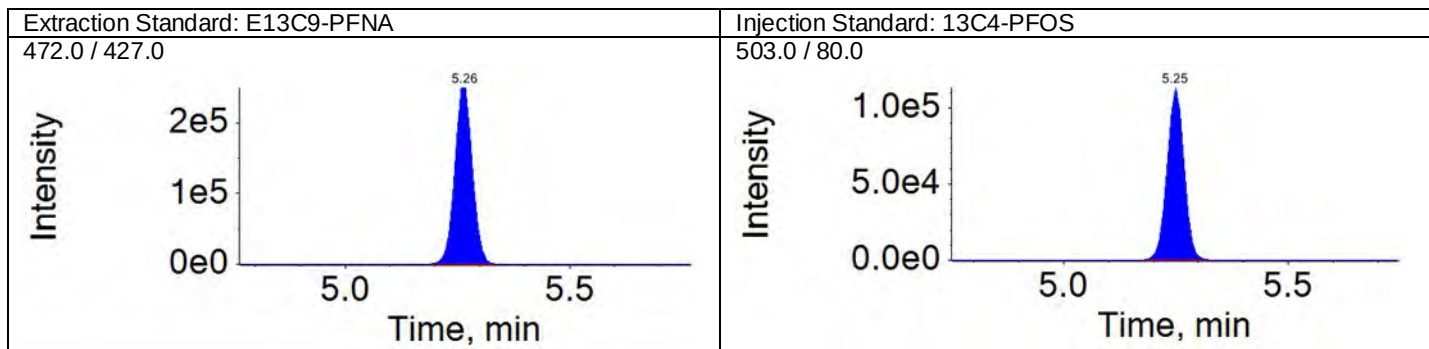
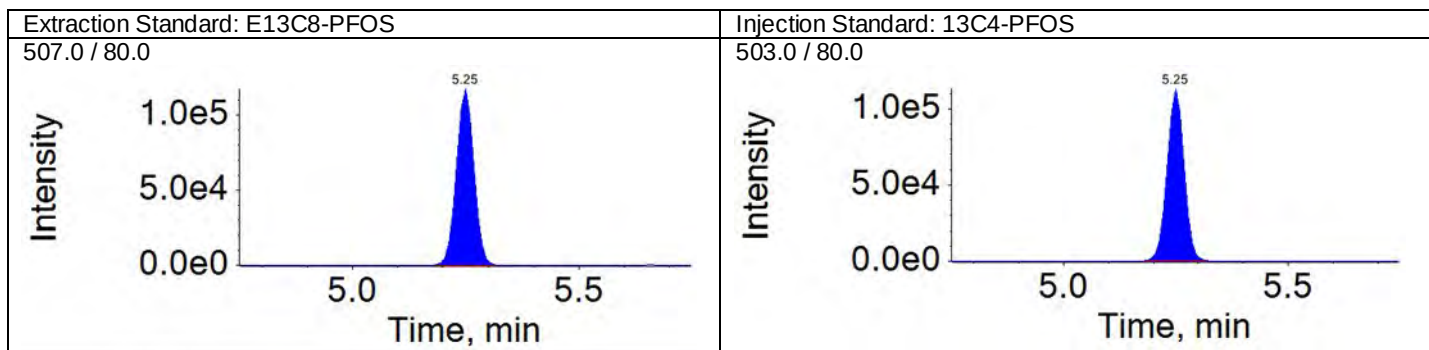
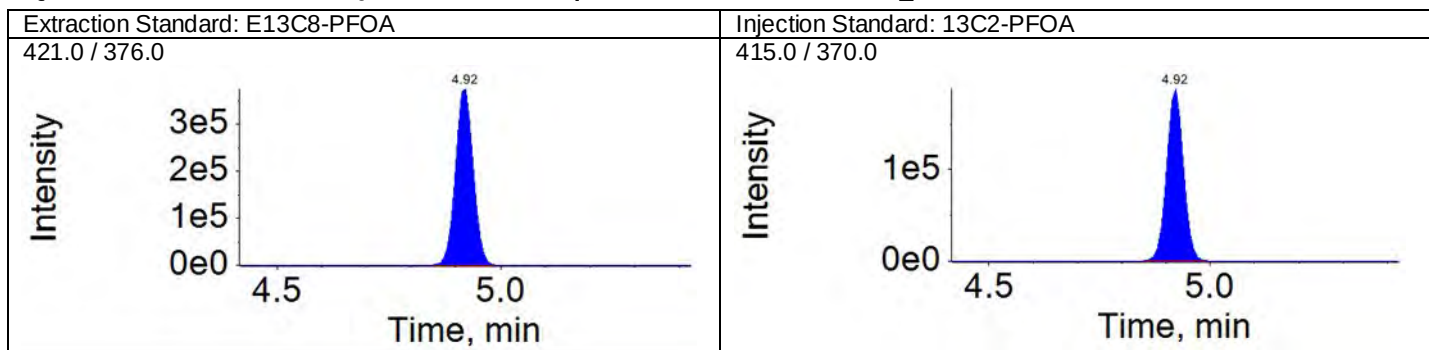
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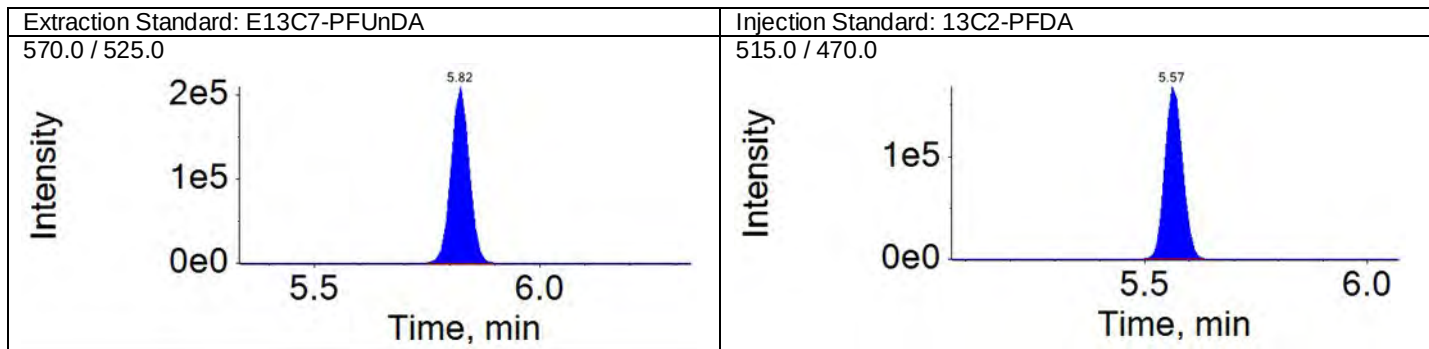
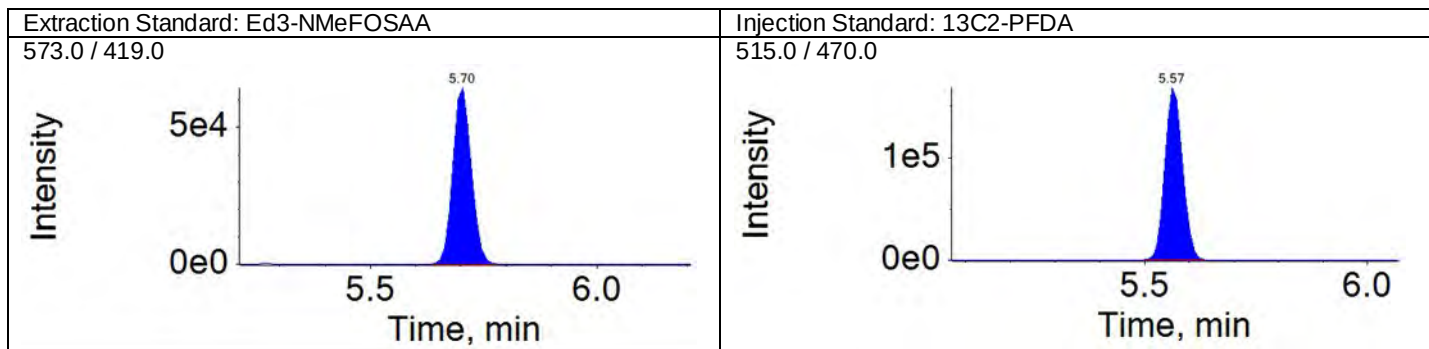
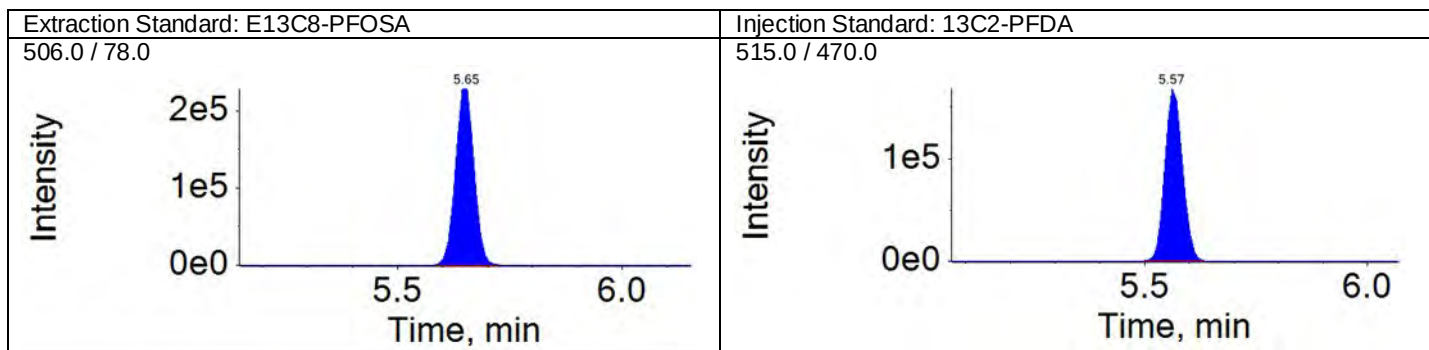
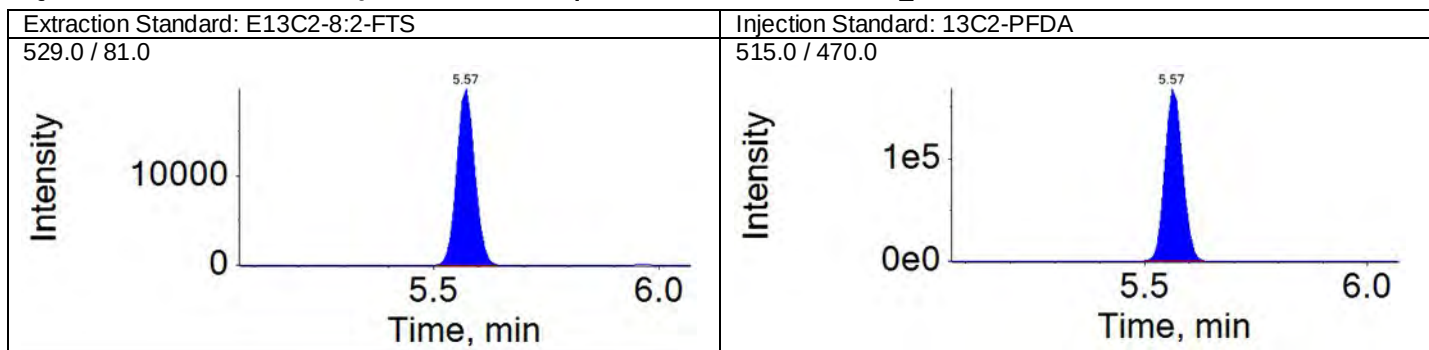
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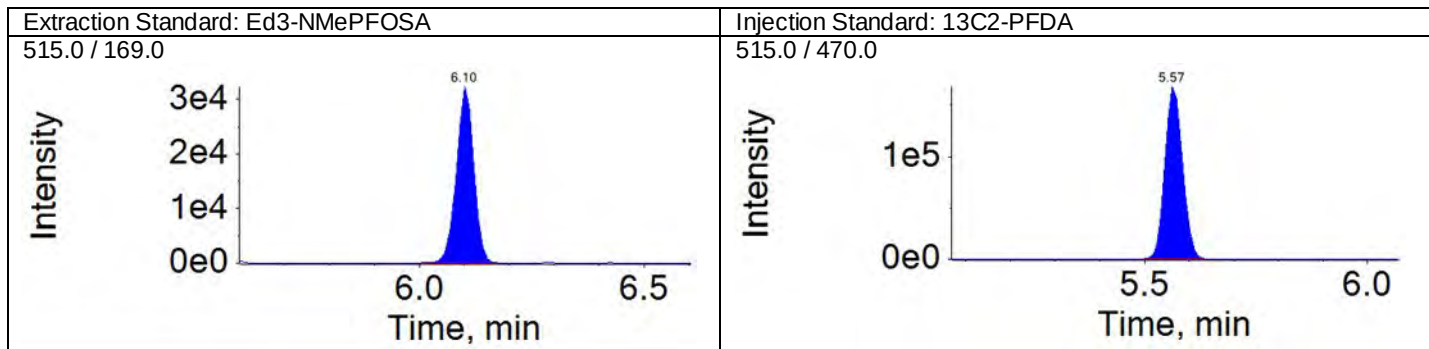
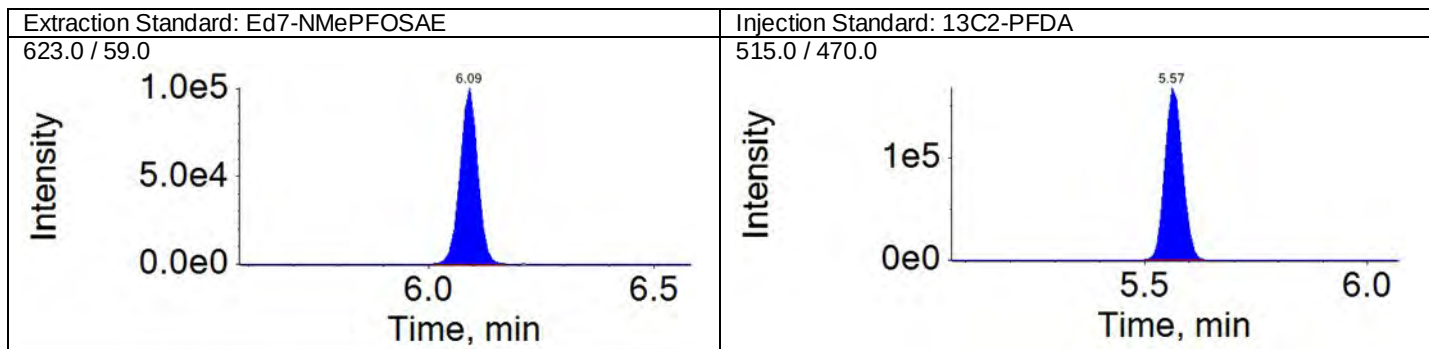
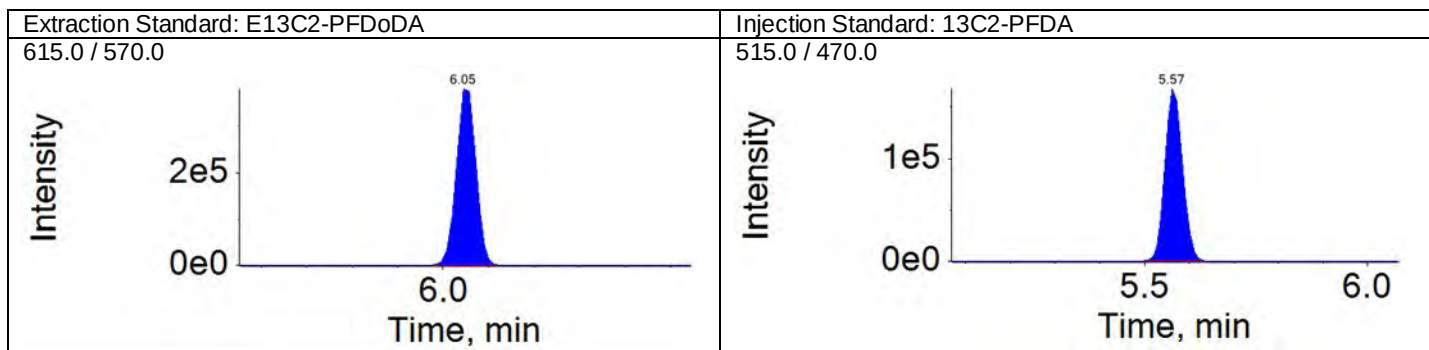
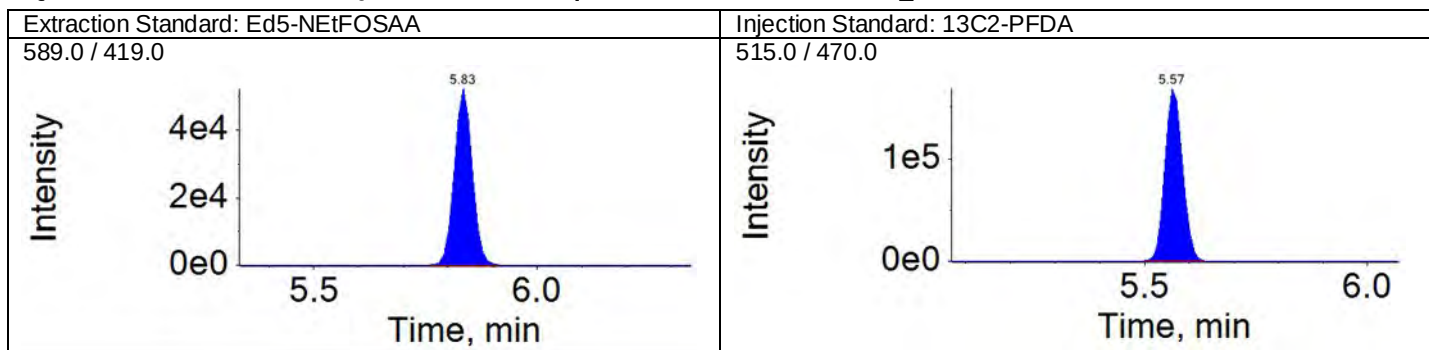
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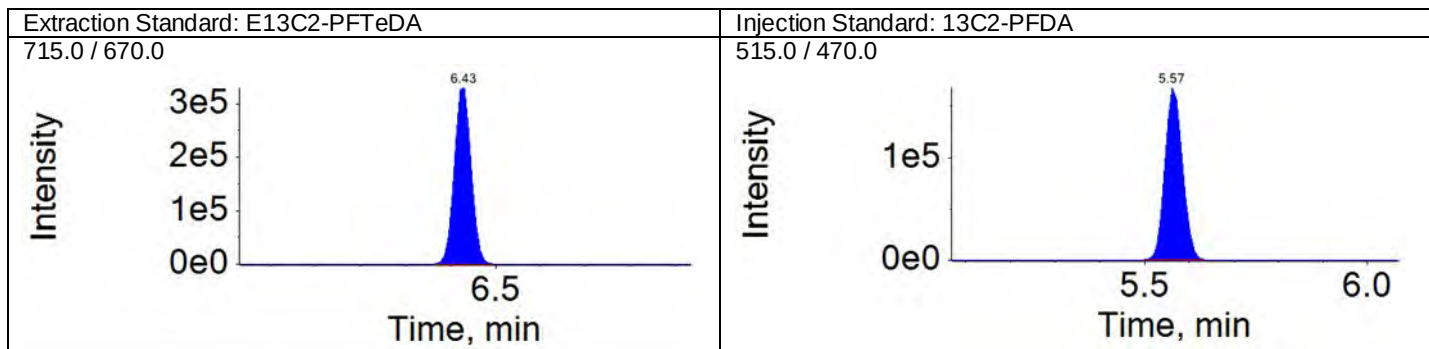
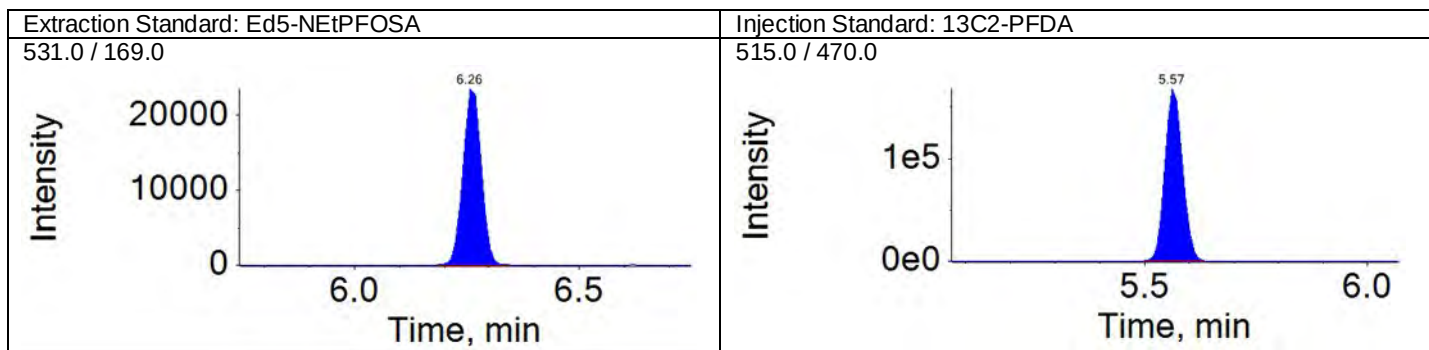
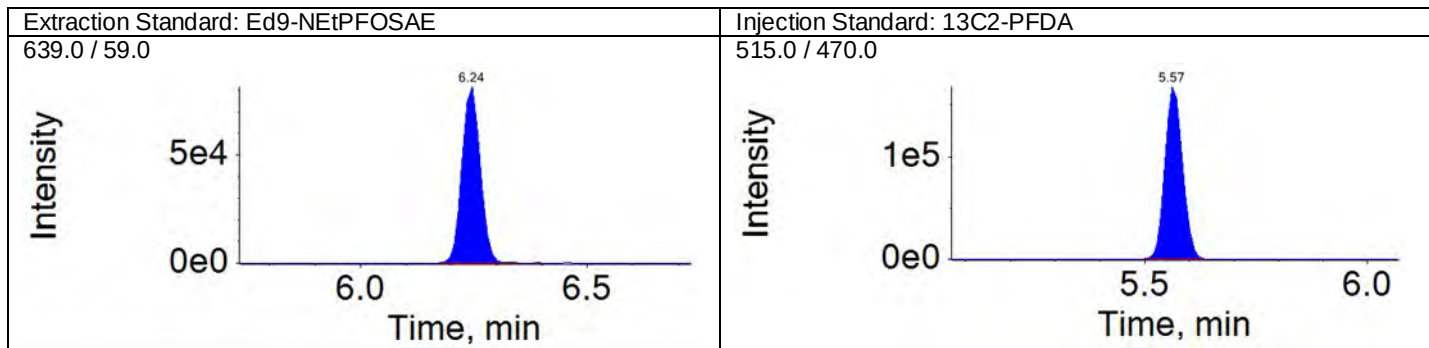
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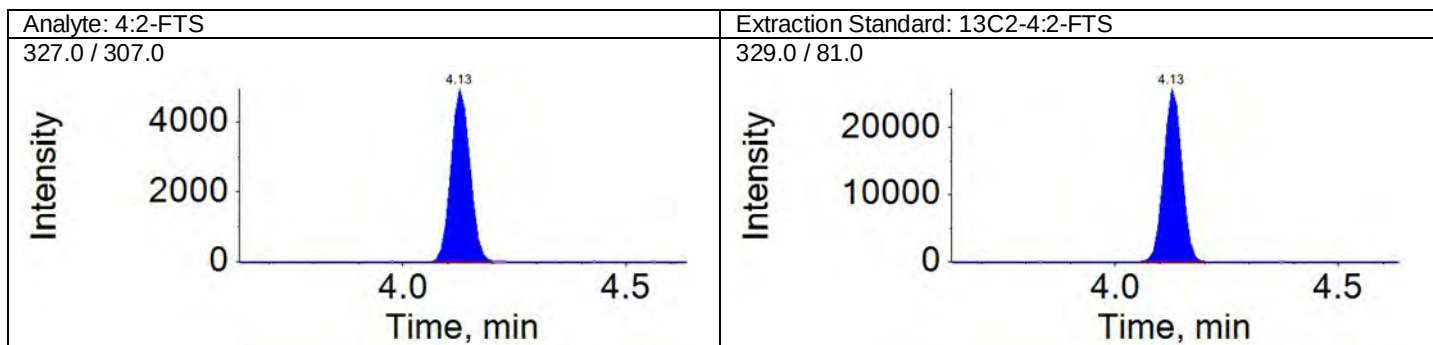
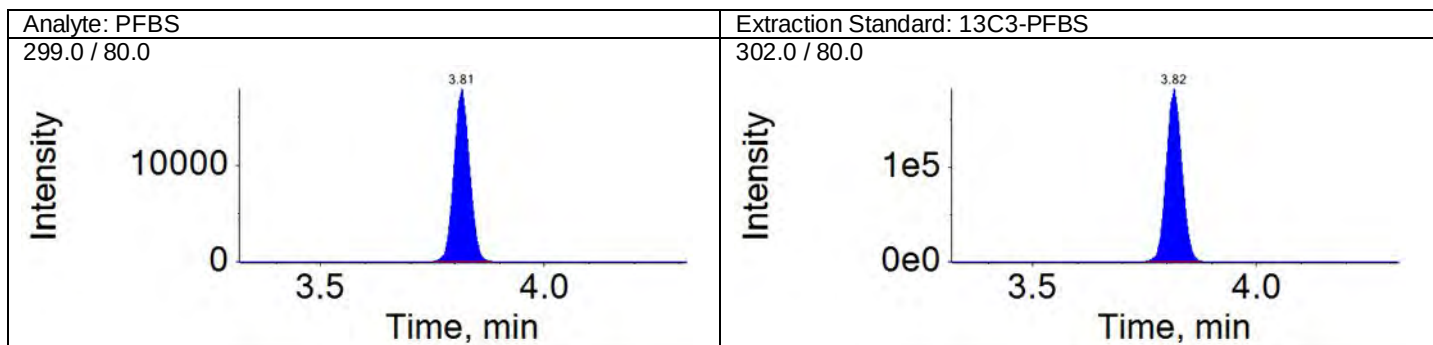
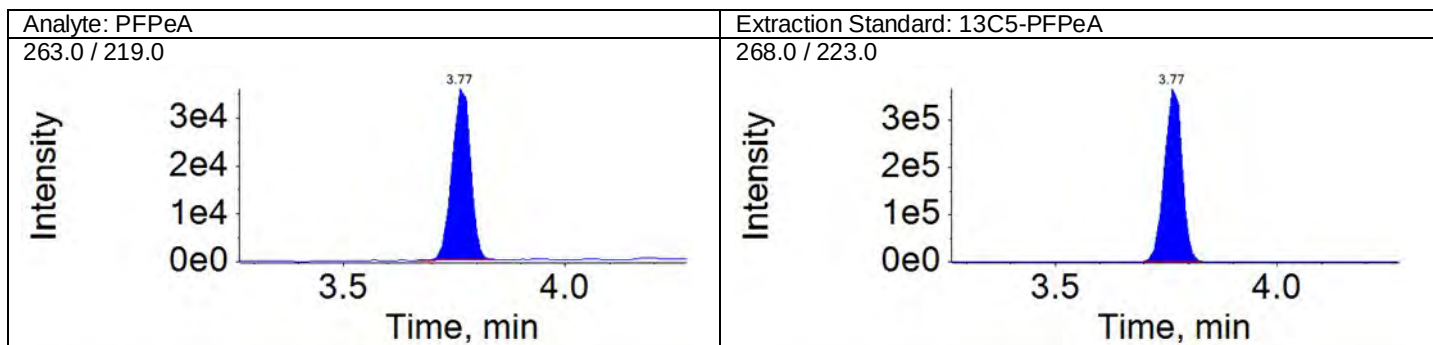
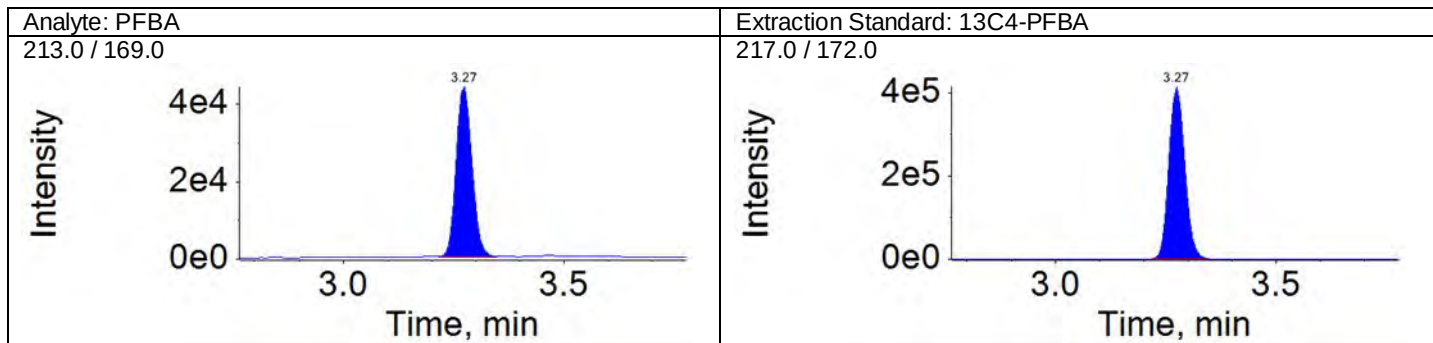
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Acquisition Method: 18AUG13_3uL.dam



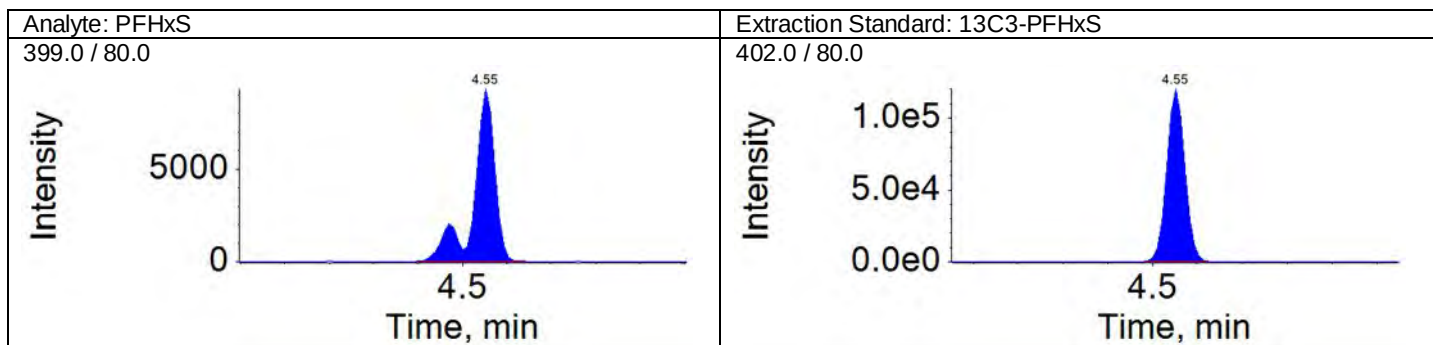
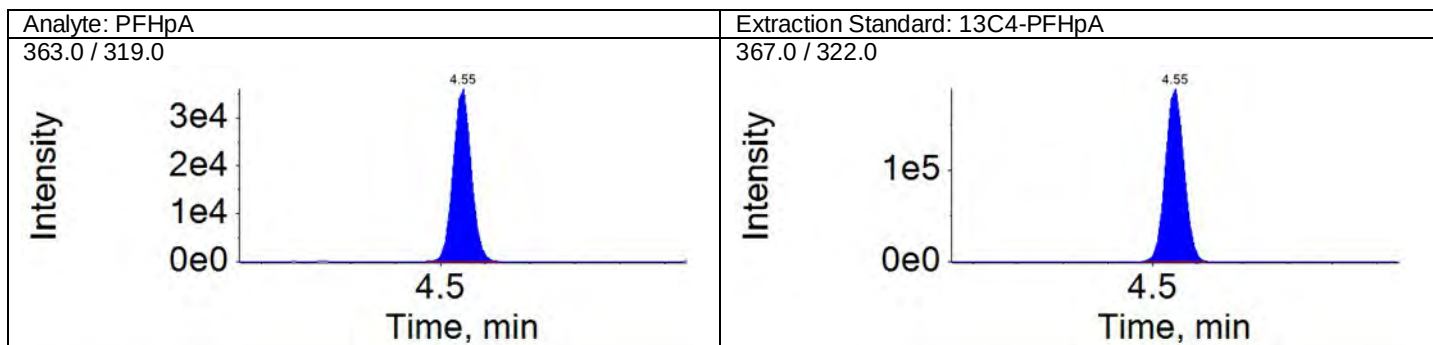
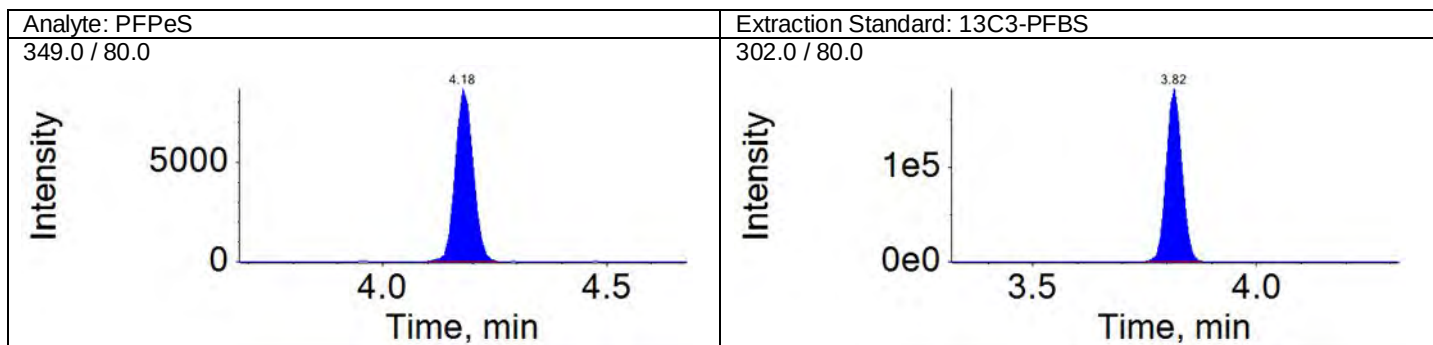
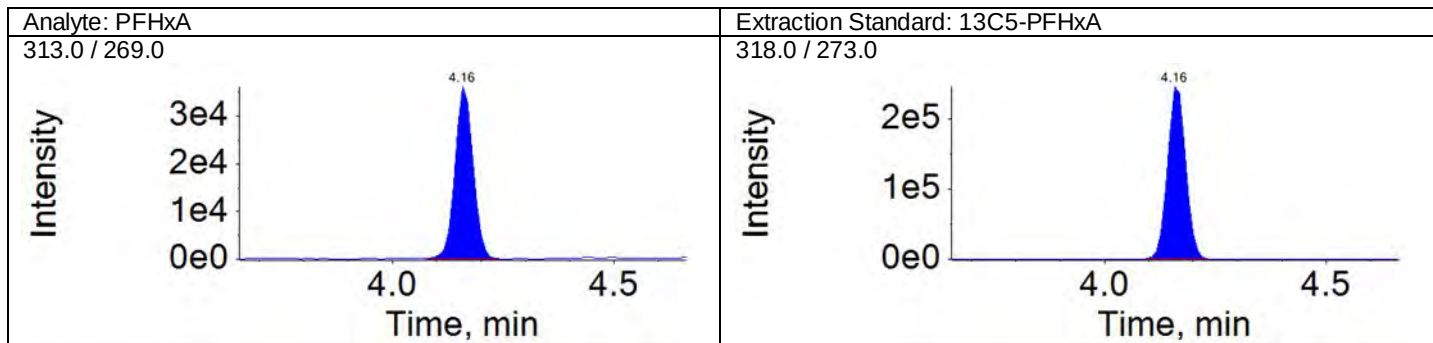
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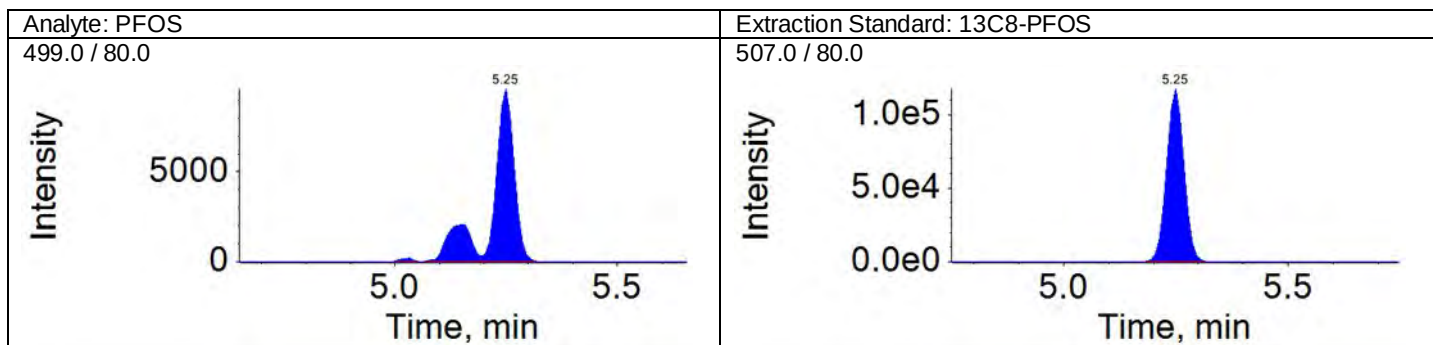
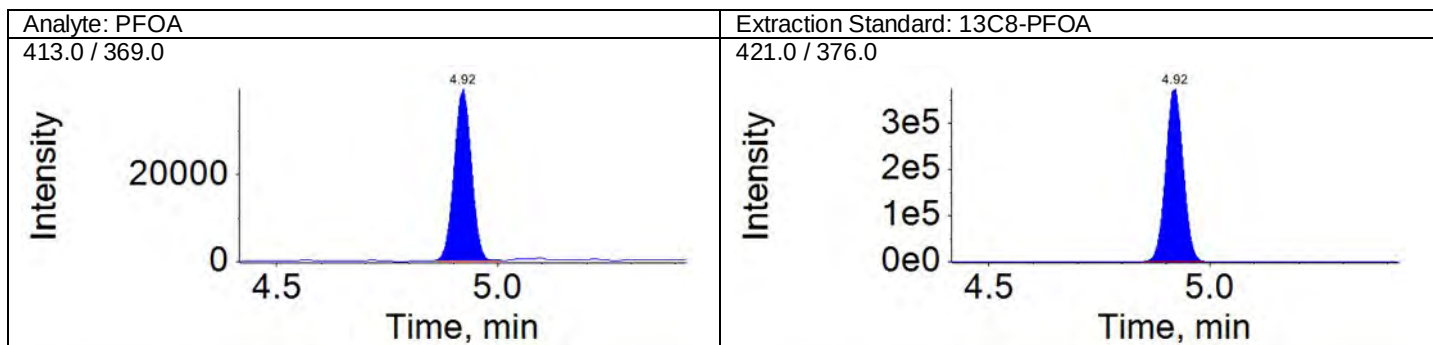
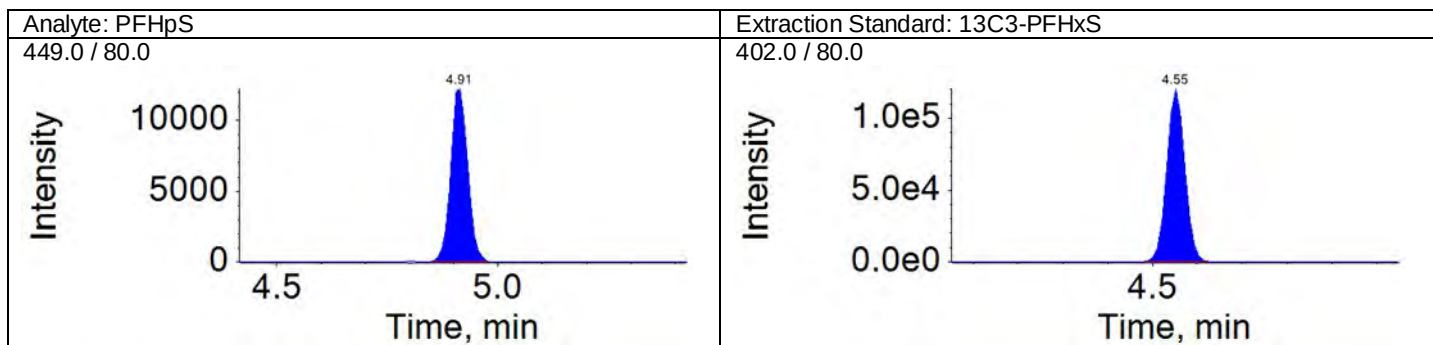
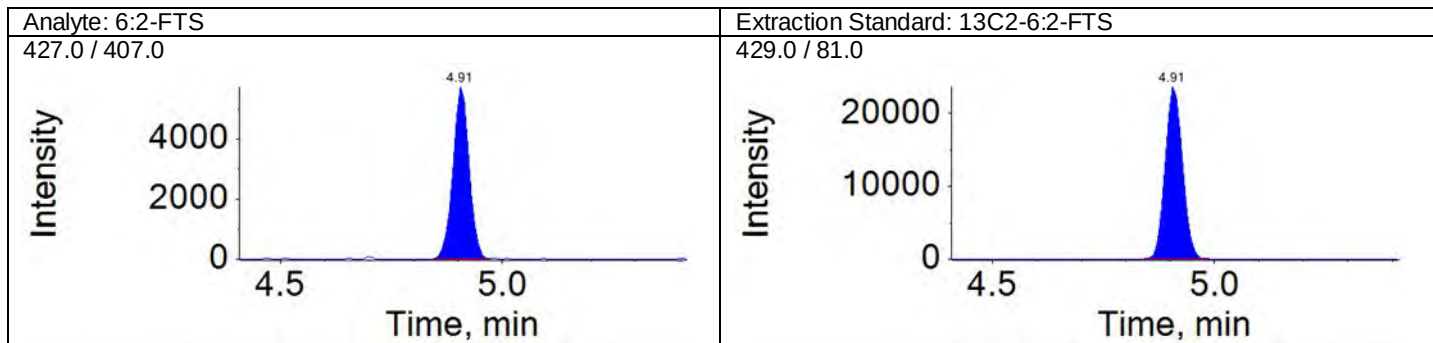
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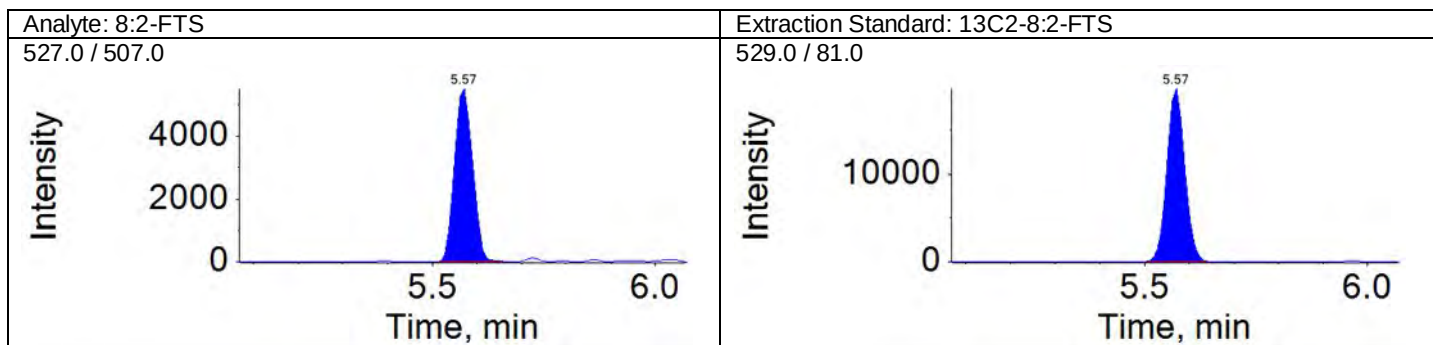
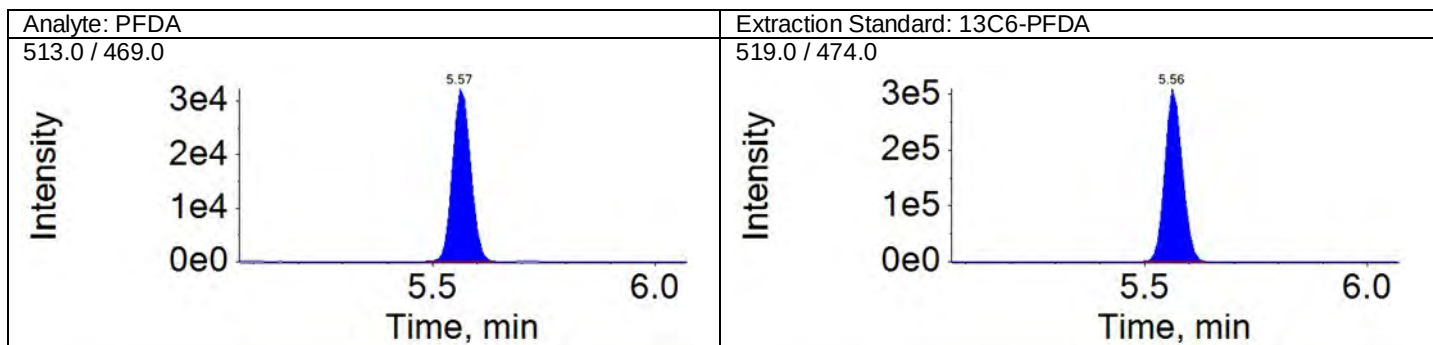
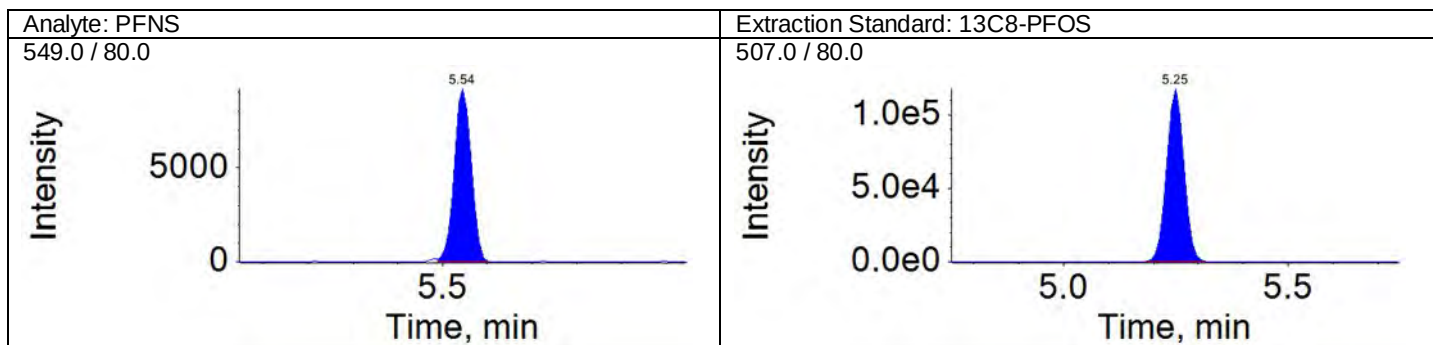
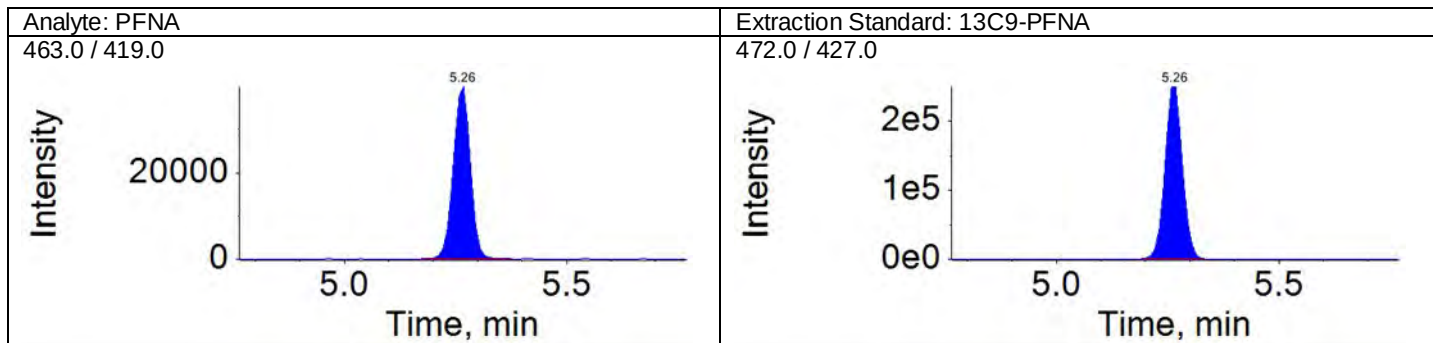
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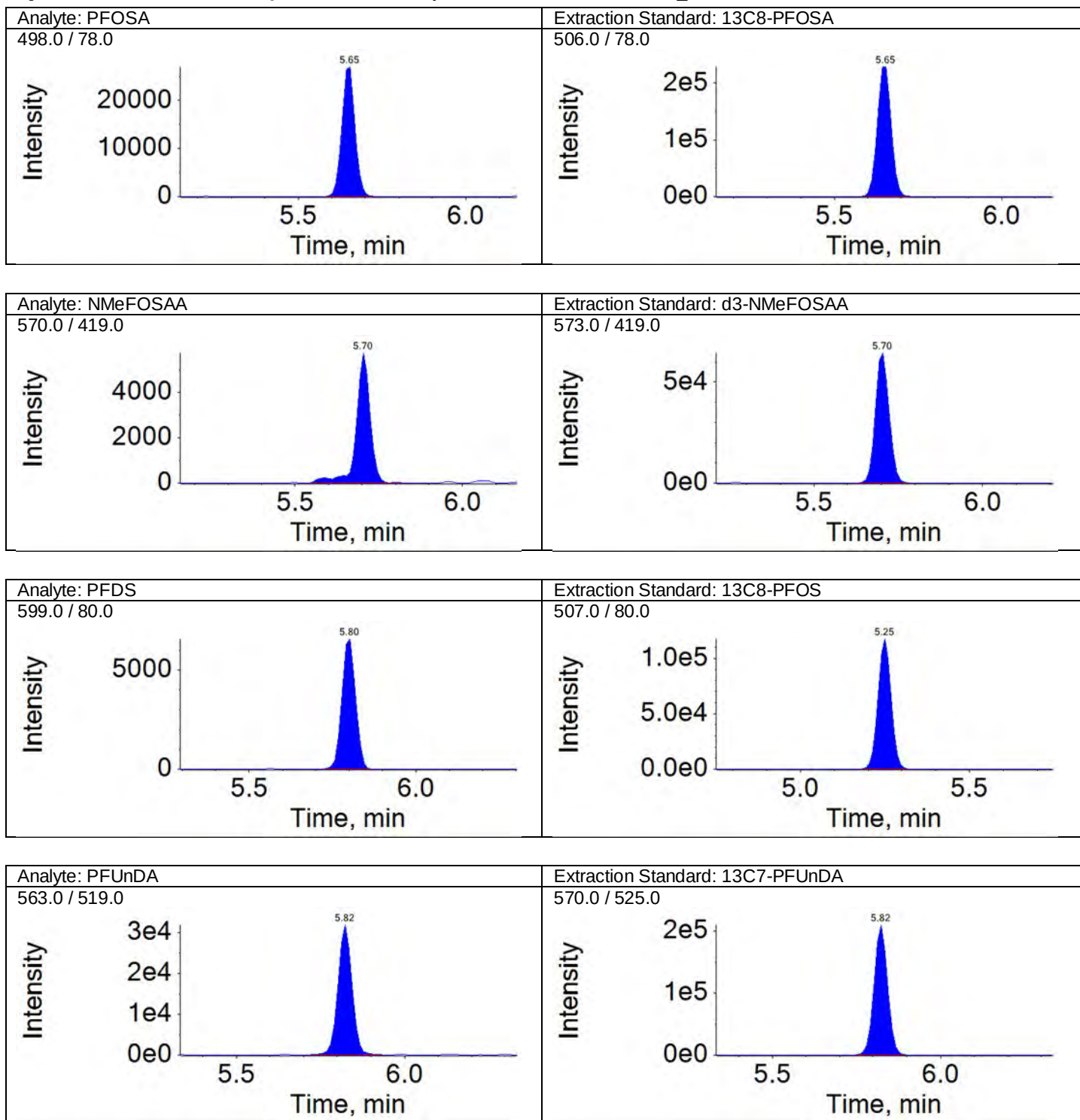
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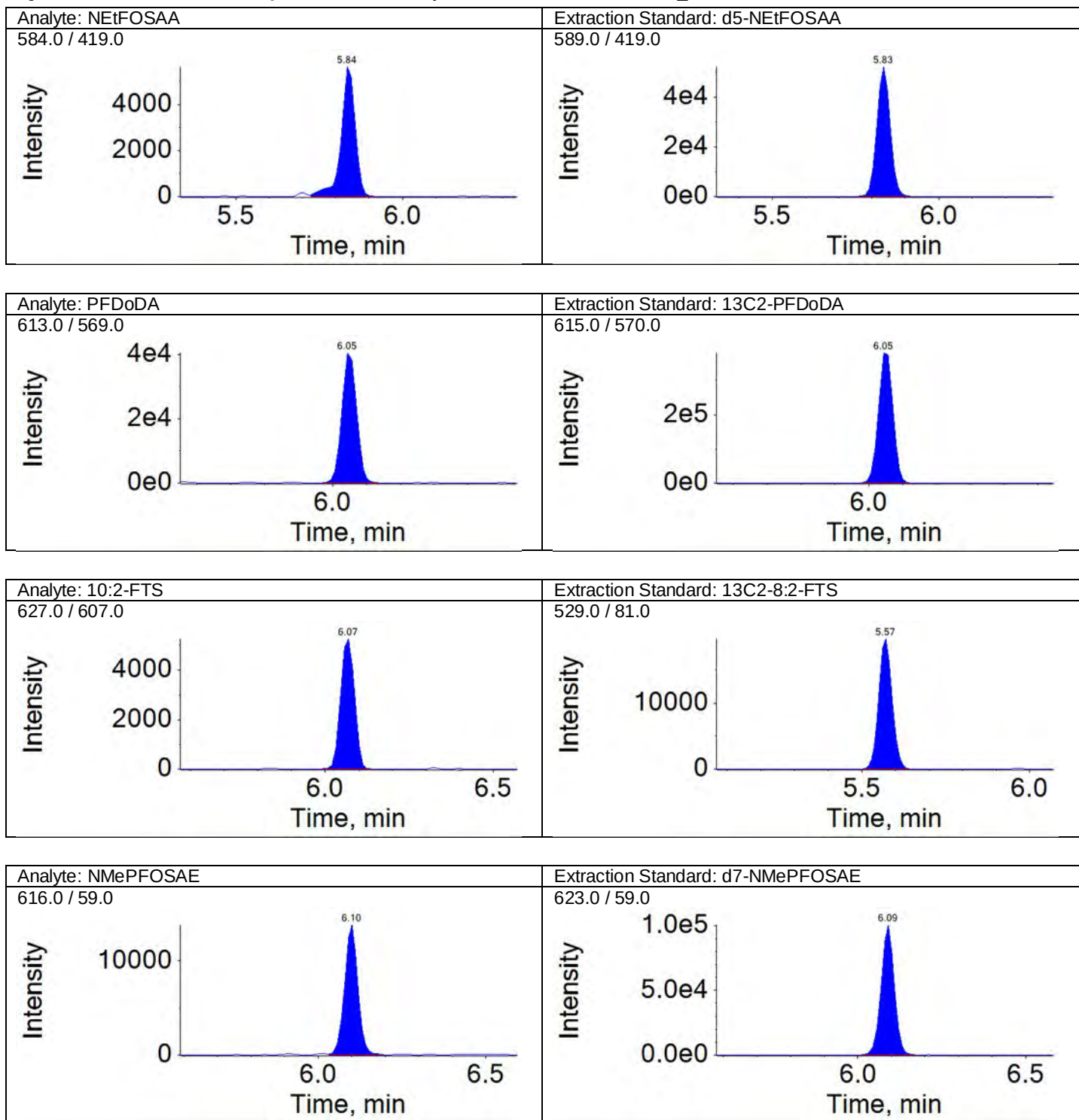
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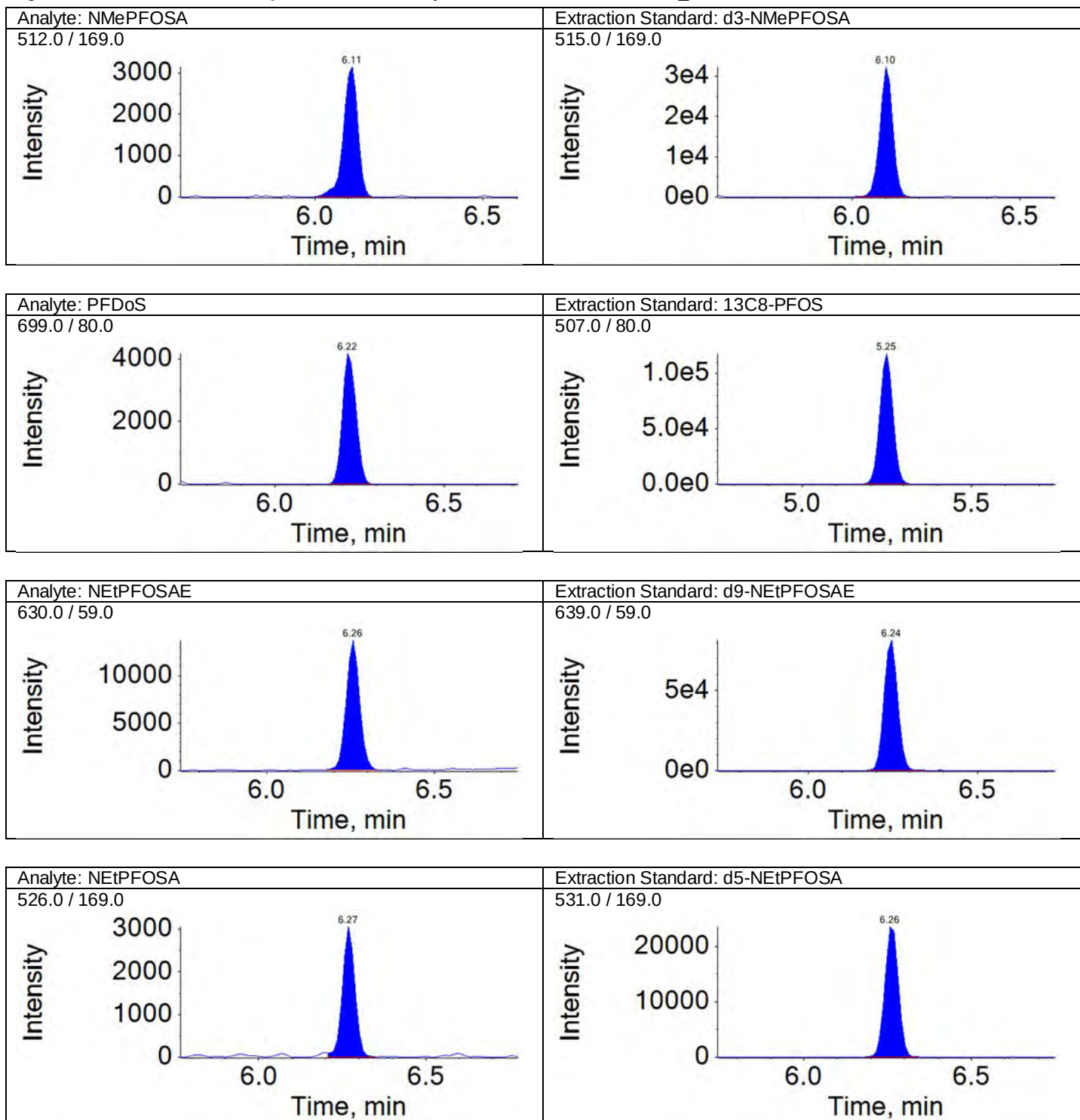
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QMethod Name: 18AUG20QM

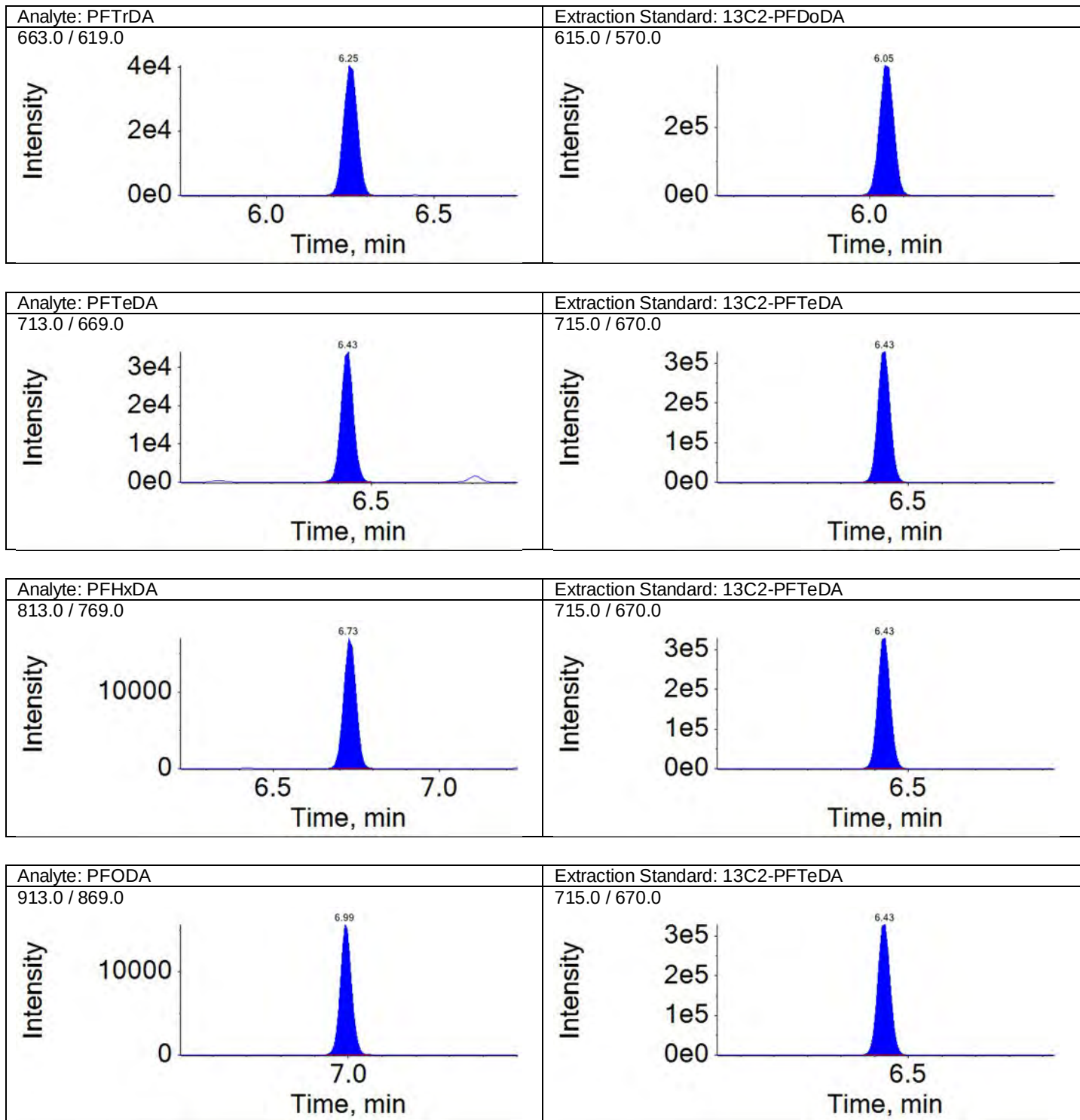
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ICAL Name: 18NOV28DCAL
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ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:

PFHxS

RT (min.):

4.55

Peak Area:

25567.97

Mass Range:

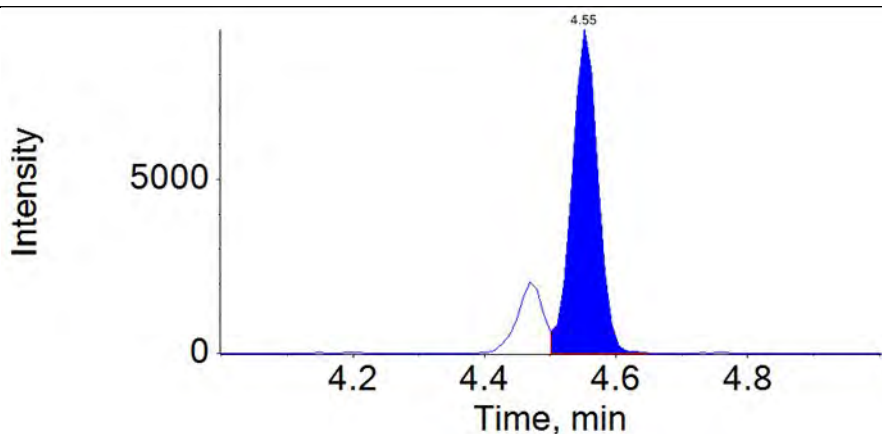
399.0 / 80.0

File Name:

18NOV28DCAL-07.wiff

Sample Name:

CAL2



Integration Comment: incorrect integration

Component Name:

PFOS

RT (min.):

5.25

Peak Area:

25590.10

Mass Range:

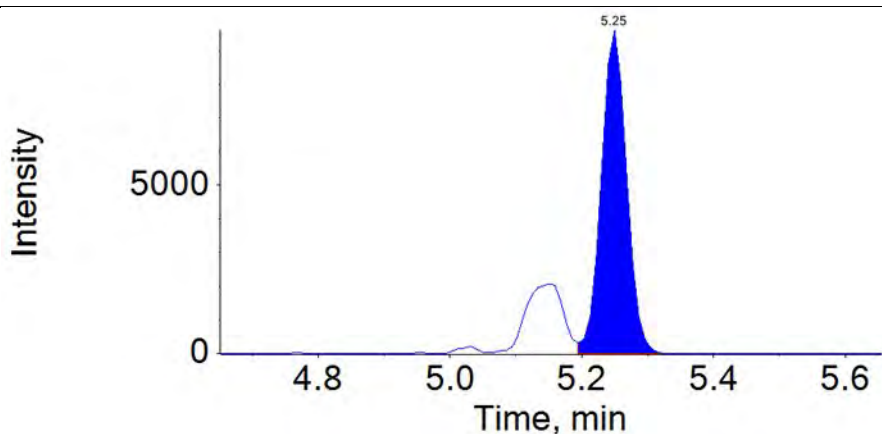
499.0 / 80.0

File Name:

18NOV28DCAL-07.wiff

Sample Name:

CAL2



Integration Comment: incorrect integration

Component Name:

PFHxA_2

RT (min.):

4.17

Peak Area:

1118.24

Mass Range:

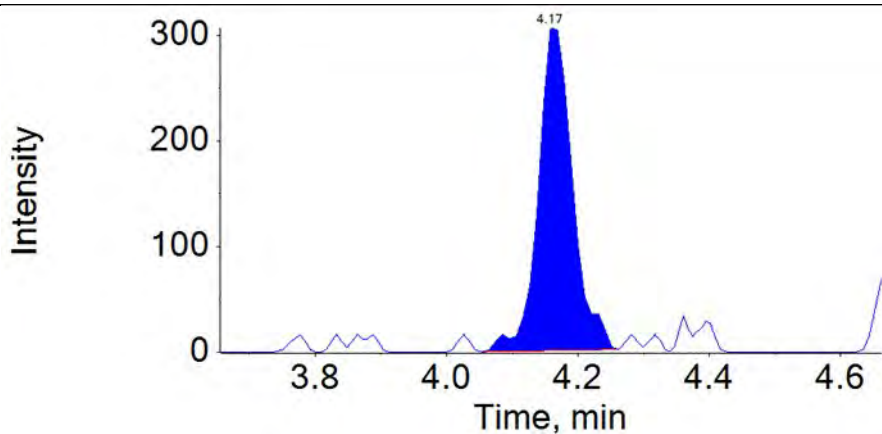
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CAL2

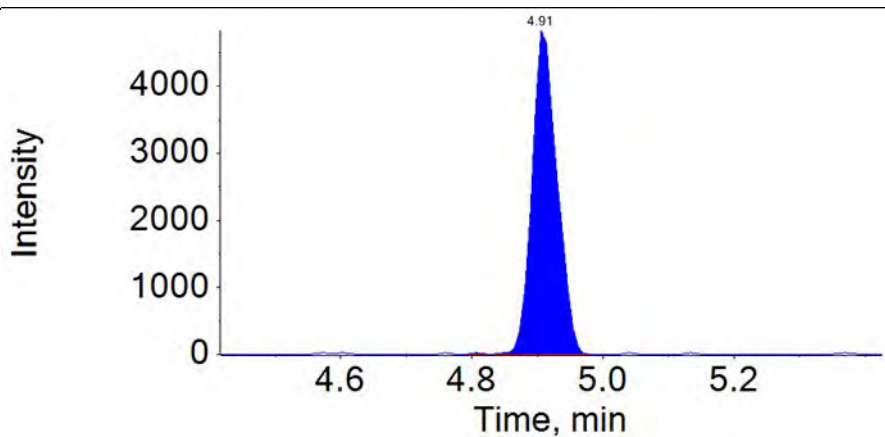


Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

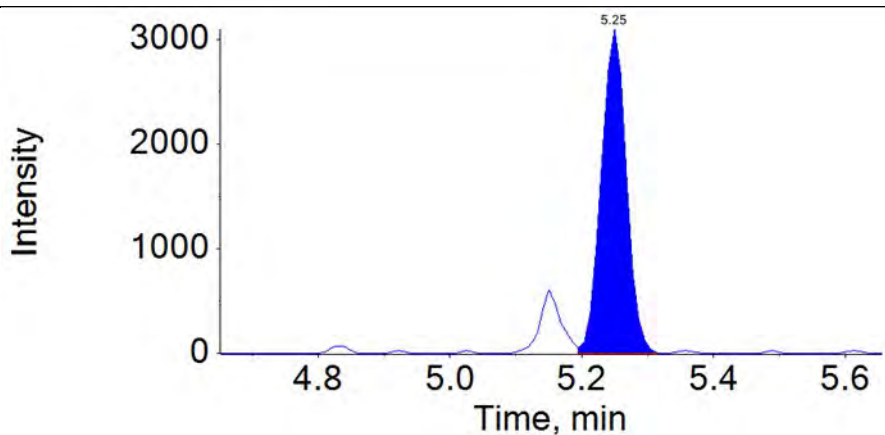
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHpS_2
RT (min.):
4.91
Peak Area:
12887.35
Mass Range:
449.0 / 99.0
File Name:
18NOV28DCAL-07.wiff
Sample Name:
CAL2



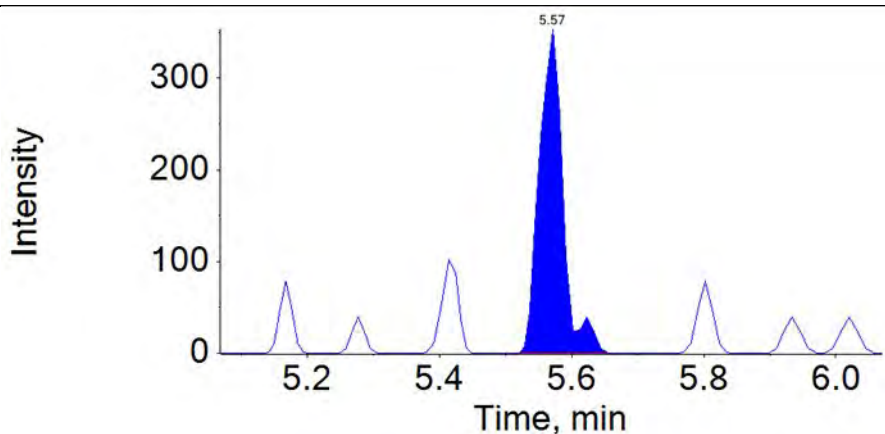
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
8192.52
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-07.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Component Name:
PFDA_2
RT (min.):
5.57
Peak Area:
886.81
Mass Range:
513.0 / 169.0
File Name:
18NOV28DCAL-07.wiff
Sample Name:
CAL2

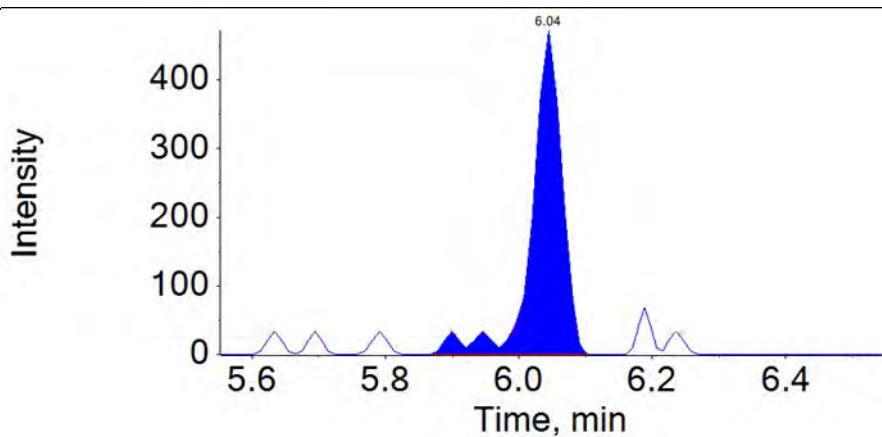


Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

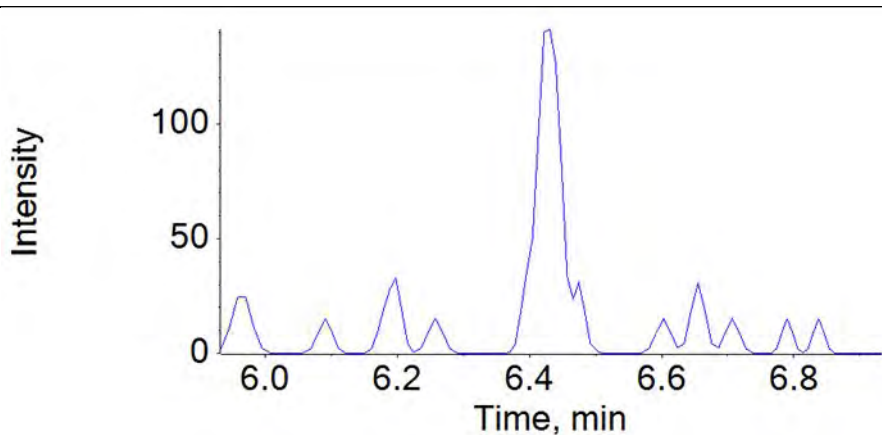
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QMethod File: 18AUG20QM

Component Name:
PFDODA_2
RT (min.):
6.04
Peak Area:
1485.68
Mass Range:
613.0 / 169.0
File Name:
18NOV28DCAL-07.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Component Name:
PFTeDA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
713.0 / 169.0
File Name:
18NOV28DCAL-07.wiff
Sample Name:
CAL2



Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 5:00 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

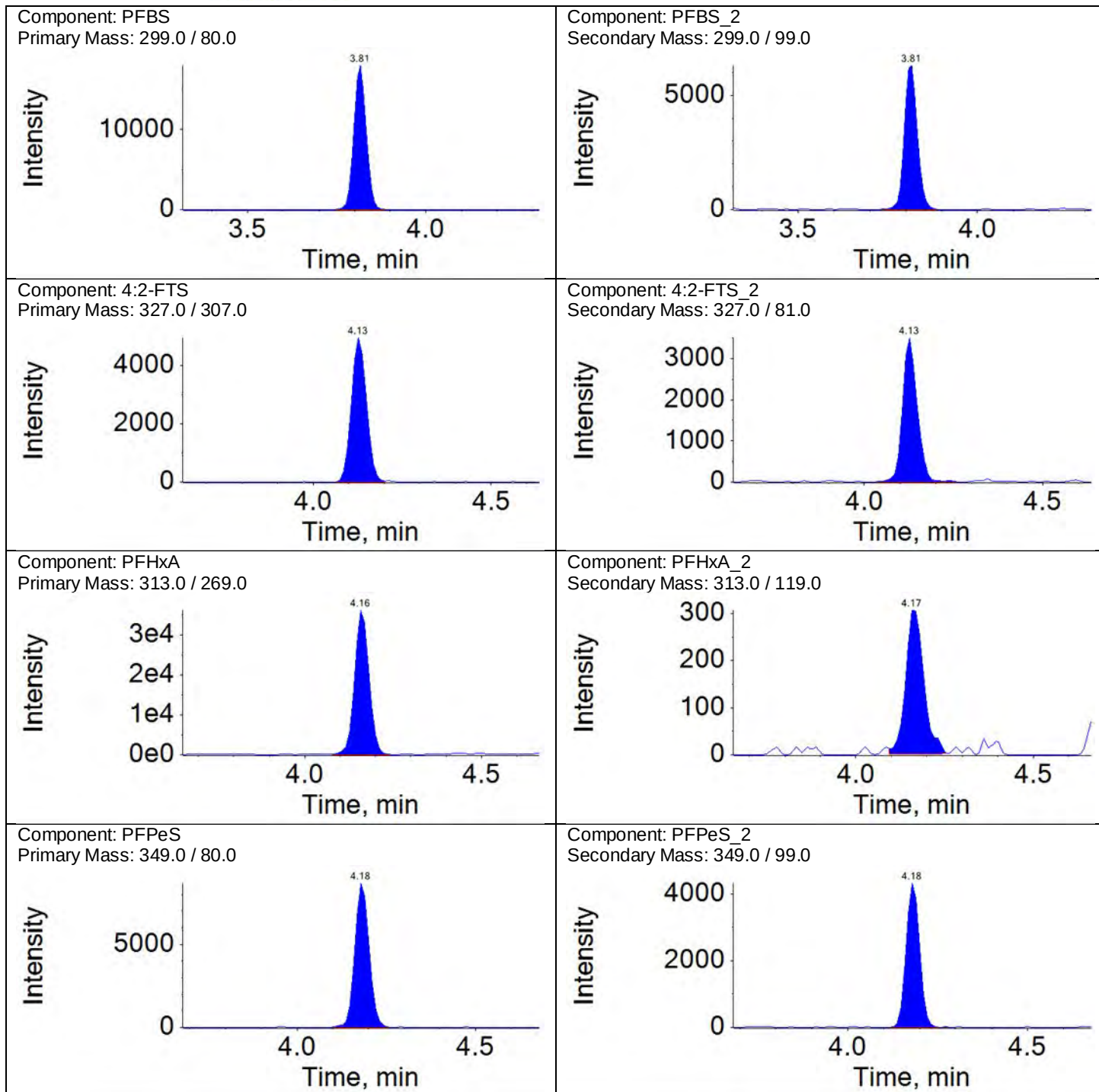
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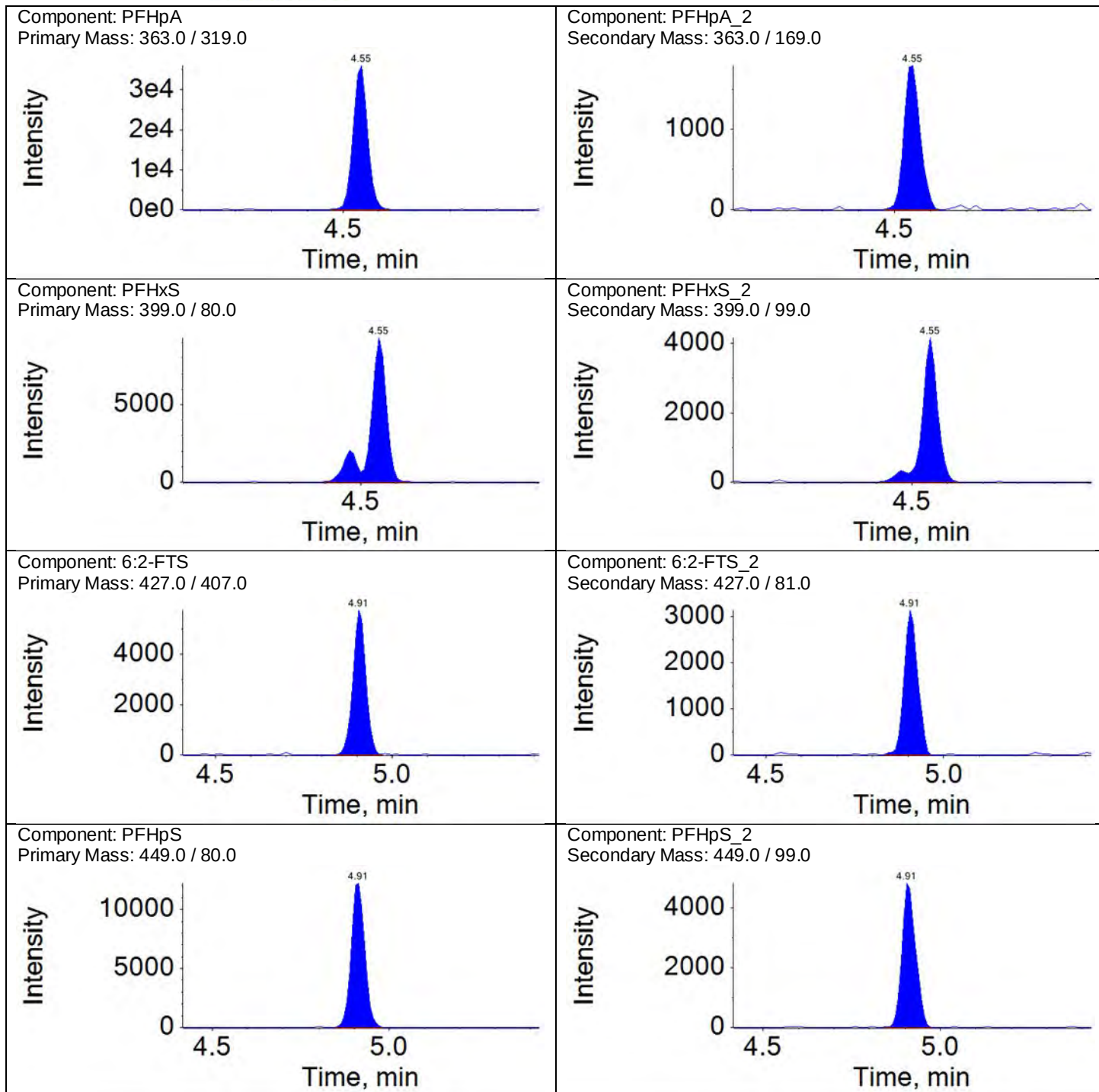
Sample Name: CAL2

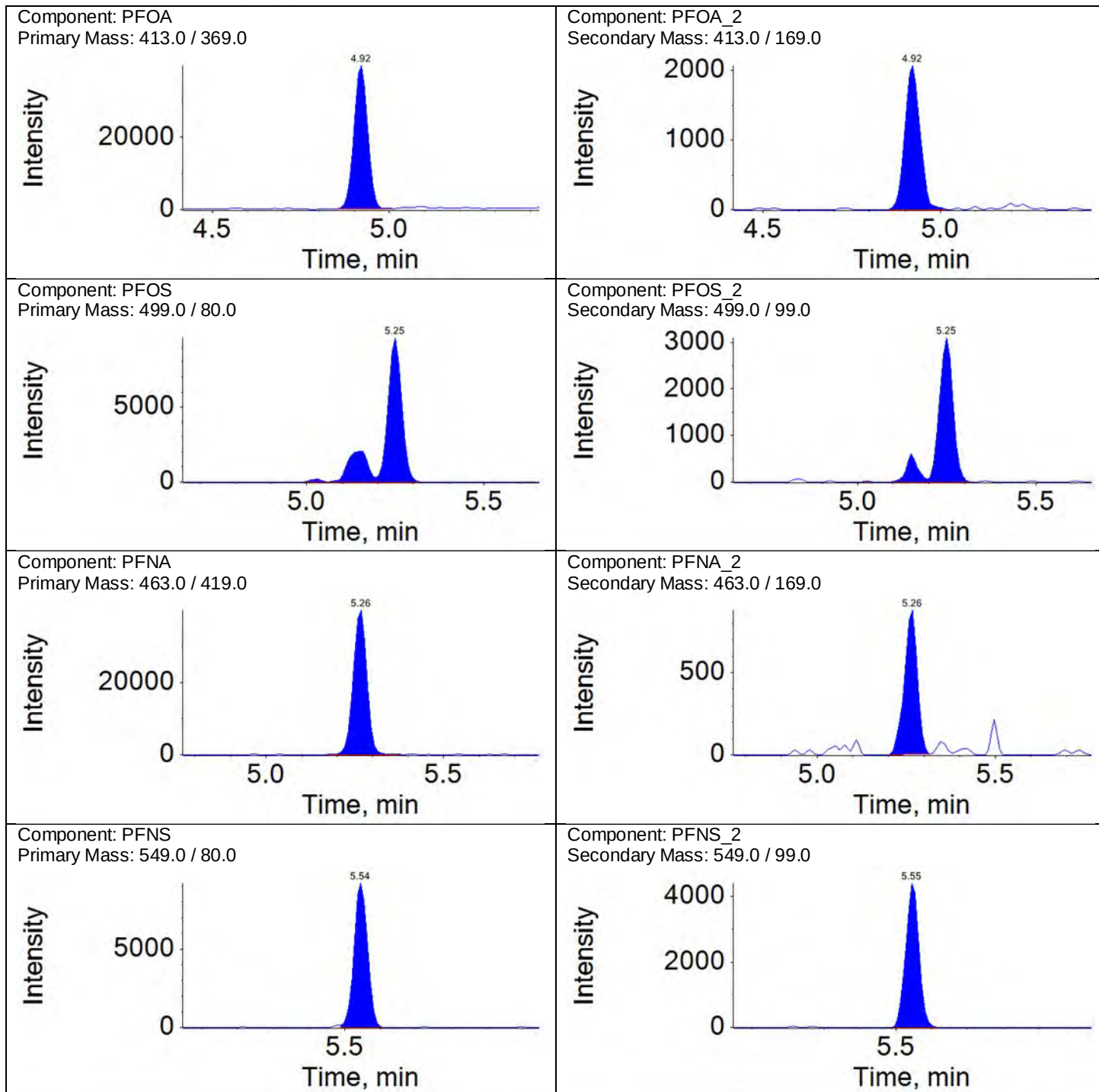
Instrument Name: LM27631

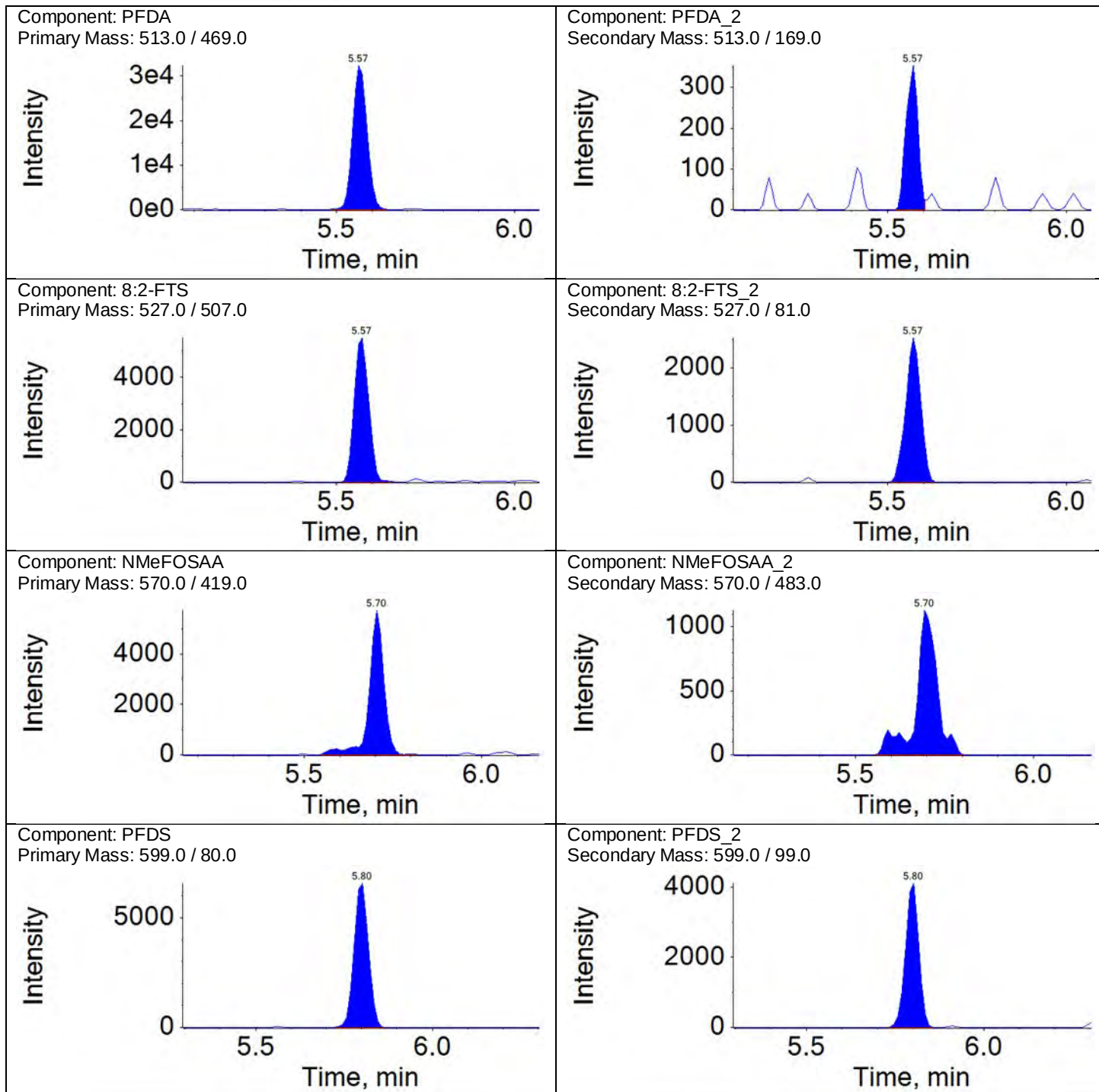
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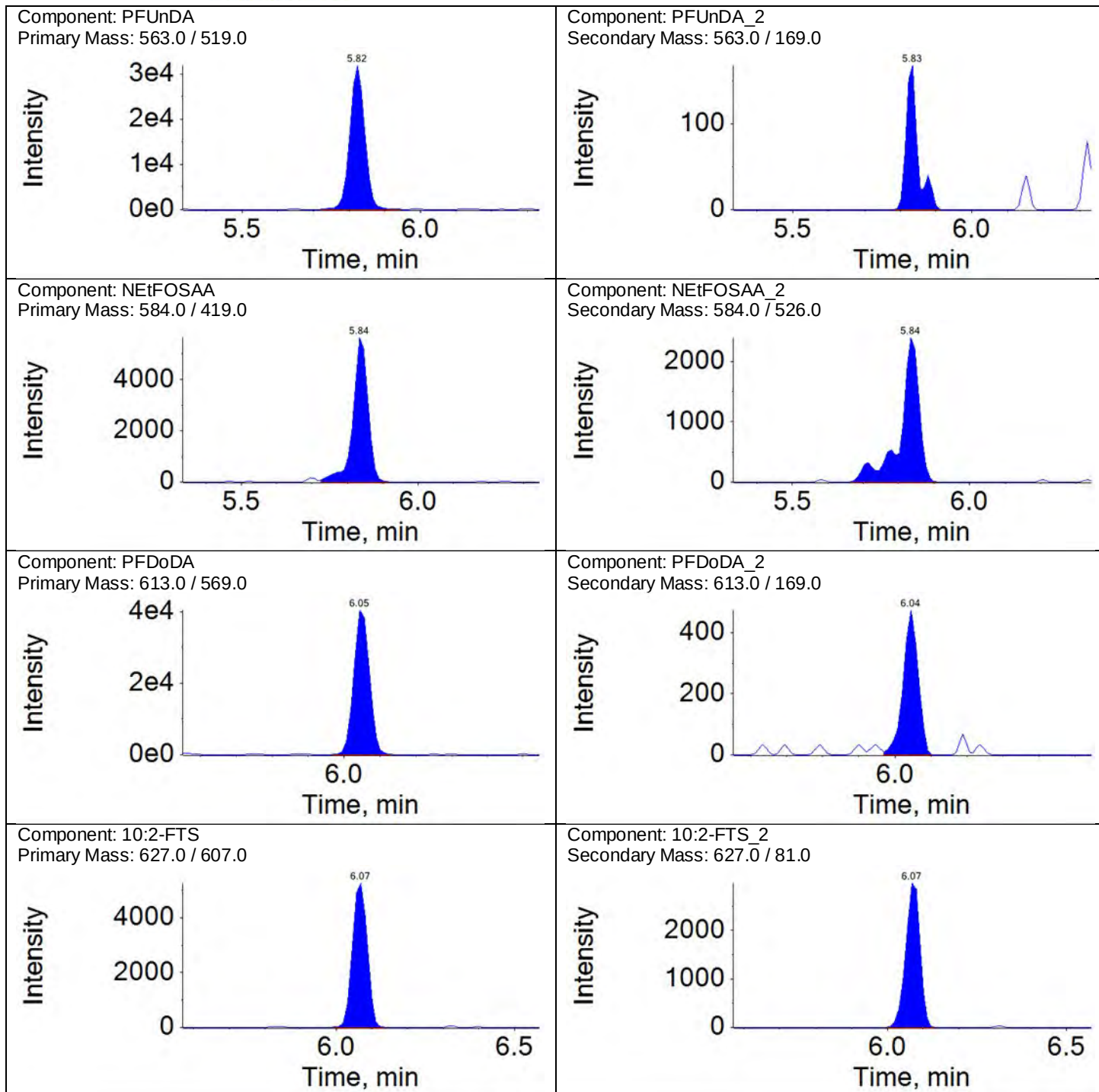
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	43237.36	A	0.3655	0.3673			
PFBS_2	3.81	1.00	15879.57	A	0.3655	0.3673	0	50	
4:2-FTS	4.13	1.00	14524.83	A	0.6383	0.6894			
4:2-FTS_2	4.13	1.00	10014.03	A	0.6383	0.6894	8	50	
PFHxA	4.16	1.00	101713.19	A	0.0103	0.0108			
PFHxA_2	4.17	1.00	1097.96	M	0.0103	0.0108	4	50	
PFPeS	4.18	1.10	24007.25	A	0.4976	0.4701			
PFPeS_2	4.18	1.10	11284.85	A	0.4976	0.4701	-6	50	
PFHpA	4.55	1.00	100593.81	A	0.0557	0.0562			
PFHpA_2	4.55	1.00	5648.69	A	0.0557	0.0562	1	50	
PFHxS	4.55	1.00	31104.49	M	0.3693	0.4064			
PFHxS_2	4.55	1.00	12640.83	A	0.3693	0.4064	10	50	
6:2-FTS	4.91	1.00	14479.84	A	0.6625	0.5750			
6:2-FTS_2	4.91	1.00	8326.49	A	0.6625	0.5750	-13	50	
PFHpS	4.91	1.08	32553.66	A	0.3915	0.3950			
PFHpS_2	4.91	1.08	12858.96	M	0.3915	0.3950	1	50	
PFOA	4.92	1.00	106420.83	A	0.0573	0.0580			
PFOA_2	4.92	1.00	6175.90	A	0.0573	0.0580	1	50	
PFOS	5.25	1.00	34203.58	M	0.2960	0.2799			
PFOS_2	5.25	1.00	9573.24	M	0.2960	0.2799	-5	50	
PFNA	5.26	1.00	106720.90	A	0.0201	0.0208			
PFNA_2	5.26	1.00	2222.59	A	0.0201	0.0208	4	50	
PFNS	5.54	1.06	24149.87	A	0.4794	0.4687			
PFNS_2	5.55	1.06	11319.26	A	0.4794	0.4687	-2	50	
PFDA	5.57	1.00	90730.27	A	0.0075	0.0091			
PFDA_2	5.57	1.00	822.55	M	0.0075	0.0091	21	50	
8:2-FTS	5.57	1.00	15550.17	A	0.5380	0.4749			
8:2-FTS_2	5.57	1.00	7384.51	A	0.5380	0.4749	-12	50	
NMeFOSAA	5.70	1.00	16533.06	A	0.2305	0.2819			
NMeFOSAA_2	5.70	1.00	4660.20	A	0.2305	0.2819	22	50	
PFDS	5.80	1.10	18654.75	A	0.5356	0.5747			
PFDS_2	5.80	1.10	10721.43	A	0.5356	0.5747	7	50	
PFUnDA	5.82	1.00	91490.40	A	0.0038	0.0043			
PFUnDA_2	5.83	1.00	389.41	A	0.0038	0.0043	12	50	
NEtFOSAA	5.84	1.00	16643.25	A	0.7356	0.5363			
NEtFOSAA_2	5.84	1.00	8925.35	A	0.7356	0.5363	-27	50	
PFDODA	6.05	1.00	122586.00	A	0.0130	0.0112			
PFDODA_2	6.04	1.00	1368.20	M	0.0130	0.0112	-14	50	
10:2-FTS	6.07	1.09	15157.77	A	0.6989	0.5470			
10:2-FTS_2	6.07	1.09	8291.25	A	0.6989	0.5470	-22	50	
PFTTrDA	6.25	1.03	117562.28	A	0.0090	0.0079			
PFTTrDA_2	6.25	1.03	932.63	A	0.0090	0.0079	-12	50	
PFTeDA	6.43	1.00	88360.25	A	0.0056	0.0048			
PFTeDA_2	6.43	1.00	423.54	M	0.0056	0.0048	-15	50	
PFHxDA	6.73	1.05	44164.63	A	0.0646	0.0656			
PFHxDA_2	6.73	1.05	2895.58	A	0.0646	0.0656	2	50	
PFODA	6.99	1.09	36421.52	A	0.0264	0.0257			
PFODA_2	6.99	1.09	935.28	A	0.0264	0.0257	-3	50	

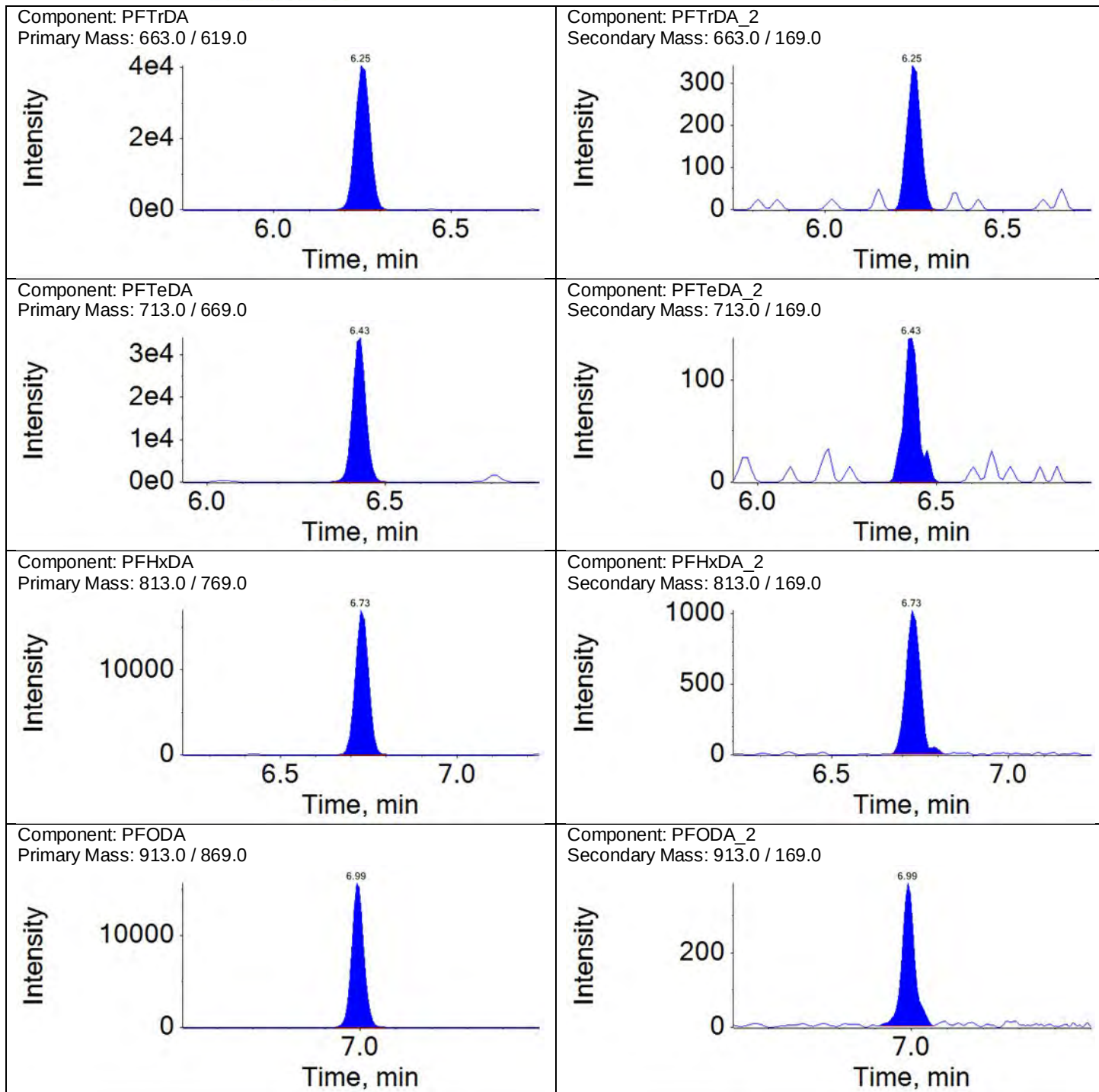












ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL3		Data File:	18NOV28DCAL-08.wiff
Sample ID:	CALBRN31833B		Acquis Date:	2018-11-28T14:00:13
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	5		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV28DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	887248.9	887248.9	0	50	
13C2-PFOA	5.0	498501.6	498501.6	0	50	
13C4-PFOS	4.8	283214.2	283214.2	0	50	
13C2-PFDA	5.0	441790.6	441790.6	0	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	993144.1	13C3-PFBA	887248.9	1.119	5.000	4.994	100	70-130	
E13C5-PFPeA	910953.7	13C3-PFBA	887248.9	1.027	5.000	4.794	96	70-130	
E13C3-PFBS	419929.2	13C3-PFBA	887248.9	0.473	4.650	4.515	97	70-130	
E13C2-4:2-FTS	70629.1	13C2-PFOA	498501.6	0.142	4.670	4.883	105	70-130	
E13C5-PFHxA	717900.1	13C2-PFOA	498501.6	1.440	5.000	5.290	106	70-130	
E13C3-PFHxS	326982.4	13C2-PFOA	498501.6	0.656	4.730	5.141	109	70-130	
E13C4-PFHpA	535993.3	13C2-PFOA	498501.6	1.075	5.000	4.940	99	70-130	
E13C2-6:2-FTS	65518.3	13C2-PFOA	498501.6	0.131	4.750	5.502	116	70-130	
E13C8-PFOA	954678.0	13C2-PFOA	498501.6	1.915	5.000	5.271	105	70-130	
E13C8-PFOS	309913.7	13C4-PFOS	283214.2	1.094	4.780	4.940	103	70-130	
E13C9-PFNA	629954.6	13C4-PFOS	283214.2	2.224	5.000	4.885	98	70-130	
E13C6-PFDA	824072.9	13C2-PFDA	441790.6	1.865	5.000	5.259	105	70-130	
E13C2-8:2-FTS	53847.2	13C2-PFDA	441790.6	0.122	4.790	5.239	109	70-130	
E13C8-PFOSA	631627.9	13C2-PFDA	441790.6	1.430	5.000	5.246	105	70-130	
Ed3-NMeFOSAA	178338.1	13C2-PFDA	441790.6	0.404	5.000	5.125	103	70-130	
E13C7-PFUnDA	592495.7	13C2-PFDA	441790.6	1.341	5.000	5.668	113	70-130	
Ed5-NEtFOSAA	129810.7	13C2-PFDA	441790.6	0.294	5.000	5.235	105	70-130	
E13C2-PFDoDA	1091194.9	13C2-PFDA	441790.6	2.470	5.000	5.189	104	70-130	
Ed7-NMePFOSAE	256577.3	13C2-PFDA	441790.6	0.581	5.000	5.019	100	70-130	
Ed3-NMePFOSA	80294.1	13C2-PFDA	441790.6	0.182	5.000	4.919	98	70-130	
Ed9-NEtPFOSAE	216571.5	13C2-PFDA	441790.6	0.490	5.000	4.970	99	70-130	
Ed5-NEtPFOSA	64623.7	13C2-PFDA	441790.6	0.146	5.000	5.083	102	70-130	
E13C2-PFTeDA	841931.1	13C2-PFDA	441790.6	1.906	5.000	5.273	105	70-130	

APPROVED

By MCD at 5:00 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL3

Instrument Name: LM27631

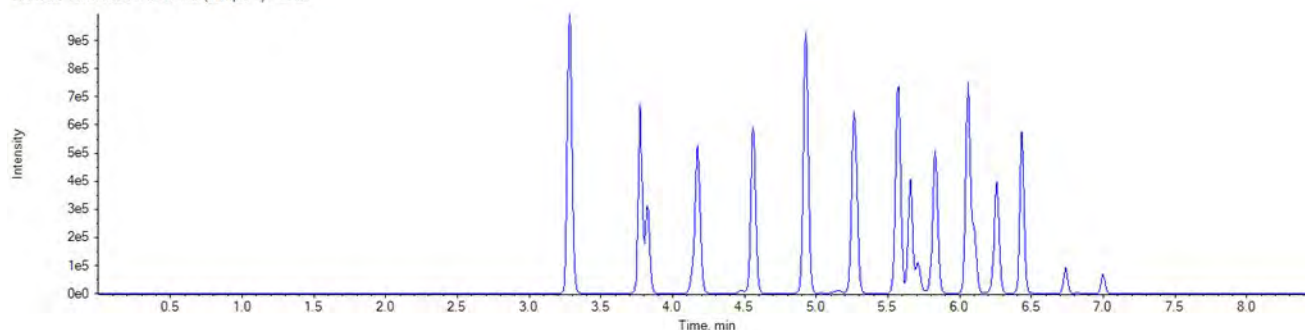
File Name: 18NOV28DCAL-08.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	403055.9		A	13C4-PFBA	3.28	993144.1	0.406	2.225
PFPeA	3.78	1.000	424089.1		A	13C5-PFPeA	3.78	910953.7	0.466	2.284
PFBS	3.82	1.000	168534.1		A	13C3-PFBS	3.82	419929.2	0.401	1.948
4:2-FTS	4.14	1.000	56502.5		A	13C2-4:2-FTS	4.14	70629.1	0.800	2.142
PFHxA	4.17	1.000	395421.4		A	13C5-PFHxA	4.17	717900.1	0.551	2.211
PFPeS	4.19	1.100	89559.7		A	13C3-PFBS	3.82	419929.2	0.213	2.157
PFHpA	4.56	1.000	388626.7		A	13C4-PFHpA	4.56	535993.3	0.725	2.238
PFHxS	4.56	1.000	127889.2		M	13C3-PFHxS	4.56	326982.4	0.391	1.831
6:2-FTS	4.92	1.000	53951.0		A	13C2-6:2-FTS	4.92	65518.3	0.823	2.149
PFHpS	4.92	1.080	129450.9		A	13C3-PFHxS	4.56	326982.4	0.396	1.976
PFOA	4.93	1.000	405879.4		A	13C8-PFOA	4.93	954678.0	0.425	2.197
PFOS	5.26	1.000	139506.6		M	13C8-PFOS	5.26	309913.7	0.450	1.888
PFNA	5.27	1.000	370292.0		A	13C9-PFNA	5.27	629954.6	0.588	2.253
PFNS	5.55	1.060	91471.0		A	13C8-PFOS	5.26	309913.7	0.295	1.864
PFDA	5.57	1.000	343523.0		A	13C6-PFDA	5.57	824072.9	0.417	2.360
8:2-FTS	5.57	1.000	57433.9		A	13C2-8:2-FTS	5.58	53847.2	1.067	2.011
PFOSA	5.66	1.000	265394.0		A	13C8-PFOSA	5.66	631627.9	0.420	2.128
NMeFOSAA	5.71	1.000	62054.8		A	d3-NMeFOSAA	5.71	178338.1	0.348	2.220
PFDS	5.80	1.100	80537.4		A	13C8-PFOS	5.26	309913.7	0.260	2.060
PFUnDA	5.83	1.000	370693.6		A	13C7-PFUnDA	5.83	592495.7	0.626	2.236
NEtFOSAA	5.84	1.000	52769.5		M	d5-NEtFOSAA	5.84	129810.7	0.407	1.980
PFDODA	6.06	1.000	486489.2		A	13C2-PFDODA	6.06	1091194.9	0.446	2.442
10:2-FTS	6.07	1.090	58508.2		A	13C2-8:2-FTS	5.58	53847.2	1.087	2.396
NMePFOSAE	6.11	1.000	136518.3		A	d7-NMePFOSAE	6.10	256577.3	0.532	2.239
NMePFOSA	6.11	1.000	33009.7		A	d3-NMePFOSA	6.11	80294.1	0.411	2.179
PFDoS	6.23	1.180	40838.1		A	13C8-PFOS	5.26	309913.7	0.132	1.892
NEtPFOSAE	6.26	1.000	152952.1		A	d9-NEtPFOSAE	6.25	216571.5	0.706	2.540
NEtPFOSA	6.27	1.000	30595.3		A	d5-NEtPFOSA	6.27	64623.7	0.473	2.122
PFTDA	6.26	1.030	466266.9		A	13C2-PFDODA	6.06	1091194.9	0.427	2.576
PFTeDA	6.43	1.000	342239.8		A	13C2-PFTeDA	6.43	841931.1	0.406	2.303
PFHxDA	6.74	1.050	173721.0		A	13C2-PFTeDA	6.43	841931.1	0.206	2.359
PFODA	7.00	1.090	139071.5		A	13C2-PFTeDA	6.43	841931.1	0.165	2.201

Total Ion Chromatogram

TIC from 18NOV28DCAL-08.wiff (sample 1) - CAL3

APPROVED
By MCD at 5:00 pm, 11/28/18

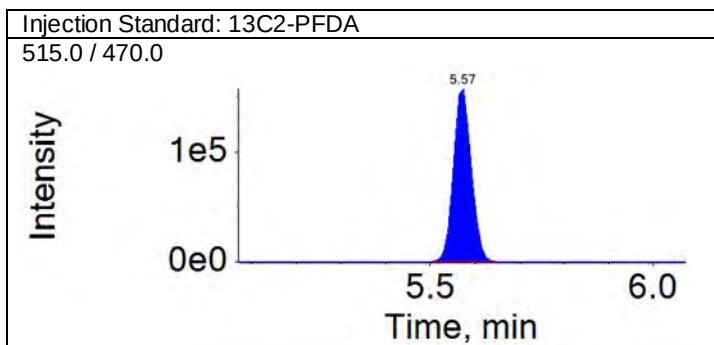
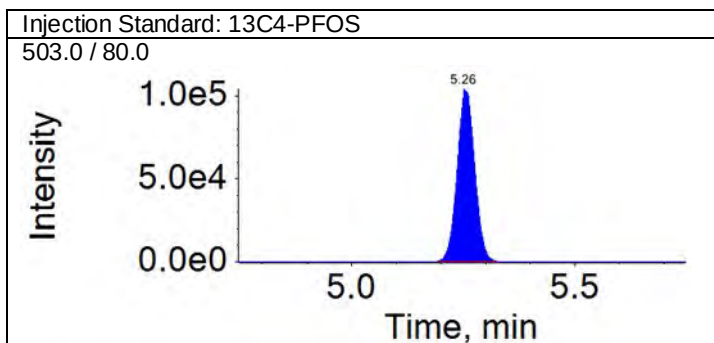
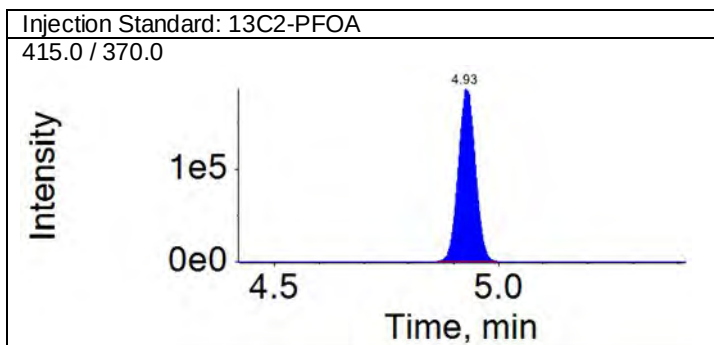
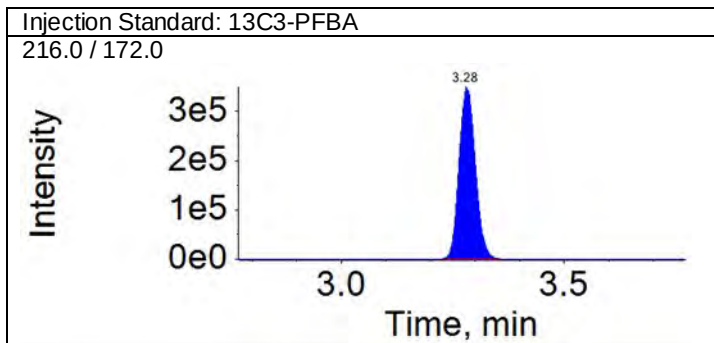
BSI14 Page 1404 of 2132

REVIEWED
By HMK at 12:22 pm, 11/29/18

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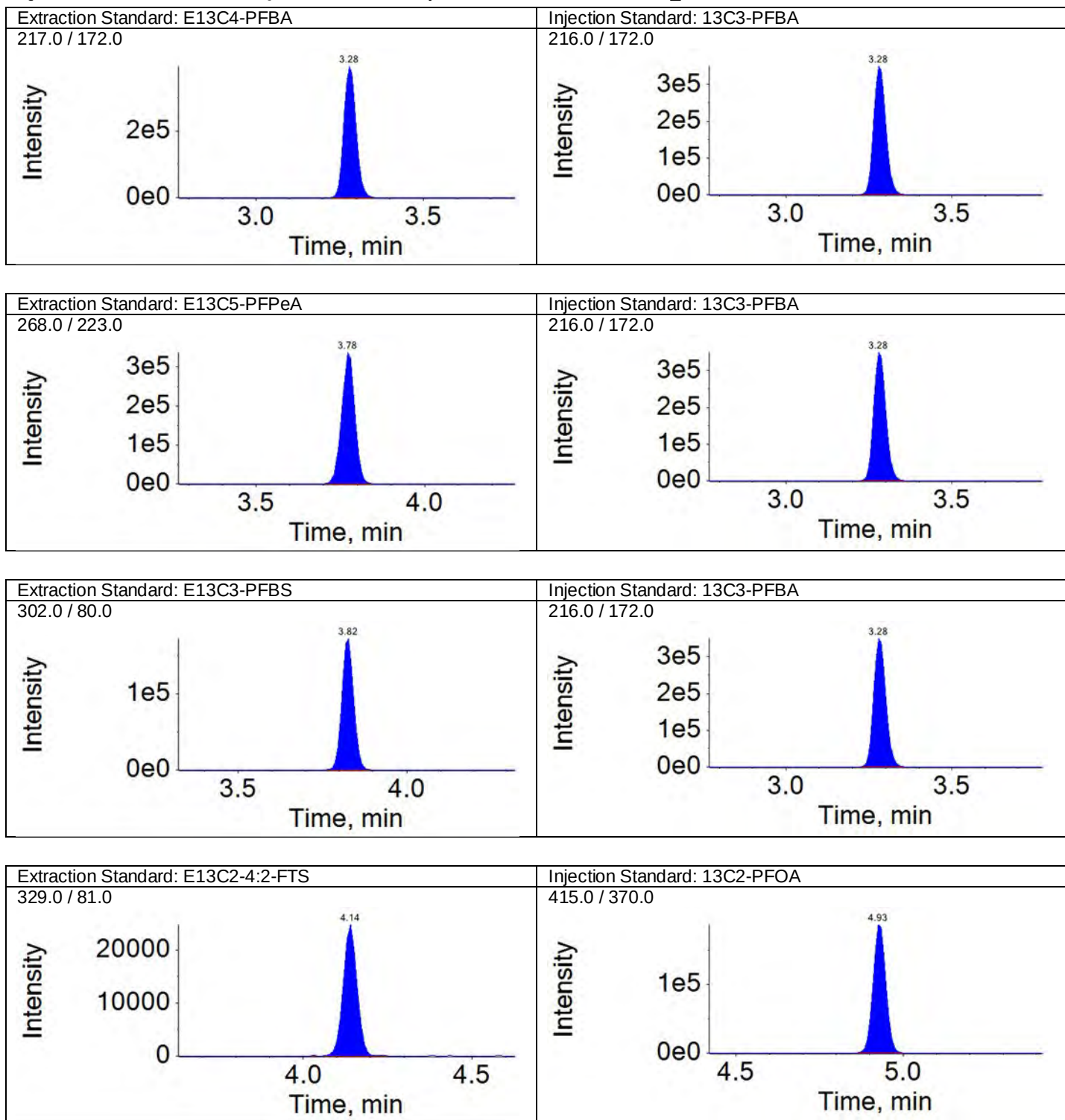
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



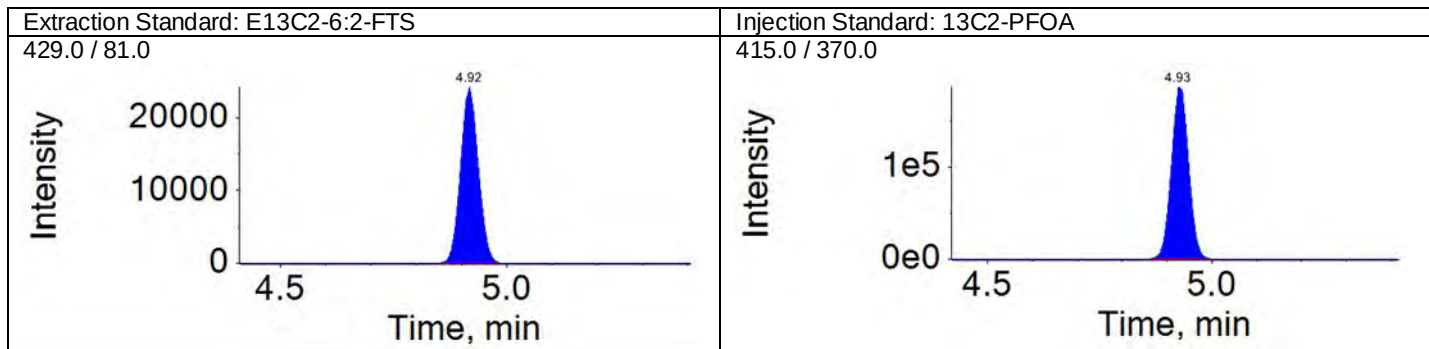
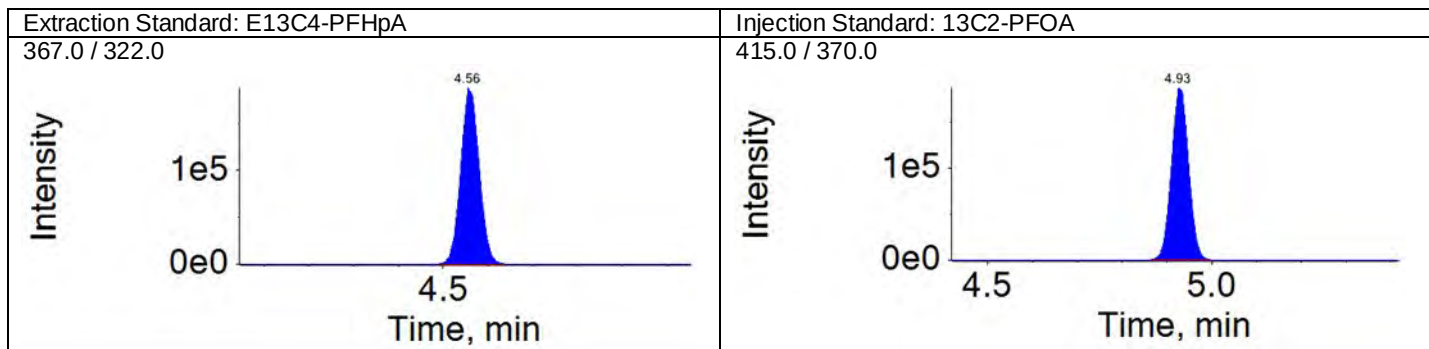
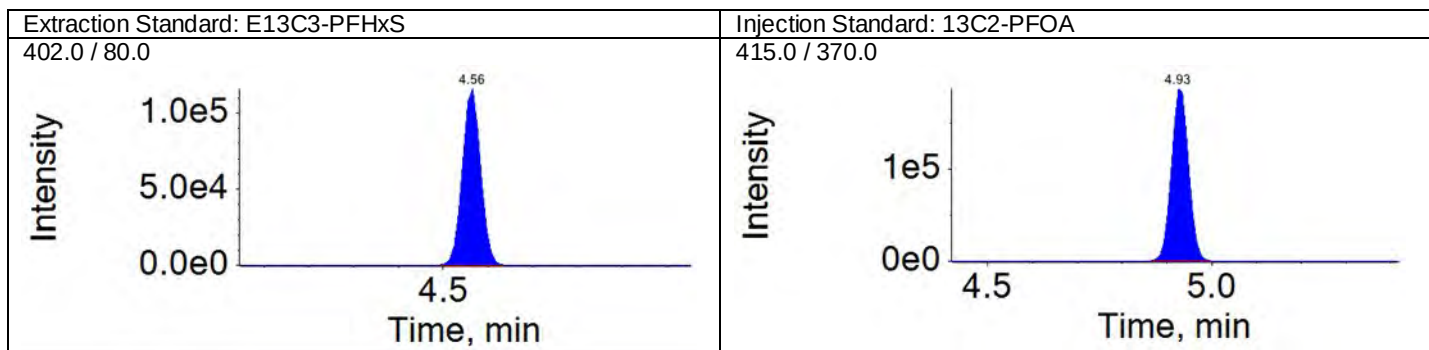
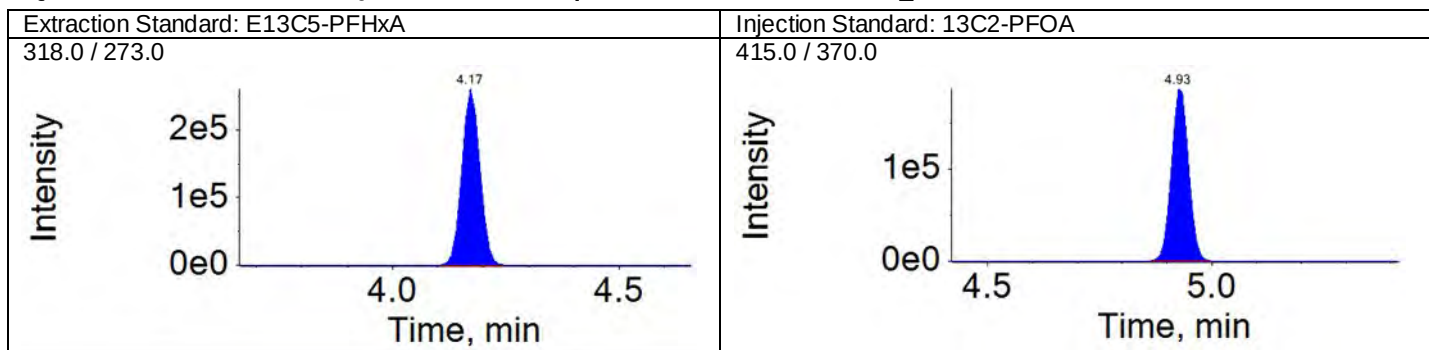
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



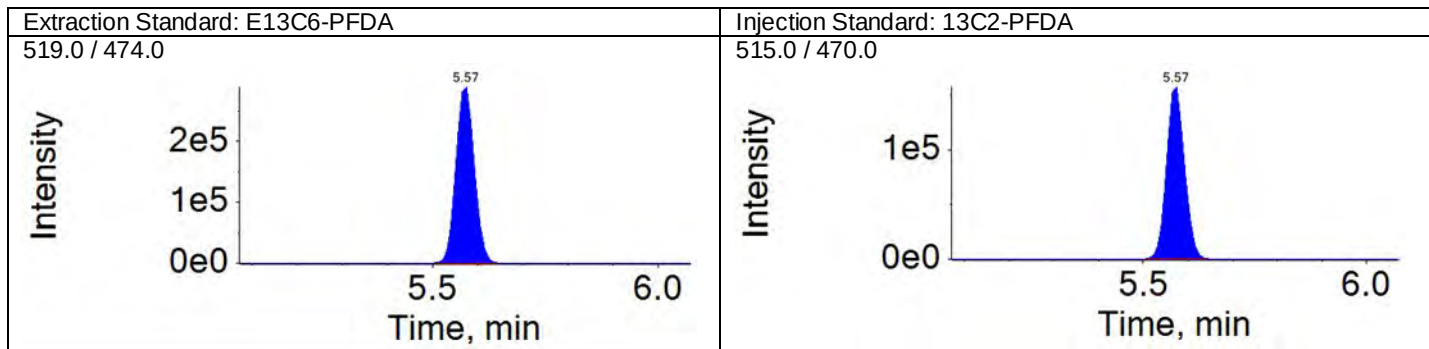
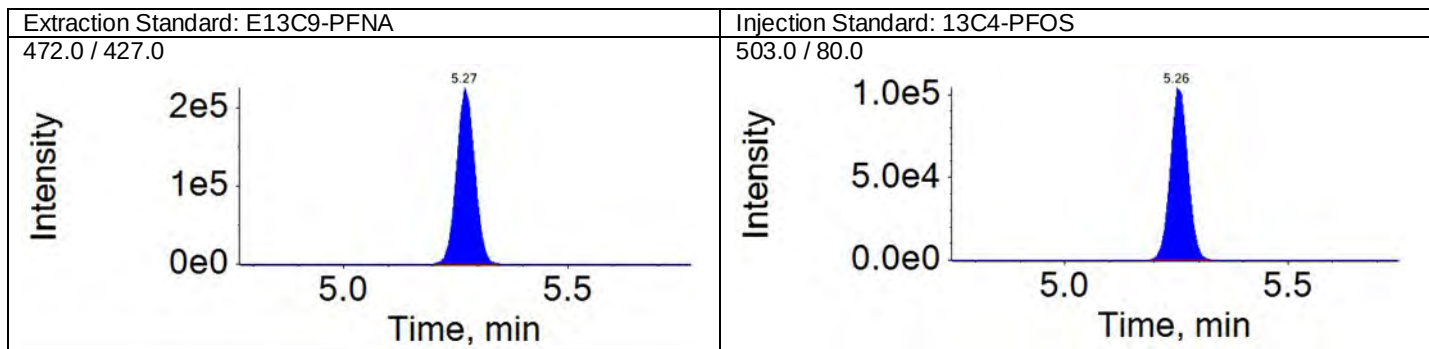
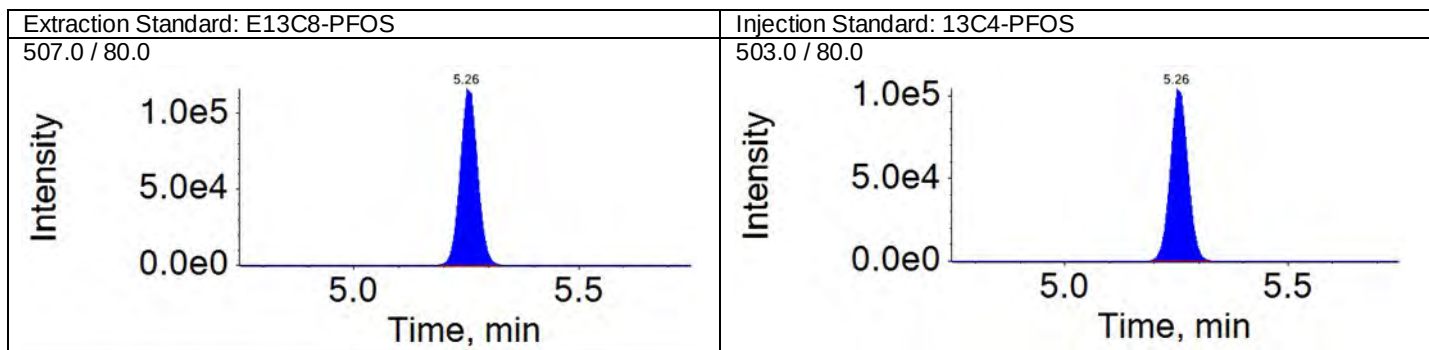
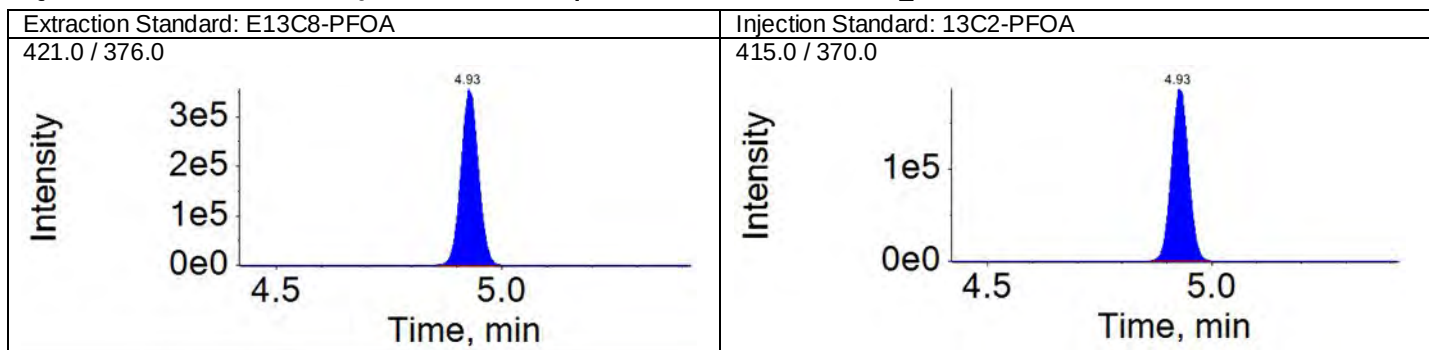
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



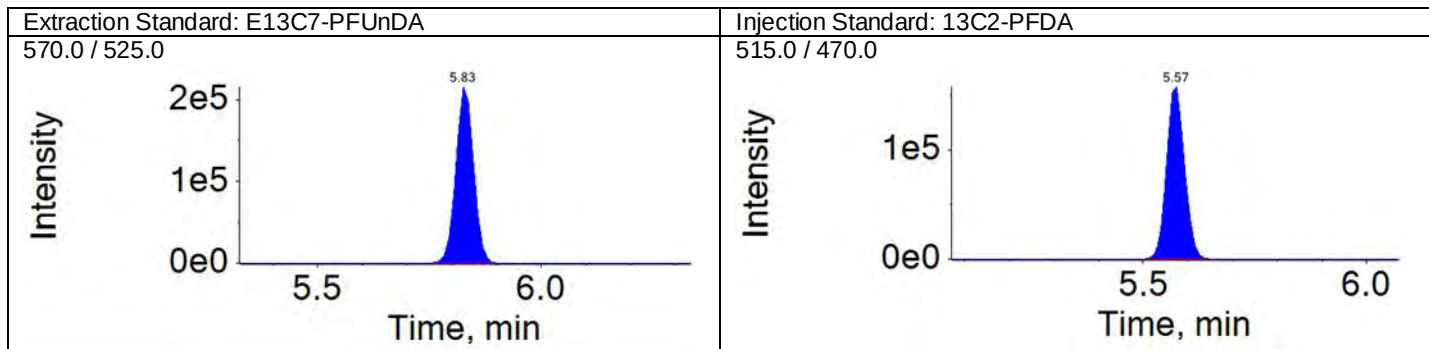
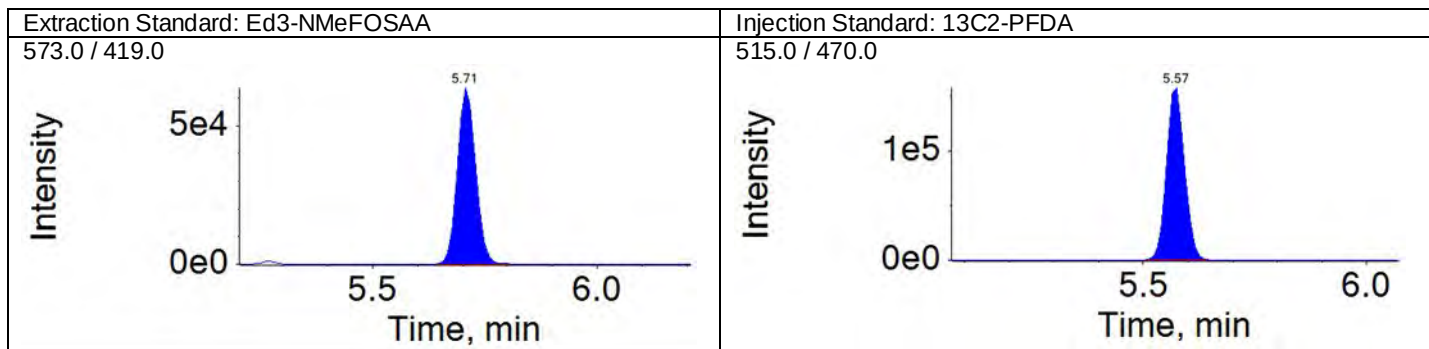
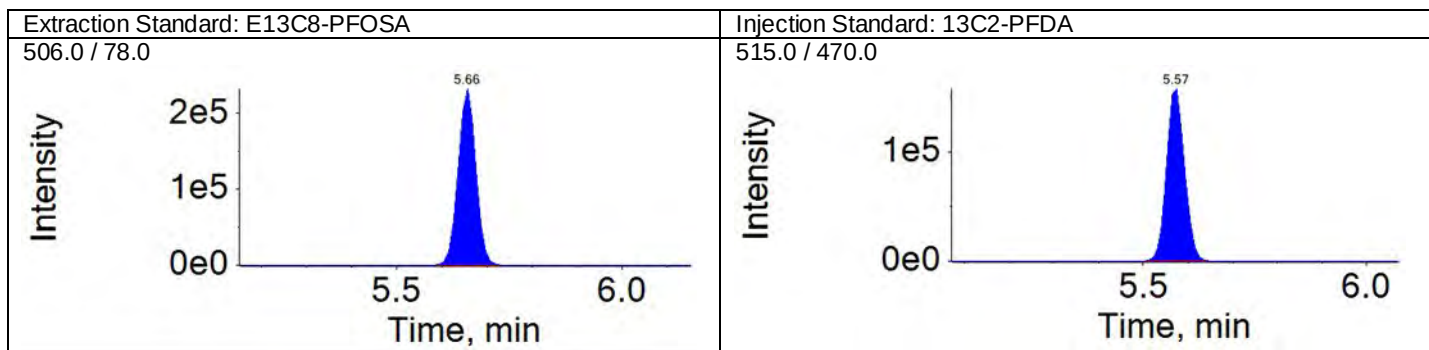
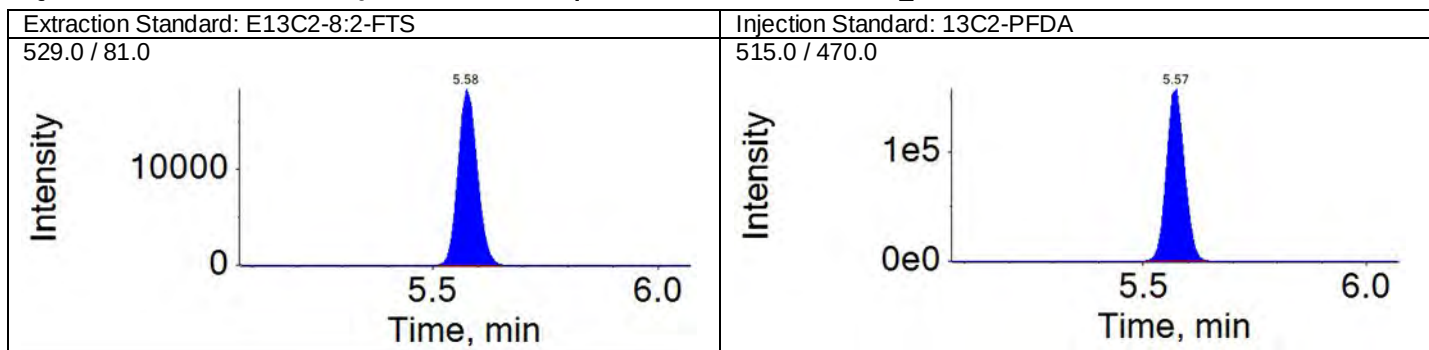
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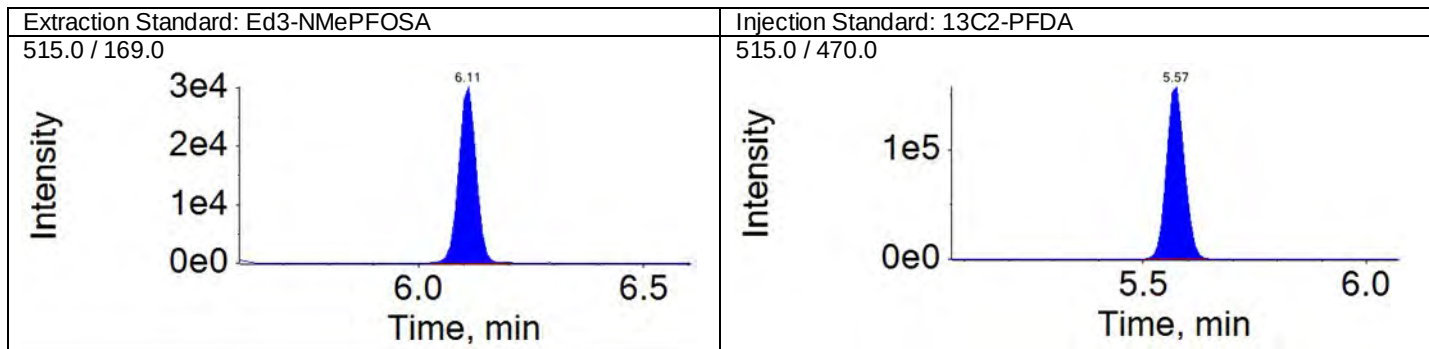
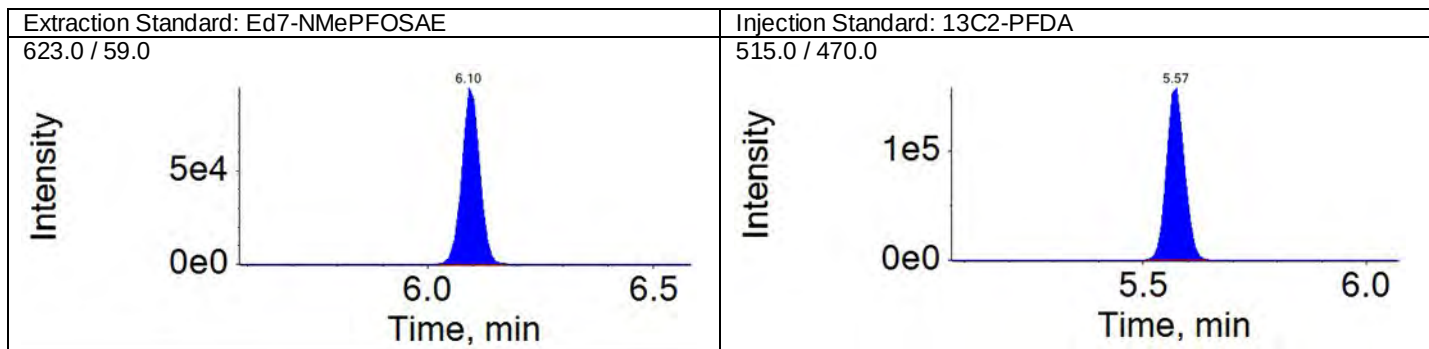
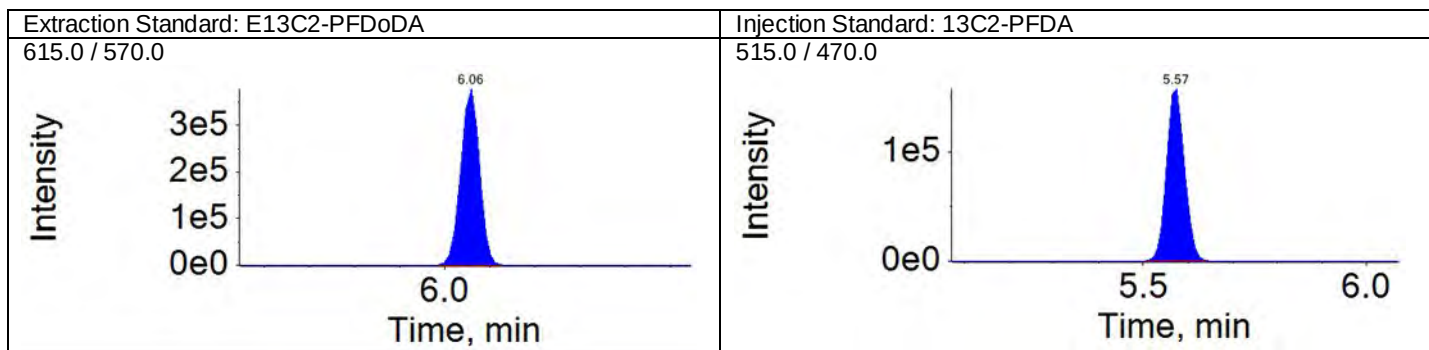
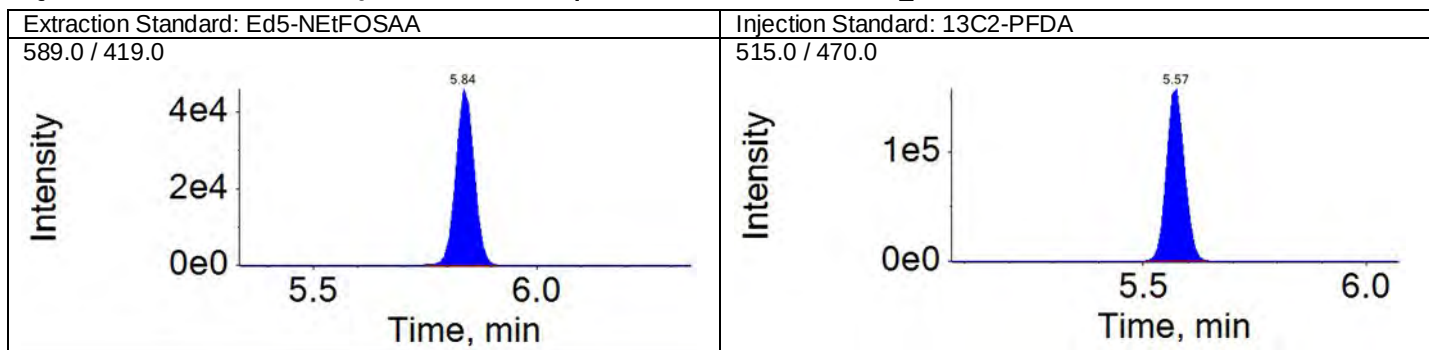
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Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
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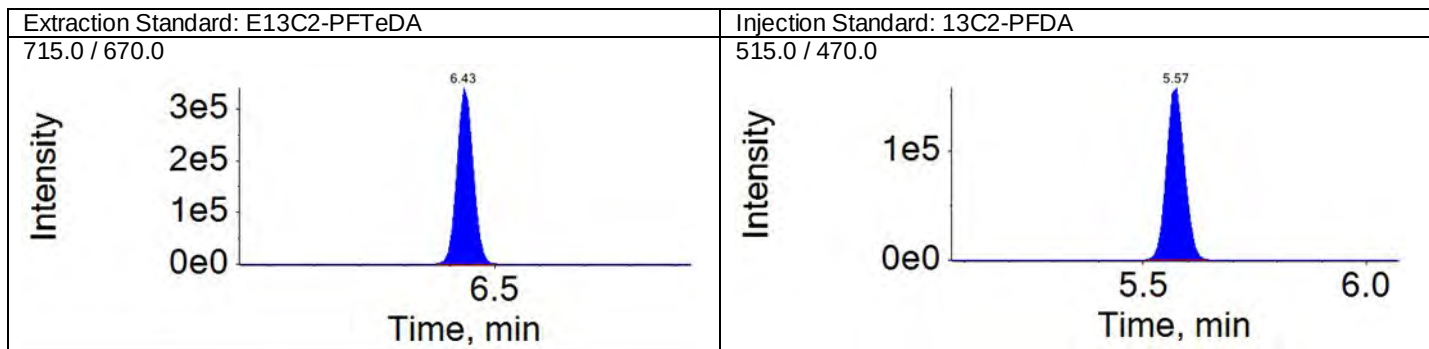
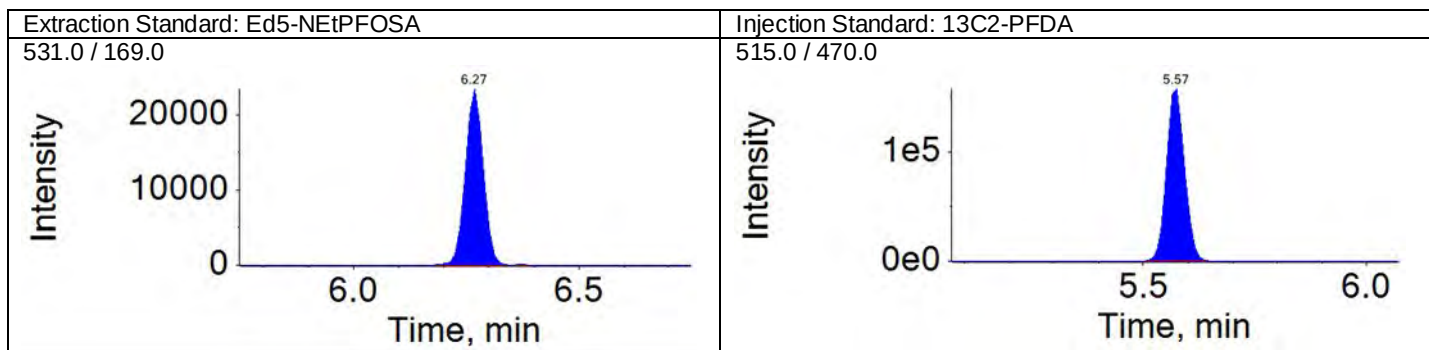
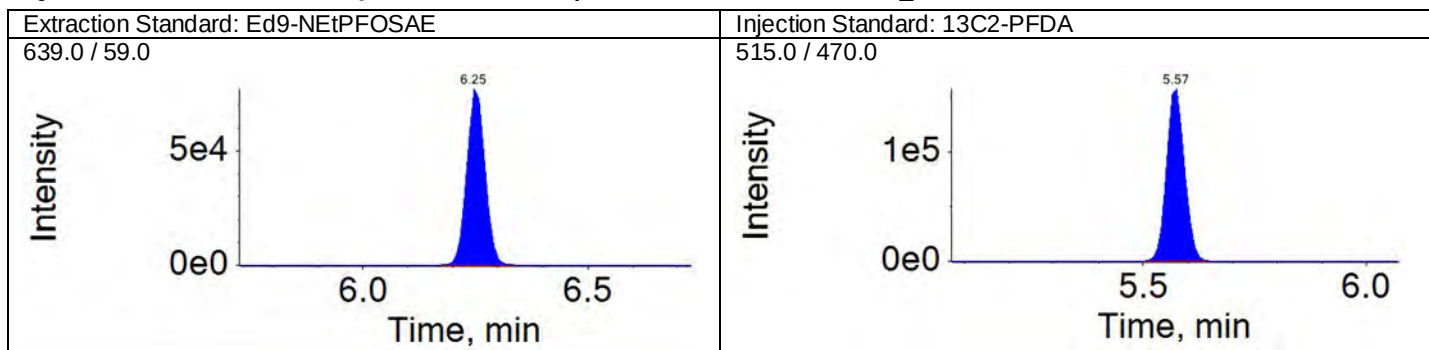
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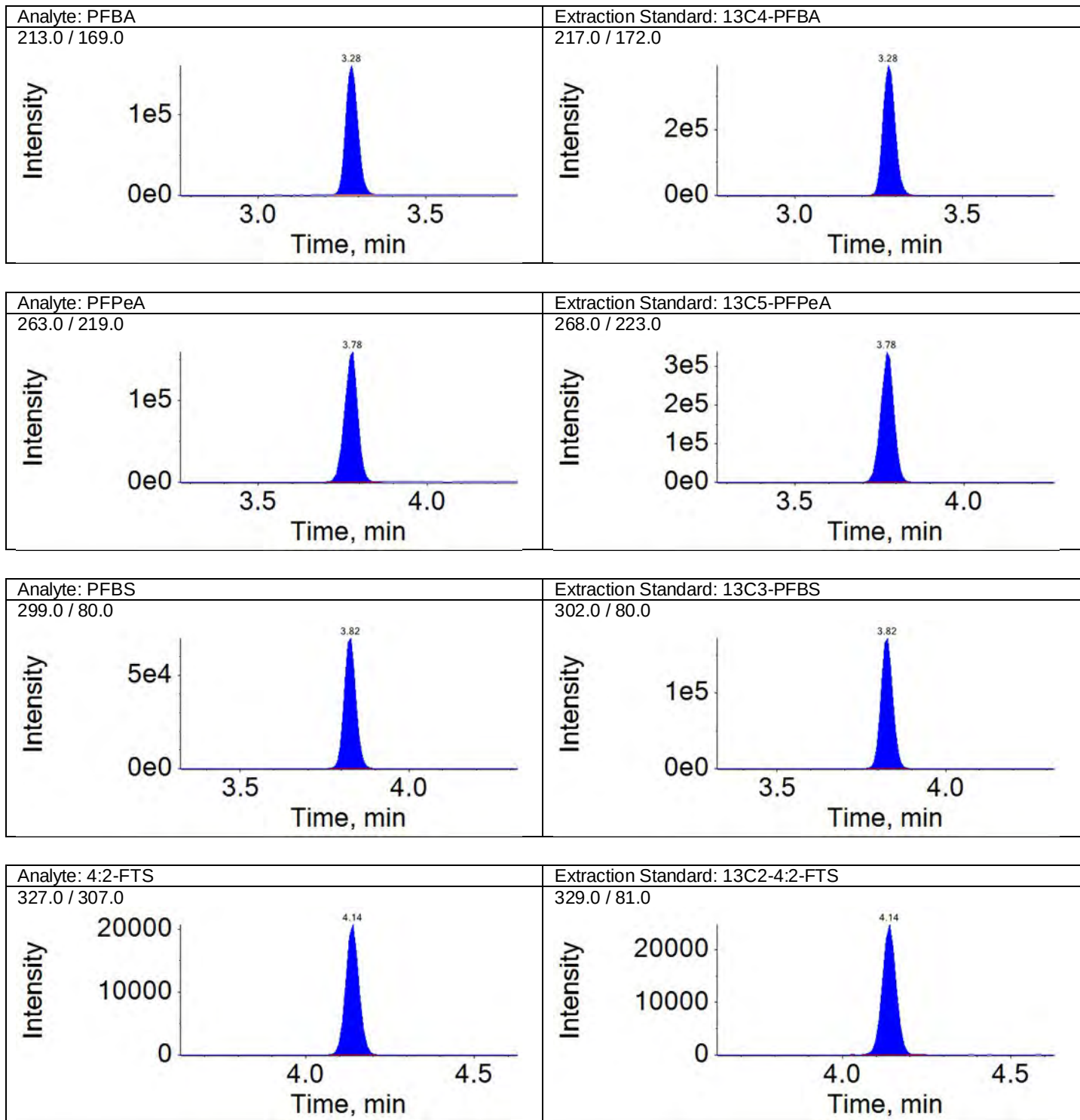
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



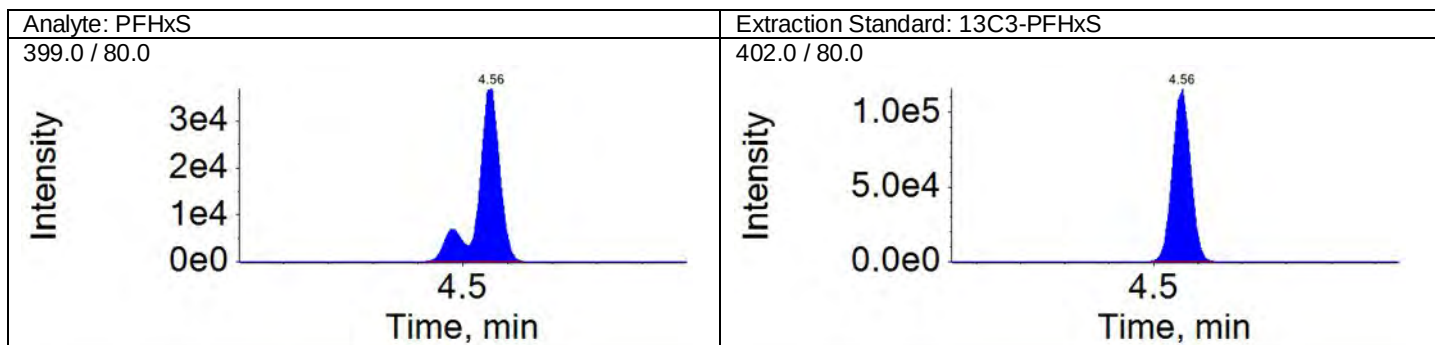
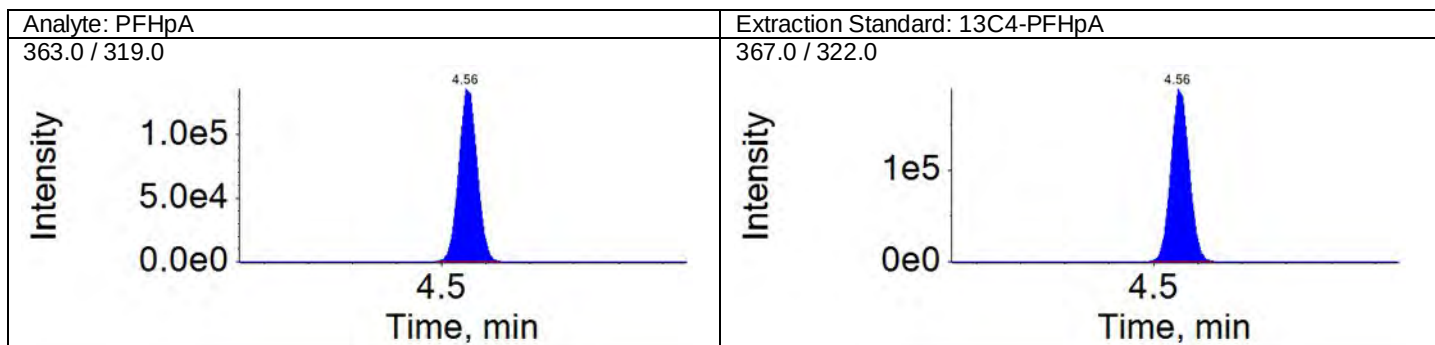
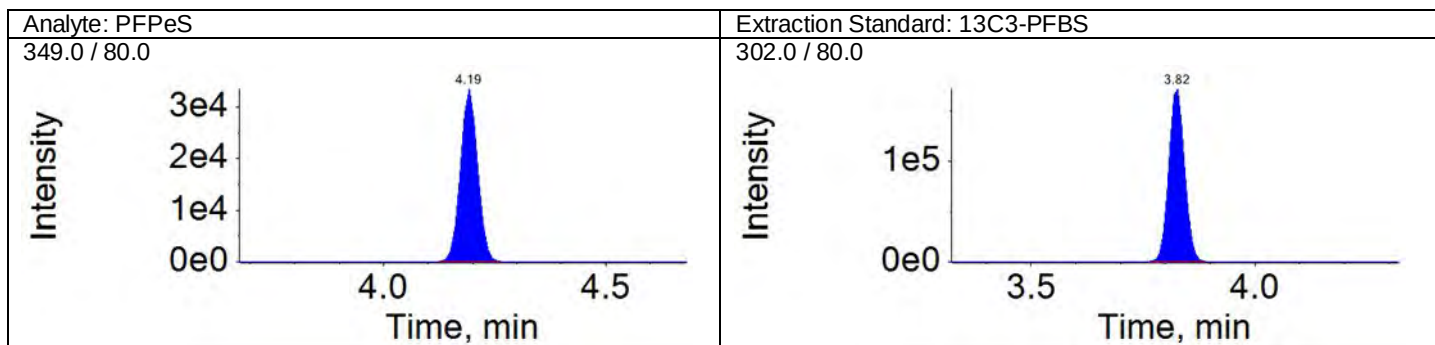
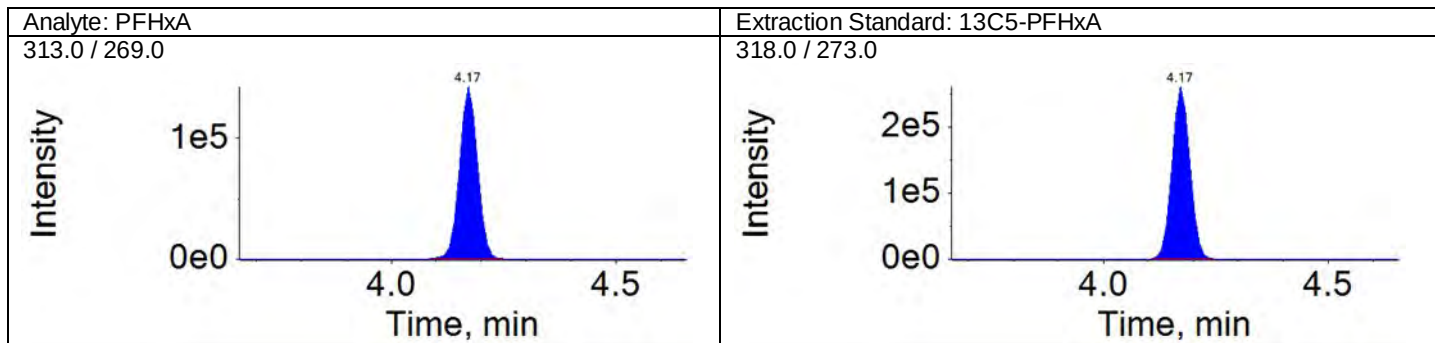
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



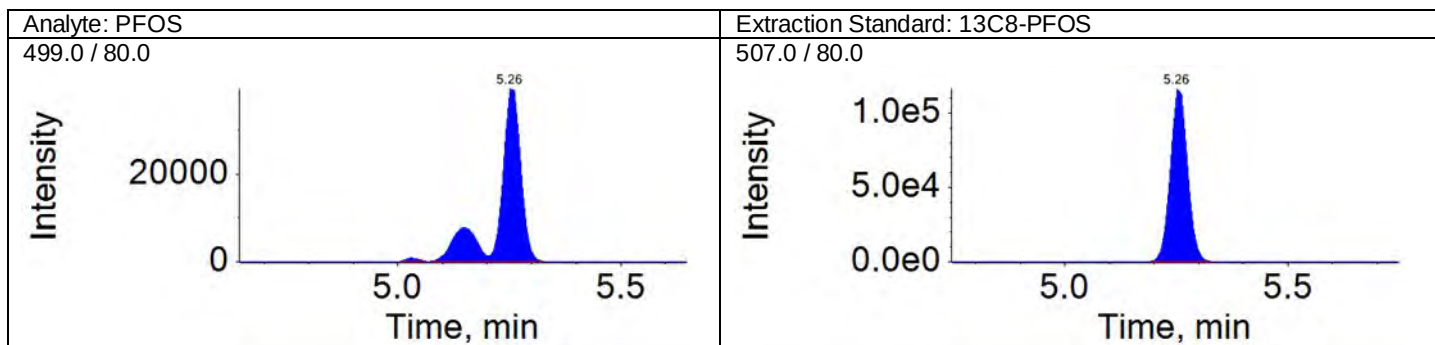
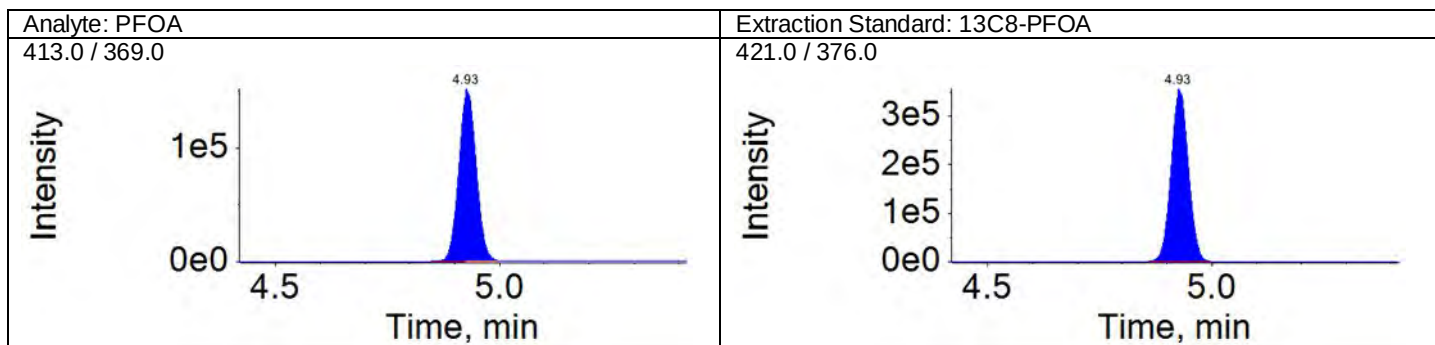
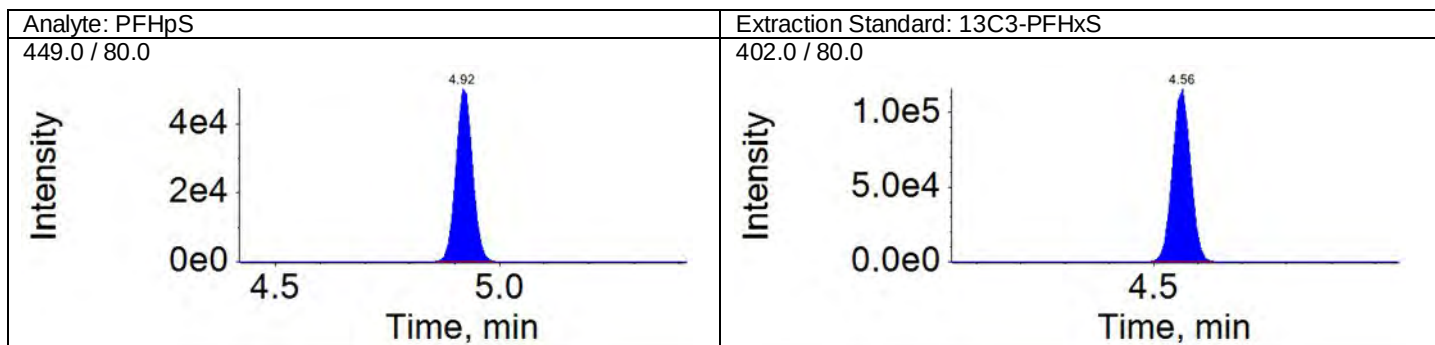
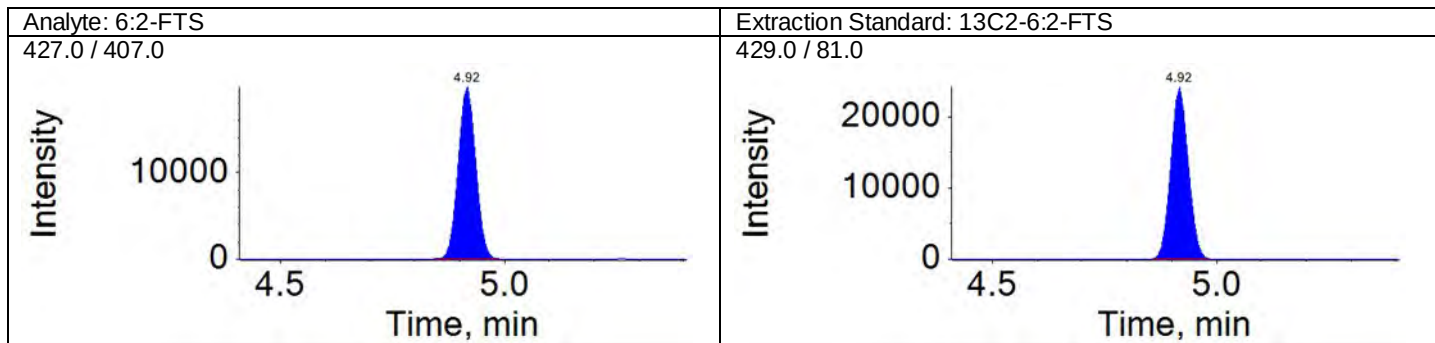
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



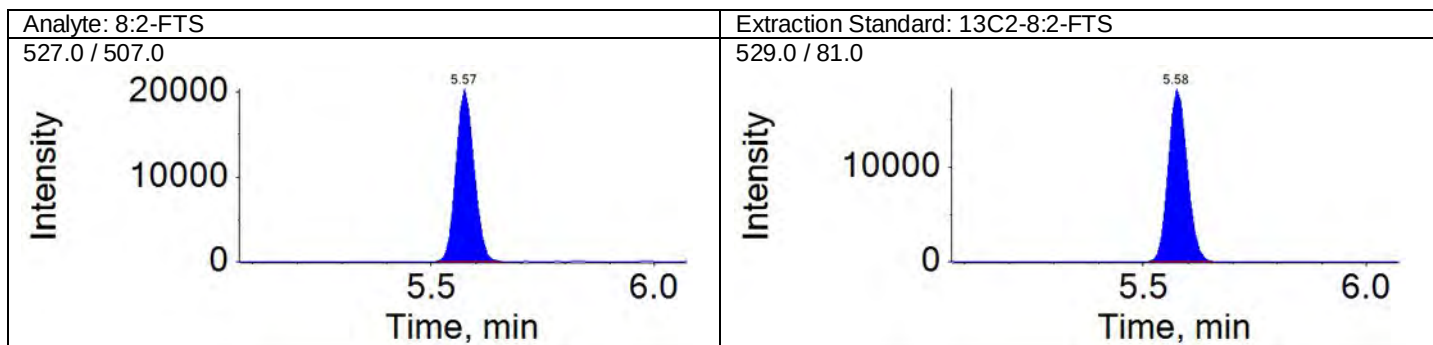
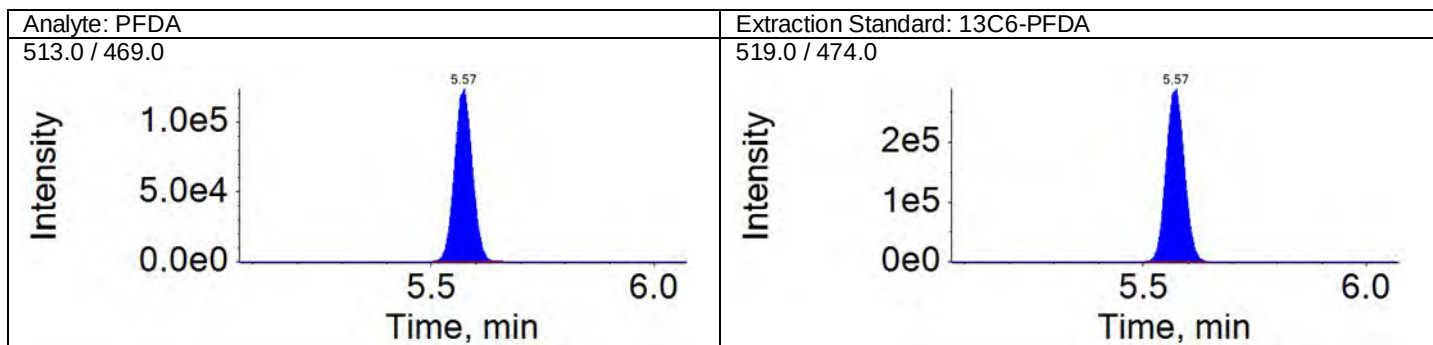
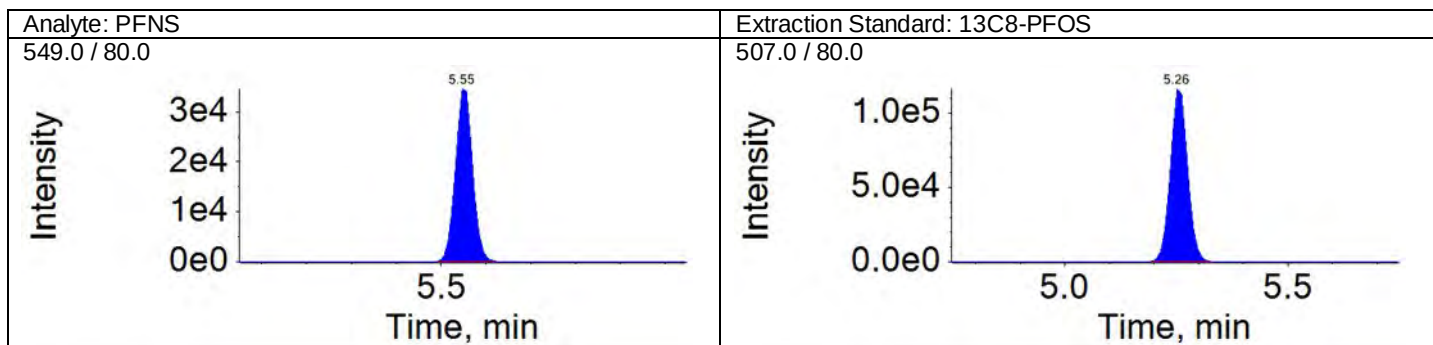
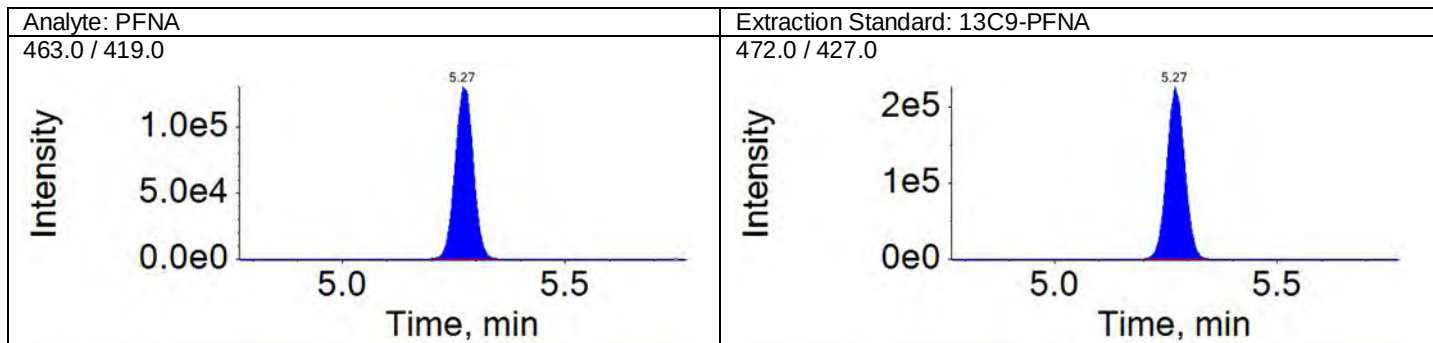
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



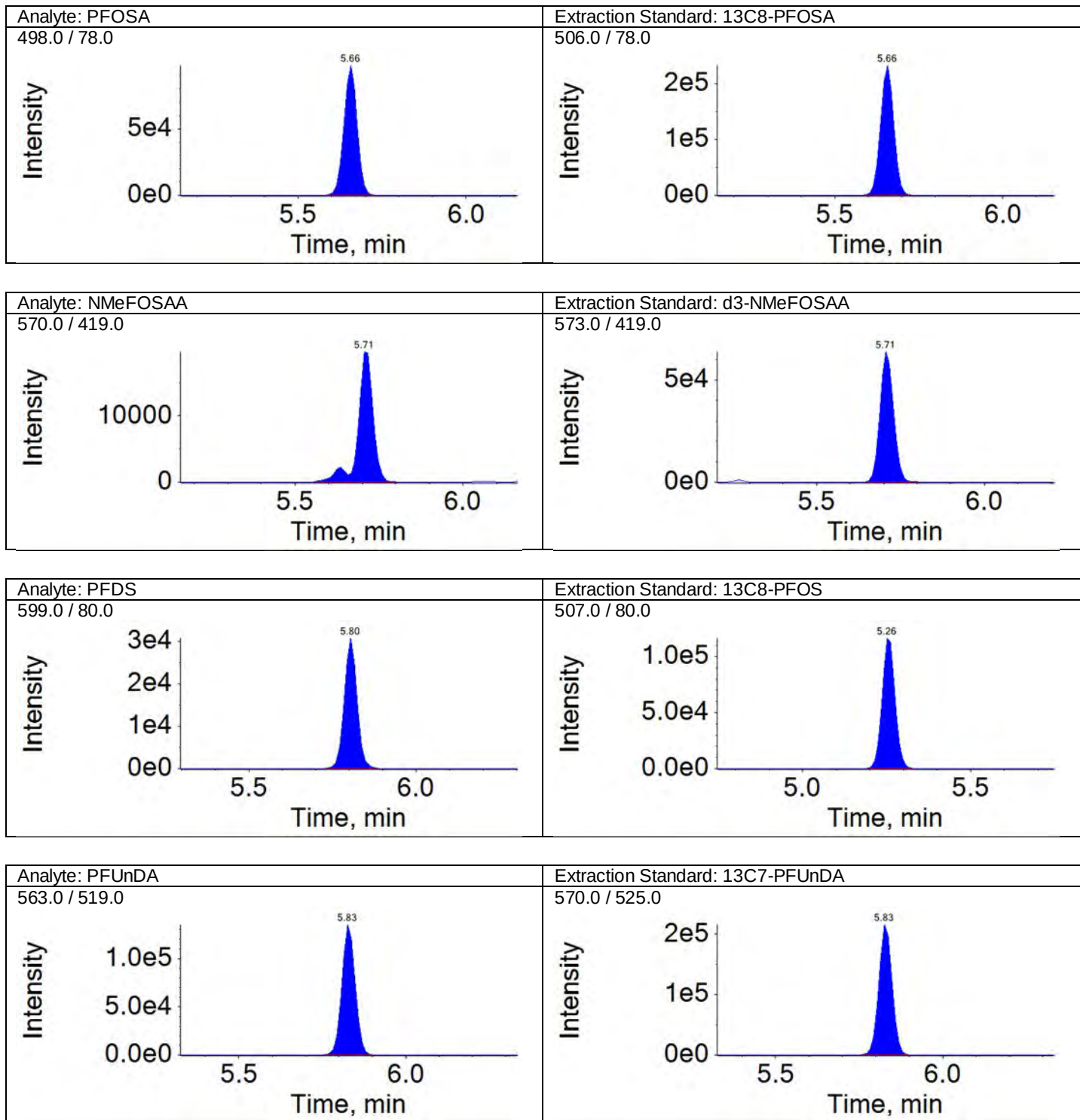
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Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



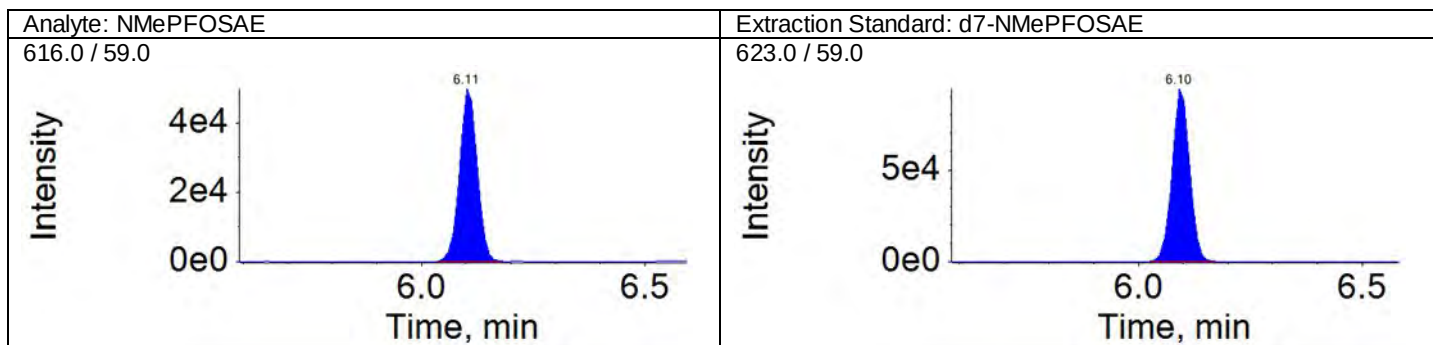
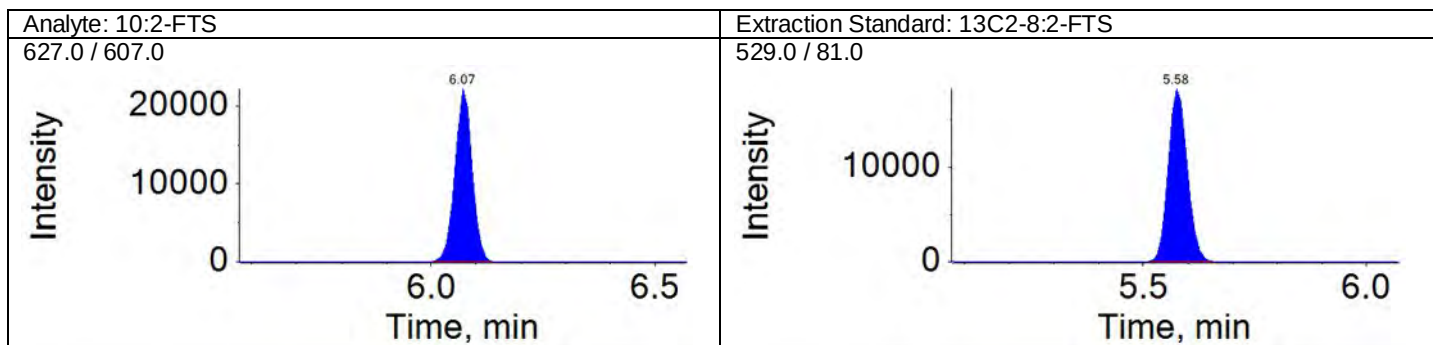
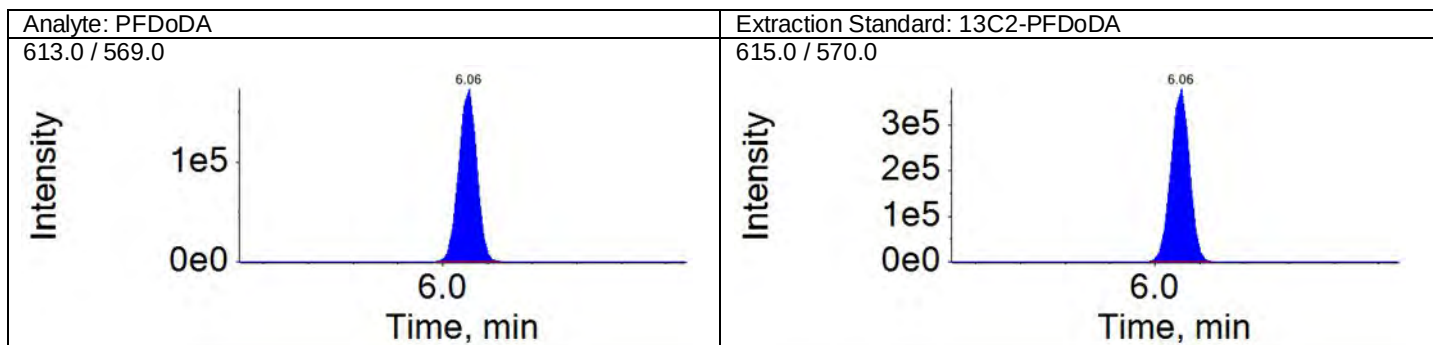
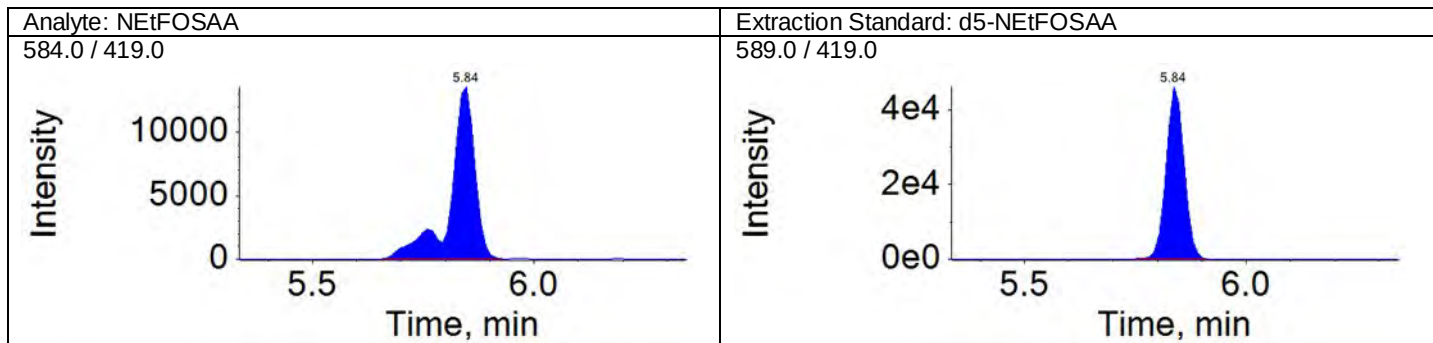
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



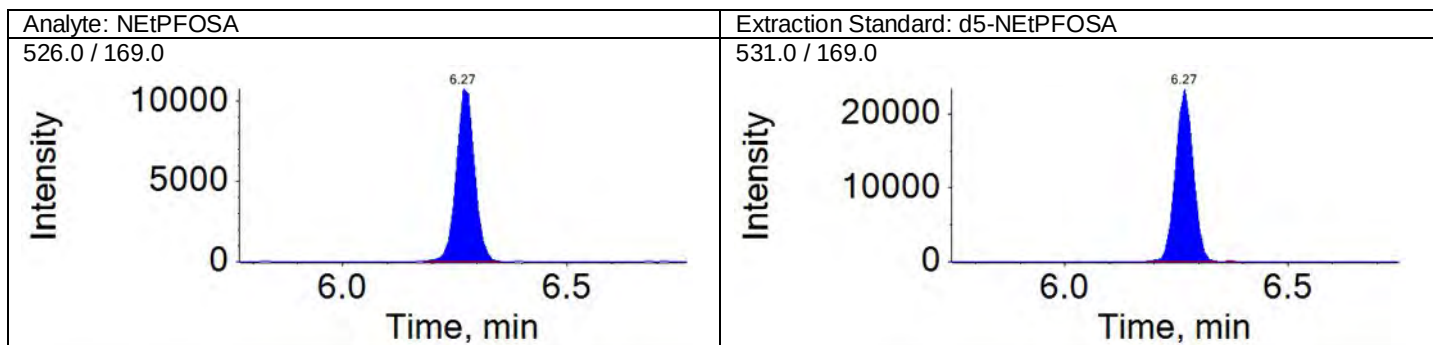
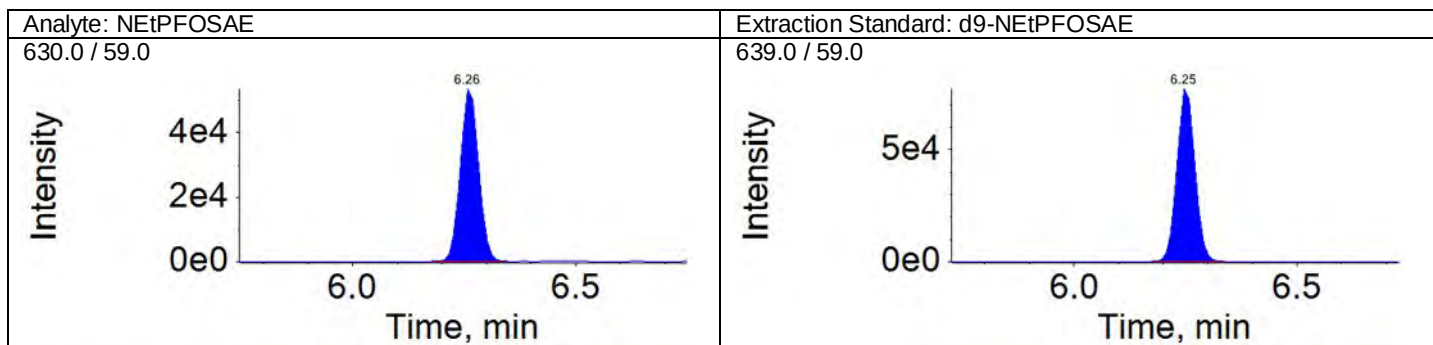
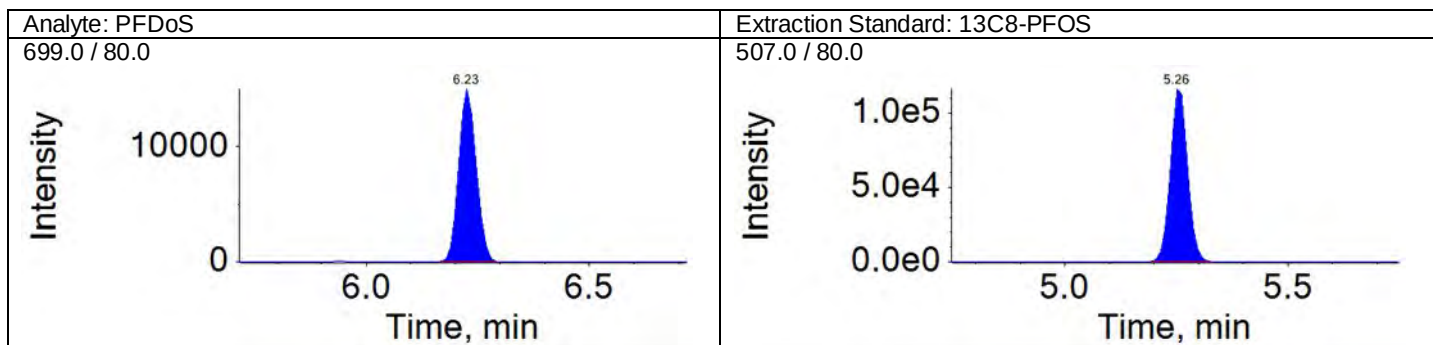
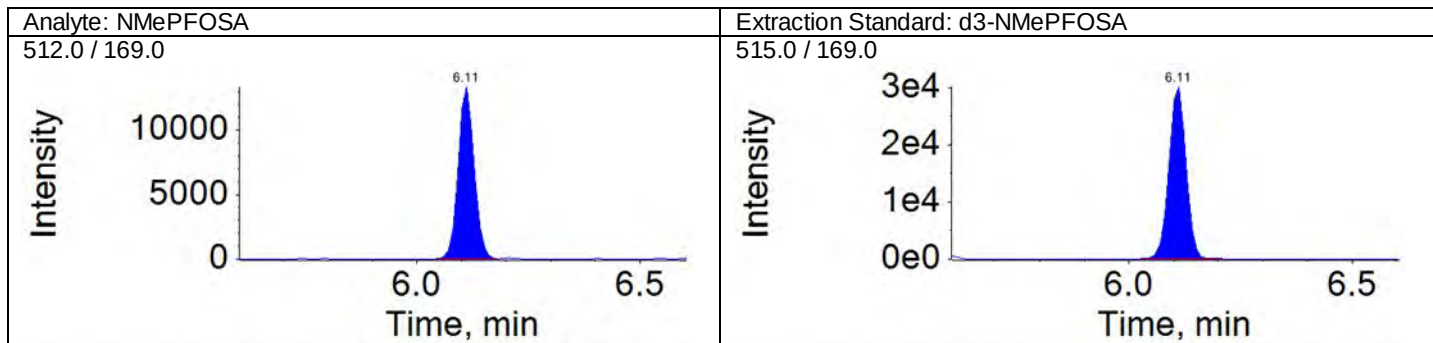
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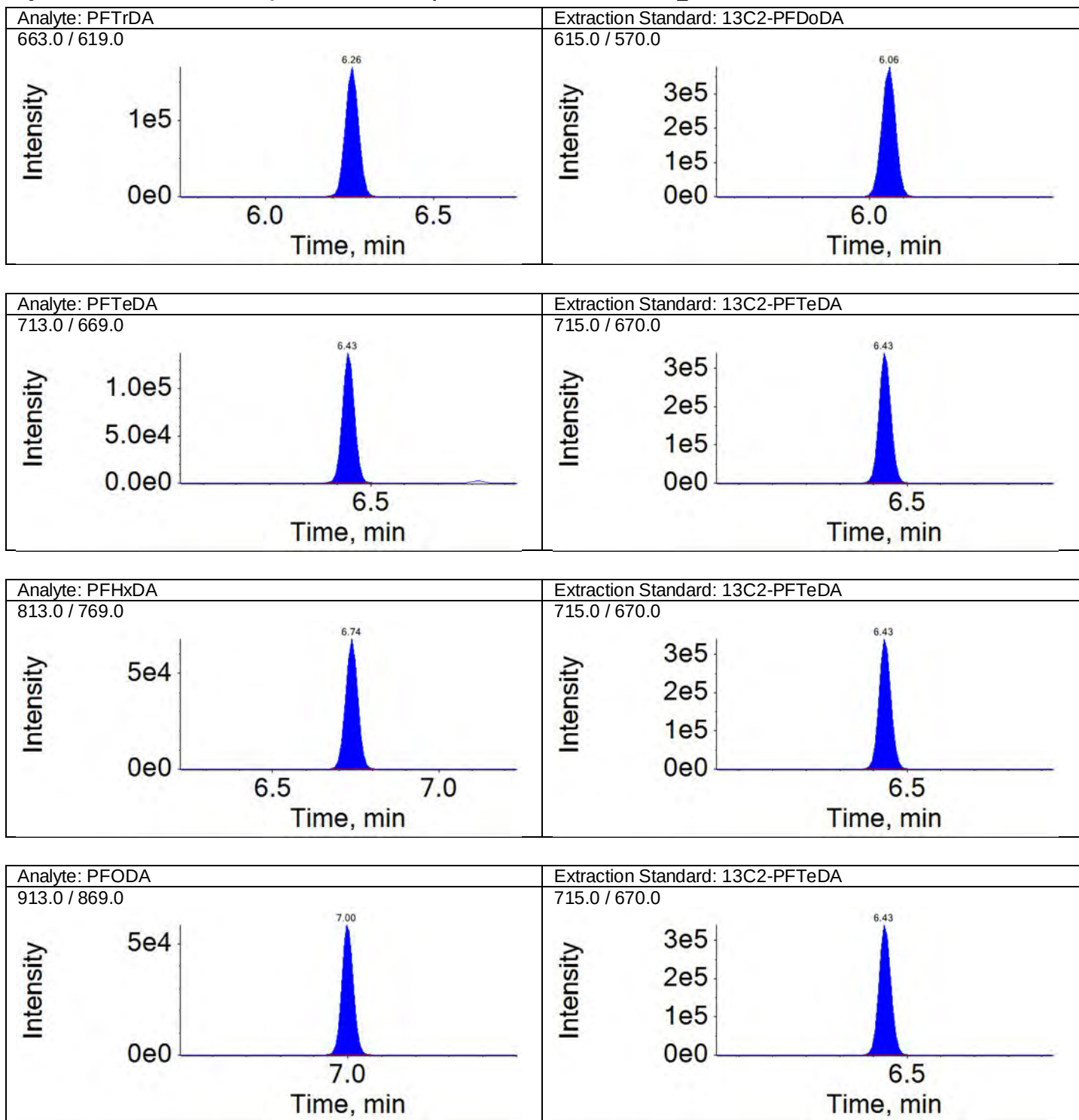
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Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



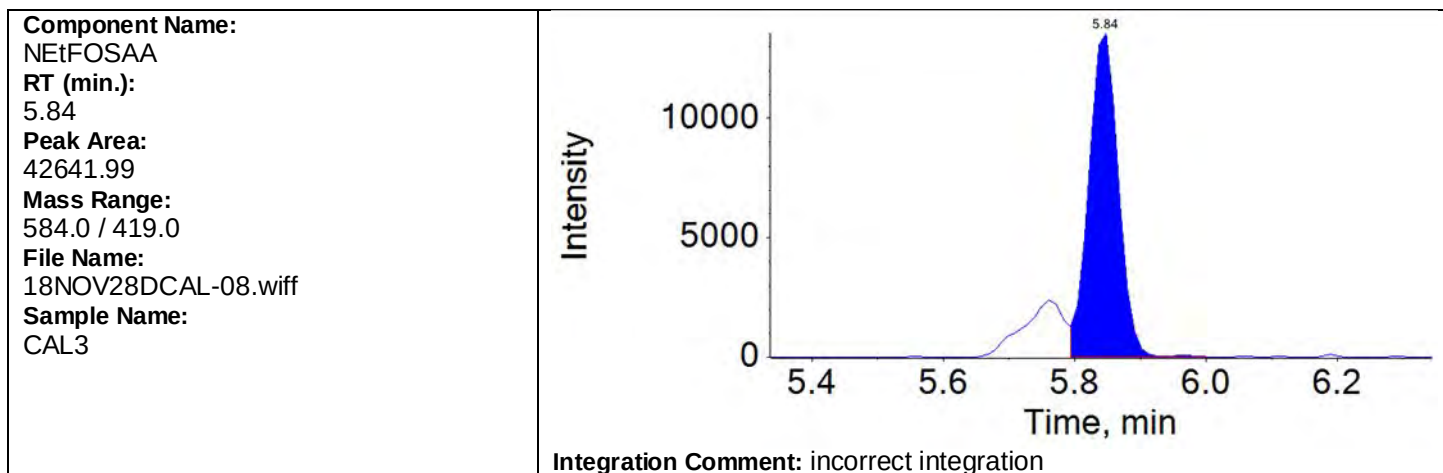
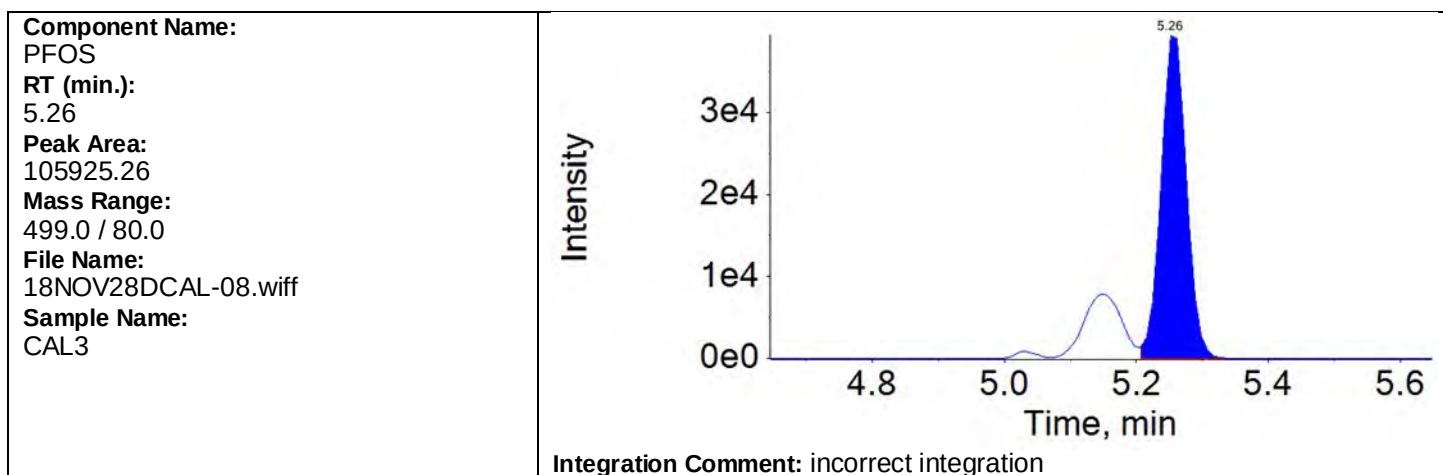
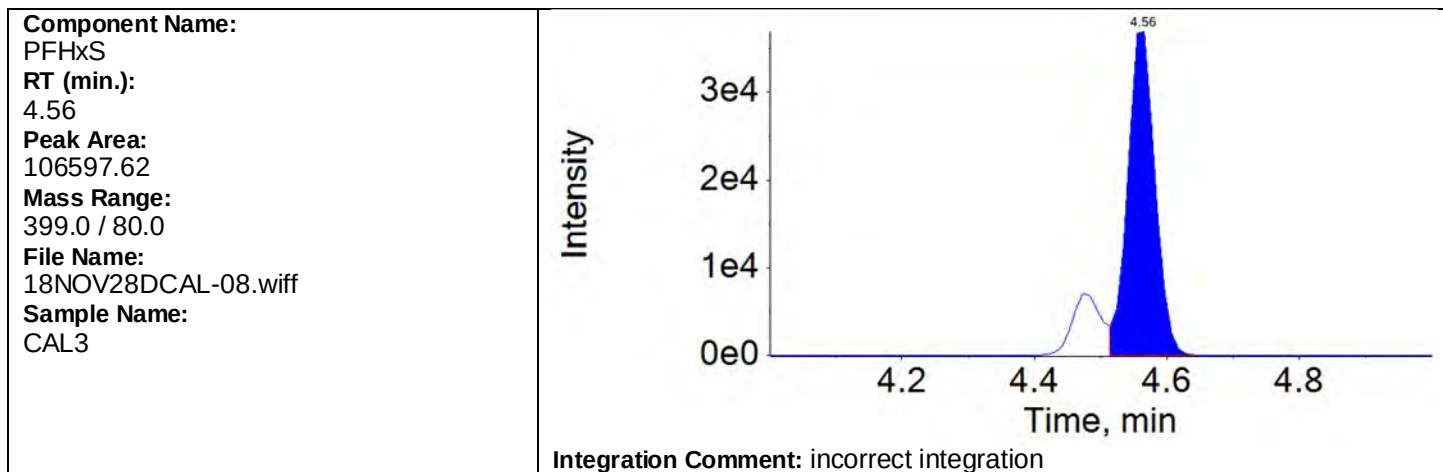
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Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

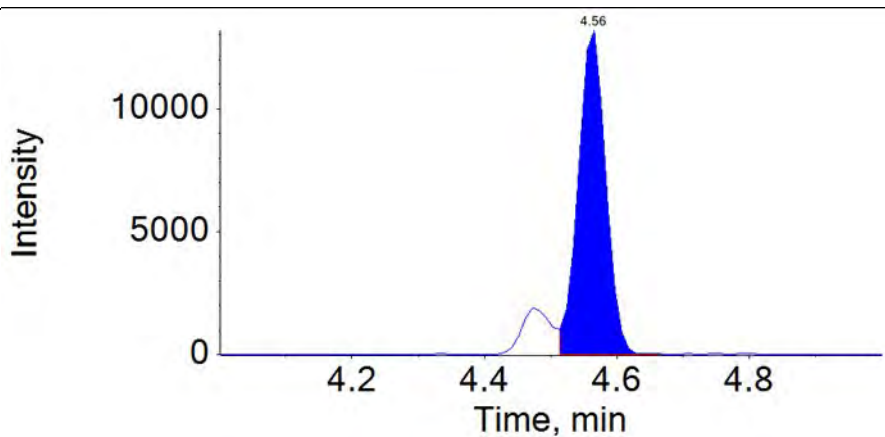
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QMethod File: 18AUG20QM



Results Table Name: 18NOV28DCAL
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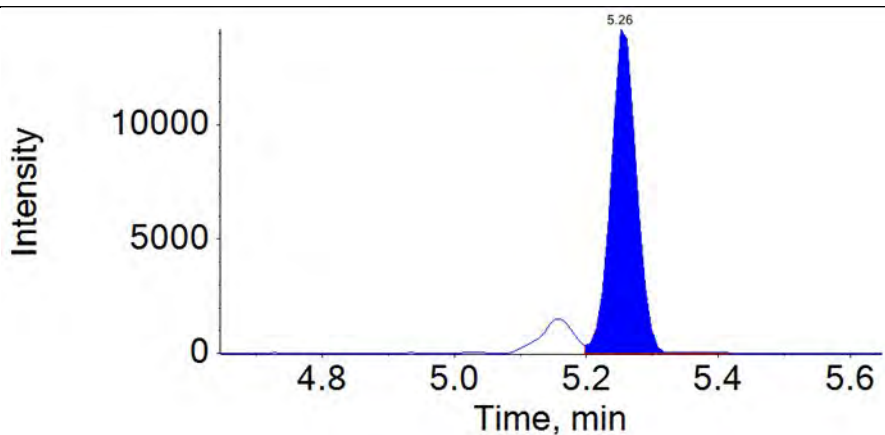
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
37946.39
Mass Range:
399.0 / 99.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



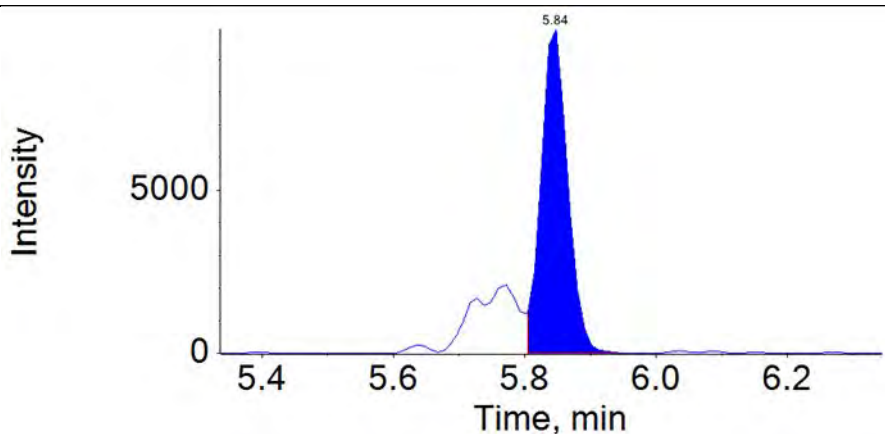
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.26
Peak Area:
38423.09
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.84
Peak Area:
27991.83
Mass Range:
584.0 / 526.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3

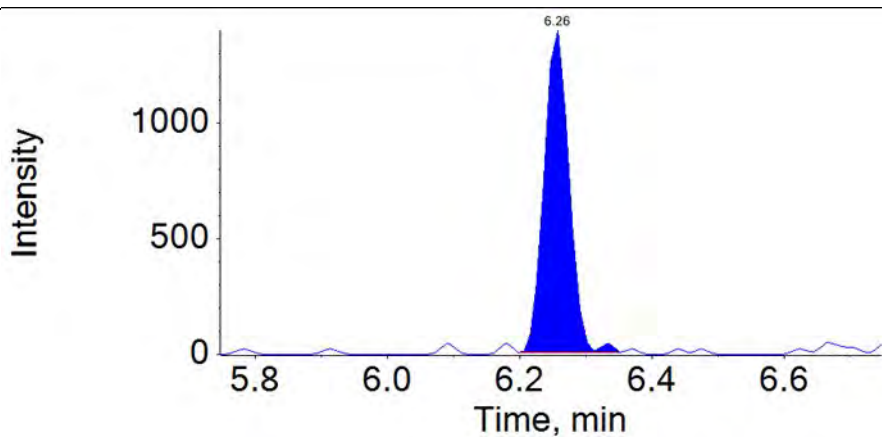


Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

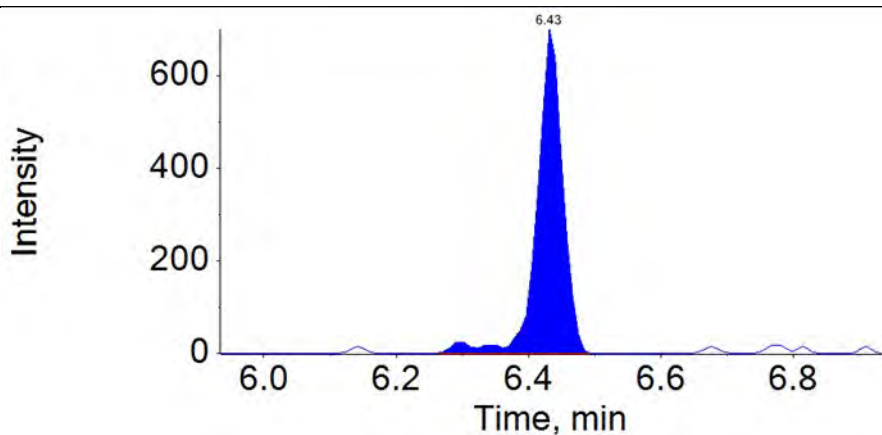
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTDA_2
RT (min.):
6.26
Peak Area:
3672.17
Mass Range:
663.0 / 169.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Component Name:
PFTDA_2
RT (min.):
6.43
Peak Area:
1900.22
Mass Range:
713.0 / 169.0
File Name:
18NOV28DCAL-08.wiff
Sample Name:
CAL3



Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 5:00 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

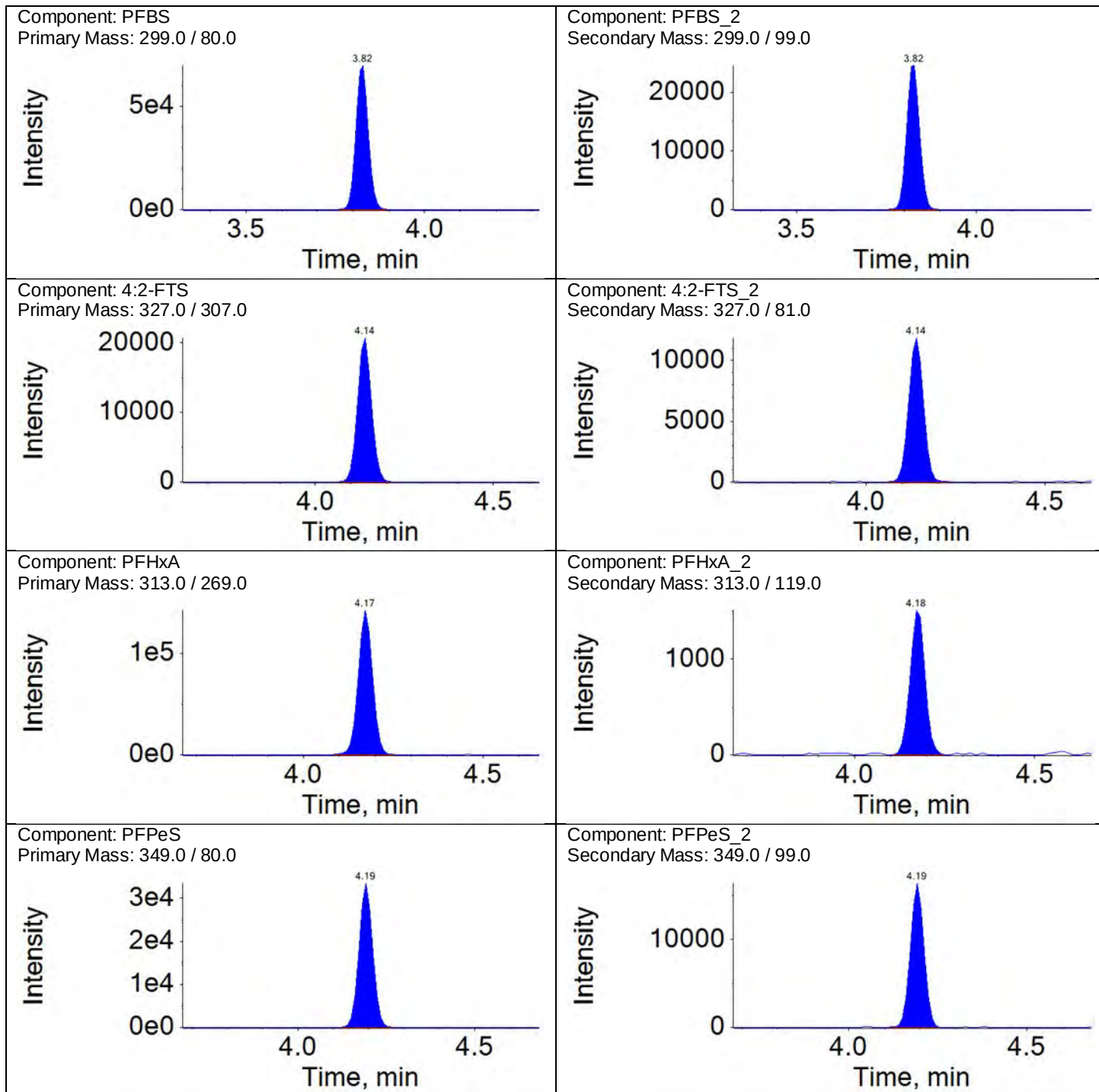
Ion Ratio Report

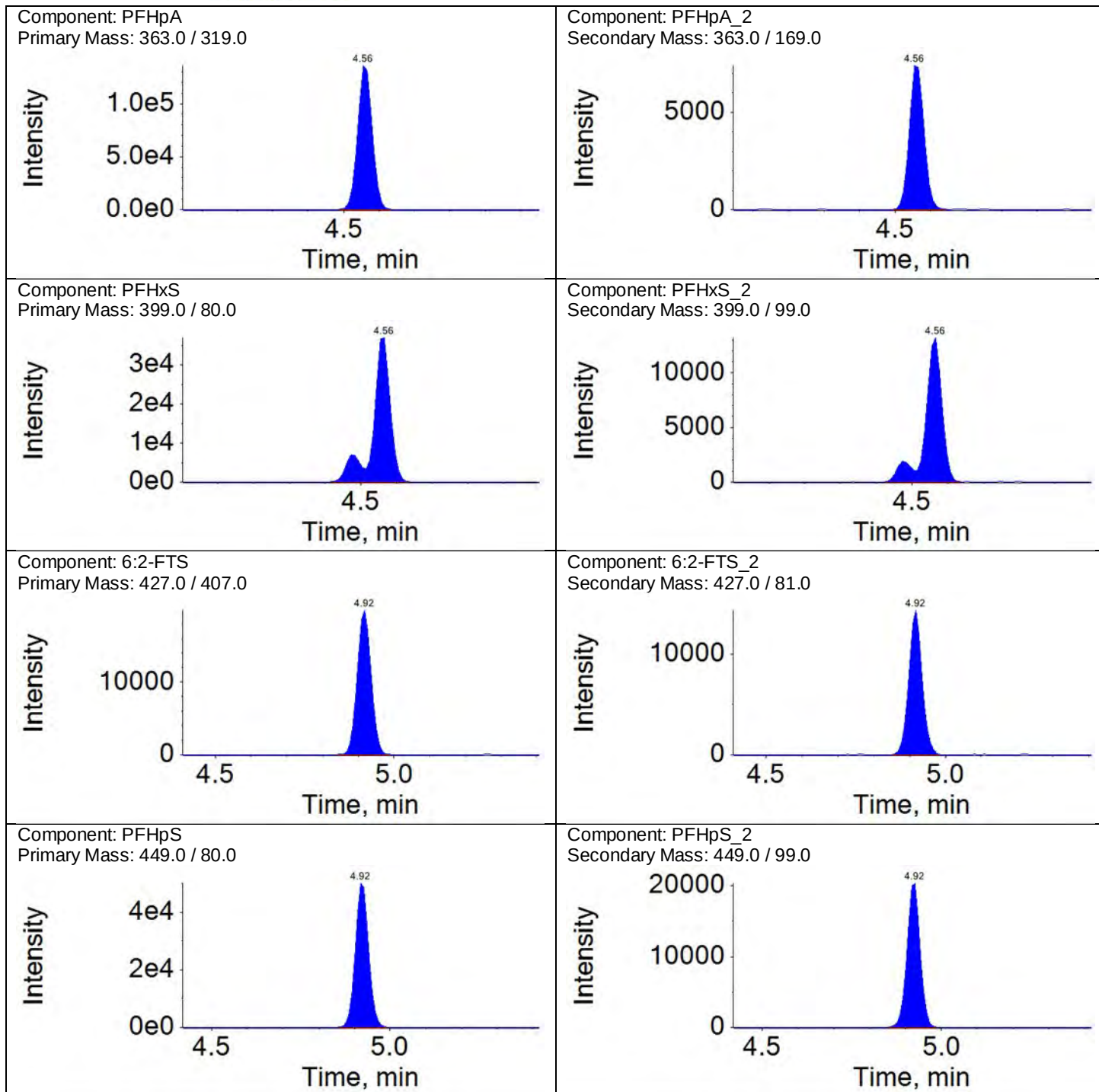
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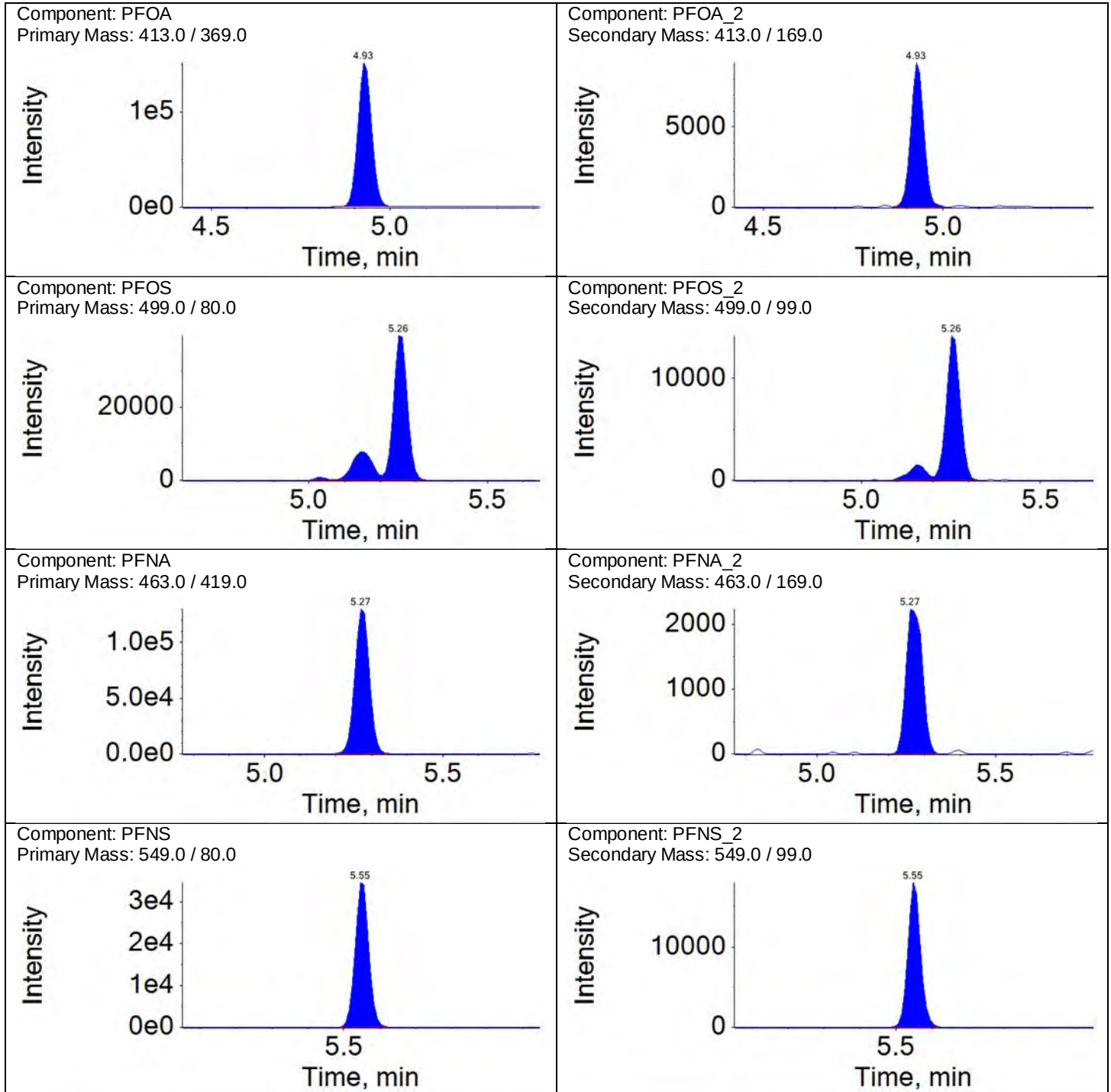
Instrument Name: LM27631

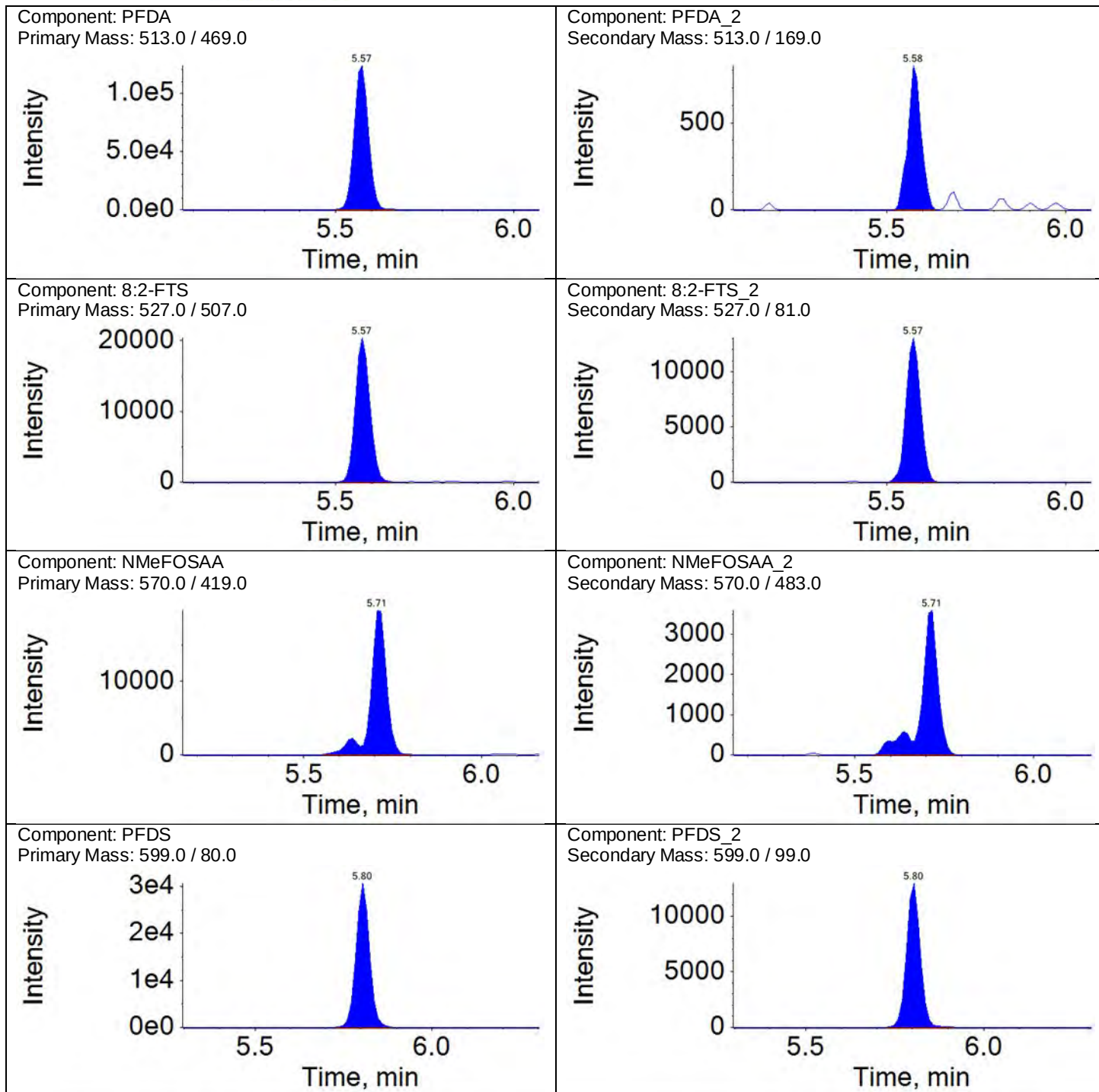
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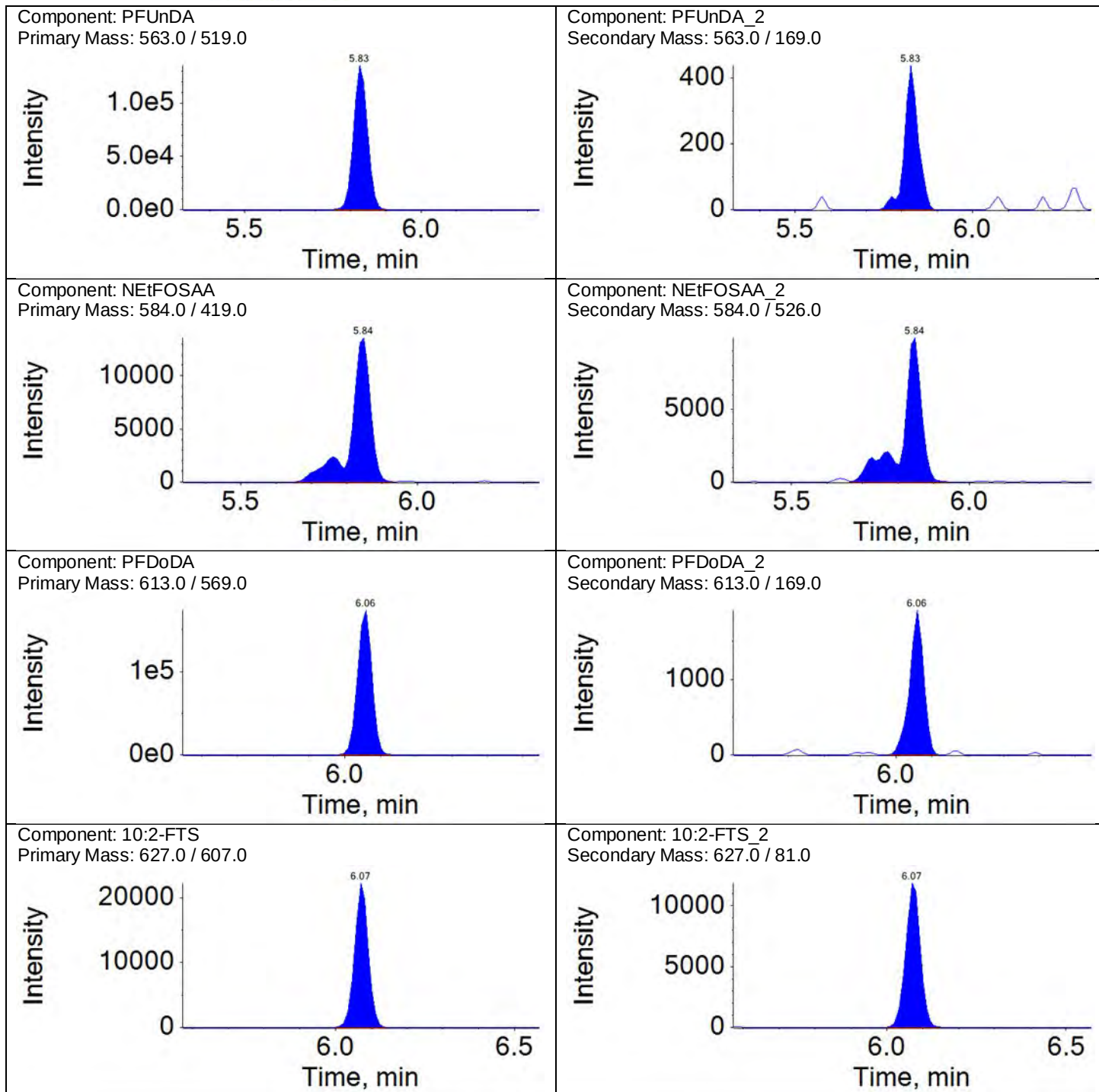
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	168534.11	A	0.3655	0.3659			
PFBS_2	3.82	1.00	61662.80	A	0.3655	0.3659	0	50	
4:2-FTS	4.14	1.00	56502.46	A	0.6383	0.6021			
4:2-FTS_2	4.14	1.00	34020.61	A	0.6383	0.6021	-6	50	
PFHxA	4.17	1.00	395421.36	A	0.0103	0.0110			
PFHxA_2	4.18	1.00	4355.12	A	0.0103	0.0110	7	50	
PFPeS	4.19	1.10	89559.66	A	0.4976	0.4878			
PFPeS_2	4.19	1.10	43683.81	A	0.4976	0.4878	-2	50	
PFHpA	4.56	1.00	388626.66	A	0.0557	0.0548			
PFHpA_2	4.56	1.00	21286.44	A	0.0557	0.0548	-2	50	
PFHxS	4.56	1.00	127889.21	M	0.3693	0.3421			
PFHxS_2	4.56	1.00	43748.70	M	0.3693	0.3421	-7	50	
6:2-FTS	4.92	1.00	53951.03	A	0.6625	0.6864			
6:2-FTS_2	4.92	1.00	37034.45	A	0.6625	0.6864	4	50	
PFHpS	4.92	1.08	129450.89	A	0.3915	0.3990			
PFHpS_2	4.92	1.08	51651.50	A	0.3915	0.3990	2	50	
PFOA	4.93	1.00	405879.42	A	0.0573	0.0559			
PFOA_2	4.93	1.00	22683.88	A	0.0573	0.0559	-2	50	
PFOS	5.26	1.00	139506.62	M	0.2960	0.3122			
PFOS_2	5.26	1.00	43549.51	M	0.2960	0.3122	5	50	
PFNA	5.27	1.00	370292.03	A	0.0201	0.0194			
PFNA_2	5.27	1.00	7190.40	A	0.0201	0.0194	-3	50	
PFNS	5.55	1.06	91471.00	A	0.4794	0.4837			
PFNS_2	5.55	1.06	44242.69	A	0.4794	0.4837	1	50	
PFDA	5.57	1.00	343523.00	A	0.0075	0.0062			
PFDA_2	5.58	1.00	2142.58	A	0.0075	0.0062	-17	50	
8:2-FTS	5.57	1.00	57433.88	A	0.5380	0.6364			
8:2-FTS_2	5.57	1.00	36548.28	A	0.5380	0.6364	18	50	
NMeFOSAA	5.71	1.00	62054.84	A	0.2305	0.1960			
NMeFOSAA_2	5.71	1.00	12164.14	A	0.2305	0.1960	-15	50	
PFDS	5.80	1.10	80537.37	A	0.5356	0.4311			
PFDS_2	5.80	1.10	34716.06	A	0.5356	0.4311	-20	50	
PFUnDA	5.83	1.00	370693.61	A	0.0038	0.0032			
PFUnDA_2	5.83	1.00	1171.38	A	0.0038	0.0032	-17	50	
NEtFOSAA	5.84	1.00	52769.46	M	0.7356	0.7268			
NEtFOSAA_2	5.84	1.00	38354.97	M	0.7356	0.7268	-1	50	
PFDODA	6.06	1.00	486489.15	A	0.0130	0.0107			
PFDODA_2	6.06	1.00	5227.64	A	0.0130	0.0107	-18	50	
10:2-FTS	6.07	1.09	58508.21	A	0.6989	0.5755			
10:2-FTS_2	6.07	1.09	33673.51	A	0.6989	0.5755	-18	50	
PFTTrDA	6.26	1.03	466266.85	A	0.0090	0.0078			
PFTTrDA_2	6.26	1.03	3621.63	M	0.0090	0.0078	-14	50	
PFTeDA	6.43	1.00	342239.84	A	0.0056	0.0053			
PFTeDA_2	6.43	1.00	1811.16	M	0.0056	0.0053	-6	50	
PFHxDA	6.74	1.05	173721.02	A	0.0646	0.0595			
PFHxDA_2	6.74	1.05	10340.87	A	0.0646	0.0595	-8	50	
PFODA	7.00	1.09	139071.53	A	0.0264	0.0248			
PFODA_2	7.00	1.09	3451.82	A	0.0264	0.0248	-6	50	

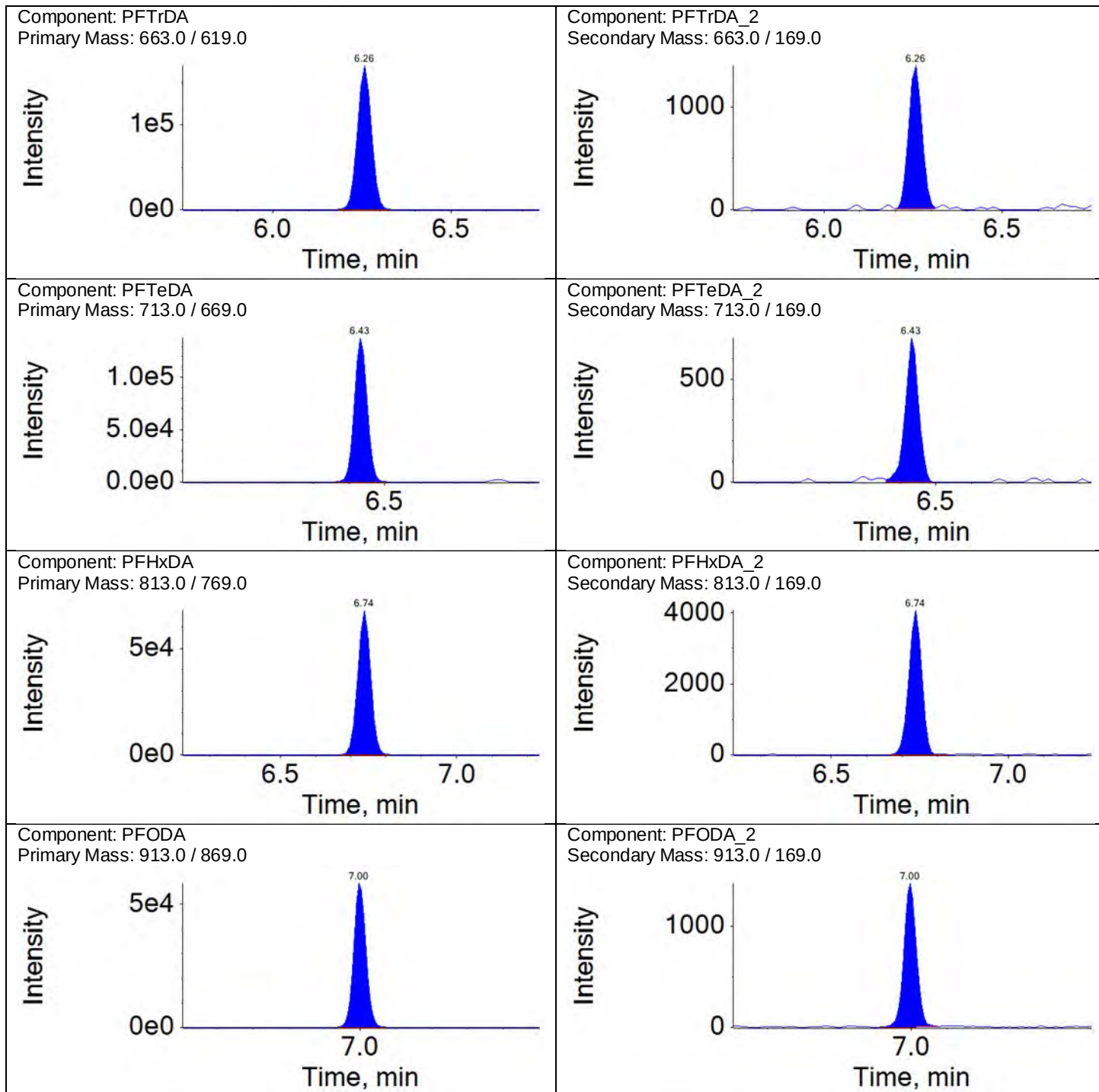












ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL4		Data File:	18NOV28DCAL-09.wiff
Sample ID:	CALBRN41833B		Acquis Date:	2018-11-28T14:09:13
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	6		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV28DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	892443.9	887248.9	1	50	
13C2-PFOA	5.0	528506.8	498501.6	6	50	
13C4-PFOS	4.8	281778.6	283214.2	-1	50	
13C2-PFDA	5.0	489439.8	441790.6	11	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	974000.9	13C3-PFBA	892443.9	1.091	5.000	4.869	97	70-130	
E13C5-PFPeA	915824.6	13C3-PFBA	892443.9	1.026	5.000	4.792	96	70-130	
E13C3-PFBS	424041.3	13C3-PFBA	892443.9	0.475	4.650	4.533	97	70-130	
E13C2-4:2-FTS	67043.7	13C2-PFOA	528506.8	0.127	4.670	4.372	94	70-130	
E13C5-PFHxA	670407.7	13C2-PFOA	528506.8	1.268	5.000	4.659	93	70-130	
E13C3-PFHxS	316393.3	13C2-PFOA	528506.8	0.599	4.730	4.692	99	70-130	
E13C4-PFHpA	563674.0	13C2-PFOA	528506.8	1.067	5.000	4.901	98	70-130	
E13C2-6:2-FTS	56580.1	13C2-PFOA	528506.8	0.107	4.750	4.481	94	70-130	
E13C8-PFOA	918995.3	13C2-PFOA	528506.8	1.739	5.000	4.786	96	70-130	
E13C8-PFOS	296147.5	13C4-PFOS	281778.6	1.051	4.780	4.744	99	70-130	
E13C9-PFNA	648727.0	13C4-PFOS	281778.6	2.302	5.000	5.057	101	70-130	
E13C6-PFDA	841970.5	13C2-PFDA	489439.8	1.720	5.000	4.850	97	70-130	
E13C2-8:2-FTS	52961.9	13C2-PFDA	489439.8	0.108	4.790	4.651	97	70-130	
E13C8-PFOSA	625021.8	13C2-PFDA	489439.8	1.277	5.000	4.686	94	70-130	
Ed3-NMeFOSAA	171204.0	13C2-PFDA	489439.8	0.350	5.000	4.441	89	70-130	
E13C7-PFUnDA	546359.3	13C2-PFDA	489439.8	1.116	5.000	4.718	94	70-130	
Ed5-NEtFOSAA	138500.8	13C2-PFDA	489439.8	0.283	5.000	5.041	101	70-130	
E13C2-PFDoDA	1150927.4	13C2-PFDA	489439.8	2.352	5.000	4.941	99	70-130	
Ed7-NMePFOSAE	263412.8	13C2-PFDA	489439.8	0.538	5.000	4.651	93	70-130	
Ed3-NMePFOSA	83886.6	13C2-PFDA	489439.8	0.171	5.000	4.639	93	70-130	
Ed9-NEtPFOSAE	218635.8	13C2-PFDA	489439.8	0.447	5.000	4.529	91	70-130	
Ed5-NEtPFOSA	66966.4	13C2-PFDA	489439.8	0.137	5.000	4.754	95	70-130	
E13C2-PFTeDA	826670.0	13C2-PFDA	489439.8	1.689	5.000	4.674	93	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL4

Instrument Name: LM27631

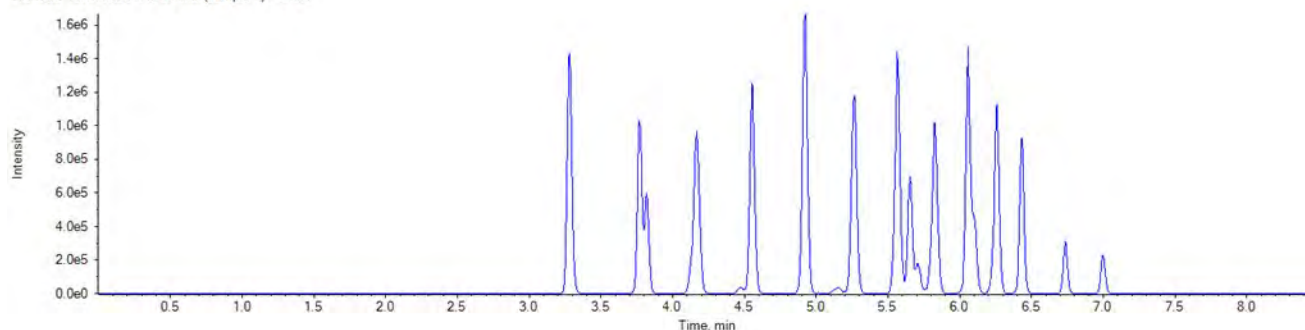
File Name: 18NOV28DCAL-09.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	1425164.4		A	13C4-PFBA	3.28	974000.9	1.463	8.021
PFPeA	3.77	1.000	1424845.3		A	13C5-PFPeA	3.77	915824.6	1.556	7.634
PFBS	3.82	1.000	590590.3		A	13C3-PFBS	3.82	424041.3	1.393	6.761
4:2-FTS	4.13	1.000	191344.6		A	13C2-4:2-FTS	4.13	67043.7	2.854	7.640
PFHxA	4.16	1.000	1343216.4		A	13C5-PFHxA	4.17	670407.7	2.004	8.042
PFPeS	4.19	1.100	311741.6		A	13C3-PFBS	3.82	424041.3	0.735	7.436
PFHpA	4.55	1.000	1429895.3		A	13C4-PFHpA	4.55	563674.0	2.537	7.829
PFHxS	4.56	1.000	444626.0		M	13C3-PFHxS	4.56	316393.3	1.405	6.580
6:2-FTS	4.91	1.000	185311.5		A	13C2-6:2-FTS	4.91	56580.1	3.275	8.546
PFHpS	4.92	1.080	471580.6		A	13C3-PFHxS	4.56	316393.3	1.490	7.439
PFOA	4.92	1.000	1486960.4		A	13C8-PFOA	4.92	918995.3	1.618	8.361
PFOS	5.25	1.000	481950.0		M	13C8-PFOS	5.25	296147.5	1.627	6.826
PFNA	5.27	1.000	1365056.4		A	13C9-PFNA	5.27	648727.0	2.104	8.064
PFNS	5.55	1.060	369833.4		A	13C8-PFOS	5.25	296147.5	1.249	7.885
PFDA	5.57	1.000	1223810.4		A	13C6-PFDA	5.57	841970.5	1.454	8.227
8:2-FTS	5.57	1.000	203687.7		A	13C2-8:2-FTS	5.57	52961.9	3.846	7.253
PFOSA	5.65	1.000	976434.1		A	13C8-PFOSA	5.65	625021.8	1.562	7.914
NMeFOSAA	5.71	1.000	212775.3		M	d3-NMeFOSAA	5.71	171204.0	1.243	7.928
PFDS	5.80	1.100	283198.5		A	13C8-PFOS	5.25	296147.5	0.956	7.582
PFUnDA	5.83	1.000	1281938.5		A	13C7-PFUnDA	5.83	546359.3	2.346	8.387
NEtFOSAA	5.84	1.000	204048.6		M	d5-NEtFOSAA	5.84	138500.8	1.473	7.175
PFDODA	6.06	1.000	1650301.1		A	13C2-PFDODA	6.06	1150927.4	1.434	7.854
10:2-FTS	6.08	1.090	184968.5		A	13C2-8:2-FTS	5.57	52961.9	3.492	7.701
NMePFOSAE	6.11	1.000	498735.8		A	d7-NMePFOSAE	6.10	263412.8	1.893	7.968
NMePFOSA	6.11	1.000	124582.5		A	d3-NMePFOSA	6.11	83886.6	1.485	7.873
PFDOS	6.23	1.190	159682.3		A	13C8-PFOS	5.25	296147.5	0.539	7.744
NEtPFOSAE	6.26	1.000	516882.1		A	d9-NEtPFOSAE	6.25	218635.8	2.364	8.504
NEtPFOSA	6.28	1.000	119152.1		A	d5-NEtPFOSA	6.27	66966.4	1.779	7.975
PFTDA	6.26	1.030	1622977.7		A	13C2-PFDODA	6.06	1150927.4	1.410	8.500
PFTeDA	6.43	1.000	1172052.0		A	13C2-PFTeDA	6.43	826670.0	1.418	8.033
PFHxDA	6.74	1.050	601723.8		A	13C2-PFTeDA	6.43	826670.0	0.728	8.321
PFODA	7.00	1.090	494210.7		A	13C2-PFTeDA	6.43	826670.0	0.598	7.964

Total Ion Chromatogram

TIC from 18NOV28DCAL-09.wiff (sample 1) - CAL4



APPROVED

By MCD at 5:00 pm, 11/28/18

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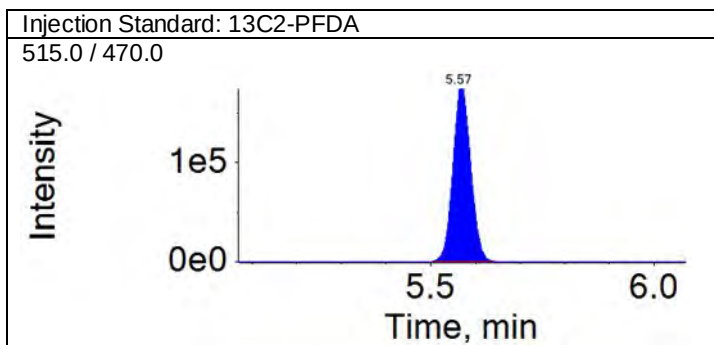
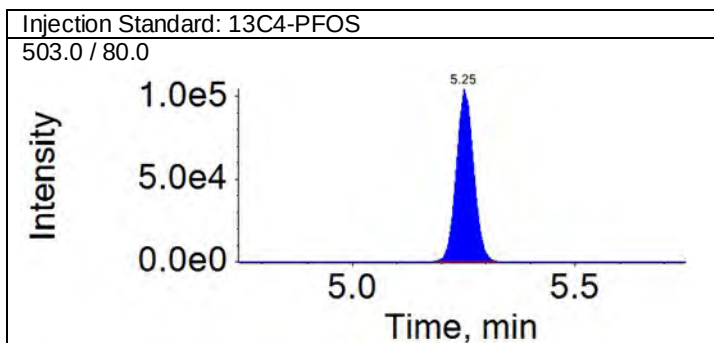
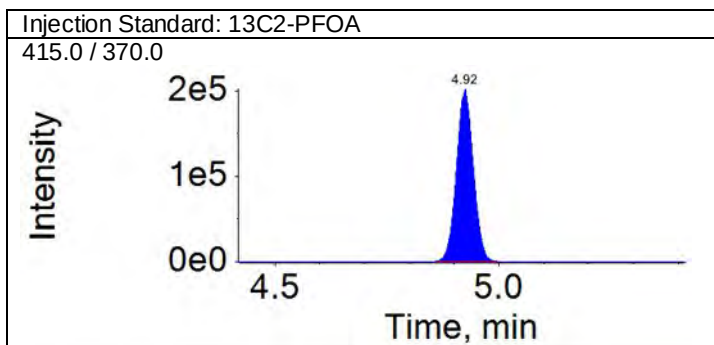
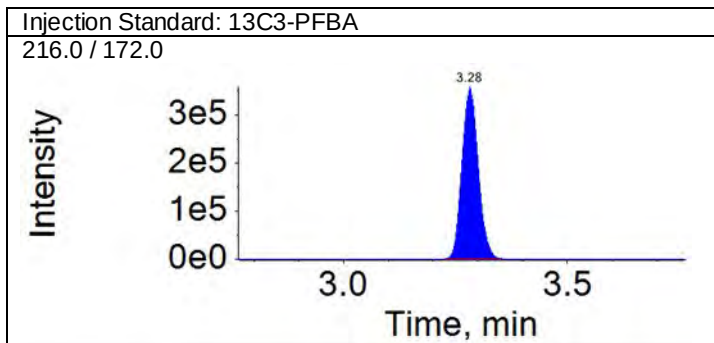
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By HMK at 12:22 pm, 11/29/18

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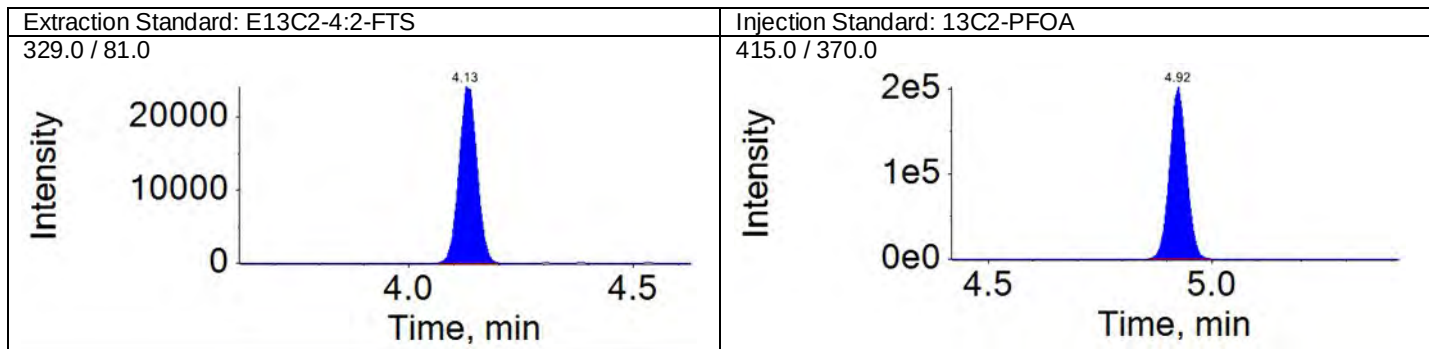
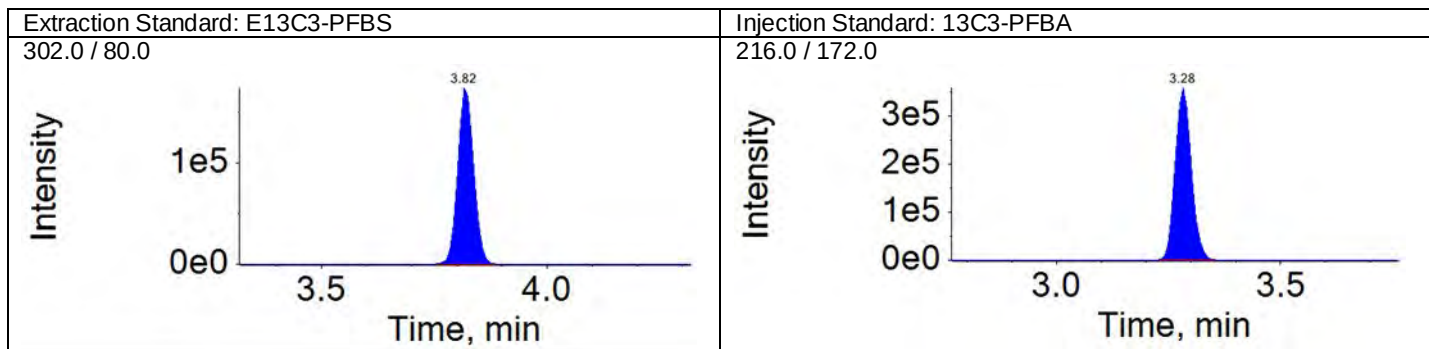
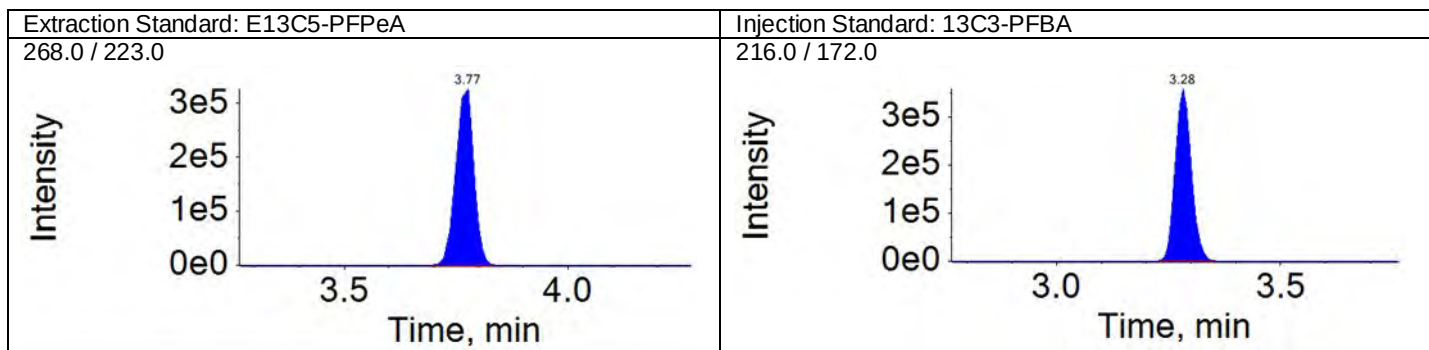
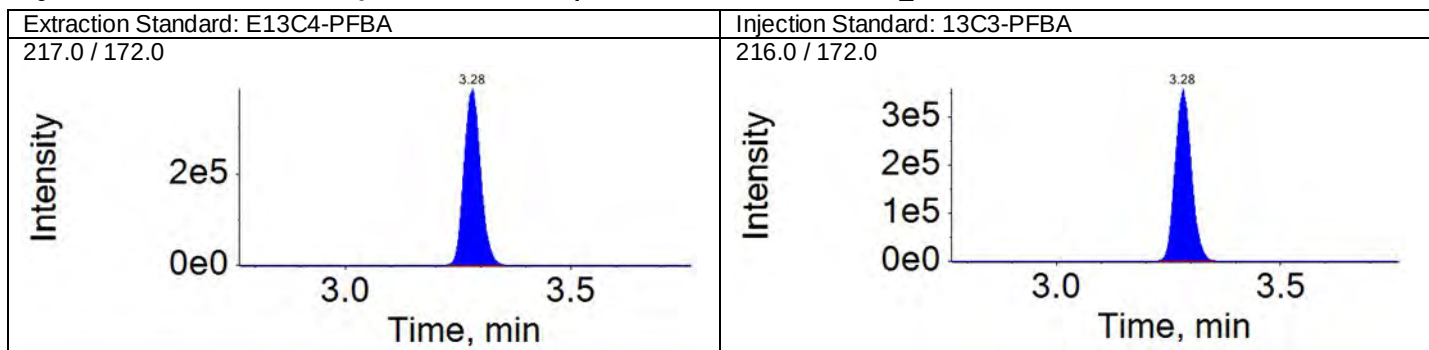
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



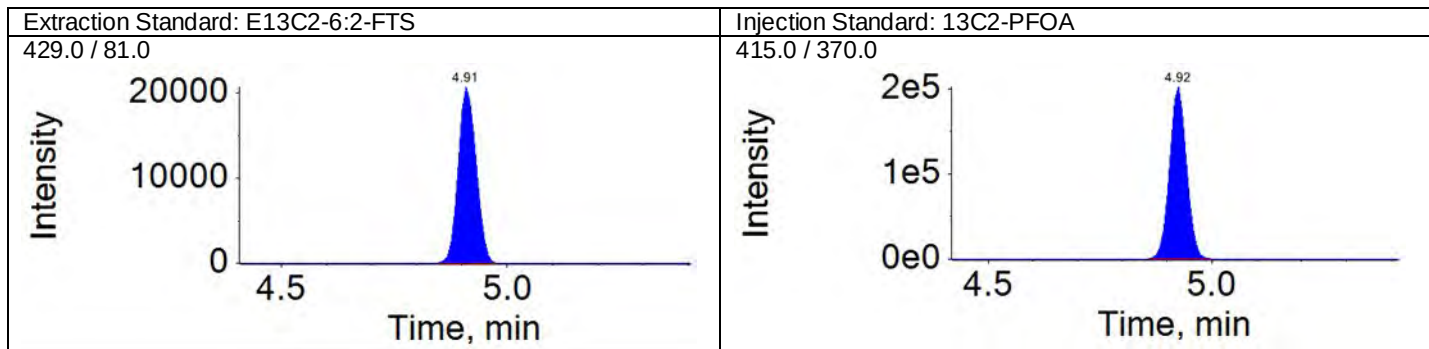
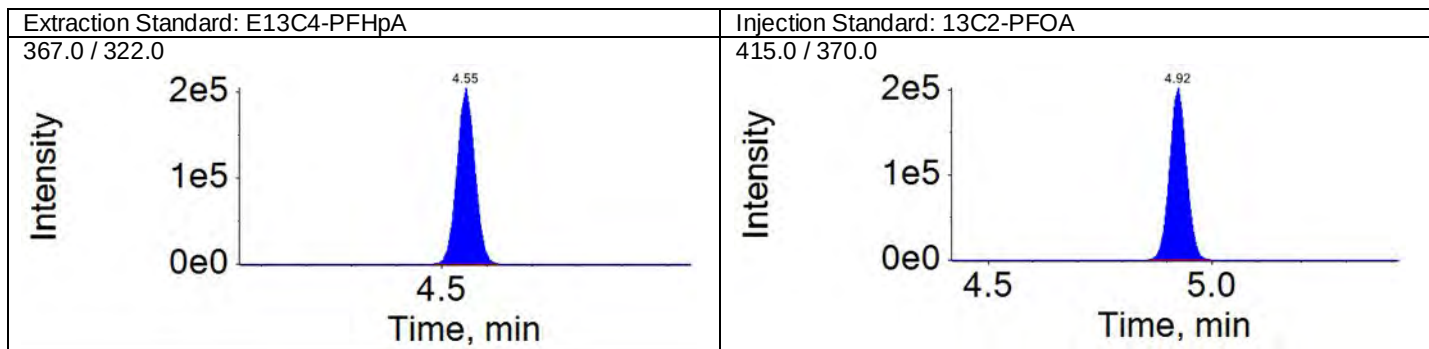
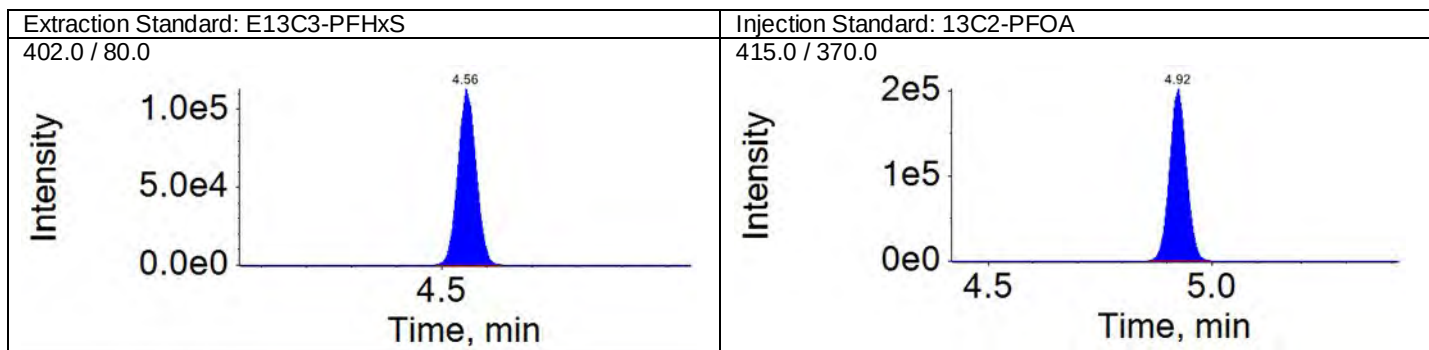
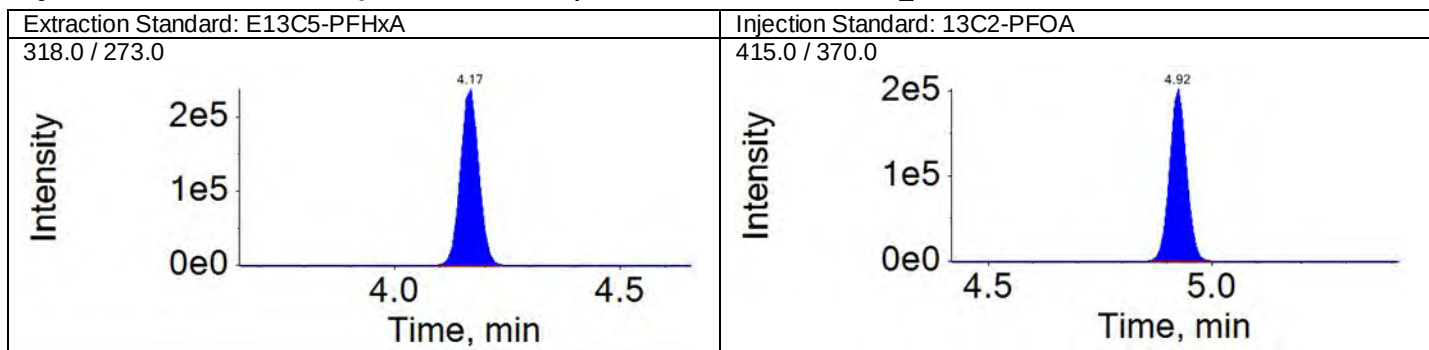
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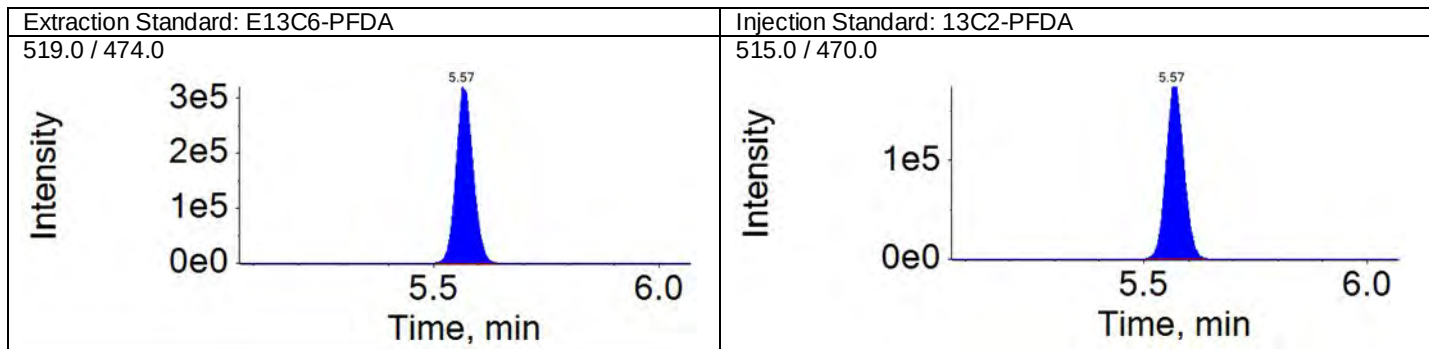
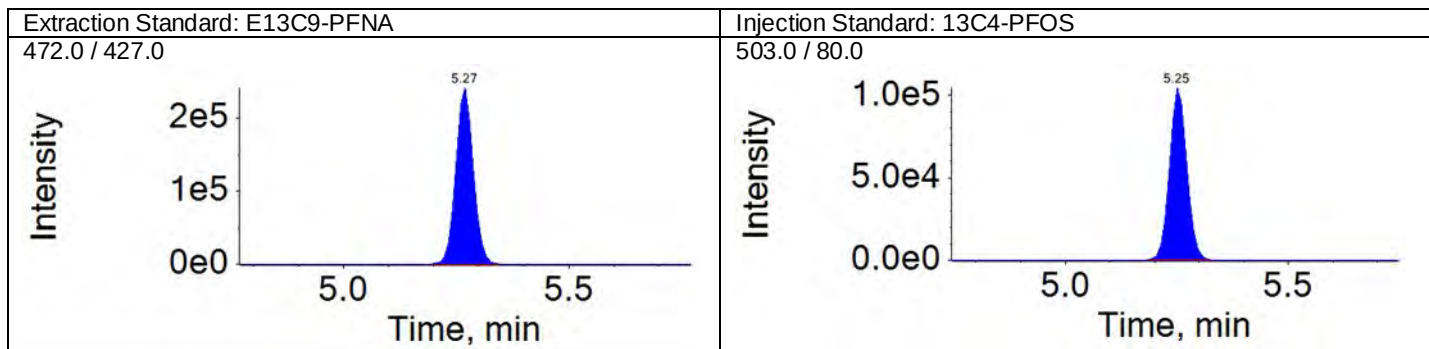
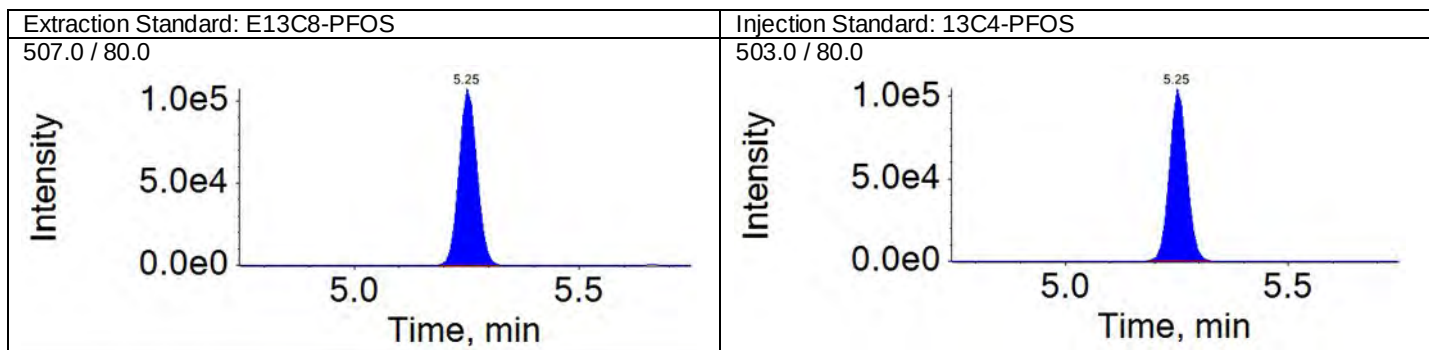
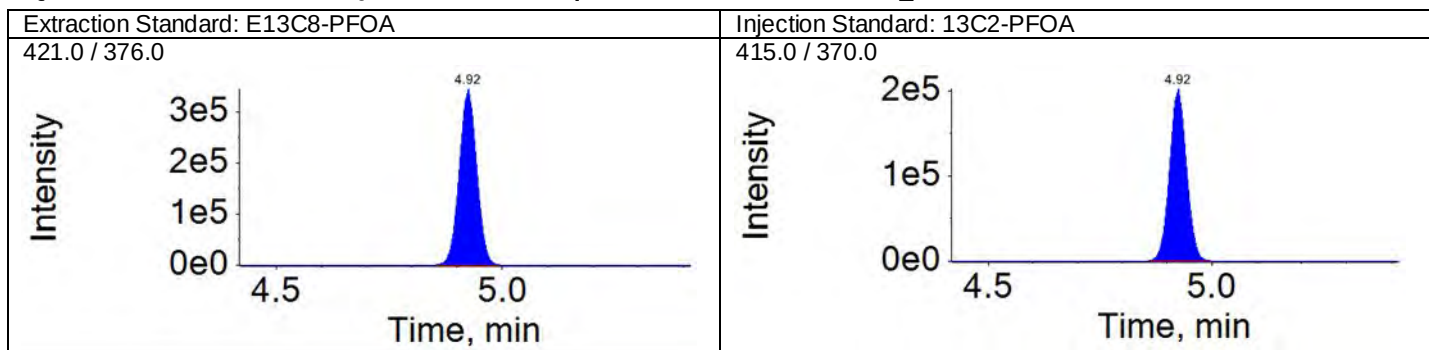
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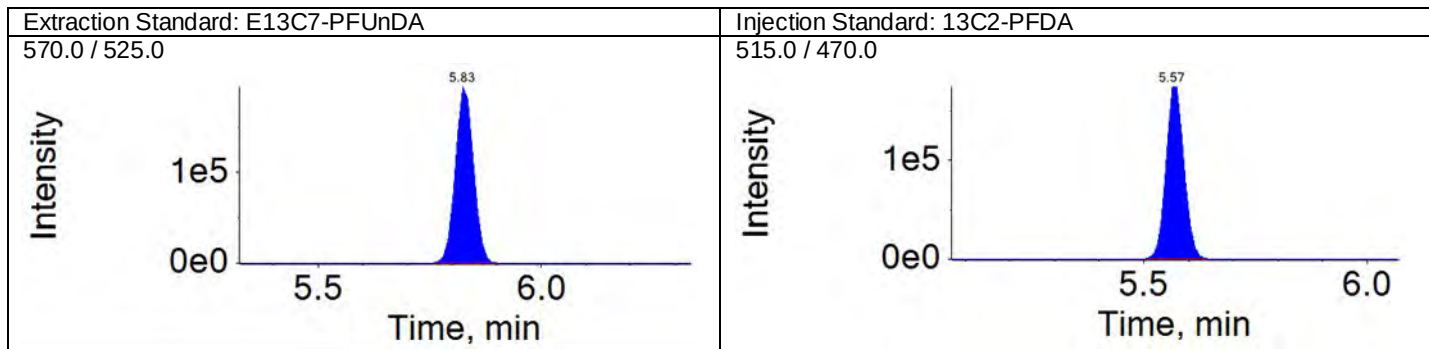
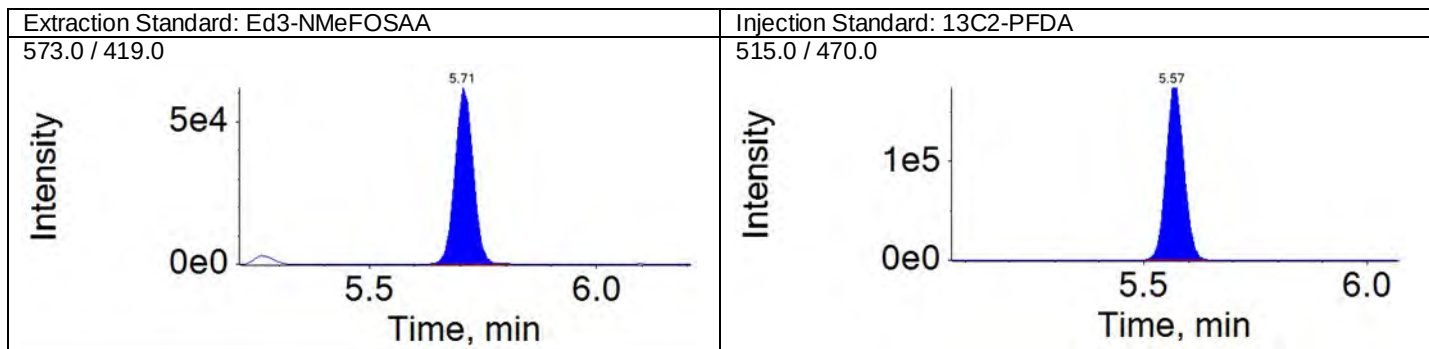
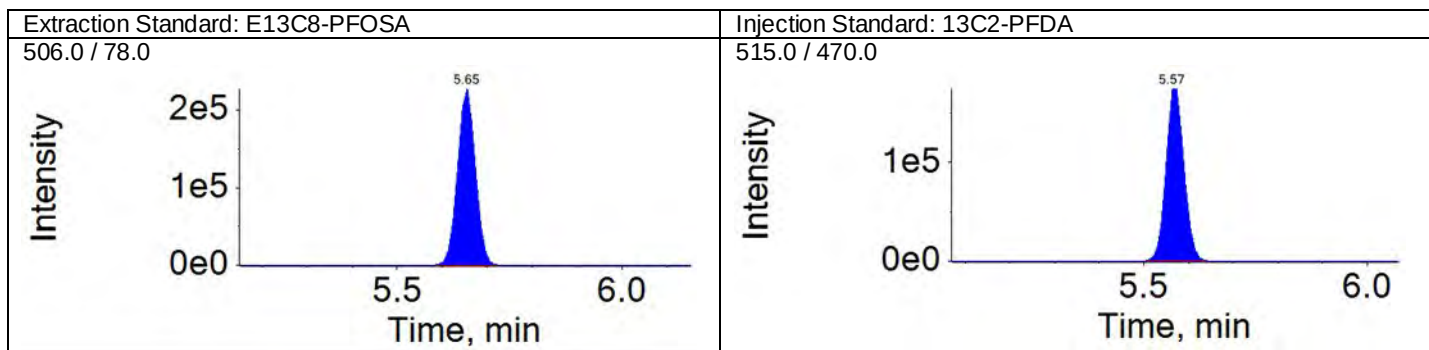
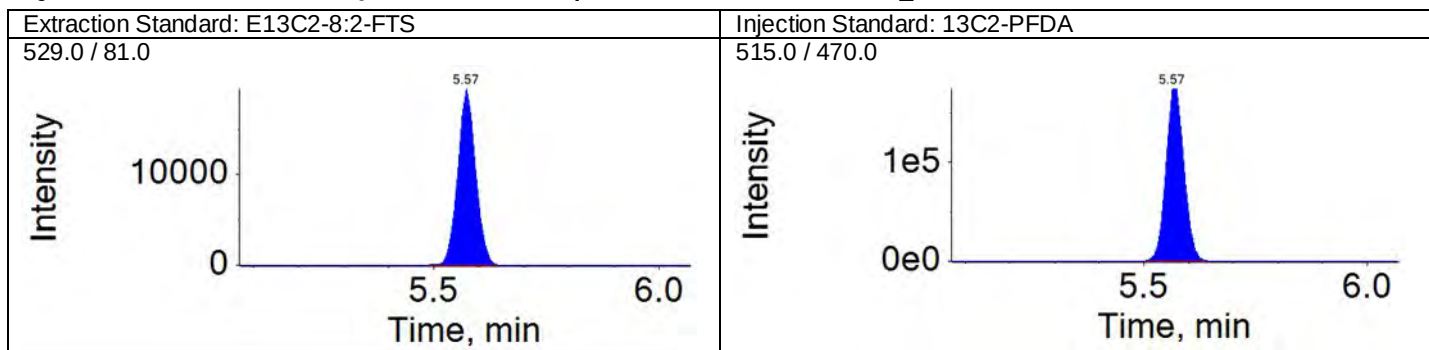
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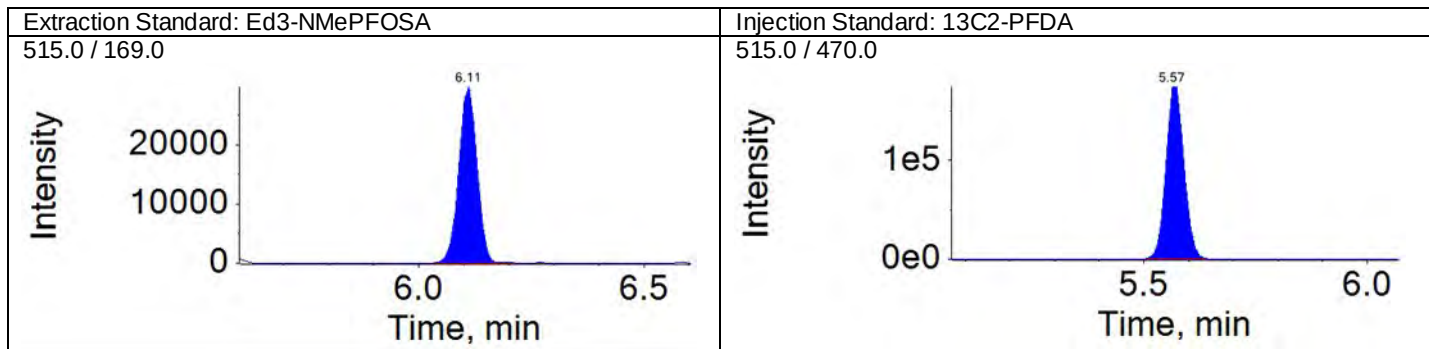
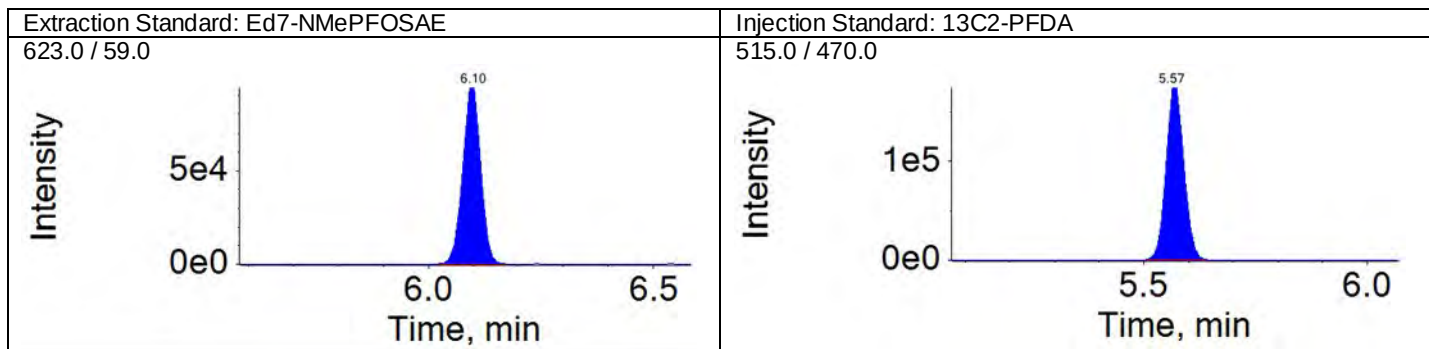
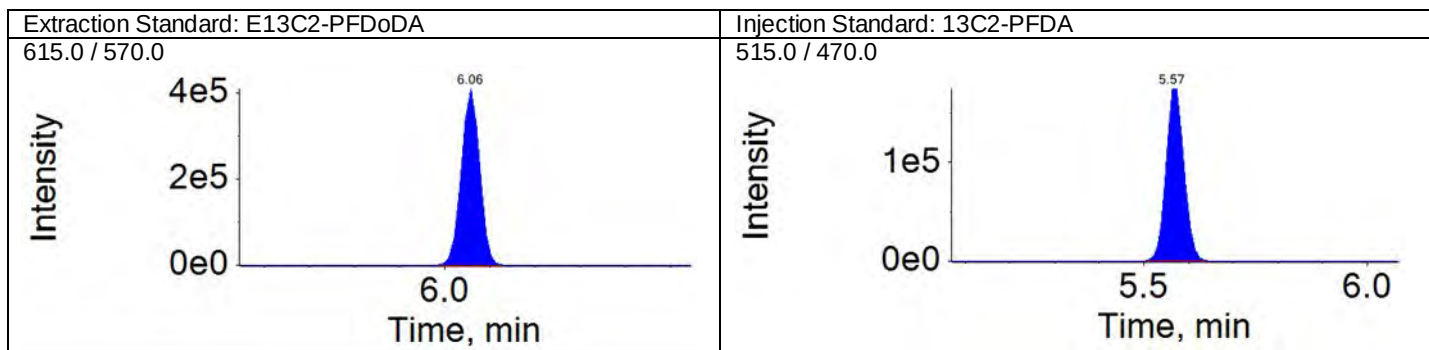
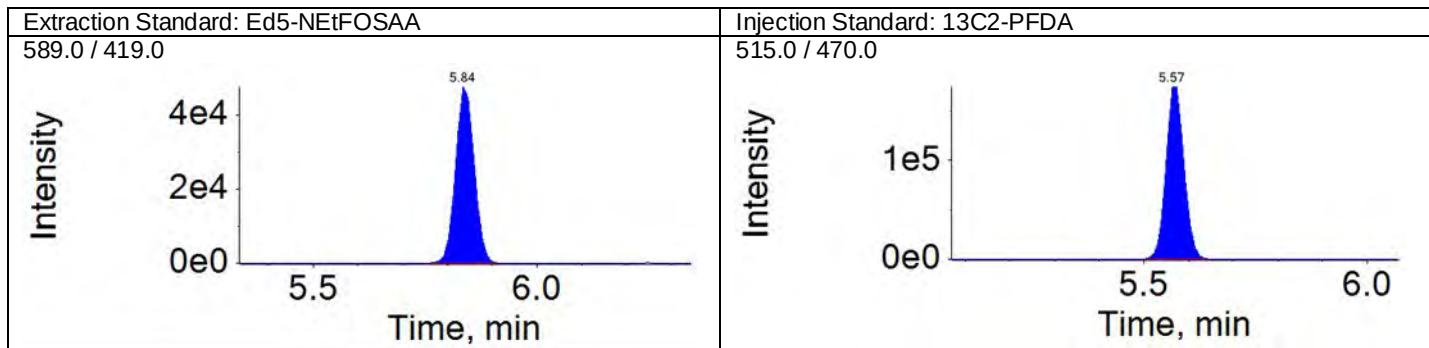
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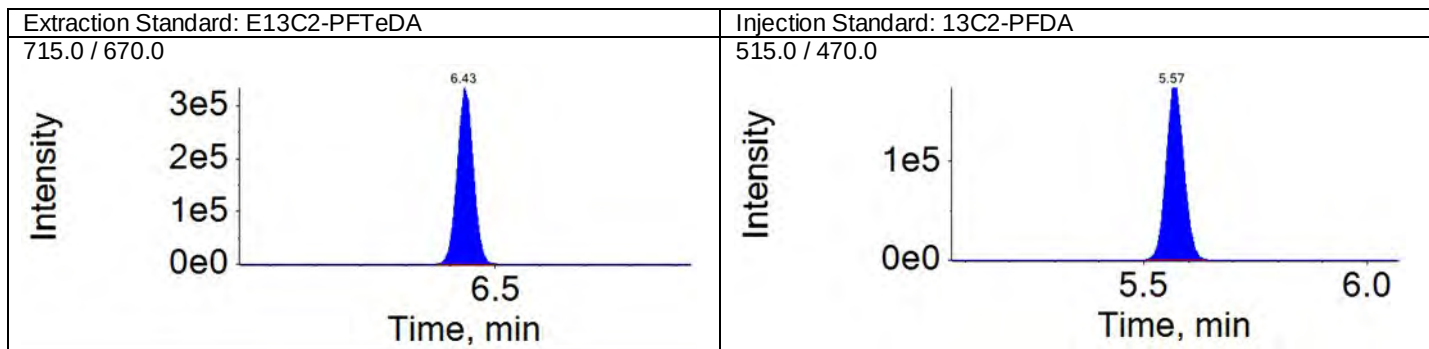
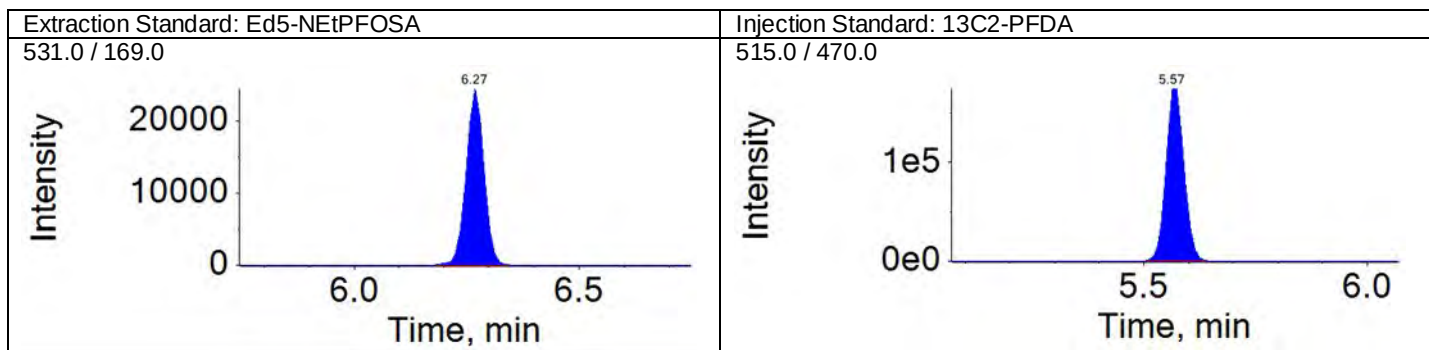
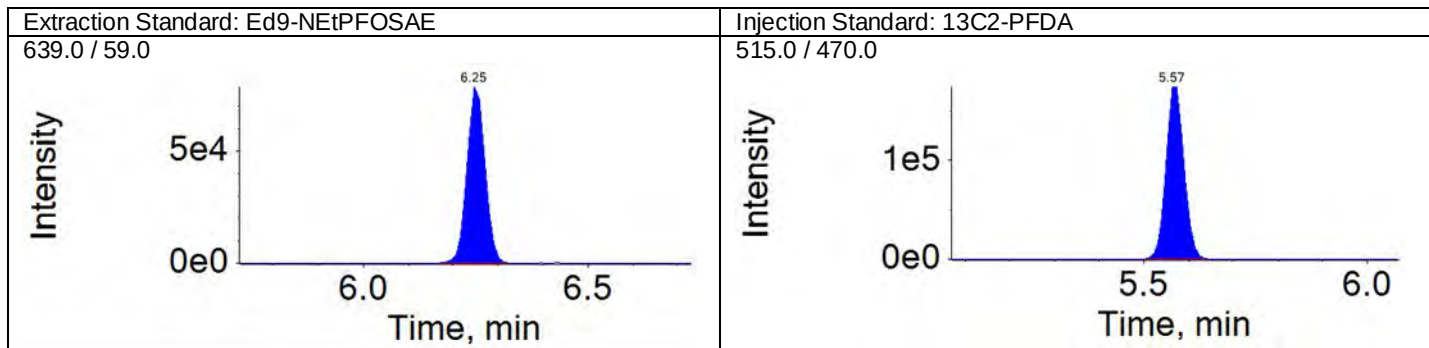
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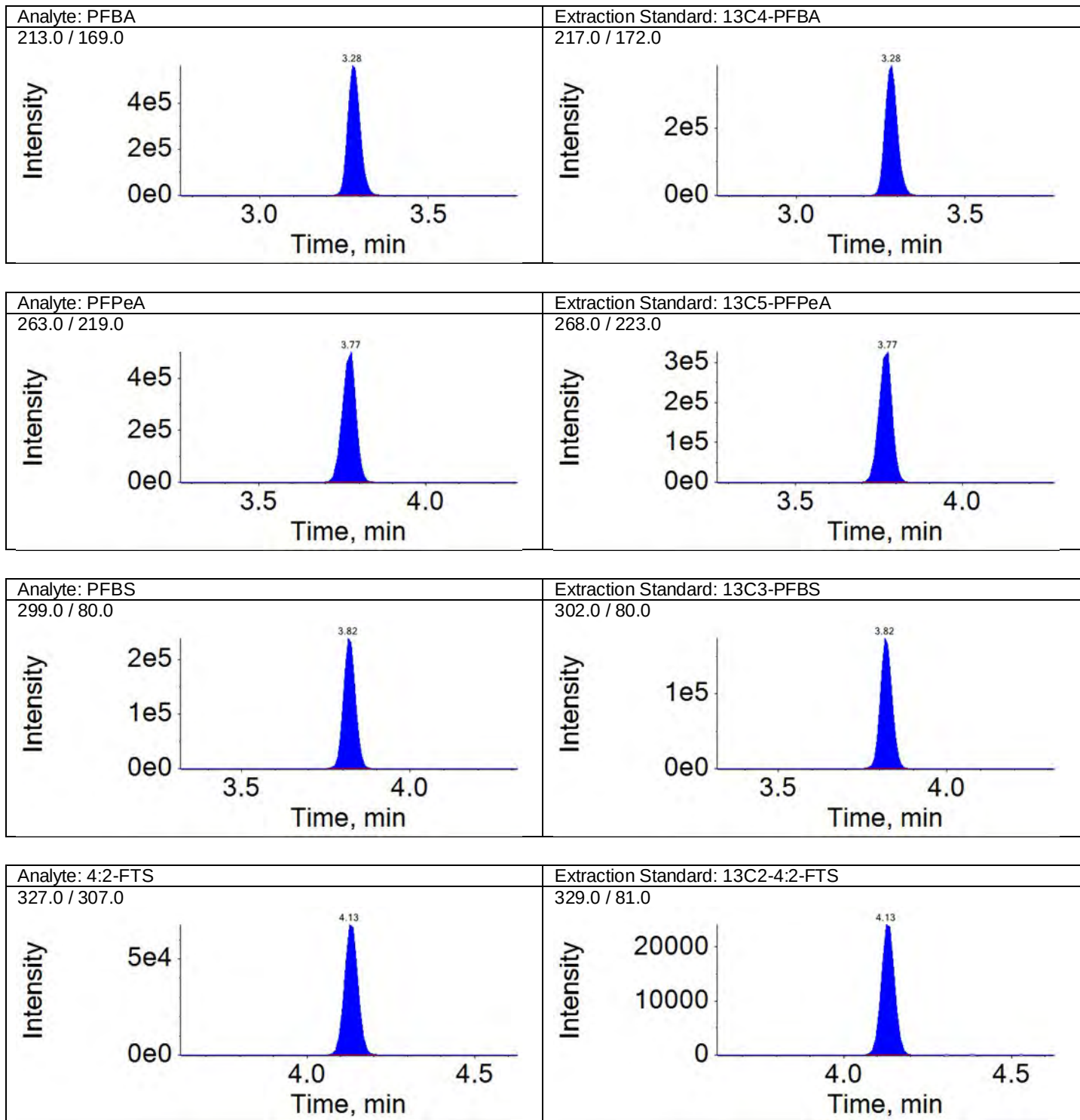
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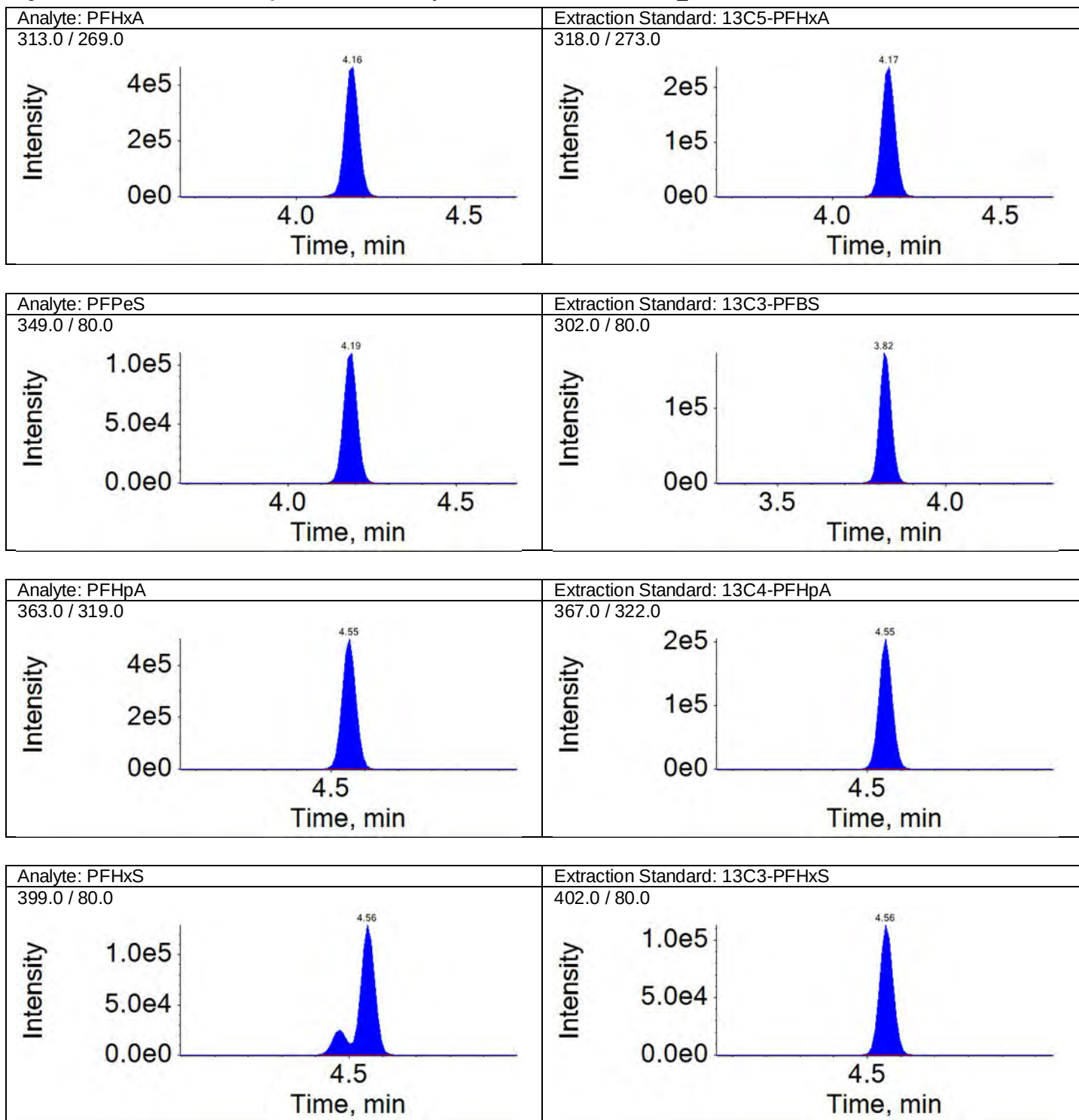
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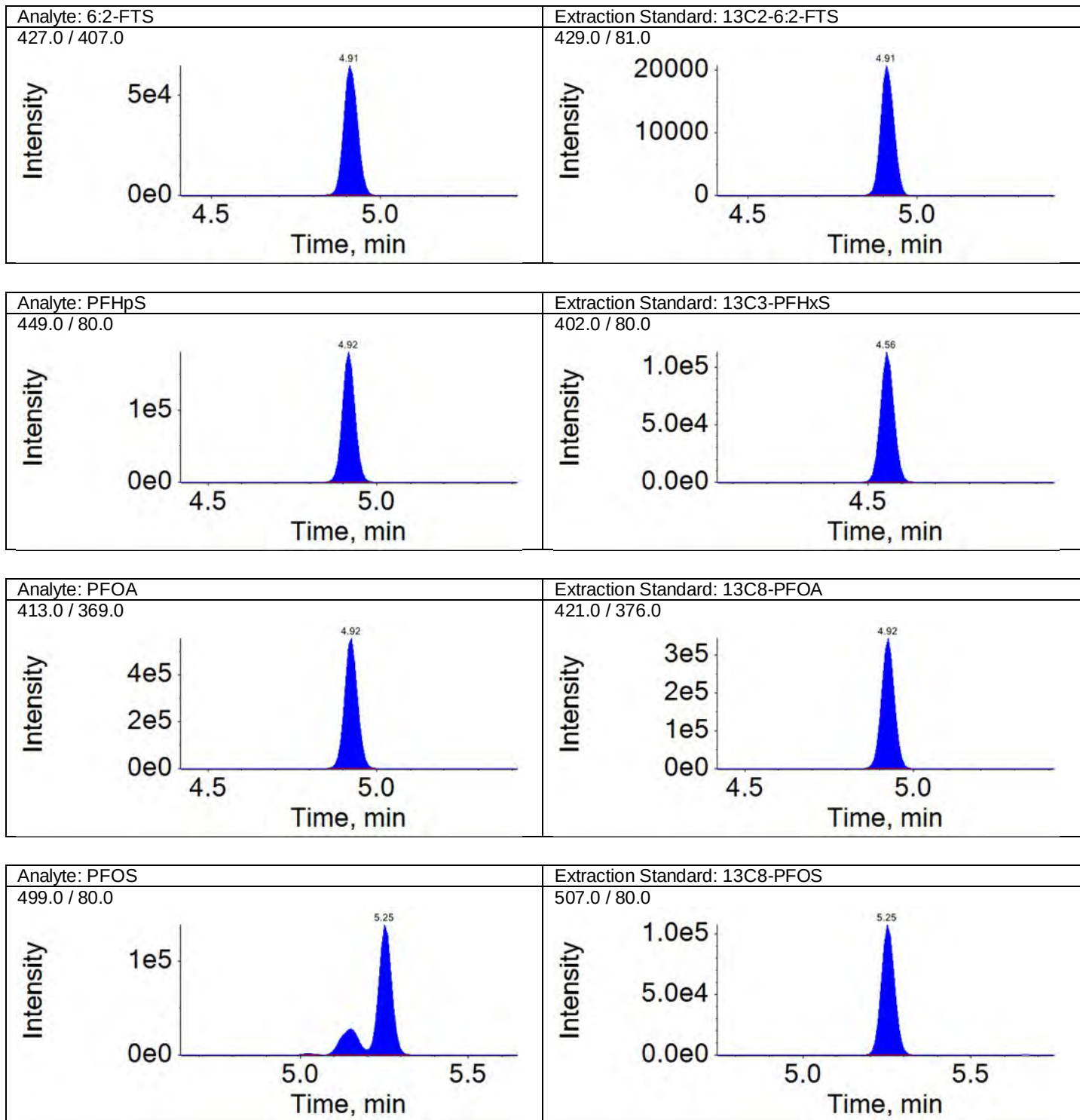
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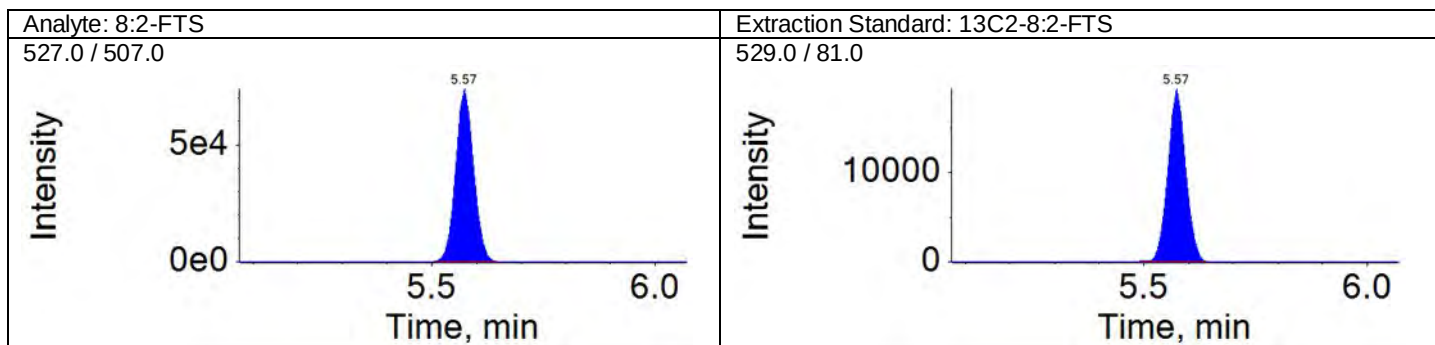
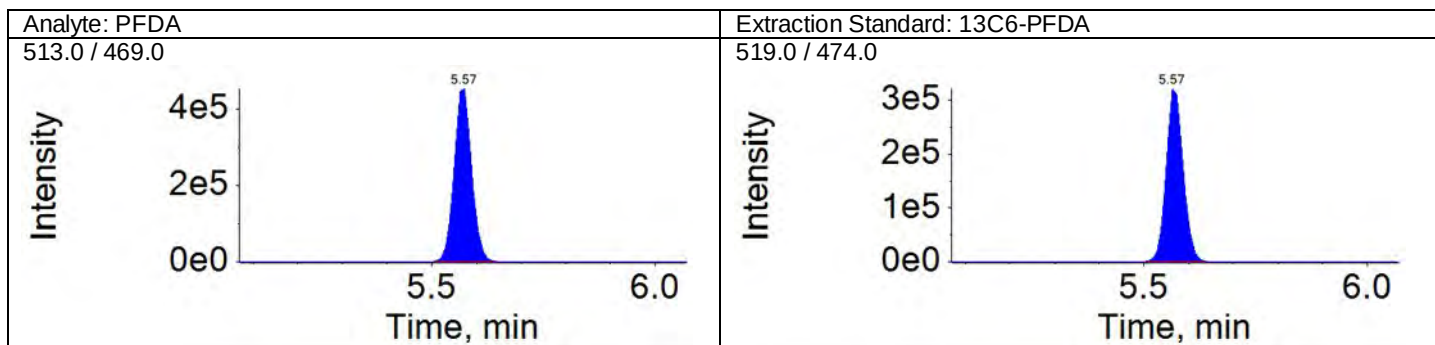
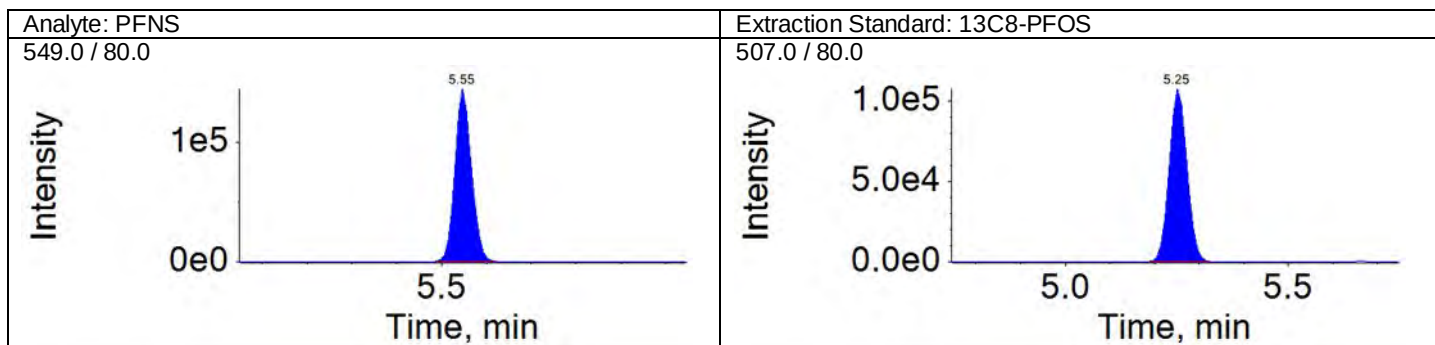
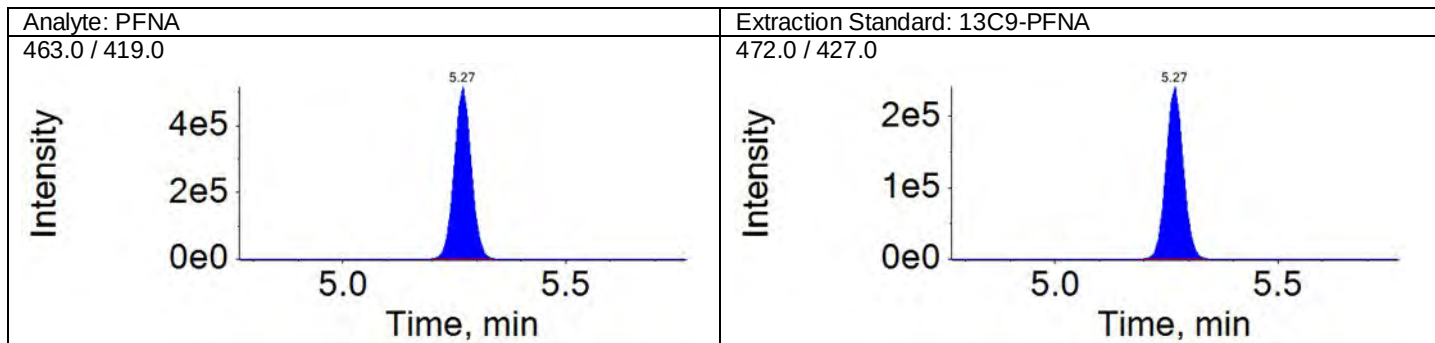
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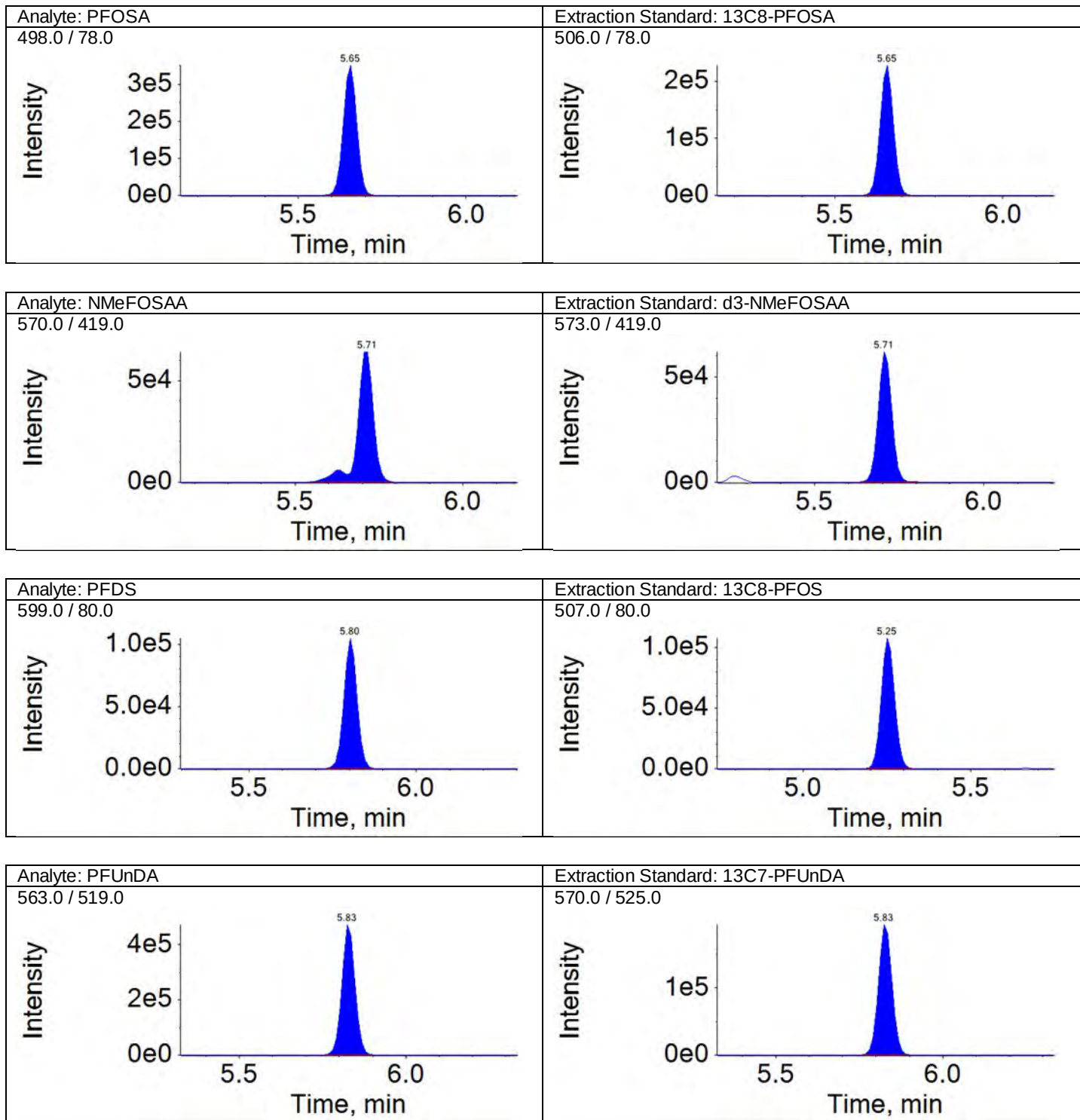
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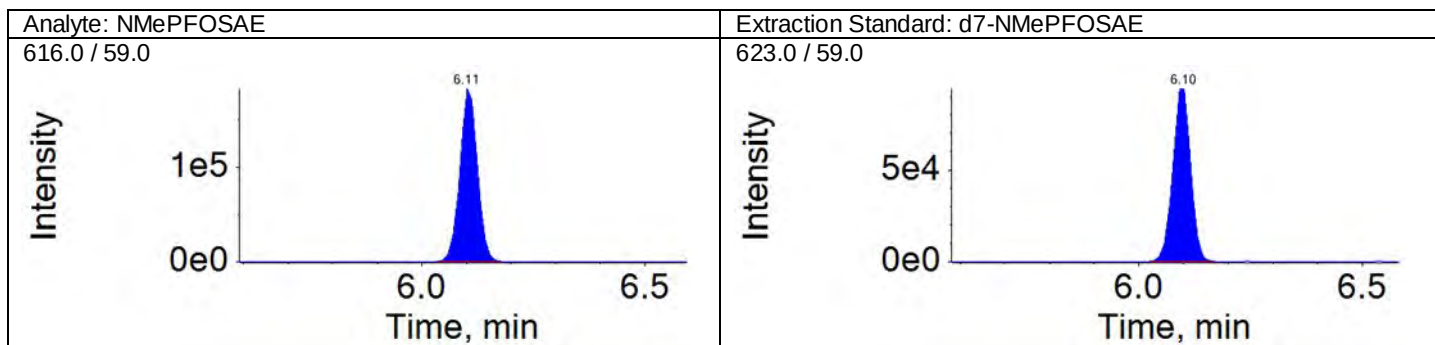
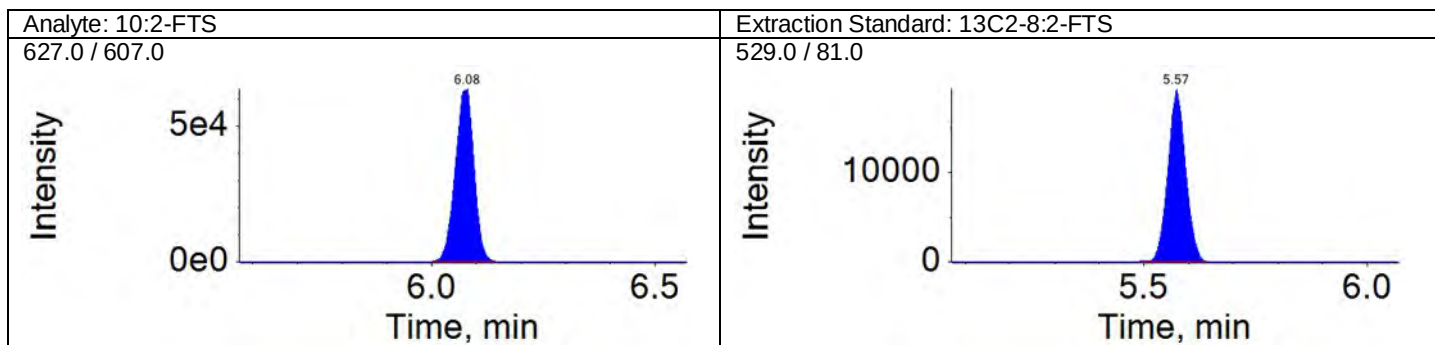
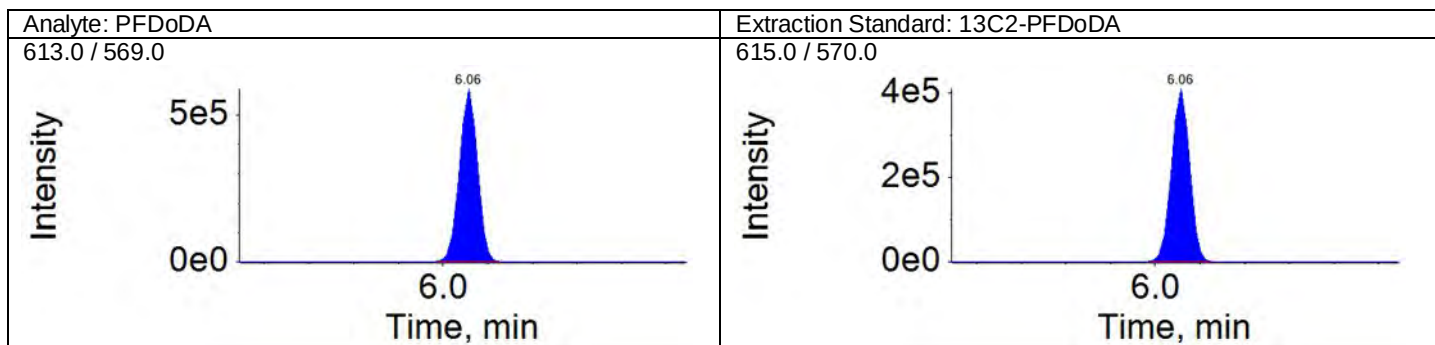
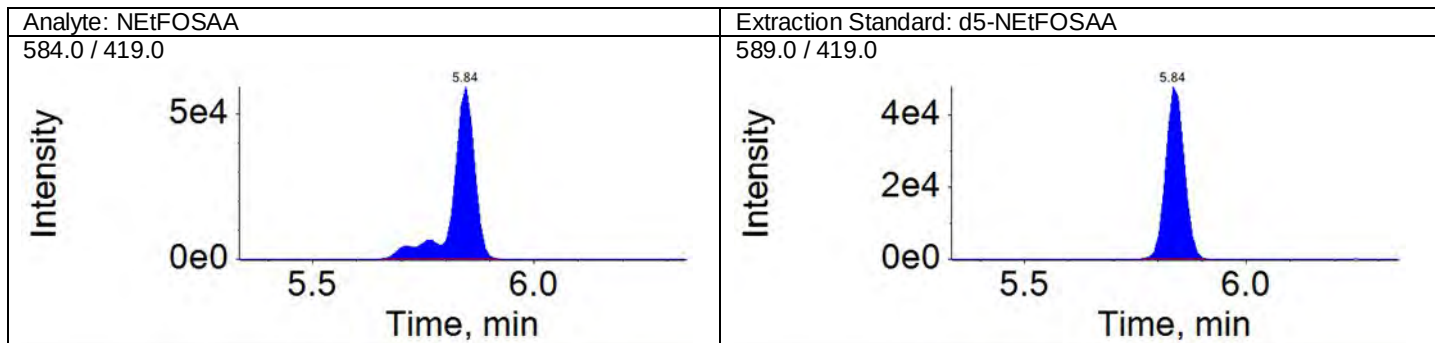
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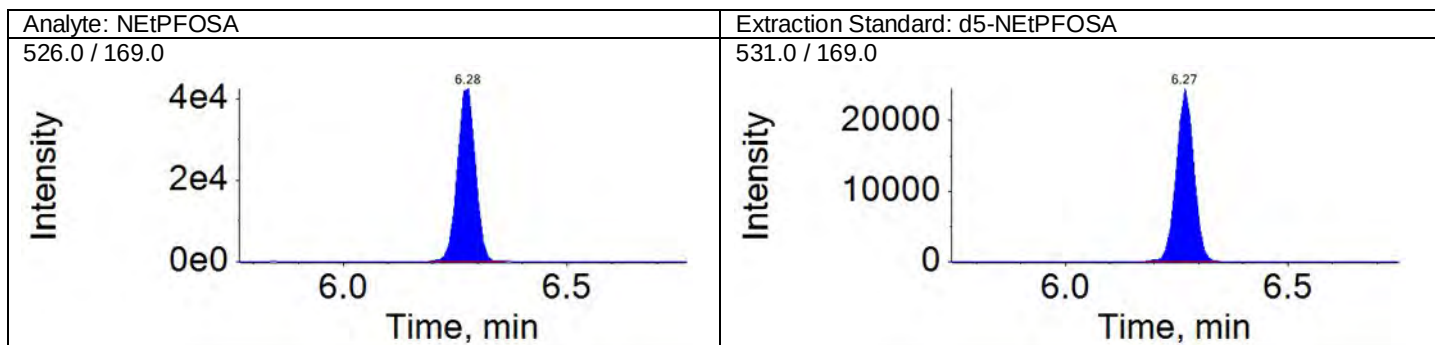
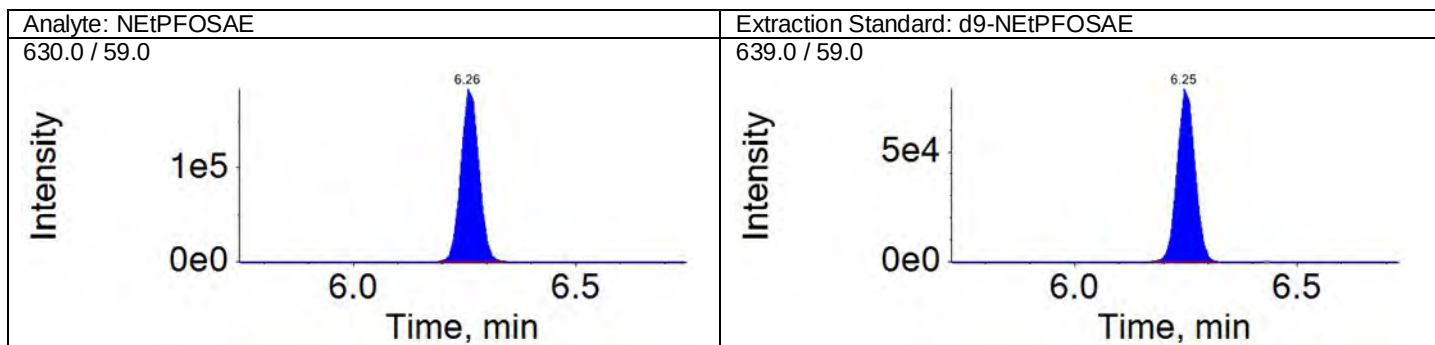
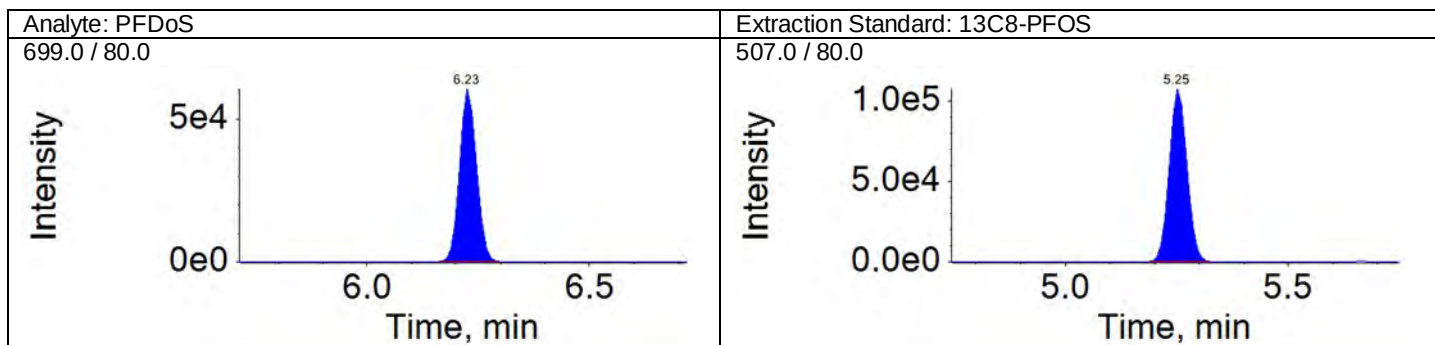
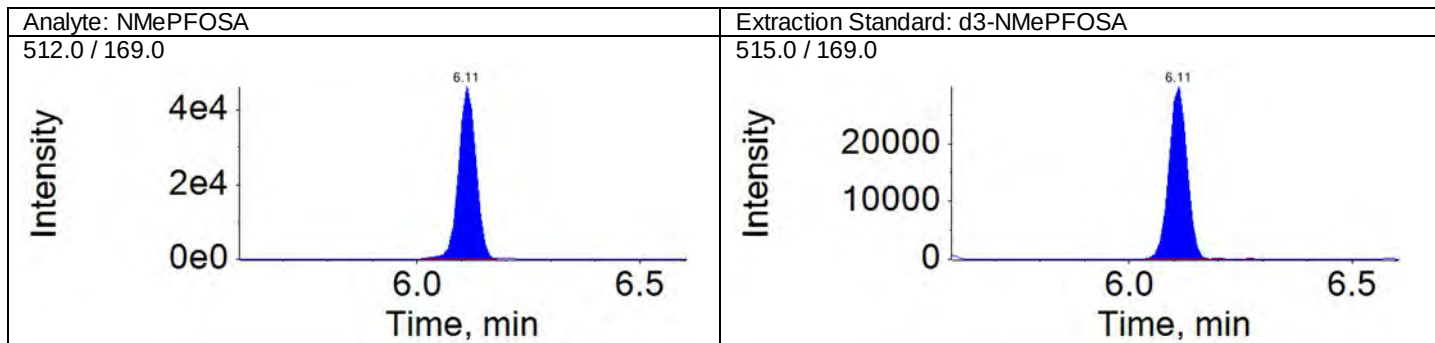
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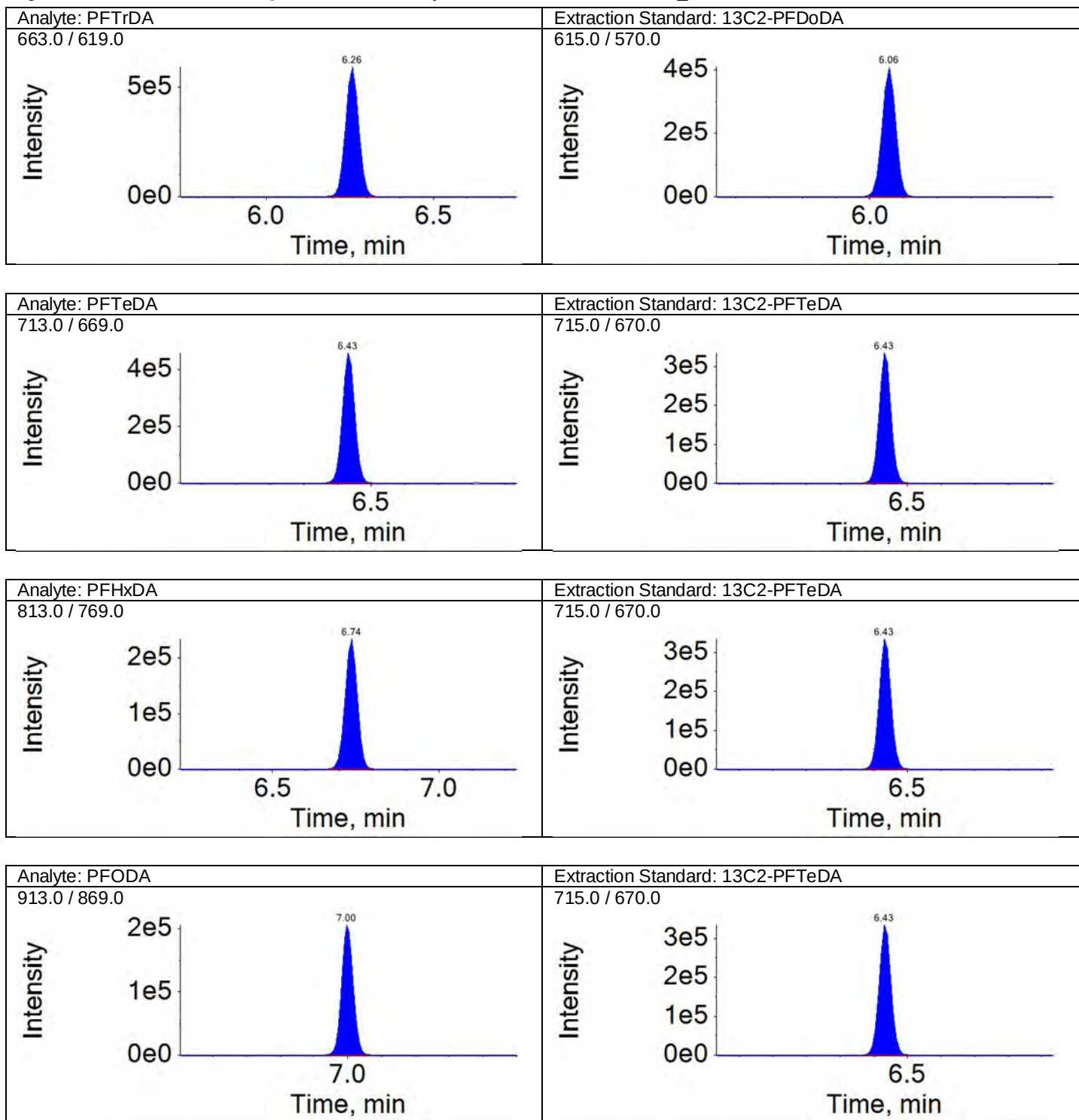
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:

PFHxS

RT (min.):

4.56

Peak Area:

371393.69

Mass Range:

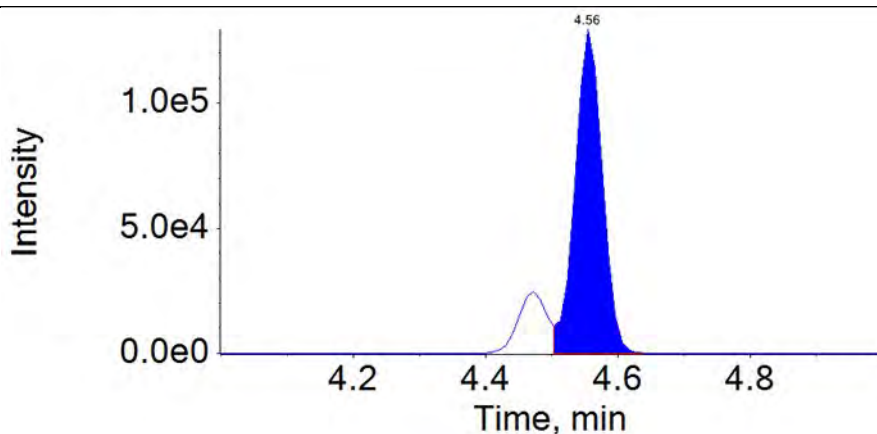
399.0 / 80.0

File Name:

18NOV28DCAL-09.wiff

Sample Name:

CAL4



Integration Comment: incorrect integration

Component Name:

PFOS

RT (min.):

5.25

Peak Area:

370801.21

Mass Range:

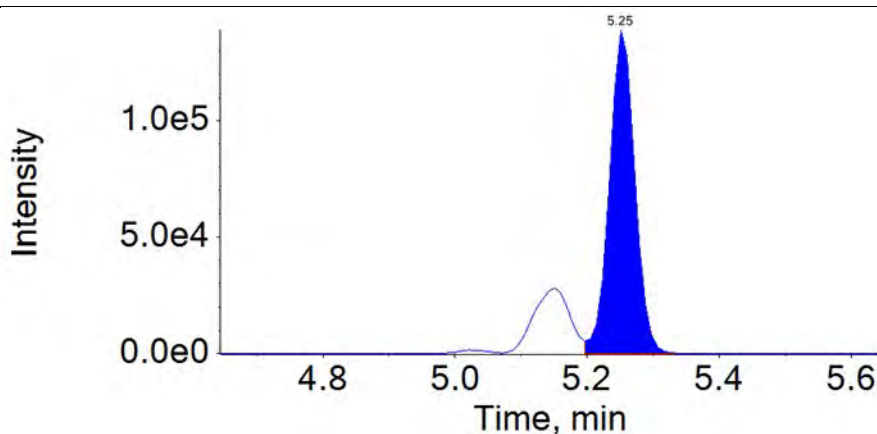
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File Name:

18NOV28DCAL-09.wiff

Sample Name:

CAL4



Integration Comment: incorrect integration

Component Name:

NMeFOSAA

RT (min.):

5.71

Peak Area:

191931.92

Mass Range:

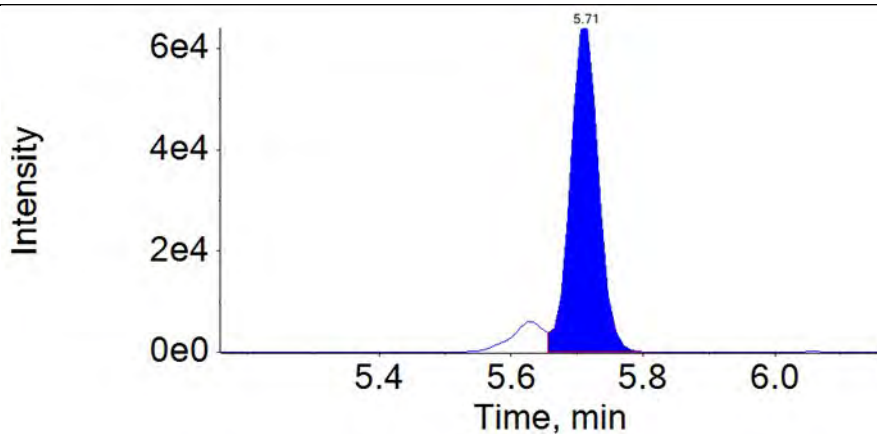
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CAL4

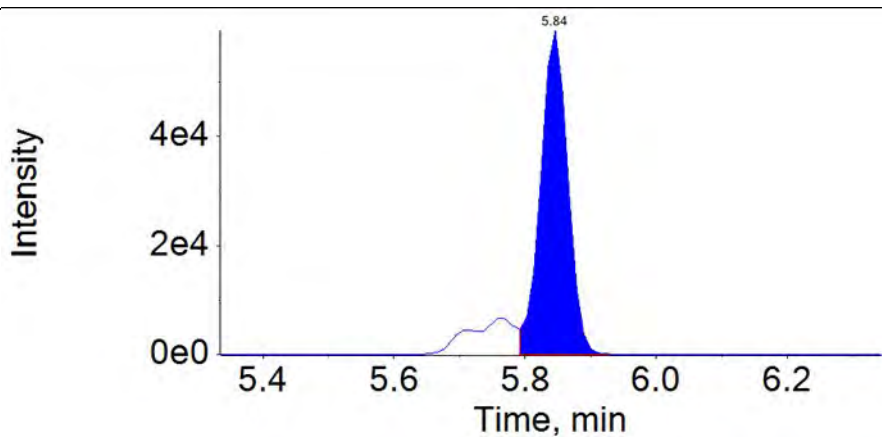


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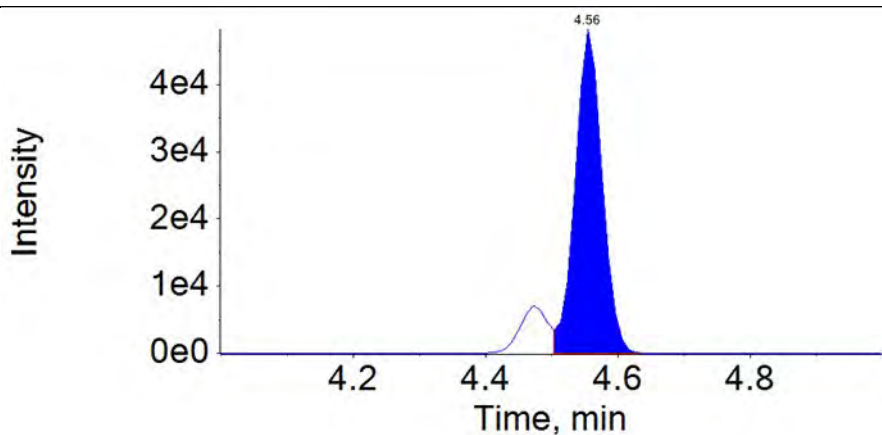
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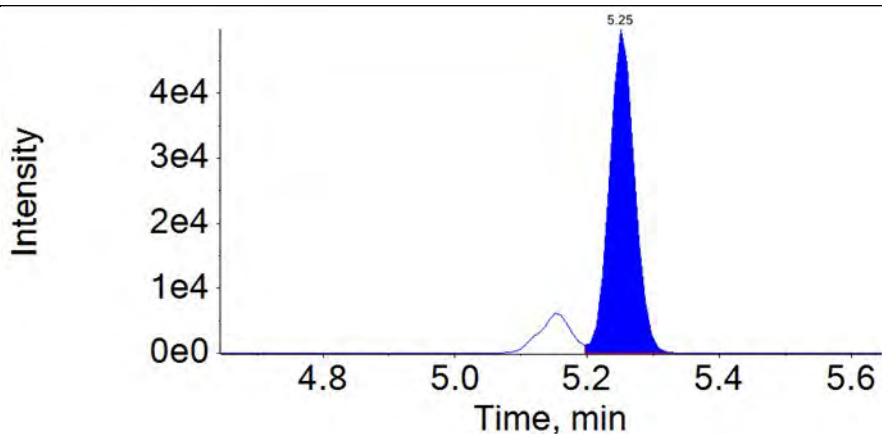
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NETFOSAA
RT (min.):
5.84
Peak Area:
171264.64
Mass Range:
584.0 / 419.0
File Name:
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Sample Name:
CAL4



Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
136580.68
Mass Range:
399.0 / 99.0
File Name:
18NOV28DCAL-09.wiff
Sample Name:
CAL4

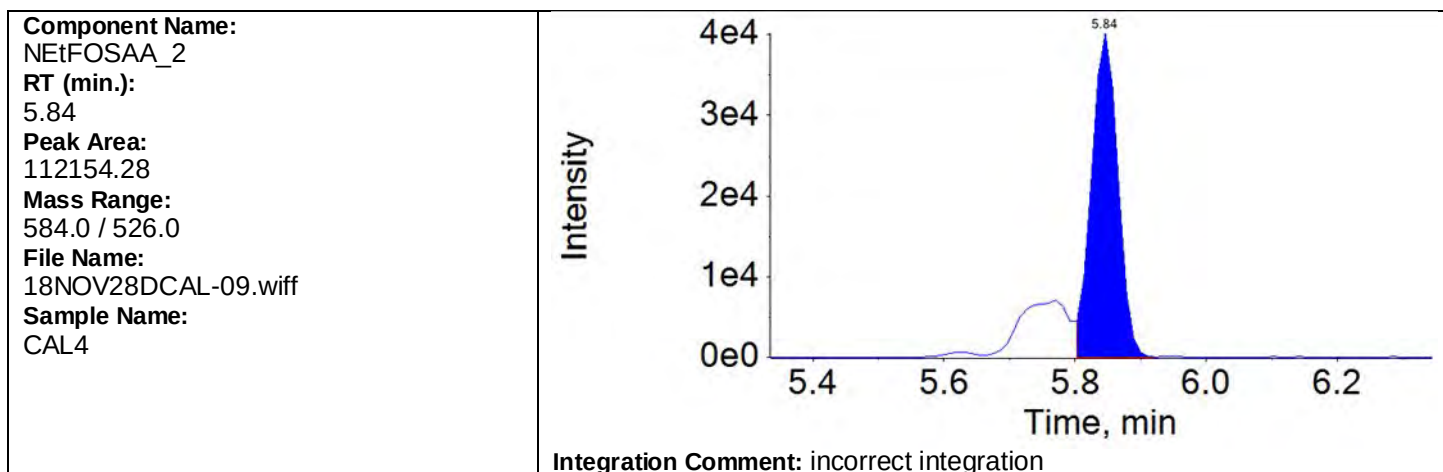
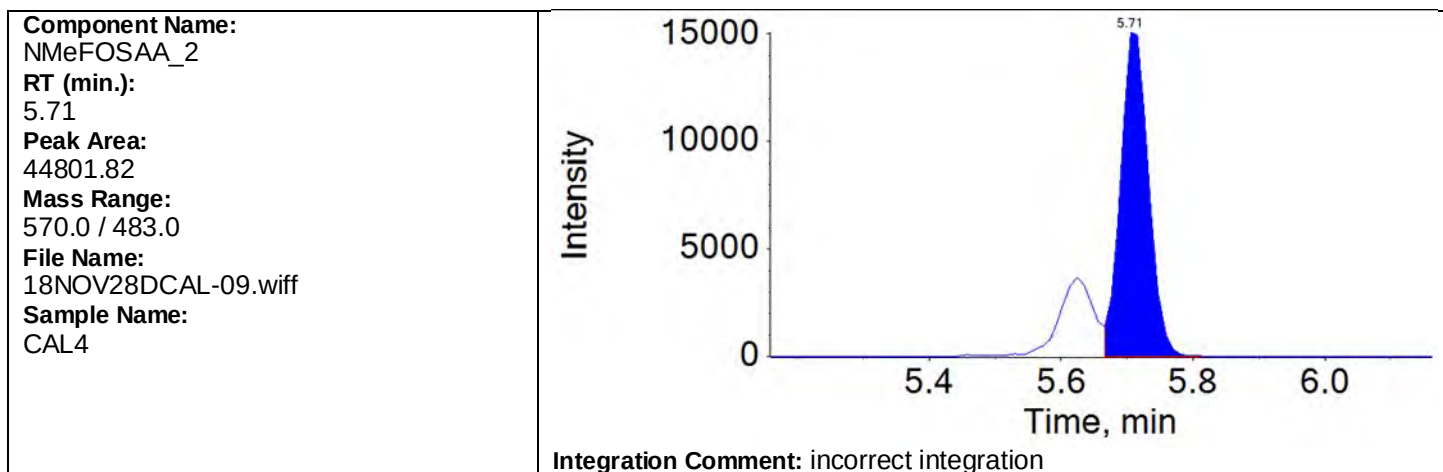


Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
131435.94
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-09.wiff
Sample Name:
CAL4



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
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APPROVED

By MCD at 5:00 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

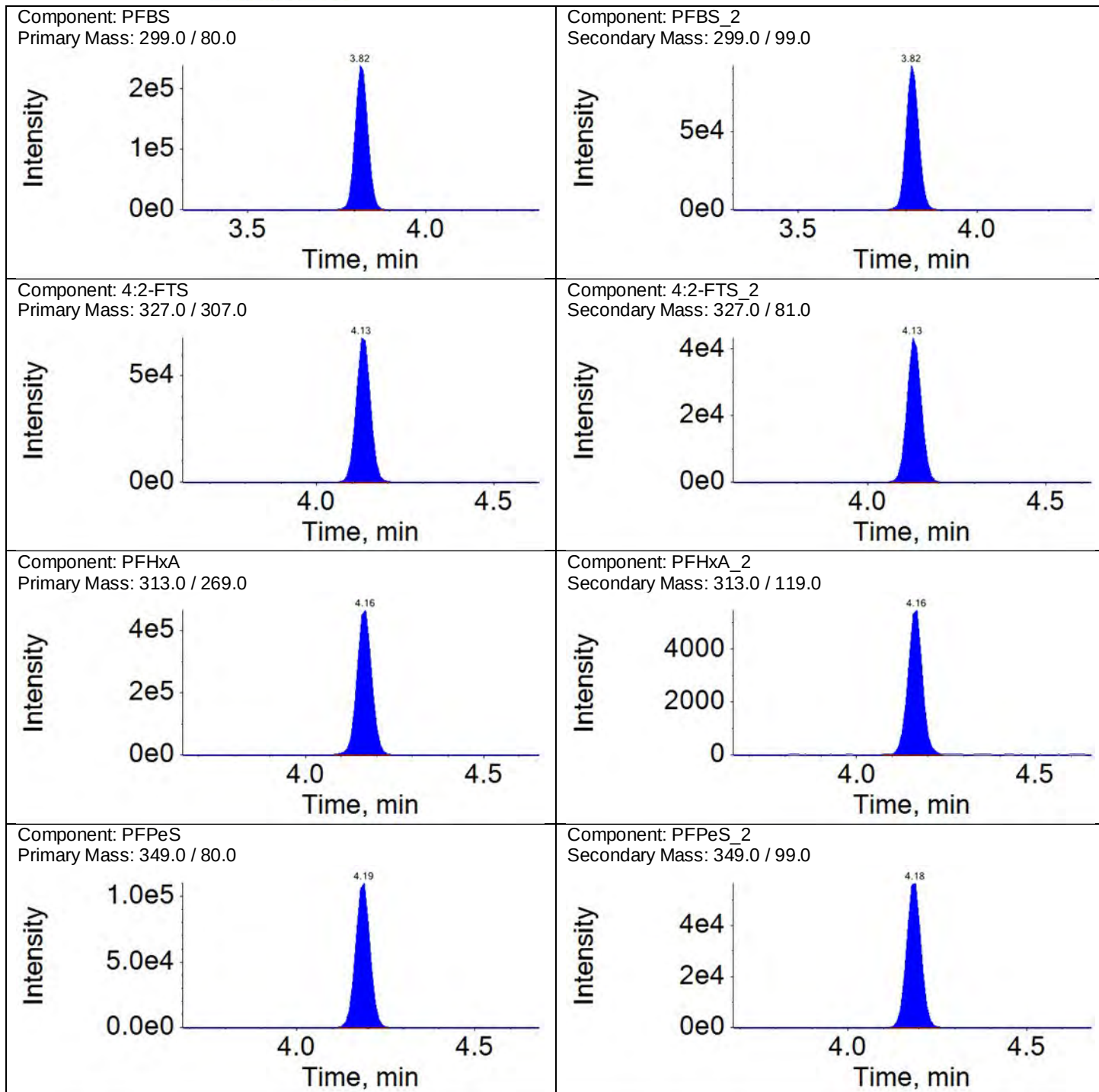
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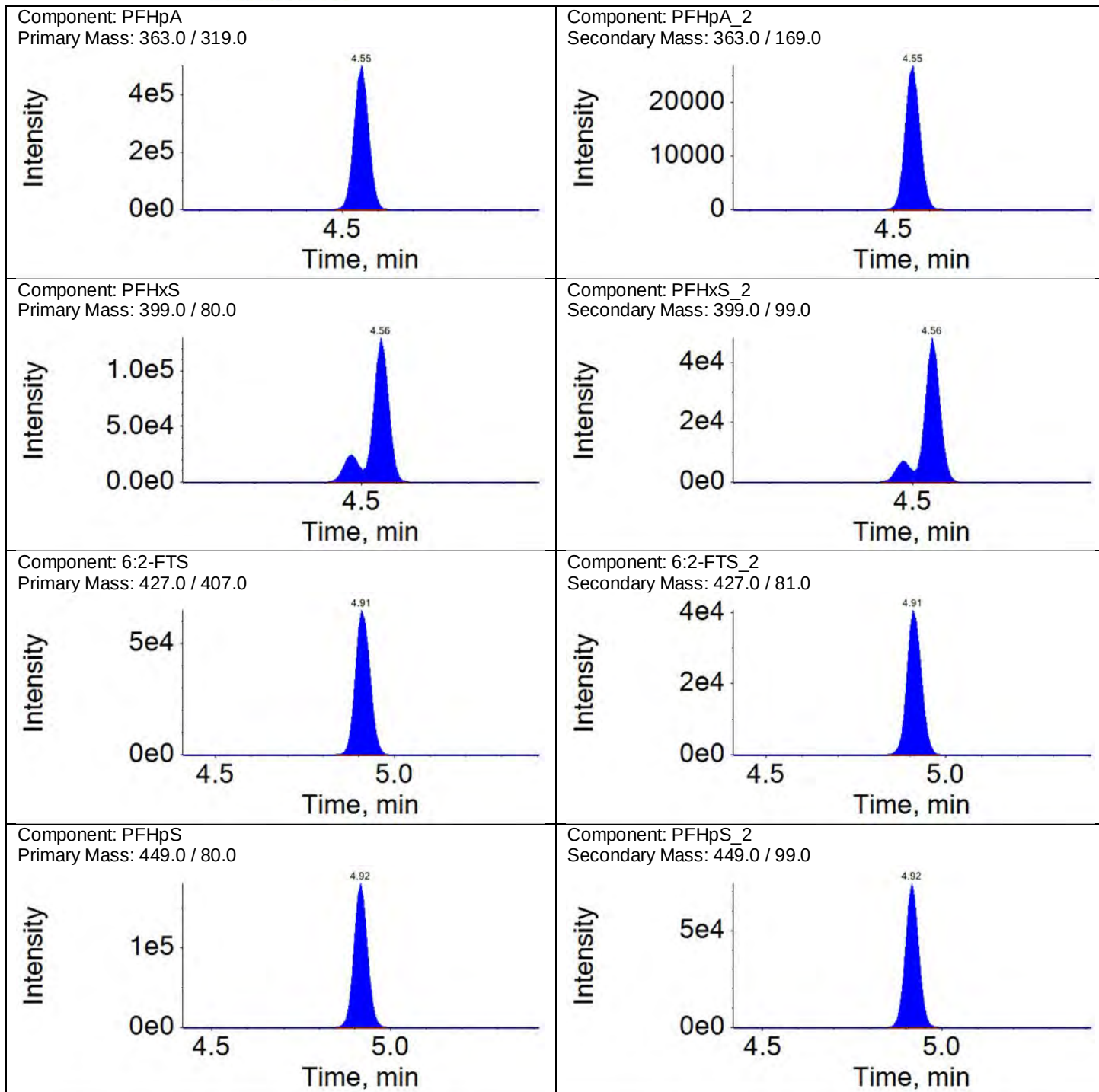
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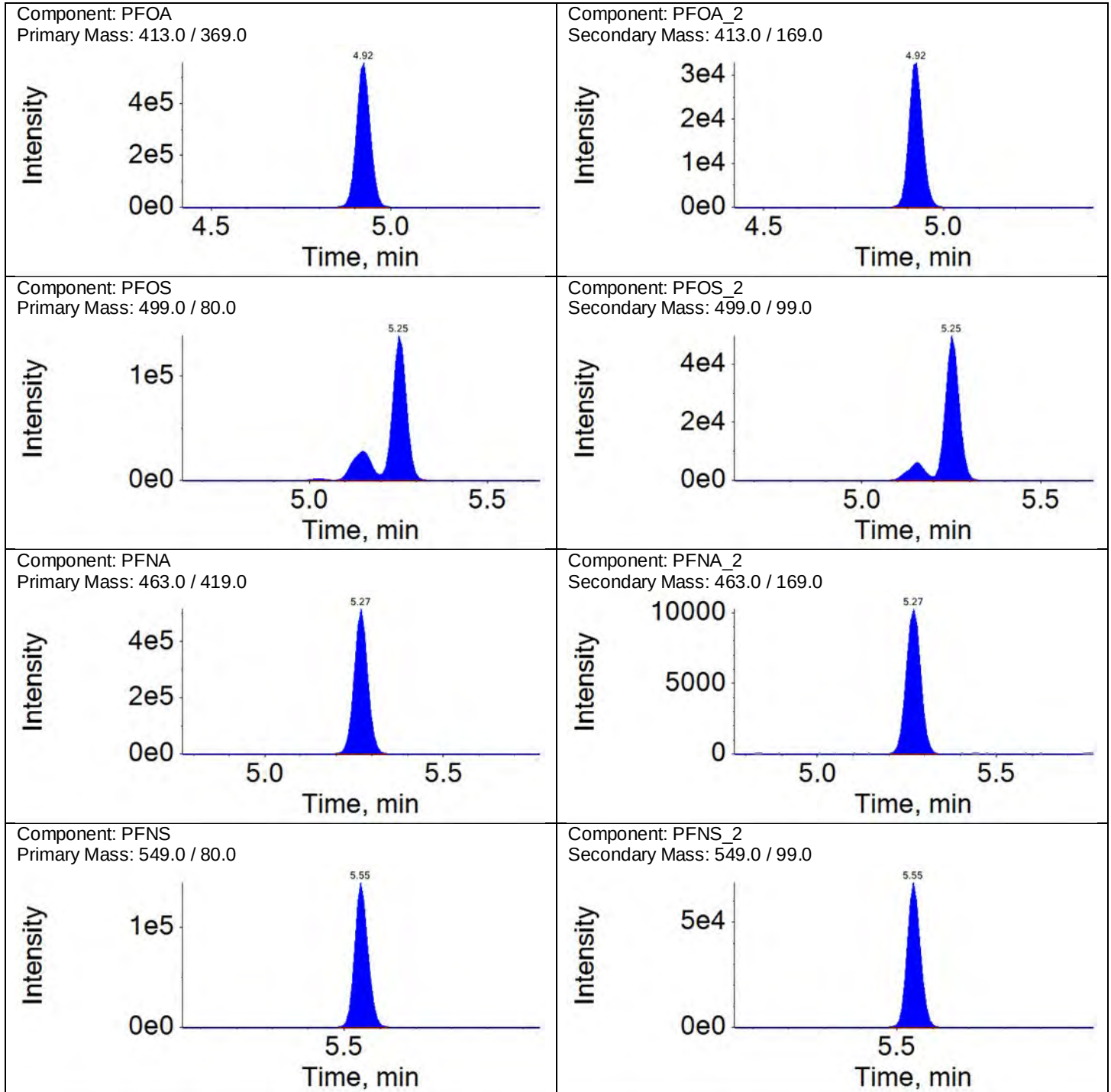
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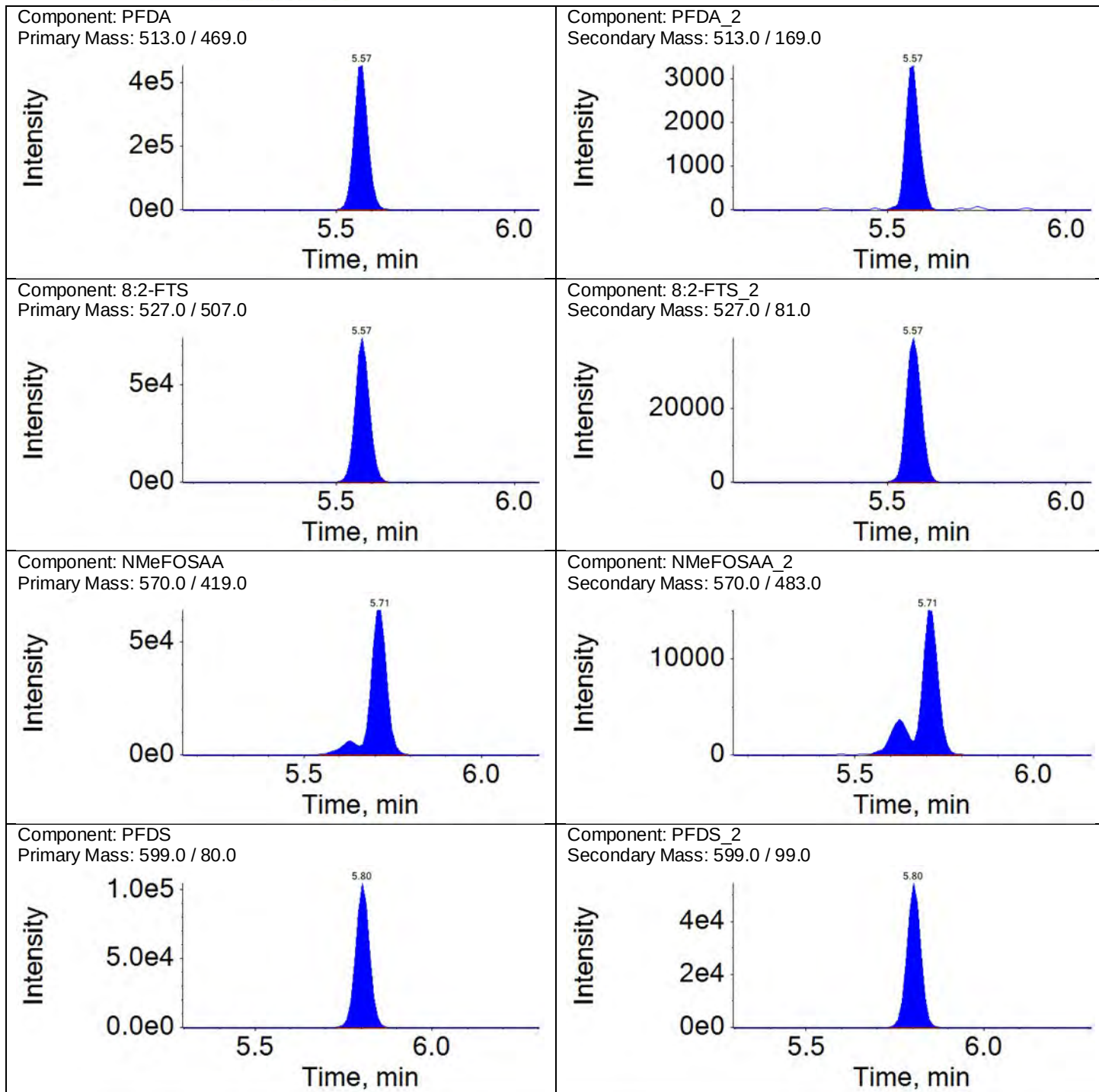
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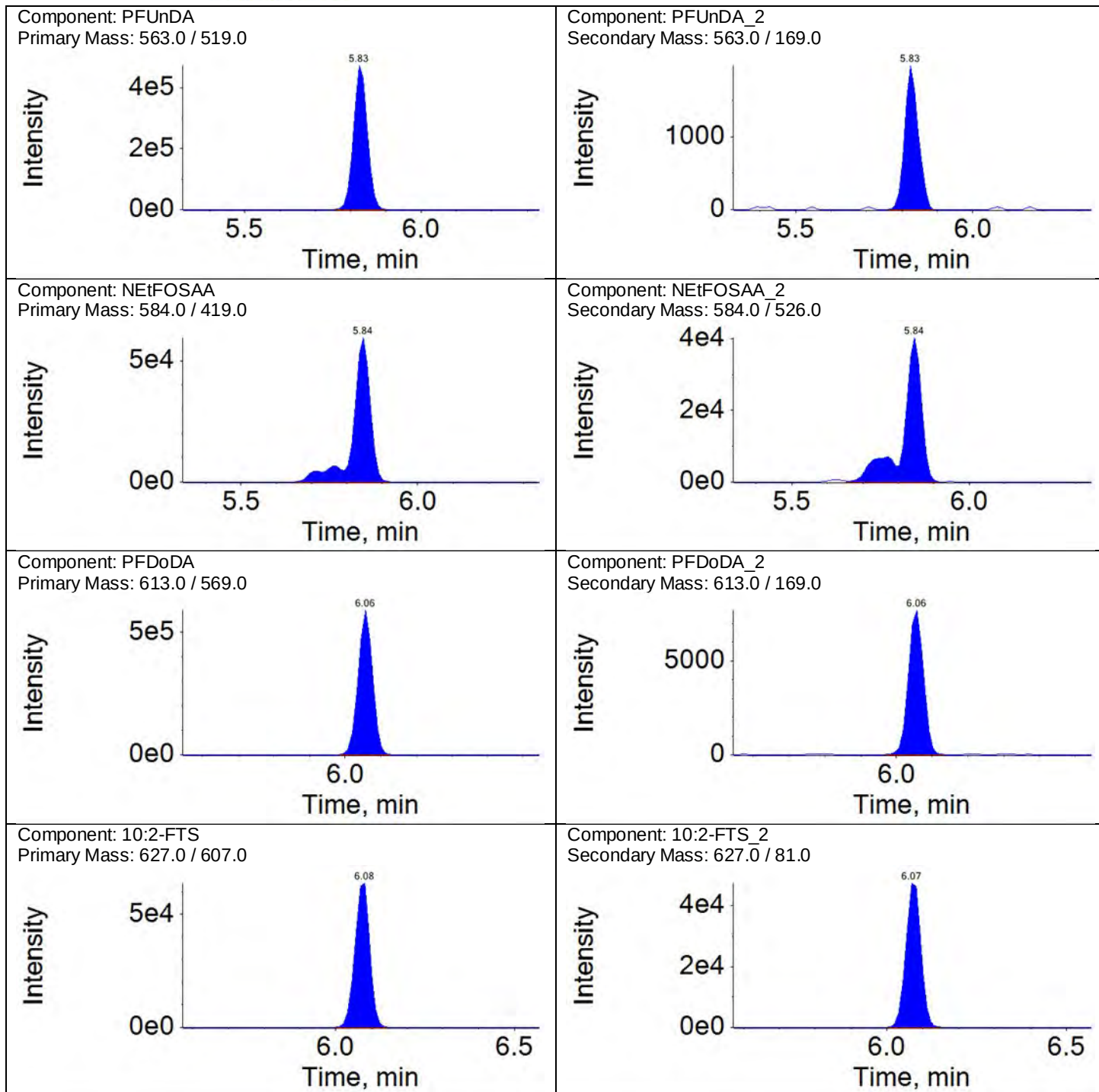
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PFBS_2	3.82	1.00	223343.90	A	0.3655	0.3782	3	50	
4:2-FTS	4.13	1.00	191344.61	A	0.6383	0.6348			
4:2-FTS_2	4.13	1.00	121465.15	A	0.6383	0.6348	-1	50	
PFHxA	4.16	1.00	1343216.41	A	0.0103	0.0115			
PFHxA_2	4.16	1.00	15497.56	A	0.0103	0.0115	12	50	
PFPeS	4.19	1.10	311741.60	A	0.4976	0.5181			
PFPeS_2	4.18	1.10	161508.14	A	0.4976	0.5181	4	50	
PFHpA	4.55	1.00	1429895.33	A	0.0557	0.0548			
PFHpA_2	4.55	1.00	78335.37	A	0.0557	0.0548	-2	50	
PFHxS	4.56	1.00	444626.01	M	0.3693	0.3529			
PFHxS_2	4.56	1.00	156906.17	M	0.3693	0.3529	-4	50	
6:2-FTS	4.91	1.00	185311.52	A	0.6625	0.6163			
6:2-FTS_2	4.91	1.00	114201.19	A	0.6625	0.6163	-7	50	
PFHpS	4.92	1.08	471580.62	A	0.3915	0.4081			
PFHpS_2	4.92	1.08	192431.36	A	0.3915	0.4081	4	50	
PFOA	4.92	1.00	1486960.43	A	0.0573	0.0582			
PFOA_2	4.92	1.00	86577.54	A	0.0573	0.0582	2	50	
PFOS	5.25	1.00	481949.96	M	0.2960	0.3159			
PFOS_2	5.25	1.00	152242.35	M	0.2960	0.3159	7	50	
PFNA	5.27	1.00	1365056.35	A	0.0201	0.0213			
PFNA_2	5.27	1.00	29087.24	A	0.0201	0.0213	6	50	
PFNS	5.55	1.06	369833.35	A	0.4794	0.4744			
PFNS_2	5.55	1.06	175461.18	A	0.4794	0.4744	-1	50	
PFDA	5.57	1.00	1223810.41	A	0.0075	0.0072			
PFDA_2	5.57	1.00	8850.86	A	0.0075	0.0072	-3	50	
8:2-FTS	5.57	1.00	203687.69	A	0.5380	0.5664			
8:2-FTS_2	5.57	1.00	115365.33	A	0.5380	0.5664	5	50	
NMeFOSAA	5.71	1.00	212775.33	M	0.2305	0.2723			
NMeFOSAA_2	5.71	1.00	57947.55	M	0.2305	0.2723	18	50	
PFDS	5.80	1.10	283198.51	A	0.5356	0.5185			
PFDS_2	5.80	1.10	146842.40	A	0.5356	0.5185	-3	50	
PFUnDA	5.83	1.00	1281938.52	A	0.0038	0.0041			
PFUnDA_2	5.83	1.00	5262.94	A	0.0038	0.0041	8	50	
NEtFOSAA	5.84	1.00	204048.64	M	0.7356	0.7330			
NEtFOSAA_2	5.84	1.00	149571.11	M	0.7356	0.7330	0	50	
PFDODA	6.06	1.00	1650301.08	A	0.0130	0.0137			
PFDODA_2	6.06	1.00	22542.02	A	0.0130	0.0137	5	50	
10:2-FTS	6.08	1.09	184968.53	A	0.6989	0.7539			
10:2-FTS_2	6.07	1.09	139452.05	A	0.6989	0.7539	8	50	
PFTTrDA	6.26	1.03	1622977.68	A	0.0090	0.0088			
PFTTrDA_2	6.26	1.03	14275.05	A	0.0090	0.0088	-2	50	
PFTeDA	6.43	1.00	1172052.04	A	0.0056	0.0065			
PFTeDA_2	6.43	1.00	7656.17	A	0.0056	0.0065	16	50	
PFHxDA	6.74	1.05	601723.77	A	0.0646	0.0614			
PFHxDA_2	6.73	1.05	36942.33	A	0.0646	0.0614	-5	50	
PFODA	7.00	1.09	494210.71	A	0.0264	0.0257			
PFODA_2	7.00	1.09	12722.45	A	0.0264	0.0257	-3	50	

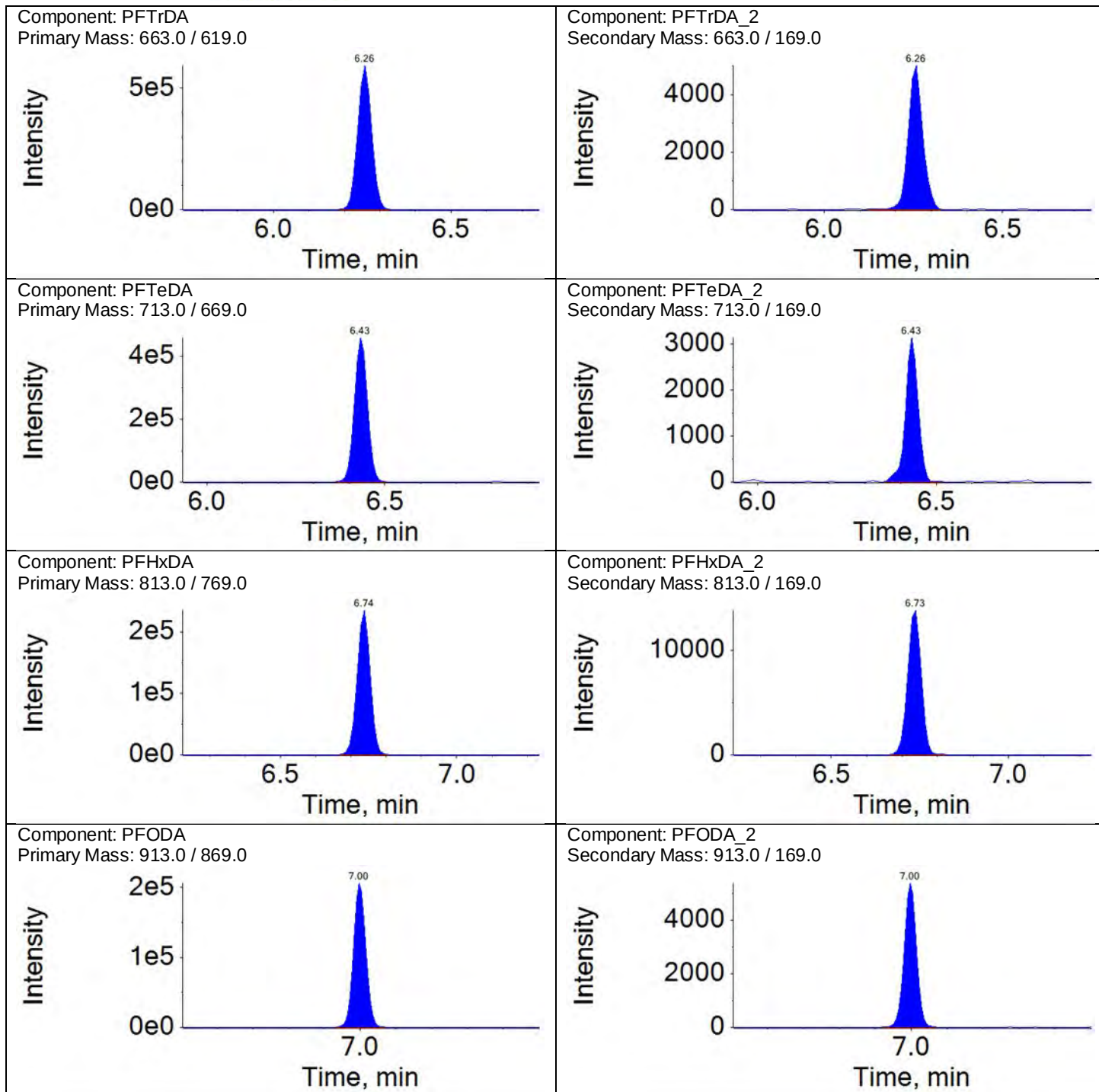












ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL5		Data File:	18NOV28DCAL-10.wiff
Sample ID:	CALBRN51833B		Acquis Date:	2018-11-28T14:18:16
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	7		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV28DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	857159.8	887248.9	-3	50	
13C2-PFOA	5.0	516457.2	498501.6	4	50	
13C4-PFOS	4.8	287732.6	283214.2	2	50	
13C2-PFDA	5.0	460232.7	441790.6	4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	951695.0	13C3-PFBA	857159.8	1.110	5.000	4.954	99	70-130	
E13C5-PFPeA	900153.4	13C3-PFBA	857159.8	1.050	5.000	4.904	98	70-130	
E13C3-PFBS	424059.2	13C3-PFBA	857159.8	0.495	4.650	4.720	102	70-130	
E13C2-4:2-FTS	67423.0	13C2-PFOA	516457.2	0.131	4.670	4.499	96	70-130	
E13C5-PFHxA	704953.5	13C2-PFOA	516457.2	1.365	5.000	5.014	100	70-130	
E13C3-PFHxS	309184.7	13C2-PFOA	516457.2	0.599	4.730	4.692	99	70-130	
E13C4-PFHpA	556455.9	13C2-PFOA	516457.2	1.077	5.000	4.951	99	70-130	
E13C2-6:2-FTS	58122.8	13C2-PFOA	516457.2	0.113	4.750	4.711	99	70-130	
E13C8-PFOA	911756.1	13C2-PFOA	516457.2	1.765	5.000	4.859	97	70-130	
E13C8-PFOS	299574.5	13C4-PFOS	287732.6	1.041	4.780	4.700	98	70-130	
E13C9-PFNA	630201.5	13C4-PFOS	287732.6	2.190	5.000	4.811	96	70-130	
E13C6-PFDA	833462.2	13C2-PFDA	460232.7	1.811	5.000	5.106	102	70-130	
E13C2-8:2-FTS	46142.4	13C2-PFDA	460232.7	0.100	4.790	4.309	90	70-130	
E13C8-PFOSA	596189.5	13C2-PFDA	460232.7	1.295	5.000	4.753	95	70-130	
Ed3-NMeFOSAA	172574.2	13C2-PFDA	460232.7	0.375	5.000	4.761	95	70-130	
E13C7-PFUnDA	539842.9	13C2-PFDA	460232.7	1.173	5.000	4.957	99	70-130	
Ed5-NEtFOSAA	124785.1	13C2-PFDA	460232.7	0.271	5.000	4.830	97	70-130	
E13C2-PFDODA	1133027.9	13C2-PFDA	460232.7	2.462	5.000	5.173	103	70-130	
Ed7-NMePFOSAE	247663.8	13C2-PFDA	460232.7	0.538	5.000	4.651	93	70-130	
Ed3-NMePFOSA	83129.0	13C2-PFDA	460232.7	0.181	5.000	4.888	98	70-130	
Ed9-NEtPFOSAE	220689.9	13C2-PFDA	460232.7	0.480	5.000	4.861	97	70-130	
Ed5-NEtPFOSA	66384.7	13C2-PFDA	460232.7	0.144	5.000	5.012	100	70-130	
E13C2-PFTeDA	786107.5	13C2-PFDA	460232.7	1.708	5.000	4.726	95	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL5

Instrument Name: LM27631

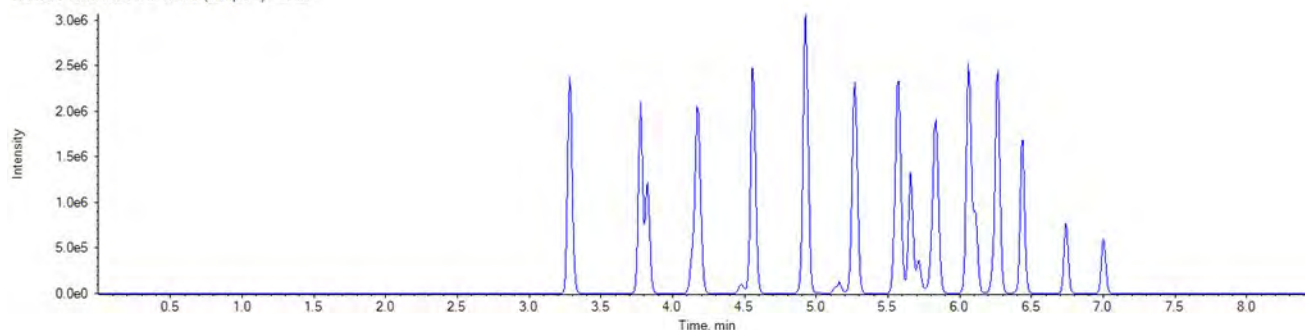
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	3627061.5		A	13C4-PFBA	3.28	951695.0	3.811	20.892
PFPeA	3.78	1.000	3696889.3		A	13C5-PFPeA	3.78	900153.4	4.107	20.152
PFBS	3.82	1.000	1542881.7		A	13C3-PFBS	3.83	424059.2	3.638	17.661
4:2-FTS	4.14	1.000	498650.7		A	13C2-4:2-FTS	4.14	67423.0	7.396	19.798
PFHxA	4.17	1.000	3464657.3		A	13C5-PFHxA	4.17	704953.5	4.915	19.728
PFPeS	4.19	1.100	809728.0		A	13C3-PFBS	3.83	424059.2	1.909	19.314
PFHpA	4.56	1.000	3592806.2		A	13C4-PFHpA	4.56	556455.9	6.457	19.926
PFHxS	4.56	1.000	1191482.7		M	13C3-PFHxS	4.56	309184.7	3.854	18.044
6:2-FTS	4.92	1.000	426727.7		A	13C2-6:2-FTS	4.92	58122.8	7.342	19.156
PFHpS	4.92	1.080	1171216.6		A	13C3-PFHxS	4.56	309184.7	3.788	18.906
PFOA	4.93	1.000	3601538.3		A	13C8-PFOA	4.93	911756.1	3.950	20.411
PFOS	5.26	1.000	1305020.5		M	13C8-PFOS	5.26	299574.5	4.356	18.273
PFNA	5.27	1.000	3536255.1		A	13C9-PFNA	5.27	630201.5	5.611	21.504
PFNS	5.55	1.060	909879.2		A	13C8-PFOS	5.26	299574.5	3.037	19.177
PFDA	5.57	1.000	3072749.0		A	13C6-PFDA	5.57	833462.2	3.687	20.868
8:2-FTS	5.58	1.000	478390.1		A	13C2-8:2-FTS	5.58	46142.4	10.368	19.551
PFOSA	5.66	1.000	2392584.6		A	13C8-PFOSA	5.66	596189.5	4.013	20.329
NMeFOSAA	5.71	1.000	557354.6		M	d3-NMeFOSAA	5.71	172574.2	3.230	20.602
PFDS	5.81	1.100	737231.9		A	13C8-PFOS	5.26	299574.5	2.461	19.512
PFUnDA	5.83	1.000	3163283.8		A	13C7-PFUnDA	5.83	539842.9	5.860	20.945
NEtFOSAA	5.85	1.000	512792.4		M	d5-NEtFOSAA	5.85	124785.1	4.109	20.014
PFDODA	6.06	1.000	4161895.9		A	13C2-PFDODA	6.06	1133027.9	3.673	20.121
10:2-FTS	6.08	1.090	480384.1		A	13C2-8:2-FTS	5.58	46142.4	10.411	22.957
NMePFOSAE	6.11	1.000	1240182.1		A	d7-NMePFOSAE	6.10	247663.8	5.008	21.073
NMePFOSA	6.12	1.000	322671.1		A	d3-NMePFOSA	6.11	83129.0	3.882	20.577
PFDoS	6.23	1.190	390444.7		A	13C8-PFOS	5.26	299574.5	1.303	18.718
NEtPFOSAE	6.27	1.000	1338584.5		A	d9-NEtPFOSAE	6.26	220689.9	6.065	21.818
NEtPFOSA	6.28	1.000	293215.8		A	d5-NEtPFOSA	6.27	66384.7	4.417	19.796
PFTDA	6.26	1.030	3743763.6		A	13C2-PFDODA	6.06	1133027.9	3.304	19.916
PFTeDA	6.44	1.000	2897106.2		A	13C2-PFTeDA	6.44	786107.5	3.685	20.882
PFHxDA	6.74	1.050	1551331.1		A	13C2-PFTeDA	6.44	786107.5	1.973	22.560
PFODA	7.00	1.090	1272897.4		A	13C2-PFTeDA	6.44	786107.5	1.619	21.571

Total Ion Chromatogram

TIC from 18NOV28DCAL-10.wiff (sample 1) - CAL5



APPROVED

By MCD at 5:00 pm, 11/28/18

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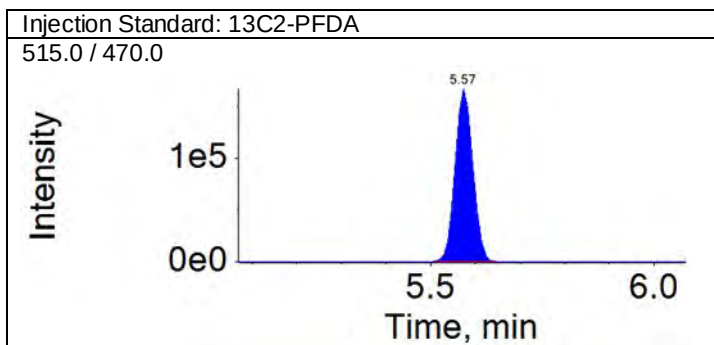
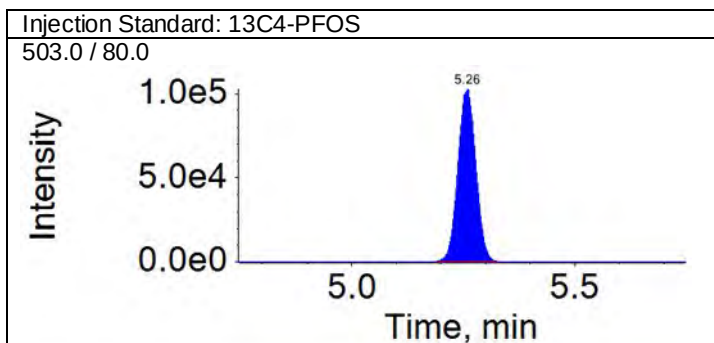
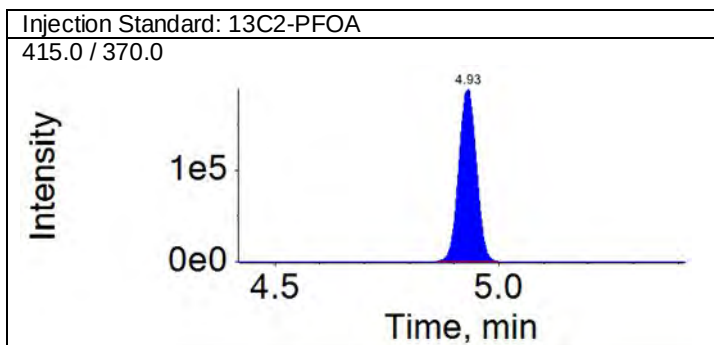
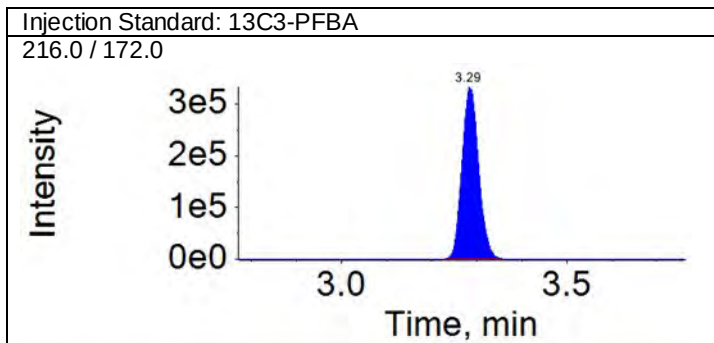
REVIEWED

By HMK at 12:22 pm, 11/29/18

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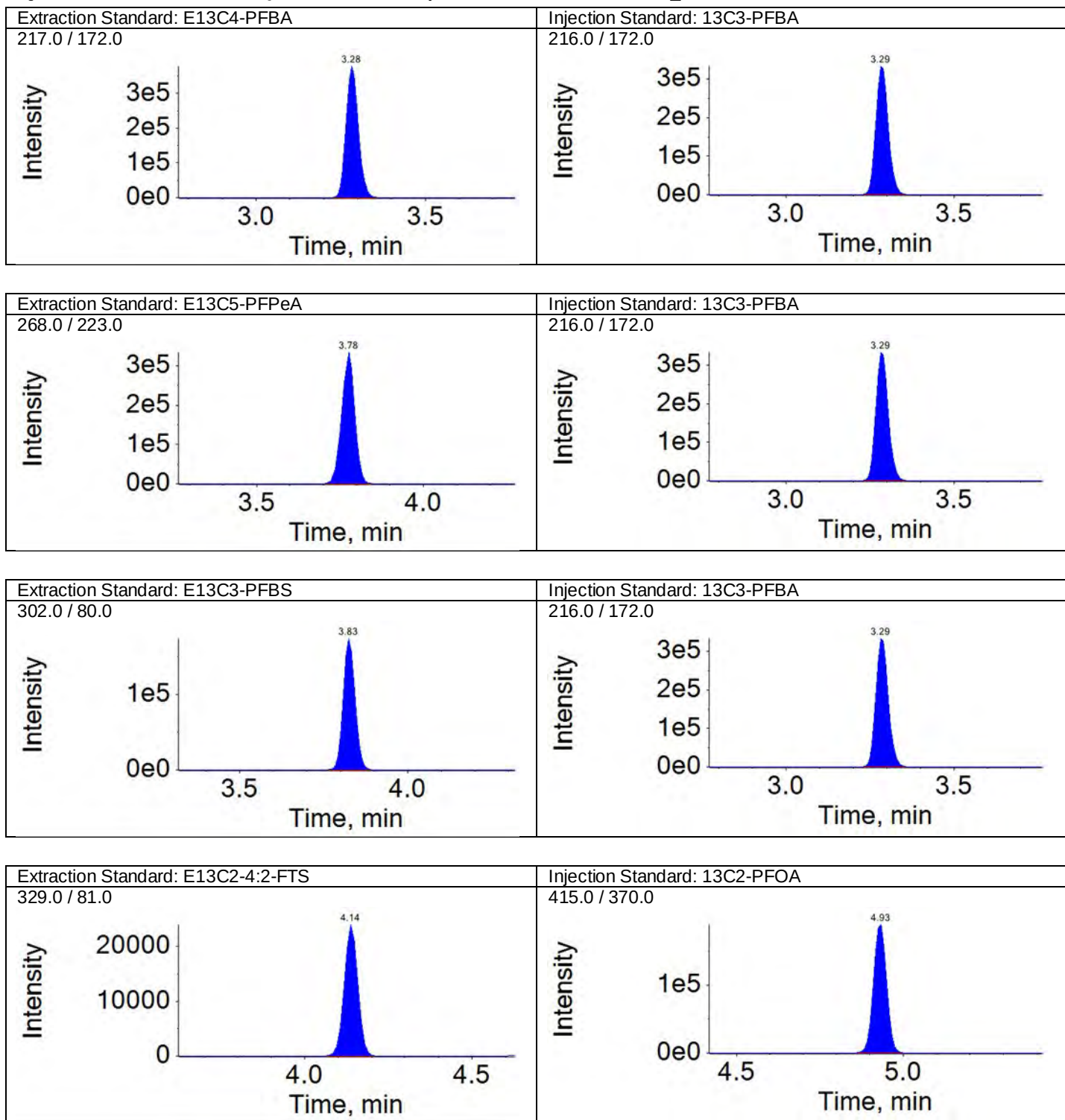
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



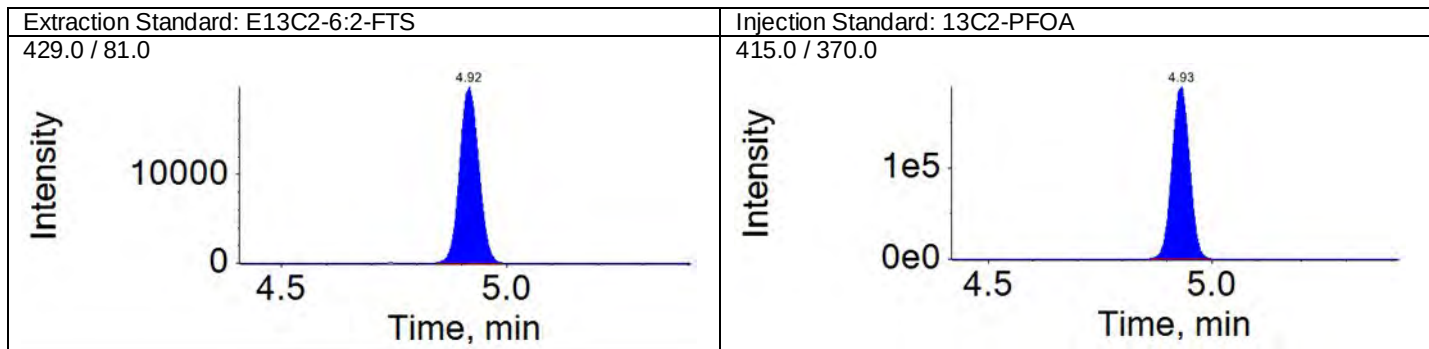
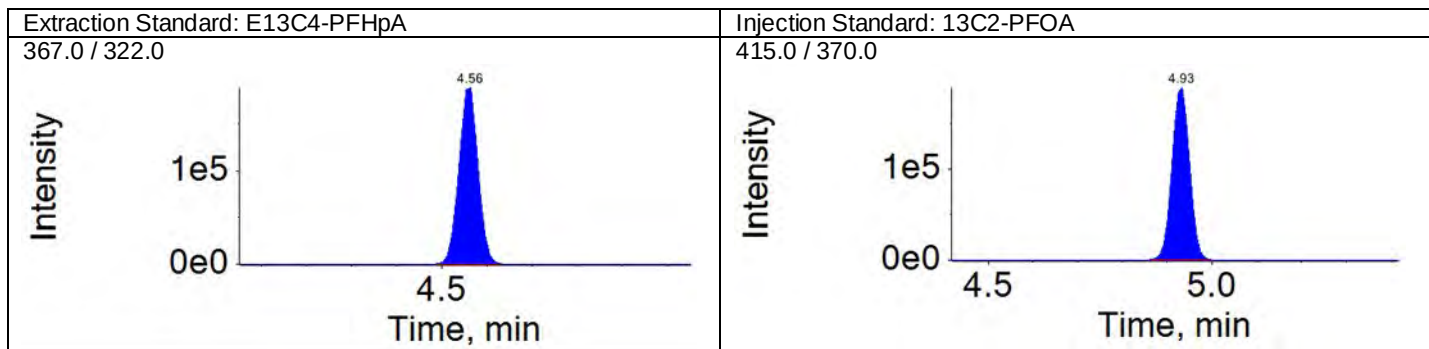
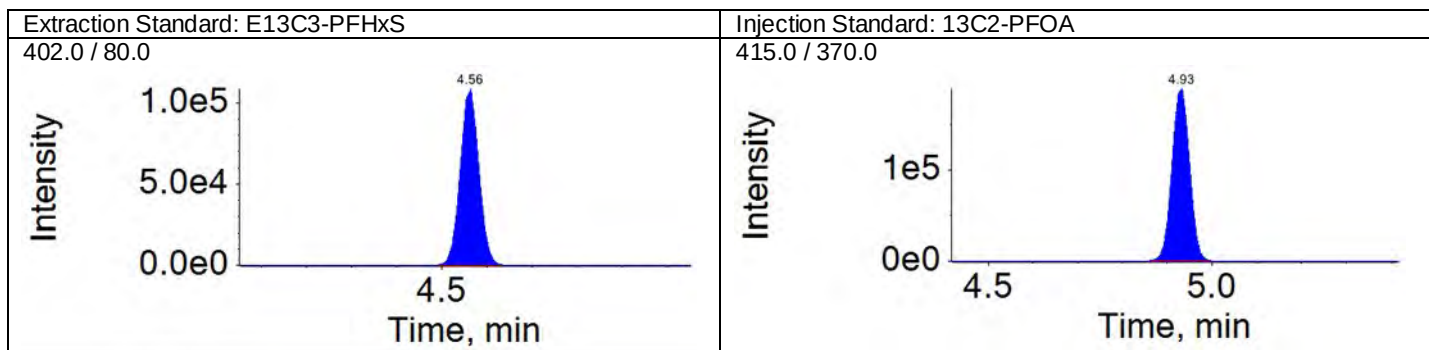
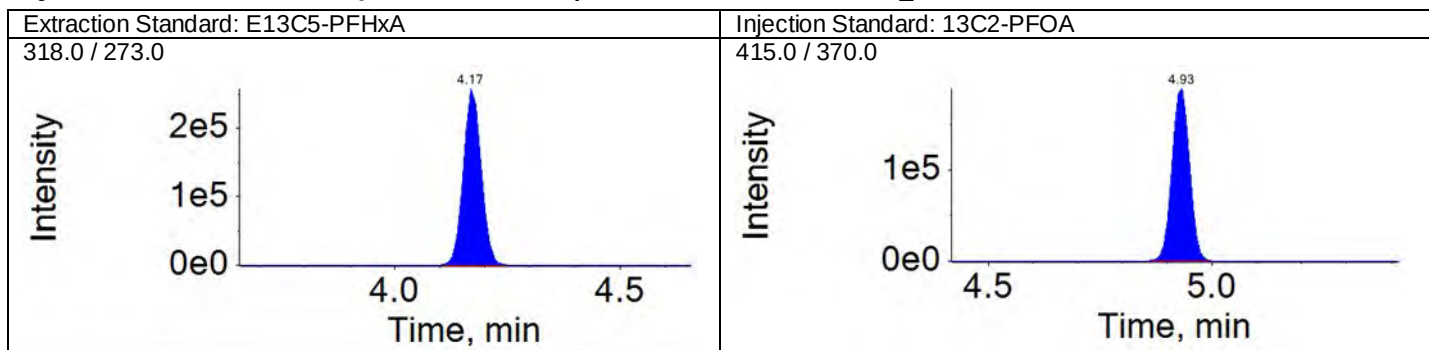
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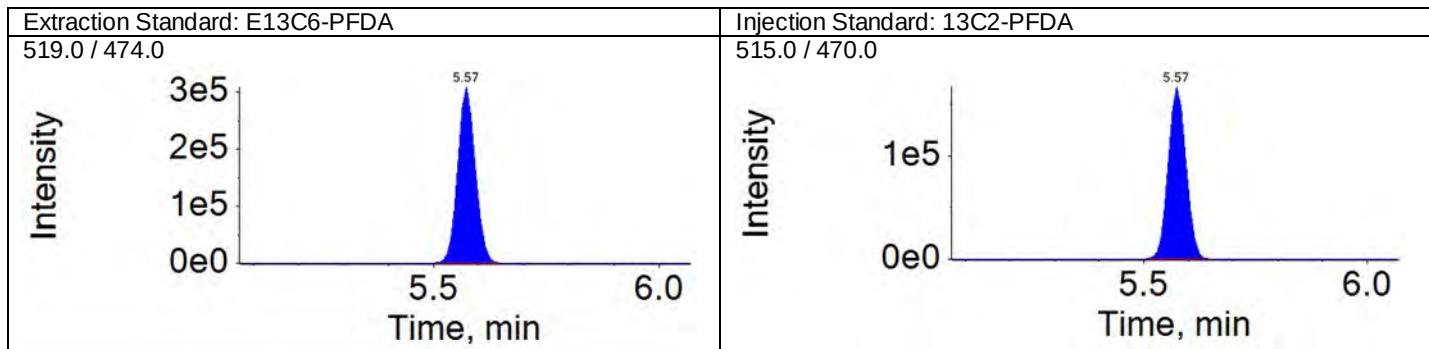
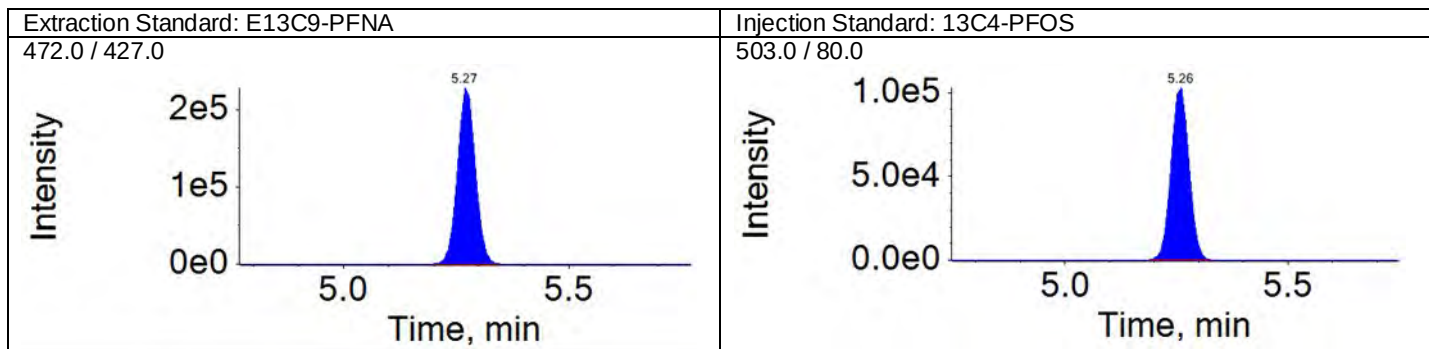
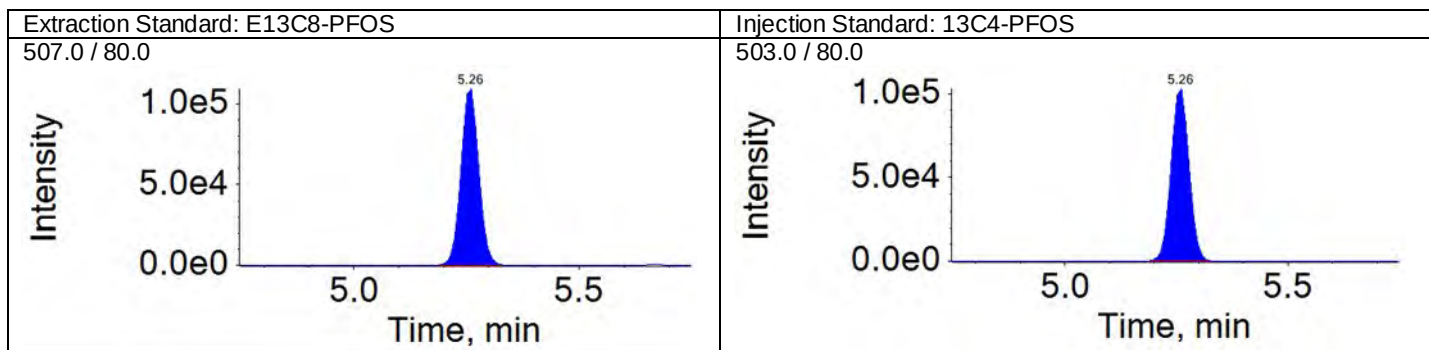
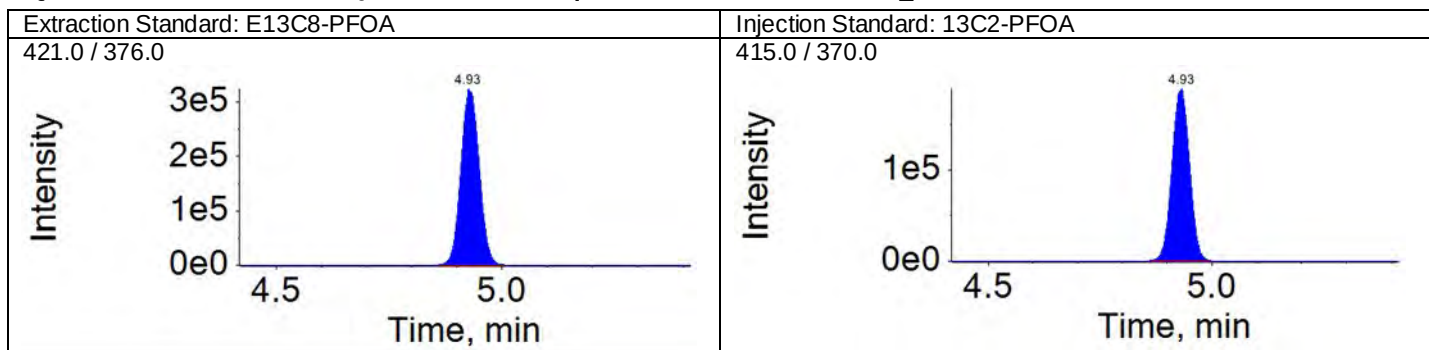
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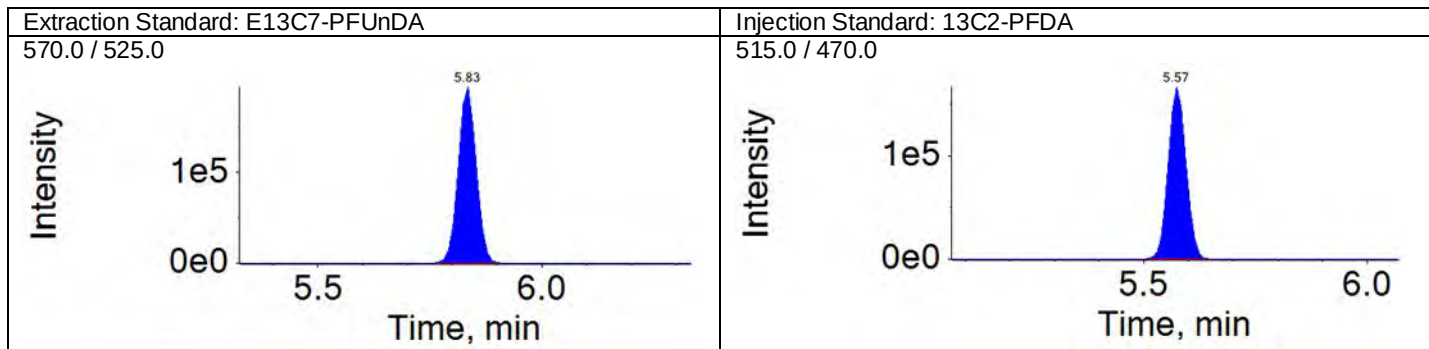
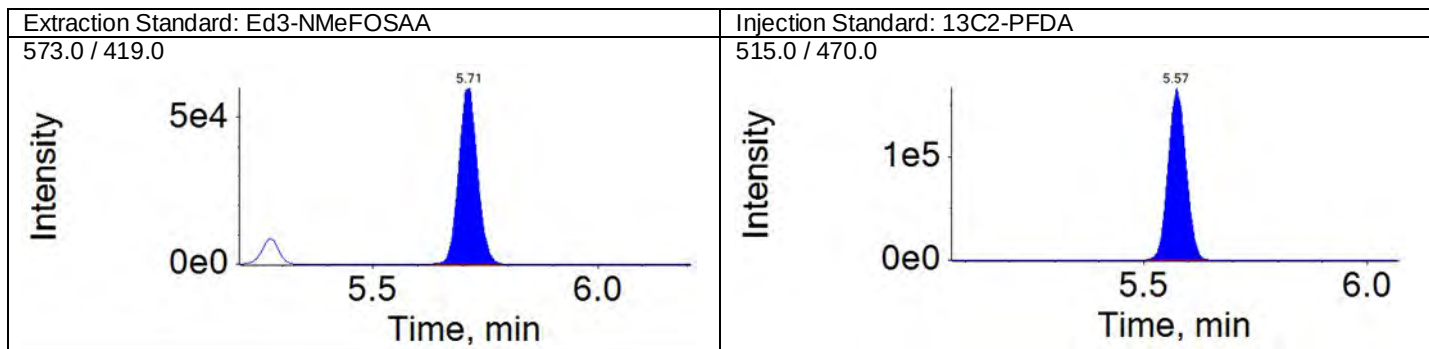
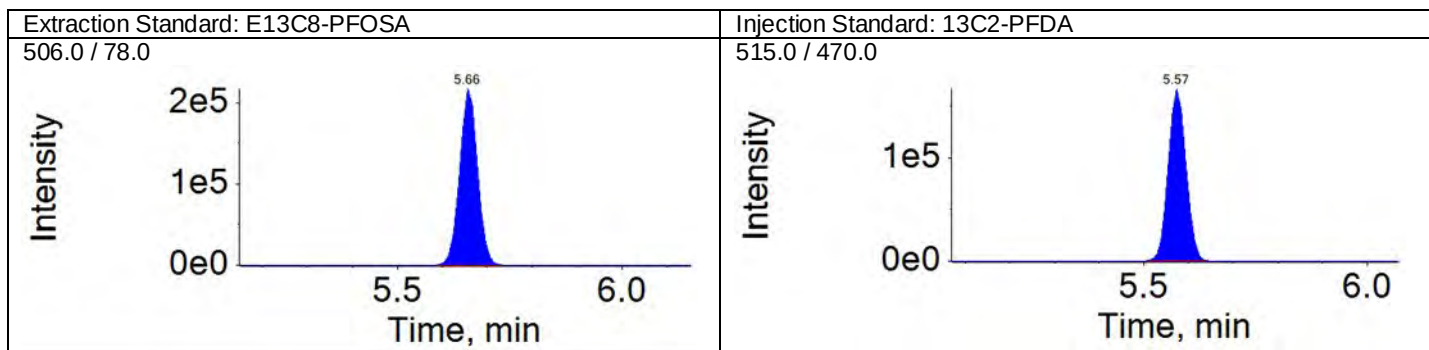
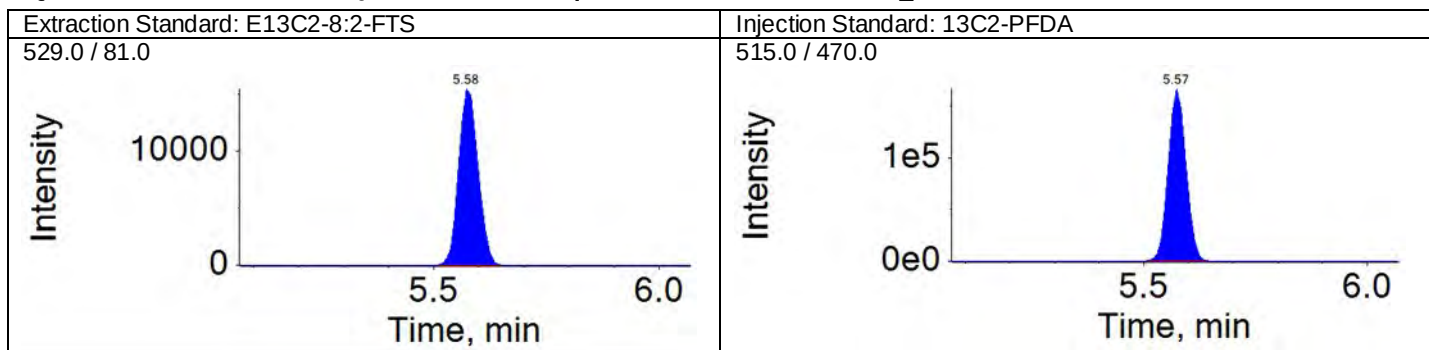
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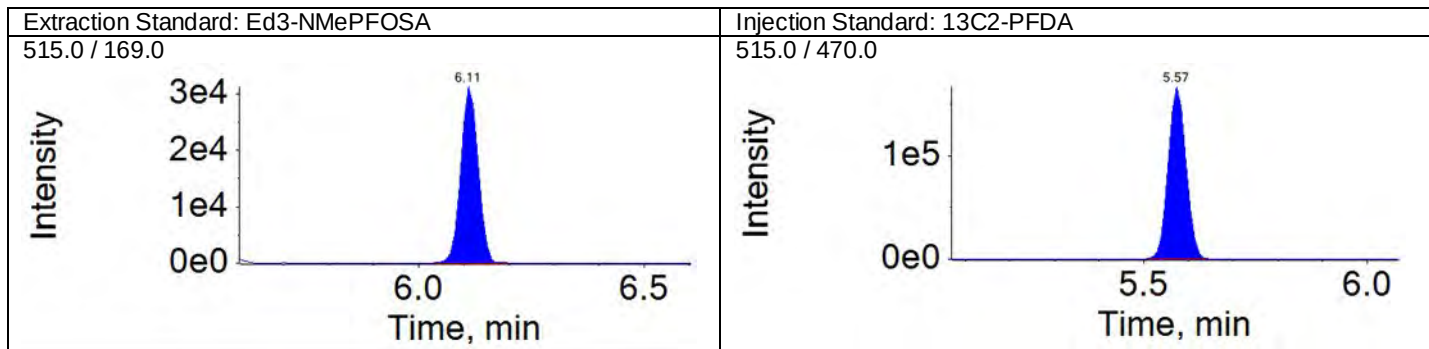
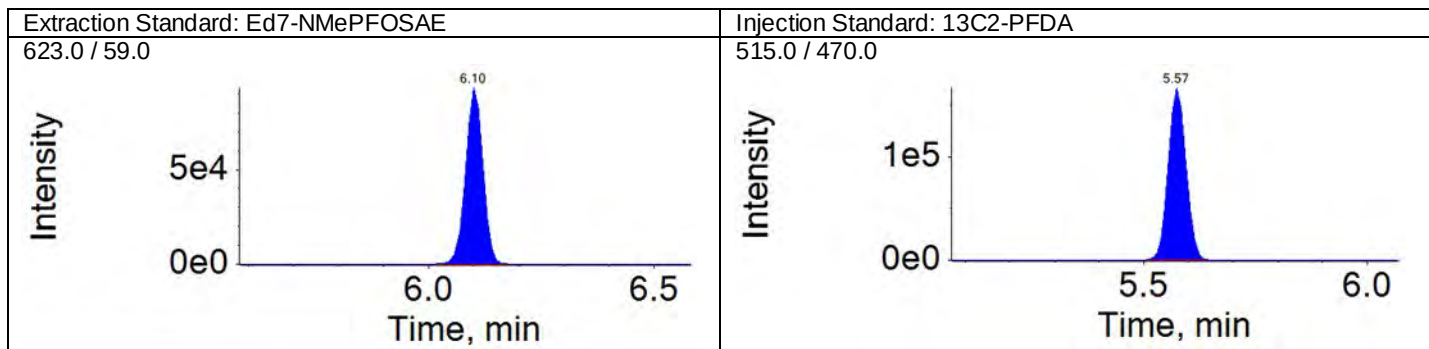
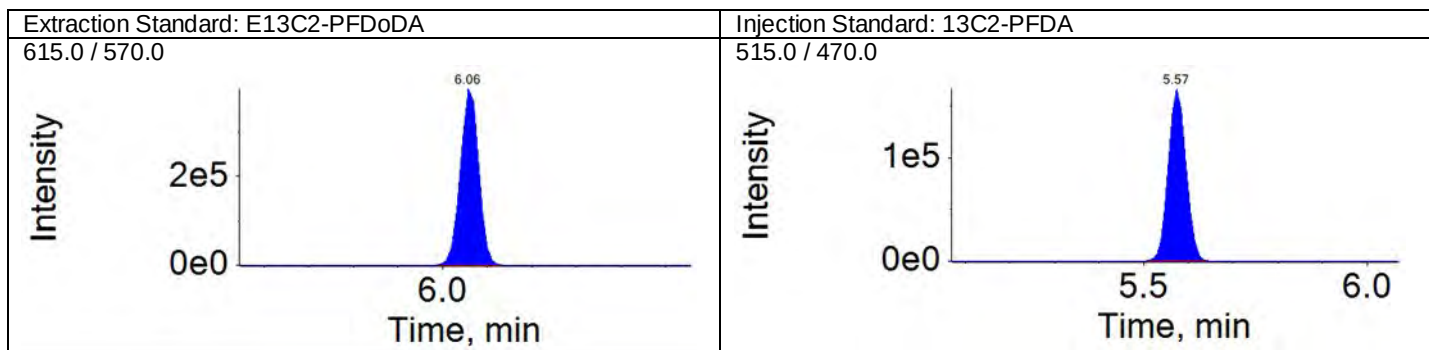
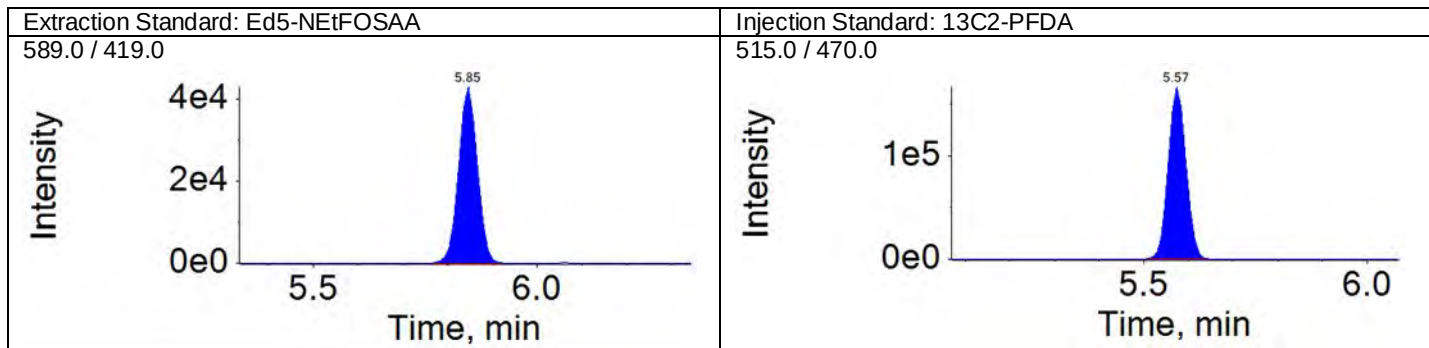
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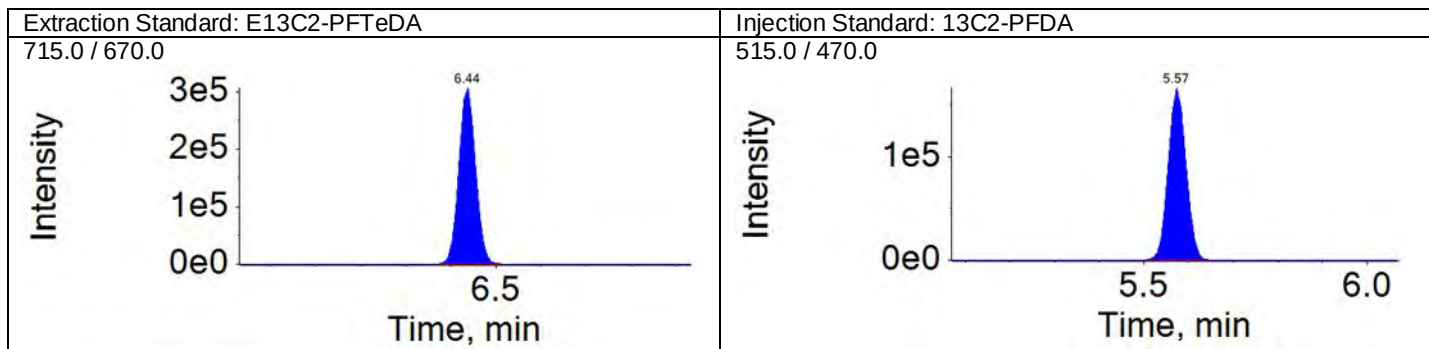
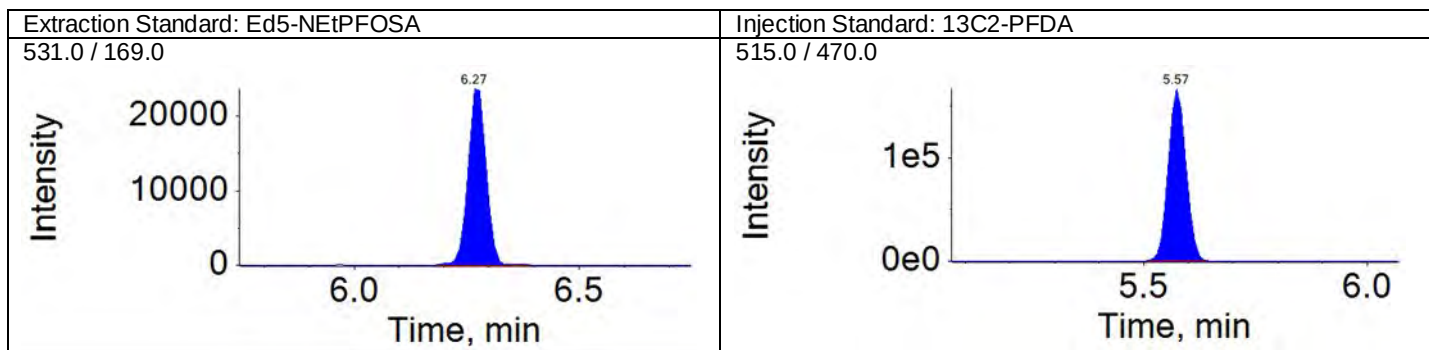
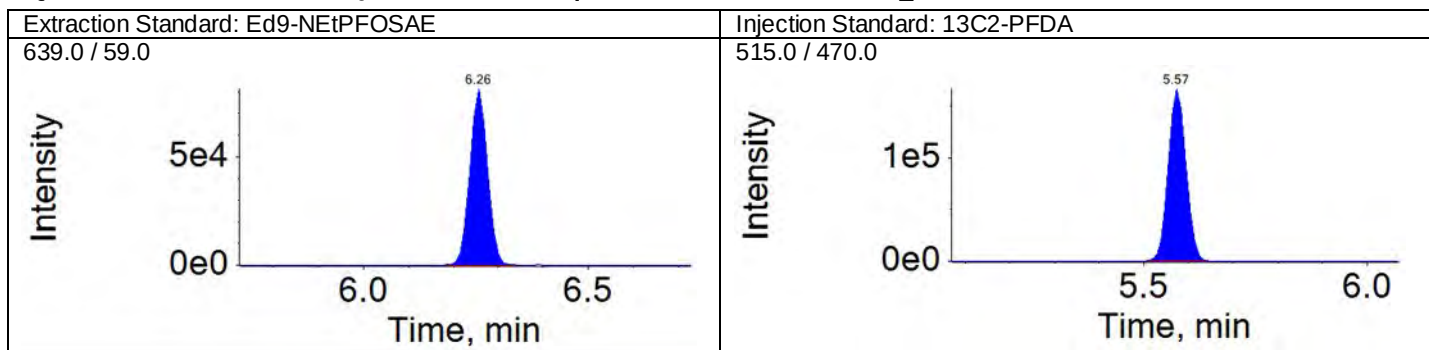
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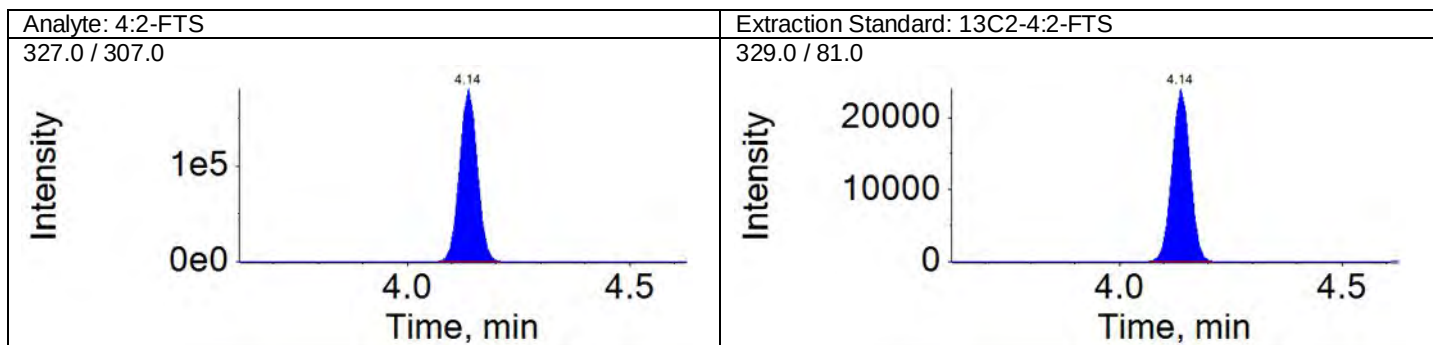
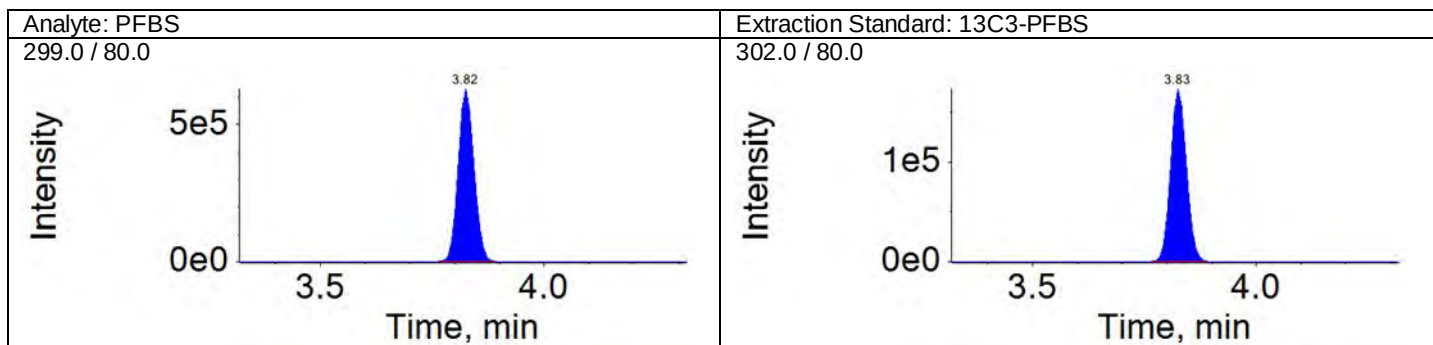
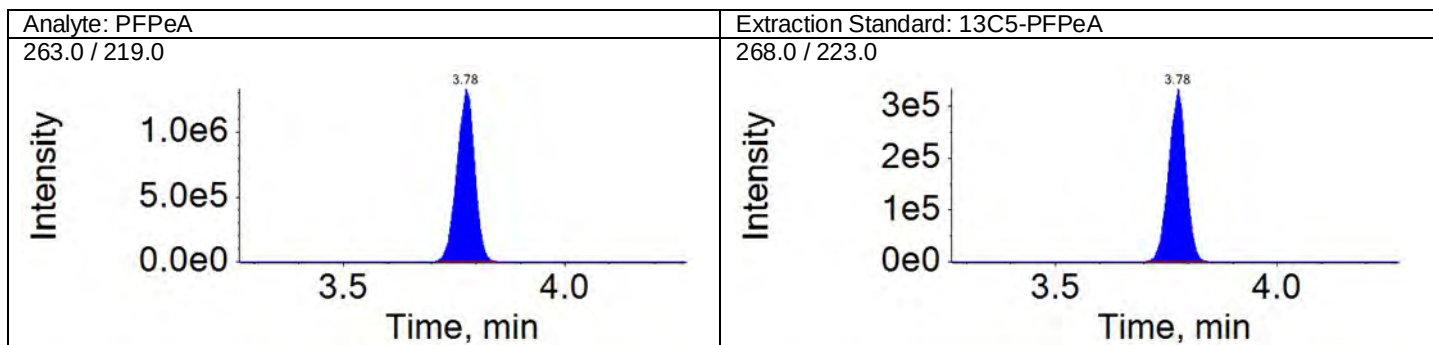
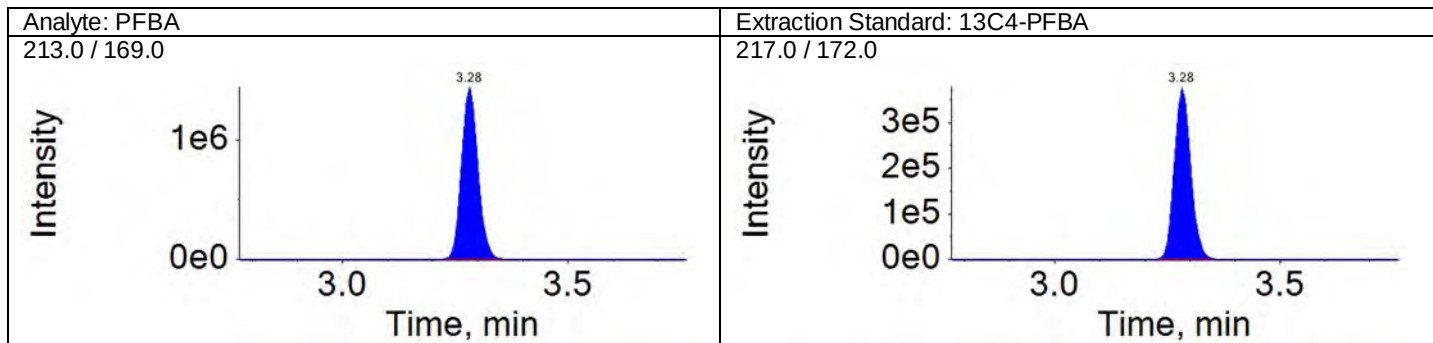
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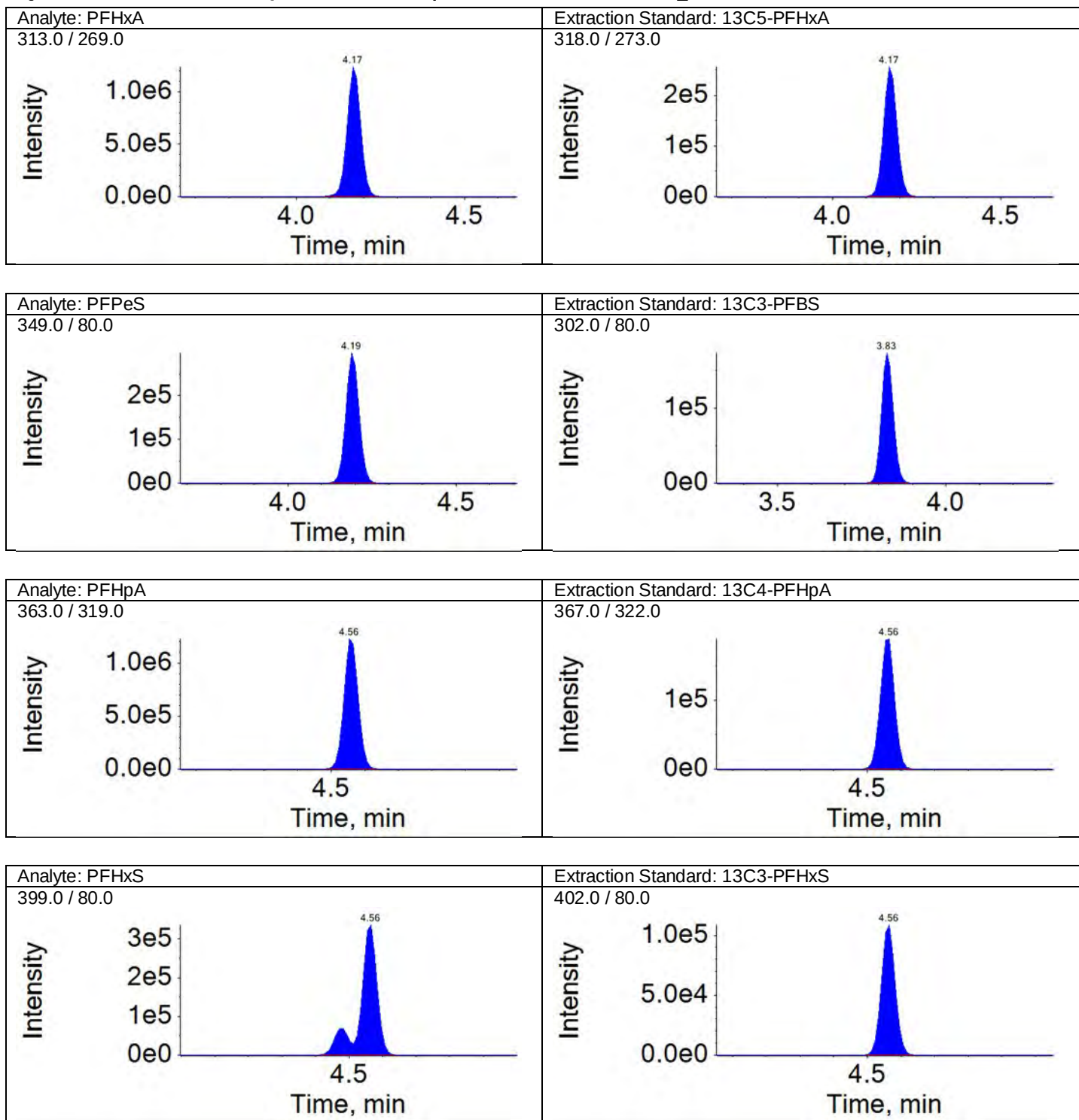
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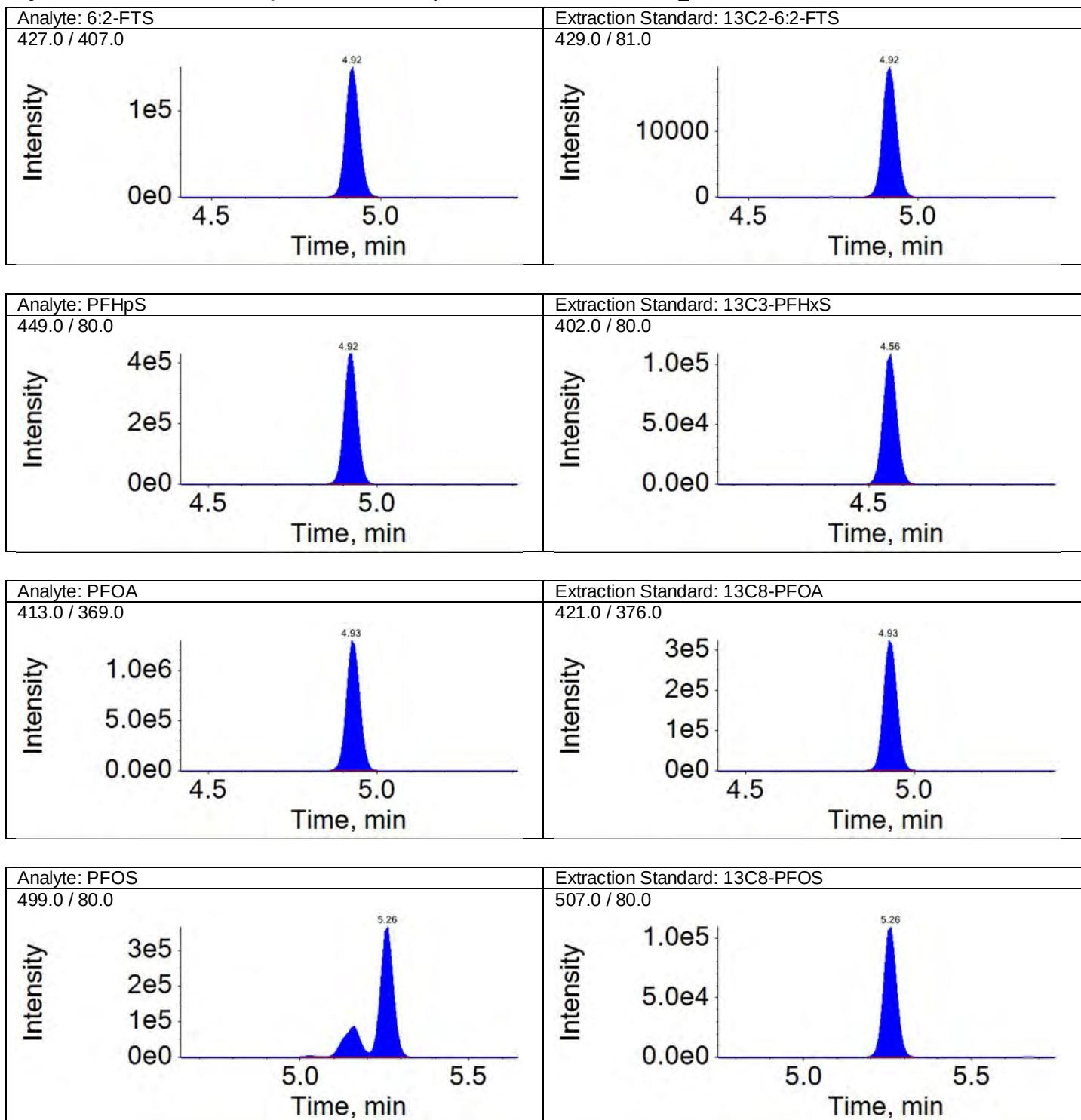
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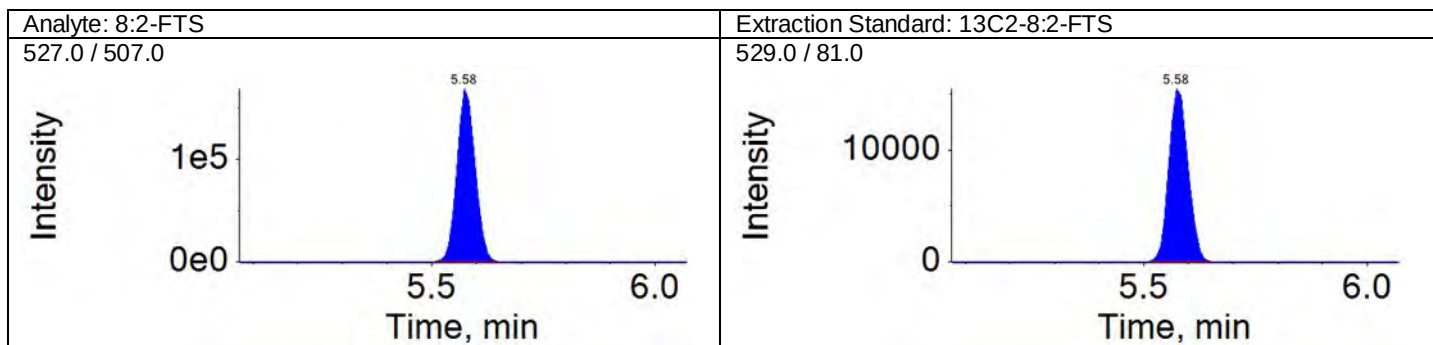
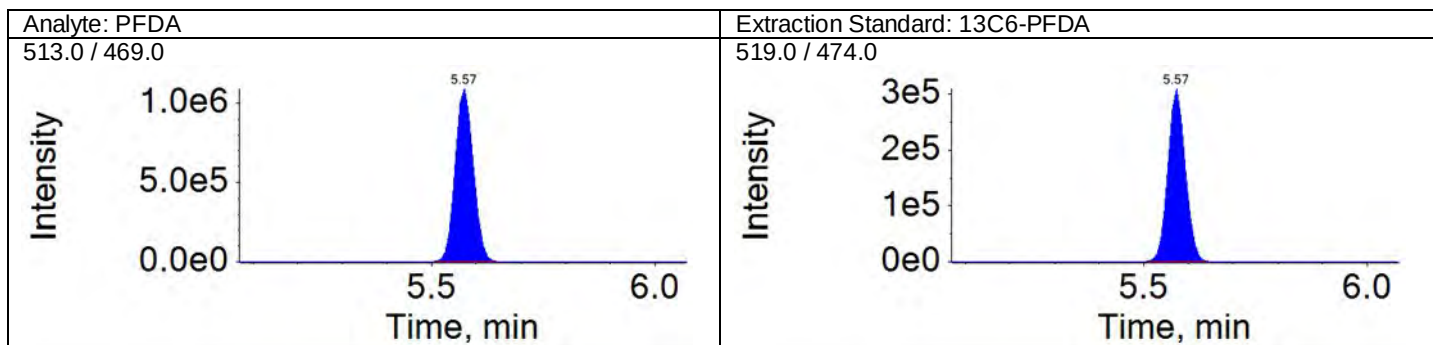
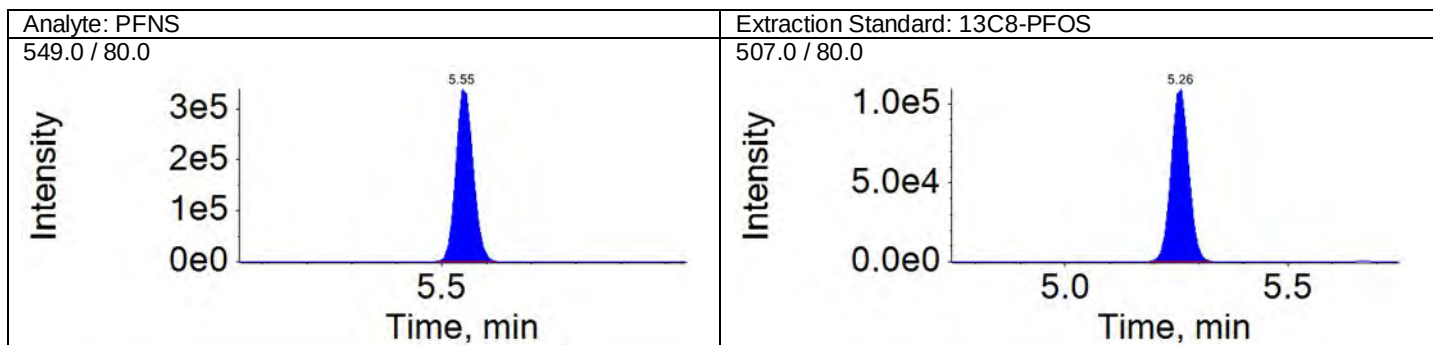
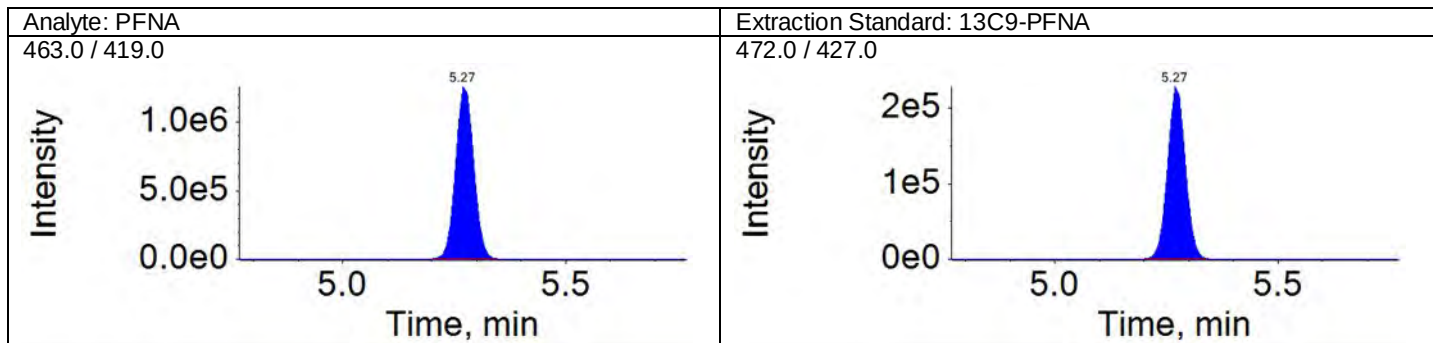
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



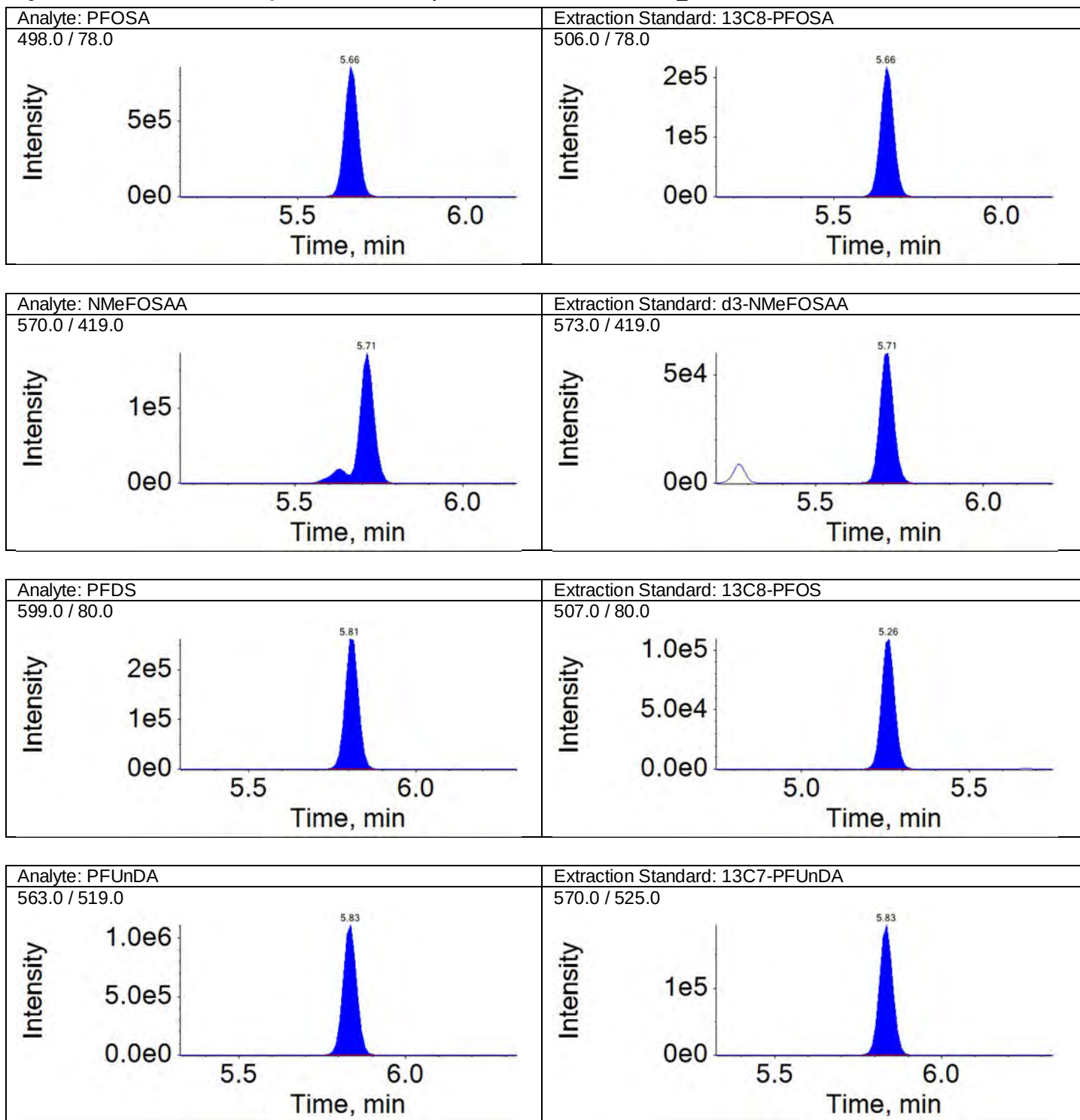
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



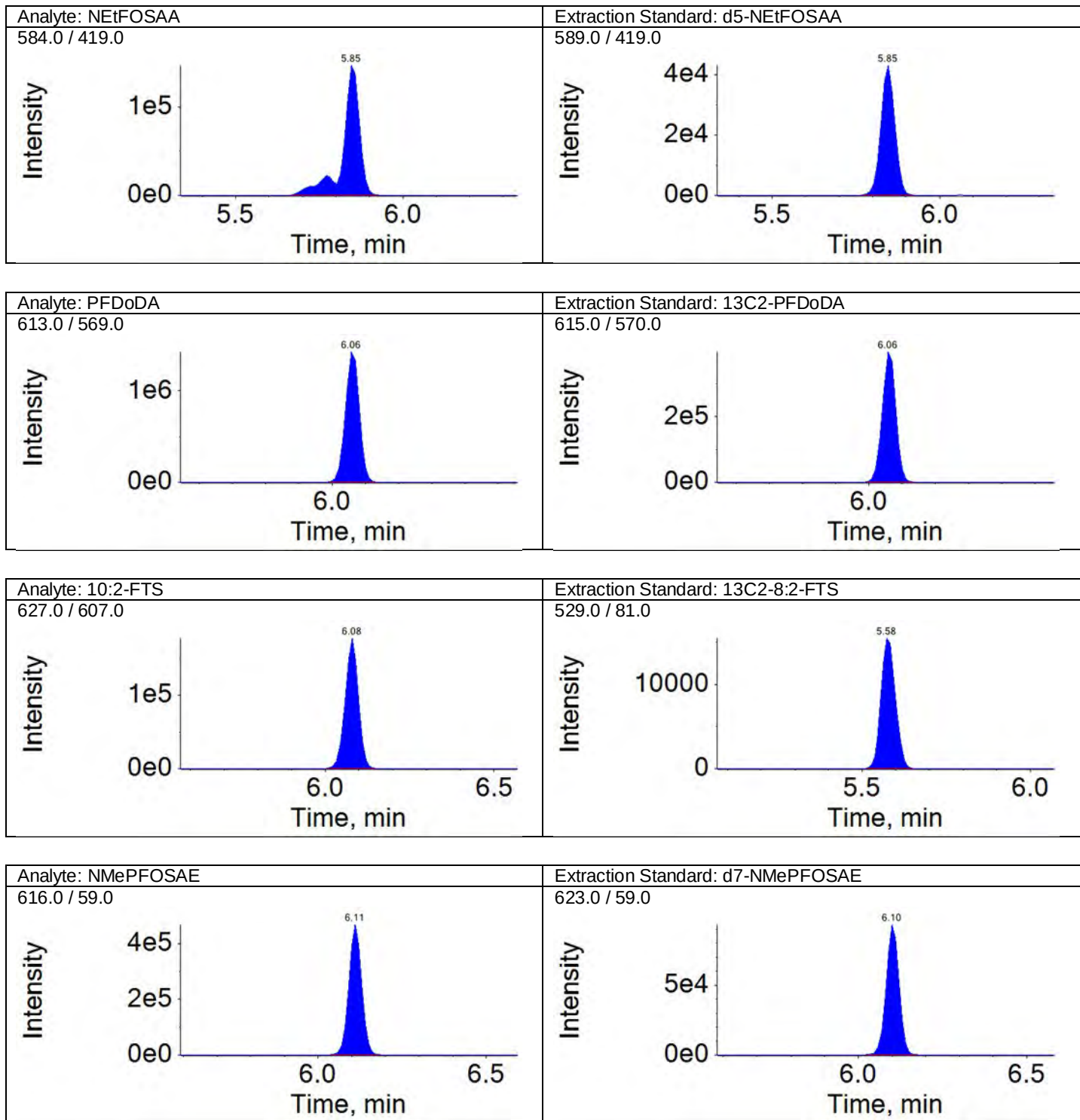
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QMethod Name: 18AUG20QM

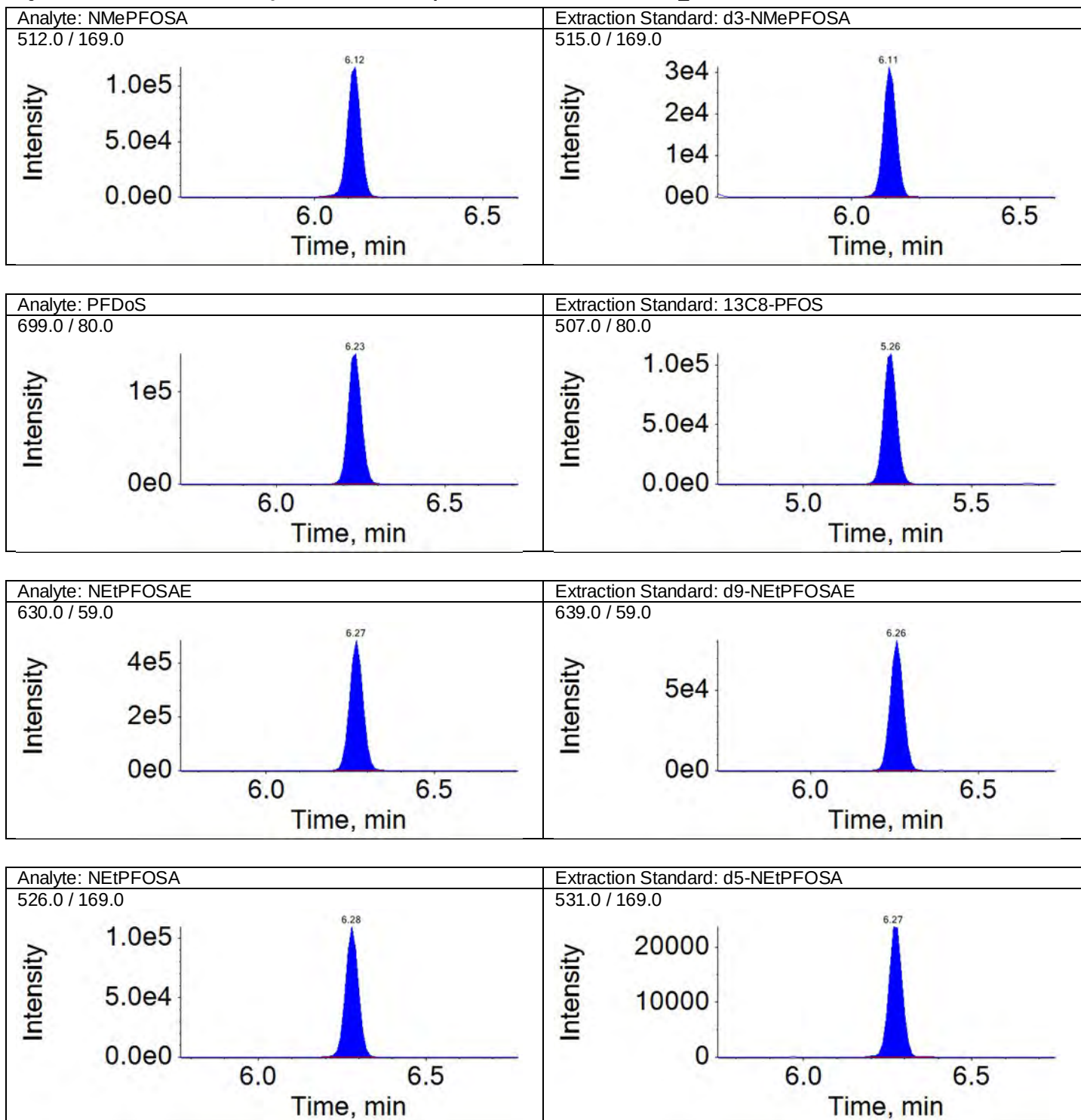
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

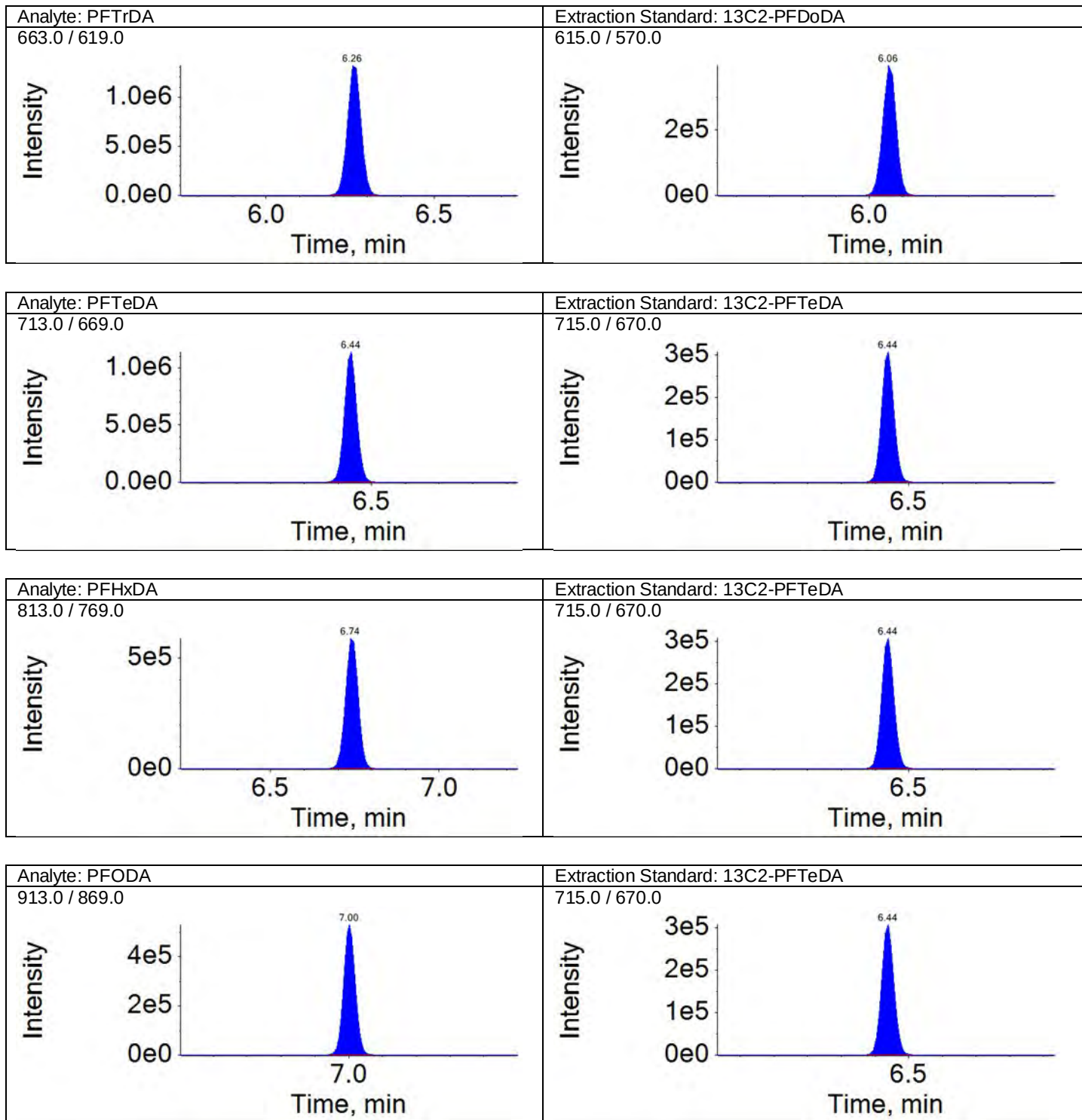
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

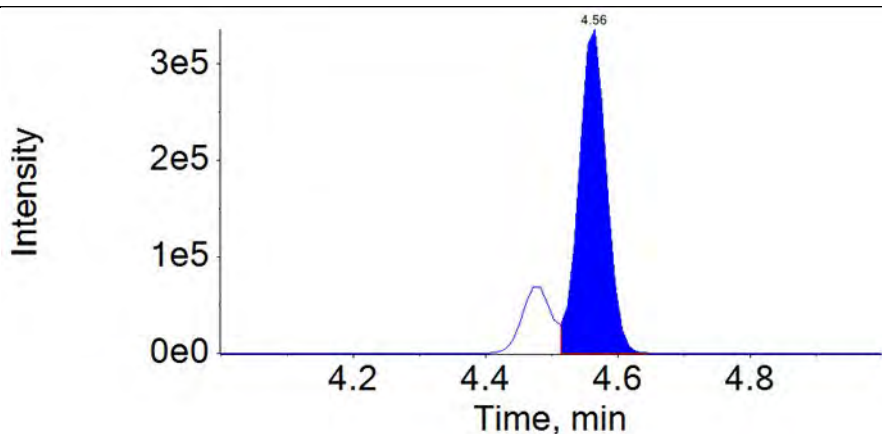
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Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

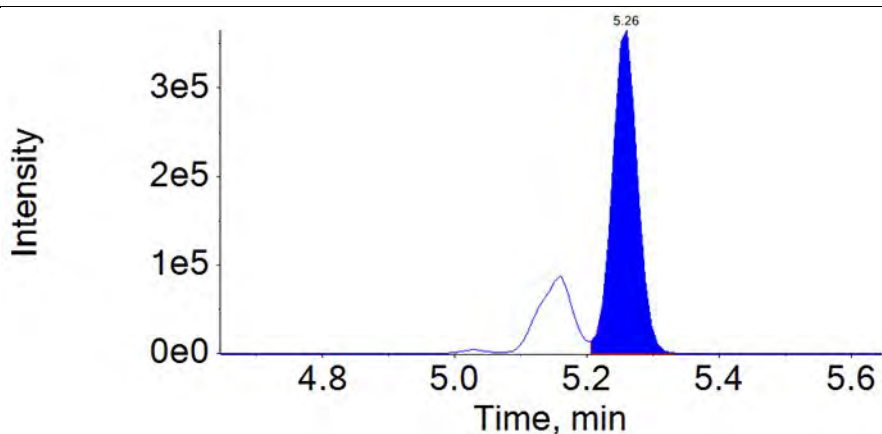
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS
RT (min.):
4.56
Peak Area:
976399.82
Mass Range:
399.0 / 80.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



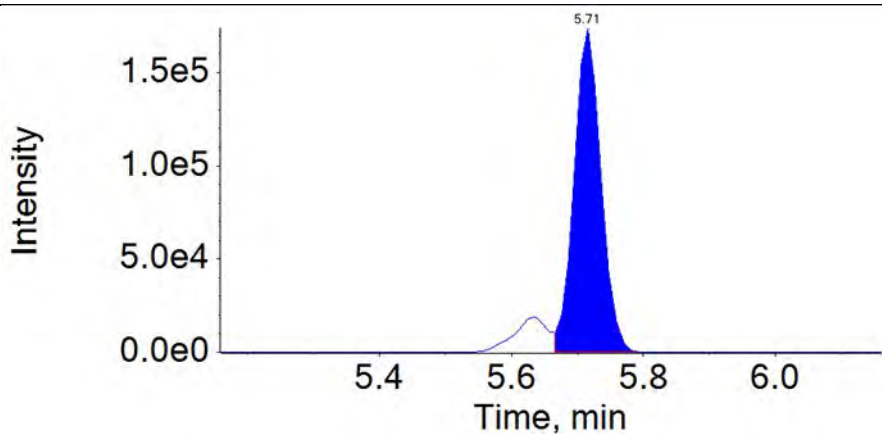
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.26
Peak Area:
977368.32
Mass Range:
499.0 / 80.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.71
Peak Area:
489906.15
Mass Range:
570.0 / 419.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5

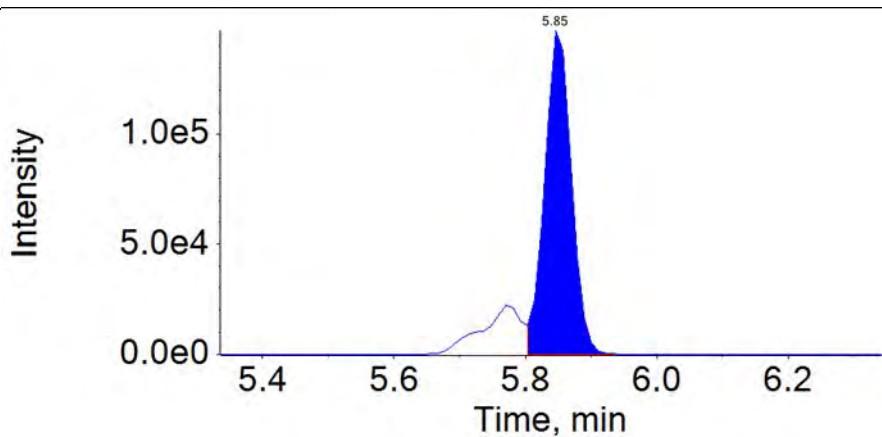


Integration Comment: incorrect integration

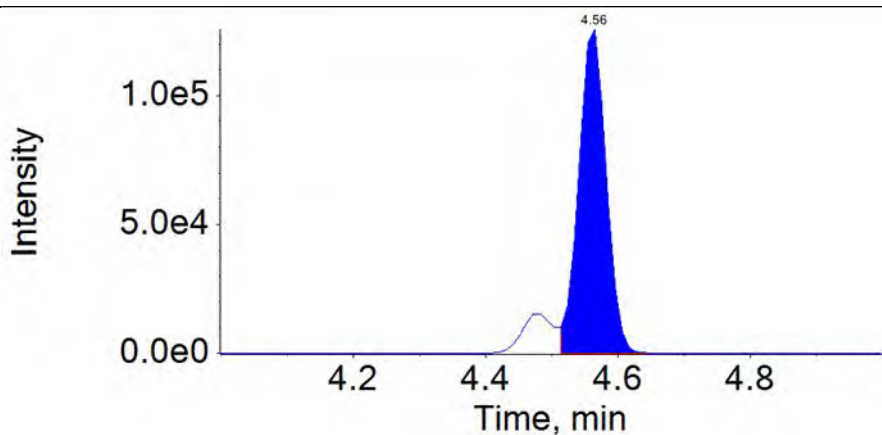
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Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

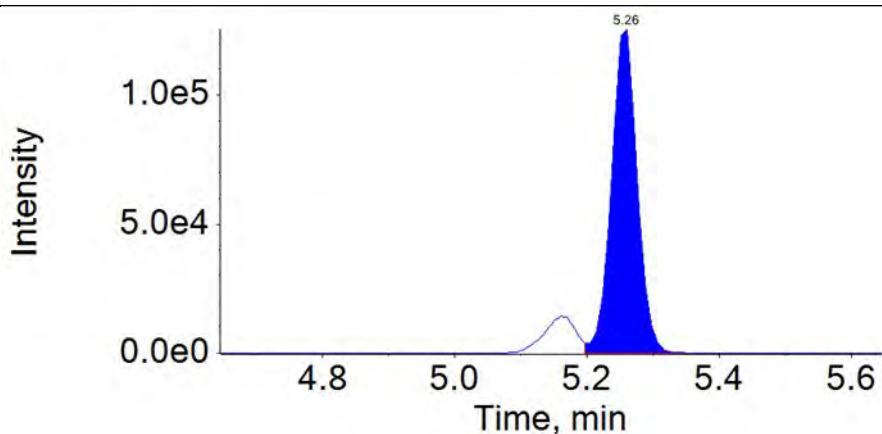
Component Name:
NETFOSAA
RT (min.):
5.85
Peak Area:
417736.88
Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



Component Name:
PFHxS_2
RT (min.):
4.56
Peak Area:
364661.03
Mass Range:
399.0 / 99.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



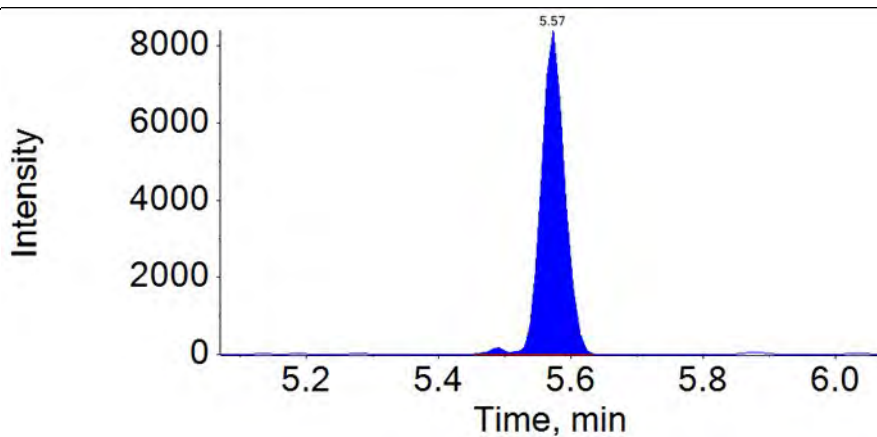
Component Name:
PFOS_2
RT (min.):
5.26
Peak Area:
341158.00
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

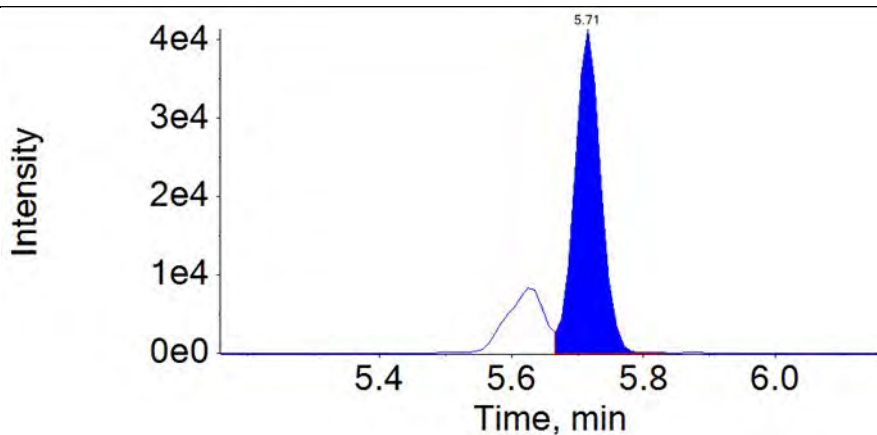
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDA_2
RT (min.):
5.57
Peak Area:
20732.67
Mass Range:
513.0 / 169.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



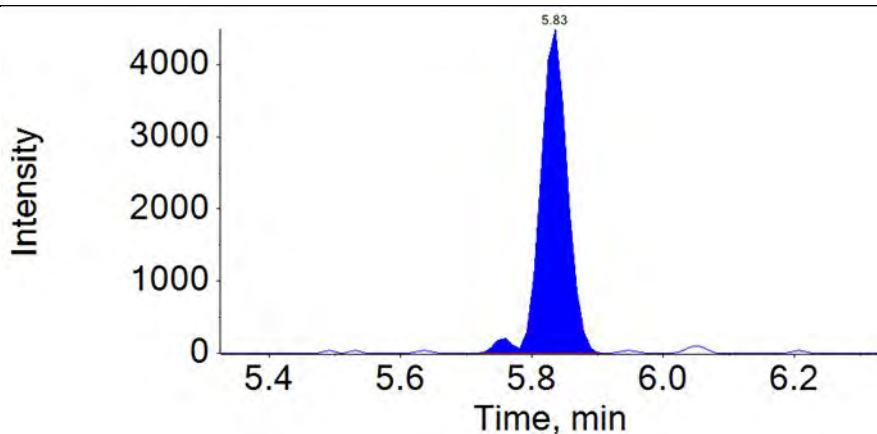
Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
113720.56
Mass Range:
570.0 / 483.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



Integration Comment: incorrect integration

Component Name:
PFUnDA_2
RT (min.):
5.83
Peak Area:
12880.94
Mass Range:
563.0 / 169.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5

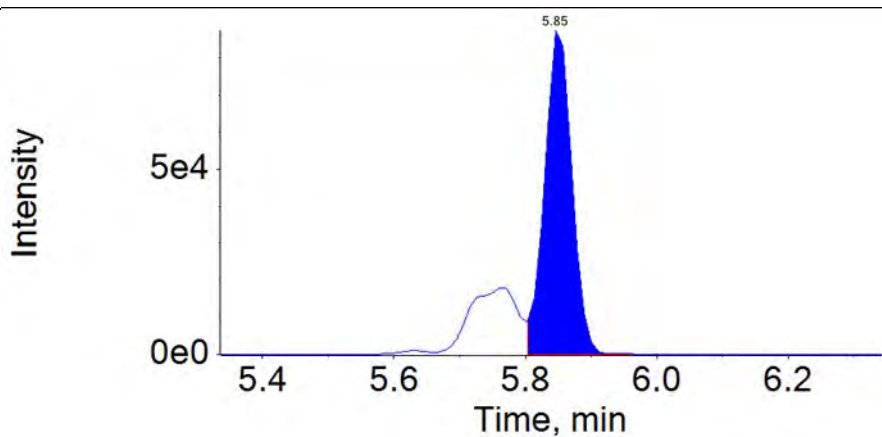


Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.85
Peak Area:
253789.74
Mass Range:
584.0 / 526.0
File Name:
18NOV28DCAL-10.wiff
Sample Name:
CAL5



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 5:00 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

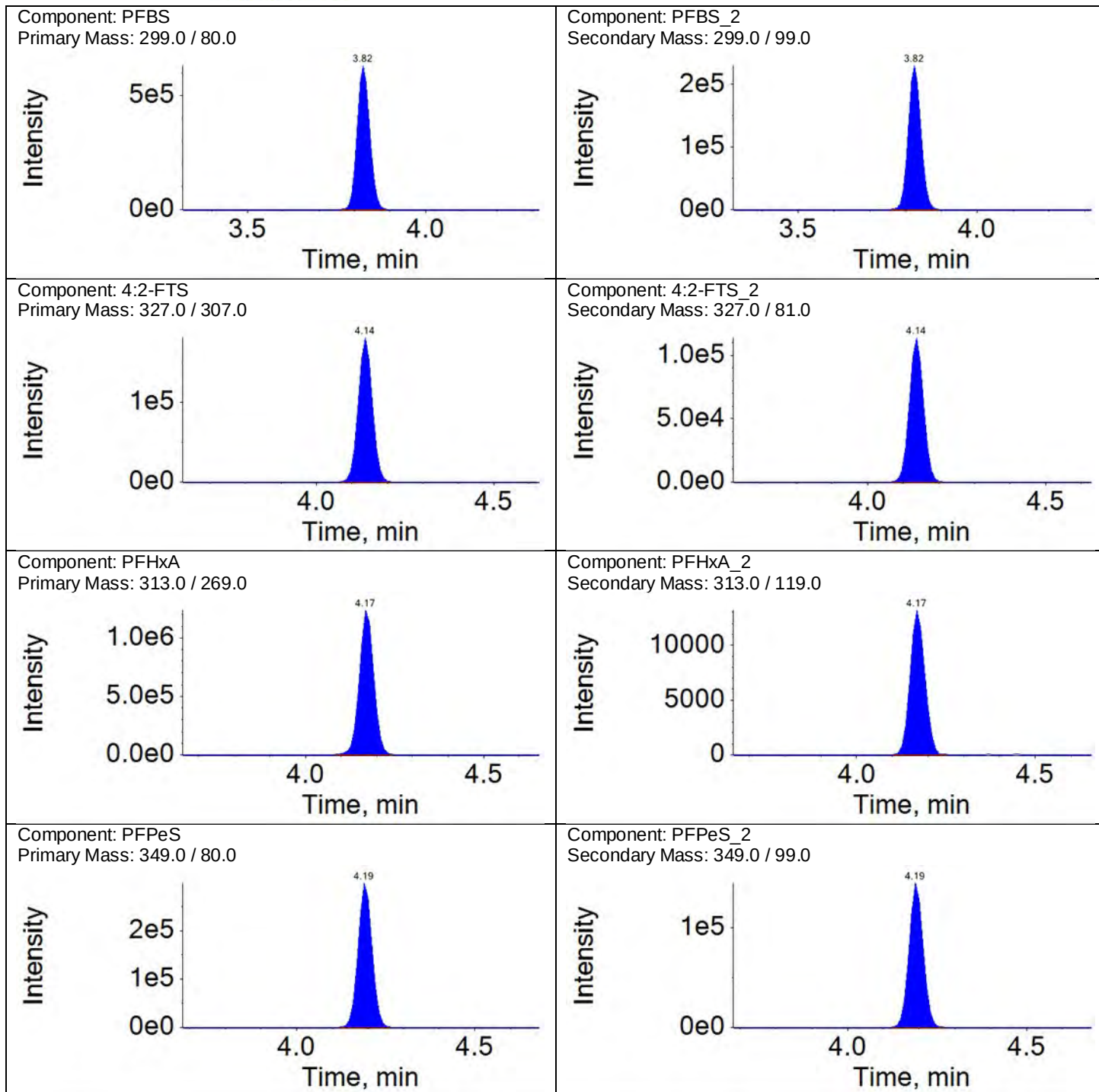
Ion Ratio Report

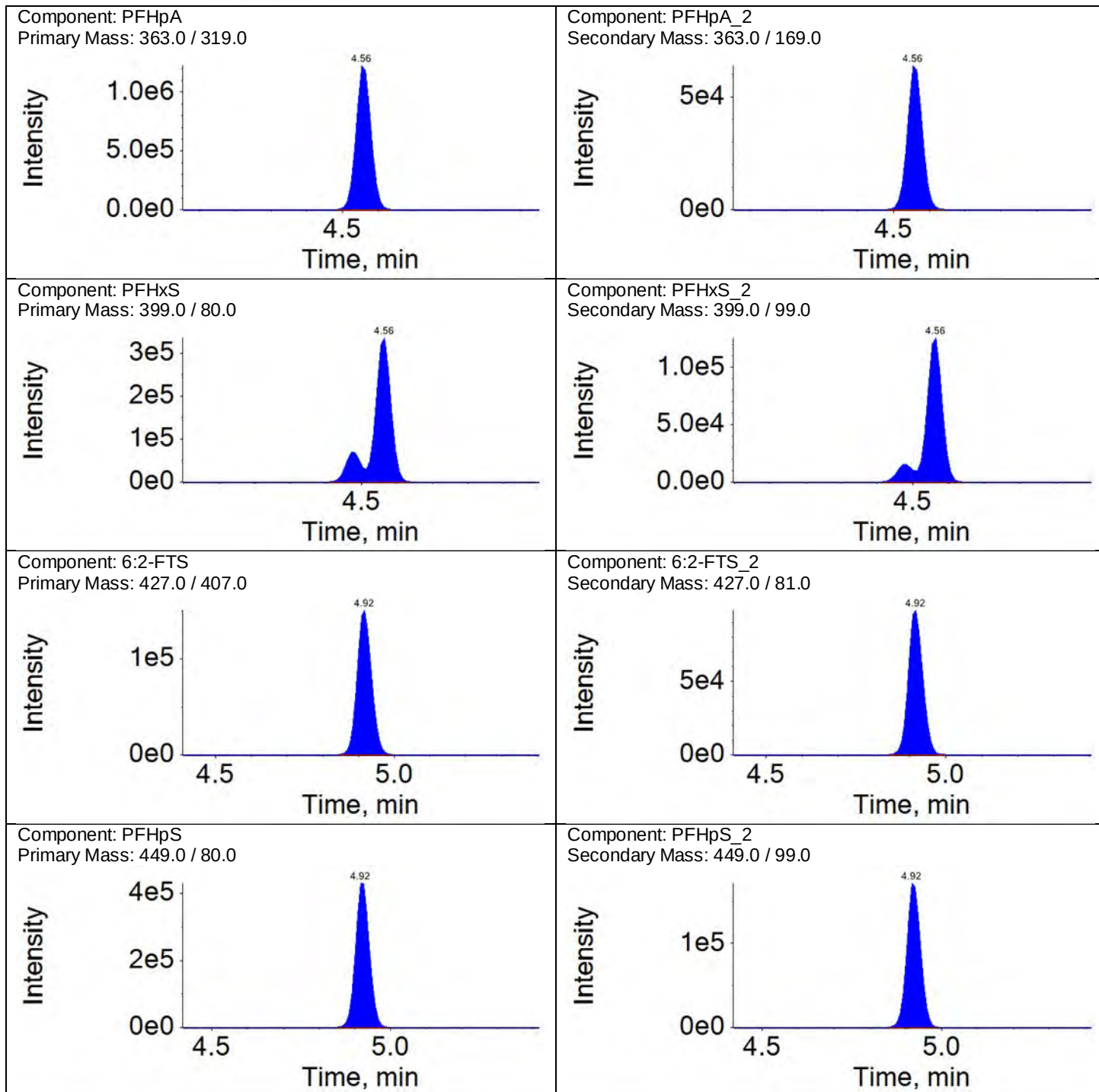
Sample Name: CAL5

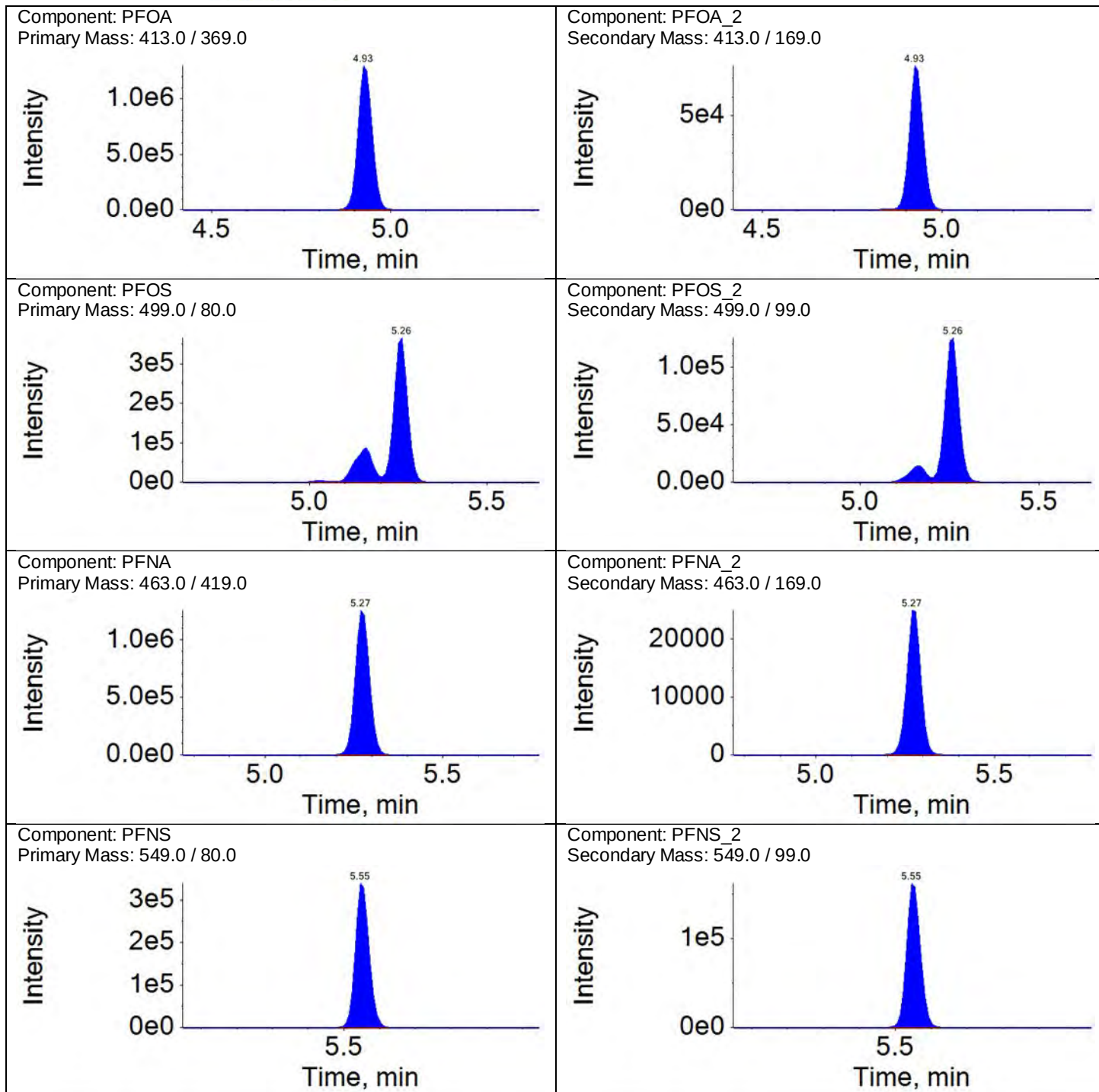
Instrument Name: LM27631

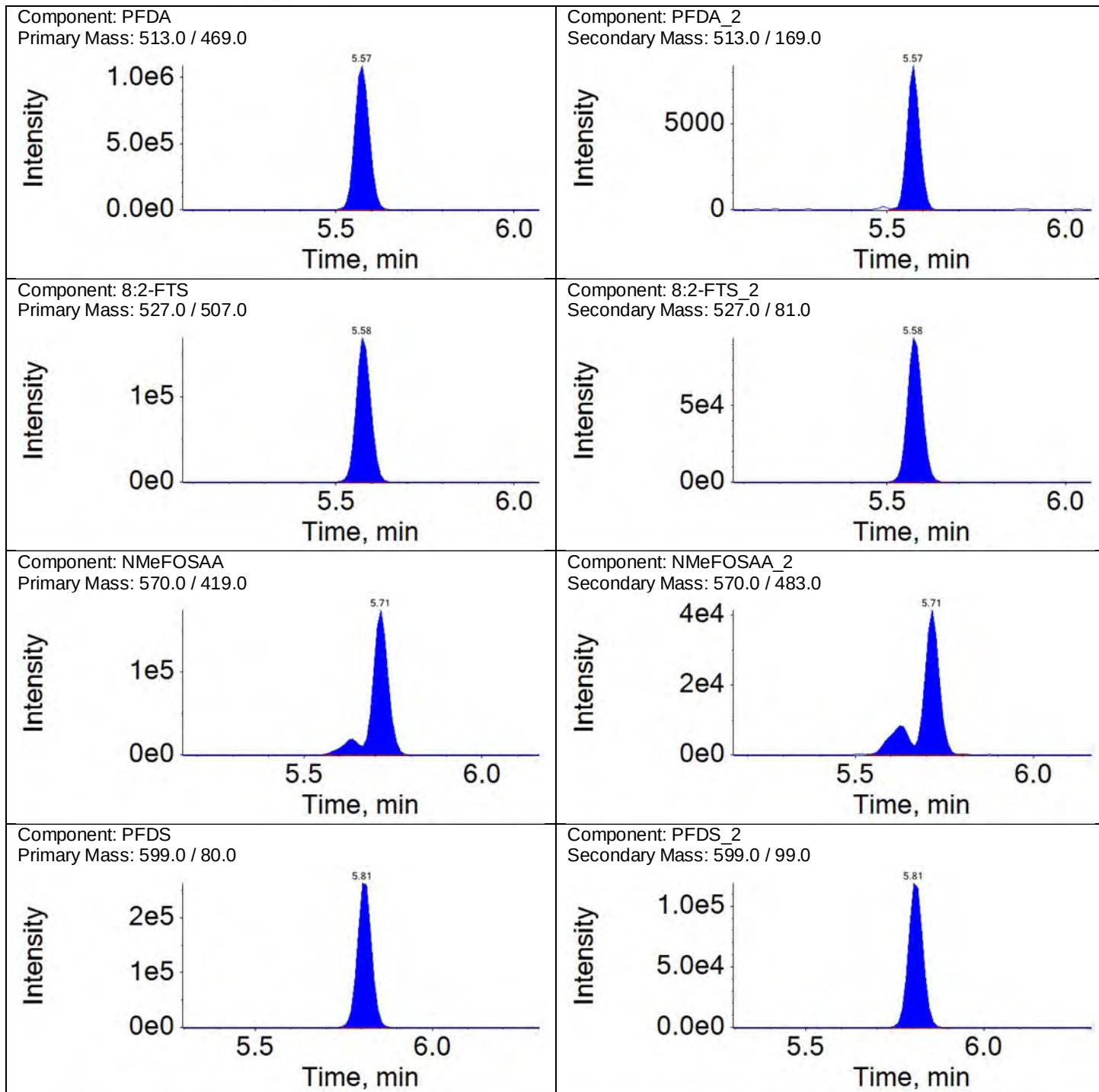
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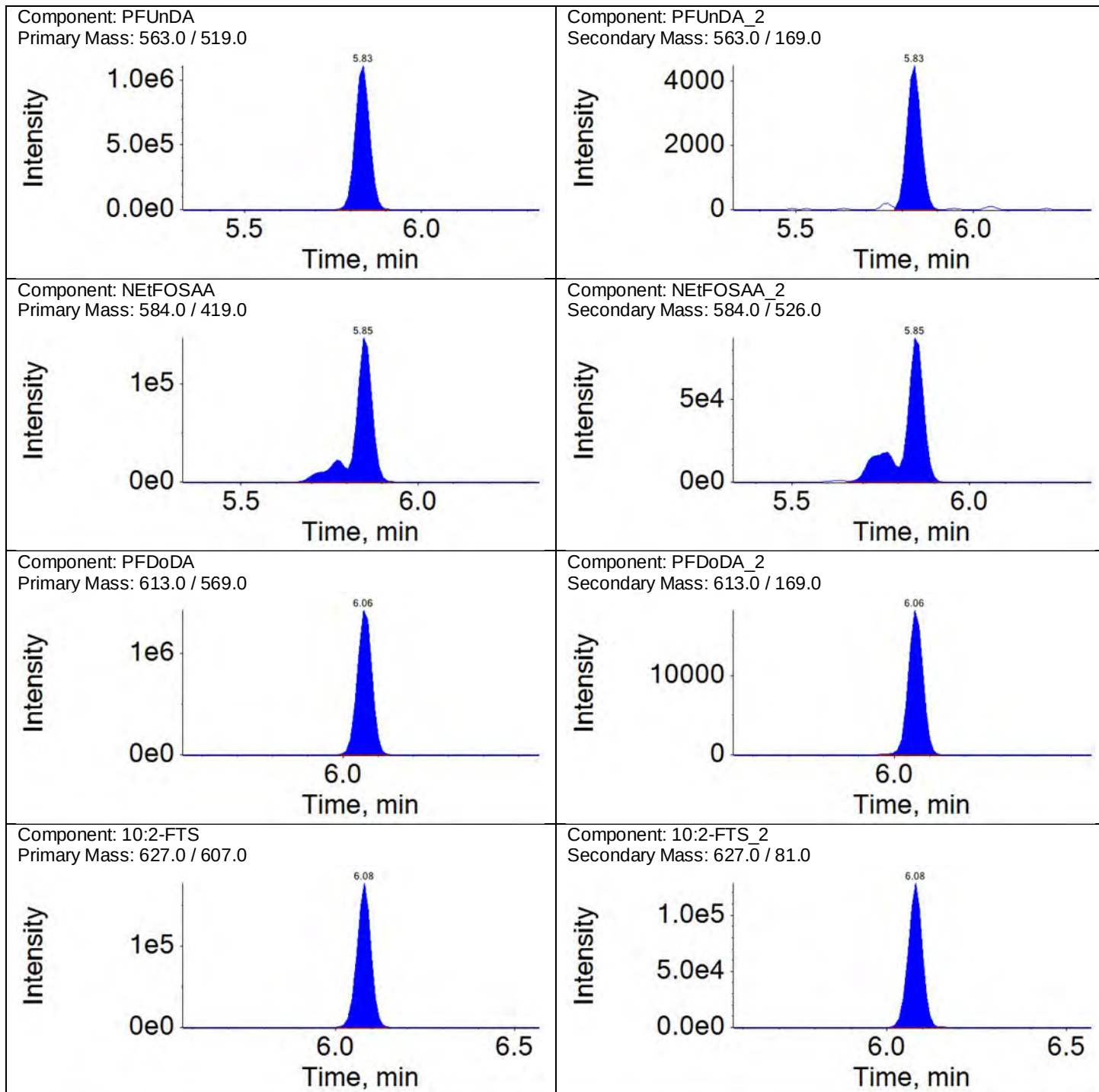
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	1542881.65	A	0.3655	0.3660			
PFBS_2	3.82	1.00	564738.60	A	0.3655	0.3660	0	50	
4:2-FTS	4.14	1.00	498650.67	A	0.6383	0.6282			
4:2-FTS_2	4.14	1.00	313233.41	A	0.6383	0.6282	-2	50	
PFHxA	4.17	1.00	3464657.28	A	0.0103	0.0109			
PFHxA_2	4.17	1.00	37840.59	A	0.0103	0.0109	6	50	
PFPeS	4.19	1.10	809727.98	A	0.4976	0.4890			
PFPeS_2	4.19	1.10	395964.11	A	0.4976	0.4890	-2	50	
PFHpA	4.56	1.00	3592806.18	A	0.0557	0.0523			
PFHpA_2	4.56	1.00	187766.14	A	0.0557	0.0523	-6	50	
PFHxS	4.56	1.00	1191482.72	M	0.3693	0.3492			
PFHxS_2	4.56	1.00	416064.44	M	0.3693	0.3492	-5	50	
6:2-FTS	4.92	1.00	426727.66	A	0.6625	0.6532			
6:2-FTS_2	4.92	1.00	278752.30	A	0.6625	0.6532	-1	50	
PFHpS	4.92	1.08	1171216.60	A	0.3915	0.3965			
PFHpS_2	4.92	1.08	464342.40	A	0.3915	0.3965	1	50	
PFOA	4.93	1.00	3601538.31	A	0.0573	0.0569			
PFOA_2	4.93	1.00	205017.31	A	0.0573	0.0569	-1	50	
PFOS	5.26	1.00	1305020.45	M	0.2960	0.2984			
PFOS_2	5.26	1.00	389398.22	M	0.2960	0.2984	1	50	
PFNA	5.27	1.00	3536255.08	A	0.0201	0.0194			
PFNA_2	5.27	1.00	68777.91	A	0.0201	0.0194	-3	50	
PFNS	5.55	1.06	909879.21	A	0.4794	0.4787			
PFNS_2	5.55	1.06	435583.86	A	0.4794	0.4787	0	50	
PFDA	5.57	1.00	3072749.00	A	0.0075	0.0067			
PFDA_2	5.57	1.00	20445.65	M	0.0075	0.0067	-11	50	
8:2-FTS	5.58	1.00	478390.07	A	0.5380	0.5702			
8:2-FTS_2	5.58	1.00	272796.88	A	0.5380	0.5702	6	50	
NMeFOSAA	5.71	1.00	557354.59	M	0.2305	0.2631			
NMeFOSAA_2	5.71	1.00	146652.83	M	0.2305	0.2631	14	50	
PFDS	5.81	1.10	737231.87	A	0.5356	0.4610			
PFDS_2	5.81	1.10	339890.15	A	0.5356	0.4610	-14	50	
PFUnDA	5.83	1.00	3163283.79	A	0.0038	0.0039			
PFUnDA_2	5.83	1.00	12485.39	M	0.0038	0.0039	4	50	
NEtFOSAA	5.85	1.00	512792.42	M	0.7356	0.6745			
NEtFOSAA_2	5.85	1.00	345864.54	M	0.7356	0.6745	-8	50	
PFDODA	6.06	1.00	4161895.87	A	0.0130	0.0126			
PFDODA_2	6.06	1.00	52575.90	A	0.0130	0.0126	-3	50	
10:2-FTS	6.08	1.09	480384.06	A	0.6989	0.7284			
10:2-FTS_2	6.08	1.09	349903.28	A	0.6989	0.7284	4	50	
PFTTrDA	6.26	1.03	3743763.62	A	0.0090	0.0080			
PFTTrDA_2	6.26	1.03	30122.74	A	0.0090	0.0080	-11	50	
PFTeDA	6.44	1.00	2897106.24	A	0.0056	0.0061			
PFTeDA_2	6.44	1.00	17720.47	A	0.0056	0.0061	9	50	
PFHxDA	6.74	1.05	1551331.12	A	0.0646	0.0623			
PFHxDA_2	6.74	1.05	96698.01	A	0.0646	0.0623	-3	50	
PFODA	7.00	1.09	1272897.40	A	0.0264	0.0256			
PFODA_2	7.00	1.09	32592.46	A	0.0264	0.0256	-3	50	

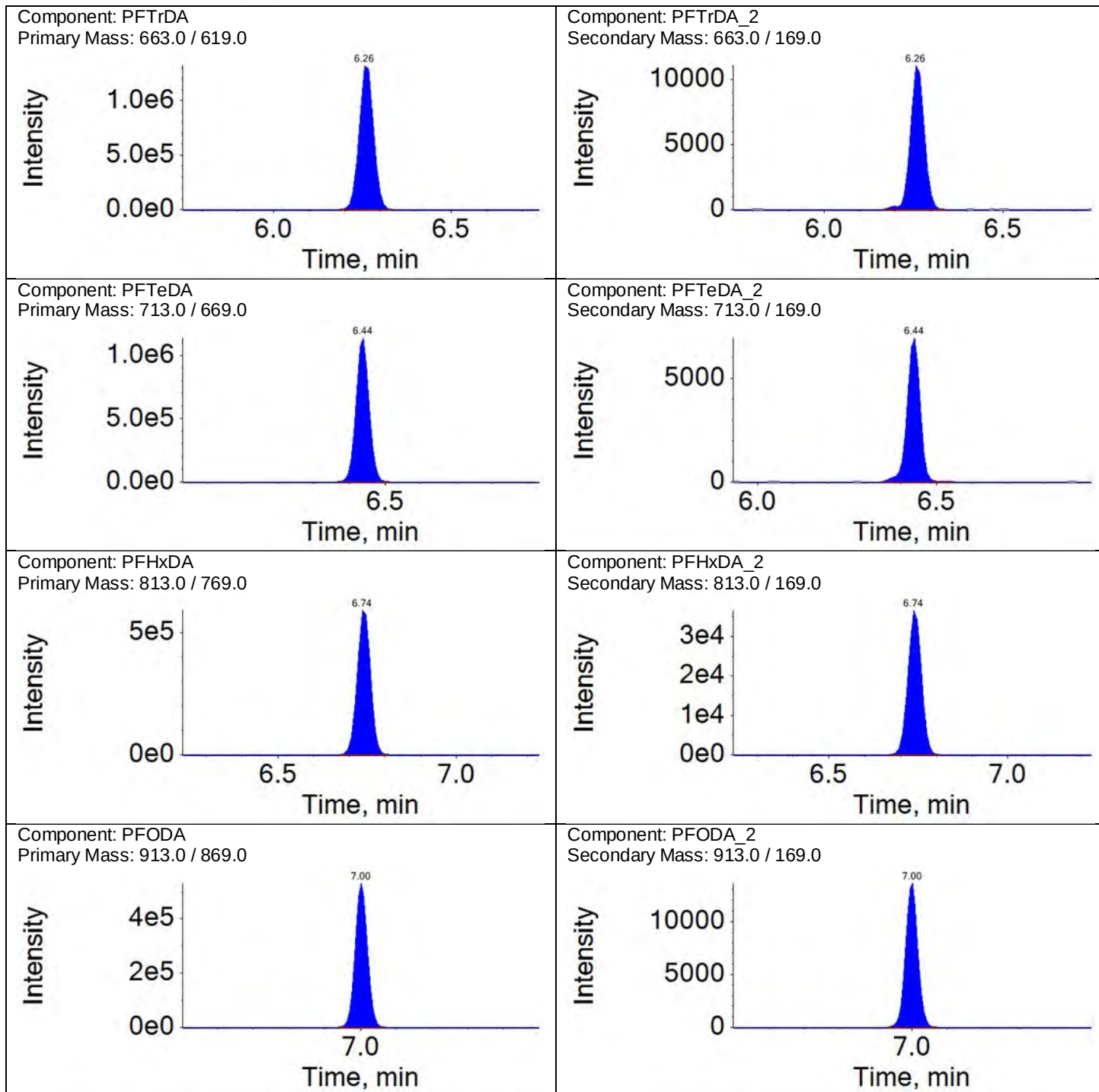












ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL6		Data File:	18NOV28DCAL-11.wiff
Sample ID:	CALBRN61833B		Acquis Date:	2018-11-28T14:27:16
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	8		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV28DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	793955.0	887248.9	-11	50	
13C2-PFOA	5.0	499608.5	498501.6	0	50	
13C4-PFOS	4.8	264408.9	283214.2	-7	50	
13C2-PFDA	5.0	419913.2	441790.6	-5	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	897566.7	13C3-PFBA	793955.0	1.131	5.000	5.044	101	70-130	
E13C5-PFPeA	872922.6	13C3-PFBA	793955.0	1.099	5.000	5.134	103	70-130	
E13C3-PFBS	398441.3	13C3-PFBA	793955.0	0.502	4.650	4.788	103	70-130	
E13C2-4:2-FTS	65255.4	13C2-PFOA	499608.5	0.131	4.670	4.501	96	70-130	
E13C5-PFHxA	675219.8	13C2-PFOA	499608.5	1.351	5.000	4.964	99	70-130	
E13C3-PFHxS	279894.6	13C2-PFOA	499608.5	0.560	4.730	4.391	93	70-130	
E13C4-PFHpA	555281.5	13C2-PFOA	499608.5	1.111	5.000	5.107	102	70-130	
E13C2-6:2-FTS	48807.6	13C2-PFOA	499608.5	0.098	4.750	4.089	86	70-130	
E13C8-PFOA	843522.3	13C2-PFOA	499608.5	1.688	5.000	4.647	93	70-130	
E13C8-PFOS	279204.4	13C4-PFOS	264408.9	1.056	4.780	4.767	100	70-130	
E13C9-PFNA	624202.7	13C4-PFOS	264408.9	2.361	5.000	5.185	104	70-130	
E13C6-PFDA	758832.8	13C2-PFDA	419913.2	1.807	5.000	5.095	102	70-130	
E13C2-8:2-FTS	44487.5	13C2-PFDA	419913.2	0.106	4.790	4.553	95	70-130	
E13C8-PFOSA	565326.0	13C2-PFDA	419913.2	1.346	5.000	4.940	99	70-130	
Ed3-NMeFOSAA	161673.3	13C2-PFDA	419913.2	0.385	5.000	4.888	98	70-130	
E13C7-PFUnDA	474122.1	13C2-PFDA	419913.2	1.129	5.000	4.772	95	70-130	
Ed5-NEtFOSAA	117934.2	13C2-PFDA	419913.2	0.281	5.000	5.004	100	70-130	
E13C2-PFDoDA	980215.4	13C2-PFDA	419913.2	2.334	5.000	4.905	98	70-130	
Ed7-NMePFOSAE	248871.1	13C2-PFDA	419913.2	0.593	5.000	5.122	102	70-130	
Ed3-NMePFOSA	81949.3	13C2-PFDA	419913.2	0.195	5.000	5.282	106	70-130	
Ed9-NEtPFOSAE	222924.1	13C2-PFDA	419913.2	0.531	5.000	5.382	108	70-130	
Ed5-NEtPFOSA	59705.8	13C2-PFDA	419913.2	0.142	5.000	4.941	99	70-130	
E13C2-PFTeDA	789168.4	13C2-PFDA	419913.2	1.879	5.000	5.200	104	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL6

Instrument Name: LM27631

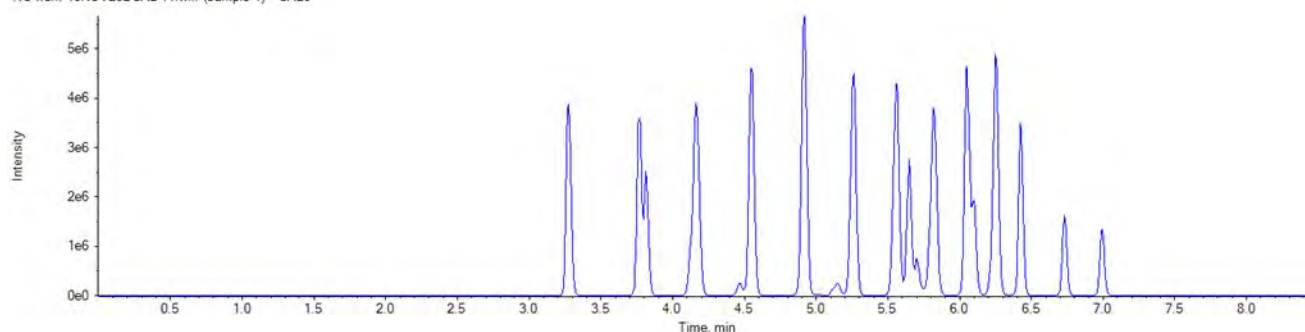
File Name: 18NOV28DCAL-11.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	7996964.8		A	13C4-PFBA	3.27	897566.7	8.910	48.841
PFPeA	3.77	1.000	7873655.4		A	13C5-PFPeA	3.77	872922.6	9.020	44.258
PFBS	3.82	1.000	3600470.8		A	13C3-PFBS	3.82	398441.3	9.036	43.864
4:2-FTS	4.13	1.000	1148569.2		A	13C2-4:2-FTS	4.13	65255.4	17.601	47.117
PFHxA	4.16	1.000	7468739.1		A	13C5-PFHxA	4.16	675219.8	11.061	44.400
PFPeS	4.18	1.100	1793808.0		A	13C3-PFBS	3.82	398441.3	4.502	45.538
PFHpA	4.55	1.000	7873271.2		A	13C4-PFHpA	4.55	555281.5	14.179	43.759
PFHxS	4.55	1.000	2625950.9		M	13C3-PFHxS	4.55	279894.6	9.382	43.929
6:2-FTS	4.90	1.000	859948.6		A	13C2-6:2-FTS	4.91	48807.6	17.619	45.972
PFHpS	4.91	1.080	2686833.3		A	13C3-PFHxS	4.55	279894.6	9.599	47.909
PFOA	4.92	1.000	8012665.3		A	13C8-PFOA	4.92	843522.3	9.499	49.084
PFOS	5.25	1.000	3026664.5		M	13C8-PFOS	5.25	279204.4	10.840	45.472
PFNA	5.26	1.000	7843086.9		A	13C9-PFNA	5.26	624202.7	12.565	48.151
PFNS	5.54	1.060	2116661.5		A	13C8-PFOS	5.25	279204.4	7.581	47.867
PFDA	5.56	1.000	6551370.5		A	13C6-PFDA	5.56	758832.8	8.633	48.868
8:2-FTS	5.57	1.000	938590.1		A	13C2-8:2-FTS	5.57	44487.5	21.098	39.786
PFOSA	5.65	1.000	5541493.1		A	13C8-PFOSA	5.65	565326.0	9.802	49.655
NMeFOSAA	5.70	1.000	1292829.8		A	d3-NMeFOSAA	5.70	161673.3	7.997	51.010
PFDS	5.80	1.100	1665920.2		A	13C8-PFOS	5.25	279204.4	5.967	47.309
PFUnDA	5.82	1.000	6885622.6		A	13C7-PFUnDA	5.82	474122.1	14.523	51.912
NEtFOSAA	5.84	1.000	1214766.4		M	d5-NEtFOSAA	5.83	117934.2	10.300	50.166
PFDODA	6.05	1.000	8865844.7		A	13C2-PFDODA	6.05	980215.4	9.045	49.545
10:2-FTS	6.07	1.090	972346.9		A	13C2-8:2-FTS	5.57	44487.5	21.857	48.197
NMePFOSAE	6.10	1.000	3059430.5		A	d7-NMePFOSAE	6.09	248871.1	12.293	51.733
NMePFOSA	6.11	1.000	768521.6		A	d3-NMePFOSA	6.10	81949.3	9.378	49.716
PFDOS	6.22	1.190	900508.4		A	13C8-PFOS	5.25	279204.4	3.225	46.320
NEtPFOSAE	6.26	1.000	3104174.6		A	d9-NEtPFOSAE	6.24	222924.1	13.925	50.088
NEtPFOSA	6.27	1.000	698744.6		A	d5-NEtPFOSA	6.26	59705.8	11.703	52.452
PFTDA	6.25	1.030	7958673.4		A	13C2-PFDODA	6.05	980215.4	8.119	48.938
PFTeDA	6.43	1.000	6793735.3		A	13C2-PFTeDA	6.43	789168.4	8.609	48.777
PFHxDA	6.73	1.050	3402004.5		A	13C2-PFTeDA	6.43	789168.4	4.311	49.281
PFODA	6.99	1.090	2942000.1		A	13C2-PFTeDA	6.43	789168.4	3.728	49.663

Total Ion Chromatogram

TIC from 18NOV28DCAL-11.wiff (sample 1) - CAL6



APPROVED

By MCD at 5:00 pm, 11/28/18

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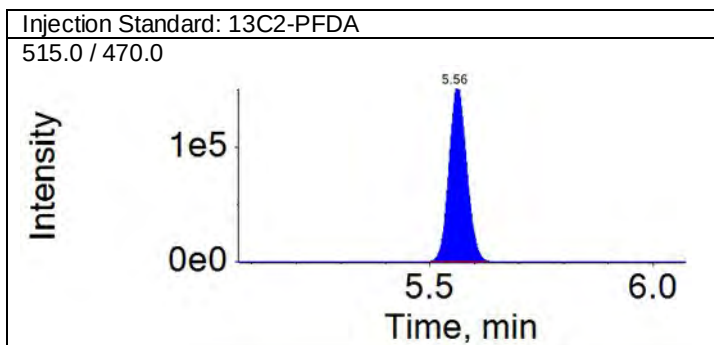
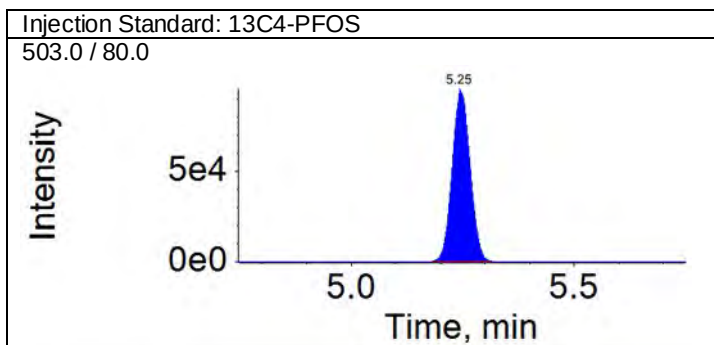
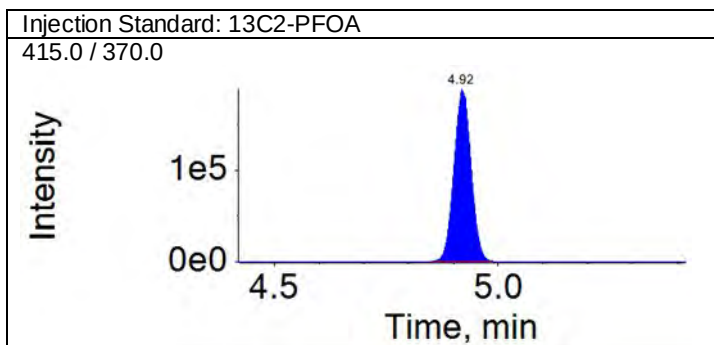
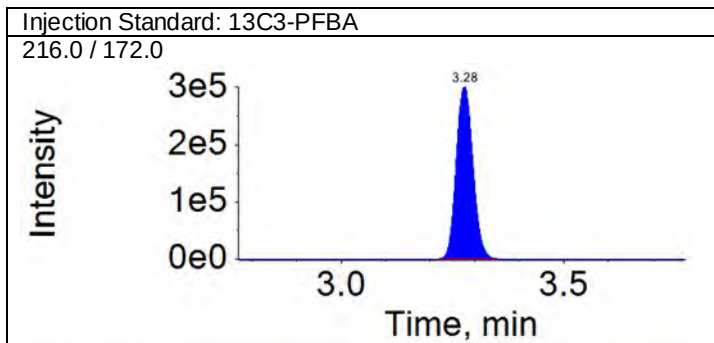
REVIEWED

By HMK at 12:22 pm, 11/29/18

Page 2 of 17

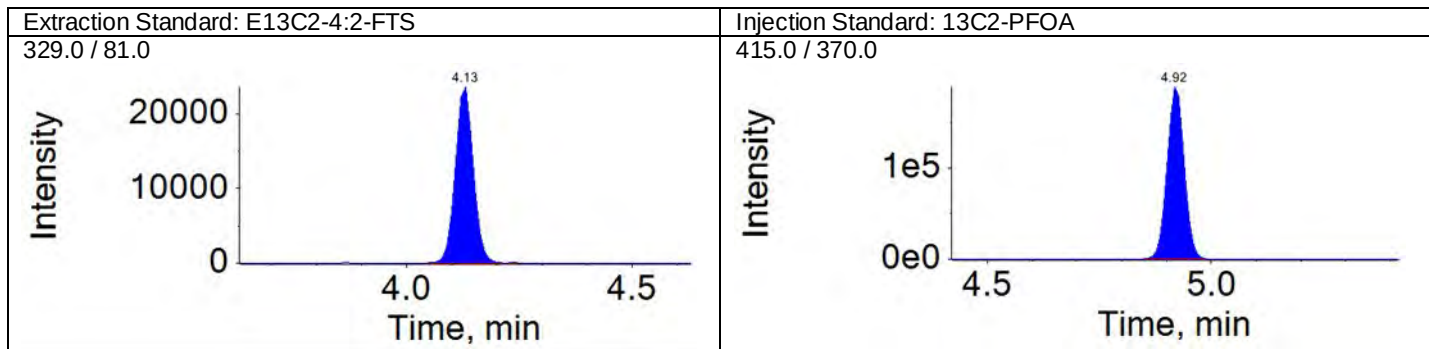
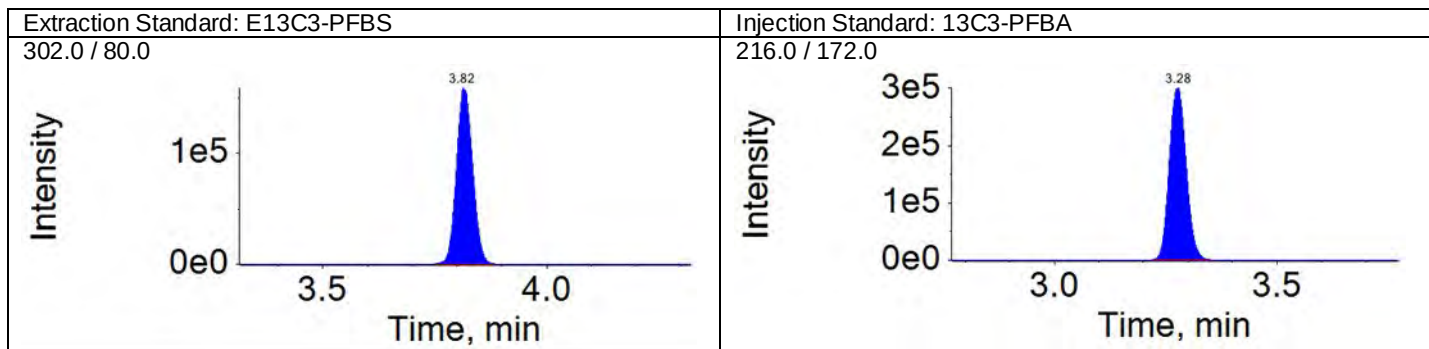
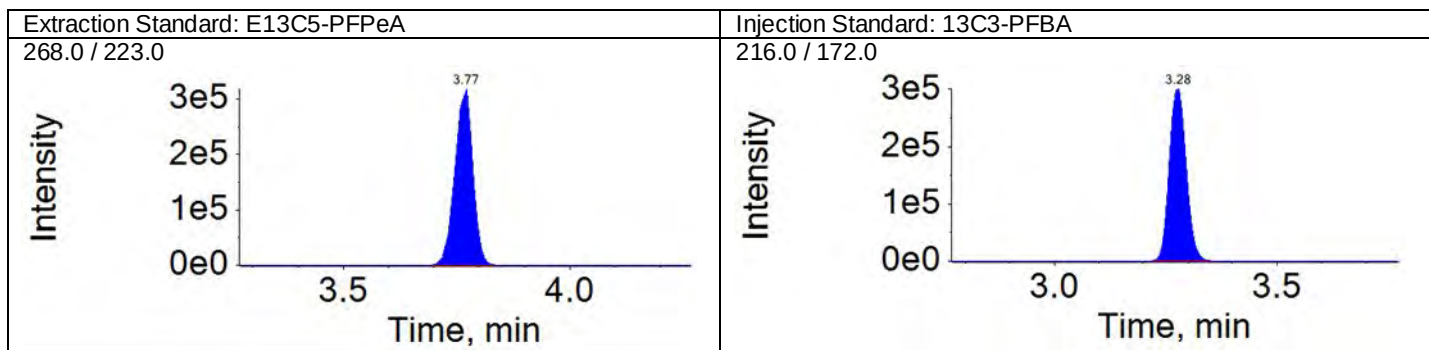
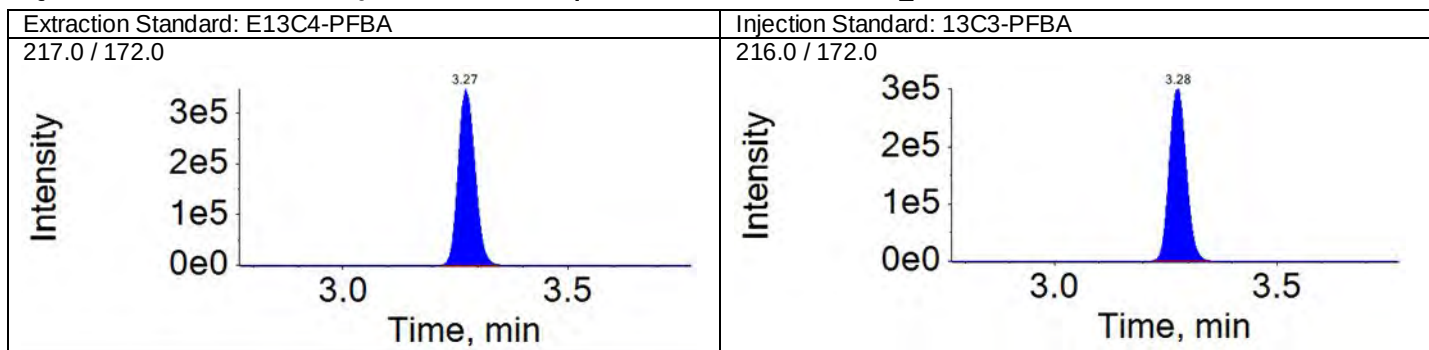
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



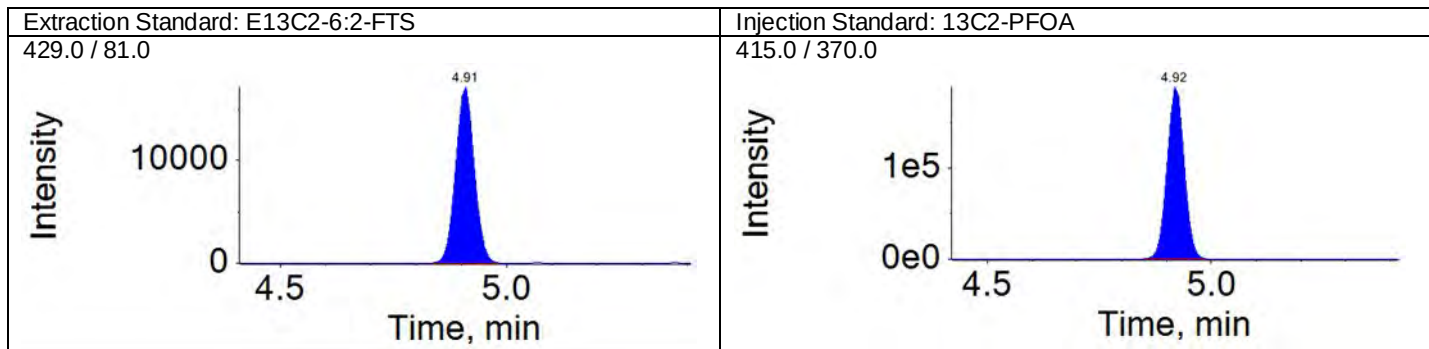
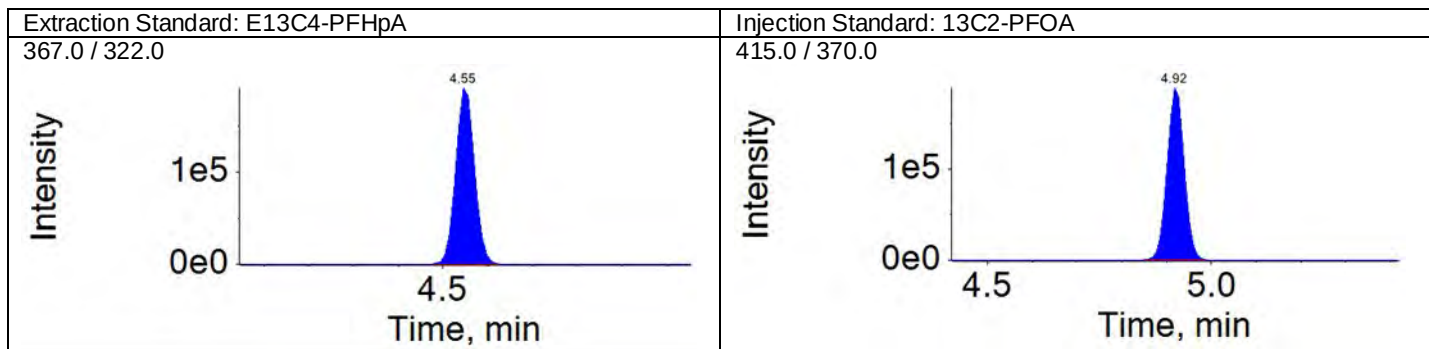
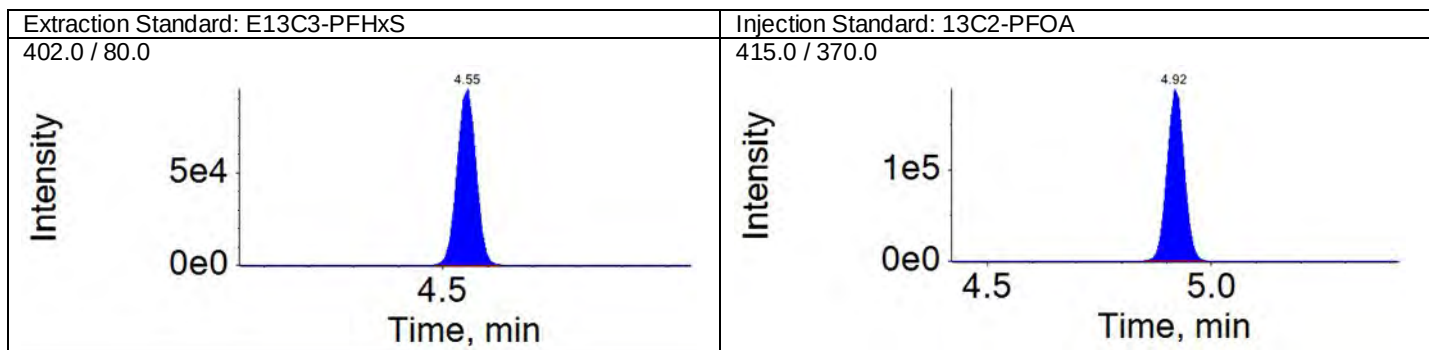
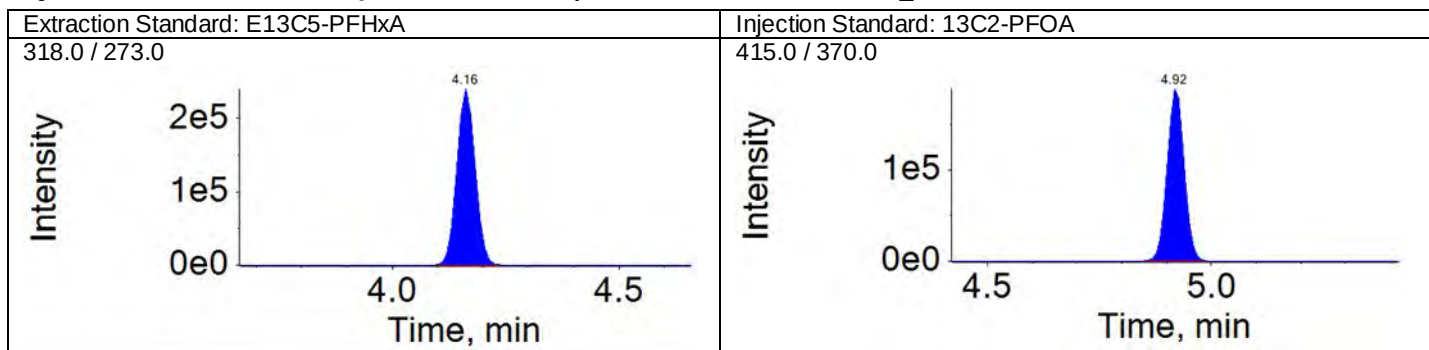
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



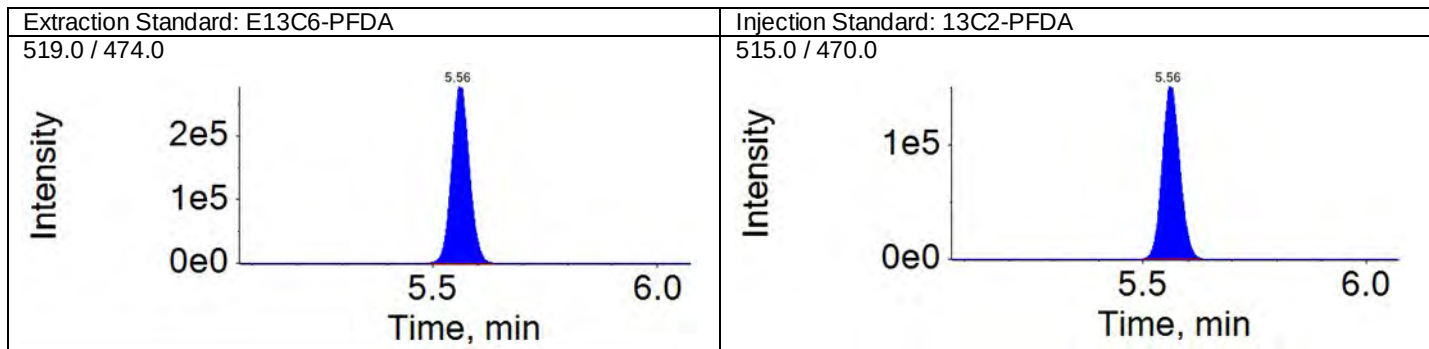
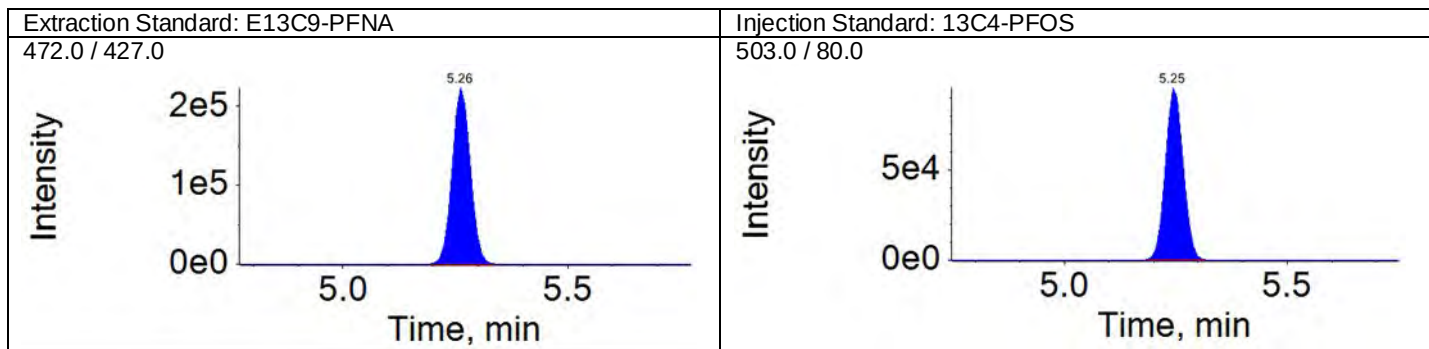
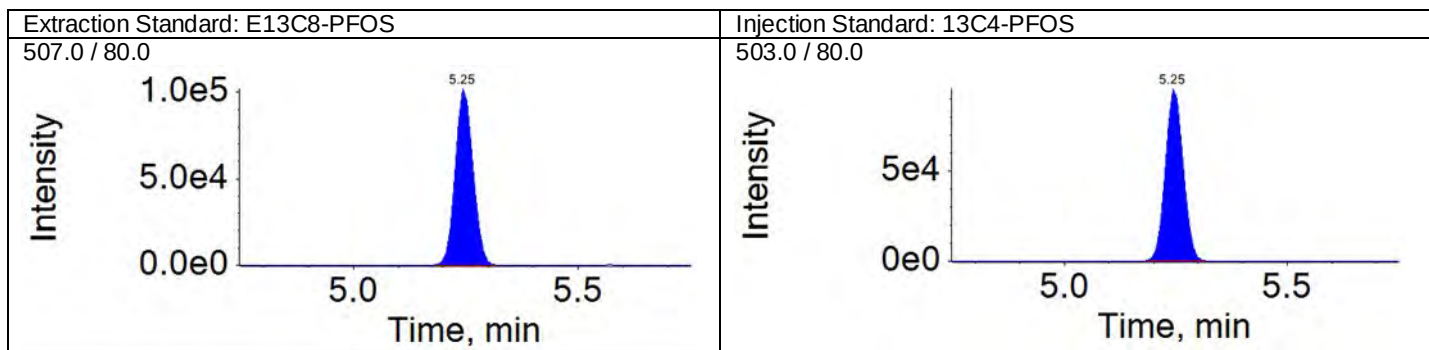
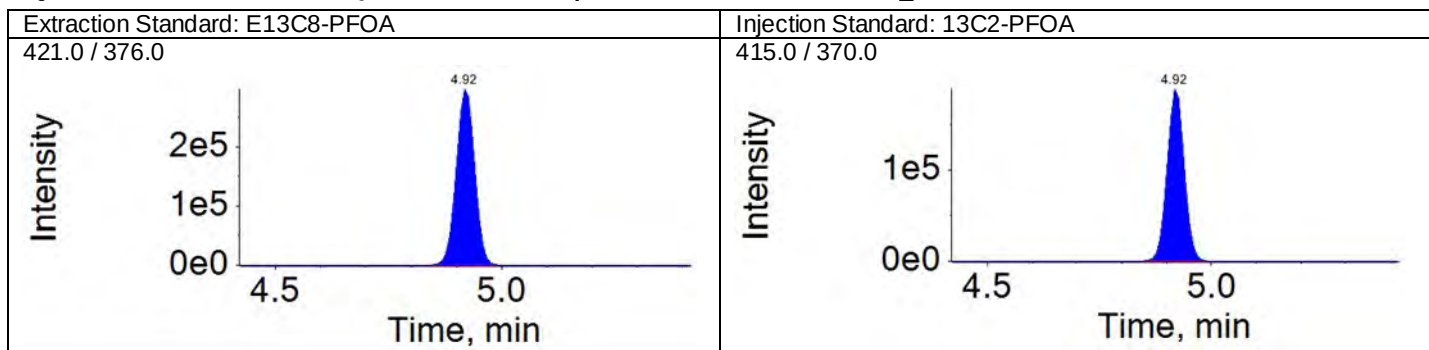
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Acquisition Method: 18AUG13_3uL.dam



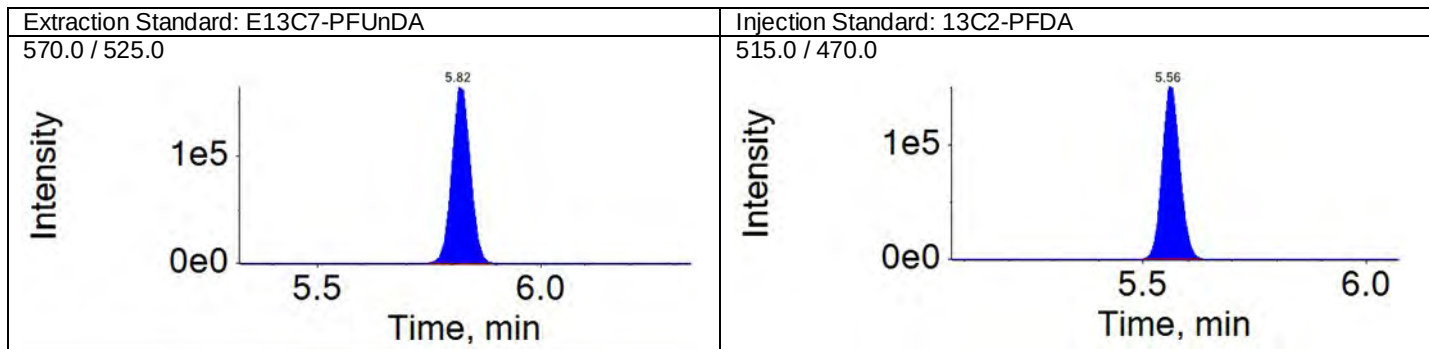
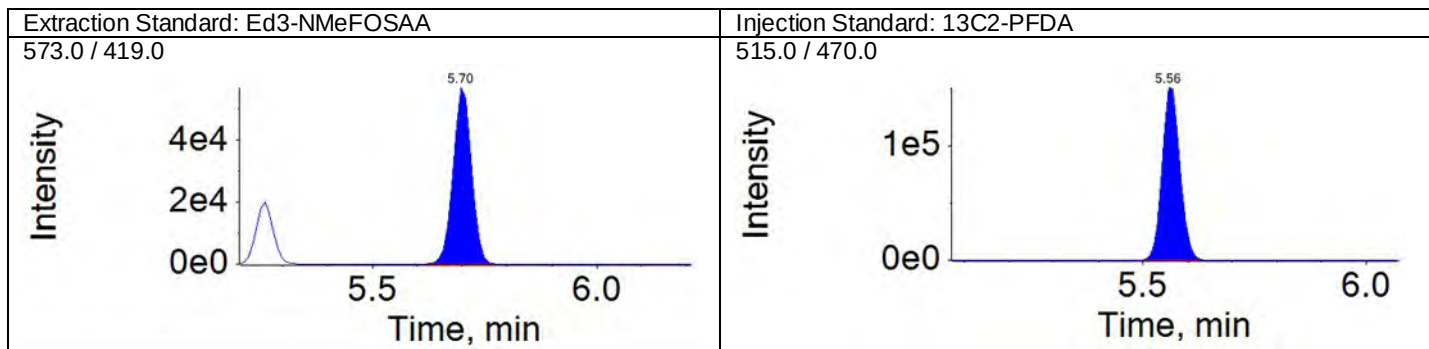
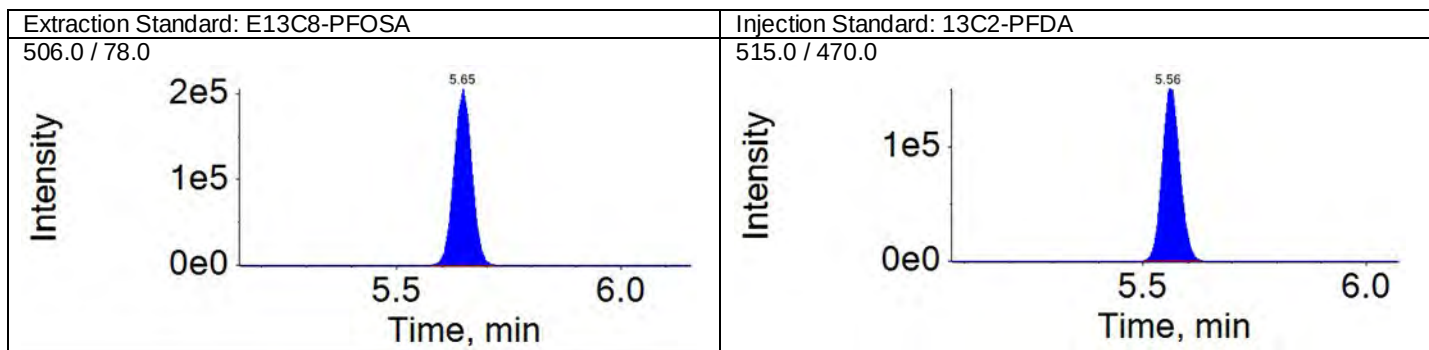
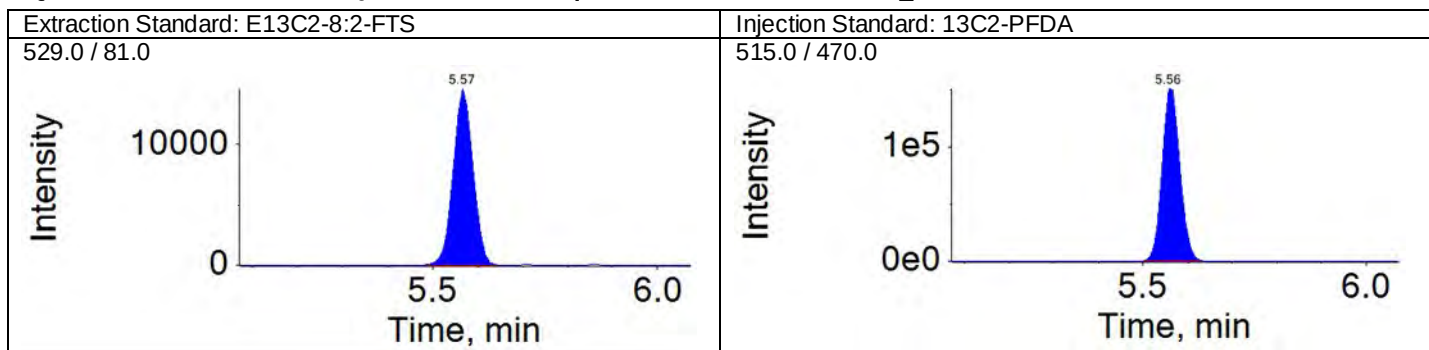
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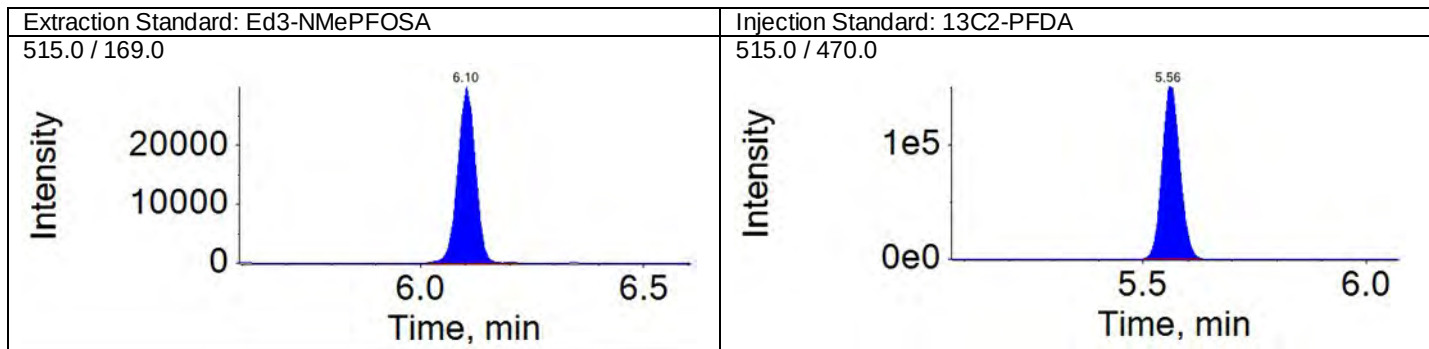
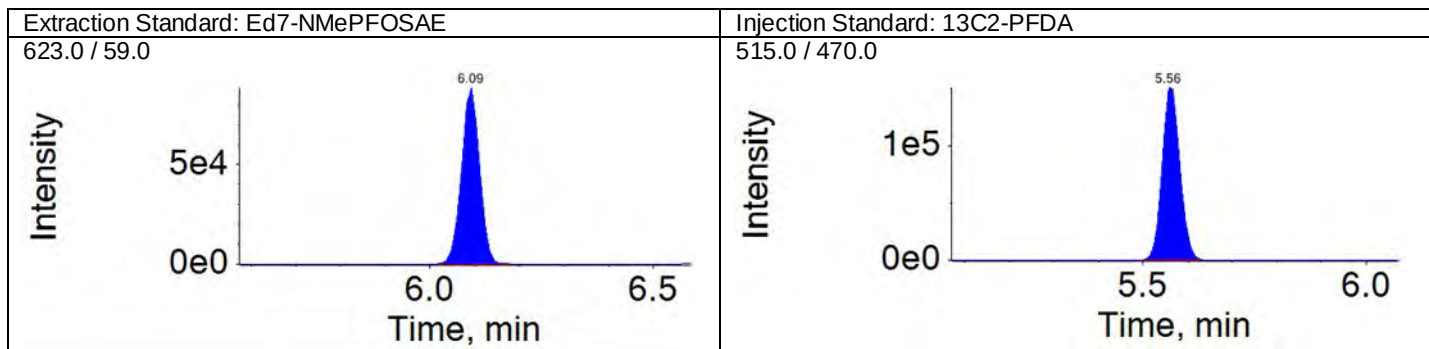
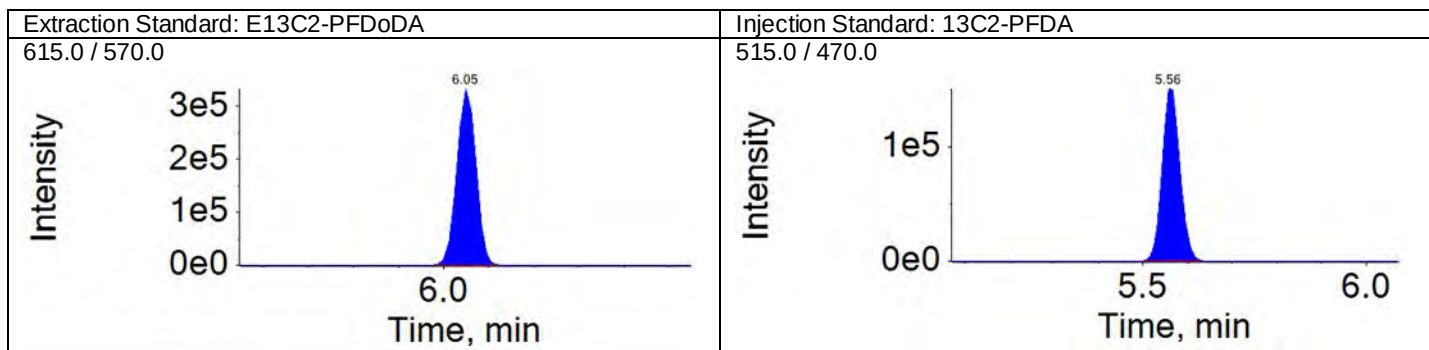
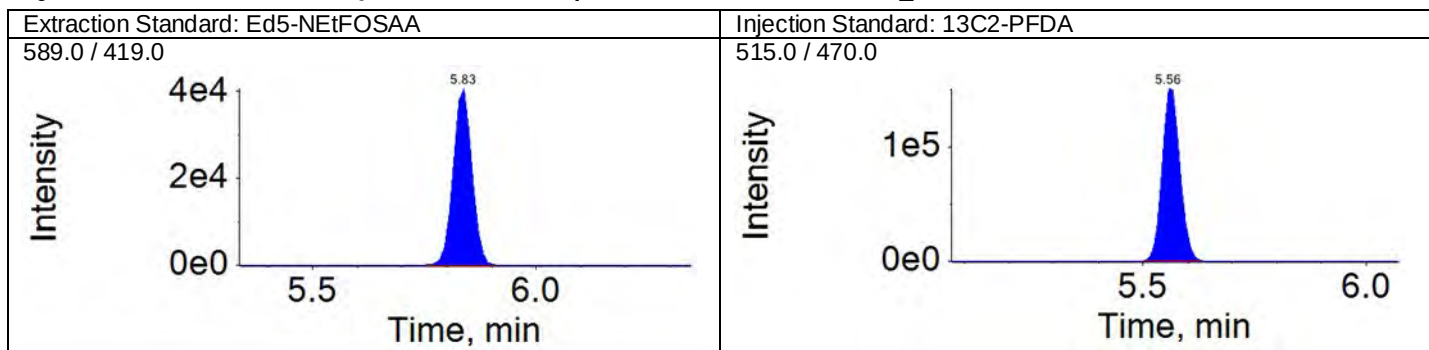
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Acquisition Method: 18AUG13_3uL.dam



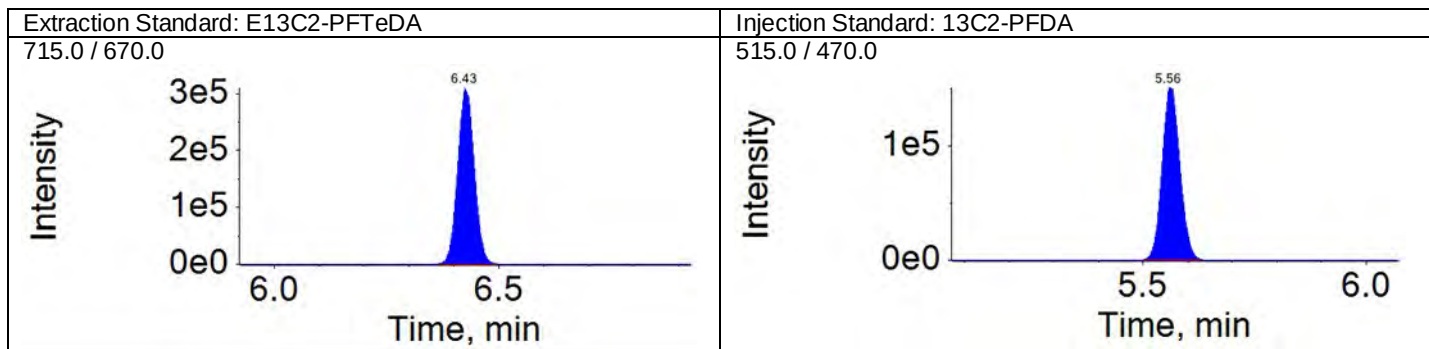
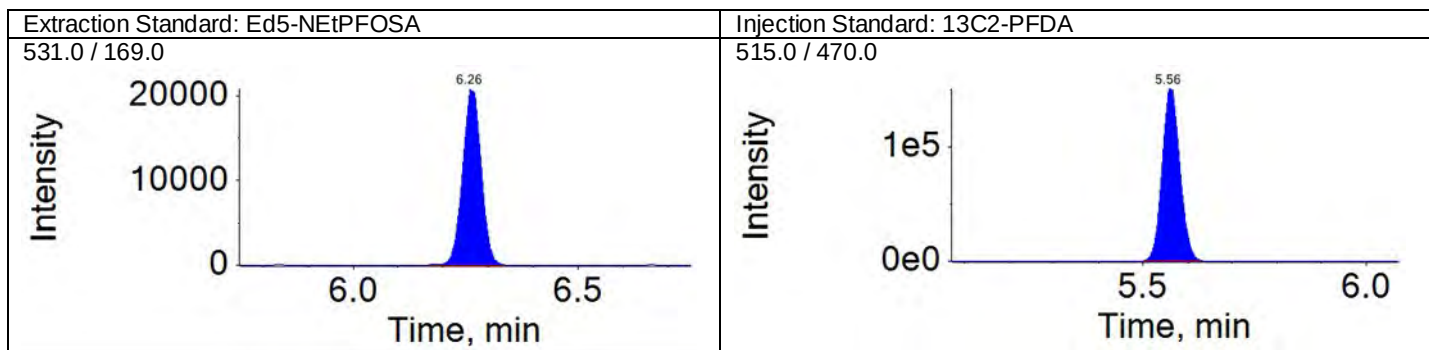
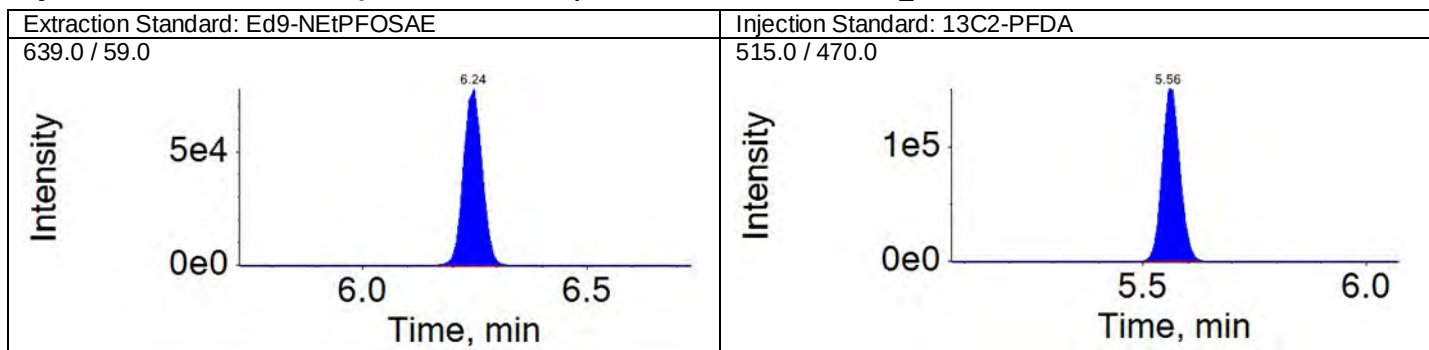
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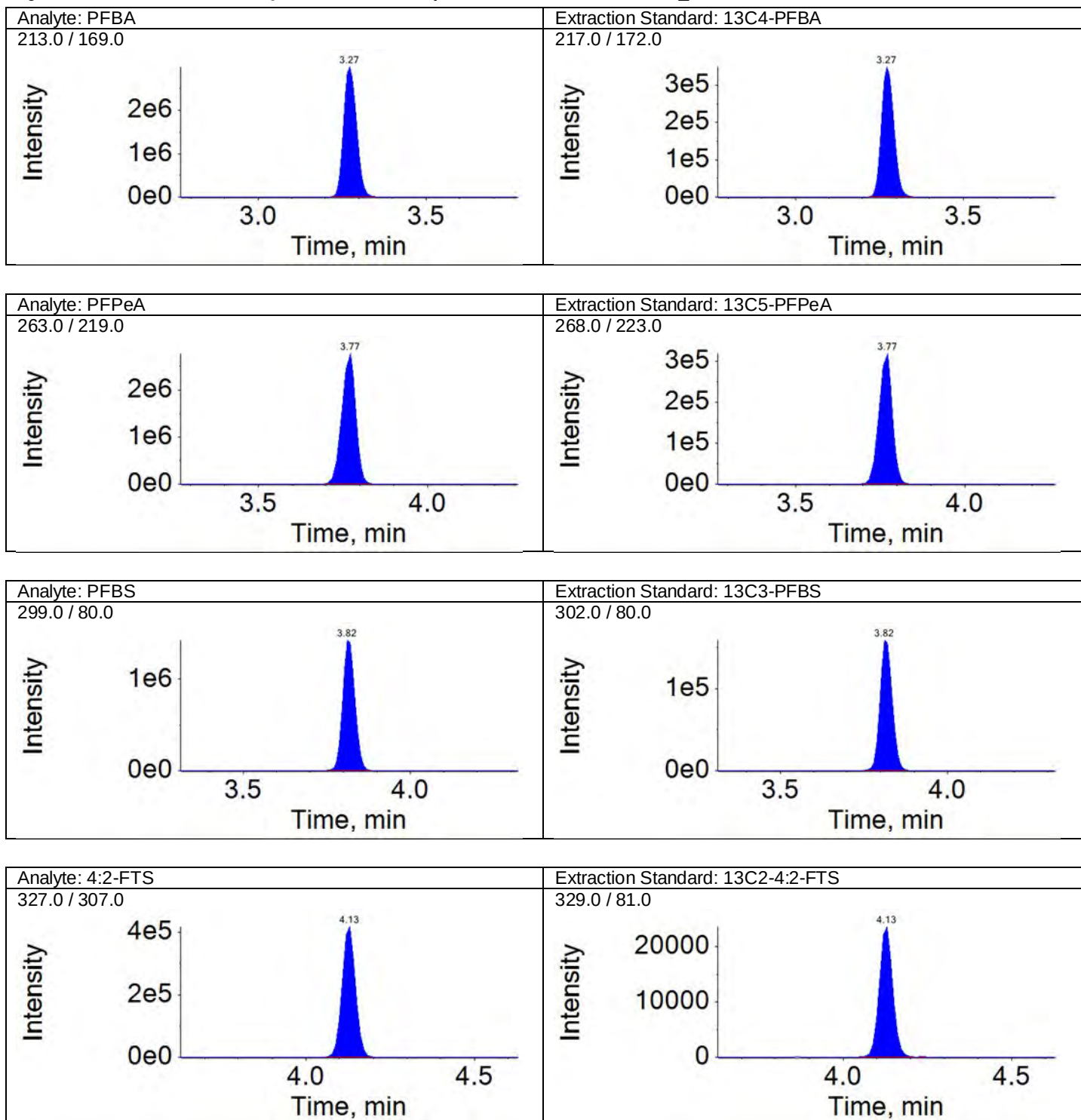
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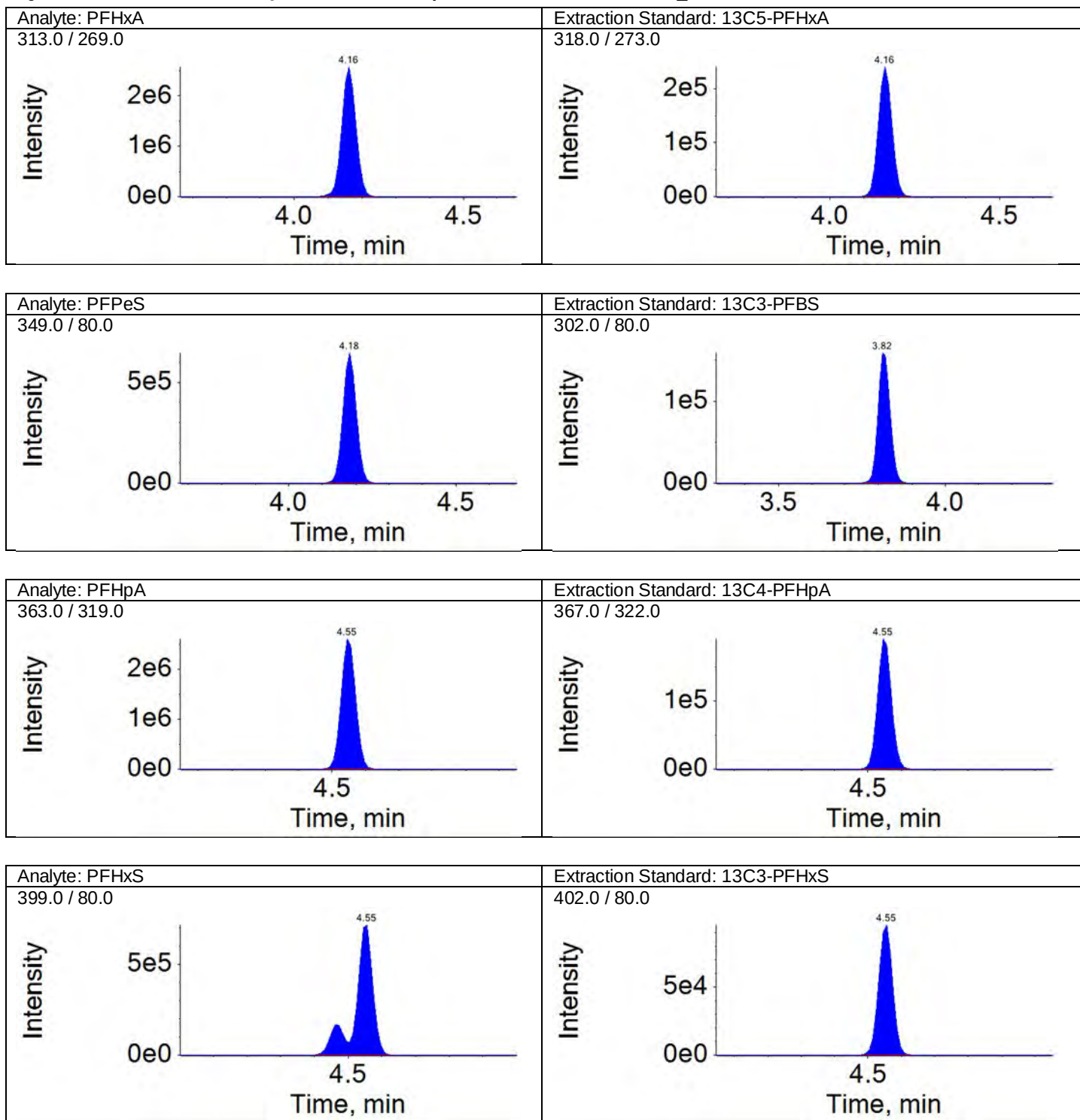
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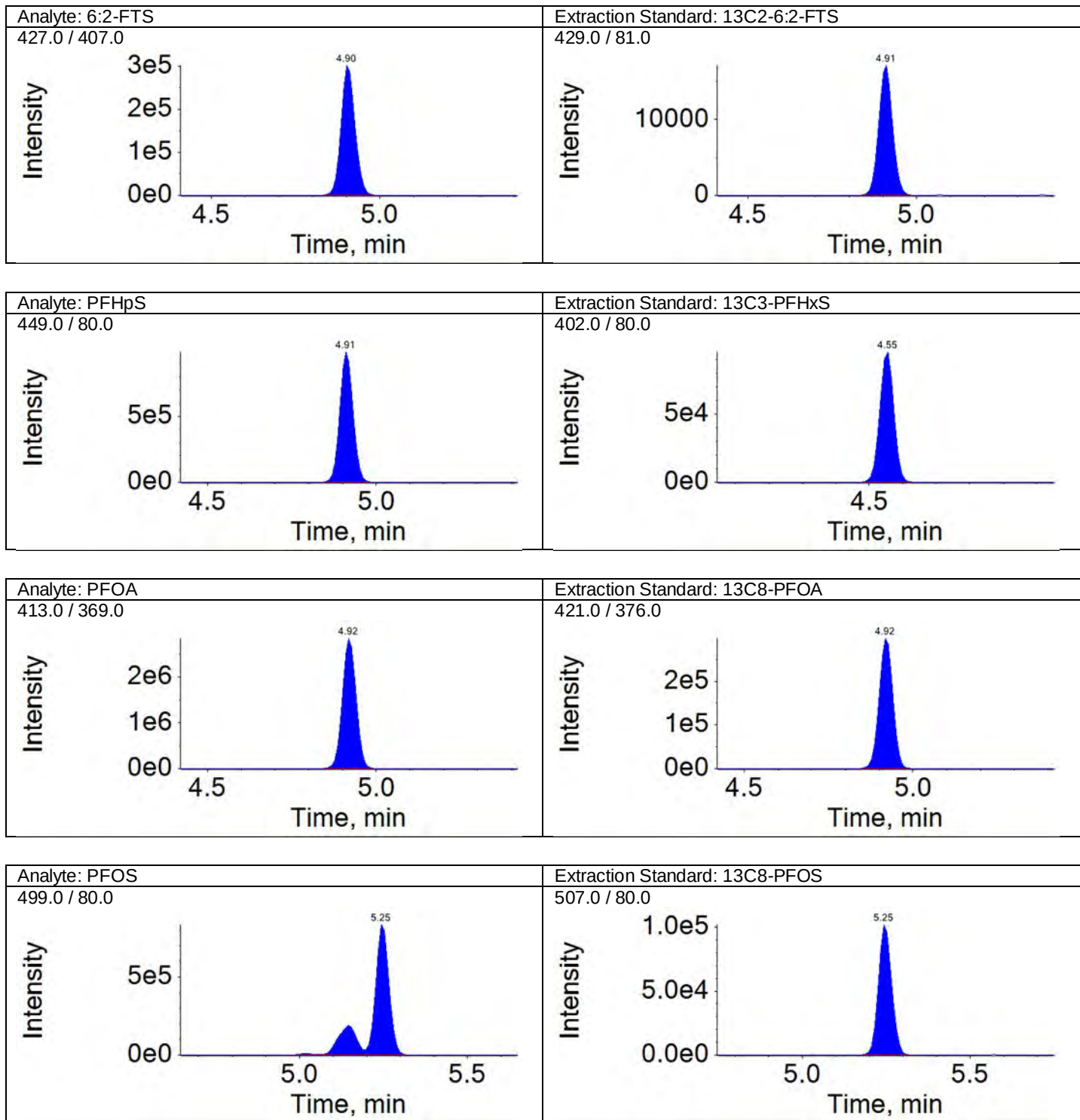
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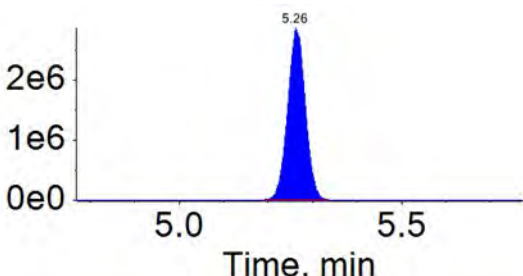
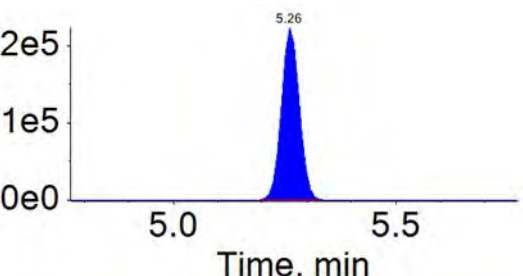
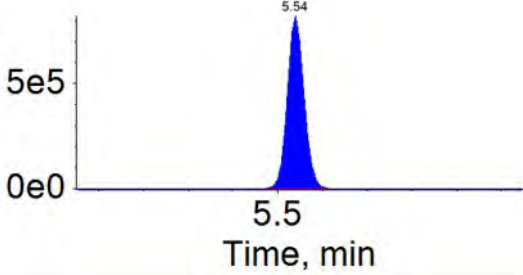
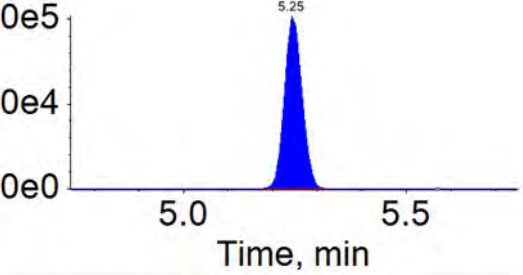
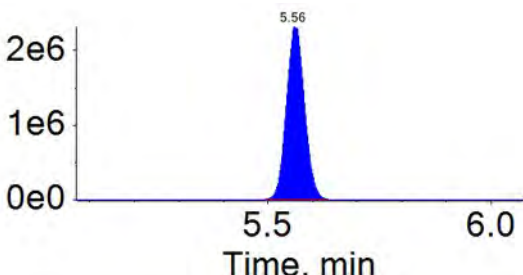
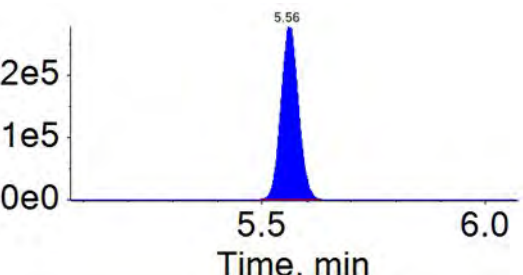
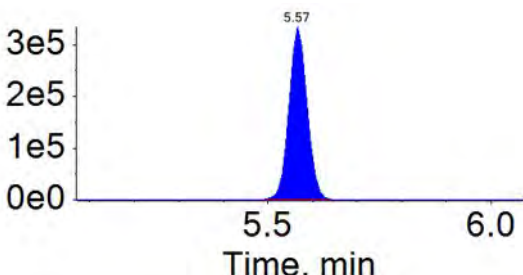
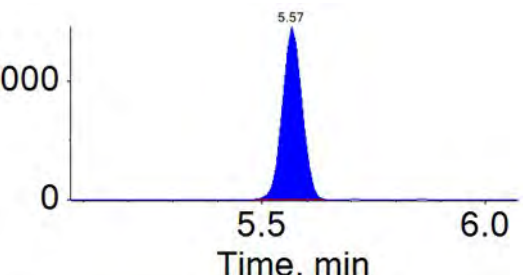
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte: PFNA 463.0 / 419.0 	Extraction Standard: 13C9-PFNA 472.0 / 427.0 
Analyte: PFNS 549.0 / 80.0 	Extraction Standard: 13C8-PFOS 507.0 / 80.0 
Analyte: PFDA 513.0 / 469.0 	Extraction Standard: 13C6-PFDA 519.0 / 474.0 
Analyte: 8:2-FTS 527.0 / 507.0 	Extraction Standard: 13C2-8:2-FTS 529.0 / 81.0 

APPROVED

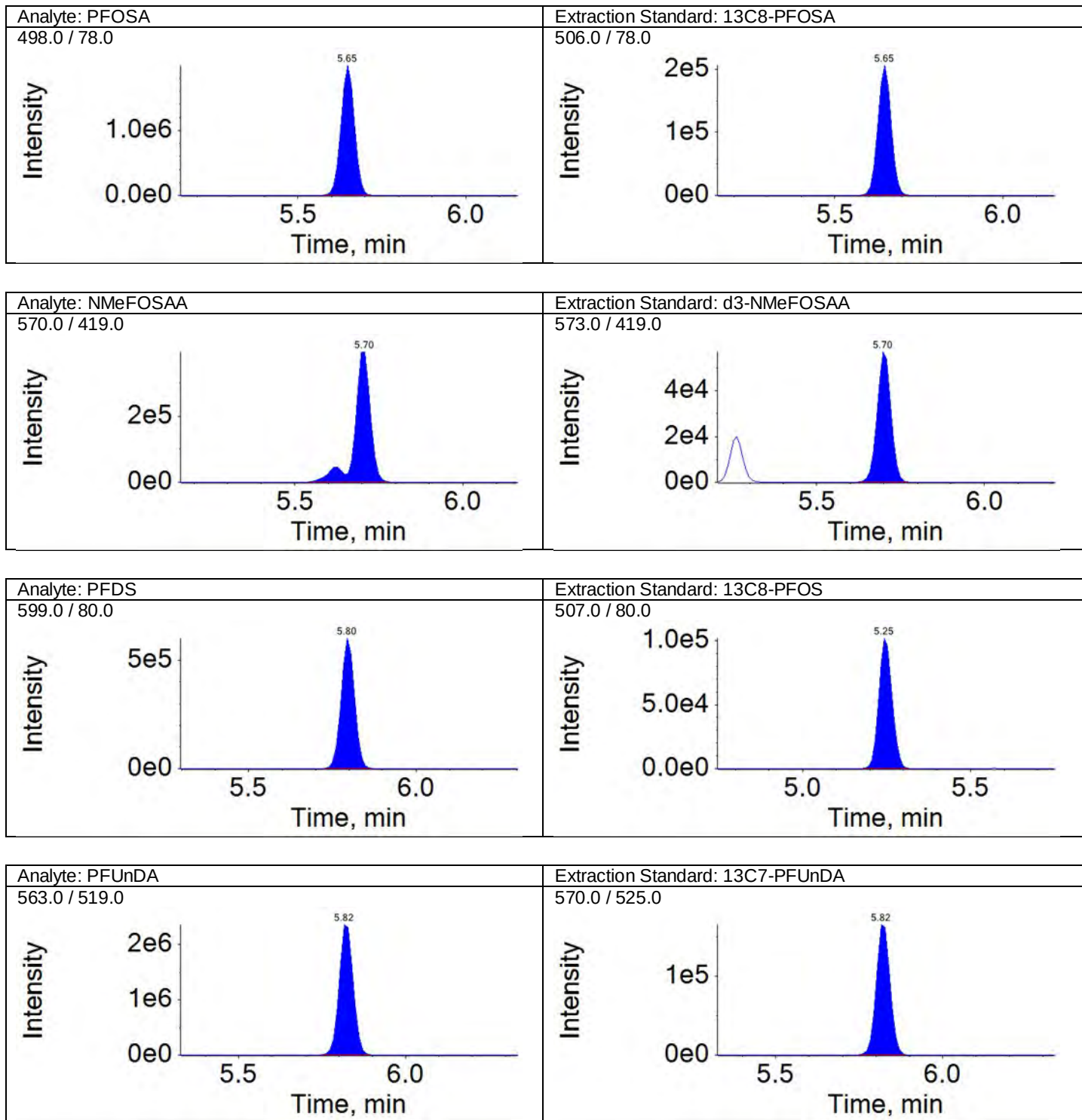
By MCD at 5:00 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

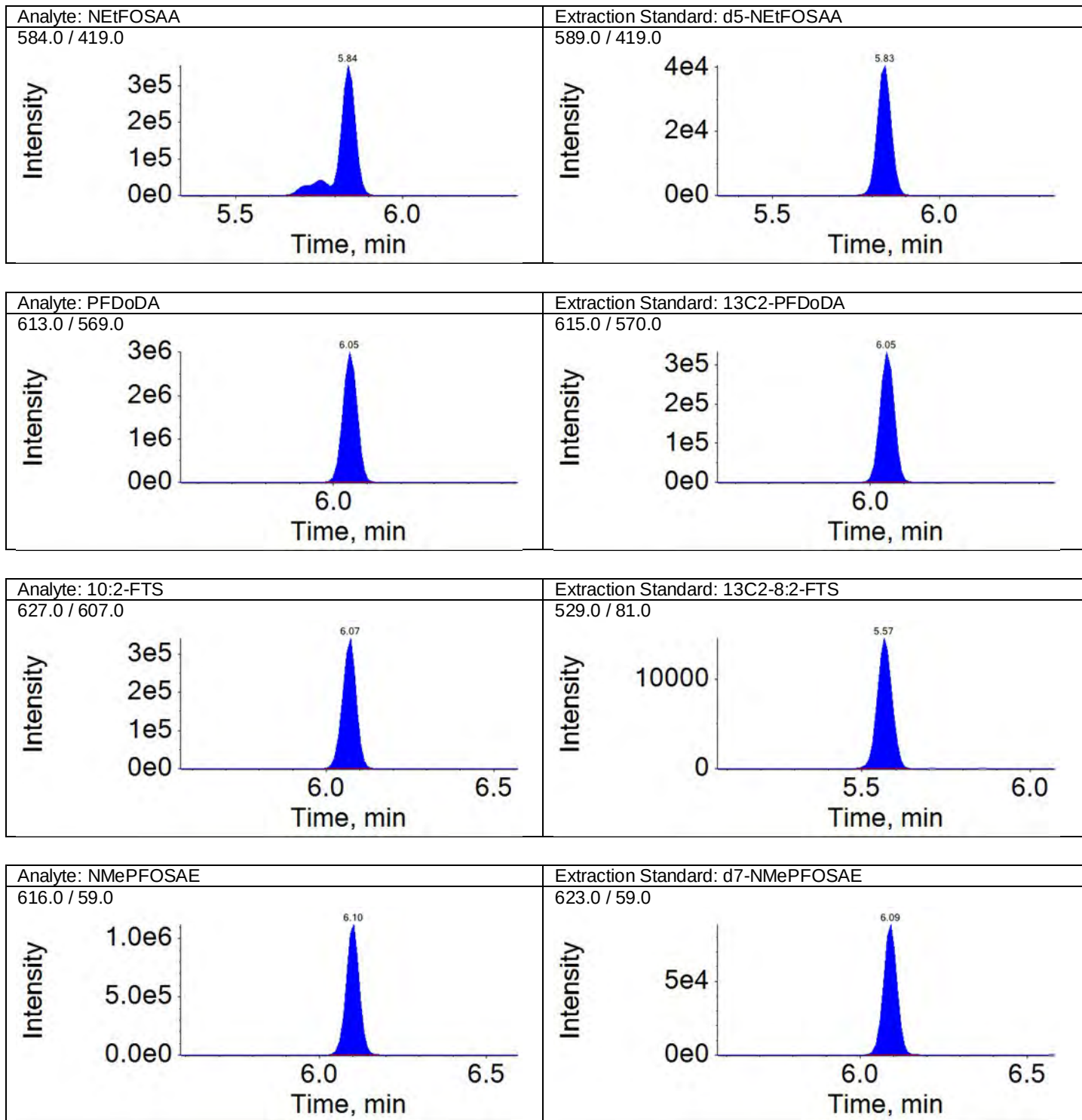
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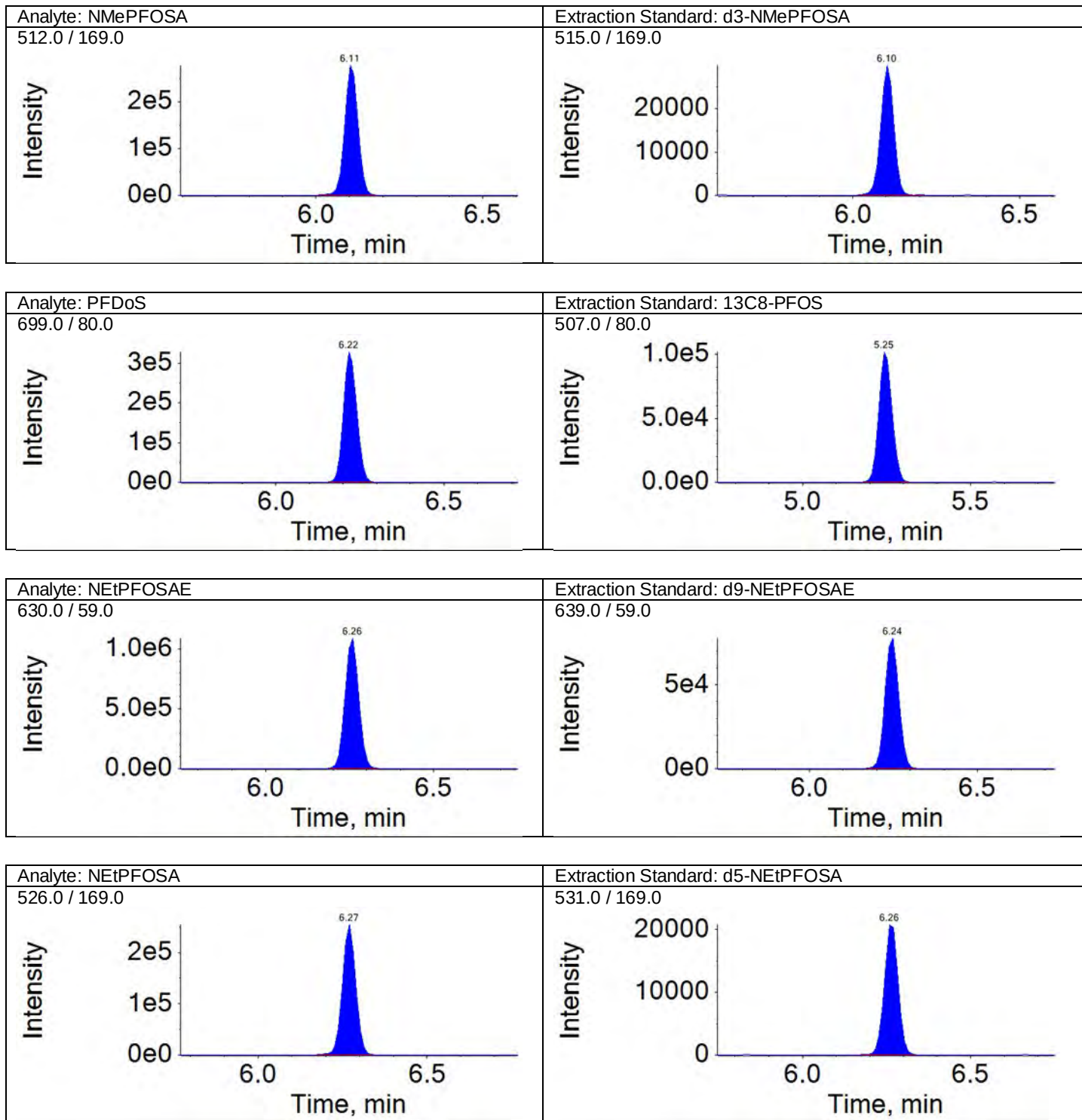
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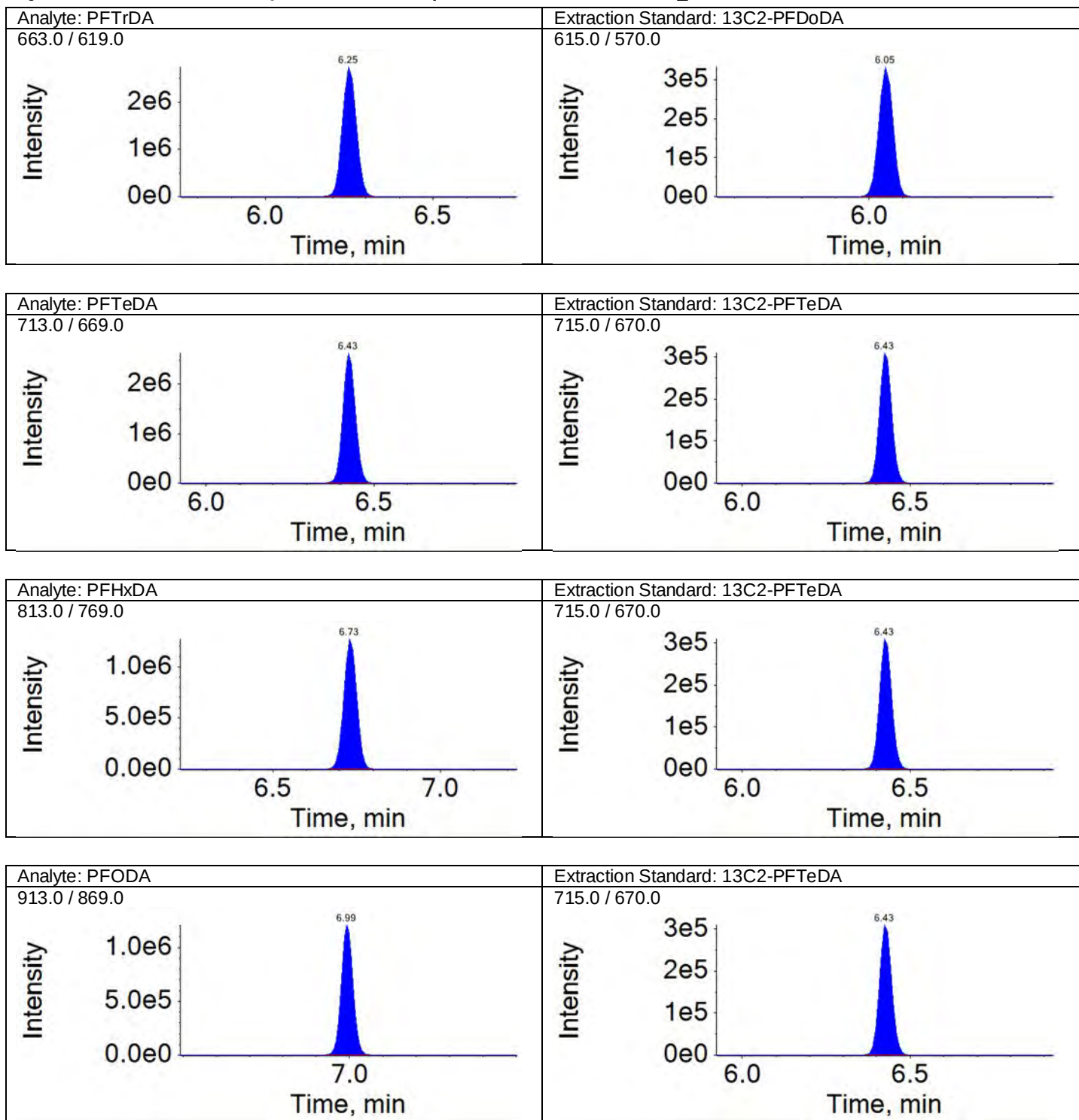
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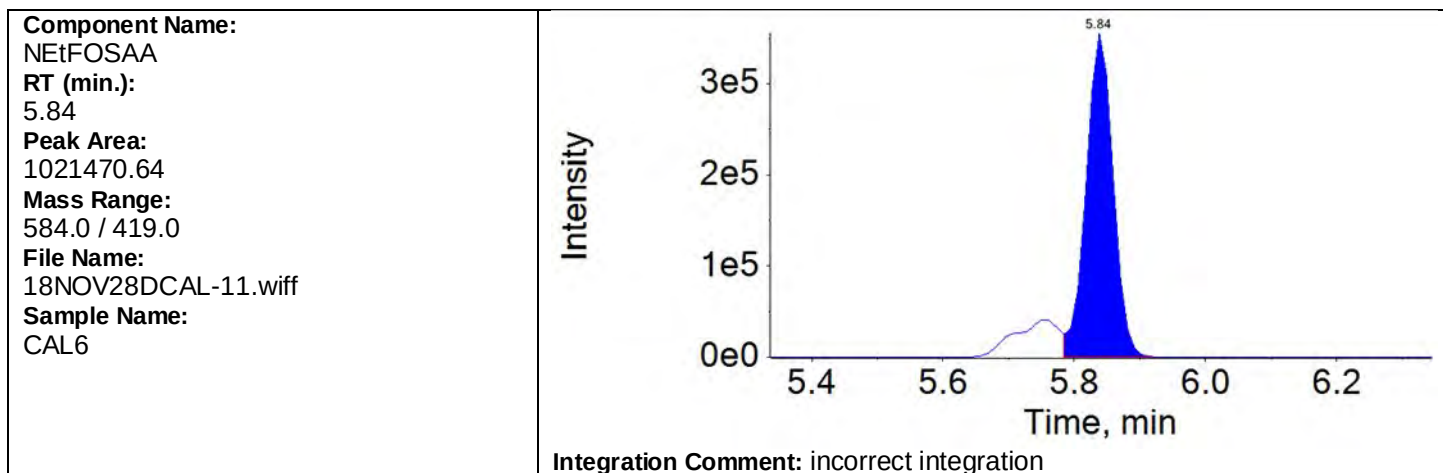
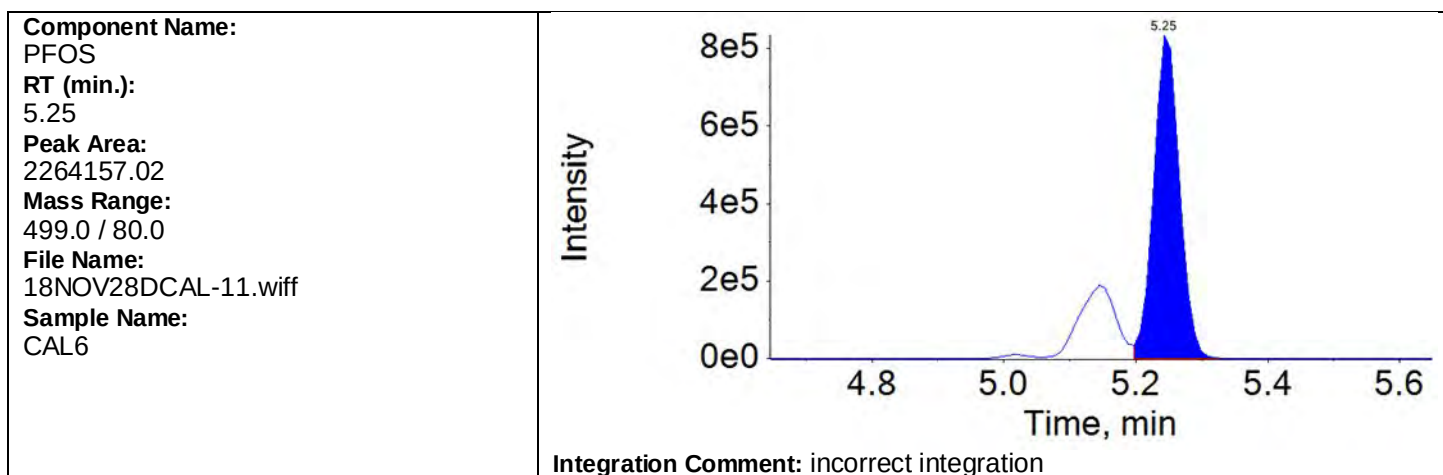
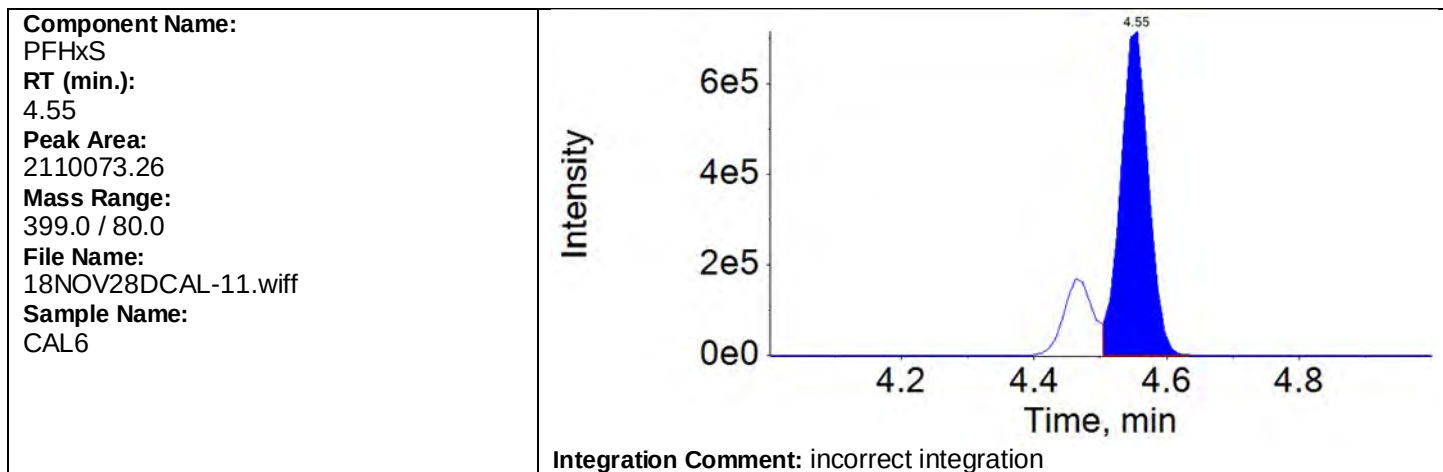
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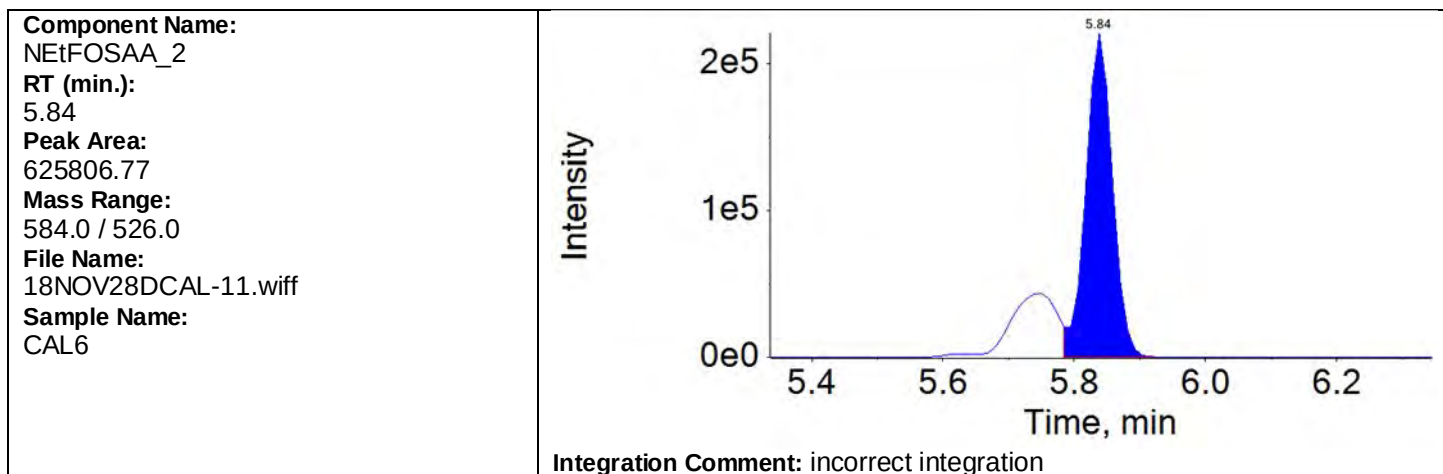
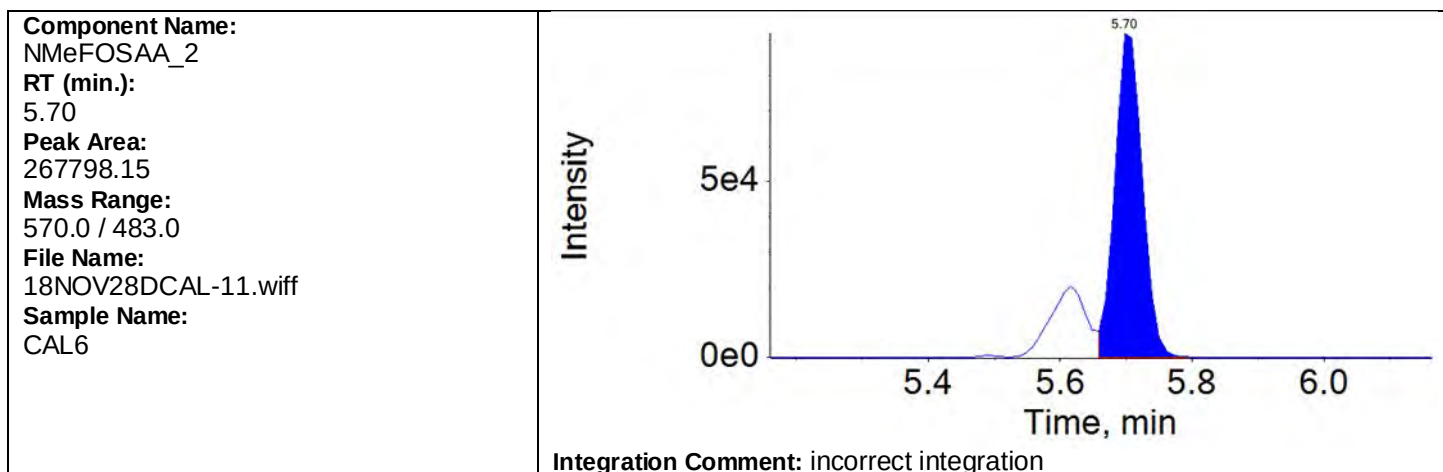
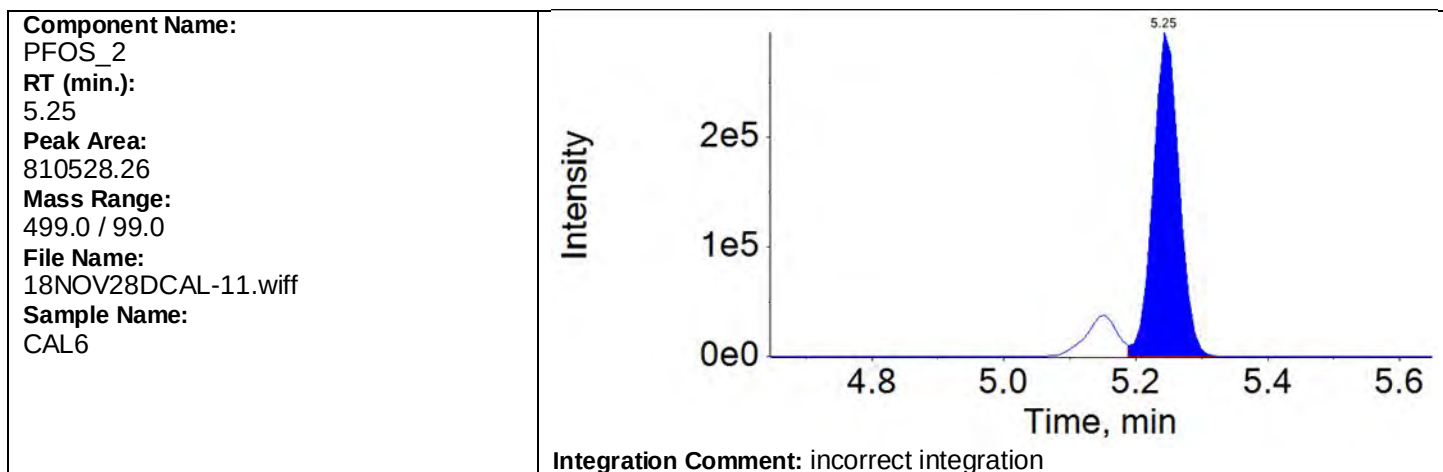
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APPROVED

By MCD at 5:00 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

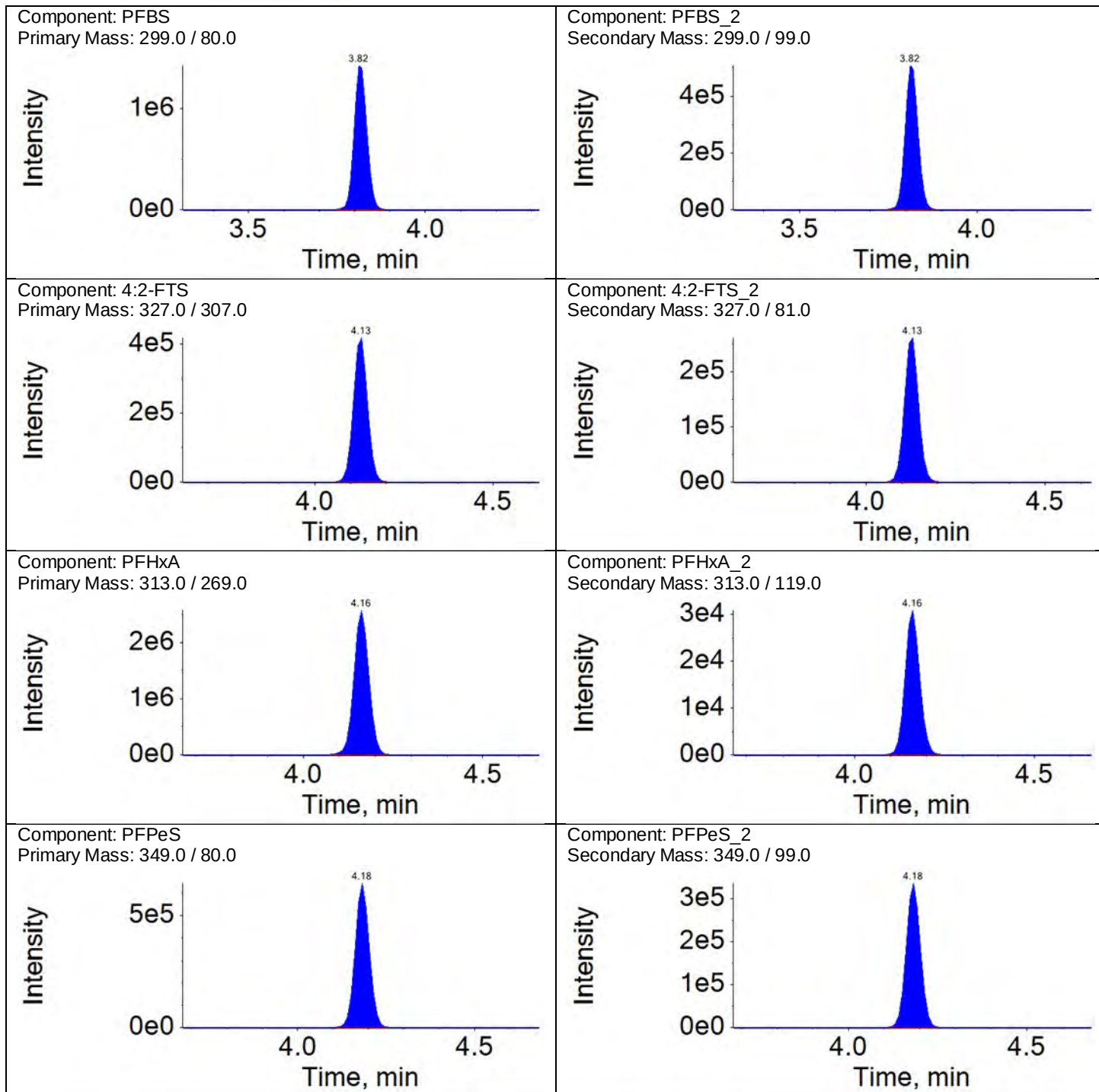
Ion Ratio Report

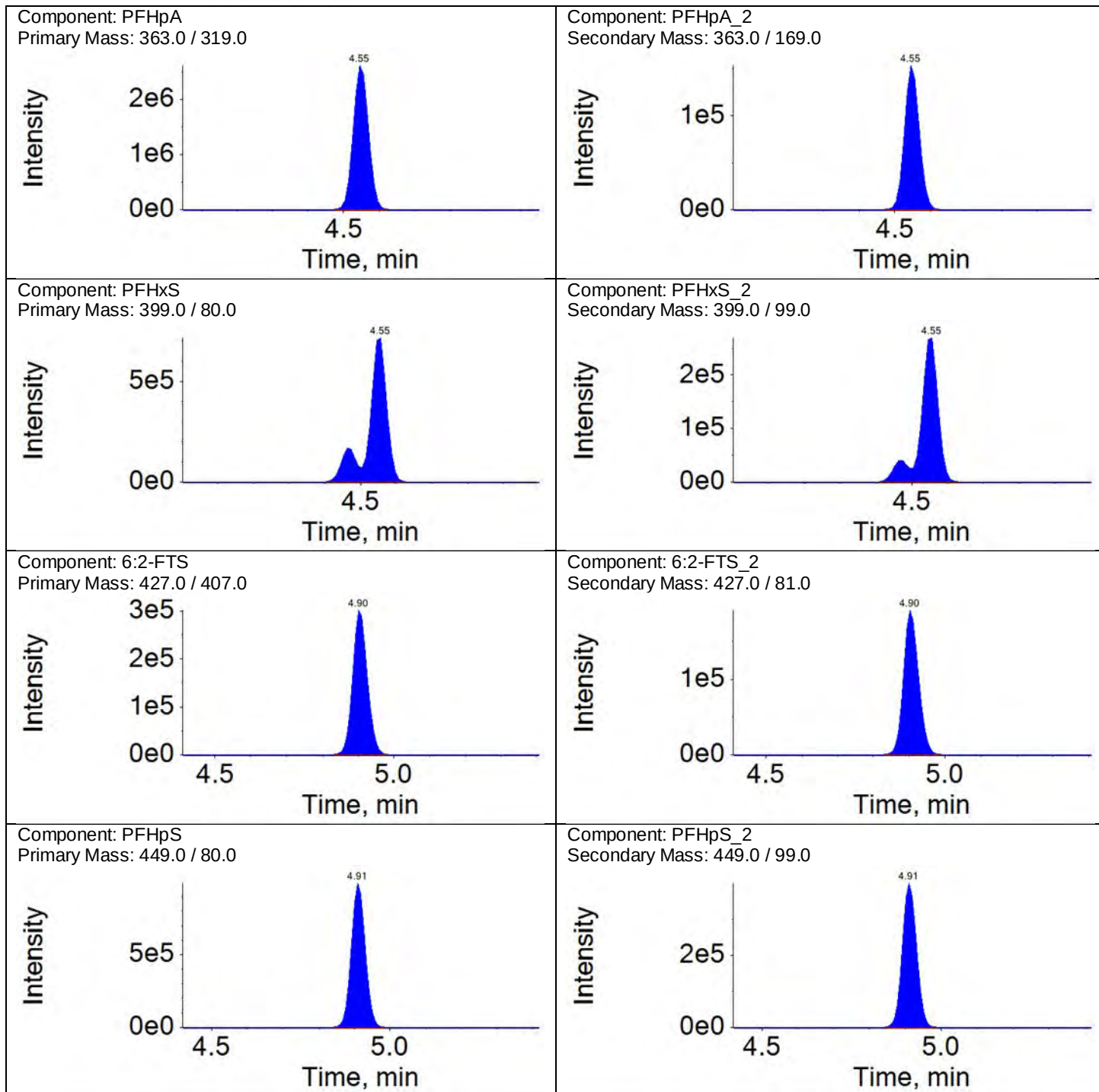
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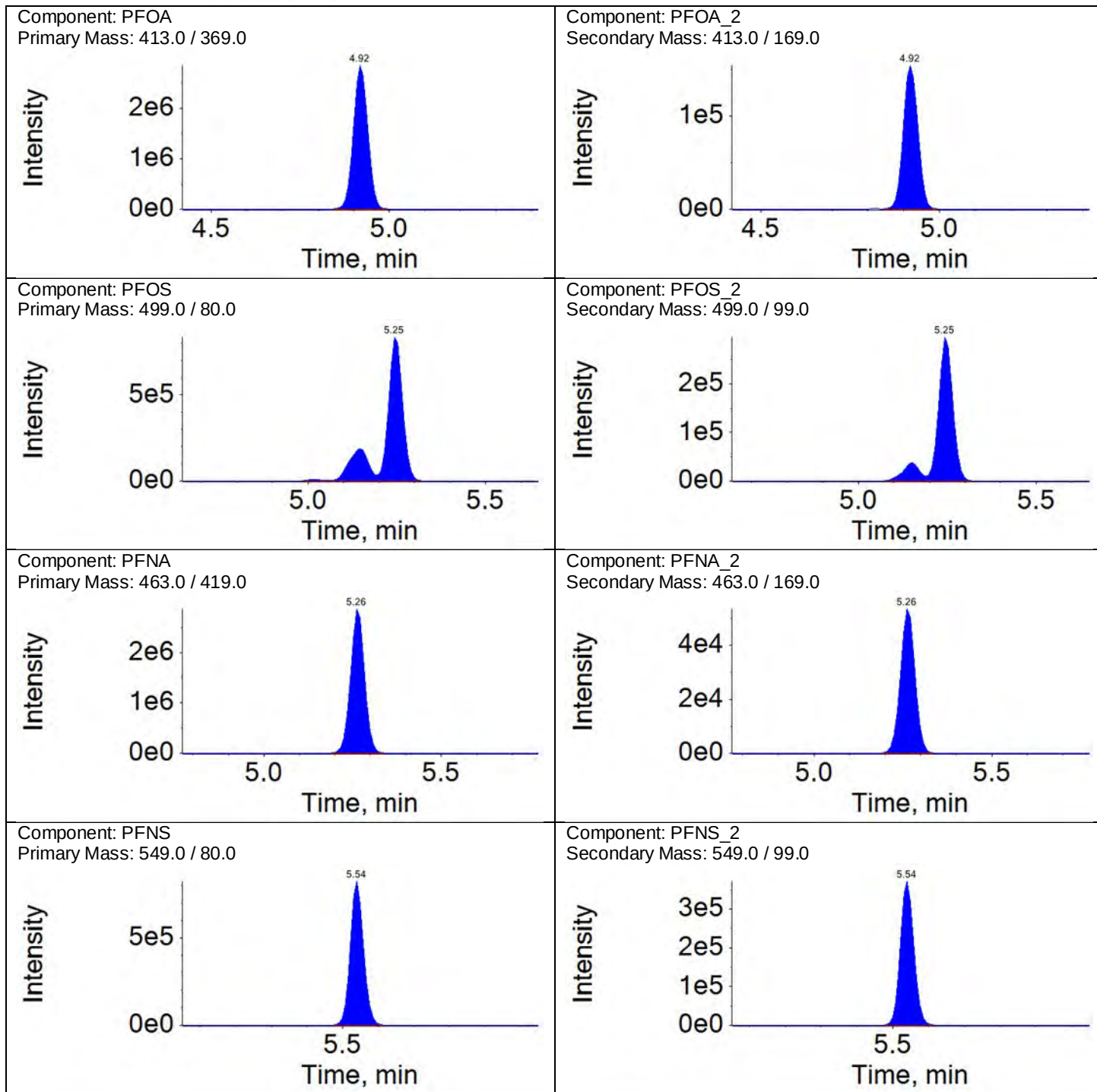
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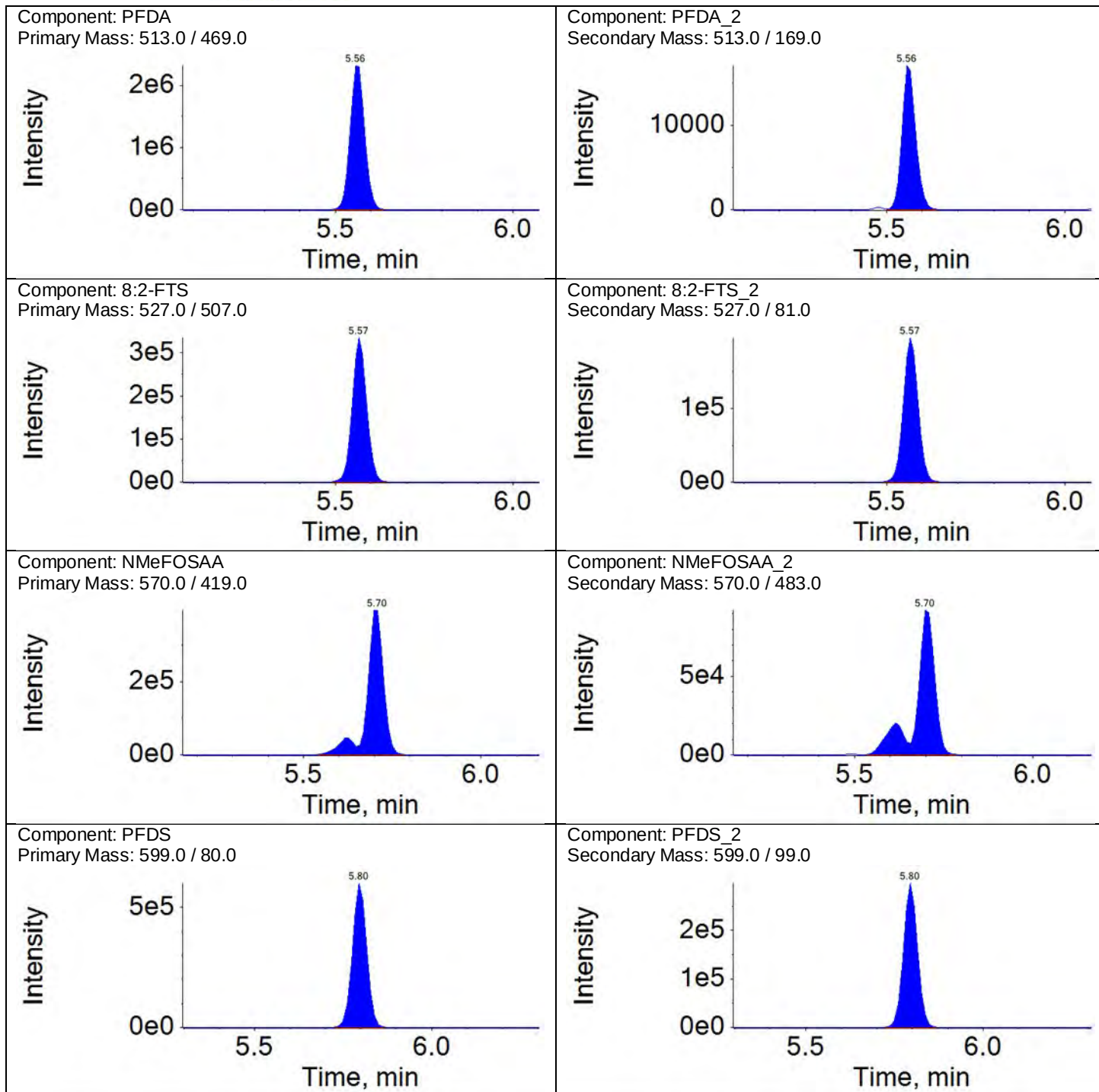
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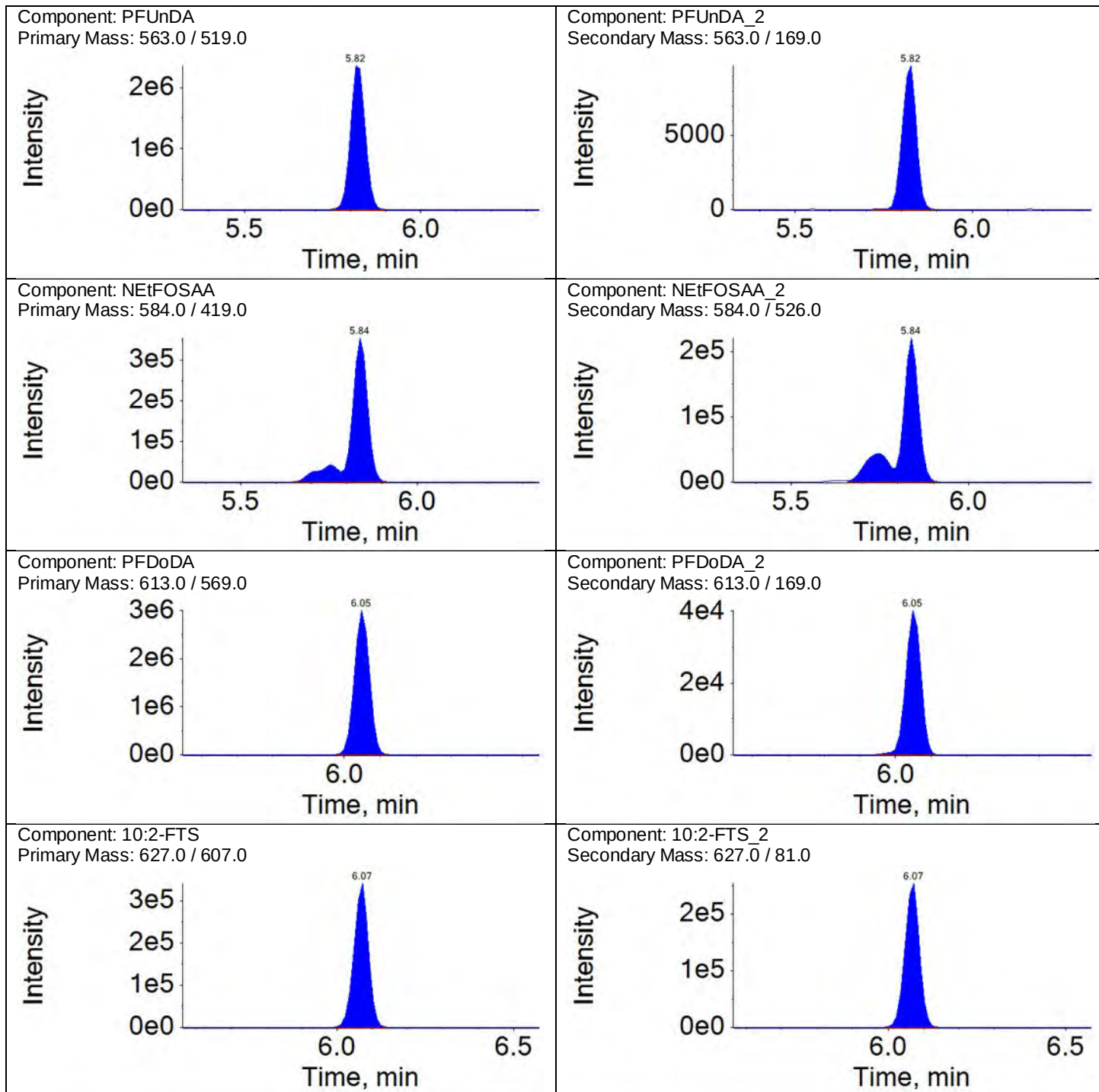
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PFBS_2	3.82	1.00	1284104.34	A	0.3655	0.3566	-2	50	
4:2-FTS	4.13	1.00	1148569.18	A	0.6383	0.6279			
4:2-FTS_2	4.13	1.00	721221.12	A	0.6383	0.6279	-2	50	
PFHxA	4.16	1.00	7468739.11	A	0.0103	0.0117			
PFHxA_2	4.16	1.00	87256.25	A	0.0103	0.0117	13	50	
PFPeS	4.18	1.10	1793808.03	A	0.4976	0.5229			
PFPeS_2	4.18	1.10	937895.85	A	0.4976	0.5229	5	50	
PFHpA	4.55	1.00	7873271.20	A	0.0557	0.0567			
PFHpA_2	4.55	1.00	446309.31	A	0.0557	0.0567	2	50	
PFHxS	4.55	1.00	2625950.90	M	0.3693	0.3570			
PFHxS_2	4.55	1.00	937577.08	A	0.3693	0.3570	-3	50	
6:2-FTS	4.90	1.00	859948.62	A	0.6625	0.6492			
6:2-FTS_2	4.90	1.00	558302.88	A	0.6625	0.6492	-2	50	
PFHpS	4.91	1.08	2686833.27	A	0.3915	0.4117			
PFHpS_2	4.91	1.08	1106038.20	A	0.3915	0.4117	5	50	
PFOA	4.92	1.00	8012665.34	A	0.0573	0.0550			
PFOA_2	4.92	1.00	440521.78	A	0.0573	0.0550	-4	50	
PFOS	5.25	1.00	3026664.45	M	0.2960	0.3091			
PFOS_2	5.25	1.00	935561.90	M	0.2960	0.3091	4	50	
PFNA	5.26	1.00	7843086.90	A	0.0201	0.0194			
PFNA_2	5.26	1.00	152065.57	A	0.0201	0.0194	-3	50	
PFNS	5.54	1.06	2116661.52	A	0.4794	0.4605			
PFNS_2	5.54	1.06	974696.88	A	0.4794	0.4605	-4	50	
PFDA	5.56	1.00	6551370.45	A	0.0075	0.0069			
PFDA_2	5.56	1.00	45516.35	A	0.0075	0.0069	-7	50	
8:2-FTS	5.57	1.00	938590.07	A	0.5380	0.5988			
8:2-FTS_2	5.57	1.00	561991.71	A	0.5380	0.5988	11	50	
NMeFOSAA	5.70	1.00	1292829.79	A	0.2305	0.2668			
NMeFOSAA_2	5.70	1.00	344955.19	M	0.2305	0.2668	16	50	
PFDS	5.80	1.10	1665920.17	A	0.5356	0.4889			
PFDS_2	5.80	1.10	814397.56	A	0.5356	0.4889	-9	50	
PFUnDA	5.82	1.00	6885622.64	A	0.0038	0.0040			
PFUnDA_2	5.82	1.00	27237.03	A	0.0038	0.0040	4	50	
NEtFOSAA	5.84	1.00	1214766.38	M	0.7356	0.6821			
NEtFOSAA_2	5.84	1.00	828574.74	M	0.7356	0.6821	-7	50	
PFDODA	6.05	1.00	8865844.73	A	0.0130	0.0133			
PFDODA_2	6.05	1.00	118287.14	A	0.0130	0.0133	2	50	
10:2-FTS	6.07	1.09	972346.85	A	0.6989	0.7475			
10:2-FTS_2	6.07	1.09	726827.33	A	0.6989	0.7475	7	50	
PFTTrDA	6.25	1.03	7958673.38	A	0.0090	0.0094			
PFTTrDA_2	6.25	1.03	74438.34	A	0.0090	0.0094	4	50	
PFTeDA	6.43	1.00	6793735.34	A	0.0056	0.0064			
PFTeDA_2	6.43	1.00	43469.69	A	0.0056	0.0064	14	50	
PFHxDA	6.73	1.05	3402004.45	A	0.0646	0.0655			
PFHxDA_2	6.73	1.05	222711.21	A	0.0646	0.0655	1	50	
PFODA	6.99	1.09	2942000.06	A	0.0264	0.0267			
PFODA_2	6.99	1.09	78596.75	A	0.0264	0.0267	1	50	

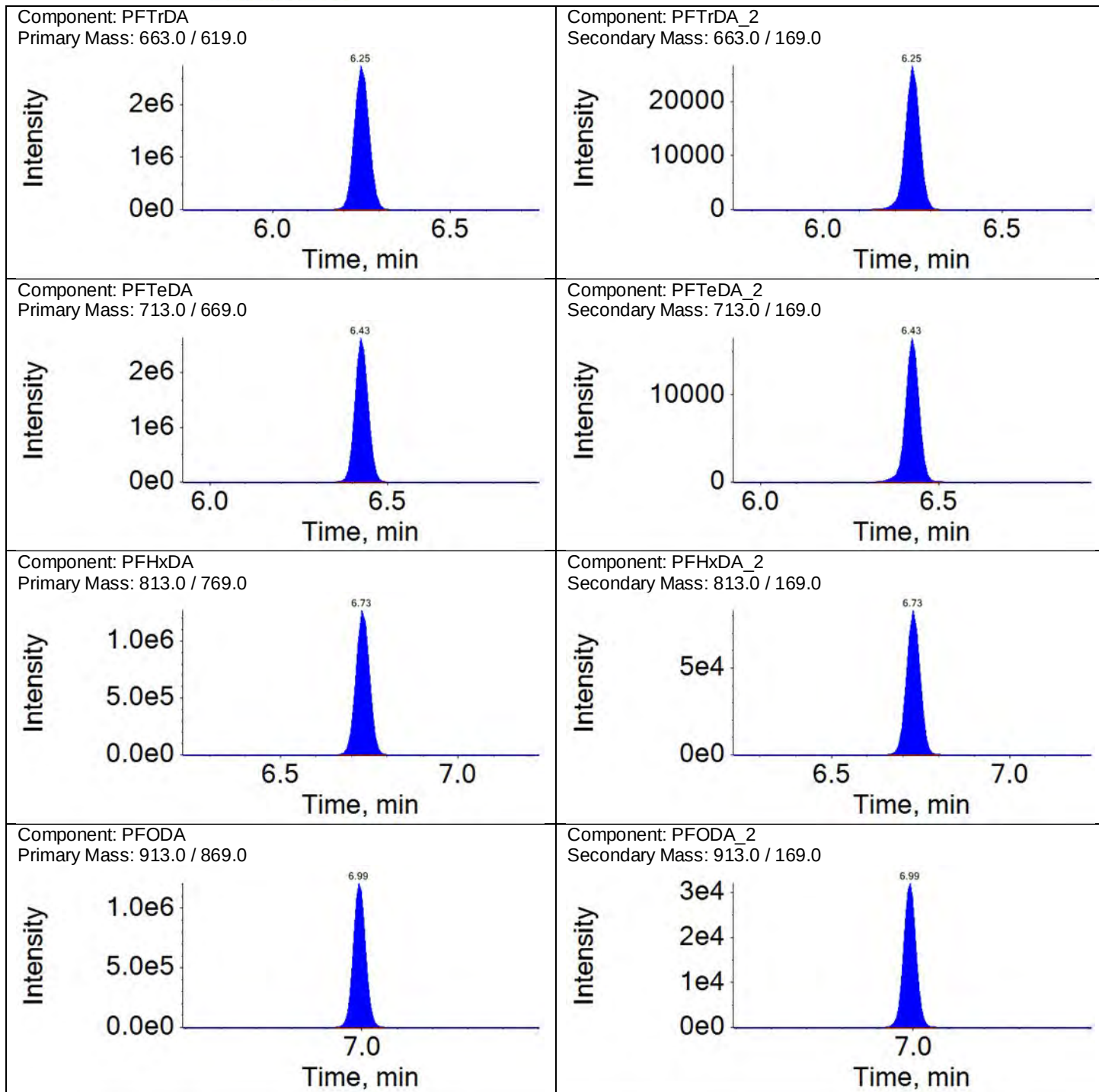












ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CAL7		Data File:	18NOV28DCAL-12.wiff
Sample ID:	CALBRN71833B		Acquis Date:	2018-11-28T14:36:16
Sample Type:	Standard		Instrument:	LM27631
Vial Position:	9		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV28DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	717475.7	887248.9	-19	50	
13C2-PFOA	5.0	482796.5	498501.6	-3	50	
13C4-PFOS	4.8	242045.2	283214.2	-15	50	
13C2-PFDA	5.0	405455.0	441790.6	-8	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	803704.8	13C3-PFBA	717475.7	1.120	5.000	4.998	100	70-130	
E13C5-PFPeA	781113.8	13C3-PFBA	717475.7	1.089	5.000	5.084	102	70-130	
E13C3-PFBS	352994.8	13C3-PFBA	717475.7	0.492	4.650	4.694	101	70-130	
E13C2-4:2-FTS	62236.8	13C2-PFOA	482796.5	0.129	4.670	4.442	95	70-130	
E13C5-PFHxA	625449.8	13C2-PFOA	482796.5	1.295	5.000	4.758	95	70-130	
E13C3-PFHxS	239327.4	13C2-PFOA	482796.5	0.496	4.730	3.885	82	70-130	
E13C4-PFHpA	544866.9	13C2-PFOA	482796.5	1.129	5.000	5.186	104	70-130	
E13C2-6:2-FTS	43678.3	13C2-PFOA	482796.5	0.090	4.750	3.787	80	70-130	
E13C8-PFOA	745616.3	13C2-PFOA	482796.5	1.544	5.000	4.251	85	70-130	
E13C8-PFOS	250004.2	13C4-PFOS	242045.2	1.033	4.780	4.663	98	70-130	
E13C9-PFNA	562206.9	13C4-PFOS	242045.2	2.323	5.000	5.102	102	70-130	
E13C6-PFDA	645932.5	13C2-PFDA	405455.0	1.593	5.000	4.492	90	70-130	
E13C2-8:2-FTS	41093.1	13C2-PFDA	405455.0	0.101	4.790	4.356	91	70-130	
E13C8-PFOSA	555500.5	13C2-PFDA	405455.0	1.370	5.000	5.027	101	70-130	
Ed3-NMeFOSAA	156760.9	13C2-PFDA	405455.0	0.387	5.000	4.909	98	70-130	
E13C7-PFUnDA	416723.9	13C2-PFDA	405455.0	1.028	5.000	4.344	87	70-130	
Ed5-NEtFOSAA	102891.6	13C2-PFDA	405455.0	0.254	5.000	4.521	90	70-130	
E13C2-PFDoDA	852235.6	13C2-PFDA	405455.0	2.102	5.000	4.416	88	70-130	
Ed7-NMePFOSAE	250467.6	13C2-PFDA	405455.0	0.618	5.000	5.339	107	70-130	
Ed3-NMePFOSA	79780.2	13C2-PFDA	405455.0	0.197	5.000	5.325	107	70-130	
Ed9-NEtPFOSAE	216042.0	13C2-PFDA	405455.0	0.533	5.000	5.402	108	70-130	
Ed5-NEtPFOSA	59209.1	13C2-PFDA	405455.0	0.146	5.000	5.074	101	70-130	
E13C2-PFTeDA	717297.7	13C2-PFDA	405455.0	1.769	5.000	4.895	98	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CAL7

Instrument Name: LM27631

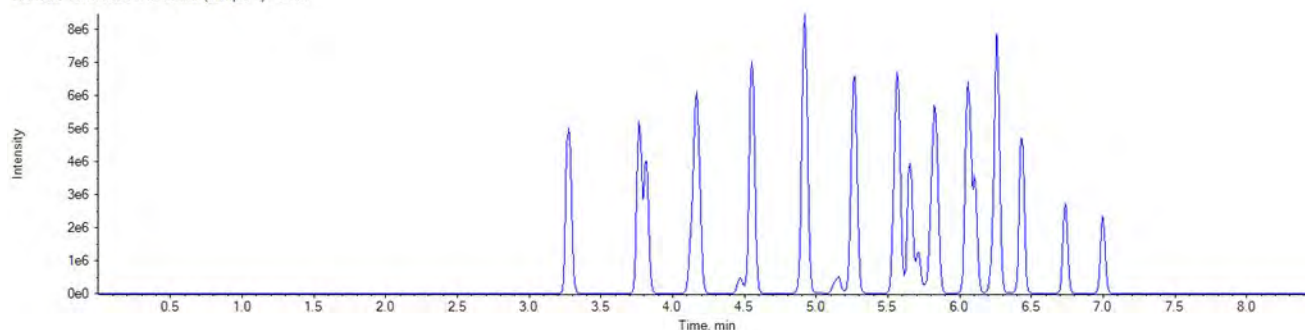
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	12734942.7		A	13C4-PFBA	3.27	803704.8	15.845	86.862
PFPeA	3.77	1.000	12611040.3		A	13C5-PFPeA	3.77	781113.8	16.145	79.219
PFBS	3.82	1.000	6468971.4		A	13C3-PFBS	3.82	352994.8	18.326	88.956
4:2-FTS	4.13	1.000	2126148.2		A	13C2-4:2-FTS	4.13	62236.8	34.162	91.451
PFHxA	4.16	1.000	12530843.0		A	13C5-PFHxA	4.16	625449.8	20.035	80.421
PFPeS	4.18	1.100	3295381.6		A	13C3-PFBS	3.82	352994.8	9.335	94.429
PFHpA	4.55	1.000	12619701.7		A	13C4-PFHpA	4.55	544866.9	23.161	71.480
PFHxS	4.55	1.000	4797026.8		M	13C3-PFHxS	4.56	239327.4	20.044	93.850
6:2-FTS	4.91	1.000	1464447.0		A	13C2-6:2-FTS	4.91	43678.3	33.528	87.481
PFHpS	4.91	1.080	4562639.6		A	13C3-PFHxS	4.56	239327.4	19.064	95.147
PFOA	4.92	1.000	12900182.7		A	13C8-PFOA	4.92	745616.3	17.301	89.401
PFOS	5.25	1.000	5620329.0		M	13C8-PFOS	5.25	250004.2	22.481	94.301
PFNA	5.27	1.000	12939629.1		A	13C9-PFNA	5.27	562206.9	23.016	88.201
PFNS	5.54	1.060	3804945.2		A	13C8-PFOS	5.25	250004.2	15.220	96.096
PFDA	5.57	1.000	11371047.0		A	13C6-PFDA	5.57	645932.5	17.604	99.643
8:2-FTS	5.57	1.000	1620286.0		A	13C2-8:2-FTS	5.57	41093.1	39.430	74.355
PFOSA	5.65	1.000	9792009.5		A	13C8-PFOSA	5.65	555500.5	17.627	89.294
NMeFOSAA	5.71	1.000	2414874.8		M	d3-NMeFOSAA	5.71	156760.9	15.405	98.267
PFDS	5.80	1.110	3061543.5		A	13C8-PFOS	5.25	250004.2	12.246	97.096
PfUnDA	5.83	1.000	11254483.8		A	13C7-PfUnDA	5.83	416723.9	27.007	96.536
NEtFOSAA	5.85	1.000	2127663.4		A	d5-NEtFOSAA	5.84	102891.6	20.679	100.712
PFDODA	6.06	1.000	14195839.1		A	13C2-PFDODA	6.06	852235.6	16.657	91.243
10:2-FTS	6.08	1.090	1718827.3		A	13C2-8:2-FTS	5.57	41093.1	41.828	92.235
NMePFOSAE	6.11	1.000	5772837.2		A	d7-NMePFOSAE	6.10	250467.6	23.048	96.993
NMePFOSA	6.11	1.000	1500056.3		A	d3-NMePFOSA	6.11	79780.2	18.802	99.677
PFDOS	6.22	1.190	1735049.5		A	13C8-PFOS	5.25	250004.2	6.940	99.670
NEtPFOSAE	6.26	1.000	5826370.7		A	d9-NEtPFOSAE	6.25	216042.0	26.969	97.008
NEtPFOSA	6.27	1.000	1290814.8		A	d5-NEtPFOSA	6.27	59209.1	21.801	97.709
PFTDA	6.26	1.030	12329126.1		A	13C2-PFDODA	6.06	852235.6	14.467	87.197
PFTeDA	6.43	1.000	11258874.1		A	13C2-PFTeDA	6.43	717297.7	15.696	88.936
PFHxDA	6.73	1.050	6113985.2		A	13C2-PFTeDA	6.43	717297.7	8.524	97.440
PFODA	7.00	1.090	5309889.9		A	13C2-PFTeDA	6.43	717297.7	7.403	98.616

Total Ion Chromatogram

TIC from 18NOV28DCAL-12.wiff (sample 1) - CAL7

APPROVED
By MCD at 5:00 pm, 11/28/18

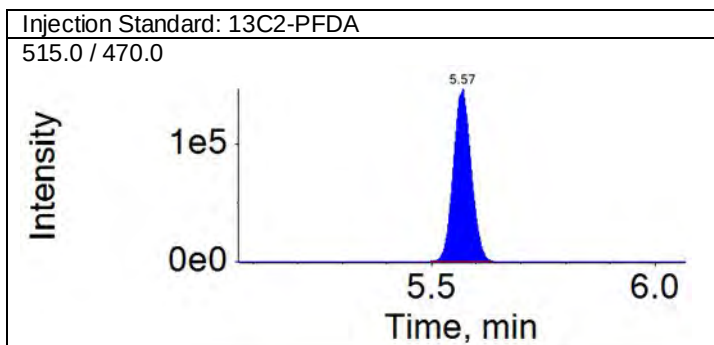
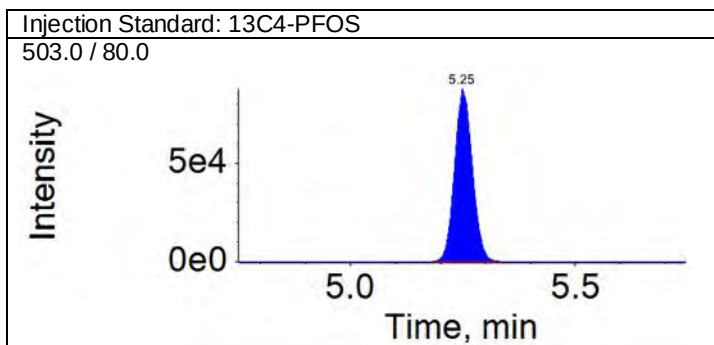
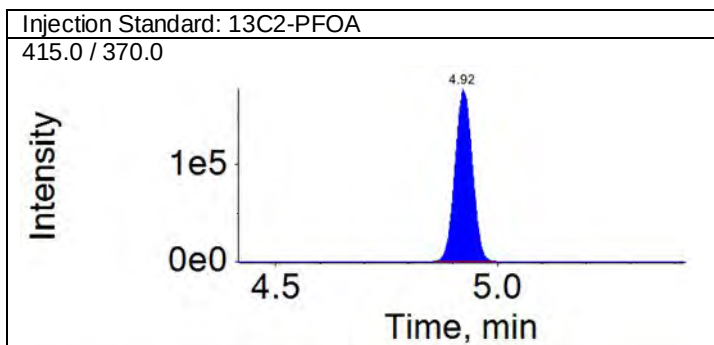
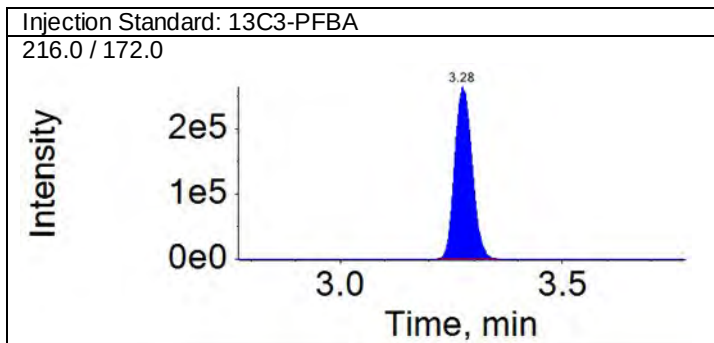
BSI14 Page 1516 of 2132

REVIEWED
By HMK at 12:22 pm, 11/29/18

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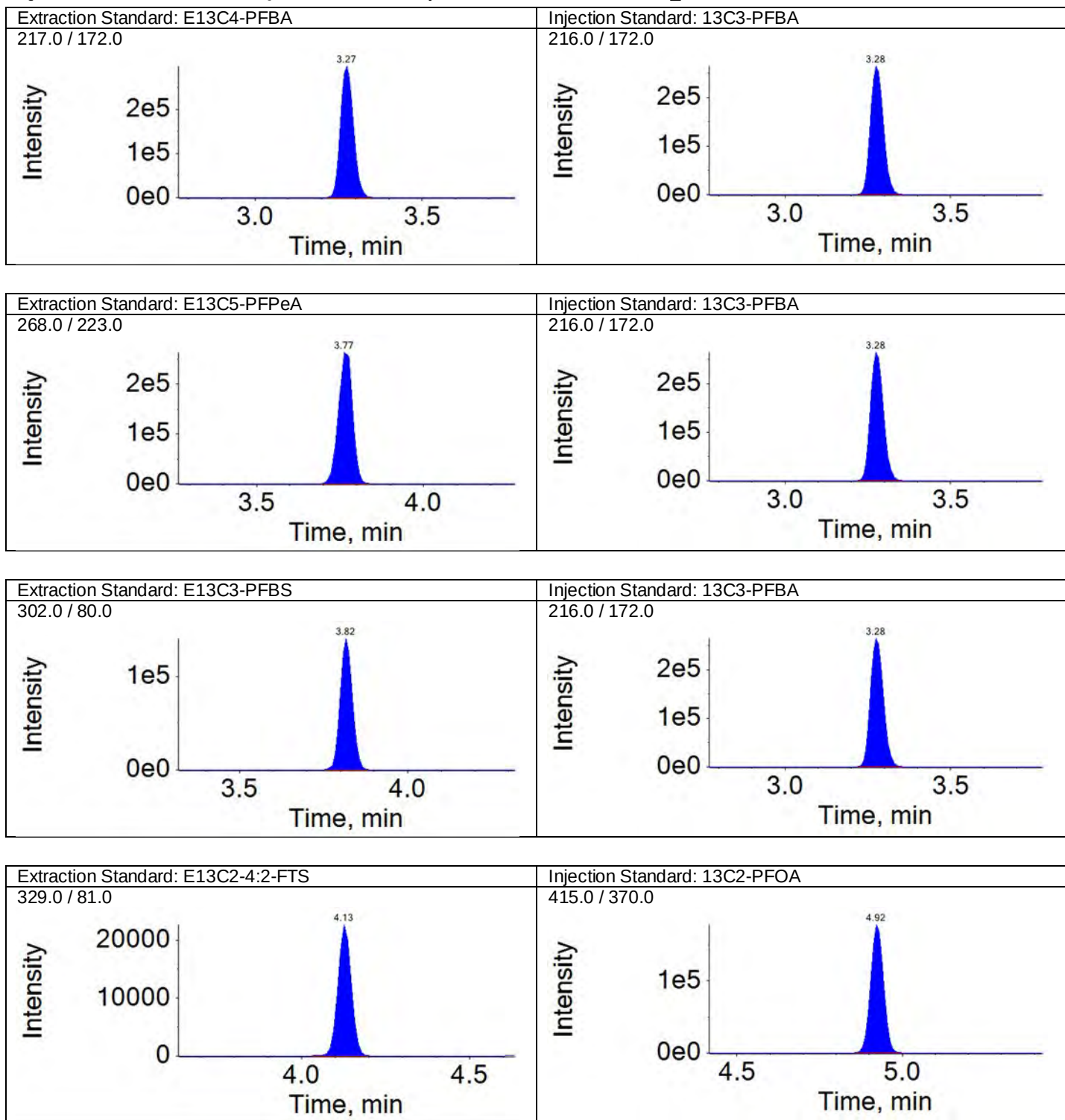
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Acquisition Method: 18AUG13_3uL.dam



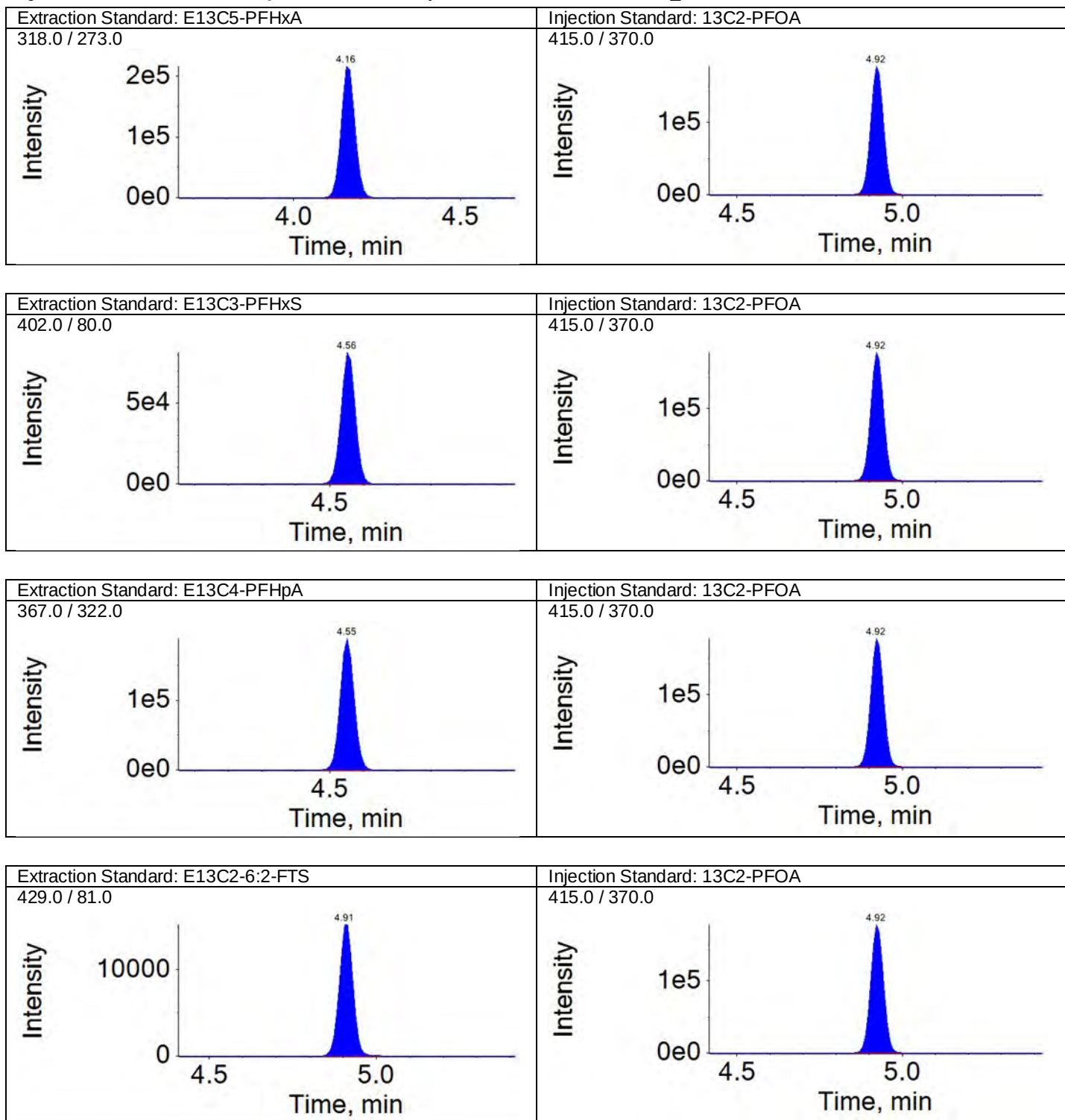
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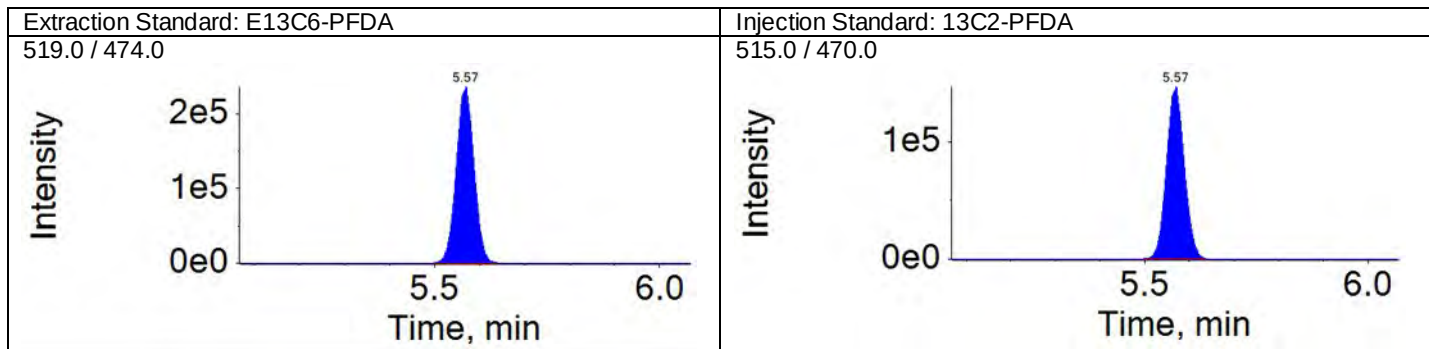
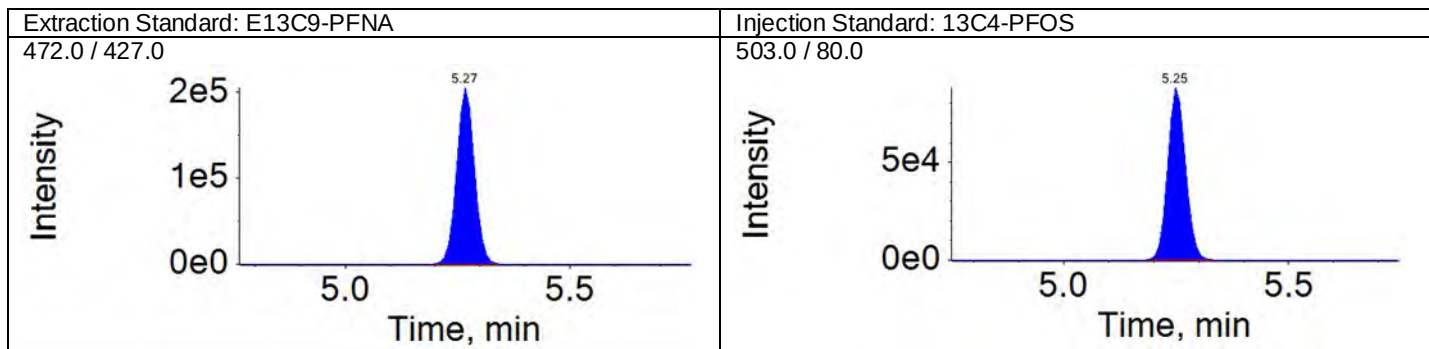
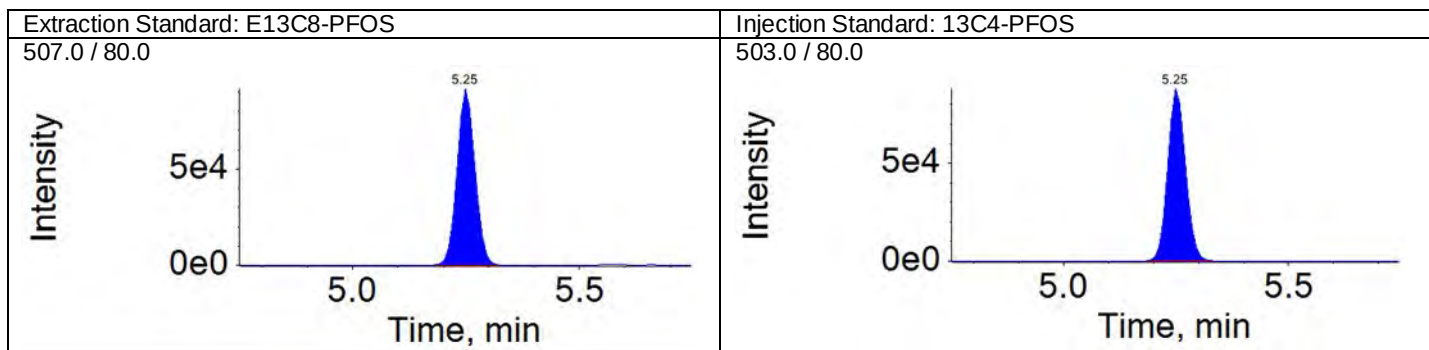
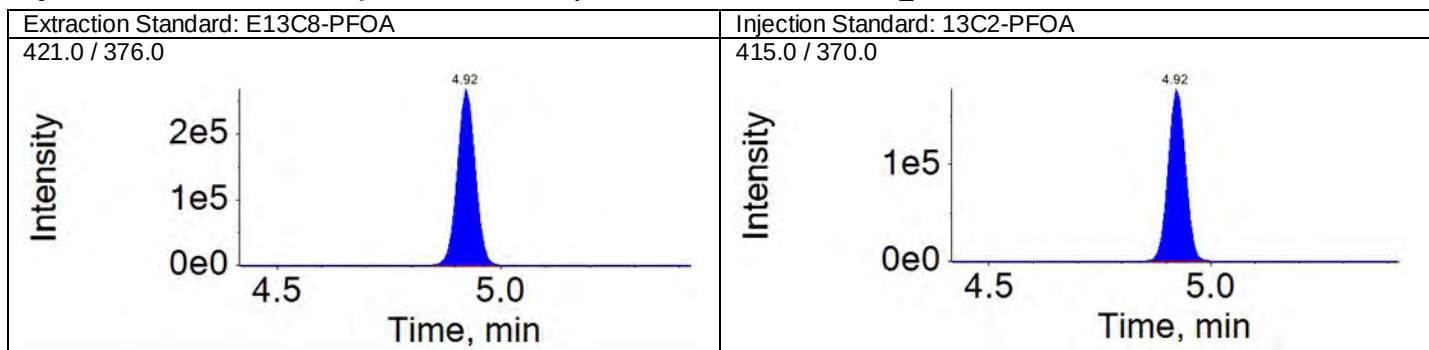
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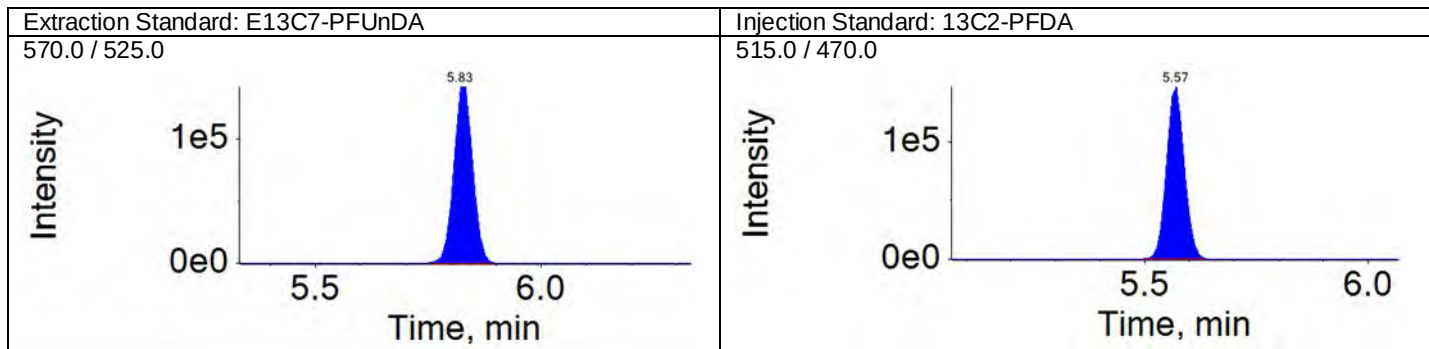
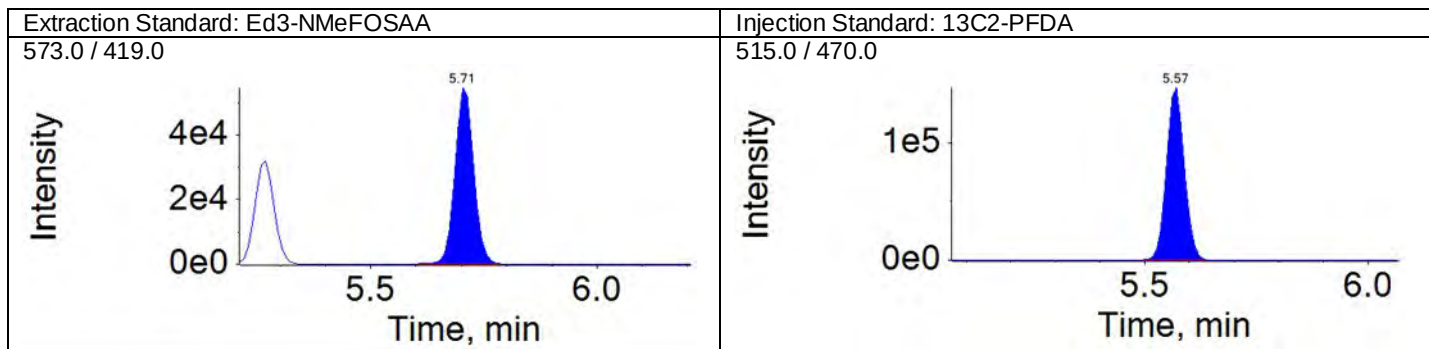
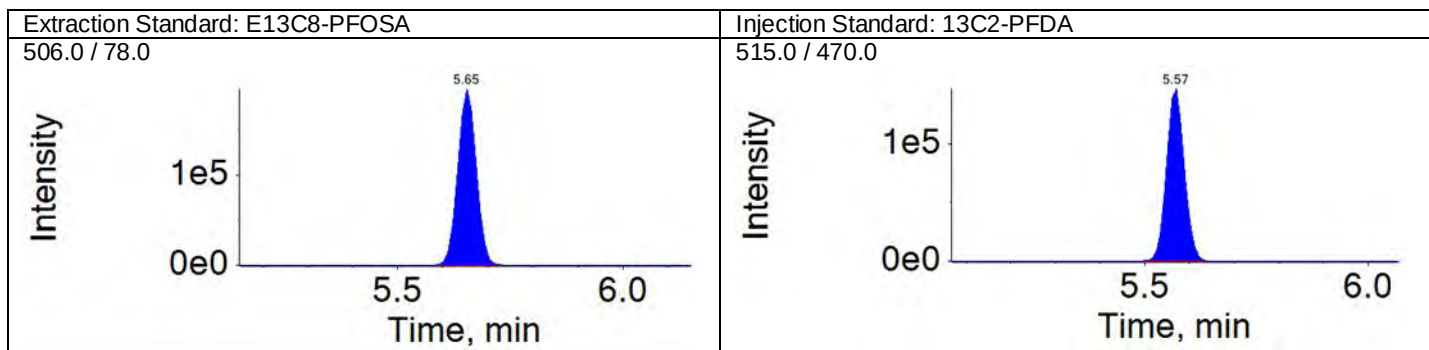
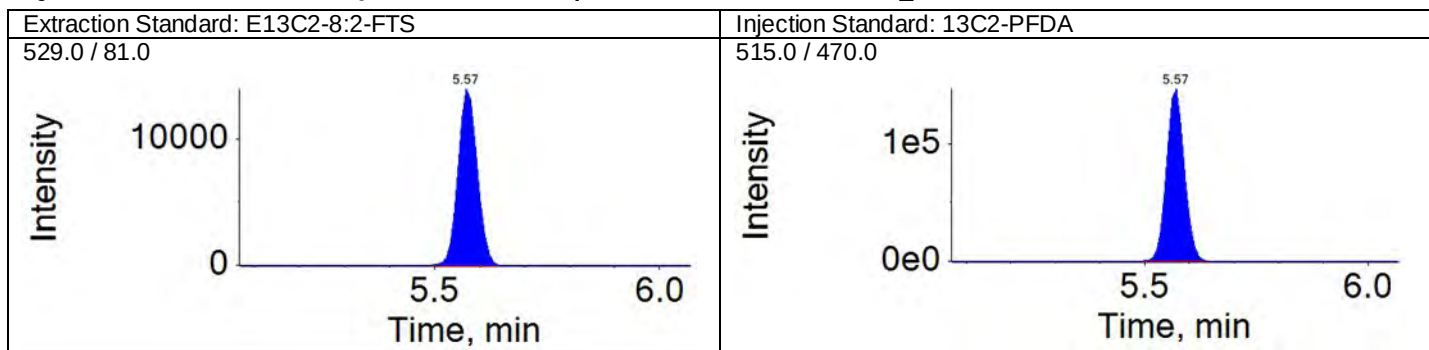
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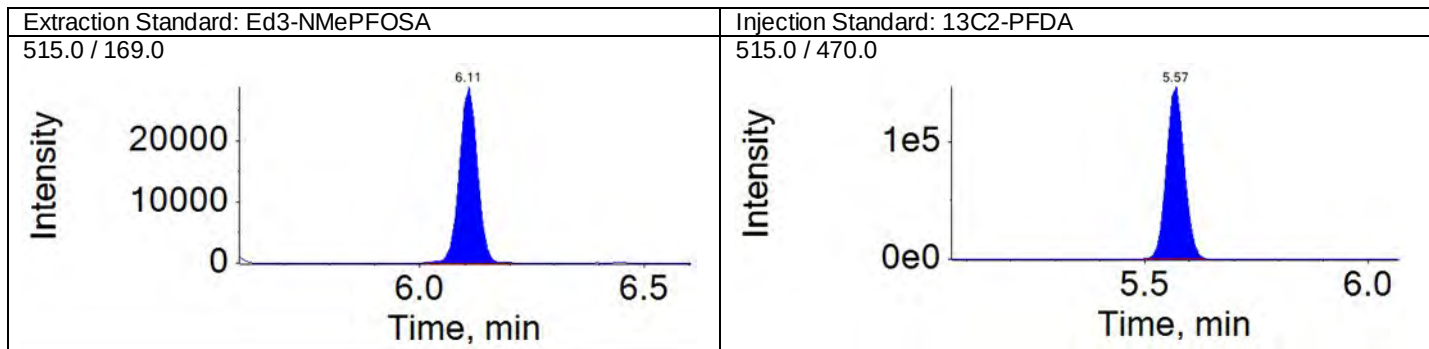
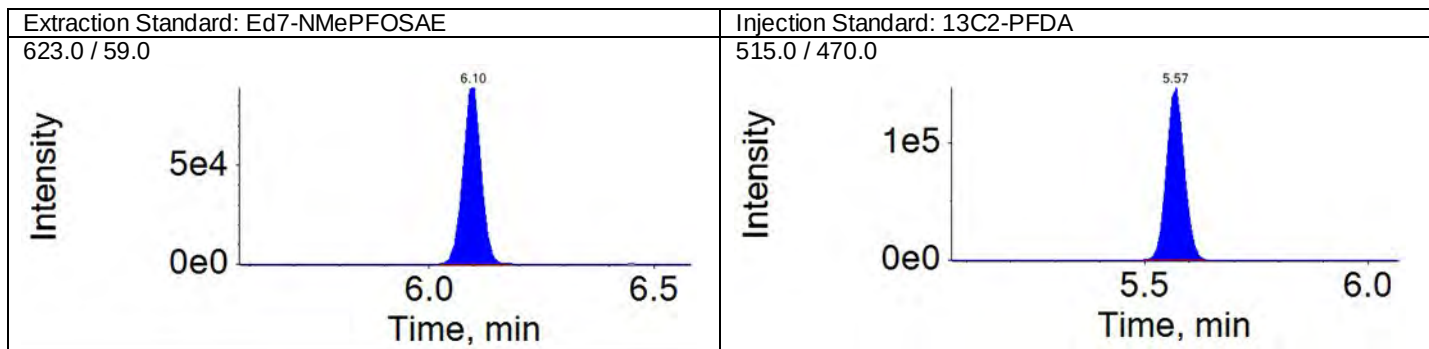
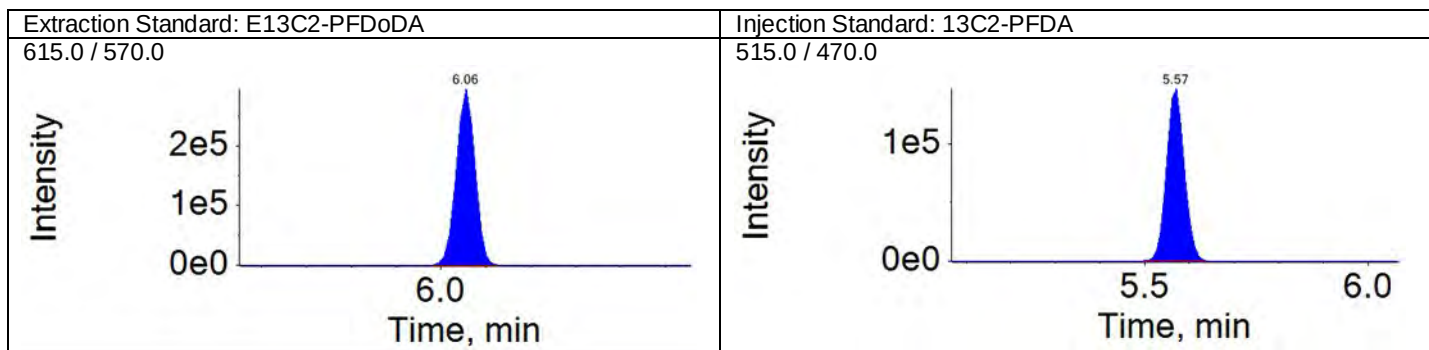
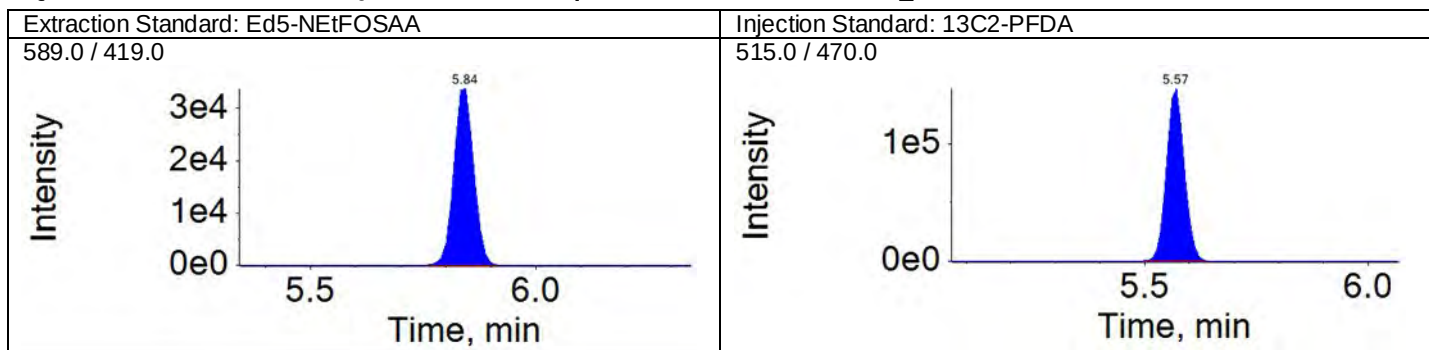
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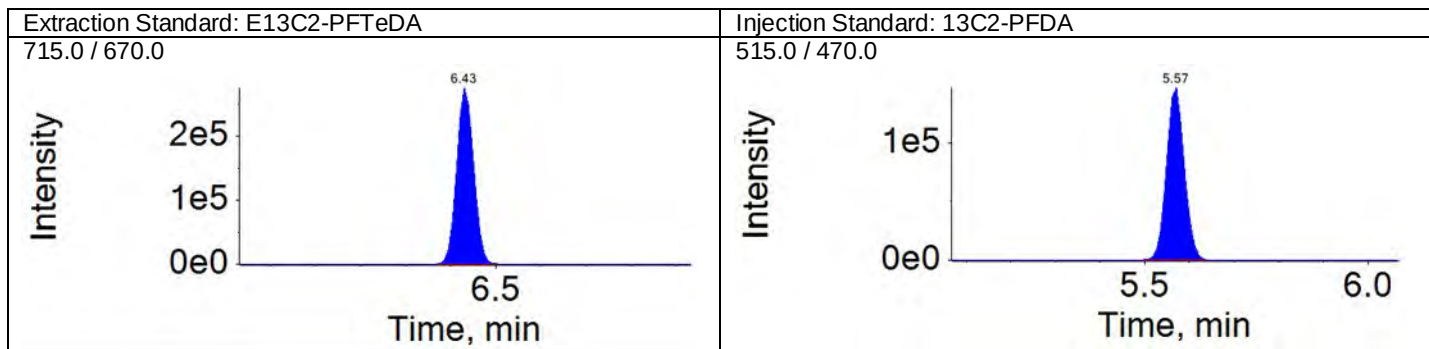
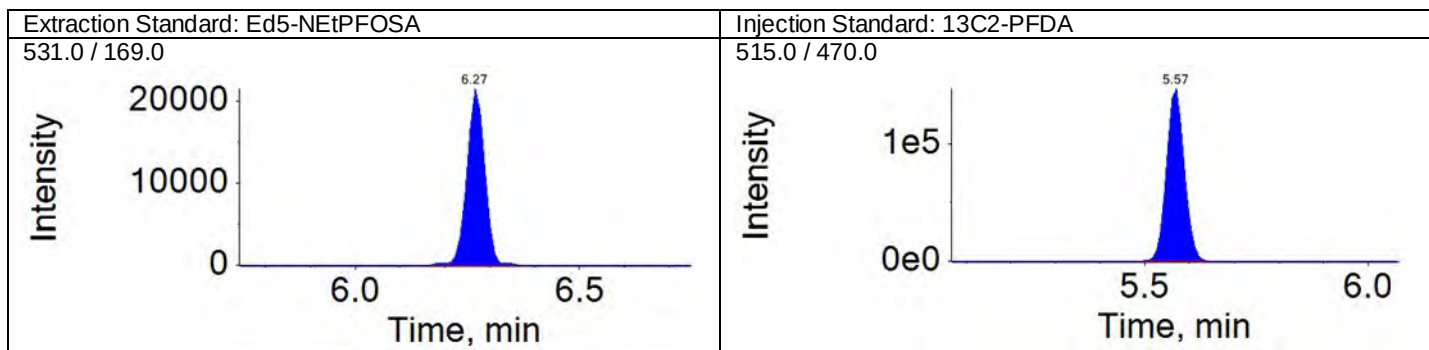
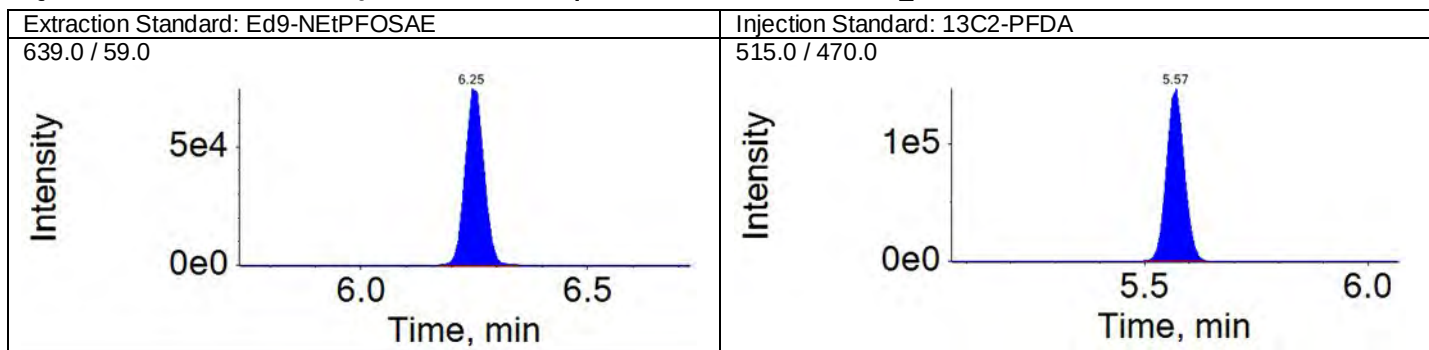
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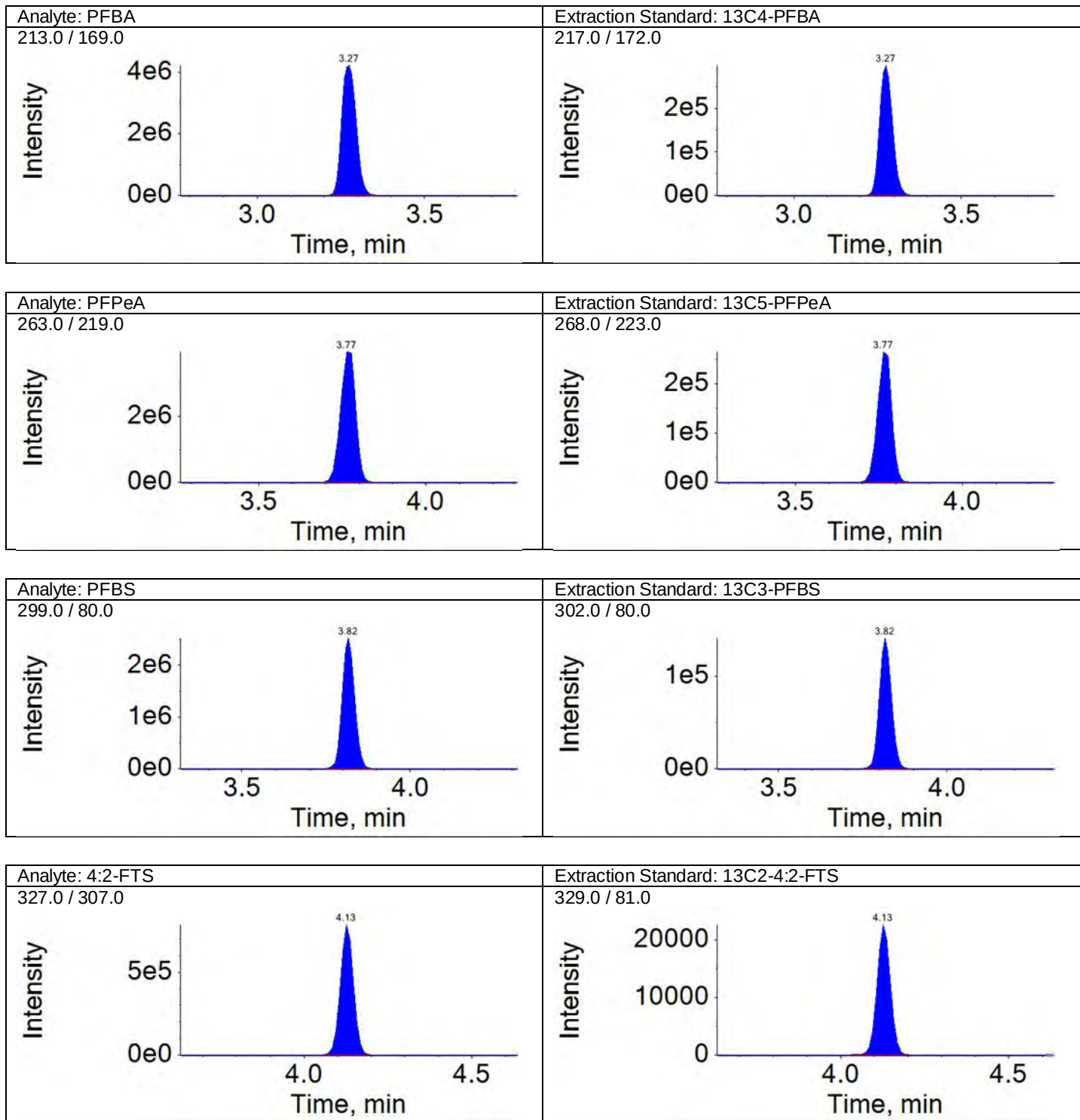
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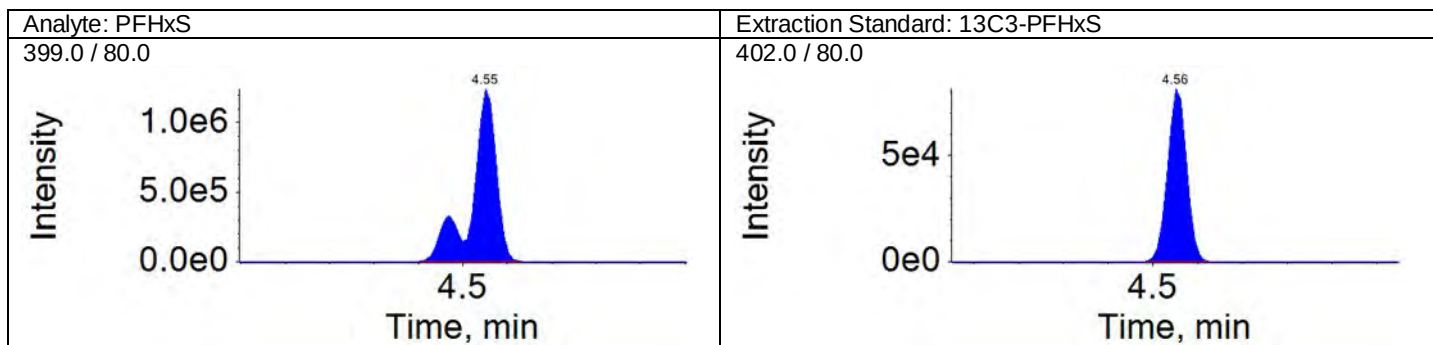
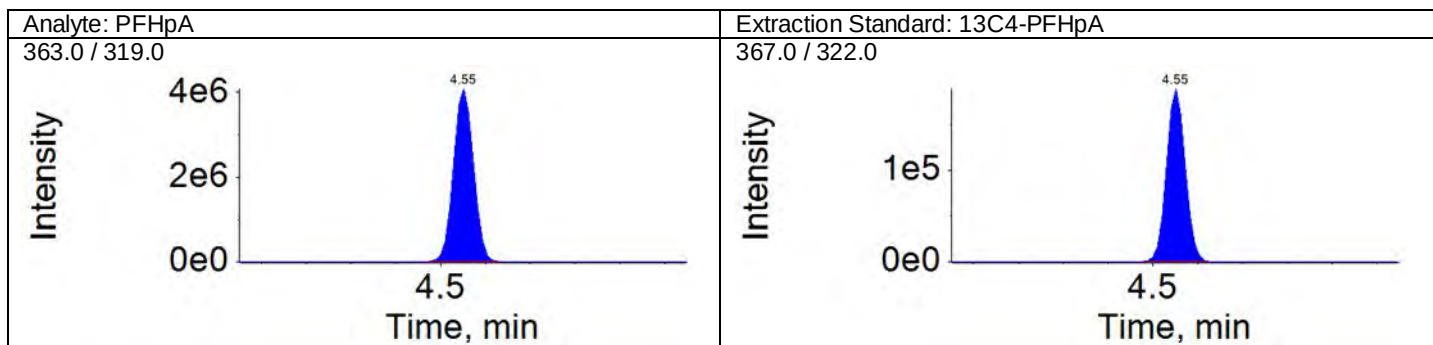
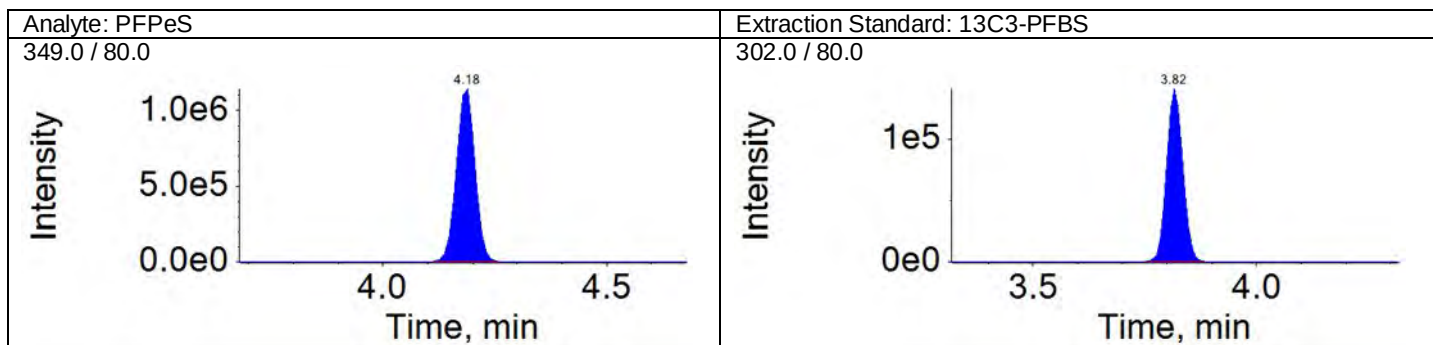
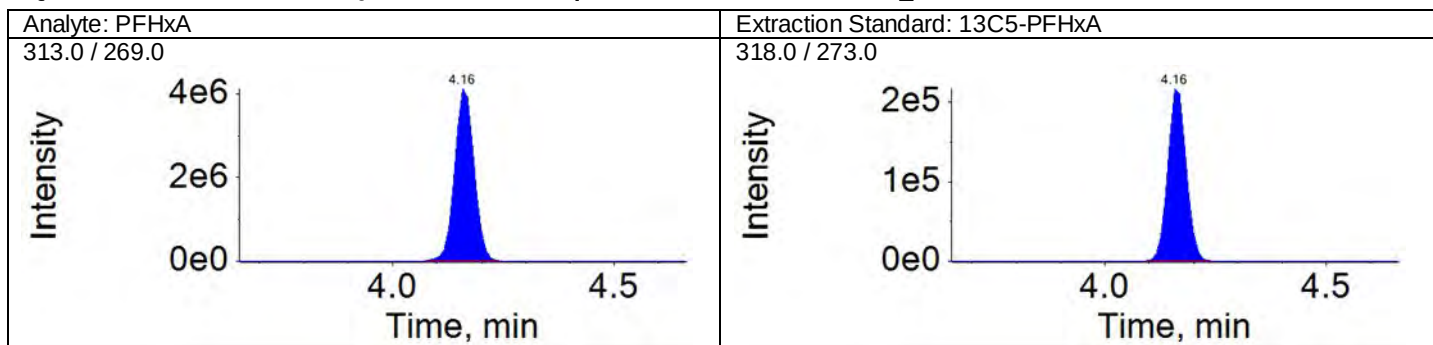
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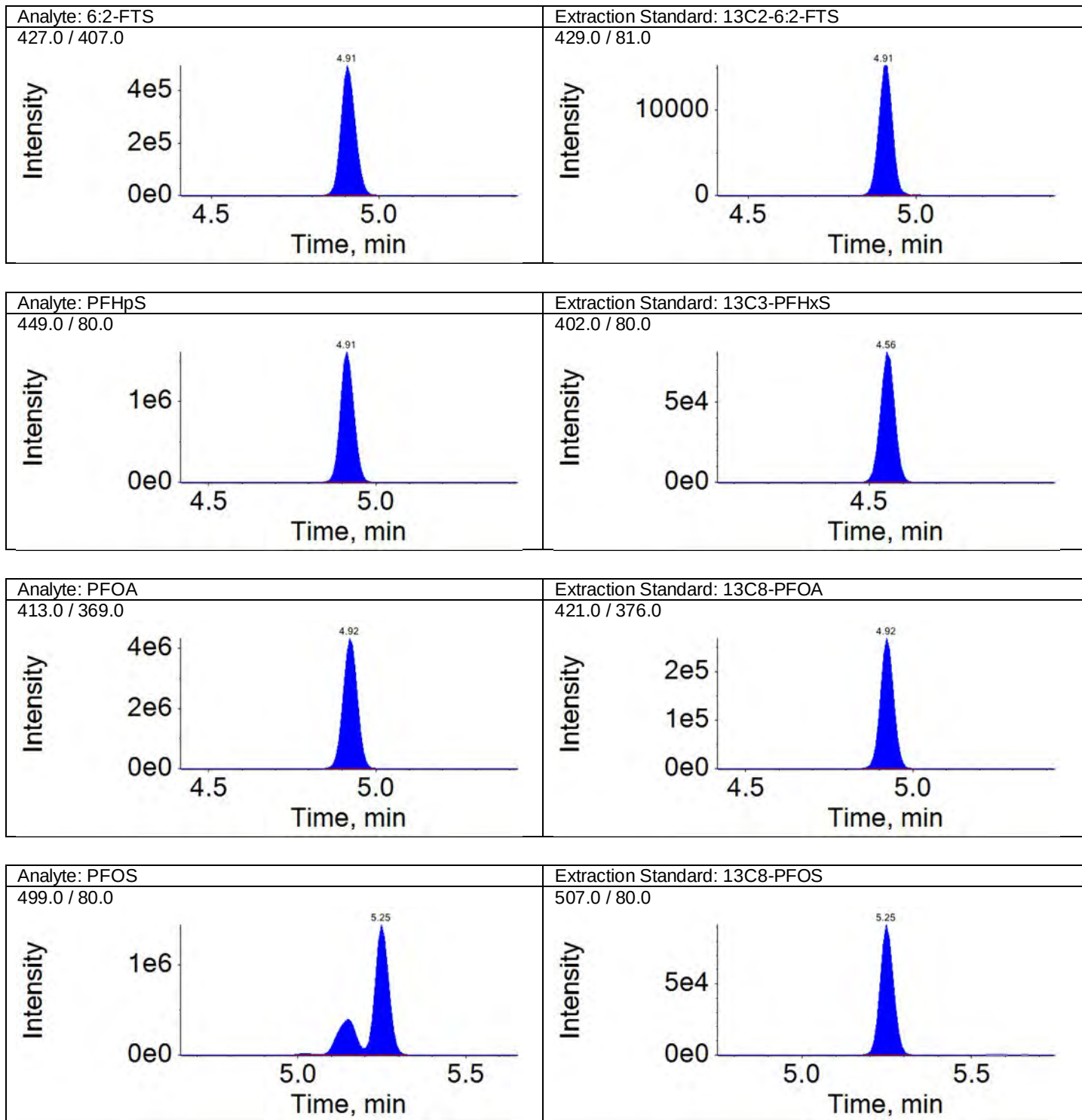
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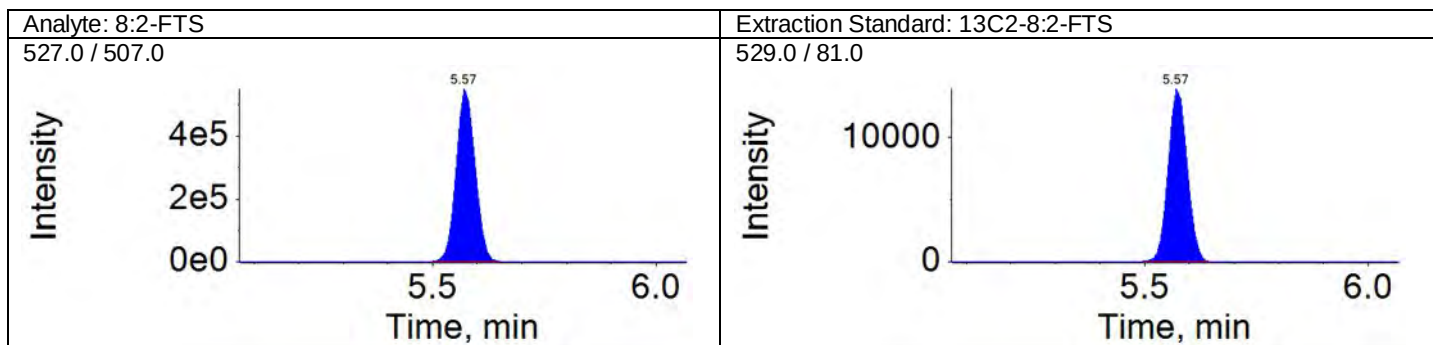
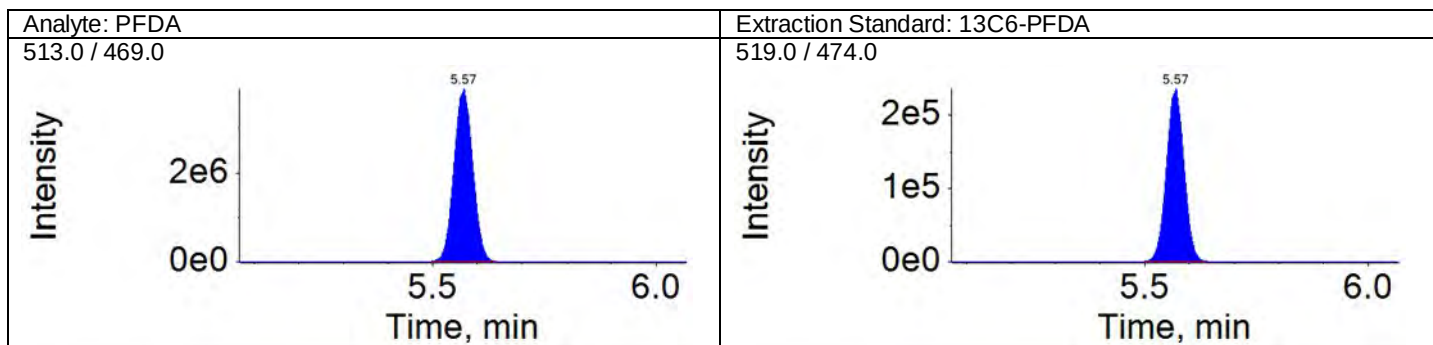
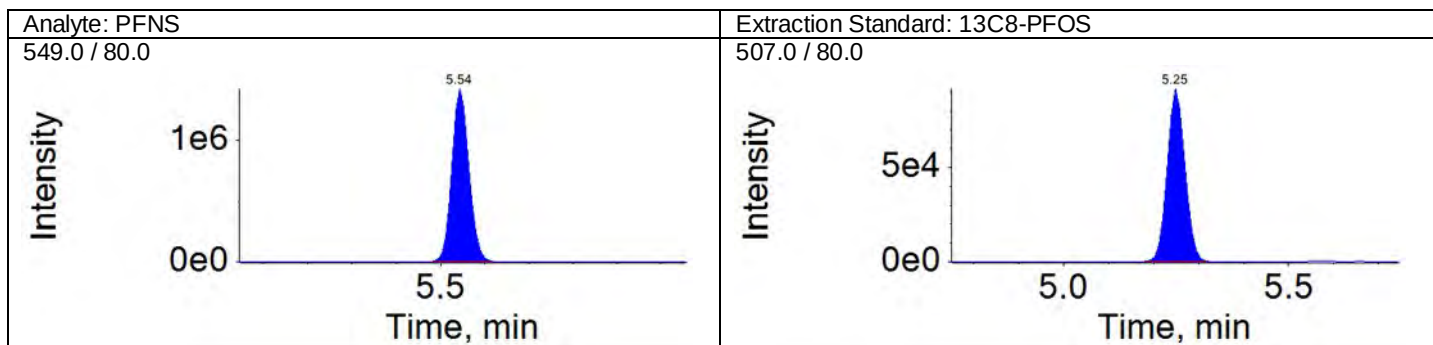
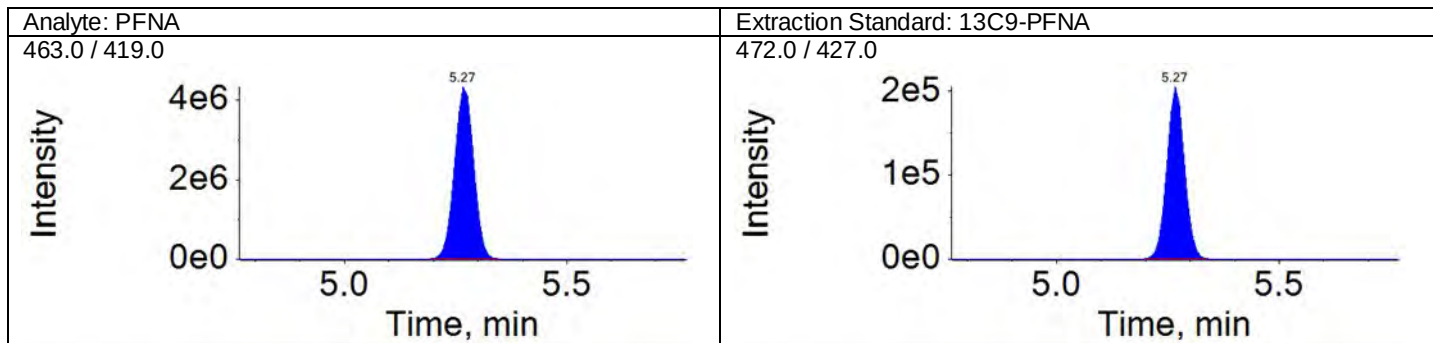
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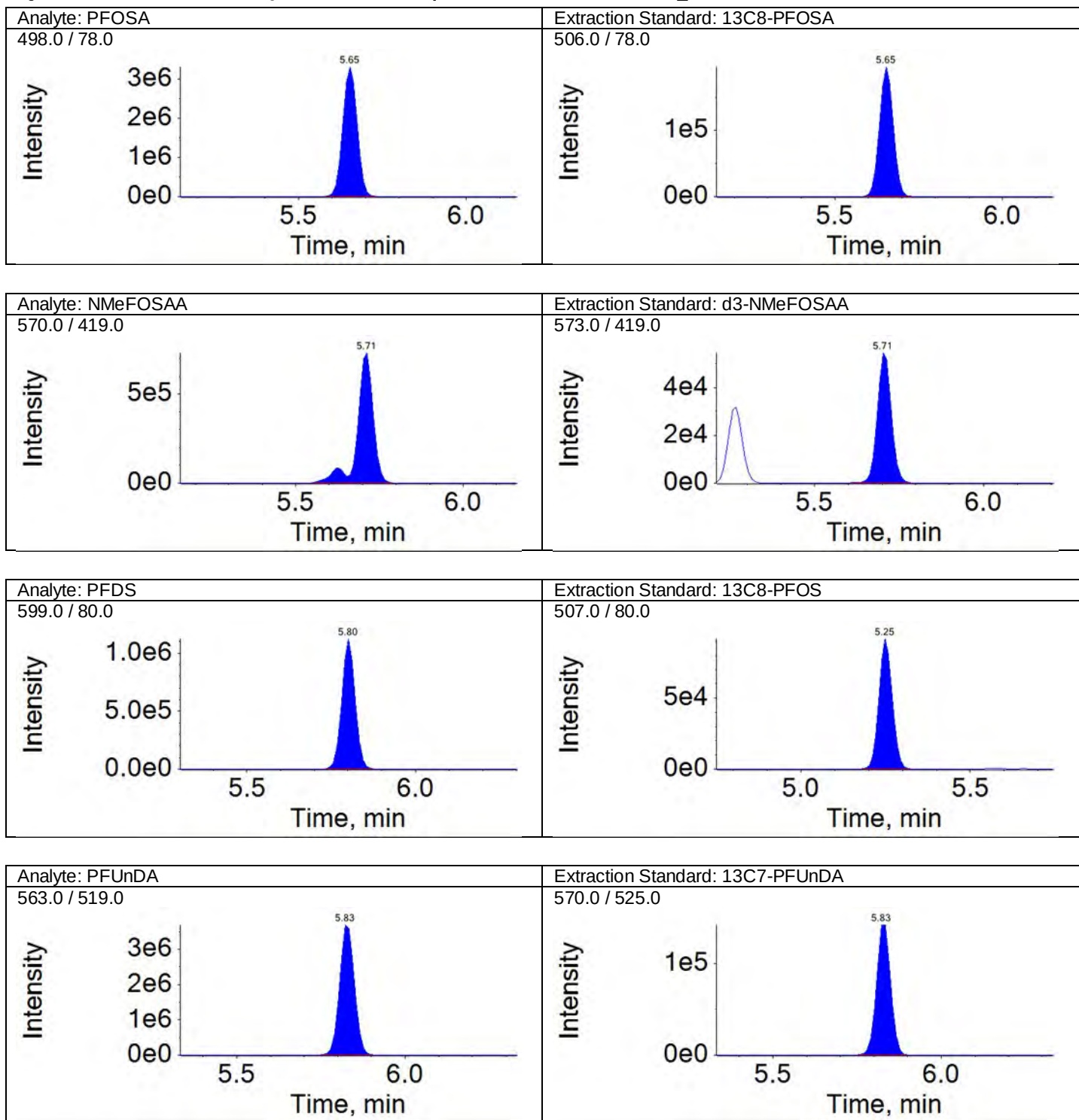
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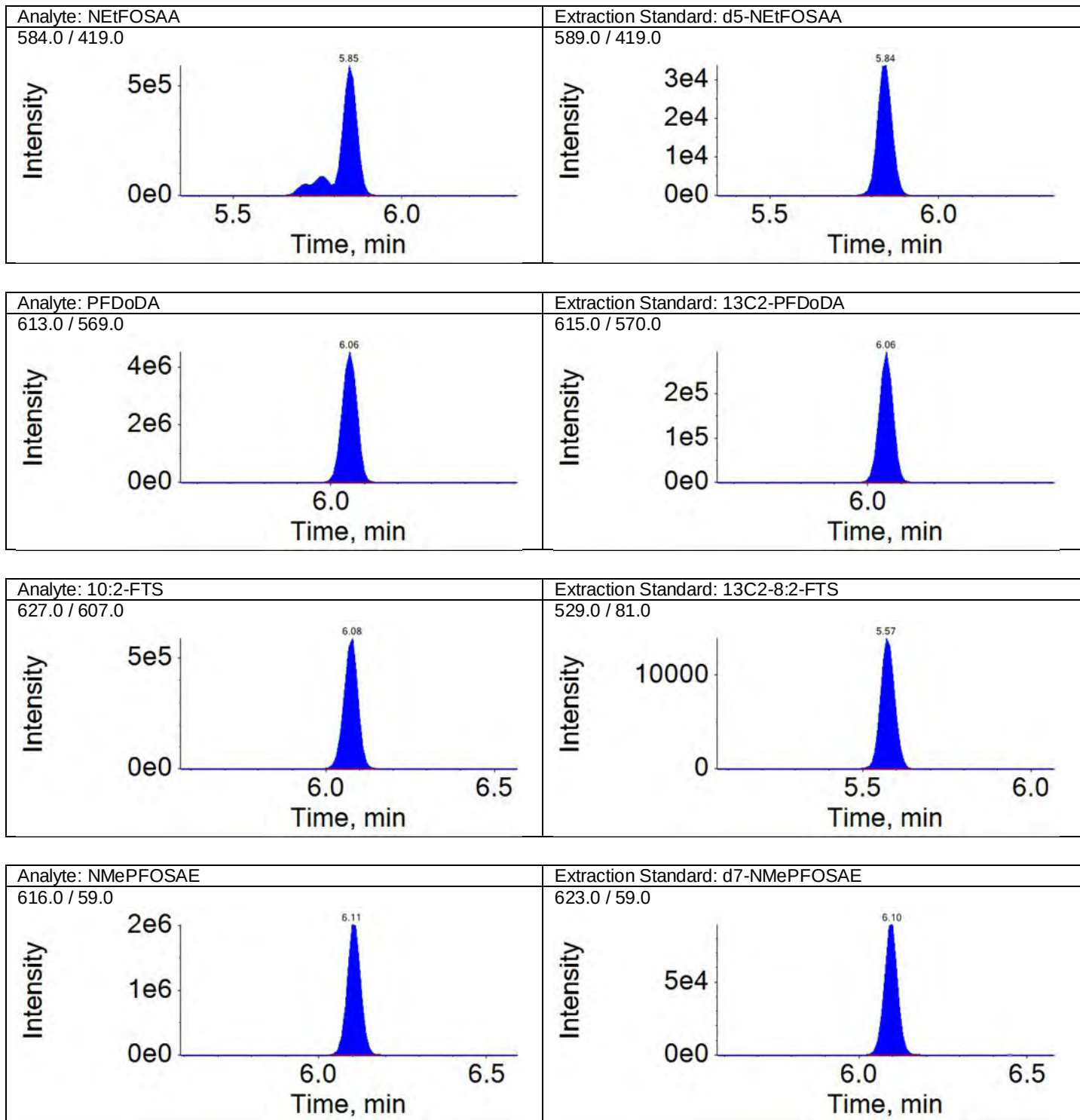
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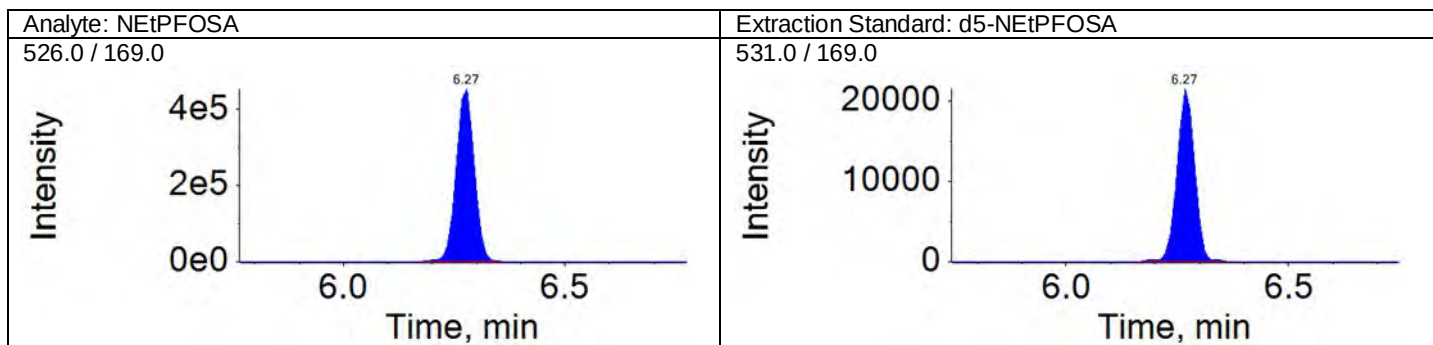
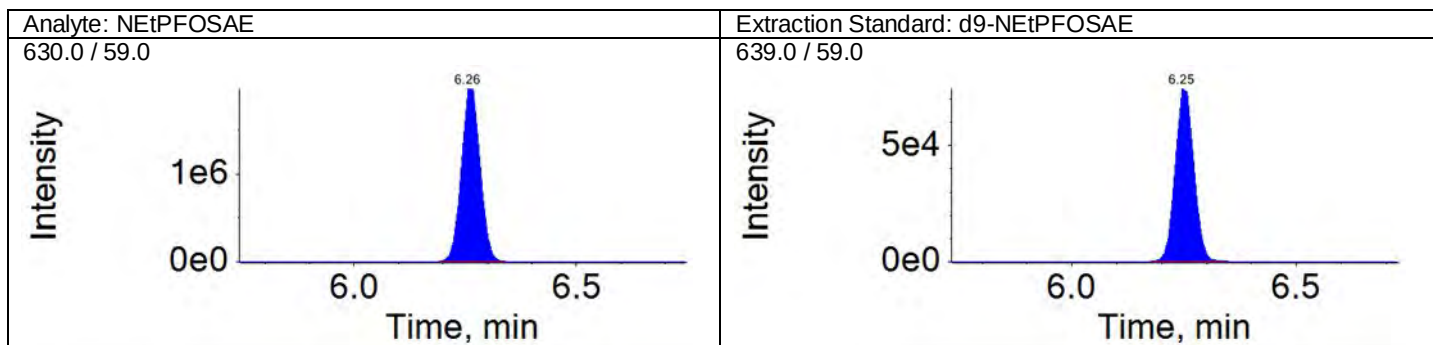
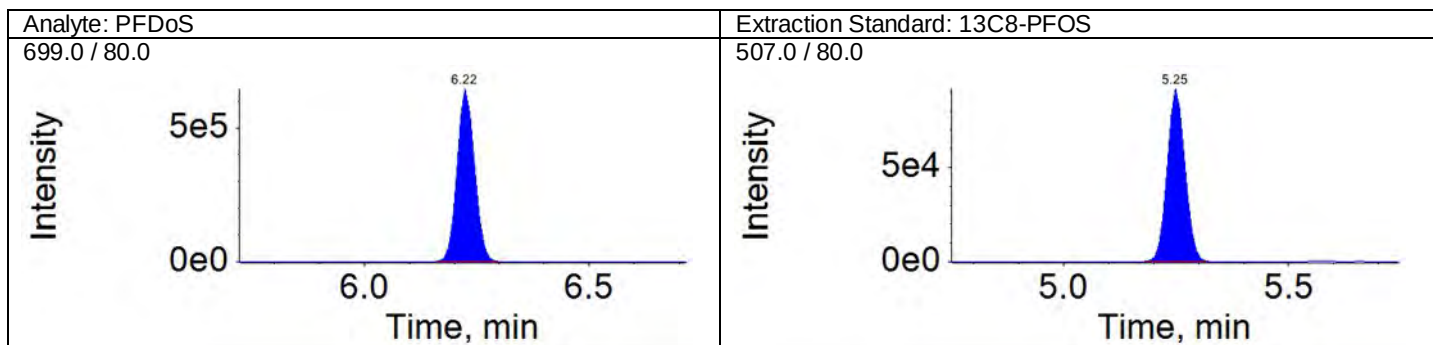
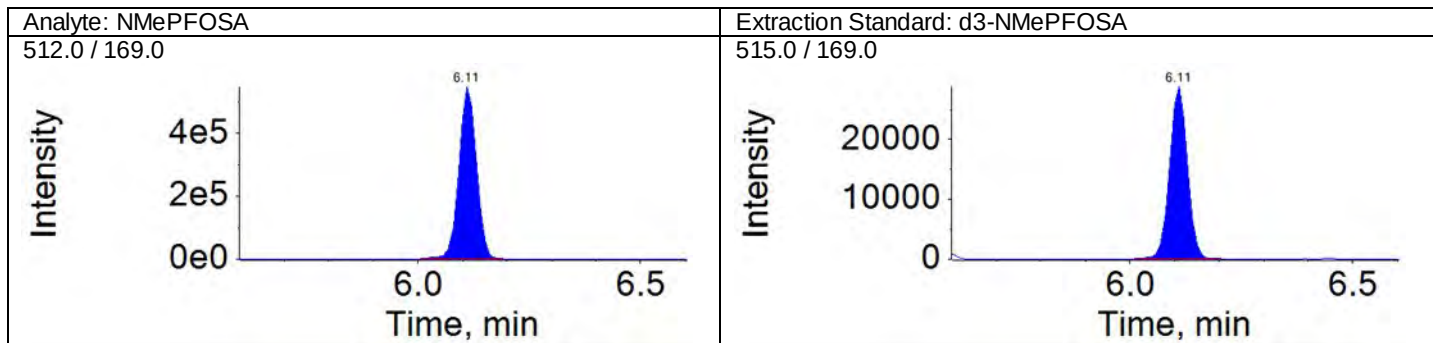
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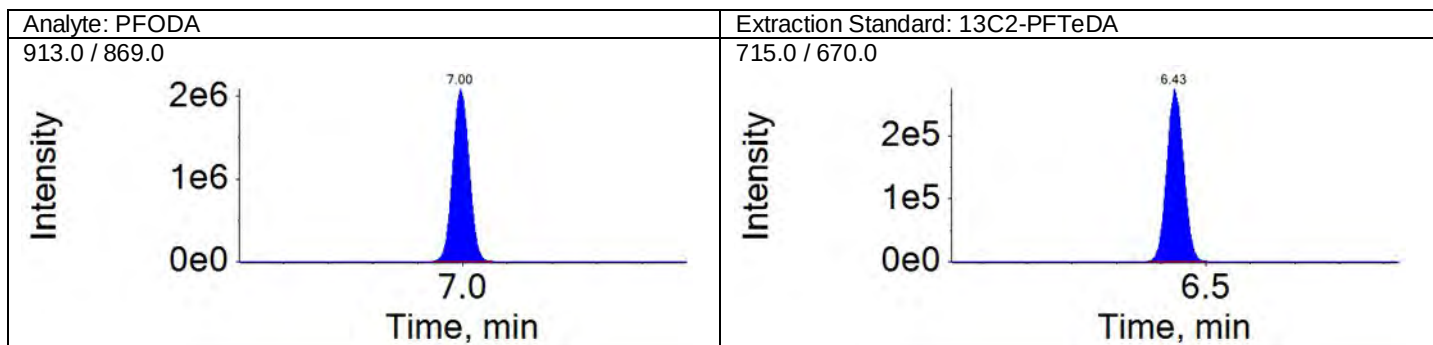
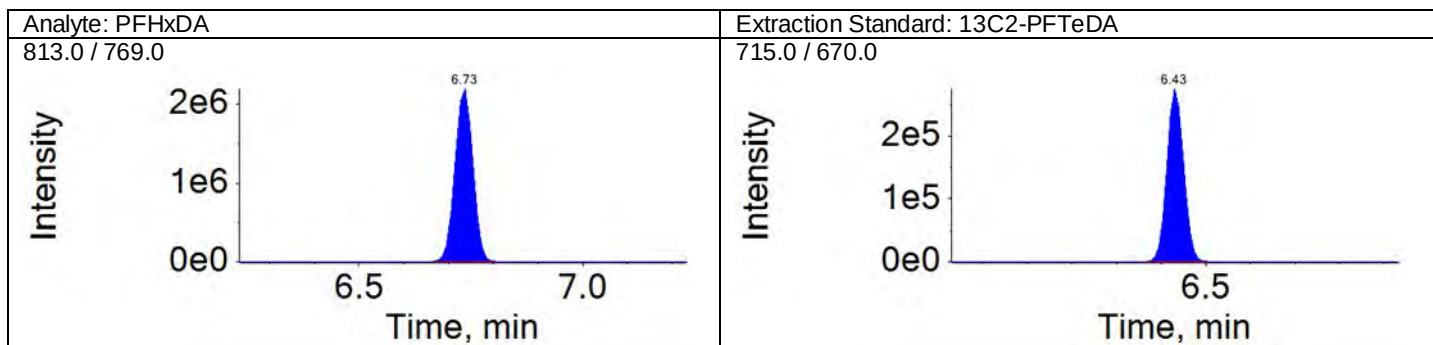
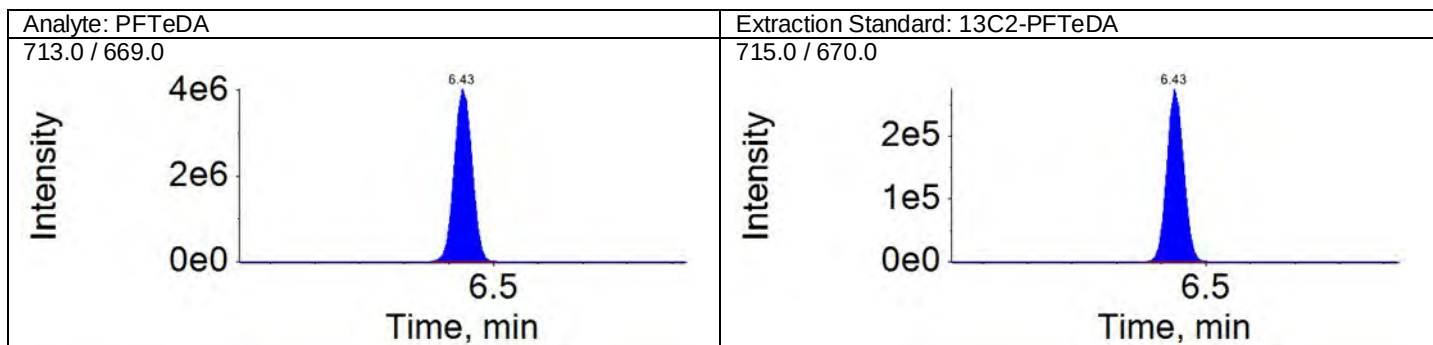
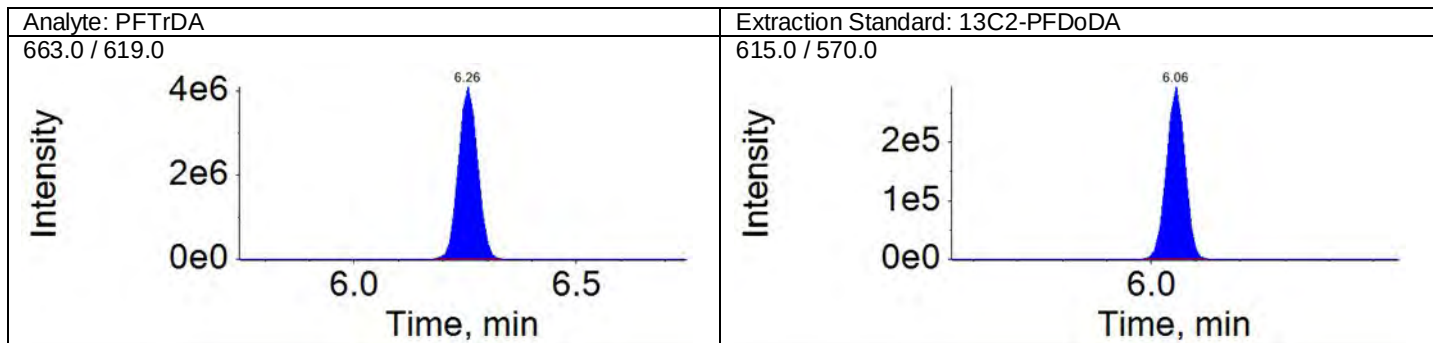
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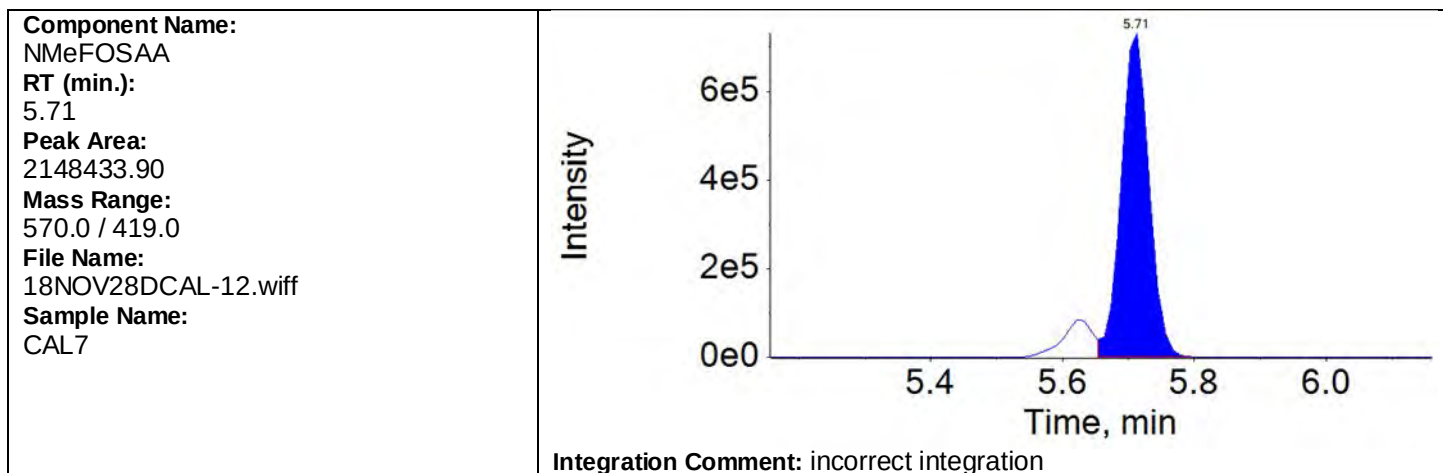
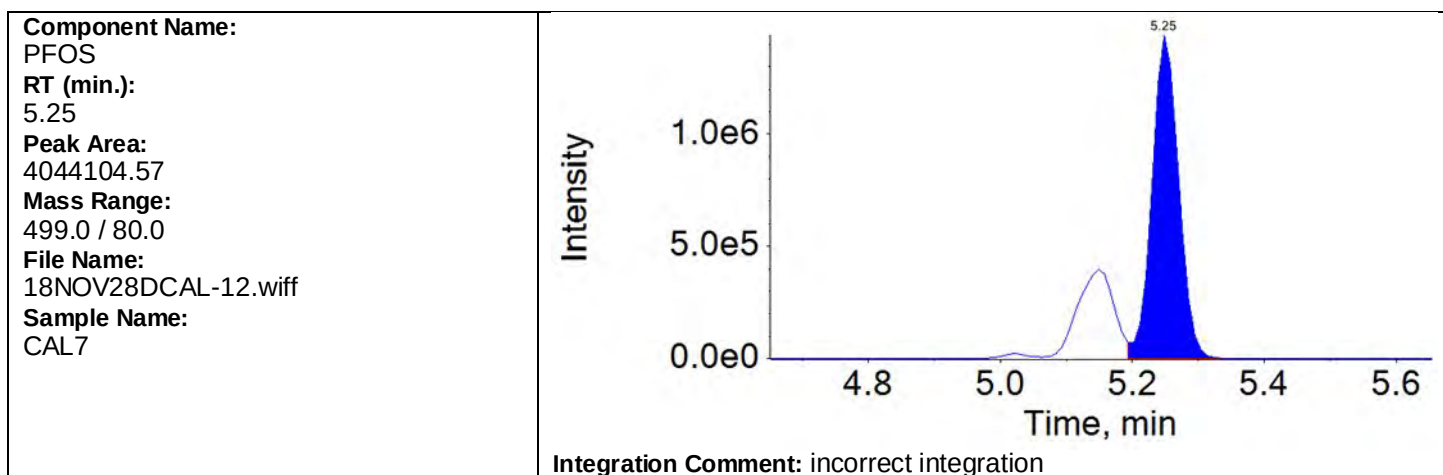
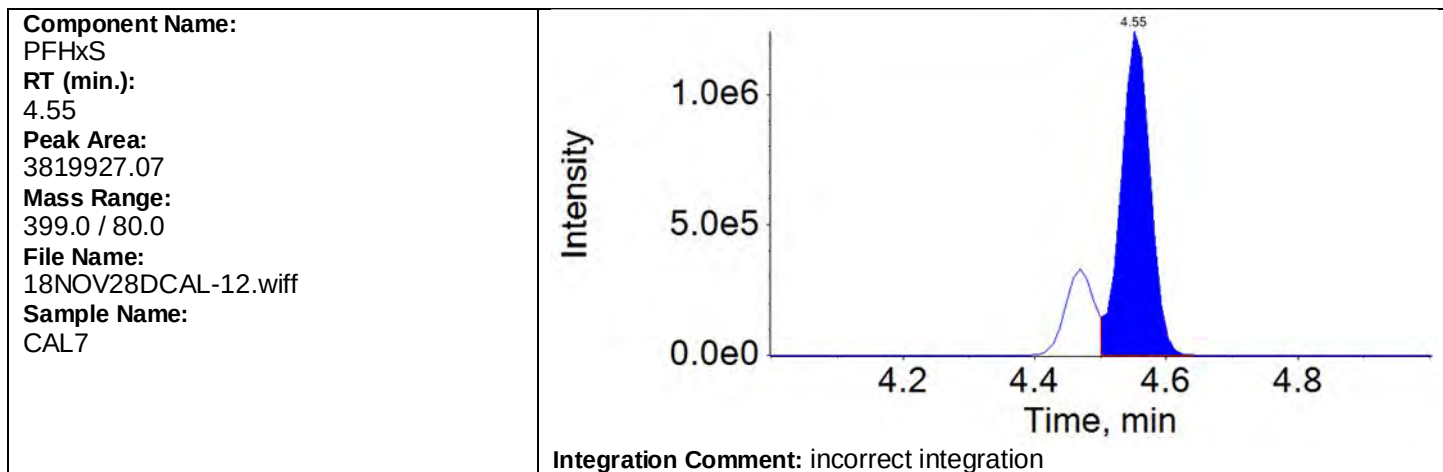
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Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

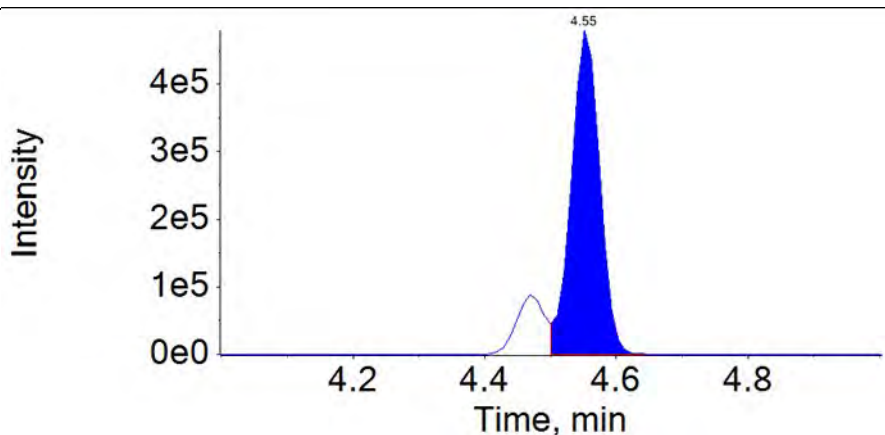
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



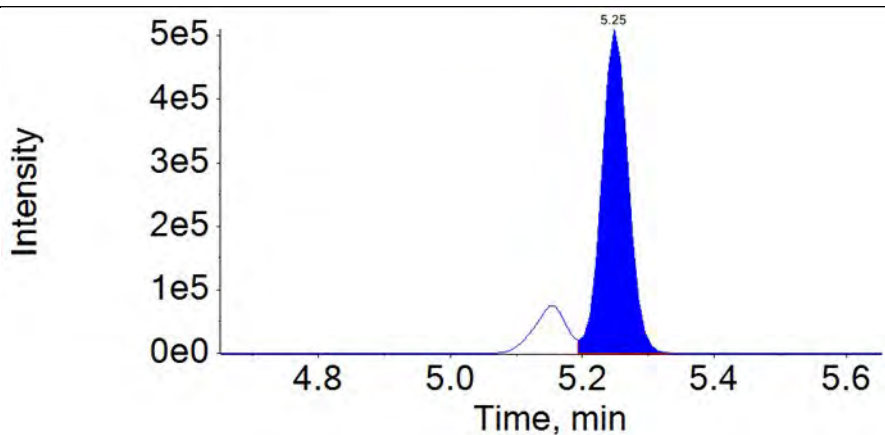
Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

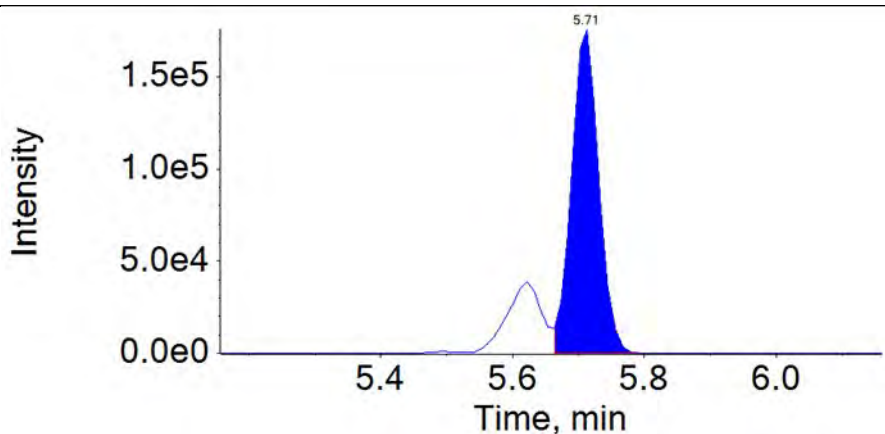
Component Name:
PFHxS_2
RT (min.):
4.55
Peak Area:
1444685.25
Mass Range:
399.0 / 99.0
File Name:
18NOV28DCAL-12.wiff
Sample Name:
CAL7



Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
1428771.10
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-12.wiff
Sample Name:
CAL7



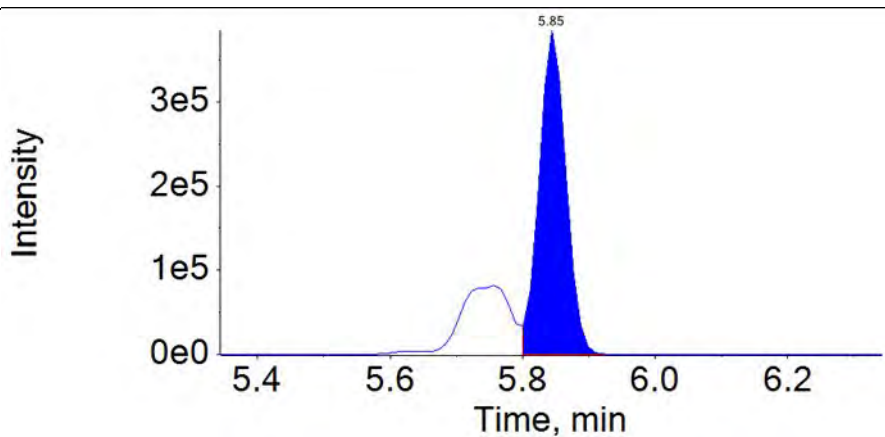
Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
503982.25
Mass Range:
570.0 / 483.0
File Name:
18NOV28DCAL-12.wiff
Sample Name:
CAL7



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NEtFOSAA_2
RT (min.):
5.85
Peak Area:
1078966.66
Mass Range:
584.0 / 526.0
File Name:
18NOV28DCAL-12.wiff
Sample Name:
CAL7



Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 5:01 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

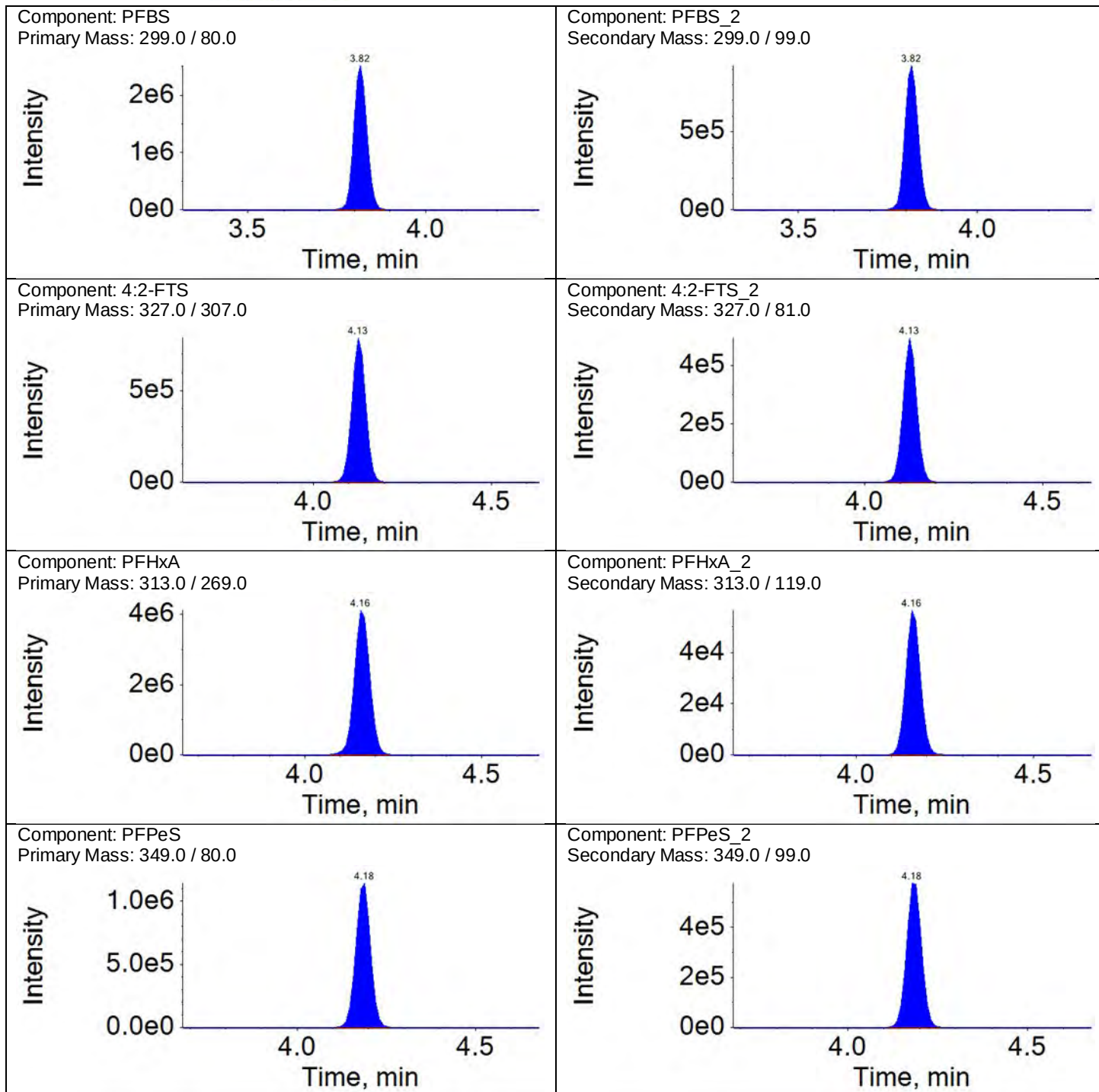
Ion Ratio Report

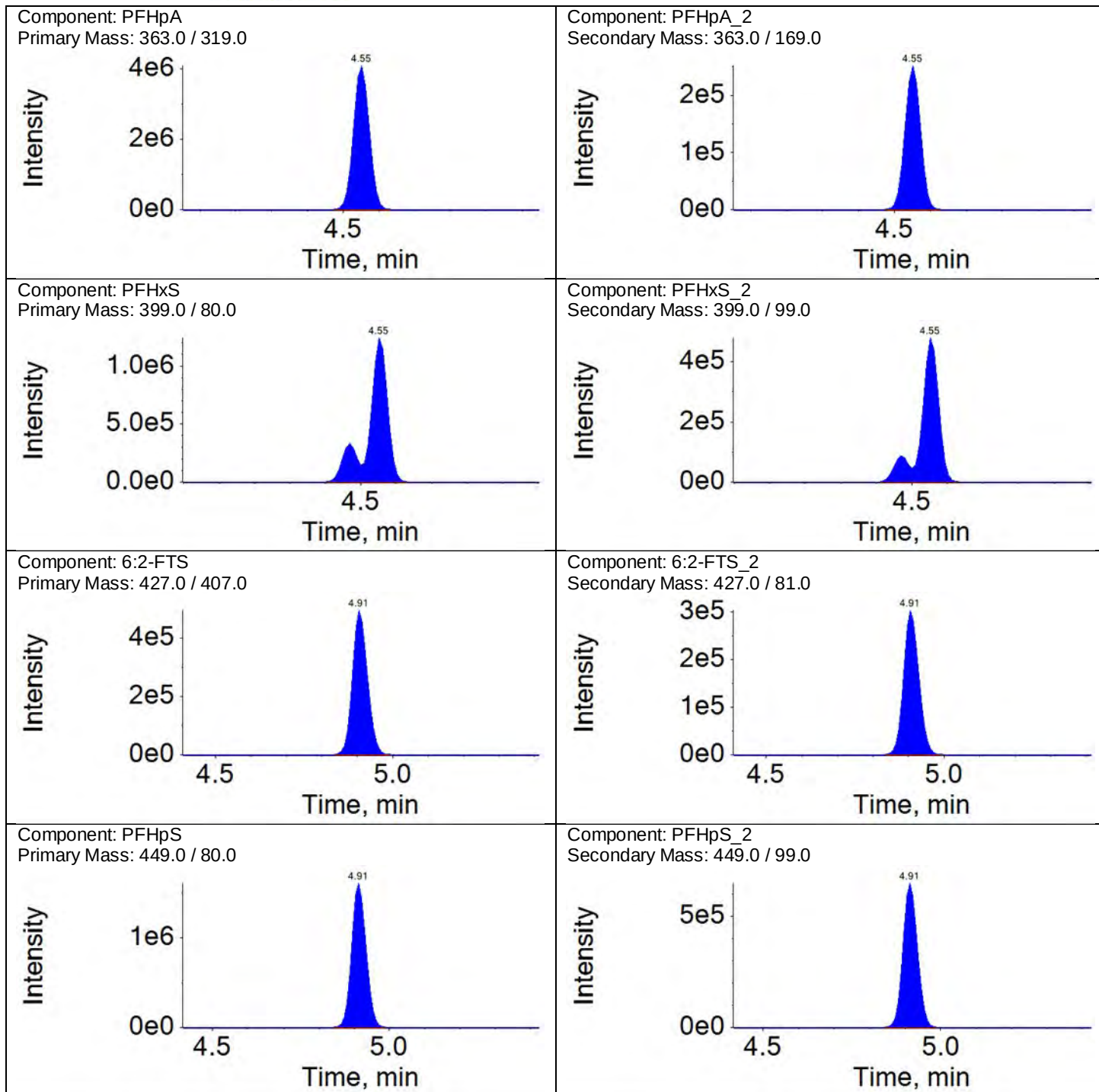
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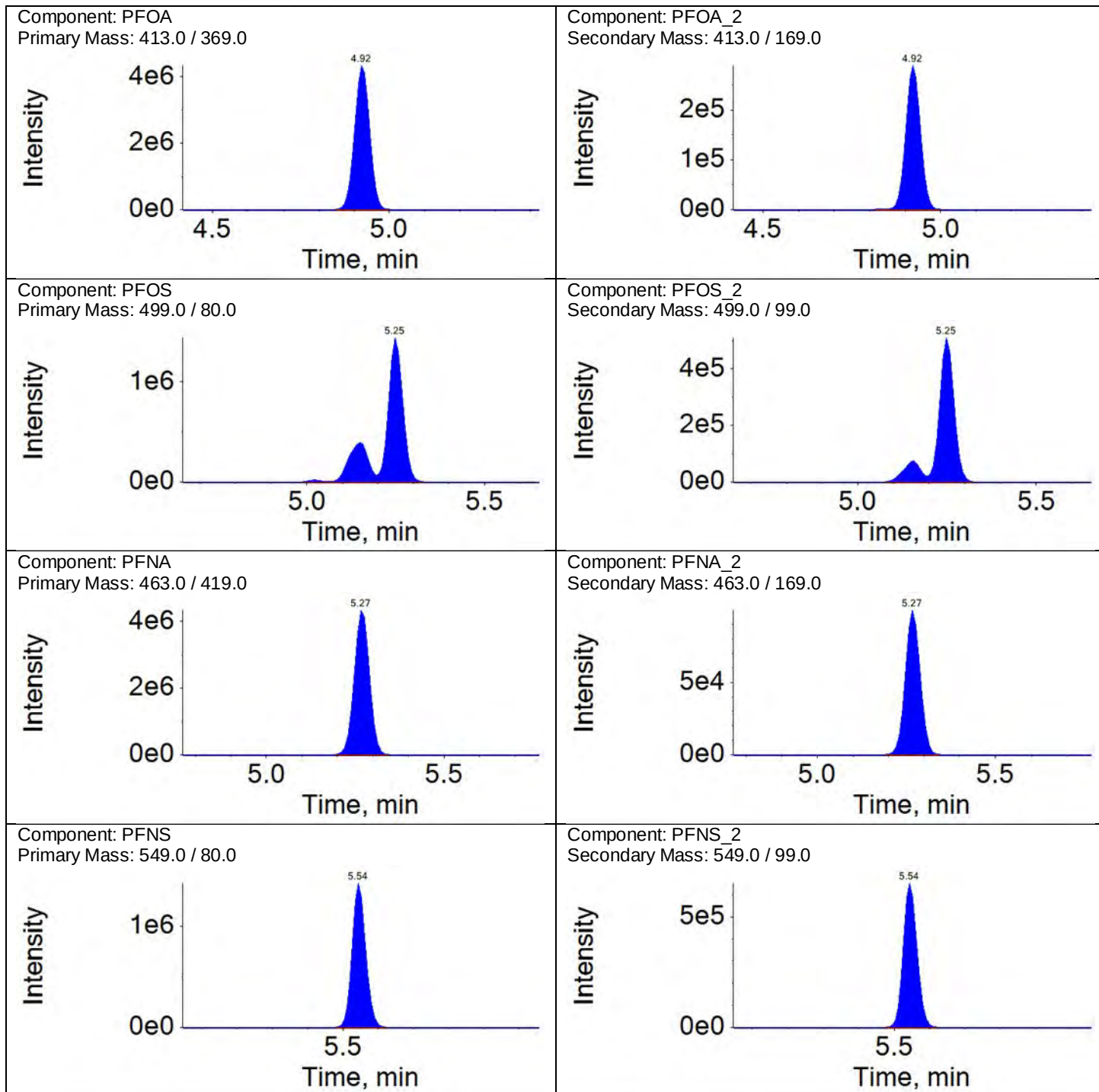
Instrument Name: LM27631

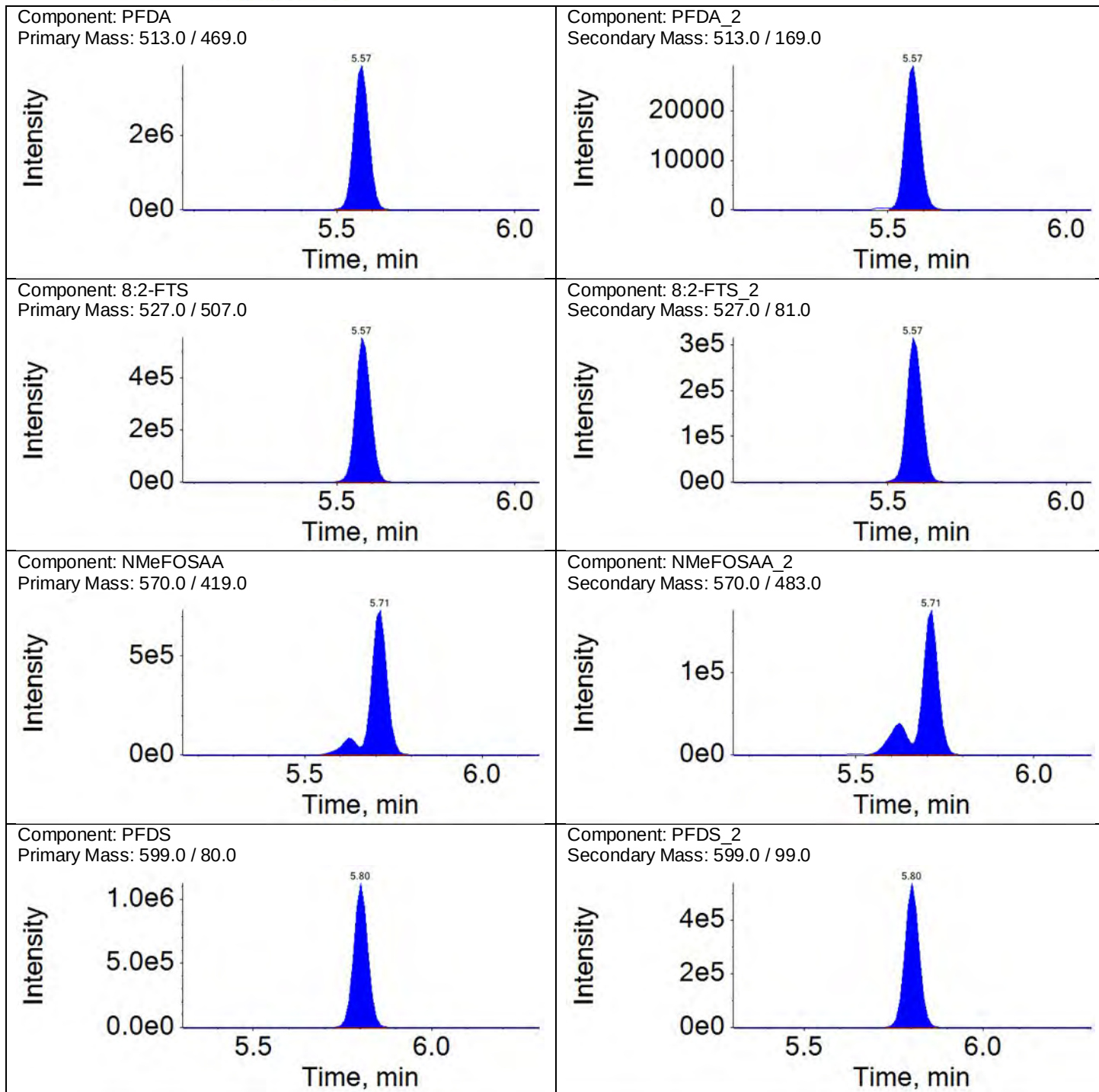
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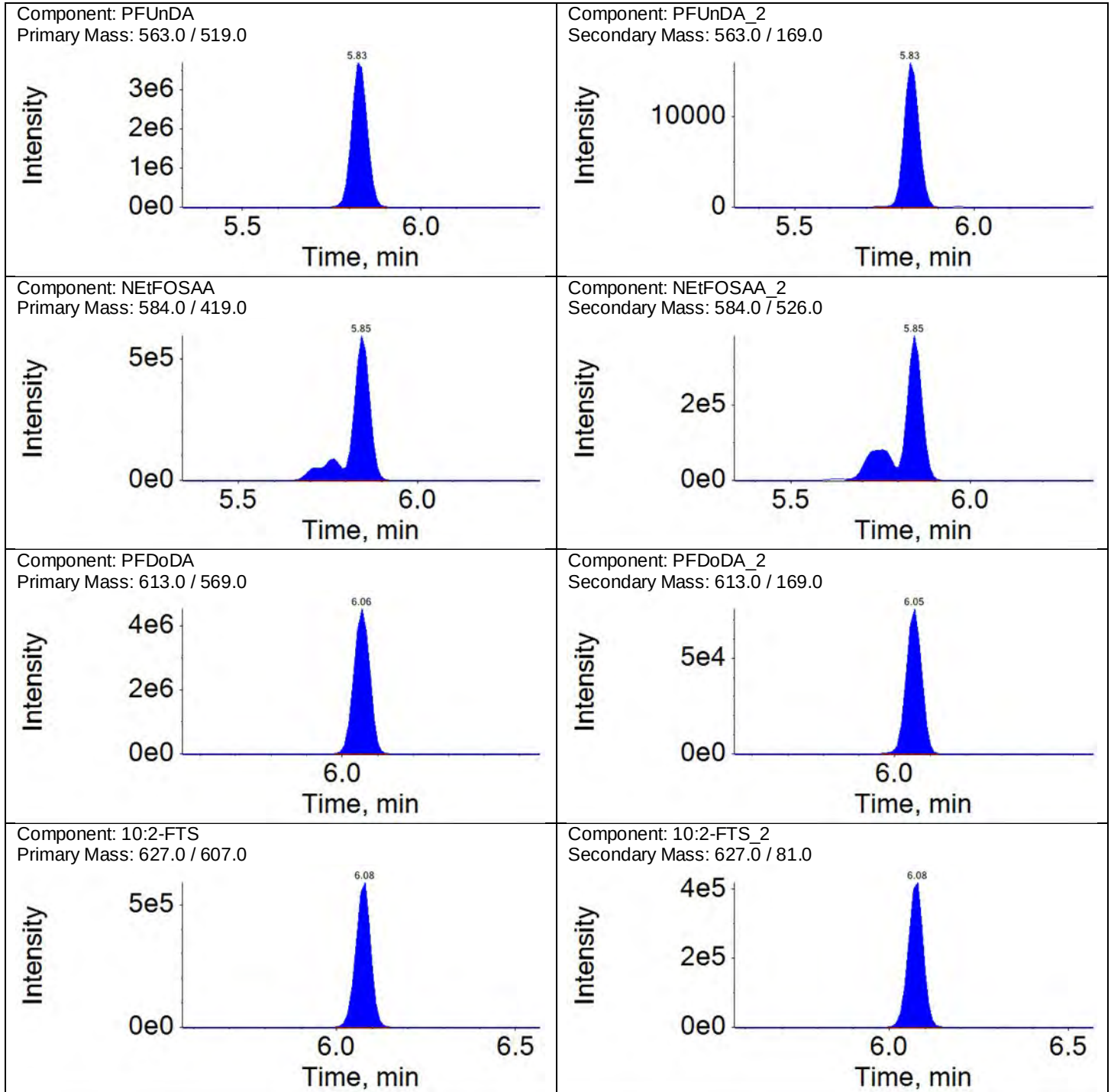
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	6468971.36	A	0.3655	0.3712			
PFBS_2	3.82	1.00	2401069.30	A	0.3655	0.3712	2	50	
4:2-FTS	4.13	1.00	2126148.19	A	0.6383	0.6227			
4:2-FTS_2	4.13	1.00	1323869.93	A	0.6383	0.6227	-2	50	
PFHxA	4.16	1.00	12530842.98	A	0.0103	0.0129			
PFHxA_2	4.16	1.00	161470.85	A	0.0103	0.0129	25	50	
PFPeS	4.18	1.10	3295381.64	A	0.4976	0.5155			
PFPeS_2	4.18	1.10	1698903.95	A	0.4976	0.5155	4	50	
PFHpA	4.55	1.00	12619701.65	A	0.0557	0.0605			
PFHpA_2	4.55	1.00	763765.05	A	0.0557	0.0605	9	50	
PFHxS	4.55	1.00	4797026.75	M	0.3693	0.3544			
PFHxS_2	4.55	1.00	1700170.72	M	0.3693	0.3544	-4	50	
6:2-FTS	4.91	1.00	1464447.02	A	0.6625	0.6198			
6:2-FTS_2	4.91	1.00	907687.80	A	0.6625	0.6198	-6	50	
PFHpS	4.91	1.08	4562639.61	A	0.3915	0.4054			
PFHpS_2	4.91	1.08	1849493.91	A	0.3915	0.4054	4	50	
PFOA	4.92	1.00	12900182.71	A	0.0573	0.0647			
PFOA_2	4.92	1.00	835020.05	A	0.0573	0.0647	13	50	
PFOS	5.25	1.00	5620328.96	M	0.2960	0.3007			
PFOS_2	5.25	1.00	1690188.73	M	0.2960	0.3007	2	50	
PFNA	5.27	1.00	12939629.11	A	0.0201	0.0225			
PFNA_2	5.27	1.00	291130.29	A	0.0201	0.0225	12	50	
PFNS	5.54	1.06	3804945.18	A	0.4794	0.4635			
PFNS_2	5.54	1.06	1763659.34	A	0.4794	0.4635	-3	50	
PFDA	5.57	1.00	11371046.97	A	0.0075	0.0075			
PFDA_2	5.57	1.00	85605.85	A	0.0075	0.0075	1	50	
8:2-FTS	5.57	1.00	1620286.00	A	0.5380	0.5778			
8:2-FTS_2	5.57	1.00	936181.88	A	0.5380	0.5778	7	50	
NMeFOSAA	5.71	1.00	2414874.82	M	0.2305	0.2675			
NMeFOSAA_2	5.71	1.00	645922.89	M	0.2305	0.2675	16	50	
PFDS	5.80	1.11	3061543.49	A	0.5356	0.4828			
PFDS_2	5.80	1.11	1477981.79	A	0.5356	0.4828	-10	50	
PFUnDA	5.83	1.00	11254483.78	A	0.0038	0.0041			
PFUnDA_2	5.83	1.00	46090.29	A	0.0038	0.0041	8	50	
NEtFOSAA	5.85	1.00	2127663.38	A	0.7356	0.7070			
NEtFOSAA_2	5.85	1.00	1504160.93	M	0.7356	0.7070	-4	50	
PFDODA	6.06	1.00	14195839.12	A	0.0130	0.0161			
PFDODA_2	6.05	1.00	228700.97	A	0.0130	0.0161	24	50	
10:2-FTS	6.08	1.09	1718827.31	A	0.6989	0.7147			
10:2-FTS_2	6.08	1.09	1228426.74	A	0.6989	0.7147	2	50	
PFTTrDA	6.26	1.03	12329126.07	A	0.0090	0.0102			
PFTTrDA_2	6.26	1.03	125163.76	A	0.0090	0.0102	13	50	
PFTeDA	6.43	1.00	11258874.06	A	0.0056	0.0072			
PFTeDA_2	6.43	1.00	81360.66	A	0.0056	0.0072	29	50	
PFHxDA	6.73	1.05	6113985.15	A	0.0646	0.0666			
PFHxDA_2	6.73	1.05	406918.04	A	0.0646	0.0666	3	50	
PFODA	7.00	1.09	5309889.90	A	0.0264	0.0282			
PFODA_2	6.99	1.09	149760.81	A	0.0264	0.0282	7	50	

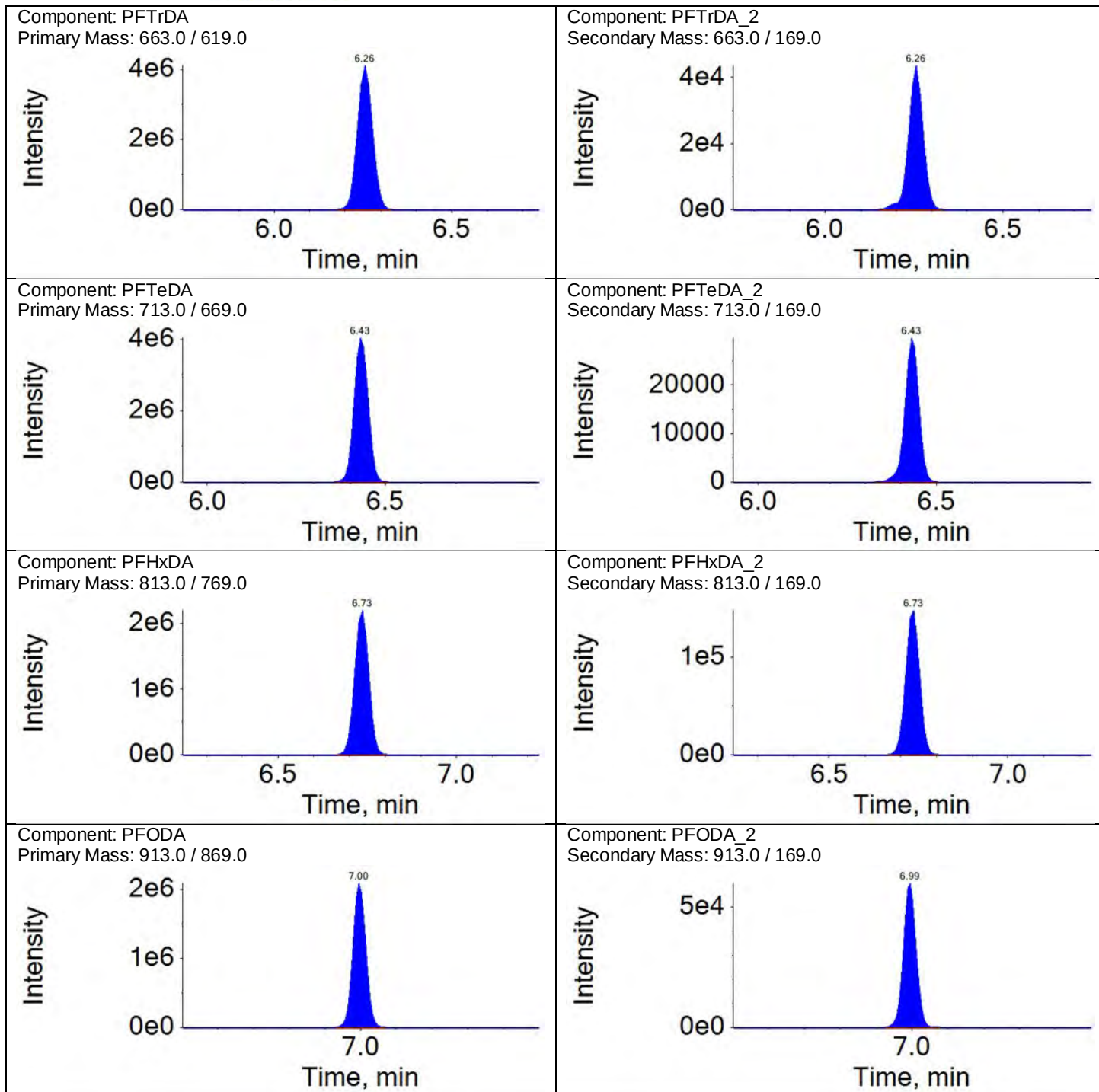












ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/29/2018 1:05:58 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	Instrument Blank		Data File:	18NOV28DCAL-13.wiff
Sample ID:	methanol		Acquis Date:	11/28/2018 2:45:19 PM
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	1		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV28DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1143174.3	887248.9	29	50	
13C2-PFOA	5.0	661239.2	498501.6	33	50	
13C4-PFOS	4.8	389955.6	283214.2	38	50	
13C2-PFDA	5.0	588197.1	441790.6	33	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1266298.2	13C3-PFBA	1143174.3	1.108	5.000	4.942	99	70-130	
E13C5-PFPeA	1221656.2	13C3-PFBA	1143174.3	1.069	5.000	4.990	100	70-130	
E13C3-PFBS	546183.1	13C3-PFBA	1143174.3	0.478	4.650	4.558	98	70-130	
E13C2-4:2-FTS	92907.1	13C2-PFOA	661239.2	0.141	4.670	4.842	104	70-130	
E13C5-PFHxA	881698.8	13C2-PFOA	661239.2	1.333	5.000	4.898	98	70-130	
E13C3-PFHxS	397088.3	13C2-PFOA	661239.2	0.601	4.730	4.707	100	70-130	
E13C4-PFHpA	684654.8	13C2-PFOA	661239.2	1.035	5.000	4.758	95	70-130	
E13C2-6:2-FTS	90195.6	13C2-PFOA	661239.2	0.136	4.750	5.710	120	70-130	
E13C8-PFOA	1243060.3	13C2-PFOA	661239.2	1.880	5.000	5.174	103	70-130	
E13C8-PFOS	389085.3	13C4-PFOS	389955.6	0.998	4.780	4.504	94	70-130	
E13C9-PFNA	823058.9	13C4-PFOS	389955.6	2.111	5.000	4.636	93	70-130	
E13C6-PFDA	1069720.1	13C2-PFDA	588197.1	1.819	5.000	5.128	103	70-130	
E13C2-8:2-FTS	97960.5	13C2-PFDA	588197.1	0.167	4.790	7.158	149	70-130	OOS
E13C8-PFOSA	873157.2	13C2-PFDA	588197.1	1.484	5.000	5.447	109	70-130	
Ed3-NMeFOSAA	242996.3	13C2-PFDA	588197.1	0.413	5.000	5.245	105	70-130	
E13C7-PFUnDA	700966.1	13C2-PFDA	588197.1	1.192	5.000	5.037	101	70-130	
Ed5-NEtFOSAA	159876.3	13C2-PFDA	588197.1	0.272	5.000	4.842	97	70-130	
E13C2-PFDoDA	1371772.4	13C2-PFDA	588197.1	2.332	5.000	4.900	98	70-130	
Ed7-NMePFOSAE	354362.2	13C2-PFDA	588197.1	0.602	5.000	5.207	104	70-130	
Ed3-NMePFOSA	104834.4	13C2-PFDA	588197.1	0.178	5.000	4.824	96	70-130	
Ed9-NEtPFOSAE	319017.0	13C2-PFDA	588197.1	0.542	5.000	5.499	110	70-130	
Ed5-NEtPFOSA	85061.1	13C2-PFDA	588197.1	0.145	5.000	5.025	100	70-130	
E13C2-PFTeDA	1062806.7	13C2-PFDA	588197.1	1.807	5.000	5.000	100	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/29/2018 1:05:58 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

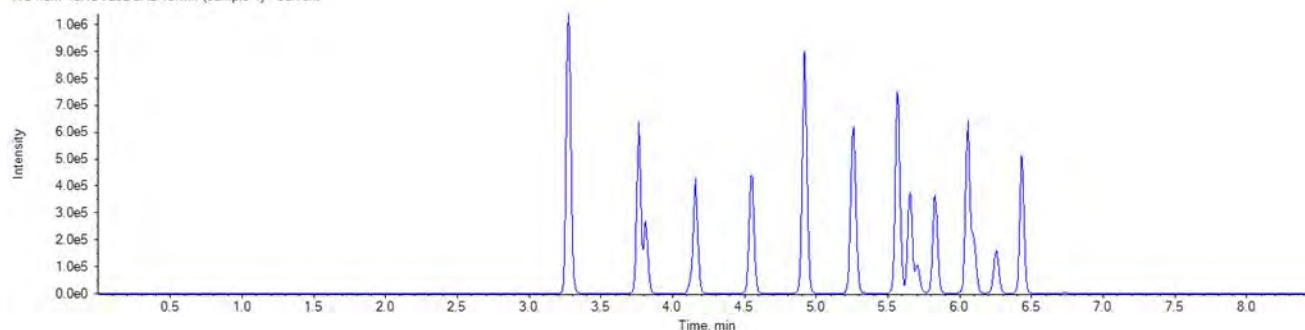
Sample Name: Instrument Blank Instrument Name: LM27631 File Name: 18NOV28DCAL-13.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	1266298.2	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	1221656.2	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	546183.1	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.13	92907.1	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	881698.8	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	546183.1	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	684654.8	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	397088.3	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.91	90195.6	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	397088.3	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	1243060.3	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.25	389085.3	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.27	823058.9	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.25	389085.3	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.57	1069720.1	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	97960.5	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	873157.2	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.71	242996.3	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.25	389085.3	N/A	
PfUnDA	N/A	N/A	N/A		A	13C7-PfUnDA	5.83	700966.1	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	159876.3	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.06	1371772.4	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	97960.5	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.10	354362.2	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.11	104834.4	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.25	389085.3	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.25	319017.0	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.27	85061.1	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFDODA	6.06	1371772.4	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	1062806.7	N/A	
PFHxDA	6.74	1.050	6327.1		A	13C2-PFTeDA	6.43	1062806.7	0.006	0.068
PFODA	7.00	1.090	3886.6		A	13C2-PFTeDA	6.43	1062806.7	0.004	0.049

Total Ion Chromatogram

TIC from 18NOV28DCAL-13.wiff (sample 1) - solvent

APPROVED
By JPT at 1:11 pm, 11/29/18

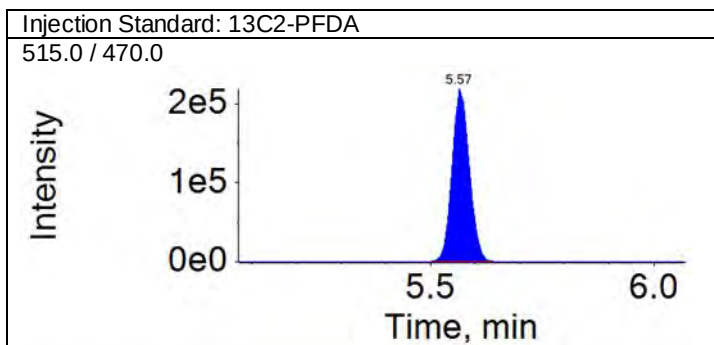
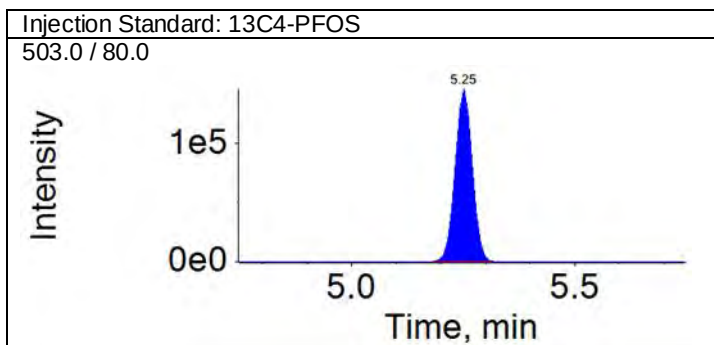
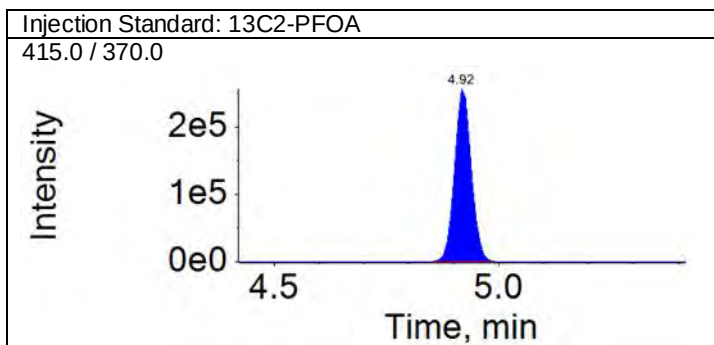
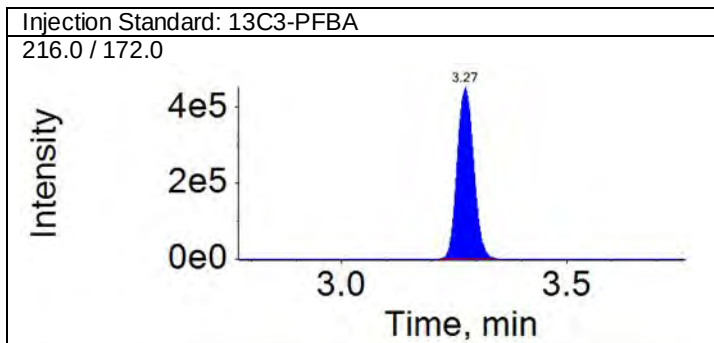
BSI14 Page 1544 of 2132

REVIEWED
By HMK at 1:17 pm, 11/29/18

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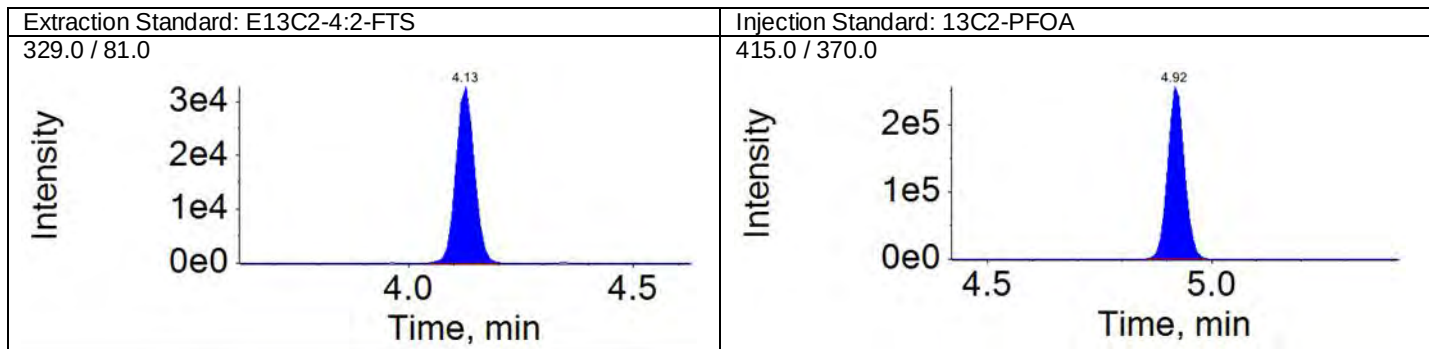
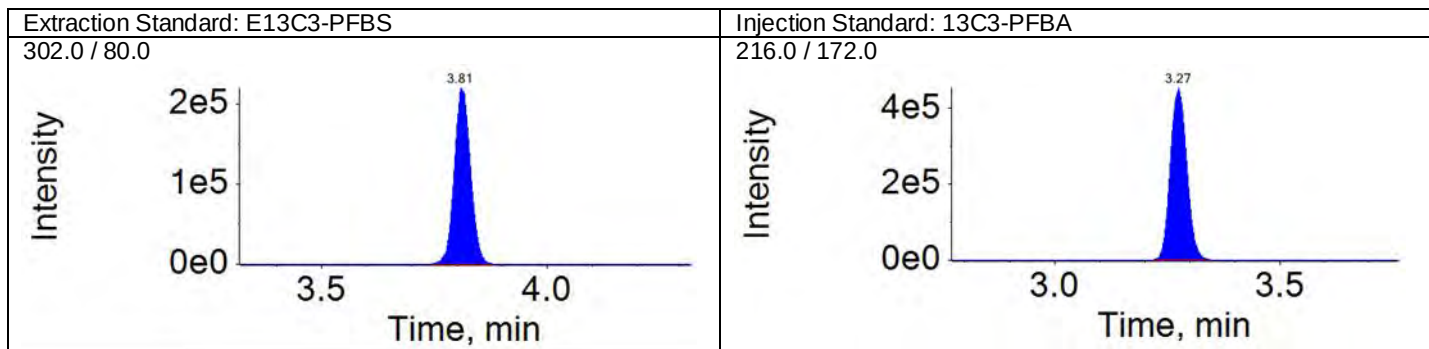
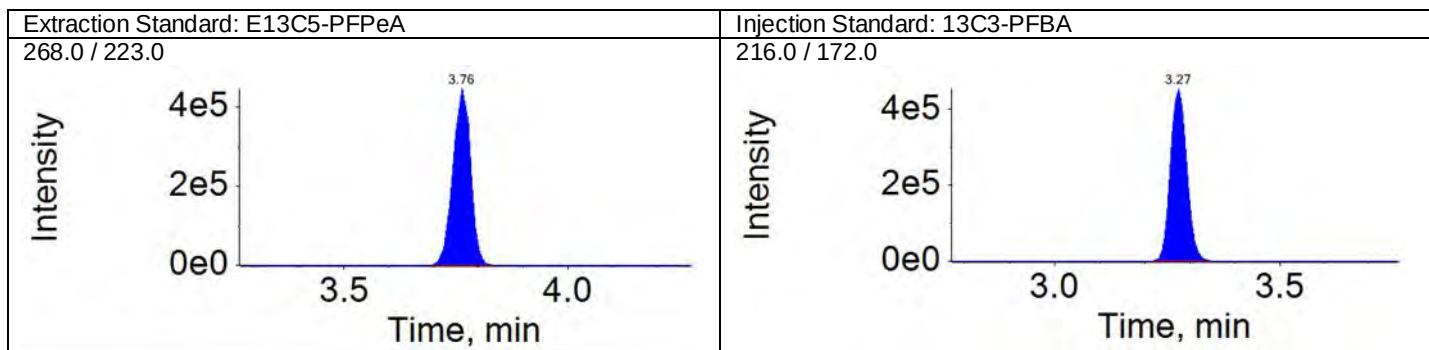
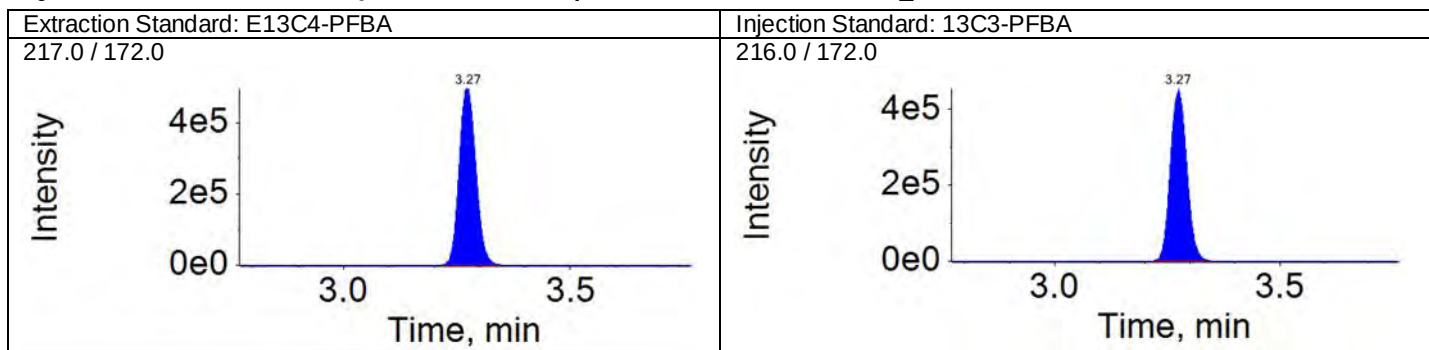
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/29/2018 1:05:58 PM
Acquisition Method: 18AUG13_3uL.dam



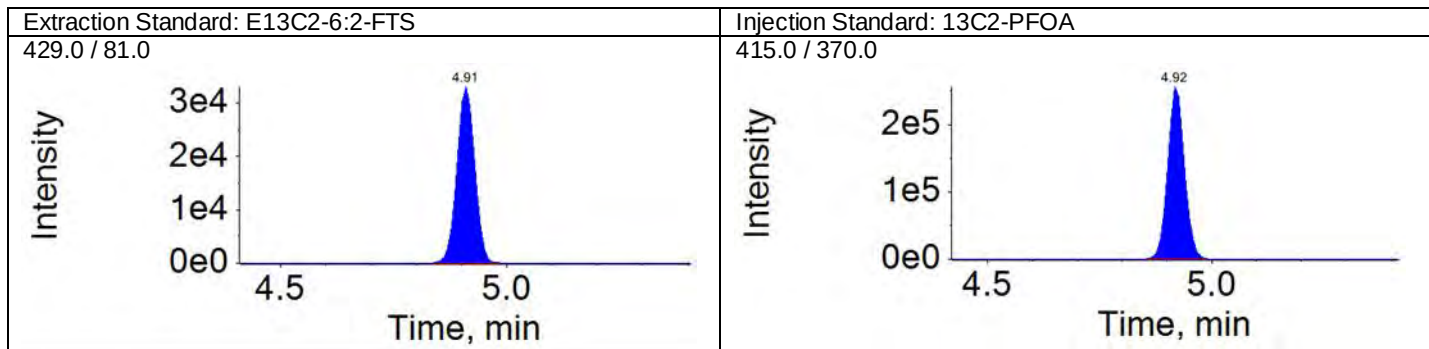
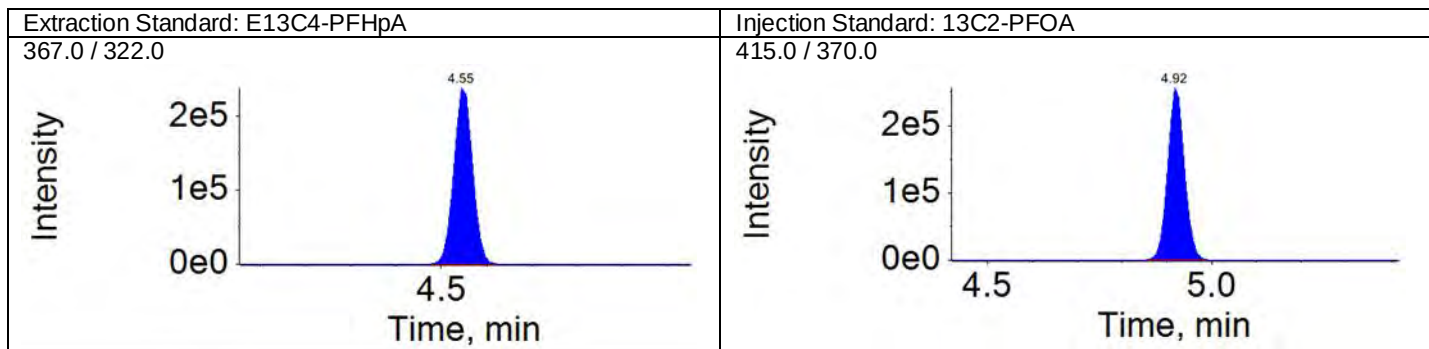
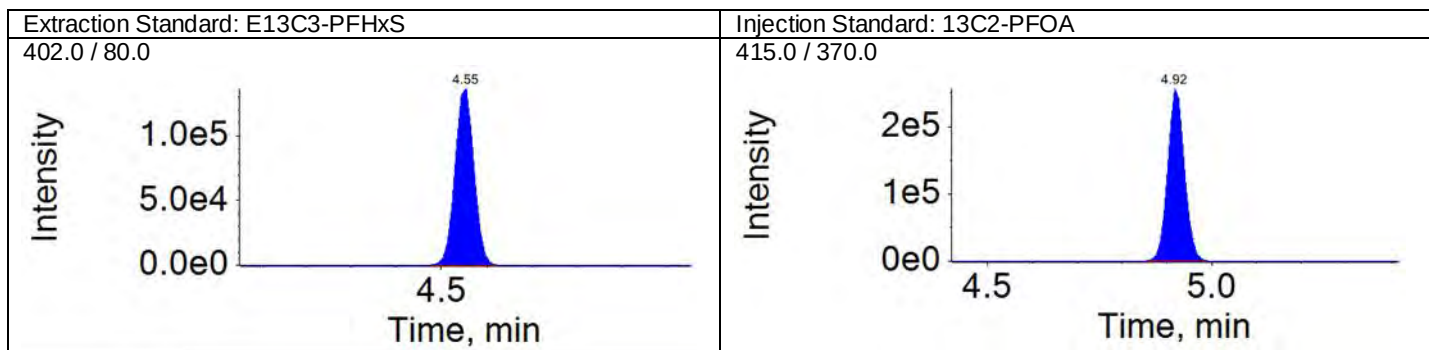
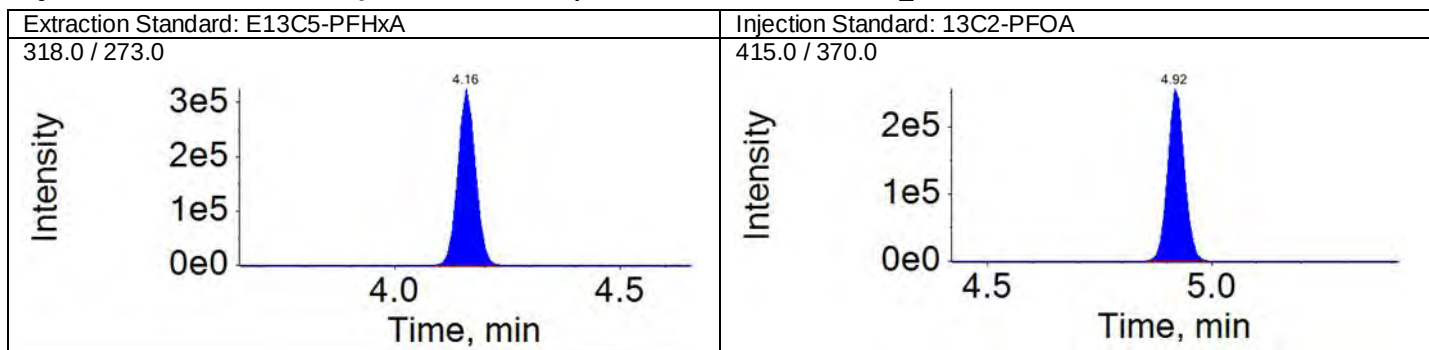
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/29/2018 1:05:58 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/29/2018 1:05:58 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

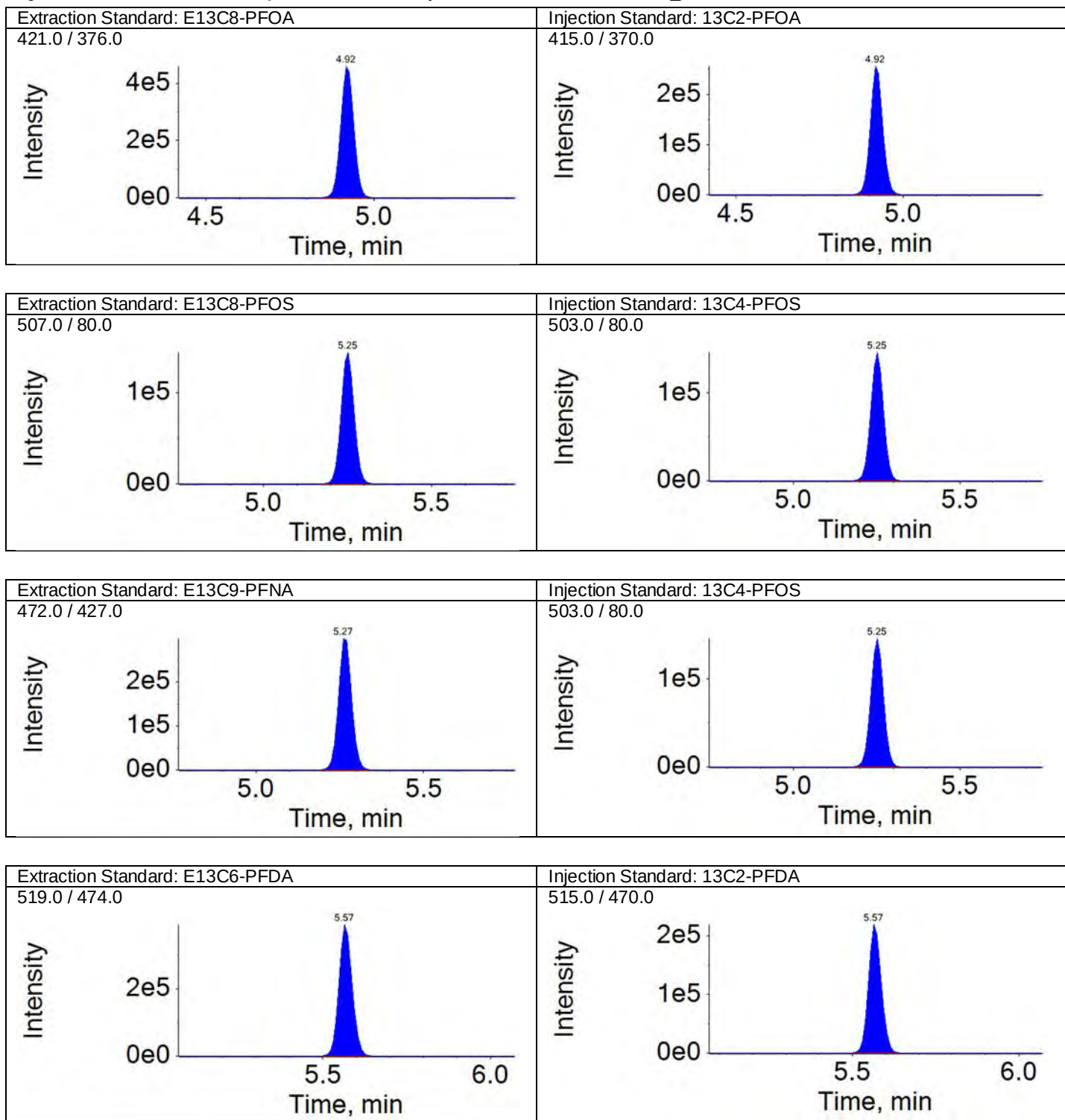
By JPT at 1:11 pm, 11/29/18

REVIEWED

By HMK at 1:17 pm, 11/29/18

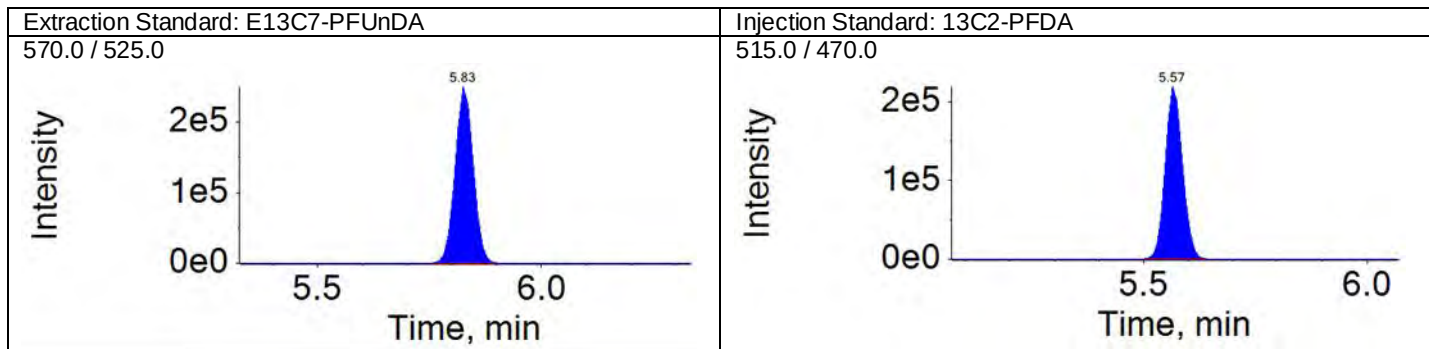
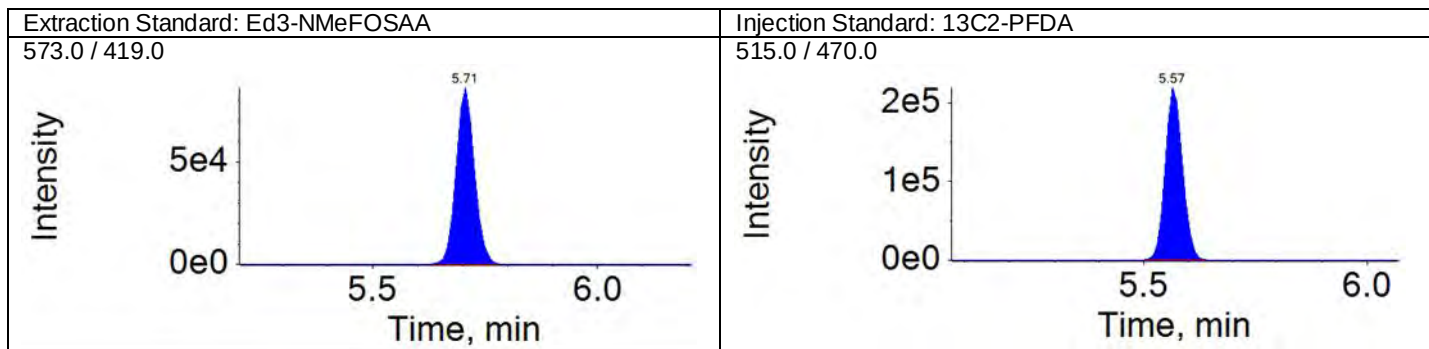
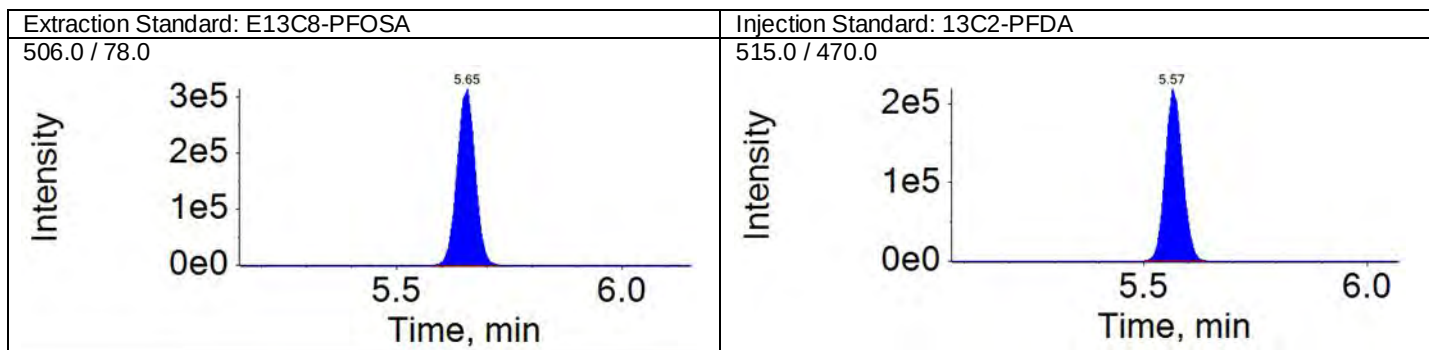
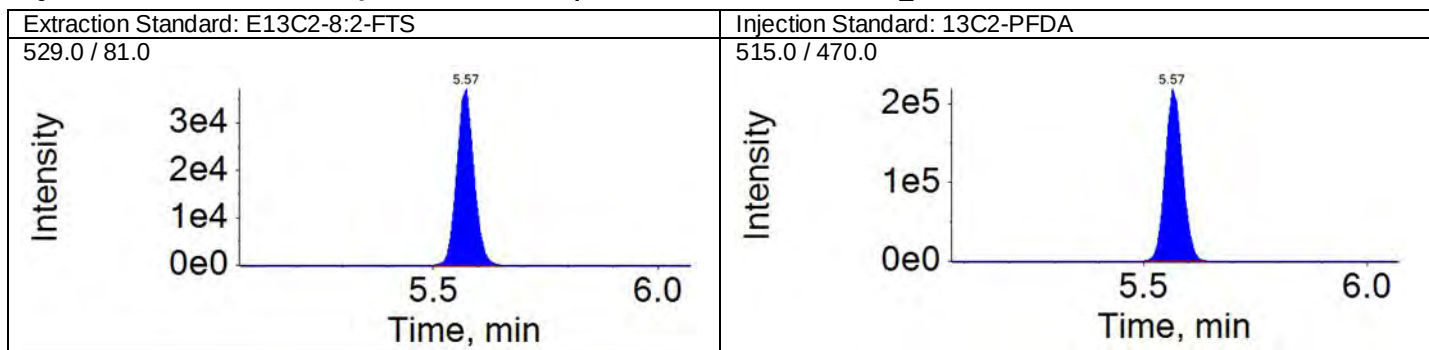
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/29/2018 1:05:58 PM
Acquisition Method: 18AUG13_3uL.dam



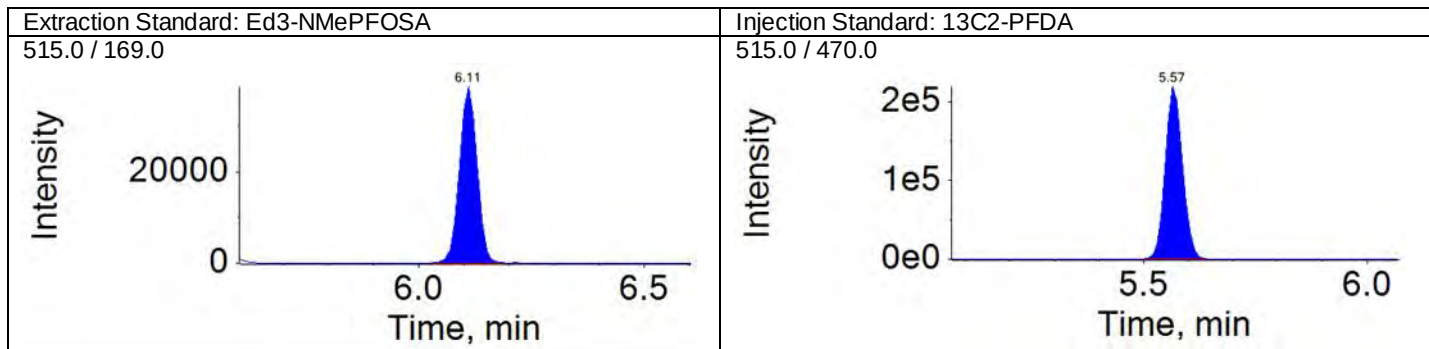
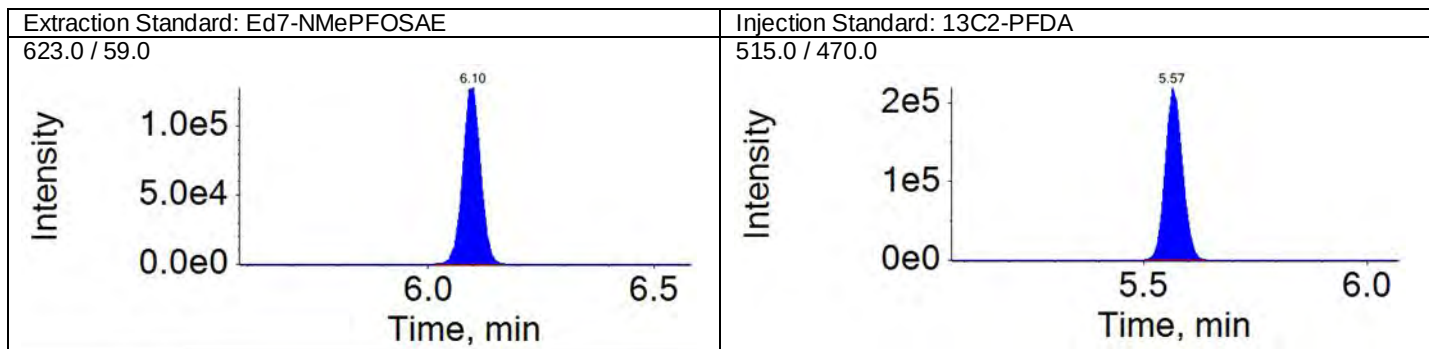
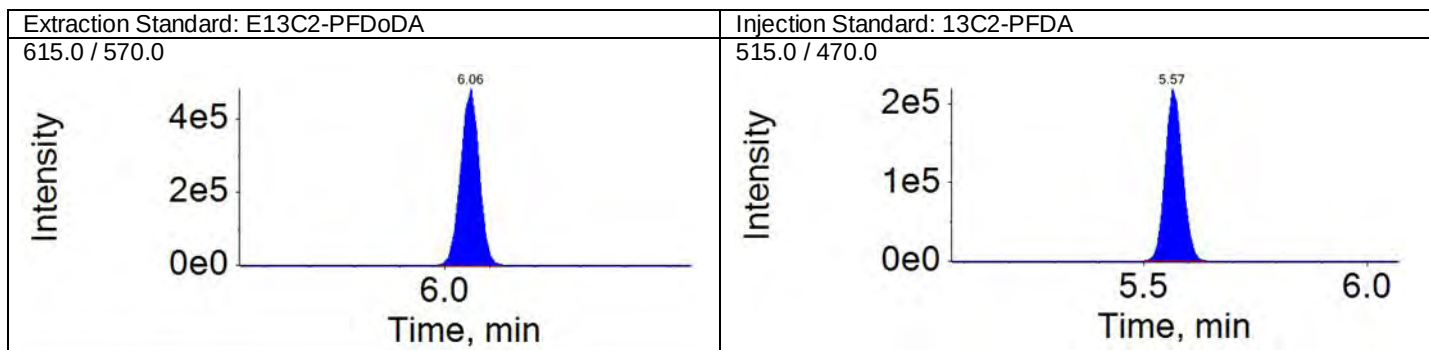
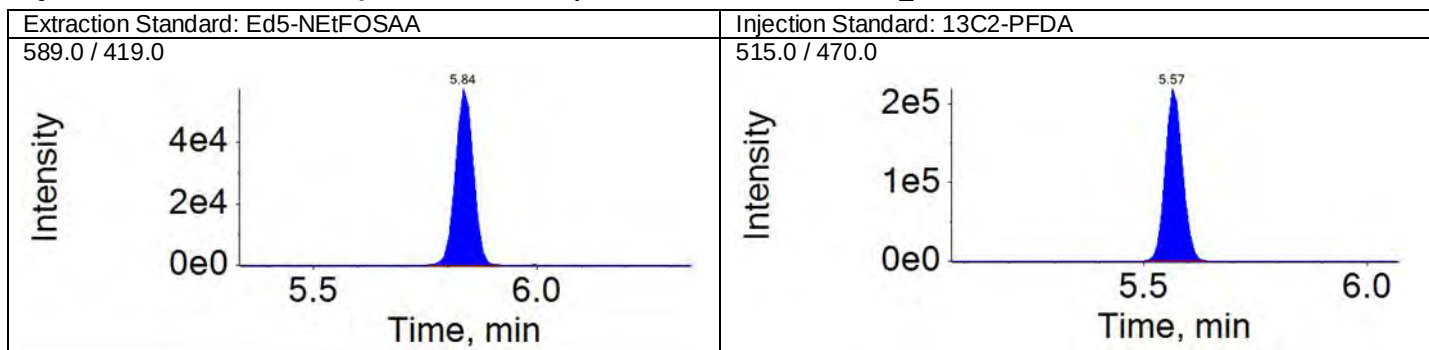
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Result Table: 18NOV28DCAL 11/29/2018 1:05:58 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/29/2018 1:05:58 PM
Acquisition Method: 18AUG13_3uL.dam



APPROVED

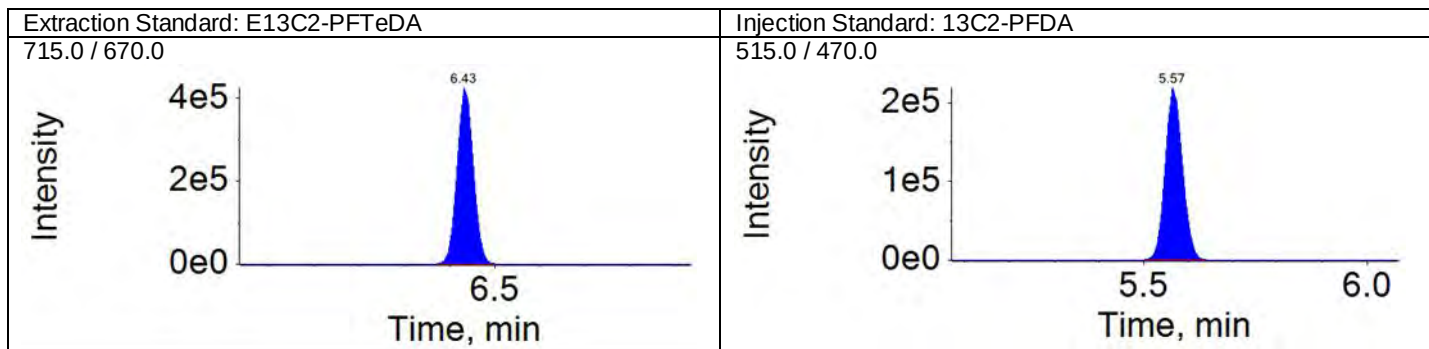
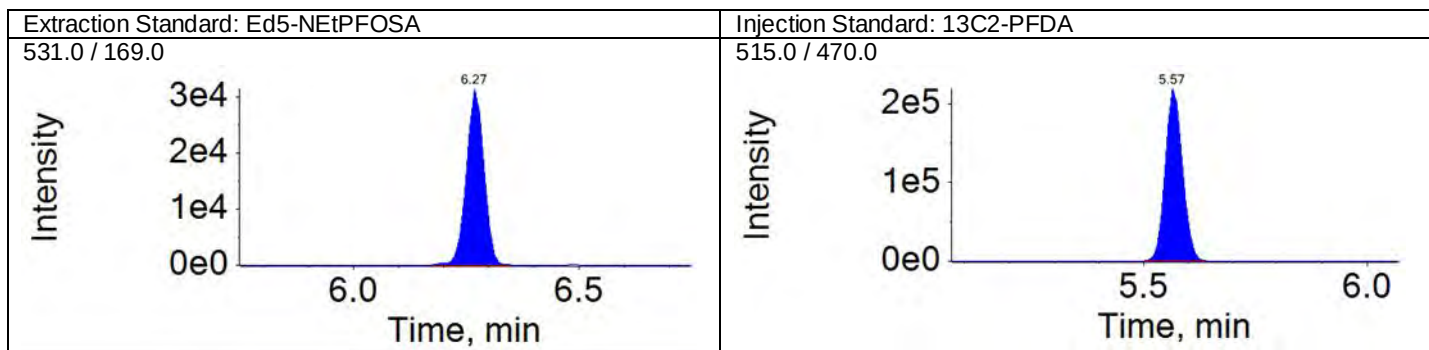
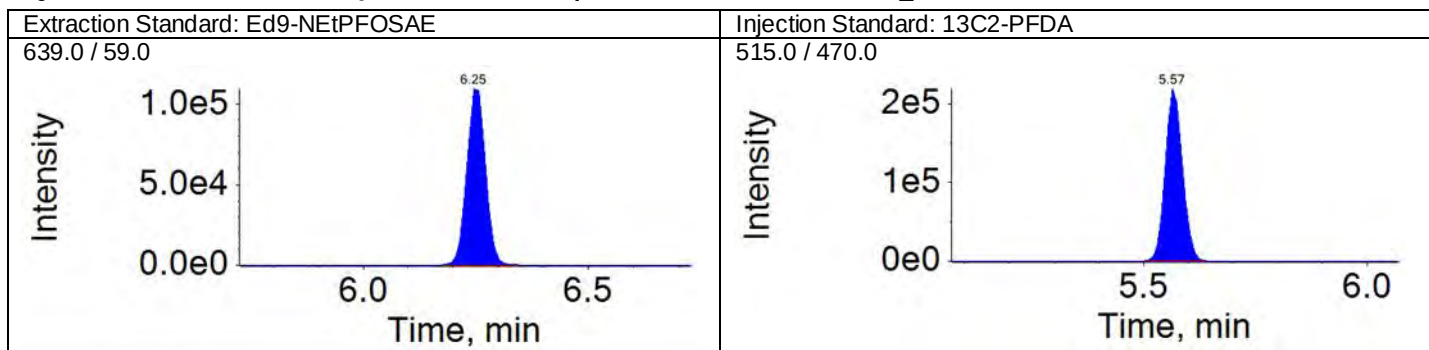
By JPT at 1:11 pm, 11/29/18

REVIEWED

By HMK at 1:17 pm, 11/29/18

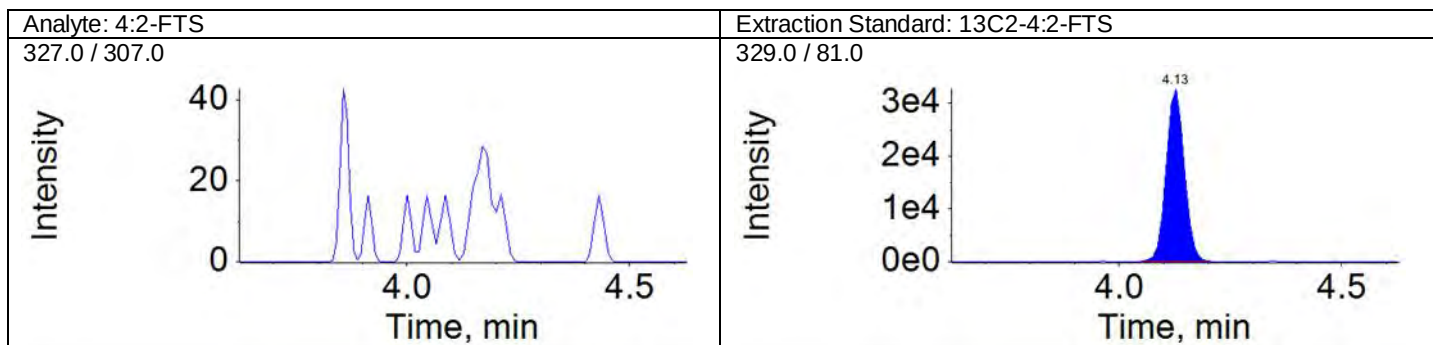
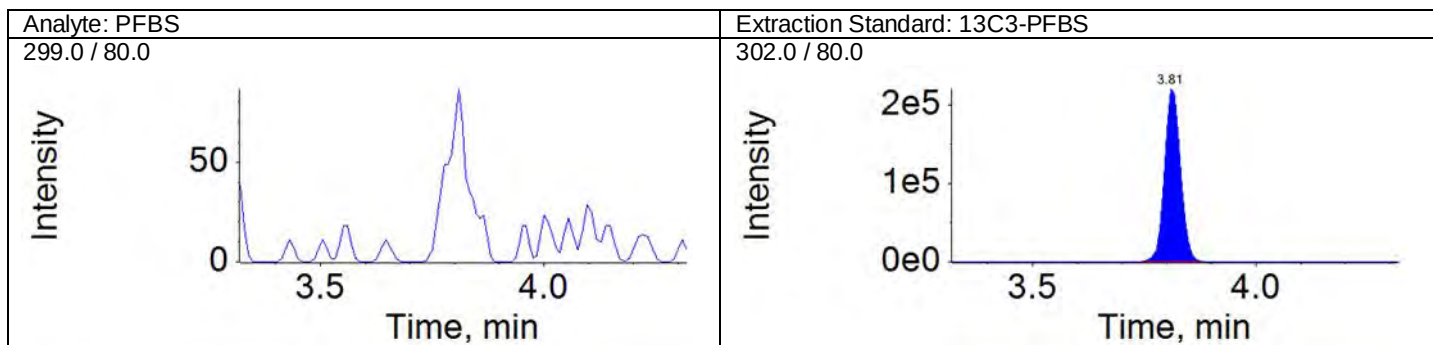
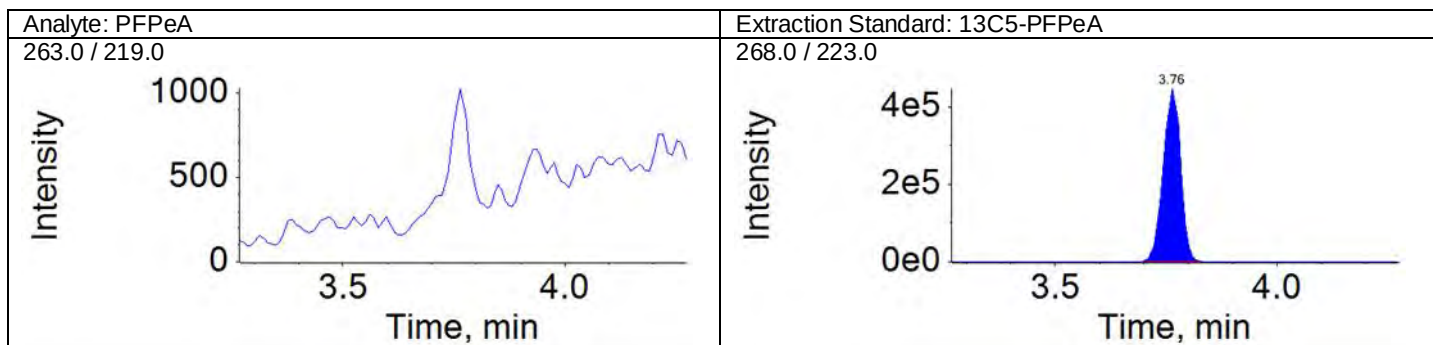
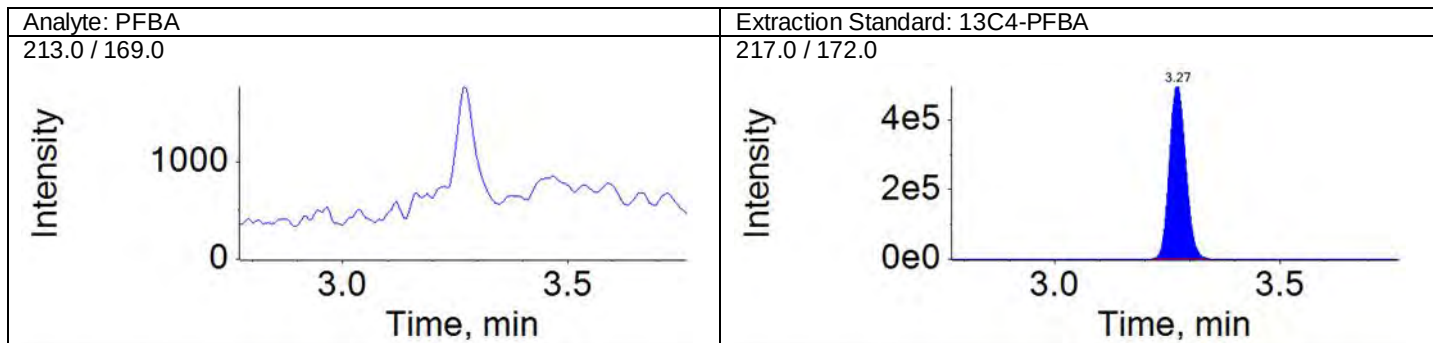
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Result Table: 18NOV28DCAL 11/29/2018 1:05:58 PM
Acquisition Method: 18AUG13_3uL.dam



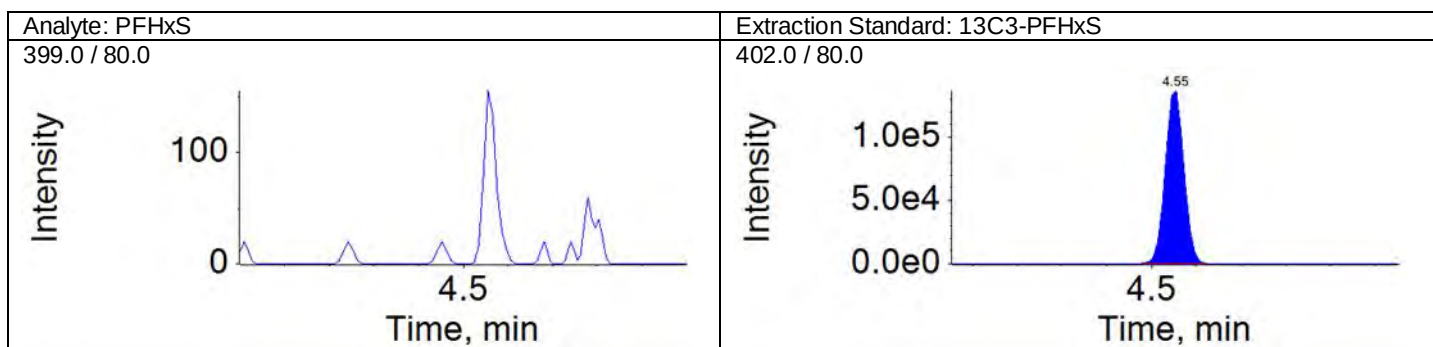
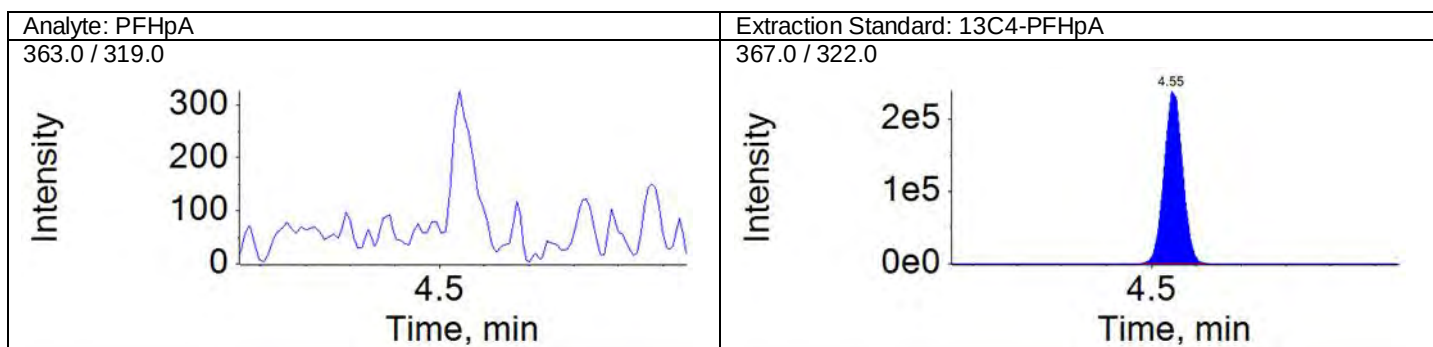
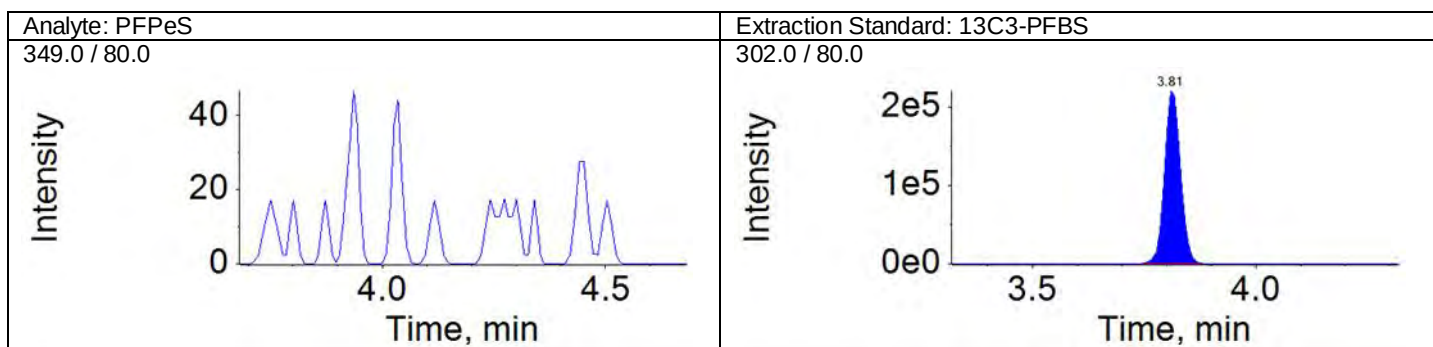
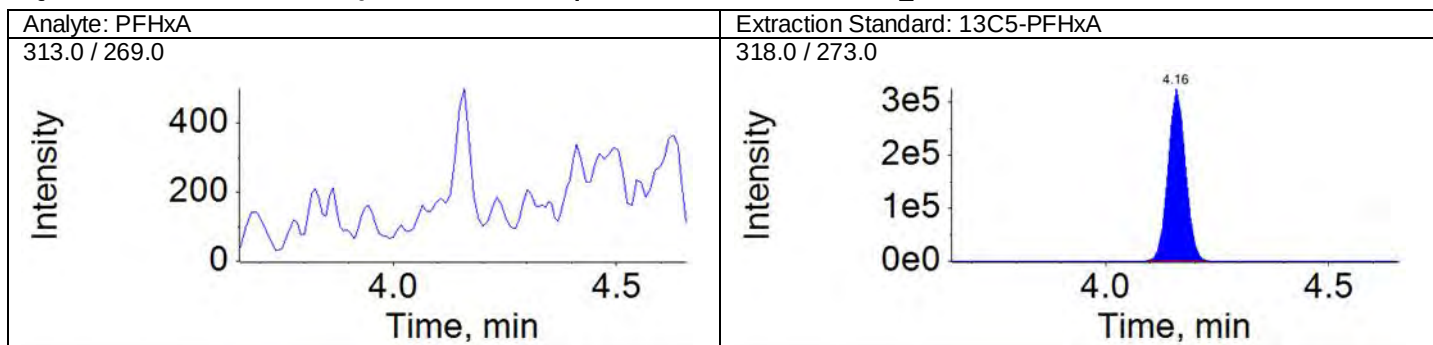
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Result Table: 18NOV28DCAL 11/29/2018 1:05:58 PM
Acquisition Method: 18AUG13_3uL.dam



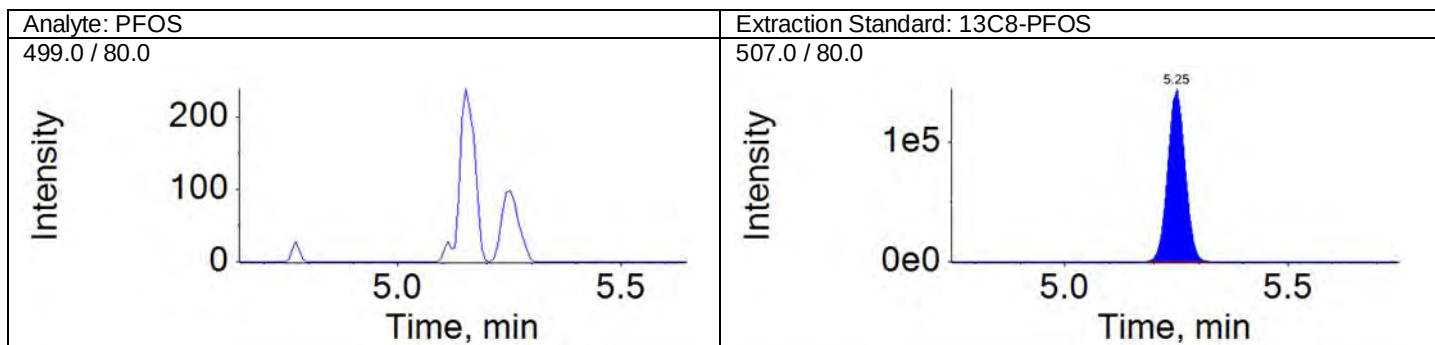
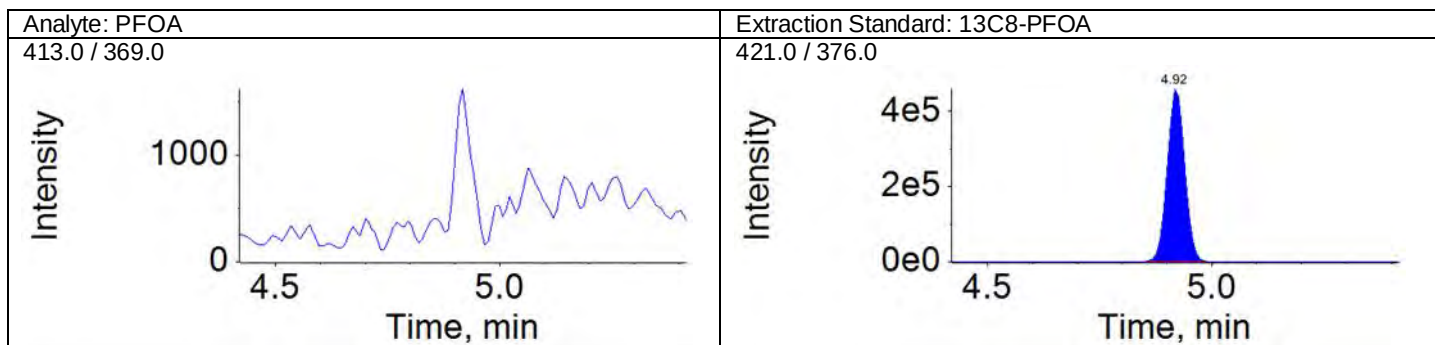
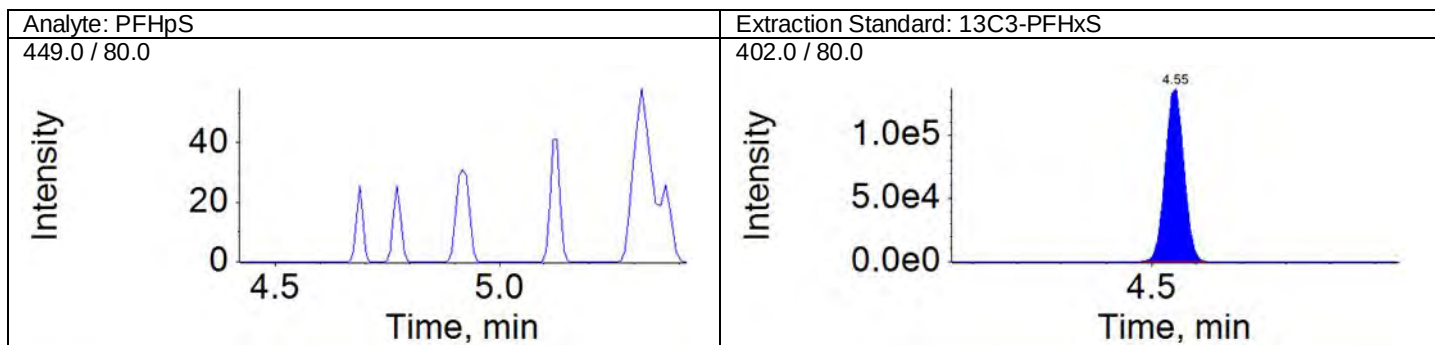
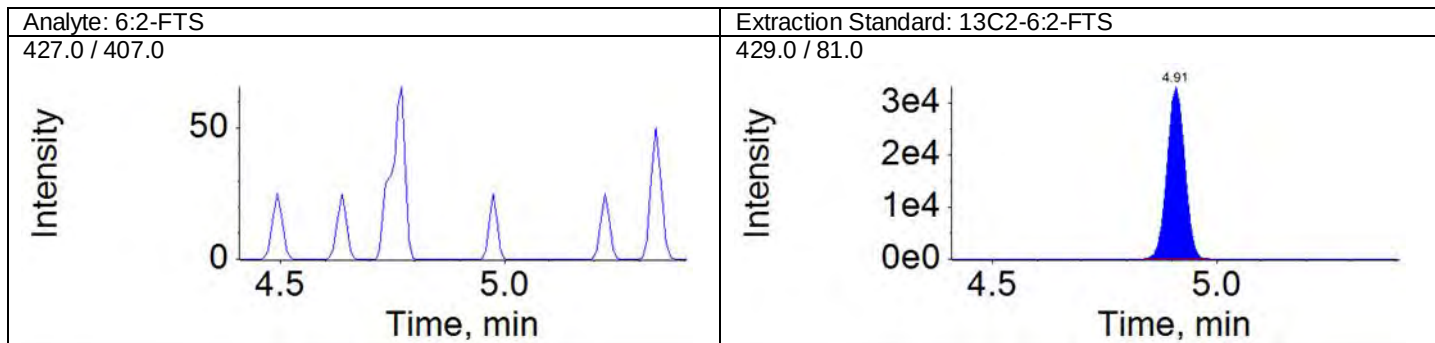
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Acquisition Method: 18AUG13_3uL.dam



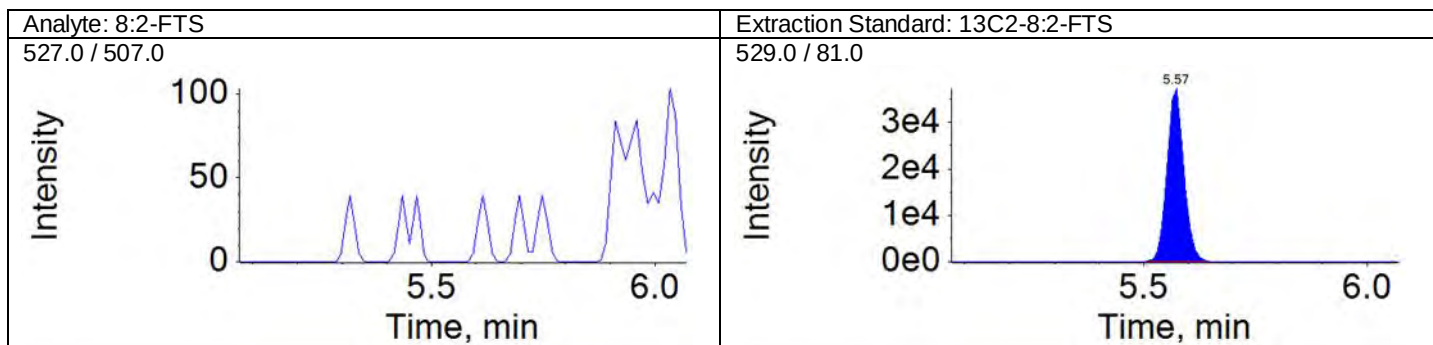
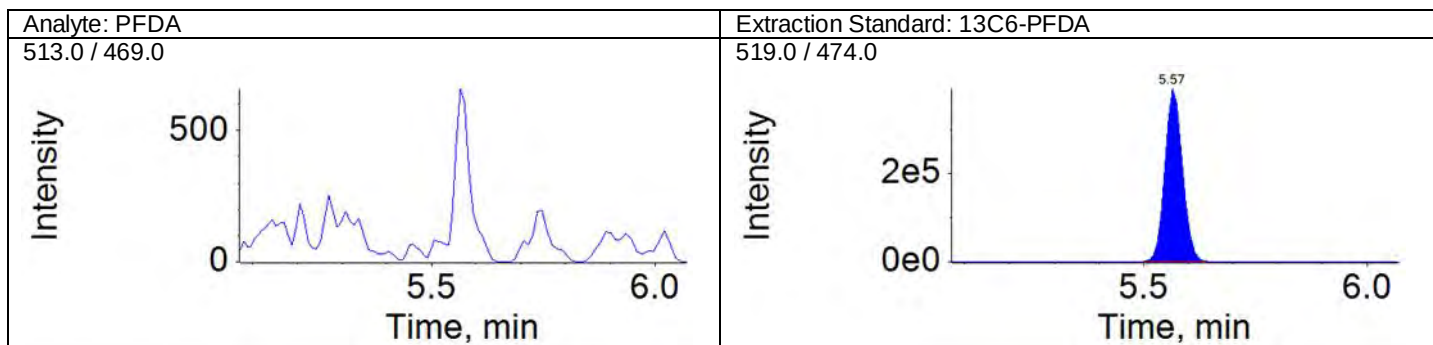
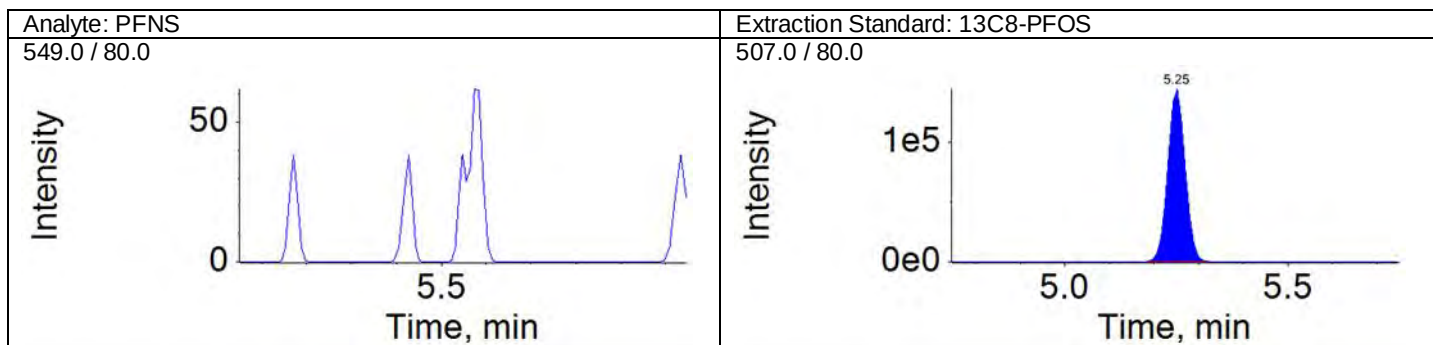
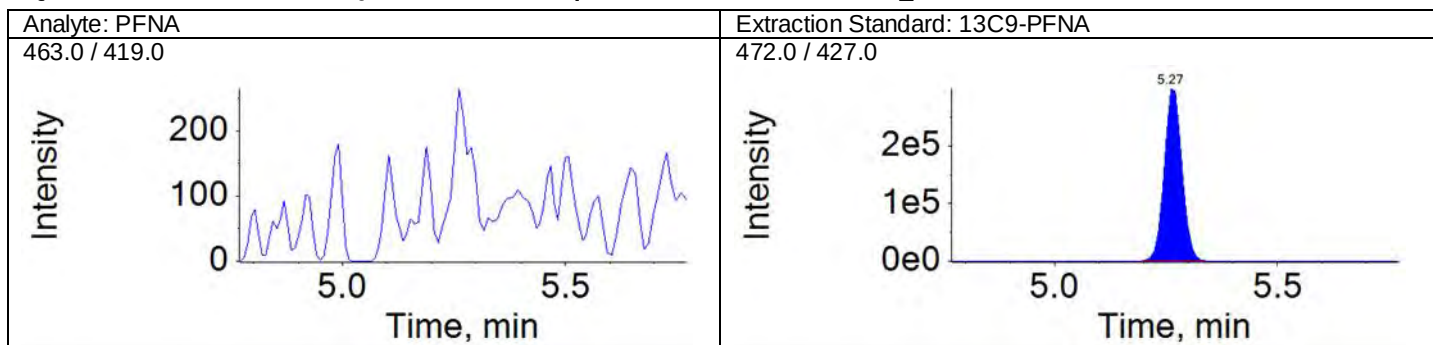
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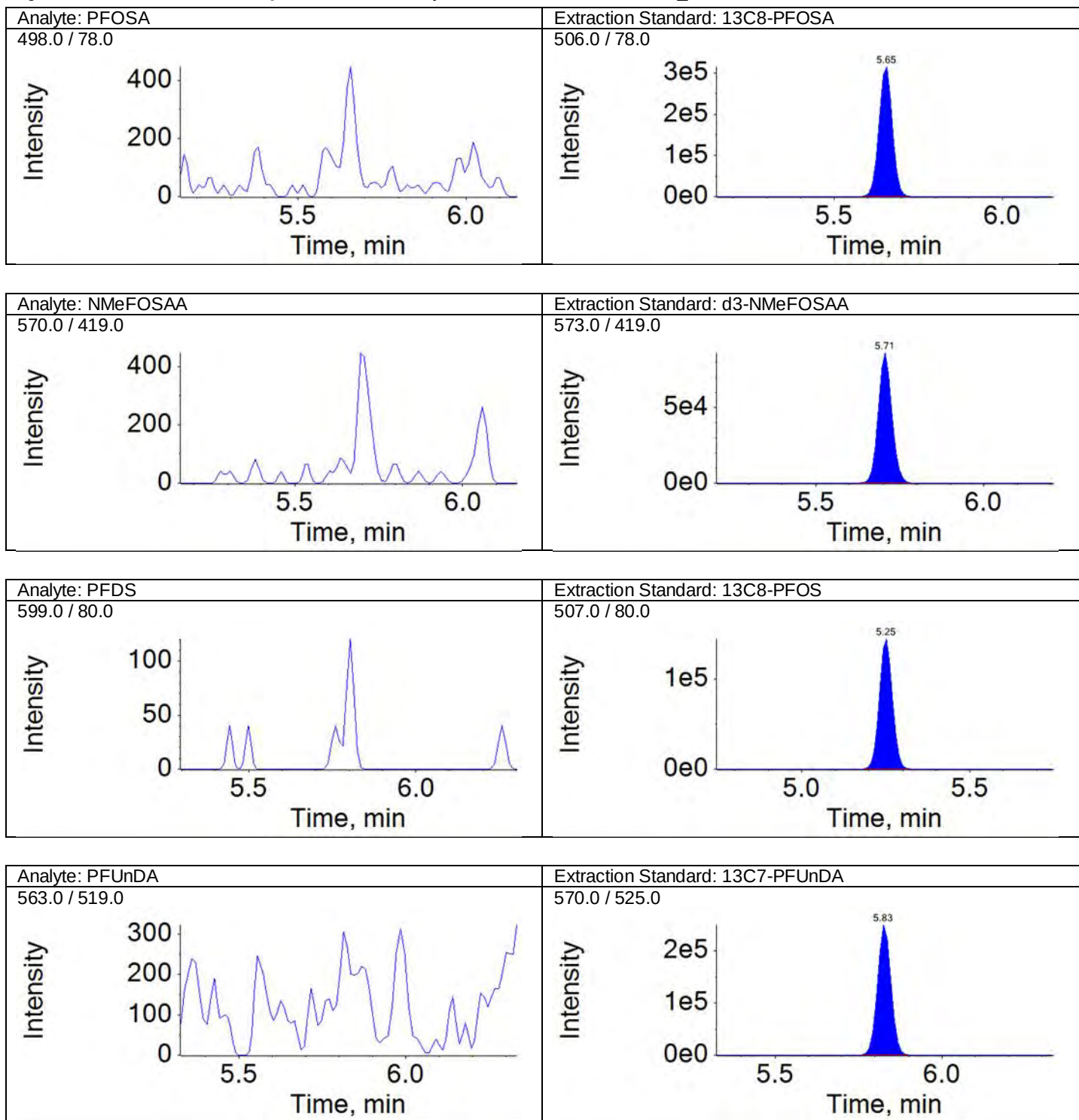
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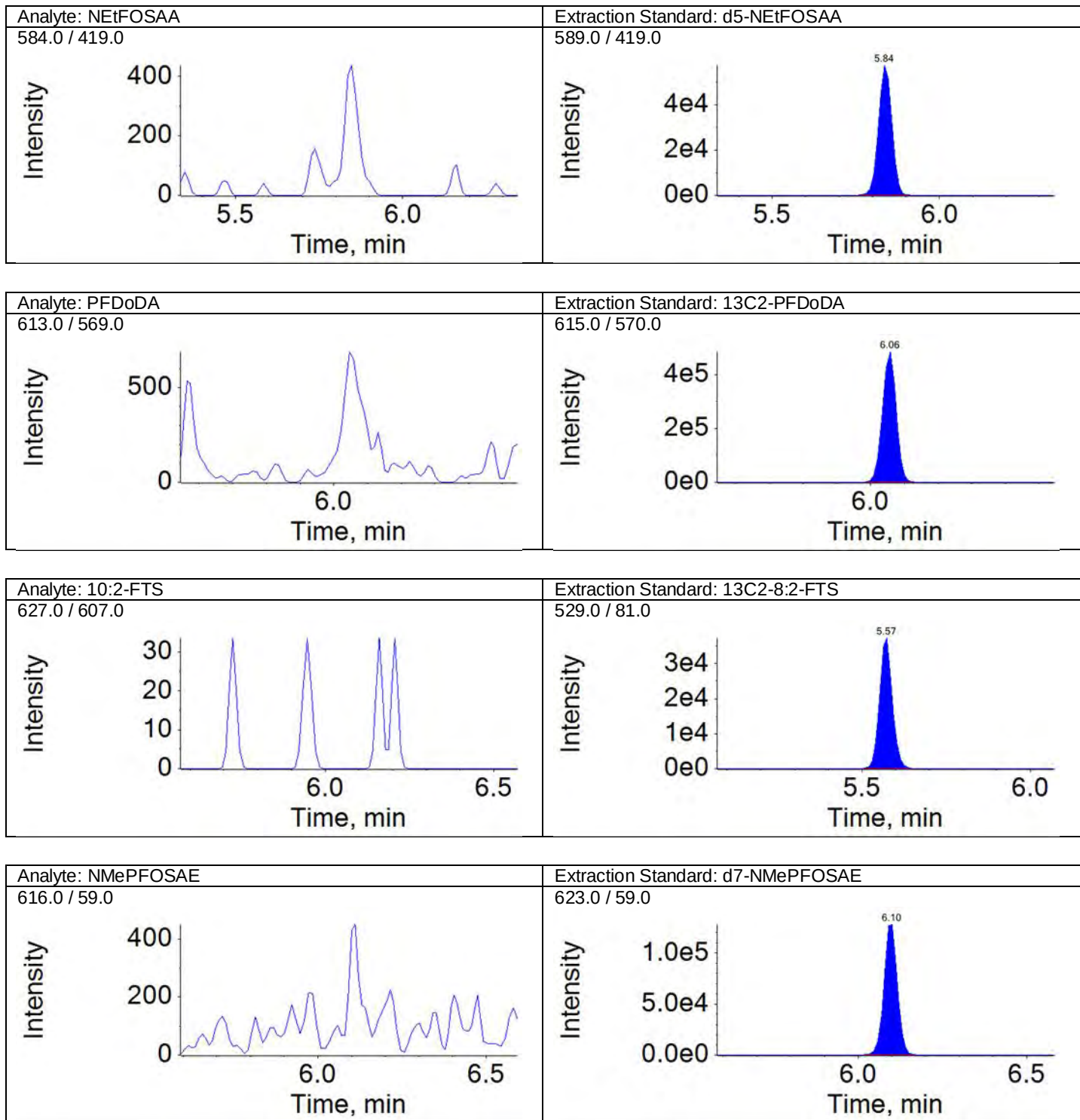
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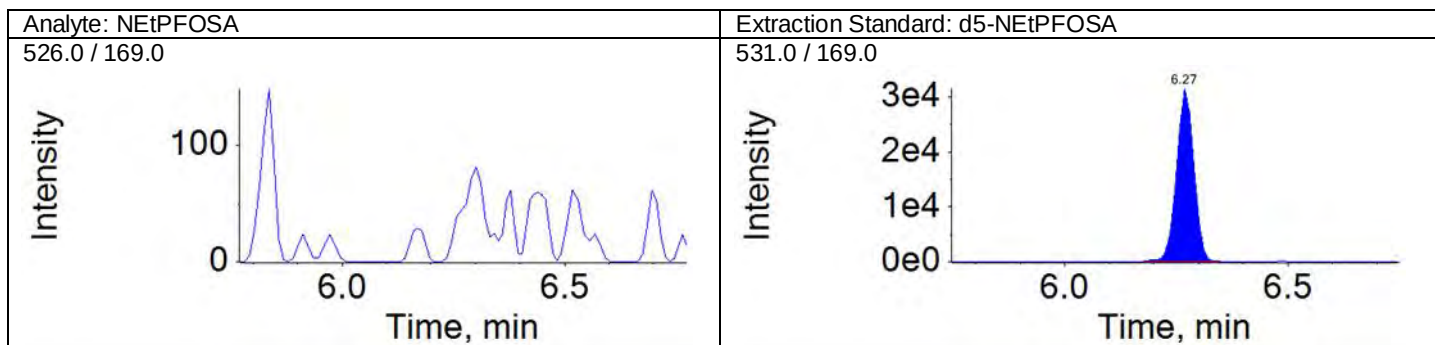
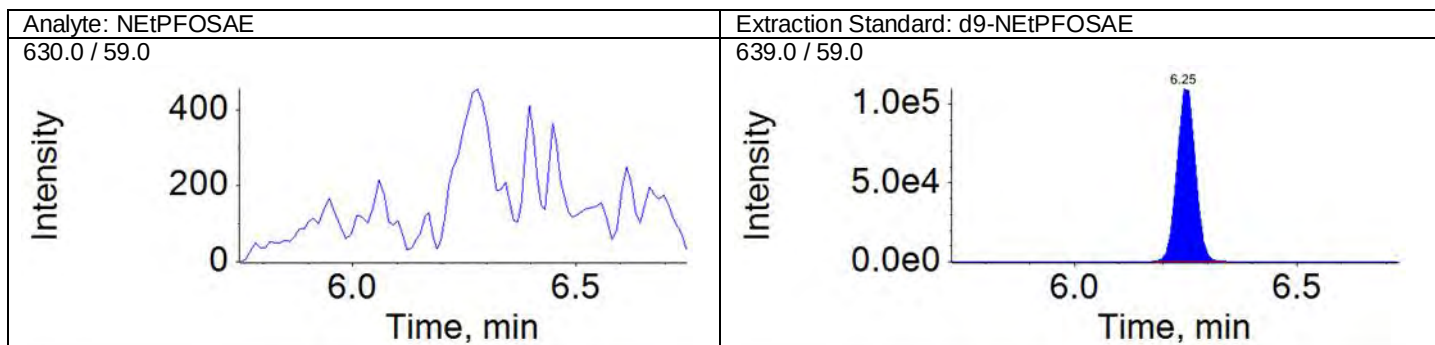
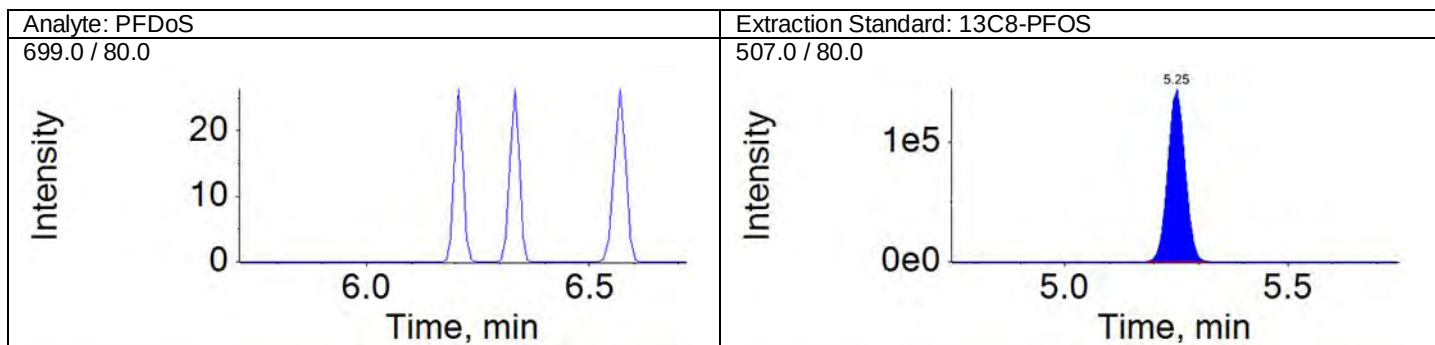
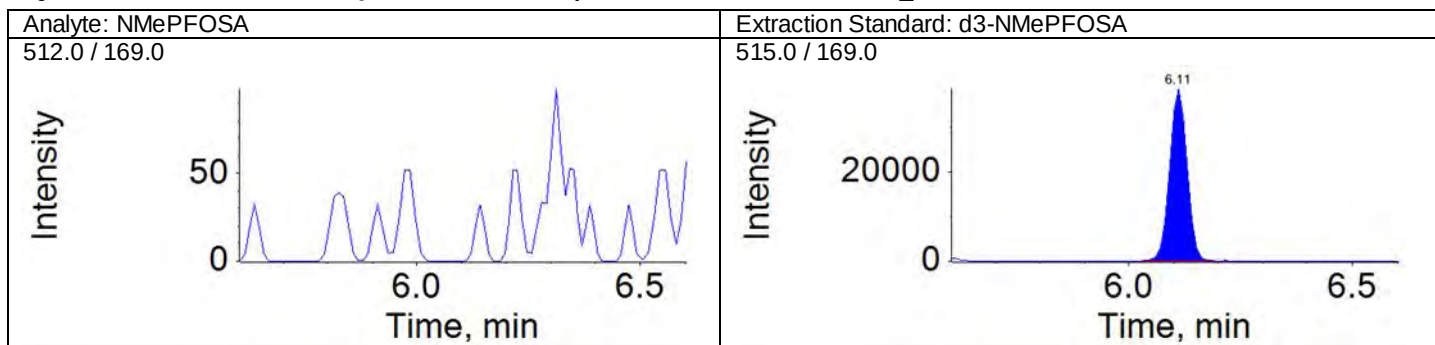
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Acquisition Method: 18AUG13_3uL.dam



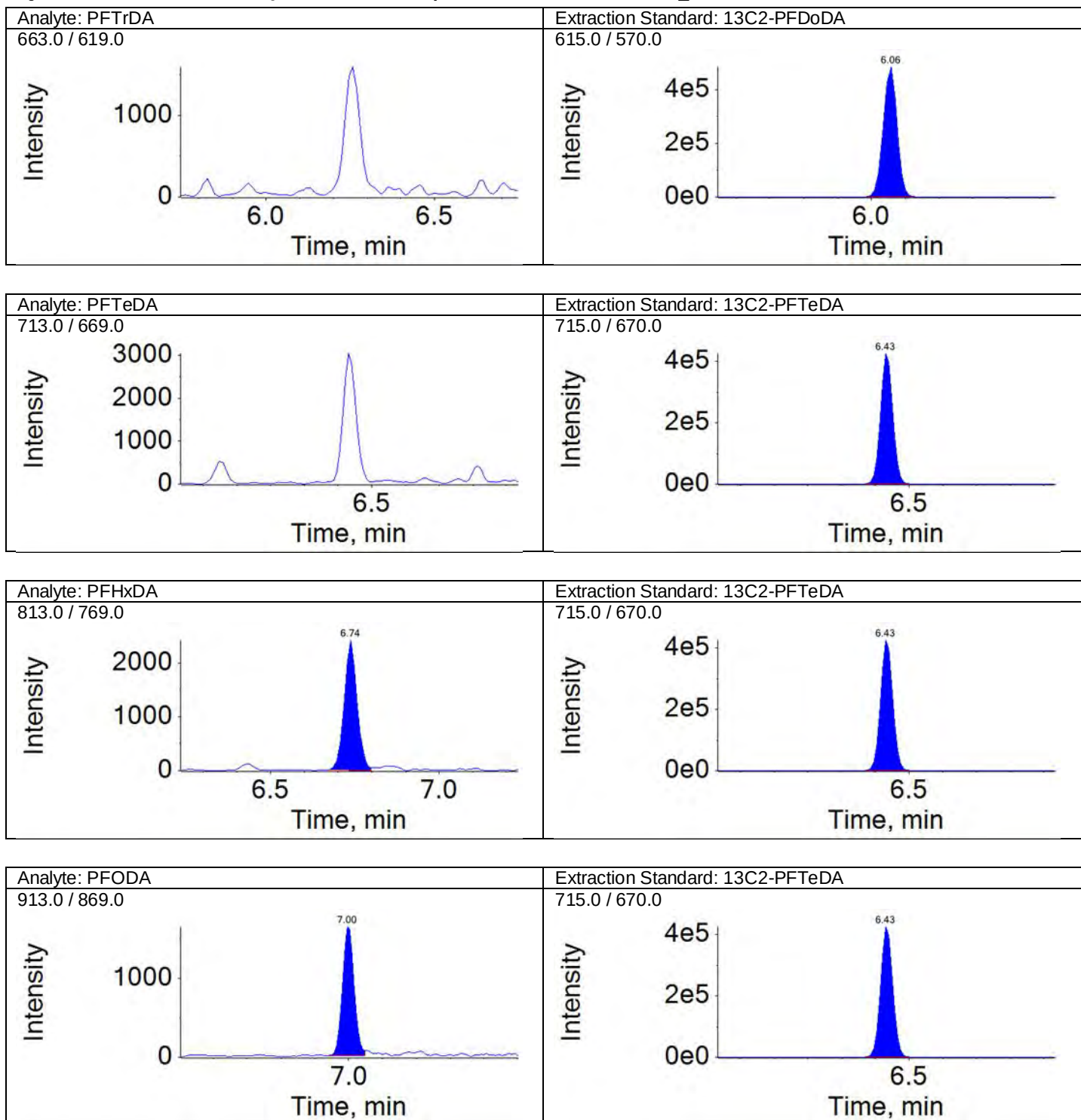
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Result Table: 18NOV28DCAL 11/29/2018 1:05:58 PM
Acquisition Method: 18AUG13_3uL.dam



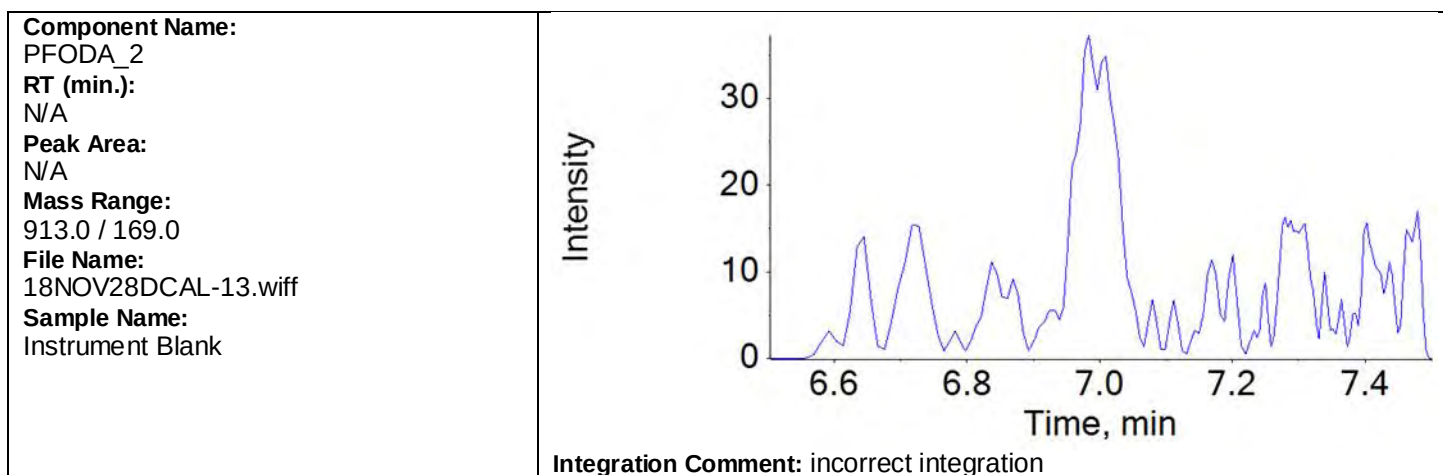
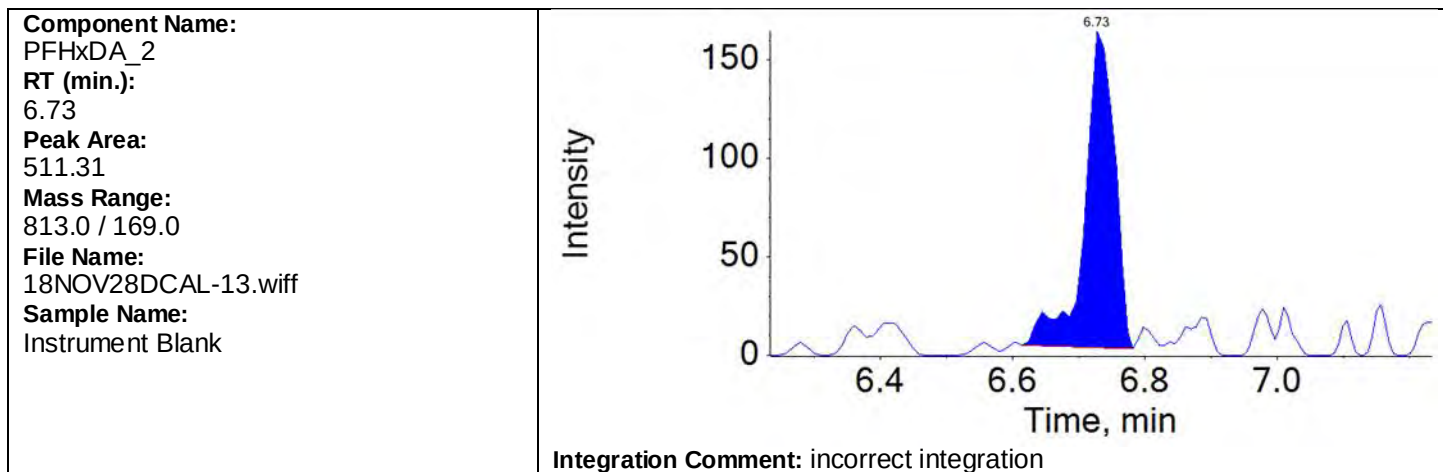
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Result Table: 18NOV28DCAL 11/29/2018 1:05:58 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV28DCAL
Results Table Date: 11/29/2018 1:05:58 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18NOV28DCAL
Results Table Date: 11/29/2018 1:05:58 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By JPT at 1:11 pm, 11/29/18

REVIEWED
By HMK at 1:17 pm, 11/29/18

Ion Ratio Report

Sample Name: Instrument Blank

Instrument Name: LM27631

File Name: 18NOV28DCAL-13.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDODA	N/A	N/A	N/A	A	N/A	N/A			
PFDODA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	6.25	1.03	266.70	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	6.74	1.05	6327.14	A	N/A	1.0000			
PFHxDA_2	6.73	1.05	465.21	M	N/A	0.0735	13	50	
PFODA	7.00	1.09	3886.61	A	N/A	1.0000			
PFODA_2	6.99	1.09	153.16	M	N/A	0.0394	47	50	

APPROVED

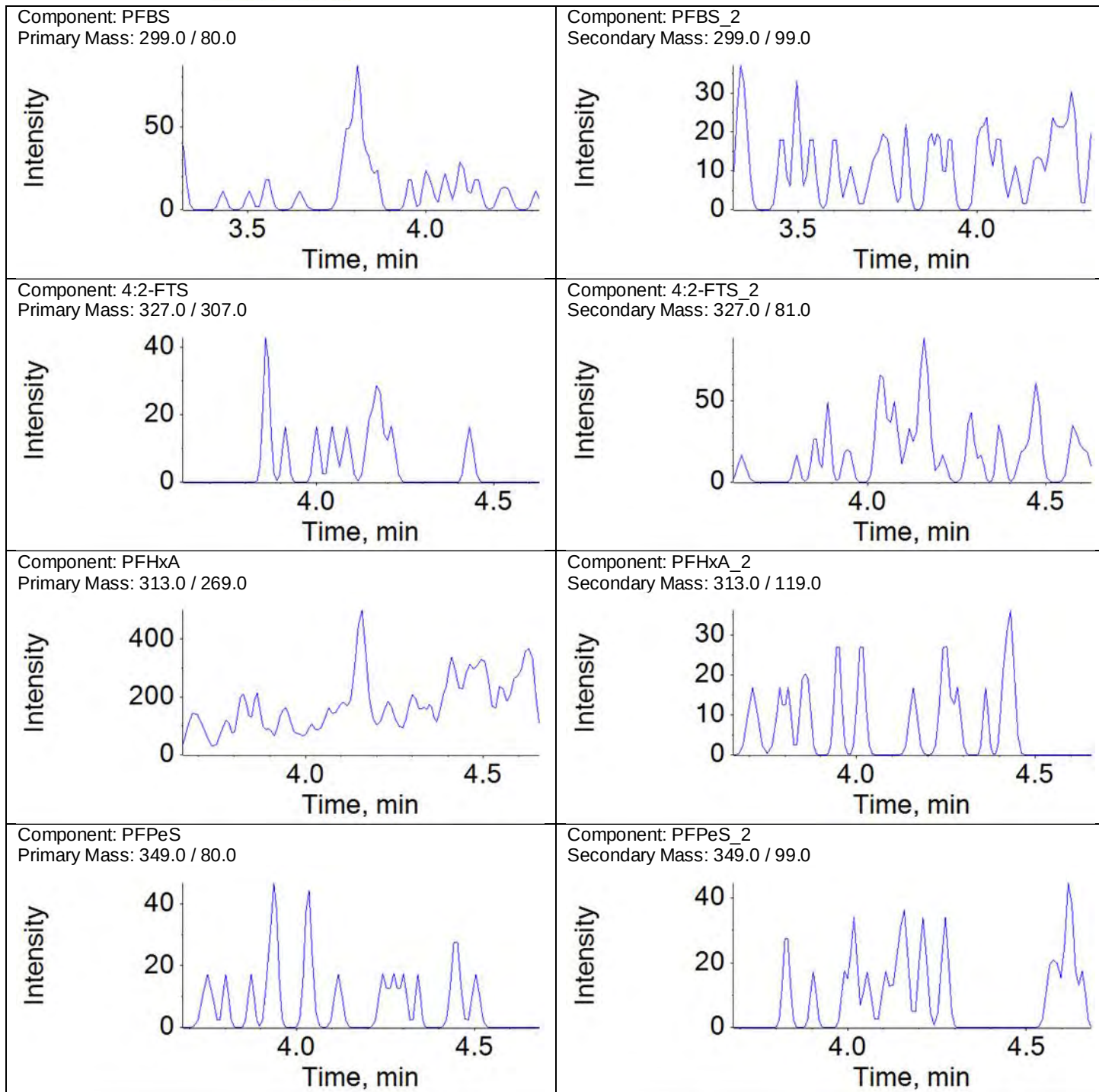
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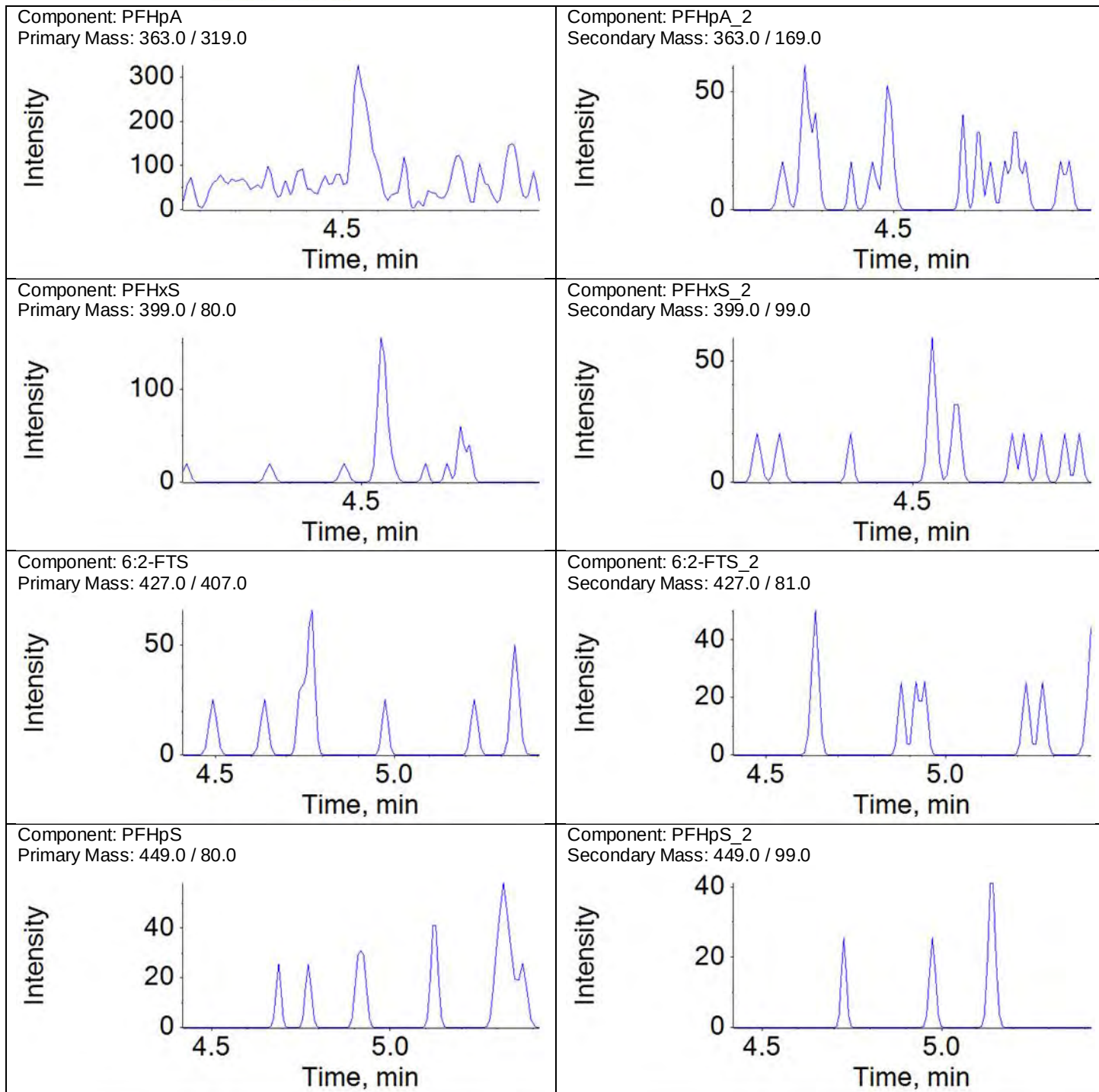
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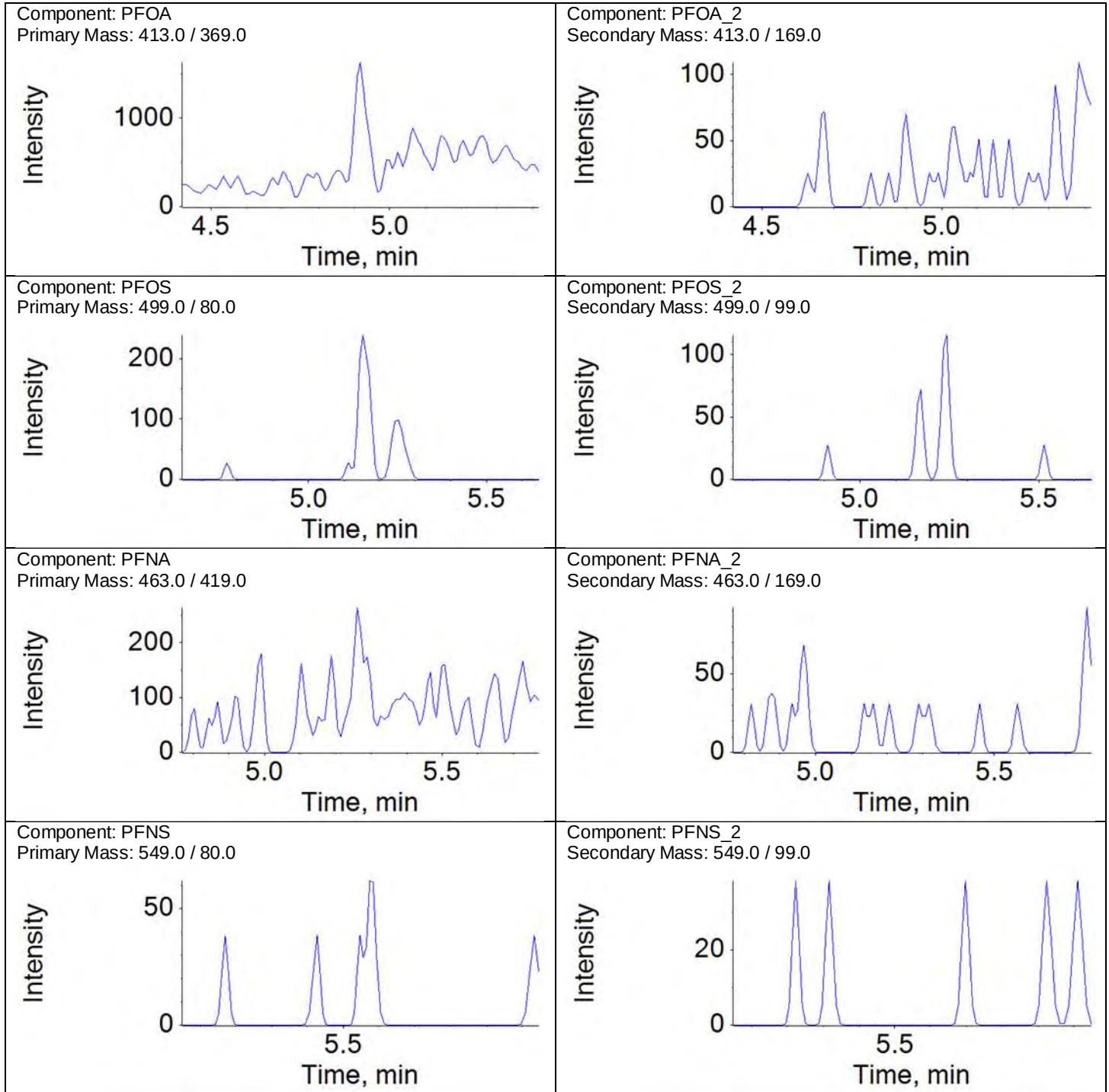
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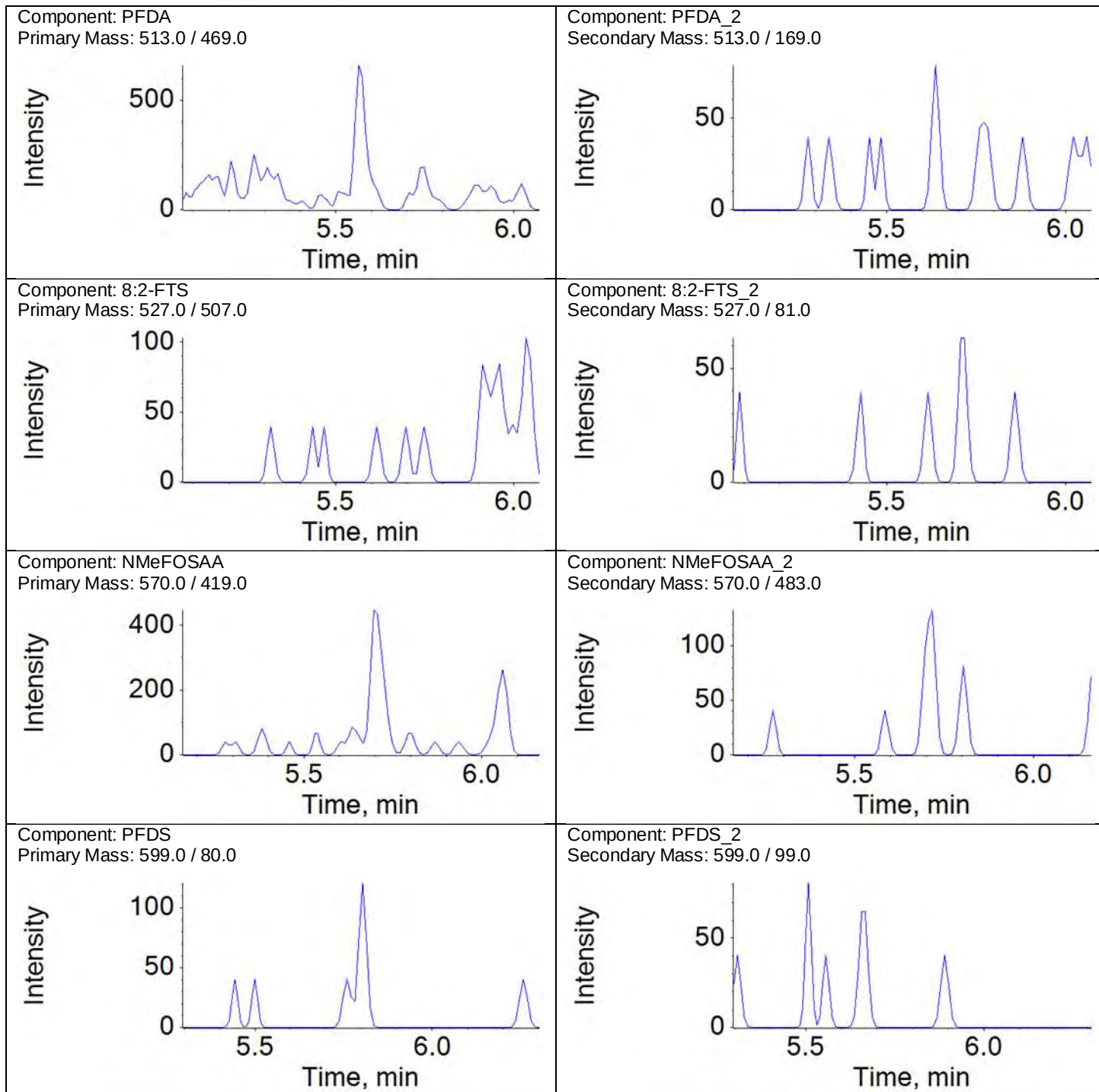
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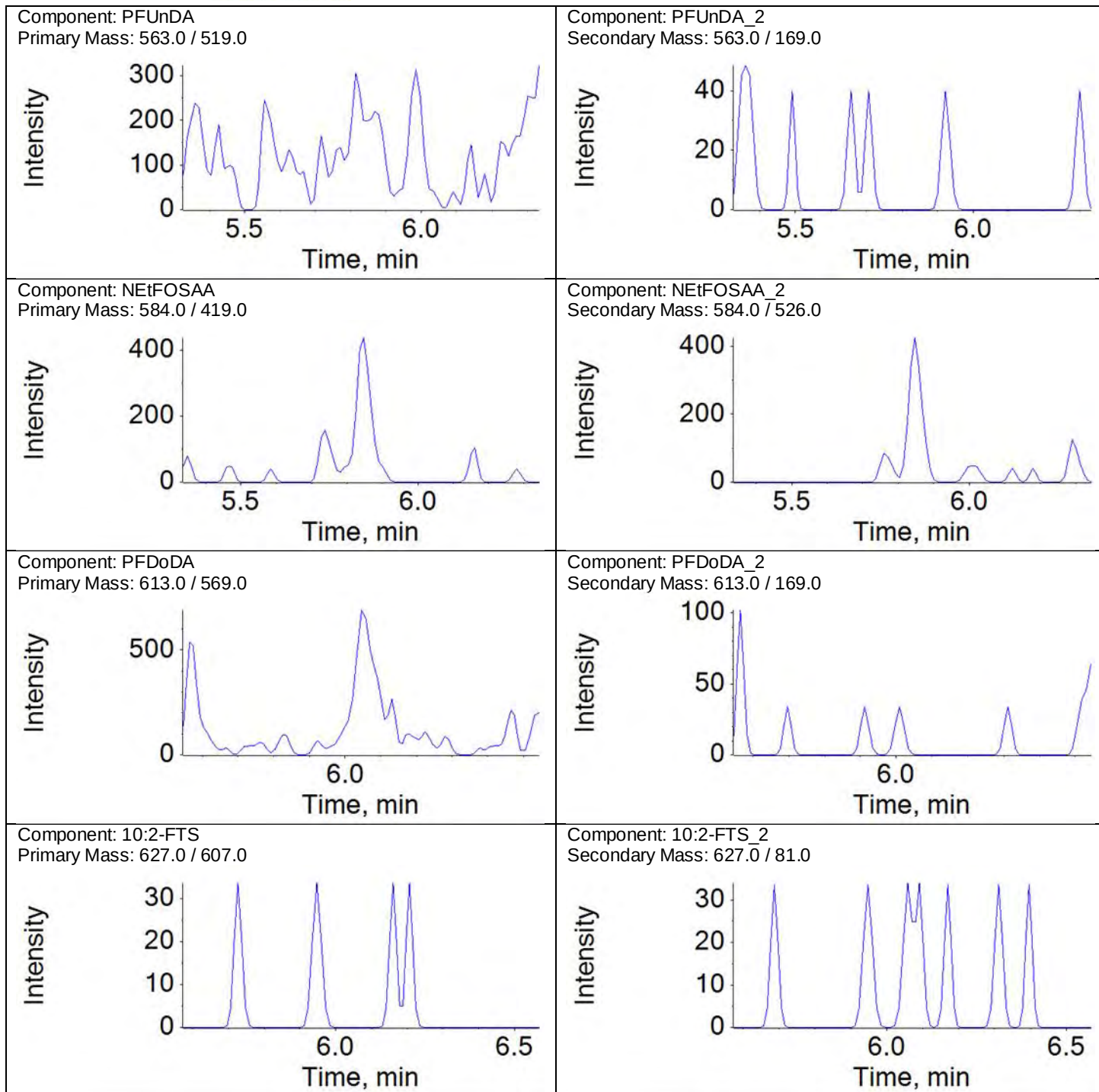
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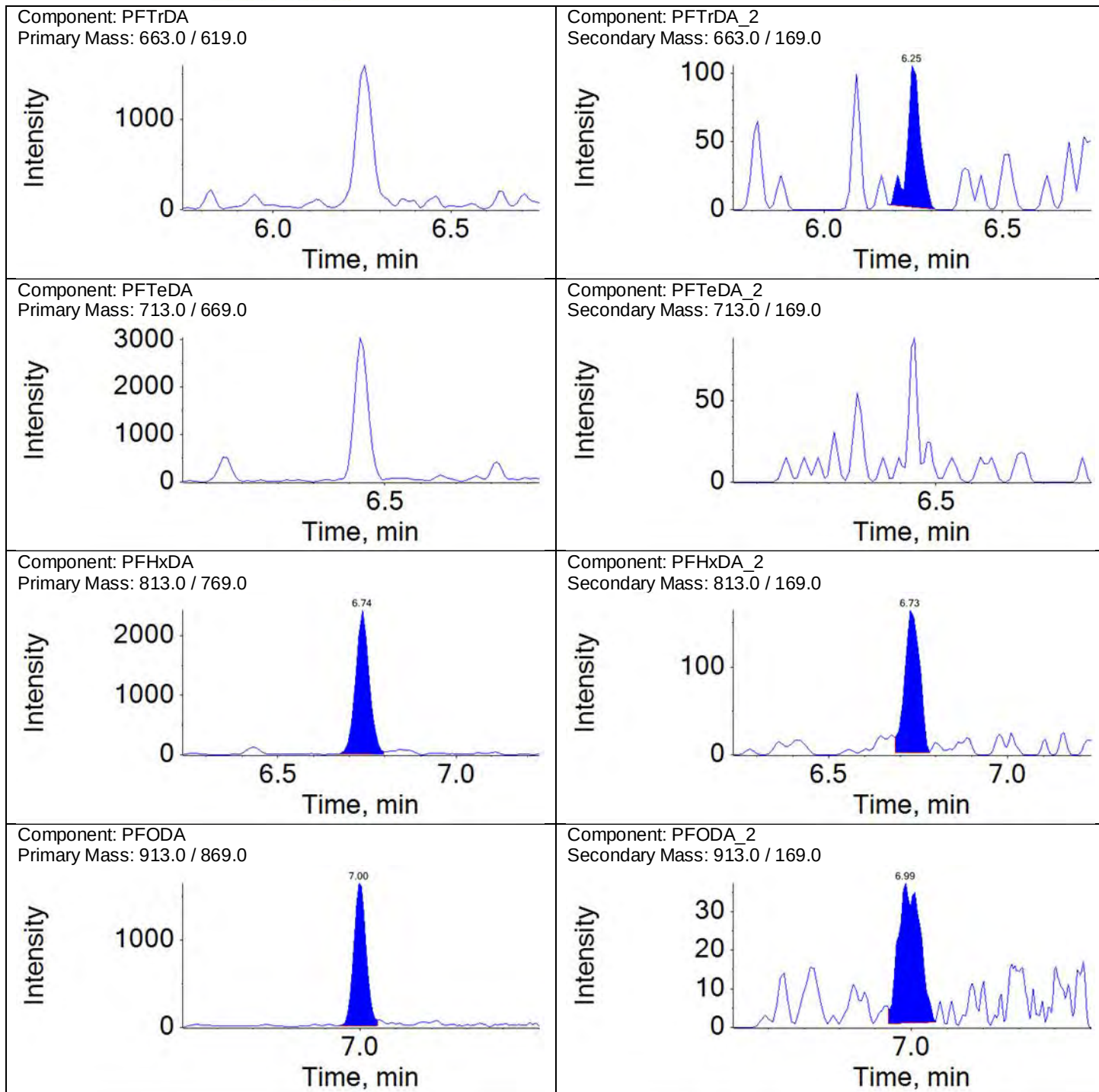












ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	MDL		Data File:	18NOV28DCAL-05.wiff
Sample ID:	MDLMDX1833F		Acquis Date:	2018-11-28T13:33:07
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	2		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV28DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1202955.4	887248.9	36	50	
13C2-PFOA	5.0	664292.2	498501.6	33	50	
13C4-PFOS	4.8	375981.9	283214.2	33	50	
13C2-PFDA	5.0	580456.5	441790.6	31	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1367472.9	13C3-PFBA	1202955.4	1.137	5.000	5.072	101	70-130	
E13C5-PFPeA	1239583.2	13C3-PFBA	1202955.4	1.030	5.000	4.812	96	70-130	
E13C3-PFBS	565097.8	13C3-PFBA	1202955.4	0.470	4.650	4.482	96	70-130	
E13C2-4:2-FTS	91419.7	13C2-PFOA	664292.2	0.138	4.670	4.743	102	70-130	
E13C5-PFHxA	909464.7	13C2-PFOA	664292.2	1.369	5.000	5.029	101	70-130	
E13C3-PFHxS	412697.5	13C2-PFOA	664292.2	0.621	4.730	4.869	103	70-130	
E13C4-PFHpA	736898.5	13C2-PFOA	664292.2	1.109	5.000	5.097	102	70-130	
E13C2-6:2-FTS	78325.6	13C2-PFOA	664292.2	0.118	4.750	4.936	104	70-130	
E13C8-PFOA	1322963.7	13C2-PFOA	664292.2	1.992	5.000	5.482	110	70-130	
E13C8-PFOS	393817.9	13C4-PFOS	375981.9	1.047	4.780	4.728	99	70-130	
E13C9-PFNA	850571.5	13C4-PFOS	375981.9	2.262	5.000	4.969	99	70-130	
E13C6-PFDA	1044197.2	13C2-PFDA	580456.5	1.799	5.000	5.072	101	70-130	
E13C2-8:2-FTS	65872.4	13C2-PFDA	580456.5	0.113	4.790	4.877	102	70-130	
E13C8-PFOSA	757176.1	13C2-PFDA	580456.5	1.304	5.000	4.786	96	70-130	
Ed3-NMeFOSAA	233869.6	13C2-PFDA	580456.5	0.403	5.000	5.116	102	70-130	
E13C7-PFUnDA	717824.6	13C2-PFDA	580456.5	1.237	5.000	5.227	105	70-130	
Ed5-NEtFOSAA	174037.9	13C2-PFDA	580456.5	0.300	5.000	5.342	107	70-130	
E13C2-PFDoDA	1443367.4	13C2-PFDA	580456.5	2.487	5.000	5.225	104	70-130	
Ed7-NMePFOSAE	318648.0	13C2-PFDA	580456.5	0.549	5.000	4.744	95	70-130	
Ed3-NMePFOSA	103103.2	13C2-PFDA	580456.5	0.178	5.000	4.807	96	70-130	
Ed9-NEtPFOSAE	276598.5	13C2-PFDA	580456.5	0.477	5.000	4.831	97	70-130	
Ed5-NEtPFOSA	84232.4	13C2-PFDA	580456.5	0.145	5.000	5.042	101	70-130	
E13C2-PFTeDA	1044681.2	13C2-PFDA	580456.5	1.800	5.000	4.980	100	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

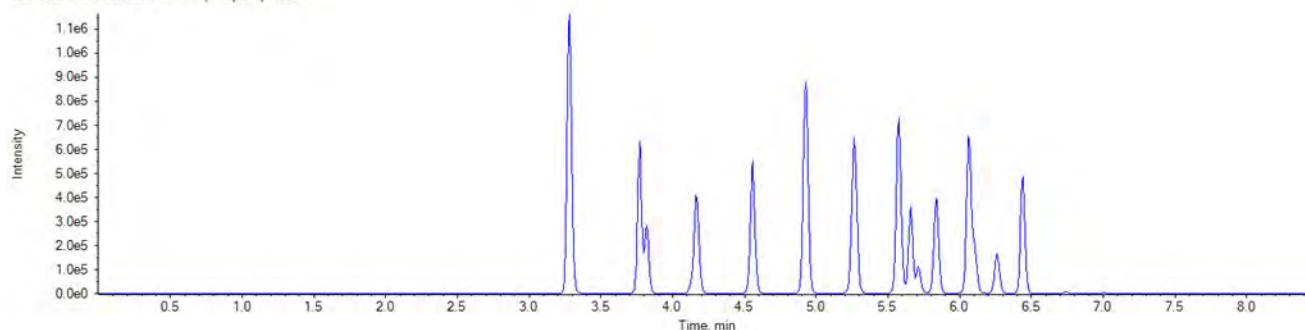
Sample Name: MDL Instrument Name: LM27631 File Name: 18NOV28DCAL-05.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.28	1.000	44840.3		A	13C4-PFBA	3.28	1367472.9	0.033	0.180
PFPeA	3.77	1.000	35372.3		A	13C5-PFPeA	3.77	1239583.2	0.029	0.140
PFBS	3.82	1.000	12605.1		A	13C3-PFBS	3.82	565097.8	0.022	0.108
4:2-FTS	4.13	1.000	2928.7		A	13C2-4:2-FTS	4.13	91419.7	0.032	0.086
PFHxA	4.17	1.000	32436.1		A	13C5-PFHxA	4.17	909464.7	0.036	0.143
PFPeS	4.19	1.100	5200.8		A	13C3-PFBS	3.82	565097.8	0.009	0.093
PFHpA	4.56	1.000	34134.5		A	13C4-PFHxA	4.56	736898.5	0.046	0.143
PFHxS	4.56	1.000	11072.6		A	13C3-PFHxS	4.56	412697.5	0.027	0.126
6:2-FTS	4.91	1.000	4195.7		A	13C2-6:2-FTS	4.91	78325.6	0.054	0.140
PFHpS	4.92	1.080	10674.9		A	13C3-PFHxS	4.56	412697.5	0.026	0.129
PFOA	4.93	1.000	35831.5		A	13C8-PFOA	4.93	1322963.7	0.027	0.140
PFOS	5.25	1.000	10490.3		A	13C8-PFOS	5.26	393817.9	0.027	0.112
PFNA	5.27	1.000	29535.3		A	13C9-PFNA	5.27	850571.5	0.035	0.133
PFNS	5.55	1.060	5896.9		A	13C8-PFOS	5.26	393817.9	0.015	0.095
PFDA	5.58	1.000	28044.3		A	13C6-PFDA	5.57	1044197.2	0.027	0.152
8:2-FTS	5.58	1.000	3464.6		A	13C2-8:2-FTS	5.58	65872.4	0.053	0.099
PFOSA	5.66	1.000	18214.8		A	13C8-PFOSA	5.66	757176.1	0.024	0.122
NMeFOSAA	5.71	1.000	6753.7		A	d3-NMeFOSAA	5.71	233869.6	0.029	0.184
PFDS	5.81	1.100	7418.0		A	13C8-PFOS	5.26	393817.9	0.019	0.149
PFUnDA	5.83	1.000	27644.3		A	13C7-PFUnDA	5.83	717824.6	0.039	0.138
NEtFOSAA	5.85	1.000	5734.3		M	d5-NEtFOSAA	5.84	174037.9	0.033	0.160
PFDODA	6.06	1.000	38884.2		A	13C2-PFDODA	6.06	1443367.4	0.027	0.148
10:2-FTS	6.08	1.090	3761.8		A	13C2-8:2-FTS	5.58	65872.4	0.057	0.126
NMePFOSAE	6.11	1.000	9196.7		A	d7-NMePFOSAE	6.10	318648.0	0.029	0.121
NMePFOSA	6.11	1.000	2590.4		A	d3-NMePFOSA	6.11	103103.2	0.025	0.133
PFDoS	6.24	1.190	2522.1		A	13C8-PFOS	5.26	393817.9	0.006	0.092
NEtPFOSAE	6.27	1.000	9043.7		A	d9-NEtPFOSAE	6.26	276598.5	0.033	0.118
NEtPFOSA	6.29	1.000	1641.5		A	d5-NEtPFOSA	6.27	84232.4	0.019	0.087
PFTDA	6.26	1.030	35013.3		A	13C2-PFDODA	6.06	1443367.4	0.024	0.146
PFTeDA	6.44	1.000	27817.6		A	13C2-PFTeDA	6.44	1044681.2	0.027	0.151
PFHxDA	6.74	1.050	13033.4		A	13C2-PFTeDA	6.44	1044681.2	0.012	0.143
PFODA	7.00	1.090	8671.1		A	13C2-PFTeDA	6.44	1044681.2	0.008	0.111

Total Ion Chromatogram

TIC from 18NOV28DCAL-05.wiff (sample 1) - MDL



APPROVED

By MCD at 5:01 pm, 11/28/18

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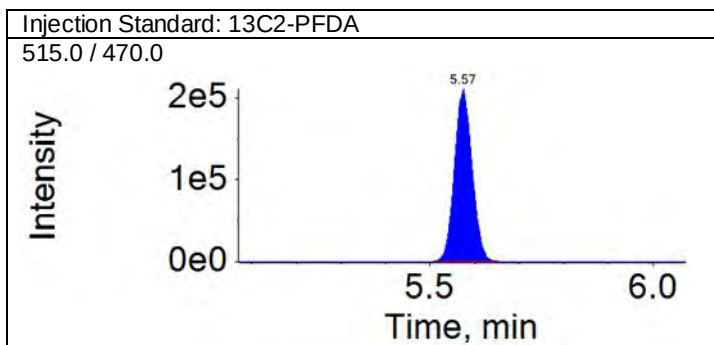
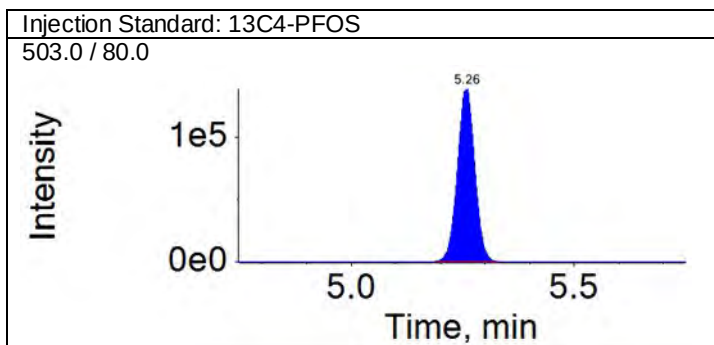
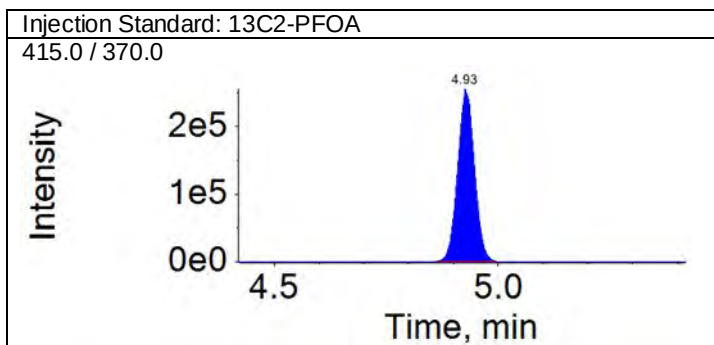
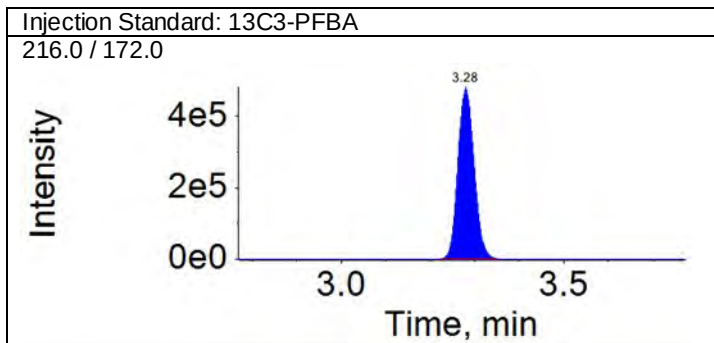
REVIEWED

By HMK at 12:22 pm, 11/29/18

Page 2 of 17

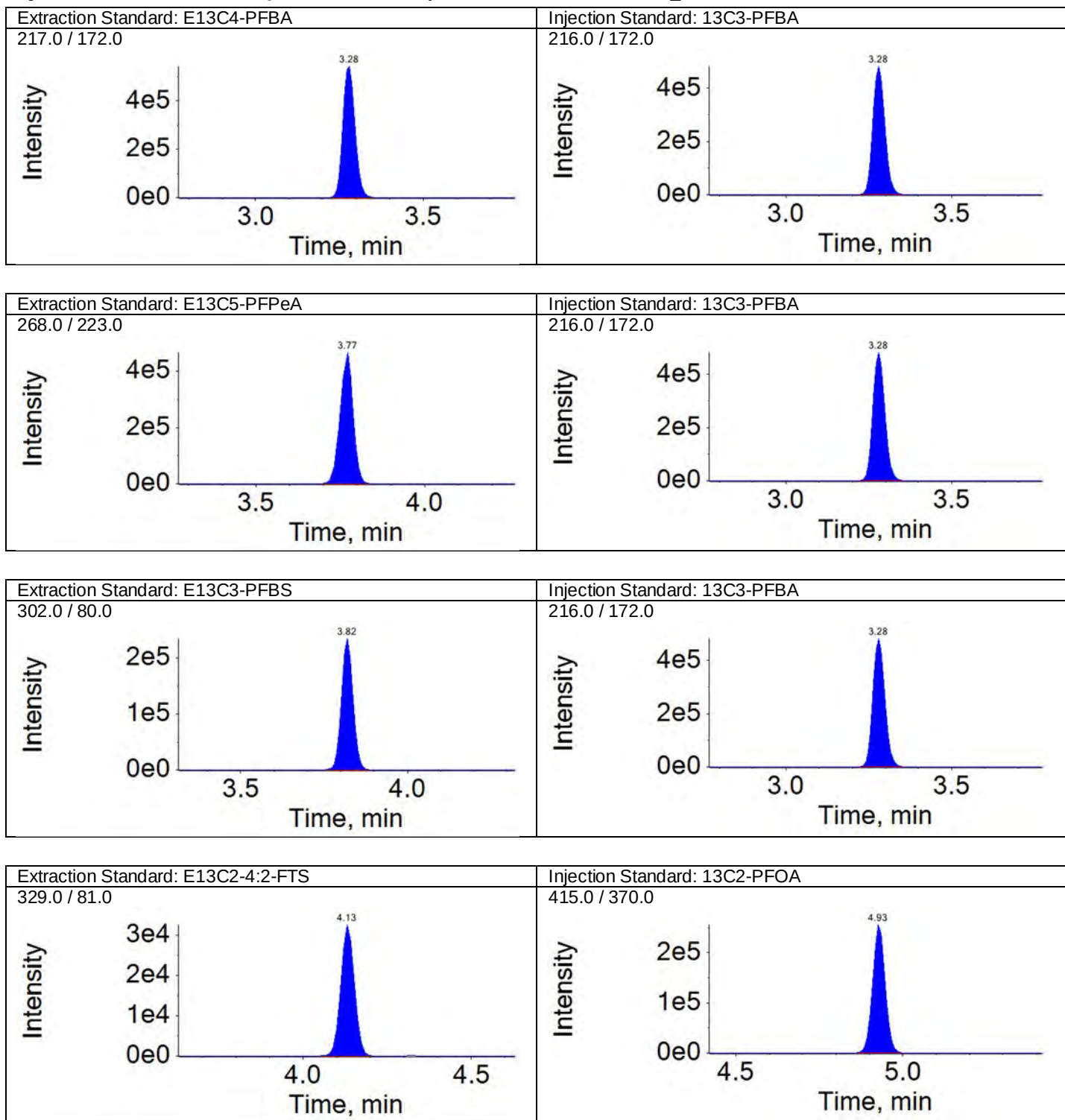
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



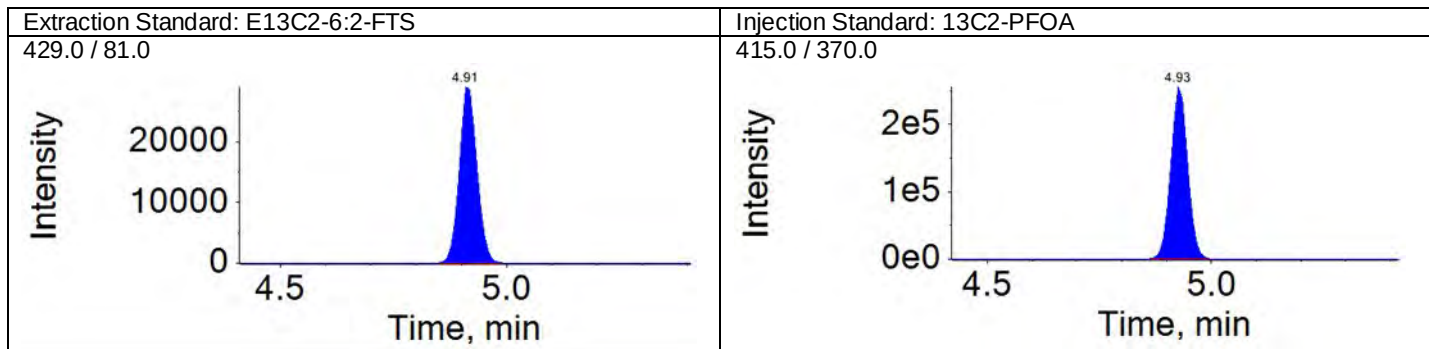
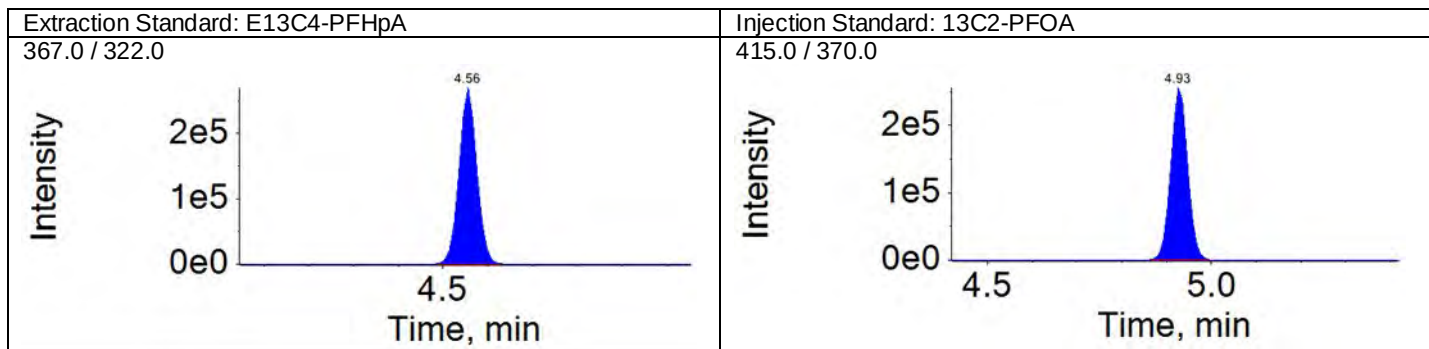
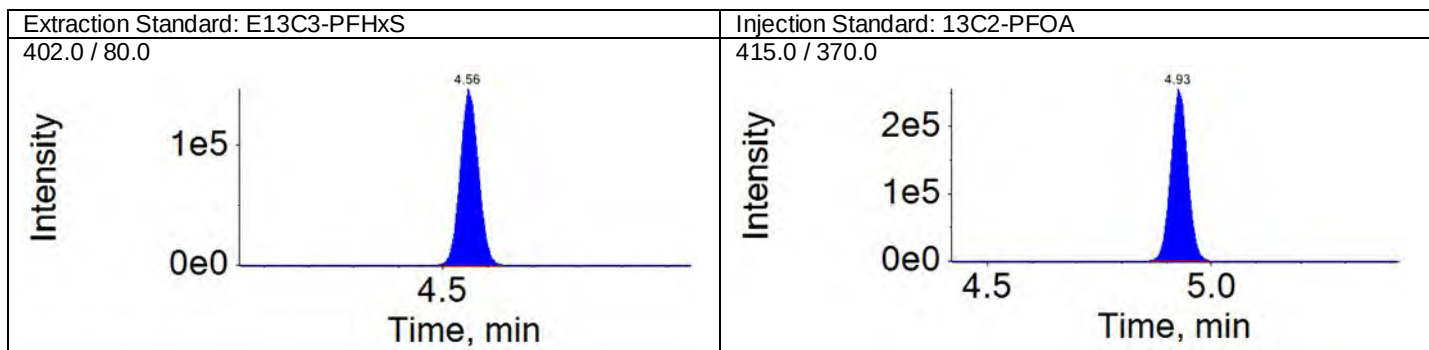
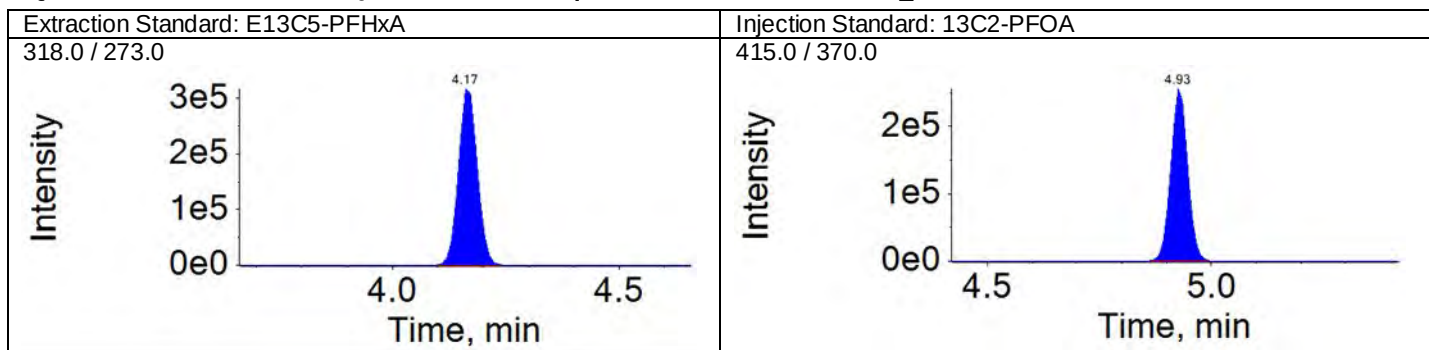
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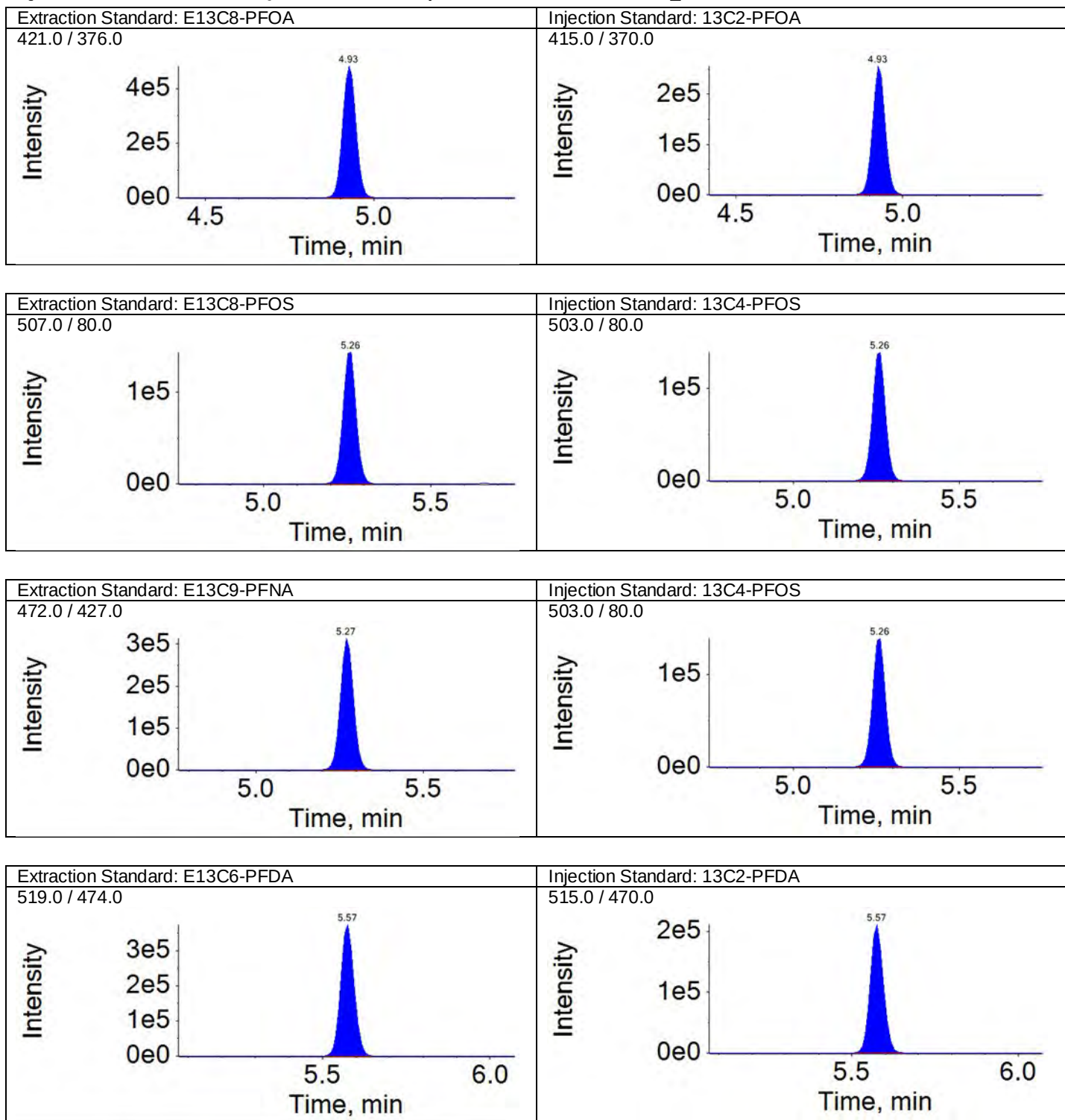
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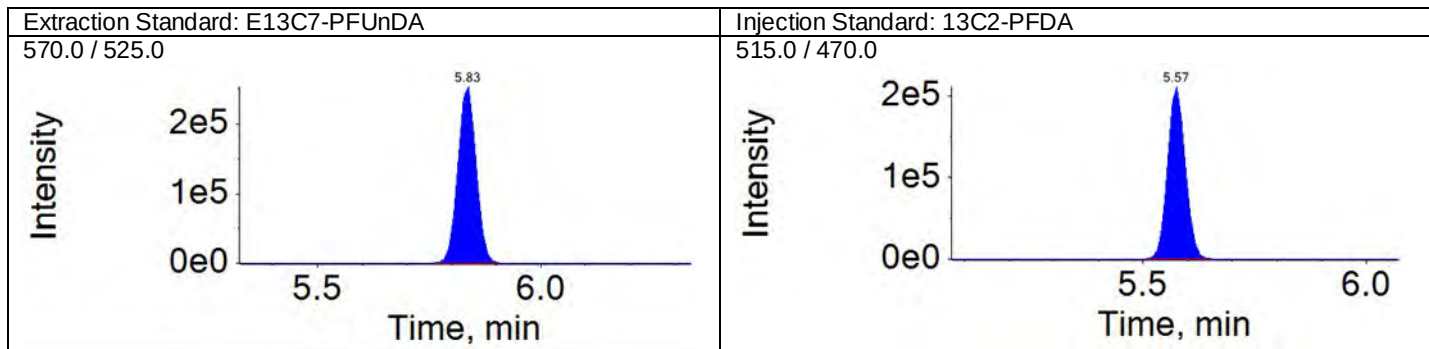
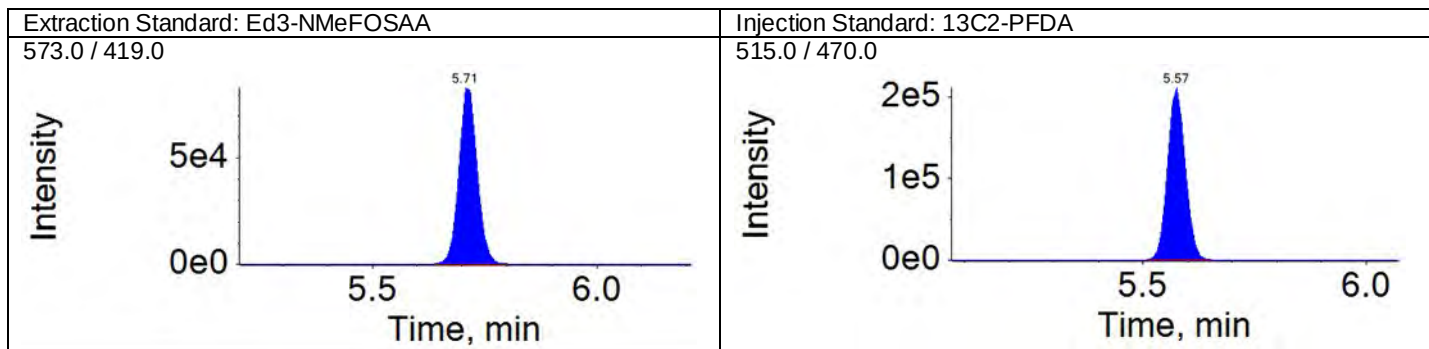
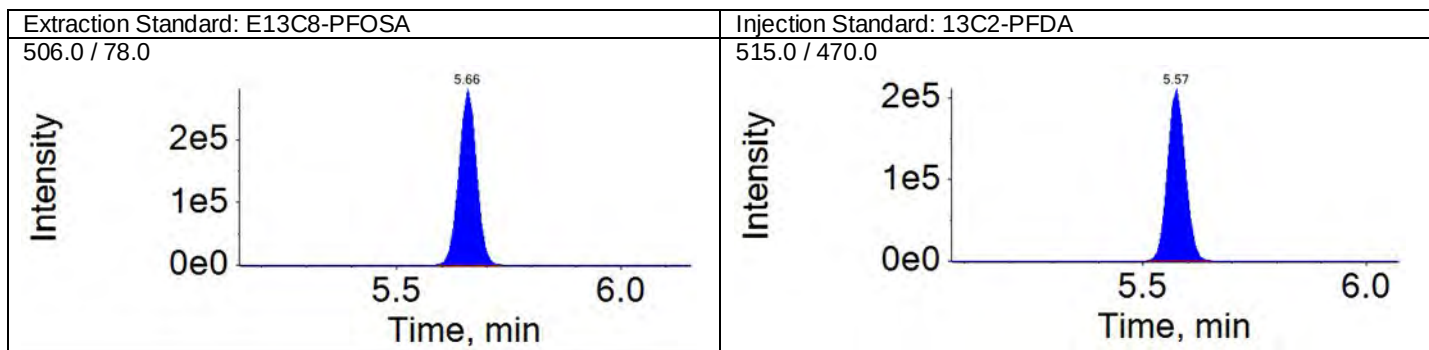
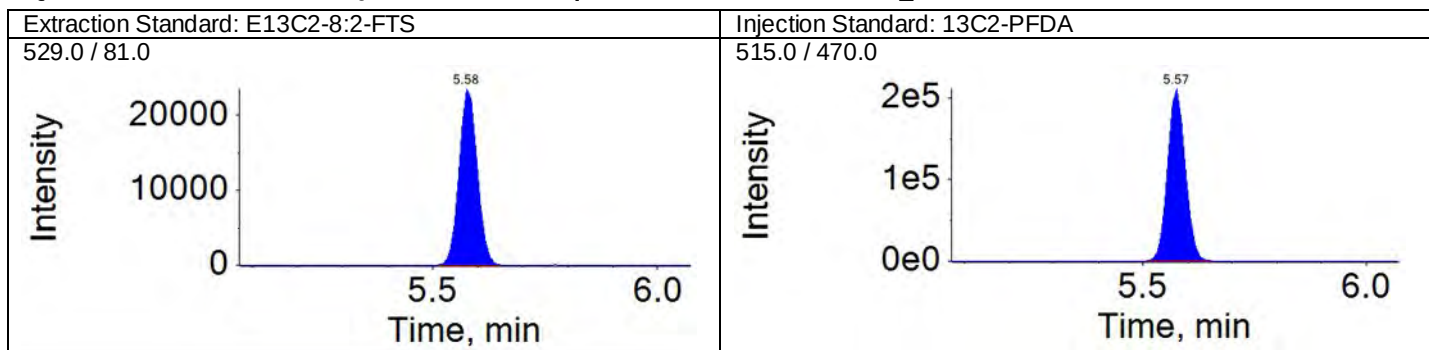
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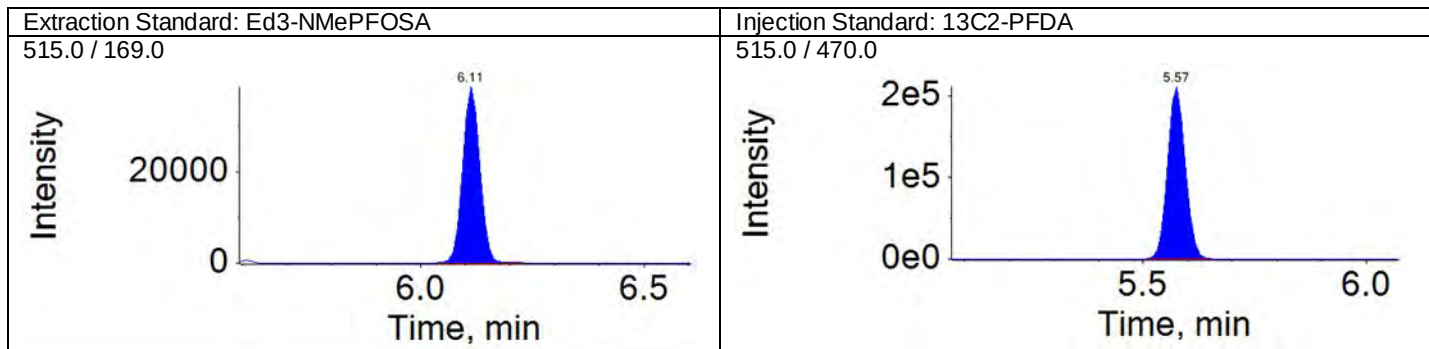
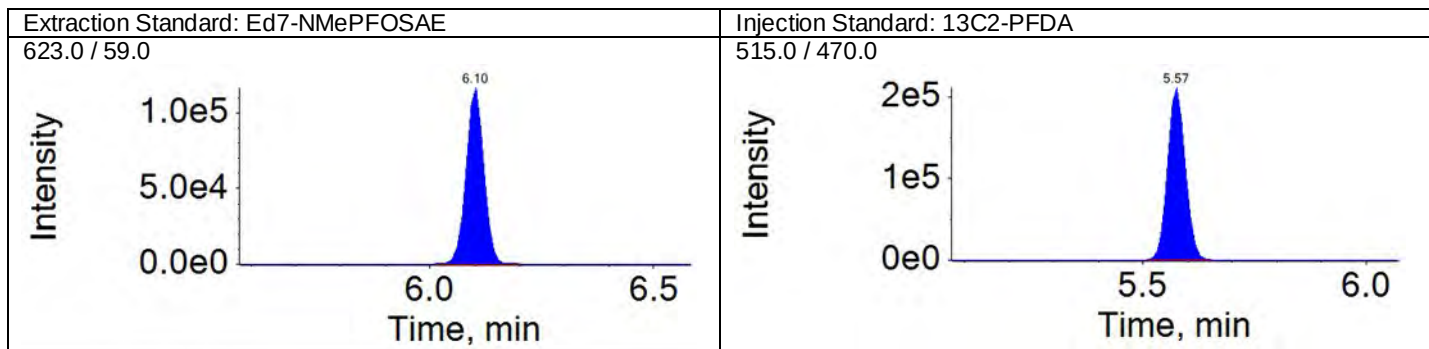
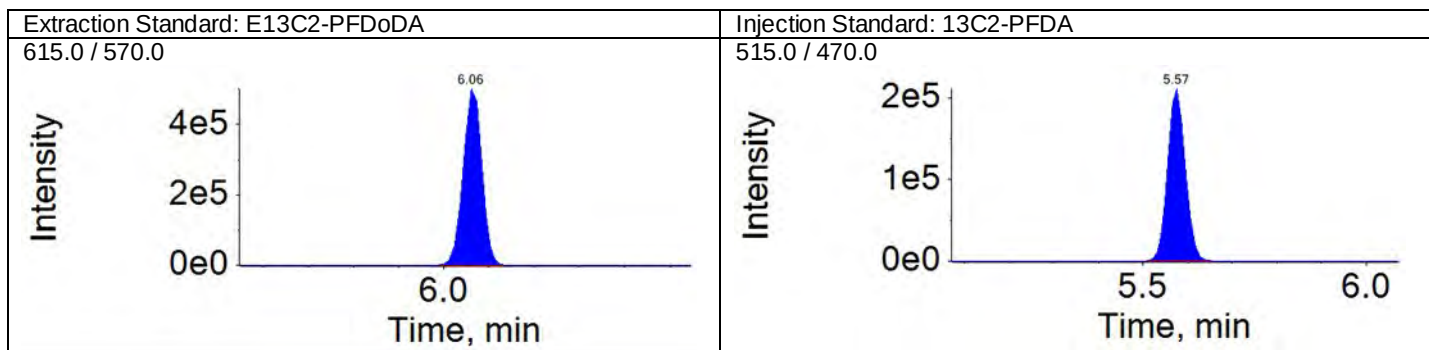
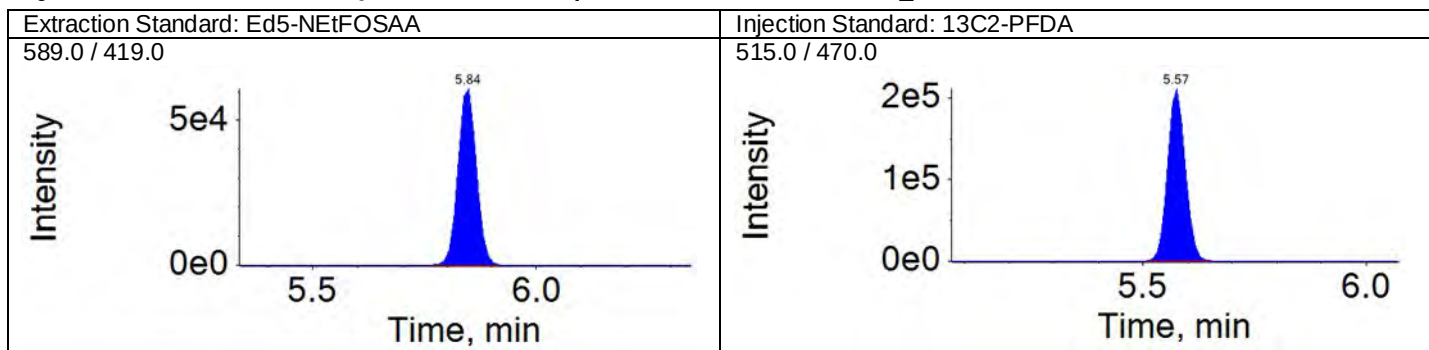
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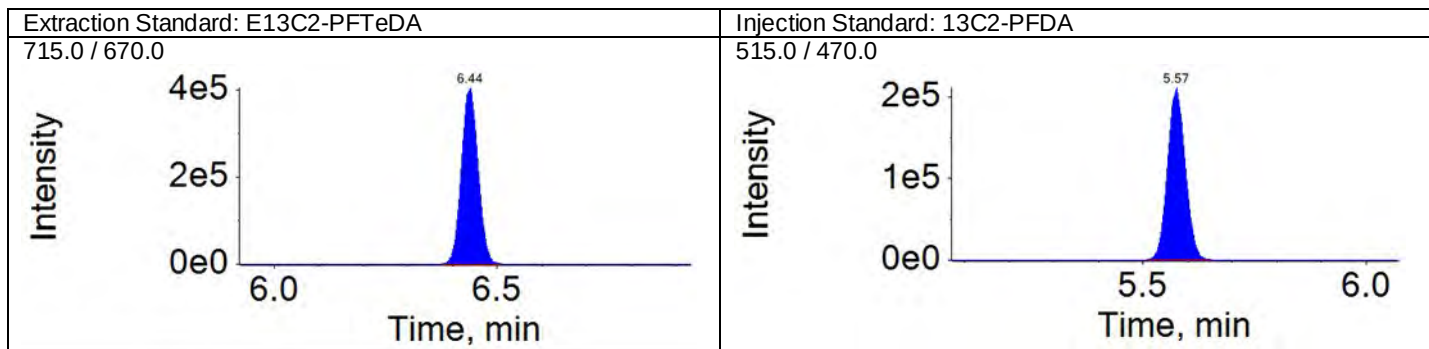
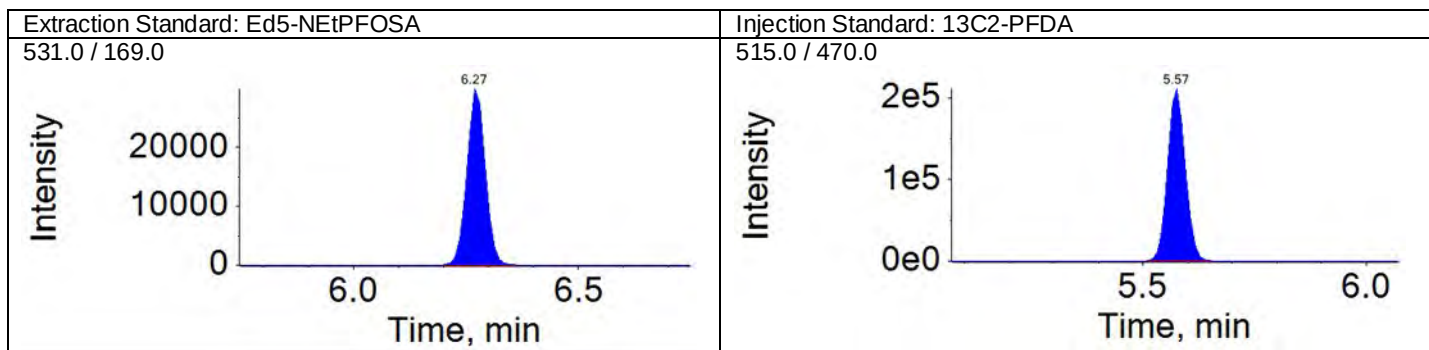
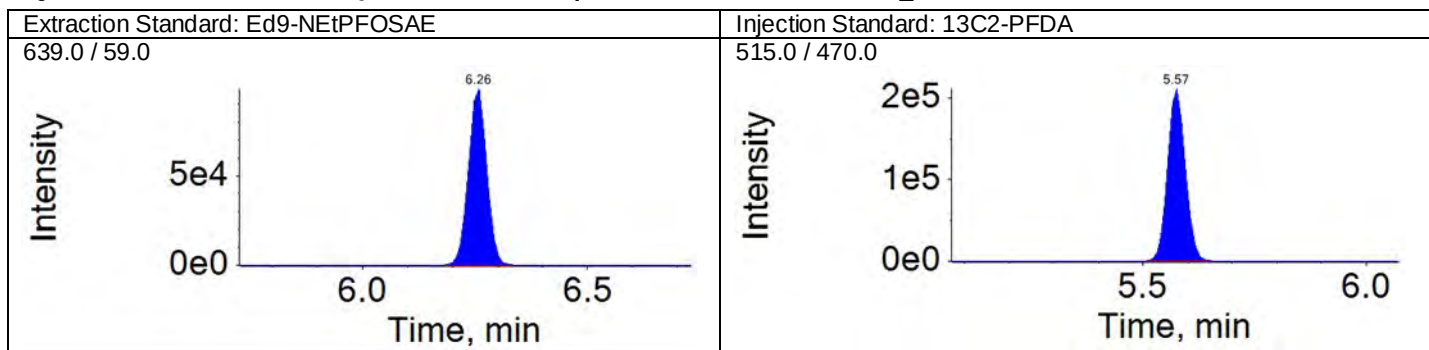
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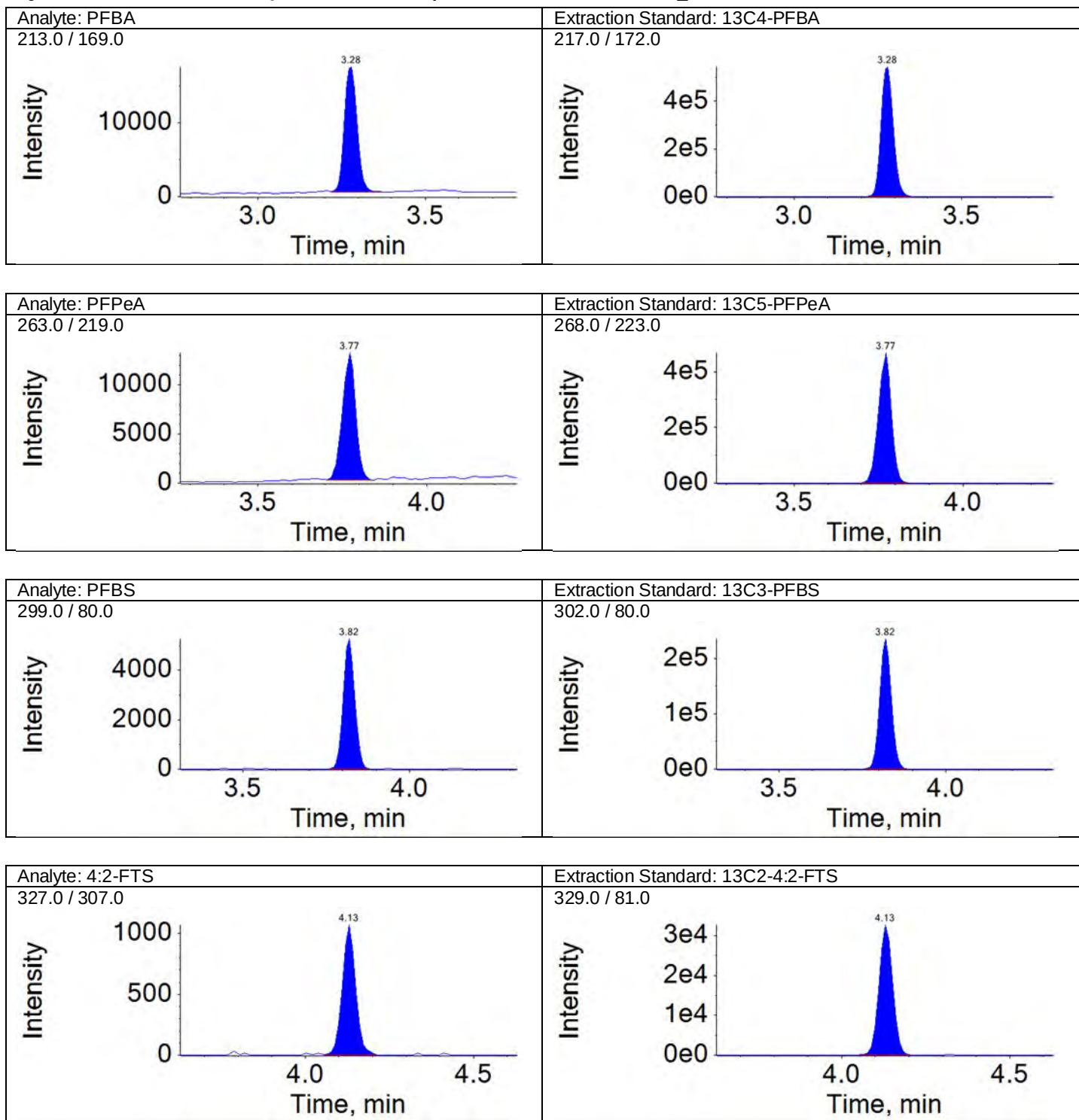
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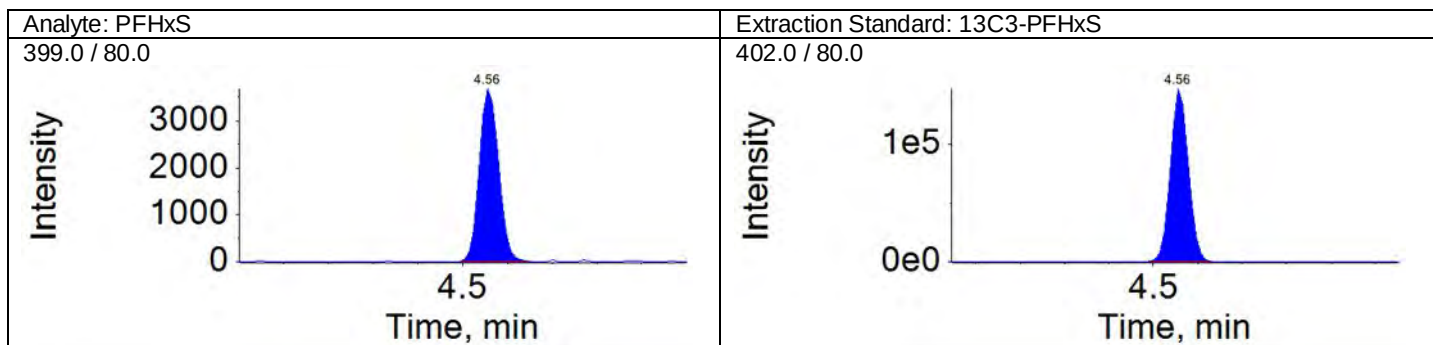
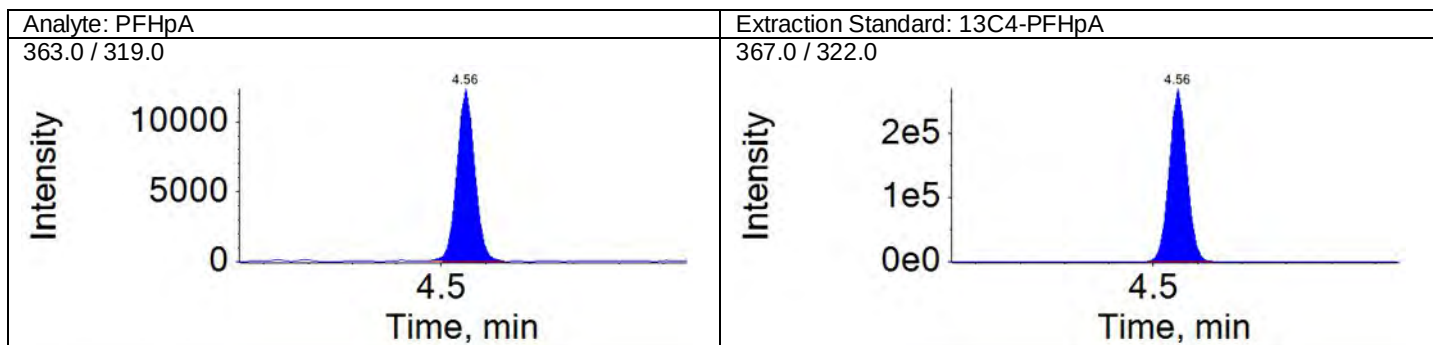
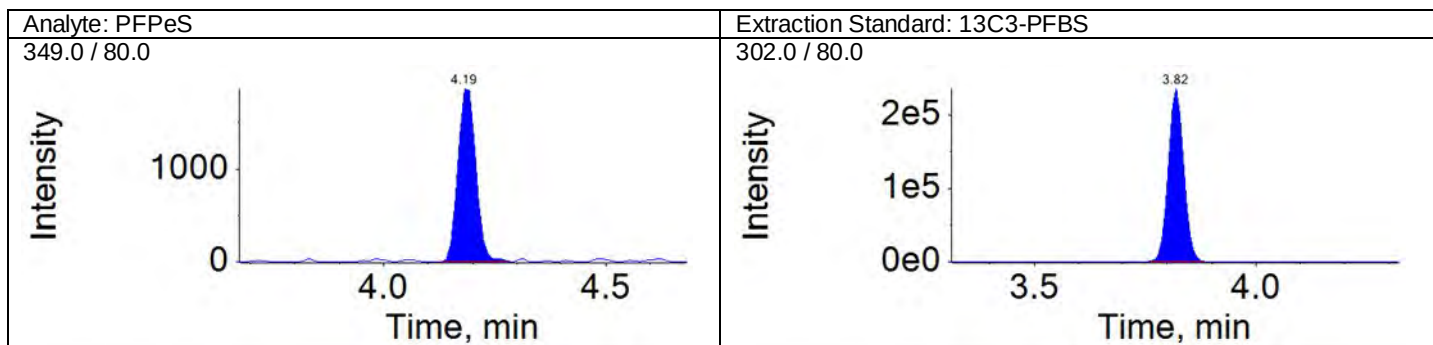
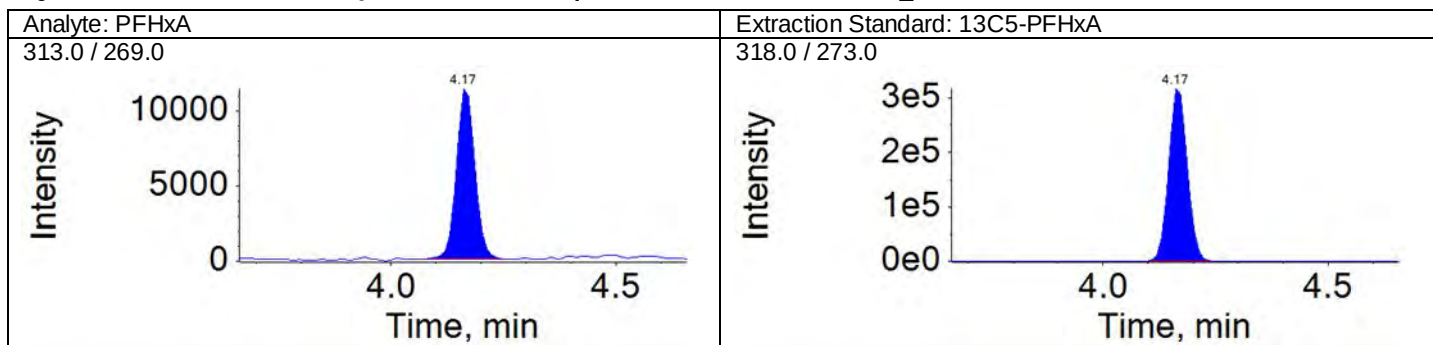
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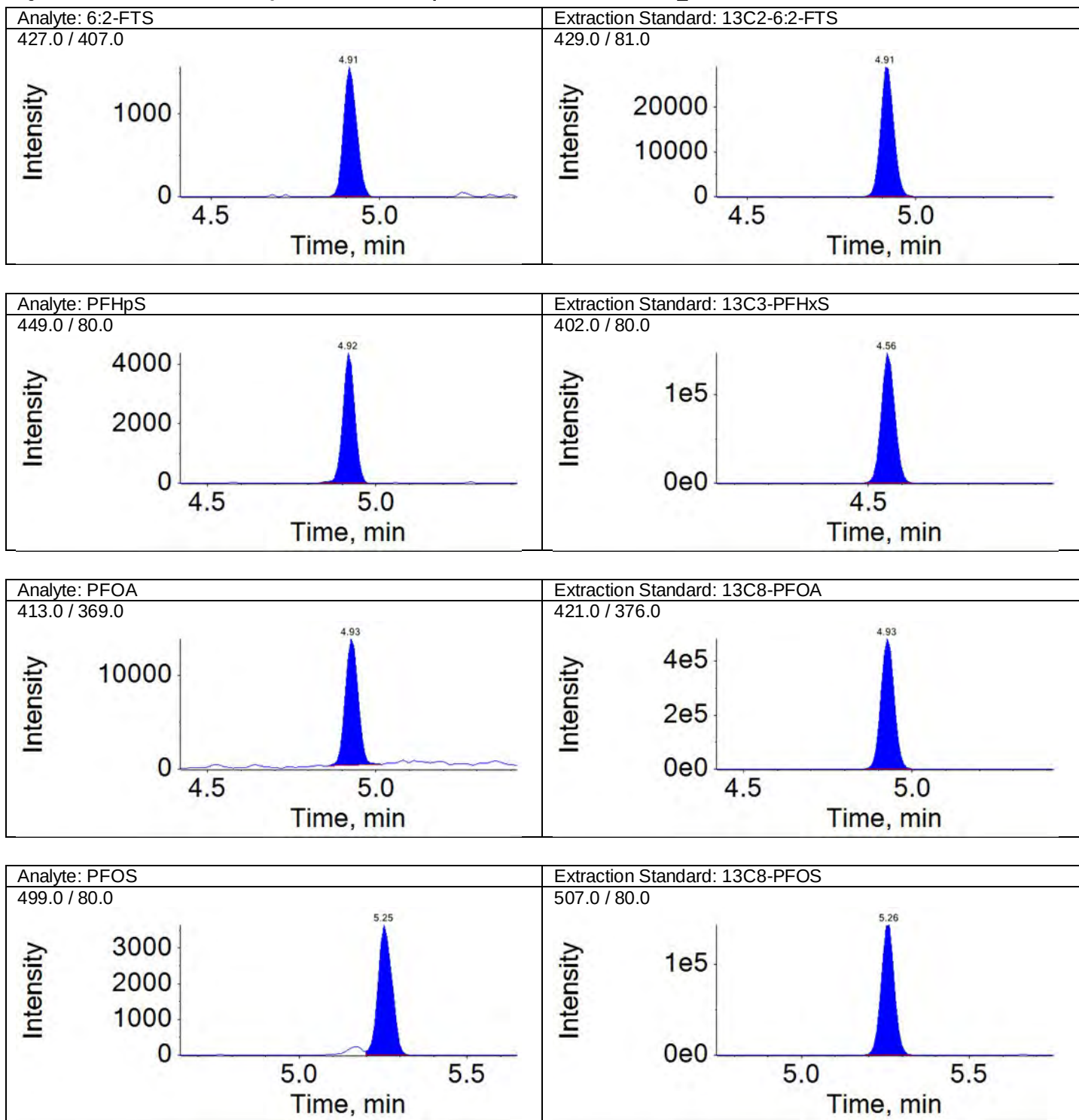
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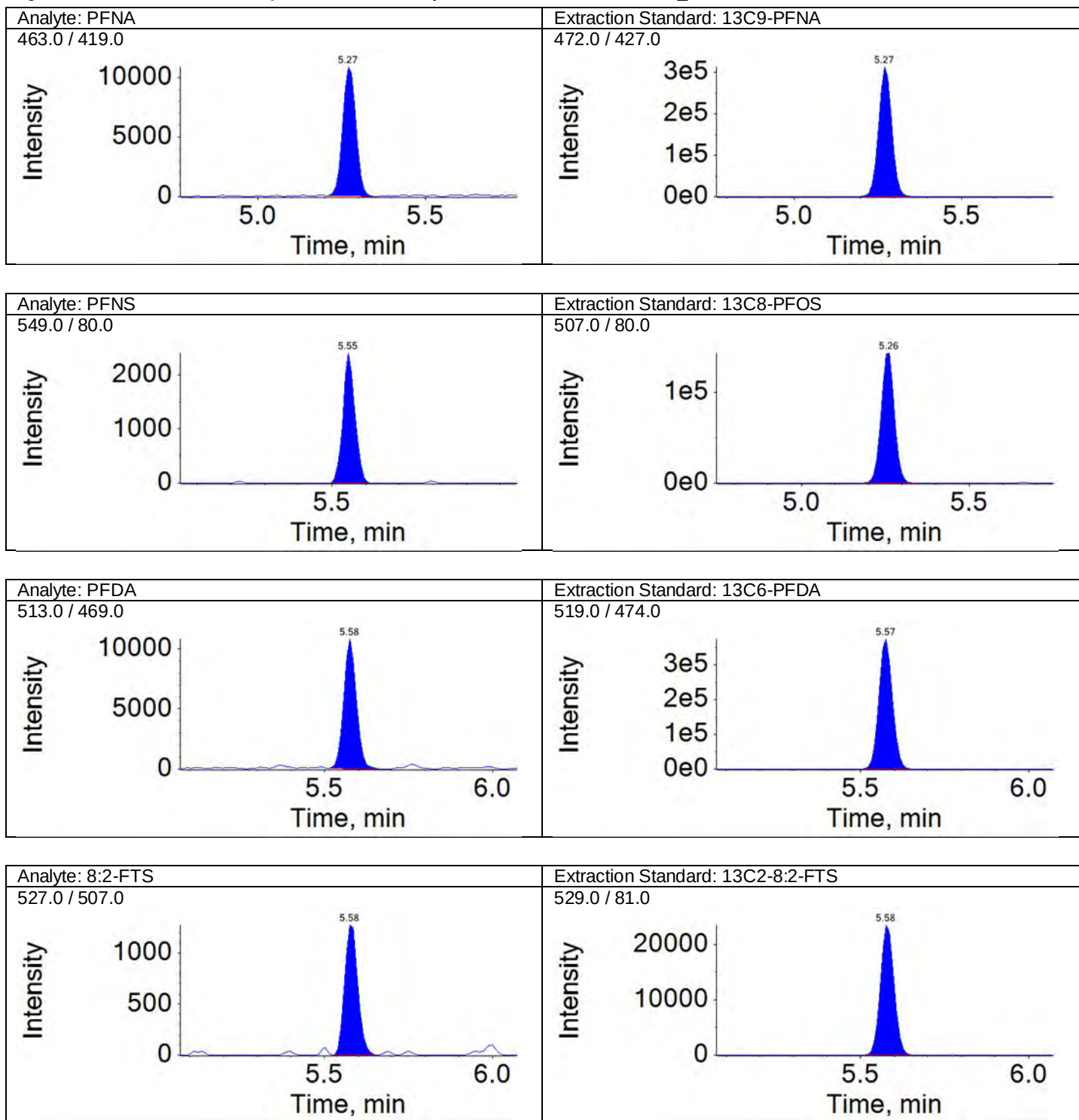
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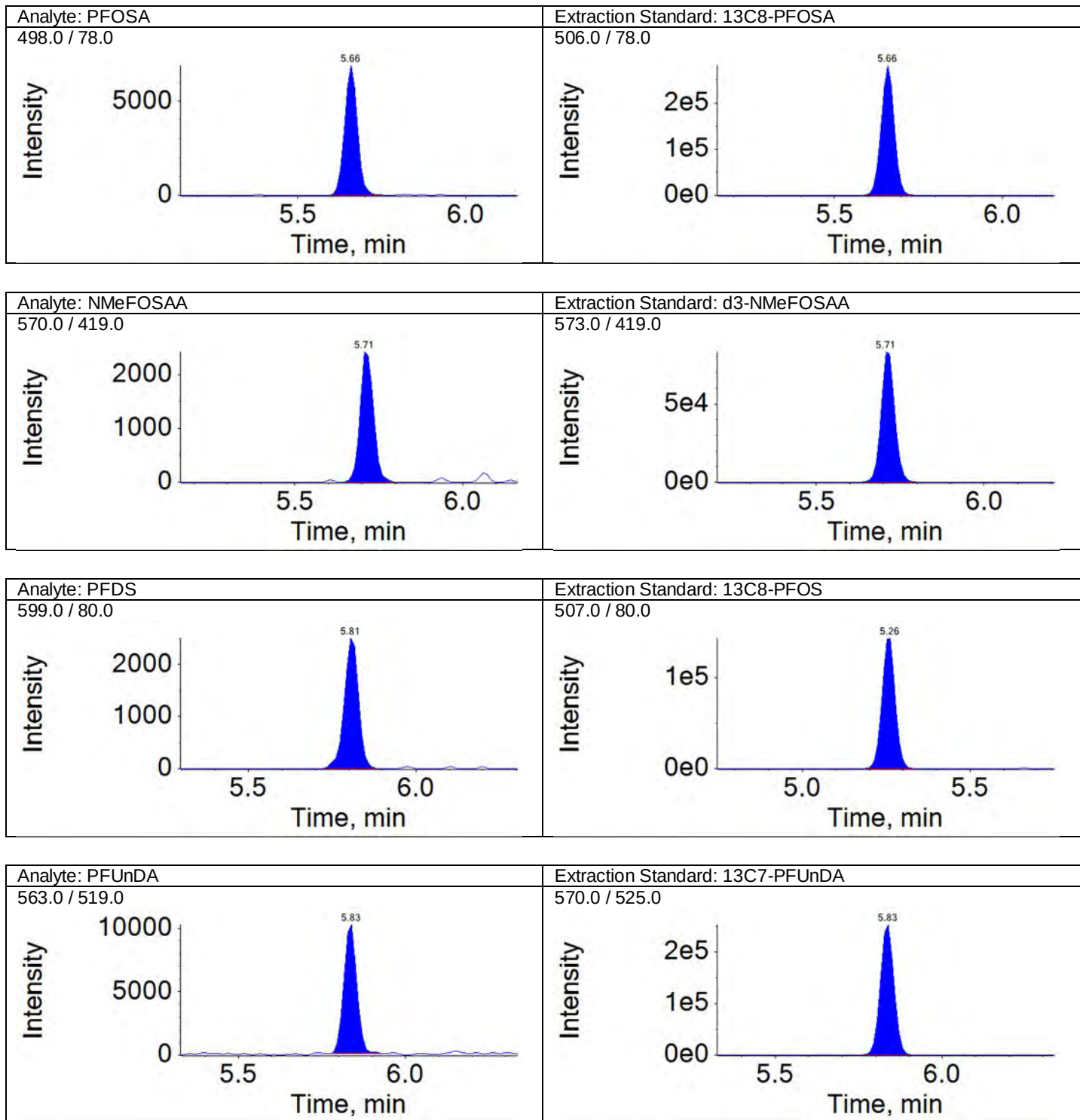
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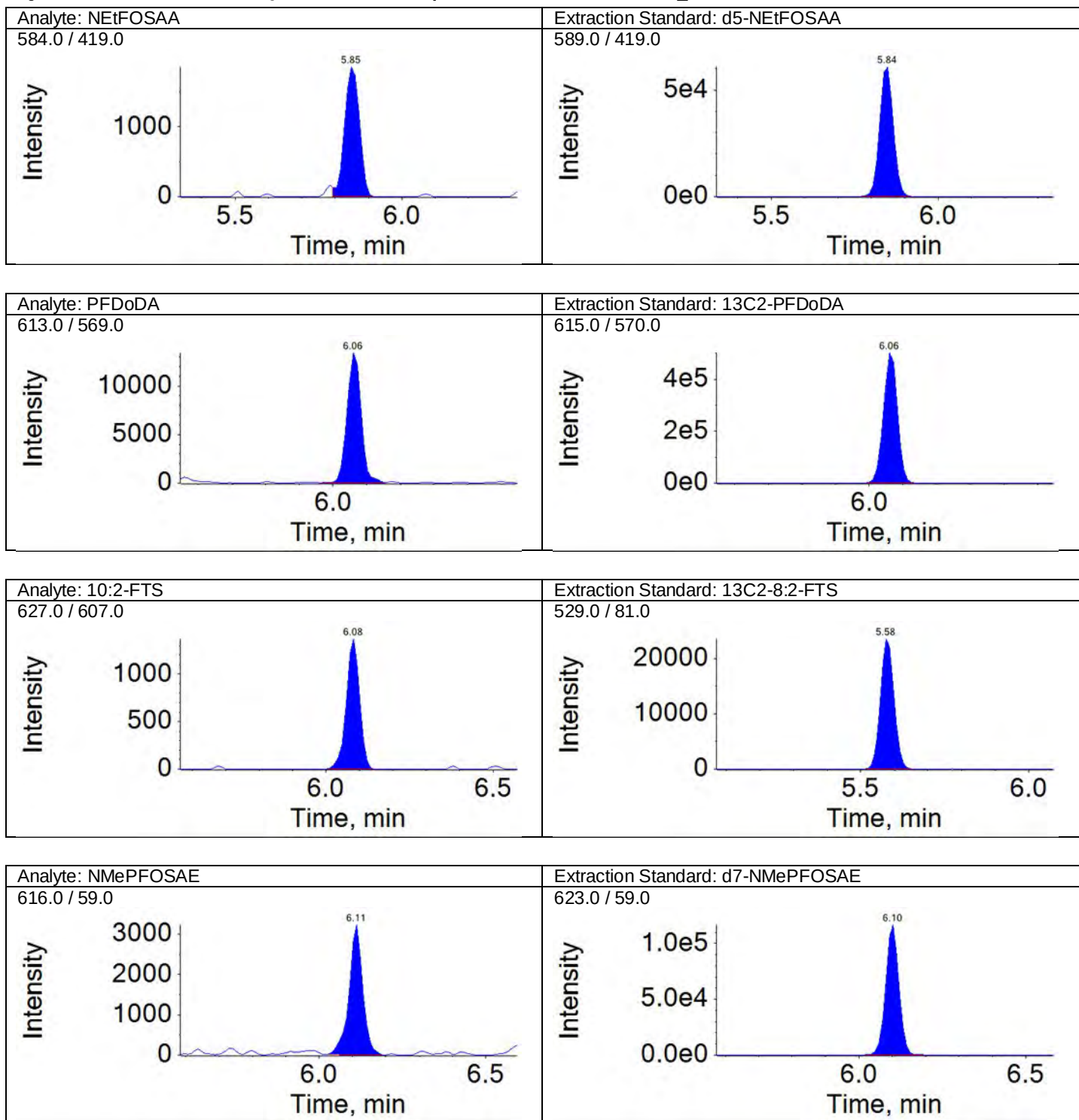
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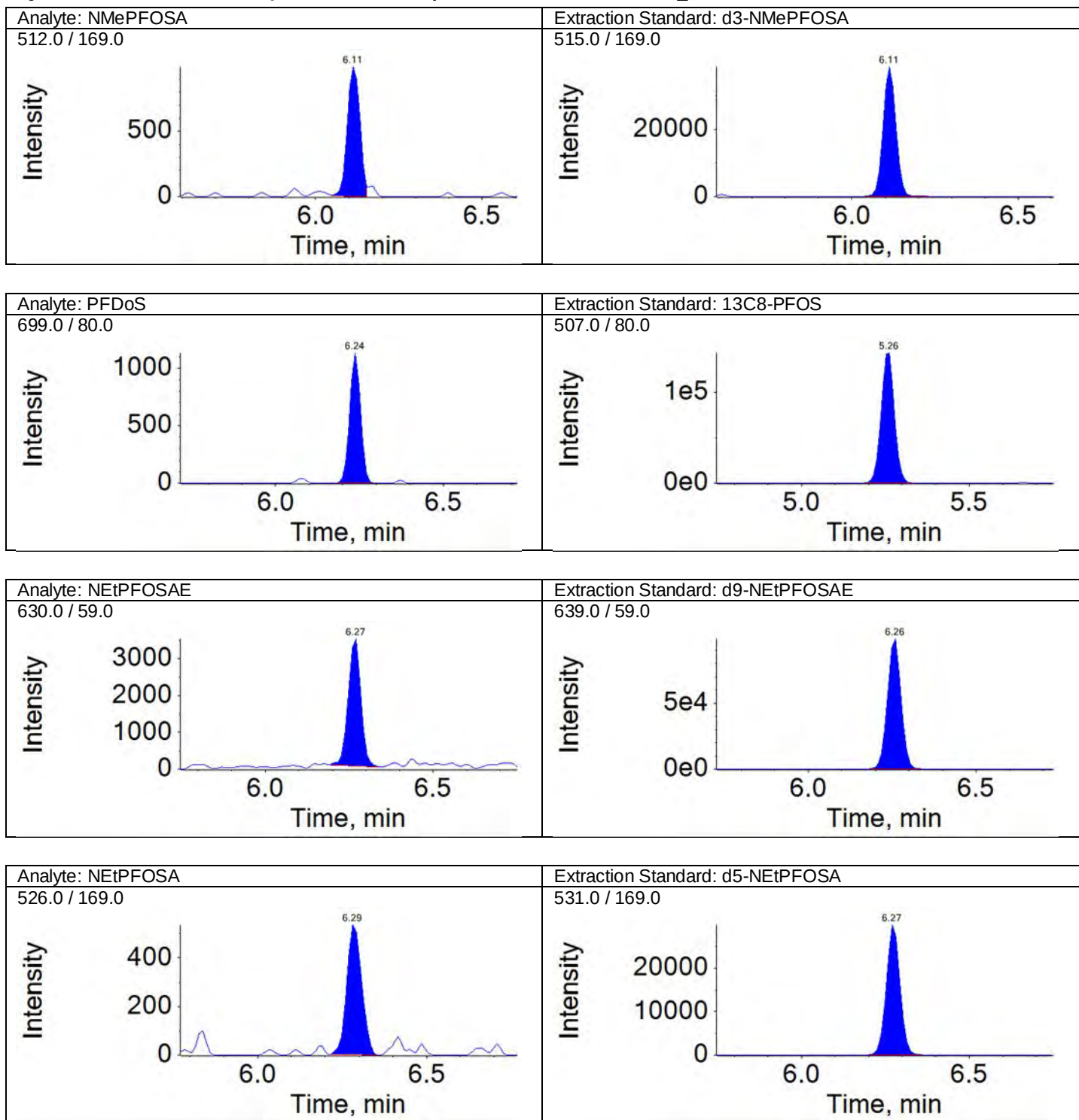
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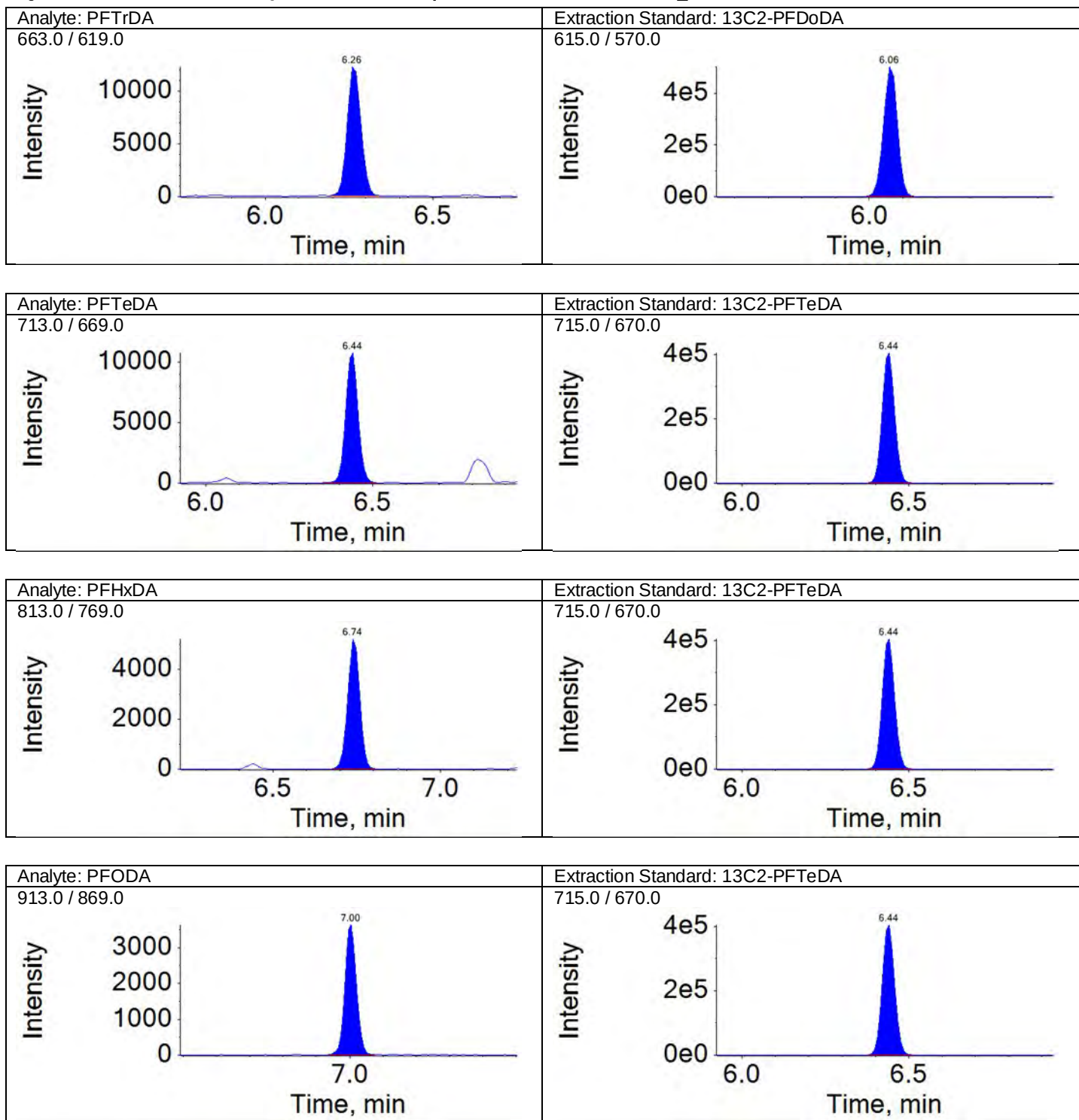
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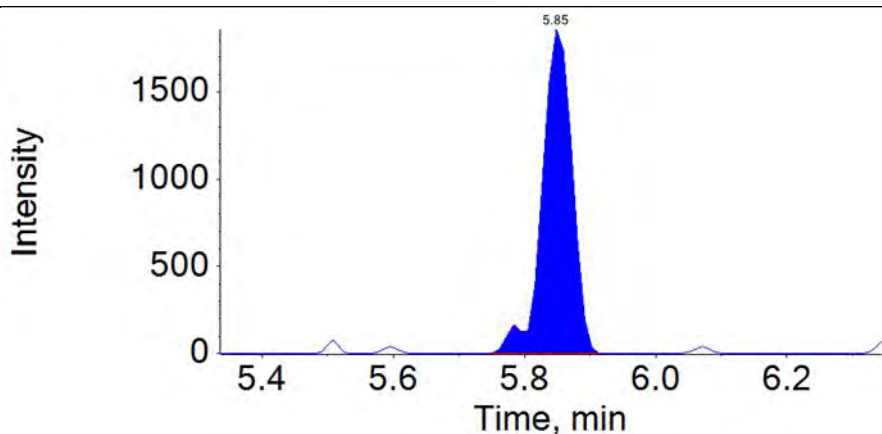
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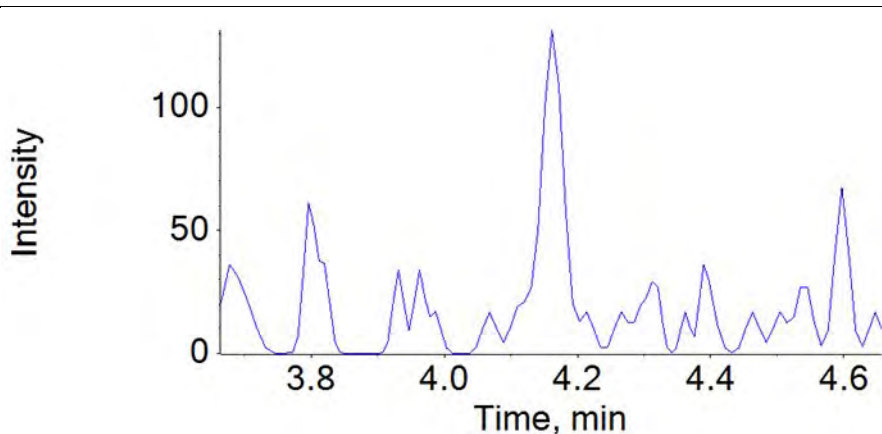
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QMethod File: 18AUG20QM

Component Name:
NETFOSAA
RT (min.):
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Peak Area:
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Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-05.wiff
Sample Name:
MDL



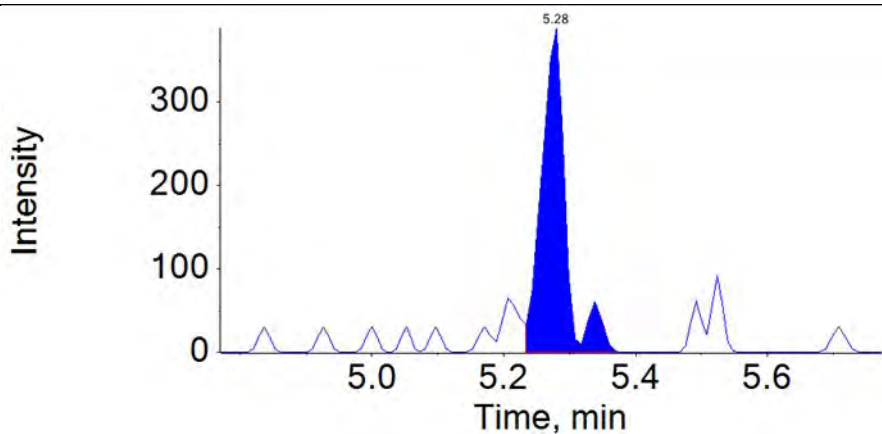
Integration Comment: incorrect integration

Component Name:
PFHxA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
313.0 / 119.0
File Name:
18NOV28DCAL-05.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Component Name:
PFNA_2
RT (min.):
5.28
Peak Area:
991.88
Mass Range:
463.0 / 169.0
File Name:
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Sample Name:
MDL

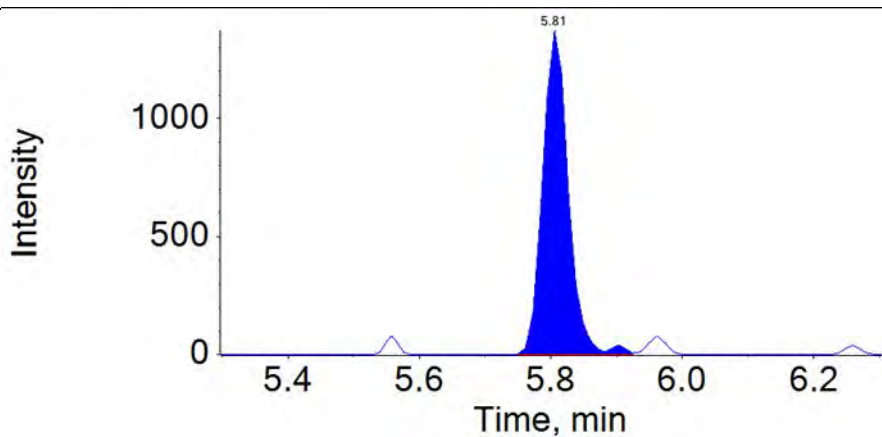


Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

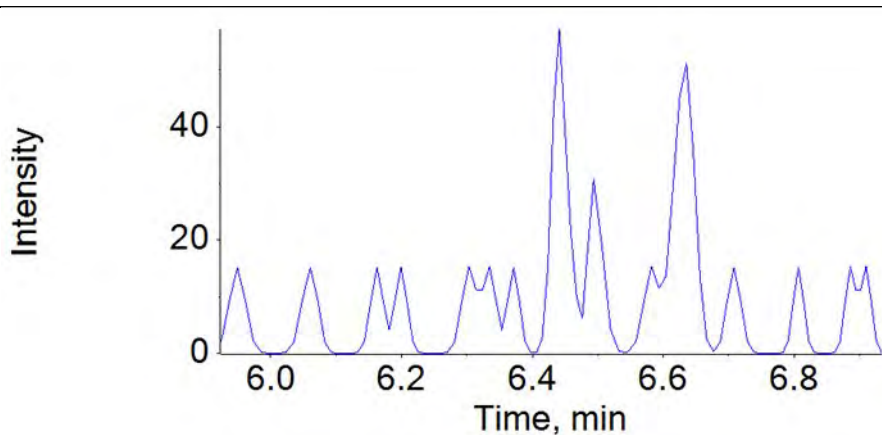
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QMethod File: 18AUG20QM

Component Name:
PFDS_2
RT (min.):
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Peak Area:
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Mass Range:
599.0 / 99.0
File Name:
18NOV28DCAL-05.wiff
Sample Name:
MDL



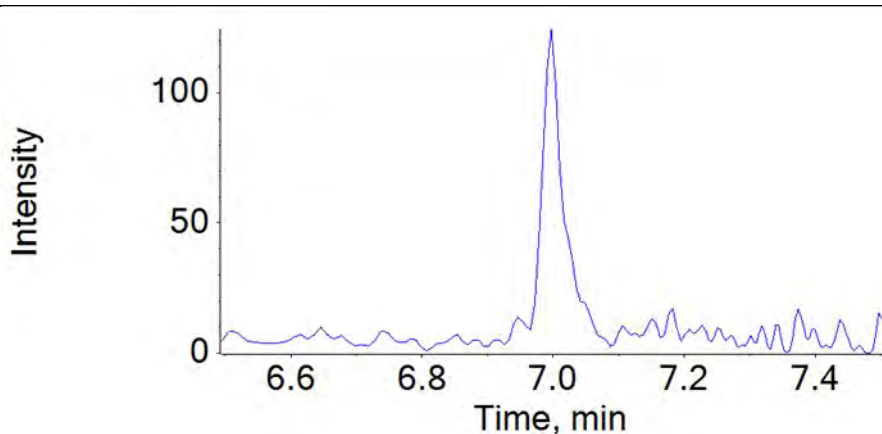
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Component Name:
PFTeDA_2
RT (min.):
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Peak Area:
N/A
Mass Range:
713.0 / 169.0
File Name:
18NOV28DCAL-05.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Component Name:
PFODA_2
RT (min.):
N/A
Peak Area:
N/A
Mass Range:
913.0 / 169.0
File Name:
18NOV28DCAL-05.wiff
Sample Name:
MDL



Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 5:01 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

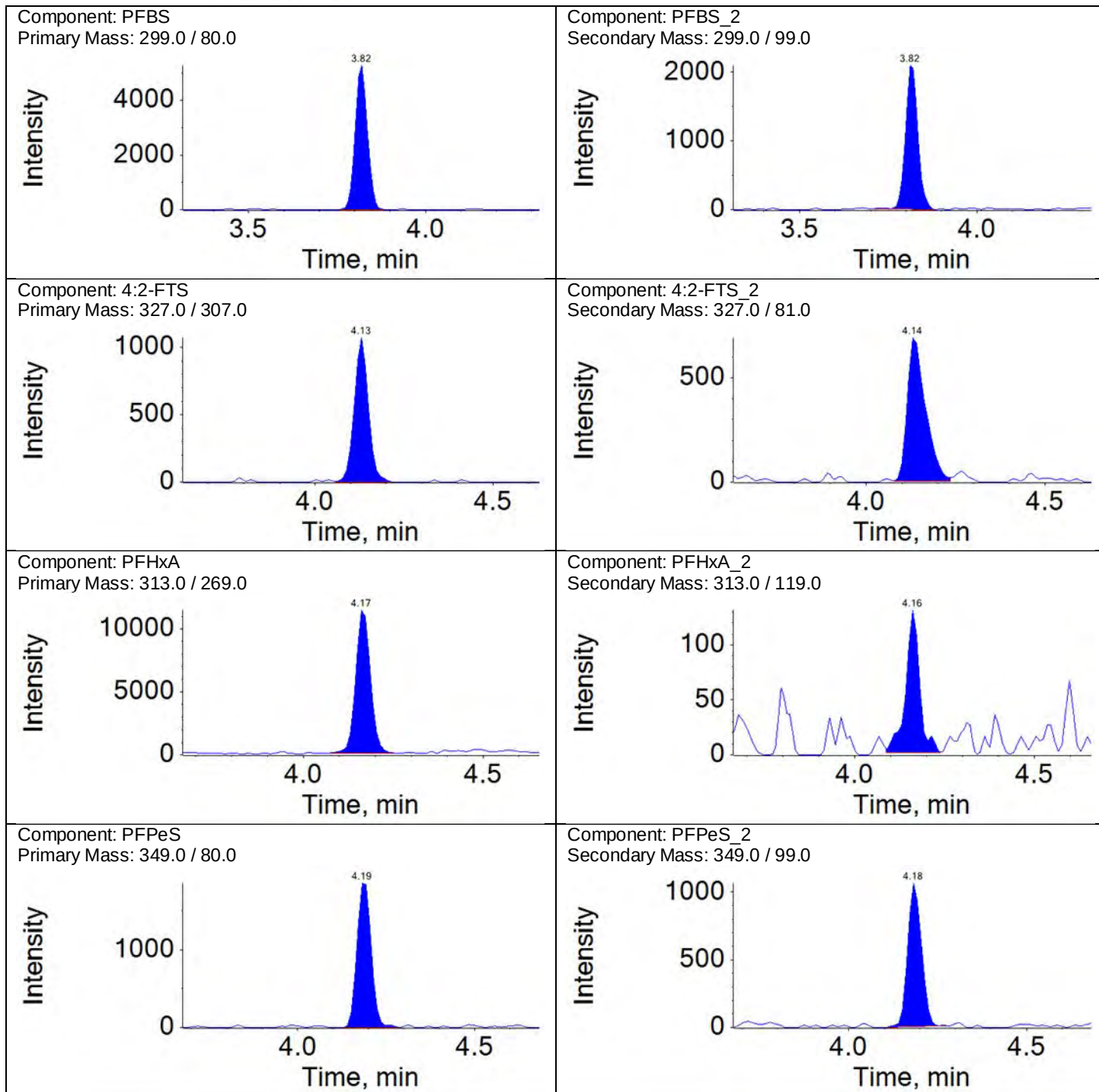
Ion Ratio Report

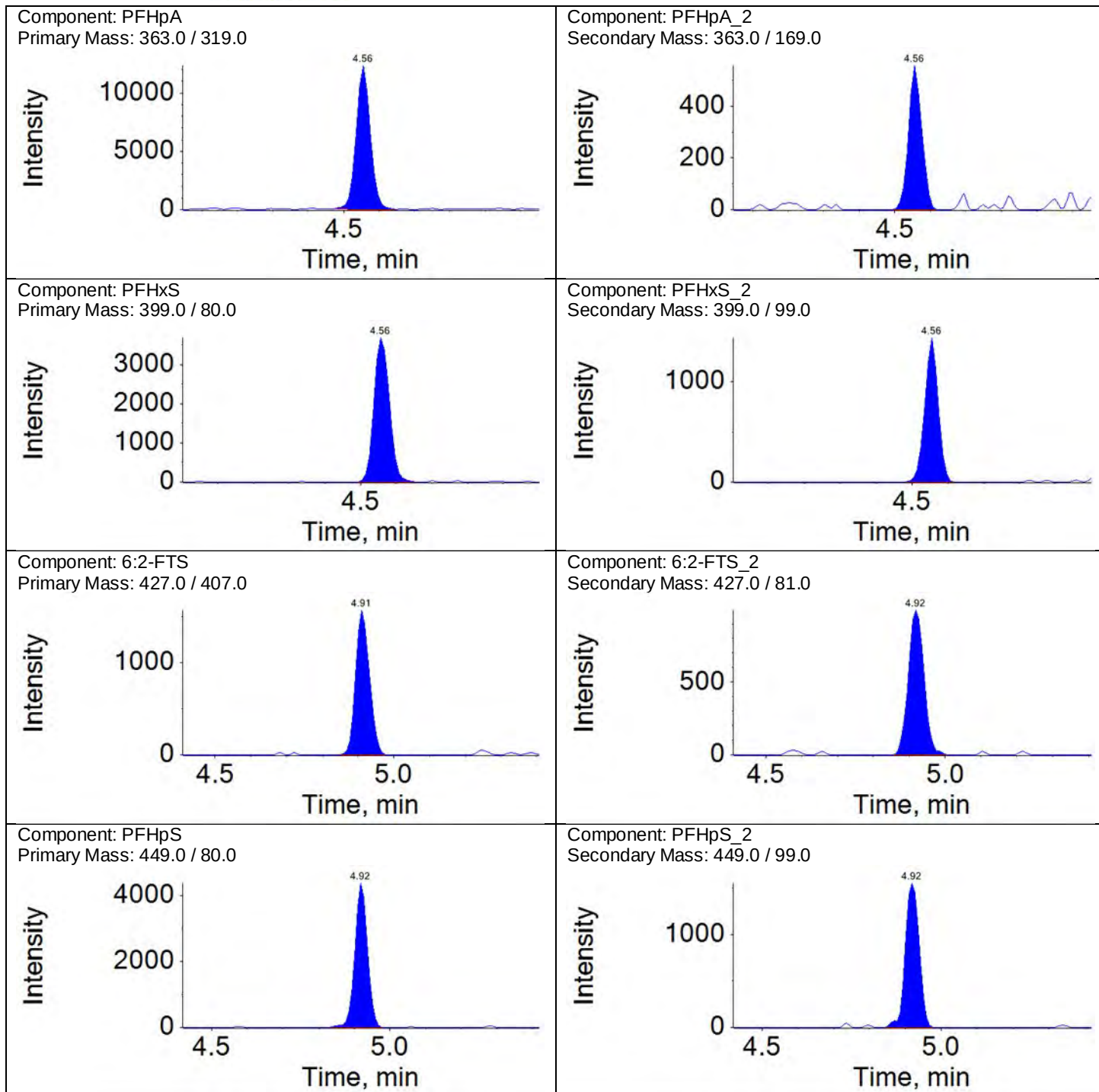
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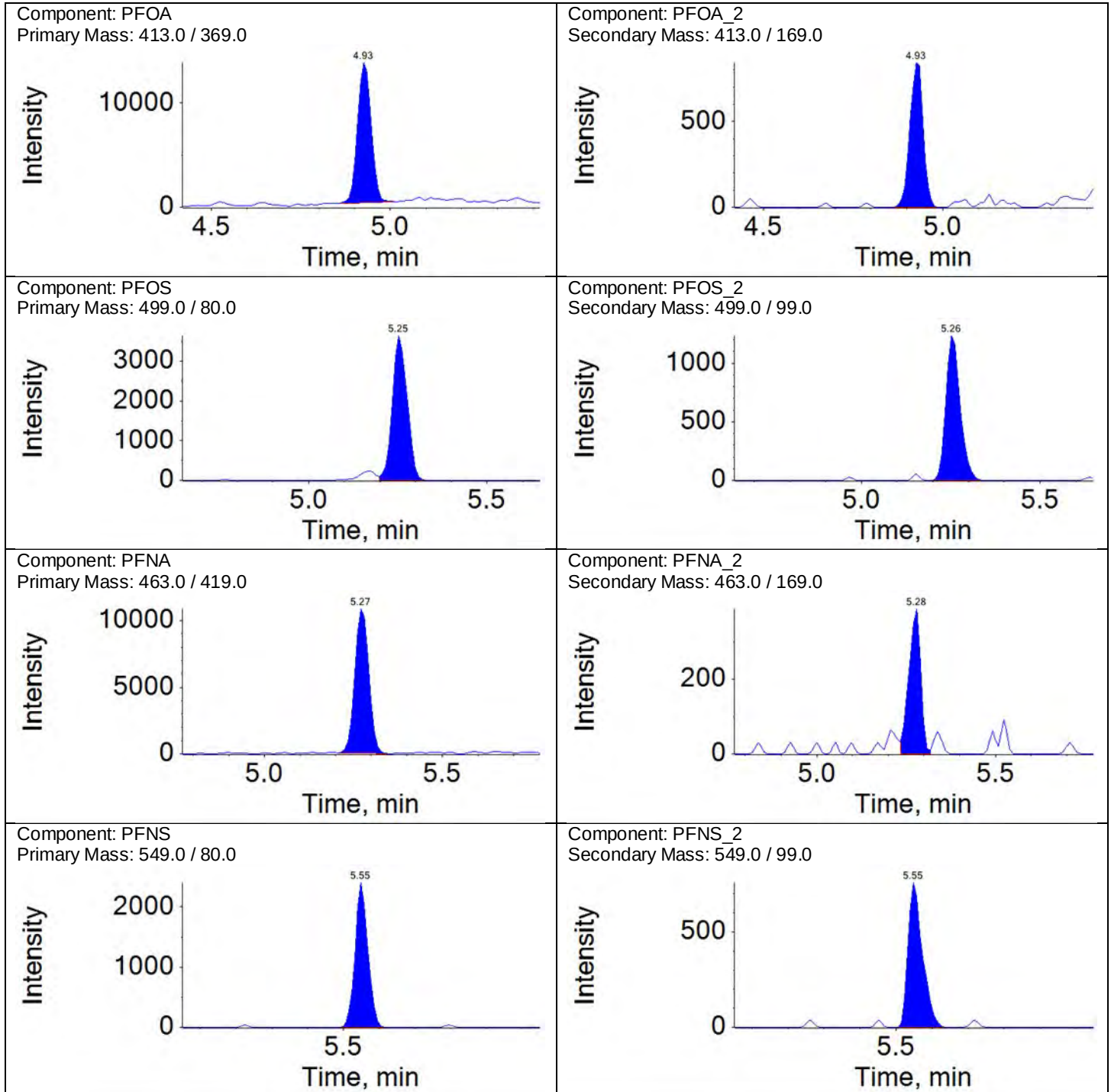
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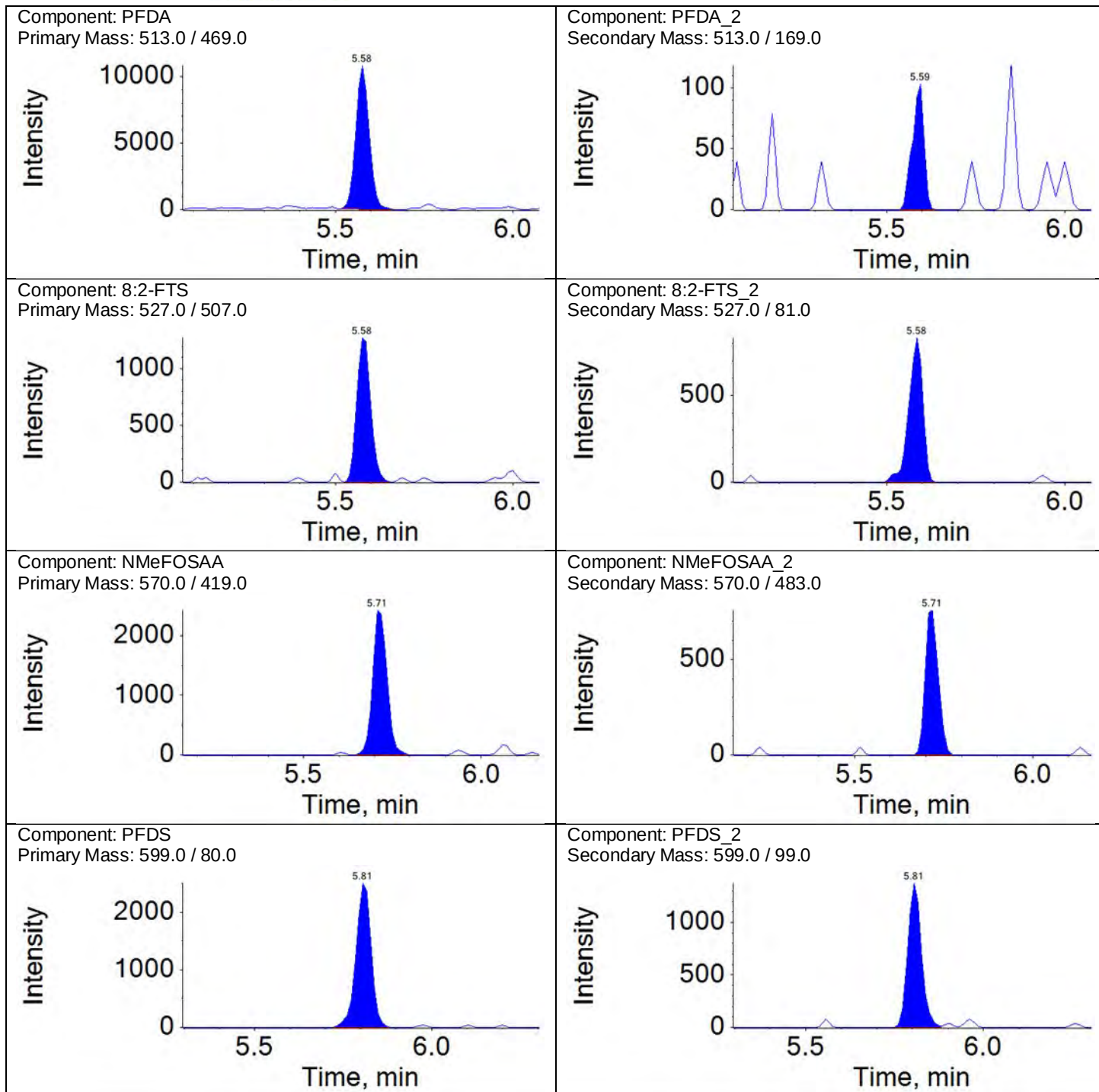
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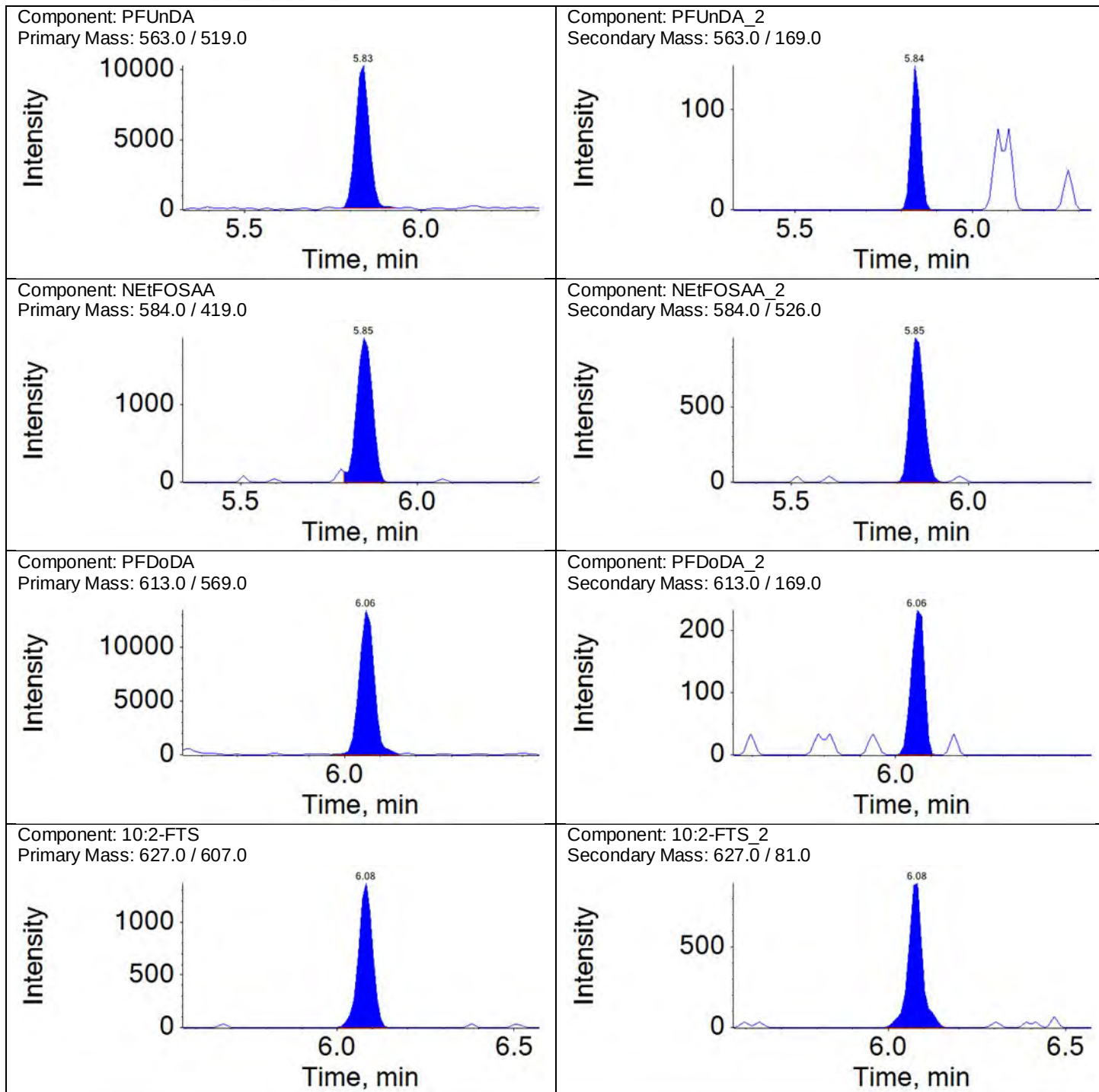
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PFBS_2	3.82	1.00	5040.50	A	0.3655	0.3999	9	50	
4:2-FTS	4.13	1.00	2928.74	A	0.6383	0.8346			
4:2-FTS_2	4.14	1.00	2444.20	A	0.6383	0.8346	31	50	
PFHxA	4.17	1.00	32436.10	A	0.0103	0.0108			
PFHxA_2	4.16	1.00	351.77	M	0.0103	0.0108	5	50	
PFPeS	4.19	1.10	5200.81	A	0.4976	0.5489			
PFPeS_2	4.18	1.10	2854.76	A	0.4976	0.5489	10	50	
PFHpA	4.56	1.00	34134.49	A	0.0557	0.0423			
PFHpA_2	4.56	1.00	1443.47	A	0.0557	0.0423	-24	50	
PFHxS	4.56	1.00	11072.62	A	0.3693	0.3363			
PFHxS_2	4.56	1.00	3723.62	A	0.3693	0.3363	-9	50	
6:2-FTS	4.91	1.00	4195.71	A	0.6625	0.7204			
6:2-FTS_2	4.92	1.00	3022.50	A	0.6625	0.7204	9	50	
PFHpS	4.92	1.08	10674.87	A	0.3915	0.3919			
PFHpS_2	4.92	1.08	4183.13	A	0.3915	0.3919	0	50	
PFOA	4.93	1.00	35831.52	A	0.0573	0.0601			
PFOA_2	4.93	1.00	2154.33	A	0.0573	0.0601	5	50	
PFOS	5.25	1.00	10490.26	A	0.2960	0.3261			
PFOS_2	5.26	1.00	3420.70	A	0.2960	0.3261	10	50	
PFNA	5.27	1.00	29535.31	A	0.0201	0.0303			
PFNA_2	5.28	1.00	895.63	M	0.0201	0.0303	51	50	OOS
PFNS	5.55	1.06	5896.87	A	0.4794	0.3569			
PFNS_2	5.55	1.06	2104.41	A	0.4794	0.3569	-26	50	
PFDA	5.58	1.00	28044.30	A	0.0075	0.0083			
PFDA_2	5.59	1.00	233.51	A	0.0075	0.0083	11	50	
8:2-FTS	5.58	1.00	3464.55	A	0.5380	0.6552			
8:2-FTS_2	5.58	1.00	2270.14	A	0.5380	0.6552	22	50	
NMeFOSAA	5.71	1.00	6753.67	A	0.2305	0.2846			
NMeFOSAA_2	5.71	1.00	1921.86	A	0.2305	0.2846	23	50	
PFDS	5.81	1.10	7418.03	A	0.5356	0.4947			
PFDS_2	5.81	1.10	3669.44	M	0.5356	0.4947	-8	50	
PFUnDA	5.83	1.00	27644.34	A	0.0038	0.0094			
PFUnDA_2	5.84	1.00	259.49	A	0.0038	0.0094	147	50	OOS
NEtFOSAA	5.85	1.00	5734.33	M	0.7356	0.4625			
NEtFOSAA_2	5.85	1.00	2652.07	A	0.7356	0.4625	-37	50	
PFDODA	6.06	1.00	38884.24	A	0.0130	0.0152			
PFDODA_2	6.06	1.00	589.76	A	0.0130	0.0152	16	50	
10:2-FTS	6.08	1.09	3761.82	A	0.6989	0.6514			
10:2-FTS_2	6.08	1.09	2450.53	A	0.6989	0.6514	-7	50	
PFTTrDA	6.26	1.03	35013.33	A	0.0090	0.0082			
PFTTrDA_2	6.26	1.03	286.20	A	0.0090	0.0082	-9	50	
PFTeDA	6.44	1.00	27817.63	A	0.0056	0.0036			
PFTeDA_2	6.44	1.00	100.27	M	0.0056	0.0036	-36	50	
PFHxDA	6.74	1.05	13033.35	A	0.0646	0.0669			
PFHxDA_2	6.74	1.05	872.25	A	0.0646	0.0669	4	50	
PFODA	7.00	1.09	8671.11	A	0.0264	0.0329			
PFODA_2	7.00	1.09	285.12	M	0.0264	0.0329	24	50	

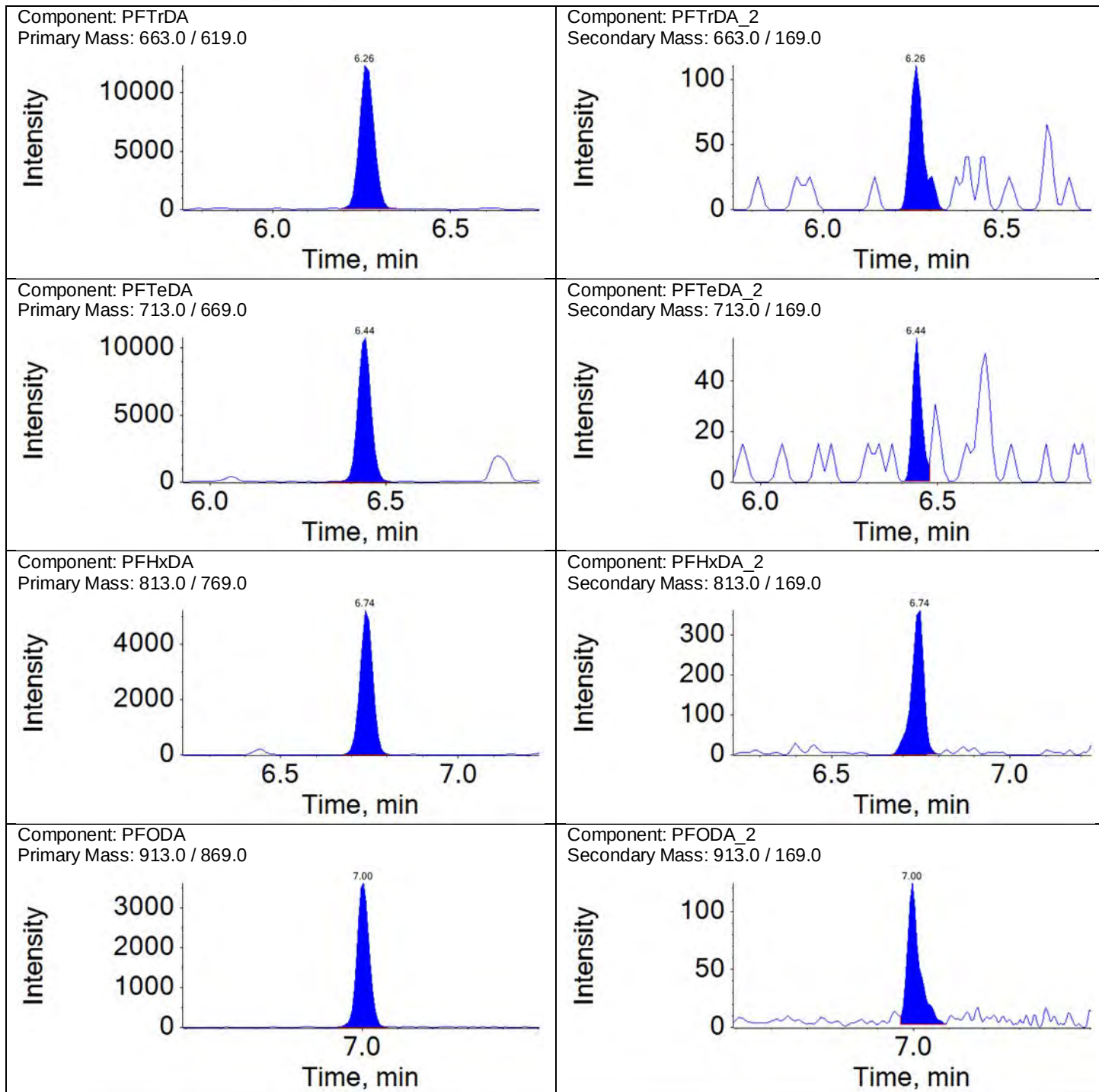












ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	ICV		Data File:	18NOV28DCAL-14.wiff
Sample ID:	ICVMODX1833G		Acquis Date:	2018-11-28T14:54:22
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	10		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV28DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	909586.4	887248.9	3	50	
13C2-PFOA	5.0	531347.1	498501.6	7	50	
13C4-PFOS	4.8	296756.3	283214.2	5	50	
13C2-PFDA	5.0	468972.3	441790.6	6	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	992615.8	13C3-PFBA	909586.4	1.091	5.000	4.869	97	70-130	
E13C5-PFPeA	975580.9	13C3-PFBA	909586.4	1.073	5.000	5.008	100	70-130	
E13C3-PFBS	446011.0	13C3-PFBA	909586.4	0.490	4.650	4.678	101	70-130	
E13C2-4:2-FTS	68184.3	13C2-PFOA	531347.1	0.128	4.670	4.422	95	70-130	
E13C5-PFHxA	699371.3	13C2-PFOA	531347.1	1.316	5.000	4.834	97	70-130	
E13C3-PFHxS	317109.0	13C2-PFOA	531347.1	0.597	4.730	4.678	99	70-130	
E13C4-PFHpA	556403.1	13C2-PFOA	531347.1	1.047	5.000	4.812	96	70-130	
E13C2-6:2-FTS	63350.5	13C2-PFOA	531347.1	0.119	4.750	4.991	105	70-130	
E13C8-PFOA	1001731.4	13C2-PFOA	531347.1	1.885	5.000	5.189	104	70-130	
E13C8-PFOS	316117.1	13C4-PFOS	296756.3	1.065	4.780	4.809	101	70-130	
E13C9-PFNA	647064.1	13C4-PFOS	296756.3	2.180	5.000	4.789	96	70-130	
E13C6-PFDA	857032.9	13C2-PFDA	468972.3	1.827	5.000	5.153	103	70-130	
E13C2-8:2-FTS	51912.9	13C2-PFDA	468972.3	0.111	4.790	4.758	99	70-130	
E13C8-PFOSA	637370.7	13C2-PFDA	468972.3	1.359	5.000	4.987	100	70-130	
Ed3-NMeFOSAA	183040.0	13C2-PFDA	468972.3	0.390	5.000	4.956	99	70-130	
E13C7-PFUnDA	559327.4	13C2-PFDA	468972.3	1.193	5.000	5.041	101	70-130	
Ed5-NEtFOSAA	140840.0	13C2-PFDA	468972.3	0.300	5.000	5.350	107	70-130	
E13C2-PFDODA	1134142.1	13C2-PFDA	468972.3	2.418	5.000	5.081	102	70-130	
Ed7-NMePFOSAE	262732.2	13C2-PFDA	468972.3	0.560	5.000	4.842	97	70-130	
Ed3-NMePFOSA	81059.5	13C2-PFDA	468972.3	0.173	5.000	4.678	94	70-130	
Ed9-NEtPFOSAE	227167.7	13C2-PFDA	468972.3	0.484	5.000	4.911	98	70-130	
Ed5-NEtPFOSA	67297.9	13C2-PFDA	468972.3	0.144	5.000	4.986	100	70-130	
E13C2-PFTeDA	820071.7	13C2-PFDA	468972.3	1.749	5.000	4.839	97	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

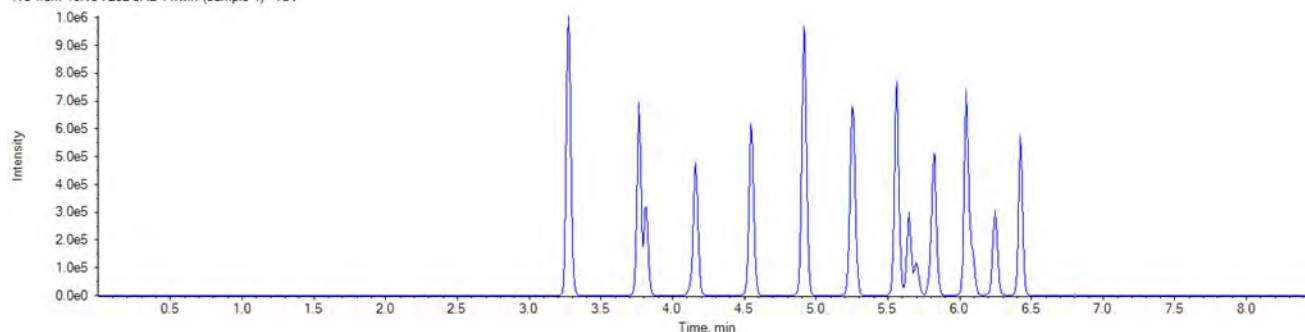
Sample Name: ICV Instrument Name: LM27631 File Name: 18NOV28DCAL-14.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	387187.0		A	13C4-PFBA	3.27	992615.8	0.390	2.138
PFPeA	3.77	1.000	377961.6		A	13C5-PFPeA	3.77	975580.9	0.387	1.901
PFBS	3.81	1.000	159425.0		A	13C3-PFBS	3.82	446011.0	0.357	1.735
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.13	68184.3	N/A	
PFHxA	4.16	1.000	369137.1		A	13C5-PFHxA	4.16	699371.3	0.528	2.119
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.82	446011.0	N/A	
PFHpA	4.55	1.000	373590.8		A	13C4-PFHpA	4.55	556403.1	0.671	2.072
PFHxS	4.55	1.000	125085.3		A	13C3-PFHxS	4.55	317109.0	0.394	1.847
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	63350.5	N/A	
PFHpS	4.91	1.080	131043.1		A	13C3-PFHxS	4.55	317109.0	0.413	2.062
PFOA	4.92	1.000	404358.9		A	13C8-PFOA	4.92	1001731.4	0.404	2.086
PFOS	5.25	1.000	122334.6		A	13C8-PFOS	5.25	316117.1	0.387	1.623
PFNA	5.26	1.000	351872.0		A	13C9-PFNA	5.26	647064.1	0.544	2.084
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.25	316117.1	N/A	
PFDA	5.56	1.000	325191.9		A	13C6-PFDA	5.56	857032.9	0.379	2.148
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	51912.9	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	637370.7	N/A	
NMeFOSAA	5.70	1.000	74168.8		A	d3-NMeFOSAA	5.70	183040.0	0.405	2.585
PFDS	5.79	1.100	72374.3		A	13C8-PFOS	5.25	316117.1	0.229	1.815
PFUnDA	5.82	1.000	354099.8		A	13C7-PFUnDA	5.82	559327.4	0.633	2.263
NEtFOSAA	5.83	1.000	57368.0		A	d5-NEtFOSAA	5.83	140840.0	0.407	1.984
PFDODA	6.05	1.000	427818.9		A	13C2-PFDODA	6.05	1134142.1	0.377	2.066
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	51912.9	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	262732.2	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	81059.5	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.25	316117.1	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	227167.7	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	67297.9	N/A	
PFTeDA	6.25	1.030	416758.4		A	13C2-PFDODA	6.05	1134142.1	0.367	2.215
PFTeDA	6.42	1.000	312632.1		A	13C2-PFTeDA	6.42	820071.7	0.381	2.160
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	820071.7	N/A	
PFODA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	820071.7	N/A	

Total Ion Chromatogram

TIC from 18NOV28DCAL-14.wiff (sample 1) - ICV



APPROVED

By MCD at 5:01 pm, 11/28/18

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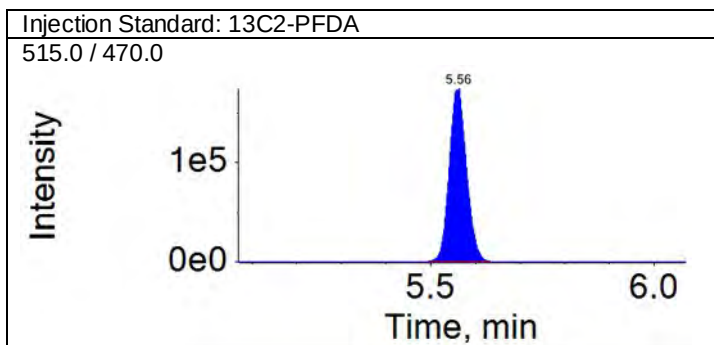
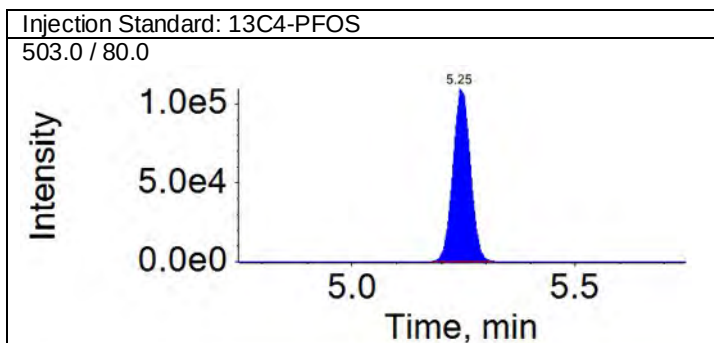
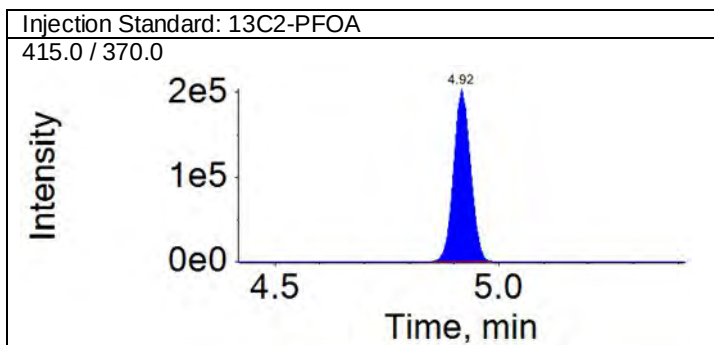
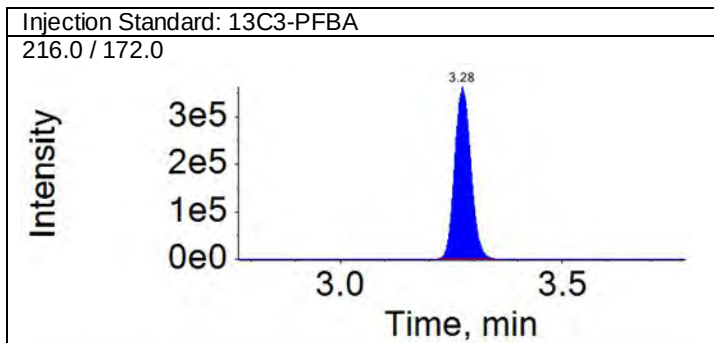
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By HMK at 12:22 pm, 11/29/18

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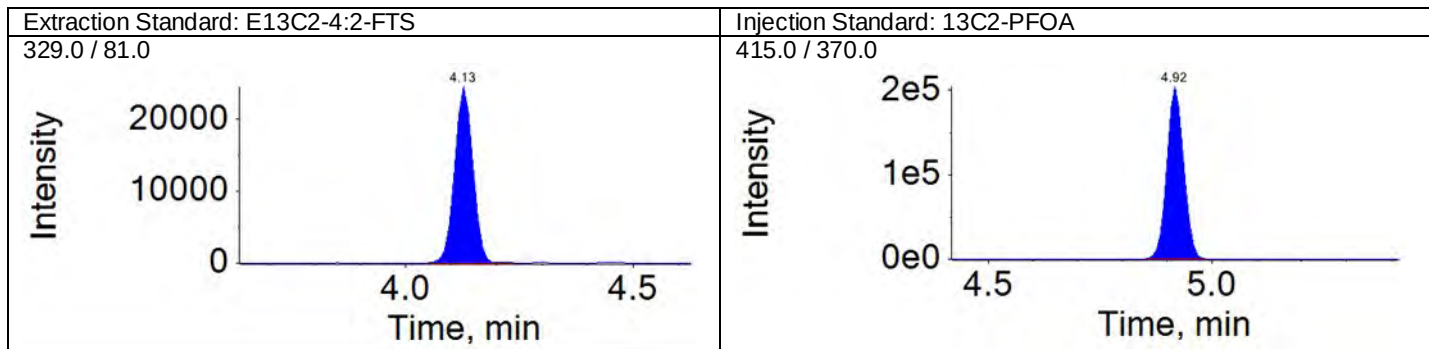
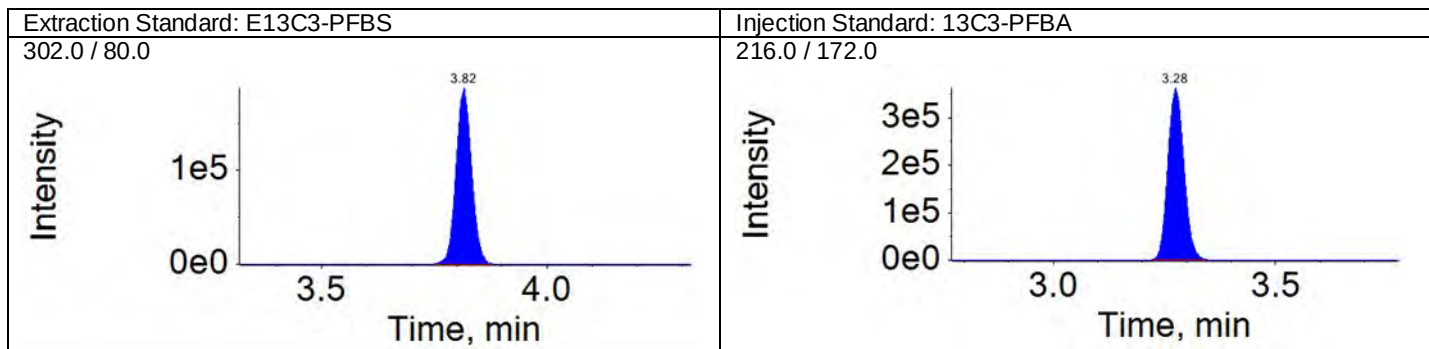
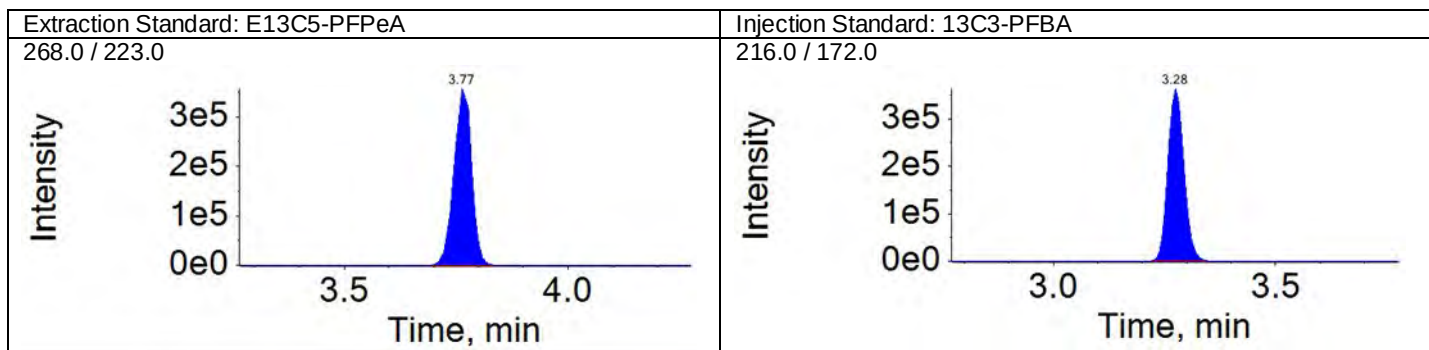
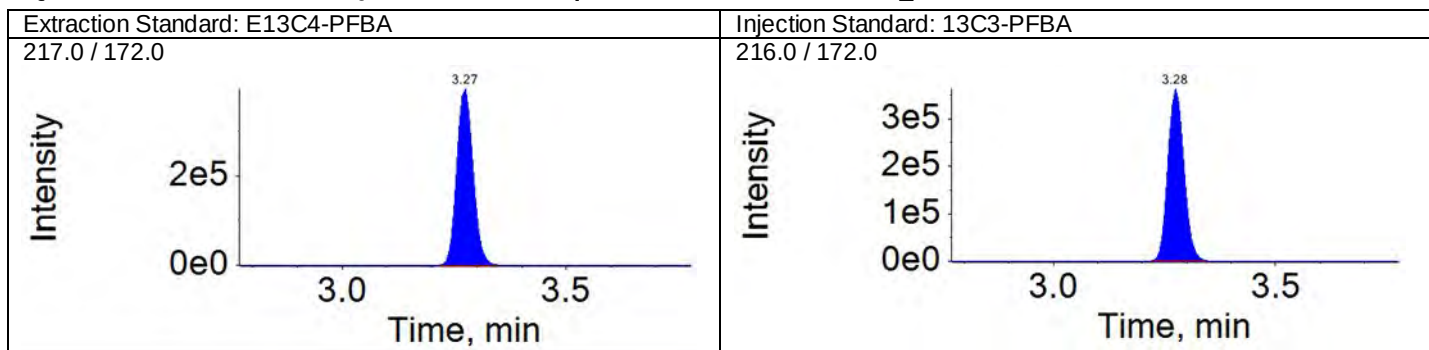
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



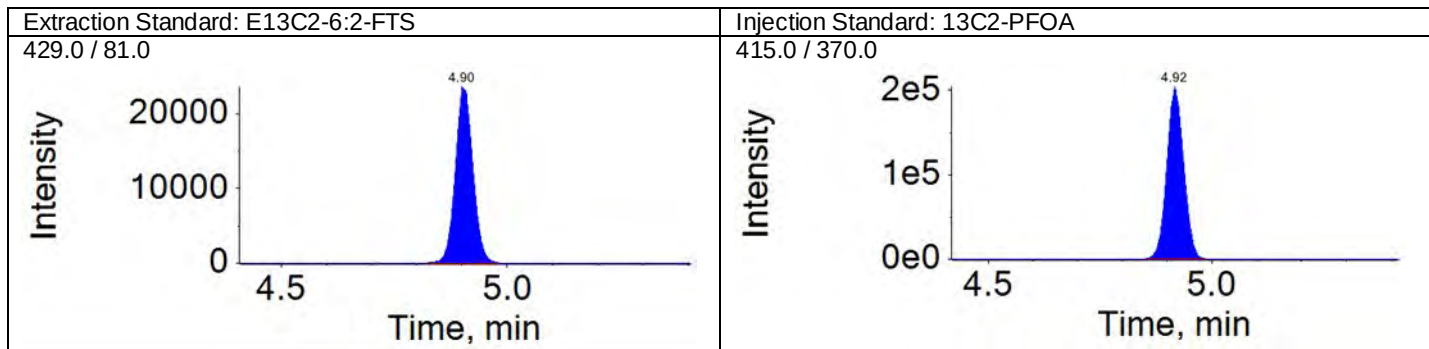
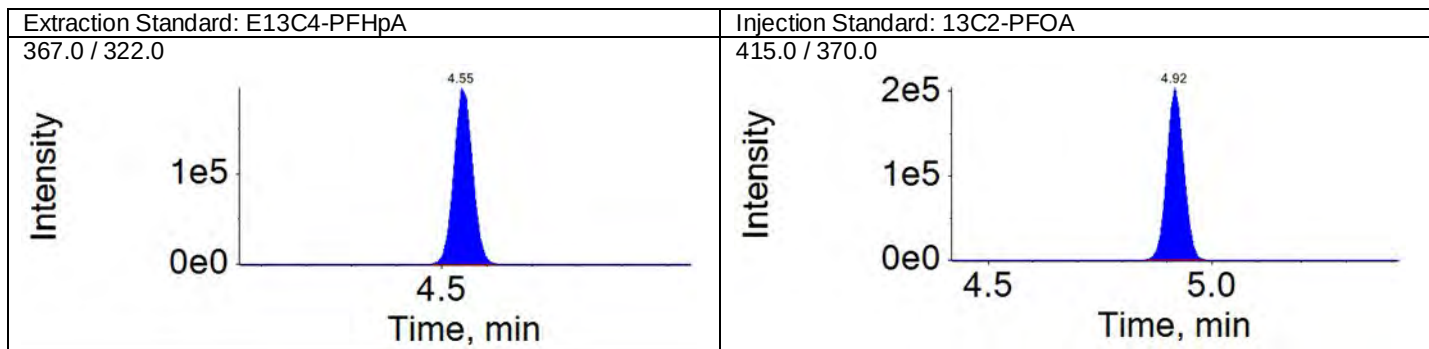
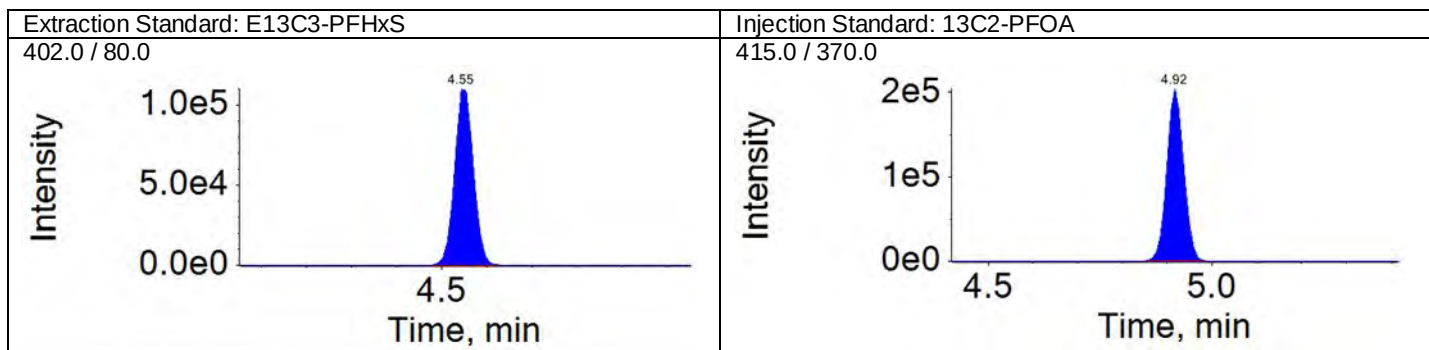
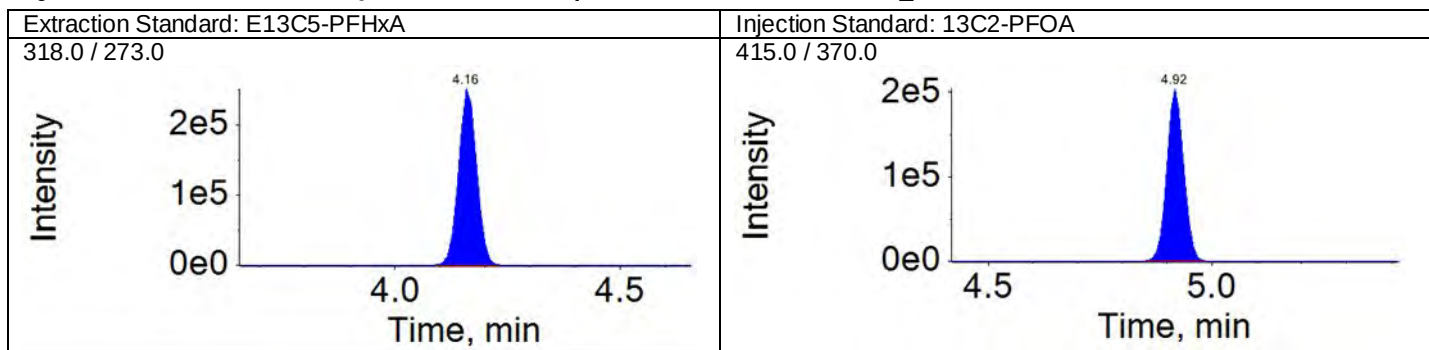
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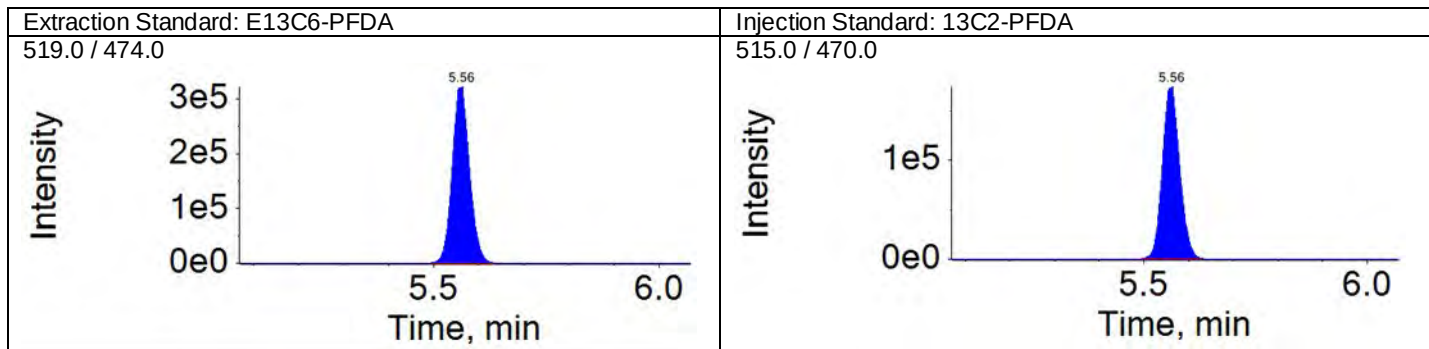
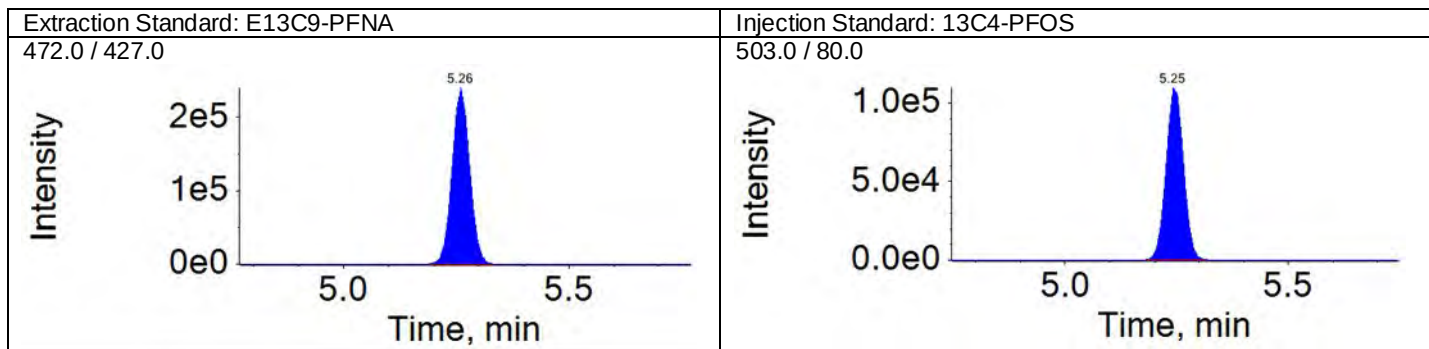
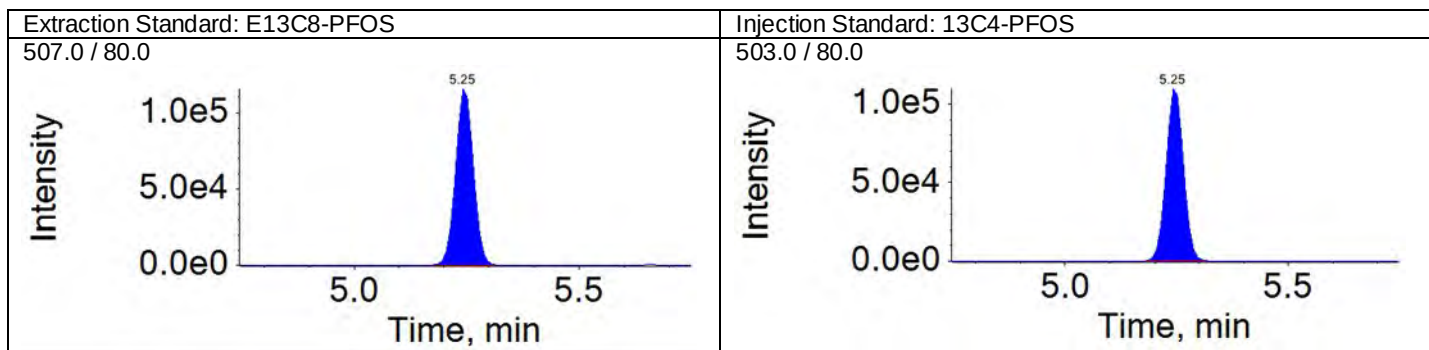
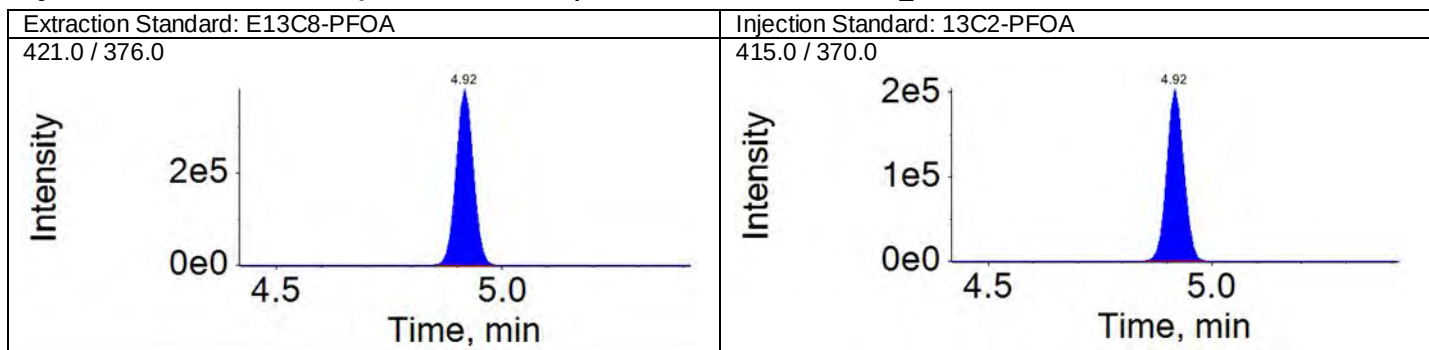
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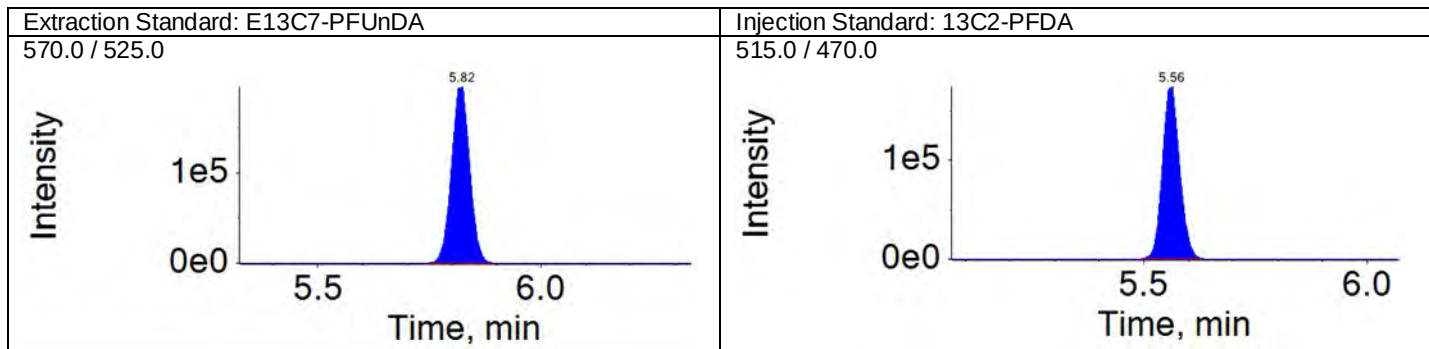
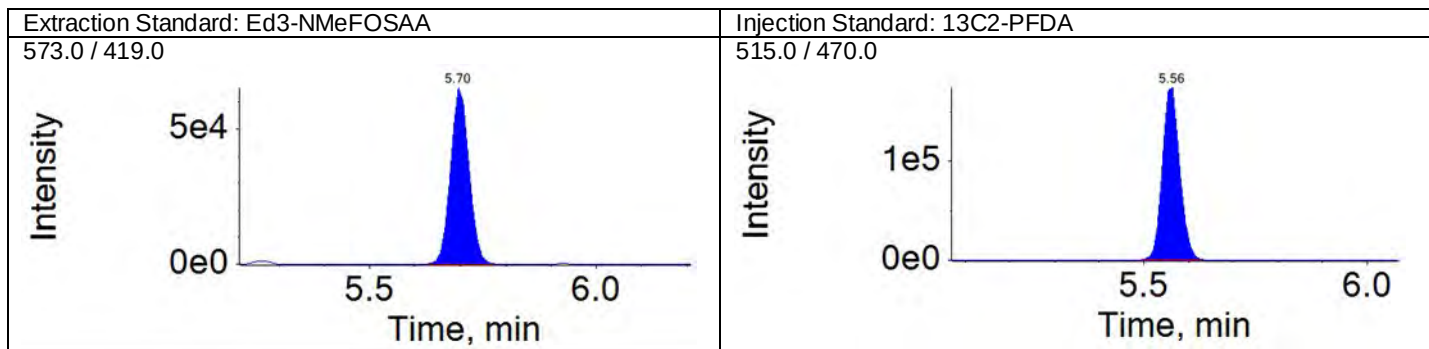
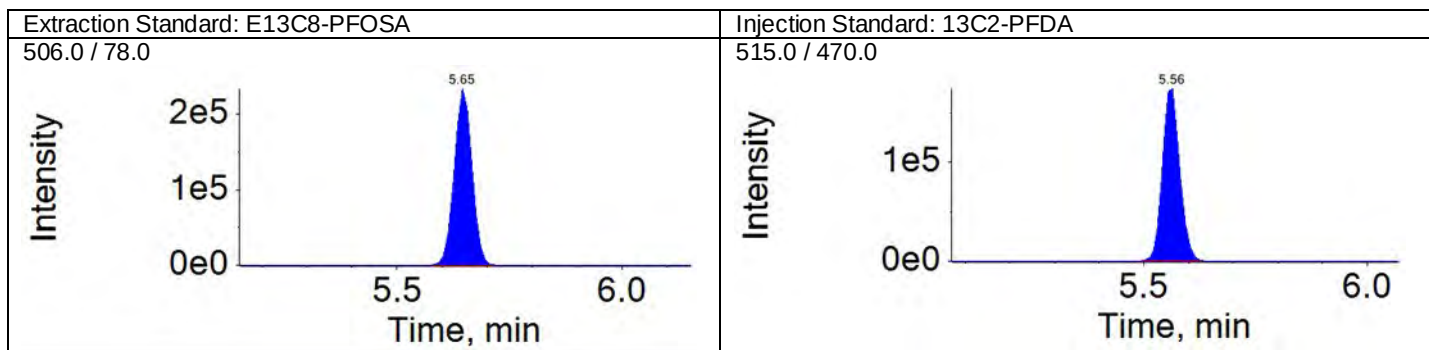
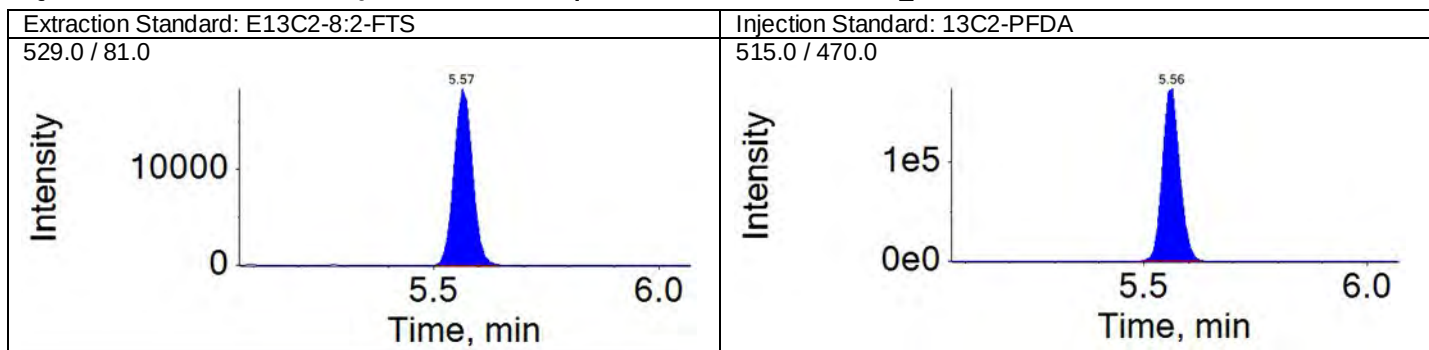
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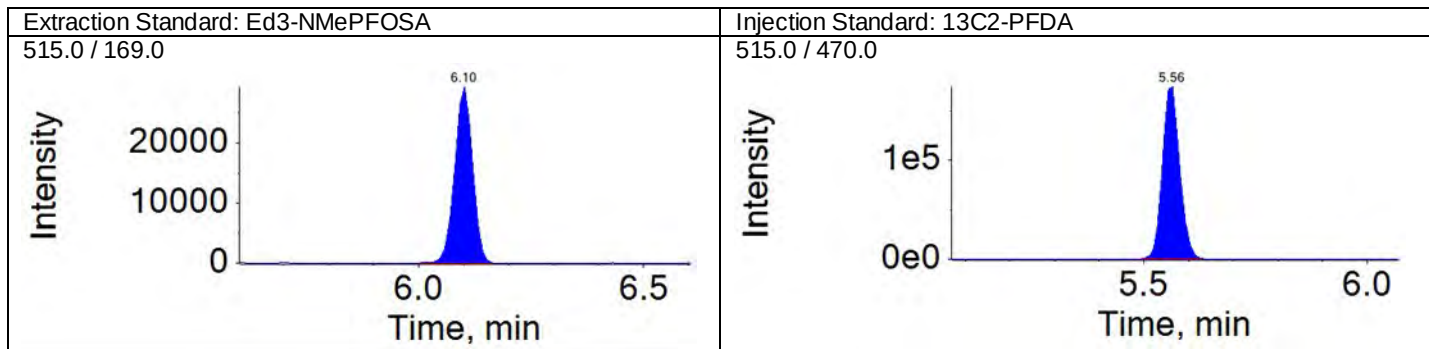
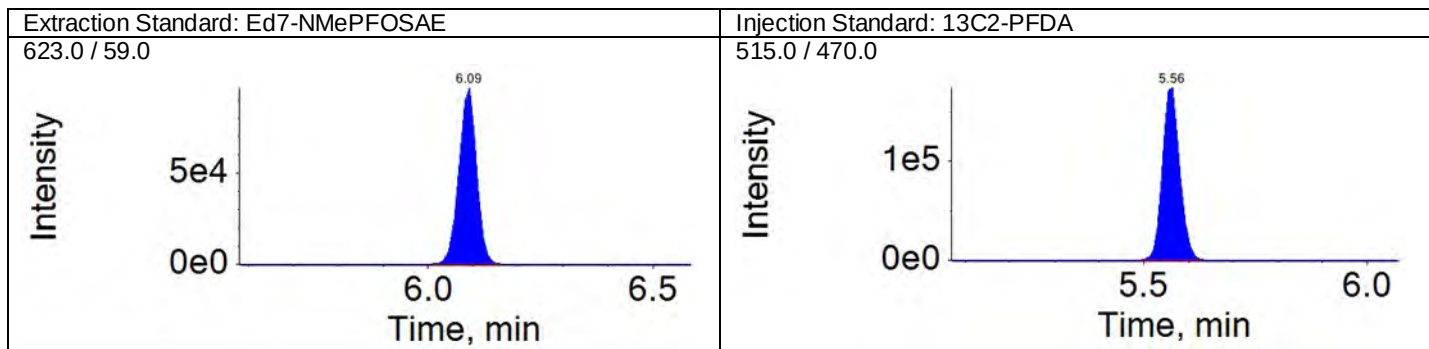
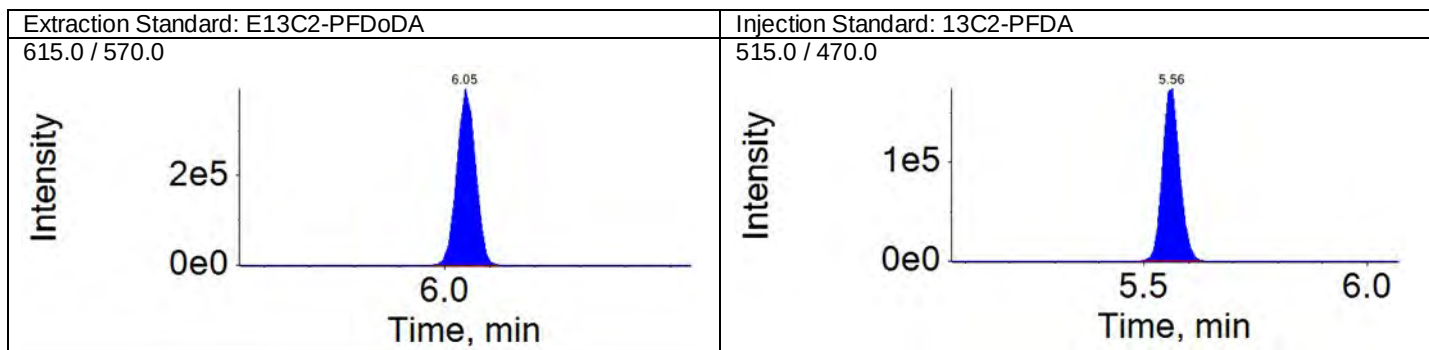
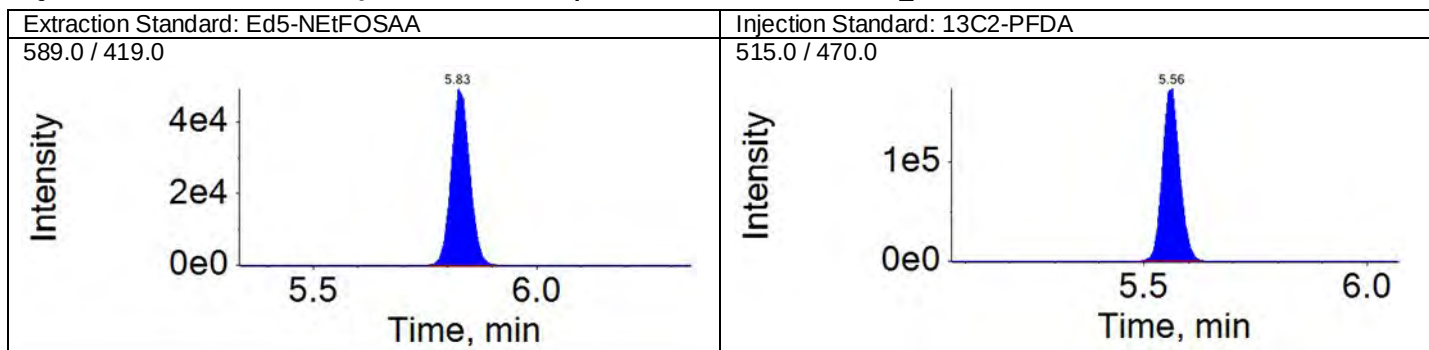
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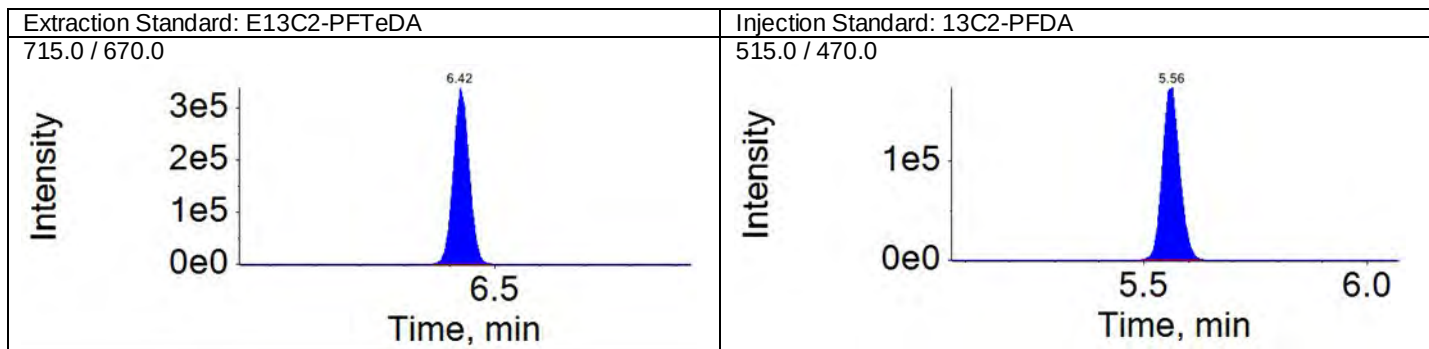
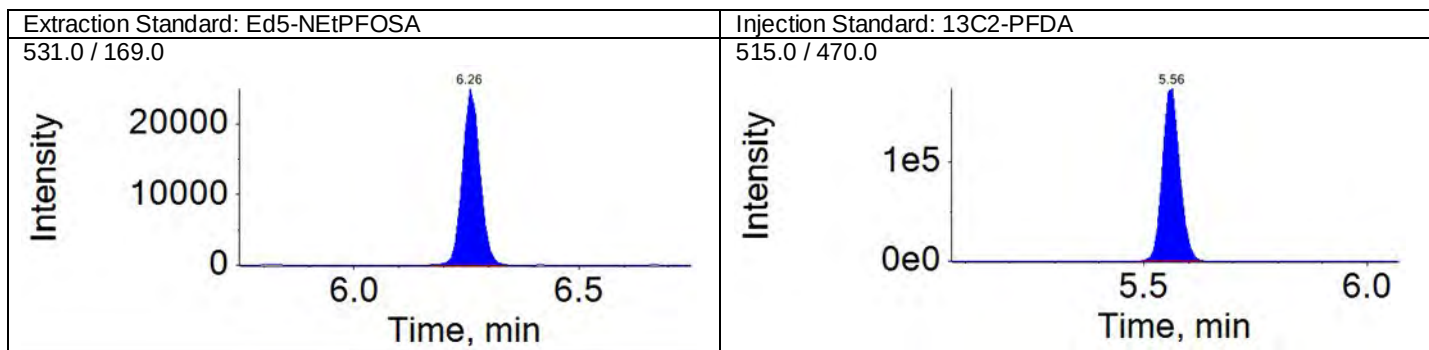
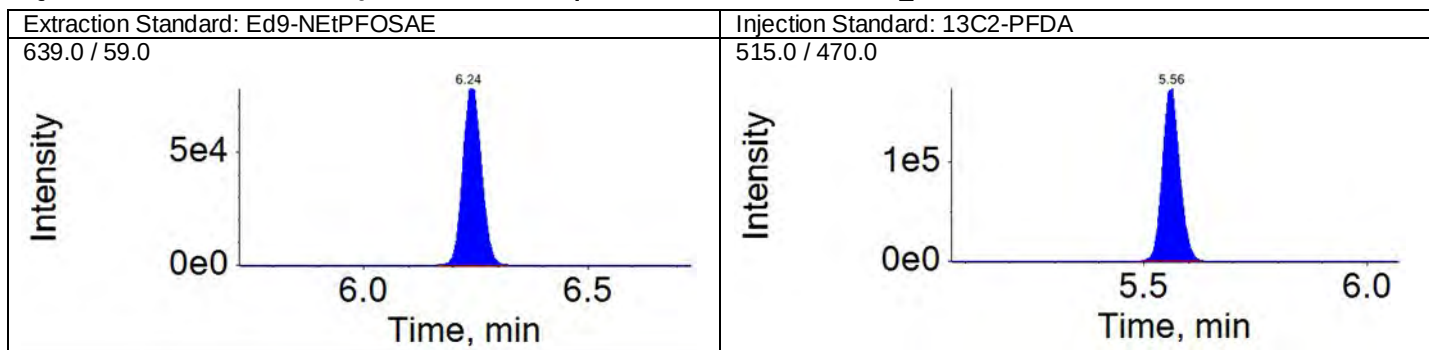
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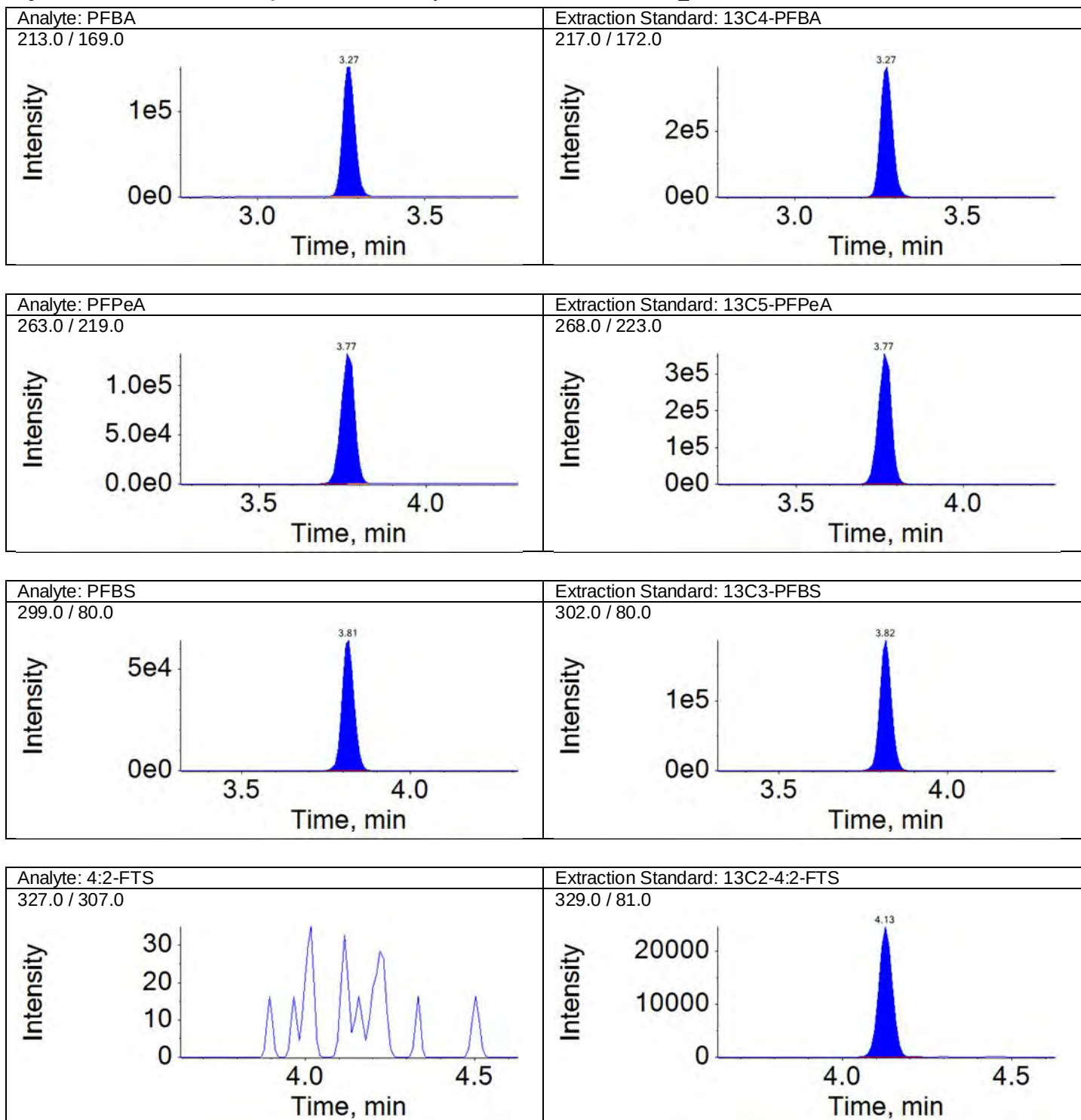
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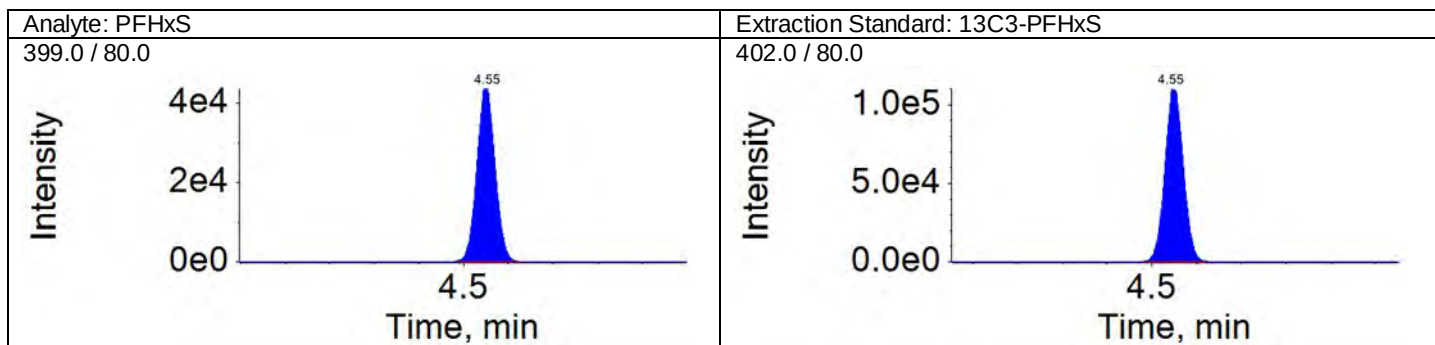
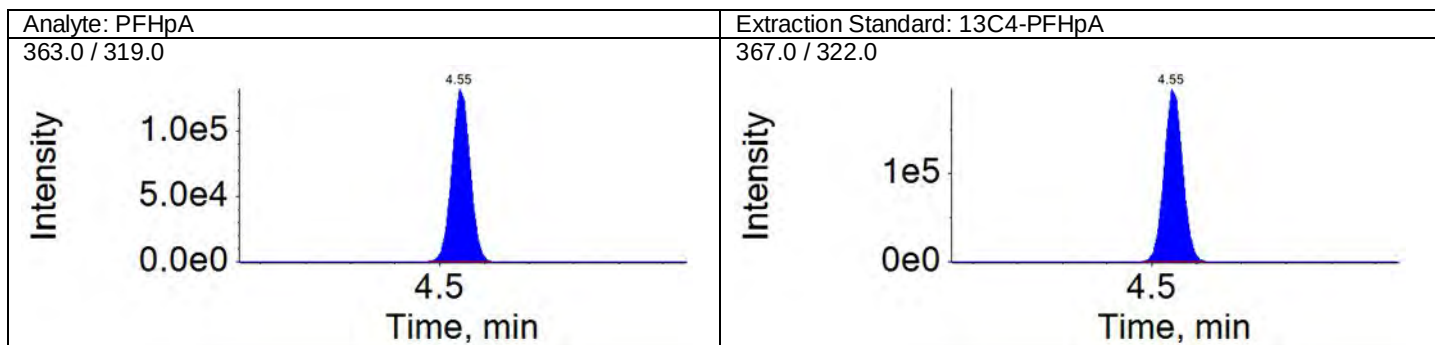
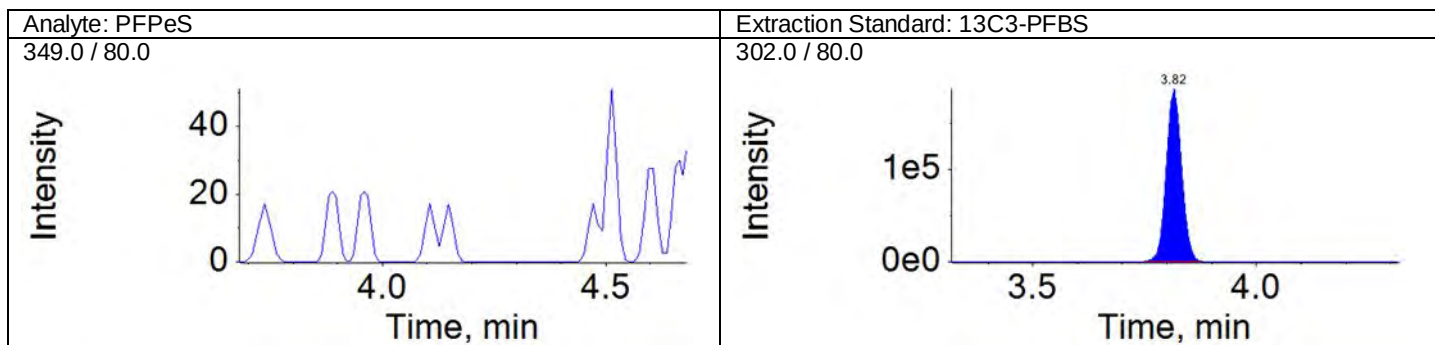
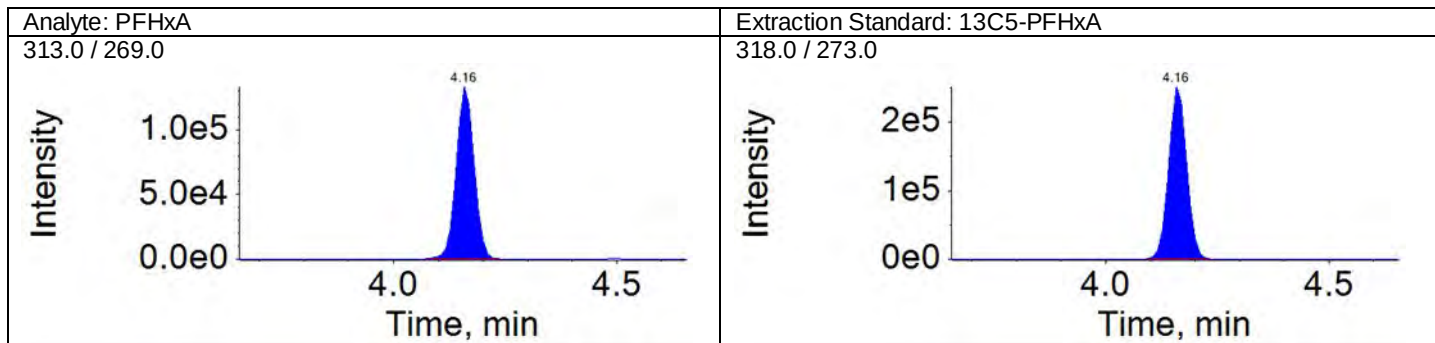
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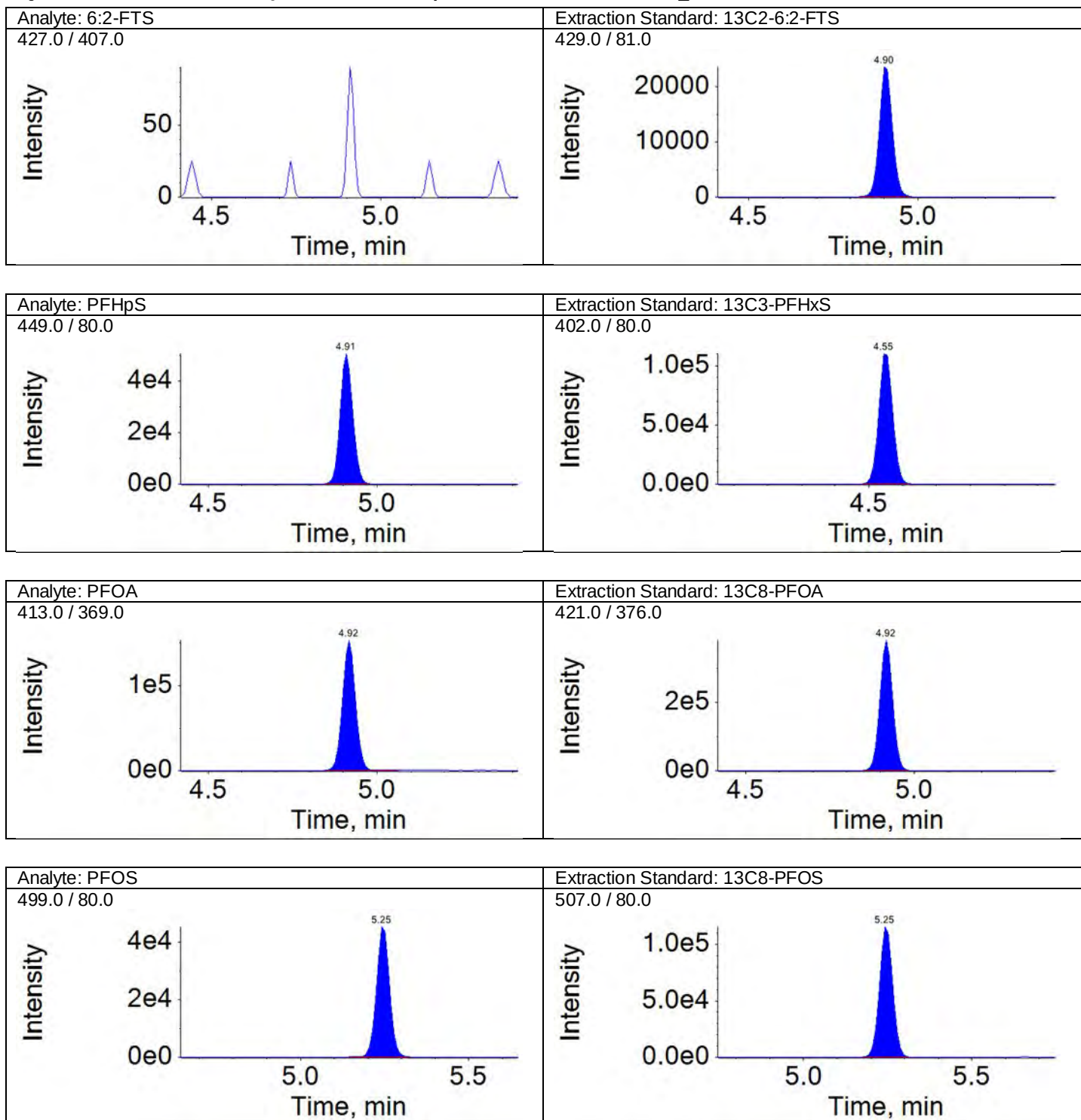
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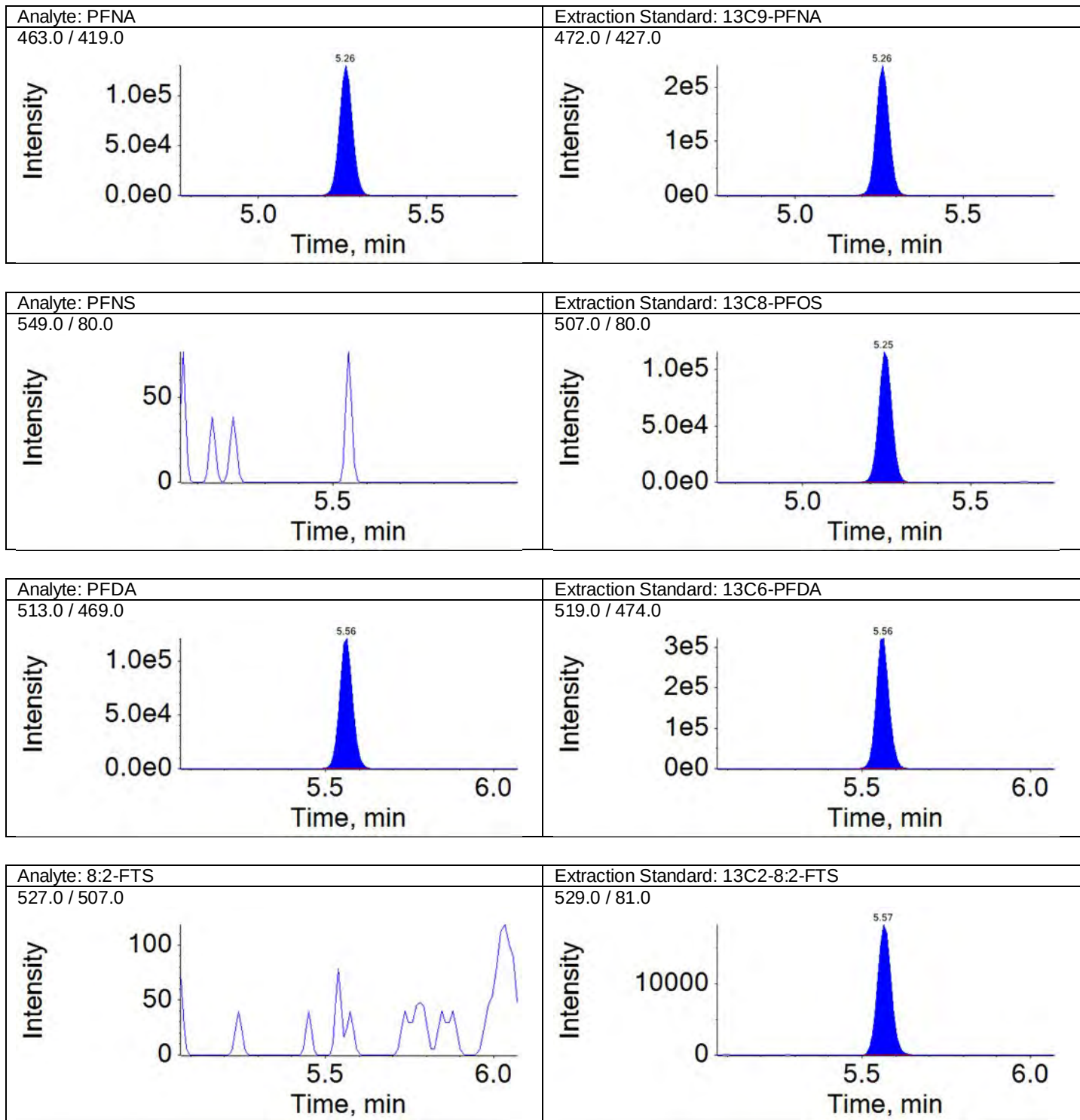
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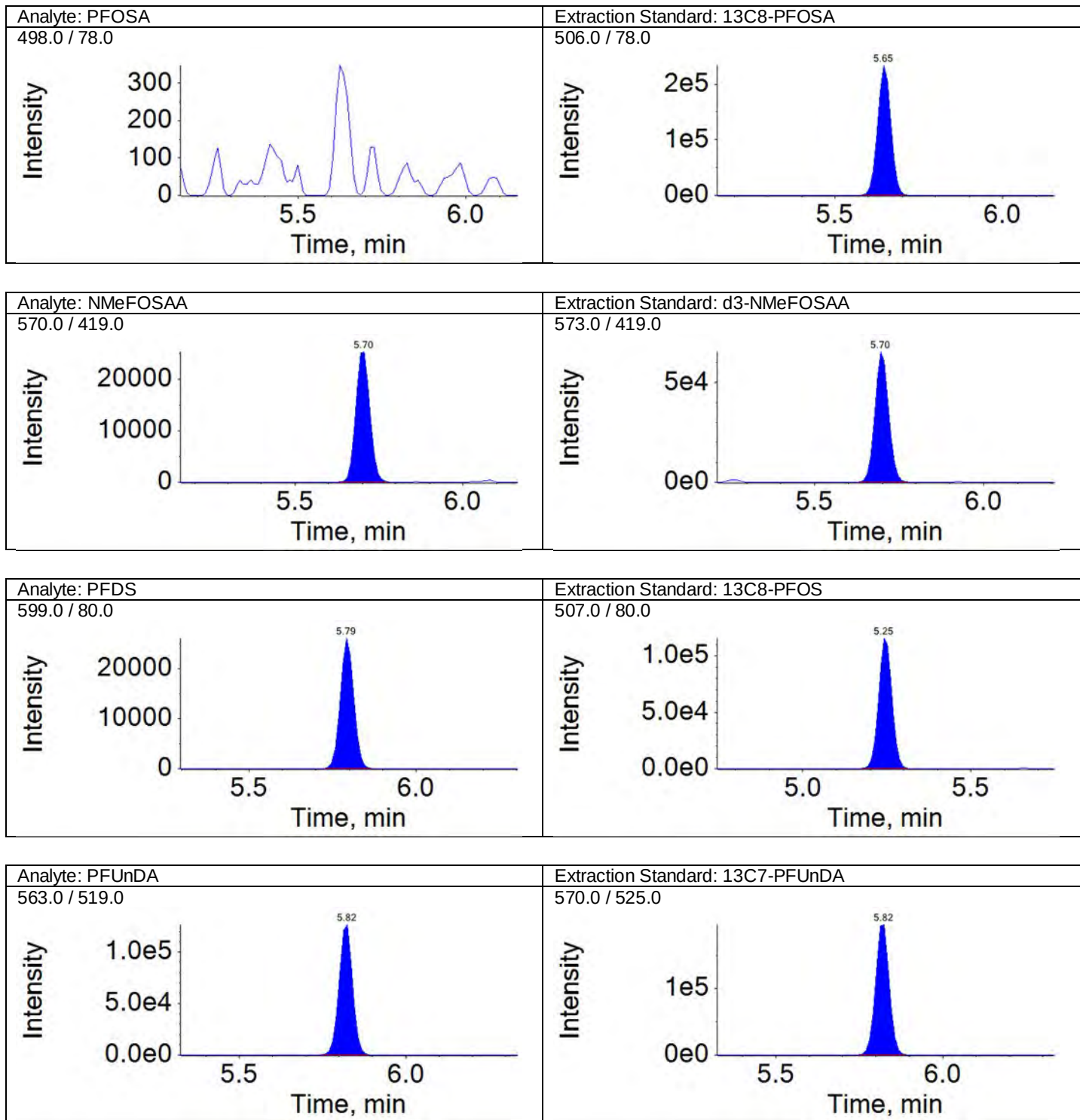
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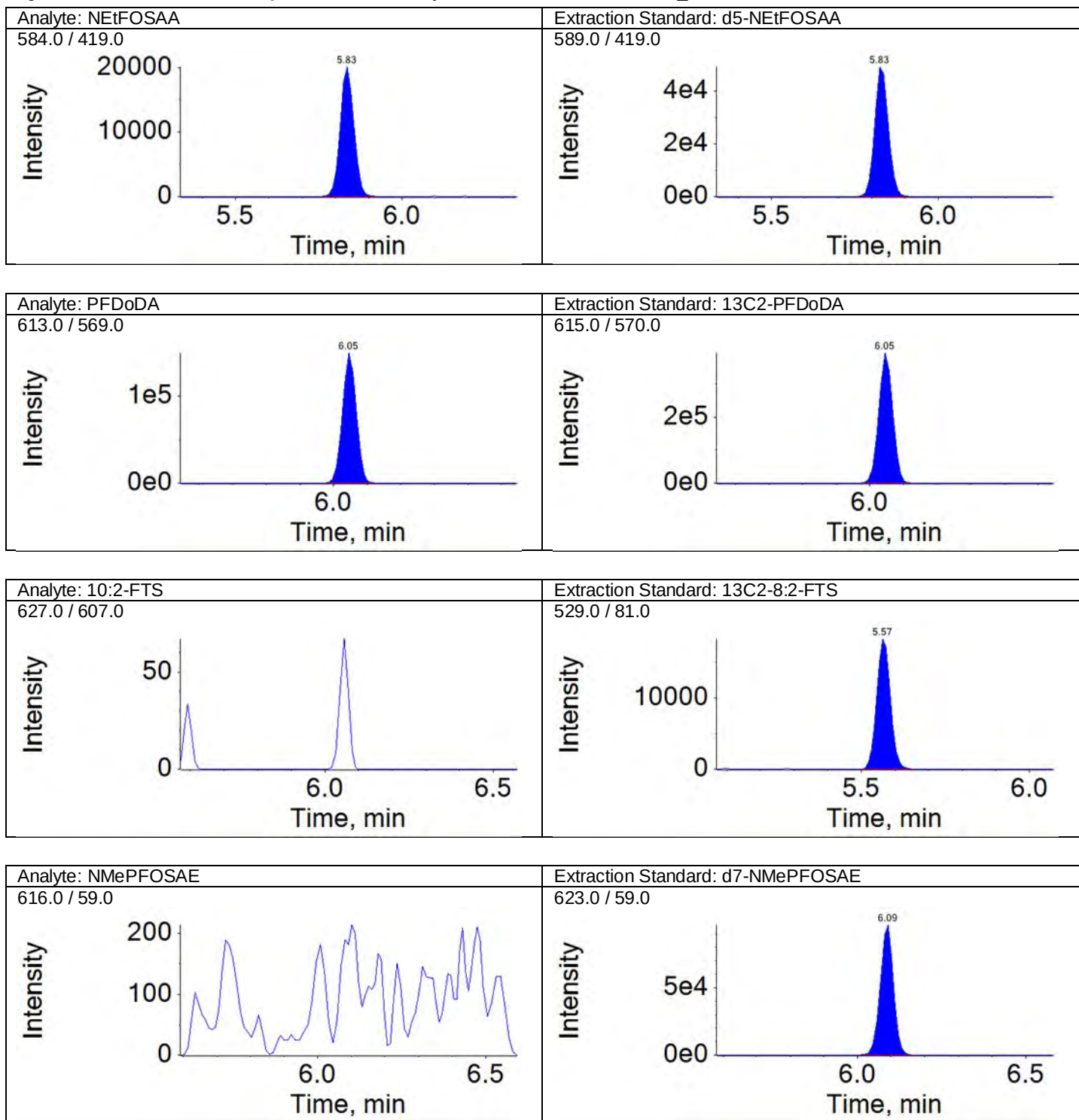
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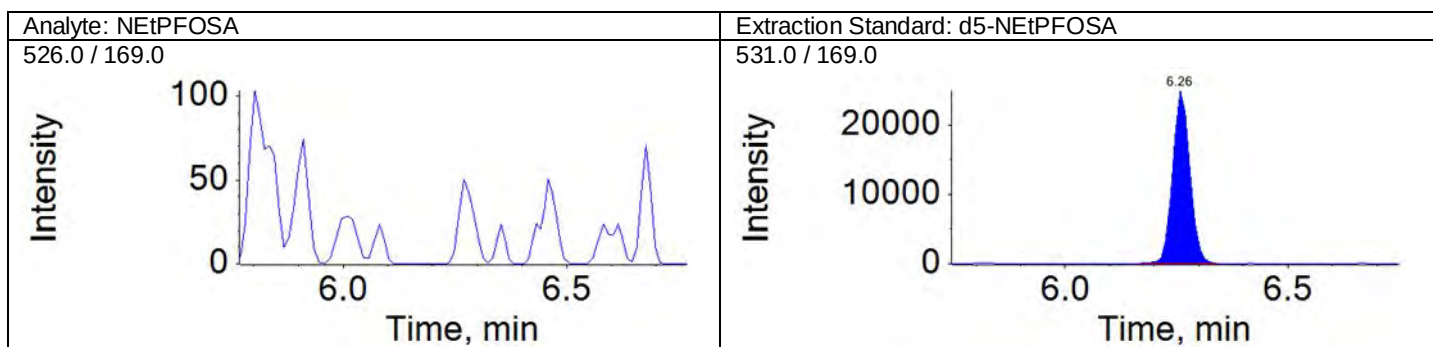
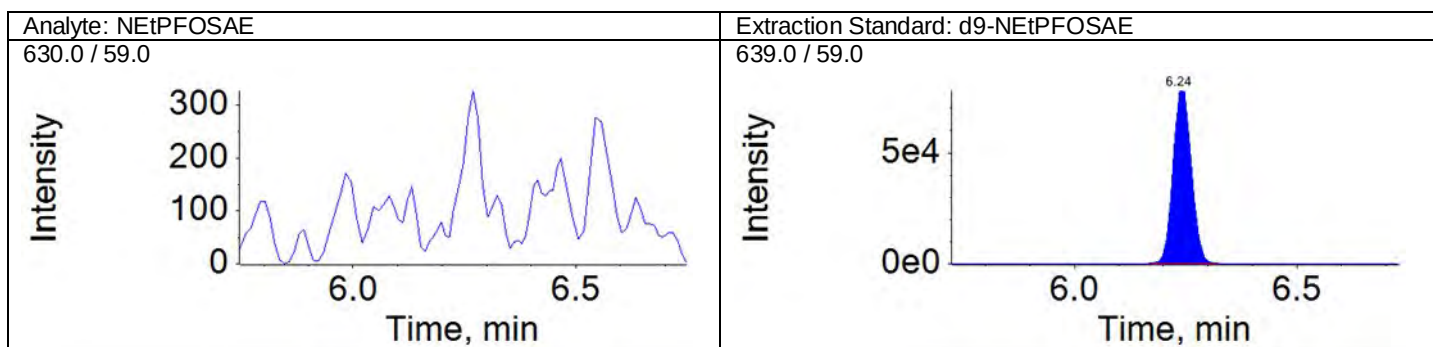
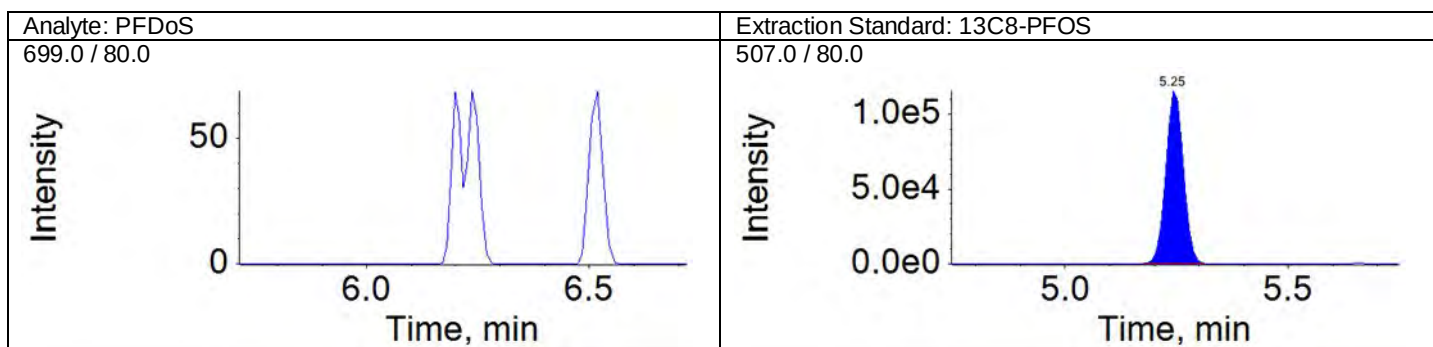
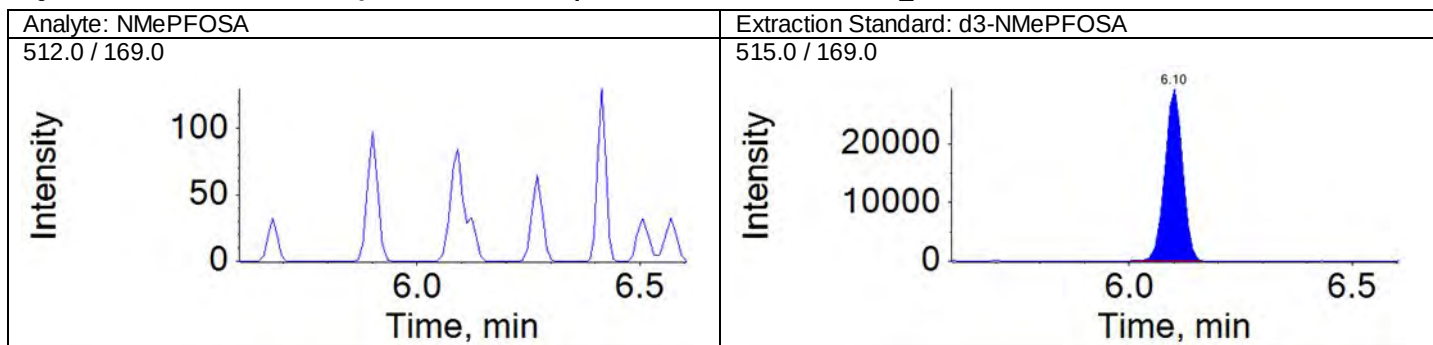
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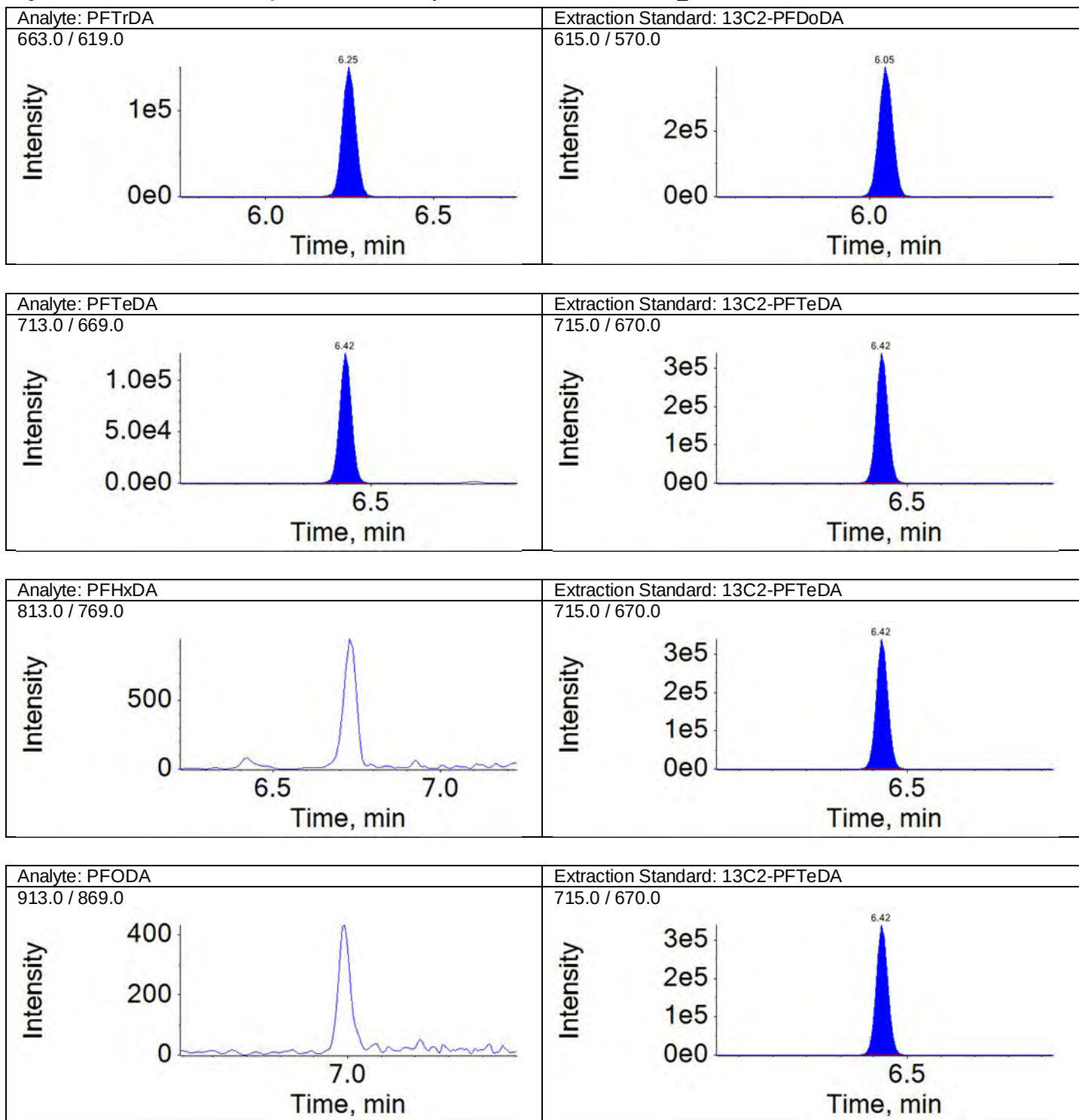
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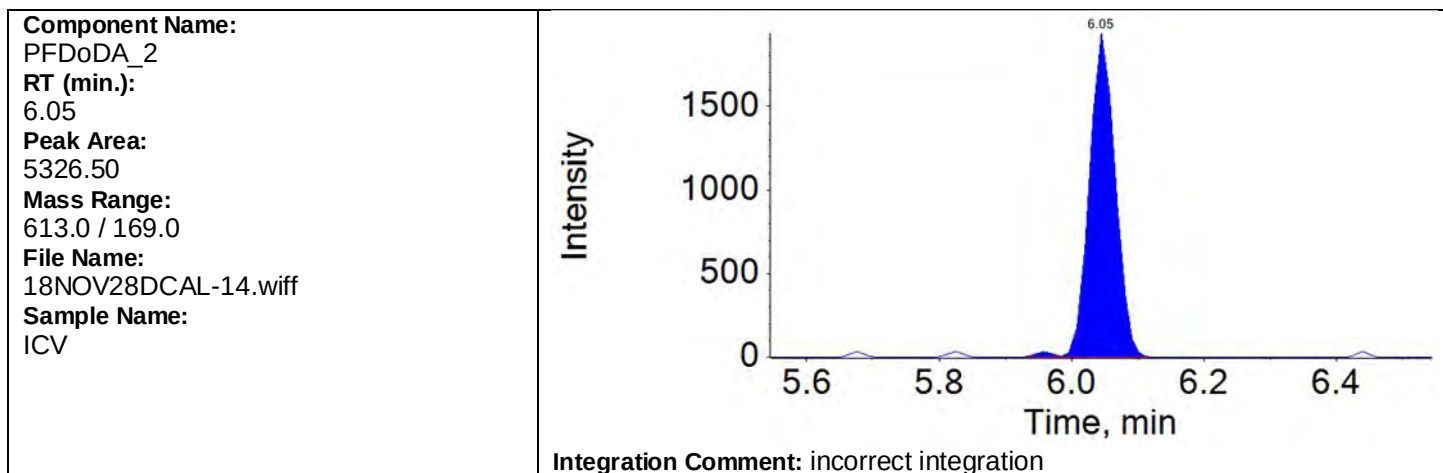
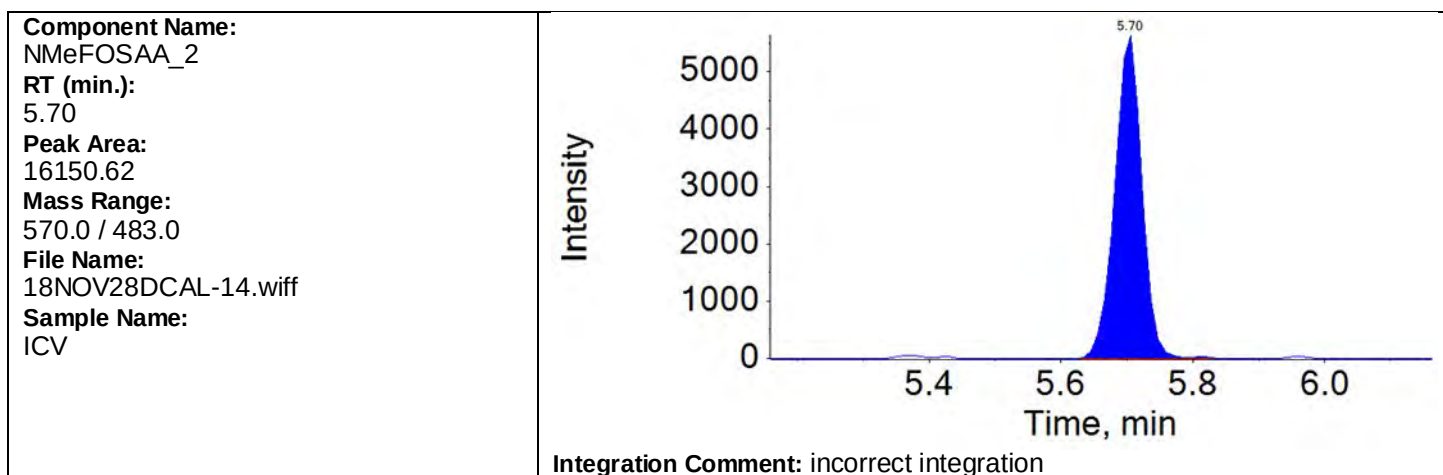
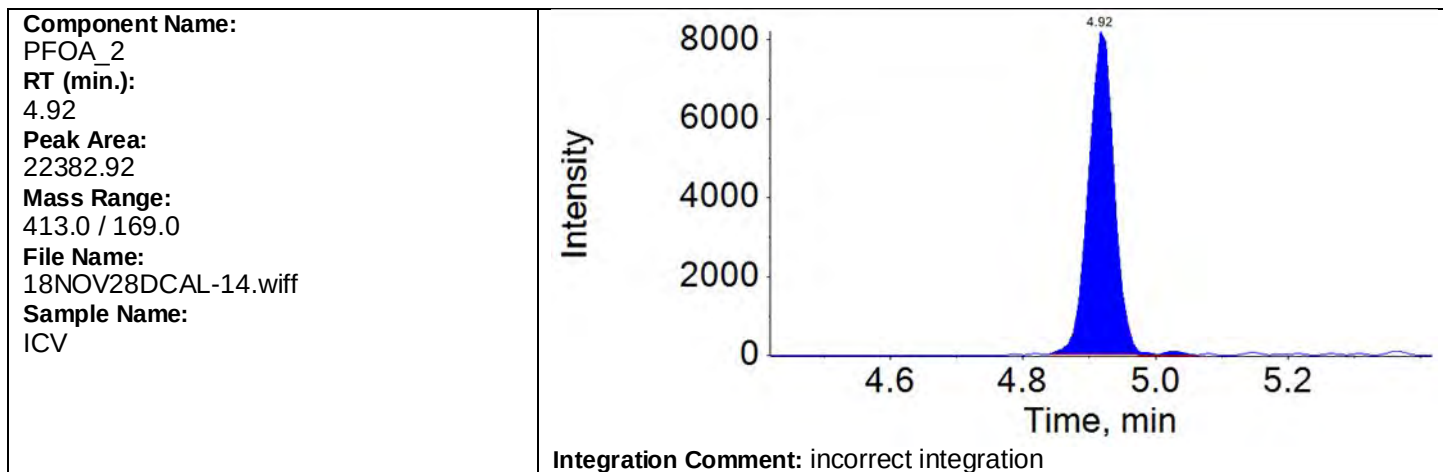
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Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

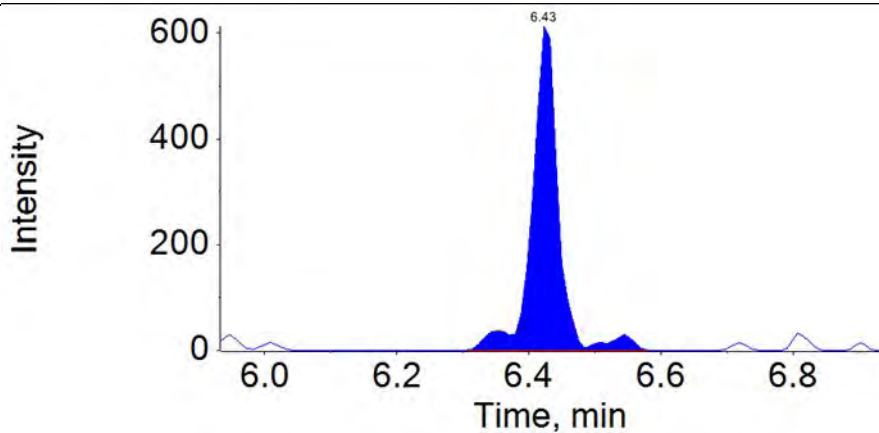
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTeDA_2
RT (min.):
6.43
Peak Area:
1717.33
Mass Range:
713.0 / 169.0
File Name:
18NOV28DCAL-14.wiff
Sample Name:
ICV



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 5:01 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

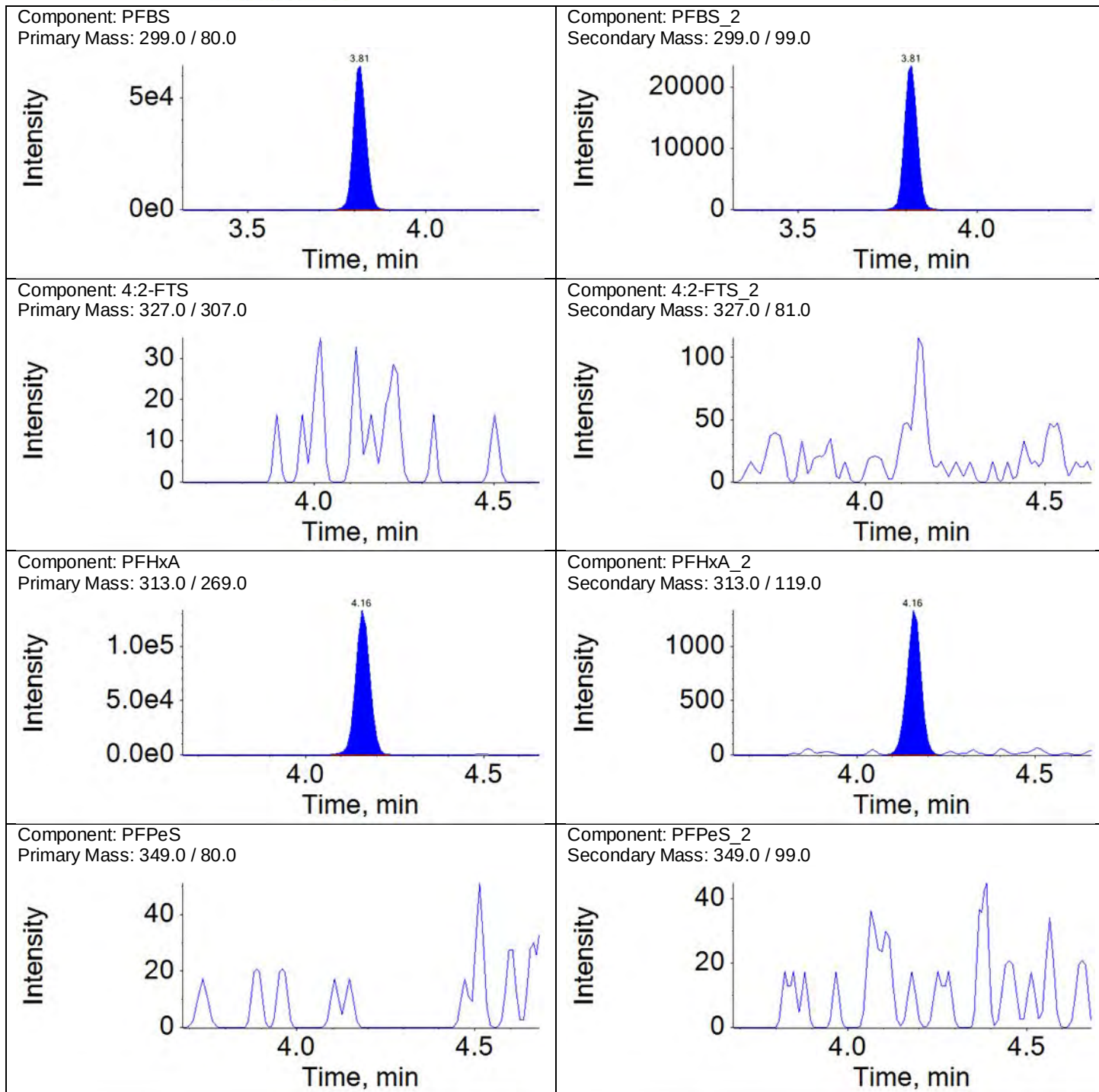
Ion Ratio Report

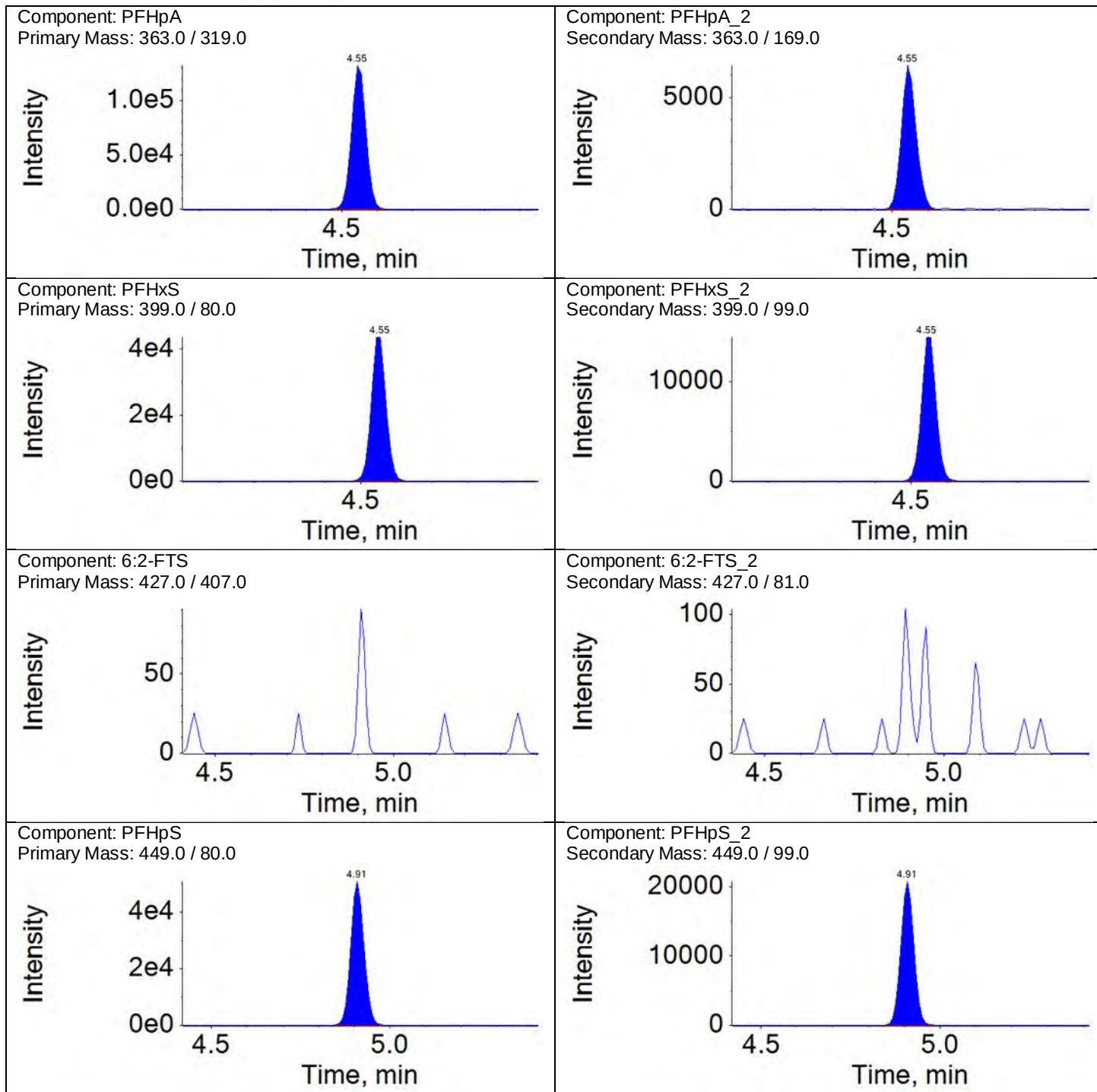
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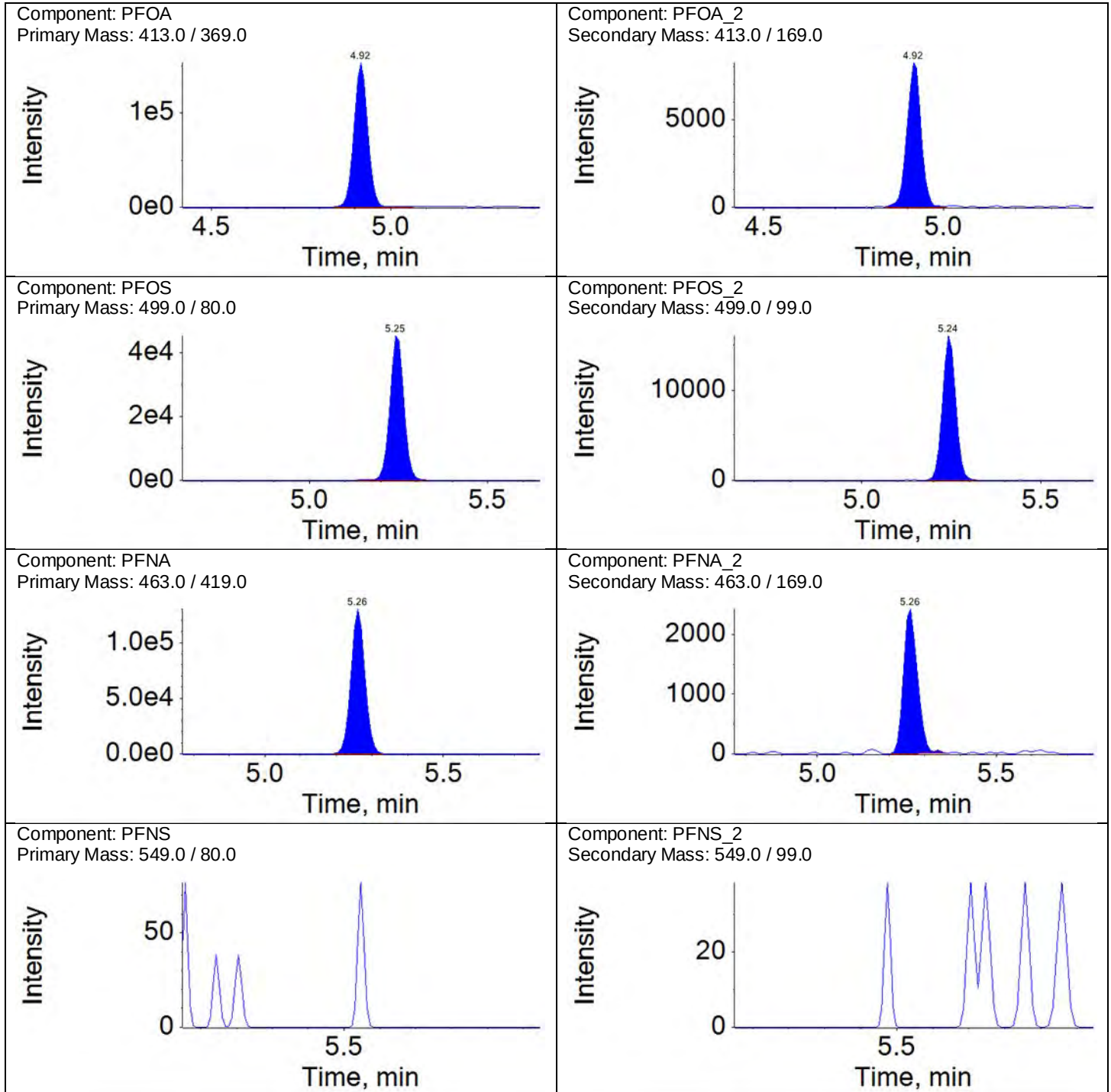
Instrument Name: LM27631

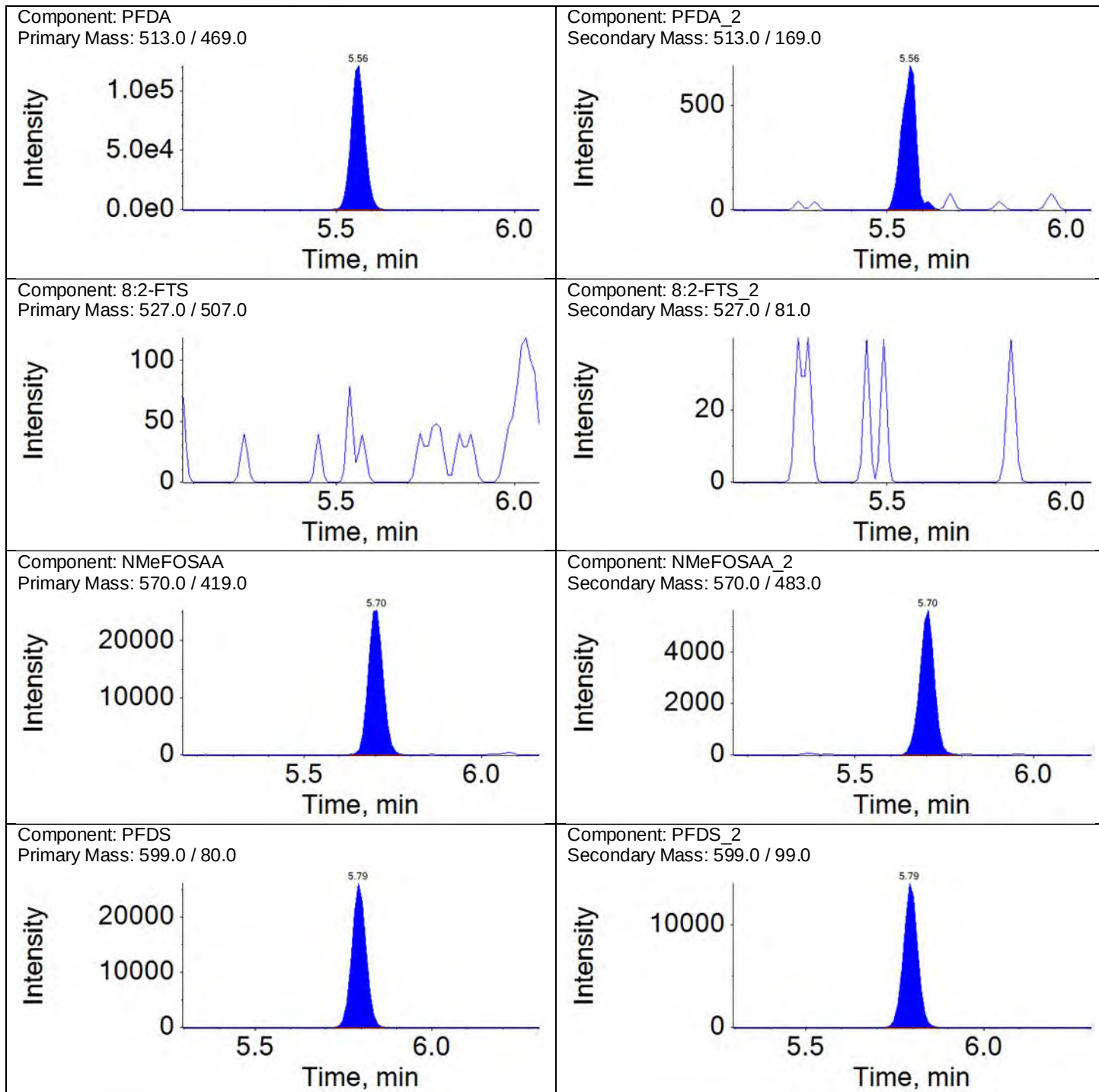
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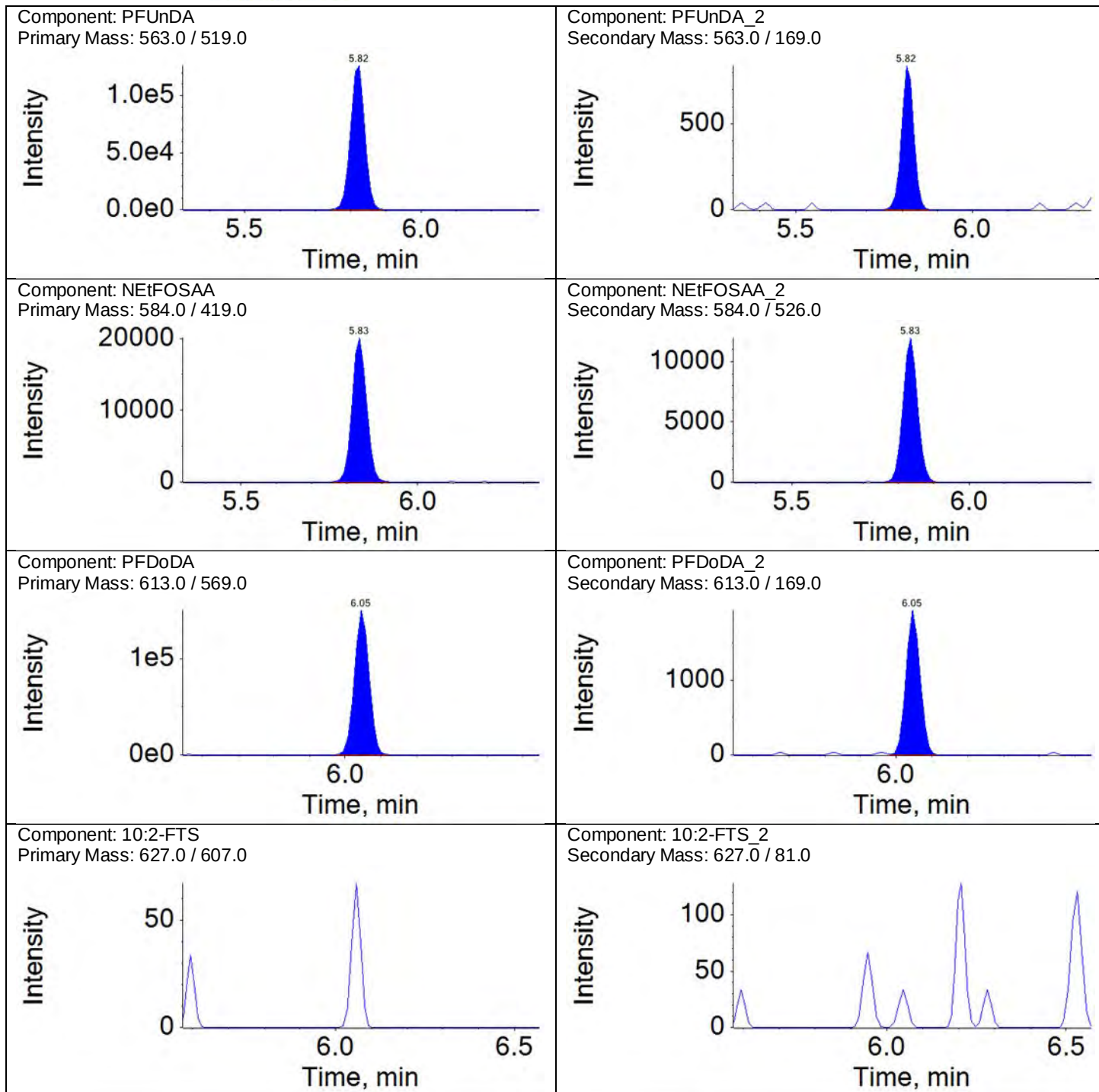
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	159425.00	A	0.3655	0.3680			
PFBS_2	3.81	1.00	58661.72	A	0.3655	0.3680	1	50	
4:2-FTS	N/A	N/A	N/A	A	0.6383	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	0.6383	N/A		50	
PFHxA	4.16	1.00	369137.13	A	0.0103	0.0099			
PFHxA_2	4.16	1.00	3663.34	A	0.0103	0.0099	-4	50	
PFPeS	N/A	N/A	N/A	A	0.4976	N/A			
PFPeS_2	N/A	N/A	N/A	A	0.4976	N/A		50	
PFHpA	4.55	1.00	373590.76	A	0.0557	0.0494			
PFHpA_2	4.55	1.00	18441.26	A	0.0557	0.0494	-11	50	
PFHxS	4.55	1.00	125085.30	A	0.3693	0.3301			
PFHxS_2	4.55	1.00	41284.52	A	0.3693	0.3301	-11	50	
6:2-FTS	N/A	N/A	N/A	A	0.6625	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	0.6625	N/A		50	
PFHpS	4.91	1.08	131043.06	A	0.3915	0.4021			
PFHpS_2	4.91	1.08	52690.55	A	0.3915	0.4021	3	50	
PFOA	4.92	1.00	404358.94	A	0.0573	0.0549			
PFOA_2	4.92	1.00	22197.92	M	0.0573	0.0549	-4	50	
PFOS	5.25	1.00	122334.56	A	0.2960	0.3345			
PFOS_2	5.24	1.00	40919.91	A	0.2960	0.3345	13	50	
PFNA	5.26	1.00	351872.00	A	0.0201	0.0188			
PFNA_2	5.26	1.00	6604.00	A	0.0201	0.0188	-7	50	
PFNS	N/A	N/A	N/A	A	0.4794	N/A			
PFNS_2	N/A	N/A	N/A	A	0.4794	N/A		50	
PFDA	5.56	1.00	325191.94	A	0.0075	0.0060			
PFDA_2	5.56	1.00	1956.43	A	0.0075	0.0060	-20	50	
8:2-FTS	N/A	N/A	N/A	A	0.5380	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	0.5380	N/A		50	
NMeFOSAA	5.70	1.00	74168.76	A	0.2305	0.2169			
NMeFOSAA_2	5.70	1.00	16085.31	M	0.2305	0.2169	-6	50	
PFDS	5.79	1.10	72374.27	A	0.5356	0.5380			
PFDS_2	5.79	1.10	38937.76	A	0.5356	0.5380	0	50	
PFUnDA	5.82	1.00	354099.76	A	0.0038	0.0057			
PFUnDA_2	5.82	1.00	2015.46	A	0.0038	0.0057	50	50	
NEtFOSAA	5.83	1.00	57367.95	A	0.7356	0.5930			
NEtFOSAA_2	5.83	1.00	34017.14	A	0.7356	0.5930	-19	50	
PFDODA	6.05	1.00	427818.87	A	0.0130	0.0123			
PFDODA_2	6.05	1.00	5265.10	M	0.0130	0.0123	-6	50	
10:2-FTS	N/A	N/A	N/A	A	0.6989	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	0.6989	N/A		50	
PFTTrDA	6.25	1.03	416758.36	A	0.0090	0.0086			
PFTTrDA_2	6.25	1.03	3581.21	A	0.0090	0.0086	-5	50	
PFTeDA	6.42	1.00	312632.12	A	0.0056	0.0049			
PFTeDA_2	6.43	1.00	1543.65	M	0.0056	0.0049	-12	50	
PFHxDA	N/A	N/A	N/A	A	0.0646	N/A			
PFHxDA_2	N/A	N/A	N/A	A	0.0646	N/A		50	
PFODA	N/A	N/A	N/A	A	0.0264	N/A			
PFODA_2	N/A	N/A	N/A	A	0.0264	N/A		50	

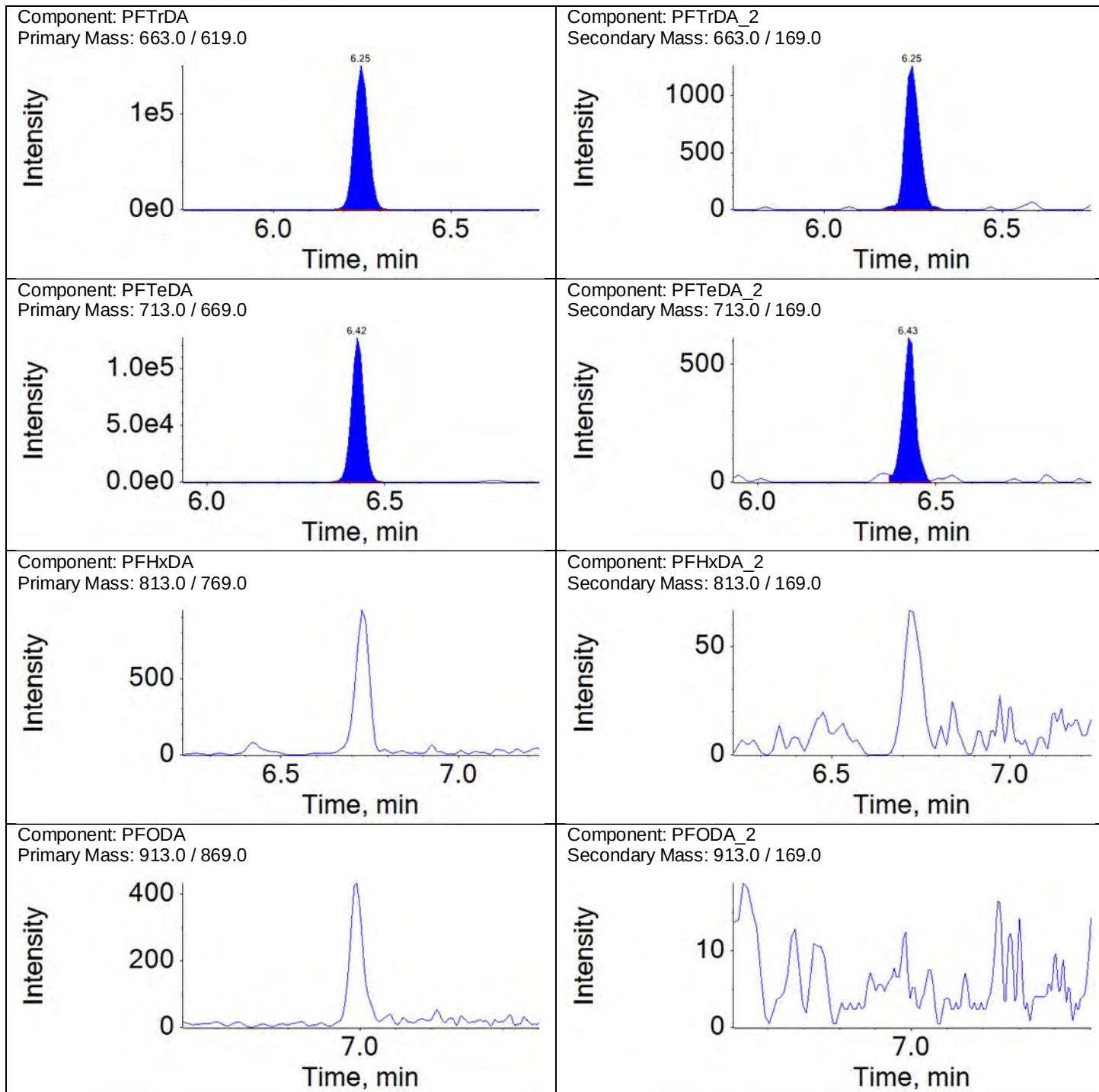












ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	L+B CAL3		Data File:	18NOV28DCAL-15.wiff
Sample ID:	LBMODX1833D		Acquis Date:	2018-11-28T15:03:22
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	11		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV28DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	930482.9	887248.9	5	50	
13C2-PFOA	5.0	516348.2	498501.6	4	50	
13C4-PFOS	4.8	310677.0	283214.2	10	50	
13C2-PFDA	5.0	460288.7	441790.6	4	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	996867.5	13C3-PFBA	930482.9	1.071	5.000	4.780	96	70-130	
E13C5-PFPeA	927870.7	13C3-PFBA	930482.9	0.997	5.000	4.656	93	70-130	
E13C3-PFBS	427409.8	13C3-PFBA	930482.9	0.459	4.650	4.382	94	70-130	
E13C2-4:2-FTS	73743.1	13C2-PFOA	516348.2	0.143	4.670	4.922	105	70-130	
E13C5-PFHxA	699105.0	13C2-PFOA	516348.2	1.354	5.000	4.973	99	70-130	
E13C3-PFHxS	324075.2	13C2-PFOA	516348.2	0.628	4.730	4.919	104	70-130	
E13C4-PFHpA	547668.0	13C2-PFOA	516348.2	1.061	5.000	4.874	97	70-130	
E13C2-6:2-FTS	63429.0	13C2-PFOA	516348.2	0.123	4.750	5.142	108	70-130	
E13C8-PFOA	997292.2	13C2-PFOA	516348.2	1.931	5.000	5.316	106	70-130	
E13C8-PFOS	308064.9	13C4-PFOS	310677.0	0.992	4.780	4.476	94	70-130	
E13C9-PFNA	770381.1	13C4-PFOS	310677.0	2.480	5.000	5.446	109	70-130	
E13C6-PFDA	853597.3	13C2-PFDA	460288.7	1.854	5.000	5.229	105	70-130	
E13C2-8:2-FTS	52606.6	13C2-PFDA	460288.7	0.114	4.790	4.912	103	70-130	
E13C8-PFOSA	636488.8	13C2-PFDA	460288.7	1.383	5.000	5.074	101	70-130	
Ed3-NMeFOSAA	186039.9	13C2-PFDA	460288.7	0.404	5.000	5.132	103	70-130	
E13C7-PFUnDA	573935.8	13C2-PFDA	460288.7	1.247	5.000	5.270	105	70-130	
Ed5-NEtFOSAA	145277.9	13C2-PFDA	460288.7	0.316	5.000	5.623	112	70-130	
E13C2-PFDoDA	1114419.1	13C2-PFDA	460288.7	2.421	5.000	5.087	102	70-130	
Ed7-NMePFOSAE	278546.0	13C2-PFDA	460288.7	0.605	5.000	5.230	105	70-130	
Ed3-NMePFOSA	90664.8	13C2-PFDA	460288.7	0.197	5.000	5.331	107	70-130	
Ed9-NEtPFOSAE	233109.2	13C2-PFDA	460288.7	0.506	5.000	5.134	103	70-130	
Ed5-NEtPFOSA	69689.3	13C2-PFDA	460288.7	0.151	5.000	5.261	105	70-130	
E13C2-PFTeDA	859635.9	13C2-PFDA	460288.7	1.868	5.000	5.168	103	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: L+B CAL3

Instrument Name: LM27631

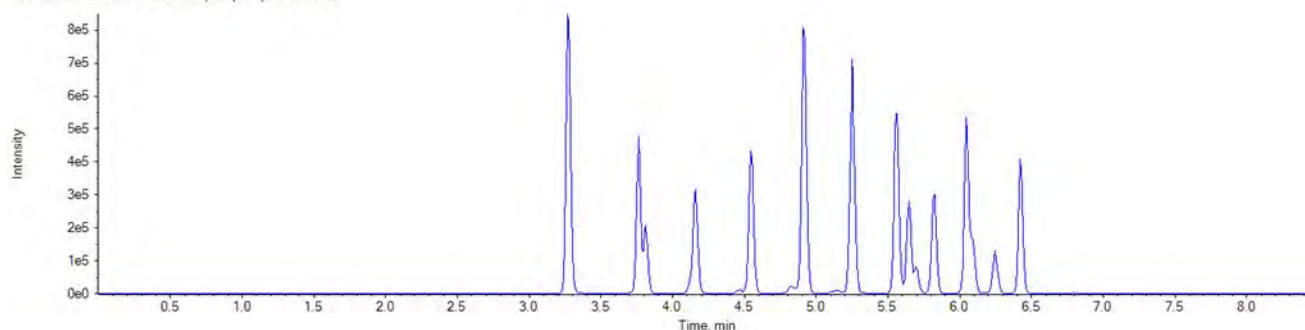
File Name: 18NOV28DCAL-15.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	996867.5	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	927870.7	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	427409.8	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	73743.1	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	699105.0	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	427409.8	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	547668.0	N/A	
PFHxS	4.55	1.000	130205.7		M	13C3-PFHxS	4.55	324075.2	0.402	1.881
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	63429.0	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	324075.2	N/A	
PFOA	4.92	1.000	363985.2		M	13C8-PFOA	4.91	997292.2	0.365	1.886
PFOS	5.25	1.000	124397.3		M	13C8-PFOS	5.24	308064.9	0.404	1.694
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	770381.1	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	308064.9	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	853597.3	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	52606.6	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	636488.8	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	186039.9	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	308064.9	N/A	
PfUnDA	N/A	N/A	N/A		A	13C7-PfUnDA	5.82	573935.8	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	145277.9	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	1114419.1	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	52606.6	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	278546.0	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	90664.8	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	308064.9	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	233109.2	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	69689.3	N/A	
PFTDA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	1114419.1	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	859635.9	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	859635.9	N/A	
PFOA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	859635.9	N/A	

Total Ion Chromatogram

TIC from 18NOV28DCAL-15.wiff (sample 1) - L+B CAL3



APPROVED

By MCD at 5:01 pm, 11/28/18

BSI14 Page 1624 of 2132

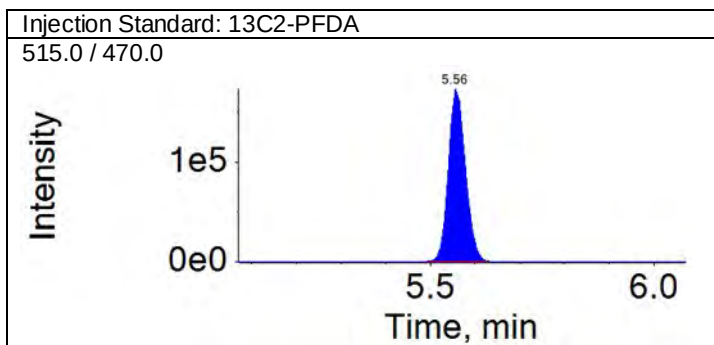
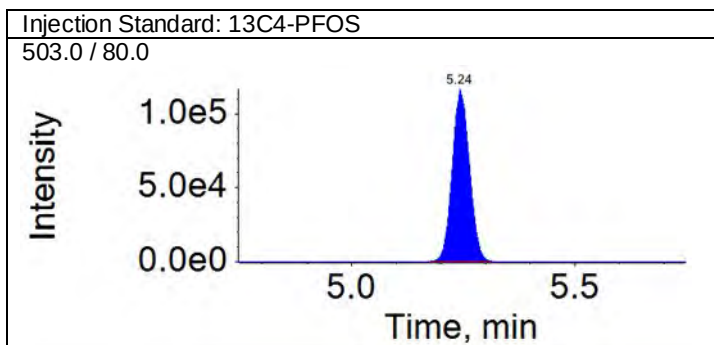
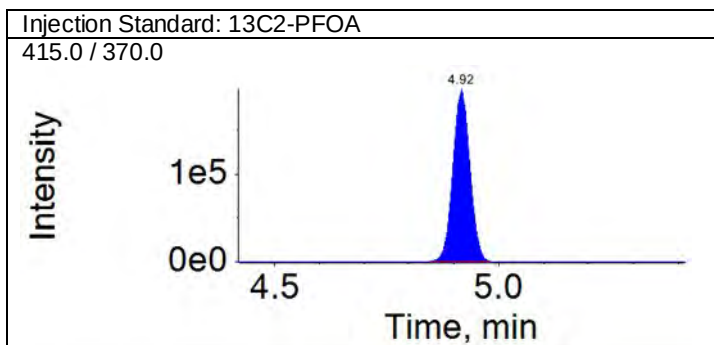
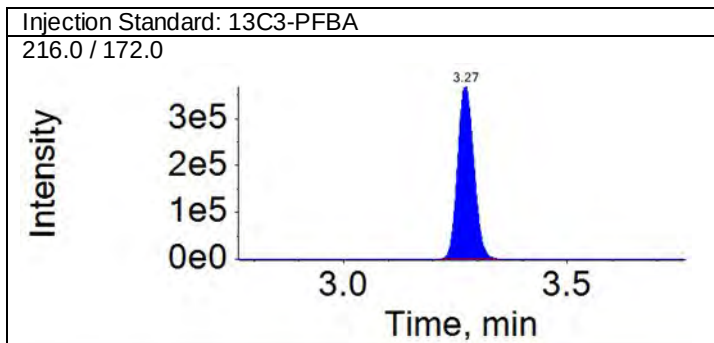
REVIEWED

By HMK at 12:22 pm, 11/29/18

Page 2 of 17

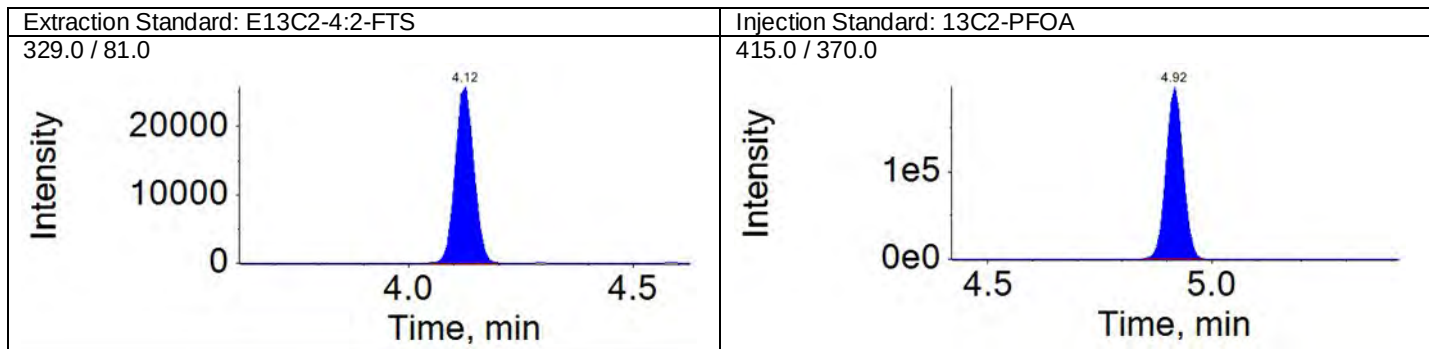
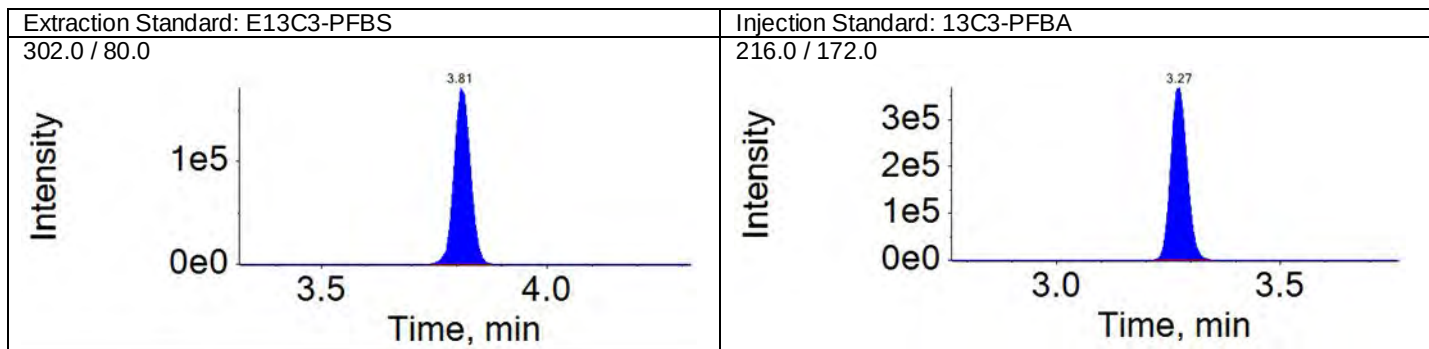
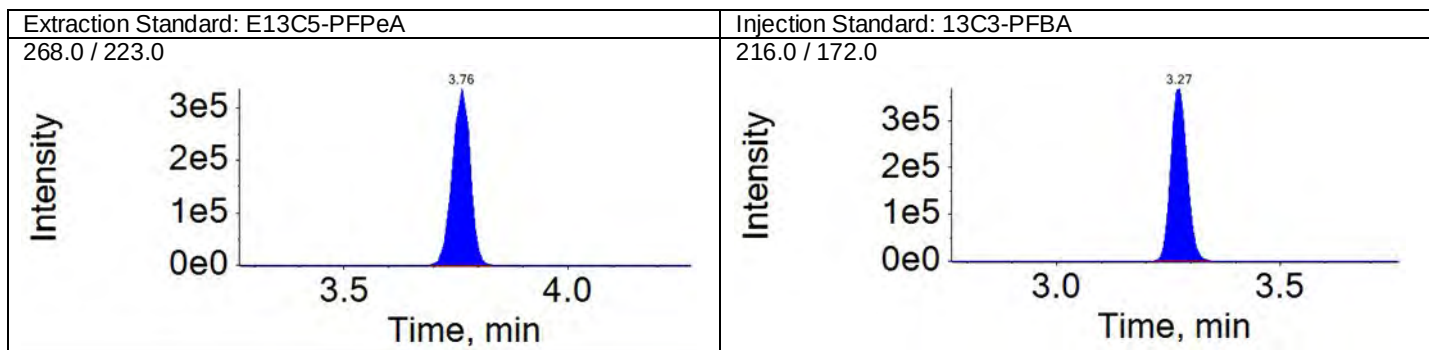
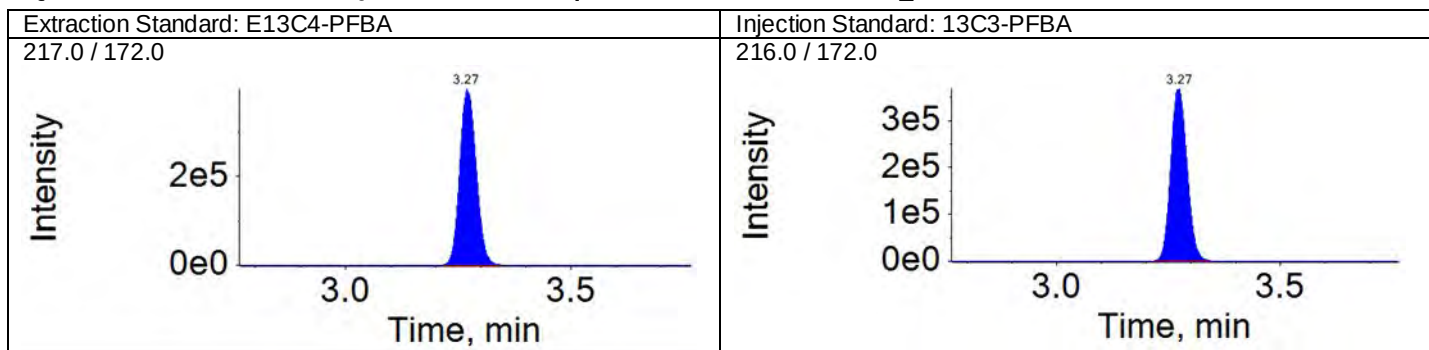
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



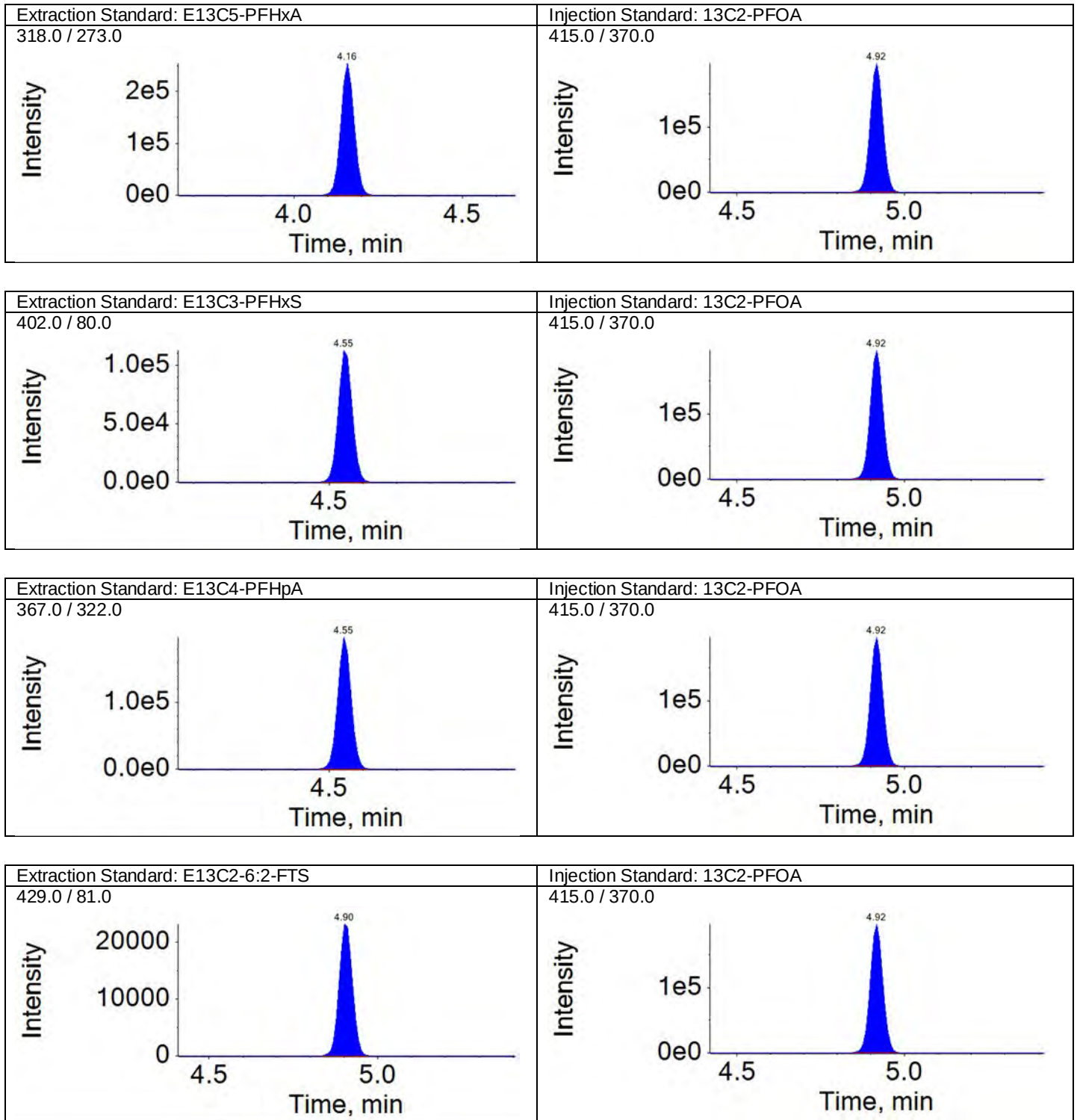
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



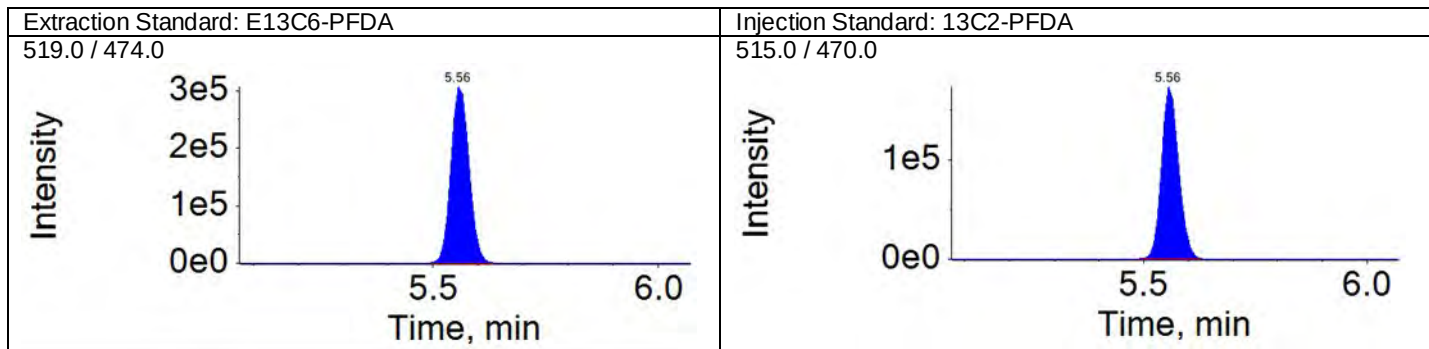
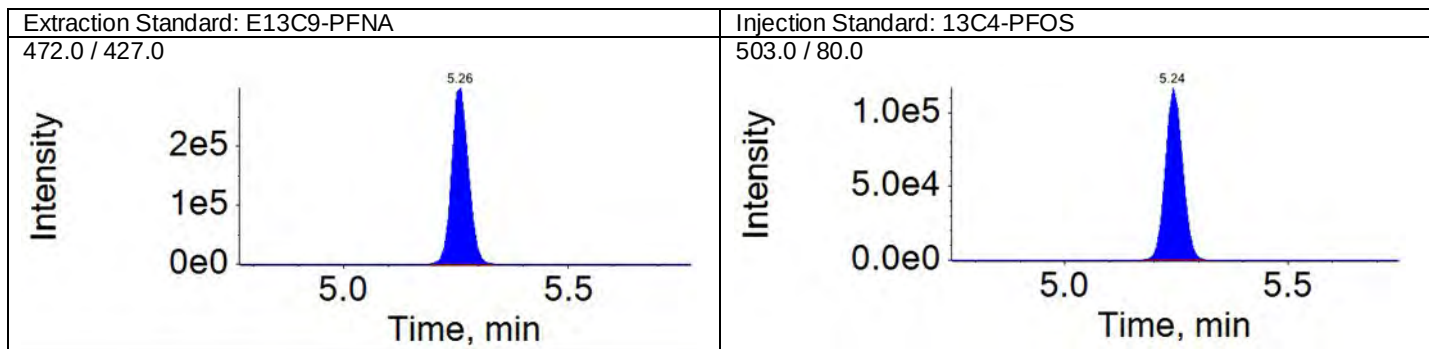
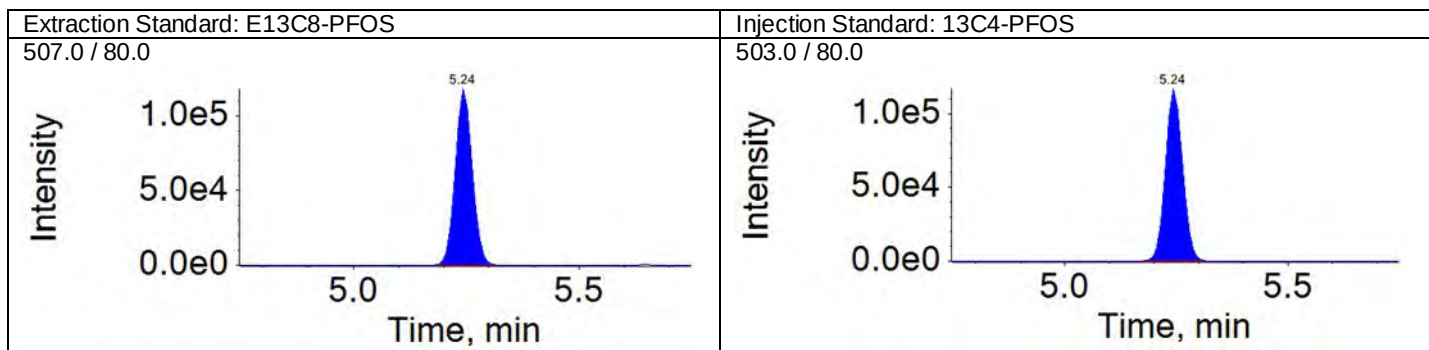
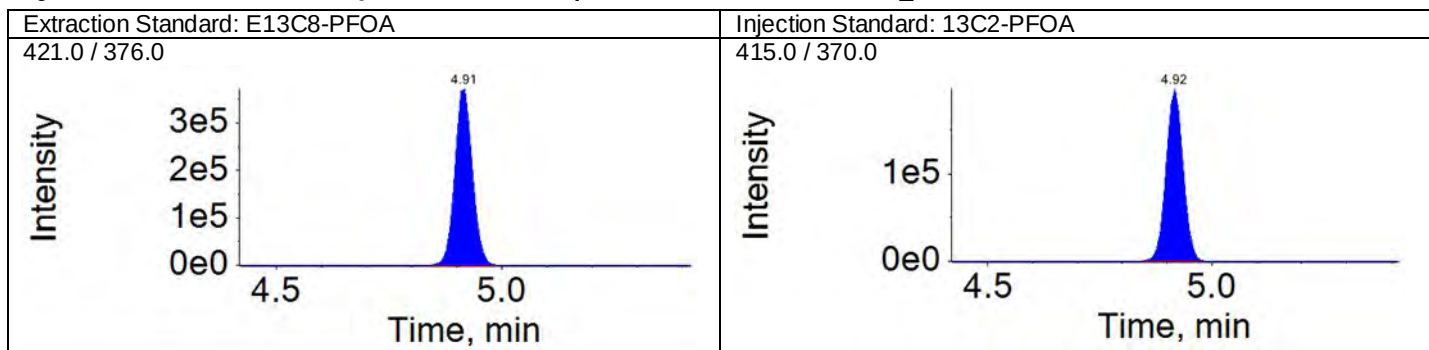
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



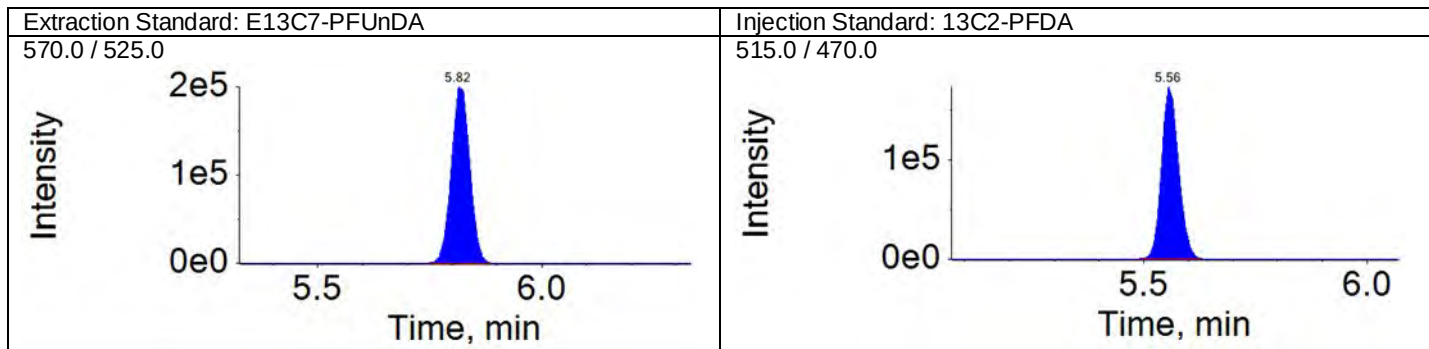
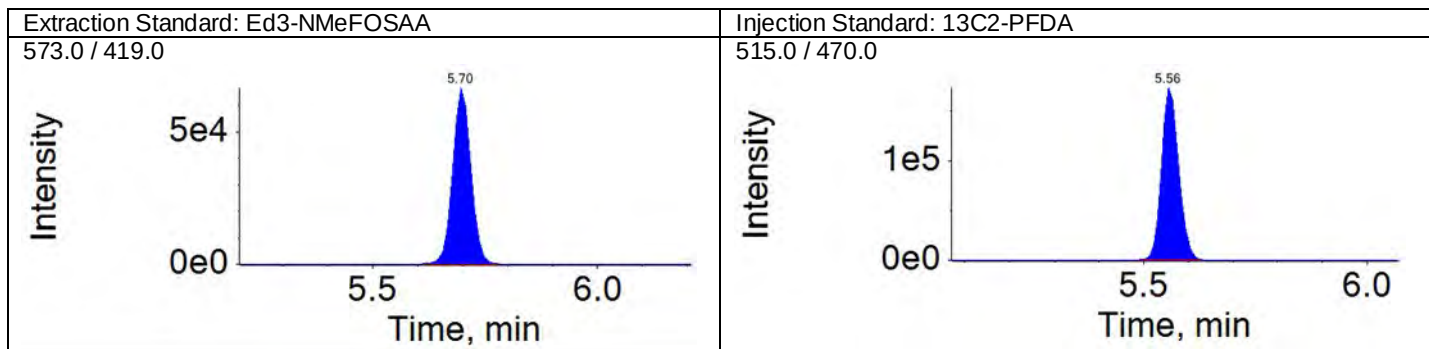
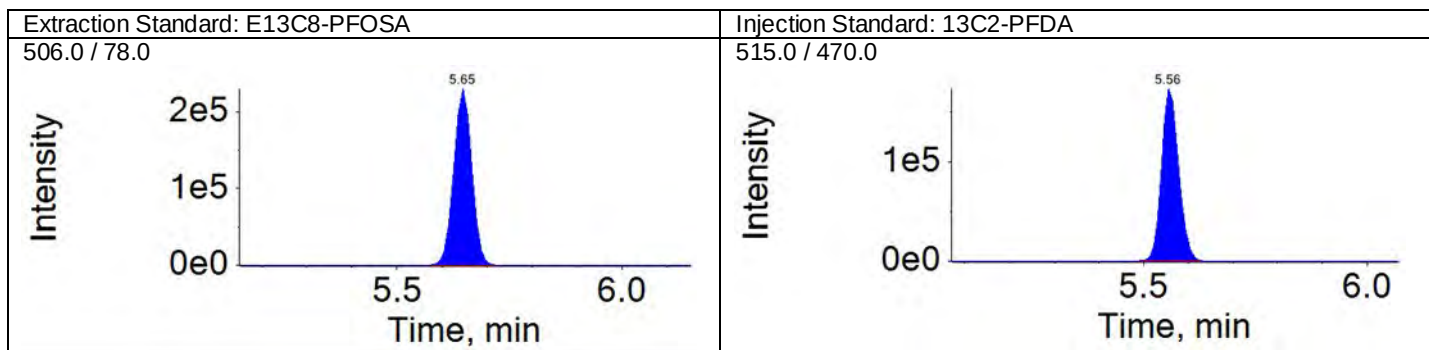
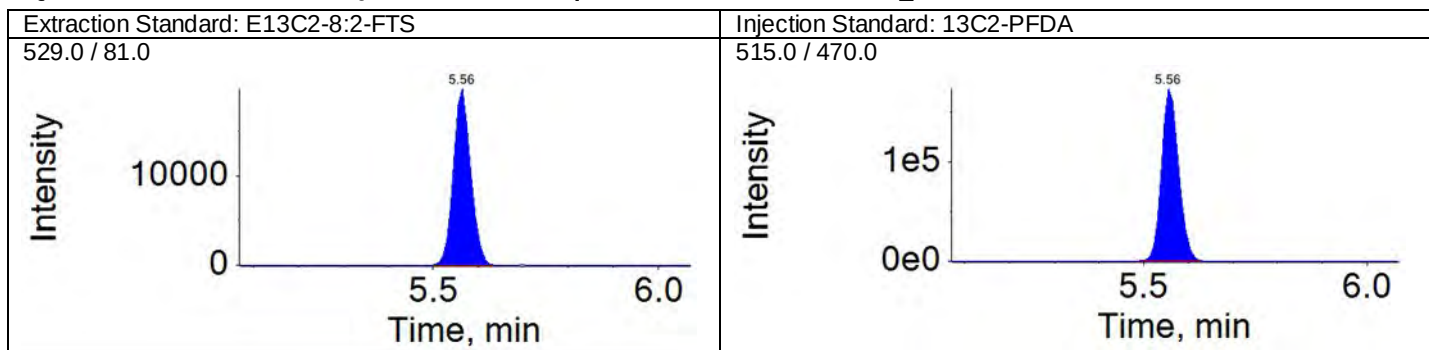
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



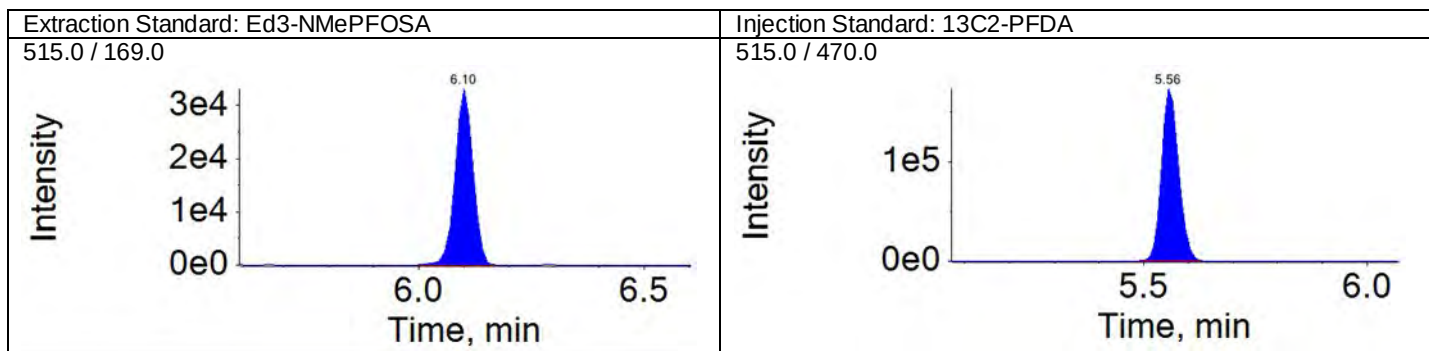
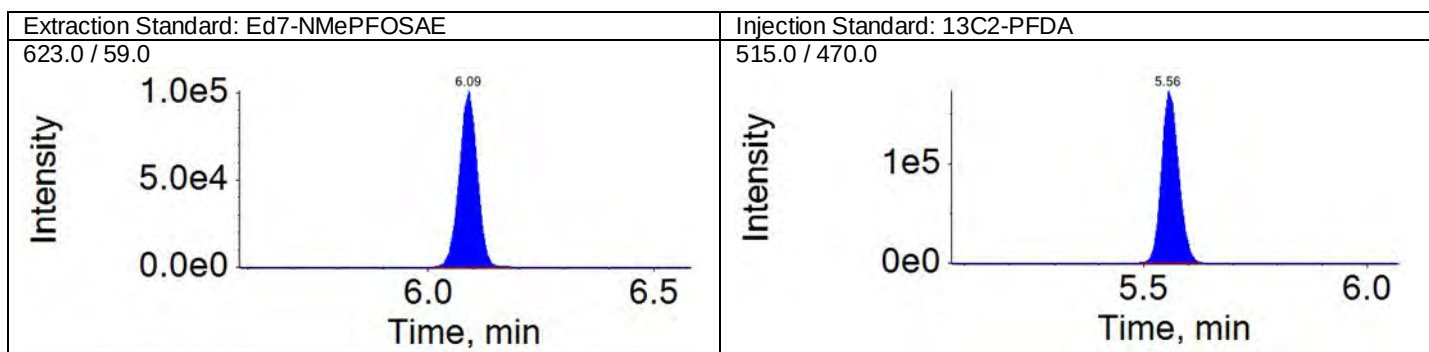
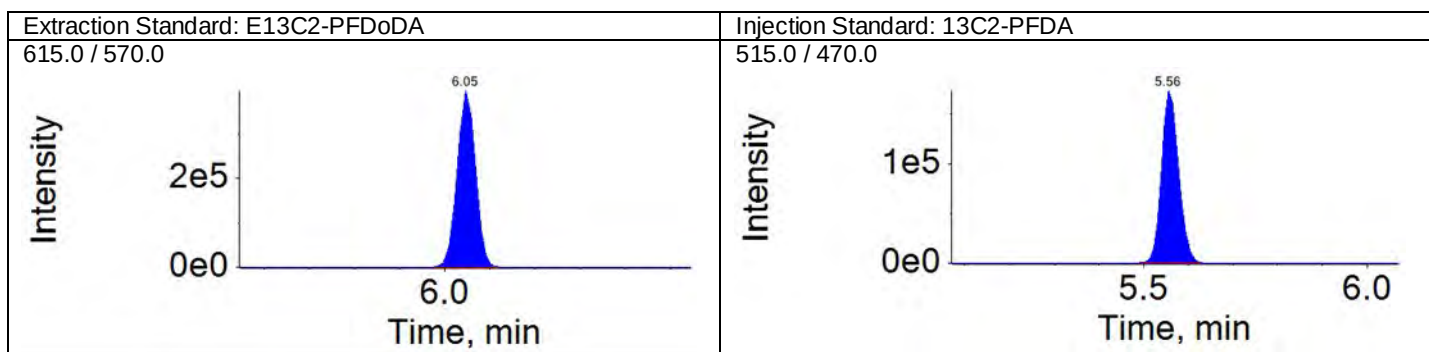
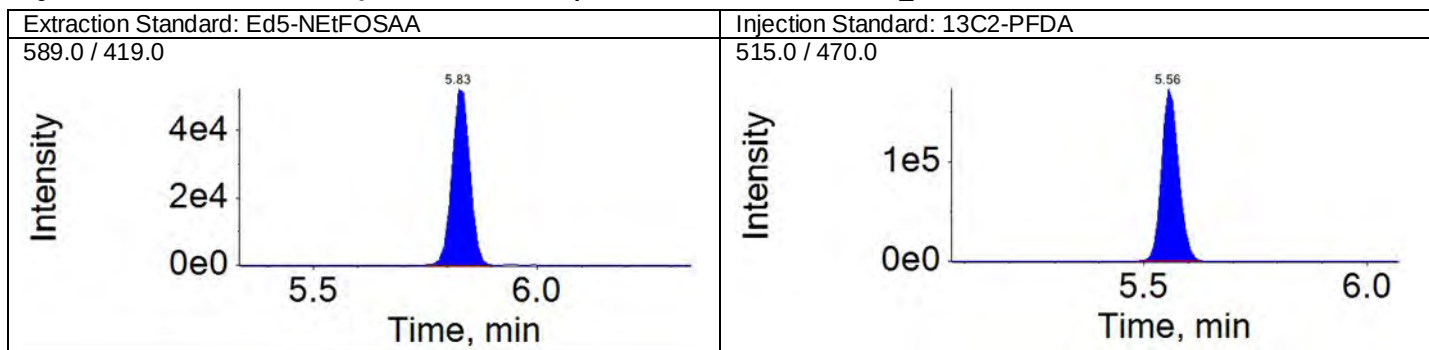
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



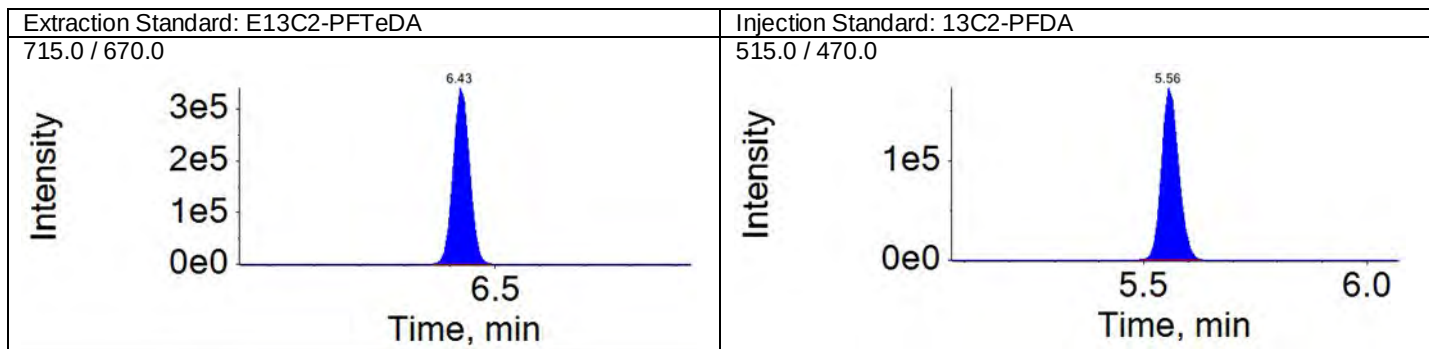
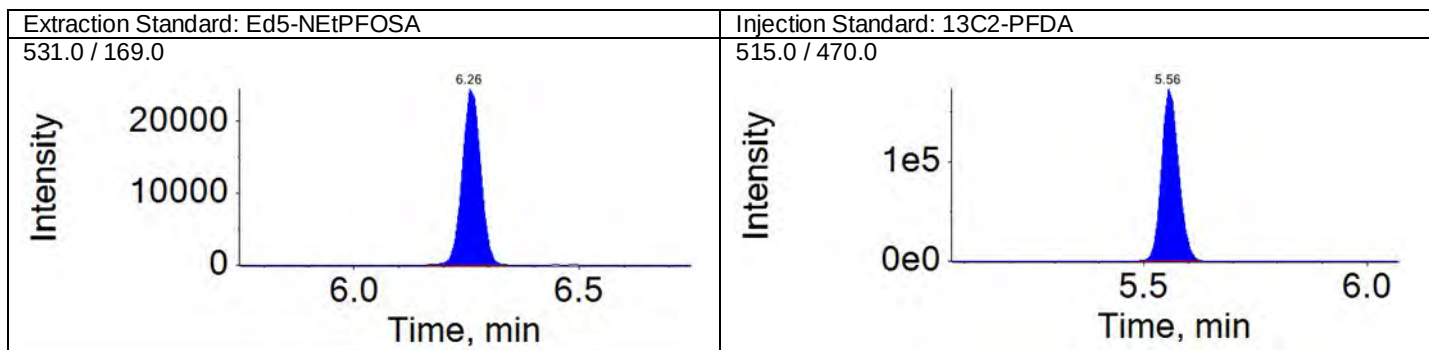
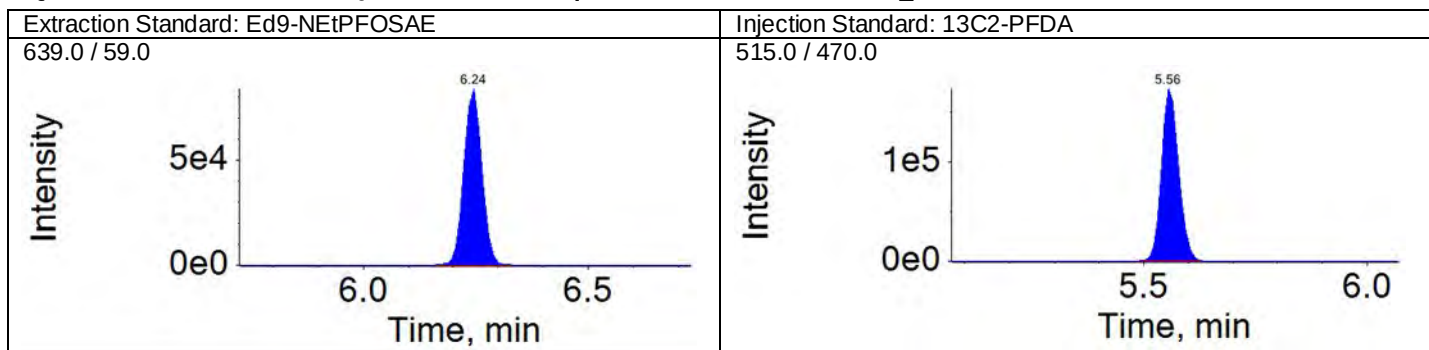
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



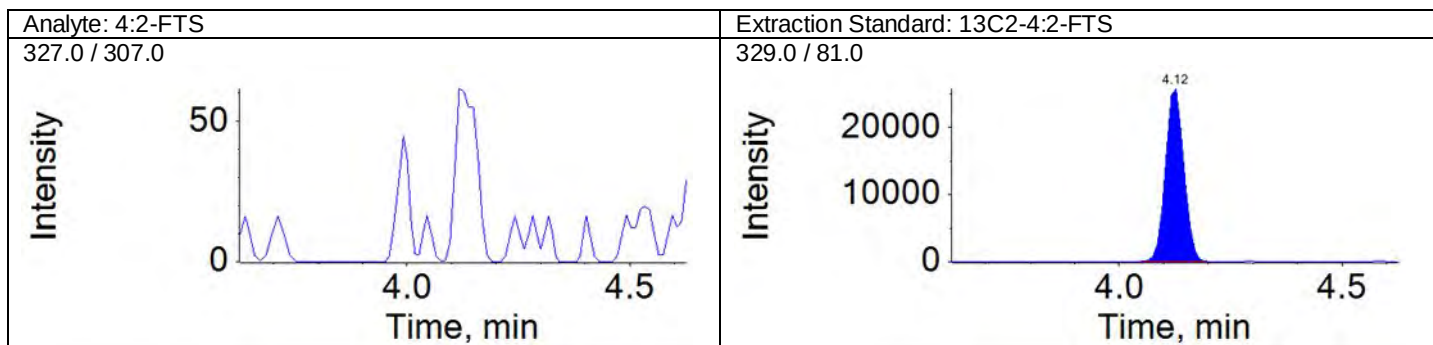
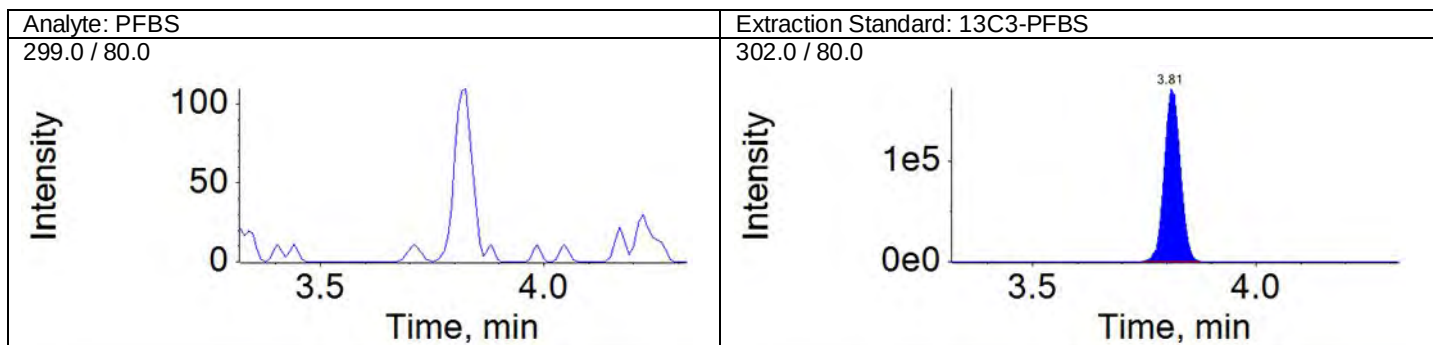
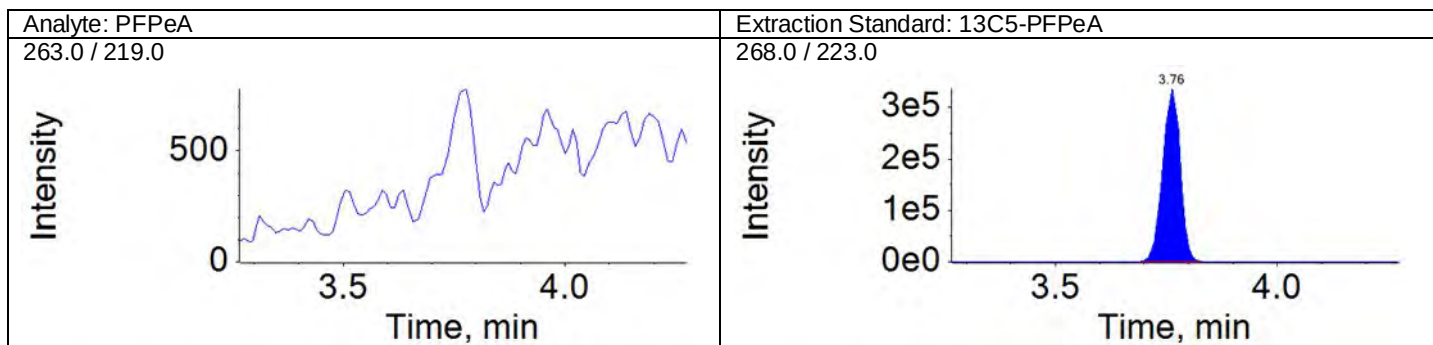
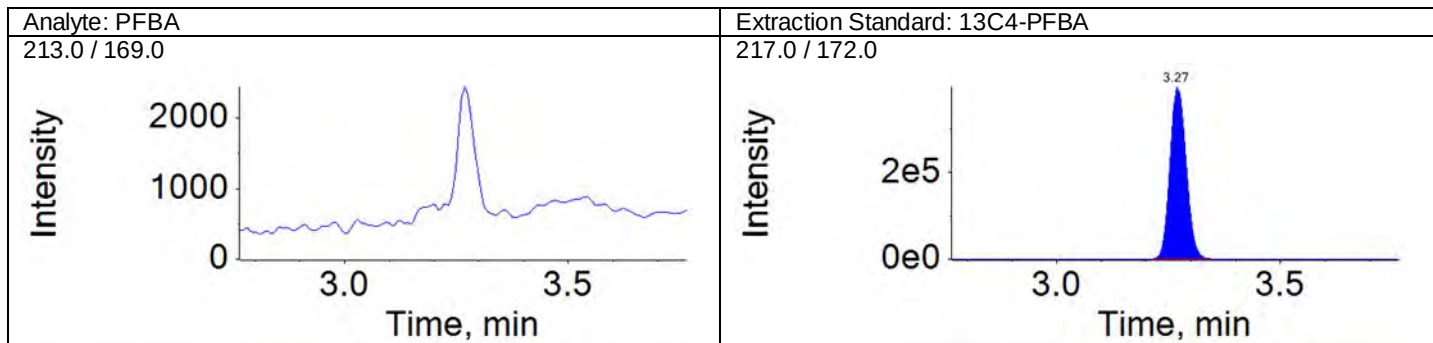
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



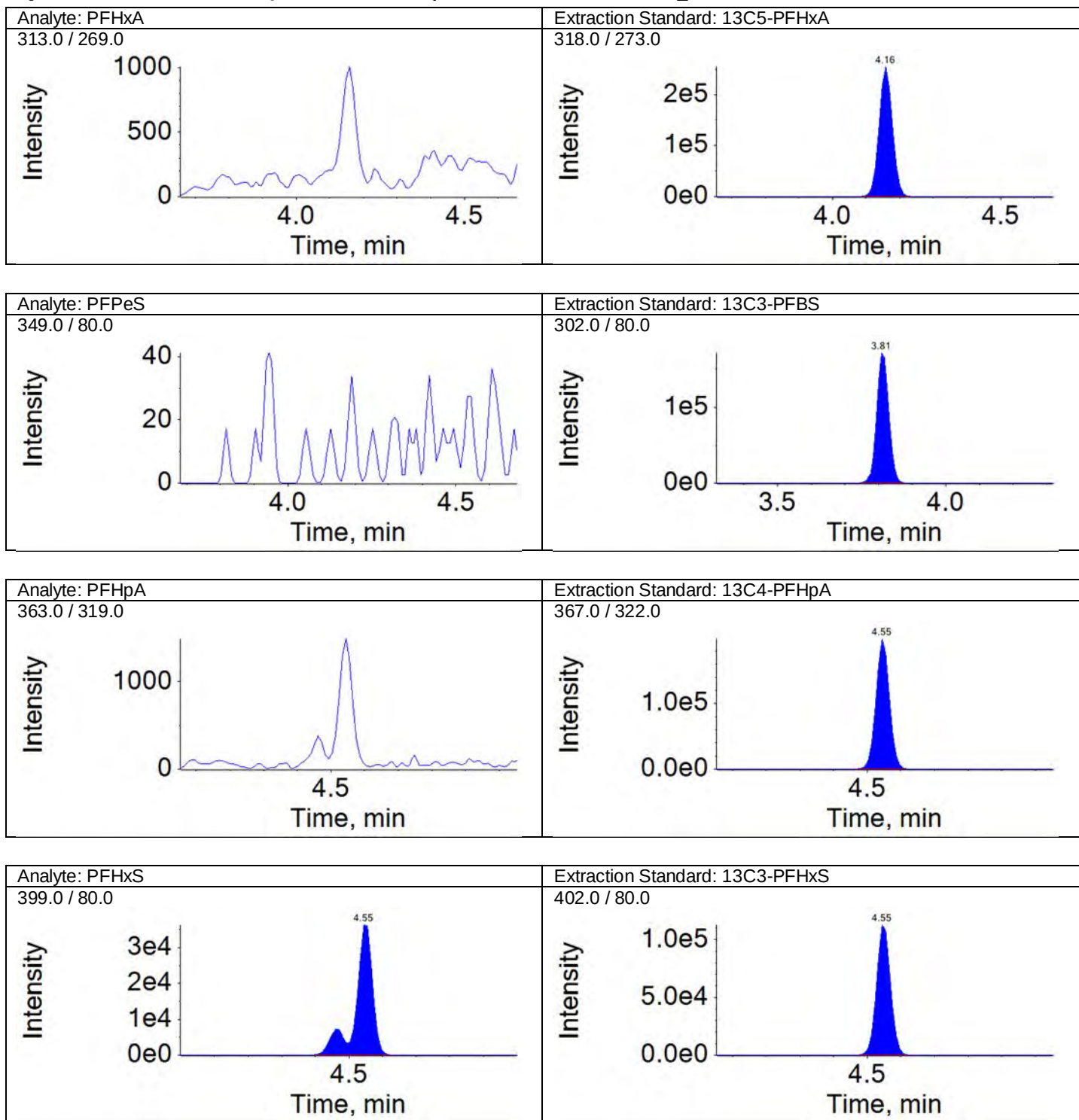
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



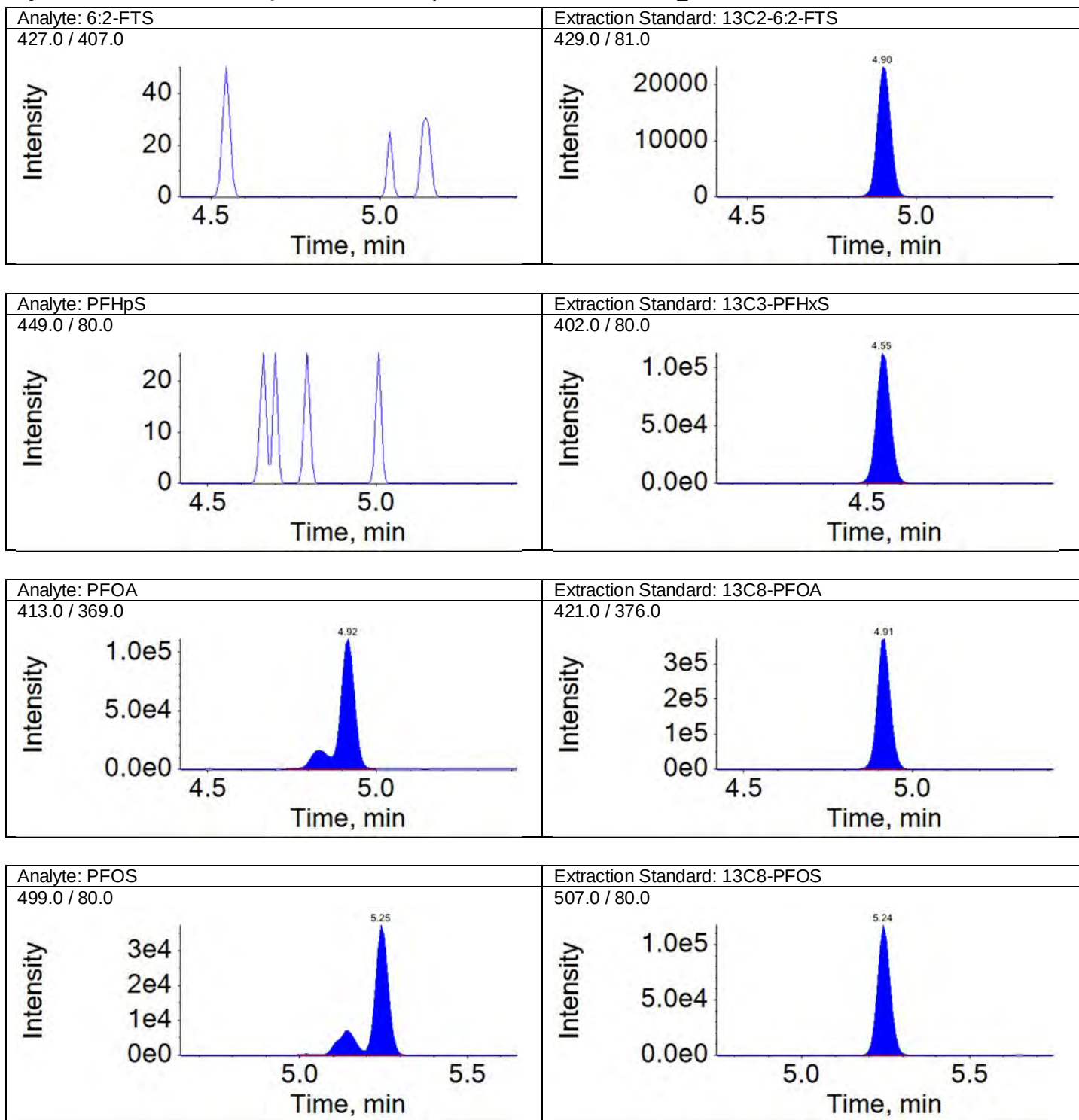
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



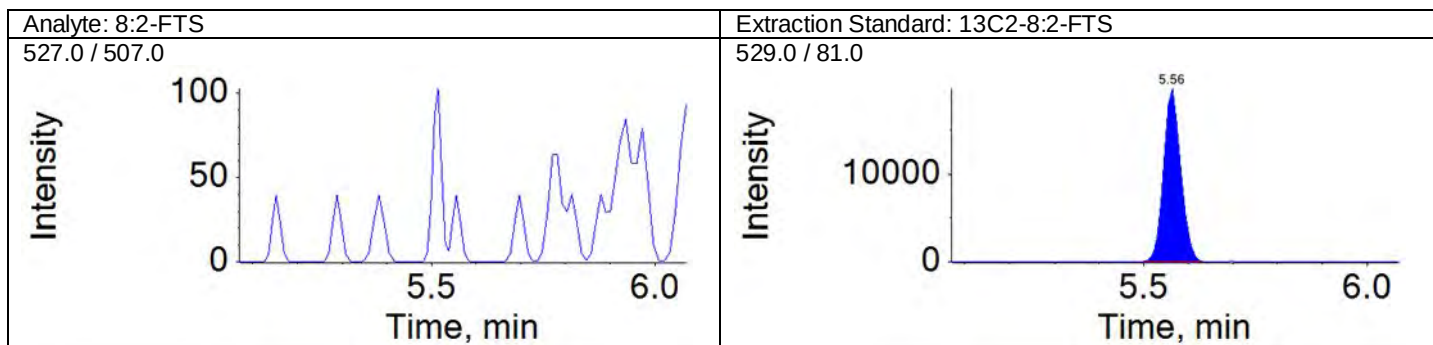
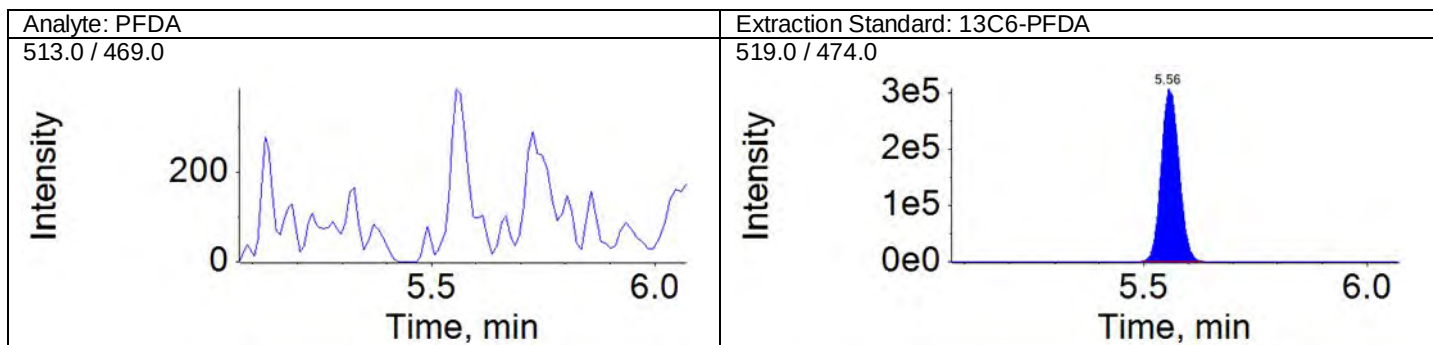
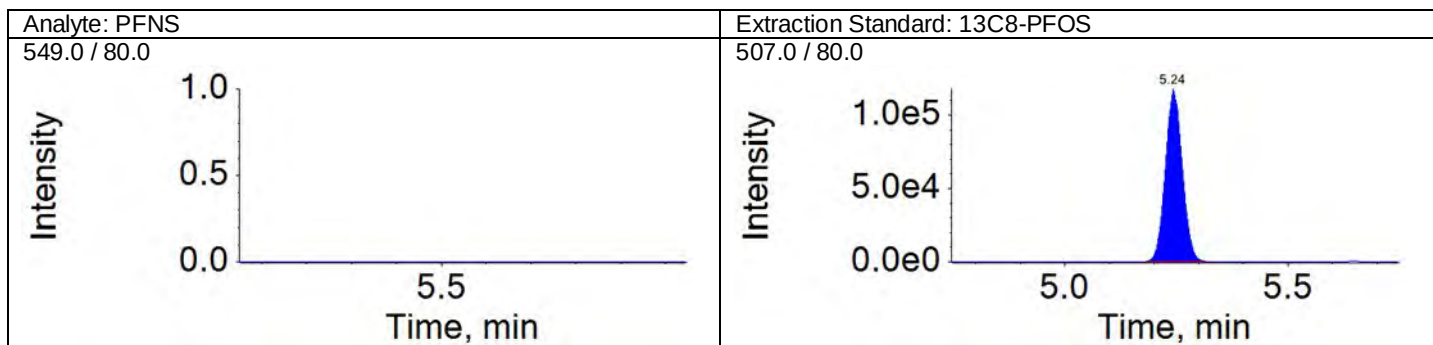
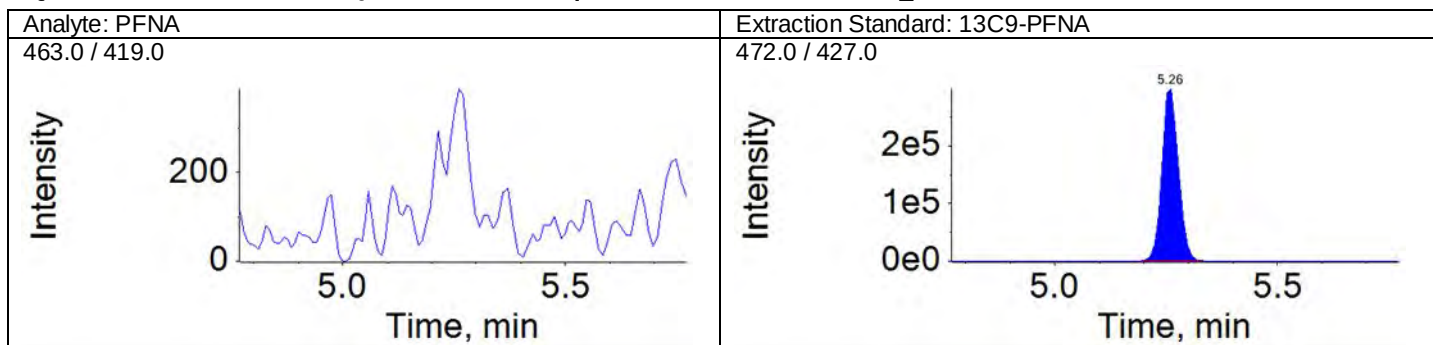
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



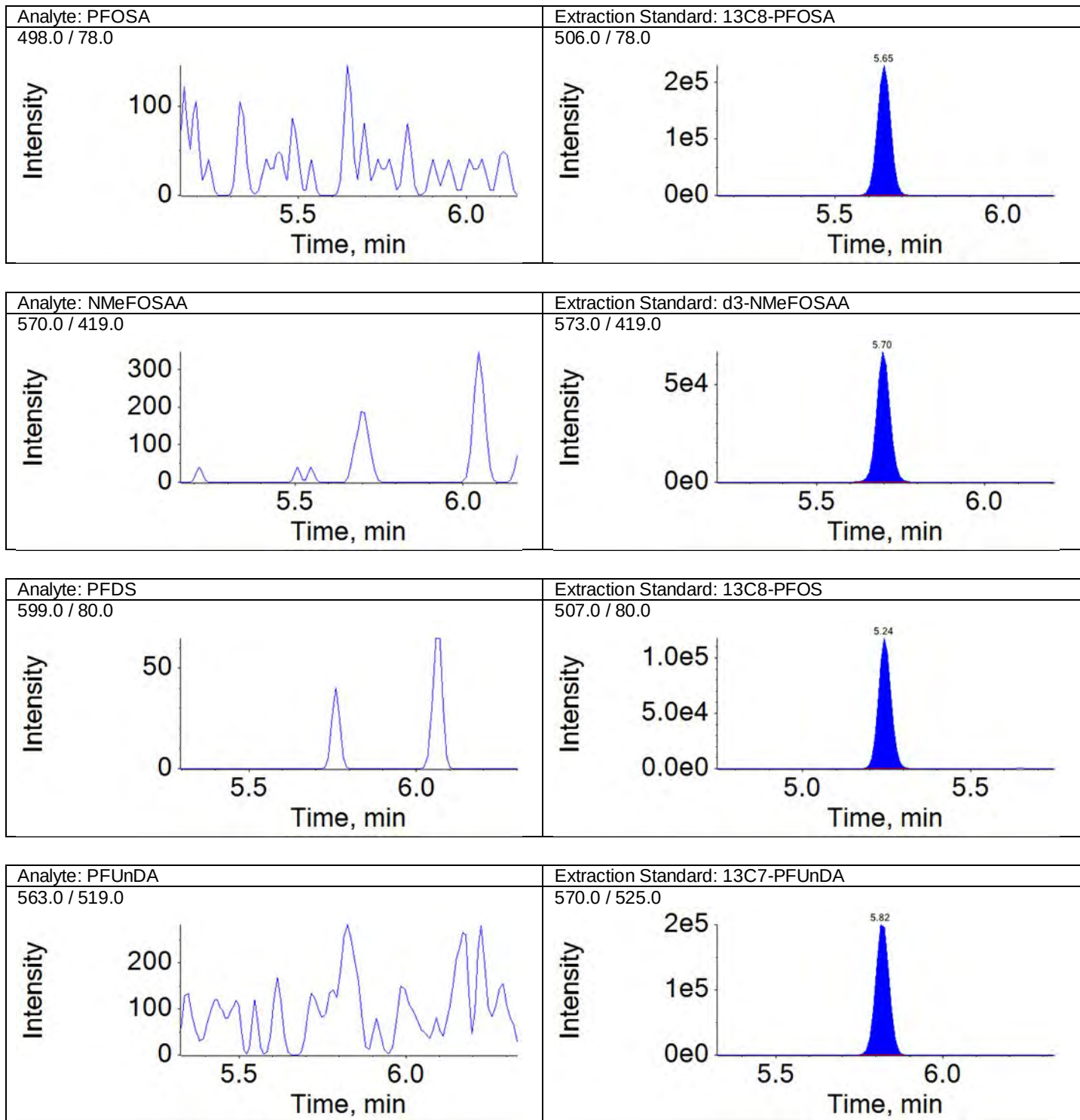
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QMethod Name: 18AUG20QM

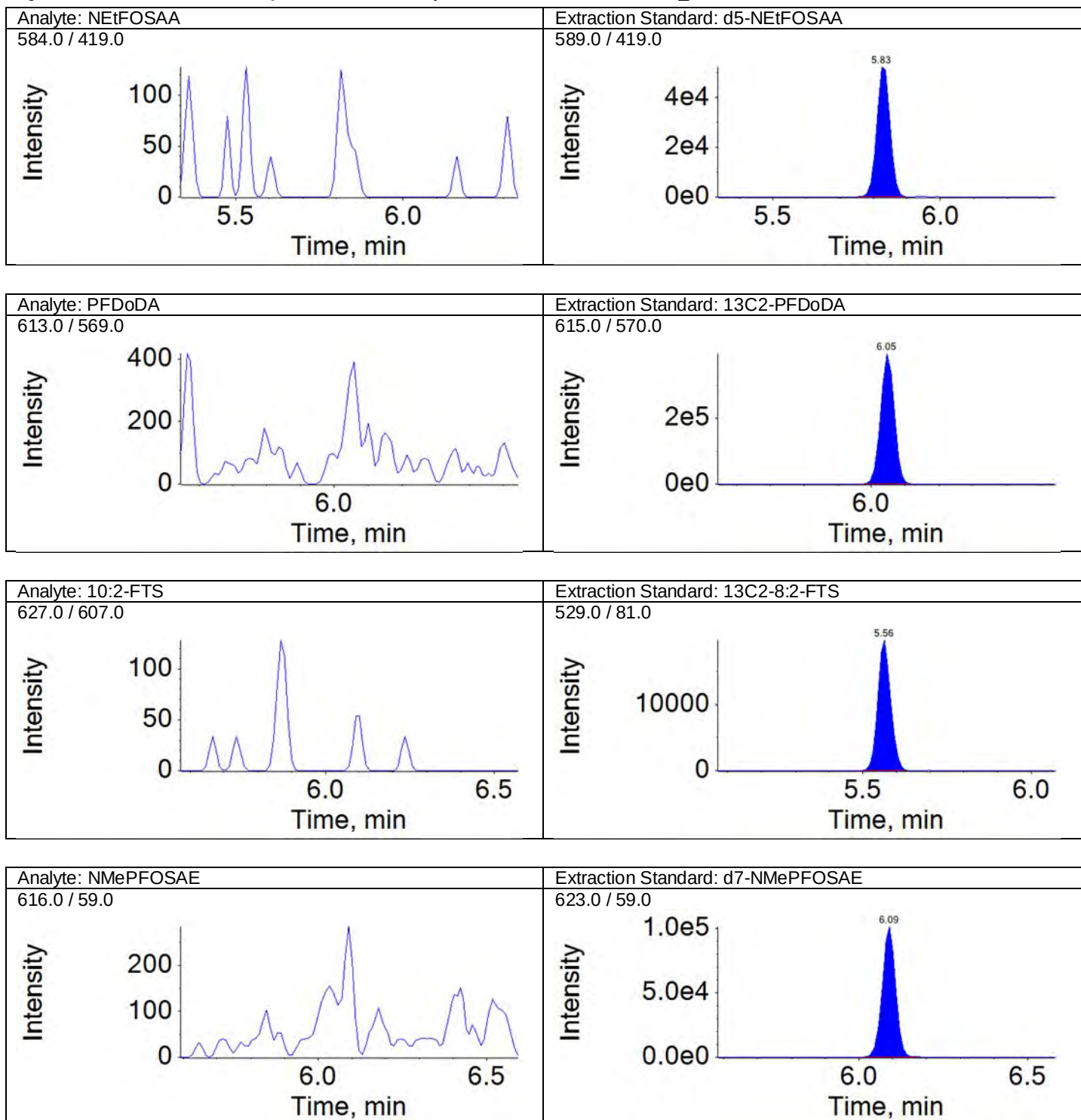
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

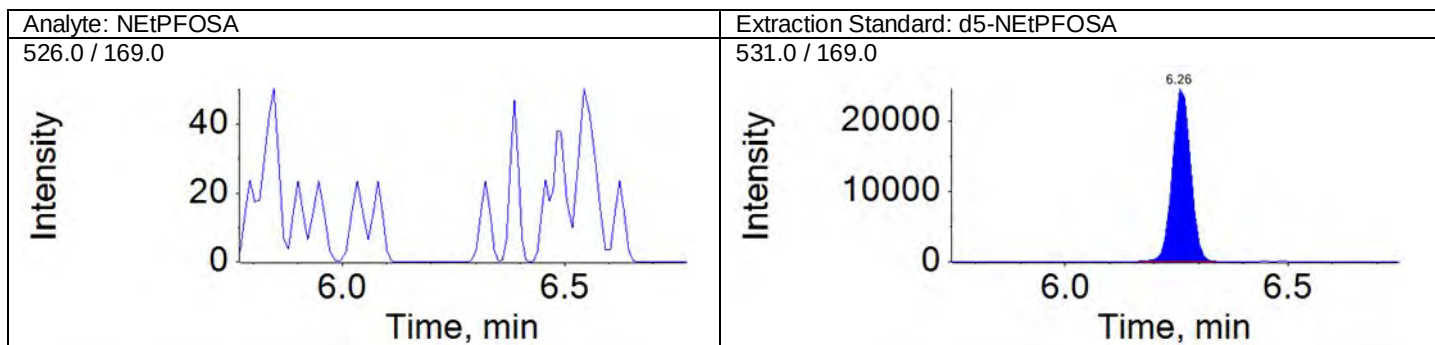
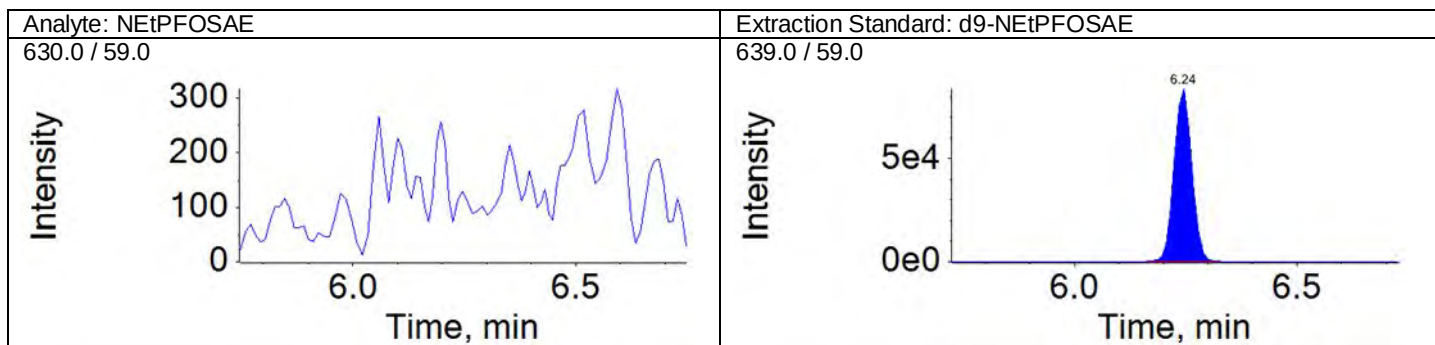
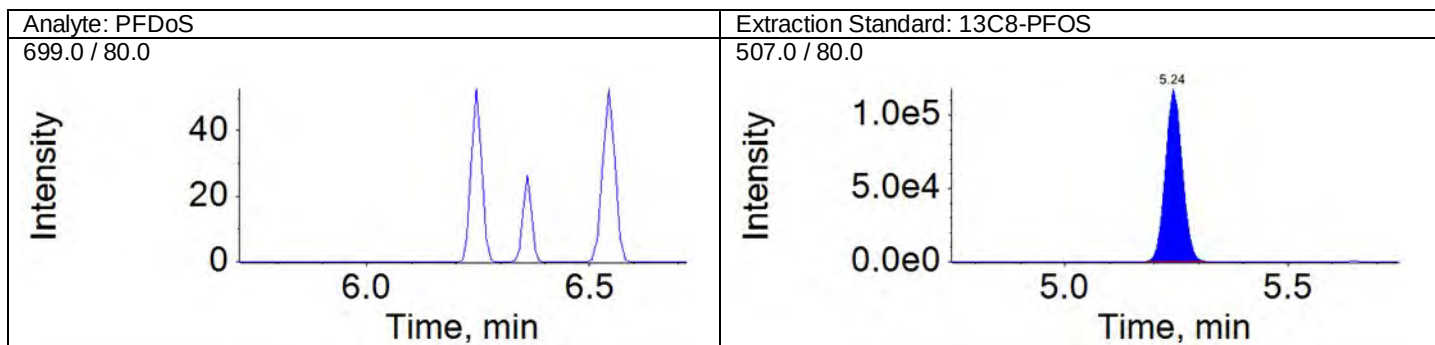
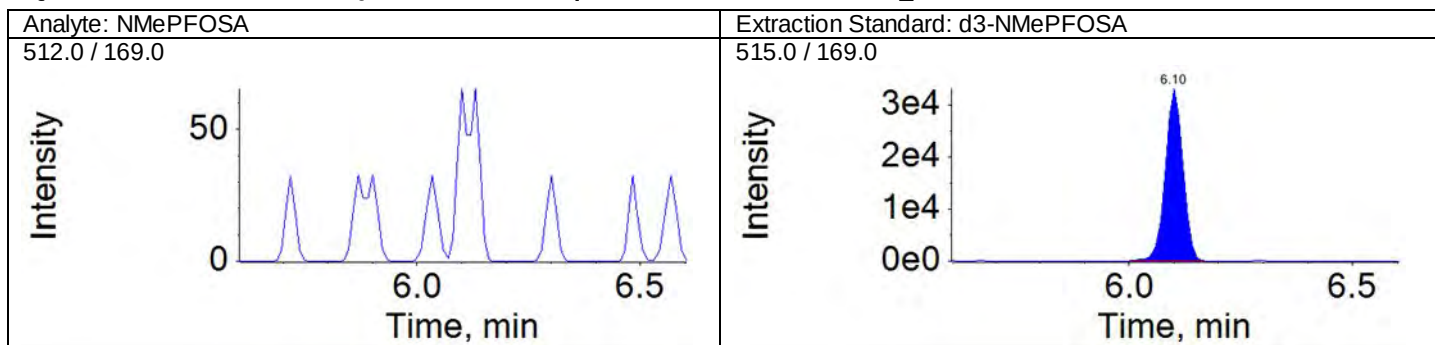
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

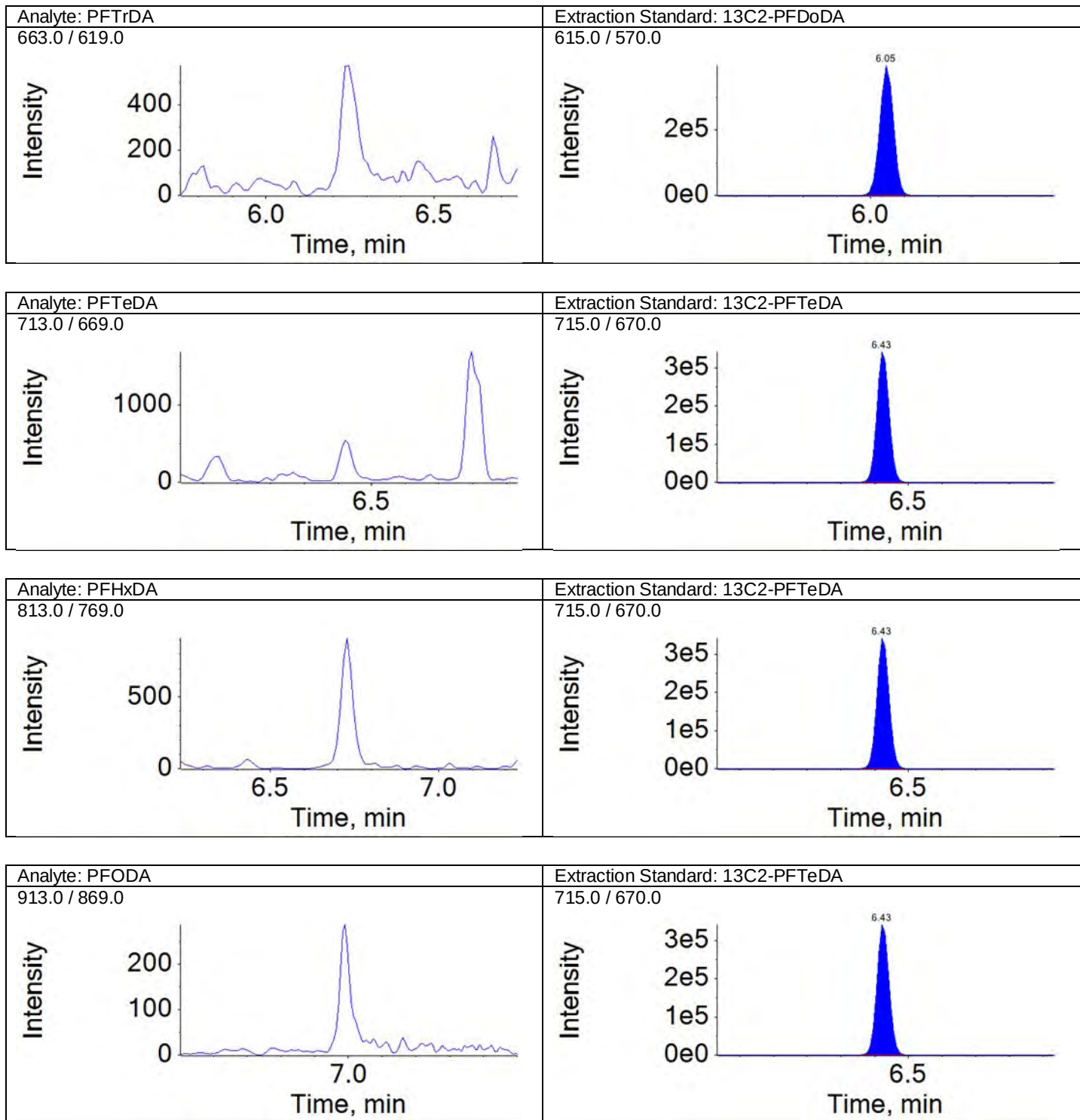
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QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:

PFHxS

RT (min.):

4.55

Peak Area:

108728.54

Mass Range:

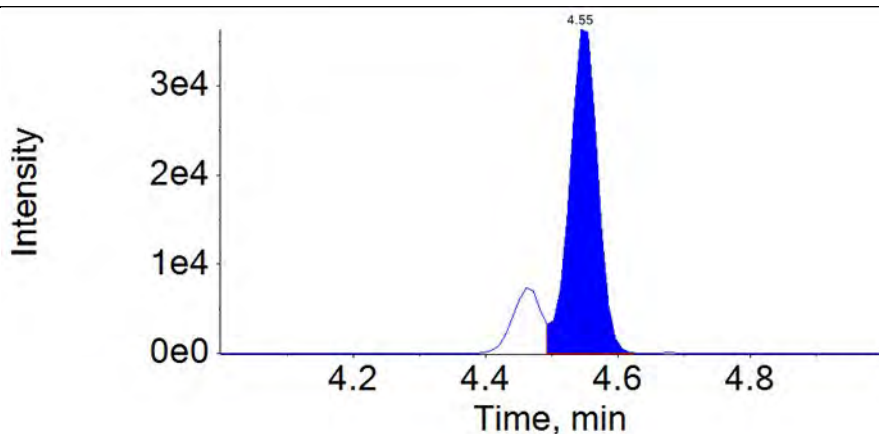
399.0 / 80.0

File Name:

18NOV28DCAL-15.wiff

Sample Name:

L+B CAL3



Integration Comment: incorrect integration

Component Name:

PFOA

RT (min.):

4.92

Peak Area:

305201.60

Mass Range:

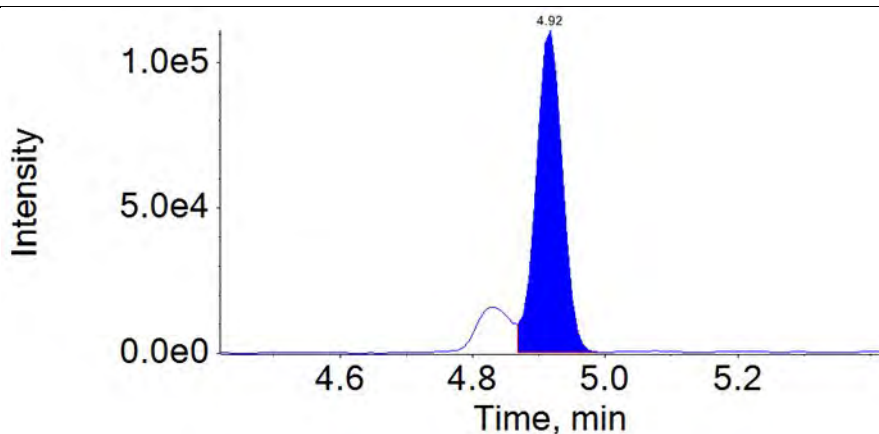
413.0 / 369.0

File Name:

18NOV28DCAL-15.wiff

Sample Name:

L+B CAL3



Integration Comment: incorrect integration

Component Name:

PFOS

RT (min.):

5.25

Peak Area:

97091.30

Mass Range:

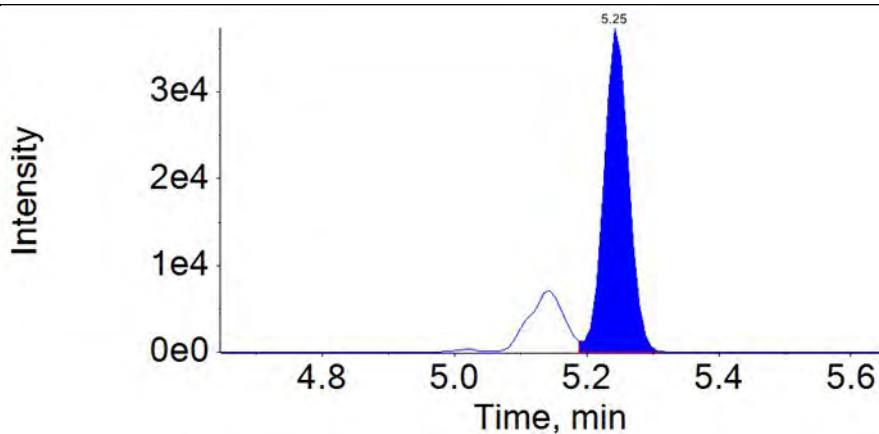
499.0 / 80.0

File Name:

18NOV28DCAL-15.wiff

Sample Name:

L+B CAL3

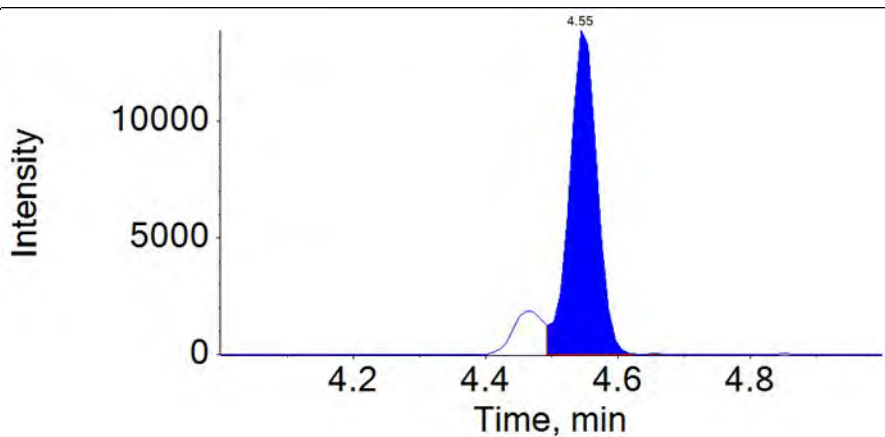


Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

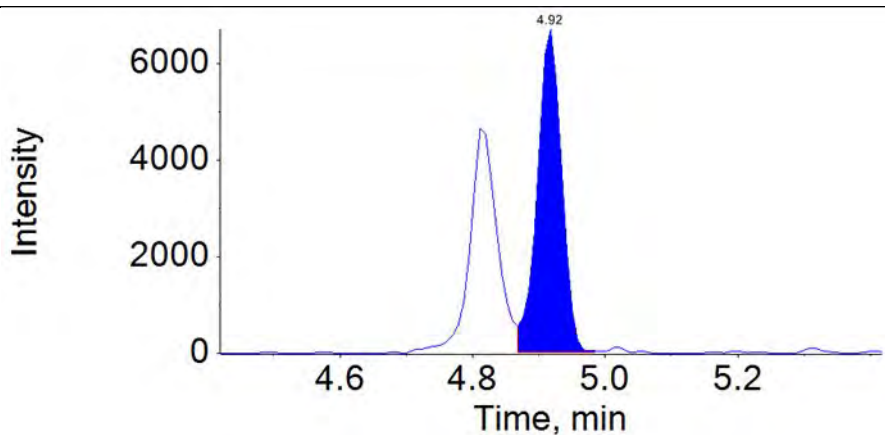
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHxS_2
RT (min.):
4.55
Peak Area:
40449.59
Mass Range:
399.0 / 99.0
File Name:
18NOV28DCAL-15.wiff
Sample Name:
L+B CAL3



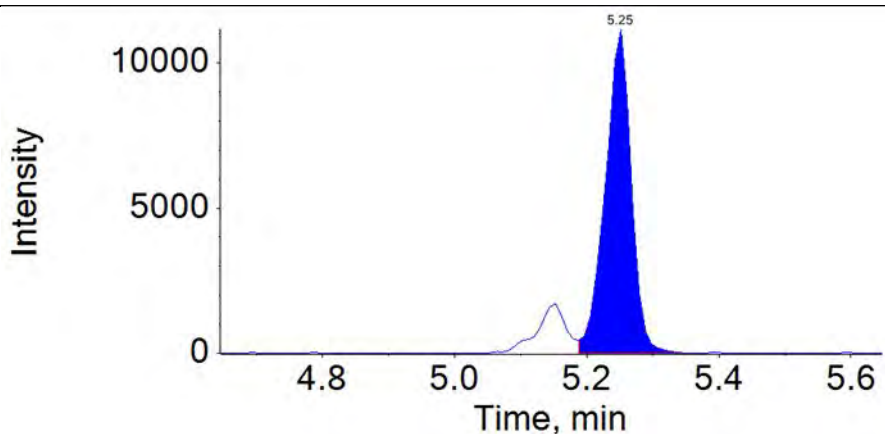
Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.92
Peak Area:
17021.00
Mass Range:
413.0 / 169.0
File Name:
18NOV28DCAL-15.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.25
Peak Area:
30448.32
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-15.wiff
Sample Name:
L+B CAL3



Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 5:01 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

Ion Ratio Report

Sample Name: L+B CAL3

Instrument Name: LM27631

File Name: 18NOV28DCAL-15.wiff

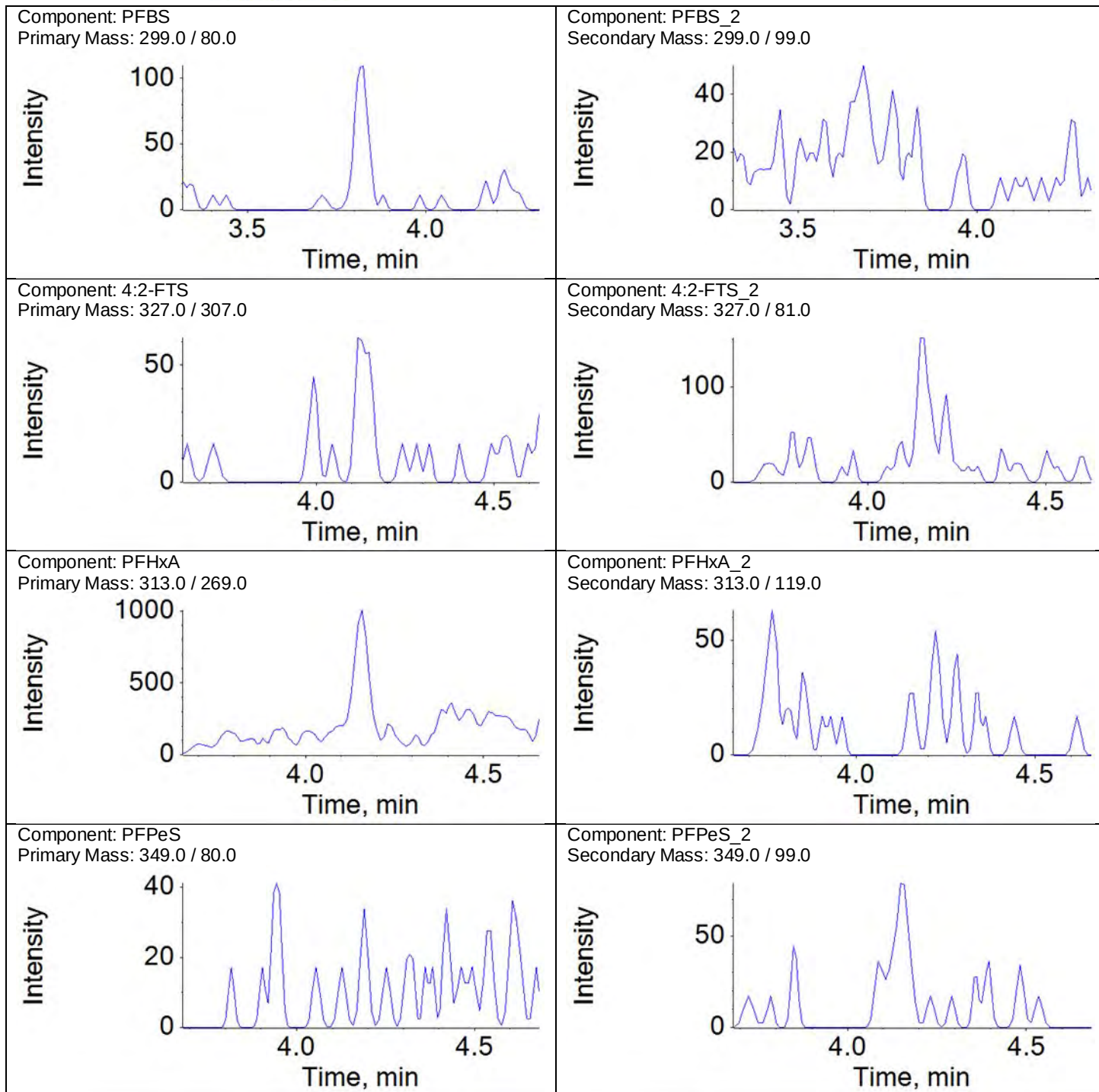
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	0.3655	N/A			
PFBS_2	N/A	N/A	N/A	A	0.3655	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	0.6383	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	0.6383	N/A		50	
PFHxA	N/A	N/A	N/A	A	0.0103	N/A			
PFHxA_2	N/A	N/A	N/A	A	0.0103	N/A		50	
PFPeS	N/A	N/A	N/A	A	0.4976	N/A			
PFPeS_2	N/A	N/A	N/A	A	0.4976	N/A		50	
PFHpA	N/A	N/A	N/A	A	0.0557	N/A			
PFHpA_2	N/A	N/A	N/A	A	0.0557	N/A		50	
PFHxS	4.55	1.00	130205.74	M	0.3693	0.3547			
PFHxS_2	4.55	1.00	46180.22	M	0.3693	0.3547	-4	50	
6:2-FTS	N/A	N/A	N/A	A	0.6625	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	0.6625	N/A		50	
PFHpS	N/A	N/A	N/A	A	0.3915	N/A			
PFHpS_2	N/A	N/A	N/A	A	0.3915	N/A		50	
PFOA	4.92	1.00	363985.16	M	0.0573	0.0845			
PFOA_2	4.89	1.00	30759.31	M	0.0573	0.0845	48	50	
PFOS	5.25	1.00	124397.26	M	0.2960	0.2871			
PFOS_2	5.25	1.00	35708.41	M	0.2960	0.2871	-3	50	
PFNA	N/A	N/A	N/A	A	0.0201	N/A			
PFNA_2	N/A	N/A	N/A	A	0.0201	N/A		50	
PFNS	N/A	N/A	N/A	A	0.4794	N/A			
PFNS_2	N/A	N/A	N/A	A	0.4794	N/A		50	
PFDA	N/A	N/A	N/A	A	0.0075	N/A			
PFDA_2	N/A	N/A	N/A	A	0.0075	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	0.5380	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	0.5380	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	0.2305	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	0.2305	N/A		50	
PFDS	N/A	N/A	N/A	A	0.5356	N/A			
PFDS_2	N/A	N/A	N/A	A	0.5356	N/A		50	
PFUnDA	N/A	N/A	N/A	A	0.0038	N/A			
PFUnDA_2	N/A	N/A	N/A	A	0.0038	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	0.7356	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	0.7356	N/A		50	
PFDODA	N/A	N/A	N/A	A	0.0130	N/A			
PFDODA_2	N/A	N/A	N/A	A	0.0130	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	0.6989	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	0.6989	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	0.0090	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	0.0090	N/A		50	
PFTeDA	N/A	N/A	N/A	A	0.0056	N/A			
PFTeDA_2	N/A	N/A	N/A	A	0.0056	N/A		50	
PFHxDA	N/A	N/A	N/A	A	0.0646	N/A			
PFHxDA_2	N/A	N/A	N/A	A	0.0646	N/A		50	
PFODA	N/A	N/A	N/A	A	0.0264	N/A			
PFODA_2	N/A	N/A	N/A	A	0.0264	N/A		50	

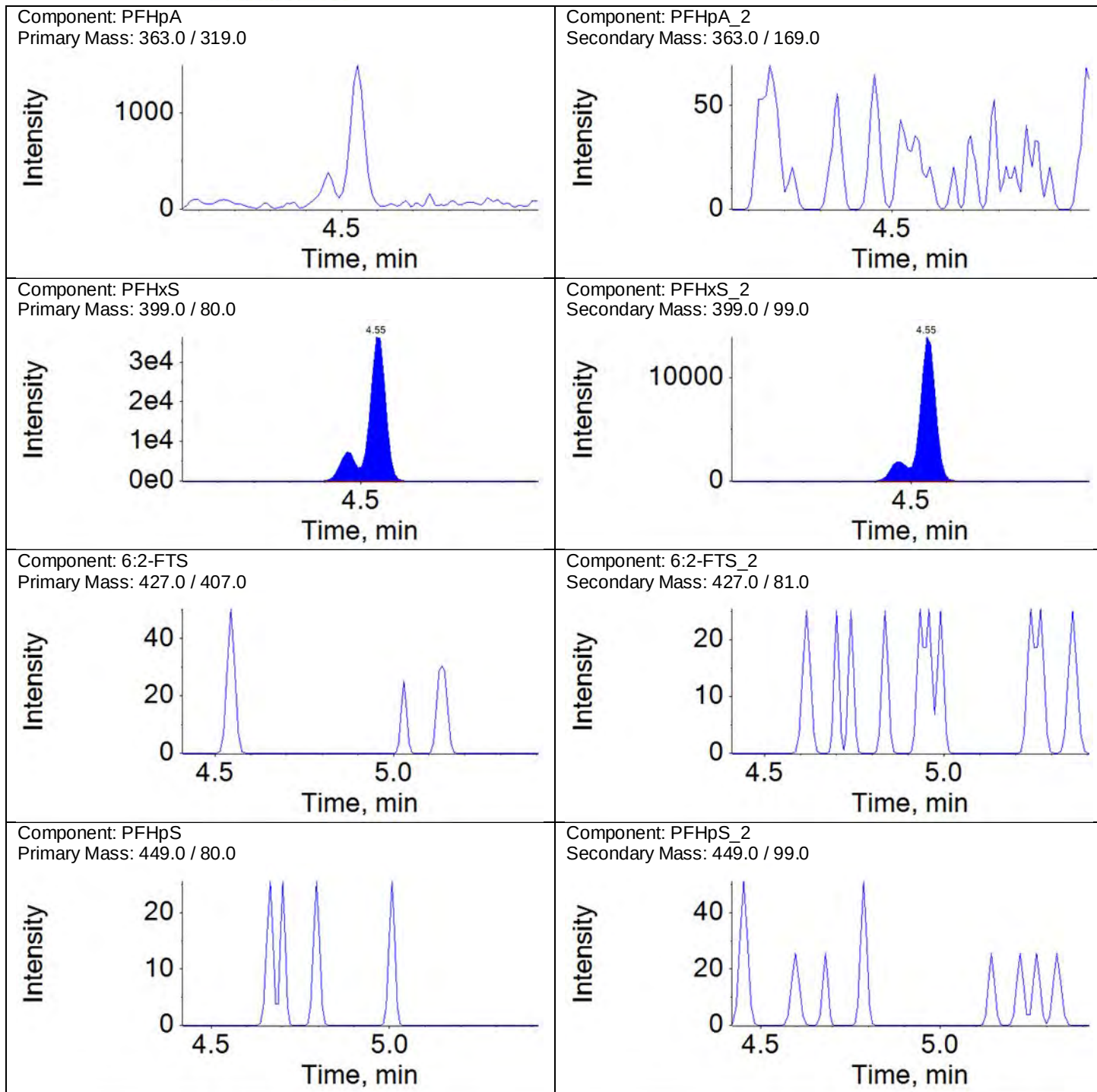
APPROVED

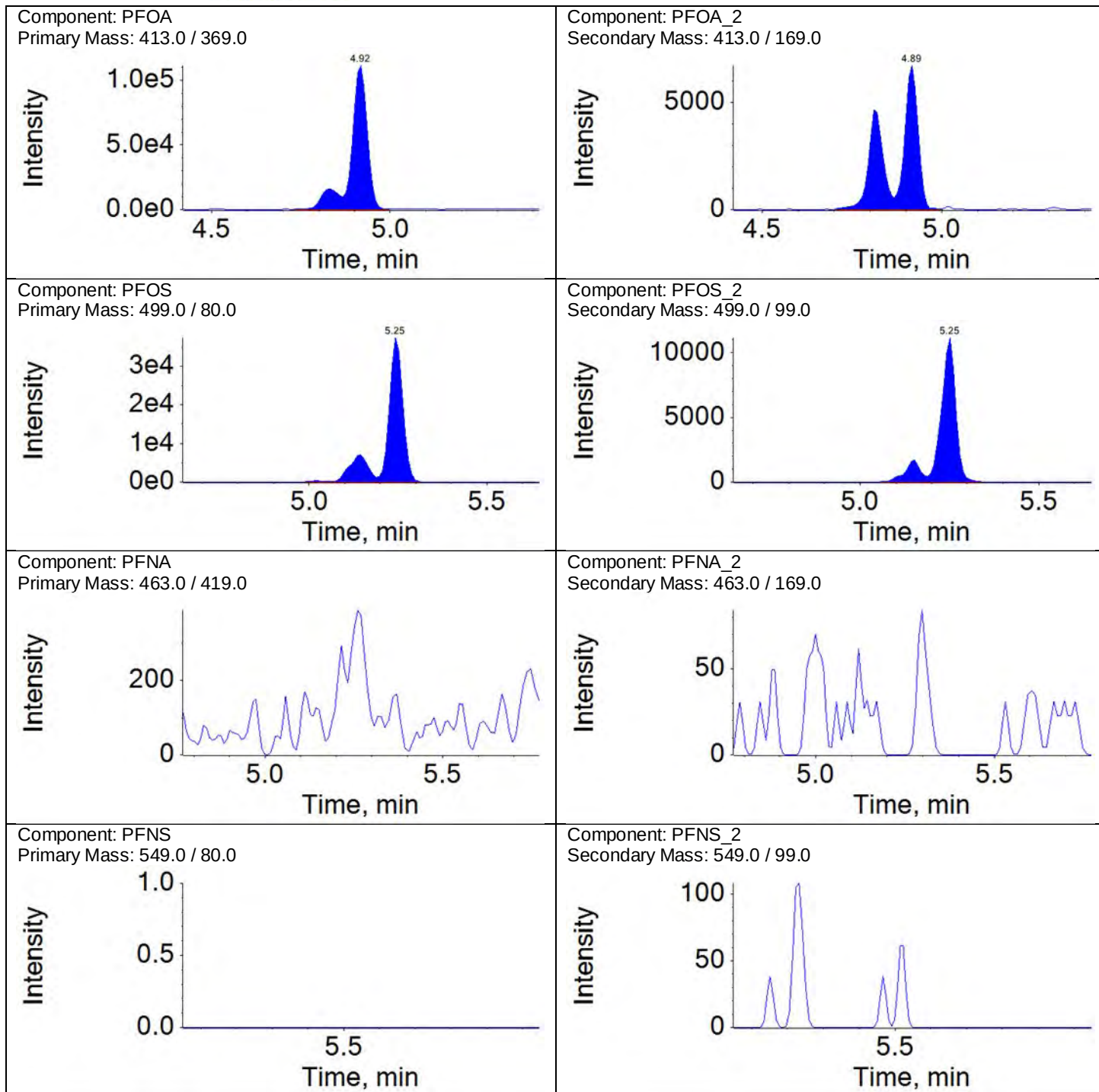
By MCD at 5:01 pm, 11/28/18

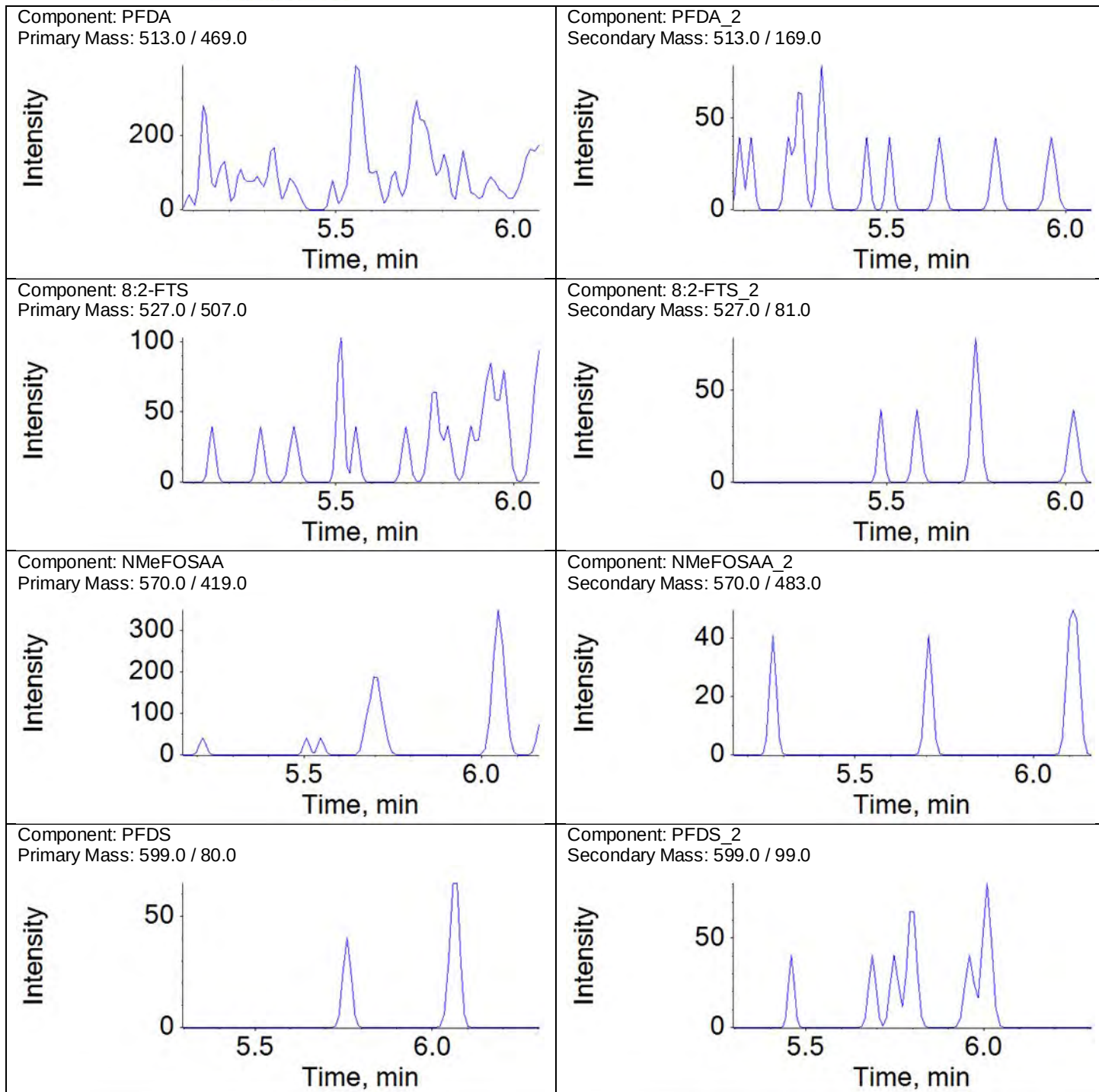
REVIEWED

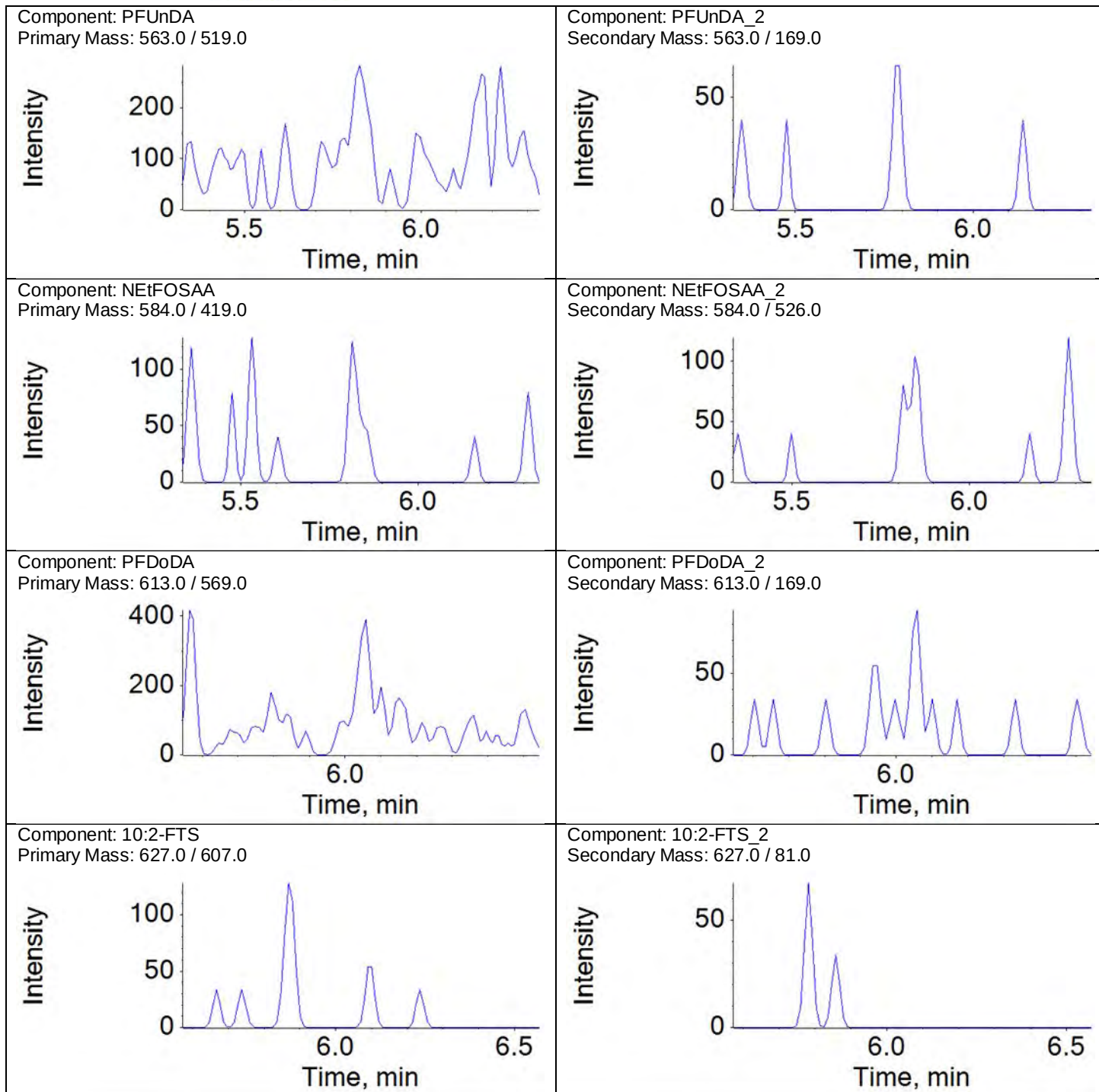
By HMK at 12:22 pm, 11/29/18

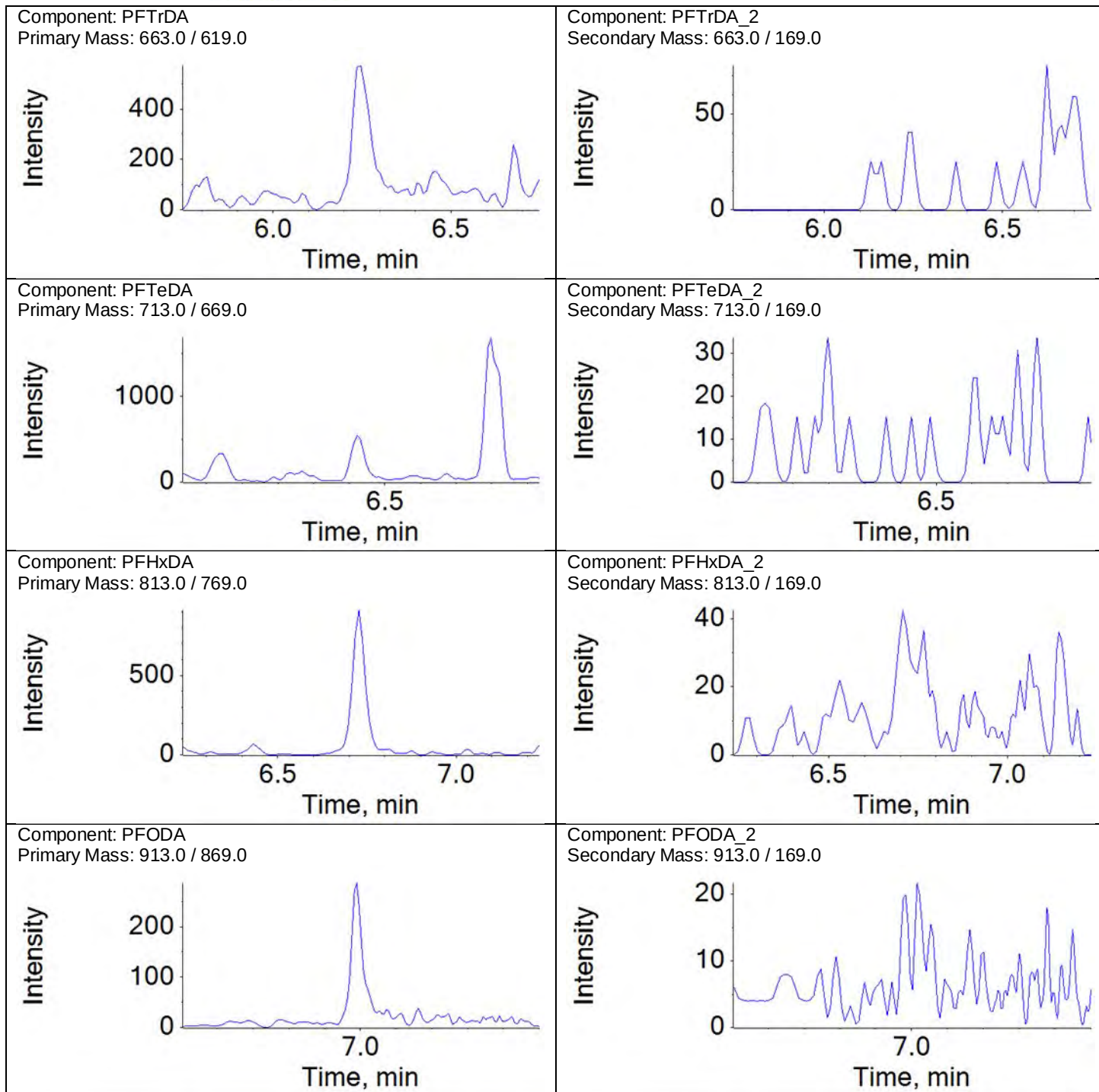








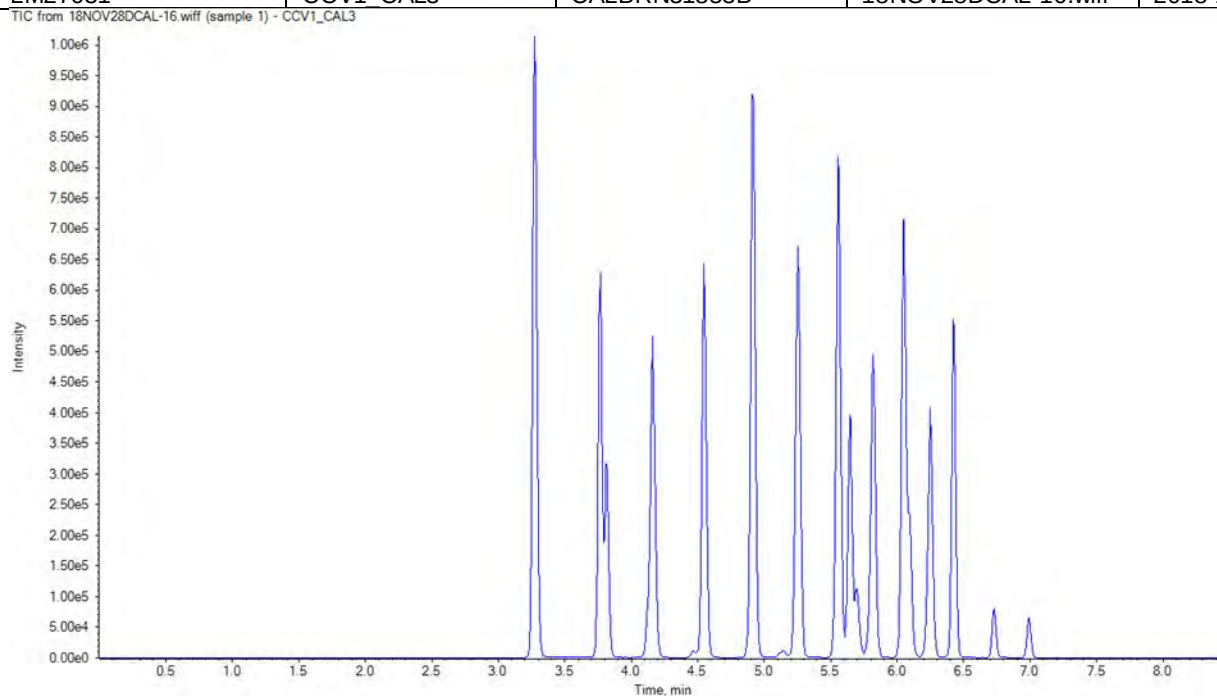




Continuing Calibration Verification

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1 CAL3	CALBRN31833B	18NOV28DCAL-16.wiff	2018-11-28T15:12:25



Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	892121.8	887248.9	1	50	
13C2-PFOA	5.0	497344.6	498501.6	0	50	
13C4-PFOS	4.8	284800.9	283214.2	1	50	
13C2-PFDA	5.0	454750.4	441790.6	3	50	

APPROVED

By MCD at 5:01 pm, 11/28/18

BSI14 Page 1650 of 2132

REVIEWED

By HMK at 12:22 pm, 11/29/18

Page 1 of 3

Continuing Calibration Verification

ICAL Name: 18NOV28DCAL Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
QMethod Name: 18AUG20QM Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_CAL3	CALBRN31833B	18NOV28DCAL-16.wiff	2018-11-28T15:12:25

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	414227.9	10	13C4-PFBA	991560.8	5.0	0.418	3.27	1.000	2.000	2.290	15	30	
PFPeA	406639.4	11	13C5-PFPeA	929799.0	5.0	0.437	3.77	1.000	2.000	2.146	7	30	
PFBS	166250.1	10	13C3-PFBS	423837.8	4.7	0.392	3.82	1.000	1.770	1.904	8	30	
4:2-FTS	56074.3	12	13C2-4:2-FTS	71502.2	4.7	0.784	4.13	1.000	1.870	2.099	12	30	
PFHxA	390006.3	12	13C5-PFHxA	673646.8	5.0	0.579	4.16	1.000	2.000	2.324	16	30	
PFPeS	88012.7	11	13C3-PFBS	423837.8	4.7	0.208	4.18	1.100	1.880	2.100	12	30	
PFHpA	393155.9	12	13C4-PFHpA	569502.8	5.0	0.690	4.55	1.000	2.000	2.131	7	30	
PFHxS	124485.3	18	13C3-PFHxS	316482.8	4.7	0.393	4.55	1.000	1.820	1.842	1	30	
6:2-FTS	55151.1	11	13C2-6:2-FTS	61242.4	4.8	0.901	4.90	1.000	1.900	2.350	24	30	
PFHpS	131029.4	11	13C3-PFHxS	316482.8	4.7	0.414	4.91	1.080	1.900	2.066	9	30	
PFOA	408992.7	11	13C8-PFOA	983417.9	5.0	0.416	4.92	1.000	2.000	2.149	7	30	
PFOS	137181.4	22	13C8-PFOS	303782.8	4.8	0.452	5.24	1.000	1.850	1.894	2	30	
PFNA	376585.8	11	13C9-PFNA	609889.2	5.0	0.617	5.26	1.000	2.000	2.366	18	30	
PFNS	94448.6	11	13C8-PFOS	303782.8	4.8	0.311	5.54	1.060	1.920	1.963	2	30	
PFDA	356261.0	11	13C6-PFDA	847665.4	5.0	0.420	5.56	1.000	2.000	2.379	19	30	
8:2-FTS	52676.1	12	13C2-8:2-FTS	53005.7	4.8	0.994	5.56	1.000	1.920	1.874	-2	30	
PFOSA	260574.1	12	13C8-PFOSA	629466.4	5.0	0.414	5.65	1.000	2.000	2.097	5	30	
NMeFOSAA	60912.6	18	d3-NMeFOSAA	187136.0	5.0	0.325	5.70	1.000	2.000	2.076	4	30	
PFDS	79486.5	12	13C8-PFOS	303782.8	4.8	0.262	5.79	1.100	1.930	2.075	7	30	
PFUnDA	368116.8	11	13C7-PFUnDA	549493.3	5.0	0.670	5.82	1.000	2.000	2.395	20	30	
NEtFOSAA	56175.4	22	d5-NEtFOSAA	144117.8	5.0	0.390	5.83	1.000	2.000	1.898	-5	30	
PFDODA	480438.7	11	13C2-PFDODA	1057435.2	5.0	0.454	6.05	1.000	2.000	2.489	24	30	
10:2-FTS	53244.1	12	13C2-8:2-FTS	53005.7	4.8	1.004	6.06	1.090	1.930	2.215	15	30	
NMePFOSAE	131874.4	12	d7-NMePFOSAE	263888.3	5.0	0.500	6.10	1.000	2.000	2.103	5	30	
NMePFOSA	35042.2	11	d3-NMePFOSA	87880.7	5.0	0.399	6.11	1.000	2.000	2.114	6	30	
PFDOS	41532.8	11	13C8-PFOS	303782.8	4.8	0.137	6.22	1.190	1.940	1.963	1	30	
NEtPFOSAE	145278.6	11	d9-NEtPFOSAE	227340.4	5.0	0.639	6.26	1.000	2.000	2.299	15	30	
NEtPFOSA	31416.5	11	d5-NEtPFOSA	63430.0	5.0	0.495	6.27	1.000	2.000	2.220	11	30	
PFTTrDA	453601.4	11	13C2-PFDODA	1057435.2	5.0	0.429	6.25	1.030	2.000	2.586	29	30	
PFTeDA	333159.1	11	13C2-PFTeDA	823659.2	5.0	0.404	6.43	1.000	2.000	2.292	15	30	
PFHxDA	160272.7	11	13C2-PFTeDA	823659.2	5.0	0.195	6.73	1.050	2.000	2.224	11	30	
PFOA	137372.8	10	13C2-PFTeDA	823659.2	5.0	0.167	6.99	1.090	2.000	2.222	11	30	

Continuing Calibration Verification

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED

By MCD at 5:01 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV1_CAL3		Data File:	18NOV28DCAL-16.wiff
Sample ID:	CALBRN31833B		Acquis Date:	2018-11-28T15:12:25
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	5		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV28DCAL
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	892121.8	887248.9	1	50	
13C2-PFOA	5.0	497344.6	498501.6	0	50	
13C4-PFOS	4.8	284800.9	283214.2	1	50	
13C2-PFDA	5.0	454750.4	441790.6	3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	991560.8	13C3-PFBA	892121.8	1.111	5.000	4.959	99	70-130	
E13C5-PFPeA	929799.0	13C3-PFBA	892121.8	1.042	5.000	4.867	97	70-130	
E13C3-PFBS	423837.8	13C3-PFBA	892121.8	0.475	4.650	4.533	97	70-130	
E13C2-4:2-FTS	71502.2	13C2-PFOA	497344.6	0.144	4.670	4.955	106	70-130	
E13C5-PFHxA	673646.8	13C2-PFOA	497344.6	1.354	5.000	4.975	100	70-130	
E13C3-PFHxS	316482.8	13C2-PFOA	497344.6	0.636	4.730	4.988	105	70-130	
E13C4-PFHpA	569502.8	13C2-PFOA	497344.6	1.145	5.000	5.262	105	70-130	
E13C2-6:2-FTS	61242.4	13C2-PFOA	497344.6	0.123	4.750	5.155	109	70-130	
E13C8-PFOA	983417.9	13C2-PFOA	497344.6	1.977	5.000	5.443	109	70-130	
E13C8-PFOS	303782.8	13C4-PFOS	284800.9	1.067	4.780	4.815	101	70-130	
E13C9-PFNA	609889.2	13C4-PFOS	284800.9	2.141	5.000	4.703	94	70-130	
E13C6-PFDA	847665.4	13C2-PFDA	454750.4	1.864	5.000	5.256	105	70-130	
E13C2-8:2-FTS	53005.7	13C2-PFDA	454750.4	0.117	4.790	5.010	105	70-130	
E13C8-PFOSA	629466.4	13C2-PFDA	454750.4	1.384	5.000	5.079	102	70-130	
Ed3-NMeFOSAA	187136.0	13C2-PFDA	454750.4	0.412	5.000	5.225	104	70-130	
E13C7-PFUnDA	549493.3	13C2-PFDA	454750.4	1.208	5.000	5.107	102	70-130	
Ed5-NEtFOSAA	144117.8	13C2-PFDA	454750.4	0.317	5.000	5.646	113	70-130	
E13C2-PFDoDA	1057435.2	13C2-PFDA	454750.4	2.325	5.000	4.886	98	70-130	
Ed7-NMePFOSAE	263888.3	13C2-PFDA	454750.4	0.580	5.000	5.015	100	70-130	
Ed3-NMePFOSA	87880.7	13C2-PFDA	454750.4	0.193	5.000	5.230	105	70-130	
Ed9-NEtPFOSAE	227340.4	13C2-PFDA	454750.4	0.500	5.000	5.068	101	70-130	
Ed5-NEtPFOSA	63430.0	13C2-PFDA	454750.4	0.139	5.000	4.847	97	70-130	
E13C2-PFTeDA	823659.2	13C2-PFDA	454750.4	1.811	5.000	5.012	100	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
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Analyte Quantitation Peak Table

Sample Name: CCV1_CAL3

Instrument Name: LM27631

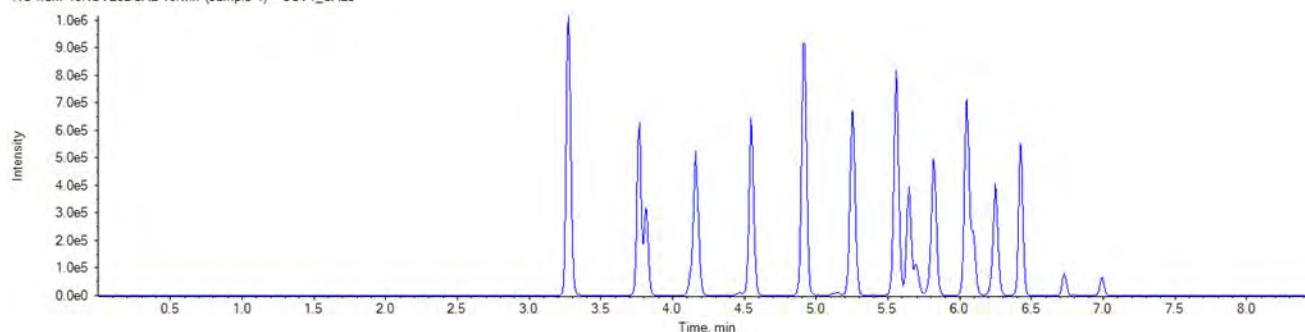
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	414227.9		A	13C4-PFBA	3.27	991560.8	0.418	2.290
PFPeA	3.77	1.000	406639.4		A	13C5-PFPeA	3.77	929799.0	0.437	2.146
PFBS	3.82	1.000	166250.1		A	13C3-PFBS	3.82	423837.8	0.392	1.904
4:2-FTS	4.13	1.000	56074.3		A	13C2-4:2-FTS	4.13	71502.2	0.784	2.099
PFHxA	4.16	1.000	390006.3		A	13C5-PFHxA	4.16	673646.8	0.579	2.324
PFPeS	4.18	1.100	88012.7		A	13C3-PFBS	3.82	423837.8	0.208	2.100
PFHpA	4.55	1.000	393155.9		A	13C4-PFHpA	4.55	569502.8	0.690	2.131
PFHxS	4.55	1.000	124485.3		M	13C3-PFHxS	4.55	316482.8	0.393	1.842
6:2-FTS	4.90	1.000	55151.1		A	13C2-6:2-FTS	4.91	61242.4	0.901	2.350
PFHpS	4.91	1.080	131029.4		A	13C3-PFHxS	4.55	316482.8	0.414	2.066
PFOA	4.92	1.000	408992.7		A	13C8-PFOA	4.92	983417.9	0.416	2.149
PFOS	5.24	1.000	137181.4		M	13C8-PFOS	5.24	303782.8	0.452	1.894
PFNA	5.26	1.000	376585.8		A	13C9-PFNA	5.26	609889.2	0.617	2.366
PFNS	5.54	1.060	94448.6		A	13C8-PFOS	5.24	303782.8	0.311	1.963
PFDA	5.56	1.000	356261.0		A	13C6-PFDA	5.56	847665.4	0.420	2.379
8:2-FTS	5.56	1.000	52676.1		A	13C2-8:2-FTS	5.56	53005.7	0.994	1.874
PFOSA	5.65	1.000	260574.1		A	13C8-PFOSA	5.65	629466.4	0.414	2.097
NMeFOSAA	5.70	1.000	60912.6		M	d3-NMeFOSAA	5.70	187136.0	0.325	2.076
PFDS	5.79	1.100	79486.5		A	13C8-PFOS	5.24	303782.8	0.262	2.075
PFUnDA	5.82	1.000	368116.8		A	13C7-PFUnDA	5.82	549493.3	0.670	2.395
NEtFOSAA	5.83	1.000	56175.4		M	d5-NEtFOSAA	5.83	144117.8	0.390	1.898
PFDaDA	6.05	1.000	480438.7		A	13C2-PFDaDA	6.05	1057435.2	0.454	2.489
10:2-FTS	6.06	1.090	53244.1		A	13C2-8:2-FTS	5.56	53005.7	1.004	2.215
NMePFOSAE	6.10	1.000	131874.4		A	d7-NMePFOSAE	6.09	263888.3	0.500	2.103
NMePFOSA	6.11	1.000	35042.2		A	d3-NMePFOSA	6.10	87880.7	0.399	2.114
PFDaS	6.22	1.190	41532.8		A	13C8-PFOS	5.24	303782.8	0.137	1.963
NEtPFOSAE	6.26	1.000	145278.6		A	d9-NEtPFOSAE	6.24	227340.4	0.639	2.299
NEtPFOSA	6.27	1.000	31416.5		A	d5-NEtPFOSA	6.26	63430.0	0.495	2.220
PFTaDA	6.25	1.030	453601.4		A	13C2-PFDaDA	6.05	1057435.2	0.429	2.586
PFTeDA	6.43	1.000	333159.1		A	13C2-PFTeDA	6.43	823659.2	0.404	2.292
PFHxDA	6.73	1.050	160272.7		A	13C2-PFTeDA	6.43	823659.2	0.195	2.224
PFODA	6.99	1.090	137372.8		A	13C2-PFTeDA	6.43	823659.2	0.167	2.222

Total Ion Chromatogram

TIC from 18NOV28DCAL-16.wiff (sample 1) - CCV1_CAL3



APPROVED

By MCD at 5:01 pm, 11/28/18

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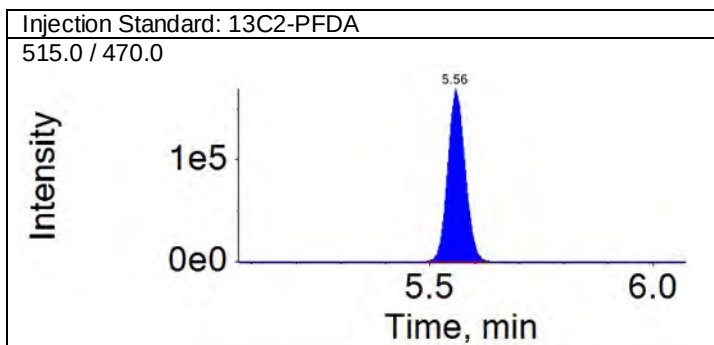
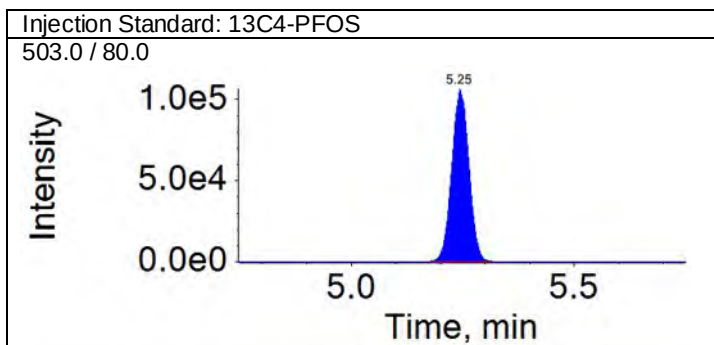
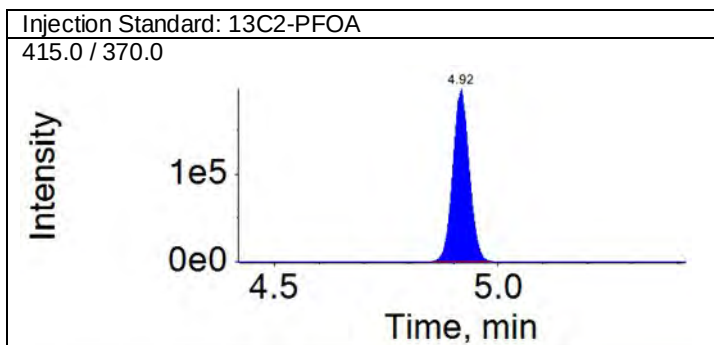
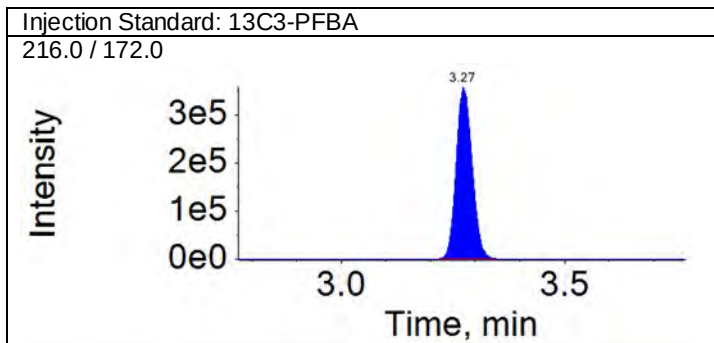
REVIEWED

By HMK at 12:22 pm, 11/29/18

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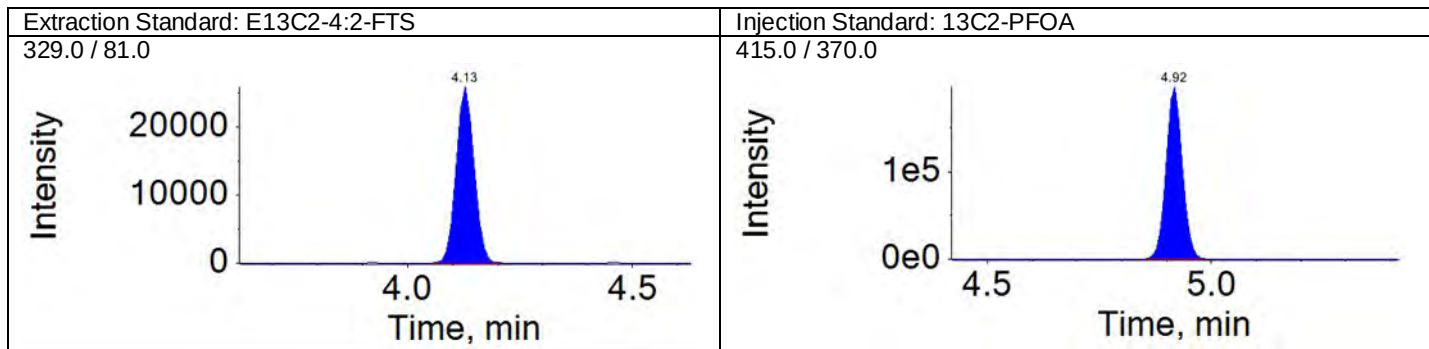
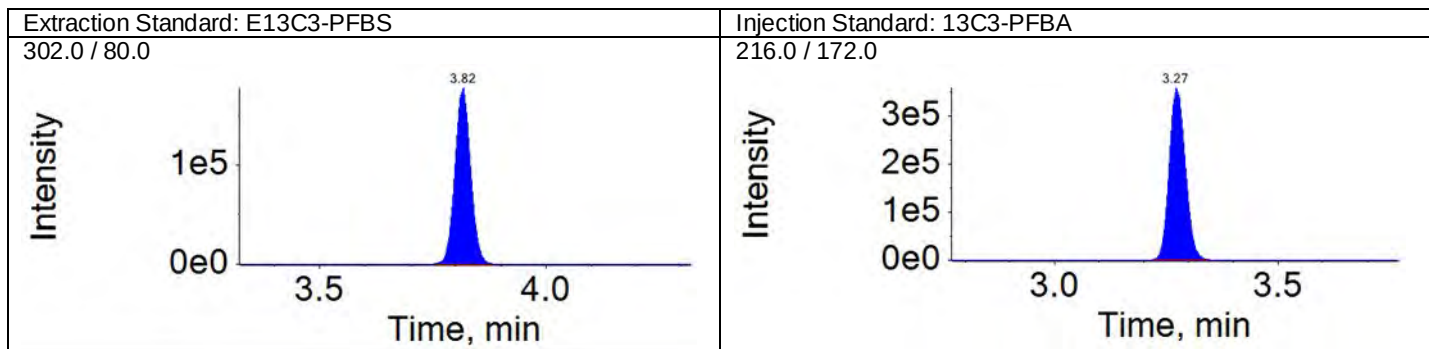
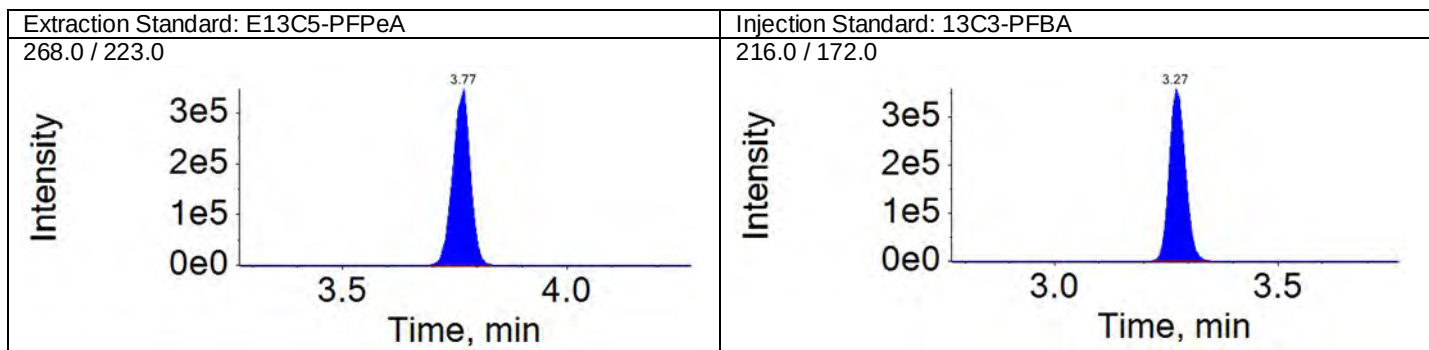
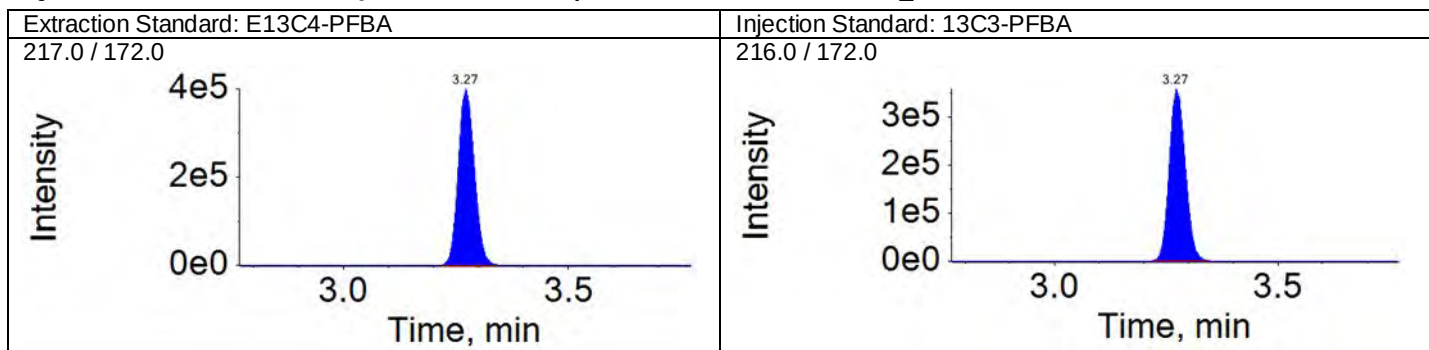
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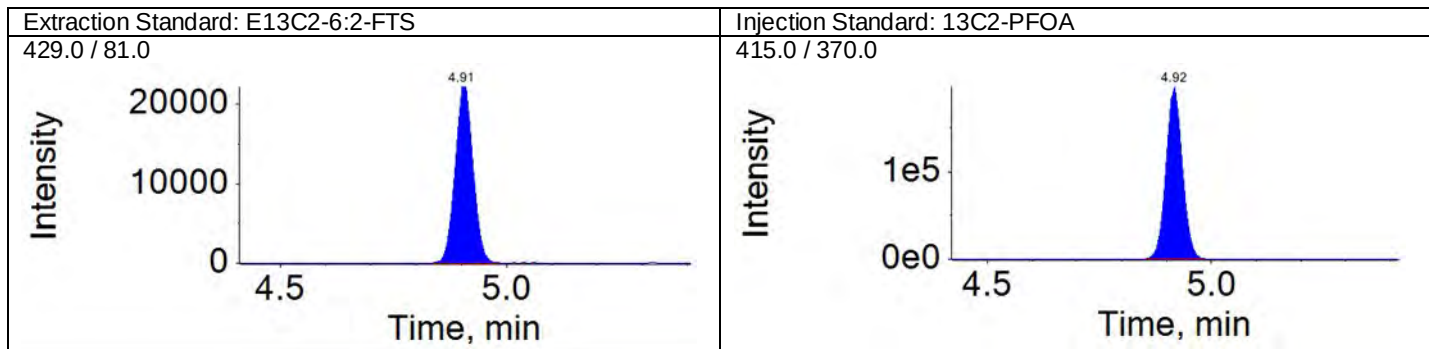
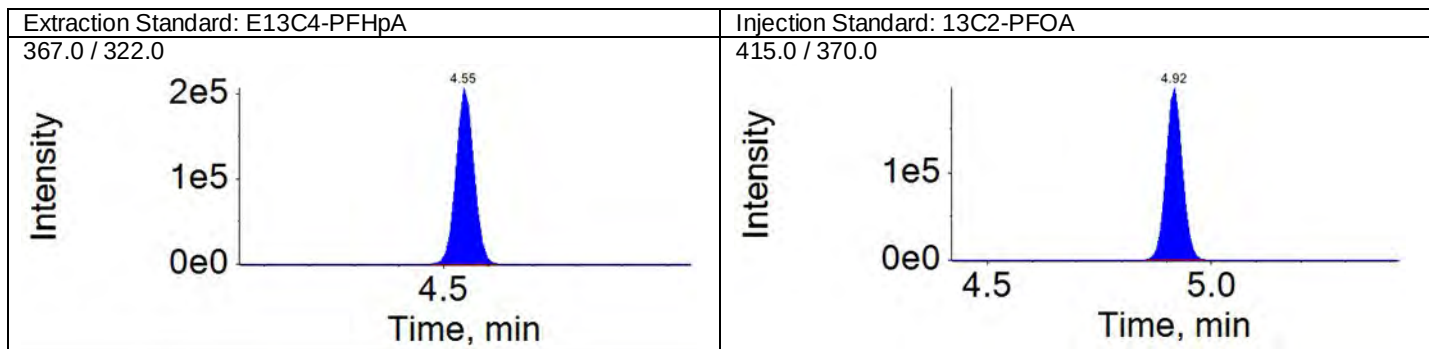
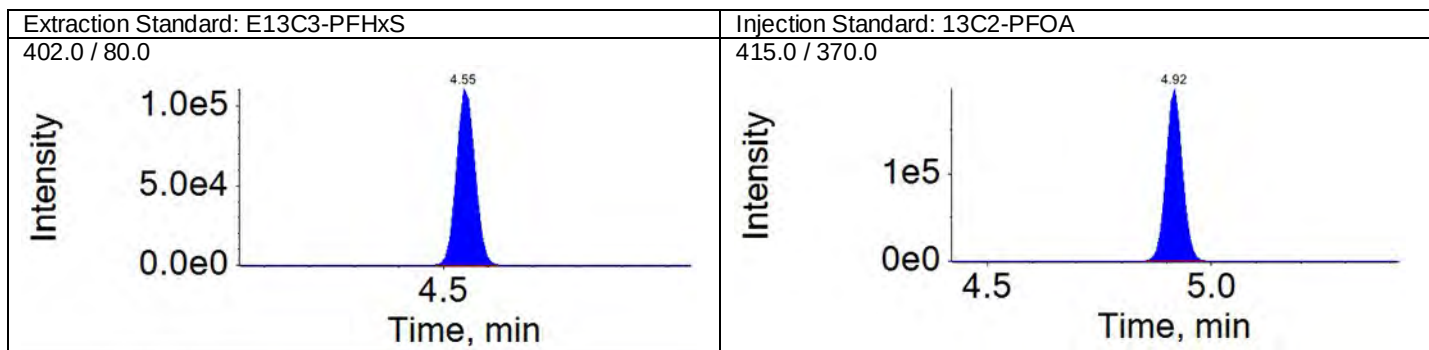
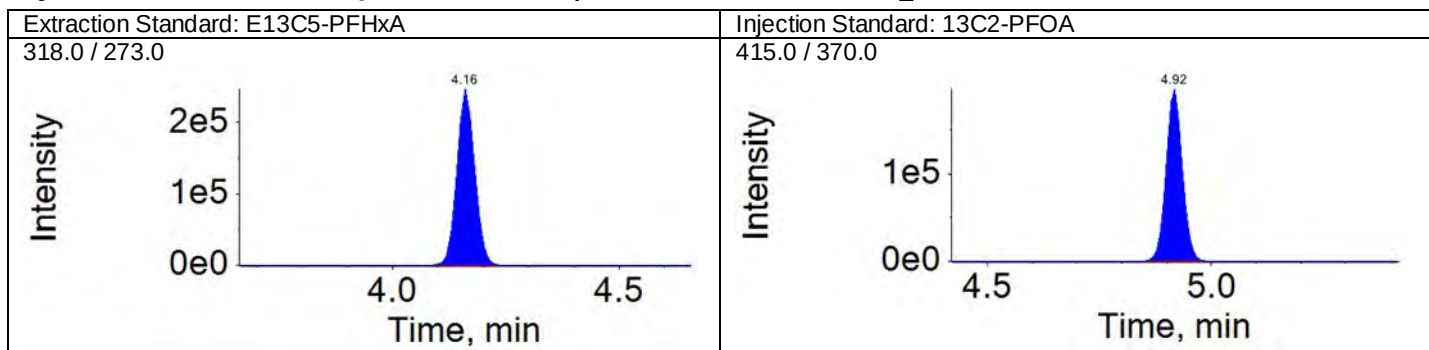
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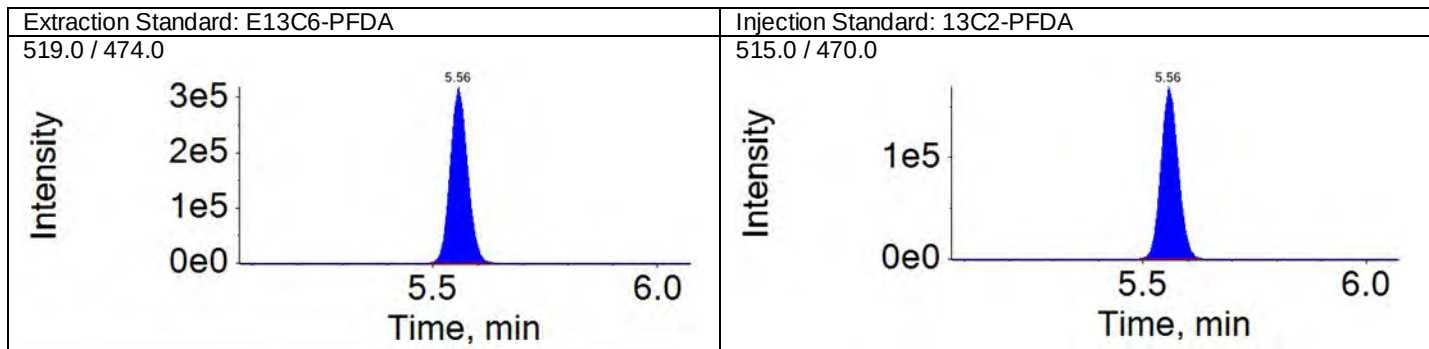
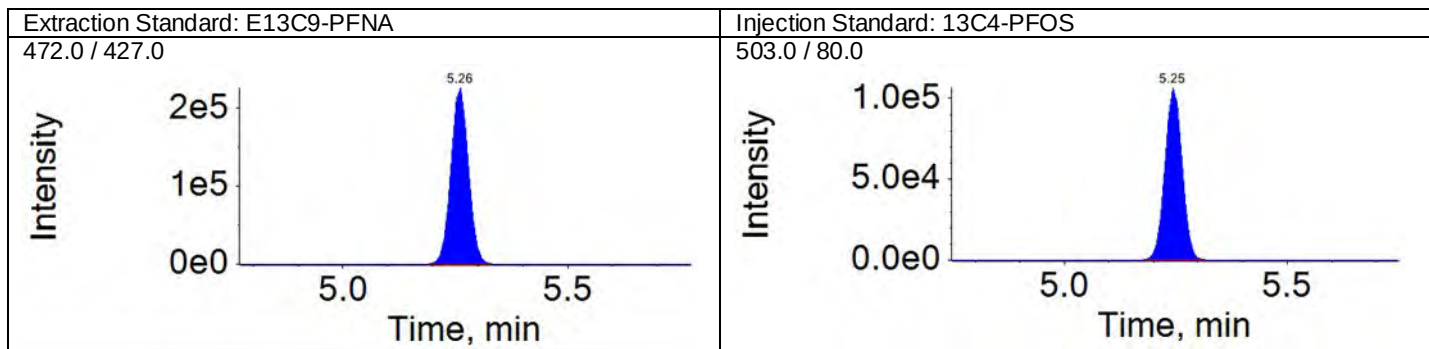
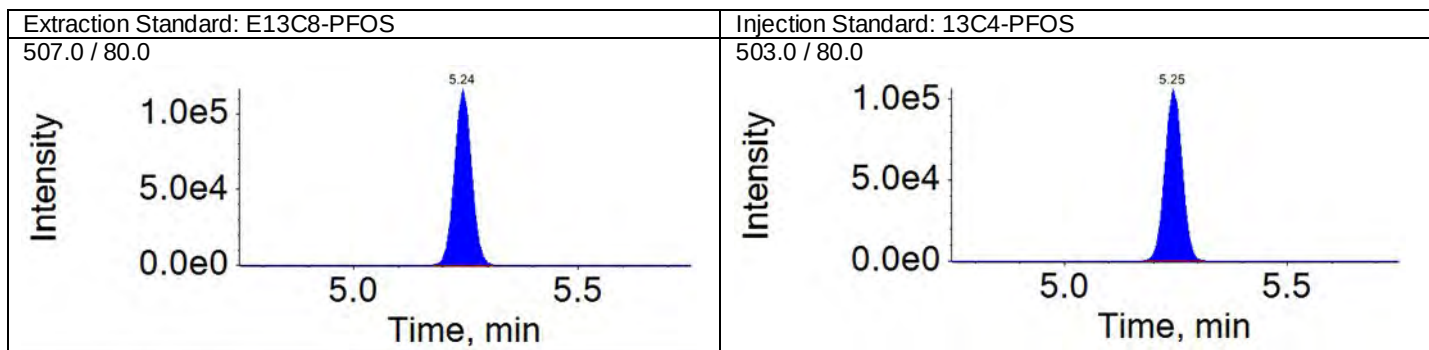
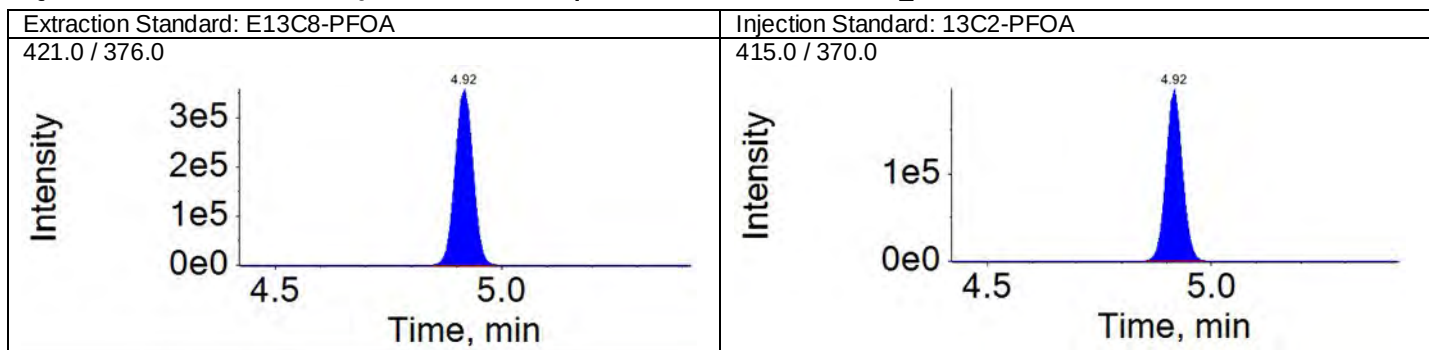
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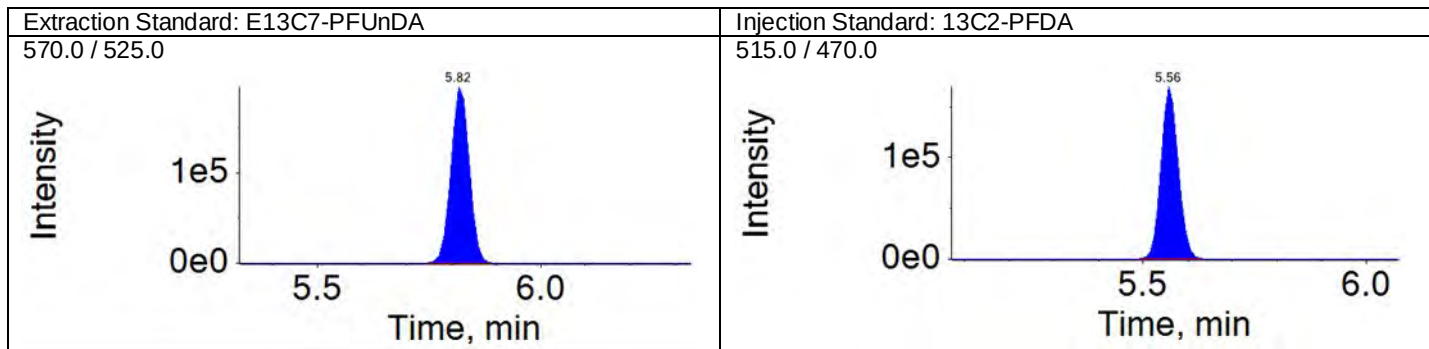
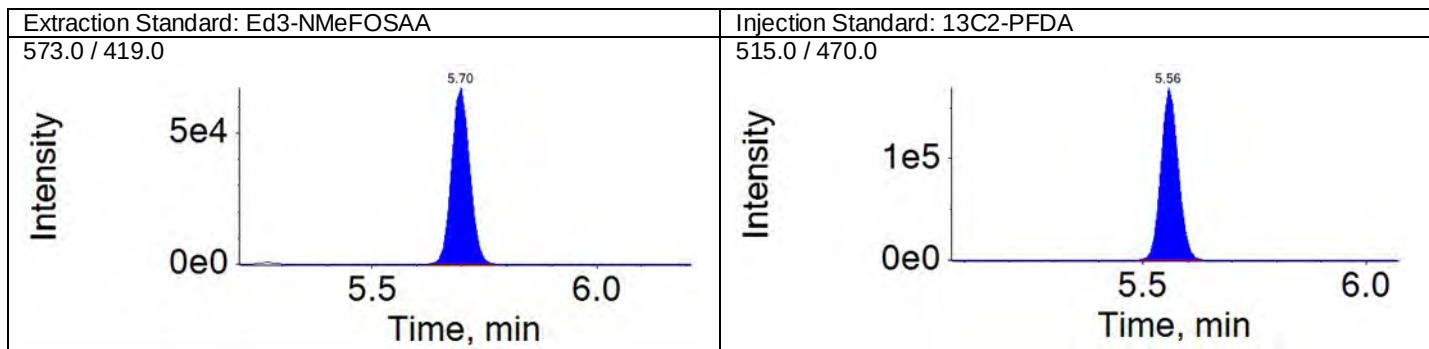
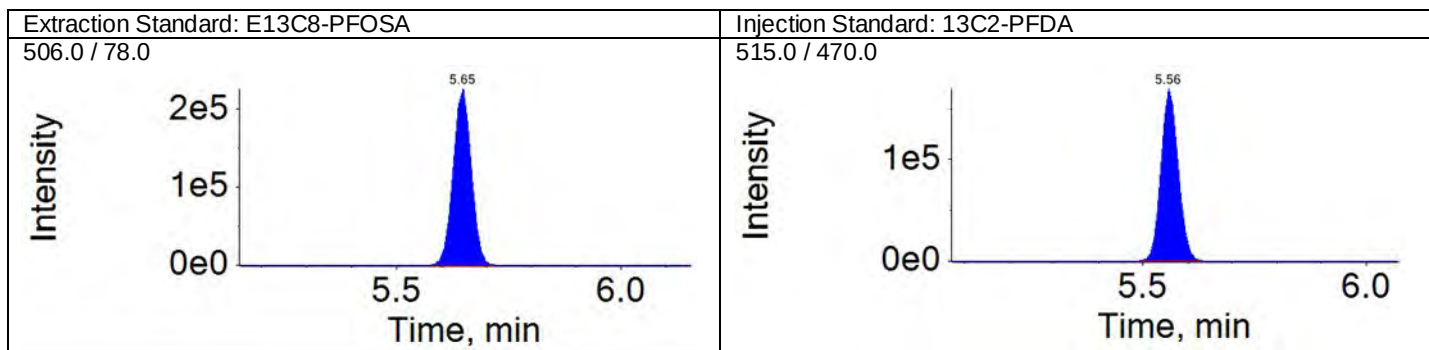
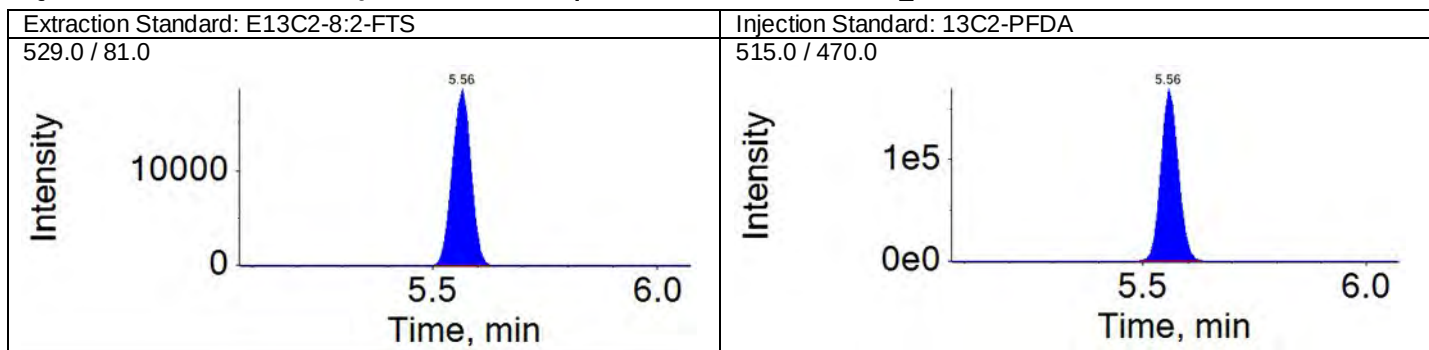
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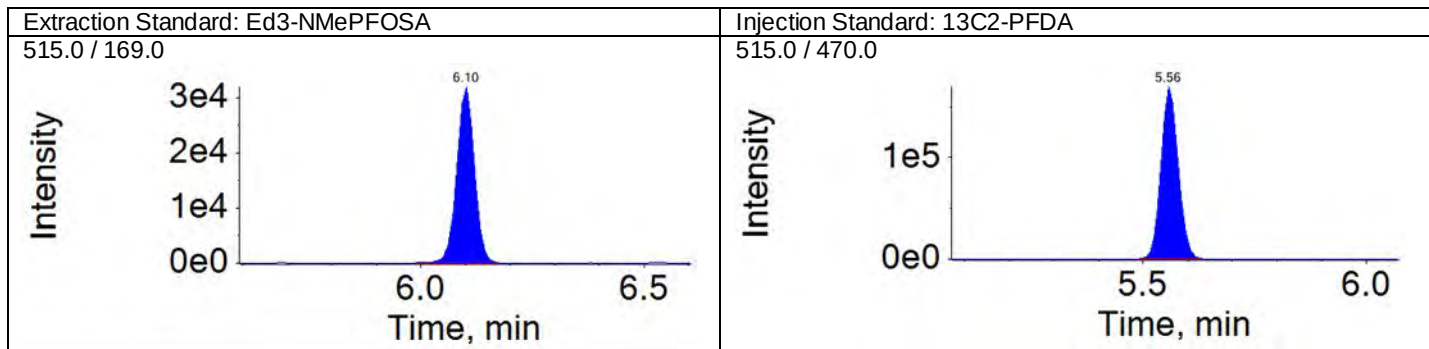
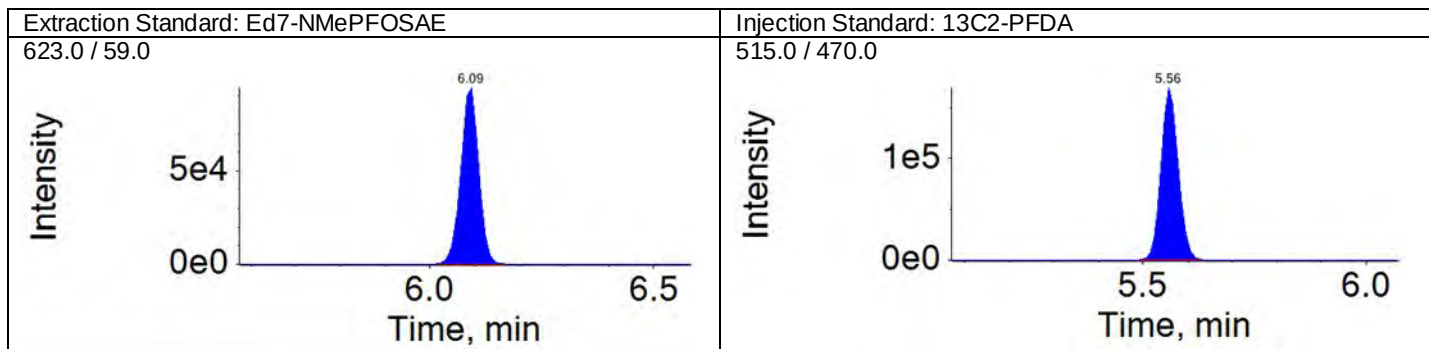
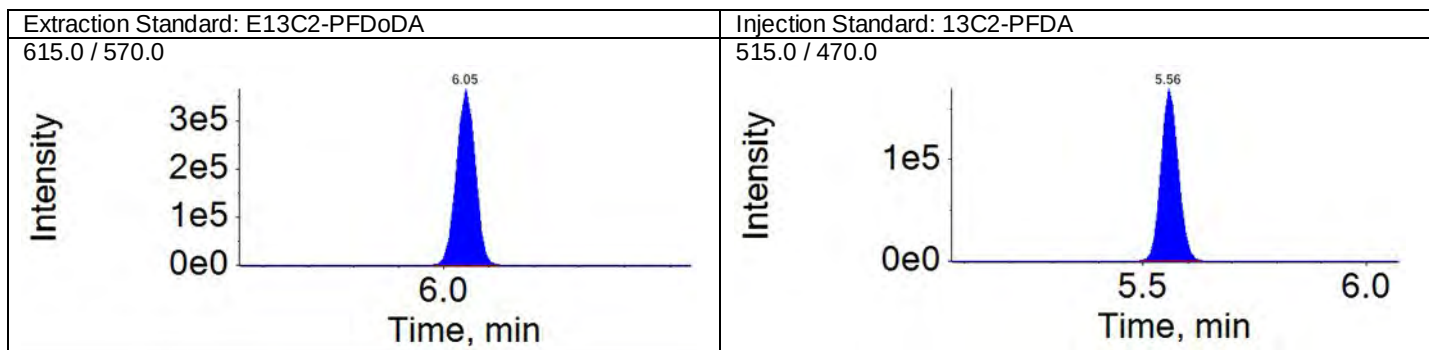
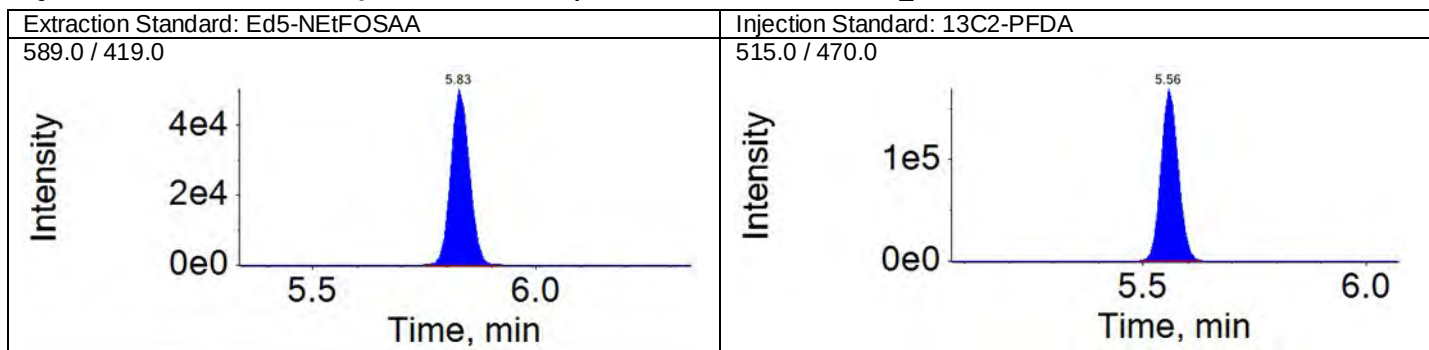
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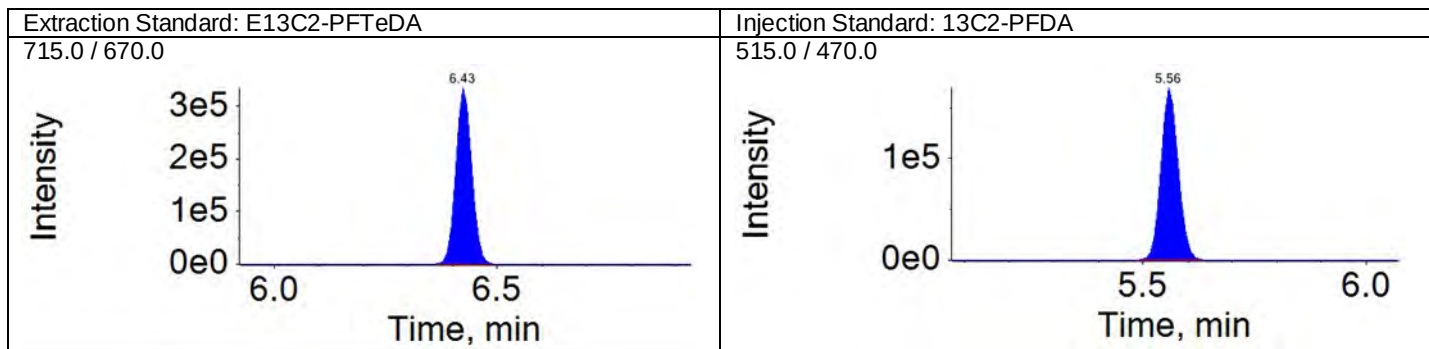
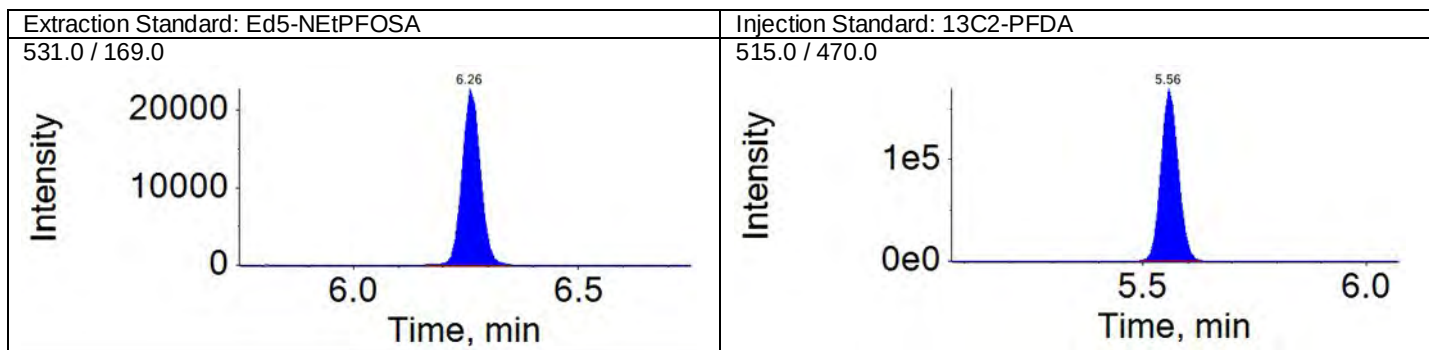
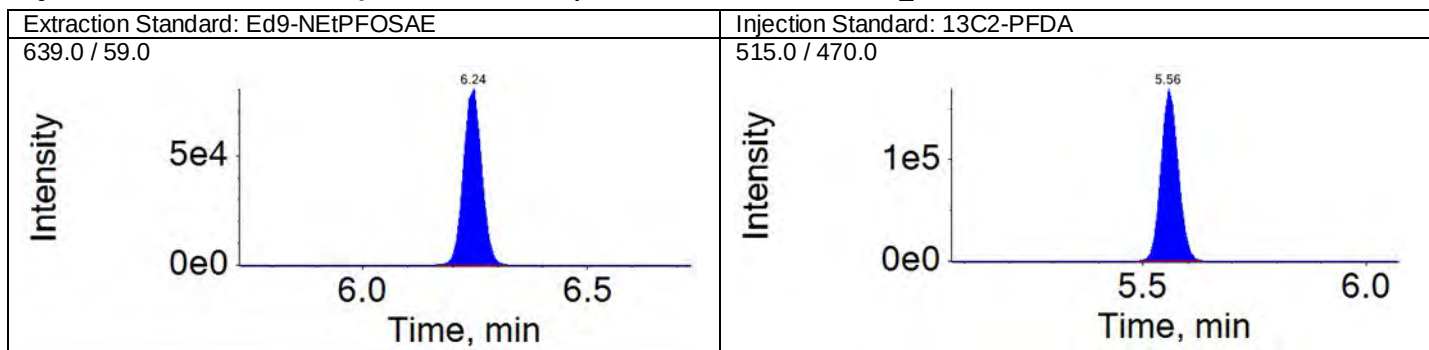
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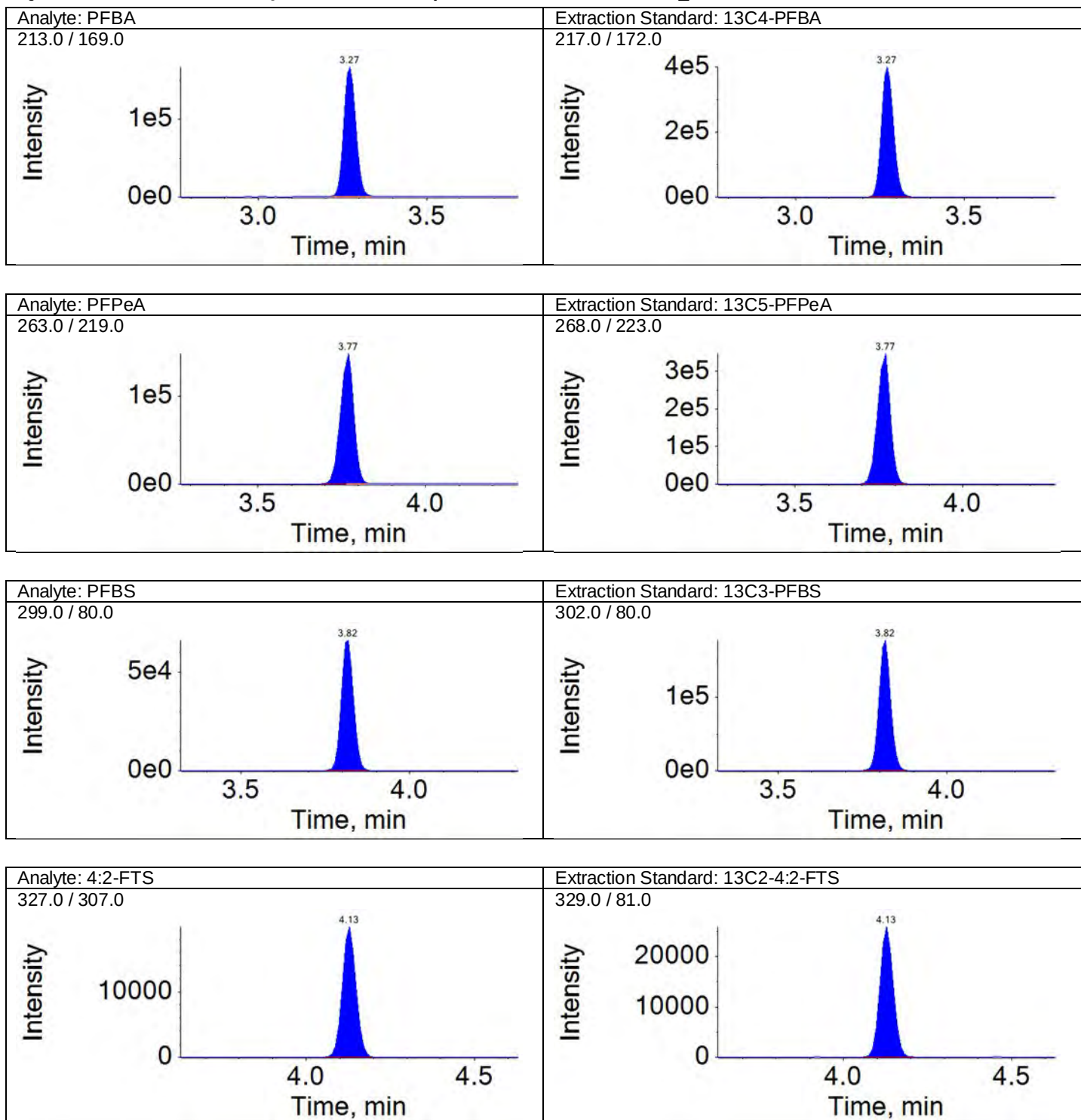
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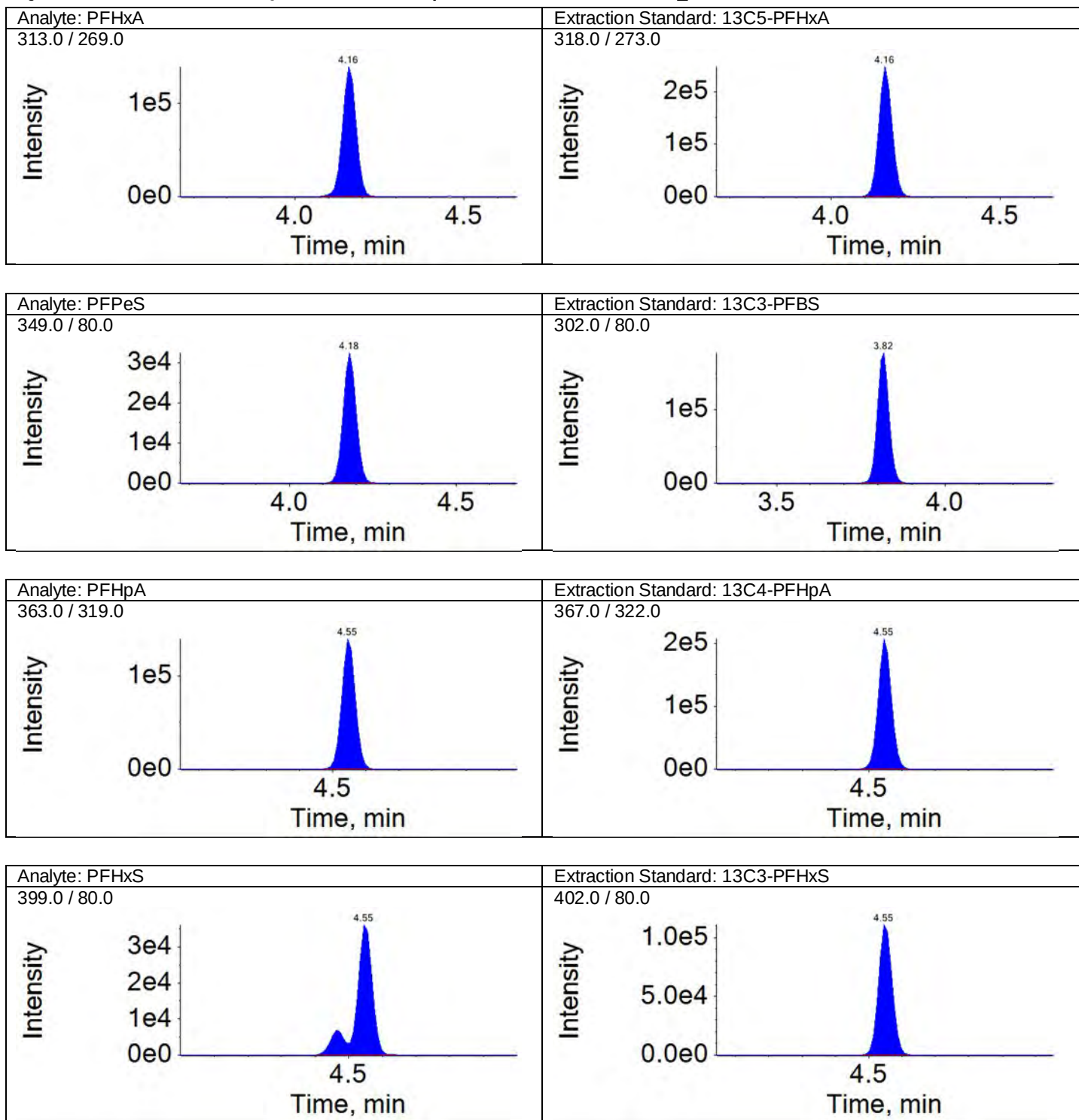
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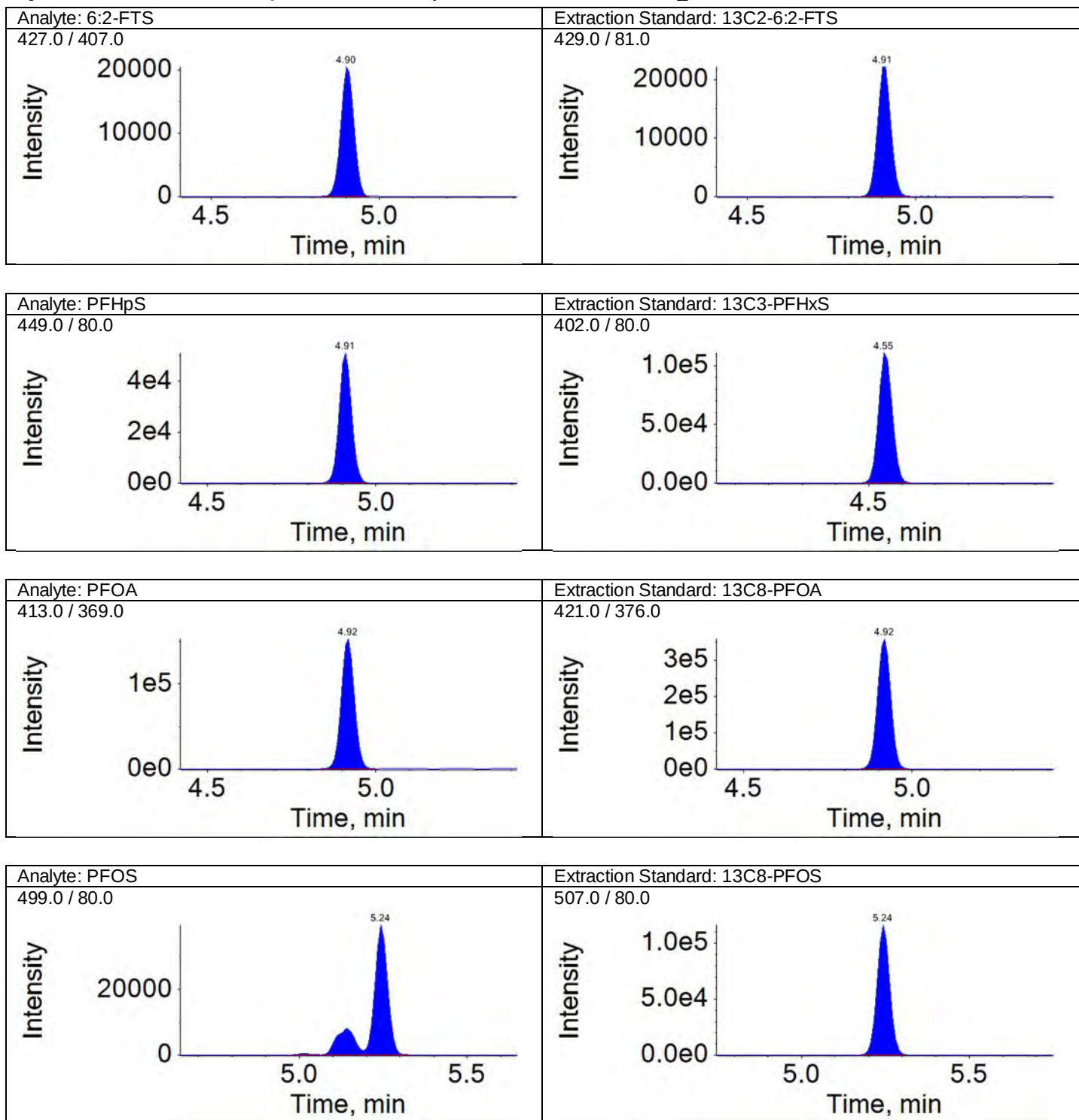
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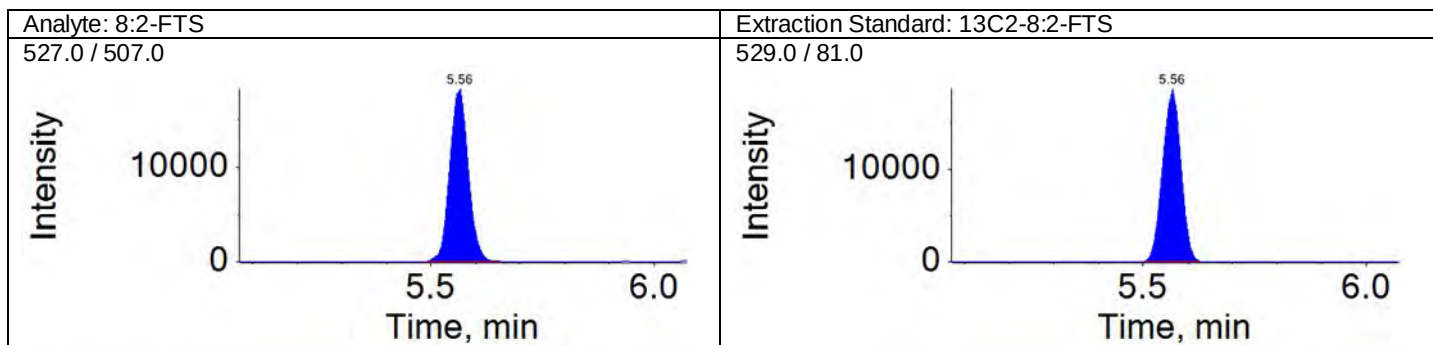
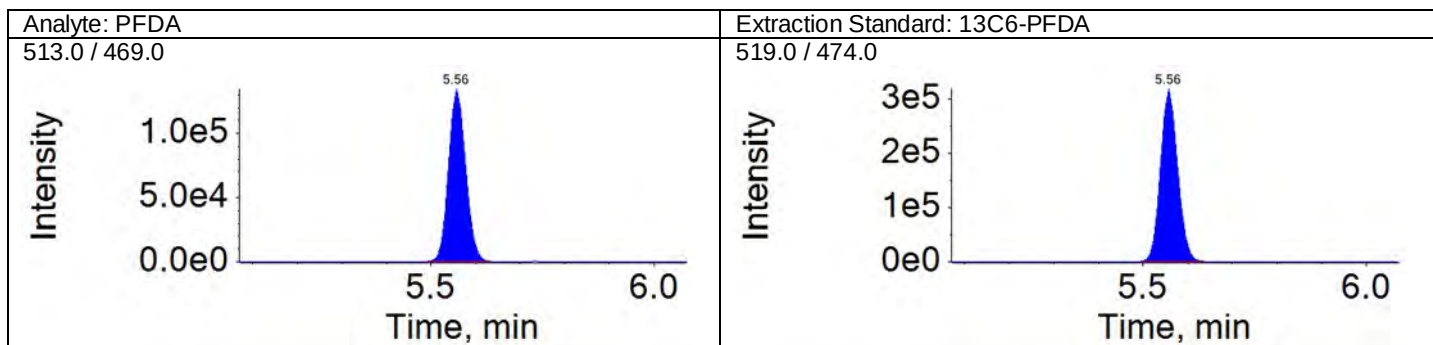
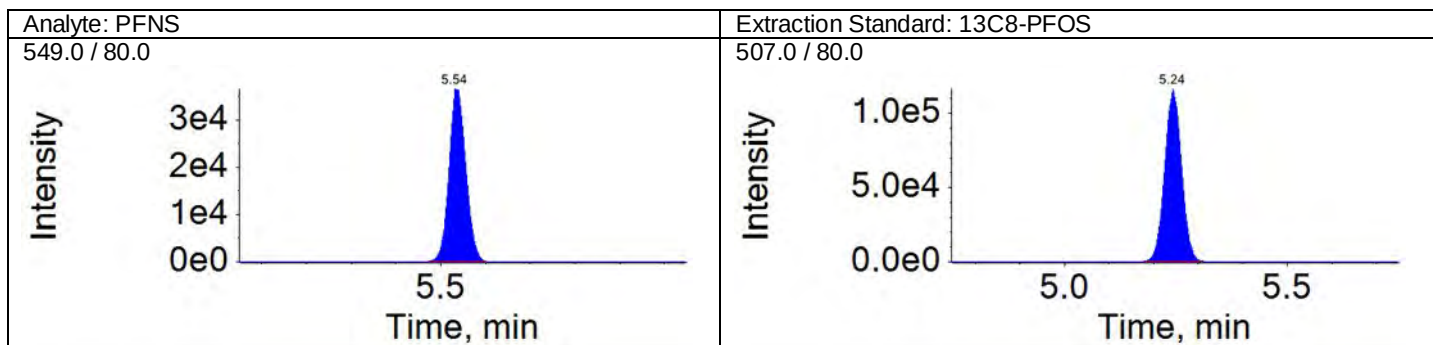
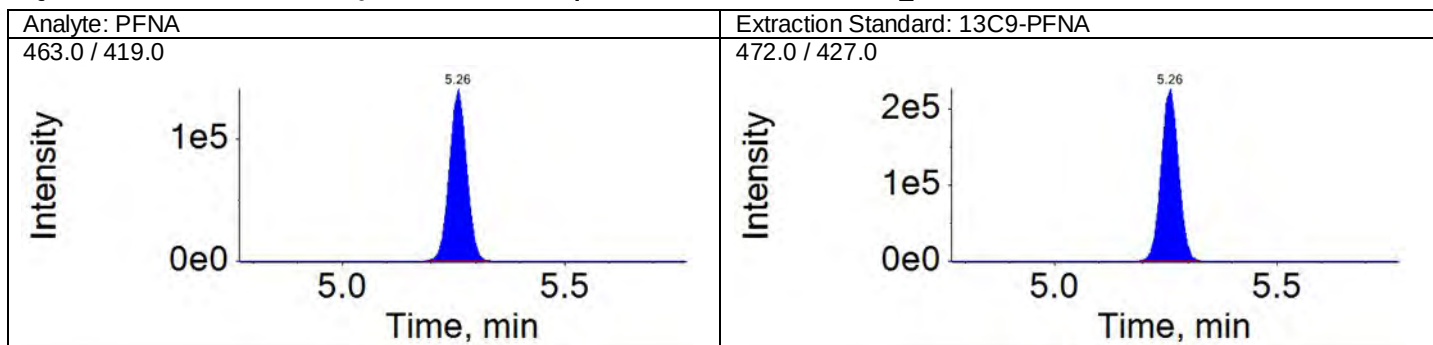
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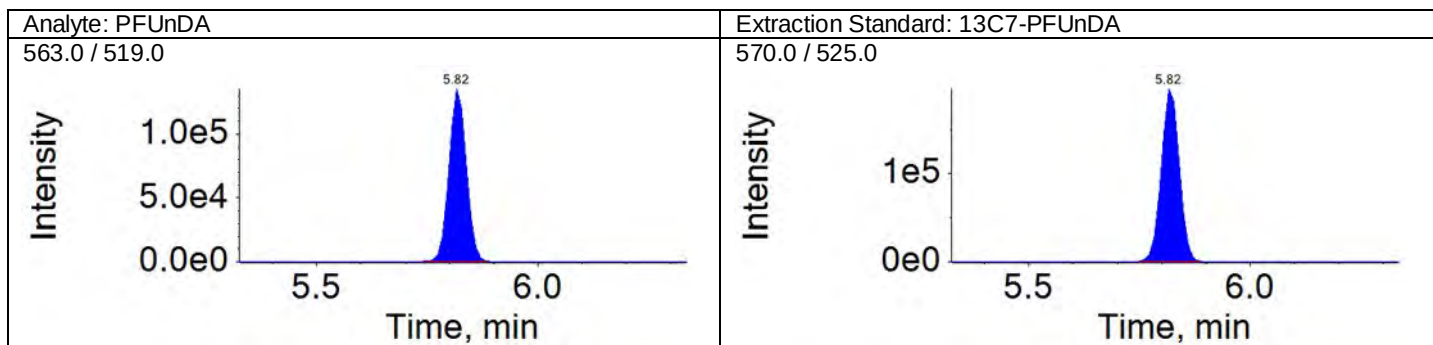
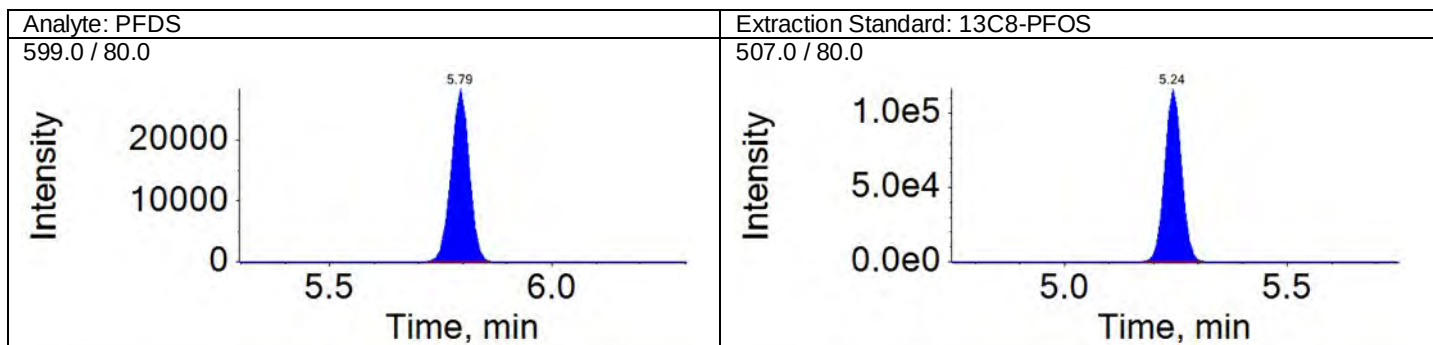
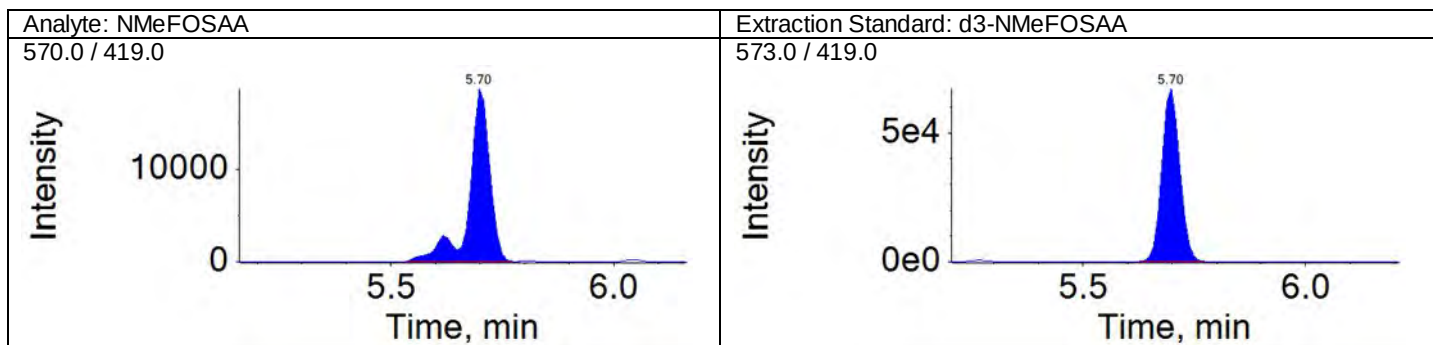
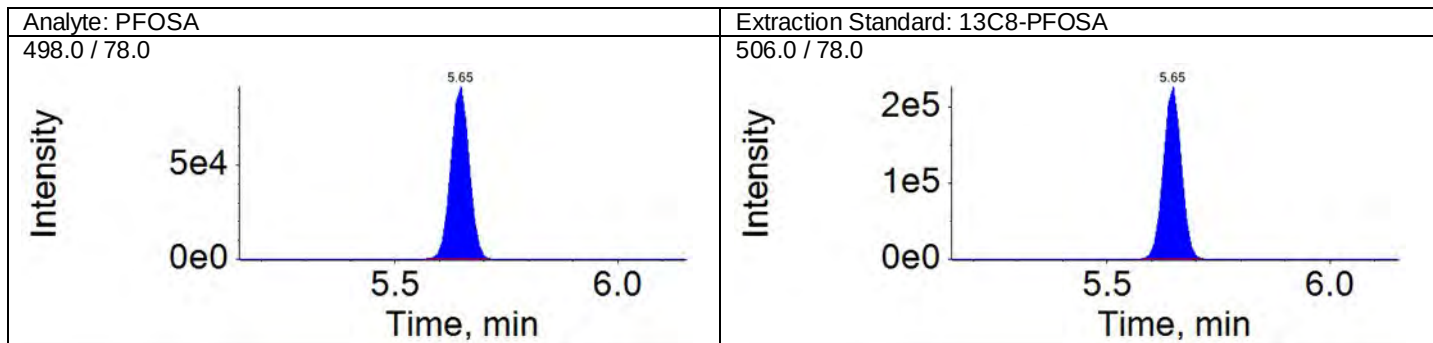
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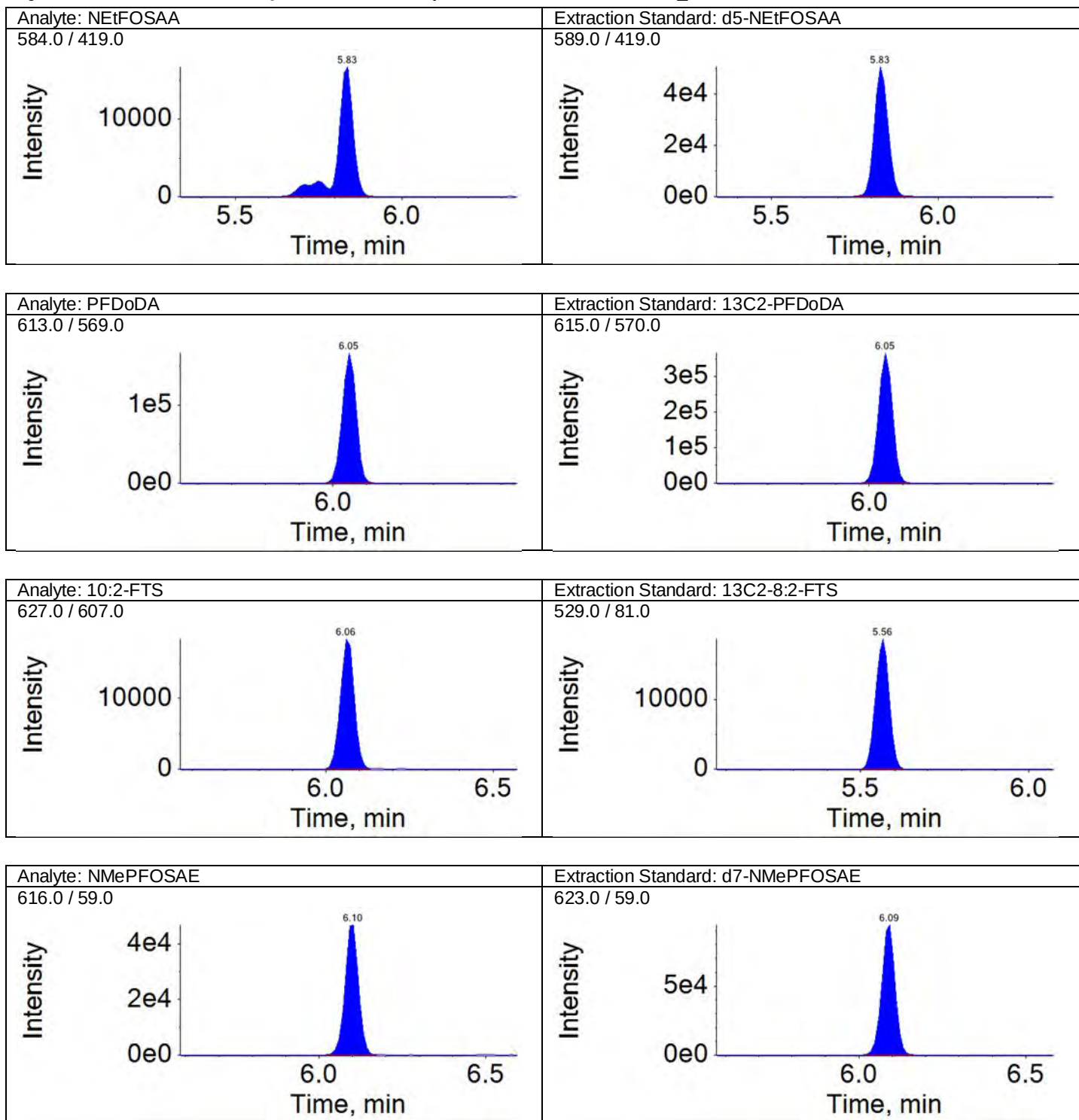
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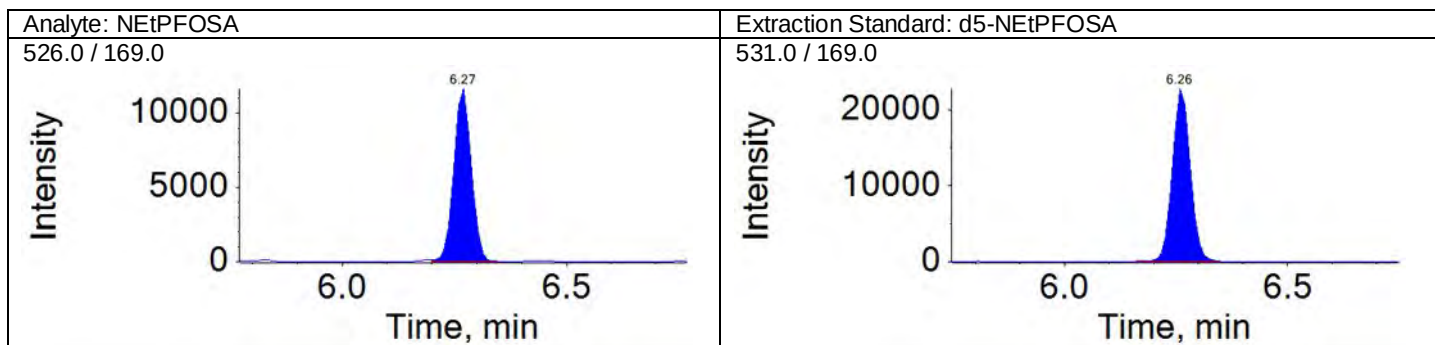
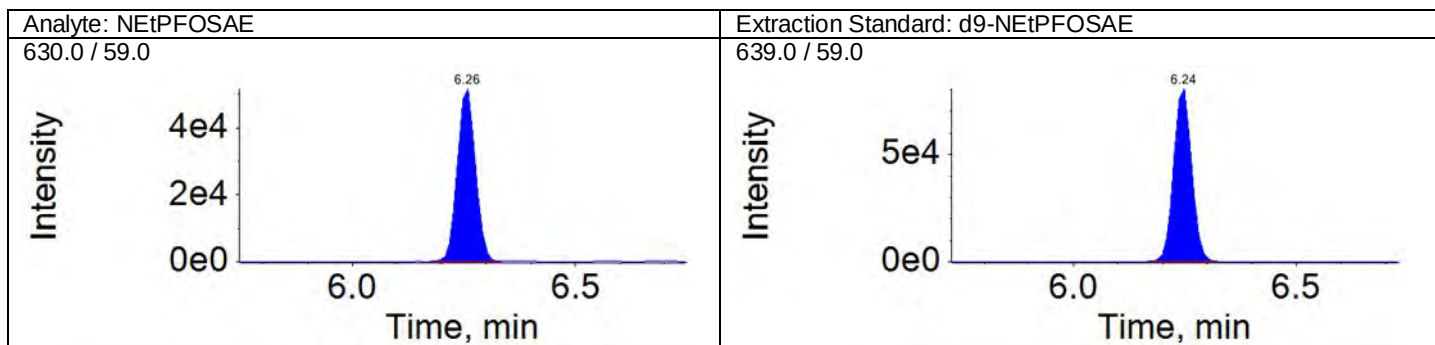
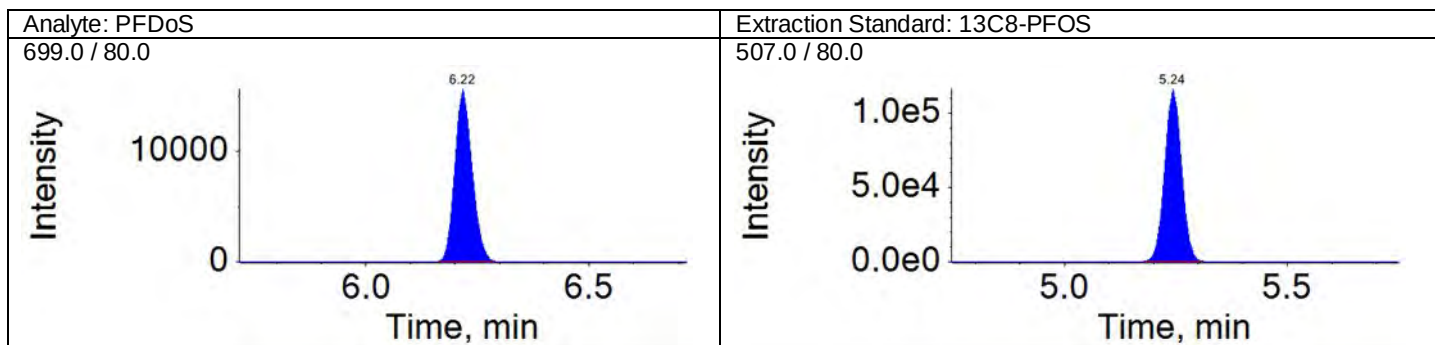
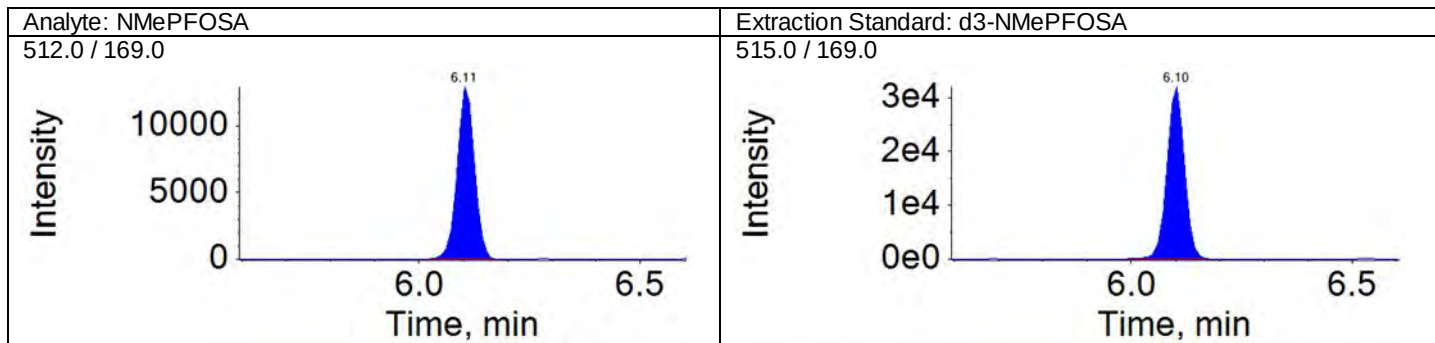
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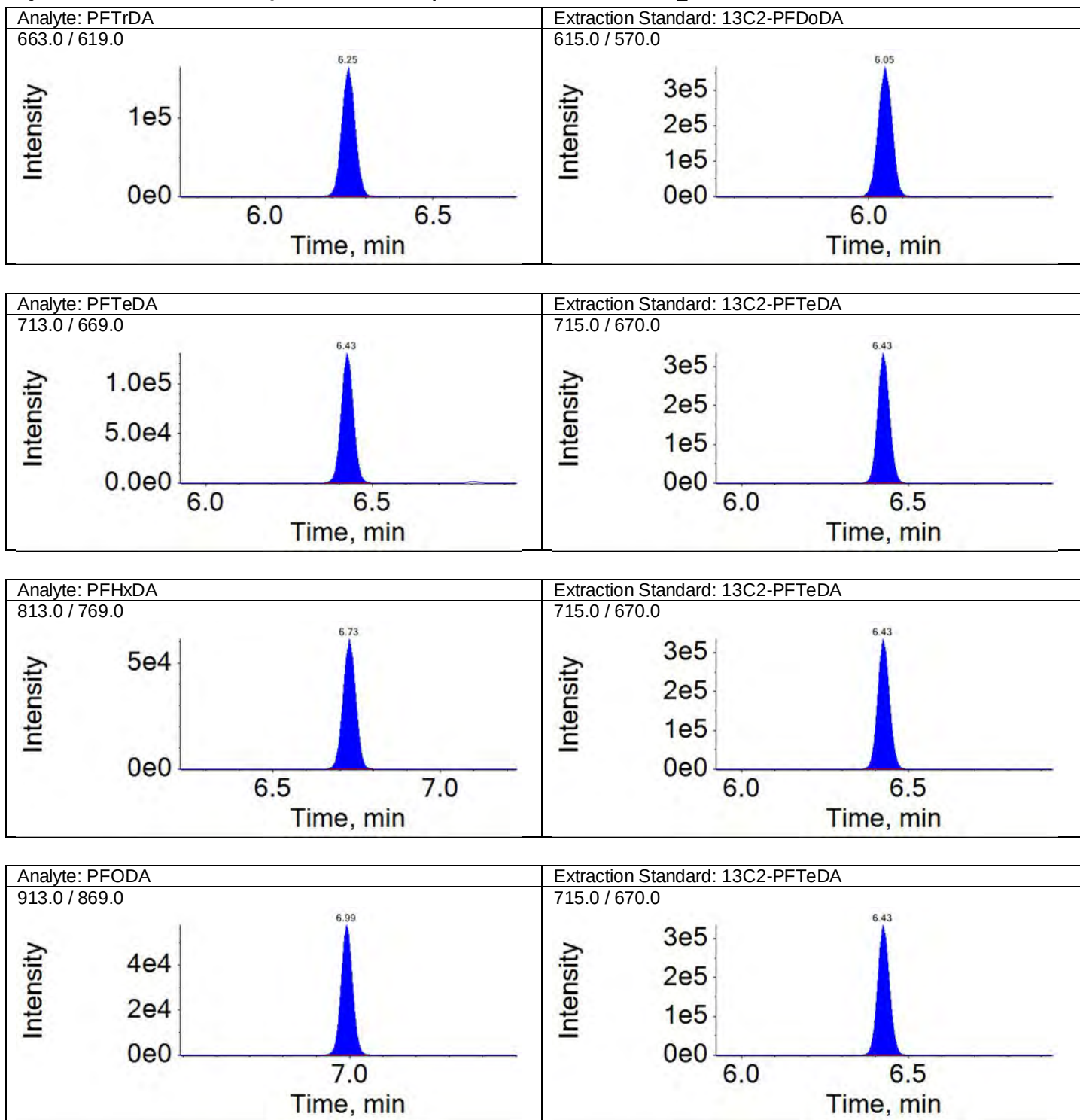
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Acquisition Method: 18AUG13_3uL.dam



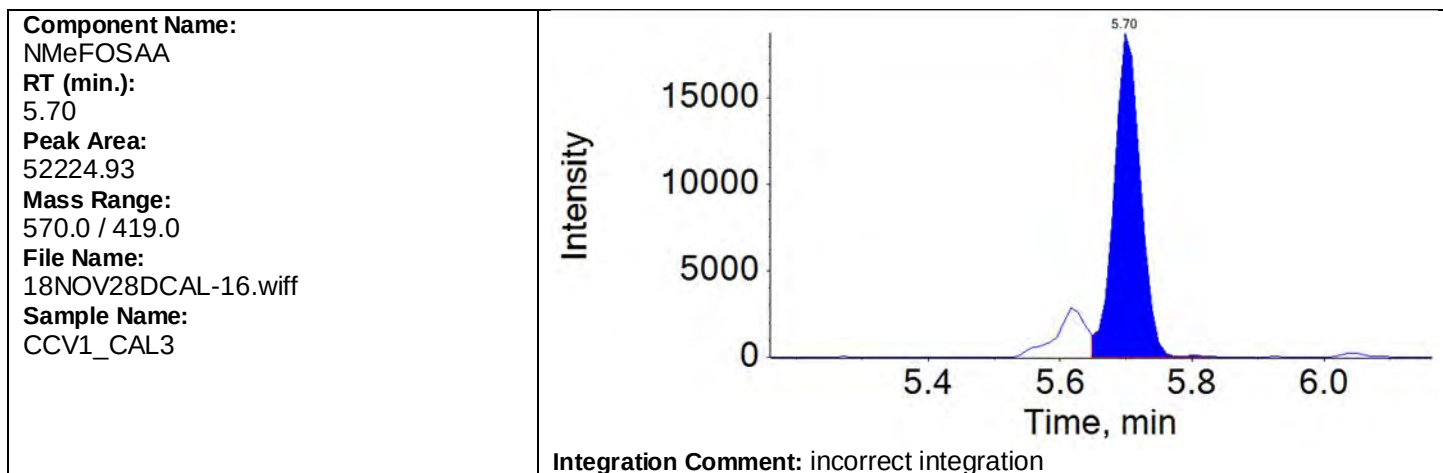
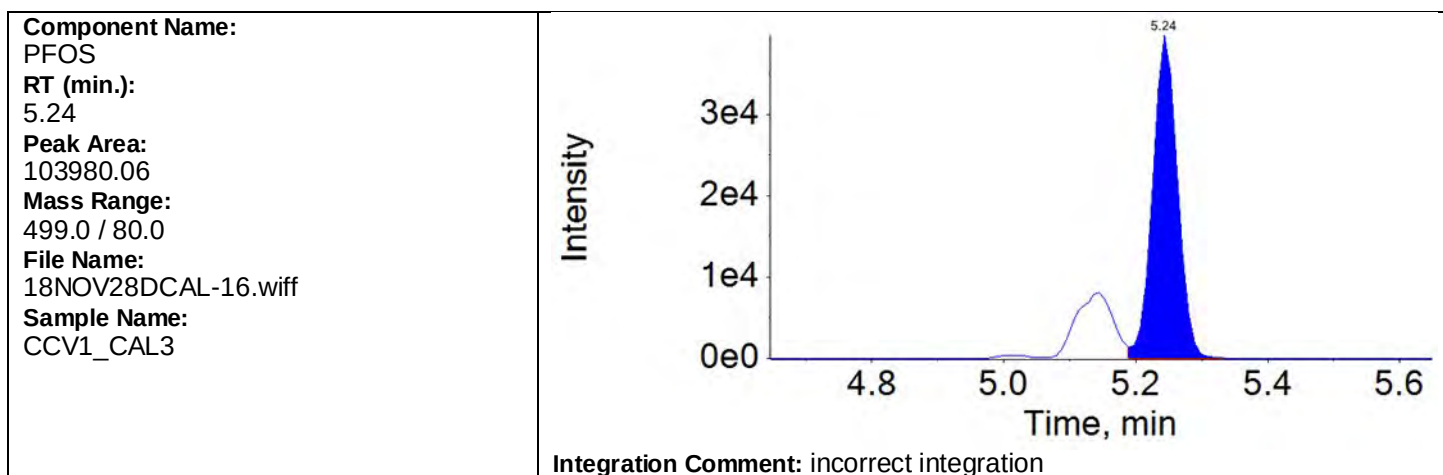
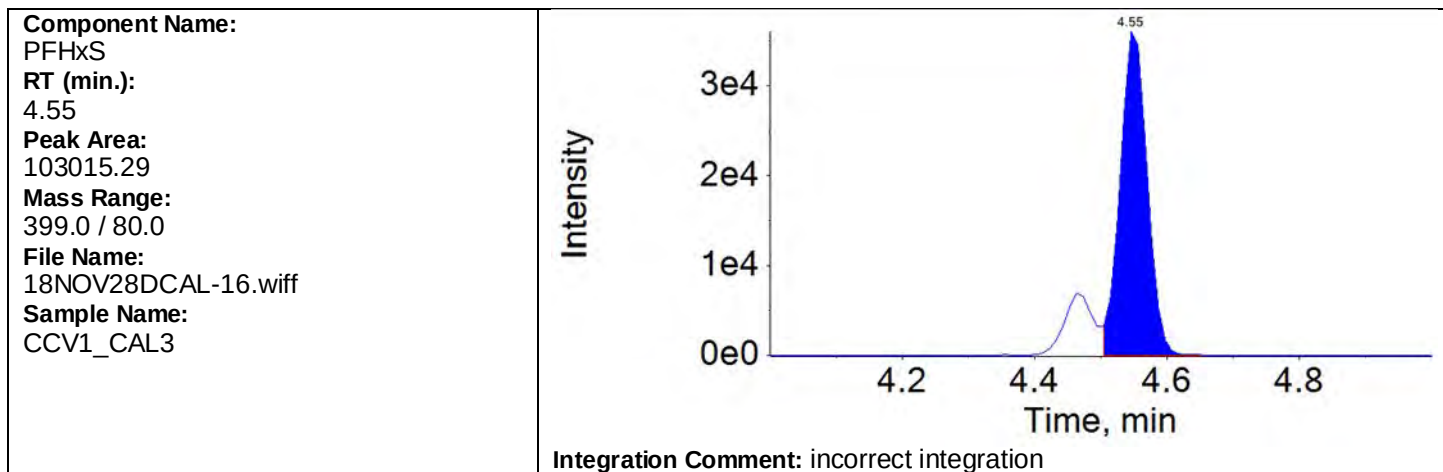
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV28DCAL 11/28/2018 4:47:11 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

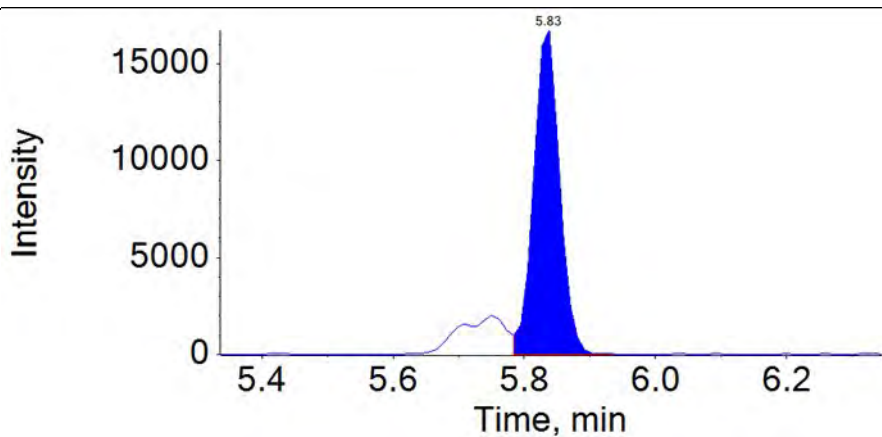
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QMethod File: 18AUG20QM



Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

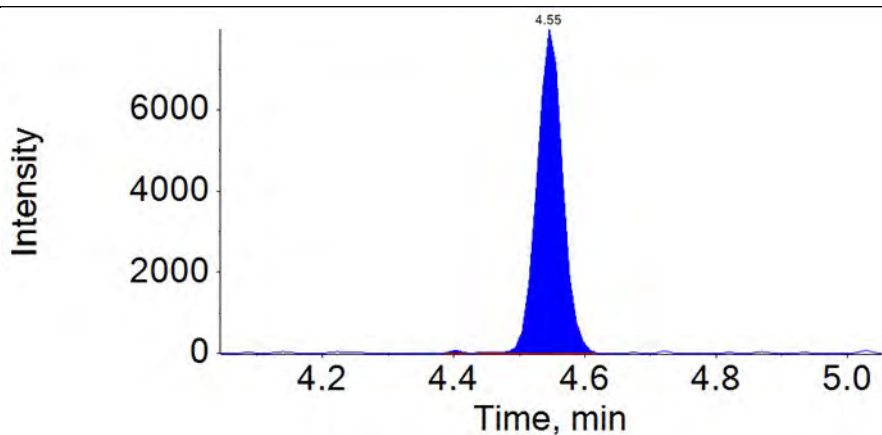
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
NETFOSAA
RT (min.):
5.83
Peak Area:
46203.64
Mass Range:
584.0 / 419.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



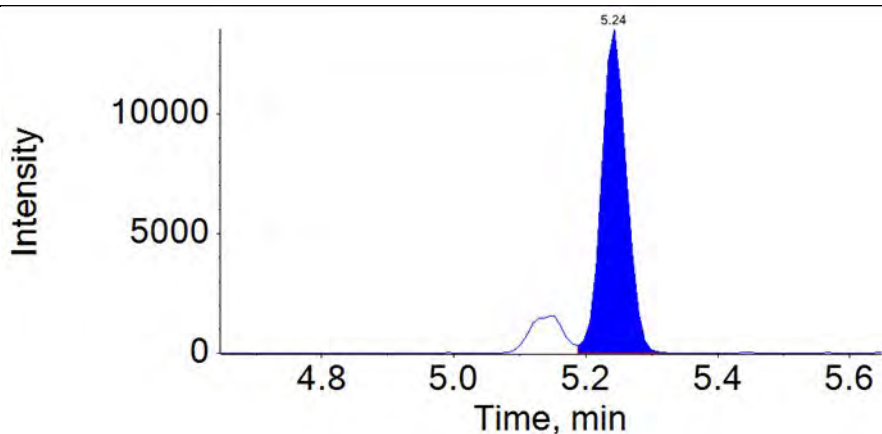
Integration Comment: incorrect integration

Component Name:
PFHpA_2
RT (min.):
4.55
Peak Area:
21948.97
Mass Range:
363.0 / 169.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
5.24
Peak Area:
35538.74
Mass Range:
499.0 / 99.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3

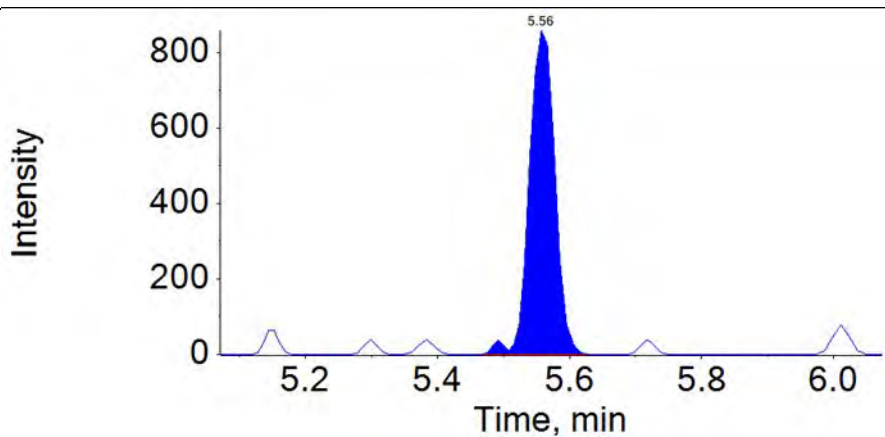


Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

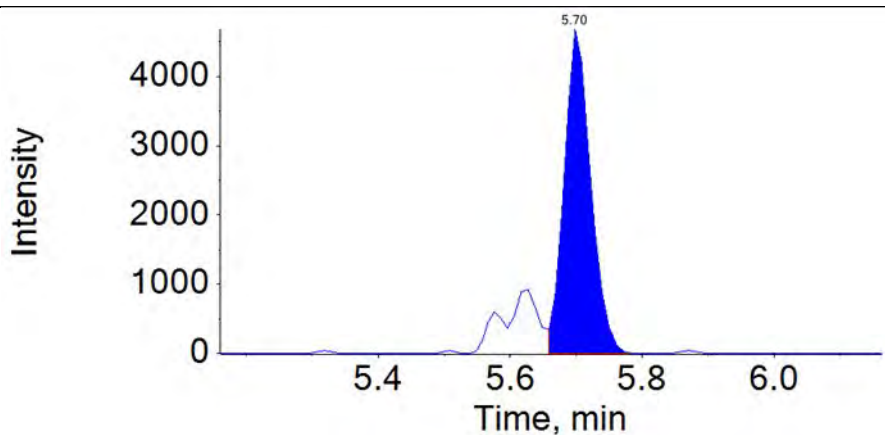
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFDA_2
RT (min.):
5.56
Peak Area:
2325.21
Mass Range:
513.0 / 169.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



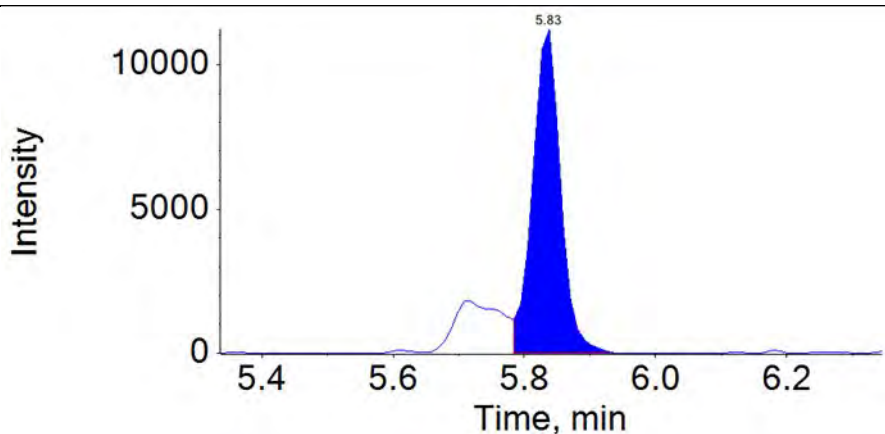
Integration Comment: incorrect integration

Component Name:
NMeFOSAA_2
RT (min.):
5.70
Peak Area:
13049.28
Mass Range:
570.0 / 483.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
33290.95
Mass Range:
584.0 / 526.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3

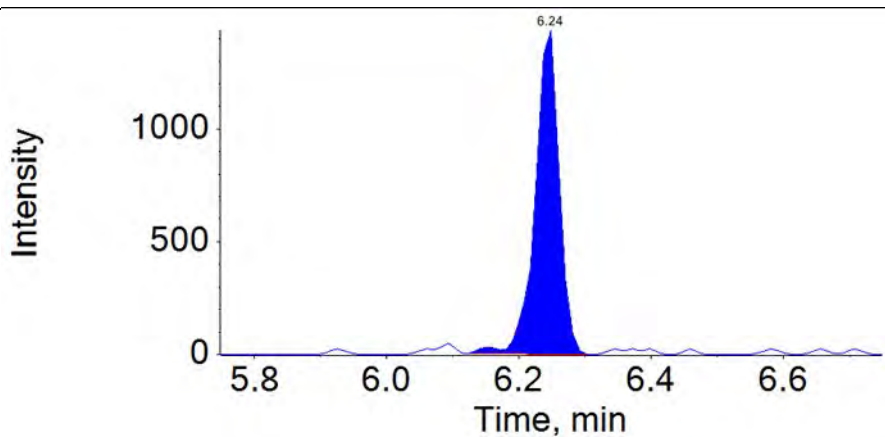


Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

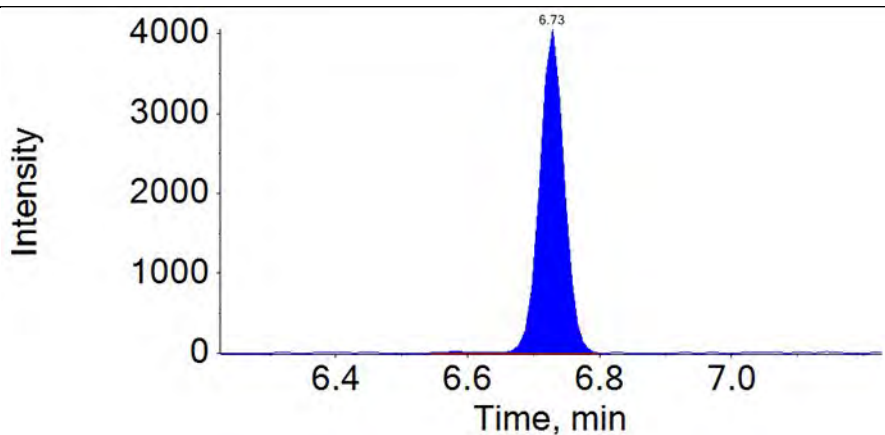
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFTrDA_2
RT (min.):
6.24
Peak Area:
3652.89
Mass Range:
663.0 / 169.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Component Name:
PFHxDA_2
RT (min.):
6.73
Peak Area:
10506.81
Mass Range:
813.0 / 169.0
File Name:
18NOV28DCAL-16.wiff
Sample Name:
CCV1_CAL3



Integration Comment: incorrect integration

Results Table Name: 18NOV28DCAL
Results Table Date: 11/28/2018 4:52:53 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 5:01 pm, 11/28/18

REVIEWED

By HMK at 12:22 pm, 11/29/18

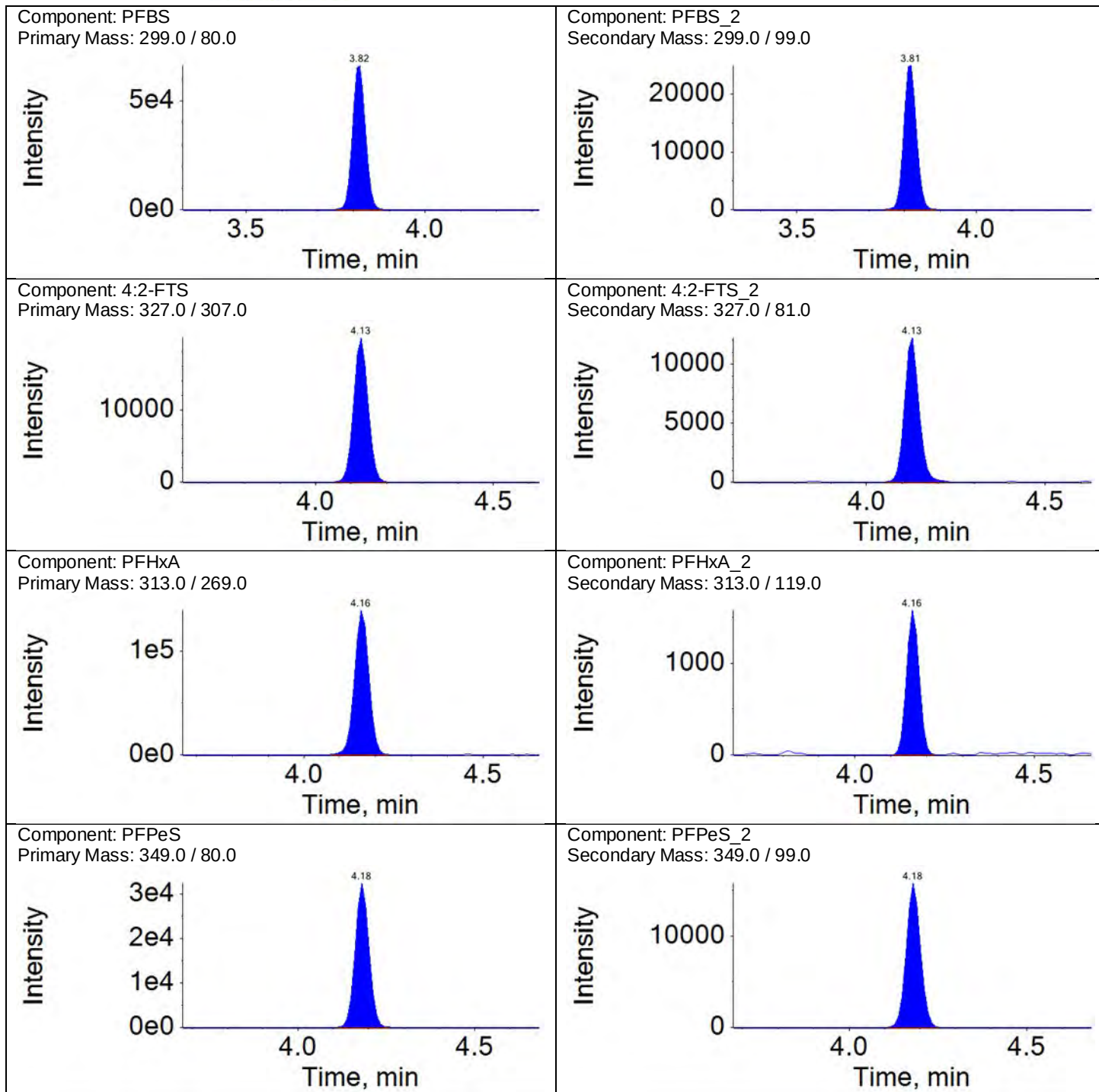
Ion Ratio Report

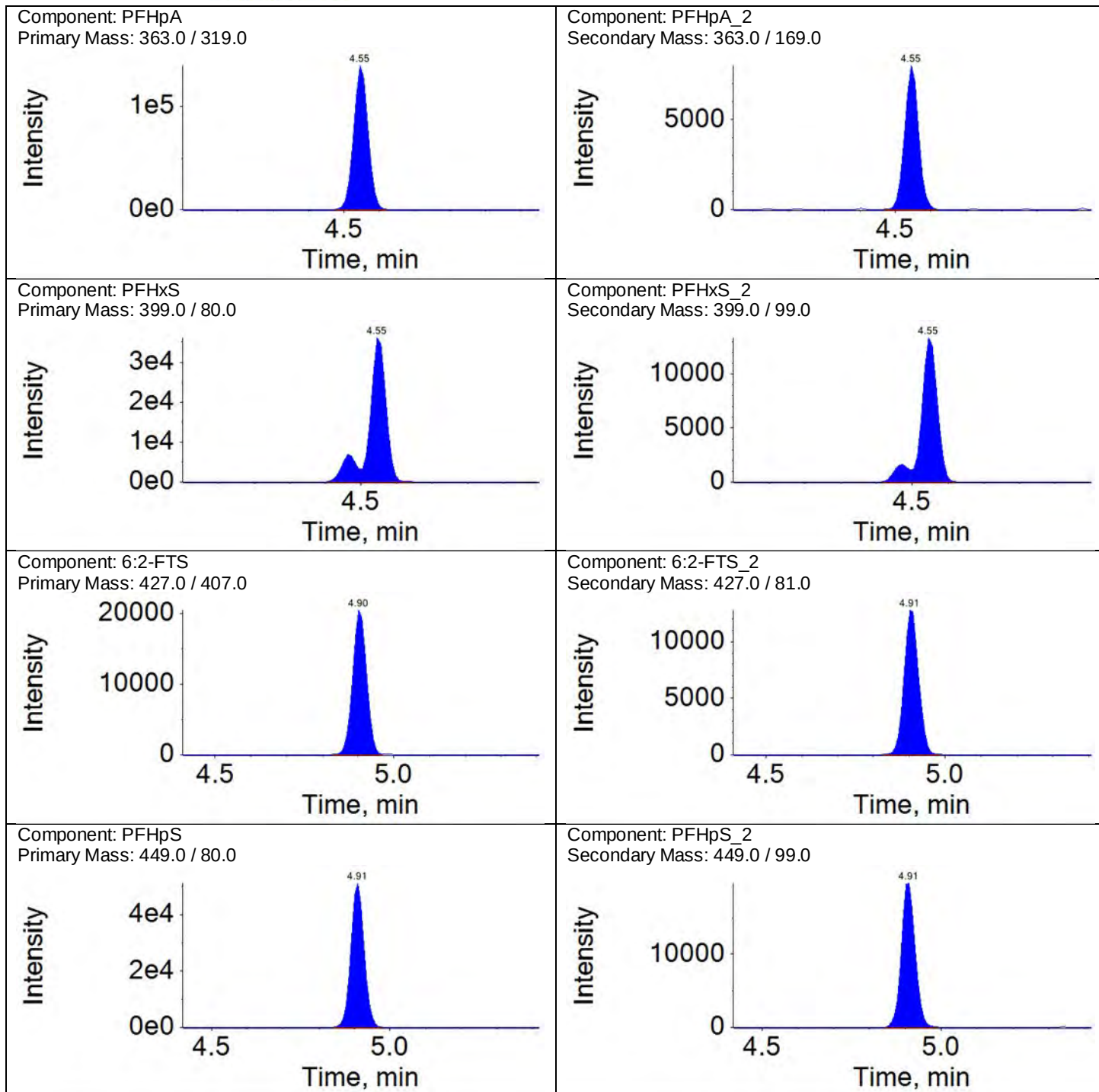
Sample Name: CCV1_CAL3

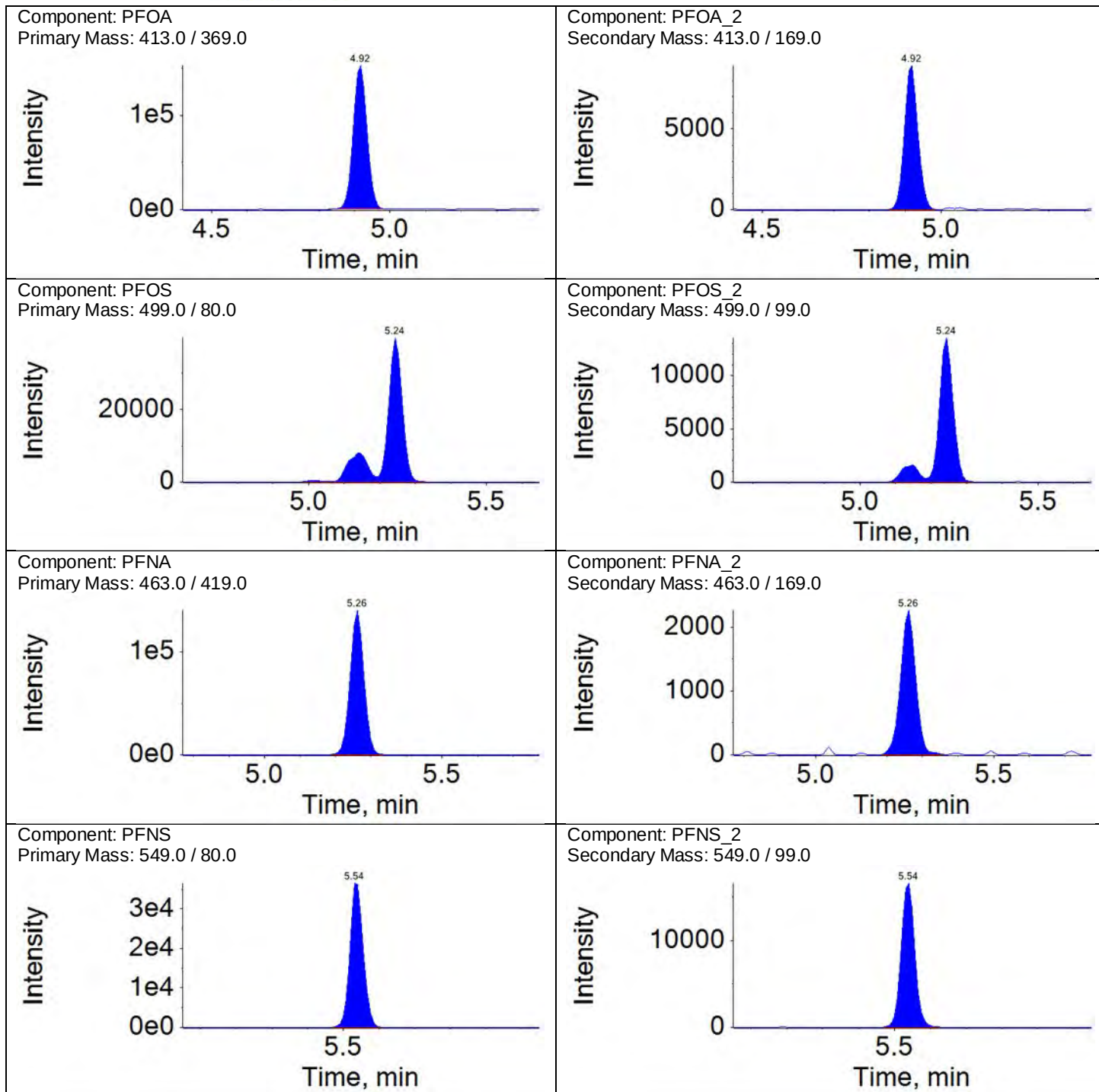
Instrument Name: LM27631

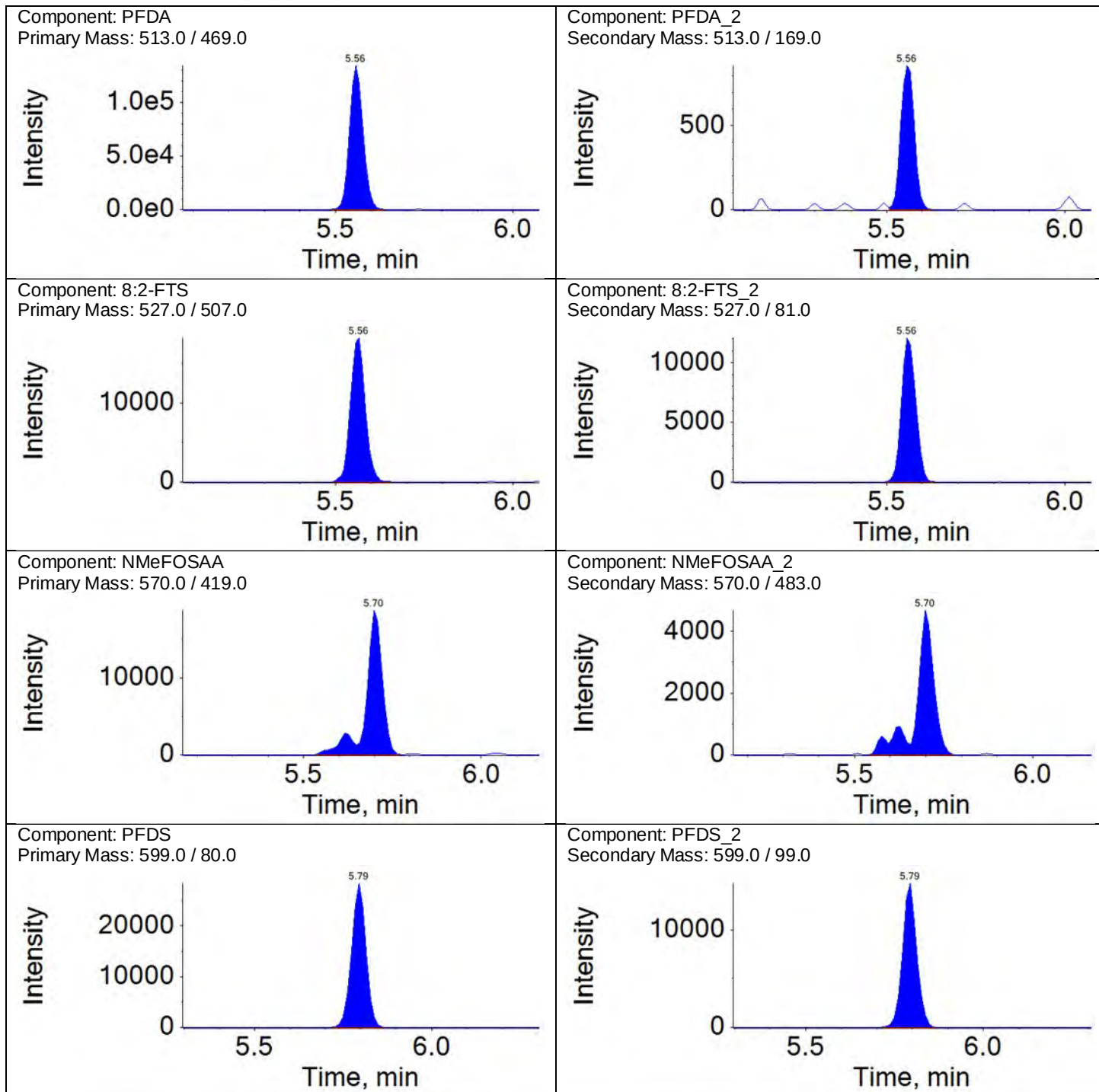
File Name: 18NOV28DCAL-16.wiff

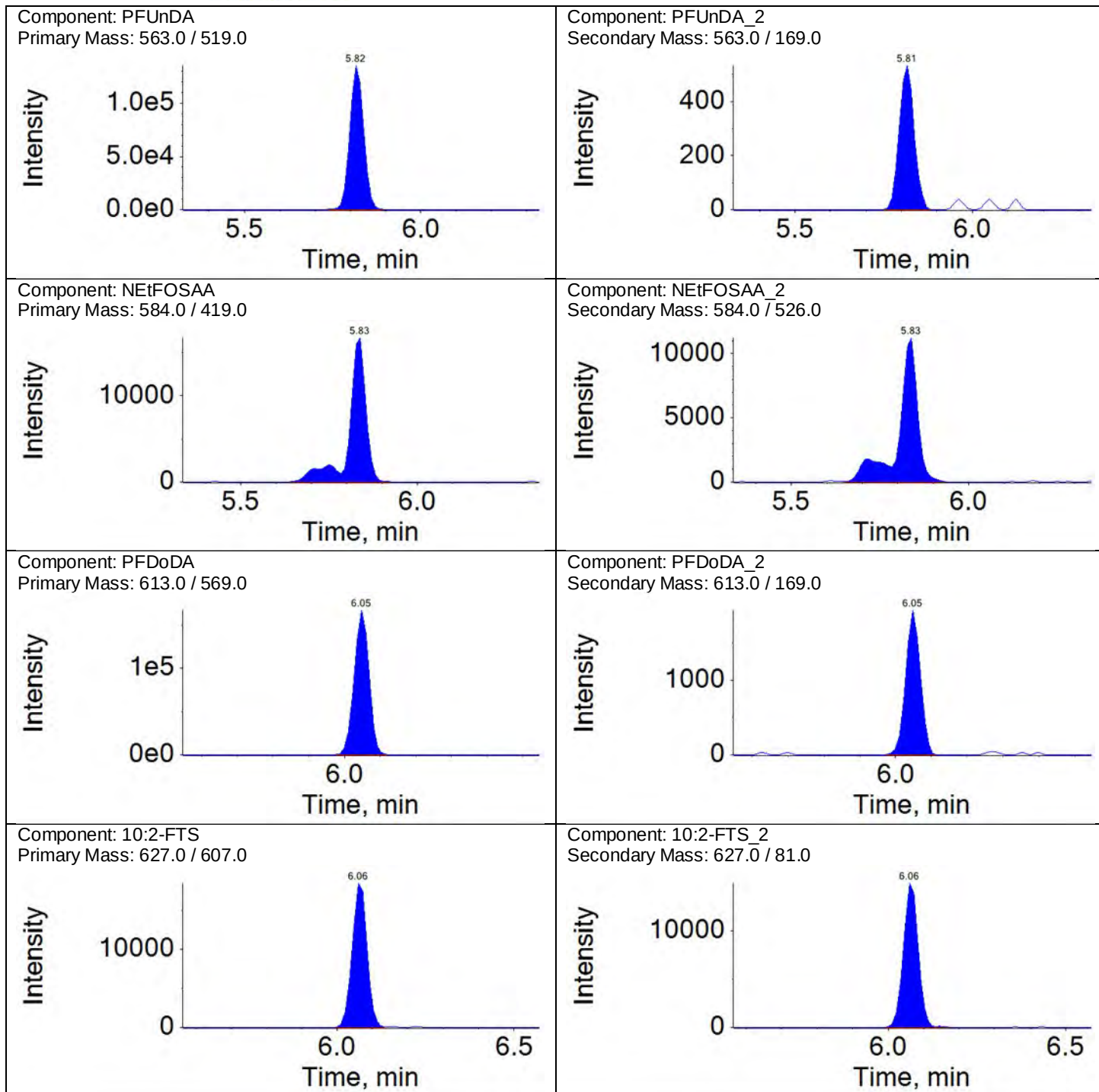
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	166250.13	A	0.3655	0.3695			
PFBS_2	3.81	1.00	61434.35	A	0.3655	0.3695	1	50	
4:2-FTS	4.13	1.00	56074.30	A	0.6383	0.6136			
4:2-FTS_2	4.13	1.00	34408.16	A	0.6383	0.6136	-4	50	
PFHxA	4.16	1.00	390006.26	A	0.0103	0.0099			
PFHxA_2	4.16	1.00	3854.81	A	0.0103	0.0099	-4	50	
PFPeS	4.18	1.10	88012.70	A	0.4976	0.4974			
PFPeS_2	4.18	1.10	43775.32	A	0.4976	0.4974	0	50	
PFHpA	4.55	1.00	393155.85	A	0.0557	0.0555			
PFHpA_2	4.55	1.00	21824.16	M	0.0557	0.0555	0	50	
PFHxS	4.55	1.00	124485.31	M	0.3693	0.3510			
PFHxS_2	4.55	1.00	43693.97	A	0.3693	0.3510	-5	50	
6:2-FTS	4.90	1.00	55151.09	A	0.6625	0.6544			
6:2-FTS_2	4.91	1.00	36092.41	A	0.6625	0.6544	-1	50	
PFHpS	4.91	1.08	131029.41	A	0.3915	0.4044			
PFHpS_2	4.91	1.08	52990.65	A	0.3915	0.4044	3	50	
PFOA	4.92	1.00	408992.65	A	0.0573	0.0570			
PFOA_2	4.92	1.00	23307.23	A	0.0573	0.0570	-1	50	
PFOS	5.24	1.00	137181.43	M	0.2960	0.3006			
PFOS_2	5.24	1.00	41235.40	M	0.2960	0.3006	2	50	
PFNA	5.26	1.00	376585.83	A	0.0201	0.0177			
PFNA_2	5.26	1.00	6676.44	A	0.0201	0.0177	-12	50	
PFNS	5.54	1.06	94448.57	A	0.4794	0.4627			
PFNS_2	5.54	1.06	43699.58	A	0.4794	0.4627	-3	50	
PFDA	5.56	1.00	356261.03	A	0.0075	0.0064			
PFDA_2	5.56	1.00	2278.50	M	0.0075	0.0064	-15	50	
8:2-FTS	5.56	1.00	52676.08	A	0.5380	0.6399			
8:2-FTS_2	5.56	1.00	33705.68	A	0.5380	0.6399	19	50	
NMeFOSAA	5.70	1.00	60912.55	M	0.2305	0.2716			
NMeFOSAA_2	5.70	1.00	16546.59	M	0.2305	0.2716	18	50	
PFDS	5.79	1.10	79486.48	A	0.5356	0.5145			
PFDS_2	5.79	1.10	40894.63	A	0.5356	0.5145	-4	50	
PFUnDA	5.82	1.00	368116.78	A	0.0038	0.0042			
PFUnDA_2	5.81	1.00	1560.66	A	0.0038	0.0042	11	50	
NEtFOSAA	5.83	1.00	56175.38	M	0.7356	0.7568			
NEtFOSAA_2	5.83	1.00	42516.13	M	0.7356	0.7568	3	50	
PFDODA	6.05	1.00	480438.66	A	0.0130	0.0114			
PFDODA_2	6.05	1.00	5496.89	A	0.0130	0.0114	-12	50	
10:2-FTS	6.06	1.09	53244.09	A	0.6989	0.8103			
10:2-FTS_2	6.06	1.09	43141.45	A	0.6989	0.8103	16	50	
PFTTrDA	6.25	1.03	453601.44	A	0.0090	0.0080			
PFTTrDA_2	6.24	1.03	3606.85	M	0.0090	0.0080	-12	50	
PFTeDA	6.43	1.00	333159.05	A	0.0056	0.0056			
PFTeDA_2	6.43	1.00	1878.34	A	0.0056	0.0056	1	50	
PFHxDA	6.73	1.05	160272.72	A	0.0646	0.0649			
PFHxDA_2	6.73	1.05	10399.04	M	0.0646	0.0649	0	50	
PFODA	6.99	1.09	137372.78	A	0.0264	0.0264			
PFODA_2	6.99	1.09	3621.96	A	0.0264	0.0264	0	50	

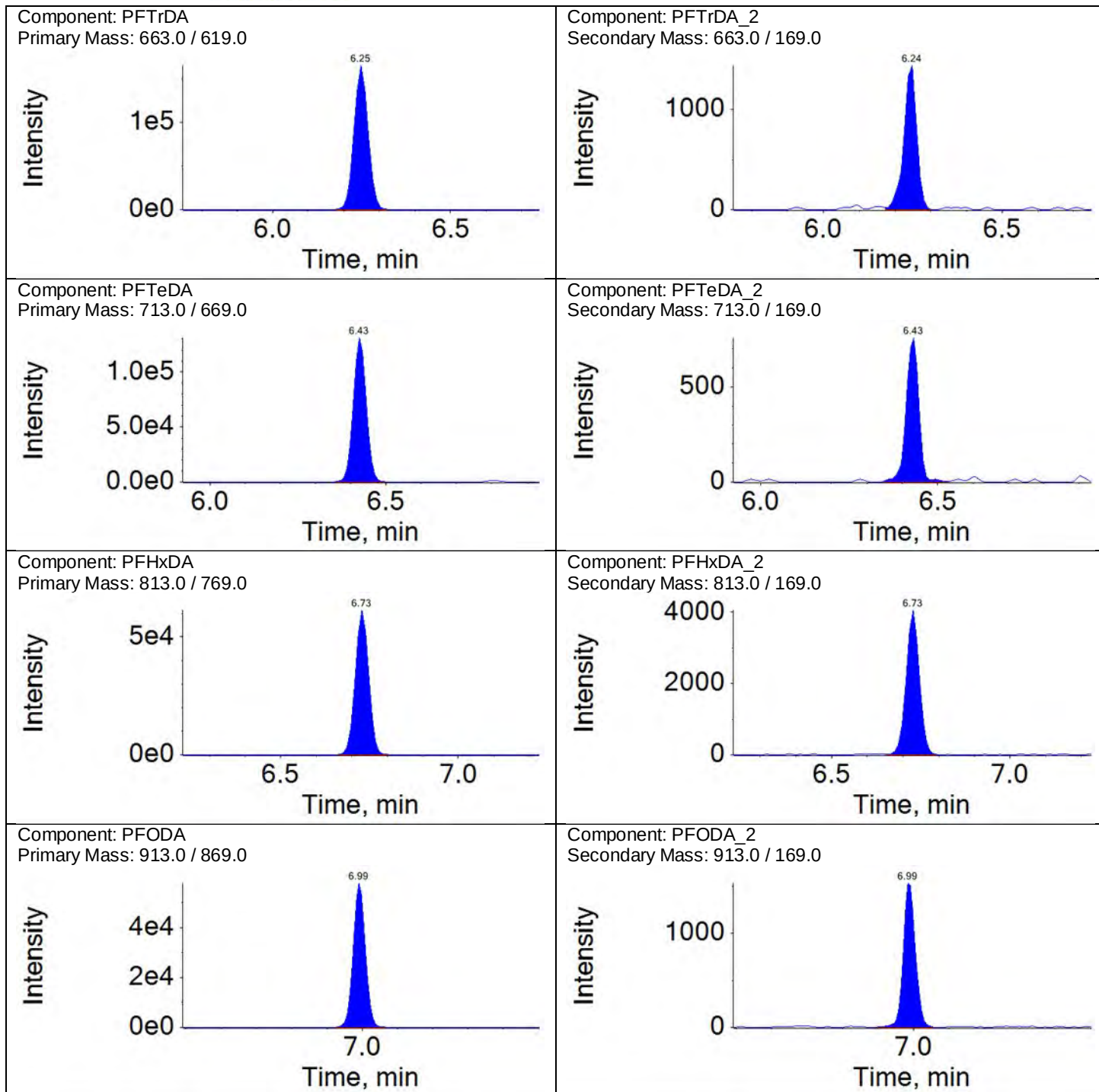






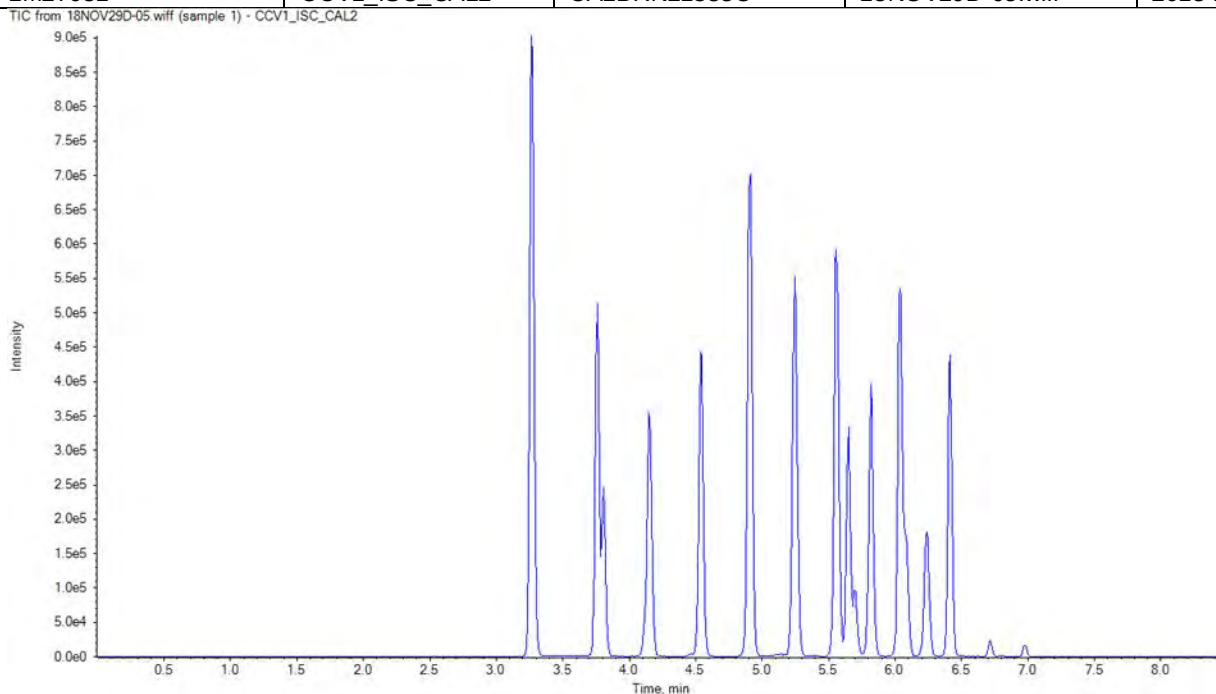






Instrument Sensitivity Check/
Continuing Calibration VerificationICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV1-5 11/29/2018 7:56:19 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18NOV29D-05.wiff	2018-11-29T10:33:38



Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	906425.4	887248.9	2	50	
13C2-PFOA	5.0	495984.0	498501.6	-1	50	
13C4-PFOS	4.8	296261.8	283214.2	5	50	
13C2-PFDA	5.0	451203.0	441790.6	2	50	

APPROVED

By MCD at 8:06 pm, 11/29/18

REVIEWED

By HMK at 9:40 am, 12/5/18

Instrument Sensitivity Check/
Continuing Calibration VerificationICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV1-5 11/29/2018 7:56:19 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV1_ISC_CAL2	CALBRN21833C	18NOV29D-05.wiff	2018-11-29T10:33:38

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	110816.1	10	13C4-PFBA	1032944.8	5.0	0.107	3.26	1.000	0.600	0.588	-2	30	
PFPeA	102438.9	11	13C5-PFPeA	975653.2	5.0	0.105	3.76	1.000	0.600	0.515	-14	30	
PFBS	43167.2	11	13C3-PFBS	442664.0	4.7	0.098	3.81	1.000	0.531	0.473	-11	30	
4:2-FTS	12514.2	11	13C2-4:2-FTS	69056.9	4.7	0.181	4.12	1.000	0.560	0.485	-13	30	
PFHxA	100978.6	11	13C5-PFHxA	694772.3	5.0	0.145	4.15	1.000	0.600	0.583	-3	30	
PFPeS	24883.7	11	13C3-PFBS	442664.0	4.7	0.056	4.17	1.100	0.563	0.569	1	30	
PFHpA	99917.2	12	13C4-PFHpA	548364.3	5.0	0.182	4.54	1.000	0.600	0.562	-6	30	
PFHxS	34610.4	18	13C3-PFHxS	337158.7	4.7	0.103	4.54	1.000	0.547	0.481	-12	30	
6:2-FTS	14994.7	10	13C2-6:2-FTS	61226.3	4.8	0.245	4.90	1.000	0.569	0.639	12	30	
PFHpS	32932.0	11	13C3-PFHxS	337158.7	4.7	0.098	4.90	1.080	0.571	0.487	-15	30	
PFOA	107677.1	11	13C8-PFOA	1050891.3	5.0	0.102	4.91	1.000	0.600	0.529	-12	30	
PFOS	39254.5	21	13C8-PFOS	325457.1	4.8	0.121	5.24	1.000	0.555	0.506	-9	30	
PFNA	93355.4	12	13C9-PFNA	645112.4	5.0	0.145	5.25	1.000	0.600	0.555	-8	30	
PFNS	23416.1	11	13C8-PFOS	325457.1	4.8	0.072	5.54	1.060	0.576	0.454	-21	30	
PFDA	83849.1	11	13C6-PFDA	824275.9	5.0	0.102	5.56	1.000	0.600	0.576	-4	30	
8:2-FTS	15129.8	10	13C2-8:2-FTS	56119.6	4.8	0.270	5.56	1.000	0.575	0.508	-12	30	
PFOSA	69416.0	11	13C8-PFOSA	658157.0	5.0	0.105	5.65	1.000	0.600	0.534	-11	30	
NMeFOSAA	16285.3	17	d3-NMeFOSAA	192349.4	5.0	0.085	5.70	1.000	0.600	0.540	-10	30	
PFDS	22930.4	11	13C8-PFOS	325457.1	4.8	0.070	5.79	1.110	0.578	0.559	-3	30	
PFUnDA	94649.2	11	13C7-PFUnDA	586091.6	5.0	0.161	5.82	1.000	0.600	0.577	-4	30	
NEtFOSAA	15976.2	22	d5-NEtFOSAA	148667.1	5.0	0.107	5.83	1.000	0.600	0.523	-13	30	
PFDODA	124243.3	12	13C2-PFDODA	1129756.8	5.0	0.110	6.04	1.000	0.600	0.602	0	30	
10:2-FTS	14919.7	12	13C2-8:2-FTS	56119.6	4.8	0.266	6.05	1.090	0.578	0.586	1	30	
NMePFOSAE	36174.1	11	d7-NMePFOSAE	257961.3	5.0	0.140	6.09	1.000	0.600	0.590	-2	30	
NMePFOSA	8301.9	12	d3-NMePFOSA	85320.8	5.0	0.097	6.10	1.000	0.600	0.516	-14	30	
PFDoS	11172.3	11	13C8-PFOS	325457.1	4.8	0.034	6.20	1.180	0.581	0.493	-15	30	
NEtPFOSAE	36969.5	11	d9-NEtPFOSAE	229198.1	5.0	0.161	6.25	1.000	0.600	0.580	-3	30	
NEtPFOSA	7677.3	12	d5-NEtPFOSA	69372.1	5.0	0.111	6.26	1.000	0.600	0.496	-17	30	
PFTTrDA	122778.8	11	13C2-PFDODA	1129756.8	5.0	0.109	6.23	1.030	0.600	0.655	9	30	
PFTeDA	89123.1	10	13C2-PFTeDA	840112.8	5.0	0.106	6.41	1.000	0.600	0.601	0	30	
PFHxDA	45160.5	11	13C2-PFTeDA	840112.8	5.0	0.054	6.71	1.050	0.600	0.615	2	30	
PFOA	35571.7	10	13C2-PFTeDA	840112.8	5.0	0.042	6.98	1.090	0.600	0.564	-6	30	

**Instrument Sensitivity Check/
Continuing Calibration Verification**

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV1-5 11/29/2018 7:56:19 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 8:06 pm, 11/29/18

REVIEWED
By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV1 ISC CAL2		Data File:		18NOV29D-05.wiff
Sample ID:	CALBRN21833C		Acquis Date:		2018-11-29T10:33:38
Sample Type:	Quality Control		Instrument:		LM27631
Vial Position:	4		Acquis Method:		18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:		18NOV29DCCV1-5
QMethod File:	18AUG20QM		ICAL Name:		18NOV28DCAL
Batch Number:	N/A		Operator:		MCD7824
Sample Wt.:	1.00000		Dilution Factor:		1.00
Sample Vol.:	1.000		Prep Factor:		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV28DCAL-08

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	906425.4	887248.9	2	50	
13C2-PFOA	5.0	495984.0	498501.6	-1	50	
13C4-PFOS	4.8	296261.8	283214.2	5	50	
13C2-PFDA	5.0	451203.0	441790.6	2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1032944.8	13C3-PFBA	906425.4	1.140	5.000	5.084	102	70-130	
E13C5-PFPeA	975653.2	13C3-PFBA	906425.4	1.076	5.000	5.026	101	70-130	
E13C3-PFBS	442664.0	13C3-PFBA	906425.4	0.488	4.650	4.659	100	70-130	
E13C2-4:2-FTS	69056.9	13C2-PFOA	495984.0	0.139	4.670	4.798	103	70-130	
E13C5-PFHxA	694772.3	13C2-PFOA	495984.0	1.401	5.000	5.145	103	70-130	
E13C3-PFHxS	337158.7	13C2-PFOA	495984.0	0.680	4.730	5.328	113	70-130	
E13C4-PFHpA	548364.3	13C2-PFOA	495984.0	1.106	5.000	5.080	102	70-130	
E13C2-6:2-FTS	61226.3	13C2-PFOA	495984.0	0.123	4.750	5.167	109	70-130	
E13C8-PFOA	1050891.3	13C2-PFOA	495984.0	2.119	5.000	5.832	117	70-130	
E13C8-PFOS	325457.1	13C4-PFOS	296261.8	1.099	4.780	4.959	104	70-130	
E13C9-PFNA	645112.4	13C4-PFOS	296261.8	2.178	5.000	4.783	96	70-130	
E13C6-PFDA	824275.9	13C2-PFDA	451203.0	1.827	5.000	5.151	103	70-130	
E13C2-8:2-FTS	56119.6	13C2-PFDA	451203.0	0.124	4.790	5.346	112	70-130	
E13C8-PFOSA	658157.0	13C2-PFDA	451203.0	1.459	5.000	5.352	107	70-130	
Ed3-NMeFOSAA	192349.4	13C2-PFDA	451203.0	0.426	5.000	5.413	108	70-130	
E13C7-PFUnDA	586091.6	13C2-PFDA	451203.0	1.299	5.000	5.490	110	70-130	
Ed5-NEtFOSAA	148667.1	13C2-PFDA	451203.0	0.329	5.000	5.870	117	70-130	
E13C2-PFDoDA	1129756.8	13C2-PFDA	451203.0	2.504	5.000	5.261	105	70-130	
Ed7-NMePFOSAE	257961.3	13C2-PFDA	451203.0	0.572	5.000	4.941	99	70-130	
Ed3-NMePFOSA	85320.8	13C2-PFDA	451203.0	0.189	5.000	5.118	102	70-130	
Ed9-NEtPFOSAE	229198.1	13C2-PFDA	451203.0	0.508	5.000	5.150	103	70-130	
Ed5-NEtPFOSA	69372.1	13C2-PFDA	451203.0	0.154	5.000	5.342	107	70-130	
E13C2-PFTeDA	840112.8	13C2-PFDA	451203.0	1.862	5.000	5.152	103	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CCV1_ISC_CAL2

Instrument Name: LM27631

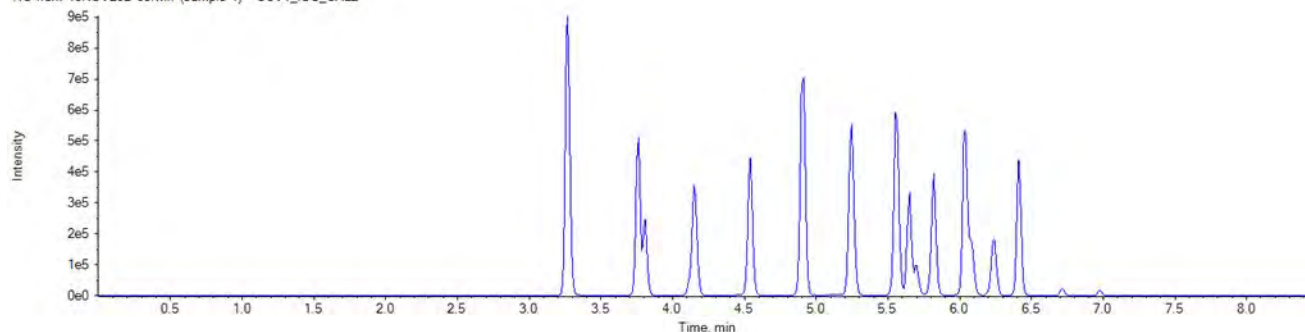
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	110816.1		A	13C4-PFBA	3.27	1032944.8	0.107	0.588
PFPeA	3.76	1.000	102438.9		A	13C5-PFPeA	3.76	975653.2	0.105	0.515
PFBS	3.81	1.000	43167.2		A	13C3-PFBS	3.81	442664.0	0.098	0.473
4:2-FTS	4.12	1.000	12514.2		A	13C2-4:2-FTS	4.12	69056.9	0.181	0.485
PFHxA	4.15	1.000	100978.6		A	13C5-PFHxA	4.15	694772.3	0.145	0.583
PFPeS	4.17	1.100	24883.7		A	13C3-PFBS	3.81	442664.0	0.056	0.569
PFHpA	4.54	1.000	99917.2		A	13C4-PFHpA	4.54	548364.3	0.182	0.562
PFHxS	4.54	1.000	34610.4		M	13C3-PFHxS	4.54	337158.7	0.103	0.481
6:2-FTS	4.90	1.000	14994.7		A	13C2-6:2-FTS	4.90	61226.3	0.245	0.639
PFHpS	4.90	1.080	32932.0		A	13C3-PFHxS	4.54	337158.7	0.098	0.487
PFOA	4.91	1.000	107677.1		A	13C8-PFOA	4.91	1050891.3	0.102	0.529
PFOS	5.24	1.000	39254.5		M	13C8-PFOS	5.24	325457.1	0.121	0.506
PFNA	5.25	1.000	93355.4		A	13C9-PFNA	5.25	645112.4	0.145	0.555
PFNS	5.54	1.060	23416.1		A	13C8-PFOS	5.24	325457.1	0.072	0.454
PFDA	5.56	1.000	83849.1		A	13C6-PFDA	5.56	824275.9	0.102	0.576
8:2-FTS	5.56	1.000	15129.8		A	13C2-8:2-FTS	5.56	56119.6	0.270	0.508
PFOSA	5.65	1.000	69416.0		A	13C8-PFOSA	5.65	658157.0	0.105	0.534
NMeFOSAA	5.70	1.000	16285.3		M	d3-NMeFOSAA	5.70	192349.4	0.085	0.540
PFDS	5.79	1.110	22930.4		A	13C8-PFOS	5.24	325457.1	0.070	0.559
PFUnDA	5.82	1.000	94649.2		A	13C7-PFUnDA	5.82	586091.6	0.161	0.577
NEtFOSAA	5.83	1.000	15976.2		M	d5-NEtFOSAA	5.83	148667.1	0.107	0.523
PFDODA	6.04	1.000	124243.3		A	13C2-PFDODA	6.04	1129756.8	0.110	0.602
10:2-FTS	6.05	1.090	14919.7		A	13C2-8:2-FTS	5.56	56119.6	0.266	0.586
NMePFOSAE	6.09	1.000	36174.1		A	d7-NMePFOSAE	6.08	257961.3	0.140	0.590
NMePFOSA	6.10	1.000	8301.9		A	d3-NMePFOSA	6.09	85320.8	0.097	0.516
PFDoS	6.20	1.180	11172.3		A	13C8-PFOS	5.24	325457.1	0.034	0.493
NEtPFOSAE	6.25	1.000	36969.5		A	d9-NEtPFOSAE	6.23	229198.1	0.161	0.580
NEtPFOSA	6.26	1.000	7677.3		A	d5-NEtPFOSA	6.25	69372.1	0.111	0.496
PFTDA	6.23	1.030	122778.8		A	13C2-PFDODA	6.04	1129756.8	0.109	0.655
PFTeDA	6.41	1.000	89123.1		A	13C2-PFTeDA	6.41	840112.8	0.106	0.601
PFHxDA	6.71	1.050	45160.5		A	13C2-PFTeDA	6.41	840112.8	0.054	0.615
PFODA	6.98	1.090	35571.7		A	13C2-PFTeDA	6.41	840112.8	0.042	0.564

Total Ion Chromatogram

TIC from 18NOV29D-05.wiff (sample 1) - CCV1_ISC_CAL2



APPROVED

By MCD at 8:06 pm, 11/29/18

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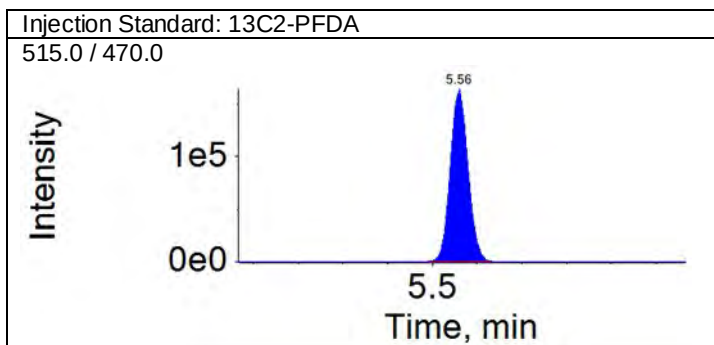
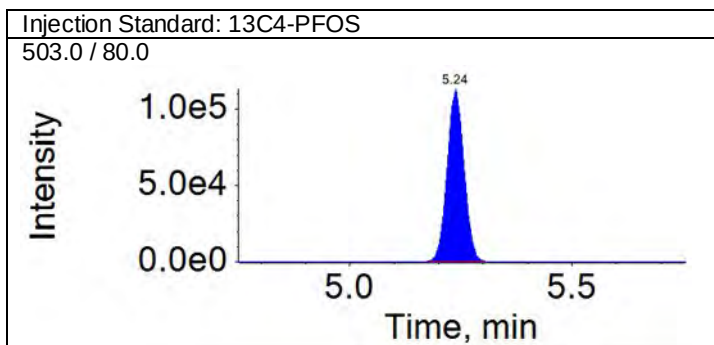
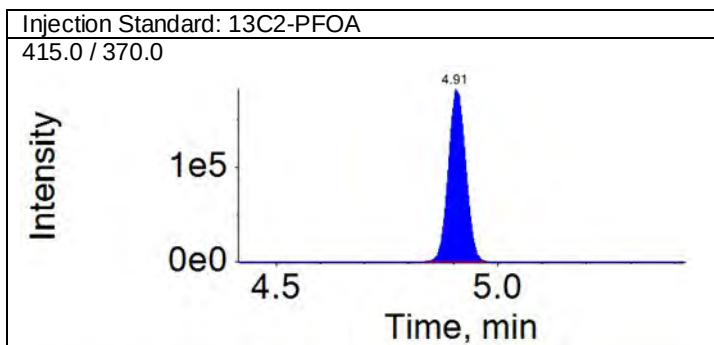
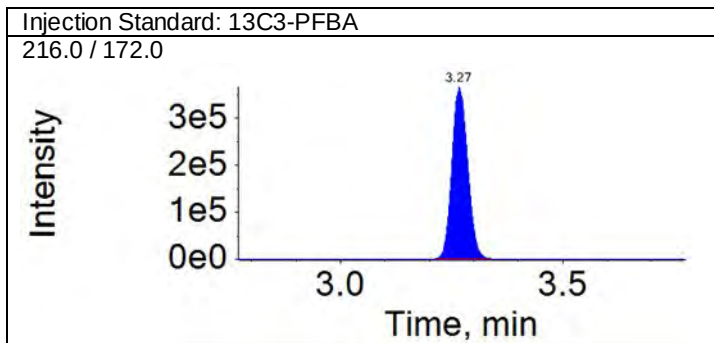
REVIEWED

By HMK at 9:40 am, 12/5/18

Page 2 of 17

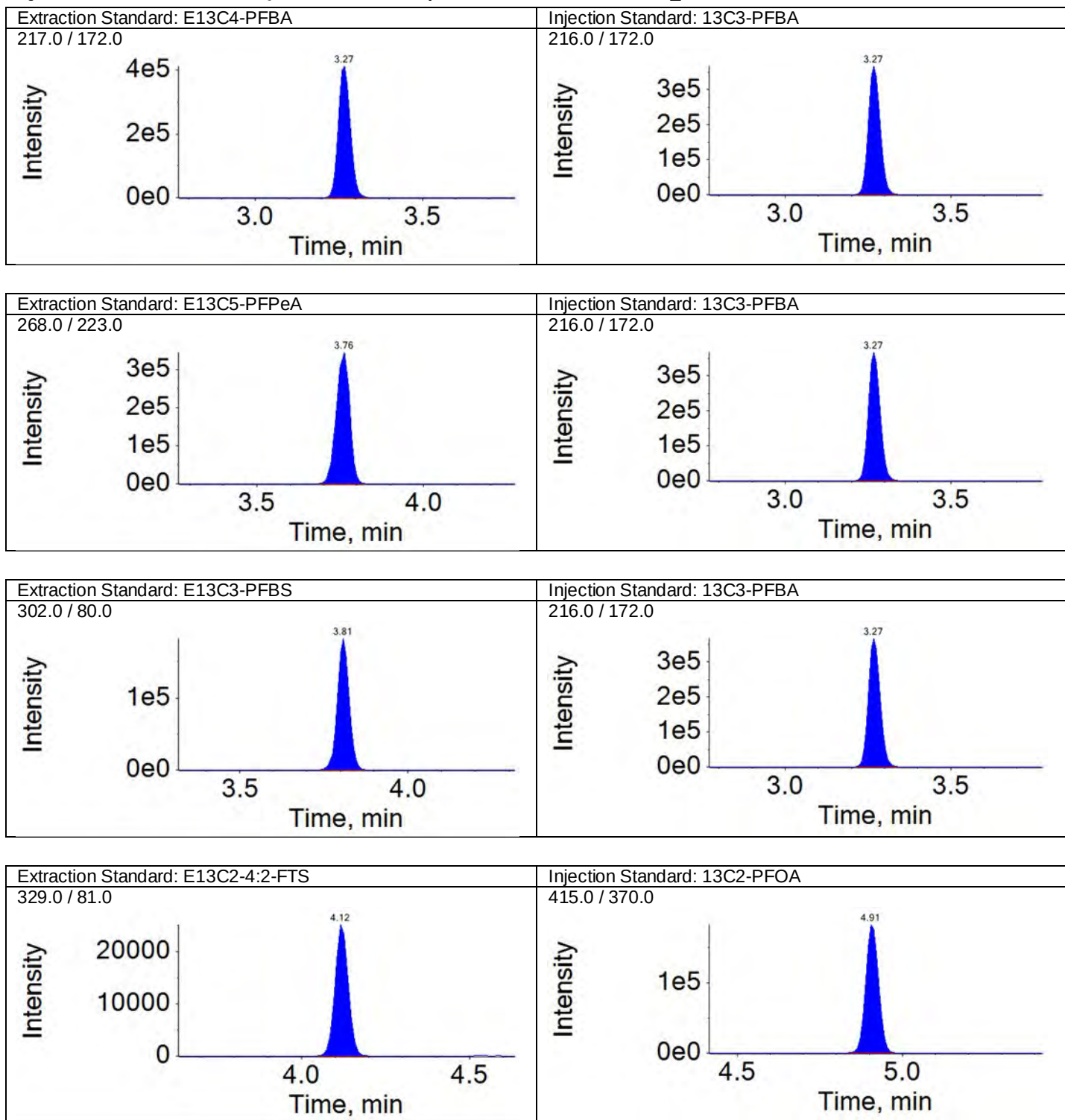
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QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam



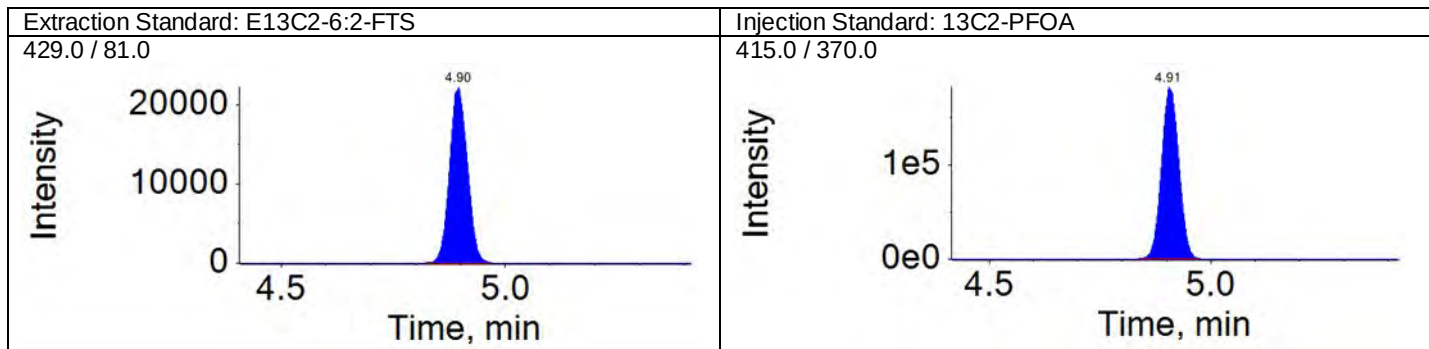
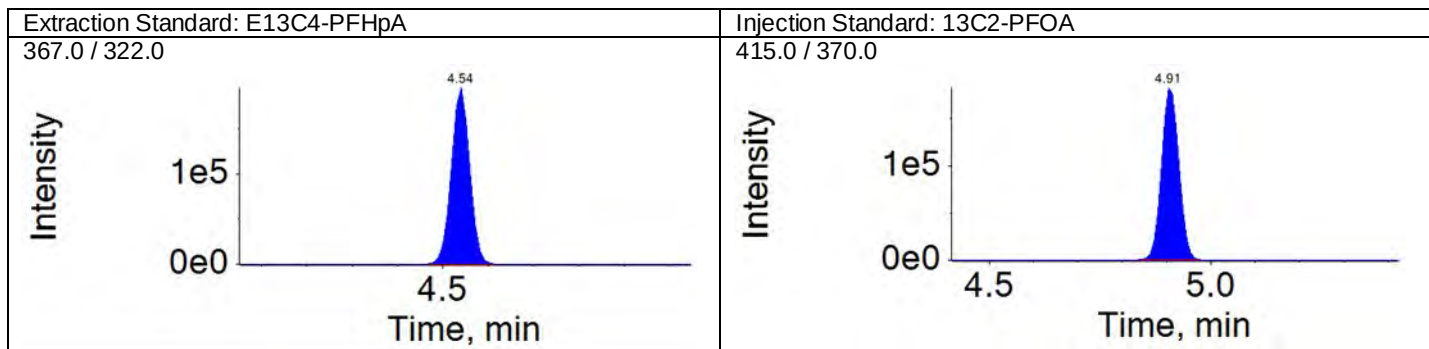
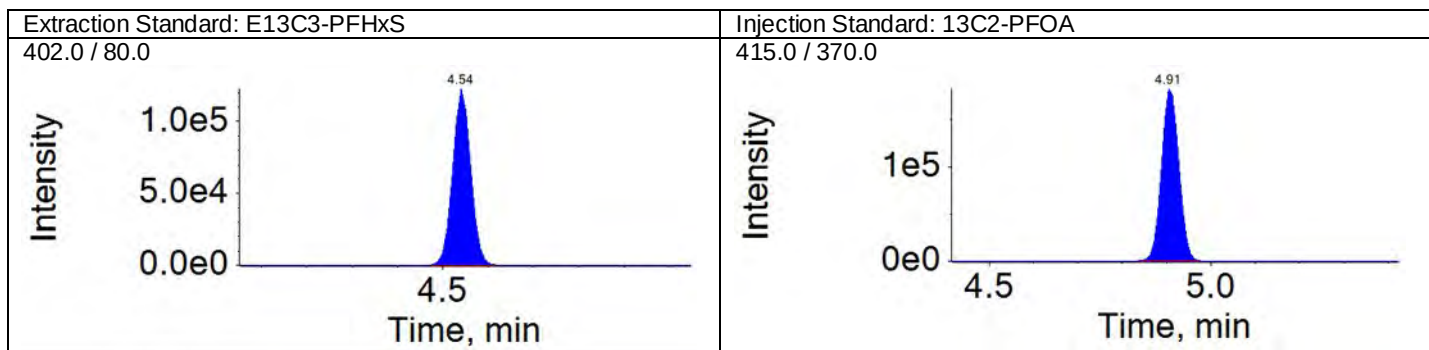
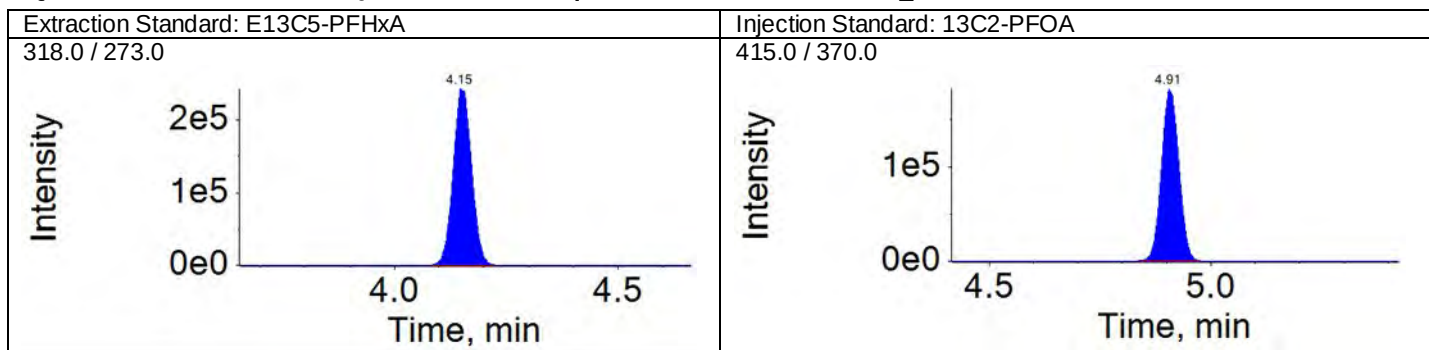
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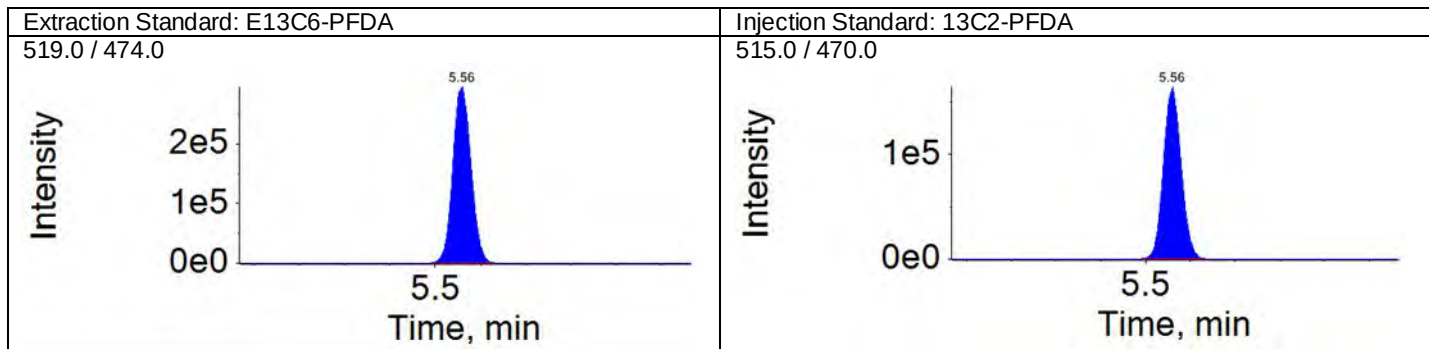
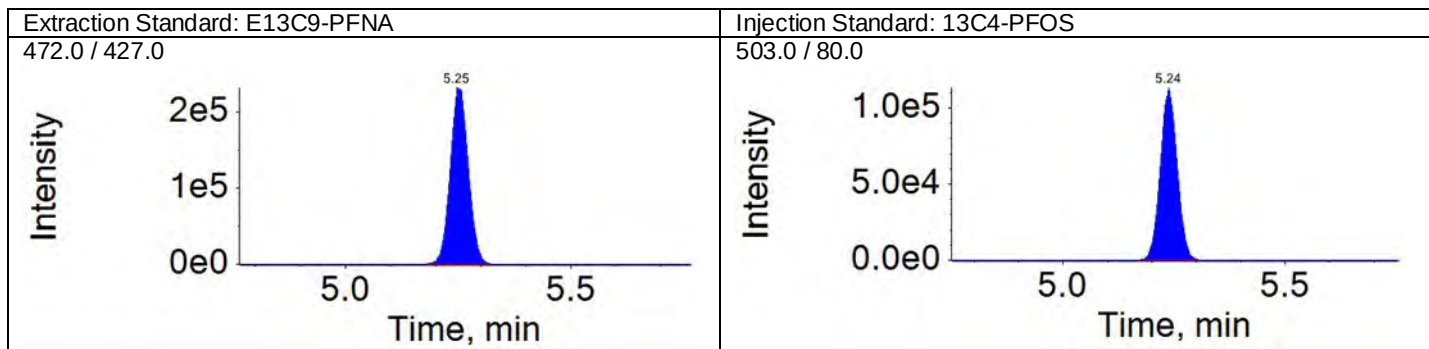
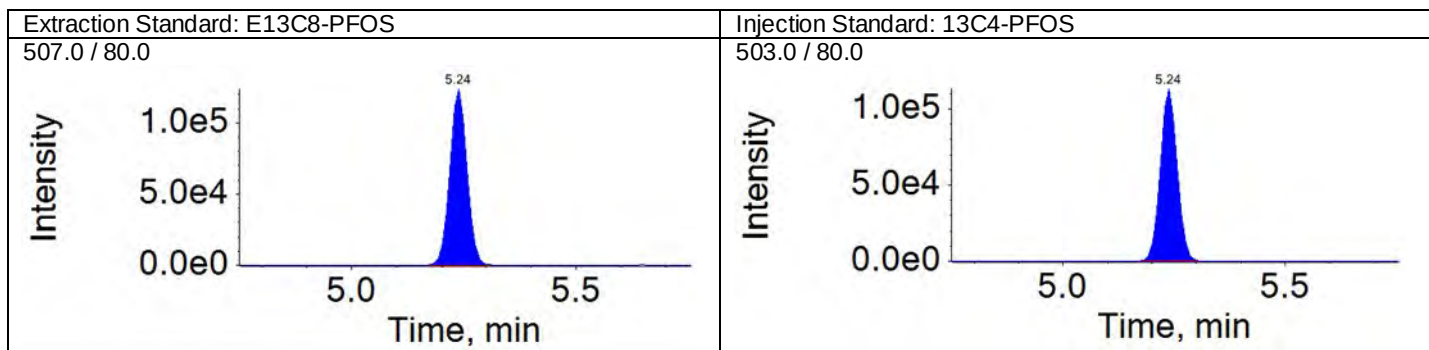
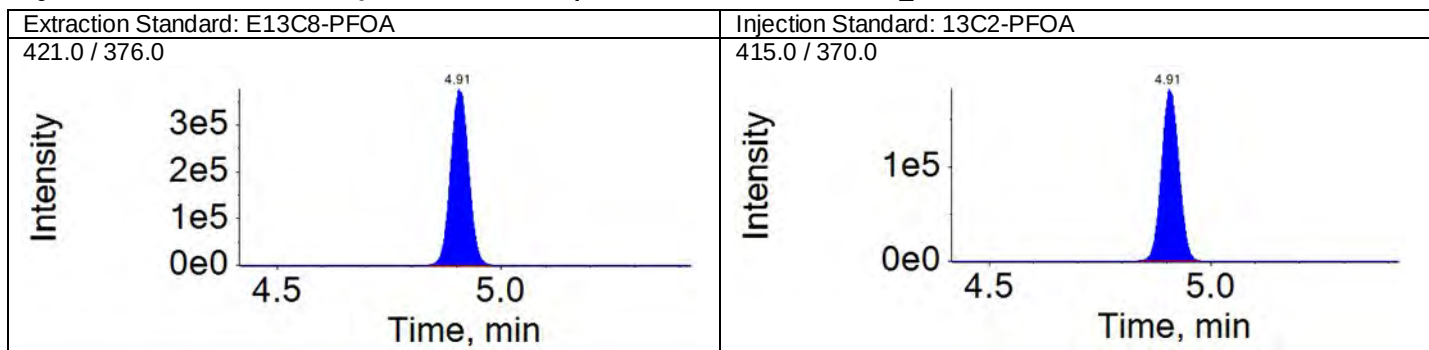
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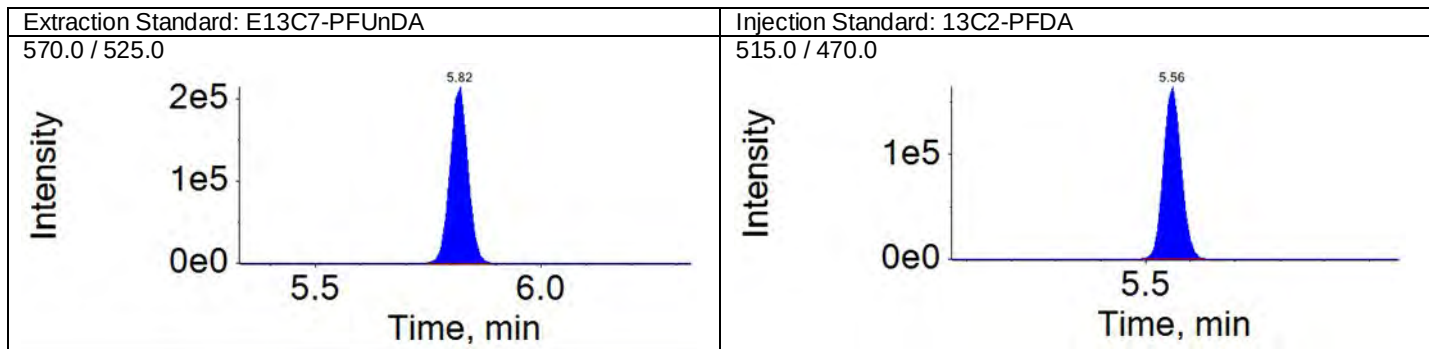
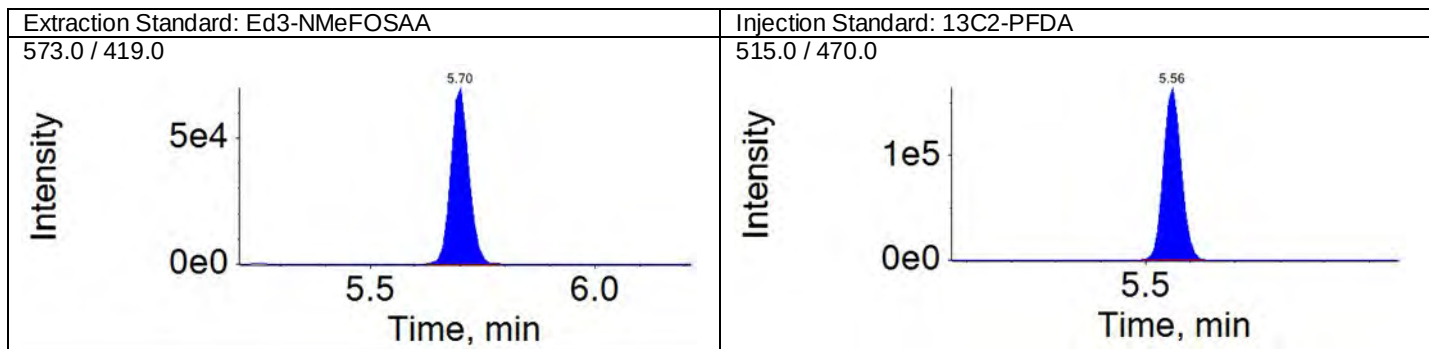
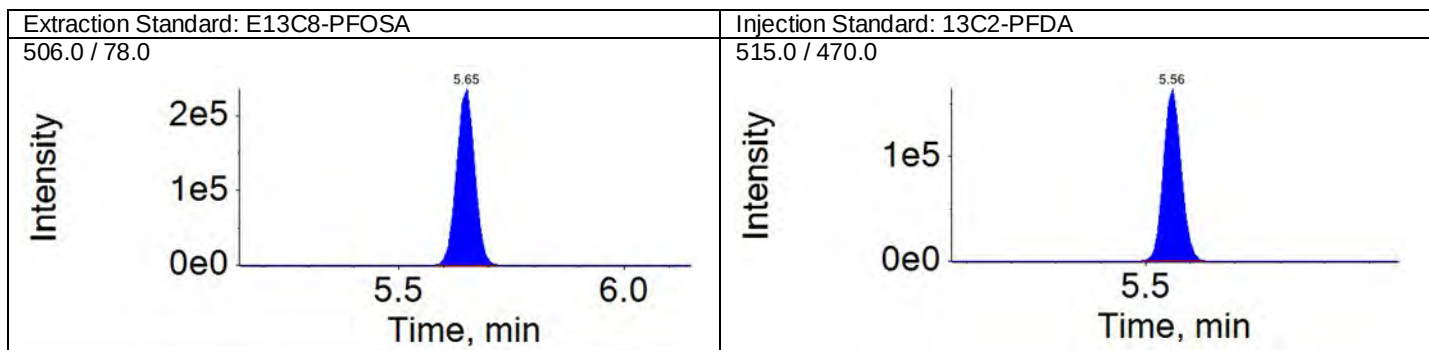
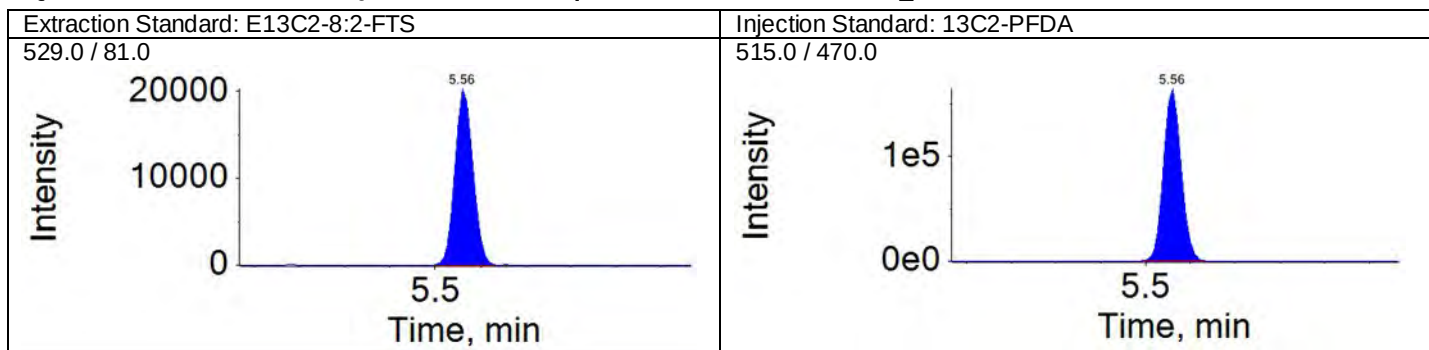
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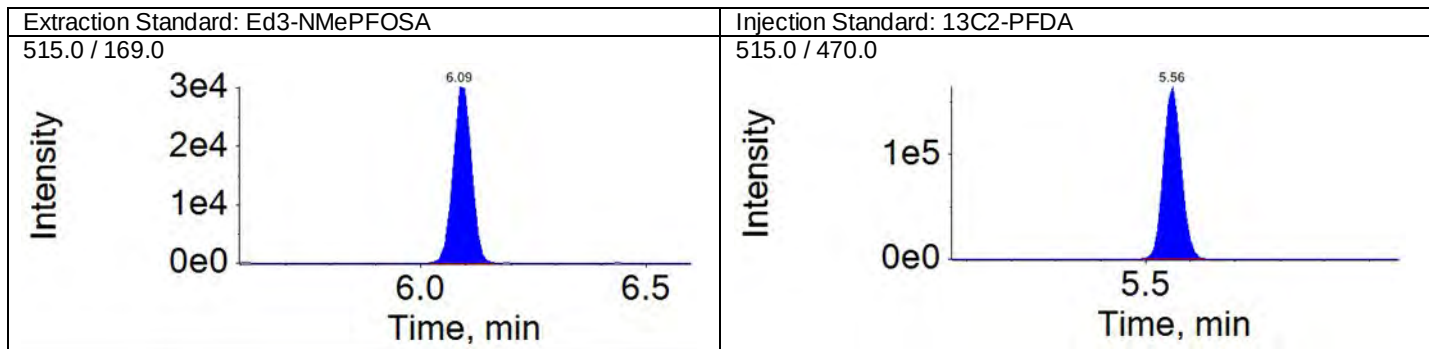
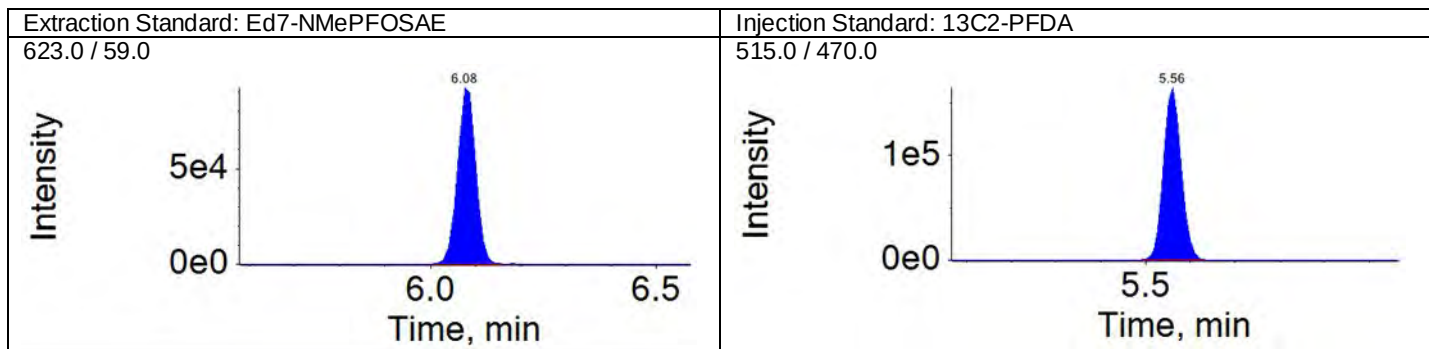
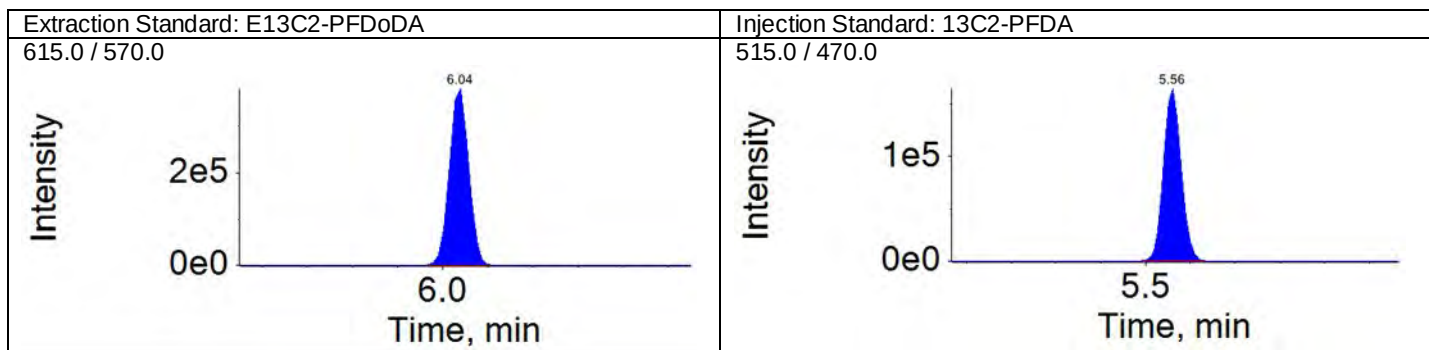
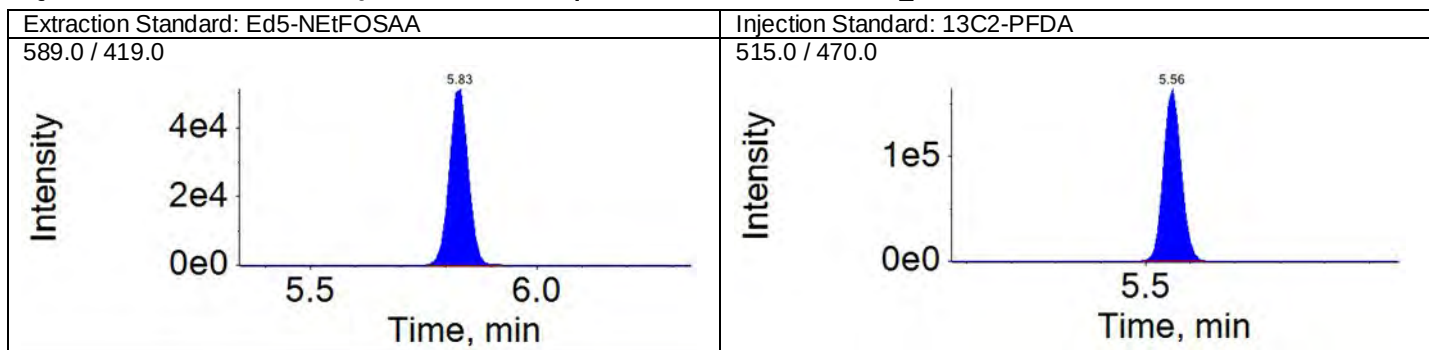
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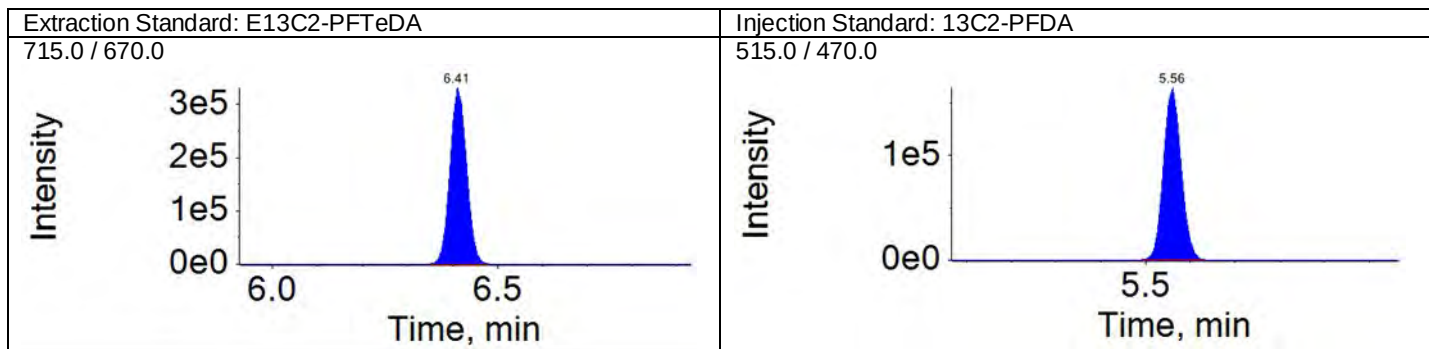
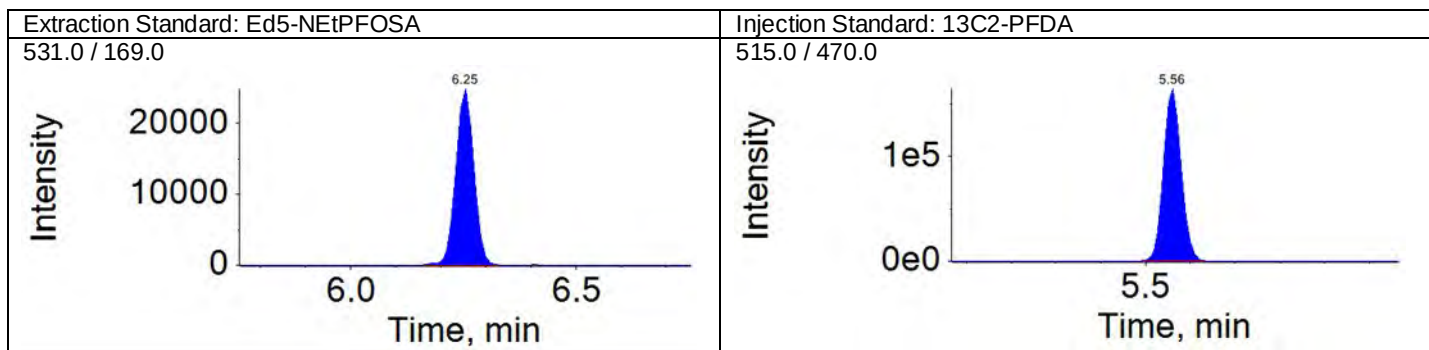
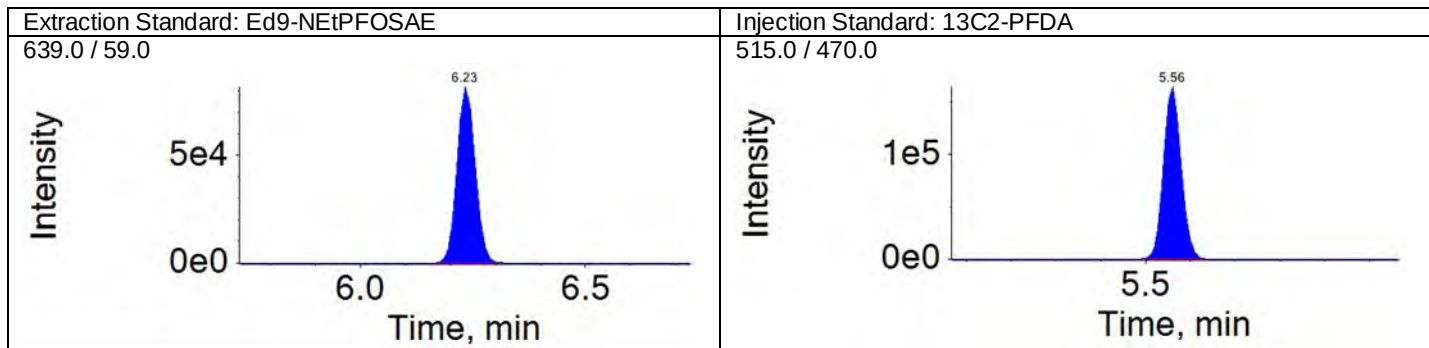
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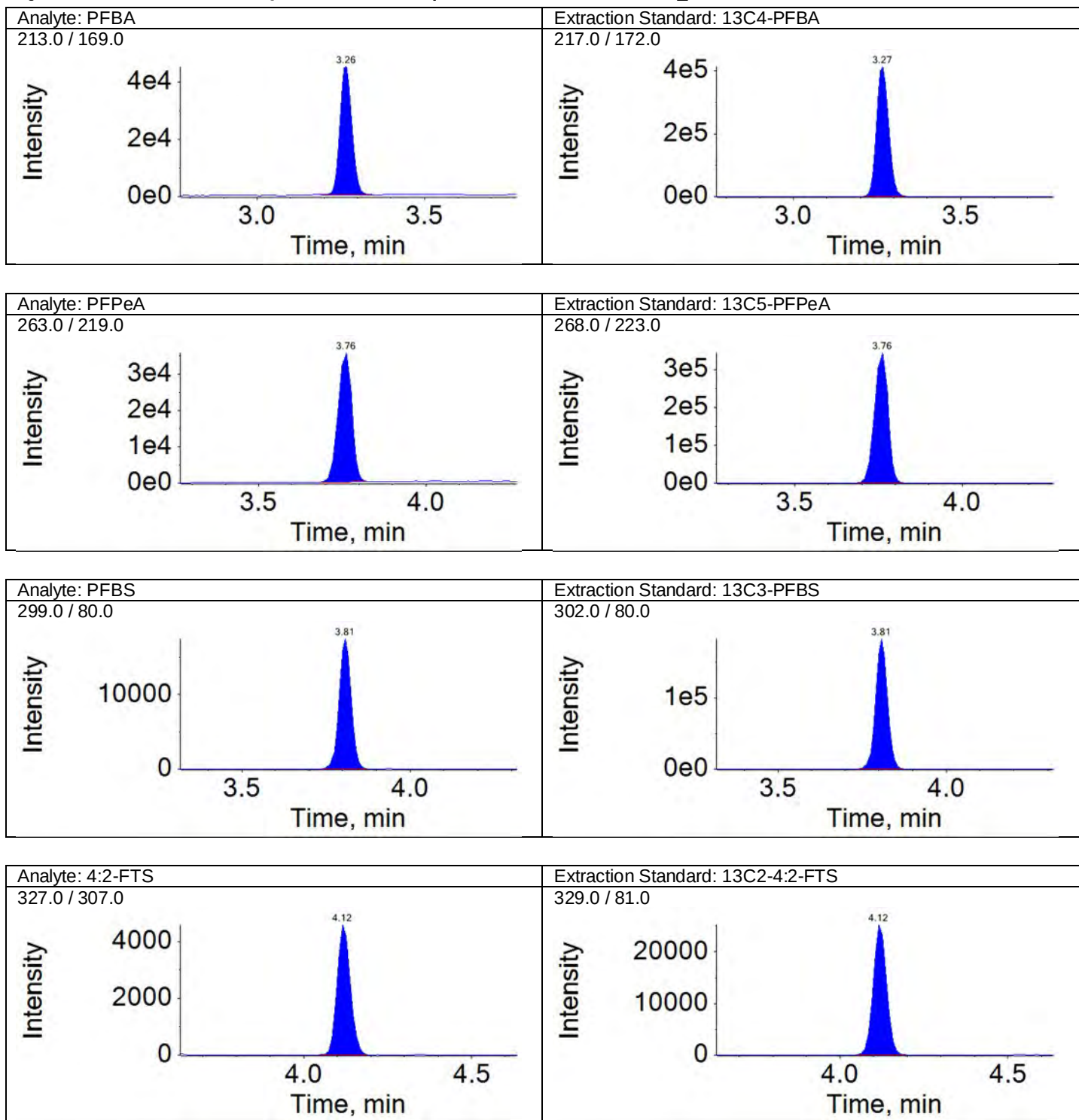
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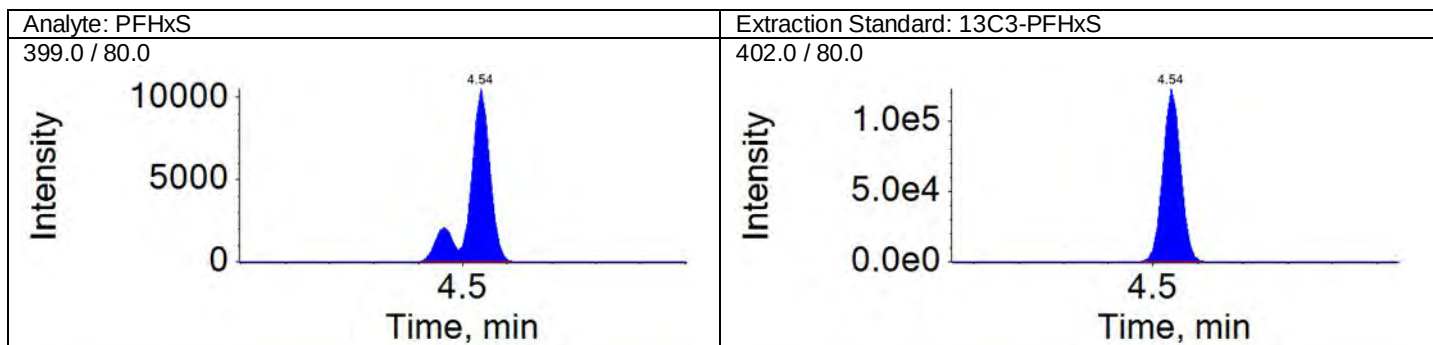
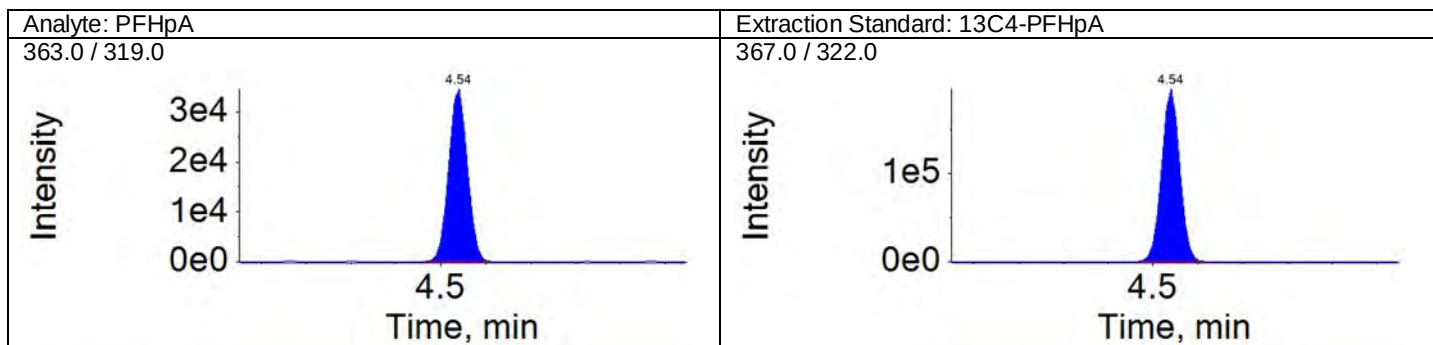
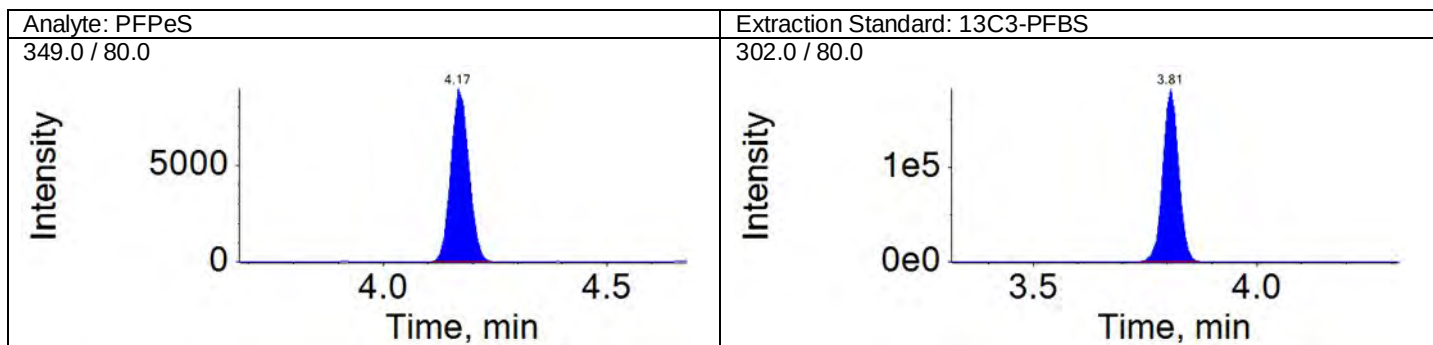
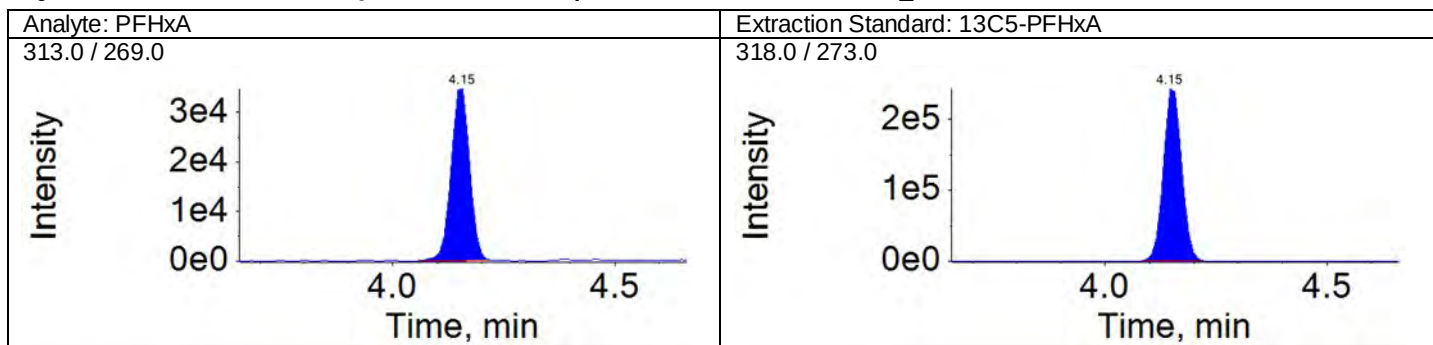
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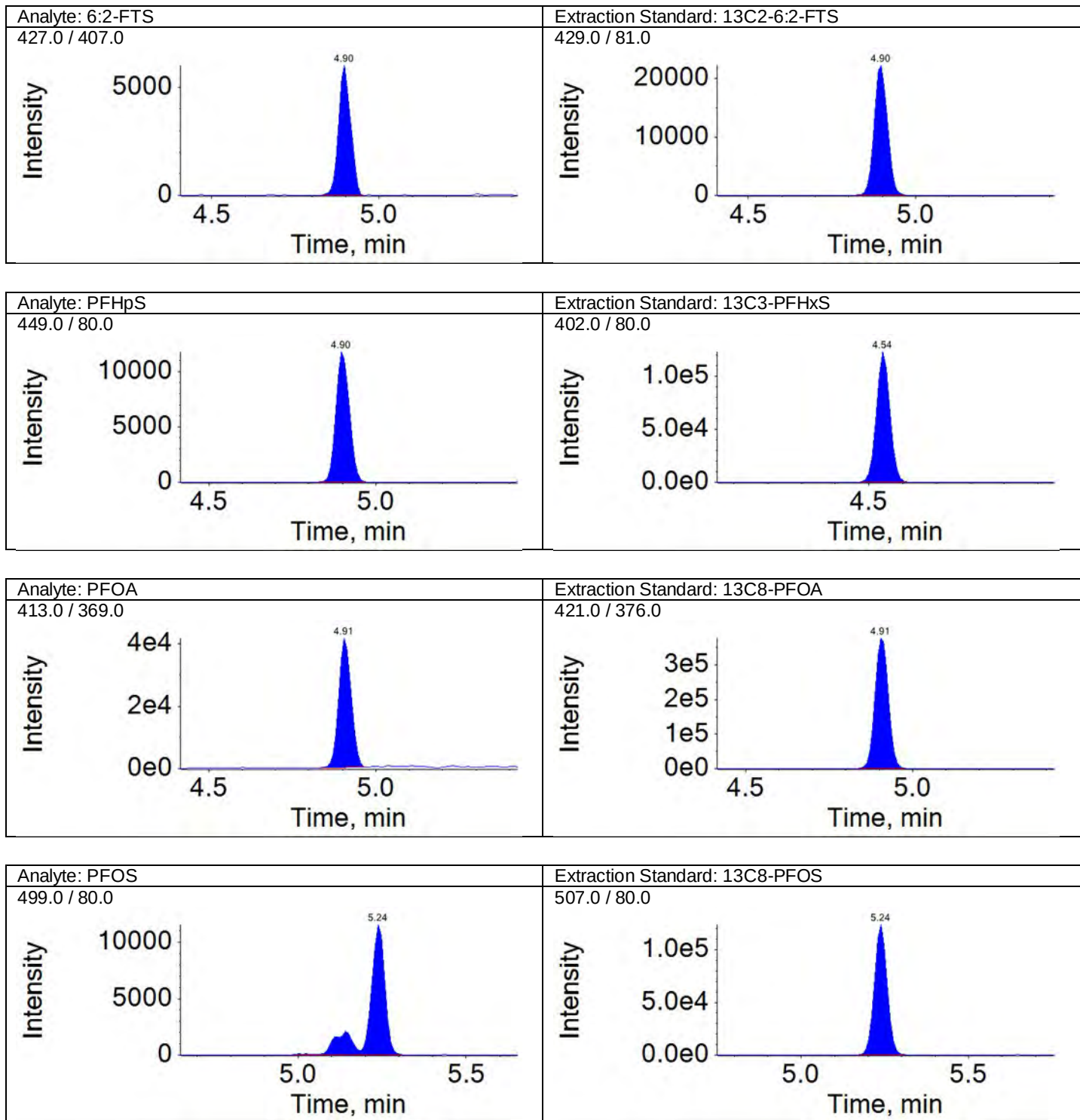
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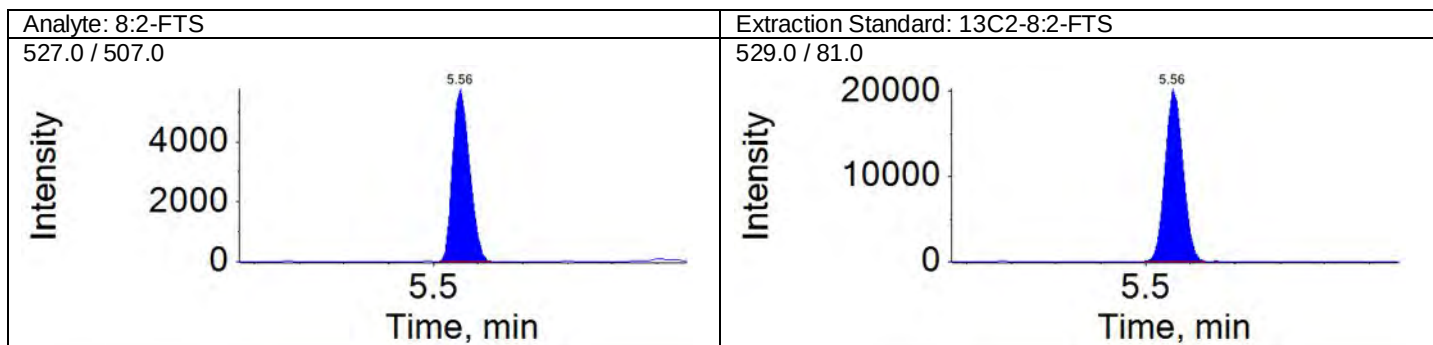
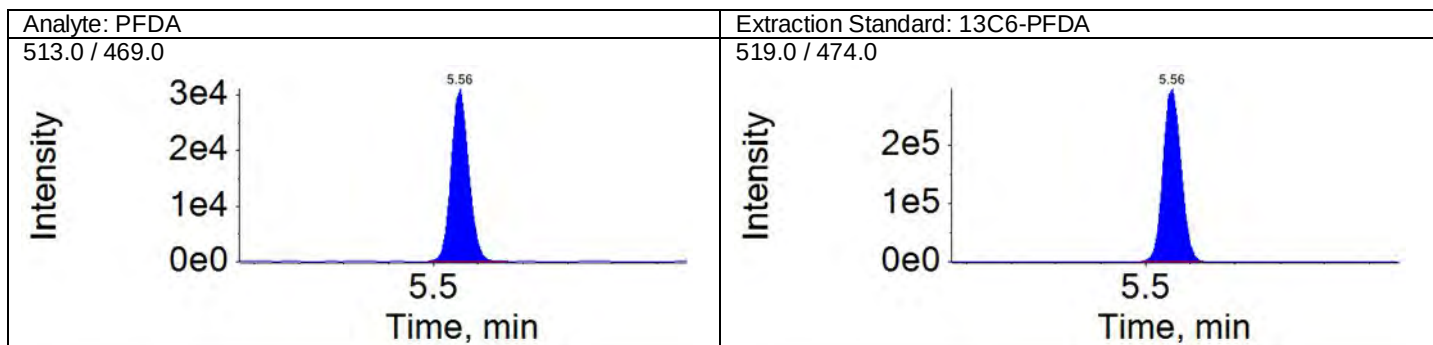
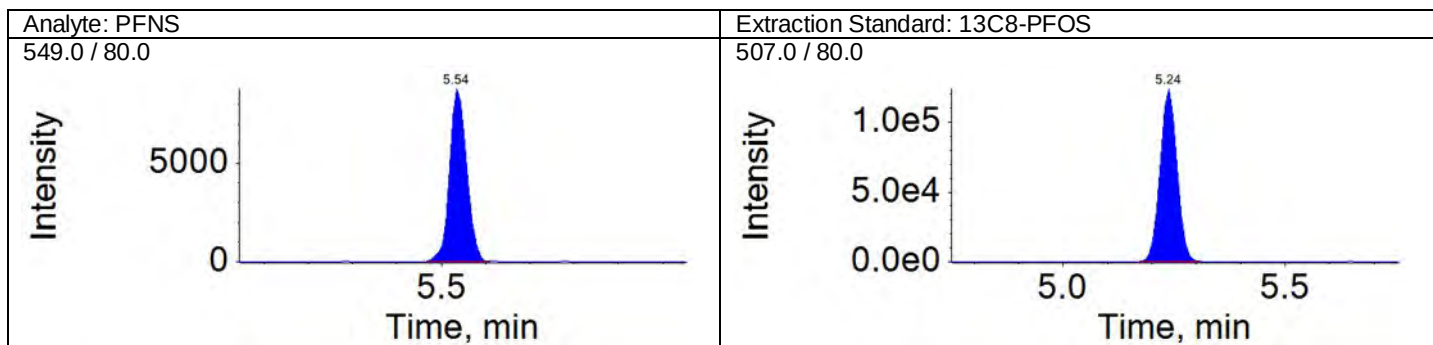
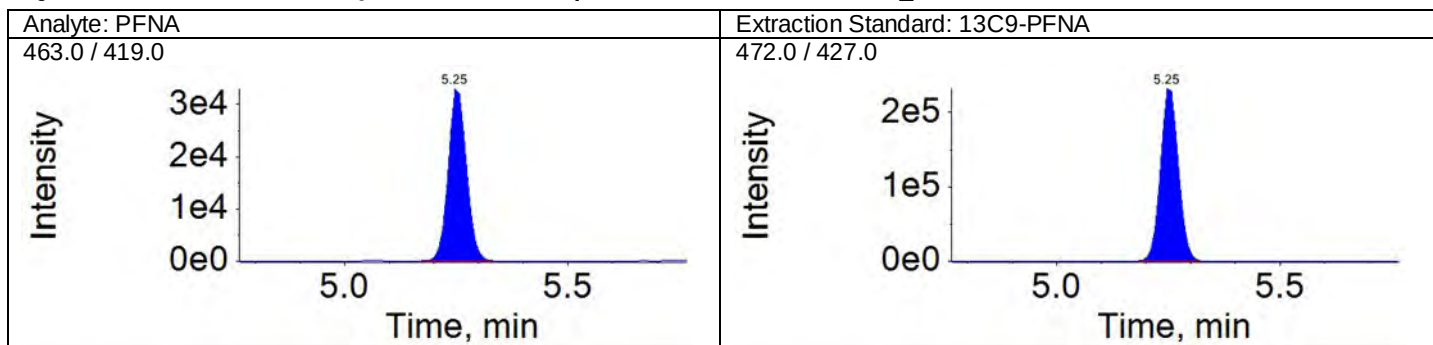
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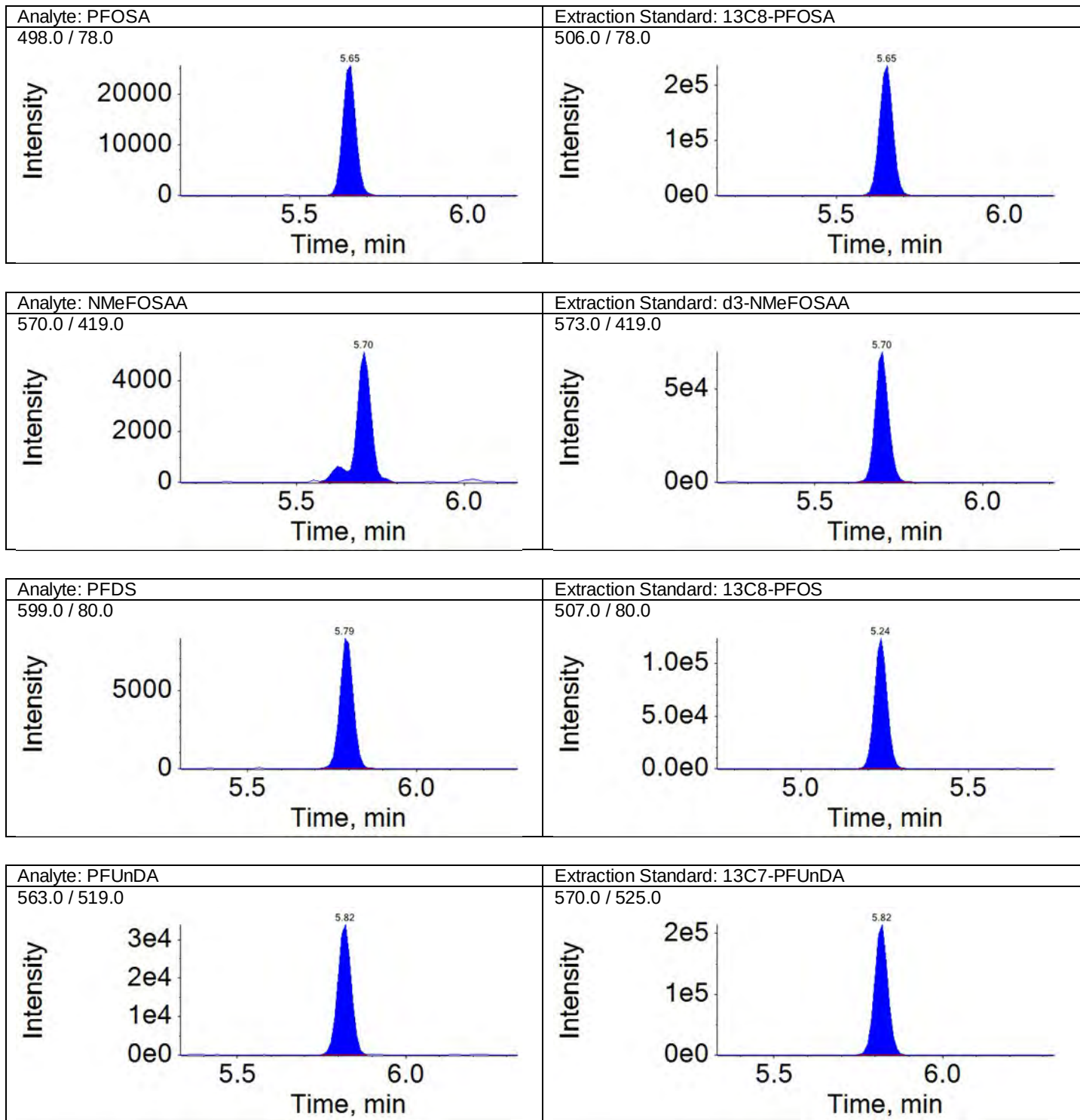
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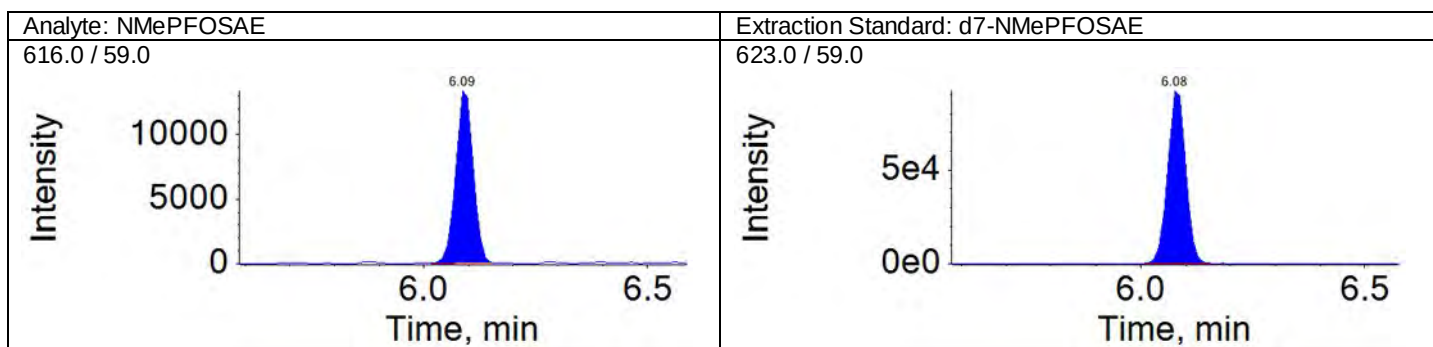
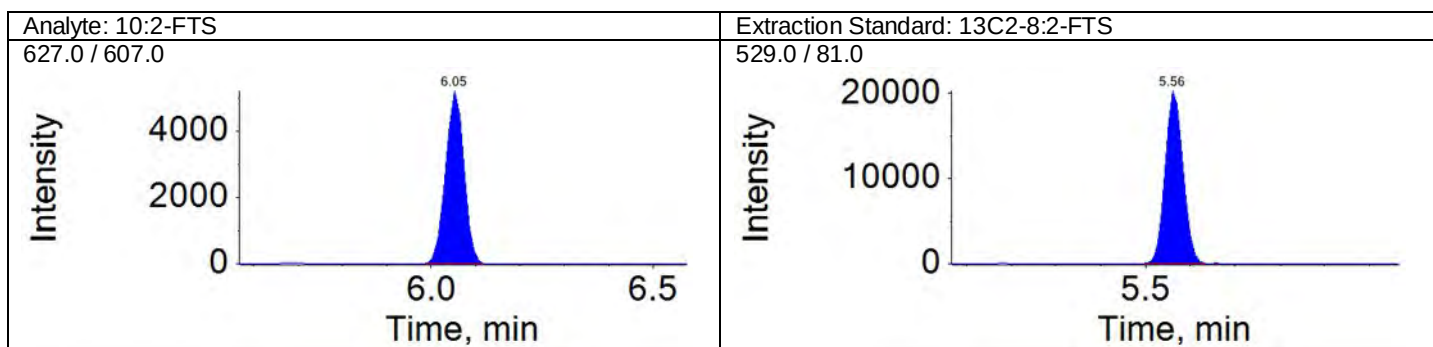
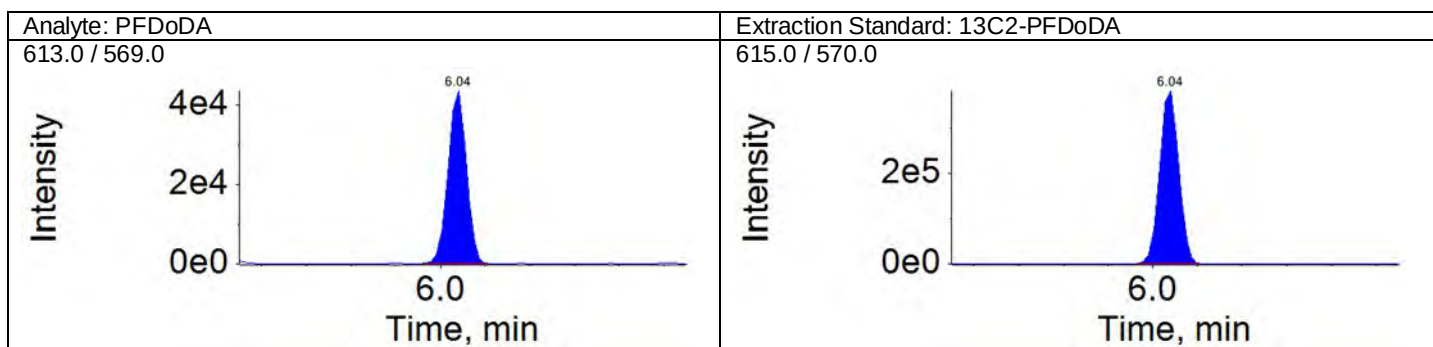
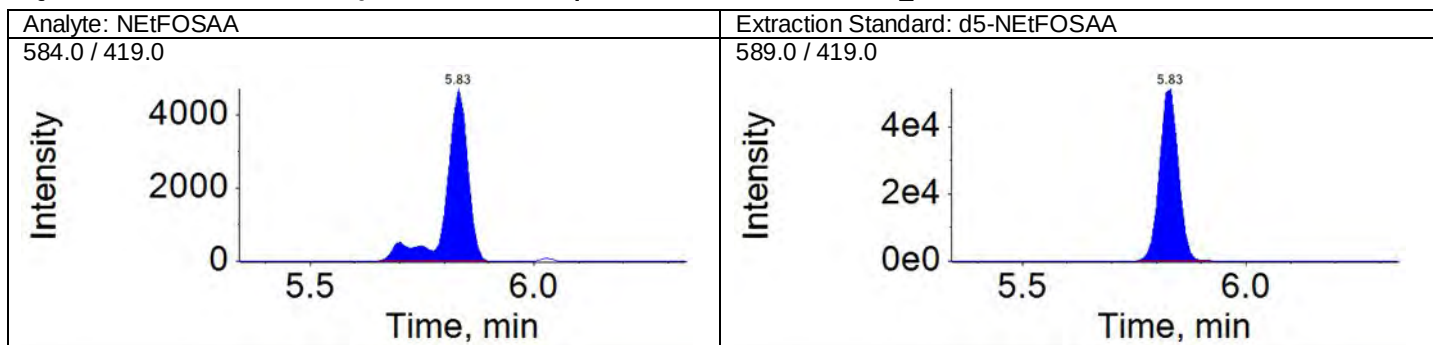
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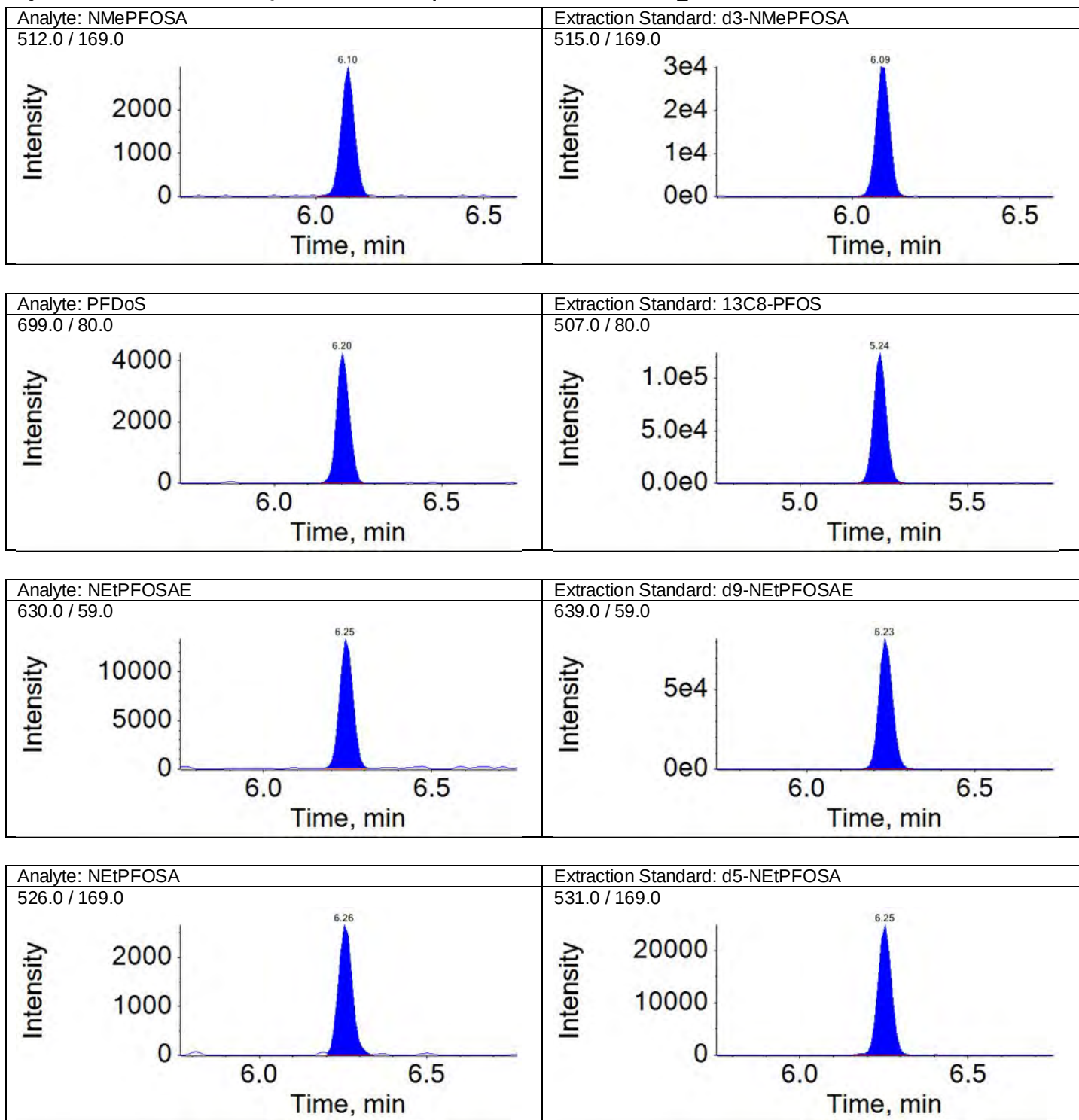
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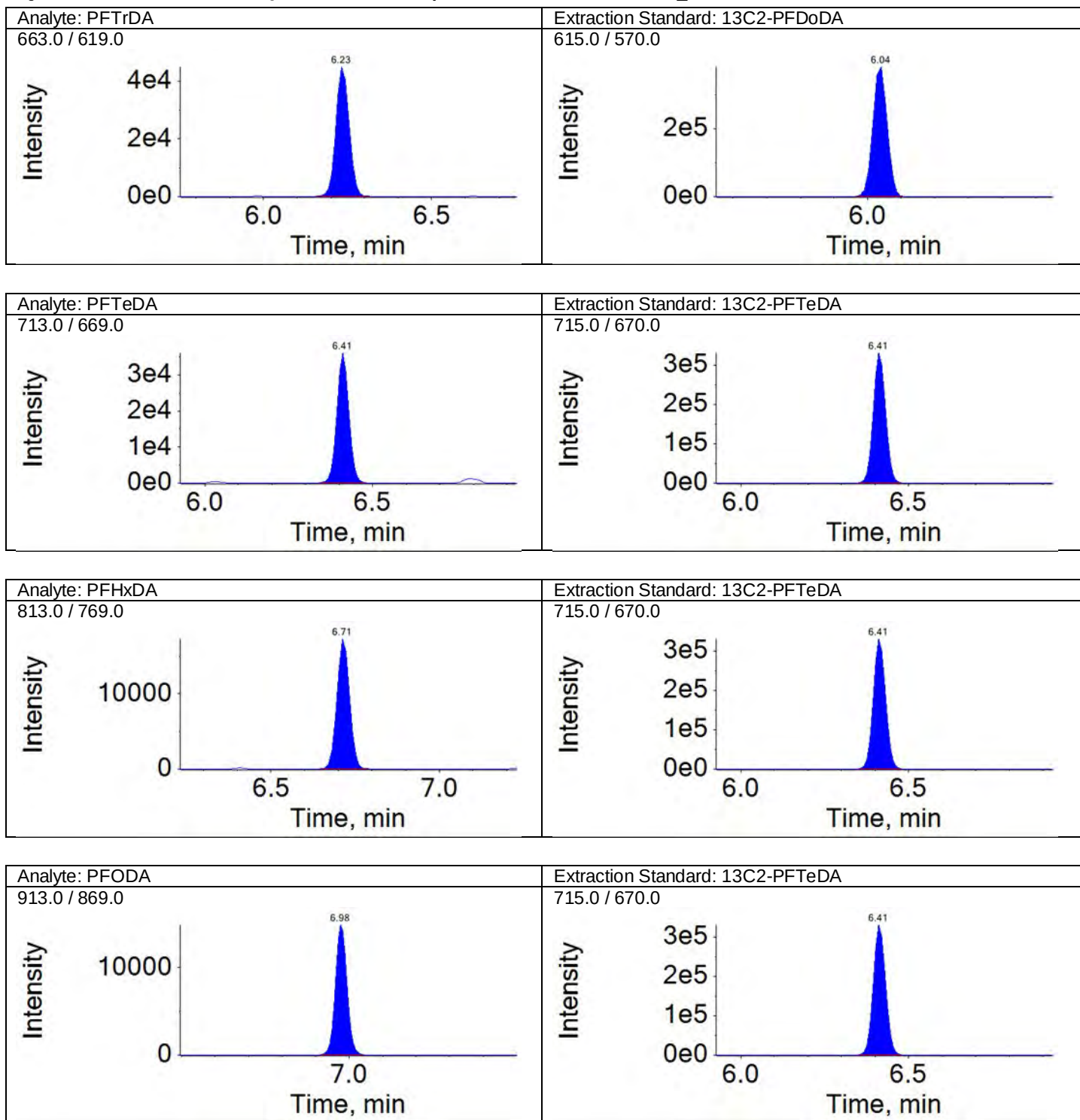
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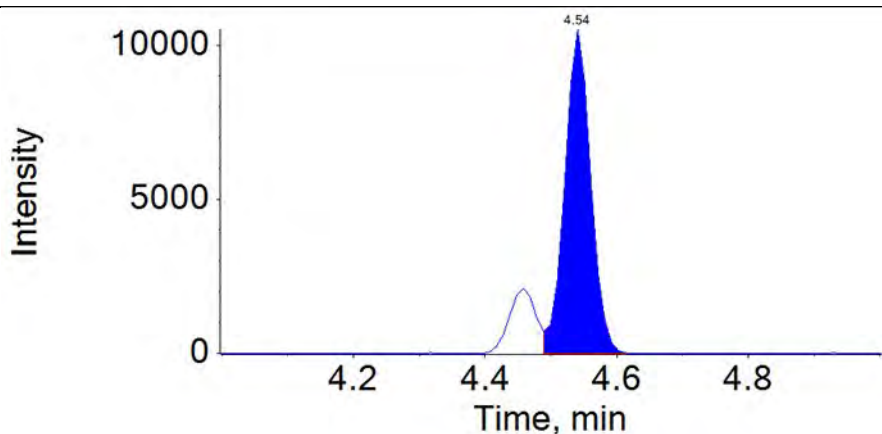
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Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM

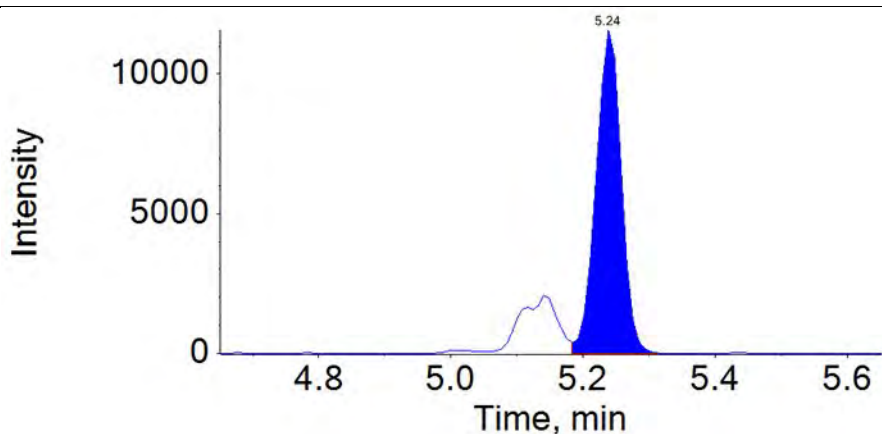
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Component Name:
PFHxS
RT (min.):
4.54
Peak Area:
28783.5
Mass Range:
399.0 / 80.0
File Name:
18NOV29D-05.wiff
Sample Name:
CCV1_ISC_CAL2



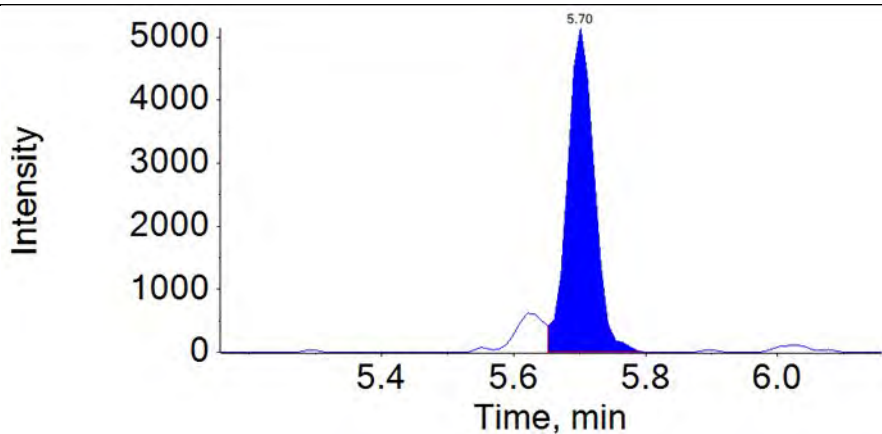
Integration Comment: incorrect integration

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
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Mass Range:
499.0 / 80.0
File Name:
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Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

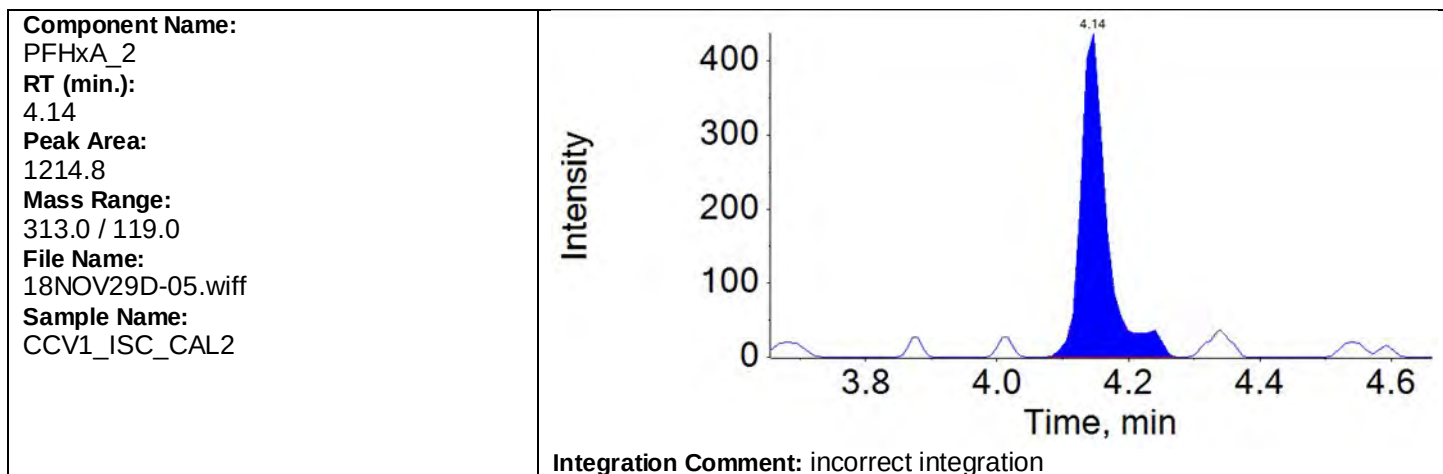
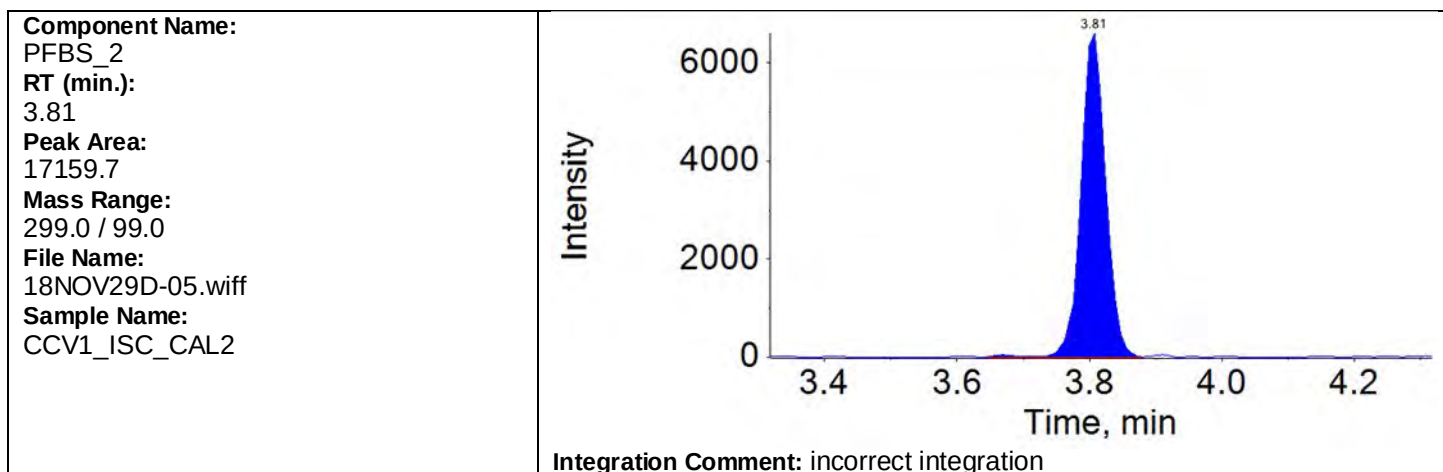
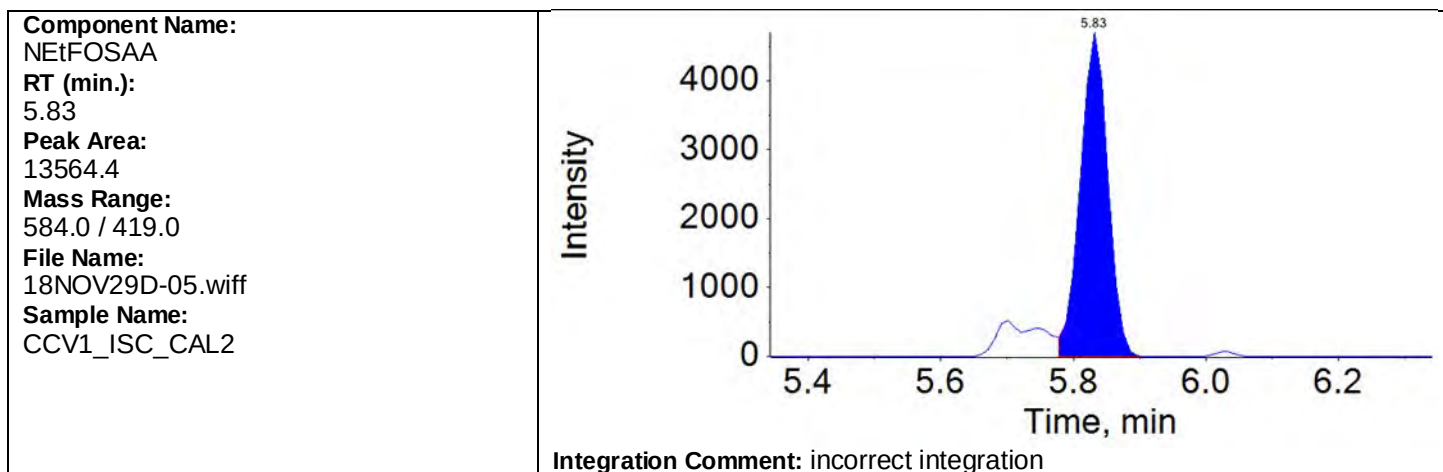
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NMeFOSAA
RT (min.):
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Peak Area:
14468.0
Mass Range:
570.0 / 419.0
File Name:
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Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM

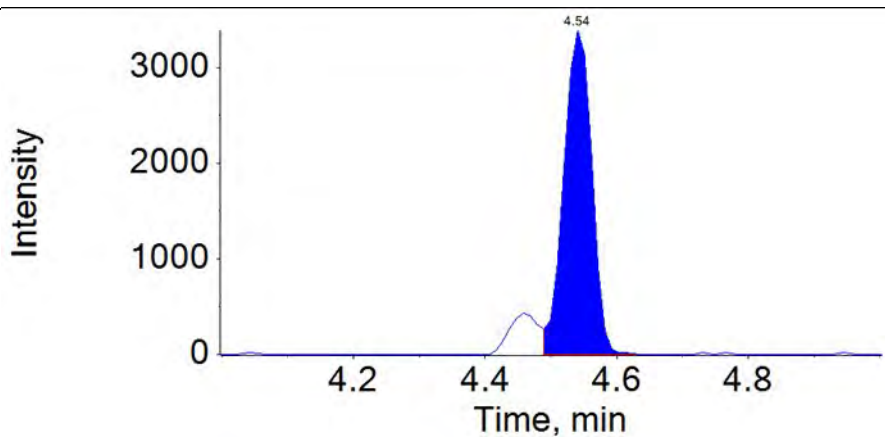
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Results Table Date: 11/29/2018 7:58:55 PM

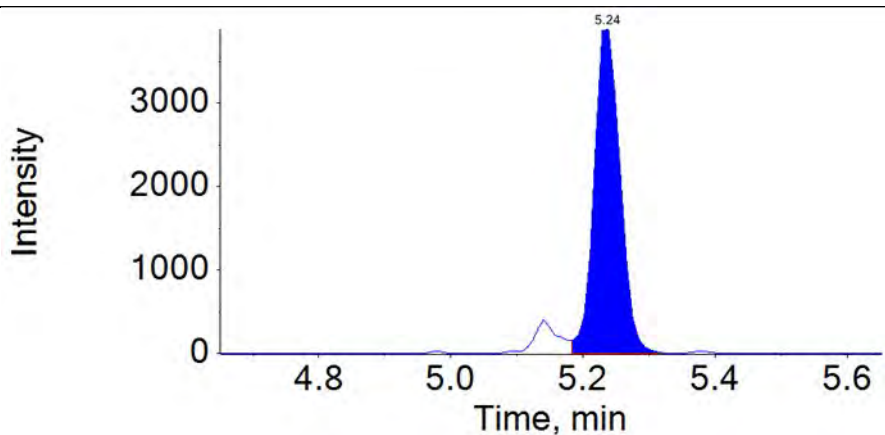
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QMethod File: 18AUG20QM

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RT (min.):
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Peak Area:
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Mass Range:
399.0 / 99.0
File Name:
18NOV29D-05.wiff
Sample Name:
CCV1_ISC_CAL2



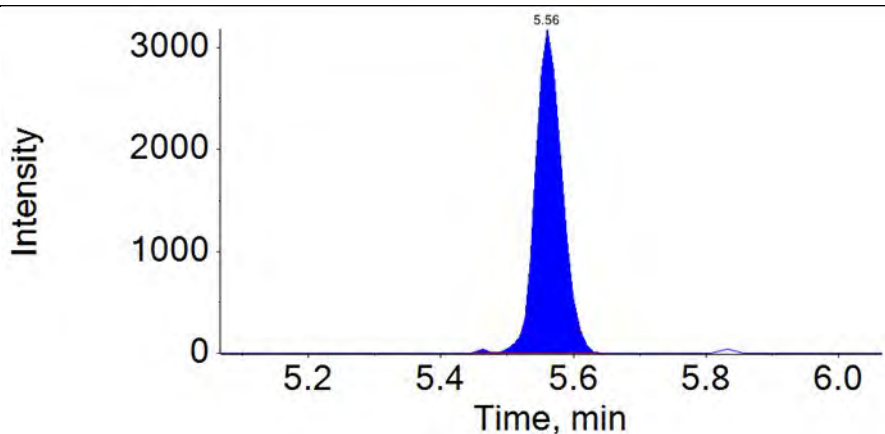
Integration Comment: incorrect integration

Component Name:
PFOS_2
RT (min.):
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Peak Area:
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Mass Range:
499.0 / 99.0
File Name:
18NOV29D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Integration Comment: incorrect integration

Component Name:
8:2-FTS_2
RT (min.):
5.56
Peak Area:
8908.1
Mass Range:
527.0 / 81.0
File Name:
18NOV29D-05.wiff
Sample Name:
CCV1_ISC_CAL2

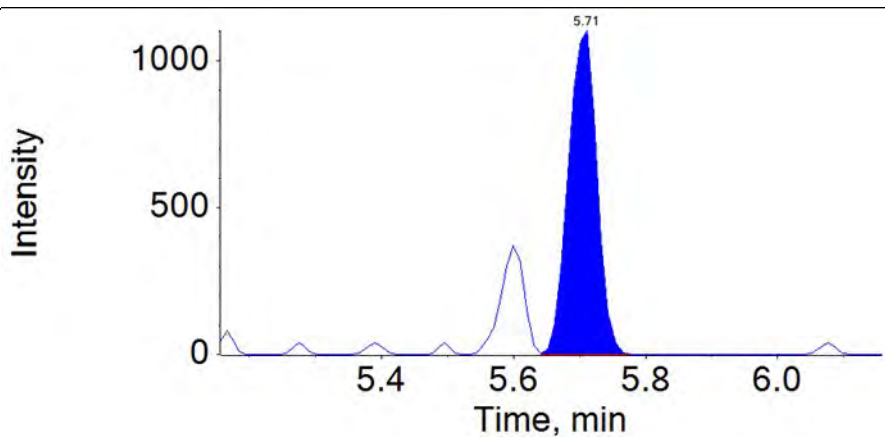


Integration Comment: incorrect integration

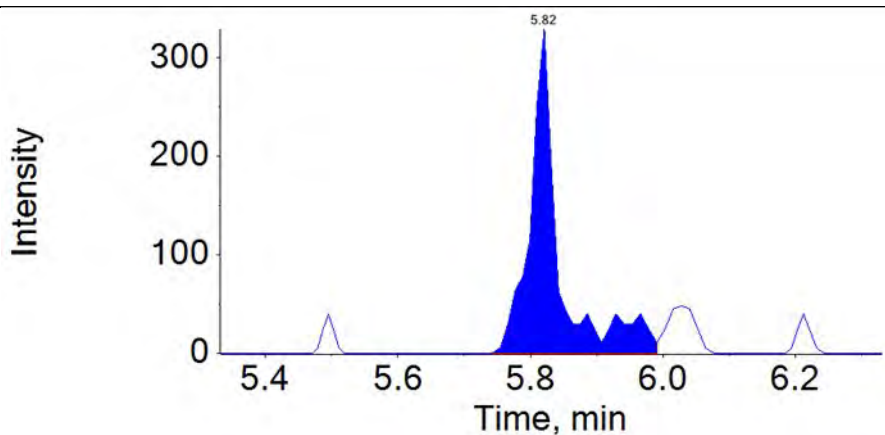
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Results Table Date: 11/29/2018 7:58:55 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

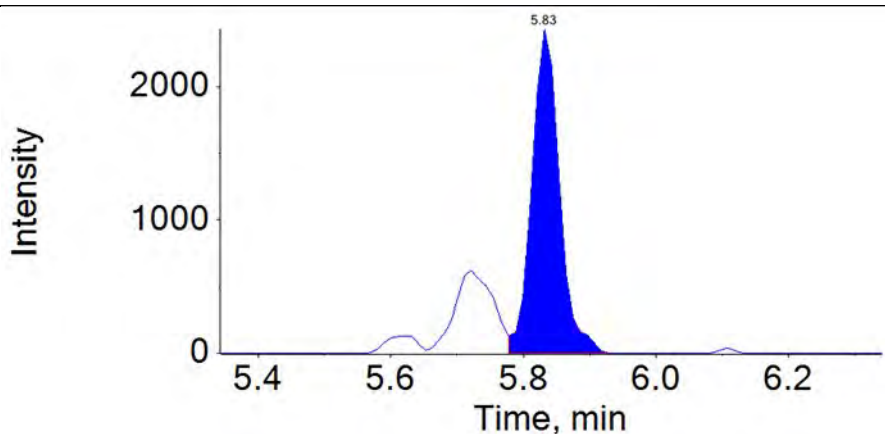
Component Name:
NMeFOSAA_2
RT (min.):
5.71
Peak Area:
3325.7
Mass Range:
570.0 / 483.0
File Name:
18NOV29D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Component Name:
PUnDA_2
RT (min.):
5.82
Peak Area:
991.3
Mass Range:
563.0 / 169.0
File Name:
18NOV29D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
7057.3
Mass Range:
584.0 / 526.0
File Name:
18NOV29D-05.wiff
Sample Name:
CCV1_ISC_CAL2



Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 8:06 pm, 11/29/18

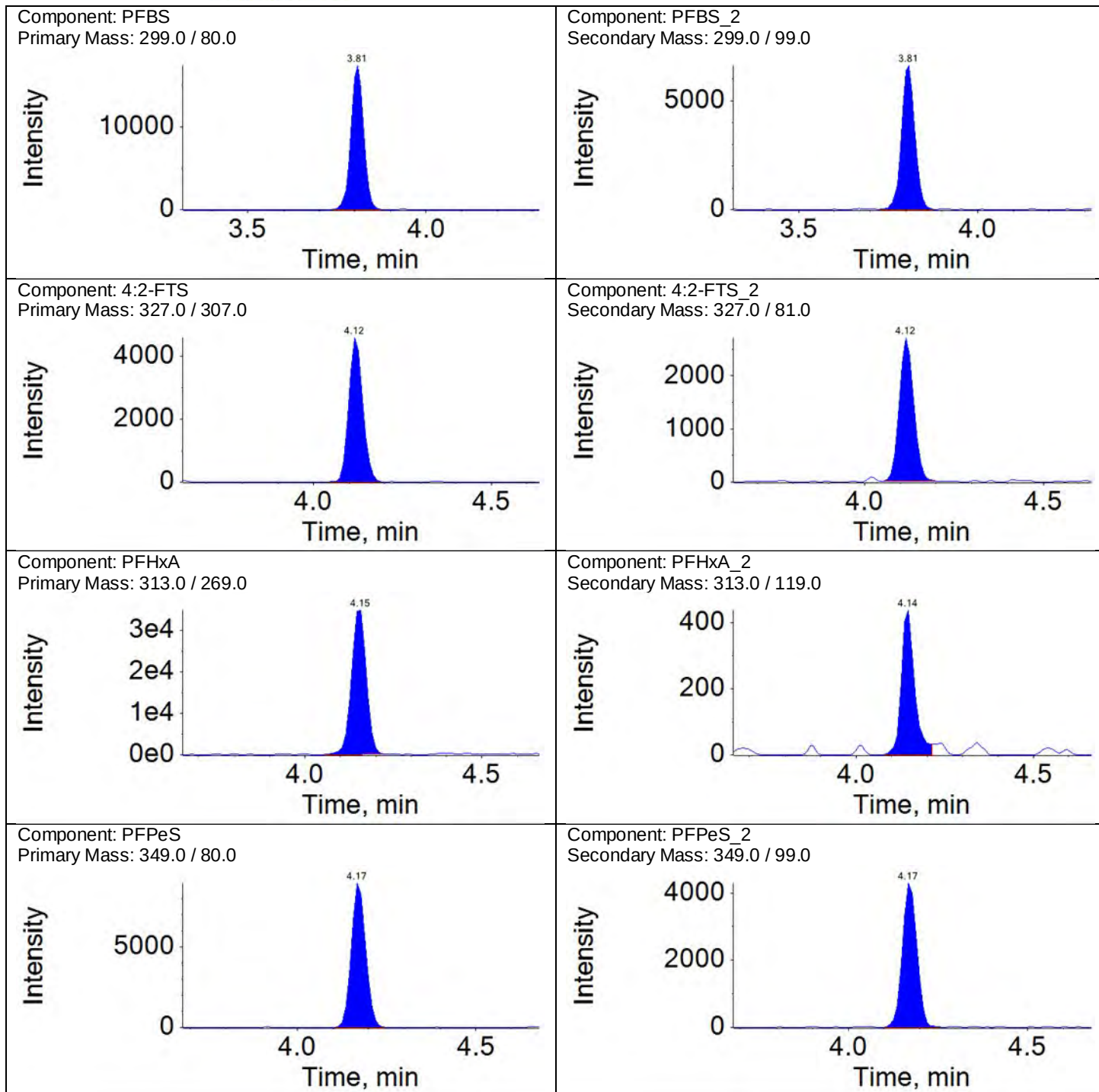
REVIEWED

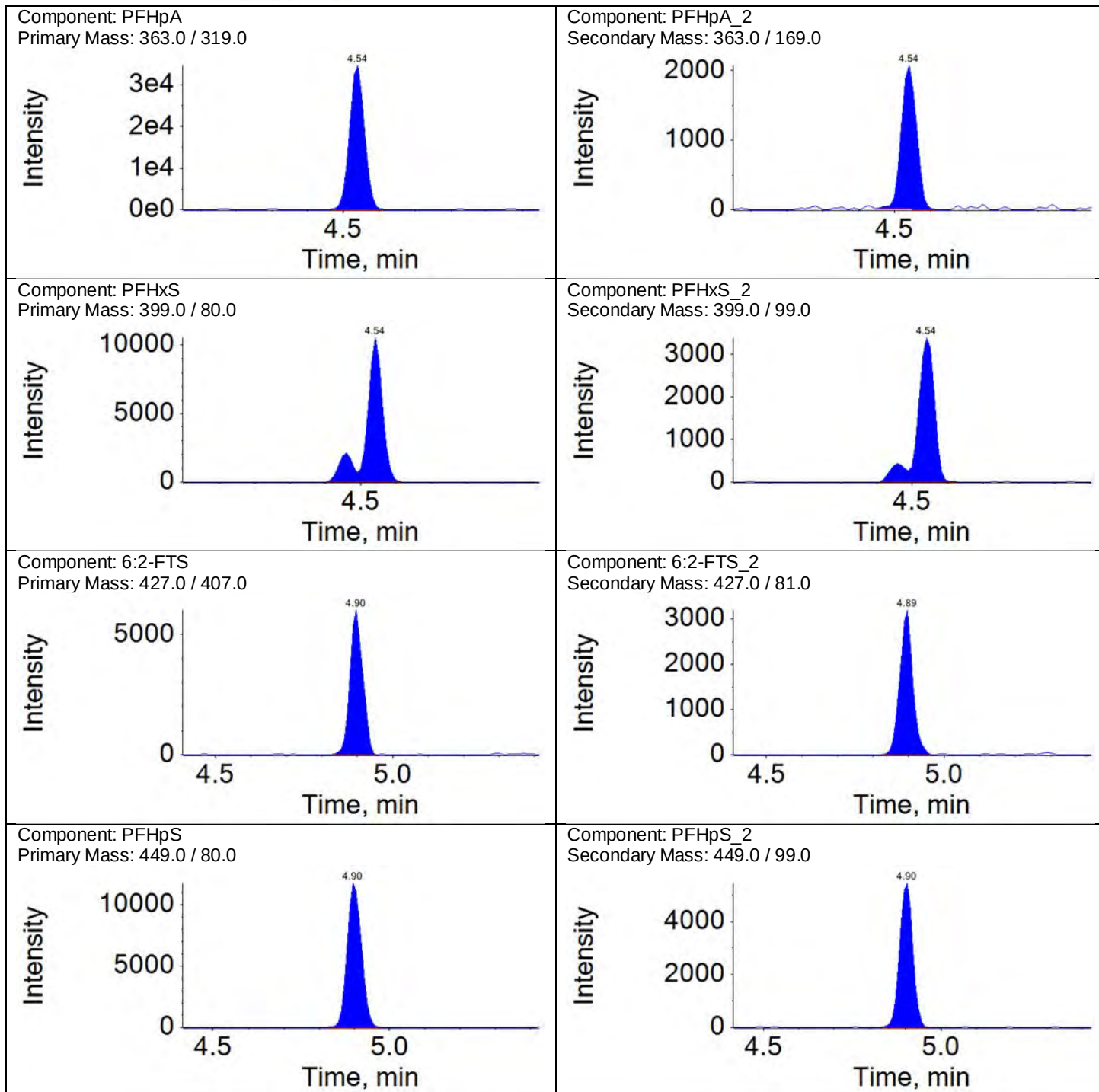
By HMK at 9:40 am, 12/5/18

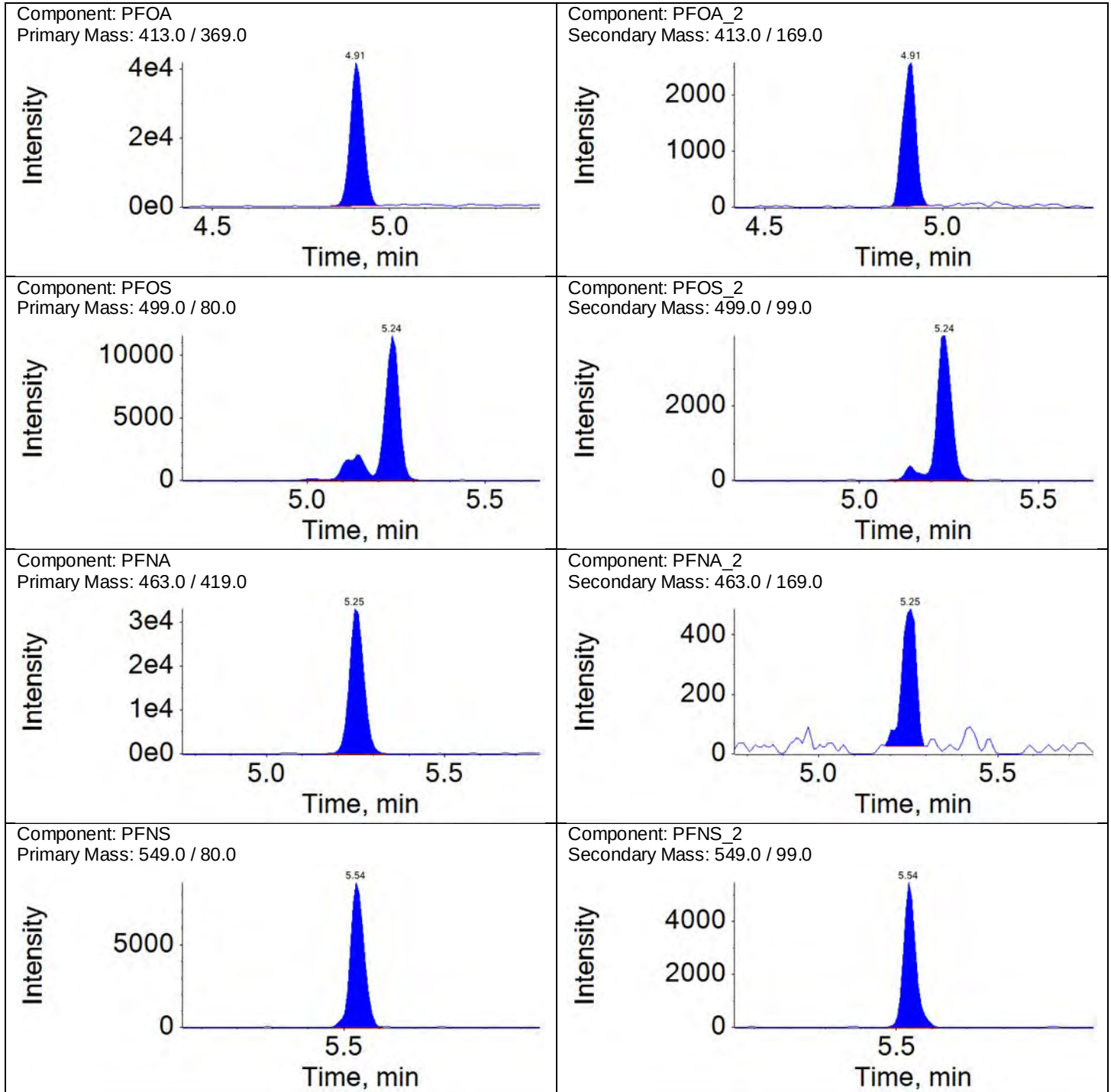
Ion Ratio Report

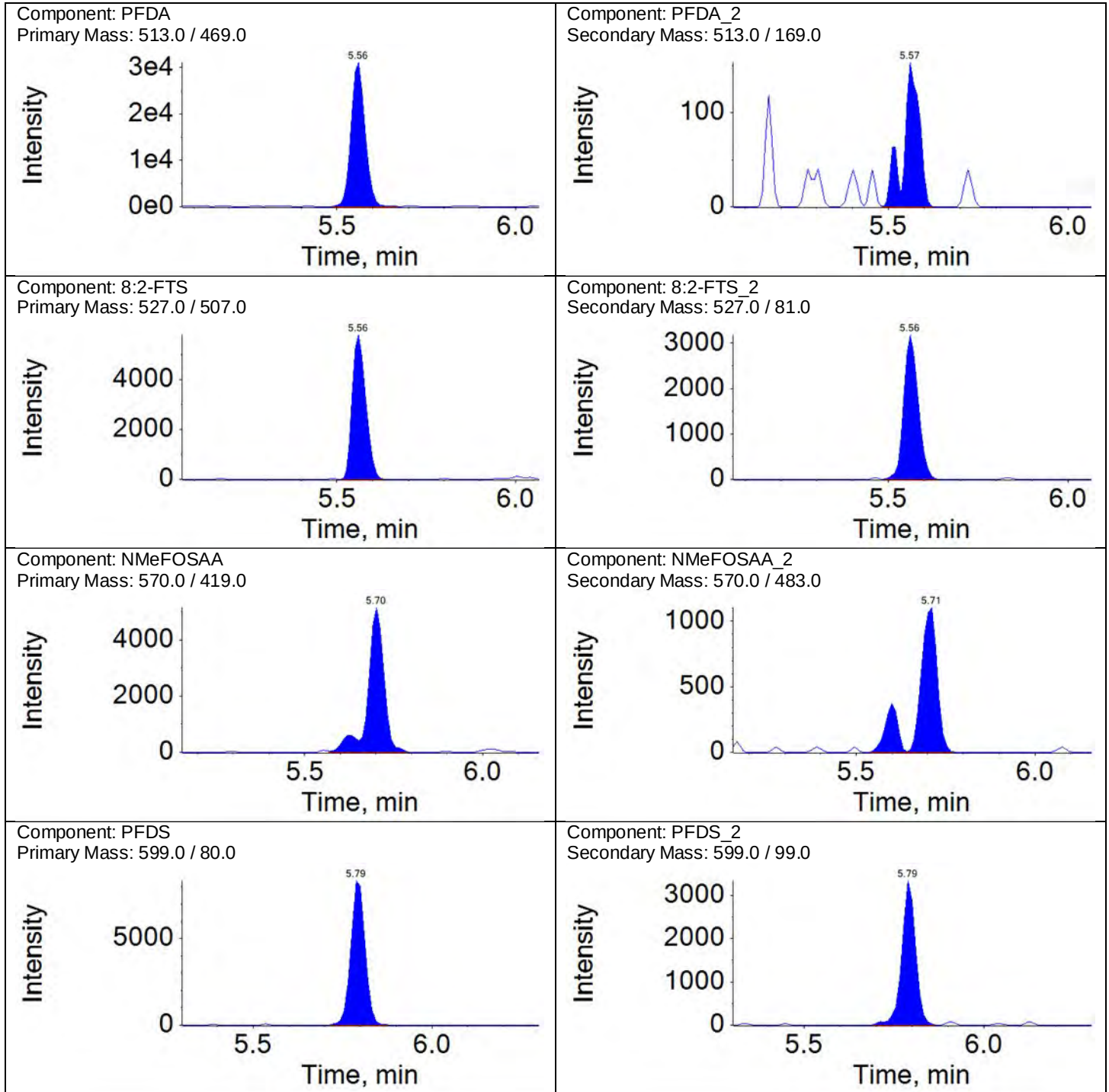
Sample Name: CCV1_ISC_CAL2 Instrument Name: LM27631 File Name: 18NOV29D-05.wiff

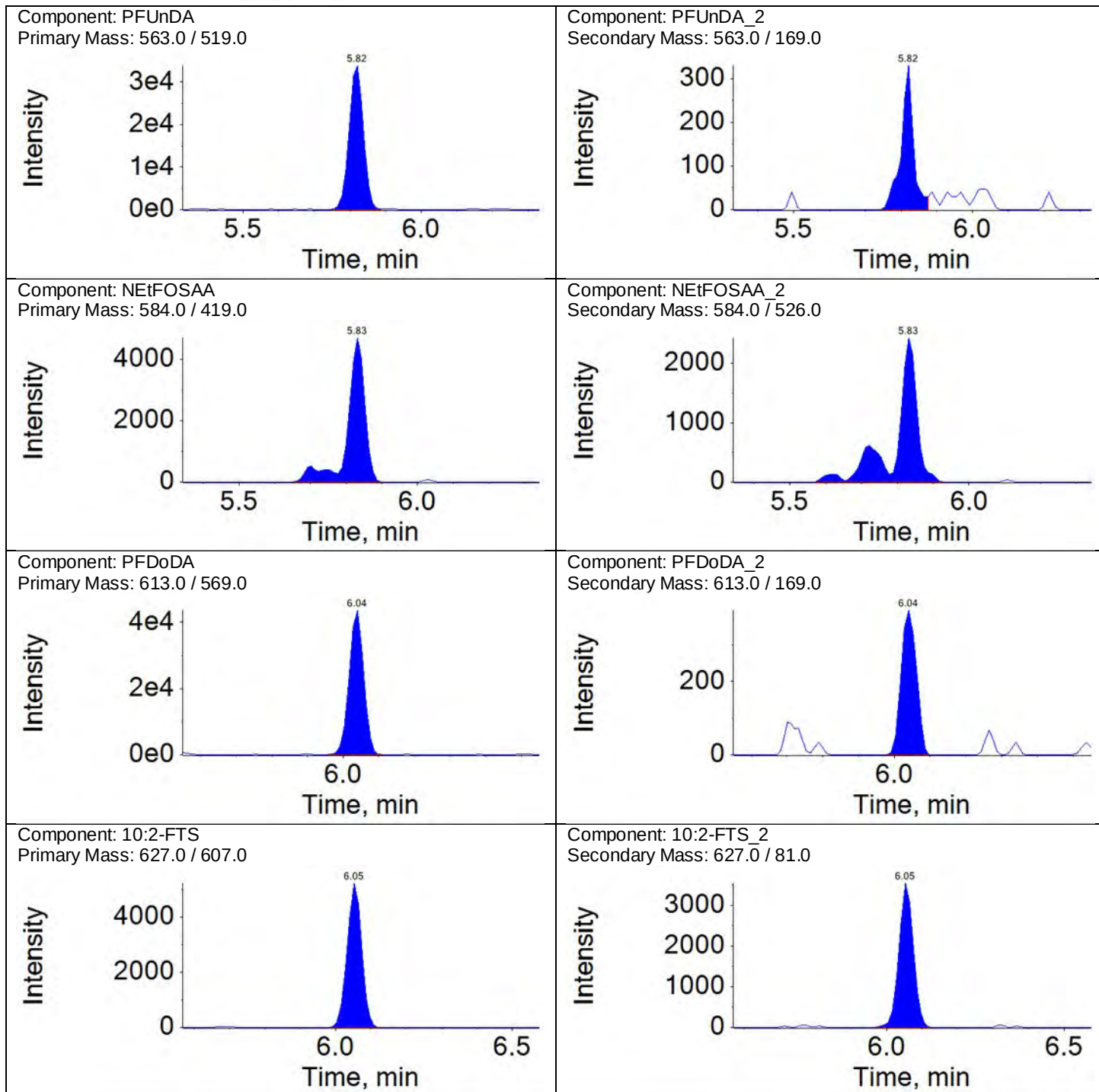
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	43167.2	A	N/A	0.3951			
PFBS_2	3.81	1.00	17055.1	M	N/A	0.3951	8	50	
4:2-FTS	4.12	1.00	12514.2	A	N/A	0.6079			
4:2-FTS_2	4.12	1.00	7607.9	A	N/A	0.6079	-5	50	
PFHxA	4.15	1.00	100978.6	A	N/A	0.0112			
PFHxA_2	4.14	1.00	1134.2	M	N/A	0.0112	9	50	
PFPeS	4.17	1.10	24883.7	A	N/A	0.4838			
PFPeS_2	4.17	1.10	12039.0	A	N/A	0.4838	-3	50	
PFHpA	4.54	1.00	99917.2	A	N/A	0.0612			
PFHpA_2	4.54	1.00	6111.0	A	N/A	0.0612	10	50	
PFHxS	4.54	1.00	34610.4	M	N/A	0.3297			
PFHxS_2	4.54	1.00	11410.8	M	N/A	0.3297	-11	50	
6:2-FTS	4.90	1.00	14994.7	A	N/A	0.5391			
6:2-FTS_2	4.89	1.00	8084.1	A	N/A	0.5391	-19	50	
PFHpS	4.90	1.08	32932.0	A	N/A	0.4237			
PFHpS_2	4.90	1.08	13952.3	A	N/A	0.4237	8	50	
PFOA	4.91	1.00	107677.1	A	N/A	0.0617			
PFOA_2	4.91	1.00	6647.5	A	N/A	0.0617	8	50	
PFOS	5.24	1.00	39254.5	M	N/A	0.2989			
PFOS_2	5.24	1.00	11733.5	M	N/A	0.2989	1	50	
PFNA	5.25	1.00	93355.4	A	N/A	0.0139			
PFNA_2	5.25	1.00	1298.8	A	N/A	0.0139	-31	50	
PFNS	5.54	1.06	23416.1	A	N/A	0.5500			
PFNS_2	5.54	1.06	12879.8	A	N/A	0.5500	15	50	
PFDA	5.56	1.00	83849.1	A	N/A	0.0057			
PFDA_2	5.57	1.00	480.8	A	N/A	0.0057	-23	50	
8:2-FTS	5.56	1.00	15129.8	A	N/A	0.5856			
8:2-FTS_2	5.56	1.00	8859.9	M	N/A	0.5856	9	50	
NMeFOSAA	5.70	1.00	16285.3	M	N/A	0.2608			
NMeFOSAA_2	5.71	1.00	4247.6	M	N/A	0.2608	13	50	
PFDS	5.79	1.11	22930.4	A	N/A	0.3845			
PFDS_2	5.79	1.11	8816.6	A	N/A	0.3845	-28	50	
PFUnDA	5.82	1.00	94649.2	A	N/A	0.0084			
PFUnDA_2	5.82	1.00	791.7	M	N/A	0.0084	120	50	OOS
NEtFOSAA	5.83	1.00	15976.2	M	N/A	0.6268			
NEtFOSAA_2	5.83	1.00	10013.4	M	N/A	0.6268	-15	50	
PFDODA	6.04	1.00	124243.3	A	N/A	0.0095			
PFDODA_2	6.04	1.00	1178.3	A	N/A	0.0095	-27	50	
10:2-FTS	6.05	1.09	14919.7	A	N/A	0.6728			
10:2-FTS_2	6.05	1.09	10038.3	A	N/A	0.6728	-4	50	
PFTTrDA	6.23	1.03	122778.8	A	N/A	0.0057			
PFTTrDA_2	6.24	1.03	698.1	A	N/A	0.0057	-37	50	
PFTeDA	6.41	1.00	89123.1	A	N/A	0.0041			
PFTeDA_2	6.42	1.00	367.7	A	N/A	0.0041	-26	50	
PFHxDA	6.71	1.05	45160.5	A	N/A	0.0596			
PFHxDA_2	6.71	1.05	2692.3	A	N/A	0.0596	-8	50	
PFODA	6.98	1.09	35571.7	A	N/A	0.0222			
PFODA_2	6.97	1.09	790.0	A	N/A	0.0222	-16	50	

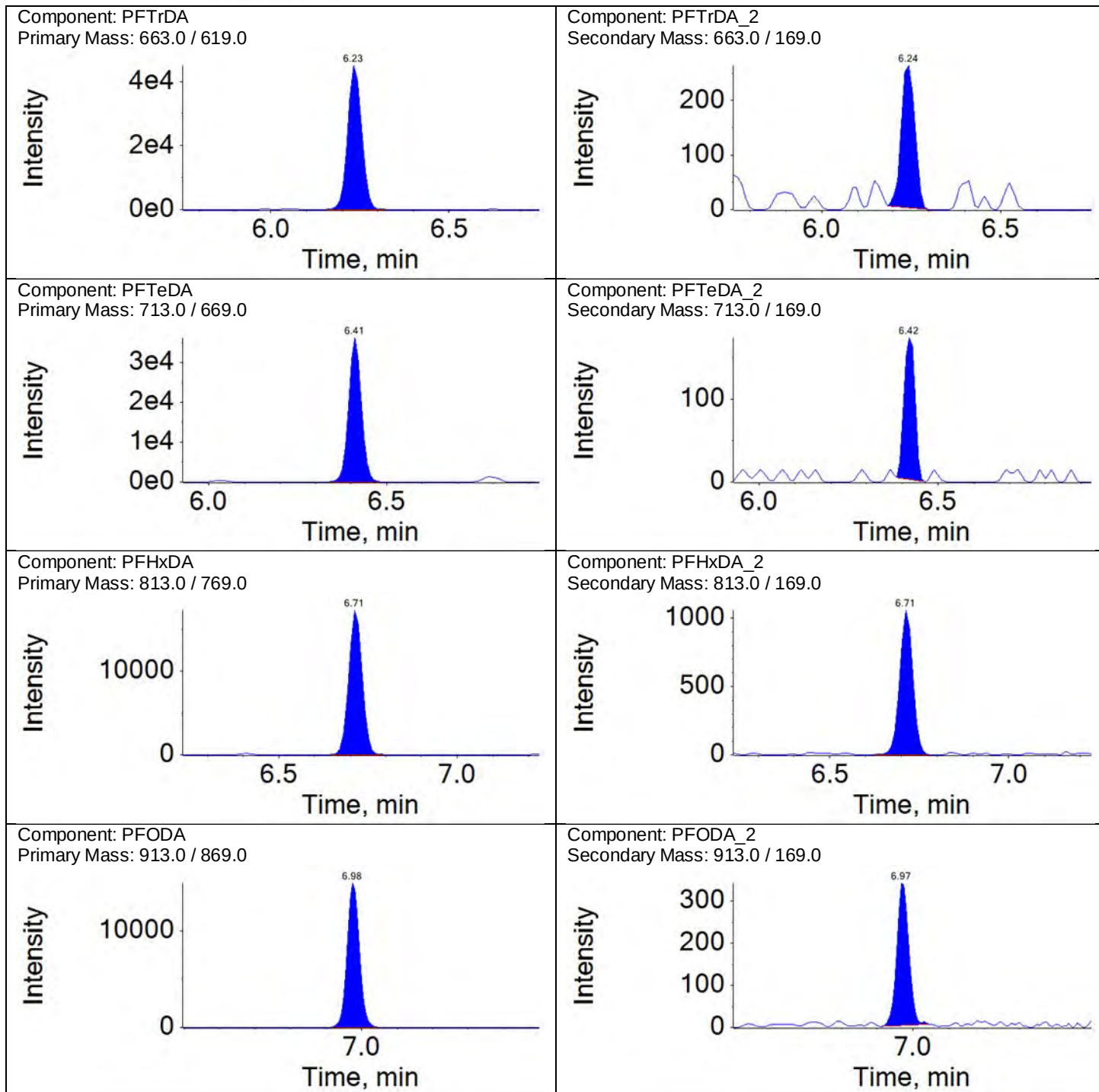












ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	Instrument Blank		Data File:	18NOV29D-06.wiff
Sample ID:	methanol+labels		Acquis Date:	2018-11-29T10:42:38
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	1		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV29DCCV1-5
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1062005.8	906425.4	17	50	
13C2-PFOA	5.0	590090.2	495984.0	19	50	
13C4-PFOS	4.8	349343.8	296261.8	18	50	
13C2-PFDA	5.0	572455.9	451203.0	27	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1132653.7	13C3-PFBA	1062005.8	1.067	5.000	4.758	95	70-130	
E13C5-PFPeA	1128083.1	13C3-PFBA	1062005.8	1.062	5.000	4.960	99	70-130	
E13C3-PFBS	476370.7	13C3-PFBA	1062005.8	0.449	4.650	4.279	92	70-130	
E13C2-4:2-FTS	78954.9	13C2-PFOA	590090.2	0.134	4.670	4.611	99	70-130	
E13C5-PFHxA	755459.8	13C2-PFOA	590090.2	1.280	5.000	4.702	94	70-130	
E13C3-PFHxS	367272.1	13C2-PFOA	590090.2	0.622	4.730	4.878	103	70-130	
E13C4-PFHpA	595459.5	13C2-PFOA	590090.2	1.009	5.000	4.637	93	70-130	
E13C2-6:2-FTS	74720.2	13C2-PFOA	590090.2	0.127	4.750	5.301	112	70-130	
E13C8-PFOA	1117311.6	13C2-PFOA	590090.2	1.893	5.000	5.212	104	70-130	
E13C8-PFOS	362141.8	13C4-PFOS	349343.8	1.037	4.780	4.680	98	70-130	
E13C9-PFNA	736579.7	13C4-PFOS	349343.8	2.108	5.000	4.631	93	70-130	
E13C6-PFDA	971727.0	13C2-PFDA	572455.9	1.697	5.000	4.786	96	70-130	
E13C2-8:2-FTS	64213.8	13C2-PFDA	572455.9	0.112	4.790	4.821	101	70-130	
E13C8-PFOSA	703815.0	13C2-PFDA	572455.9	1.229	5.000	4.511	90	70-130	
Ed3-NMeFOSAA	270439.1	13C2-PFDA	572455.9	0.472	5.000	5.998	120	70-130	
E13C7-PFUnDA	658462.5	13C2-PFDA	572455.9	1.150	5.000	4.861	97	70-130	
Ed5-NEtFOSAA	166412.1	13C2-PFDA	572455.9	0.291	5.000	5.179	104	70-130	
E13C2-PFDoDA	1273913.7	13C2-PFDA	572455.9	2.225	5.000	4.676	94	70-130	
Ed7-NMePFOSAE	305138.6	13C2-PFDA	572455.9	0.533	5.000	4.607	92	70-130	
Ed3-NMePFOSA	98756.0	13C2-PFDA	572455.9	0.173	5.000	4.669	93	70-130	
Ed9-NEtPFOSAE	275015.1	13C2-PFDA	572455.9	0.480	5.000	4.871	97	70-130	
Ed5-NEtPFOSA	83472.3	13C2-PFDA	572455.9	0.146	5.000	5.067	101	70-130	
E13C2-PFTeDA	926470.4	13C2-PFDA	572455.9	1.618	5.000	4.478	90	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

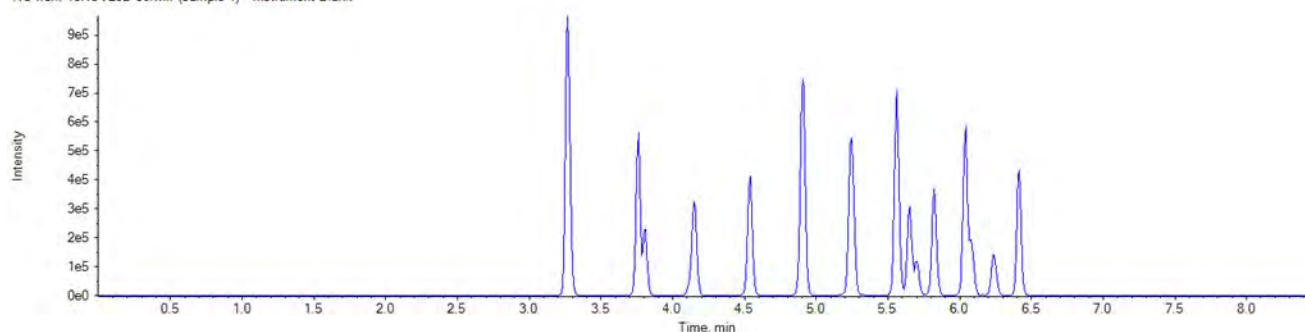
Sample Name: Instrument Blank Instrument Name: LM27631 File Name: 18NOV29D-06.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	1132653.7	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	1128083.1	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	476370.7	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	78954.9	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	755459.8	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	476370.7	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	595459.5	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	367272.1	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	74720.2	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	367272.1	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	1117311.6	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	362141.8	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.25	736579.7	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	362141.8	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	971727.0	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	64213.8	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	703815.0	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	270439.1	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	362141.8	N/A	
PFOA	N/A	N/A	N/A		A	13C7-PFOA	5.82	658462.5	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	166412.1	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	1273913.7	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	64213.8	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.08	305138.6	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.09	98756.0	N/A	
PFDOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	362141.8	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.23	275015.1	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.25	83472.3	N/A	
PFTODA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	1273913.7	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	926470.4	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	926470.4	N/A	
PFOA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	926470.4	N/A	

Total Ion Chromatogram

TIC from 18NOV29D-06.wiff (sample 1) - Instrument Blank



APPROVED

By MCD at 8:06 pm, 11/29/18

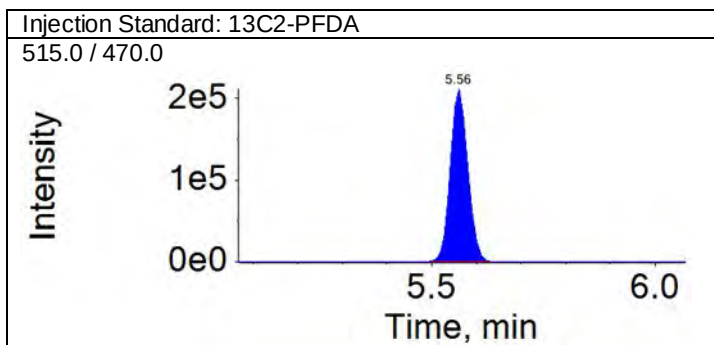
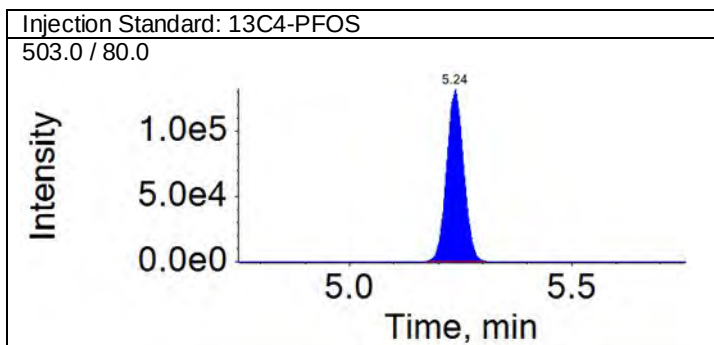
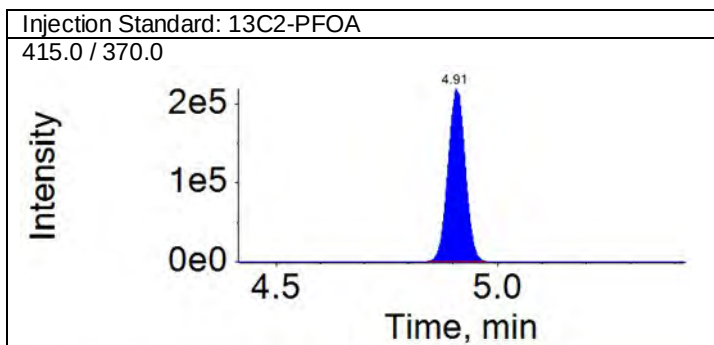
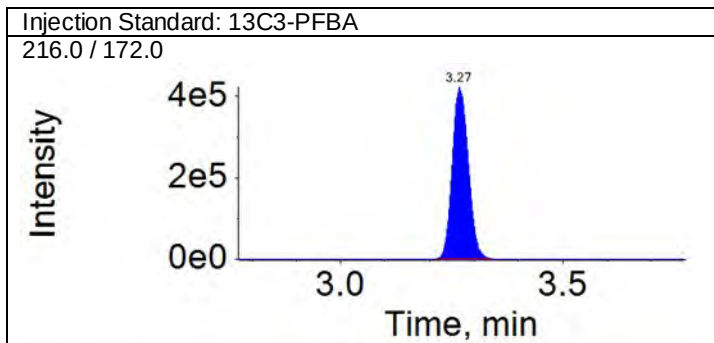
BSI14 Page 1715 of 2132

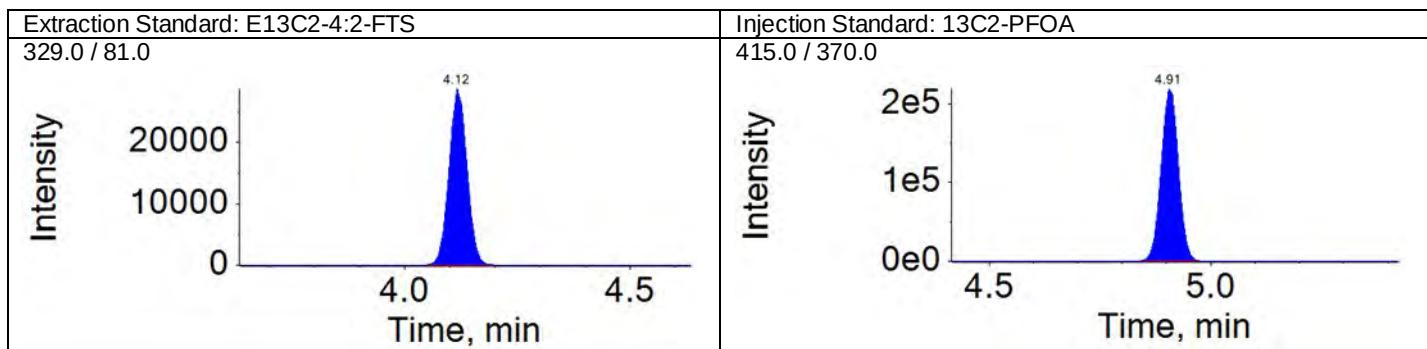
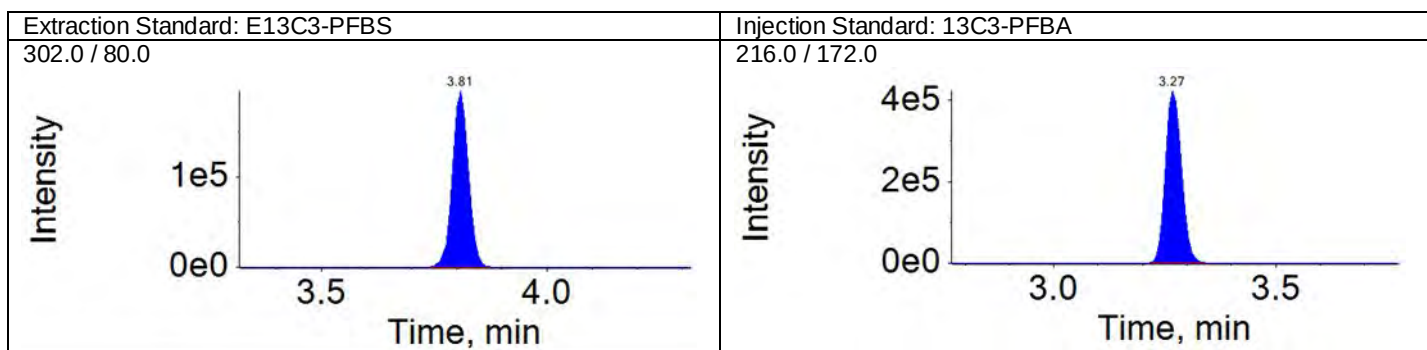
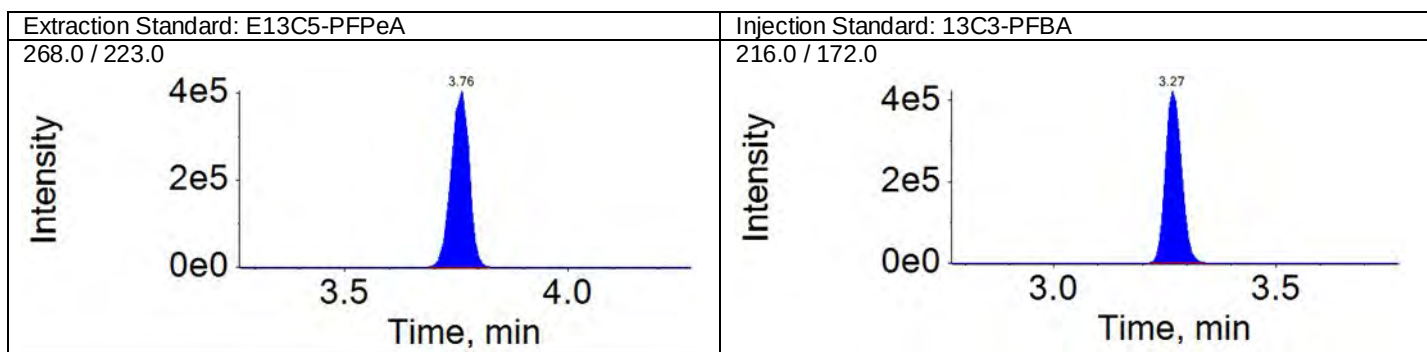
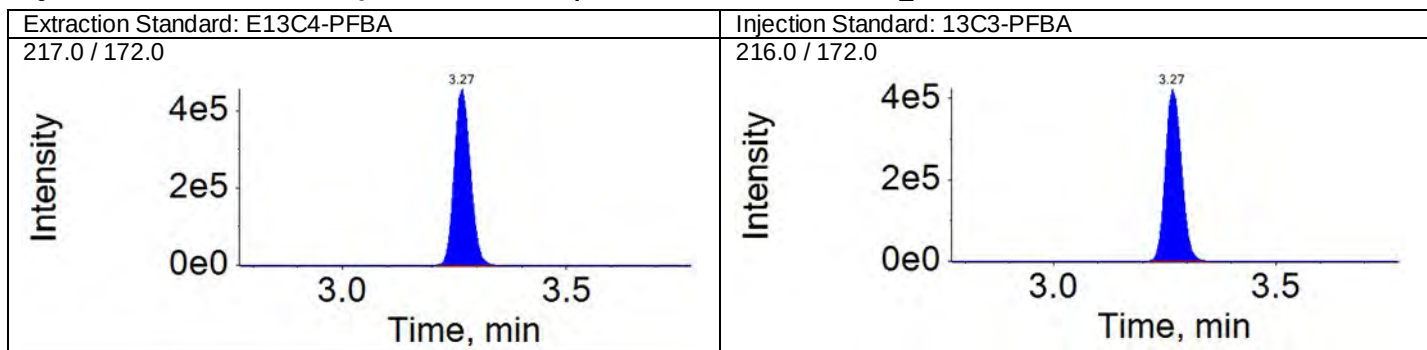
REVIEWED

By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

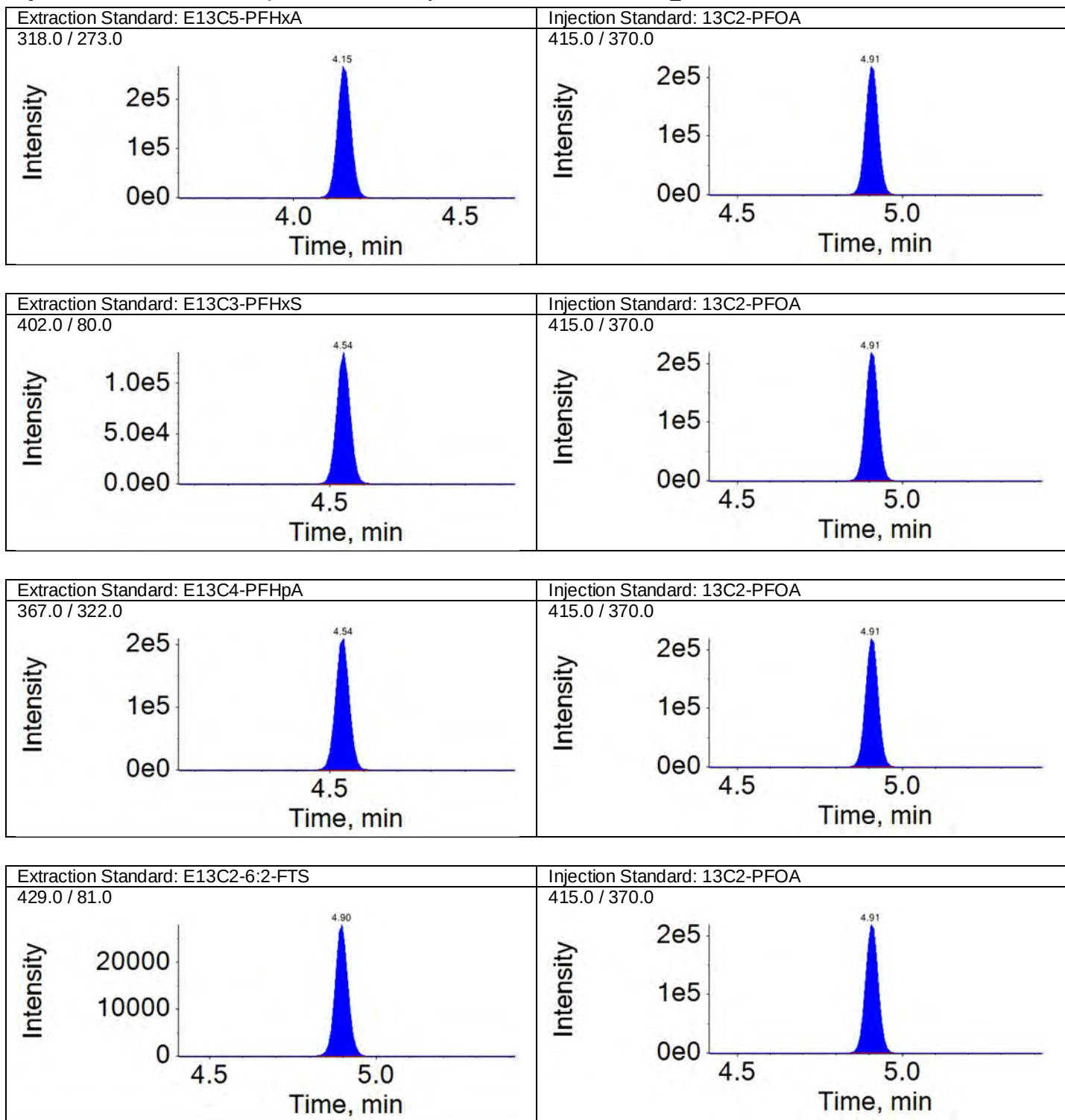
Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam

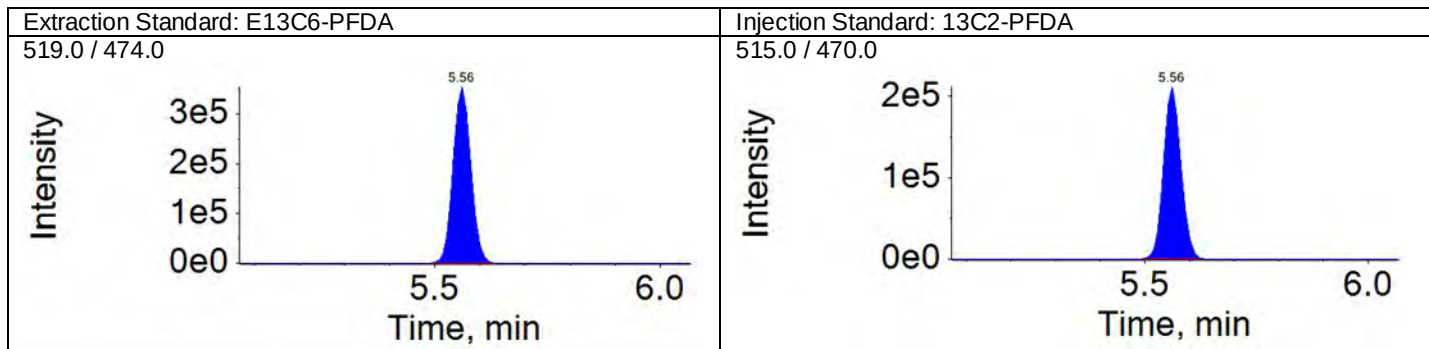
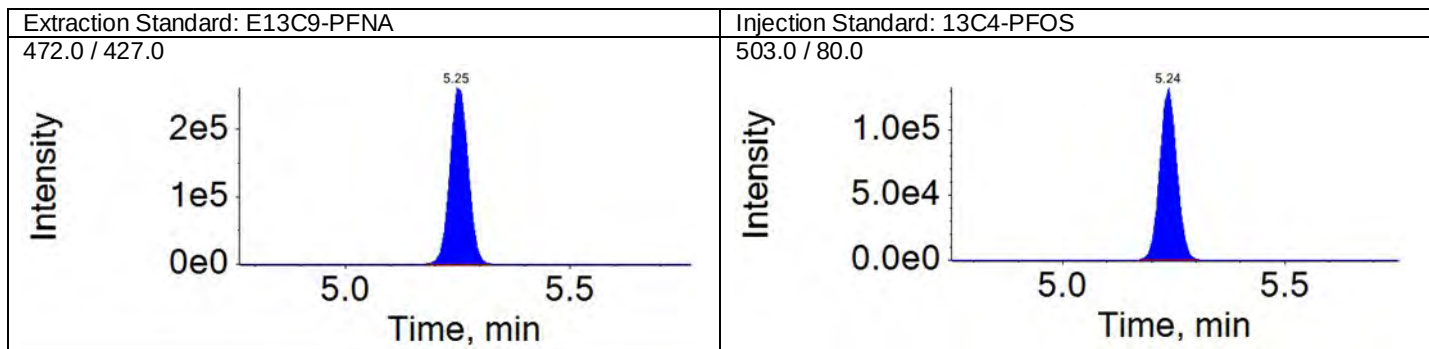
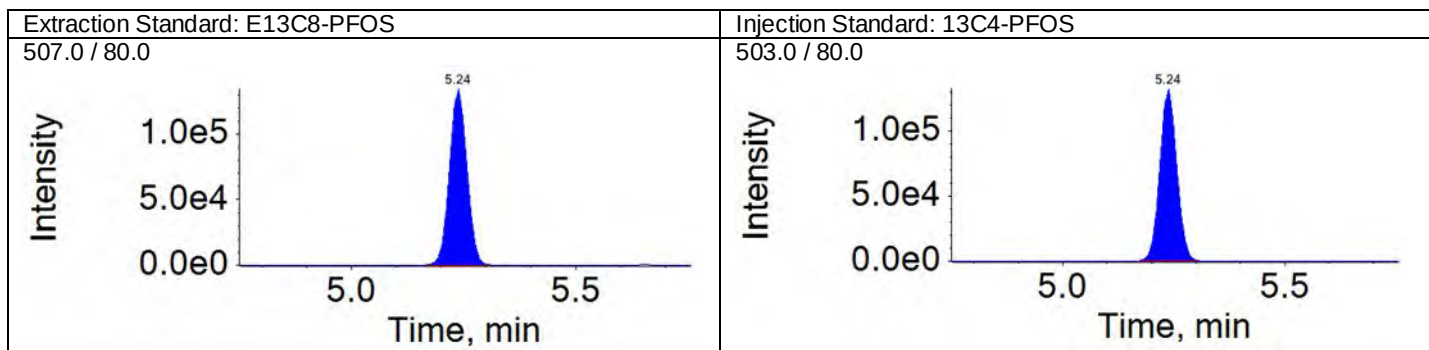
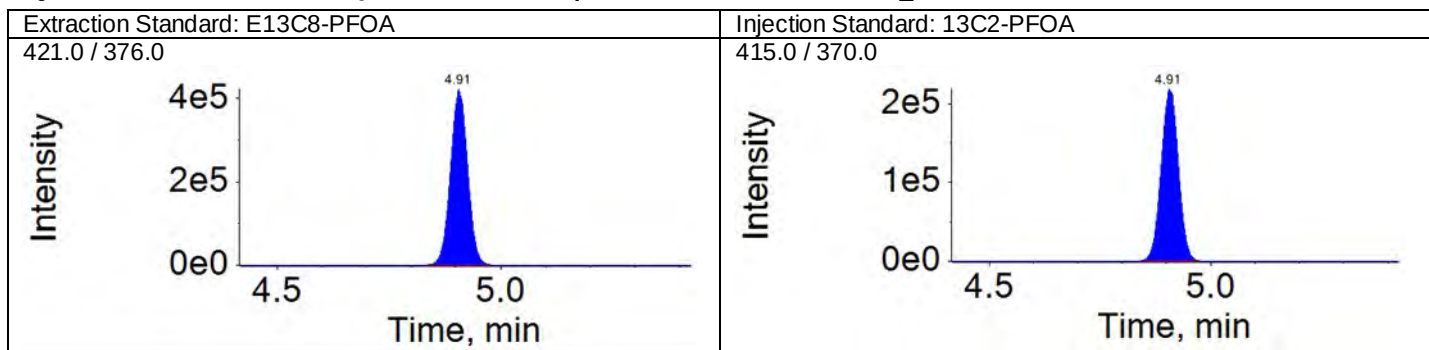
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam



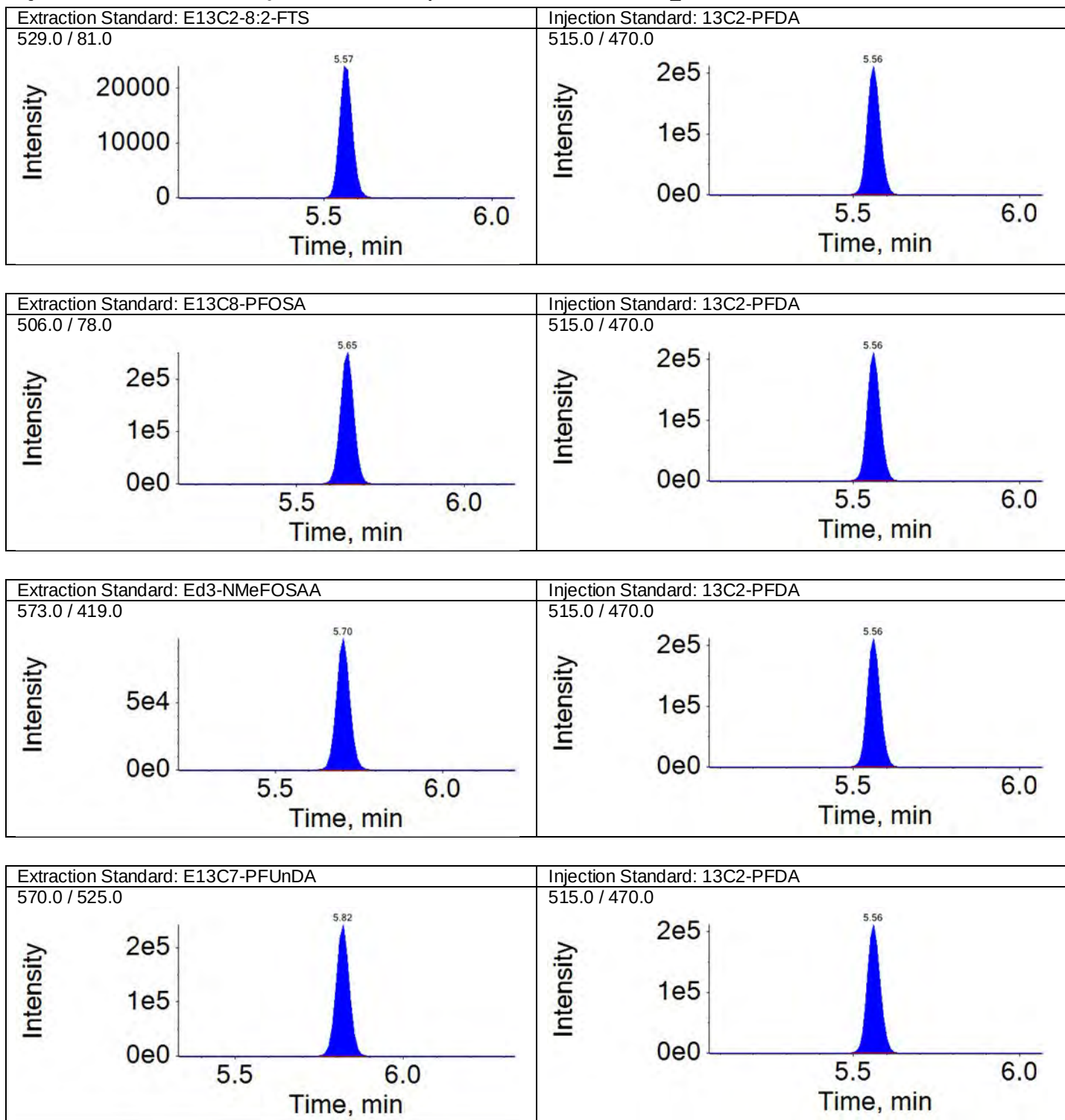
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam



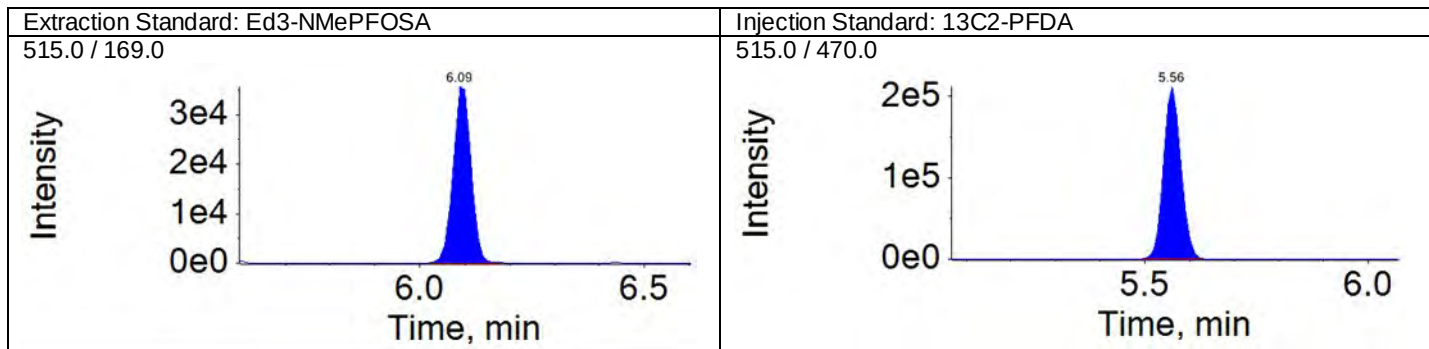
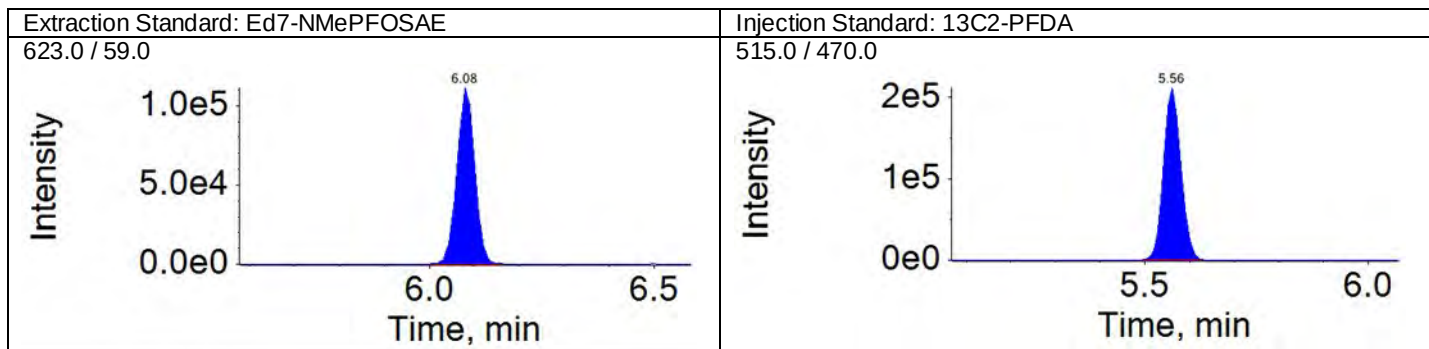
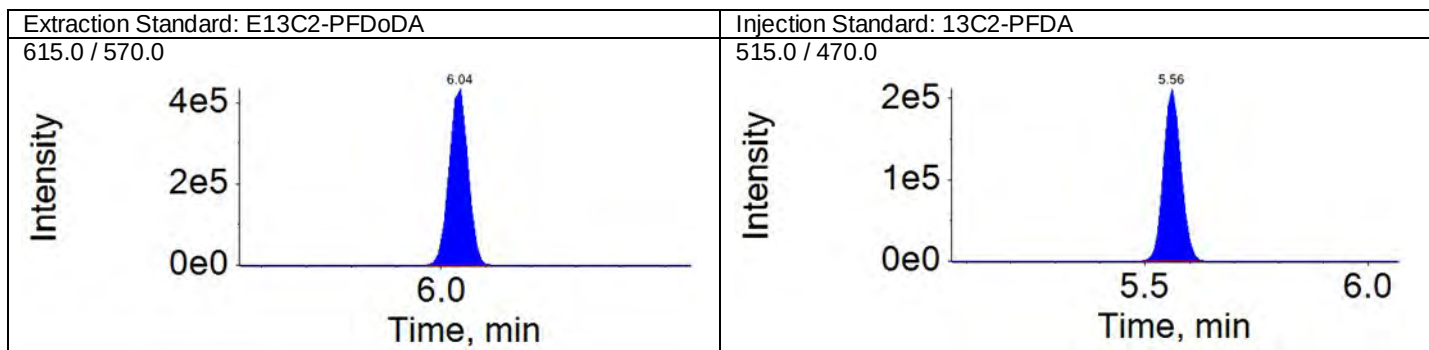
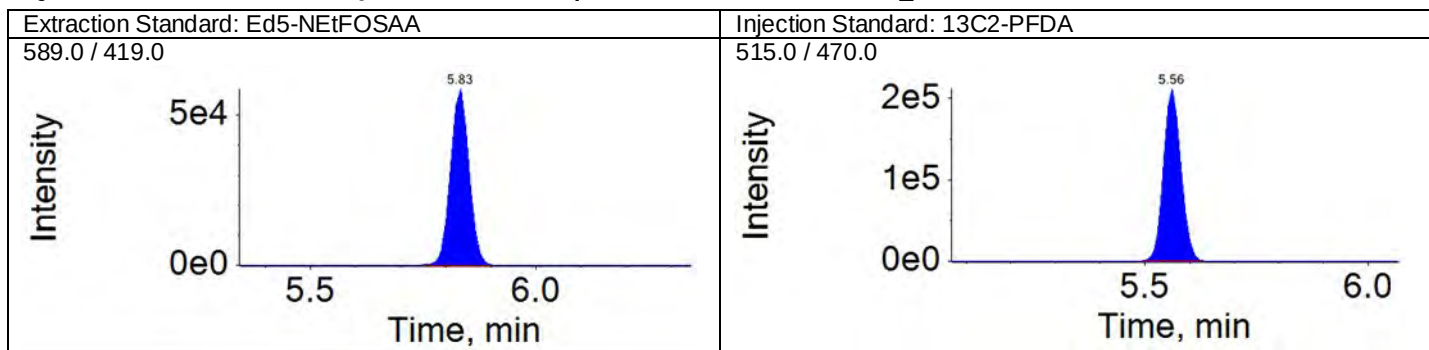
ICAL Name: 18NOV28DCAL
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Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
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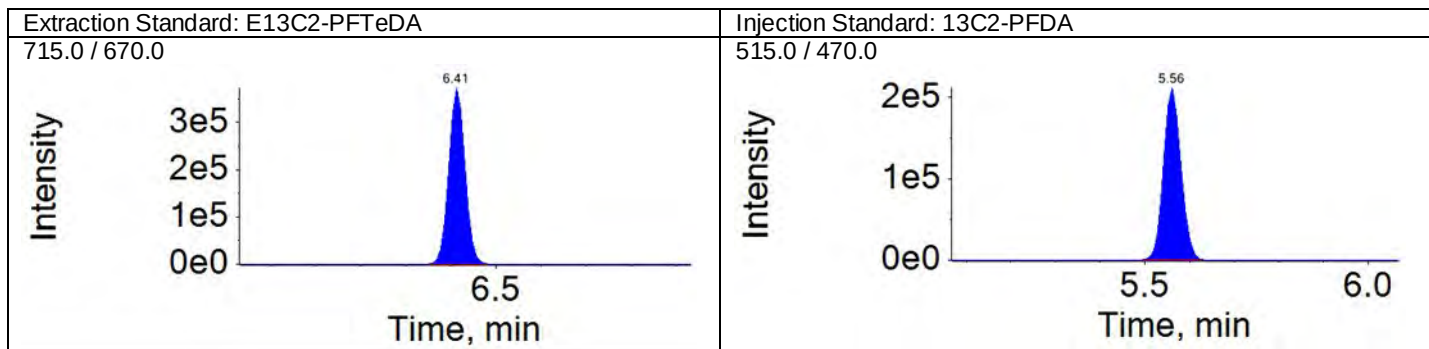
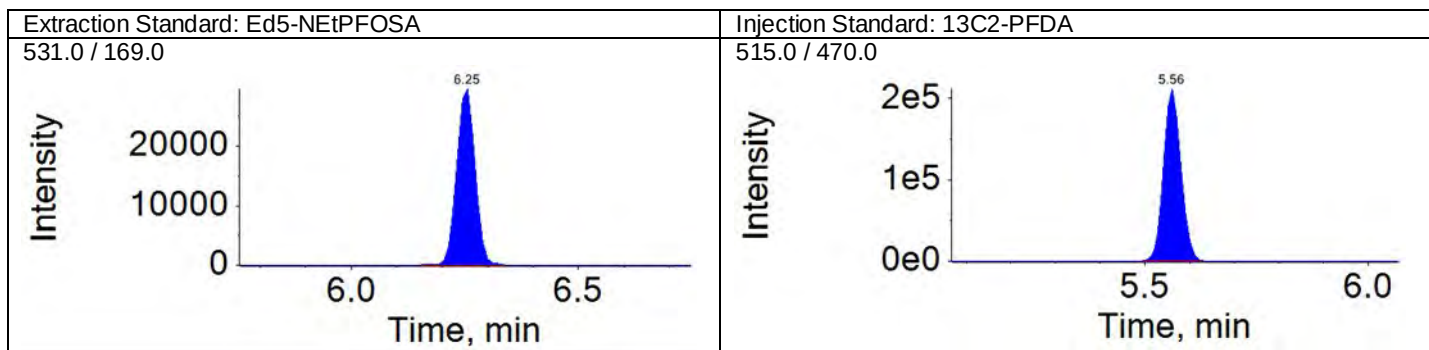
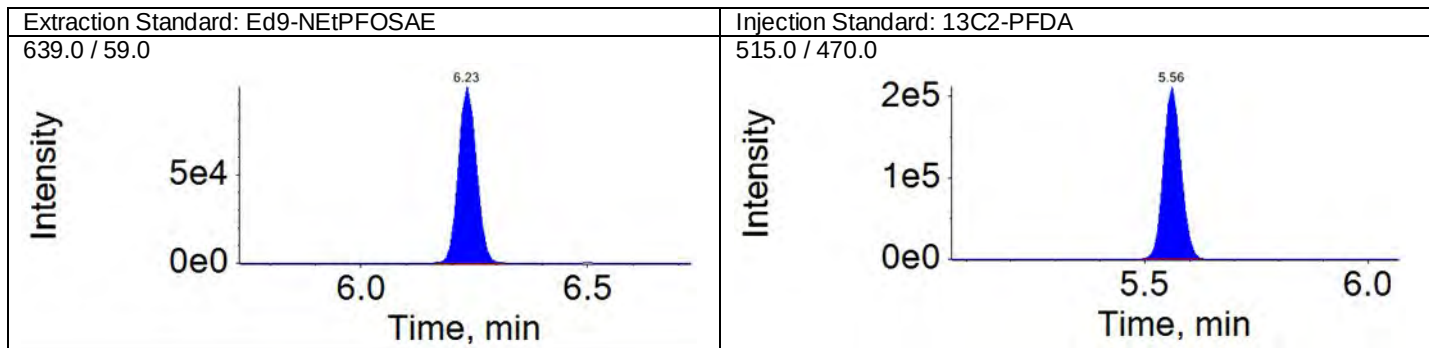
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

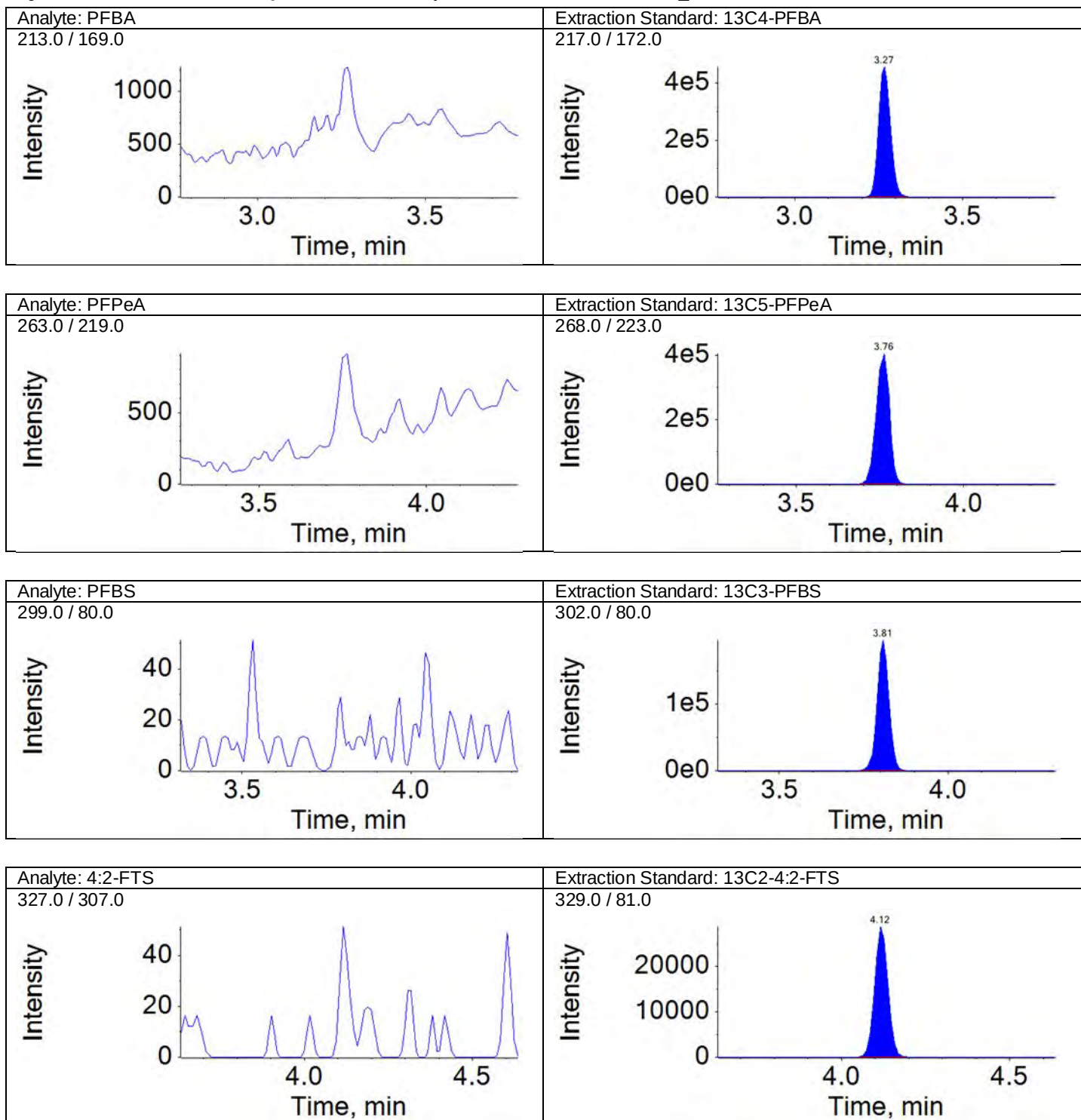
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

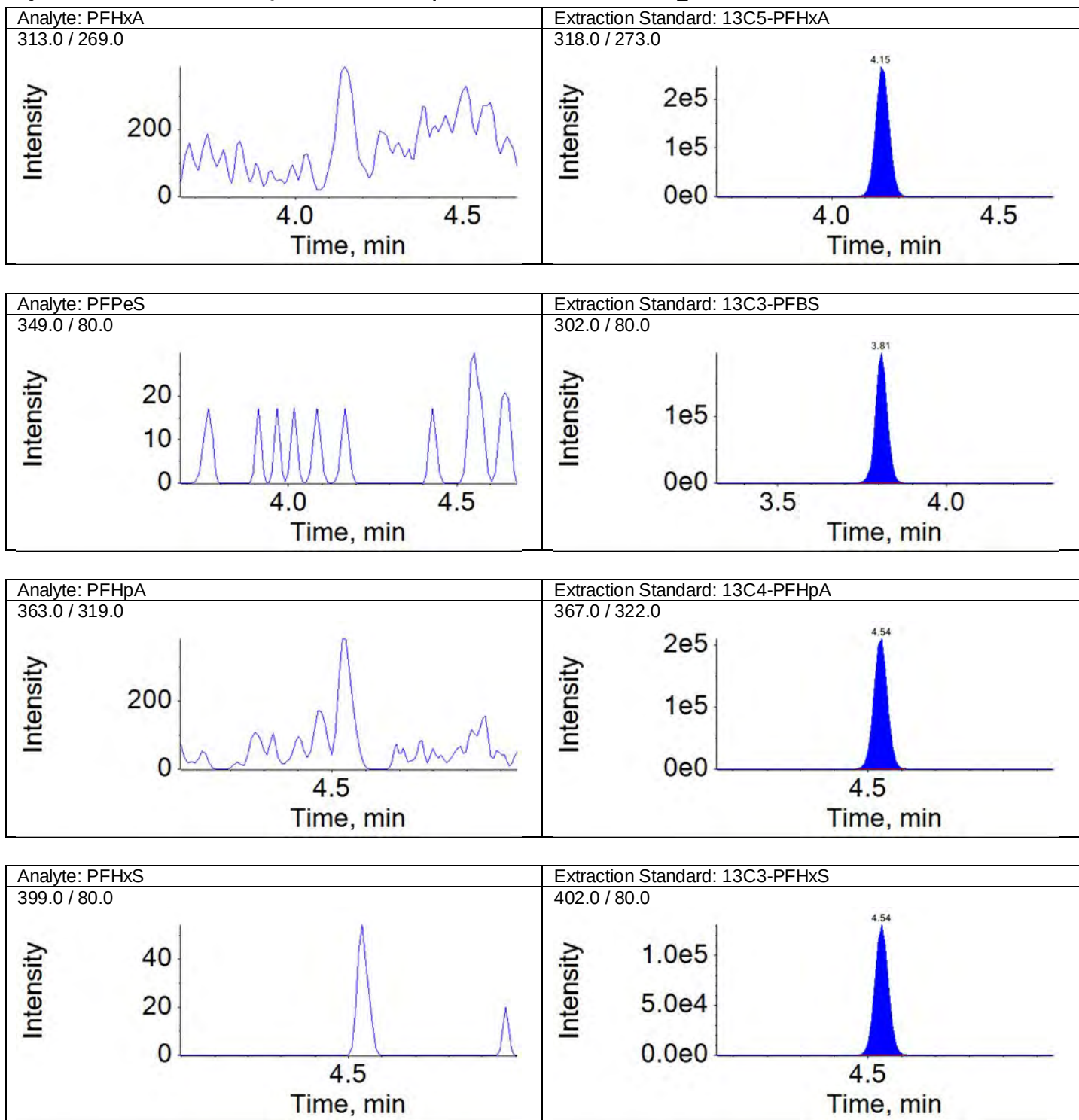
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
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Acquisition Method: 18AUG13_3uL.dam

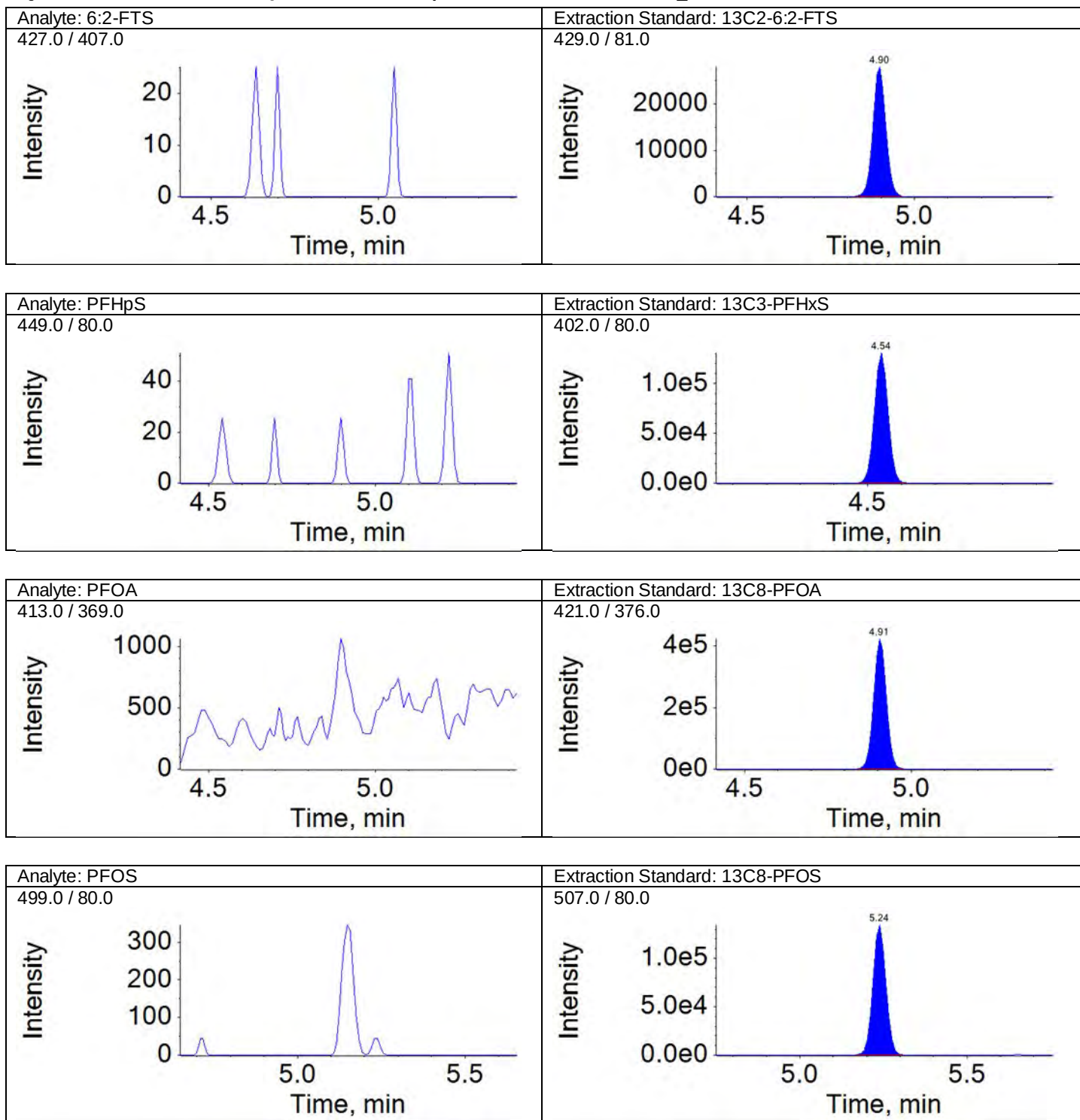
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Acquisition Method: 18AUG13_3uL.dam



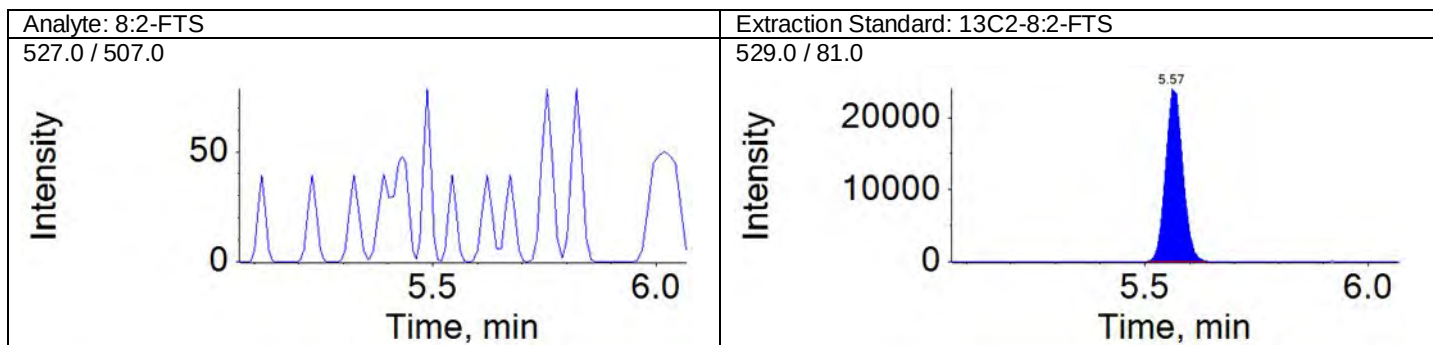
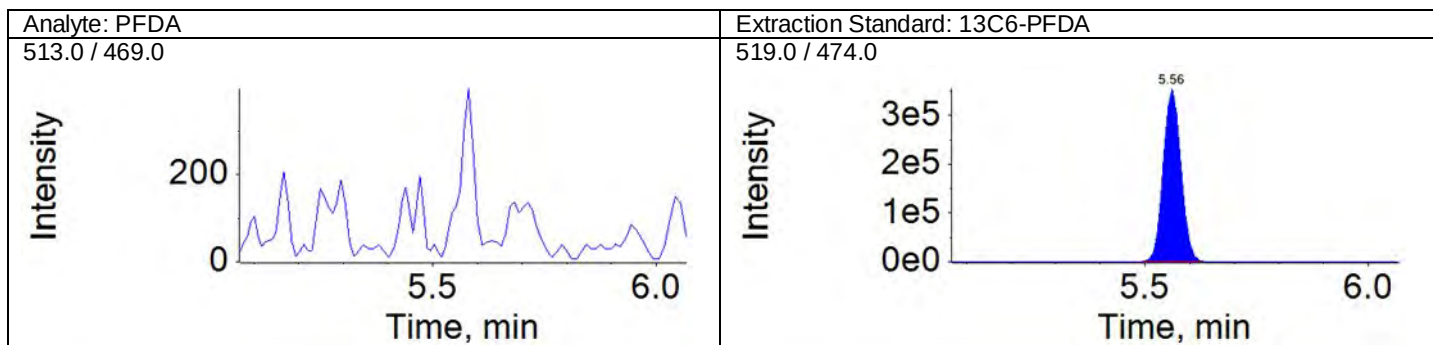
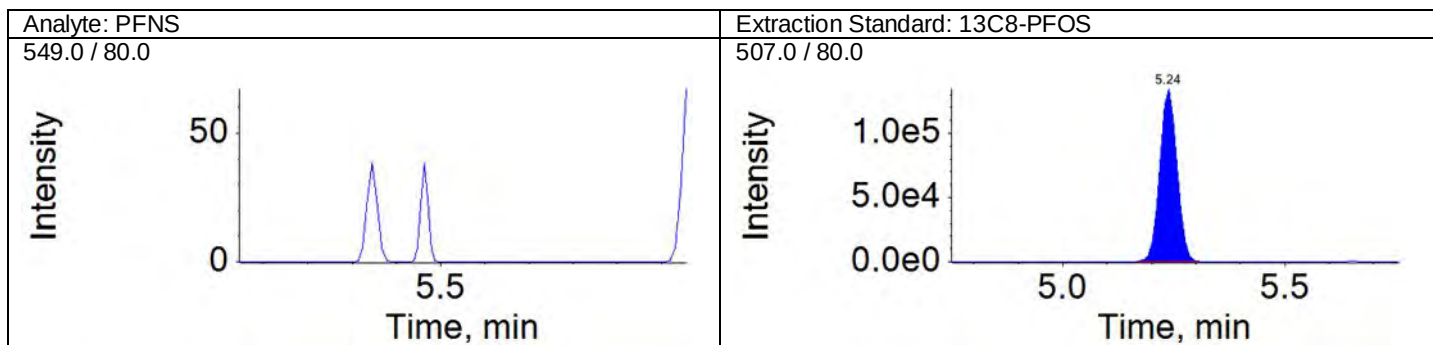
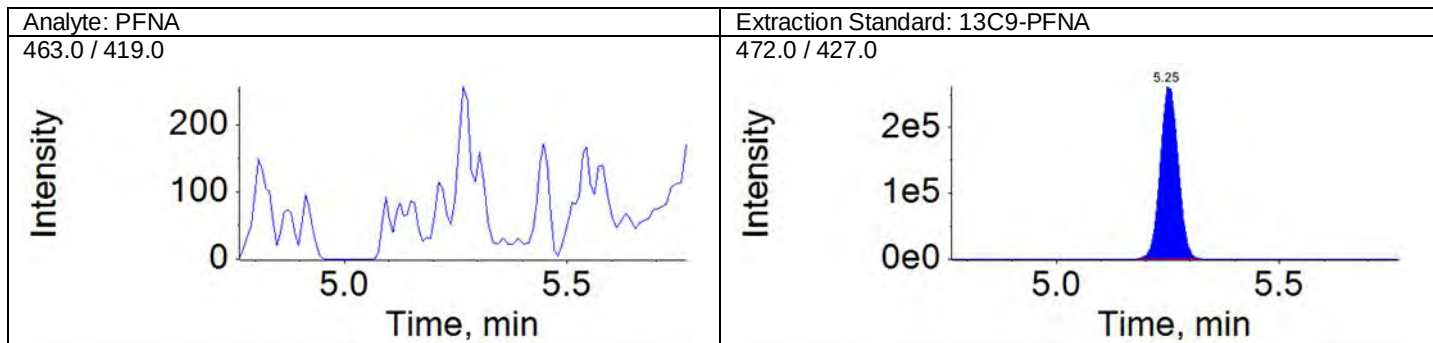
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam



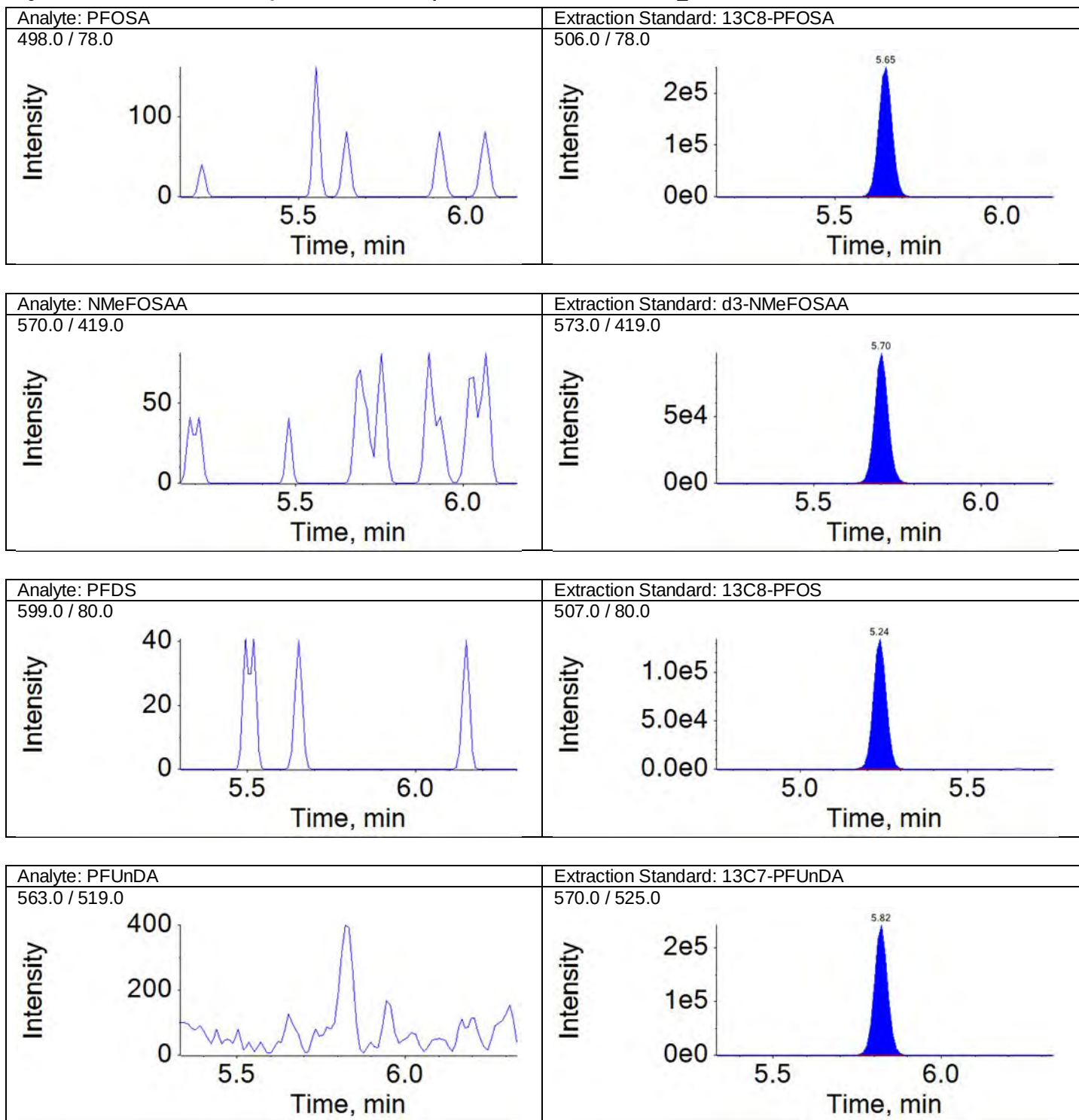
ICAL Name: 18NOV28DCAL
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Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam



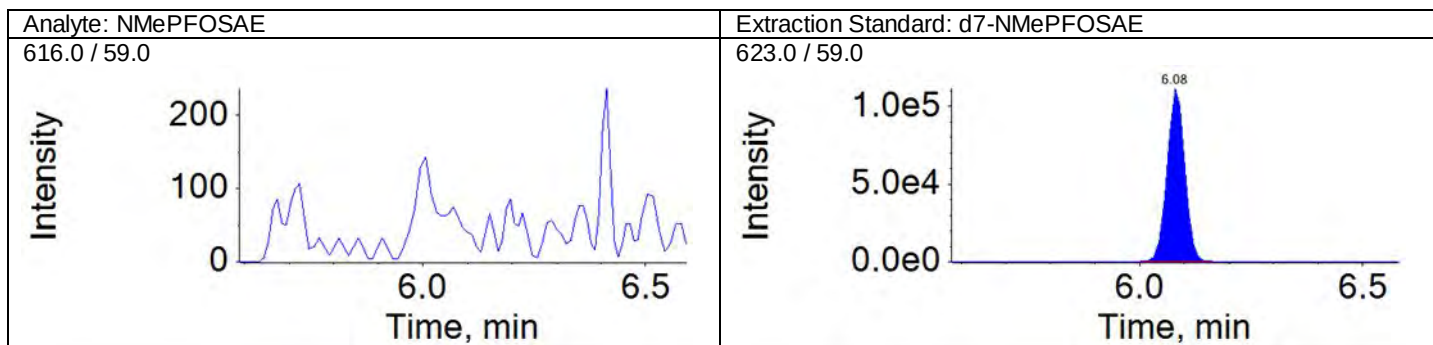
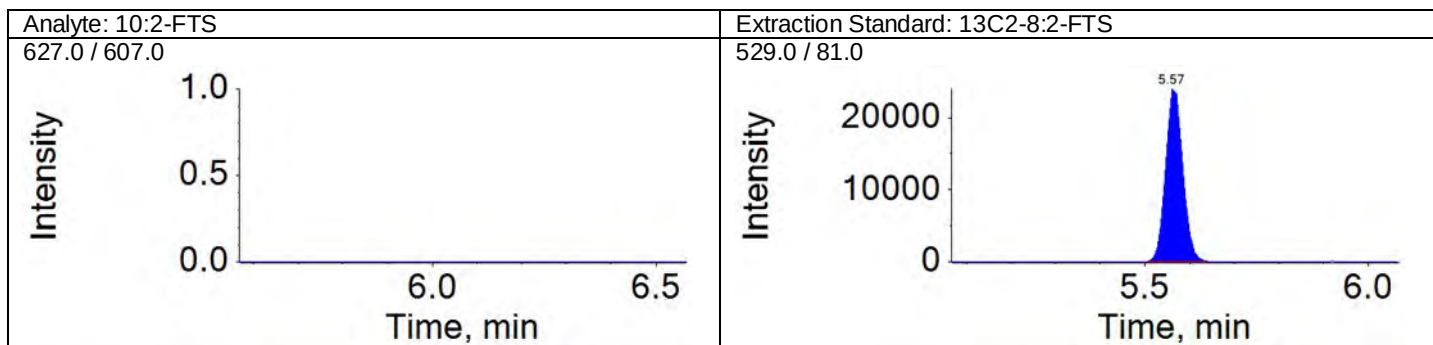
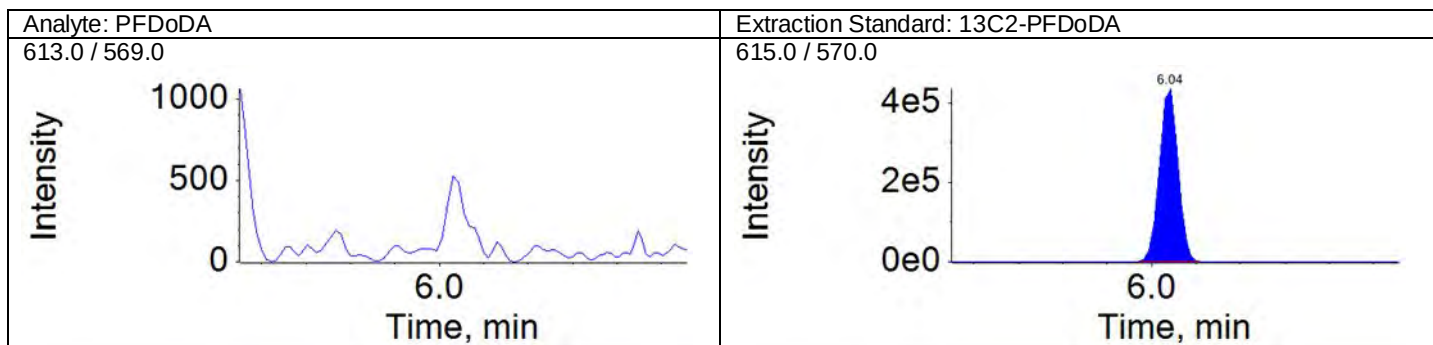
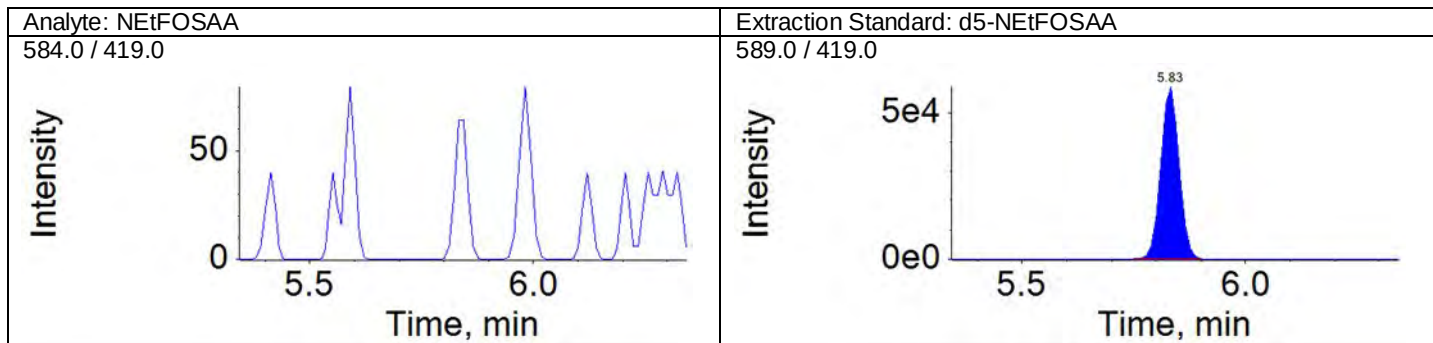
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Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam



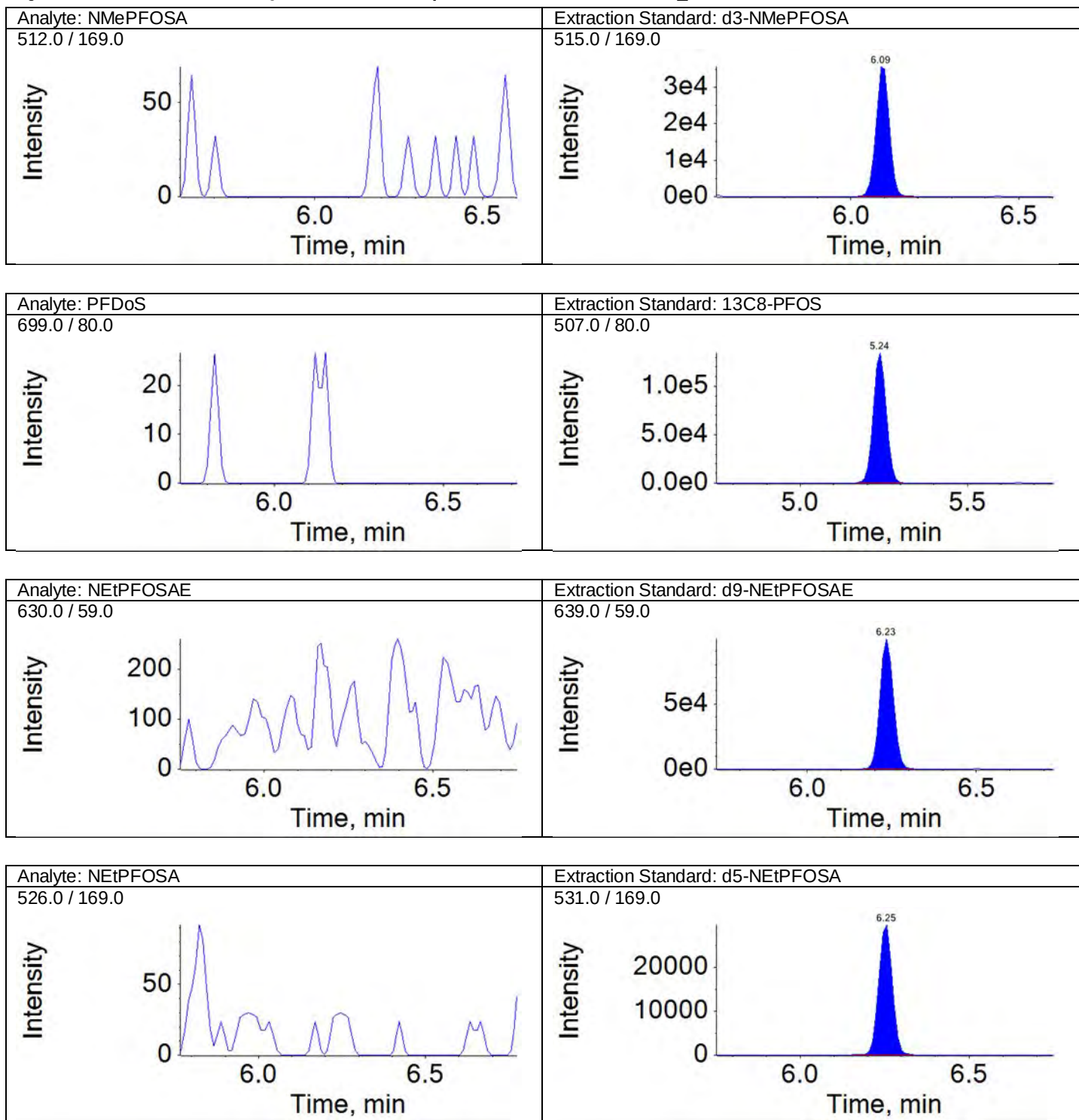
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QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam



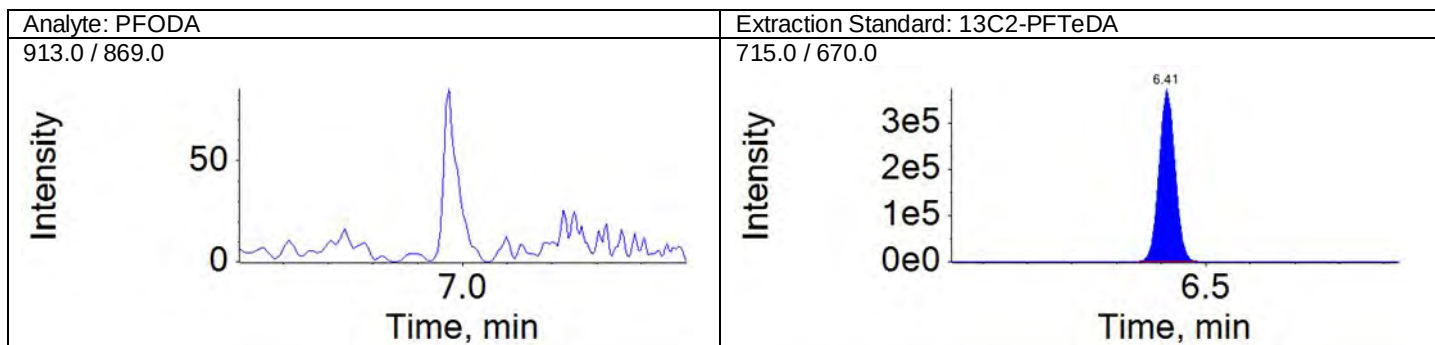
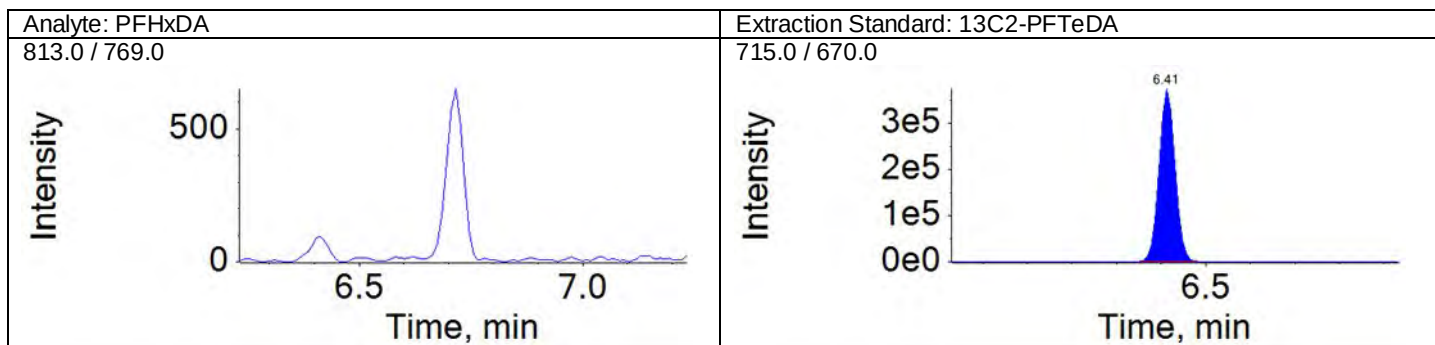
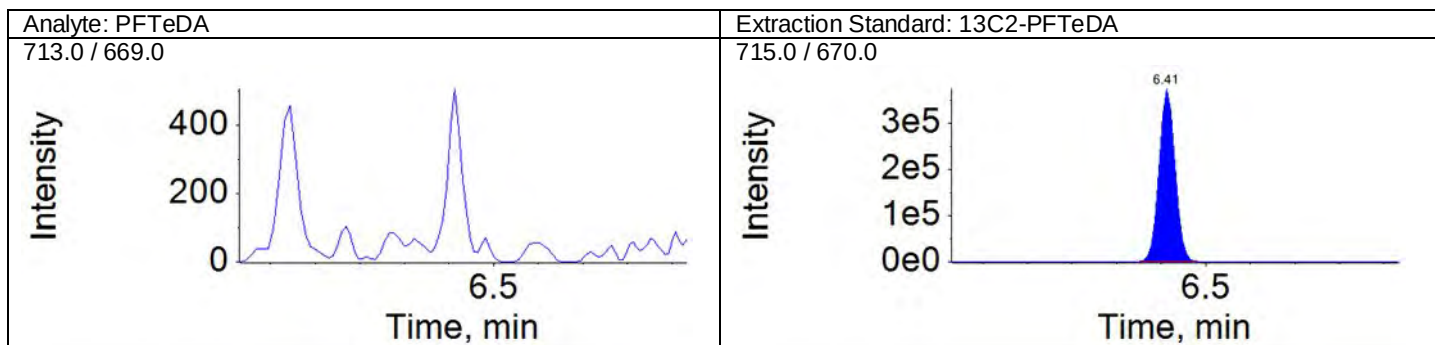
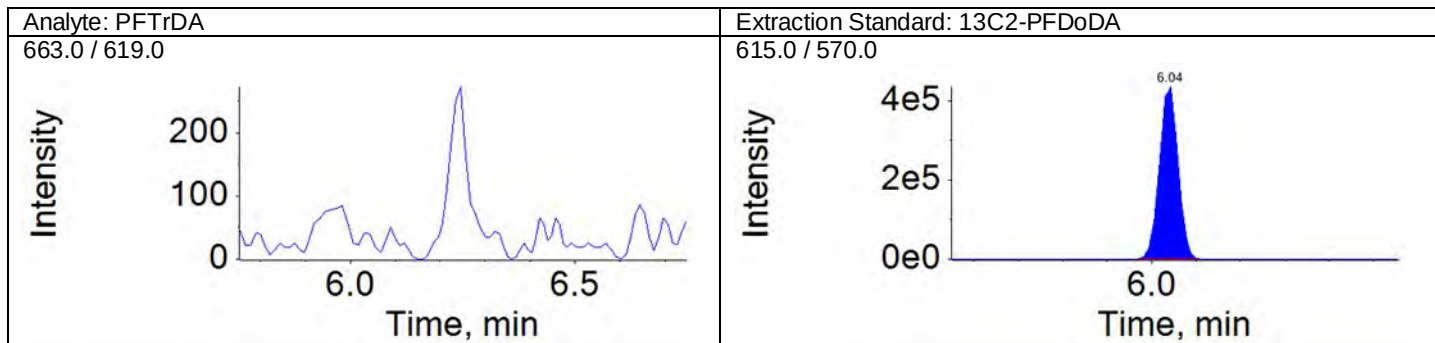
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam



Ion Ratio Report

Sample Name: Instrument Blank

Instrument Name: LM27631

File Name: 18NOV29D-06.wiff

Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDODA	N/A	N/A	N/A	A	N/A	N/A			
PFDODA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

APPROVED

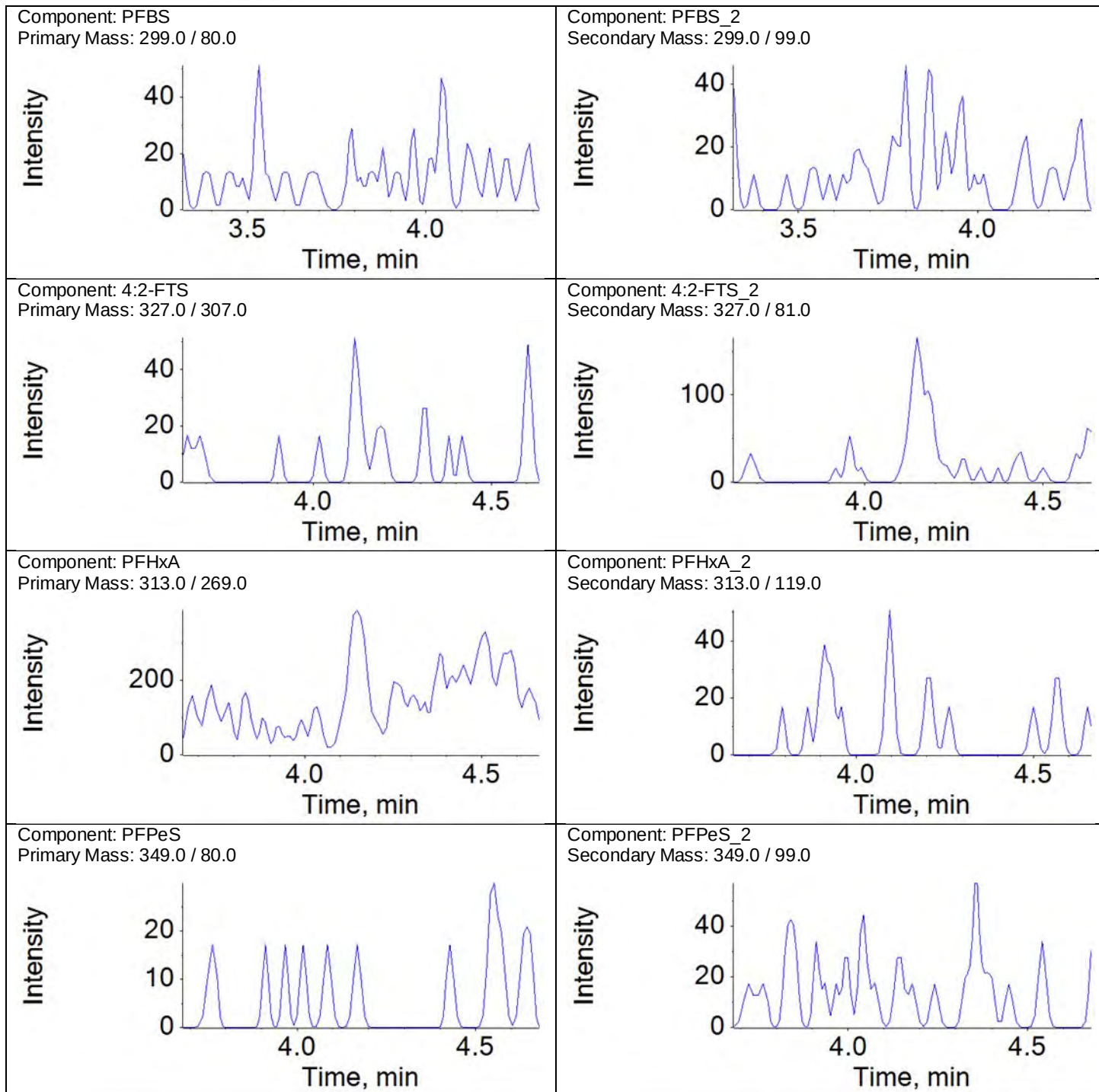
By MCD at 8:06 pm, 11/29/18

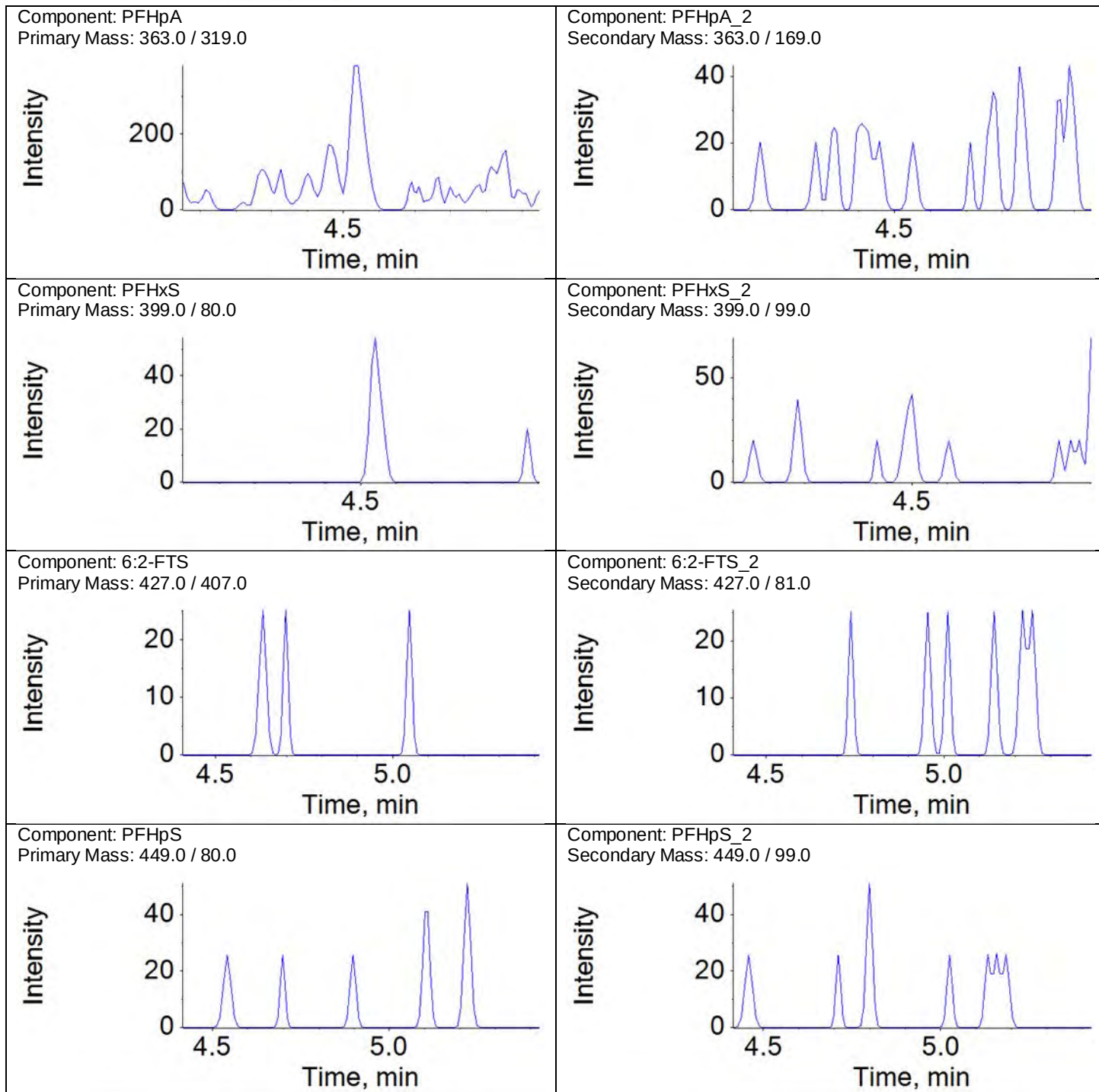
BSI14 Page 1731 of 2132

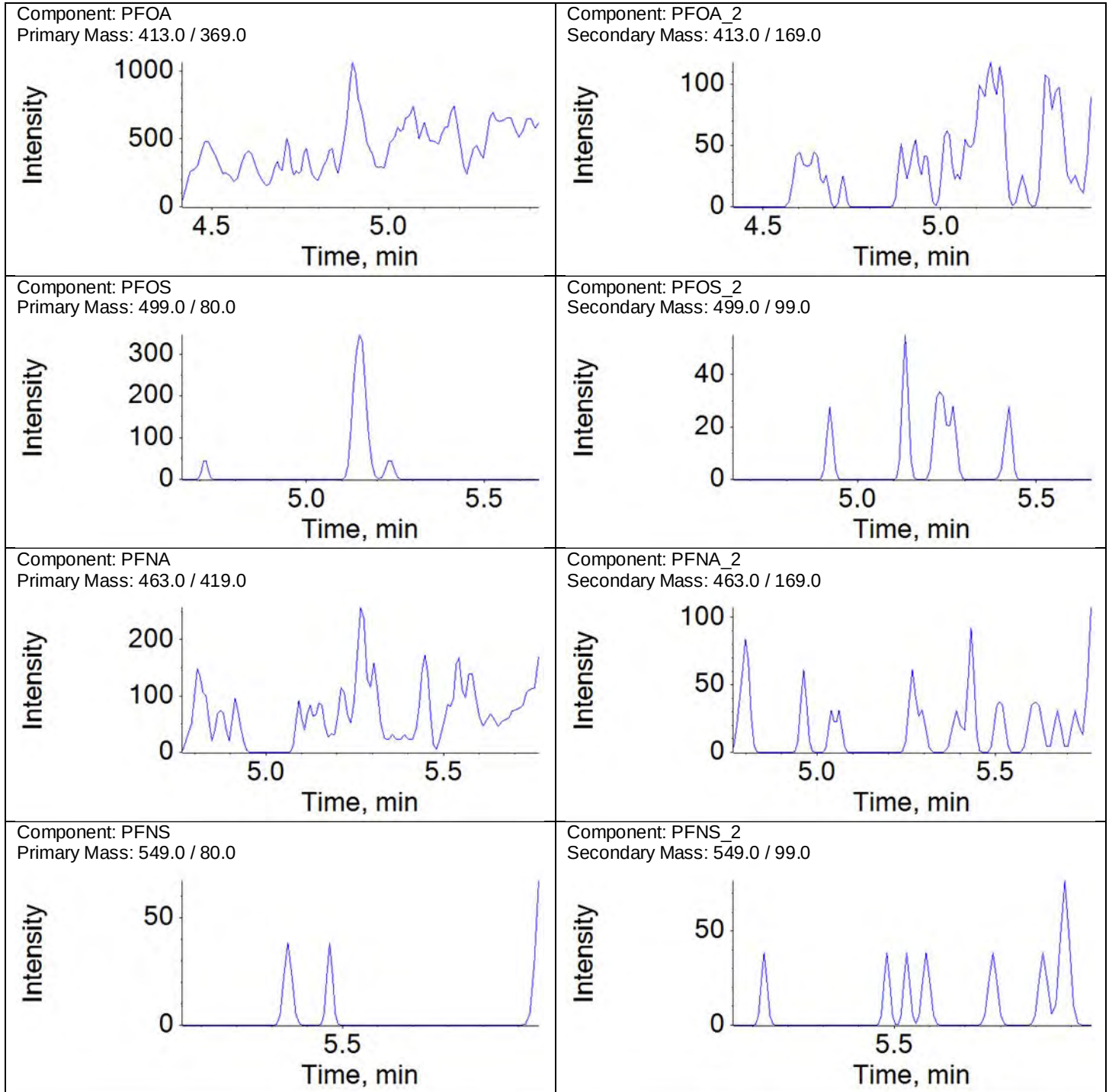
REVIEWED

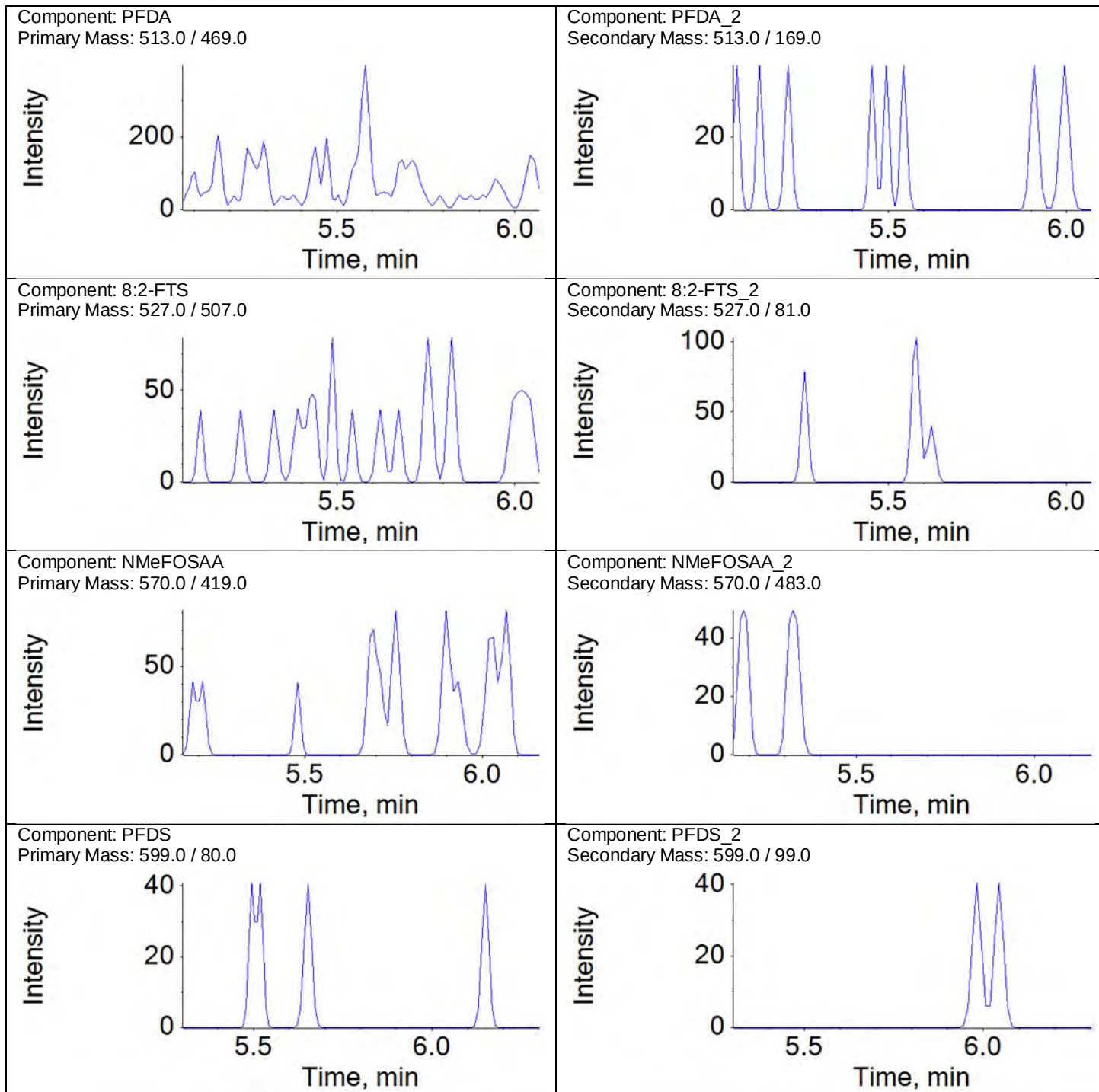
By HMK at 9:40 am, 12/5/18

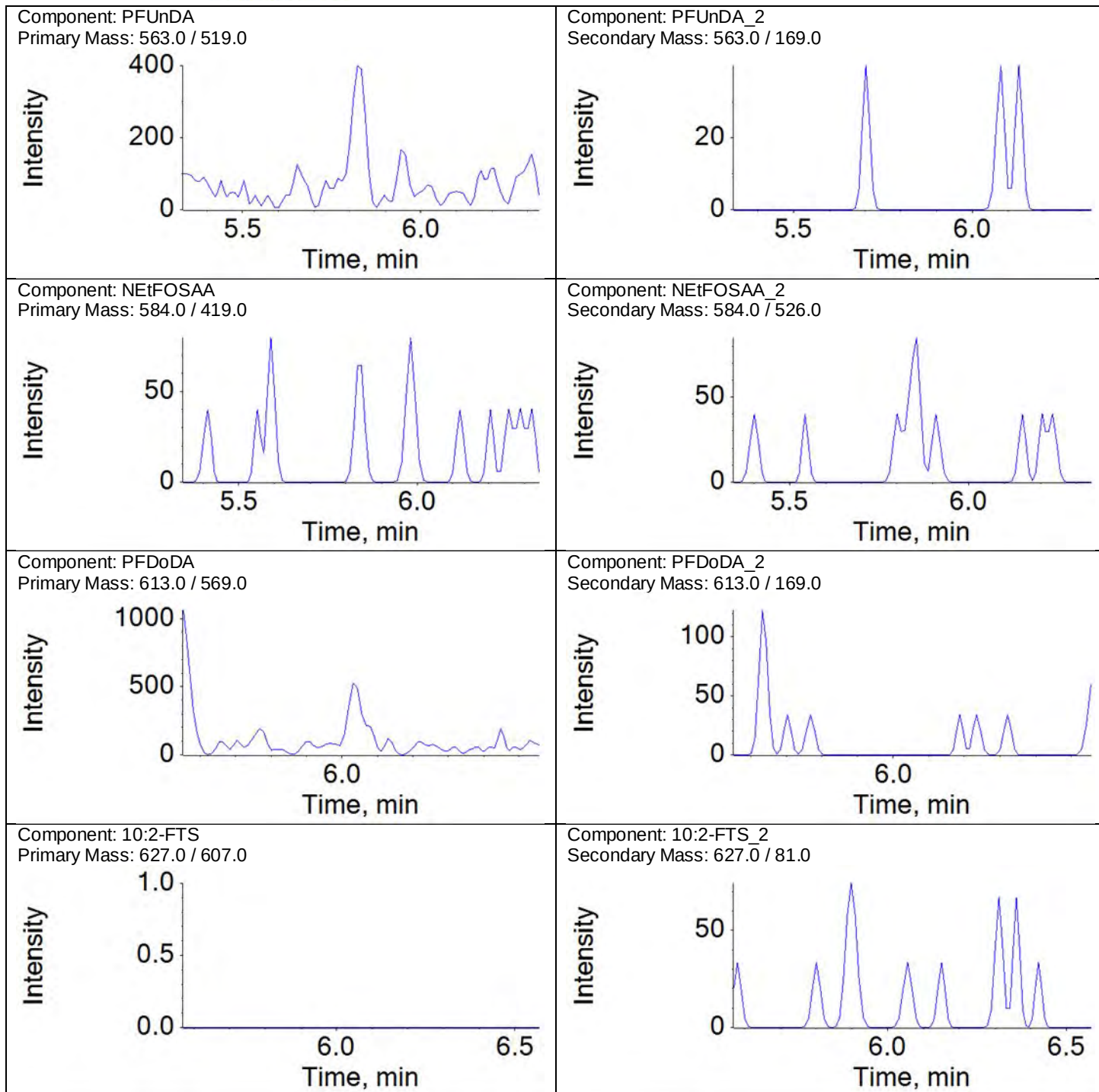
Page 1 of 7

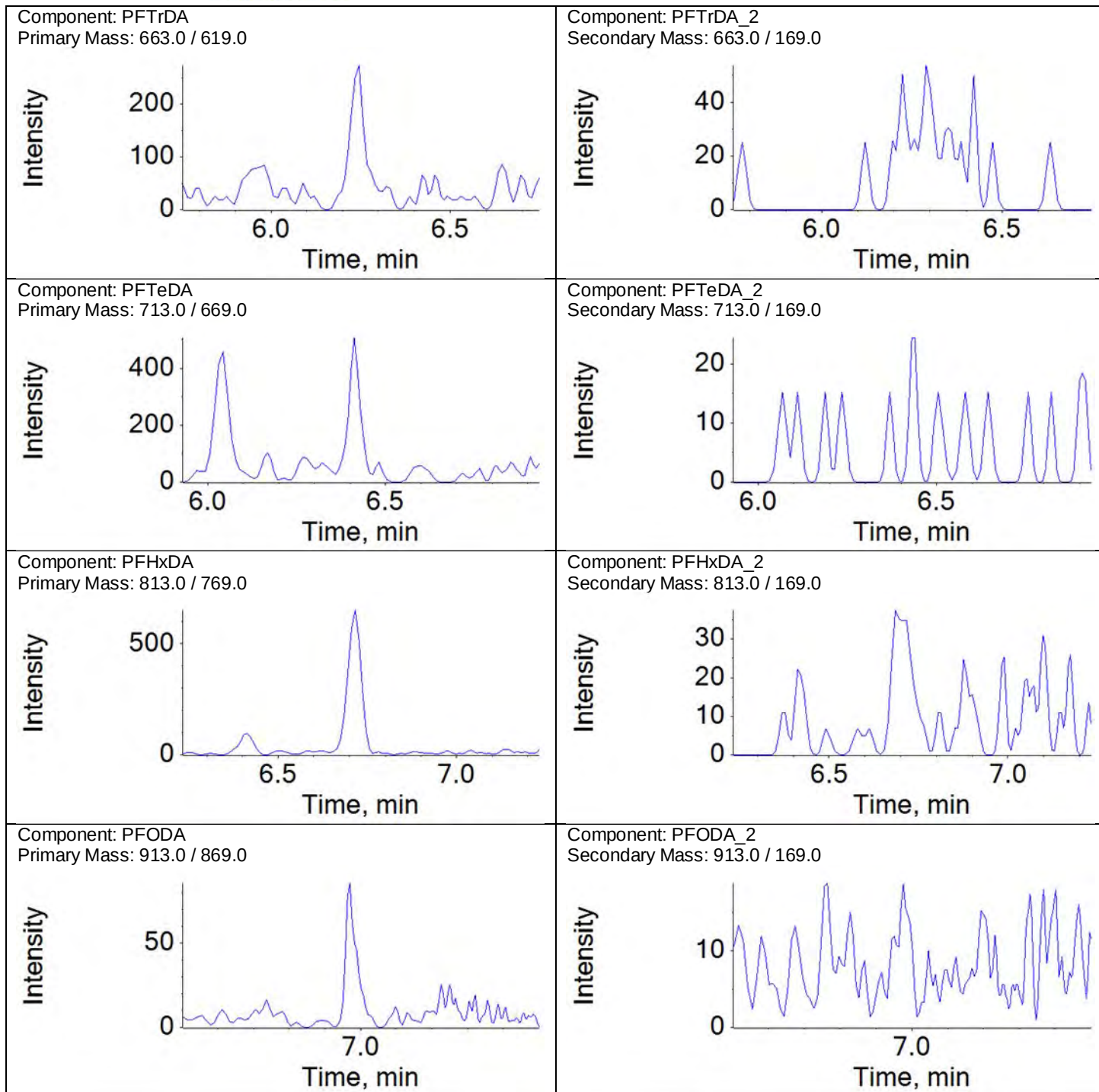










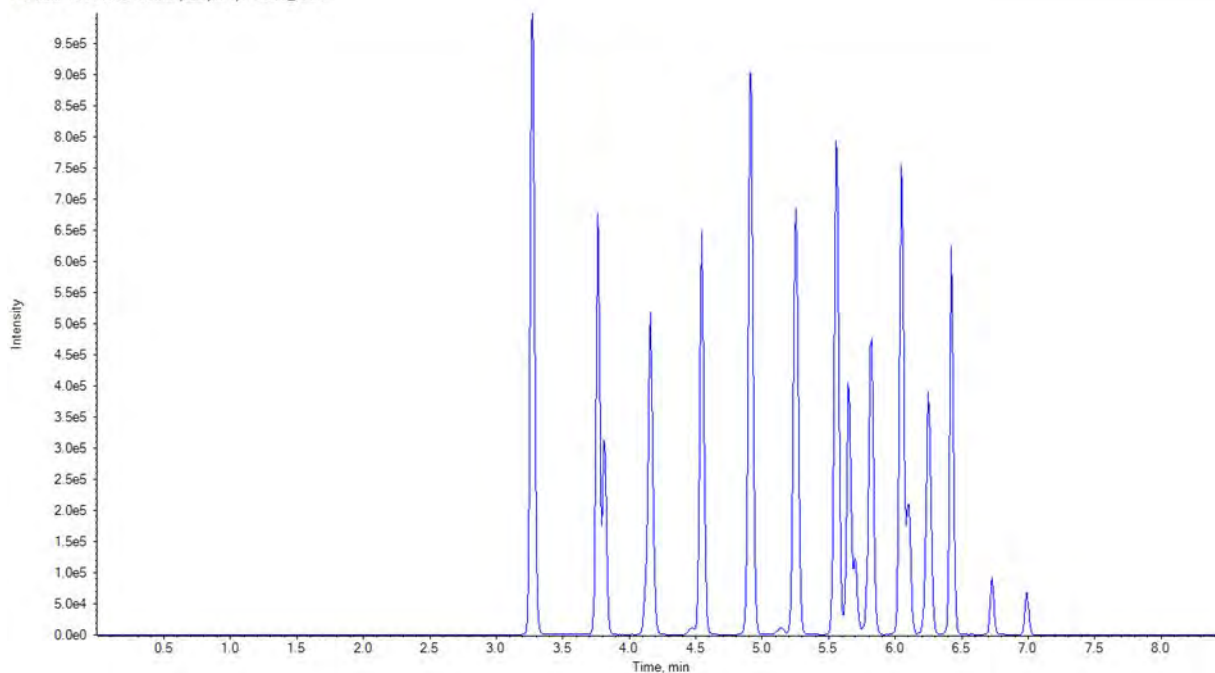


Continuing Calibration Verification

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV1-5 11/29/2018 7:56:19 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALBRN31833B	18NOV29D-52.wiff	2018-11-29T17:37:36

TIC from 18NOV29D-52.wiff (sample 1) - CCV5_CAL3



Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	888103.1	906425.4	-2	50	
13C2-PFOA	5.0	482099.7	495984.0	-3	50	
13C4-PFOS	4.8	299552.8	296261.8	1	50	
13C2-PFDA	5.0	454503.3	451203.0	1	50	

APPROVED

By MCD at 8:06 pm, 11/29/18

REVIEWED

By HMK at 9:40 am, 12/5/18

Continuing Calibration Verification

ICAL Name: 18NOV28DCAL Result Table: 18NOV29DCCV1-5 11/29/2018 7:56:19 PM
QMethod Name: 18AUG20QM Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV5_CAL3	CALBRN31833B	18NOV29D-52.wiff	2018-11-29T17:37:36

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	410376.9	10	13C4-PFBA	1003538.1	5.0	0.409	3.27	1.000	2.000	2.242	12	30	
PFPeA	400188.5	11	13C5-PFPeA	935080.6	5.0	0.428	3.77	1.000	2.000	2.100	5	30	
PFBS	172355.2	10	13C3-PFBS	424594.0	4.7	0.406	3.81	1.000	1.770	1.970	11	30	
4:2-FTS	52632.4	12	13C2-4:2-FTS	66022.9	4.7	0.797	4.12	1.000	1.870	2.134	14	30	
PFHxA	392712.5	11	13C5-PFHxA	665817.1	5.0	0.590	4.16	1.000	2.000	2.368	18	30	
PFPeS	89389.0	11	13C3-PFBS	424594.0	4.7	0.211	4.18	1.100	1.880	2.129	13	30	
PFHpA	396806.2	11	13C4-PFHpA	547436.1	5.0	0.725	4.54	1.000	2.000	2.237	12	30	
PFHxS	127006.9	19	13C3-PFHxS	327068.8	4.7	0.388	4.55	1.000	1.820	1.818	0	30	
6:2-FTS	51799.6	11	13C2-6:2-FTS	58432.7	4.8	0.886	4.90	1.000	1.900	2.313	22	30	
PFHpS	129025.9	11	13C3-PFHxS	327068.8	4.7	0.394	4.91	1.080	1.900	1.969	4	30	
PFOA	407078.9	11	13C8-PFOA	958420.1	5.0	0.425	4.91	1.000	2.000	2.195	10	30	
PFOS	138995.5	21	13C8-PFOS	336404.9	4.8	0.413	5.24	1.000	1.850	1.733	-6	30	
PFNA	382168.0	11	13C9-PFNA	639090.1	5.0	0.598	5.26	1.000	2.000	2.292	15	30	
PFNS	98297.2	11	13C8-PFOS	336404.9	4.8	0.292	5.54	1.060	1.920	1.845	-4	30	
PFDA	343068.9	11	13C6-PFDA	857518.7	5.0	0.400	5.56	1.000	2.000	2.265	13	30	
8:2-FTS	54309.5	11	13C2-8:2-FTS	55836.5	4.8	0.973	5.56	1.000	1.920	1.834	-4	30	
PFOSA	268924.0	12	13C8-PFOSA	644731.6	5.0	0.417	5.65	1.000	2.000	2.113	6	30	
NMeFOSAA	64182.7	18	d3-NMeFOSAA	182307.0	5.0	0.352	5.70	1.000	2.000	2.246	12	30	
PFDS	79891.7	12	13C8-PFOS	336404.9	4.8	0.237	5.79	1.100	1.930	1.883	-2	30	
PFUnDA	355883.8	11	13C7-PFUnDA	567707.2	5.0	0.627	5.82	1.000	2.000	2.241	12	30	
NEtFOSAA	64211.1	22	d5-NEtFOSAA	138062.3	5.0	0.465	5.83	1.000	2.000	2.265	13	30	
PFDODA	467324.6	12	13C2-PFDODA	1144067.1	5.0	0.408	6.05	1.000	2.000	2.238	12	30	
10:2-FTS	54230.7	12	13C2-8:2-FTS	55836.5	4.8	0.971	6.07	1.090	1.930	2.142	11	30	
NMePFOSAE	136711.2	11	d7-NMePFOSAE	257051.1	5.0	0.532	6.10	1.000	2.000	2.238	12	30	
NMePFOSA	35299.2	11	d3-NMePFOSA	82258.4	5.0	0.429	6.11	1.000	2.000	2.275	14	30	
PFDOS	43145.4	11	13C8-PFOS	336404.9	4.8	0.128	6.22	1.190	1.940	1.842	-5	30	
NEtPFOSAE	152658.0	11	d9-NEtPFOSAE	225911.1	5.0	0.676	6.26	1.000	2.000	2.431	22	30	
NEtPFOSA	32593.5	11	d5-NEtPFOSA	68497.7	5.0	0.476	6.27	1.000	2.000	2.133	7	30	
PFTTrDA	477187.4	11	13C2-PFDODA	1144067.1	5.0	0.417	6.25	1.030	2.000	2.514	26	30	
PFTeDA	345082.9	10	13C2-PFTeDA	853856.6	5.0	0.404	6.42	1.000	2.000	2.290	14	30	
PFHxDA	172538.3	11	13C2-PFTeDA	853856.6	5.0	0.202	6.73	1.050	2.000	2.310	16	30	
PFOA	141132.9	10	13C2-PFTeDA	853856.6	5.0	0.165	6.99	1.090	2.000	2.202	10	30	

Continuing Calibration Verification

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV1-5 11/29/2018 7:56:19 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED

By MCD at 8:06 pm, 11/29/18

REVIEWED

By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV5 CAL3		Data File:	18NOV29D-52.wiff
Sample ID:	CALBRN31833B		Acquis Date:	2018-11-29T17:37:36
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	5		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18NOV29DCCV1-5
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	N/A		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	888103.1	906425.4	-2	50	
13C2-PFOA	5.0	482099.7	495984.0	-3	50	
13C4-PFOS	4.8	299552.8	296261.8	1	50	
13C2-PFDA	5.0	454503.3	451203.0	1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1003538.1	13C3-PFBA	888103.1	1.130	5.000	5.041	101	70-130	
E13C5-PFPeA	935080.6	13C3-PFBA	888103.1	1.053	5.000	4.917	98	70-130	
E13C3-PFBS	424594.0	13C3-PFBA	888103.1	0.478	4.650	4.561	98	70-130	
E13C2-4:2-FTS	66022.9	13C2-PFOA	482099.7	0.137	4.670	4.720	101	70-130	
E13C5-PFHxA	665817.1	13C2-PFOA	482099.7	1.381	5.000	5.073	101	70-130	
E13C3-PFHxS	327068.8	13C2-PFOA	482099.7	0.678	4.730	5.317	112	70-130	
E13C4-PFHpA	547436.1	13C2-PFOA	482099.7	1.136	5.000	5.218	104	70-130	
E13C2-6:2-FTS	58432.7	13C2-PFOA	482099.7	0.121	4.750	5.074	107	70-130	
E13C8-PFOA	958420.1	13C2-PFOA	482099.7	1.988	5.000	5.472	109	70-130	
E13C8-PFOS	336404.9	13C4-PFOS	299552.8	1.123	4.780	5.070	106	70-130	
E13C9-PFNA	639090.1	13C4-PFOS	299552.8	2.133	5.000	4.686	94	70-130	
E13C6-PFDA	857518.7	13C2-PFDA	454503.3	1.887	5.000	5.320	106	70-130	
E13C2-8:2-FTS	55836.5	13C2-PFDA	454503.3	0.123	4.790	5.280	110	70-130	
E13C8-PFOSA	644731.6	13C2-PFDA	454503.3	1.419	5.000	5.205	104	70-130	
Ed3-NMeFOSAA	182307.0	13C2-PFDA	454503.3	0.401	5.000	5.093	102	70-130	
E13C7-PFUnDA	567707.2	13C2-PFDA	454503.3	1.249	5.000	5.279	106	70-130	
Ed5-NEtFOSAA	138062.3	13C2-PFDA	454503.3	0.304	5.000	5.412	108	70-130	
E13C2-PFDoDA	1144067.1	13C2-PFDA	454503.3	2.517	5.000	5.289	106	70-130	
Ed7-NMePFOSAE	257051.1	13C2-PFDA	454503.3	0.566	5.000	4.888	98	70-130	
Ed3-NMePFOSA	82258.4	13C2-PFDA	454503.3	0.181	5.000	4.898	98	70-130	
Ed9-NEtPFOSAE	225911.1	13C2-PFDA	454503.3	0.497	5.000	5.039	101	70-130	
Ed5-NEtPFOSA	68497.7	13C2-PFDA	454503.3	0.151	5.000	5.237	105	70-130	
E13C2-PFTeDA	853856.6	13C2-PFDA	454503.3	1.879	5.000	5.198	104	70-130	

APPROVED

By MCD at 8:06 pm, 11/29/18

REVIEWED

By HMK at 9:40 am, 12/5/18

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CCV5_CAL3

Instrument Name: LM27631

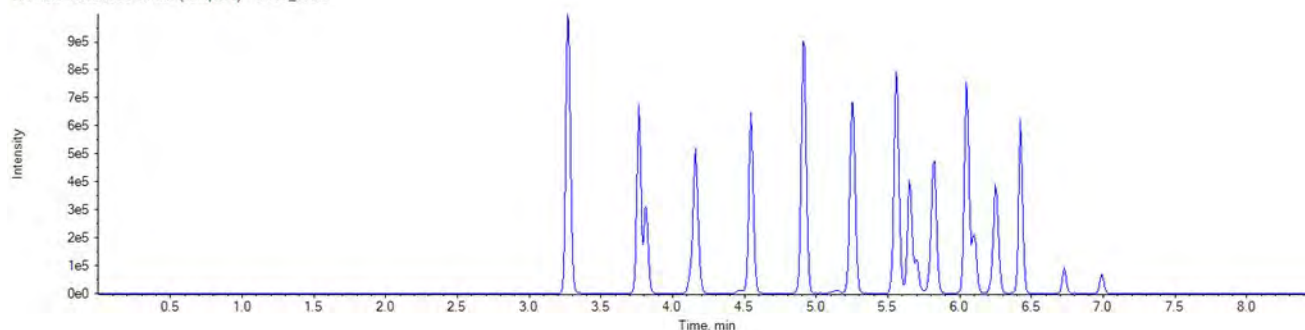
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	410376.9		A	13C4-PFBA	3.27	1003538.1	0.409	2.242
PFPeA	3.77	1.000	400188.5		A	13C5-PFPeA	3.76	935080.6	0.428	2.100
PFBS	3.81	1.000	172355.2		A	13C3-PFBS	3.81	424594.0	0.406	1.970
4:2-FTS	4.12	1.000	52632.4		A	13C2-4:2-FTS	4.13	66022.9	0.797	2.134
PFHxA	4.16	1.000	392712.5		A	13C5-PFHxA	4.16	665817.1	0.590	2.368
PFPeS	4.18	1.100	89389.0		A	13C3-PFBS	3.81	424594.0	0.211	2.129
PFHpA	4.54	1.000	396806.2		A	13C4-PFHpA	4.54	547436.1	0.725	2.237
PFHxS	4.55	1.000	127006.9		M	13C3-PFHxS	4.55	327068.8	0.388	1.818
6:2-FTS	4.90	1.000	51799.6		A	13C2-6:2-FTS	4.90	58432.7	0.886	2.313
PFHpS	4.91	1.080	129025.9		A	13C3-PFHxS	4.55	327068.8	0.394	1.969
PFOA	4.91	1.000	407078.9		A	13C8-PFOA	4.91	958420.1	0.425	2.195
PFOS	5.24	1.000	138995.5		M	13C8-PFOS	5.24	336404.9	0.413	1.733
PFNA	5.26	1.000	382168.0		A	13C9-PFNA	5.26	639090.1	0.598	2.292
PFNS	5.54	1.060	98297.2		A	13C8-PFOS	5.24	336404.9	0.292	1.845
PFDA	5.56	1.000	343068.9		A	13C6-PFDA	5.56	857518.7	0.400	2.265
8:2-FTS	5.56	1.000	54309.5		A	13C2-8:2-FTS	5.56	55836.5	0.973	1.834
PFOSA	5.65	1.000	268924.0		A	13C8-PFOSA	5.65	644731.6	0.417	2.113
NMeFOSAA	5.70	1.000	64182.7		A	d3-NMeFOSAA	5.70	182307.0	0.352	2.246
PFDS	5.79	1.100	79891.7		A	13C8-PFOS	5.24	336404.9	0.237	1.883
PFUnDA	5.82	1.000	355883.8		A	13C7-PFUnDA	5.82	567707.2	0.627	2.241
NEtFOSAA	5.83	1.000	64211.1		M	d5-NEtFOSAA	5.83	138062.3	0.465	2.265
PFDaDA	6.05	1.000	467324.6		A	13C2-PFDaDA	6.05	1144067.1	0.408	2.238
10:2-FTS	6.07	1.090	54230.7		A	13C2-8:2-FTS	5.56	55836.5	0.971	2.142
NMePFOSAE	6.10	1.000	136711.2		A	d7-NMePFOSAE	6.10	257051.1	0.532	2.238
NMePFOSA	6.11	1.000	35299.2		A	d3-NMePFOSA	6.11	82258.4	0.429	2.275
PFDaS	6.22	1.190	43145.4		A	13C8-PFOS	5.24	336404.9	0.128	1.842
NEtPFOSAE	6.26	1.000	152658.0		A	d9-NEtPFOSAE	6.25	225911.1	0.676	2.431
NEtPFOSA	6.27	1.000	32593.5		A	d5-NEtPFOSA	6.27	68497.7	0.476	2.133
PFTaDA	6.25	1.030	477187.4		A	13C2-PFDaDA	6.05	1144067.1	0.417	2.514
PFTeDA	6.42	1.000	345082.9		A	13C2-PFTeDA	6.42	853856.6	0.404	2.290
PFHxDA	6.73	1.050	172538.3		A	13C2-PFTeDA	6.42	853856.6	0.202	2.310
PFODA	6.99	1.090	141132.9		A	13C2-PFTeDA	6.42	853856.6	0.165	2.202

Total Ion Chromatogram

TIC from 18NOV29D-52.wiff (sample 1) - CCV5_CAL3



APPROVED

By MCD at 8:06 pm, 11/29/18

BSI14 Page 1742 of 2132

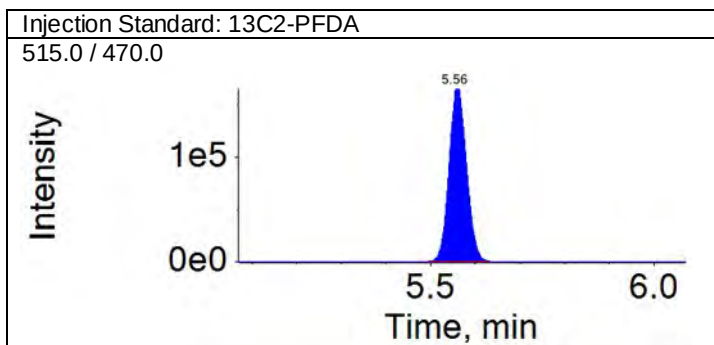
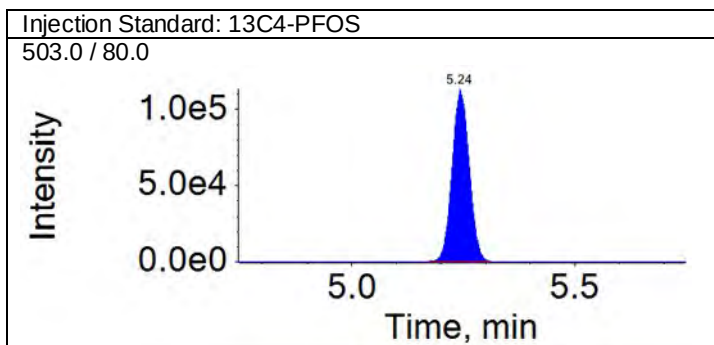
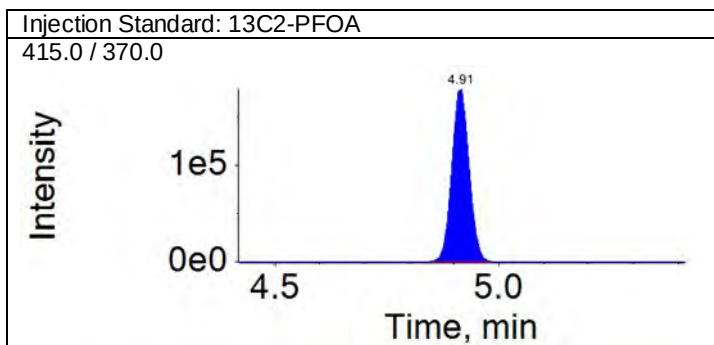
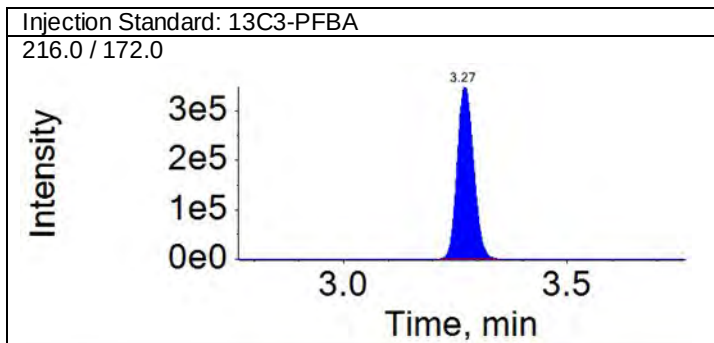
REVIEWED

By HMK at 9:40 am, 12/5/18

Page 2 of 17

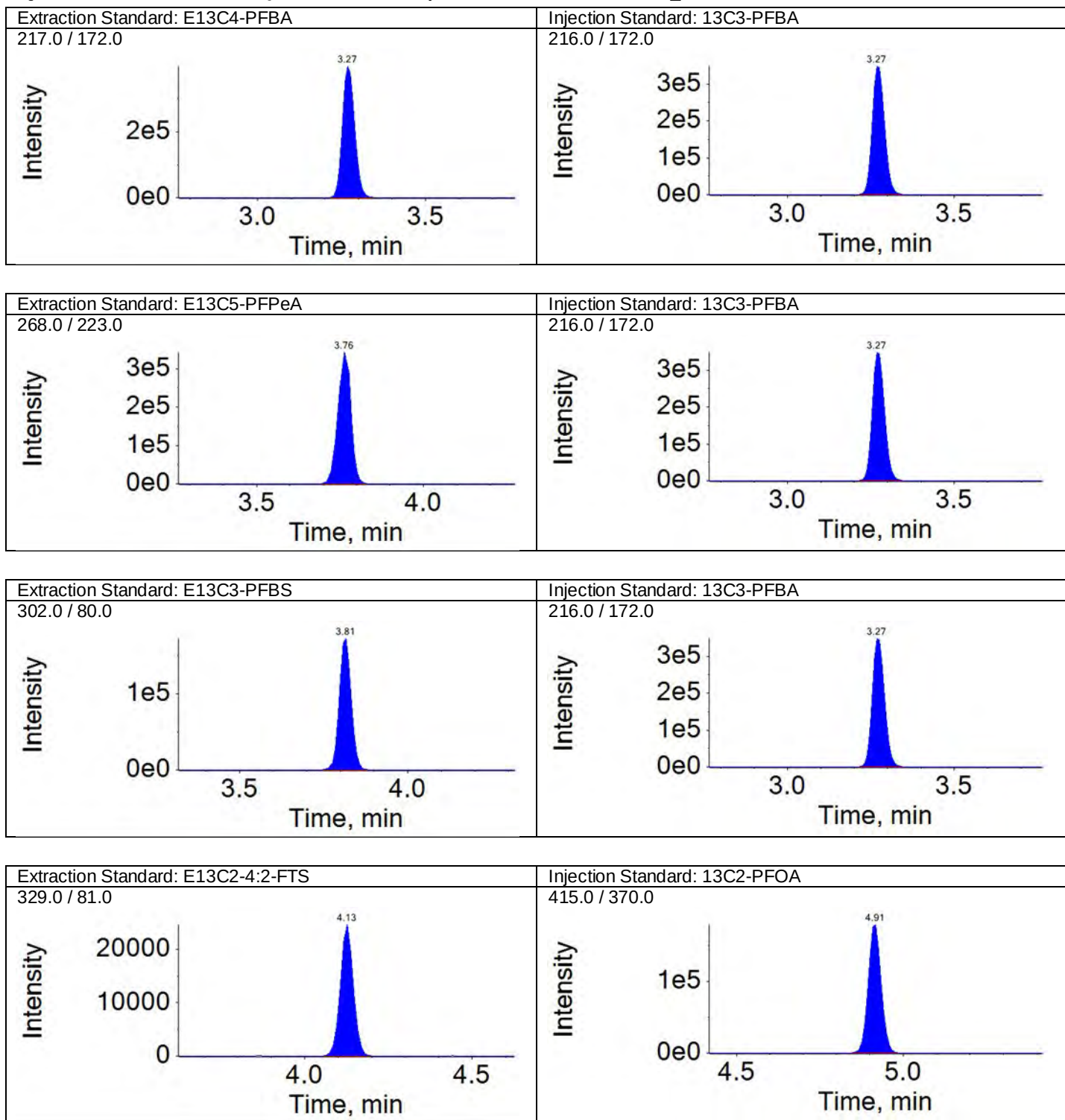
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QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV1-5 11/29/2018 7:58:55 PM
Acquisition Method: 18AUG13_3uL.dam



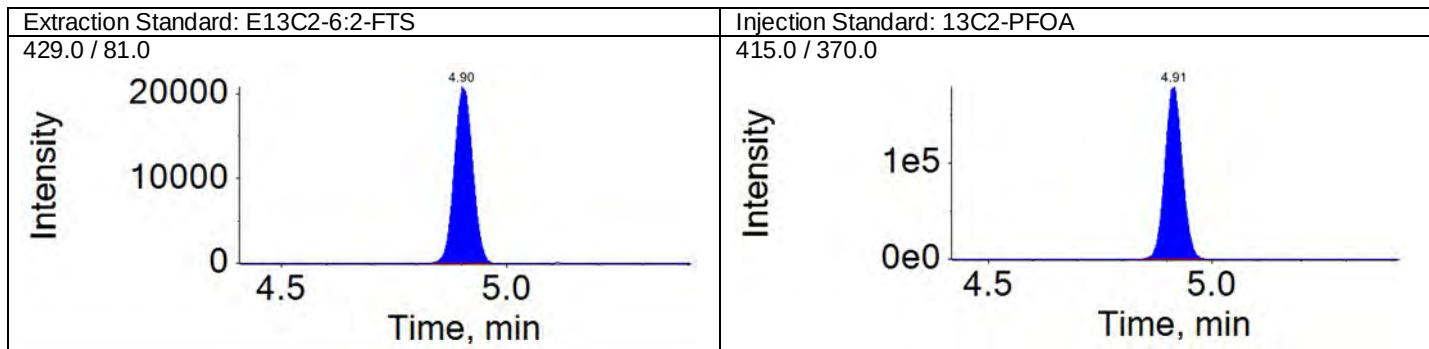
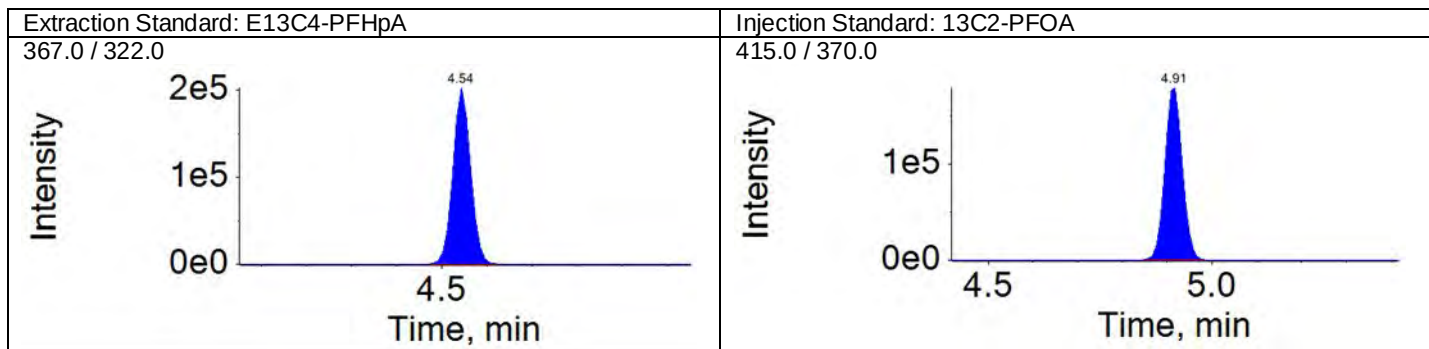
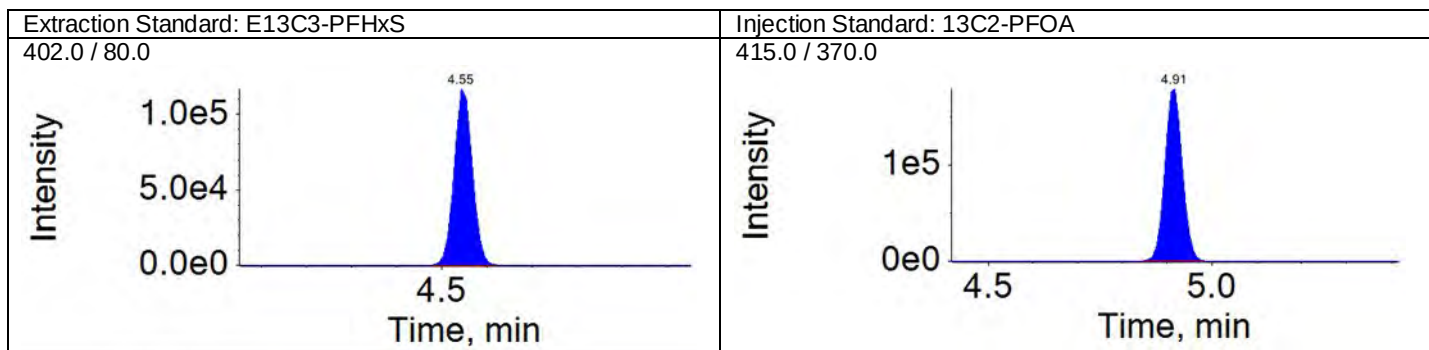
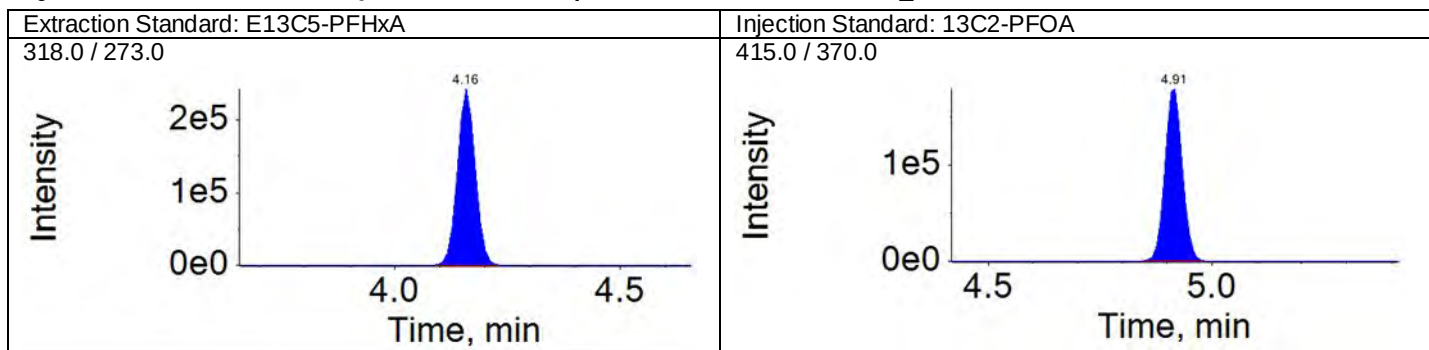
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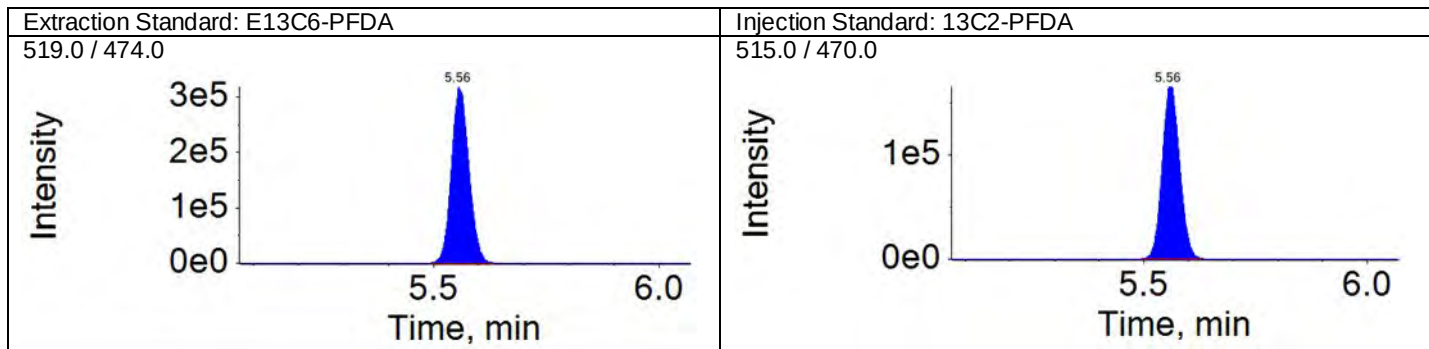
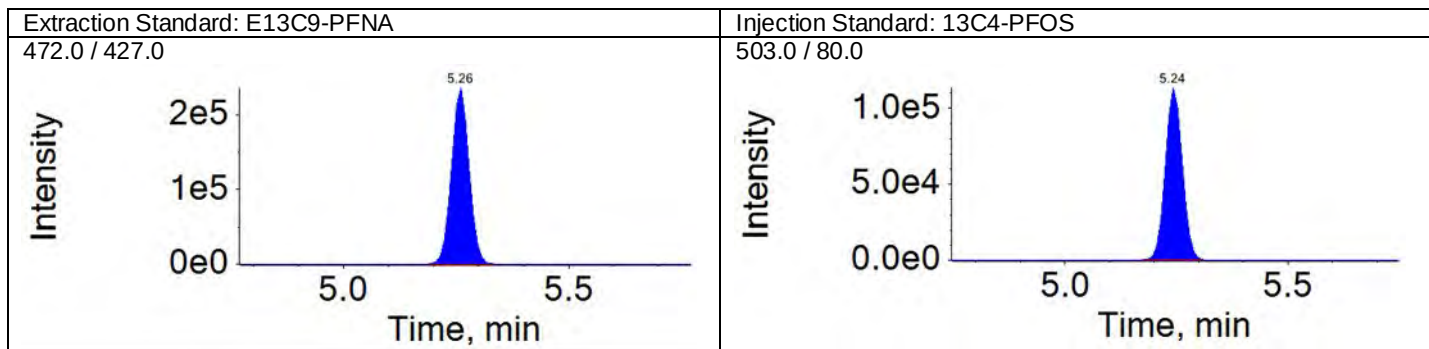
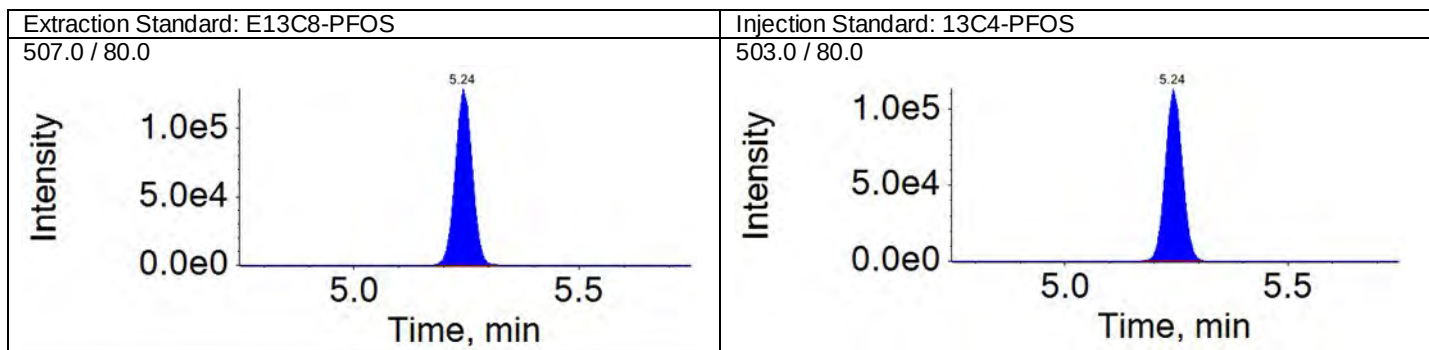
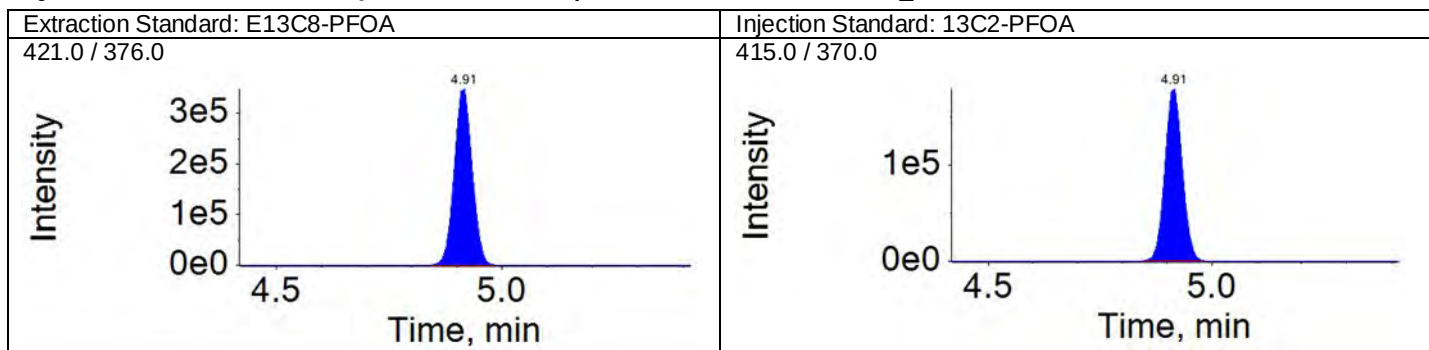
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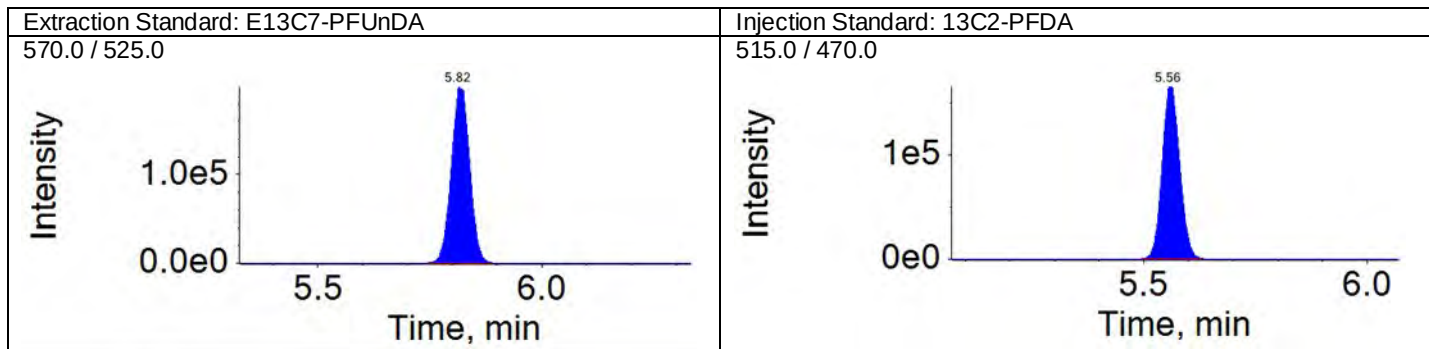
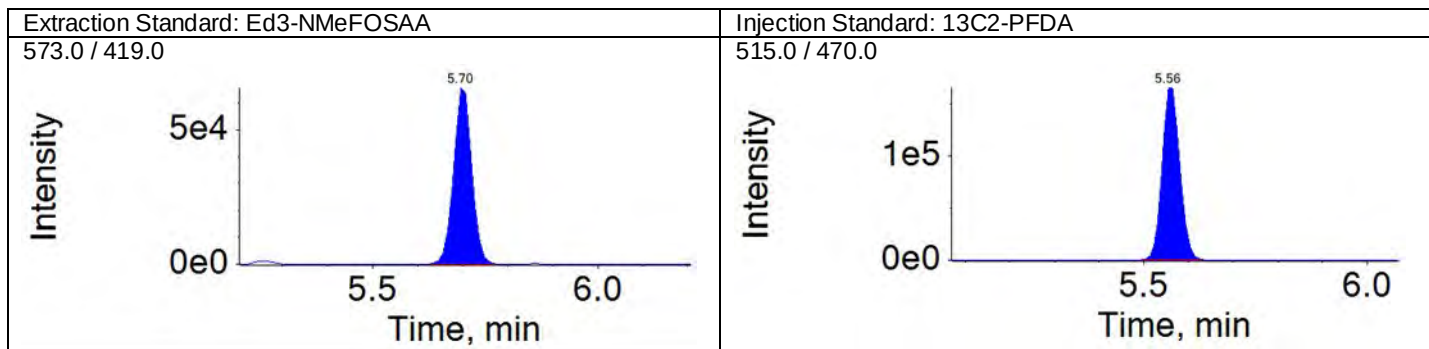
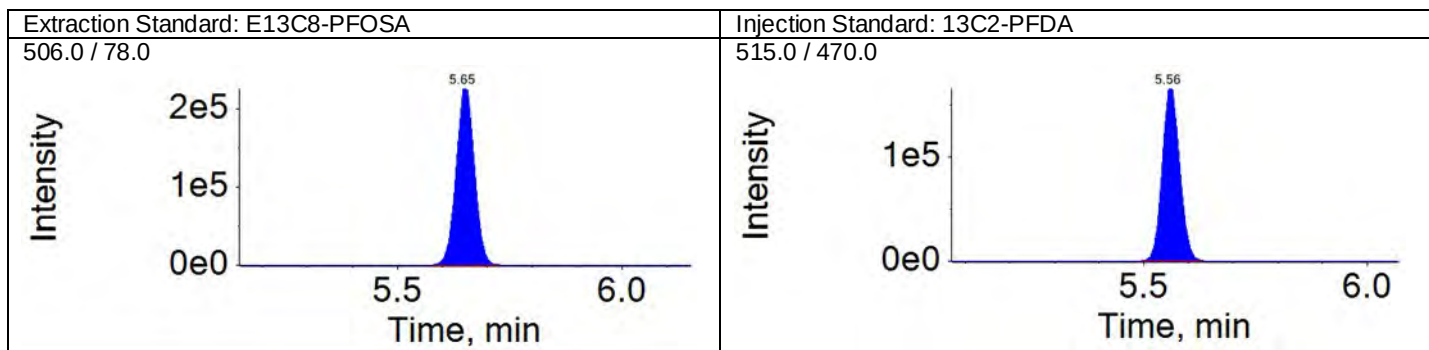
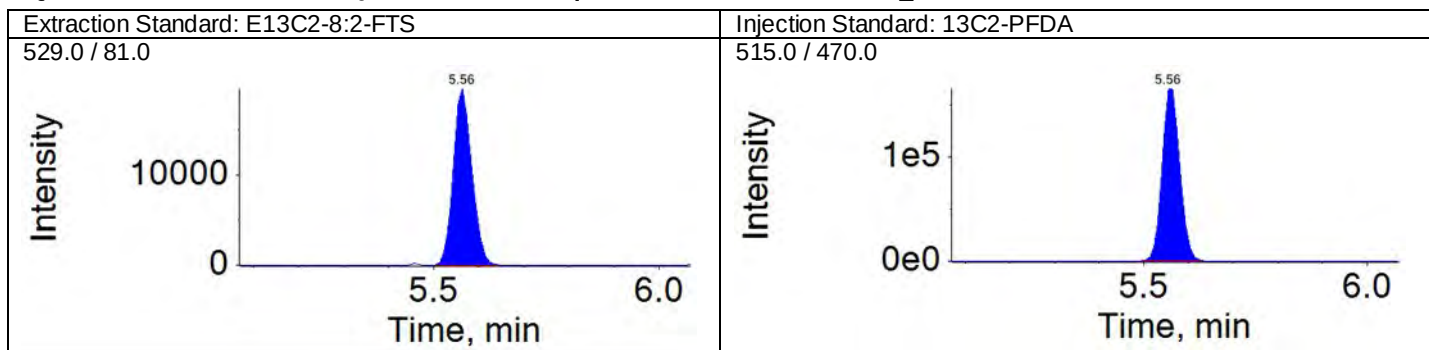
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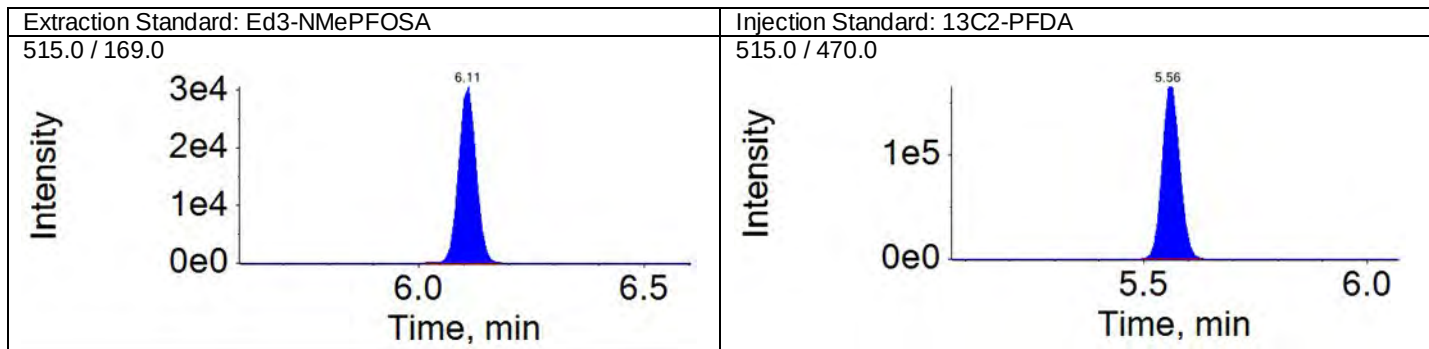
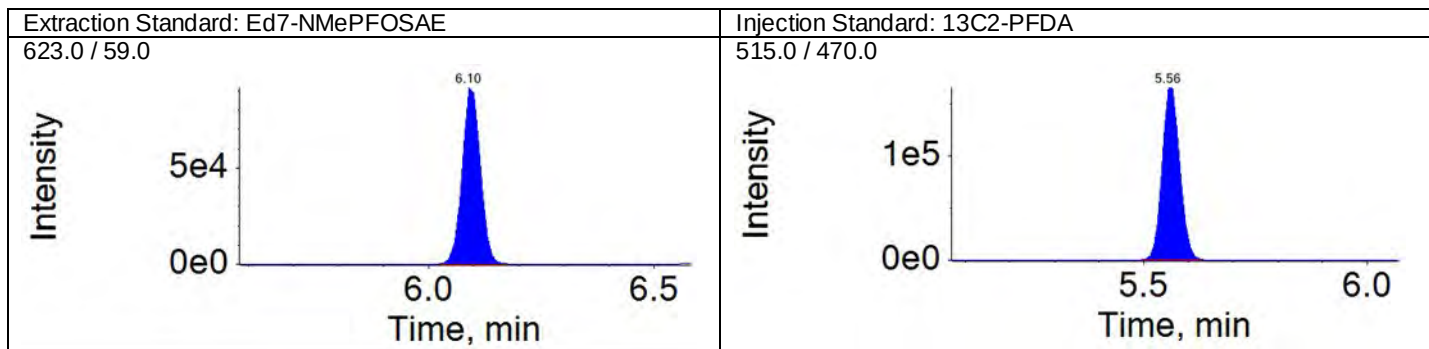
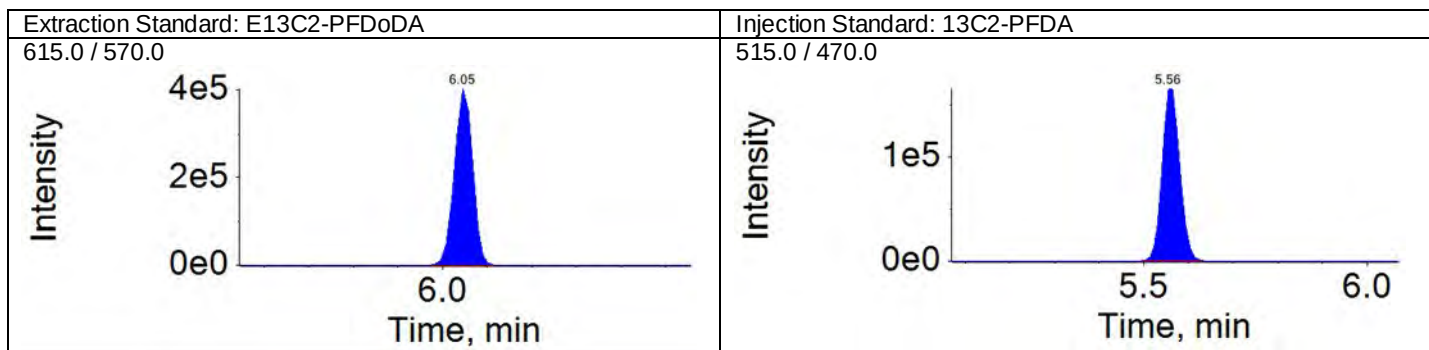
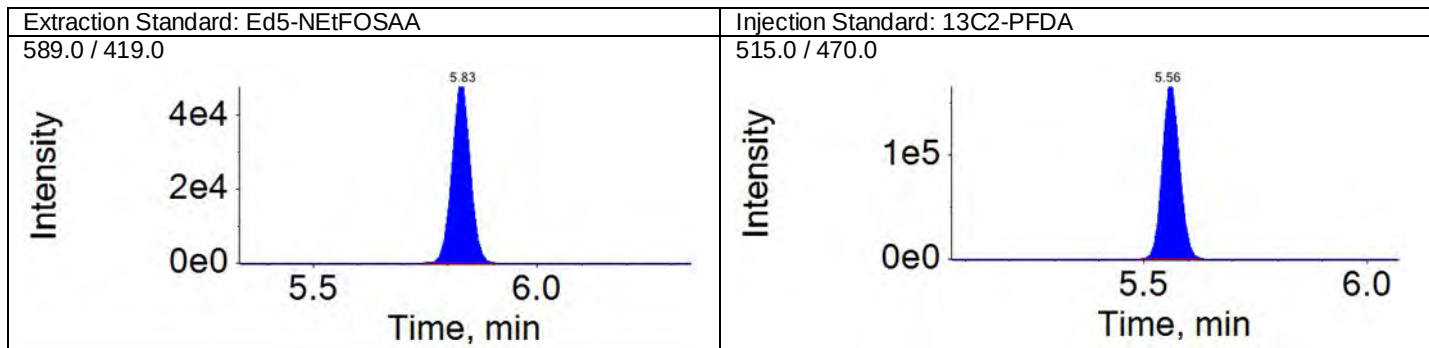
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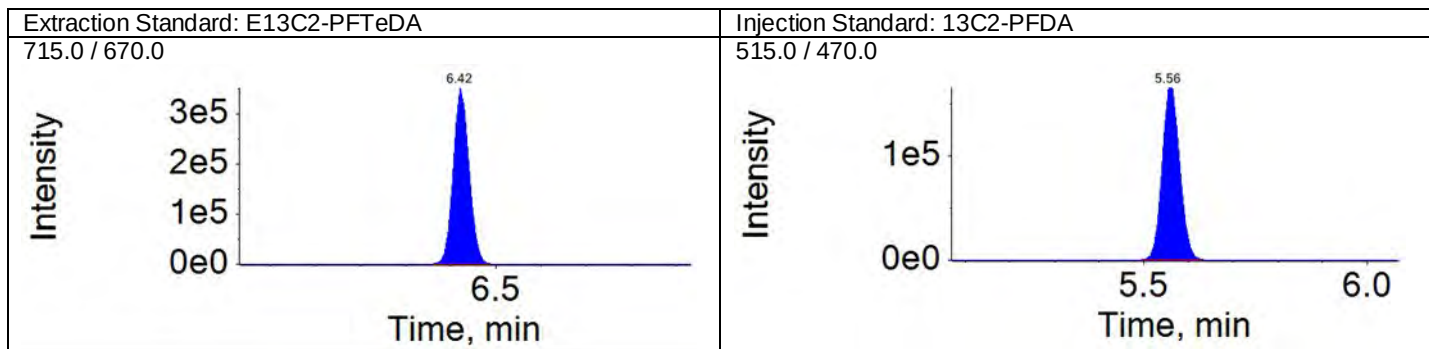
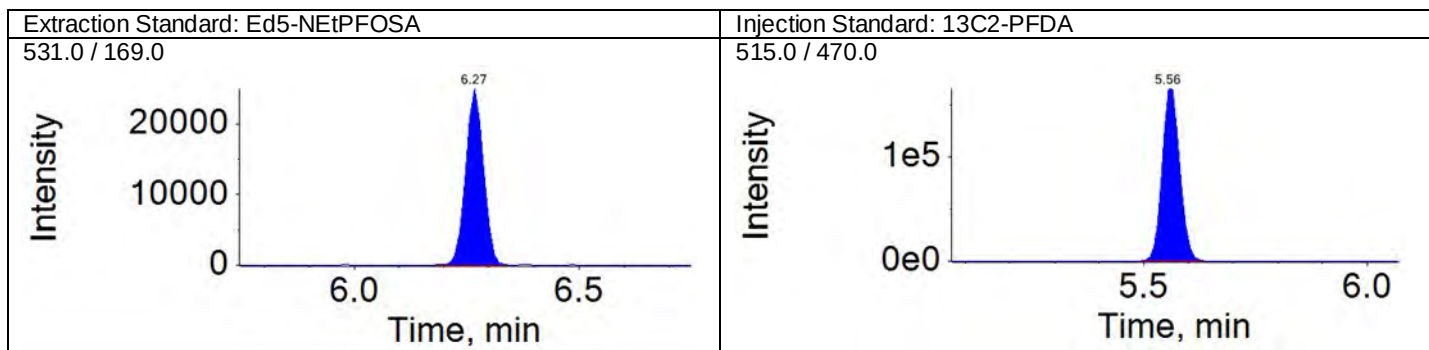
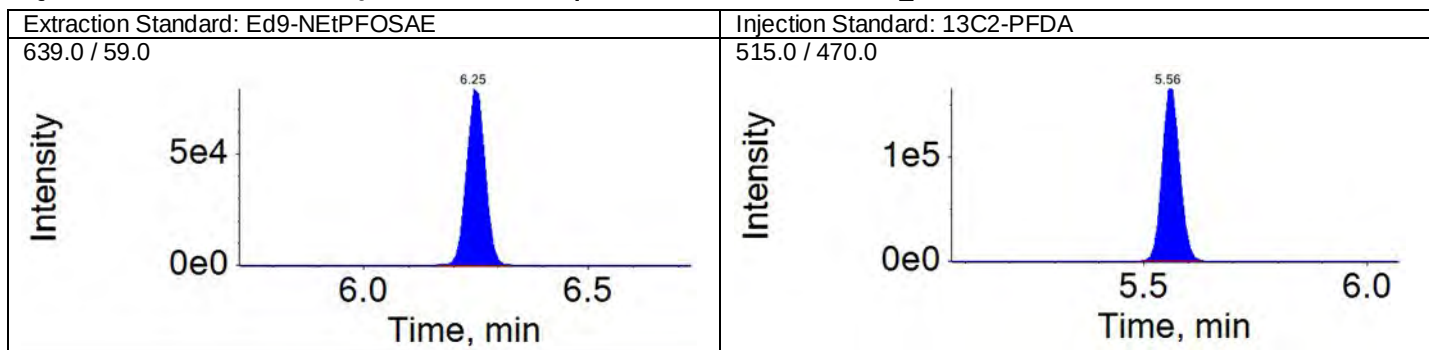
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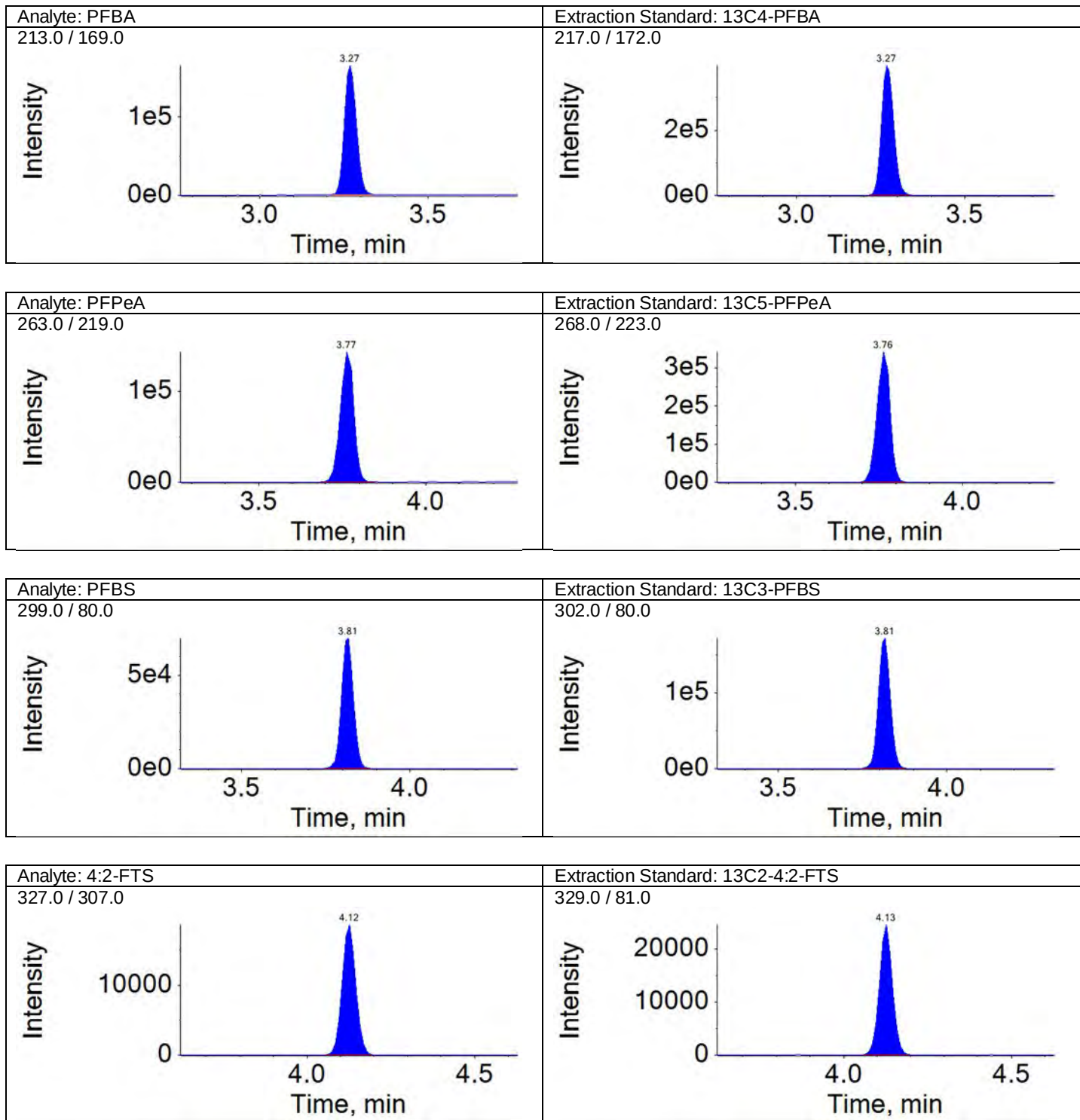
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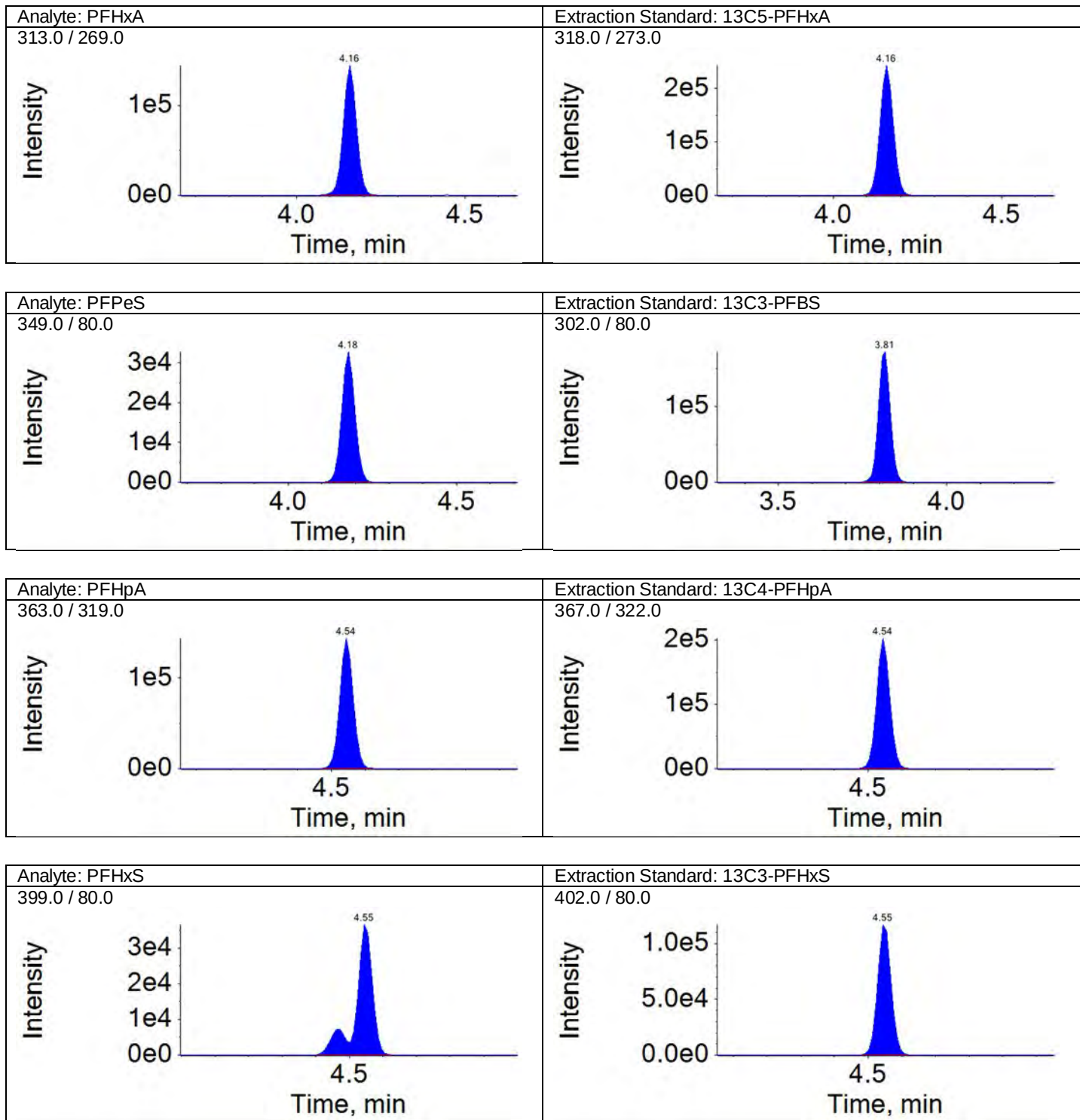
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Acquisition Method: 18AUG13_3uL.dam



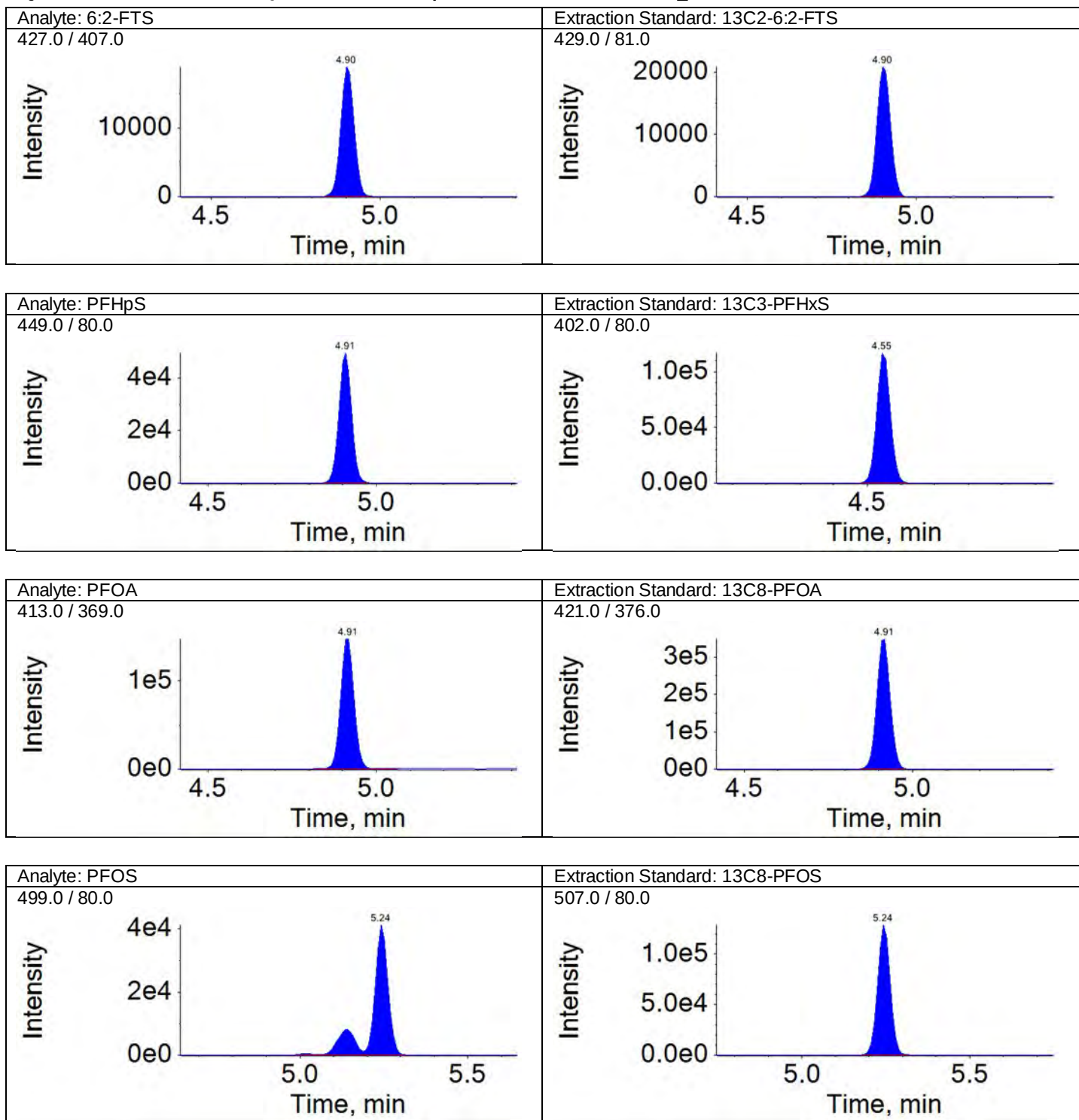
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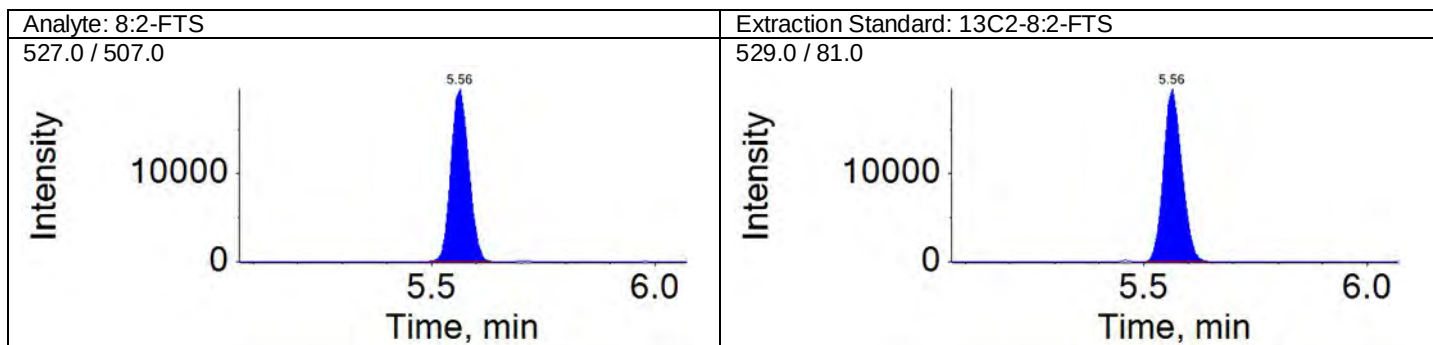
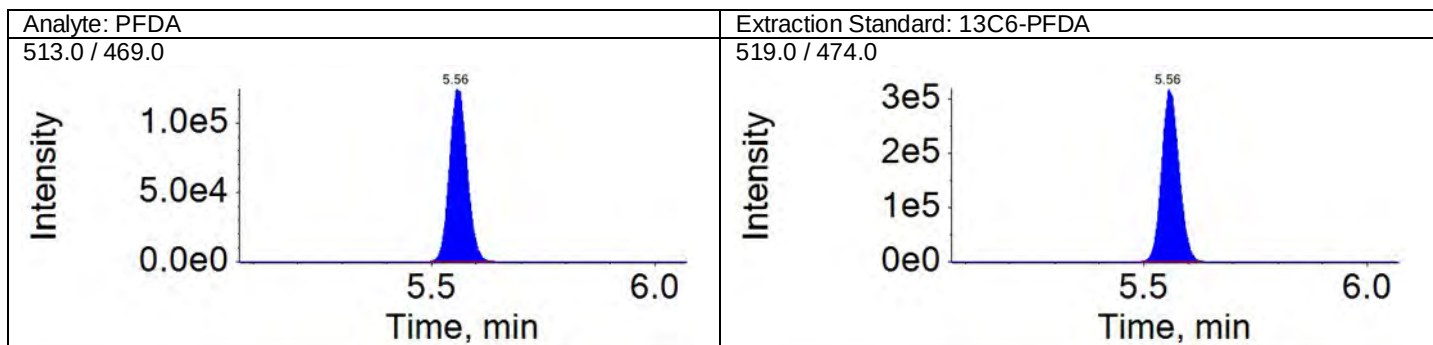
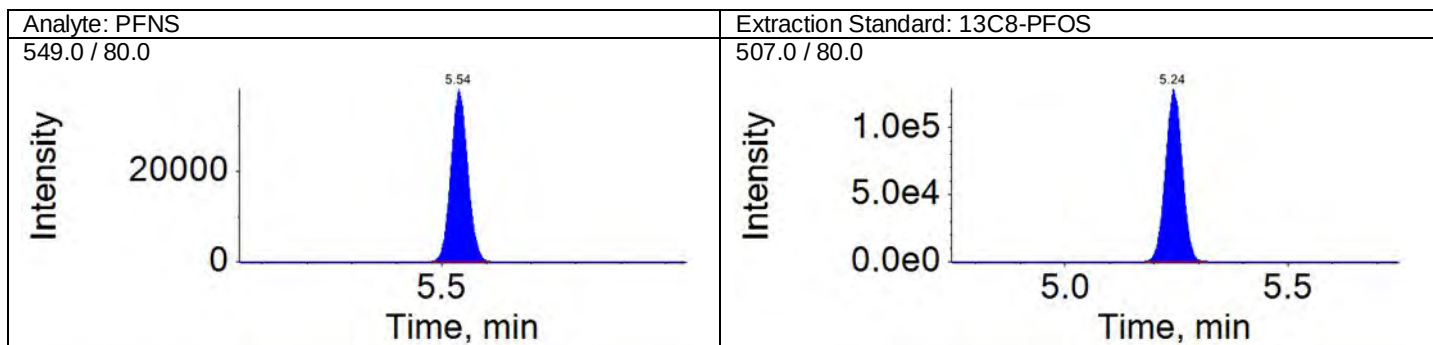
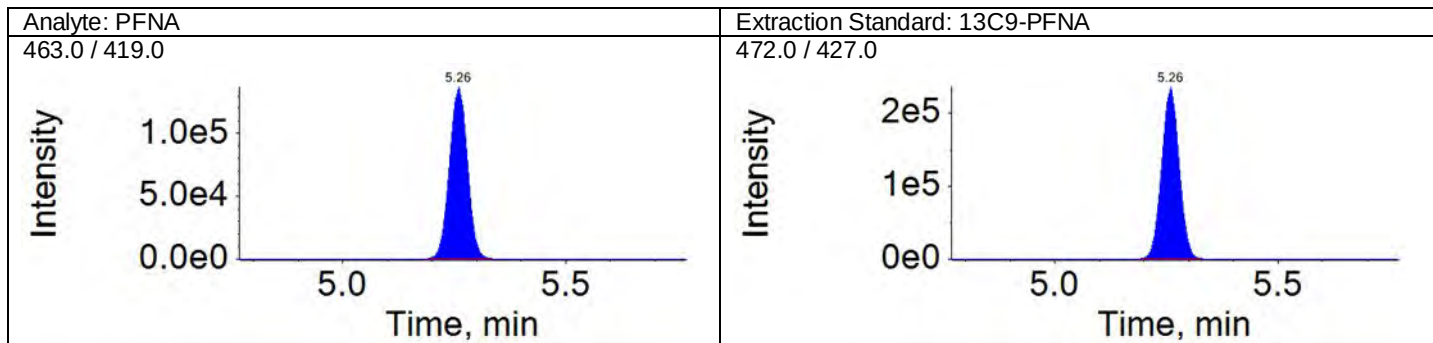
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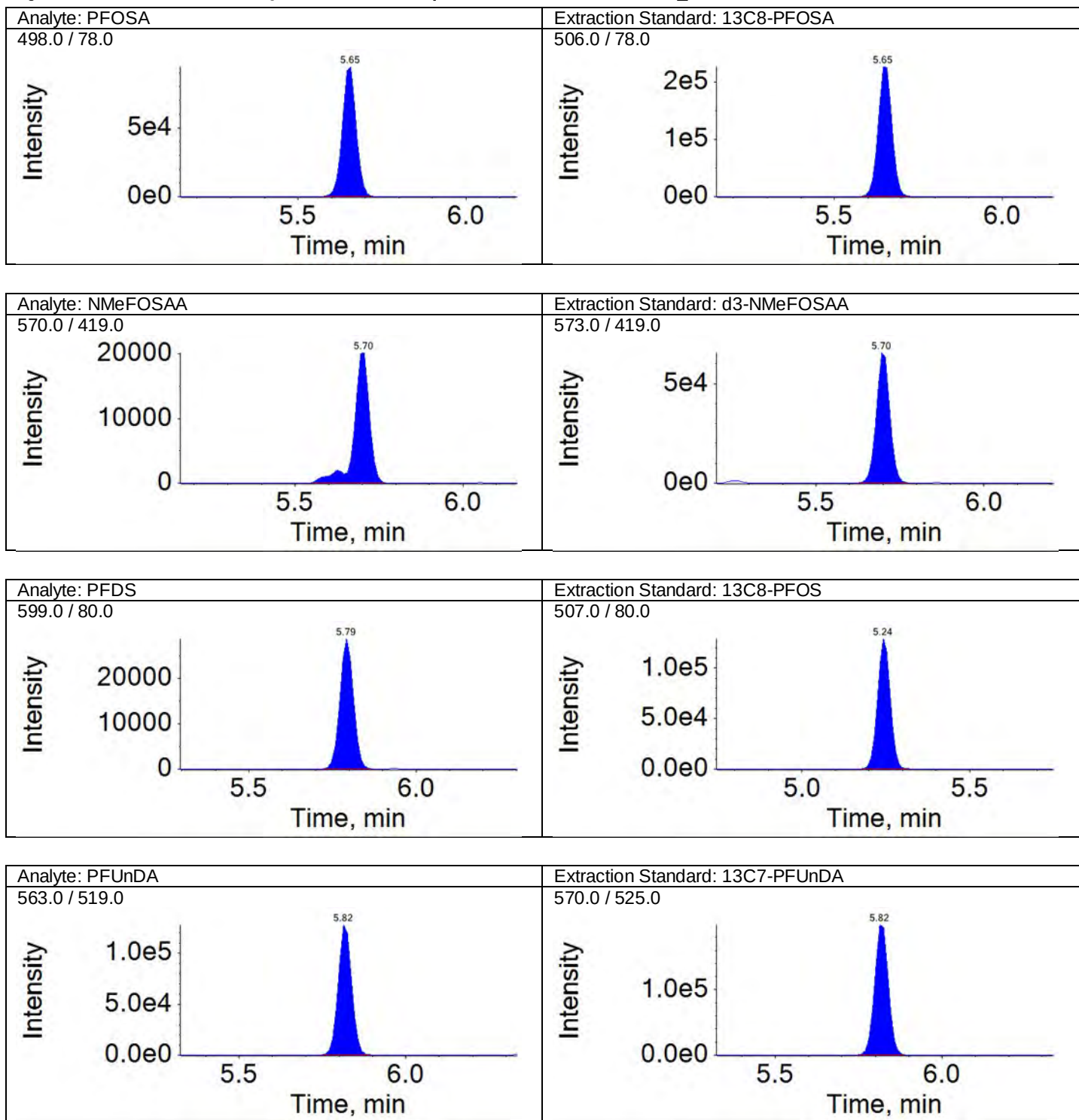
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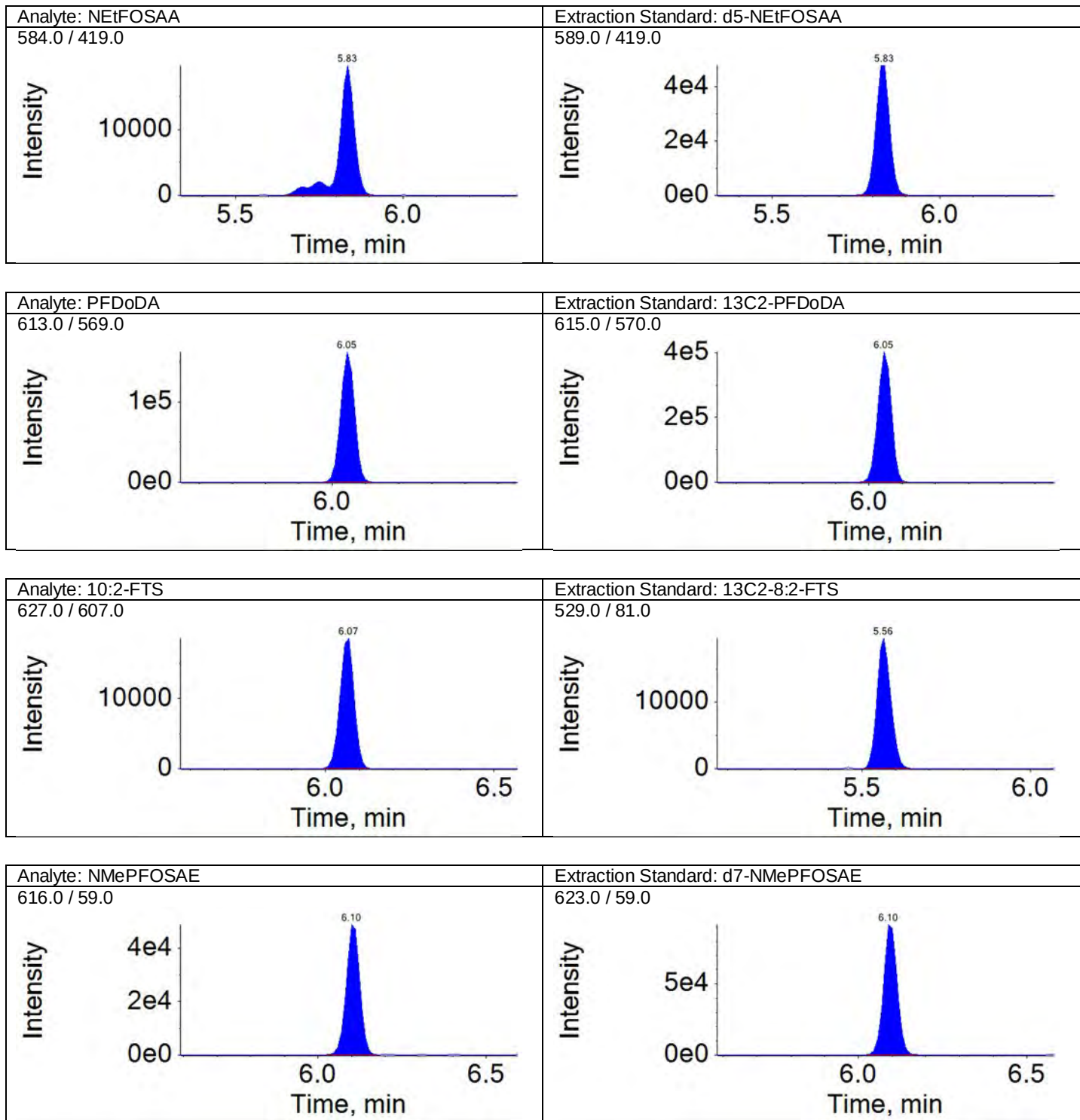
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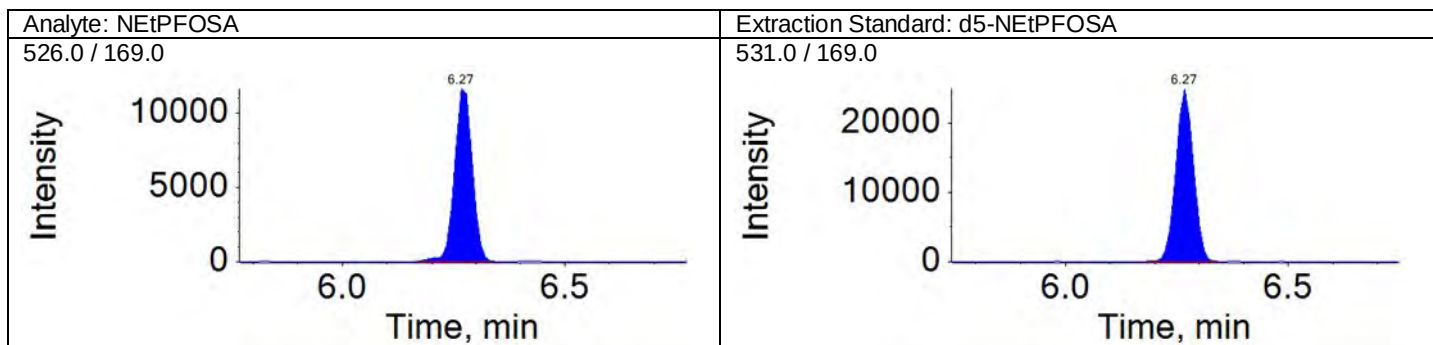
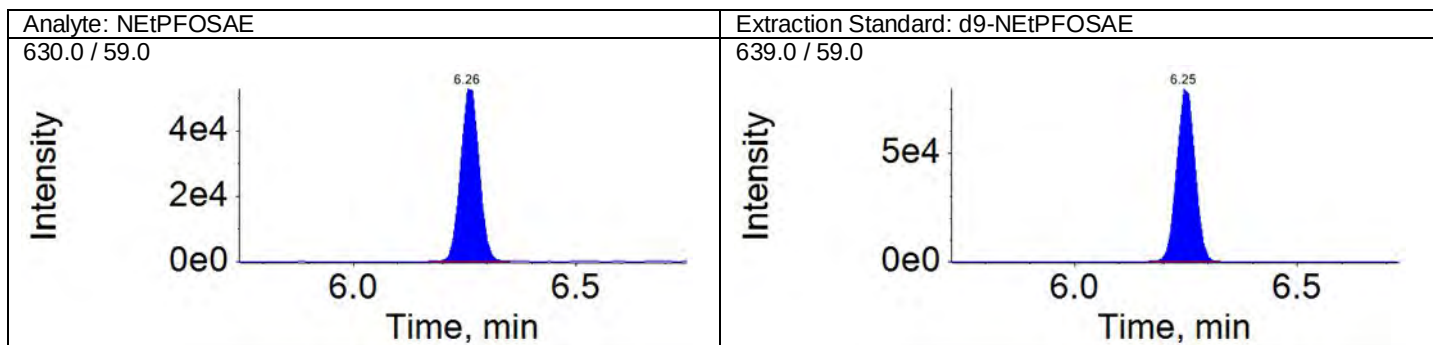
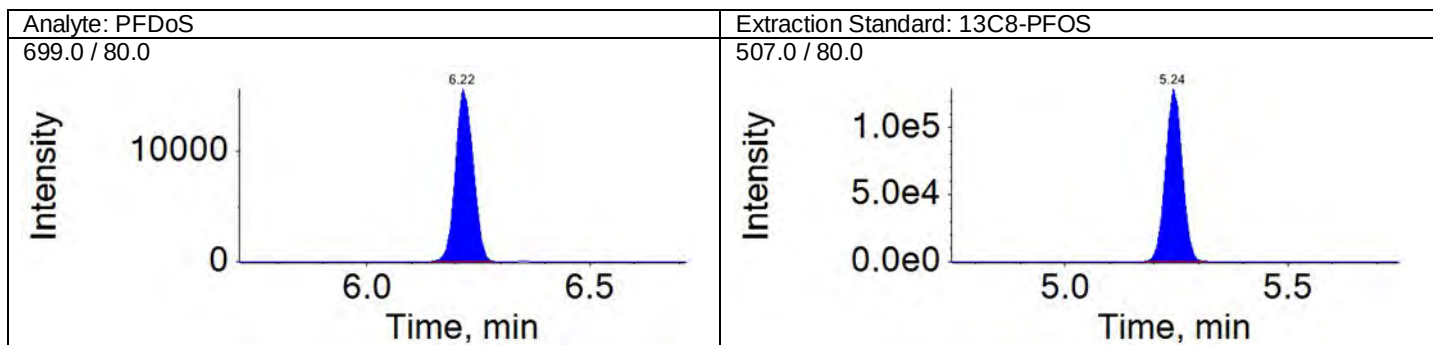
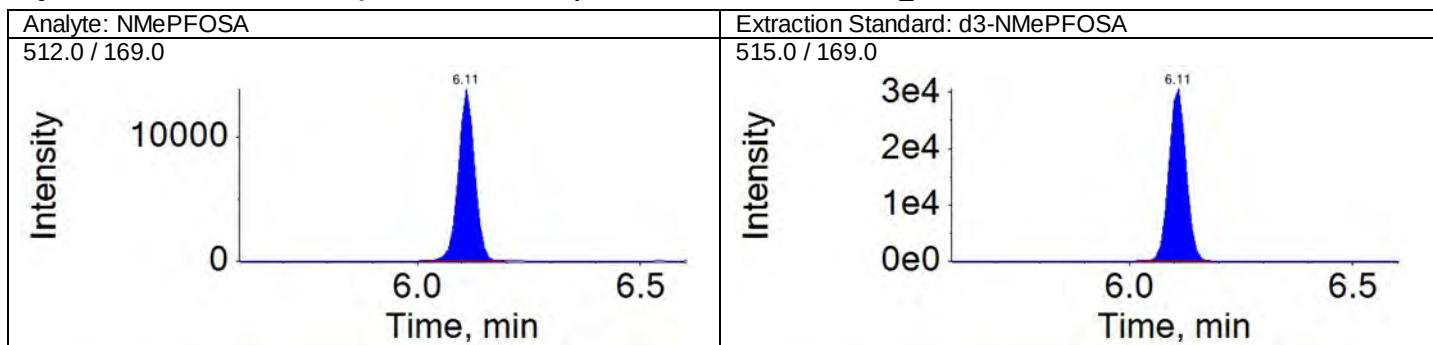
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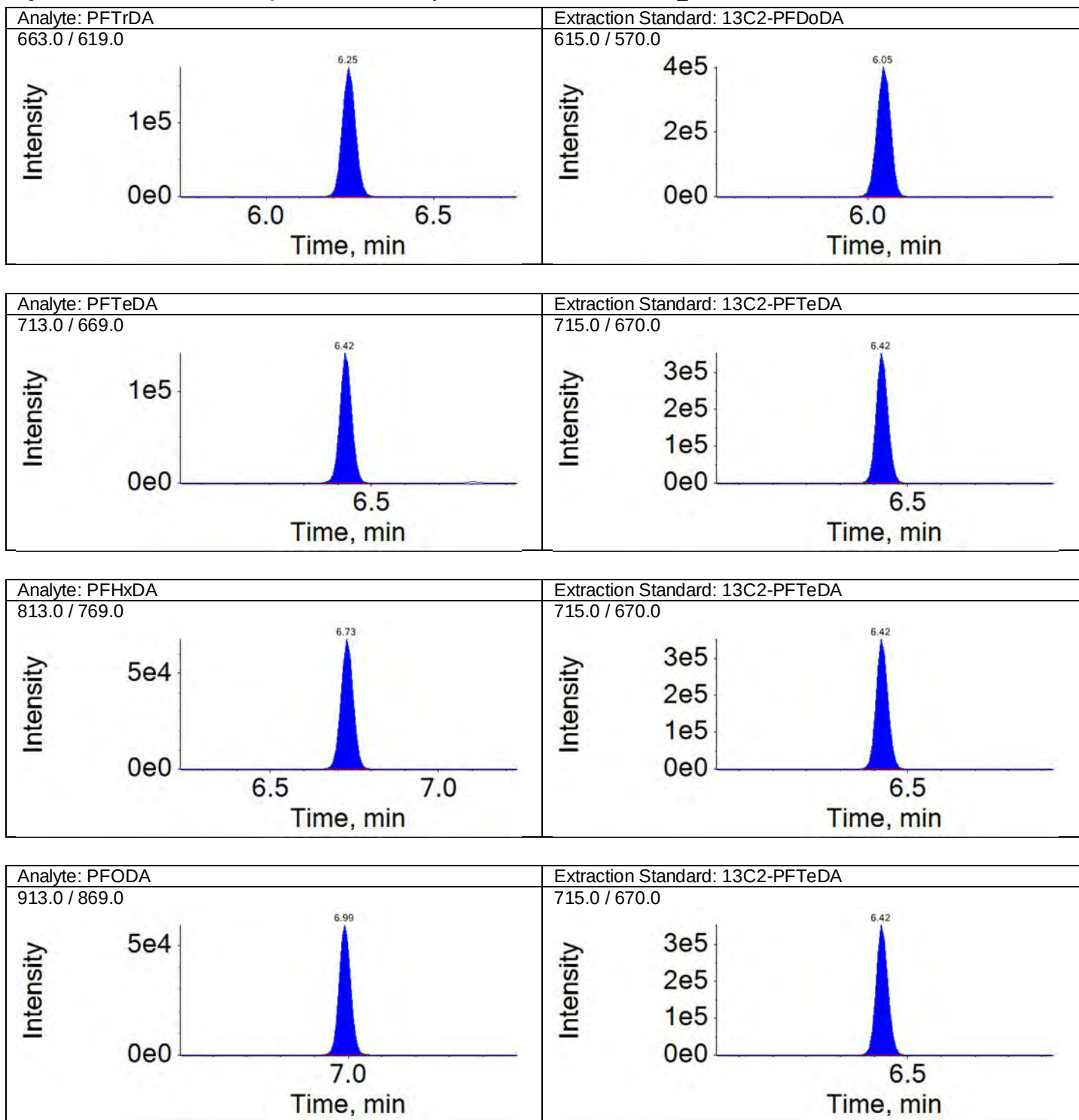
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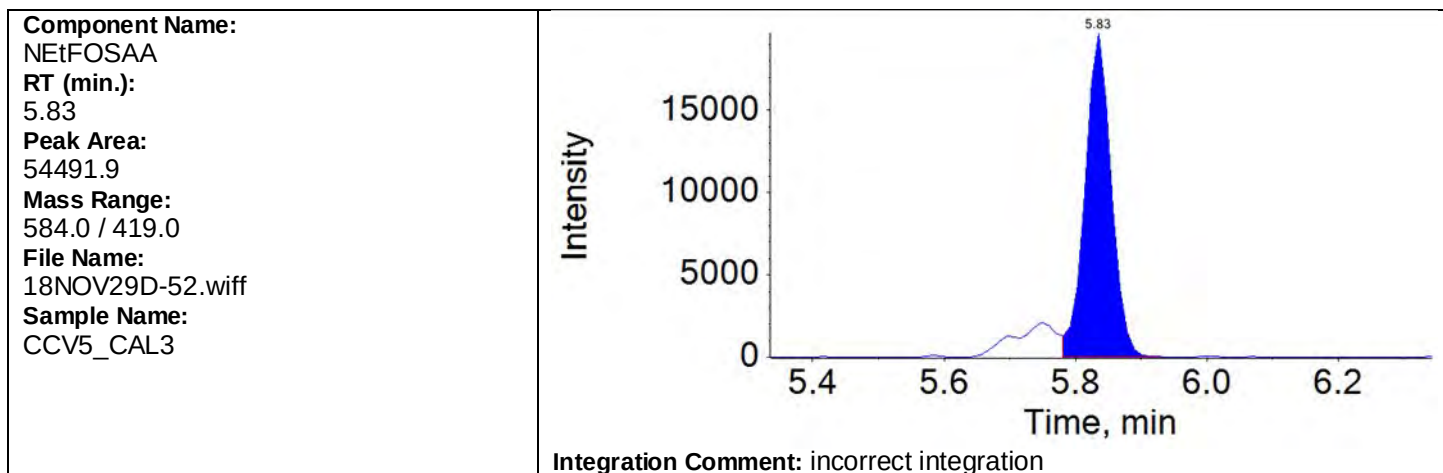
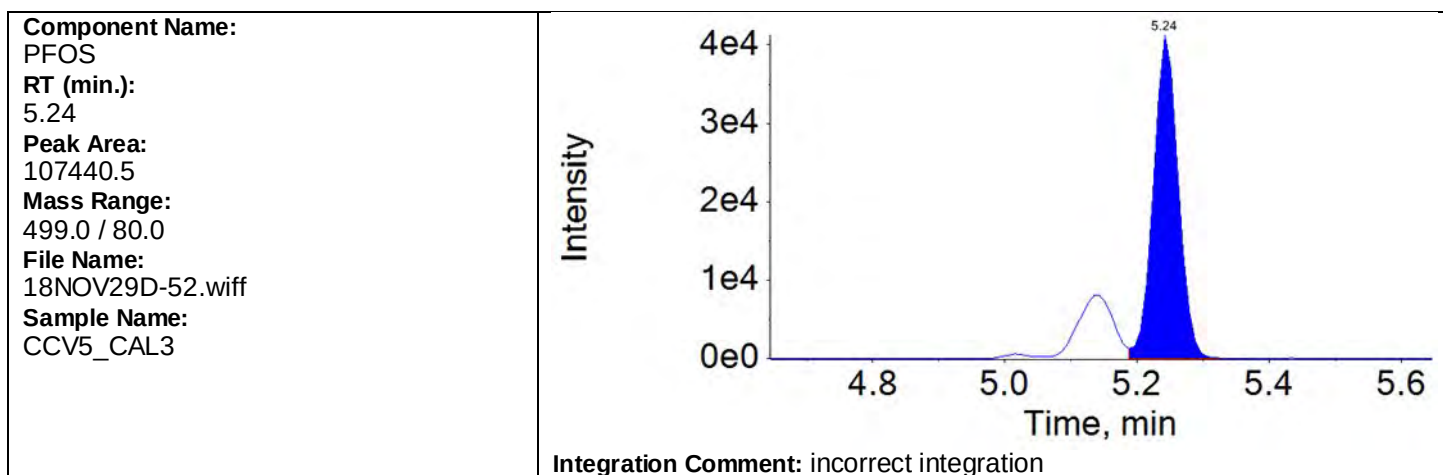
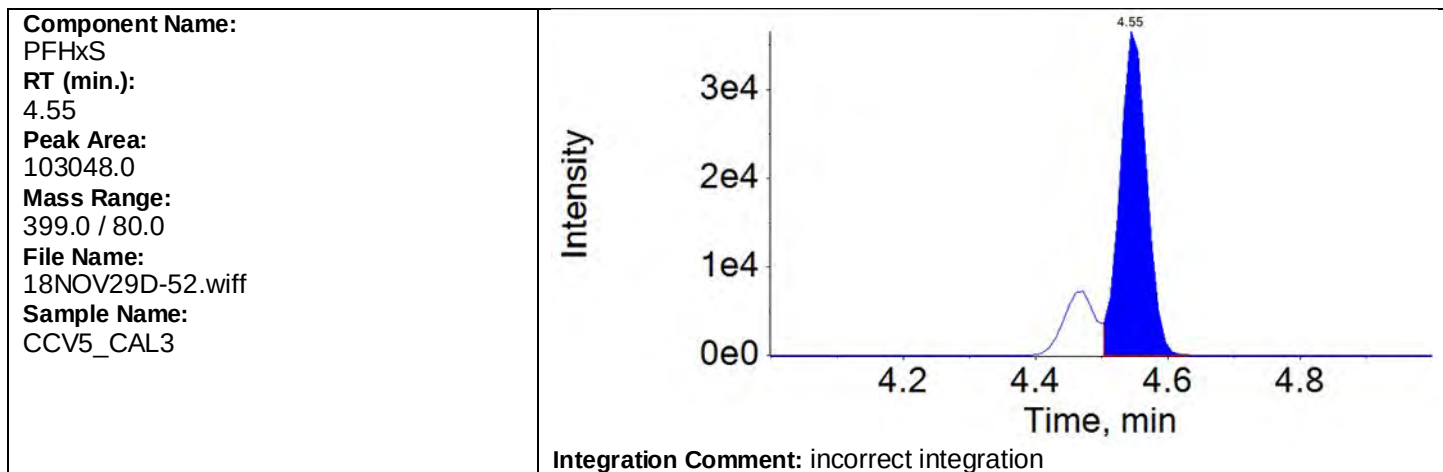
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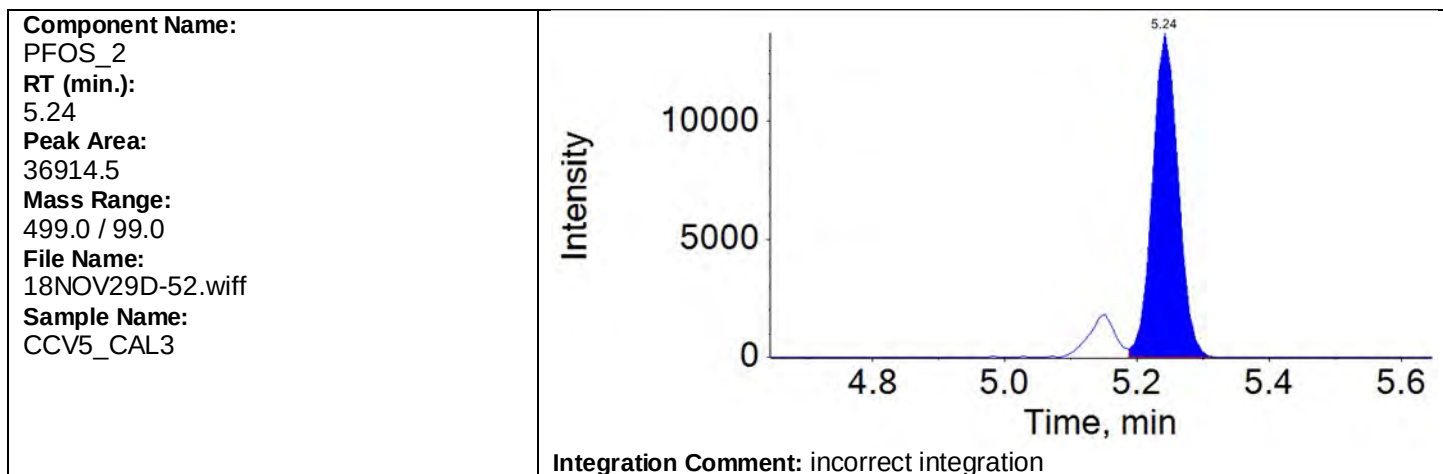
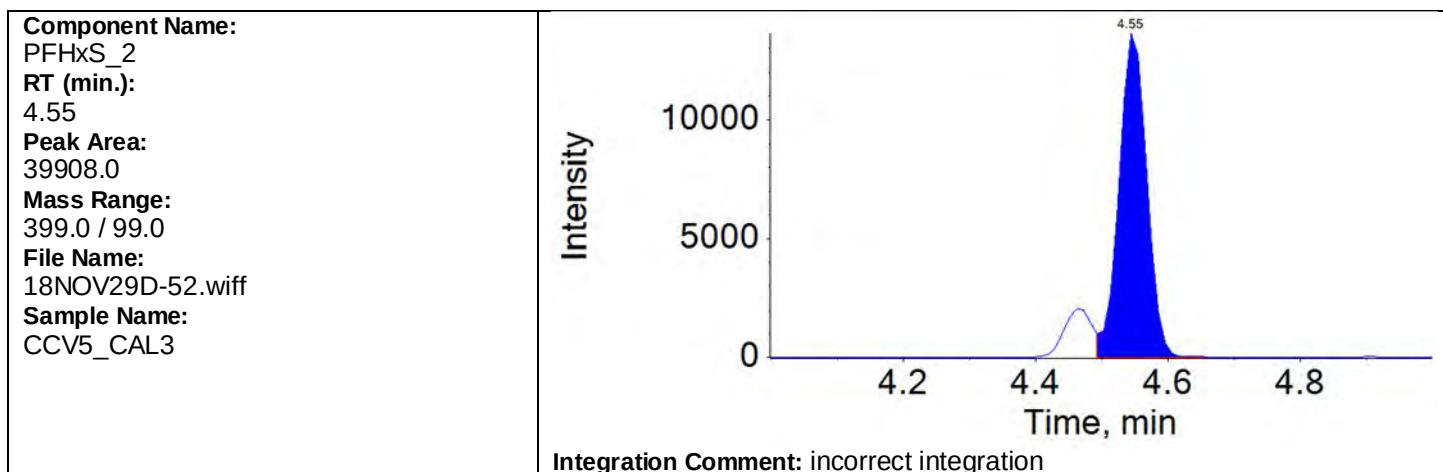
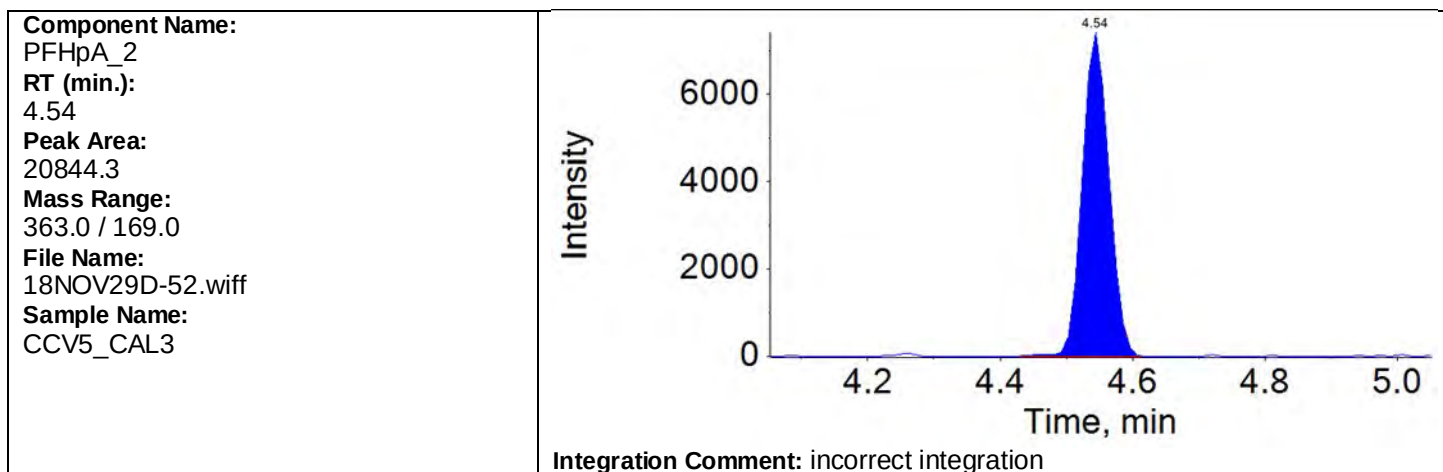
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Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM

Acquisition Method: 18AUG13_3uL.dam
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Component Name:

PFDA_2

RT (min.):

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Peak Area:

2438.8

Mass Range:

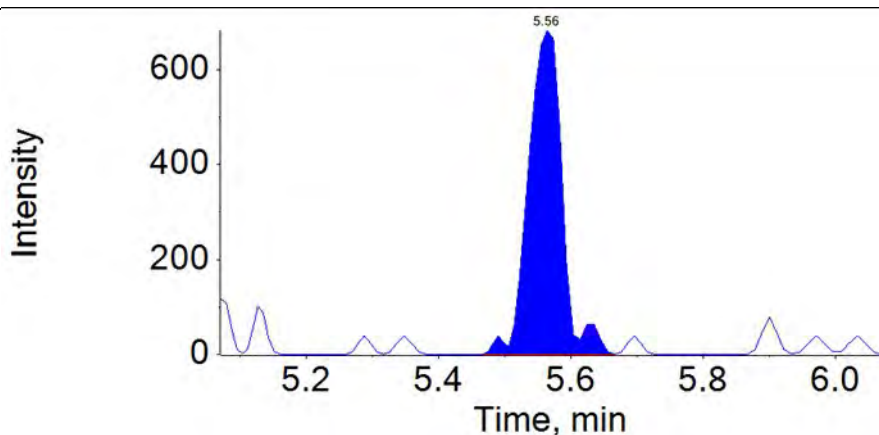
513.0 / 169.0

File Name:

18NOV29D-52.wiff

Sample Name:

CCV5_CAL3



Integration Comment: incorrect integration

Component Name:

NMeFOSAA_2

RT (min.):

5.70

Peak Area:

12072.2

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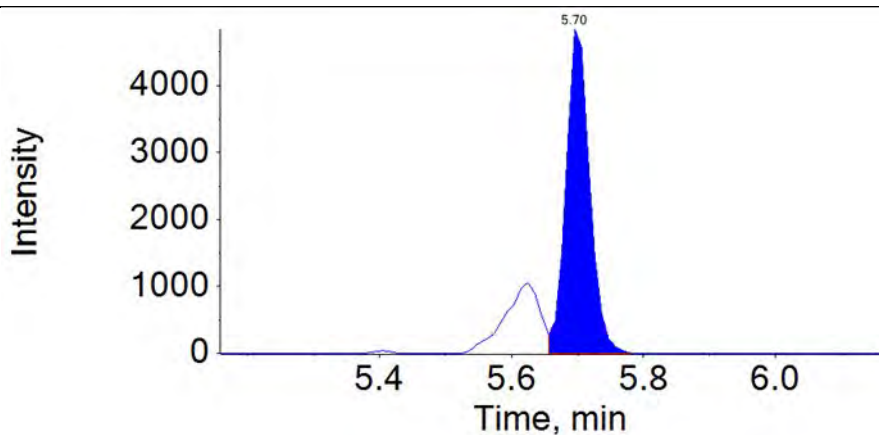
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18NOV29D-52.wiff

Sample Name:

CCV5_CAL3



Integration Comment: incorrect integration

Component Name:

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34118.1

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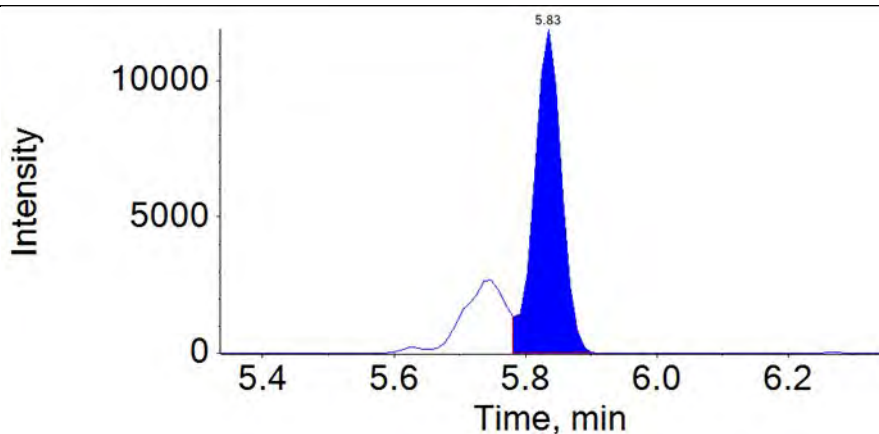
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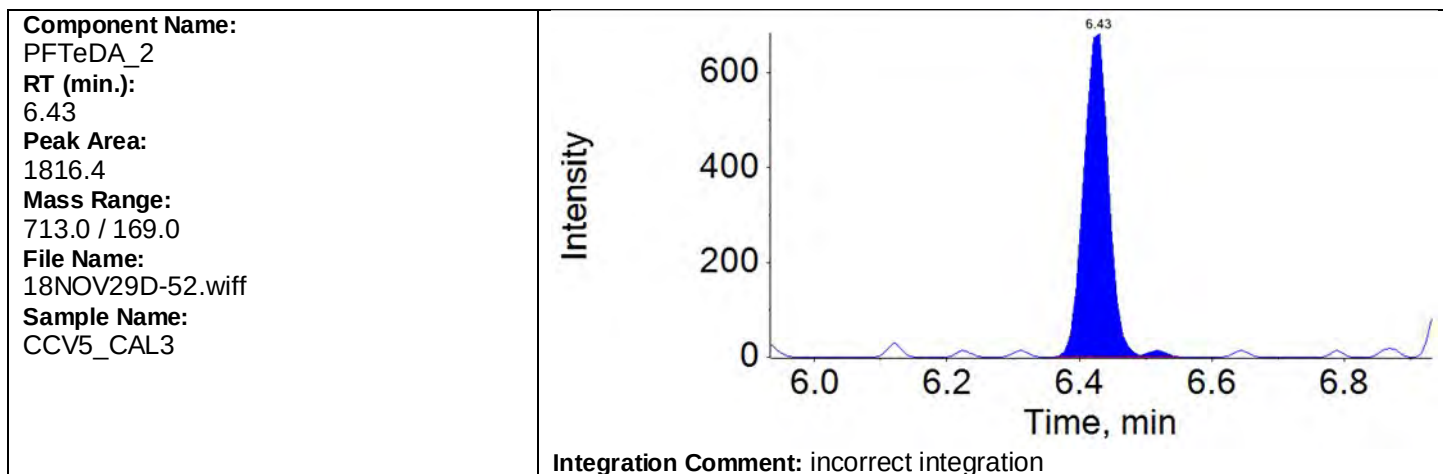
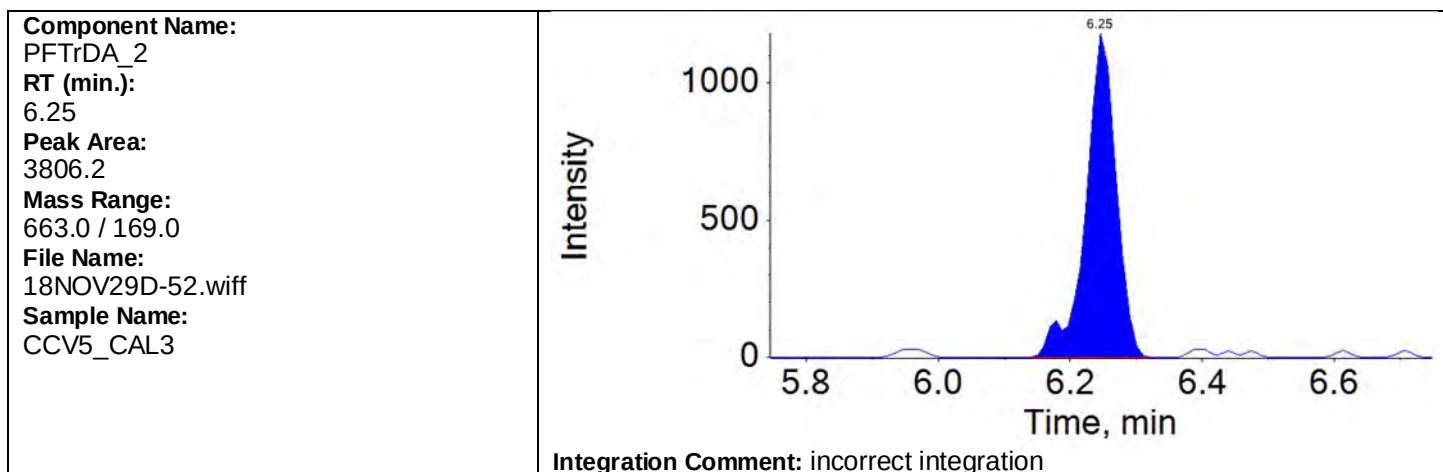
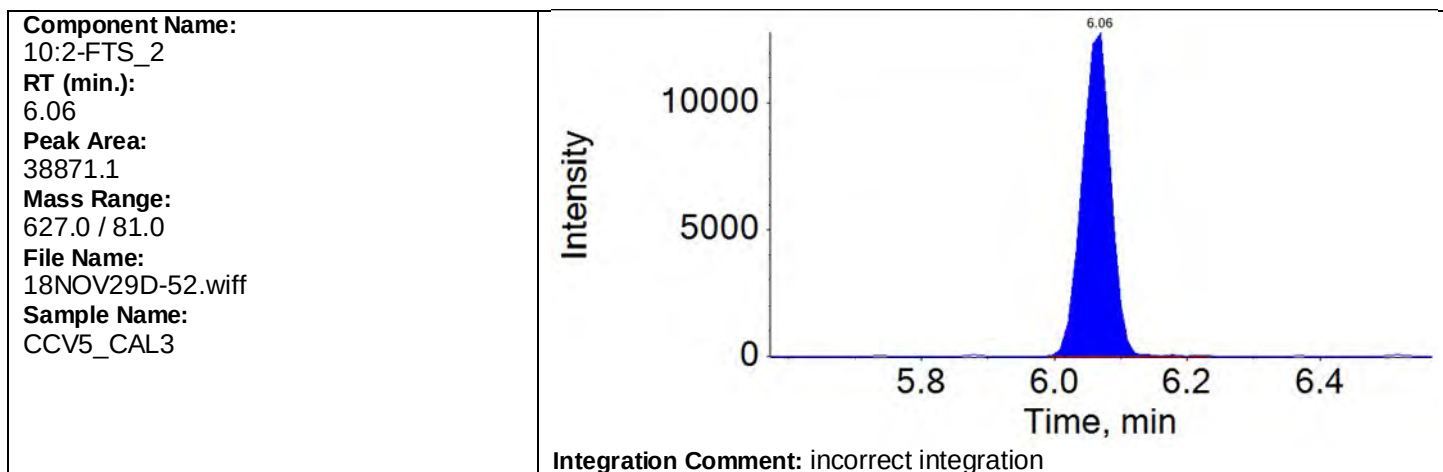
CCV5_CAL3



Integration Comment: incorrect integration

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Results Table Date: 11/29/2018 7:58:55 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18NOV29DCCV1-5
Results Table Date: 11/29/2018 7:58:55 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 8:06 pm, 11/29/18

REVIEWED

By HMK at 9:40 am, 12/5/18

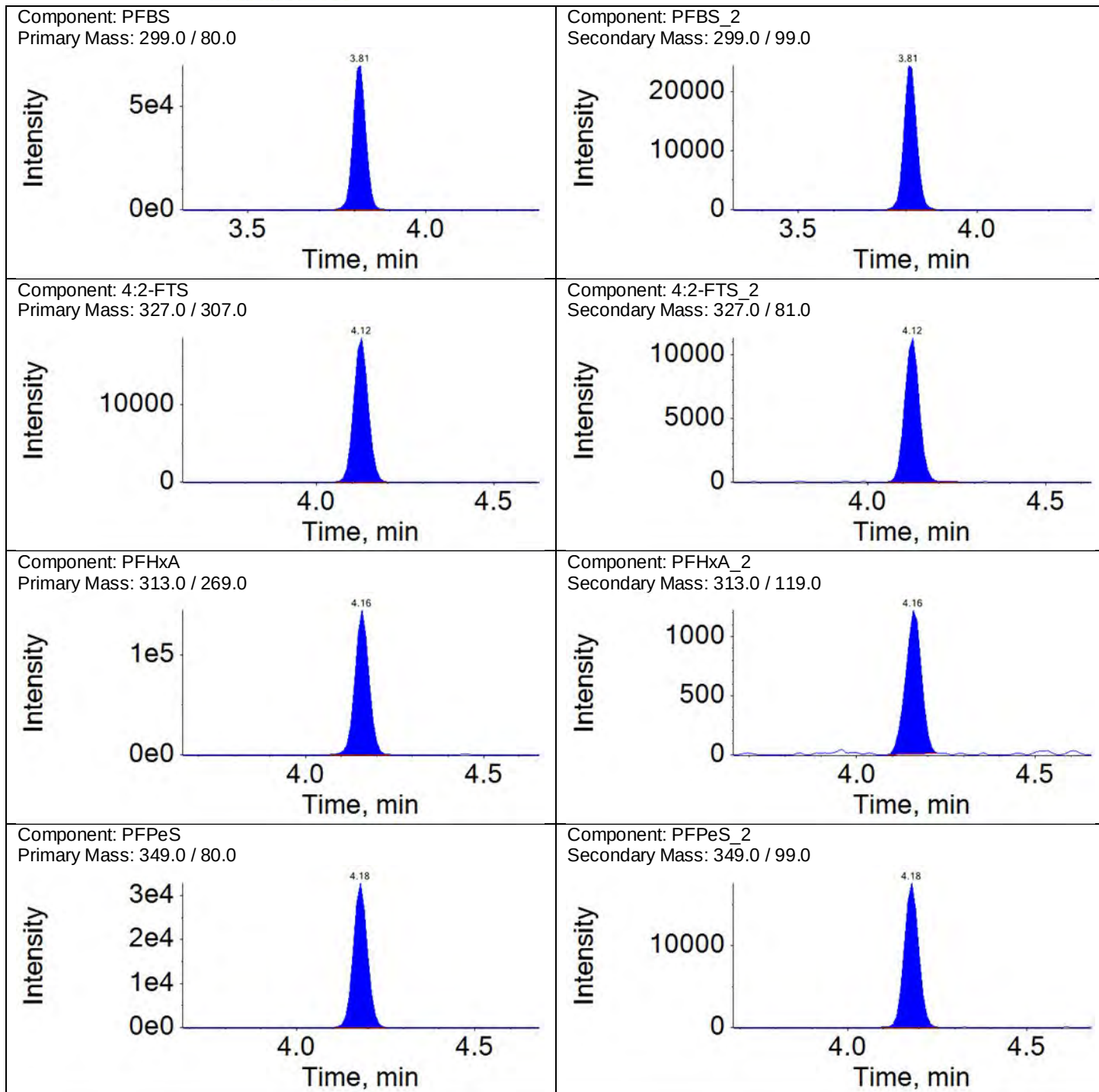
Ion Ratio Report

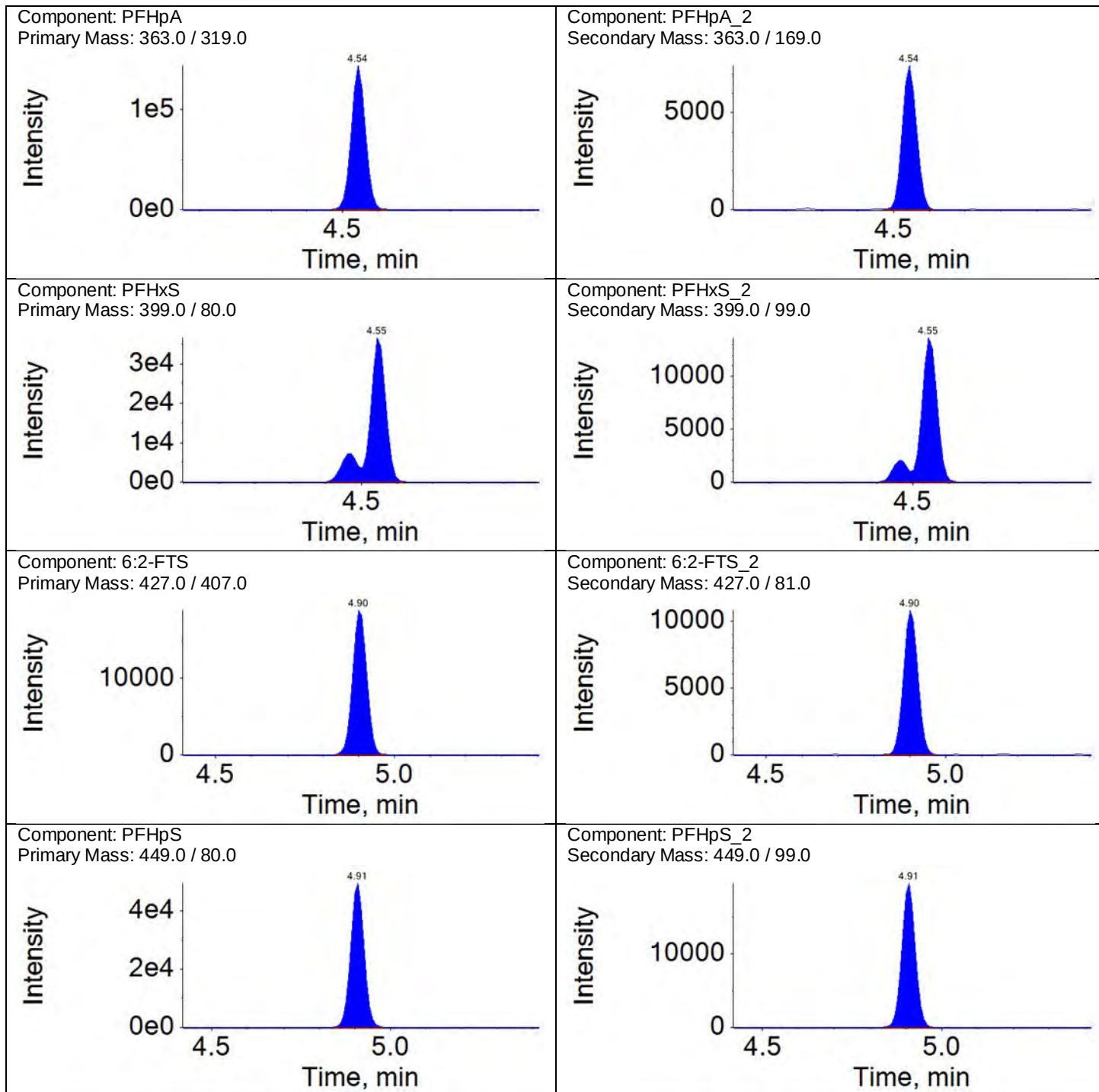
Sample Name: CCV5_CAL3

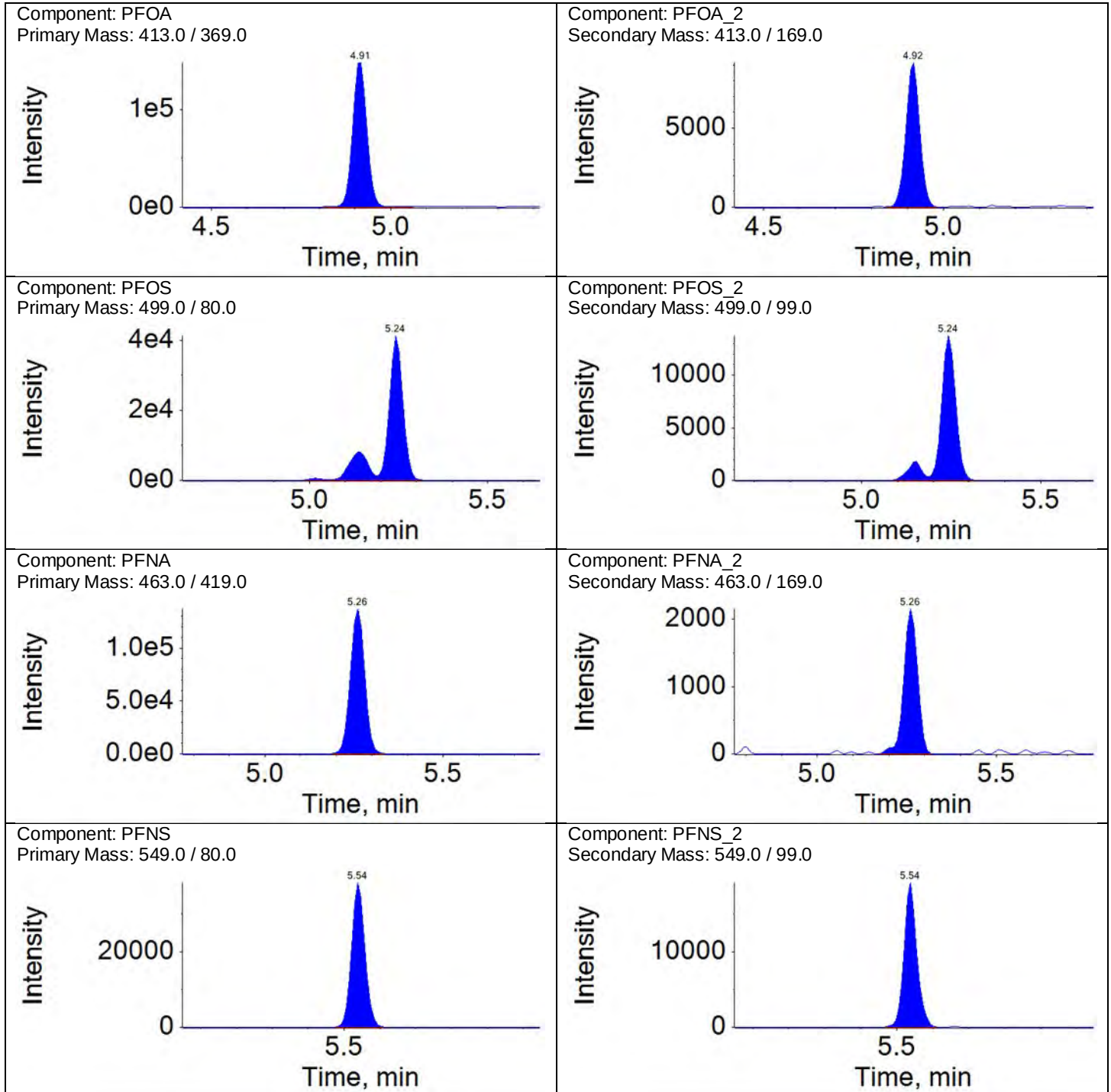
Instrument Name: LM27631

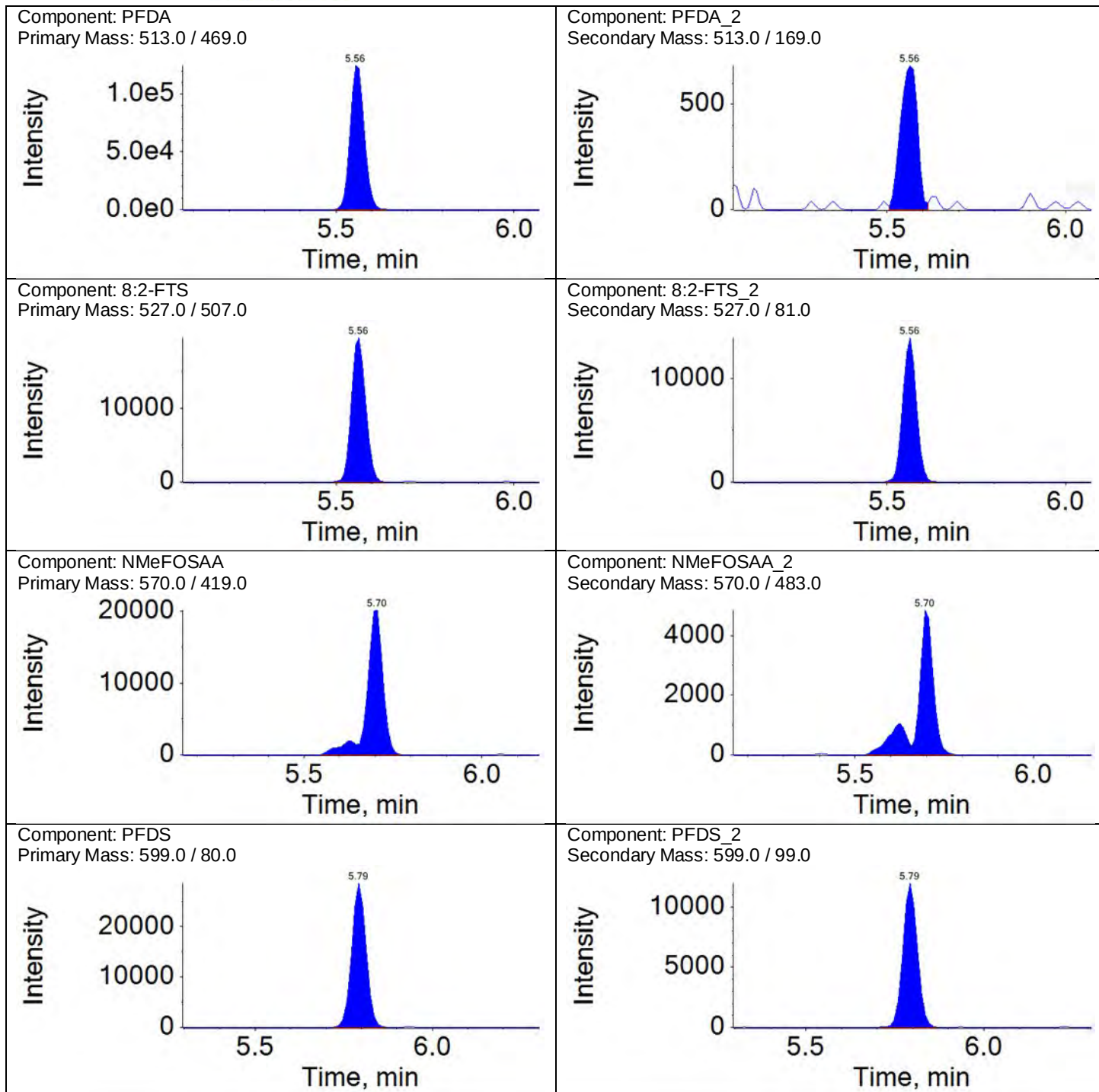
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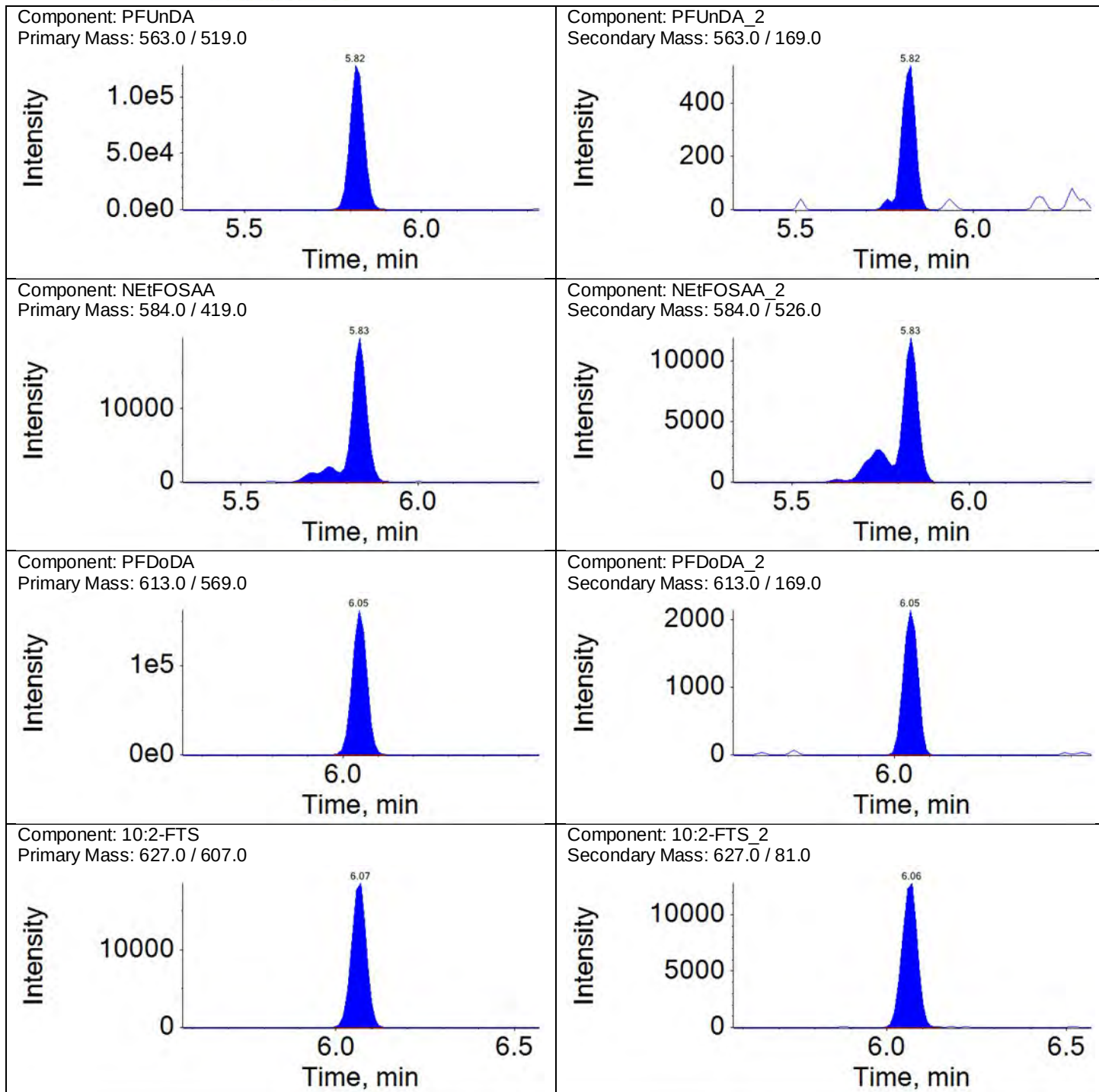
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	172355.2	A	N/A	0.3496			
PFBS_2	3.81	1.00	60254.5	A	N/A	0.3496	-4	50	
4:2-FTS	4.12	1.00	52632.4	A	N/A	0.6128			
4:2-FTS_2	4.12	1.00	32253.6	A	N/A	0.6128	-4	50	
PFHxA	4.16	1.00	392712.5	A	N/A	0.0095			
PFHxA_2	4.16	1.00	3748.1	A	N/A	0.0095	-8	50	
PFPeS	4.18	1.10	89389.0	A	N/A	0.5510			
PFPeS_2	4.18	1.10	49253.8	A	N/A	0.5510	11	50	
PFHpA	4.54	1.00	396806.2	A	N/A	0.0523			
PFHpA_2	4.54	1.00	20756.9	M	N/A	0.0523	-6	50	
PFHxS	4.55	1.00	127006.9	M	N/A	0.3604			
PFHxS_2	4.55	1.00	45767.4	M	N/A	0.3604	-2	50	
6:2-FTS	4.90	1.00	51799.6	A	N/A	0.5825			
6:2-FTS_2	4.90	1.00	30171.4	A	N/A	0.5825	-12	50	
PFHpS	4.91	1.08	129025.9	A	N/A	0.3916			
PFHpS_2	4.91	1.08	50522.7	A	N/A	0.3916	0	50	
PFOA	4.91	1.00	407078.9	A	N/A	0.0597			
PFOA_2	4.92	1.00	24289.8	A	N/A	0.0597	4	50	
PFOS	5.24	1.00	138995.5	M	N/A	0.3024			
PFOS_2	5.24	1.00	42028.6	M	N/A	0.3024	2	50	
PFNA	5.26	1.00	382168.0	A	N/A	0.0151			
PFNA_2	5.26	1.00	5752.1	A	N/A	0.0151	-25	50	
PFNS	5.54	1.06	98297.2	A	N/A	0.4813			
PFNS_2	5.54	1.06	47307.0	A	N/A	0.4813	0	50	
PFDA	5.56	1.00	343068.9	A	N/A	0.0067			
PFDA_2	5.56	1.00	2285.7	M	N/A	0.0067	-11	50	
8:2-FTS	5.56	1.00	54309.5	A	N/A	0.6811			
8:2-FTS_2	5.56	1.00	36991.3	A	N/A	0.6811	27	50	
NMeFOSAA	5.70	1.00	64182.7	A	N/A	0.2484			
NMeFOSAA_2	5.70	1.00	15945.6	M	N/A	0.2484	8	50	
PFDS	5.79	1.10	79891.7	A	N/A	0.4226			
PFDS_2	5.79	1.10	33761.0	A	N/A	0.4226	-21	50	
PFUnDA	5.82	1.00	355883.8	A	N/A	0.0042			
PFUnDA_2	5.82	1.00	1497.1	A	N/A	0.0042	11	50	
NEtFOSAA	5.83	1.00	64211.1	M	N/A	0.7219			
NEtFOSAA_2	5.83	1.00	46352.7	M	N/A	0.7219	-2	50	
PFDODA	6.05	1.00	467324.6	A	N/A	0.0131			
PFDODA_2	6.05	1.00	6130.3	A	N/A	0.0131	1	50	
10:2-FTS	6.07	1.09	54230.7	A	N/A	0.7133			
10:2-FTS_2	6.06	1.09	38681.2	M	N/A	0.7133	2	50	
PFTTrDA	6.25	1.03	477187.4	A	N/A	0.0076			
PFTTrDA_2	6.25	1.03	3624.2	M	N/A	0.0076	-16	50	
PFTeDA	6.42	1.00	345082.9	A	N/A	0.0052			
PFTeDA_2	6.43	1.00	1787.5	M	N/A	0.0052	-8	50	
PFHxDA	6.73	1.05	172538.3	A	N/A	0.0603			
PFHxDA_2	6.73	1.05	10401.9	A	N/A	0.0603	-7	50	
PFODA	6.99	1.09	141132.9	A	N/A	0.0256			
PFODA_2	6.99	1.09	3617.6	A	N/A	0.0256	-3	50	

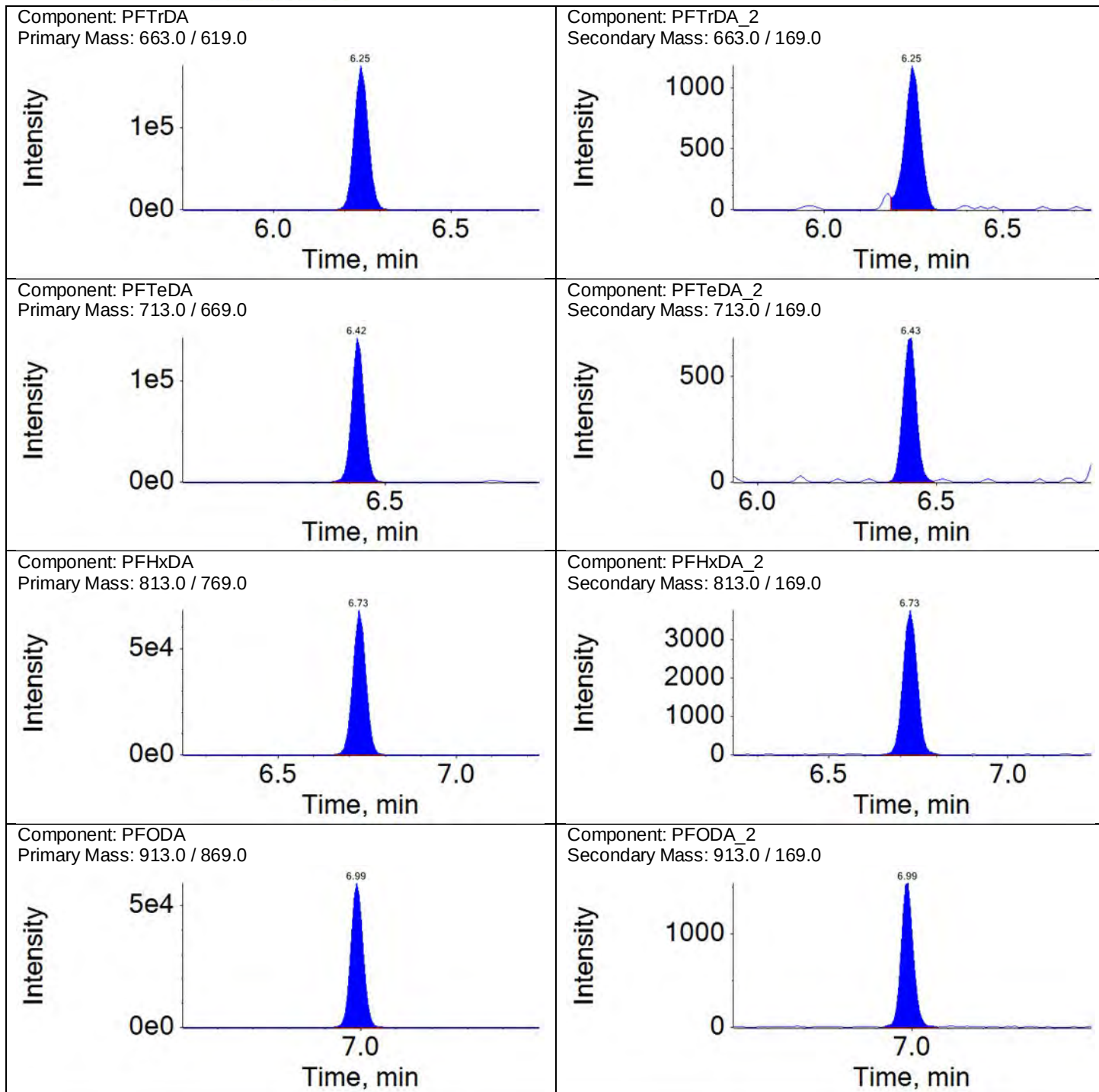










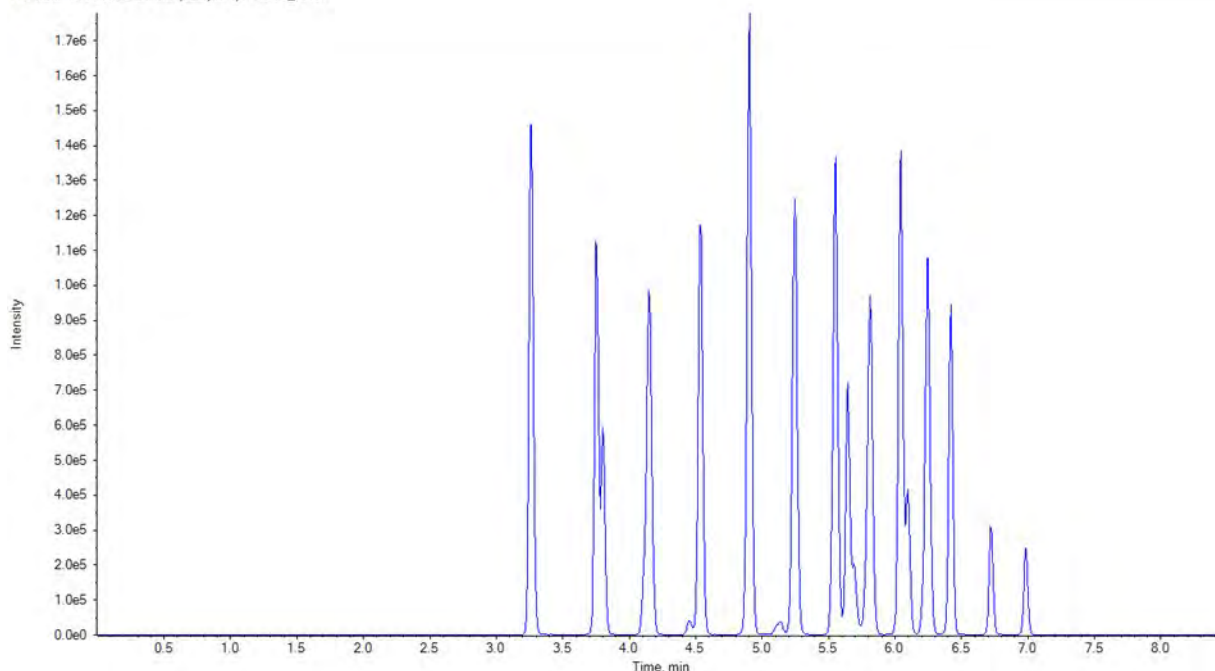


Continuing Calibration Verification

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV6-9 11/30/2018 3:19:02 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALBRN41833B	18NOV29D-64.wiff	2018-11-29T19:25:48

TIC from 18NOV29D-64.wiff (sample 1) - CCV6_CAL4



Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	913849.2	906425.4	1	50	
13C2-PFOA	5.0	518876.3	495984.0	5	50	
13C4-PFOS	4.8	303797.0	296261.8	3	50	
13C2-PFDA	5.0	442721.5	451203.0	-2	50	

APPROVED

By MCD at 3:26 pm, 11/30/18

REVIEWED

By HMK at 1:40 pm, 12/6/18

Continuing Calibration Verification

ICAL Name: 18NOV28DCAL Result Table: 18NOV29DCCV6-9 11/30/2018 3:19:02 PM
QMethod Name: 18AUG20QM Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV6_CAL4	CALBRN41833B	18NOV29D-64.wiff	2018-11-29T19:25:48

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	1469628.0	10	13C4-PFBA	986963.3	5.0	1.489	3.26	1.000	8.000	8.163	2	30	
PFPeA	1427748.0	11	13C5-PFPeA	984821.1	5.0	1.450	3.75	1.000	8.000	7.114	-11	30	
PFBS	609993.7	11	13C3-PFBS	418734.6	4.7	1.457	3.80	1.000	7.080	7.071	0	30	
4:2-FTS	184688.7	11	13C2-4:2-FTS	67546.9	4.7	2.734	4.11	1.000	7.470	7.319	-2	30	
PFHxA	1387308.0	12	13C5-PFHxA	682741.9	5.0	2.032	4.15	1.000	8.000	8.156	2	30	
PFPeS	321453.2	11	13C3-PFBS	418734.6	4.7	0.768	4.17	1.100	7.500	7.765	4	30	
PFHpA	1397029.6	11	13C4-PFHxA	552888.5	5.0	2.527	4.54	1.000	8.000	7.798	-3	30	
PFHxS	466399.5	19	13C3-PFHxS	322045.5	4.7	1.448	4.54	1.000	7.300	6.781	-7	30	
6:2-FTS	179952.5	11	13C2-6:2-FTS	58279.4	4.8	3.088	4.89	1.000	7.580	8.057	6	30	
PFHpS	482601.2	11	13C3-PFHxS	322045.5	4.7	1.499	4.90	1.080	7.610	7.479	-2	30	
PFOA	1506521.1	11	13C8-PFOA	956359.3	5.0	1.575	4.90	1.000	8.000	8.140	2	30	
PFOS	507772.2	22	13C8-PFOS	318797.0	4.8	1.593	5.23	1.000	7.400	6.681	-10	30	
PFNA	1378868.3	11	13C9-PFNA	666957.5	5.0	2.067	5.25	1.000	8.000	7.923	-1	30	
PFNS	359004.1	11	13C8-PFOS	318797.0	4.8	1.126	5.53	1.060	7.680	7.110	-7	30	
PFDA	1238904.3	11	13C6-PFDA	789100.3	5.0	1.570	5.55	1.000	8.000	8.887	11	30	
8:2-FTS	195089.6	12	13C2-8:2-FTS	49965.8	4.8	3.904	5.56	1.000	7.660	7.363	-4	30	
PFOSA	965121.8	11	13C8-PFOSA	616213.8	5.0	1.566	5.64	1.000	8.000	7.934	-1	30	
NMeFOSAA	222950.9	18	d3-NMeFOSAA	183128.3	5.0	1.217	5.70	1.000	8.000	7.766	-3	30	
PFDS	286894.2	11	13C8-PFOS	318797.0	4.8	0.900	5.79	1.110	7.700	7.135	-7	30	
PFUnDA	1252226.8	12	13C7-PFUnDA	556651.0	5.0	2.250	5.81	1.000	8.000	8.041	1	30	
NEtFOSAA	239375.0	21	d5-NEtFOSAA	151553.0	5.0	1.579	5.83	1.000	8.000	7.693	-4	30	
PFDODA	1726918.5	11	13C2-PFDODA	1111170.4	5.0	1.554	6.04	1.000	8.000	8.513	6	30	
10:2-FTS	185245.7	12	13C2-8:2-FTS	49965.8	4.8	3.707	6.06	1.090	7.710	8.175	6	30	
NMePFOSAE	489183.9	11	d7-NMePFOSAE	257155.9	5.0	1.902	6.10	1.000	8.000	8.005	0	30	
NMePFOSA	128158.0	11	d3-NMePFOSA	84180.7	5.0	1.522	6.10	1.000	8.000	8.071	1	30	
PFDoS	162130.7	11	13C8-PFOS	318797.0	4.8	0.509	6.21	1.190	7.740	7.304	-6	30	
NEtPFOSAE	532496.8	11	d9-NEtPFOSAE	224480.4	5.0	2.372	6.26	1.000	8.000	8.533	7	30	
NEtPFOSA	113302.3	11	d5-NEtPFOSA	67601.1	5.0	1.676	6.27	1.000	8.000	7.512	-6	30	
PFTTrDA	1695782.7	11	13C2-PFDODA	1111170.4	5.0	1.526	6.24	1.030	8.000	9.199	15	30	
PFTeDA	1214917.2	10	13C2-PFTeDA	822251.9	5.0	1.478	6.42	1.000	8.000	8.372	5	30	
PFHxDA	634623.0	11	13C2-PFTeDA	822251.9	5.0	0.772	6.72	1.050	8.000	8.823	10	30	
PFOA	509959.1	10	13C2-PFTeDA	822251.9	5.0	0.620	6.98	1.090	8.000	8.262	3	30	

Continuing Calibration Verification

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:19:02 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED

By MCD at 3:26 pm, 11/30/18

REVIEWED

By HMK at 1:40 pm, 12/6/18

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV6 CAL4		Data File:		18NOV29D-64.wiff
Sample ID:	CALBRN41833B		Acquis Date:		2018-11-29T19:25:48
Sample Type:	Quality Control		Instrument:		LM27631
Vial Position:	6		Acquis Method:		18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:		18NOV29DCCV6-9
QMethod File:	18AUG20QM		ICAL Name:		18NOV28DCAL
Batch Number:	N/A		Operator:		MCD7824
Sample Wt.:	1.00000		Dilution Factor:		1.00
Sample Vol.:	1.000		Prep Factor:		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	913849.2	906425.4	1	50	
13C2-PFOA	5.0	518876.3	495984.0	5	50	
13C4-PFOS	4.8	303797.0	296261.8	3	50	
13C2-PFDA	5.0	442721.5	451203.0	-2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	986963.3	13C3-PFBA	913849.2	1.080	5.000	4.819	96	70-130	
E13C5-PFPeA	984821.1	13C3-PFBA	913849.2	1.078	5.000	5.032	101	70-130	
E13C3-PFBS	418734.6	13C3-PFBA	913849.2	0.458	4.650	4.371	94	70-130	
E13C2-4:2-FTS	67546.9	13C2-PFOA	518876.3	0.130	4.670	4.486	96	70-130	
E13C5-PFHxA	682741.9	13C2-PFOA	518876.3	1.316	5.000	4.833	97	70-130	
E13C3-PFHxS	322045.5	13C2-PFOA	518876.3	0.621	4.730	4.865	103	70-130	
E13C4-PFHpA	552888.5	13C2-PFOA	518876.3	1.066	5.000	4.896	98	70-130	
E13C2-6:2-FTS	58279.4	13C2-PFOA	518876.3	0.112	4.750	4.702	99	70-130	
E13C8-PFOA	956359.3	13C2-PFOA	518876.3	1.843	5.000	5.073	101	70-130	
E13C8-PFOS	318797.0	13C4-PFOS	303797.0	1.049	4.780	4.737	99	70-130	
E13C9-PFNA	666957.5	13C4-PFOS	303797.0	2.195	5.000	4.822	96	70-130	
E13C6-PFDA	789100.3	13C2-PFDA	442721.5	1.782	5.000	5.025	101	70-130	
E13C2-8:2-FTS	49965.8	13C2-PFDA	442721.5	0.113	4.790	4.851	101	70-130	
E13C8-PFOSA	616213.8	13C2-PFDA	442721.5	1.392	5.000	5.107	102	70-130	
Ed3-NMeFOSAA	183128.3	13C2-PFDA	442721.5	0.414	5.000	5.252	105	70-130	
E13C7-PFUnDA	556651.0	13C2-PFDA	442721.5	1.257	5.000	5.314	106	70-130	
Ed5-NEtFOSAA	151553.0	13C2-PFDA	442721.5	0.342	5.000	6.099	122	70-130	
E13C2-PFDoDA	1111170.4	13C2-PFDA	442721.5	2.510	5.000	5.273	105	70-130	
Ed7-NMePFOSAE	257155.9	13C2-PFDA	442721.5	0.581	5.000	5.020	100	70-130	
Ed3-NMePFOSA	84180.7	13C2-PFDA	442721.5	0.190	5.000	5.146	103	70-130	
Ed9-NEtPFOSAE	224480.4	13C2-PFDA	442721.5	0.507	5.000	5.141	103	70-130	
Ed5-NEtPFOSA	67601.1	13C2-PFDA	442721.5	0.153	5.000	5.306	106	70-130	
E13C2-PFTeDA	822251.9	13C2-PFDA	442721.5	1.857	5.000	5.139	103	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CCV6_CAL4

Instrument Name: LM27631

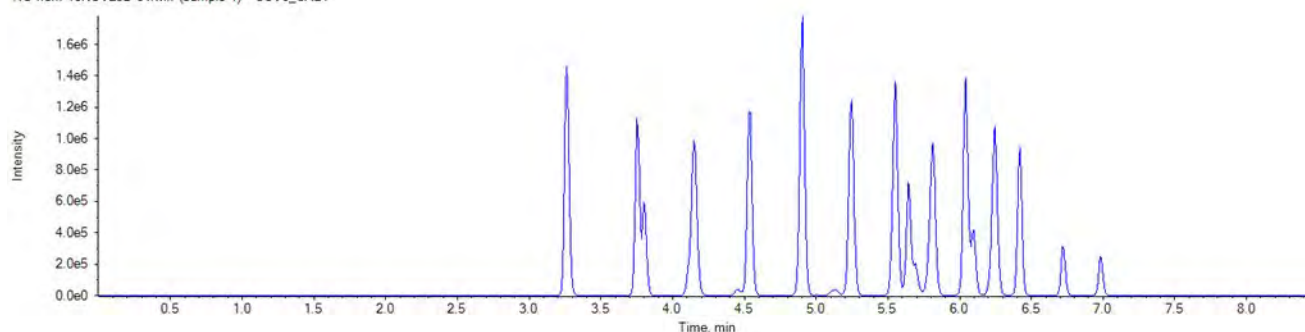
File Name: 18NOV29D-64.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.26	1.000	1469628.0		A	13C4-PFBA	3.26	986963.3	1.489	8.163
PFPeA	3.75	1.000	1427748.0		A	13C5-PFPeA	3.76	984821.1	1.450	7.114
PFBS	3.80	1.000	609993.7		A	13C3-PFBS	3.80	418734.6	1.457	7.071
4:2-FTS	4.11	1.000	184688.7		A	13C2-4:2-FTS	4.11	67546.9	2.734	7.319
PFHxA	4.15	1.000	1387308.0		A	13C5-PFHxA	4.15	682741.9	2.032	8.156
PFPeS	4.17	1.100	321453.2		A	13C3-PFBS	3.80	418734.6	0.768	7.765
PFHpA	4.54	1.000	1397029.6		A	13C4-PFHpA	4.54	552888.5	2.527	7.798
PFHxS	4.54	1.000	466399.5		M	13C3-PFHxS	4.54	322045.5	1.448	6.781
6:2-FTS	4.89	1.000	179952.5		A	13C2-6:2-FTS	4.89	58279.4	3.088	8.057
PFHpS	4.90	1.080	482601.2		A	13C3-PFHxS	4.54	322045.5	1.499	7.479
PFOA	4.90	1.000	1506521.1		A	13C8-PFOA	4.91	956359.3	1.575	8.140
PFOS	5.23	1.000	507772.2		M	13C8-PFOS	5.24	318797.0	1.593	6.681
PFNA	5.25	1.000	1378868.3		A	13C9-PFNA	5.25	666957.5	2.067	7.923
PFNS	5.53	1.060	359004.1		A	13C8-PFOS	5.24	318797.0	1.126	7.110
PFDA	5.55	1.000	1238904.3		A	13C6-PFDA	5.55	789100.3	1.570	8.887
8:2-FTS	5.56	1.000	195089.6		A	13C2-8:2-FTS	5.56	49965.8	3.904	7.363
PFOSA	5.64	1.000	965121.8		A	13C8-PFOSA	5.65	616213.8	1.566	7.934
NMeFOSAA	5.70	1.000	222950.9		M	d3-NMeFOSAA	5.69	183128.3	1.217	7.766
PFDS	5.79	1.110	286894.2		A	13C8-PFOS	5.24	318797.0	0.900	7.135
PFUnDA	5.81	1.000	1252226.8		A	13C7-PFUnDA	5.81	556651.0	2.250	8.041
NEtFOSAA	5.83	1.000	239375.0		M	d5-NEtFOSAA	5.82	151553.0	1.579	7.693
PFDODA	6.04	1.000	1726918.5		A	13C2-PFDODA	6.04	1111170.4	1.554	8.513
10:2-FTS	6.06	1.090	185245.7		A	13C2-8:2-FTS	5.56	49965.8	3.707	8.175
NMePFOSAE	6.10	1.000	489183.9		A	d7-NMePFOSAE	6.09	257155.9	1.902	8.005
NMePFOSA	6.10	1.000	128158.0		A	d3-NMePFOSA	6.10	84180.7	1.522	8.071
PFDoS	6.21	1.190	162130.7		A	13C8-PFOS	5.24	318797.0	0.509	7.304
NEtPFOSAE	6.26	1.000	532496.8		A	d9-NEtPFOSAE	6.24	224480.4	2.372	8.533
NEtPFOSA	6.27	1.000	113302.3		A	d5-NEtPFOSA	6.26	67601.1	1.676	7.512
PFTDA	6.24	1.030	1695782.7		A	13C2-PFDODA	6.04	1111170.4	1.526	9.199
PFTeDA	6.42	1.000	1214917.2		A	13C2-PFTeDA	6.42	822251.9	1.478	8.372
PFHxDA	6.72	1.050	634623.0		A	13C2-PFTeDA	6.42	822251.9	0.772	8.823
PFODA	6.98	1.090	509959.1		A	13C2-PFTeDA	6.42	822251.9	0.620	8.262

Total Ion Chromatogram

TIC from 18NOV29D-64.wiff (sample 1) - CCV6_CAL4



APPROVED

By MCD at 3:26 pm, 11/30/18

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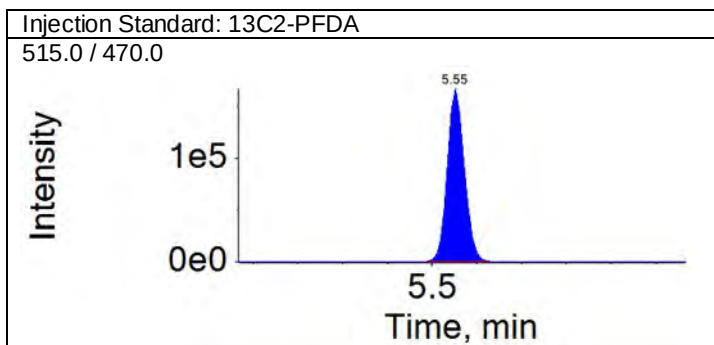
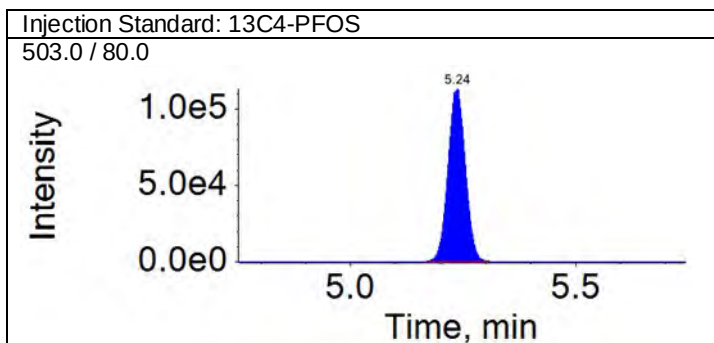
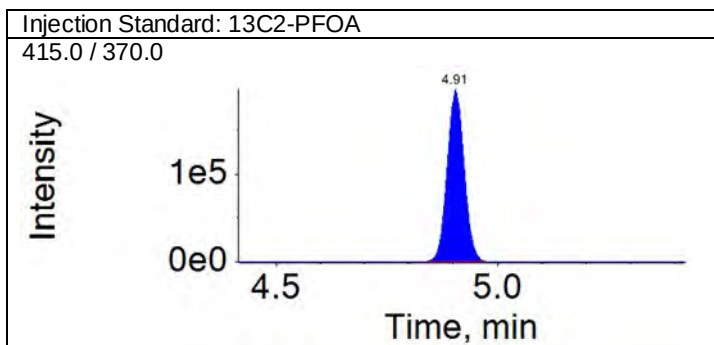
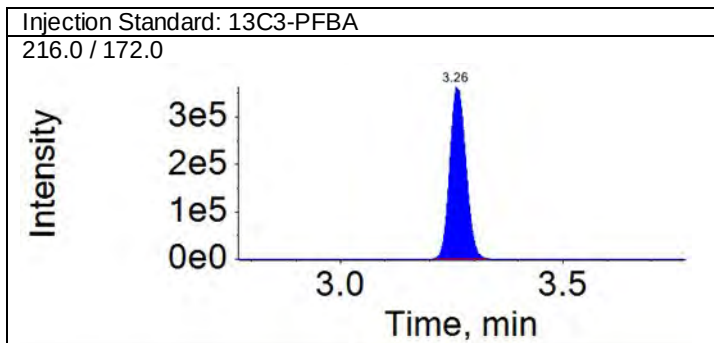
REVIEWED

By HMK at 1:40 pm, 12/6/18

Page 2 of 17

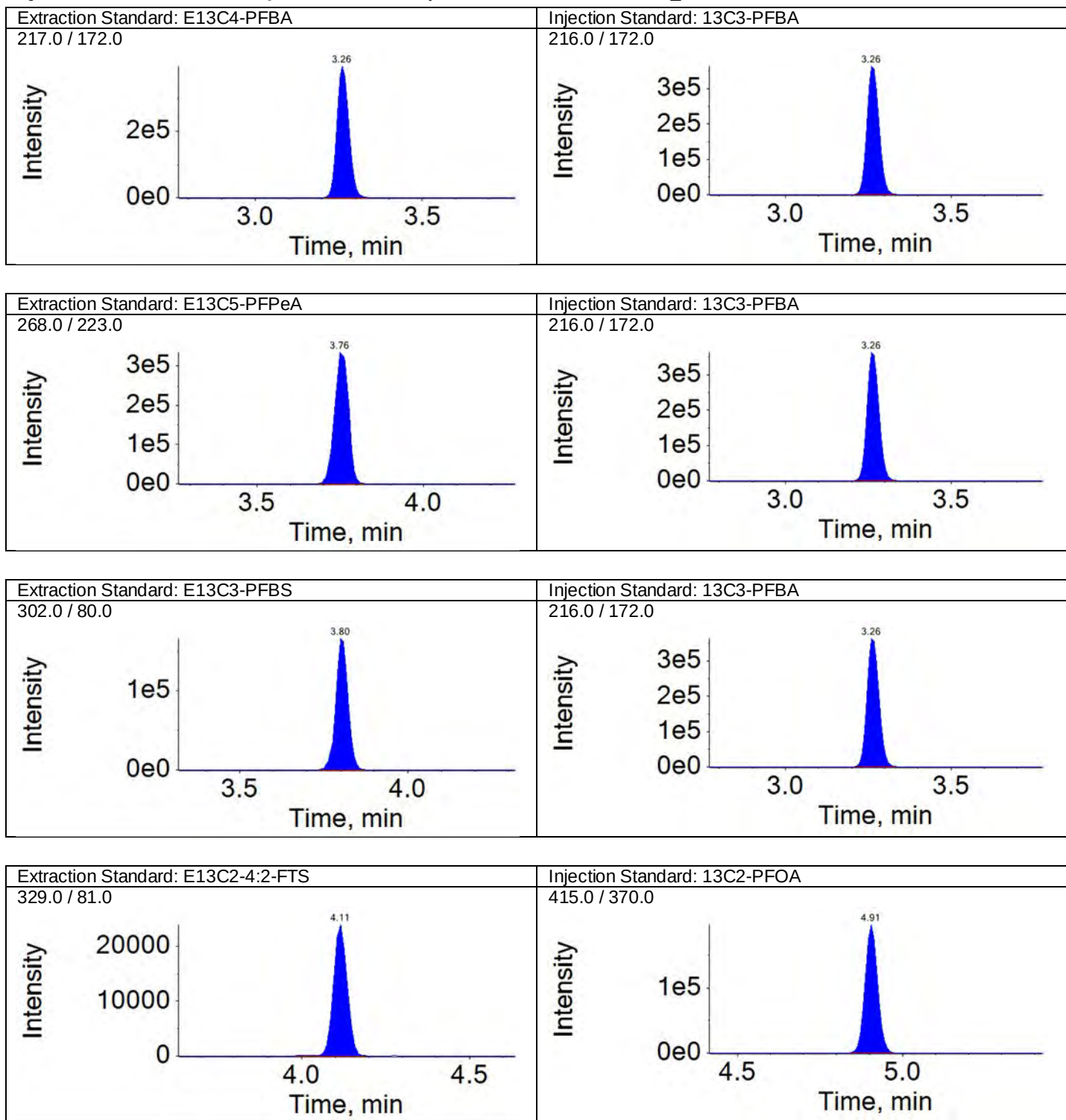
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QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



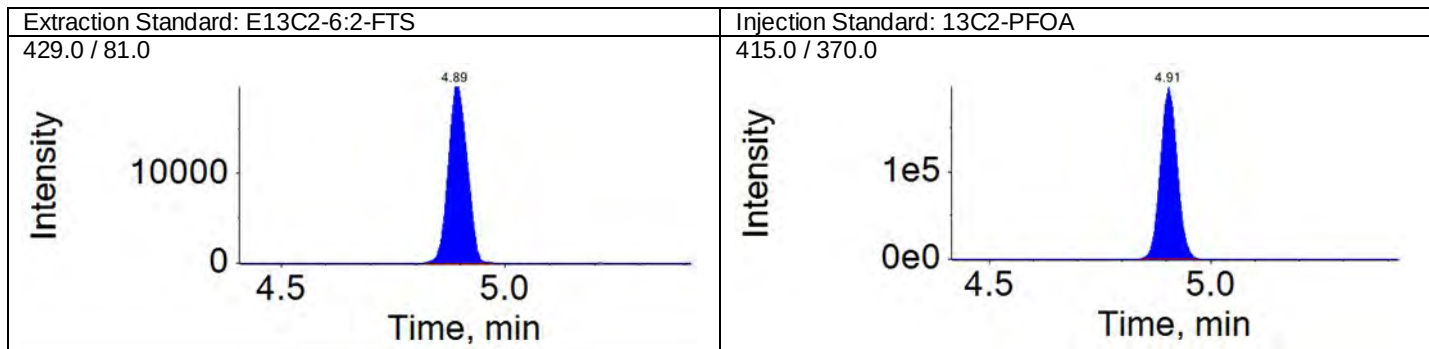
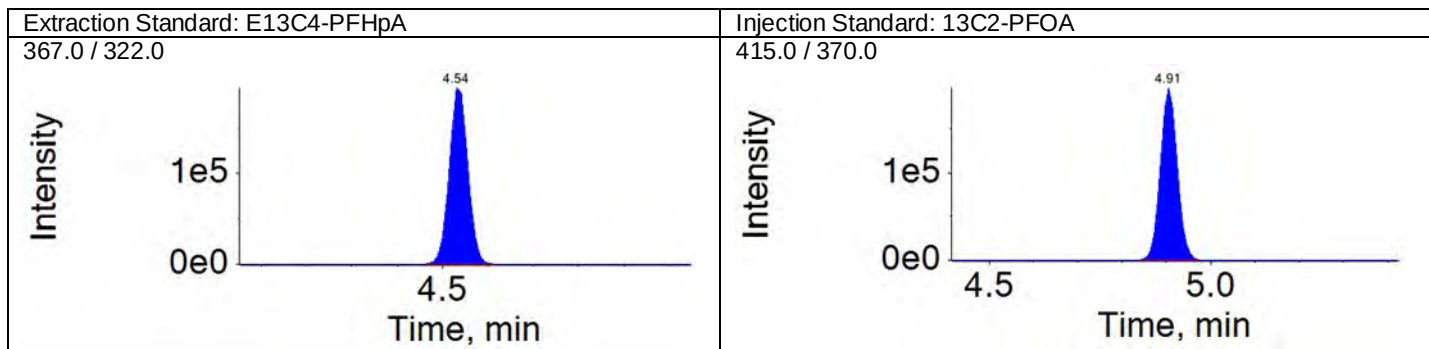
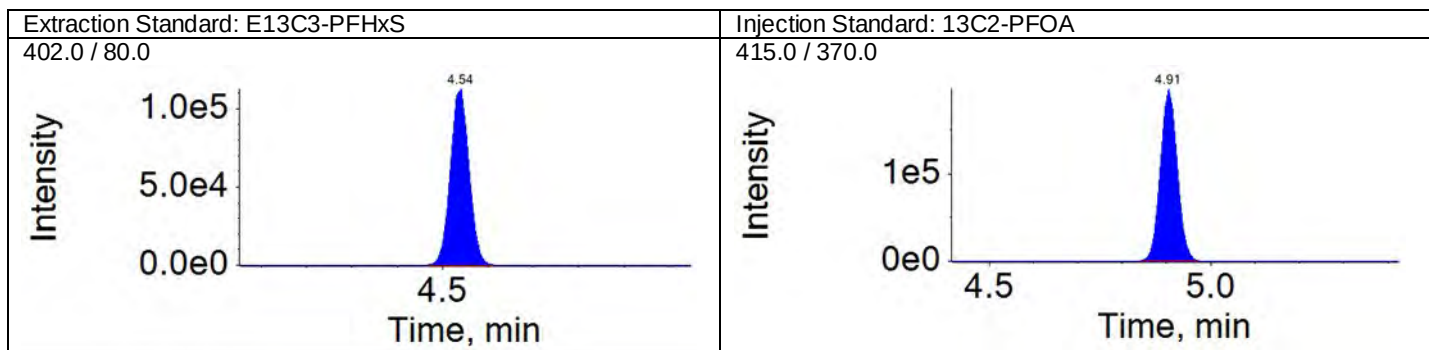
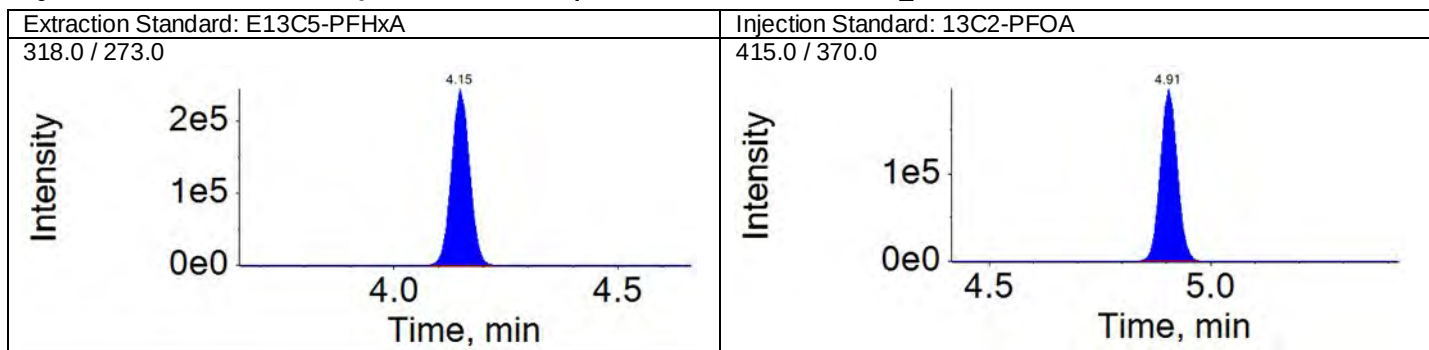
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QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



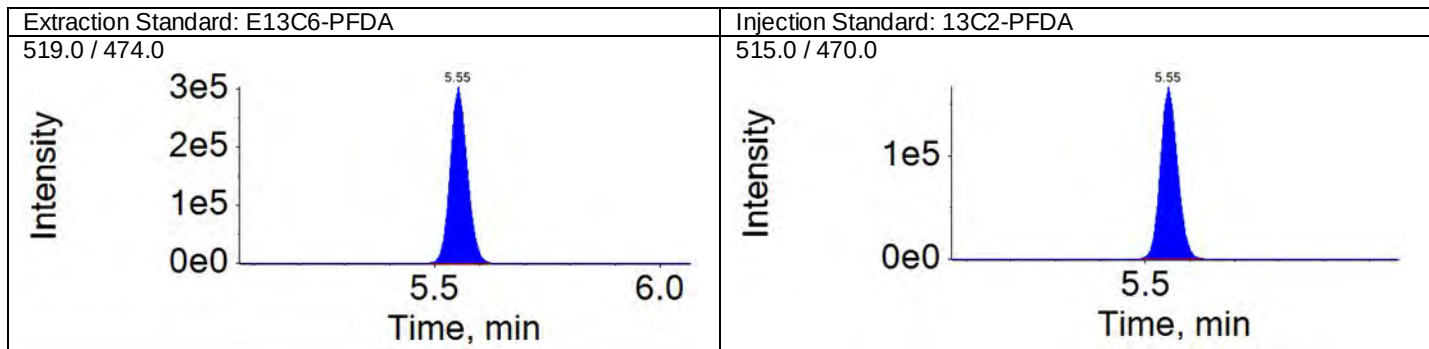
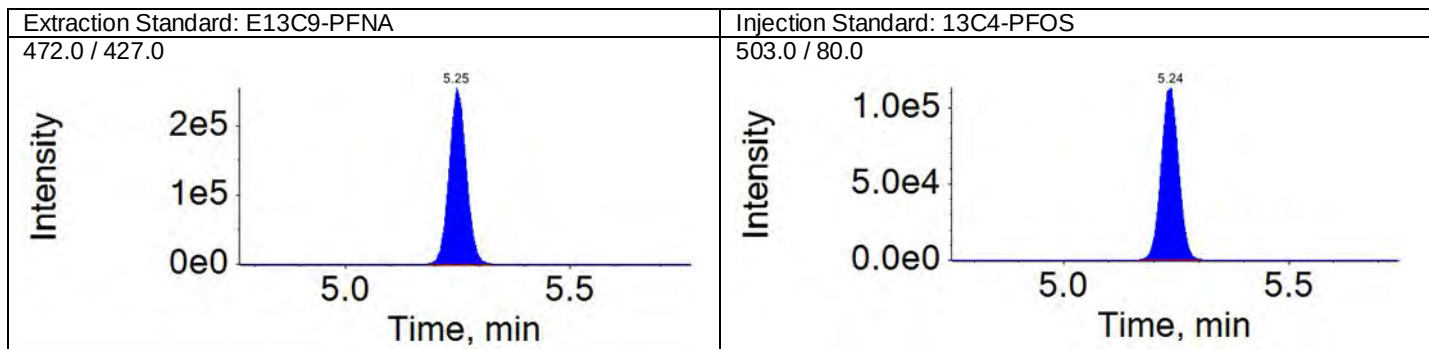
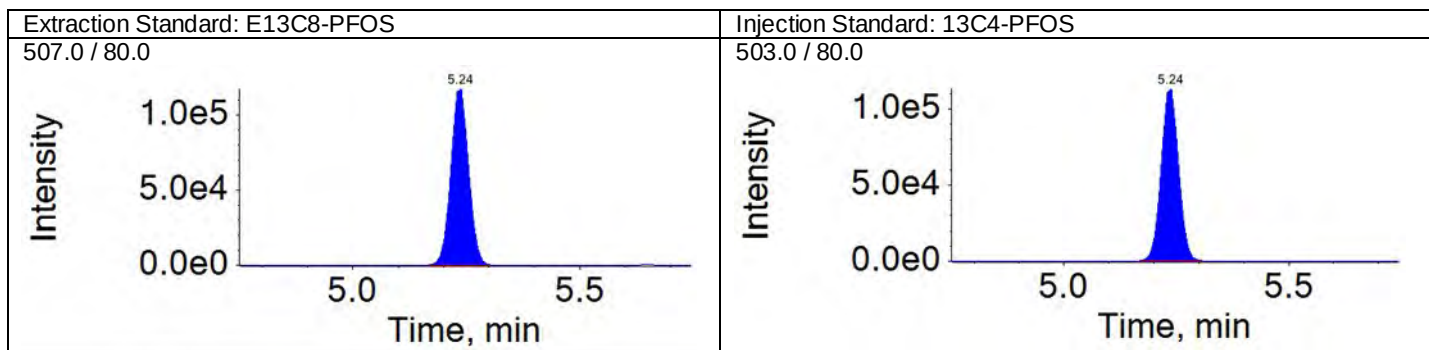
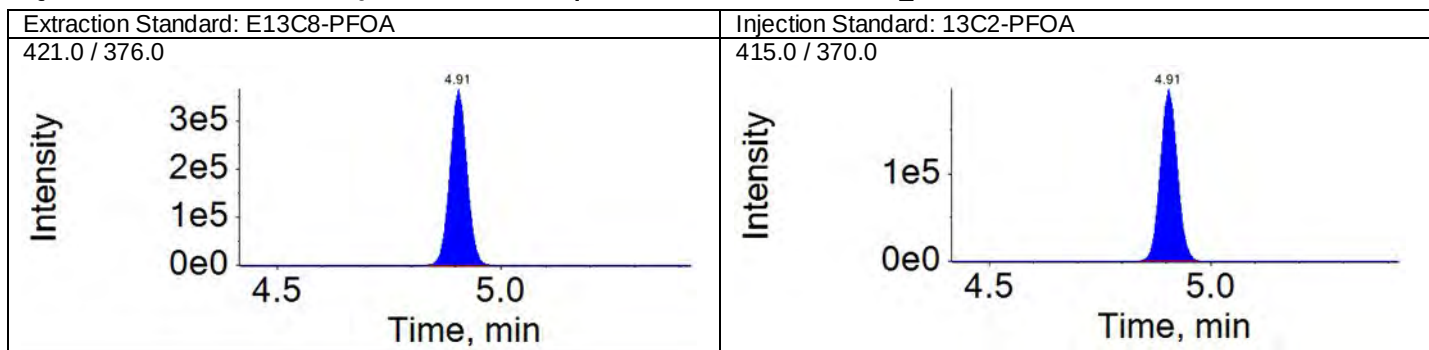
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Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



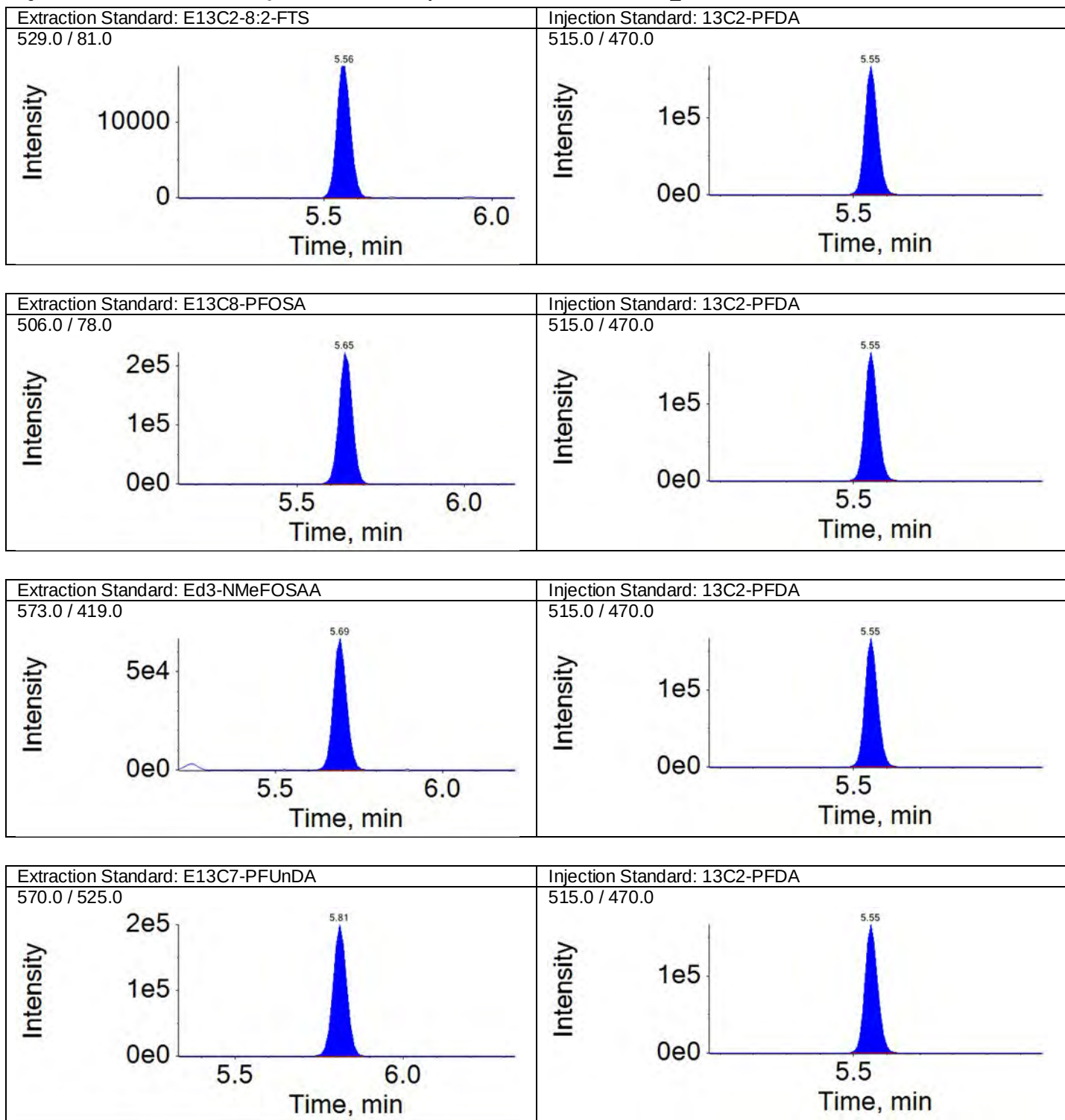
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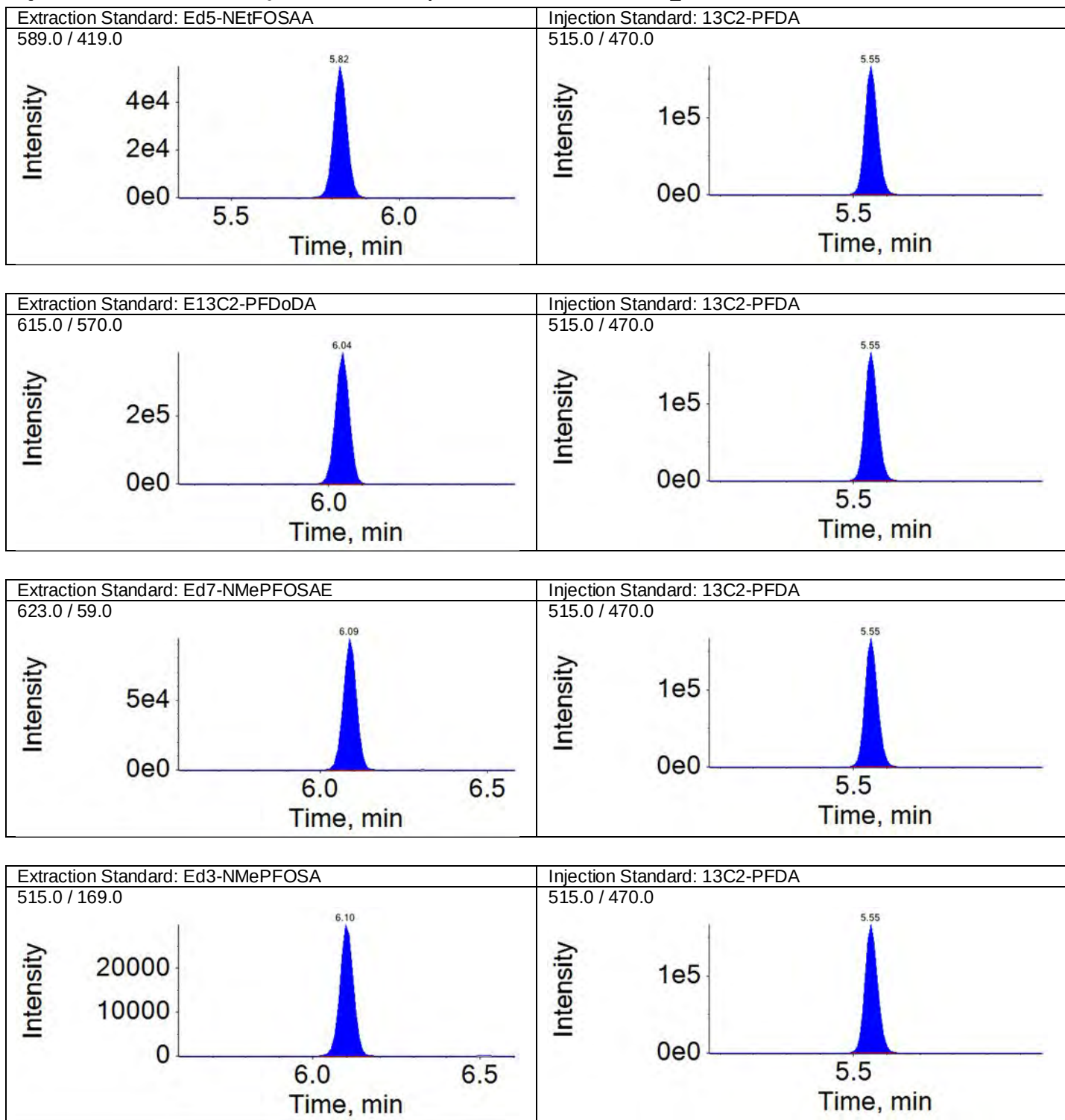
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Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



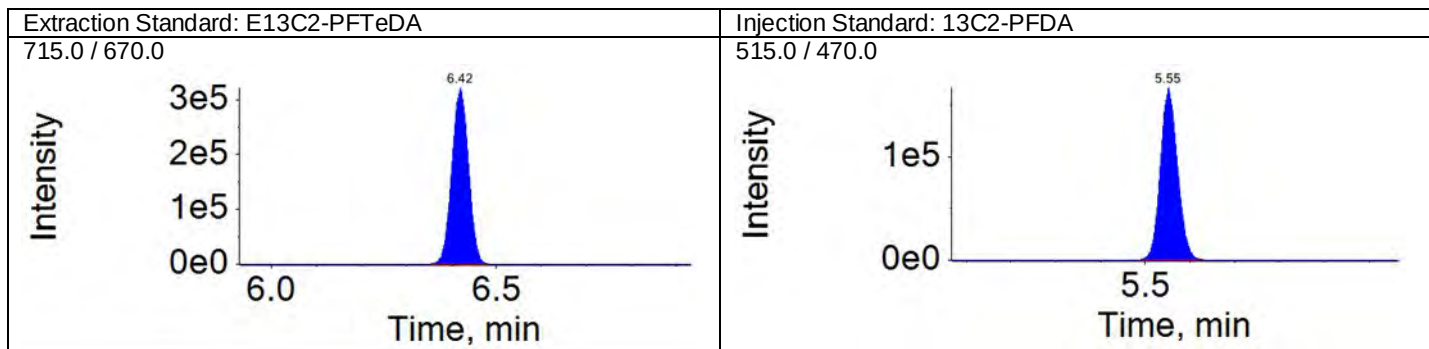
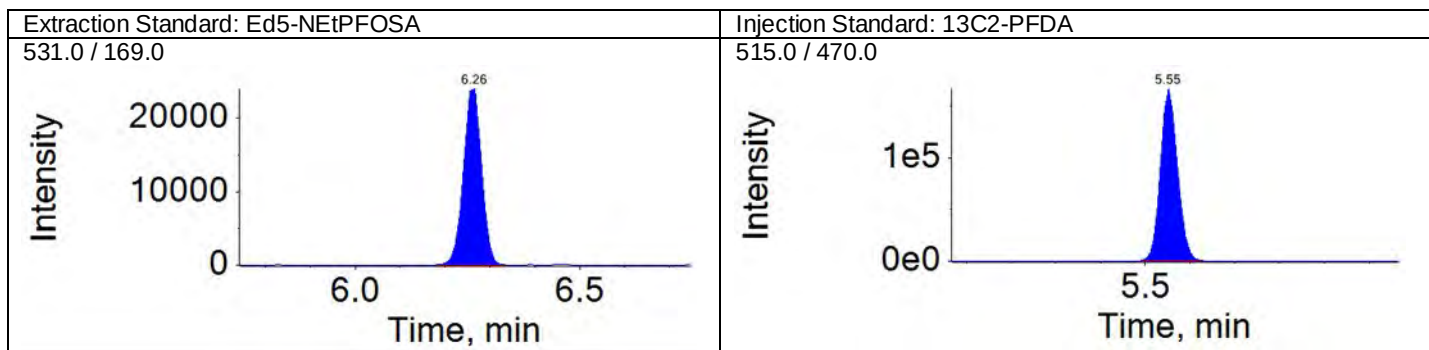
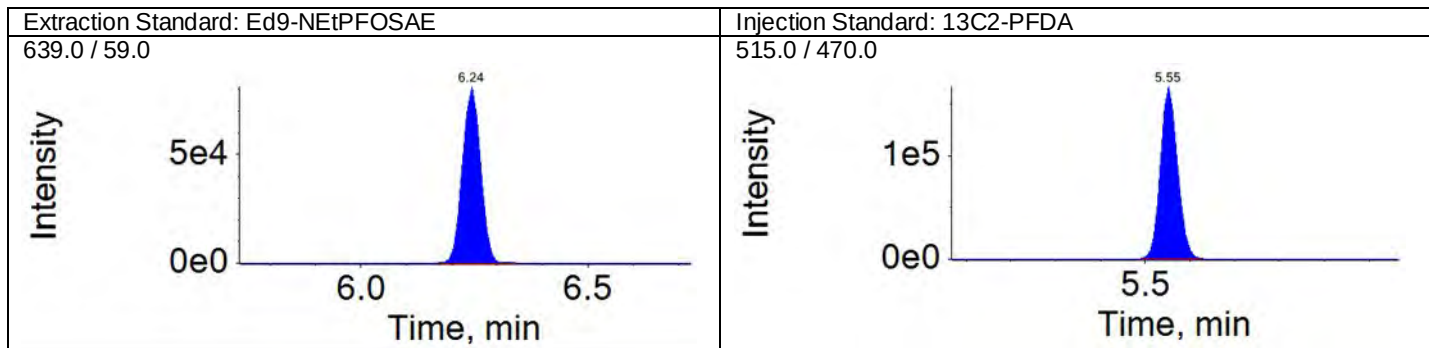
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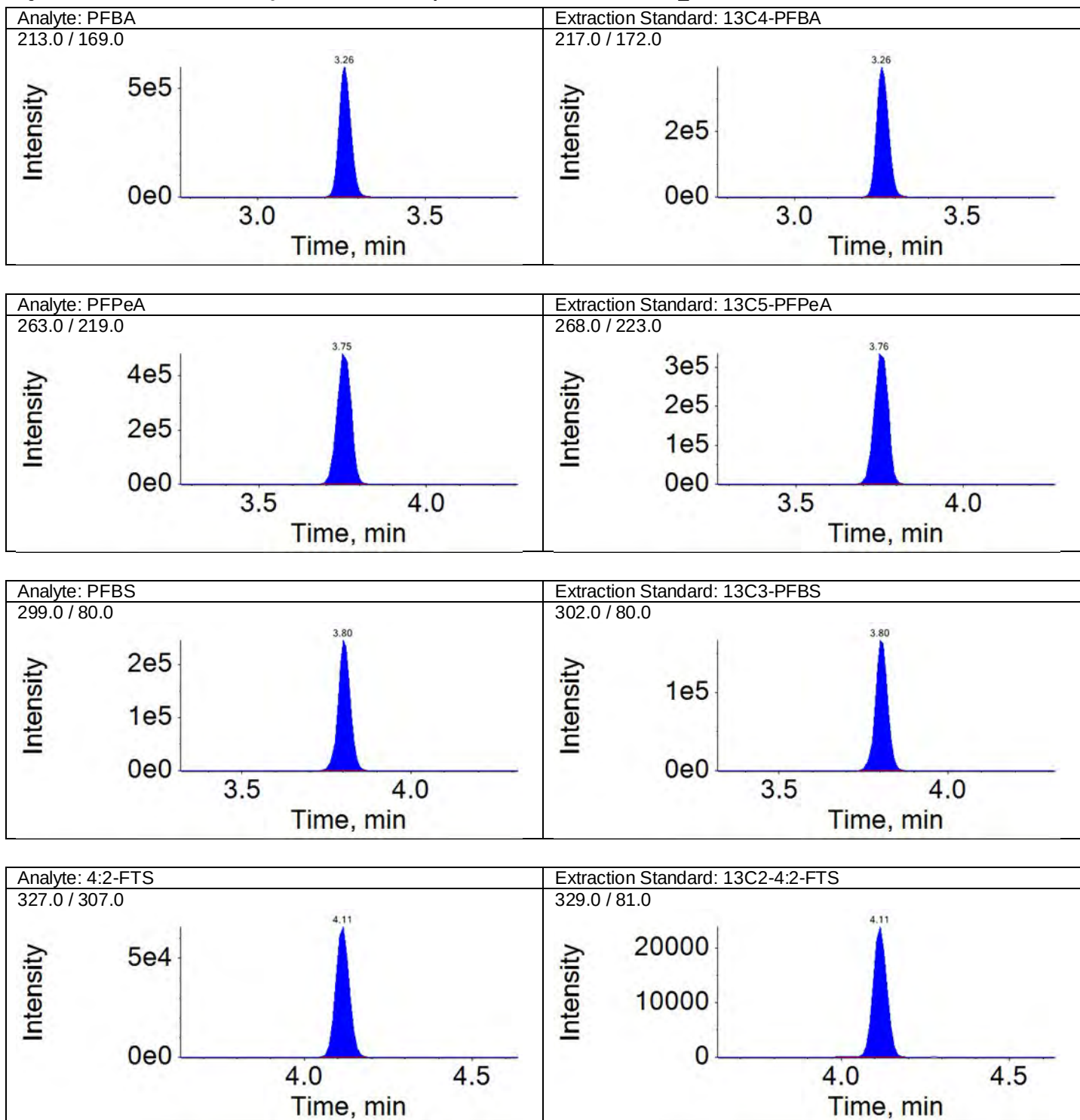
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QMethod Name: 18AUG20QM

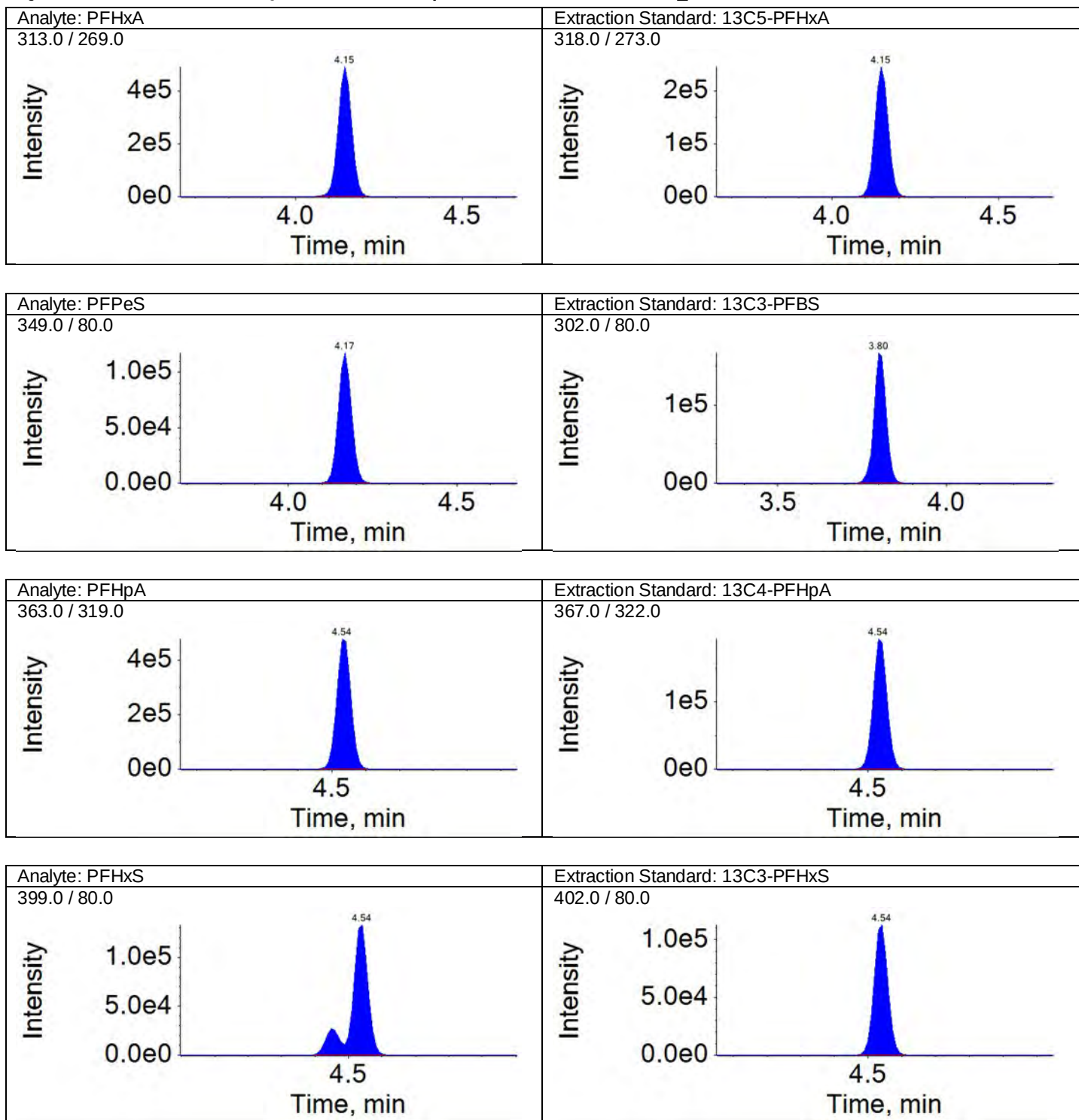
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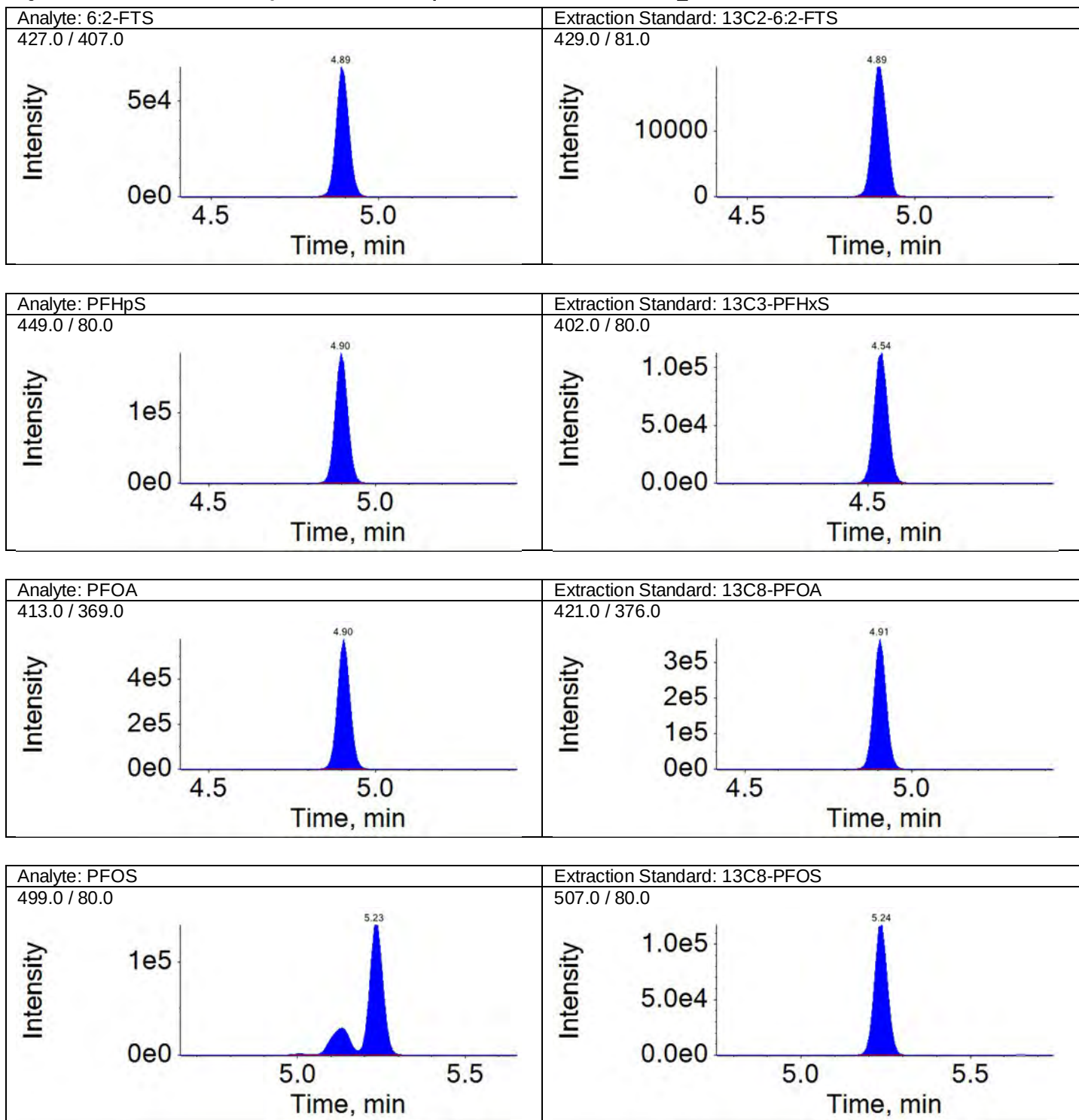
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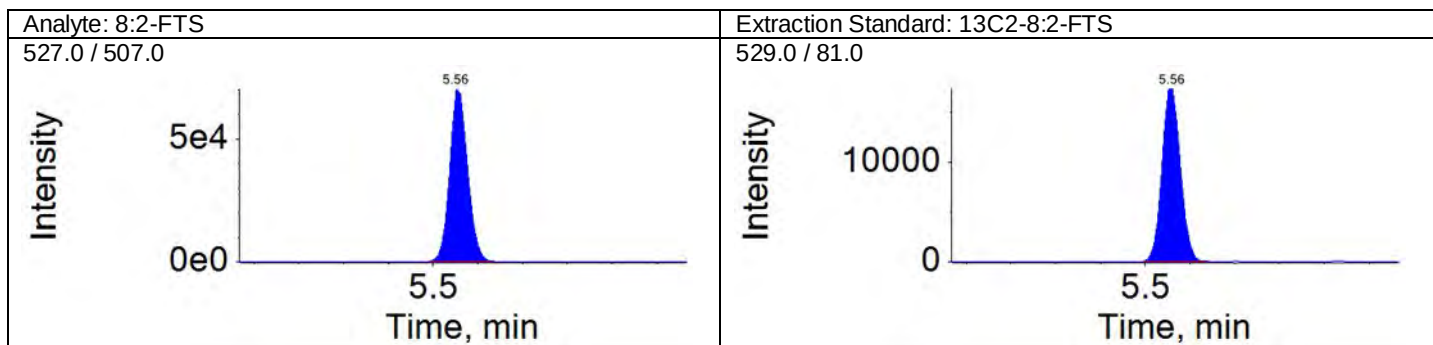
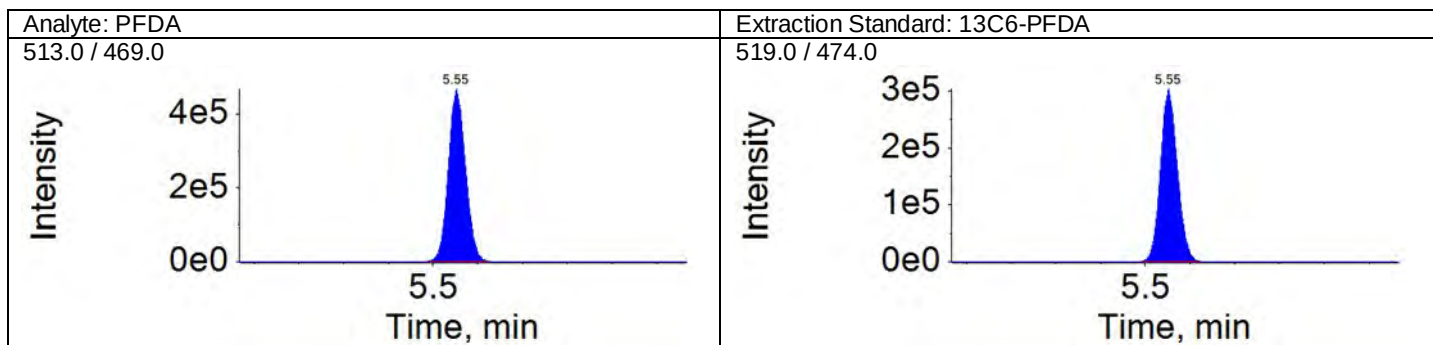
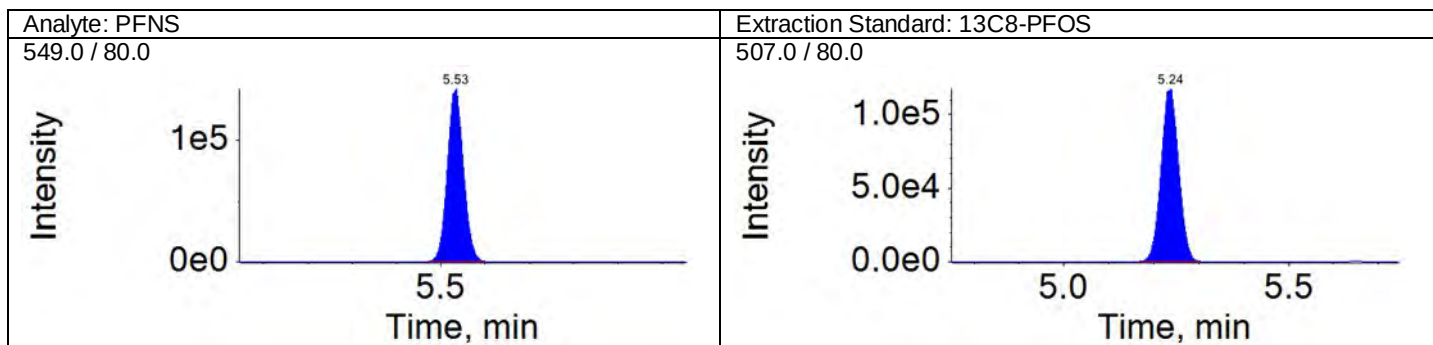
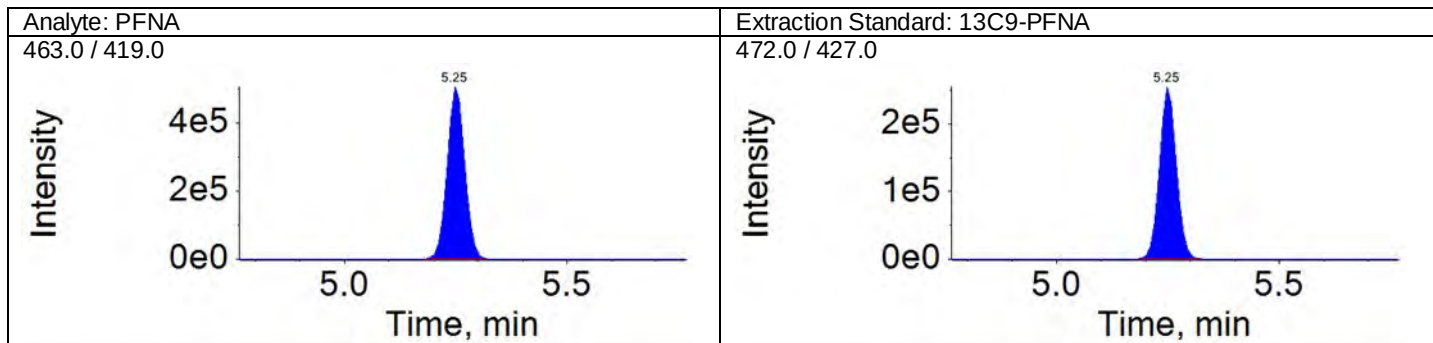
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Acquisition Method: 18AUG13_3uL.dam



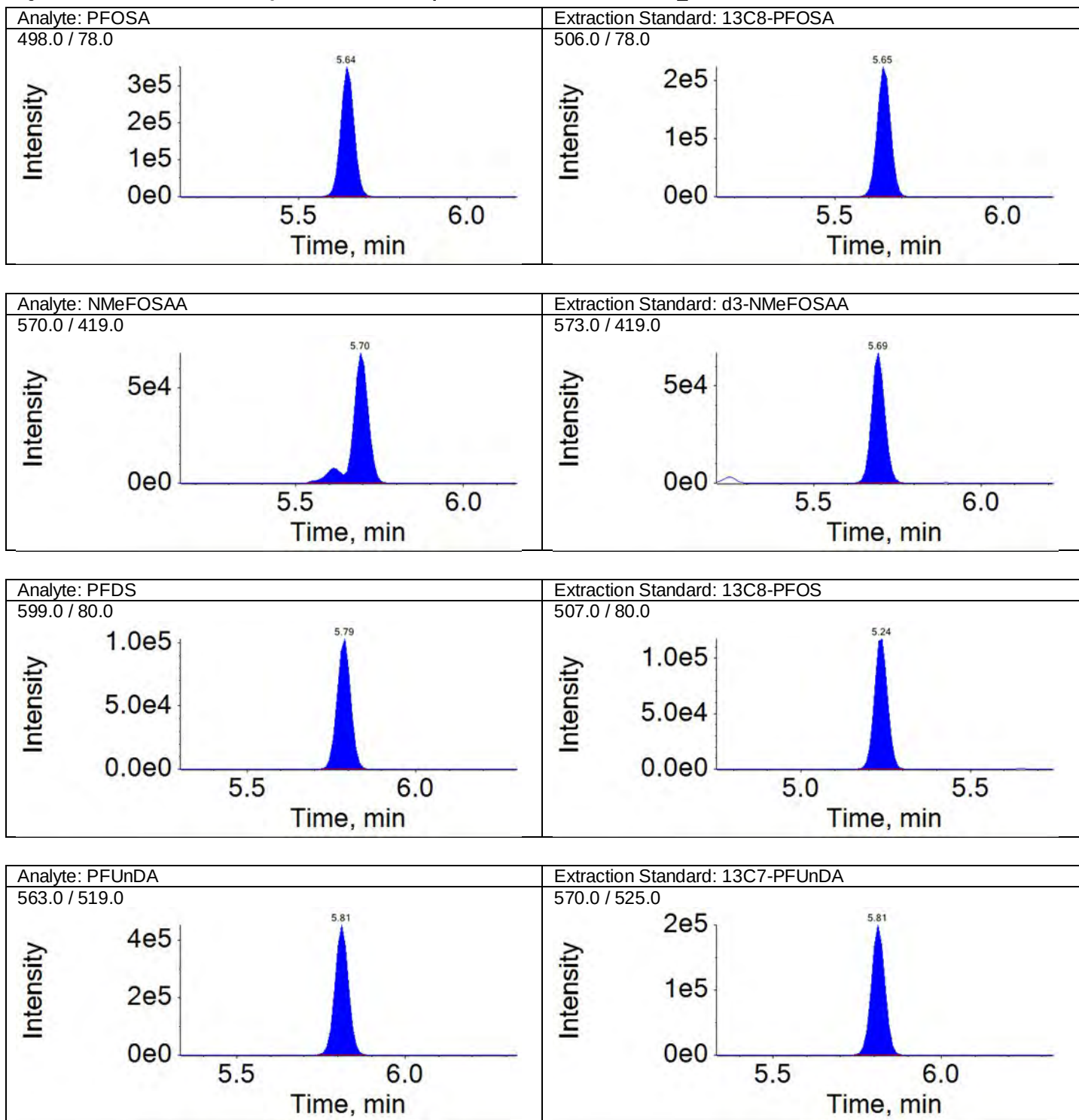
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ICAL Name: 18NOV28DCAL
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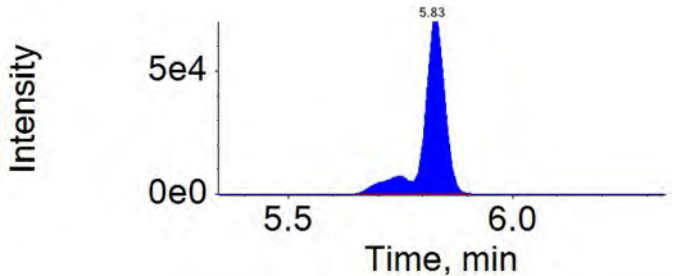
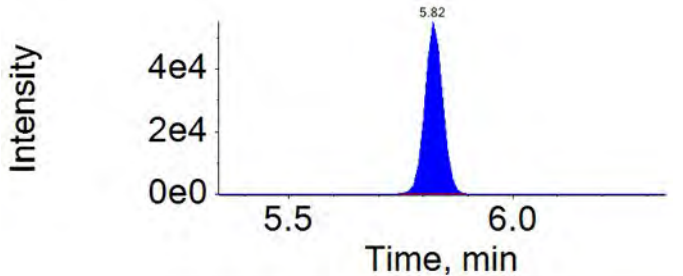
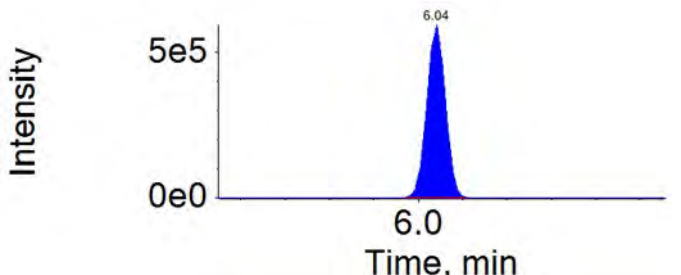
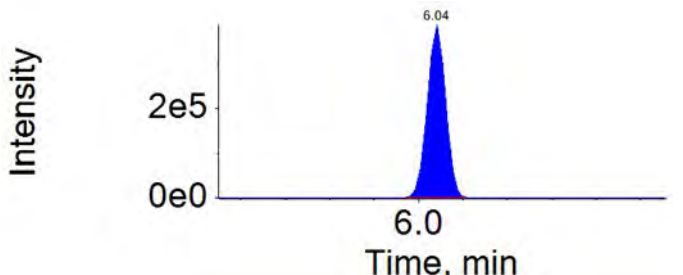
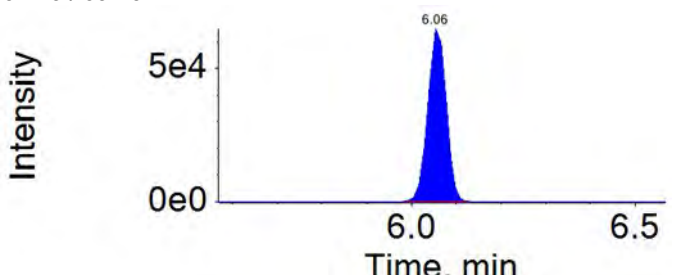
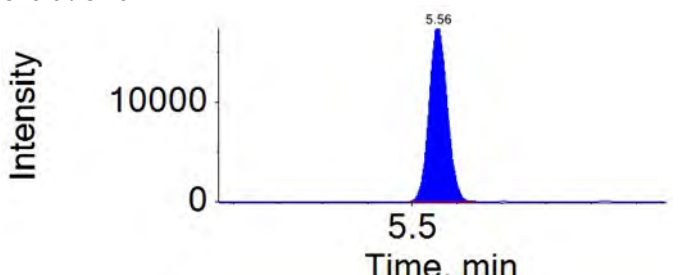
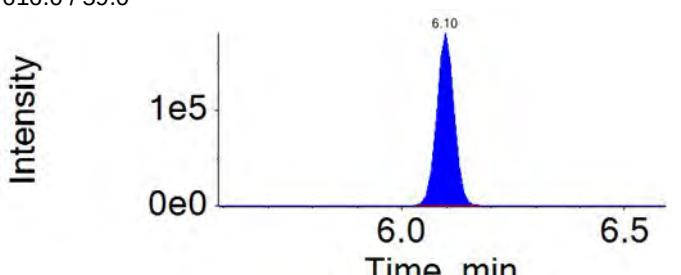
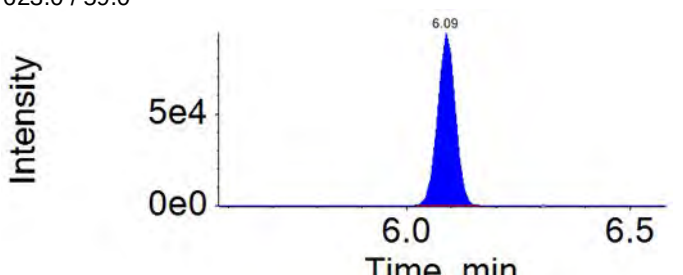
By MCD at 3:27 pm, 11/30/18

REVIEWED

By HMK at 1:40 pm, 12/6/18

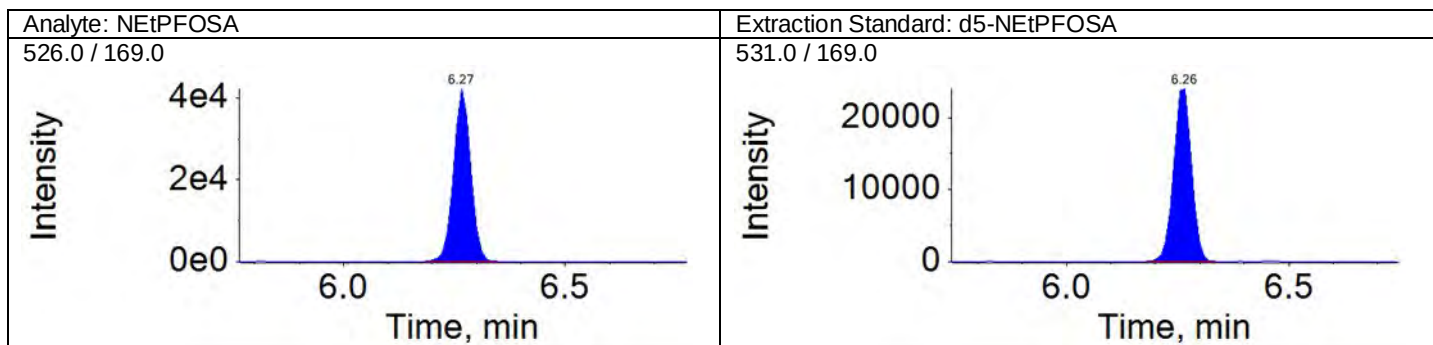
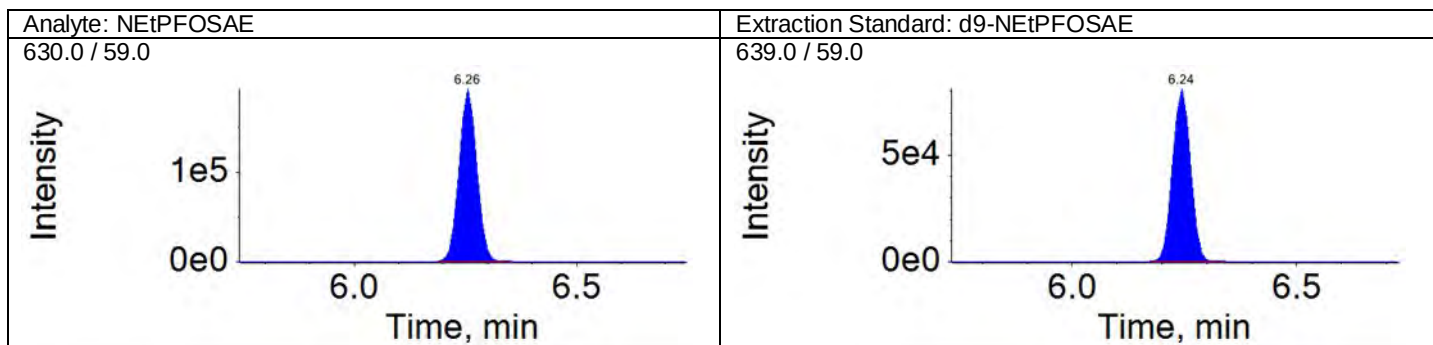
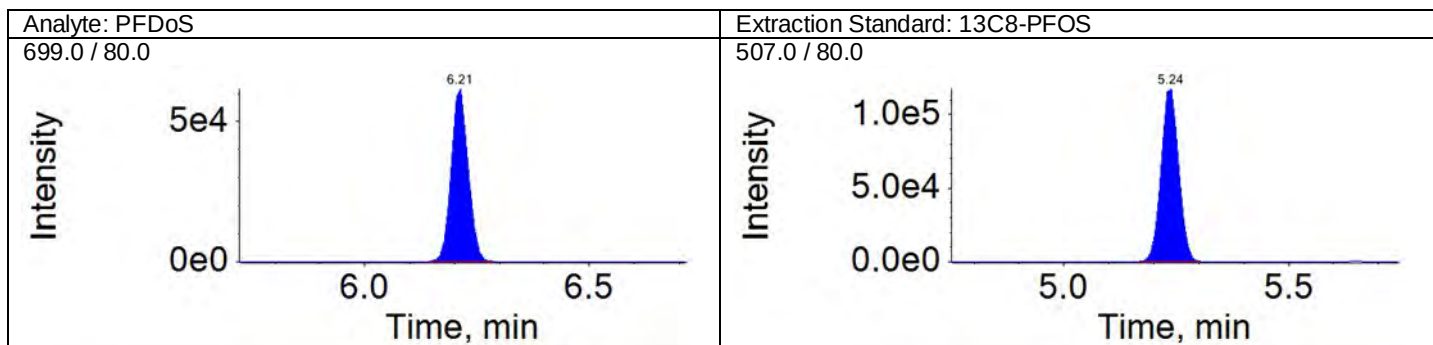
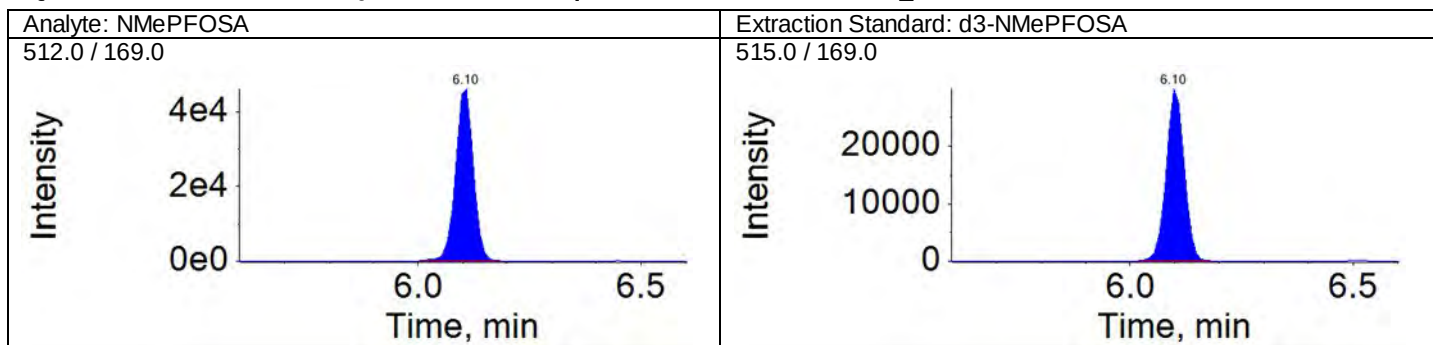
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QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte: NEtFOSAA 584.0 / 419.0 	Extraction Standard: d5-NEtFOSAA 589.0 / 419.0 
Analyte: PFDoDA 613.0 / 569.0 	Extraction Standard: 13C2-PFDoDA 615.0 / 570.0 
Analyte: 10:2-FTS 627.0 / 607.0 	Extraction Standard: 13C2-8:2-FTS 529.0 / 81.0 
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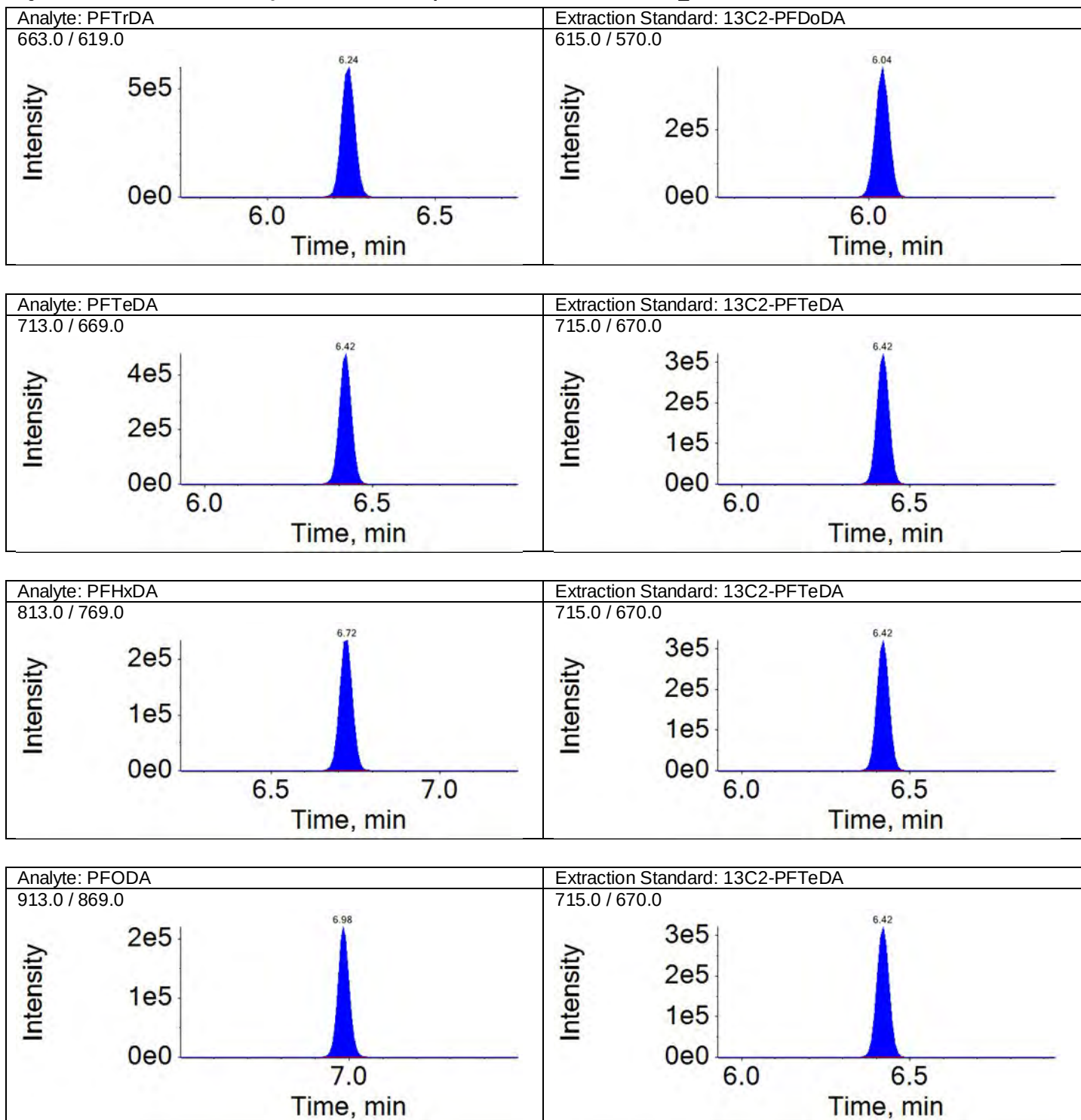
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Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
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ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:

PFHxS

RT (min.):

4.54

Peak Area:

384345.6

Mass Range:

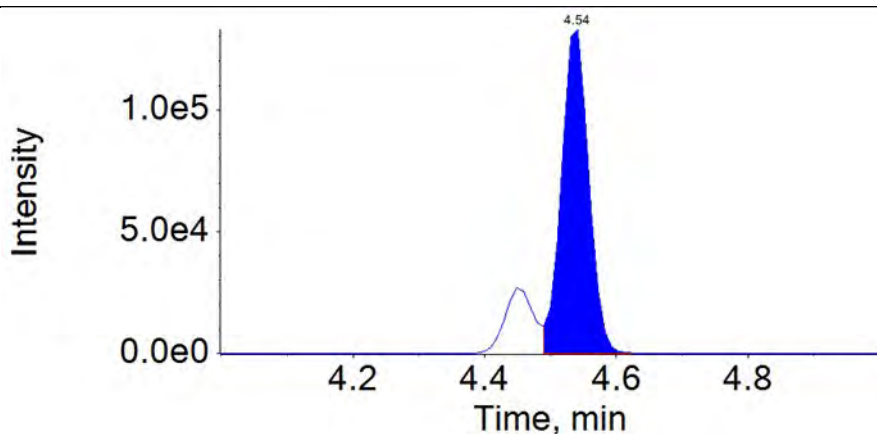
399.0 / 80.0

File Name:

18NOV29D-64.wiff

Sample Name:

CCV6_CAL4

**Component Name:**

PFOS

RT (min.):

5.23

Peak Area:

386727.1

Mass Range:

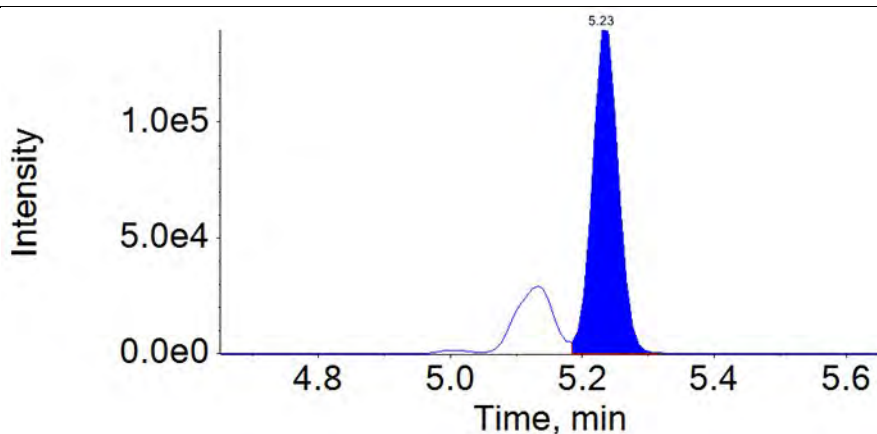
499.0 / 80.0

File Name:

18NOV29D-64.wiff

Sample Name:

CCV6_CAL4

**Component Name:**

NMeFOSAA

RT (min.):

5.70

Peak Area:

196666.7

Mass Range:

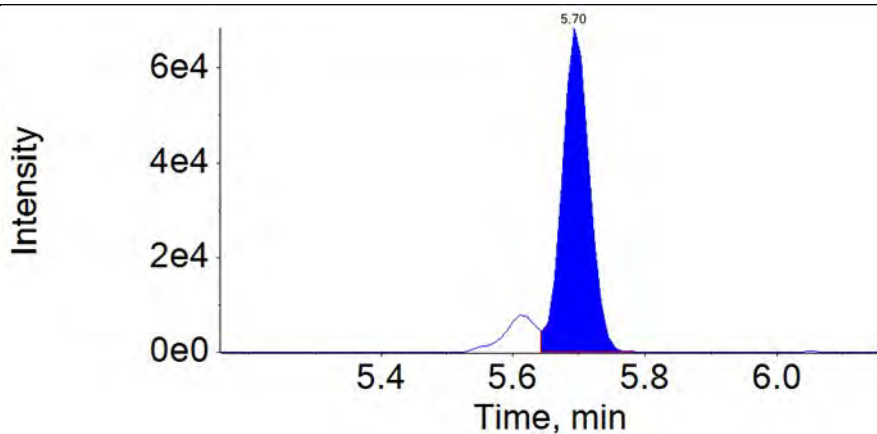
570.0 / 419.0

File Name:

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Sample Name:

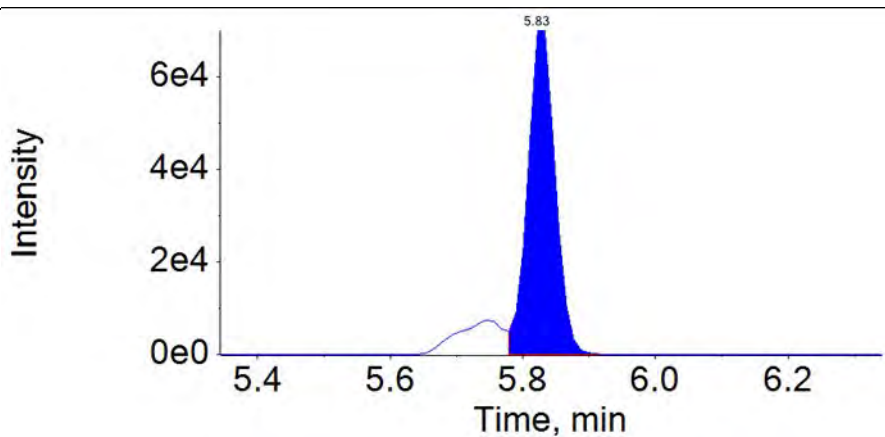
CCV6_CAL4



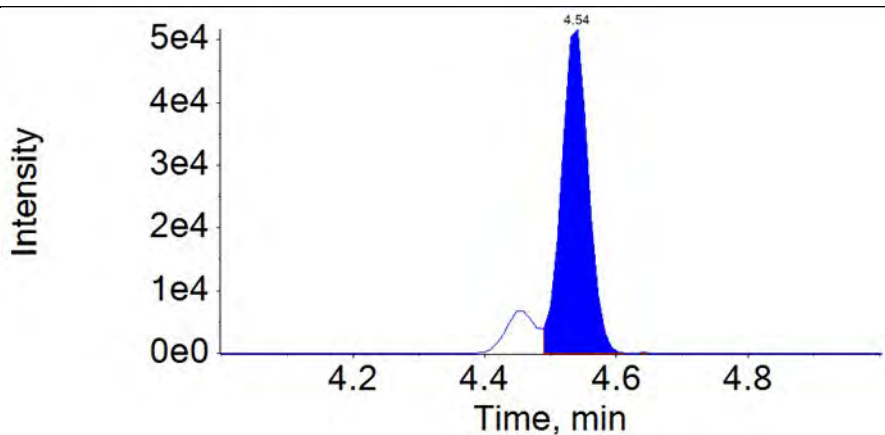
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Results Table Date: 11/30/2018 3:21:11 PM

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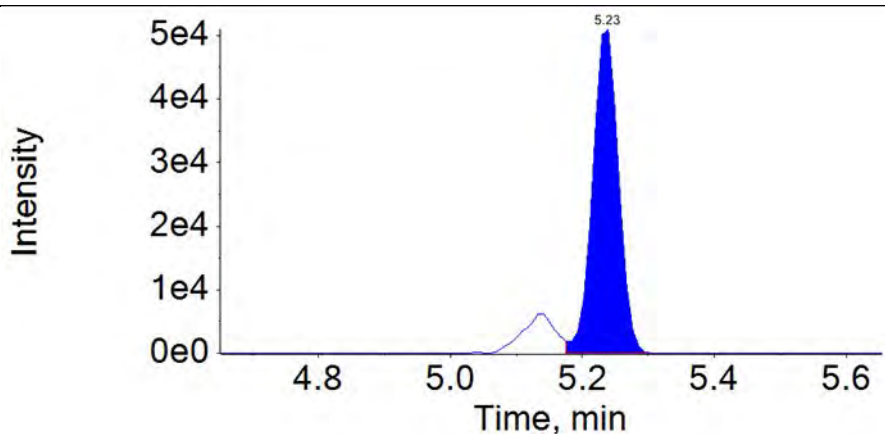
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NETFOSAA
RT (min.):
5.83
Peak Area:
203534.1
Mass Range:
584.0 / 419.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4



Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
147603.4
Mass Range:
399.0 / 99.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4



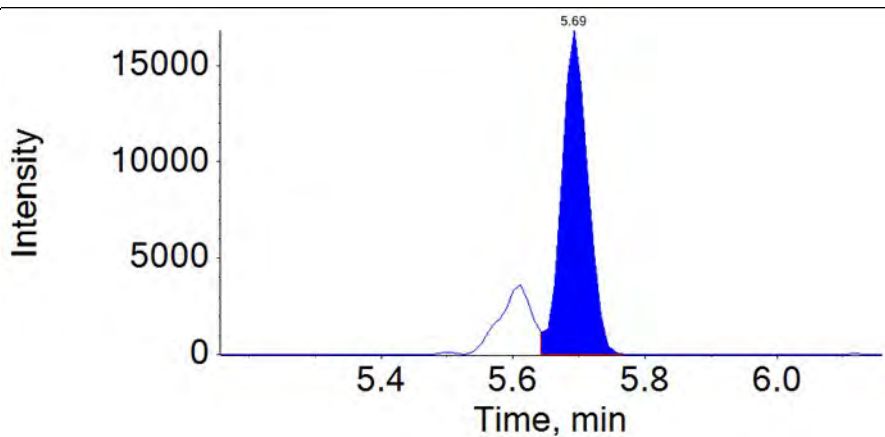
Component Name:
PFOS_2
RT (min.):
5.23
Peak Area:
139568.4
Mass Range:
499.0 / 99.0
File Name:
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Sample Name:
CCV6_CAL4



Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM

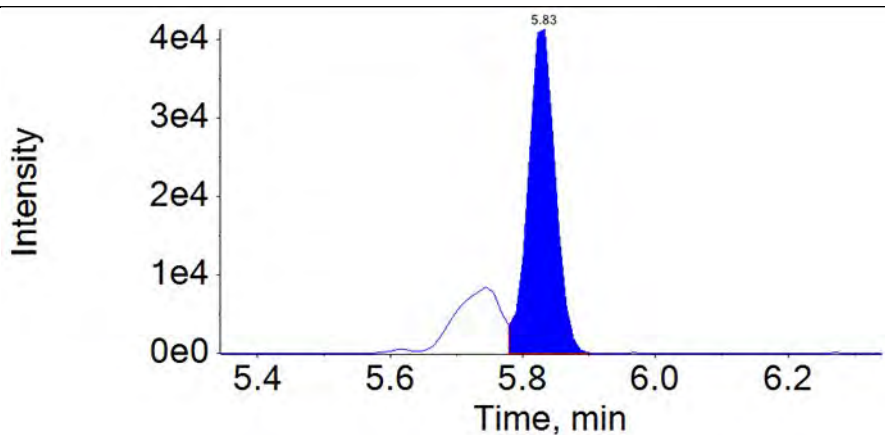
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RT (min.):
5.69
Peak Area:
46000.9
Mass Range:
570.0 / 483.0
File Name:
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Sample Name:
CCV6_CAL4



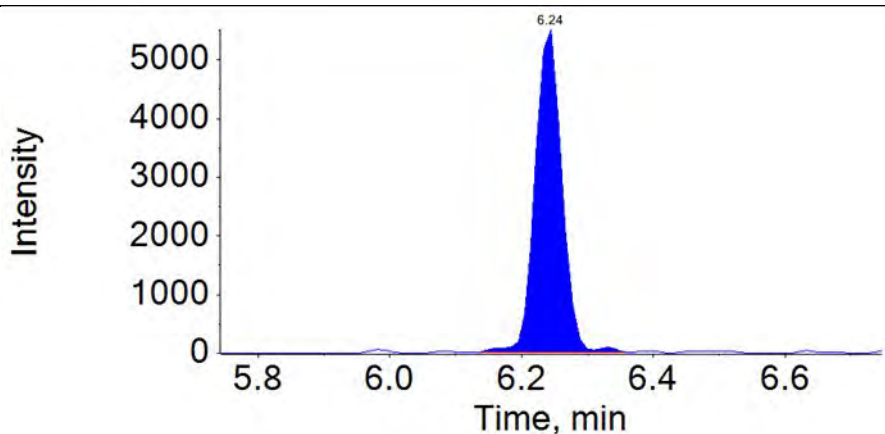
Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.83
Peak Area:
117480.7
Mass Range:
584.0 / 526.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

Component Name:
PFTTrDA_2
RT (min.):
6.24
Peak Area:
15556.4
Mass Range:
663.0 / 169.0
File Name:
18NOV29D-64.wiff
Sample Name:
CCV6_CAL4



Integration Comment: incorrect integration

Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 3:27 pm, 11/30/18

REVIEWED

By HMK at 1:40 pm, 12/6/18

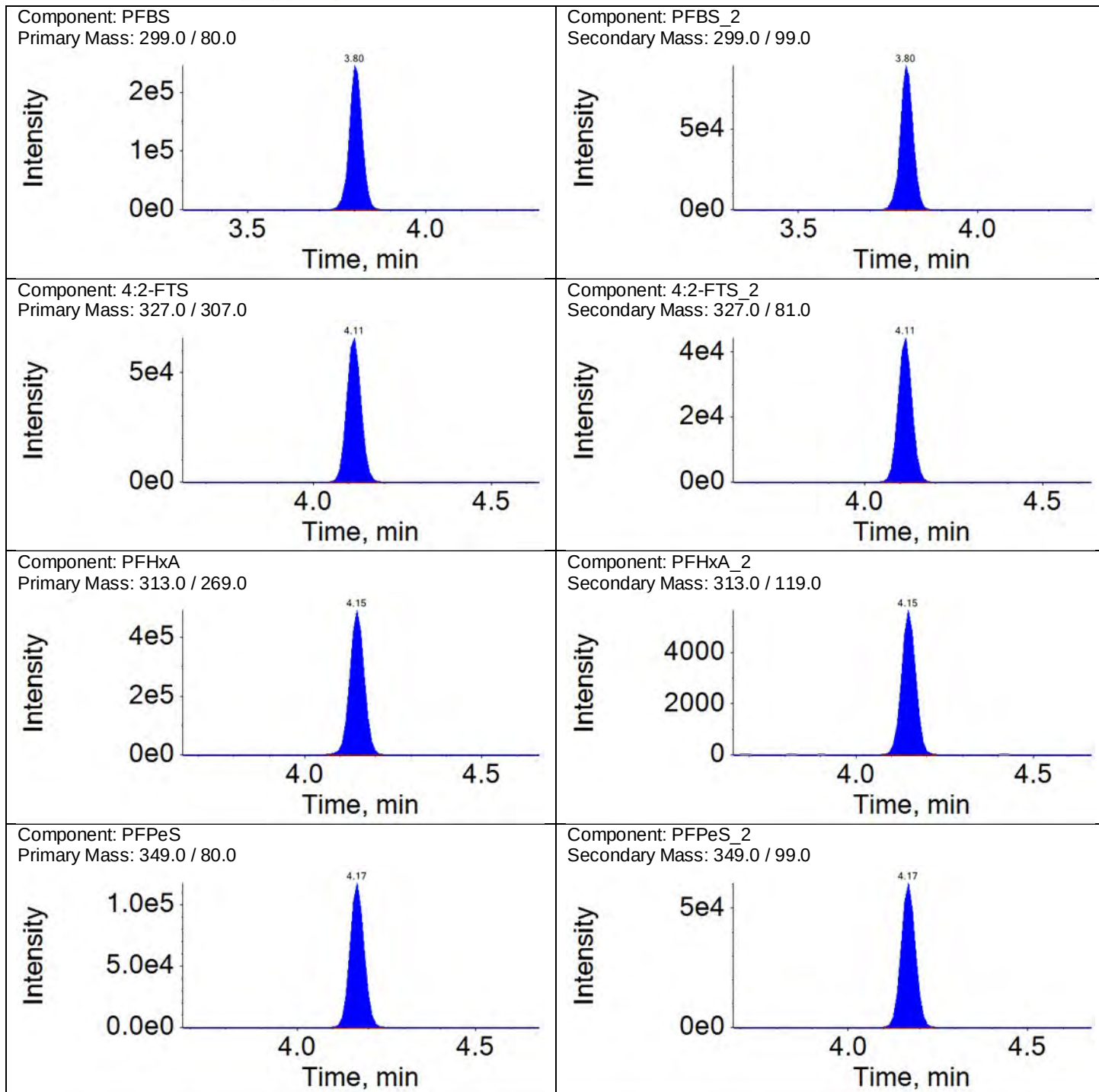
Ion Ratio Report

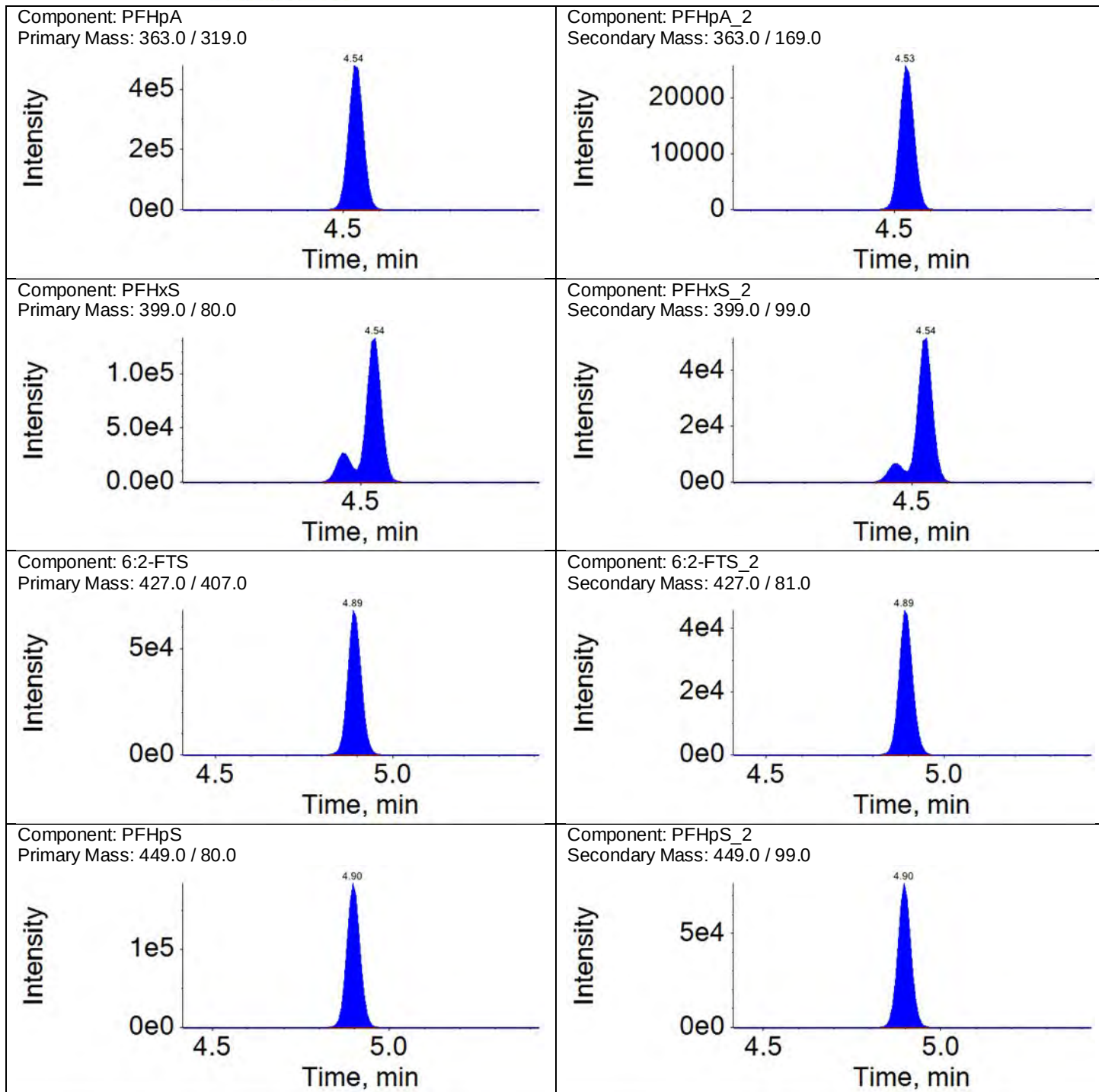
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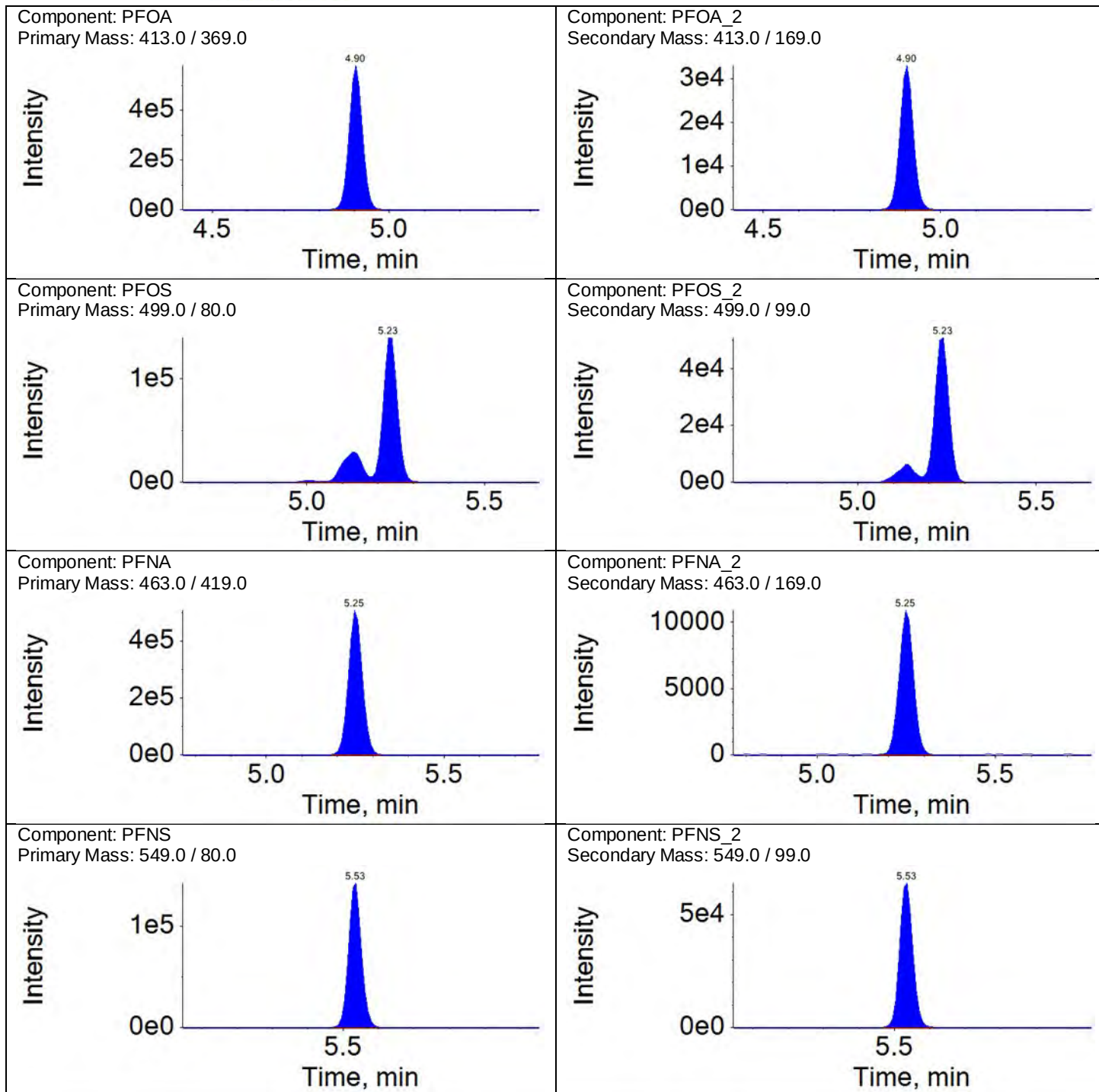
Instrument Name: LM27631

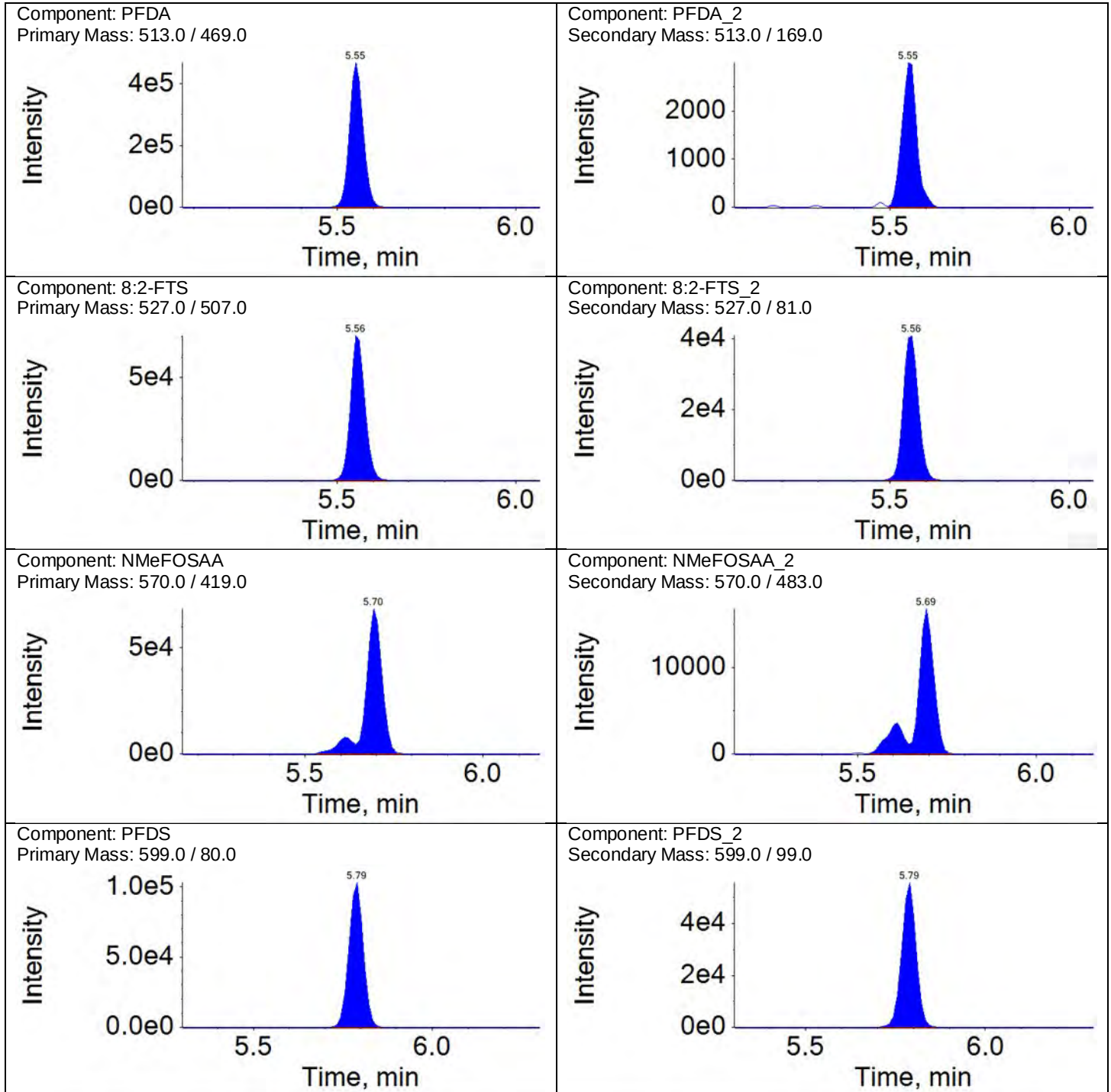
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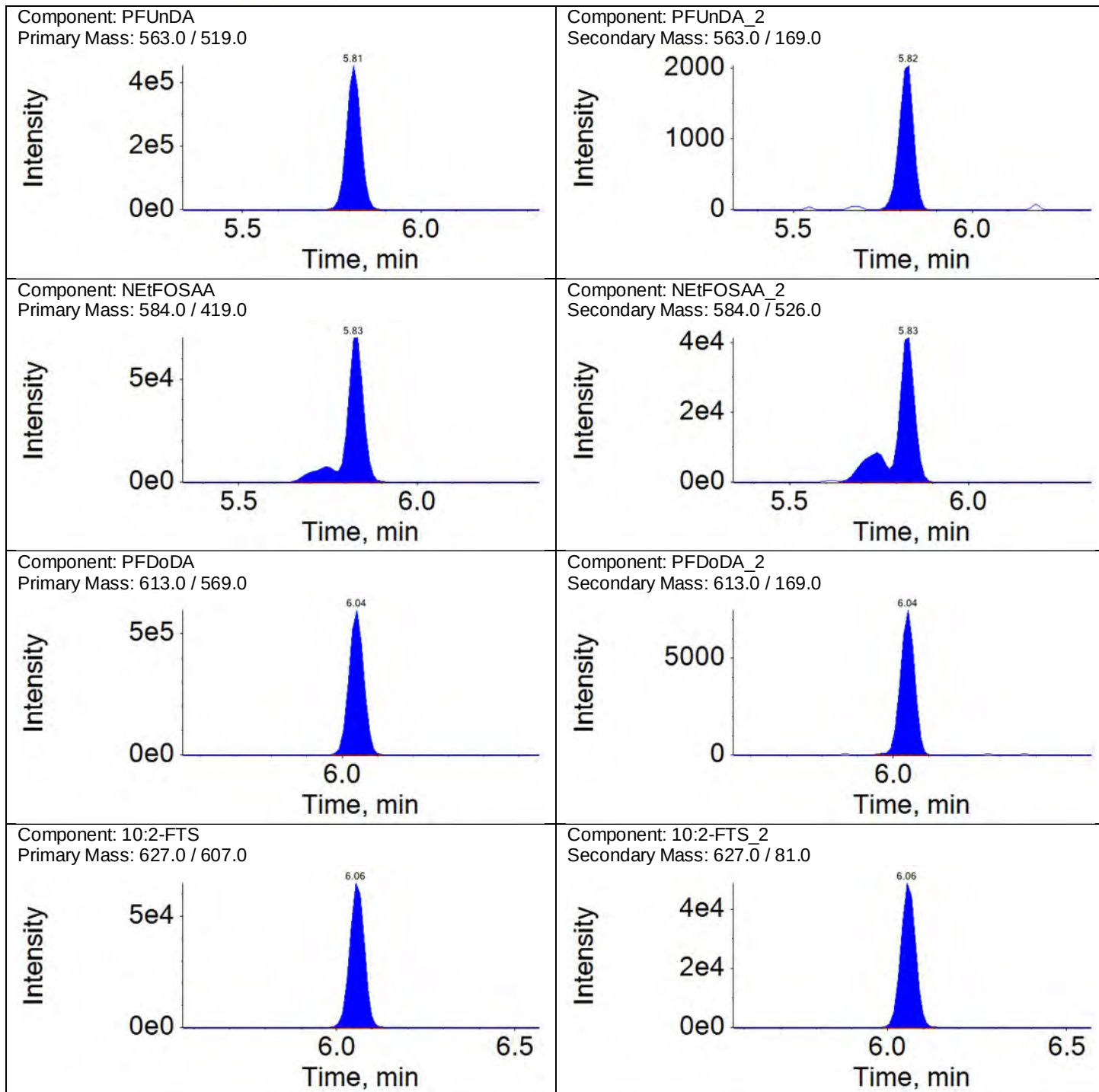
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PFBS_2	3.80	1.00	221209.7	A	N/A	0.3626	-1	50	
4:2-FTS	4.11	1.00	184688.7	A	N/A	0.6561			
4:2-FTS_2	4.11	1.00	121173.6	A	N/A	0.6561	3	50	
PFHxA	4.15	1.00	1387308.0	A	N/A	0.0113			
PFHxA_2	4.15	1.00	15638.7	A	N/A	0.0113	9	50	
PFPeS	4.17	1.10	321453.2	A	N/A	0.5199			
PFPeS_2	4.17	1.10	167128.9	A	N/A	0.5199	4	50	
PFHpA	4.54	1.00	1397029.6	A	N/A	0.0526			
PFHpA_2	4.53	1.00	73436.8	A	N/A	0.0526	-6	50	
PFHxS	4.54	1.00	466399.5	M	N/A	0.3627			
PFHxS_2	4.54	1.00	169164.2	M	N/A	0.3627	-2	50	
6:2-FTS	4.89	1.00	179952.5	A	N/A	0.6838			
6:2-FTS_2	4.89	1.00	123058.7	A	N/A	0.6838	3	50	
PFHpS	4.90	1.08	482601.2	A	N/A	0.4096			
PFHpS_2	4.90	1.08	197662.9	A	N/A	0.4096	5	50	
PFOA	4.90	1.00	1506521.1	A	N/A	0.0575			
PFOA_2	4.90	1.00	86578.8	A	N/A	0.0575	0	50	
PFOS	5.23	1.00	507772.2	M	N/A	0.3179			
PFOS_2	5.23	1.00	161429.0	M	N/A	0.3179	7	50	
PFNA	5.25	1.00	1378868.3	A	N/A	0.0223			
PFNA_2	5.25	1.00	30701.9	A	N/A	0.0223	11	50	
PFNS	5.53	1.06	359004.1	A	N/A	0.4601			
PFNS_2	5.53	1.06	165180.5	A	N/A	0.4601	-4	50	
PFDA	5.55	1.00	1238904.3	A	N/A	0.0070			
PFDA_2	5.55	1.00	8647.5	A	N/A	0.0070	-7	50	
8:2-FTS	5.56	1.00	195089.6	A	N/A	0.6131			
8:2-FTS_2	5.56	1.00	119606.5	A	N/A	0.6131	14	50	
NMeFOSAA	5.70	1.00	222950.9	M	N/A	0.2609			
NMeFOSAA_2	5.69	1.00	58156.9	M	N/A	0.2609	13	50	
PFDS	5.79	1.11	286894.2	A	N/A	0.5379			
PFDS_2	5.79	1.11	154307.8	A	N/A	0.5379	0	50	
PFUnDA	5.81	1.00	1252226.8	A	N/A	0.0046			
PFUnDA_2	5.82	1.00	5734.5	A	N/A	0.0046	20	50	
NEtFOSAA	5.83	1.00	239375.0	M	N/A	0.6558			
NEtFOSAA_2	5.83	1.00	156975.3	M	N/A	0.6558	-11	50	
PFDODA	6.04	1.00	1726918.5	A	N/A	0.0120			
PFDODA_2	6.04	1.00	20744.6	A	N/A	0.0120	-8	50	
10:2-FTS	6.06	1.09	185245.7	A	N/A	0.7610			
10:2-FTS_2	6.06	1.09	140966.2	A	N/A	0.7610	9	50	
PFTTrDA	6.24	1.03	1695782.7	A	N/A	0.0091			
PFTTrDA_2	6.24	1.03	15412.4	M	N/A	0.0091	1	50	
PFTeDA	6.42	1.00	1214917.2	A	N/A	0.0059			
PFTeDA_2	6.42	1.00	7159.2	A	N/A	0.0059	5	50	
PFHxDA	6.72	1.05	634623.0	A	N/A	0.0599			
PFHxDA_2	6.72	1.05	38033.4	A	N/A	0.0599	-7	50	
PFODA	6.98	1.09	509959.1	A	N/A	0.0255			
PFODA_2	6.98	1.09	12993.9	A	N/A	0.0255	-4	50	

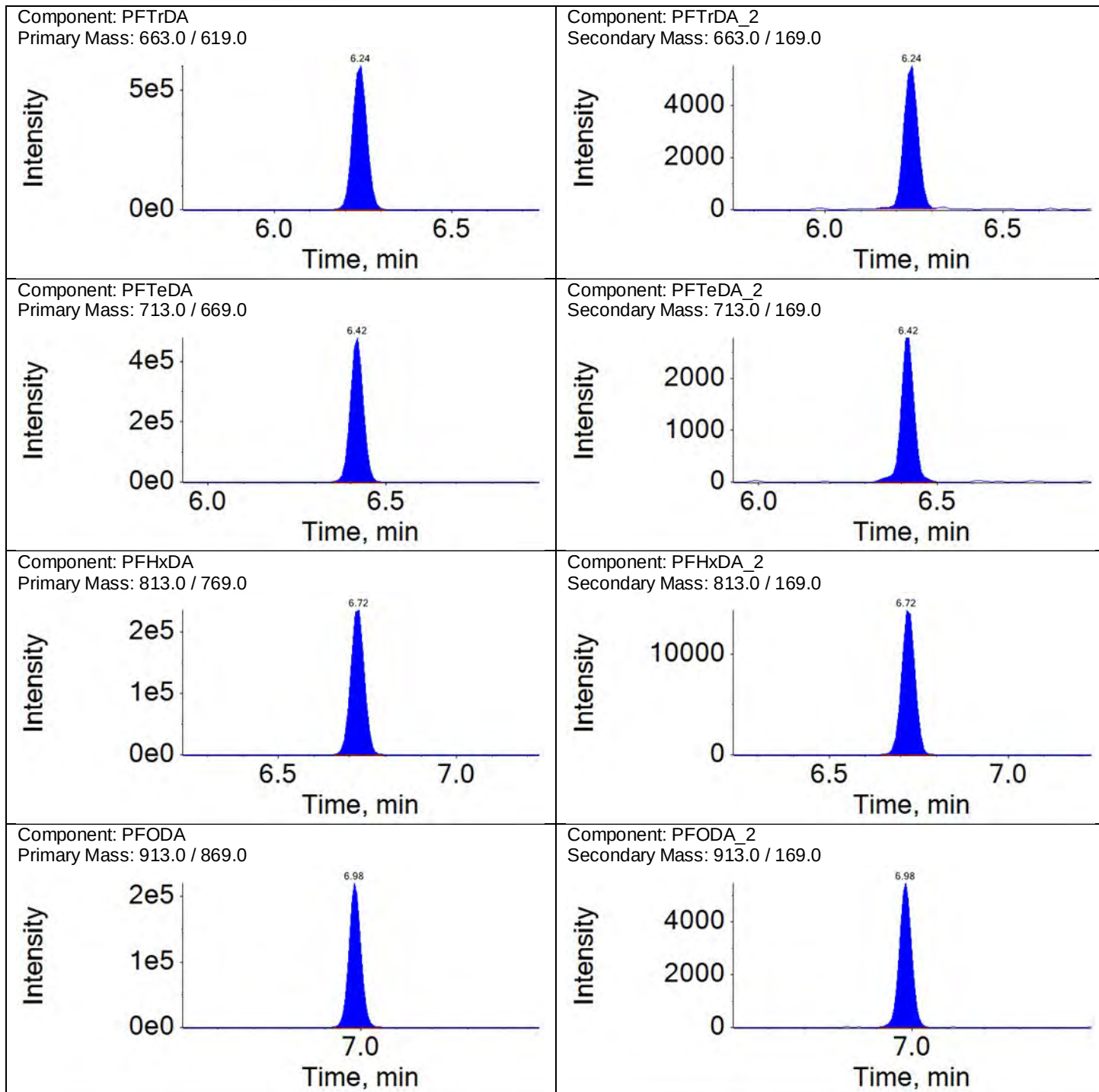








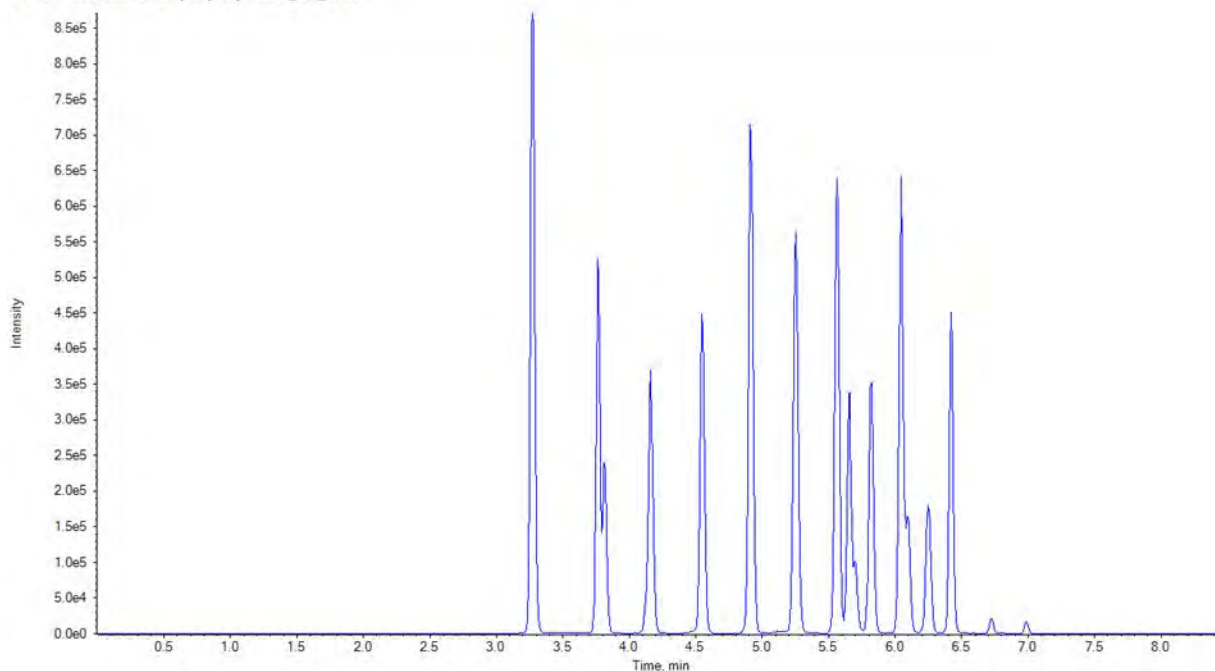




Instrument Sensitivity Check/
Continuing Calibration VerificationICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV6-9 11/30/2018 3:19:02 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALBRN21833C	18NOV29D-72.wiff	2018-11-29T20:38:03

TIC from 18NOV29D-72.wiff (sample 1) - CCV7_ISC_CAL2



Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	898536.5	906425.4	-1	50	
13C2-PFOA	5.0	471690.2	495984.0	-5	50	
13C4-PFOS	4.8	309413.3	296261.8	4	50	
13C2-PFDA	5.0	465698.3	451203.0	3	50	

APPROVED

By MCD at 3:27 pm, 11/30/18

REVIEWED

By umar at 12:38 pm, 12/4/18

Instrument Sensitivity Check/ Continuing Calibration Verification

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:19:02 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	CCV7_ISC_CAL2	CALBRN21833C	18NOV29D-72.wiff	2018-11-29T20:38:03

Analyte Name	Analyte Area	Sc /pk	Ext Std Name	Ext Std Area	Ext Std con	Area Ratio	RT (min)	RRT	Spec Amt	Calc Amt	% Diff	% Diff Lim	% Diff OOS
PFBA	107474.9	10	13C4-PFBA	1020064.9	5.0	0.105	3.27	1.000	0.600	0.578	-4	30	
PFPeA	102994.2	12	13C5-PFPeA	959635.9	5.0	0.107	3.77	1.000	0.600	0.527	-12	30	
PFBS	43546.1	10	13C3-PFBS	447017.8	4.7	0.097	3.82	1.000	0.531	0.473	-11	30	
4:2-FTS	13618.8	11	13C2-4:2-FTS	67161.7	4.7	0.203	4.13	1.000	0.560	0.543	-3	30	
PFHxA	98812.0	11	13C5-PFHxA	684377.8	5.0	0.144	4.16	1.000	0.600	0.580	-3	30	
PFPeS	22438.2	11	13C3-PFBS	447017.8	4.7	0.050	4.18	1.100	0.563	0.508	-10	30	
PFHpA	108630.6	11	13C4-PFHpA	570216.2	5.0	0.191	4.55	1.000	0.600	0.588	-2	30	
PFHxS	31005.8	19	13C3-PFHxS	336153.1	4.7	0.092	4.55	1.000	0.547	0.432	-21	30	
6:2-FTS	14871.4	11	13C2-6:2-FTS	58955.2	4.8	0.252	4.90	1.000	0.569	0.658	16	30	
PFHpS	34425.5	11	13C3-PFHxS	336153.1	4.7	0.102	4.91	1.080	0.571	0.511	-10	30	
PFOA	108379.5	11	13C8-PFOA	1000465.3	5.0	0.108	4.92	1.000	0.600	0.560	-7	30	
PFOS	36641.4	21	13C8-PFOS	327075.2	4.8	0.112	5.25	1.000	0.555	0.470	-15	30	
PFNA	105821.4	11	13C9-PFNA	663622.3	5.0	0.159	5.26	1.000	0.600	0.611	2	30	
PFNS	26569.2	11	13C8-PFOS	327075.2	4.8	0.081	5.54	1.060	0.576	0.513	-11	30	
PFDA	91975.5	11	13C6-PFDA	883928.1	5.0	0.104	5.56	1.000	0.600	0.589	-2	30	
8:2-FTS	13276.2	12	13C2-8:2-FTS	57238.1	4.8	0.232	5.56	1.000	0.575	0.437	-24	30	
PFOSA	68087.5	12	13C8-PFOSA	661254.4	5.0	0.103	5.65	1.000	0.600	0.522	-13	30	
NMeFOSAA	18118.1	17	d3-NMeFOSAA	191150.0	5.0	0.095	5.70	1.000	0.600	0.605	1	30	
PFDS	21049.9	12	13C8-PFOS	327075.2	4.8	0.064	5.79	1.100	0.578	0.510	-12	30	
PFUnDA	94365.1	11	13C7-PFUnDA	590137.5	5.0	0.160	5.82	1.000	0.600	0.572	-5	30	
NEtFOSAA	16845.3	22	d5-NEtFOSAA	154469.4	5.0	0.109	5.84	1.000	0.600	0.531	-11	30	
PFDODA	120450.1	11	13C2-PFDODA	1195589.2	5.0	0.101	6.04	1.000	0.600	0.552	-8	30	
10:2-FTS	13124.4	12	13C2-8:2-FTS	57238.1	4.8	0.229	6.06	1.090	0.578	0.506	-13	30	
NMePFOSAE	34280.1	11	d7-NMePFOSAE	270731.7	5.0	0.127	6.10	1.000	0.600	0.533	-11	30	
NMePFOSA	8960.3	12	d3-NMePFOSA	86905.7	5.0	0.103	6.11	1.000	0.600	0.547	-9	30	
PFDoS	11540.5	11	13C8-PFOS	327075.2	4.8	0.035	6.21	1.180	0.581	0.507	-13	30	
NEtPFOSAE	40355.4	11	d9-NEtPFOSAE	229696.2	5.0	0.176	6.26	1.000	0.600	0.632	5	30	
NEtPFOSA	8304.0	12	d5-NEtPFOSA	73267.1	5.0	0.113	6.27	1.000	0.600	0.508	-15	30	
PFTTrDA	124162.6	11	13C2-PFDODA	1195589.2	5.0	0.104	6.24	1.030	0.600	0.626	4	30	
PFTeDA	88469.7	10	13C2-PFTeDA	847108.8	5.0	0.104	6.42	1.000	0.600	0.592	-1	30	
PFHxDA	44728.9	11	13C2-PFTeDA	847108.8	5.0	0.053	6.72	1.050	0.600	0.604	1	30	
PFOA	35501.9	10	13C2-PFTeDA	847108.8	5.0	0.042	6.99	1.090	0.600	0.558	-7	30	

**Instrument Sensitivity Check/
Continuing Calibration Verification**

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:19:02 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 3:27 pm, 11/30/18

REVIEWED
By umar at 12:38 pm, 12/4/18

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	CCV7 ISC CAL2	Data File:	18NOV29D-72.wiff
Sample ID:	CALBRN21833C	Acquis Date:	2018-11-29T20:38:03
Sample Type:	Quality Control	Instrument:	LM27631
Vial Position:	4	Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00	Result Table:	18NOV29DCCV6-9
QMethod File:	18AUG20QM	ICAL Name:	18NOV28DCAL
Batch Number:	N/A	Operator:	MCD7824
Sample Wt.:	1.00000	Dilution Factor:	1.00
Sample Vol.:	1.000	Prep Factor:	1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	898536.5	906425.4	-1	50	
13C2-PFOA	5.0	471690.2	495984.0	-5	50	
13C4-PFOS	4.8	309413.3	296261.8	4	50	
13C2-PFDA	5.0	465698.3	451203.0	3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1020064.9	13C3-PFBA	898536.5	1.135	5.000	5.065	101	70-130	
E13C5-PFPeA	959635.9	13C3-PFBA	898536.5	1.068	5.000	4.987	100	70-130	
E13C3-PFBS	447017.8	13C3-PFBA	898536.5	0.497	4.650	4.746	102	70-130	
E13C2-4:2-FTS	67161.7	13C2-PFOA	471690.2	0.142	4.670	4.907	105	70-130	
E13C5-PFHxA	684377.8	13C2-PFOA	471690.2	1.451	5.000	5.329	107	70-130	
E13C3-PFHxS	336153.1	13C2-PFOA	471690.2	0.713	4.730	5.586	118	70-130	
E13C4-PFHpA	570216.2	13C2-PFOA	471690.2	1.209	5.000	5.555	111	70-130	
E13C2-6:2-FTS	58955.2	13C2-PFOA	471690.2	0.125	4.750	5.232	110	70-130	
E13C8-PFOA	1000465.2	13C2-PFOA	471690.2	2.121	5.000	5.838	117	70-130	
E13C8-PFOS	327075.2	13C4-PFOS	309413.3	1.057	4.780	4.772	100	70-130	
E13C9-PFNA	663622.3	13C4-PFOS	309413.3	2.145	5.000	4.711	94	70-130	
E13C6-PFDA	883928.1	13C2-PFDA	465698.3	1.898	5.000	5.352	107	70-130	
E13C2-8:2-FTS	57238.1	13C2-PFDA	465698.3	0.123	4.790	5.283	110	70-130	
E13C8-PFOSA	661254.4	13C2-PFDA	465698.3	1.420	5.000	5.210	104	70-130	
Ed3-NMeFOSAA	191150.0	13C2-PFDA	465698.3	0.410	5.000	5.211	104	70-130	
E13C7-PFUnDA	590137.5	13C2-PFDA	465698.3	1.267	5.000	5.356	107	70-130	
Ed5-NEtFOSAA	154469.4	13C2-PFDA	465698.3	0.332	5.000	5.909	118	70-130	
E13C2-PFDoDA	1195589.2	13C2-PFDA	465698.3	2.567	5.000	5.394	108	70-130	
Ed7-NMePFOSAE	270731.7	13C2-PFDA	465698.3	0.581	5.000	5.024	100	70-130	
Ed3-NMePFOSA	86905.7	13C2-PFDA	465698.3	0.187	5.000	5.051	101	70-130	
Ed9-NEtPFOSAE	229696.2	13C2-PFDA	465698.3	0.493	5.000	5.000	100	70-130	
Ed5-NEtPFOSA	73267.1	13C2-PFDA	465698.3	0.157	5.000	5.467	109	70-130	
E13C2-PFTeDA	847108.8	13C2-PFDA	465698.3	1.819	5.000	5.033	101	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: CCV7_ISC_CAL2

Instrument Name: LM27631

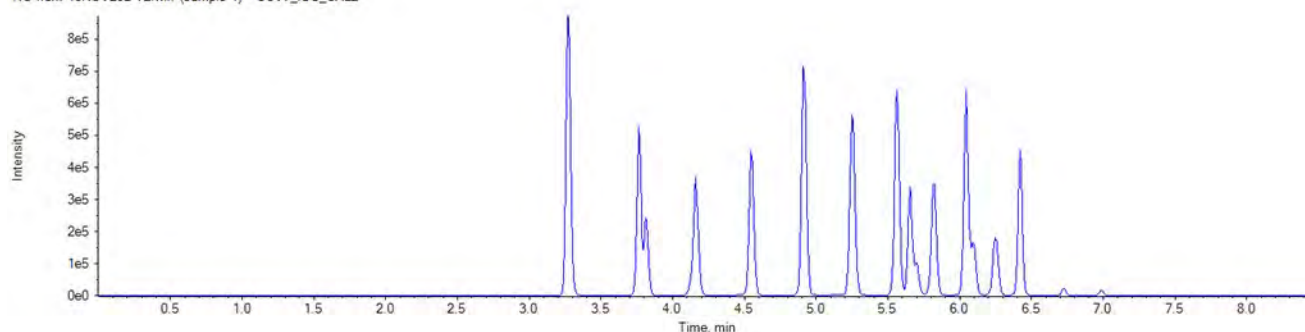
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	107474.9		A	13C4-PFBA	3.27	1020064.9	0.105	0.578
PFPeA	3.77	1.000	102994.2		A	13C5-PFPeA	3.77	959635.9	0.107	0.527
PFBS	3.82	1.000	43546.1		A	13C3-PFBS	3.82	447017.8	0.097	0.473
4:2-FTS	4.13	1.000	13618.8		A	13C2-4:2-FTS	4.13	67161.7	0.203	0.543
PFHxA	4.16	1.000	98812.0		A	13C5-PFHxA	4.16	684377.8	0.144	0.580
PFPeS	4.18	1.100	22438.2		A	13C3-PFBS	3.82	447017.8	0.050	0.508
PFHpA	4.55	1.000	108630.6		A	13C4-PFHpA	4.55	570216.2	0.191	0.588
PFHxS	4.55	1.000	31005.8		M	13C3-PFHxS	4.55	336153.1	0.092	0.432
6:2-FTS	4.90	1.000	14871.4		A	13C2-6:2-FTS	4.91	58955.2	0.252	0.658
PFHpS	4.91	1.080	34425.5		A	13C3-PFHxS	4.55	336153.1	0.102	0.511
PFOA	4.92	1.000	108379.5		A	13C8-PFOA	4.91	1000465.3	0.108	0.560
PFOS	5.25	1.000	36641.4		M	13C8-PFOS	5.24	327075.2	0.112	0.470
PFNA	5.26	1.000	105821.4		A	13C9-PFNA	5.26	663622.3	0.159	0.611
PFNS	5.54	1.060	26569.2		A	13C8-PFOS	5.24	327075.2	0.081	0.513
PFDA	5.56	1.000	91975.5		A	13C6-PFDA	5.56	883928.1	0.104	0.589
8:2-FTS	5.56	1.000	13276.2		A	13C2-8:2-FTS	5.57	57238.1	0.232	0.437
PFOSA	5.65	1.000	68087.5		A	13C8-PFOSA	5.65	661254.4	0.103	0.522
NMeFOSAA	5.70	1.000	18118.1		A	d3-NMeFOSAA	5.70	191150.0	0.095	0.605
PFDS	5.79	1.100	21049.9		A	13C8-PFOS	5.24	327075.2	0.064	0.510
PFUnDA	5.82	1.000	94365.1		A	13C7-PFUnDA	5.82	590137.5	0.160	0.572
NEtFOSAA	5.84	1.000	16845.3		M	d5-NEtFOSAA	5.83	154469.4	0.109	0.531
PFDODA	6.04	1.000	120450.1		A	13C2-PFDODA	6.04	1195589.2	0.101	0.552
10:2-FTS	6.06	1.090	13124.4		A	13C2-8:2-FTS	5.57	57238.1	0.229	0.506
NMePFOSAE	6.10	1.000	34280.1		A	d7-NMePFOSAE	6.09	270731.7	0.127	0.533
NMePFOSA	6.11	1.000	8960.3		A	d3-NMePFOSA	6.11	86905.7	0.103	0.547
PFDoS	6.21	1.180	11540.5		A	13C8-PFOS	5.24	327075.2	0.035	0.507
NEtPFOSAE	6.26	1.000	40355.4		A	d9-NEtPFOSAE	6.25	229696.2	0.176	0.632
NEtPFOSA	6.27	1.000	8304.0		A	d5-NEtPFOSA	6.27	73267.1	0.113	0.508
PFTDA	6.24	1.030	124162.6		A	13C2-PFDODA	6.04	1195589.2	0.104	0.626
PFTeDA	6.42	1.000	88469.7		A	13C2-PFTeDA	6.42	847108.8	0.104	0.592
PFHxDA	6.72	1.050	44728.9		A	13C2-PFTeDA	6.42	847108.8	0.053	0.604
PFODA	6.99	1.090	35501.9		A	13C2-PFTeDA	6.42	847108.8	0.042	0.558

Total Ion Chromatogram

TIC from 18NOV29D-72.wiff (sample 1) - CCV7_ISC_CAL2



APPROVED

By MCD at 3:27 pm, 11/30/18

BSI14 Page 1805 of 2132

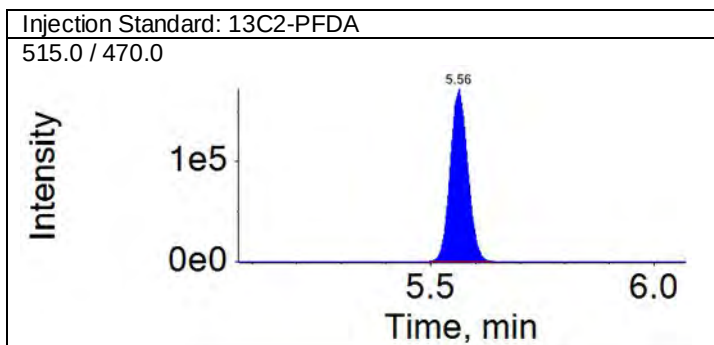
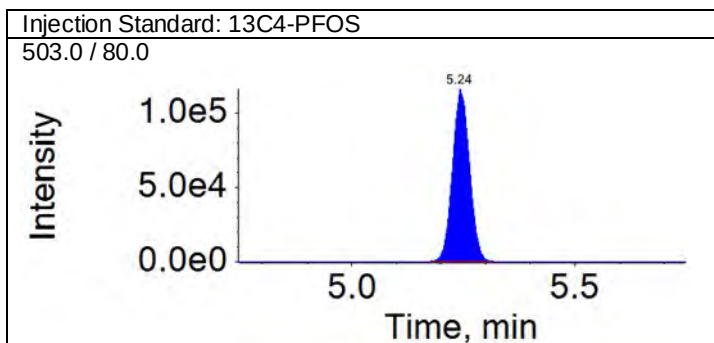
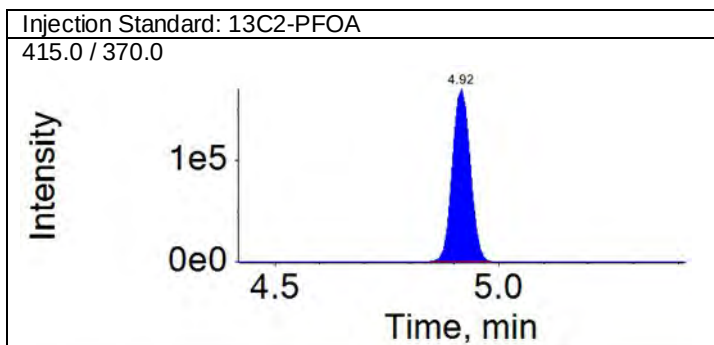
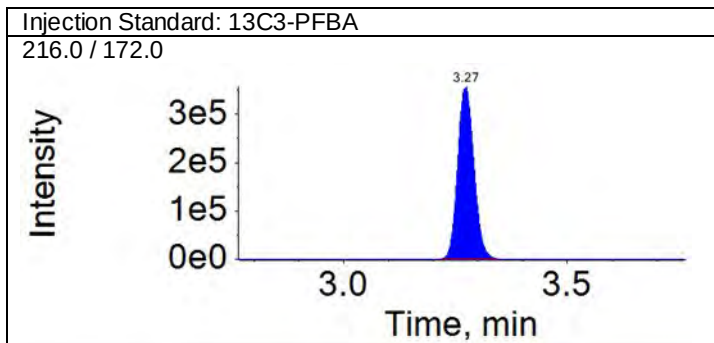
REVIEWED

By umar at 12:38 pm, 12/4/18

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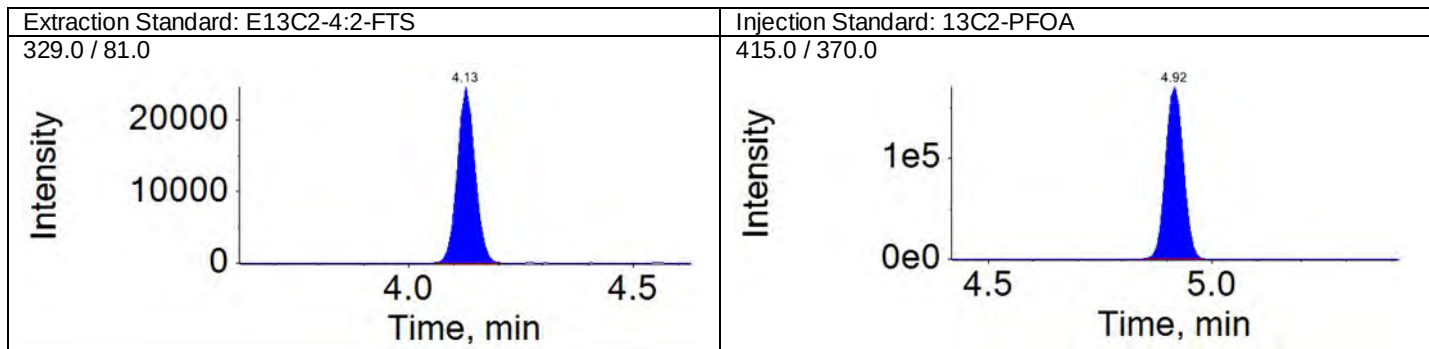
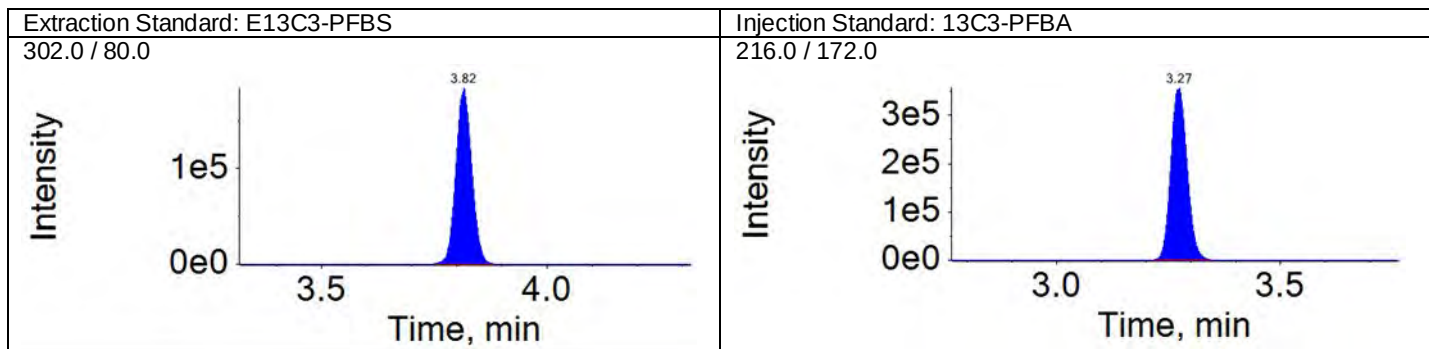
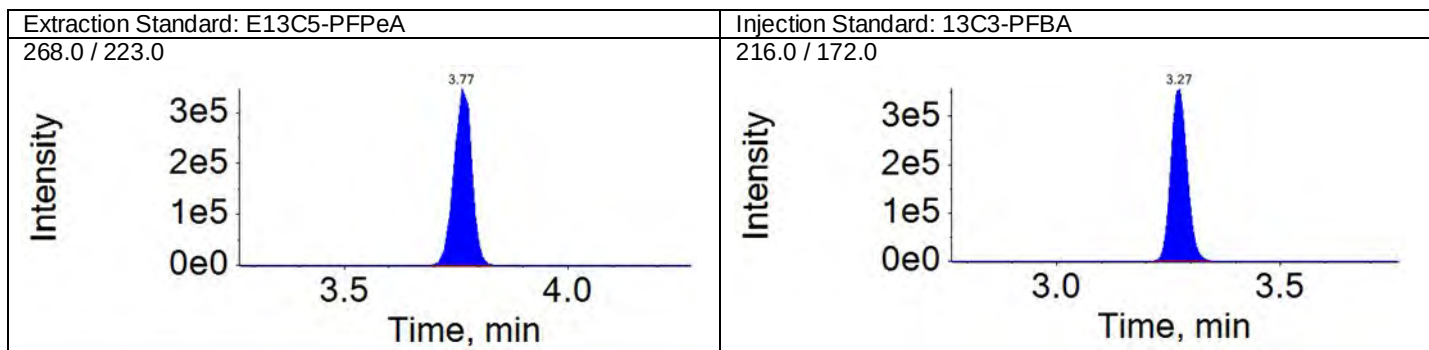
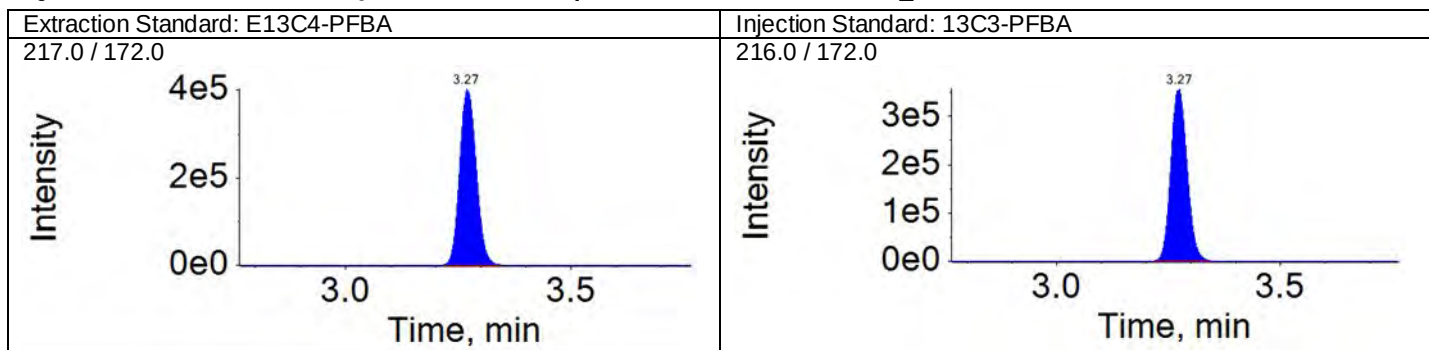
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



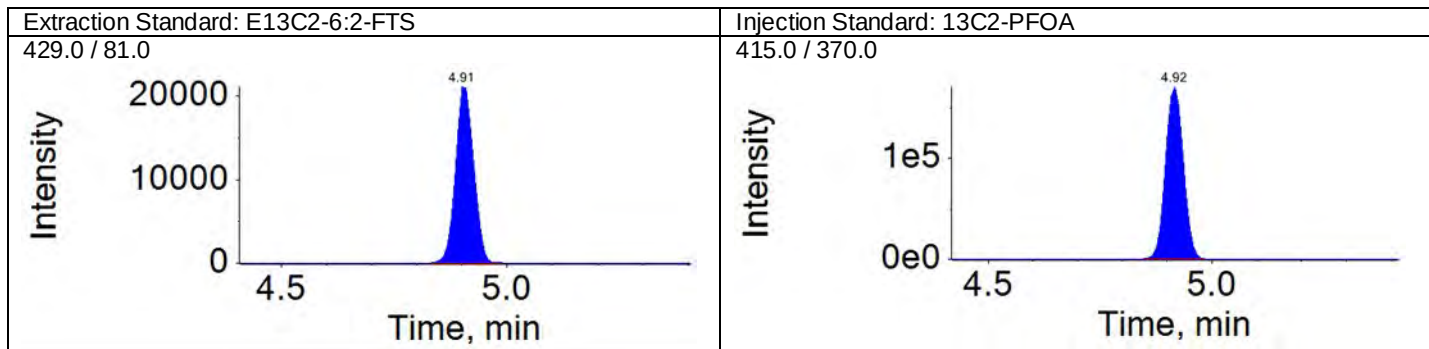
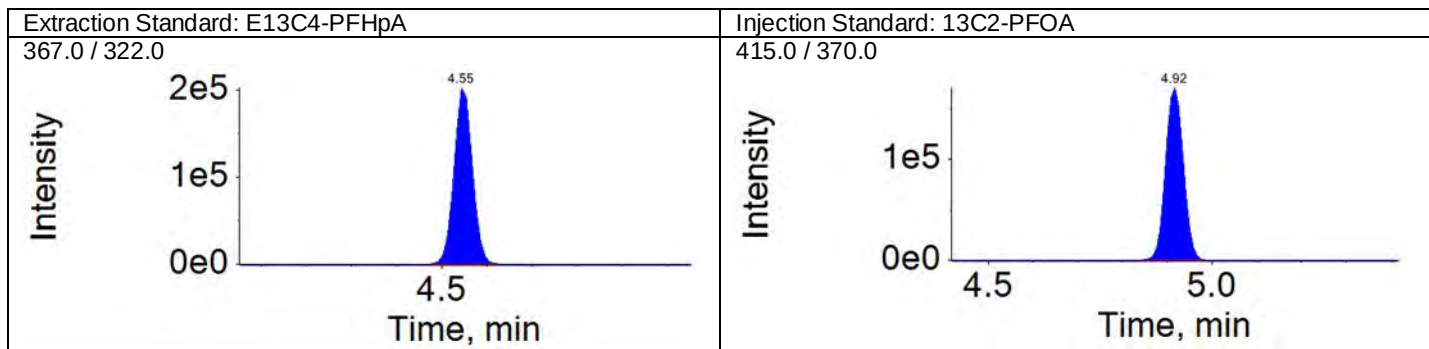
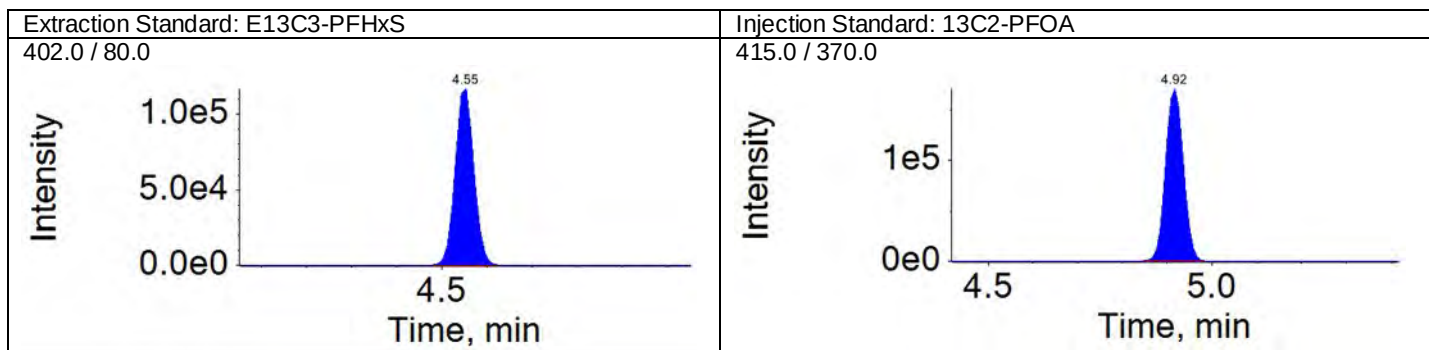
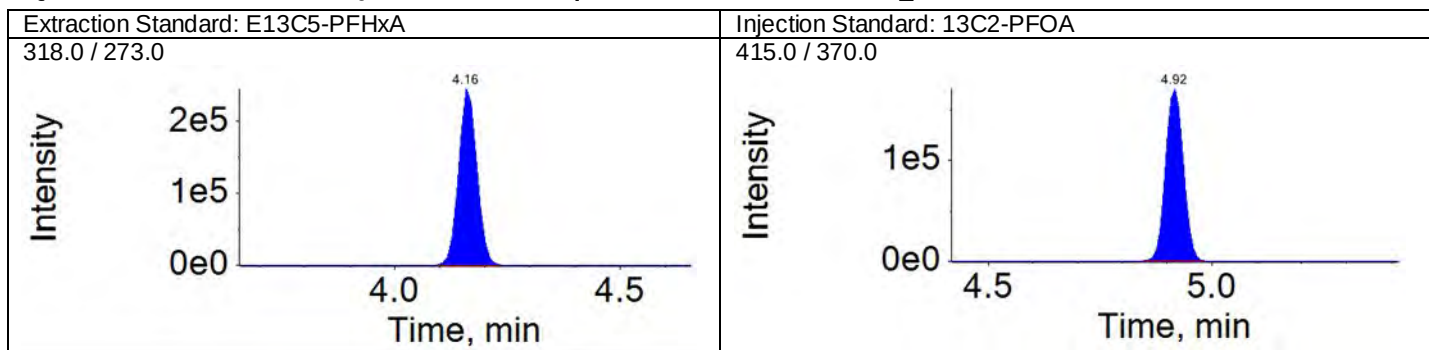
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



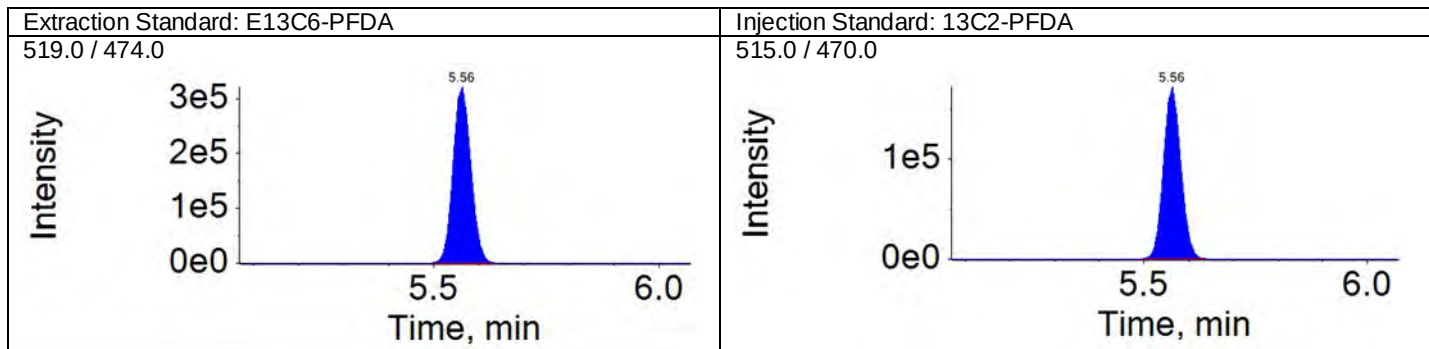
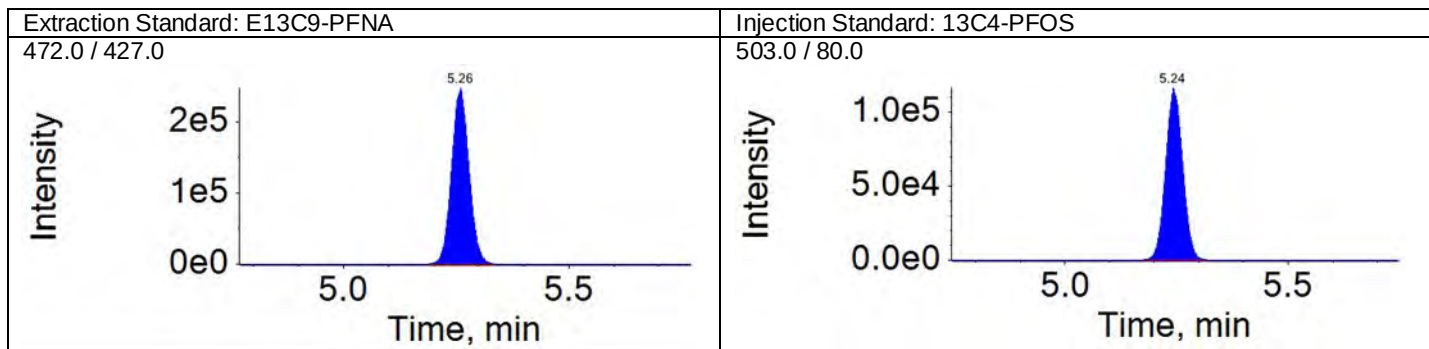
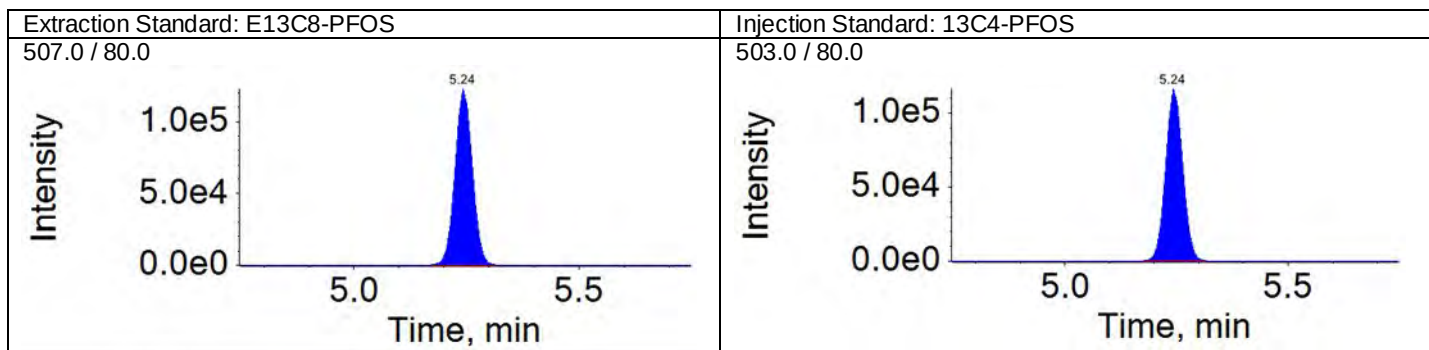
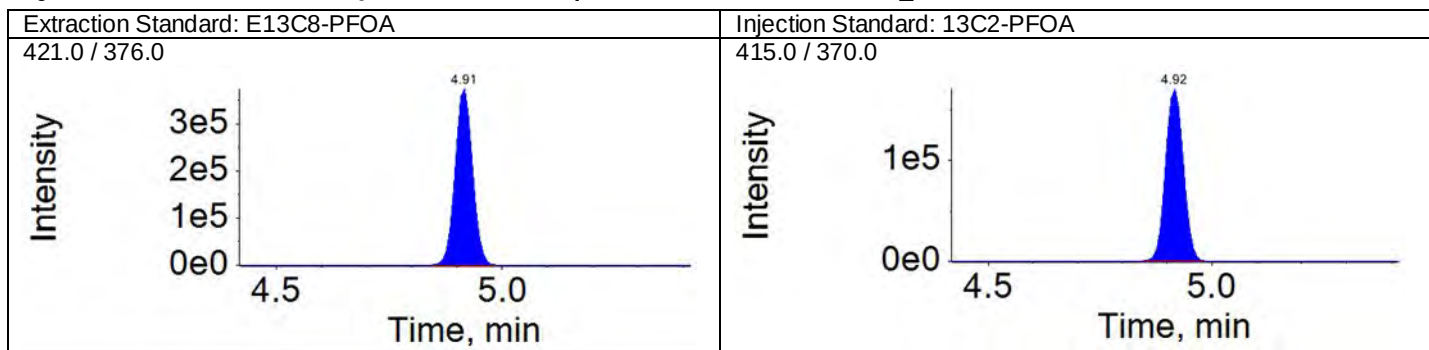
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



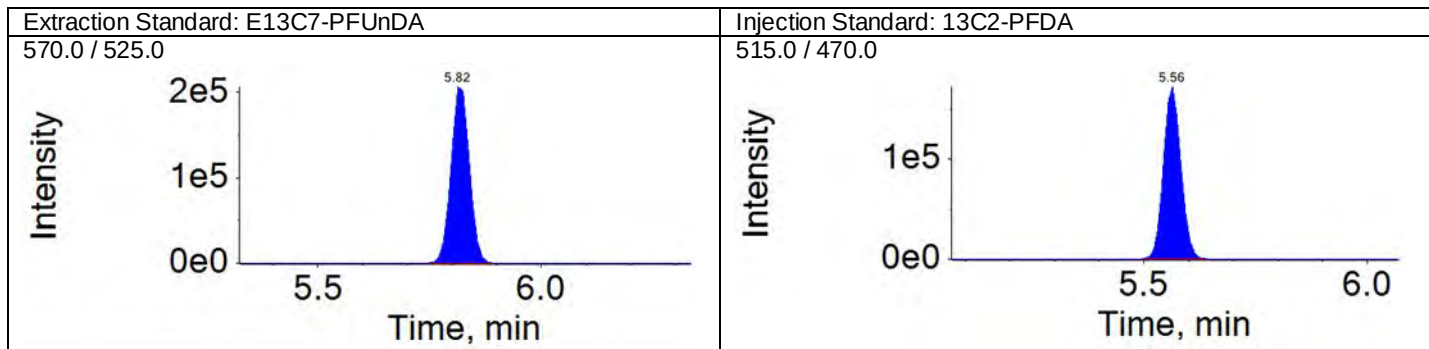
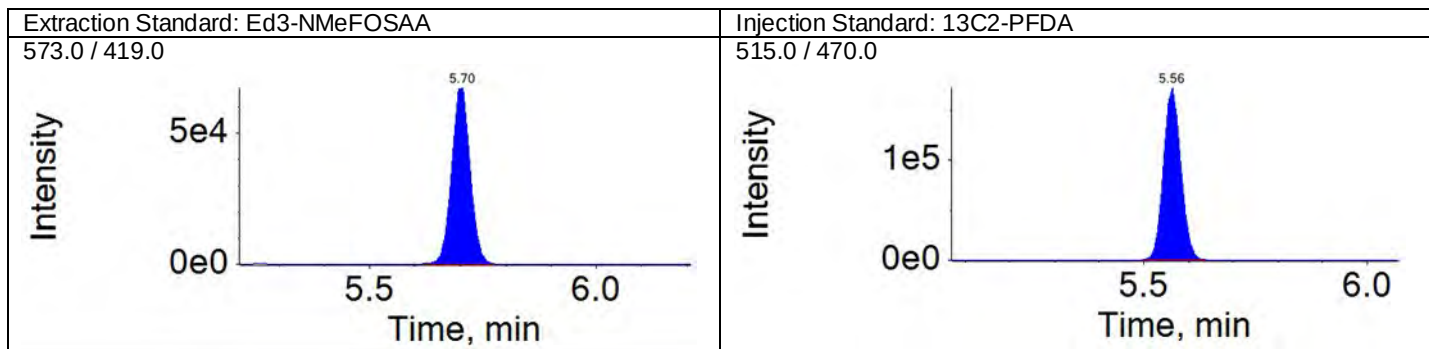
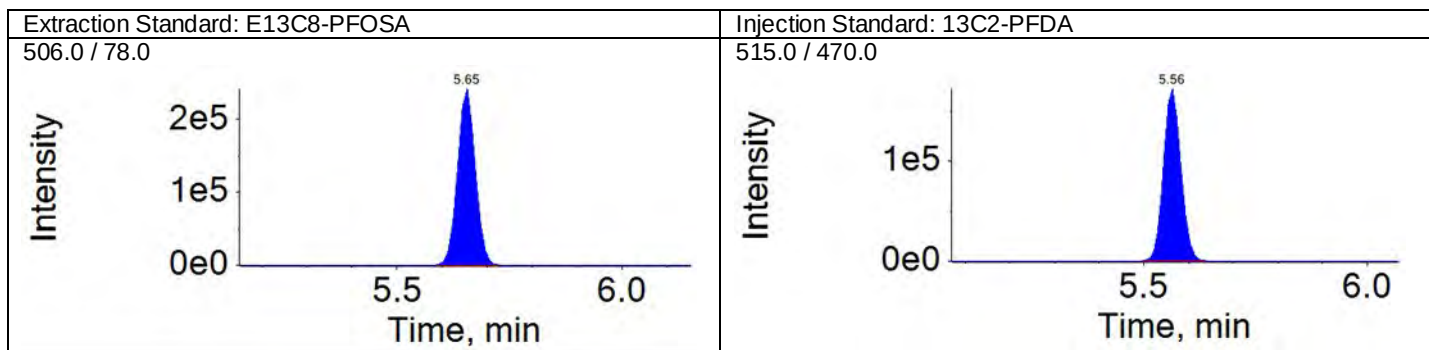
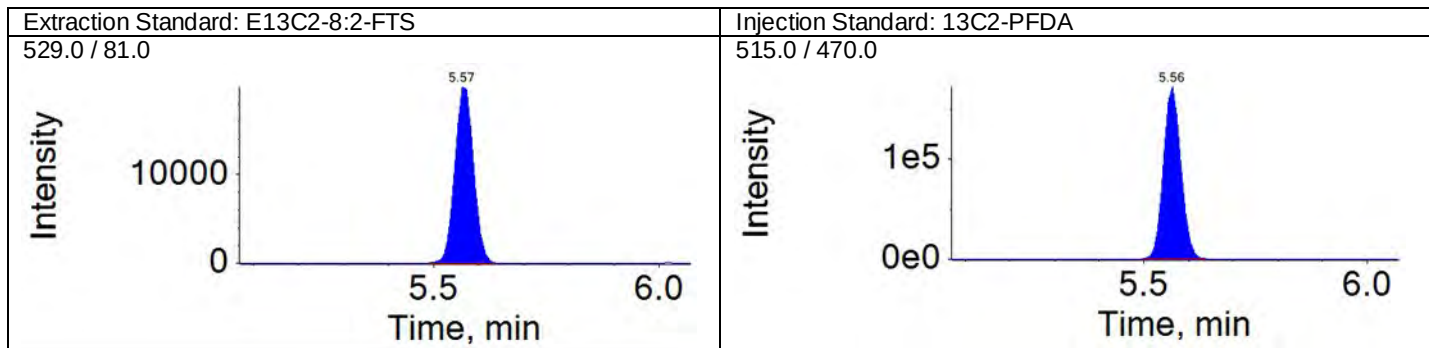
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QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



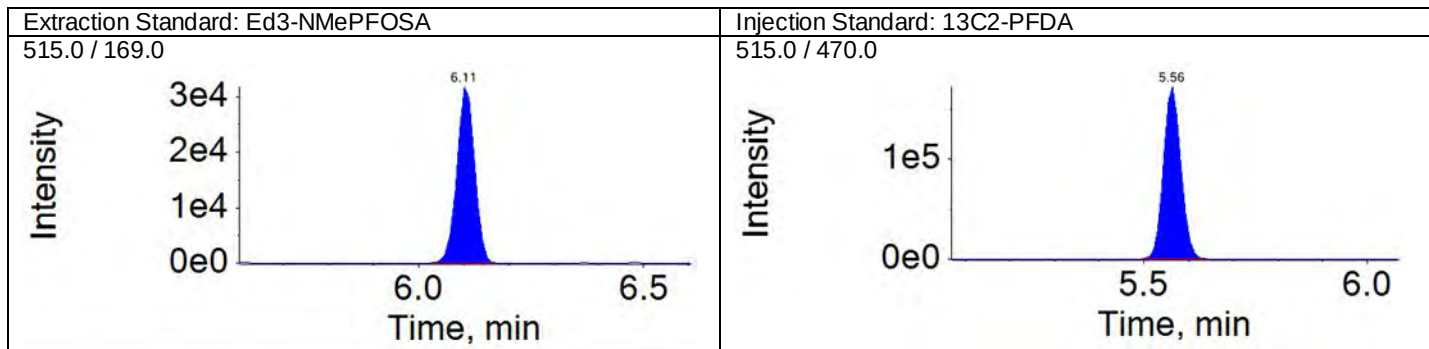
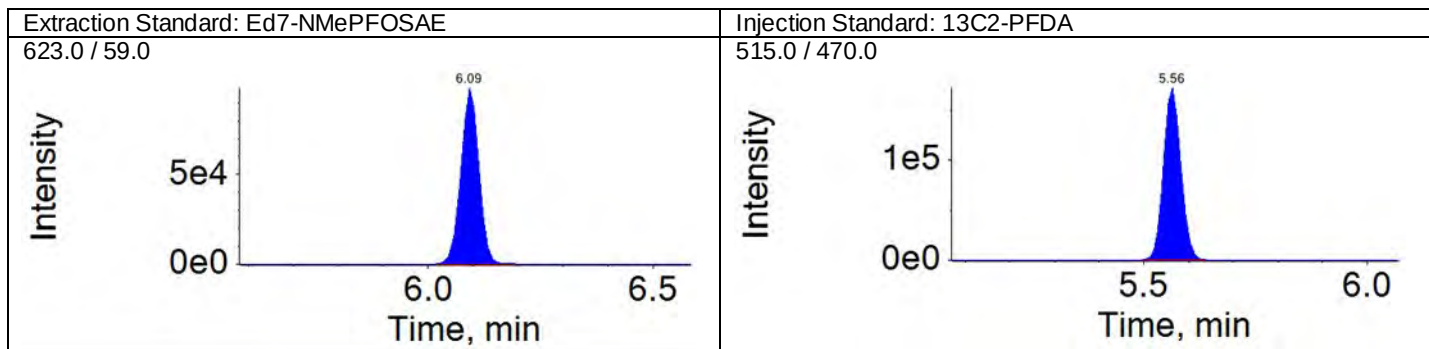
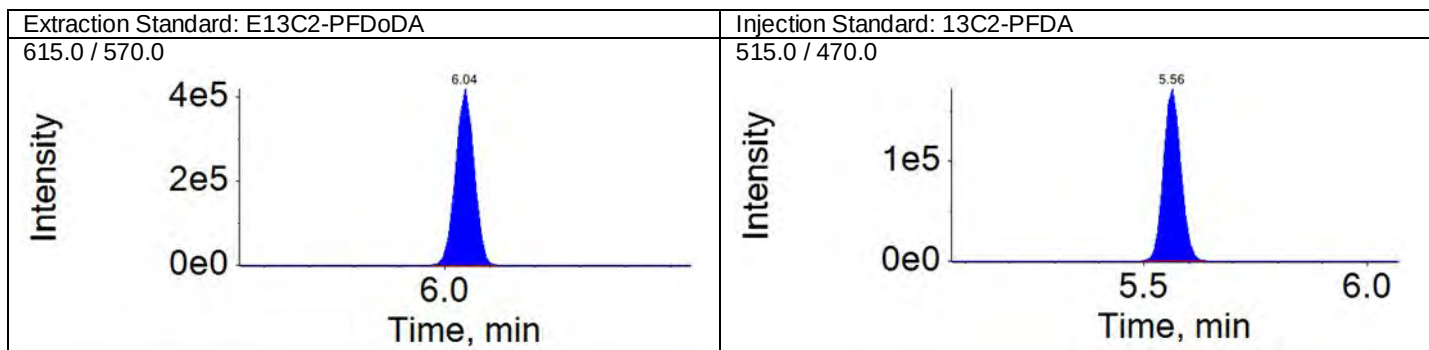
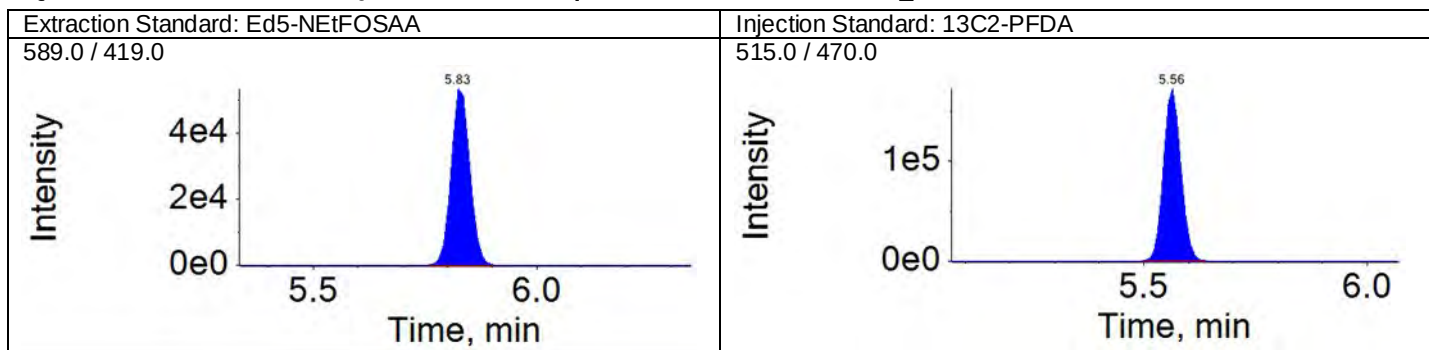
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QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



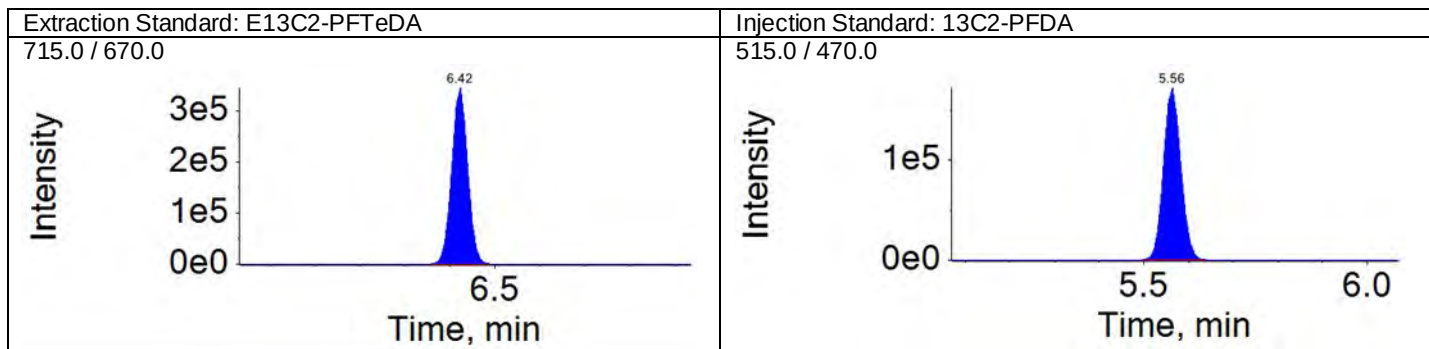
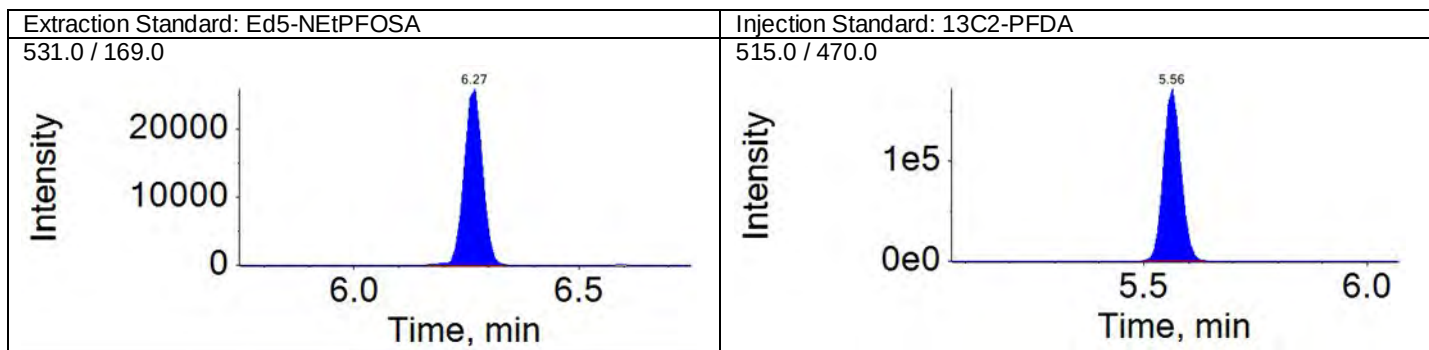
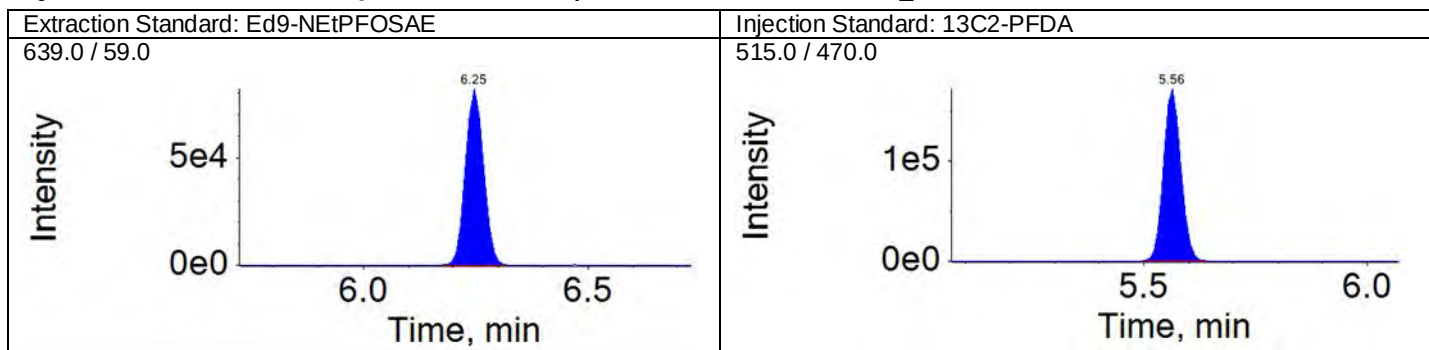
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QMethod Name: 18AUG20QM

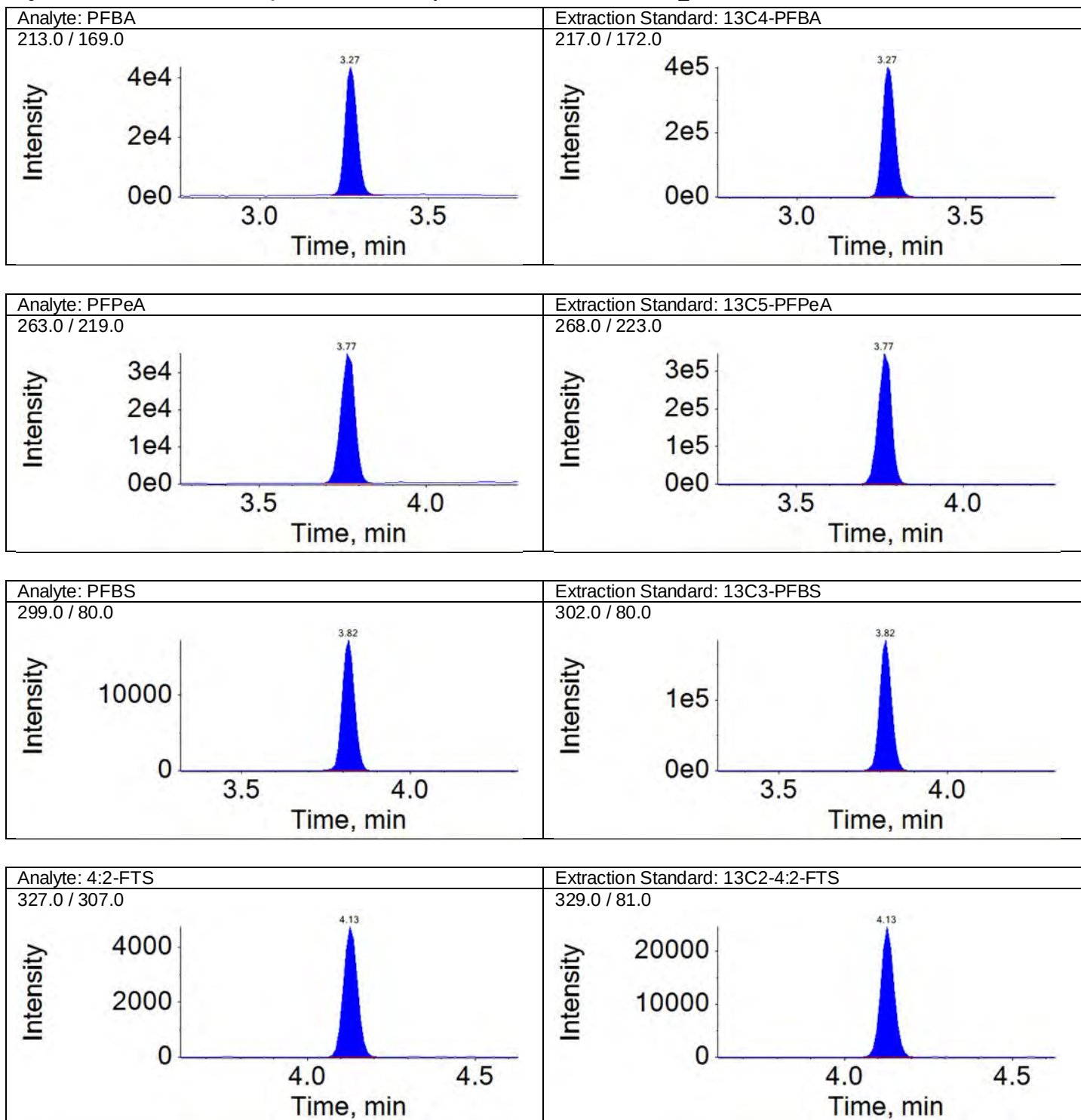
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

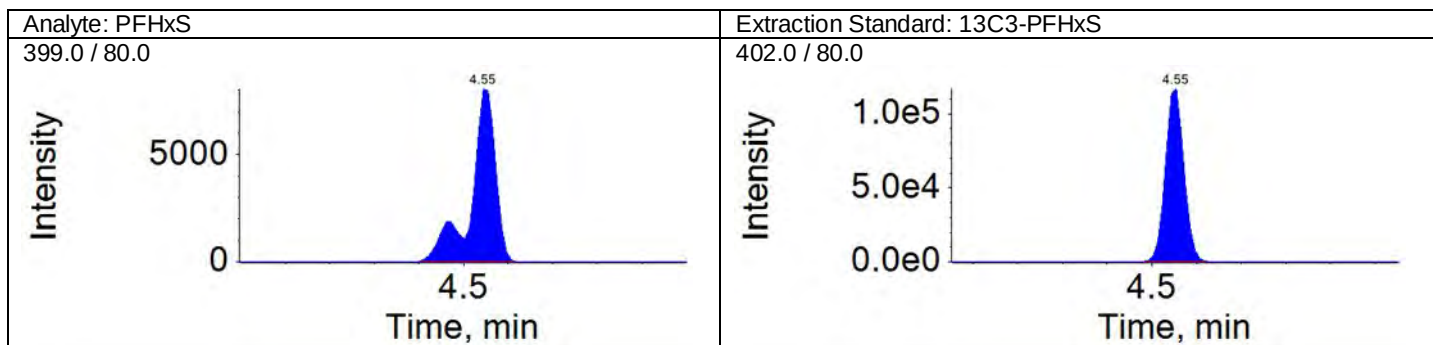
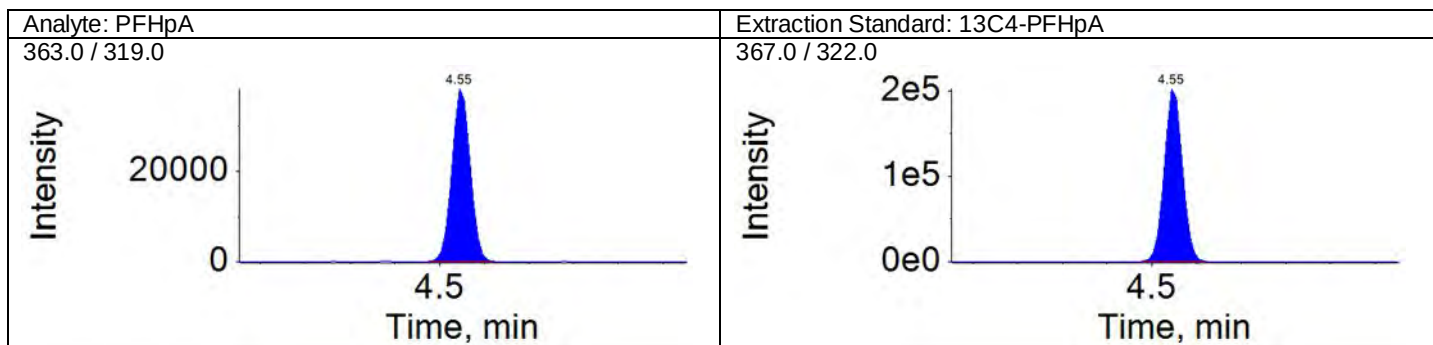
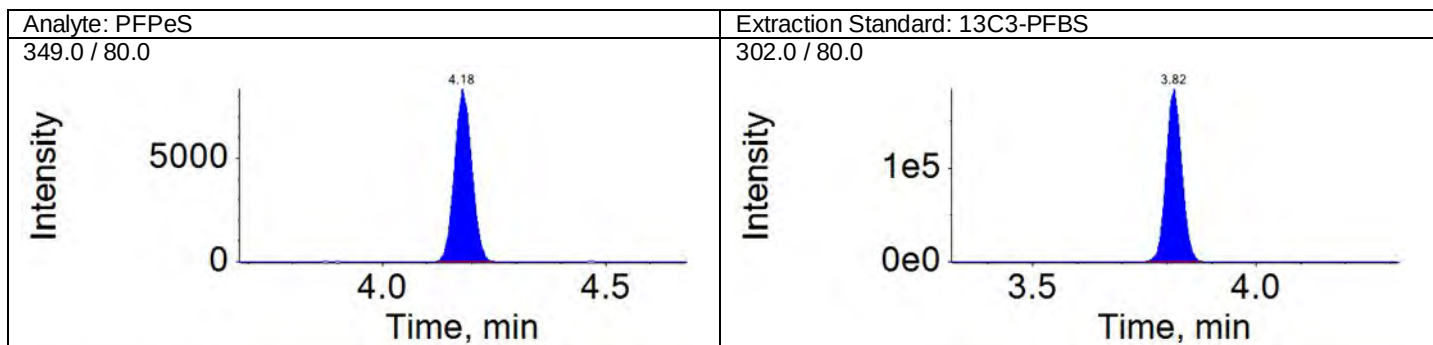
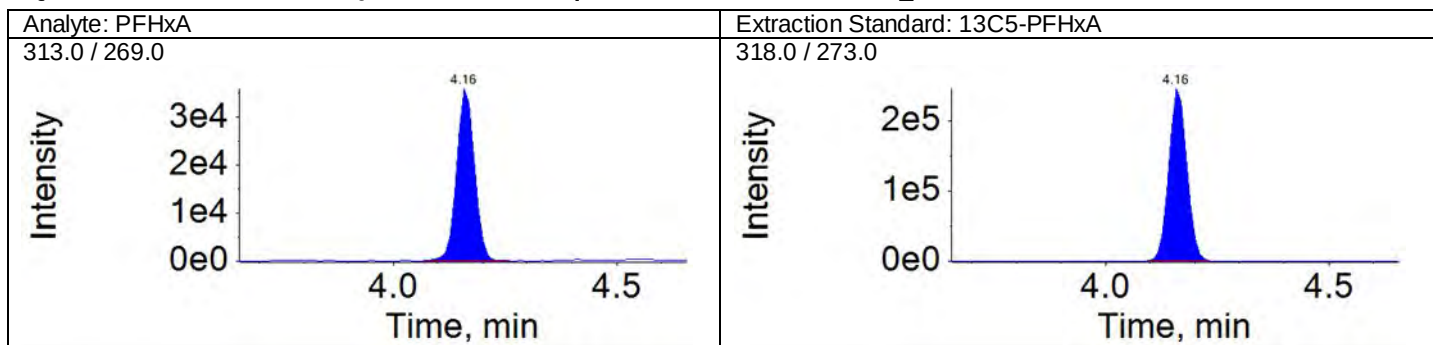
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
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Acquisition Method: 18AUG13_3uL.dam

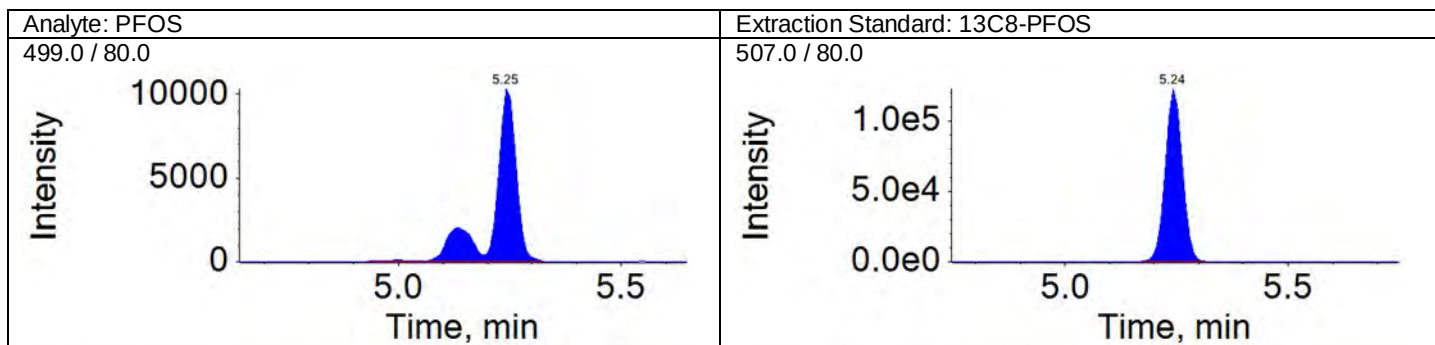
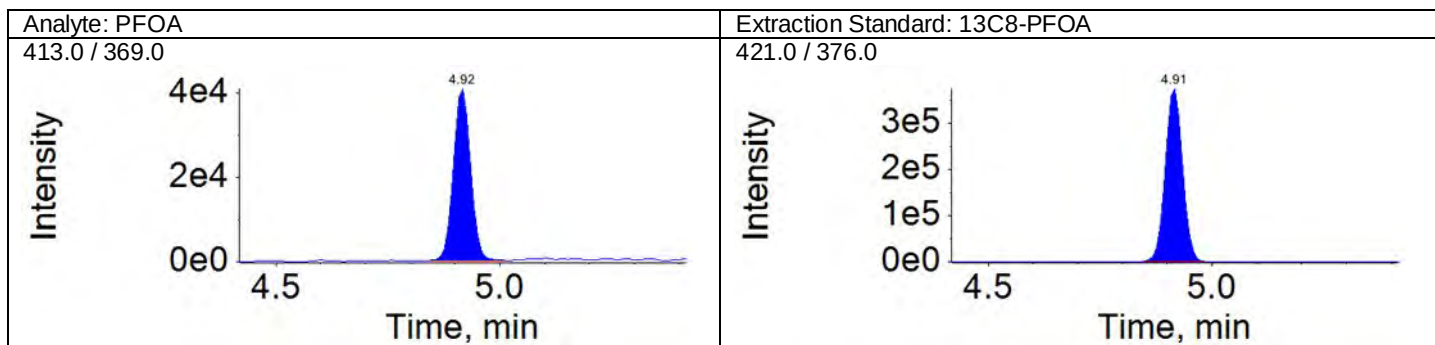
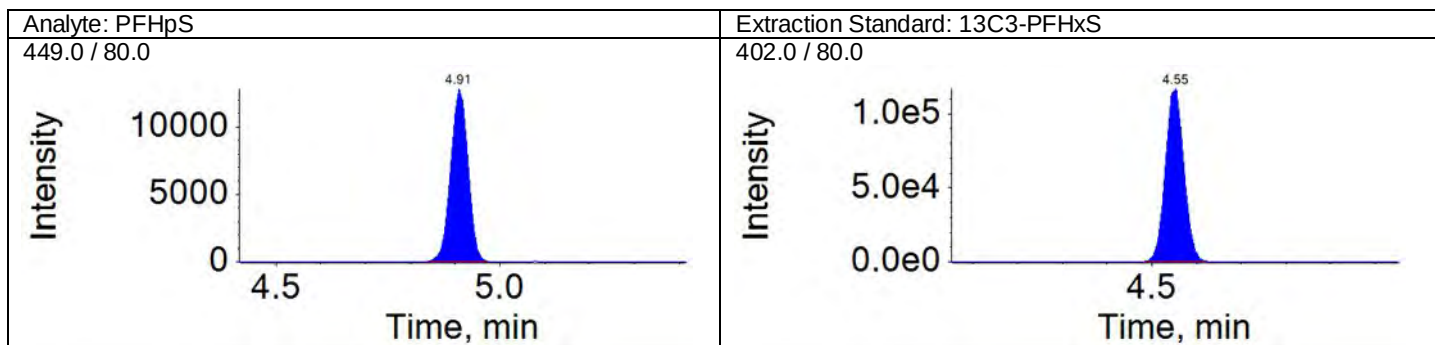
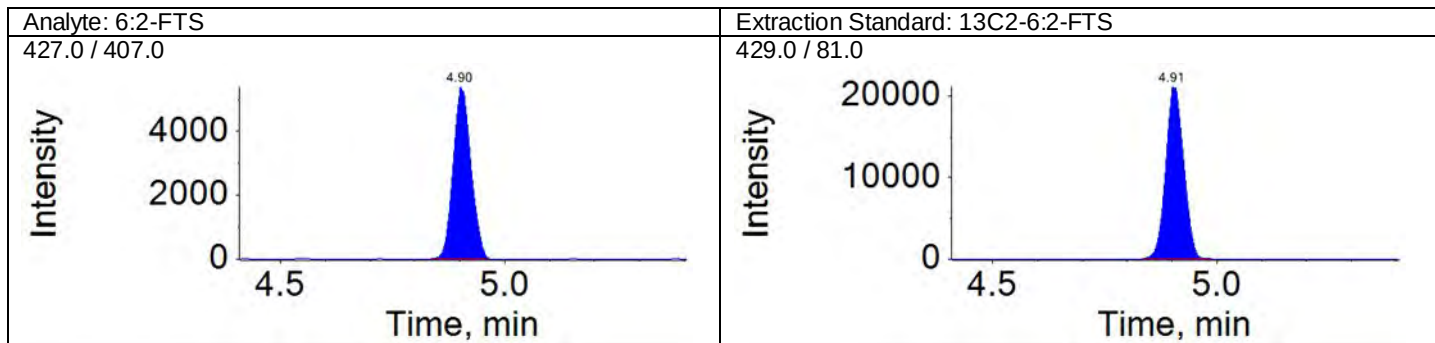
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QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



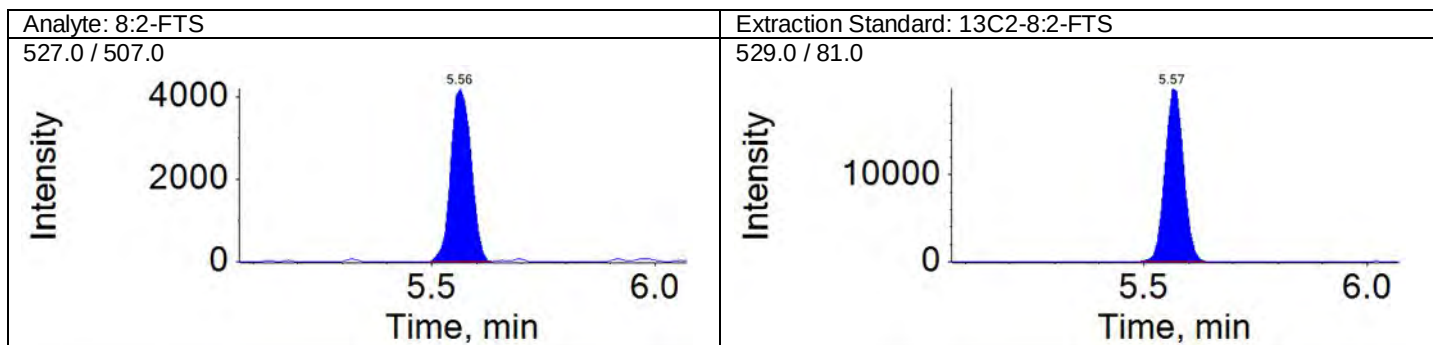
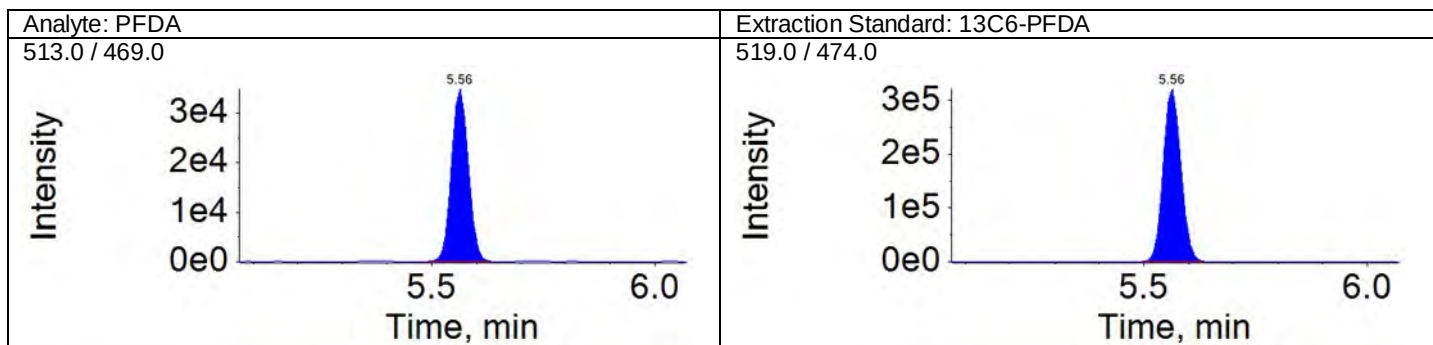
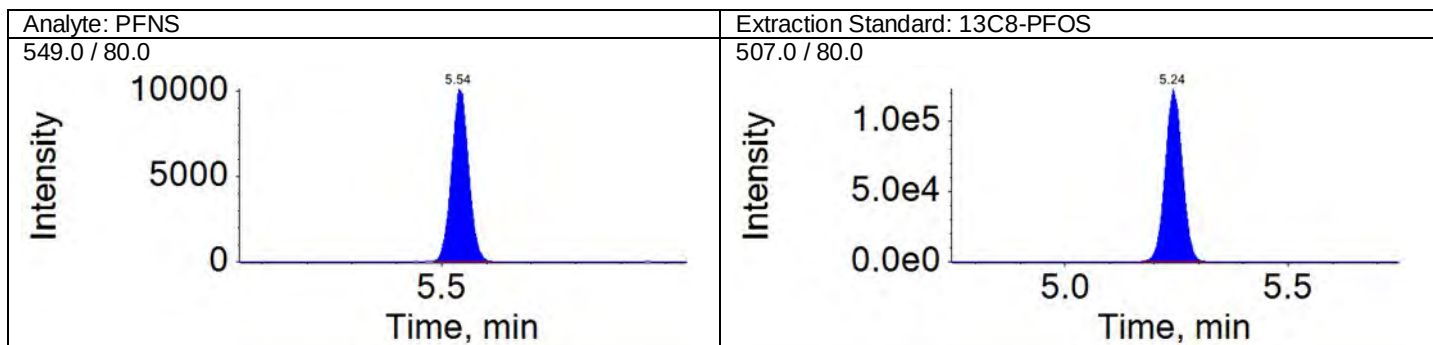
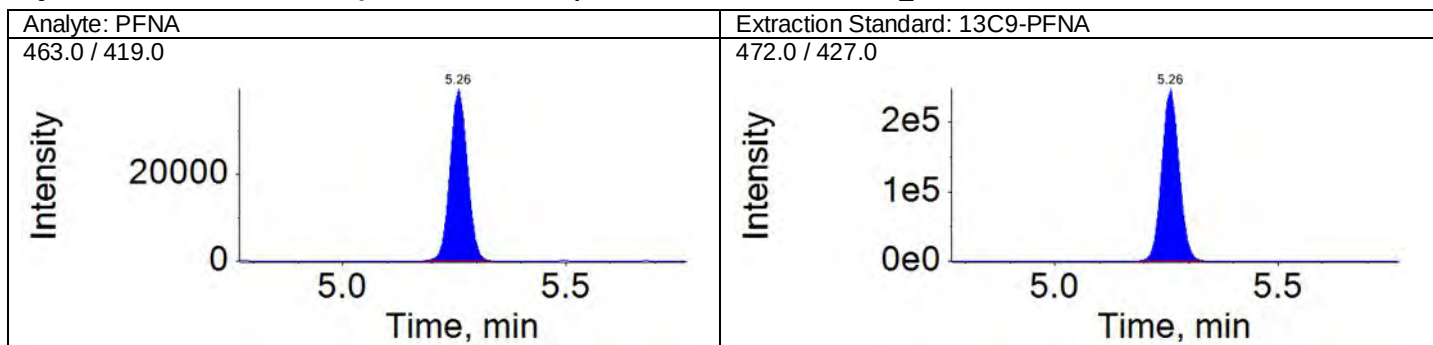
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Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



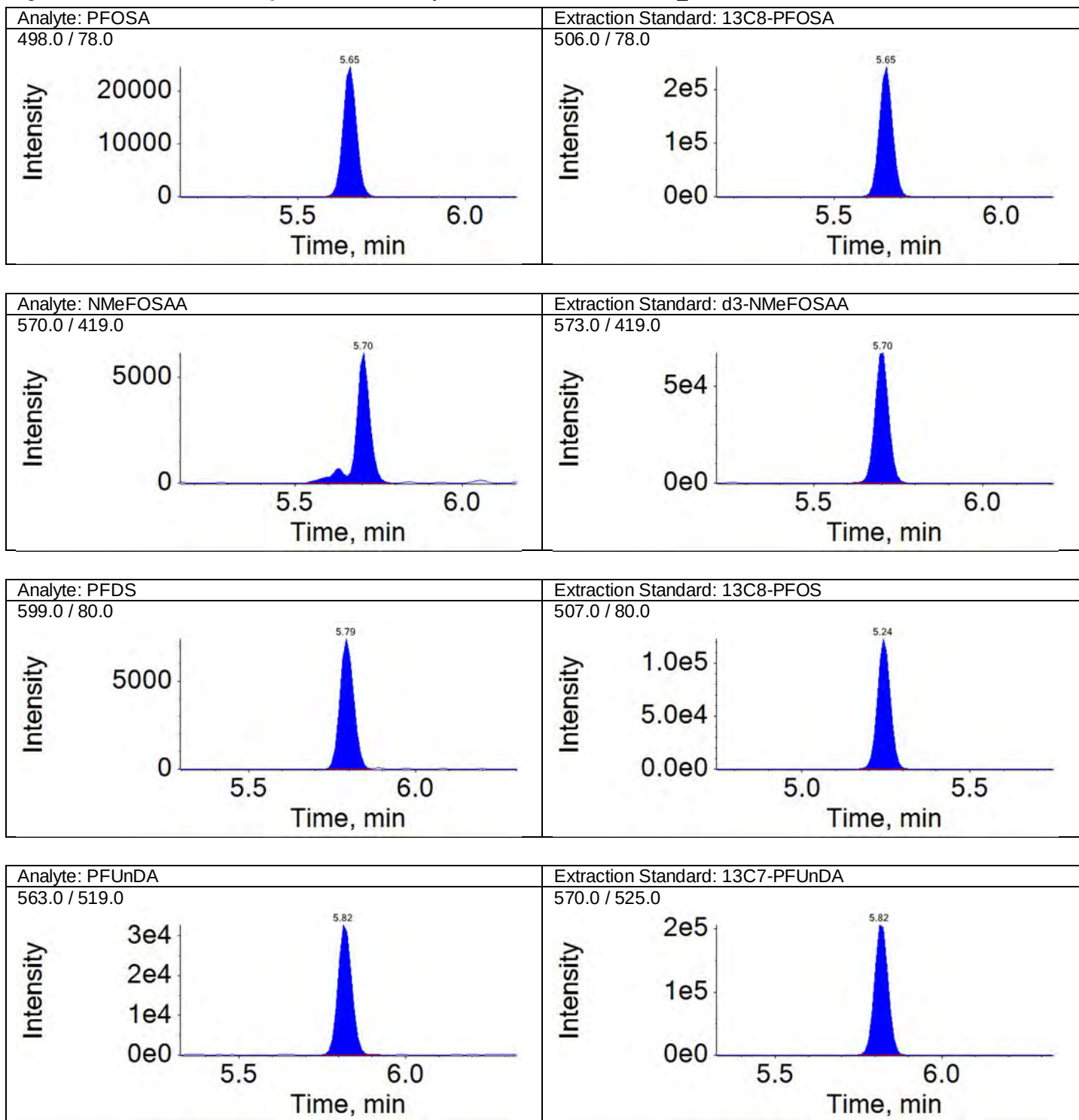
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QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



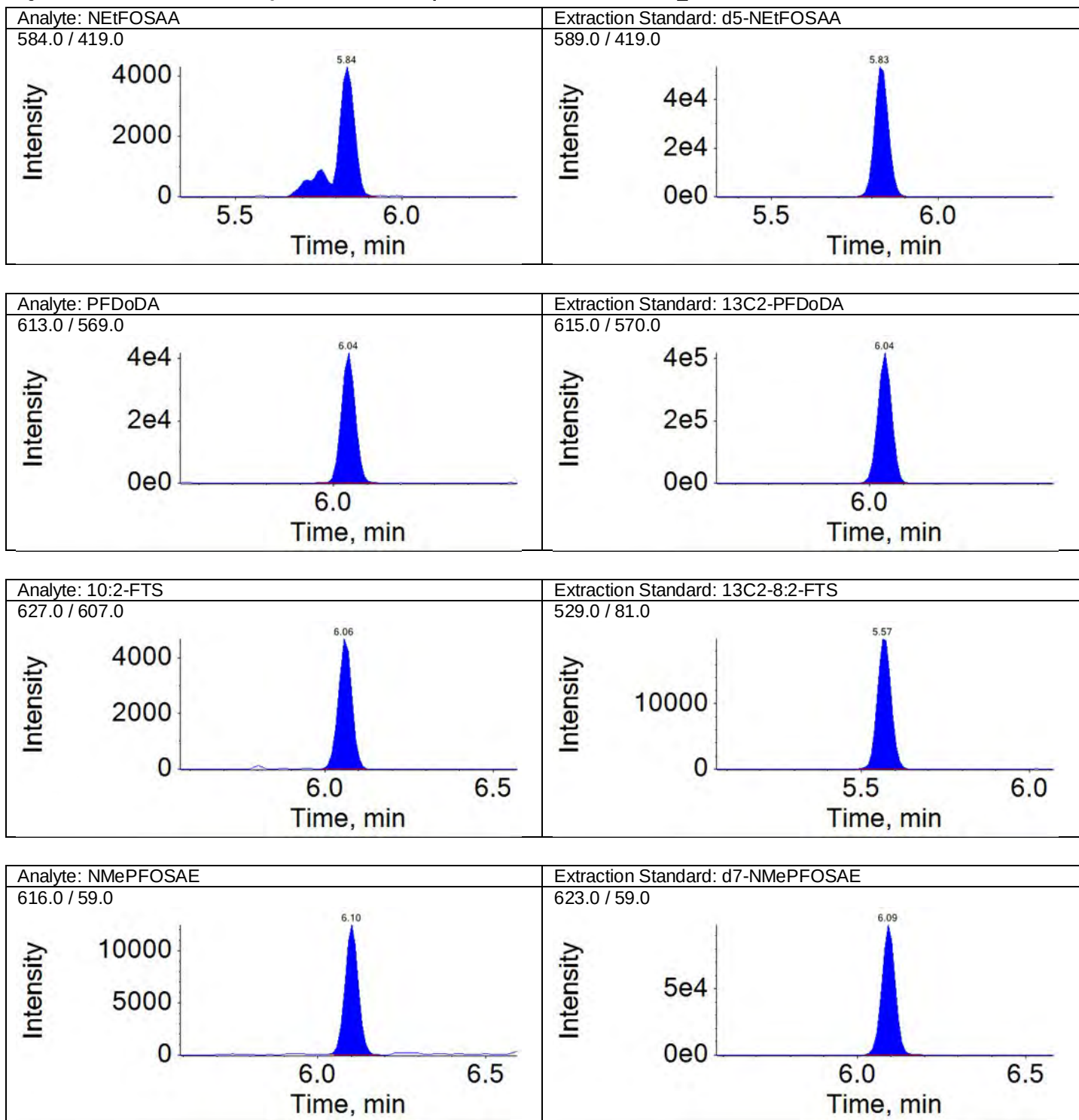
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Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



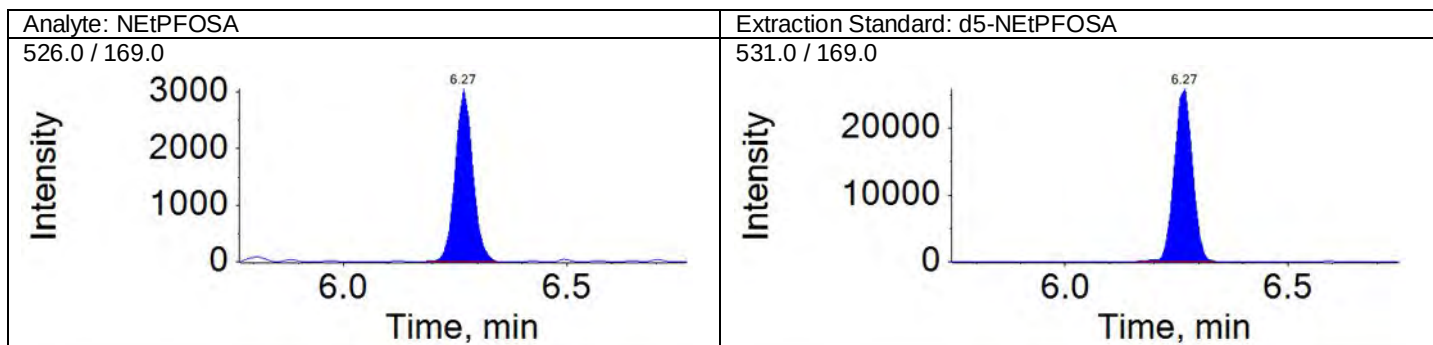
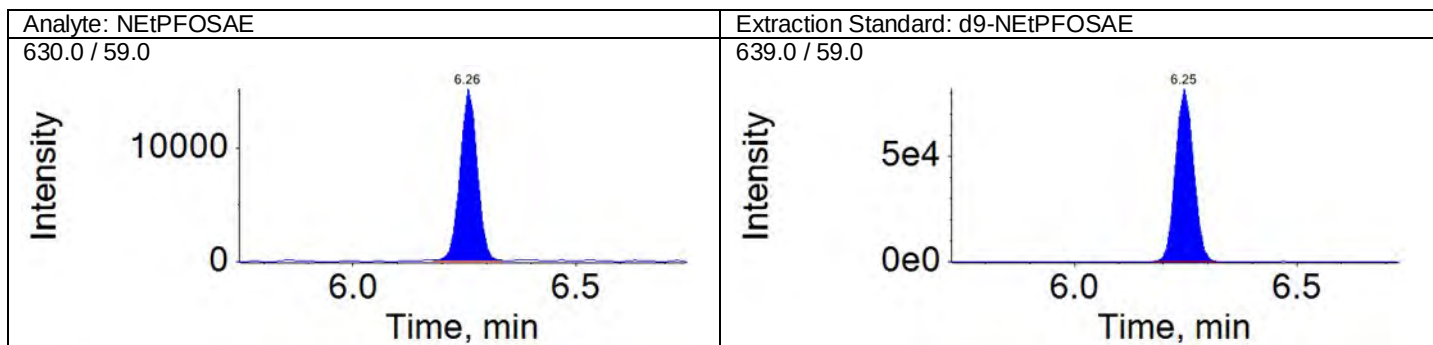
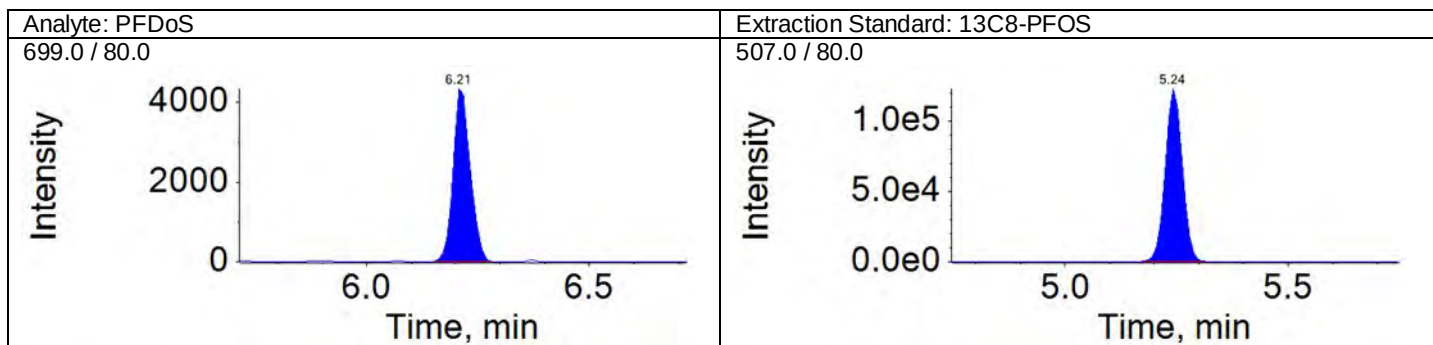
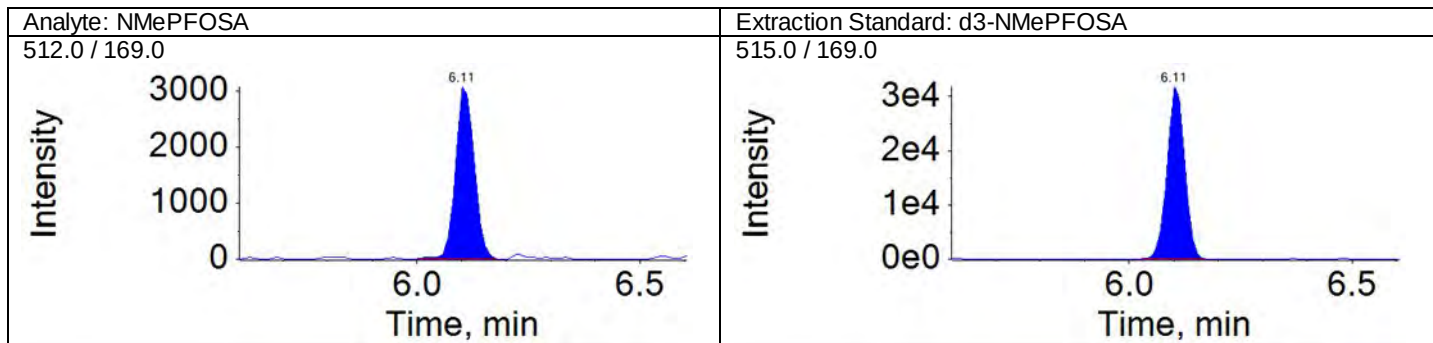
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QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



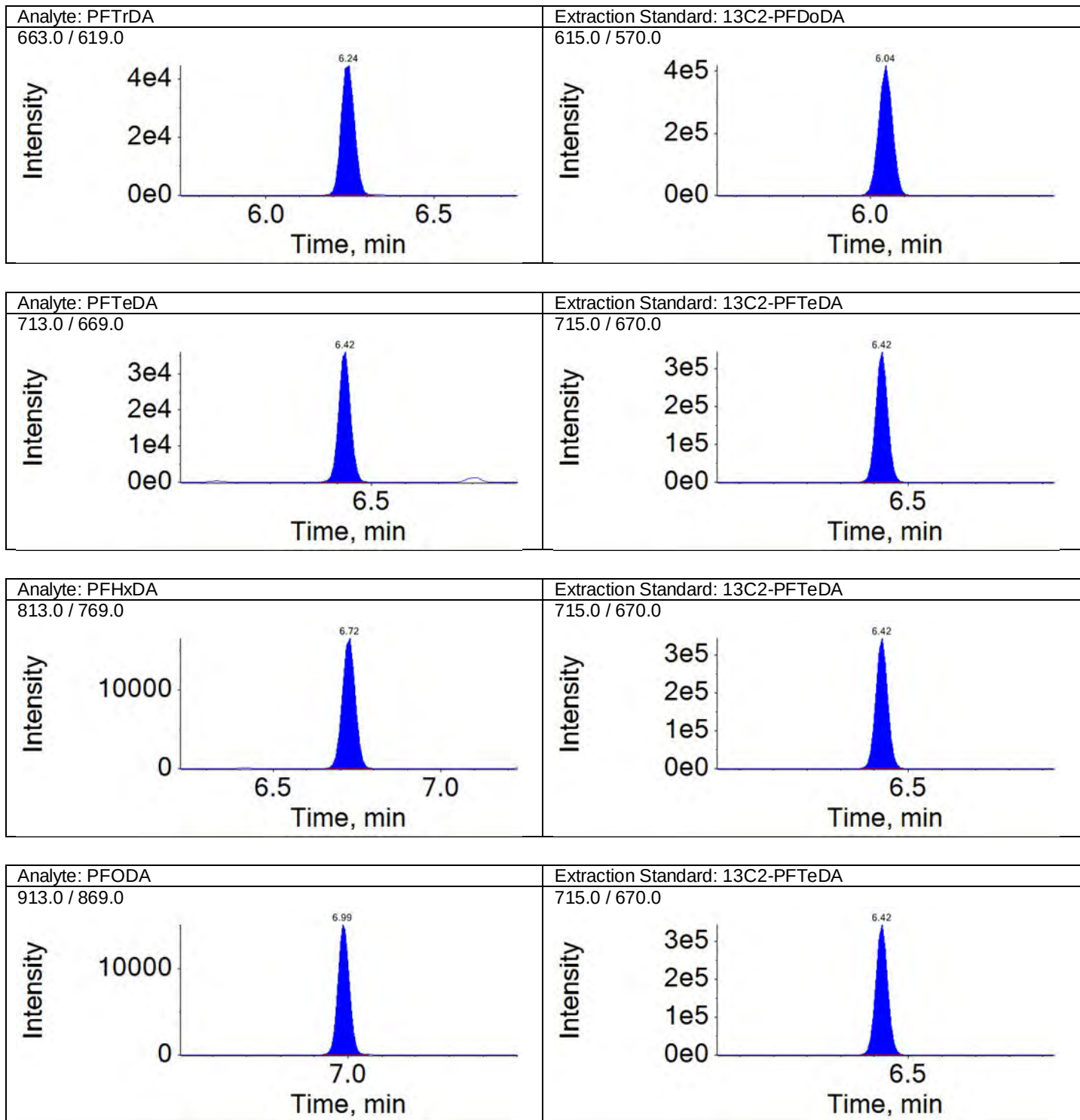
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QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



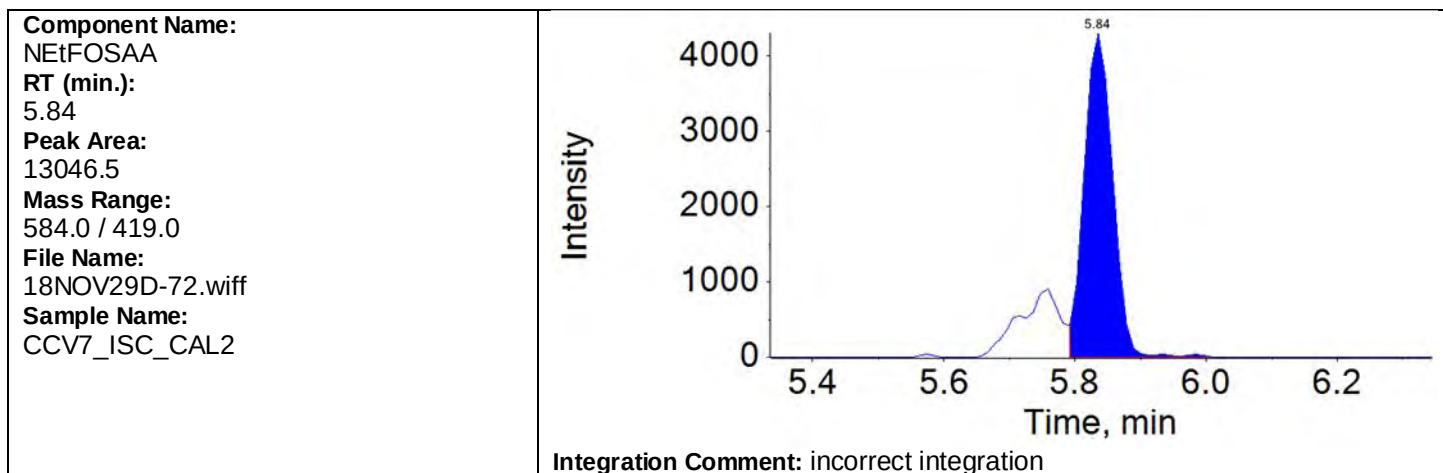
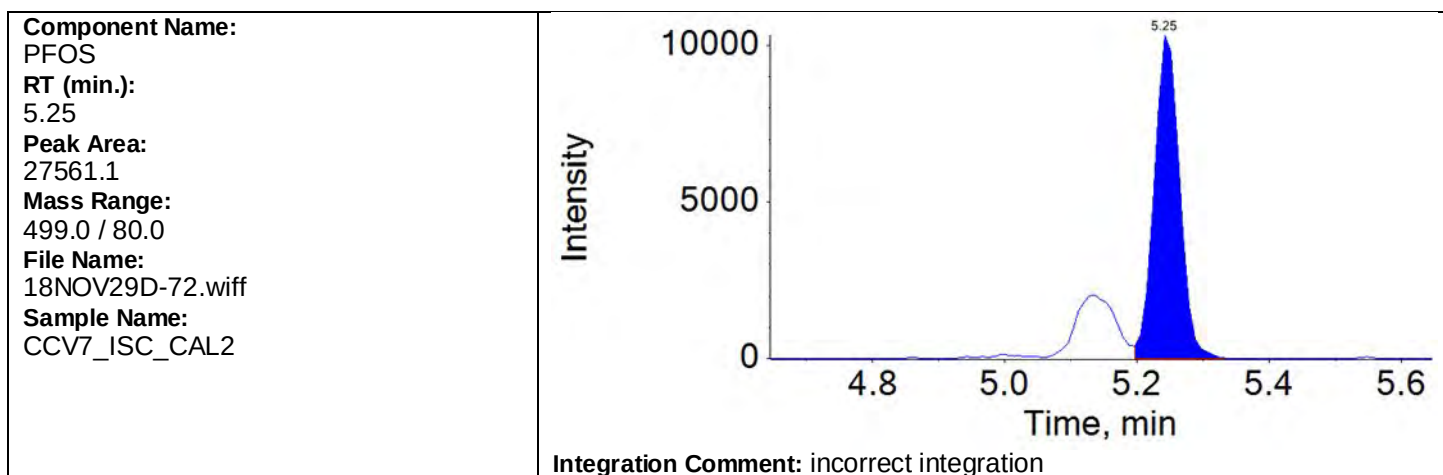
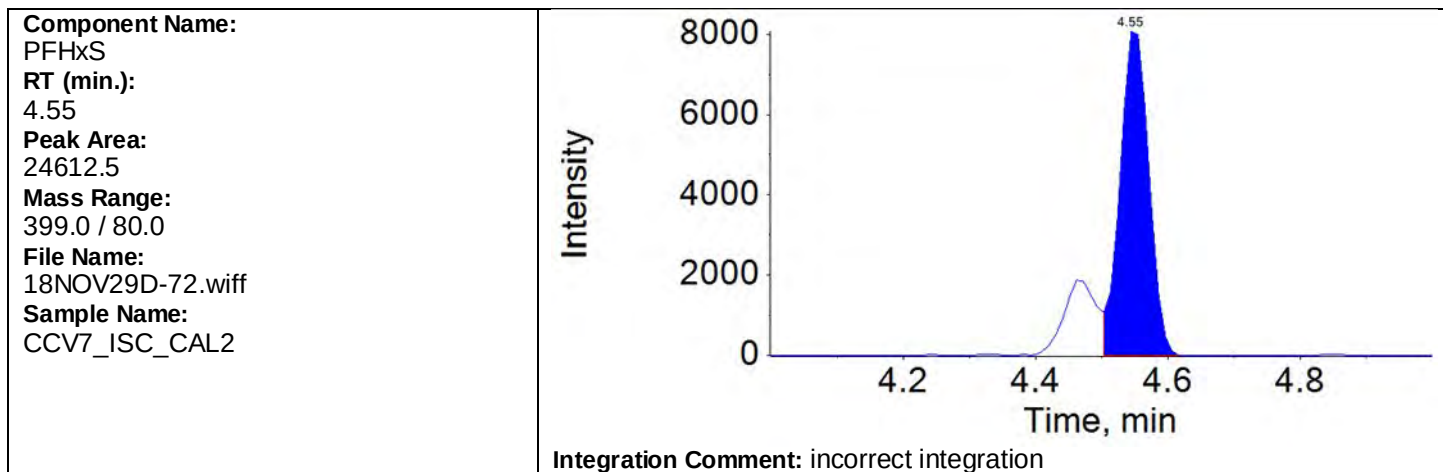
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Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



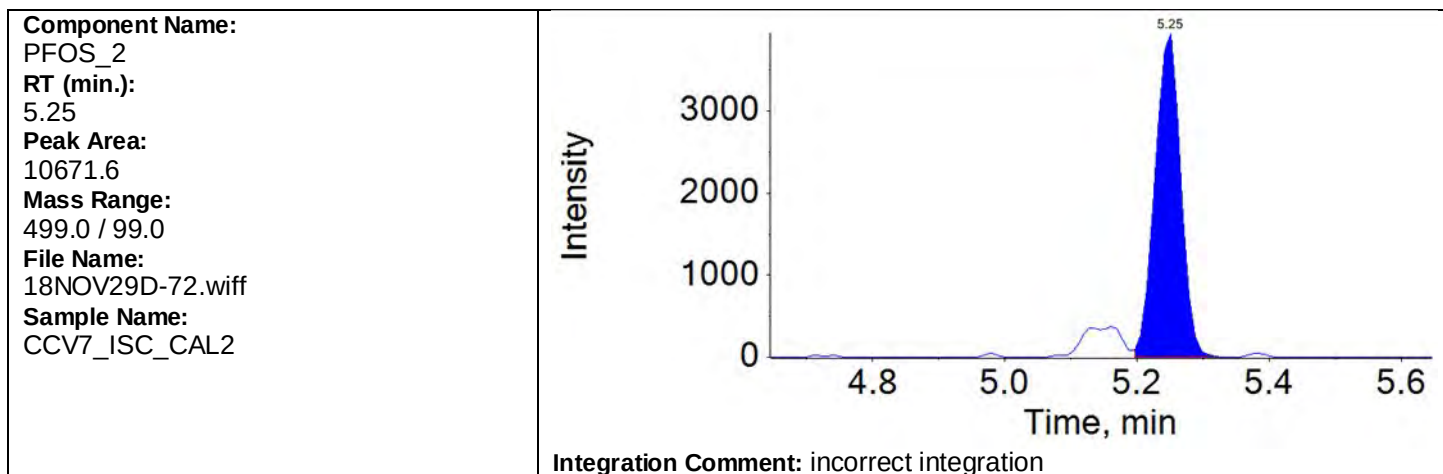
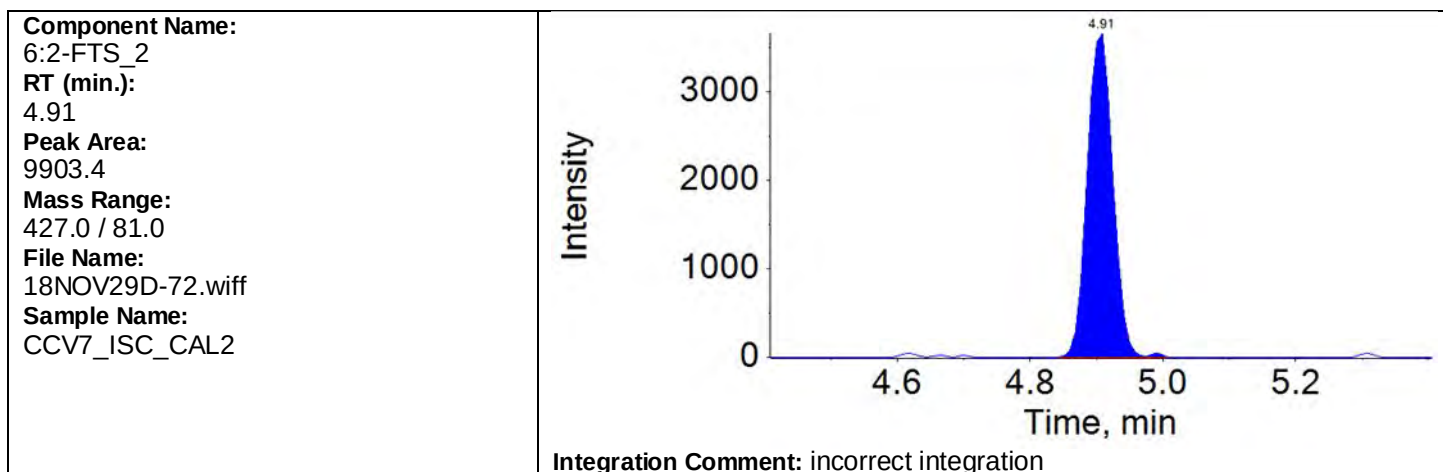
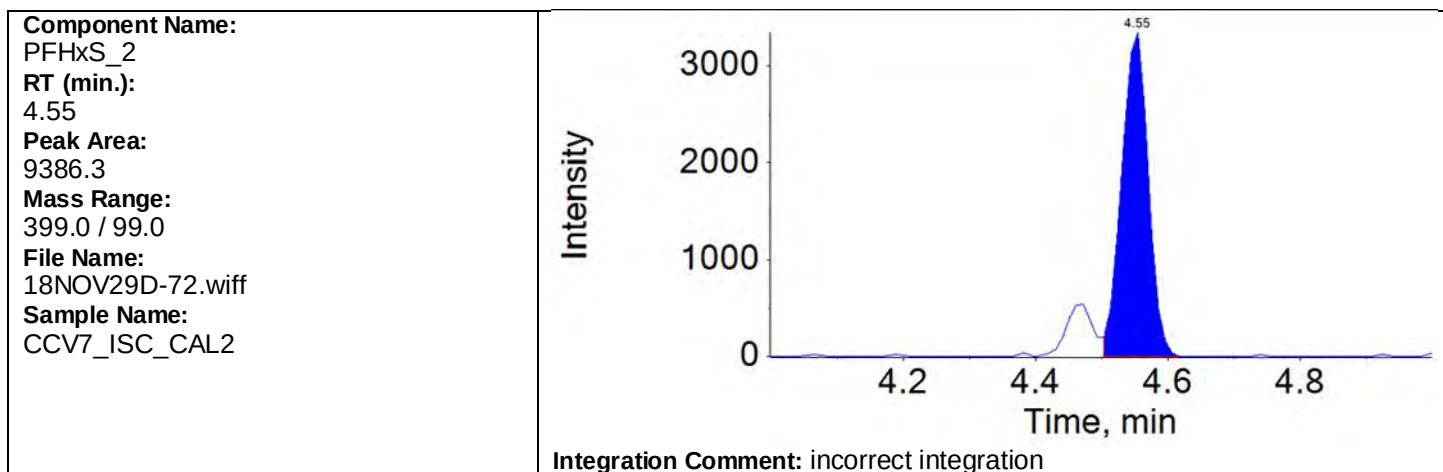
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Results Table Date: 11/30/2018 3:21:11 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:

PFNA_2

RT (min.):

5.26

Peak Area:

1986.5

Mass Range:

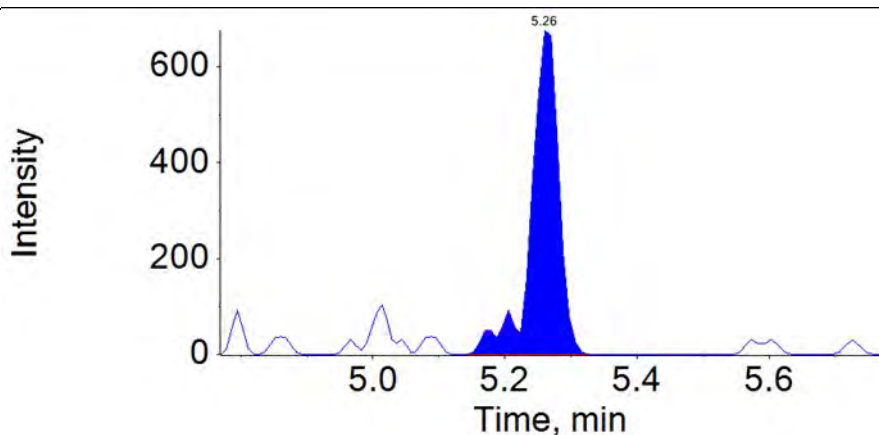
463.0 / 169.0

File Name:

18NOV29D-72.wiff

Sample Name:

CCV7_ISC_CAL2



Integration Comment: incorrect integration

Component Name:

PFDS_2

RT (min.):

5.79

Peak Area:

7803.0

Mass Range:

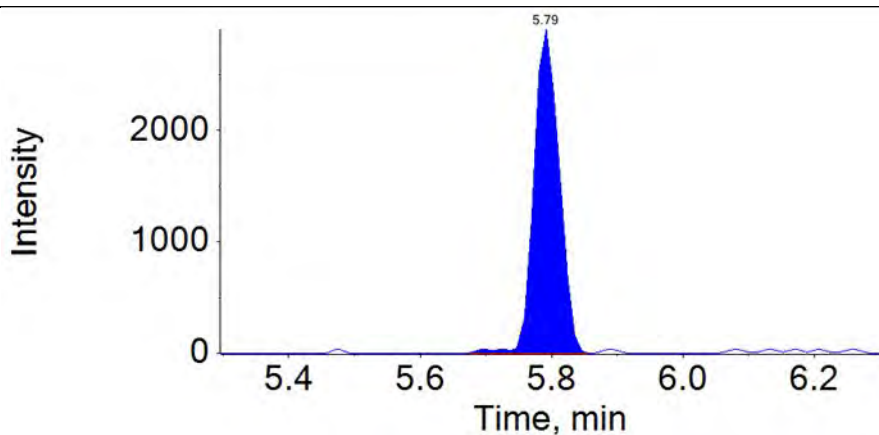
599.0 / 99.0

File Name:

18NOV29D-72.wiff

Sample Name:

CCV7_ISC_CAL2



Integration Comment: incorrect integration

Component Name:

NEtFOSAA_2

RT (min.):

5.83

Peak Area:

6992.8

Mass Range:

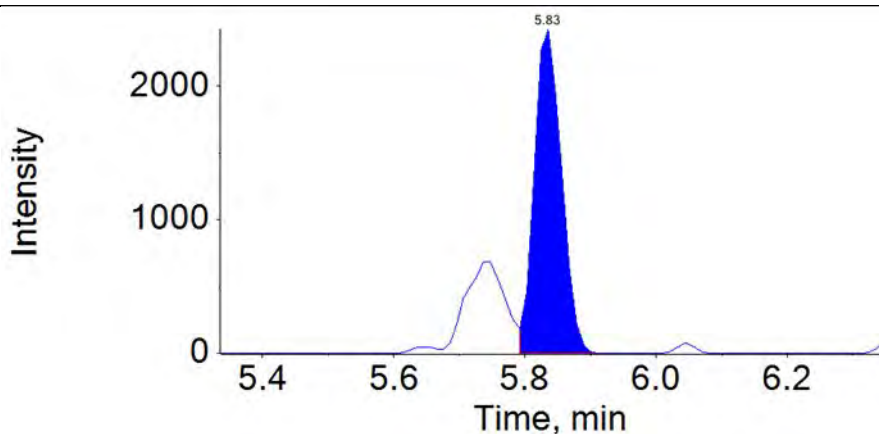
584.0 / 526.0

File Name:

18NOV29D-72.wiff

Sample Name:

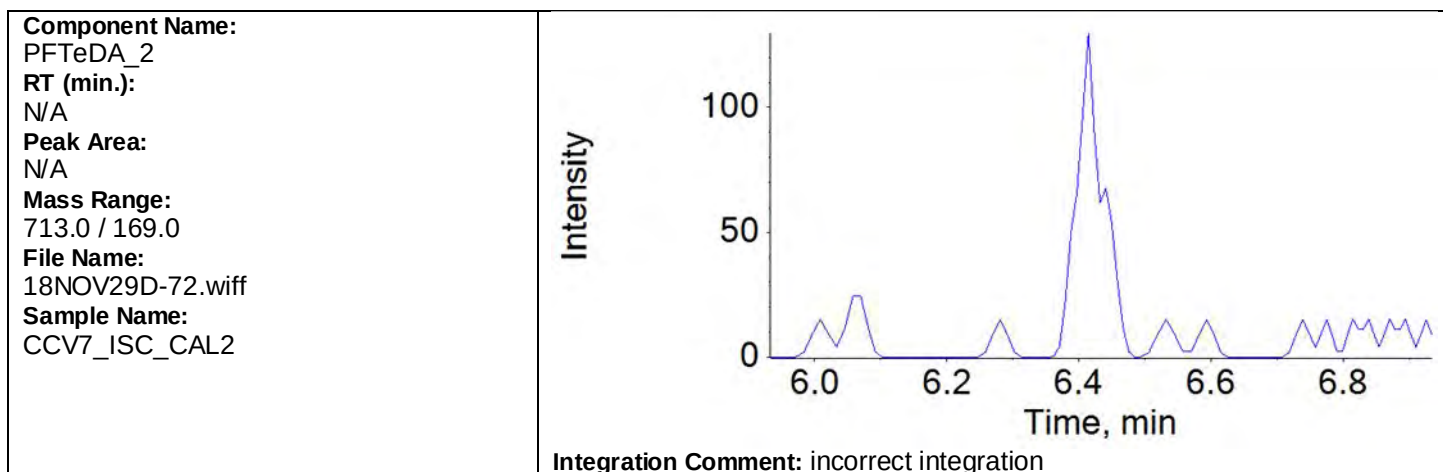
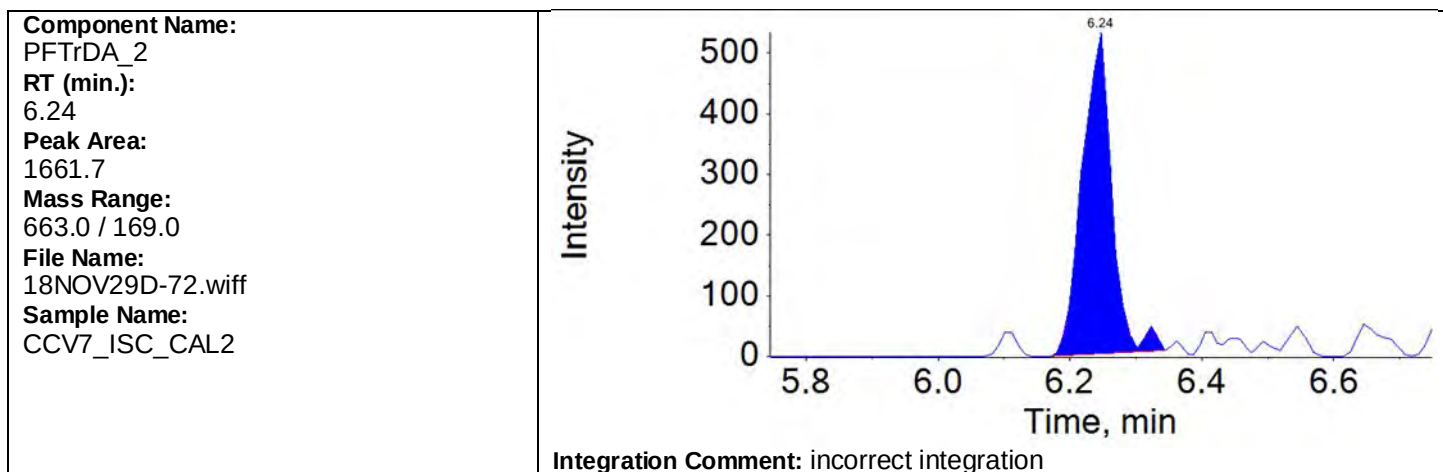
CCV7_ISC_CAL2



Integration Comment: incorrect integration

Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18NOV29DCCV6-9
Results Table Date: 11/30/2018 3:21:11 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 3:27 pm, 11/30/18

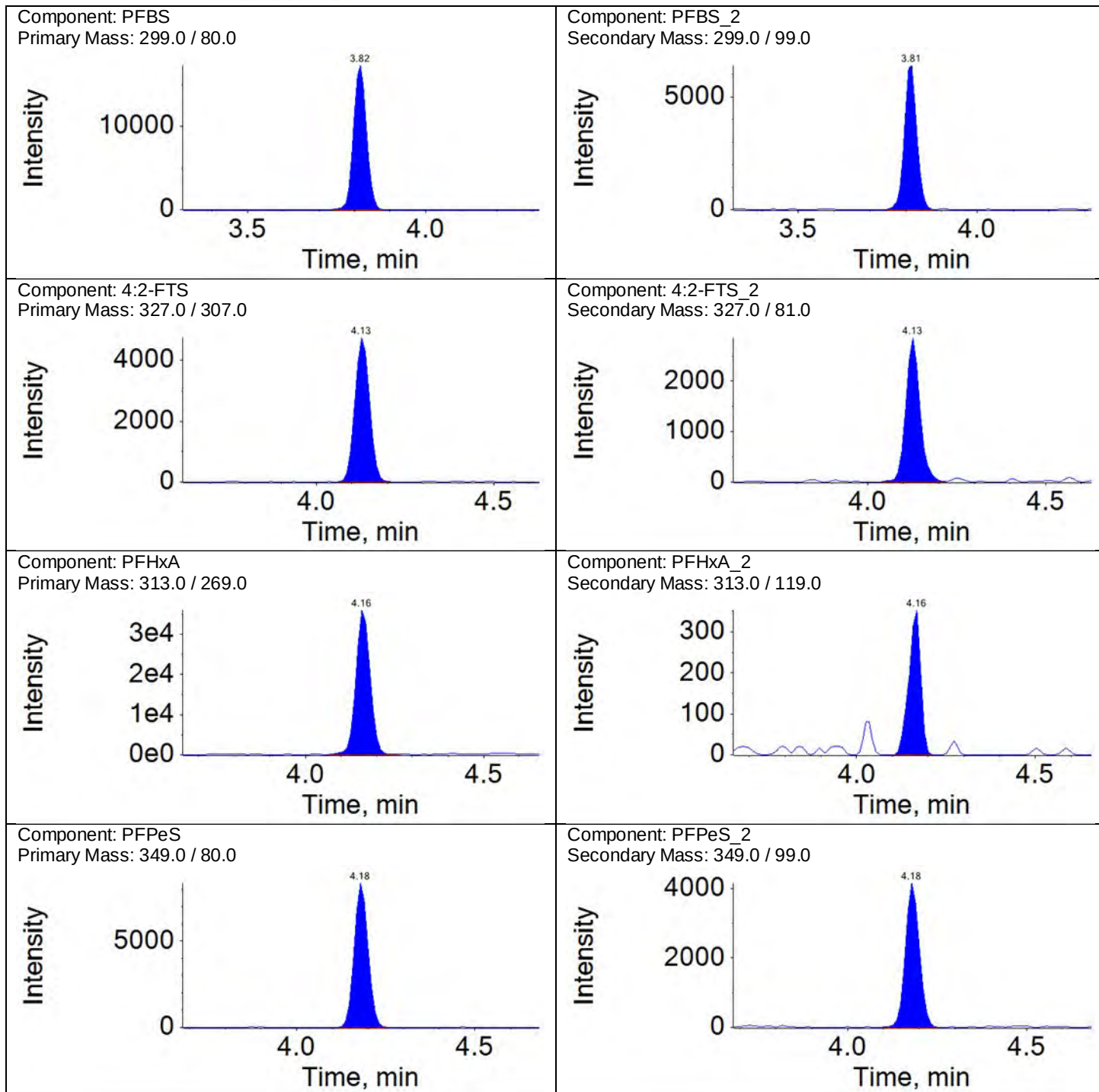
REVIEWED

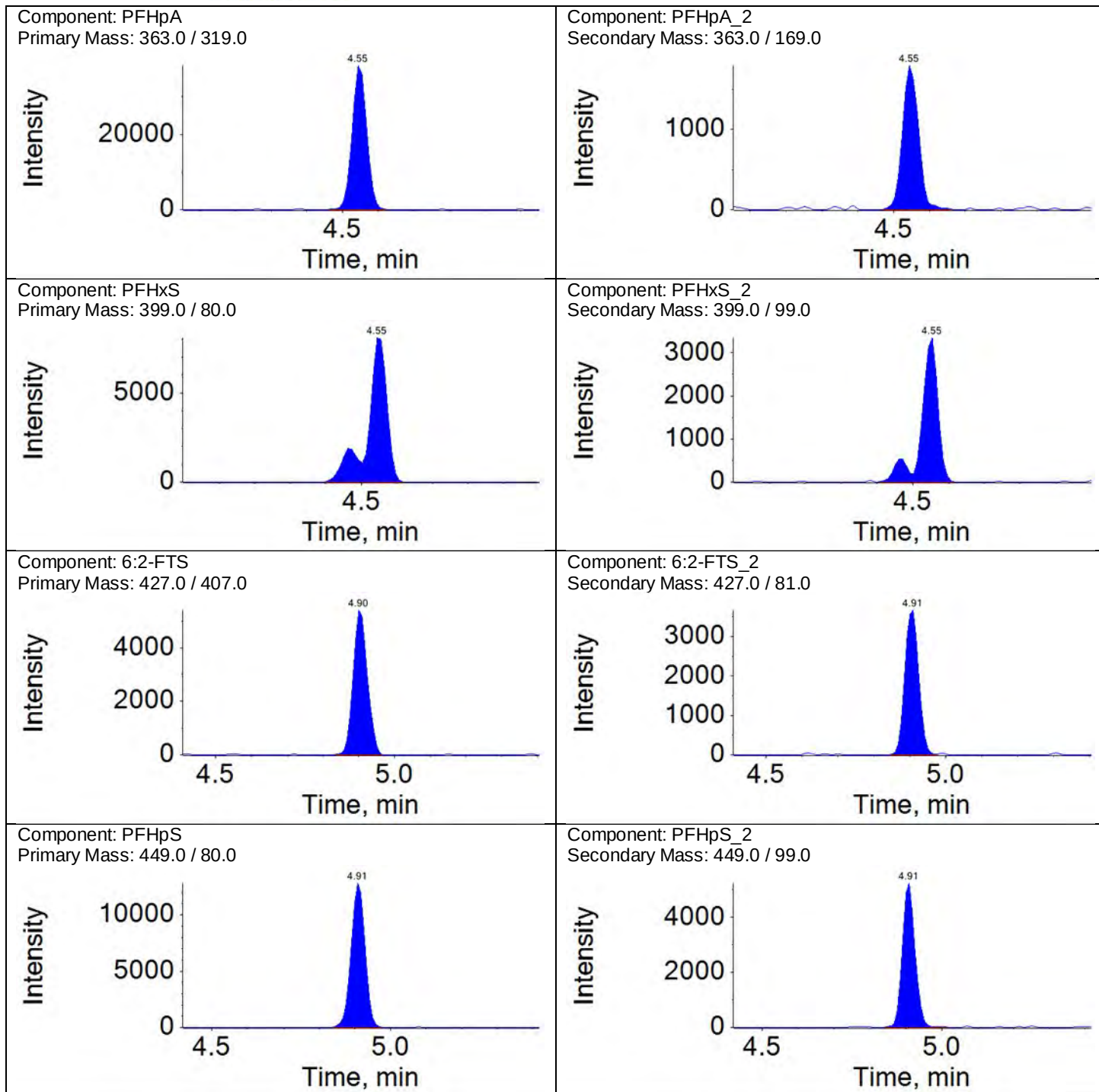
By umar at 12:38 pm, 12/4/18

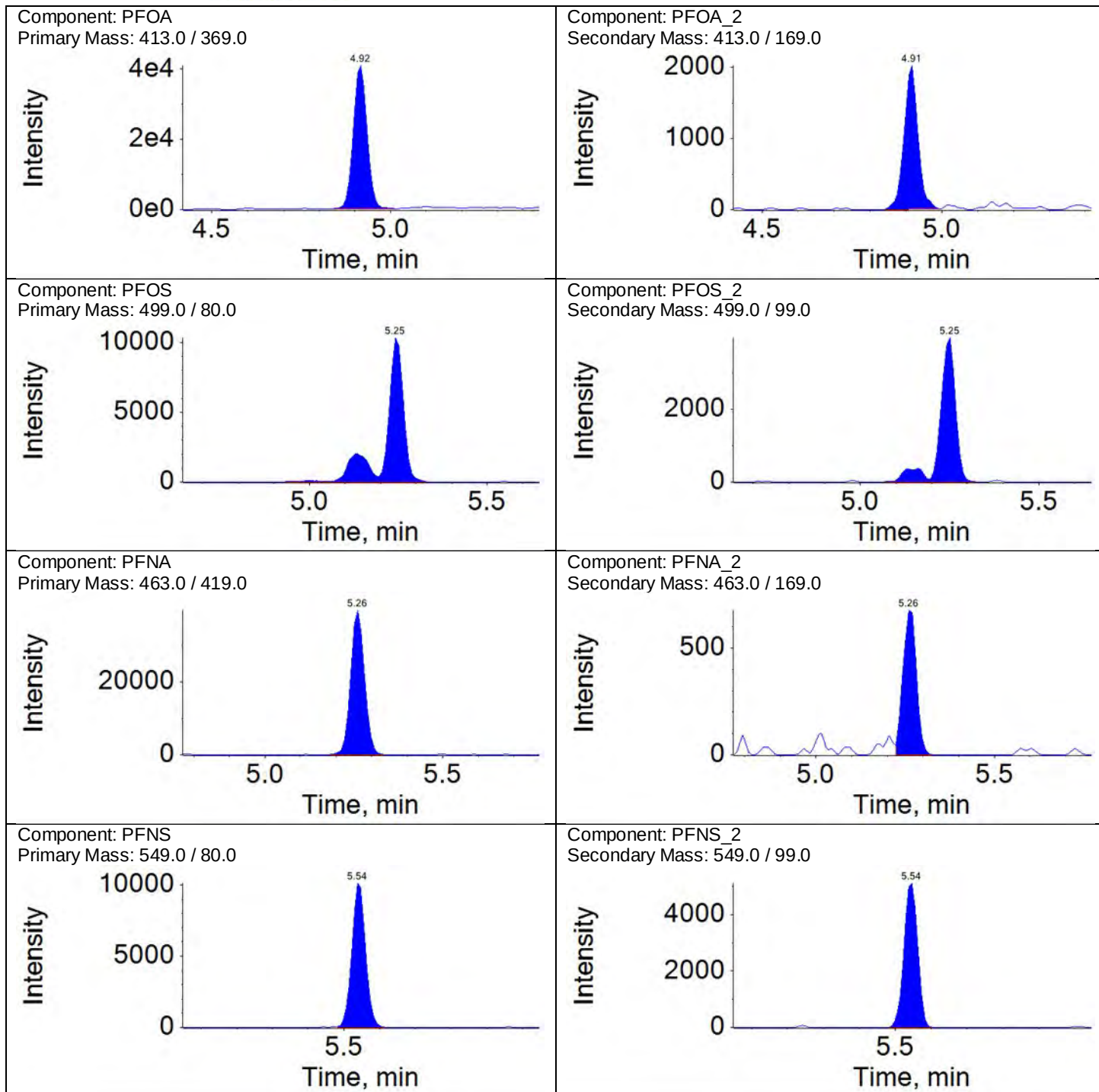
Ion Ratio Report

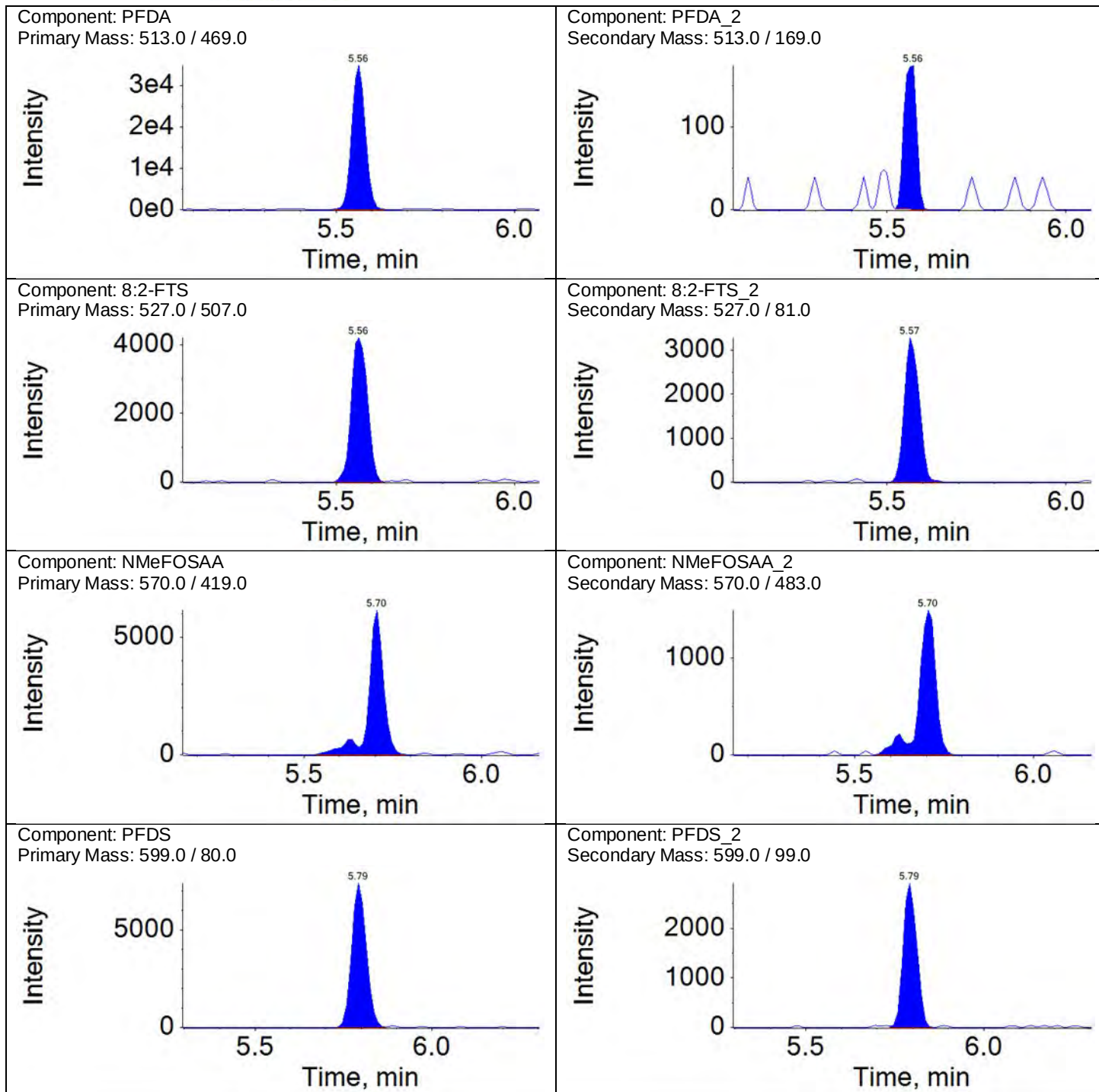
Sample Name: CCV7_ISC_CAL2 Instrument Name: LM27631 File Name: 18NOV29D-72.wiff

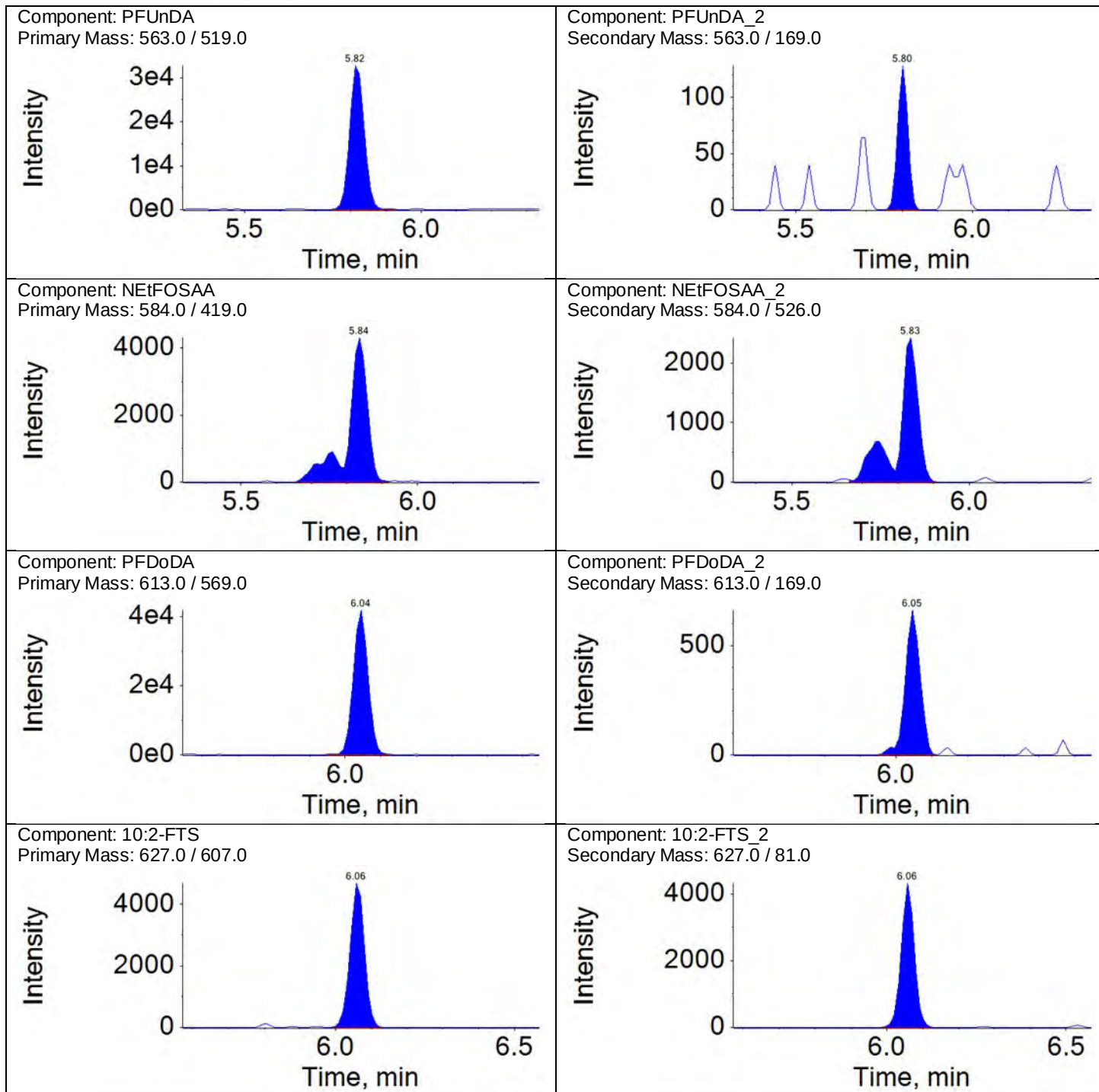
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.82	1.00	43546.1	A	N/A	0.3531			
PFBS_2	3.81	1.00	15374.0	A	N/A	0.3531	-3	50	
4:2-FTS	4.13	1.00	13618.8	A	N/A	0.5741			
4:2-FTS_2	4.13	1.00	7819.0	A	N/A	0.5741	-10	50	
PFHxA	4.16	1.00	98812.0	A	N/A	0.0083			
PFHxA_2	4.16	1.00	819.4	A	N/A	0.0083	-20	50	
PFPeS	4.18	1.10	22438.2	A	N/A	0.4999			
PFPeS_2	4.18	1.10	11216.6	A	N/A	0.4999	0	50	
PFHpA	4.55	1.00	108630.6	A	N/A	0.0517			
PFHpA_2	4.55	1.00	5616.4	A	N/A	0.0517	-7	50	
PFHxS	4.55	1.00	31005.8	M	N/A	0.3523			
PFHxS_2	4.55	1.00	10923.7	M	N/A	0.3523	-5	50	
6:2-FTS	4.90	1.00	14871.4	A	N/A	0.6620			
6:2-FTS_2	4.91	1.00	9844.3	M	N/A	0.6620	0	50	
PFHpS	4.91	1.08	34425.5	A	N/A	0.3726			
PFHpS_2	4.91	1.08	12825.2	A	N/A	0.3726	-5	50	
PFOA	4.92	1.00	108379.5	A	N/A	0.0499			
PFOA_2	4.91	1.00	5409.2	A	N/A	0.0499	-13	50	
PFOS	5.25	1.00	36641.4	M	N/A	0.3335			
PFOS_2	5.25	1.00	12218.3	M	N/A	0.3335	13	50	
PFNA	5.26	1.00	105821.4	A	N/A	0.0168			
PFNA_2	5.26	1.00	1772.5	M	N/A	0.0168	-17	50	
PFNS	5.54	1.06	26569.2	A	N/A	0.5079			
PFNS_2	5.54	1.06	13495.5	A	N/A	0.5079	6	50	
PFDA	5.56	1.00	91975.5	A	N/A	0.0047			
PFDA_2	5.56	1.00	428.3	A	N/A	0.0047	-38	50	
8:2-FTS	5.56	1.00	13276.2	A	N/A	0.7117			
8:2-FTS_2	5.57	1.00	9448.0	A	N/A	0.7117	32	50	
NMeFOSAA	5.70	1.00	18118.1	A	N/A	0.2752			
NMeFOSAA_2	5.70	1.00	4986.6	A	N/A	0.2752	19	50	
PFDS	5.79	1.10	21049.9	A	N/A	0.3654			
PFDS_2	5.79	1.10	7692.6	M	N/A	0.3654	-32	50	
PFUnDA	5.82	1.00	94365.1	A	N/A	0.0028			
PFUnDA_2	5.80	1.00	259.7	A	N/A	0.0028	-28	50	
NEtFOSAA	5.84	1.00	16845.3	M	N/A	0.5862			
NEtFOSAA_2	5.83	1.00	9875.0	M	N/A	0.5862	-20	50	
PFDODA	6.04	1.00	120450.1	A	N/A	0.0159			
PFDODA_2	6.05	1.00	1919.7	A	N/A	0.0159	22	50	
10:2-FTS	6.06	1.09	13124.4	A	N/A	0.8343			
10:2-FTS_2	6.06	1.09	10949.2	A	N/A	0.8343	19	50	
PFTTrDA	6.24	1.03	124162.6	A	N/A	0.0132			
PFTTrDA_2	6.24	1.03	1641.9	M	N/A	0.0132	47	50	
PFTeDA	6.42	1.00	88469.7	A	N/A	0.0041			
PFTeDA_2	6.41	1.00	361.6	M	N/A	0.0041	-27	50	
PFHxDA	6.72	1.05	44728.9	A	N/A	0.0648			
PFHxDA_2	6.73	1.05	2897.0	A	N/A	0.0648	0	50	
PFODA	6.99	1.09	35501.9	A	N/A	0.0275			
PFODA_2	6.98	1.09	977.9	A	N/A	0.0275	4	50	

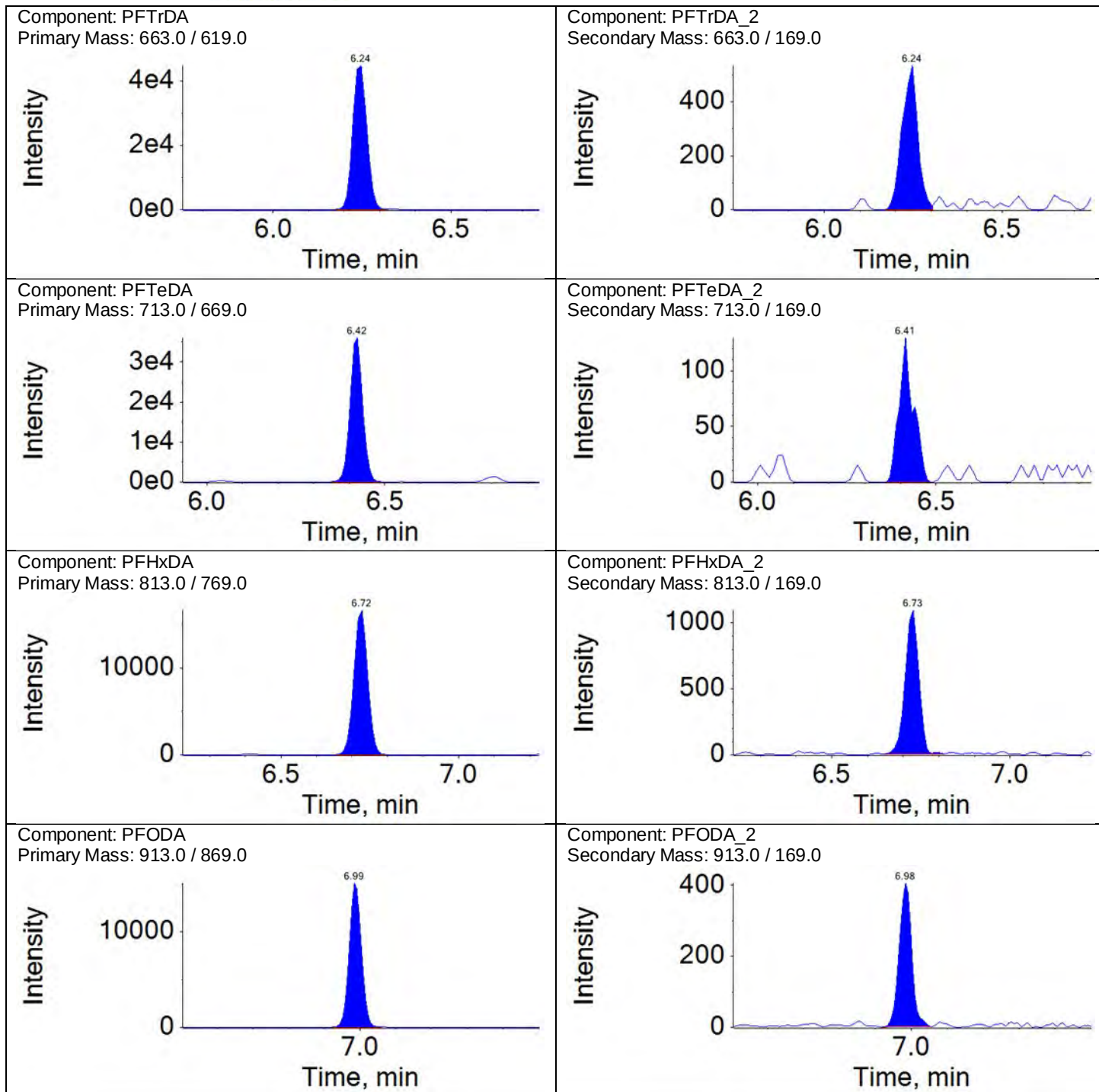












ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	Instrument Blank		Data File:		18NOV29D-73.wiff
Sample ID:	methanol+labels		Acquis Date:		2018-11-29T20:47:06
Sample Type:	Unknown		Instrument:		LM27631
Vial Position:	1		Acquis Method:		18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:		18NOV29DCCV6-9
QMethod File:	18AUG20QM		ICAL Name:		18NOV28DCAL
Batch Number:	N/A		Operator:		MCD7824
Sample Wt.:	1.00000		Dilution Factor:		1.00
Sample Vol.:	1.000		Prep Factor:		1.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1072007.1	906425.4	18	50	
13C2-PFOA	5.0	580377.1	495984.0	17	50	
13C4-PFOS	4.8	356069.8	296261.8	20	50	
13C2-PFDA	5.0	542154.6	451203.0	20	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1146787.6	13C3-PFBA	1072007.1	1.070	5.000	4.773	95	70-130	
E13C5-PFPeA	1080213.5	13C3-PFBA	1072007.1	1.008	5.000	4.705	94	70-130	
E13C3-PFBS	467354.0	13C3-PFBA	1072007.1	0.436	4.650	4.159	89	70-130	
E13C2-4:2-FTS	83228.5	13C2-PFOA	580377.1	0.143	4.670	4.942	106	70-130	
E13C5-PFHxA	761353.7	13C2-PFOA	580377.1	1.312	5.000	4.818	96	70-130	
E13C3-PFHxS	380641.1	13C2-PFOA	580377.1	0.656	4.730	5.140	109	70-130	
E13C4-PFHpA	608352.9	13C2-PFOA	580377.1	1.048	5.000	4.816	96	70-130	
E13C2-6:2-FTS	76246.9	13C2-PFOA	580377.1	0.131	4.750	5.499	116	70-130	
E13C8-PFOA	1060868.3	13C2-PFOA	580377.1	1.828	5.000	5.031	101	70-130	
E13C8-PFOS	358159.4	13C4-PFOS	356069.8	1.006	4.780	4.541	95	70-130	
E13C9-PFNA	747835.1	13C4-PFOS	356069.8	2.100	5.000	4.613	92	70-130	
E13C6-PFDA	951251.3	13C2-PFDA	542154.6	1.755	5.000	4.947	99	70-130	
E13C2-8:2-FTS	62758.6	13C2-PFDA	542154.6	0.116	4.790	4.975	104	70-130	
E13C8-PFOSA	726331.4	13C2-PFDA	542154.6	1.340	5.000	4.916	98	70-130	
Ed3-NMeFOSAA	279222.6	13C2-PFDA	542154.6	0.515	5.000	6.539	131	70-130	OOS
E13C7-PFUnDA	639126.9	13C2-PFDA	542154.6	1.179	5.000	4.982	100	70-130	
Ed5-NEtFOSAA	158699.3	13C2-PFDA	542154.6	0.293	5.000	5.215	104	70-130	
E13C2-PFDoDA	1215903.7	13C2-PFDA	542154.6	2.243	5.000	4.712	94	70-130	
Ed7-NMePFOSAE	302120.4	13C2-PFDA	542154.6	0.557	5.000	4.816	96	70-130	
Ed3-NMePFOSA	101225.5	13C2-PFDA	542154.6	0.187	5.000	5.053	101	70-130	
Ed9-NEtPFOSAE	250994.9	13C2-PFDA	542154.6	0.463	5.000	4.694	94	70-130	
Ed5-NEtPFOSA	78115.7	13C2-PFDA	542154.6	0.144	5.000	5.007	100	70-130	
E13C2-PFTeDA	927532.4	13C2-PFDA	542154.6	1.711	5.000	4.734	95	70-130	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: Instrument Blank

Instrument Name: LM27631

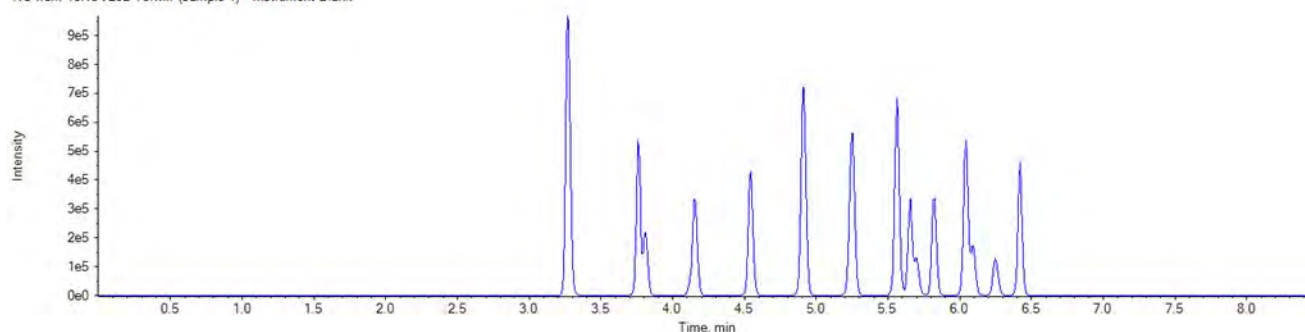
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	1.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	1146787.6	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	1080213.5	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	467354.0	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.12	83228.5	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	761353.7	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	467354.0	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	608352.9	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	380641.1	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.90	76246.9	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	380641.1	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.91	1060868.3	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.24	358159.4	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.26	747835.1	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.24	358159.4	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	951251.3	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	62758.6	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	726331.4	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.70	279222.6	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.24	358159.4	N/A	
PfUnDA	N/A	N/A	N/A		A	13C7-PfUnDA	5.82	639126.9	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.83	158699.3	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	1215903.7	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.57	62758.6	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	302120.4	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	101225.5	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.24	358159.4	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.25	250994.9	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	78115.7	N/A	
PFTDA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	1215903.7	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	927532.4	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	927532.4	N/A	
PFOA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	927532.4	N/A	

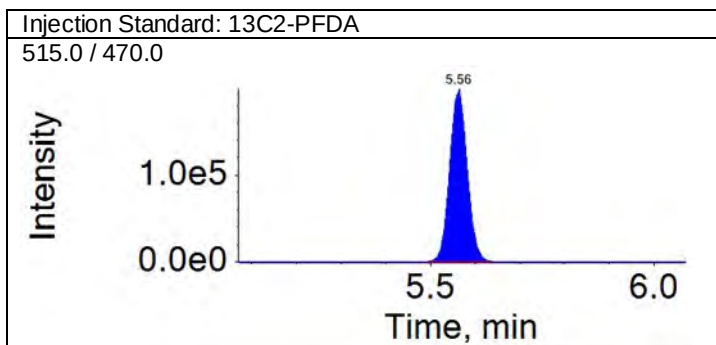
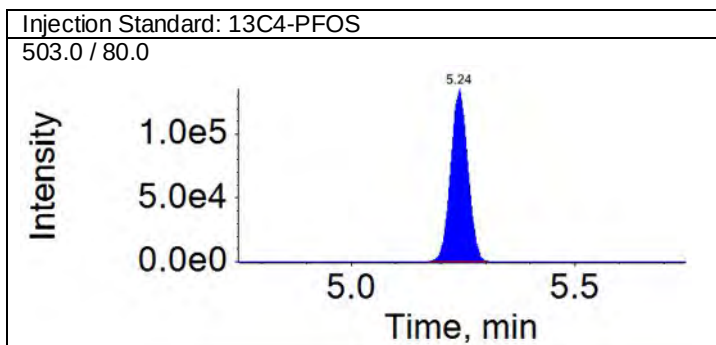
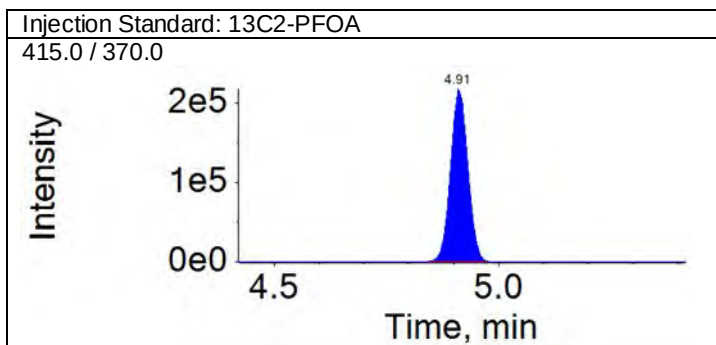
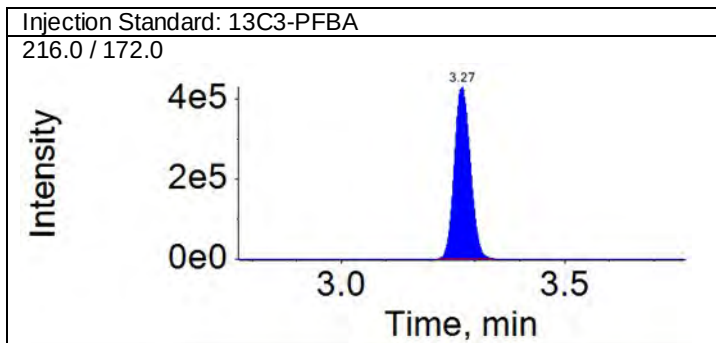
Total Ion Chromatogram

TIC from 18NOV29D-73.wiff (sample 1) - Instrument Blank



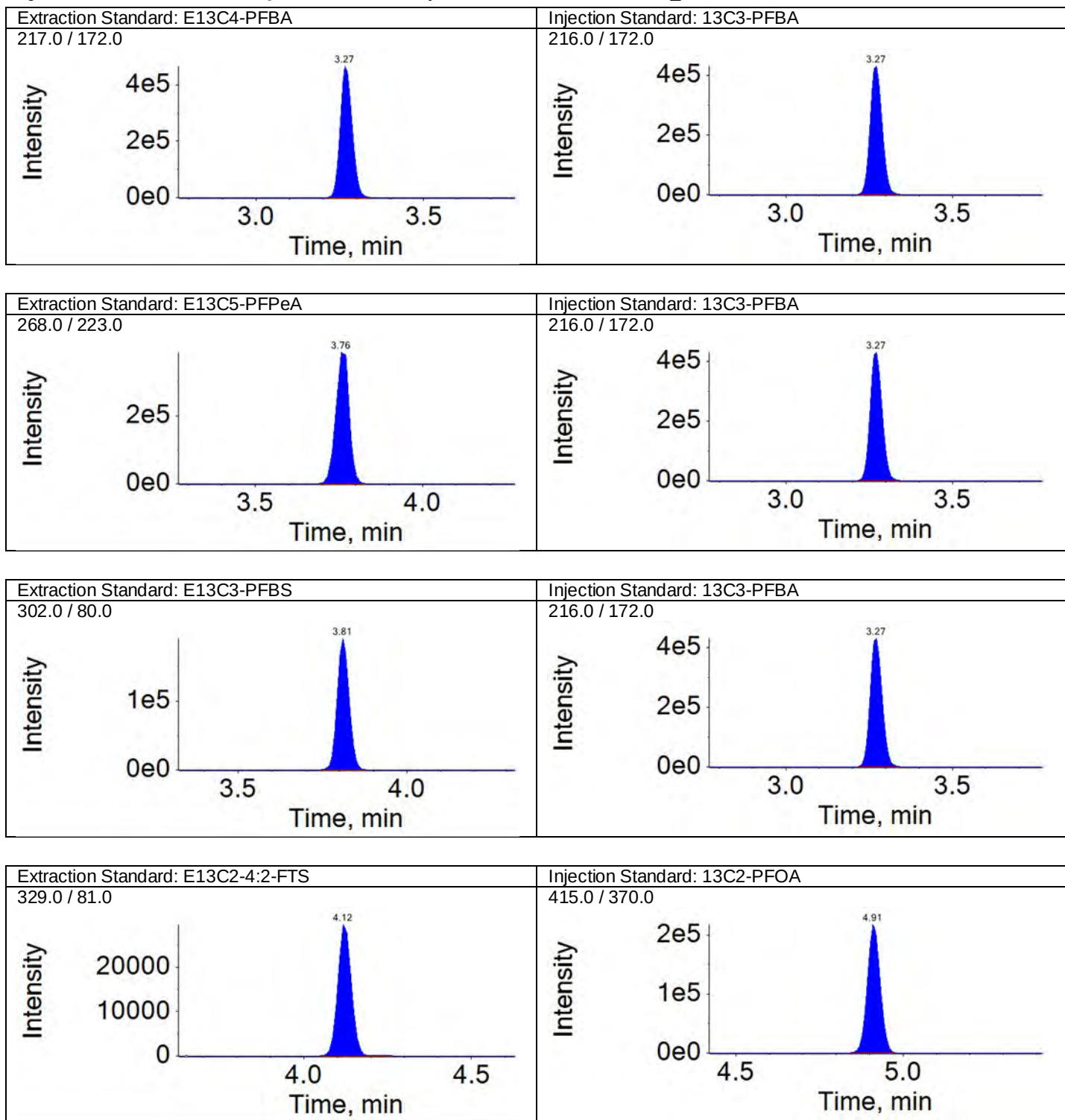
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QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



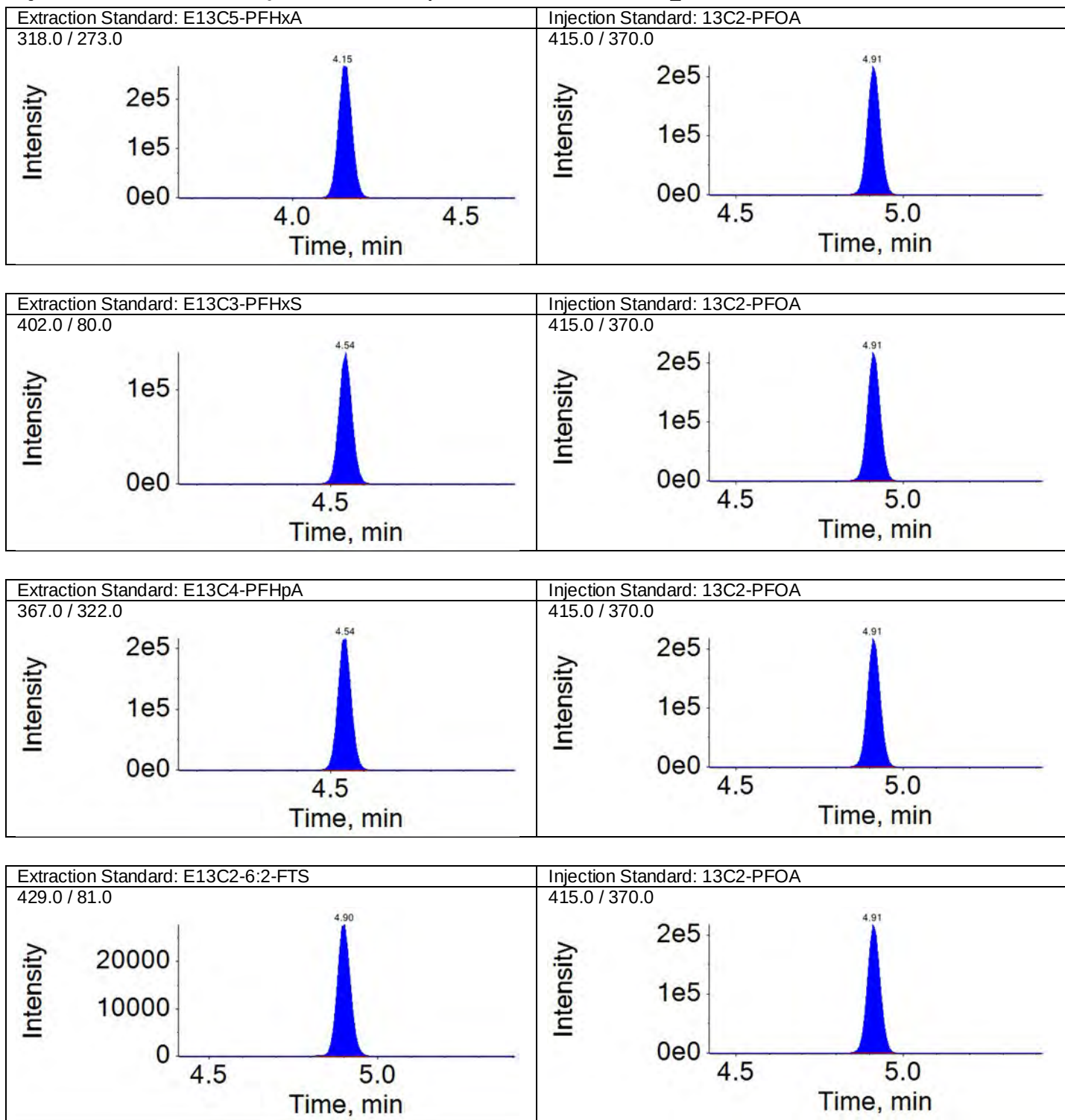
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Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
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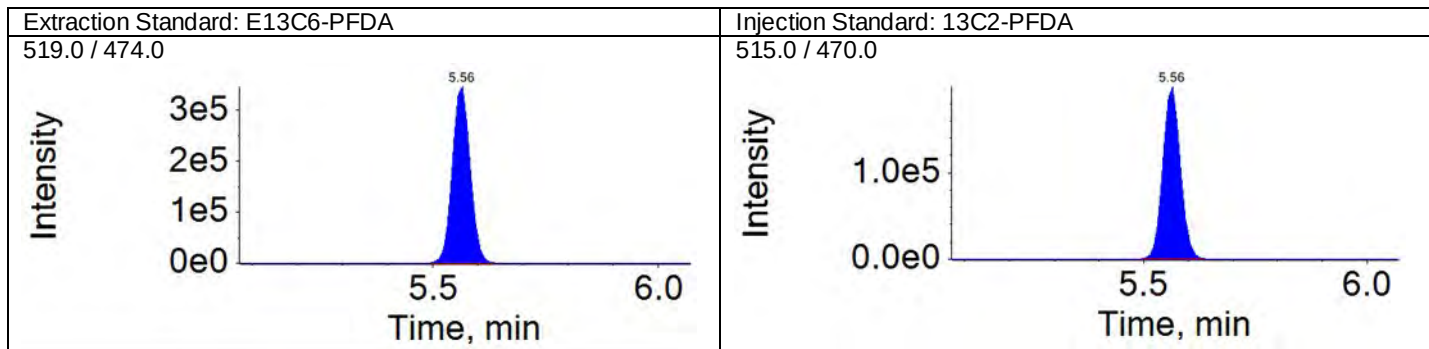
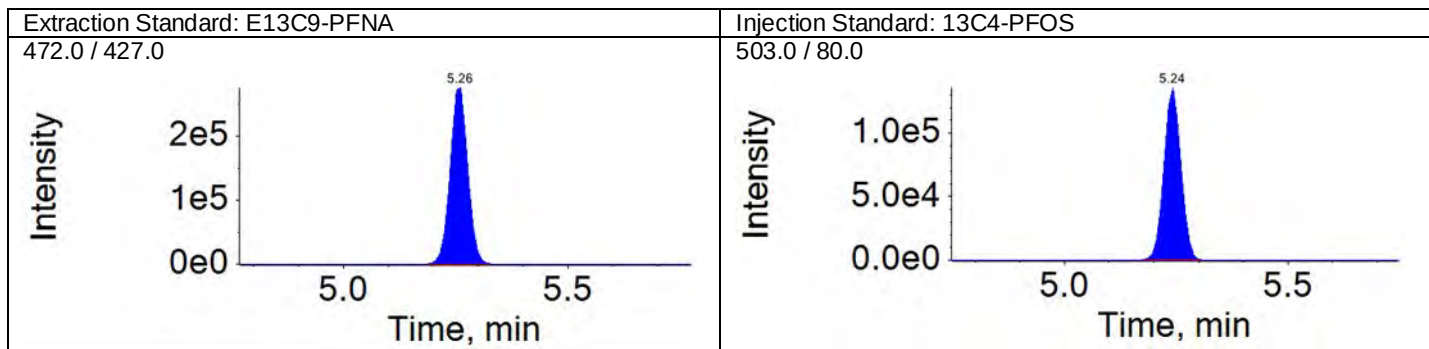
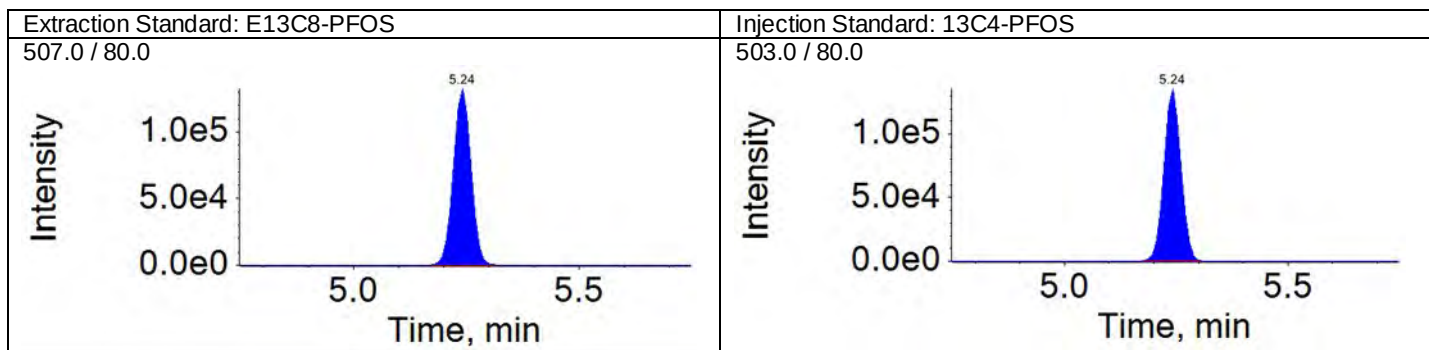
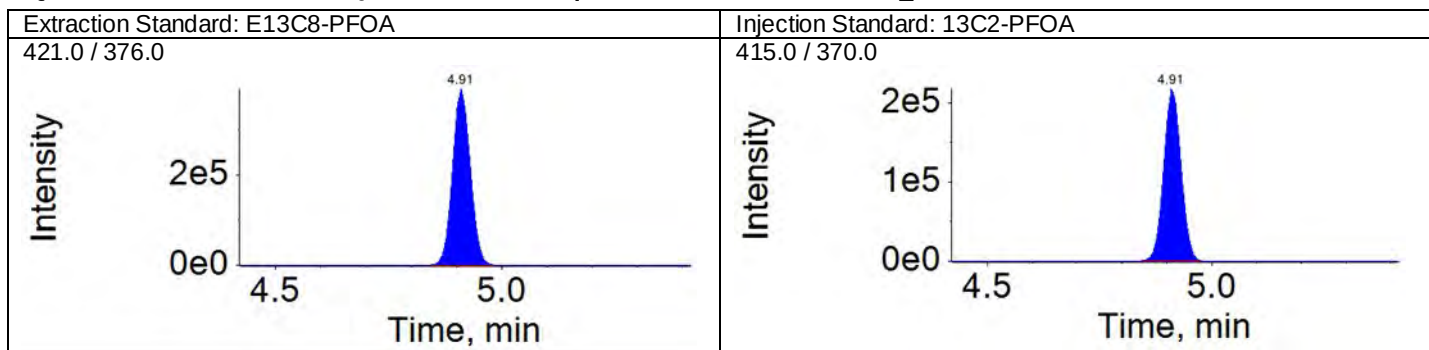
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Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
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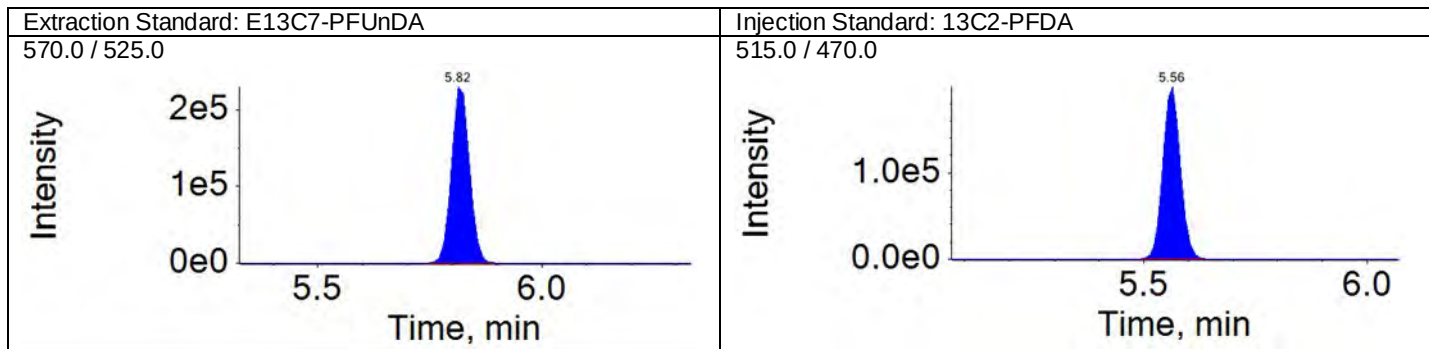
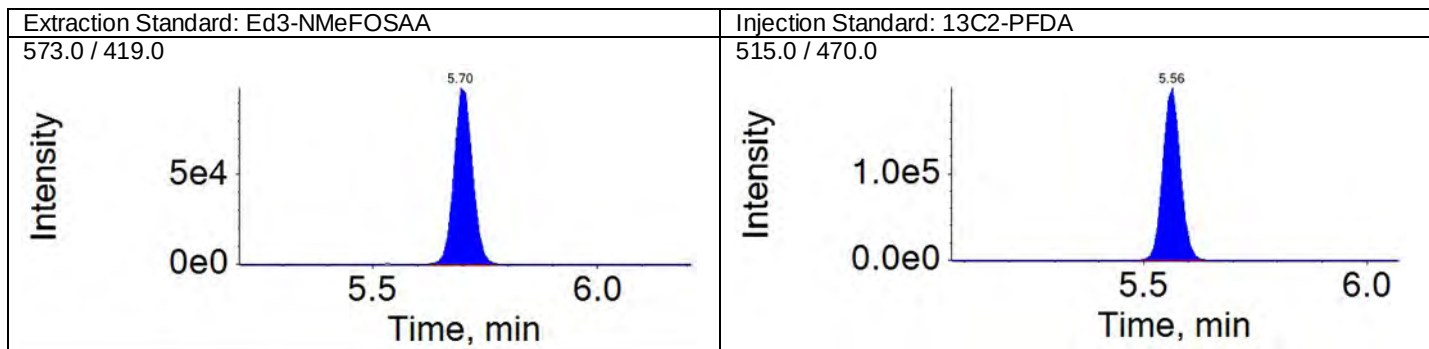
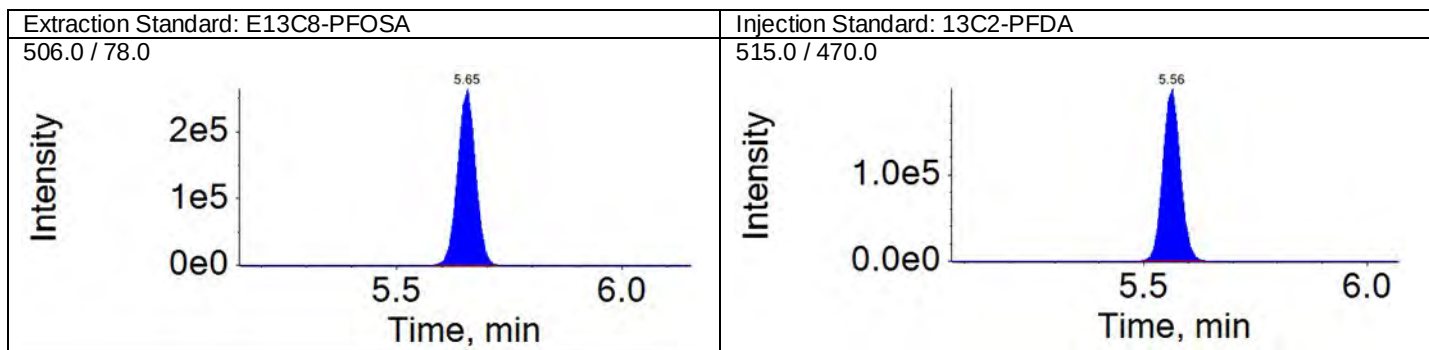
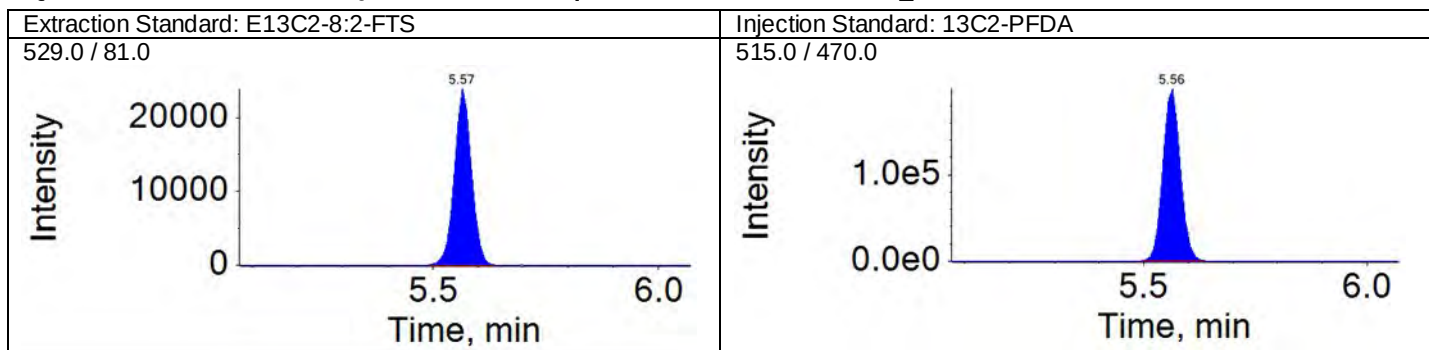
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Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
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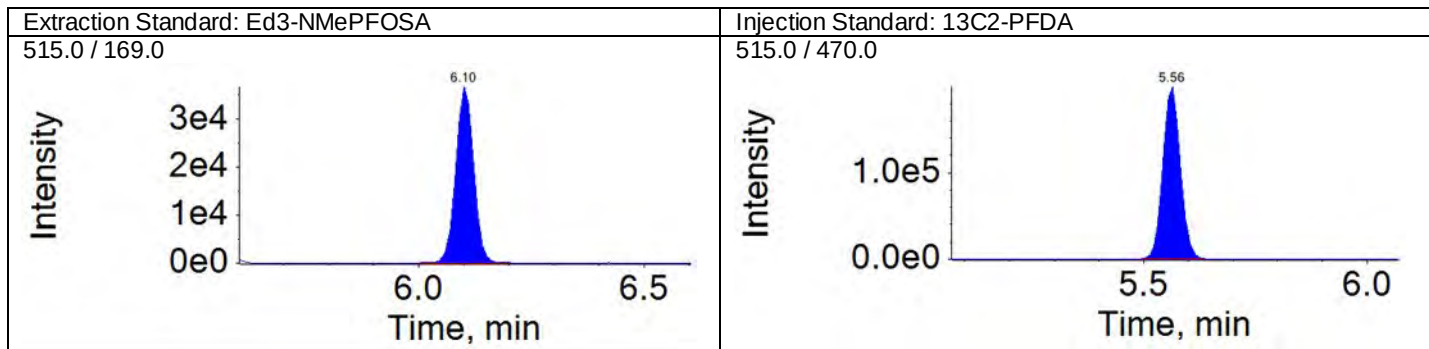
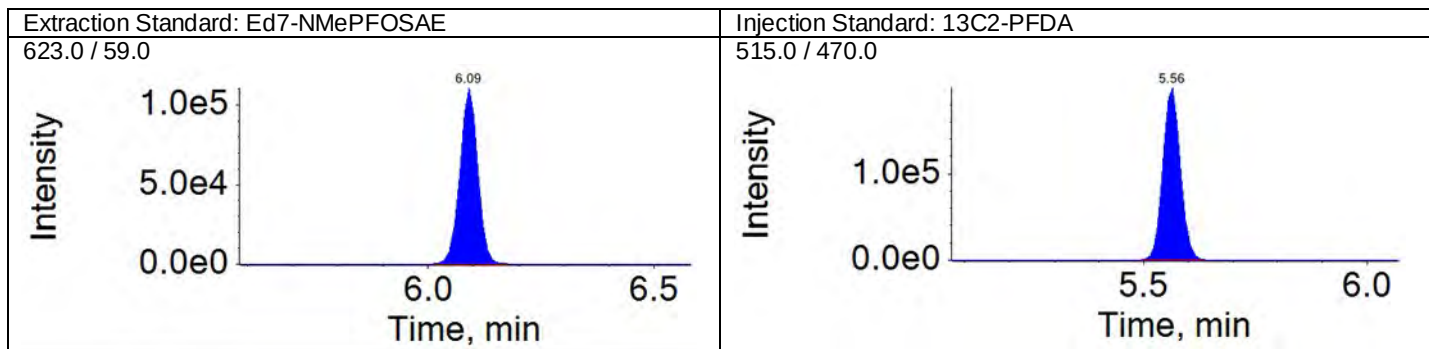
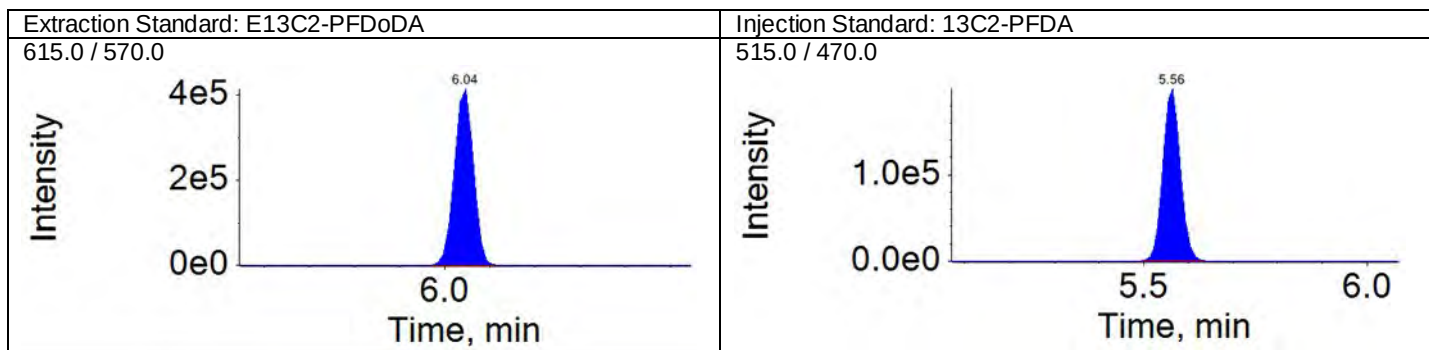
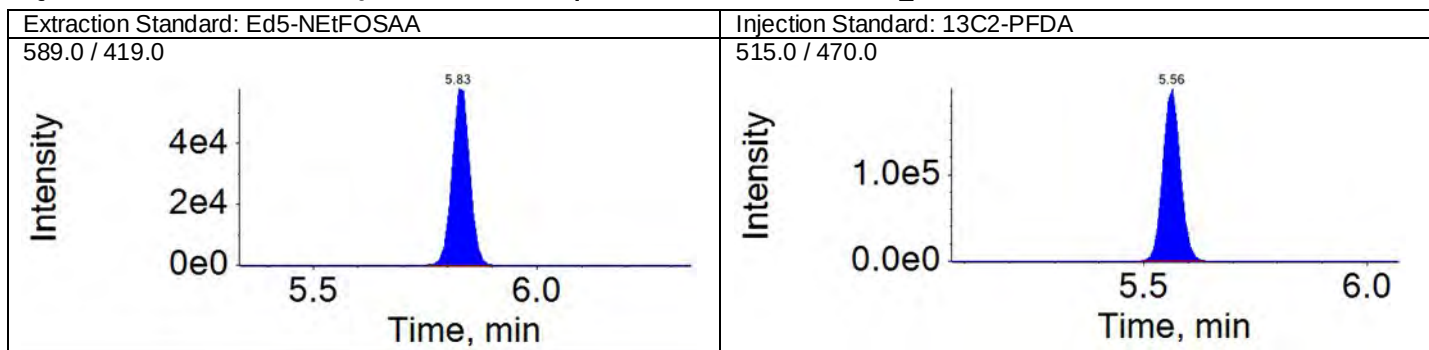
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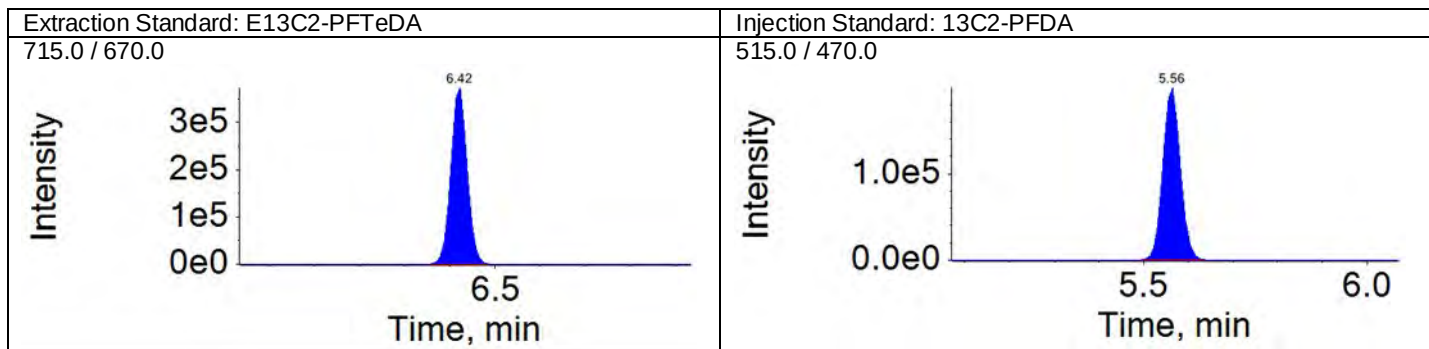
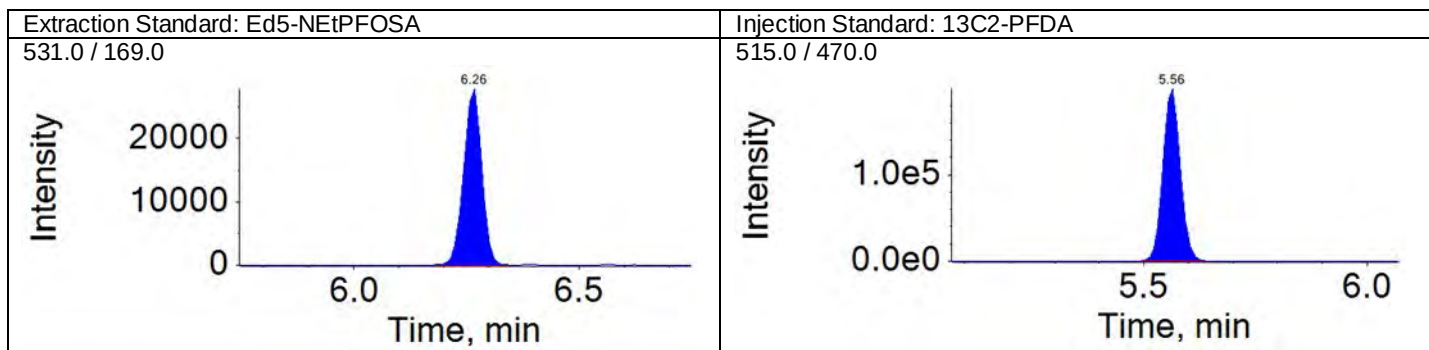
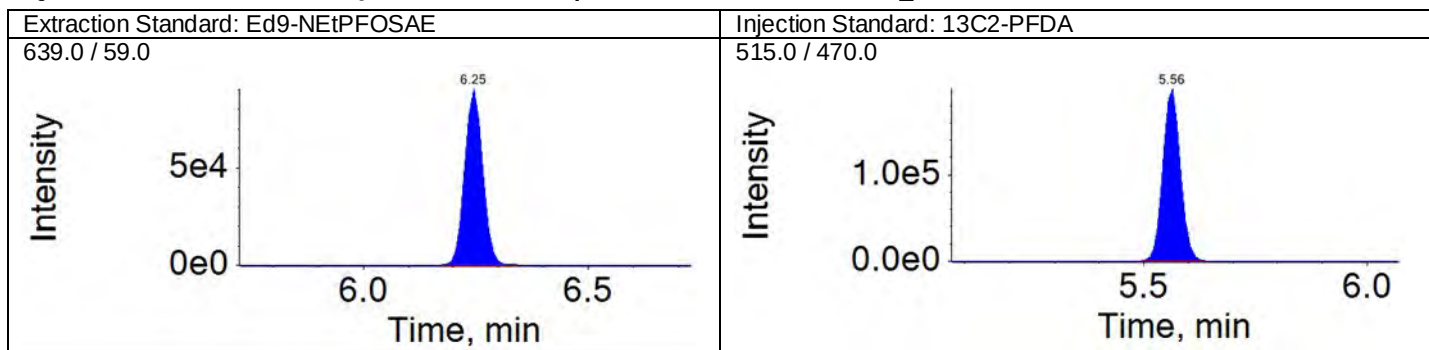
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Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
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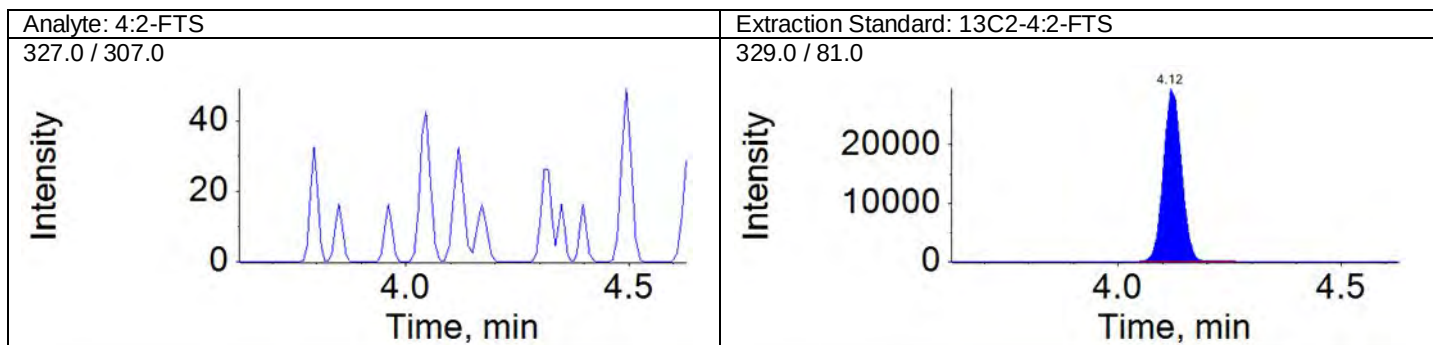
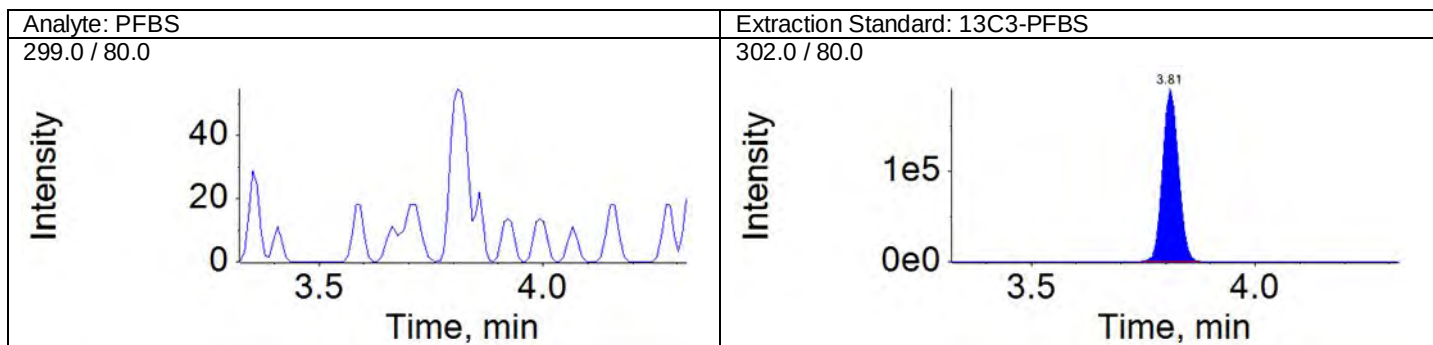
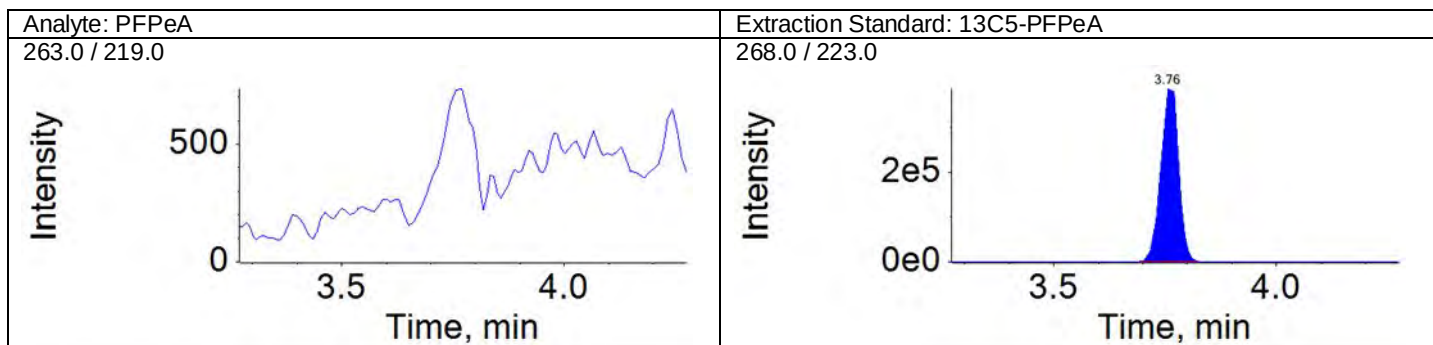
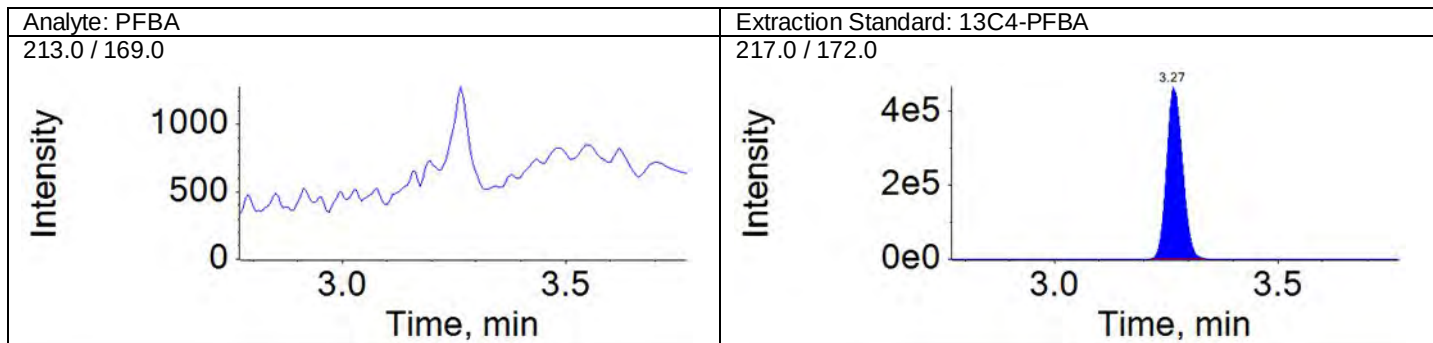
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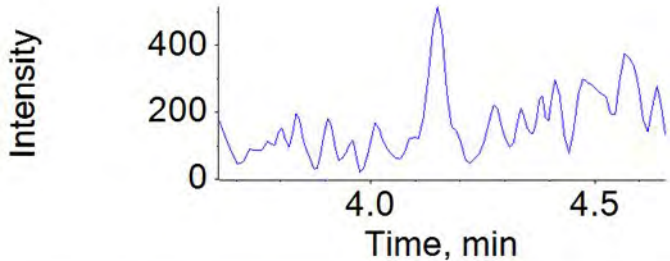
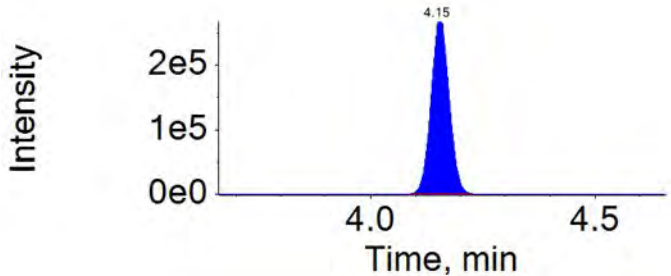
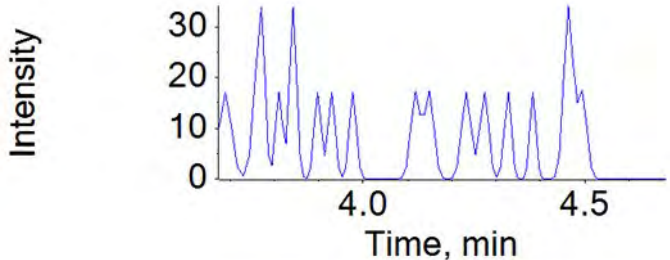
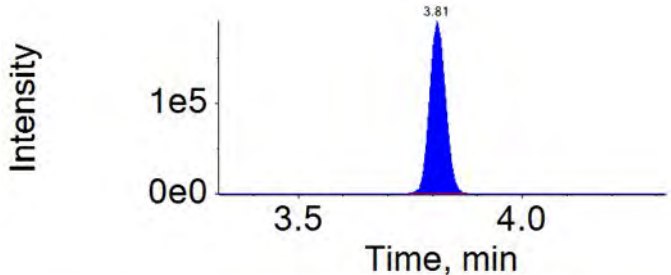
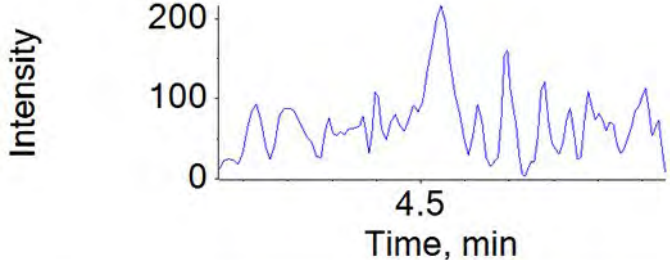
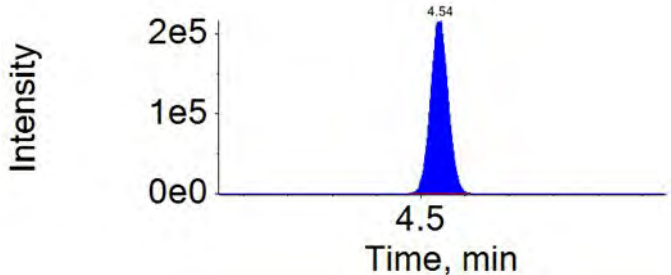
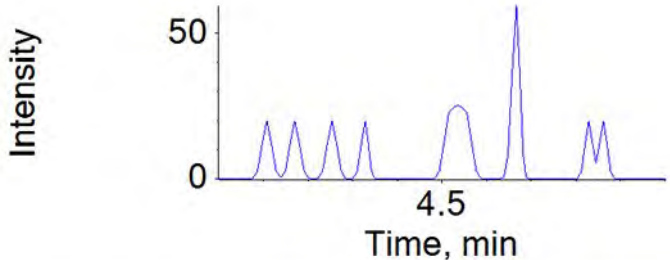
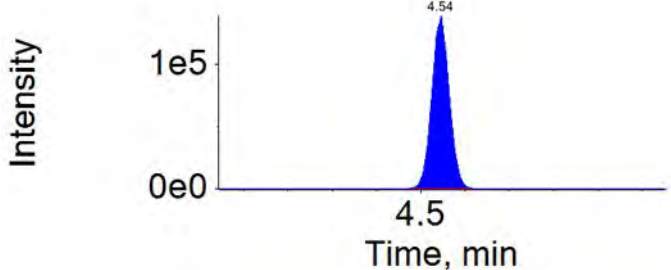


ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam

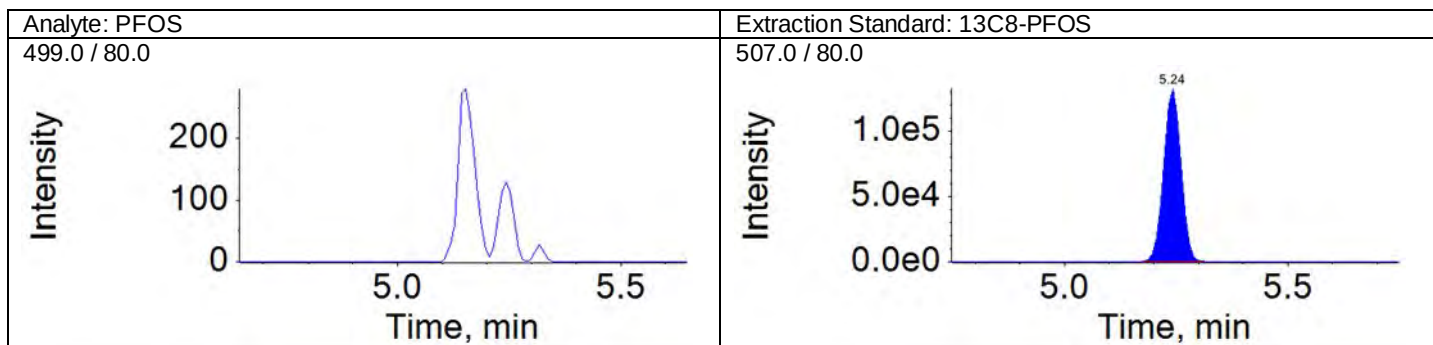
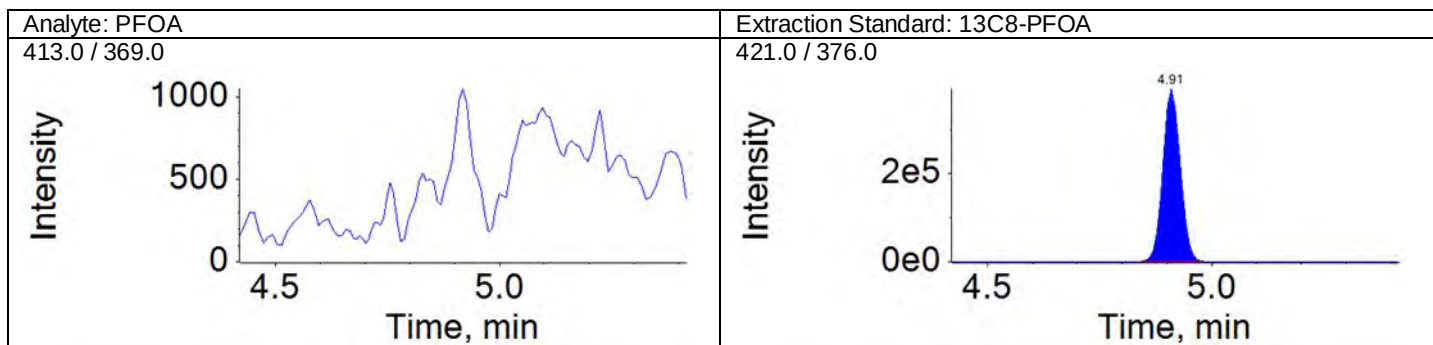
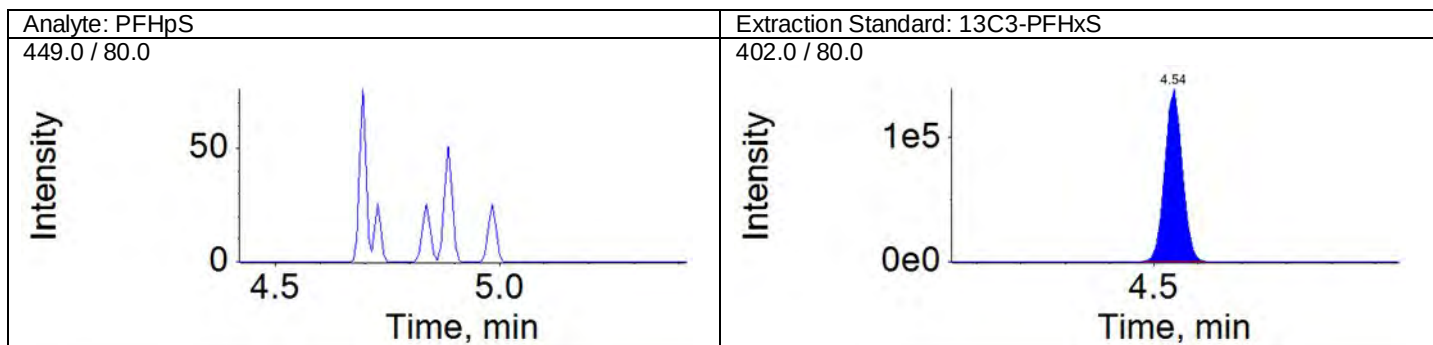
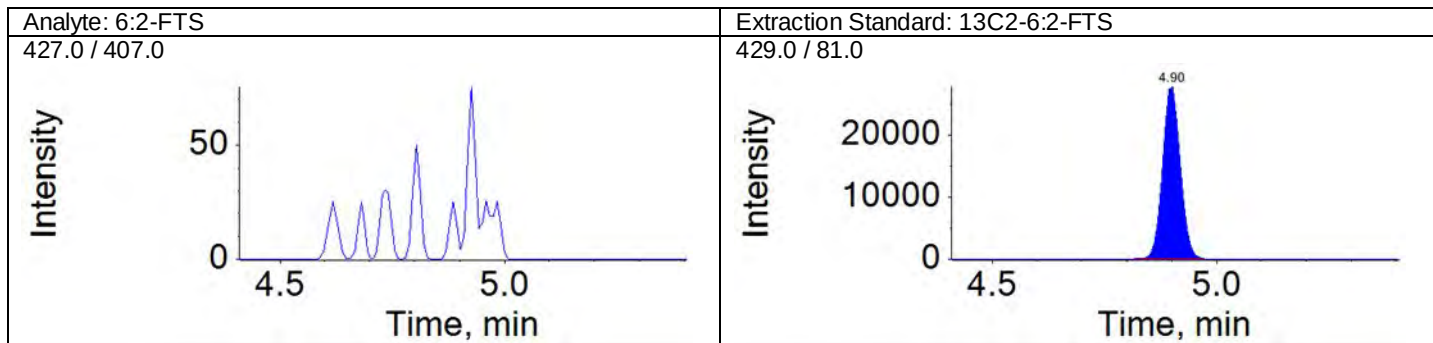


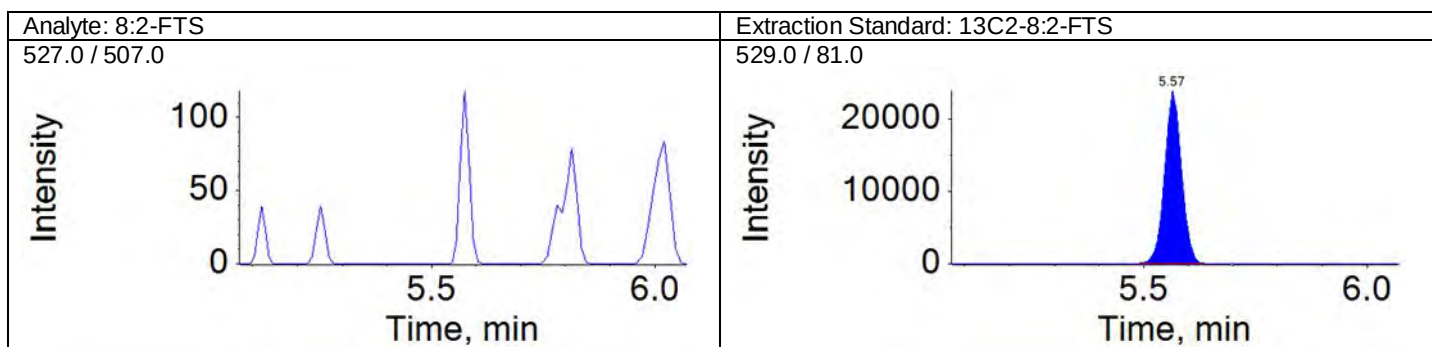
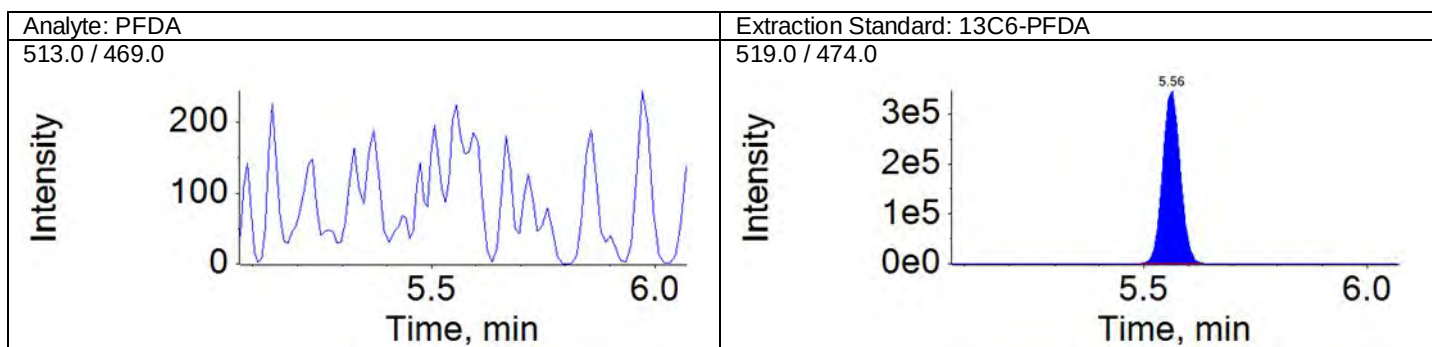
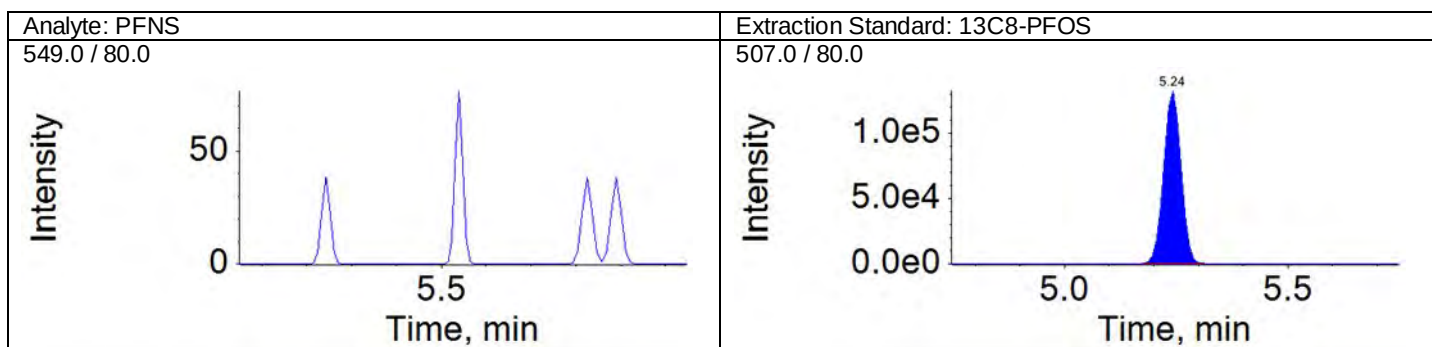
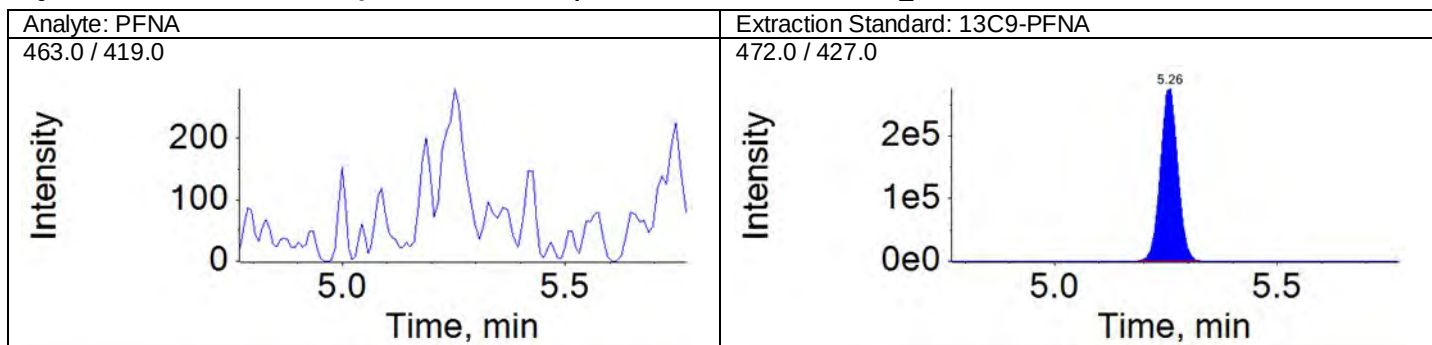
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte: PFHxA 313.0 / 269.0 	Extraction Standard: 13C5-PFHxA 318.0 / 273.0 
Analyte: PFPeS 349.0 / 80.0 	Extraction Standard: 13C3-PFBS 302.0 / 80.0 
Analyte: PFHpA 363.0 / 319.0 	Extraction Standard: 13C4-PFHpA 367.0 / 322.0 
Analyte: PFHxS 399.0 / 80.0 	Extraction Standard: 13C3-PFHxS 402.0 / 80.0 

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

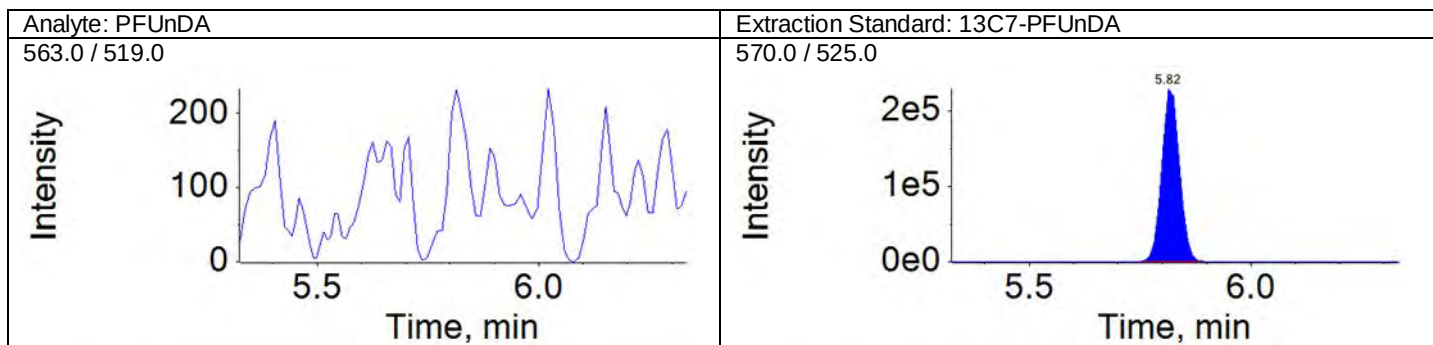
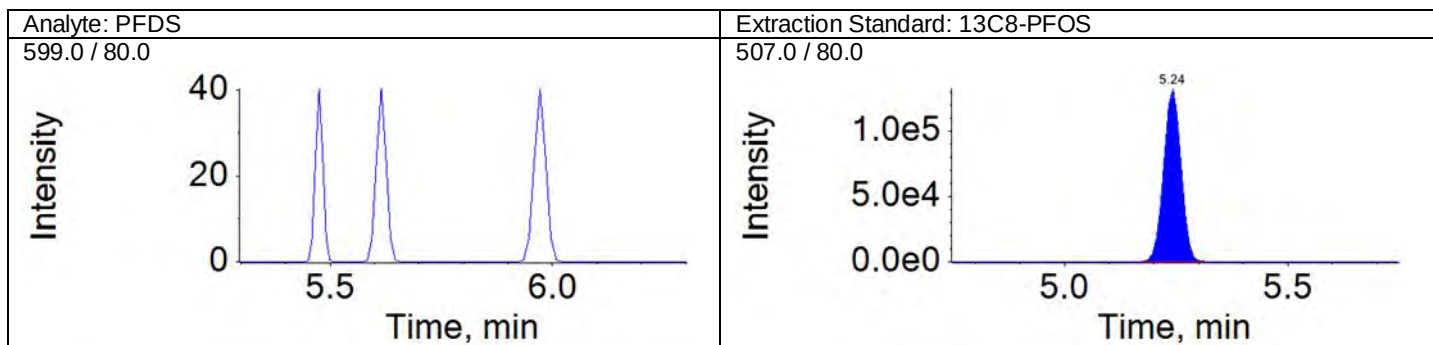
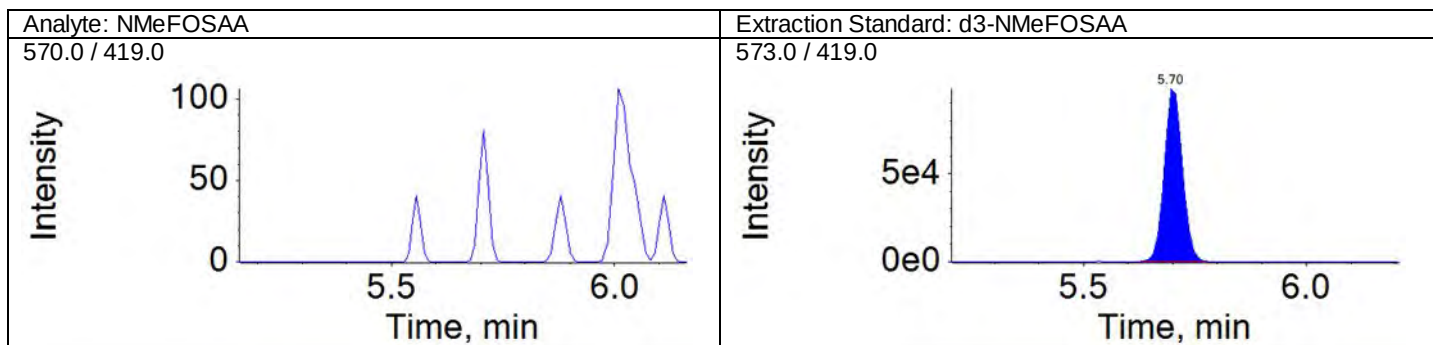
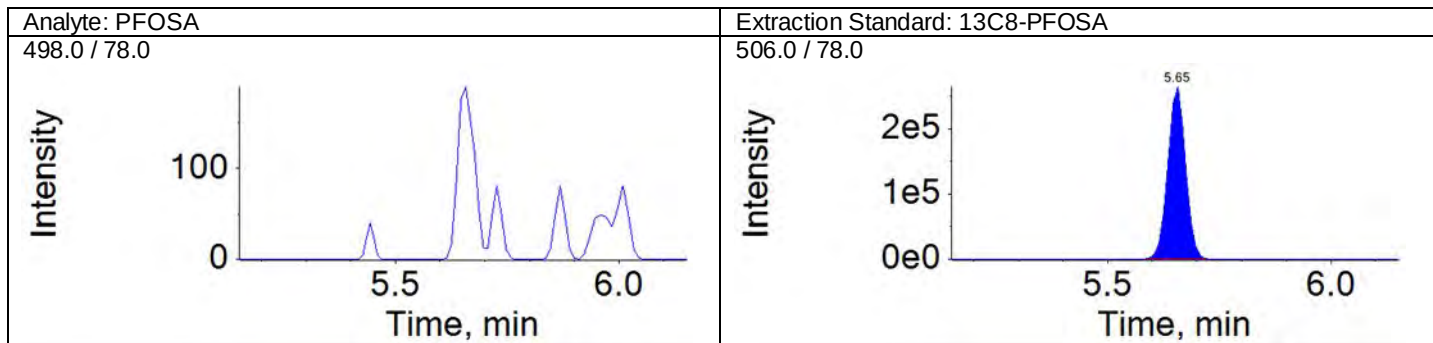
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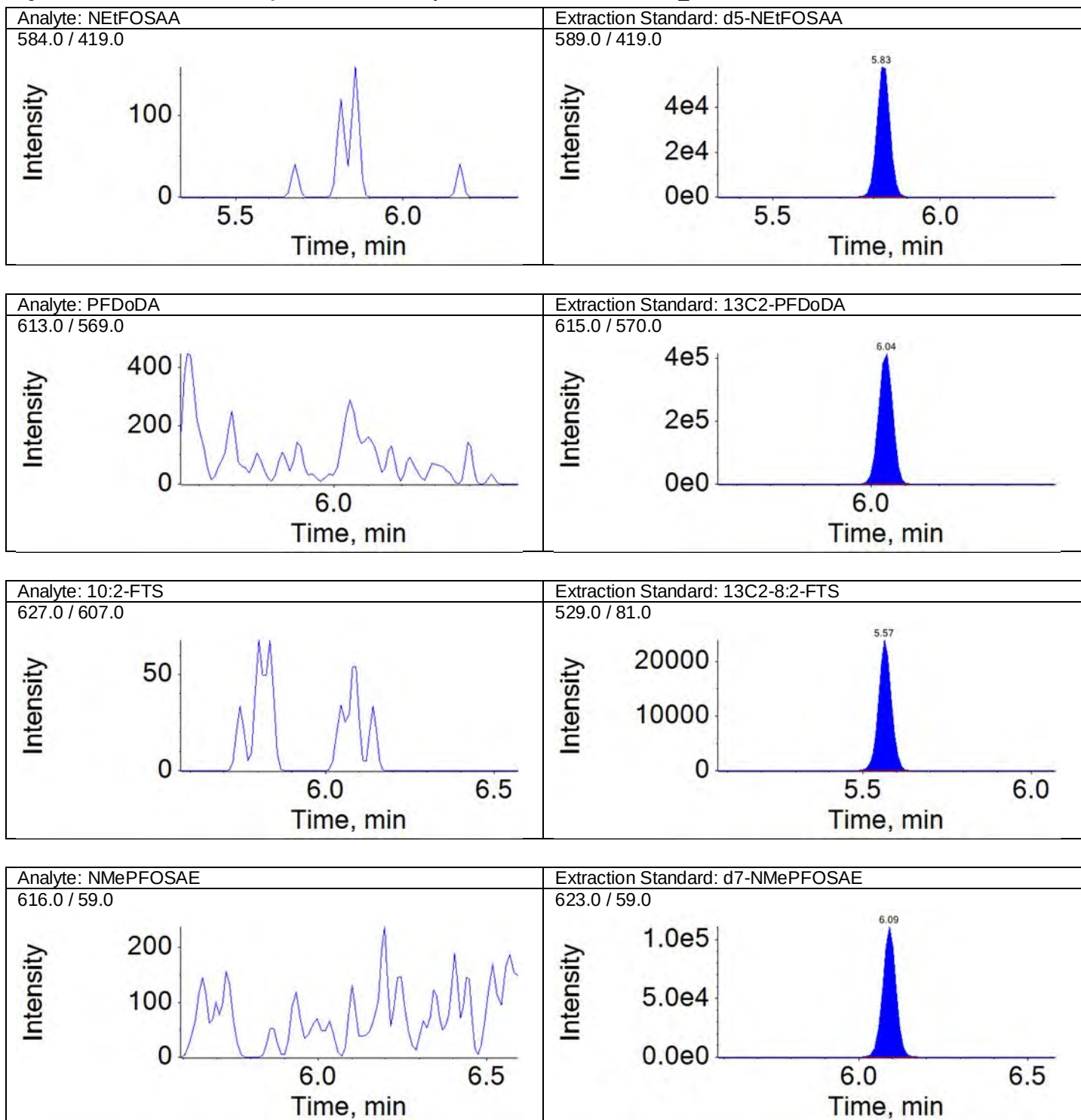


ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
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ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

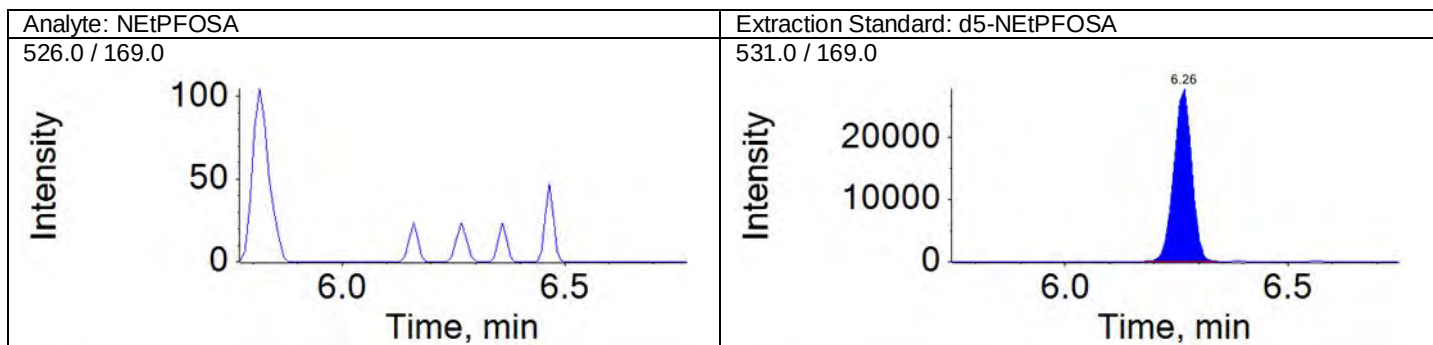
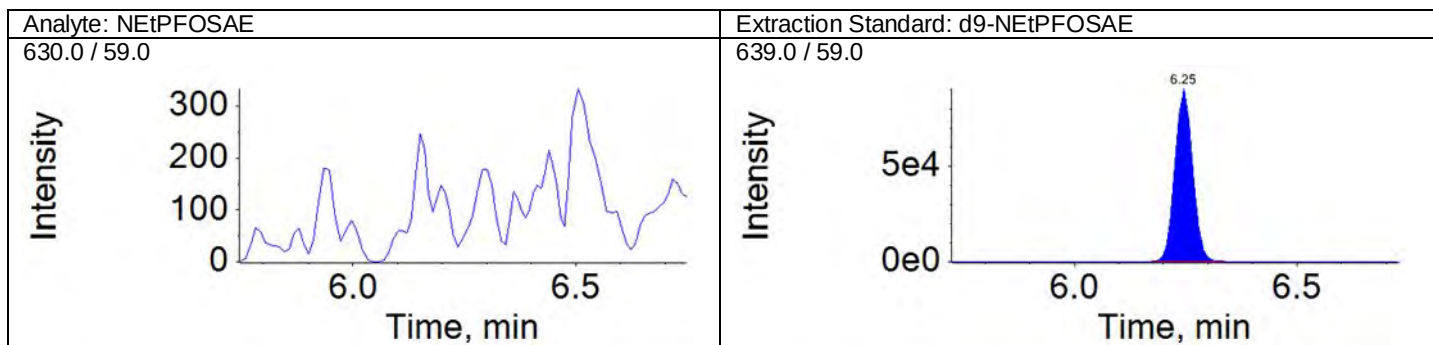
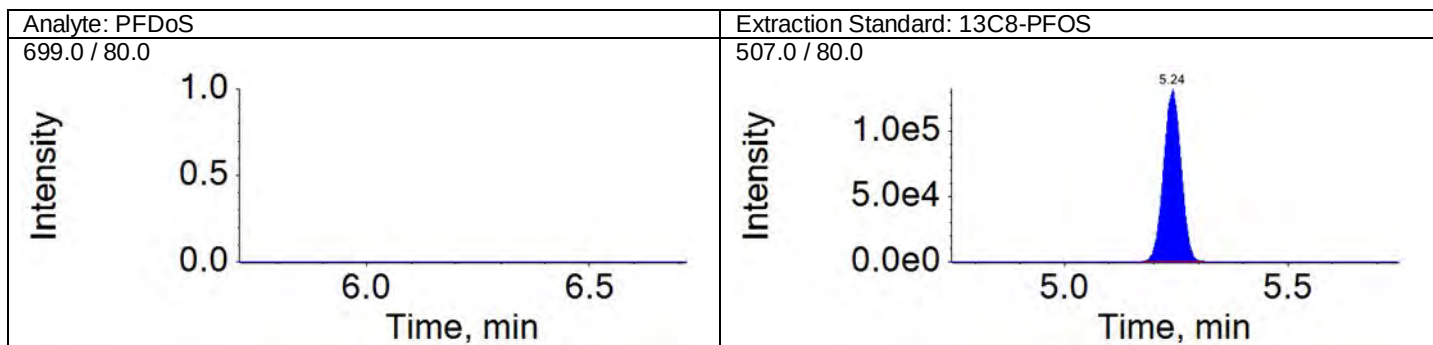
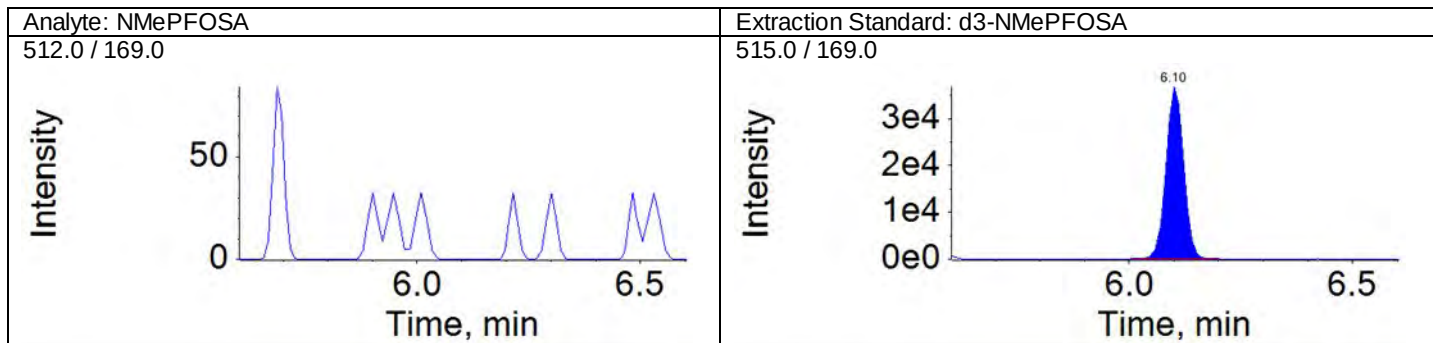
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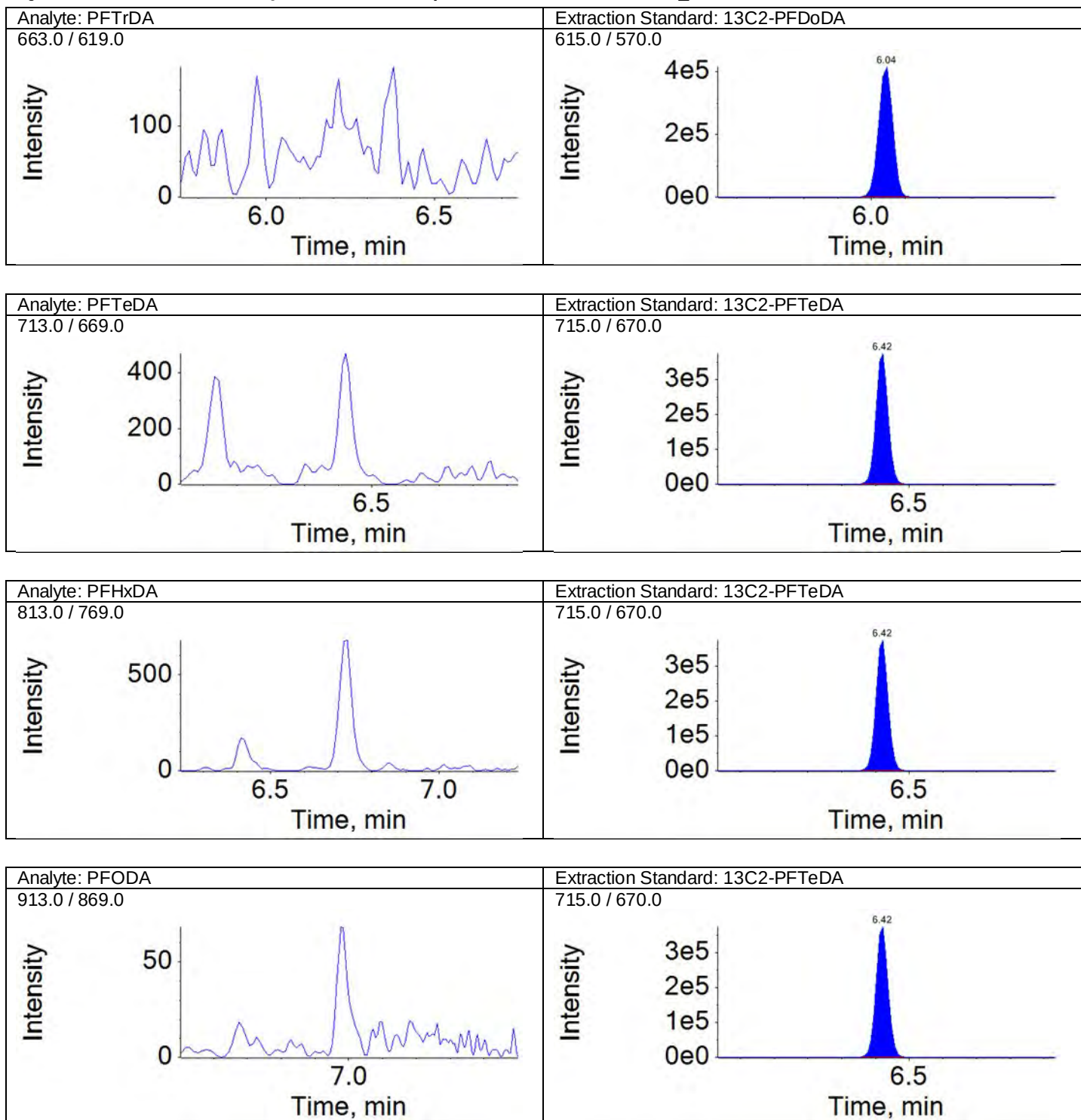
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ICAL Name: 18NOV28DCAL
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Result Table: 18NOV29DCCV6-9 11/30/2018 3:21:11 PM
Acquisition Method: 18AUG13_3uL.dam



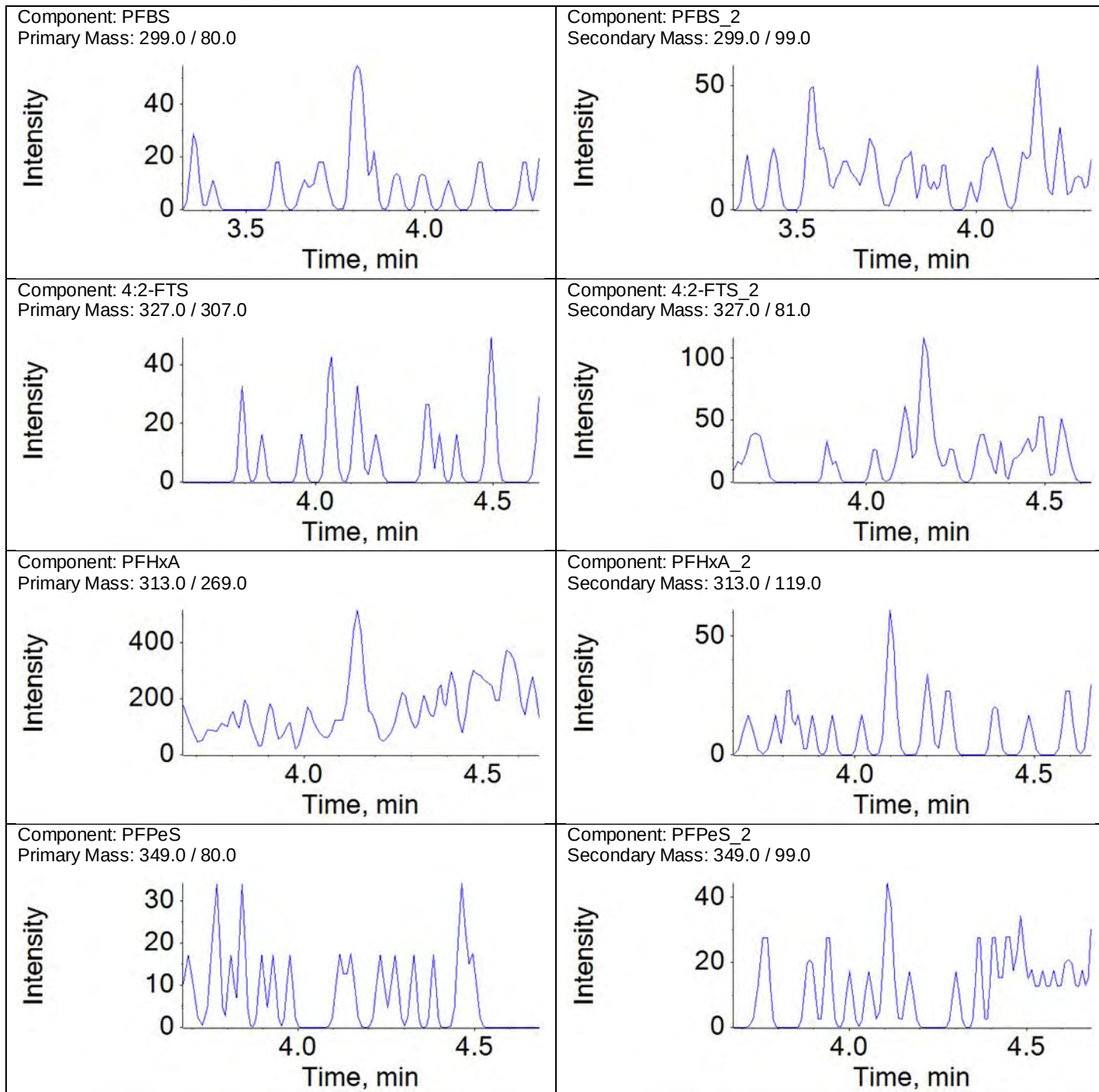
Ion Ratio Report

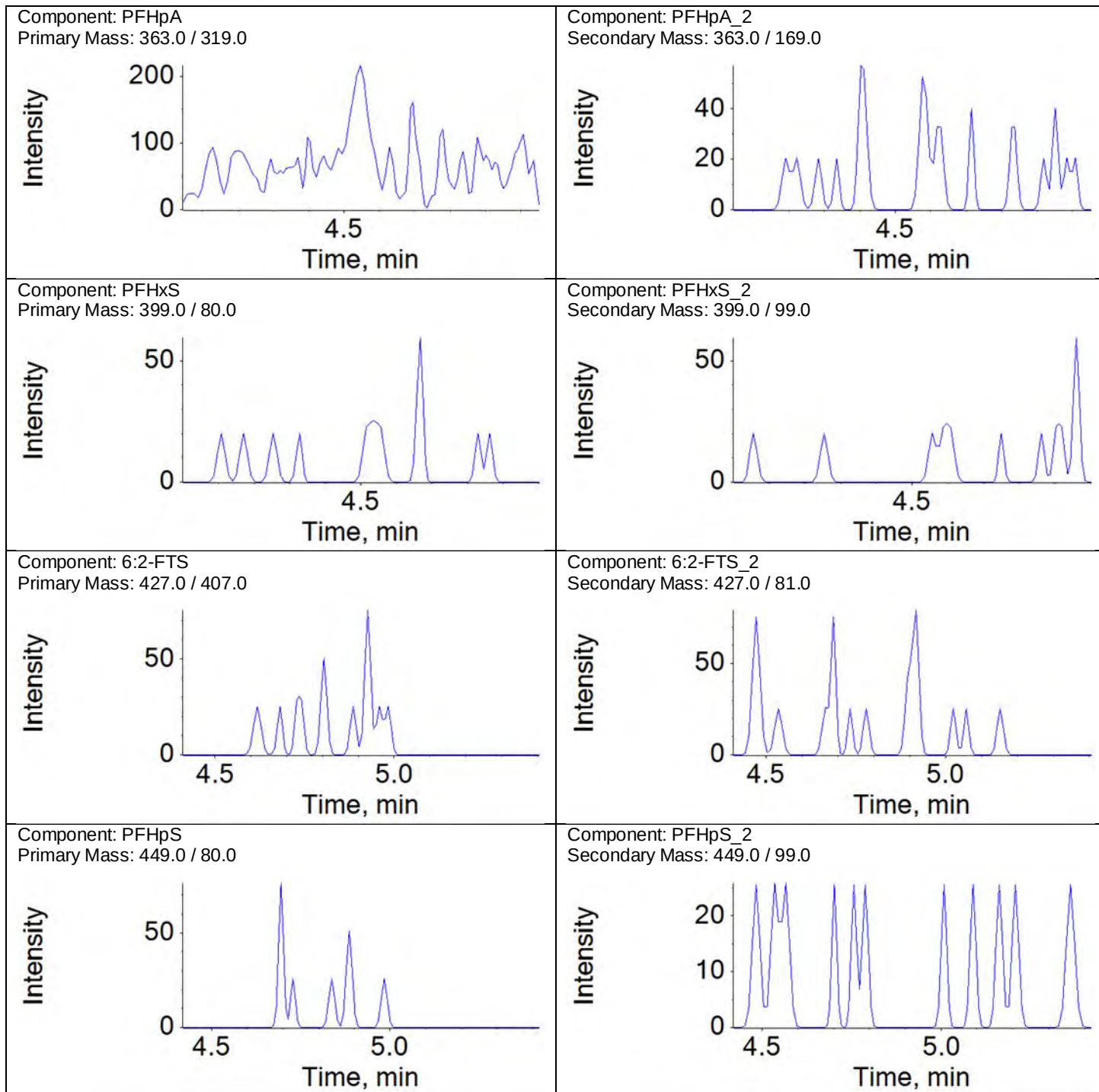
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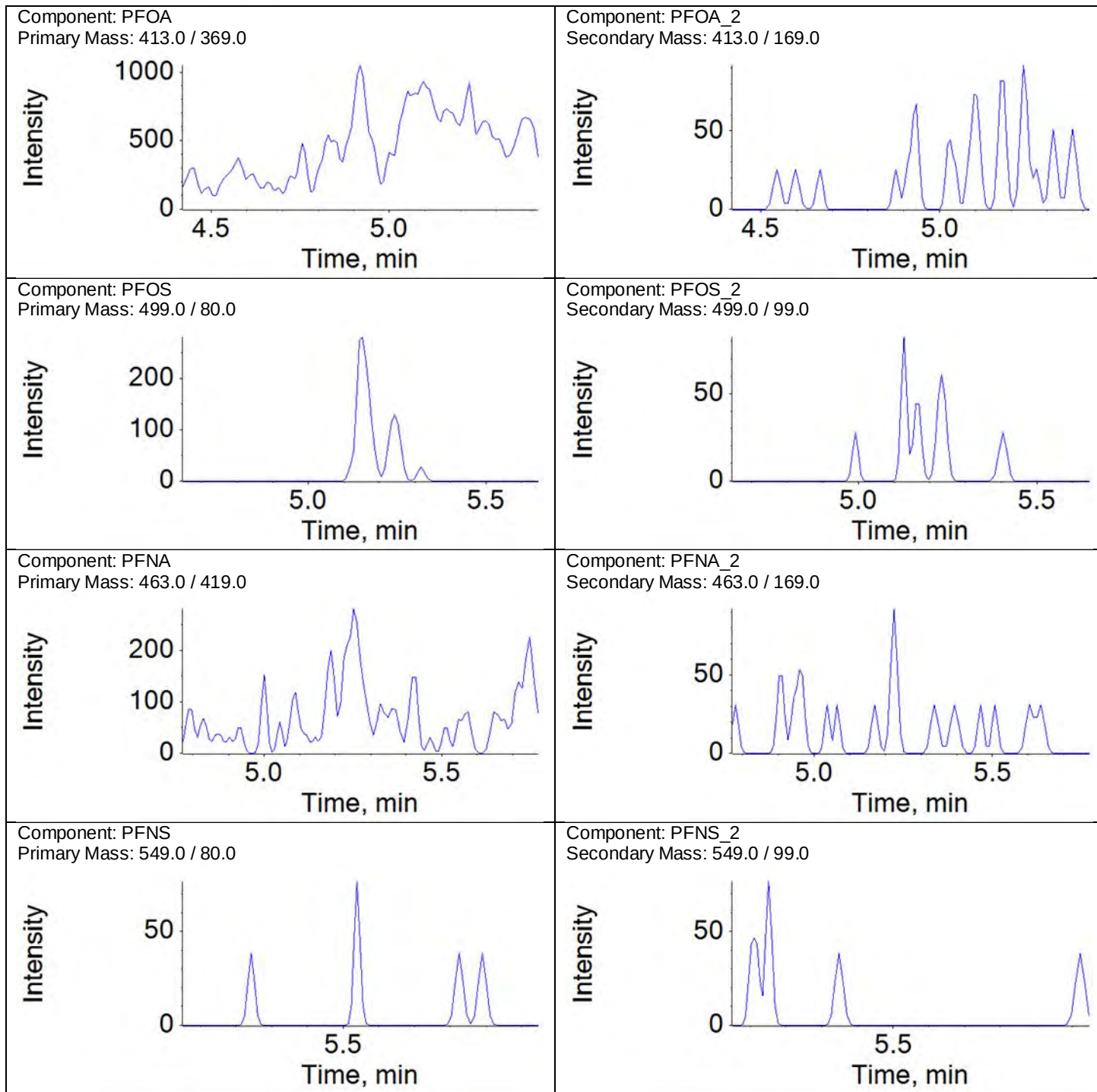
Instrument Name: LM27631

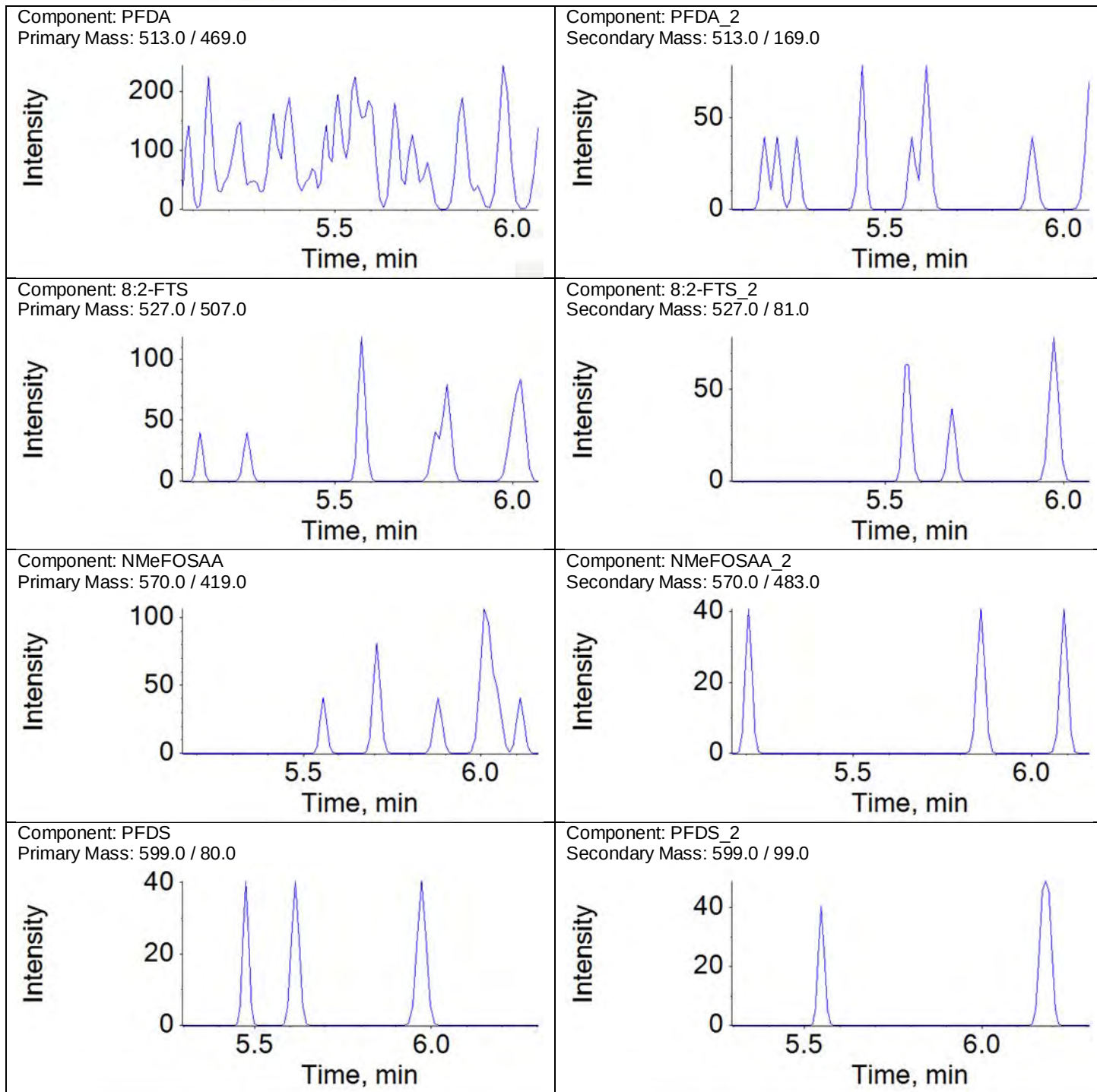
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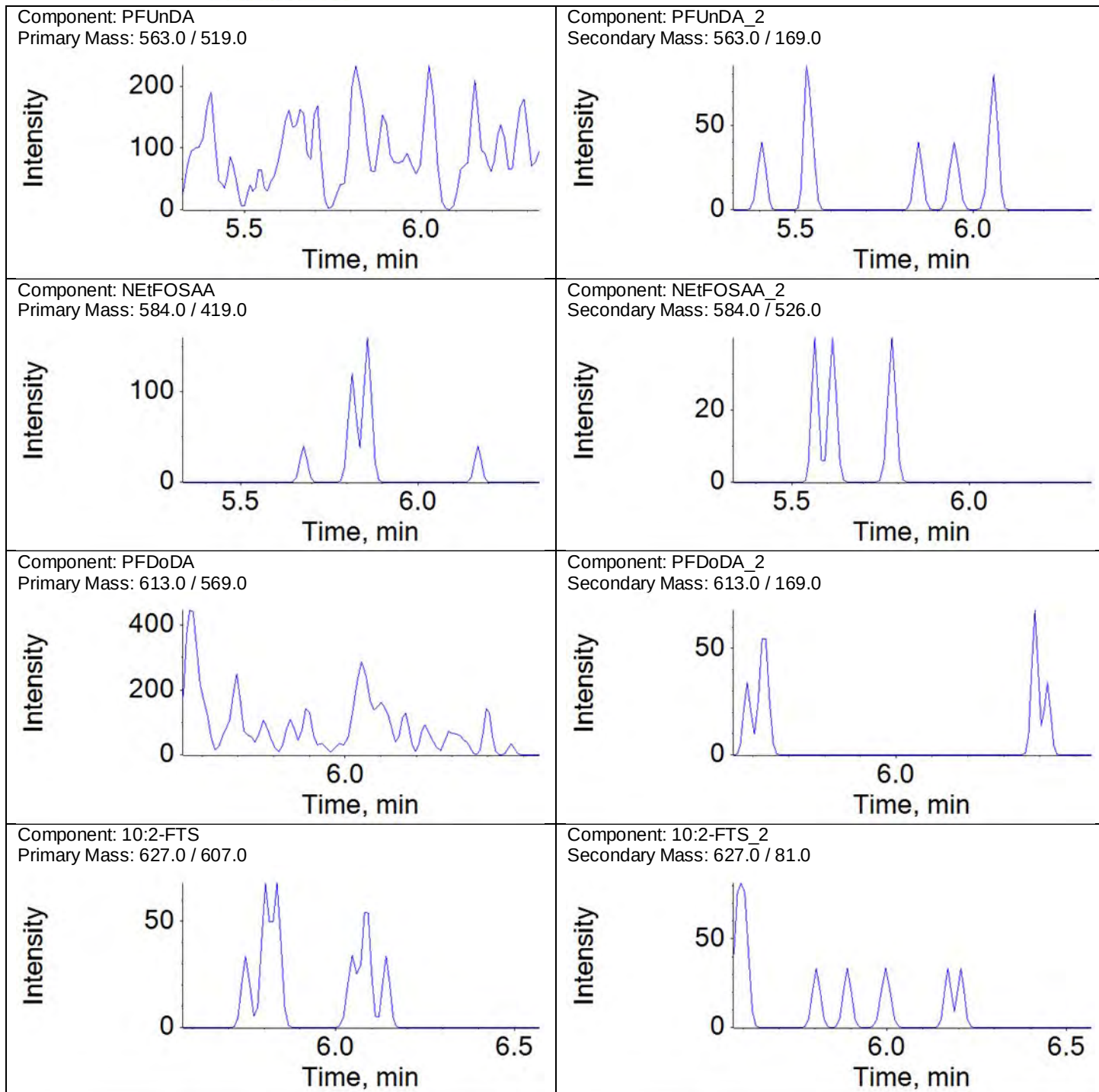
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDODA	N/A	N/A	N/A	A	N/A	N/A			
PFDODA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

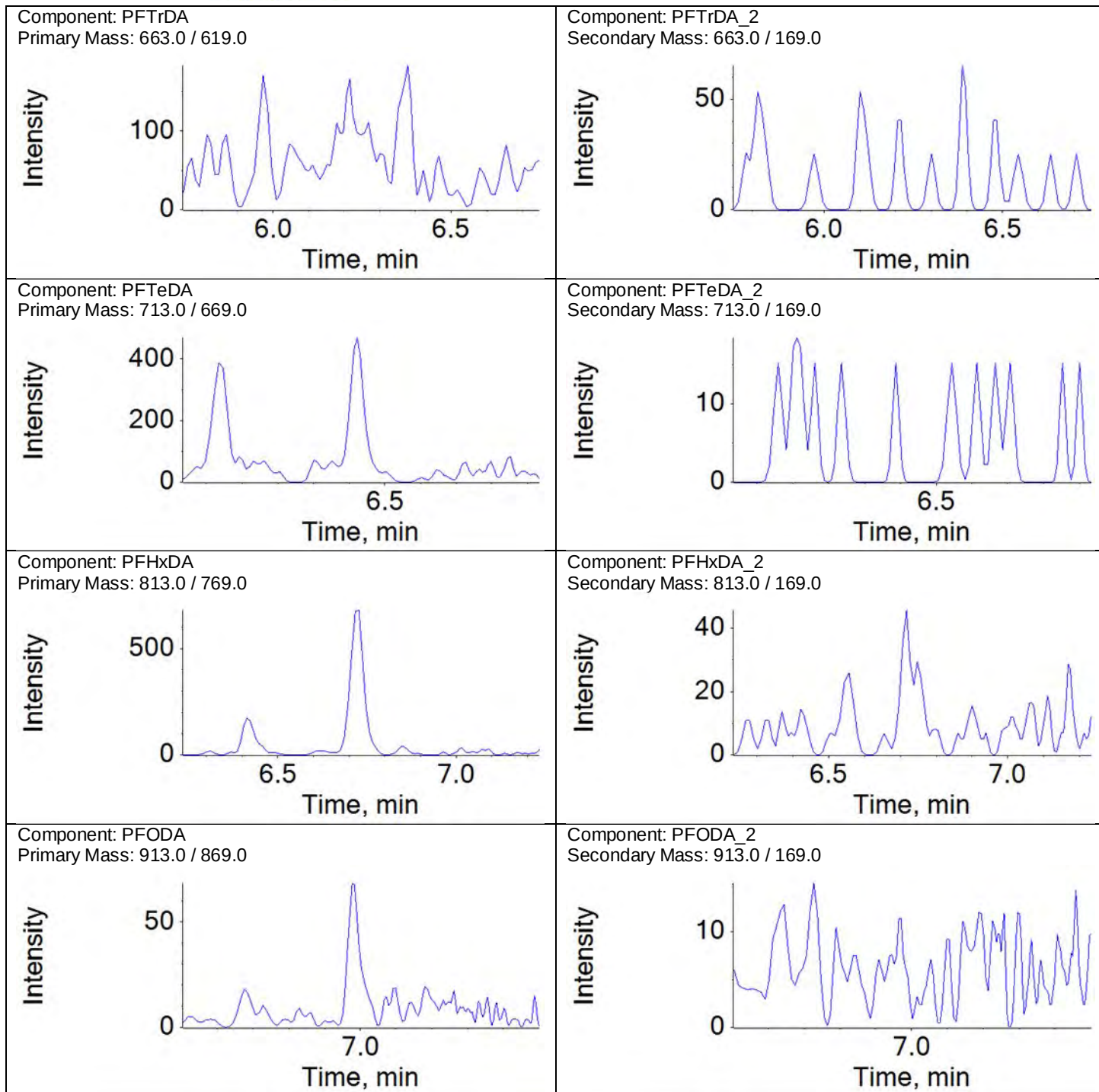










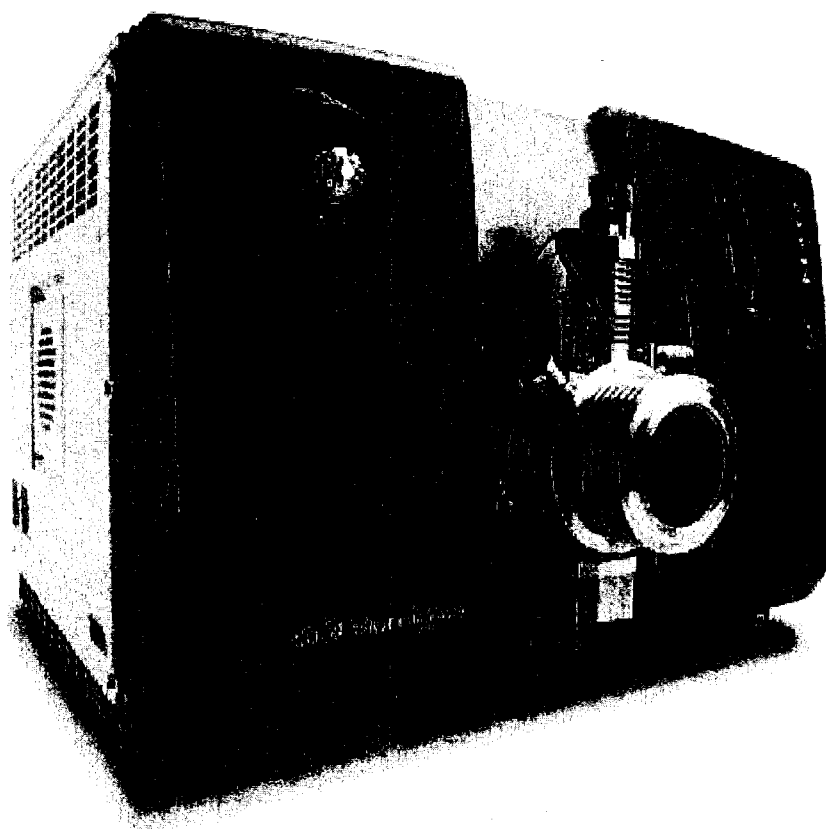


LM 27631



Triple Quad™ 4500 and Triple Quad™ 4500MD Systems

Installation Checklist and Data Log



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Installation Preparation

1

Note: For regulatory and safety information for the mass spectrometer, refer to the *System User Guide*.

Note: Before starting the installation, verify that the customer has completed the checklist in the *Site Planning Guide*.

Customer Information

Organization	Eurofins		
Address	2425 New Holland Pike Lancaster, PA 17601		
Telephone	717-556-7231	Fax	N/A
Contact name	Charles Neslund		
E-mail address	CharlesNeslund@eurofinsUS.com		

System Information

Table 1-1 Mass Spectrometer Information

Mass spectrometer location	A-223
Mass Spectrometer model name	4500QQQ
Mass spectrometer serial number	EB220251804
Firmware version	PL1801
Roughing pump serial number	31001702300

Table 1-2 Acquisition Computer Information

Model	XE2	Service tag	5L3QLN2
OS version	Win7 64bit	OS service pack	SP1
Analyst [®] or Analyst [®] MD software version	1.7.0	Analyst [®] or Analyst [®] MD software hotfix	HF2
Cliquid [®] MD software version (4500MD systems only)	N/A		
MultiQuant [™] or MultiQuant [™] MD software version	3.0.3		

Table 1-3 Ion Source Information

Component	Serial Number
Turbo V [™] ion source - TurboIonSpray[®] probe - APCI probe (if applicable)	2001171213
	20380180321
	20252180221
NanoSpray [®] ion source (if applicable, non-MD systems only)	N/A
DuoSpray [™] ion source (if applicable, non-MD systems only) - TurboIonSpray[®] probe - APCI probe (if applicable)	N/A
	N/A
	N/A
Other/Third-party ion source (if applicable, non-MD systems only)	N/A

Table 1-4 System Components and Peripherals

Component	Serial Number
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

Installation Checklist and Data Log

Triple Quad[™] 4500 and Triple Quad[™]
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Installation Checklist

2

The Field Service Employee (FSE) must complete this checklist to make sure that every step in the installation procedure is completed. The checklist also contains an installation acceptance form for the customer representative and the FSE to sign when the work is complete. Refer to Signoff on page 21.

Unpacking and Inspection

Task	Complete	N/A
Inspect the packaging: - Inspect all tip and shock indicators for signs of excessive shock or tilting. - Inspect the boxes for exterior damage.		
Unpack and inspect all of the components.		
(Optional) Unpack, inspect, and install the bench. - Inspect the packaging for exterior damage. - Unpack the bench and then inspect for damage. - Install the bench.	 	

Hardware Installation

Task	Complete	N/A
Install the mass spectrometer on the bench.		
Affix the name plate on the front cover of the mass spectrometer (only applies to mass spectrometer with the prefix 'CJ' in the serial number).		
Verify that the mains supply outlets for the roughing pump and the mass spectrometer deliver stable output voltages that meet the specified electrical requirements.		
(Optional) Install the SCIEX-supplied UPS.		
Install the roughing pump, connecting it to the mass spectrometer and the vent. Make sure that the roughing pump contains sufficient oil.		
(Optional) Install the SCIEX-supplied gas generator.		
Connect the gas lines.		
Install and connect the drain bottle.		
Install the Turbo V TM ion source. Refer to the <i>Turbo VTM Ion Source Operator Guide</i> . For 4500MD systems, refer to the <i>System User Guide</i> . For other systems, refer to the <i>Turbo VTM Ion Source Operator Guide</i> .		
Adjust the stopper on the integrated syringe pump.		
 WARNING! Electrical Shock Hazard. Make sure that the system can be disconnected from the mains supply outlet in an emergency. Do not block the mains supply outlet.		
Plug in and turn on the roughing pump, and then plug in and turn on the mass spectrometer.		

Installation Checklist

Acquisition Computer Installation

Task	Complete	N/A
Install the computer and monitor on the computer table.		
Connect the Ethernet cable from the computer to the mass spectrometer.		
Turn on the computer.		
Configure IP addresses for communication with the mass spectrometer.		
(Optional) Connect the computer to the customer network.		
Install the Analyst® or Analyst® MD software.		
Install any applicable Analyst® or Analyst® MD software hotfixes.		
(4500MD systems) Install the Cliqid® MD software.		
Install the MultiQuant™ or MultiQuant™ MD software.		
(If applicable, not for use with 4500MD systems) Install the StatusScope® agent on the acquisition computer, and then perform these tasks: • Discuss warranty coverage for the StatusScope® software. • If the customer wants the StatusScope® software installed, then complete the StatusScope® user access form. • If the customer does not want the StatusScope® software installed, then remove the StatusScope® software.		
(Optional) Install and license any add-on software purchased and shipped with the system. • (Non-MD systems) If applicable, Cliqid® software has been installed. • Other Analyst® or Analyst® MD compatible add-on software shipped with the system has been installed.		

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Systems
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Installation Checklist and Data Log

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Installation Checklist

Task	Complete	N/A
Verify and update the firmware and configuration files.		
Install the factory files.		

Initialization and Verification

Note: Perform these tasks after the mass spectrometer reaches operating vacuum.

Task	Complete	N/A
Perform the high pressure source and blocked exhaust flow tests.		
Measure and tune the Q1, Q3, and QJet® coil boxes.		
Perform all installation tests, print out the test results, and complete the Data Log.		

Wrap-up

Task	Complete	N/A
Delete unnecessary files from the computers.		
Back up the computer file systems, including the Analyst Data folder.		
Create a computer image using the image utility.		
Apply the biohazard labels included in the install kit. Apply one label to the ion source, and the other to the waste bottle. Find a vacant space that is clearly visible to affix the labels.		

Installation Checklist and Data Log

Triple Quad™ 4500 and Triple Quad™ 4500MD

Systems

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Installation Checklist

Task	Complete	N/A
Complete all of the sections in the <i>Customer Familiarization Checklist</i> . Make a copy of the completed checklist and then give the original to the customer.	☒	
Inform the customer about the continuous improvement telephone surveys, and then advise the customer that a third party will call to obtain feedback.	☒	
Complete the <i>Installation Checklist and Data Log</i> : • Obtain customer acceptance. • Make a copy of the form and the test results. • Provide the customer with the originals. • (For MD systems only) E-mail this completed document and the test result files to servicedata@sciex.com.	☒	

Data Log

3

Use this log to record the test data obtained during performance of the system verification tests during installation.

Note: Perform all procedures with the Turbo V™ ion source, unless otherwise specified.

Pre-test Pressure Verification is Complete			
Perform this test with the Analyst® or Analyst® MD software.			
Test	Specification	Result	
Vacuum chamber pressure with CAD gas off	$0.4 \times 10^{-5} \text{ torr} \leq P_{CAD\ 0} \leq 1.1 \times 10^{-5} \text{ torr}$		
Vacuum chamber pressure with CAD gas set to Full	$1.8 \times 10^{-5} \text{ torr} \leq (P_{CAD\ 12} - P_{CAD\ 0}) \leq 2.8 \times 10^{-5} \text{ torr}$		

Data Log

Q1 Positive PPGs Test is Complete: Intensity and Peak Width (Scan Rate=10 Da/s, Cycles=10)			
- Test solution: POS PPG, 2e-6 M - Flow rate: 5 µL/min - MCA: On - Printouts required: Spectra for masses 59.050, 175.133, 500.380, 616.464, 906.673, 1254.925, 1545.134, 1952.427, with peak intensities, peak width, and mass shift results, complete with method file information.			
Mass (Da)	Intensity (cps)		Peak width (Da)
	Specification	Result	
175.133	$\geq 8.0 \times 10^6$	116298e7	0.7105
500.380	$\geq 8.0 \times 10^6$	274240e7	0.6995
906.673	$\geq 2.0 \times 10^7$	32349e7	0.7151
1952.427	$\geq 8.8 \times 10^5$	278122e6	0.7423

Q1 Positive PPGs Test is Complete: Peak Width for Identified Masses				
Mass (Da)	Scan Rate (Da/s)	Cycles	Specification (Da)	Result (Passed)
59.050, 175.133, 500.380, 616.464, 906.673, 1254.925, 1545.134, 1952.427	10	10	0.6 to 0.8	
	200	50	0.6 to 0.8	
	1000	50	0.6 to 0.8	
	2000	100	0.6 to 0.8	

Data Log

Q3 Positive PPGs Test is Complete: Intensity and Peak Width (Scan Rate=10 Da/s, Cycles=10)				
• Test solution: POS PPG, 2e-6 M • Flow rate: 5 µL/min • MCA: On • Printouts required: Spectra for masses 59.050, 175.133, 500.380, 616.464, 906.673, 1254.925, 1545.134, 1952.427, with peak intensities, peak width, and mass shift results, complete with method file information.				
Mass (Da)	Intensity (cps)		Peak width (Da)	
	Specification	Result	Specification	Result
175.133	$\geq 8.0 \times 10^6$	19501e7	0.6 to 0.8	0.6916
500.380	$\geq 8.0 \times 10^6$	19268e7	0.6 to 0.8	0.7278
906.673	$\geq 2.0 \times 10^7$	31634e7	0.6 to 0.8	0.7403
1952.427	$\geq 8.8 \times 10^5$	24988e6	0.6 to 0.8	0.7828

Q3 Positive PPGs Test is Complete: Peak Width for Identified Masses					
Mass (Da)	Scan Rate (Da/s)	Cycles	Specification (Da)	Result (Passed)	
59.050, 175.133, 500.380, 616.464, 906.673, 1254.925, 1545.134, 1952.427	10	10	0.6 to 0.8		
	200	50	0.6 to 0.8		
	1000	50	0.6 to 0.8		
	2000	100	0.6 to 0.8		

Q1 Negative PPGs Test is Complete	
• Test solution: NEG PPG, 3e-4 M	
• Flow rate: 10 µL/min	
• MCA: On	
• Printouts required: Spectra for masses 44.998, 411.259, 585.385, 933.636, 1223.845, 1572.097, 1863.306, 1979.389, with peak intensities, peak width, and mass shift results, complete with method file information.	

Table 3-1 Verification: Intensity and Peak Width (Scan Rate=10 Da/s, Cycles=10) for the Q1 Negative PPGs Tests

Mass (Da)	Intensity (cps)		Peak width (Da)	
	Specification	Result	Specification	Result
933.636	$\geq 1.8 \times 10^7$	2237857	0.6 to 0.8	0.6638
1863.306	$\geq 1.4 \times 10^6$	24104666	0.6 to 0.8	0.7369

Table 3-2 Verification: Peak Width for Identified Masses for the Q1 Negative PPGs Tests

Mass (Da)	Scan Rate (Da/s)	Cycles	Specification (Da)	Result (Passed)
44.998, 411.259, 585.385, 933.636 1223.845, 1572.097, 1863.306, 1979.389	10	10	0.6 to 0.8	
	200	50	0.6 to 0.8	
	1000	50	0.6 to 0.8	
	2000	100	0.6 to 0.8	

Q3 Negative PPGs Test is Complete	
• Test solution: NEG PPG, 3e-4 M • Flow rate: 10 µL/min • MCA: On • Printouts required: Spectra for masses 44.998, 411.259, 585.385, 933.636, 1223.845, 1572.097, 1863.306, 1979.389, with peak intensities, peak width, and mass shift results, complete with method file information.	

Table 3-3 Verification: Intensity and Peak Width (Scan Rate=10 Da/s, Cycles=10) for the Q3 Negative PPGs Tests

Mass (Da)	Intensity (cps)		Peak width (Da)	
	Specification	Result	Specification	Result
933.636	$\geq 1.8 \times 10^7$	21682167	0.6 to 0.8	0.17288
1863.306	$\geq 2.0 \times 10^6$	31573466	0.6 to 0.8	0.17038

Table 3-4 Verification: Peak Width for Identified Masses for the Q3 Negative PPGs Tests

Mass (Da)	Scan Rate (Da/s)	Cycles	Specification (Da)	Result (Passed)
44.998, 411.259, 585.385, 933.636 1223.845, 1572.097, 1863.306 1979.389	10	10	0.6 to 0.8	
	200	50	0.6 to 0.8	
	1000	50	0.6 to 0.8	
	2000	100	0.6 to 0.8	

Reserpine MS/MS Test is Complete	
• Test solution: Reserpine solution 0.167 pmol/µL • Flow rate: 5 µL/min • Scan rate: 10 Da/s (both MS and MS/MS) • Scan mode: Product Ion (MS2) • Product Of: 609.3 (or as calibrated) • Product Ion: 195.1 • Cycles: 10 • MCA: On • Printouts required: Spectra for masses 609.3 and 195.1, with peak intensities, peak width, and mass shift results, complete with method file information.	
Table 3-5 Verification for the Reserpine MS/MS Test	
Specification	Result
Transmission efficiency $\frac{\text{Intensity for ion at } m/z \text{ 195.1}}{\text{Intensity for ion at } m/z \text{ 609.2 (or as calibrated)}} \times 100 \geq 10\%$	10%

Turbo V™ Ion Source Acceptance Test is Complete				
Table 3-6 Verification for the Turbo V™ Ion Source Acceptance Test				
Probe	Test	Specification	Result (Passed)	
TurboIonSpray®	Set the temperature parameter to 500 °C.	The Analyst® or Analyst® MD software reports that the temperature is reached.		
APCI	Set the temperature parameter to 400 °C.	The Analyst® or Analyst® MD software reports that the temperature is reached.		

Data Log

Post-test Pressure Verification is Complete			
Perform this test with the Analyst [®] or Analyst [®] MD software.			
Test	Specification	Result	
Vacuum chamber pressure with CAD gas off	$0.4 \times 10^{-5} \text{ torr} \leq P_{\text{CAD } 0} \leq 1.1 \times 10^{-5} \text{ torr}$		
Vacuum chamber pressure with CAD gas set to Full	$1.8 \times 10^{-5} \text{ torr} \leq (P_{\text{CAD } 12} - P_{\text{CAD } 0}) \leq 2.8 \times 10^{-5} \text{ torr}$		

Signoff

4

Organization	Eurofins		
Customer contact name		Date (yyyy-mm-dd)	
Customer contact signature*			
FSE name	Michael F Pennell	Date (yyyy-mm-dd)	2018-05-29
FSE signature			

* Signature required on hard copy only.

Comments and Exceptions

MQ will be installed on the processing PC.
--

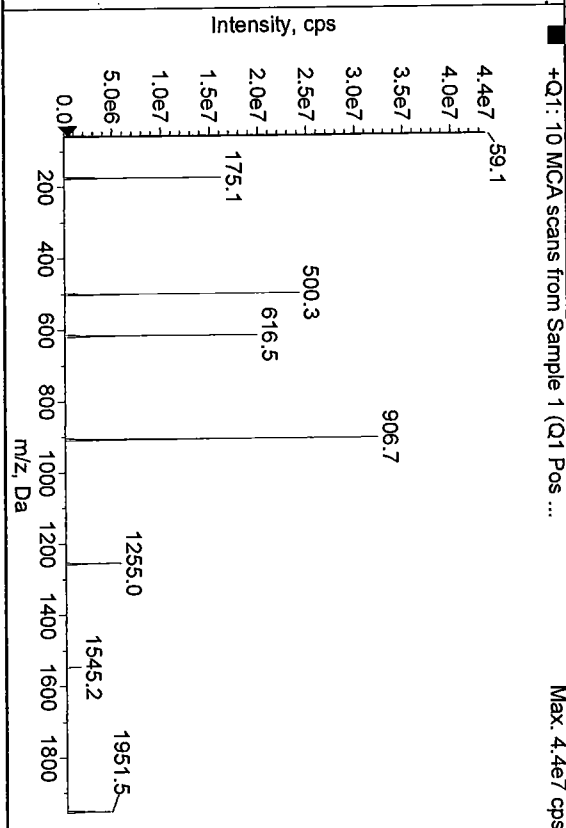
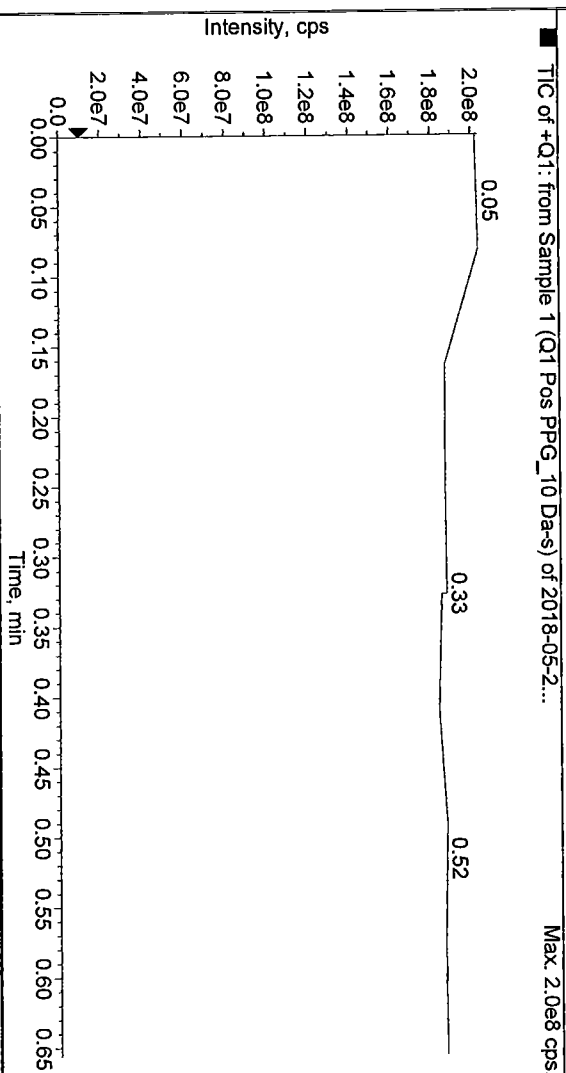
Revision History

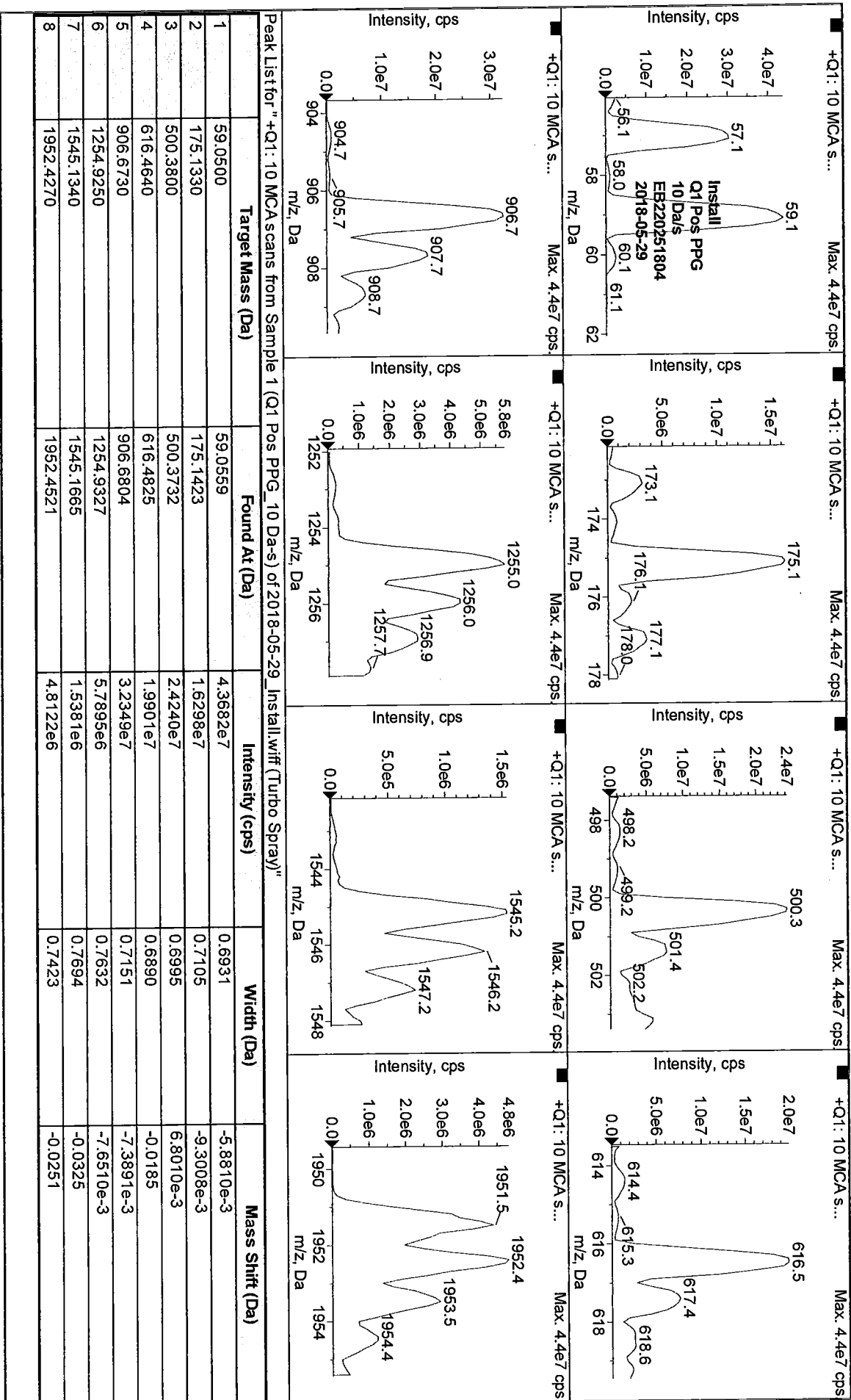
Revision	Reason for Change	Date
A	First release of the combined <i>SCIEX Triple Quad™ 4500 and 4500MD System Installation Checklist and Data Log</i> . Replaces D5028556 E.	May 2014
B	Updated the installation test data.	December 2014
C	• Applied new template. • Updated the System Information, Acquisition Computer Installation, and Data Log sections.	October 2016

State Parameter Editor

Mass Spectrometer Method Properties

Ion Source:	Turbo Spray	Period 1:	
Ion Source Temperature Reached:	10.0	Scans in Period:	10
Curtain Gas (CUR):	10.0	Relative Start Time:	0.00 msec
Ion Spray Voltage (IS):	5500.0	Scheduled Ionization:	Off
Temperature (TEM):	0.0	Experiments in Period:	1
Ion Source Gas 1 (GS1):	17.0		
Ion Source Gas 2 (GS2):	0.0		
Brinane Potential (EP):	10.0	Period 1 Experiment 1:	
Q1 Resolution:	Unit	Scan Type:	Q1 MS (Q1)
Ion Energy 1 (IE1):	1.2	Polarity:	Positive
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		Resolution Q1:	Unit

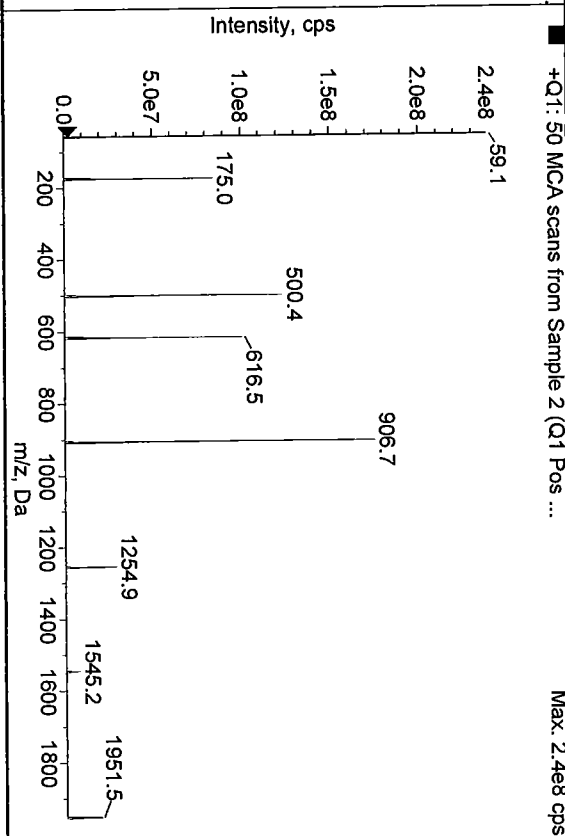
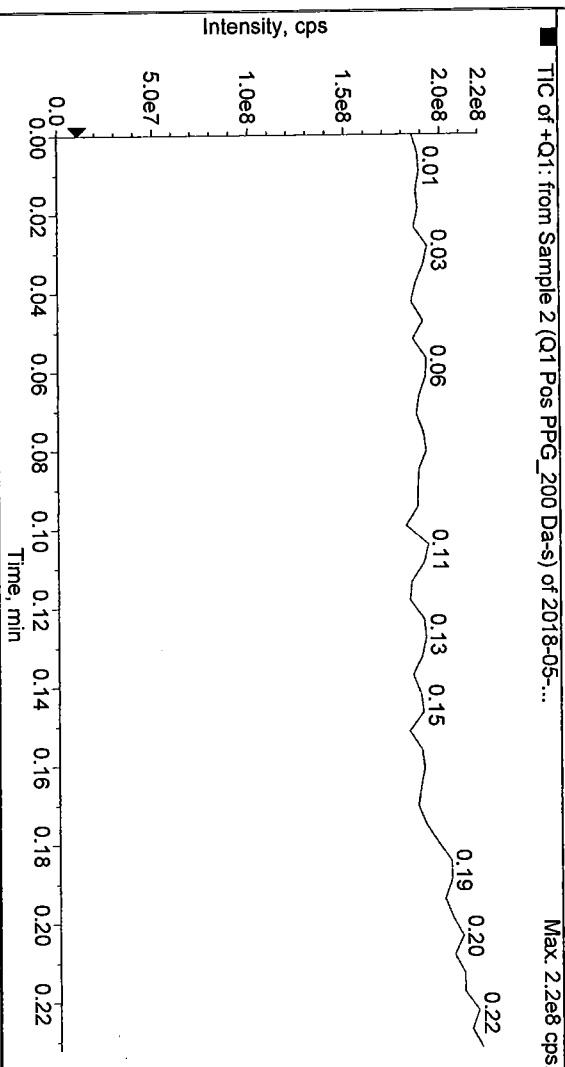


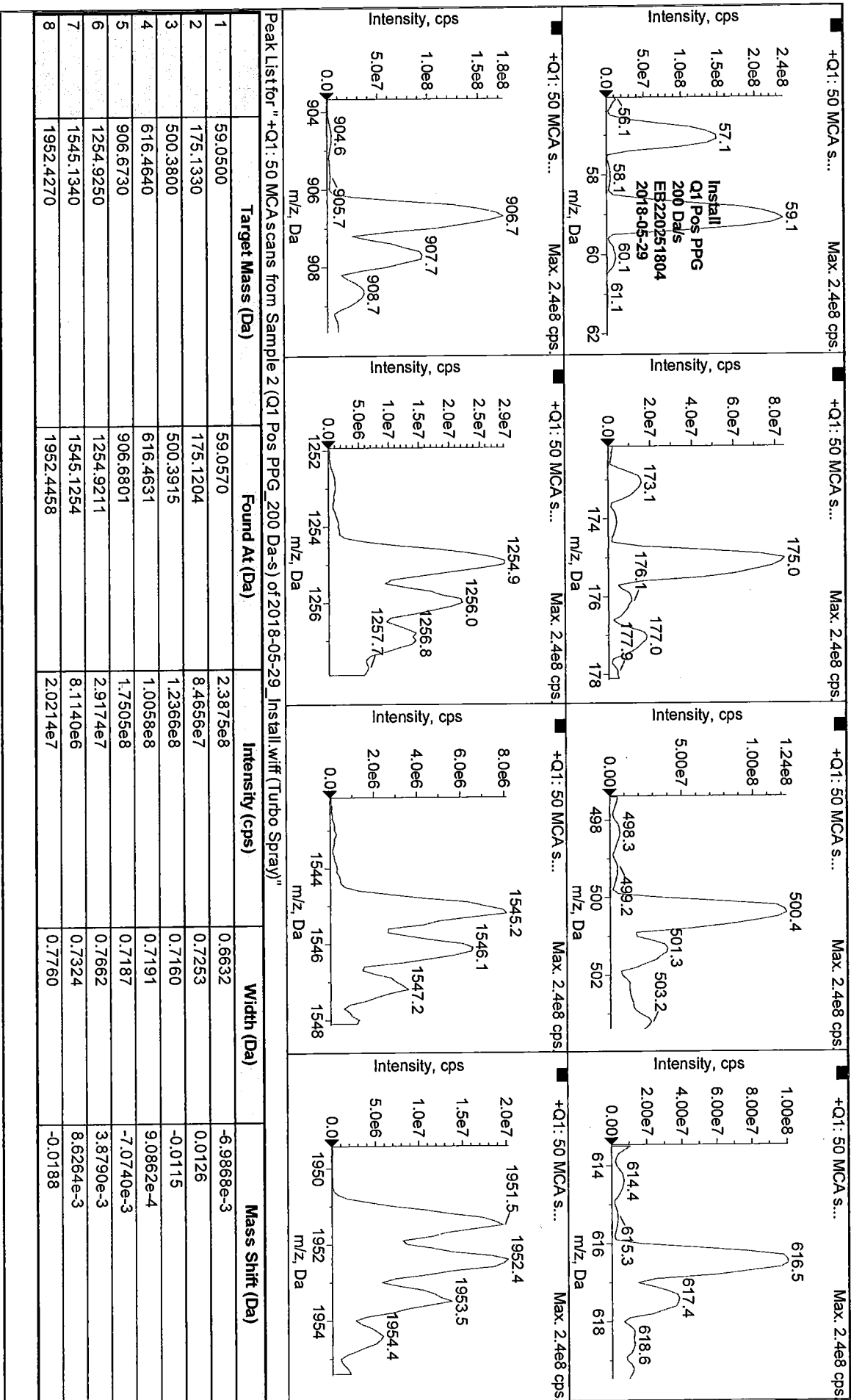


State Parameter Editor

Mass Spectrometer Method Properties

Ion Source:	Turbo Spray	Period 1:	
Ion Source Temperature Reached:	10.0	Scans in Period:	50
Carrier Gas (CIR):	5500.0	Relative Start Time:	0.00 msec
Ion Spray Voltage (IS):	0.0	Scheduled Ionization:	Off
Temperature (TBM):	17.0	Experiments in Period:	1
Ion Source Gas 1 (GS1):	0.0		
Ion Source Gas 2 (GS2):	10.0		
Extraction Potential (EP):	1.2	Period 1 Experiment 1:	
Q1 Resolution:	1800.0	Scan Type:	Q1 MS (Q1)
Ion Energy 1 (IE1):	1	Polarity:	Positive
Q1 (E0):	1	Scan Mode:	Profile
		Ion Source:	Turbo Spray
		# Scans to Sum:	1
		Resolution Q1:	Unit

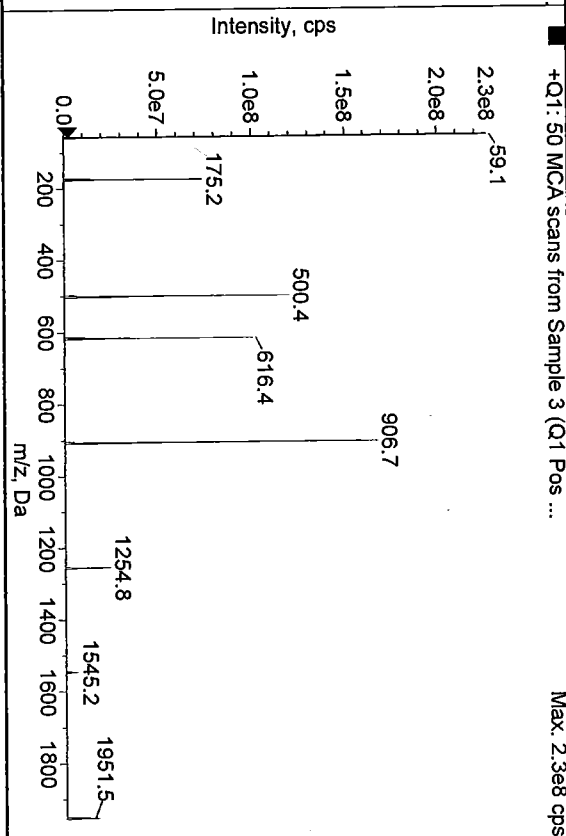
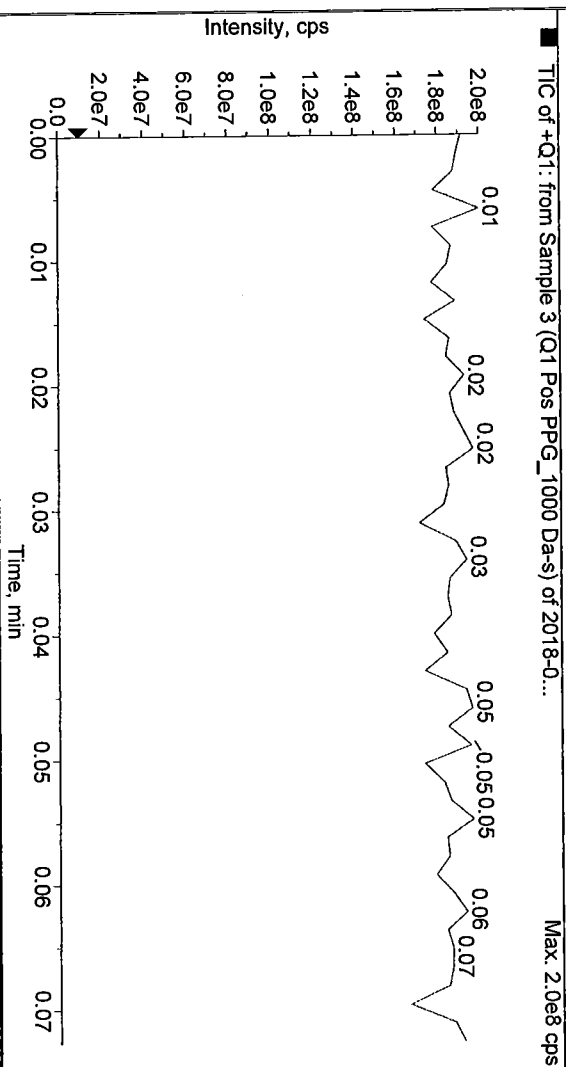


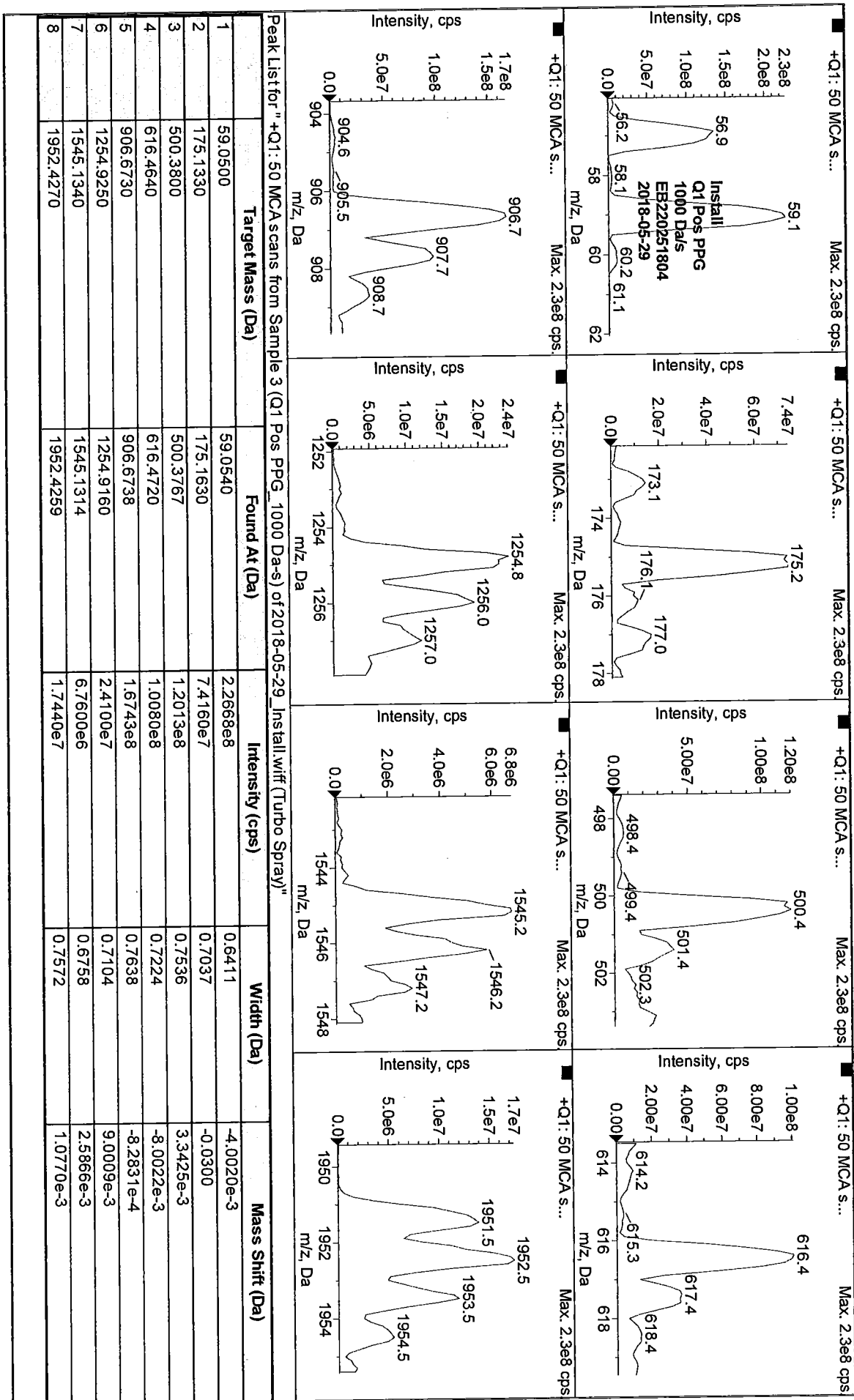


State Parameter Editor

Mass Spectrometer Method Properties

Ion Source:	Turbo Spray
Ion Source Temperature Reached:	10.0
Curtain Gas (CUR):	10.0
Ion Spray Voltage (IS):	5500.0
Temperature (TM):	0.0
Ion Source Gas 1 (GS1):	17.0
Ion Source Gas 2 (GS2):	0.0
Extraction Potential (EP):	10.0
Period 1:	
Scans in Period:	50
Relative Start Time:	0.00 msec
Scheduled Ionization:	OFF
Experiments in Period:	1
Period 1 Experiment 1:	
Scan Type:	Q1 MS (Q1)
Polarity:	Positive
Scan Mode:	Profile
Ion Source:	Turbo Spray
# Scans to Sum:	1
Resolution Q1:	Unit
Q1 Resolution:	Unit
Ion Energy 1 (IE1):	1.2
CM (CD0):	1800.0





State Parameter Editor

Mass Spectrometer Method Properties

Ion Source: Turbo Spray
 Ion Source Temperature Reached: 5500.0
 Curtain Gas (CUR): 10.0
 Ion Spray Voltage (IS): 5500.0
 Temperature (TEM): 0.0
 Ion Source Gas 1 (GS1): 17.0
 Ion Source Gas 2 (GS2): 0.0

Period 1:
 Scans in Period: 100
 Relative Start Time: 0.00 msec
 Scheduled Ionization: Off
 Experiments in Period: 1

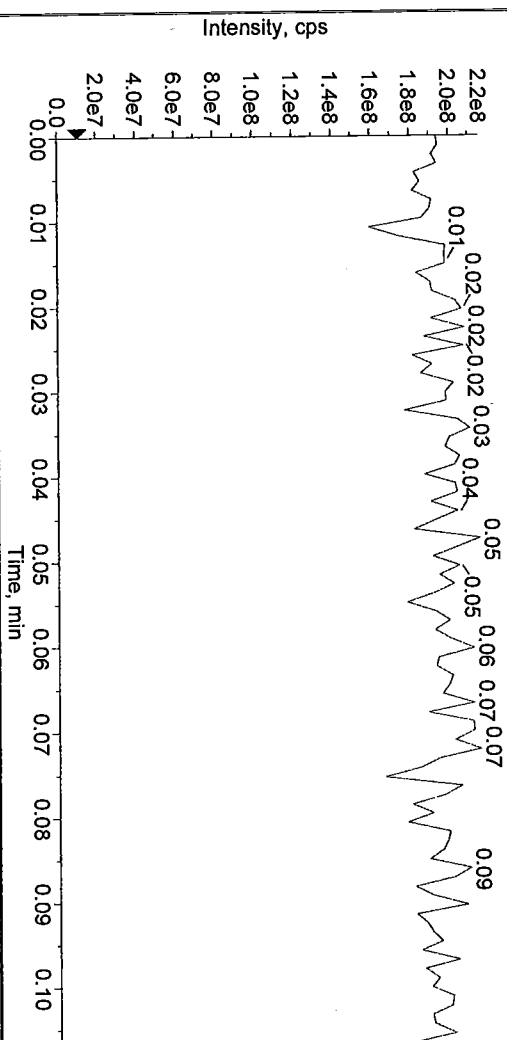
Distance Potential (EP): 10.0

Period 1 Experiment 1:

Q1 Resolution: Unit
 Ion Energy 1 (IE1): 1.2
 CM (CM): 1800.0
 Scan Type: Q1 MS (Q1)
 Polarity: Positive
 Scan Mode: Profile
 Ion Source: Turbo Spray
 # Scans to Sum: 1
 Resolution Q1: Unit

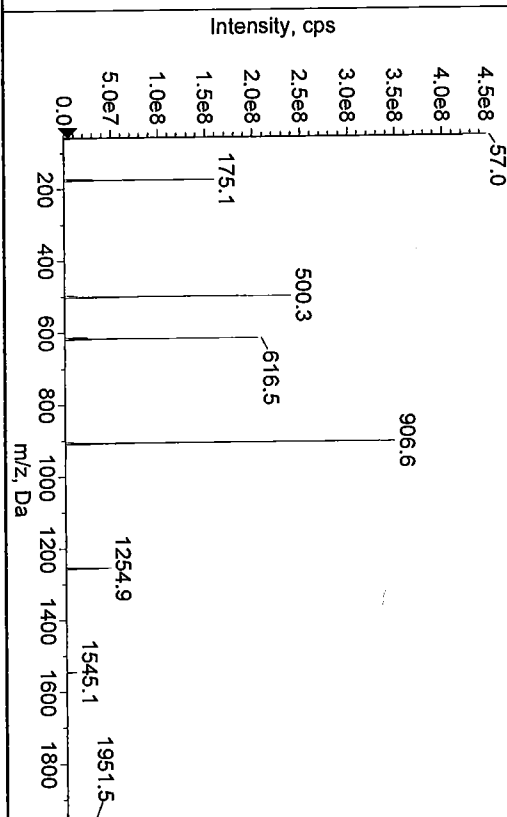
TIC of +Q1: from Sample 4 (Q1 Pos PPG_2000 Da-s) of 2018-0...

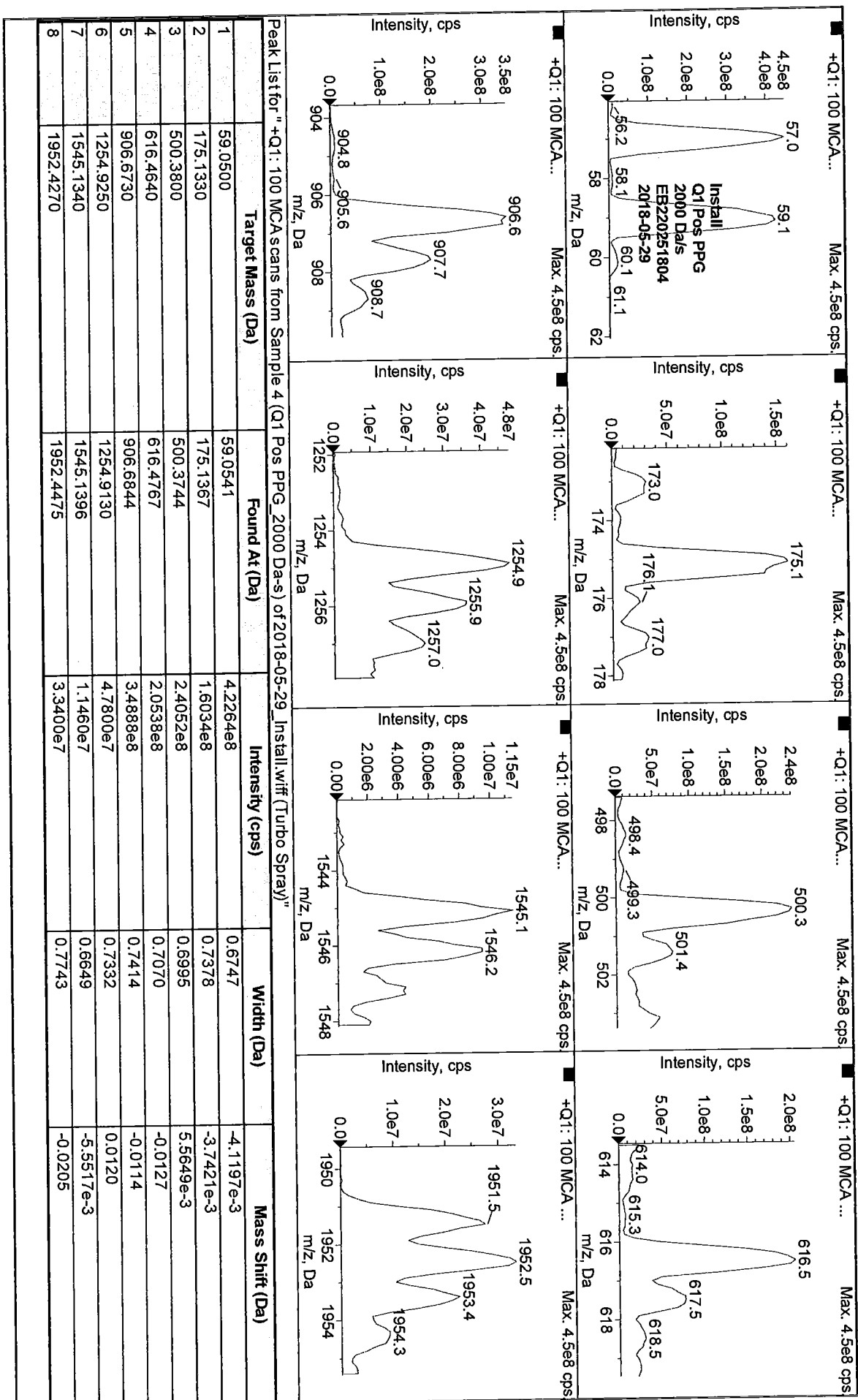
Max. 2.2e8 cps



+Q1: 100 MCA scans from Sample 4 (Q1 Po...

Max. 4.5e8 cps

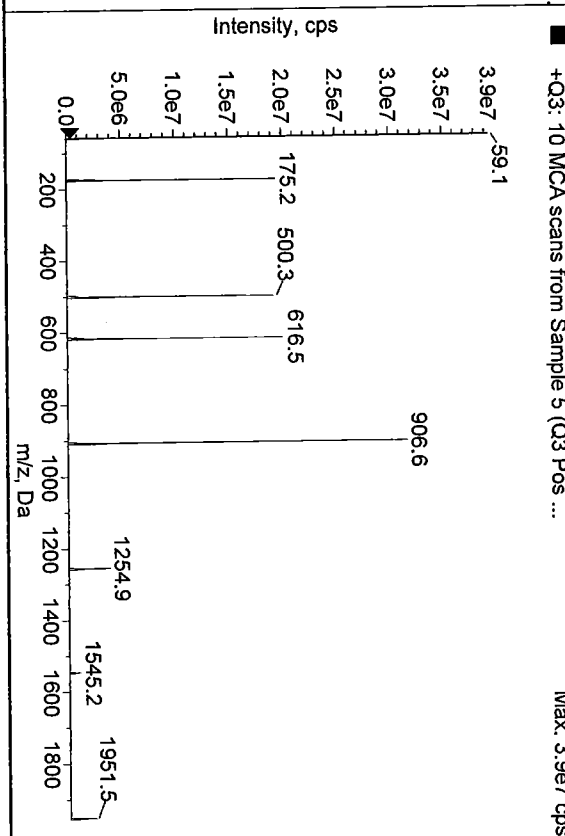
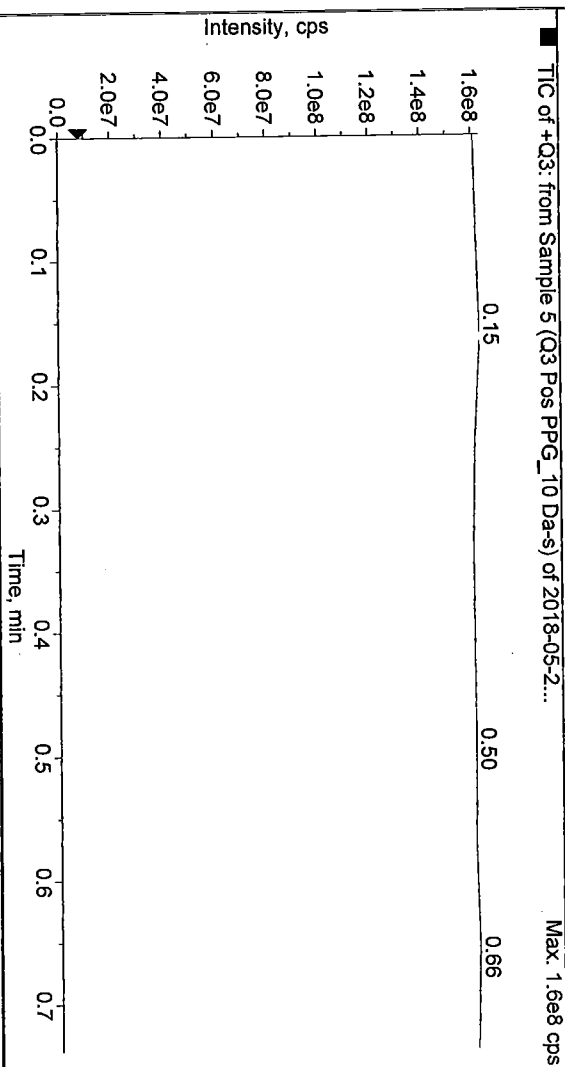


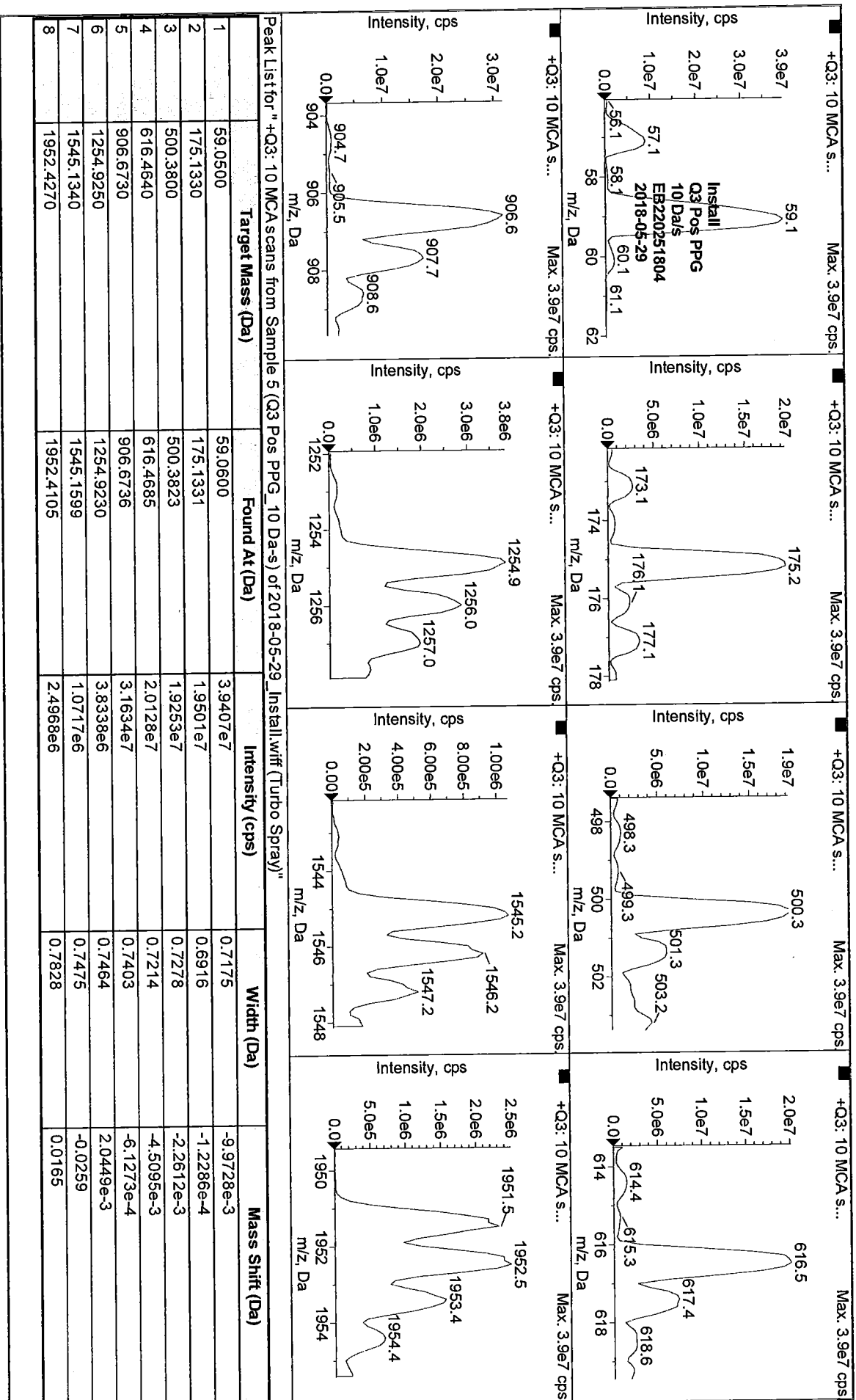


State Parameter Editor

Mass Spectrometer Method Properties

Ion Source:	Turbo Spray
Ion Source Temperature Reached:	
Carrier Gas (CIR):	10.0
Ion Spray Voltage (IS):	5500.0
Temperature (TRM):	0.0
Ion Source Gas 1 (GS1):	17.0
Ion Source Gas 2 (GS2):	0.0
Brinane Potential (BP):	10.0
Q3 Resolution:	Unit
Ion Energy 3 (IE3):	1.1
CM (CMI):	1800.0
Period 1:	
Scans in Period:	10
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1
Period 1 Experiment 1:	
Scan Type:	Q3 MS (Q3)
Polarity:	Positive
Scan Mode:	Profile
Ion Source:	Turbo Spray
# Scans to Sum:	1
Resolution Q3:	Unit

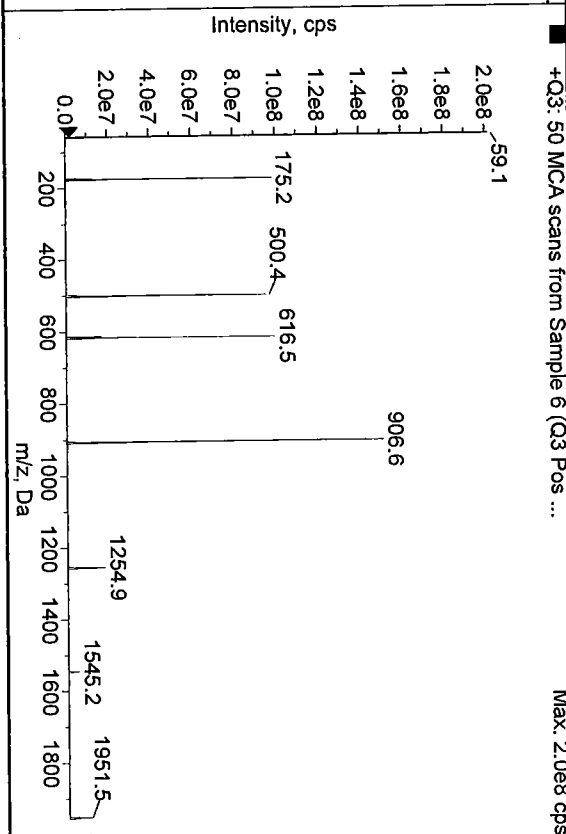
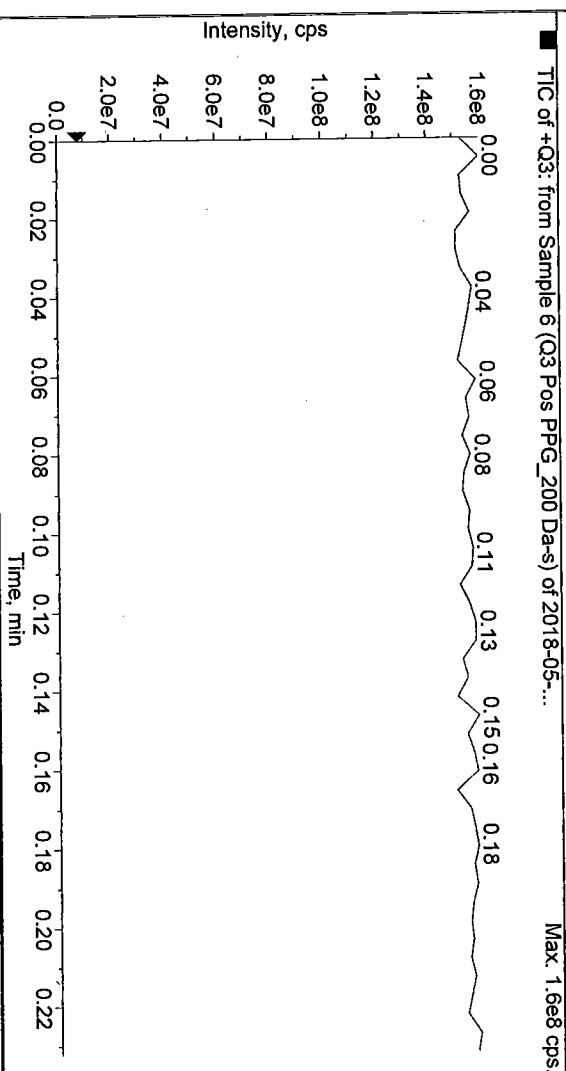


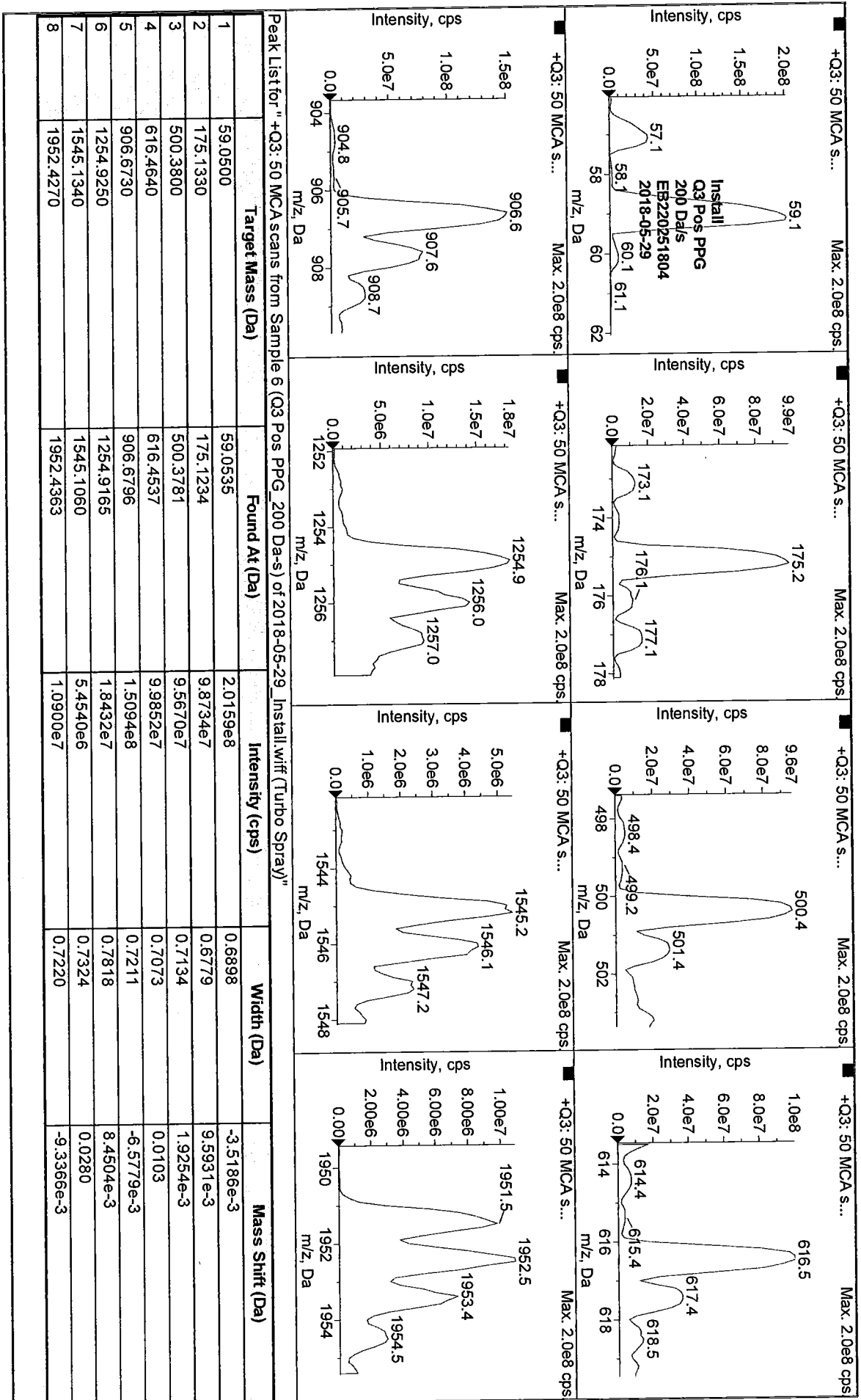


State Parameter Editor

Mass Spectrometer Method Properties

Ion Source:	Turbo Spray	Period 1:	
Ion Source Temperature Reached:	5500.0	Scans in Period:	50
Carrier Gas (CR):	10.0	Relative Start Time:	0.00 msec
Ion Spray Voltage (IS):	5500.0	Scheduled Ionization:	Off
Temperature (TM):	0.0	Experiments in Period:	1
Ion Source Gas 1 (GS1):	17.0		
Ion Source Gas 2 (GS2):	0.0		
Distance Potential (EP):	10.0	Period 1 Experiment 1:	
Q3 Resolution:	Unit	Scan Type:	Q3 MS (Q3)
Ion Beam 3 (IE3):	1.0	Polarity:	Positive
CM (C3):	1800.0	Scan Mode:	Profile
		Ion Source:	Turbo Spray
		# Scans to Sum:	1
		Resolution Q3:	Unit

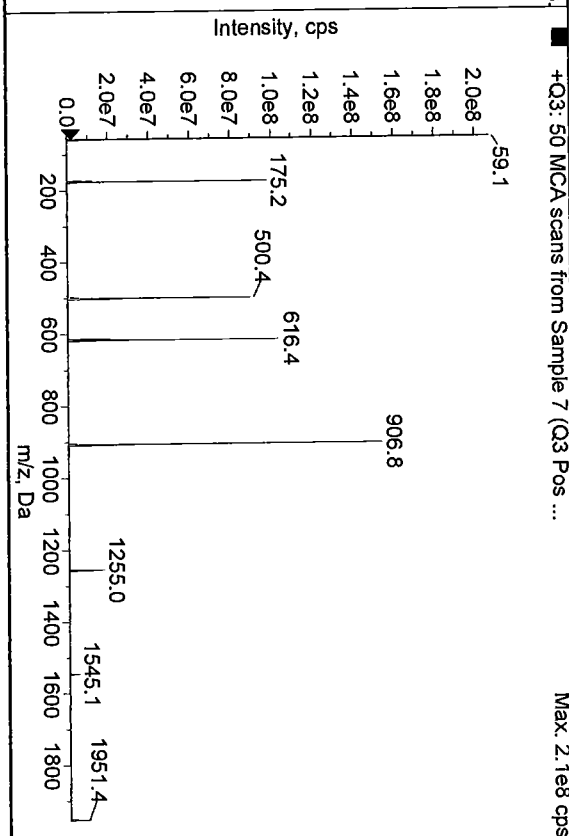
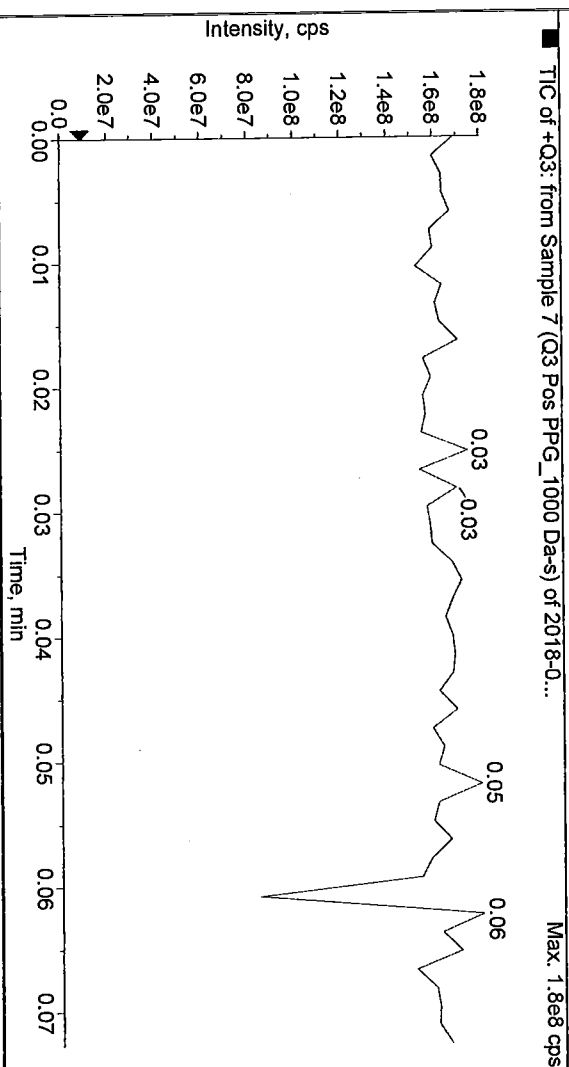


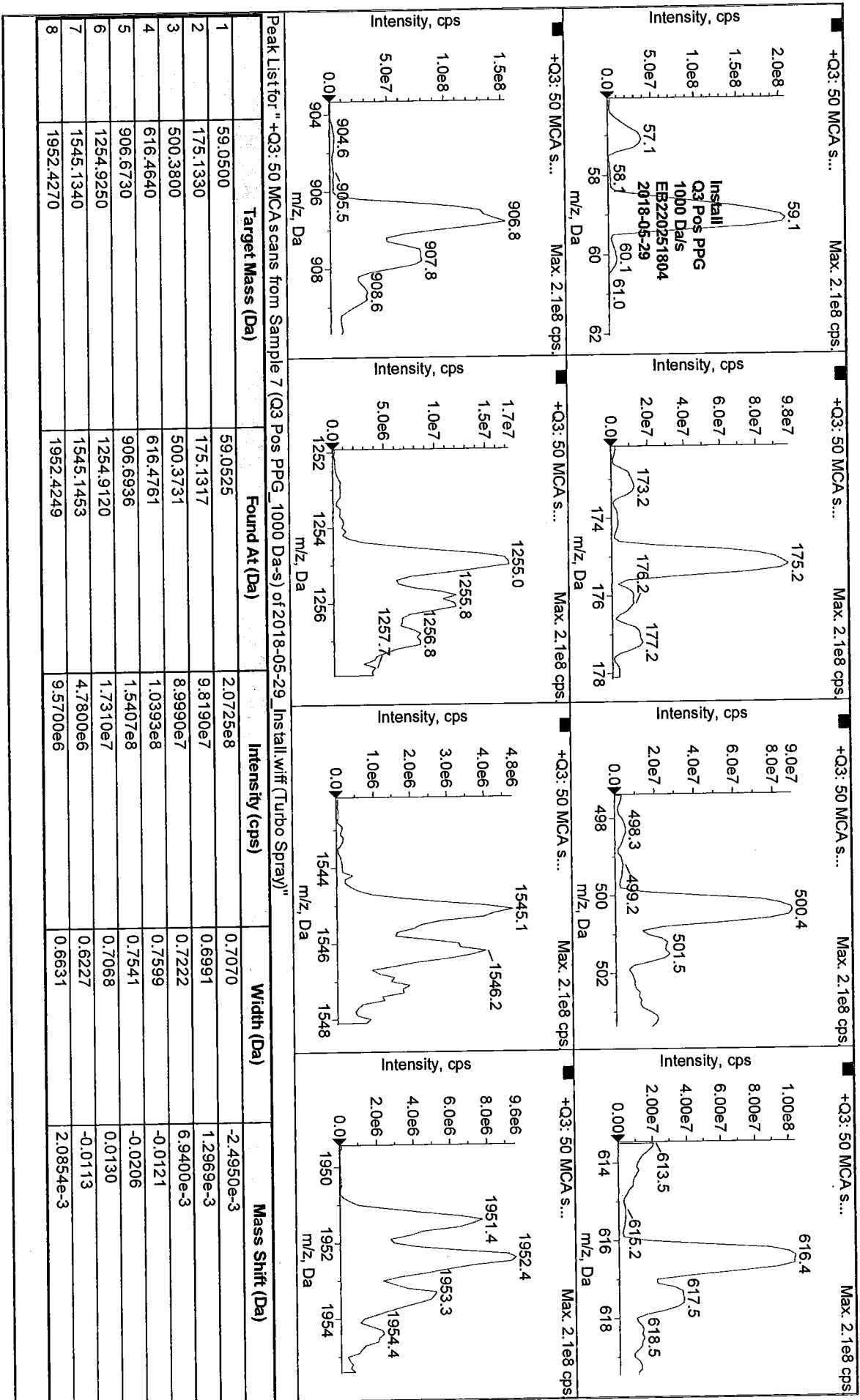


State Parameter Editor

Mass Spectrometer Method Properties

Ion Source:	Turbo Spray
Ion Source Temperature:	Heated
Curtain Gas (CIR):	10.0
Ion Spray Voltage (IS):	5500.0
Temperature (T20):	0.0
Ion Source Gas 1 (GSI):	17.0
Ion Source Gas 2 (G2):	0.0
Distance Potential (EP):	10.0
Q3 Resolution:	Unit
Ion Energy 3 (IE3):	1.0
CM (CEM):	1800.0
Period 1:	
Scans in Period:	50
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1
Period 1 Experiment:	1:
Scan Type:	Q3 MS (Q3)
Polarity:	Positive
Scan Mode:	Profile
Ion Source:	Turbo Spray
# Scans to Sum:	1
Resolution Q3:	Unit

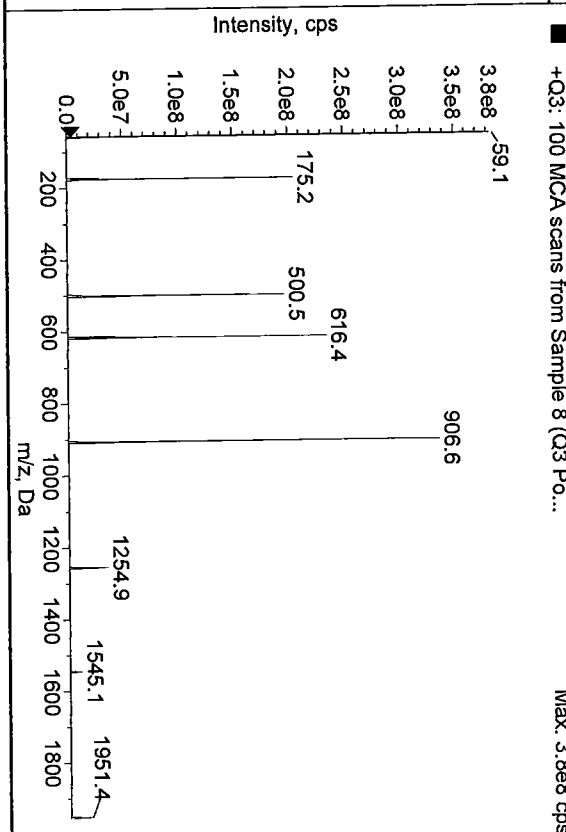
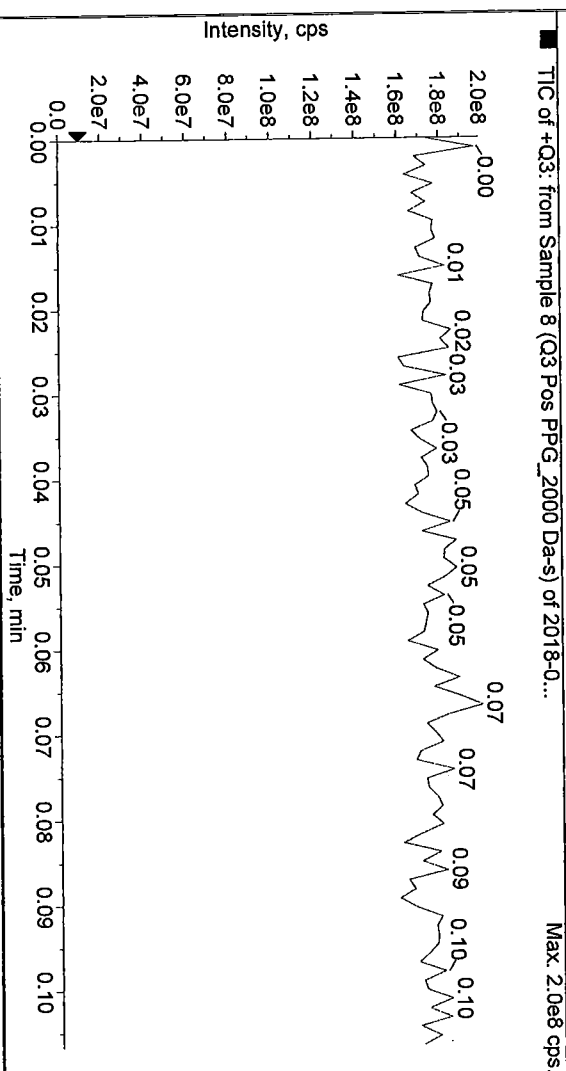


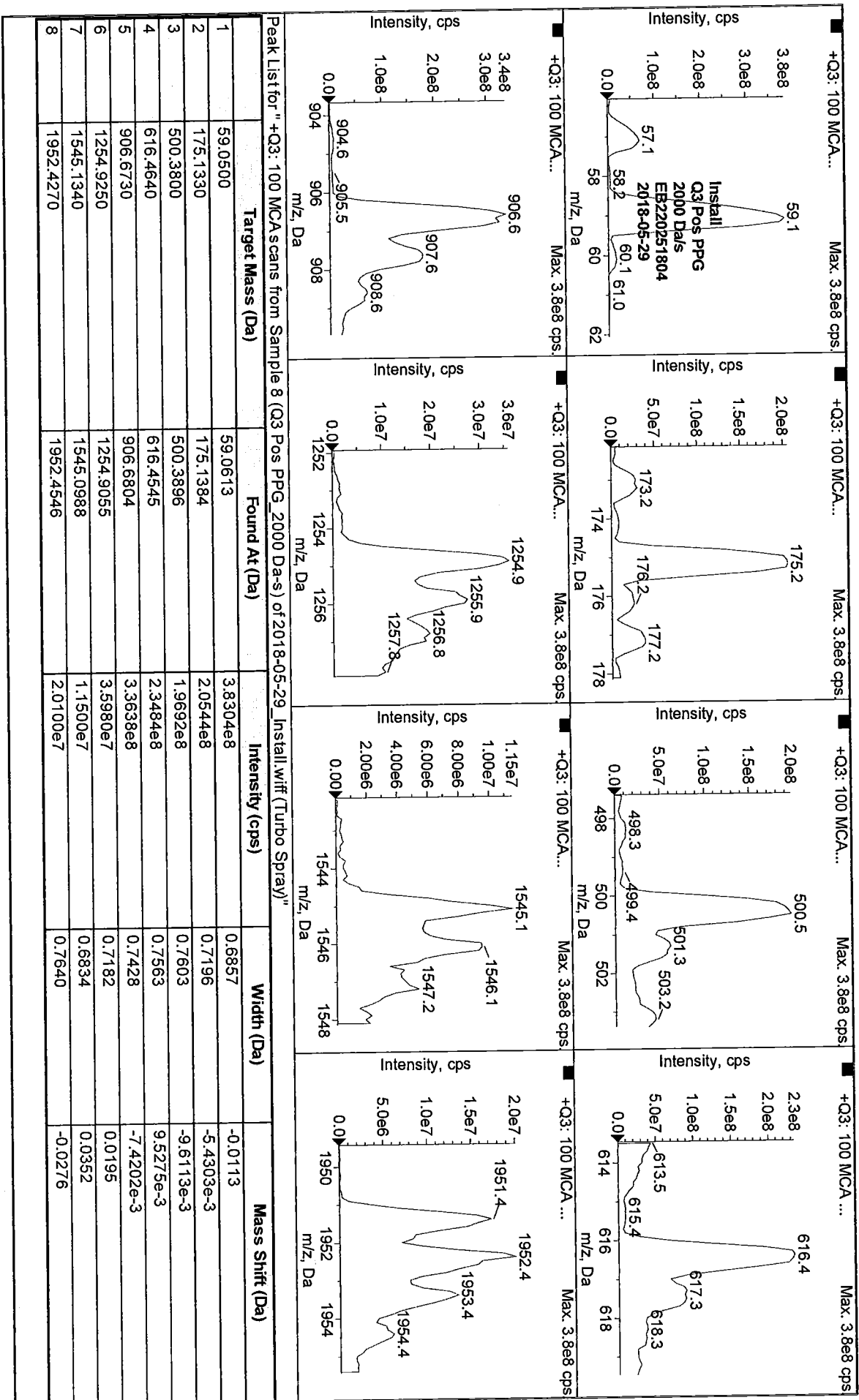


State Parameter Editor

Mass Spectrometer Method Properties

Ion Source:	Turbo Spray
Ion Source Temperature Reached:	10.0
Carrier Gas (CUR):	5500.0
Ion Spray Voltage (IS):	0.0
Temperature (TBM):	17.0
Ion Source Gas 1 (GS1):	0.0
Ion Source Gas 2 (GS2):	10.0
Distance Potential (EP):	1.2
Q3 Resolution:	Unit
Ion Beam 3 (IE3):	1800.0
CN (CEN):	Unit
Period 1:	
Scans in Period:	100
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1
Period 1 Experiment 1:	
Scan Type:	Q3 MS (Q3)
Polarity:	Positive
Scan Mode:	Profile
Ion Source:	Turbo Spray
# Scans to Sum:	1
Resolution Q3:	Unit





State Parameter Editor

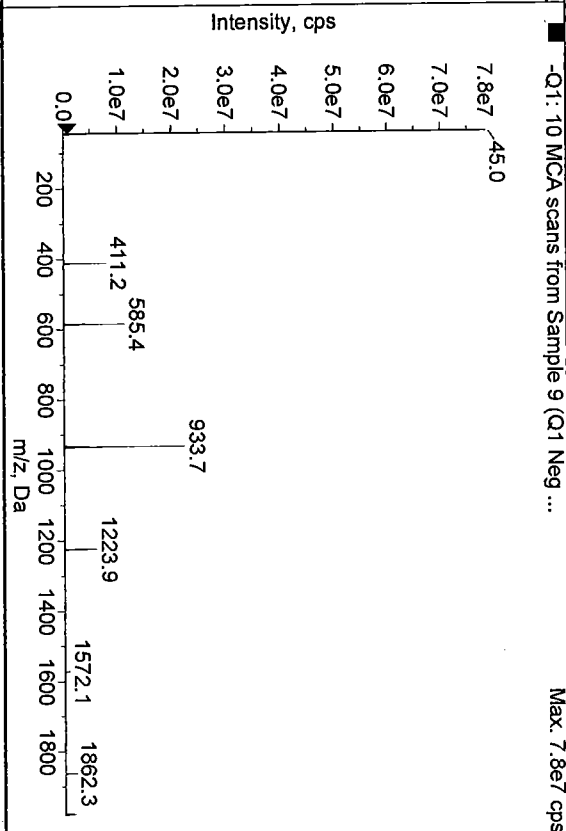
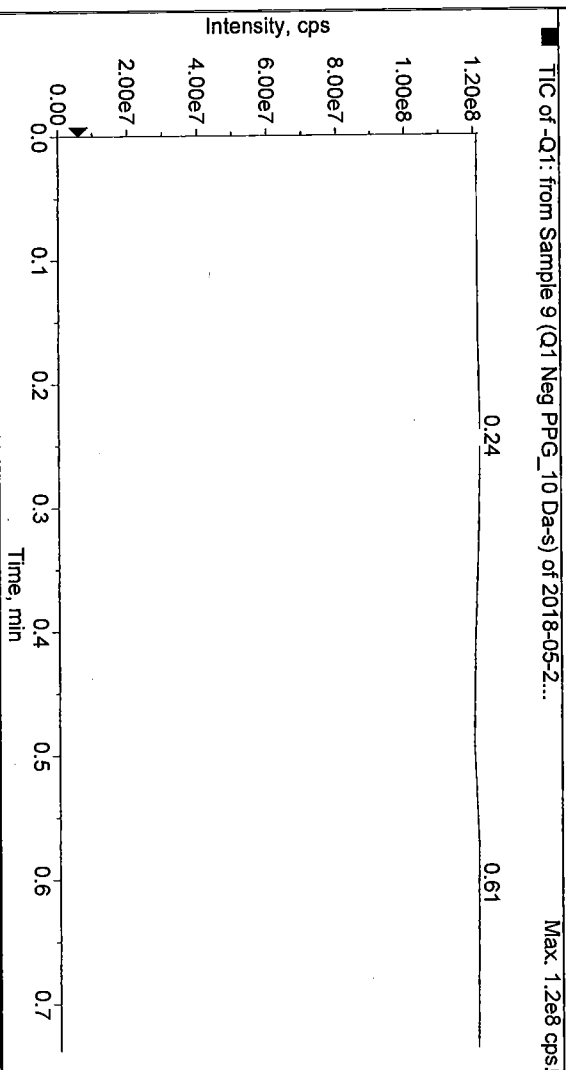
Mass Spectrometer Method Properties

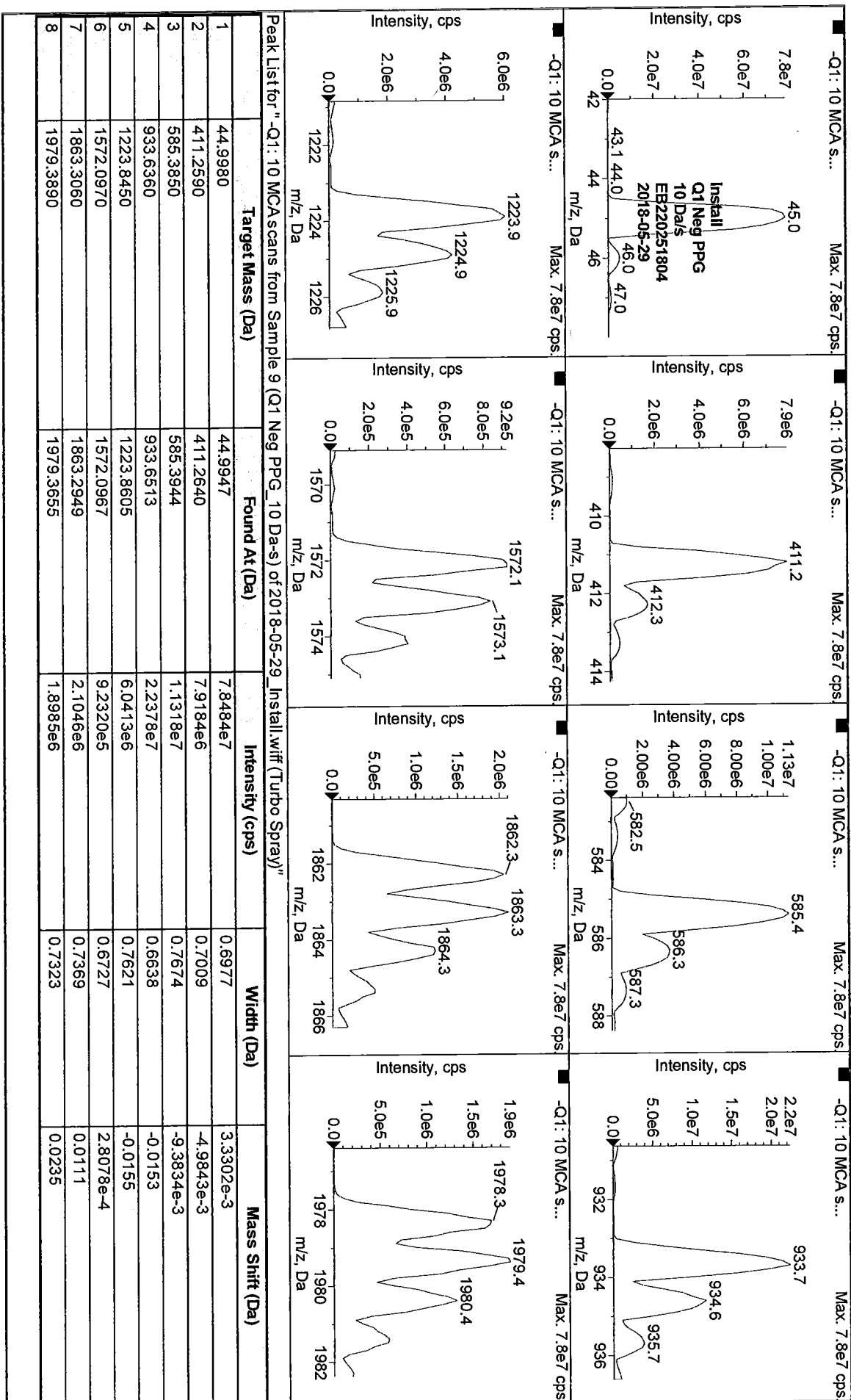
Ion Source: Turbo Spray
 Ion Source Temperature Reached: 10.0
 Curtain Gas (CUR): 10.0
 Ion Spray Voltage (IS): -4500.0
 Temperature (TM): 0.0
 Ion Source Gas 1 (GS1): 17.0
 Ion Source Gas 2 (GS2): 0.0
 Distance Potential (EP): -10.0

Period 1:
 Scans in Period: 10
 Relative Start Time: 0.00 msec
 Scheduled Ionization: Off
 Experiments in Period: 1

Period 1 Experiment 1:
 Scan Type: Q1 MS (Q1)
 Polarity: Negative
 Scan Mode: Profile
 Ion Source: Turbo Spray
 # Scans to Sum: 1
 Resolution Q1: Unit

Q1 Resolution: Unit
 Ion Energy 1 (IE1): -1.0
 CM (CB): 1900.0





State Parameter Editor

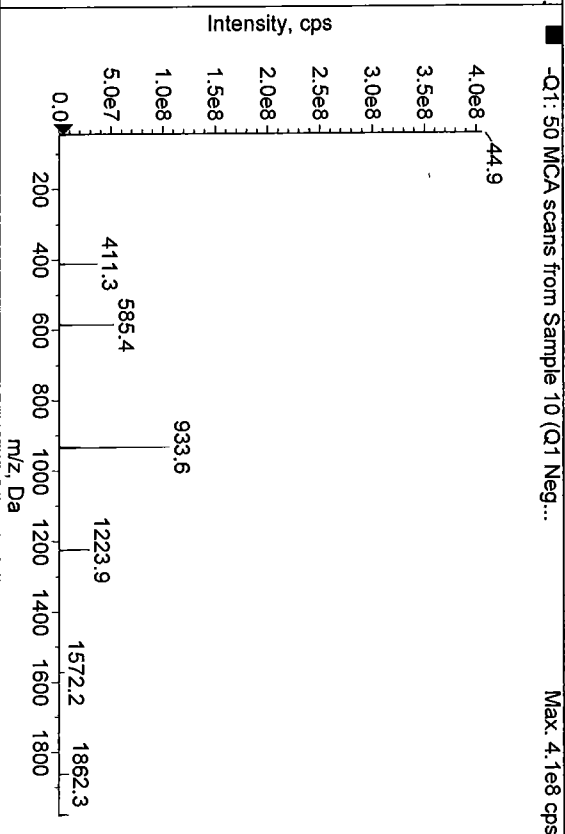
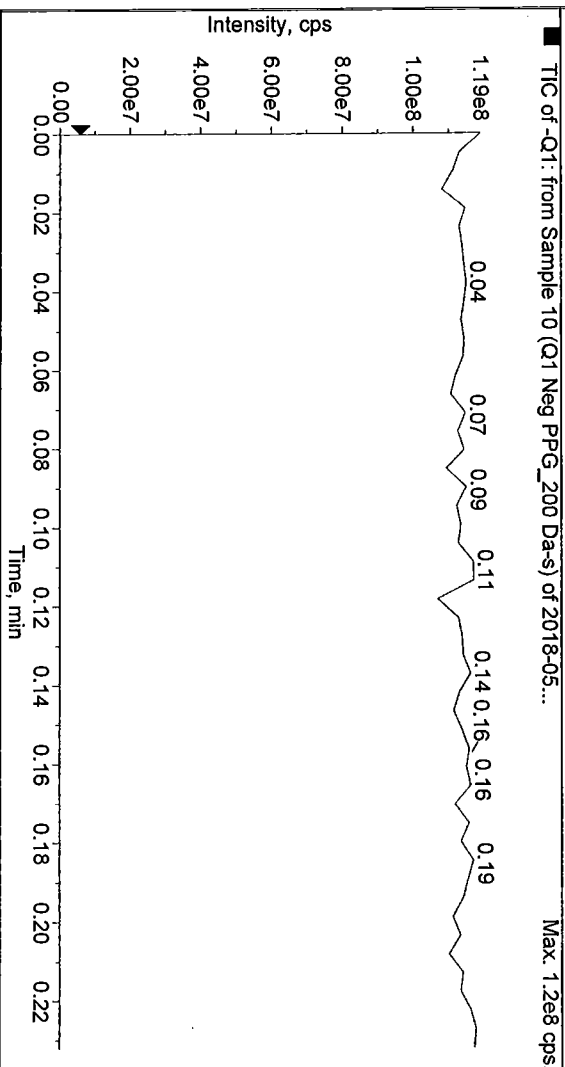
Mass Spectrometer Method Properties

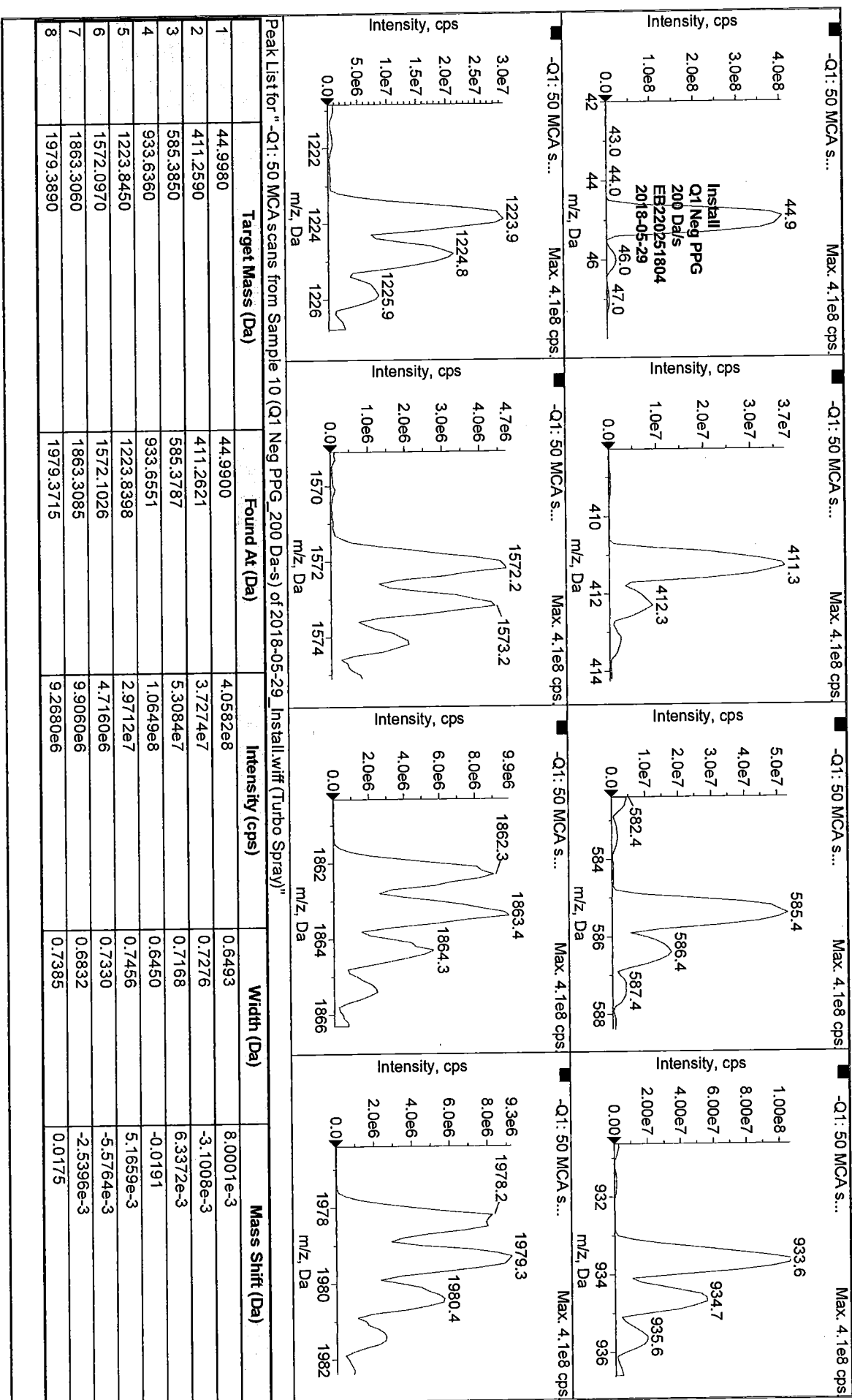
Ion Source: Turbo Spray
 Ion Source Temperature Reached: 10.0
 Curtain Gas (CUR): 10.0
 IonSpray Voltage (IS): -4500.0
 Temperature (TBP): 0.0
 Ion Source Gas 1 (GS1): 17.0
 Ion Source Gas 2 (GS2): 0.0
 Distance Potential (DP): -10.0

Period 1:
 Scans in Period: 50
 Relative Start Time: 0.00 msec
 Scheduled Ionization: Off
 Experiments in Period: 1

Period 1 Experiment 1:
 Scan Type: Q1 MS (Q1)
 Polarity: Negative
 Scan Mode: Profile
 Ion Source: Turbo Spray
 # Scans to Sum: 1
 Resolution Q1: Unit

Q1 Resolution: Unit
 Ion Beam 1 (IB1): -1.0
 CM (CD1): 1900.0





State Parameter Editor

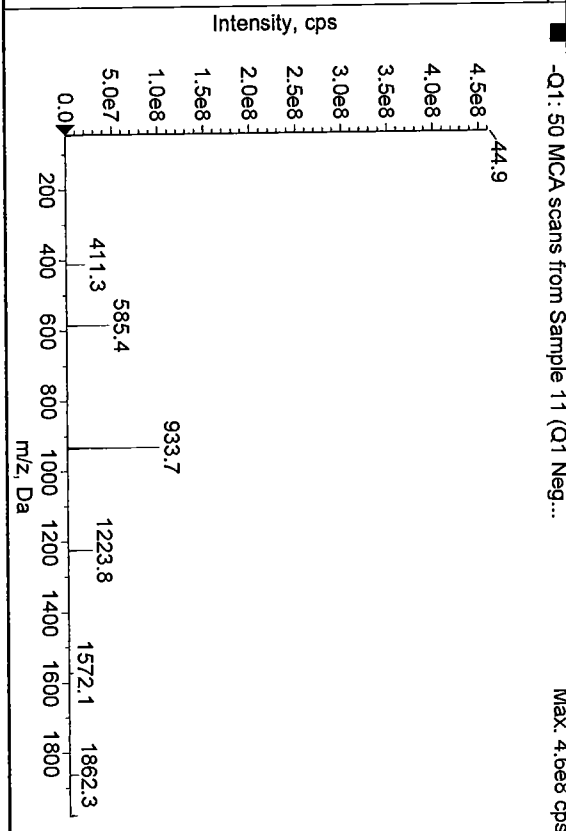
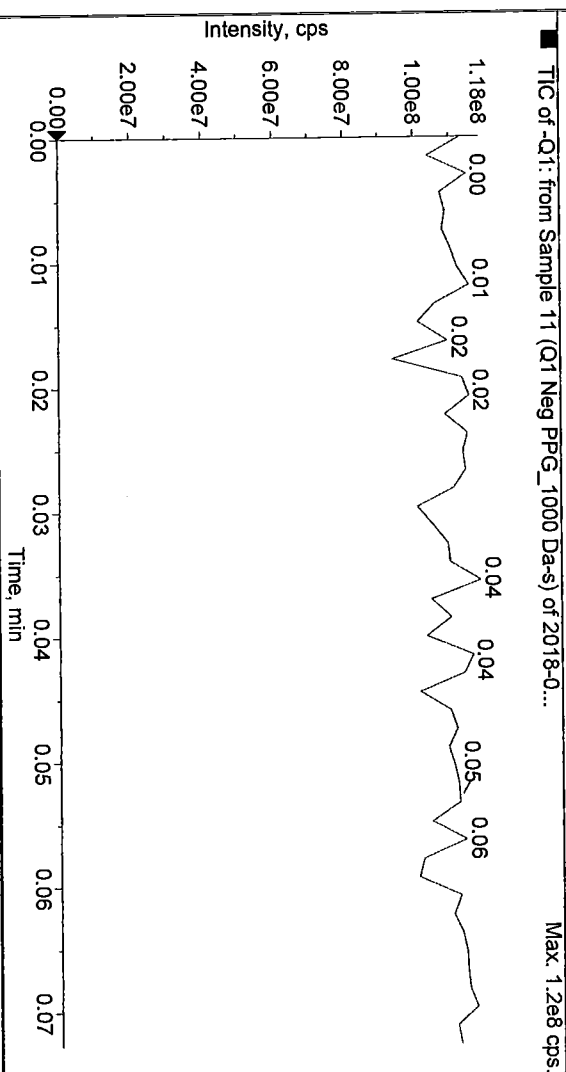
Mass Spectrometer Method Properties

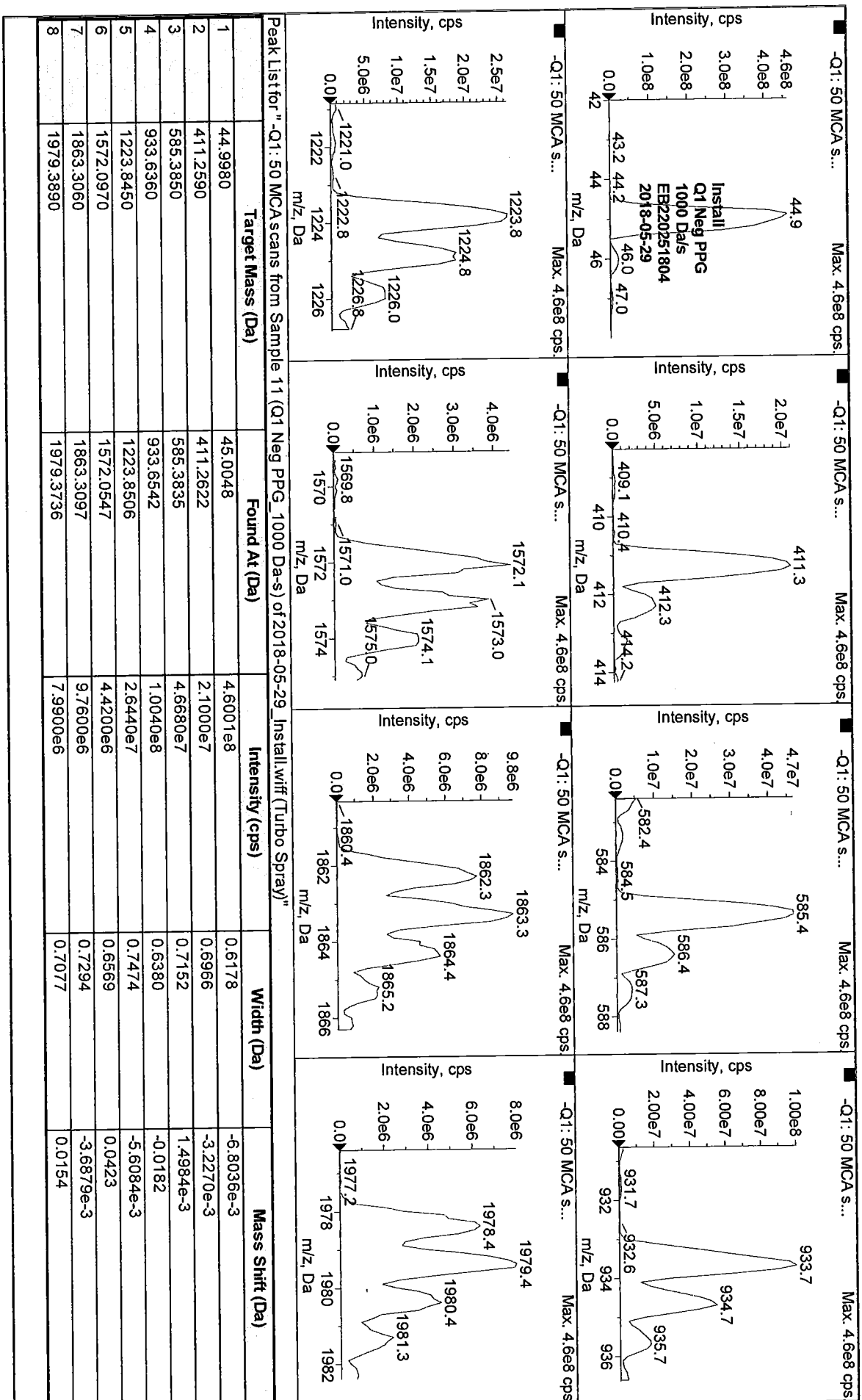
Ion Source: Turbo Spray
 Ion Source Temperature Reached: 10.0
 Curtain Gas (UIN): 10.0
 Ion Spray Voltage (IS): -4500.0
 Temperature (TBA): 0.0
 Ion Source Gas 1 (ESI): 17.0
 Ion Source Gas 2 (ESI): 0.0
 Distance Potential (EP): -10.0

Period 1:
 Scans in Period: 50
 Relative Start Time: 0.00 msec
 Scheduled Ionization: Off
 Experiments in Period: 1

Period 1 Experiment 1:
 Scan Type: Q1 MS (Q1)
 Polarity: Negative
 Scan Mode: Profile
 Ion Source: Turbo Spray
 # Scans to Sum: 1
 Resolution Q1: Unit

Q1 Resolution: Unit
 Ion Beam 1 (IE): -1.0
 CM (CM): 1900.0

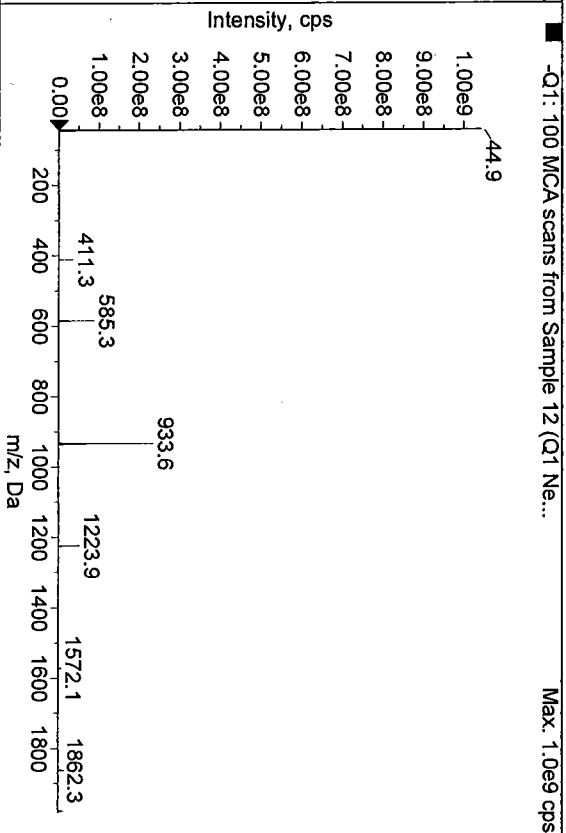
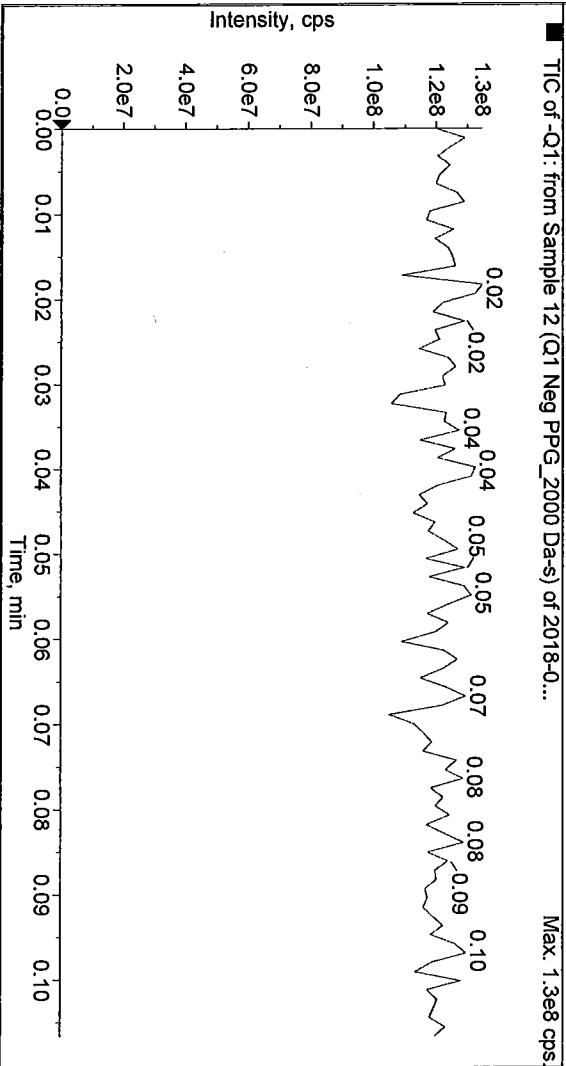


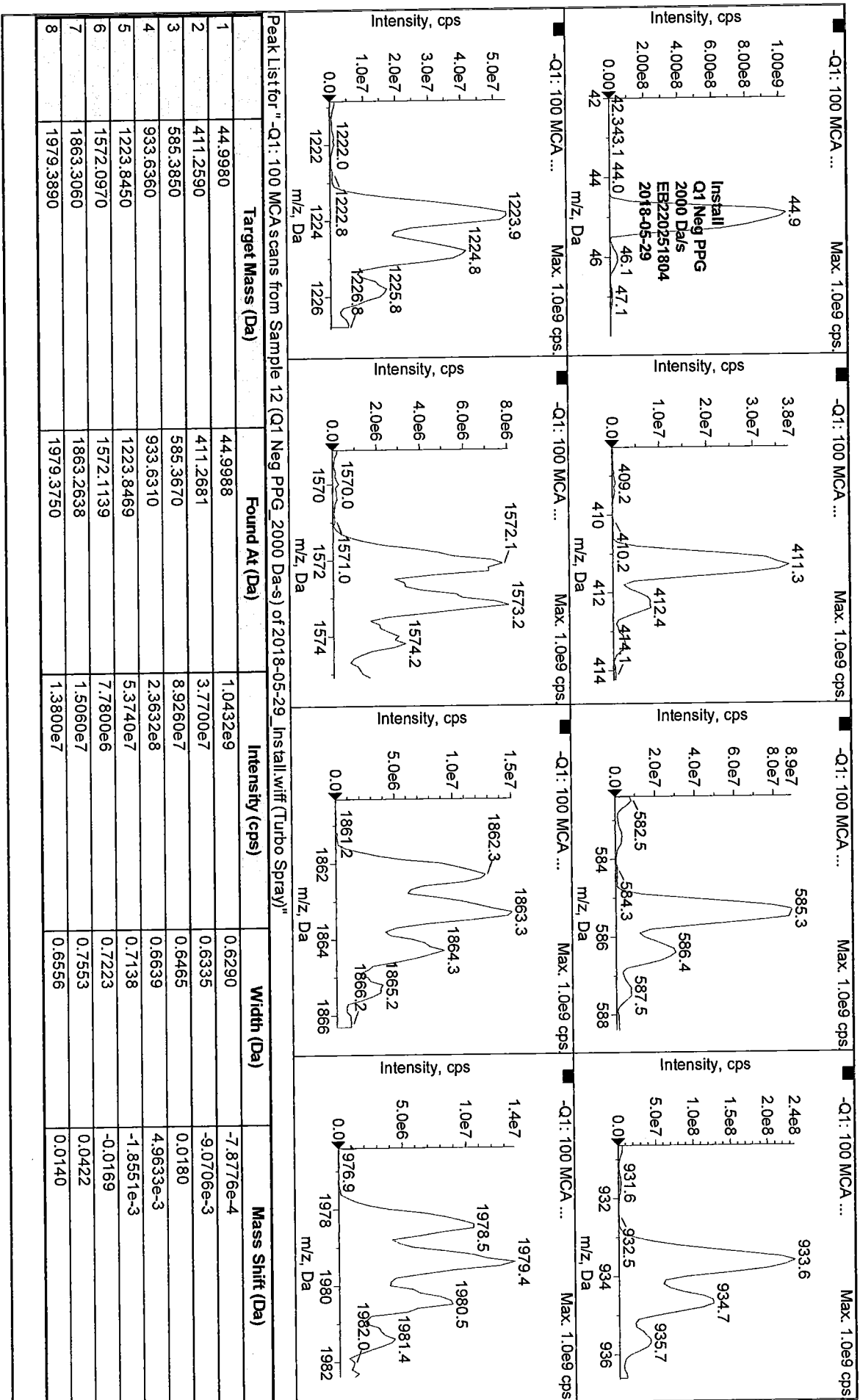


Site Parameter Editor

Mass Spectrometer Method Properties

Ion Source: Turbo Spray
 Ion Source Temperature Reached: 10.0
 Curtain Gas (Q1): -4500.0
 Ion Spray Voltage (IS): 0.0
 Temperature (TSP): 17.0
 Ion Source Gas 1 (S1): 0.0
 Ion Source Gas 2 (S2): -10.0
 Distance Potential (P): -10.0
 Period 1: 100
 Scans in Period: 0.00 msec
 Relative Start Time: Off
 Scheduled Ionization: Off
 Experiments in Period: 1
 Period 1 Experiment 1:
 Scan Type: Q1 MS (Q1)
 Polarity: Negative
 Scan Mode: Profile
 Ion Source: Turbo Spray
 # Scans to Sum: 1
 Resolution Q1: Unit





State Parameter Editor

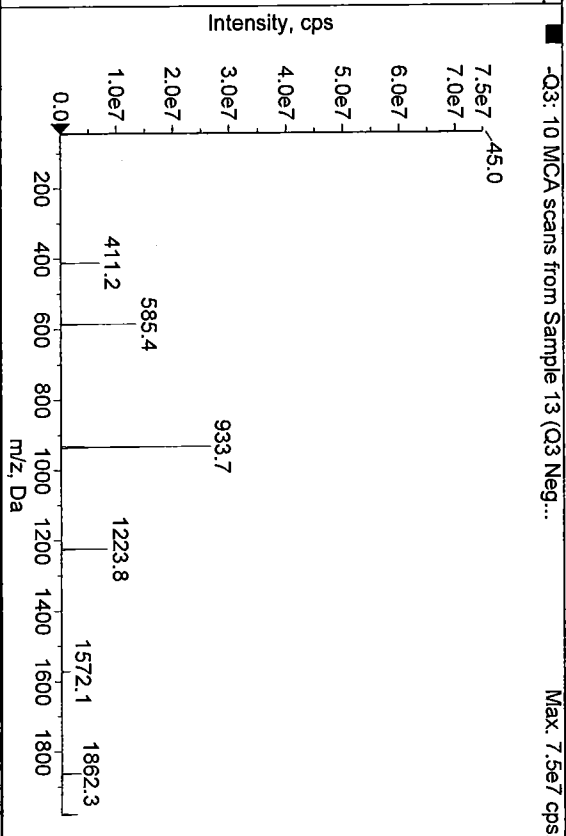
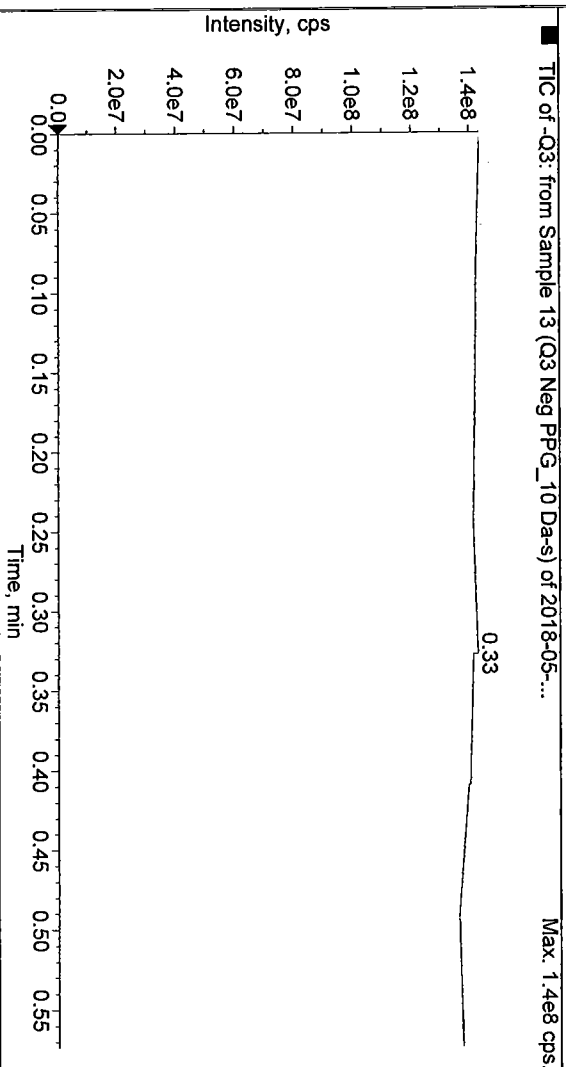
Mass Spectrometer Method Properties

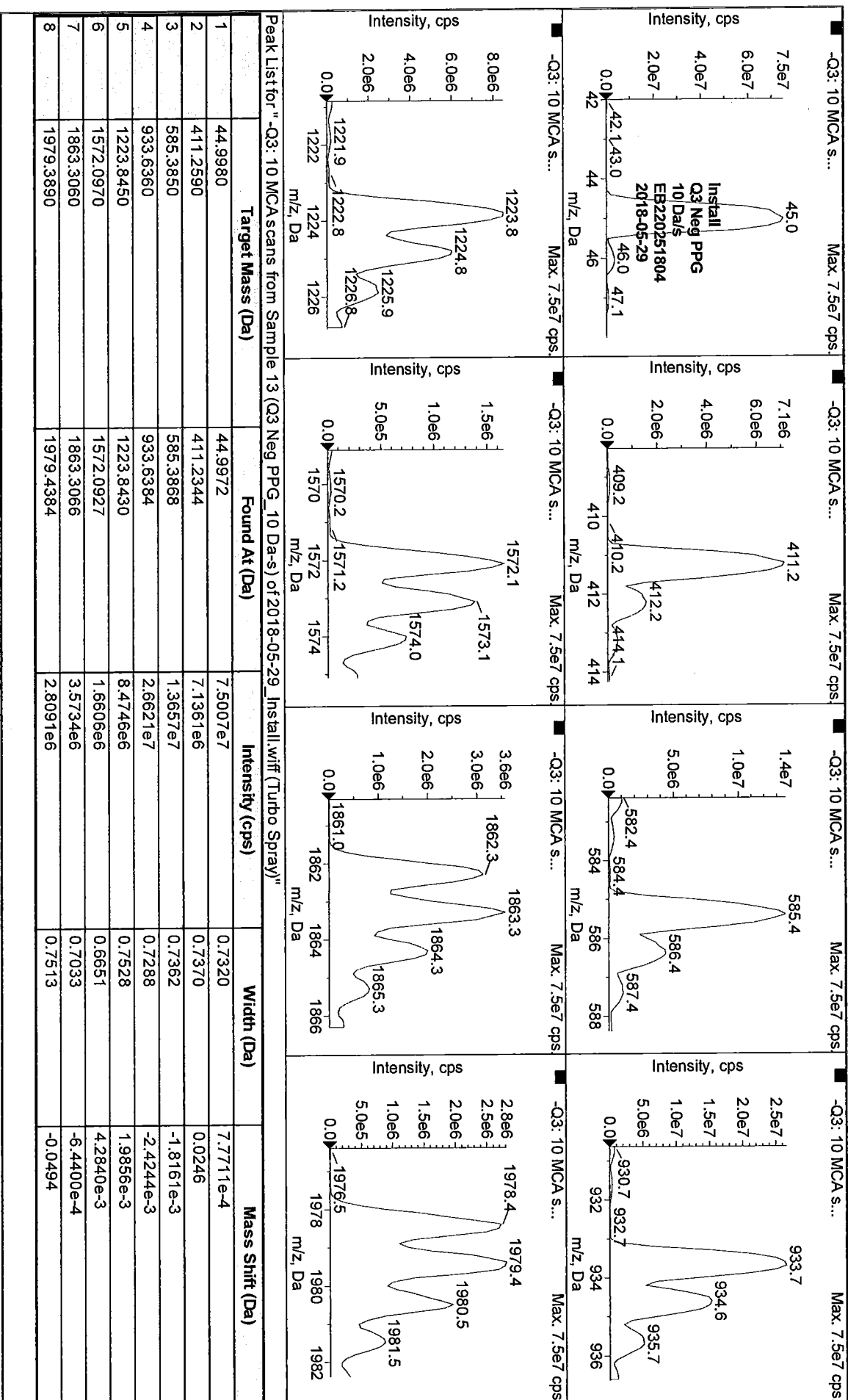
Ion Source: Turbo Spray
 Ion Source Temperature Reached: 10.0
 Curtain Gas (CUR): 10.0
 Ion Spray Voltage (IS): -4500.0
 Temperature (TM): 0.0
 Ion Source Gas 1 (GS1): 17.0
 Ion Source Gas 2 (GS2): 0.0
 Distance Potential (EP): -10.0

Period 1:
 Scans in Period: 10
 Relative Start Time: 0.00 msec
 Scheduled Ionization: Off
 Experiments in Period: 1

Period 1 Experiment 1:
 Scan Type: Q3 MS (Q3)
 Polarity: Negative
 Scan Mode: Profile
 Ion Source: Turbo Spray
 # Scans to Sum: 1
 Resolution Q3: Unit

Q3 Resolution: Unit
 Ion Energy 3 (IE3): -1.5
 CM (CM): 1900.0

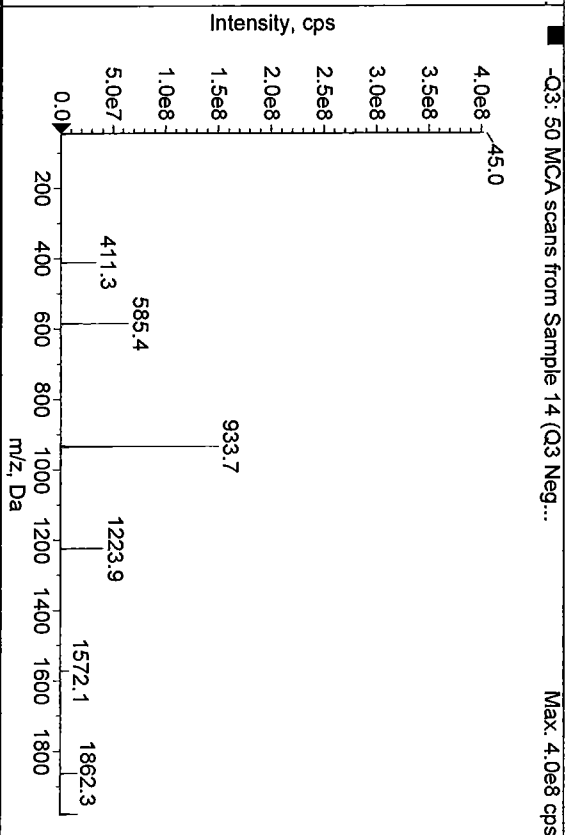
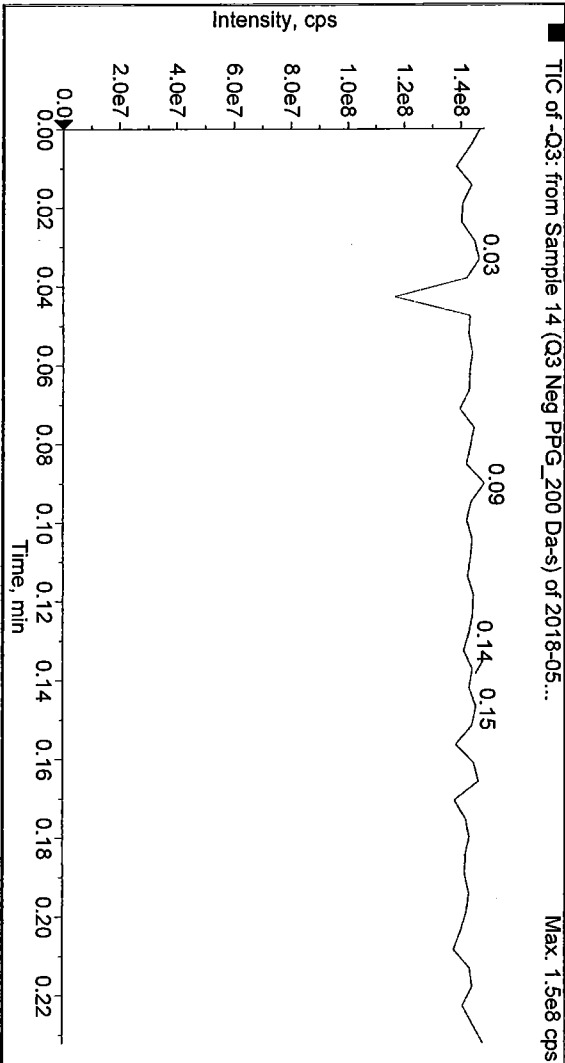


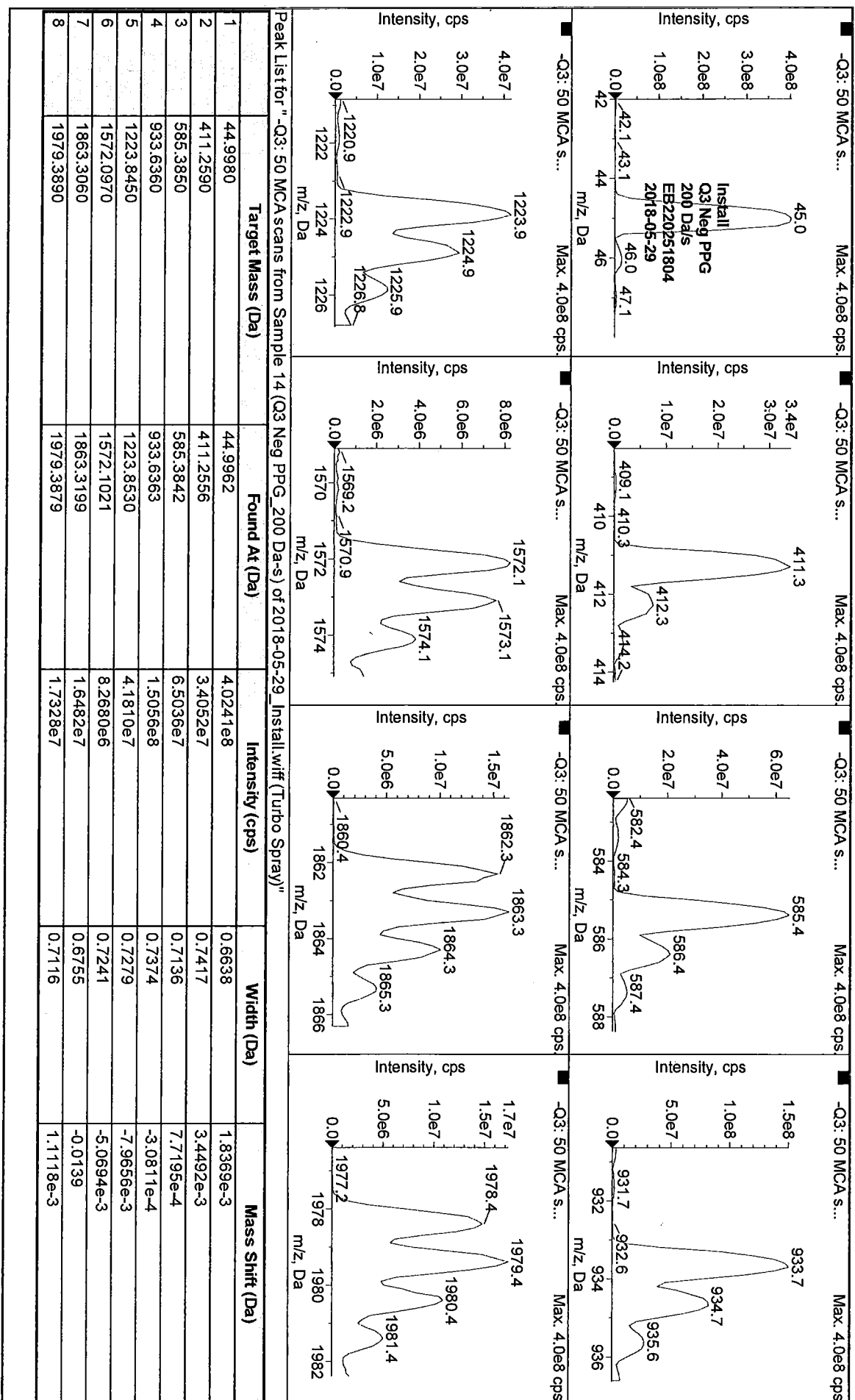


State Parameter Editor

Mass Spectrometer Method Properties

Ion Source:	Turbo Spray
Ion Source Temperature Reached	
Carrier Gas (CUR):	10.0
Injector Voltage (IS):	-4500.0
Temperature (TSM):	0.0
Ion Source Gas 1 (GS1):	17.0
Ion Source Gas 2 (GS2):	0.0
Distance Potential (EP):	-10.0
Period 1:	
Scans in Period:	50
Relative Start Time:	0.00 msec
Scheduled Ionization:	OFF
Experiments in Period:	1
Period 1 Experiment 1:	
Scan Type:	Q3 MS (Q3)
Polarity:	Negative
Scan Mode:	Profile
Ion Source:	Turbo Spray
# Scans to Sum:	1
Resolution Q3:	Unit
Q3 Resolution:	Unit
Ion Energy 3 (IE3):	-1.5
CM (C30):	1900.0

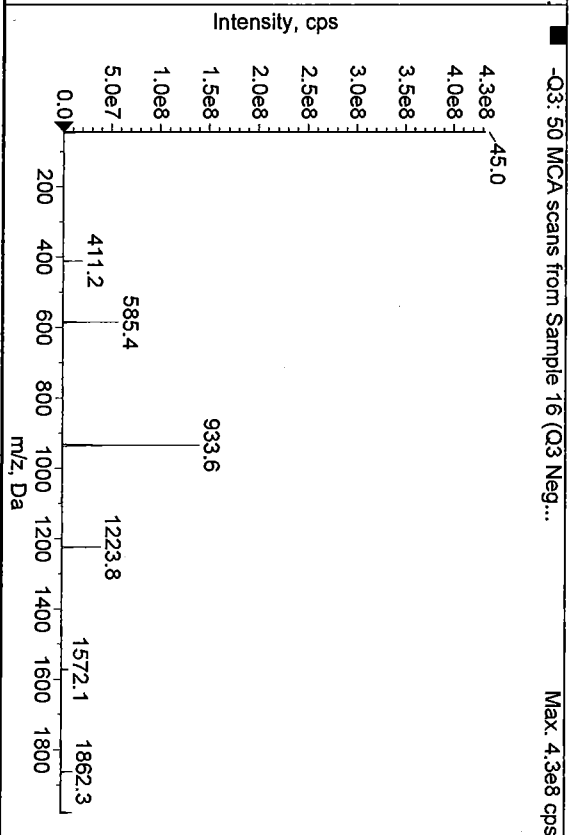
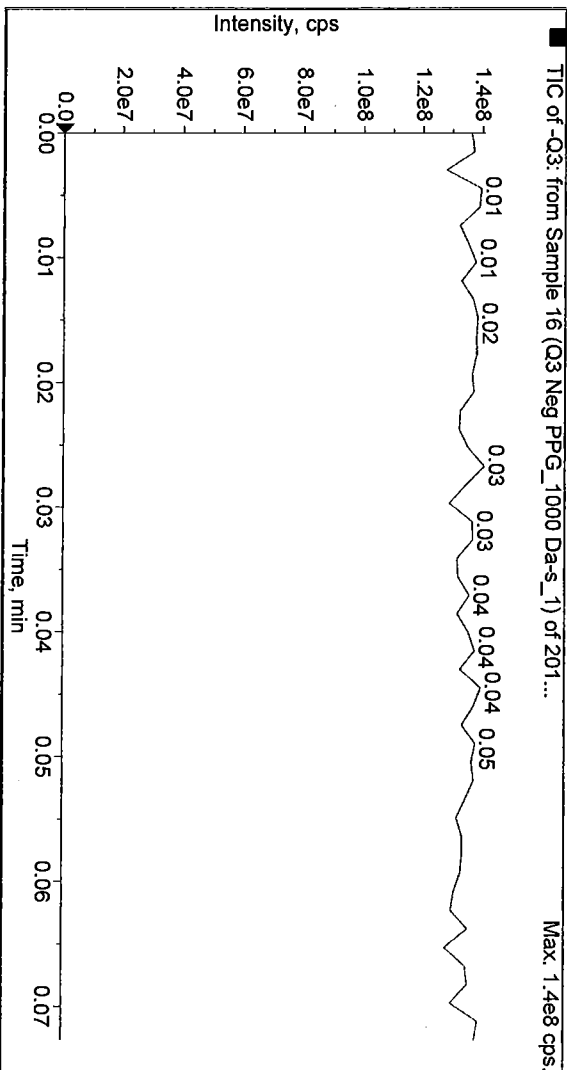


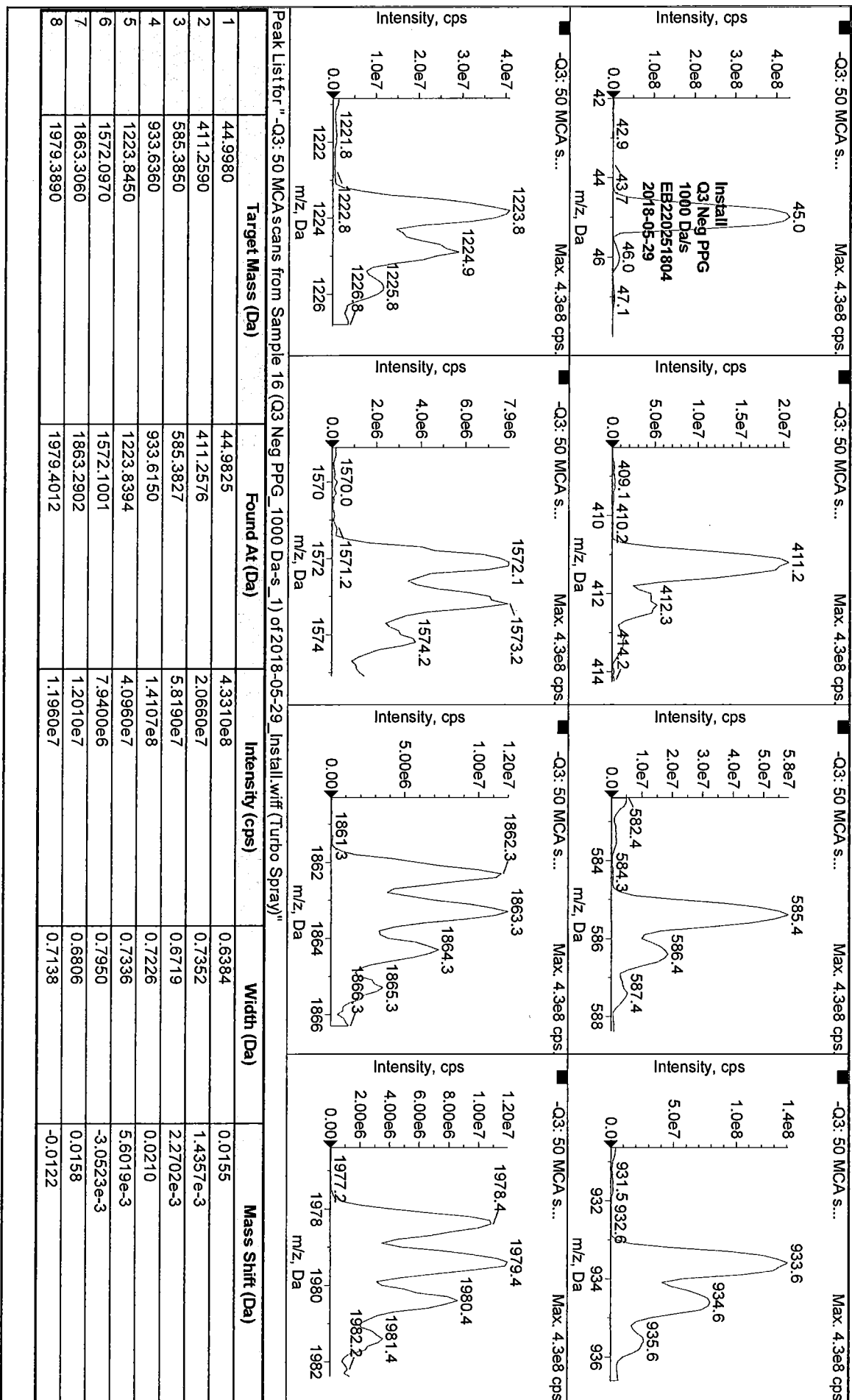


State Parameter Editor

Mass Spectrometer Method Properties

Ion Source:	Turbo Spray
Ion Source Temperature Reached:	
Carrier Gas (CIR):	10.0
Ion Spray Voltage (IS):	-4500.0
Temperature (IP4):	0.0
Ion Source Gas 1 (GS1):	17.0
Ion Source Gas 2 (GS2):	0.0
Distance Potential (EP):	-10.0
Q3 Resolution:	Unit
Ion Beam 3 (IB3):	-1.5
CM (CM4):	1300.0
Period 1:	Experiment 1:
Scans in Period:	50
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1
Scan Type:	Q3 MS (Q3)
Polarity:	Negative
Scan Mode:	Profile
Ion Source:	Turbo Spray
# Scans to Sum:	1
Resolution Q3:	Unit

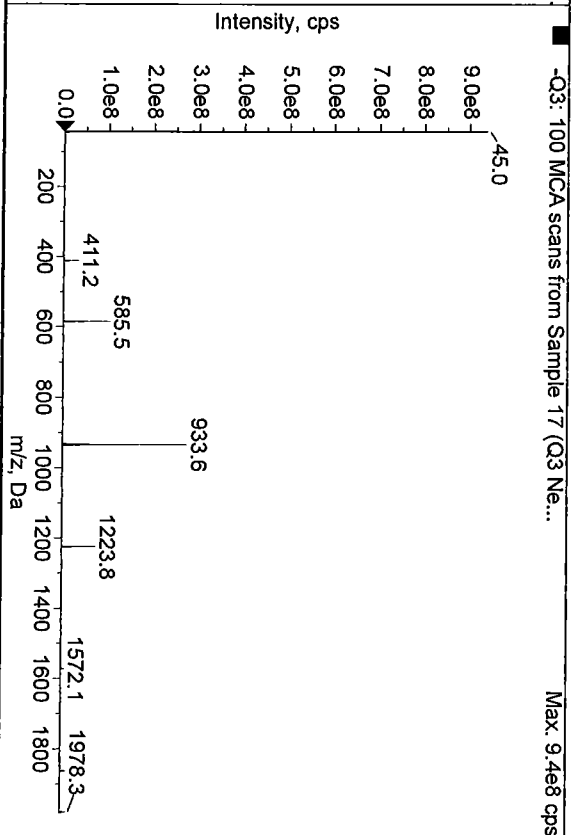
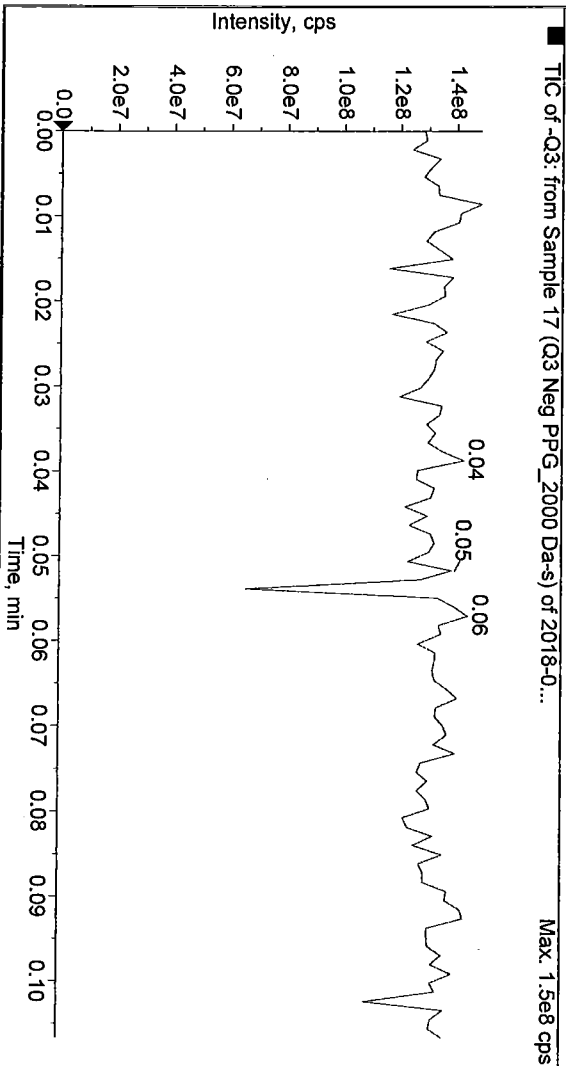


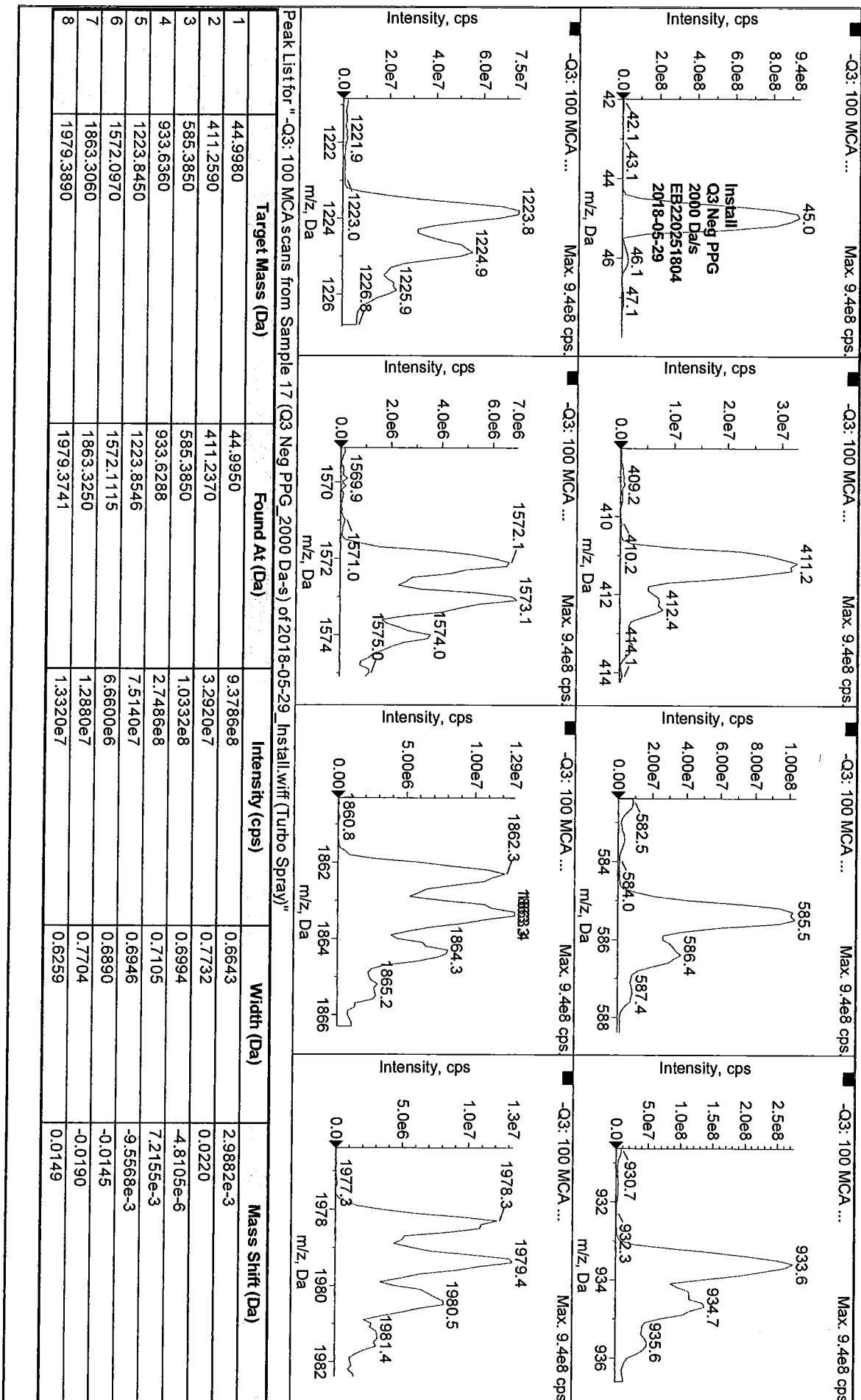


State Parameter Editor

Mass Spectrometer Method Properties

Ion Source:	Turbo Spray
Ion Source Temperature Reached:	10.0
Carrier Gas (Q1):	-4500.0
Temperature (Q1):	0.0
Ion Source Gas 1 (S1):	17.0
Ion Source Gas 2 (S2):	0.0
Distance Potential (EP):	-10.0
Q3 Resolution:	Unit
Ion Beam 3 (I3):	-1.5
Q3 (EP):	1300.0
Period 1:	Experiment 1:
Scans in Period:	100
Relative Start Time:	0.00 msec
Scheduled Ionization:	Off
Experiments in Period:	1
Scan Type:	Q3 MS (Q3)
Polarity:	Negative
Scan Mode:	Profile
Ion Source:	Turbo Spray
# Scans to Sum:	1
Resolution Q3:	Unit

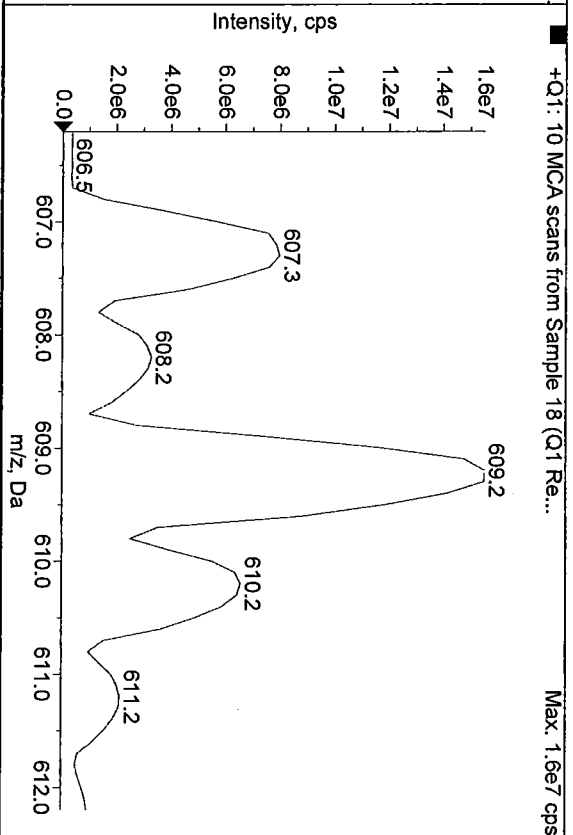
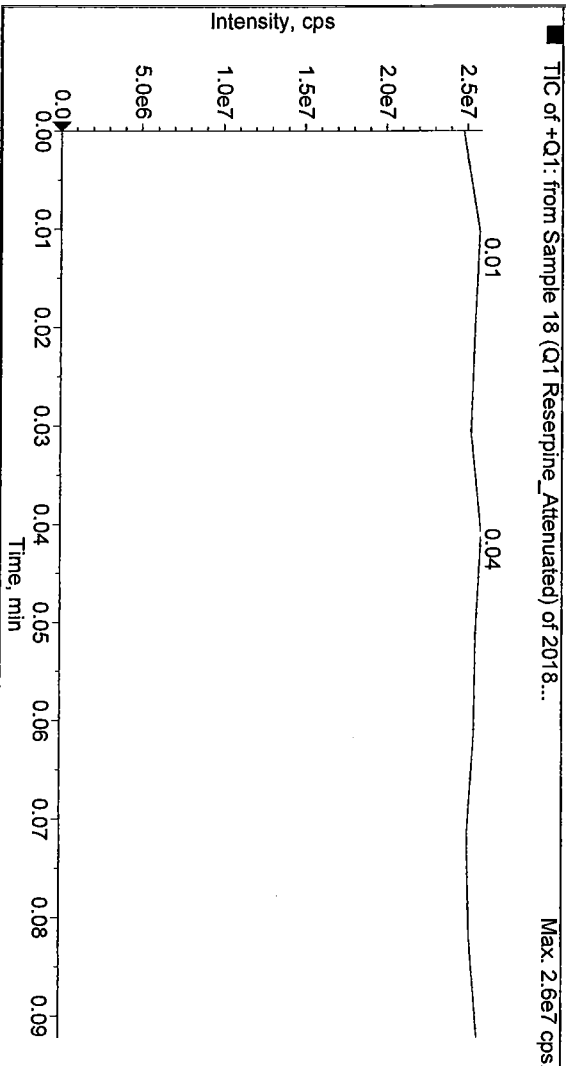




State Parameter Editor

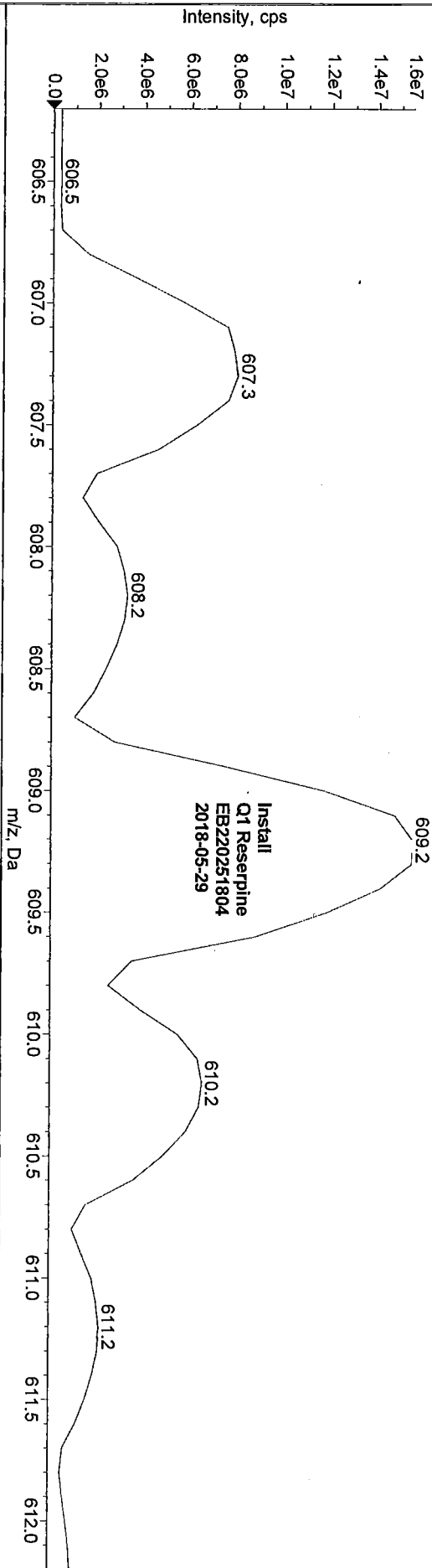
Mass Spectrometer Method Properties

Ion Source: Turbo Spray
 Ion Source Temperature Reached: 28.0
 Curtain Gas (Q1): 5500.0
 Ion Spray Voltage (IS): 0.0
 Temperature (TSP): 17.0
 Ion Source Gas 1 (GS1): 0.0
 Ion Source Gas 2 (GS2): 135.0
 Declustering Potential (DP): 10.0
 Entrance Potential (EP): 1.2
 Q1 Resolution: Unit
 Ion Energy 1 (IE1): 1800.0
 QM (QM): Unit
 Period 1: 1:
 Scans in Period: 10
 Relative Start Time: 0.00 msec
 Scheduled Ionization: Off
 Experiments in Period: 1
 Scan Type: Q1 MS (Q1)
 Polarity: Positive
 Scan Mode: Profile
 Ion Source: Turbo Spray
 # Scans to Sum: 1
 Resolution Q1: Unit



+Q1: 10 MCA scans from Sample 18 (Q1 Reserpine_Atenuated) of 2018-05-29_Install.wiff (Turbo Spray)

Max. 1.6e7 cps



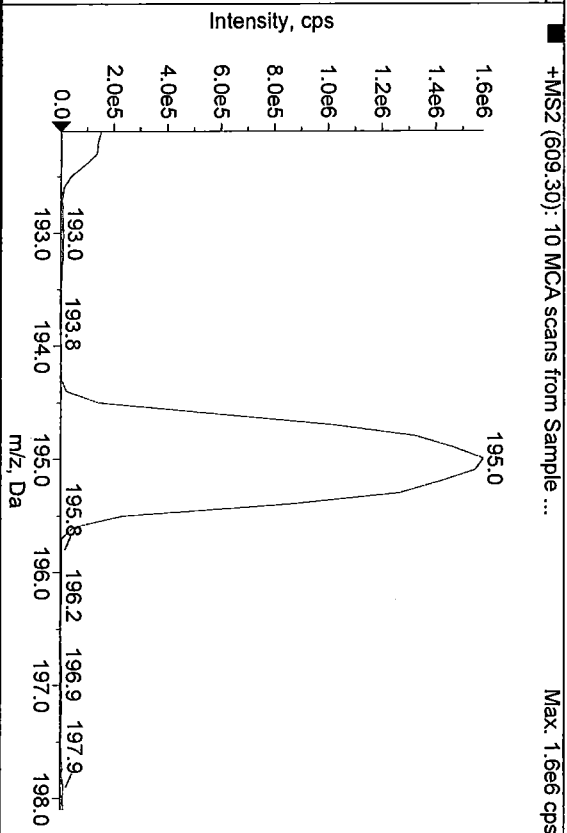
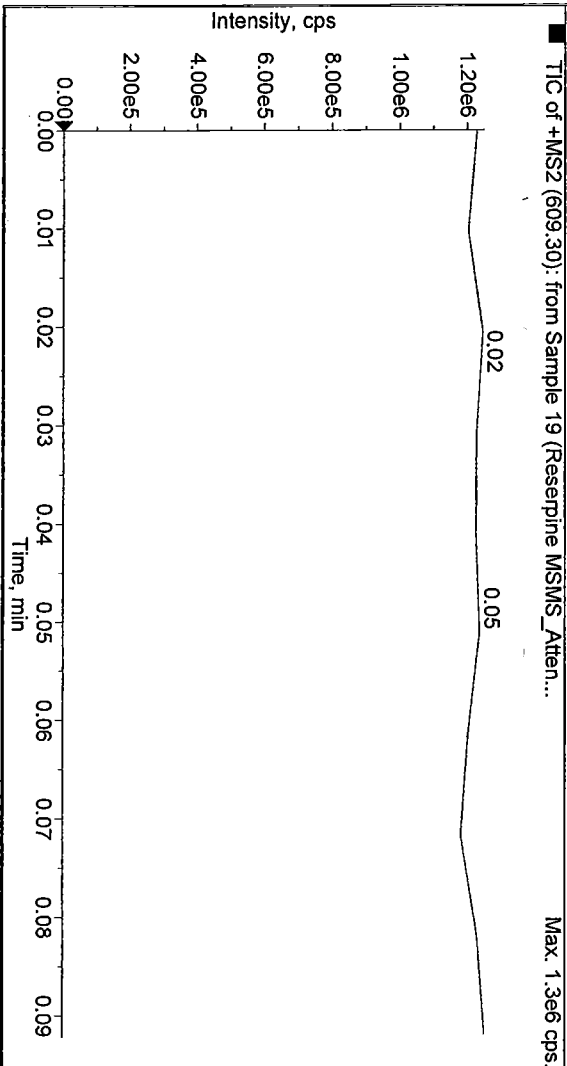
Peak List for "+Q1: 10 MCA scans from Sample 18 (Q1 Reserpine_Atenuated) of 2018-05-29_Install.wiff (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	195.1000	n/a	n/a	n/a	
2	609.2810	609.2580	1.5520e7	0.7138	0.0230

State Parameter Editor

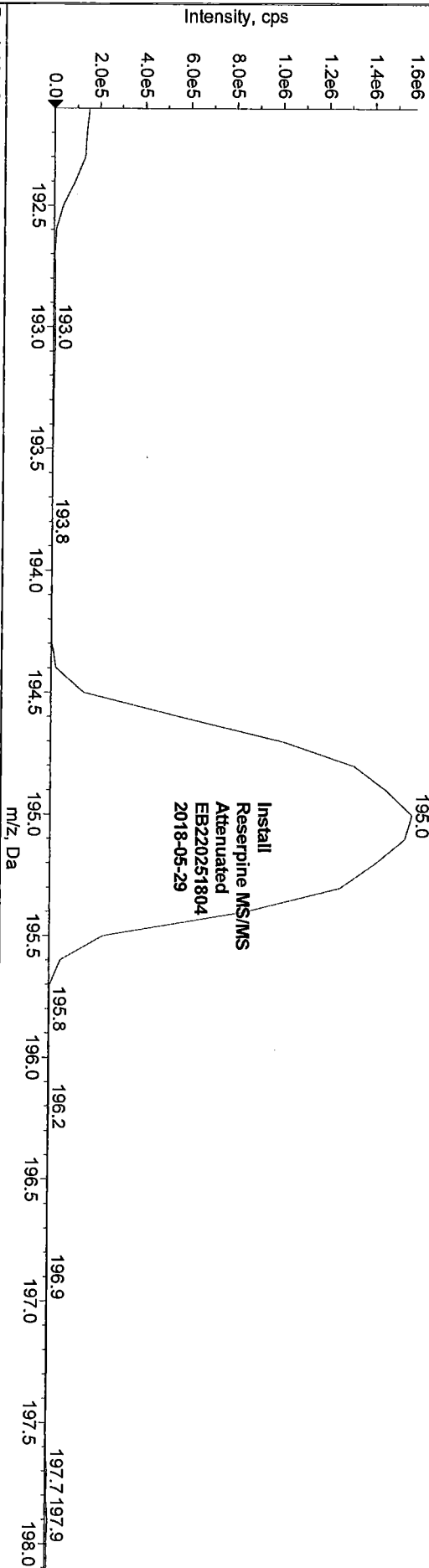
Mass Spectrometer Method Properties

Ion Source: Turbo Spray
 Ion Source Temperature Reached: 28.0
 Curtain Gas (CUR): 9
 Collision Gas (COL): 500.0
 Ion Spray Voltage (IS): 0.0
 Temperature (TEMP): 17.0
 Ion Source Gas 1 (GS1): 0.0
 Ion Source Gas 2 (GS2): 135.0
 Declustering Potential (DP): 10.0
 Distance Potential (BP): 44.5
 Collision Energy (CE): 6.2
 Collision Cell Exit Potential (CXP):
 Q1 Resolution: Unit3 Resolution: Unit
 Ion Energy 1 (IE1): 1.2
 Period 1: Experiment 1:
 Scan Type: Product Ion (MS2)
 Polarity: Positive
 Scan Mode: Profile
 Ion Source: Turbo Spray
 # Scans to Sum: 1
 Product Of: 609.30 Da



+MS2 (609.30): 10 MCA scans from Sample 19 (Reserpine MSMS_Attenuated) of 2018-05-29_Install.wif (Turbo Spray)

Max: 1.6e6 cps



Peak List for "+MS2 (609.30): 10 MCA scans from Sample 19 (Reserpine MSMS_Attenuated) of 2018-05-29_Install.wif (Turbo Spray)"

	Target Mass (Da)	Found At (Da)	Intensity (cps)	Width (Da)	Mass Shift (Da)
1	195.1000	195.0306	1.5772e6	0.7615	0.0694
2	609.2810	n/a	n/a	n/a	n/a

Raw QC Data

PFAS by LC/MS/MS

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	BLK312011		Data File:	18NOV09D-41.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18312011		Acquis Date:	2018-11-09T10:39:45
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	13		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18312011
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	18312011		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	729941.4	725974.7	1	50	
13C2-PFOA	5.0	497646.2	506876.7	-2	50	
13C4-PFOS	4.8	277758.9	274910.1	1	50	
13C2-PFDA	5.0	310858.0	307276.7	1	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	681967.8	13C3-PFBA	729941.4	0.934	10.000	8.647	86	50-150	
E13C5-PFPeA	716850.8	13C3-PFBA	729941.4	0.982	10.000	8.556	86	50-150	
E13C3-PFBS	374937.5	13C3-PFBA	729941.4	0.514	9.300	7.540	81	50-150	
E13C2-4:2-FTS	45817.9	13C2-PFOA	497646.2	0.092	9.340	8.309	89	50-150	
E13C5-PFHxA	593962.5	13C2-PFOA	497646.2	1.194	10.000	8.781	88	50-150	
E13C3-PFHxS	295131.7	13C2-PFOA	497646.2	0.593	9.460	8.515	90	50-150	
E13C4-PFHpA	465226.5	13C2-PFOA	497646.2	0.935	10.000	8.506	85	50-150	
E13C2-6:2-FTS	33764.9	13C2-PFOA	497646.2	0.068	9.500	9.049	95	50-150	
E13C8-PFOA	788564.2	13C2-PFOA	497646.2	1.585	10.000	8.838	88	50-150	
E13C8-PFOS	257199.7	13C4-PFOS	277758.9	0.926	9.560	8.189	86	50-150	
E13C9-PFNA	403265.0	13C4-PFOS	277758.9	1.452	10.000	7.932	79	50-150	
E13C6-PFDA	536012.5	13C2-PFDA	310858.0	1.724	10.000	8.673	87	50-150	
E13C2-8:2-FTS	24800.9	13C2-PFDA	310858.0	0.080	9.580	8.443	88	50-150	
E13C8-PFOSA	608486.2	13C2-PFDA	310858.0	1.957	10.000	8.543	85	50-150	
Ed3-NMeFOSAA	80784.2	13C2-PFDA	310858.0	0.260	10.000	9.665	97	50-150	
E13C7-PFUnDA	235079.6	13C2-PFDA	310858.0	0.756	10.000	8.725	87	50-150	
Ed5-NetFOSAA	61518.0	13C2-PFDA	310858.0	0.198	10.000	9.159	92	50-150	
E13C2-PFDoDA	490559.7	13C2-PFDA	310858.0	1.578	10.000	8.509	85	50-150	
Ed7-NMePFOSAE	290886.5	13C2-PFDA	310858.0	0.936	10.000	8.703	87	50-150	
Ed3-NMePFOSA	69194.5	13C2-PFDA	310858.0	0.223	10.000	8.150	82	50-150	
Ed9-NetPFOSAE	246187.2	13C2-PFDA	310858.0	0.792	10.000	9.046	90	50-150	
Ed5-NetPFOSA	58999.1	13C2-PFDA	310858.0	0.190	10.000	8.789	88	50-150	
E13C2-PFTeDA	332765.8	13C2-PFDA	310858.0	1.070	10.000	7.707	77	50-150	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: BLK312011

Instrument Name: LM27631

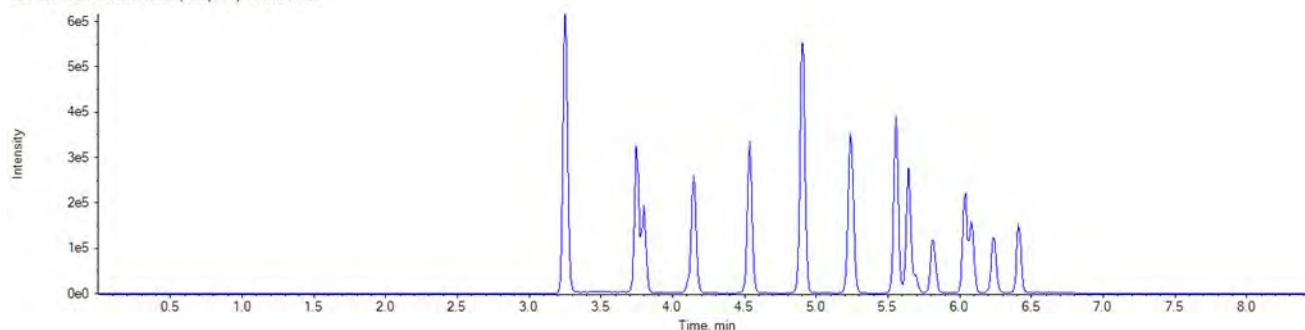
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.25	681967.8	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.75	716850.8	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.80	374937.5	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.11	45817.9	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	593962.5	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.80	374937.5	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	295131.7	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.54	465226.5	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.89	33764.9	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	295131.7	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.90	788564.2	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.23	257199.7	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.25	403265.0	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.23	257199.7	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.56	536012.5	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	24800.9	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.64	608486.2	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.69	80784.2	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.23	257199.7	N/A	
PfUnDA	N/A	N/A	N/A		A	13C7-PfUnDA	5.81	235079.6	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.82	61518.0	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	490559.7	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.56	24800.9	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.08	290886.5	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.09	69194.5	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.23	257199.7	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.23	246187.2	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.25	58999.1	N/A	
PFTDA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	490559.7	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	332765.8	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	332765.8	N/A	
PFOA	N/A	N/A	N/A		A	13C2-PFTeDA	6.41	332765.8	N/A	

Total Ion Chromatogram

TIC from 18NOV09D-41.wiff (sample 1) - BLK312011



APPROVED

By MCD at 4:33 pm, 11/10/18

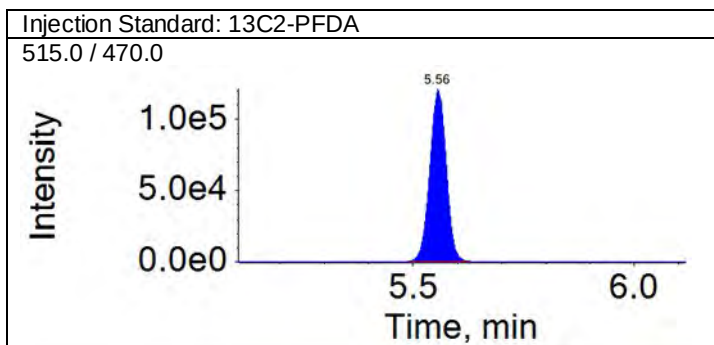
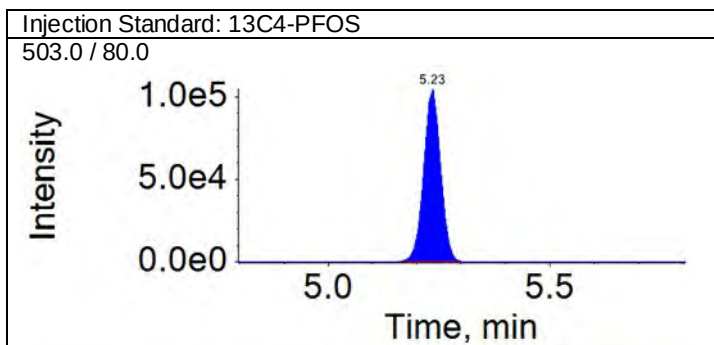
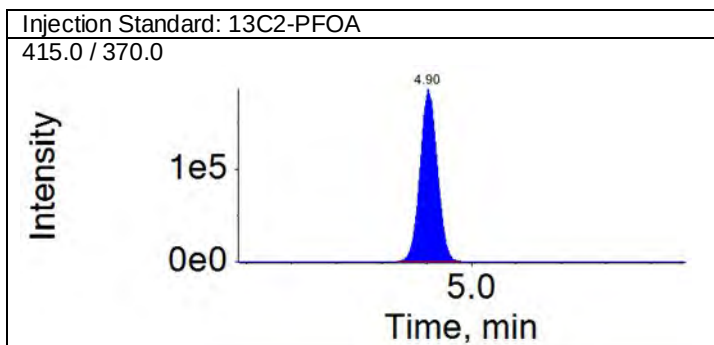
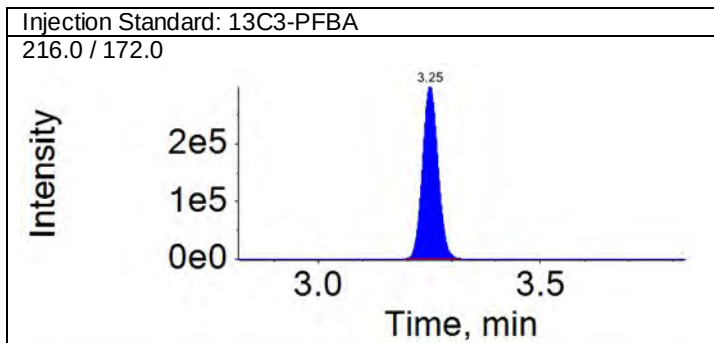
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REVIEWED

By HMK at 9:08 am, 11/15/18

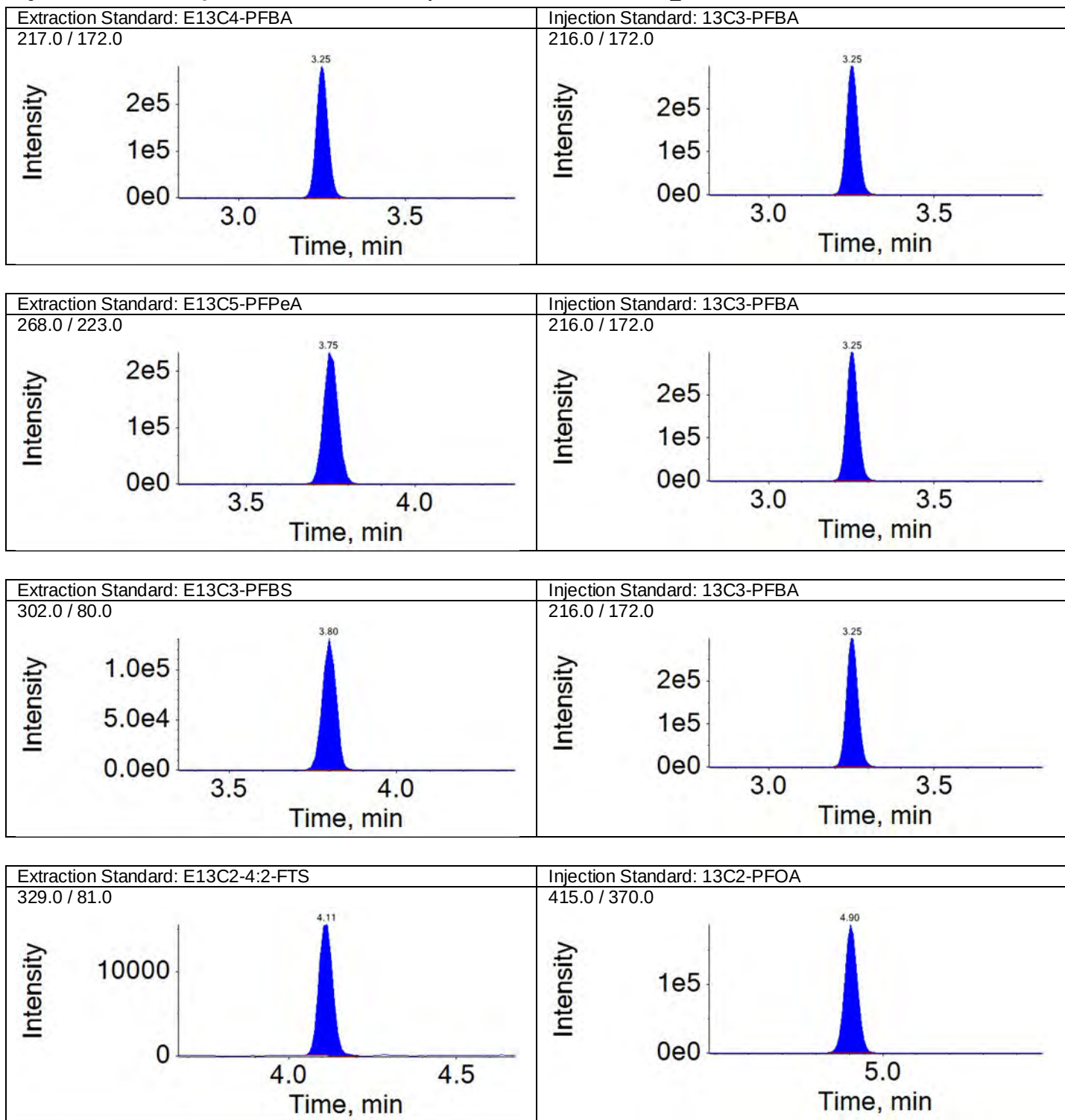
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Acquisition Method: 18AUG13_3uL.dam



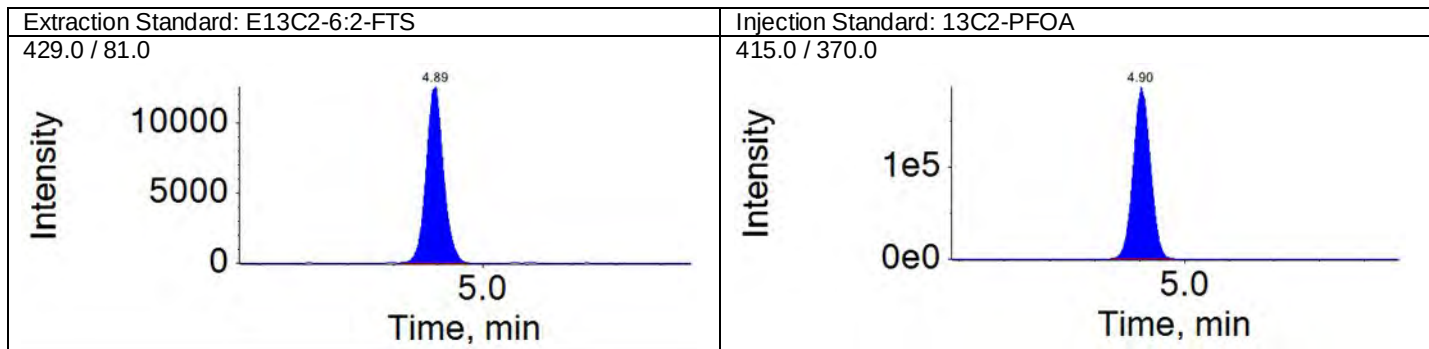
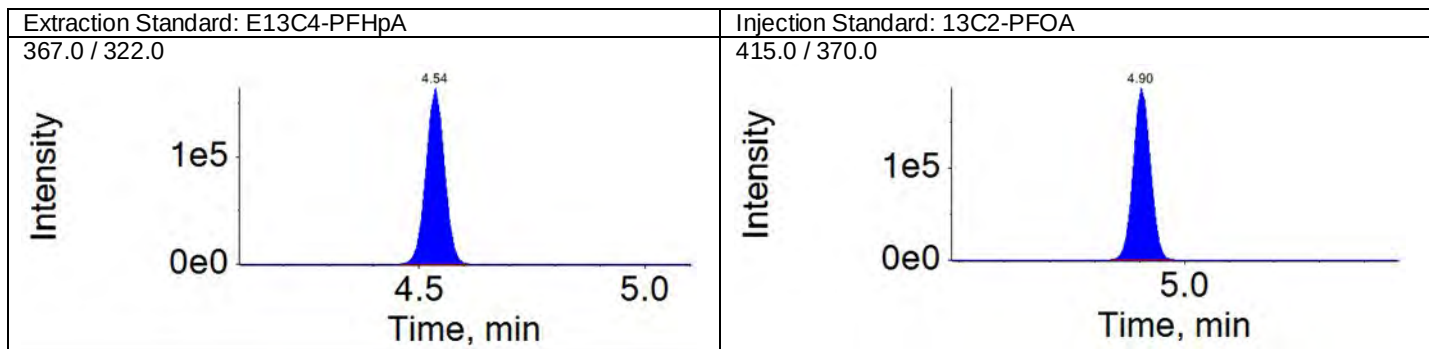
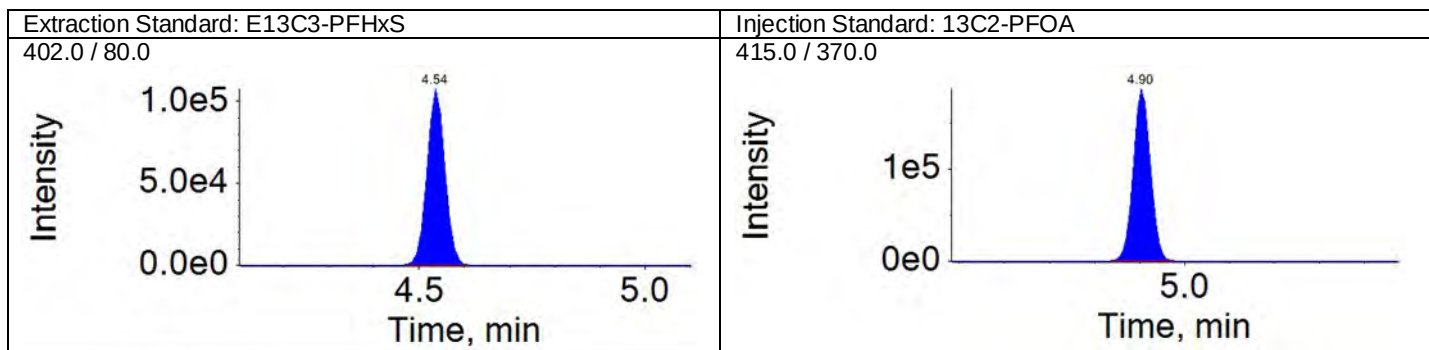
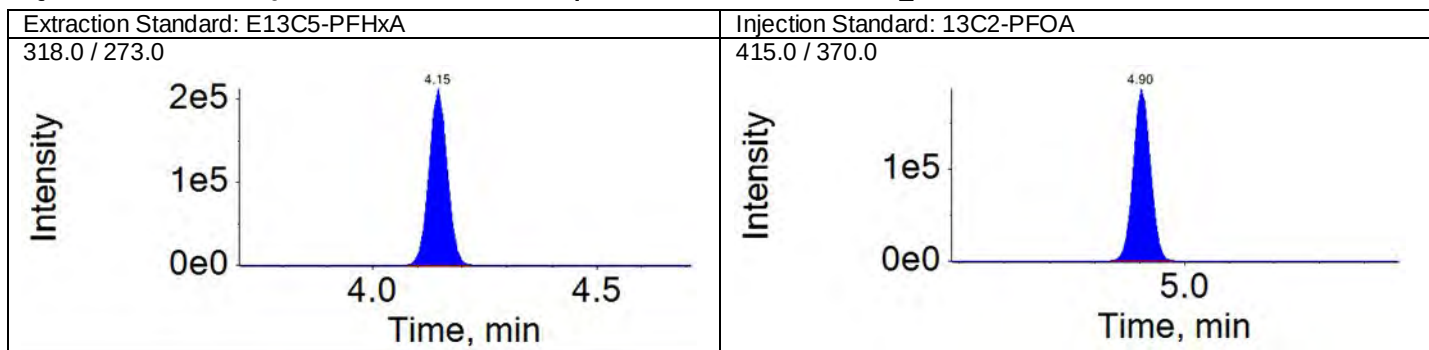
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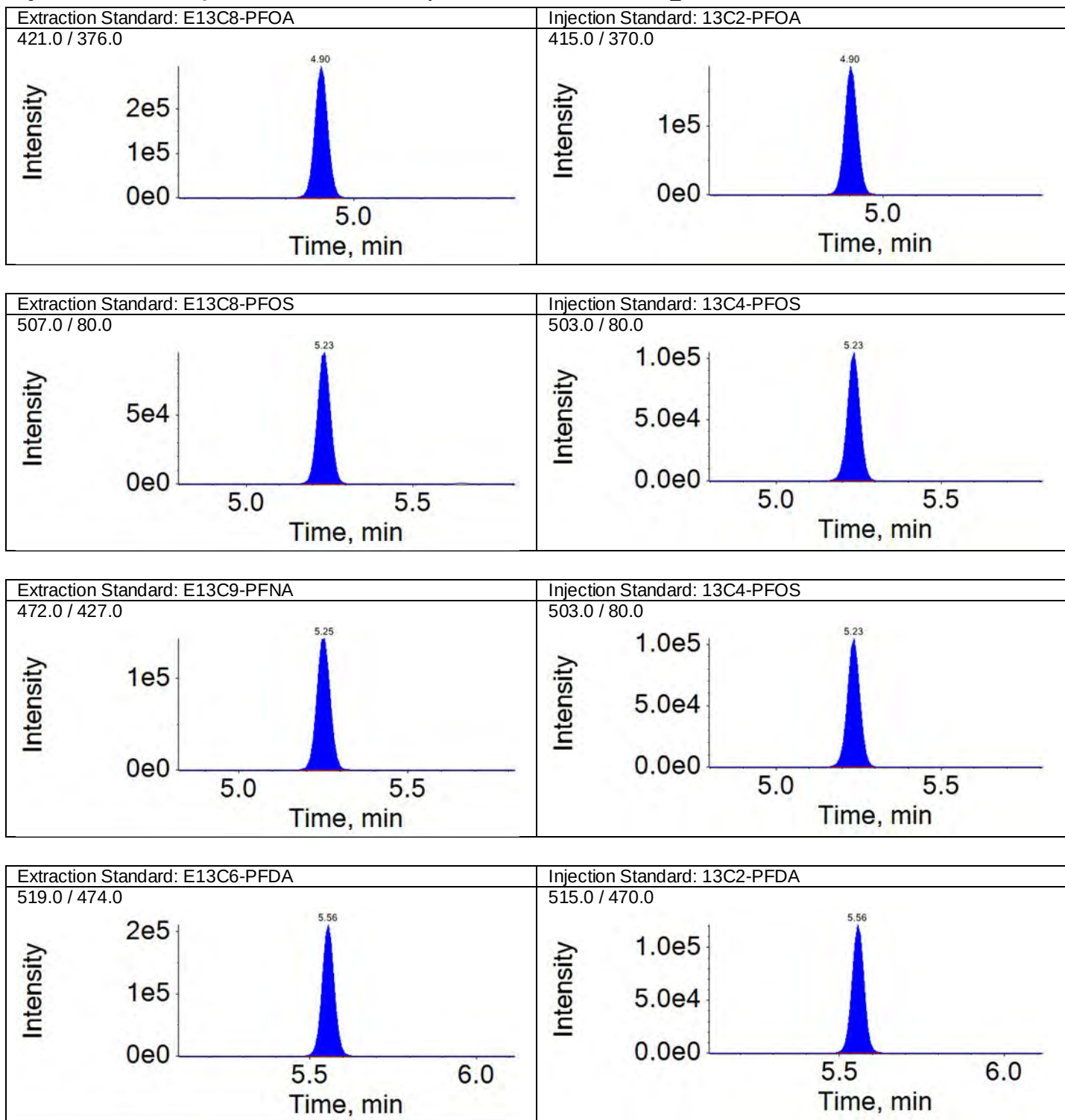
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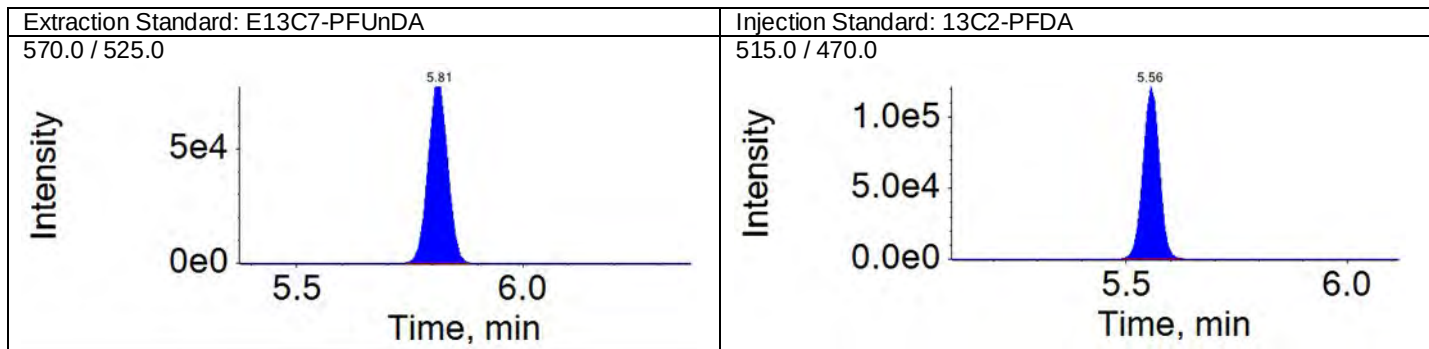
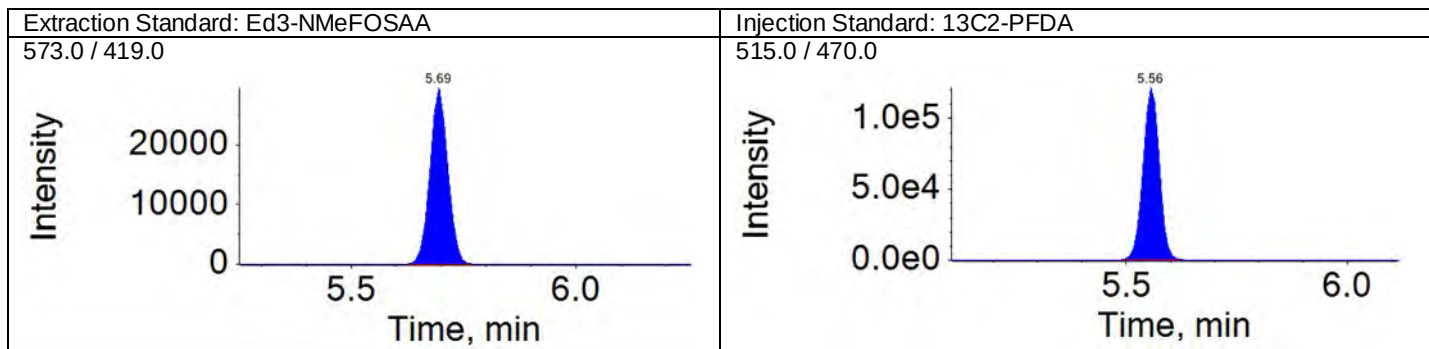
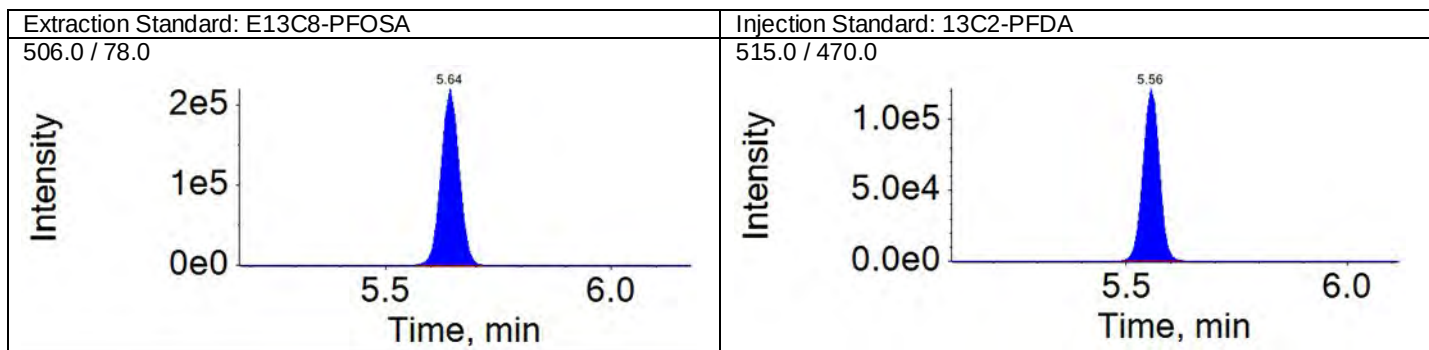
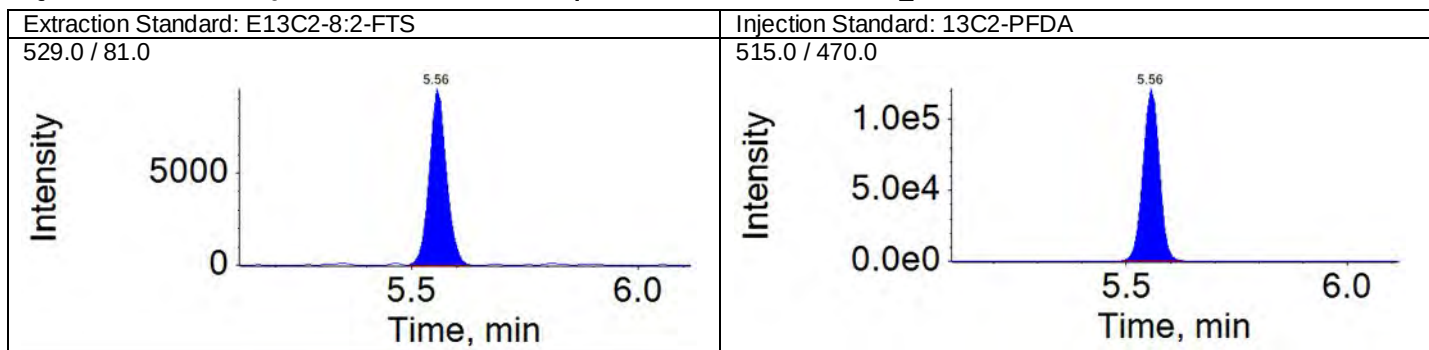
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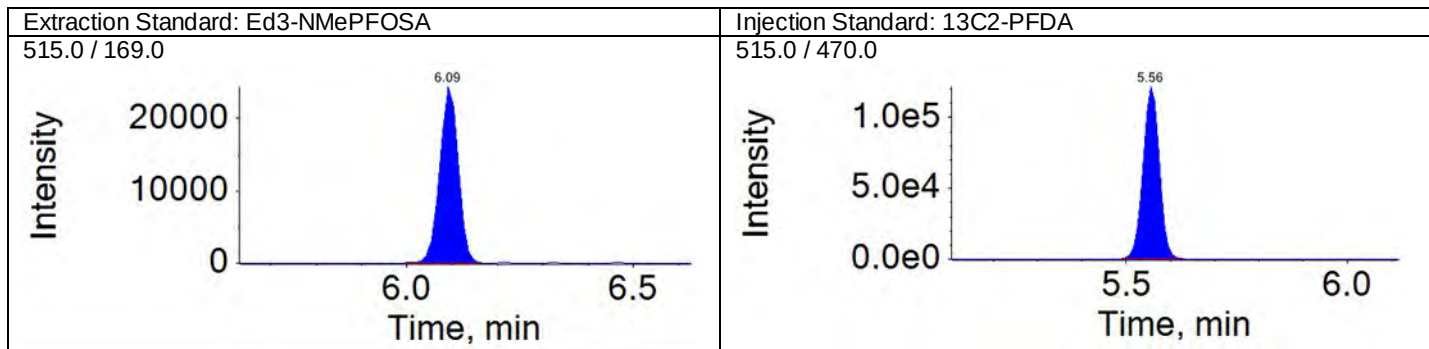
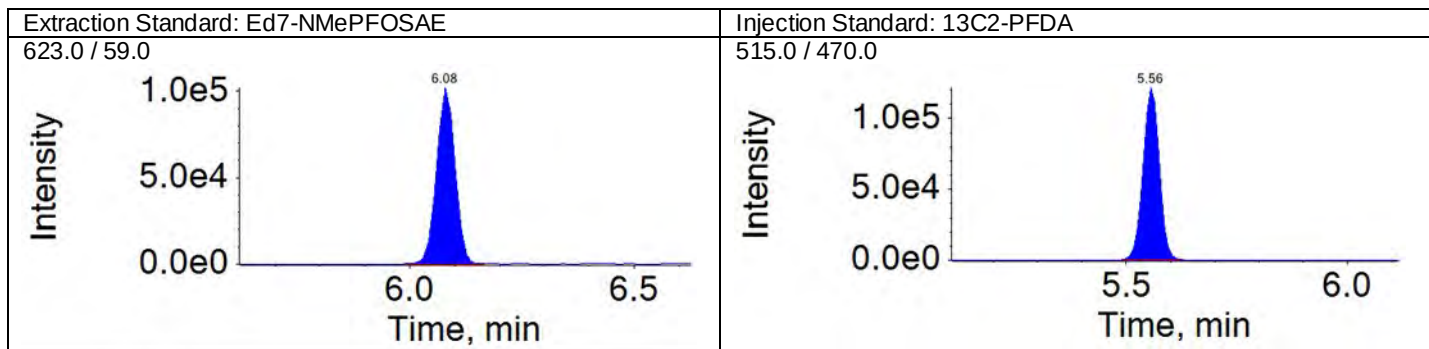
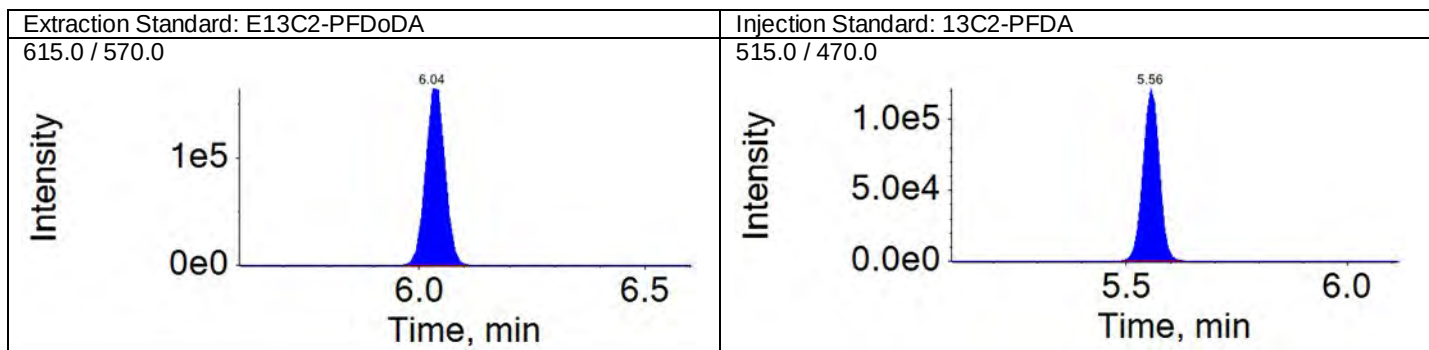
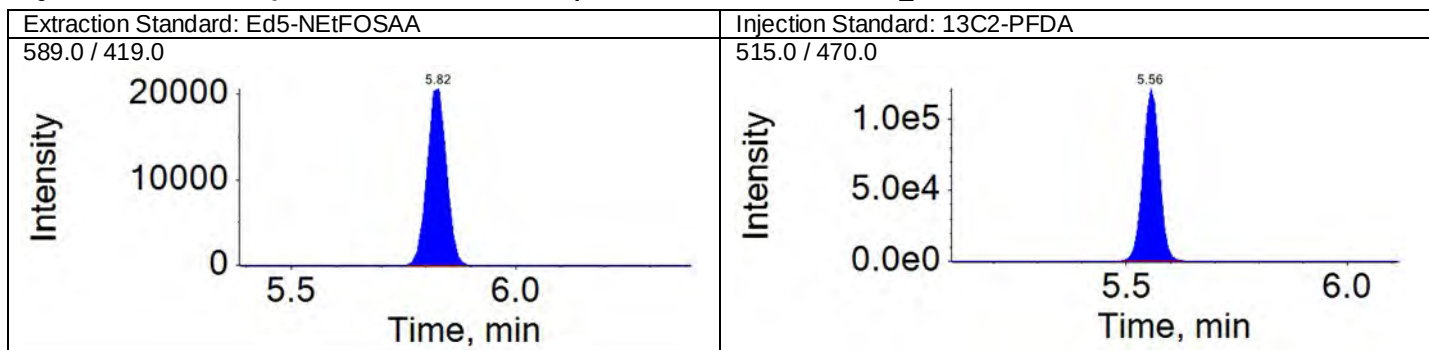
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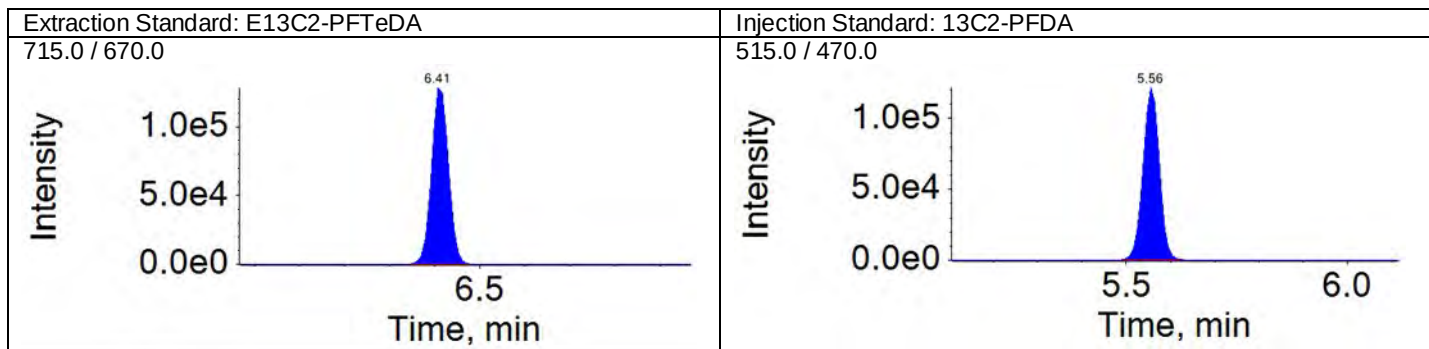
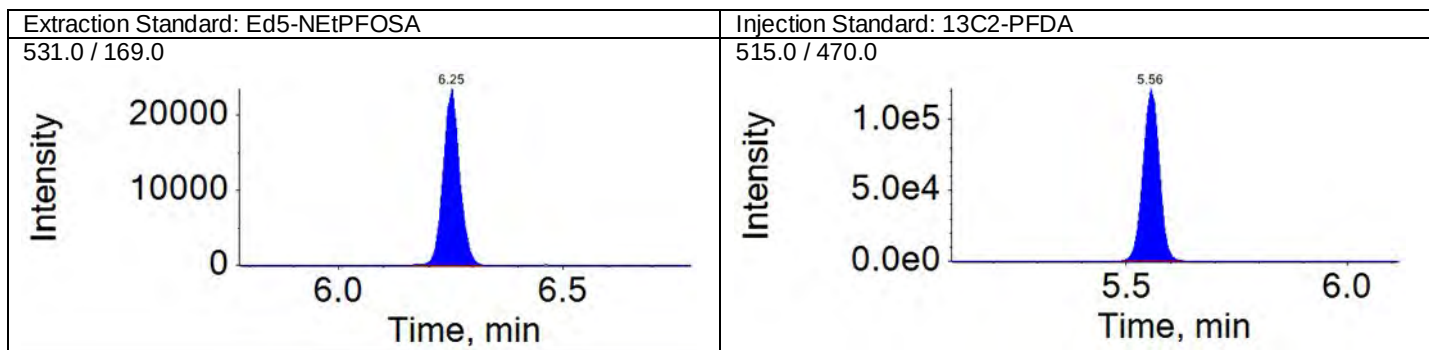
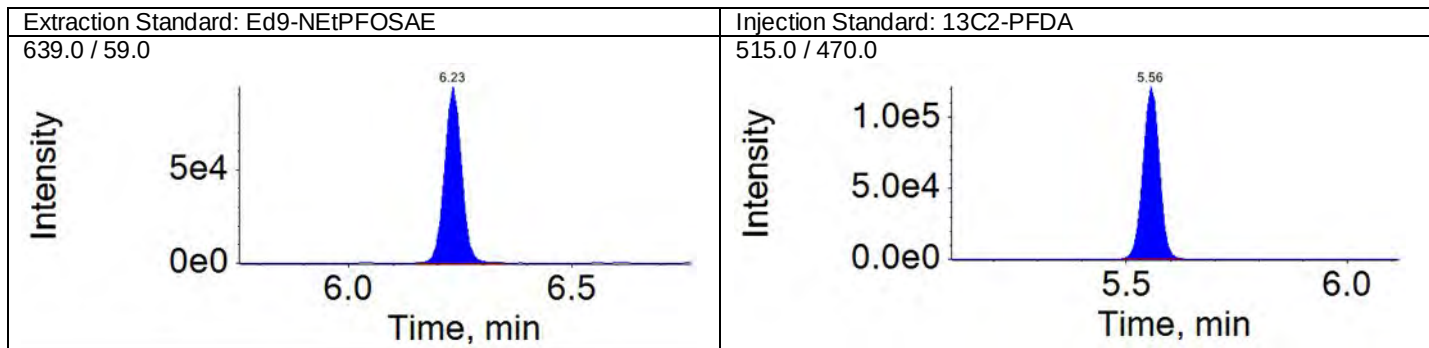
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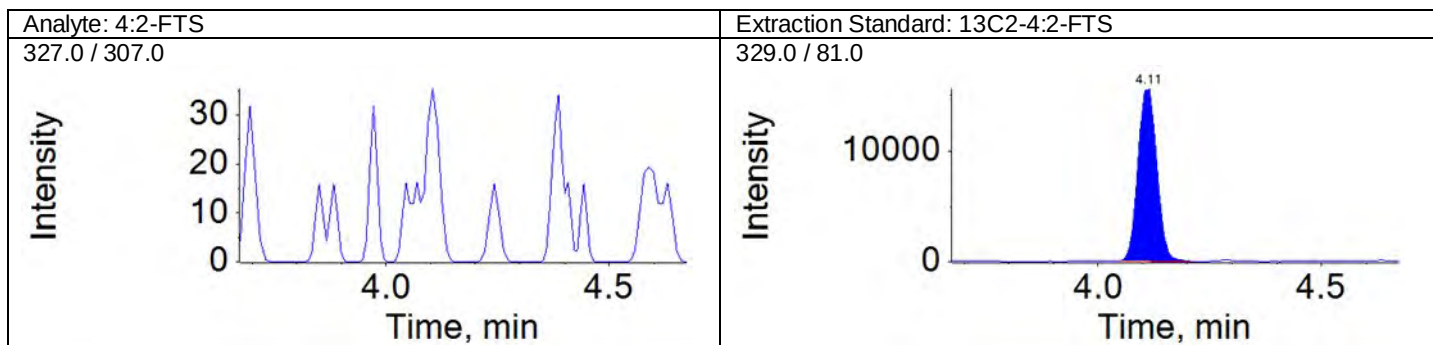
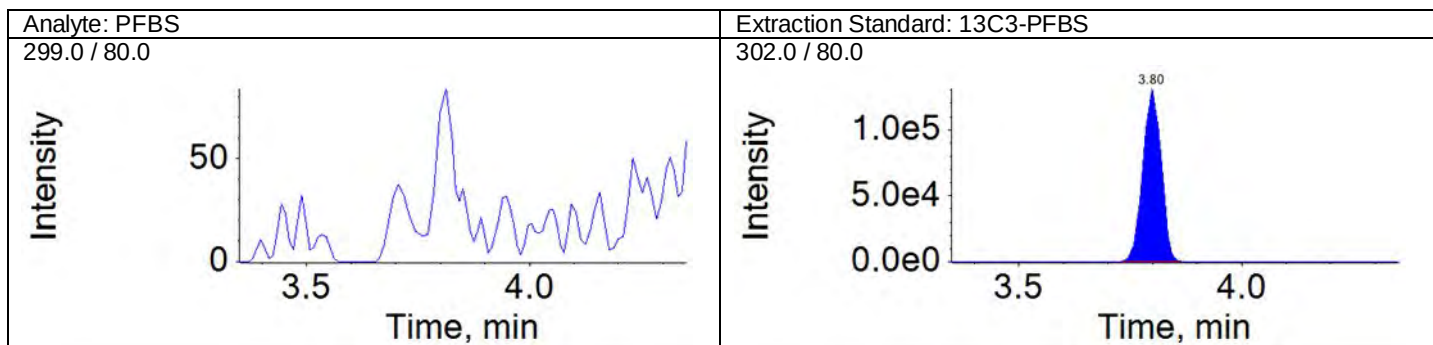
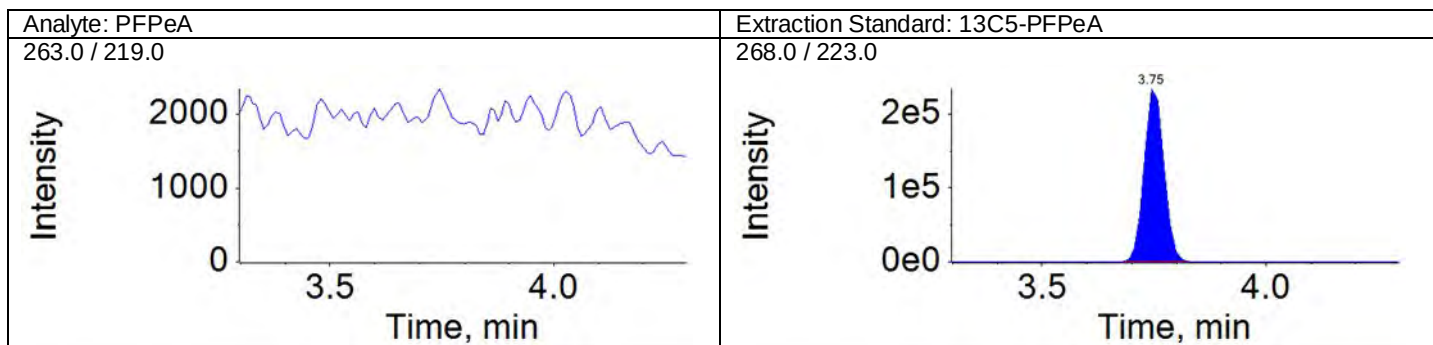
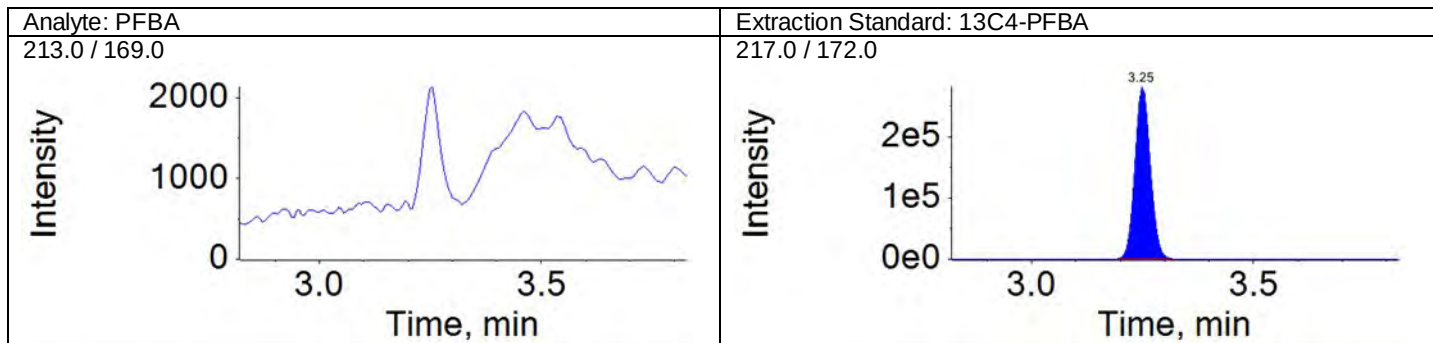
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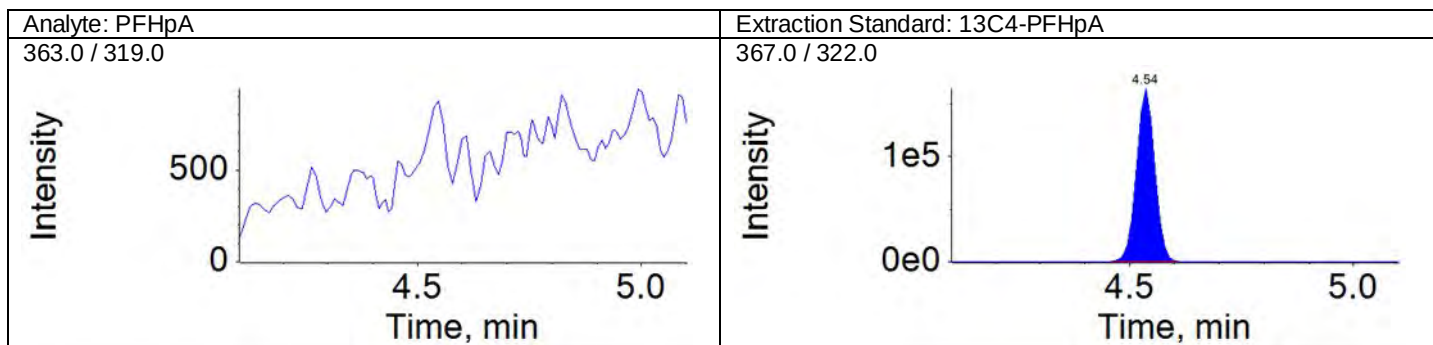
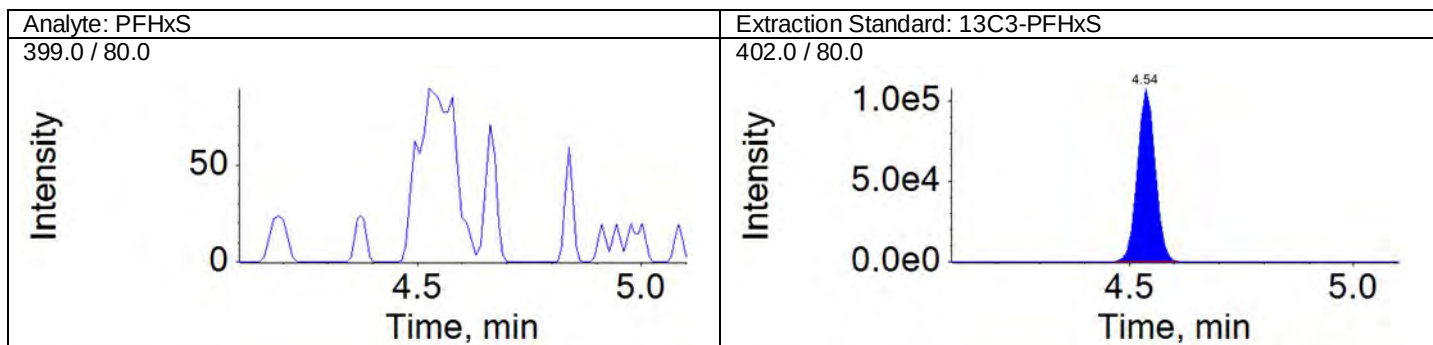
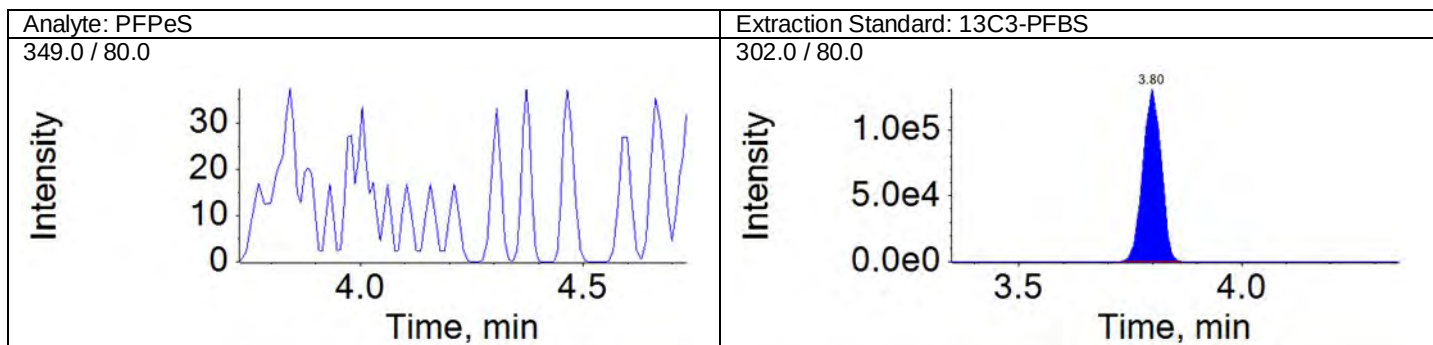
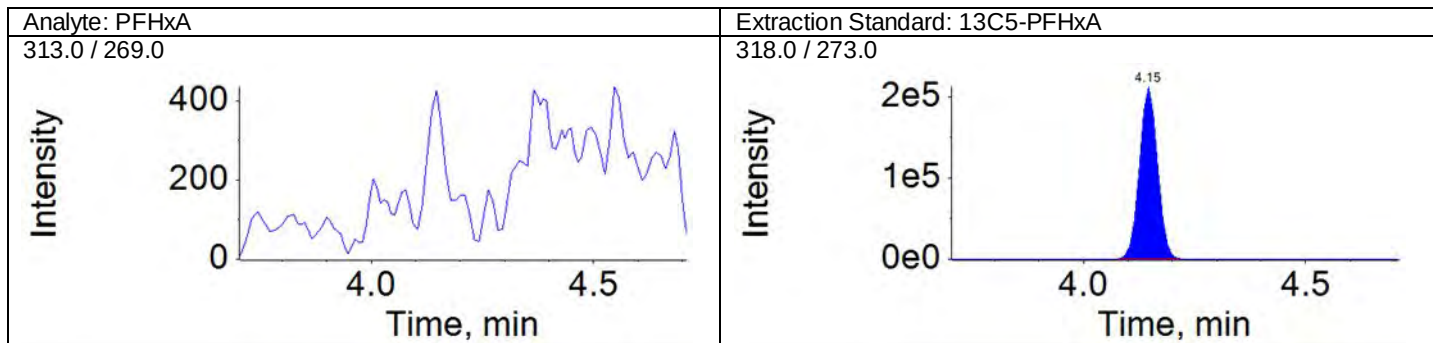
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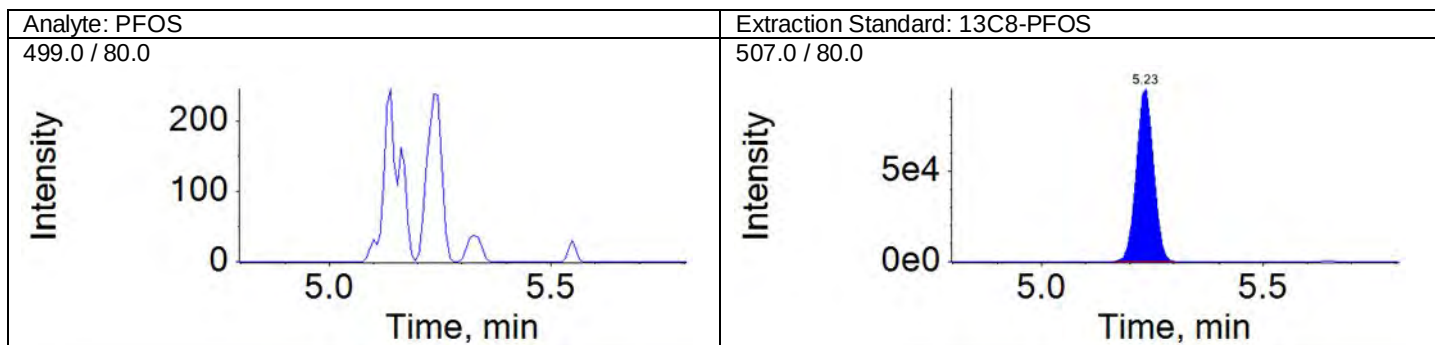
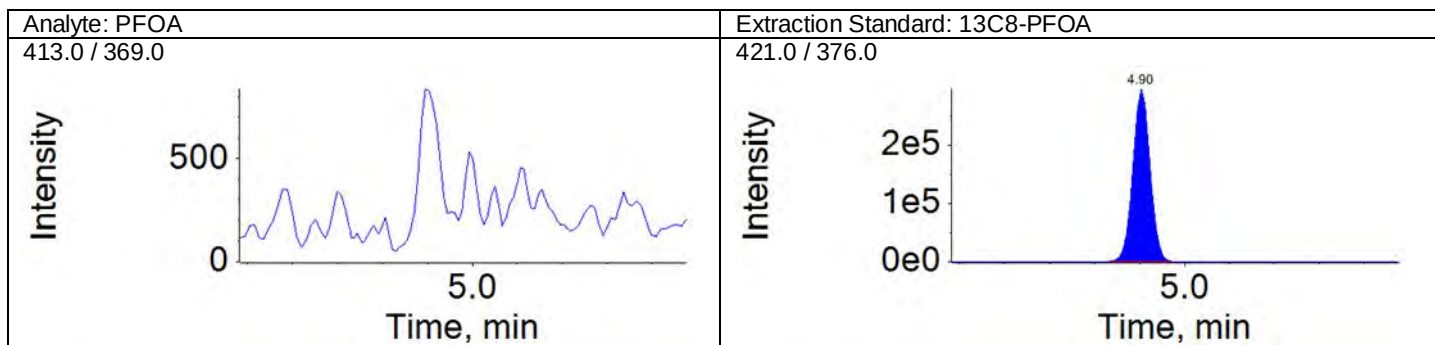
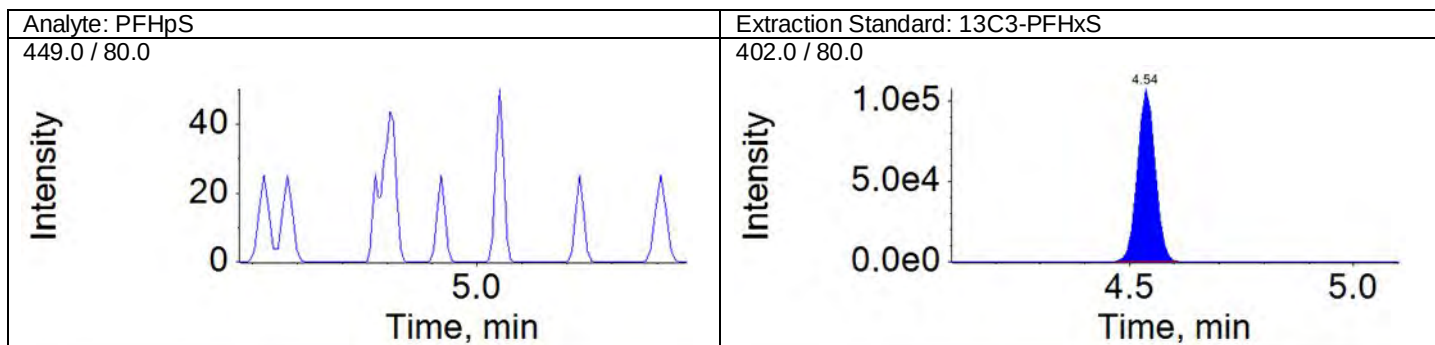
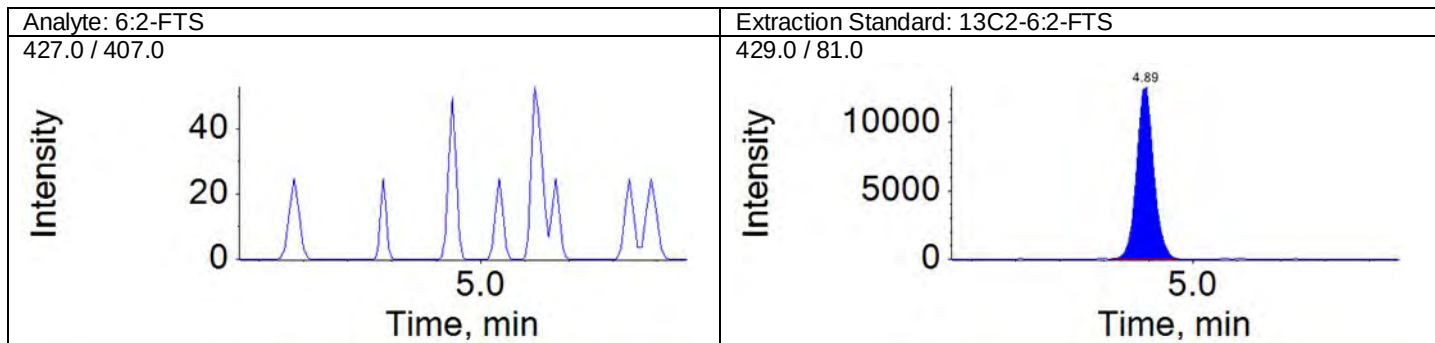
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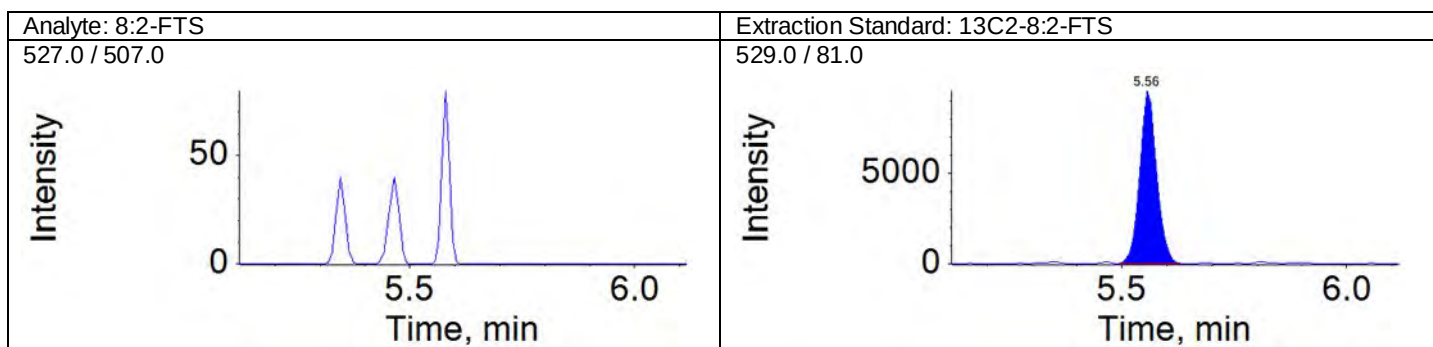
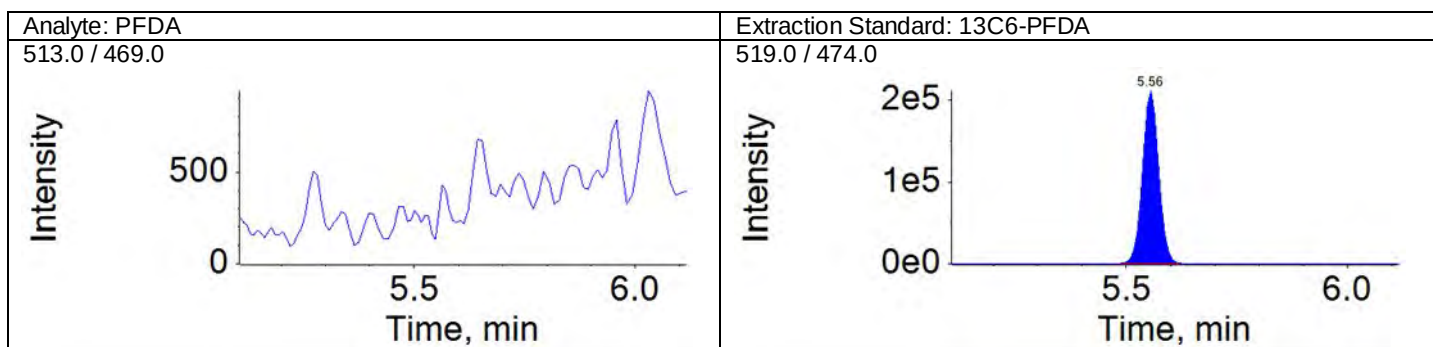
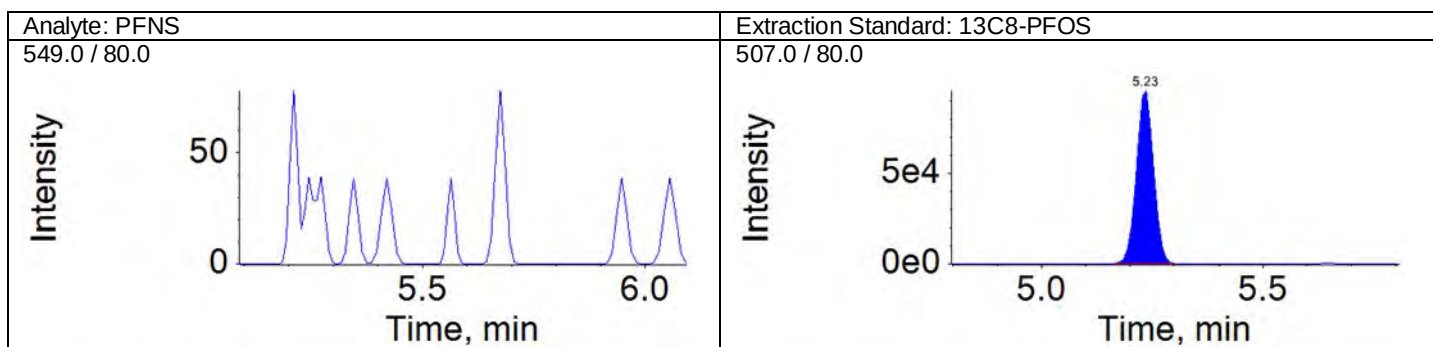
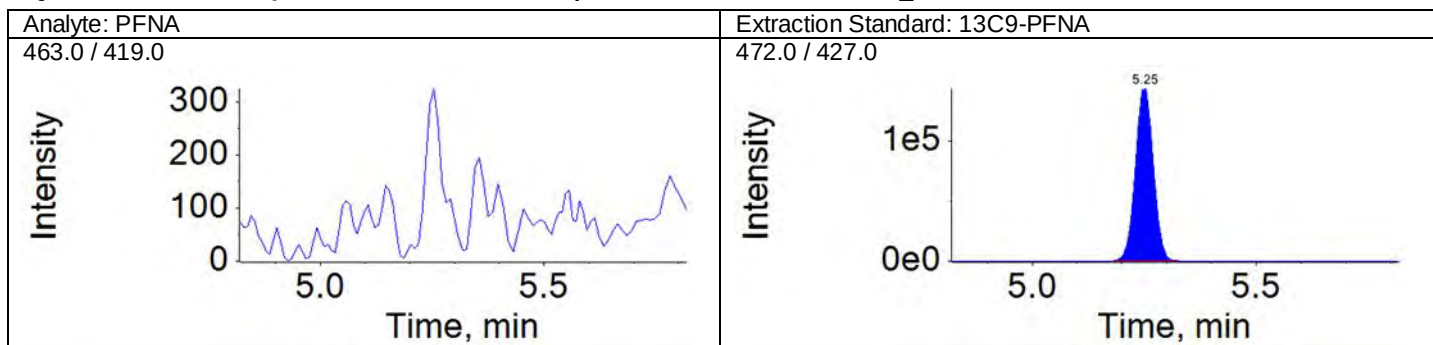
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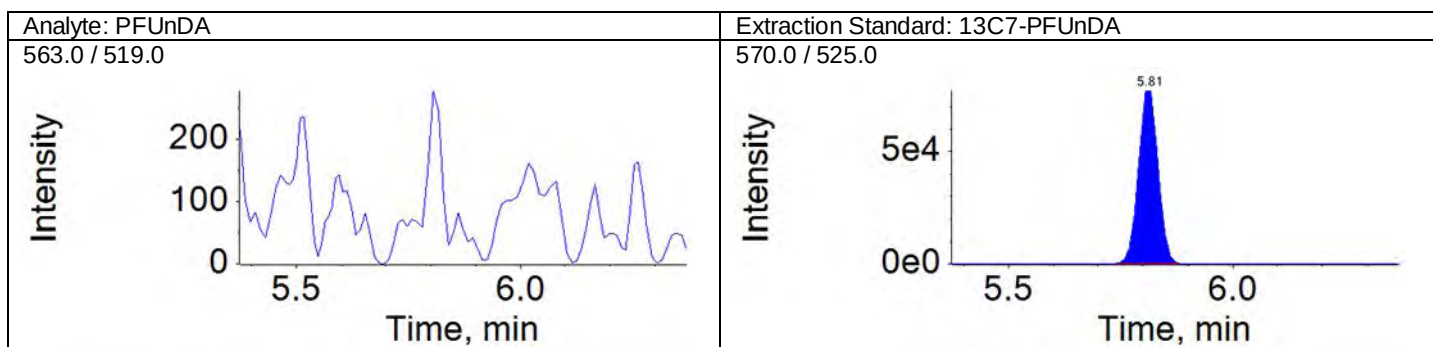
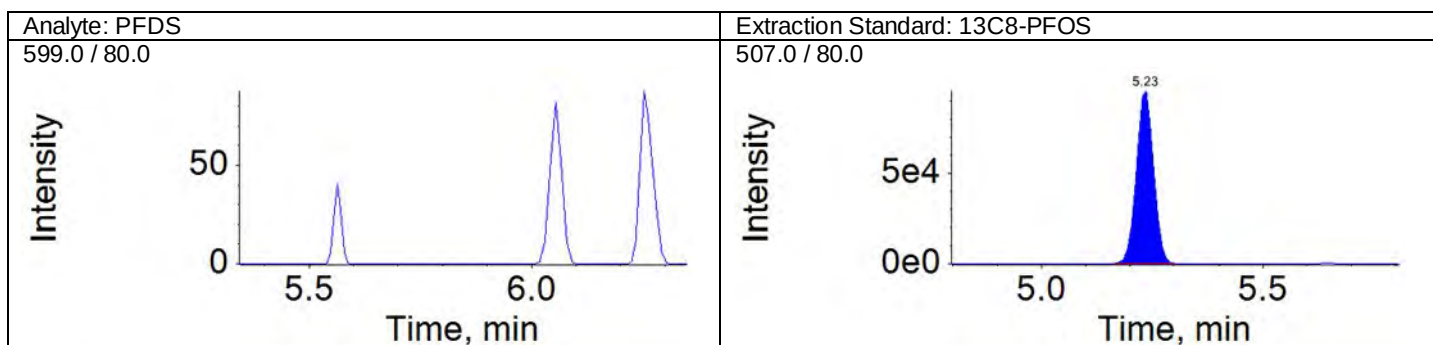
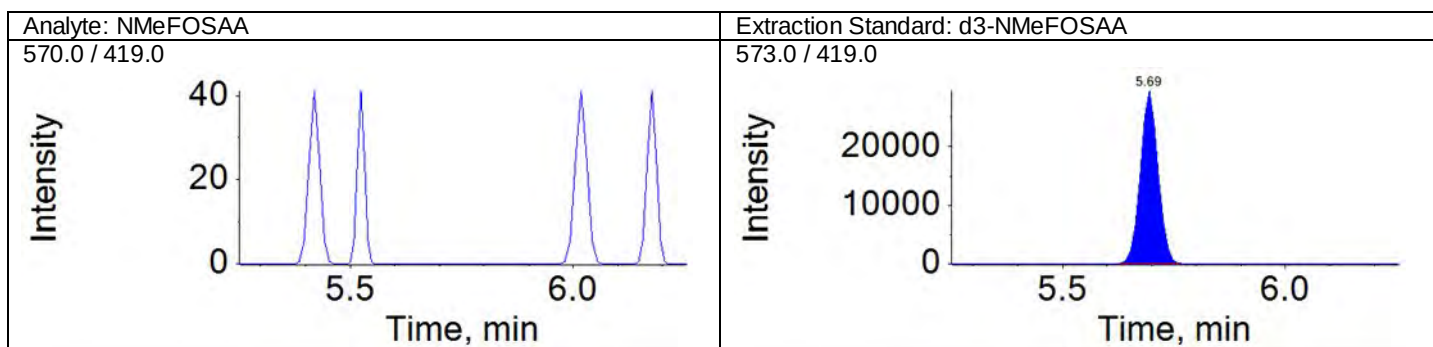
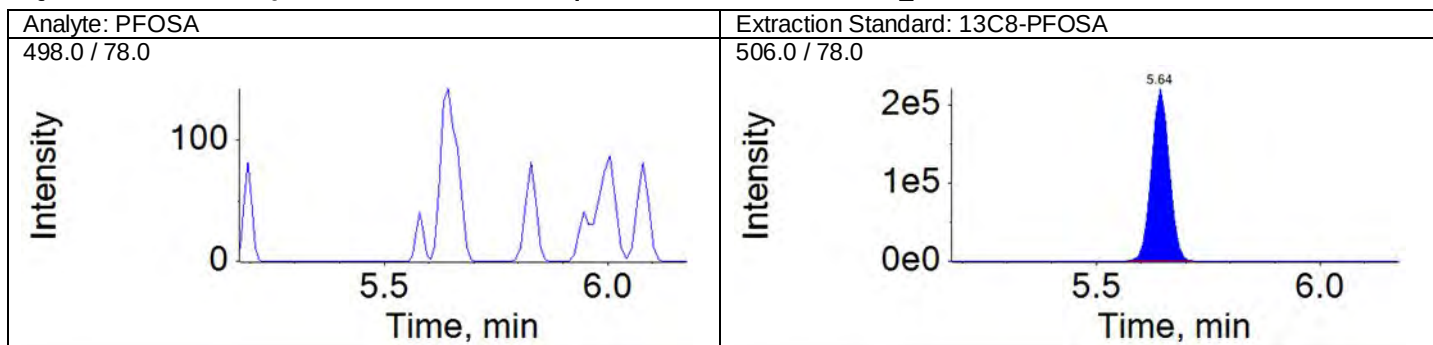
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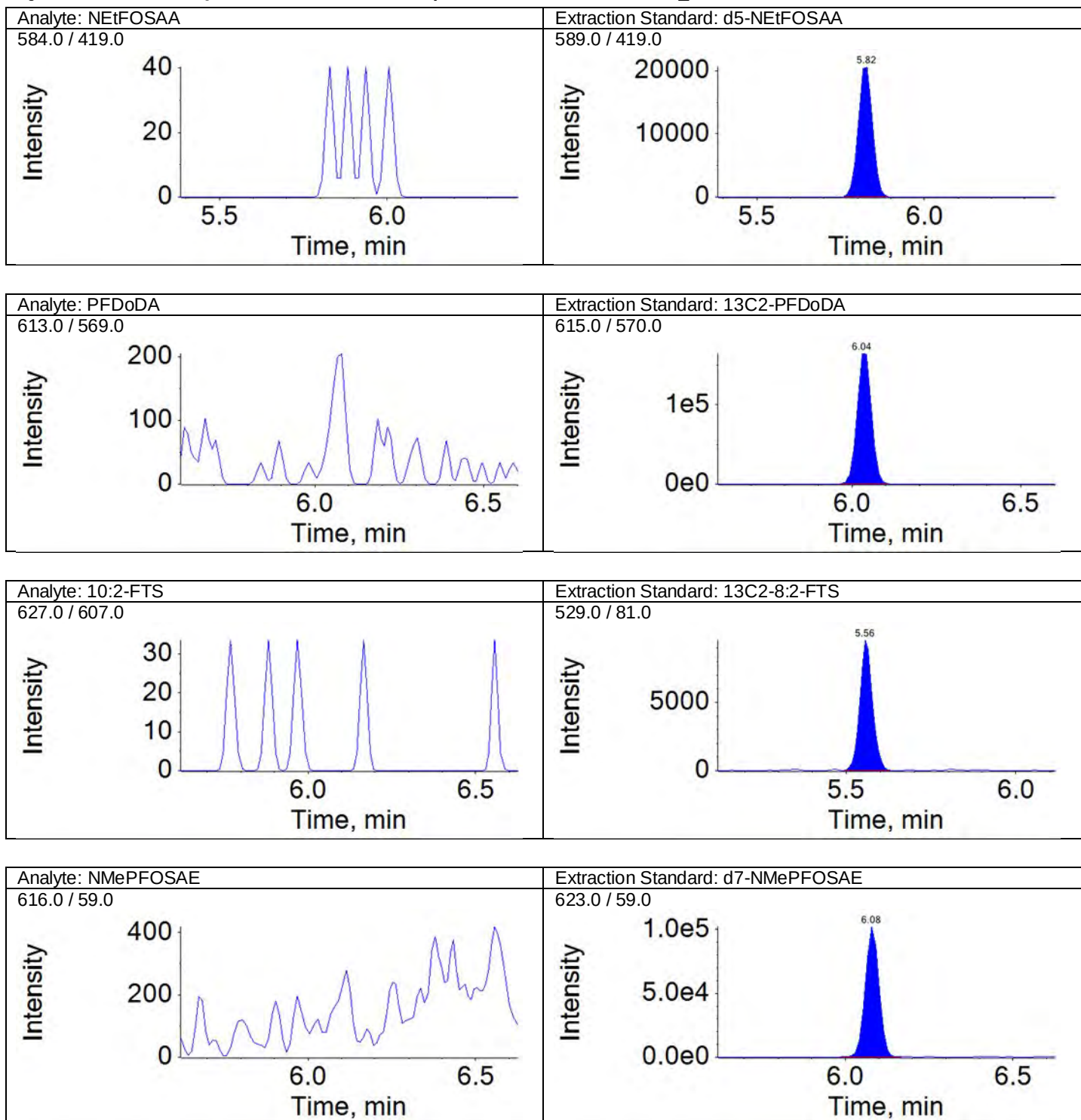
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ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

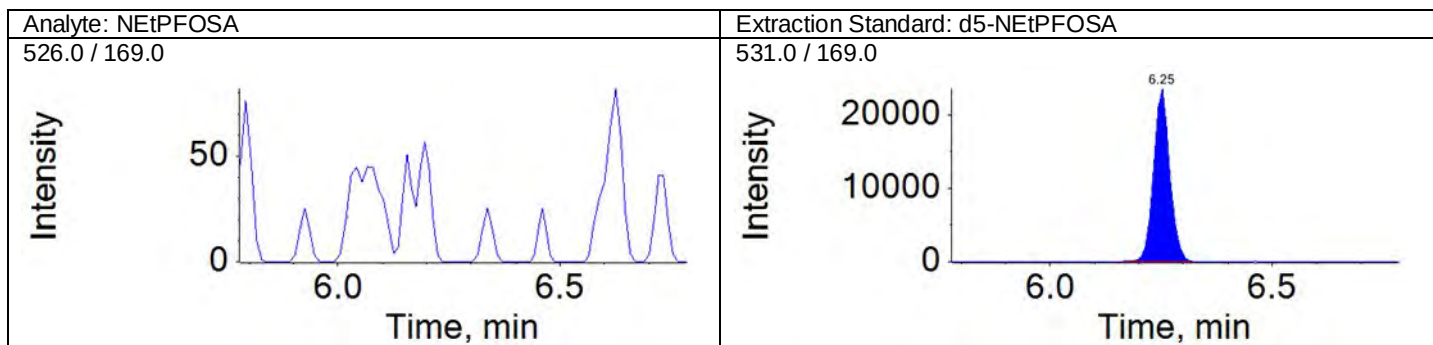
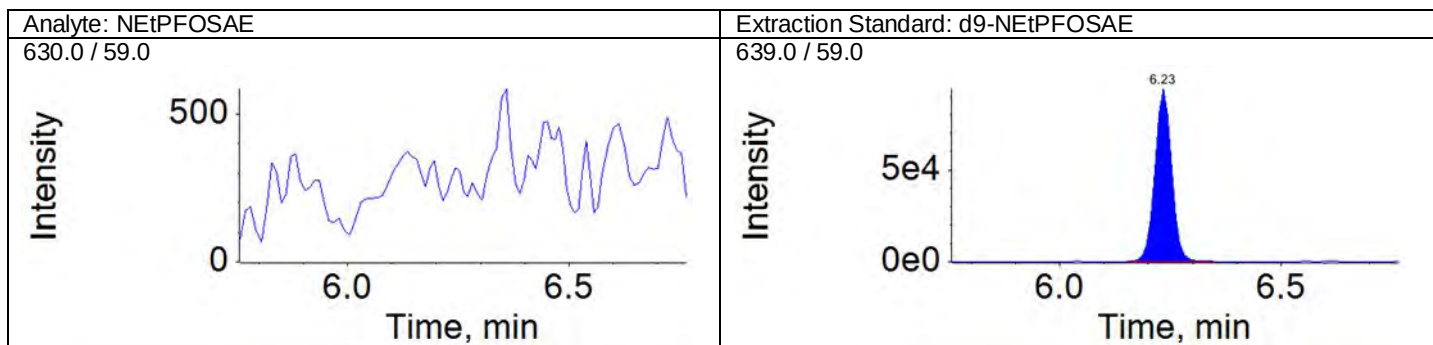
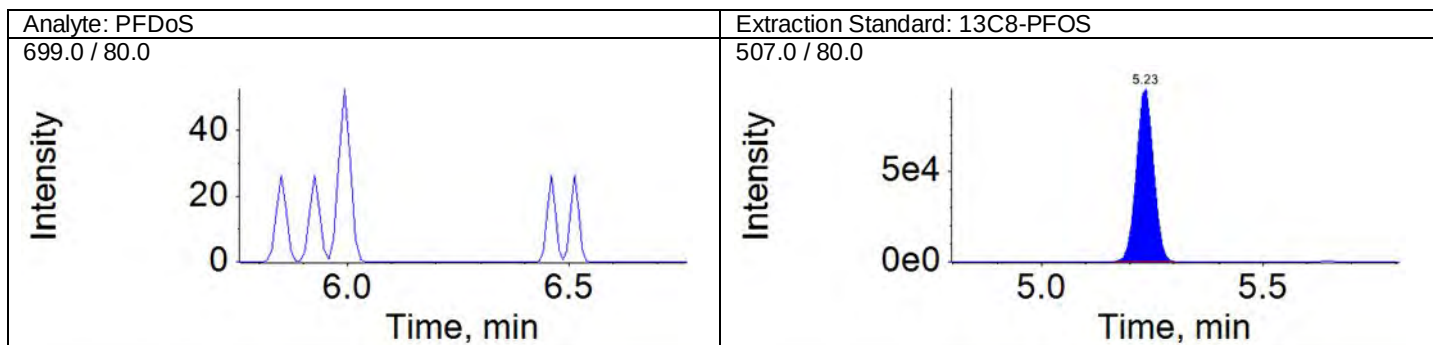
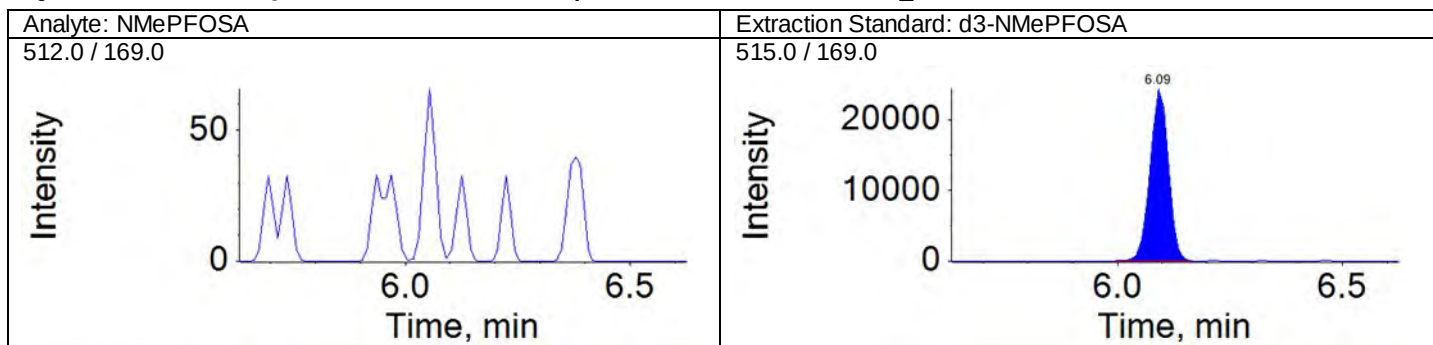
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ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18312011 11/10/2018 4:23:04 PM
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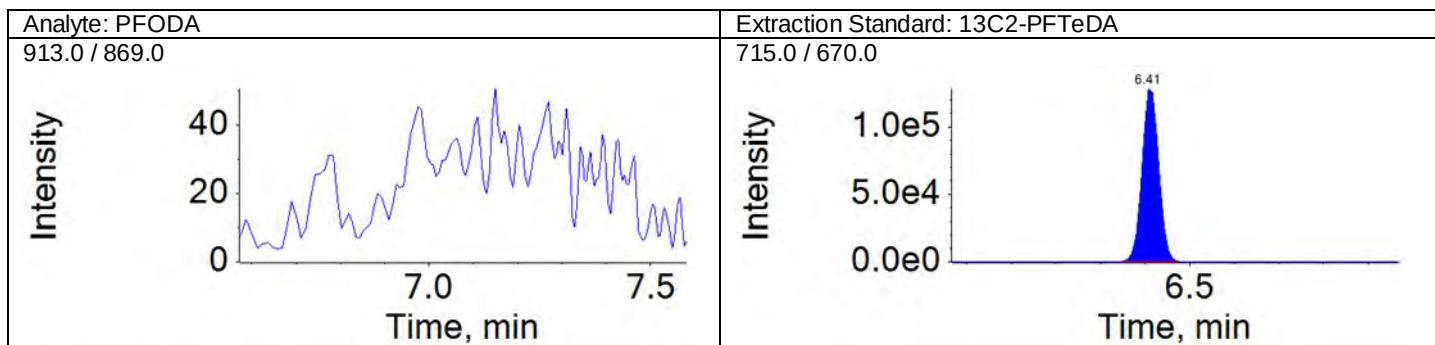
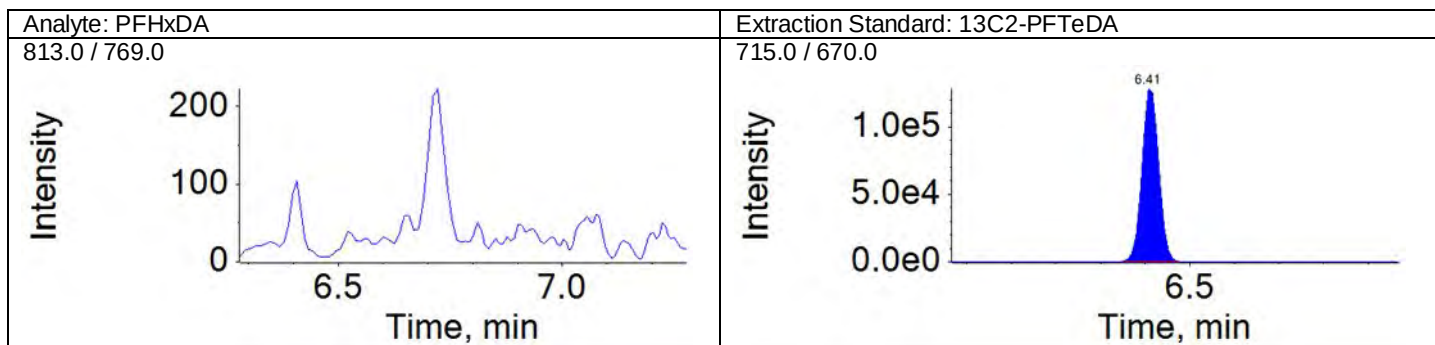
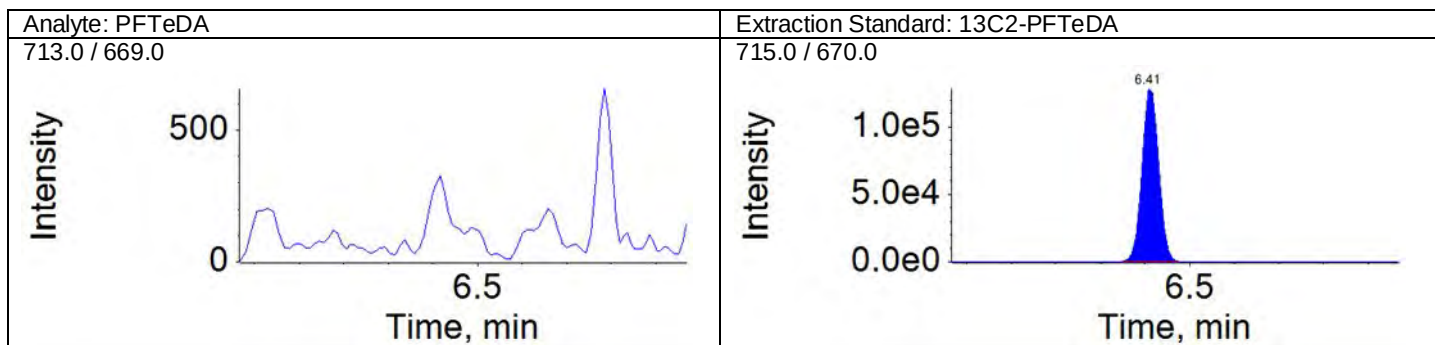
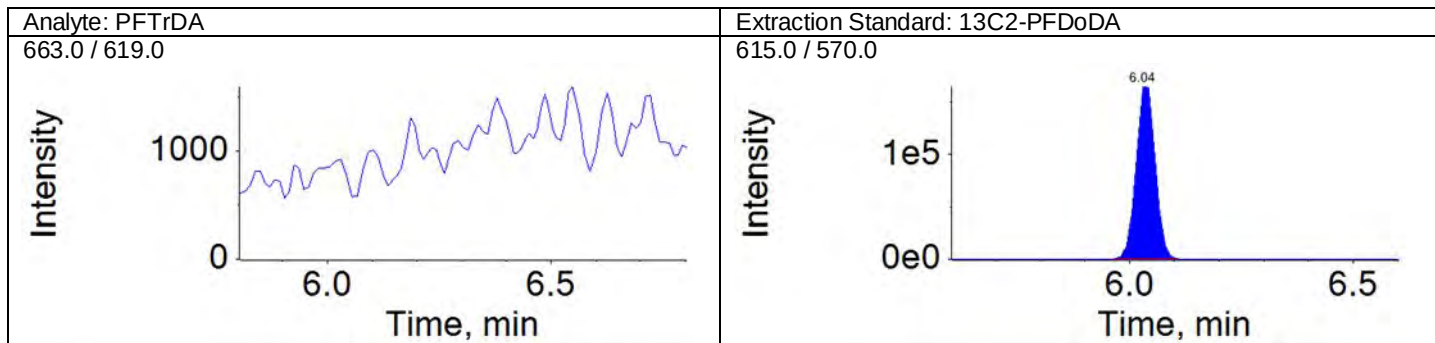
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ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



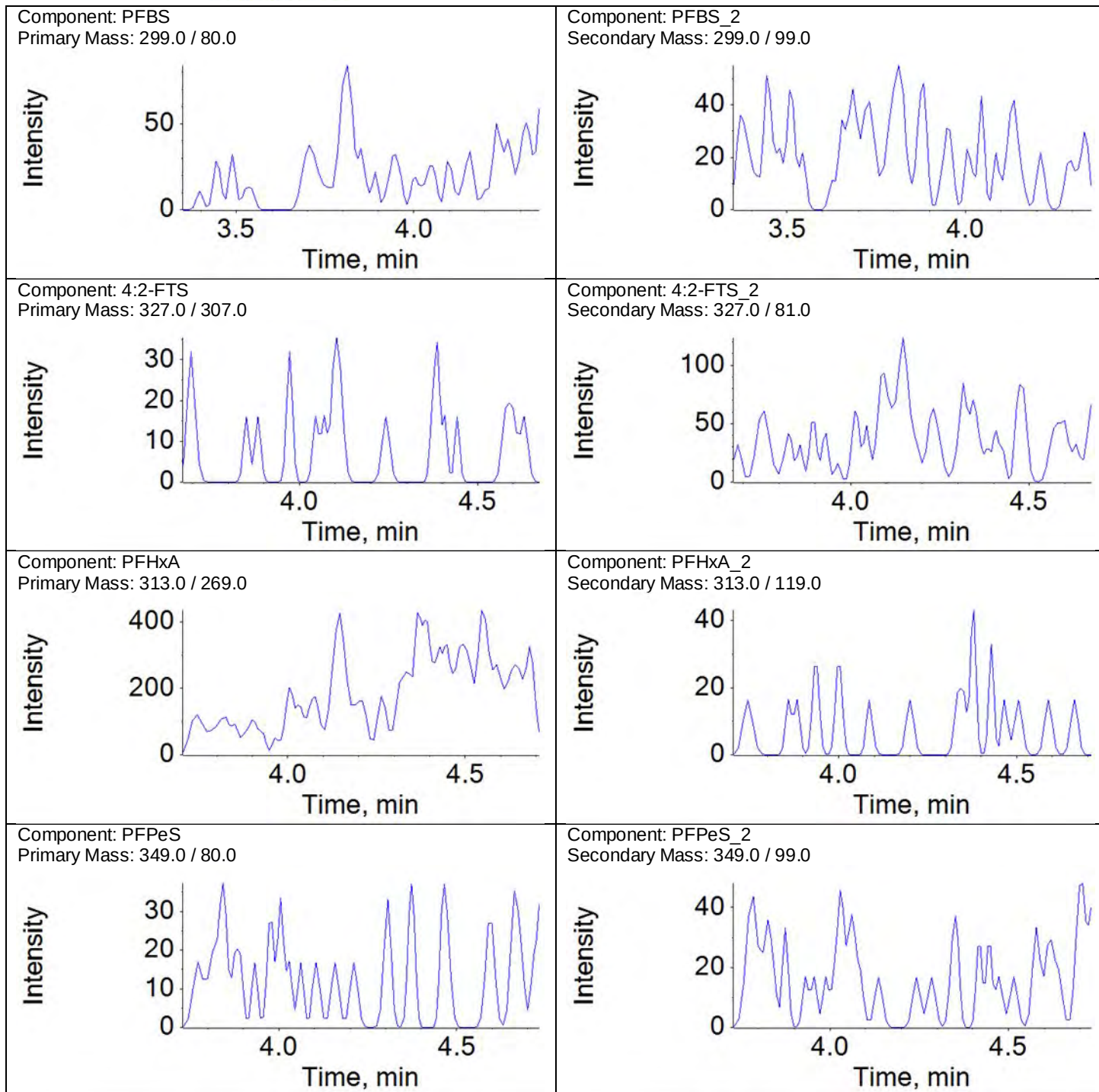
Ion Ratio Report

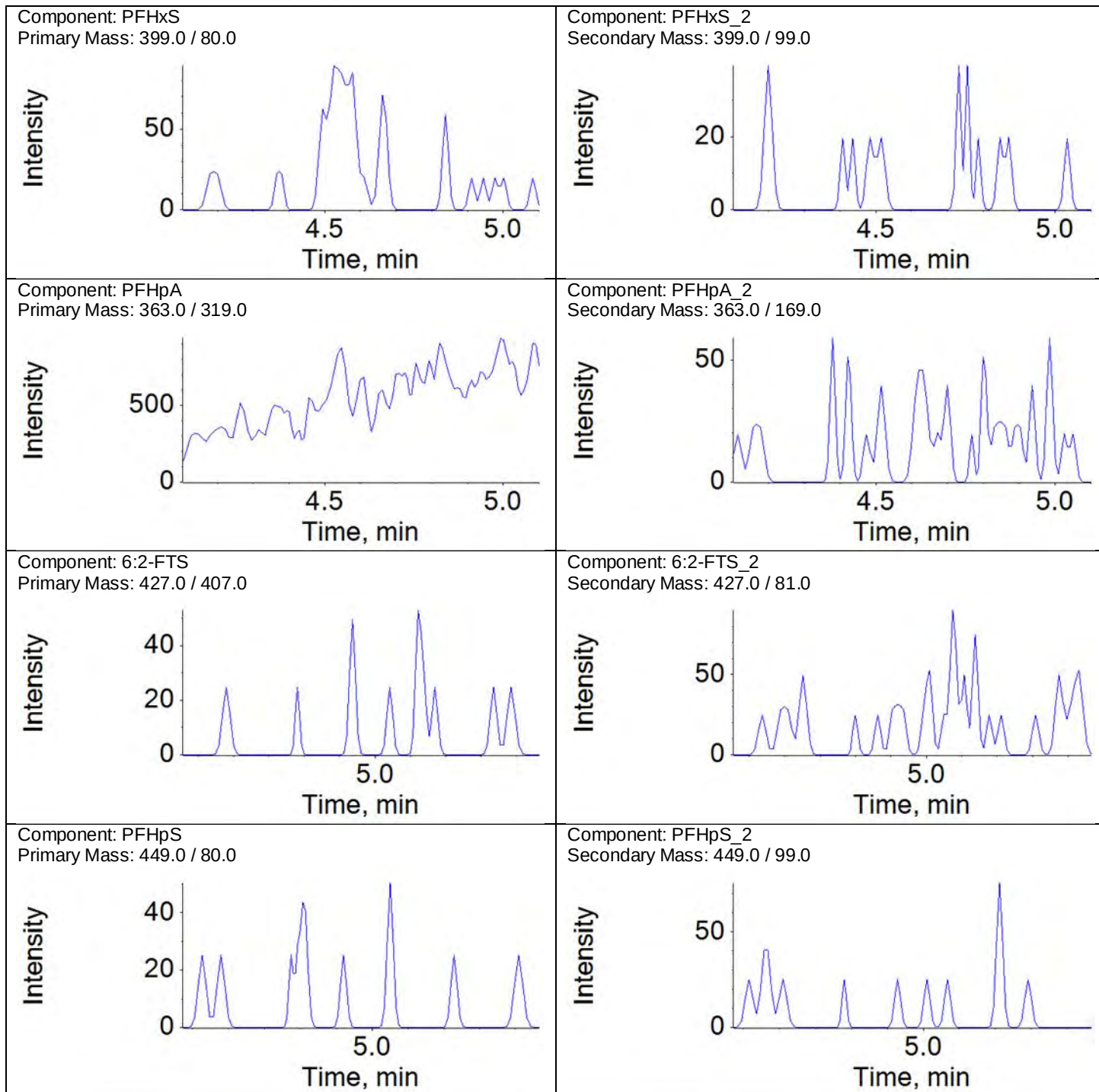
Sample Name: BLK312011

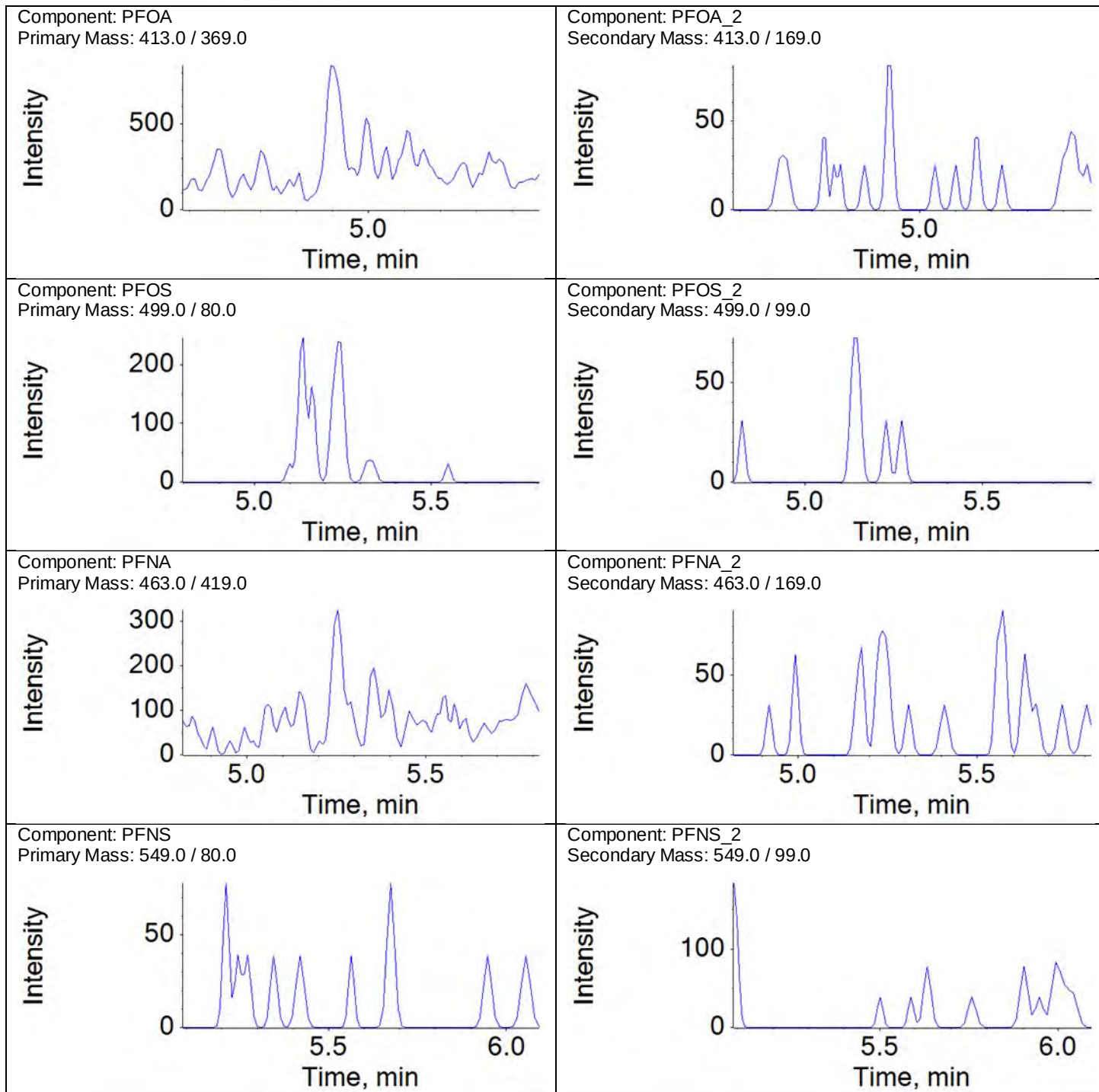
Instrument Name: LM27631

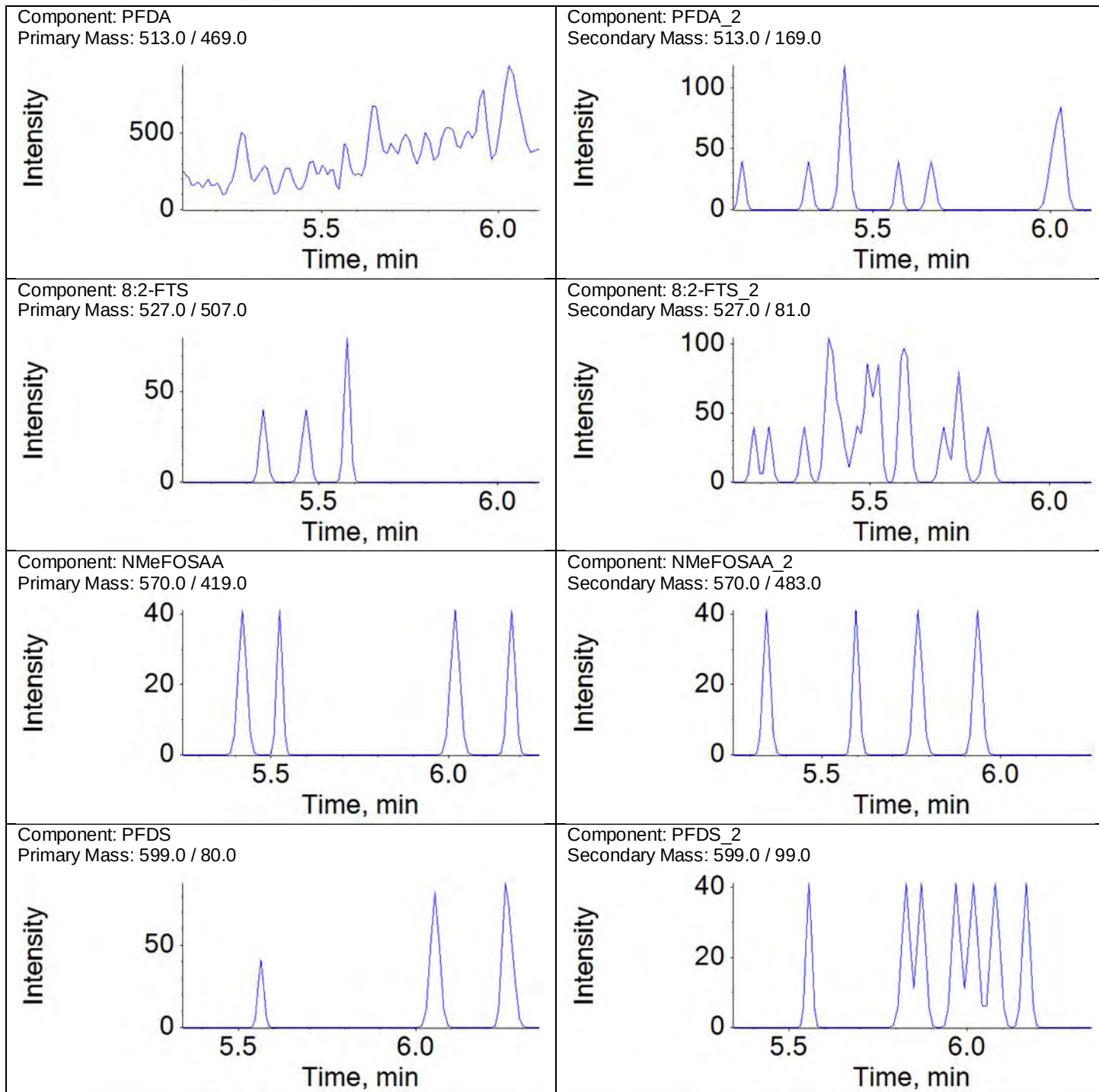
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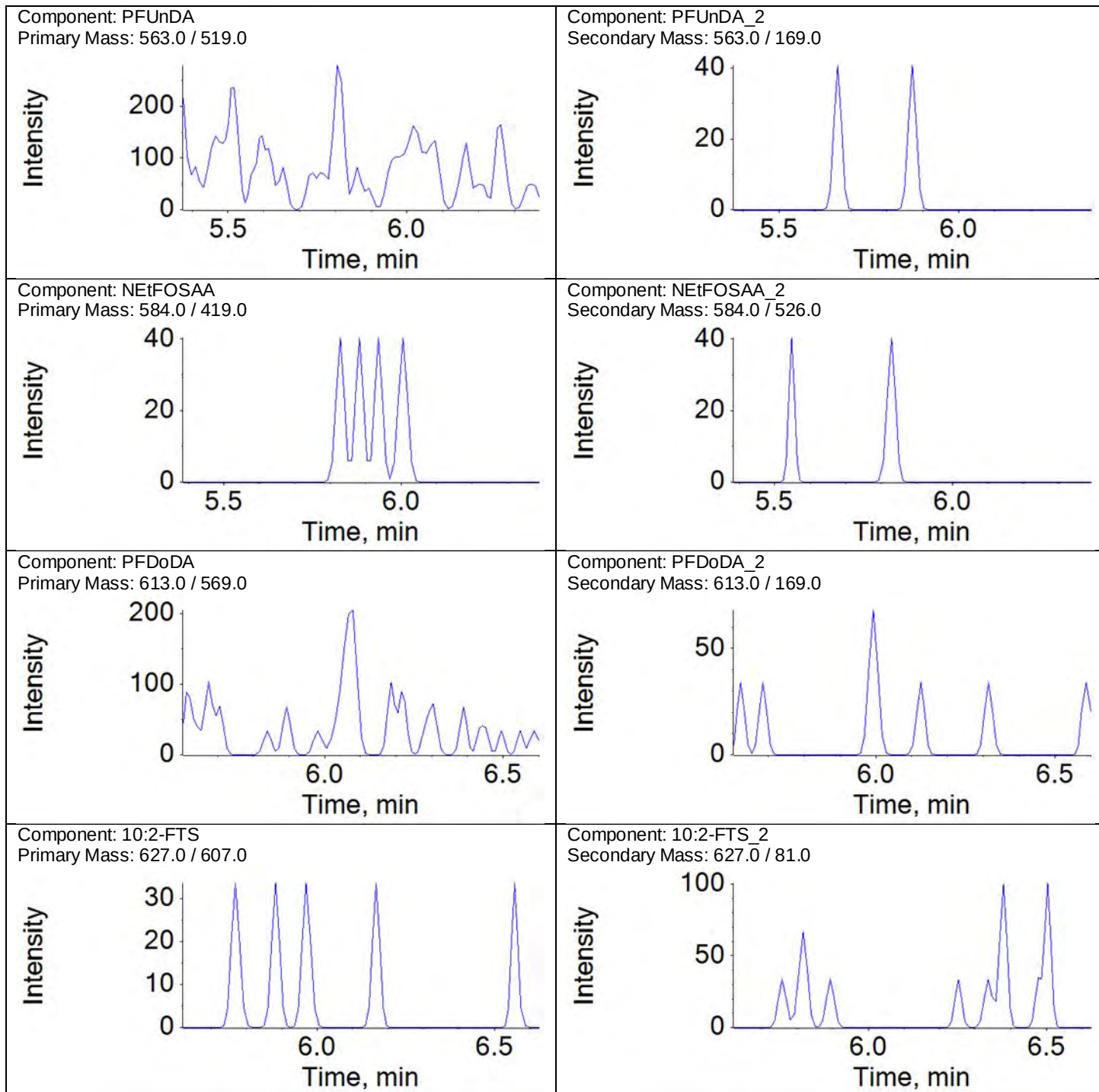
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDODA	N/A	N/A	N/A	A	N/A	N/A			
PFDODA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

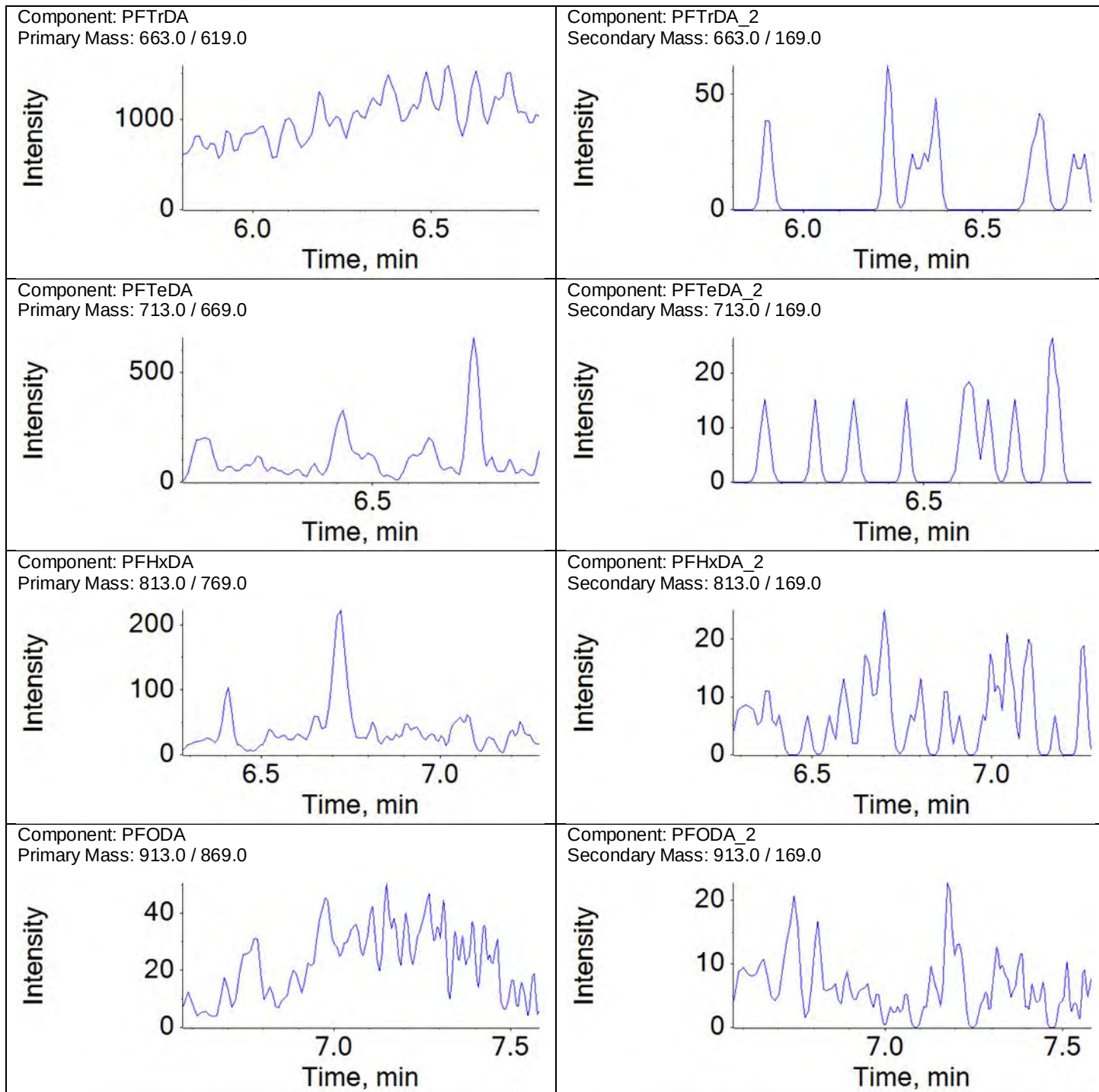












ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18319003 11/19/2018 10:28:58 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	BLK319003		Data File:	18NOV15D-07.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18319003		Acquis Date:	2018-11-15T12:57:12
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	25		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18319003
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	18319003		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV15D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	742585.3	732179.1	1	50	
13C2-PFOA	5.0	510635.8	479663.2	6	50	
13C4-PFOS	4.8	281649.3	269685.3	4	50	
13C2-PFDA	5.0	311632.0	302309.9	3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	709228.9	13C3-PFBA	742585.3	0.955	10.000	8.564	86	50-150	
E13C5-PFPeA	681844.0	13C3-PFBA	742585.3	0.918	10.000	8.237	82	50-150	
E13C3-PFBS	367141.2	13C3-PFBA	742585.3	0.494	9.300	6.980	75	50-150	
E13C2-4:2-FTS	49033.5	13C2-PFOA	510635.8	0.096	9.340	8.554	92	50-150	
E13C5-PFHxA	587657.3	13C2-PFOA	510635.8	1.151	10.000	8.314	83	50-150	
E13C3-PFHxS	293554.8	13C2-PFOA	510635.8	0.575	9.460	7.890	83	50-150	
E13C4-PFHpA	489633.0	13C2-PFOA	510635.8	0.959	10.000	8.640	86	50-150	
E13C2-6:2-FTS	36333.3	13C2-PFOA	510635.8	0.071	9.500	9.521	100	50-150	
E13C8-PFOA	822063.6	13C2-PFOA	510635.8	1.610	10.000	8.871	89	50-150	
E13C8-PFOS	258528.6	13C4-PFOS	281649.3	0.918	9.560	8.134	85	50-150	
E13C9-PFNA	433269.4	13C4-PFOS	281649.3	1.538	10.000	8.578	86	50-150	
E13C6-PFDA	580673.2	13C2-PFDA	311632.0	1.863	10.000	8.697	87	50-150	
E13C2-8:2-FTS	25196.7	13C2-PFDA	311632.0	0.081	9.580	8.065	84	50-150	
E13C8-PFOSA	645025.6	13C2-PFDA	311632.0	2.070	10.000	9.178	92	50-150	
Ed3-NMeFOSAA	84691.7	13C2-PFDA	311632.0	0.272	10.000	9.811	98	50-150	
E13C7-PFUnDA	237867.0	13C2-PFDA	311632.0	0.763	10.000	8.863	89	50-150	
Ed5-NetFOSAA	61364.4	13C2-PFDA	311632.0	0.197	10.000	8.332	83	50-150	
E13C2-PFDoDA	503994.2	13C2-PFDA	311632.0	1.617	10.000	8.398	84	50-150	
Ed7-NMePFOSAE	326361.2	13C2-PFDA	311632.0	1.047	10.000	9.064	91	50-150	
Ed3-NMePFOSA	74301.8	13C2-PFDA	311632.0	0.238	10.000	8.664	87	50-150	
Ed9-NetPFOSAE	264458.0	13C2-PFDA	311632.0	0.849	10.000	8.827	88	50-150	
Ed5-NetPFOSA	60107.7	13C2-PFDA	311632.0	0.193	10.000	9.049	90	50-150	
E13C2-PFTeDA	348872.4	13C2-PFDA	311632.0	1.120	10.000	7.860	79	50-150	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18319003 11/19/2018 10:28:58 AM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: BLK319003

Instrument Name: LM27631

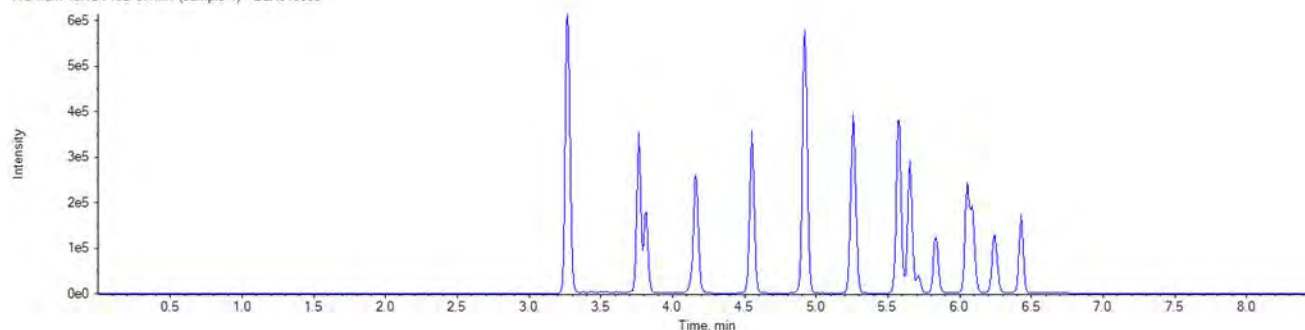
File Name: 18NOV15D-07.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.27	709228.9	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	681844.0	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.81	367141.2	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.13	49033.5	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.16	587657.3	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.81	367141.2	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.55	489633.0	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	293554.8	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.91	36333.3	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.55	293554.8	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.92	822063.6	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.25	258528.6	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.27	433269.4	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.25	258528.6	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.57	580673.2	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.58	25196.7	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.65	645025.6	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.71	84691.7	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.25	258528.6	N/A	
PFOA	N/A	N/A	N/A		A	13C7-PFOA	5.83	237867.0	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.84	61364.4	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	503994.2	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.58	25196.7	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	326361.2	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	74301.8	N/A	
PFDOS	N/A	N/A	N/A		A	13C8-PFOS	5.25	258528.6	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	264458.0	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	60107.7	N/A	
PFTDA	N/A	N/A	N/A		A	13C2-PFDODA	6.05	503994.2	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	348872.4	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	348872.4	N/A	
PFOA	N/A	N/A	N/A		A	13C2-PFTeDA	6.43	348872.4	N/A	

Total Ion Chromatogram

TIC from 18NOV15D-07.wiff (sample 1) - BLK319003



APPROVED

By JPT at 10:38 am, 11/19/18

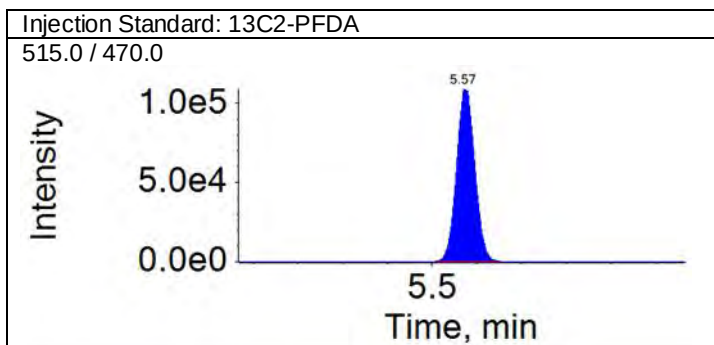
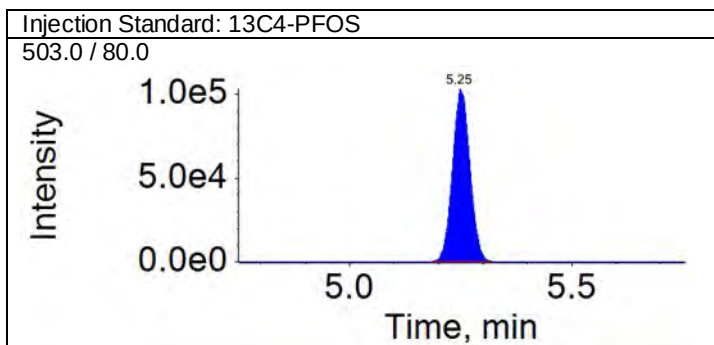
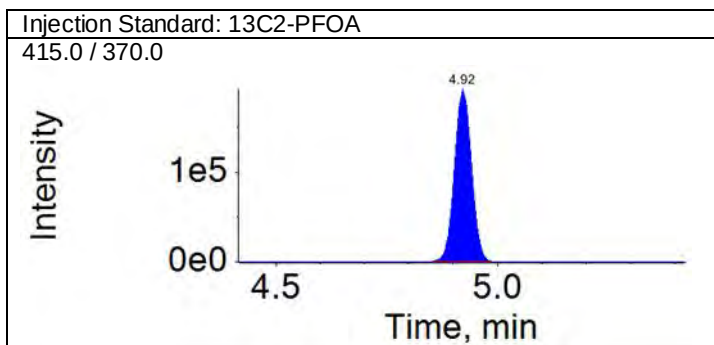
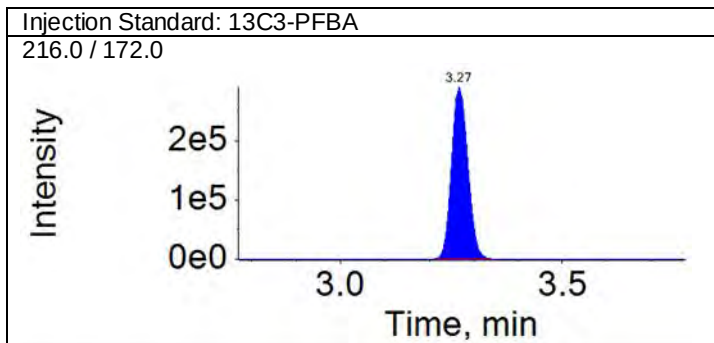
BSI14 Page 1941 of 2132

REVIEWED

By HMK at 11:46 am, 11/19/18

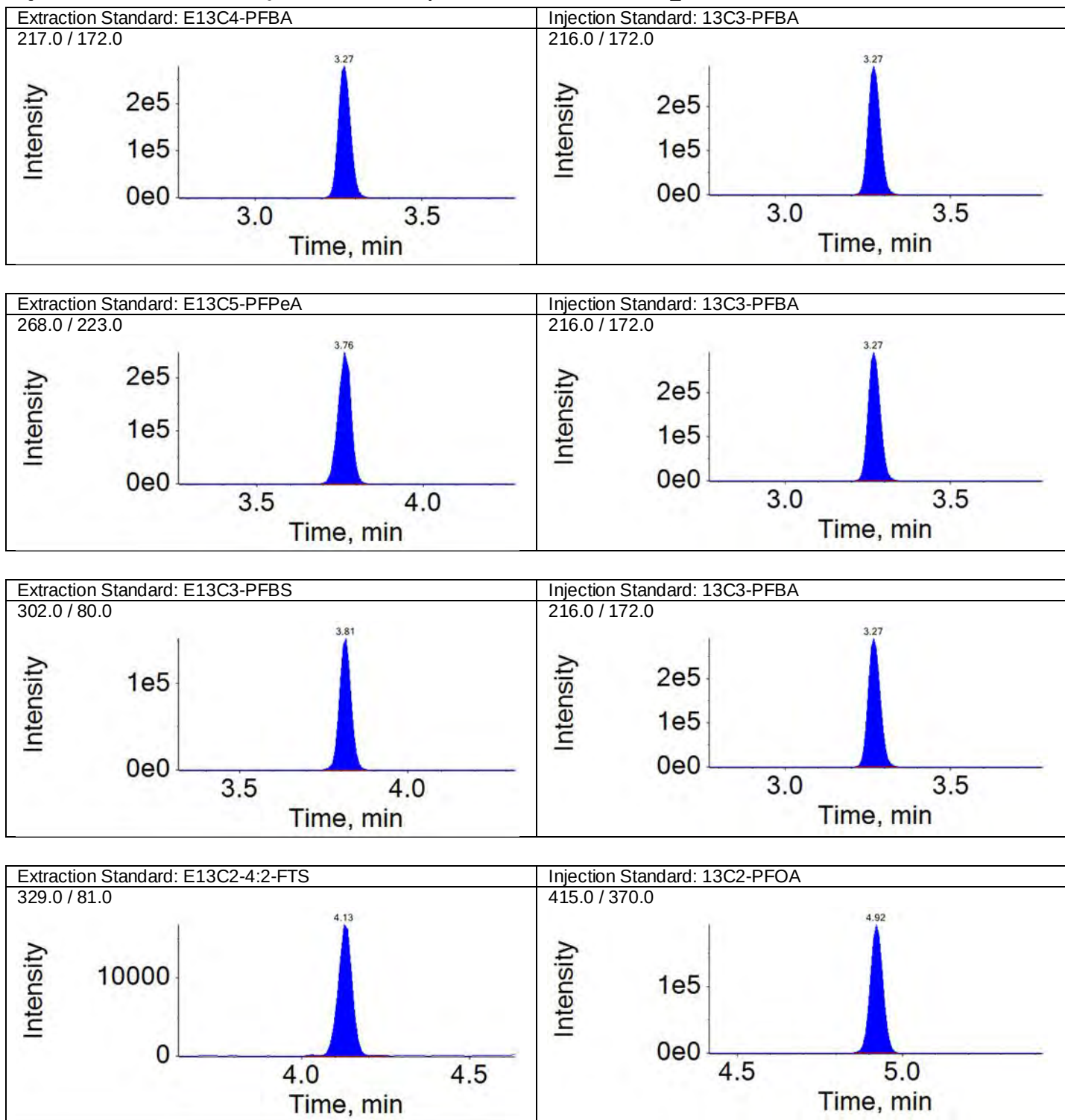
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QMethod Name: 18AUG20QM

Result Table: 18319003 11/19/2018 10:28:58 AM
Acquisition Method: 18AUG13_3uL.dam



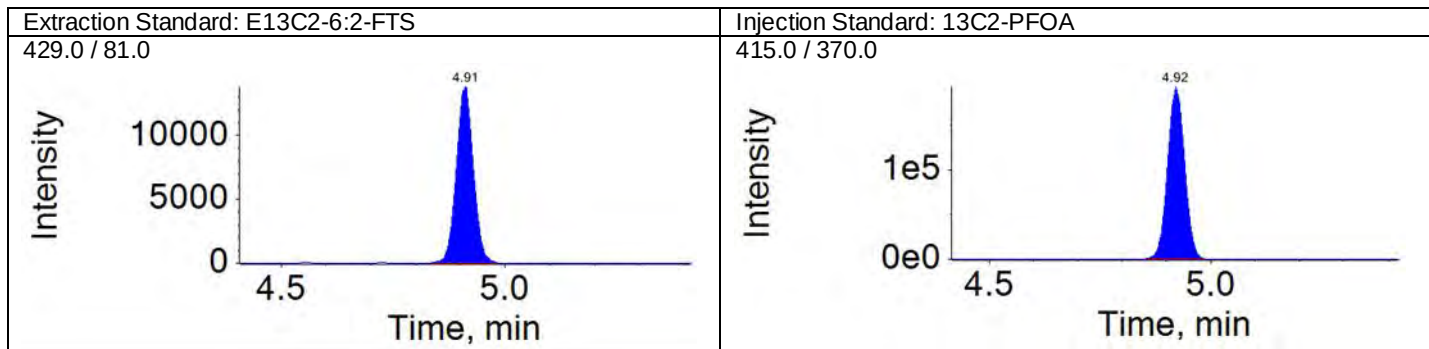
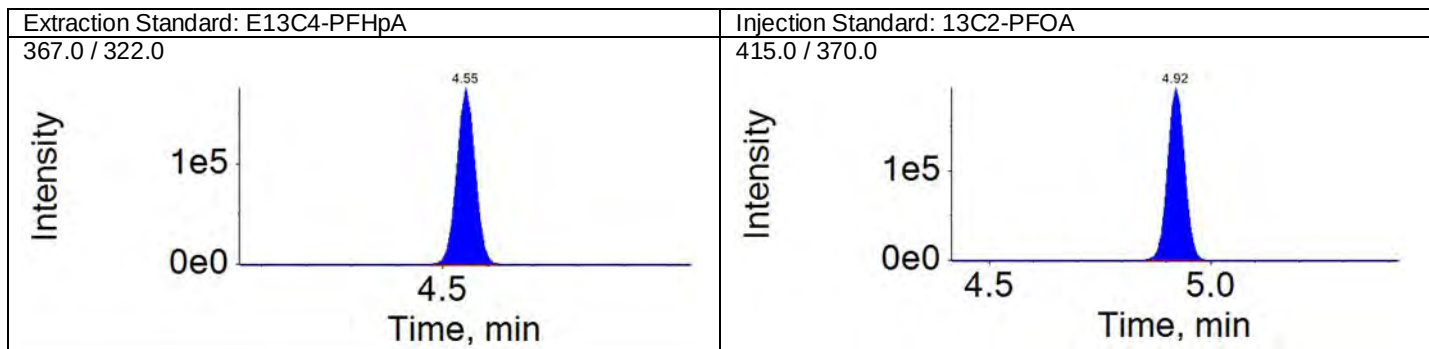
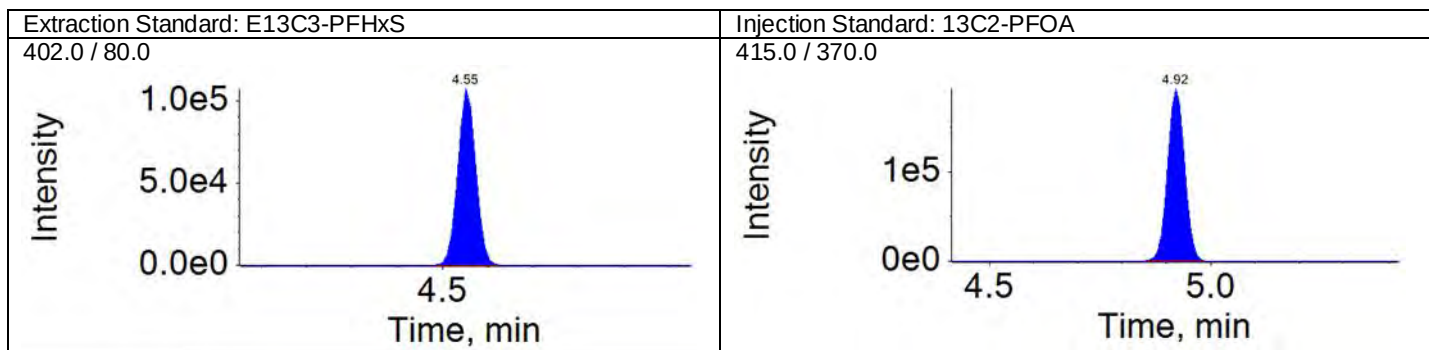
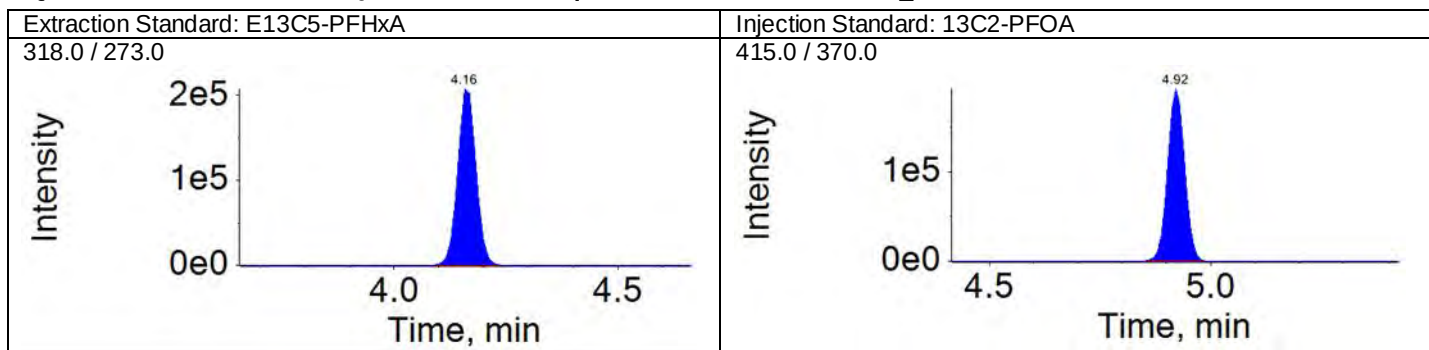
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

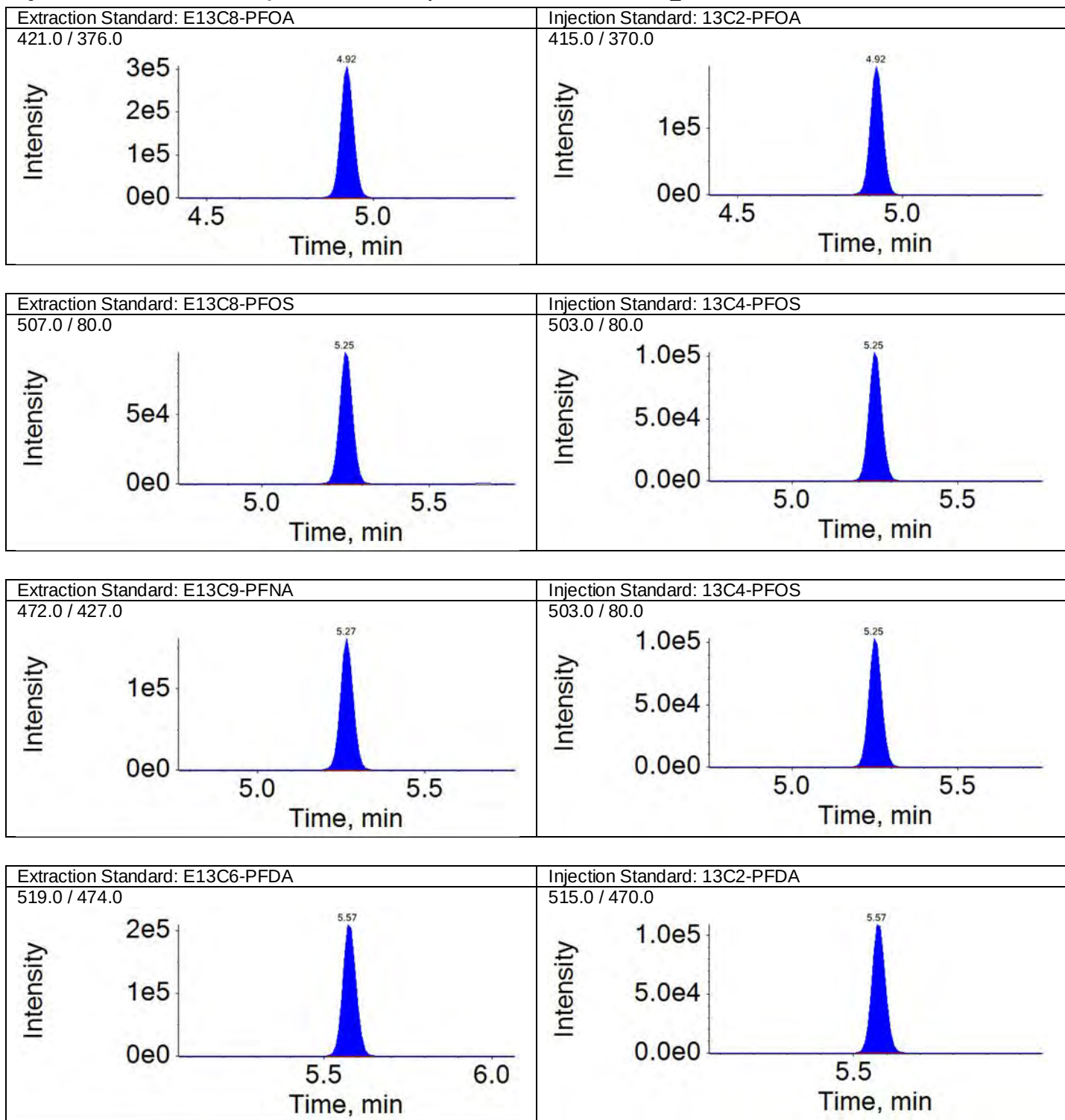
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Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

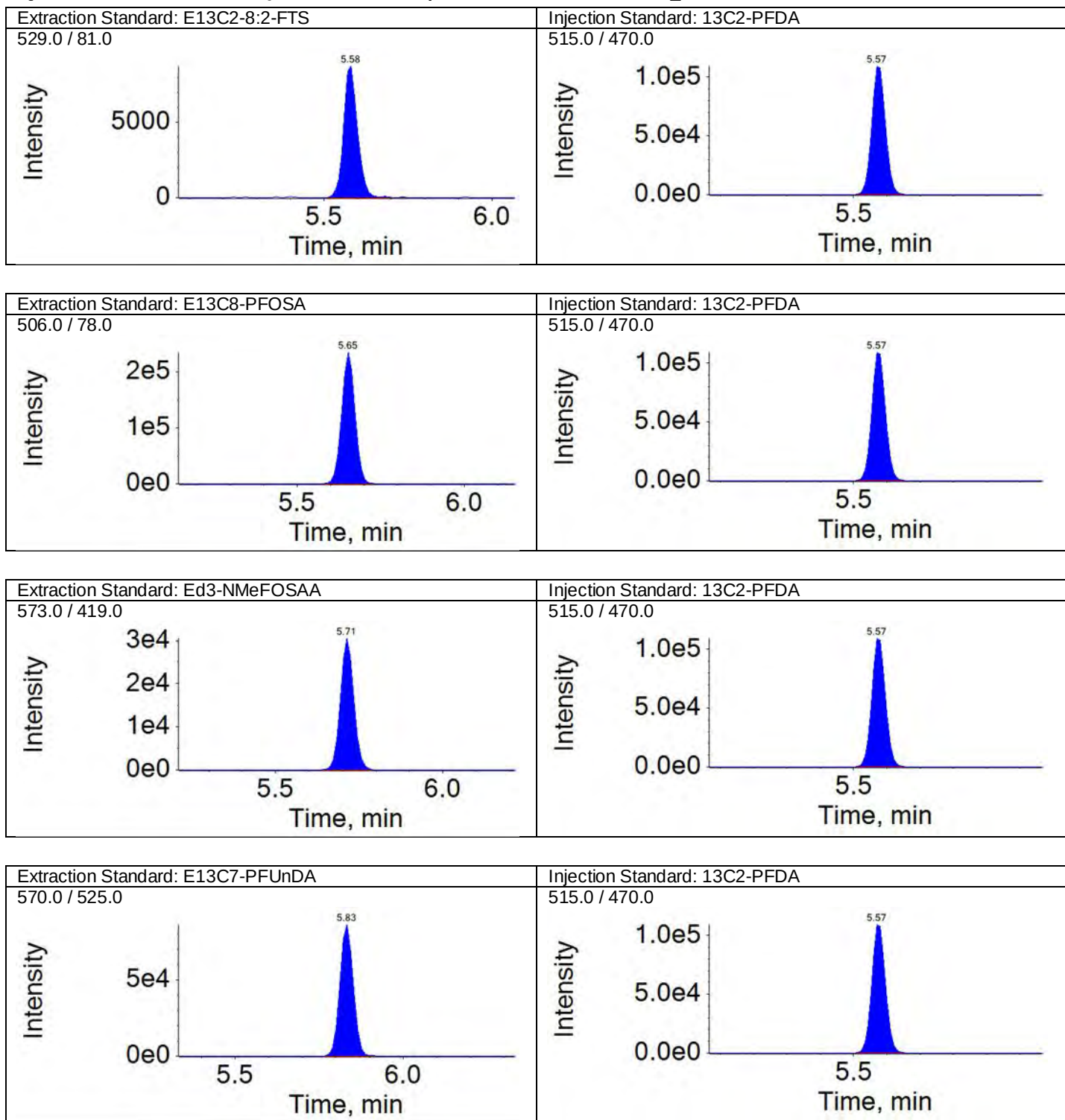
Result Table: 18319003 11/19/2018 10:28:58 AM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18319003 11/19/2018 10:28:58 AM
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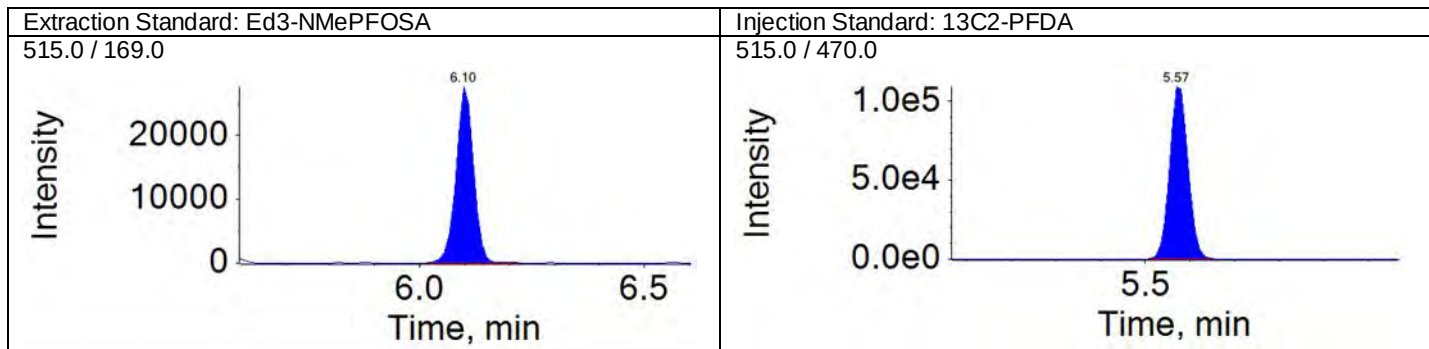
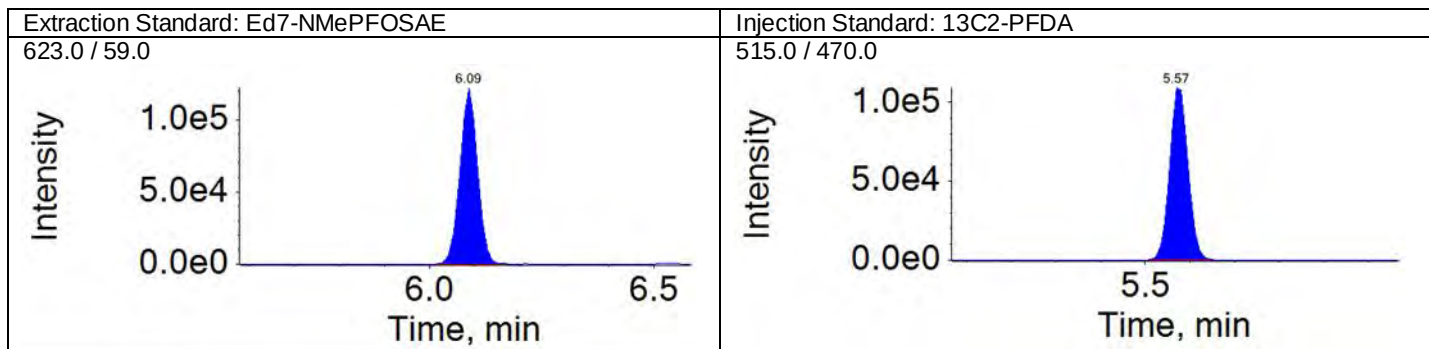
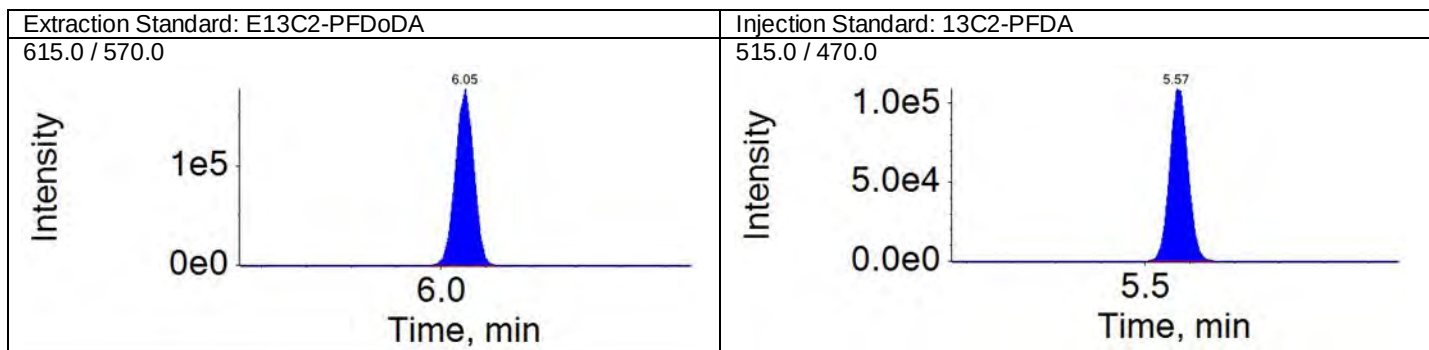
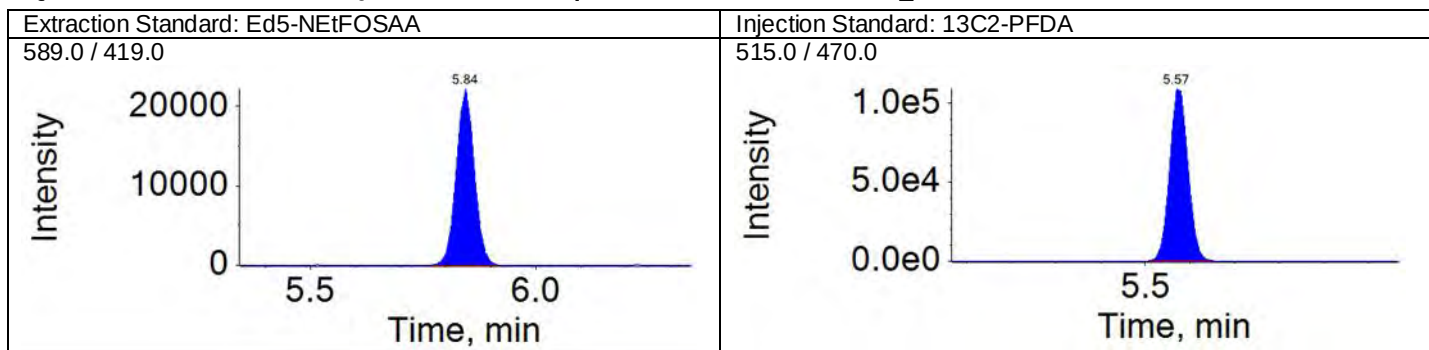
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18319003 11/19/2018 10:28:58 AM
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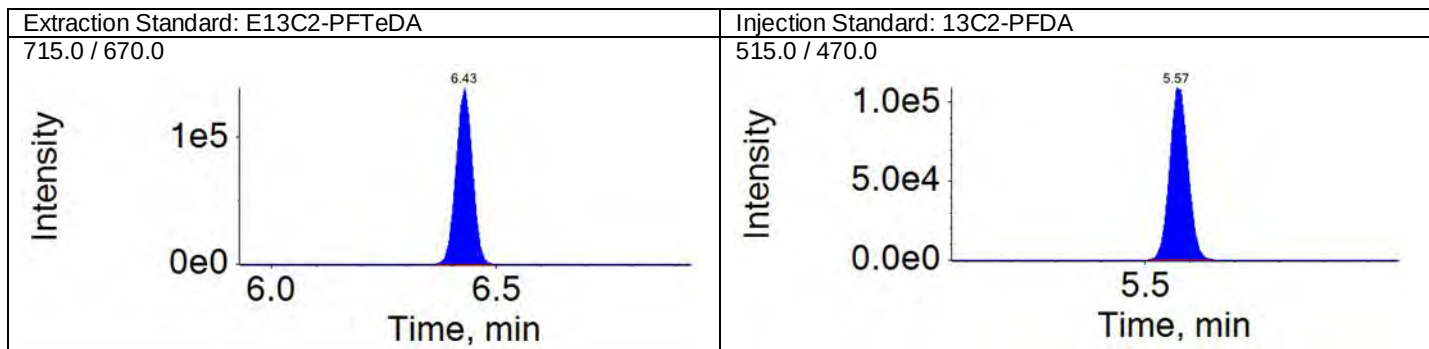
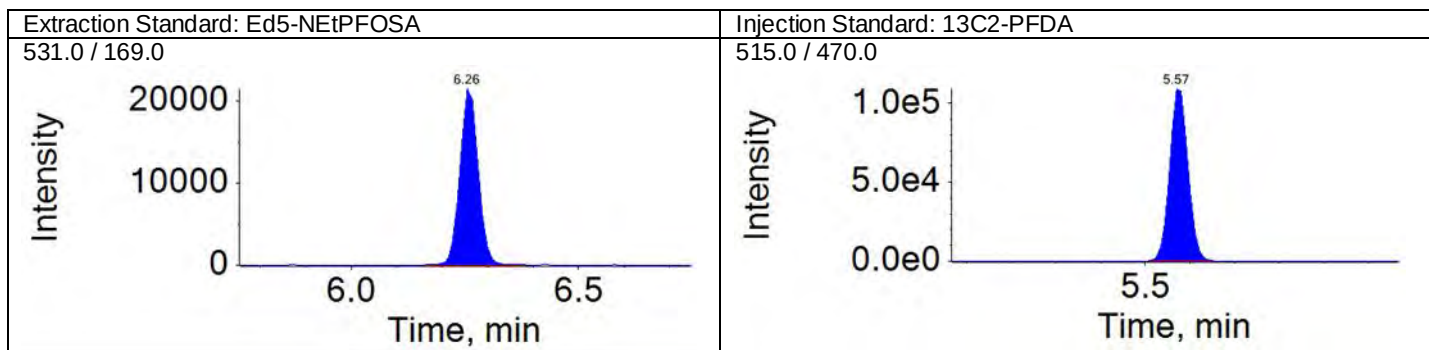
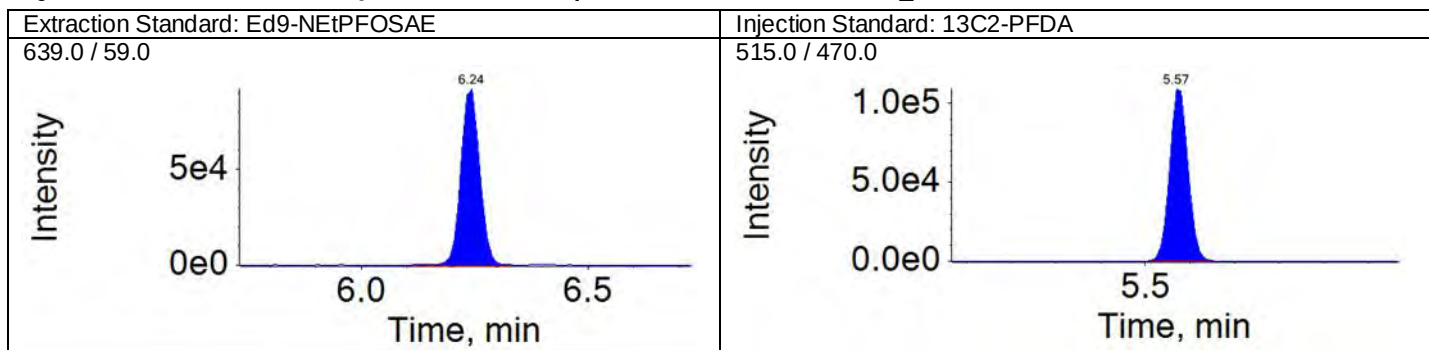
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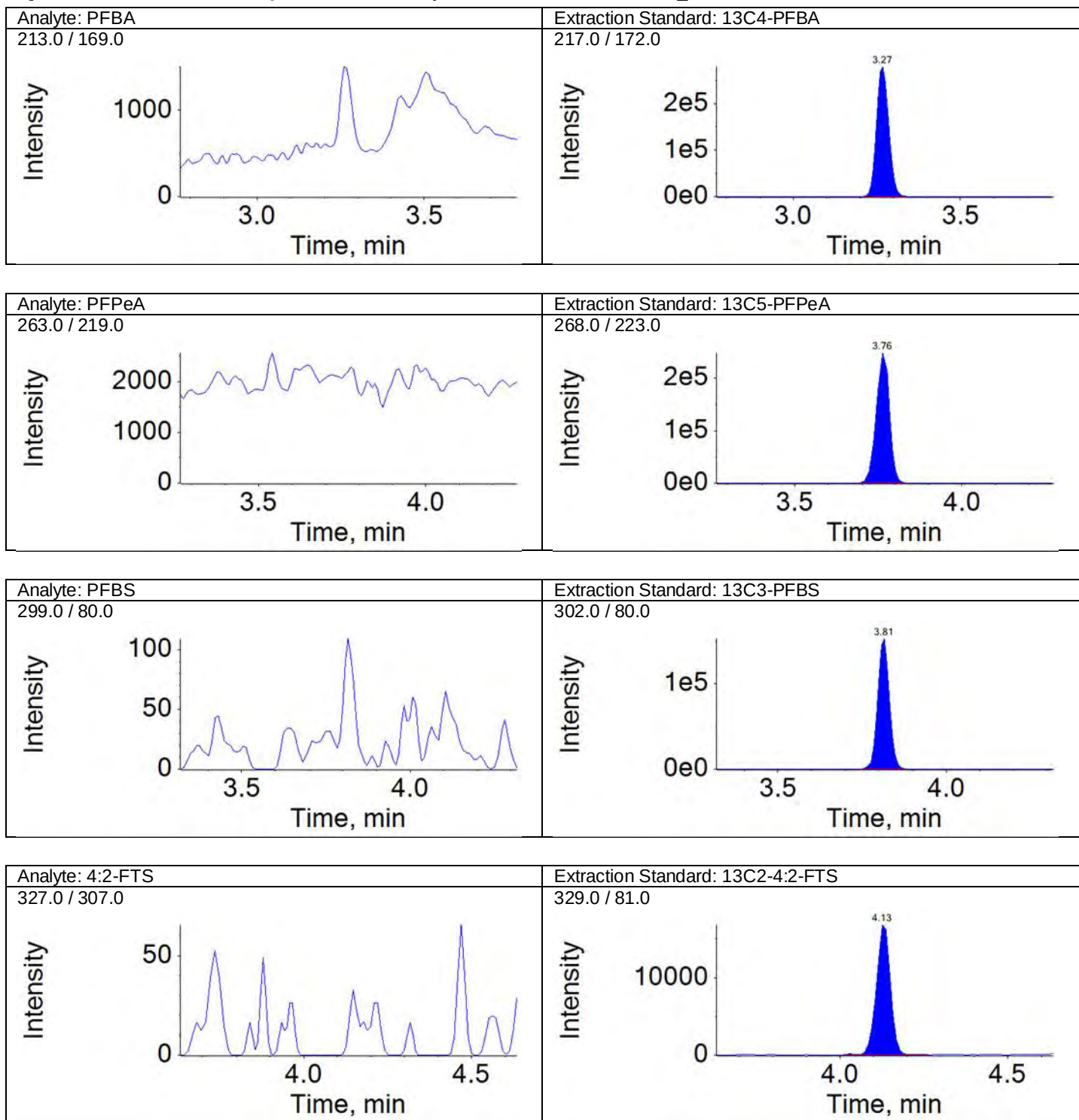
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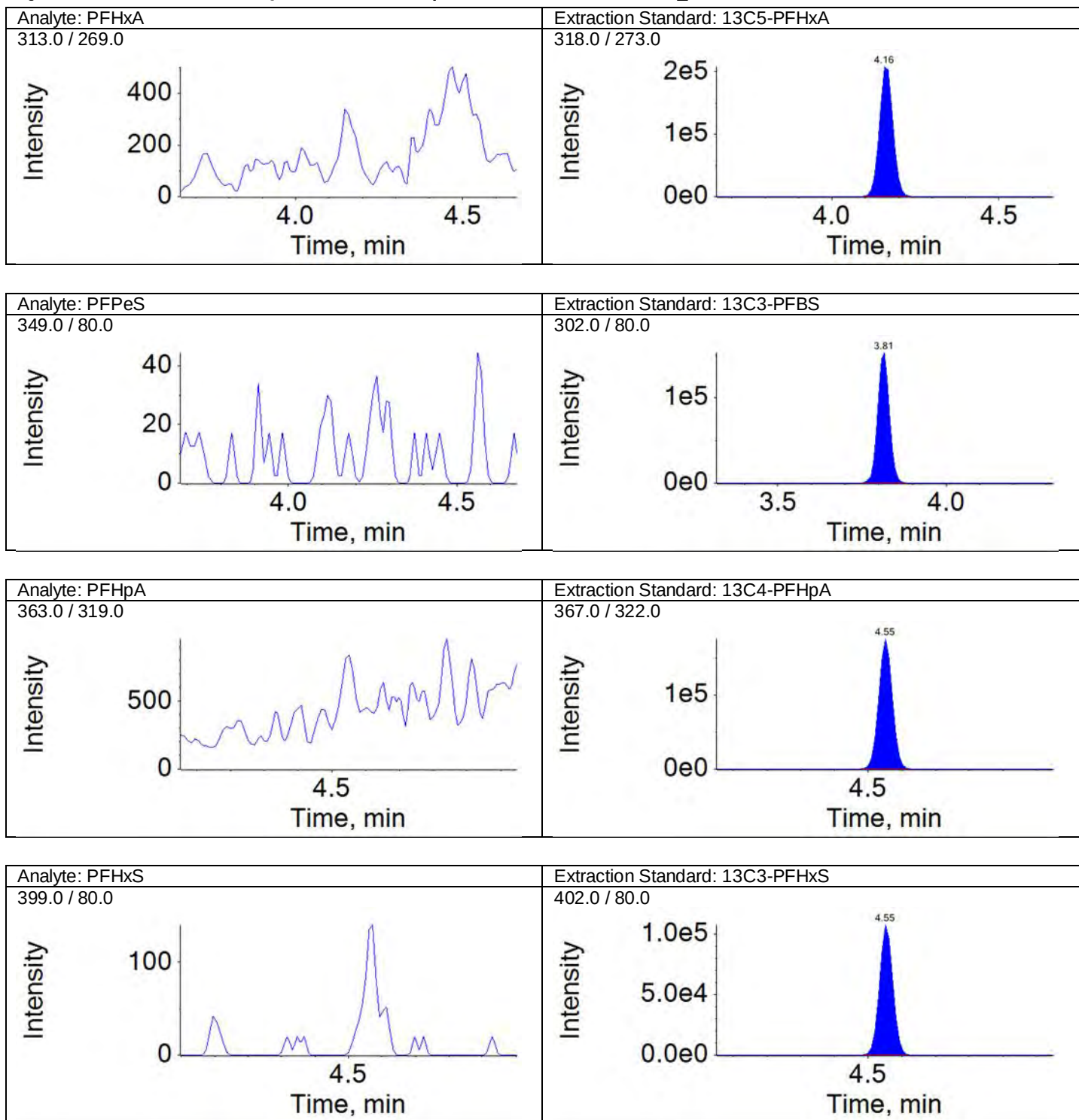
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QMethod Name: 18AUG20QM

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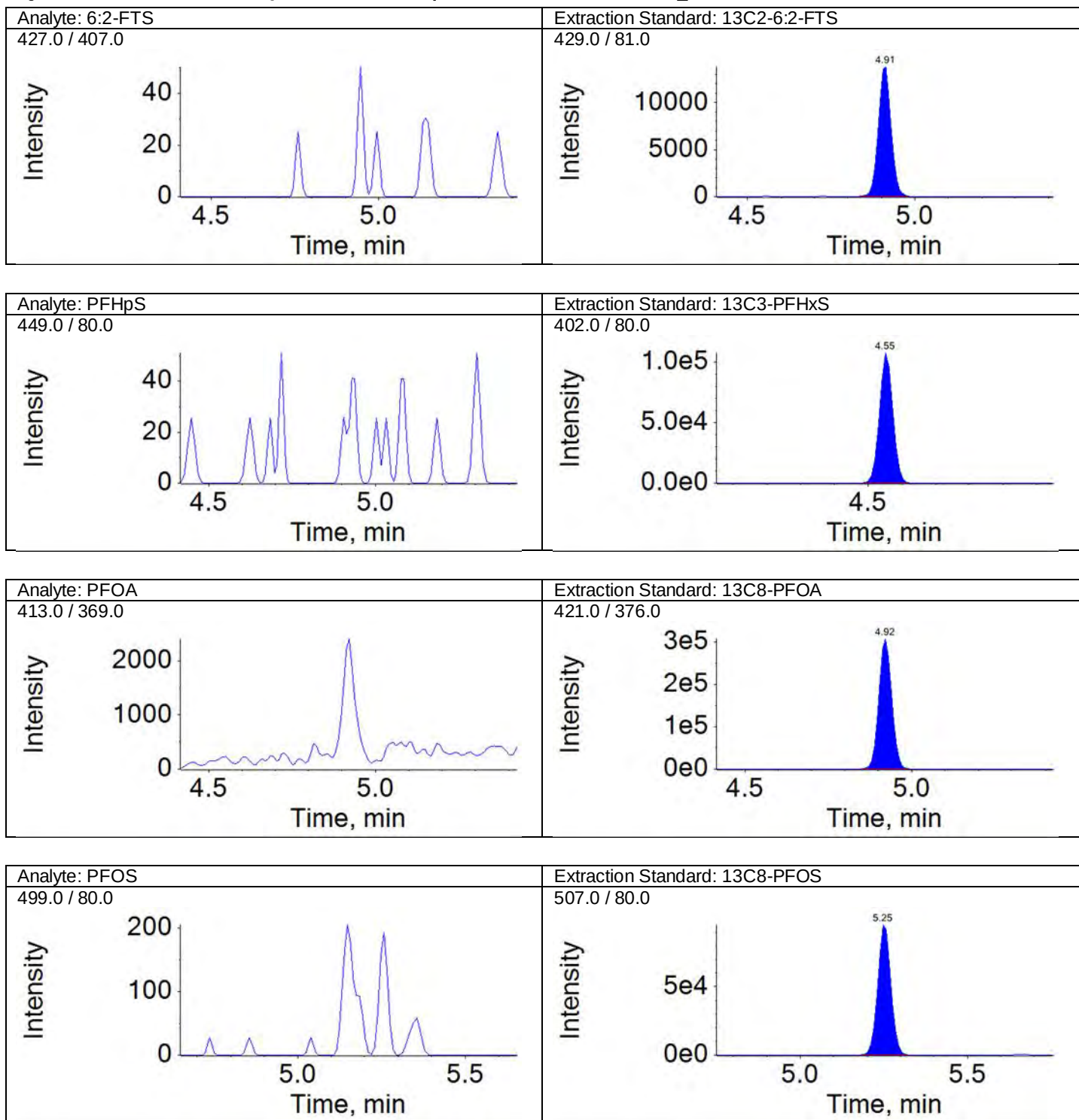
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QMethod Name: 18AUG20QM

Result Table: 18319003 11/19/2018 10:28:58 AM
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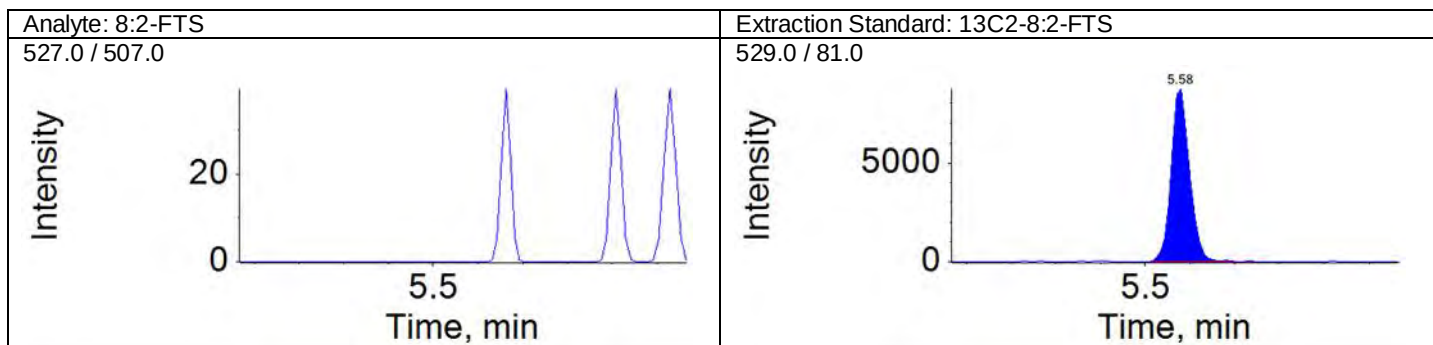
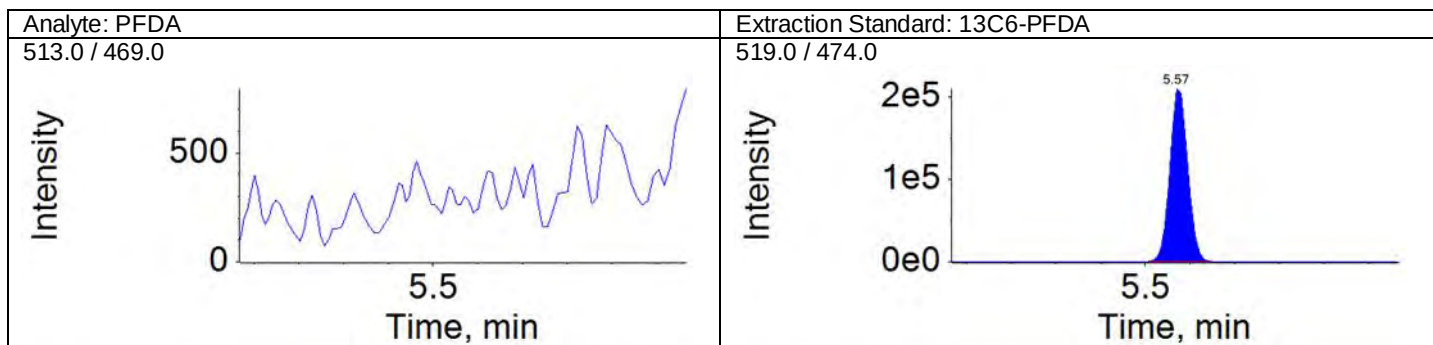
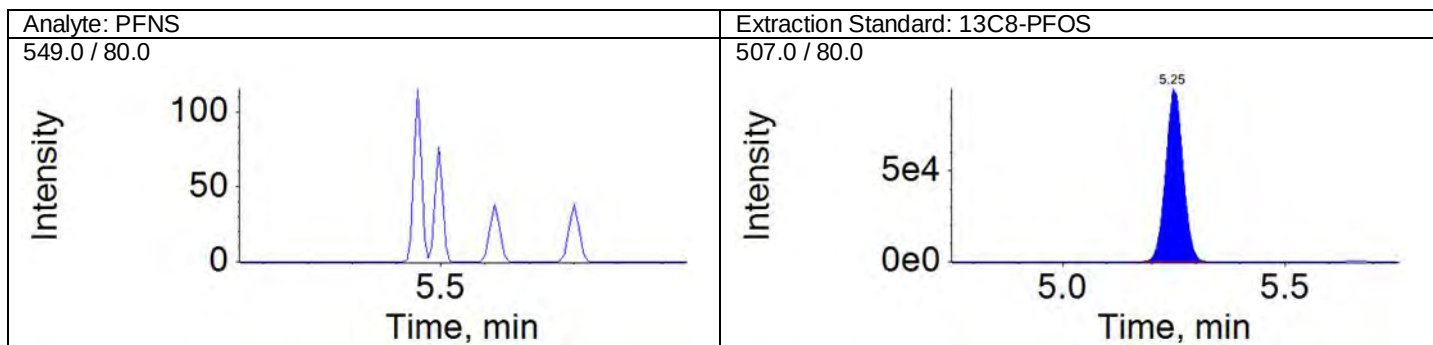
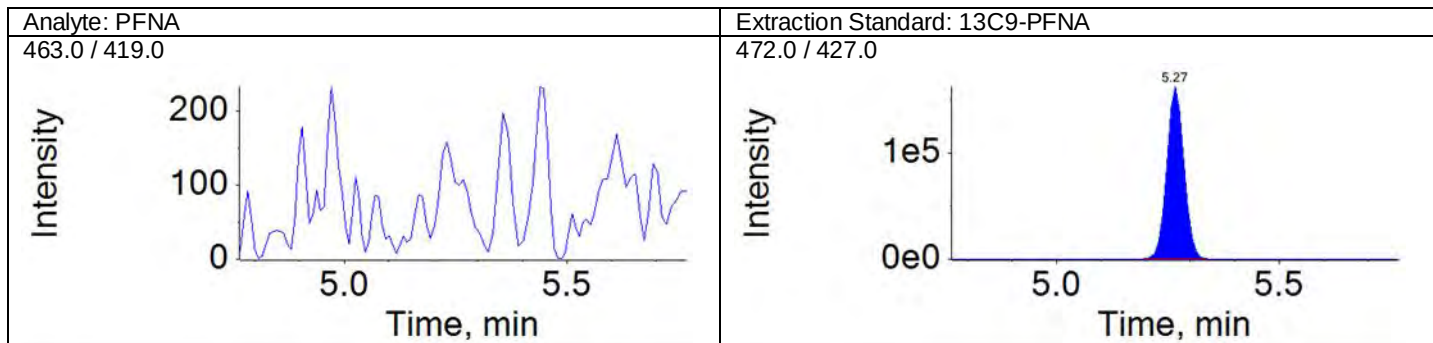
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18319003 11/19/2018 10:28:58 AM
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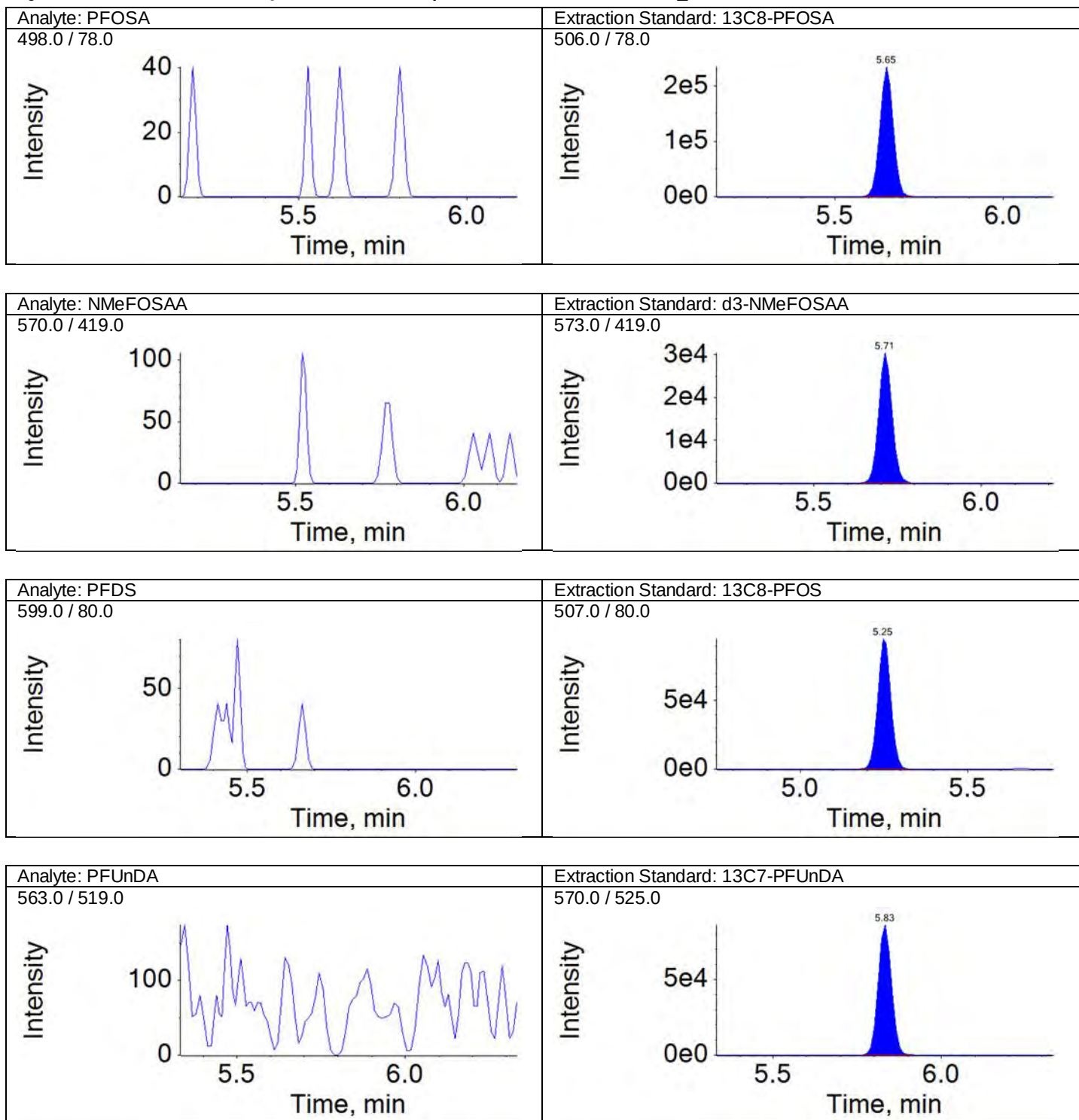
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QMethod Name: 18AUG20QM

Result Table: 18319003 11/19/2018 10:28:58 AM
Acquisition Method: 18AUG13_3uL.dam



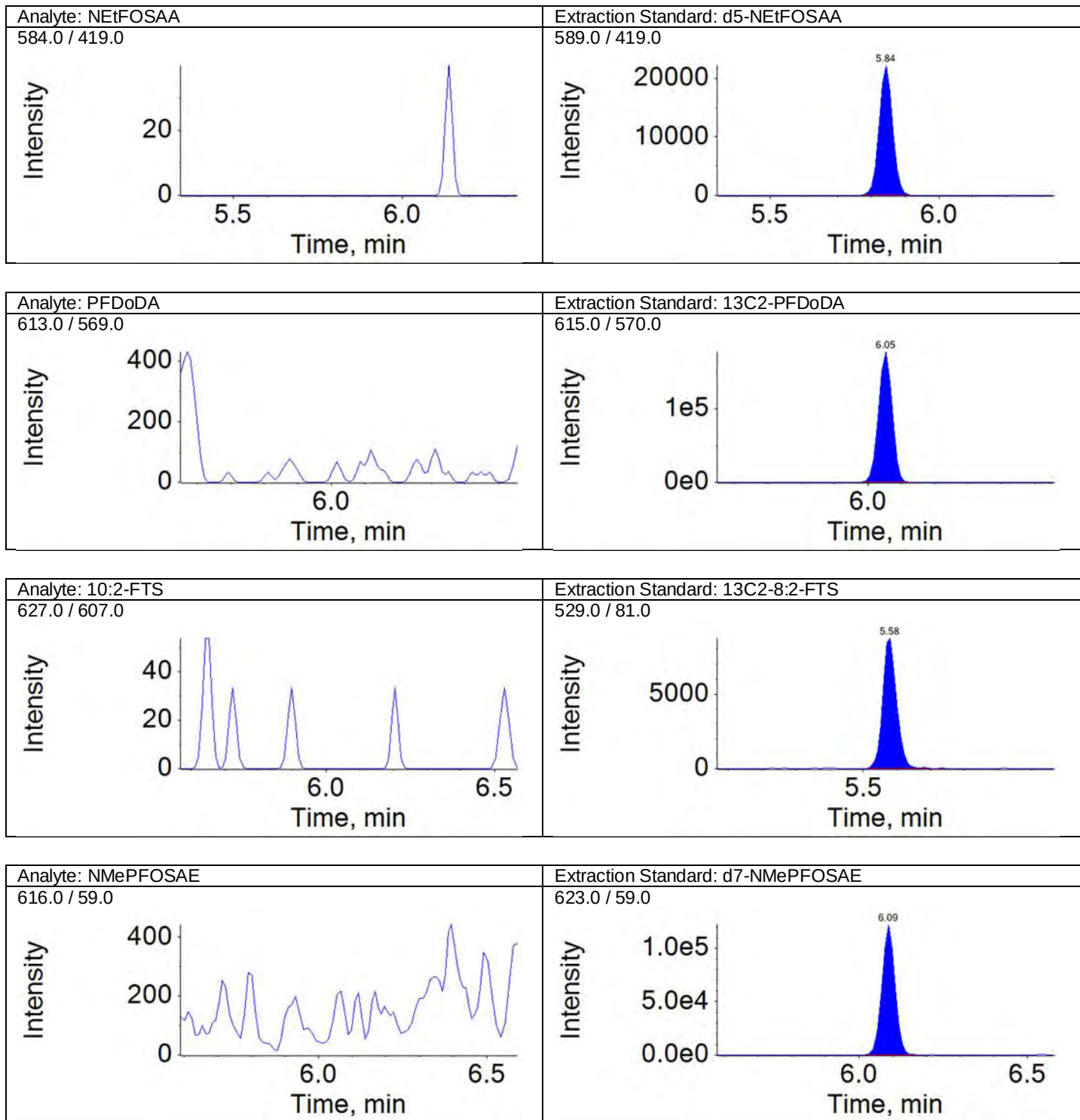
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QMethod Name: 18AUG20QM

Result Table: 18319003 11/19/2018 10:28:58 AM
Acquisition Method: 18AUG13_3uL.dam



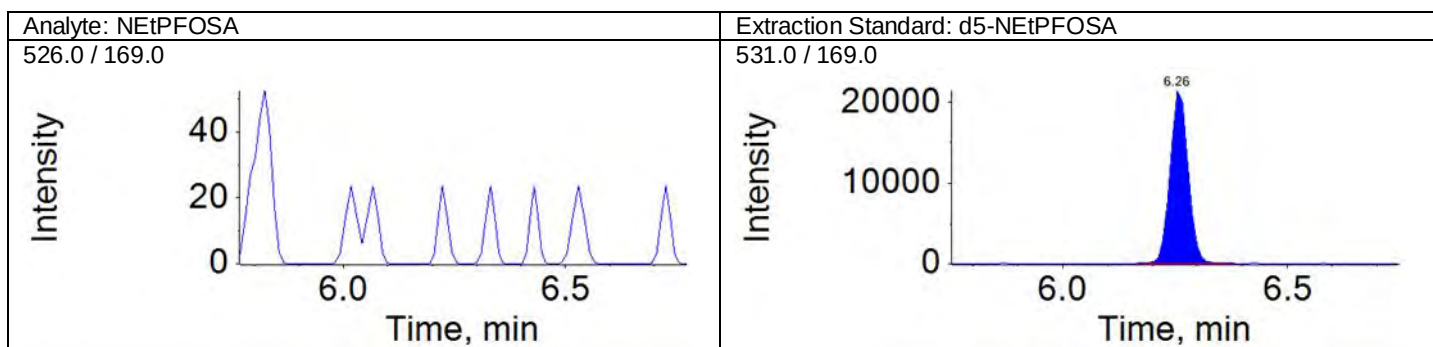
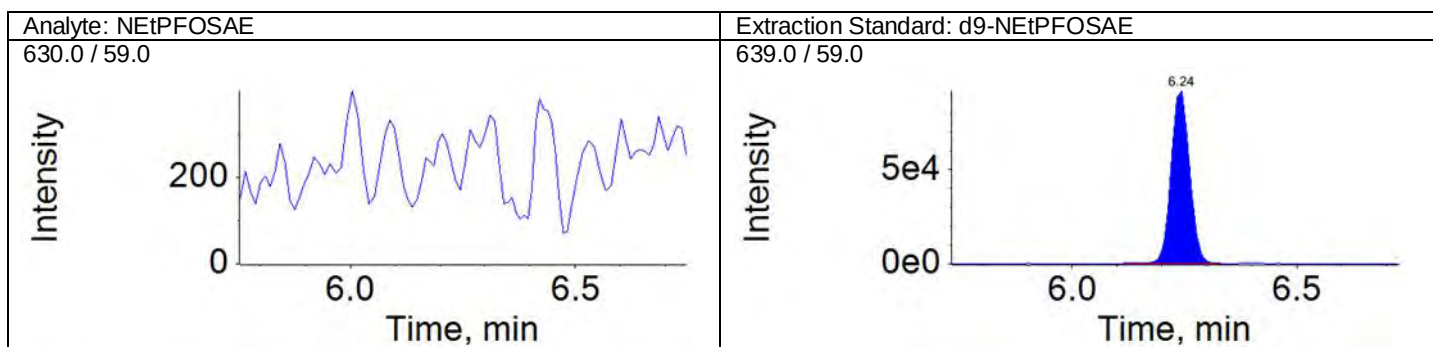
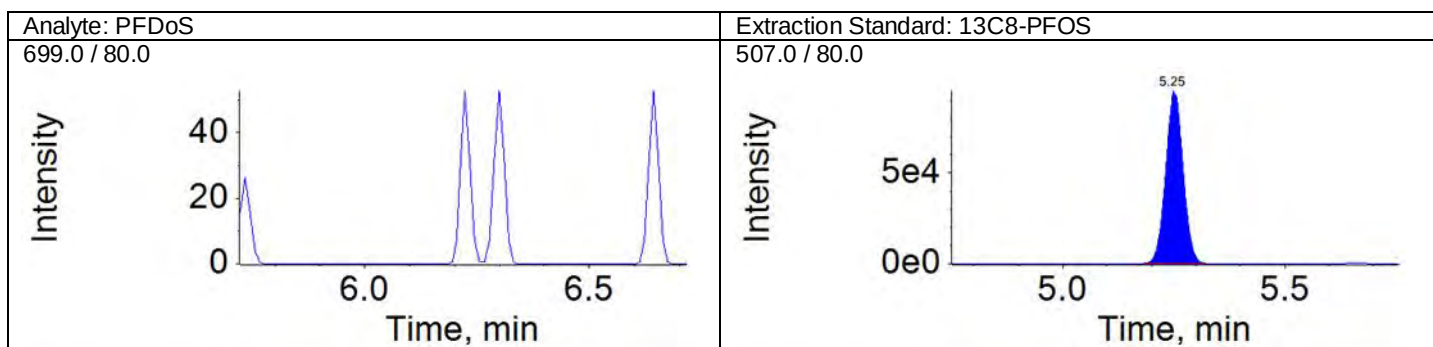
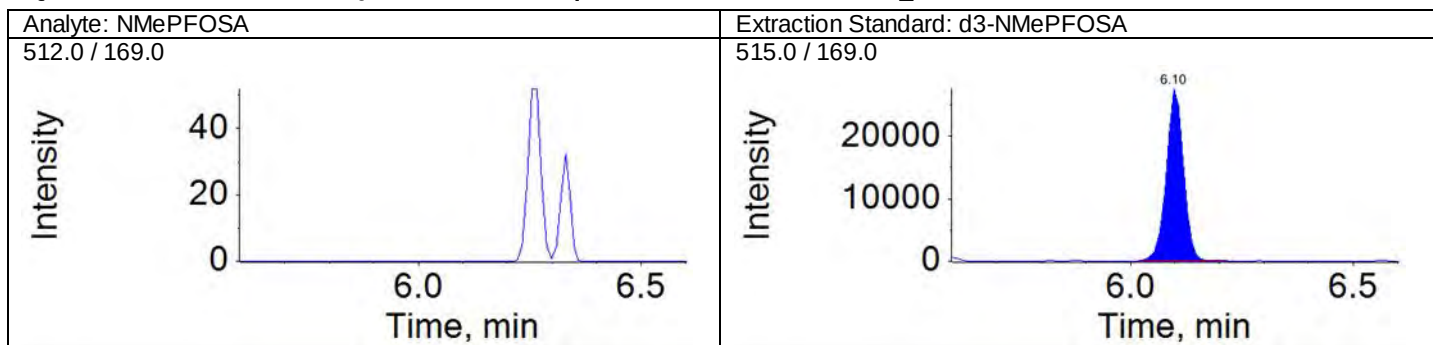
ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18319003 11/19/2018 10:28:58 AM
Acquisition Method: 18AUG13_3uL.dam



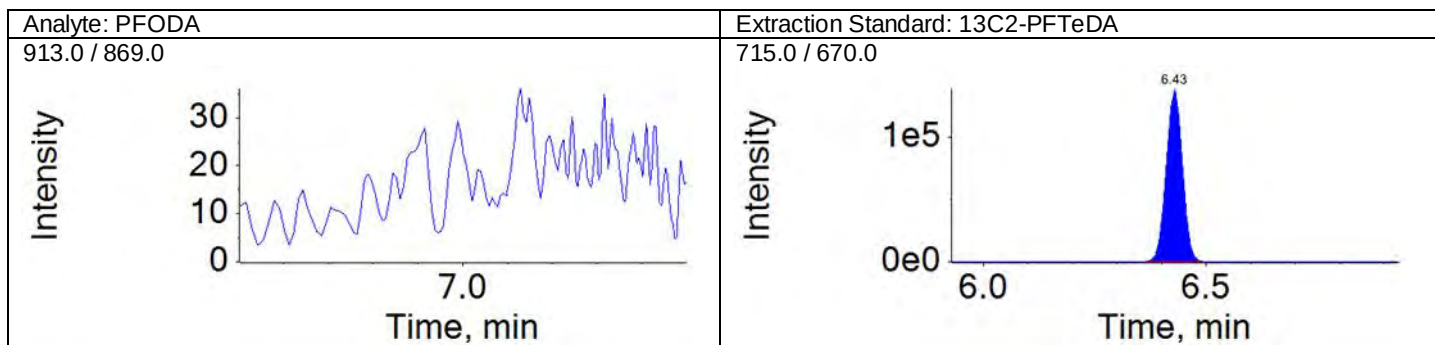
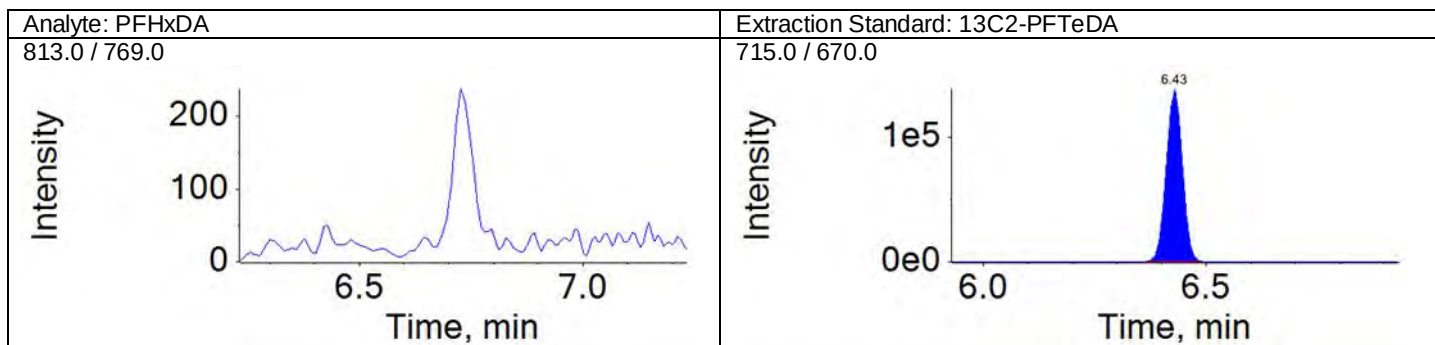
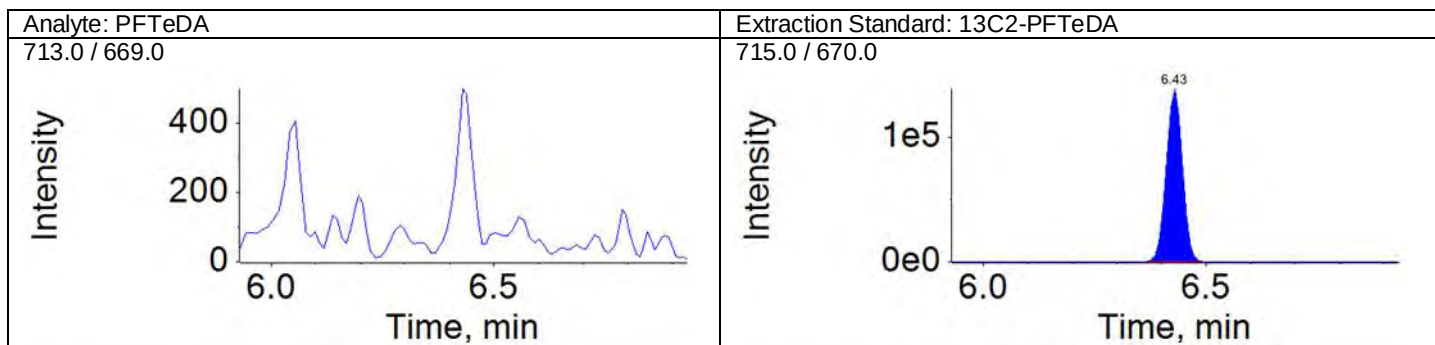
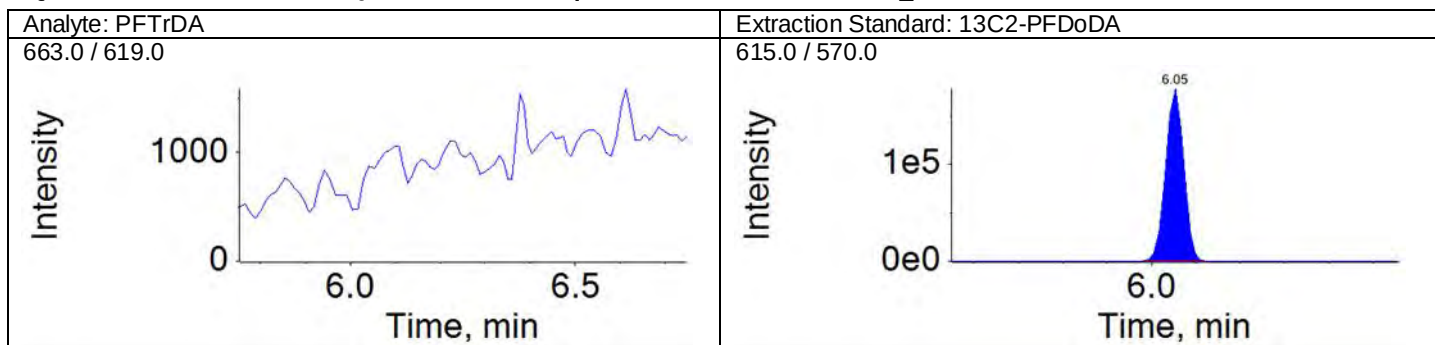
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QMethod Name: 18AUG20QM

Result Table: 18319003 11/19/2018 10:28:58 AM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18319003 11/19/2018 10:28:58 AM
Acquisition Method: 18AUG13_3uL.dam



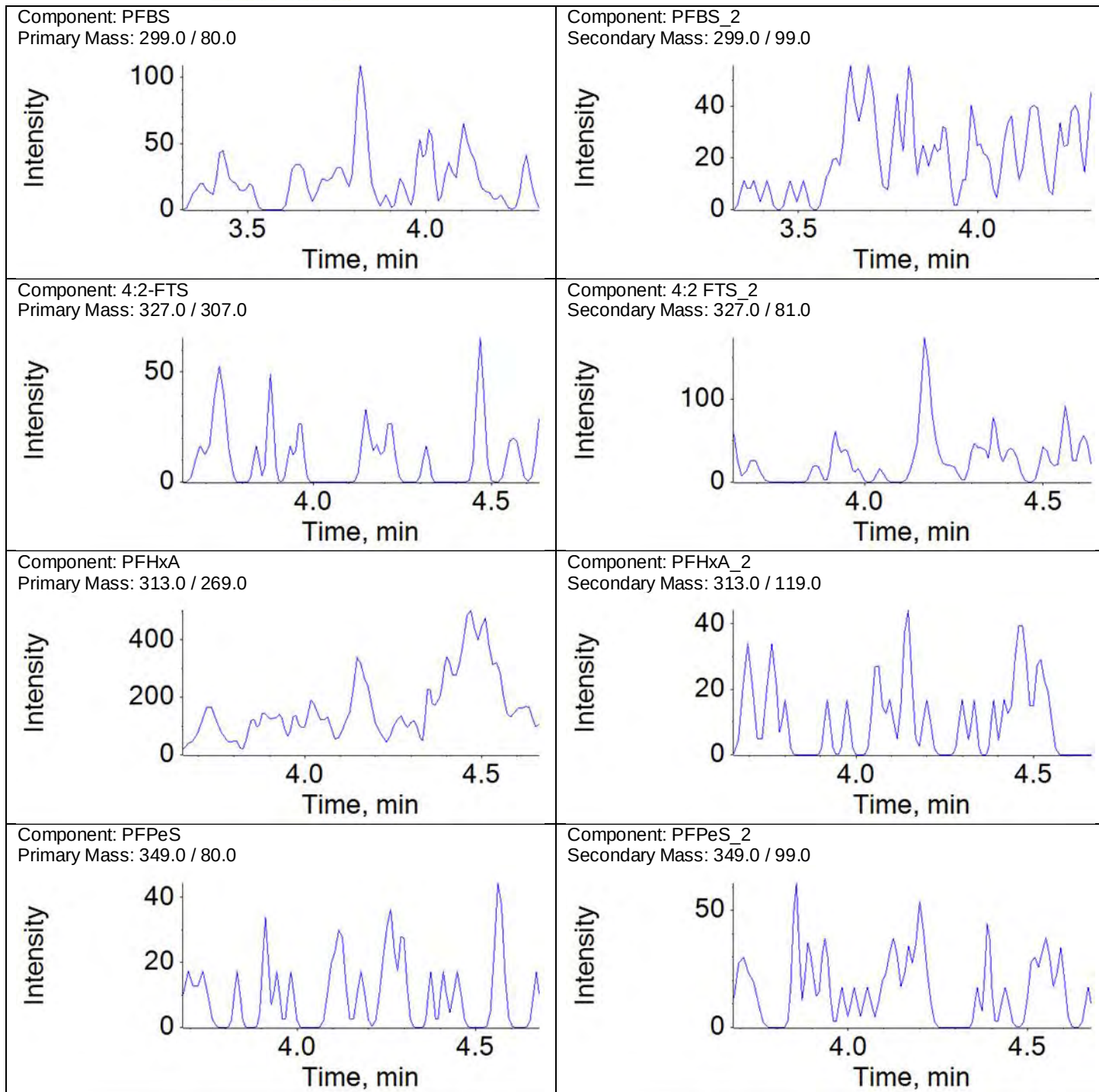
Ion Ratio Report

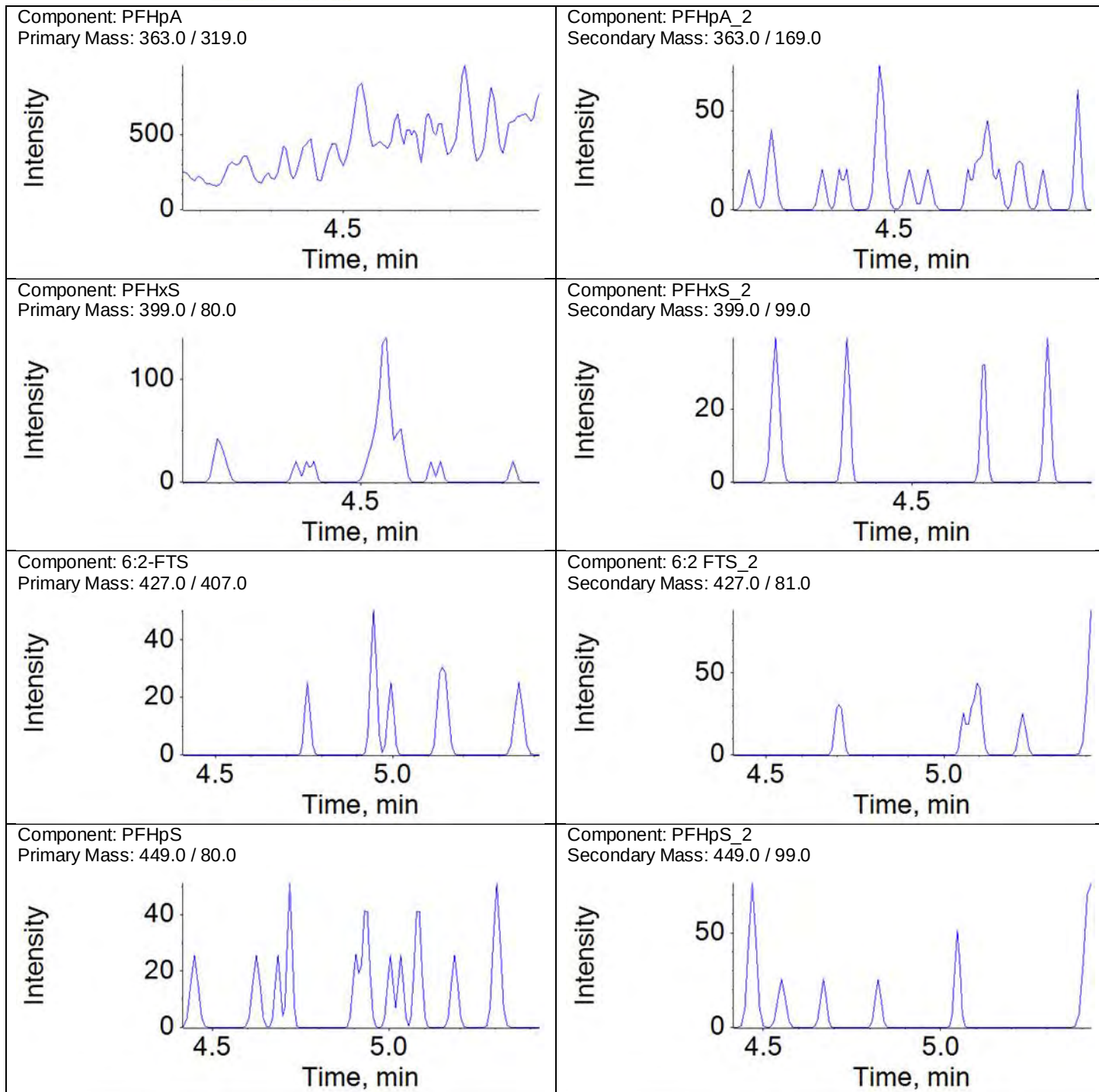
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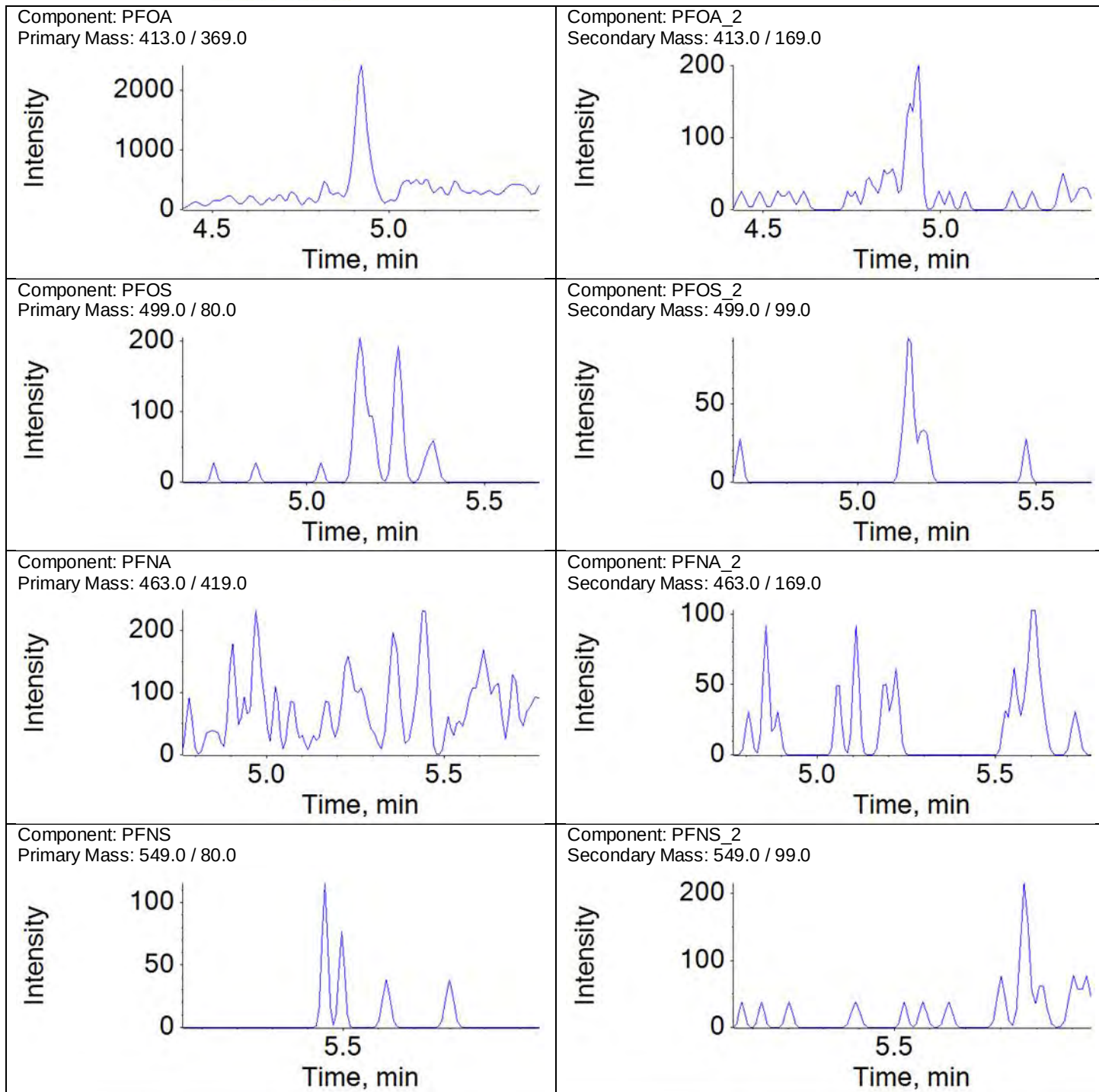
Instrument Name: LM27631

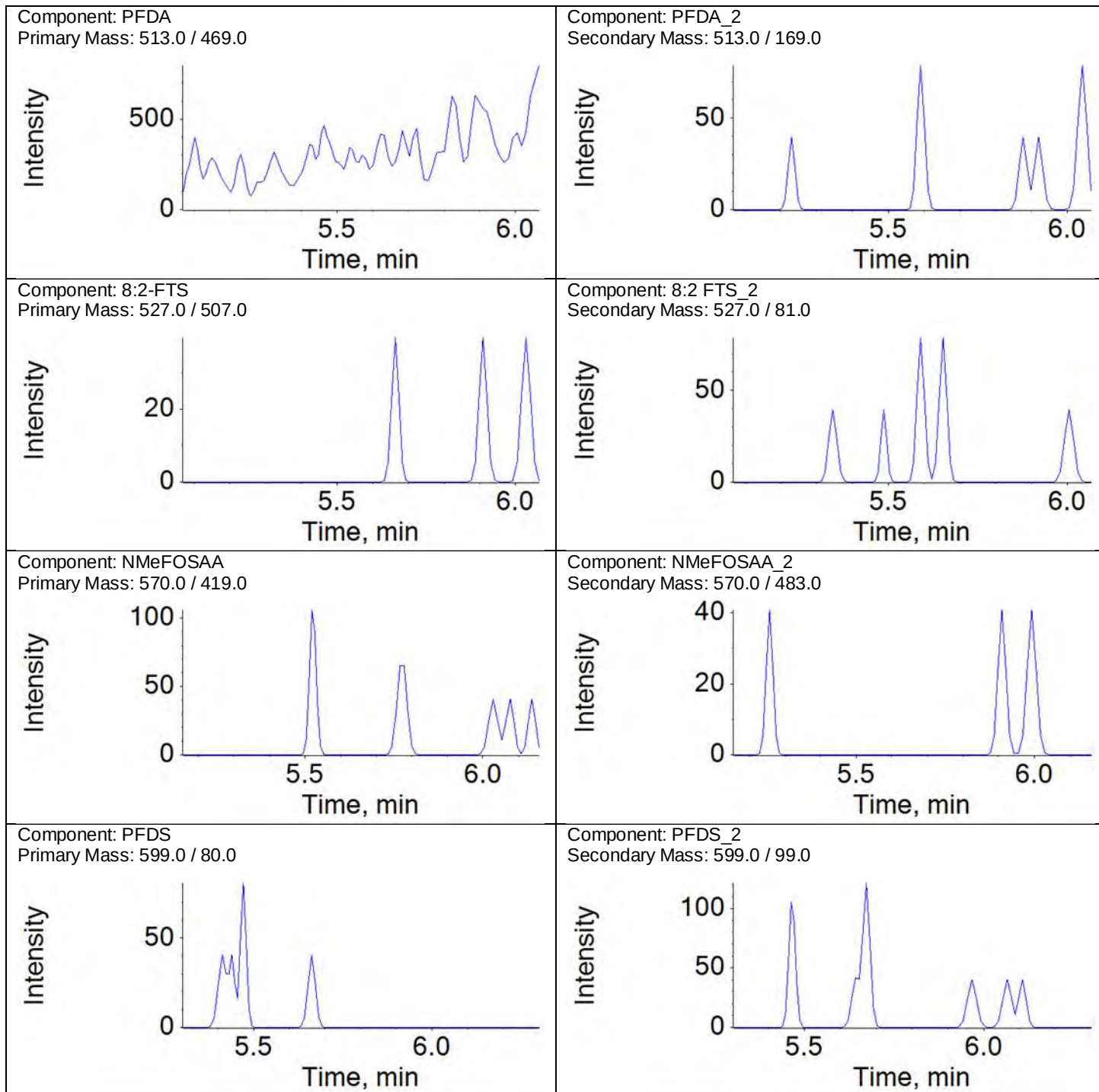
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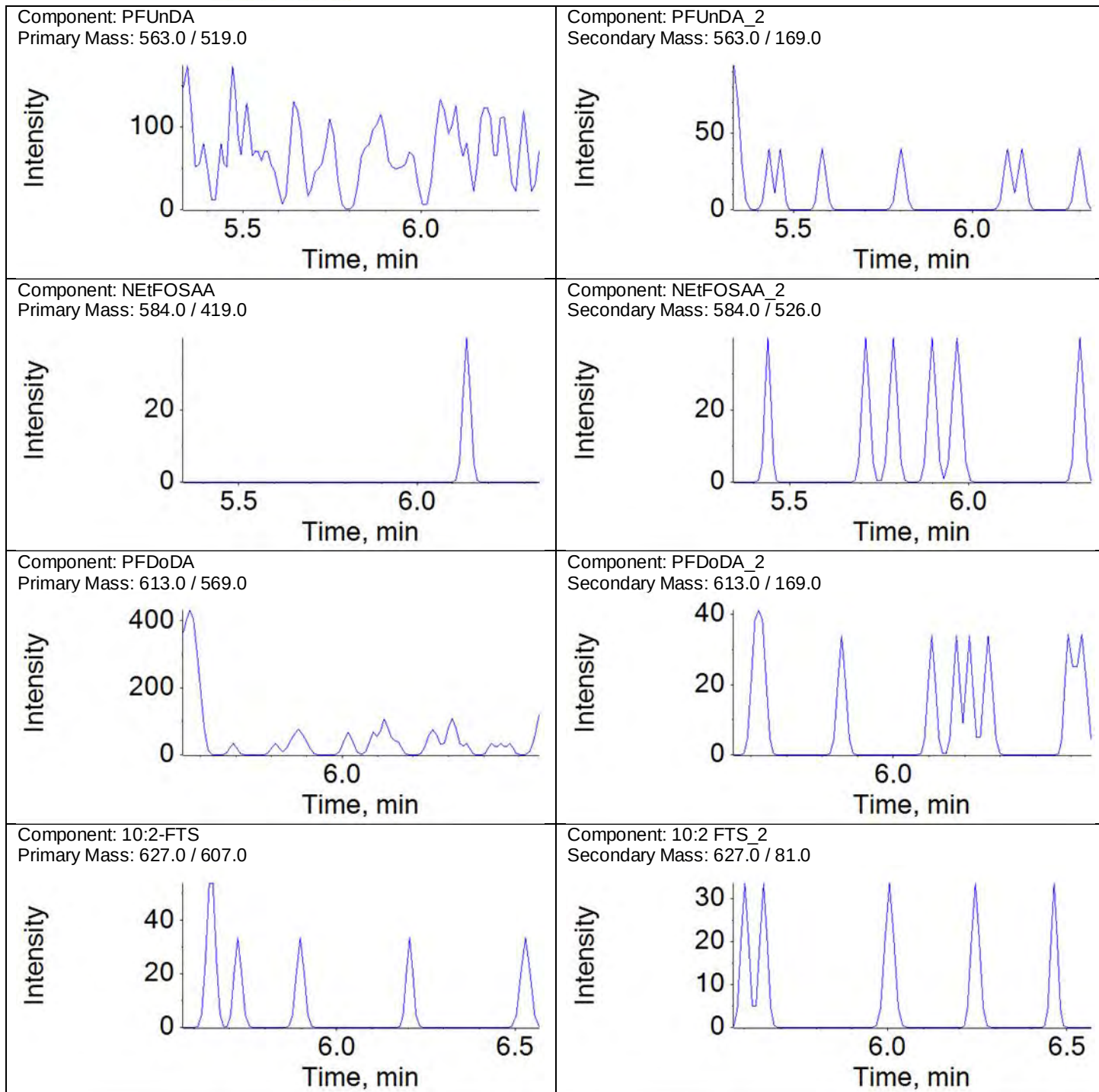
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDODA	N/A	N/A	N/A	A	N/A	N/A			
PFDODA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2 FTS_2	N/A	N/A	N/A	A	N/A	N/A		#NA!	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

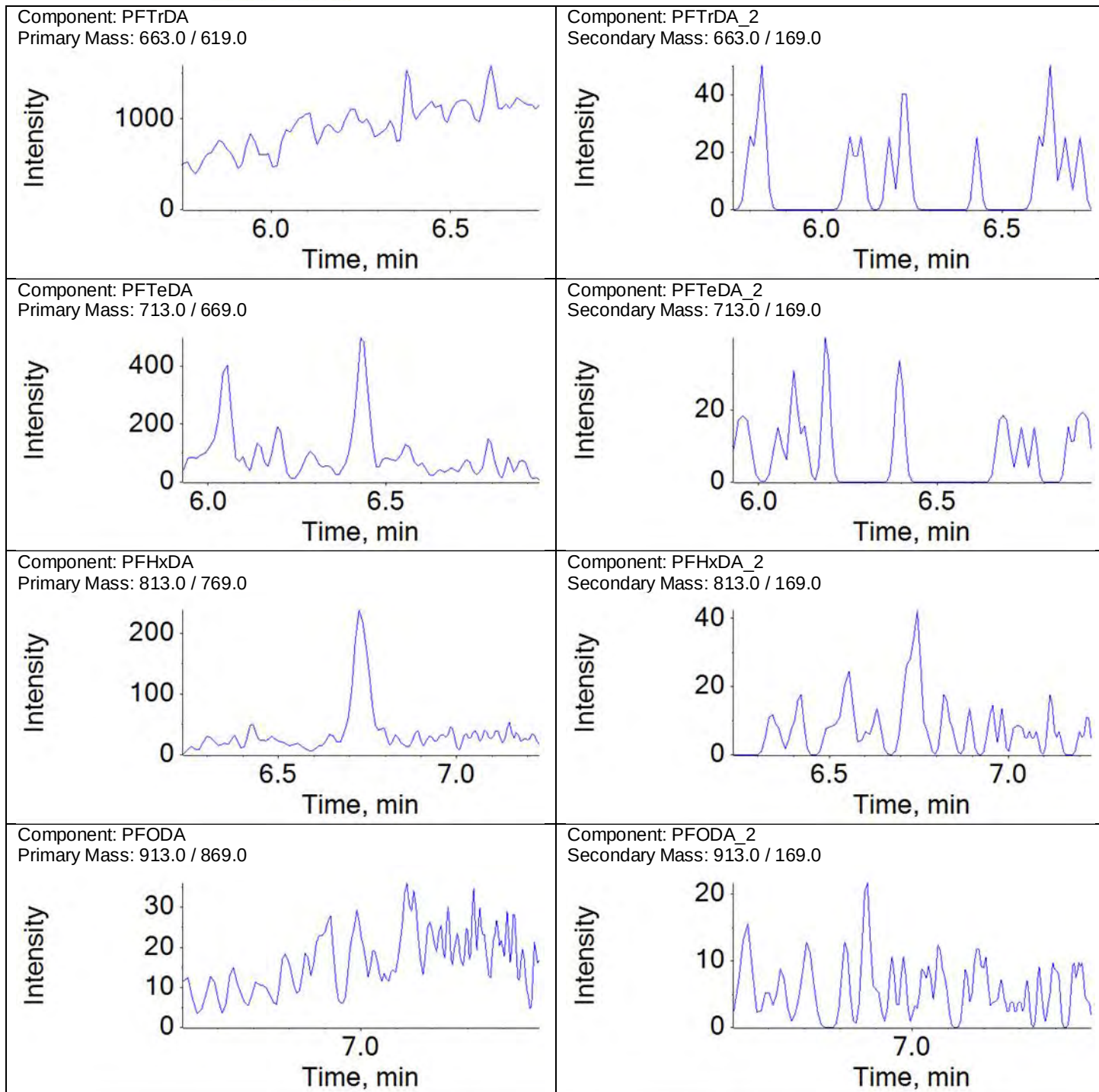












ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam

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Sample ID:	EPA 537 mod QSM 5.1 table B-15 18332003		Acquis Date:	2018-11-29T18:04:39
Sample Type:	Unknown		Instrument:	LM27631
Vial Position:	35		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18332003
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	18332003		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1052098.8	906425.4	16	50	
13C2-PFOA	5.0	583595.2	495984.0	18	50	
13C4-PFOS	4.8	370221.3	296261.8	25	50	
13C2-PFDA	5.0	538785.8	451203.0	19	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1166068.6	13C3-PFBA	1052098.8	1.108	10.000	9.890	99	50-150	
E13C5-PFPeA	1140810.2	13C3-PFBA	1052098.8	1.084	10.000	10.127	101	50-150	
E13C3-PFBS	483273.6	13C3-PFBA	1052098.8	0.459	9.300	8.765	94	50-150	
E13C2-4:2-FTS	88299.6	13C2-PFOA	583595.2	0.151	9.340	10.428	112	50-150	
E13C5-PFHxA	810532.0	13C2-PFOA	583595.2	1.389	10.000	10.203	102	50-150	
E13C3-PFHxS	390556.7	13C2-PFOA	583595.2	0.669	9.460	10.490	111	50-150	
E13C4-PFHpA	638162.6	13C2-PFOA	583595.2	1.094	10.000	10.049	100	50-150	
E13C2-6:2-FTS	85768.5	13C2-PFOA	583595.2	0.147	9.500	12.304	130	50-150	
E13C8-PFOA	1115290.8	13C2-PFOA	583595.2	1.911	10.000	10.520	105	50-150	
E13C8-PFOS	380904.6	13C4-PFOS	370221.3	1.029	9.560	9.289	97	50-150	
E13C9-PFNA	767466.6	13C4-PFOS	370221.3	2.073	10.000	9.106	91	50-150	
E13C6-PFDA	985084.0	13C2-PFDA	538785.8	1.828	10.000	10.310	103	50-150	
E13C2-8:2-FTS	68023.4	13C2-PFDA	538785.8	0.126	9.580	10.853	113	50-150	
E13C8-PFOSA	779450.6	13C2-PFDA	538785.8	1.447	10.000	10.617	106	50-150	
Ed3-NMeFOSAA	278947.3	13C2-PFDA	538785.8	0.518	10.000	13.147	131	50-150	
E13C7-PFUnDA	661426.3	13C2-PFDA	538785.8	1.228	10.000	10.377	104	50-150	
Ed5-NetFOSAA	157048.2	13C2-PFDA	538785.8	0.291	10.000	10.386	104	50-150	
E13C2-PFDoDA	1314480.9	13C2-PFDA	538785.8	2.440	10.000	10.252	103	50-150	
Ed7-NMePFOSAE	315785.5	13C2-PFDA	538785.8	0.586	10.000	10.131	101	50-150	
Ed3-NMePFOSA	100147.5	13C2-PFDA	538785.8	0.186	10.000	10.061	101	50-150	
Ed9-NetPFOSAE	274958.1	13C2-PFDA	538785.8	0.510	10.000	10.348	103	50-150	
Ed5-NetPFOSA	88626.3	13C2-PFDA	538785.8	0.164	10.000	11.431	114	50-150	
E13C2-PFTeDA	925597.8	13C2-PFDA	538785.8	1.718	10.000	9.507	95	50-150	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: BLK332003

Instrument Name: LM27631

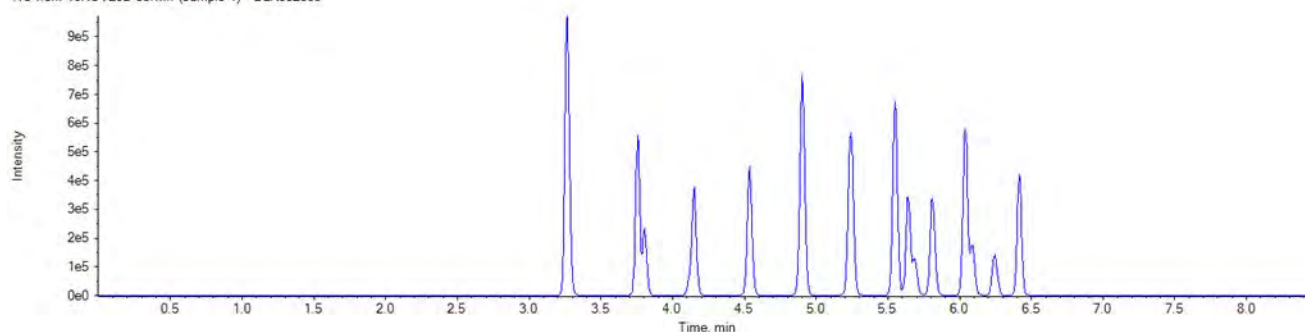
File Name: 18NOV29D-55.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	N/A	N/A	N/A		A	13C4-PFBA	3.26	1166068.6	N/A	
PFPeA	N/A	N/A	N/A		A	13C5-PFPeA	3.76	1140810.2	N/A	
PFBS	N/A	N/A	N/A		A	13C3-PFBS	3.80	483273.6	N/A	
4:2-FTS	N/A	N/A	N/A		A	13C2-4:2-FTS	4.11	88299.6	N/A	
PFHxA	N/A	N/A	N/A		A	13C5-PFHxA	4.15	810532.0	N/A	
PFPeS	N/A	N/A	N/A		A	13C3-PFBS	3.80	483273.6	N/A	
PFHpA	N/A	N/A	N/A		A	13C4-PFHpA	4.53	638162.6	N/A	
PFHxS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	390556.7	N/A	
6:2-FTS	N/A	N/A	N/A		A	13C2-6:2-FTS	4.89	85768.5	N/A	
PFHpS	N/A	N/A	N/A		A	13C3-PFHxS	4.54	390556.7	N/A	
PFOA	N/A	N/A	N/A		A	13C8-PFOA	4.90	1115290.8	N/A	
PFOS	N/A	N/A	N/A		A	13C8-PFOS	5.23	380904.6	N/A	
PFNA	N/A	N/A	N/A		A	13C9-PFNA	5.25	767466.6	N/A	
PFNS	N/A	N/A	N/A		A	13C8-PFOS	5.23	380904.6	N/A	
PFDA	N/A	N/A	N/A		A	13C6-PFDA	5.55	985084.0	N/A	
8:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.55	68023.4	N/A	
PFOSA	N/A	N/A	N/A		A	13C8-PFOSA	5.64	779450.6	N/A	
NMeFOSAA	N/A	N/A	N/A		A	d3-NMeFOSAA	5.69	278947.3	N/A	
PFDS	N/A	N/A	N/A		A	13C8-PFOS	5.23	380904.6	N/A	
PfUnDA	N/A	N/A	N/A		A	13C7-PfUnDA	5.81	661426.3	N/A	
NEtFOSAA	N/A	N/A	N/A		A	d5-NEtFOSAA	5.82	157048.2	N/A	
PFDODA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	1314480.9	N/A	
10:2-FTS	N/A	N/A	N/A		A	13C2-8:2-FTS	5.55	68023.4	N/A	
NMePFOSAE	N/A	N/A	N/A		A	d7-NMePFOSAE	6.09	315785.5	N/A	
NMePFOSA	N/A	N/A	N/A		A	d3-NMePFOSA	6.10	100147.5	N/A	
PFDoS	N/A	N/A	N/A		A	13C8-PFOS	5.23	380904.6	N/A	
NEtPFOSAE	N/A	N/A	N/A		A	d9-NEtPFOSAE	6.24	274958.1	N/A	
NEtPFOSA	N/A	N/A	N/A		A	d5-NEtPFOSA	6.26	88626.3	N/A	
PFTDA	N/A	N/A	N/A		A	13C2-PFDODA	6.04	1314480.9	N/A	
PFTeDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	925597.8	N/A	
PFHxDA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	925597.8	N/A	
PFOA	N/A	N/A	N/A		A	13C2-PFTeDA	6.42	925597.8	N/A	

Total Ion Chromatogram

TIC from 18NOV29D-55.wiff (sample 1) - BLK332003



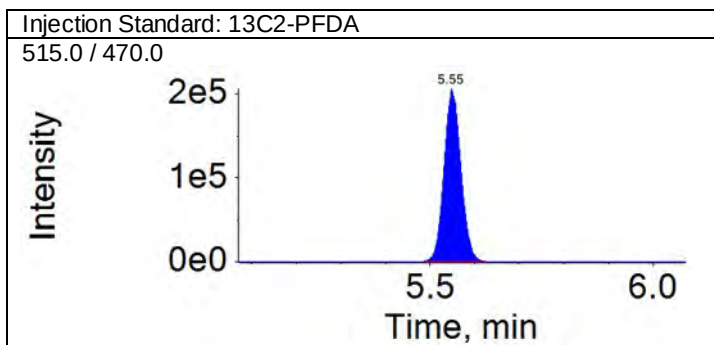
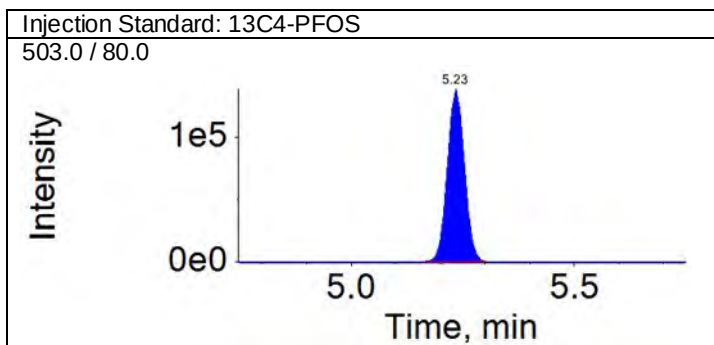
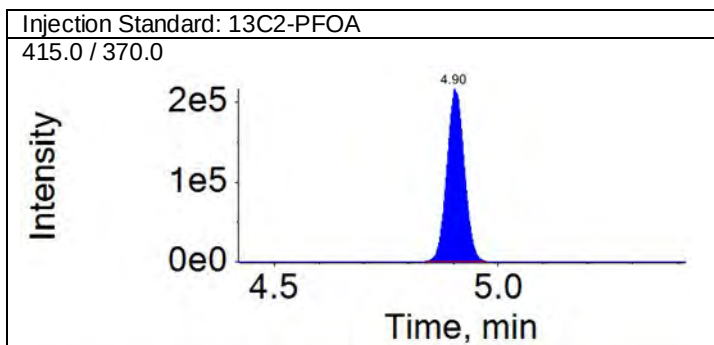
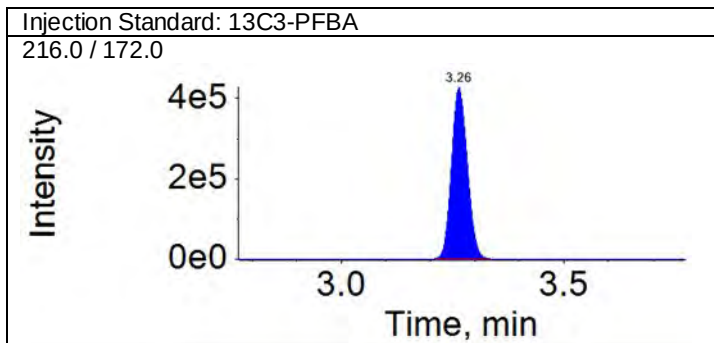
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By MCD at 10:13 pm, 11/30/18

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REVIEWED
By HMK at 2:27 pm, 12/6/18

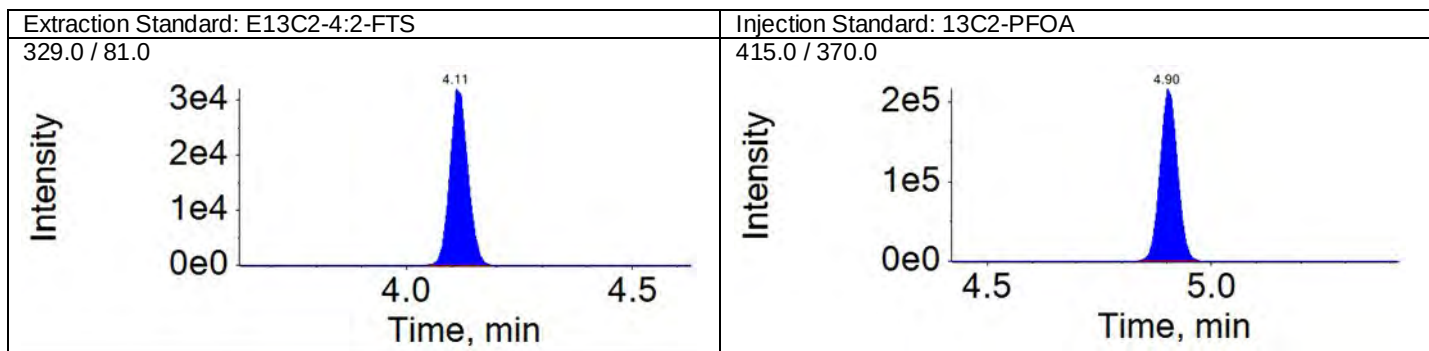
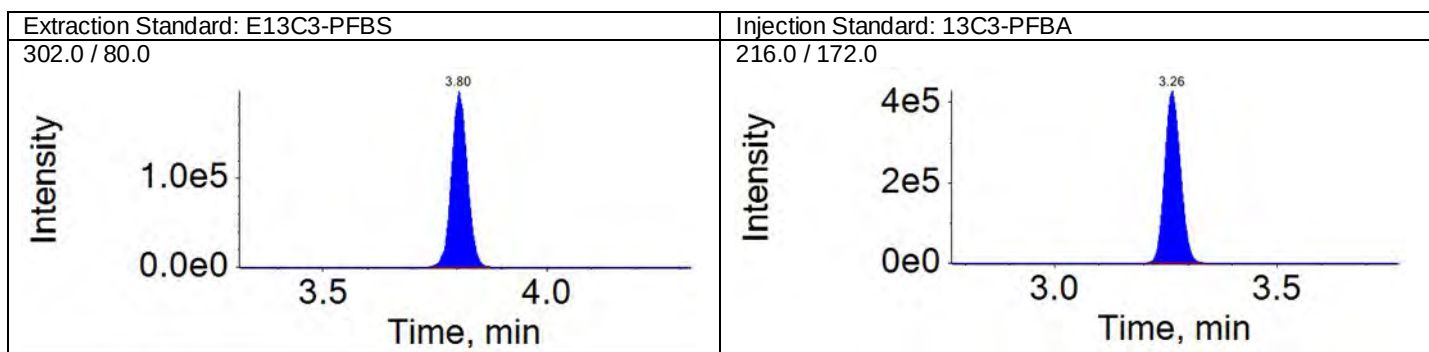
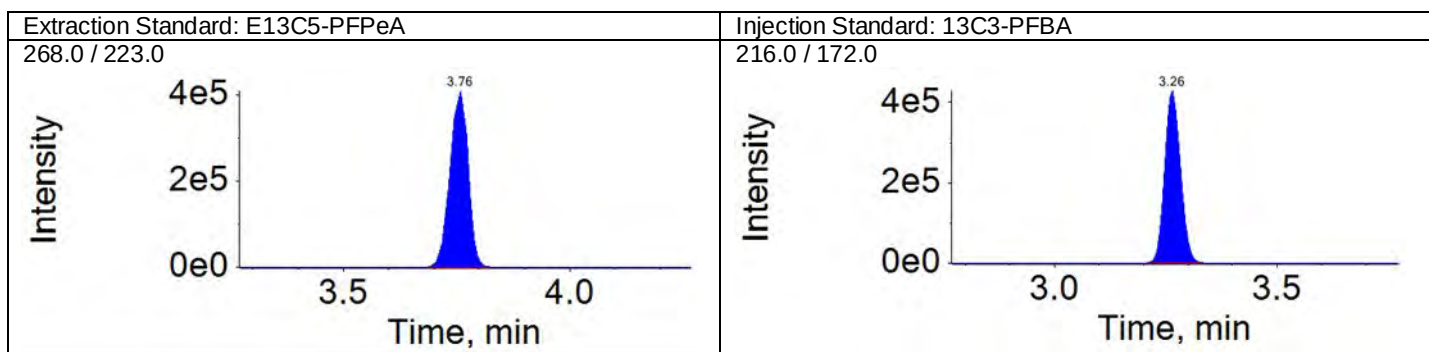
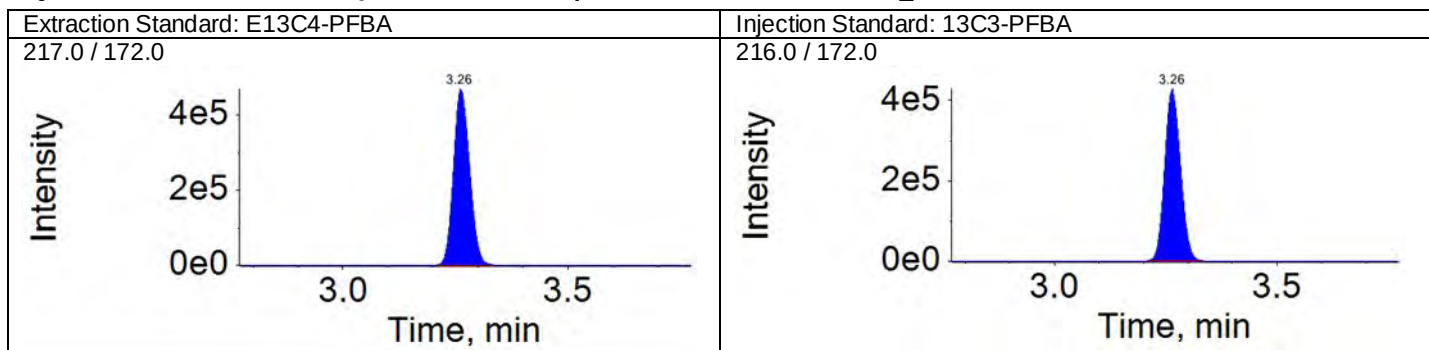
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



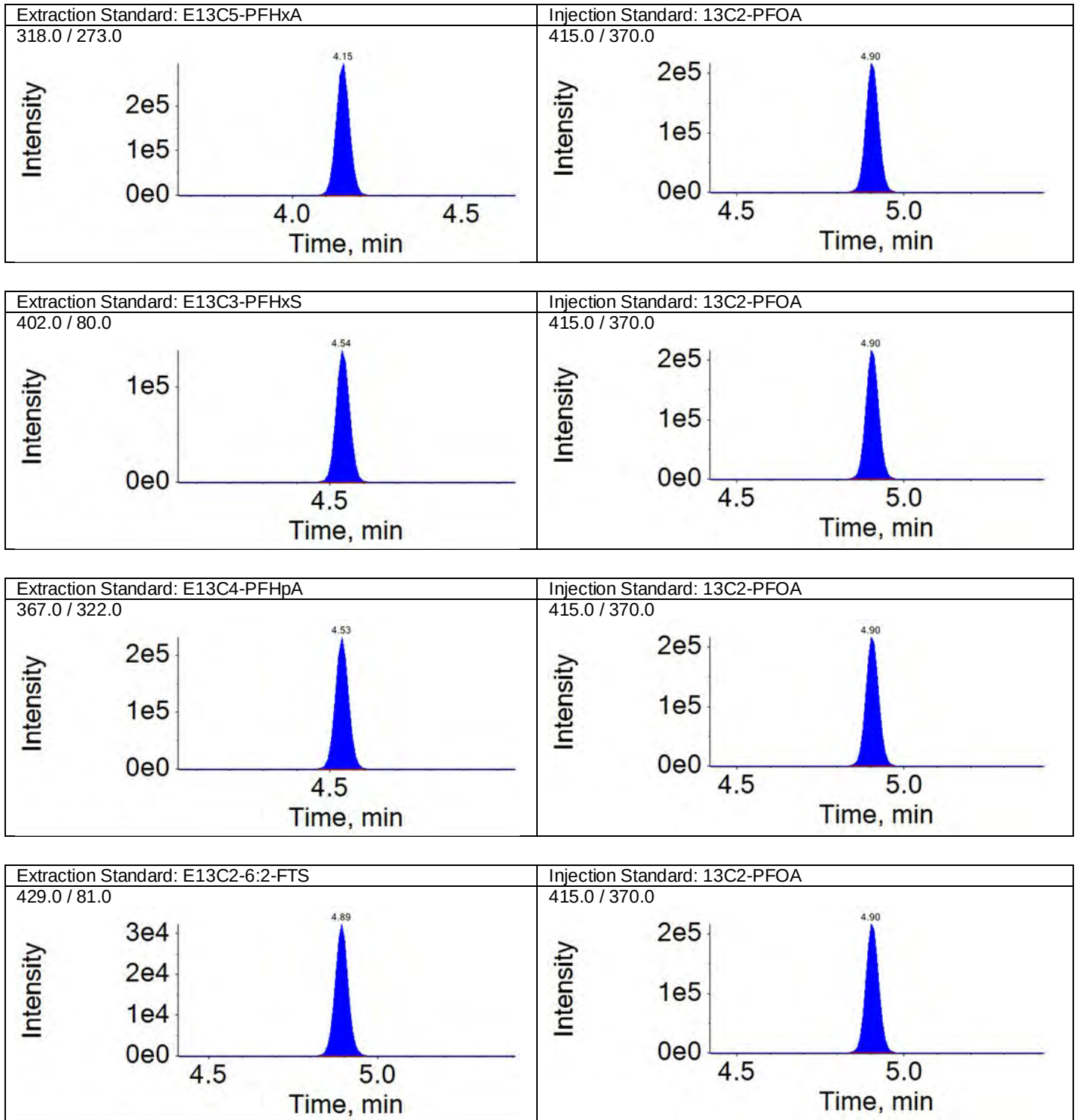
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



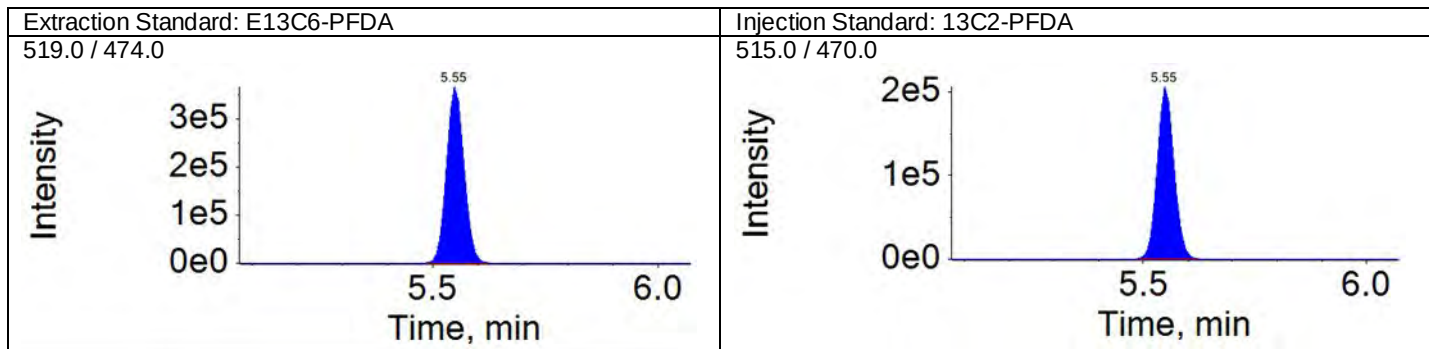
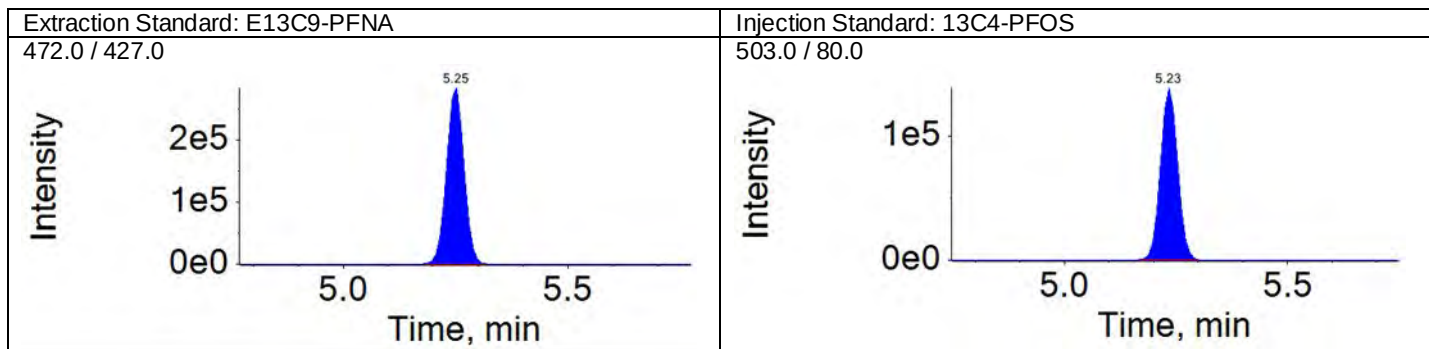
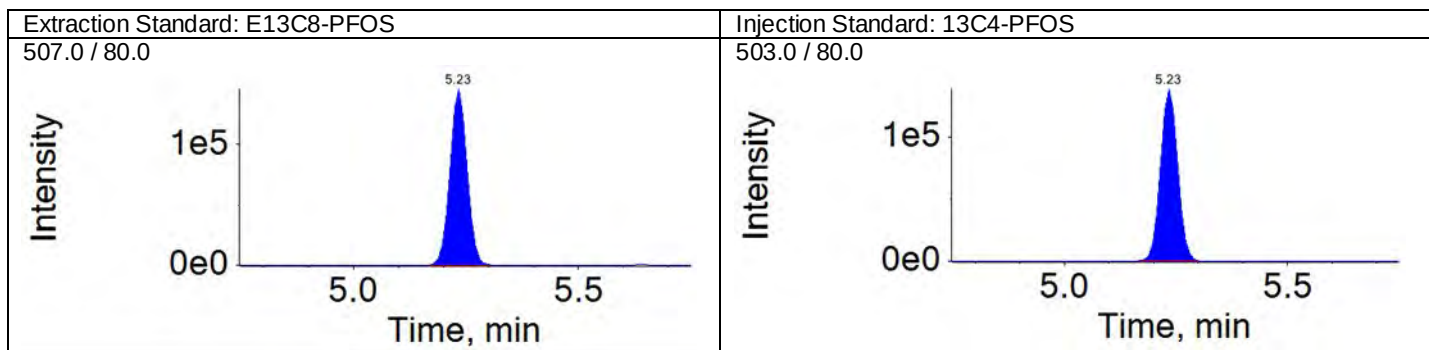
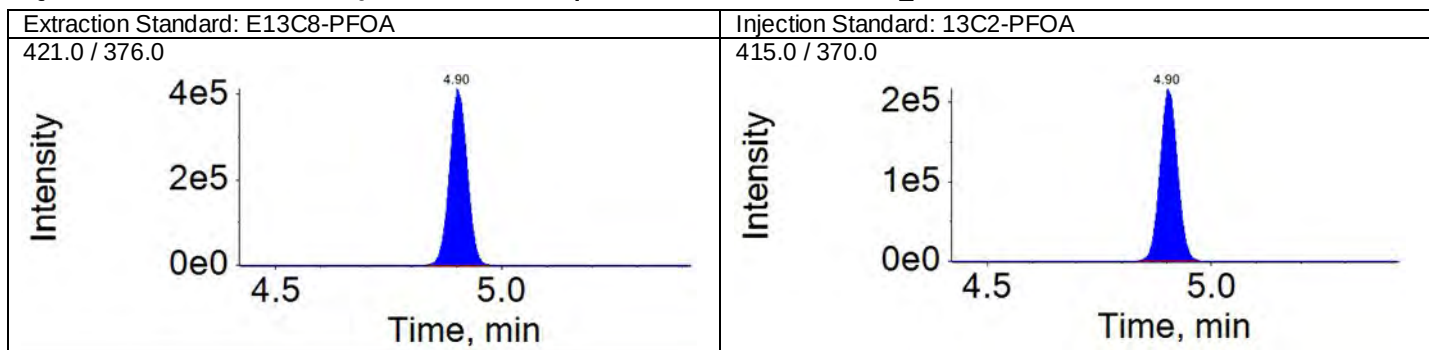
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
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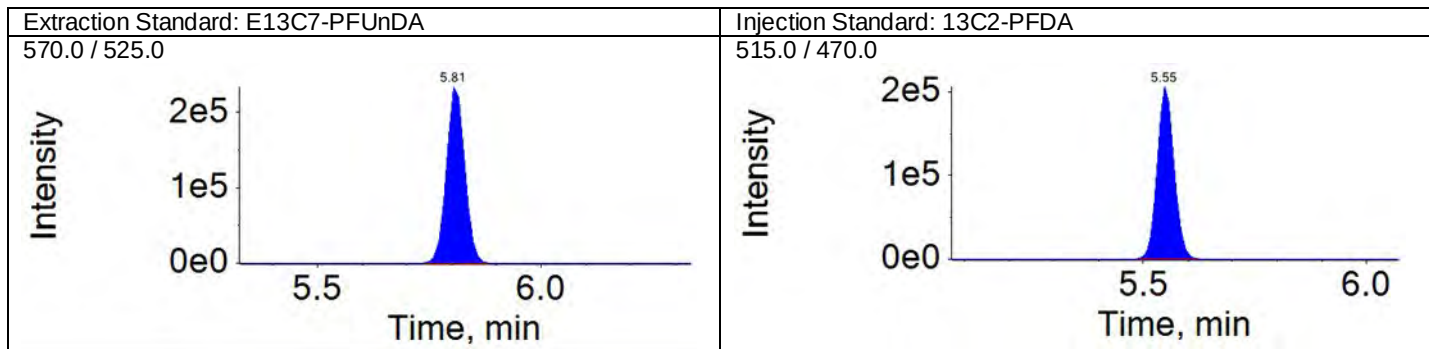
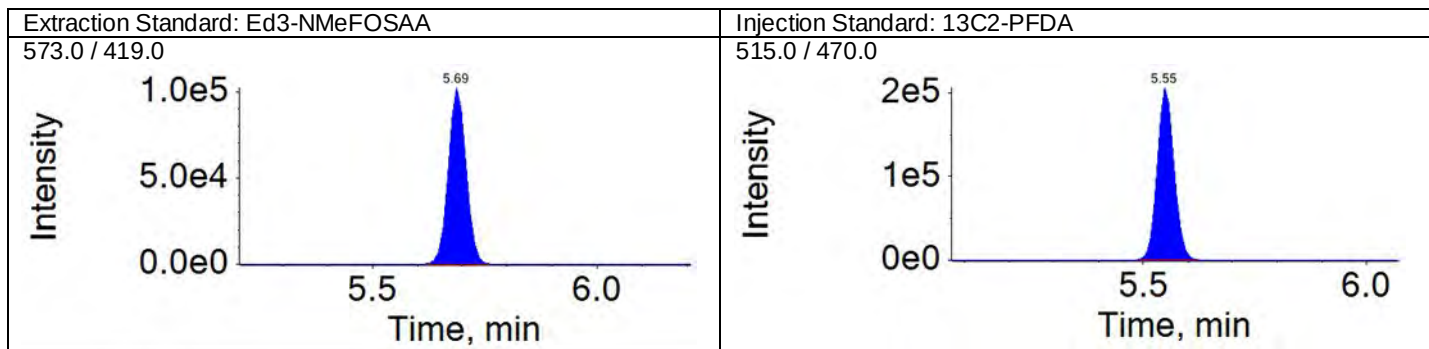
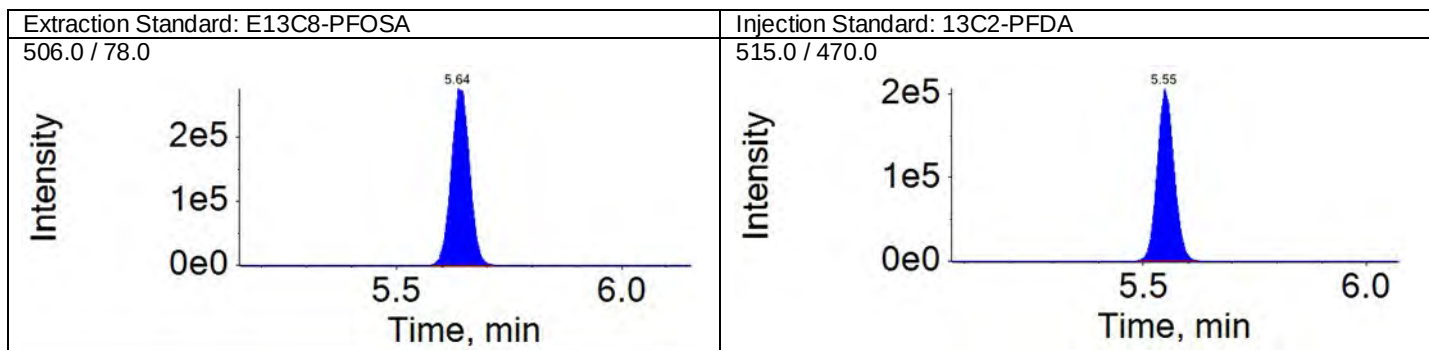
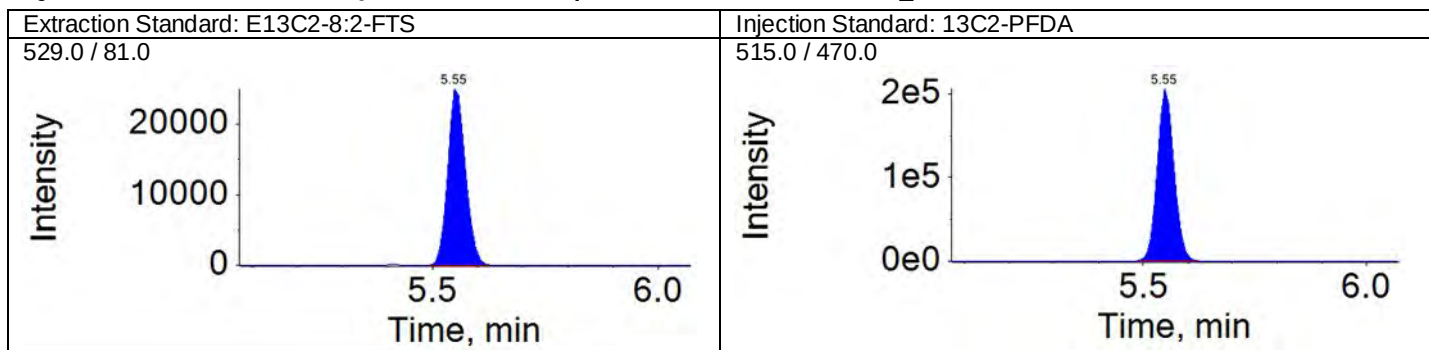
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



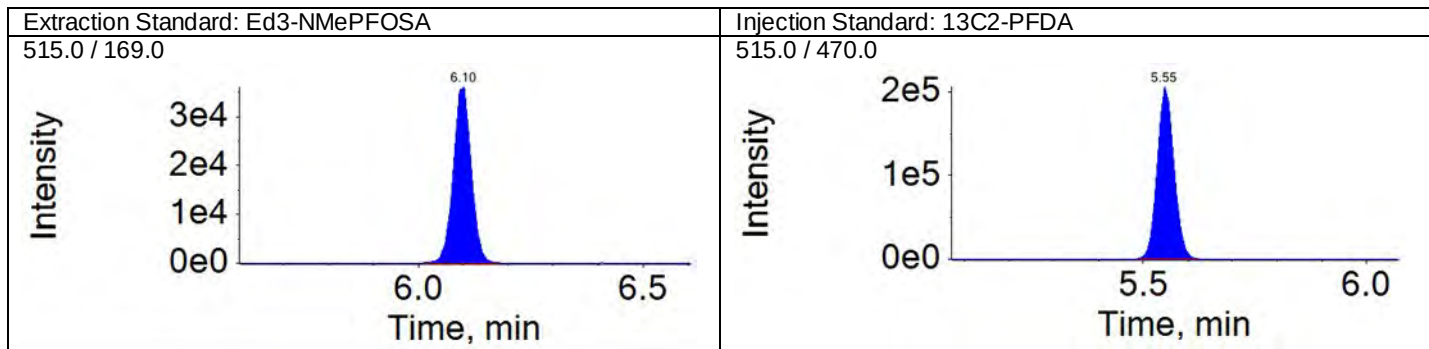
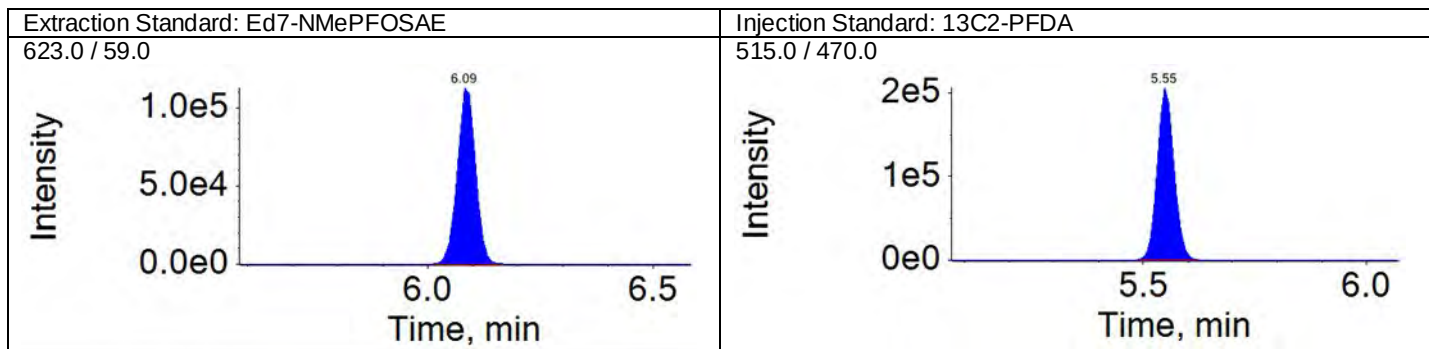
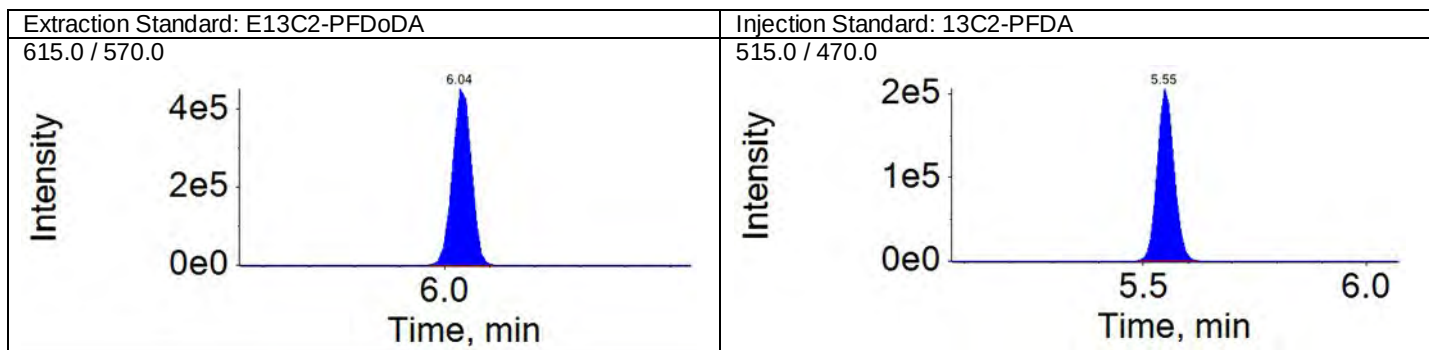
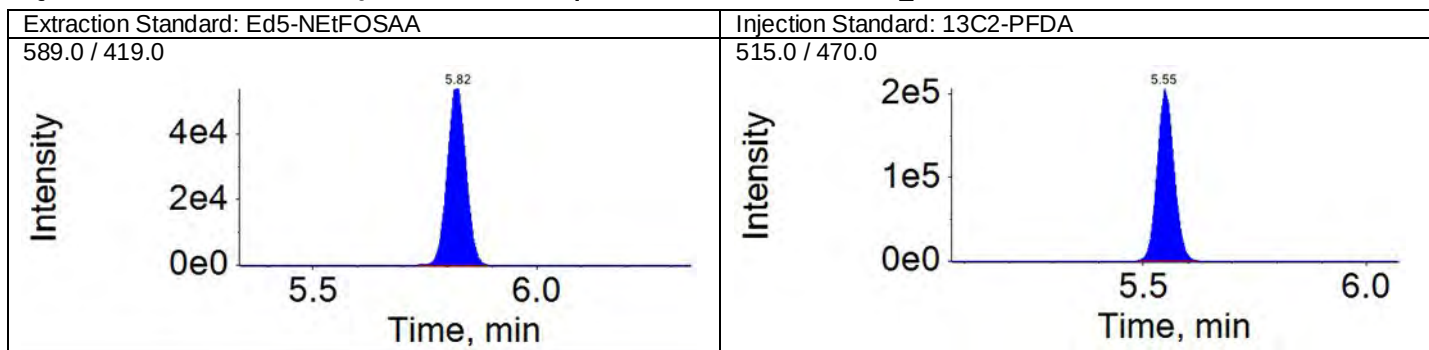
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Result Table: 18332003 11/30/2018 9:58:40 PM
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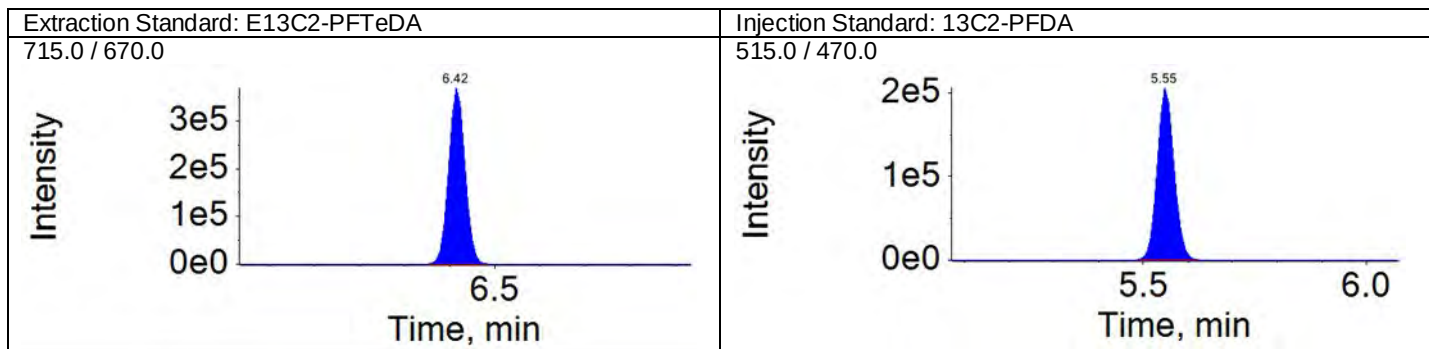
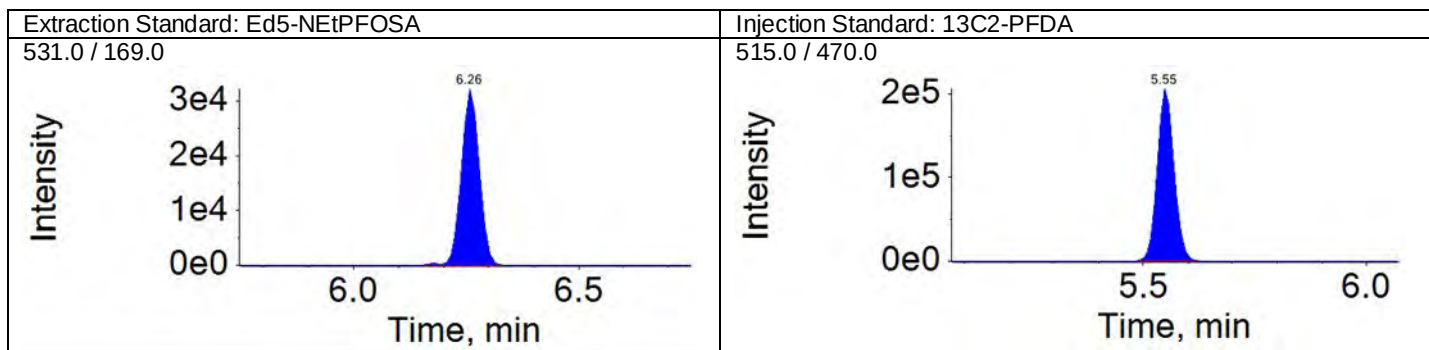
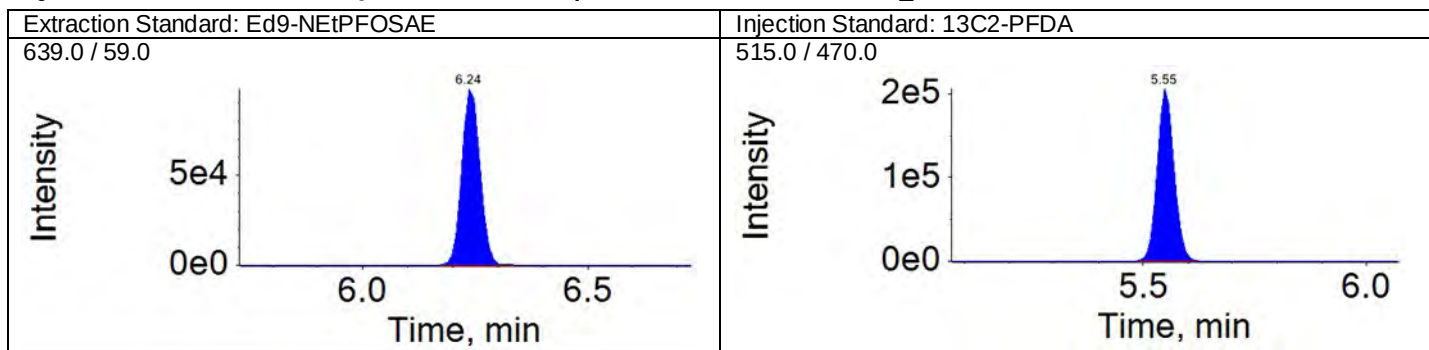
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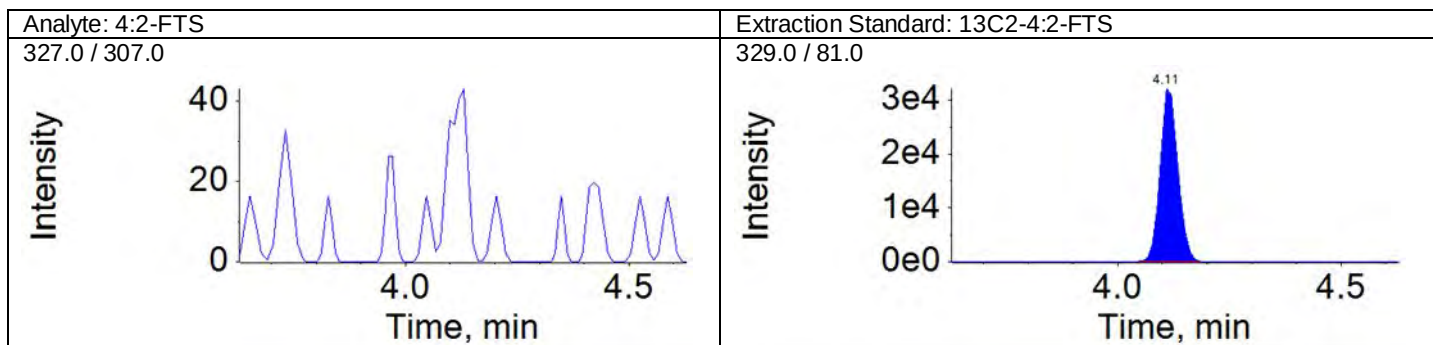
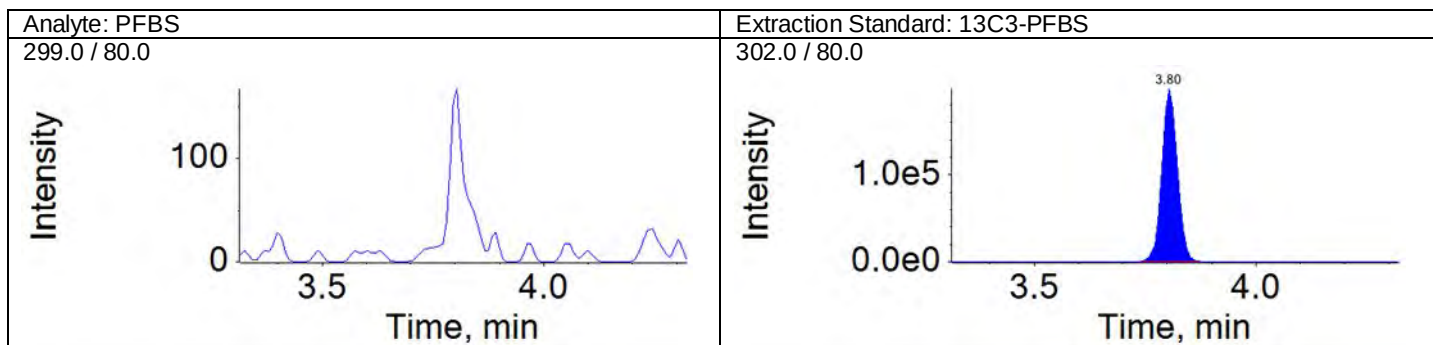
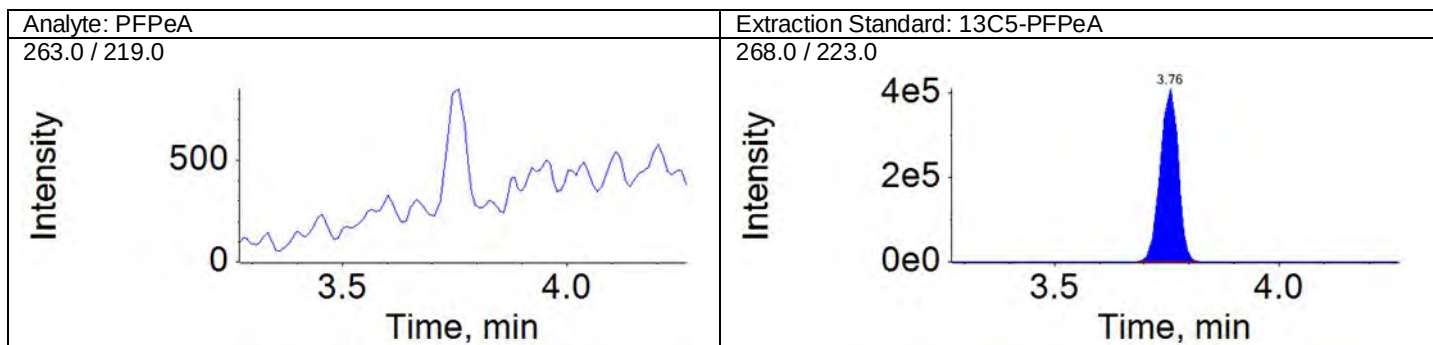
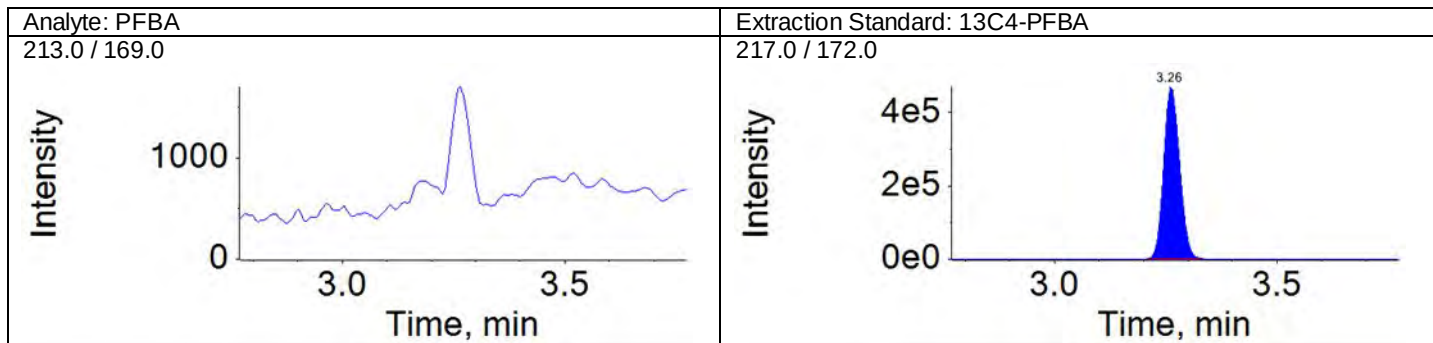
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Result Table: 18332003 11/30/2018 9:58:40 PM
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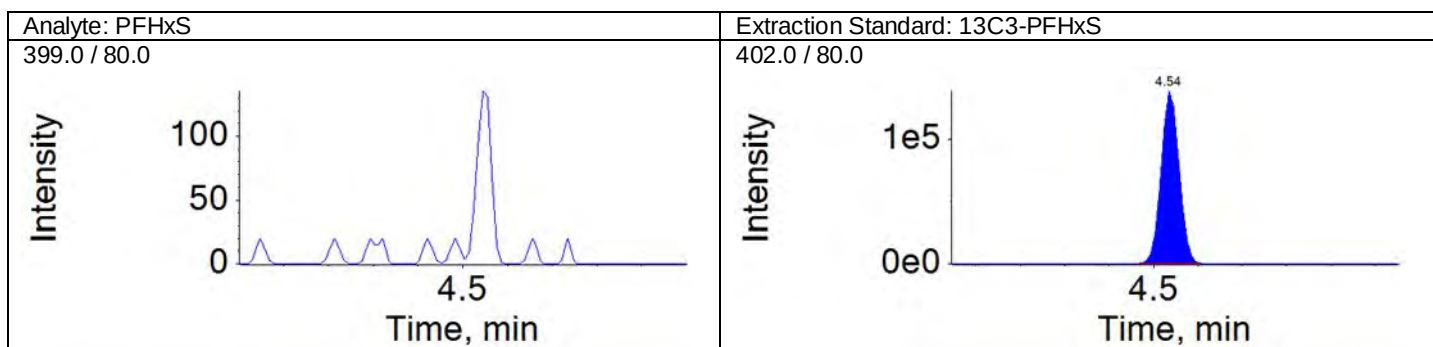
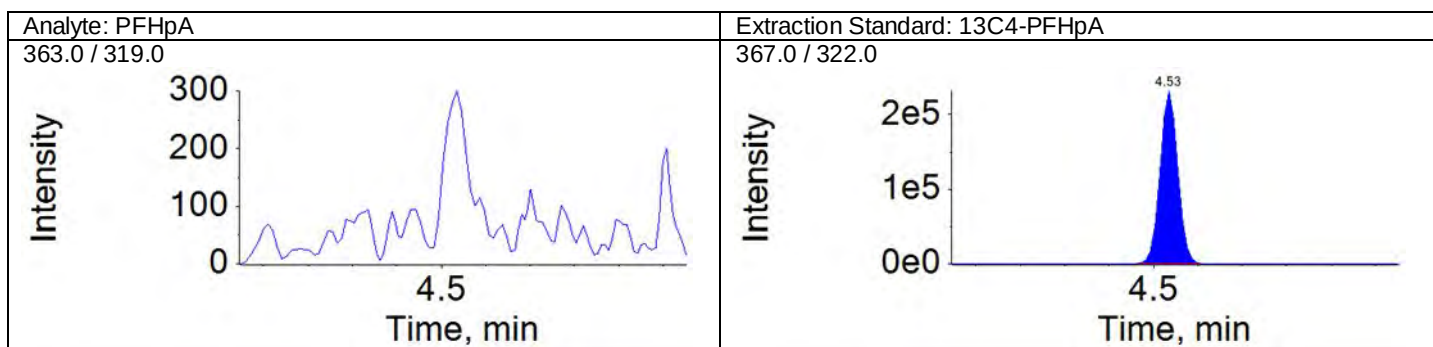
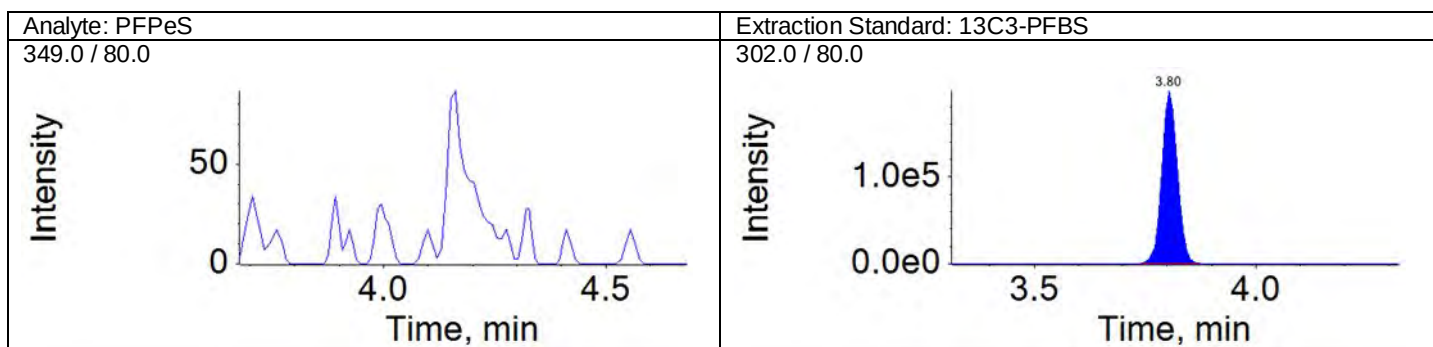
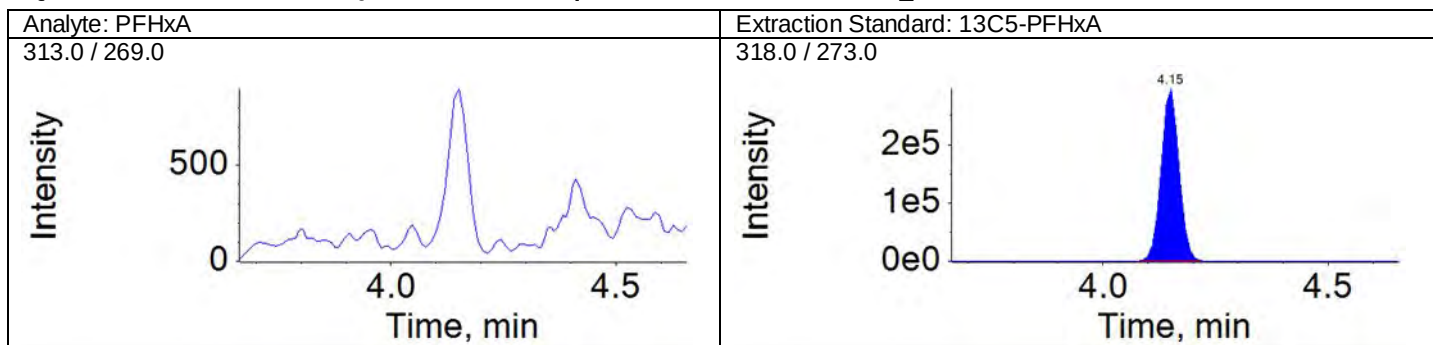
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



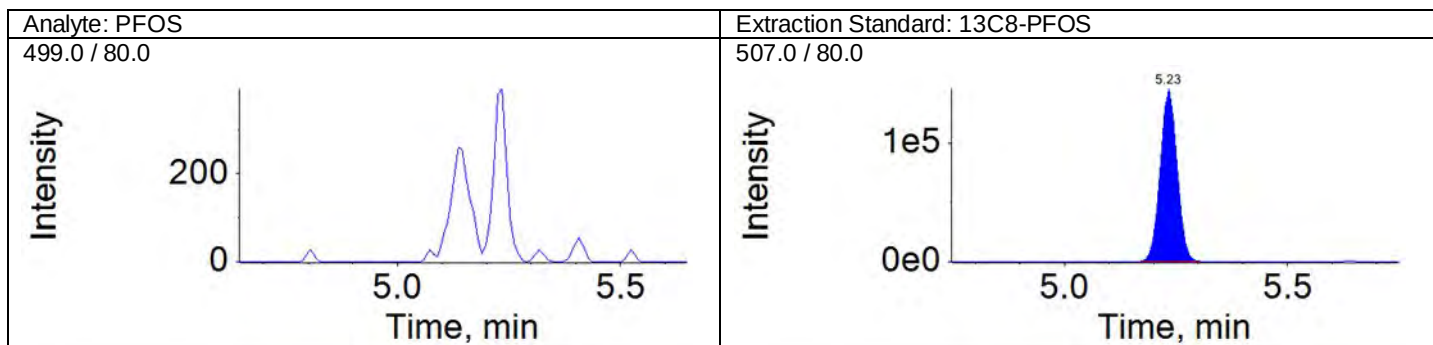
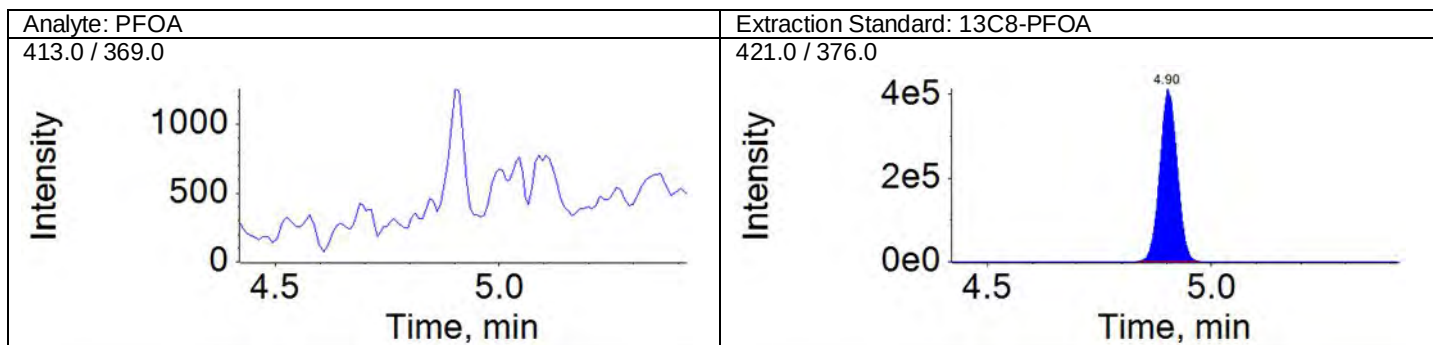
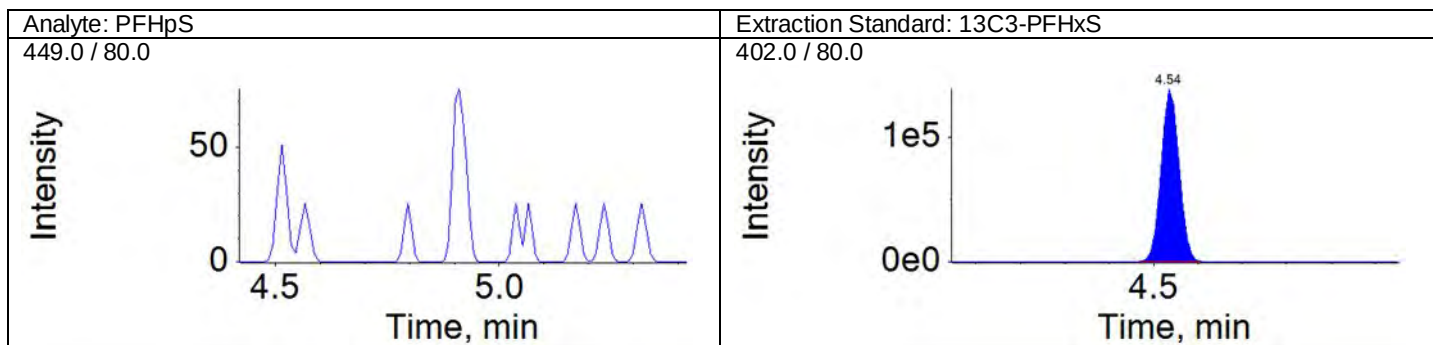
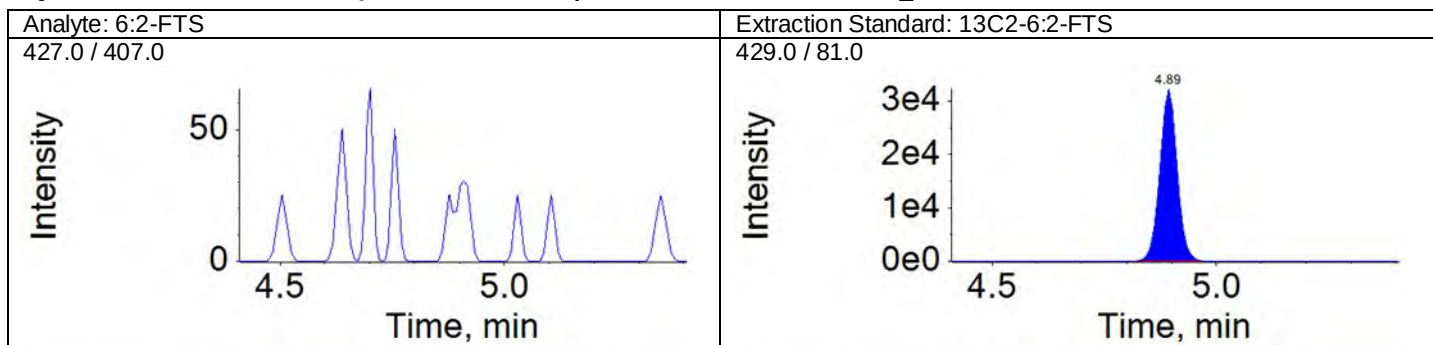
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Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



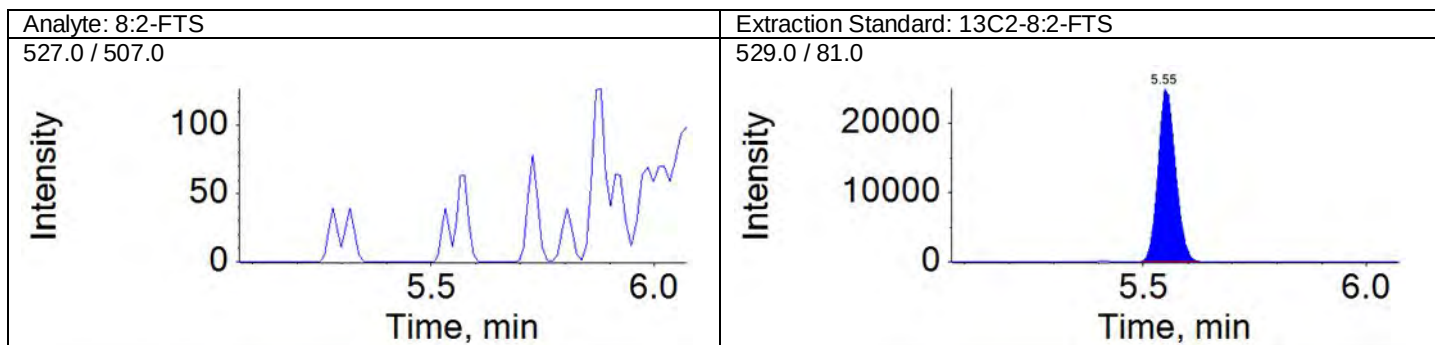
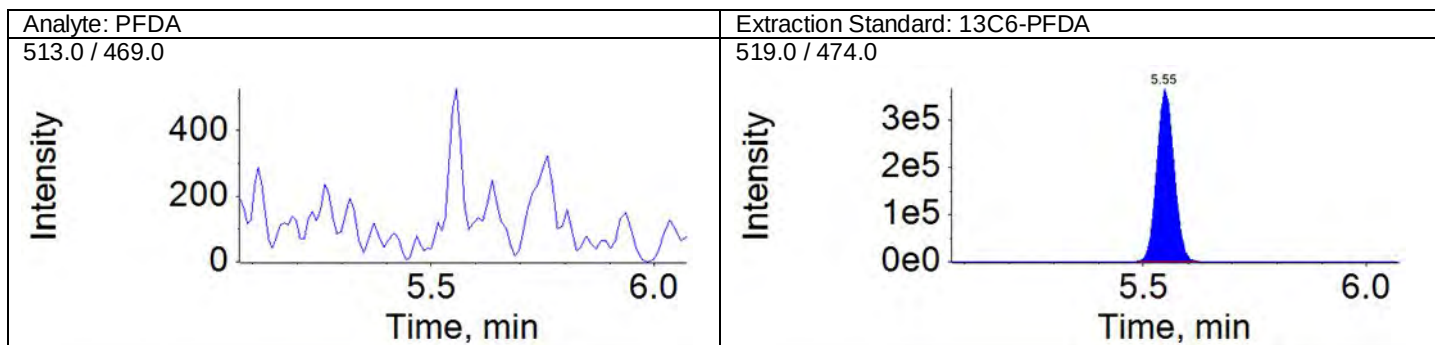
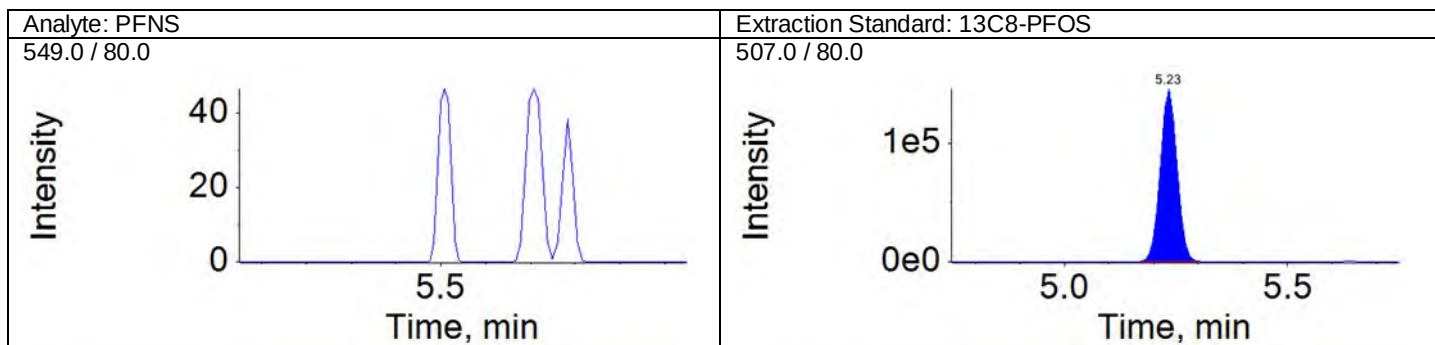
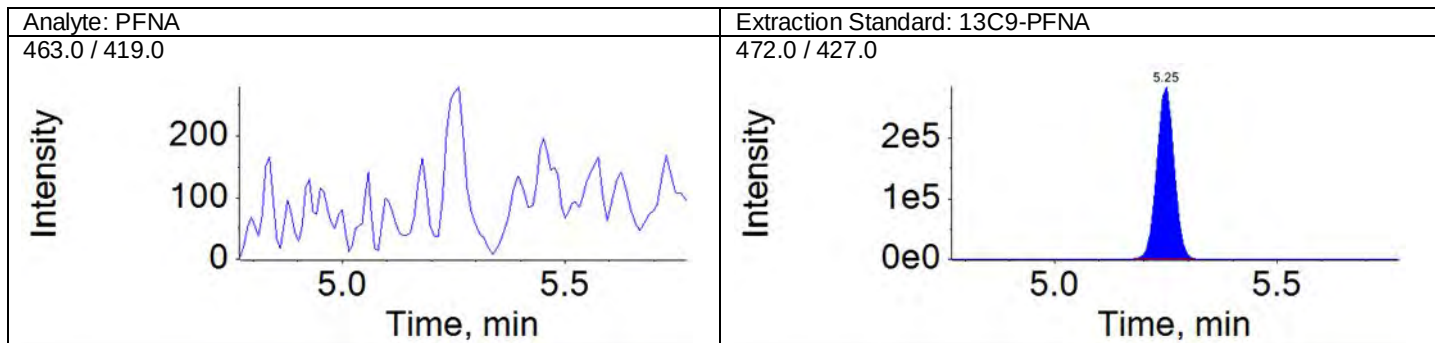
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



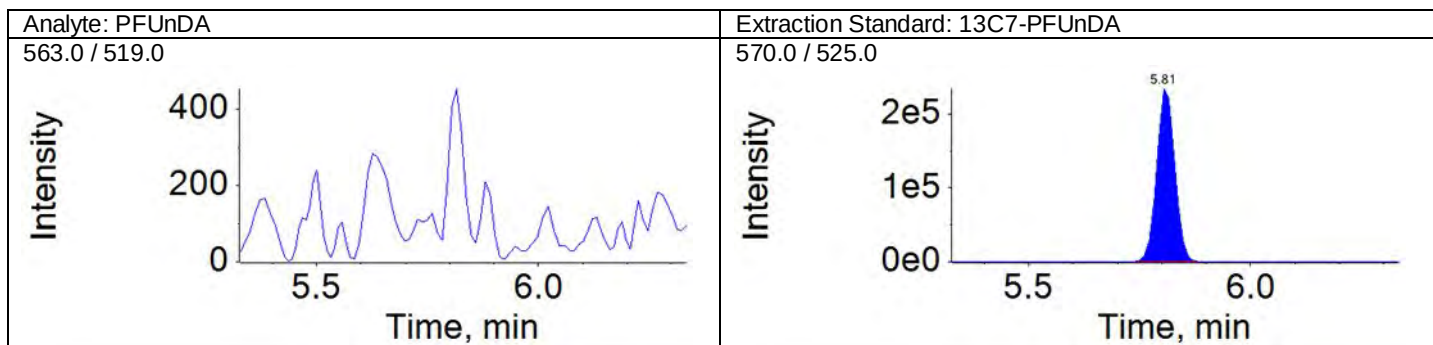
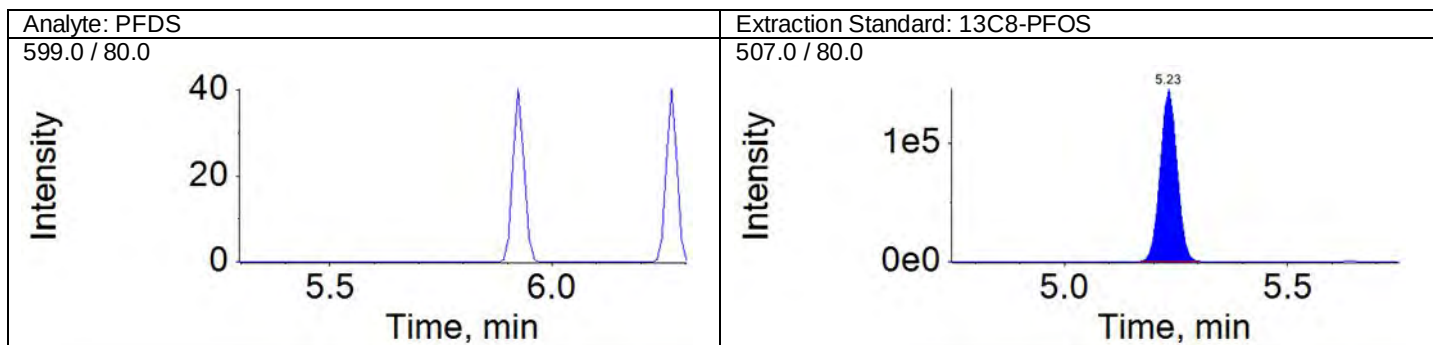
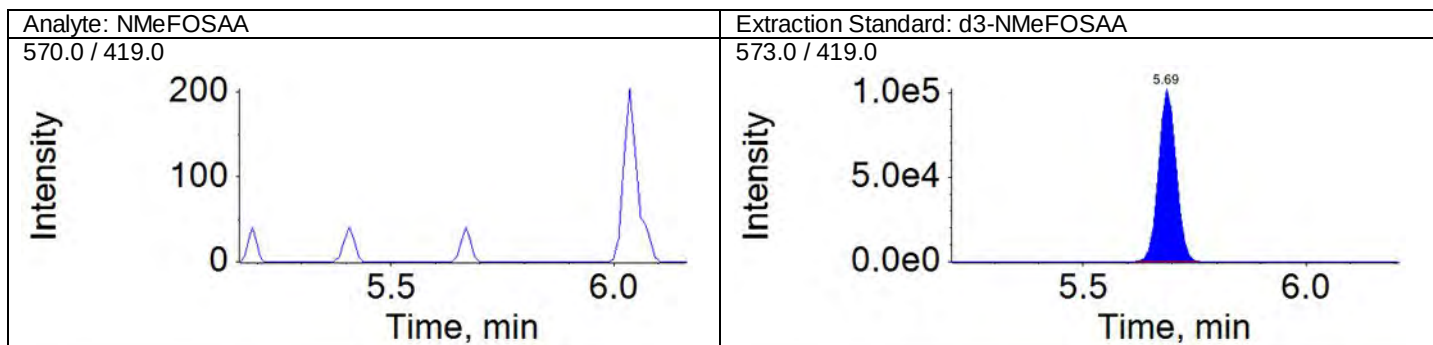
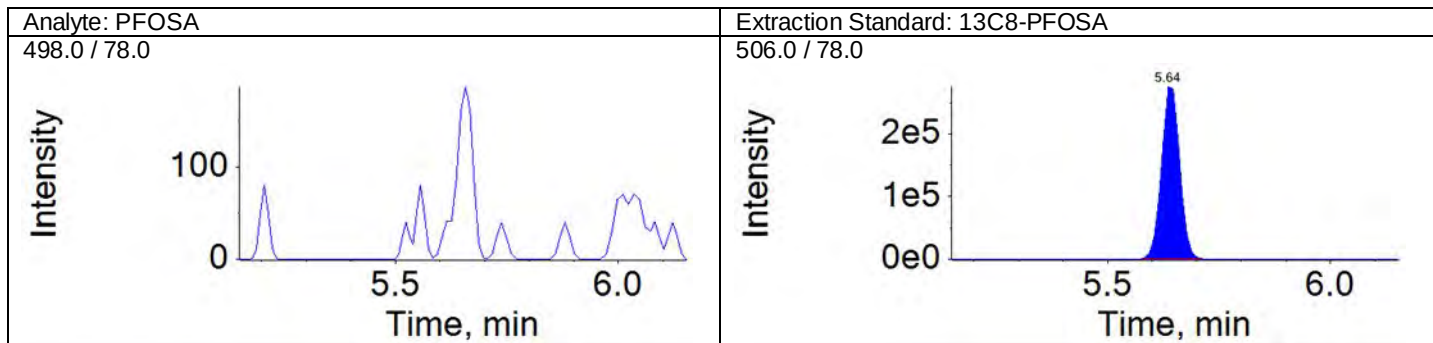
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



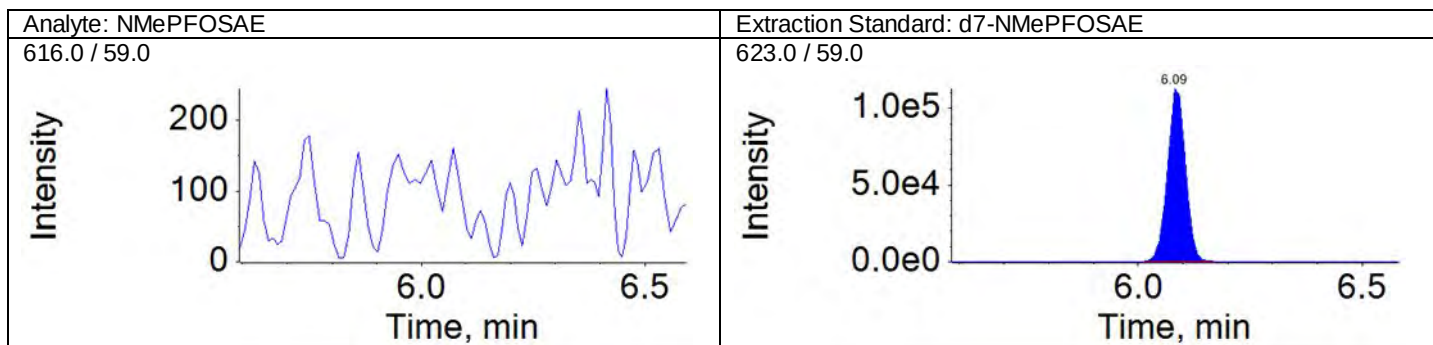
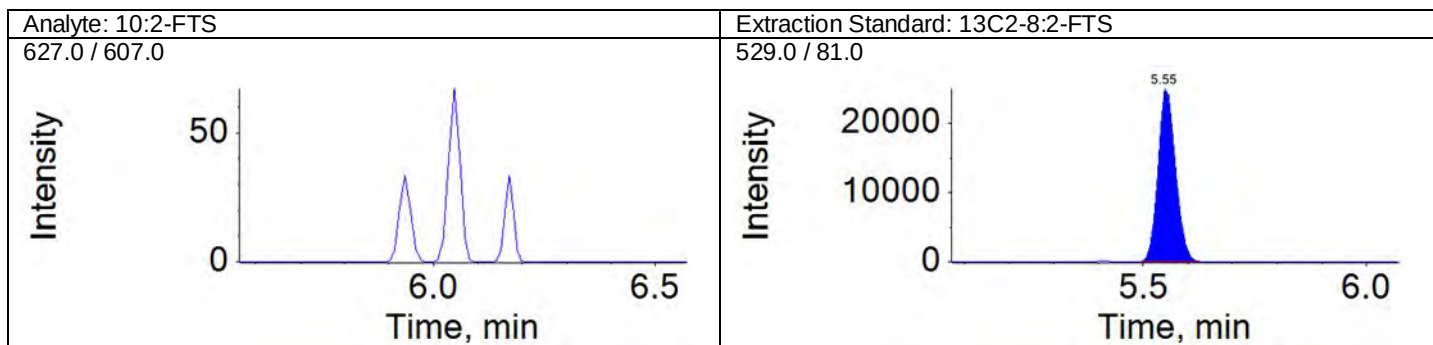
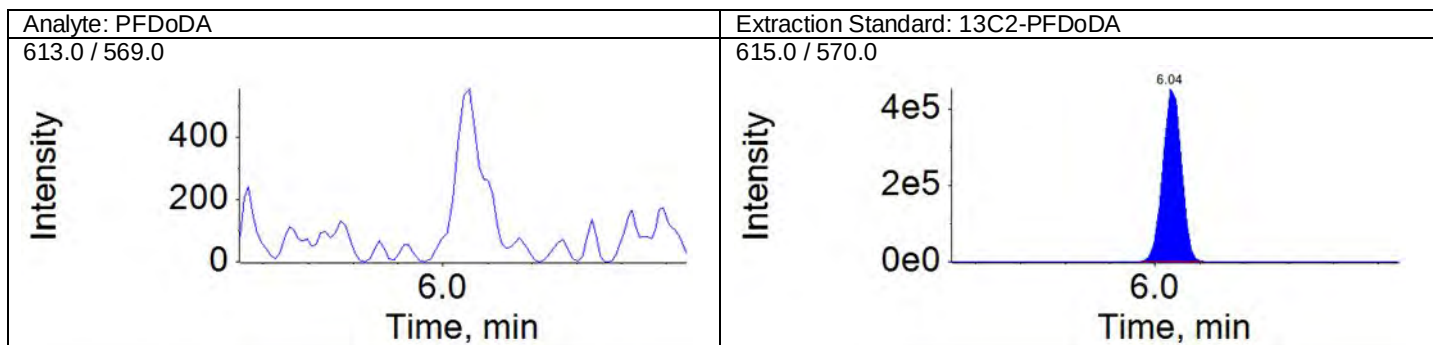
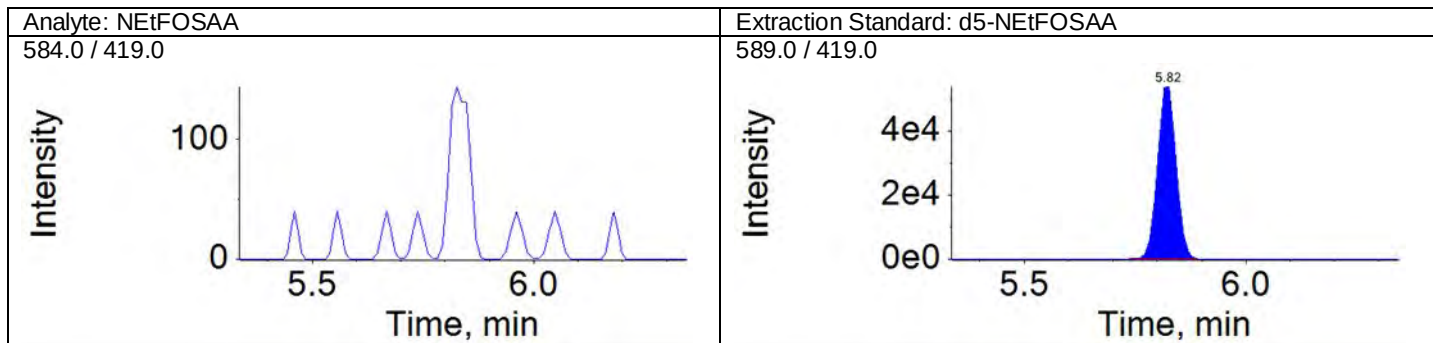
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



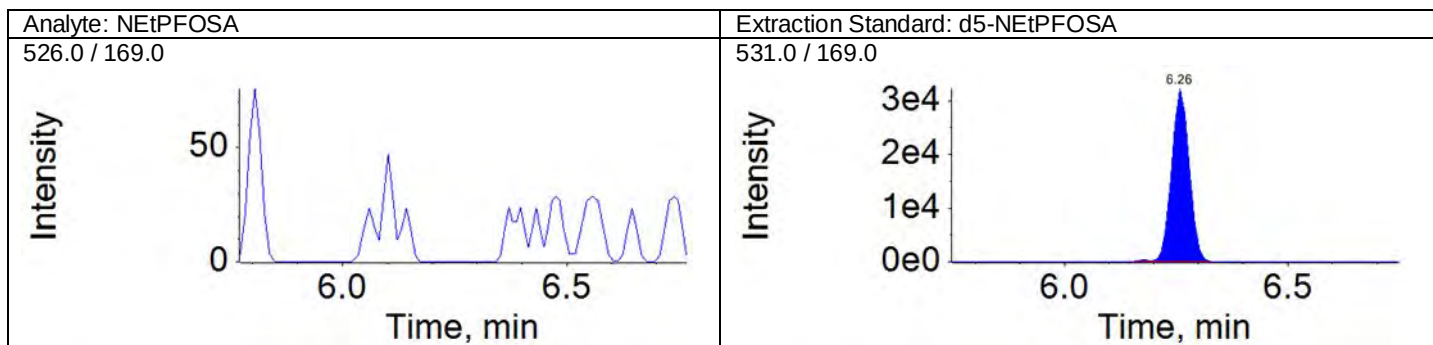
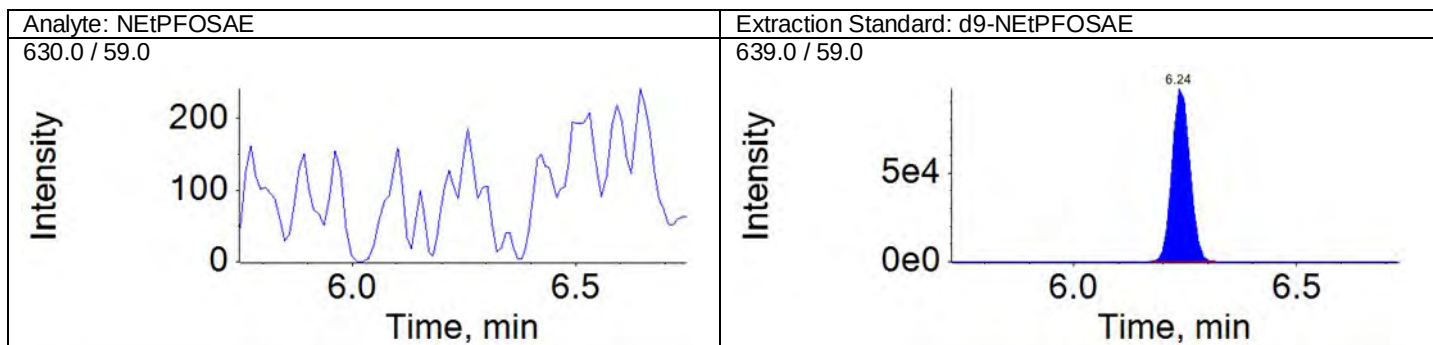
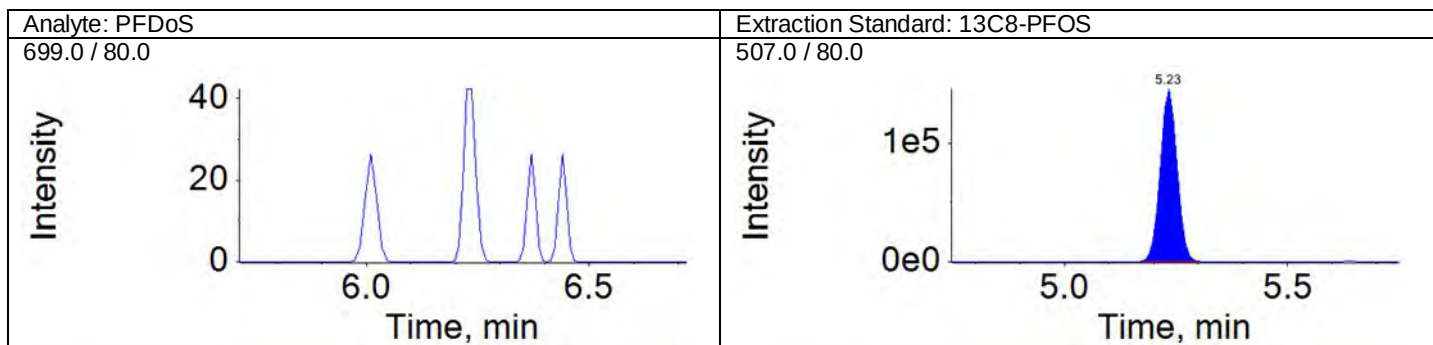
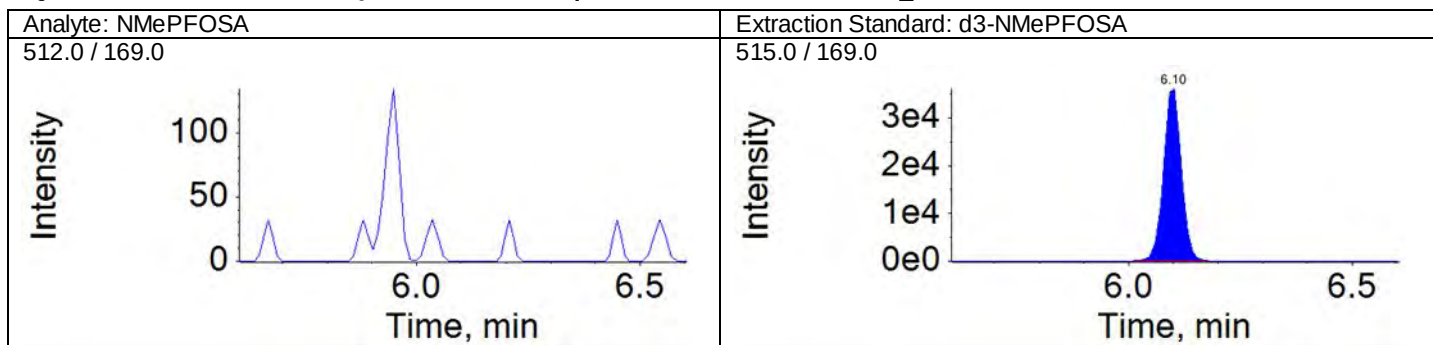
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



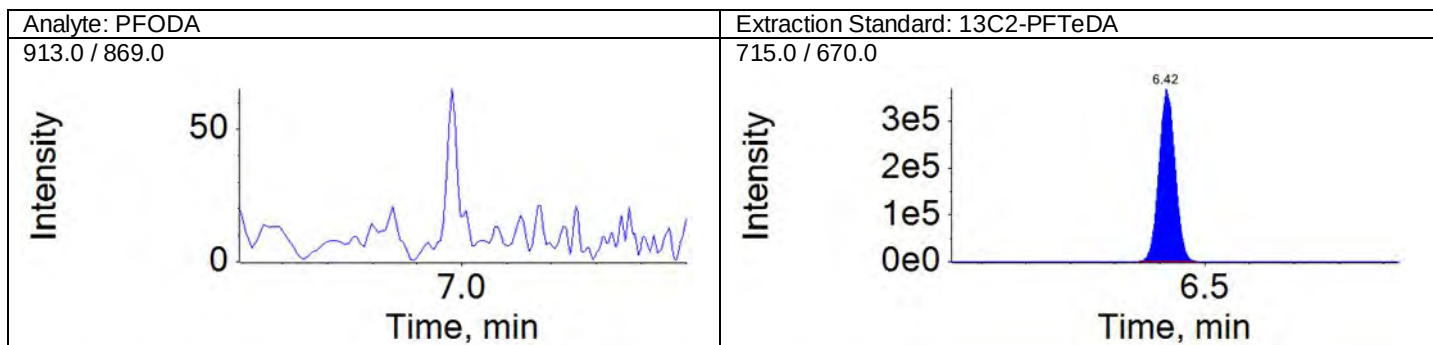
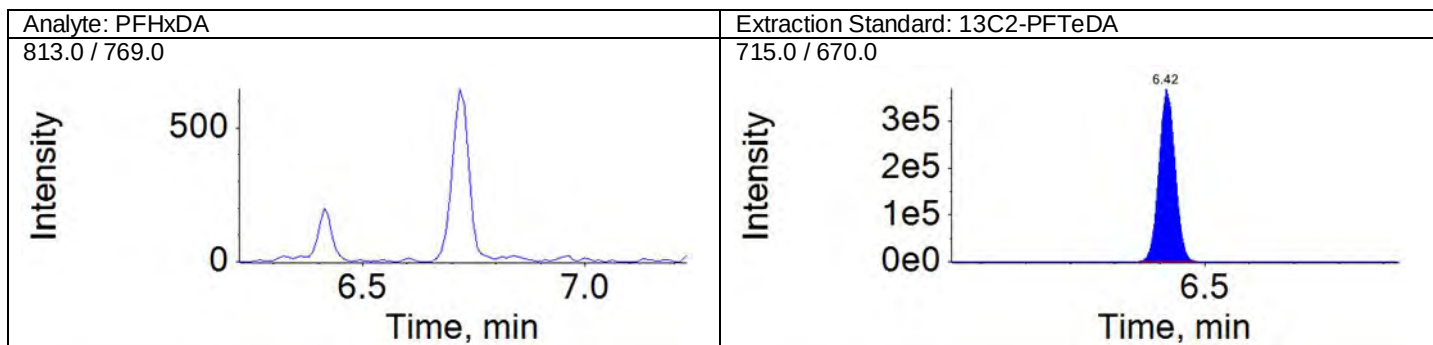
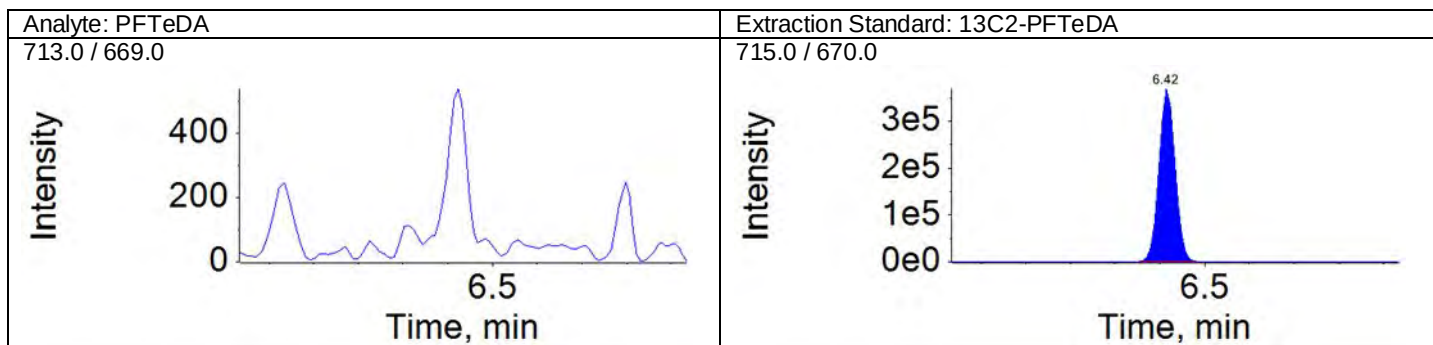
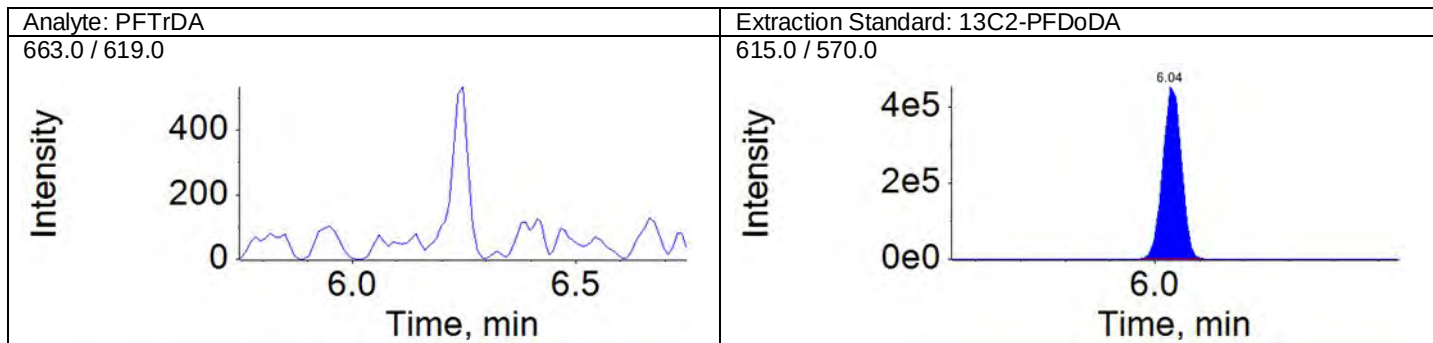
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



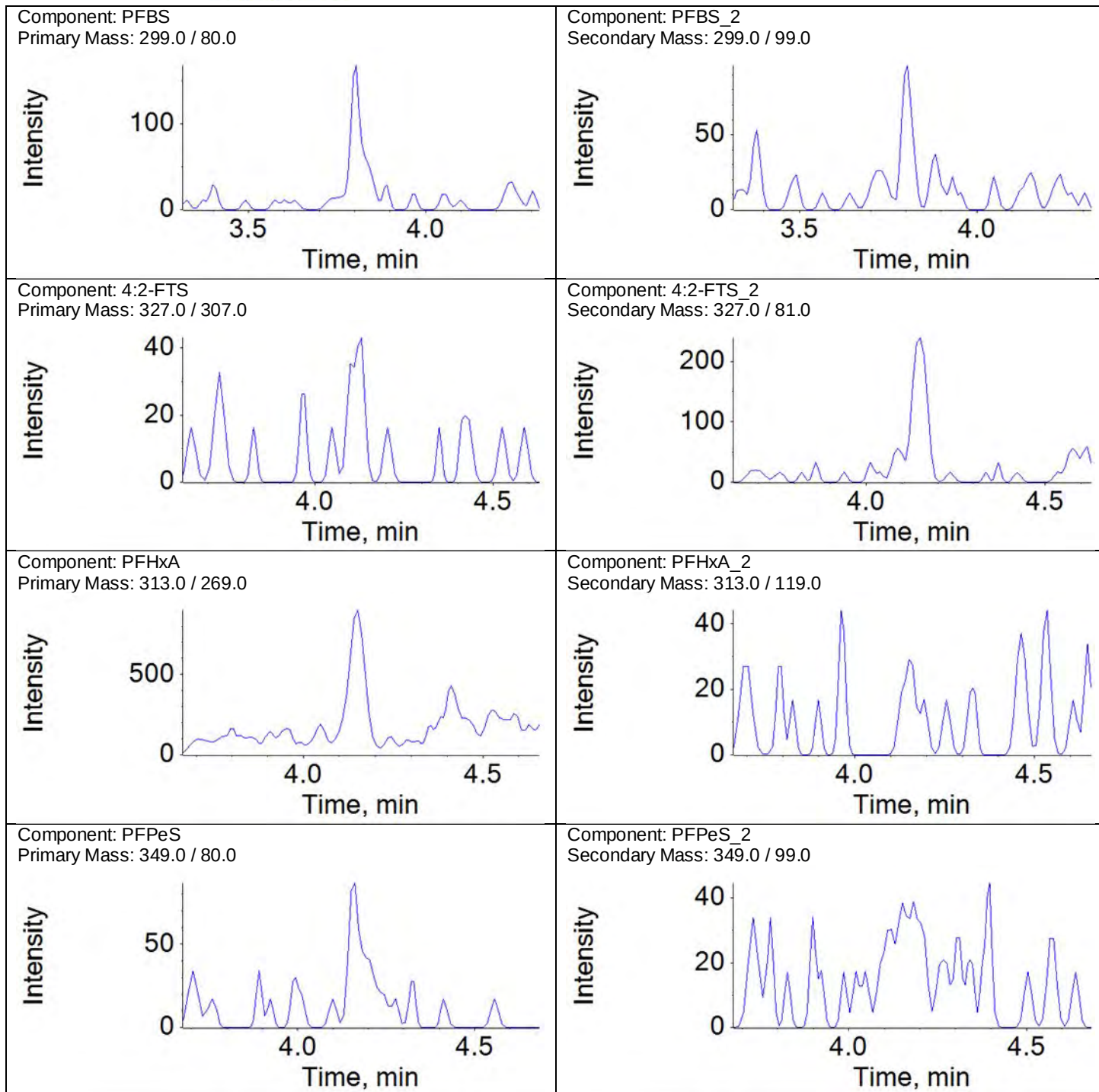
Ion Ratio Report

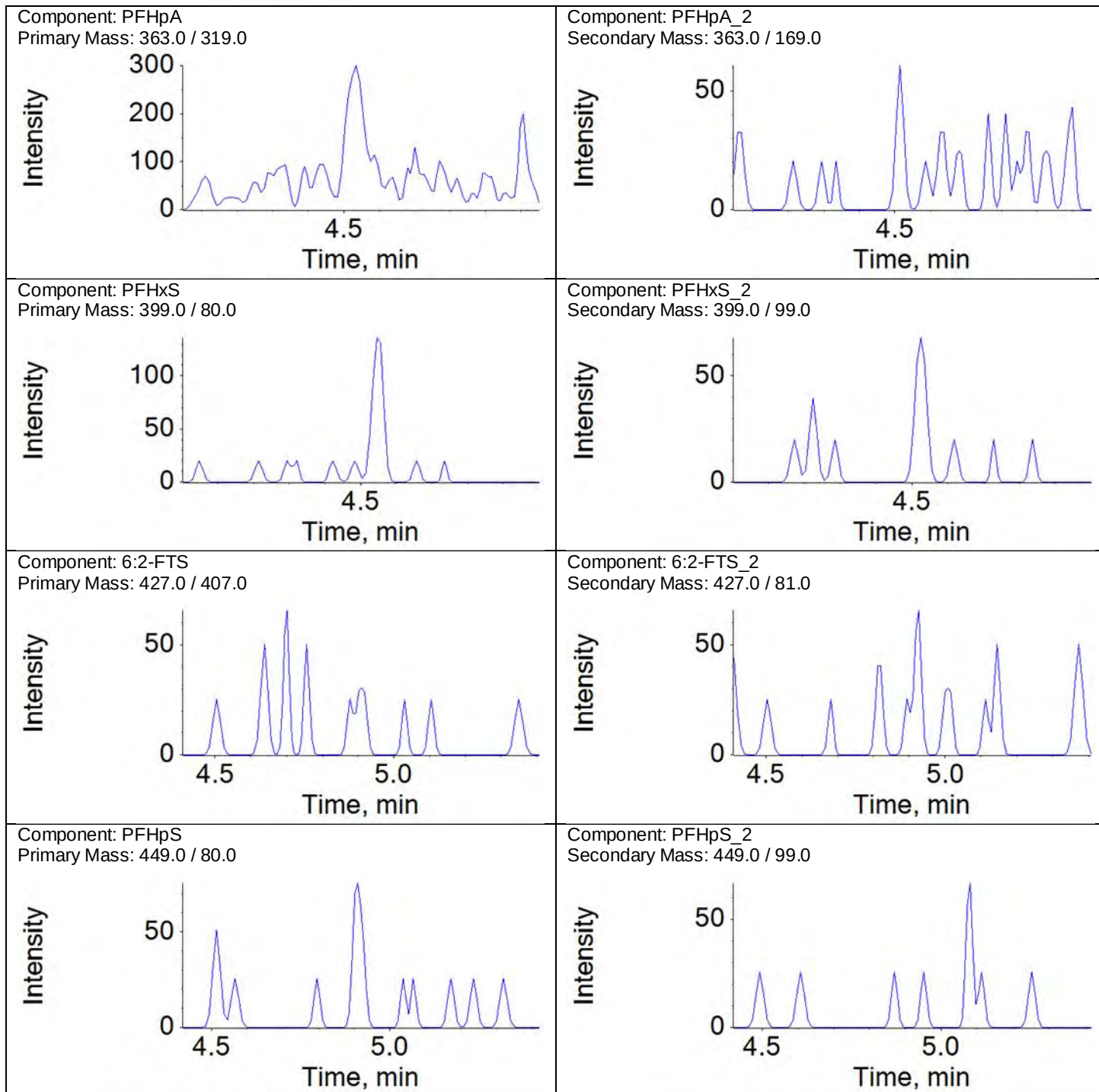
Sample Name: BLK332003

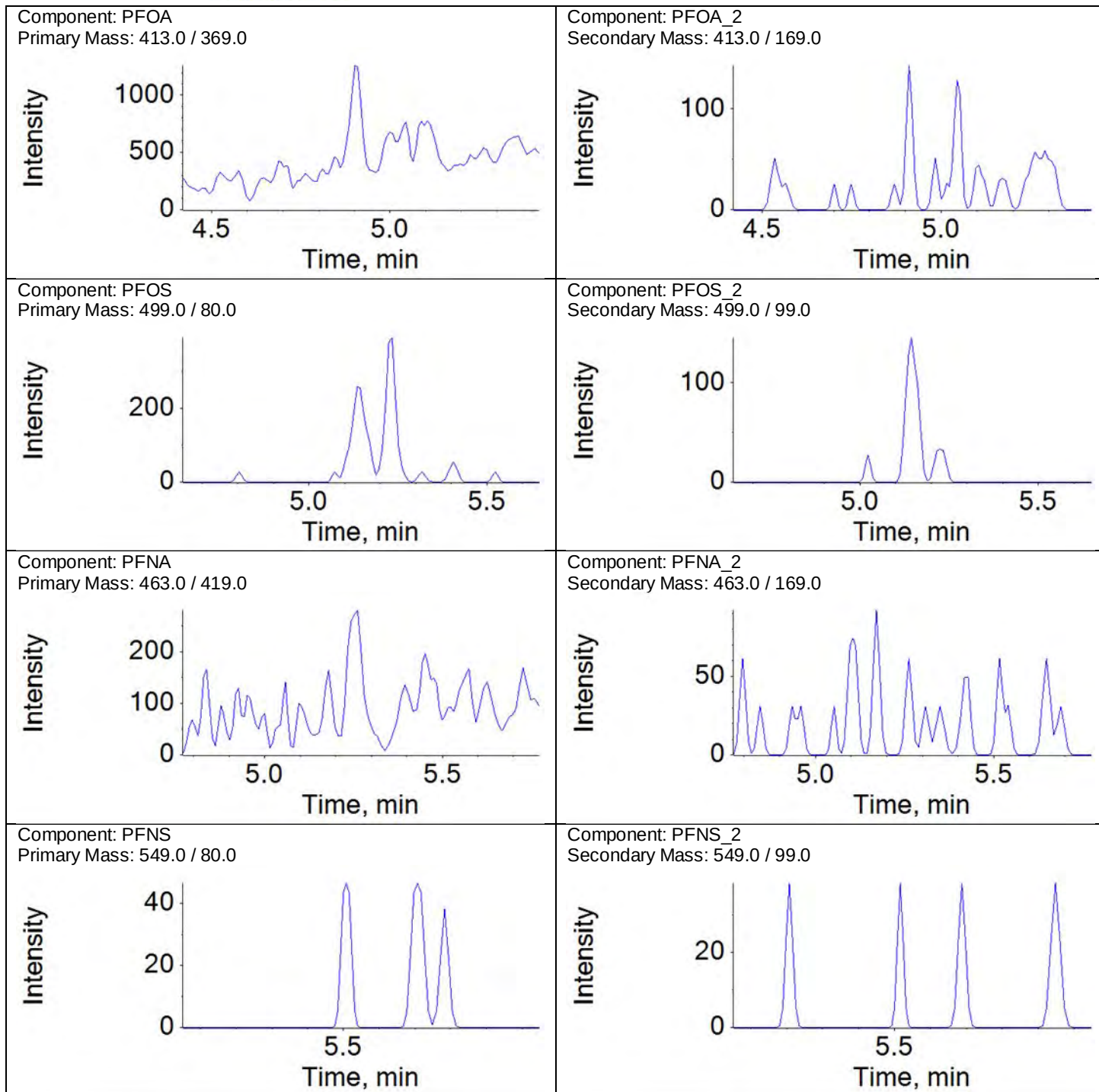
Instrument Name: LM27631

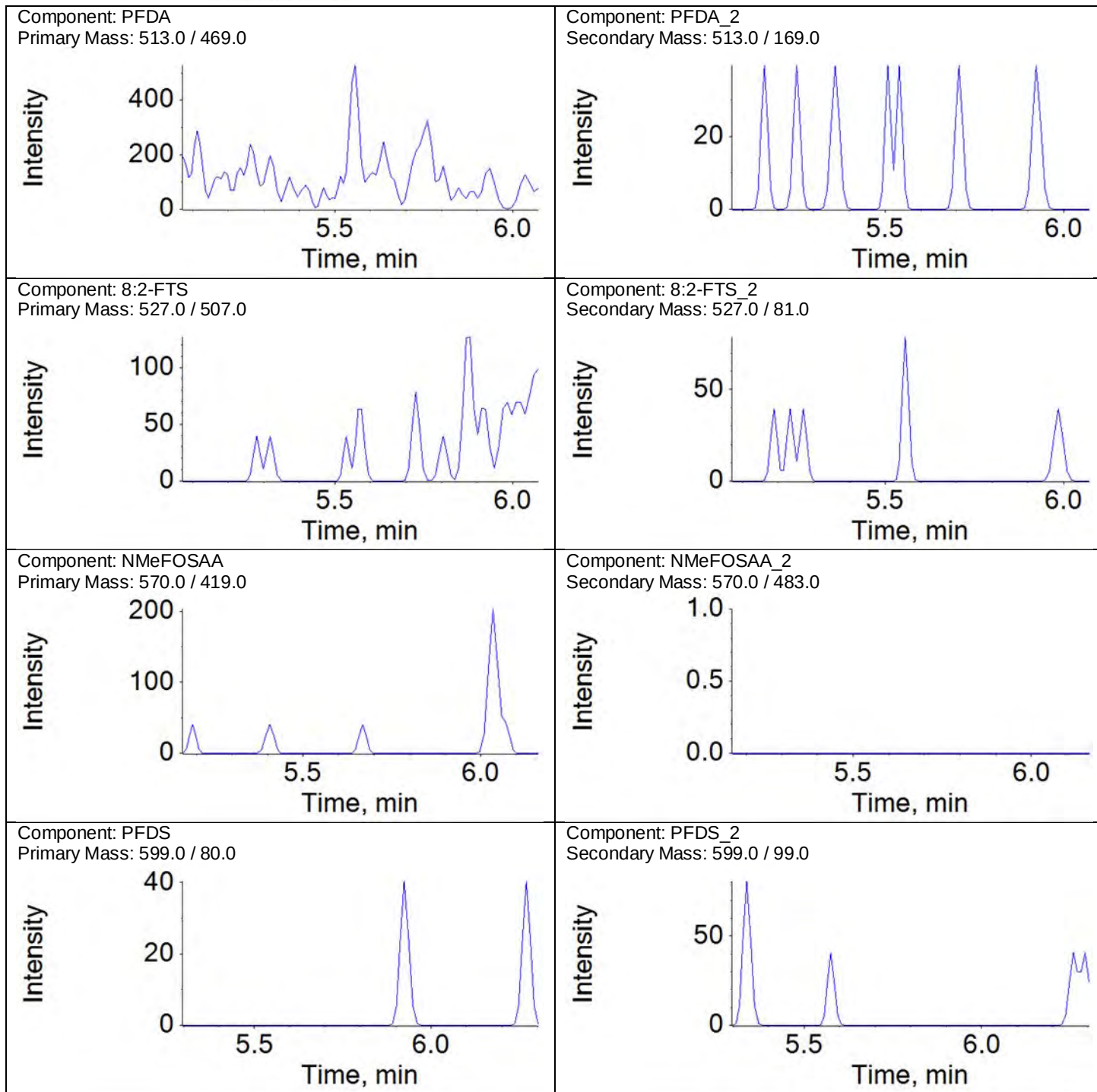
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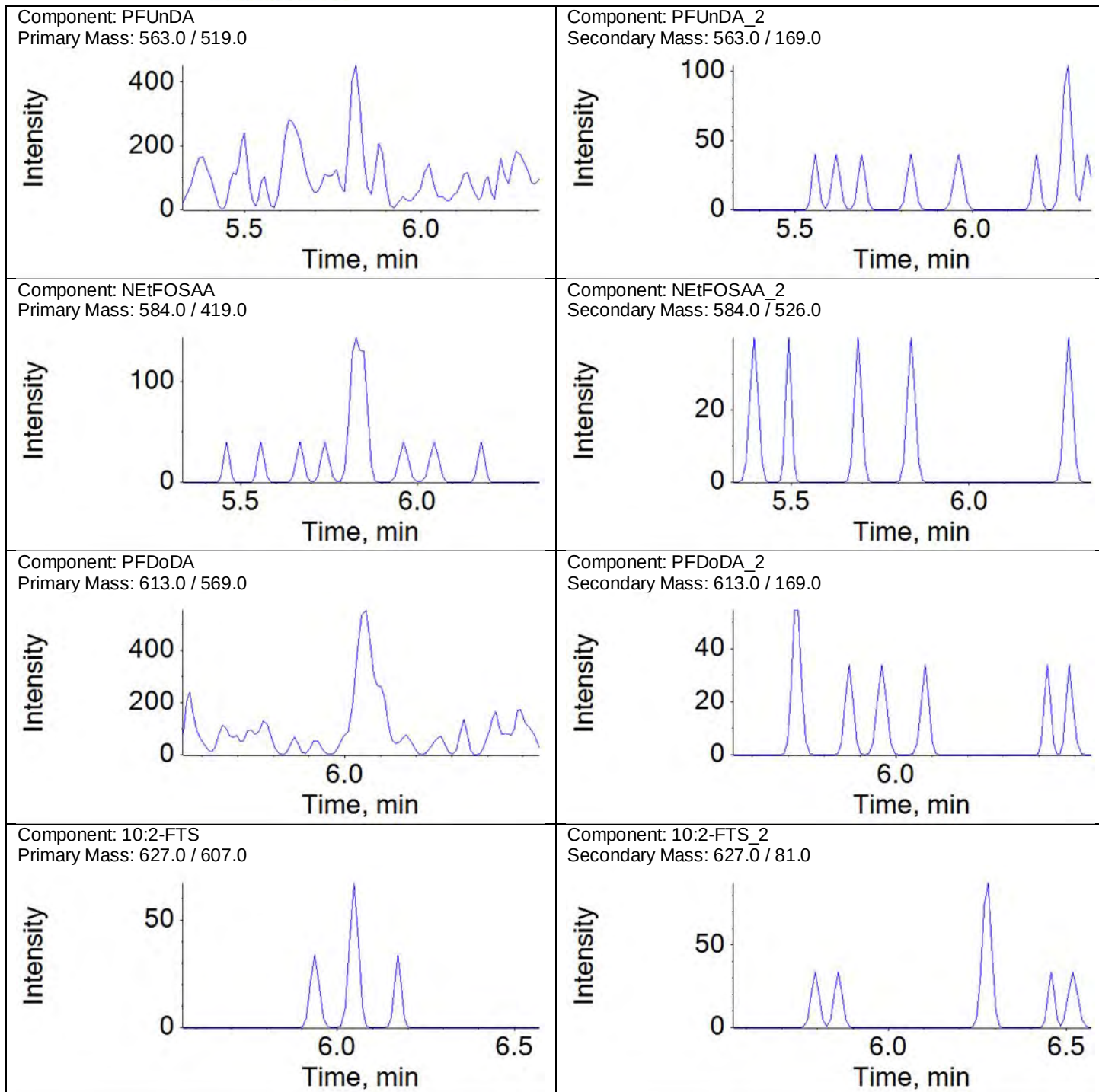
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	N/A	N/A	N/A	A	N/A	N/A			
PFBS_2	N/A	N/A	N/A	A	N/A	N/A		50	
4:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
4:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxA	N/A	N/A	N/A	A	N/A	N/A			
PFHxA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFPeS	N/A	N/A	N/A	A	N/A	N/A			
PFPeS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpA	N/A	N/A	N/A	A	N/A	N/A			
PFHpA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxS	N/A	N/A	N/A	A	N/A	N/A			
PFHxS_2	N/A	N/A	N/A	A	N/A	N/A		50	
6:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
6:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHpS	N/A	N/A	N/A	A	N/A	N/A			
PFHpS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOA	N/A	N/A	N/A	A	N/A	N/A			
PFOA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFOS	N/A	N/A	N/A	A	N/A	N/A			
PFOS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNA	N/A	N/A	N/A	A	N/A	N/A			
PFNA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFNS	N/A	N/A	N/A	A	N/A	N/A			
PFNS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDA	N/A	N/A	N/A	A	N/A	N/A			
PFDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
8:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
8:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
NMeFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NMeFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDS	N/A	N/A	N/A	A	N/A	N/A			
PFDS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFUnDA	N/A	N/A	N/A	A	N/A	N/A			
PFUnDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
NEtFOSAA	N/A	N/A	N/A	A	N/A	N/A			
NEtFOSAA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFDODA	N/A	N/A	N/A	A	N/A	N/A			
PFDODA_2	N/A	N/A	N/A	A	N/A	N/A		50	
10:2-FTS	N/A	N/A	N/A	A	N/A	N/A			
10:2-FTS_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTTrDA	N/A	N/A	N/A	A	N/A	N/A			
PFTTrDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFTeDA	N/A	N/A	N/A	A	N/A	N/A			
PFTeDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFHxDA	N/A	N/A	N/A	A	N/A	N/A			
PFHxDA_2	N/A	N/A	N/A	A	N/A	N/A		50	
PFODA	N/A	N/A	N/A	A	N/A	N/A			
PFODA_2	N/A	N/A	N/A	A	N/A	N/A		50	

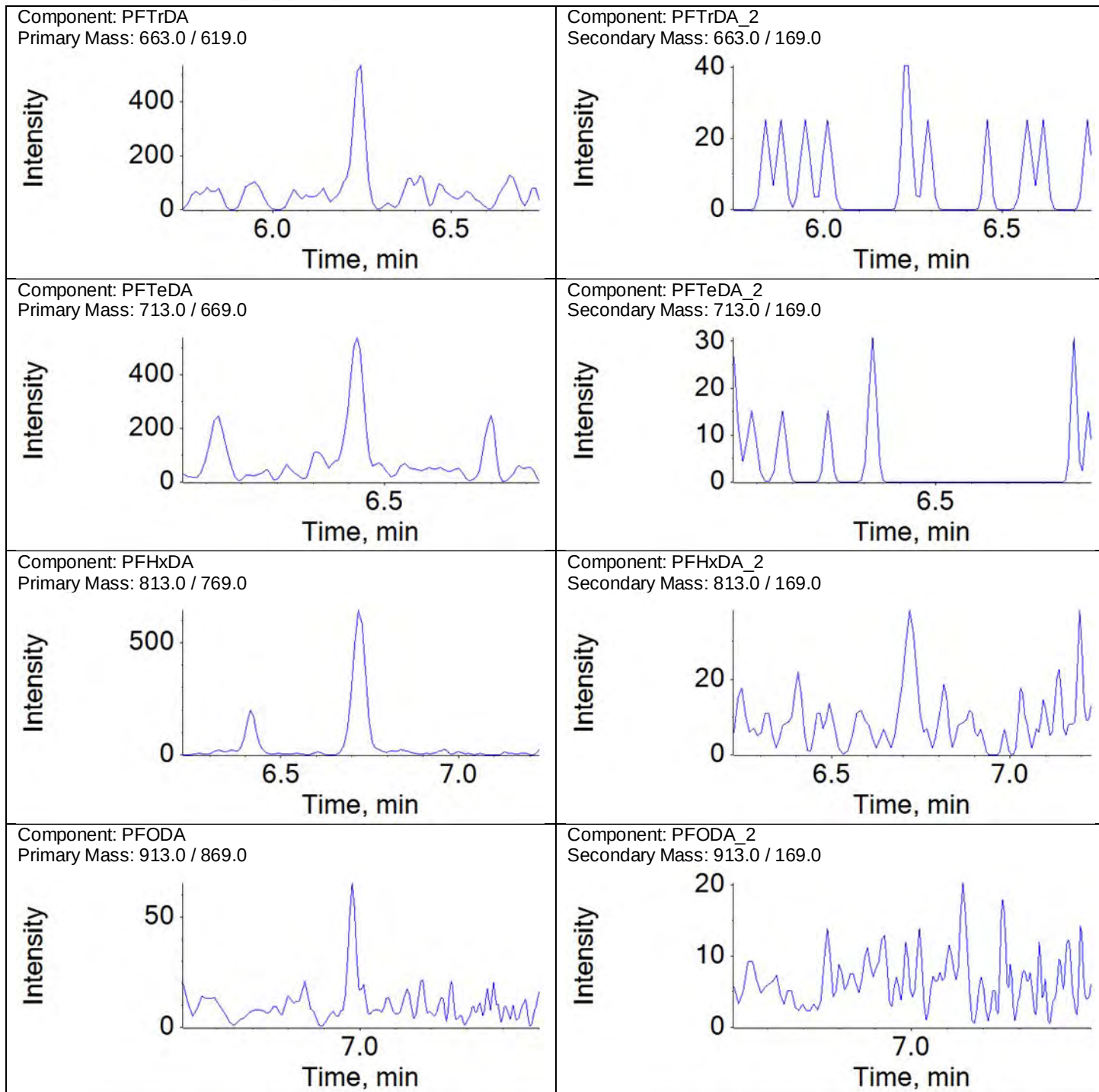










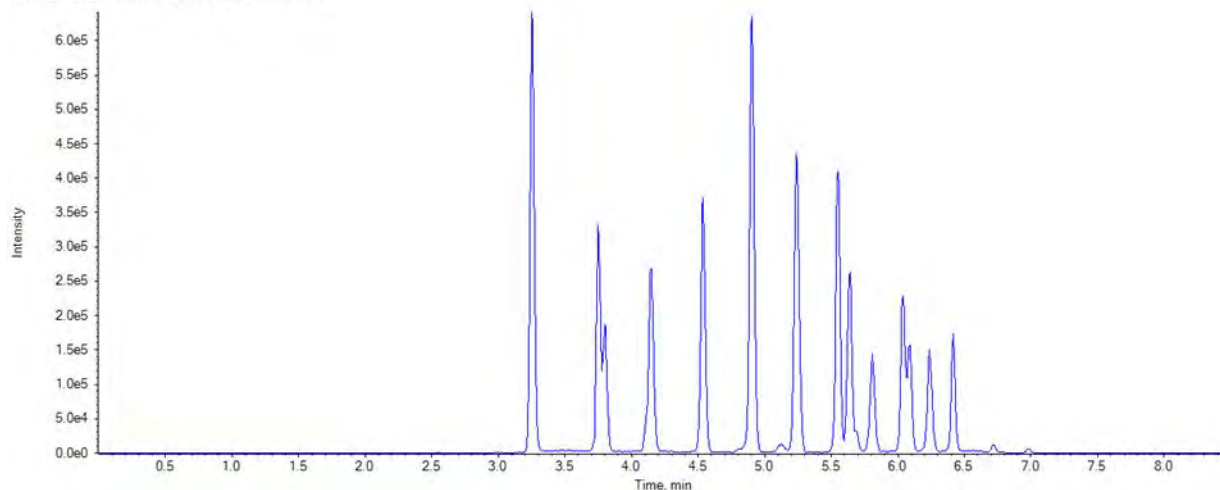


Matrix Spike Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18312011 11/10/2018 4:20:40 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	9885071MS	EPA 537 mod QSM 5.1 table B-15 18312011 OU1-WWTPE-S-01-01 MS Grab Soil	18NOV09D-50.wiff	2018-11-09T12:01:00

TIC from 18NOV09D-50.wiff (sample 1) - 9885071MS



Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.00	718033.4	725974.7	-1	50	
13C2-PFOA	5.00	515024.8	506876.7	2	50	
13C4-PFOS	4.78	268209.4	274910.1	-2	50	
13C2-PFDA	5.00	312314.0	307276.7	2	50	

APPROVED

By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

Matrix Spike Recovery

ICAL Name: 18NOV07DCAL Result Table: 18312011 11/10/2018 4:20:40 PM
QMethod Name: MQ4-18AUG13 Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	9885071MS	EPA 537 mod QSM 5.1 table B-15 18312011 OU1-WWTPE-S-01-01 MS Grab Soil	18NOV09D-50.wiff	2018-11-09T12:01:00

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBS	42738.8	324779.6	0.132	1.167	1.288	110	70-130	
PFHxA	94519.3	510799.8	0.185	1.320	1.541	117	70-130	
PFHxS	45674.4	267000.5	0.171	1.249	1.684	135	70-130	OOS
PFHpA	107815.6	405595.1	0.266	1.320	1.736	131	70-130	OOS
PFOA	163619.4	726092.3	0.225	1.320	2.464	187	70-130	OOS
PFOS	170104.7	232094.4	0.733	1.262	7.380	585	70-130	OOS
PFNA	85566.9	384030.4	0.223	1.320	1.617	122	70-130	
PFDA	73442.3	504233.0	0.146	1.320	1.556	118	70-130	
NMeFOSAA	5998.0	50315.3	0.119	1.320	1.191	90	70-130	
PFUnDA	52905.9	221122.7	0.239	1.320	1.332	101	70-130	
NEtFOSAA	7118.0	37752.7	0.189	1.320	1.573	119	70-130	
PFDODA	57391.1	441748.0	0.130	1.320	1.367	104	70-130	
PFTTrDA	44937.3	441748.0	0.102	1.320	1.246	94	70-130	
PFTeDA	39915.6	312153.6	0.128	1.320	1.458	110	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Matrix Spike Recovery
Result Table: 18312011 11/10/2018 4:20:40 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 4:33 pm, 11/10/18

REVIEWED
By HMK at 9:08 am, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	9885071MS		Data File:	18NOV09D-50.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18312011 OU1-WWTPE-S-01-01 MS Grab Soil		Acquis Date:	2018-11-09T12:01:00
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	21		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18312011
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	18312011		Operator:	MCD7824
Sample Wt.:	1.03000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	718033.4	725974.7	-1	50	
13C2-PFOA	5.0	515024.8	506876.7	2	50	
13C4-PFOS	4.8	268209.4	274910.1	-2	50	
13C2-PFDA	5.0	312314.0	307276.7	2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C3-PFBS	324779.6	13C3-PFBA	718033.4	0.452	9.029	6.446	71	50-150	
E13C5-PFHxA	510799.8	13C2-PFOA	515024.8	0.992	9.709	7.084	73	50-150	
E13C3-PFHxS	267000.5	13C2-PFOA	515024.8	0.518	9.184	7.227	79	50-150	
E13C4-PFHpA	405595.1	13C2-PFOA	515024.8	0.788	9.709	6.956	72	50-150	
E13C8-PFOA	726092.3	13C2-PFOA	515024.8	1.410	9.709	7.634	79	50-150	
E13C8-PFOS	232094.4	13C4-PFOS	268209.4	0.865	9.282	7.430	80	50-150	
E13C9-PFNA	384030.4	13C4-PFOS	268209.4	1.432	9.709	7.594	78	50-150	
E13C6-PFDA	504233.0	13C2-PFDA	312314.0	1.615	9.709	7.884	81	50-150	
Ed3-NMeFOSAA	50315.3	13C2-PFDA	312314.0	0.161	9.709	5.817	60	50-150	
E13C7-PFUnDA	221122.7	13C2-PFDA	312314.0	0.708	9.709	7.931	82	50-150	
Ed5-NEtFOSAA	37752.7	13C2-PFDA	312314.0	0.121	9.709	5.432	56	50-150	
E13C2-PFDODA	441748.0	13C2-PFDA	312314.0	1.414	9.709	7.404	76	50-150	
E13C2-PFTeDA	312153.6	13C2-PFDA	312314.0	0.999	9.709	6.987	72	50-150	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: 9885071MS

Instrument Name: LM27631

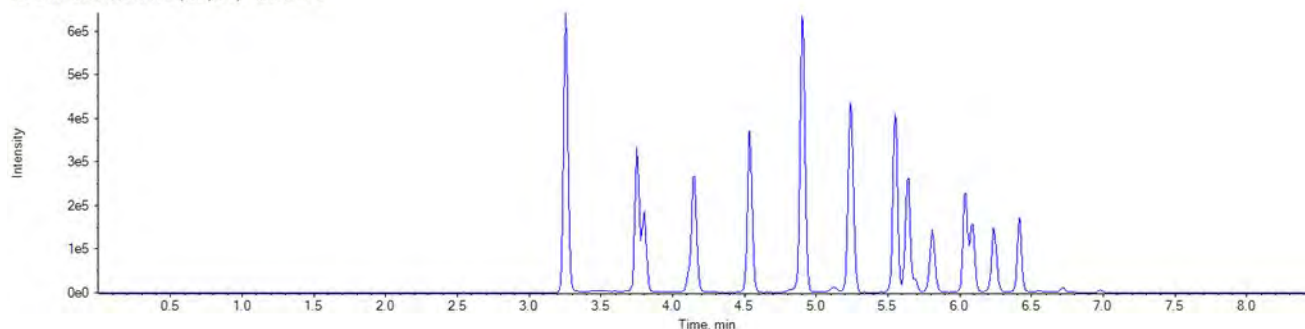
File Name: 18NOV09D-50.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.03000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	3.80	1.000	42738.8		A	13C3-PFBS	3.80	324779.6	0.132	1.288
PFHxA	4.15	1.000	94519.3		A	13C5-PFHxA	4.15	510799.8	0.185	1.541
PFHxS	4.54	1.000	45674.4		A	13C3-PFHxS	4.54	267000.5	0.171	1.684
PFHpA	4.54	1.000	107815.6		M	13C4-PFHpA	4.54	405595.1	0.266	1.736
PFOA	4.90	1.000	163619.4		A	13C8-PFOA	4.91	726092.3	0.225	2.464
PFOS	5.23	1.000	170104.7		M	13C8-PFOS	5.23	232094.4	0.733	7.380
PFNA	5.25	1.000	85566.9		A	13C9-PFNA	5.25	384030.4	0.223	1.617
PFDA	5.55	1.000	73442.3		A	13C6-PFDA	5.55	504233.0	0.146	1.556
NMeFOSAA	5.69	1.000	5998.0		M	d3-NMeFOSAA	5.69	50315.3	0.119	1.191
PFUnDA	5.81	1.000	52905.9		A	13C7-PFUnDA	5.81	221122.7	0.239	1.332
NEtFOSAA	5.83	1.000	7118.0		M	d5-NEtFOSAA	5.82	37752.7	0.189	1.573
PFDODA	6.04	1.000	57391.1		A	13C2-PFDODA	6.04	441748.0	0.130	1.367
PFTDA	6.24	1.030	44937.3		A	13C2-PFDODA	6.04	441748.0	0.102	1.246
PFTeDA	6.41	1.000	39915.6		A	13C2-PFTeDA	6.42	312153.6	0.128	1.458

Total Ion Chromatogram

TIC from 18NOV09D-50.wiff (sample 1) - 9885071MS



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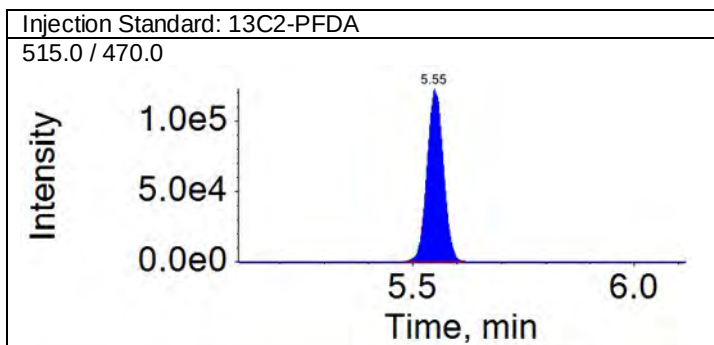
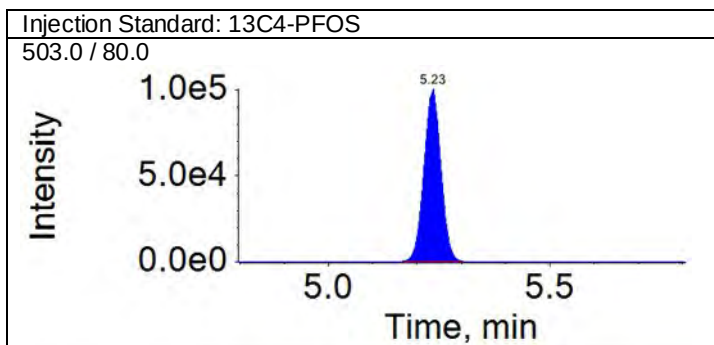
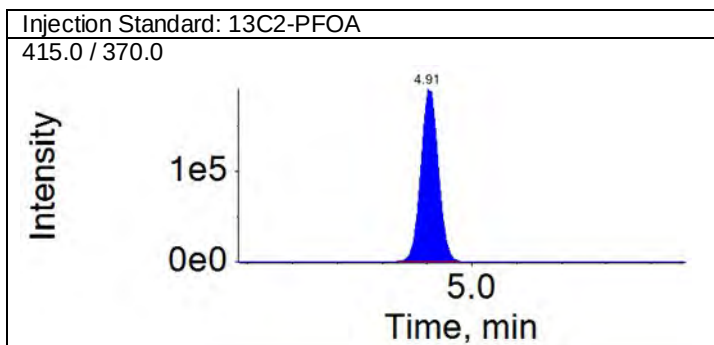
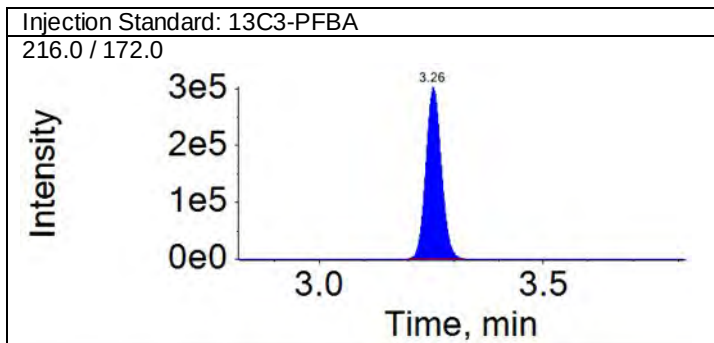
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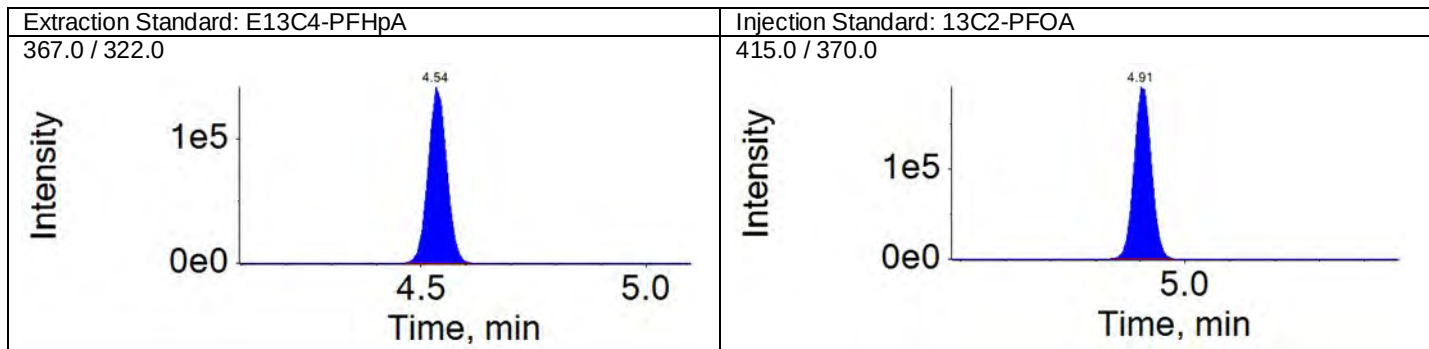
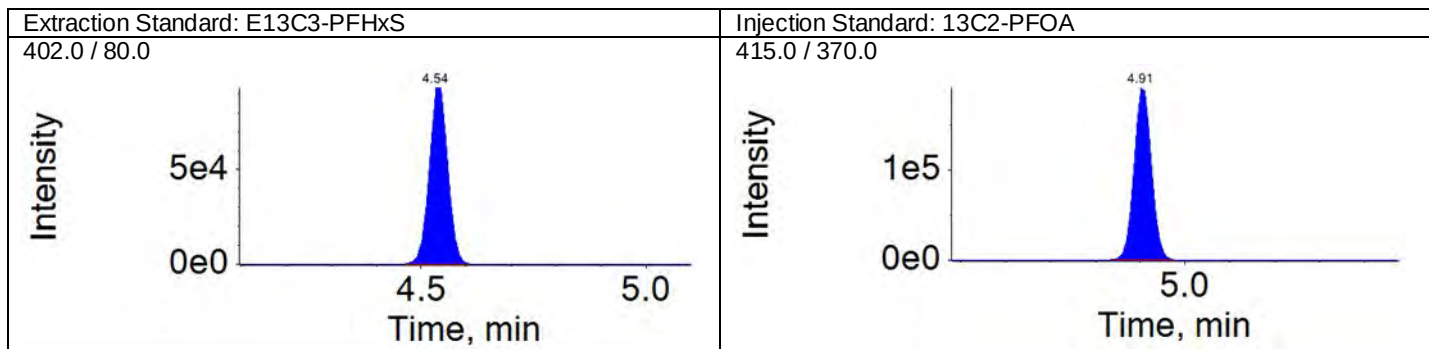
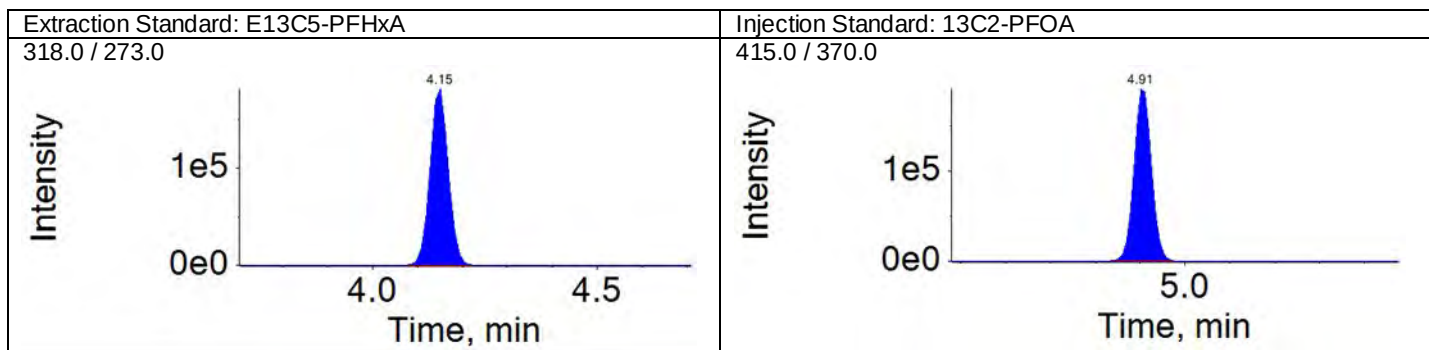
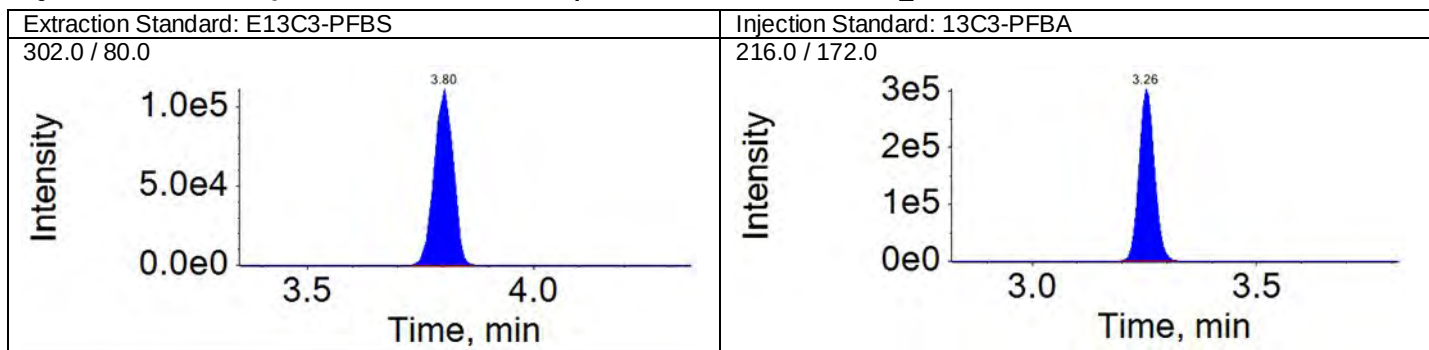
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



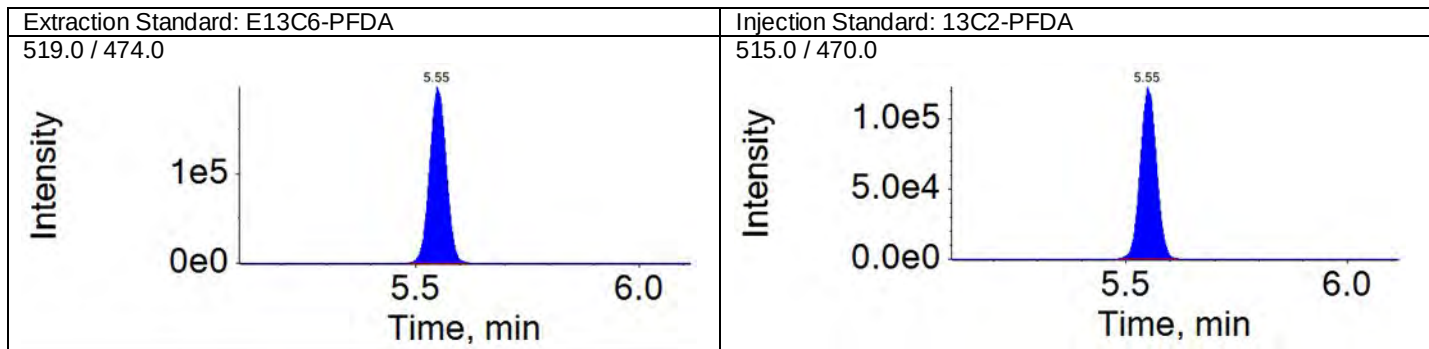
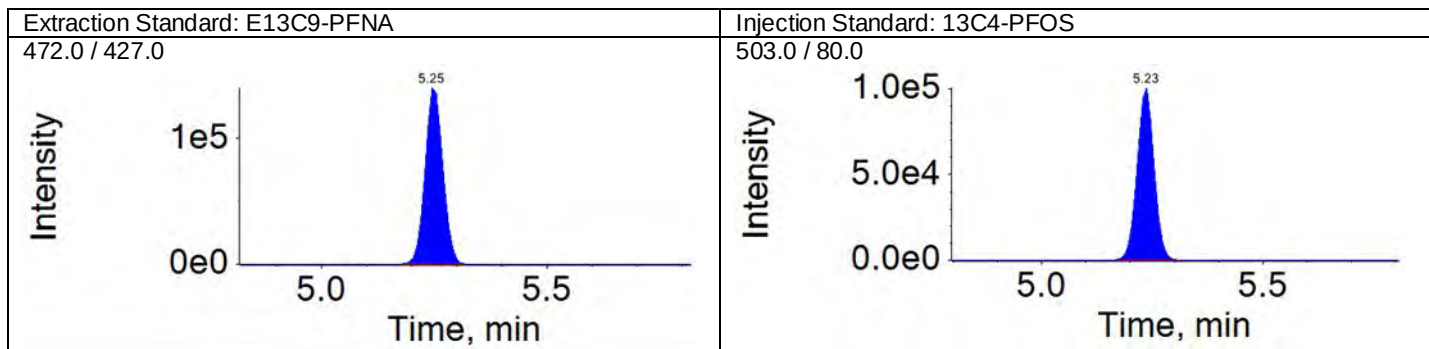
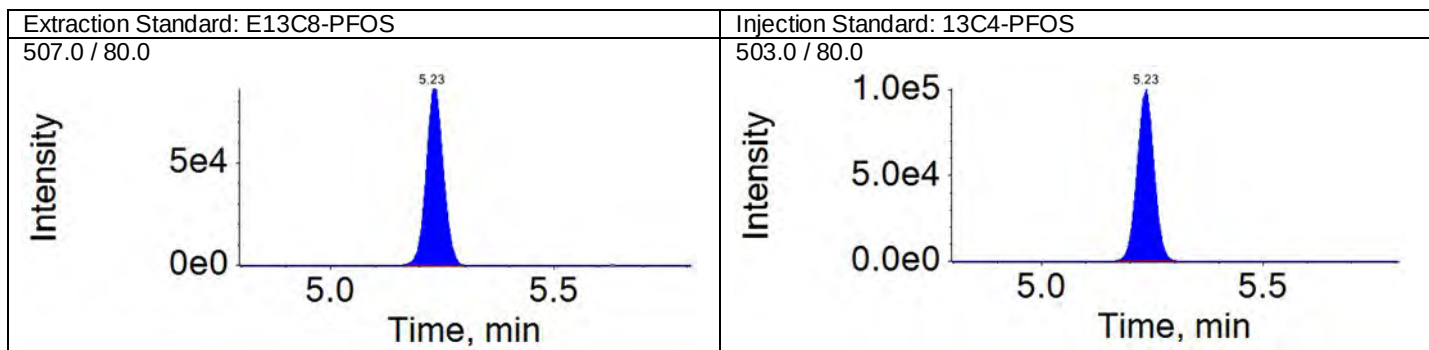
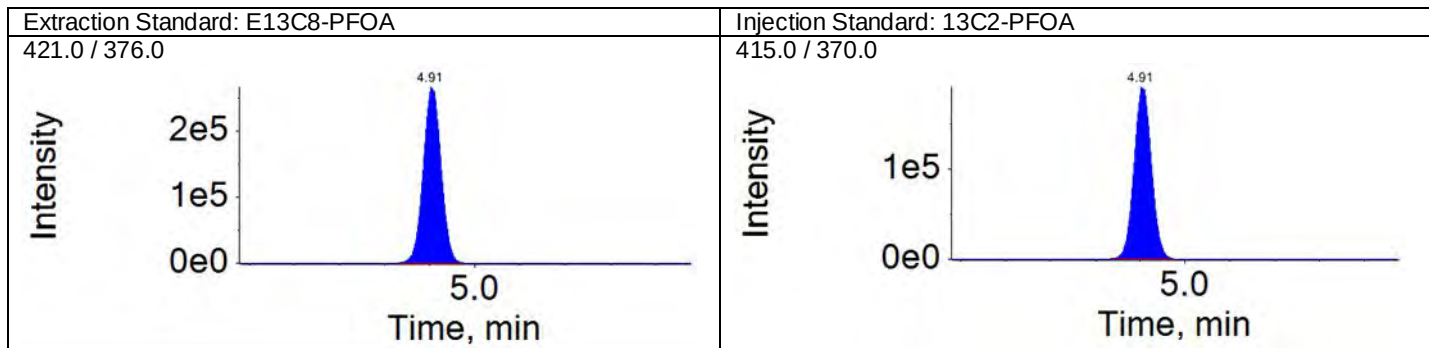
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QMethod Name: MQ4-18AUG13

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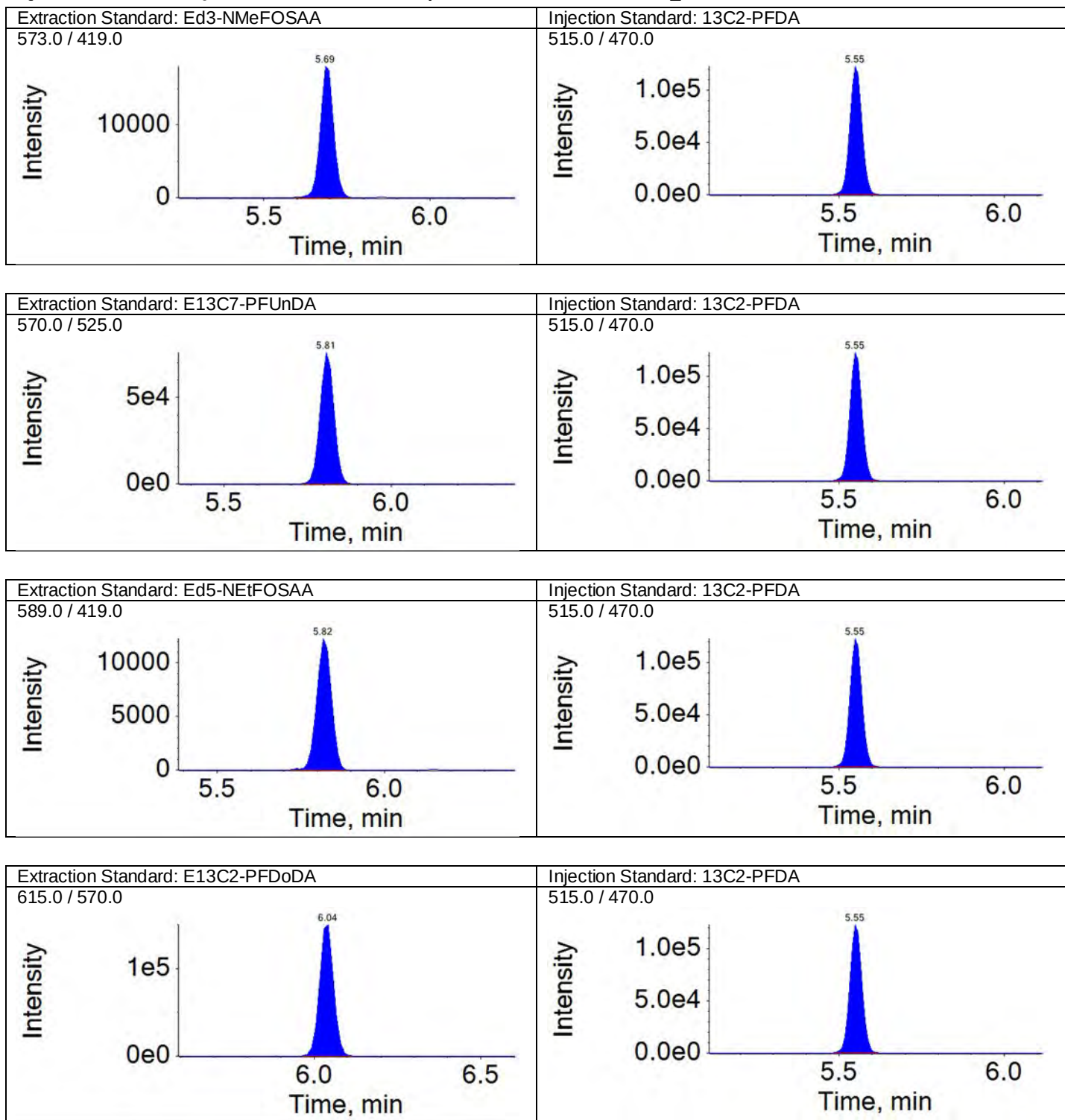
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Result Table: 18312011 11/10/2018 4:23:04 PM
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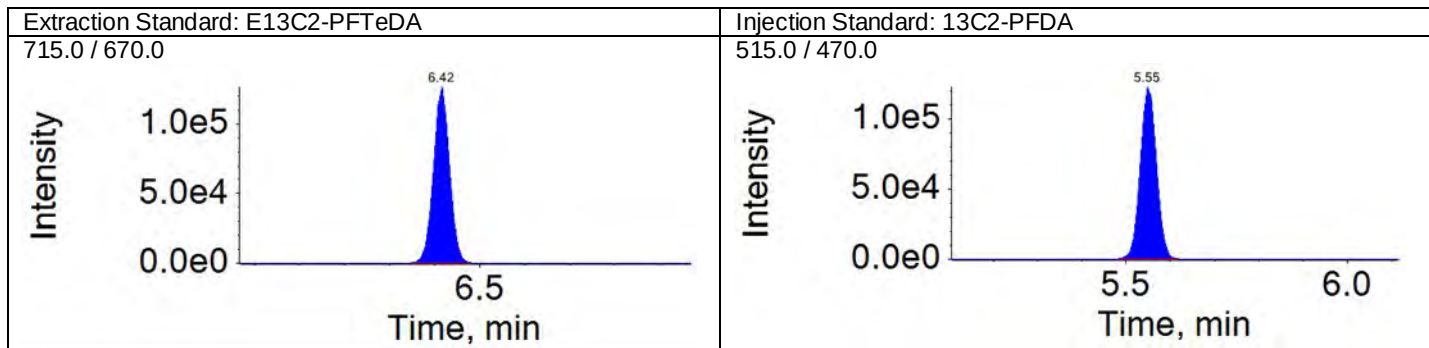
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



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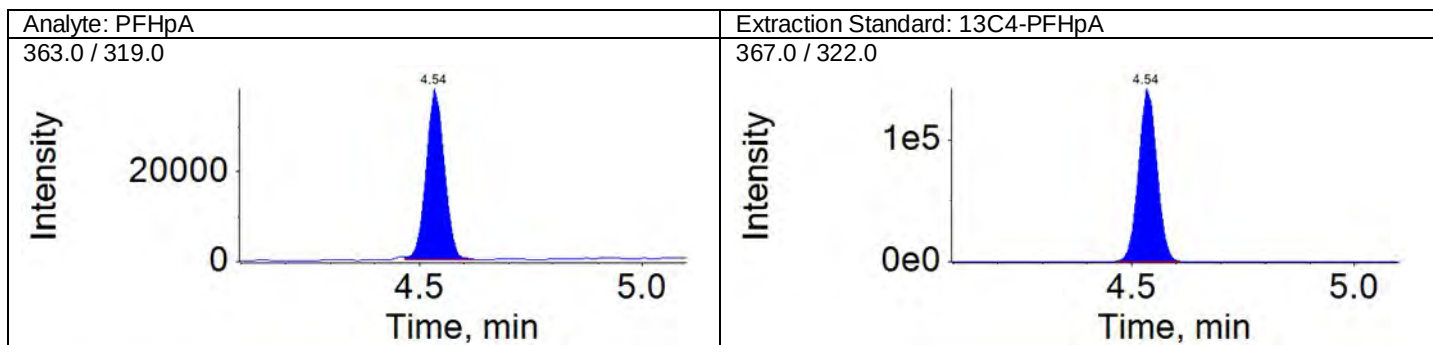
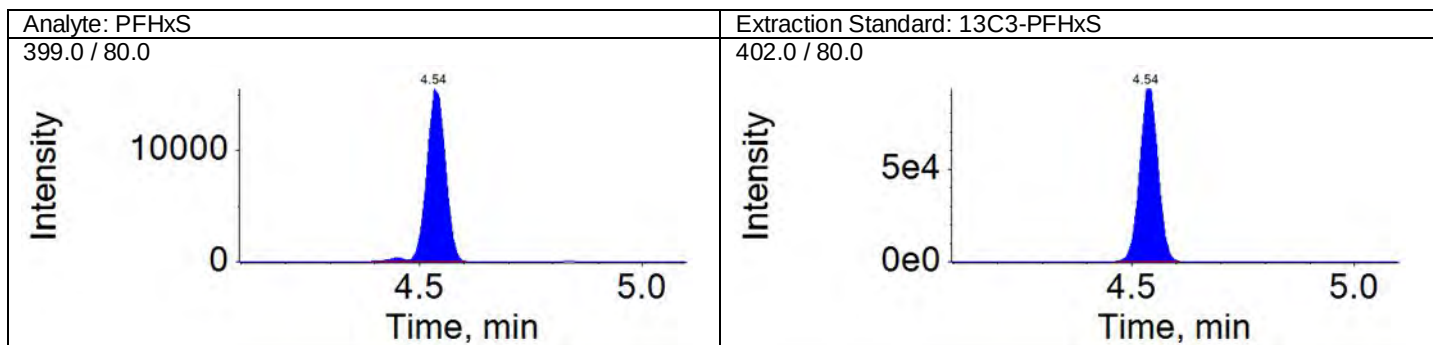
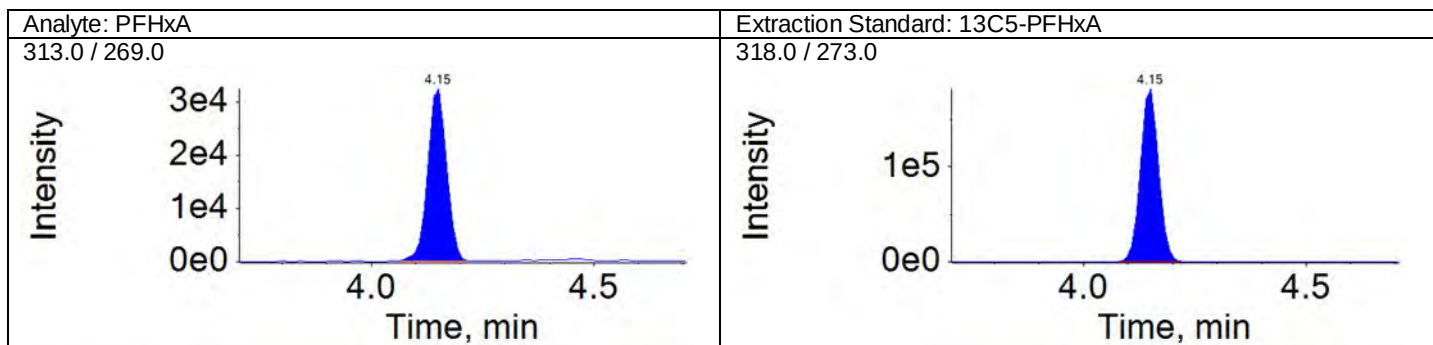
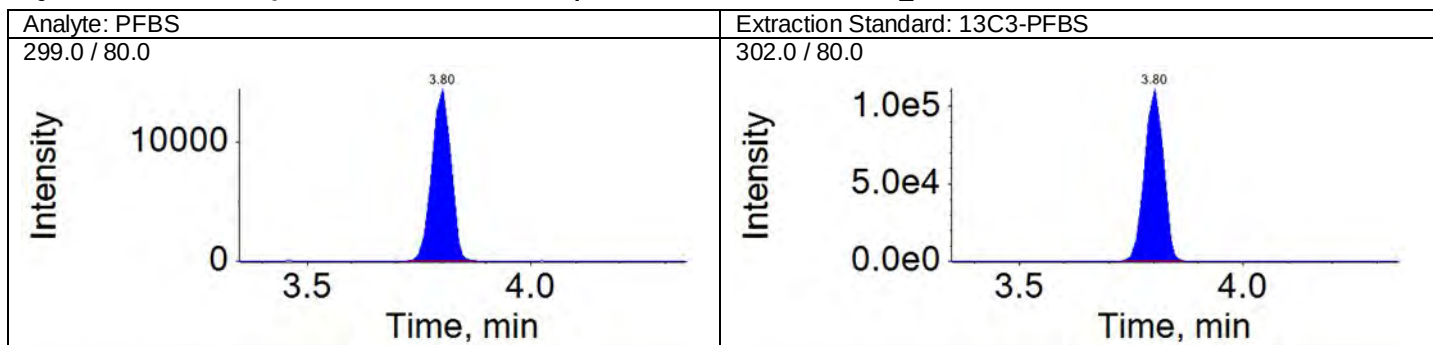
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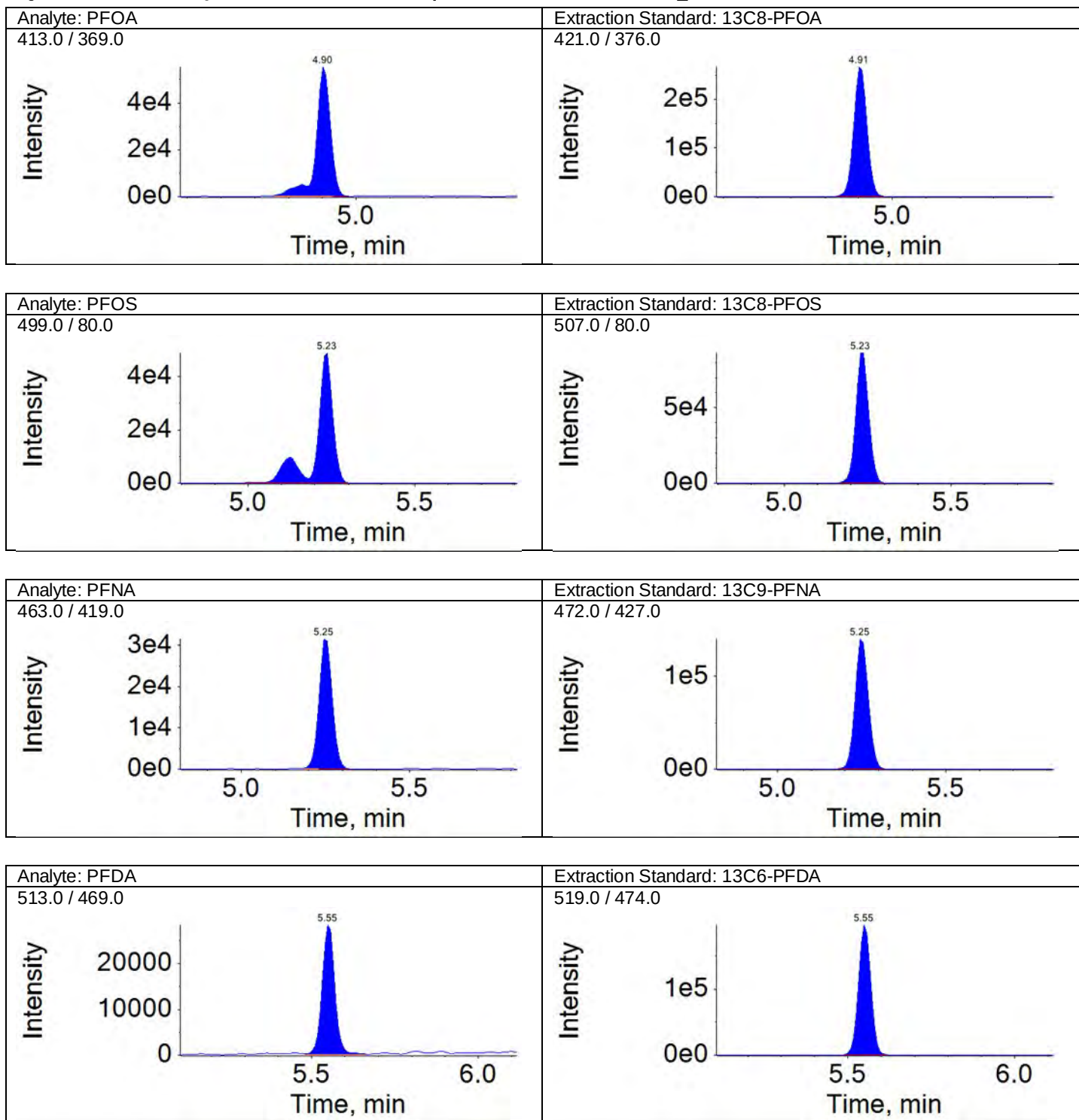
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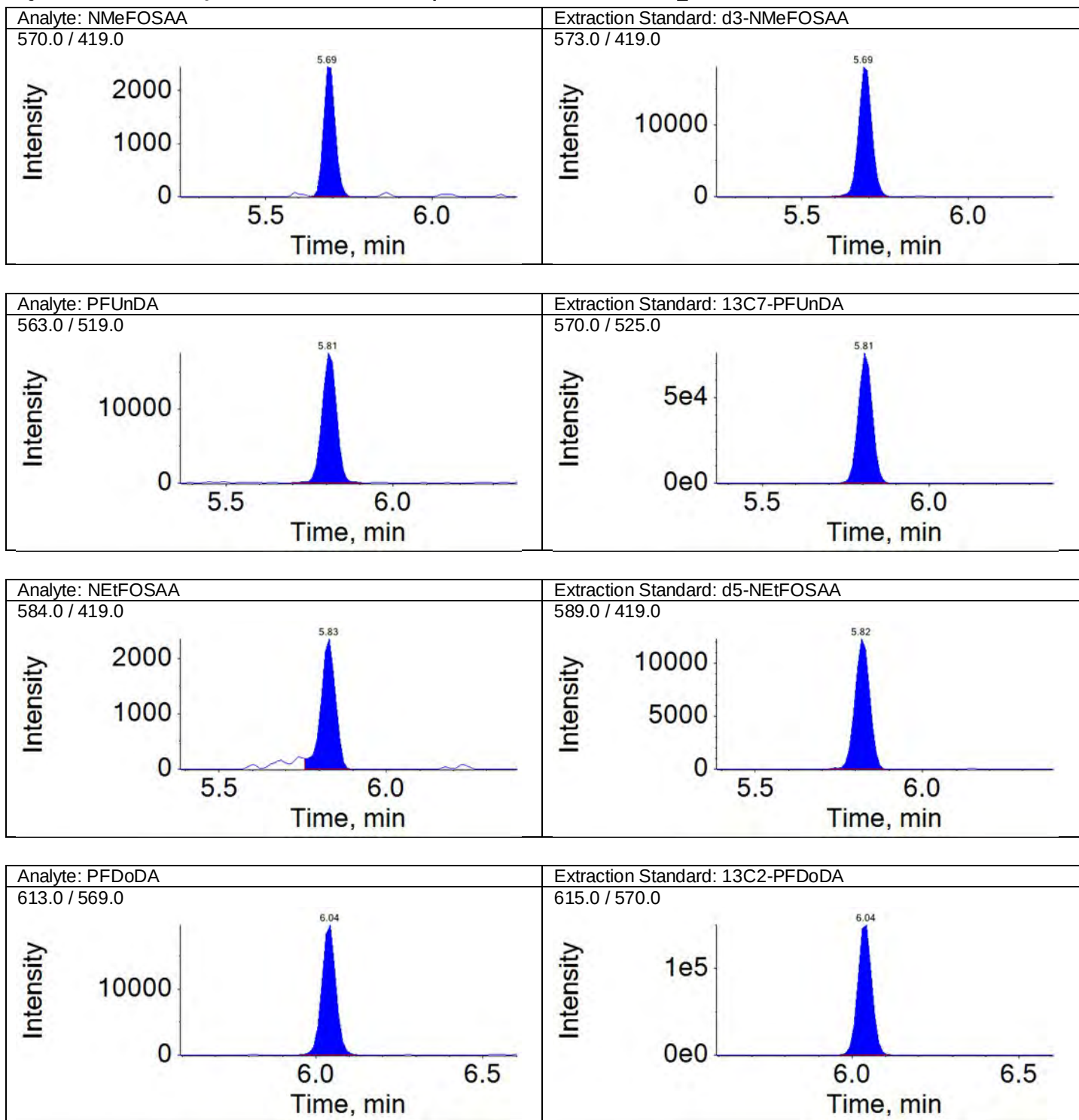
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Acquisition Method: 18AUG13_3uL.dam



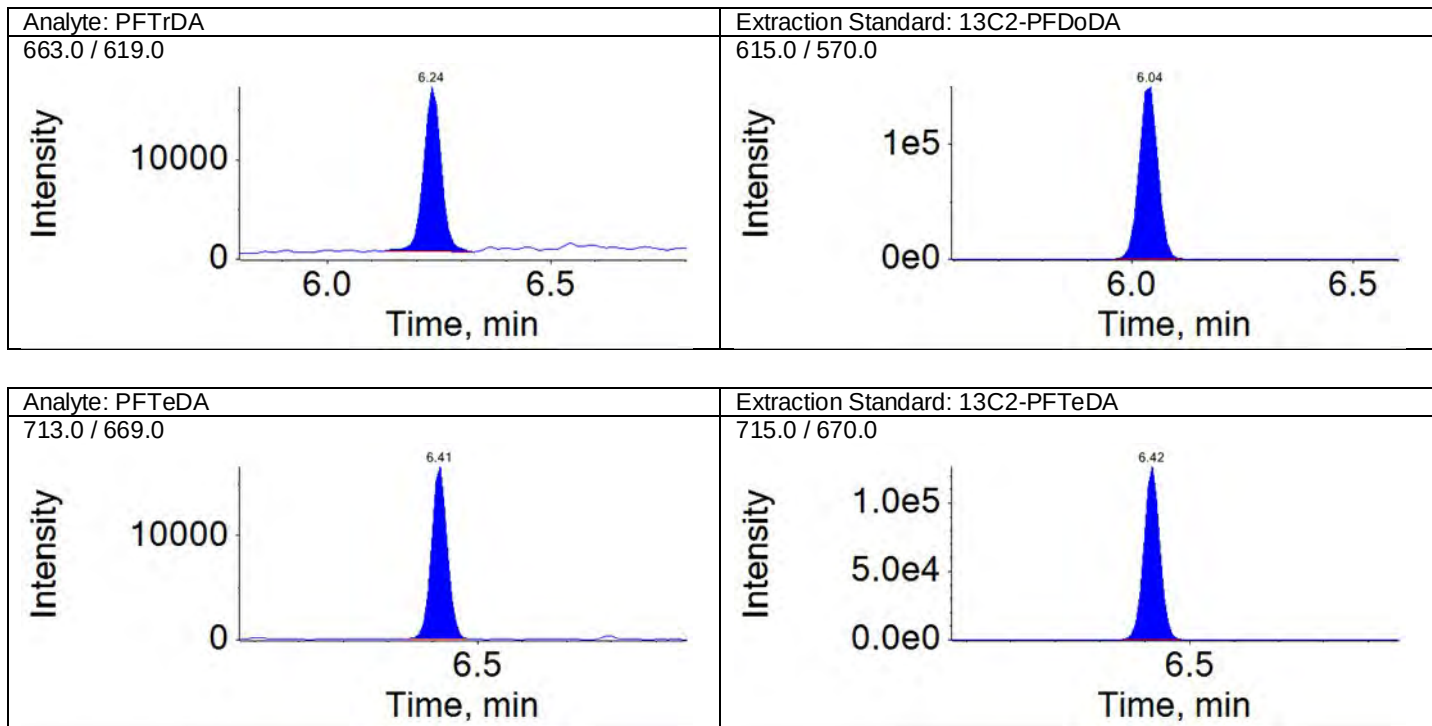
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Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



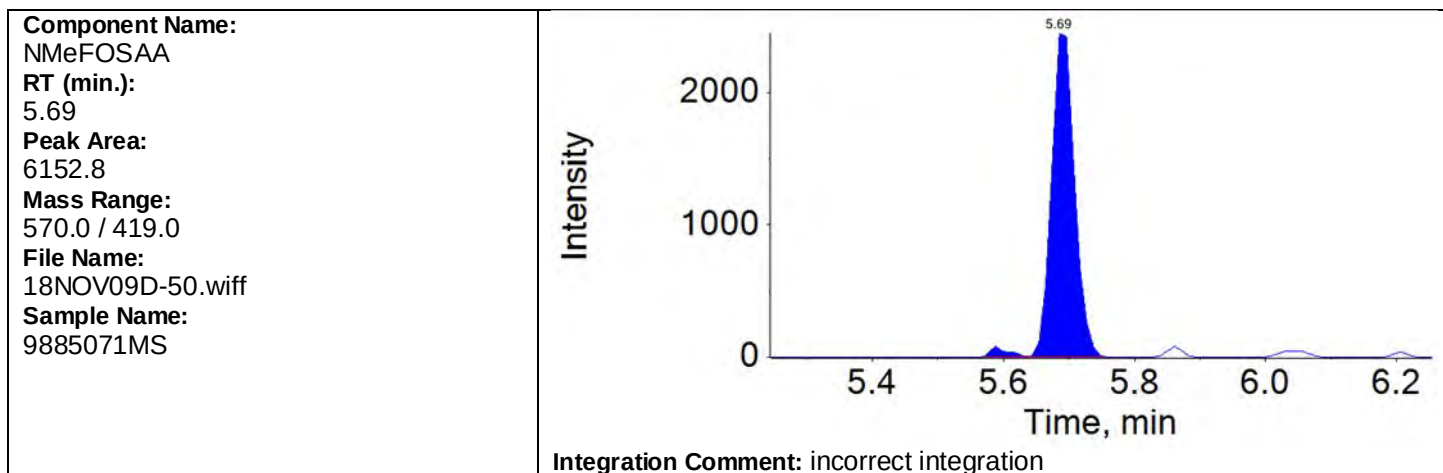
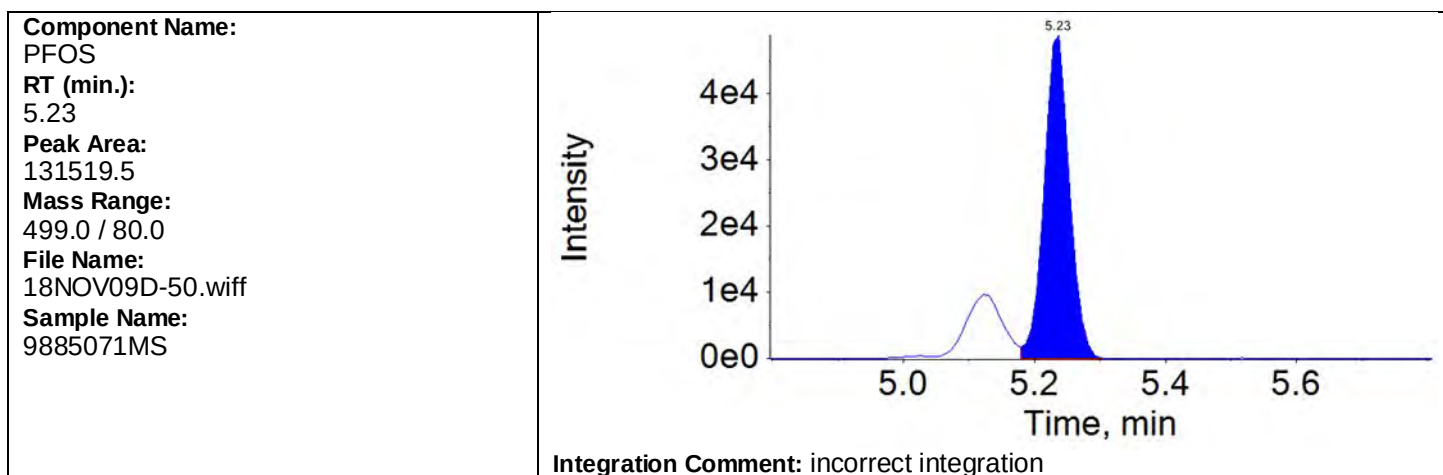
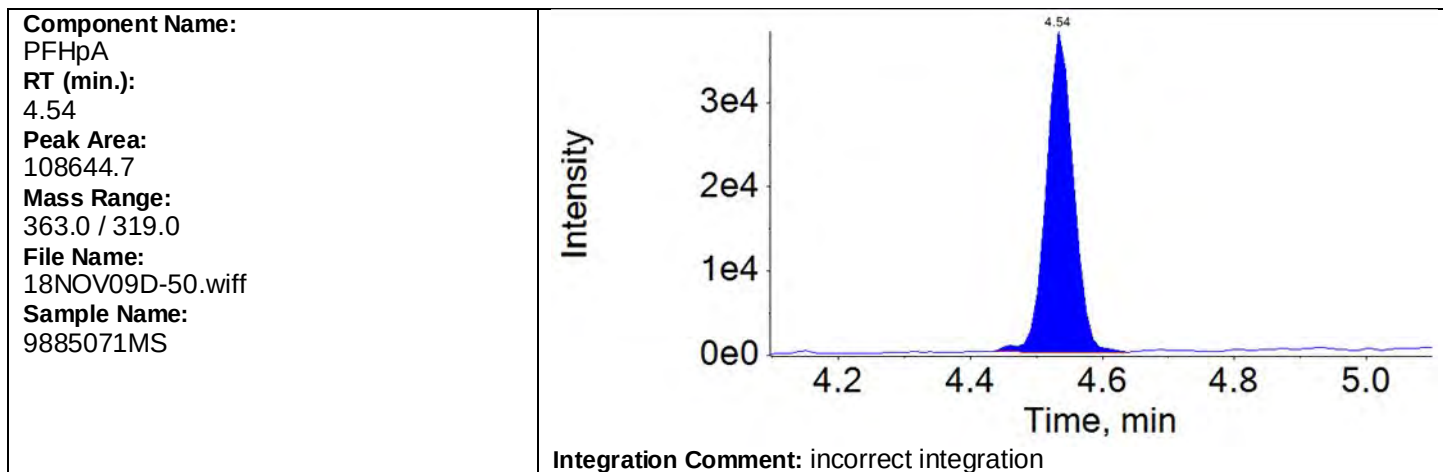
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
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Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

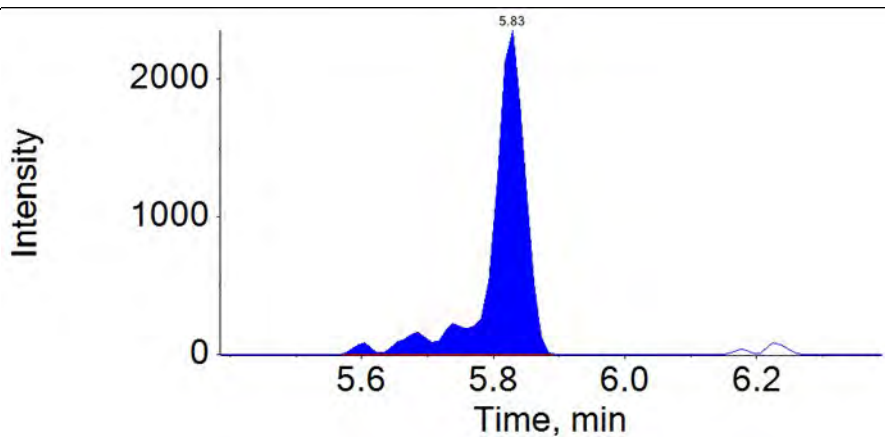
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QMethod File: MQ4-18AUG13



Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

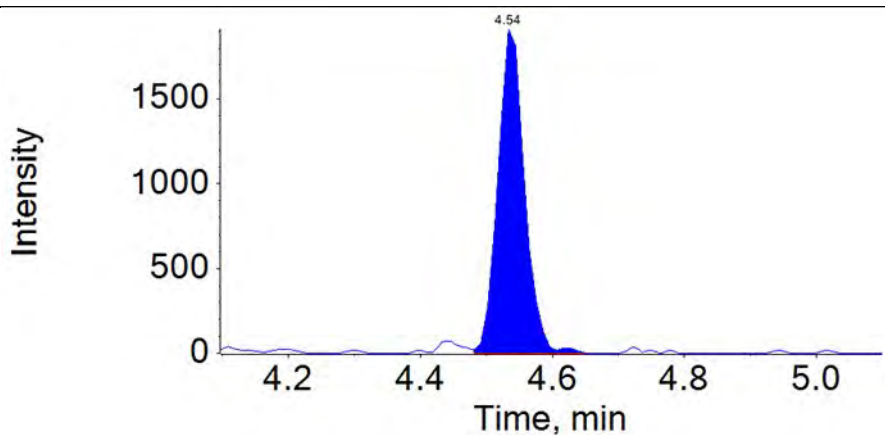
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QMethod File: MQ4-18AUG13

Component Name:
NETFOSAA
RT (min.):
5.83
Peak Area:
8229.4
Mass Range:
584.0 / 419.0
File Name:
18NOV09D-50.wiff
Sample Name:
9885071MS



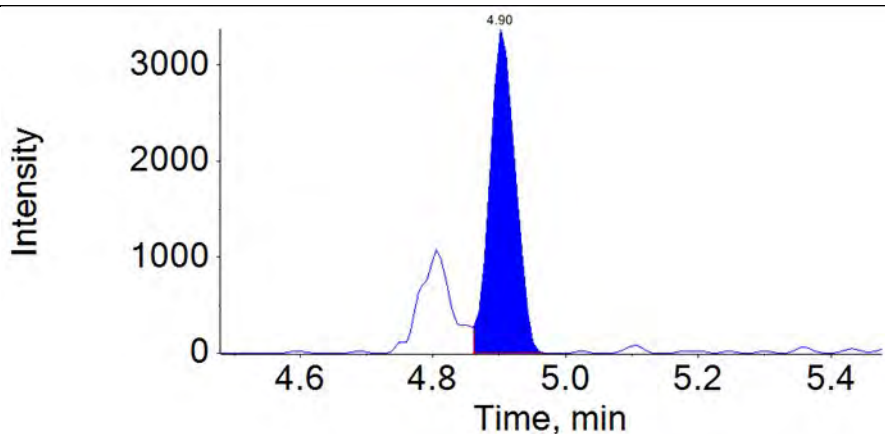
Integration Comment: incorrect integration

Component Name:
PFHpA_2
RT (min.):
4.54
Peak Area:
5368.6
Mass Range:
363.0 / 169.0
File Name:
18NOV09D-50.wiff
Sample Name:
9885071MS



Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.90
Peak Area:
8955.2
Mass Range:
413.0 / 169.0
File Name:
18NOV09D-50.wiff
Sample Name:
9885071MS

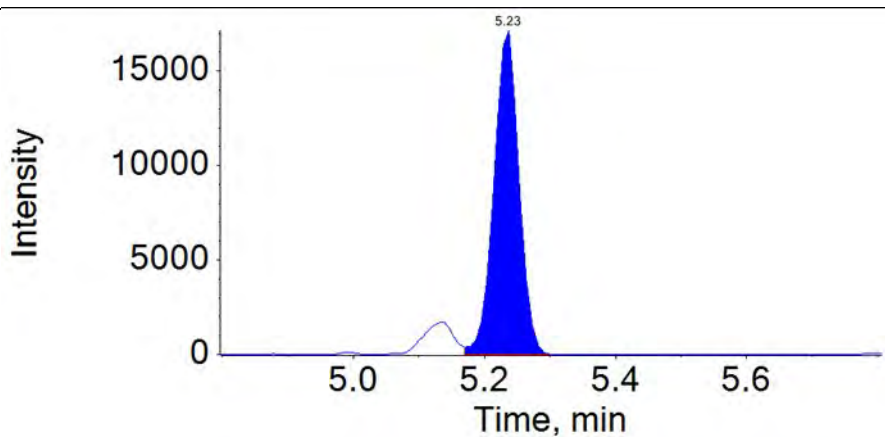


Integration Comment: incorrect integration

Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

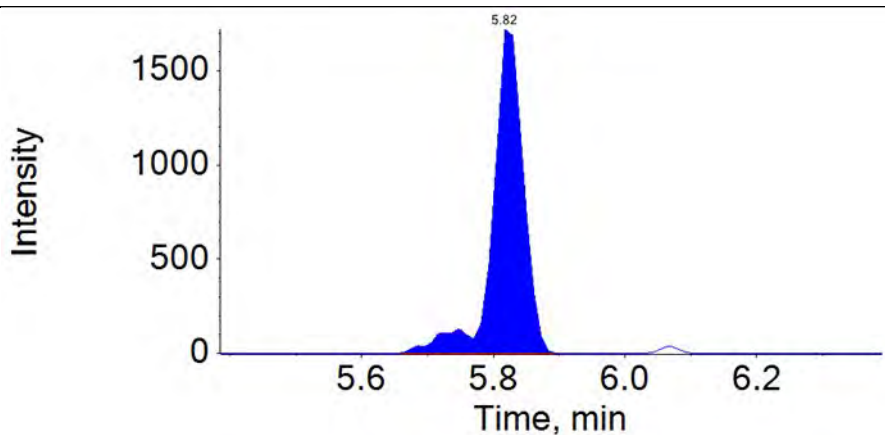
Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:
PFOS_2
RT (min.):
5.23
Peak Area:
45530.7
Mass Range:
499.0 / 99.0
File Name:
18NOV09D-50.wiff
Sample Name:
9885071MS



Integration Comment: incorrect integration

Component Name:
NEtFOSAA_2
RT (min.):
5.82
Peak Area:
5614.5
Mass Range:
584.0 / 526.0
File Name:
18NOV09D-50.wiff
Sample Name:
9885071MS



Integration Comment: incorrect integration

Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

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By HMK at 9:08 am, 11/15/18

Ion Ratio Report

Sample Name: 9885071MS

Instrument Name: LM27631

File Name: 18NOV09D-50.wiff

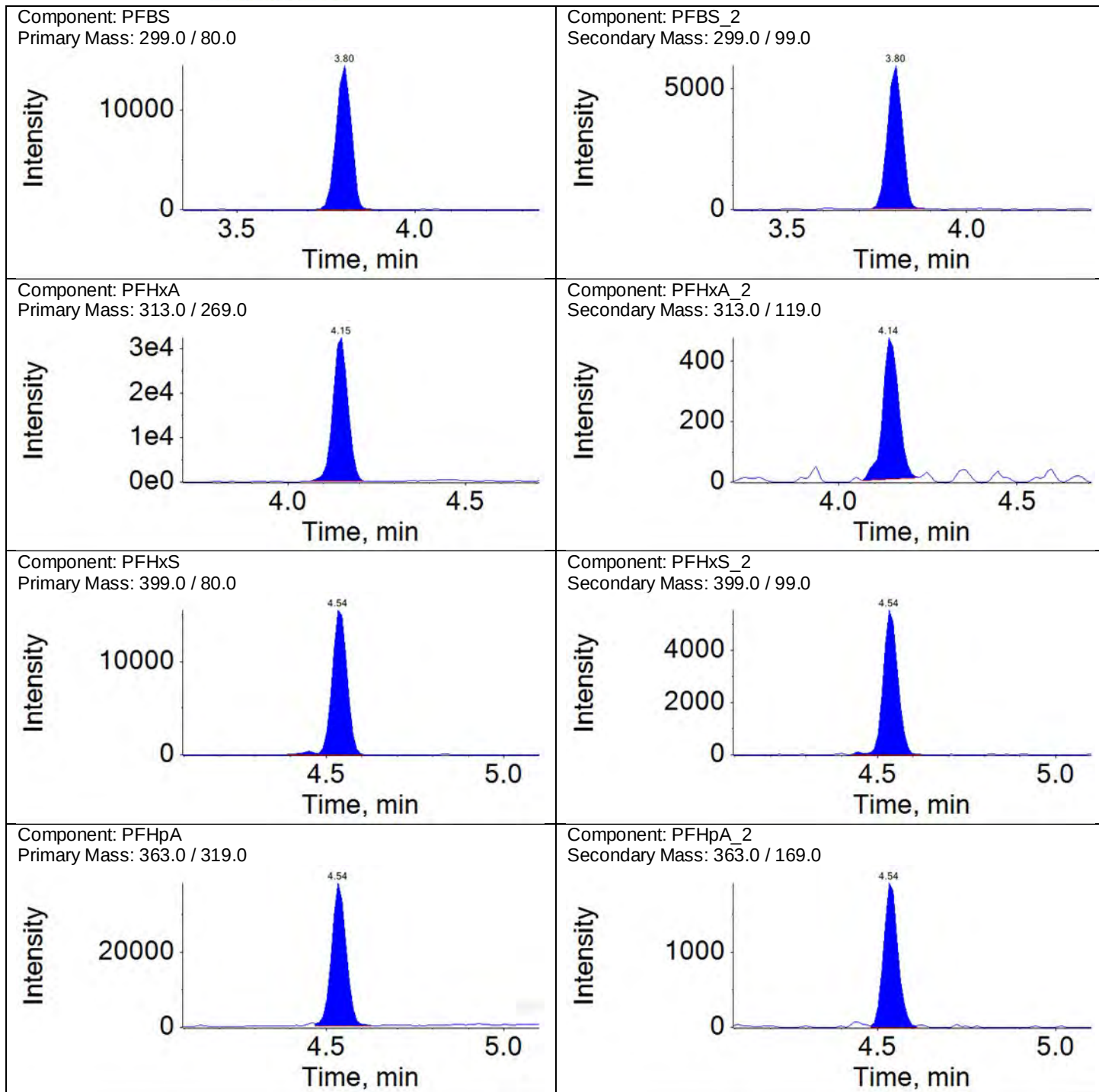
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	42738.8	A	N/A	0.4001			
PFBS_2	3.80	1.00	17098.7	A	N/A	0.4001	12	50	
PFHxA	4.15	1.00	94519.3	A	N/A	0.0155			
PFHxA_2	4.14	1.00	1466.4	A	N/A	0.0155	37	50	
PFHxS	4.54	1.00	45674.4	A	N/A	0.3441			
PFHxS_2	4.54	1.00	15718.5	A	N/A	0.3441	-4	50	
PFHpA	4.54	1.00	107815.6	M	N/A	0.0493			
PFHpA_2	4.54	1.00	5318.4	M	N/A	0.0493	-14	50	
PFOA	4.90	1.00	163619.4	A	N/A	0.0759			
PFOA_2	4.90	1.00	12411.6	M	N/A	0.0759	19	50	
PFOS	5.23	1.00	170104.7	M	N/A	0.3001			
PFOS_2	5.23	1.00	51042.6	M	N/A	0.3001	-15	50	
PFNA	5.25	1.00	85566.9	A	N/A	0.0197			
PFNA_2	5.25	1.00	1688.3	A	N/A	0.0197	-4	50	
PFDA	5.55	1.00	73442.3	A	N/A	0.0095			
PFDA_2	5.56	1.00	695.4	A	N/A	0.0095	74	50	OOS
NMeFOSAA	5.69	1.00	5998.0	M	N/A	0.2150			
NMeFOSAA_2	5.70	1.00	1289.4	A	N/A	0.2150	-1	50	
PFUnDA	5.81	1.00	52905.9	A	N/A	0.0041			
PFUnDA_2	5.81	1.00	218.9	A	N/A	0.0041	36	50	
NEtFOSAA	5.83	1.00	7118.0	M	N/A	0.7214			
NEtFOSAA_2	5.82	1.00	5134.8	M	N/A	0.7214	19	50	
PFDoDA	6.04	1.00	57391.1	A	N/A	0.0077			
PFDoDA_2	6.04	1.00	440.0	A	N/A	0.0077	-27	50	
PFTTrDA	6.24	1.03	44937.3	A	N/A	0.0154			
PFTTrDA_2	6.24	1.03	690.3	A	N/A	0.0154	61	50	OOS
PFTeDA	6.41	1.00	39915.6	A	N/A	0.0041			
PFTeDA_2	6.41	1.00	163.9	A	N/A	0.0041	-24	50	

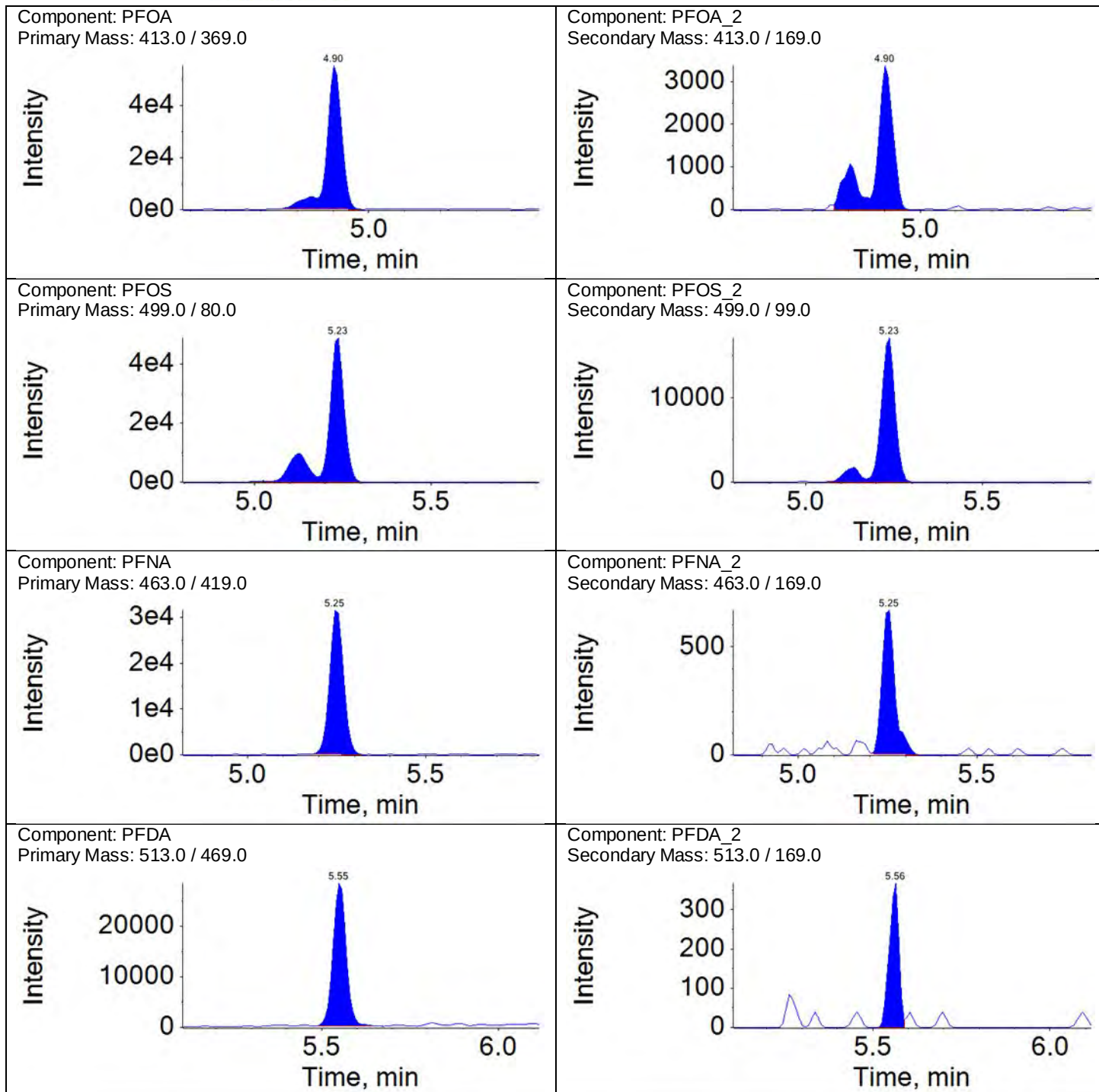
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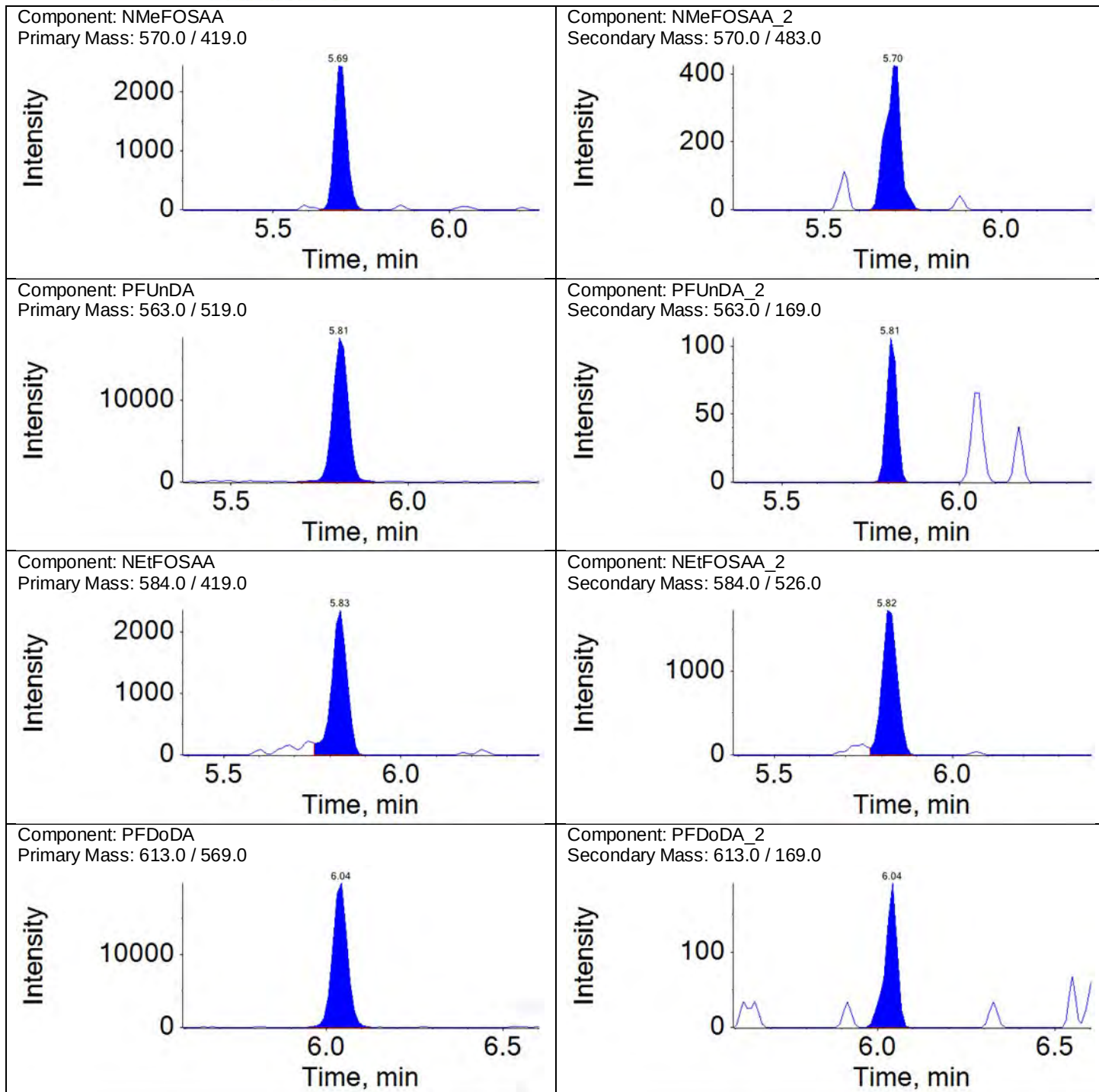
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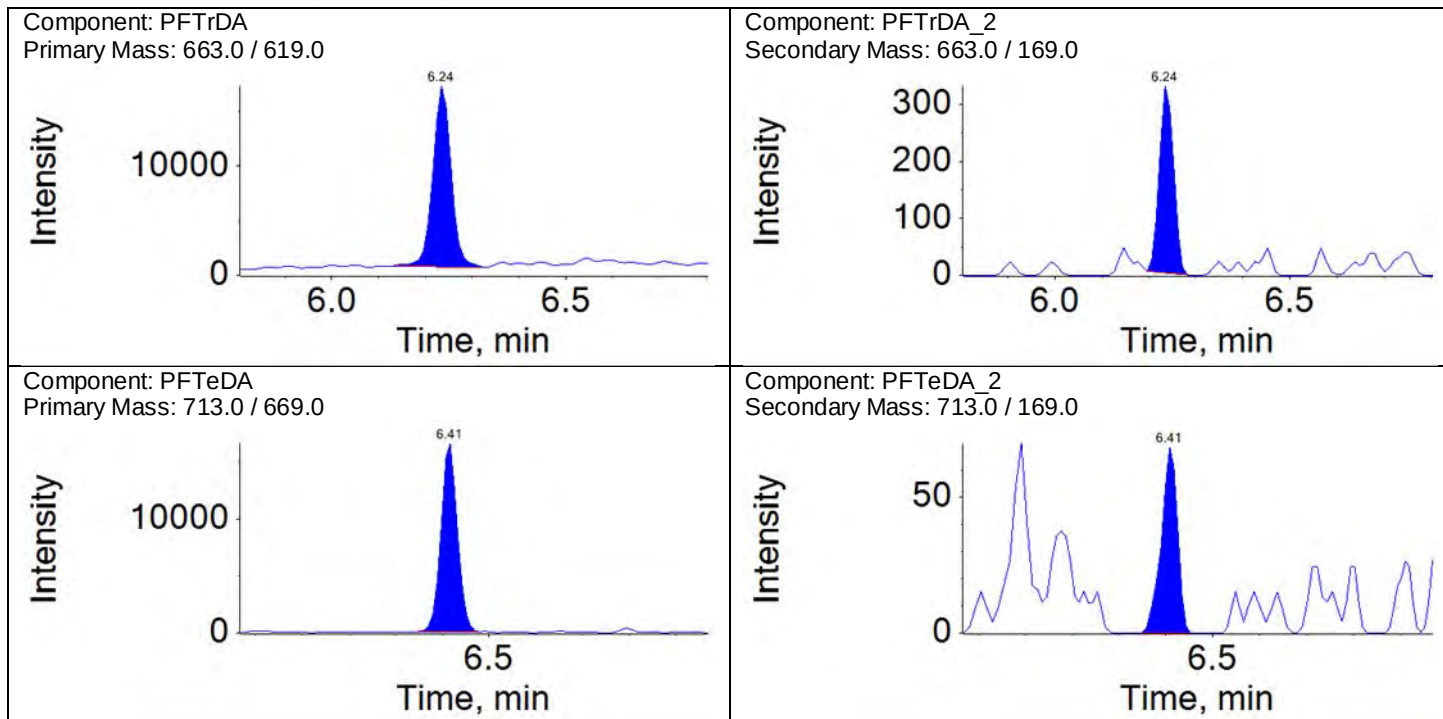
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By HMK at 9:08 am, 11/15/18







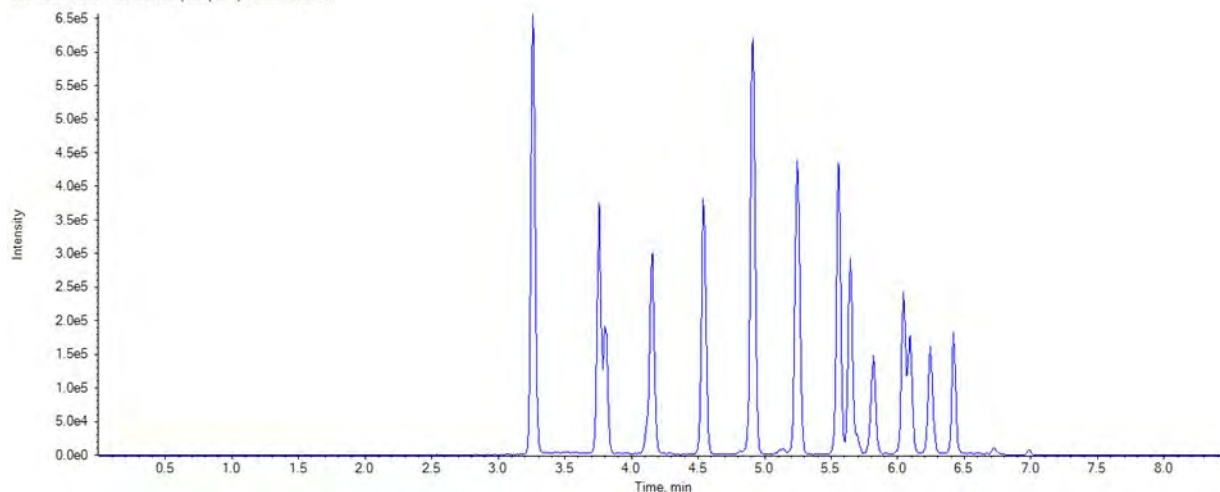


Matrix Spike Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18312011 11/10/2018 4:20:40 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	9885072MSD	EPA 537 mod QSM 5.1 table B-15 18312011 OU1-WWTPE-S-01-01 MSD Grab Soil	18NOV09D-51.wiff	2018-11-09T12:10:03

TIC from 18NOV09D-51.wiff (sample 1) - 9885072MSD



Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.00	729144.0	725974.7	0	50	
13C2-PFOA	5.00	504629.2	506876.7	0	50	
13C4-PFOS	4.78	268917.8	274910.1	-2	50	
13C2-PFDA	5.00	315648.4	307276.7	3	50	

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Matrix Spike Recovery

ICAL Name: 18NOV07DCAL Result Table: 18312011 11/10/2018 4:20:40 PM
QMethod Name: MQ4-18AUG13 Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	9885072MSD	EPA 537 mod QSM 5.1 table B-15 18312011 OU1-WWTPE-S-01-01 MSD Grab Soil	18NOV09D-51.wiff	2018-11-09T12:10:03

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBS	43800.8	348644.3	0.126	1.093	1.152	105	70-130	
PFHxA	95688.1	556499.9	0.172	1.236	1.341	108	70-130	
PFHxS	44472.8	275771.7	0.161	1.169	1.486	127	70-130	
PFHpA	107980.3	450326.7	0.240	1.236	1.466	119	70-130	
PFOA	160837.4	754574.6	0.213	1.236	2.182	176	70-130	OOS
PFOS	144995.7	237096.3	0.612	1.182	5.766	488	70-130	OOS
PFNA	90743.3	404440.9	0.224	1.236	1.525	123	70-130	
PFDA	77476.5	512012.4	0.151	1.236	1.514	122	70-130	
NMeFOSAA	5224.5	51669.7	0.101	1.236	0.946	77	70-130	
PFUnDA	56037.8	217757.3	0.257	1.236	1.342	109	70-130	
NEtFOSAA	7362.5	43650.6	0.169	1.236	1.318	107	70-130	
PFDoDA	64853.5	456183.3	0.142	1.236	1.401	113	70-130	
PFTTrDA	50138.2	456183.3	0.110	1.236	1.260	102	70-130	
PFTeDA	38771.2	324131.6	0.120	1.236	1.277	103	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Matrix Spike Recovery
Result Table: 18312011 11/10/2018 4:20:40 PM
Acquisition Method: 18AUG13_3uL.dam

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By HMK at 9:08 am, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	9885072MSD		Data File:	18NOV09D-51.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18312011 OU1-WWTPE-S-01-01 MSD Grab Soil		Acquis Date:	2018-11-09T12:10:03
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	22		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18312011
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	18312011		Operator:	MCD7824
Sample Wt.:	1.10000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	729144.0	725974.7	0	50	
13C2-PFOA	5.0	504629.2	506876.7	0	50	
13C4-PFOS	4.8	268917.8	274910.1	-2	50	
13C2-PFDA	5.0	315648.4	307276.7	3	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C3-PFBS	348644.3	13C3-PFBA	729144.0	0.478	8.455	6.380	75	50-150	
E13C5-PFHxA	556499.9	13C2-PFOA	504629.2	1.103	9.091	7.376	81	50-150	
E13C3-PFHxS	275771.7	13C2-PFOA	504629.2	0.546	8.600	7.133	83	50-150	
E13C4-PFHpA	450326.7	13C2-PFOA	504629.2	0.892	9.091	7.381	81	50-150	
E13C8-PFOA	754574.6	13C2-PFOA	504629.2	1.495	9.091	7.582	83	50-150	
E13C8-PFOS	237096.3	13C4-PFOS	268917.8	0.882	8.691	7.088	82	50-150	
E13C9-PFNA	404440.9	13C4-PFOS	268917.8	1.504	9.091	7.469	82	50-150	
E13C6-PFDA	512012.4	13C2-PFDA	315648.4	1.622	9.091	7.417	82	50-150	
Ed3-NMeFOSAA	51669.7	13C2-PFDA	315648.4	0.164	9.091	5.535	61	50-150	
E13C7-PFUnDA	217757.3	13C2-PFDA	315648.4	0.690	9.091	7.236	80	50-150	
Ed5-NEtFOSAA	43650.6	13C2-PFDA	315648.4	0.138	9.091	5.819	64	50-150	
E13C2-PFDODA	456183.3	13C2-PFDA	315648.4	1.445	9.091	7.084	78	50-150	
E13C2-PFTeDA	324131.6	13C2-PFDA	315648.4	1.027	9.091	6.721	74	50-150	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

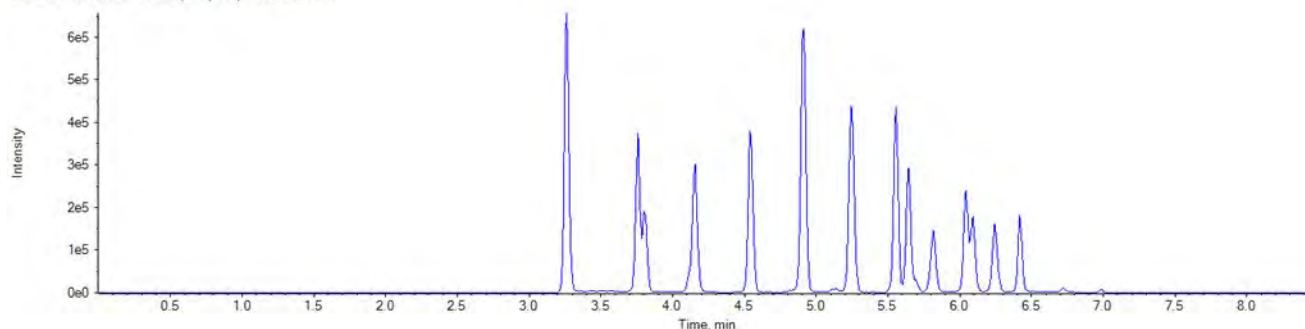
Sample Name: 9885072MSD Instrument Name: LM27631 File Name: 18NOV09D-51.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.10000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBS	3.81	1.000	43800.8		A	13C3-PFBS	3.81	348644.3	0.126	1.152
PFHxA	4.15	1.000	95688.1		A	13C5-PFHxA	4.15	556499.9	0.172	1.341
PFHxS	4.54	1.000	44472.8		M	13C3-PFHxS	4.54	275771.7	0.161	1.486
PFHpA	4.54	1.000	107980.3		A	13C4-PFHpA	4.54	450326.7	0.240	1.466
PFOA	4.91	1.000	160837.4		A	13C8-PFOA	4.91	754574.6	0.213	2.182
PFOS	5.24	1.000	144995.7		M	13C8-PFOS	5.24	237096.3	0.612	5.766
PFNA	5.25	1.000	90743.3		A	13C9-PFNA	5.25	404440.9	0.224	1.525
PFDA	5.56	1.000	77476.5		A	13C6-PFDA	5.56	512012.4	0.151	1.514
NMeFOSAA	5.70	1.000	5224.5		A	d3-NMeFOSAA	5.69	51669.7	0.101	0.946
PFUnDA	5.82	1.000	56037.8		A	13C7-PFUnDA	5.82	217757.3	0.257	1.342
NEtFOSAA	5.83	1.000	7362.5		M	d5-NEtFOSAA	5.83	43650.6	0.169	1.318
PFDODA	6.04	1.000	64853.5		A	13C2-PFDODA	6.04	456183.3	0.142	1.401
PFTTrDA	6.24	1.030	50138.2		A	13C2-PFDODA	6.04	456183.3	0.110	1.260
PFTeDA	6.42	1.000	38771.2		A	13C2-PFTeDA	6.42	324131.6	0.120	1.277

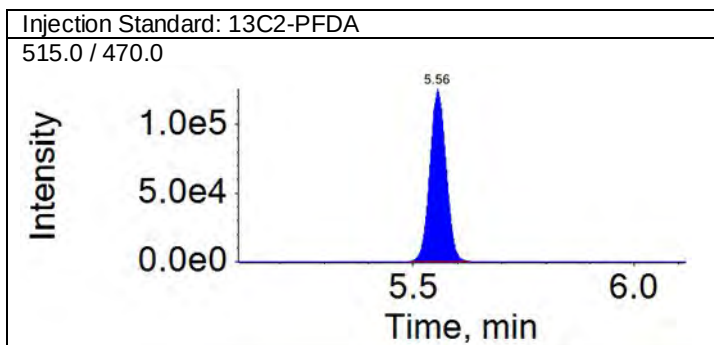
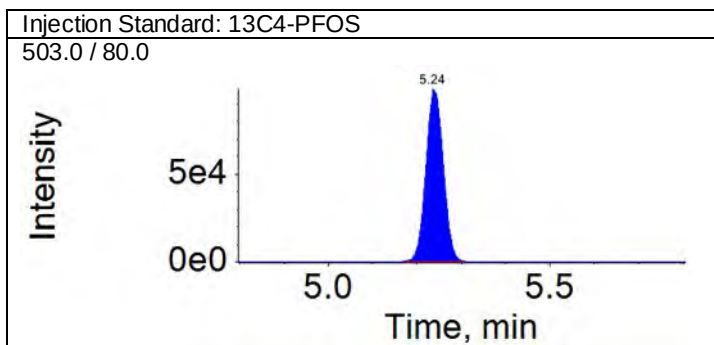
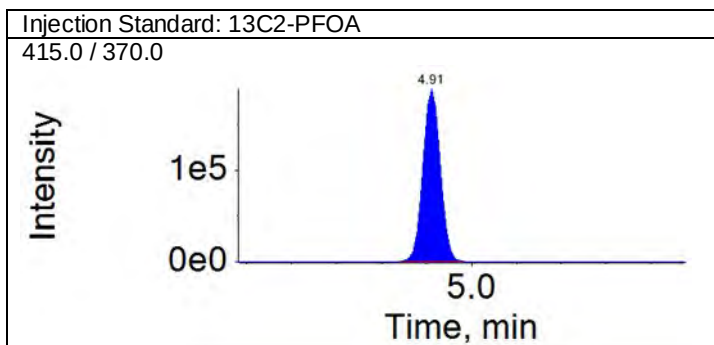
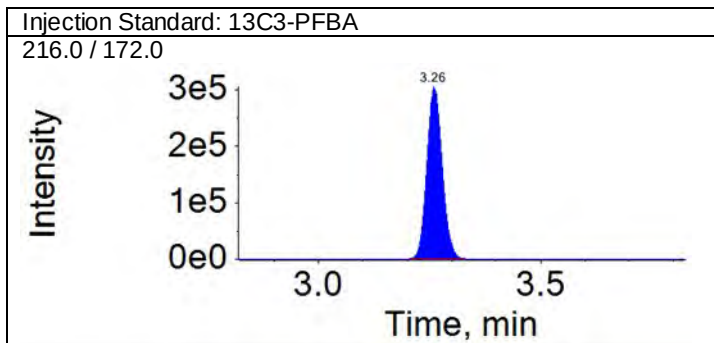
Total Ion Chromatogram

TIC from 18NOV09D-51.wiff (sample 1) - 9885072MSD



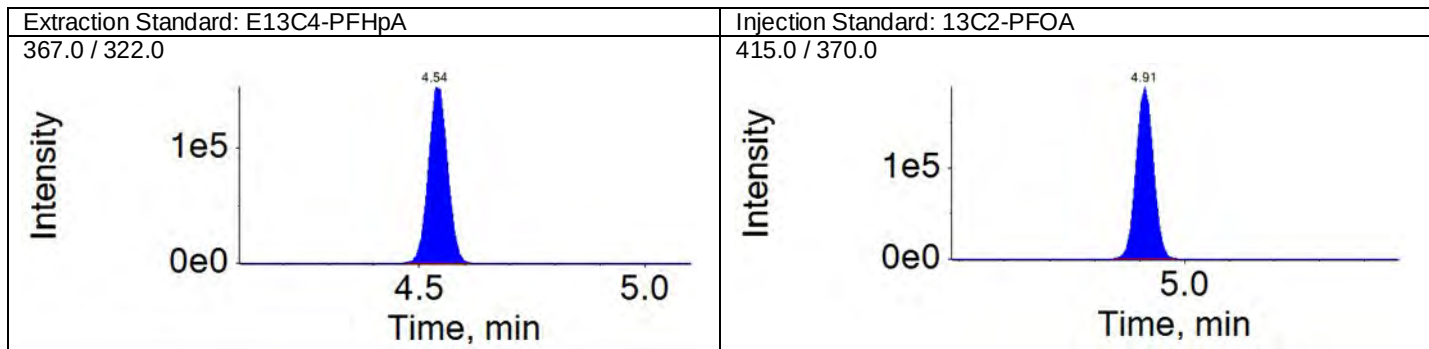
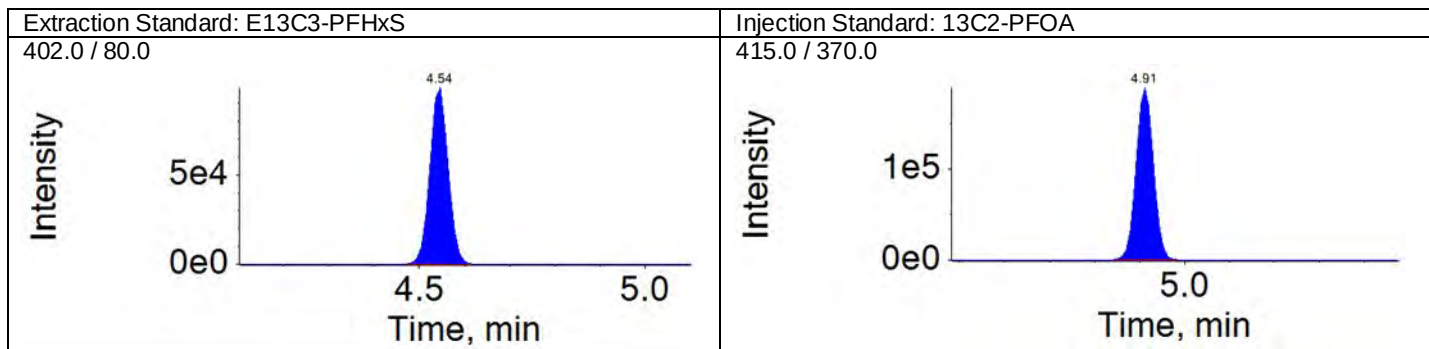
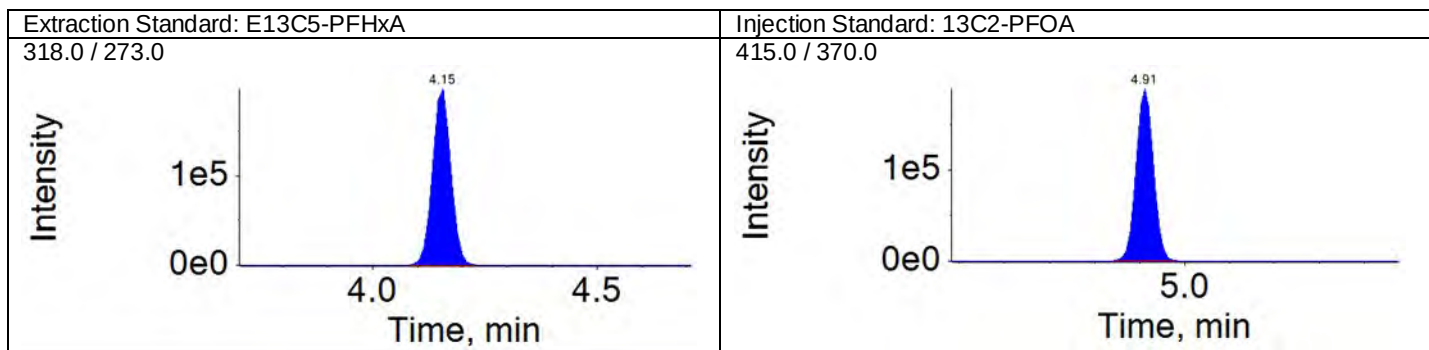
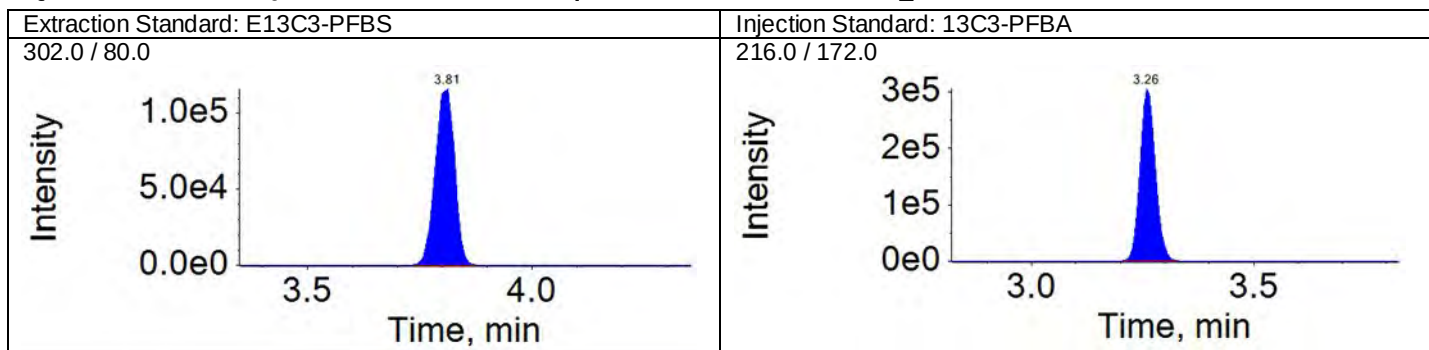
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



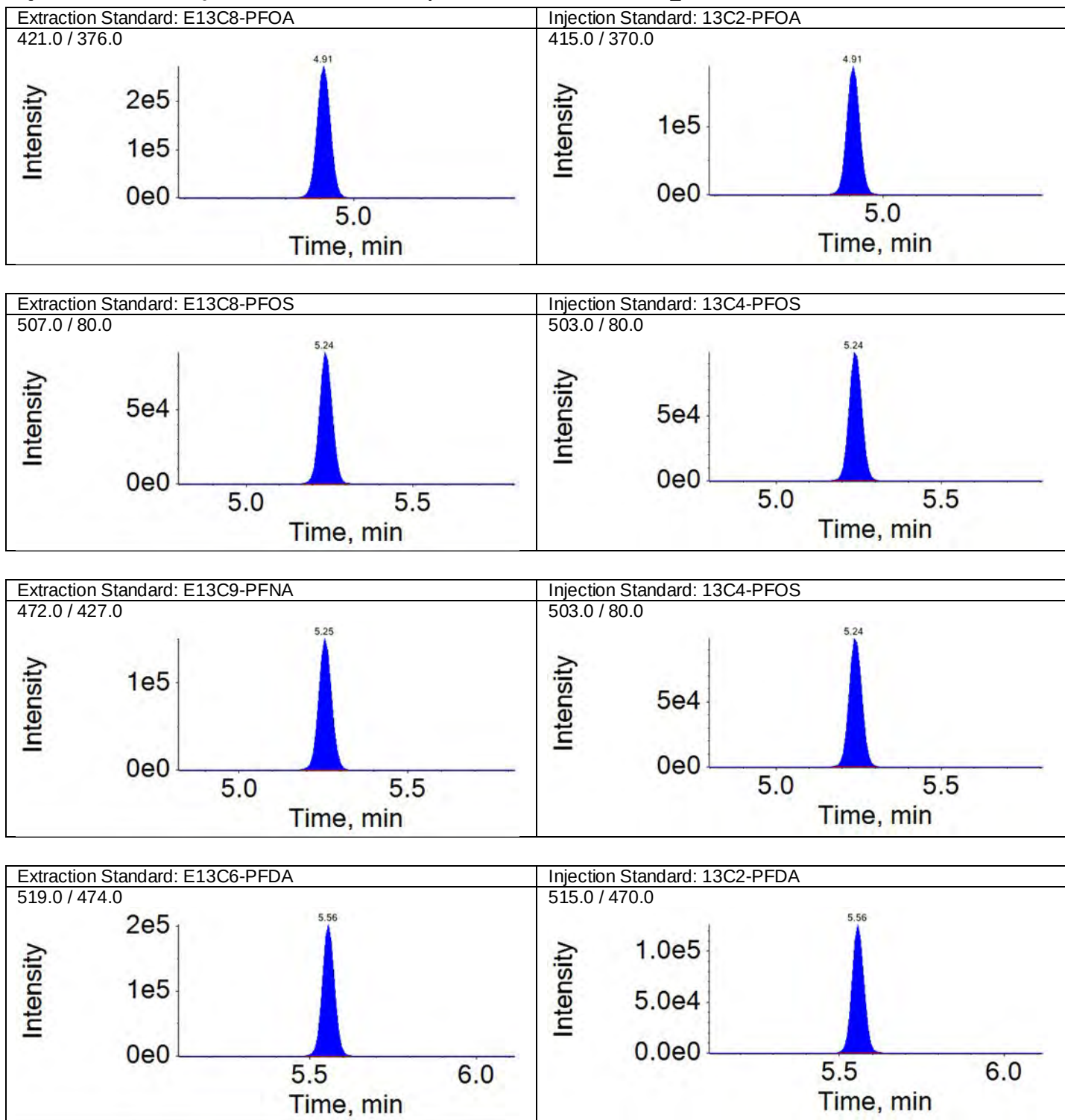
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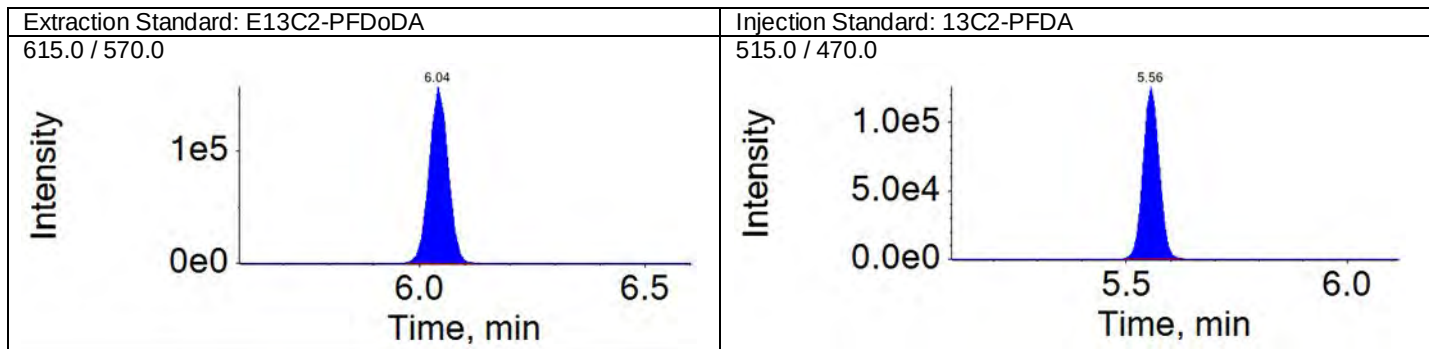
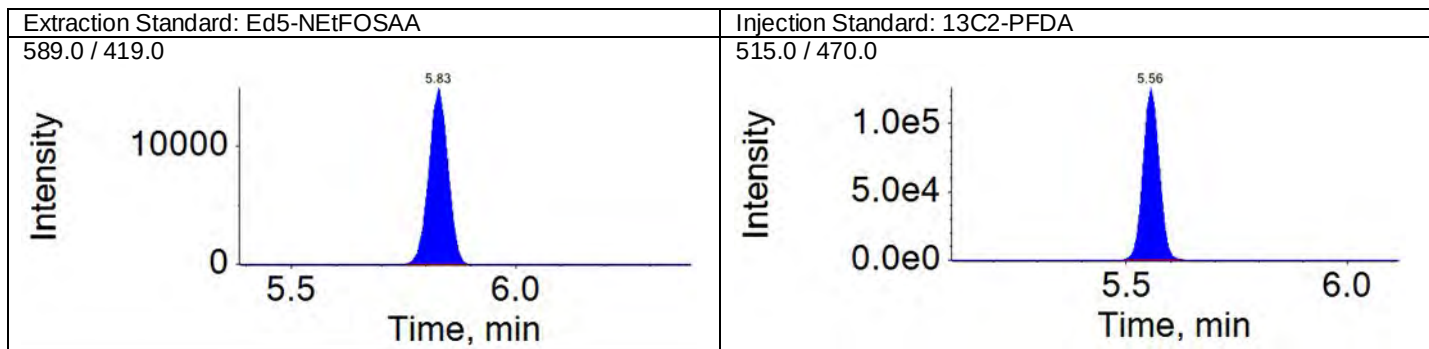
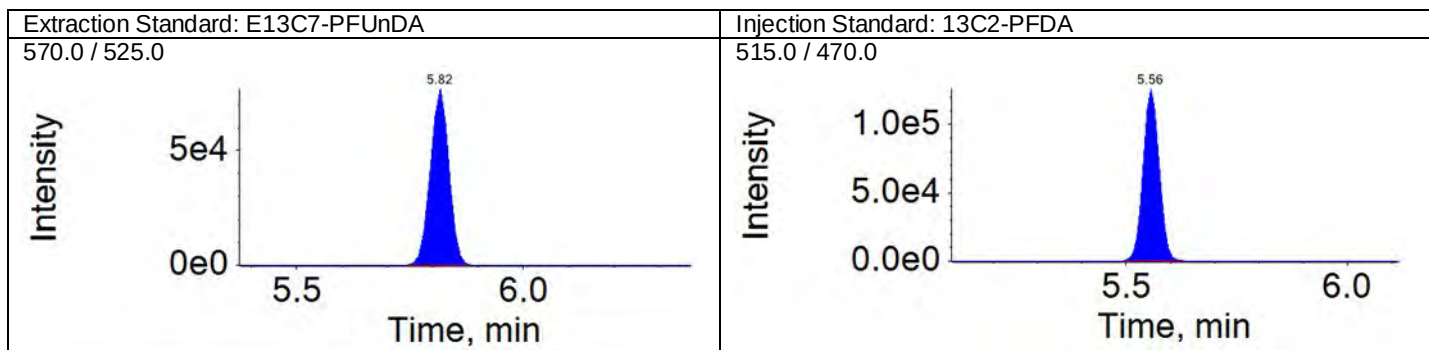
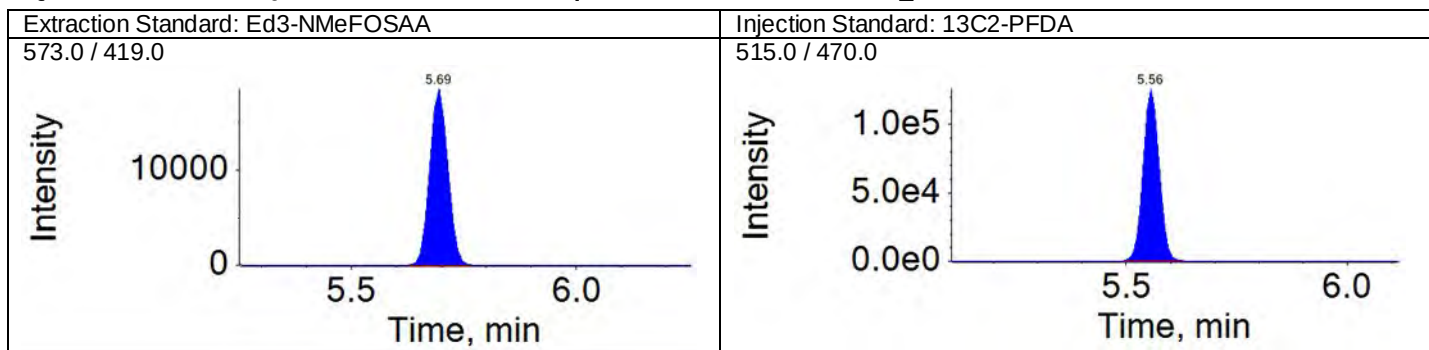
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QMethod Name: MQ4-18AUG13

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Acquisition Method: 18AUG13_3uL.dam



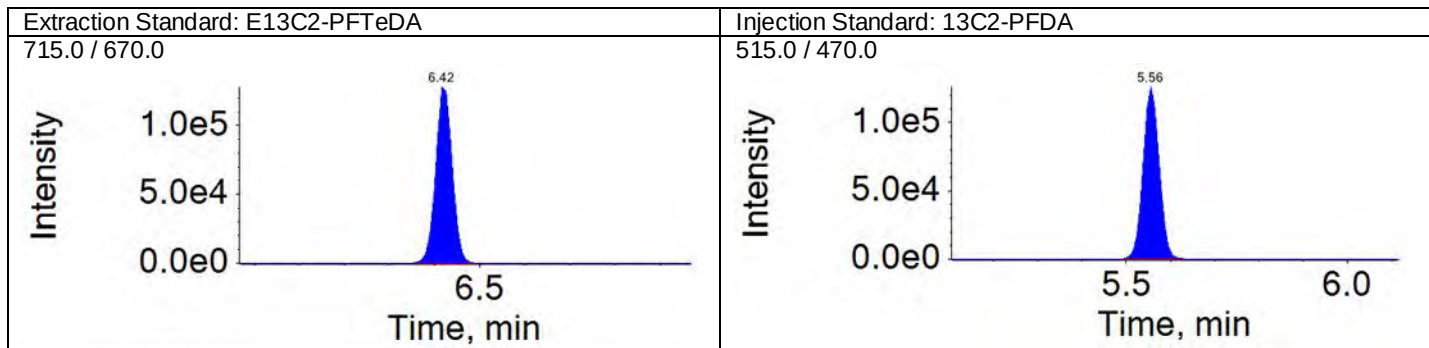
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



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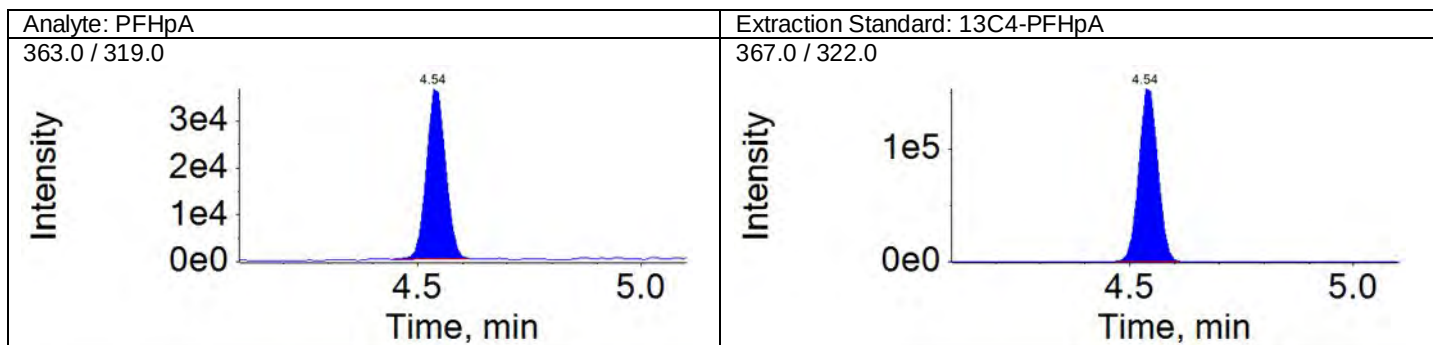
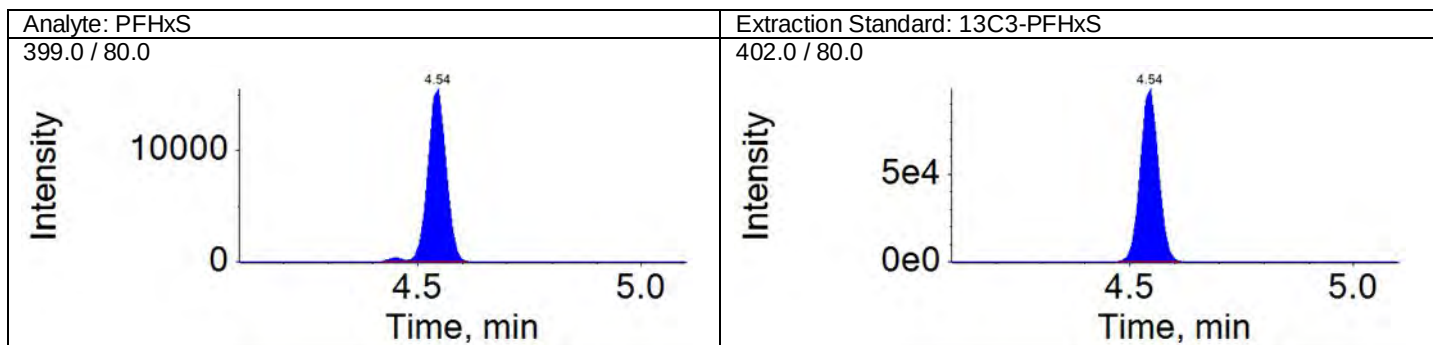
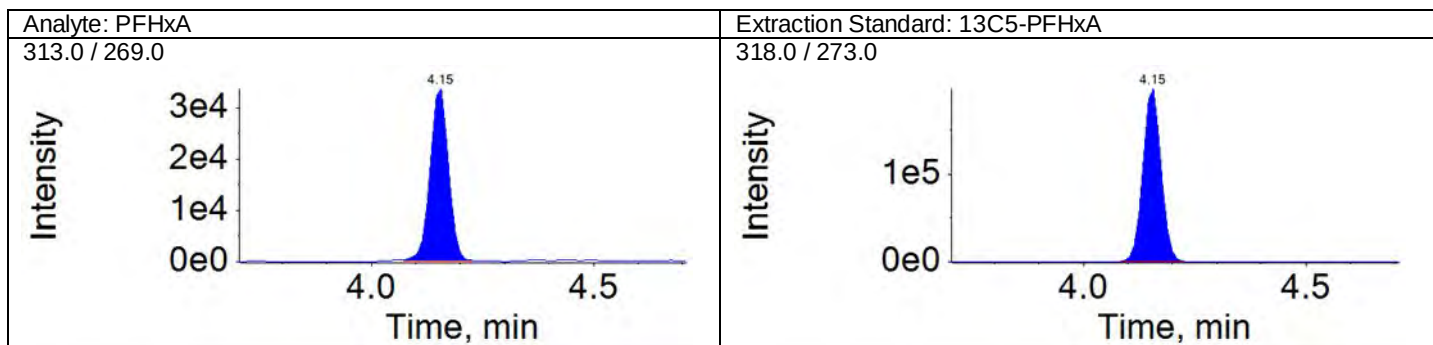
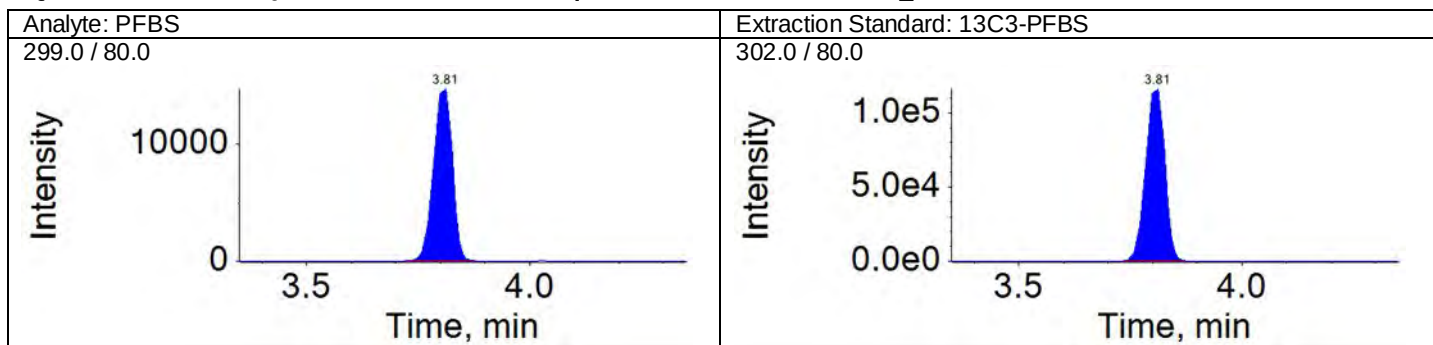
By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

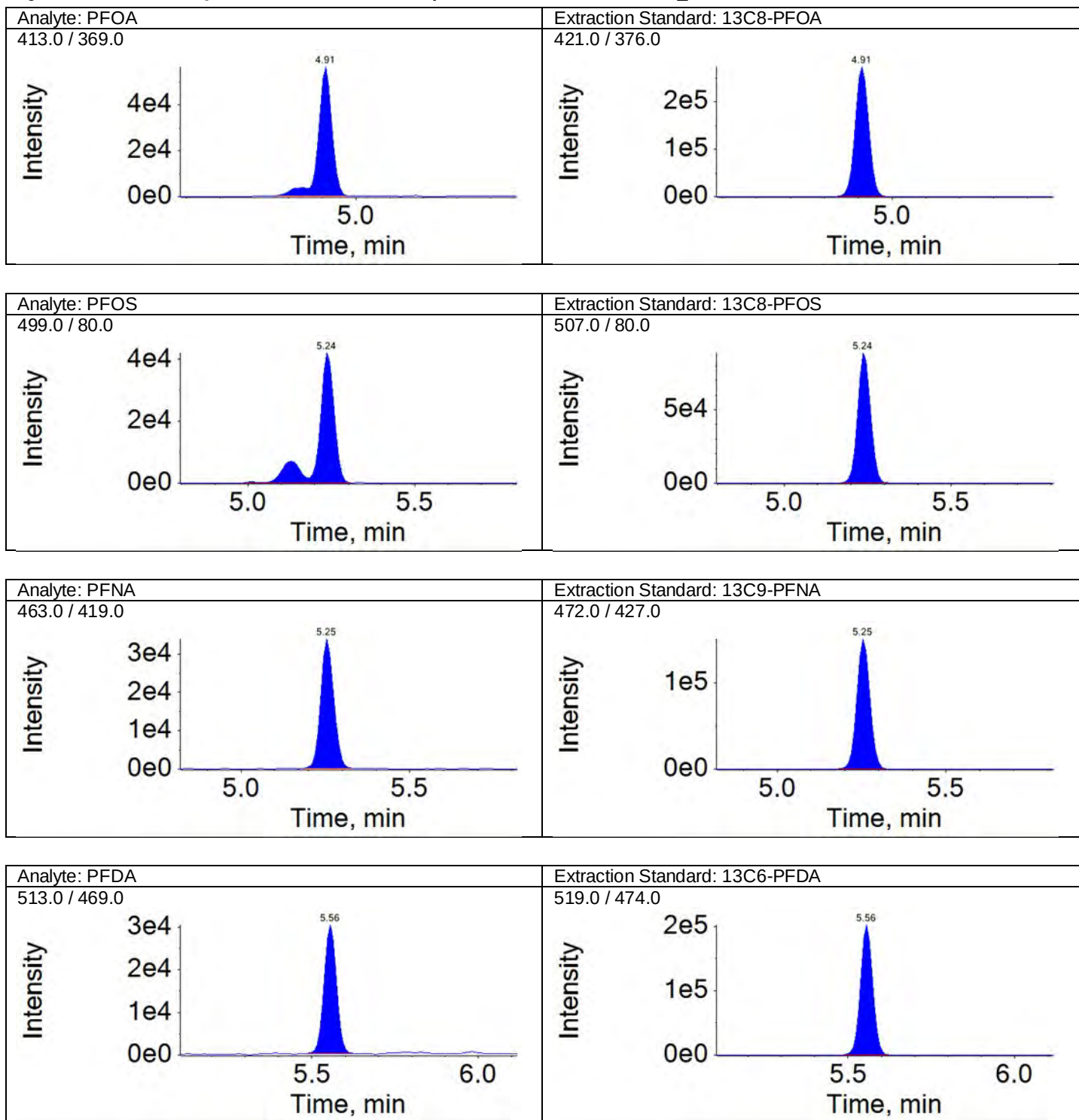
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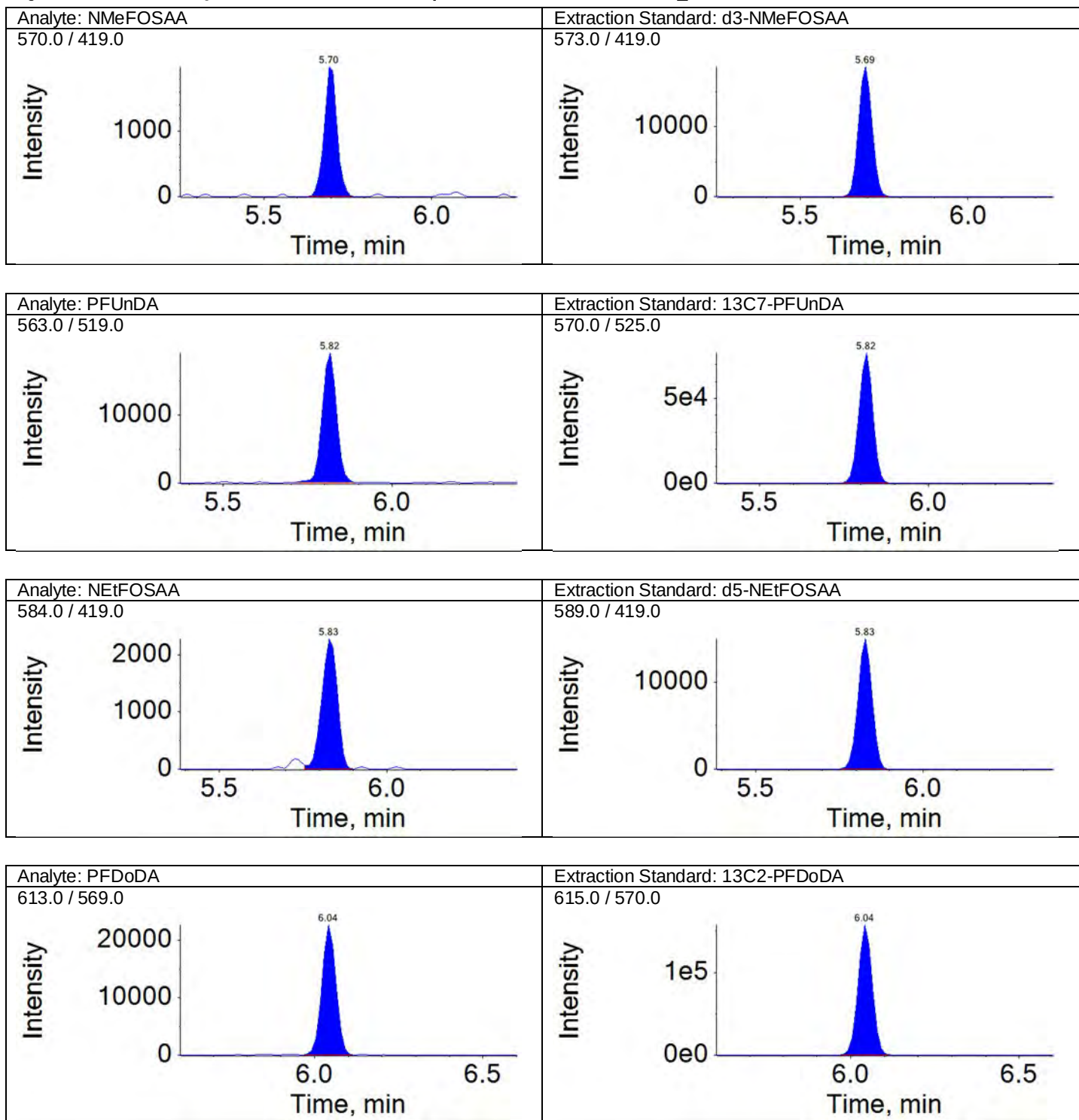
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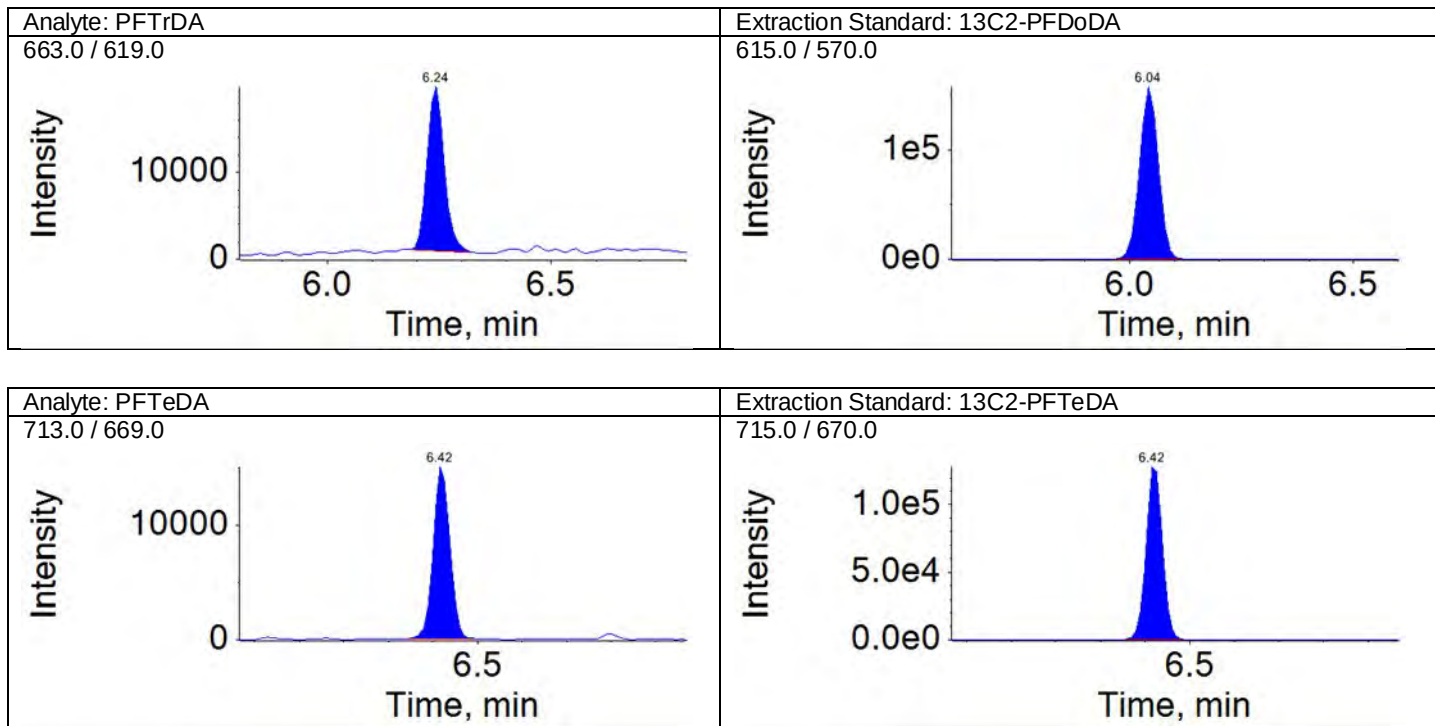
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Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



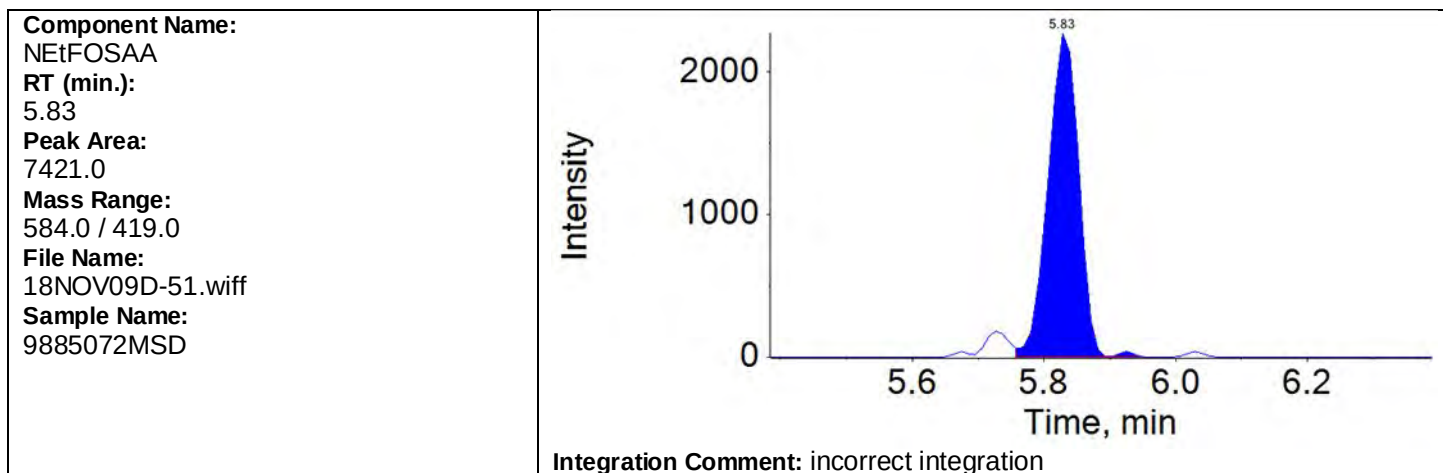
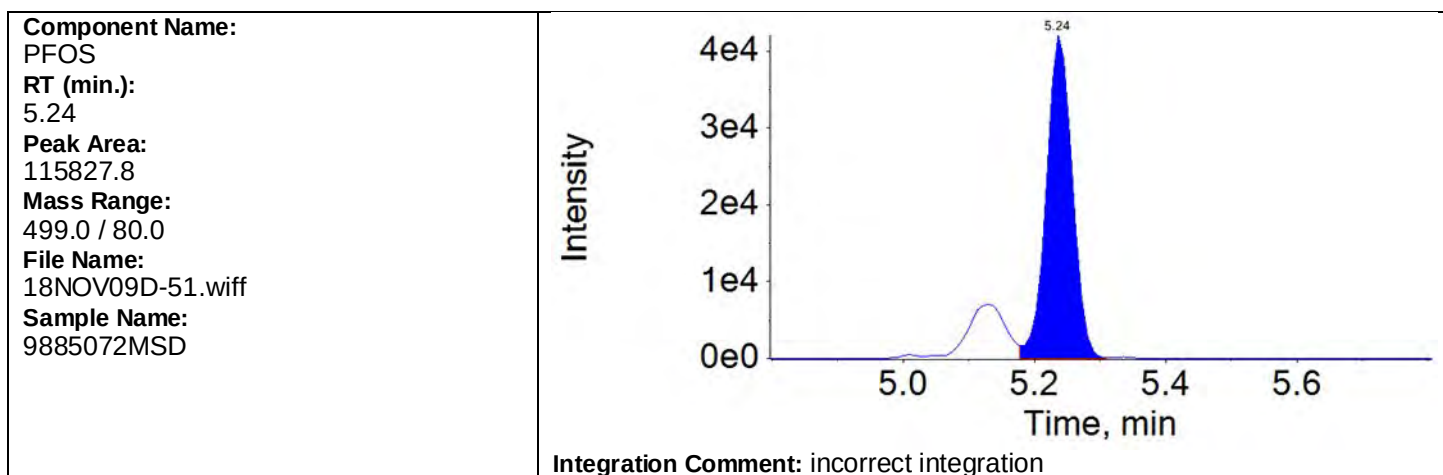
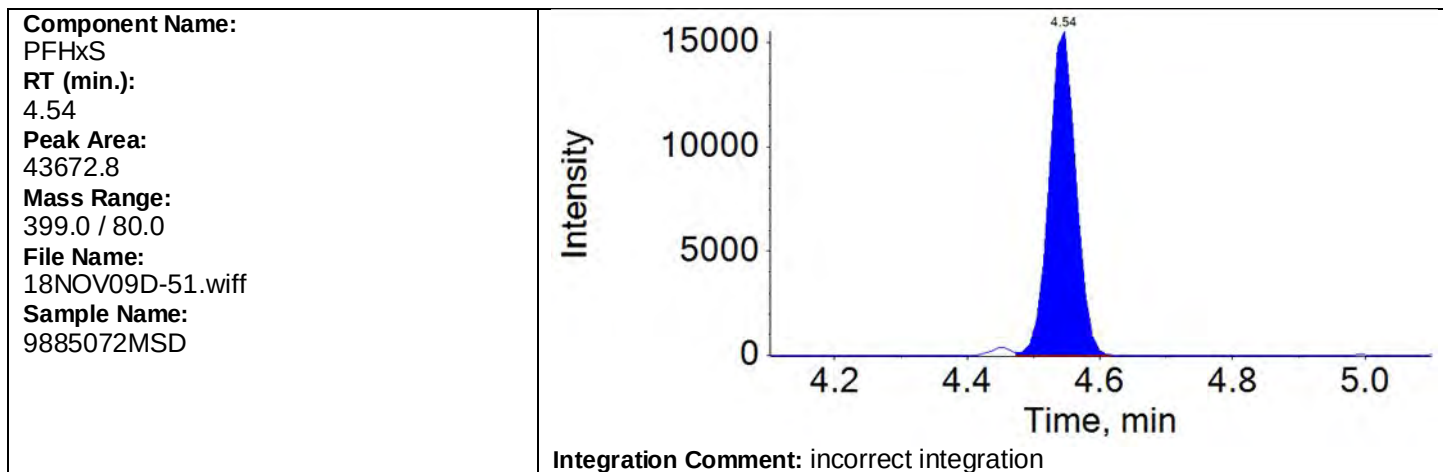
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QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

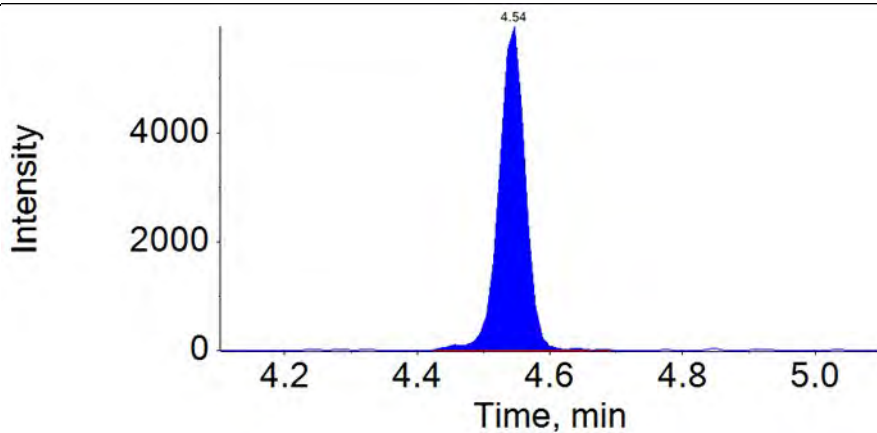
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Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

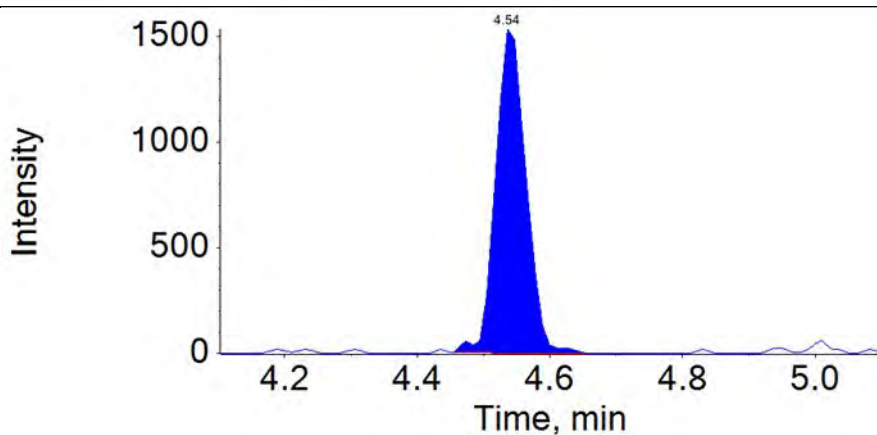
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QMethod File: MQ4-18AUG13

Component Name:
PFHxS_2
RT (min.):
4.54
Peak Area:
16488.0
Mass Range:
399.0 / 99.0
File Name:
18NOV09D-51.wiff
Sample Name:
9885072MSD



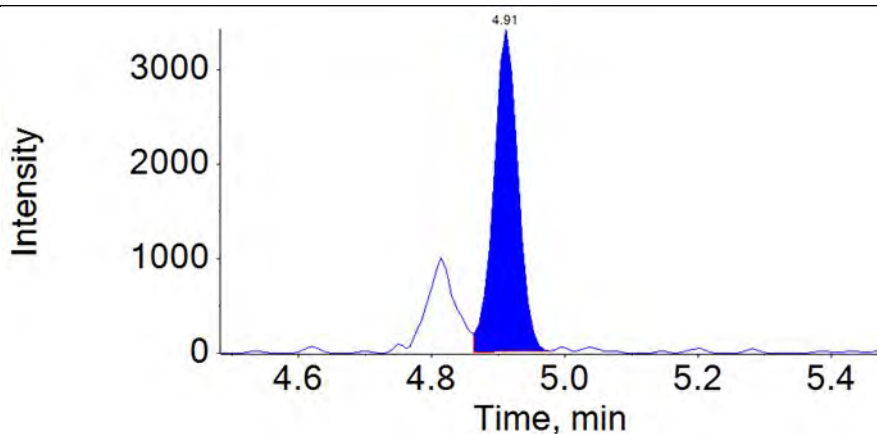
Integration Comment: incorrect integration

Component Name:
PFHpA_2
RT (min.):
4.54
Peak Area:
4911.3
Mass Range:
363.0 / 169.0
File Name:
18NOV09D-51.wiff
Sample Name:
9885072MSD



Integration Comment: incorrect integration

Component Name:
PFOA_2
RT (min.):
4.91
Peak Area:
8610.9
Mass Range:
413.0 / 169.0
File Name:
18NOV09D-51.wiff
Sample Name:
9885072MSD



Integration Comment: incorrect integration

Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:

PFOS_2

RT (min.):

5.24

Peak Area:

39521.9

Mass Range:

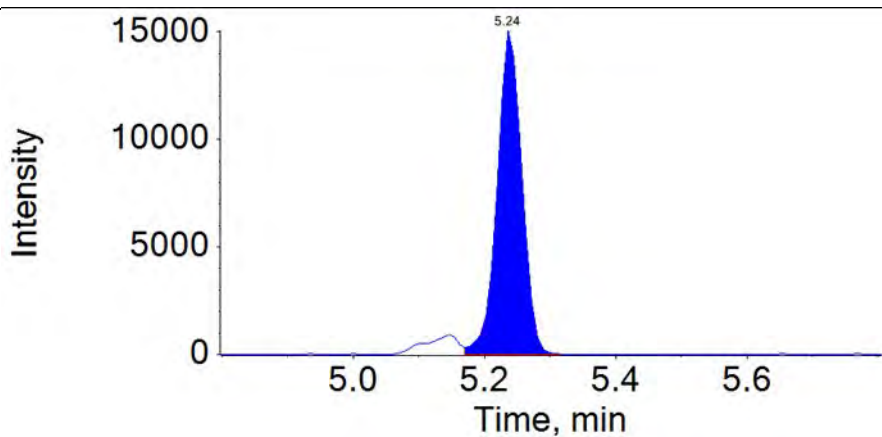
499.0 / 99.0

File Name:

18NOV09D-51.wiff

Sample Name:

9885072MSD



Integration Comment: incorrect integration

APPROVED

By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED

By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

Ion Ratio Report

Sample Name: 9885072MSD

Instrument Name: LM27631

File Name: 18NOV09D-51.wiff

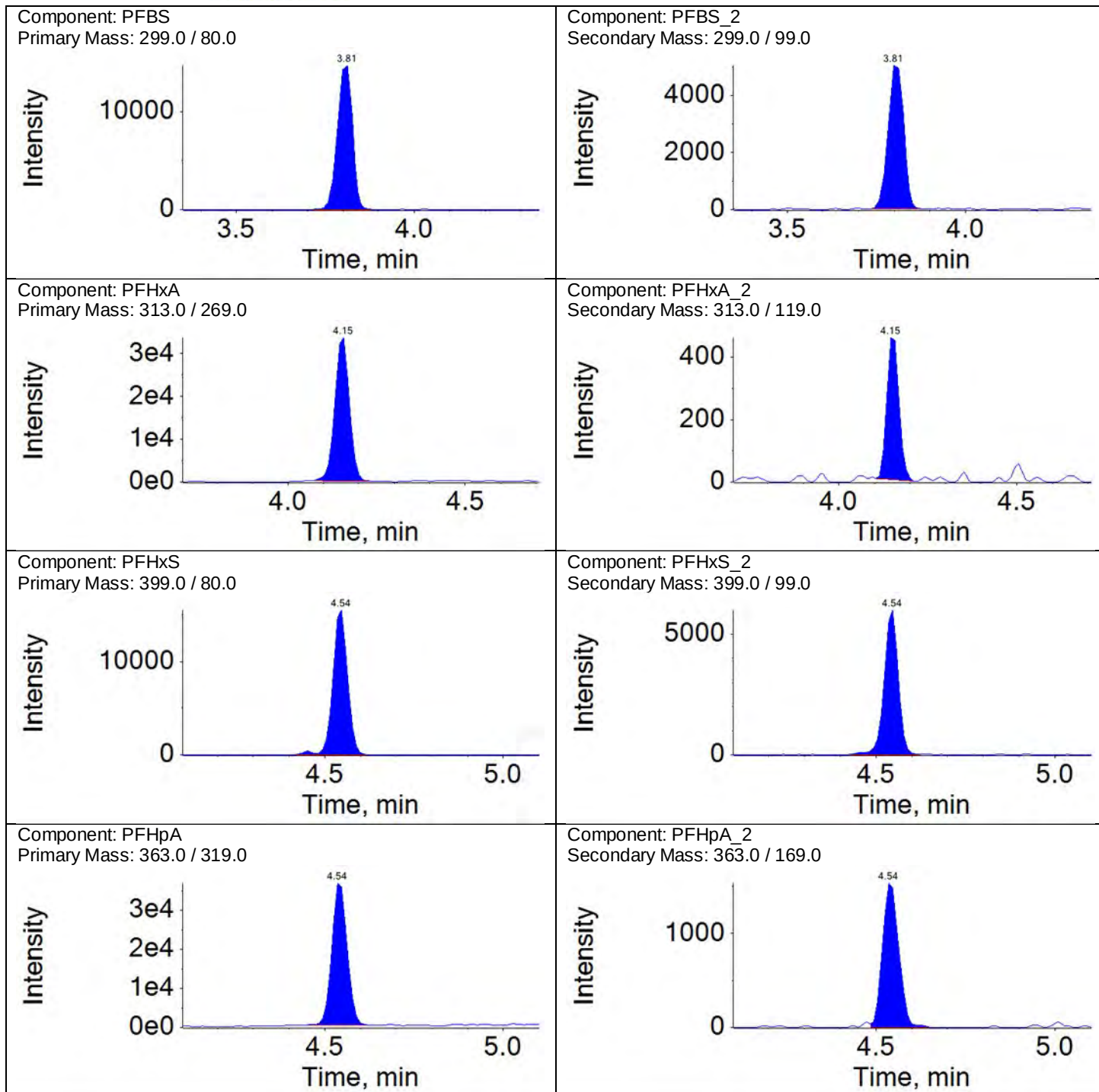
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	43800.8	A	N/A	0.3532			
PFBS_2	3.81	1.00	15472.2	A	N/A	0.3532	-1	50	
PFHxA	4.15	1.00	95688.1	A	N/A	0.0114			
PFHxA_2	4.15	1.00	1091.5	A	N/A	0.0114	1	50	
PFHxS	4.54	1.00	44472.8	M	N/A	0.3687			
PFHxS_2	4.54	1.00	16397.5	M	N/A	0.3687	3	50	
PFHpA	4.54	1.00	107980.3	A	N/A	0.0450			
PFHpA_2	4.54	1.00	4861.6	M	N/A	0.0450	-22	50	
PFOA	4.91	1.00	160837.4	A	N/A	0.0731			
PFOA_2	4.91	1.00	11754.2	M	N/A	0.0731	15	50	
PFOS	5.24	1.00	144995.7	M	N/A	0.2949			
PFOS_2	5.24	1.00	42760.0	M	N/A	0.2949	-16	50	
PFNA	5.25	1.00	90743.3	A	N/A	0.0185			
PFNA_2	5.25	1.00	1678.5	A	N/A	0.0185	-10	50	
PFDA	5.56	1.00	77476.5	A	N/A	0.0090			
PFDA_2	5.57	1.00	699.0	A	N/A	0.0090	66	50	OOS
NMeFOSAA	5.70	1.00	5224.5	A	N/A	0.2591			
NMeFOSAA_2	5.70	1.00	1353.9	A	N/A	0.2591	19	50	
PFUnDA	5.82	1.00	56037.8	A	N/A	0.0025			
PFUnDA_2	5.79	0.99	140.3	A	N/A	0.0025	-18	50	
NEtFOSAA	5.83	1.00	7362.5	M	N/A	0.8897			
NEtFOSAA_2	5.83	1.00	6550.5	A	N/A	0.8897	47	50	
PFDoDA	6.04	1.00	64853.5	A	N/A	0.0058			
PFDoDA_2	6.05	1.00	377.2	A	N/A	0.0058	-45	50	
PFTTrDA	6.24	1.03	50138.2	A	N/A	0.0095			
PFTTrDA_2	6.23	1.03	477.5	A	N/A	0.0095	0	50	
PFTeDA	6.42	1.00	38771.2	A	N/A	0.0089			
PFTeDA_2	6.43	1.00	346.0	A	N/A	0.0089	65	50	OOS

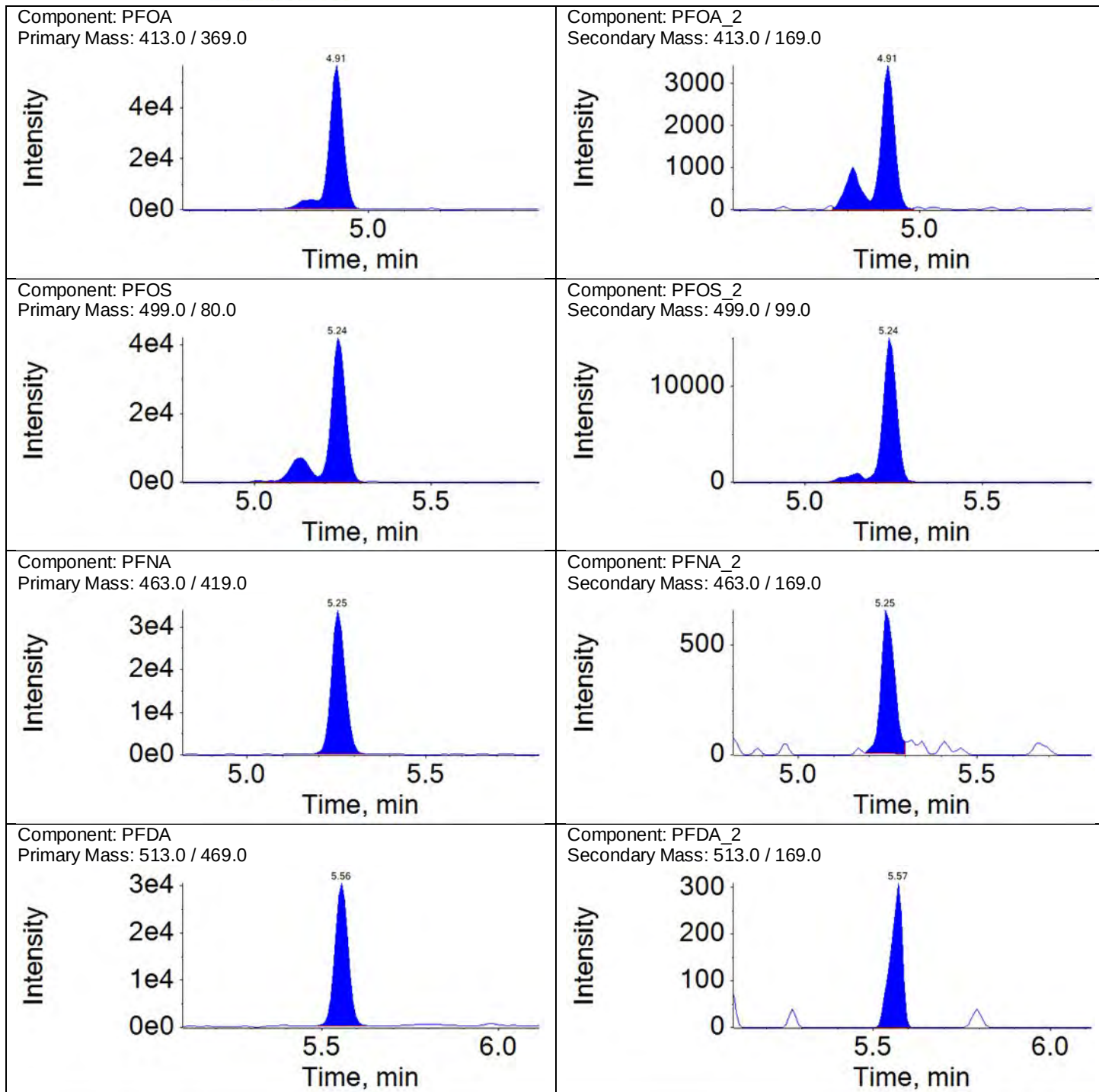
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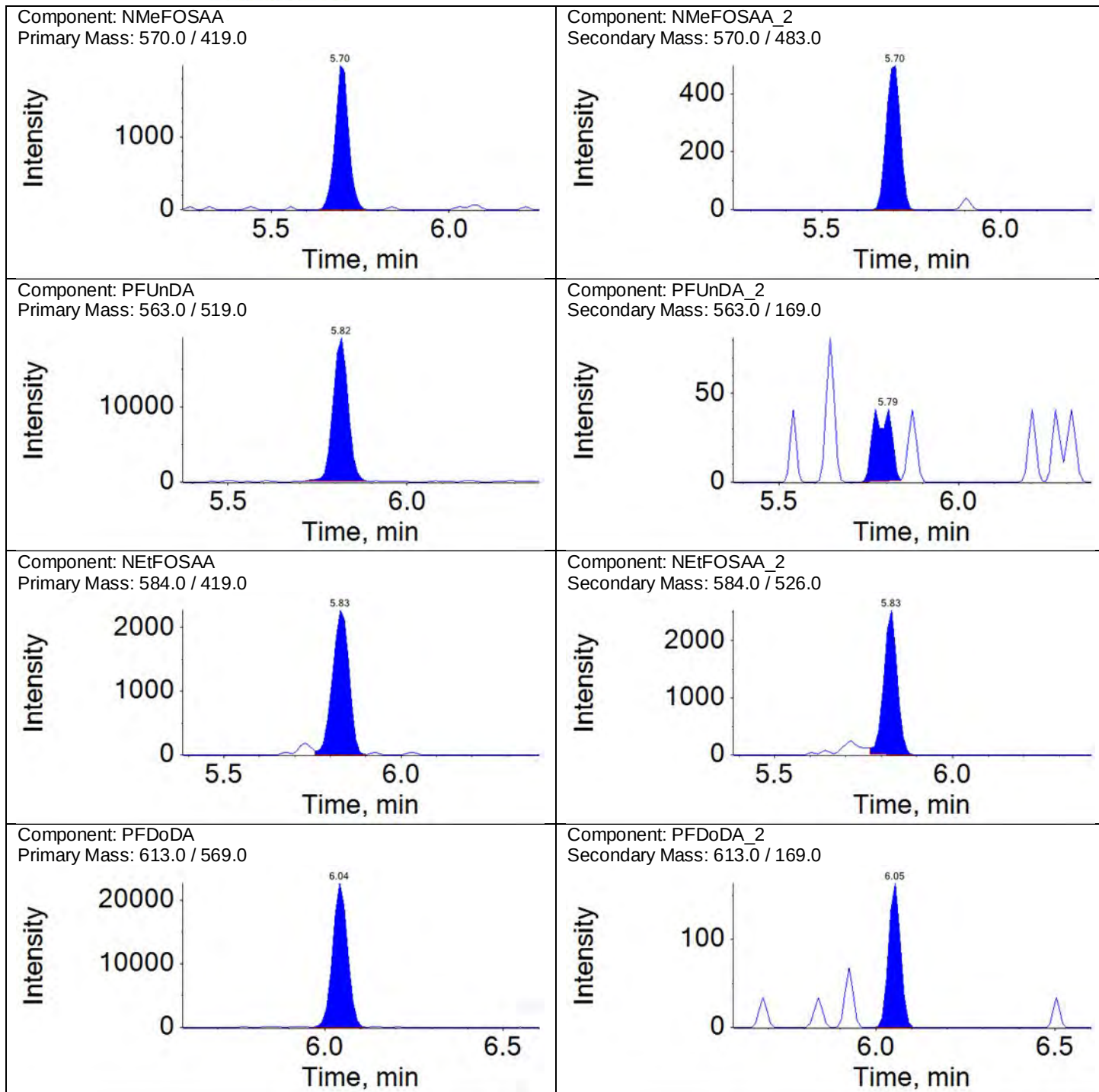
By MCD at 4:33 pm, 11/10/18

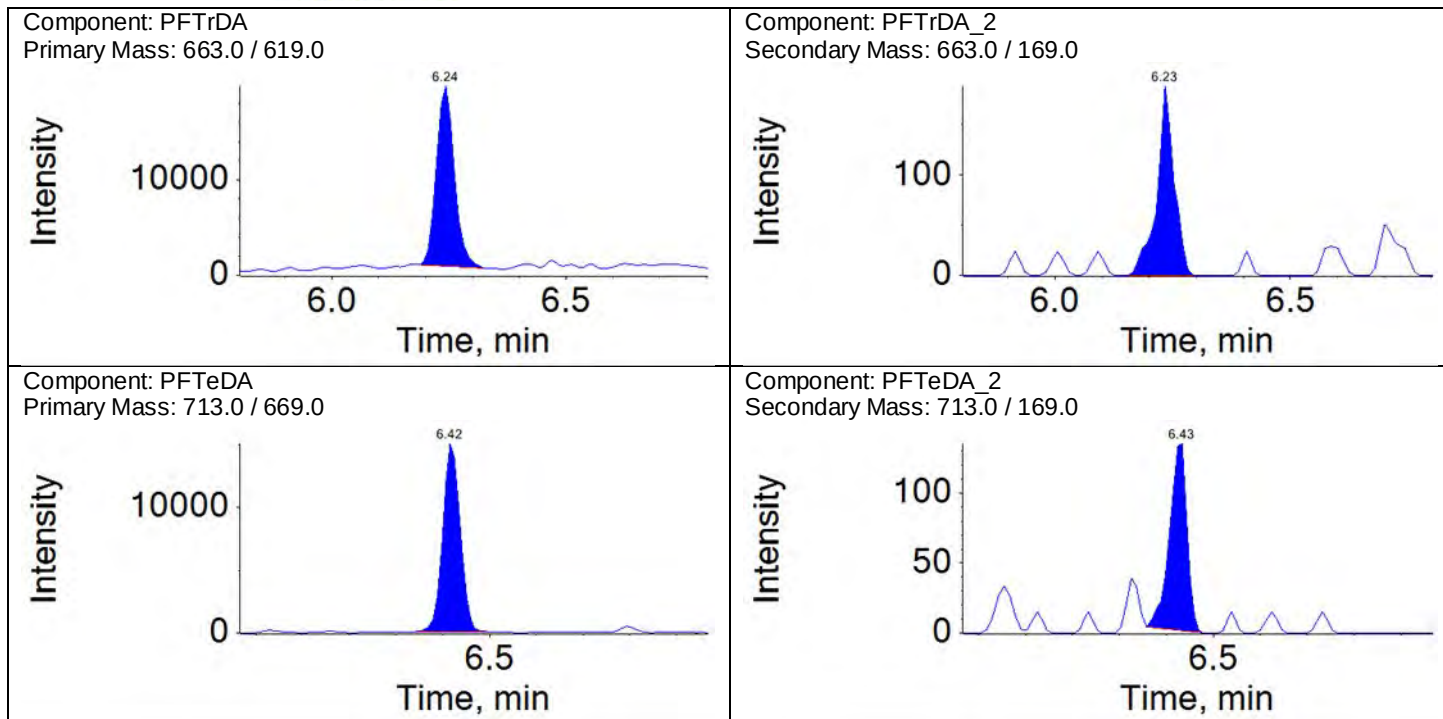
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By HMK at 9:08 am, 11/15/18







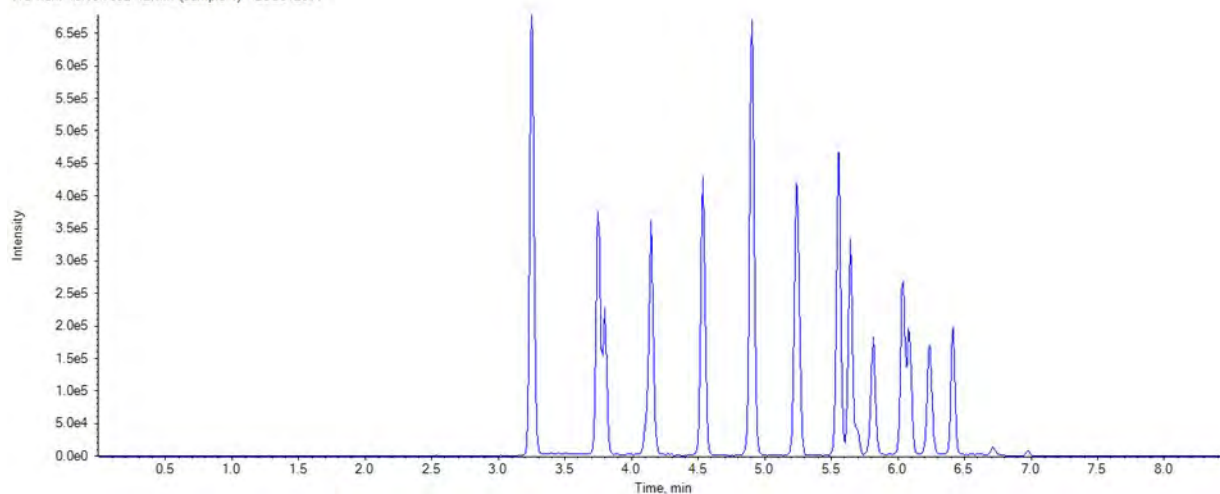


Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18312011 11/10/2018 4:20:40 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS312011	EPA 537 mod QSM 5.1 table B-15 18312011	18NOV09D-42.wiff	2018-11-09T10:48:48

TIC from 18NOV09D-42.wiff (sample 1) - LCS312011



Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.00	717779.3	725974.7	-1	50	
13C2-PFOA	5.00	503673.3	506876.7	-1	50	
13C4-PFOS	4.78	273220.3	274910.1	-1	50	
13C2-PFDA	5.00	312501.9	307276.7	2	50	

APPROVED

By MCD at 4:33 pm, 11/10/18

BSI14 Page 2034 of 2132

REVIEWED

By HMK at 9:08 am, 11/15/18

Page 1 of 3

Lab Control Sample Recovery

ICAL Name: 18NOV07DCAL Result Table: 18312011 11/10/2018 4:20:40 PM
QMethod Name: MQ4-18AUG13 Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS312011	EPA 537 mod QSM 5.1 table B-15 18312011	18NOV09D-42.wiff	2018-11-09T10:48:48

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	92891.1	733019.5	0.127	1.360	1.483	109	70-130	
PFPeA	94411.4	771159.0	0.122	1.360	1.455	107	70-130	
PFBS	45683.3	385221.2	0.119	1.202	1.196	99	70-130	
4:2-FTS	32367.1	50588.9	0.640	3.736	3.440	92	70-130	
PFHxA	113294.6	621060.4	0.182	1.360	1.565	115	70-130	
PFPeS	28550.3	385221.2	0.074	1.276	1.462	115	70-130	
PFHxS	38544.3	306341.5	0.126	1.286	1.276	99	70-130	
PFHpA	115802.8	505523.0	0.229	1.360	1.541	113	70-130	
6:2-FTS	25551.9	32945.1	0.776	3.792	3.870	102	70-130	
PFHpS	35407.8	306341.5	0.116	1.294	1.209	93	70-130	
PFOA	121004.6	851693.9	0.142	1.360	1.600	118	70-130	
PFOS	36500.9	265570.6	0.137	1.300	1.425	110	70-130	
PFNA	98354.6	449891.8	0.219	1.360	1.634	120	70-130	
PFNS	25320.7	265570.6	0.095	1.306	1.512	116	70-130	
PFDA	77999.4	572484.8	0.136	1.360	1.499	110	70-130	
8:2-FTS	19464.8	27035.2	0.720	3.832	3.246	85	70-130	
PFOSA	81093.8	645133.3	0.126	1.360	1.359	100	70-130	
NMeFOSAA	7867.1	79346.9	0.099	1.360	1.020	75	70-130	
PFDS	17587.0	265570.6	0.066	1.310	1.265	97	70-130	
PFUnDA	64897.5	261945.5	0.248	1.360	1.421	104	70-130	
NEtFOSAA	6901.2	61259.5	0.113	1.360	0.968	71	70-130	
PFDoDA	67605.7	536643.0	0.126	1.360	1.365	100	70-130	
10:2-FTS	14692.2	27035.2	0.543	3.856	3.384	88	70-130	
NMePFOSAE	51835.4	312958.5	0.166	1.360	1.484	109	70-130	
NMePFOSA	10295.6	78821.1	0.131	1.360	1.462	108	70-130	
PFDoS	8434.2	265570.6	0.032	1.316	1.226	93	70-130	
NEtPFOSAE	52433.2	258635.6	0.203	1.360	1.300	96	70-130	
NEtPFOSA	7894.0	59704.3	0.132	1.360	1.165	86	70-130	
PFTTrDA	53978.2	536643.0	0.101	1.360	1.269	93	70-130	
PFTeDA	46555.7	376081.5	0.124	1.360	1.454	107	70-130	
PFHxDA	22845.1	376081.5	0.061	1.360	1.508	111	70-130	
PFODA	17163.6	376081.5	0.046	1.360	1.308	96	70-130	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Lab Control Sample Recovery

Result Table: 18312011 11/10/2018 4:20:40 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 4:33 pm, 11/10/18

REVIEWED
By HMK at 9:08 am, 11/15/18

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

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Sample ID:	EPA 537 mod QSM 5.1 table B-15 18312011		Acquis Date:	2018-11-09T10:48:48
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	14		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18312011
QMethod File:	MQ4-18AUG13		ICAL Name:	18NOV07DCAL
Batch Number:	18312011		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV09D-03

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	717779.3	725974.7	-1	50	
13C2-PFOA	5.0	503673.3	506876.7	-1	50	
13C4-PFOS	4.8	273220.3	274910.1	-1	50	
13C2-PFDA	5.0	312501.9	307276.7	2	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	733019.5	13C3-PFBA	717779.3	1.021	10.000	9.452	95	50-150	
E13C5-PFPeA	771159.0	13C3-PFBA	717779.3	1.074	10.000	9.361	94	50-150	
E13C3-PFBS	385221.2	13C3-PFBA	717779.3	0.537	9.300	7.878	85	50-150	
E13C2-4:2-FTS	50588.9	13C2-PFOA	503673.3	0.100	9.340	9.064	97	50-150	
E13C5-PFHxA	621060.4	13C2-PFOA	503673.3	1.233	10.000	9.072	91	50-150	
E13C3-PFHxS	306341.5	13C2-PFOA	503673.3	0.608	9.460	8.733	92	50-150	
E13C4-PFHpA	505523.0	13C2-PFOA	503673.3	1.004	10.000	9.132	91	50-150	
E13C2-6:2-FTS	32945.1	13C2-PFOA	503673.3	0.065	9.500	8.724	92	50-150	
E13C8-PFOA	851693.9	13C2-PFOA	503673.3	1.691	10.000	9.431	94	50-150	
E13C8-PFOS	265570.6	13C4-PFOS	273220.3	0.972	9.560	8.596	90	50-150	
E13C9-PFNA	449891.8	13C4-PFOS	273220.3	1.647	10.000	8.996	90	50-150	
E13C6-PFDA	572484.8	13C2-PFDA	312501.9	1.832	10.000	9.214	92	50-150	
E13C2-8:2-FTS	27035.2	13C2-PFDA	312501.9	0.087	9.580	9.155	96	50-150	
E13C8-PFOSA	645133.3	13C2-PFDA	312501.9	2.064	10.000	9.010	90	50-150	
Ed3-NMeFOSAA	79346.9	13C2-PFDA	312501.9	0.254	10.000	9.443	94	50-150	
E13C7-PFUnDA	261945.5	13C2-PFDA	312501.9	0.838	10.000	9.671	97	50-150	
Ed5-NetFOSAA	61259.5	13C2-PFDA	312501.9	0.196	10.000	9.073	91	50-150	
E13C2-PFDoDA	536643.0	13C2-PFDA	312501.9	1.717	10.000	9.259	93	50-150	
Ed7-NMePFOSAE	312958.5	13C2-PFDA	312501.9	1.001	10.000	9.314	93	50-150	
Ed3-NMePFOSA	78821.1	13C2-PFDA	312501.9	0.252	10.000	9.235	92	50-150	
Ed9-NetPFOSAE	258635.6	13C2-PFDA	312501.9	0.828	10.000	9.453	95	50-150	
Ed5-NetPFOSA	59704.3	13C2-PFDA	312501.9	0.191	10.000	8.847	88	50-150	
E13C2-PFTeDA	376081.5	13C2-PFDA	312501.9	1.203	10.000	8.665	87	50-150	

ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: LCS312011

Instrument Name: LM27631

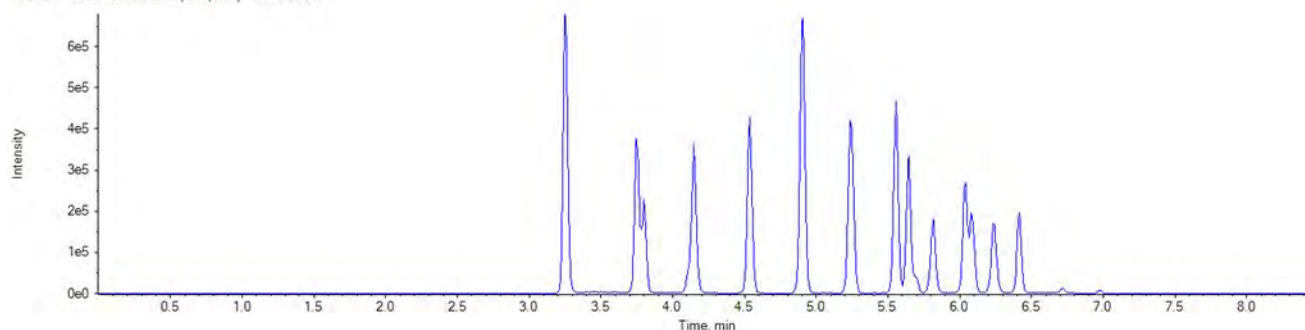
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.25	1.000	92891.1		A	13C4-PFBA	3.25	733019.5	0.127	1.483
PFPeA	3.75	1.000	94411.4		A	13C5-PFPeA	3.75	771159.0	0.122	1.455
PFBS	3.80	1.000	45683.3		A	13C3-PFBS	3.80	385221.2	0.119	1.196
4:2-FTS	4.11	1.000	32367.1		A	13C2-4:2-FTS	4.11	50588.9	0.640	3.440
PFHxA	4.15	1.000	113294.6		A	13C5-PFHxA	4.15	621060.4	0.182	1.565
PFPeS	4.17	1.100	28550.3		A	13C3-PFBS	3.80	385221.2	0.074	1.462
PFHxS	4.54	1.000	38544.3		A	13C3-PFHxS	4.54	306341.5	0.126	1.276
PFHpA	4.54	1.000	115802.8		A	13C4-PFHpA	4.53	505523.0	0.229	1.541
6:2-FTS	4.89	1.000	25551.9		A	13C2-6:2-FTS	4.89	32945.1	0.776	3.870
PFHpS	4.90	1.080	35407.8		A	13C3-PFHxS	4.54	306341.5	0.116	1.209
PFOA	4.90	1.000	121004.6		A	13C8-PFOA	4.90	851693.9	0.142	1.600
PFOS	5.23	1.000	36500.9		M	13C8-PFOS	5.23	265570.6	0.137	1.425
PFNA	5.25	1.000	98354.6		A	13C9-PFNA	5.25	449891.8	0.219	1.634
PFNS	5.54	1.060	25320.7		A	13C8-PFOS	5.23	265570.6	0.095	1.512
PFDA	5.56	1.000	77999.4		M	13C6-PFDA	5.55	572484.8	0.136	1.499
8:2-FTS	5.56	1.000	19464.8		A	13C2-8:2-FTS	5.56	27035.2	0.720	3.246
PFOSA	5.64	1.000	81093.8		A	13C8-PFOSA	5.64	645133.3	0.126	1.359
NMeFOSAA	5.70	1.000	7867.1		A	d3-NMeFOSAA	5.70	79346.9	0.099	1.020
PFDS	5.79	1.110	17587.0		A	13C8-PFOS	5.23	265570.6	0.066	1.265
PfUnDA	5.81	1.000	64897.5		A	13C7-PfUnDA	5.81	261945.5	0.248	1.421
NEtFOSAA	5.83	1.000	6901.2		A	d5-NEtFOSAA	5.82	61259.5	0.113	0.968
PFDODA	6.04	1.000	67605.7		A	13C2-PFDODA	6.04	536643.0	0.126	1.365
10:2-FTS	6.05	1.090	14692.2		A	13C2-8:2-FTS	5.56	27035.2	0.543	3.384
NMePFOSAE	6.09	1.000	51835.4		A	d7-NMePFOSAE	6.08	312958.5	0.166	1.484
NMePFOSA	6.10	1.000	10295.6		A	d3-NMePFOSA	6.10	78821.1	0.131	1.462
PFDoS	6.21	1.190	8434.2		A	13C8-PFOS	5.23	265570.6	0.032	1.226
NEtPFOSAE	6.25	1.000	52433.2		A	d9-NEtPFOSAE	6.23	258635.6	0.203	1.300
NEtPFOSA	6.26	1.000	7894.0		A	d5-NEtPFOSA	6.25	59704.3	0.132	1.165
PFTDA	6.23	1.030	53978.2		M	13C2-PFDODA	6.04	536643.0	0.101	1.269
PFTeDA	6.41	1.000	46555.7		A	13C2-PFTeDA	6.41	376081.5	0.124	1.454
PFHxDA	6.72	1.050	22845.1		A	13C2-PFTeDA	6.41	376081.5	0.061	1.508
PFODA	6.98	1.090	17163.6		A	13C2-PFTeDA	6.41	376081.5	0.046	1.308

Total Ion Chromatogram

TIC from 18NOV09D-42.wiff (sample 1) - LCS312011



APPROVED

By MCD at 4:33 pm, 11/10/18

BSI14 Page 2038 of 2132

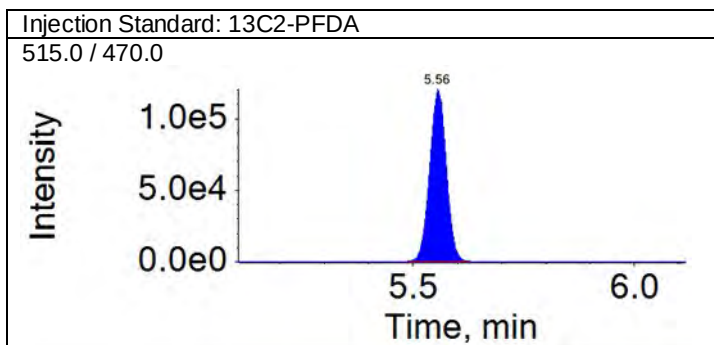
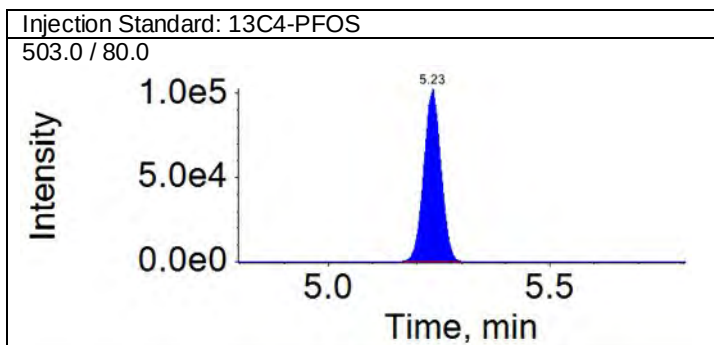
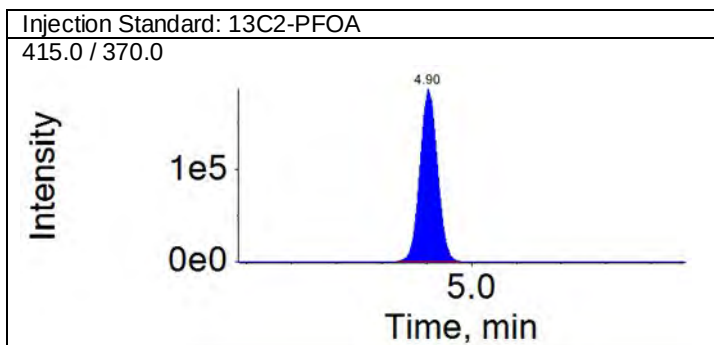
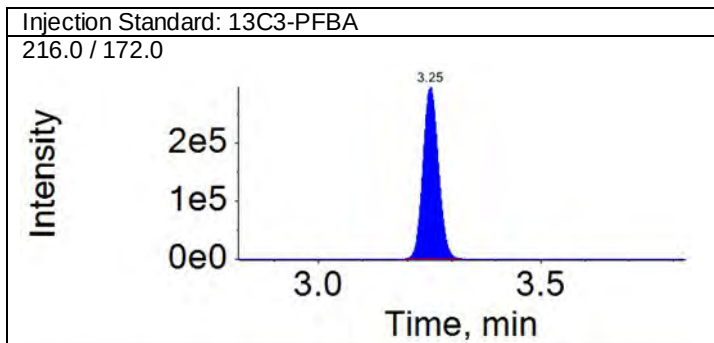
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By HMK at 9:08 am, 11/15/18

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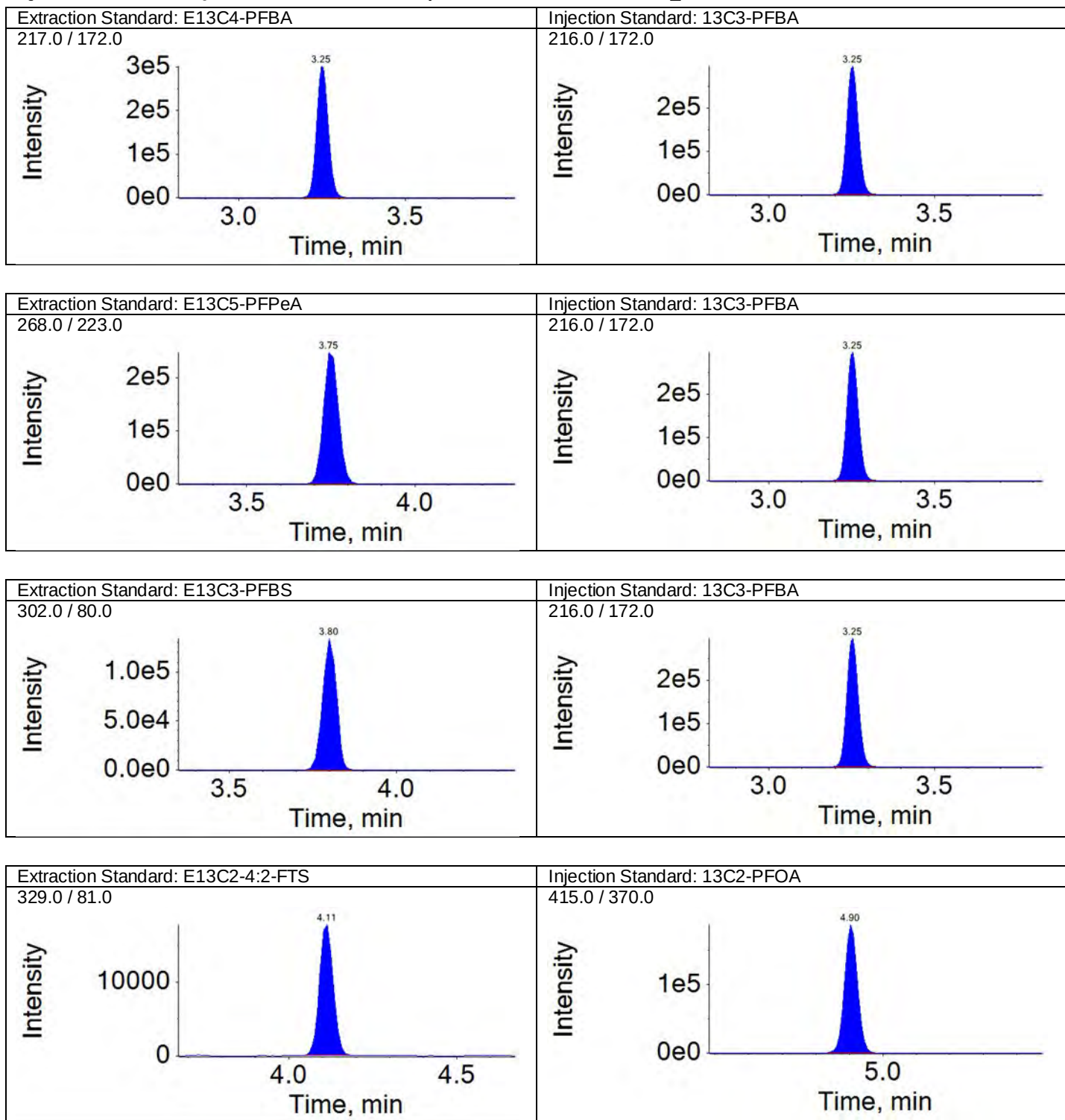
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Result Table: 18312011 11/10/2018 4:23:04 PM
Acquisition Method: 18AUG13_3uL.dam



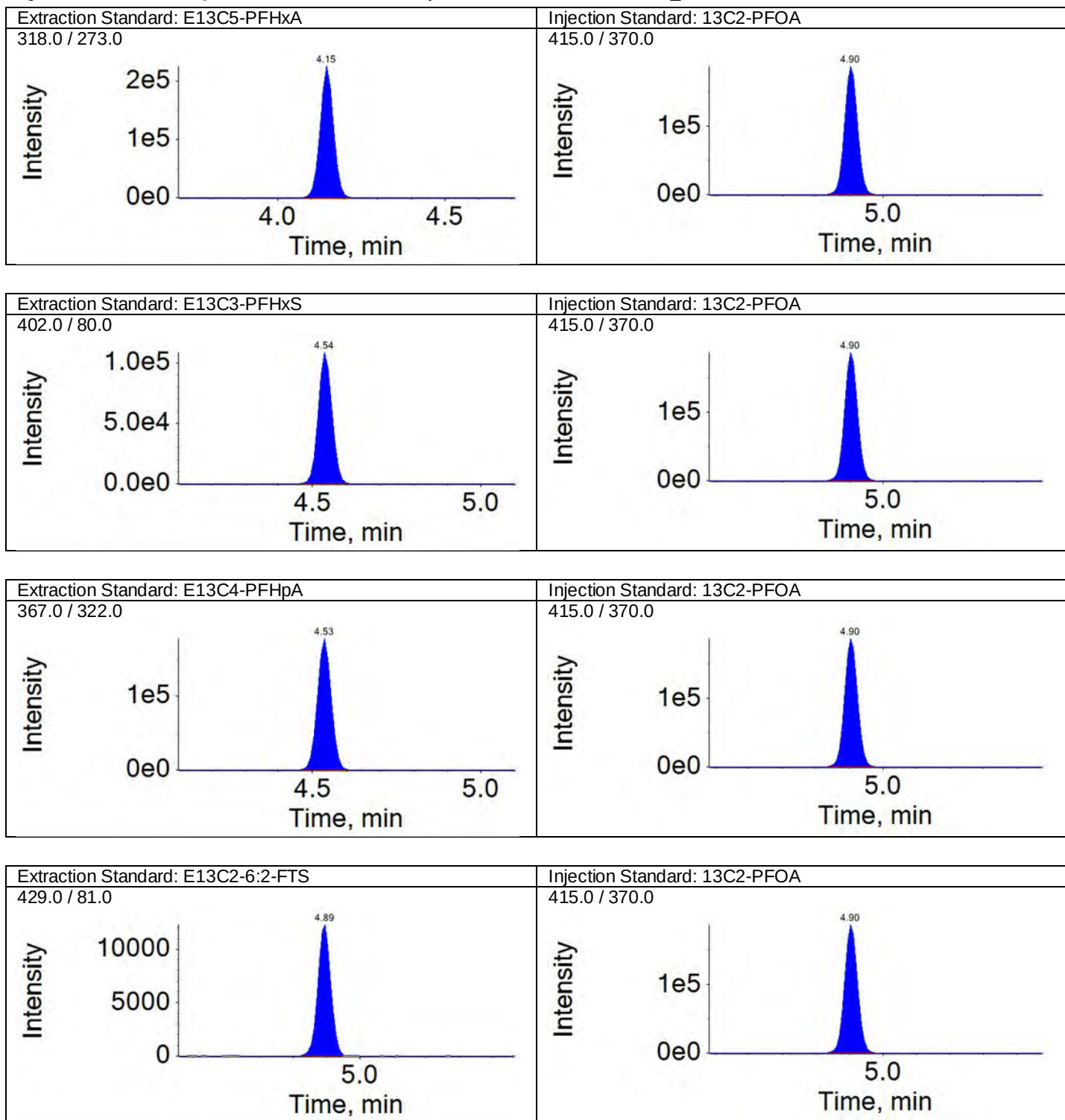
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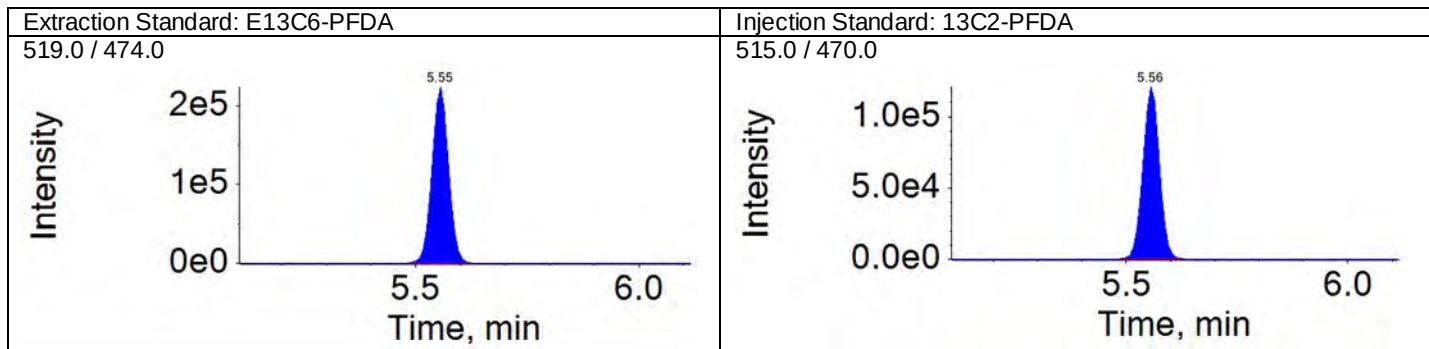
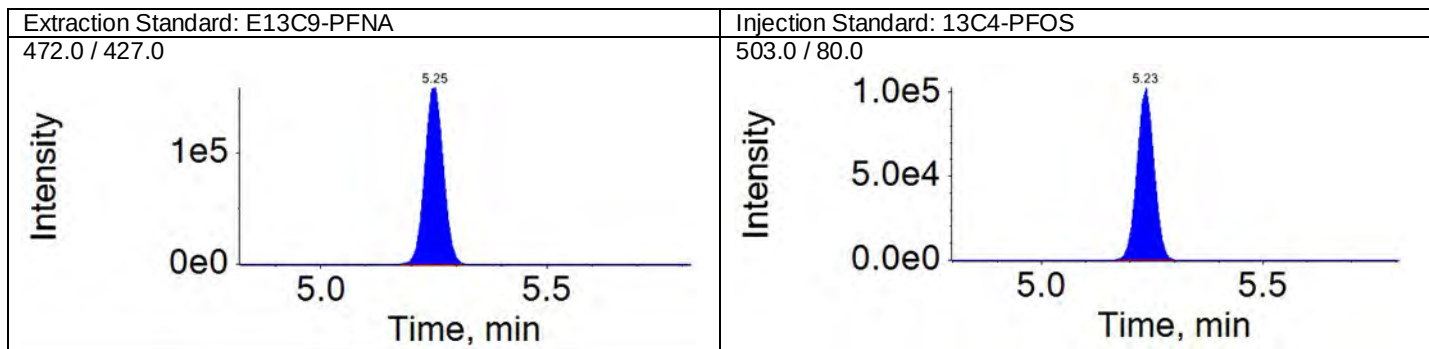
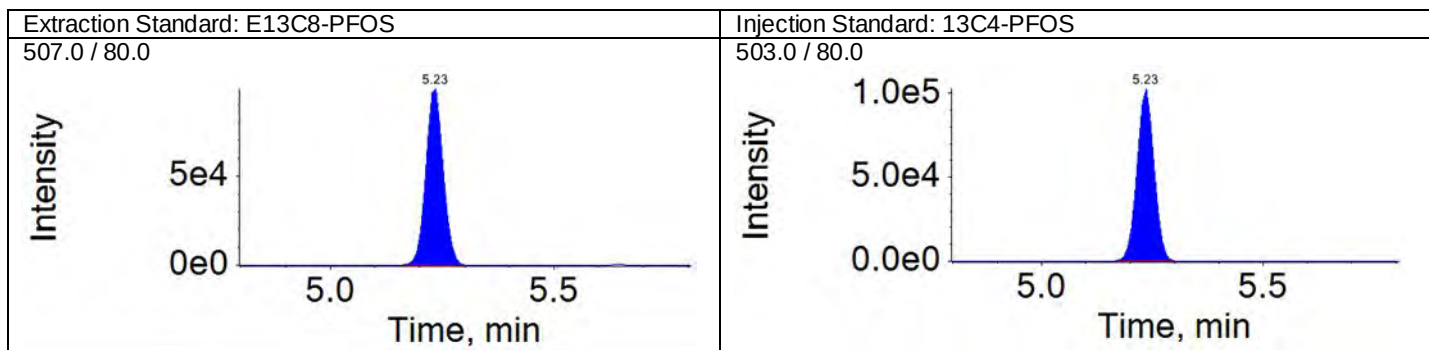
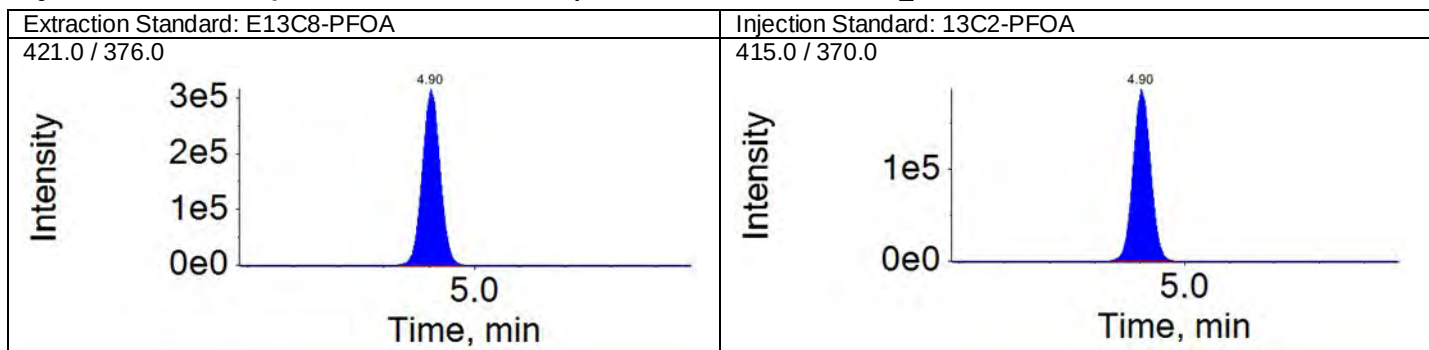
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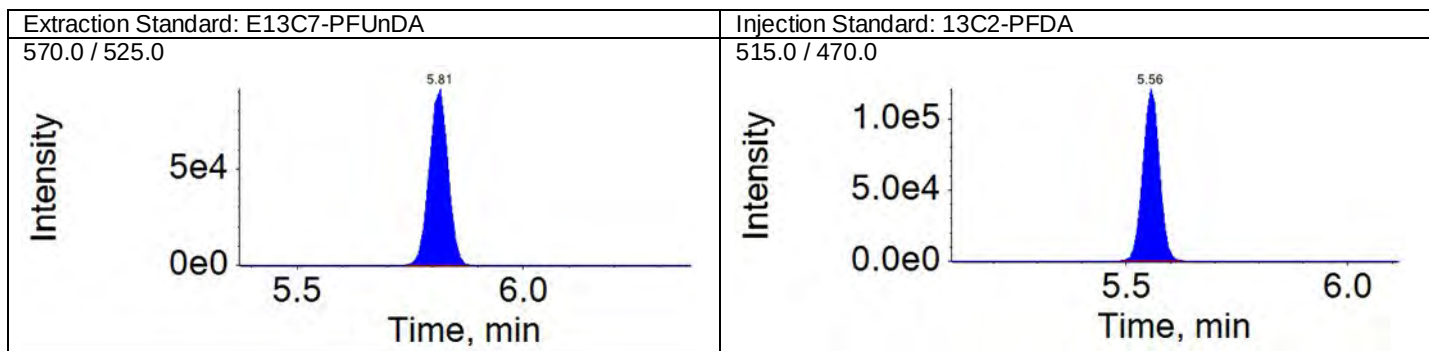
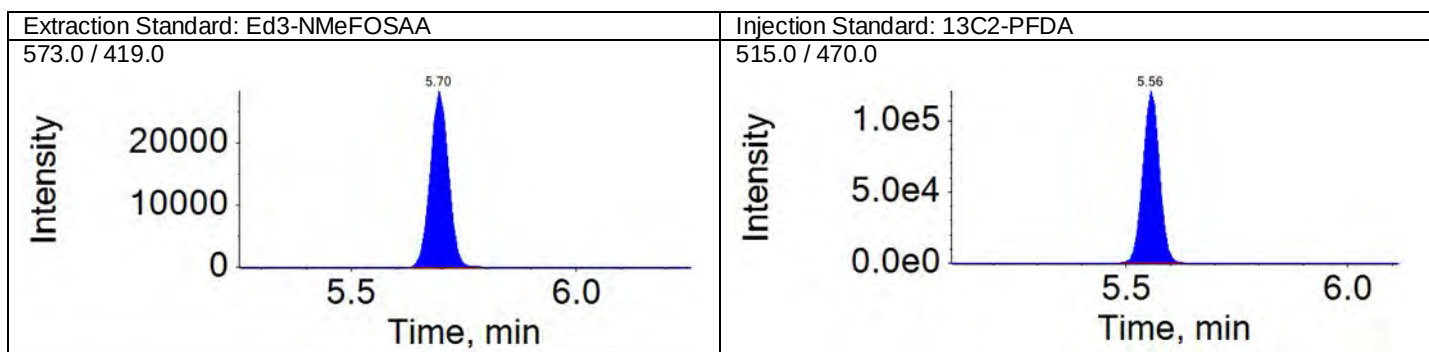
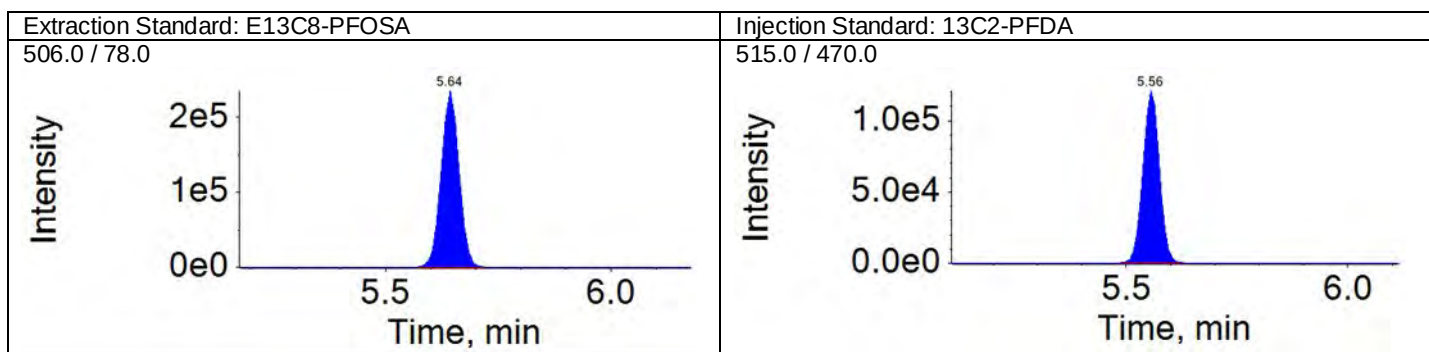
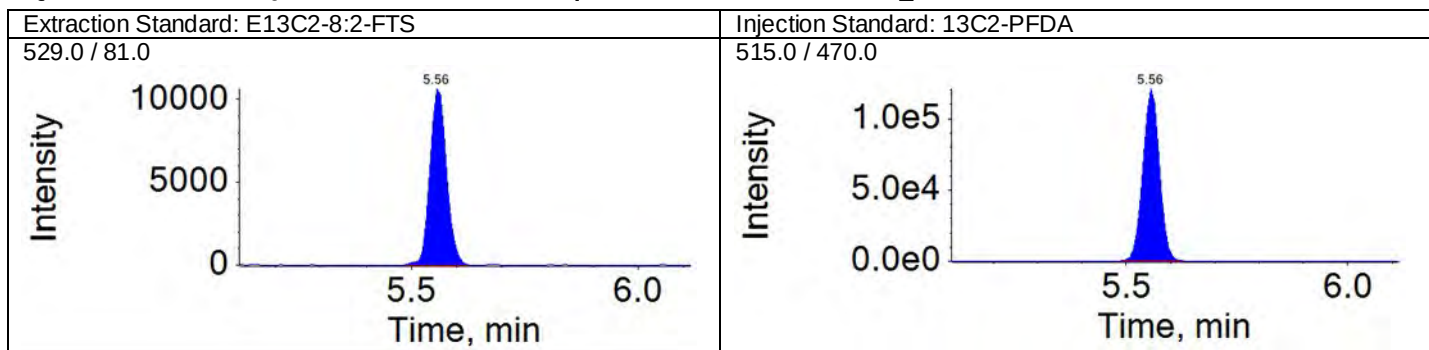
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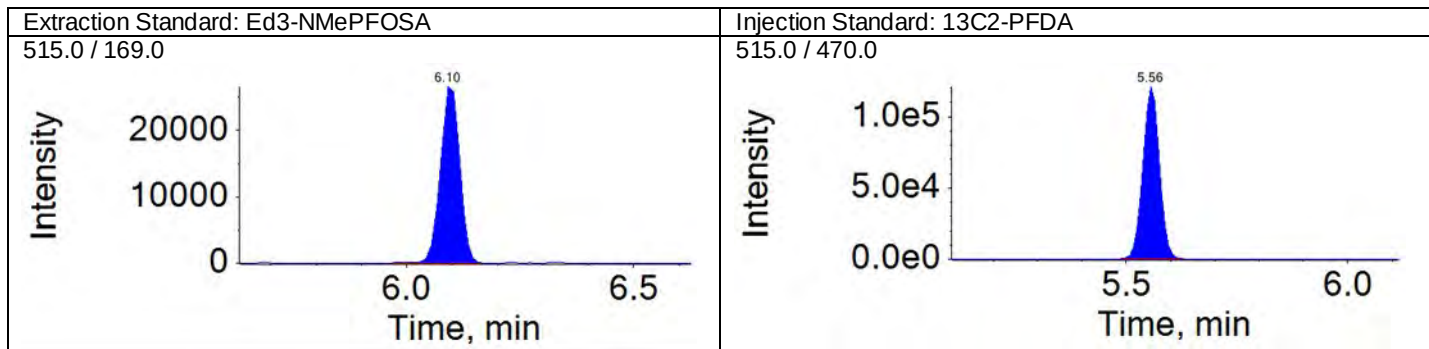
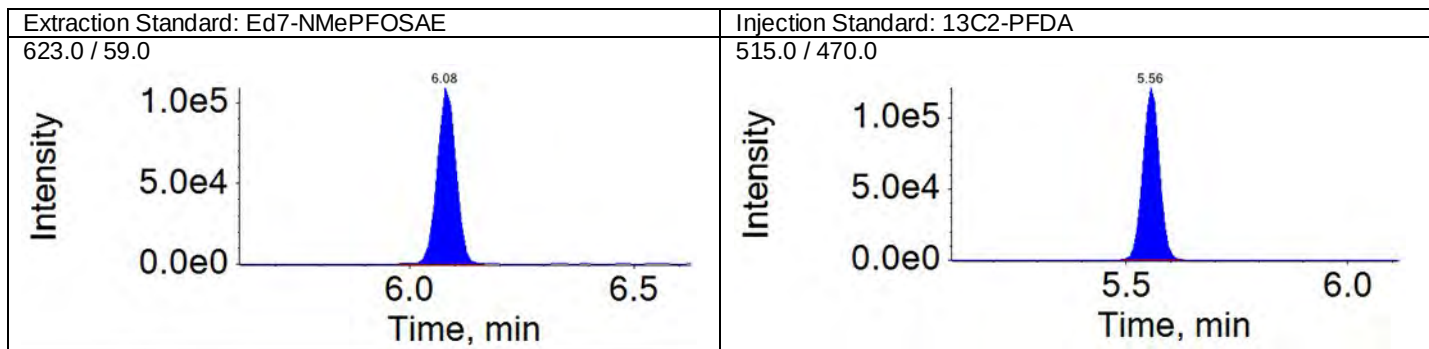
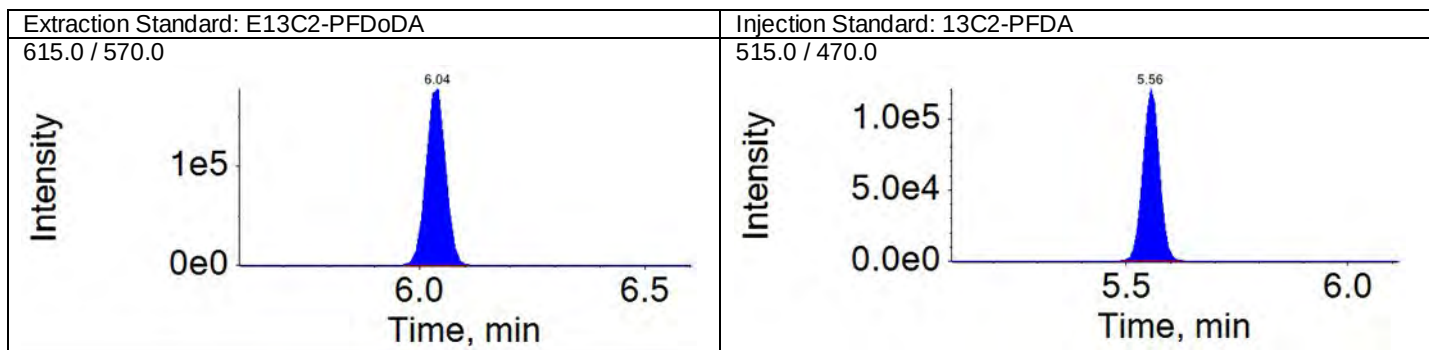
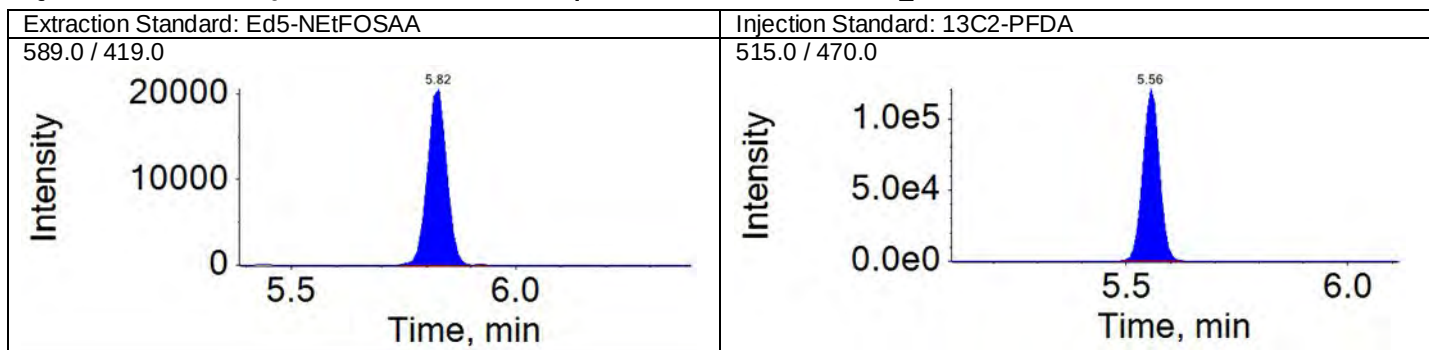
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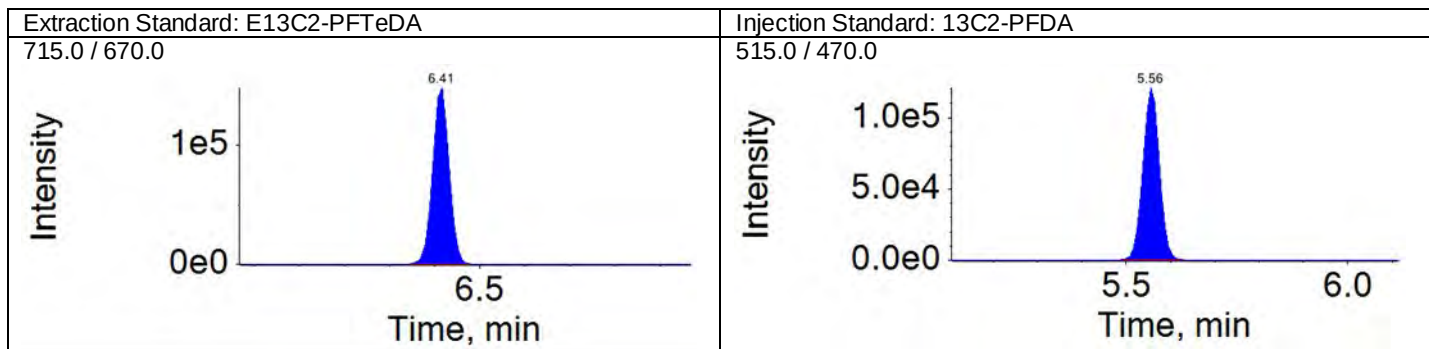
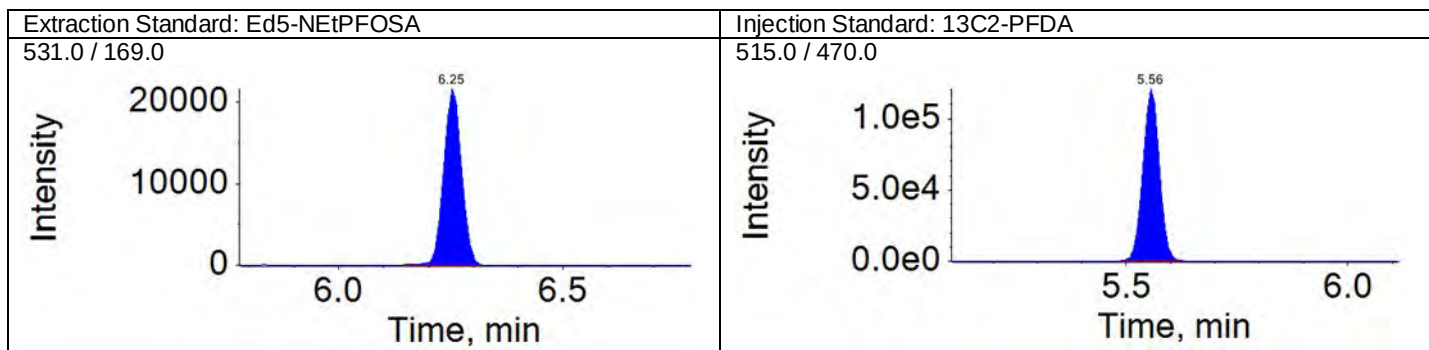
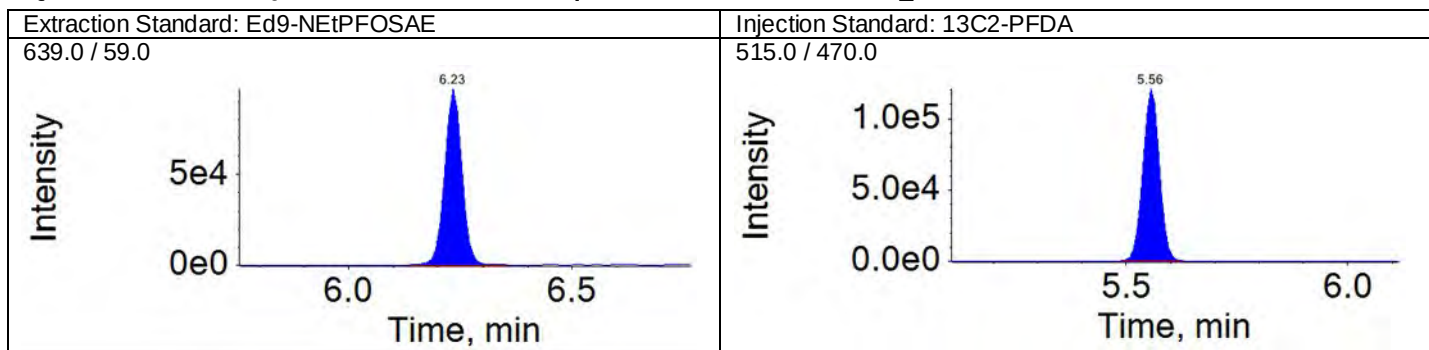
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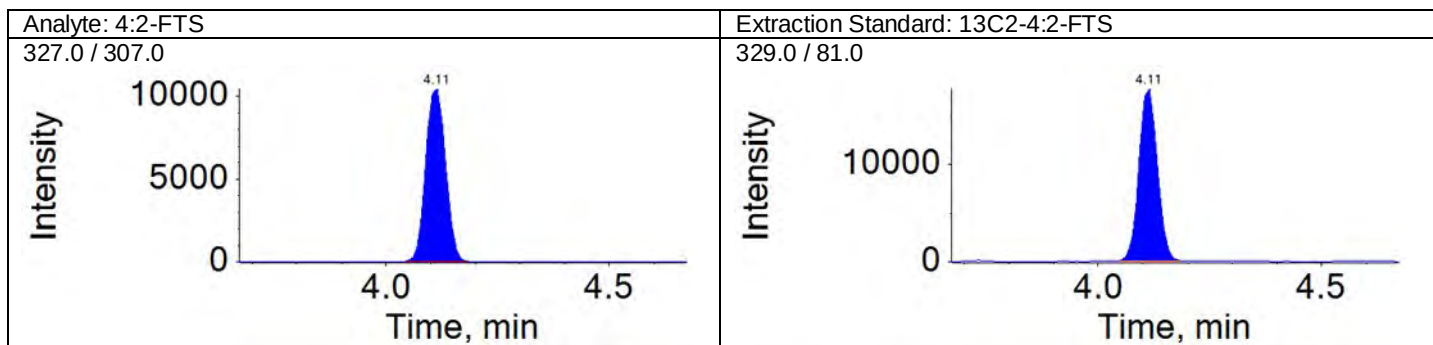
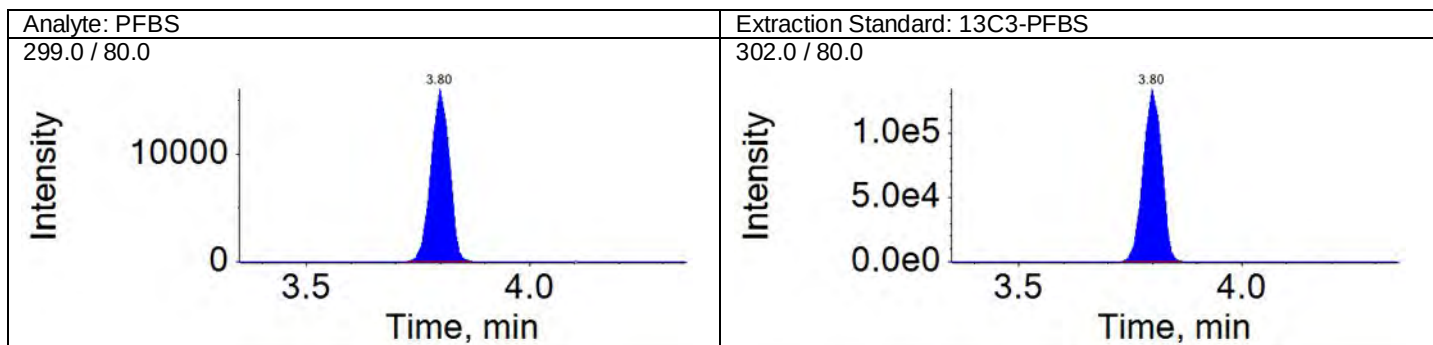
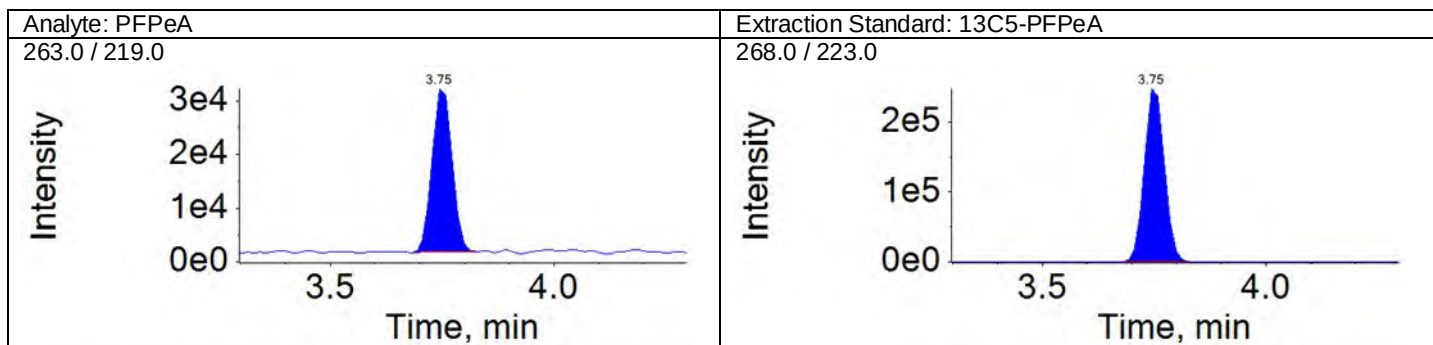
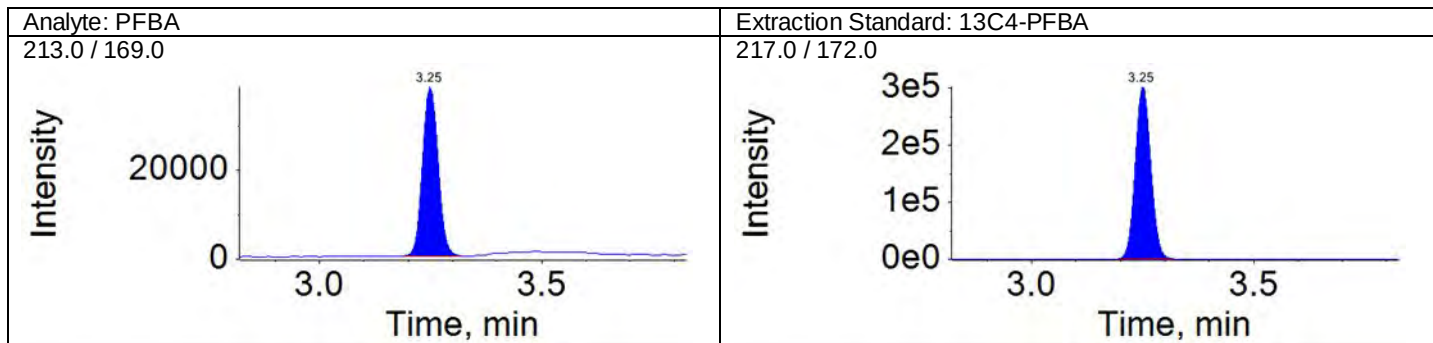
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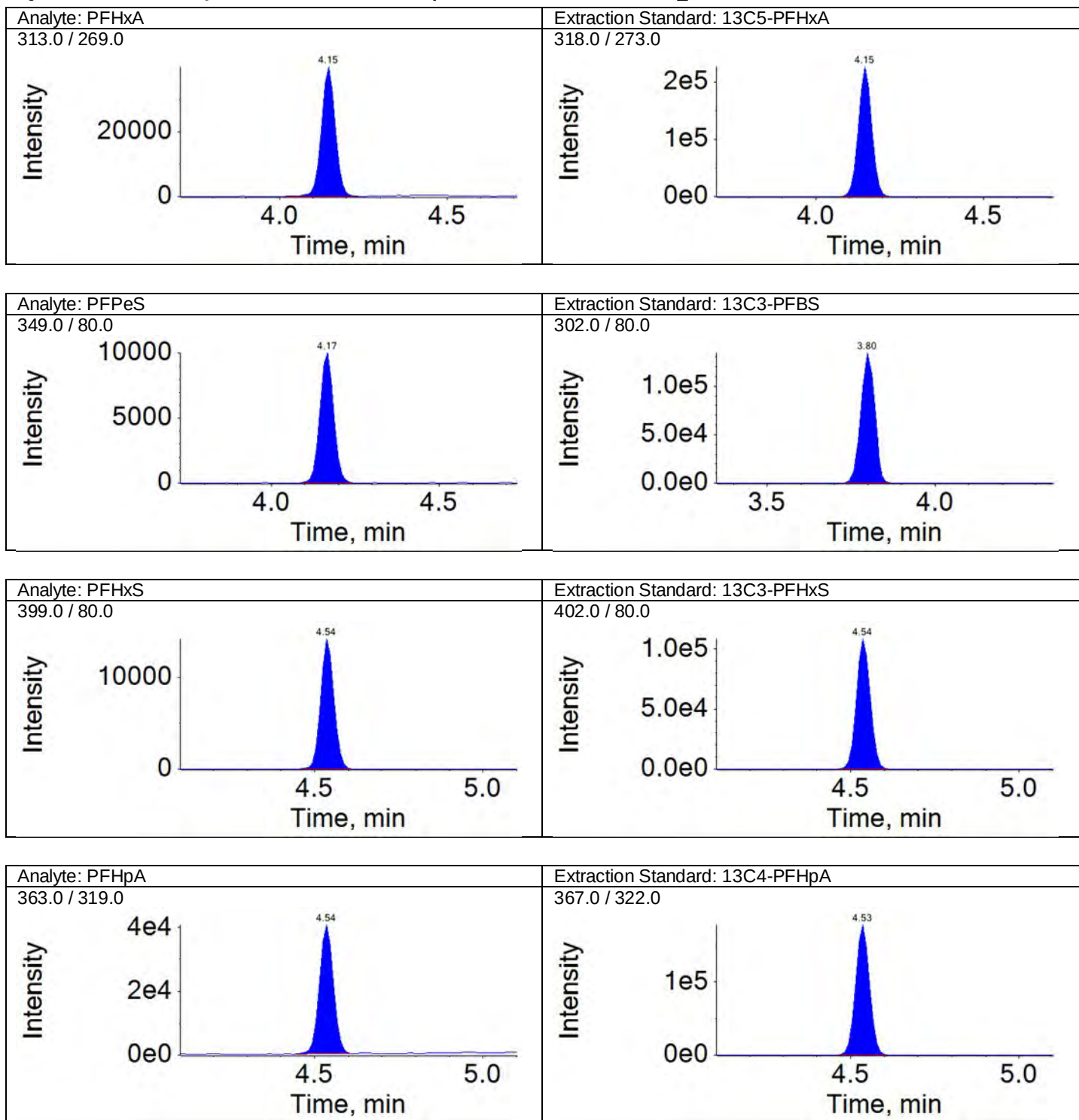
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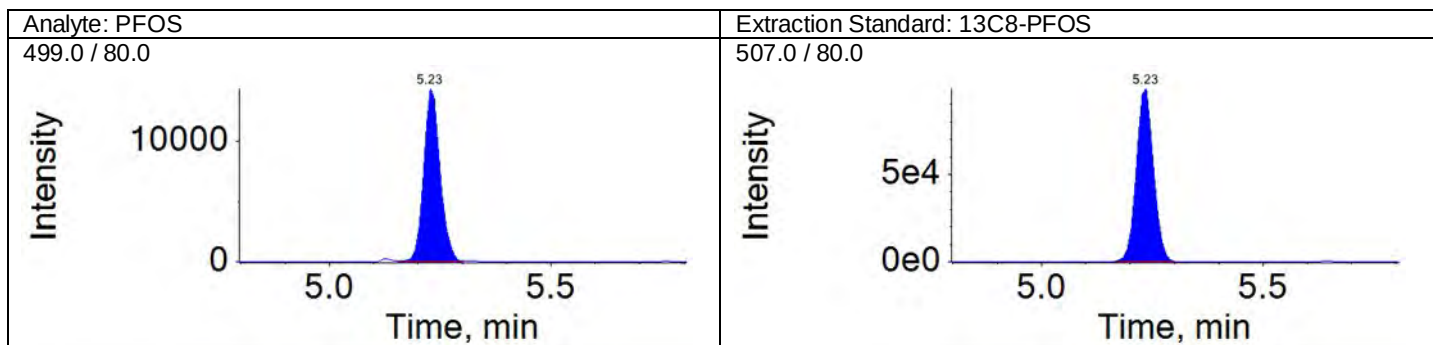
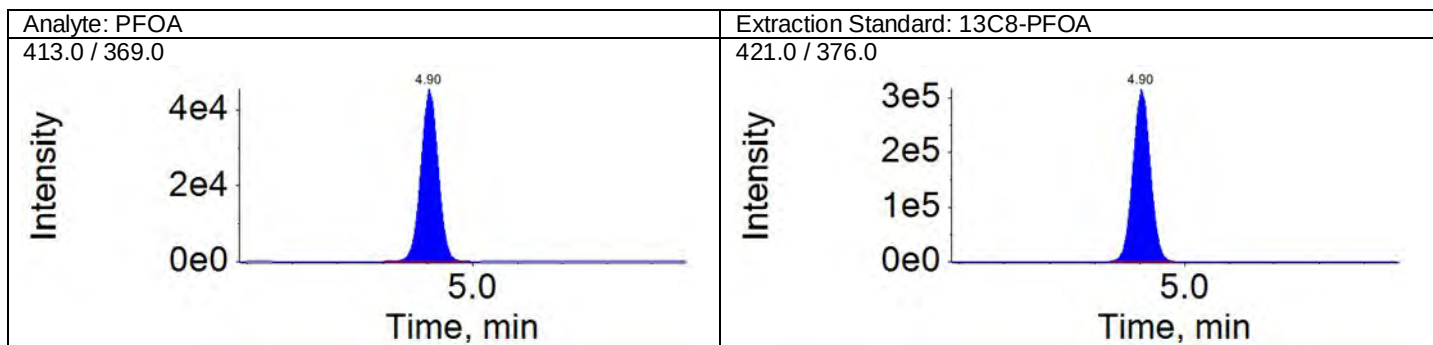
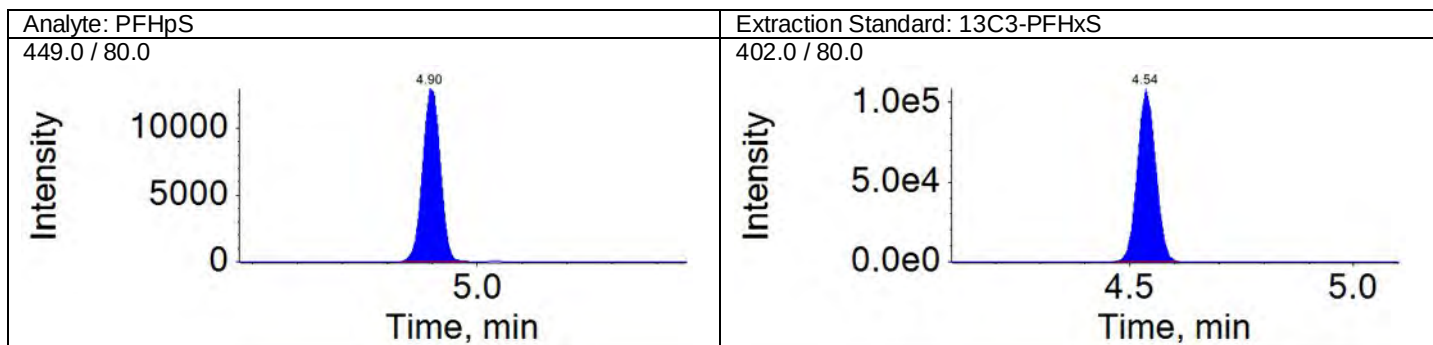
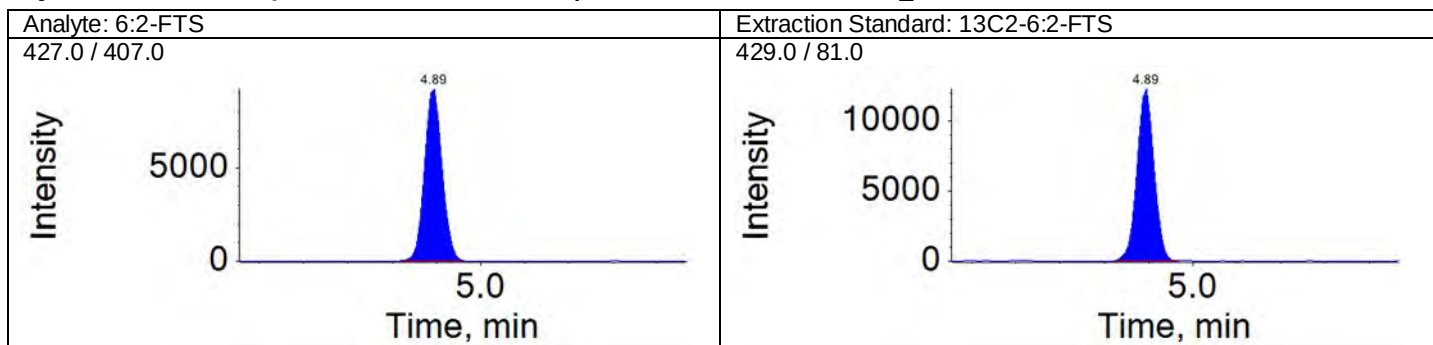
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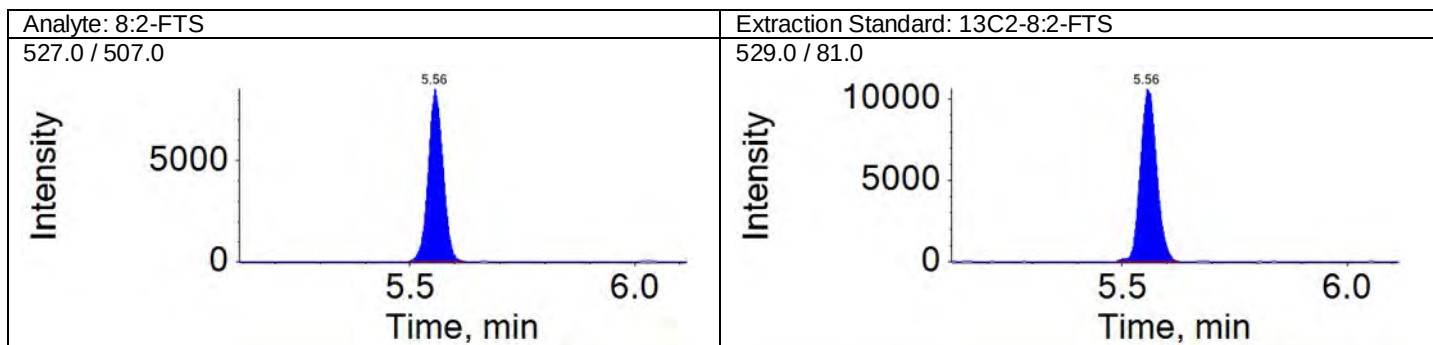
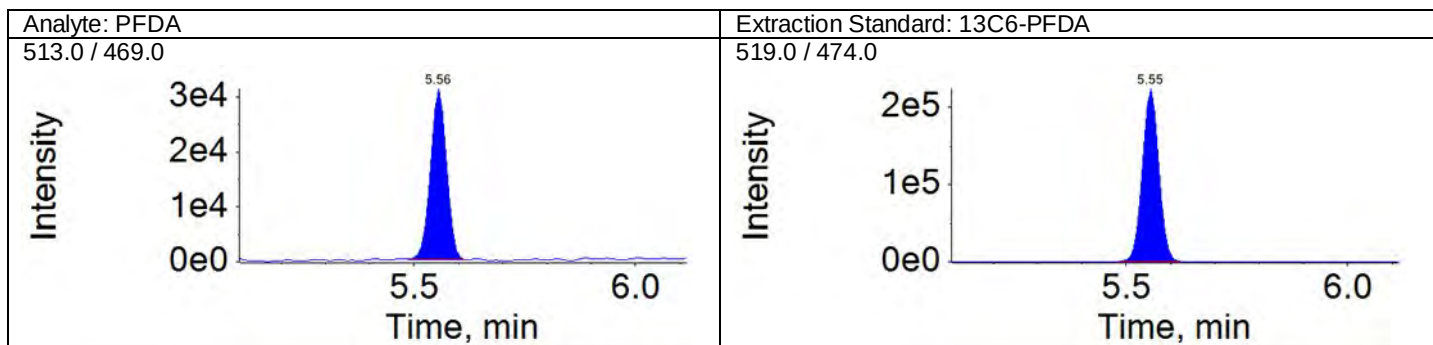
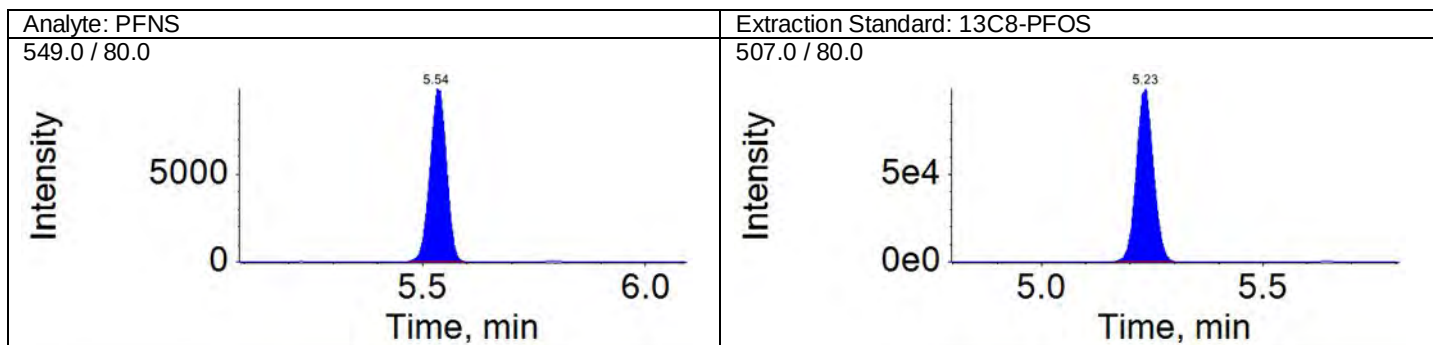
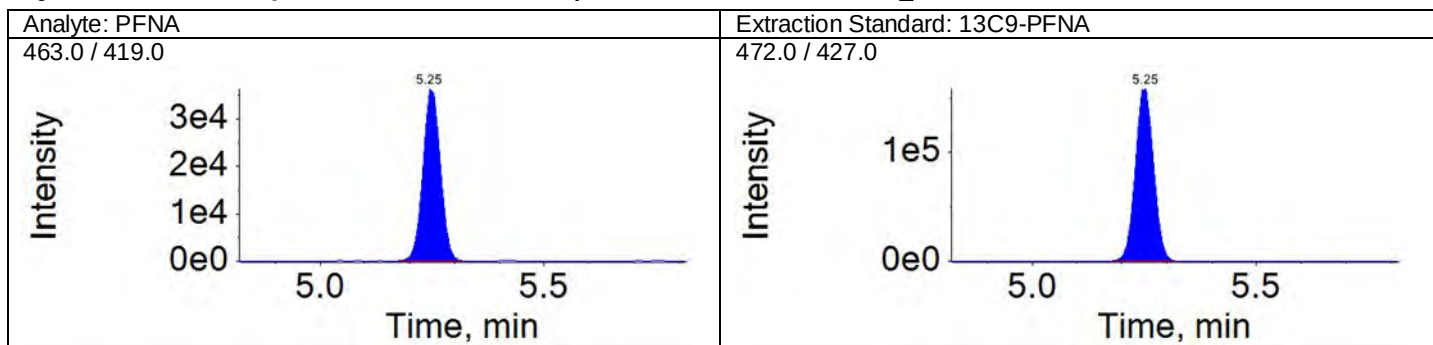
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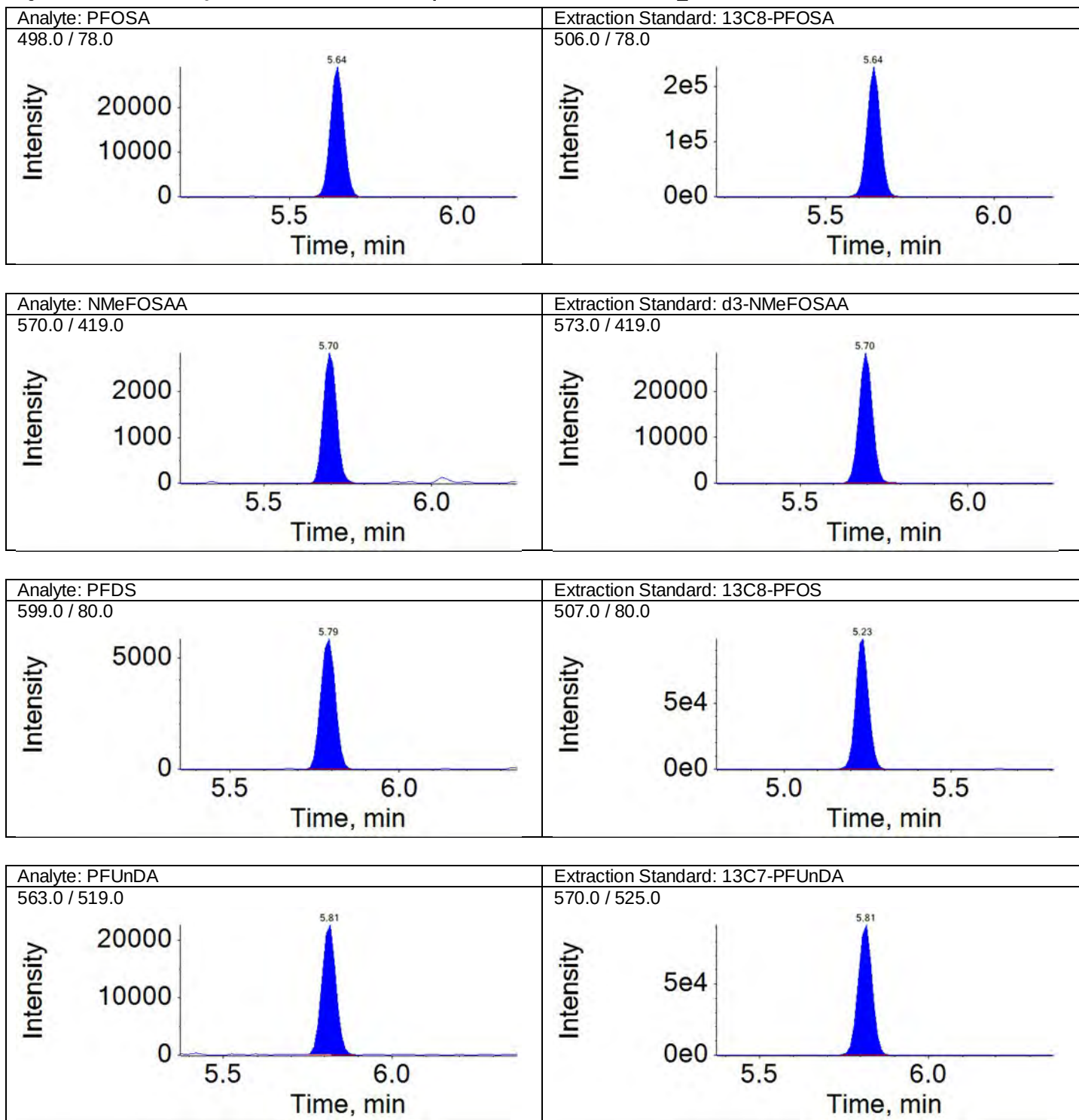
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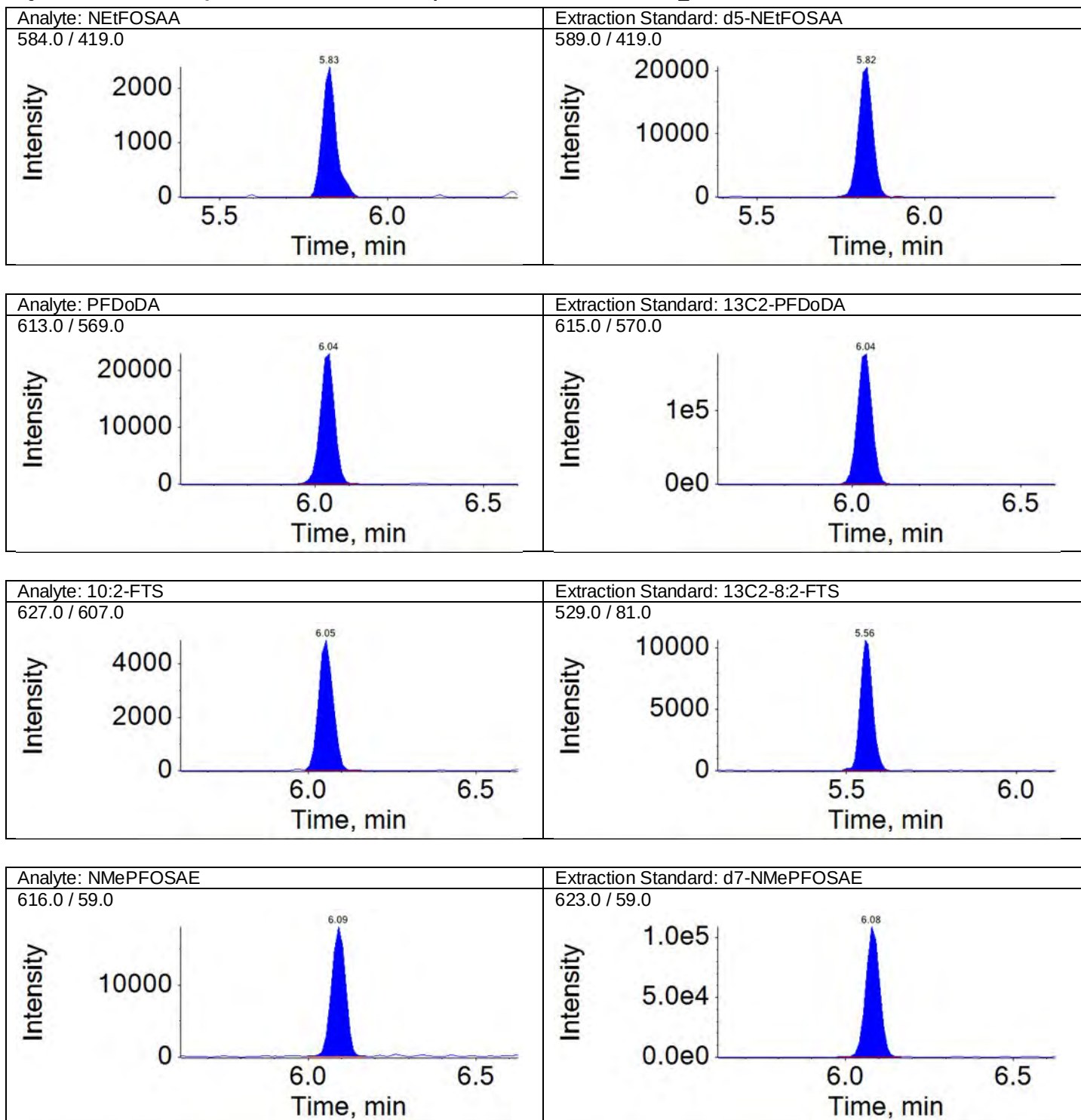
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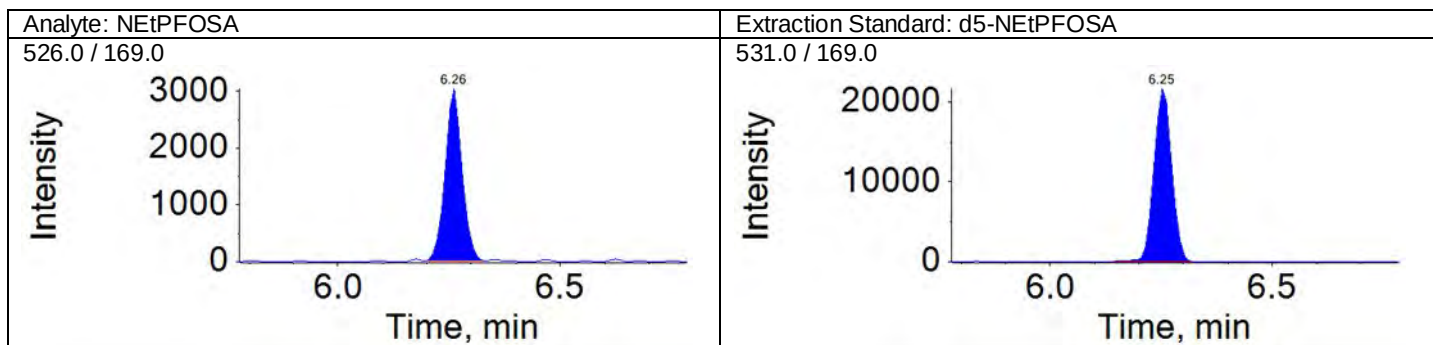
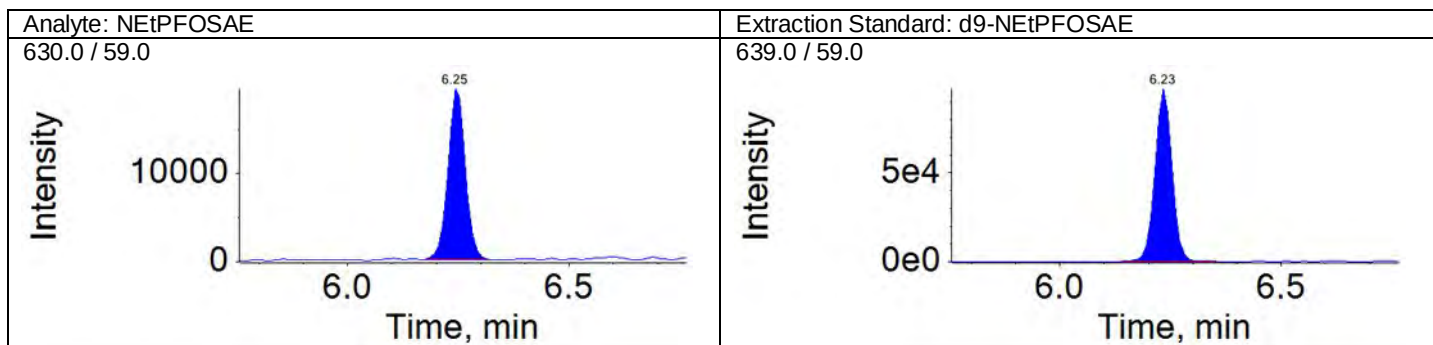
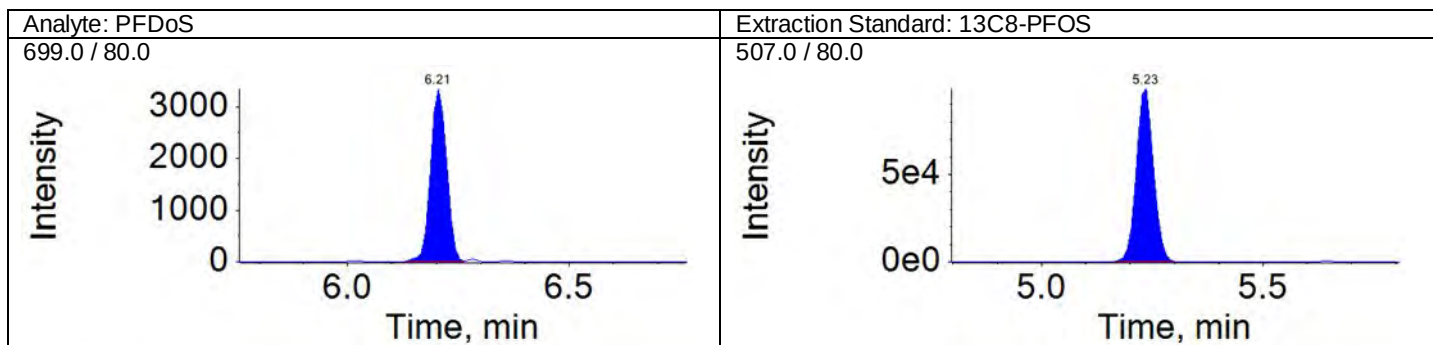
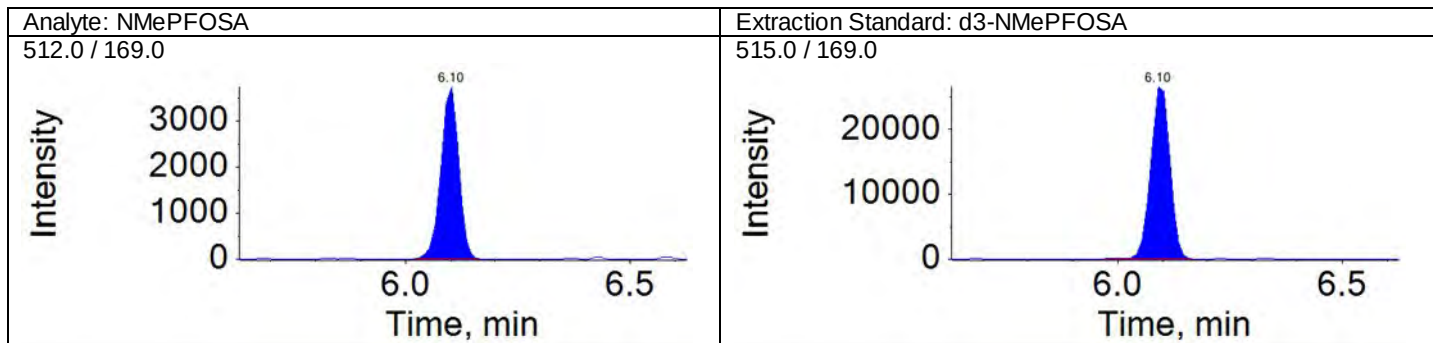
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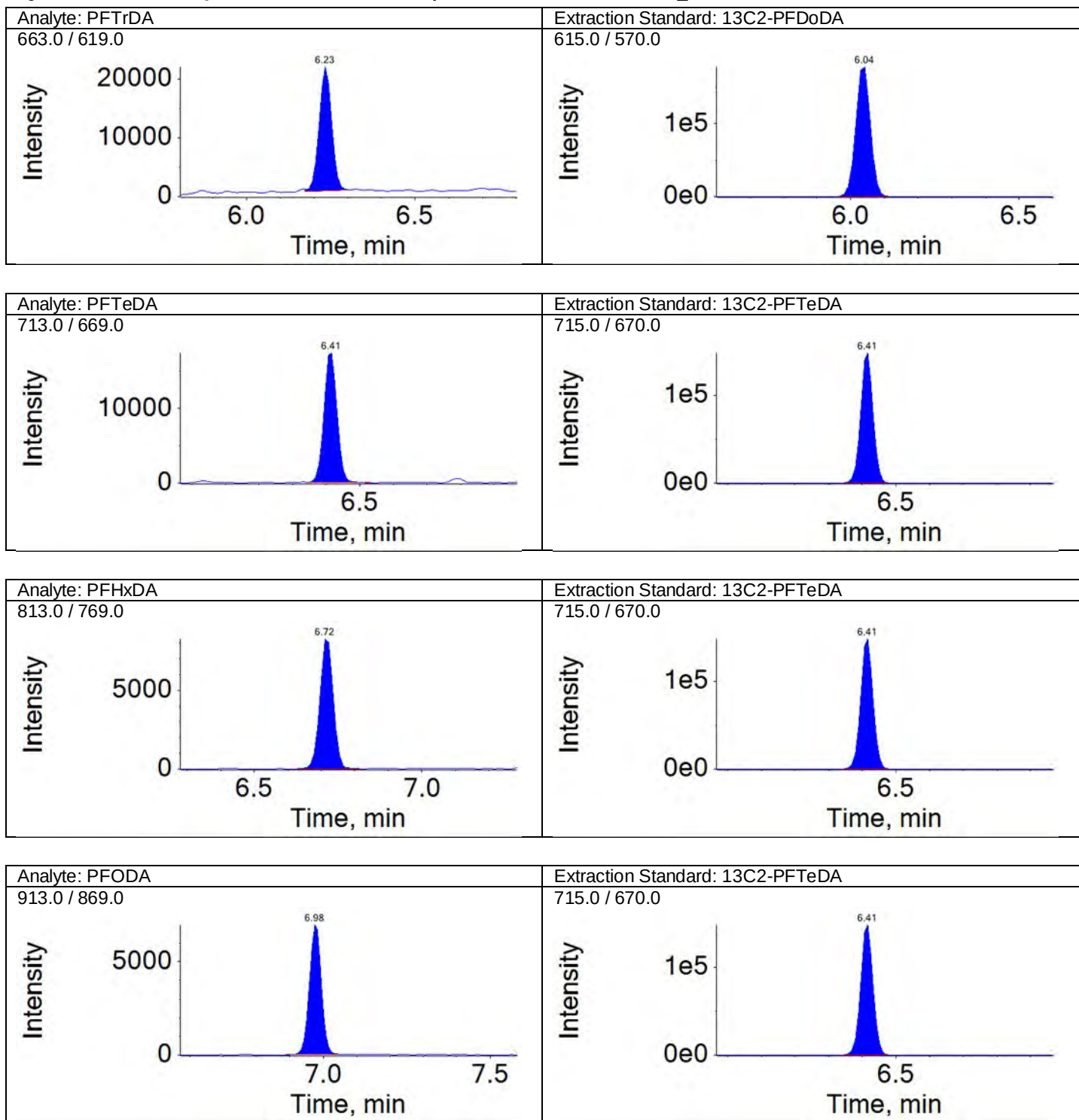
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ICAL Name: 18NOV07DCAL
QMethod Name: MQ4-18AUG13

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Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:

PFOS

RT (min.):

5.23

Peak Area:

36684.2

Mass Range:

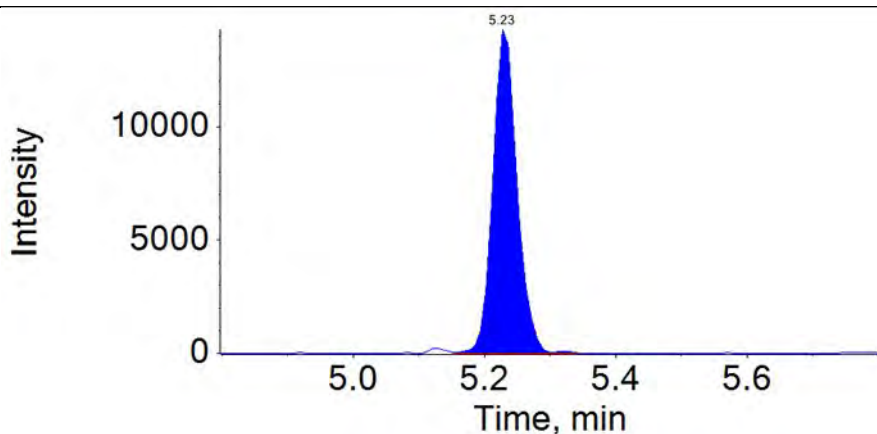
499.0 / 80.0

File Name:

18NOV09D-42.wiff

Sample Name:

LCS312011



Integration Comment: incorrect integration

Component Name:

PFDA

RT (min.):

5.56

Peak Area:

78406.9

Mass Range:

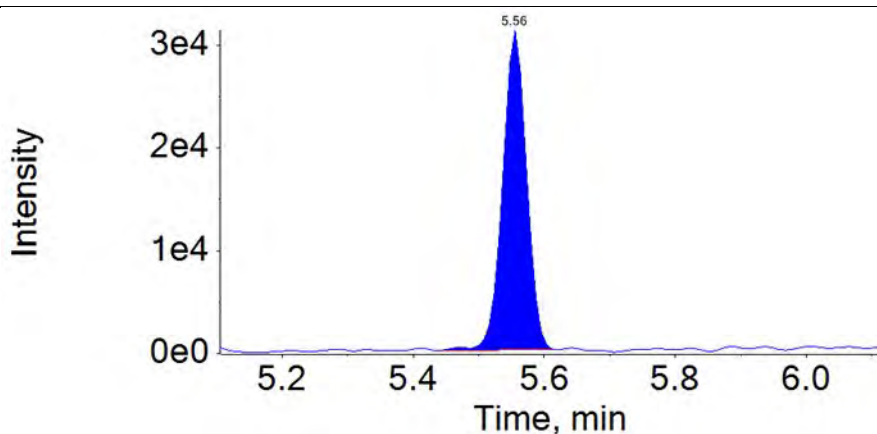
513.0 / 469.0

File Name:

18NOV09D-42.wiff

Sample Name:

LCS312011



Integration Comment: incorrect integration

Component Name:

PFTrDA

RT (min.):

6.23

Peak Area:

54458.0

Mass Range:

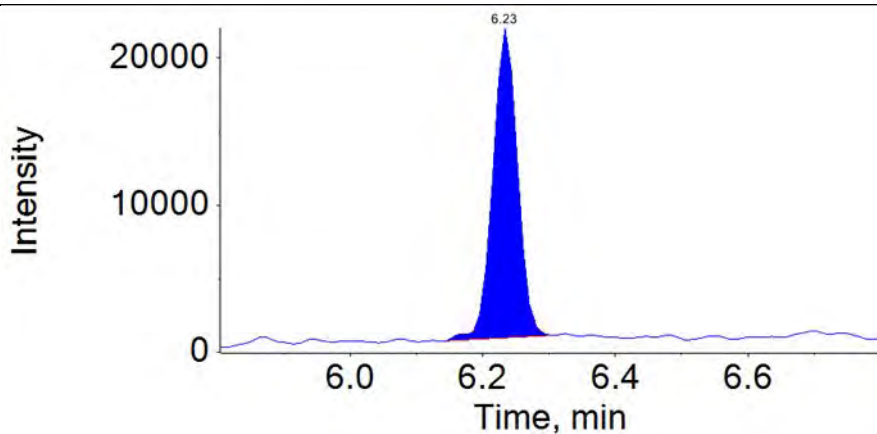
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File Name:

18NOV09D-42.wiff

Sample Name:

LCS312011



Integration Comment: incorrect integration

Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

Component Name:

PFOS_2

RT (min.):

5.23

Peak Area:

11615.2

Mass Range:

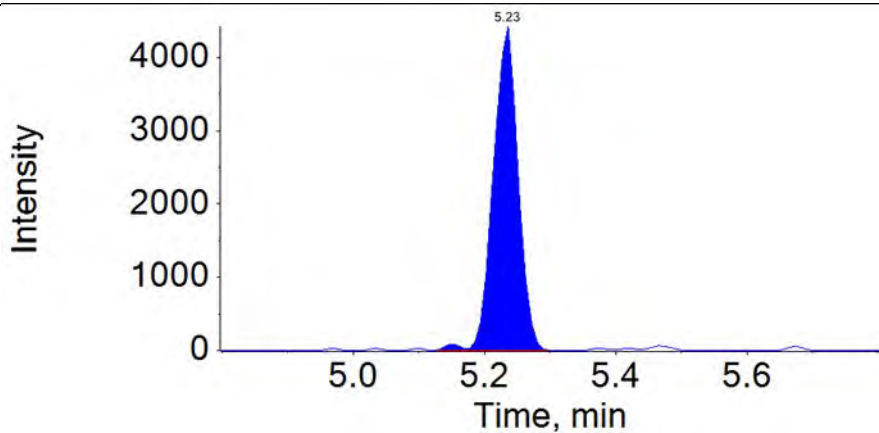
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File Name:

18NOV09D-42.wiff

Sample Name:

LCS312011



Integration Comment: incorrect integration

APPROVED

By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

Results Table Name: 18312011
Results Table Date: 11/10/2018 4:23:04 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: MQ4-18AUG13

APPROVED

By MCD at 4:33 pm, 11/10/18

REVIEWED

By HMK at 9:08 am, 11/15/18

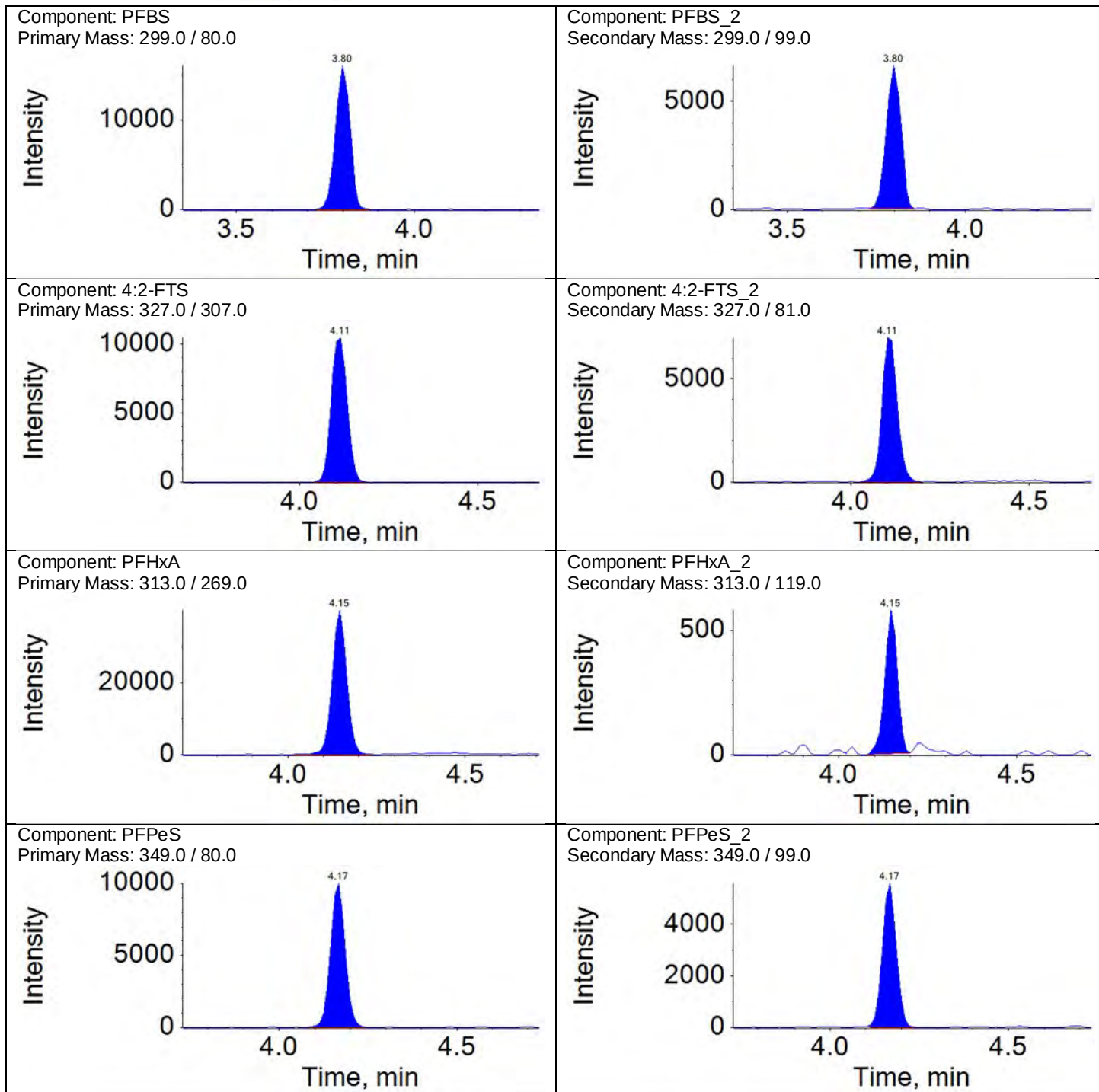
Ion Ratio Report

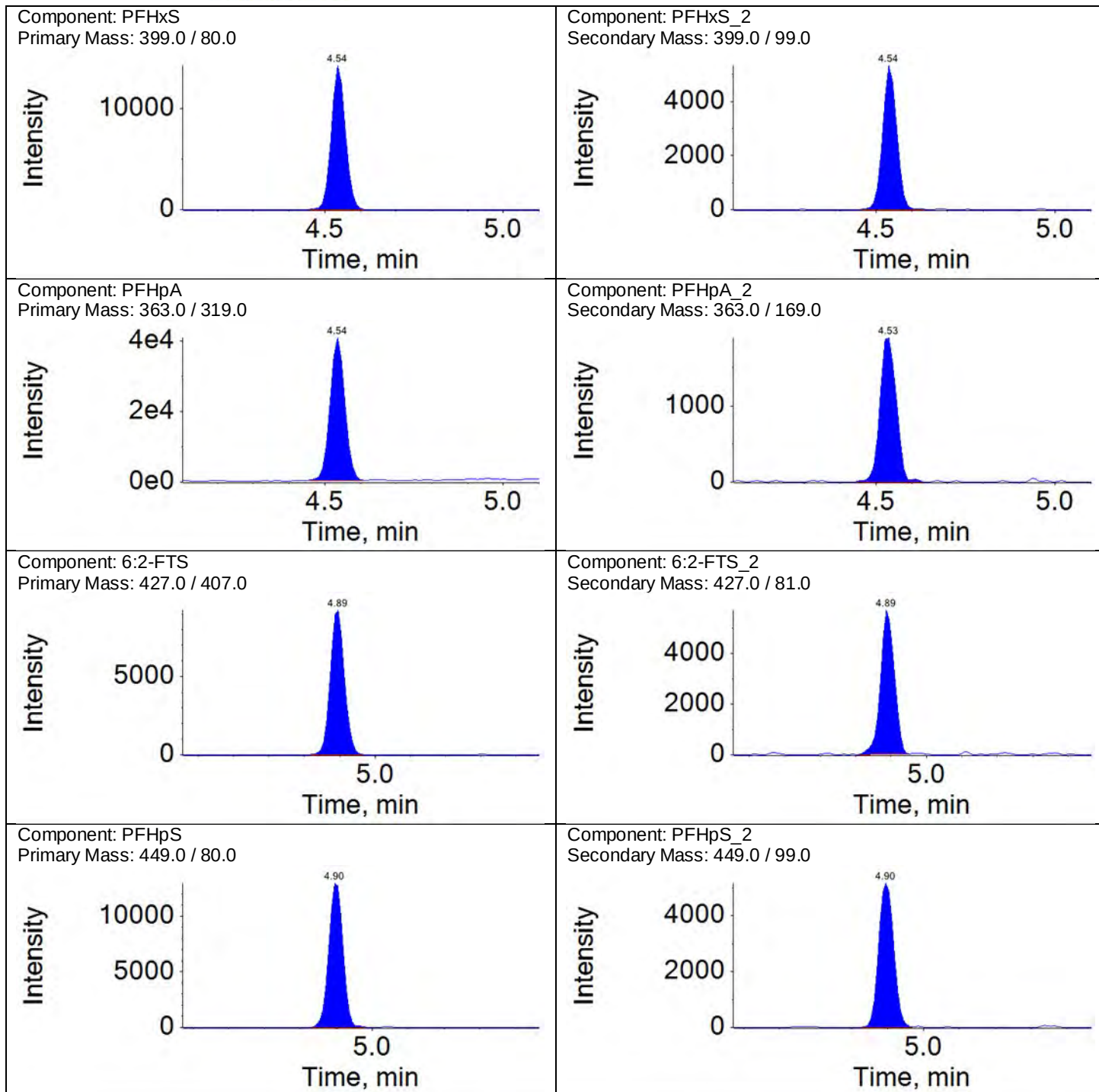
Sample Name: LCS312011

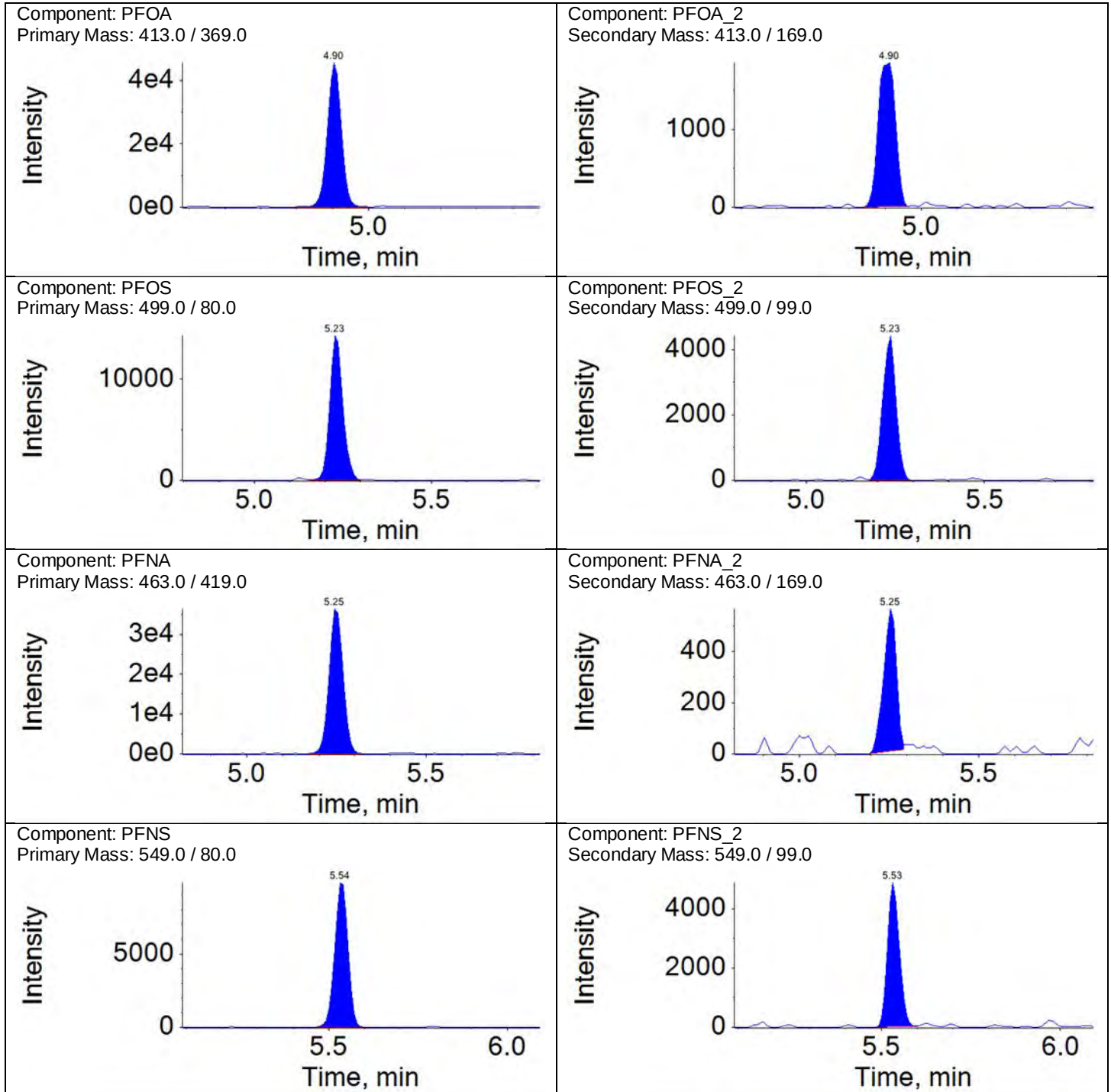
Instrument Name: LM27631

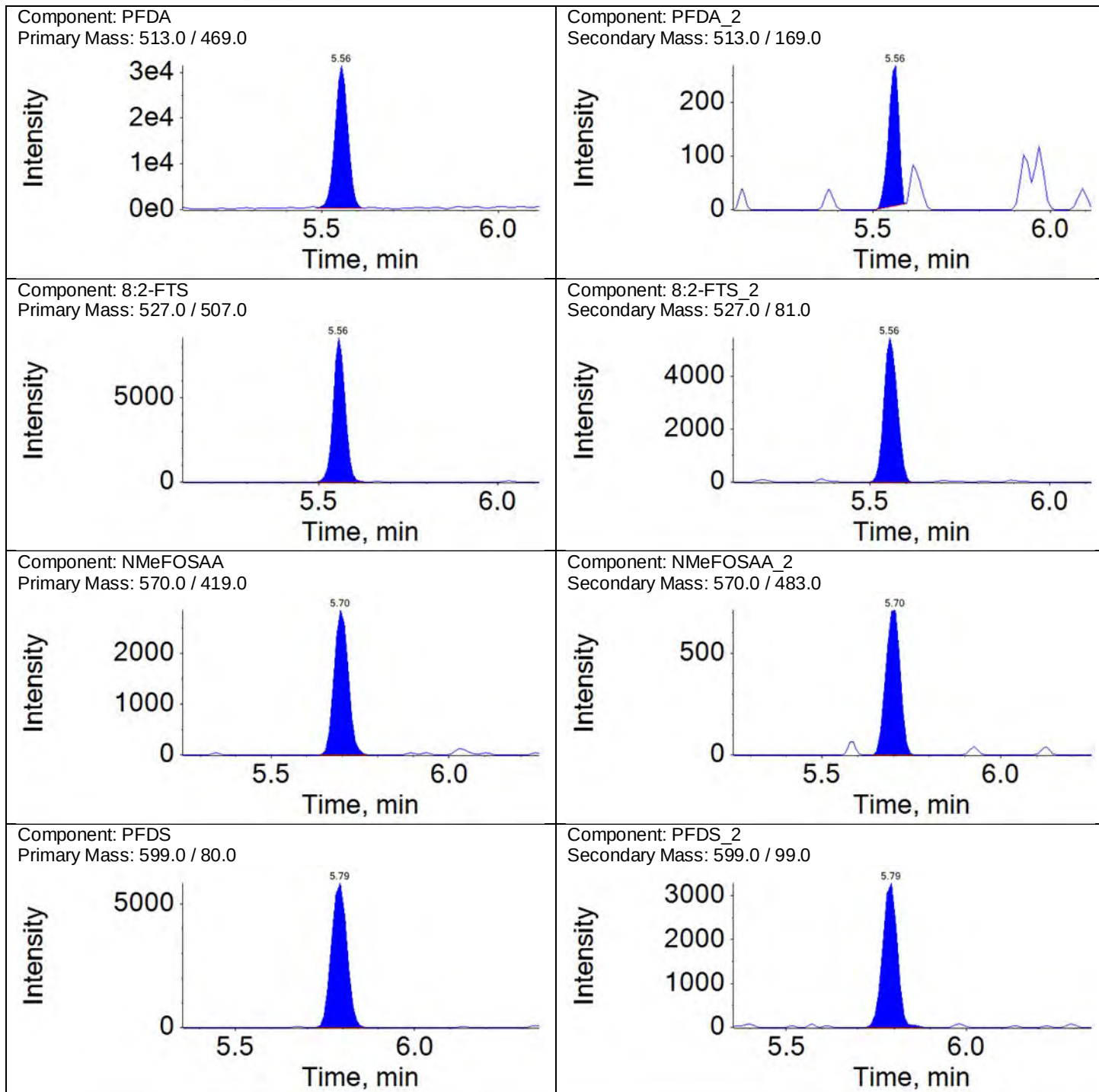
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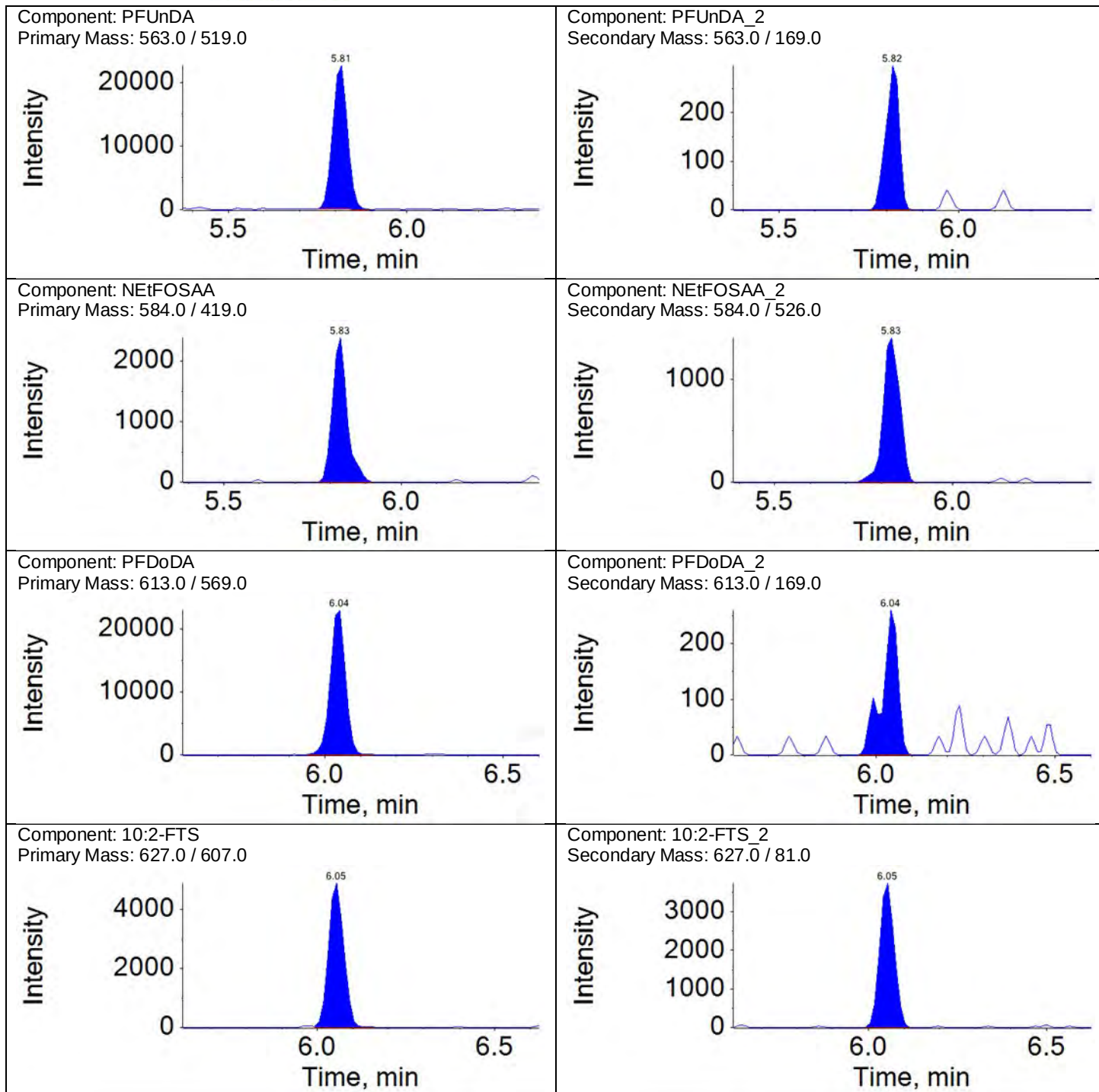
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.80	1.00	45683.3	A	N/A	0.4130			
PFBS_2	3.80	1.00	18867.0	A	N/A	0.4130	16	50	
4:2-FTS	4.11	1.00	32367.1	A	N/A	0.6388			
4:2-FTS_2	4.11	1.00	20674.5	A	N/A	0.6388	0	50	
PFHxA	4.15	1.00	113294.6	A	N/A	0.0125			
PFHxA_2	4.15	1.00	1417.1	A	N/A	0.0125	11	50	
PFPeS	4.17	1.10	28550.3	A	N/A	0.5258			
PFPeS_2	4.17	1.10	15011.3	A	N/A	0.5258	-3	50	
PFHxS	4.54	1.00	38544.3	A	N/A	0.3758			
PFHxS_2	4.54	1.00	14484.5	A	N/A	0.3758	5	50	
PFHpA	4.54	1.00	115802.8	A	N/A	0.0517			
PFHpA_2	4.53	1.00	5988.2	A	N/A	0.0517	-10	50	
6:2-FTS	4.89	1.00	25551.9	A	N/A	0.5991			
6:2-FTS_2	4.89	1.00	15308.9	A	N/A	0.5991	-12	50	
PFHpS	4.90	1.08	35407.8	A	N/A	0.4209			
PFHpS_2	4.90	1.08	14903.7	A	N/A	0.4209	7	50	
PFOA	4.90	1.00	121004.6	A	N/A	0.0512			
PFOA_2	4.90	1.00	6192.2	A	N/A	0.0512	-20	50	
PFOS	5.23	1.00	36500.9	M	N/A	0.3143			
PFOS_2	5.23	1.00	11472.5	M	N/A	0.3143	-11	50	
PFNA	5.25	1.00	98354.6	A	N/A	0.0139			
PFNA_2	5.25	1.00	1370.5	A	N/A	0.0139	-32	50	
PFNS	5.54	1.06	25320.7	A	N/A	0.4398			
PFNS_2	5.53	1.06	11136.0	A	N/A	0.4398	-10	50	
PFDA	5.56	1.00	77999.4	M	N/A	0.0068			
PFDA_2	5.56	1.00	529.9	A	N/A	0.0068	25	50	
8:2-FTS	5.56	1.00	19464.8	A	N/A	0.7178			
8:2-FTS_2	5.56	1.00	13971.9	A	N/A	0.7178	15	50	
NMeFOSAA	5.70	1.00	7867.1	A	N/A	0.2541			
NMeFOSAA_2	5.70	1.00	1999.1	A	N/A	0.2541	17	50	
PFDS	5.79	1.11	17587.0	A	N/A	0.5275			
PFDS_2	5.79	1.11	9277.0	A	N/A	0.5275	15	50	
PFUnDA	5.81	1.00	64897.5	A	N/A	0.0121			
PFUnDA_2	5.82	1.00	782.3	A	N/A	0.0121	295	50	OOS
NEtFOSAA	5.83	1.00	6901.2	A	N/A	0.6609			
NEtFOSAA_2	5.83	1.00	4560.6	A	N/A	0.6609	9	50	
PFDODA	6.04	1.00	67605.7	A	N/A	0.0121			
PFDODA_2	6.04	1.00	817.5	A	N/A	0.0121	15	50	
10:2-FTS	6.05	1.09	14692.2	A	N/A	0.7295			
10:2-FTS_2	6.05	1.09	10718.1	A	N/A	0.7295	2	50	
PFTTrDA	6.23	1.03	53978.2	M	N/A	0.0113			
PFTTrDA_2	6.23	1.03	612.0	A	N/A	0.0113	19	50	
PFTeDA	6.41	1.00	46555.7	A	N/A	0.0052			
PFTeDA_2	6.42	1.00	241.4	A	N/A	0.0052	-4	50	
PFHxDA	6.72	1.05	22845.1	A	N/A	0.0627			
PFHxDA_2	6.71	1.05	1432.6	A	N/A	0.0627	6	50	
PFODA	6.98	1.09	17163.6	A	N/A	0.0248			
PFODA_2	6.98	1.09	426.1	A	N/A	0.0248	-3	50	

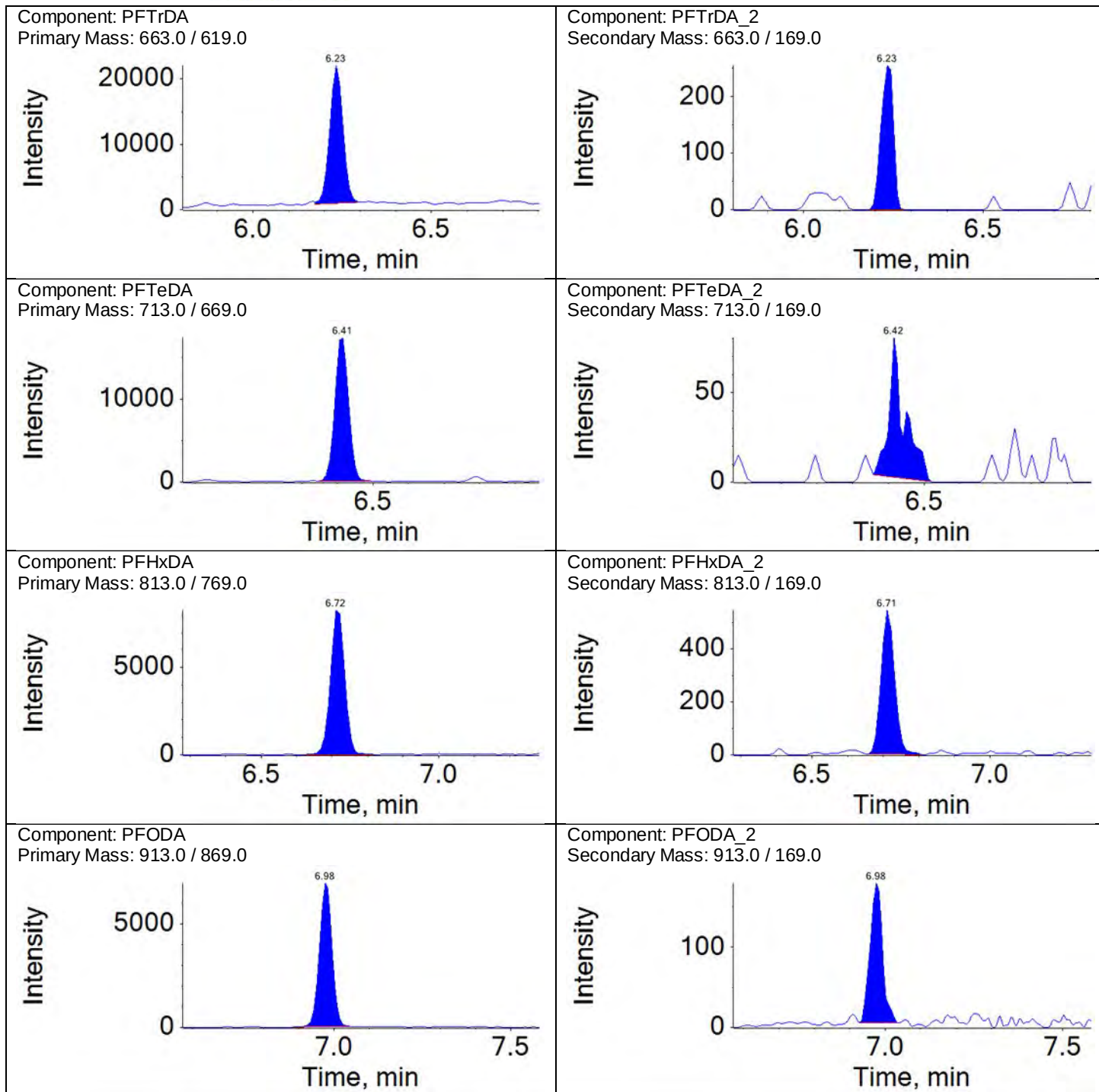










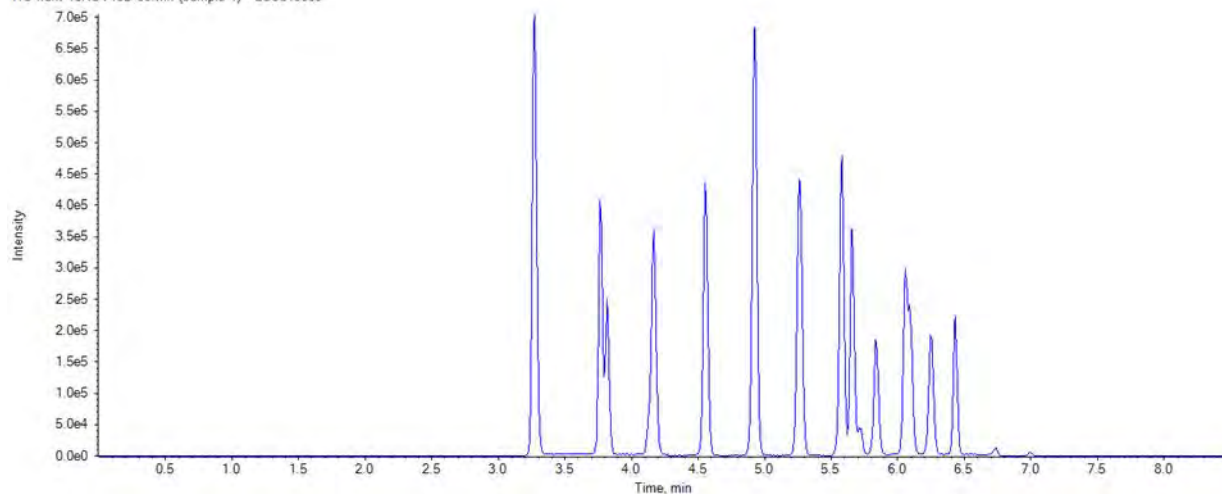


Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18319003 11/16/2018 11:16:11 AM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS319003	EPA 537 mod QSM 5.1 table B-15 18319003	18NOV15D-08.wiff	2018-11-15T13:06:11

TIC from 18NOV15D-08.wiff (sample 1) - LCS319003



Injection Standard Area Reference File: 18NOV15D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.00	756224.3	732179.1	3	50	
13C2-PFOA	5.00	502285.0	479663.2	5	50	
13C4-PFOS	4.78	282772.9	269685.3	5	50	
13C2-PFDA	5.00	329902.7	302309.9	9	50	

APPROVED

By JPT at 3:32 pm, 11/16/18

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REVIEWED

By HMK at 9:05 am, 11/19/18

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Lab Control Sample Recovery

ICAL Name: 18NOV12DCAL Result Table: 18319003 11/16/2018 11:16:11 AM
QMethod Name: 18AUG20QM Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS319003	EPA 537 mod QSM 5.1 table B-15 18319003	18NOV15D-08.wiff	2018-11-15T13:06:11

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	97875.0	788006.6	0.124	1.360	1.376	101	70-130	
PFPeA	94816.7	753516.0	0.126	1.360	1.457	107	70-130	
PFBS	53803.5	413205.2	0.130	1.204	1.239	103	70-130	
4:2-FTS	34785.2	56747.2	0.613	3.736	3.329	89	70-130	
PFHxA	115450.6	681052.3	0.170	1.360	1.416	104	70-130	
PFPeS	28041.6	413205.2	0.068	1.276	1.318	103	70-130	
PFHpA	116528.3	534203.2	0.218	1.360	1.446	106	70-130	
PFHxS	40913.0	319083.2	0.128	1.286	1.243	97	70-130	
6:2-FTS	23078.1	42954.7	0.537	3.792	2.600	69	70-130	OOS
PFHpS	38823.1	319083.2	0.122	1.294	1.281	99	70-130	
PFOA	116200.1	913960.0	0.127	1.360	1.358	100	70-130	
PFOS	38126.7	276190.7	0.138	1.300	1.207	93	70-130	
PFNA	95101.2	490105.2	0.194	1.360	1.399	103	70-130	
PFNS	23860.4	276190.7	0.086	1.306	1.209	93	70-130	
PFDA	86587.1	619069.1	0.140	1.360	1.483	109	70-130	
8:2-FTS	25748.7	29681.0	0.868	3.832	4.045	106	70-130	
PFOSA	82146.1	720978.4	0.114	1.360	1.113	82	70-130	
NMeFOSAA	10024.7	93620.3	0.107	1.360	1.210	89	70-130	
PFDS	18153.9	276190.7	0.066	1.310	1.191	91	70-130	
PFUnDA	63237.5	279986.9	0.226	1.360	1.181	87	70-130	
NEtFOSAA	8923.3	66993.9	0.133	1.360	1.396	103	70-130	
PFDoDA	70480.1	564024.4	0.125	1.360	1.273	94	70-130	
10:2-FTS	16623.2	29681.0	0.560	3.856	3.731	97	70-130	
NMePFOSAE	50545.1	356644.7	0.142	1.360	1.180	87	70-130	
NMePFOSA	7949.0	79924.1	0.099	1.360	0.981	72	70-130	
PFDoS	9445.0	276190.7	0.034	1.316	1.198	91	70-130	
NEtPFOSAE	51976.9	296606.9	0.175	1.360	1.124	83	70-130	
NEtPFOSA	8376.7	66129.7	0.127	1.360	1.163	86	70-130	
PFTTrDA	57256.2	564024.4	0.102	1.360	1.281	94	70-130	
PFTeDA	47809.8	394599.0	0.121	1.360	1.358	100	70-130	
PFHxDA	20634.2	394599.0	0.052	1.360	1.246	92	70-130	
PFODA	12388.9	394599.0	0.031	1.360	0.875	64	70-130	OOS

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Lab Control Sample Recovery

Result Table: 18319003 11/16/2018 11:16:11 AM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By JPT at 3:32 pm, 11/16/18

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REVIEWED
By HMK at 9:05 am, 11/19/18

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QM

Result Table: 18319003 11/16/2018 11:16:11 AM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	LCS319003		Data File:	18NOV15D-08.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18319003		Acquis Date:	2018-11-15T13:06:11
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	26		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18319003
QMethod File:	18AUG20QM		ICAL Name:	18NOV12DCAL
Batch Number:	18319003		Operator:	JPT12262
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV15D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	756224.3	732179.1	3	50	
13C2-PFOA	5.0	502285.0	479663.2	5	50	
13C4-PFOS	4.8	282772.9	269685.3	5	50	
13C2-PFDA	5.0	329902.7	302309.9	9	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	788006.6	13C3-PFBA	756224.3	1.042	10.000	9.344	93	50-150	
E13C5-PFPeA	753516.0	13C3-PFBA	756224.3	0.996	10.000	8.938	89	50-150	
E13C3-PFBS	413205.2	13C3-PFBA	756224.3	0.546	9.300	7.714	83	50-150	
E13C2-4:2-FTS	56747.2	13C2-PFOA	502285.0	0.113	9.340	10.064	108	50-150	
E13C5-PFHxA	681052.3	13C2-PFOA	502285.0	1.356	10.000	9.796	98	50-150	
E13C3-PFHxS	319083.2	13C2-PFOA	502285.0	0.635	9.460	8.718	92	50-150	
E13C4-PFHpA	534203.2	13C2-PFOA	502285.0	1.064	10.000	9.583	96	50-150	
E13C2-6:2-FTS	42954.7	13C2-PFOA	502285.0	0.086	9.500	11.443	120	50-150	
E13C8-PFOA	913960.0	13C2-PFOA	502285.0	1.820	10.000	10.027	100	50-150	
E13C8-PFOS	276190.7	13C4-PFOS	282772.9	0.977	9.560	8.655	91	50-150	
E13C9-PFNA	490105.2	13C4-PFOS	282772.9	1.733	10.000	9.665	97	50-150	
E13C6-PFDA	619069.1	13C2-PFDA	329902.7	1.877	10.000	8.758	88	50-150	
E13C2-8:2-FTS	29681.0	13C2-PFDA	329902.7	0.090	9.580	8.974	94	50-150	
E13C8-PFOSA	720978.4	13C2-PFDA	329902.7	2.185	10.000	9.690	97	50-150	
Ed3-NMeFOSAA	93620.3	13C2-PFDA	329902.7	0.284	10.000	10.245	102	50-150	
E13C7-PFUnDA	279986.9	13C2-PFDA	329902.7	0.849	10.000	9.855	99	50-150	
Ed5-NetFOSAA	66993.9	13C2-PFDA	329902.7	0.203	10.000	8.593	86	50-150	
E13C2-PFDoDA	564024.4	13C2-PFDA	329902.7	1.710	10.000	8.878	89	50-150	
Ed7-NMePFOSAE	356644.7	13C2-PFDA	329902.7	1.081	10.000	9.356	94	50-150	
Ed3-NMePFOSA	79924.1	13C2-PFDA	329902.7	0.242	10.000	8.803	88	50-150	
Ed9-NetPFOSAE	296606.9	13C2-PFDA	329902.7	0.899	10.000	9.352	94	50-150	
Ed5-NetPFOSA	66129.7	13C2-PFDA	329902.7	0.200	10.000	9.404	94	50-150	
E13C2-PFTeDA	394599.0	13C2-PFDA	329902.7	1.196	10.000	8.398	84	50-150	

ICAL Name: 18NOV12DCAL
QMethod Name: 18AUG20QMResult Table: 18319003 11/16/2018 11:16:11 AM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: LCS319003

Instrument Name: LM27631

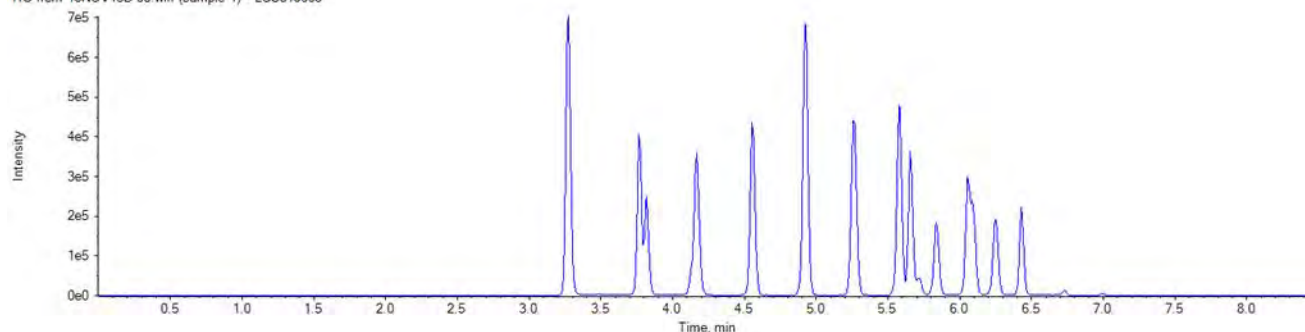
File Name: 18NOV15D-08.wiff

Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	97875.0		A	13C4-PFBA	3.27	788006.6	0.124	1.376
PFPeA	3.77	1.000	94816.7		M	13C5-PFPeA	3.77	753516.0	0.126	1.457
PFBS	3.82	1.000	53803.5		A	13C3-PFBS	3.82	413205.2	0.130	1.239
4:2-FTS	4.13	1.000	34785.2		A	13C2-4:2-FTS	4.13	56747.2	0.613	3.329
PFHxA	4.17	1.000	115450.6		A	13C5-PFHxA	4.17	681052.3	0.170	1.416
PFPeS	4.19	1.100	28041.6		A	13C3-PFBS	3.82	413205.2	0.068	1.318
PFHpA	4.56	1.000	116528.3		A	13C4-PFHpA	4.56	534203.2	0.218	1.446
PFHxS	4.56	1.000	40913.0		A	13C3-PFHxS	4.56	319083.2	0.128	1.243
6:2-FTS	4.91	1.000	23078.1		A	13C2-6:2-FTS	4.91	42954.7	0.537	2.600
PFHpS	4.92	1.080	38823.1		A	13C3-PFHxS	4.56	319083.2	0.122	1.281
PFOA	4.93	1.000	116200.1		A	13C8-PFOA	4.93	913960.0	0.127	1.358
PFOS	5.25	1.000	38126.7		A	13C8-PFOS	5.25	276190.7	0.138	1.207
PFNA	5.27	1.000	95101.2		A	13C9-PFNA	5.27	490105.2	0.194	1.399
PFNS	5.56	1.060	23860.4		A	13C8-PFOS	5.25	276190.7	0.086	1.209
PFDA	5.58	1.000	86587.1		A	13C6-PFDA	5.58	619069.1	0.140	1.483
8:2-FTS	5.58	1.000	25748.7		A	13C2-8:2-FTS	5.58	29681.0	0.868	4.045
PFOSA	5.66	1.000	82146.1		A	13C8-PFOSA	5.66	720978.4	0.114	1.113
NMeFOSAA	5.72	1.000	10024.7		A	d3-NMeFOSAA	5.72	93620.3	0.107	1.210
PFDS	5.81	1.110	18153.9		A	13C8-PFOS	5.25	276190.7	0.066	1.191
PfUnDA	5.84	1.000	63237.5		A	13C7-PfUnDA	5.84	279986.9	0.226	1.181
NEtFOSAA	5.85	1.000	8923.3		A	d5-NEtFOSAA	5.85	66993.9	0.133	1.396
PFDaDA	6.06	1.000	70480.1		A	13C2-PFDaDA	6.06	564024.4	0.125	1.273
10:2-FTS	6.07	1.090	16623.2		A	13C2-8:2-FTS	5.58	29681.0	0.560	3.731
NMePFOSAE	6.10	1.000	50545.1		A	d7-NMePFOSAE	6.09	356644.7	0.142	1.180
NMePFOSA	6.11	1.000	7949.0		M	d3-NMePFOSA	6.10	79924.1	0.099	0.981
PFDaS	6.23	1.190	9445.0		A	13C8-PFOS	5.25	276190.7	0.034	1.198
NEtPFOSAE	6.26	1.000	51976.9		A	d9-NEtPFOSAE	6.25	296606.9	0.175	1.124
NEtPFOSA	6.27	1.000	8376.7		M	d5-NEtPFOSA	6.26	66129.7	0.127	1.163
PFTaDA	6.25	1.030	57256.2		A	13C2-PFDaDA	6.06	564024.4	0.102	1.281
PFTeDA	6.43	1.000	47809.8		A	13C2-PFTeDA	6.43	394599.0	0.121	1.358
PFHxDA	6.73	1.050	20634.2		A	13C2-PFTeDA	6.43	394599.0	0.052	1.246
PFODA	6.99	1.090	12388.9		A	13C2-PFTeDA	6.43	394599.0	0.031	0.875

Total Ion Chromatogram

TIC from 18NOV15D-08.wiff (sample 1) - LCS319003



APPROVED

By JPT at 3:32 pm, 11/16/18

BSI14 Page 2068 of 2132

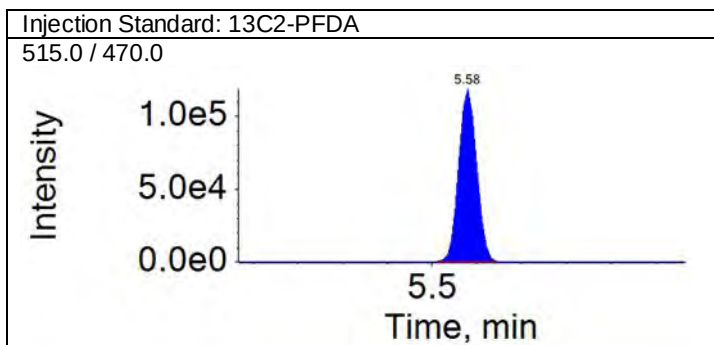
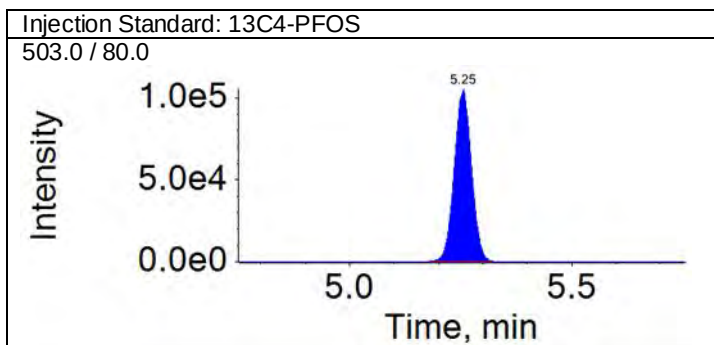
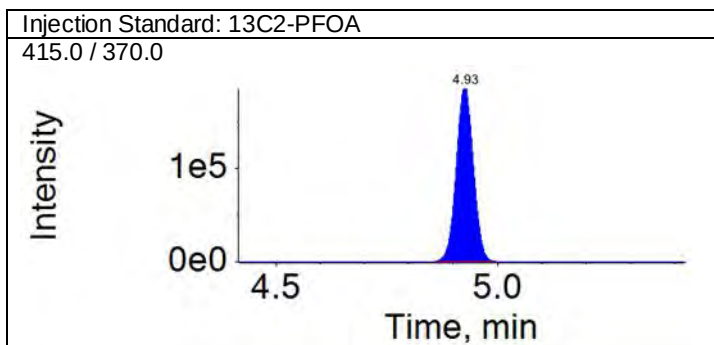
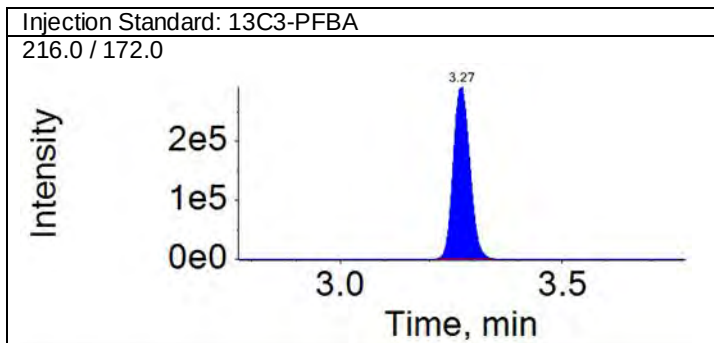
REVIEWED

By HMK at 9:05 am, 11/19/18

Page 2 of 17

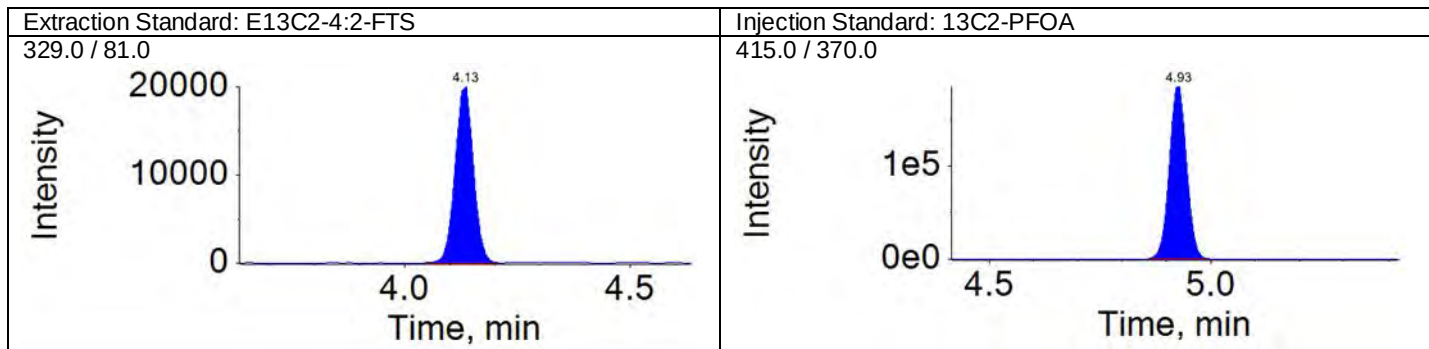
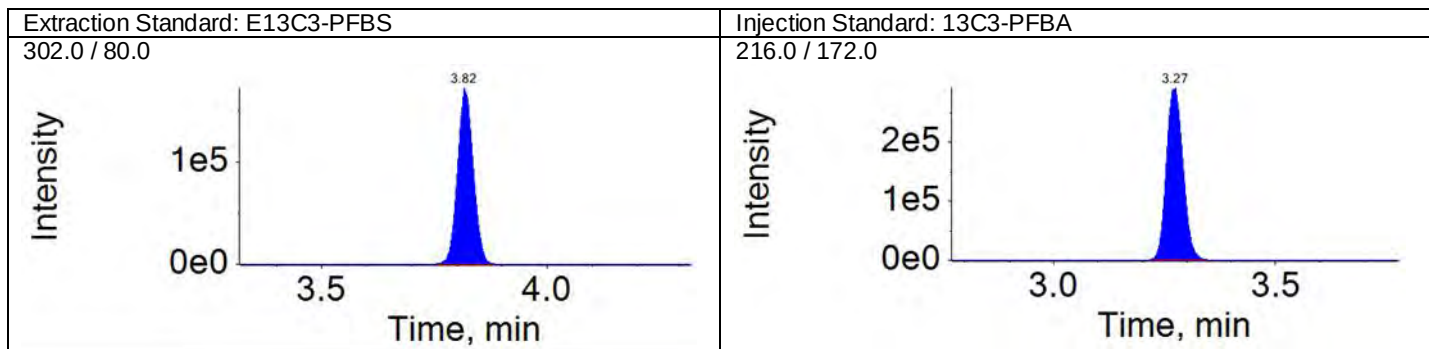
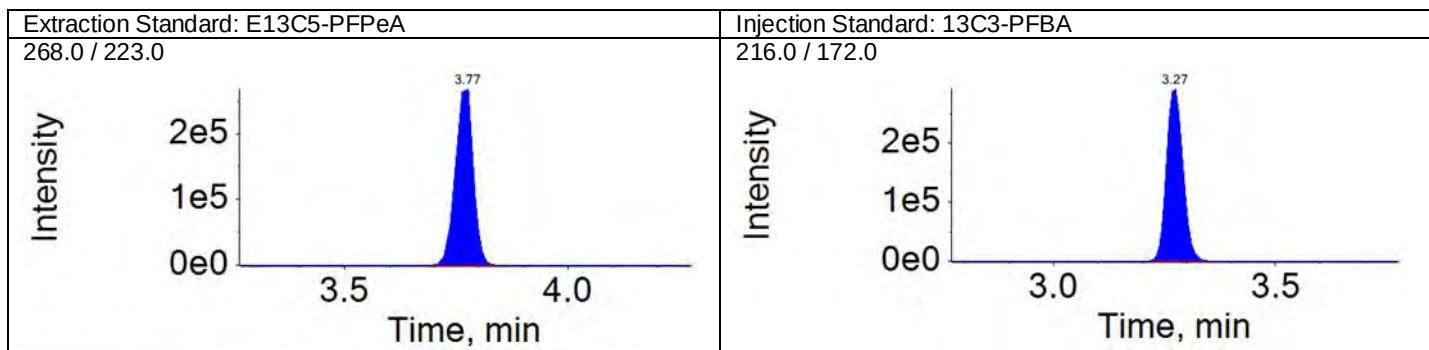
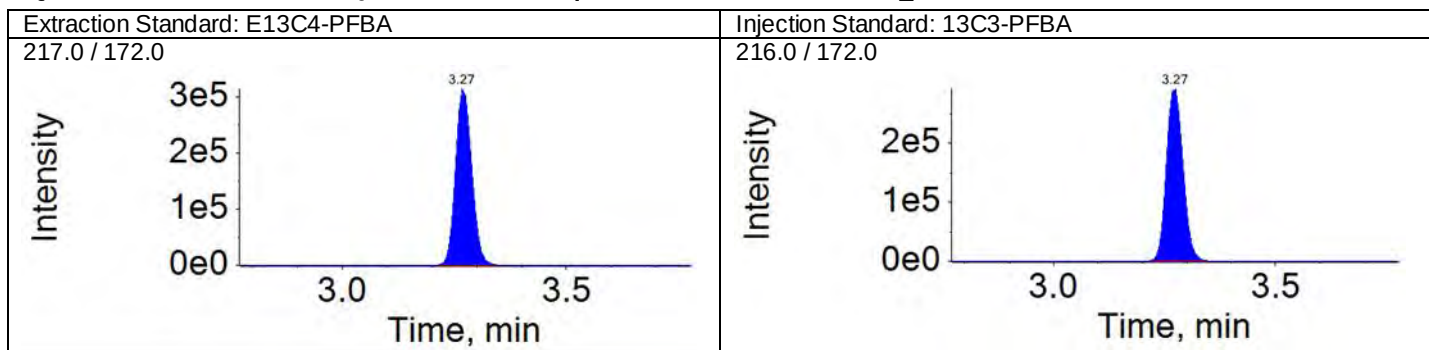
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QMethod Name: 18AUG20QM

Result Table: 18319003 11/16/2018 11:16:11 AM
Acquisition Method: 18AUG13_3uL.dam



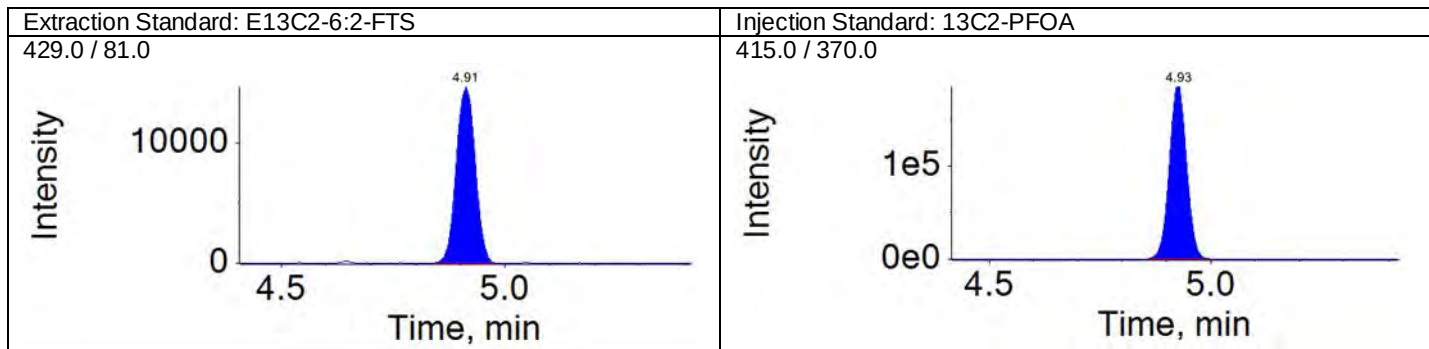
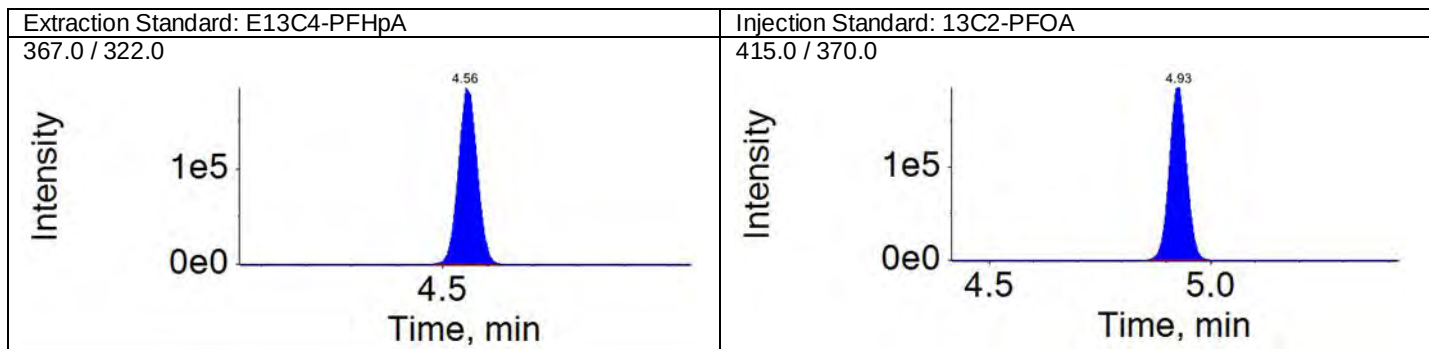
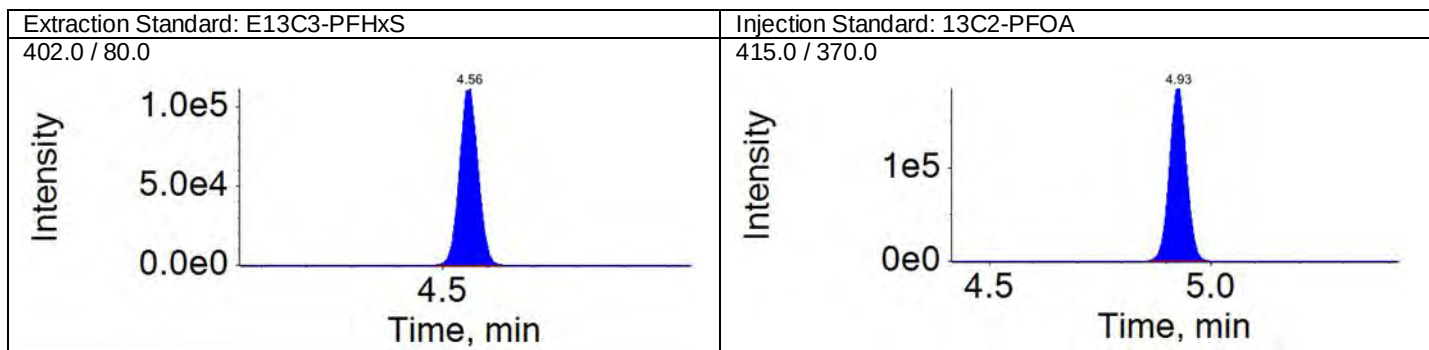
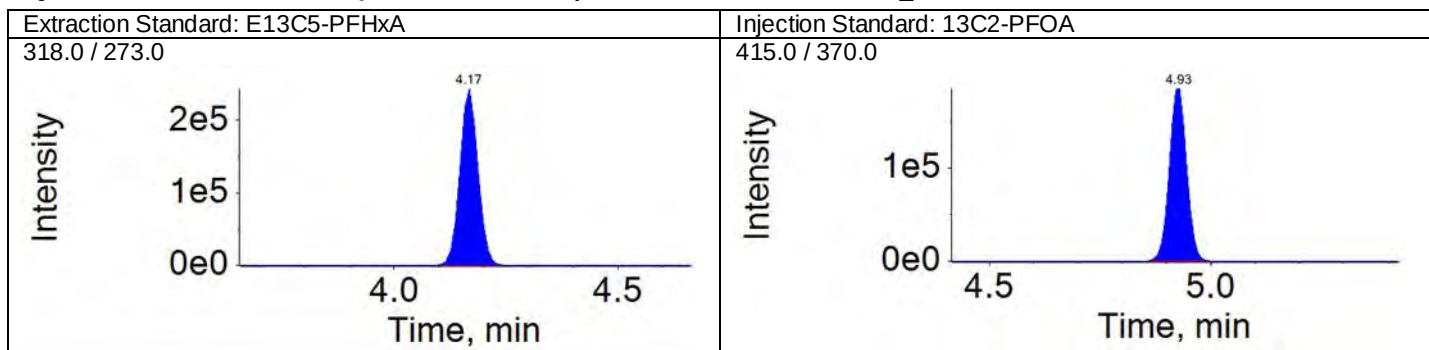
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QMethod Name: 18AUG20QM

Result Table: 18319003 11/16/2018 11:16:11 AM
Acquisition Method: 18AUG13_3uL.dam



ICAL Name: 18NOV12DCAL
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Result Table: 18319003 11/16/2018 11:16:11 AM
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APPROVED

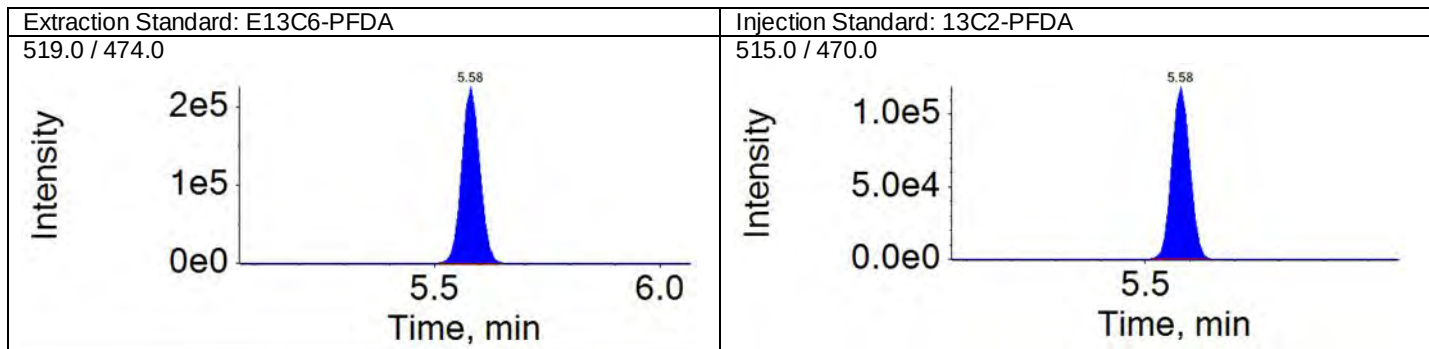
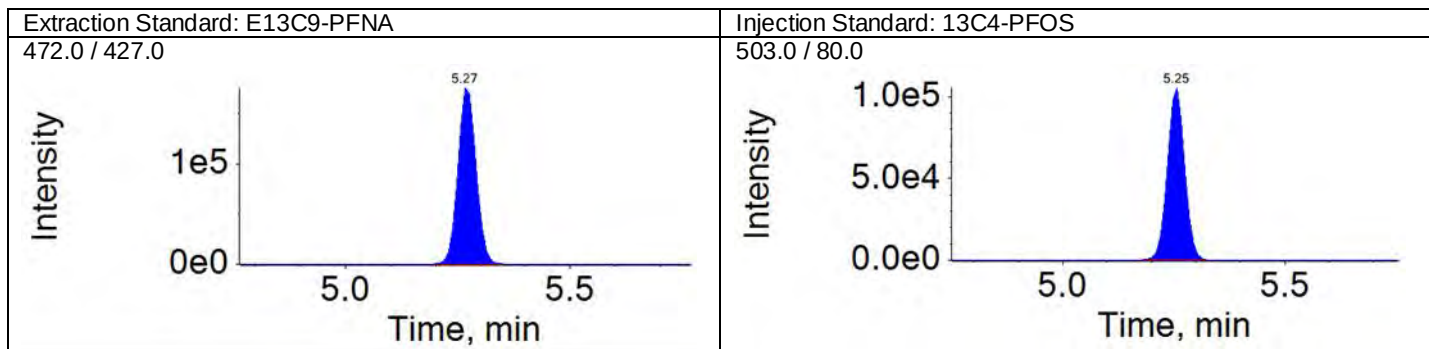
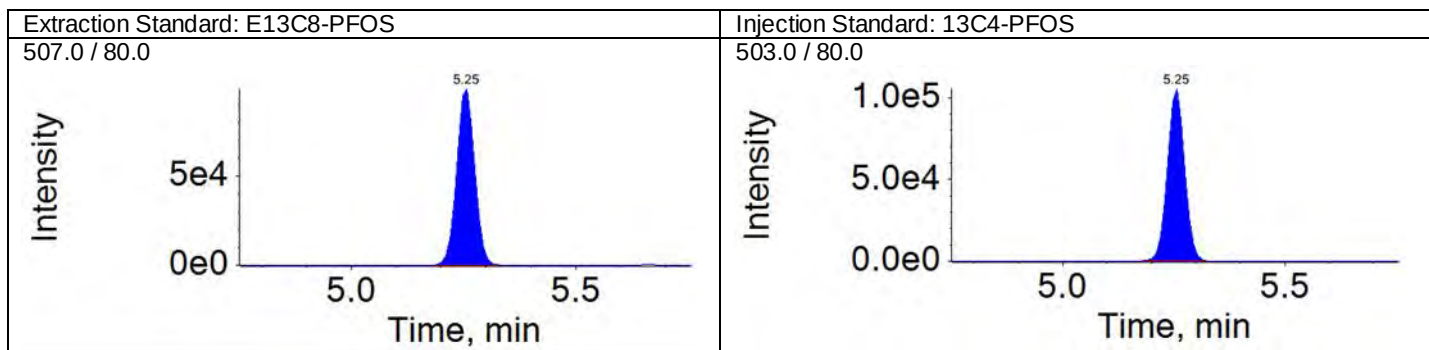
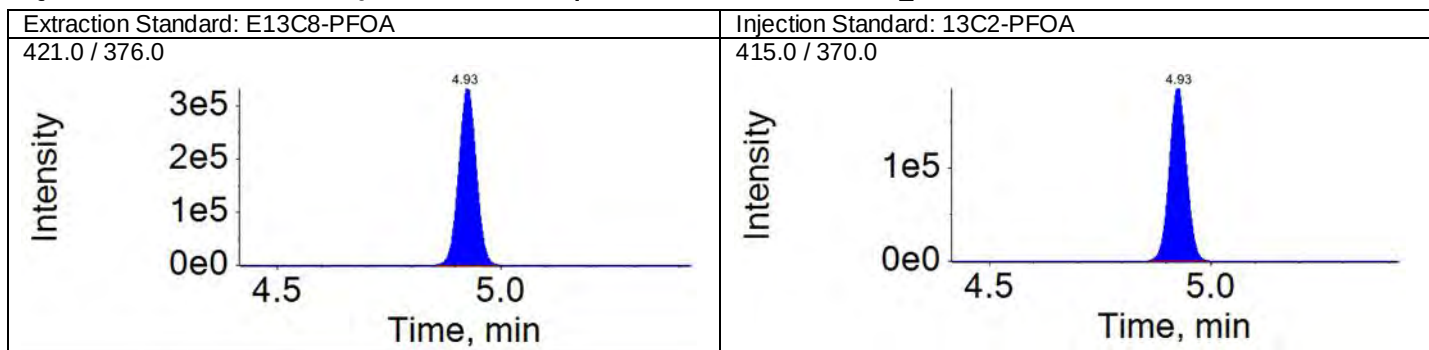
By JPT at 3:32 pm, 11/16/18

REVIEWED

By HMK at 9:05 am, 11/19/18

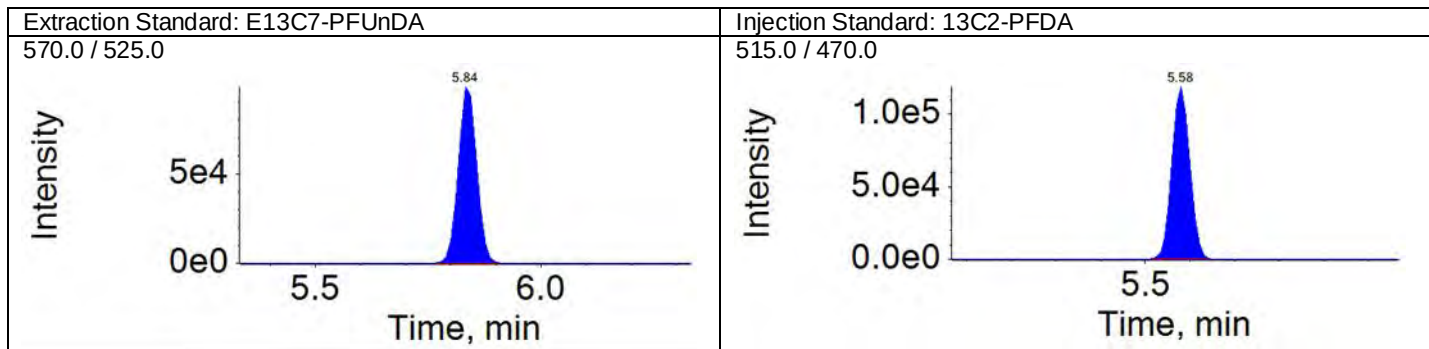
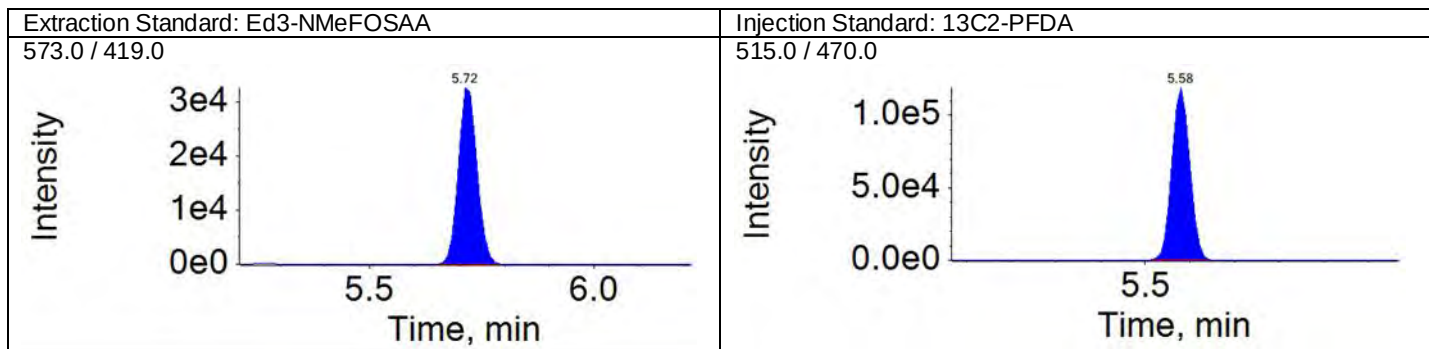
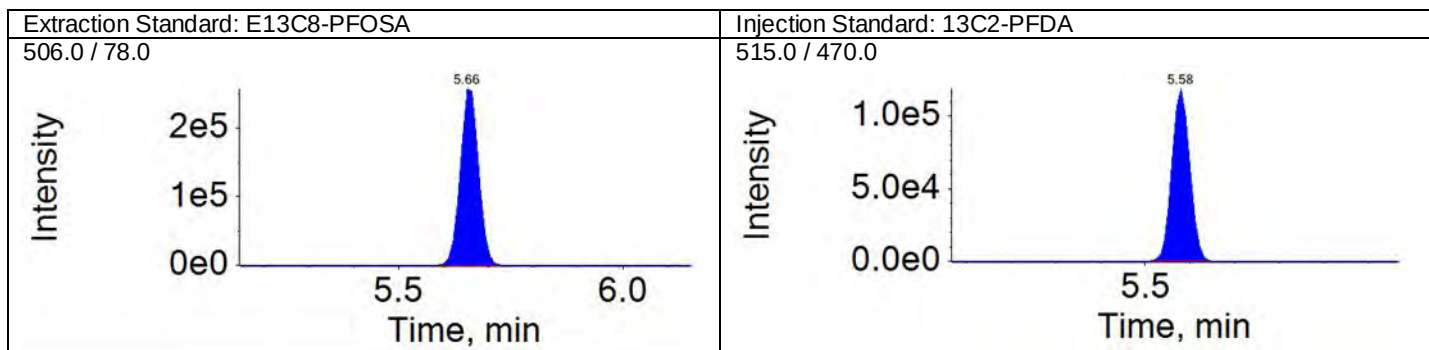
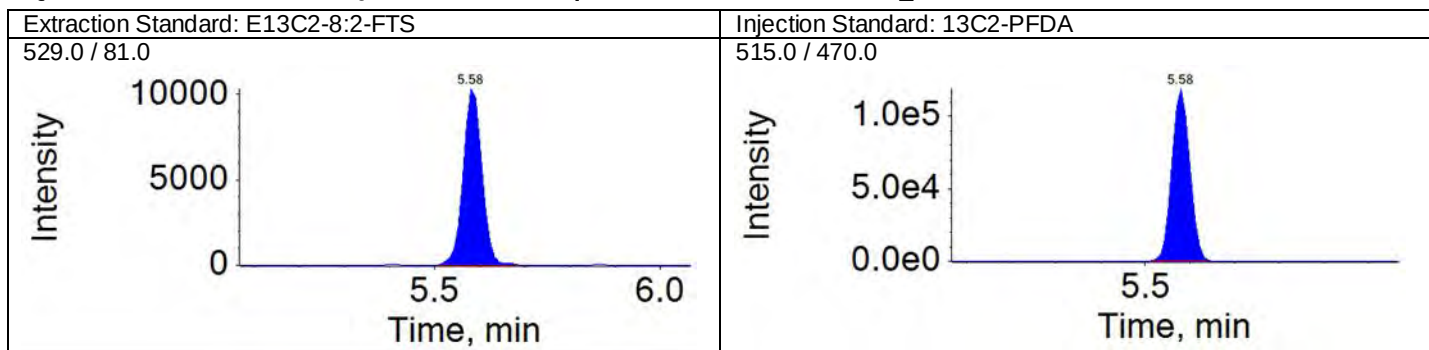
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Result Table: 18319003 11/16/2018 11:16:11 AM
Acquisition Method: 18AUG13_3uL.dam



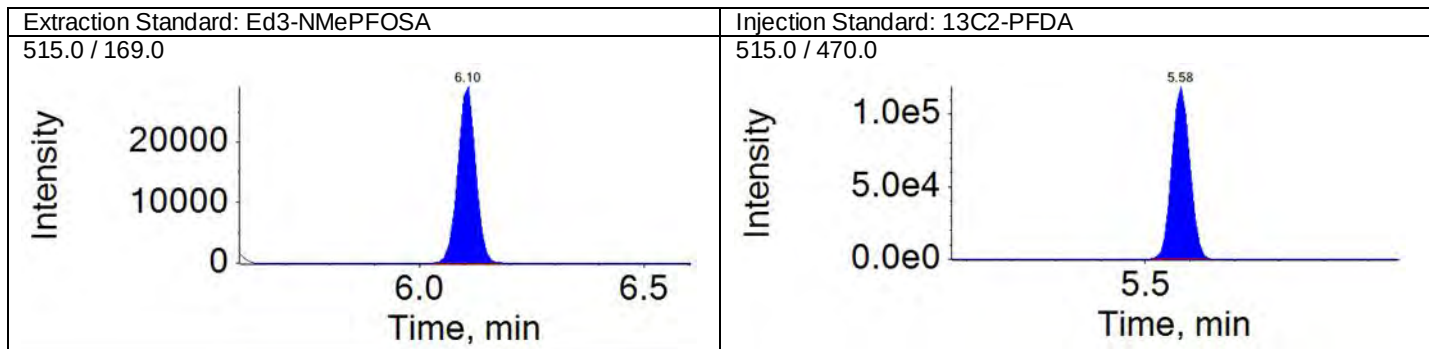
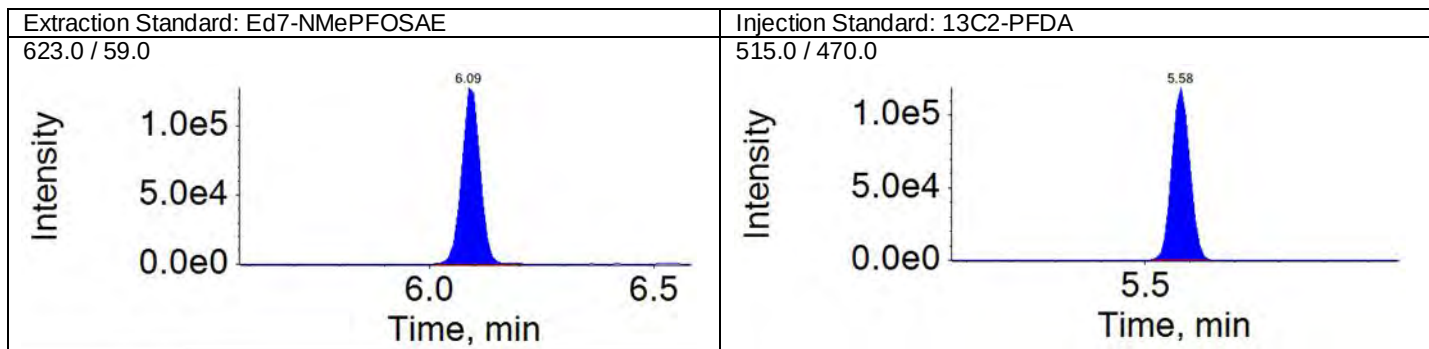
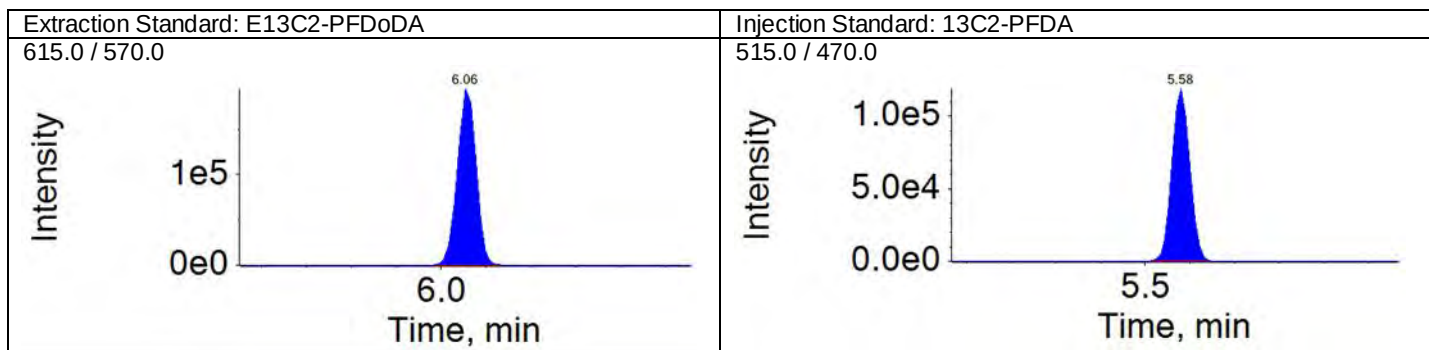
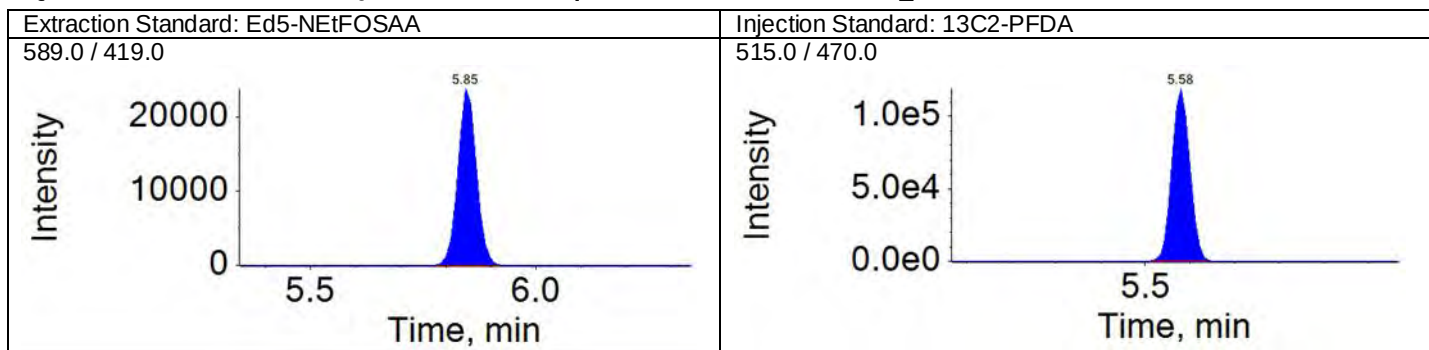
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Result Table: 18319003 11/16/2018 11:16:11 AM
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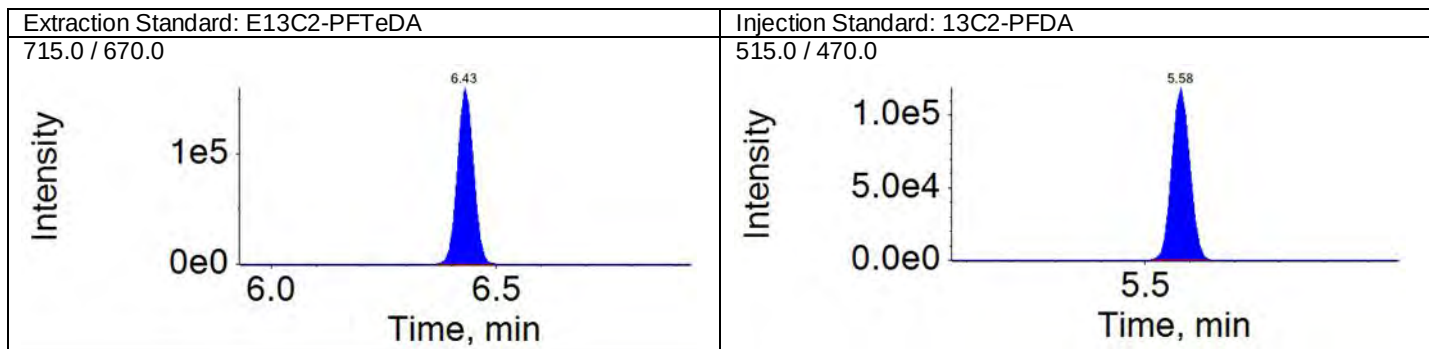
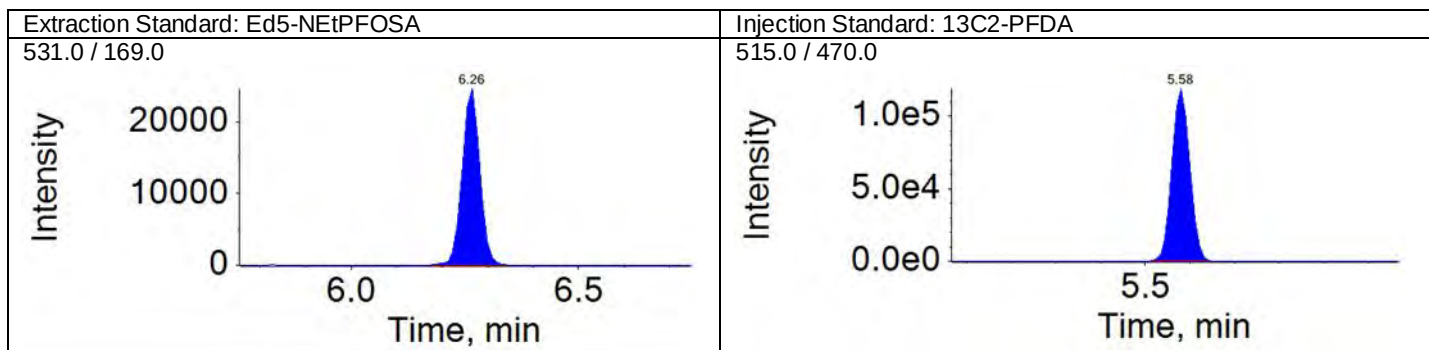
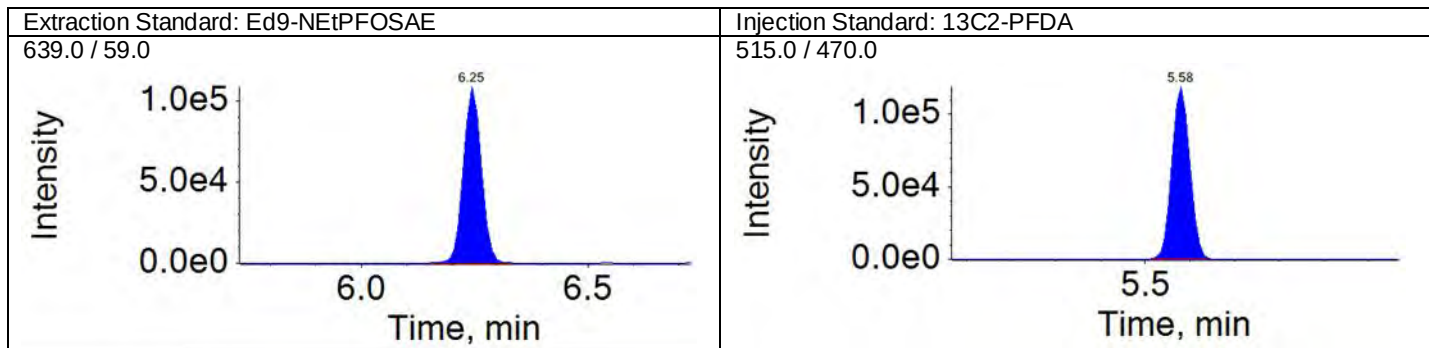
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Result Table: 18319003 11/16/2018 11:16:11 AM
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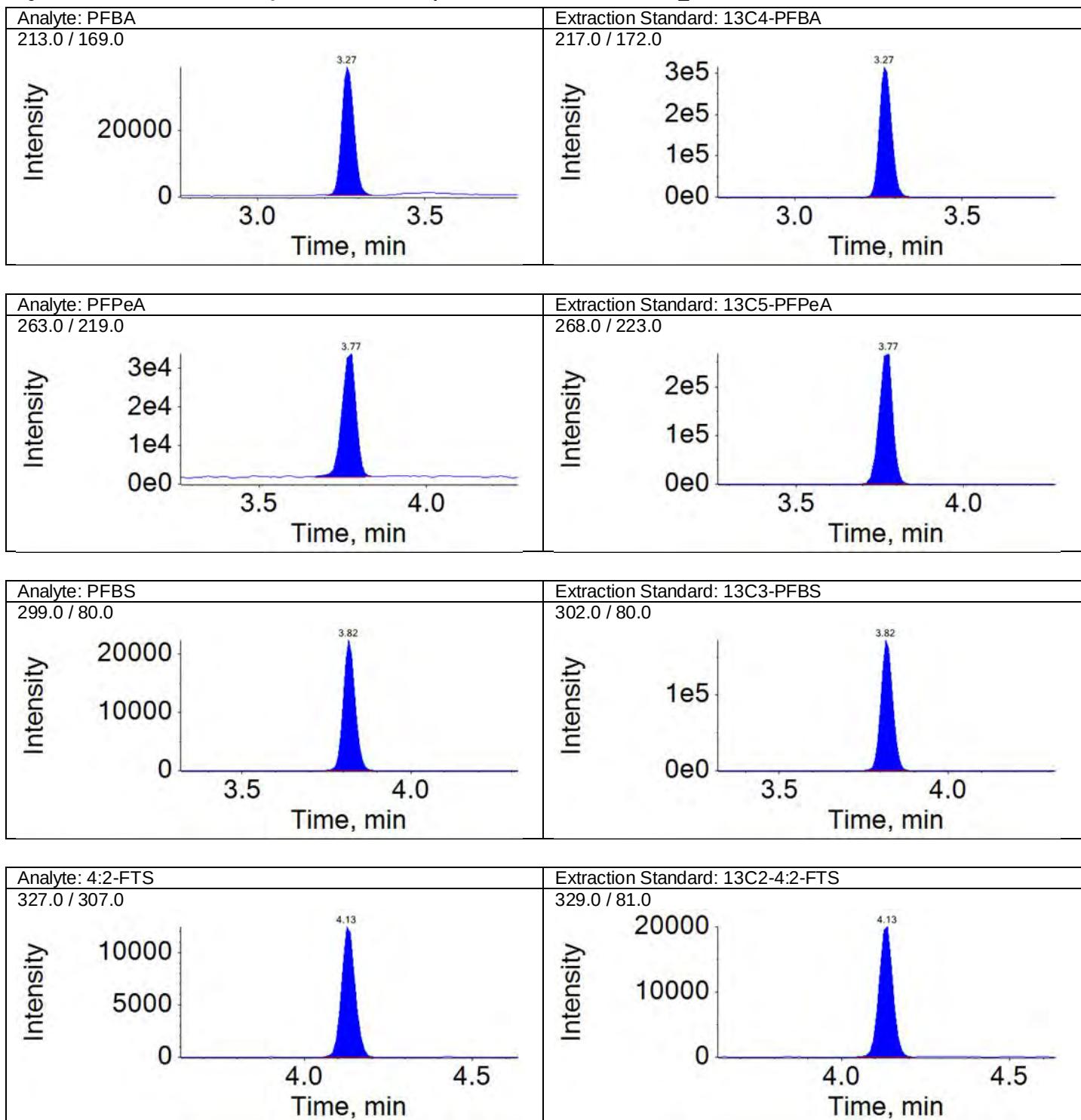
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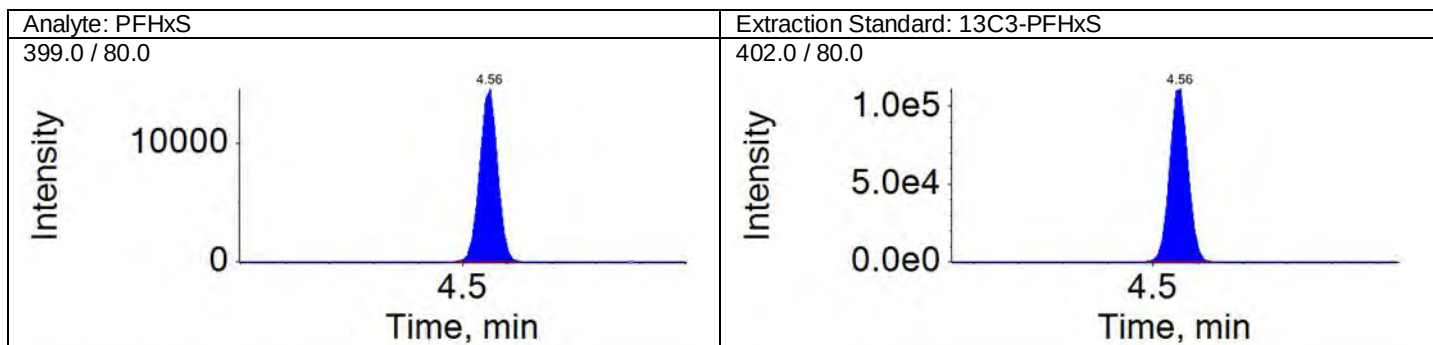
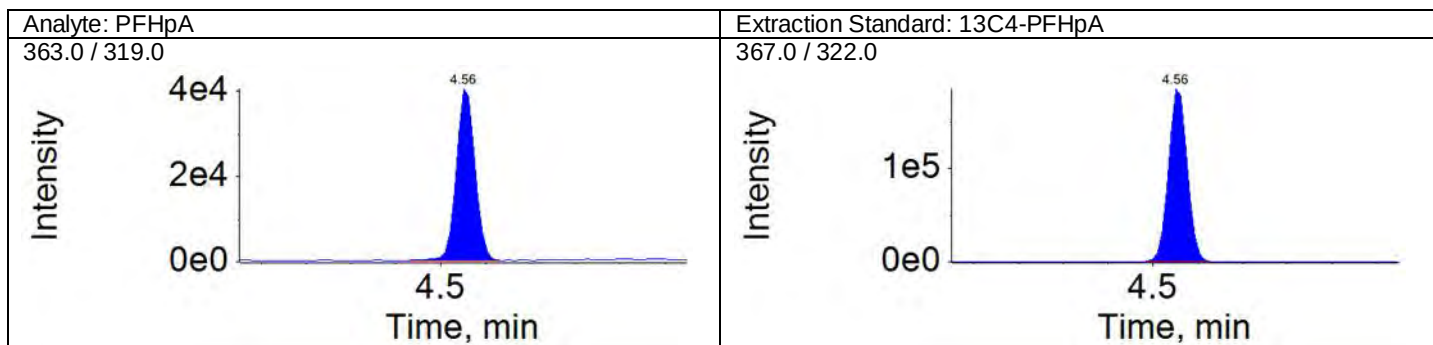
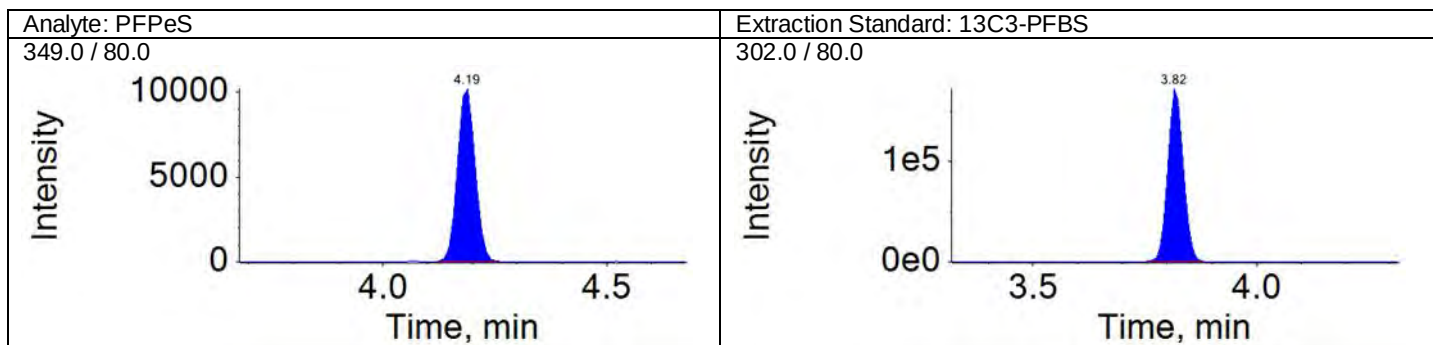
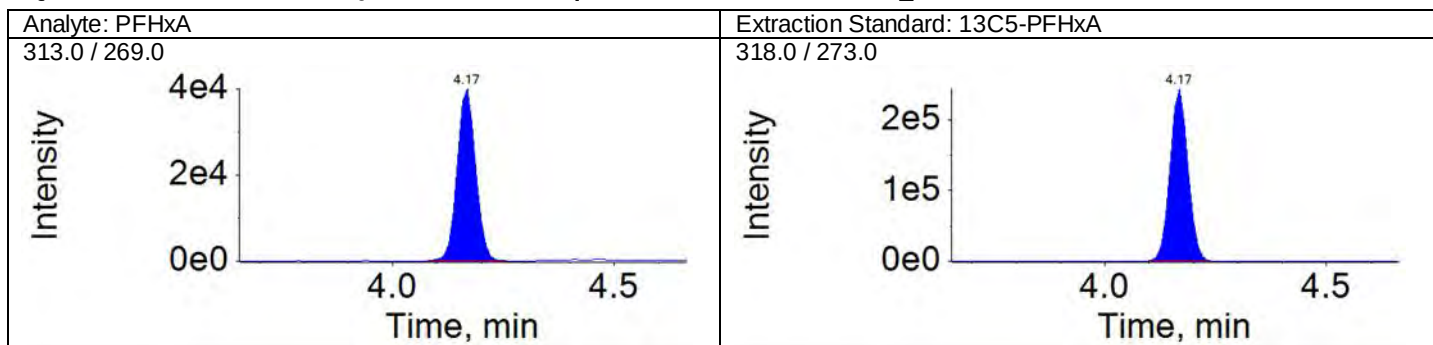
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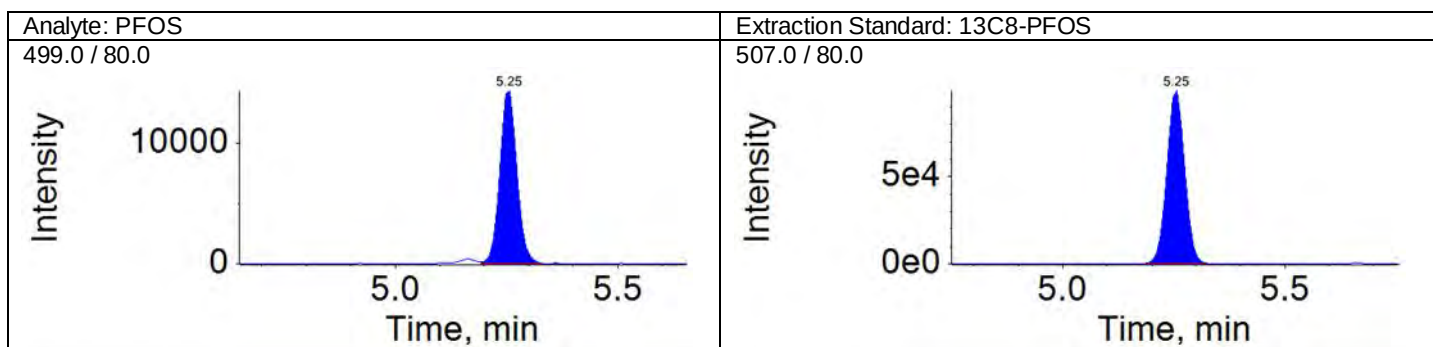
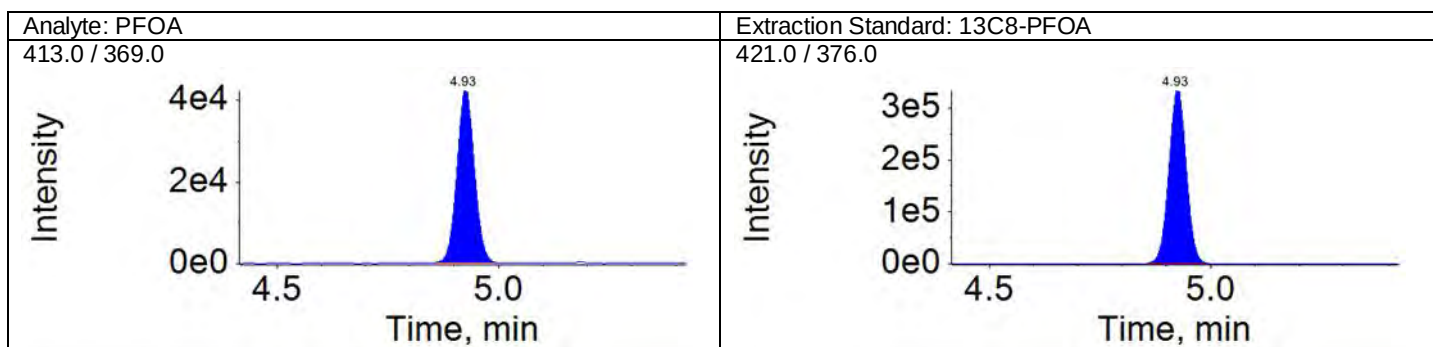
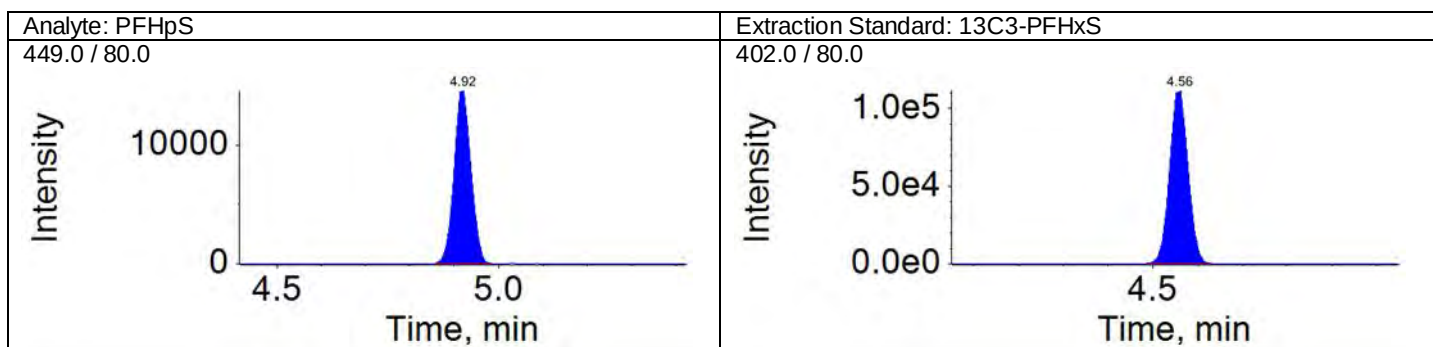
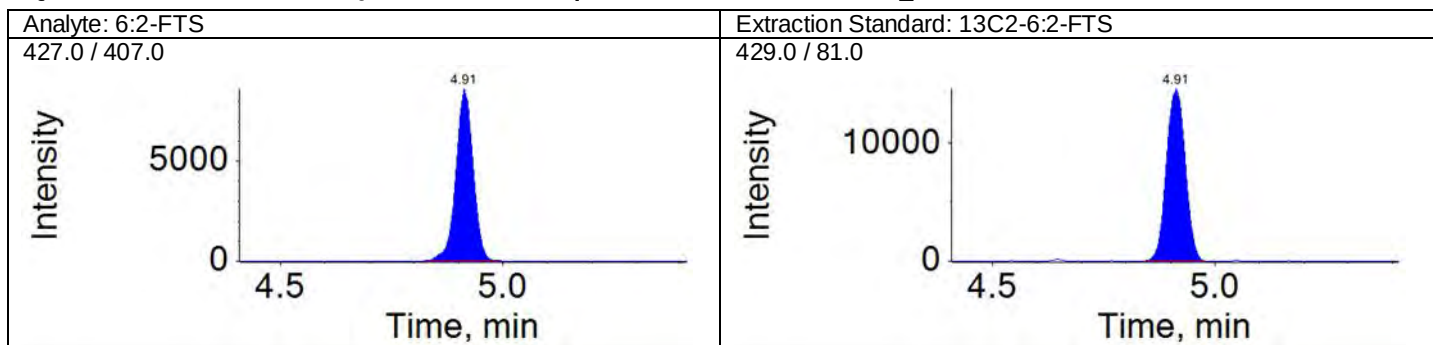
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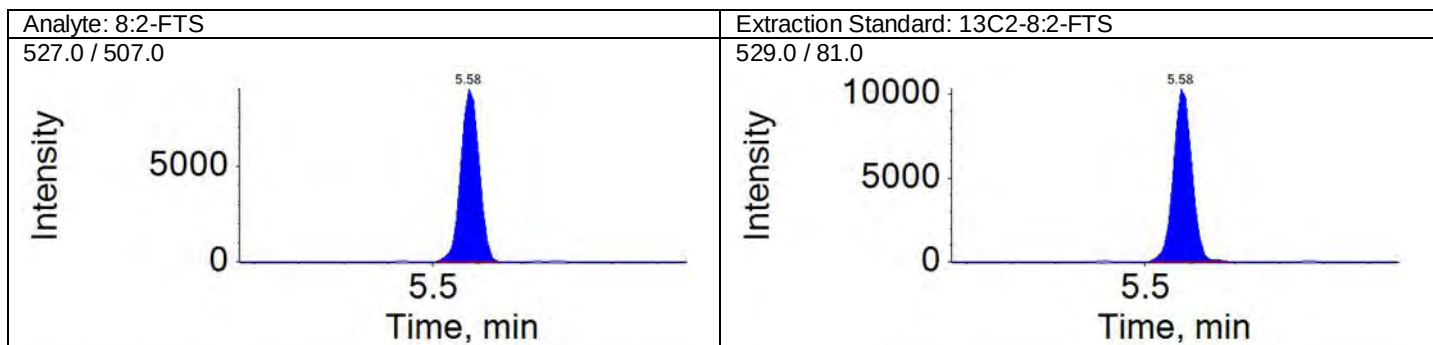
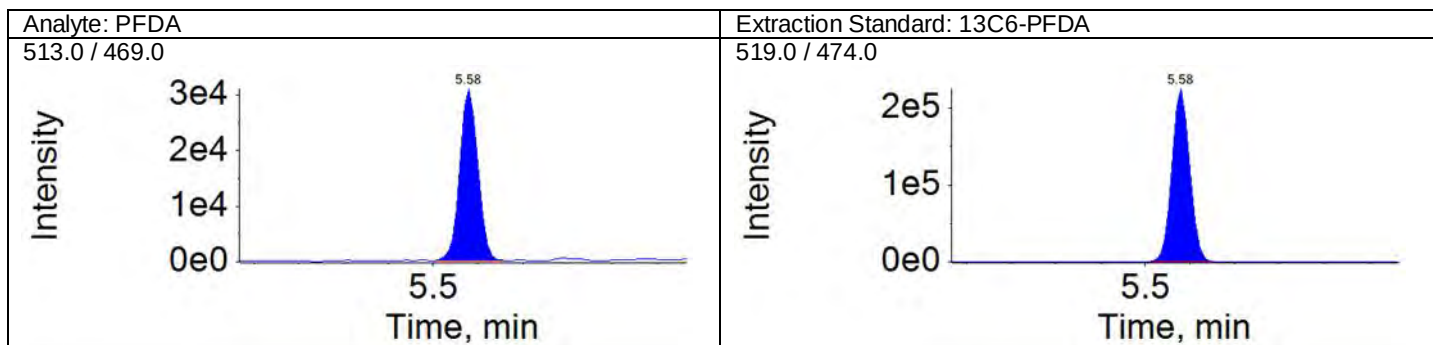
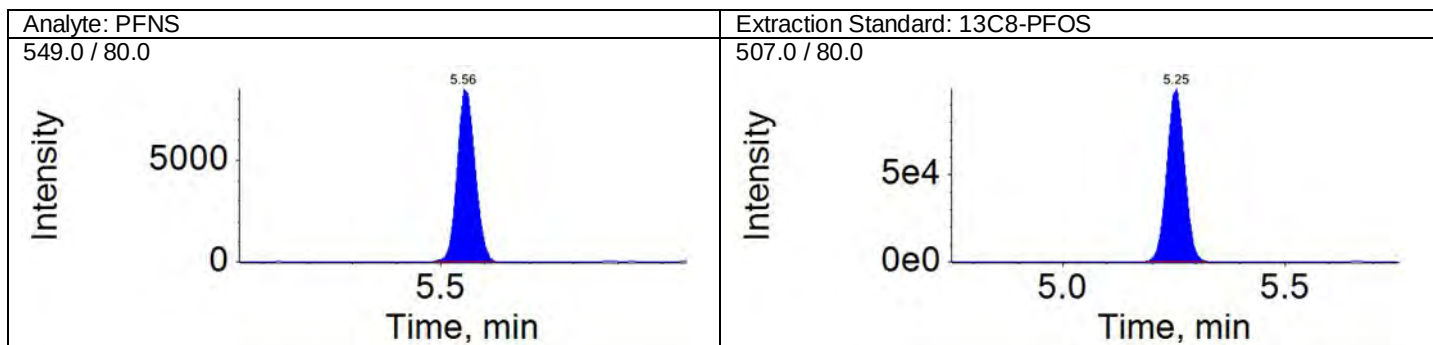
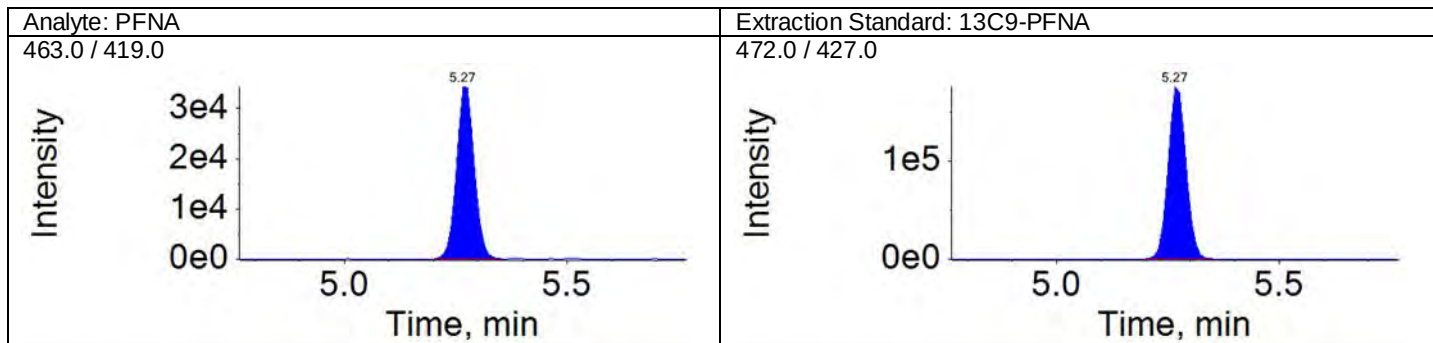
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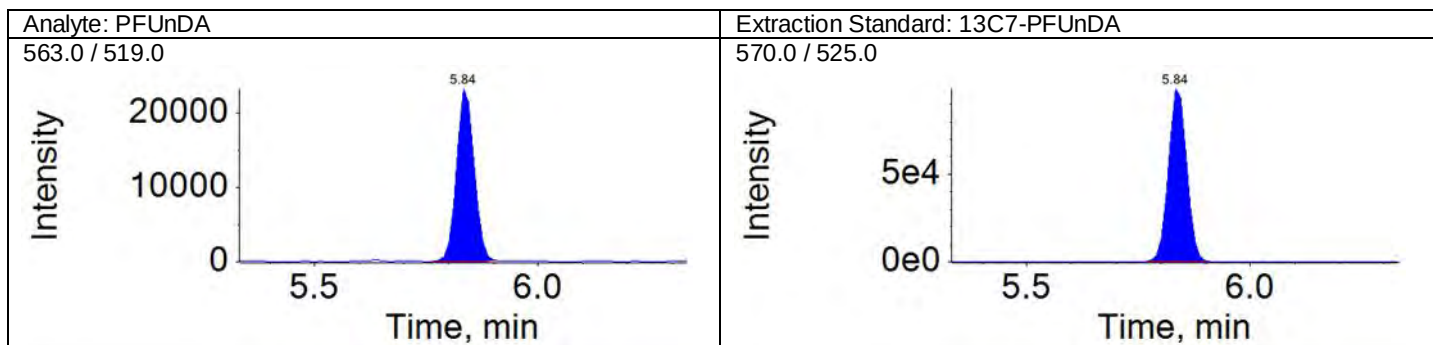
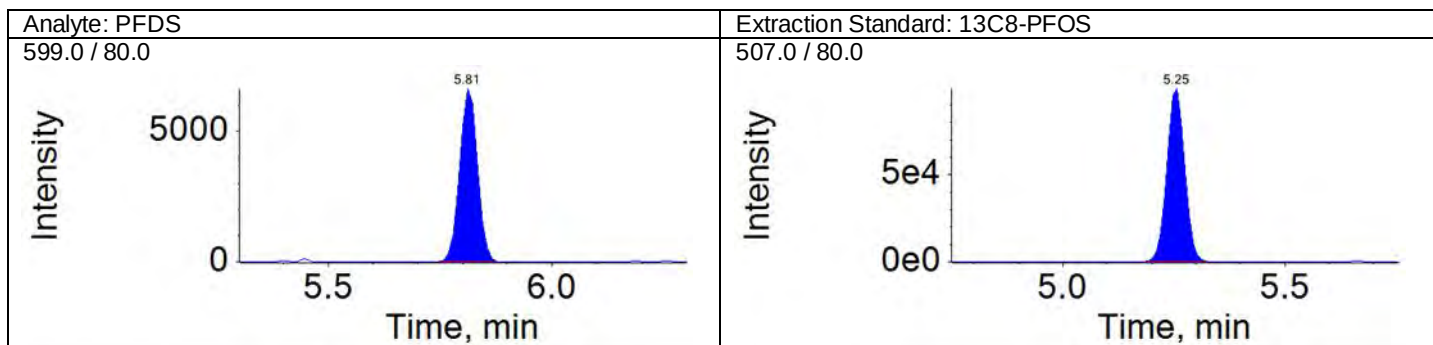
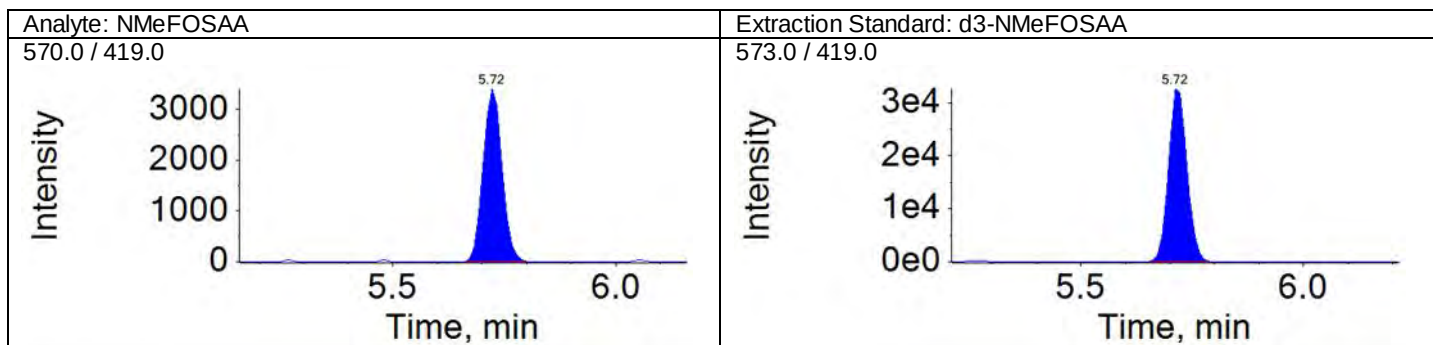
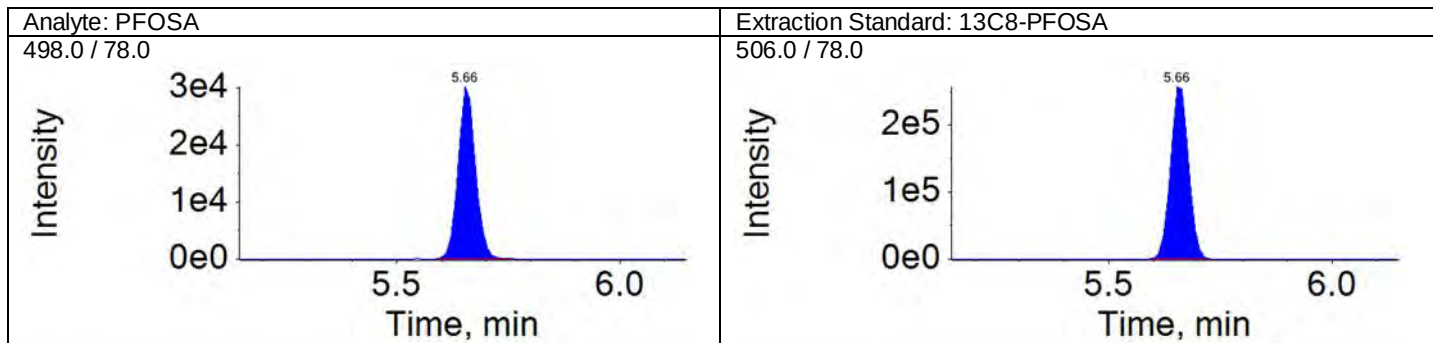
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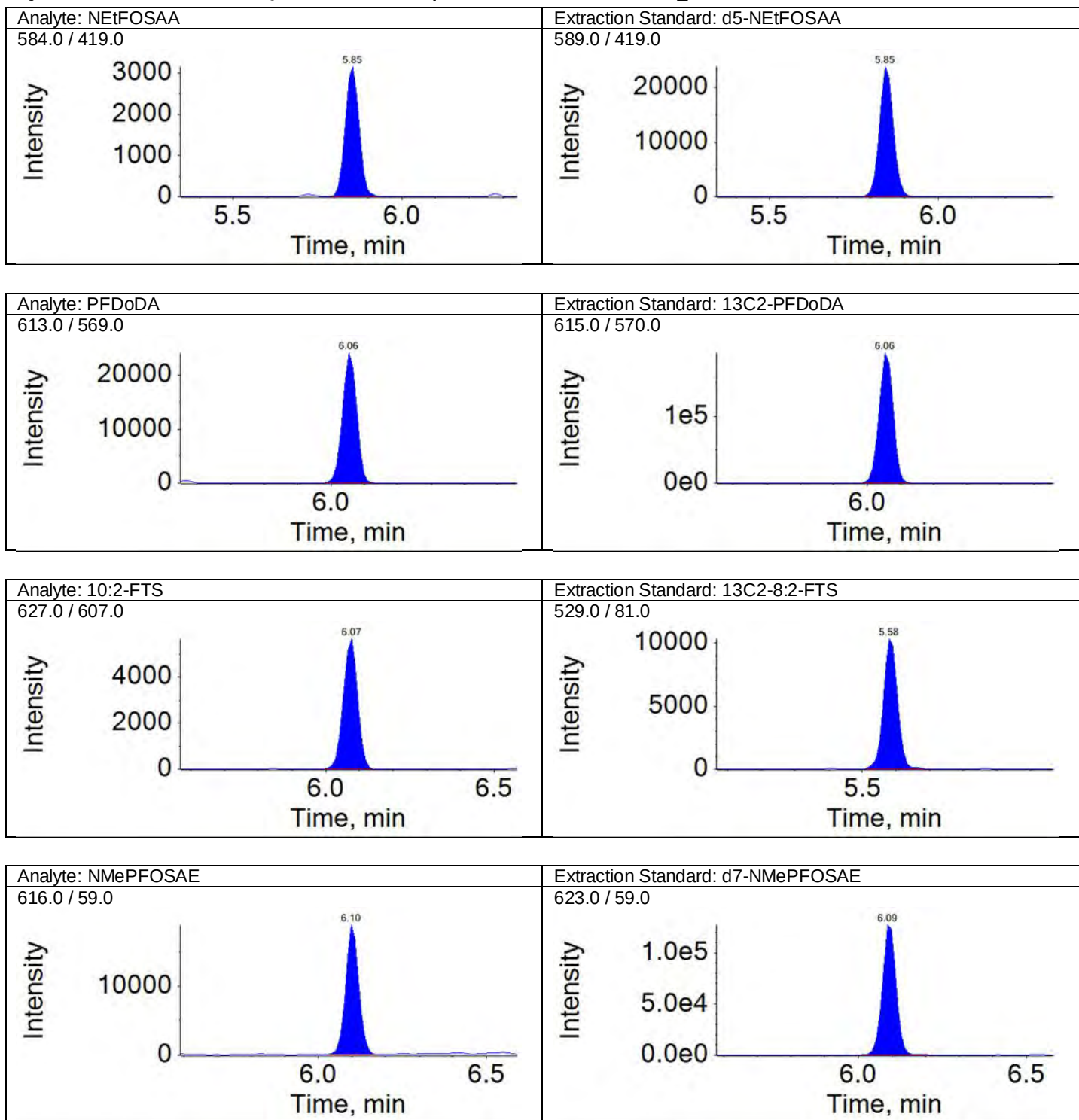
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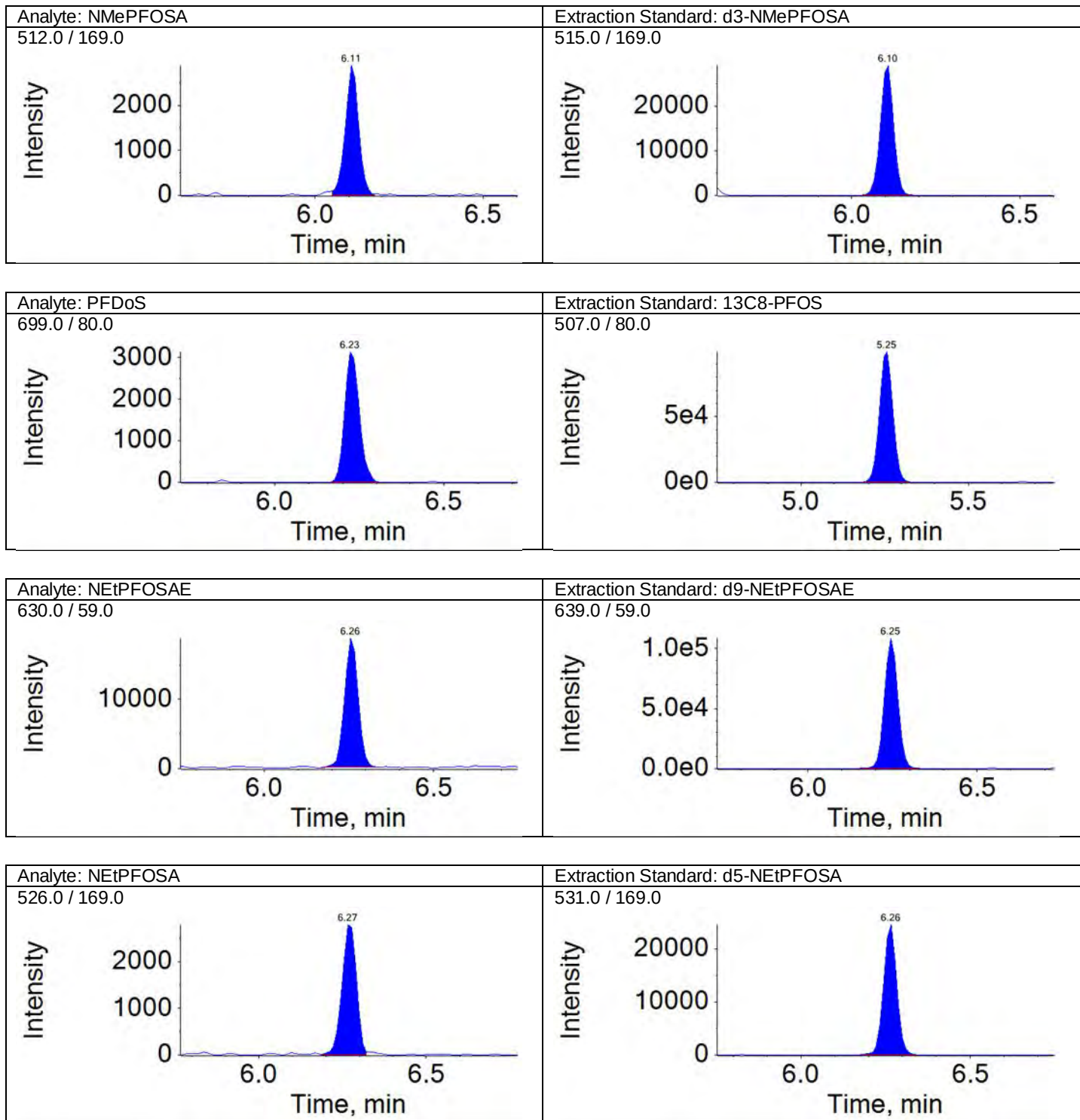
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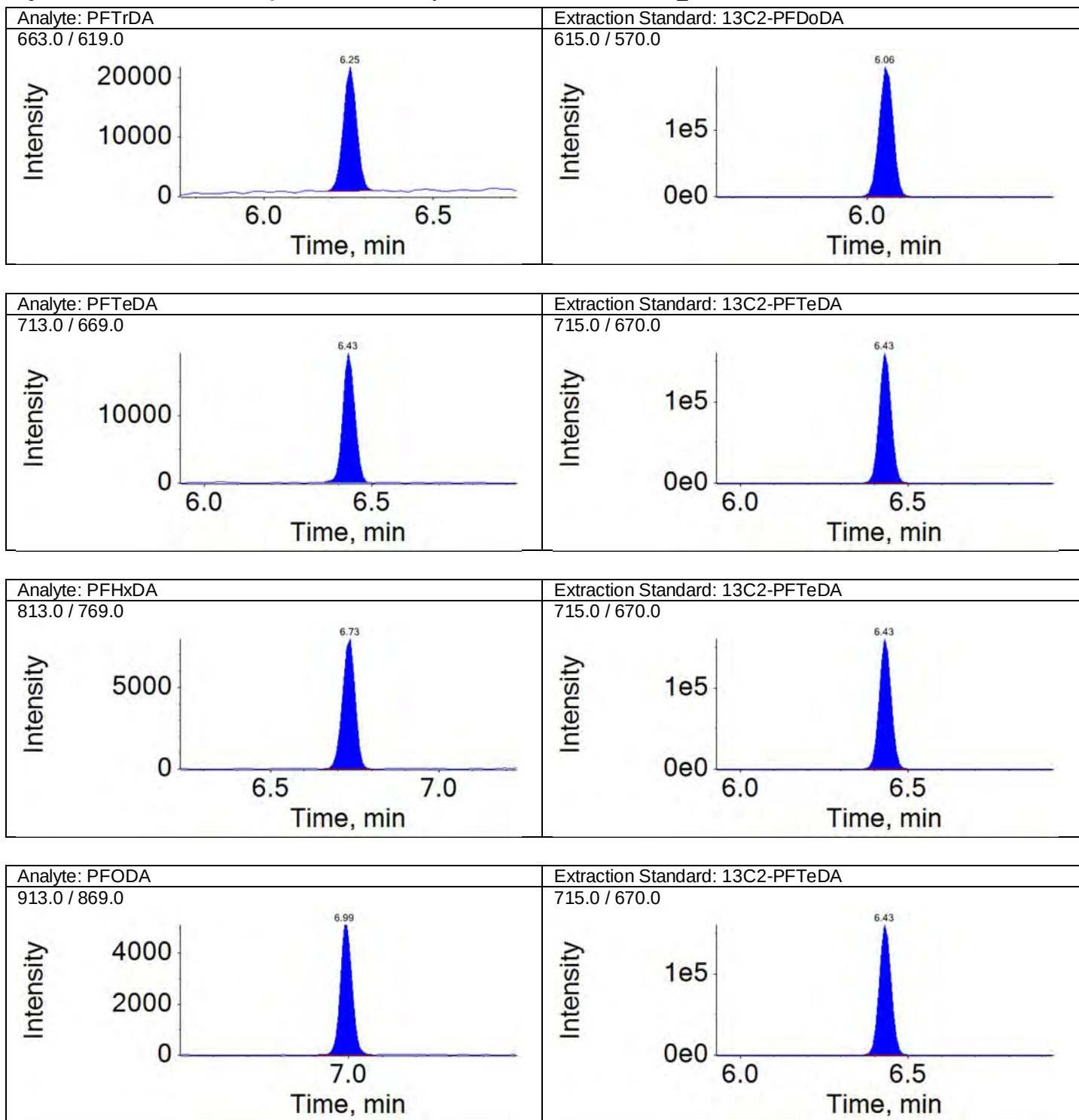
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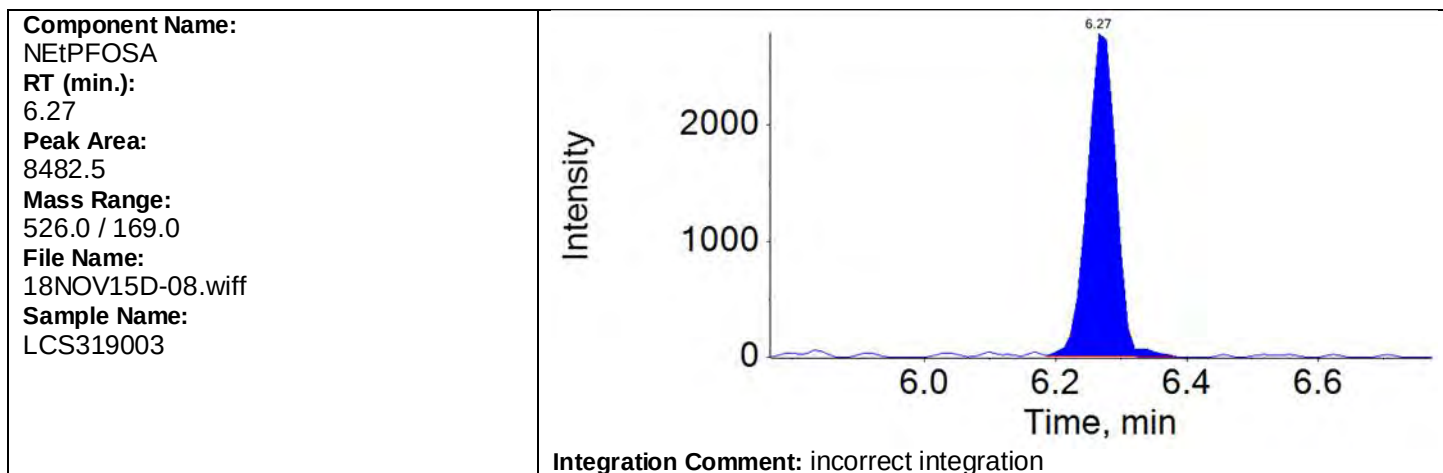
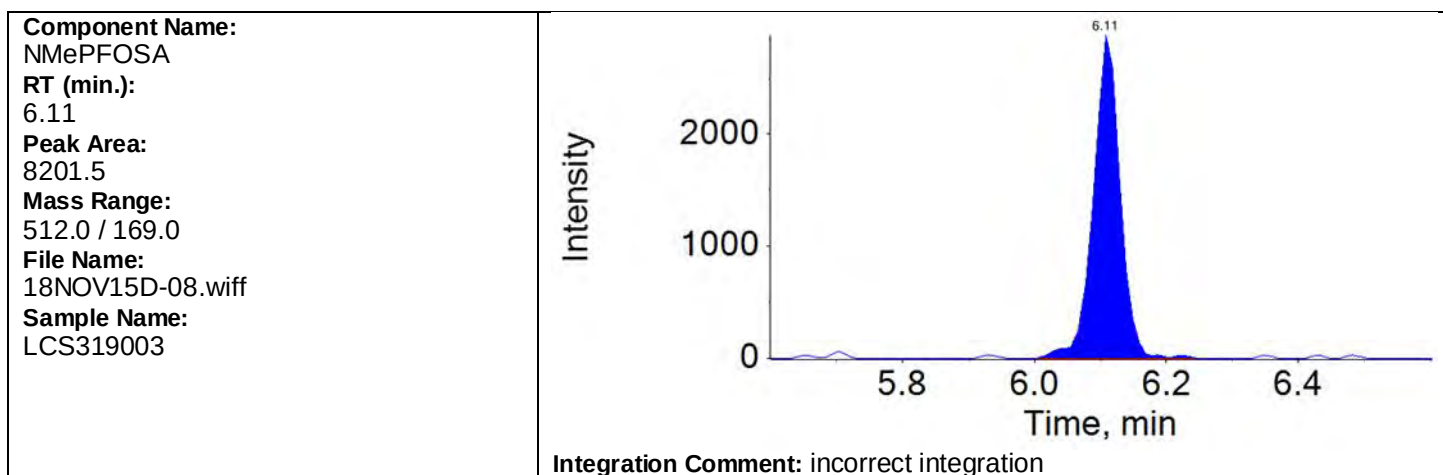
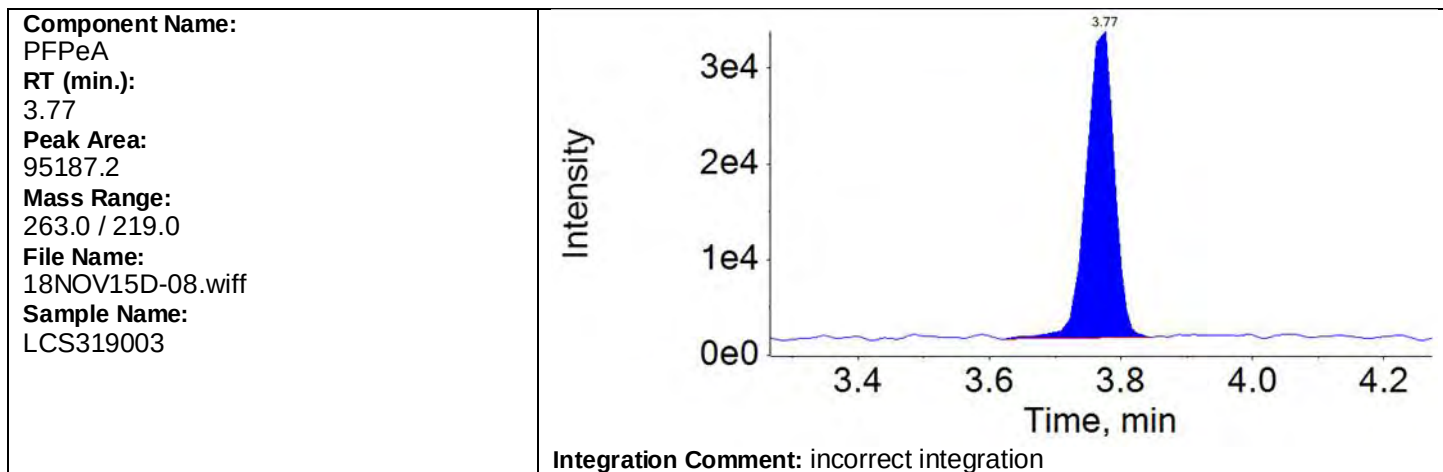
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QMethod Name: 18AUG20QM

Result Table: 18319003 11/16/2018 11:16:11 AM
Acquisition Method: 18AUG13_3uL.dam



Results Table Name: 18319003
Results Table Date: 11/16/2018 3:25:03 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM



Results Table Name: 18319003
Results Table Date: 11/16/2018 3:25:03 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED
By JPT at 3:32 pm, 11/16/18

REVIEWED
By HMK at 9:05 am, 11/19/18

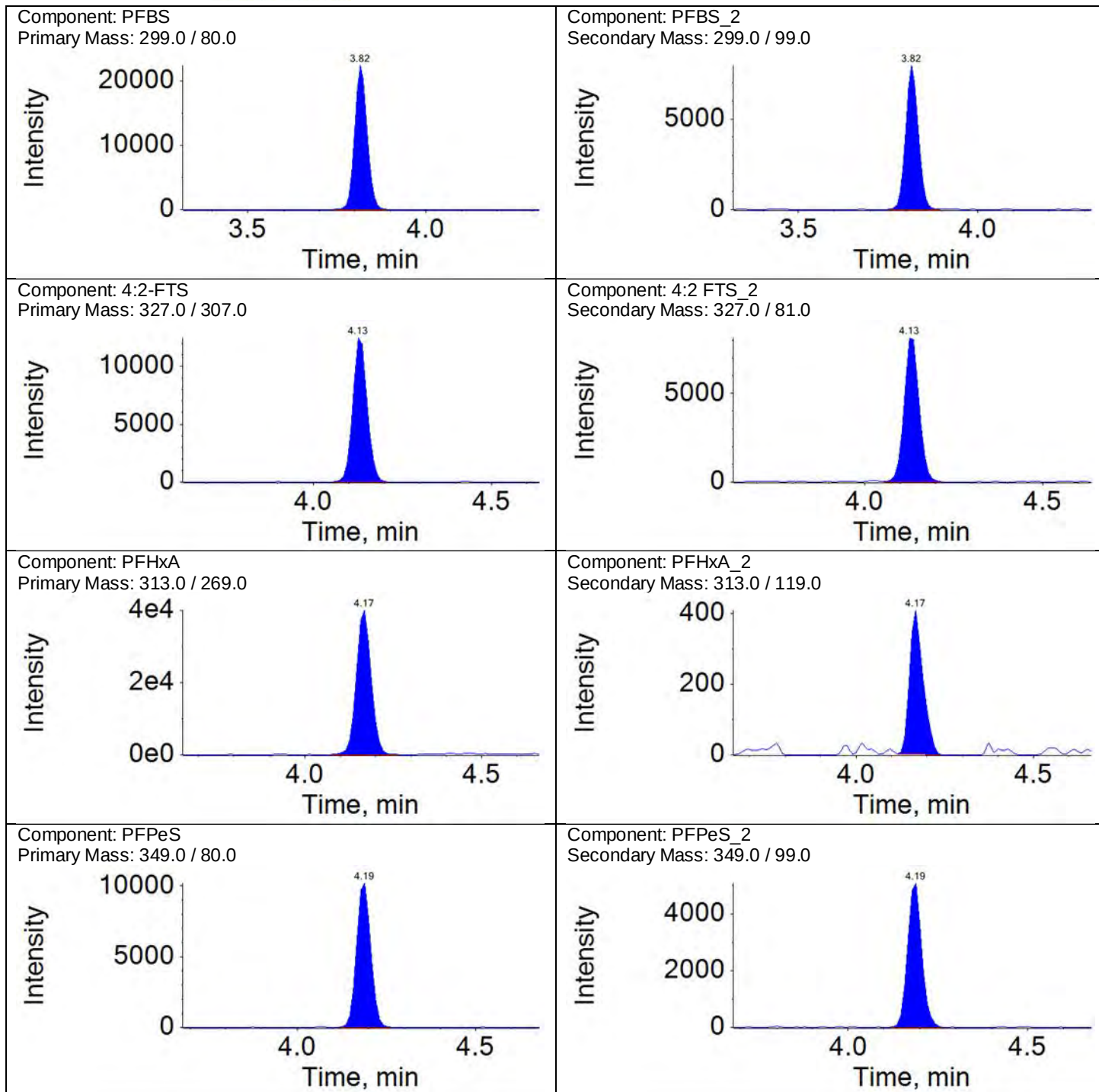
Ion Ratio Report

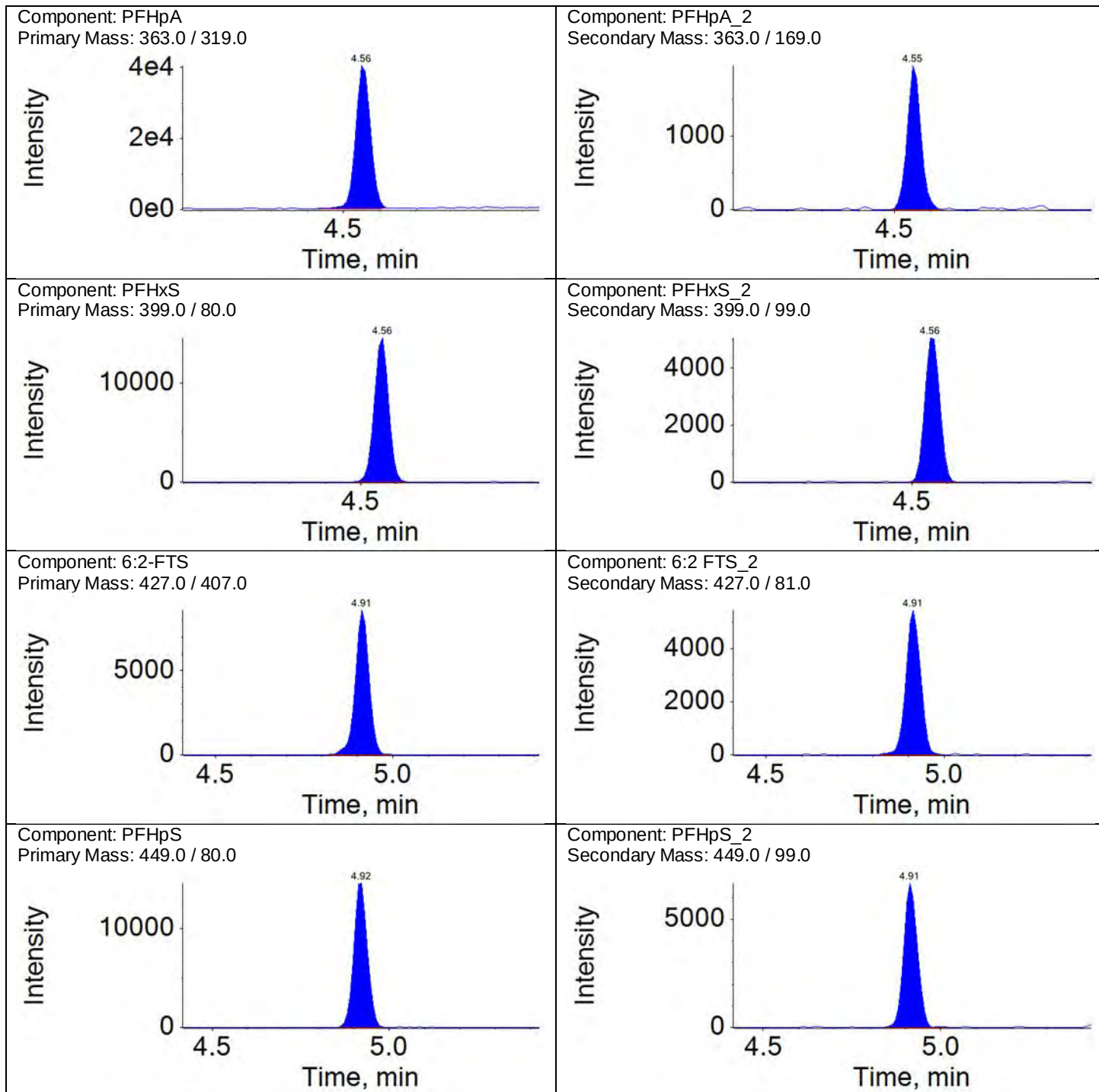
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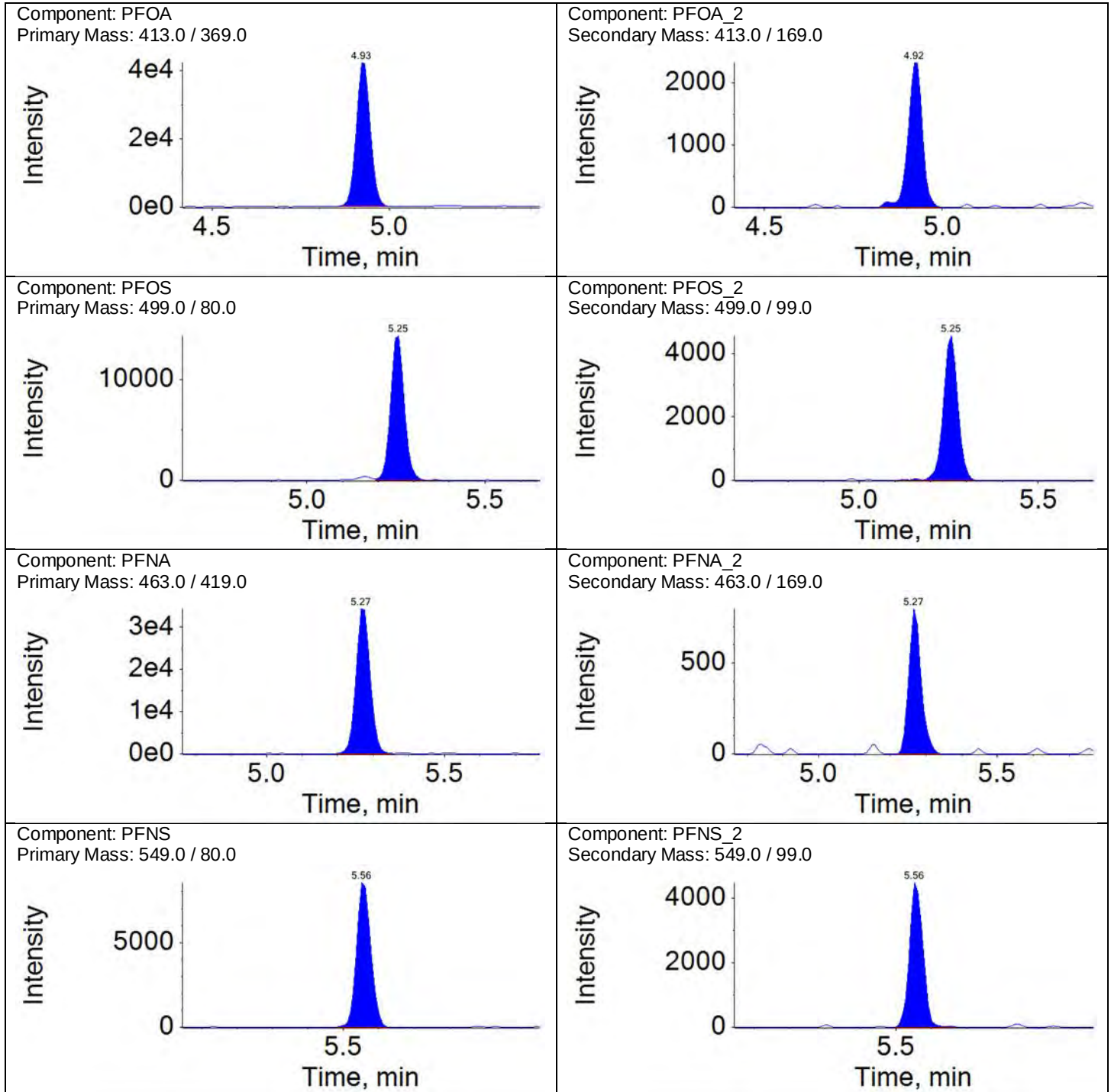
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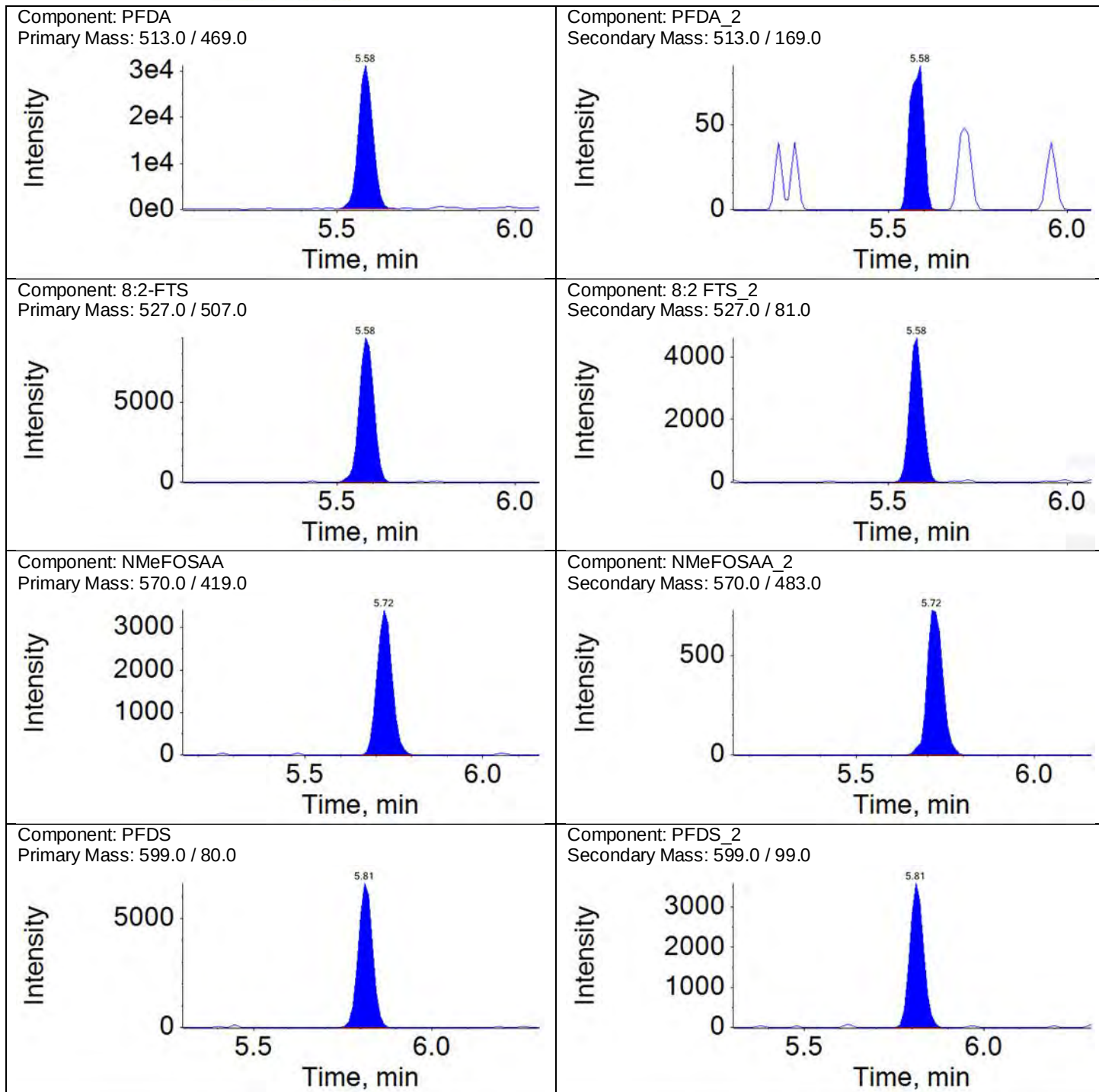
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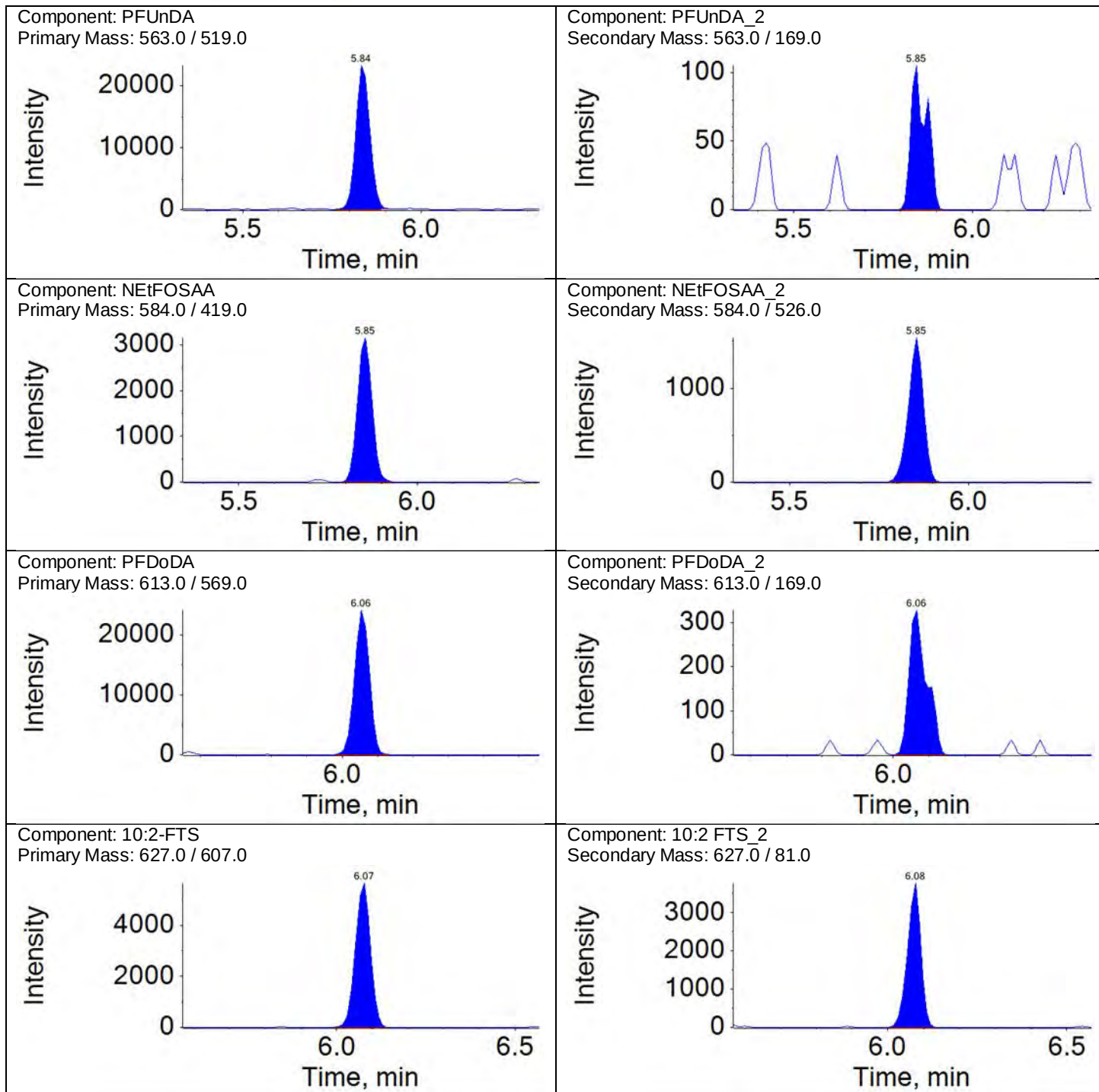
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PFBS	3.82	1.00	53803.5	A	N/A	1.0000			
PFBS_2	3.82	1.00	19363.3	A	N/A	0.3599	-1	50	
4:2-FTS	4.13	1.00	34785.2	A	N/A	1.0000			
4:2 FTS_2	4.13	1.00	23678.5	A	N/A	0.6807		#NA!	
PFHxA	4.17	1.00	115450.6	A	N/A	1.0000			
PFHxA_2	4.17	1.00	1074.1	A	N/A	0.0093	-21	50	
PFPeS	4.19	1.10	28041.6	A	N/A	1.0000			
PFPeS_2	4.19	1.10	13855.5	A	N/A	0.4941	-5	50	
PFHpA	4.56	1.00	116528.3	A	N/A	1.0000			
PFHpA_2	4.55	1.00	5194.4	A	N/A	0.0446	-21	50	
PFHxS	4.56	1.00	40913.0	A	N/A	1.0000			
PFHxS_2	4.56	1.00	14829.9	A	N/A	0.3625	5	50	
6:2-FTS	4.91	1.00	23078.1	A	N/A	1.0000			
6:2 FTS_2	4.91	1.00	15608.5	A	N/A	0.6763		#NA!	
PFHpS	4.92	1.08	38823.1	A	N/A	1.0000			
PFHpS_2	4.91	1.08	17913.2	A	N/A	0.4614	13	50	
PFOA	4.93	1.00	116200.1	A	N/A	1.0000			
PFOA_2	4.92	1.00	6524.2	A	N/A	0.0561	-1	50	
PFOS	5.25	1.00	38126.7	A	N/A	1.0000			
PFOS_2	5.25	1.00	12747.5	A	N/A	0.3343	13	50	
PFNA	5.27	1.00	95101.2	A	N/A	1.0000			
PFNA_2	5.27	1.00	1914.9	A	N/A	0.0201	-11	50	
PFNS	5.56	1.06	23860.4	A	N/A	1.0000			
PFNS_2	5.56	1.06	11783.1	A	N/A	0.4938	4	50	
PFDA	5.58	1.00	86587.1	A	N/A	1.0000			
PFDA_2	5.58	1.00	231.4	A	N/A	0.0027	-66	50	OOS
8:2-FTS	5.58	1.00	25748.7	A	N/A	1.0000			
8:2 FTS_2	5.58	1.00	11850.3	A	N/A	0.4602		#NA!	
NMeFOSAA	5.72	1.00	10024.7	A	N/A	1.0000			
NMeFOSAA_2	5.72	1.00	2221.6	A	N/A	0.2216	-14	50	
PFDS	5.81	1.11	18153.9	A	N/A	1.0000			
PFDS_2	5.81	1.11	9495.9	A	N/A	0.5231	3	50	
PFUnDA	5.84	1.00	63237.5	A	N/A	1.0000			
PFUnDA_2	5.85	1.00	324.4	A	N/A	0.0051	-7	50	
NEtFOSAA	5.85	1.00	8923.3	A	N/A	1.0000			
NEtFOSAA_2	5.85	1.00	4462.8	A	N/A	0.5001	-30	50	
PFDODA	6.06	1.00	70480.1	A	N/A	1.0000			
PFDODA_2	6.06	1.00	1143.2	A	N/A	0.0162	5	50	
10:2-FTS	6.07	1.09	16623.2	A	N/A	1.0000			
10:2 FTS_2	6.08	1.09	9758.7	A	N/A	0.5871		#NA!	
PFTTrDA	6.25	1.03	57256.2	A	N/A	1.0000			
PFTTrDA_2	6.25	1.03	568.0	A	N/A	0.0099	16	50	
PFTeDA	6.43	1.00	47809.8	A	N/A	1.0000			
PFTeDA_2	6.44	1.00	417.0	A	N/A	0.0087	40	50	
PFHxDA	6.73	1.05	20634.2	A	N/A	1.0000			
PFHxDA_2	6.73	1.05	1200.4	A	N/A	0.0582	-14	50	
PFODA	6.99	1.09	12388.9	A	N/A	1.0000			
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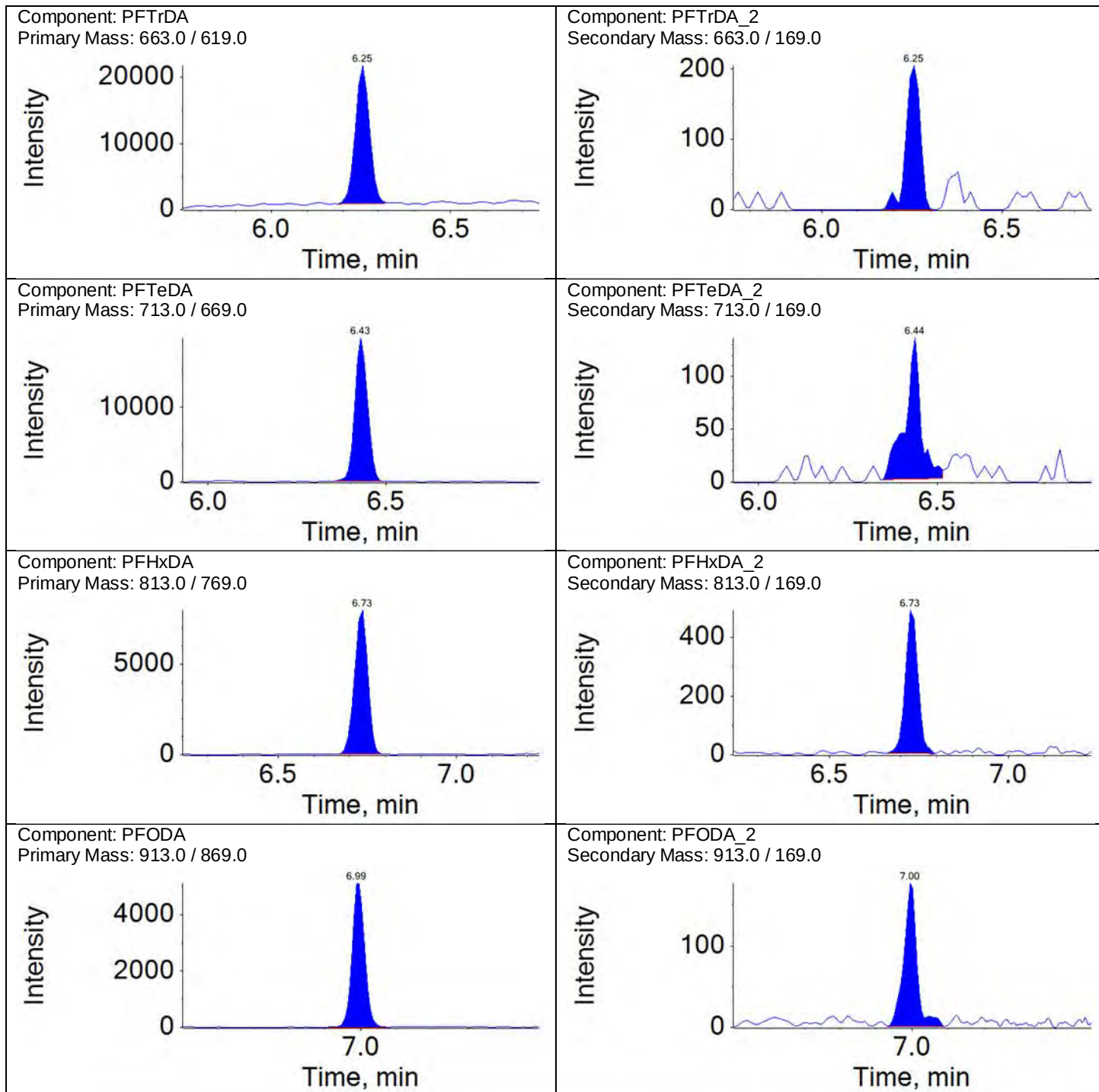










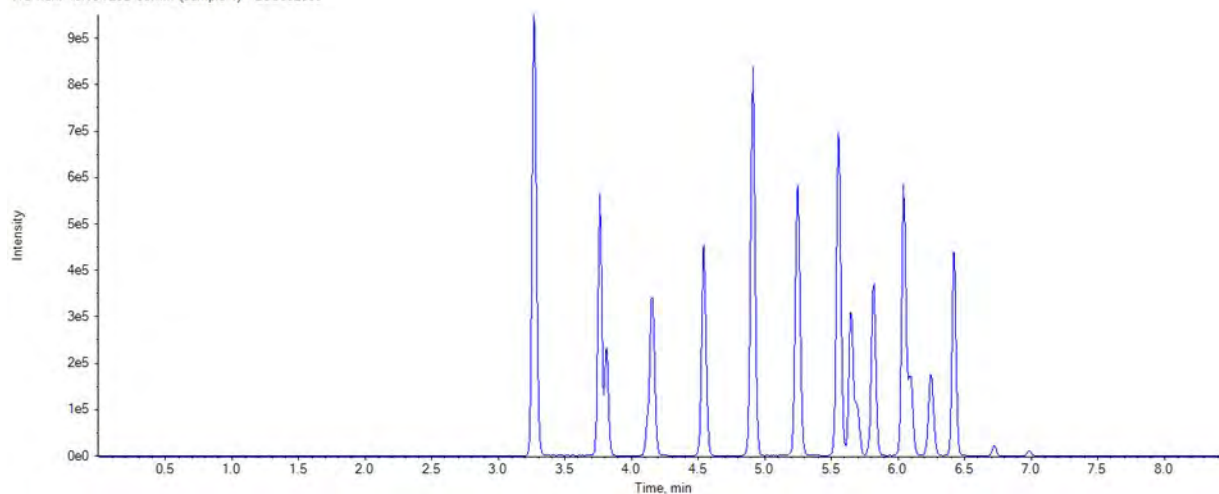


Lab Control Sample Recovery

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18332003 11/30/2018 9:52:39 PM
Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS332003	EPA 537 mod QSM 5.1 table B-15 18332003	18NOV29D-56.wiff	2018-11-29T18:13:39

TIC from 18NOV29D-56.wiff (sample 1) - LCS332003



Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Reference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.00	1066376.9	906425.4	18	50	
13C2-PFOA	5.00	600874.3	495984.0	21	50	
13C4-PFOS	4.78	371548.8	296261.8	25	50	
13C2-PFDA	5.00	557509.7	451203.0	24	50	

APPROVED

By MCD at 10:13 pm, 11/30/18

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By HMK at 2:27 pm, 12/6/18

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Lab Control Sample Recovery

ICAL Name: 18NOV28DCAL Result Table: 18332003 11/30/2018 9:52:39 PM
QMethod Name: 18AUG20QM Acquisition Method: 18AUG13_3uL.dam

Instrument Name:	Sample Name:	Sample ID:	Sample File:	Acquisition Date:
LM27631	LCS332003	EPA 537 mod QSM 5.1 table B-15 18332003	18NOV29D-56.wiff	2018-11-29T18:13:39

Analyte Name	Analyte Area	Ext Std Area	Area Ratio	Adj Actual Conc	Sample Result	%REC	% REC Limit	%REC OOS
PFBA	115213.7	1010092.5	0.114	1.360	1.251	92	70-130	
PFPeA	108769.2	993629.3	0.109	1.360	1.074	79	70-130	
PFBS	47400.8	411158.2	0.115	1.204	1.119	93	70-130	
4:2-FTS	44925.4	83476.3	0.538	3.736	2.881	77	70-130	
PFHxA	108517.0	673048.2	0.161	1.360	1.294	95	70-130	
PFPeS	25275.2	411158.2	0.061	1.276	1.244	97	70-130	
PFHpA	111132.4	537048.3	0.207	1.360	1.277	94	70-130	
PFHxS	38520.3	340075.1	0.113	1.286	1.061	82	70-130	
6:2-FTS	43250.5	75006.8	0.577	3.792	3.009	79	70-130	
PFHpS	39014.5	340075.1	0.115	1.294	1.145	88	70-130	
PFOA	111412.0	997849.3	0.112	1.360	1.154	85	70-130	
PFOS	36350.5	335227.0	0.108	1.300	0.910	70	70-130	
PFNA	107498.4	627256.0	0.171	1.360	1.314	97	70-130	
PFNS	25510.1	335227.0	0.076	1.306	0.961	74	70-130	
PFDA	91367.7	841987.6	0.109	1.360	1.228	90	70-130	
8:2-FTS	47406.4	58620.1	0.809	3.832	3.050	80	70-130	
PFOSA	71087.0	662825.4	0.107	1.360	1.087	80	70-130	
NMeFOSAA	20635.0	232183.4	0.089	1.360	1.134	83	70-130	
PFDS	22691.0	335227.0	0.068	1.310	1.073	82	70-130	
PFUnDA	109727.5	579460.2	0.189	1.360	1.354	100	70-130	
NEtFOSAA	18556.9	146322.6	0.127	1.360	1.235	91	70-130	
PFDoDA	127385.4	1116373.7	0.114	1.360	1.250	92	70-130	
10:2-FTS	43892.0	58620.1	0.749	3.856	3.302	86	70-130	
NMePFOSAE	37415.4	275450.0	0.136	1.360	1.143	84	70-130	
NMePFOSA	9167.5	93937.0	0.098	1.360	1.035	76	70-130	
PFDoS	12671.5	335227.0	0.038	1.316	1.086	83	70-130	
NEtPFOSAE	38059.3	218517.0	0.174	1.360	1.253	92	70-130	
NEtPFOSA	8729.3	72668.5	0.120	1.360	1.077	79	70-130	
PFTTrDA	125876.8	1116373.7	0.113	1.360	1.359	100	70-130	
PFTeDA	91923.0	824972.6	0.111	1.360	1.263	93	70-130	
PFHxDA	44242.6	824972.6	0.054	1.360	1.226	90	70-130	
PFODA	24810.3	824972.6	0.030	1.360	0.801	59	70-130	OOS

Lab Control Sample Recovery

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:52:39 PM
Acquisition Method: 18AUG13_3uL.dam

APPROVED
By MCD at 10:13 pm, 11/30/18

REVIEWED
By HMK at 2:27 pm, 12/6/18

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam

Sample Name:	LCS332003		Data File:	18NOV29D-56.wiff
Sample ID:	EPA 537 mod QSM 5.1 table B-15 18332003		Acquis Date:	2018-11-29T18:13:39
Sample Type:	Quality Control		Instrument:	LM27631
Vial Position:	36		Acquis Method:	18AUG13_3uL.dam
Injection Vol:	3.00		Result Table:	18332003
QMethod File:	18AUG20QM		ICAL Name:	18NOV28DCAL
Batch Number:	18332003		Operator:	MCD7824
Sample Wt.:	1.00000		Dilution Factor:	1.00
Sample Vol.:	1.000		Prep Factor:	2.000

Injection Standard Peak Table

Injection Standard Area Reference File: 18NOV29D-05

Injection Standard Name	Inj Std Conc	Injection Std Peak Area	Rreference Injection Standard Area	Injection Std %Diff	Injection Std %Diff Limit	Injection Std %Diff OOS
13C3-PFBA	5.0	1066376.9	906425.4	18	50	
13C2-PFOA	5.0	600874.3	495984.0	21	50	
13C4-PFOS	4.8	371548.8	296261.8	25	50	
13C2-PFDA	5.0	557509.7	451203.0	24	50	

Extraction Standard Peak Table

Extraction Standard Name	Ext Std Area	Inj Std Name	Inj Std Area	Area Ratio	Ext Std Conc	Ext Std Result	Ext Std %REC	Ext Std %REC Limit	Ext Std OOS
E13C4-PFBA	1010092.5	13C3-PFBA	1066376.9	0.947	10.000	8.452	85	50-150	
E13C5-PFPeA	993629.3	13C3-PFBA	1066376.9	0.932	10.000	8.702	87	50-150	
E13C3-PFBS	411158.2	13C3-PFBA	1066376.9	0.386	9.300	7.357	79	50-150	
E13C2-4:2-FTS	83476.3	13C2-PFOA	600874.3	0.139	9.340	9.575	103	50-150	
E13C5-PFHxA	673048.2	13C2-PFOA	600874.3	1.120	10.000	8.228	82	50-150	
E13C3-PFHxS	340075.1	13C2-PFOA	600874.3	0.566	9.460	8.872	94	50-150	
E13C4-PFHpA	537048.3	13C2-PFOA	600874.3	0.894	10.000	8.214	82	50-150	
E13C2-6:2-FTS	75006.8	13C2-PFOA	600874.3	0.125	9.500	10.451	110	50-150	
E13C8-PFOA	997849.3	13C2-PFOA	600874.3	1.661	10.000	9.142	91	50-150	
E13C8-PFOS	335227.0	13C4-PFOS	371548.8	0.902	9.560	8.146	85	50-150	
E13C9-PFNA	627256.0	13C4-PFOS	371548.8	1.688	10.000	7.416	74	50-150	
E13C6-PFDA	841987.6	13C2-PFDA	557509.7	1.510	10.000	8.516	85	50-150	
E13C2-8:2-FTS	58620.1	13C2-PFDA	557509.7	0.105	9.580	9.038	94	50-150	
E13C8-PFOSA	662825.4	13C2-PFDA	557509.7	1.189	10.000	8.725	87	50-150	
Ed3-NMeFOSAA	232183.4	13C2-PFDA	557509.7	0.416	10.000	10.575	106	50-150	
E13C7-PFUnDA	579460.2	13C2-PFDA	557509.7	1.039	10.000	8.786	88	50-150	
Ed5-NetFOSAA	146322.6	13C2-PFDA	557509.7	0.262	10.000	9.352	94	50-150	
E13C2-PFDoDA	1116373.7	13C2-PFDA	557509.7	2.002	10.000	8.414	84	50-150	
Ed7-NMePFOSAE	275450.0	13C2-PFDA	557509.7	0.494	10.000	8.540	85	50-150	
Ed3-NMePFOSA	93937.0	13C2-PFDA	557509.7	0.168	10.000	9.120	91	50-150	
Ed9-NetPFOSAE	218517.0	13C2-PFDA	557509.7	0.392	10.000	7.947	79	50-150	
Ed5-NetPFOSA	72668.5	13C2-PFDA	557509.7	0.130	10.000	9.058	91	50-150	
E13C2-PFTeDA	824972.6	13C2-PFDA	557509.7	1.480	10.000	8.189	82	50-150	

ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QMResult Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam

Analyte Quantitation Peak Table

Sample Name: LCS332003

Instrument Name: LM27631

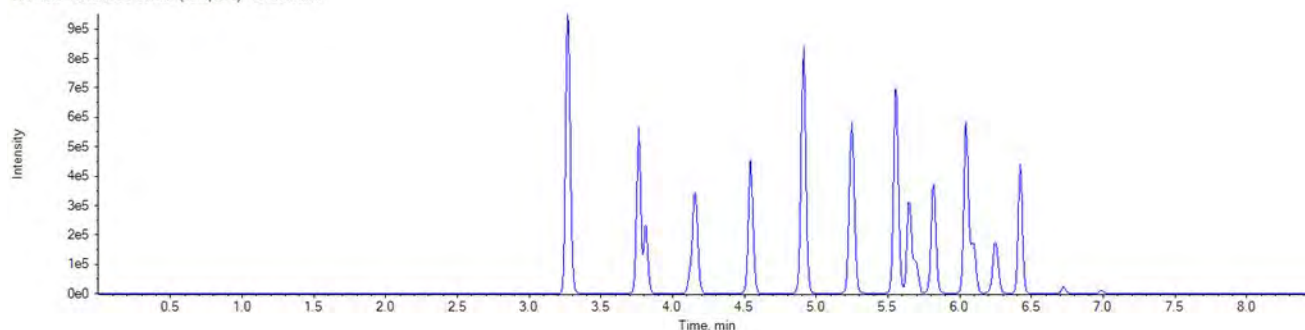
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Sample Wt	Sample Vol	Dilution Factor	PrepFactor
1.00000	1.000	1.00	2.000

Analyte Name	RT	RRT	Analyte Area Response	E	Int Typ	ES Name	ES RT	ES Area Response	Area Ratio	Sample Result (ng/g)
PFBA	3.27	1.000	115213.7		A	13C4-PFBA	3.27	1010092.5	0.114	1.251
PFPeA	3.76	1.000	108769.2		A	13C5-PFPeA	3.76	993629.3	0.109	1.074
PFBS	3.81	1.000	47400.8		A	13C3-PFBS	3.81	411158.2	0.115	1.119
4:2-FTS	4.12	1.000	44925.4		A	13C2-4:2-FTS	4.12	83476.3	0.538	2.881
PFHxA	4.15	1.000	108517.0		A	13C5-PFHxA	4.16	673048.2	0.161	1.294
PFPeS	4.18	1.100	25275.2		A	13C3-PFBS	3.81	411158.2	0.061	1.244
PFHpA	4.54	1.000	111132.4		A	13C4-PFHpA	4.54	537048.3	0.207	1.277
PFHxS	4.54	1.000	38520.3		A	13C3-PFHxS	4.55	340075.1	0.113	1.061
6:2-FTS	4.90	1.000	43250.5		A	13C2-6:2-FTS	4.90	75006.8	0.577	3.009
PFHpS	4.91	1.080	39014.5		A	13C3-PFHxS	4.55	340075.1	0.115	1.145
PFOA	4.91	1.000	111412.0		A	13C8-PFOA	4.91	997849.3	0.112	1.154
PFOS	5.24	1.000	36350.5		M	13C8-PFOS	5.24	335227.0	0.108	0.910
PFNA	5.26	1.000	107498.4		A	13C9-PFNA	5.25	627256.0	0.171	1.314
PFNS	5.53	1.060	25510.1		A	13C8-PFOS	5.24	335227.0	0.076	0.961
PFDA	5.56	1.000	91367.7		A	13C6-PFDA	5.55	841987.6	0.109	1.228
8:2-FTS	5.56	1.000	47406.4		A	13C2-8:2-FTS	5.56	58620.1	0.809	3.050
PFOSA	5.65	1.000	71087.0		A	13C8-PFOSA	5.65	662825.4	0.107	1.087
NMeFOSAA	5.70	1.000	20635.0		M	d3-NMeFOSAA	5.69	232183.4	0.089	1.134
PFDS	5.79	1.100	22691.0		A	13C8-PFOS	5.24	335227.0	0.068	1.073
PfUnDA	5.81	1.000	109727.5		A	13C7-PfUnDA	5.82	579460.2	0.189	1.354
NEtFOSAA	5.83	1.000	18556.9		A	d5-NEtFOSAA	5.83	146322.6	0.127	1.235
PFDaDA	6.04	1.000	127385.4		A	13C2-PFDaDA	6.04	1116373.7	0.114	1.250
10:2-FTS	6.06	1.090	43892.0		A	13C2-8:2-FTS	5.56	58620.1	0.749	3.302
NMePFOSAE	6.10	1.000	37415.4		A	d7-NMePFOSAE	6.09	275450.0	0.136	1.143
NMePFOSA	6.11	1.000	9167.5		A	d3-NMePFOSA	6.10	93937.0	0.098	1.035
PFDaS	6.21	1.190	12671.5		A	13C8-PFOS	5.24	335227.0	0.038	1.086
NEtPFOSAE	6.26	1.000	38059.3		A	d9-NEtPFOSAE	6.25	218517.0	0.174	1.253
NEtPFOSA	6.27	1.000	8729.3		A	d5-NEtPFOSA	6.27	72668.5	0.120	1.077
PFTaDA	6.24	1.030	125876.8		A	13C2-PFDaDA	6.04	1116373.7	0.113	1.359
PFTeDA	6.42	1.000	91923.0		A	13C2-PFTeDA	6.42	824972.6	0.111	1.263
PFHxDA	6.72	1.050	44242.6		A	13C2-PFTeDA	6.42	824972.6	0.054	1.226
PFODA	6.99	1.090	24810.3		A	13C2-PFTeDA	6.42	824972.6	0.030	0.801

Total Ion Chromatogram

TIC from 18NOV29D-56.wiff (sample 1) - LCS332003

APPROVED
By MCD at 10:13 pm, 11/30/18

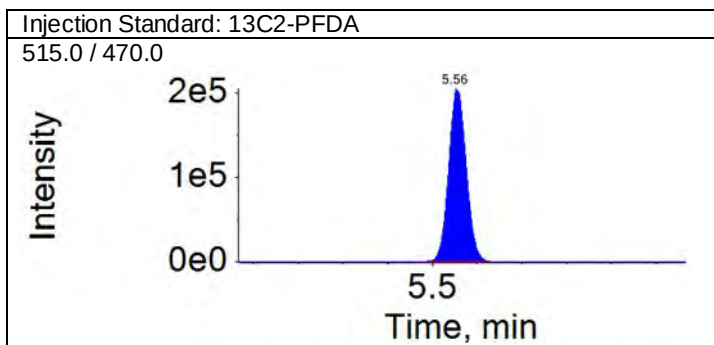
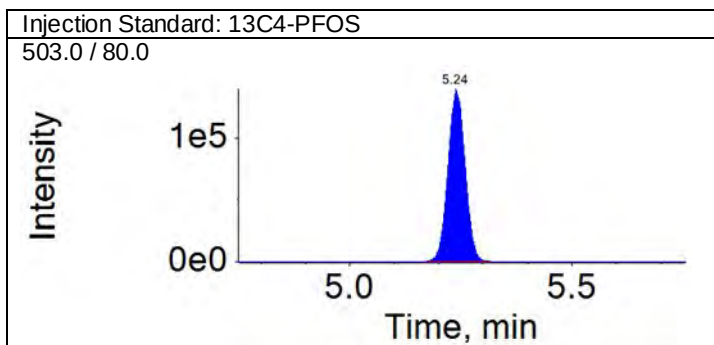
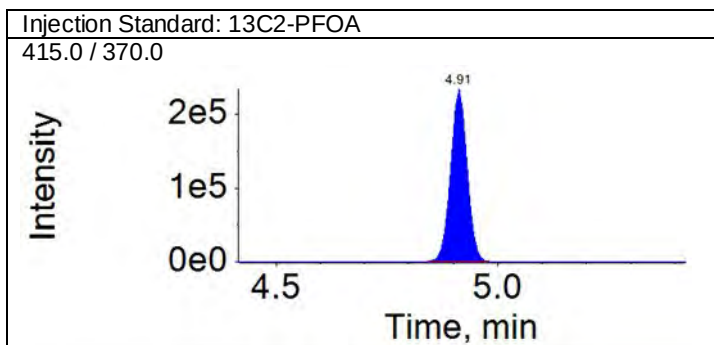
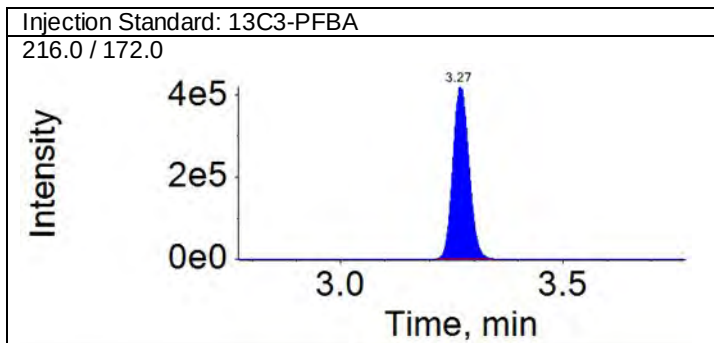
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By HMK at 2:27 pm, 12/6/18

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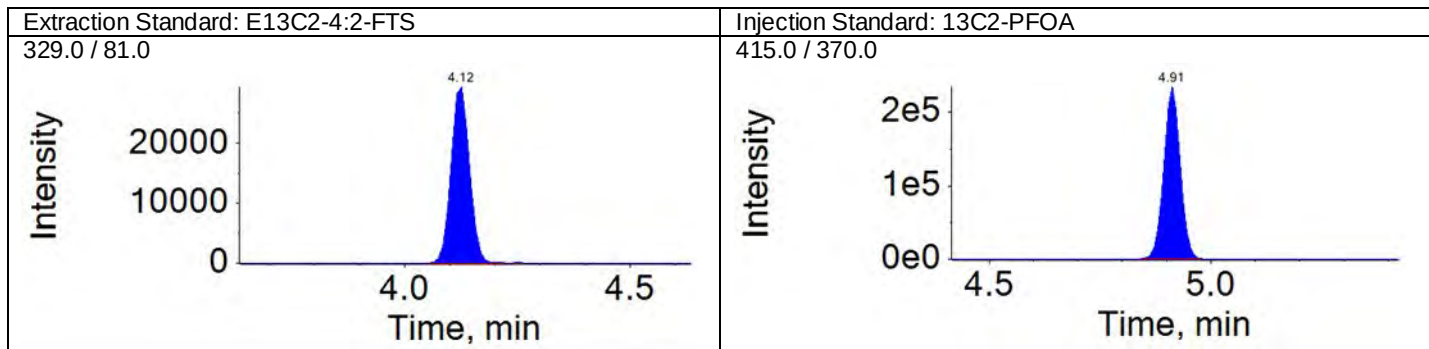
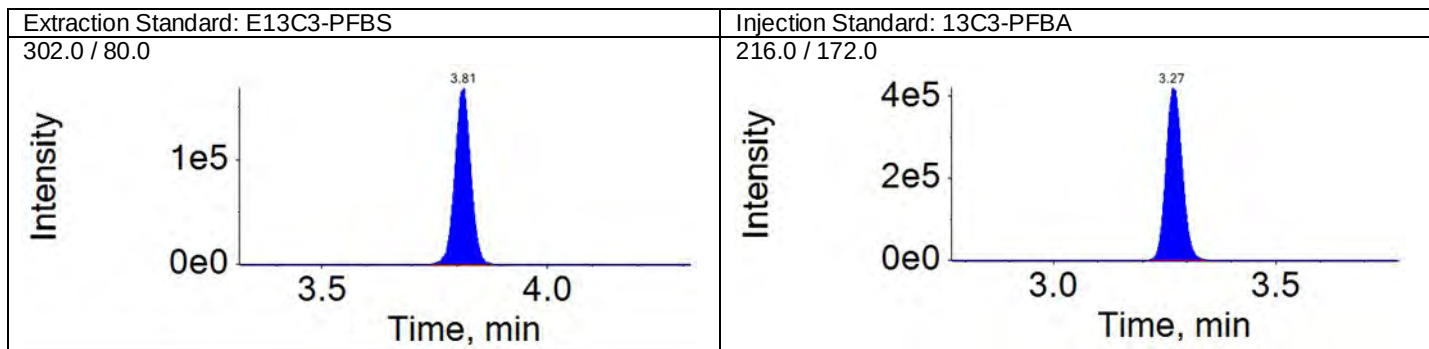
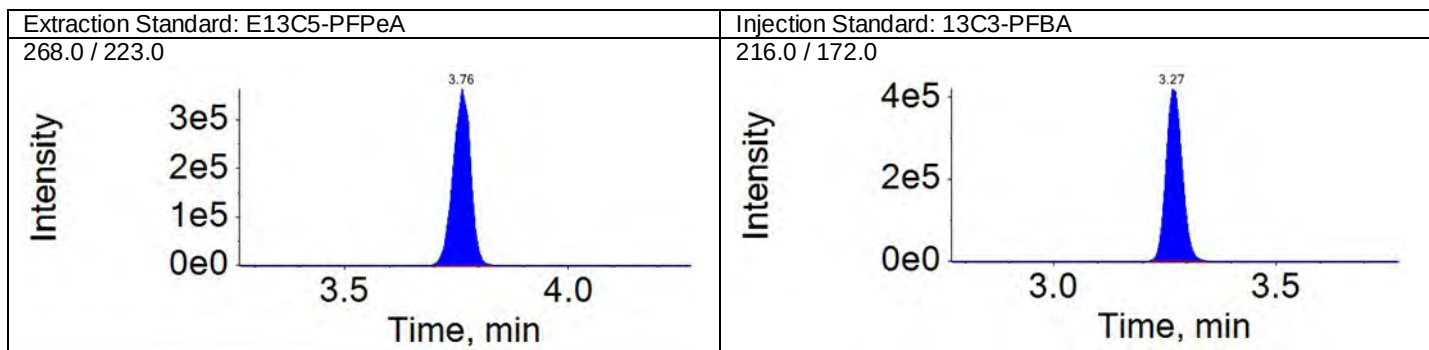
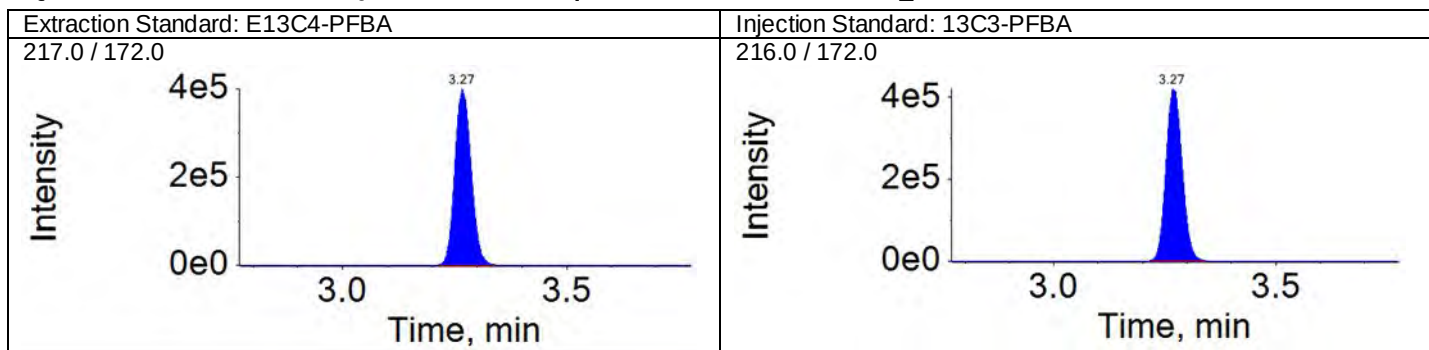
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



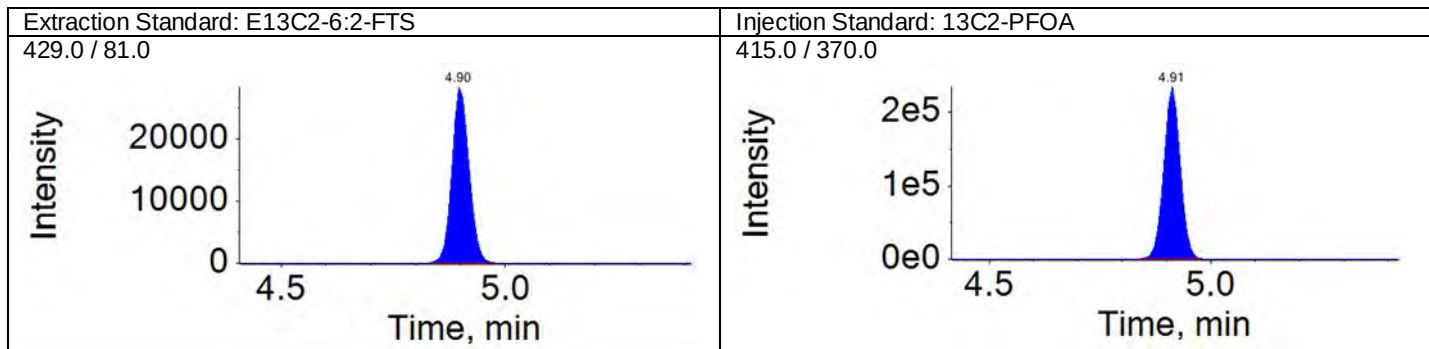
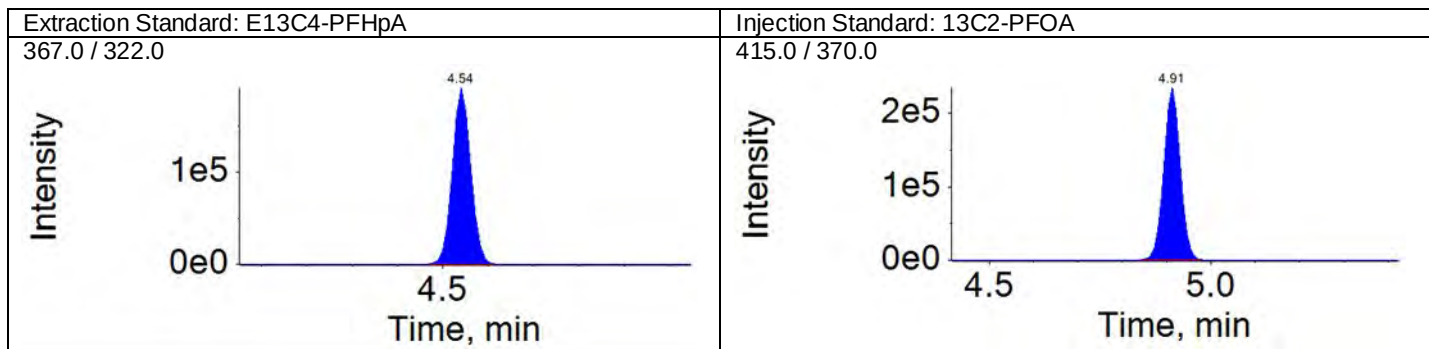
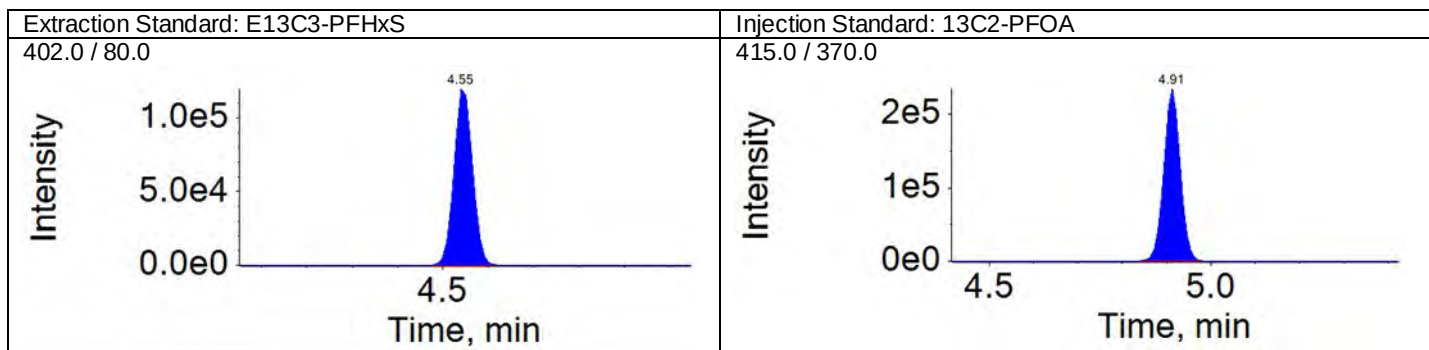
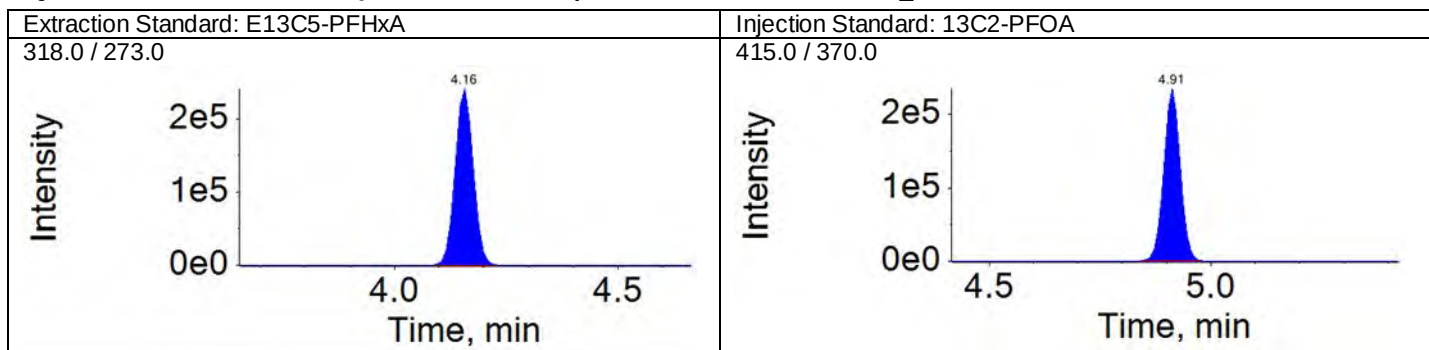
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
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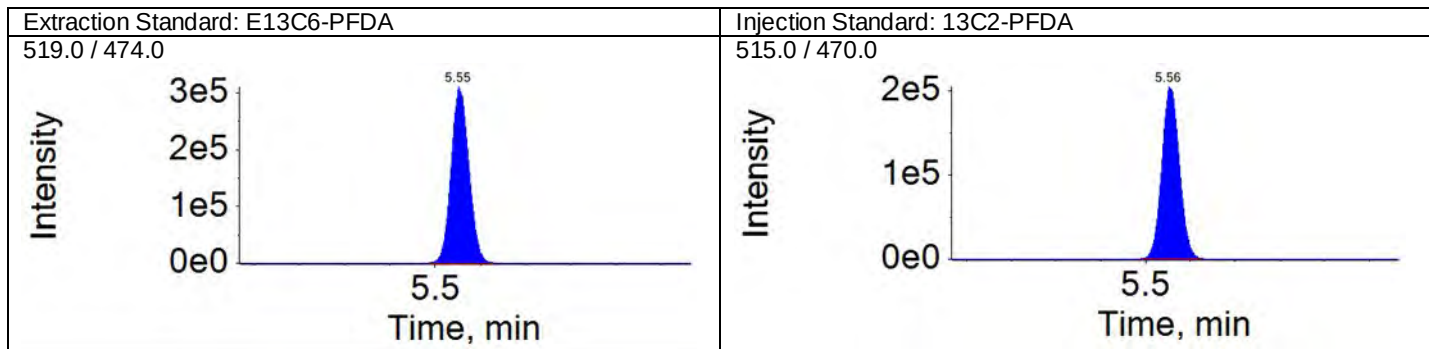
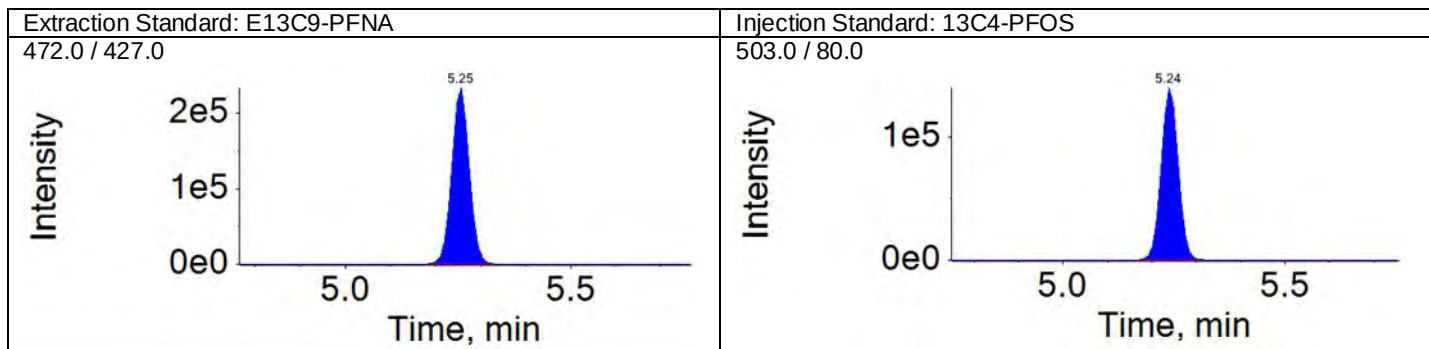
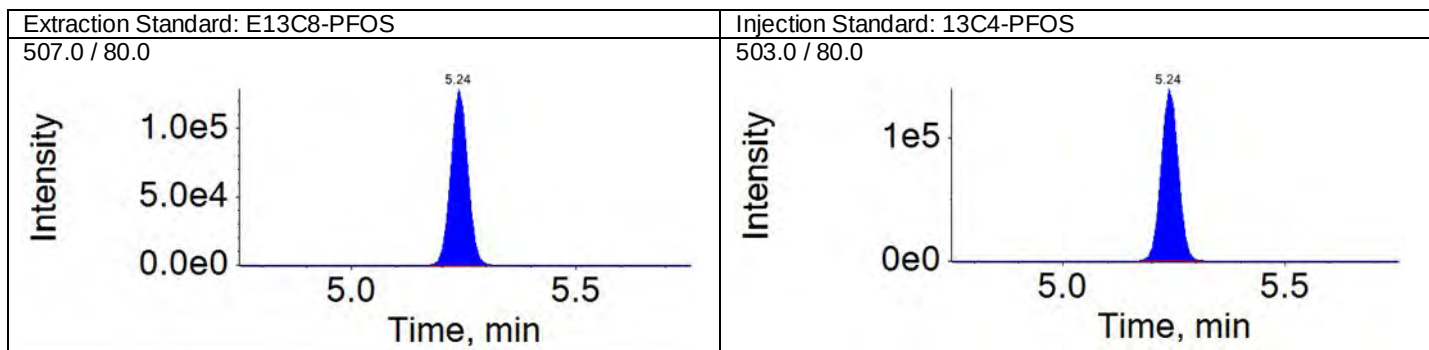
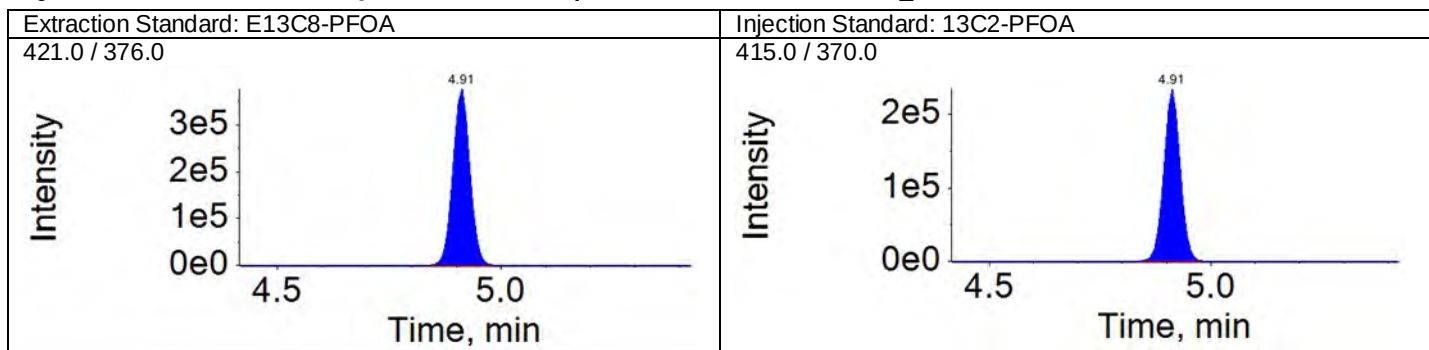
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Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



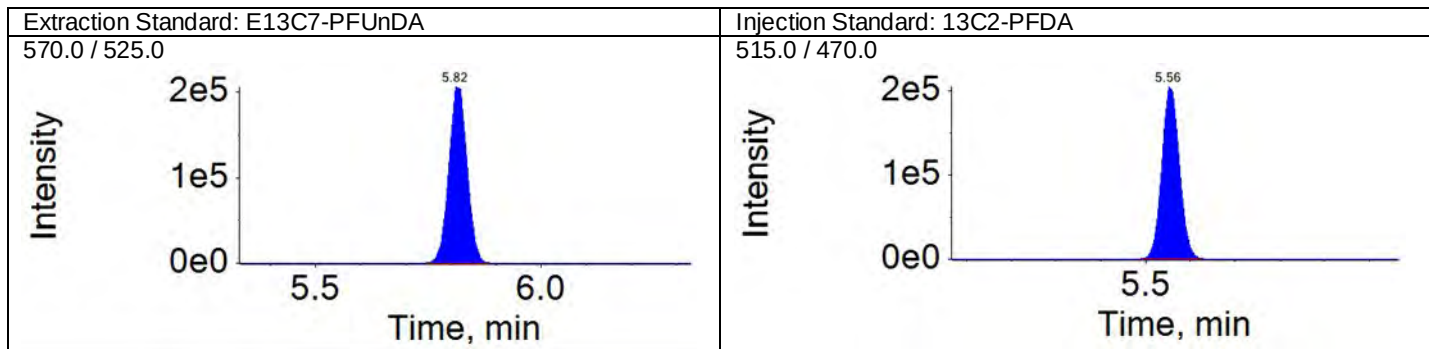
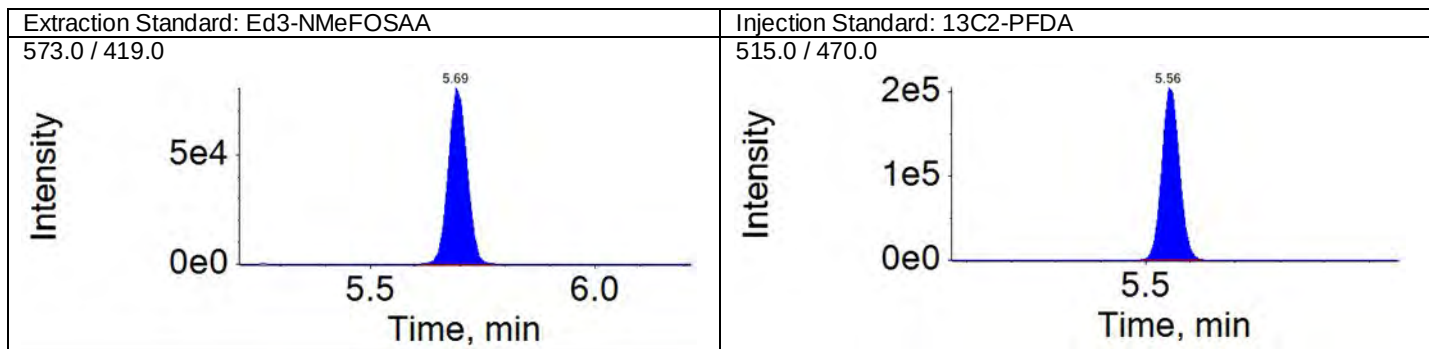
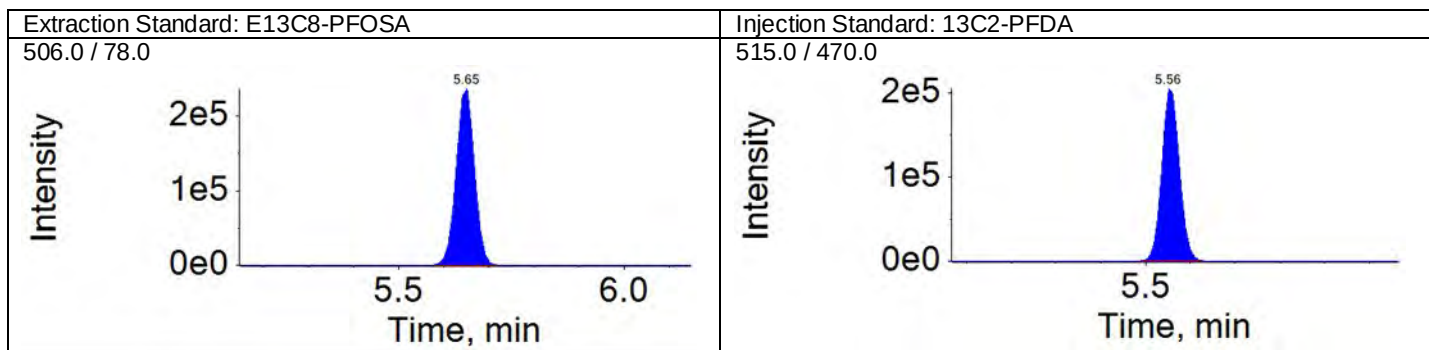
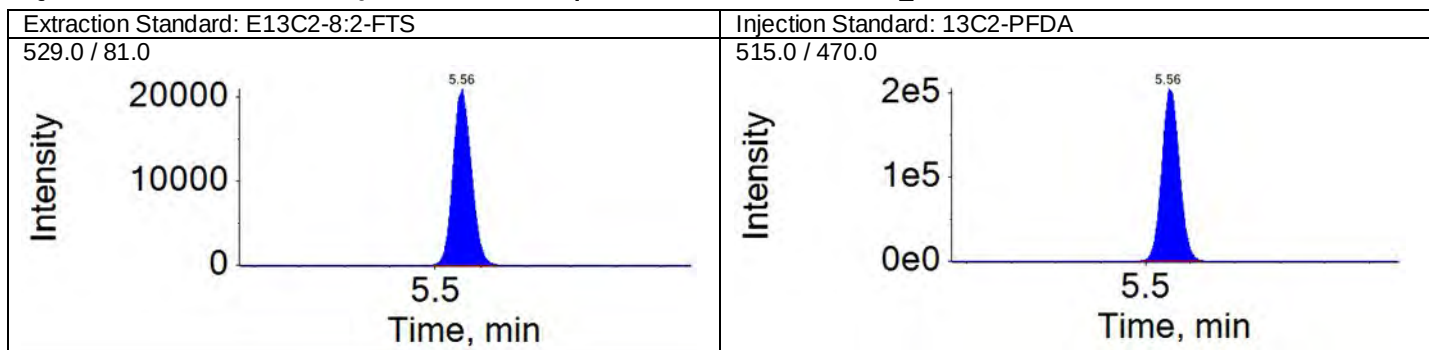
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Result Table: 18332003 11/30/2018 9:58:40 PM
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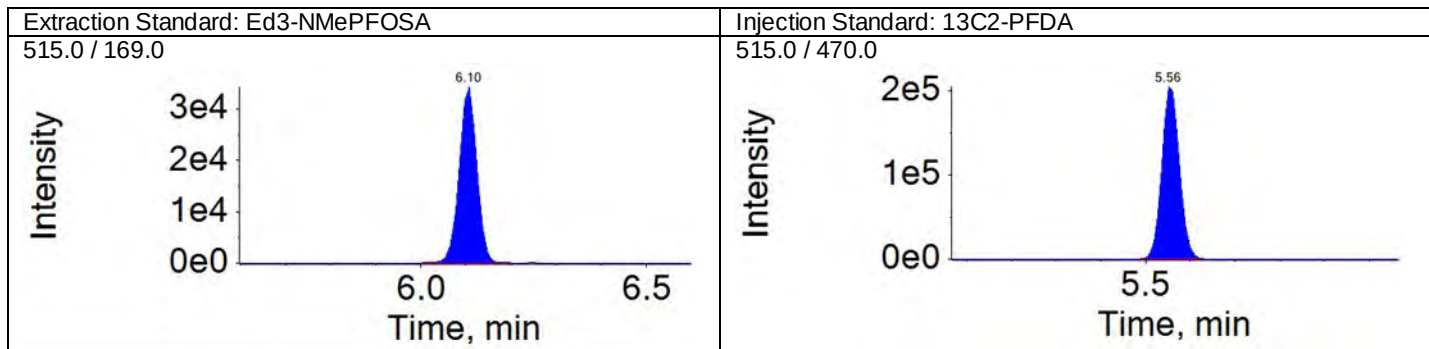
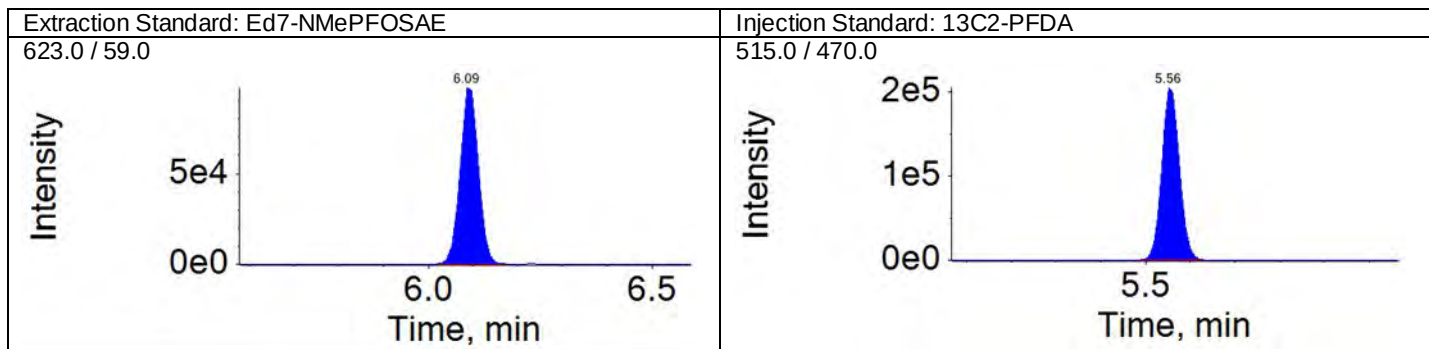
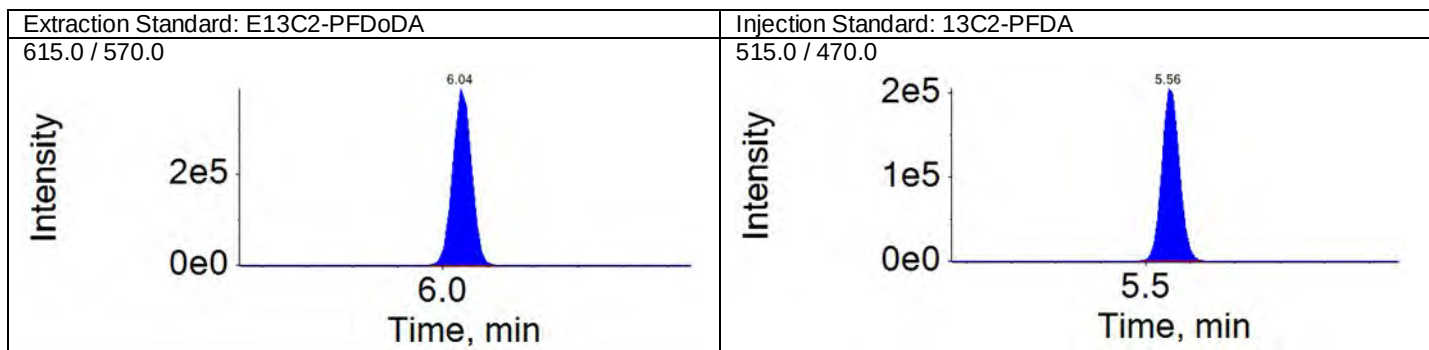
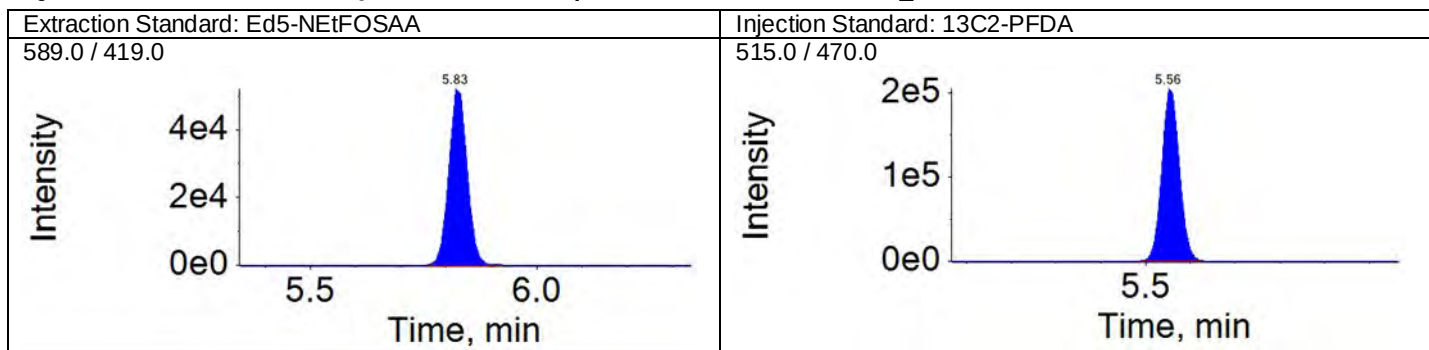
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



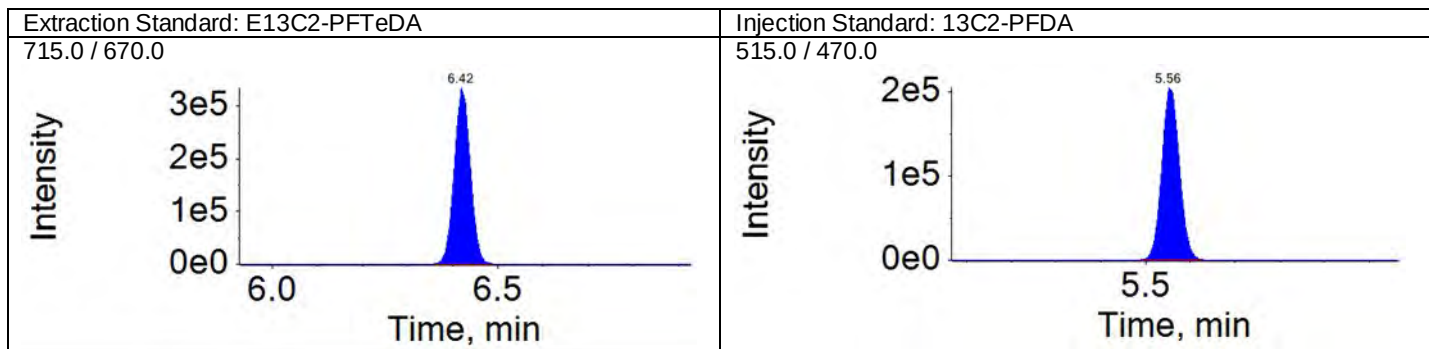
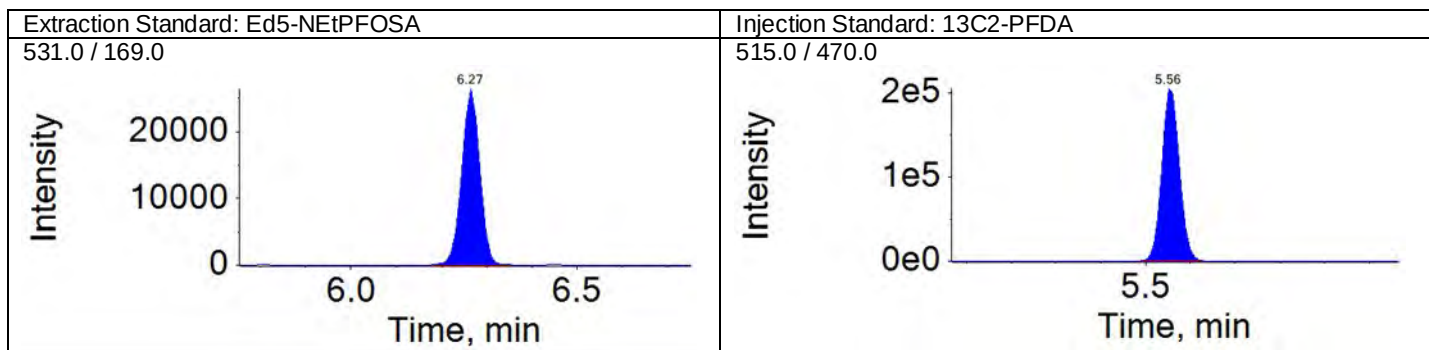
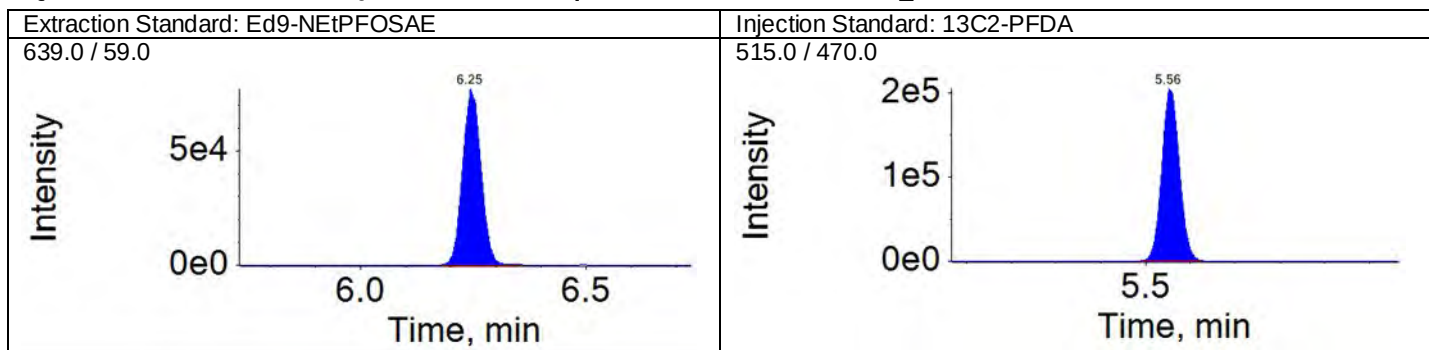
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



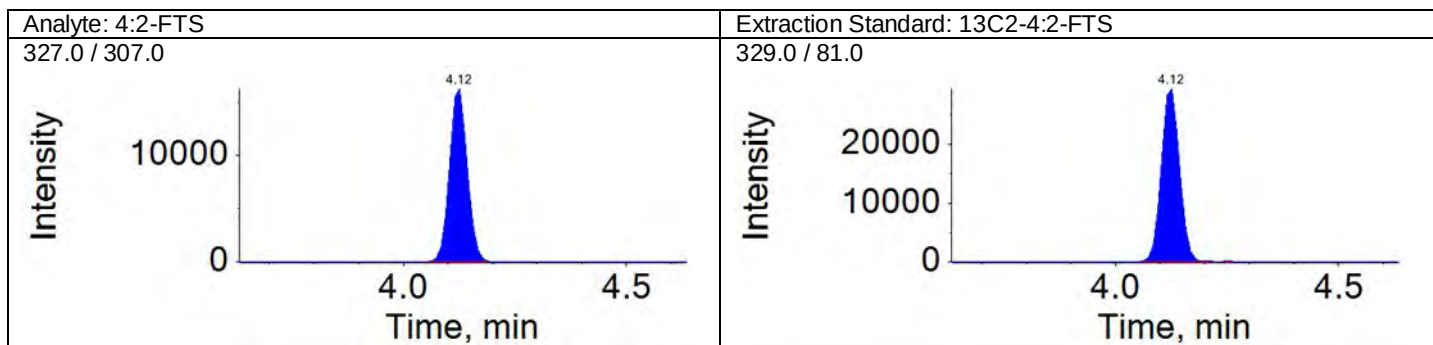
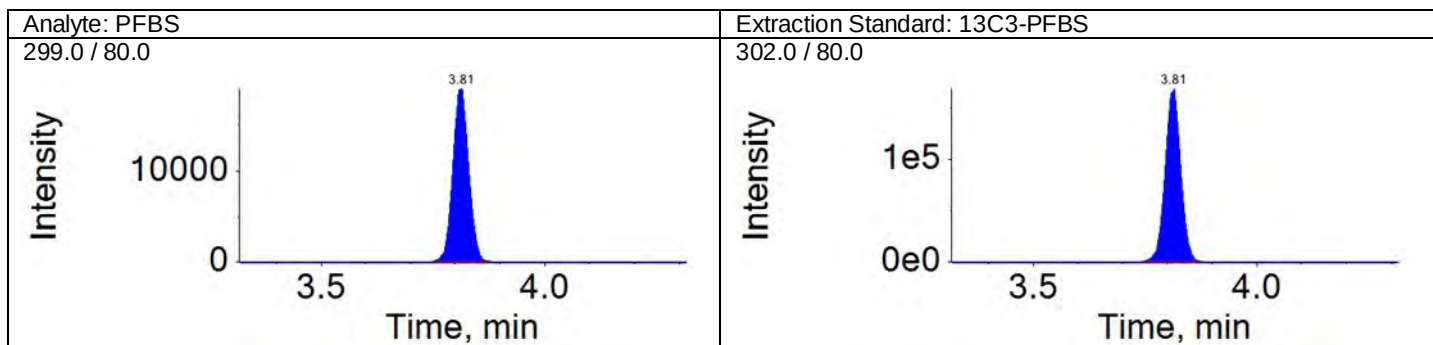
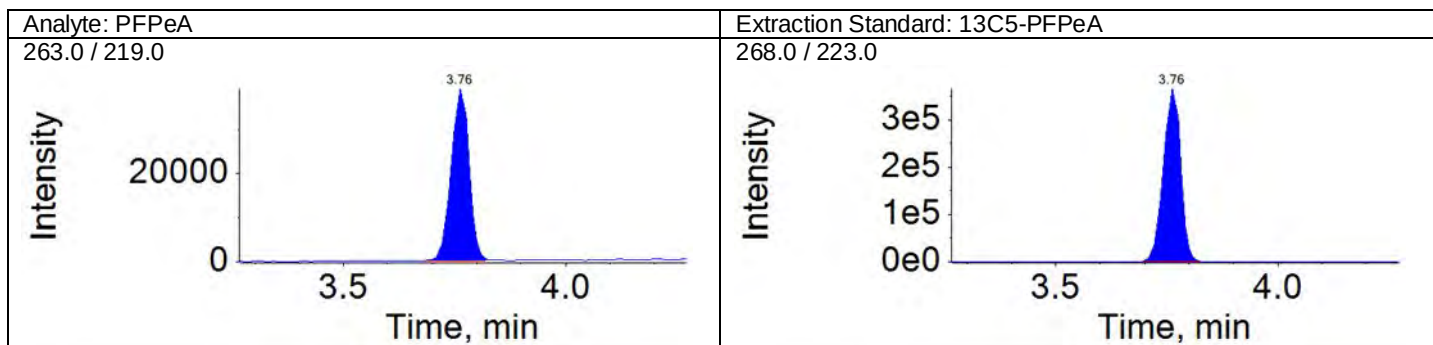
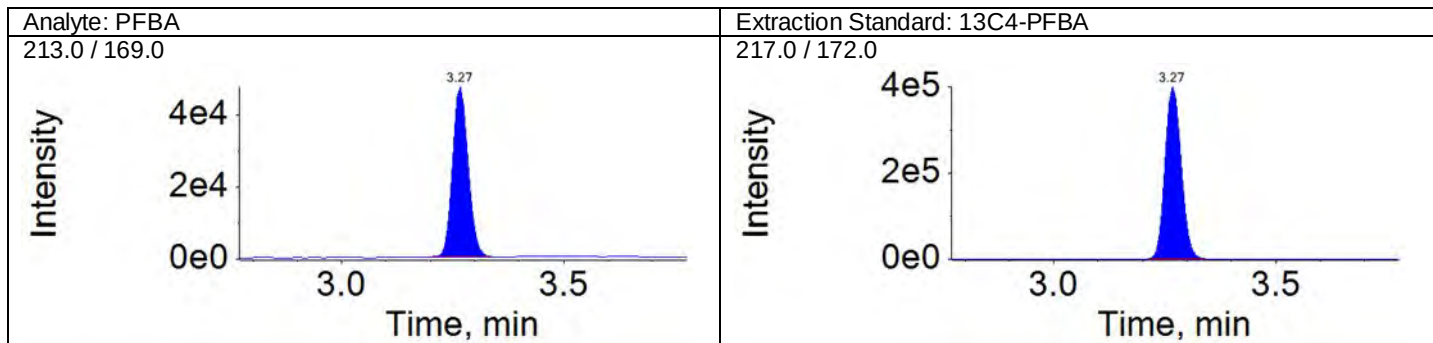
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QMethod Name: 18AUG20QM

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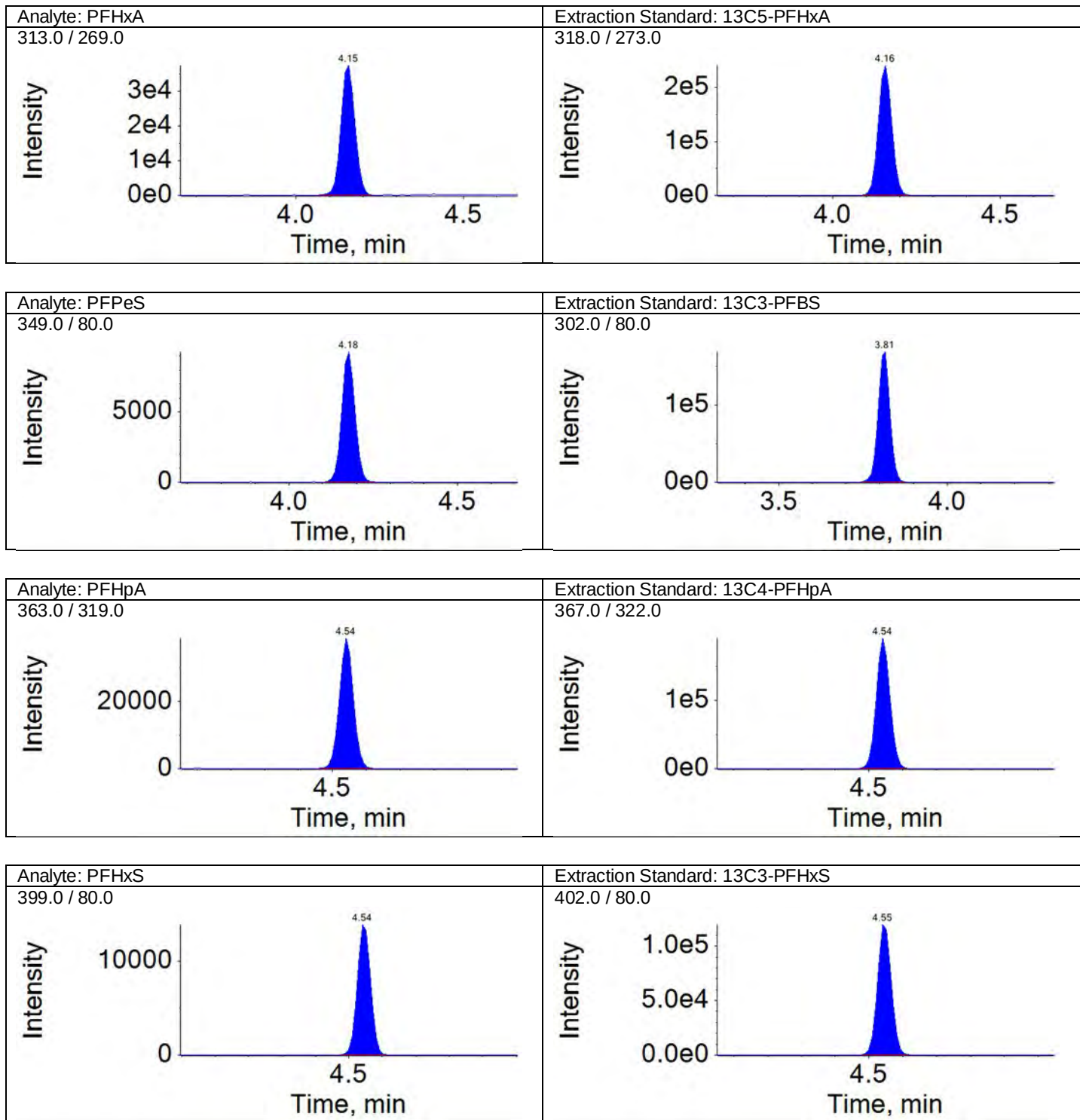
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Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



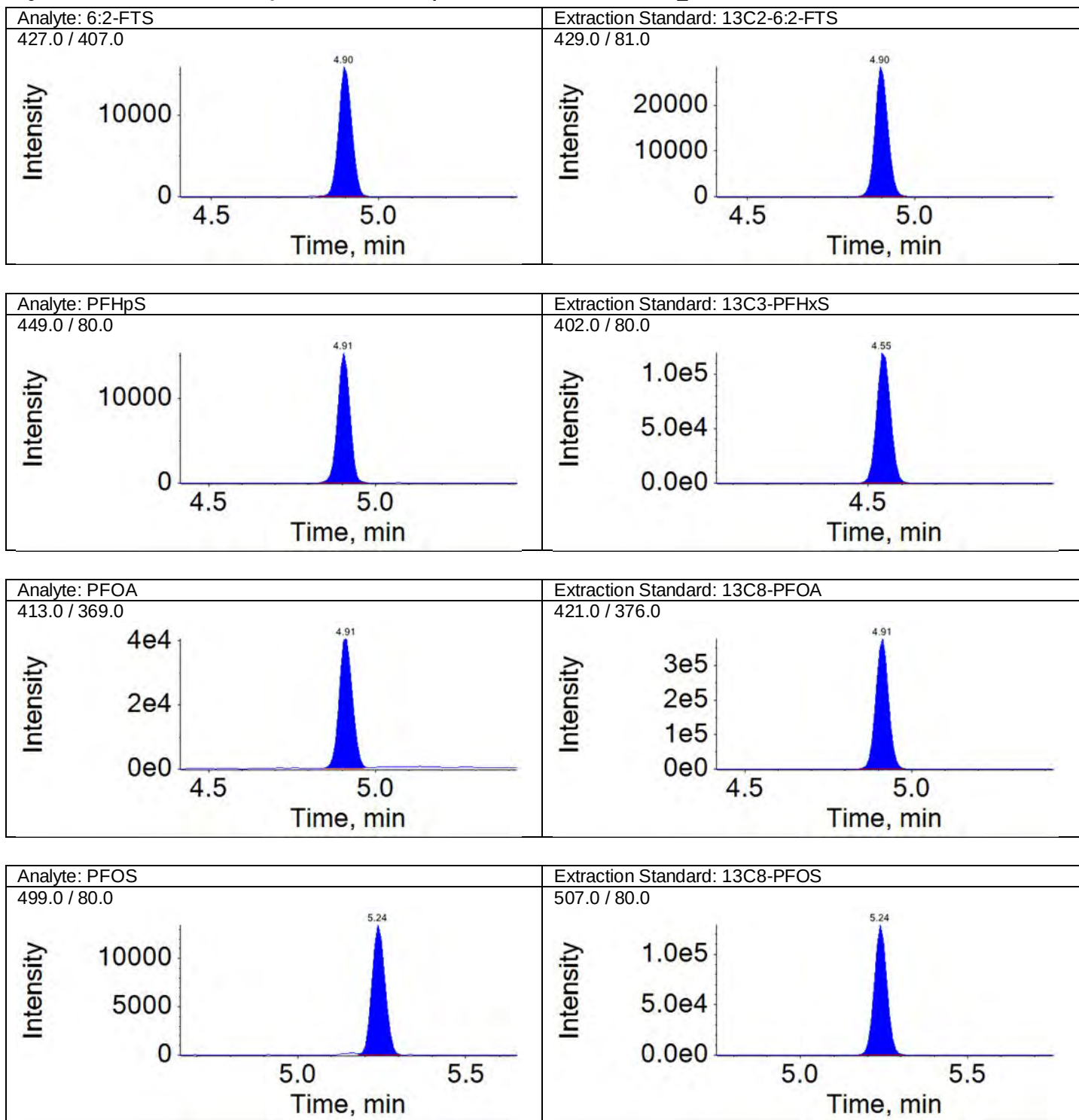
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



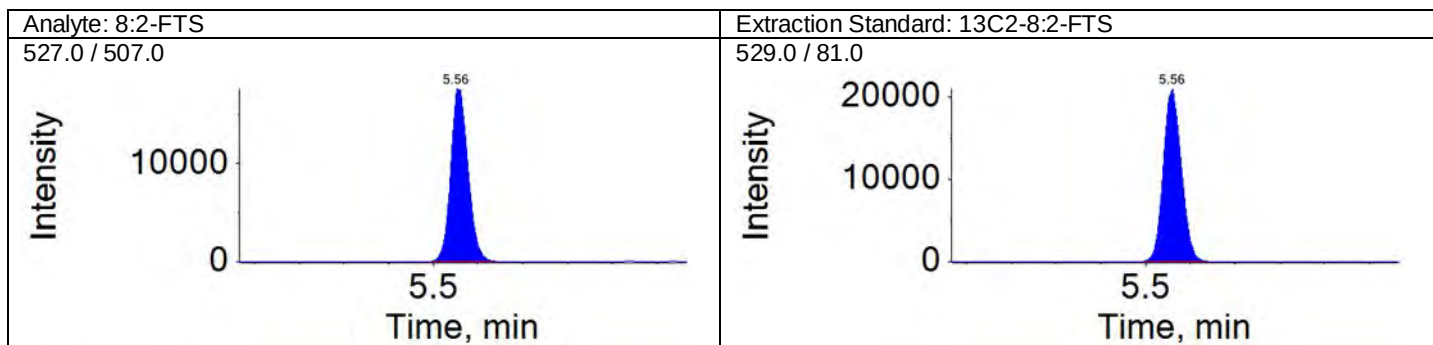
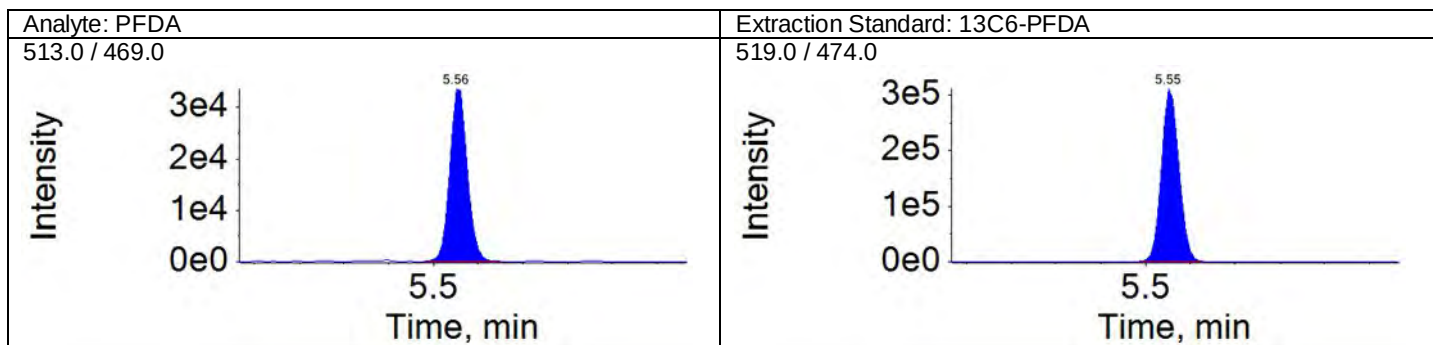
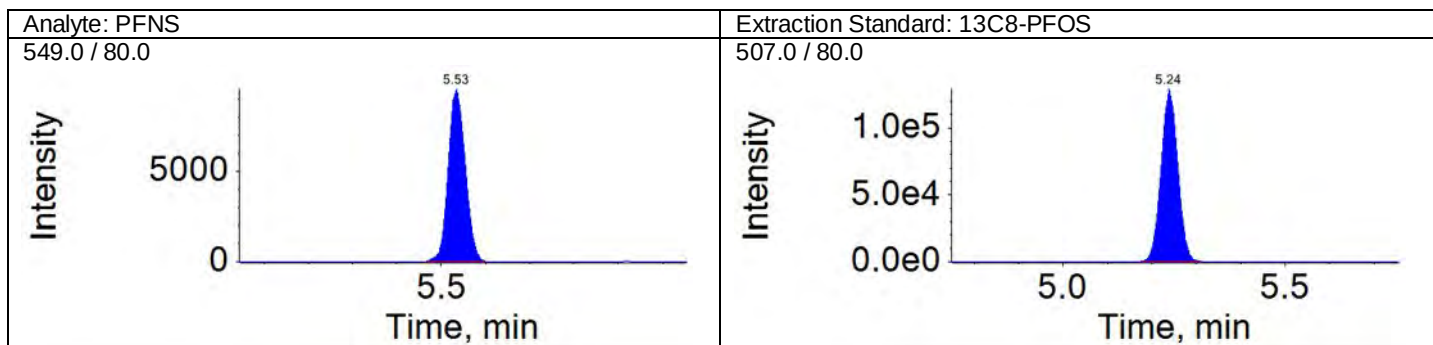
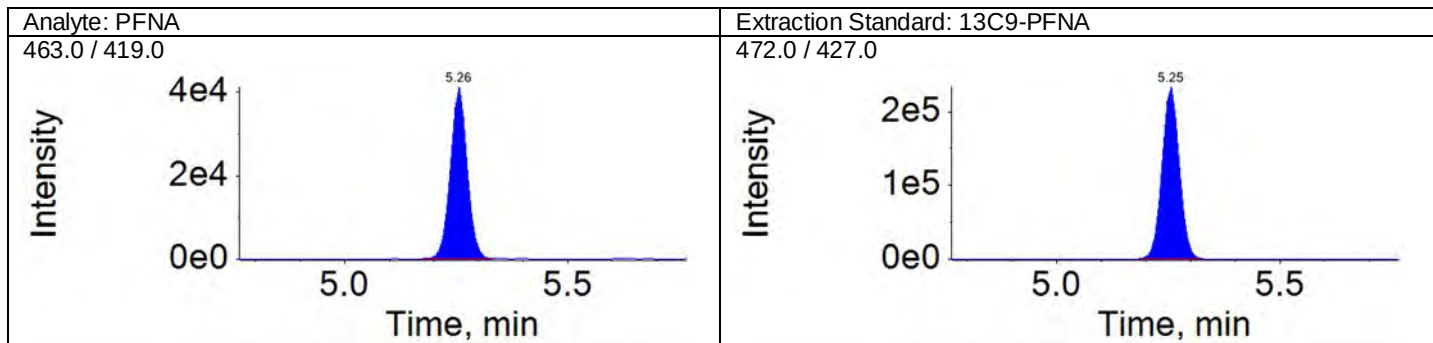
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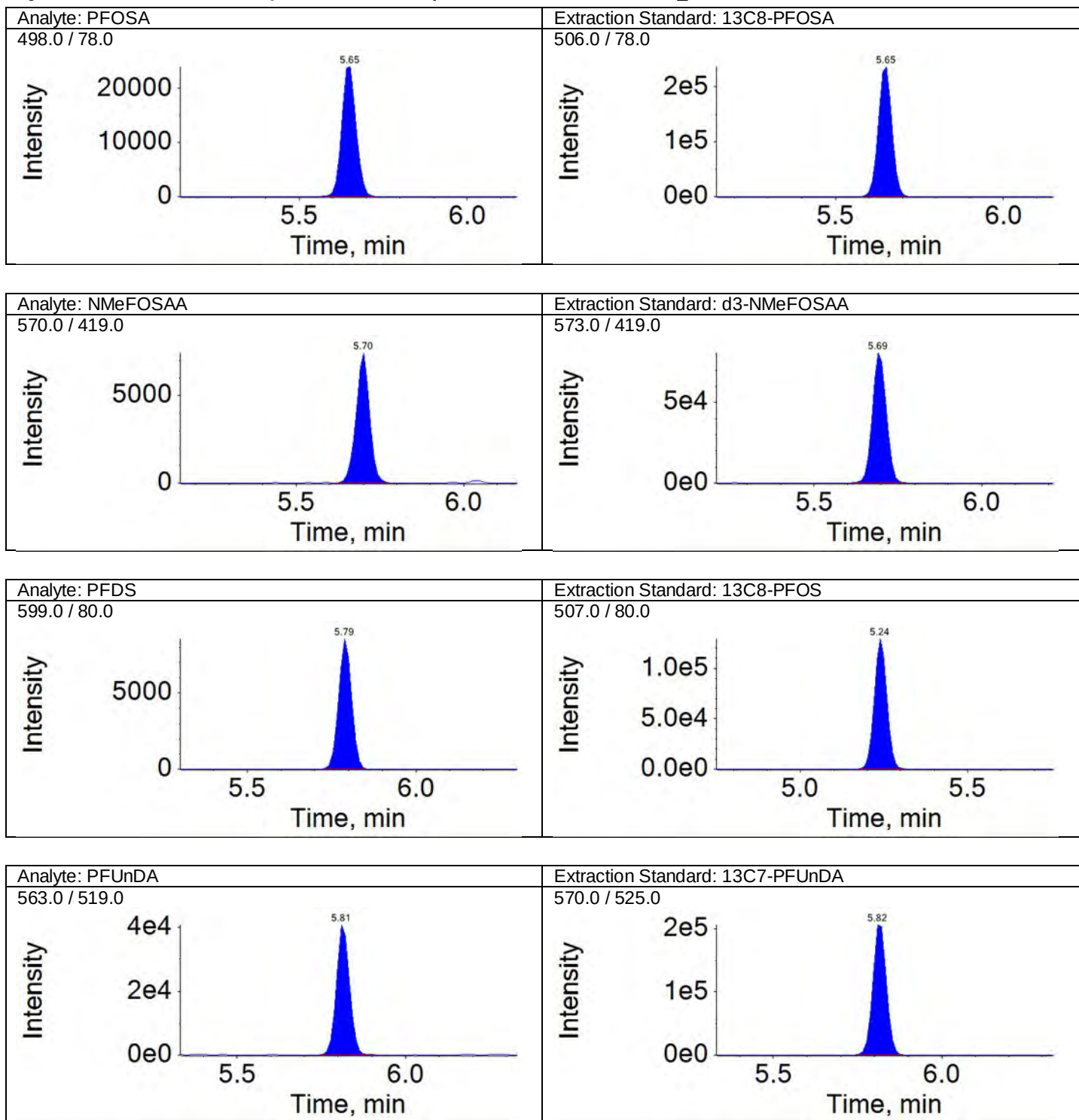
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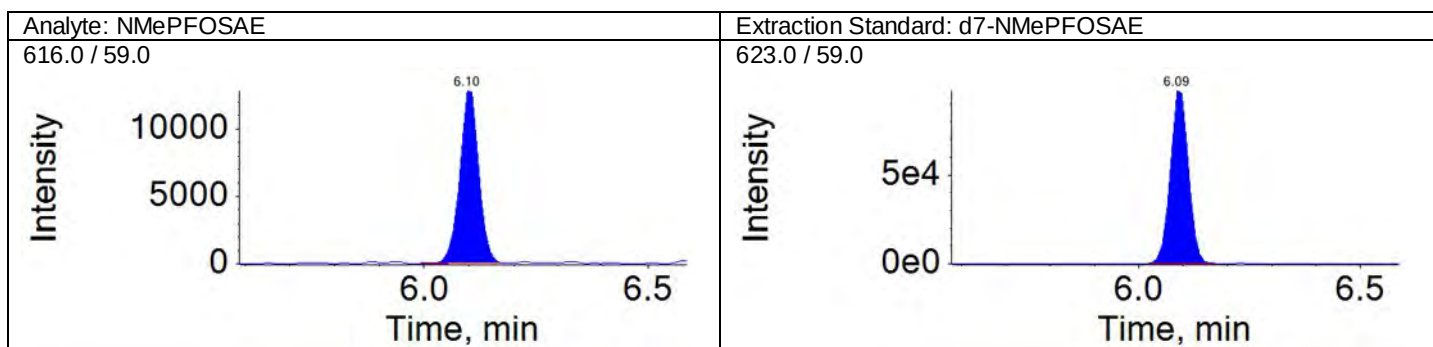
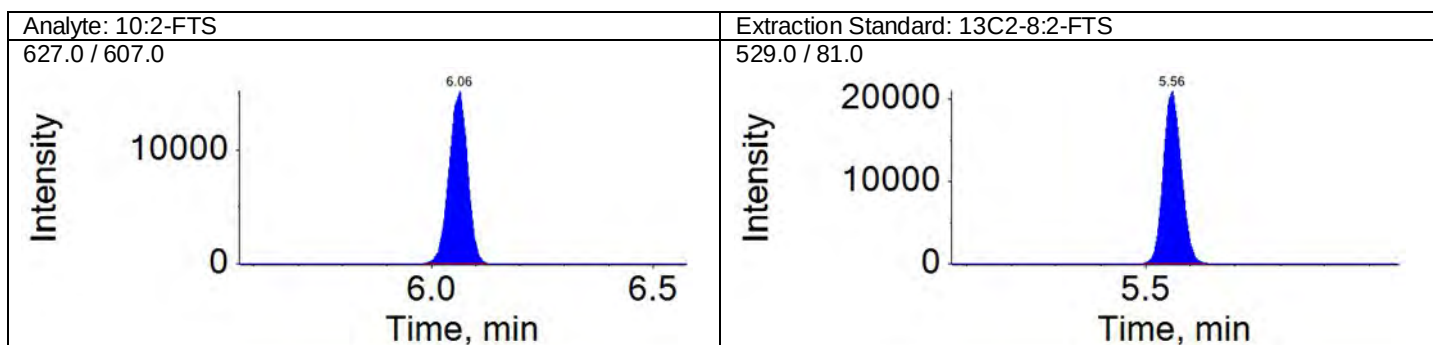
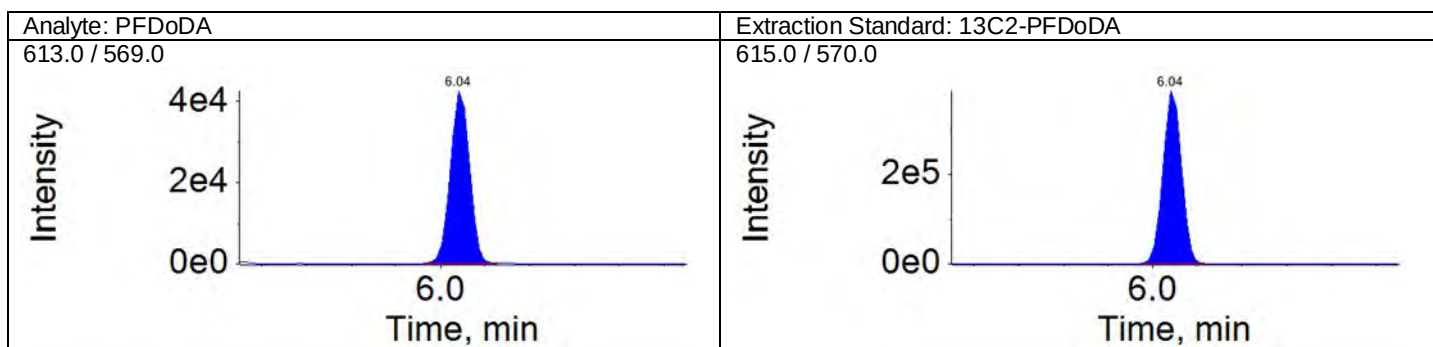
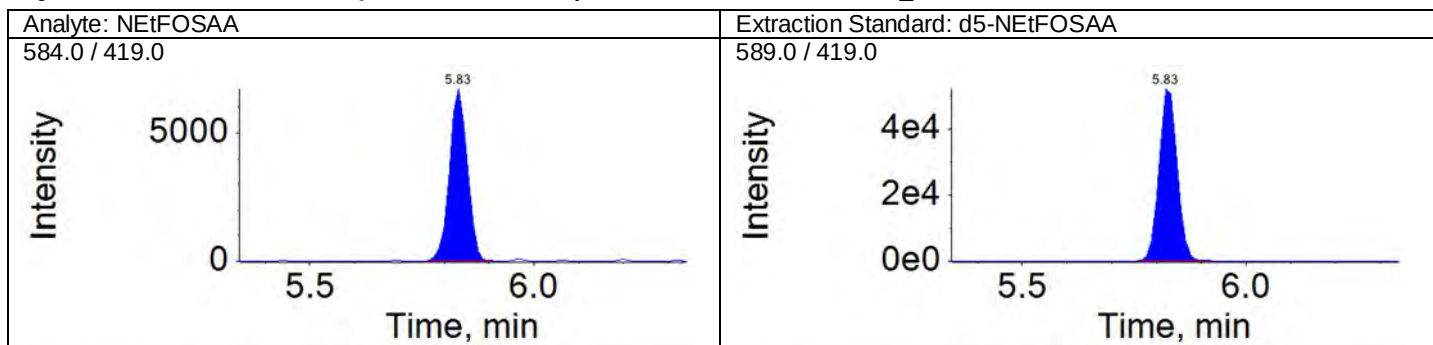
ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
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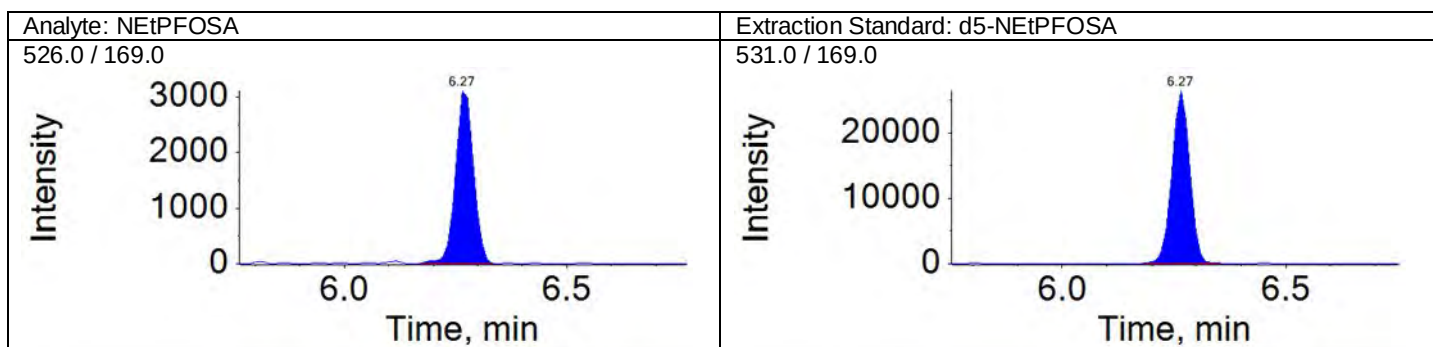
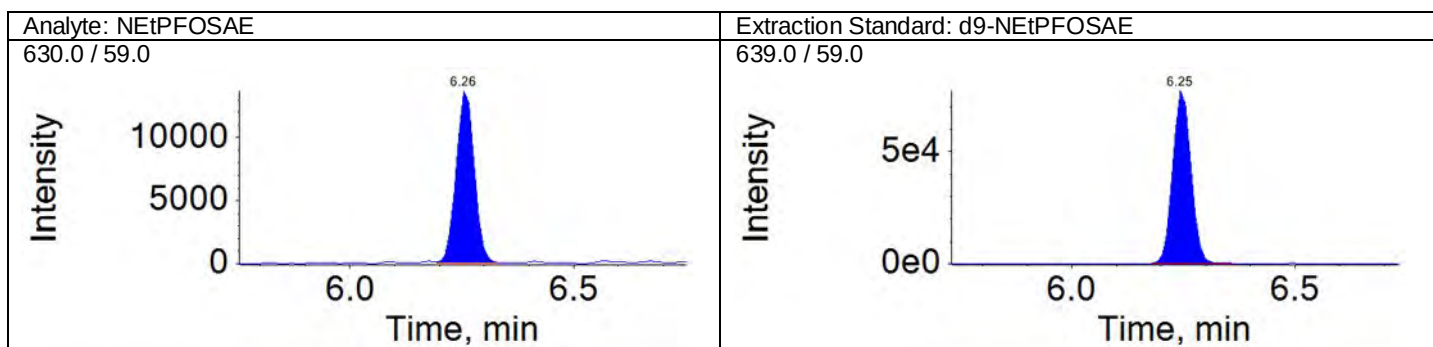
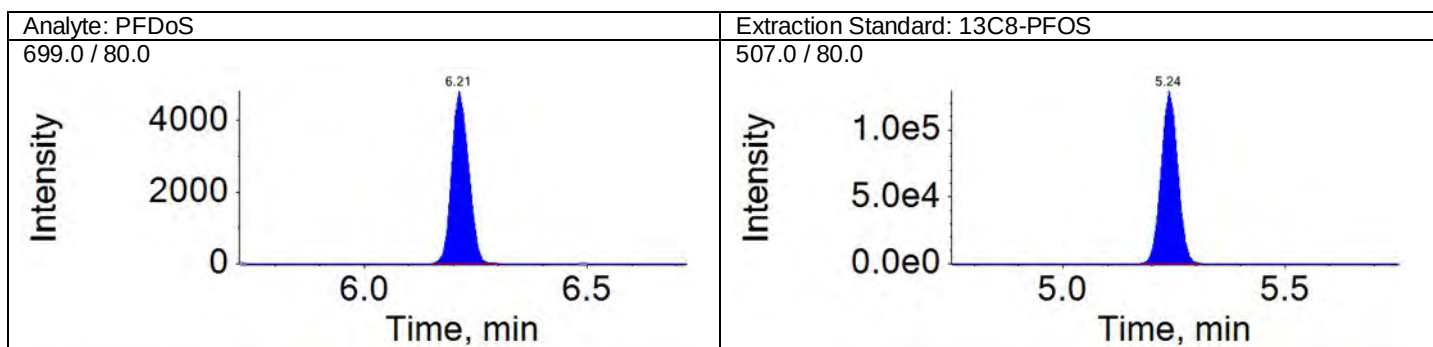
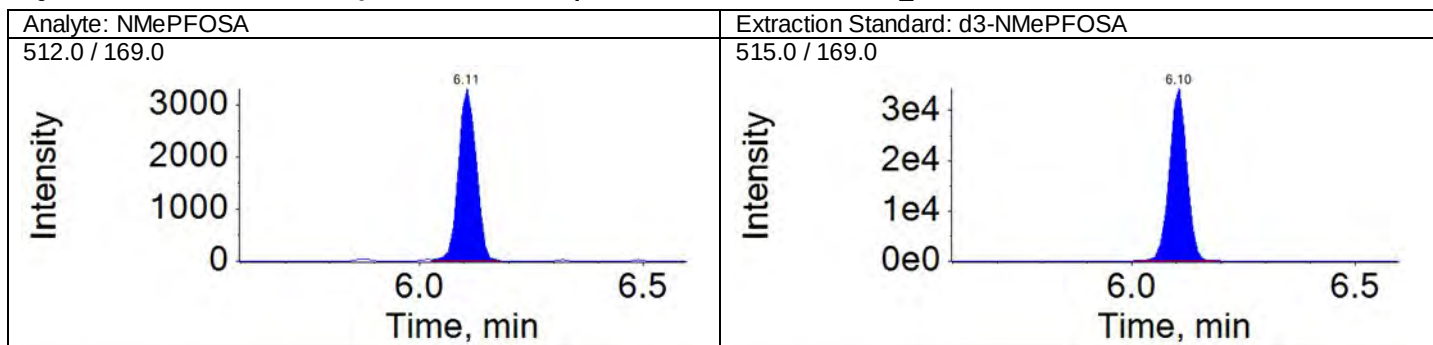
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QMethod Name: 18AUG20QM

Result Table: 18332003 11/30/2018 9:58:40 PM
Acquisition Method: 18AUG13_3uL.dam



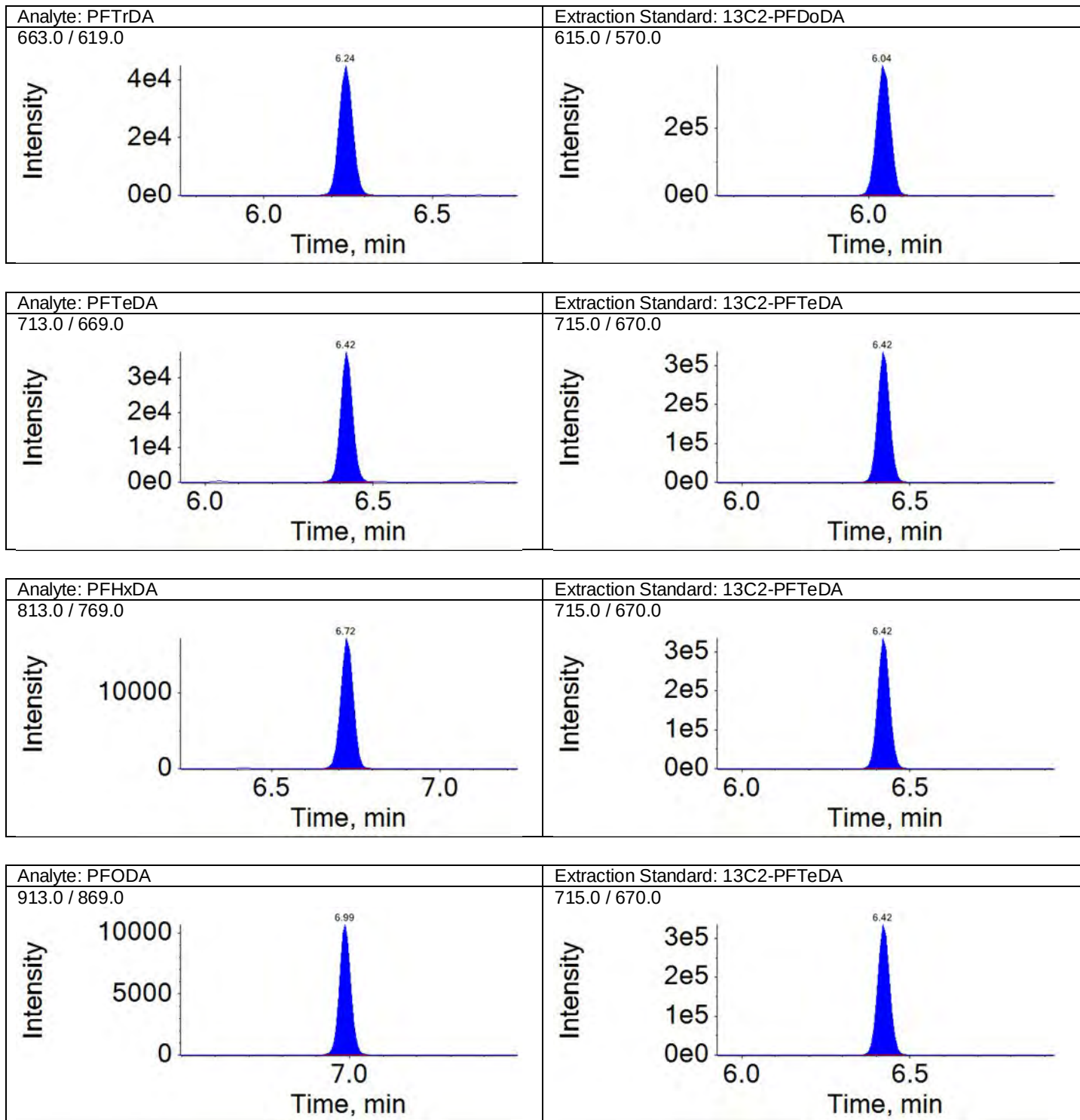
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ICAL Name: 18NOV28DCAL
QMethod Name: 18AUG20QM

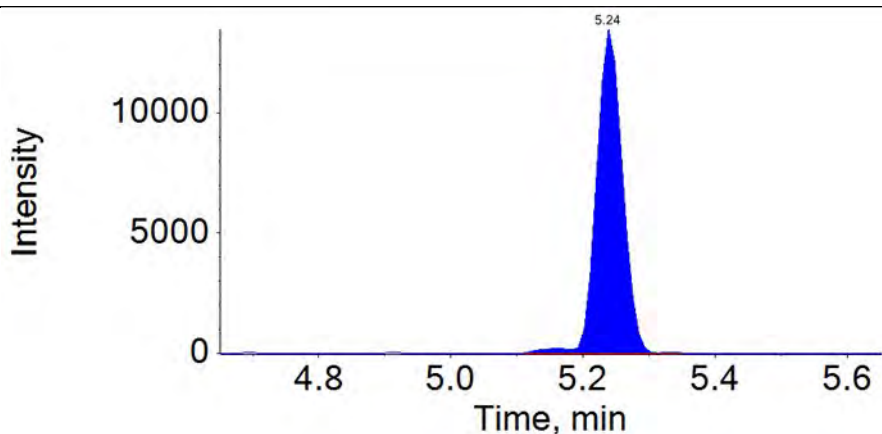
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Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM

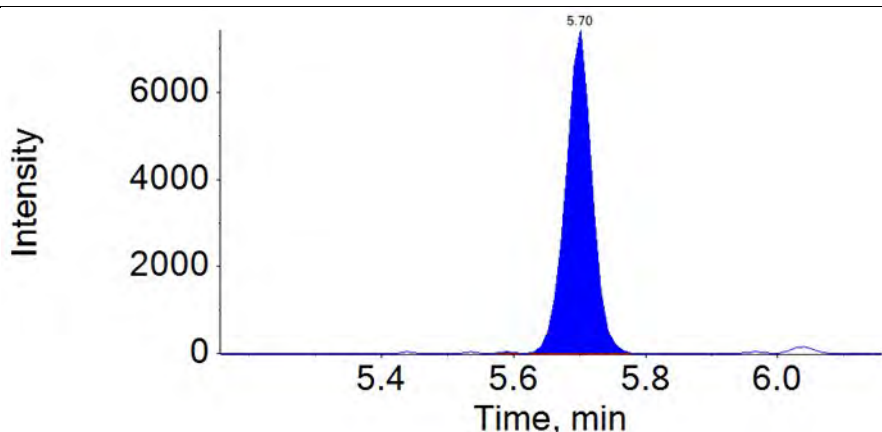
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFOS
RT (min.):
5.24
Peak Area:
37087.7
Mass Range:
499.0 / 80.0
File Name:
18NOV29D-56.wiff
Sample Name:
LCS332003



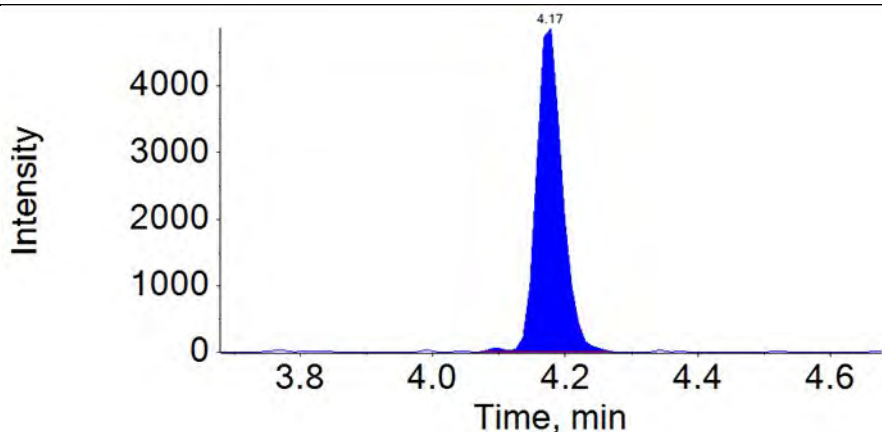
Integration Comment: incorrect integration

Component Name:
NMeFOSAA
RT (min.):
5.70
Peak Area:
20685.4
Mass Range:
570.0 / 419.0
File Name:
18NOV29D-56.wiff
Sample Name:
LCS332003



Integration Comment: incorrect integration

Component Name:
PFPeS_2
RT (min.):
4.17
Peak Area:
13270.2
Mass Range:
349.0 / 99.0
File Name:
18NOV29D-56.wiff
Sample Name:
LCS332003

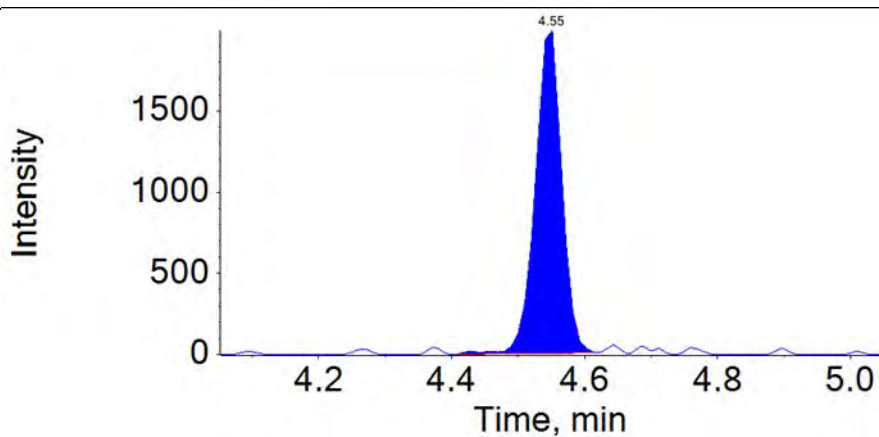


Integration Comment: incorrect integration

Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM

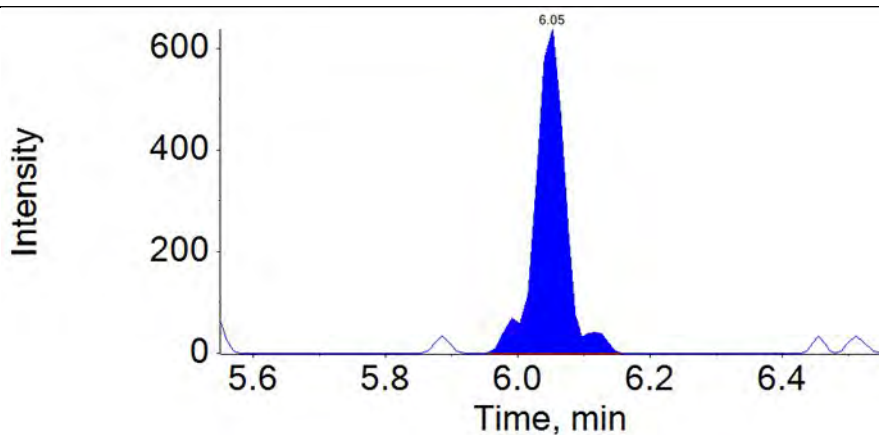
Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

Component Name:
PFHpA_2
RT (min.):
4.55
Peak Area:
5542.7
Mass Range:
363.0 / 169.0
File Name:
18NOV29D-56.wiff
Sample Name:
LCS332003



Integration Comment: incorrect integration

Component Name:
PFDODA_2
RT (min.):
6.05
Peak Area:
2003.3
Mass Range:
613.0 / 169.0
File Name:
18NOV29D-56.wiff
Sample Name:
LCS332003



Integration Comment: incorrect integration

Results Table Name: 18332003
Results Table Date: 11/30/2018 9:58:40 PM

Acquisition Method: 18AUG13_3uL.dam
QMethod File: 18AUG20QM

APPROVED

By MCD at 10:13 pm, 11/30/18

REVIEWED

By HMK at 2:27 pm, 12/6/18

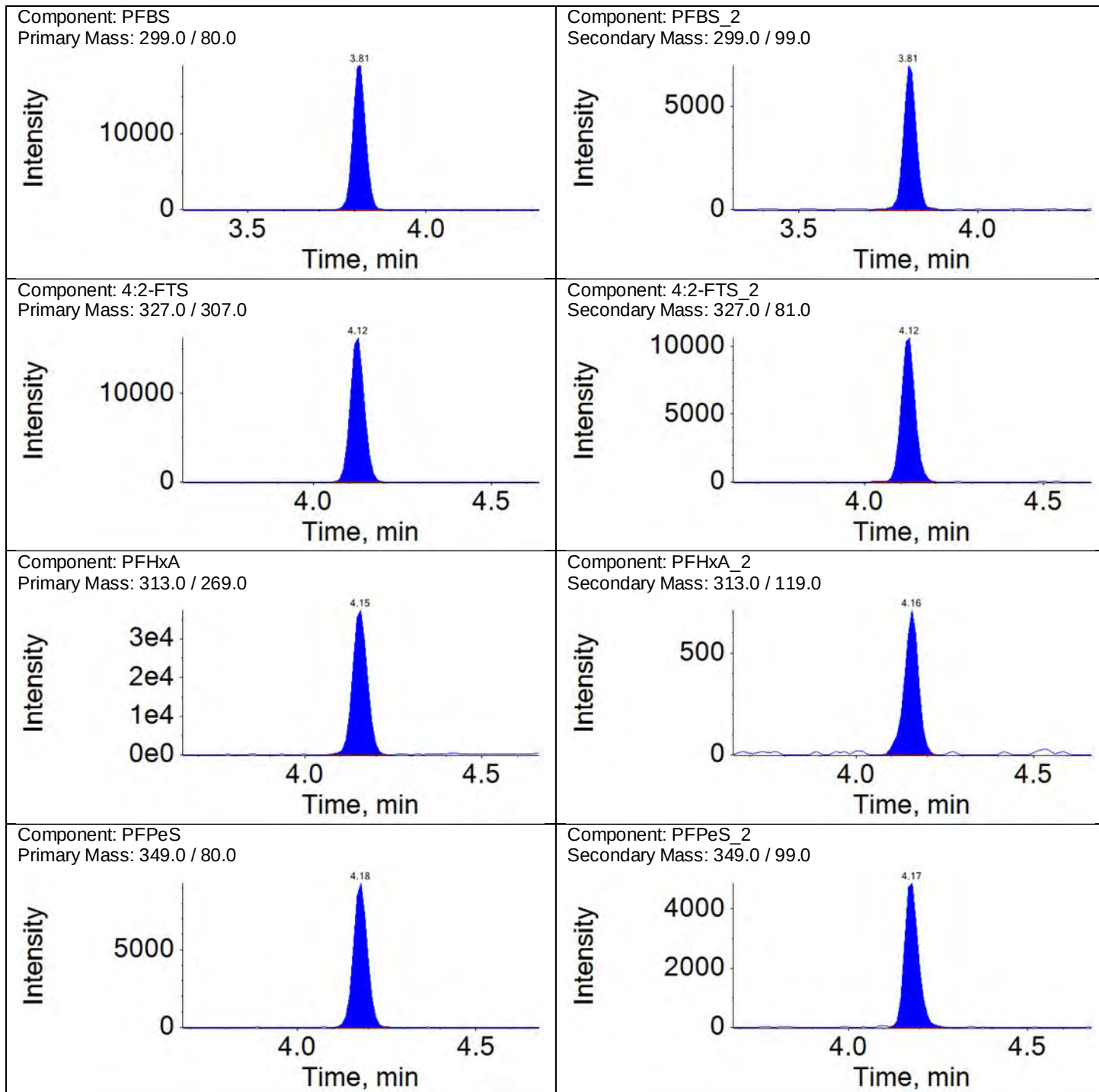
Ion Ratio Report

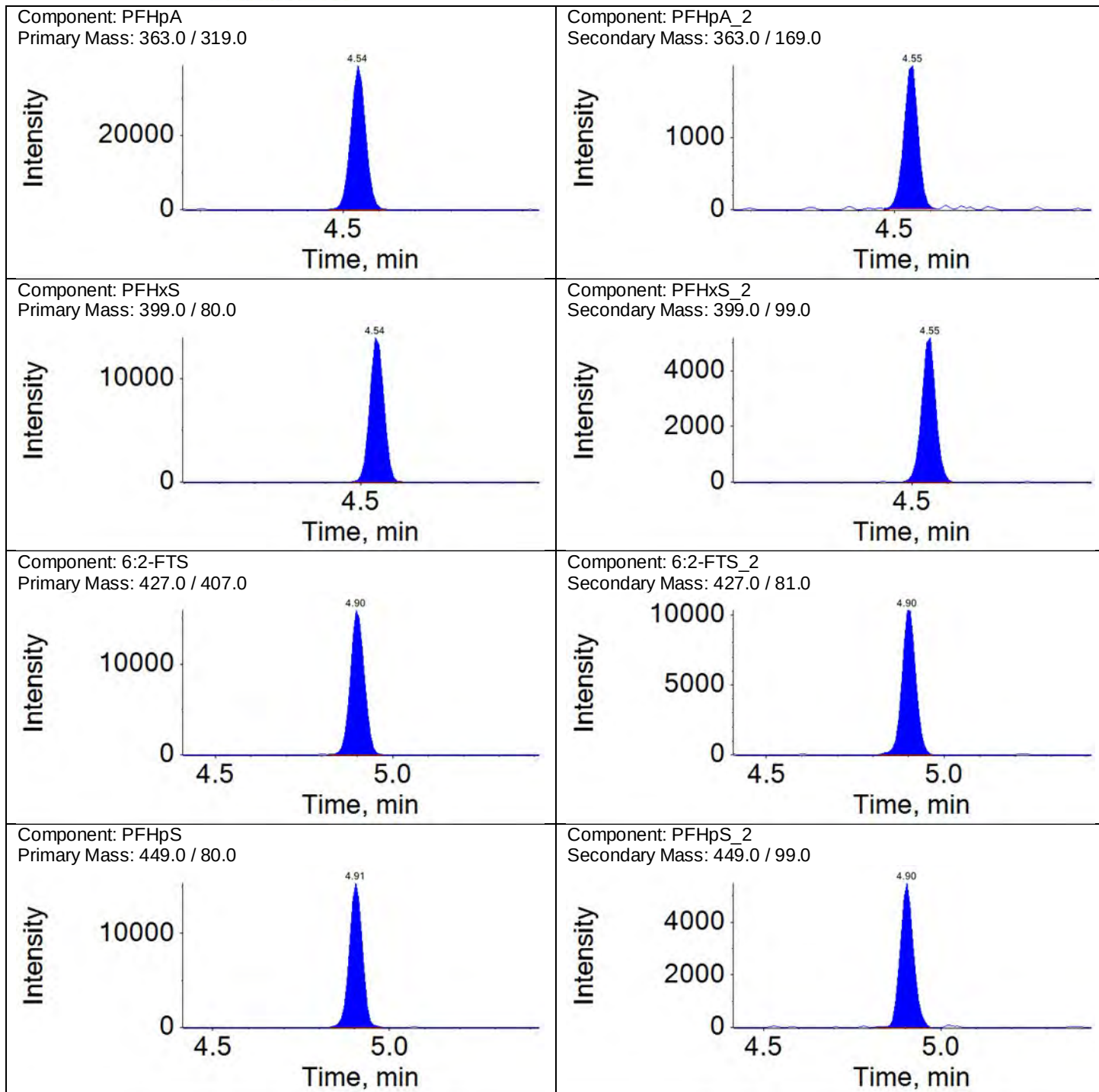
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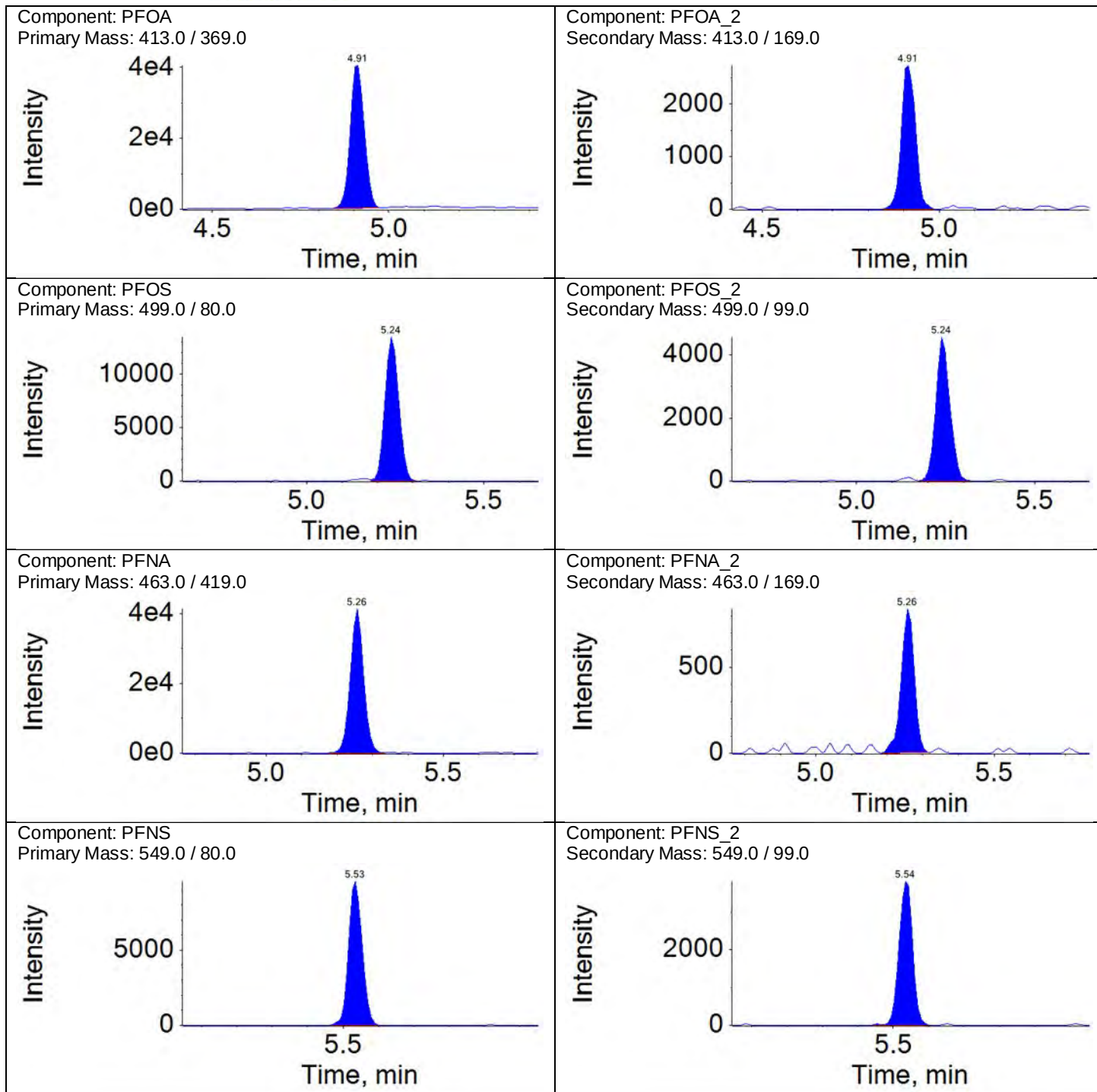
Instrument Name: LM27631

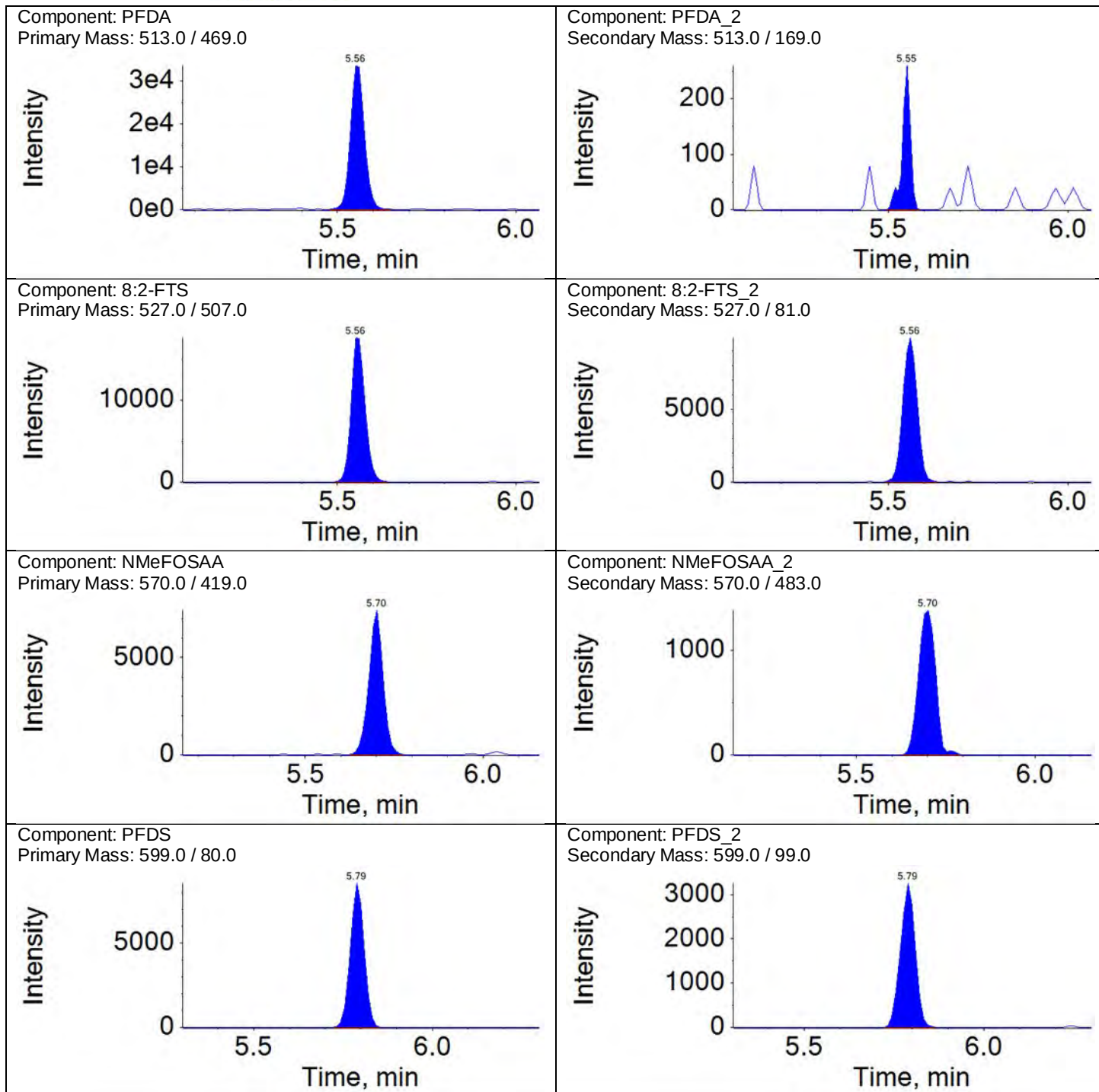
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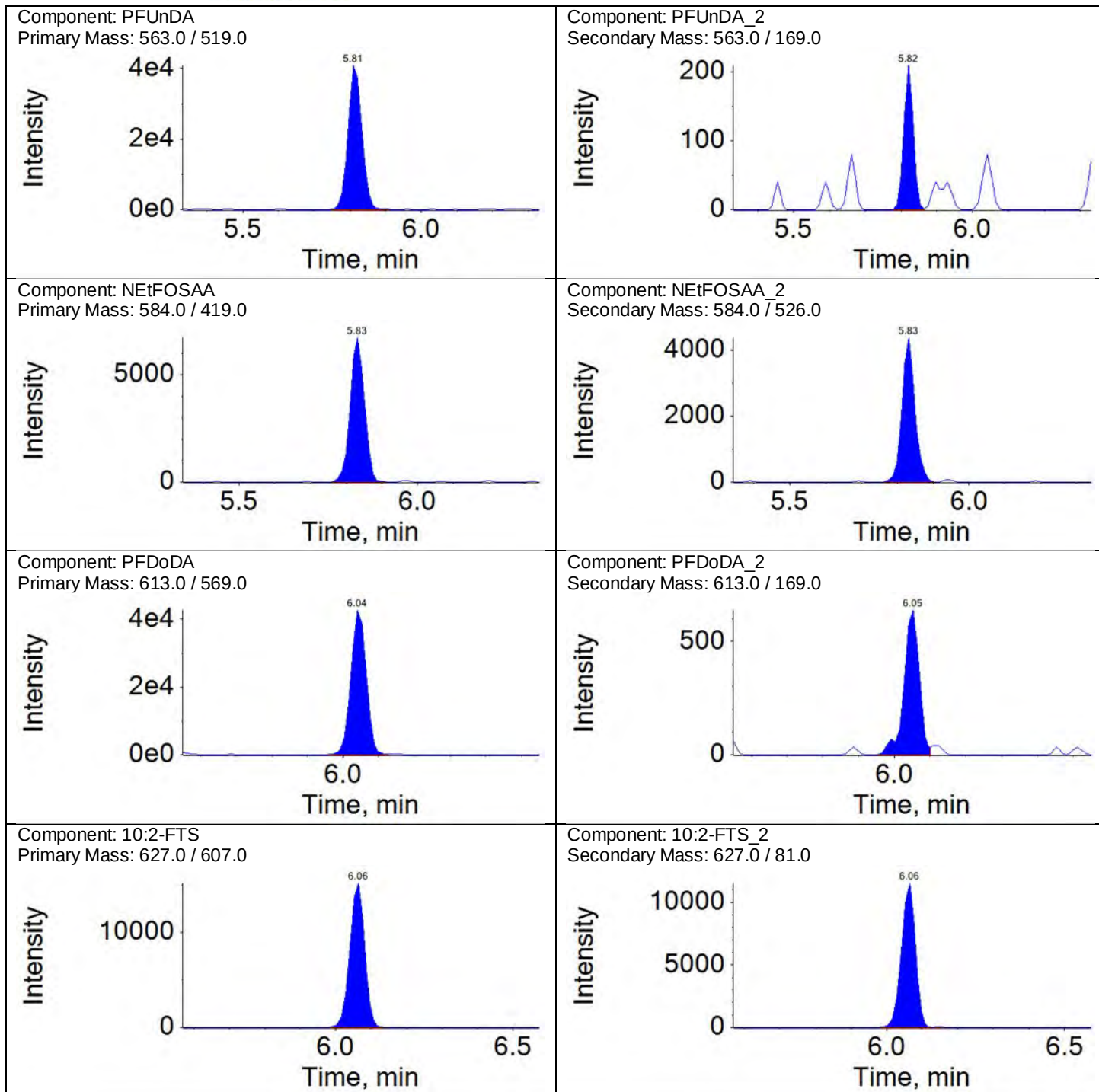
Component Name	RT	RRT	Analyte Area Response	Int Typ	Expected Ion Ratio	Ion Ratio	Ion Ratio % Diff	Ion Ratio Limit	Ion Ratio OOS
PFBS	3.81	1.00	47400.8	A	N/A	0.3586			
PFBS_2	3.81	1.00	16997.3	A	N/A	0.3586	-2	50	
4:2-FTS	4.12	1.00	44925.4	A	N/A	0.6447			
4:2-FTS_2	4.12	1.00	28964.9	A	N/A	0.6447	1	50	
PFHxA	4.15	1.00	108517.0	A	N/A	0.0183			
PFHxA_2	4.16	1.00	1982.3	A	N/A	0.0183	77	50	OOS
PFPeS	4.18	1.10	25275.2	A	N/A	0.5216			
PFPeS_2	4.17	1.10	13184.7	M	N/A	0.5216	5	50	
PFHpA	4.54	1.00	111132.4	A	N/A	0.0494			
PFHpA_2	4.55	1.00	5494.8	M	N/A	0.0494	-11	50	
PFHxS	4.54	1.00	38520.3	A	N/A	0.3690			
PFHxS_2	4.55	1.00	14213.1	A	N/A	0.3690	0	50	
6:2-FTS	4.90	1.00	43250.5	A	N/A	0.6442			
6:2-FTS_2	4.90	1.00	27861.0	A	N/A	0.6442	-3	50	
PFHpS	4.91	1.08	39014.5	A	N/A	0.3626			
PFHpS_2	4.90	1.08	14147.9	A	N/A	0.3626	-7	50	
PFOA	4.91	1.00	111412.0	A	N/A	0.0686			
PFOA_2	4.91	1.00	7643.3	A	N/A	0.0686	20	50	
PFOS	5.24	1.00	36350.5	M	N/A	0.3412			
PFOS_2	5.24	1.00	12401.6	A	N/A	0.3412	15	50	
PFNA	5.26	1.00	107498.4	A	N/A	0.0199			
PFNA_2	5.26	1.00	2137.9	A	N/A	0.0199	-1	50	
PFNS	5.53	1.06	25510.1	A	N/A	0.3980			
PFNS_2	5.54	1.06	10154.2	A	N/A	0.3980	-17	50	
PFDA	5.56	1.00	91367.7	A	N/A	0.0045			
PFDA_2	5.55	1.00	409.3	A	N/A	0.0045	-40	50	
8:2-FTS	5.56	1.00	47406.4	A	N/A	0.5834			
8:2-FTS_2	5.56	1.00	27658.0	A	N/A	0.5834	8	50	
NMeFOSAA	5.70	1.00	20635.0	M	N/A	0.2227			
NMeFOSAA_2	5.70	1.00	4596.1	A	N/A	0.2227	-3	50	
PFDS	5.79	1.10	22691.0	A	N/A	0.4089			
PFDS_2	5.79	1.10	9278.1	A	N/A	0.4089	-24	50	
PFUnDA	5.81	1.00	109727.5	A	N/A	0.0036			
PFUnDA_2	5.82	1.00	389.8	A	N/A	0.0036	-7	50	
NEtFOSAA	5.83	1.00	18556.9	A	N/A	0.5890			
NEtFOSAA_2	5.83	1.00	10930.7	A	N/A	0.5890	-20	50	
PFDODA	6.04	1.00	127385.4	A	N/A	0.0150			
PFDODA_2	6.05	1.00	1913.0	M	N/A	0.0150	15	50	
10:2-FTS	6.06	1.09	43892.0	A	N/A	0.7222			
10:2-FTS_2	6.06	1.09	31697.5	A	N/A	0.7222	3	50	
PFTTrDA	6.24	1.03	125876.8	A	N/A	0.0108			
PFTTrDA_2	6.25	1.03	1361.5	A	N/A	0.0108	20	50	
PFTeDA	6.42	1.00	91923.0	A	N/A	0.0066			
PFTeDA_2	6.41	1.00	603.6	A	N/A	0.0066	17	50	
PFHxDA	6.72	1.05	44242.6	A	N/A	0.0632			
PFHxDA_2	6.72	1.05	2795.6	A	N/A	0.0632	-2	50	
PFODA	6.99	1.09	24810.3	A	N/A	0.0237			
PFODA_2	6.98	1.09	588.6	A	N/A	0.0237	-10	50	

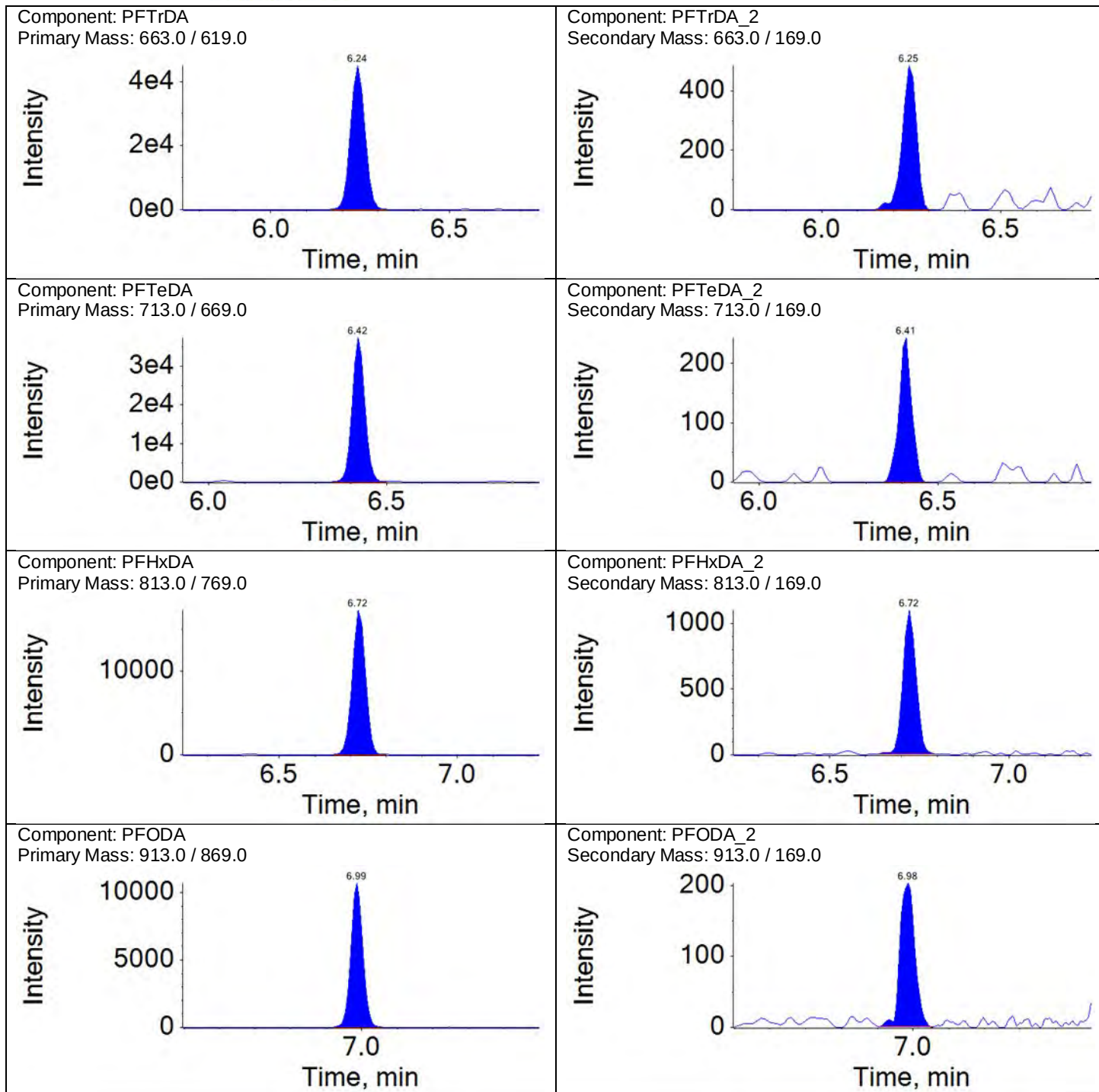












Preparation Logs

PFAS by LC/MS/MS

Organic Extraction Batchlog

Assigned to: 25478 Danielle McCully

Reviewed by: mc07824Start Date: 11/4/18Start time: 17:45**18312011**Tech 1: DDM25478Tech 2: N/A

Analyses on Batch: PFAS in Soil by LC/MS/MS-DOD

3 ml DDM25478 11/8/18

Dept: 33 Prep Analysis: 14510 PFAS Solid Prep - DOD

Port #	QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (uL)	IS Amt (uL)	BC	Comments
	9885071MS	22046	1.03	SSMODX1833BZ	.05	MSMODX1833AQ	.05	1.00	20	170a	
	9885072MSD	22046	1.10	SSMODX1833BZ	.05	MSMODX1833AQ	.05	1.00	170a		
	BLANKA	BLK312011	1.00	SSMODX1833BZ	.05	N/A	N/A	1.00	20		
	LCSA	LCS312011	1.00	SSMODX1833BZ	.05	MSMODX1833AQ	.04	1.00	20		

Spike Solutions:

Witness: ACP26543Instrument: LM27631

MSMODX1833AQ

PFAS 537 Native Spike

Sequence: 18N007200/18N009D

SSMODX1833BZ

PFAS 537 Modified Extraction/Surrogate Spik

Port#	Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
1	9885066	22042	1.07	SSMODX1833BZ	.05	1.00	20	170a		14478	11/15/2018	N
2	9885067	22043	1.00	SSMODX1833BZ	.05	1.00		170a		14478	11/15/2018	N
3	9885070	BKG 22046	1.01	SSMODX1833BZ	.05	1.00		170a		14478	11/15/2018	N
4	9885073	22047	1.00	SSMODX1833BZ	.05	1.00		170a		14478	11/15/2018	N
5	9885074	22048	1.00	SSMODX1833BZ	.05	1.00		170a		14478	11/15/2018	N
6	9885075	22049	1.07	SSMODX1833BZ	.05	1.00	4	170a		14478	11/15/2018	N

3 .04 ml. MSMODX1833AQ ACP26543 11/8/18

nmf mcd 7824 11/10/18



Organic Extraction Batchlog

18312011

Port#	Sample #	Sample Code	Amt ()	SS/IS Sol.	Amt (mL)	FV (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
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Reagents used During Extraction

Reagent/Material/Equip	Lot No./ID No.
1:1 ACN:MeOH	2547811051823 A
Auto-pipette (dilutions)	—
Auto-pipette (extract vialn)	P1000-2
Envl-Carb	107563
Internal Standard	151831233A
Methanol	02013-05
Sand	NALBU739V
Syringe (IS)	PRAS 22
Syringe (MS)	PRAS 10
Syringe (SS)	PRAS 13

Balance #	0362996412	Sonic Bath ID	2800 B	N-evap	A	35C	SPE Manifold	U/A
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DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

Page 2 of 2



18312011

Organic Extraction Batchlog

Assigned to: 12698 Courtney Fatta

Reviewed by: JPT12262

Start Date: 11/15/18

Start time: 8:50

18319003

Tech 1: CF12698

Tech 2: CF12698

Analyses on Batch: PFAS in Soil by LC/MS/MS-DOD

Dept: 33 Prep Analysis: 14510 PFAS Solid Prep - DOD

Port #	QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (mL)	IS Amt (uL)	BC	Comments
7	9885063MS	22013	1.06	SSMODX1833CB	.05	MSMODX1833AR	.04	1.0	20	170a	
	9885064MSD	22013	1.08	SSMODX1833CB	.05	MSMODX1833AR	.04	1.0	1	170a	
	BLANKA	BLK319003	1.0	SSMODX1833CB	.05	21a	21a	1.0	1		
	LCSA	LCS319003	1.0	SSMODX1833CB	.05	MSMODX1833AR	.04	1.0	1	Z	

Spike Solutions: Witness: PJR9213

Instrument: LM27631

MSMODX1833AR PFAS 537 Native Spike
SSMODX1833CB PFAS 537 Modified Extraction/Surrogate Spik

Sequence: 18NOV12DOD - 18NOV15D

Port#	Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (mL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
1	9885056 R	22006	1.04	SSMODX1833CE	.05	1.0	20	170a		14478	11/15/2018	N
2	9885057 R	22007	1.05	SSMODX1833CE	.05	1.0		170a		14478	11/15/2018	N
3	9885058 R	22008	1.04	SSMODX1833CE	.05	1.0		170a		14478	11/15/2018	N
4	9885059 R	22009	1.09	SSMODX1833CE	.05	1.0		170a		14478	11/15/2018	N
5	9885062 R	BKG 22013	1.03	SSMODX1833CE	.05	1.0		170a		14478	11/15/2018	N
6	9885065 R	22014	1.02	SSMODX1833CE	.05	1.0		170a		14478	11/15/2018	N
7	9885075 R	22049	1.08	SSMODX1833CE	.05	1.0		170a		14478	11/15/2018	N
8	9885147 R	82290	1.03	SSMODX1833CE	.05	1.0		170a		14478	11/15/2018	N
9	9885152 R	82293	1.08	SSMODX1833CE	.05	1.0	✓	170a		14478	11/15/2018	N



Organic Extraction Batchlog

18319003

Port#	Sample #	Sample Code	Amt ()	SS/IS Sol.	Amt (mL)	FV (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
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Reagents used During Extraction

Reagent/Material/Equip	Lot No./ID No.
1:1 ACN:MeOH	1264811121833A
Auto-pipette (dilutions)	N/A 50512262 11/16/18
Auto-pipette (extract vialin)	P1000-1
Enviro-Carb	1075603
Internal Standard	TS18318334
Methanol	DV013-US
Sand	MKBW349V
Syringe (IS)	PEAS 11
Syringe (MS)	PEAS 10
Syringe (SS)	PEAS 13

DF = Dilution Factor FV = Final Volume

Page 2 of 2

Documented temps are NIST corrected.

Balance #	136029364122	Sonic Bath ID	3000A	N-evap	C	26°C	SPE Manifold	N/A
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18319003

CF12698
11/15/18

N/A 50512262 11/16/18

N/A 50512262 11/16/18

Dept: 33 Prep Analysis: 14510 PFAS Solid Prep - DOD

3 ml CF12698

Port #	QC	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	MS Sol.	Amt (mL)	FV (uL)	IS Amt (uL)	BC	Comments
1	9883383MS	SI1113	1.10	SSMODX1833CE	.05	MSMODX1833AU	.04	1.0	30	170a	pebbles
2	9883384MSD	SI1113	1.07	SSMODX1833CE	.05	MSMODX1833AU	.04	1.0	1	170a	pebbles
3	BLANKA	BLK332003	1.0	SSMODX1833CE	.05	N/A	N/A	1.0	4	Z	
4	LCSA	LCS332003	1.0	SSMODX1833CE	.05	MSMODX1833AU	.04	1.0			

Spike Solutions: Witness: P189213

Instrument: LM27631

MSMODX1833AU PFAS 537 Native Spike
SSMODX1833CE PFAS 537 Modified Extraction/Surrogate Spik

Sequence: 3 ml
18MOD28100/18MOD2910

Port#	Sample #	Sample Code	Amt (g)	SS/IS Sol.	Amt (mL)	FV (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
1	9881542	MCLB7	1.02	SSMODX1833CE	.05	1.0	20	170a		14478	12/06/2018	N
2	9881543	MCLB8	1.04	SSMODX1833CE	.05	1.0		170a		14478	12/06/2018	N
3	9883382	BKG SI1113	1.05	SSMODX1833CE	.05	1.0		170a	pebbles	14478	12/06/2018	N
4	9883385	SI1114	1.01	SSMODX1833CE	.05	1.0		170a	pebbles	14478	12/06/2018	N
5	9883396	SI1115	1.05	SSMODX1833CE	.05	1.0		170a		14478	12/06/2018	N
6	9883397	11116	1.08	SSMODX1833CE	.05	1.0		170a		14478	12/06/2018	N
7	9885076	22050	1.07	SSMODX1833CE	.05	1.0		170a	Sand	14478	12/06/2018	N
8	9885077	22051	1.07	SSMODX1833CE	.05	1.0		170a	Sand	14478	12/06/2018	N
9	9885091	82215	1.10	SSMODX1833CE	.05	1.0		170a		14478	12/06/2018	N
10	9885133	82274	1.04	SSMODX1833CE	.05	1.0		170a	Sand	14478	12/06/2018	N
11	9885134	82275	1.02	SSMODX1833CE	.05	1.0		170a	Sand	14478	12/06/2018	N
12	9885151	82292	1.03	SSMODX1833CE	.05	1.0		170a		14478	12/06/2018	N

NA MC07824 11/30/18



Organic Extraction Batchlog

18332003

Port#	Sample #	Sample Code	Amt ()	SS/IS Sol.	Amt (mL)	FV (uL)	IS Amt (uL)	BC	Comments	Analyses	Due	Pri
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Reagents used During Extraction

Reagent/Material/Equip	Lot No./ID No.
1:1 ACN:MeOH	17698 11271833A
Auto-pipette (dilutions)	—
Auto-pipette (extract vialin)	P1000-3
Env-Carb	107563
Internal Standard	IS18331337A
Methanol	DN136-US
Sand	MKBW349V
Syringe (IS)	PEAS 22
Syringe (MS)	PEAS 10
Syringe (SS)	PEAS 13

Balance #	7629764127	Sonic Bath ID	3800A	N-evap	A	30°C	SPE Manifold	N/A
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DF = Dilution Factor FV = Final Volume

Documented temps are NIST corrected.

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18332003

N/A mcd07824 11/30/18

CF12698 11/28/18

N/A mcd07824 11/30/18

Moisture Data

MOISTURE

SAMPLE NUMBERS:

Sample #	Sample Code
9885066	22042
9885067	22043
9885070	22046BKG
9885071	22046MS
9885072	22046MSD
9885073	22047
9885074	22048
9885075	22049
9885076	22050
9885077	22051

COMMENTS:

Method defined actions are taken for any failed matrix QC.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>LCS</u> <u>%REC</u>	<u>LCSD</u> <u>%REC</u>	<u>LCS/LCSD</u> <u>Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 18313820005A	Sample number(s): 9885066-9885067, 9885070-9885075				
Moisture	100		99-101		
Moisture	100		99-101		
Moisture Duplicate	100		99-101		
Batch number: 18337820002B	Sample number(s): 9885076-9885077				
Moisture	100		99-101		

Sample Matrix Quality Control

<u>Analysis Name</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 18313820005A	Sample number(s): 9885066-9885067, 9885070-9885075			
Moisture	N.D.	N.D.	0 (1)	5
Moisture	N.D.	N.D.	0 (1)	5
Moisture Duplicate	N.D.	N.D.	0 (1)	5
Batch number: 18337820002B	Sample number(s): 9885076-9885077			
Moisture	0.77	0.74	3 (1)	5

* - Outside of specification

(1) - The result for one or both determinations was less than five times the LOQ.

MOISTURE

Moisture Data Report

Batch #: 18313820005

<u>Sample ID</u>	<u>Batch ID</u>	<u>Analysis#</u>	<u>Tare Wt</u>	<u>Sample Wt</u>	<u>Dry Wt</u>	<u>%Moisture</u>	<u>Analysis Date (Emp#)</u>	<u>Verified Date (Emp#)</u>
9885066	A	00111	1.1754	5.7680	6.5252	7.25	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885067	A	00111	1.0775	5.3914	6.1495	5.92	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885070BKG	A	00111	1.0678	5.5444	6.5879	0.44	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885071MS	A	00118				0.44	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885072MSD	A	00118				0.44	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885072MSD	A	00121	1.0838	5.5355	6.5963	0.42	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885073	A	00111	1.0666	5.3077	6.3301	0.83	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885074	A	00111	1.1525	5.1400	6.2339	1.14	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
9885075	A	00111	1.1501	5.3757	6.3172	3.88	11/ 9/18 (835/LEB)	11/12/18 (236/CW)
LCS 89.5% Std.		00111	1.1533	5.0703	1.6913	89.39	11/ 9/18 (835/LEB)	11/12/18 (236/CW)

Batch #: 18337820002

<u>Sample ID</u>	<u>Batch ID</u>	<u>Analysis#</u>	<u>Tare Wt</u>	<u>Sample Wt</u>	<u>Dry Wt</u>	<u>%Moisture</u>	<u>Analysis Date (Emp#)</u>	<u>Verified Date (Emp#)</u>
9885076	B	00111	1.0585	5.6344	6.5960	1.72	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)
9885077	B	00111	1.0821	5.3323	6.2458	3.16	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)
P883382BKG	B	00111	1.0911	5.6597	6.7075	0.77	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)
P883382DUP	B	00111	1.0647	5.6624	6.6852	0.74	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)
LCS 89.5% Std.		00111	1.0740	5.0698	1.6127	89.37	12/ 3/18 (835/LEB)	12/ 4/18 (236/CW)

CONTRACT_ID	DO_CTO_NUMBER	PHASE	INSTALLATION_ID	SAMPLE_NAME	ANALYTICAL_METHOD	LAB_NAME	CONTRACTOR_NAME	LEACHATE_METHOD	SAMPLE_BASIS	EXTRACTION_METHOD	RESULT_TYPE	SAMPLE_MEDIUM	CLEANUP_METHOD	QC_LEVEL	LEACHATE_DATE	LEACHATE_TIME	EXTRACTION_DATE	EXTRACTION_TIME	ANALYSIS_DATE	ANALYSIS_TIME	LAB_SAMPLE_ID	LAB_REPORT_DATE	LAB_REPORT_NUMBER	FILTER_SIZE	DILUTION	RUN_NUMBER	PERCENT_MOISTURE	PERCENT_LIPID	ANALYTE_ID	ANALYTE_VALUE	ORIGINAL_ANALYTE_VALUE	RESULT_UNITS	LAB_QUALIFIER	VALIDATOR_QUALIFIER	FINAL_QUALIFIER	DETECTED	GC_COLUMN_TYPE	ANALYSIS_RESULT_TYPE	RADIOLOGICAL_ERROR	RESULT_NARRATIVE	RETENTION_TIME	QC_CONTROL_LIMIT_CODE	QC_ACCURACY_UPPER	QC_ACCURACY_LOWER	CONTROL_LIMIT_DATE	RELATIVE_PCT_DIFF	QC_NARRATIVE	MDL	CDL	IDL	PQL	CRQL	DETECTION_LIMIT	VALIDATOR_DET_LIMIT	VALIDATOR_MDL	DL	LOD	LOQ	SDG	LEACH_LOT	METHOD_BATCH	PREP_BATCH	RUN_BATCH	ANALYSIS_BATCH	VALIDATOR_NAME	VALIDATION_QC	VAL_DATE	REPORTABLE_RESULT																																																																																																																																																																																																																										
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-05	Calculation	EUROFINS	BRADY GCE II	NONE	Wet	NONE	000	S	UNK	20181109	13:52:00	9885066	20190118	2006157	0.00	1	1	7.3	-86	7.3	7.3	PCT	Y	TRG	0.50	0.50	0.50	0.50	0.50	0.50	BSI14	18313820005A	18313820005A	18313820005A	Y	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-05	537_MOD	EUROFINS	BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00	20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	335-67-1	0.39	0.39	NG_G	J	Y	TRG	0.20	0.20	0.20	0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011	Y	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-05	537_MOD	EUROFINS	BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00	20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	375-95-1	0.69	0	NG_G	U	N	TRG	0.20	0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011	Y	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-05	537_MOD	EUROFINS	BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00	20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	335-76-2	0.69	0	NG_G	U	N	TRG	0.30	0.30	0.69	1.0	BSI14	18312011	18312011	18312011	18312011	Y	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-05	537_MOD	EUROFINS	BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00	20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	2058-94-8	0.69	0	NG_G	U	N	TRG	0.20	0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011	Y	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-05	537_MOD	EUROFINS	BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00	20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	307-55-1	0.69	0	NG_G	U	N	TRG	0.20	0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011	Y	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-05	537_MOD	EUROFINS	BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00	20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	72629-94-8	0.69	0	NG_G	U	N	TRG	0.20	0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011	Y

Y														
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB			OU1-GCI-S-01-05			537_MOD EUROFINS				
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108			17:45:00				
20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	376-06-7	0.69	0			
NG_G	U	N	TRG	0.20										
0.20	0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011						
Y														
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB			OU1-GCI-S-01-05			537_MOD EUROFINS				
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108			17:45:00				
20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	307-24-4	0.69	0			
NG_G	U	N	TRG	0.20										
0.20	0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011						
Y														
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB			OU1-GCI-S-01-05			537_MOD EUROFINS				
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108			17:45:00				
20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	375-85-9	0.69	0			
NG_G	U	N	TRG	0.20										
0.20	0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011						
Y														
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB			OU1-GCI-S-01-05			537_MOD EUROFINS				
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108			17:45:00				
20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	375-73-5	0.60	0			
NG_G	U	N	TRG	0.20										
0.20	0.20	0.60	0.81	BSI14	18312011	18312011	18312011	18312011						
Y														
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB			OU1-GCI-S-01-05			537_MOD EUROFINS				
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108			17:45:00				
20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	355-46-4	0.24	0.24			
NG_G	J	Y	TRG	0.20									0.20	
0.20	0.65	0.81	BSI14	18312011	18312011	18312011	18312011	18312011	Y					
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB			OU1-GCI-S-01-05			537_MOD EUROFINS				
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108			17:45:00				
20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	1763-23-1	0.22	0.22			
NG_G	J	Y	TRG	0.20									0.20	
0.20	0.66	0.81	BSI14	18312011	18312011	18312011	18312011	18312011	Y					
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB			OU1-GCI-S-01-05			537_MOD EUROFINS				
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108			17:45:00				
20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	2991-50-6	2.0	0			
NG_G	U	N	TRG	0.50										
0.50	0.50	2.0	3.0	BSI14	18312011	18312011	18312011	18312011						
Y														
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB			OU1-GCI-S-01-05			537_MOD EUROFINS				
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108			17:45:00				
20181109	10:57:00	9885066	20190118	2006157	0.00	1	1	7.3	2355-31-9	2.0	0			
NG_G	U	N	TRG	0.50										
0.50	0.50	2.0	3.0	BSI14	18312011	18312011	18312011	18312011						
Y														
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB			OU1-GCI-S-01-08			Calculation EUROFINS				
BRADY GCE II	NONE	Wet	NONE	000	S	UNK	20181109			13:52:00				
9885067	20190118	2006157	0.00	1	1	5.9	-86	5.9	5.9	PCT	Y			
TRG						0.50				0.50	0.50	0.50		
BSI14	18313820005A	18313820005A	18313820005A	Y										
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB			OU1-GCI-S-01-08			537_MOD EUROFINS				
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108			17:45:00				

20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	335-67-1	0.72	0
NG_G	U	N	TRG						0.21		
0.21	0.21	0.72	0.85	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-08	537_MOD	EUROFINS						
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00			
20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	375-95-1	0.72	0
NG_G	U	N	TRG						0.21		
0.21	0.21	0.72	0.85	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-08	537_MOD	EUROFINS						
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00			
20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	335-76-2	0.72	0
NG_G	U	N	TRG						0.32		
0.32	0.32	0.72	1.1	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-08	537_MOD	EUROFINS						
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00			
20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	2058-94-8	0.72	0
NG_G	U	N	TRG						0.21		
0.21	0.21	0.72	0.85	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-08	537_MOD	EUROFINS						
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00			
20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	307-55-1	0.72	0
NG_G	U	N	TRG						0.21		
0.21	0.21	0.72	0.85	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-08	537_MOD	EUROFINS						
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00			
20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	72629-94-8	0.72	0
NG_G	U	N	TRG						0.21		
0.21	0.21	0.72	0.85	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-08	537_MOD	EUROFINS						
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00			
20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	376-06-7	0.72	0
NG_G	U	N	TRG						0.21		
0.21	0.21	0.72	0.85	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-08	537_MOD	EUROFINS						
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00			
20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	307-24-4	0.72	0
NG_G	U	N	TRG						0.21		
0.21	0.21	0.72	0.85	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-08	537_MOD	EUROFINS						
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00			
20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	375-85-9	0.72	0
NG_G	U	N	TRG						0.21		
0.21	0.21	0.72	0.85	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-08	537_MOD	EUROFINS						
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK	20181108	17:45:00			

20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	375-73-5	0.64	0
NG_G	U	N	TRG						0.21		
0.21	0.21	0.64	0.85	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-08	537_MOD	EUROFINS						
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK			20181108	17:45:00	
20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	355-46-4	0.68	0
NG_G	U	N	TRG						0.21		
0.21	0.21	0.68	0.85	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-08	537_MOD	EUROFINS						
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK			20181108	17:45:00	
20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	1763-23-1	0.69	0
NG_G	U	N	TRG						0.21		
0.21	0.21	0.69	0.85	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-08	537_MOD	EUROFINS						
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK			20181108	17:45:00	
20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	2991-50-6	2.1	0
NG_G	U	N	TRG						0.53		
0.53	0.53	2.1	3.2	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-GCI-S-01-08	537_MOD	EUROFINS						
BRADY GCE II	NONE	Dry	METHOD	000	S	UNK			20181108	17:45:00	
20181109	11:06:00	9885067	20190118	2006157	0.00	1	1	5.9	2355-31-9	2.1	0
NG_G	U	N	TRG						0.53		
0.53	0.53	2.1	3.2	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-01	Calculation							
EUROFINS	BRADY GCE II	NONE	Wet	NONE	000	S	UNK			20181109	
13:52:00	9885070	20190118	2006157	0.00	1	1	0	-86	0.50	0.438280066373278	PCT
U	N	TRG							0.50		0.50
0.50	0.50	0.50	BSI14	18313820005A	18313820005A	18313820005A					Y
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-01	537_MOD							
EUROFINS	BRADY GCE II	NONE	Dry	METHOD	000	S	UNK			20181108	
17:45:00	20181109	11:15:00	9885070	20190118	2006157	0.00	1	1	0	335-67-1	
0.92	0.92	NG_G	Y	TRG						0.20	
0.20	0.20	0.67	0.79	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-01	537_MOD							
EUROFINS	BRADY GCE II	NONE	Dry	METHOD	000	S	UNK			20181108	
17:45:00	20181109	11:15:00	9885070	20190118	2006157	0.00	1	1	0	375-95-1	
0.67	0	NG_G	U	N	TRG					0.20	
0.20	0.20	0.67	0.79	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-01	537_MOD							
EUROFINS	BRADY GCE II	NONE	Dry	METHOD	000	S	UNK			20181108	
17:45:00	20181109	11:15:00	9885070	20190118	2006157	0.00	1	1	0	335-76-2	
0.67	0	NG_G	U	N	TRG					0.30	
0.30	0.30	0.67	0.99	BSI14	18312011	18312011	18312011	18312011			
Y											
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-01	537_MOD							
EUROFINS	BRADY GCE II	NONE	Dry	METHOD	000	S	UNK			20181108	
17:45:00	20181109	11:15:00	9885070	20190118	2006157	0.00	1	1	0	2058-94-8	

0.67	0	NG_G	U		N	TRG				0.20
0.20		0.20	0.67	0.79	BSI14	18312011	18312011	18312011	18312011	
Y										
N62473-14-D-1405		N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-01				537_MOD
EUROFINS		BRADY GCE II	NONE	Dry	METHOD 000	S		UNK		20181108
17:45:00		20181109		11:15:00	9885070 20190118	2006157 0.00	1	1	0	307-55-1
0.67	0	NG_G	U		N	TRG				0.20
0.20		0.20	0.67	0.79	BSI14	18312011	18312011	18312011	18312011	
Y										
N62473-14-D-1405		N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-01				537_MOD
EUROFINS		BRADY GCE II	NONE	Dry	METHOD 000	S		UNK		20181108
17:45:00		20181109		11:15:00	9885070 20190118	2006157 0.00	1	1	0	72629-94-8
0.67	0	NG_G	U		N	TRG				0.20
0.20		0.20	0.67	0.79	BSI14	18312011	18312011	18312011	18312011	
Y										
N62473-14-D-1405		N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-01				537_MOD
EUROFINS		BRADY GCE II	NONE	Dry	METHOD 000	S		UNK		20181108
17:45:00		20181109		11:15:00	9885070 20190118	2006157 0.00	1	1	0	376-06-7
0.67	0	NG_G	U		N	TRG				0.20
0.20		0.20	0.67	0.79	BSI14	18312011	18312011	18312011	18312011	
Y										
N62473-14-D-1405		N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-01				537_MOD
EUROFINS		BRADY GCE II	NONE	Dry	METHOD 000	S		UNK		20181108
17:45:00		20181109		11:15:00	9885070 20190118	2006157 0.00	1	1	0	307-24-4
0.67	0	NG_G	U		N	TRG				0.20
0.20		0.20	0.67	0.79	BSI14	18312011	18312011	18312011	18312011	
Y										
N62473-14-D-1405		N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-01				537_MOD
EUROFINS		BRADY GCE II	NONE	Dry	METHOD 000	S		UNK		20181108
17:45:00		20181109		11:15:00	9885070 20190118	2006157 0.00	1	1	0	375-85-9
0.67	0	NG_G	U		N	TRG				0.20
0.20		0.20	0.67	0.79	BSI14	18312011	18312011	18312011	18312011	
Y										
N62473-14-D-1405		N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-01				537_MOD
EUROFINS		BRADY GCE II	NONE	Dry	METHOD 000	S		UNK		20181108
17:45:00		20181109		11:15:00	9885070 20190118	2006157 0.00	1	1	0	375-73-5
0.59	0	NG_G	U		N	TRG				0.20
0.20		0.20	0.59	0.79	BSI14	18312011	18312011	18312011	18312011	
Y										
N62473-14-D-1405		N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-01				537_MOD
EUROFINS		BRADY GCE II	NONE	Dry	METHOD 000	S		UNK		20181108
17:45:00		20181109		11:15:00	9885070 20190118	2006157 0.00	1	1	0	355-46-4
0.30	0.30	NG_G	J		Y	TRG				0.20
0.20		0.20	0.63	0.79	BSI14	18312011	18312011	18312011	18312011	
Y										
N62473-14-D-1405		N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-01				537_MOD
EUROFINS		BRADY GCE II	NONE	Dry	METHOD 000	S		UNK		20181108
17:45:00		20181109		11:15:00	9885070 20190118	2006157 0.00	1	1	0	1763-23-1
4.8	4.8	NG_G			Y	TRG				0.20
0.20		0.20	0.64	0.79	BSI14	18312011	18312011	18312011	18312011	
Y										
N62473-14-D-1405		N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-01				537_MOD
EUROFINS		BRADY GCE II	NONE	Dry	METHOD 000	S		UNK		20181108
17:45:00		20181109		11:15:00	9885070 20190118	2006157 0.00	1	1	0	2991-50-6

file:///C:/Users/GW063173/Desktop/SW%20PFAS%20FOIA/MCLB%20BARSTOW/3_EDD%20SDG%20BSI14.txt[9/13/2019 2:46:52 PM]

17:45:00	20181109	11:33:00	9885073	20190118	2006157	0.00	1	1	0.83	307-24-4	0.69	0		
NG_G	U	N	TRG							0.20				0.20
0.20	0.69	0.81	BSI14	18312011	18312011	18312011					Y			
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-03	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK					20181108			
17:45:00	20181109	11:33:00	9885073	20190118	2006157	0.00	1	1	0.83	375-85-9	0.69	0		
NG_G	U	N	TRG							0.20				0.20
0.20	0.69	0.81	BSI14	18312011	18312011	18312011					Y			
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-03	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK					20181108			
17:45:00	20181109	11:33:00	9885073	20190118	2006157	0.00	1	1	0.83	375-73-5	0.61	0		
NG_G	U	N	TRG							0.20				0.20
0.20	0.61	0.81	BSI14	18312011	18312011	18312011					Y			
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-03	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK					20181108			
17:45:00	20181109	11:33:00	9885073	20190118	2006157	0.00	1	1	0.83	355-46-4	0.65	0		
NG_G	U	N	TRG							0.20				0.20
0.20	0.65	0.81	BSI14	18312011	18312011	18312011					Y			
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-03	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK					20181108			
17:45:00	20181109	11:33:00	9885073	20190118	2006157	0.00	1	1	0.83	1763-23-1	1.9	1.9		
NG_G		Y	TRG							0.20				0.20
0.20	0.66	0.81	BSI14	18312011	18312011	18312011					Y			
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-03	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK					20181108			
17:45:00	20181109	11:33:00	9885073	20190118	2006157	0.00	1	1	0.83	2991-50-6	2.0	0		
NG_G	U	N	TRG							0.50				0.50
0.50	2.0	3.0	BSI14	18312011	18312011	18312011					Y			
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-03	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK					20181108			
17:45:00	20181109	11:33:00	9885073	20190118	2006157	0.00	1	1	0.83	2355-31-9	2.0	0		
NG_G	U	N	TRG							0.50				0.50
0.50	2.0	3.0	BSI14	18312011	18312011	18312011					Y			
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	Calculation								
EUROFINS	BRADY	GCE II	NONE	Wet NONE	000 S	UNK					20181109			
13:52:00	9885074	20190118	2006157	0.00	1	1	1.1	-86	1.1	1.1	PCT		Y	TRG
0.50		0.50		0.50	0.50	BSI14		18313820005A			18313820005A			
18313820005A			Y											
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK					20181108			
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	335-67-1	0.69	0		
NG_G	U	N	TRG							0.20				0.20
0.20	0.69	0.81	BSI14	18312011	18312011	18312011					Y			
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK					20181108			
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	375-95-1	0.69	0		
NG_G	U	N	TRG							0.20				0.20
0.20	0.69	0.81	BSI14	18312011	18312011	18312011					Y			
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK					20181108			
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	335-76-2	0.69	0		
NG_G	U	N	TRG							0.30				0.30
0.30	0.69	1.0	BSI14	18312011	18312011	18312011					Y			
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD								

EUROFINS	BRADY	GCE II	NONE	Dry	METHOD	000	S	UNK	20181108		
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	2058-94-8	0.69 0
NG_G	U	N	TRG						0.20		0.20
0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011			Y	
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD					
EUROFINS	BRADY	GCE II	NONE	Dry	METHOD	000	S	UNK	20181108		
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	307-55-1	0.69 0
NG_G	U	N	TRG						0.20		0.20
0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011			Y	
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD					
EUROFINS	BRADY	GCE II	NONE	Dry	METHOD	000	S	UNK	20181108		
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	72629-94-8	0.69 0
NG_G	U	N	TRG						0.20		0.20
0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011			Y	
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD					
EUROFINS	BRADY	GCE II	NONE	Dry	METHOD	000	S	UNK	20181108		
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	376-06-7	0.69 0
NG_G	U	N	TRG						0.20		0.20
0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011			Y	
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD					
EUROFINS	BRADY	GCE II	NONE	Dry	METHOD	000	S	UNK	20181108		
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	307-24-4	0.69 0
NG_G	U	N	TRG						0.20		0.20
0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011			Y	
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD					
EUROFINS	BRADY	GCE II	NONE	Dry	METHOD	000	S	UNK	20181108		
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	375-85-9	0.69 0
NG_G	U	N	TRG						0.20		0.20
0.20	0.69	0.81	BSI14	18312011	18312011	18312011	18312011			Y	
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD					
EUROFINS	BRADY	GCE II	NONE	Dry	METHOD	000	S	UNK	20181108		
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	375-73-5	0.61 0
NG_G	U	N	TRG						0.20		0.20
0.20	0.61	0.81	BSI14	18312011	18312011	18312011	18312011			Y	
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD					
EUROFINS	BRADY	GCE II	NONE	Dry	METHOD	000	S	UNK	20181108		
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	355-46-4	0.65 0
NG_G	U	N	TRG						0.20		0.20
0.20	0.65	0.81	BSI14	18312011	18312011	18312011	18312011			Y	
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD					
EUROFINS	BRADY	GCE II	NONE	Dry	METHOD	000	S	UNK	20181108		
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	1763-23-1	1.4 1.4
NG_G	U	Y	TRG						0.20		0.20
0.20	0.66	0.81	BSI14	18312011	18312011	18312011	18312011			Y	
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD					
EUROFINS	BRADY	GCE II	NONE	Dry	METHOD	000	S	UNK	20181108		
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	2991-50-6	2.0 0
NG_G	U	N	TRG						0.51		0.51
0.51	2.0	3.0	BSI14	18312011	18312011	18312011	18312011			Y	
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-05	537_MOD					
EUROFINS	BRADY	GCE II	NONE	Dry	METHOD	000	S	UNK	20181108		
17:45:00	20181109	11:43:00	9885074	20190118	2006157	0.00	1	1	1.1	2355-31-9	2.0 0
NG_G	U	N	TRG						0.51		0.51
0.51	2.0	3.0	BSI14	18312011	18312011	18312011	18312011			Y	

N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-08	Calculation	
EUROFINS BRADY GCE II NONE	Wet NONE 000 S	UNK	20181109	
13:52:00 9885075 20190118	2006157 0.00 1 1 3.9	-86 3.9 3.9 PCT	Y	TRG
0.50	0.50	0.50	0.50	0.50 BSI14
18313820005A	Y	18313820005A	18313820005A	
N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-08	537_MOD	
EUROFINS BRADY GCE II NONE	Dry METHOD 000 S	UNK	20181115	
08:50:00 20181115 14:36:00 9885075 20190118	2006157 0.00 1 1 3.9	335-67-1 0.66 0		
NG_G U N	TRG	0.19		0.19
0.19 0.66 0.77 BSI14	18319003	18319003	18319003	Y
N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-08	537_MOD	
EUROFINS BRADY GCE II NONE	Dry METHOD 000 S	UNK	20181115	
08:50:00 20181115 14:36:00 9885075 20190118	2006157 0.00 1 1 3.9	375-95-1 0.66 0		
NG_G U N	TRG	0.19		0.19
0.19 0.66 0.77 BSI14	18319003	18319003	18319003	Y
N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-08	537_MOD	
EUROFINS BRADY GCE II NONE	Dry METHOD 000 S	UNK	20181115	
08:50:00 20181115 14:36:00 9885075 20190118	2006157 0.00 1 1 3.9	335-76-2 0.66 0		
NG_G U N	TRG	0.29		0.29
0.29 0.66 0.96 BSI14	18319003	18319003	18319003	Y
N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-08	537_MOD	
EUROFINS BRADY GCE II NONE	Dry METHOD 000 S	UNK	20181115	
08:50:00 20181115 14:36:00 9885075 20190118	2006157 0.00 1 1 3.9	2058-94-8 0.66 0		
NG_G U N	TRG	0.19		0.19
0.19 0.66 0.77 BSI14	18319003	18319003	18319003	Y
N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-08	537_MOD	
EUROFINS BRADY GCE II NONE	Dry METHOD 000 S	UNK	20181115	
08:50:00 20181115 14:36:00 9885075 20190118	2006157 0.00 1 1 3.9	307-55-1 0.66 0		
NG_G U N	TRG	0.19		0.19
0.19 0.66 0.77 BSI14	18319003	18319003	18319003	Y
N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-08	537_MOD	
EUROFINS BRADY GCE II NONE	Dry METHOD 000 S	UNK	20181115	
08:50:00 20181115 14:36:00 9885075 20190118	2006157 0.00 1 1 3.9	72629-94-8 0.66 0		
NG_G U N	TRG	0.19		0.19
0.19 0.66 0.77 BSI14	18319003	18319003	18319003	Y
N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-08	537_MOD	
EUROFINS BRADY GCE II NONE	Dry METHOD 000 S	UNK	20181115	
08:50:00 20181115 14:36:00 9885075 20190118	2006157 0.00 1 1 3.9	376-06-7 0.66 0		
NG_G U N	TRG	0.19		0.19
0.19 0.66 0.77 BSI14	18319003	18319003	18319003	Y
N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-08	537_MOD	
EUROFINS BRADY GCE II NONE	Dry METHOD 000 S	UNK	20181115	
08:50:00 20181115 14:36:00 9885075 20190118	2006157 0.00 1 1 3.9	307-24-4 0.66 0		
NG_G U N	TRG	0.19		0.19
0.19 0.66 0.77 BSI14	18319003	18319003	18319003	Y
N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-08	537_MOD	
EUROFINS BRADY GCE II NONE	Dry METHOD 000 S	UNK	20181115	
08:50:00 20181115 14:36:00 9885075 20190118	2006157 0.00 1 1 3.9	375-85-9 0.66 0		
NG_G U N	TRG	0.19		0.19
0.19 0.66 0.77 BSI14	18319003	18319003	18319003	Y
N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-08	537_MOD	
EUROFINS BRADY GCE II NONE	Dry METHOD 000 S	UNK	20181115	
08:50:00 20181115 14:36:00 9885075 20190118	2006157 0.00 1 1 3.9	375-73-5 0.58 0		
NG_G U N	TRG	0.19		0.19

file:///C:/Users/GW063173/Desktop/SW%20PFAS%20FOIA/MCLB%20BARSTOW/3_EDD%20SDG%20BSI14.txt[9/13/2019 2:46:52 PM]

NG_G	U	N	TRG						0.19			0.19
0.19	0.65	0.76	BSI14	18332003	18332003	18332003	18332003	Y				
N62473-14-D-1405	N6247317F4100		BARSTOW_MCLB	OU1-WWTPE-S-01-10	537_MOD							
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK		20181128				
09:45:00	20181129	19:16:00	9885076	20190118	2006157	0.00	1 1 1.7	376-06-7	0.65	0		
NG_G	U	N	TRG					0.19				0.19
0.19	0.65	0.76	BSI14	18332003	18332003	18332003	18332003	Y				
N62473-14-D-1405	N6247317F4100		BARSTOW_MCLB	OU1-WWTPE-S-01-10	537_MOD							
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK		20181128				
09:45:00	20181129	19:16:00	9885076	20190118	2006157	0.00	1 1 1.7	307-24-4	0.65	0		
NG_G	U	N	TRG					0.19				0.19
0.19	0.65	0.76	BSI14	18332003	18332003	18332003	18332003	Y				
N62473-14-D-1405	N6247317F4100		BARSTOW_MCLB	OU1-WWTPE-S-01-10	537_MOD							
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK		20181128				
09:45:00	20181129	19:16:00	9885076	20190118	2006157	0.00	1 1 1.7	375-85-9	0.65	0		
NG_G	U	N	TRG					0.19				0.19
0.19	0.65	0.76	BSI14	18332003	18332003	18332003	18332003	Y				
N62473-14-D-1405	N6247317F4100		BARSTOW_MCLB	OU1-WWTPE-S-01-10	537_MOD							
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK		20181128				
09:45:00	20181129	19:16:00	9885076	20190118	2006157	0.00	1 1 1.7	375-73-5	0.57	0		
NG_G	U	N	TRG					0.19				0.19
0.19	0.57	0.76	BSI14	18332003	18332003	18332003	18332003	Y				
N62473-14-D-1405	N6247317F4100		BARSTOW_MCLB	OU1-WWTPE-S-01-10	537_MOD							
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK		20181128				
09:45:00	20181129	19:16:00	9885076	20190118	2006157	0.00	1 1 1.7	355-46-4	0.61	0		
NG_G	U	N	TRG					0.19				0.19
0.19	0.61	0.76	BSI14	18332003	18332003	18332003	18332003	Y				
N62473-14-D-1405	N6247317F4100		BARSTOW_MCLB	OU1-WWTPE-S-01-10	537_MOD							
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK		20181128				
09:45:00	20181129	19:16:00	9885076	20190118	2006157	0.00	1 1 1.7	1763-23-1	0.66	0.66		
NG_G	J	Y	TRG					0.19				0.19
0.19	0.62	0.76	BSI14	18332003	18332003	18332003	18332003	Y				
N62473-14-D-1405	N6247317F4100		BARSTOW_MCLB	OU1-WWTPE-S-01-10	537_MOD							
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK		20181128				
09:45:00	20181129	19:16:00	9885076	20190118	2006157	0.00	1 1 1.7	2991-50-6	1.9	0		
NG_G	U	N	TRG					0.48				0.48
0.48	1.9	2.9	BSI14	18332003	18332003	18332003	18332003	Y				
N62473-14-D-1405	N6247317F4100		BARSTOW_MCLB	OU1-WWTPE-S-01-10	537_MOD							
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK		20181128				
09:45:00	20181129	19:16:00	9885076	20190118	2006157	0.00	1 1 1.7	2355-31-9	1.9	0		
NG_G	U	N	TRG					0.48				0.48
0.48	1.9	2.9	BSI14	18332003	18332003	18332003	18332003	Y				
N62473-14-D-1405	N6247317F4100		BARSTOW_MCLB	OU1-WWTPE-S-01-12	Calculation							
EUROFINS	BRADY	GCE II	NONE	Wet NONE	000 S	UNK		20181203				
10:37:00	9885077	20190118	2006157	0.00	1 1 3.2	-86 3.2 3.2 PCT		Y		TRG		
0.50		0.50		0.50	0.50	BSI14	18337820002B	18337820002B				
18337820002B			Y									
N62473-14-D-1405	N6247317F4100		BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD							
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK		20181128				
09:45:00	20181129	19:34:00	9885077	20190118	2006157	0.00	1 1 3.2	335-67-1	0.66	0		
NG_G	U	N	TRG					0.19				0.19
0.19	0.66	0.77	BSI14	18332003	18332003	18332003	18332003	Y				
N62473-14-D-1405	N6247317F4100		BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD							
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK		20181128				

09:45:00	20181129	19:34:00	9885077	20190118	2006157	0.00	1	1	3.2	375-95-1	0.66	0		
NG_G	U	N	TRG										0.19	0.19
0.19	0.66	0.77	BSI14	18332003	18332003	18332003						Y		
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK						20181128		
09:45:00	20181129	19:34:00	9885077	20190118	2006157	0.00	1	1	3.2	335-76-2	0.66	0		
NG_G	U	N	TRG										0.29	0.29
0.29	0.66	0.97	BSI14	18332003	18332003	18332003						Y		
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK						20181128		
09:45:00	20181129	19:34:00	9885077	20190118	2006157	0.00	1	1	3.2	2058-94-8	0.66	0		
NG_G	U	N	TRG										0.19	0.19
0.19	0.66	0.77	BSI14	18332003	18332003	18332003						Y		
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK						20181128		
09:45:00	20181129	19:34:00	9885077	20190118	2006157	0.00	1	1	3.2	307-55-1	0.66	0		
NG_G	U	N	TRG										0.19	0.19
0.19	0.66	0.77	BSI14	18332003	18332003	18332003						Y		
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK						20181128		
09:45:00	20181129	19:34:00	9885077	20190118	2006157	0.00	1	1	3.2	72629-94-8	0.66	0		
NG_G	U	N	TRG										0.19	0.19
0.19	0.66	0.77	BSI14	18332003	18332003	18332003						Y		
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK						20181128		
09:45:00	20181129	19:34:00	9885077	20190118	2006157	0.00	1	1	3.2	376-06-7	0.66	0		
NG_G	U	N	TRG										0.19	0.19
0.19	0.66	0.77	BSI14	18332003	18332003	18332003						Y		
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK						20181128		
09:45:00	20181129	19:34:00	9885077	20190118	2006157	0.00	1	1	3.2	307-24-4	0.66	0		
NG_G	U	N	TRG										0.19	0.19
0.19	0.66	0.77	BSI14	18332003	18332003	18332003						Y		
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK						20181128		
09:45:00	20181129	19:34:00	9885077	20190118	2006157	0.00	1	1	3.2	375-85-9	0.66	0		
NG_G	U	N	TRG										0.19	0.19
0.19	0.66	0.77	BSI14	18332003	18332003	18332003						Y		
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK						20181128		
09:45:00	20181129	19:34:00	9885077	20190118	2006157	0.00	1	1	3.2	375-73-5	0.58	0		
NG_G	U	N	TRG										0.19	0.19
0.19	0.58	0.77	BSI14	18332003	18332003	18332003						Y		
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK						20181128		
09:45:00	20181129	19:34:00	9885077	20190118	2006157	0.00	1	1	3.2	355-46-4	0.62	0		
NG_G	U	N	TRG										0.19	0.19
0.19	0.62	0.77	BSI14	18332003	18332003	18332003						Y		
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD								
EUROFINS	BRADY	GCE II	NONE	Dry METHOD	000 S	UNK						20181128		
09:45:00	20181129	19:34:00	9885077	20190118	2006157	0.00	1	1	3.2	1763-23-1	0.34	0.34		
NG_G	J	Y	TRG										0.19	0.19
0.19	0.63	0.77	BSI14	18332003	18332003	18332003						Y		
N62473-14-D-1405	N6247317F4100			BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD								

SAMPLE_NAME	CONTRACT_ID	DO_CTO_NUMBER	PHASE	INSTALLATION_ID	SITE_NAME
LOCATION_NAME	SPECIMEN_NAME	BIOLOGICAL_CLASS	SEX	AGE_CLASS	EXCAVATION_NAME
PARENT_SAMPLE_NAME	SAMPLE_MATRIX	SAMPLE_TYPE	SAMPLING_EQUIPMENT		
PROJECT_PHASE	COMPOSITE	WATER_COLUMN	COLLECT_DATE	COLLECT_TIME	DATUM_ELEV
ELEV_UNITS	DATUM_MLLW	DATUM_DESC	START_DEPTH	END_DEPTH	DEPTH_UNITS
REMOVED	REMOVED_DATE	AMBIENT_BLANK	EQUIPMENT_BLANK	SOURCE_BLANK	
TRIP_BLANK	SAMPLE_NARRATIVE				
EUROFINS	BRADY	GCE II	NONE	Dry	METHOD
000	S	UNK	20181128		
09:45:00	20181129	19:34:00	9885077	20190118	2006157
0.00	1	1	3.2	2991-50-6	1.9
0					
NG_G	U	N	TRG	0.48	0.48
0.48	1.9	2.9	BSI14	18332003	18332003
18332003	18332003	18332003	18332003	Y	
N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	OU1-WWTPE-S-01-12	537_MOD	
EUROFINS	BRADY	GCE II	NONE	Dry	METHOD
000	S	UNK	20181128		
09:45:00	20181129	19:34:00	9885077	20190118	2006157
0.00	1	1	3.2	2355-31-9	1.9
0					
NG_G	U	N	TRG	0.48	0.48
0.48	1.9	2.9	BSI14	18332003	18332003
18332003	18332003	18332003	18332003	Y	
OU1-GCI-S-01-05	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000	GCI-S-01-05
SO	N	N	20181102	13:35:00	05
FT					
OU1-GCI-S-01-08	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000	GCI-S-01-08
SO	N	N	20181102	13:41:00	08
FT					
OU1-WWTPE-S-01-01	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000	WWTPE-S-01-01
SO	N	N	20181102	14:10:00	
FT					
OU1-WWTPE-S-01-01	MS	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000
S-01-01		OU1-WWTPE-S-01-01	SO	MS	N
					20181102
					14:10:00
01					
FT					
OU1-WWTPE-S-01-01	MSD	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000
S-01-01		OU1-WWTPE-S-01-01	SO	SD	N
					20181102
					14:10:00
01					
FT					
OU1-WWTPE-S-01-03	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000	WWTPE-S-01-03
03		SO	N	N	20181102
					14:25:00
FT					
OU1-WWTPE-S-01-05	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000	WWTPE-S-01-05
05		SO	N	N	20181102
					14:30:00
FT					
OU1-WWTPE-S-01-08	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000	WWTPE-S-01-08
08		SO	N	N	20181102
					14:32:00
FT					
OU1-WWTPE-S-01-10	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000	WWTPE-S-01-10
10		SO	N	N	20181102
					14:34:00
FT					
OU1-WWTPE-S-01-12	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000	WWTPE-S-01-12
12		SO	N	N	20181102
					14:36:00
FT					
BLK18312011	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000	
SO	LB	N			
LCS18312011	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000	
SO	BS	N			
LCS18313820005A	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000	
SO	BS	N			
DUP18313820005A	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000	
SO	LR	N	20181102	14:10:00	
BLK18319003	N62473-14-D-1405	N6247317F4100	BARSTOW_MCLB	00000	
SO	LB	N			

LCS18319003	N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	00000
SO BS	N		
BLK18332003	N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	00000
SO LB	N		
LCS18332003	N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	00000
SO BS	N		
LCS18337820002B	N62473-14-D-1405N6247317F4100	BARSTOW_MCLB	00000
SO BS	N		